

# DISSERTATION

Titel der Dissertation

Investigation of  $\gamma$  Dor –  $\delta$  Sct hybrid stars based on high  
precision space photometry and complementary ground  
bases spectroscopy

Verfasser

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# Chapter 1

## Introduction

Pulsating stars allow to probe the interiors of stars that is not accessible to direct observation. The physical conditions and processes within a star can only be observed through their influence on the pulsation periods and amplitudes. These are observables allowing to derive basic properties of the stars and resulted in important findings. For example, the observation of pulsation periods of Cepheids revealed a period-luminosity relation that can be used to determine distances to other galaxies. That was one of the most important findings in astronomy.

Figure 1.1 shows the diversity of pulsating stars across the Hertzsprung-Russell diagram (HRD). The dashed lines indicate the classical Cepheid instability strip, which extends to the main sequence. The stars investigated in this thesis are located at the main sequence within this extended Cepheid instability strip near  $\log T_{\text{eff}} = 3.9$  and  $\log L/L_{\odot} = 1$ , which are the  $\delta$  Sct and  $\gamma$  Dor stars. The  $\delta$  Sct -  $\gamma$  Dor hybrid pulsators are not drawn in this diagram, because their instability domain was previously not explored and they comprise a fairly new class of pulsators.

This thesis investigates this very special group of pulsating stars, which shows low frequency pulsation like the  $\gamma$  Dor stars and high frequency pulsation like the  $\delta$  Sct stars. Due to the fact that these stars show two types of pulsation they are termed  $\delta$  Sct -  $\gamma$  Dor hybrid stars or hereafter simply hybrids. There are other types of hybrid pulsators, like the SPB -  $\beta$  Cep stars, which are the more massive cousins of the  $\delta$  Sct -  $\gamma$  Dor hybrid stars. Because of the presence of two types of pulsation modes hybrid stars carry valuable information on their interior structure. The deep interiors is probed by the  $g$  modes while the outer layers are probed by the  $p$  modes. In this thesis the focus was put on the  $\delta$  Sct -  $\gamma$  Dor hybrid, the existence of this group was predicted by Dupret et al. (2004) and the first unambiguous detection discovered by ground based observations was reported by Henry & Fekel (2005).

I aim to answer the following questions: Do hybrids really exist or can their low frequencies be explained by other reasons than  $g$  mode pulsation?

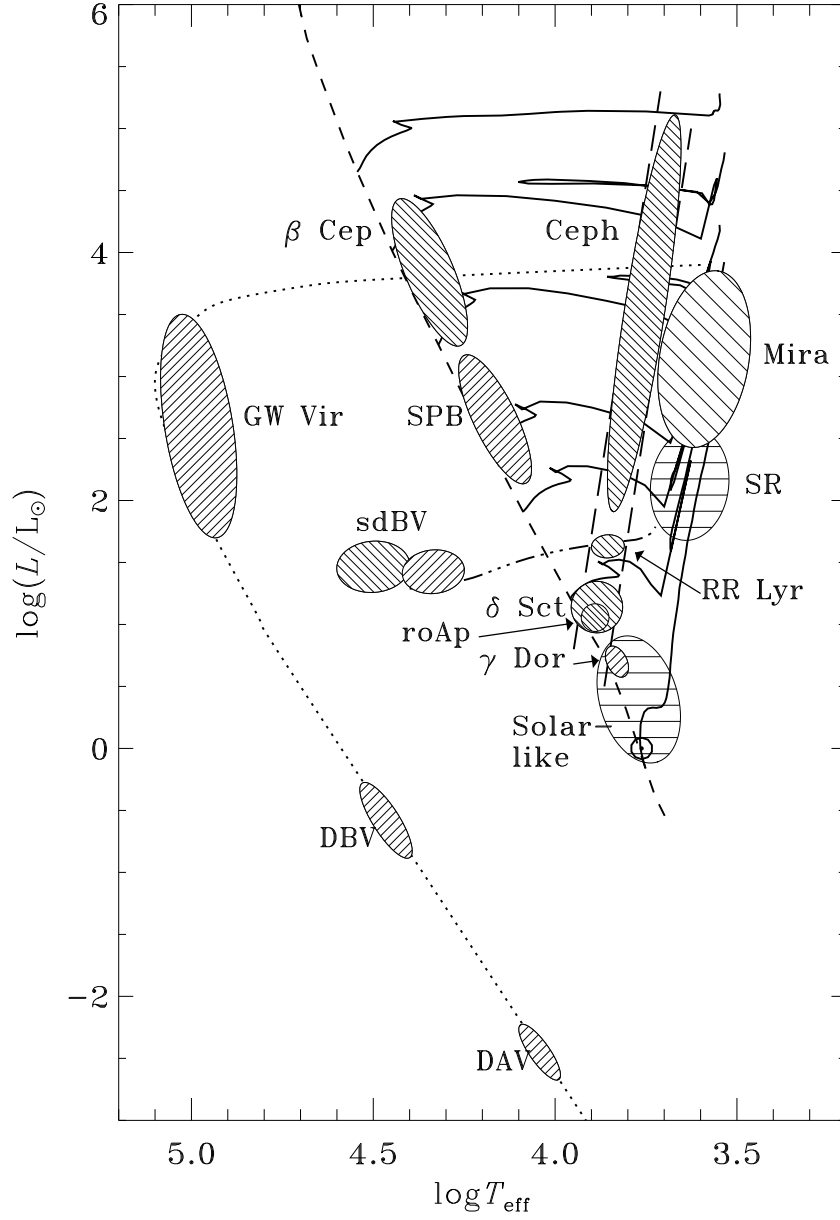


**Figure 1.1:** Various classes of pulsating stars across the Hertzsprung-Russell diagram. The dashed lines indicate the classical Cepheid instability strip, which is extended to the main sequence. This is the location of the stars investigated in this thesis. Figure credit: J. Christensen-Dalsgaard, website: [http://astro.phys.au.dk/jcd/HELAS/puls\\_HR/](http://astro.phys.au.dk/jcd/HELAS/puls_HR/).

This question deserves a thorough examination of their frequency spectrum since stellar rotation, binary effects, combination frequencies, or instrumental effects present in the time series can easily mimic  $g$  modes. If there are in fact hybrid stars, what is their instability domain? Is the occurrence of hybrids in the HRD confined to the overlapping region of the  $\gamma$  Dor and  $\delta$  Sct instability strips? Space based data allow investigation of sub-millimagnitude oscillations and are well-suited for exploring this question. HD 8801 is the first firm detection of a single Am star, pulsating with  $p$  and  $g$  modes. Am stars are usually found in binary systems with slow to moderate projected rotational velocities ( $v \sin i$ ). Detailed abundance analyses of these stars were lacking before this thesis. Which inferences can be drawn from their fundamental parameters? Are they giants, evolved stars or are they subdwarfs? Classification spectra allow to discern the luminosity classes of these stars.

In order to answer these questions, high-accuracy light curves are essential. The CoRoT long runs provide such light curves and have both sufficient time sampling (8.53 minutes) and long time base ( $\approx 150$  days), in order to unambiguously identify and resolve close frequencies. Moreover, data of high sampling from CoRoT and MOST are available for investigating also the high frequency regime inaccessible with the 8.53 minute sampling. Accurate temperatures and luminosities are of fundamental importance for placing the hybrid stars in the HRD and to explore their instability domain. Thus, the photometric data are complemented by classification spectra using a multi-object spectrograph with the same settings for all of the stars. High resolution spectroscopy allows to determine the chemical abundances for bright stars and to investigate potential common features.

Since the instability domains of  $\gamma$  Dor and  $\delta$  Sct stars overlap in the HRD, the existence of hybrid pulsators may appear obvious. However, subsurface convection plays a major role within the mass range of these groups of pulsating stars damping or driving different types of oscillations ( $p$  modes and  $g$  modes). The treatment of convection is crucial for both types of pulsators for the theoretical understanding of these stars. On the red edge of the  $\delta$  Sct instability strip (IS) the convection zone stabilises pulsation, whereas for  $\gamma$  Dor a convective flux blocking mechanism is likely to drive their high-order  $g$  mode pulsation. While solar-like pulsators are well understood, the situation for  $\delta$  Sct and  $\gamma$  Dor is much more complicated.

For the first time we analysed a large sample of stars observed under the same conditions with the same instruments and the same data reduction methods with unprecedented photometric quality. Not only the photometry of CoRoT was used, but also the AAOmega classification spectra were used to derive the fundamental parameters. Hence, this work comprises a self-consistent analysis of homogeneous data sets. It is possible to study not only the modes with the maximum amplitudes but also to find  $\gamma$  Dor,  $\delta$  Sct or hybrids pulsating with sub-millimagnitude variability.

Ground-based photometric time series suffer not only from the day/night cycle that can only be alleviated by multi-site campaigns but also from atmospheric effects like bad weather, unstable atmospheric conditions (turbulence), varying extinction, and the like. These effects lead to inconvenient gaps in the data, which complicate the frequency analysis of the photometry severely and hamper the detection of low-amplitude oscillations. Space based photometry provides not only nearly uninterrupted time series but also much lower noise by circumventing the Earth's atmosphere. The improvement of the data quality becomes obvious when one considers the sizes of the primary mirrors of MOST or CoRoT being only 15-cm and 27-cm, respectively.

This thesis was part of a project, which investigated the  $\delta$  Sct IS. Naturally, a close cooperation with A. Kaiser (PhD student) and W. W. Weiss was established. The subject of A. Kaiser's thesis was the investigation of the connection of metallicity and pulsation near the cool border of the  $\delta$  Sct IS. Both theses (mine and A. Kaiser's) need fundamental parameters of the program stars. A. Kaiser employed a Bayesian approach and different model atmospheres while my work used a frequentist approach. All of the fundamental parameter determination is my original work.

## 1.1 Nonradial Stellar Pulsation

Pulsation is called radial pulsation, when the star is expanding and contracting in radius periodically. Classical Cepheids or RR Lyrae stars are examples for radial pulsators. Not only do they change their radius but also their effective temperature (i.e. colour), which is negligible for low-amplitude pulsators, as are the stars investigated in this thesis. Due to the pulsation the star brightens and dims periodically.

Within the extended Cepheid instability strip towards the main sequence,  $\delta$  Sct stars show such pulsations but do also show nonradial pulsation. That is, the pulsation has not only radial components but also nonradial components. Such pulsations are described by spherical harmonics, which are characterised by three quantum numbers usually denoted  $n$ ,  $\ell$ , and  $m$ . The radial order is denoted by  $n$ , the spherical degree by  $\ell$ . This number counts the total of node lines across the surface and finally  $m$ , which is the azimuthal order counting the node lines that cross the equator. The basic assumption of applying the spherical harmonics is that the stars is spherically symmetric in its equilibrium. Radial modes have no node lines on the surface, thus, their  $\ell = 0$ , while  $\ell \neq 0$  for nonradial modes.  $m \in \{-\ell, \dots, \ell\}$  if node lines cross the equator of the star, where prograde modes (modes that move in the same direction as the stellar rotation) have positive signs and retrograde modes are indicated by negative signs.

High order modes are modes that show many nodes across a line from

the surface to the centre i.e.  $n$  has a high value. These modes are within the so called asymptotic regime, where the periods or frequencies show constant spacings (Tassoul 1980). Low degree modes or  $\ell$  being a low number show a few nodal lines across the surface. Such modes are commonly detected in  $\delta$  Sct and  $\gamma$  Dor stars or other pulsators.

Pulsation modes can have  $p$  mode character, that is, they are sound waves propagating through the star. The restoring force is the pressure, hence the term  $p$  modes. The gas motion is primarily vertical, where as for  $g$  modes it is horizontal. The restoring force is the buoyancy, which is linked to gravity, hence the term  $g$  modes. These modes are consistently nonradial and therefore their  $\ell \geq 1$ . A detailed introduction to stellar pulsation can be found in Aerts et al. (2010). Some theoreticians use the the convention of negative values for  $n$  and/or the radial order is termed  $k$  to avoid confusion with  $p$  modes.

Examples of  $p$  mode pulsators are the groups of stars in Fig. 1.1 represented by the hatched ellipses with negative slopes of the lines, and examples of  $g$  mode pulsators are indicated by the hatched ellipses with positive slopes.

## 1.2 $\gamma$ Dor stars

The photometric variability of  $\gamma$  Dor is known since the 1960's. It was for a long time not clear whether its variability is due to a spotted surface and hence the period reflects the rotation period or the star is pulsating. In the 90's it became more and more clear that there is a new class of pulsating stars close to the red edge of the  $\delta$  Sct instability strip. A new class of nonradially pulsating stars was already anticipated by Krisciunas (1993) and Balona et al. (1994). This new class of variables, the  $\gamma$  Dor stars named after its brightest and longest known member, was finally defined by Kaye et al. (1999).

“ $\gamma$  Dor stars are pulsating intermediate-mass stars that are located at the cool border of the  $\delta$  Sct IS in the HRD. Their masses range typically from 1.5 to 1.8  $M_{\odot}$  for solar metallicity. They pulsate in high-order  $g$  modes contrary to  $\delta$  Sct stars that pulsate in low-order  $p$  modes with higher frequencies. In the narrow region in the HRD where  $\gamma$  Dor stars are found, the convective zones associated with the partial He and H ionisation begin to merge and form a single convective envelope. The exact extension of the convective envelope is uncertain and depends on the treatment of convection”. (from Dupret et al. 2007). Nonetheless, the extension of the convective envelope is of crucial importance to the understanding of the driving of  $g$  modes.

Since the discovery of the photometric variability of  $\gamma$  Dor by Cousins (1960) forty years passed until a first explanation for the low-frequency pulsation of  $\gamma$  Dor stars could be given by Guzik et al. (2000). For a long time it was believed that the variability of early F-type stars was due to a spotted surface since the  $\kappa$ -mechanism cannot excite high-order  $g$  modes. Although

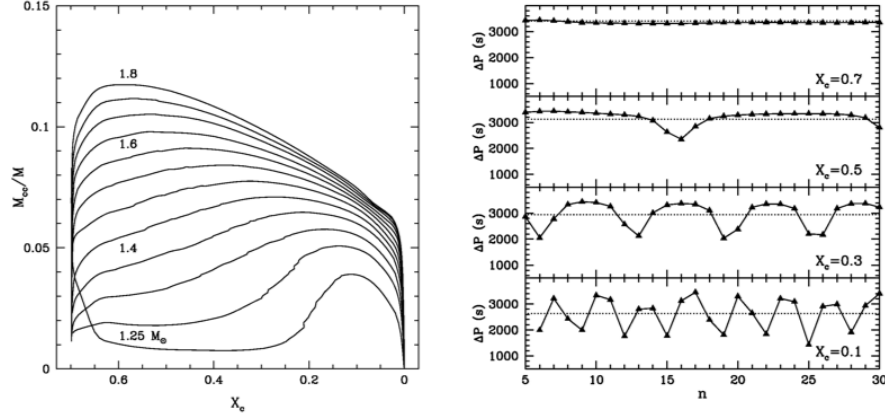


**Figure 1.2:** Figure 1 from Dupret et al. (2007) shows the evolution of the convective core for  $\gamma$  Dor stars (left panel) and the evolution of the period spacing (right panel). Figure reproduced with the permission of the publisher of CoAST.

Guzik et al. (2000) used the Frozen Convection (FC) approximation, which means no interaction between convection and pulsation, and a high metallicity ( $Z = 0.03$ ), they were able to show that a flux blocking mechanism at the base of the convective envelope can drive  $g$  modes. If the thermal relaxation time is of the order of the pulsation period, the convection zone cannot immediately react to flux changes from deeper layers. Hence, the energy is transformed to mechanical work driving low-frequency  $g$  modes. Dupret et al. (2004) used a more realistic treatment of convection, the Time-Dependent Convection (TDC) approach. They showed that the TDC did not affect significantly the driving of  $g$  modes at the base of the convective envelope. Thus they were able to support the flux blocking mechanism suggested by Guzik et al. (2000) as explanation for the observed pulsation.

The evolution of the convective core depends on the mass of the star. For lower masses the convective core grows and therefore leaves a discontinuity of the chemical composition. “In the two cases of a shrinking and growing convective core, the determination of its exact extension is subject to large uncertainties [...]. There is for example the well known overshooting parameter widely used in stellar evolution codes and which just reflects our lack of knowledge at this level” (from Dupret et al. 2007). The overshooting parameter is commonly referred to as  $\alpha_{OV}$  and this convention was followed in this thesis. The left panel of Fig. 1.2 shows the core mass as a function of evolution (core H abundance) for different initial masses. This figure is taken from Dupret et al. (2007).

Herein rests the promising diagnostic capability of gravity modes. That is, they penetrate deep layers of the star and carry information on the conditions

close to the convective core and are sensitive to chemical gradients, which influence their periods (Fig 1.2). Solar like stars or pure  $\delta$  Sct stars damp their  $g$  modes toward the surface, hence this deep insight is not possible for such stars. Thus,  $\gamma$  Dor stars are a unique test-bench for theory.

Since  $\gamma$  Dor stars pulsate in high-order  $g$  modes implying that the asymptotic theory (Tassoul 1980) applies and constant period spacings of consecutive radial orders can be expected. A. Miglio calculated frequency spacings for  $\gamma$  Dor models (Miglio et al. 2008) and could show that the spacing is sensitive to chemical gradients deep inside the star. It is expected that a young star at the beginning of its hydrogen burning phase exhibits a uniform spacing for consecutive radial orders, whereas the more the star evolves the steeper the chemical gradient becomes and the period spacing deviates from an uniform one to a more complex pattern. In fact, the period spacing becomes itself periodical with the radial order  $n$ . In this work this theoretical prediction shall be investigated.

### 1.3 $\delta$ Sct stars

The best studied group among the mentioned three classes are the  $\delta$  Sct stars. They pulsate in low-order  $p$  modes with typical frequencies of the order of 5 to 50  $\text{d}^{-1}$ . These numbers are no strict limits, and pulsations of such stars were discovered beyond these limits. Because of the low mean density, evolved  $\delta$  Sct stars have pulsation frequencies near the lower limit. However, the situation is more complex as for pure radial pulsators since  $\delta$  Sct stars have also nonradial and occasionally low-order  $g$  modes or mixed modes excited (see e.g., Breger et al. 2005). Among the  $\delta$  Sct stars, there are stars that pulsate mainly in radial modes with high amplitudes, therefore the acronym HADS (High Amplitudes  $\delta$  Sct stars) was given to that subgroup.  $\delta$  Sct stars pulsating in both radial and nonradial modes with generally low amplitudes ( $< 0.03$  mag) are thus named LADS (Low Amplitude  $\delta$  Sct stars). One of the major differences between those two groups is the  $v \sin i$ , where the HADS show the lower rotation velocities. In this thesis the term  $\delta$  Sct applies to the whole group, no differentiation is done between HADS and LADS. A comprehensive review of  $\delta$  Sct and related stars can be found in Breger (2000).  $\delta$  Sct stars often show rich pulsation spectra including combination frequencies. For example, more than 75 pulsation frequencies were reported in FG Vir by Breger et al. (2005).

In spite of the detailed studies of these stars, there are still open questions. The  $\delta$  Sct stars do not pulsate in the asymptotic regime, which complicates the interpretation of their pulsation modes. Spectroscopic mode identification is only feasible for bright stars. Without this identification the constraints on the models are not tight enough. Additionally, stellar rotation complicates

the frequency spectrum and the rotational splitting becomes complex for fast rotating stars. The global metallicity is a priori unknown and cannot be observed easily since abundance analyses only reveals the photospheric abundances. The convective overshooting of the core mixes more hydrogen into it, which prolongs the main sequence life time of the star. For a discussion of the asteroseismology I refer to Guzik (1998).

## 1.4 $\delta$ Sct - $\gamma$ Dor hybrid stars

The instability strip of  $\delta$  Sct stars overlap with that of the  $\gamma$  Dor stars, hence it is natural to look for hybrids. The group of hybrid stars is a hybrid form of  $\delta$  Sct stars and  $\gamma$  Dor stars. This means that a single star shows the pulsation behaviour of both groups - low-order low-degree  $p$  modes and high-order low-degree  $g$  modes. It should be mentioned that further types of hybrids exist (or are suspected), such as  $\delta$  Sct - solar like stars, SPB- $\beta$  Cep stars, and others. Those stars are however not subject of the present work and if the term hybrid is used in this work without more explanation,  $\delta$  Sct -  $\gamma$  Dor hybrid should be understood. A dedicated survey yielded one hybrid candidate, which is a binary in an eccentric orbit. The  $g$  modes of this star are likely tidally induced (Handler & Shobbrook 2002). In 2005 the first single hybrid was discovered using ground based data (Henry & Fekel 2005). This star is an Am star that means it belongs to a special group of chemically peculiar stars. Thus, the question should be addressed in this work if this type of chemical peculiarity is common to all hybrid pulsating stars. There are practically no detailed abundance analyses of these stars yet. Shortly before the space missions a few further detections were announced (e.g. Poretti et al. 2005; King et al. 2006; Rowe et al. 2006a; Uytterhoeven et al. 2008).

Fig. 1.3 shows typical light curves and their Discrete Fourier Transformations (DFT). The  $\gamma$  Dor stars show pulsation in the low-frequency regime, while the  $\delta$  Sct stars pulsate with higher frequencies and the hybrids show both types of frequencies.

Since  $g$  mode pulsators carry information on deep layers in stars and  $p$  modes probe the outer layers of a star, hybrids are promising targets for asteroseismology. Important information is coded in the deviations of the observed from the calculated frequencies. This code is still an enigma. Unfortunately, the theory of  $\gamma$  Dor pulsation is not yet developed as much as that of  $\delta$  Sct pulsation. Unlike the frequencies of  $\delta$  Sct stars, the frequencies of  $\gamma$  Dor stars are not well understood and no relation of frequency vs. density, temperature,  $v \sin i$  or other parameters have been found up to now.

The detection of  $g$  modes was difficult from ground based observations because of their long periods and instrumental effects. Uninterrupted space based data facilitate their detection but also may reveal other effects like stel-



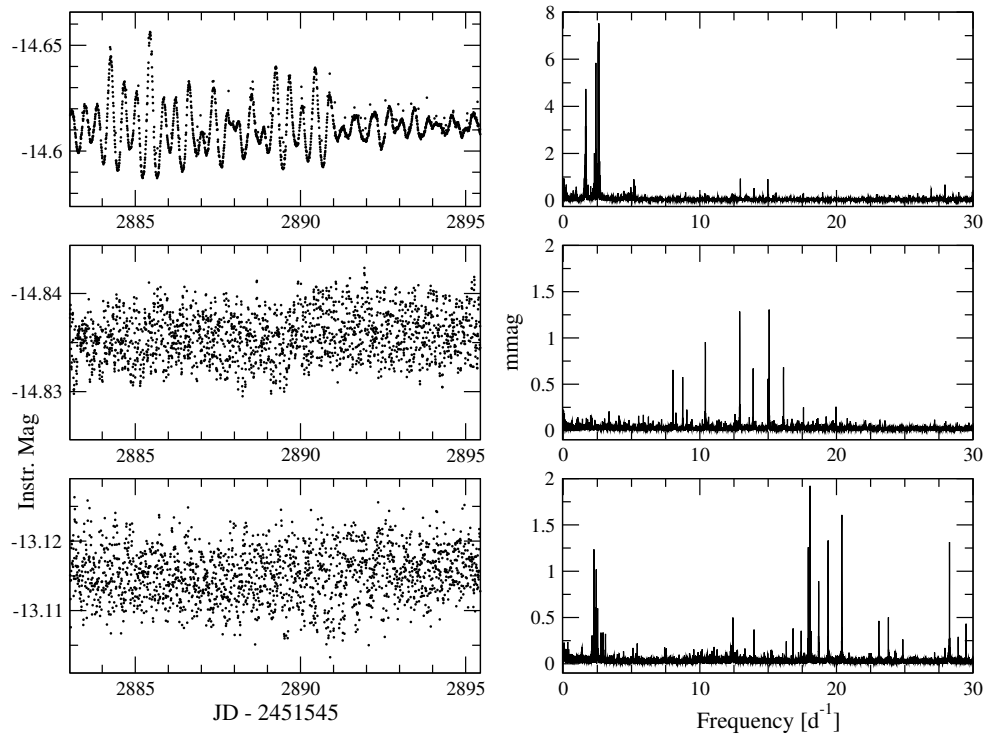


**Figure 1.3:** Parts of three CoRoT LRA01 light curves (left panels) and their Fourier transformations (right panels). Top panels:  $\gamma$  Dor star, middle panels:  $\delta$  Sct star and bottom panels: hybrid.

lar rotation periods due to spots, binary effects, stellar activity, combination frequencies and other effects which mimic  $g$  modes. Thus, existence of  $g$  modes of  $\delta$  Sct stars (which means the existence of hybrid stars) can be disputed. Therefore it is important to carry out a thorough frequency analysis to exclude such effects. With the high quality space data of CoRoT this goal can be achieved and firm positive detections can be established.

Breger & Beichbuchner (1996) investigated reports of low frequency variations of  $\delta$  Sct stars by various authors. They raised the question: " $\gamma$  Dor and  $\delta$  Sct stars: Cousins or Twins?" but could not draw definite conclusions. Are they twins because of their close location in the HRD or are they cousins because of their different pulsation behaviour. In the latter case, sub-surface convection is obviously the decisive criterion because it is the most important difference. The convection – pulsation interaction is a current field of research and this thesis aims to deliver a contribution from high-quality observation of both individual stars and a statistically significant sample of stars.

# Chapter 2

## Instruments and Data Reduction

The data used for this investigation are of two different kinds: i) photometric time series from space (CoRoT and MOST) and ii) spectroscopic data from ground based observatories. The photometric time series obtained during the CoRoT Long Run a01 (LRa01, “a” indicates the anti-centre direction) are used for investigating the pulsational behaviour of the sample stars. The Julian Date (JD) of CoRoT observations is reduced to  $JD_C = JD - 2451545$  (i.e. January 1st, 2000) for practical reasons. The MOST Science Team uses the same convention and thus MOST JDs are in the same reference frame as CoRoT JDs.

From the light curves alone the pulsation frequencies can be derived with high accuracy, but complementary spectroscopy or at least narrow-band photometric indices are necessary to exploit the full potential of the data. AAOmega classification spectra are available only for a subset of the CoRoT targets, which were provided by E. Guenther (private communication) and are used to derive the fundamental parameters of the stars.

Since the first reported hybrid star, HD 8801 (Henry & Fekel 2005), and two hybrids discovered by MOST: HD 114839 (King et al. 2006) and BD +18 4914 (Rowe et al. 2006b), which are Am or suspected Am stars, high-resolution spectroscopy was obtained for the two MOST stars to analyse their elemental abundances. These high-resolution spectra were obtained with the spectrographs SOPHIE (OHP) and HARPS (ESO, La Silla).

### 2.1 Photometry

#### 2.1.1 CoRoT Photometry

The CoRoT (Convection, Rotation and Transits, Baglin et al. 2006) space telescope was launched December 27th, 2006 into a polar Low Earth Orbit (LEO). It carries a 27-cm telescope where the prime mirror is in an oblique position to avoid aperture obstruction by the secondary mirror. The CoRoT

project is led by France with the participation of other European countries including Austria. The observing strategy of CoRoT was designed to detect transiting planets by monitoring a large number of stars continuously for up to 180 days. Long time base observations are not only valuable when looking for planet transits but especially for studying pulsating stars with a complex frequency pattern. The frequency resolution of long run data is considerably higher than that for MOST targets. For stars like FG Vir (Breger et al. 2005) ground-based observations yielded an even better frequency resolution, but only few targets can be observed.

CoRoT has four CCD detectors of which two are dedicated for astero-seismology (Seismo field) and the other two are used to detect planet transit candidates (Exo field). The light curve of one star (HD 49862), analysed in this thesis, shows a long-term trend, which is also observed in other Seismo targets. The light curve was divided into three parts, where the trend of the first and the last part was almost linear and thus removed using a linear fit. The trend of the middle part was more complicated and it was removed by a quadratic fit. To avoid discontinuities the average value of each part was adjusted to the average of the whole data set. Since the total amount of data points was  $\approx 360000$  the light curve was rebinned to 4 minute sampling in order to reduce the computing time. After the binning and outlier clipping 49279 data points were retained. To avoid undesired effects of the binning on the data, the discrete Fourier transform (DFT) of the unbinned data was compared to that of the binned data and no significant difference was found.

The light curve sampling of targets in the Seismo field is 32 seconds, whereas the default sampling of the Exo field targets is 512 seconds. The latter light curves can be resampled to 32 seconds if a transit candidate is detected. If light curves of my sample were affected by such resampling then I binned the light curves back to 512 s sampling in order to guarantee the same treatment of the data.

The performance of CoRoT in space is described in detail by Auvergne et al. (2009). The space-based data from CoRoT are provided by the CoRoT team as so called N2 (Niveau 2) data. The raw data are called N1 data, which are not distributed to the scientists. The CoRoT data reduction pipeline performs all necessary reduction steps, like background correction and finally fills gaps due to the South Atlantic anomaly (SAA) by linear interpolation to avoid severe aliasing in the Fourier domain. After the data reduction by the CoRoT team there are still light curves that contain instrumental artefacts. Most notably, there are jumps in the mean level of the time series when a new warm pixel appears (see Auvergne et al. 2009).

Therefore a destepping algorithm was developed in cooperation with A. Kaiser, who implemented it in an IDL program. This destepping algorithm employs a moving two-sample t-test that detects significantly different mean values of the two samples. The number of data points contained in each bin

for which the t-test is performed, is by default 50 data points for the light curves sampled with 512 s. The bin size should be adjusted according to the stellar pulsation periods to avoid mistaking flux variations due to pulsation for discontinuities. For the Exo light curves of  $\gamma$  Dor stars the bin size was set to 30 data points.

Additionally, outlier clipping algorithms that employ running medians and running averages were used. For stars that pulsate with high amplitudes compared to the noise, like  $\gamma$  Dor stars do in several cases, the outlier clipping deserves a closer look because the pulsation signal is often strong compared to the noise. The light curve rises or declines earlier than the corresponding running average, which leads to the fact that some of the unperturbed data points meet the rejection criterion ( $3\sigma$ ) and are clipped. To avoid this undesired effect, running medians and running averages were combined and the box size of the running averages were set to 30 data points for the Exo data.

The N2 light curve of a star from the CoRoT archive is shown in Fig. 2.1 (top light curve), where all data points were included. The result of our desteping algorithm (bottom light curve) is shown for comparison. Figure 2.2 shows the corresponding DFT spectra. It would require careful correction for jumps and trends of all light curves to get rid of any residual steps and trends that are still present in the final light curves, but this is not feasible for a large amount of light curves within a reasonable time. As a result a slightly increased noise compared to perfectly reduced data was accepted. This slightly higher noise does not affect the basic scientific results and the data are still of excellent quality. An awkward problem is posed by cosmic particle hits causing warm pixels, whose charge then decays exponentially to the normal value (see Auvergne et al. 2009). Since the time scales and amplitudes of such events are very different and the correction for such cases would require fits with individual parameters for each jump and each star, I abstained from fitting exponential functions. Rather, the average of the part affected by the exponential decay was adjusted to the average of the whole time series. This allows for fast data reduction of a large sample at the cost of low-frequency instrumental signal below  $0.5 \text{ d}^{-1}$ .

An example for a cosmic hit and exponential decay can be seen in the figure at  $\text{JD}_C \approx 2870$  where the jump could be corrected by a linear fit. This is not always possible (see glitch at  $\text{JD}_C 2940$ ) and the resulting light curves retain artefacts. These artefacts cause low-frequency peaks in the Fourier transform (Fig. 2.2, frequencies  $< 0.75 \text{ d}^{-1}$ ), but do not prevent the detection of  $g$  modes of  $\gamma$  Dor type since their frequencies and/or amplitudes are higher than those caused by residual artefacts.

The CoRoT LRA01 contains 11403 light curves in the Exo-field. All these light curves were treated as described above and their Fourier transforms were calculated. The resulting light curves and Fourier transforms were visually inspected and kept, if they showed signal either in the  $\gamma$  Dor or both the  $\gamma$  Dor

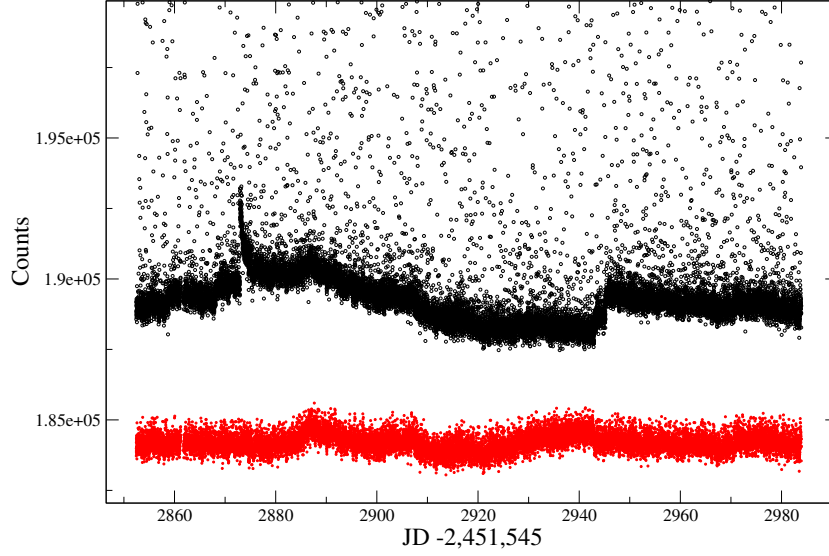


**Figure 2.1:** CoRoT N2 data as provided by the CoRoT team (black open circles, all data points including flagged ones). The red dots are the data after detrending and destepping offset by -50000 counts for better visibility. These data were used for further investigations.

and  $\delta$  Sct regime. Eclipsing binaries were rejected if there was no obvious pulsation signal. In this way 418  $\gamma$  Dor candidates and 274  $\delta$  Sct -  $\gamma$  Dor hybrid candidates were identified. For these stars the data reduction pipeline with tuned parameters was reapplied to better remove jumps and outliers. Finally the resulting light curves were analysed using the frequency analysis tool SigSpec (Reegen 2007), which is described in Chap 6.  $\gamma$  Dor stars are not distinguishable from SPB stars based on the light curve alone implying misclassified SPB stars among the 418  $\gamma$  Dor candidates. For the final analysis only those stars were investigated for which AAOmega spectra are available (either of the 2008 or 2009 run).

The automated supervised classification of Debosscher et al. (2009) was not used, because of ambiguities and the risk of misclassifications. Only two stars were identified in the COROT LRA01 by this tool as  $\gamma$  Dor but 435 as SPB because of the indistinguishable light curves. The numbers of the SPB stars of this automated tool is in fair agreement with the number of candidate  $\gamma$  Dor stars (including SPB) that I obtained.

Since CoRoT has a broadband filter that is sensitive to wavelengths up to 8000 Å the amplitudes are not comparable to published amplitudes of other stars observed in the Johnson UBV system.

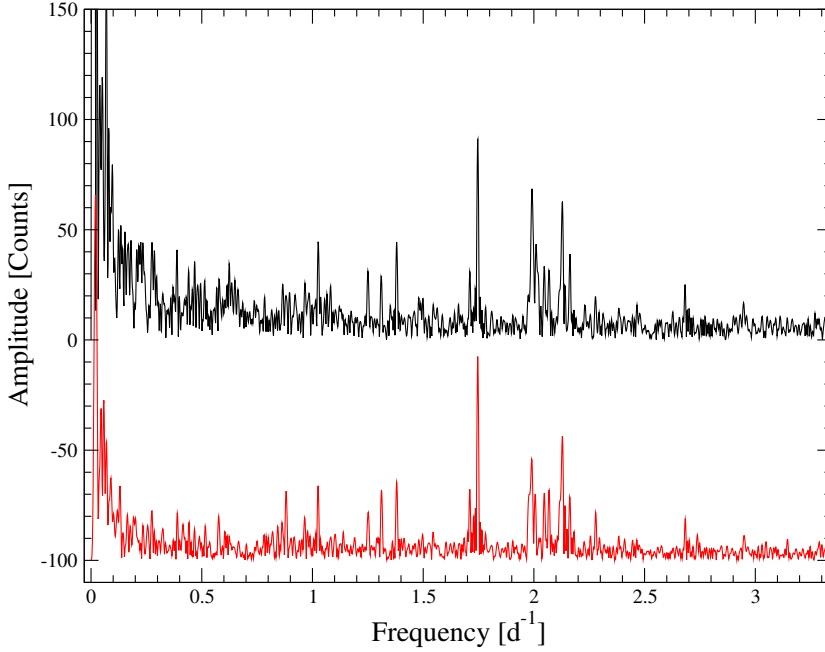


**Figure 2.2:** CoRoT N2 data only corrected for outliers (black) compared to further data treatment (red). Residual artefacts have less severe effects than in the original N2 data only corrected for outliers. The signal between 1 and 3 c/d is due to stellar pulsation. The red Fourier transform is shifted by -100 counts for better visibility.

### 2.1.2 MOST Data

In June 2003 the Canadian microsatellite MOST (MicroOscillations and STellar variability) was launched, carrying a 15-cm telescope. The mission is described in full detail in Walker et al. (2003). It was dedicated to detect solar like oscillations in close-by main sequence stars. This goal turned out to be too optimistic, however, the scientific value of MOST was largely enhanced by its capability to observe stars without interruption up to 6 weeks retaining a high quality of the data. MOST exceeded by far its anticipated life-time and is now at the time of writing entering its ninth year of operation. The data quality by that time was unprecedented and new discoveries were made. Two discoveries are of importance for this work: both, HD 114839 (King et al. 2006) and BD +18 4914 (Rowe et al. 2006b) are hybrid stars, sufficiently bright for follow-up spectroscopy.

The MOST data cover about one month of uninterrupted photometry. Four stars observed by MOST are analysed in this thesis: HD 114839, BD +18 4914, HD 73449, and HD 73854. The former two stars were suspected to show Am characteristics, while the latter two stars were observed in the Praesepe cluster. MOST can observe stars in three observing modes: a) Fabry-mode: where the entrance pupil is projected through a tiny Fabry lens onto the CCD detector. The purpose of the lens is to minimize the effect of the satellite jitter on

the data. Due to the dispersion of the stellar light onto a doughnut-shaped area only bright target stars yield enough signal to noise per pixel. A detailed description of this mode and the data reduction can be found in Reegen et al. (2006). b) Direct Imaging mode: The image of the star is directly projected onto the CCD-sensor without a Fabry lens. A subraster of typically 20x20 pixels is read out and is available as image. The data reduction for this observing mode is described in Rowe et al. (2006a) and Huber & Reegen (2008). c) Guide star mode: No image data but intensities and integration times of each individual guide star are recorded.

Before June 2006 two separate CCDs were used, where the Science CCD has better characteristics and recorded Fabry and DI targets, while the tracking CCD was used by the attitude control system and recorded the intensities of the guide stars. A charged particle hit knocked out the tracking CCD in June 2006, and the Science CCD had to be used for the attitude control. Since then a star can be observed as a direct imaging target and a guide star simultaneously. Due to download limitations only 4 to 5 direct imaging targets can be selected, but the number of observable guide stars is much higher (up to  $\approx 70$  simultaneously). Consequently, the majority of MOST targets were observed in the guide star mode. A description of the guide star data and the corresponding reduction pipeline can be found in Hareter et al. (2008). Due to the lack of background information the data reduction relies on nonvariable comparison stars to reduce the stray light effect.

The basic characteristics of MOST data are short time sampling on the order of 1 to 30 seconds (depending on the brightness of the primary science target) and almost uninterrupted time series up to 6 weeks. Unfortunately, MOST photometry suffers from stray light due to the bright earth that makes further data processing necessary. The main goal of the data reduction pipelines was to retain as many data points as possible. Simply removing all stray-light affected data points would result in a high loss of data leading to a bad spectral window. It is not possible to remove all orbital artefacts with no undesired side effects on potential stellar pulsation signal, thus the orbit frequency and its harmonics are still present after the data reduction. The amplitudes of these orbit artefacts are, nonetheless, drastically reduced to an acceptable level. This implies that frequencies due to stellar pulsation which are close to  $14.2 \text{ d}^{-1}$ ,  $28.4 \text{ d}^{-1}$ , and so forth are not reliably detectable unless they exhibit huge amplitudes and a favourable phases.

The MOST data analysed in this thesis are light curves of HD 114839, BD +18 4914, HD 73449 and HD 73854. The latter two are members of the Praesepe cluster. BD +18 4914 was observed 5 times (2004 - 2008), mainly as direct imaging target while HD 114839 was observed only once in 2005 as a guide star. These two discoveries were published by Rowe et al. (2006b) and King et al. (2006), but for BD +18 4914 no further analyses of the MOST data were published yet. Fig. 2.3 shows the raw data extracted from the archive



files, where outliers were already removed ( $3\sigma$  clipping). The reduced data are overplotted for comparison. The decorrelation technique based on presumably nonvariable stars works well and reduces the strong artefact at the MOST orbit frequency and its harmonics drastically without introducing spurious peaks (lower panel). The small peaks near the MOST artefacts are stellar pulsation signal.

The amplitudes of MOST photometry should be taken with care, since, like for CoRoT, a custom broadband filter was applied that cuts off at  $\approx 400$  nm bluewards and  $\approx 700$  nm in the red, thus amplitudes cannot be easily compared to published amplitudes that were determined in the standard Johnson or Strömberg filter systems. Moreover, the decorrelation technique can reduce amplitudes as shown by Reegen et al. (2006).

Since  $\gamma$  Dor stars pulsate in the asymptotic regime, they are supposed to exhibit regular period spacings of modes of equal spherical degree  $\ell$ . Since the expected period spacings from theory (Dupret et al. 2007; Miglio et al. 2008) are of the order of one hour, a sufficient time base is required to resolve such period spacings. The period error depends on the length of the data set, which means that a minimum observing time is required. Figure 2.4 shows the period uncertainties of data set lengths typical for MOST (32 days of Praesepe 2008 and 48 days as maximum) and CoRoT (131 days of LRa01). The frequency uncertainty was assumed conservatively to be  $1/T$ , where  $T$  is the data set length in days. This plot shows that it is possible to detect expected period spacings of  $\gamma$  Dor for  $\ell = 1$  or  $2$  with time bases of MOST data, if the periods themselves are short enough. The situation of course is much better for CoRoT LRa01 data. The dash dotted blue lines indicate the regime of the expected period spacings that were taken from Miglio et al. (2008). As the exact values of the period spacings depend on the physical properties of the stars, the vertical lines give an estimation rather than to show exact values.

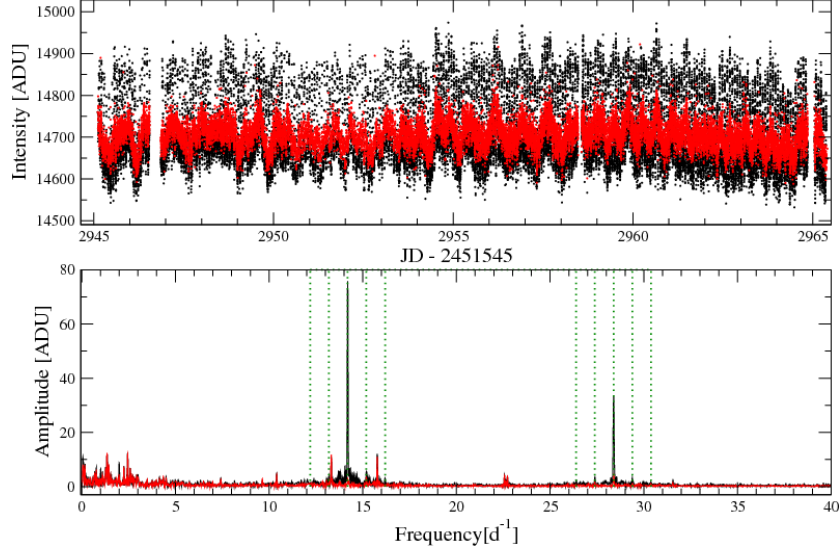


**Figure 2.3:** Raw data compared to reduced data of MOST. The upper panel shows the extracted light curve from the archive files, where outliers are already removed. The red dots represent the reduced data. Lower panel: the adjacent DFT (black: raw data, red: reduced data). The dotted vertical lines indicate the MOST orbit frequency and its harmonic and  $1 \text{ d}^{-1}$  sidelobes.

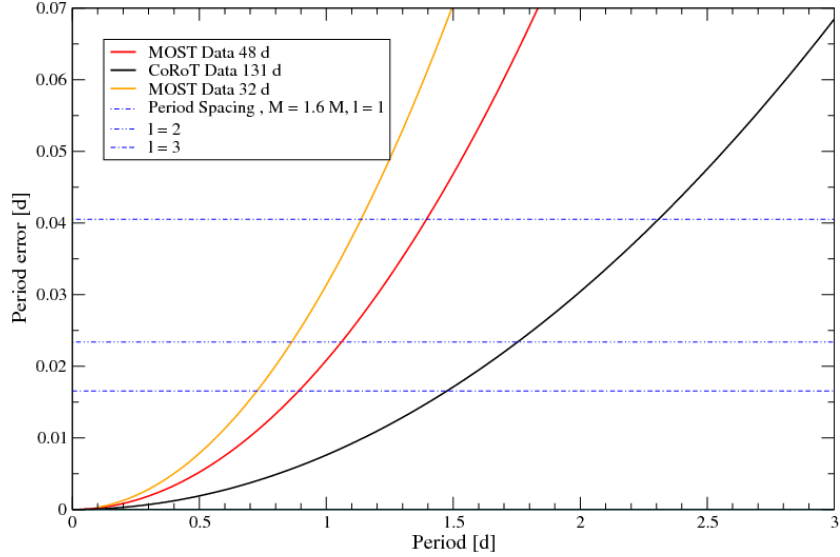


**Figure 2.4:** Period errors as a function of period for MOST (timebase 32 and 48 d, red full line and orange full line, respectively) and CoRoT LRA01 data (131 d, black full line). Expected average period spacings of a  $1.6 M_{\odot}$  model on the ZAMS are plotted as horizontal dash-dotted lines for  $\ell = 1, 2$  and  $3$ .

## 2.2 Spectroscopy

### 2.2.1 AAOmega Classification Spectra

Two sets of AAOmega classification spectra are available. The first set was taken in 2008 covering stars of the Initial Run (IR) and the LRA01. In 2009 a second set of the same sky region was obtained. The spectra were taken and reduced by E. Guenther. The AAOmega instrument is mounted on the Anglo-Australian Telescope (AAT) at the Anglo-Australian Observatory (AAO). This instrument is a multi-fibre spectrograph that can observe up to 392 objects simultaneously. The instrument has a dichroic beam splitter that feeds a blue and a red arm. The wavelength range is from  $\approx 3700\text{\AA}$  to  $\approx 8800\text{\AA}$ . The instrument is described in Sharp et al. (2006).

The resolution of the spectrograph for the multi-object mode can be between 1000 and 8000, where in my case the resolution was about 1400, and the spectra cover a wavelength region of  $\approx 3730$  to  $\approx 7430\text{\AA}$  in 2008 and  $\approx 3730$  to  $\approx 8850\text{\AA}$  in 2009. 4092 spectra are available from the 2008 run with one spectrum per star. From the 2009 run 1660 spectra are available, where 214 stars were observed twice thus 1446 stars were observed. 631 objects were observed in both runs (2008 and 2009) and 815 were only observed in 2009. The total amount of stars observed is therefore 4907 (4092 in 2008 and 815 in 2009).

Unfortunately, some spectra are affected by fringing, which may be due to damaged fibres (Sharp et al. 2006). Such spectra were excluded from the parameter determination since the hydrogen lines are distorted. Nevertheless, a hot star can be distinguished from a cool one by visual inspection or by determining the ratio of the line depth of the Ca K line compared to the  $H_\epsilon$  line. This means a  $\gamma$  Dor can be separated from a SPB star by looking at the K line.

Figure 2.5 shows two classification spectra from the 2008 and 2009 run, respectively. Two spectra of one  $\gamma$  Dor star (CID 102608070) are shown. The instrument setup was different for those two runs, hence the spectra show different count rates in the blue and red arm that explains the discontinuity in the 2009 data. The spectral resolution, however, is the same in 2008 and 2009. My parameter determination pipeline works in both cases because only a few hundred  $\text{\AA}$  centred on the hydrogen lines are used by the fitting procedure. Note, that the wavelength scale is not the same due to the fact that the 2009 spectra reach into the infrared until  $\approx 8000\text{\AA}$ .

### 2.2.2 SOPHIE and HARPS Spectra

Abundance analysis requires high resolution spectra for fitting the metallic line profiles. Therefore, a proposal entitled "Spectroscopy of Gamma Do-

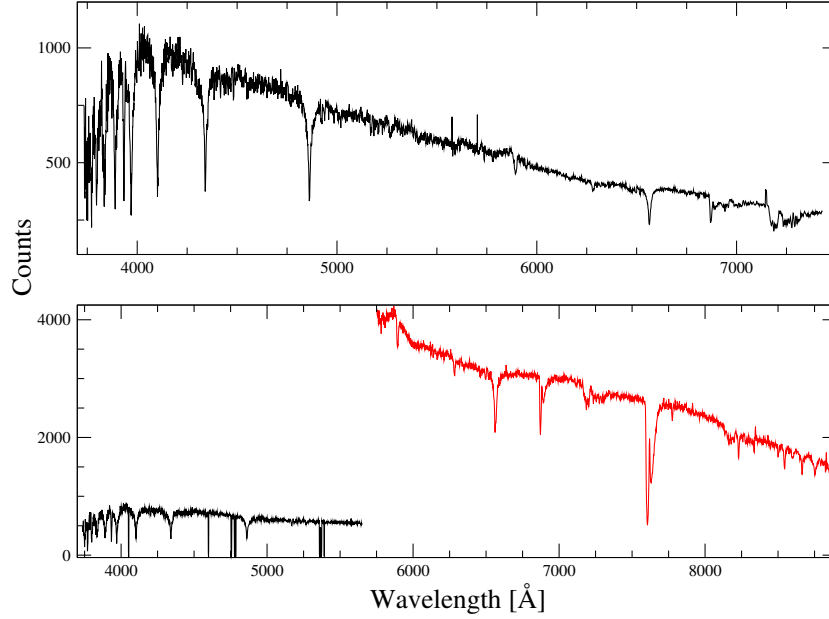


**Figure 2.5:** AAOmega classification spectra from 2008 (upper panel) and from 2009 (lower panel).

radius, Delta Scuti and Hybrid Stars Discovered by MOST” was made to the Observatoire de Haute Provence (OHP), of which I was the principal investigator (PI), to obtain spectra for 8 targets. Of the two requested nights one night equivalent was awarded and four stars in total were observed in service mode.

The spectrograph of OHP is named SOPHIE, which is a cross-dispersed echelle spectrograph mounted on the 1.93-m telescope. The spectrograph provides a resolution of  $R = 40000$  in High Efficiency mode (HE) sufficient for abundance analysis and yields a signal to noise of 100 for stars at about 9th magnitude of half an hour exposure. The spectra cover a wavelength range from 3872 to 6944 Å in 39 echelle orders. The spectrograph also offers a High Resolution mode with a spectral resolution of 75000. For my project, the HE mode was preferable to the HR mode because of the low magnitudes of the target stars.

The spectrograph uses two fibres (termed A and B), where the fibre A is usually used to observe the target, while the fibre B can be used for simultaneous observation of the sky or a calibration lamp. The spectra are reduced automatically, where the optimal order extraction, wavelength calibration and cosmic ray corrections are performed. The reduced orders are stored in a multi-dimensional fits file as an intermediate result. Then the blaze function is removed and the orders are connected (from L. Fossati, PHD thesis). The final output of this procedure is a one dimensional spectrum contained in a fits file. Fig. 2.6.

The fully reduced data by the SOPHIE-pipeline was not used because the automatic elimination of the blaze function was not satisfactory and residual features are clearly visible. I used the intermediate results of the SOPHIE-pipeline, where I divided for each order by its corresponding blaze function. Interpolated blaze functions were used for the orders where the wings of the hydrogen lines are present. In this way it was possible to completely remove the blaze function without distorting the wings of the hydrogen lines. I combined the orders using a certain overlapping region, which was averaged. I did not use the edges of the orders because the increased noise of the outermost parts would deteriorate the result. The limits, within which the orders were averaged, were set by visual inspection.

Unfortunately, 2 stars (HD 217423  $V=8.68$  and HD 345444  $V=10.41$ ) have a high  $v \sin i$  and were rather faint, therefore no abundance analysis could be performed for these two stars. Additionally four spectra of HD 49862 (CoRoT Seimon-Target) were obtained by P. Mathias in late September 2009, again, the  $v \sin i$  is too high for abundance analysis purposes but sufficient to estimate the fundamental parameters.

HARPS is a high resolution spectrograph mounted on the 3.6-m telescope at the ESO facility La Silla. The spectrograph was designed for detecting planets and has a resolution of 115000 in High Accuracy Mode (HAM) and 80000 in EGGs mode (general spectroscopy). The former provides a long term accuracy better than  $1 \text{ ms}^{-1}$  and the latter an accuracy of  $10 \text{ ms}^{-1}$ . Spectra of HD 114839 and BD +18 4914 were taken in the framework of the CoRoT-Long Program LP 185D led by E. Poretti as filling targets. The observers of these two stars were J.C. Suárez and K. Uytterhoeven. The HARPS spectra cover a wavelength region from 3780 to 6910 Å in 72 orders. Since the SOPHIE-pipeline was adapted from the HARPS pipeline, the same description of the automatic data reduction pipeline above applies here. Fig. 2.7 shows the automatically reduced spectra. The data reduction was done by M. Rainer (private communication) and was used except for the automatic normalisation, which I did myself in the same way as for the SOPHIE data.

A more detailed description is given in the paper "Looking for a connection between the Am phenomenon and hybrid  $\delta$  Sct -  $\gamma$  Dor hybrid pulsation: Determination of the fundamental parameters and abundances of HD 114839 and BD +18 4914" reprinted in Chap 4.

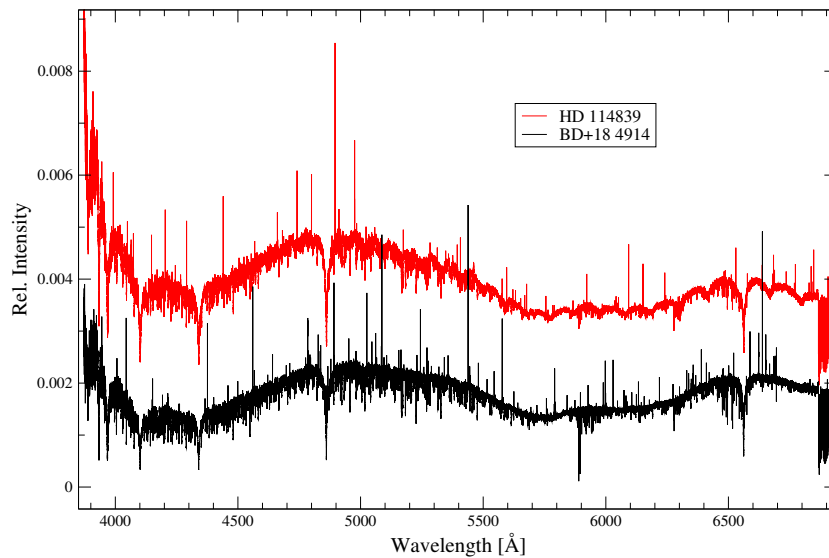


**Figure 2.6:** Output of the SOPHIE data reduction pipeline of HD 114839 (upper spectrum) and BD +18 4914 (lower spectrum).

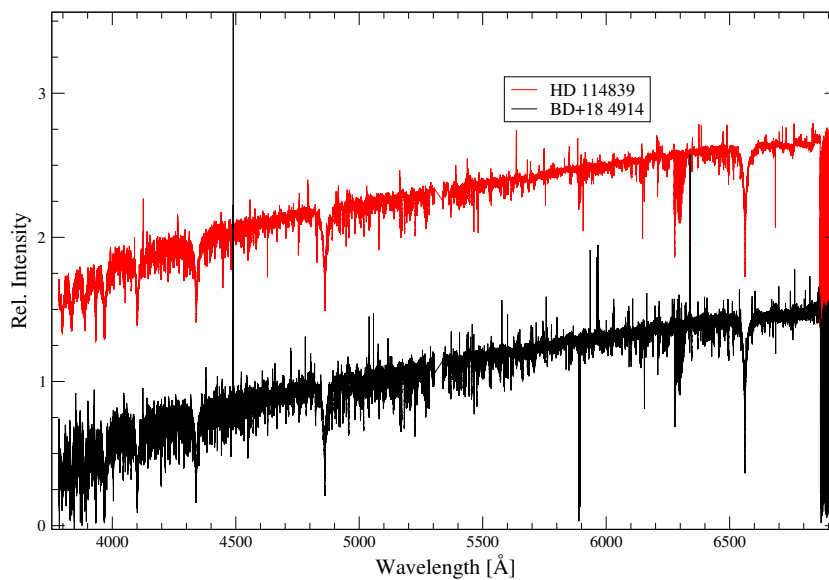


**Figure 2.7:** Output of the HARPS data reduction pipeline of HD 114839 (upper spectrum) and BD +18 4914 (lower spectrum).

## Chapter 3

# Frequency Analysis of Individual Stars

By using the high-accuracy photometry of the CoRoT Seismo field and MOST Photometry of four stars I aim to answer the question if there are indeed hybrid pulsating stars. Additional spectroscopy does not indicate binary stars for three stars: HD 49862, HD 114839, and BD +18 4914.

### 3.1 HD 49862

#### 3.1.1 Photometry

HD 49862 is classified in the literature as A5p by McCuskey (1956), indicating a strong K line and a trace of the G band, while the hydrogen lines in the UV were too strong. A more recent determination by Pickles & Depagne (2010) based on photometry in the optical and infrared resulted in a more accurate classification of as F0V. In 2009 four spectra from OHP (Mathias, private communication) were obtained. The results of the analysis of these spectra are discussed in a later chapter.

HD 49862 was observed as one of ten asteroseismology (Seismo) targets in the LRA01. These targets were observed with a sampling of one second yielding approximately 325 000 data points per light curve. The light curve of HD 49862 showed a trend that was removed in the following way. The light curve was split in 3 parts, where for the first and the last part linear fits were subtracted, while a cubic fit was removed for the middle part. Subsequently, a running median outlier clipping was performed. Since the star does not show fast solar-like oscillations the high sampling is not required for frequency analysis. Thus the light curve was binned to 8 minutes, which sets the Nyquist frequency to  $90 \text{ d}^{-1}$ . This does not affect the frequencies to be investigated, but essentially improves the computation speed. SigSpec was applied to this corrected light curve where the significance limit was set to 8. The Fourier

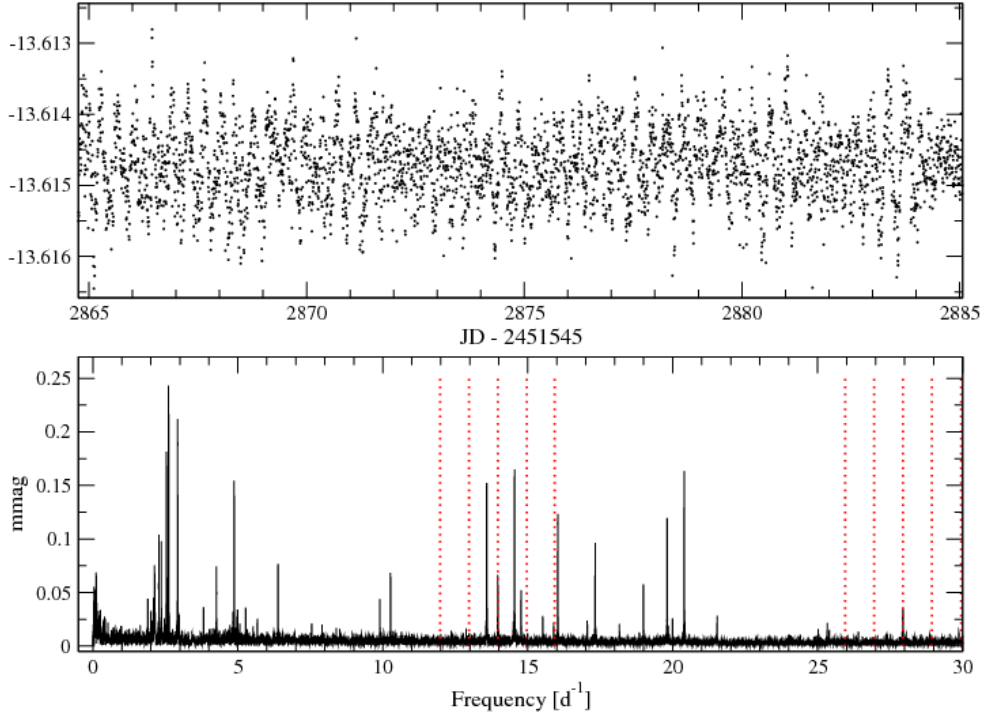


**Figure 3.1:** Part of the binned CoRoT light curve of HD 49862 (top) and DFT spectrum (bottom panel). The dotted vertical lines indicate the CoRoT orbit frequency its harmonic and sidelobes.

transform of the residuals shows an average amplitude of 2 ppm in the range from 43 to 50  $\text{d}^{-1}$ .

Fig. 3.1 shows a part of the reduced light curve and the corresponding Fourier transform, that reveals low frequency  $\gamma$  Dor modes, intermediate modes near 5  $\text{d}^{-1}$  and  $p$  modes typical for  $\delta$  Sct stars from 10 to 22  $\text{d}^{-1}$ . The pulsation spectrum shows a group of  $g$  modes between 1.8 and 3.0  $\text{d}^{-1}$ , which contains the frequency of largest amplitude. A search for period spacings within this group resulted in no pronounced spacing. The second group of frequencies is located between 3.8 and 6.4  $\text{d}^{-1}$ . Due to the high  $v \sin i$  of the star ( $\approx 200 \text{ km s}^{-1}$ ) the rotation frequency may well be located within this group. A rough estimation of the rotation frequency assuming equator on and a radius of  $1.7 R_{\odot}$  results in a rotation frequency of 4.78  $\text{d}^{-1}$ , a radius of  $2 R_{\odot}$  would mean a rotation frequency of 4.1  $\text{d}^{-1}$ . The  $p$  modes are located between 10 and 21.5  $\text{d}^{-1}$  and no constant frequency spacing was found among the  $p$  modes.

The result of the frequency analysis is given in Tab. 3.2, which lists 130 frequencies. The uncertainties of the frequencies, amplitudes and phases were estimated using the formulae given by Kallinger et al. (2008). The total amount of significant frequencies is rather low compared to the high amount of frequencies detected in HD 49434 (Chapellier et al. 2011) that was



observed in the same run and HD 50844 (Poretti et al. 2009) that was observed in the initial run (IRa01). In both of these articles the authors find more than 800 frequencies in their data. Of the low frequencies  $f_{18}$  ( $= 0.114 \text{ d}^{-1}$ ) has the highest amplitude and shows a clear variation in the phase diagram and the amplitude is highest in the last third of the data. This frequency is almost  $1/23$  of the main pulsation frequency  $f_1$  ( $= 2.609 \text{ d}^{-1}$ ; exact ratio  $f_1/f_{18}$ : 22.915). The phase diagram does not show a transit, but more a sinusoidal variation. Thus it is not an artefact due to residual jump nor a planet transit. The explanation by rotation fails due to the high  $v \sin i$ , which was already discussed.

The ratio of the fundamental mode ( $n=1$ ) to the first harmonic ( $n=2$ ) for  $\delta$  Sct stars is about 0.78. Table 3.1 lists tentative identifications of the radial fundamental frequency and the first overtone based on this ratio. The numbers of the frequencies are the same as in Tab. 3.2. I note however, that there can be significant deviations from this ratio due to rotation as Suárez et al. (2006) has shown, and the real radial modes might be missed.

### 3.1.2 Fundamental Parameters

Late September 2009 four spectra were taken by P. Mathias (private communication) using the SOPHIE spectrograph at OHP. The spectra were taken in three consecutive nights beginning in September, 28th with the first spectrum taken in High Resolution (HR) mode with an integration time of 2400 seconds. The next night the High Efficiency (HE) mode was used and the integration time was set to 3600 seconds because the star is a faint object for SOPHIE and the  $v \sin i$  is about  $200 \text{ km s}^{-1}$ , where the HR mode does not provide better information. In the night of September, 30th two spectra were taken with an integration time of 1800 seconds each. The signal to noise of these spectra determined by the Sophie data reduction pipeline (see 2) are 94, 148, 103 and 101, respectively. The four spectra were checked for radial velocity variations, but no significant variation was found and thus the four spectra were combined.

The fundamental parameters were derived by fitting the hydrogen line profiles  $H_\beta$  and  $H_\gamma$ , while the  $\log g$  was derived by fitting the observed spectrum in the range of 5160 to 5200, where the Mg triplet is sensitive to  $\log g$ .  $H_\alpha$  was not used because of heavy contamination by telluric lines. To create the syntheses Kurucz atmospheric models and the code synth3 by O.Khochukhov was used. These codes are described in detail in Chap. 4. For HD 49862 solar abundances were used to compare synthetic spectra to the observations for parameter determination.

Figure 3.2 shows the fitting of the  $H_\gamma$  line (upper panel) and  $H_\beta$  line (lower panel). The hydrogen lines are well represented by the model spectrum with the parameters  $T_{\text{eff}} = 7000 \text{ K}$ ,  $\log g = 3.5$ , while the synthesis with the same

**Table 3.1:** Possible radial fundamental mode and first harmonic identification.

| Label     | Candidate Fundamental<br>[d <sup>-1</sup> ] | Label    | Candidate First Overtone<br>[d <sup>-1</sup> ] | Ratio |
|-----------|---------------------------------------------|----------|------------------------------------------------|-------|
| $f_4$     | 14.5466                                     | $f_{19}$ | 18.9888                                        | 0.766 |
| $f_7$     | 13.5852                                     | $f_{11}$ | 17.3276                                        | 0.784 |
| $f_7$     | 13.5852                                     | $f_{48}$ | 17.0500                                        | 0.797 |
| $f_8$     | 16.0363                                     | $f_5$    | 20.3981                                        | 0.786 |
| $f_8$     | 16.0363                                     | $f_{36}$ | 21.535                                         | 0.745 |
| $f_{16}$  | 10.2651                                     | $f_{74}$ | 12.875                                         | 0.797 |
| $f_{20}$  | 14.7706                                     | $f_{19}$ | 18.9888                                        | 0.778 |
| $f_{42}$  | 15.5177                                     | $f_9$    | 19.8077                                        | 0.783 |
| $f_{42}$  | 15.5177                                     | $f_{47}$ | 19.9959                                        | 0.776 |
| $f_{48}$  | 17.0500                                     | $f_{36}$ | 21.5350                                        | 0.792 |
| $f_{65}$  | 14.5078                                     | $f_{19}$ | 18.9888                                        | 0.764 |
| $f_{65}$  | 14.5078                                     | $f_{66}$ | 18.1634                                        | 0.799 |
| $f_{110}$ | 14.9932                                     | $f_{19}$ | 18.9888                                        | 0.790 |
| $f_{115}$ | 12.7767                                     | $f_8$    | 16.0363                                        | 0.797 |

temperature and  $\log g = 4.2$  does not reproduce the observed wings of  $H_\beta$  and  $H_\gamma$  as well. The radial velocity (RV) was determined at 6 different locations in the spectrum with an average of  $34 \pm 5 \text{ km s}^{-1}$ . The projected rotational velocity ( $v \sin i$ ) was determined to  $200 \pm 16 \text{ km s}^{-1}$  using well defined blends.

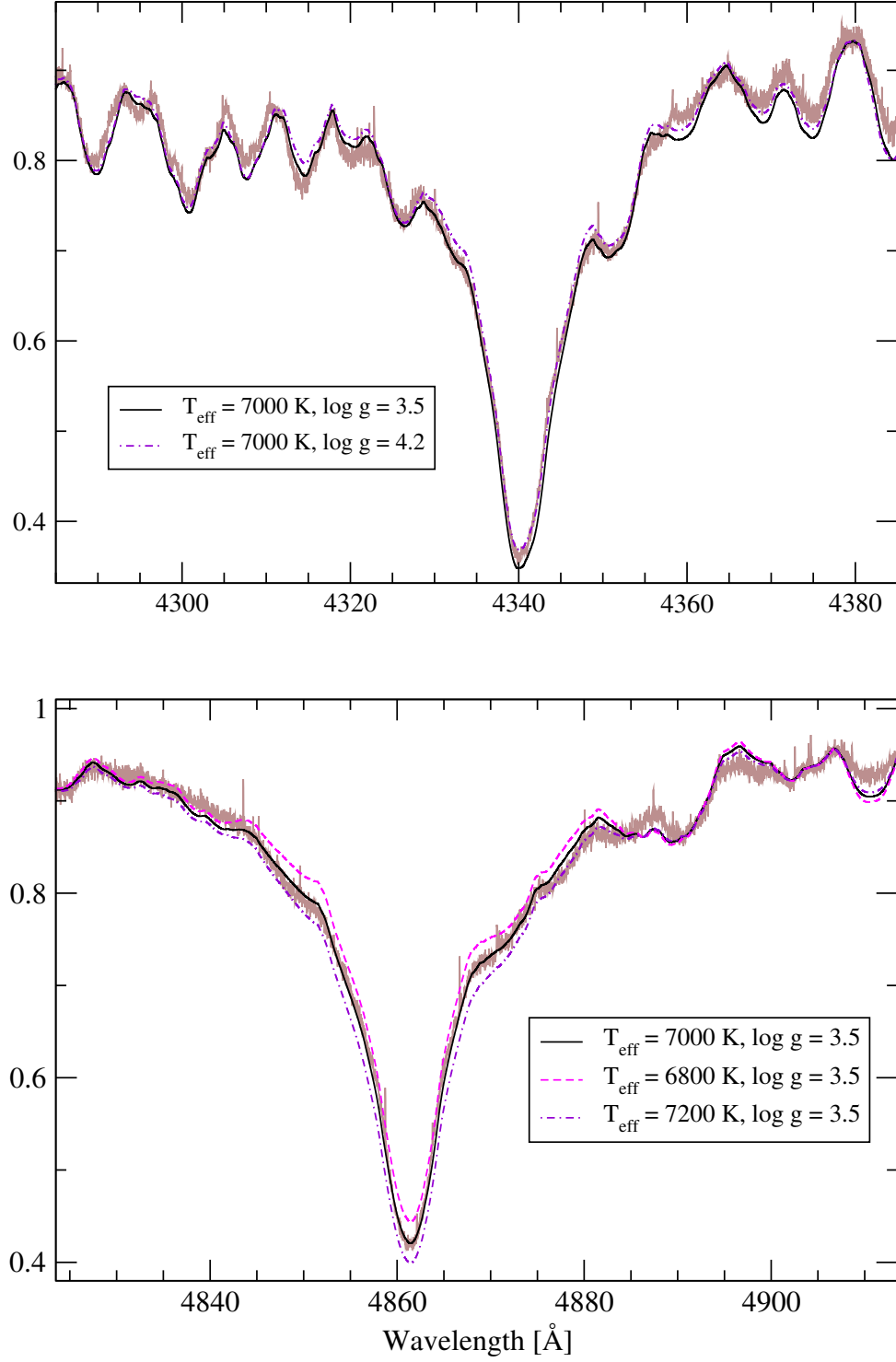


**Figure 3.2:** Hydrogen lines H $_{\gamma}$  (upper panel) and H $_{\beta}$  (lower panel).

**Table 3.2:** Frequency list of HD 49862

| Label                  | Frequency<br>[d <sup>-1</sup> ] | Amplitude<br>[mmag] | Phase<br>[- $\pi$ , $\pi$ ] | Signifi-<br>cance | Comment                |
|------------------------|---------------------------------|---------------------|-----------------------------|-------------------|------------------------|
| $f_1$                  | 2.6099±0.0002                   | 0.238±0.007         | 2.08±0.01                   | 1186.75           |                        |
| $f_2$                  | 2.9261±0.0002                   | 0.213±0.007         | 1.13±0.01                   | 1032.53           |                        |
| $f_3$                  | 2.5397±0.0003                   | 0.177±0.006         | -0.56±0.02                  | 770.64            |                        |
| $f_4$                  | 14.5466±0.0003                  | 0.172±0.006         | 1.16±0.02                   | 804.57            |                        |
| $f_5$                  | 20.3981±0.0003                  | 0.168±0.006         | 1.65±0.02                   | 843.53            |                        |
| $f_6$                  | 4.8718±0.0003                   | 0.160±0.006         | -0.77±0.02                  | 802.34            |                        |
| $f_7$                  | 13.5852±0.0003                  | 0.152±0.005         | -2.58±0.02                  | 805.87            |                        |
| $f_8$                  | 16.0363±0.0003                  | 0.127±0.005         | 2.59±0.02                   | 580.28            |                        |
| $f_9$                  | 19.8077±0.0003                  | 0.122±0.005         | -1.48±0.02                  | 599.87            |                        |
| $f_{10}$               | 2.2777±0.0004                   | 0.097±0.005         | 2.91±0.02                   | 423.57            |                        |
| $f_{11}$               | 17.3276±0.0004                  | 0.099±0.005         | -1.71±0.02                  | 425.13            |                        |
| $f_{12}$               | 2.3605±0.0004                   | 0.094±0.005         | 1.27±0.02                   | 400.33            |                        |
| $f_{13}$               | 6.3879±0.0004                   | 0.080±0.005         | -2.56±0.03                  | 300.91            |                        |
| $f_{14}$               | 4.2601±0.0004                   | 0.076±0.005         | -2.76±0.03                  | 283.19            |                        |
| $f_{15}$               | 13.9681±0.0005                  | 0.064±0.004         | -0.63±0.03                  | 243.53            | likely CoRoT orbit     |
| $f_{16}$               | 10.2651±0.0005                  | 0.070±0.004         | -2.14±0.03                  | 251.85            |                        |
| $f_{17}$               | 2.1303±0.0005                   | 0.069±0.004         | -2.72±0.03                  | 250.60            |                        |
| $f_{18}$               | 0.1139±0.0005                   | 0.059±0.004         | 0.61±0.03                   | 229.92            |                        |
| $f_{19}$               | 18.9888±0.0006                  | 0.057±0.004         | -1.36±0.04                  | 171.96            |                        |
| $f_{20}$               | 14.7706±0.0006                  | 0.055±0.004         | -0.81±0.04                  | 161.02            |                        |
| $f_{21}$               | 0.1218±0.0006                   | 0.050±0.004         | 2.82±0.04                   | 147.13            |                        |
| $f_{22}$               | 0.0435±0.0006                   | 0.051±0.004         | -3.03±0.04                  | 142.20            |                        |
| $f_{23}$               | 0.0737±0.0006                   | 0.056±0.005         | 1.63±0.04                   | 129.64            | $= -6f_{18} + 5f_{21}$ |
| $f_{24}$               | 9.8990±0.0007                   | 0.045±0.004         | 1.10±0.04                   | 117.94            | $= f_{20} - f_6$       |
| $f_{25}$               | 2.0931±0.0007                   | 0.037±0.003         | 2.67±0.04                   | 113.65            |                        |
| $f_{26}$               | 1.8957±0.0007                   | 0.043±0.004         | 0.80±0.04                   | 112.21            |                        |
| $f_{27}$               | 5.2724±0.0008                   | 0.038±0.004         | 0.03±0.05                   | 88.12             |                        |
| $f_{28}$               | 27.9357±0.0008                  | 0.032±0.003         | 1.75±0.05                   | 88.44             |                        |
| $f_{29}$               | 0.0588±0.0008                   | 0.035±0.004         | 0.87±0.05                   | 84.28             |                        |
| $f_{30}$               | 3.8197±0.0008                   | 0.035±0.004         | 2.73±0.05                   | 75.92             |                        |
| $f_{31}$               | 0.1918±0.0009                   | 0.036±0.004         | 0.98±0.05                   | 73.59             |                        |
| $f_{32}$               | 0.0834±0.0009                   | 0.032±0.004         | 3.14±0.06                   | 70.09             | $= -5f_3 + 6f_{17}$    |
| $f_{33}$               | 13.9769±0.0009                  | 0.033±0.004         | 1.57±0.06                   | 66.13             | likely CoRoT orbit     |
| $f_{34}$               | 0.0276±0.0009                   | 0.033±0.004         | 0.32±0.06                   | 63.92             | $= -2f_{26} + 1f_{30}$ |
| $f_{35}$               | 2.0054±0.0009                   | 0.030±0.004         | -0.97±0.06                  | 62.60             |                        |
| $f_{36}$               | 21.5350±0.0009                  | 0.031±0.004         | 0.36±0.06                   | 62.79             |                        |
| $f_{37}$               | 27.9454±0.0010                  | 0.030±0.004         | 1.84±0.06                   | 57.71             |                        |
| $f_{38}$               | 0.2629±0.0010                   | 0.030±0.004         | 1.84±0.06                   | 57.30             | $= -4f_{18} + 1f_{31}$ |
| $f_{39}$               | 0.1061±0.0010                   | 0.030±0.004         | 0.66±0.06                   | 57.51             | $= f_{16} - 4f_{16}$   |
| $f_{40}$               | 2.1116±0.0010                   | 0.032±0.004         | 2.29±0.06                   | 57.76             | $= -3f_5 + 4f_{20}$    |
| $f_{41}$               | 2.1046±0.0010                   | 0.030±0.004         | 2.28±0.06                   | 57.31             | $= -2f_6 + 2f_{30}$    |
| $f_{42}$               | 15.5177±0.0010                  | 0.028±0.004         | 0.51±0.06                   | 54.12             |                        |
| $f_{43}$               | 4.9924±0.0010                   | 0.028±0.004         | -2.06±0.06                  | 52.62             | $= 2f_1 - 2f_{18}$     |
| $f_{44}$               | 2.4685±0.0011                   | 0.027±0.004         | -0.17±0.07                  | 46.50             |                        |
| $f_{45}$               | 0.1666±0.0011                   | 0.022±0.003         | 2.88±0.07                   | 43.18             |                        |
| $f_{46}$               | 0.2272±0.0011                   | 0.028±0.004         | -0.19±0.07                  | 41.48             | $= -6f_{21} + 5f_{31}$ |
| $f_{47}$               | 19.9959±0.0011                  | 0.025±0.004         | 1.15±0.07                   | 41.11             | $= 3f_{13} + 5f_{45}$  |
| Continued on next page |                                 |                     |                             |                   |                        |

Table 3.2 – continued from previous page

| Label                  | Frequency<br>[d <sup>-1</sup> ] | Amplitude<br>[mmag] | Phase<br>[- $\pi$ , $\pi$ ] | Signifi-<br>cance | Comment                |
|------------------------|---------------------------------|---------------------|-----------------------------|-------------------|------------------------|
| $f_{48}$               | 17.0500±0.0012                  | 0.024±0.004         | 1.64±0.07                   | 39.49             |                        |
| $f_{49}$               | 2.9767±0.0012                   | 0.024±0.004         | -2.36±0.08                  | 36.90             | $= -1f_6 + 1f_{26}$    |
| $f_{50}$               | 2.1430±0.0012                   | 0.022±0.004         | -2.55±0.08                  | 35.57             | $= 3f_1 - 3f_{26}$     |
| $f_{51}$               | 0.3984±0.0012                   | 0.021±0.004         | 0.25±0.08                   | 34.27             | $= -4f_3 + 5f_{40}$    |
| $f_{52}$               | 4.9696±0.0013                   | 0.022±0.004         | 1.58±0.08                   | 33.30             | $= -3f_{10} + 5f_{12}$ |
| $f_{53}$               | 0.0341±0.0012                   | 0.022±0.004         | 1.03±0.08                   | 34.34             | $= -5f_{21} + 3f_{31}$ |
| $f_{54}$               | 4.8305±0.0013                   | 0.020±0.004         | -0.52±0.08                  | 32.63             | $= 2f_{17} + 5f_{18}$  |
| $f_{55}$               | 5.6747±0.0013                   | 0.022±0.004         | 1.79±0.08                   | 32.68             | $= 2f_1 + 2f_{46}$     |
| $f_{56}$               | 0.1447±0.0013                   | 0.028±0.005         | -2.90±0.08                  | 31.45             |                        |
| $f_{57}$               | 0.1285±0.0013                   | 0.021±0.004         | -0.60±0.08                  | 31.48             |                        |
| $f_{58}$               | 0.4238±0.0013                   | 0.018±0.003         | -0.36±0.08                  | 30.30             | $= 3f_1 - 3f_{44}$     |
| $f_{59}$               | 0.2162±0.0013                   | 0.020±0.004         | 0.55±0.08                   | 31.33             | $= -2f_{13} + 6f_{25}$ |
| $f_{60}$               | 0.1773±0.0014                   | 0.021±0.004         | -0.34±0.09                  | 27.54             |                        |
| $f_{61}$               | 2.0555±0.0014                   | 0.023±0.004         | -2.08±0.09                  | 28.14             | $= 4f_{27} - f_1$      |
| $f_{62}$               | 0.6349±0.0014                   | 0.019±0.004         | -2.85±0.09                  | 27.70             |                        |
| $f_{63}$               | 0.5207±0.0014                   | 0.019±0.004         | -0.91±0.09                  | 26.23             | $= -1f_5 + 4f_{52}$    |
| $f_{64}$               | 0.3665±0.0014                   | 0.016±0.003         | 0.03±0.09                   | 26.68             | $= f_{49} - f_1$       |
| $f_{65}$               | 14.5078±0.0014                  | 0.020±0.004         | 0.56±0.09                   | 27.30             | $= -6f_3 + 6f_{21}$    |
| $f_{66}$               | 18.1634±0.0014                  | 0.019±0.004         | -2.19±0.09                  | 25.78             | $= 4f_2 - f_2$         |
| $f_{67}$               | 1.9926±0.0014                   | 0.019±0.004         | 0.69±0.09                   | 25.65             | $= 4f_1 - 4f_{40}$     |
| $f_{68}$               | 4.7269±0.0015                   | 0.017±0.003         | 2.53±0.10                   | 23.62             |                        |
| $f_{69}$               | 0.0674±0.0015                   | 0.017±0.004         | -2.03±0.10                  | 23.22             |                        |
| $f_{70}$               | 0.4045±0.0015                   | 0.019±0.004         | -2.60±0.09                  | 24.79             |                        |
| $f_{71}$               | 4.5054±0.0015                   | 0.018±0.004         | 1.26±0.10                   | 22.92             | $= f_1 + f_{26}$       |
| $f_{72}$               | 0.9903±0.0015                   | 0.015±0.003         | -0.83±0.10                  | 22.46             |                        |
| $f_{73}$               | 2.0644±0.0015                   | 0.017±0.004         | 2.13±0.10                   | 22.36             | $= f_1 + f_{16}$       |
| $f_{74}$               | 12.8755±0.0016                  | 0.017±0.004         | 0.09±0.10                   | 22.05             | $= f_1 + f_{16}$       |
| $f_{75}$               | 7.9045±0.0016                   | 0.016±0.004         | 2.84±0.10                   | 20.40             | $= -1f_{12} + 1f_{16}$ |
| $f_{76}$               | 13.9588±0.0017                  | 0.017±0.004         | 0.85±0.11                   | 19.12             | likely CoRoT orbit     |
| $f_{77}$               | 0.2046±0.0017                   | 0.016±0.004         | -2.15±0.11                  | 18.80             | $= -5f_{18} + 3f_{21}$ |
| $f_{78}$               | 0.3415±0.0017                   | 0.017±0.004         | 3.13±0.11                   | 18.16             |                        |
| $f_{79}$               | 0.3553±0.0017                   | 0.017±0.004         | -1.24±0.11                  | 18.79             | $= -6f_3 + 5f_{49}$    |
| $f_{80}$               | 1.6339±0.0017                   | 0.015±0.004         | -1.61±0.11                  | 17.85             | $= -6f_{10} + 6f_{35}$ |
| $f_{81}$               | 0.0937±0.0018                   | 0.016±0.004         | -0.85±0.11                  | 17.01             |                        |
| $f_{82}$               | 4.7889±0.0018                   | 0.015±0.004         | 1.19±0.11                   | 16.64             | $= -1f_6 + 2f_{54}$    |
| $f_{83}$               | 4.8220±0.0018                   | 0.015±0.004         | 2.95±0.12                   | 15.67             | $= 2f_1 + f_{51}$      |
| $f_{84}$               | 0.0185±0.0019                   | 0.015±0.004         | -2.37±0.12                  | 15.36             | $= -3f_{21} + 2f_{31}$ |
| $f_{85}$               | 2.1203±0.0019                   | 0.015±0.004         | -0.40±0.12                  | 15.00             | $= 1f_{18} + 1f_{35}$  |
| $f_{86}$               | 6.0110±0.0019                   | 0.014±0.004         | 0.74±0.12                   | 15.10             | $= f_2 - f_{35}$       |
| $f_{87}$               | 2.0991±0.0019                   | 0.014±0.004         | -3.00±0.12                  | 14.24             |                        |
| $f_{88}$               | 1.0276±0.0019                   | 0.011±0.003         | 0.68±0.12                   | 14.50             |                        |
| $f_{89}$               | 1.4944±0.0020                   | 0.013±0.004         | -1.59±0.13                  | 13.08             | $= 3f_1 - 3f_{40}$     |
| $f_{90}$               | 0.7424±0.0020                   | 0.014±0.004         | -0.43±0.13                  | 13.56             | $= -2f_{13} + 6f_{35}$ |
| $f_{91}$               | 8.3972±0.0020                   | 0.013±0.004         | -2.02±0.13                  | 12.90             | $= -1f_8 + 2f_{30}$    |
| $f_{92}$               | 8.5175±0.0020                   | 0.013±0.004         | 0.07±0.13                   | 13.01             |                        |
| $f_{93}$               | 0.6988±0.0020                   | 0.013±0.004         | -0.22±0.13                  | 12.77             | $= 4f_{18} + 2f_{21}$  |
| $f_{94}$               | 0.3346±0.0021                   | 0.013±0.004         | 0.72±0.13                   | 12.15             | $= f_1 - 3f_{31}$      |
| $f_{95}$               | 0.9740±0.0021                   | 0.012±0.003         | 0.91±0.13                   | 12.31             | $= -5f_{12} + 2f_{13}$ |
| Continued on next page |                                 |                     |                             |                   |                        |

Table 3.2 – continued from previous page

| Label     | Frequency<br>[d <sup>-1</sup> ] | Amplitude<br>[mmag] | Phase<br>[- $\pi$ , $\pi$ ] | Signifi-<br>cance | Comment                |
|-----------|---------------------------------|---------------------|-----------------------------|-------------------|------------------------|
| $f_{96}$  | 0.9209±0.0021                   | 0.012±0.003         | 0.86±0.13                   | 11.98             | $= f_2 - f_{35}$       |
| $f_{97}$  | 4.2687±0.0021                   | 0.013±0.004         | -1.36±0.13                  | 11.96             |                        |
| $f_{98}$  | 7.5487±0.0021                   | 0.012±0.004         | 2.37±0.14                   | 11.68             | $= 4f_3 - f_1$         |
| $f_{99}$  | 4.0109±0.0022                   | 0.013±0.004         | 2.78±0.14                   | 11.51             | $= 3f_1 - f_{30}$      |
| $f_{100}$ | 0.4609±0.0021                   | 0.011±0.003         | 2.63±0.14                   | 11.77             | $= 3f_{41} - 2f_2$     |
| $f_{101}$ | 2.0452±0.0022                   | 0.013±0.004         | -1.23±0.14                  | 11.38             | $= 3f_1 - 4f_{44}$     |
| $f_{102}$ | 0.3050±0.0022                   | 0.012±0.004         | 0.79±0.14                   | 11.24             | $= -3f_7 + 4f_{16}$    |
| $f_{103}$ | 1.1744±0.0022                   | 0.012±0.004         | -1.99±0.14                  | 10.81             |                        |
| $f_{104}$ | 1.3900±0.0022                   | 0.012±0.004         | -2.93±0.14                  | 10.90             |                        |
| $f_{105}$ | 0.1519±0.0022                   | 0.011±0.003         | -1.15±0.14                  | 10.76             | $= 3f_{49} - 3f_2$     |
| $f_{106}$ | 1.2518±0.0023                   | 0.012±0.004         | -2.83±0.14                  | 10.46             | $= -1f_3 + 2f_{26}$    |
| $f_{107}$ | 2.3508±0.0023                   | 0.012±0.004         | -0.46±0.15                  | 10.05             | $= f_2 - 3f_{31}$      |
| $f_{108}$ | 4.1727±0.0023                   | 0.011±0.003         | -2.93±0.15                  | 10.07             | $= f_1 + 3f_{63}$      |
| $f_{109}$ | 0.1849±0.0023                   | 0.012±0.004         | -1.19±0.15                  | 9.79              | $= -1f_{10} + 1f_{25}$ |
| $f_{110}$ | 14.9932±0.0023                  | 0.011±0.004         | 2.71±0.15                   | 9.80              |                        |
| $f_{111}$ | 0.8078±0.0023                   | 0.011±0.004         | -0.03±0.15                  | 9.79              | $= 5f_{58} - f_2$      |
| $f_{112}$ | 5.0668±0.0024                   | 0.011±0.004         | 1.56±0.15                   | 9.60              | $= -1f_6 + 2f_{52}$    |
| $f_{113}$ | 4.9776±0.0023                   | 0.011±0.004         | -1.51±0.15                  | 9.87              |                        |
| $f_{114}$ | 0.2747±0.0024                   | 0.011±0.004         | 0.17±0.15                   | 9.44              | $= -5f_7 + 4f_{48}$    |
| $f_{115}$ | 12.7767±0.0024                  | 0.011±0.004         | 2.50±0.15                   | 9.32              | $= -1f_7 + 5f_{27}$    |
| $f_{116}$ | 0.4430±0.0024                   | 0.011±0.004         | 1.42±0.15                   | 9.36              |                        |
| $f_{117}$ | 0.9491±0.0025                   | 0.010±0.003         | 2.98±0.16                   | 8.87              |                        |
| $f_{118}$ | 1.5684±0.0024                   | 0.011±0.004         | 2.43±0.16                   | 8.94              | $= f_1 - 2f_{63}$      |
| $f_{119}$ | 4.2088±0.0024                   | 0.011±0.004         | -0.78±0.16                  | 8.92              | $= 4f_{30} - 4f_6$     |
| $f_{120}$ | 0.1341±0.0024                   | 0.011±0.004         | 2.76±0.16                   | 8.97              |                        |
| $f_{121}$ | 2.2469±0.0025                   | 0.011±0.004         | 2.88±0.16                   | 8.63              | $= -1f_{12} + 1f_{18}$ |
| $f_{122}$ | 2.7520±0.0025                   | 0.011±0.004         | -0.43±0.16                  | 8.50              | $= 2f_1 - f_{44}$      |
| $f_{123}$ | 1.6643±0.0025                   | 0.011±0.004         | -2.96±0.16                  | 8.64              | $= 3f_1 - 3f_{61}$     |
| $f_{124}$ | 0.9659±0.0025                   | 0.011±0.004         | 0.62±0.16                   | 8.46              | $= 6f_{40} - 4f_2$     |
| $f_{125}$ | 1.0377±0.0025                   | 0.011±0.004         | 0.84±0.16                   | 8.31              | $= -2f_8 + 2f_{42}$    |
| $f_{126}$ | 0.9018±0.0025                   | 0.011±0.004         | -2.37±0.16                  | 8.40              | $= -3f_3 + 4f_{17}$    |
| $f_{127}$ | 2.6021±0.0025                   | 0.010±0.003         | 0.35±0.16                   | 8.29              |                        |
| $f_{128}$ | 1.4475±0.0025                   | 0.010±0.003         | 1.60±0.16                   | 8.44              | $= -1f_{17} + 6f_{18}$ |
| $f_{129}$ | 4.6083±0.0026                   | 0.010±0.004         | -1.45±0.16                  | 8.12              | $= -1f_4 + 2f_{52}$    |
| $f_{130}$ | 1.1056±0.0025                   | 0.010±0.003         | 1.28±0.16                   | 8.21              | $= -4f_{25} + 5f_{26}$ |

## Summary

HD 49862 shows clearly  $p$  modes and  $g$  modes, where the dominant mode is a  $g$  mode. These modes are well separated, where the  $g$  modes cluster near 2.6 d<sup>-1</sup>. The  $p$  modes extend from about 12.5 to 20 c/d and contain the fundamental mode and the first overtone based on the frequency ratios. Pulsation modes are detected between these two regimes with maximum amplitudes near the frequency of 5 d<sup>-1</sup>. These modes are not combination frequencies and are hard to explain by theory. The analysis of the spectrum revealed a rapid rotating star, which is likely not a binary. The identification as a hybrid

is now well established for this star. The amplitudes are remarkably low, but were already detected among such stars (see e.g. Altair, Buzasi et al. 2005).

## 3.2 HD 114839 and BD +18 4914

The frequency analysis of HD 114839 and BD +18 4914 was performed in this thesis. For HD 114839 only a short light curve is available with a time span of 9.86 days, which was observed in 2005. Figure 3.3 shows the reduced MOST light curve and the DFT derived in this work and the frequencies that were detected by King et al. (2006) as vertical red lines. My frequency analysis confirms these frequencies, thus they are not repeated here. Note, that the amplitudes of the  $p$  modes are higher than that of the  $g$  modes, which is contrary to HD 8801 (Henry & Fekel 2005). Because HD 114839 was classified as an Am star and shows similar pulsation frequencies as HD 8801, which is an Am star, I performed an abundance analysis of both HD 114839 and BD +18 4914 (see Chap. 4).

BD +18 4914 was observed as a secondary target and guide star within the five observing runs of the planet hosting star HD 209458. The latter is a planet hosting star showing transits in the light curve. Rowe et al. (2006b) analysed the light curve of BD +18 4914 from 2004 and 2005 and found three groups of frequencies, like King et al. (2006) for HD 114839. My analysis of all five light curves generally confirms the existence of two groups of frequencies, where the detection of the third group was of marginal significance (i.e. the frequencies  $14.7$  and  $15.41 \text{ d}^{-1}$  of Rowe et al. (2006b)). The frequency  $14.89 \text{ d}^{-1}$  was a marginal detection and the frequency of  $15.41 \text{ d}^{-1}$  was below my significance threshold, albeit present in the residuals.

The analysis of the combined data sets of all five observing runs again supports the argument for  $14.89 \text{ d}^{-1}$  being real. The frequency  $14.7 \text{ d}^{-1}$  is as well detected but due to the vicinity of the strong orbit artefact I did not consider this frequency as intrinsic. The frequency  $15.41 \text{ d}^{-1}$  was again below the significance threshold, but visible in the residual spectrum.

Significant amplitude variations were found for the  $p$ -modes (or low-order  $g$ -modes), while the amplitudes of the  $\gamma$  Dor modes near  $1.7 \text{ d}^{-1}$  remain nearly constant (see 3.5). The strongest amplitude variation was observed for the frequency  $9.038 \text{ d}^{-1}$ , where the amplitude changed from over  $3 \text{ mmag}$  in 2005 to  $1.4 \text{ mmag}$  in 2008, while at the same time the amplitude of the frequency  $9.267 \text{ d}^{-1}$  reached its maximum but was not detectable in 2005 and 2004. Contrary, the frequency  $9.717 \text{ d}^{-1}$  did not vary much in amplitude. The  $g$  modes changed their amplitudes only marginally.

The reduced light curves of BD +18 4914 are shown in Fig. 3.4 and the frequency analysis of the 2008 data is given in Table 3.3. The phases are calculated for the zero point of the combined data set, which is  $\text{JD} = 2454154$

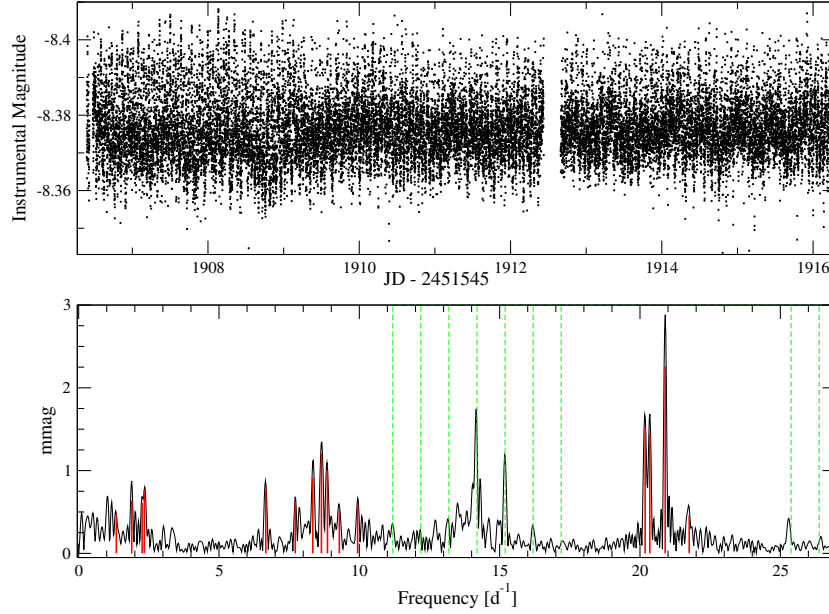


**Figure 3.3:** Light curve (top) and DFT (bottom) of HD114839. The vertical full lines (red) indicate the frequencies detected by King et al. (2006) and the vertical dashed lines show the position of the MOST orbit frequency and its sidelobes.

+ 1690.020796861. The light curves show episodes of low amplitudes of the  $g$  modes of about 6 days, while during approximately 5 days the low frequency oscillations are pronounced. This behaviour is best visible in the light curve of 2008, where the data quality was best.

**Table 3.3:** Frequency list of BD +18 4914

| Label                  | Frequency<br>[ $d^{-1}$ ] | Amplitude<br>[mmag] | Phase<br>[ $-\pi, \pi$ ] | Signifi-<br>cance | Comment               |
|------------------------|---------------------------|---------------------|--------------------------|-------------------|-----------------------|
| $f_1$                  | $0.0444 \pm 0.0006$       | $7.466 \pm 0.163$   | $1.47 \pm 0.01$          | 2105.30           | long-term trend in LC |
| $f_2$                  | $1.7845 \pm 0.0007$       | $6.063 \pm 0.143$   | $0.94 \pm 0.01$          | 1799.23           |                       |
| $f_3$                  | $0.0951 \pm 0.0008$       | $4.334 \pm 0.125$   | $-0.63 \pm 0.01$         | 1199.97           |                       |
| $f_4$                  | $1.6119 \pm 0.0007$       | $5.028 \pm 0.135$   | $1.13 \pm 0.01$          | 1388.96           |                       |
| $f_5$                  | $1.6921 \pm 0.0007$       | $4.415 \pm 0.116$   | $1.65 \pm 0.01$          | 1441.48           |                       |
| $f_6$                  | $1.1616 \pm 0.0013$       | $2.228 \pm 0.102$   | $-2.62 \pm 0.02$         | 477.60            |                       |
| $f_7$                  | $0.9545 \pm 0.0014$       | $1.925 \pm 0.094$   | $-2.18 \pm 0.02$         | 417.96            |                       |
| $f_8$                  | $9.7178 \pm 0.0015$       | $1.861 \pm 0.101$   | $1.03 \pm 0.03$          | 341.53            |                       |
| $f_9$                  | $9.2672 \pm 0.0015$       | $1.898 \pm 0.104$   | $-1.50 \pm 0.03$         | 332.01            |                       |
| $f_{10}$               | $0.2135 \pm 0.0017$       | $1.470 \pm 0.088$   | $1.97 \pm 0.03$          | 278.01            |                       |
| $f_{11}$               | $0.1371 \pm 0.0018$       | $1.345 \pm 0.087$   | $-2.57 \pm 0.03$         | 239.52            |                       |
| $f_{12}$               | $9.0380 \pm 0.0018$       | $1.389 \pm 0.091$   | $-0.10 \pm 0.03$         | 230.85            |                       |
| $f_{13}$               | $1.0229 \pm 0.0021$       | $1.256 \pm 0.097$   | $-1.52 \pm 0.04$         | 168.23            | $= 1f_6 - 1f_{11}$    |
| $f_{14}$               | $0.1784 \pm 0.0026$       | $0.896 \pm 0.084$   | $2.19 \pm 0.04$          | 113.12            |                       |
| $f_{15}$               | $2.9323 \pm 0.0027$       | $0.904 \pm 0.086$   | $-0.50 \pm 0.04$         | 109.45            |                       |
| $f_{16}$               | $14.7008 \pm 0.0028$      | $0.794 \pm 0.080$   | $3.12 \pm 0.05$          | 99.05             |                       |
| Continued on next page |                           |                     |                          |                   |                       |



Table 3.3 – continued from previous page

| Label                  | Frequency<br>[d <sup>-1</sup> ] | Amplitude<br>[mmag] | Phase<br>[- $\pi$ , $\pi$ ] | Signifi-<br>cance | Comment               |
|------------------------|---------------------------------|---------------------|-----------------------------|-------------------|-----------------------|
| $f_{17}$               | 14.8919±0.0029                  | 0.900±0.093         | -1.95±0.05                  | 93.13             |                       |
| $f_{18}$               | 0.3495±0.0029                   | 0.852±0.089         | 2.99±0.05                   | 91.61             | = $1f_{10} + 1f_{11}$ |
| $f_{19}$               | 0.9875±0.0031                   | 0.774±0.085         | -1.93±0.05                  | 81.99             | = $-6f_2 + 1f_8$      |
| $f_{20}$               | 0.2915±0.0033                   | 0.654±0.078         | 1.77±0.06                   | 69.60             | = $-2f_4 + 1f_{15}$   |
| $f_{21}$               | 2.0083±0.0034                   | 0.734±0.090         | -2.90±0.06                  | 66.31             | = $3f_5 - 3f_{13}$    |
| $f_{22}$               | 9.5395±0.0035                   | 0.691±0.086         | -0.82±0.06                  | 64.45             | = $-3f_2 + 1f_{17}$   |
| $f_{23}$               | 1.1428±0.0035                   | 0.664±0.084         | -0.88±0.06                  | 62.18             | = $1f_2 - 3f_{10}$    |
| $f_{24}$               | 12.4001±0.0036                  | 0.547±0.072         | 0.44±0.06                   | 58.15             |                       |
| $f_{25}$               | 0.6072±0.0038                   | 0.649±0.089         | -3.02±0.06                  | 53.36             | = $3f_4 + 4f_{13}$    |
| $f_{26}$               | 1.2282±0.0039                   | 0.578±0.080         | 2.71±0.06                   | 51.77             | = $1f_7 + 2f_{11}$    |
| $f_{27}$               | 1.5926±0.0038                   | 0.654±0.090         | 2.41±0.06                   | 52.48             | = $3f_5 - 3f_6$       |
| $f_{28}$               | 0.3213±0.0039                   | 0.588±0.083         | 2.45±0.07                   | 50.60             | = $-4f_4 + 4f_5$      |
| $f_{29}$               | 4.1807±0.0041                   | 0.558±0.082         | -1.08±0.07                  | 46.74             | = $3f_6 + 2f_{18}$    |
| $f_{30}$               | 0.4803±0.0042                   | 0.684±0.103         | 1.69±0.07                   | 44.39             | = $1f_5 - 2f_{25}$    |
| $f_{31}$               | 0.5447±0.0039                   | 0.654±0.091         | 1.47±0.06                   | 51.43             | = $1f_4 - 5f_{10}$    |
| $f_{32}$               | 8.4127±0.0042                   | 0.577±0.087         | -1.23±0.07                  | 43.78             |                       |
| $f_{33}$               | 0.7492±0.0043                   | 0.601±0.093         | -3.14±0.07                  | 41.52             | = $5f_2 - 6f_4$       |
| $f_{34}$               | 10.8208±0.0049                  | 0.486±0.085         | 0.20±0.08                   | 32.63             | = $1f_2 + 1f_{12}$    |
| $f_{35}$               | 8.9265±0.0050                   | 0.444±0.080         | -2.66±0.08                  | 30.75             |                       |
| $f_{36}$               | 9.1985±0.0050                   | 0.393±0.070         | -3.02±0.08                  | 31.24             | = $6f_5 - 1f_7$       |
| $f_{37}$               | 7.4830±0.0051                   | 0.429±0.078         | 0.96±0.08                   | 30.36             | = $-1f_2 + 1f_9$      |
| $f_{38}$               | 8.3255±0.0052                   | 0.413±0.077         | -0.58±0.09                  | 28.63             |                       |
| $f_{39}$               | 0.8385±0.0053                   | 0.406±0.077         | 0.17±0.09                   | 27.94             | = $1f_5 - 4f_{10}$    |
| $f_{40}$               | 8.5392±0.0054                   | 0.462±0.090         | 0.06±0.09                   | 26.56             | = $3f_2 + 2f_{27}$    |
| $f_{41}$               | 10.6496±0.0055                  | 0.425±0.084         | 1.44±0.09                   | 25.79             | = $1f_4 + 1f_{12}$    |
| $f_{42}$               | 0.4085±0.0056                   | 0.355±0.071         | -0.53±0.09                  | 24.92             |                       |
| $f_{43}$               | 7.5827±0.0057                   | 0.383±0.079         | -1.81±0.10                  | 23.64             | = $2f_2 + 2f_{21}$    |
| $f_{44}$               | 0.8899±0.0059                   | 0.374±0.079         | -0.51±0.10                  | 22.38             | = $-5f_2 + 4f_{21}$   |
| $f_{45}$               | 1.3861±0.0061                   | 0.392±0.085         | -1.07±0.10                  | 21.12             | = $3f_6 - 6f_{18}$    |
| $f_{46}$               | 9.6833±0.0063                   | 0.309±0.070         | -2.88±0.11                  | 19.52             | = $6f_2 - 1f_{13}$    |
| $f_{47}$               | 14.4576±0.0063                  | 0.389±0.089         | 2.91±0.11                   | 19.22             | = $4f_4 - 5f_{29}$    |
| $f_{48}$               | 9.1462±0.0065                   | 0.383±0.089         | 3.11±0.11                   | 18.53             | = $4f_2 + 1f_{21}$    |
| $f_{49}$               | 8.8014±0.0065                   | 0.370±0.086         | 2.30±0.11                   | 18.42             |                       |
| $f_{50}$               | 7.9371±0.0066                   | 0.315±0.074         | -2.40±0.11                  | 18.03             | = $6f_2 - 2f_{45}$    |
| $f_{51}$               | 9.4164±0.0067                   | 0.336±0.081         | -2.62±0.11                  | 17.30             | = $5f_5 + 1f_7$       |
| $f_{52}$               | 6.4052±0.0067                   | 0.365±0.088         | 0.41±0.11                   | 17.02             | = $5f_2 - 3f_{39}$    |
| $f_{53}$               | 1.1141±0.0068                   | 0.304±0.074         | 1.15±0.11                   | 16.96             | = $-4f_2 + 3f_{21}$   |
| $f_{54}$               | 2.0924±0.0068                   | 0.311±0.076         | -2.20±0.11                  | 16.60             | = $1f_4 + 1f_{30}$    |
| $f_{55}$               | 9.3608±0.0069                   | 0.386±0.096         | 1.07±0.12                   | 16.18             | = $2f_4 + 6f_{13}$    |
| $f_{56}$               | 1.9257±0.0070                   | 0.308±0.078         | -1.97±0.12                  | 15.62             | = $4f_{10} + 6f_{14}$ |
| $f_{57}$               | 3.9675±0.0073                   | 0.347±0.091         | 2.76±0.12                   | 14.48             | = $3f_2 - 1f_{45}$    |
| $f_{58}$               | 1.7616±0.0072                   | 0.400±0.104         | 2.58±0.12                   | 14.79             |                       |
| $f_{59}$               | 9.6328±0.0073                   | 0.327±0.086         | 0.94±0.12                   | 14.36             | = $4f_4 + 2f_{27}$    |
| $f_{60}$               | 8.8538±0.0073                   | 0.282±0.074         | -0.87±0.12                  | 14.56             | = $3f_4 + 2f_{21}$    |
| $f_{61}$               | 6.8341±0.0076                   | 0.297±0.081         | 0.08±0.13                   | 13.43             | = $2f_2 + 6f_{31}$    |
| $f_{62}$               | 1.6358±0.0078                   | 0.306±0.085         | 0.83±0.13                   | 12.81             | = $-6f_4 + 4f_{21}$   |
| $f_{63}$               | 4.4549±0.0077                   | 0.288±0.080         | 1.74±0.13                   | 12.98             | = $2f_4 + 1f_{26}$    |
| $f_{64}$               | 13.2694±0.0078                  | 0.287±0.080         | 2.00±0.13                   | 12.78             |                       |
| Continued on next page |                                 |                     |                             |                   |                       |

Table 3.3 – continued from previous page

| Label    | Frequency<br>[d <sup>-1</sup> ] | Amplitude<br>[mmag] | Phase<br>[- $\pi$ , $\pi$ ] | Signifi-<br>cance | Comment                |
|----------|---------------------------------|---------------------|-----------------------------|-------------------|------------------------|
| $f_{65}$ | 6.0268±0.0079                   | 0.309±0.087         | 2.69±0.13                   | 12.49             | = $2f_2 + 2f_{26}$     |
| $f_{66}$ | 8.6159±0.0080                   | 0.295±0.084         | -0.84±0.13                  | 12.24             | = $-1f_{14} + 3f_{15}$ |
| $f_{67}$ | 2.7255±0.0080                   | 0.274±0.078         | 2.19±0.13                   | 12.22             | = $2f_2 - 1f_{39}$     |
| $f_{68}$ | 13.6897±0.0078                  | 0.292±0.082         | 2.87±0.13                   | 12.62             | = $6f_4 + 2f_{21}$     |
| $f_{69}$ | 15.9980±0.0076                  | 0.327±0.089         | 0.28±0.13                   | 13.38             | = $3f_2 + 1f_{41}$     |
| $f_{70}$ | 2.3464±0.0079                   | 0.291±0.083         | -2.21±0.13                  | 12.36             | = $-6f_2 + 2f_{29}$    |
| $f_{71}$ | 9.0118±0.0081                   | 0.247±0.072         | -0.53±0.14                  | 11.78             | = $1f_{10} + 3f_{15}$  |
| $f_{72}$ | 0.8127±0.0082                   | 0.276±0.081         | 0.14±0.14                   | 11.56             | = $1f_6 - 1f_{18}$     |
| $f_{73}$ | 7.2584±0.0083                   | 0.292±0.087         | 0.87±0.14                   | 11.21             |                        |
| $f_{74}$ | 6.1789±0.0082                   | 0.269±0.079         | -2.16±0.14                  | 11.46             | = $-1f_2 + 5f_{27}$    |
| $f_{75}$ | 2.1830±0.0082                   | 0.276±0.082         | 1.26±0.14                   | 11.42             | = $2f_2 - 1f_{45}$     |
| $f_{76}$ | 9.3265±0.0083                   | 0.267±0.079         | 0.80±0.14                   | 11.30             | = $5f_2 + 1f_{42}$     |
| $f_{77}$ | 10.0940±0.0085                  | 0.265±0.081         | -0.30±0.14                  | 10.69             | = $4f_4 + 6f_{25}$     |
| $f_{78}$ | 10.5347±0.0085                  | 0.286±0.088         | -0.95±0.14                  | 10.68             | = $5f_2 + 1f_4$        |
| $f_{79}$ | 7.7068±0.0085                   | 0.296±0.090         | -1.49±0.14                  | 10.80             | = $5f_2 - 2f_{25}$     |
| $f_{80}$ | 7.1643±0.0086                   | 0.267±0.082         | 1.11±0.14                   | 10.54             |                        |
| $f_{81}$ | 4.3886±0.0087                   | 0.260±0.081         | -0.75±0.14                  | 10.33             | = $3f_2 - 3f_{28}$     |
| $f_{82}$ | 1.5649±0.0088                   | 0.239±0.076         | 2.16±0.15                   | 9.91              | = $-1f_2 + 4f_{39}$    |
| $f_{83}$ | 0.4551±0.0088                   | 0.287±0.091         | -2.12±0.15                  | 9.91              | = $-3f_2 + 5f_6$       |
| $f_{84}$ | 21.9518±0.0088                  | 0.258±0.082         | 1.50±0.15                   | 9.96              |                        |
| $f_{85}$ | 8.5150±0.0090                   | 0.266±0.086         | 1.04±0.15                   | 9.47              | = $5f_2 - 1f_{42}$     |
| $f_{86}$ | 8.8883±0.0091                   | 0.272±0.089         | -1.08±0.15                  | 9.33              | = $4f_2 + 6f_{20}$     |
| $f_{87}$ | 5.2371±0.0090                   | 0.247±0.080         | -2.70±0.15                  | 9.60              | = $5f_2 - 3f_{26}$     |
| $f_{88}$ | 3.6970±0.0092                   | 0.251±0.083         | -1.43±0.15                  | 9.11              | = $3f_6 + 1f_{10}$     |
| $f_{89}$ | 13.4840±0.0091                  | 0.258±0.084         | 1.57±0.15                   | 9.40              | = $6f_2 + 2f_{45}$     |
| $f_{90}$ | 14.5797±0.0091                  | 0.264±0.086         | 1.14±0.15                   | 9.35              |                        |
| $f_{91}$ | 1.9597±0.0094                   | 0.251±0.085         | 0.75±0.16                   | 8.76              | = $2f_2 - 5f_{28}$     |
| $f_{92}$ | 8.3773±0.0095                   | 0.258±0.088         | 2.13±0.16                   | 8.60              | = $5f_2 - 1f_{31}$     |
| $f_{93}$ | 10.3186±0.0096                  | 0.235±0.081         | 0.13±0.16                   | 8.42              | = $5f_2 + 4f_{18}$     |
| $f_{94}$ | 9.2382±0.0095                   | 0.243±0.083         | 0.79±0.16                   | 8.52              |                        |
| $f_{95}$ | 1.6629±0.0098                   | 0.237±0.084         | -2.68±0.16                  | 8.01              | = $-4f_2 + 1f_{49}$    |
| $f_{96}$ | 2.8265±0.0098                   | 0.230±0.081         | 0.61±0.16                   | 8.01              | = $3f_4 - 1f_{21}$     |

## Summary

Both, HD 114839 and BD +18 4914 show a very similar distribution of their pulsation frequencies as HD 8801 reported by Henry & Fekel (2005). The frequency analysis of HD 114839 did not yield new results and is therefore not repeated. The frequency analysis of 5 runs of BD +18 4914 showed remarkable amplitude variations of the suspected  $p$  modes near 9 d<sup>-1</sup> but no significant variations of the  $g$  modes. The existence of a third group is not well established because of its vicinity to the MOST orbit artefacts. Again, as for HD 49862 well separated groups of frequencies are observed for these stars. The analyses of their spectra suggest single stars (see Chap.4).

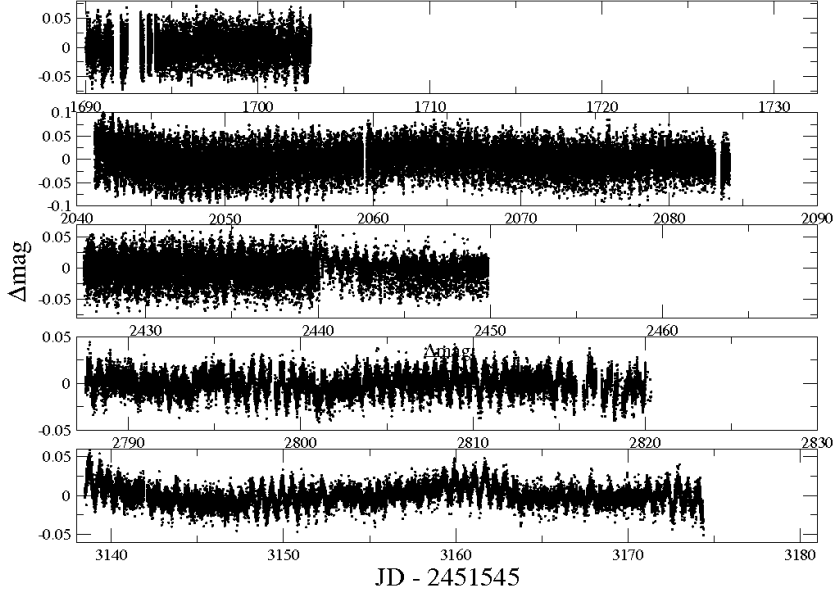


**Figure 3.4:** Reduced light curves of BD +18 4914 from top to bottom: 2004 to 2008.

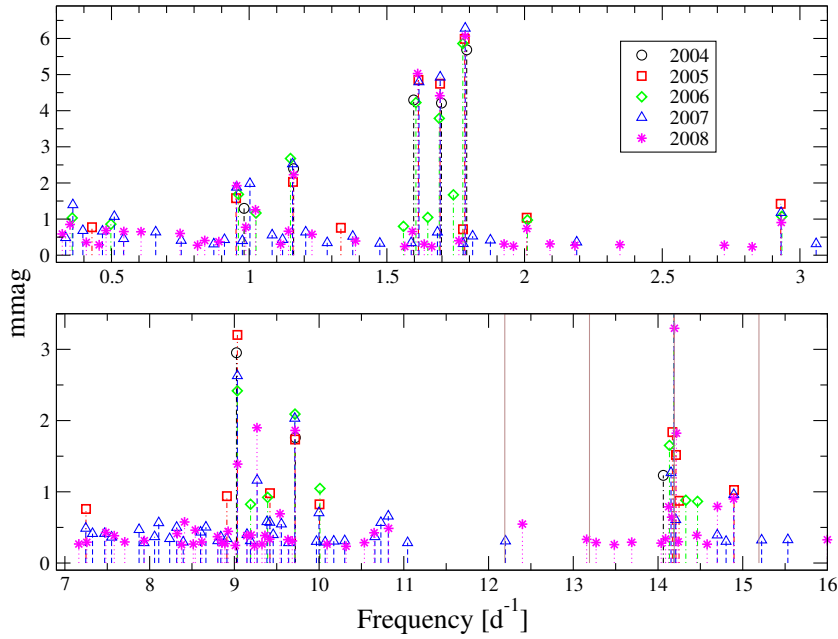


**Figure 3.5:** Frequency analysis of BD +18 4914. The symbols indicate the frequencies and amplitudes found for each individual data set. The vertical full lines indicate the MOST orbit frequency and its sidelobes. The top panel shows the low-frequency regime, the bottom panel shows the high frequency part of the pulsation spectrum.

### 3.3 HD 73449

The Praesepe star cluster was observed for about one month in 2008 and 2009. Four  $\delta$  Sct stars of these observing runs were analysed and the results published by Breger et al. (2012). Two more pulsating stars, not published yet, were discovered: HD 73449 and HD 73854. The former is a hybrid and the latter is a  $\gamma$  Dor star. HD 73449 was observed in both runs, while HD 73854 was only observed in 2008. The frequency analysis was performed for both stars again with SigSpec to a significance level of 5.0.

Figure 3.6 shows the colour magnitude diagram for Praesepe  $\delta$  Sct stars. The red dots with annotated temperatures indicate the four  $\delta$  Sct stars analysed by Breger et al. (2012). The purple diamonds represent the two program stars. HD 73854 lies just at the red border of the  $\delta$  Sct IS while HD 73449 is close to the centre. HD 73449 was observed in the Geneva photometric system and the calibration of Kunzli et al. (1997) results in  $T_{\text{eff}} = 7200$  K  $\log g = 3.8$  and  $[\text{Fe}/\text{H}] = -0.11$ .

HD 73449 is one of the brighter stars in the Praesepe cluster ( $V = 7.45$  in SIMBAD). The star is a fast rotator with a  $v \sin i = 235 \text{ km s}^{-1}$  (Bernacca & Perinotto 1970) and was classified by Bidelman (1956) as A9Vn and the cluster membership probability is 0.99 (from Webda). A variable radial velocity was reported by Wilson & Joy (1950), who listed 5 measurements that are +45, +28, +19, +34 and +23  $\text{km s}^{-1}$ . The intrinsic brightness of the star and these RV measurements could indicate a binary, however, the high  $v \sin i$  may cause large uncertainties.

The time base of the observations is 31.83 and 17.95 days for 2008 and 2009, respectively. HD 73449 was observed in 2009 both as guide star and direct imaging (DI) target. The results of the data reduction for the GS photometry and a comparison between the GS and DI reduction is shown in Fig. 3.7. The data in 2008 were taken in better environmental conditions, thus the noise is considerably lower than in the 2009 data (upper panel). The DI reduction damps the amplitudes of the  $p$  modes, but leaves a higher orbit amplitude than the guides star reduction (GS) pipeline. However, the average noise amplitude is considerably lower for the DI reduction than for the GS reduction in the range from 47 to 52  $\text{d}^{-1}$  of the data without prewhitening (GS: 39.2 ppm, DI: 23.94 ppm compared to GS 2008: 15.25 ppm). For this reason, the frequencies listed in Tab. 3.4 are given for the 2008 guide star photometry.

HD 73449 is a hybrid that shows a dominant frequency at  $1.317 \text{ d}^{-1}$ , and  $p$ -modes close to the MOST orbit frequency. A combination frequency is present at  $2.452 \text{ d}^{-1}$ , with an amplitude comparable to the other two frequencies,  $f_4$  and  $f_2$ . Hence, it is not clear whether the low frequency is the combination of the two  $p$  modes or one  $p$  mode is the combination of one  $p$  mode and one  $g$  mode, or even this is a coincidence. The time base of the observations is not sufficient to solve this tricky problem.

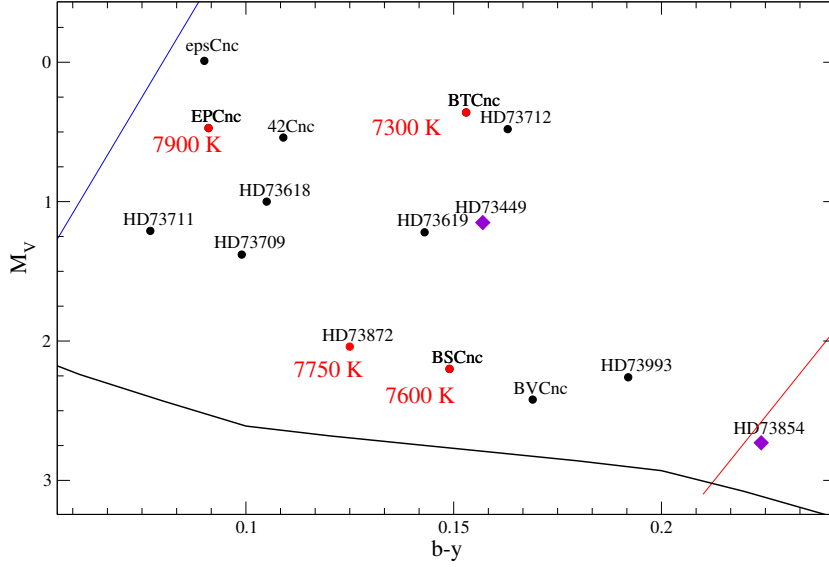


**Figure 3.6:** Colour Magnitude diagram of Praesepe  $\delta$  Sct stars. My two program stars HD 73449 and HD 73854 are marked by purple diamonds. The ZAMS (thick black line) and the red and blue edge of the  $\delta$  Sct instability strip are indicated by the thin lines (red and blue, respectively).

Apart from the  $p$  modes close to the MOST orbit, a triplet at  $22.6 \text{ d}^{-1}$  is present, where the frequency of the lowest amplitude  $22.644 \text{ d}^{-1}$  may be represented by a combination of  $f_4 + 5f_{22}$ .

**Table 3.4:** Frequency list of HD 73449

| Label                  | Frequency<br>[ $\text{d}^{-1}$ ] | Amplitude<br>[mmag] | Phase<br>[ $-\pi, \pi$ ] | Signifi-<br>cance | Comment             |
|------------------------|----------------------------------|---------------------|--------------------------|-------------------|---------------------|
| $f_1$                  | $1.3496 \pm 0.0012$              | $0.915 \pm 0.036$   | $1.56 \pm 0.02$          | 654.07            |                     |
| $f_2$                  | $13.3189 \pm 0.0013$             | $0.877 \pm 0.035$   | $2.03 \pm 0.02$          | 628.76            |                     |
| $f_3$                  | $2.4517 \pm 0.0012$              | $0.825 \pm 0.032$   | $1.08 \pm 0.02$          | 680.28            |                     |
| $f_4$                  | $15.7729 \pm 0.0013$             | $0.753 \pm 0.030$   | $-2.24 \pm 0.02$         | 624.04            | $= f_2 + f_3$       |
| $f_5$                  | $0.0674 \pm 0.0017$              | $0.670 \pm 0.037$   | $-0.69 \pm 0.03$         | 336.62            |                     |
| $f_6$                  | $0.1665 \pm 0.0016$              | $0.577 \pm 0.030$   | $2.90 \pm 0.02$          | 363.54            |                     |
| $f_7$                  | $1.4430 \pm 0.0017$              | $0.511 \pm 0.027$   | $1.79 \pm 0.03$          | 347.28            |                     |
| $f_8$                  | $2.2474 \pm 0.0017$              | $0.587 \pm 0.032$   | $-2.74 \pm 0.03$         | 330.53            |                     |
| $f_9$                  | $0.1072 \pm 0.0020$              | $0.392 \pm 0.026$   | $-1.70 \pm 0.03$         | 234.77            |                     |
| $f_{10}$               | $1.2768 \pm 0.0020$              | $0.322 \pm 0.021$   | $-1.21 \pm 0.03$         | 235.81            | $= -1f_6 + 1f_7$    |
| $f_{11}$               | $0.6941 \pm 0.0025$              | $0.334 \pm 0.027$   | $2.65 \pm 0.04$          | 152.40            |                     |
| $f_{12}$               | $0.7765 \pm 0.0024$              | $0.375 \pm 0.029$   | $-1.59 \pm 0.04$         | 167.54            | $= -4f_6 + 1f_7$    |
| $f_{13}$               | $10.4028 \pm 0.0026$             | $0.338 \pm 0.028$   | $-0.65 \pm 0.04$         | 148.06            | $= -5f_6 + 5f_8$    |
| $f_{14}$               | $1.5302 \pm 0.0026$              | $0.298 \pm 0.025$   | $0.58 \pm 0.04$          | 141.92            |                     |
| $f_{15}$               | $2.9362 \pm 0.0026$              | $0.335 \pm 0.028$   | $-1.87 \pm 0.04$         | 142.18            | $= -5f_9 + 5f_{11}$ |
| $f_{16}$               | $22.5610 \pm 0.0027$             | $0.273 \pm 0.024$   | $1.07 \pm 0.04$          | 131.68            |                     |
| $f_{17}$               | $3.0006 \pm 0.0027$              | $0.295 \pm 0.026$   | $-1.38 \pm 0.04$         | 131.67            |                     |
| $f_{18}$               | $0.6131 \pm 0.0027$              | $0.357 \pm 0.031$   | $1.06 \pm 0.04$          | 134.82            | $= 3f_3 - 3f_8$     |
| Continued on next page |                                  |                     |                          |                   |                     |

Table 3.4 – continued from previous page

| Label                  | Frequency<br>[d <sup>-1</sup> ] | Amplitude<br>[mmag] | Phase<br>[- $\pi$ , $\pi$ ] | Signifi-<br>cance | Comment             |
|------------------------|---------------------------------|---------------------|-----------------------------|-------------------|---------------------|
| $f_{19}$               | 1.9924±0.0028                   | 0.279±0.025         | 0.79±0.04                   | 126.42            | = $1f_1 + 6f_9$     |
| $f_{20}$               | 2.5854±0.0028                   | 0.289±0.026         | 1.04±0.04                   | 125.18            | = $5f_1 - 6f_{11}$  |
| $f_{21}$               | 4.3603±0.0030                   | 0.221±0.021         | -1.95±0.04                  | 111.24            |                     |
| $f_{22}$               | 1.3744±0.0030                   | 0.265±0.025         | 1.61±0.04                   | 112.45            |                     |
| $f_{23}$               | 1.3064±0.0028                   | 0.285±0.026         | -1.57±0.04                  | 124.80            |                     |
| $f_{24}$               | 22.7236±0.0030                  | 0.266±0.025         | -0.26±0.04                  | 110.37            |                     |
| $f_{25}$               | 2.7194±0.0031                   | 0.180±0.018         | -1.28±0.05                  | 105.44            | = $-1f_6 + 2f_7$    |
| $f_{26}$               | 2.8130±0.0030                   | 0.235±0.023         | -0.51±0.04                  | 108.07            | = $-1f_1 + 6f_{11}$ |
| $f_{27}$               | 1.1079±0.0032                   | 0.264±0.027         | 2.30±0.05                   | 99.19             | = $-2f_6 - 1f_7$    |
| $f_{28}$               | 2.0782±0.0034                   | 0.215±0.023         | -1.72±0.05                  | 84.68             |                     |
| $f_{29}$               | 0.0383±0.0037                   | 0.205±0.024         | -3.06±0.05                  | 72.83             | = $1f_1 - 2f_{11}$  |
| $f_{30}$               | 7.4224±0.0037                   | 0.225±0.027         | -1.79±0.05                  | 71.85             |                     |
| $f_{31}$               | 9.6355±0.0038                   | 0.200±0.024         | 0.50±0.06                   | 68.67             | = $5f_1 + 2f_7$     |
| $f_{32}$               | 3.9784±0.0039                   | 0.167±0.021         | 2.58±0.06                   | 64.52             | = $2f_1 + 1f_{10}$  |
| $f_{33}$               | 4.4978±0.0043                   | 0.198±0.027         | 0.67±0.06                   | 52.91             | = $6f_6 + 1f_9$     |
| $f_{34}$               | 4.1424±0.0042                   | 0.181±0.024         | 2.71±0.06                   | 55.41             | = $2f_1 + 1f_7$     |
| $f_{35}$               | 0.2463±0.0043                   | 0.182±0.025         | 1.88±0.06                   | 52.81             | = $2f_1 - 1f_3$     |
| $f_{36}$               | 3.4940±0.0044                   | 0.176±0.025         | 0.62±0.06                   | 51.50             | = $5f_6 - 3f_7$     |
| $f_{37}$               | 2.9634±0.0045                   | 0.173±0.025         | 3.10±0.07                   | 47.97             | = $-6f_3 + 4f_{15}$ |
| $f_{38}$               | 4.1928±0.0046                   | 0.186±0.027         | -3.05±0.07                  | 46.54             | = $5f_1 - 2f_{10}$  |
| $f_{39}$               | 2.8346±0.0047                   | 0.150±0.022         | -1.48±0.07                  | 44.80             | = $-1f_2 + 3f_{36}$ |
| $f_{40}$               | 4.2942±0.0049                   | 0.131±0.020         | -1.88±0.07                  | 41.49             | = $5f_1 - 4f_{18}$  |
| $f_{41}$               | 1.6381±0.0050                   | 0.135±0.021         | 1.06±0.07                   | 40.16             | = $-3f_3 + 2f_{33}$ |
| $f_{42}$               | 6.4999±0.0049                   | 0.137±0.022         | -0.28±0.07                  | 40.55             | = $3f_1 + 1f_3$     |
| $f_{43}$               | 2.6486±0.0049                   | 0.173±0.027         | 0.30±0.07                   | 40.64             | = $4f_1 - 2f_{22}$  |
| $f_{44}$               | 1.1539±0.0050                   | 0.183±0.029         | -2.12±0.07                  | 39.72             | = $-4f_1 + 4f_{41}$ |
| $f_{45}$               | 0.2011±0.0050                   | 0.157±0.025         | 2.33±0.07                   | 39.66             | = $-1f_1 + 2f_{12}$ |
| $f_{46}$               | 3.1237±0.0050                   | 0.144±0.023         | 0.56±0.07                   | 40.01             | = $-3f_3 + 3f_{36}$ |
| $f_{47}$               | 3.7618±0.0051                   | 0.136±0.022         | -2.35±0.08                  | 37.88             | = $4f_1 - 1f_{41}$  |
| $f_{48}$               | 1.4969±0.0052                   | 0.134±0.022         | -2.05±0.08                  | 36.02             | = $3f_1 - 2f_{10}$  |
| $f_{49}$               | 2.8705±0.0053                   | 0.120±0.020         | 3.02±0.08                   | 34.85             | = $6f_1 - 4f_{23}$  |
| $f_{50}$               | 0.7185±0.0054                   | 0.101±0.017         | -2.36±0.08                  | 33.89             | = $1f_8 - 1f_{14}$  |
| $f_{51}$               | 22.6440±0.0055                  | 0.127±0.022         | 1.13±0.08                   | 32.86             | = $1f_4 + 5f_{22}$  |
| $f_{52}$               | 5.0254±0.0056                   | 0.130±0.023         | 0.43±0.08                   | 31.66             | = $1f_1 + 6f_{18}$  |
| $f_{53}$               | 6.8183±0.0055                   | 0.126±0.022         | 0.36±0.08                   | 32.57             | = $3f_3 - 5f_9$     |
| $f_{54}$               | 3.9078±0.0058                   | 0.120±0.022         | 1.79±0.09                   | 29.03             | = $-2f_3 + 3f_{15}$ |
| $f_{55}$               | 5.3243±0.0061                   | 0.116±0.023         | 2.90±0.09                   | 26.57             | = $3f_1 + 1f_{10}$  |
| $f_{56}$               | 4.6021±0.0062                   | 0.113±0.022         | 0.05±0.09                   | 26.05             | = $6f_1 - 1f_{36}$  |
| $f_{57}$               | 2.5181±0.0062                   | 0.137±0.027         | -0.35±0.09                  | 25.86             | = $3f_1 - 1f_{14}$  |
| $f_{58}$               | 3.0336±0.0060                   | 0.137±0.026         | -3.02±0.09                  | 27.54             | = $2f_1 + 2f_6$     |
| $f_{59}$               | 10.0832±0.0063                  | 0.108±0.022         | -0.31±0.09                  | 25.01             | = $-3f_3 + 4f_{21}$ |
| $f_{60}$               | 12.7513±0.0060                  | 0.105±0.020         | -0.74±0.09                  | 26.98             | = $5f_1 + 2f_{17}$  |
| $f_{61}$               | 5.3990±0.0064                   | 0.129±0.026         | 0.49±0.09                   | 24.14             | = $-6f_1 + 3f_{33}$ |
| $f_{62}$               | 5.3570±0.0061                   | 0.110±0.021         | -1.76±0.09                  | 26.26             | = $3f_1 + 1f_{23}$  |
| $f_{63}$               | 0.8700±0.0063                   | 0.078±0.016         | -2.02±0.09                  | 24.62             | = $-3f_1 + 3f_{41}$ |
| $f_{64}$               | 1.3358±0.0064                   | 0.075±0.015         | -2.81±0.10                  | 23.85             | = $-5f_3 + 5f_{25}$ |
| $f_{65}$               | 2.1648±0.0063                   | 0.127±0.026         | -3.02±0.09                  | 24.54             | = $2f_1 - 5f_9$     |
| $f_{66}$               | 0.0800±0.0065                   | 0.133±0.028         | -2.91±0.10                  | 23.34             | = $2f_1 - 4f_{11}$  |
| Continued on next page |                                 |                     |                             |                   |                     |

# Chapter 3. Frequency Analysis of Individual Stars

Table 3.4 – continued from previous page

| Label                  | Frequency<br>[d <sup>-1</sup> ] | Amplitude<br>[mmag] | Phase<br>[- $\pi$ , $\pi$ ] | Signifi-<br>cance | Comment             |
|------------------------|---------------------------------|---------------------|-----------------------------|-------------------|---------------------|
| $f_{67}$               | 6.9858±0.0064                   | 0.100±0.020         | 2.51±0.09                   | 24.17             | = $3f_1 + 1f_{15}$  |
| $f_{68}$               | 5.1511±0.0065                   | 0.098±0.020         | 1.89±0.10                   | 23.37             | = $2f_1 + 1f_3$     |
| $f_{69}$               | 13.0795±0.0067                  | 0.099±0.021         | -1.99±0.10                  | 22.27             |                     |
| $f_{70}$               | 31.5474±0.0067                  | 0.098±0.021         | 2.27±0.10                   | 21.83             | = $6f_1 + 6f_{54}$  |
| $f_{71}$               | 6.7309±0.0068                   | 0.100±0.022         | -2.55±0.10                  | 21.03             | = $-1f_3 + 6f_{14}$ |
| $f_{72}$               | 0.6466±0.0070                   | 0.105±0.023         | -2.31±0.10                  | 20.08             |                     |
| $f_{73}$               | 12.0126±0.0070                  | 0.084±0.019         | -1.98±0.10                  | 19.88             | = $-2f_1 + 6f_3$    |
| $f_{74}$               | 4.1005±0.0071                   | 0.102±0.023         | -0.32±0.11                  | 19.37             | = $1f_1 + 2f_{22}$  |
| $f_{75}$               | 2.5609±0.0072                   | 0.107±0.025         | 2.13±0.11                   | 18.90             | = $6f_1 - 5f_{27}$  |
| $f_{76}$               | 2.4178±0.0067                   | 0.083±0.018         | 1.25±0.10                   | 21.83             | = $5f_1 - 3f_7$     |
| $f_{77}$               | 5.7445±0.0072                   | 0.085±0.020         | 2.28±0.11                   | 18.96             | = $-5f_1 + 4f_{46}$ |
| $f_{78}$               | 4.9966±0.0072                   | 0.106±0.024         | 2.89±0.11                   | 18.85             | = $-5f_1 + 4f_{15}$ |
| $f_{79}$               | 1.2199±0.0073                   | 0.090±0.021         | -1.20±0.11                  | 18.72             | = $-2f_1 + 3f_{23}$ |
| $f_{80}$               | 1.0315±0.0072                   | 0.083±0.019         | -2.24±0.11                  | 19.07             | = $-3f_6 + 1f_{14}$ |
| $f_{81}$               | 3.6408±0.0075                   | 0.079±0.019         | 0.48±0.11                   | 17.32             | = $5f_1 - 4f_{12}$  |
| $f_{82}$               | 0.3627±0.0076                   | 0.087±0.021         | 1.65±0.11                   | 17.15             | = $5f_1 - 5f_{10}$  |
| $f_{83}$               | 17.1005±0.0076                  | 0.096±0.023         | 2.27±0.11                   | 16.85             | = $6f_1 + 3f_{17}$  |
| $f_{84}$               | 6.5291±0.0078                   | 0.069±0.017         | -1.53±0.12                  | 16.34             | = $2f_1 + 3f_{10}$  |
| $f_{85}$               | 2.6862±0.0078                   | 0.089±0.022         | 1.92±0.12                   | 16.28             | = $2f_3 - 2f_{27}$  |
| $f_{86}$               | 13.2688±0.0079                  | 0.086±0.022         | -1.49±0.12                  | 15.75             | = $6f_3 - 1f_7$     |
| $f_{87}$               | 9.1795±0.0079                   | 0.074±0.019         | -1.19±0.12                  | 15.65             |                     |
| $f_{88}$               | 1.8427±0.0079                   | 0.113±0.028         | -2.14±0.12                  | 15.73             | = $2f_3 - 2f_{14}$  |
| $f_{89}$               | 1.4609±0.0079                   | 0.092±0.023         | -1.68±0.12                  | 15.66             | = $1f_2 - 4f_{37}$  |
| $f_{90}$               | 8.9642±0.0081                   | 0.085±0.022         | 0.06±0.12                   | 15.09             | = $5f_1 + 2f_{27}$  |
| $f_{91}$               | 7.3644±0.0082                   | 0.084±0.022         | -1.19±0.12                  | 14.79             | = $-1f_7 + 3f_{15}$ |
| $f_{92}$               | 10.9051±0.0081                  | 0.065±0.017         | -1.67±0.12                  | 14.97             | = $5f_1 + 2f_{28}$  |
| $f_{93}$               | 8.1475±0.0080                   | 0.083±0.021         | -3.02±0.12                  | 15.46             | = $4f_1 + 2f_{22}$  |
| $f_{94}$               | 4.8498±0.0082                   | 0.083±0.022         | 0.15±0.12                   | 14.76             | = $2f_1 + 3f_{50}$  |
| $f_{95}$               | 1.8084±0.0083                   | 0.087±0.023         | -0.02±0.12                  | 14.29             | = $4f_1 - 5f_{50}$  |
| $f_{96}$               | 12.2798±0.0083                  | 0.097±0.026         | 2.40±0.12                   | 14.38             | = $-6f_3 + 6f_{33}$ |
| $f_{97}$               | 18.2360±0.0085                  | 0.072±0.020         | -1.71±0.13                  | 13.60             | = $3f_3 + 4f_{25}$  |
| $f_{98}$               | 7.6871±0.0086                   | 0.084±0.023         | -1.66±0.13                  | 13.45             | = $3f_3 + 2f_6$     |
| $f_{99}$               | 0.4023±0.0086                   | 0.090±0.025         | -1.65±0.13                  | 13.37             | = $-6f_1 + 3f_{39}$ |
| $f_{100}$              | 2.0176±0.0085                   | 0.071±0.019         | -0.87±0.13                  | 13.60             | = $1f_1 + 4f_6$     |
| $f_{101}$              | 3.4354±0.0086                   | 0.076±0.021         | 0.40±0.13                   | 13.21             | = $3f_1 - 1f_{18}$  |
| $f_{102}$              | 10.6264±0.0089                  | 0.068±0.019         | -2.63±0.13                  | 12.46             | = $4f_1 + 4f_{23}$  |
| $f_{103}$              | 1.4175±0.0089                   | 0.096±0.027         | -1.77±0.13                  | 12.47             | = $4f_1 - 1f_{53}$  |
| $f_{104}$              | 6.6621±0.0091                   | 0.071±0.020         | -2.50±0.13                  | 12.01             | = $3f_1 + 2f_{23}$  |
| $f_{105}$              | 6.3478±0.0091                   | 0.075±0.022         | 1.83±0.13                   | 12.02             | = $-4f_1 + 4f_{15}$ |
| $f_{106}$              | 8.5448±0.0090                   | 0.079±0.023         | -2.22±0.13                  | 12.11             | = $3f_1 + 2f_8$     |
| $f_{107}$              | 9.8017±0.0092                   | 0.073±0.021         | -0.83±0.14                  | 11.69             | = $3f_8 + 2f_{14}$  |
| $f_{108}$              | 16.9848±0.0093                  | 0.074±0.022         | -0.12±0.14                  | 11.51             | = $6f_1 + 3f_{37}$  |
| $f_{109}$              | 11.6352±0.0093                  | 0.069±0.020         | 0.41±0.14                   | 11.49             | = $4f_1 + 3f_{28}$  |
| $f_{110}$              | 0.5816±0.0097                   | 0.083±0.026         | 2.59±0.14                   | 10.45             | = $-2f_1 + 2f_{41}$ |
| $f_{111}$              | 0.9822±0.0098                   | 0.088±0.027         | -2.68±0.15                  | 10.30             | = $-1f_1 + 3f_{12}$ |
| $f_{112}$              | 4.2334±0.0099                   | 0.081±0.026         | -0.49±0.15                  | 9.97              |                     |
| $f_{113}$              | 1.7699±0.0101                   | 0.077±0.025         | 2.70±0.15                   | 9.61              | = $-1f_1 + 1f_{46}$ |
| $f_{114}$              | 2.1264±0.0101                   | 0.078±0.025         | -1.82±0.15                  | 9.68              | = $1f_1 + 1f_{12}$  |
| Continued on next page |                                 |                     |                             |                   |                     |

**Table 3.4 – continued from previous page**

| <b>Label</b> | <b>Frequency<br/>[d<sup>-1</sup>]</b> | <b>Amplitude<br/>[mmag]</b> | <b>Phase<br/>[-<math>\pi</math>, <math>\pi</math>]</b> | <b>Signifi-<br/>cance</b> | <b>Comment</b>      |
|--------------|---------------------------------------|-----------------------------|--------------------------------------------------------|---------------------------|---------------------|
| $f_{115}$    | 18.3701±0.0102                        | 0.063±0.020                 | -2.53±0.15                                             | 9.51                      |                     |
| $f_{116}$    | 15.7332±0.0101                        | 0.063±0.020                 | 1.36±0.15                                              | 9.74                      |                     |
| $f_{117}$    | 3.2370±0.0102                         | 0.071±0.023                 | 0.58±0.15                                              | 9.48                      | = $2f_1 + 5f_9$     |
| $f_{118}$    | 4.1643±0.0103                         | 0.075±0.025                 | -1.25±0.15                                             | 9.37                      | = $-1f_6 + 3f_7$    |
| $f_{119}$    | 3.3311±0.0104                         | 0.069±0.023                 | -2.64±0.15                                             | 9.10                      | = $3f_1 - 1f_{50}$  |
| $f_{120}$    | 4.4766±0.0105                         | 0.076±0.025                 | -0.05±0.16                                             | 8.92                      | = $3f_1 + 4f_9$     |
| $f_{121}$    | 8.7831±0.0105                         | 0.068±0.023                 | 3.09±0.16                                              | 8.94                      | = $2f_3 + 5f_{12}$  |
| $f_{122}$    | 4.3970±0.0108                         | 0.068±0.023                 | 0.44±0.16                                              | 8.43                      | = $-6f_1 + 4f_{46}$ |
| $f_{123}$    | 0.5117±0.0110                         | 0.073±0.026                 | -0.95±0.16                                             | 8.09                      | = $-5f_1 + 3f_{28}$ |



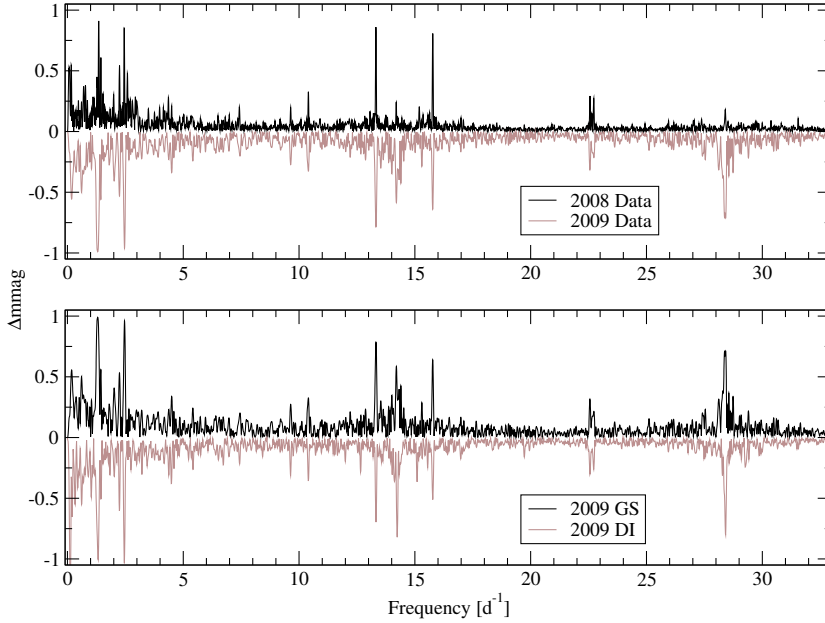


**Figure 3.7:** Comparison between the guide star data of HD 73449 of 2008 and 2009 (top panel) and the DI and GS reductions (bottom panel). Instead of overplotting one Fourier spectrum was multiplied by -1 for better visibility.

### 3.4 HD 73854

HD 73854 is considerably cooler than HD 73449 and is located already outside the  $\delta$  Sct IS, but well within the  $\gamma$  Dor IS. The Geneva photometry yields the following parameters:  $T_{\text{eff}} = 6970$  K,  $\log g = 4.3$ , and  $[\text{Fe}/\text{H}] = 0.30$  dex, which are typical for  $\gamma$  Dor stars.

The SigSpec analysis resulted in 149 formally significant frequencies, where the range from 0 to 60  $\text{d}^{-1}$  was investigated. The mean amplitude in the region between 47 and 52  $\text{d}^{-1}$  is 65.5 ppm for the original data and 33.9 ppm after prewhitening with the 149 formally significant frequencies.

HD 73854 shows an amplitude of 21.5 mmag in the Fourier transform that translates to 43 mmag of peak-to-peak amplitude, which means that it is a rather high amplitude for a  $\gamma$  Dor star. The beating effects are very strong and from the light curve (Fig. 3.8.) and phase diagram (Fig. 3.9) a maximum peak-to-peak amplitude of about 0.1 mag can be discerned. No evidence for  $p$  modes were found, where the detection limit is about 120 ppm in the frequency ranges that are not affected by stray light. In the regions heavily affected by stray light a few hardly significant peaks were detected but were rejected due to the increased noise in the vicinity of the MOST orbit frequency. Of the 149 formally significant frequencies 104 remain after the rejection of spurious peaks. These remaining frequencies are listed in Tab. 3.6.

As shown already in Chap. 2, Fig 2.4, the 32 days of observations of the

**Table 3.5:** Sequence of equidistantly spaced periods

| label    | frequency<br>[d <sup>-1</sup> ] | period<br>[d] | significance |
|----------|---------------------------------|---------------|--------------|
| $f_{12}$ | 1.4846                          | 0.6736        | 510          |
| $f_3$    | 1.4434                          | 0.6928        | 1731         |
| $f_2$    | 1.3967                          | 0.7159        | 1709         |
| $f_1$    | 1.3224                          | 0.7562        | 5805         |
| $f_{11}$ | 1.2504                          | 0.7997        | 587          |
| $f_5$    | 1.1647                          | 0.8586        | 1295         |
| $f_{33}$ | 1.1357                          | 0.8805        | 100          |

2008 MOST light curves yield enough frequency resolution to detect period spacings for  $\ell = 1$  or 2 modes, if the periods are short enough. In my case the main period is 0.756 days hence, a search for period spacings is reasonable. The modified CRF shows two possible period spacings: 0.02 and 0.032 days (see Fig 3.10, bottom panel), neither 0.02 nor 0.032 are consistent with  $\ell = 2$  or 1 modes, respectively. The former is too short for  $\ell = 2$  spacing, while the latter is too short for  $\ell = 1$  and too long for  $\ell = 2$  spacings. Seven periods with significances higher than 90 are consistent with a spacing of 0.021 d, if small deviations and missing modes are admitted. Deviations from constancy are expected from theory due to evolution effects (Dupret et al. 2007; Miglio et al. 2008). In contrast, when I use the spacing of 0.0325 days, only 4 periods are consistent, where the minimum significance is 17.5. Moreover, the spacing of the most significant mode and the second significant mode is about 0.043 (twice 0.021) d.

Tab. 3.5 lists the seven modes consistent with a period spacing of 0.021 d and the result of the modified CRF function is shown in Fig 3.10. The top panel shows the periods versus significances and the dash dotted lines indicate periods spaced by 0.021 days. Note, that the differences of the periods in the table are not necessarily 0.021 days, because missing modes are allowed, hence, the actual differences may be multiples of 0.021 days. I note that the period error, which is calculated based on the frequency resolution, is 0.0175 days at the period of 0.756 days, hence potentially existent shorter period spacings cannot be reliably resolved.

**Table 3.6:** Frequency list of HD 73854

| Label                  | Frequency<br>[d <sup>-1</sup> ] | Amplitude<br>[mmag] | Phase<br>[- $\pi$ , $\pi$ ] | Signifi-<br>cance | Comment |
|------------------------|---------------------------------|---------------------|-----------------------------|-------------------|---------|
| $f_1$                  | 1.3225±0.0004                   | 21.506±0.282        | 2.16±0.01                   | 5805.21           |         |
| $f_2$                  | 1.3968±0.0008                   | 6.624±0.160         | -0.91±0.01                  | 1709.00           |         |
| $f_3$                  | 1.4434±0.0008                   | 5.750±0.138         | 1.53±0.01                   | 1731.30           |         |
| Continued on next page |                                 |                     |                             |                   |         |

Table 3.6 – continued from previous page

| Label                  | Frequency<br>[d <sup>-1</sup> ] | Amplitude<br>[mmag] | Phase<br>[- $\pi$ , $\pi$ ] | Signifi-<br>cance | Comment |
|------------------------|---------------------------------|---------------------|-----------------------------|-------------------|---------|
| $f_4$                  | 1.2931±0.0009                   | 5.479±0.151         | 1.56±0.01                   | 1324.66           |         |
| $f_5$                  | 1.1647±0.0009                   | 4.556±0.127         | 0.97±0.01                   | 1295.57           |         |
| $f_6$                  | 1.3500±0.0009                   | 3.638±0.103         | 0.78±0.01                   | 1244.19           |         |
| $f_7$                  | 1.2079±0.0010                   | 4.057±0.126         | 2.54±0.01                   | 1039.40           |         |
| $f_8$                  | 0.1133±0.0012                   | 2.918±0.109         | -2.86±0.02                  | 717.75            |         |
| $f_9$                  | 0.0817±0.0013                   | 2.295±0.092         | -2.44±0.02                  | 622.44            |         |
| $f_{10}$               | 2.6457±0.0013                   | 2.314±0.096         | -2.89±0.02                  | 586.78            |         |
| $f_{11}$               | 1.2505±0.0013                   | 3.179±0.131         | 0.64±0.02                   | 587.99            |         |
| $f_{12}$               | 1.4846±0.0014                   | 2.315±0.103         | -2.37±0.02                  | 510.02            |         |
| $f_{13}$               | 2.7202±0.0016                   | 1.525±0.079         | -3.02±0.02                  | 375.99            |         |
| $f_{14}$               | 0.0544±0.0017                   | 1.677±0.089         | -3.05±0.02                  | 355.82            |         |
| $f_{15}$               | 0.1771±0.0015                   | 1.735±0.085         | 0.14±0.02                   | 412.93            |         |
| $f_{16}$               | 1.3208±0.0015                   | 2.010±0.099         | -1.14±0.02                  | 413.32            |         |
| $f_{17}$               | 1.1060±0.0018                   | 1.331±0.075         | 2.65±0.03                   | 318.45            |         |
| $f_{18}$               | 0.7981±0.0019                   | 1.296±0.078         | 0.24±0.03                   | 278.09            |         |
| $f_{19}$               | 1.3483±0.0020                   | 1.097±0.069         | -0.98±0.03                  | 256.15            |         |
| $f_{20}$               | 2.7667±0.0019                   | 1.195±0.074         | 2.42±0.03                   | 262.42            |         |
| $f_{21}$               | 0.1389±0.0021                   | 1.294±0.085         | -2.80±0.03                  | 233.38            |         |
| $f_{22}$               | 1.0267±0.0021                   | 1.084±0.072         | -1.45±0.03                  | 227.13            |         |
| $f_{23}$               | 2.6757±0.0021                   | 1.164±0.078         | 2.73±0.03                   | 221.72            |         |
| $f_{24}$               | 2.5284±0.0024                   | 0.835±0.064         | 1.91±0.04                   | 170.60            |         |
| $f_{25}$               | 0.3726±0.0025                   | 0.890±0.070         | 0.39±0.04                   | 161.82            |         |
| $f_{26}$               | 2.6018±0.0025                   | 1.095±0.087         | 2.50±0.04                   | 157.86            |         |
| $f_{27}$               | 2.4887±0.0026                   | 0.888±0.074         | 2.86±0.04                   | 145.78            |         |
| $f_{28}$               | 1.4108±0.0027                   | 1.018±0.086         | -2.29±0.04                  | 140.32            |         |
| $f_{29}$               | 1.5493±0.0025                   | 0.689±0.054         | 1.18±0.04                   | 163.94            |         |
| $f_{30}$               | 0.6511±0.0027                   | 0.981±0.085         | -0.14±0.04                  | 132.38            |         |
| $f_{31}$               | 1.4549±0.0030                   | 0.614±0.058         | 0.21±0.04                   | 111.39            |         |
| $f_{32}$               | 0.5767±0.0031                   | 0.782±0.077         | 2.19±0.05                   | 102.79            |         |
| $f_{33}$               | 1.1357±0.0031                   | 0.471±0.047         | 2.06±0.05                   | 99.83             |         |
| $f_{34}$               | 0.6110±0.0032                   | 0.785±0.080         | 0.71±0.05                   | 96.75             |         |
| $f_{35}$               | 1.6020±0.0034                   | 0.467±0.051         | -0.14±0.05                  | 83.83             |         |
| $f_{36}$               | 2.2810±0.0034                   | 0.670±0.073         | 2.82±0.05                   | 83.22             |         |
| $f_{37}$               | 1.9510±0.0036                   | 0.606±0.069         | -0.05±0.05                  | 77.33             |         |
| $f_{38}$               | 2.8200±0.0036                   | 0.704±0.080         | 2.86±0.05                   | 77.99             |         |
| $f_{39}$               | 0.2574±0.0036                   | 0.681±0.077         | -3.10±0.05                  | 78.06             |         |
| $f_{40}$               | 0.7405±0.0035                   | 0.734±0.081         | -0.44±0.05                  | 81.32             |         |
| $f_{41}$               | 2.5691±0.0038                   | 0.537±0.065         | -2.39±0.06                  | 69.06             |         |
| $f_{42}$               | 0.0262±0.0040                   | 0.530±0.068         | -1.93±0.06                  | 61.07             |         |
| $f_{43}$               | 0.2189±0.0043                   | 0.496±0.068         | 1.98±0.06                   | 53.35             |         |
| $f_{44}$               | 2.1339±0.0043                   | 0.646±0.089         | 1.59±0.06                   | 53.20             |         |
| $f_{45}$               | 0.4125±0.0042                   | 0.350±0.047         | -1.51±0.06                  | 55.99             |         |
| $f_{46}$               | 0.3123±0.0043                   | 0.523±0.071         | 1.52±0.06                   | 53.82             |         |
| $f_{47}$               | 0.9257±0.0044                   | 0.477±0.067         | -2.06±0.07                  | 50.03             |         |
| $f_{48}$               | 1.6705±0.0046                   | 0.399±0.058         | -0.75±0.07                  | 47.23             |         |
| $f_{49}$               | 0.7676±0.0046                   | 0.325±0.048         | -2.52±0.07                  | 45.90             |         |
| $f_{50}$               | 2.9979±0.0048                   | 0.443±0.067         | 2.76±0.07                   | 43.56             |         |
| $f_{51}$               | 1.0953±0.0048                   | 0.509±0.078         | 0.11±0.07                   | 42.48             |         |
| Continued on next page |                                 |                     |                             |                   |         |

Table 3.6 – continued from previous page

| Label                  | Frequency<br>[d <sup>-1</sup> ] | Amplitude<br>[mmag] | Phase<br>[- $\pi$ , $\pi$ ] | Signifi-<br>cance | Comment |
|------------------------|---------------------------------|---------------------|-----------------------------|-------------------|---------|
| $f_{52}$               | 2.2459±0.0051                   | 0.249±0.040         | -1.08±0.08                  | 38.25             |         |
| $f_{53}$               | 1.9109±0.0052                   | 0.448±0.074         | -1.69±0.08                  | 36.80             |         |
| $f_{54}$               | 1.8683±0.0051                   | 0.529±0.086         | -2.46±0.08                  | 38.04             |         |
| $f_{55}$               | 2.7870±0.0051                   | 0.315±0.051         | -1.85±0.08                  | 37.54             |         |
| $f_{56}$               | 0.5383±0.0052                   | 0.430±0.071         | 1.23±0.08                   | 36.69             |         |
| $f_{57}$               | 1.1861±0.0051                   | 0.436±0.071         | 0.52±0.08                   | 37.43             |         |
| $f_{58}$               | 2.0620±0.0053                   | 0.299±0.050         | -1.19±0.08                  | 35.69             |         |
| $f_{59}$               | 1.7220±0.0053                   | 0.419±0.070         | -2.03±0.08                  | 35.65             |         |
| $f_{60}$               | 3.2340±0.0054                   | 0.277±0.048         | -2.15±0.08                  | 33.55             |         |
| $f_{61}$               | 2.8893±0.0061                   | 0.310±0.060         | 0.82±0.09                   | 26.86             |         |
| $f_{62}$               | 2.7433±0.0062                   | 0.353±0.069         | -0.16±0.09                  | 25.99             |         |
| $f_{63}$               | 0.4824±0.0062                   | 0.255±0.051         | -2.24±0.09                  | 25.35             |         |
| $f_{64}$               | 2.0305±0.0062                   | 0.269±0.053         | 2.36±0.09                   | 25.66             |         |
| $f_{65}$               | 0.9615±0.0063                   | 0.334±0.067         | -2.93±0.09                  | 25.07             |         |
| $f_{66}$               | 0.8910±0.0062                   | 0.327±0.065         | 0.21±0.09                   | 25.36             |         |
| $f_{67}$               | 1.2427±0.0067                   | 0.270±0.058         | -0.04±0.10                  | 21.73             |         |
| $f_{68}$               | 2.1658±0.0071                   | 0.279±0.063         | -3.13±0.11                  | 19.58             |         |
| $f_{69}$               | 1.5158±0.0073                   | 0.226±0.053         | -2.38±0.11                  | 18.33             |         |
| $f_{70}$               | 1.0659±0.0072                   | 0.239±0.055         | 1.33±0.11                   | 18.84             |         |
| $f_{71}$               | 3.1825±0.0075                   | 0.269±0.064         | -0.54±0.11                  | 17.57             |         |
| $f_{72}$               | 3.2646±0.0070                   | 0.299±0.067         | 3.09±0.10                   | 19.87             |         |
| $f_{73}$               | 3.0374±0.0071                   | 0.180±0.041         | -1.66±0.11                  | 19.60             |         |
| $f_{74}$               | 2.4135±0.0077                   | 0.229±0.056         | 1.87±0.11                   | 16.75             |         |
| $f_{75}$               | 0.8070±0.0078                   | 0.203±0.051         | 2.41±0.12                   | 16.06             |         |
| $f_{76}$               | 2.7112±0.0077                   | 0.215±0.052         | 0.68±0.11                   | 16.82             |         |
| $f_{77}$               | 3.8671±0.0084                   | 0.253±0.068         | -0.13±0.13                  | 13.88             |         |
| $f_{78}$               | 4.0920±0.0083                   | 0.199±0.053         | -2.32±0.12                  | 14.32             |         |
| $f_{79}$               | 3.6002±0.0083                   | 0.233±0.062         | -1.63±0.12                  | 14.35             |         |
| $f_{80}$               | 3.5353±0.0090                   | 0.218±0.062         | 1.82±0.13                   | 12.25             |         |
| $f_{81}$               | 3.3467±0.0089                   | 0.245±0.069         | -1.19±0.13                  | 12.50             |         |
| $f_{82}$               | 0.4382±0.0091                   | 0.284±0.082         | -1.36±0.13                  | 11.98             |         |
| $f_{83}$               | 0.1575±0.0089                   | 0.297±0.084         | 1.89±0.13                   | 12.37             |         |
| $f_{84}$               | 1.7777±0.0090                   | 0.238±0.068         | -0.36±0.13                  | 12.24             |         |
| $f_{85}$               | 0.8633±0.0087                   | 0.261±0.072         | 2.69±0.13                   | 13.02             |         |
| $f_{86}$               | 4.2484±0.0090                   | 0.176±0.050         | 2.33±0.13                   | 12.20             |         |
| $f_{87}$               | 3.4226±0.0090                   | 0.207±0.059         | -0.25±0.13                  | 12.20             |         |
| $f_{88}$               | 3.8303±0.0094                   | 0.195±0.058         | -0.60±0.14                  | 11.23             |         |
| $f_{89}$               | 2.3276±0.0094                   | 0.202±0.061         | 0.19±0.14                   | 11.14             |         |
| $f_{90}$               | 0.8319±0.0099                   | 0.167±0.053         | -1.24±0.15                  | 9.99              |         |
| $f_{91}$               | 2.8579±0.0108                   | 0.181±0.062         | -0.50±0.16                  | 8.47              |         |
| $f_{92}$               | 3.4839±0.0106                   | 0.177±0.060         | -1.33±0.16                  | 8.71              |         |
| $f_{93}$               | 0.2328±0.0107                   | 0.141±0.048         | 2.14±0.16                   | 8.58              |         |
| $f_{94}$               | 4.0240±0.0110                   | 0.198±0.069         | 1.98±0.16                   | 8.16              |         |
| $f_{95}$               | 3.6699±0.0110                   | 0.199±0.070         | -3.12±0.16                  | 8.15              |         |
| $f_{96}$               | 0.6365±0.0114                   | 0.270±0.098         | 0.81±0.17                   | 7.61              |         |
| $f_{97}$               | 1.8180±0.0114                   | 0.186±0.067         | -2.31±0.17                  | 7.63              |         |
| $f_{98}$               | 2.1950±0.0121                   | 0.151±0.058         | -0.94±0.18                  | 6.71              |         |
| $f_{99}$               | 1.9848±0.0129                   | 0.152±0.062         | 2.52±0.19                   | 5.93              |         |
| Continued on next page |                                 |                     |                             |                   |         |

Table 3.6 – continued from previous page

| Label     | Frequency<br>[d <sup>-1</sup> ] | Amplitude<br>[mmag] | Phase<br>[- $\pi$ , $\pi$ ] | Signifi-<br>cance | Comment |
|-----------|---------------------------------|---------------------|-----------------------------|-------------------|---------|
| $f_{100}$ | 1.0472±0.0126                   | 0.157±0.063         | 0.80±0.19                   | 6.17              |         |
| $f_{101}$ | 2.1233±0.0131                   | 0.147±0.061         | -1.67±0.19                  | 5.77              |         |
| $f_{102}$ | 2.9743±0.0131                   | 0.159±0.067         | -1.51±0.20                  | 5.71              |         |
| $f_{103}$ | 3.7890±0.0136                   | 0.138±0.060         | 3.07±0.20                   | 5.30              |         |
| $f_{104}$ | 4.1765±0.0137                   | 0.125±0.055         | 1.71±0.20                   | 5.22              |         |

## Summary

The frequency analyses of both Praesepe stars showed that HD 73449 is a complicated case, where two  $p$  modes may excite a combination frequency that is of nearly the same amplitude. In this case it is not clear which frequency is the combination frequency. The amplitudes of the dominating  $p$  modes may be underestimated due to the vicinity to the MOST orbit frequency. This may result in a damping of their amplitudes due to the data reduction. The coincidence may be as well coincidental and to resolve this issue long time base observations would be needed to yield high frequency resolution.

HD 73854 is a  $\gamma$  Dor star just outside the  $\delta$  Sct IS with high amplitude  $g$  mode pulsation. No evidence for  $p$  mode pulsation was found. Seven  $g$  modes form a sequence of equidistantly spaced modes but their spacing is in between the expected spacings of  $\ell = 1$  and  $\ell = 2$  modes.

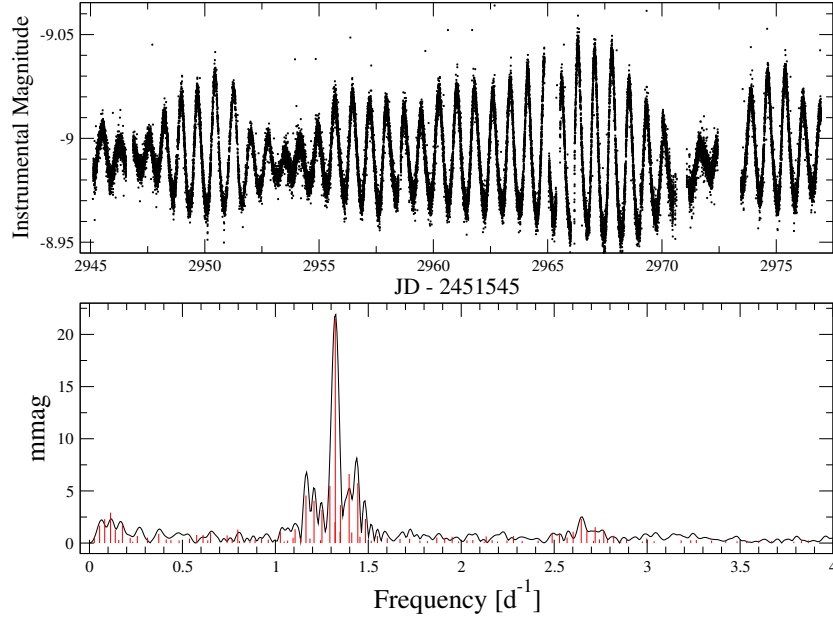


**Figure 3.8:** MOST light curve (top panel) and DFT spectrum (bottom panel) of the  $\gamma$  Dor star HD 73854. The vertical lines indicate the formally significant frequencies.

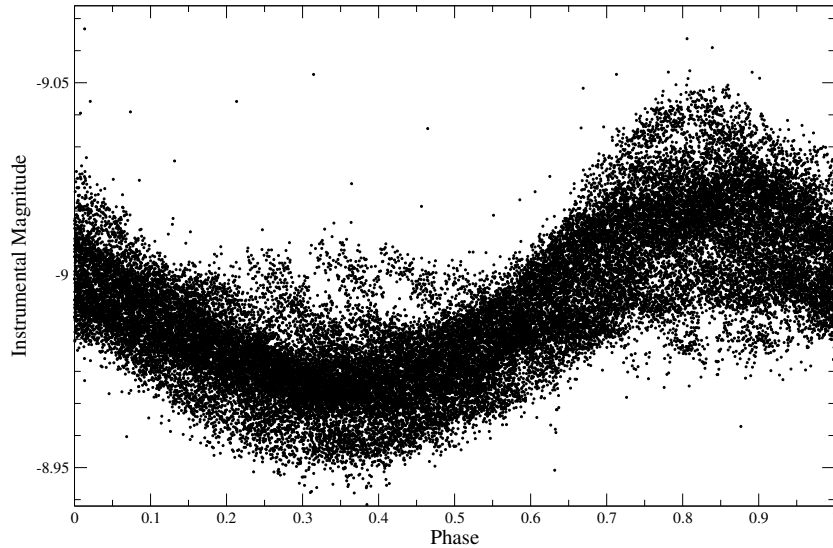


**Figure 3.9:** Phase diagram of HD 73854 phased with the dominant mode.

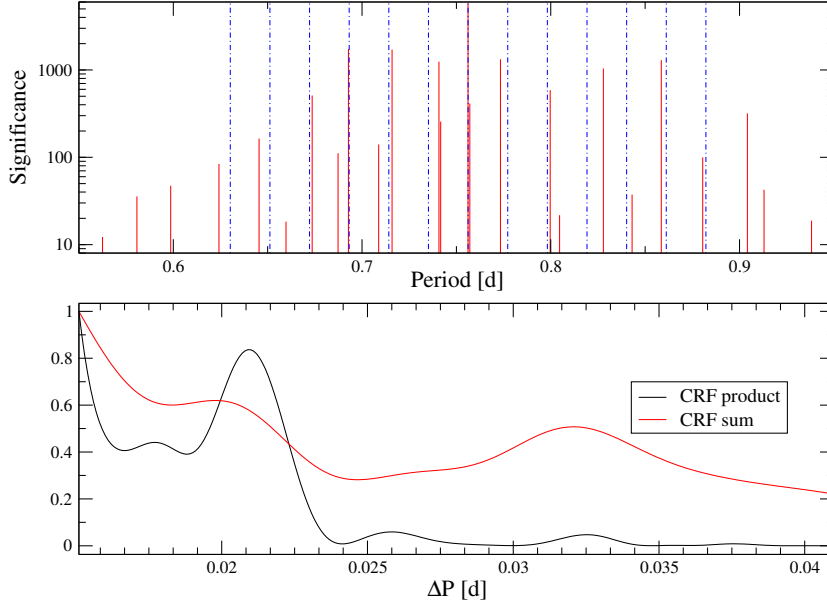


**Figure 3.10:** Top panel: Periods and average period spacing (vertical red full lines and dash dotted blue lines, respectively). Bottom panel: Results of the modified CRF method for detecting period spacings.

### 3.5 Conclusion

The detailed frequency analyses of these five individual stars showed that four stars (HD 49862, HD 114839, BD +18 4914, and HD 73449) are indeed hybrid stars, while the search for  $p$  modes in the  $\gamma$  Dor star HD 73854 resulted in no detection of low-amplitude  $p$  modes. Combination modes were detected but cannot explain all modes in the  $g$  mode regime of these four hybrid stars. Thus, the hybrid nature of these stars is well established while HD 73854 is a pure  $\gamma$  Dor star unless  $p$  modes are masked by the MOST orbit artefacts.





# Chapter 4

## Abundance Analyses

The abundance analysis of two hybrid pulsators was part of the PhD project and it was published in Hareter et al. (2011).

For this paper I performed the data reduction, parameter determination and the abundance analysis under the supervision of L. Fossati. I wrote the whole paper except for Sect. 5. I produced all figures and tables. The paper is reproduced by permission of the AAS.

### Summary of the Results

The abundance analysis was performed for two hybrid stars, which were previously classified as Am candidates. This analysis was done to infer insights on the connection of chemical anomalies and pulsation. The first star which was discovered as hybrid pulsator reported by Henry & Fekel (2005) was an Am star and the pulsation spectra of HD 114839, BD +18 4914, and HD 8801 are similar. Am stars are characterised by underabundances of Ca, Sc and overabundances of heavy elements. Hence, spectral classifications of Am stars result in different spectral types when using the Ca K line, the hydrogen lines and metallic lines for classification. The diffusion theory (Michaud 1970; Turcotte et al. 2000) is able to explain the observed surface abundances. The  $v \sin i$  of both stars ( $68 \pm 2 \text{ kms}^{-1}$  for HD 114839 and  $38 \pm 2 \text{ kms}^{-1}$  for BD +18 4914) is consistent with Am type stars from literature. Rapid rotation induces rotational mixing and can remove peculiar surface abundances.

The analysis, which was published in Hareter et al. (2011), discovered BD +18 4914 to be a Am star with clear underabundances of Ca and Sc, while the star HD 114839 shows normal chemical abundances within our errors. The analysis included 4 SOPHIE spectra and 2 HARPS spectra for HD 114839 and 2 SOPHIE and one HARPS spectrum for BD +18 4914. The radial velocities were in good agreement for HD 114839 making the existence of a binary component rather unlikely, while for BD +18 4914 a slight deviation of the RV was discovered. Since deviations of approximately  $5 \text{ kms}^{-1}$

may be explained by pulsation (Mathias et al. 2004) the single star hypothesis is still acceptable.

HD 114839 shows an Li line which is consistent with an abundance of -9.8, which is more than one dex stronger as for the sun. Hence, HD 114839 is likely a rather young star, while no Li line is visible for BD +18 4914, which is consistent with a more evolved star.

This investigation showed that the hybrid pulsation phenomenon is not connected to Am type chemical peculiarities, because HD 114839 did not show this type of abundance pattern. Notably, most known Am stars are components of binaries, while HD 8801 Henry & Fekel (2005) and both of the program stars are probably single stars.

# LOOKING FOR A CONNECTION BETWEEN THE Am PHENOMENON AND HYBRID $\delta$ Sct– $\gamma$ Dor PULSATION: DETERMINATION OF THE FUNDAMENTAL PARAMETERS AND ABUNDANCES OF HD 114839 AND BD +18 4914\*

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## ABSTRACT

$\delta$  Sct– $\gamma$  Dor hybrids pulsate simultaneously in  $p$ - and  $g$ -modes, which carry information on the structure of the envelope as well as to the core. Hence, they are key objects for investigating A and F type stars with asteroseismic techniques. An important requirement for seismic modeling is small errors in temperature, gravity, and chemical composition. Furthermore, we want to investigate the existence of an abundance indicator typical for hybrids, something that is well established for the roAp stars. Previous to the present investigation, the abundance pattern of only one hybrid and another hybrid candidate has been published. We obtained high-resolution spectra of HD 114839 and BD +18 4914 using the SOPHIE spectrograph of the Observatoire de Haute-Provence and the HARPS spectrograph at ESO La Silla. For each star we determined fundamental parameters and photospheric abundances of 16 chemical elements by comparing synthetic spectra with the observations. We compare our results to that of seven  $\delta$  Sct and nine  $\gamma$  Dor stars. For the evolved BD +18 4914 we found an abundance pattern typical for an Am star, but could not confirm this peculiarity for the less evolved star HD 114839, which is classified in the literature as uncertain Am star. Our result supports the concept of evolved Am stars being unstable. With our investigation we nearly doubled the number of spectroscopically analyzed  $\delta$  Sct– $\gamma$  Dor hybrid stars, but did not yet succeed in identifying a spectroscopic signature for this group of pulsating stars. A statistically significant spectroscopic investigation of  $\delta$  Sct– $\gamma$  Dor hybrid stars is still missing, but would be rewarding considering the asteroseismological potential of this group.

**Key words:** stars: abundances – stars: individual (BD +18 4914, HD 114839) – stars: variables: delta Scuti – techniques: spectroscopic

**Online-only material:** color figures

## 1. INTRODUCTION

$\delta$  Sct stars are main sequence or evolved stars (up to luminosity class III), which pulsate in low-order radial and non-radial  $p$ -modes with typical pulsation frequencies of 5 to 50 d<sup>−1</sup>. They occupy the lower Cepheid instability strip extended toward the main sequence (see Breger 2000 for a detailed review). The class of  $\gamma$  Dor stars was defined in 1999 by Kaye et al. (1999) and, in contrast to  $\delta$  Sct stars, they pulsate in high-order  $g$ -modes with typical frequencies of 0.3 to 3 d<sup>−1</sup>. The instability strip of  $\gamma$  Dor stars is rather narrow and partly overlaps the larger  $\delta$  Sct instability strip. Given the overlap between the  $\delta$  Sct and  $\gamma$  Dor instability strips, a search for hybrid pulsators began in the last few years, which was driven by the fact that  $p$ -modes are sensitive to the envelope, whereas  $g$ -modes are sensitive to the core. Hence, hybrids are key objects for testing stellar models from core to the photosphere with asteroseismic techniques.

The space missions MOST (Microvariability and Oscillation of STars; Walker et al. 2003), CoRoT (CONvection, ROTation, and planetary Transits; Baglin et al. 2006), and Kepler (Borucki et al. 2010) increased the number of known hybrid stars significantly, because observations of low-frequency pulsation

with low amplitudes are easier from space (see, e.g., King et al. 2006; Rowe et al. 2006; Hareter et al. 2010; Grigahcène et al. 2010; Uytterhoeven et al. 2011).

Am stars are chemical peculiar early F- to A-type stars, characterized by an underabundance of C, N, O, Ca, and Sc, as well as by a general overabundance of Fe-peak and Rare Earth Elements. Am stars do not host large-scale magnetic fields (Aurière et al. 2010) and are often in binary systems (see, e.g., recent review by Iliev & Budaj 2008, and references therein). Compared to the vast majority of the chemically normal stars of the same temperature, Am stars are slow rotators, allowing diffusion processes to produce the chemical peculiarities (Michaud 1970).

The aim of this work is to investigate a potential link between chemical peculiarities such as metallic line A/F stars to the hybrid pulsation. Furthermore, we intend to provide accurate fundamental parameters of our two stars for further modeling of this type of pulsator.

With HD 8801 Henry & Fekel (2005) discovered the first  $\delta$  Sct– $\gamma$  Dor hybrid. Based on the Ca K line intensity relative to hydrogen and metallic lines they classified HD 8801 as an Am star. Hence, it was obvious to check if the two  $\delta$  Sct– $\gamma$  Dor hybrids discovered by Rowe et al. (2006, HD 114839) and by King et al. (2006, BD +18 4914) with MOST photometry share this chemical peculiarity.

\* Based on observations made at the Observatoire de Haute-Provence and with HARPS at the 3.6 m ESO telescope under the Large Programme LP185.D-0056.

HD 114839 (R.A.:  $13^{\text{h}}12^{\text{m}}47^{\text{s}}.43$  and decl.:  $+26^{\circ}52'52''.19$ , epoch 2000;  $V = 8.46$  mag) was classified by Hill et al. (1976) and Clausen & Jensen (1979) as an uncertain Am star. Pribulla et al. (2009) analyzed two spectra obtained at the David Dunlap Observatory in the spectral region of the Mg I triplet at  $\lambda\lambda \sim 5167, 5173$ , and  $5184 \text{ \AA}$ , from which they deduced that HD 114839 is a metallic line star of spectral type F4/5. They measured a  $v \sin i$  of  $70 \text{ km s}^{-1}$ , low enough to allow HD 114839 to be an Am star (Charbonneau & Michaud 1991). BD +18 4914 (R.A.:  $22^{\text{h}}02^{\text{m}}37^{\text{s}}.70$  and decl.:  $+18^{\circ}54'02''.62$ , epoch 2000) is a fainter star ( $V = 10.6$  mag), for which the MOST photometry (Rowe et al. 2006) showed clearly two distinct groups of frequencies. This star was also included in the survey by Pribulla et al. (2009), who derived a spectral type of F5/6 and a  $v \sin i$  of  $40 \text{ km s}^{-1}$ .

As a side comment we want to mention HD 49434, for which a ground-based photometric and spectroscopic campaign was organized and published by Uytterhoeven et al. (2008). However, the hybrid nature of this star has not yet been established beyond doubt, because this star might rotate fast and a spread of frequencies over a larger range may mimic hybrid characteristics. The abundance analysis for this star did not show significant peculiarities.

## 2. OBSERVATIONS AND DATA REDUCTION

Four spectra of HD 114839 were obtained between 2008 April 13 and May 2, while two spectra of BD +18 4914 were obtained in 2008 August 7 and 8 with the SOPHIE spectrograph.

SOPHIE is a cross-dispersed échelle spectrograph mounted at the 1.93 m telescope of the Observatoire de Haute-Provence (OHP). The spectra cover the wavelength range of  $3872\text{--}6943 \text{ \AA}$  without gaps and we used it in the medium spectral resolution ( $R \sim 40,000$ ) mode.

The orders of the individual SOPHIE spectra were averaged, the blaze function removed, and the individual orders merged to a single spectrum. The lowest quality spectrum of HD 114839 was ignored in this process. The removal of the blaze function containing hydrogen lines (HD 114839 and BD +18 4914 in our case) and the subsequent continuum normalization is a challenge for spectra obtained with échelle spectrographs, because for A to F stars these lines extend over adjacent orders. We corrected for the blaze function of orders containing the hydrogen lines by using the artificial flat-fielding technique described, e.g., by Barklem et al. (2002). This approach assumes that the blaze shape of the different échelle orders change smoothly with the order number and one can reconstruct missing blaze shapes by fitting polynomials to continuum points identified in several adjacent orders blue- and redward of the hydrogen line containing order. A two-dimensional polynomial surface is fitted to these empirical blaze functions and the blaze in the orders containing the hydrogen lines is determined by interpolation. The accuracy of this technique is confirmed by an excellent agreement of the normalized hydrogen lines obtained with SOPHIE and HARPS spectrographs (see Figure 1) having a clearly different blaze characteristic and different position of the hydrogen lines within the orders.

The  $v \sin i$  of the two stars ( $\sim 70$  and  $40 \text{ km s}^{-1}$ ) makes the continuum normalization a critical step of the reduction procedure. We normalized the combined, blaze removed orders without the use of any automatic continuum fitting procedure and by comparing with suited synthetic spectra. For wavelengths shorter than the  $H_{\gamma}$  line it was not possible to determine

**Table 1**  
Observing Log of the SOPHIE and HARPS Observations with Measured Radial Velocity Values and the Errors

| Star Name      | BJD – 2450000 | S/N | Exp. Time (s) | $v_r$ ( $\text{km s}^{-1}$ ) | $\sigma_{v_r}$ ( $\text{km s}^{-1}$ ) |
|----------------|---------------|-----|---------------|------------------------------|---------------------------------------|
| <i>SOPHIE:</i> |               |     |               |                              |                                       |
| HD 114839      | 4570.48314    | 72  | 1500          | −7.5                         | 3.6                                   |
| HD 114839      | 4571.46797    | 114 | 1500          | −7.4                         | 2.7                                   |
| HD 114839      | 4573.62490    | 44  | 1500          | −7.4                         | 3.2                                   |
| HD 114839      | 4589.51983    | 111 | 1500          | −8.0                         | 2.6                                   |
| BD +18 4914    | 4685.53476    | 50  | 2400          | −42.3                        | 1.4                                   |
| BD +18 4914    | 4686.45132    | 51  | 2400          | −42.8                        | 1.6                                   |
| <i>HARPS:</i>  |               |     |               |                              |                                       |
| HD 114839      | 5368.55188    | 198 | 2400          | −8.2                         | 2.5                                   |
| HD 114839      | 5369.53145    | 127 | 2400          | −7.0                         | 2.2                                   |
| BD +18 4914    | 5379.92632    | 92  | 2500          | −47.0                        | 0.9                                   |

**Notes.** The S/N per pixel are calculated at  $\sim 5800 \text{ \AA}$ . Exposure times are given in seconds. BJD indicates the Barycentric Julian Date at the middle of the exposure.

the correct level of the continuum, as there were not enough continuum windows in the spectrum at these wavelengths due to the strong line blending. Therefore, we did not include this part of the spectrum in our analysis. Finally, we obtained a signal-to-noise ratio (S/N) per pixel of 121 at  $\sim 5800 \text{ \AA}$  for HD 114839 and of 56 for BD +18 4914.

Two spectra of HD 114839 were obtained with HARPS two years later on 2010 June 21 and 22, and one of BD +18 4914 in the same year on July 2, in the framework of a program complementary to the extensive monitoring of the hybrid  $\delta$  Sct -  $\gamma$  Dor variables observed with the CoRoT satellite. We processed the HARPS data in a manner similar to the SOPHIE spectra and achieved an S/N per wavelength pixel for HD 114839 of 200 at  $\sim 5800 \text{ \AA}$  and for BD +18 4914 of 92. The HARPS spectra were obtained in the EGGS mode, which delivers a resolution of 80,000.

Table 1 presents the observing log with our measured stellar radial velocities ( $v_r$ ). The star BD +18 4914 might be the primary star in a binary system, given the difference in  $v_r$  obtained between the SOPHIE and HARPS spectra in 2008 and 2010. However, from ground-based observations (Mathias et al. 2004) it is known that  $\gamma$  Dor stars may show significant RV variations due to pulsation. None of our spectra shows spectral lines from a secondary, hence the assumption of a single star or a single-lined binary is justified.

## 3. PARAMETER DETERMINATION AND ABUNDANCE ANALYSIS

To compute model atmospheres we employed a modified version of ATLAS9 (Kurucz 1993), which uses a model of convection based on Canuto & Mazzitelli (1991, 1992). More details can be found in Heiter et al. (2002). The initial atmospheric parameters for HD 114839 were derived from Strömgren photometry by Hauck & Mermilliod (1998) employing the calibration by Balona (1994). We obtained  $T_{\text{eff}} = 7400 \text{ K}$  and  $\log g = 4.20$ . For BD +18 4914 no narrowband photometry was available. Based on a comparison of the spectra we decided to use the same parameters as those used for HD 114839.

In the temperature range of HD 114839 and BD +18 4914, the hydrogen line wings are sensitive to  $T_{\text{eff}}$ , making them very good temperature indicators. We fitted synthetic hydrogen line profiles, calculated with SYNTH3 (Kochukhov 2007), to the

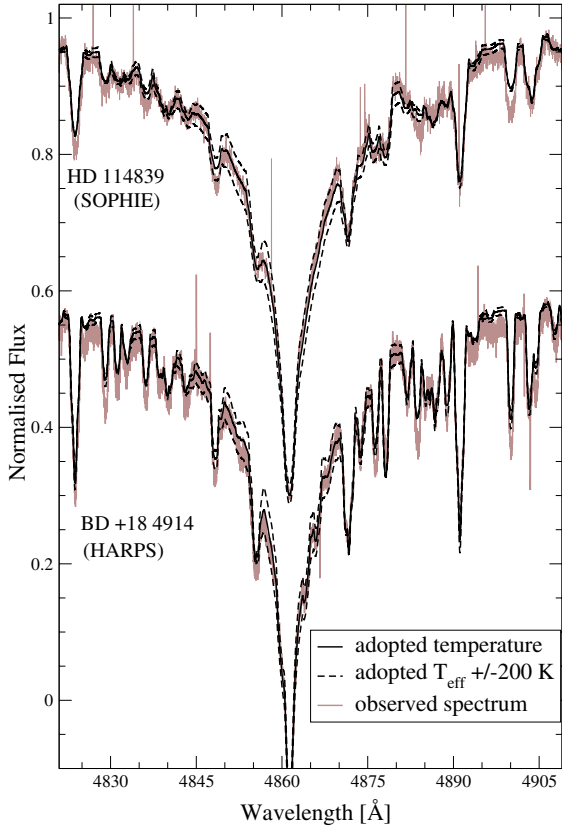


**Figure 1.** Comparison of the  $H\beta$  line profiles (wide gray solid lines) to synthetic profiles calculated with the final adopted  $T_{\text{eff}}$  (solid lines), and uncertainty (dashed lines).

(A color version of this figure is available in the online journal.)

observations. Figure 1 shows the comparison of the observed (SOPHIE for HD 114839, top, and HARPS for BD +18 4914, bottom)  $H\beta$  line profiles for the two stars with synthetic profiles calculated with the stellar  $T_{\text{eff}}$  value of 7100 K for HD 114839 and 6900 K for BD +18 4914. We also show synthetic line profiles calculated with a  $T_{\text{eff}}$  differing by  $1\sigma$  ( $\pm 200$  K).

The Fe I and Fe II excitation equilibrium confirms the  $T_{\text{eff}}$  obtained from the hydrogen line fitting. The atomic line parameters were obtained from the VALD database (Piskunov et al. 1995; Kupka et al. 1999; Ryabchikova et al. 1999). By requiring ionization equilibrium for Fe I and Fe II we derived  $\log g$  values of  $4.0 \pm 0.2$  and  $3.8 \pm 0.2$  for HD 114839 and BD +18 4914, respectively.

Van Leeuwen (2007) reported for HD 114839 a parallax of  $6.24 \pm 0.85$  mas, which puts the star at a distance between 140 and 185 pc. The bolometric correction of 0.033 (see Flower 1996) was neglected, because the uncertainty of the parallax plays a much larger role. From this distance and making use of isochrones by Marigo et al. (2008) (see Section 5), we derived a stellar gravity of  $4.00^{+0.14}_{-0.12}$ , in agreement with what we obtained by imposing the ionization equilibrium.

The median radial velocities and  $v \sin i$  values were derived from fitting synthetic spectral lines to observed profiles. Our measured  $v_r$  values are listed in Table 1 and we obtained  $v \sin i$  values of  $68 \pm 2$  km s $^{-1}$  and  $38 \pm 2$  km s $^{-1}$ , respectively, for HD 114839 and BD +18 4914.

Due to the rather high  $v \sin i$  of both stars, it was not possible to reliably measure equivalent widths for the metallic lines. Therefore, we derived the line abundances by line core fitting

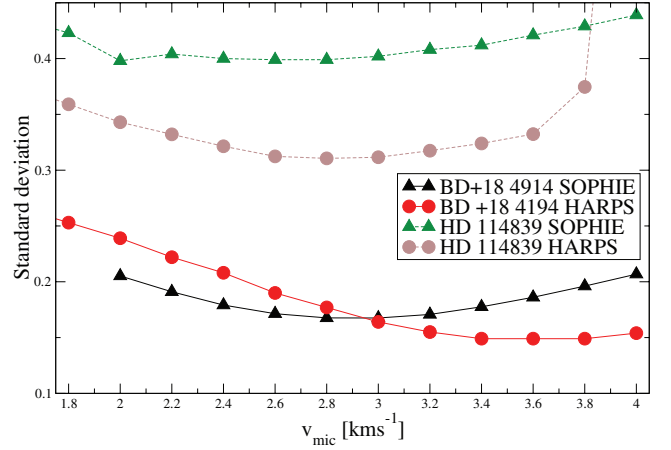


**Figure 2.** Variation of the standard deviation from the mean Fe abundance of both stars as a function of  $v_{\text{mic}}$ , as obtained from the SOPHIE (triangles) and HARPS (circles) spectra. Dashed lines indicate measurements for HD 114839 (offset by 0.2 for better visibility), while full lines connect measurements for BD +18 4914.

(A color version of this figure is available in the online journal.)

in the same way as described by Fossati et al. (2008a). The microturbulence velocity was determined using only Fe lines, because the high  $v \sin i$  and rather low S/N did not allow us to measure enough lines of other elements. We derived the line abundances for the selected Fe lines at different  $v_{\text{mic}}$  values and plotted the standard deviation from the mean abundance as a function of  $v_{\text{mic}}$  (Figure 2). The minimum of this curve gives the  $v_{\text{mic}}$  value, which fits the observation best. From the SOPHIE spectra of HD 114839 and BD +18 4914 we derived  $v_{\text{mic}}$  of 2.6 and 2.9 km s $^{-1}$ , respectively, with an uncertainty of 0.7 km s $^{-1}$ , while from the HARPS spectra we derived  $v_{\text{mic}}$  of 2.8 and 3.6 km s $^{-1}$ , respectively, with an uncertainty of 0.7 km s $^{-1}$ . The values agree within the quoted errors; however, we remark that the HARPS spectra have a better S/N ratio.

The abundances we obtained for the two stars are listed in Tables 2 and 3. We also checked for rare Earth element overabundances, but none was found. Due to the presence of artifacts in the SOPHIE spectra at wavelengths close to the Li I line at  $\lambda 6707$  Å, we were not able to measure the Li abundance from these spectra. The analysis of the Li line was done with the HARPS spectra.

The uncertainty of  $T_{\text{eff}}$  was derived directly from hydrogen line fitting with  $\sigma_{T_{\text{eff}}}$  of 200 K for both stars. Due to the rather low  $T_{\text{eff}}$  and high  $v \sin i$  of the two stars, only a few Fe II lines could be measured compared to Fe I lines resulting in a  $\sigma_{\log g}$  of 0.2. A smaller error for  $\log g$  was derived for HD 114839 using its parallax and evolutionary models as was described at the beginning of this section. Iron was the only element for which we were able to use enough lines of two ionization stages for determining  $\log g$ .

The abundance uncertainties listed in Tables 2 and 3 are the standard deviations of the mean abundances derived from the individual line abundances, which include also the errors from oscillator strengths and continuum normalization (Fossati et al. 2009). The standard deviations of the mean abundances underestimate the actual abundance uncertainty, since uncertainties of the fundamental parameters should also be taken into account. Table 4 displays the fundamental parameters of the two program stars. The error bars used for Figure 3 were computed from the

**Table 2**LTE Element Abundances, in  $\log(N/N_{\text{tot}})$ , for HD 114839 Determined from SOPHIE (Second Column) and HARPS (Third Column) Spectra

| Element | $\log(N/N_{\text{tot}})$ |                  |          |
|---------|--------------------------|------------------|----------|
|         | SOPHIE                   | HARPS            | Sun      |
| Li      | $\dots \ (\dots;0)$      | $-8.91(\dots;1)$ | $-10.99$ |
| C       | $-3.36(\dots;1)$         | $-3.36(\dots;1)$ | $-3.65$  |
| Na      | $-5.82(16;2)$            | $-5.68(11;2)$    | $-5.87$  |
| Mg      | $-4.44(27;9)$            | $-4.55(12;5)$    | $-4.51$  |
| Si      | $-4.22(21;6)$            | $-4.37(23;8)$    | $-4.53$  |
| S       | $-4.60(\dots;1)$         | $-4.75(12;4)$    | $-4.90$  |
| Ca      | $-5.81(22;19)$           | $-5.81(12;12)$   | $-5.73$  |
| Sc      | $-9.11(27;6)$            | $-9.11(05;6)$    | $-8.99$  |
| Ti      | $-7.16(31;10)$           | $-7.10(34;9)$    | $-7.14$  |
| Cr      | $-6.37(21;15)$           | $-6.37(28;10)$   | $-6.40$  |
| Mn      | $-6.63(16;2)$            | $-6.75(01;2)$    | $-6.65$  |
| Fe      | $-4.57(13;79)$           | $-4.57(12;96)$   | $-4.59$  |
| Ni      | $-5.84(21;16)$           | $-5.78(22;16)$   | $-5.81$  |
| Zn      | $-8.04(23;2)$            | $-8.06(29;2)$    | $-7.44$  |
| Y       | $-9.45(21;3)$            | $-9.53(19;3)$    | $-9.83$  |
| Ba      | $-8.95(20;4)$            | $-9.00(06;3)$    | $-9.87$  |

**Notes.** The estimated internal errors in units of 0.01 dex and the number of lines measured for each element are given in parenthesis. For comparison, the last column shows the solar abundances by Asplund et al. (2005). Abundances obtained from just one line have no error ( $\dots; 1$ ).

**Table 3**

As in Table 2, but for BD +18 4914

| Element | $\log(N/N_{\text{tot}})$ |                     |          |
|---------|--------------------------|---------------------|----------|
|         | SOPHIE                   | HARPS               | Sun      |
| Li      | $\cdots \ (\cdots ;0)$   | $<-9.80(\cdots ;1)$ | $-10.99$ |
| C       | $-3.58(12;5)$            | $-3.60(15;3)$       | $-3.65$  |
| Na      | $-5.29(\cdots ;1)$       | $-5.43(04;2)$       | $-5.87$  |
| Mg      | $-4.69(17;6)$            | $-4.62(18;6)$       | $-4.51$  |
| Si      | $-4.15(13;7)$            | $-4.37(19;9)$       | $-4.53$  |
| S       | $-4.60(\cdots ;1)$       | $-4.60(09;4)$       | $-4.90$  |
| Ca      | $-6.19(21;15)$           | $-6.18(10;19)$      | $-5.73$  |
| Sc      | $-10.05(30;7)$           | $-10.18(38;4)$      | $-8.99$  |
| Ti      | $-7.20(28;18)$           | $-7.28(15;20)$      | $-7.14$  |
| Cr      | $-6.33(25;20)$           | $-6.40(18;21)$      | $-6.40$  |
| Mn      | $-6.69(18;8)$            | $-6.67(21;7)$       | $-6.65$  |
| Fe      | $-4.52(18;204)$          | $-4.53(15;110)$     | $-4.59$  |
| Ni      | $-5.53(18;25)$           | $-5.50(10;19)$      | $-5.81$  |
| Zn      | $-7.32(10;2)$            | $-7.43(01;2)$       | $-7.44$  |
| Y       | $-9.56(18;3)$            | $-9.56(07;5)$       | $-9.83$  |
| Ba      | $-9.57(08;2)$            | $-9.61(02;3)$       | $-9.87$  |

**Note.** The Li abundance is an upper limit.

**Table 4**

Final Parameters of the Program Stars

|             | $T_{\text{eff}}$<br>(K) | $\log g$<br>( $\text{cm s}^{-2}$ ) | $v_{\text{mic}}$<br>( $\text{km s}^{-1}$ ) | $v \sin i$<br>( $\text{km s}^{-1}$ ) |
|-------------|-------------------------|------------------------------------|--------------------------------------------|--------------------------------------|
| HD 114839   | $7100 \pm 200$          | $4.0 \pm 0.15$                     | $2.7 \pm 0.5$                              | $68 \pm 2$                           |
| BD +18 4914 | $6900 \pm 200$          | $3.8 \pm 0.20$                     | $3.2 \pm 0.7$                              | $38 \pm 2$                           |

square root of the sum of squared abundance changes resulting from varying fundamental parameters by  $1\sigma$ .

For iron, e.g., the abundance changes by 0.12 dex, if we change  $T_{\text{eff}}$  by  $1\sigma$  ( $= 200$  K). In the case of  $v_{\text{mic}}$  the abundance changes by 0.09 dex when changing  $v_{\text{mic}}$  by  $1\sigma$  ( $= 0.7$   $\text{km s}^{-1}$ ), while the uncertainty of  $\log g$  increases the abundance error only by 0.01 dex. All these uncertainties add up for the iron

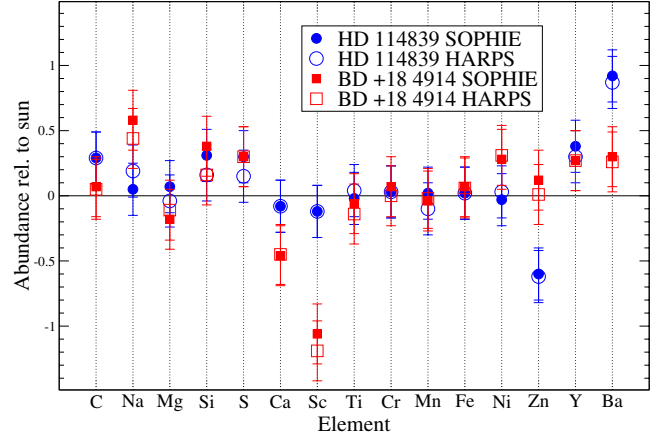


**Figure 3.** Comparison between the abundances relative to the Sun (Asplund et al. 2005) obtained for HD 114839 (circles) and BD +18 4914 (squares) and derived on the basis of the SOPHIE (full symbols) and HARPS (open symbols) spectra. The abundance error bars are explained in the text and are 0.20 dex for HD 114839 and 0.23 dex for BD +18 4914, respectively.

(A color version of this figure is available in the online journal.)

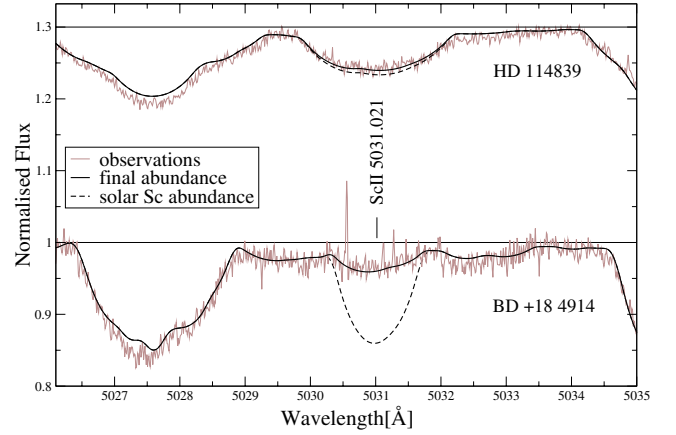


**Figure 4.** Observed SOPHIE spectrum of HD 114839 and HARPS spectrum of BD +18 4914 compared to synthetic spectra around the Sc II line at 5031 Å and of three iron lines at 5027.5 Å. The dashed line is for solar Sc abundance and the full lines are for the abundance derived by us. The spectra for HD 114839 are offset by 0.3 for better visibility.

(A color version of this figure is available in the online journal.)

abundance to 0.20 dex for HD 114839 and to 0.23 dex for BD +18 4914.

The results we obtained from the SOPHIE and HARPS spectra are in comfortably good agreement, confirming our continuum normalization, determination of the fundamental parameters and abundances, and their uncertainties, as shown in Figure 3. Note that the same lines have not always been selected for the same star observed with the two spectrographs.

#### 4. SPECTROSCOPIC CHARACTERISTICS OF HD 114839 AND BD +18 4914

Figure 4 shows the spectral region around the Sc II line at  $\lambda 5031$  Å and of three iron lines at 5027.5 Å for the two stars in comparison with synthetic spectra calculated once with the Sc solar abundance (dashed line) and a second time with the Sc abundance obtained individually for each star (full line). The star BD +18 4914 clearly shows a strong Sc underabundance, while HD 114839 presents a solar Sc abundance. This confirms



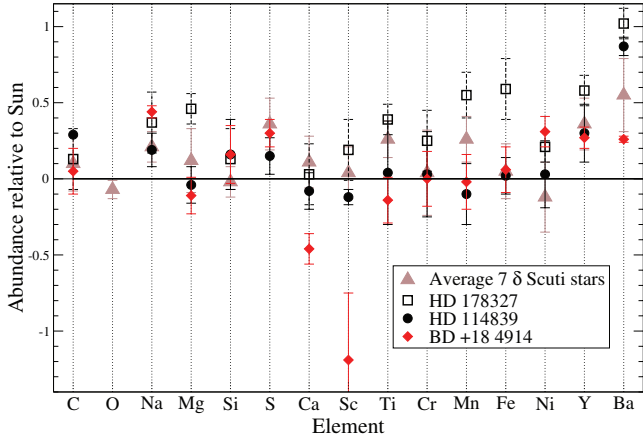


**Figure 5.** Mean abundances relative to the Sun of HD 114839 (filled circles) and of BD +18 4914 (filled rhombs), in comparison to the mean abundances of the sample of field  $\delta$  Sct stars (triangles) published by Fossati et al. (2008b) to HD 178327 (open squares) by Balona et al. (2011). The error bars correspond to the standard deviation of the mean abundance.

(A color version of this figure is available in the online journal.)

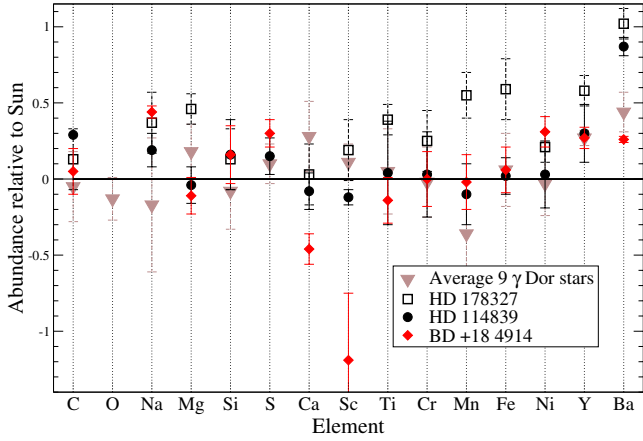


**Figure 6.** Same as Figure 5 but the results are compared to a sample of  $\gamma$  Dor stars (inverted triangles) published by Bruntt et al. (2008).

(A color version of this figure is available in the online journal.)

BD +18 4914 being an Am star, which is corroborated by the Ca underabundance and the significant overabundance of Ni and Y.

In Figures 5 and 6 we compare the abundances obtained for HD 114839 and BD +18 4914 with the average abundances published by Fossati et al. (2008b) for seven nearby field  $\delta$  Sct stars. This comparison is straightforward because parameters and abundances were obtained with similar methods and codes. We do not find any systematic difference between the mean abundances of the field  $\delta$  Sct stars and of HD 114839, while BD +18 4914 clearly shows its Am nature. Additionally, the results were compared to that of nine  $\gamma$  Dor stars obtained by Bruntt et al. (2008). These authors did not find any typical abundance pattern among  $\gamma$  Dor stars, however they found a larger scatter in the abundances compared to the reference stars. With a reanalysis of two reference stars used by Bruntt et al. (2008), Fossati et al. (2011) showed that the methodology for parameter determination adopted by Bruntt et al. (2008) led them to erroneous results. Consequently, the abundances of the nine  $\gamma$  Dor stars might not be reliable and conclusions from this comparison should be taken with caution.

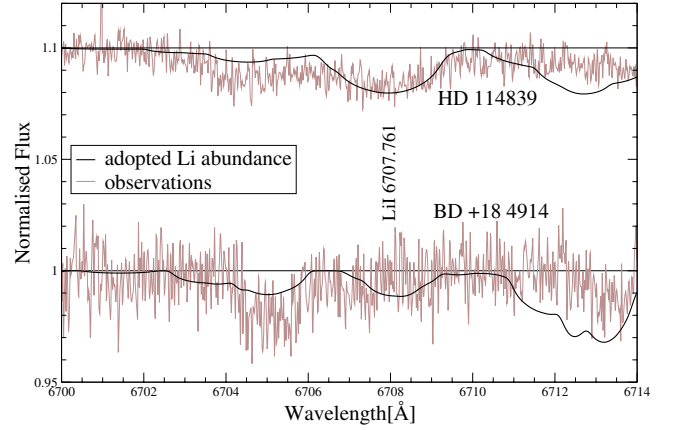


**Figure 7.** Top: observed HARPS spectrum of HD 114839 compared to the synthetic spectrum (full black line) computed with the Li abundance derived by us in the region of the Li I line at  $\lambda 6707$  Å. Bottom: same as top, but for BD +18 4914 and with the upper limit for the Li abundance. For better visibility the spectrum of HD 114839 is offset by +0.1.

(A color version of this figure is available in the online journal.)

Very recently, Balona et al. (2011) presented the analysis of 10 Am stars observed by *Kepler* of which HD 178327 shows hybrid pulsation. But with a mild overabundance of Ca and Sc, HD 178327 misses an important classification criterion for Am stars where the mentioned elements should be significantly underabundant. The abundances of 14 elements determined by Balona et al. (2011) for this hybrid star are included in our Figures 5 and 6, hence increasing the total number of hitherto spectroscopically investigated hybrid stars to five.

Figure 7 shows the HARPS spectra in the region of the Li line at  $\lambda 6707$  Å in comparison with a synthetic spectrum calculated with the Li abundance obtained for HD 114839 (top). For this star the Li line is clearly visible and leads to an abundance of  $-8.91$  dex. For BD +18 4914 (bottom) the Li line is not visible and we obtain an upper limit of  $-9.80$  dex. The synthetic spectrum for BD +18 4914 is computed with this abundance.

Burkhart et al. (2005) and Fossati et al. (2007) derived the Li abundance in a set of chemically normal A-type stars and compared it to Am stars, concluding that Am stars have a lower Li abundance compared to chemically normal A-type stars. The Li abundance we obtained for HD 114839 and BD +18 4914 reproduces this pattern and strengthens our classification of HD 114839 as a chemically normal star and of BD +18 4914 as an Am star.

A very recent study of  $\delta$  Sct,  $\gamma$  Dor, and hybrid stars (Uytterhoeven et al. 2011) observed by the space mission *Kepler* indicates that possibly two more hybrid candidate stars are chemically peculiar: HD 181206 (Ap or Am) and HD 178327 (Am). For 58 other hybrid candidate stars spectral types based on published spectral classifications are available, but with no indication of peculiarity.

## 5. EVOLUTIONARY STATUS OF HD 114839 AND BD +18 4914

Figure 8 shows HD 114839 and BD +18 4914 in the  $T_{\text{eff}}-\log g$  plane with the respective error boxes derived in Section 3. The figure also shows isochrones from Marigo et al. (2008), for ages between 1 and 1.4 Gyr, from left to right. Solar metallicity was chosen, because we obtained solar Fe abundance for both stars. The error boxes for both stars cover part of the cool  $\delta$  Sct and

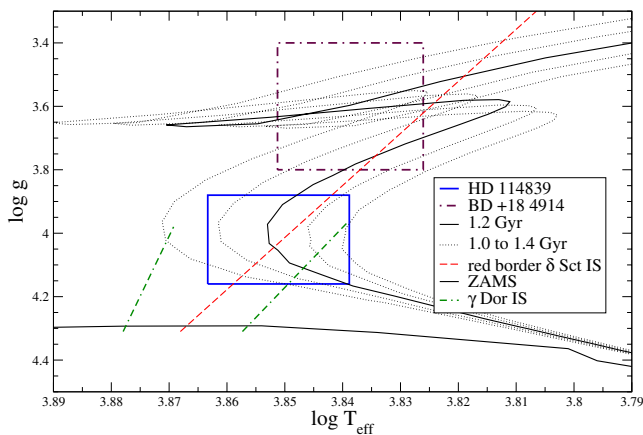


**Figure 8.** Position of HD 114839 (full line error box) and BD +18 4914 (dash-dotted line errorbox) in the  $T_{\text{eff}}-\log g$  diagram, in comparison with solar metallicity isochrones by Marigo et al. (2008). The isochrone crossing the center of the HD 114839 errorbox (full line) corresponds to a 1.2 Gyr old isochrone. The dotted line represents 1.0, 1.1, 1.3, and 1.4 Gyr isochrones, from left to right. The zero-age main sequence is also indicated by a full line. The dashed line indicates the red edge of the  $\delta$  Sct instability strip, while the dash-dotted lines show the blue and red edges of the  $\gamma$  Dor instability strip. Both stars fall inside the  $\delta$  Sct- $\gamma$  Dor instability strip.

(A color version of this figure is available in the online journal.)

the  $\gamma$  Dor instability regions and a range of evolutionary stages, masses, and radii (and thereby mean densities).

We used a grid of A-F models<sup>8</sup> provided by one of us (J.C.S.) using the evolutionary code *CESAM* (Morel 1997) to explore the given parameter space in more detail. We used different values for the mass, convection efficiency, and overshoot parameters within ranges typical for these stars (see, e.g., Suárez et al. 2005; Bruntt et al. 2007; Rodríguez et al. 2006b, 2006a, for  $\delta$  Sct and  $\gamma$  Dor stars). Metallicity was fixed to the solar value. Numerics were optimized following the prescriptions suggested by Moya et al. (2008) within ESTA/CoRoT activities.<sup>9</sup> Rotation may play an important role for detailed asteroseismic studies of these stars (Goupil et al. 2005; Suárez et al. 2006), but was not taken into account for the used models.

We found representative models for HD 114839 with masses between 1.52 and 1.71  $M_{\odot}$ , radii between 1.72 and 2.26  $R_{\odot}$ , and ages between 905 and 1405 Myr, respectively. Those for BD +18 4914 were found to have masses between 1.6 and 2.10  $M_{\odot}$ , radii between 2.69 and 4.43  $R_{\odot}$ , and ages between 935 and 1782 Myr. In all cases, the best model fit was obtained for the mixing-length parameter ( $\alpha_{\text{MLT}} = 0.5$ , which is the value found by Casas et al. (2006) for this type of stars using asteroseismic techniques. Overshoot values range from 0.1 to 0.3 for fitting models.

Turcotte et al. (2000) investigated the effect of diffusion on pulsation for upper main-sequence stars. They concluded that young Am stars are stable against pulsation, but become unstable during evolution toward the red edge of the  $\delta$  Sct instability strip. The chemical and evolutionary characteristics of BD +18 4914 presented here are consistent with Turcotte et al. (2000)'s conclusion.

## 6. CONCLUSIONS

Only one hybrid star, HD 49434, was investigated spectroscopically in detail before we started our study of  $\delta$  Sct- $\gamma$  Dor hybrids. However, its hybrid nature is still uncertain and needs confirmation. HD 49434 did not show chemical peculiarities. Hybrid pulsators and stable stars populate the same region of the HR diagram, a situation that is similar to roAp stars (Ryabchikova et al. 2004). For the latter a clear spectroscopic signature could be detected which allows even prediction of pulsation in CP stars (Kochukhov et al. 2002). A similar feature for hybrid pulsators would be extremely important.

A link between the Am phenomenon and hybrid pulsation was speculated, because of the first detected hybrid, HD 8801, being an Am star. Furthermore, early in the literature significant overabundances of iron and/or iron-peak elements were expected as spectroscopic indicators for the driving mechanism. However, our comparison with seven  $\delta$  Sct (Fossati et al. 2008b) and nine  $\gamma$  Dor stars (Bruntt et al. 2008) does not indicate any significant chemical difference between these groups of stars.

With the present paper we nearly doubled the number of spectroscopically investigated hybrid stars, but have not yet succeeded in identifying a particular spectroscopic signature for this group of pulsating stars. For the evolved BD +18 4914 we found an abundance spectrum typical for an Am star, but could not confirm this peculiarity for the less evolved star HD 114839, which is classified in the literature a mild (or marginal) Am star.

$\delta$  Sct- $\gamma$  Dor hybrids pulsate simultaneously in  $p$ - and  $g$ -modes, which are sensitive to the envelope as well as to the core. Hence, they are key objects for investigating A and F type stars with asteroseismic techniques. Accurate values for temperature, gravity, and chemical composition are needed as boundary conditions for stellar models used for fitting the observed eigenfrequencies. We provide such boundary conditions for a seismic modeling of HD 114839 and BD +18 4914, as well as  $\nu \sin i$  and  $\nu_{\text{mic}}$ .

A statistically significant spectroscopic investigation of  $\delta$  Sct- $\gamma$  Dor hybrid stars still is missing, but would be rewarding considering the asteroseismic potential of this group of pulsators.

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*Facilities:* OHP:1.93m (SOPHIE), ESO:3.6m (HARPS).

<sup>8</sup> This model grid is part of the Spanish Virtual Observatory Project: VOTA (Virtual Observatory Tools for asteroseismology; J. C. Suárez et al. (2011, in preparation)) to be released during 2011.

<sup>9</sup> <http://www.astro.up.pt/corot/>



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## Chapter 5

# Fundamental Parameters of EXO-Field Stars

Since one goal of this thesis is to find the instability domain of hybrid pulsators, accurate temperatures and luminosities for these stars are necessary. Because of the large distance the photometric indices suffer from reddening, which is a priori unknown and can be different from one star to another.

The shape of the hydrogen lines and the strength of the Ca II lines are in contrast not affected by interstellar matter. Hence, classification spectra allow to derive reddening-free temperatures and luminosities for the program stars.

For 23% (2628 stars) of the LRA01 EXO field stars at least one AAOmega classification spectrum is available allowing determination of temperatures and  $\log g$ . The data were reduced and wavelength calibrated by E. Guenther (private communication). After the frequency analysis of the CoRoT Exo light curves (Chap. 6), 92 bona fide  $\gamma$  Dor stars remain and 37 stars were classified as  $\gamma$  Dor candidates. The number of genuine hybrids is 59 and 57 stars were classified as hybrid candidates. As an example, two spectra of  $\gamma$  Dor stars are shown in Fig. 5.1.

To determine the stellar fundamental parameters from these AAOmega spectra, I developed an IDL software package. The following paragraphs describe this software. The spectral resolution  $R$  of the AAOmega spectra is  $\approx 1400$ , which is sufficient for fitting synthetic spectra to the hydrogen lines and the temperature-sensitive Ca II line at  $\lambda = 3933 \text{ \AA}$ . The classification spectra occasionally show significant outliers probably caused by cosmics, which can cause problems for an automatic normalisation routine. Hence, these obvious outliers were rejected by means of  $4\sigma$  clipping while preserving the spectral lines. To compare the observed spectra to theoretical ones, the spectra need to be normalised. However, the low resolution of the spectra and the large number of spectral lines result in practically no usable continuum points. The normalisation of these spectra is further complicated by the characteristics of the blaze function. How this particular problem was handled is described

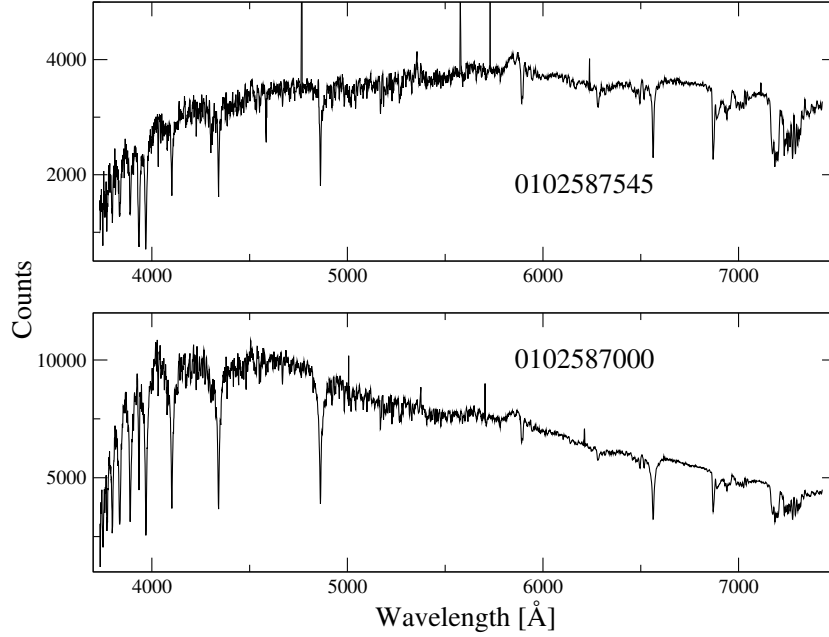


**Figure 5.1:** Two AAOmega classification spectra of  $\gamma$  Dor stars. The numbers given in the graphs are the CoRoT identifier.

below.

A grid of synthetic spectra was calculated in four spectral regimes i.e. the K line regime from  $\lambda\lambda$  3850 to 4105 Å including the temperature-sensitive Ca II lines and the hydrogen line  $H_\delta$ , the  $H_\gamma$  regime from 4200 to 4500 Å, the  $H_\beta$  regime from 4600 to 5200 Å, and finally the  $H_\alpha$  region from 6200 to 6800 Å. The parameter space of the syntheses was chosen from  $T_{\text{eff}} = 20000$  K to 5000 K and  $\log g$  from 2.5 to 4.6, with varying step sizes that are listed in Table 5.1. ATLAS9 model atmospheres (Kurucz 1993) and the code synth3 (Kochukhov 2007) were used to calculate the syntheses. The atomic line lists were extracted from the VALD database (Piskunov et al. 1995; Kupka et al. 1999; Ryabchikova et al. 1999).

The software was dedicated to accurately determine the fundamental parameters of  $\delta$  Sct and  $\gamma$  Dor stars. The spectra of cool stars like red giants show weak hydrogen lines and contain molecular bands. Because I used ATLAS9 model atmospheres and the VALD atomic line database, which contains only atomic lines, these stars were excluded from my investigation. Hotter stars were also excluded, because of the limitations of the model atmospheres.

The grid of syntheses is divided into three subgrids, based on two indicative line depth ratios. The two Ca II lines at  $\lambda$  3933.7 Å and  $\lambda$  3968.5 Å are termed K and H after the Fraunhofer scheme. The H line is blended with the  $H_\epsilon$  line and for my purposes the maximum line depth of this blend is selected as H. The hydrogen  $H_\epsilon$  line of stars as hot as mid A to B type is deeper than

**Table 5.1:** Parameters, step sizes and range of the grid of synthetic spectra.

| Parameter range                                       | Step size     |
|-------------------------------------------------------|---------------|
| $T_{\text{eff}} [K] :$                                |               |
| 5000 - 6000                                           | 200           |
| 6000 - 7600                                           | 100           |
| 7600 - 10400                                          | 200           |
| 11000 - 16000                                         | 1000          |
| $\log g :$                                            |               |
| 4.6 - 3.4                                             | 0.2           |
| 3.4 - 3.0                                             | 0.4           |
| 3.0 - 2.5                                             | 0.5           |
| <i>Grid range in <math>T_{\text{eff}} [K]</math>:</i> |               |
| subgrid hot:                                          | 10000 - 20000 |
| subgrid cool:                                         | 5000 - 9800   |
| subgrid intermediate:                                 | 8000 - 15000  |

the Ca H line, while the Ca K line is weak. Therefore, the distinction between hot and cool stars can be done easily and in an automatic way using this line depth ratio, which is referred to as K/H ratio hereafter. The G-Band at  $\lambda$  4305Å becomes stronger for stars beginning with mid F type stars towards later spectral types, which was as well used as a temperature indicator. This ratio is termed G/H <sub>$\gamma$</sub>  hereafter. The best fitting model to a particular spectrum was determined in the following way:

First, the line-depth ratios of the Ca K line and the H <sub>$\epsilon$</sub>  line and that of the G-Band versus the H <sub>$\gamma$</sub>  line are determined to decide which of the three subgrids is appropriate. The determination of the line depth of each of this lines was done by determining the local minimum in a small range centred on the rest wavelength of the respective line. Observed spectra with K/H ratios higher than 0.55 were compared to syntheses of the cool regime ( $T_{\text{eff}} = 5000$  K to 9800 K) regardless of the G-band indicator G/H <sub>$\gamma$</sub> . If the spectrum shows a lower value for K/H than 0.55 and the G/H <sub>$\gamma$</sub>  ratio is less than its critical value, then the hot grid ( $T_{\text{eff}} = 10000$  K to  $T_{\text{eff}} = 20000$  K) is used. If, however, the G/H <sub>$\gamma$</sub>  is larger or equal to 0.5 then the intermediate grid ( $T_{\text{eff}} = 8000$  K to 15000 K) is used. The grids overlap deliberately to avoid edge effects, but are narrow enough to avoid misclassification. The strengths of the hydrogen lines are maximum at A0 and are becoming weaker towards both cooler and hotter spectral types. Therefore, the software may misclassify a hot for a cool star or vice versa. The simplest way to avoid such problems is to restrict the search regime based on the mentioned line depths ratios. This first rough temperature estimation is not sensitive to the radial velocity as no exact wavelengths were

assumed for reference but rather the local minima of the respective line within a certain range were used as the line depths.

Second, after the determination of the proper subgrid, the radial velocity (RV) is determined by shifting the observed spectrum with respect to a model spectrum. As a first guess, the model spectrum with the mean temperature of the parameter space was chosen and  $\log g$  was fixed to 4.2. The spectrum was shifted from  $-200$  to  $200 \text{ km s}^{-1}$  in  $10 \text{ km s}^{-1}$  steps. The best fitting RV is determined as the shift for which the deviation between the observation and synthetic spectrum is minimised. The determination of the RV is done for each spectral regime (i.e.  $H_\alpha$ ,  $H_\beta$ ,  $H_\gamma$ , and Ca K) separately and the observations are individually corrected for RV. Hence, the effect of errors in the wavelength calibration is mitigated.

Third, the best fitting synthetic spectrum is determined and Fig. 5.2 illustrates by means of the  $H_\alpha$  line how this is accomplished in detail. The part of the spectrum shown is divided by its average intensity for better visibility (black thick line). The observed spectrum is then normalised in the following way: It is divided by a test synthesis of the corresponding subgrid, shown by the thick red line. The result of this division is indicated by the thin blue line. A low-order polynomial (order 1 for hydrogen lines and order 2 for Ca K, indicated by the maroon straight line) is fitted to the pseudo-continuum points (green open circles) and the quotient (thin blue line) is divided by this polynomial. The result is indicated by the dashed grey line. Subsequently, the standard deviation is compared to the point to point scatter for points at the wings of the hydrogen line (orange asterisks).

The ratio of the standard deviation ( $\sigma$ ) and the point-to-point ( $p$ ) scatter is defined as D-value:

$$D = \frac{\sigma}{p}, \quad (5.1)$$

with

$$p = \sqrt{\sum_{i=1}^{n-2} \frac{(x_i - x_{i-1})^2}{2} + (x_0 - x_{n-1})^2}, \quad (5.2)$$

where  $p$  is defined as the mean difference of consecutive data points and  $n$  denotes the number of data points of the data set,  $x_0$  is the first data point. When the synthesis represents the observation perfectly, the standard deviation and point to point scatter reflect the uncorrelated noise of the data and thus their ratio would be 1.0. If however, the hydrogen lines of the synthetic spectrum do not represent the observations well, then the standard deviation is dominated by a systematic error and the ratio is larger than 1.0.

The cores of the lines are deliberately excluded for this calculation, because my model spectra do not fit the hydrogen line cores. This procedure is done for the entire subgrid of model spectra. Due to systematic effects such

as normalisation problems, line misfits or telluric lines, the ideal situation of  $D = 1$  (perfect fit) is never achieved. Thus, the synthesis that yields the lowest  $D$  ratio is adopted as the best fitting model spectrum, but the absolute value of  $D$  is irrelevant. The same procedure is done for the  $H_\beta$ ,  $H_\gamma$ , and Ca K line.  $T_{\text{eff}}$  and  $\log g$  of these four best fitting syntheses are averaged and the model spectrum is considered as best fitting synthesis whose parameters are closest to the average  $T_{\text{eff}}$  and  $\log g$ .

After this first determination of the best fitting synthesis, a second iteration is done because an incorrect RV could lead to wrong results. Hence, the described procedure is repeated once again, but for the RV determination the now determined best fitting model spectrum is used to correct for RV. Experience shows that this second iteration approach improves the agreement of the four individual results derived from  $H_\alpha$ ,  $H_\beta$ ,  $H_\gamma$ , and the K line. Fig. 5.3 shows the  $D$ -values calculated for about 300 syntheses of the subgrid. The inset shows a zoom into the global minimum. The synthesis No.128 yields the best  $D$ -value, but also the No. 127, 129, and 130 fit the data nearly as well. Two syntheses with a higher temperature but different  $\log g$  are also possibly representative (No. 134 and 135). The figure also demonstrates the importance of confining the search domain of model spectra on the basis of the Ca K line, since the local minima towards higher temperatures (these are syntheses with higher indices on the abscissa) tend to fit better with lower surface gravity. In other words, the hydrogen lines of hot giants are narrow and thus fit that of cooler main sequence stars as well, while the Ca K line depth is completely different for hot and cool stars.

The final results consist of four pairs of  $T_{\text{eff}}$  and  $\log g$  for each individual spectral region and the final set of parameters is derived by averaging. The  $v \sin i$  was fixed to  $100 \text{ km s}^{-1}$  because it turned out that it is not possible to derive reliable values for  $v \sin i$  for data with such low spectral resolution. The  $v \sin i$  fitting routine interprets lines (e.g. the Mg triplet near  $\lambda 5170 \text{ \AA}$ ) as noise and thus the  $v \sin i$  cannot be estimated with sufficient accuracy. Following this approach a reliable error determination is not straight forward. The consistency of the four temperature estimates can be assessed by the standard deviation. In the regime of  $\gamma$  Dor stars the determination of  $\log g$  poses an awkward problem, since the wings of the hydrogen lines change only slightly with changing  $\log g$ . Therefore, a high S/N is required to detect significant differences. In particular, metallic lines would be more useful but unfortunately, the S/N of the AAOmega spectra is generally too poor to fit syntheses to such lines.

Typical temperature errors from high resolution spectroscopy are of the order of 200 K for stars at  $T_{\text{eff}} = 7000 \text{ K}$  and the  $\log g$  errors are typically 0.2 dex when using the ionisation equilibrium (see for example Chap. 4), which is generally not possible for low-resolution spectroscopy, as discussed above. To assess the errors of the method a subset of 613 spectra from the ELODIE data

base (Prugniel & Soubiran 2001) was chosen and my fundamental parameter pipeline was applied to them. As I was interested in F and A type stars, the test of my method involved 613 spectra in the range of  $T_{\text{eff}} = 5600$  and  $8000$  K, where no constraint on the  $\log g$  was made. Figures 5.4 and 5.5 show the comparison of my results to that of the ELODIE determination (Katz et al. 1998) in the top panels, the same but for literature parameters provided in the ELODIE data base (middle panels). Finally, the results of the ELODIE-Pipeline are compared to the literature parameters (bottom panels). While Fig. 5.4 shows the comparison for effective temperature, Fig. 5.5 shows the same for  $\log g$ . The ELODIE spectra cover the blue wavelength range from  $\approx \lambda 3900$  Å onward, the AAOmega spectra cover  $\approx \lambda 3750$  Å. Hence, a reliable normalisation of the Ca K region could not be achieved by my software for the ELODIE spectra and the resulting parameters were ignored. Only the fitting of the three hydrogen lines  $H_\alpha$ ,  $H_\beta$ , and  $H_\gamma$  were used. For 12 ELODIE spectra the determination of the proper subgrid could not be done based on the Ca K line, these spectra yield too hot temperatures and are not shown in the plot.

The results for  $T_{\text{eff}}$  are generally in good agreement. 79.4% of the temperatures fit within 5% deviation, and 94.1% cases agree within 10% deviation. The comparison to the  $\log g$  values are clearly worse. A clear systematic trend is present where my  $\log g$  estimation is lower than the ELODIE and literature values. Since I used only the hydrogen lines and these lines are hardly sensitive to changes in  $\log g$ , the deviations in  $\log g$  are huge.

If the Mg-triplet or the Ca K line are considered, the  $\log g$  estimates are useful only for stars with cooler temperatures, because these features vanish in hotter stars. On the other hand, the Mg-triplet disappears in the noise if the S/N ratio is poor, preventing accurate  $\log g$  determinations based on the Mg triplet for a large sample of spectra.

Some spectra in my sample are affected by fringing, of which Fig 5.6 shows three examples. The pattern is perceivable as waves in the spectra. It is not beneficial to remove this fringing pattern by fits because the hydrogen lines are heavily distorted by the fringing effect and useless for model fitting. I found that such spectra still allow a rough estimate of the temperature by visual inspection and are therefore sufficient to differentiate between  $\gamma$  Dor and SPB. Stars with such spectra were excluded from further investigation.

Tables 5.2, 5.3, 5.4, 5.5 and 5.6 list the results of my parameter determination via the fitting of model spectra for the  $\gamma$  Dor,  $\gamma$  Dor candidates, the hybrids, the hybrid candidates and the  $\delta$  Sct stars. The column CID refers to the CoRoT identifiers, in the second column the cross reference to the USNO-B1 catalogue identifier is given, the column  $T_{\text{eff}}$  and  $\log g$  give the average of the four individual  $T_{\text{eff}}$  and  $\log g$  of the best fitting model spectra described above and the column  $\sigma T_{\text{eff}}$  and  $\sigma \log g$  display the corresponding standard deviation. The S/N of each spectrum is given in the column S/N. It was estimated by A. Kaiser (PhD thesis in prep.) using the DER\_SNR algorithm by



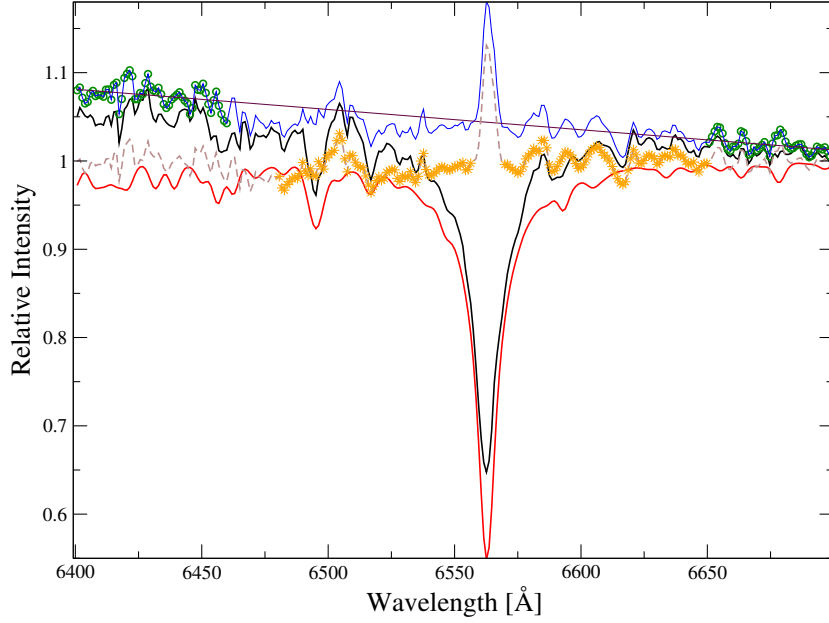


**Figure 5.2:** Fitting of the  $H_\alpha$  line. The thick red line shows the best fitting synthesis, the thick black line illustrates the observed  $H_\alpha$  region. The thin blue line shows the ratio of the observation and the synthesis, the maroon straight line indicates a linear fit to the pseudo-continuum points that are indicated by the open green circles. The dashed line shows the division by the linear fit and the orange asterisks indicate the points for which the standard deviation and point-to-point scatter were evaluated.

Stoehr et al. (2007) between  $\lambda$  4500Å and  $\lambda$  5400Å excluding 200Å centred on the  $H_\beta$  line. The column V lists the apparent magnitude in the V filter in magnitudes and finally, the column Sp.T. list the spectral types derived by Guenther et al. (2012) or Sebastian et al. (2012). Footnotes indicate problems with the spectra and are explained at the bottom of the tables. These stars were excluded for further investigation.

**Table 5.2:** Fundamental parameters of  $\gamma$  Dor stars, derived by me, compared to their spectral type from Guenther et al. (2012) and Sebastian et al. (2012).

| CID       | USNO-B1      | $T_{\text{eff}}$ | $\sigma T_{\text{eff}}$ | $\log g$ | $\sigma \log g$ | S/N  | V      | Sp.T. |
|-----------|--------------|------------------|-------------------------|----------|-----------------|------|--------|-------|
| 102574350 | 0906-0098970 | 6975             | 171                     | 4.1      | 0.6             | 64.9 | 13.562 | F4III |
| 102579656 | 0887-0099522 | 6550             | 58                      | 4.0      | 0.3             | 62.7 | 12.524 | F5IV  |
| 102581739 | 0894-0099481 | 6950             | 129                     | 4.4      | 0.2             | 61.1 | 13.641 | A9III |
| 102581982 | 0888-0097302 | 7100             | 141                     | 4.2      | 0.5             | 43.7 | 14.403 | F1V   |
| 102583546 | 0892-0100068 | 6625             | 50                      | 4.1      | 0.4             | 67.1 | 12.305 | F7V   |
| 102584409 | 0885-0097274 | 6775             | 50                      | 4.3      | 0.3             | 64.1 | 11.559 | F5IV  |
| 102587545 | 0893-0099103 | 6400             | 141                     | 3.5      | 0.6             | 53.6 | 13.181 | F3V   |
| 102595215 | 0885-0097535 | 6675             | 96                      | 3.4      | 0.1             | 48.5 | 14.015 | F4III |
| 102595296 | 0889-0099665 | 6800             | 82                      | 3.8      | 0.3             | 73.6 | 12.058 | F7IV  |

Continued on next page

Table 5.2 – continued from previous page

| CID                      | USNO-B1      | $T_{\text{eff}}$ | $\sigma T_{\text{eff}}$ | $\log g$ | $\sigma \log g$ | S/N  | V      | Sp.T. |
|--------------------------|--------------|------------------|-------------------------|----------|-----------------|------|--------|-------|
| 102595665                | 0893-0099329 | 6725             | 50                      | 4.2      | 0.4             | 72.8 | 12.077 | F5V   |
| 102596652                | 0898-0100730 | 7575             | 150                     | 4.2      | 0.2             | 35.1 | 14.081 | A8V   |
| 102597681 <sup>e</sup>   | 0898-0100756 | 7800             | 163                     | 4.3      | 0.3             | 86.9 | 12     | A6V   |
| 102600197                | 0910-0100725 | 6975             | 96                      | 3.9      | 0.4             | 41   | 14.295 | F1V   |
| 102602901                | 0893-0099529 | 7025             | 126                     | 3.9      | 0.1             | 86.4 | 12.202 | A9III |
| 102603266                | 0885-0097724 | 7175             | 171                     | 4.1      | 0.3             | 76.8 | 12.709 | A8V   |
| 102604639                | 0900-0100468 | 6925             | 126                     | 3.8      | 0.5             | 55.2 | 14.395 | F0V   |
| 102605106                | 0910-0100815 | 6575             | 50                      | 4.1      | 0.5             | 61.9 | 11.708 | F7IV  |
| 102605393 <sup>gha</sup> | 0902-0099637 | 6775             | 50                      | 4.1      | 0.9             | 41.8 | 13.397 | F5IV  |
| 102607721                | 0896-0100657 | 6450             | 100                     | 4.0      | 0.9             | 34.8 | 14.444 | F7IV  |
| 102608070                | 0900-0100524 | 7425             | 206                     | 4.1      | 0.5             | 42.9 | 14.459 | A8V   |
| 102611108                | 0898-0101039 | 6900             | 115                     | 4.1      | 0.3             | 43.4 | 12.513 | F1V   |
| 102613079                | 0903-0099747 | 6900             | 141                     | 3.9      | 0.5             | 74.2 | 14.462 | F0IV  |
| 102623294                | 0905-0099771 | 6450             | 58                      | 4.1      | 0.6             | 59.9 | 13.068 | F6V   |
| 102631816                | 0894-0100614 | 7025             | 126                     | 4.2      | 0.4             | 74.6 | 13.067 | F0V   |
| 102636574                | 0897-0098893 | 7175             | 150                     | 3.9      | 0.2             | 78.3 | 13.171 | A9III |
| 102643218                | 0893-0100379 | 6600             | 82                      | 2.9      | 0.8             | 36.1 | 13.075 | F6II  |
| 102645784                | 0893-0100431 | 6700             | 82                      | 3.6      | 0.2             | 53.9 | 14.379 | F4III |
| 102648939                | 0894-0100988 | 7050             | 100                     | 4.1      | 0.5             | 49   | 13.556 | F0V   |
| 102649754                | 0907-0102998 | 6725             | 58                      | 4.2      | 0.4             | 68.9 | 12.555 | F4III |
| 102653056                | 0898-0101952 | 6975             | 96                      | 4.3      | 0.4             | 59.5 | 14.47  | F0IV  |
| 102654663                | 0888-0098877 | 6975             | 126                     | 3.9      | 0.1             | 63.6 | 14.438 | F0IV  |
| 102657111 <sup>F</sup>   | 0891-0102326 | 6725             | 173                     | 3.8      | 0.4             | 51.4 | 14.465 | -     |
| 102657207                | 0909-0102726 | 6825             | 96                      | 4.1      | 0.1             | 52.3 | 14.394 | F4III |
| 102668415                | 0894-0101405 | 6875             | 129                     | 4.2      | 0.4             | 57.6 | 13.807 | F4III |
| 102671368                | 0888-0099220 | 7200             | 173                     | 4.4      | 0.2             | 70.9 | 13.903 | F0V   |
| 102674135 <sup>g+</sup>  | 0910-0102129 | 7666             | 115                     | 4.4      | 0               | 81.8 | 13.704 | A6V   |
| 102674325                | 0885-0099166 | 6675             | 50                      | 4.1      | 0.5             | 61   | 14.171 | F5IV  |
| 102678624                | 0899-0100019 | 6500             | 82                      | 4.1      | 0.6             | 54.8 | 13.707 | F5IV  |
| 102680138                | 0886-0099457 | 7225             | 96                      | 4.2      | 0.2             | 76.6 | 12.875 | A8V   |
| 102681982                | 0903-0101073 | 6900             | 82                      | 3.7      | 0.2             | 58.2 | 13.167 | A9III |
| 102682158                | 0893-0101208 | 6800             | 163                     | 3.8      | 0.2             | 65.3 | 13.885 | F1V   |
| 102684448                | 0900-0102157 | 7050             | 173                     | 3.7      | 0.5             | 63.1 | 13.707 | F1V   |
| 102692118                | 0893-0101406 | 6325             | 50                      | 4        | 0.4             | 56.6 | 14.01  | F6V   |
| 102694533 <sup>t+</sup>  | 0886-0099722 | 6400             | 0                       | 4        | 0.5             | 56.9 | 13.797 | F6IV  |
| 102695863                | 0893-0101484 | 6500             | 82                      | 4.1      | 0.5             | 57.4 | 12.882 | F8V   |
| 102698507                | 0894-0102067 | 7225             | 96                      | 4.1      | 0.1             | 62.5 | 13.201 | F0V   |
| 102703792                | 0887-0102181 | 7025             | 96                      | 4.3      | 0.1             | 62.6 | 13.735 | F0V   |
| 102704602                | 0888-0099899 | 7025             | 96                      | 4.1      | 0.1             | 61.5 | 13.063 | A9III |
| 102705089                | 0901-0102016 | 6775             | 50                      | 4.1      | 0.1             | 60.1 | 14.037 | F4III |
| 102708748                | 0901-0102107 | 6750             | 58                      | 3.8      | 0.2             | 52.5 | 13.725 | F2IV  |
| 102709598                | 0903-0101645 | 6825             | 250                     | 3.4      | 0.4             | 47.8 | 14.108 | F1V   |
| 102711294 <sup>F</sup>   | 0899-0100688 | 6825             | 50                      | 4.1      | 0.4             | 48.9 | 12.712 | F2II  |
| 102713311                | 0885-0099930 | 6975             | 171                     | 4.1      | 0.3             | 58.3 | 13.83  | A9III |
| 102713772                | 0906-0101750 | 6475             | 150                     | 4.4      | 0.3             | 43.7 | 13.499 | F7IV  |
| 102719503                | 0903-0101878 | 6575             | 50                      | 4.2      | 0.5             | 69.8 | 13.028 | F5IV  |
| 102719846                | 0907-0104398 | 7025             | 96                      | 3.9      | 0.1             | 47.7 | 14.062 | F1V   |
| 102724031                | 0896-0103067 | 6800             | 141                     | 3.9      | 0.2             | 70.8 | 13.539 | F0IV  |
| 102724193                | 0910-0103199 | 7025             | 126                     | 3.9      | 0.4             | 50.6 | 14.446 | A9III |

Continued on next page

Table 5.2 – continued from previous page

| CID                     | USNO-B1      | $T_{\text{eff}}$ | $\sigma T_{\text{eff}}$ | $\log g$ | $\sigma \log g$ | S/N  | V      | Sp.T. |
|-------------------------|--------------|------------------|-------------------------|----------|-----------------|------|--------|-------|
| 102724938               | 0888-0100306 | 7025             | 96                      | 3.9      | 0.4             | 59.5 | 14.487 | A9III |
| 102725454 <sup>F</sup>  | 0887-0102610 | 6475             | 96                      | 4.0      | 0.6             | 60.2 | 13.345 | F5IV  |
| 102725480               | 0901-0102482 | 6475             | 126                     | 4.2      | 0.7             | 60.9 | 12.467 | F6V   |
| 102726709 <sup>g+</sup> | 0886-0100350 | 7200             | 82                      | 3.8      | 0               | 56.8 | 13.693 | A8V   |
| 102727441               | 0899-0101076 | 7025             | 96                      | 3.9      | 0.1             | 45.9 | 13.641 | F0V   |
| 102730229               | 0903-0102099 | 6750             | 100                     | 3.6      | 0.2             | 61.1 | 12.793 | F4III |
| 102732872               | 0901-0102624 | 6925             | 96                      | 4.1      | 0.3             | 59.7 | 13.285 | F0IV  |
| 102735515               | 0904-0102576 | 6775             | 50                      | 3.9      | 0.2             | 87.9 | 11.19  | A9III |
| 102735825 <sup>g-</sup> | 0899-0101239 | 6225             | 310                     | 3.9      | 1.2             | 52.9 | 14.333 | F8V   |
| 102738809 <sup>e</sup>  | 0908-0103165 | 7250             | 58                      | 3.8      | 0.7             | 63.8 | 12.446 | A8V   |
| 102739932               | 0885-0100426 | 7000             | 141                     | 4.2      | 0.2             | 60.4 | 14.497 | F0V   |
| 102742690               | 0899-0101360 | 6450             | 238                     | 4.3      | 0.6             | 69.1 | 13.212 | F4V   |
| 102742767               | 0897-0101279 | 6625             | 126                     | 4.1      | 0.4             | 69.8 | 13.095 | F4III |
| 102743567               | 0892-0103638 | 7025             | 126                     | 4.4      | 0.2             | 78.1 | 11.986 | A9III |
| 102749513               | 0892-0103739 | 6250             | 173                     | 4.0      | 0.3             | 49.3 | 14.06  | F6IV  |
| 102749931               | 0887-0103045 | 6775             | 96                      | 3.6      | 0.5             | 42.3 | 13.001 | A9III |
| 102751858               | 0887-0103071 | 7200             | 141                     | 3.9      | 0.1             | 76.3 | 13.956 | A9III |
| 102755653               | 0888-0100872 | 6600             | 82                      | 4        | 0.5             | 69.3 | 12.198 | F5IV  |
| 102757495               | 0886-0100881 | 6900             | 82                      | 4.1      | 0.5             | 59.7 | 13.964 | A9III |
| 102758112               | 0910-0103868 | 6950             | 100                     | 3.9      | 0.4             | 48.4 | 13.352 | F1V   |
| 102763149               | 0887-0103260 | 6625             | 96                      | 3.7      | 0.2             | 60.7 | 13.087 | A9III |
| 102763156               | 0901-0103224 | 7175             | 96                      | 4.3      | 0.3             | 76.2 | 12.985 | F1V   |
| 102765029 <sup>F</sup>  | 0887-0103285 | 6550             | 238                     | 2.7      | 0.3             | 56.4 | 11.622 | F2IV  |
| 102766017               | 0893-0102951 | 7000             | 82                      | 3.9      | 0.5             | 47.6 | 12.512 | F7IV  |
| 102768290 <sup>g+</sup> | 0911-0105163 | 7750             | 100                     | 4.6      | 0               | 38.8 | 14.03  | A8V   |
| 102768606 <sup>F</sup>  | 0900-0103884 | 7025             | 1855                    | 3.6      | 1               | 44.5 | 12.846 | G0V   |
| 102768672               | 0902-0103072 | 6233             | 379                     | 3.7      | 0.8             | 47.6 | 14.351 | F7IV  |
| 102775315               | 0909-0105050 | 6400             | 245                     | 4.2      | 0.7             | 48.9 | 14.316 | F8V   |
| 102777271               | 0886-0101241 | 6750             | 129                     | 3.5      | 0.2             | 69.4 | 12.483 | A9III |
| 102777301               | 0905-0102727 | 6825             | 189                     | 4.7      | 0.5             | 52.6 | 14.378 | F4III |
| 102782290               | 0906-0103065 | 6175             | 126                     | 3.7      | 0.6             | 41.8 | 13.089 | G0III |
| 102784531               | 0897-0102069 | 7000             | 82                      | 3.9      | 0.5             | 51.1 | 13.322 | A9III |
| 102787110               | 0899-0102173 | 7575             | 287                     | 3.9      | 0.5             | 77.8 | 13.94  | F0V   |
| 102792193               | 0889-0103322 | 7650             | 252                     | 4.5      | 0.1             | 32.7 | 14.498 | A8V   |
| 102792478               | 0896-0104495 | 6625             | 50                      | 4.1      | 0.4             | 64.2 | 11.627 | F5IV  |
| 102794331               | 0900-0104355 | 6750             | 58                      | 3.9      | 0.2             | 49   | 13.201 | F4III |
| 102794767               | 0890-0102433 | 6800             | 82                      | 4.1      | 0.2             | 68.1 | 14.255 | F4III |
| 102795873               | 0895-0103433 | 7050             | 173                     | 4        | 0.2             | 48.7 | 13.998 | A9III |
| 102797129 <sup>g-</sup> | 0885-0101477 | 6500             | 82                      | 3.8      | 1.2             | 52.3 | 13.607 | F3V   |

<sup>e</sup> eclipsing binary; <sup>gha</sup>  $H_{\alpha}$  deviates in  $\log g$ ; <sup>F</sup> fringing; <sup>g+</sup>  $\log g$  consistent;

<sup>t+</sup>  $T_{\text{eff}}$  consistent; <sup>g-</sup>  $\log g$  inconsistent.

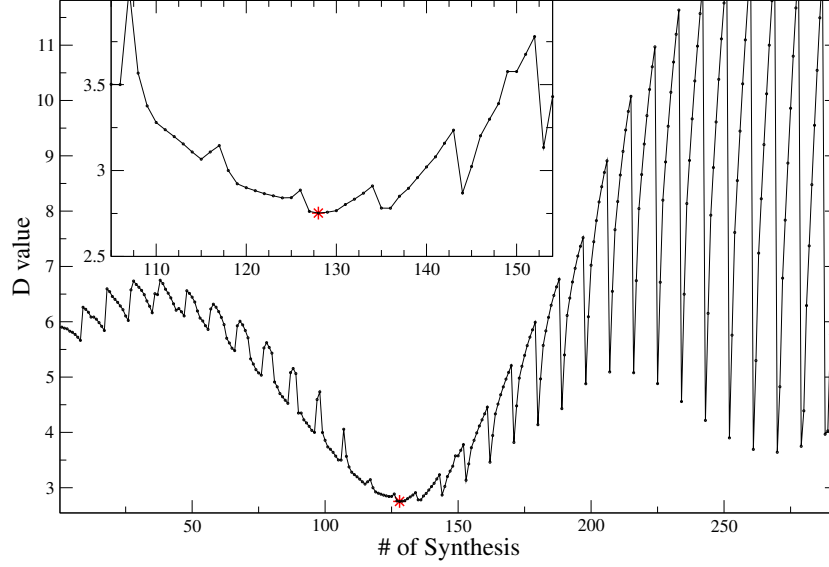


**Figure 5.3:** Ratio of the standard deviation and the point-to-point scatter (D-value) for a subset of the parameter range. The synthetic spectra are referred to by index (abscissa). The formally best fitting synthesis is indicated by the red asterisk. The inset shows a zoom-in around the best fitting synthesis.

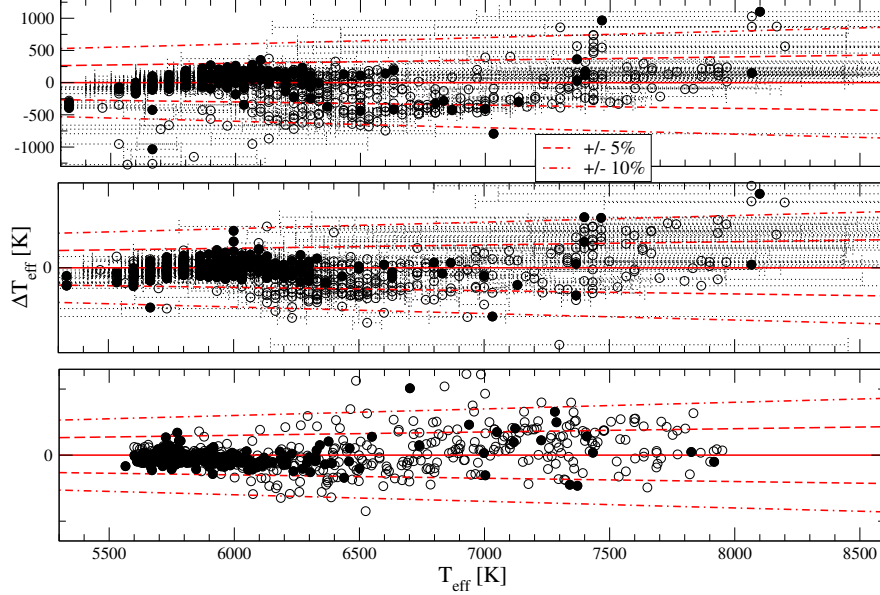


**Figure 5.4:** Comparison of the results of my temperature determination (abscissa) to 1) the results of the ELODIE-Pipeline (top panel), 2) the literature values (taken from the ELODIE fits headers) in the middle panel and the ELODIE versus the literature values (bottom panel). The dotted lines indicate the standard deviation for each data point. The filled circles represent the spectra flagged with the quality flag 4, 3, or 2. The dashed and dash dotted lines indicate 5% and 10% deviations and the full red line marks the zero line to guide the eye.

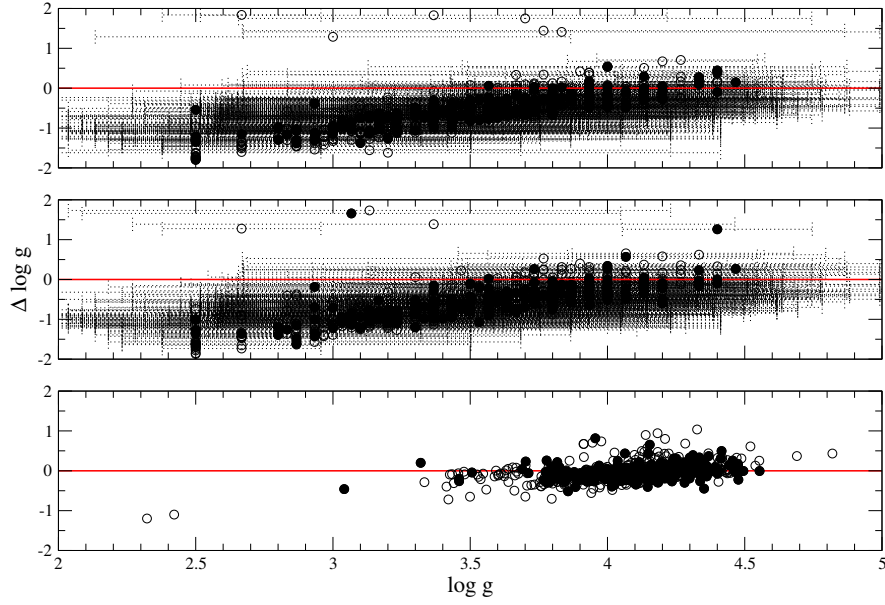


**Figure 5.5:** Same as Fig. 5.4 but for  $\log g$ .

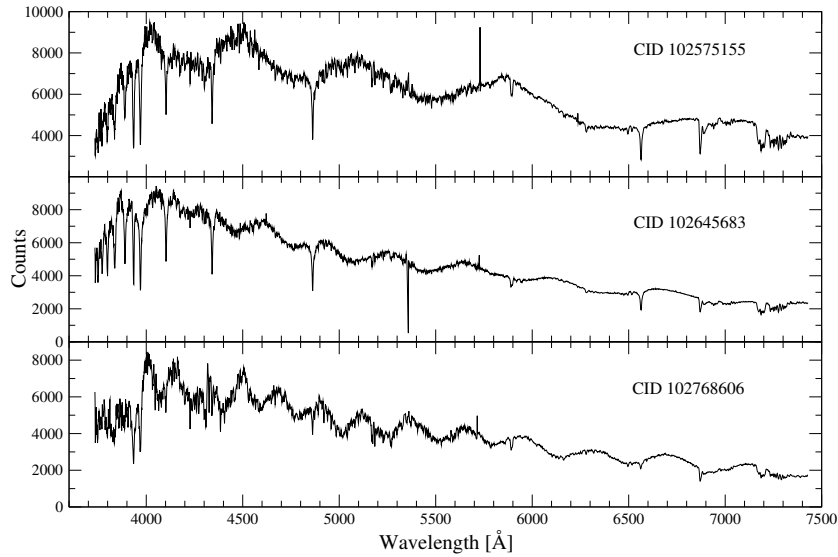


**Figure 5.6:** Examples of fringing among the AAOmega spectra.

**Table 5.3:** Fundamental parameters of  $\gamma$  Dor candidate stars compared to their spectral type from Guenther et al. (2012) and Sebastian et al. (2012).

| CID                     | USNO-B1      | $T_{\text{eff}}$ | $\sigma T_{\text{eff}}$ | $\log g$ | $\sigma \log g$ | S/N   | V      | Sp.T. |
|-------------------------|--------------|------------------|-------------------------|----------|-----------------|-------|--------|-------|
| 102575155 <sup>F</sup>  | 0901-0099263 | 6525             | 96                      | 4.1      | 0.6             | 57.7  | 12.907 | F6V   |
| 102581750               | 0908-0100323 | 6625             | 50                      | 4.3      | 0.3             | 74.5  | 11.667 | F6V   |
| 102581832               | 0890-0098032 | 8300             | 200                     | 3.7      | 0.2             | 93.8  | 12.619 | A0IV  |
| 102600525               | 0888-0097760 | 6675             | 96                      | 4.2      | 0.3             | 48.4  | 12.942 | F5IV  |
| 102612288               | 0897-0098386 | 8550             | 191                     | 4.2      | 0.3             | 79.6  | 14.207 | A0V   |
| 102619496 <sup>t+</sup> | 0908-0101012 | 6600             | 0                       | 4.1      | 0.4             | 56.3  | 12.944 | F5IV  |
| 102639381               | 0901-0100580 | 6625             | 126                     | 4.2      | 0.3             | 57.1  | 12.627 | F2IV  |
| 102643144               | 0887-0100934 | 6475             | 222                     | 2.8      | 0.3             | 37.9  | 14.292 | F6II  |
| 102645683 <sup>F</sup>  | 0886-0098796 | 8150             | 1684                    | 3.0      | 0.8             | 87    | 13.017 | -     |
| 102647707               | 0899-0099391 | 6525             | 96                      | 4.0      | 0.5             | 56.9  | 12.565 | F5IV  |
| 102650323               | 0892-0101648 | 6725             | 96                      | 3.7      | 0.1             | 62.2  | 12.689 | F2IV  |
| 102653792 <sup>F</sup>  | 0892-0101713 | 8500             | 872                     | 3.9      | 0.8             | 123.8 | 12.143 | -     |
| 102654138               | 0890-0099704 | 8300             | 476                     | 3.8      | 0.7             | 101.9 | 12.814 | A2III |
| 102656705               | 0889-0100988 | 6700             | 82                      | 4.7      | 0.6             | 53.9  | 12.085 | F5IV  |
| 102661313               | 0904-0100969 | 6775             | 126                     | 3.8      | 0.5             | 54.3  | 11.803 | F2IV  |
| 102662271               | 0890-0099874 | 6625             | 126                     | 3.5      | 0.1             | 69.3  | 13.859 | F0IV  |
| 102663084               | 0895-0100572 | 6625             | 50                      | 4.1      | 0.6             | 53.8  | 14.189 | F2IV  |
| 102672729               | 0904-0101193 | 6550             | 58                      | 4.1      | 0.2             | 48.5  | 13.704 | F5IV  |
| 102684117               | 0905-0100871 | 6800             | 141                     | 3.8      | 0.2             | 63.2  | 13.358 | F2IV  |
| 102685143               | 0909-0103256 | 8250             | 100                     | 4.3      | 0.3             | 95.8  | 12.212 | A6V   |
| 102688846 <sup>g-</sup> | 0905-0100970 | 6375             | 236                     | 3.8      | 1.2             | 32.2  | 14.378 | F7IV  |
| 102690340               | 0905-0101008 | 7025             | 126                     | 4.2      | 0.3             | 85.4  | 12.748 | F1V   |
| 102694263               | 0892-0102549 | 6750             | 129                     | 4.2      | 0.5             | 47.8  | 14.371 | F1V   |
| 102701987               | 0900-0102511 | 8450             | 100                     | 4.2      | 0.3             | 75.3  | 13.483 | A6V   |
| 102705144               | 0903-0101559 | 8000             | 0                       | 3.7      | 0.8             | 58.7  | 13.036 | A6m   |
| 102735225               | 0888-0100529 | 8250             | 191                     | 4.3      | 0.4             | 77    | 12.999 | A4V   |
| 102748128               | 0898-0103955 | 7425             | 96                      | 4        | 0.2             | 70    | 12.986 | A7III |
| 102749148               | 0895-0102475 | 6625             | 58                      | 4.2      | 0.3             | 64.9  | 13.019 | F5IV  |
| 102764904               | 0903-0102729 | 7625             | 350                     | 4.1      | 0.1             | 90.4  | 14.293 | A6V   |
| 102765500               | 0887-0103291 | 8300             | 115                     | 4.2      | 0.2             | 67.5  | 13.947 | A6V   |
| 102782199               | 0889-0103167 | 6800             | 141                     | 4.1      | 0.1             | 56.7  | 12.483 | A9III |
| 102785780 <sup>X</sup>  | 0895-0103227 | 5525             | 574                     | 4.1      | 1               | 19.6  | 13.474 | K3IV  |
| 102788480               | 0904-0103439 | 6750             | 100                     | 3.7      | 0.3             | 63.6  | 13.062 | A9III |

<sup>F</sup> fringing; <sup>t+</sup>  $T_{\text{eff}}$  consistent; <sup>g-</sup>  $\log g$  inconsistent; <sup>X</sup> star too cool for fitting routine.

**Table 5.4:** Fundamental parameters of hybrid stars compared to their spectral type from Guenther et al. (2012) and Sebastian et al. (2012).

| CID                    | USNO-B1      | $T_{\text{eff}}$ | $\sigma T_{\text{eff}}$ | $\log g$ | $\sigma \log g$ | S/N  | V      | Sp.T. |
|------------------------|--------------|------------------|-------------------------|----------|-----------------|------|--------|-------|
| 102568261              | 0905-0098629 | 7900             | 258                     | 3.8      | 0.5             | 94.5 | 12.931 | A5IV  |
| 102584546 <sup>Y</sup> | 0899-0098080 | 14250            | 4349                    | 3.9      | 1.2             | 44   | 12.567 | G5Ib  |
| 102587000              | 0887-0099703 | 7325             | 50                      | 4.3      | 0.4             | 55.8 | 12.481 | A8V   |
| 102589648              | 0893-0099162 | 7900             | 115                     | 4.5      | 0.1             | 94.8 | 12.193 | A6V   |

Continued on next page

Chapter 5. Fundamental Parameters of EXO-Field Stars

Table 5.4 – continued from previous page

| CID                     | USNO-B1      | T <sub>eff</sub> | $\sigma T_{\text{eff}}$ | log <i>g</i> | $\sigma \log g$ | S/N   | V      | Sp.T. |
|-------------------------|--------------|------------------|-------------------------|--------------|-----------------|-------|--------|-------|
| 102600015               | 0894-0099932 | 7250             | 173                     | 4.1          | 0.2             | 101.1 | 12.34  | F0V   |
| 102608837               | 0899-0098615 | 7275             | 150                     | 3.4          | 0.9             | 66.5  | 12.944 | A9III |
| 102612000               | 0910-0100947 | 7075             | 171                     | 4.1          | 0.1             | 76.1  | 12.371 | F4III |
| 102615872               | 0897-0098476 | 7950             | 100                     | 4.2          | 0.2             | 78.4  | 11.84  | A5IV  |
| 102620178               | 0893-0099893 | 7350             | 58                      | 3.5          | 0.2             | 74.3  | 13.521 | A9IV  |
| 102624646               | 0906-0100078 | 6475             | 126                     | 4.3          | 0.5             | 65.7  | 12.816 | F7V   |
| 102630019               | 0891-0101753 | 7600             | 245                     | 4.1          | 0.3             | 68    | 13.419 | A8V   |
| 102636735               | 0892-0101367 | 7200             | 0                       | 4.1          | 0.4             | 69.9  | 14.016 | A9III |
| 102637003               | 0885-0098433 | 7850             | 100                     | 3.9          | 0.4             | 109.6 | 13.54  | A6V   |
| 102649843               | 0907-0102999 | 11600            | 1143                    | 4.3          | 0.3             | 126.4 | 12.546 | A1V   |
| 102651288               | 0899-0099464 | 7075             | 171                     | 3.9          | 0.3             | 79.7  | 13.737 | F0V   |
| 102657518               | 0886-0099013 | 7550             | 58                      | 4.4          | 0.2             | 108.6 | 13.843 | A6V   |
| 102658013 <sup>gc</sup> | 0905-0100368 | 8400             | 326                     | 3.5          | 0.8             | 87.6  | 13.443 | A3V   |
| 102663289               | 0903-0100652 | 8300             | 115                     | 4.2          | 0.3             | 70.1  | 13.833 | A6V   |
| 102664847 <sup>F</sup>  | 0890-0099922 | 8200             | 163                     | 4.3          | 0.3             | 96.6  | 13.569 | A4III |
| 102665884 <sup>F</sup>  | 0888-0099094 | 6700             | 294                     | 4.2          | 0.7             | 52.5  | 13.468 | F5IV  |
| 102666754               | 0899-0099789 | 6300             | 82                      | 3.7          | 0.3             | 60.8  | 11.897 | F6V   |
| 102669636               | 0910-0102034 | 8050             | 379                     | 3.9          | 0.2             | 85.1  | 13.849 | A6V   |
| 102669994               | 0892-0102043 | 7725             | 222                     | 3.8          | 0.5             | 60.3  | 14.137 | A7V   |
| 102670590 <sup>F</sup>  | 0887-0101483 | 7675             | 150                     | 4.1          | 0.1             | 84    | 13.929 | A8V   |
| 102673929               | 0899-0099925 | 7000             | 82                      | 3.8          | 0.5             | 74.7  | 12.212 | F0V   |
| 102676137               | 0887-0101588 | 8150             | 473                     | 3.8          | 0.7             | 90.8  | 14.238 | A3V   |
| 102676382 <sup>F</sup>  | 0887-0101593 | 8200             | 163                     | 4.1          | 0.5             | 90.8  | 13.466 | A6m   |
| 102680857 <sup>F</sup>  | 0902-0101224 | 8100             | 1252                    | 4.3          | 0.5             | 82.7  | 13.387 | A8V   |
| 102682594               | 0907-0103672 | 7000             | 82                      | 4.5          | 0.1             | 55.3  | 13.83  | F4III |
| 102683908 <sup>gc</sup> | 0904-0101421 | 7950             | 252                     | 3.9          | 0.8             | 75.5  | 13.188 | A8V   |
| 102689913               | 0888-0099579 | 7625             | 126                     | 4.4          | 0               | 68.2  | 12.876 | A7III |
| 102698013 <sup>F</sup>  | 0895-0101314 | 7800             | 0                       | 4.5          | 0.1             | 149.1 | 11.818 | A8V   |
| 102699841               | 0904-0101767 | 6925             | 96                      | 4.3          | 0.1             | 47.6  | 13.761 | F0V   |
| 102702779               | 0906-0101521 | 7800             | 163                     | 4.4          | 0.3             | 85.4  | 13.021 | A7V   |
| 102705065               | 0894-0102200 | 6850             | 58                      | 3.5          | 0.8             | 58.6  | 13.881 | F4III |
| 102706194               | 0908-0102572 | 7675             | 222                     | 4.2          | 0.2             | 61.7  | 13.475 | A6V   |
| 102715311               | 0897-0100664 | 7725             | 222                     | 4.5          | 0.1             | 163.4 | 11.378 | A8V   |
| 102717566               | 0888-0100172 | 7625             | 126                     | 4.3          | 0.1             | 140.5 | 12.696 | A3V   |
| 102719759 <sup>F</sup>  | 0890-0101099 | 8275             | 1037                    | 3.8          | 1.2             | 55.3  | 13.068 | A9III |
| 102720462               | 0888-0100221 | 8250             | 100                     | 4.2          | 0.2             | 71.9  | 13.152 | A6V   |
| 102721808               | 0891-0103763 | 7625             | 126                     | 4.5          | 0.1             | 96.4  | 13.068 | A5IV  |
| 102723244               | 0909-0104065 | 8200             | 163                     | 4            | 0.5             | 129.1 | 12.255 | A5IV  |
| 102731107 <sup>F</sup>  | 0887-0102723 | 7900             | 115                     | 3.7          | 0.3             | 93.6  | 13.149 | A0IV  |
| 102732523 <sup>F</sup>  | 0893-0102270 | 7325             | 126                     | 4.2          | 0.7             | 60.4  | 14.256 | A8V   |
| 102740677               | 0893-0102468 | 8100             | 115                     | 4.2          | 0.4             | 62.1  | 13.771 | A6V   |
| 102742047               | 0886-0100623 | 7100             | 141                     | 4.5          | 0.2             | 49.8  | 14.341 | F1V   |
| 102746910               | 0898-0103923 | 8500             | 258                     | 4.7          | 0.5             | 82.3  | 13.635 | A0IV  |
| 102750600               | 0899-0101502 | 7225             | 96                      | 3.8          | 0.3             | 82.5  | 12.309 | F0V   |
| 102752241               | 0891-0104406 | 7050             | 191                     | 4.1          | 0.4             | 52    | 14.451 | A9III |
| 102753221               | 0909-0104617 | 7900             | 476                     | 3.9          | 0.4             | 66.1  | 14.47  | A6V   |
| 102755594               | 0907-0105085 | 7225             | 96                      | 4.3          | 0.2             | 90.2  | 12.152 | A9III |
| 102757904 <sup>F</sup>  | 0890-0101807 | 7950             | 100                     | 3.4          | 1.1             | 56.2  | 13.302 | -     |
| 102758436               | 0886-0100908 | 7500             | 82                      | 4.5          | 0.1             | 70.8  | 13.38  | A8V   |

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## Chapter 5. Fundamental Parameters of EXO-Field Stars

**Table 5.4 – continued from previous page**

| CID       | USNO-B1      | $T_{\text{eff}}$ | $\sigma T_{\text{eff}}$ | $\log g$ | $\sigma \log g$ | S/N  | V      | Sp.T. |
|-----------|--------------|------------------|-------------------------|----------|-----------------|------|--------|-------|
| 102759686 | 0892-0103938 | 7350             | 100                     | 4.4      | 0.2             | 59.7 | 13.565 | F0V   |
| 102762741 | 0903-0102692 | 7850             | 100                     | 3.7      | 0.1             | 87.2 | 12.408 | A6V   |
| 102765447 | 0907-0105269 | 8350             | 300                     | 4.1      | 0.5             | 124  | 11.859 | A1IV  |
| 102769842 | 0901-0103352 | 7075             | 395                     | 4.4      | 0.2             | 64.6 | 14.28  | A8V   |
| 102783836 | 0896-0104321 | 7100             | 82                      | 4.1      | 0.5             | 36.8 | 14.089 | A7III |
| 102796616 | 0887-0103827 | 7700             | 100                     | 4.5      | 0.2             | 65.2 | 13.723 | A7III |

<sup>Y</sup> blue part of spectrum unusable, hence wrong model subgrid; <sup>gc</sup>  $\log g$  from Ca K deviates; <sup>F</sup> fringing.

**Table 5.5:** Fundamental parameters of hybrid candidate stars compared to their spectral type from Guenther et al. (2012) and Sebastian et al. (2012).

| CID                     | USNO-B1      | $T_{\text{eff}}$ | $\sigma T_{\text{eff}}$ | $\log g$ | $\sigma \log g$ | S/N   | V      | Sp.T.   |
|-------------------------|--------------|------------------|-------------------------|----------|-----------------|-------|--------|---------|
| 102563681               | 0907-0101369 | 7550             | 191                     | 4.5      | 0.1             | 94.1  | 12.245 | A8V     |
| 102573770               | 0905-0098750 | 7950             | 342                     | 4.1      | 0.5             | 78.6  | 13.386 | A6V     |
| 102580623               | 0887-0099551 | 7725             | 320                     | 4.6      | 0.4             | 64.1  | 13.604 | A6V     |
| 102580968               | 0905-0098930 | 7025             | 96                      | 4.3      | 0.3             | 69.5  | 12.178 | F4III   |
| 102581527               | 0894-0099473 | 7800             | 432                     | 3.6      | 0.5             | 114.7 | 13.372 | A5IV    |
| 102589566               | 0884-0109241 | 7550             | 191                     | 3.9      | 0.8             | 88    | 12.923 | A8V     |
| 102600050               | 0894-0099933 | 7275             | 171                     | 4.3      | 0.2             | 110.5 | 12.474 | A8V     |
| 102600953               | 0907-0102155 | 7800             | 163                     | 3.5      | 0.4             | 84.3  | 12.819 | A3V     |
| 102606502 <sup>S</sup>  | 0898-0100939 | 7450             | 310                     | 3.8      | 0.9             | 23.6  | 14.332 | A7III   |
| 102608609               | 0908-0100844 | 6525             | 126                     | 3.3      | 0.3             | 48.6  | 13.35  | F5IV    |
| 102619330               | 0898-0101237 | 7675             | 275                     | 4.3      | 0.4             | 36.8  | 13.837 | A7V     |
| 102619560               | 0895-0099623 | 7150             | 100                     | 4.2      | 0.2             | 78.3  | 13.864 | A8V     |
| 102627276               | 0892-0101135 | 8300             | 200                     | 4.1      | 0.4             | 125   | 13.231 | A6V     |
| 102629848               | 0884-0110111 | 8800             | 849                     | 3.9      | 0.2             | 115.5 | 12.896 | A2IV    |
| 102630432               | 0890-0099231 | 8500             | 115                     | 4        | 0.5             | 123.5 | 12.767 | A1V     |
| 102637313               | 0893-0100268 | 7900             | 115                     | 3.5      | 0.1             | 91.8  | 12.44  | A6V     |
| 102639658               | 0896-0101349 | 8300             | 200                     | 4.1      | 0.4             | 183.3 | 11.628 | A6V     |
| 102642705               | 0902-0100411 | 8350             | 300                     | 3.9      | 0.2             | 59.8  | 14.331 | A4V     |
| 102645086               | 0905-0100165 | 7900             | 115                     | 3.5      | 0.1             | 93    | 12.063 | A6V     |
| 102651182               | 0896-0101588 | 7600             | 141                     | 4.6      | 0               | 71.2  | 13.137 | A6m     |
| 102660478 <sup>F</sup>  | 0900-0101649 | 7050             | 106                     | 3.0      | 0.5             | 43.1  | 13.292 | A7V     |
| 102662560 <sup>f*</sup> | 0900-0101688 | 8950             | 900                     | 4.3      | 0.2             | 76.1  | 13.467 | A0IV    |
| 102669191               | 0887-0101457 | 7550             | 191                     | 3.5      | 0.6             | 92.8  | 12.835 | A8V     |
| 102677302               | 0887-0101614 | 7700             | 115                     | 4.2      | 0.3             | 77.3  | 13.037 | A6m     |
| 102677996               | 0902-0101149 | 11550            | 900                     | 4.3      | 0.1             | 47    | 14.238 | B9.5III |
| 102678268 <sup>F</sup>  | 0903-0100986 | 7475             | 50                      | 3.8      | 0.5             | 97.9  | 12.562 | A9III   |
| 102685368               | 0909-0103260 | 7075             | 222                     | 4.1      | 0.4             | 49.6  | 14.458 | F4III   |
| 102690683               | 0887-0101927 | 6750             | 58                      | 3.9      | 0.4             | 58.7  | 14.43  | F2IV    |
| 102705788               | 0892-0102790 | 7400             | 183                     | 4.3      | 0.1             | 82.3  | 12.23  | A8V     |
| 102709431               | 0889-0101995 | 7950             | 342                     | 3.5      | 0.6             | 110.8 | 13.645 | A3V     |
| 102711885               | 0892-0102950 | 7500             | 82                      | 4.4      | 0.2             | 116.9 | 12.599 | A8V     |
| 102711971 <sup>F</sup>  | 0890-0100920 | 7625             | 263                     | 3.9      | 0.6             | 58.4  | 14.131 | A9III   |
| 102713978 <sup>F</sup>  | 0884-0111764 | 6900             | 141                     | 3.3      | 0.7             | 60.1  | 13.692 | F0IV    |

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# Chapter 5. Fundamental Parameters of EXO-Field Stars

**Table 5.5 – continued from previous page**

| CID                    | USNO-B1      | T <sub>eff</sub> | $\sigma$ T <sub>eff</sub> | log <i>g</i> | $\sigma$ log <i>g</i> | S/N   | V      | Sp.T. |
|------------------------|--------------|------------------|---------------------------|--------------|-----------------------|-------|--------|-------|
| 102718106              | 0895-0101781 | 7575             | 171                       | 3.7          | 0.6                   | 66.2  | 14.031 | A8V   |
| 102721492              | 0891-0103754 | 7850             | 436                       | 3.7          | 0.6                   | 58.6  | 13.855 | A6V   |
| 102732058              | 0906-0102140 | 7150             | 100                       | 4.4          | 0.2                   | 87.8  | 13.358 | A9III |
| 102735380              | 0900-0103277 | 8250             | 412                       | 4            | 0.5                   | 58.1  | 13.835 | A6V   |
| 102737008              | 0905-0102007 | 7375             | 171                       | 4.5          | 0.2                   | 62    | 14.048 | A8V   |
| 102740052              | 0890-0101492 | 7950             | 191                       | 4.5          | 0.1                   | 71.2  | 12.628 | A5IV  |
| 102752122              | 0898-0104040 | 8050             | 443                       | 4.2          | 0.4                   | 75    | 13.694 | A6V   |
| 102755069              | 0888-0100862 | 8000             | 0                         | 4.5          | 0.1                   | 79    | 13.503 | A6V   |
| 102756828              | 0890-0101784 | 7675             | 150                       | 3.7          | 0.3                   | 110.9 | 12.989 | A7III |
| 102757940              | 0886-0100897 | 7125             | 171                       | 3.8          | 0.7                   | 44.6  | 13.7   | A9III |
| 102759370              | 0886-0100928 | 7725             | 222                       | 4.6          | 0                     | 88.2  | 13.104 | A6V   |
| 102760159              | 0899-0101670 | 8100             | 200                       | 4.3          | 0.5                   | 109.9 | 13.08  | A4V   |
| 102760705              | 0904-0103032 | 8050             | 526                       | 4            | 0.6                   | 61.4  | 13.868 | A6V   |
| 102761296              | 0896-0103855 | 7475             | 96                        | 4.1          | 0.2                   | 91.4  | 13.416 | A8V   |
| 102761327              | 0908-0103592 | 8650             | 412                       | 3.5          | 0.1                   | 85.4  | 12.236 | A0IV  |
| 102780330 <sup>B</sup> | 0899-0102028 | 8900             | 1409                      | 3.9          | 0.6                   | 56.8  | 14.214 | A3V   |
| 102782919              | 0894-0103909 | 7150             | 100                       | 3.8          | 0.2                   | 64    | 13.629 | A9III |
| 102791134              | 0902-0103467 | 7025             | 96                        | 3.8          | 0.8                   | 83.2  | 13.898 | F0V   |
| 102792697              | 0901-0103788 | 12000            | 816                       | 4.4          | 0.2                   | 119.4 | 11.848 | B9.5V |

<sup>S</sup> poor S/N, <sup>F</sup> fringing; <sup>f\*</sup> weak fringing pattern in the red part; <sup>B</sup> broad hydrogen lines, binary candidate.

**Table 5.6:** Fundamental parameters of  $\delta$  Sct stars compared to their spectral type from Guenther et al. (2012) and Sebastian et al. (2012).

| CID                      | USNO-B1       | T <sub>eff</sub> | $\sigma$ T <sub>eff</sub> | log <i>g</i> | $\sigma$ log <i>g</i> | S/N   | V      | Sp.T.  |
|--------------------------|---------------|------------------|---------------------------|--------------|-----------------------|-------|--------|--------|
| 102575808                | 0825-02921472 | 7250             | 191                       | 3.3          | 0.6                   | 64.1  | 12.08  | A9III  |
| 102576929 <sup>thb</sup> | 0825-02922705 | 9100             | 886                       | 4.1          | 0.3                   | 54.8  | 13.83  | A4V    |
| 102580193                | 0825-02926328 | 7525             | 189                       | 4.20         | 0.5                   | 78.1  | 12.16  | A5IV   |
| 102584233                | 0825-02930698 | 6400             | 82                        | 3.7          | 0.9                   | 39.8  | 13.24  | F8V    |
| 102587554                | 0825-02934480 | 7375             | 50                        | 3.7          | 0.3                   | 55.8  | 13.69  | A8V    |
| 102589213                | 0900-03294627 | 8150             | 100                       | 4.2          | 0.3                   | 114.9 | 12.62  | A4V    |
| 102589546                | 0900-03294918 | 7250             | 58                        | 3.7          | 0.6                   | 50.3  | 12.61  | A7III  |
| 102591062                | 0900-03296213 | 7600             | 141                       | 3.7          | 0.3                   | 35.2  | 14.33  | A7V    |
| 102596121                | 0900-03300578 | 7700             | 115                       | 4.0          | 0.4                   | 82.6  | 13.45  | A7V    |
| 102598868                | 0825-02946917 | 7750             | 100                       | 3.9          | 0.2                   | 78.4  | 13.06  | A6V    |
| 102599598                | 0825-02947702 | 7600             | 141                       | 4.0          | 0.4                   | 69.9  | 14.04  | A7V    |
| 102600012                | 0825-02948135 | 8000             | 327                       | 4.4          | 0.3                   | 33.1  | 14.33  | A7V    |
| 102603176 <sup>thb</sup> | 0900-03306216 | 12800            | 2535                      | 4.3          | 0.6                   | 96.7  | 12.66  | A3V    |
| 102607188                | 0825-02954902 | 8100             | 115                       | 4.2          | 0.3                   | 68.7  | 14.49  | A6V    |
| 102614844 <sup>bg</sup>  | 0900-03314500 | 5500             | 382                       | 4.0          | 1.0                   | 26.1  | 12.498 | G9IIIb |
| 102618519                | 0825-02965265 | 7500             | 216                       | 4.5          | 0.2                   | 73.1  | 13.92  | A8V    |
| 102620865                | 0825-02967484 | 11650            | 1561                      | 4.2          | 0.3                   | 113   | 13.05  | A1V    |
| 102622725 <sup>bg</sup>  | 0825-02969278 | 5300             | 472                       | 4.6          | 0.0                   | 29.1  | 13.519 | K0IV   |
| 102623864                | 0900-03321693 | 7900             | 115                       | 4.0          | 0.5                   | 45    | 12.8   | A7V    |
| 102624107                | 0825-02970635 | 8400             | 163                       | 4.1          | 0.4                   | 96.9  | 14.08  | A6V    |

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# Chapter 5. Fundamental Parameters of EXO-Field Stars

**Table 5.6 – continued from previous page**

| CID                    | USNO-B1       | T <sub>eff</sub> | $\sigma$ T <sub>eff</sub> | log g | $\sigma$ log g | S/N   | V      | Sp.T. |
|------------------------|---------------|------------------|---------------------------|-------|----------------|-------|--------|-------|
| 102634888              | 0825-02981365 | 7175             | 96                        | 4.0   | 0.4            | 80.3  | 13.953 | F0V   |
| 102636829              | 0900-03331474 | 7000             | 200                       | 3.2   | 0.2            | 59.3  | 13.6   | A9III |
| 102637079              | 0900-03331636 | 7325             | 50                        | 3.9   | 0.4            | 58.1  | 13.32  | A7III |
| 102639464              | 0900-03333261 | 10850            | 870                       | 4.4   | 0.1            | 145.1 | 11.3   | A2IV  |
| 102639650              | 0900-03333383 | 7500             | 82                        | 3.9   | 0.4            | 46.3  | 14.13  | A7III |
| 102641760 <sup>F</sup> | 0825-02987777 | 7950             | 191                       | 4.3   | 0.3            | 75.6  | 13.38  | A6V   |
| 102642516              | 0825-02988468 | 7275             | 96                        | 3.7   | 0.6            | 57.8  | 13.896 | F1V   |
| 102645677              | 0825-02991399 | 7425             | 96                        | 3.8   | 0.6            | 72.1  | 13.68  | A8V   |
| 102646094              | 0825-02991787 | 6850             | 100                       | 3.3   | 0.5            | 64.1  | 13.253 | F0IV  |
| 102646349              | 0825-02992046 | 9425             | 888                       | 4.0   | 0.5            | 94    | 13.79  | A1V   |
| 102647323              | 0900-03338684 | 8200             | 163                       | 4.3   | 0.3            | 90.4  | 12.89  | A6V   |
| 102650434 <sup>F</sup> | 0900-03340861 | 8500             | 2369                      | 3.9   | 1.0            | 60.3  | 13.72  | A9IV  |
| 102651129              | 0900-03341370 | 8350             | 342                       | 3.8   | 0.3            | 117.2 | 11.97  | A0IV  |
| 102655408              | 0825-03000452 | 7375             | 96                        | 4.0   | 0.7            | 63.1  | 14.32  | A8V   |
| 102655654              | 0825-03000697 | 7200             | 141                       | 3.7   | 0.8            | 73.7  | 14.288 | F0V   |
| 102656251              | 0825-03001217 | 7950             | 100                       | 4.2   | 0.3            | 94.6  | 13.03  | A6V   |
| 102657423 <sup>F</sup> | 0900-03345861 | 8150             | 574                       | 3.4   | 0.9            | 88.3  | 12.87  | A8V   |
| 102661211              | 0825-03005668 | 7075             | 50                        | 3.6   | 0.9            | 74.4  | 13.32  | A9III |
| 102664100              | -             | 8000             | 163                       | 4.2   | 0.4            | 89    | 12.74  | A6V   |
| 102668347              | 0825-03012197 | 6175             | 126                       | 3.5   | 0.9            | 42.4  | 14.003 | F9IV  |
| 102668428              | 0900-03353642 | 7600             | 141                       | 3.8   | 0.4            | 30.9  | 13.7   | A6V   |
| 102669422              | 0825-03013130 | 7300             | 141                       | 3.7   | 0.8            | 54.6  | 13.327 | F0V   |
| 102670461              | 0825-03014124 | 7325             | 150                       | 3.6   | 0.8            | 93.3  | 12.3   | A8V   |
| 102671284              | 0825-03014898 | 8550             | 574                       | 3.7   | 0.2            | 124.1 | 13.19  | A3V   |
| 102673795              | 0825-03017234 | 8050             | 100                       | 3.8   | 0.3            | 76.6  | 12.62  | A3V   |
| 102675756              | 0900-03359036 | 7350             | 300                       | 3.2   | 0.5            | 55.6  | 14.35  | A7III |
| 102677987 <sup>F</sup> | 0900-03360828 | 7700             | 115                       | 4.0   | 0.4            | 99.2  | 12.66  | A8V   |
| 102678628              | 0825-03021723 | 7100             | 82                        | 3.2   | 0.5            | 71.3  | 12.3   | A9III |
| 102686153              | 0825-03028829 | 7125             | 96                        | 3.5   | 0.7            | 74.6  | 13.219 | F0V   |
| 102687709              | 0825-03030266 | 7950             | 100                       | 4.4   | 0.4            | 116.2 | 13.21  | A6V   |
| 102688156              | 0825-03030647 | 7725             | 222                       | 4.4   | 0.3            | 81.8  | 13.6   | A6V   |
| 102688713              | 0000-00000000 | 7300             | 216                       | 4.2   | 0.8            | 53.8  | 14.41  | A8V   |
| 102690176              | 0825-03032497 | 7425             | 96                        | 3.5   | 0.7            | 54.2  | 14.12  | A8V   |
| 102691322              | 0825-03033577 | 7650             | 100                       | 4.1   | 0.3            | 84.3  | 13.25  | A5IV  |
| 102691789              | 0900-03371963 | 7800             | 163                       | 3.8   | 0.6            | 60.4  | 13.95  | A7V   |
| 102694610              | 0825-03036585 | 8000             | 432                       | 3.7   | 0.6            | 97.1  | 13.72  | A6V   |
| 102702314              | 0900-03380191 | 7000             | 141                       | 3.0   | 0.4            | 48.2  | 13.463 | F4III |
| 102702932              | 0900-03380659 | 6975             | 96                        | 3.4   | 0.3            | 54.3  | 13.815 | F0V   |
| 102703251              | 0825-03044415 | 9100             | 808                       | 3.8   | 0.3            | 87.6  | 12.22  | A1V   |
| 102704304              | 0825-03045323 | 7050             | 100                       | 3.3   | 0.3            | 59.3  | 13.95  | A9III |
| 102706800              | 0825-03047738 | 7125             | 189                       | 3.3   | 0.6            | 55.3  | 13.99  | A9III |
| 102706982              | 0825-03047931 | 7375             | 171                       | 3.8   | 0.9            | 81.1  | 13.57  | A8V   |
| 102710813              | 0825-03051914 | 8350             | 300                       | 4.2   | 0.3            | 67.6  | 14.38  | A6V   |
| 102712421 <sup>F</sup> | 0900-03389027 | 7400             | 82                        | 4.0   | 0.3            | 69.8  | 12.91  | A7III |
| 102713193              | 0000-00000000 | 7425             | 126                       | 4.0   | 1.0            | 105   | 12.97  | A8V   |
| 102721716              | 0825-03063010 | 7700             | 115                       | 4.20  | 0.5            | 137.3 | 12.13  | A8V   |
| 102723128              | 0900-03398829 | 6975             | 171                       | 3.9   | 0.4            | 50.4  | 12.101 | F4III |
| 102723199              | 0825-03064514 | 6225             | 222                       | 3.2   | 0.5            | 46    | 13.312 | F9IV  |
| 102724195              | 0825-03065478 | 7550             | 58                        | 3.9   | 0.5            | 49.4  | 13.67  | A8V   |

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Table 5.6 – continued from previous page

| CID                    | USNO-B1       | $T_{\text{eff}}$ | $\sigma T_{\text{eff}}$ | $\log g$ | $\sigma \log g$ | S/N   | V      | Sp.T. |
|------------------------|---------------|------------------|-------------------------|----------|-----------------|-------|--------|-------|
| 102728240              | 0825-03069711 | 7450             | 100                     | 4.2      | 0.5             | 74.2  | 12.22  | A8V   |
| 102733521              | 0900-03408018 | 7125             | 50                      | 3.6      | 0.8             | 86.2  | 12.04  | A9III |
| 102735992              | 0825-03076684 | 7225             | 50                      | 3.8      | 0.7             | 56.9  | 13.8   | A8V   |
| 102742700              | 0825-03082890 | 7550             | 173                     | 3.9      | 1.0             | 57    | 13.34  | A8V   |
| 102743992              | 0900-03416473 | 7950             | 100                     | 4.3      | 0.6             | 57.6  | 14.09  | A3V   |
| 102745499              | 0825-03085464 | 7900             | 200                     | 3.9      | 0.4             | 82.8  | 13.27  | A5IV  |
| 102746628              | 0825-03086461 | 7175             | 171                     | 3.4      | 0.6             | 45.7  | 12.673 | F4III |
| 102749985 <sup>F</sup> | 0825-03089576 | 8100             | 115                     | 4.4      | 0.4             | 82    | 13.6   | A6V   |
| 102753236              | 0825-03092442 | 7600             | 141                     | 4.1      | 0.8             | 171.7 | 11.68  | A8V   |
| 102761878              | 0825-03100245 | 7375             | 150                     | 3.7      | 0.5             | 79.7  | 13.72  | A8V   |
| 102763839              | 0825-03101953 | 6550             | 100                     | 3.7      | 0.9             | 58.7  | 14.084 | F4V   |
| 102766985              | 0900-03436067 | 6350             | 100                     | 3.9      | 0.3             | 61.9  | 12.814 | F6IV  |
| 102773976              | 0900-03442133 | 7525             | 250                     | 4.4      | 0.3             | 62.4  | 13.84  | A5V   |
| 102775243              | 0825-03112134 | 7950             | 191                     | 4.3      | 0.5             | 114.5 | 12.07  | A6V   |
| 102775698              | 0825-03112507 | 11175            | 960                     | 4.4      | 0.1             | 169.8 | 11.39  | A1IV  |
| 102785246              | 0825-03120584 | 7425             | 126                     | 3.8      | 0.6             | 73    | 13.39  | A8V   |
| 102786753              | 0825-03121954 | 7100             | 82                      | 3.4      | 0.6             | 63.2  | 12.951 | F0V   |
| 102787451              | 0825-03122568 | 7300             | 163                     | 4.0      | 0.8             | 56    | 13.67  | A8V   |
| 102788412 <sup>F</sup> | 0825-03123414 | 8000             | 163                     | 4.0      | 1.0             | 95.7  | 13.41  | A6V   |
| 102790482              | 0825-03125223 | 7225             | 126                     | 3.5      | 0.7             | 45.3  | 13.38  | A6m   |
| 102794872 <sup>F</sup> | 0825-03129286 | 7575             | 171                     | 4.2      | 0.4             | 113.9 | 11.7   | A7V   |

<sup>thb</sup>  $T_{\text{eff}}$  of  $H_{\beta}$  off; <sup>bg</sup>  $\delta$  Sct likely background star; <sup>F</sup> fringing;

## Conclusion

The determination of the fundamental parameters was done in order to place these stars in the HRD and to allow the statistical investigations in the following sections. The  $\log g$  values are generally subject to large errors, because for stars cooler than 8000 K the hydrogen lines are only weakly sensitive to  $\log g$ . Nevertheless, the derived values in  $\log g$  are accurate enough to differentiate between dwarfs and giants. Thus, it is shown that hybrid stars are not giants. The comparison to the spectral classification by Sebastian et al. (2012) and Guenther et al. (2012) shows a satisfactory agreement.



## Chapter 6

# Frequency analysis of the LRa01 EXO data

In order to safely classify a star as a hybrid a careful frequency analysis is required. A simple classification based on frequency regimes alone may easily misclassify eclipsing binaries or rotating stars as  $g$  mode pulsator. Not only these effects, but also prevailing spurious frequencies caused by residual artefacts in the data can easily mislead such a simple classification. Combination frequencies are another source of misclassification. Therefore, the frequency solution for each star was analysed carefully to avoid such mistakes and firmly establish the existence of  $g$  modes.

The frequency analysis was performed using the tool SigSpec (Reegen 2007) in the version 2 of October 3rd, 2007. This is an optimised version compared to the version 1 where the runtime was significantly reduced. SigSpec performs a multi-sine fit and does not rely on prewhitening. Prewhitening is only used to determine the next frequency to be included in the multi-sine fit. SigSpec was developed by P. Reegen and a user manual is provided in the CoAst-volume 163 (Reegen 2011).

In several publications authors compared SigSpec-results to Period04 results with an almost perfect agreement. In this work Period04 was not used since the amount of data sets and the number of data points of each set makes the analysis time-consuming.

The CoRoT data are already described in Chap. 2. The frequency analyses of all sample stars were carried out in the frequency regime from 0 to  $84 \text{ d}^{-1}$ . The CoRoT orbit period is present in all light curves as well as its harmonics. In the low-frequency regime there is weaker a  $2 \text{ d}^{-1}$  signal which is due to the crossing of the South Atlantic Anomaly (SAA) twice a day. Frequencies lower than  $0.5 \text{ d}^{-1}$  are mainly affected by residual aperiodic or quasi-periodic artefacts after our jump-removing pipeline. The lowest frequencies are therefore ignored in this work, except for the cases where a clear variability is visible in the light curve.

The frequency determination is rather easy because the artefacts are well known and the aliasing does not pose a significant problem. SigSpec identifies usually about 150 frequencies in a  $\gamma$  Dor data set that are formally significant. A threshold of significance 6 was chosen. The  $\gamma$  Dor data sets were carefully searched for possible  $p$ -modes. Of the initially classified  $\gamma$  Dor stars, 6 cases showed  $p$  modes and were reclassified as hybrids, accordingly.

## 6.1 $\gamma$ Dor stars

Of the initial 418  $\gamma$  Dor candidate stars I selected only stars for which AAO classification spectra are available enabling me to determine their fundamental parameters. In this fashion, the sample reduces to 132  $\gamma$  Dor candidate stars, for which the frequency analysis is performed. Subsequently, 92 pure  $\gamma$  Dor stars and 30 remaining candidates were identified and 10 stars were rejected because of uncertain fundamental parameters due to unusable spectra. Table 5.2 lists their CoRoT IDs and as cross-reference their USNO-B1 identifiers. Additionally, their effective temperatures, surface gravities, apparent magnitudes and their spectral types are given. The spectral types were derived by Guenther et al. (2012) and Sebastian et al. (2012).

Stars, where the  $\gamma$  Dor classification is unclear are still kept after the frequency analysis. The prevailing reason for this is that their frequency content is not convincing enough to safely identify them as pulsation frequencies. Speculative differential surface rotation or stellar activity could produce signal in this frequency regime. If this was the case then harmonics of the rotation periods are expected and such harmonics are indeed observed in many cases. But due to the lack of additional information, such as high-resolution time-series spectroscopy, the rotation hypothesis is based only on the light curve. A few stars show only two or three frequencies in the  $\gamma$  Dor regime and no further signal. Thus, such stars are classified as candidates as well for the above mentioned reason. Moreover, there are stars too hot for  $\gamma$  Dor but too cool for SPB that show low-amplitude signal. These stars were as well classified as candidates but might represent a new class of low-amplitude variables. These stars are listed in Table 6.1.

The star CID 102597681 shows rather high amplitudes and a typical  $\gamma$  Dor pulsation spectrum. Additionally, the light curve shows a transit with a period of 20.82 days. Carone et al. (2012) classified this case as planet transit candidate and obtained spectra for this star (among other transit candidates). It turned out that this system constitutes a SB3 system with a bright A-type star. This star dominates the light and therefore the temperature determination was wrong. For further investigations (e.g.  $T_{\text{eff}}$  -  $\log P$  diagram) this star was excluded. Two more stars are listed in the catalogue by Carone et al. (2012), that are: CID 102738809 and CID 102694263. I suggest one more eclipsing

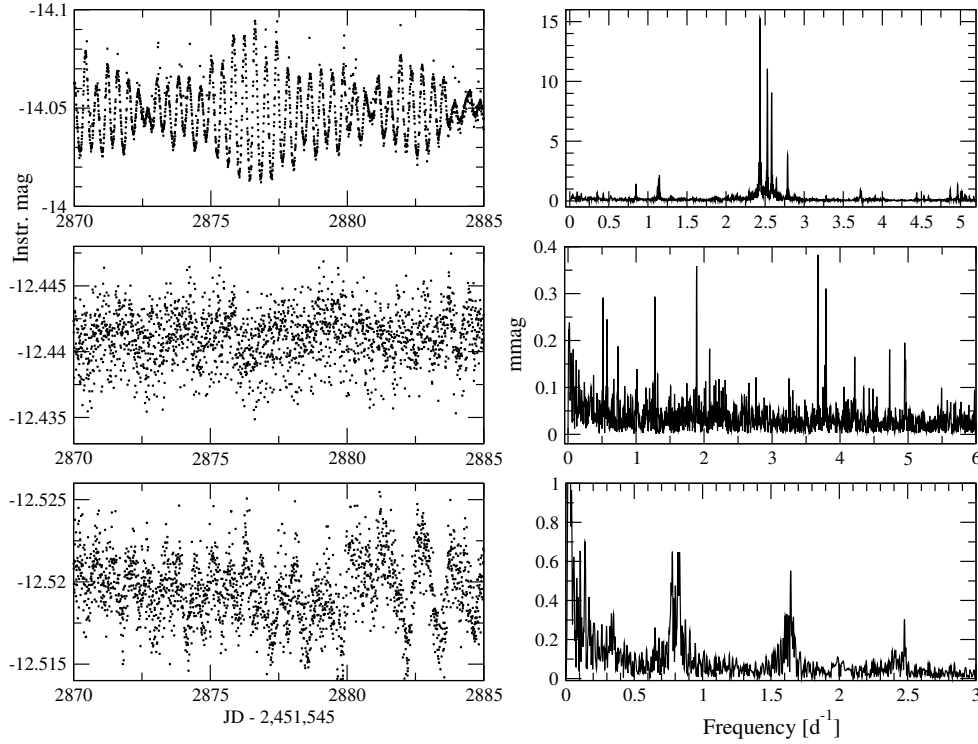


**Figure 6.1:** Three types of  $\gamma$  Dor stars. Top left and right panels: 1) high amplitude  $\gamma$  Dor stars (CoRoT 0102603266), middle panels: 2) HD 49434-like  $\gamma$  Dor star example and 3) lower panels: Nonsinusoidal light curves with tightly spaced frequencies.

binary candidate, which is CID 102726709, where the phase diagram folded with the frequency  $0.7862 \text{ d}^{-1}$  shows a weak bump which might be due to an eclipse. This star is not present in the catalogue of Carone et al. (2012).

Among the stars classified as  $\gamma$  Dor there are differences in the pulsation spectra. Based on the Fourier spectrum three subgroups can be defined:

Type 1:  $\gamma$  Dor stars where the frequencies are centred around a main peak, occasionally side clusters of frequencies appear.

Type 2: HD 49434-like  $\gamma$  Dor stars where the frequencies spread over a large range

Type 3: characterised by nonsinusoidal light curve with closely spaced frequencies and harmonics.

Fig.6.1 shows one example of each of these types.

### Search for Period Spacings

I performed a systematic search for period spacings among the  $\gamma$  Dor stars. For this aim, I modified the Comb Response Function (CRF) of Kjeldsen et al.

(1995), which is used for detecting frequency spacings in solar-like pulsators, to accommodate needs for regular period spacings. Instead of the power spectrum I use the significance spectrum in period and the terms of  $0.5\Delta P$  ( $\frac{1}{2}\Delta\nu$  in the original article) were omitted.

In order to detect period spacings with such an algorithm a constant period step size is required. SigSpec and other Fourier Analysis algorithms calculate the Fourier transform on a regular grid in frequency and thus yield an unevenly spaced period spectrum when turning the frequencies into periods. Hence, I adapted the part of the code of SigSpec (Reegen 2007), which implements the evaluation of the significance for each frequency step, to evaluate the significance at each given period instead of frequency step. Tests were performed to ensure correct results by comparing to the output of the unaltered SigSpec code to this altered code.

Equations 6.1 and 6.2 show how my modified version of the Comb Response function was implemented.  $p_{max}$  is the period of maximum significance,  $n \in \{-2, -1, 0, 1, 2\}$  and  $S(x)$  denotes the significance spectrum at the period  $x$ .

$$CRF_{mult}(\Delta p) = \prod_{n=-2}^2 S(p_{max} + n\Delta p) \quad (6.1)$$

$$CRF_{sum}(\Delta p) = \sum_{n=-2}^2 S(p_{max} + n\Delta p) \quad (6.2)$$

Both, the sum and the product are employed because of 1) avoiding the misinterpretation of the spacing between the main peak and the second strongest peak. The multiplication solves this problem whereas the function employing the sum shows a peak at this spacing. 2) Avoiding the loss of a constant period spacing if one mode is missing. The sum of significances now overcomes this problems, whereas the product becomes zero if one factor is zero. The ordinate is arbitrary and the following normalisation was performed for convenience:

$$CRF_{mult,norm}(\Delta p) = \frac{CRF_{mult}(\Delta p)}{\max(CRF_{mult})} \quad (6.3)$$

$$CRF_{sum,norm}(\Delta p) = \frac{(CRF_{sum} - \min(CRF_{sum}))}{\max(CRF_{sum})} \quad (6.4)$$

Figure 6.2 shows an example of the CRF. In the upper panel the resulting sum and product are displayed. Both functions show a peak at 0.009. The bottom panel shows the periodogram in significance. The vertical dotted lines are centred on the most significant peak and spaced by 0.009 d, as was determined by the CRF.



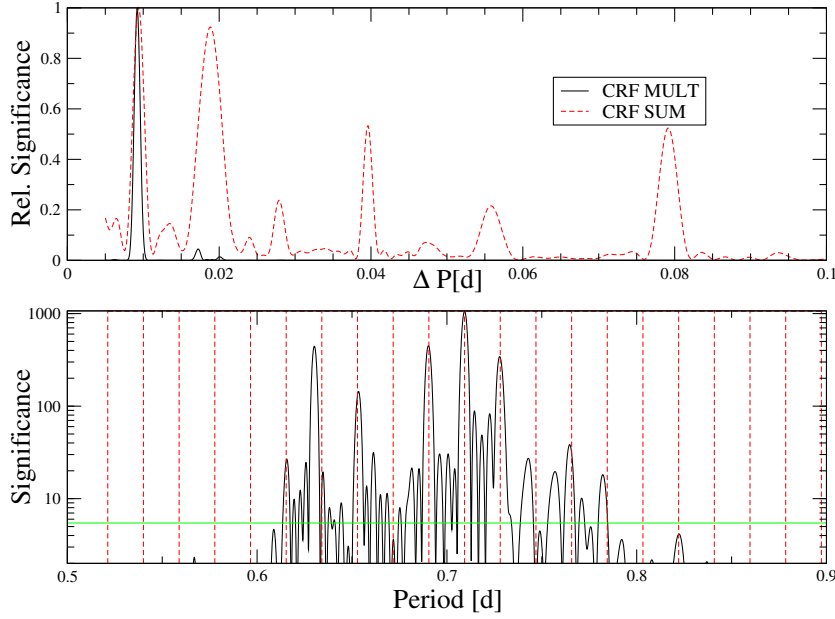


**Figure 6.2:** Detection of period spacings. Upper panel: Results of the CRF using both, multiplication and sum of significances. Lower panel: Periods spaced uniformly with the detected spacing are indicated by the vertical red dashed lines. The horizontal line displays a significance level of 5.46. The significance is plotted in logarithm for better visibility.

The period spacings found are generally very short. From theory we would expect a period spacing of about 1 hour (3600 s) for  $\ell = 1$  modes. (see Miglio et al. 2008). The spacing shrinks for higher  $\ell$  values, but most of the detected spacings are still too short for  $\ell = 2$ . Higher degree modes are possible, however they are supposed to suffer from cancellation effects and therefore their amplitudes should be very small or not detectable.

Moreover, the detection of a period spacing implies the same  $\ell$  value for all the uniformly spaced modes. This is a questionable assumption, which needs to be confirmed by spectroscopic mode identification. The EXO field stars are, however, too faint to obtain time-resolved spectroscopy with accessible instruments. Miglio et al. (2008) have shown that due to evolution effects the period spacing deviates from a uniform one (ZAMS stars) and becomes periodic itself in the radial order for evolved stars.

The effect of rotation is even worse than evolution effects. The rotation period of  $\gamma$  Dor stars can well be of the order of the pulsation period and the rotational splitting for  $g$  modes is not symmetric. Again, this leads to a deviation from a strictly uniform spacing. This matter was discussed by Dupret et al. (2007) and is discussed in more detail in Chap. 7. Despite all adversities, it had to be verified for not overlooking important details. Table 6.2 lists the results of the investigation for period spacings.

**Table 6.1:** 5 hot  $\gamma$  Dor candidates.

| CoRoT ID   | $T_{\text{eff}}$<br>[K] | $\log g$<br>[ $\text{cms}^{-2}$ ] | Main Frequency<br>[ $\text{d}^{-1}$ ] |
|------------|-------------------------|-----------------------------------|---------------------------------------|
| 0102581832 | $8300 \pm 200$          | $3.733 \pm 0.231$                 | 1.231                                 |
| 0102612288 | $8550 \pm 191$          | $4.2 \pm 0.346$                   | 0.686                                 |
| 0102654138 | $8300 \pm 476$          | $3.75 \pm 0.7$                    | 1.943                                 |
| 0102685143 | $8250 \pm 100$          | $4.267 \pm 0.306$                 | 0.387                                 |
| 0102701987 | $8450 \pm 100$          | $4.2 \pm 0.346$                   | 0.208                                 |

Stars hotter than 8000 K showing low frequency signal were detected. These stars were classified as  $\gamma$  Dor candidates. In three cases, the mask of such stars contain more than one star, hence it is possible that the pulsation does not originate from the component which is dominating the total light. Five stars, however, have no contaminating background (or foreground) stars within their mask. The amplitudes of the  $g$  mode like frequencies are often below 1 mmag and sometimes of the order of a few hundred ppm. The suspected pulsations are multi-periodic, where harmonics are often present. This result is not unique for my sample, and was already reported by Uytterhoeven & WG#10 (2011) for *Kepler* observations. The convective flux blocking mechanism that is considered so far as the best explanation for the driving of  $g$  modes, is unlikely to be effective for such stars, since the base of the convection zone is closer to their surfaces. However, a very recent study of stochastically excited  $g$  modes may explain these frequencies (Shiode et al. 2012).

The DFT spectra of the 5 hot stars ( $T_{\text{eff}} \geq 8000$  K) are shown in Fig. 6.3. The parameters of the five presented stars are listed in Table 6.1

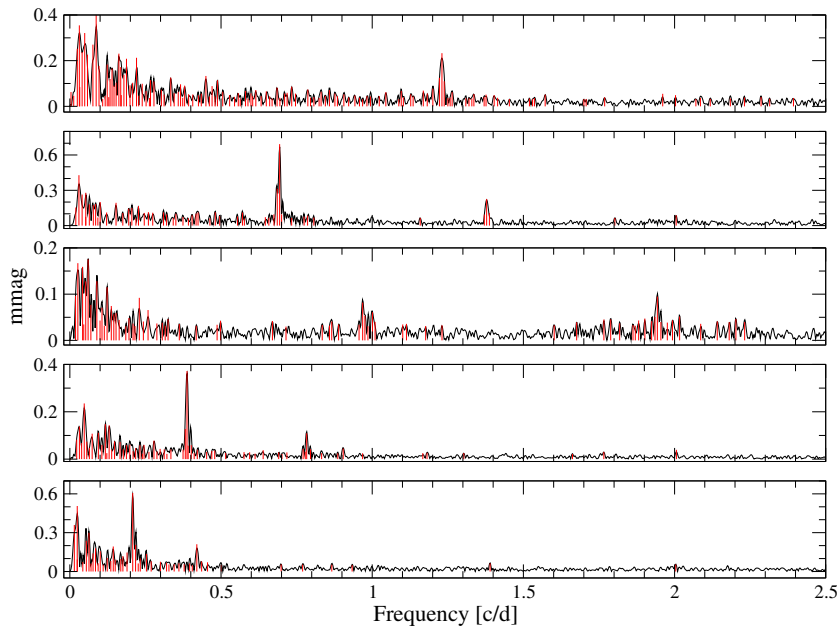


**Figure 6.3:** Fourier transforms of the 5 hot  $\gamma$  Dor candidates listed in Table 6.1. The order from top to bottom is the same as in the table.

**Table 6.2:**  $\gamma$  Dor stars with  $T_{\text{eff}}$   $\log g$  dominant frequency and detected period spacings in days of  $g$  mode.

| CoRoT ID  | $T_{\text{eff}}$<br>[K] | $\sigma T_{\text{eff}}$<br>[K] | $\log g$<br>[cm/s <sup>2</sup> ] | $\sigma \log g$<br>[cm/s <sup>2</sup> ] | Vmag<br>[mag] | Dom. frequency<br>[d <sup>-1</sup> ] | Amplitude<br>[mmag] | Spacing<br>[d] | Comment                    |
|-----------|-------------------------|--------------------------------|----------------------------------|-----------------------------------------|---------------|--------------------------------------|---------------------|----------------|----------------------------|
| 102581739 | 6950                    | 129                            | 4.4                              | 0.2                                     | 13.641        | 2.9741545                            | 0.74445784          | 0.01111        | only 3 modes, inconclusive |
| 102581982 | 7100                    | 141                            | 4.2                              | 0.529                                   | 14.403        | 3.6742042                            | 0.38898229          | 0.00865        | and 0.19491                |
| 102587545 | 6400                    | 141                            | 3.533                            | 0.611                                   | 13.181        | 1.9708214                            | 0.74223502          | 0.04405        | 4 modes                    |
| 102595296 | 6800                    | 82                             | 3.8                              | 0.346                                   | 12.058        | 1.4098517                            | 2.267508            | 0.0188         | 7 modes                    |
| 102600197 | 6975                    | 96                             | 3.867                            | 0.416                                   | 14.295        | 2.0067993                            | 1.1267606           | 0.0067         | and 0.0219                 |
| 102602901 | 7025                    | 126                            | 3.867                            | 0.115                                   | 12.202        | 2.6095734                            | 7.5837334           | 0.0078         | -                          |
| 102603266 | 7175                    | 171                            | 4.067                            | 0.306                                   | 12.709        | 2.4351158                            | 15.603056           | 0.007098       | 5 modes                    |
| 102604639 | 6925                    | 126                            | 3.8                              | 0.529                                   | 14.395        | 2.384335                             | 3.861257            | 0.0058         | -                          |
| 102605393 | 6775                    | 50                             | 4.067                            | 0.924                                   | 13.397        | 1.2134073                            | 2.6181367           | 0.0117         | or 0.0223                  |
| 102608070 | 7425                    | 206                            | 4.067                            | 0.467                                   | 14.459        | 3.4391775                            | 1.6510173           | 0.0102         | 5 modes                    |
| 102611108 | 6900                    | 115                            | 4.067                            | 0.306                                   | 12.513        | 1.2817977                            | 10.923847           | 0.02905        | -                          |
| 102613079 | 6900                    | 141                            | 3.933                            | 0.503                                   | 14.462        | 2.6857655                            | 0.68506647          | 0.0042         | -                          |
| 102631816 | 7025                    | 126                            | 4.2                              | 0.4                                     | 13.067        | 1.1868664                            | 5.3244843           | 0.0238         | 7 modes, or 0.0314 4 modes |
| 102636574 | 7175                    | 150                            | 3.867                            | 0.231                                   | 13.171        | 2.7066172                            | 1.2314941           | 0.0039         | -                          |
| 102648939 | 7050                    | 100                            | 4.067                            | 0.503                                   | 13.556        | 0.15106409                           | 0.37576032          | 0.00943?       | only 3 modes               |
| 102649754 | 6725                    | 58                             | 4.2                              | 0.4                                     | 12.555        | 1.7247802                            | 0.79598783          | no             | -                          |
| 102654663 | 6975                    | 126                            | 3.933                            | 0.115                                   | 14.438        | 2.1080194                            | 4.0677372           | 0.0098         | or 0.01224                 |
| 102657207 | 6825                    | 96                             | 4.067                            | 0.115                                   | 14.394        | 1.7874391                            | 0.5381531           | 0.0338         | only 3 modes               |
| 102671368 | 7200                    | 173                            | 4.4                              | 0.2                                     | 13.903        | 1.1581019                            | 0.44761629          | 0.00938        | or 0.020285                |
| 102680138 | 7225                    | 96                             | 4.2                              | 0.2                                     | 12.875        | 2.3073931                            | 4.4747382           | 0.0098         | 4 strong modes             |
| 102682158 | 6800                    | 163                            | 3.8                              | 0.2                                     | 13.885        | 1.0375362                            | 5.7157498           | 0.00939        | 4 or 5 modes               |
| 102684448 | 7050                    | 173                            | 3.667                            | 0.462                                   | 13.707        | 1.8760966                            | 3.5984012           | 0.006          | 5-6 modes                  |
| 102698507 | 7225                    | 96                             | 4.067                            | 0.115                                   | 13.201        | 3.2464769                            | 0.7564981           | 0.0033         | few modes                  |
| 102703792 | 7025                    | 96                             | 4.267                            | 0.115                                   | 13.735        | 2.0964723                            | 1.7720932           | 0.00375        | 4-5 modes                  |

Continued on next page

Table 6.2 – continued from previous page

| CoRoT ID  | T <sub>eff</sub><br>[K] | $\sigma T_{\text{eff}}$<br>[K] | log g<br>[cm/s <sup>2</sup> ] | $\sigma \log g$<br>[cm/s <sup>2</sup> ] | Vmag<br>[mag] | Dom. frequency<br>[d <sup>-1</sup> ] | Amplitude<br>[mmag] | Spacing<br>[d] | Comment             |
|-----------|-------------------------|--------------------------------|-------------------------------|-----------------------------------------|---------------|--------------------------------------|---------------------|----------------|---------------------|
| 102704602 | 7025                    | 96                             | 4.133                         | 0.115                                   | 13.063        | 2.0038178                            | 1.6341861           | 0.0407         | only 3 strong modes |
| 102708748 | 6750                    | 58                             | 3.8                           | 0.2                                     | 13.725        | 0.87317945                           | 0.58815156          | 0.0621         | 5 modes             |
| 102713311 | 6975                    | 171                            | 4.067                         | 0.306                                   | 13.83         | 1.492985                             | 1.4550992           | 0.01216        | 8 modes             |
| 102719846 | 7025                    | 96                             | 3.933                         | 0.115                                   | 14.062        | 1.7661388                            | 0.84754805          | 0.0057         | 12 modes            |
| 102724031 | 6800                    | 141                            | 3.867                         | 0.231                                   | 13.539        | 1.3773954                            | 1.7050247           | 0.00925        | 4 modes             |
| 102724193 | 7025                    | 126                            | 3.933                         | 0.416                                   | 14.446        | 2.1062337                            | 12.958421           | 0.008          | or 0.01585          |
| 102726709 | 7200                    | 82                             | 3.8                           | 0                                       | 13.693        | 1.4839504                            | 0.69702135          | 0.0135         | or 0.02965          |
| 102727441 | 7025                    | 96                             | 3.867                         | 0.115                                   | 13.641        | 2.5657633                            | 5.0966355           | 0.0132         | or 0.02645          |
| 102730229 | 6750                    | 100                            | 3.6                           | 0.2                                     | 12.793        | 0.75224577                           | 1.3420874           | 0.0288?        | or 0.0837           |
| 102732872 | 6925                    | 96                             | 4.067                         | 0.306                                   | 13.285        | 1.0040353                            | 3.9250567           | 0.013          | -                   |
| 102738809 | 7250                    | 58                             | 3.8                           | 0.693                                   | 12.446        | 0.98243415                           | 3.8538736           | 0.0354         | Eclipse             |
| 102742767 | 6625                    | 126                            | 4.133                         | 0.416                                   | 13.095        | 0.32613212                           | 3.0830966           | 0.108          | 5 modes             |
| 102743567 | 7025                    | 126                            | 4.4                           | 0.2                                     | 11.986        | 1.2024621                            | 11.460643           | 0.01213?       | 8 modes             |
| 102749931 | 6775                    | 96                             | 3.6                           | 0.529                                   | 13.001        | 1.0900382                            | 0.35527114          | 0.1355         | 6 modes             |
| 102758112 | 6950                    | 100                            | 3.867                         | 0.416                                   | 13.352        | 1.9539899                            | 0.39233148          | 0.0192         | 6 modes             |
| 102763149 | 6625                    | 96                             | 3.733                         | 0.231                                   | 13.087        | 0.77469979                           | 0.30992619          | 0.027          | 5 modes             |
| 102763156 | 7175                    | 96                             | 4.267                         | 0.306                                   | 12.985        | 1.6986414                            | 9.4596589           | 0.0215         | 4 modes             |
| 102777271 | 6750                    | 129                            | 3.533                         | 0.231                                   | 12.483        | 1.6603931                            | 0.23895809          | no             | -                   |
| 102777301 | 6825                    | 189                            | 4.067                         | 0.503                                   | 14.378        | 1.997605                             | 0.80536714          | 0.015          | 5-6 modes           |
| 102784531 | 7000                    | 82                             | 3.933                         | 0.503                                   | 13.322        | 1.880886                             | 0.27046961          | no             | -                   |
| 102792193 | 7650                    | 252                            | 4.467                         | 0.115                                   | 14.498        | 1.9403149                            | 7.8629335           | no             | -                   |
| 102794331 | 6750                    | 58                             | 3.867                         | 0.231                                   | 13.201        | 0.57572448                           | 3.3044645           | 0.0578         | 5-6 modes           |
| 102794767 | 6800                    | 82                             | 4.133                         | 0.231                                   | 14.255        | 2.1789882                            | 0.68012633          | 0.0025         | 10 modes            |
| 102795873 | 7050                    | 173                            | 4                             | 0.2                                     | 13.998        | 1.7704193                            | 0.014525357         | 0.027          | 8 modes             |

## 6.2 $\delta$ Sct - $\gamma$ Dor hybrid stars

The first report on *Kepler* observations of  $\gamma$  Dor and  $\delta$  Sct hybrid stars was published by Grigahcène et al. (2010). These authors suggested a new classification scheme based on the frequency of maximum power, because the first data of *Kepler* implied that there are practically no pure  $\delta$  Sct or  $\gamma$  Dor stars. Contrary, I found in the CoRoT data pure  $\gamma$  Dor and pure  $\delta$  Sct thus their proposed scheme was not applied. The definition of hybrid star is not so straight forward as it may appear at first sight.  $\delta$  Sct stars are known to pulsate not only in  $p$  modes but also in low-order  $g$  modes or mixed modes (eg. FG Vir, Breger et al. 2005).  $\gamma$  Dor stars pulsate in high-order  $g$  modes, thus in this thesis hybrid stars were defined as stars which pulsate in the low frequencies as  $\gamma$  Dor and  $\delta$  Sct in the high frequency regime at the same time. Hence two conditions must be met: 1) high-order  $g$  modes and 2) low-order  $p$  modes.

The distinction between  $g$  and  $p$  modes is the key. The frequencies of  $p$  modes depend on the evolutionary state of the star and on  $T_{\text{eff}}$ , which means the knowledge of the stellar fundamental parameters is imperative to safely distinguish  $p$  and  $g$  modes. The widely used criterion of  $5 \text{ d}^{-1}$  serves as a first guess when the stellar parameters are known with large uncertainties or even unknown. By no means is the criterion of  $5 \text{ d}^{-1}$  valid for a distinction between  $p$  and  $g$  modes for all stars.

The pulsation constant  $Q$  provides an estimate for the radial fundamental frequency, i.e. the lowest frequency of a  $p$  mode, for which  $Q \approx 0.033 \text{ d}$ .  $g$  modes have higher  $Q$  and other  $p$  modes lower  $Q$  values. The definition of  $Q$  can be found e.g. in Handler & Shobbrook (2002, equation 1 therein) and is given in Eq. 6.5:

$$\log Q = C + 0.5 \log g + 0.1 M_{\text{bol}} + \log T_{\text{eff}} + \log P, \quad (6.5)$$

where  $C = -6.456$ ,  $M_{\text{bol}}$  denotes the absolute bolometric magnitude and  $P$  is the period of the considered mode. In the study of Breger et al. (2012) the frequencies were normalised to their  $Q$ -values (Fig.3 therein) in order to compare different  $\delta$  Sct stars of the Praesepe cluster.

Since  $\delta$  Sct stars show often combination frequencies they can mimic  $g$  mode pulsation. Emphasis was put on this subject and stars showing only combination frequencies in the  $g$  mode regime were not classified as hybrids. To safely identify high-order  $g$  modes, not only the combination frequencies have to be excluded, but also rotation can play a significant role. The space instruments are sensitive enough to potentially show rotation effects. Furthermore, amplitude modulation of  $p$  modes may produce as well frequencies in the  $g$  mode regime.

The situation becomes even more complicated, when it comes to disentangle low-order  $g$  modes from high-order  $g$  modes.  $\delta$  Sct stars are known to pulsate not only in  $p$  modes but also in low order  $g$  modes or mixed modes.

In contrast,  $\gamma$  Dor stars only pulsate in high-order  $g$  modes, which excludes a  $\delta$  Sct star pulsating in low-order  $g$  modes from my hybrid definition.

Based on these premises 57 genuine hybrids and 53 candidates were found. The high number of candidates, which is nearly the same as the genuine cases, is due to the above mentioned reasons. In practice, the distinction between various types of pulsation modes can be easy (e.g. HD 114839 BD +18 4914) or very complicated (e.g. HD 49434).

### 6.3 Results and Comments for Individual Stars

The following tables (Tab. 6.3, 6.4, 6.5 and 6.6) contain the results of the frequency analysis for each individual star classified as  $\gamma$  Dor,  $\gamma$  Dor candidate, hybrid and hybrid candidate, respectively. In the second column of the tables, labelled "Groups of frequencies" the centres frequency of the groups in the Fourier transform are given, while for the hybrids and hybrid candidates the number of such groups is listed instead. In the column "DFT Noise" the average amplitude of the Fourier transform in the range of 47 to 52  $\text{d}^{-1}$  is given in micromagnitudes. The column "Mask" contains information about the point spread function (PSF) within the photometric mask, from which the intensities are determined. 0 signifies a clean PSF, 1 means that a clear second peak (a second star) is present within the photometric mask, while 2 signifies a distorted PSF, where the PSFs of two stars might have merged. The first number in the column "Number of frequencies" denotes the number of independent frequencies, while the second number indicates the total of formally significant frequencies. For example, 32/55 means that 32 out of 55 are found to be independent frequencies. The column "type" indicates for the  $\gamma$  Dor stars and  $\gamma$  Dor candidates the type of pulsator based on their DFT spectra.

In the case of hybrids and hybrid candidate the type 'G' denotes a star, where the  $\gamma$  Dor modes are dominant and the letter 'D' indicates that  $p$  modes ( $\delta$  Sct modes) show the higher amplitudes.

Abbreviations used within the tables are:

- LC: light curve
- CJD: JD - 2451545
- DFT: Discrete Fourier transform
- S/N: Signal to noise
- UV: Ultra-violet
- Freq(s): frequency (-ies)

Table 6.3: Notes on individual bona fide  $\gamma$  Dor stars.

| CoRoT ID  | Groups of frequencies       | DFT Noise | Mask | Number of Freqs | type | Remarks                                                                                                              |
|-----------|-----------------------------|-----------|------|-----------------|------|----------------------------------------------------------------------------------------------------------------------|
| 102574350 | 3.3                         | 16        | 2    | 32/55           | 1    | Freqs between 1 and 3 c/d.                                                                                           |
| 102575155 | -                           | 10        | ?    | -               | ?    | Strong low-freq (0.03 c/d) variability and 0.44 c/d. candidate!                                                      |
| -         | -                           | -         | -    | -               | -    | Fringed spectrum                                                                                                     |
| 102579656 | low frequencies             | 8         | 0    | -               | ?    | Strong artefact between CJD 2900 and 2910                                                                            |
| 102581739 | 3.0                         | 14        | 0    | 40/77           | 1    | Main Frequency and 2f terms are present for 3 strongest modes                                                        |
| 102581982 | no                          | 20        | 0    | 39/64           | 2    | Frequencies are evenly spread up to 8 c/d; resembles HD 49434.                                                       |
| 102583546 | 1.6, 0, 3.2, 4.9, (6.6)     | 8         | 2    | 30/112          | 1    | Tightly spaced frequencies, f=1.6, 2f, 3f, (4f) At 6.6 only one frequency                                            |
| -         | -                           | -         | -    | -               | -    | As 102583546, but 2f stronger than f=0.26                                                                            |
| 102584409 | 0.53, 0.26, 0.02, 1.1       | 5         | 0    | 30/119          | 1    | Freqs between 0.3 and 1.1 are combinations                                                                           |
| 102587545 | 2.0, 1.2, 0.15              | 11        | 0    | 23/105          | 1    | Three groups.                                                                                                        |
| 102595215 | 0.79, 0.01, 1.52            | 16        | 2    | 24/68           | 1    | Many tightly spaced frequencies.                                                                                     |
| 102595296 | 1.5, 0.88, 0.04, 3.0        | 16        | 0    | 70/348          | 1    | Lowest frequencies probably due to artefacts, extremely low amplitudes of groups at 2.0 and 4.0 i.e. 117 and 98 ppm. |
| 102595665 | 0.02, 2.0, 4.0              | 7         | 0    | 38/115          | 1    | Artefacts in LC at CJD 2920 and 2945                                                                                 |
| -         | -                           | -         | -    | -               | -    | High amplitude, transit in LC, see text                                                                              |
| 102596652 | 0.42, 0.03, 0.83            | 26        | 0    | 28/108          | 1    | Spectrum has low S/N                                                                                                 |
| 102597681 | 1.0, 0.12, 1.85             | 14        | 0    | 39/367          | 1    | Groups at 0.7 and 0.05 d <sup>-1</sup> are combinations                                                              |
| 102600197 | 2.0, 3.4, 0.06              | 21        | 0    | 31/100          | 1    | High amplitudes (15 mmag)                                                                                            |
| 102602901 | 2.6, 1.6, 5.1, 0.7, 0.05    | 26        | 0    | 104/420         | 1    | Trend in LC removed, low-amplitude modes at 5 are combinations                                                       |
| 102603266 | 2.5, 1.1, 5.0               | 46        | 0    | 60/344          | 1    | Low amplitudes, tightly spaced frequencies                                                                           |
| 102604639 | 2.5, 1.7, 0.07, 5.2         | 26        | 0    | 49/166          | 1    | Main modes at 1.2 d <sup>-1</sup> , max. amplitude $\approx$ 2.6 mmag.                                               |
| 102605106 | 0.75, 0.17, 0.02, 1.52, 2.3 | 4         | 1    | 45/223          | 3?   | LC retains strong artefacts, hence dominant low-frequencies.                                                         |
| 102605393 | 1.2, 1.7, 0.04, 3.5         | 14        | 0    | 35/171          | 1    | Fast pulsator, additional stellar activity or artefacts                                                              |
| 102607721 | 0.03, 0.8, 1.6, 2.5         | 19        | 0    | 29/157          | 3    | High amplitude, erratic spectrum between 3739 and 3830, or UV excess?                                                |
| 102608070 | 3.5, 0.03                   | 23        | 0    | 25/96           | 1    | Apart from main group scattered frequencies up to 7.1 c/d.                                                           |
| 102611108 | 1.28, 0.16, 2.6             | 31        | 0    | 44/423          | 1    | Apart from groups single frequency at 1.8 c/d.                                                                       |
| 102613079 | 2.7, 0.03                   | 19        | 0    | 31/82           | 1,2  | Strongest mode of 1.2 c/d not in group.                                                                              |
| 102623294 | 1.1, 0.05, 2.2, 3.4         | 13        | 0    | 31/142          | 1    | Apart from one group frequencies scattered up to 8 c/d.                                                              |
| 102631816 | 1.7                         | 17        | 0    | 38/203          | 1    | Low amplitudes (< 250 ppm)                                                                                           |
| 102636574 | 2.7, 2.1                    | 11        | 0    | 46/199          | 2    | Extremely dense frequency spectrum around 3.3 and from 0 to 1 c/d.                                                   |
| 102643144 | 1.6, 0.07, 2.4, 3.0, 4.1    | 19        | 0    | 41/237          | 1    | LC has strong artefacts.                                                                                             |
| 102643218 | 3.3, 0.2, 0.54, 0.75        | 12        | 0    | 31/331          | 1    | LC has artefacts causing low-frequency signal. Low pulsation amplitudes.                                             |
| 102645784 | 0.03, 0.5, 1.0              | 18        | 2    | 35/115          | 3    |                                                                                                                      |
| 102648939 | 2.0, 2.7                    | 15        | 0    | 27/90           | 1    |                                                                                                                      |

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Table 6.3 – continued from previous page

| CoRoT ID  | Groups of frequencies    | DFT Noise | Mask | Number of Freqs | type | Remarks                                                                                                 |
|-----------|--------------------------|-----------|------|-----------------|------|---------------------------------------------------------------------------------------------------------|
| 102649754 | 1.7, 3.3, 0.07           | 9         | 0    | 33/74           | 1    | Group at 3.3 c/d consists only of 3 frequencies.                                                        |
| 102653056 | 1.0, 1.5, 1.8            | 32        | 1    | 34/199          | 1    | Second star in aperture                                                                                 |
| 102654663 | 2.0, 0.05, 3.6           | 44        | 0    | 46/190          | 1    | Rich $\gamma$ Dor frequency spectrum around 2 d <sup>-1</sup> .                                         |
| 102657111 | 1.2, 2.5, 0.06           | 20        | 0    | 17/47           | 1    | Spectrum fringed. removing artefacts from LC yields good DFT spectrum.                                  |
| 102657207 | 1.8, 3.6                 | 20        | 0    | 32/76           | 1    | Amplitudes < 0.55 mmag.                                                                                 |
| 102668415 | 1.2, 0.7, 0.1            | 17        | 0    | 33/153          | 1    | 3 groups of tightly spaced frequencies, 4th group hardly significant.                                   |
| 102671368 | 1.2, 0.05, 1.7           | 13        | 0    | 28/114          | 1    | Red noise, narrow group at 1.2, wide group at 1.7 c/d.                                                  |
| 102674135 | 1.7, 2.3                 | 14        | 2    | 30/78           | 1    | Few frequencies at 1.7, low amplitudes (< 100 ppm) at 2.3 d <sup>-1</sup> .                             |
| 102674325 | 1.6                      | 13        | 1    | 22/41           | 1    | Possible contamination from background star. max. amplitude $\approx$ 150 ppm.                          |
| 102678624 | 1.1, 0.02, 2.2, 3.3      | 16        | 0    | 32/121          | 3    | Tightly spaced frequencies, well defined groups.                                                        |
| 102680138 | 2.3, 4.6, 0.5            | 18        | 0    | 47/267          | 1    | Well-defined frequencies contrary to 102678624.                                                         |
| 102681982 | 1.4                      | 17        | 2    | 38/187          | 1    | One single group.                                                                                       |
| 102682158 | 1.0, 2.0                 | 31        | 0    | 28/124          | 3?   | Tightly spaced frequencies.                                                                             |
| 102684448 | 2.0, 1.27, 3.2           | 27        | 0    | 41/172          | 1    | Rich DFT spectrum.                                                                                      |
| 102692118 | 0.17, 0.5, 1.0, 1.5      | 23        | 0    | 29/103          | 3    | Tightly spaced frequencies.                                                                             |
| 102694533 | 0.5, 1.0                 | 17        | 2?   | 34/146          | 3    | Tightly spaced frequencies.                                                                             |
| 102695863 | 0.6, 1.2, 1.7, 0.03      | 8         | 0    | 25/134          | 3    | Tightly spaced frequencies.                                                                             |
| 102698507 | 3.3                      | 12        | 0    | 37/75           | 1    | Small group at 3.3 d <sup>-1</sup> , Frequency at 6 c/d.                                                |
| 102703792 | 2.1, 4.0, 0.03           | 24        | 0    | 43/151          | 1    | Dense group of frequencies at 2.1 c/d and overtones.                                                    |
| 102704602 | 2.0, 1.6, 2.4, 0.4, 0.05 | 15        | 0    | 38/161          | 1    | Amplitude modulation of 2.0 by 0.4? Frequencies 1.6 and 2.4 have nearly identical amplitudes.           |
| 102705089 | 1.5, 0.75, 0.08          | 31        | 2    | 47/235          | 1    | Amplitudes of group at 1.5 higher than that of 0.75.                                                    |
| 102708748 | 0.8, 0.28, 1.9           | 15        | 0    | 27/82           | 2    | Frequencies scattered up to 3.8 c/d., groups not distinct. Higher amplitudes towards lower frequencies. |
| 102709598 | 0.13, 0.28, 0.03         | 22        | 1    | 35/116          | 1, 3 | Second star in aperture, long period atypical for $\gamma$ Dor, scattered frequencies up to 7.3 c/d.    |
| 102711294 | 1.1, 2.0, 3.1            | 31        | 0    | 47/280          | 1    | High amplitude, group at 3.1 weak. Spectrum fringed.                                                    |
| 102713311 | 1.5, 1.0, 0.05, 2.9      | 17        | 0    | 37/116          | 1    | Tightly spaced frequencies at 1.5 c/d.                                                                  |
| 102713772 | 0.34, 0.7, 1.1, 0.03     | 12        | 0    | 24/113          | 3    | Tightly spaced frequencies, distinct groups.                                                            |
| 102719503 | 0.52, 1.08, 0.04         | 10        | 2    | 28/103          | 3    | Same as 102713772.                                                                                      |
| 102719846 | 1.7, 3.1, 0.08           | 19        | 0    | 35/123          | 1    | Rich pulsation spectrum.                                                                                |
| 102724031 | 1.5, 0.07                | 17        | 0    | 27/80           | 1    | Strongest modes between 1.3 and 1.6 c/d, only minor frequencies elsewhere.                              |
| 102724193 | 2.2, 4.3, 1.1, 0.09      | 60        | 0    | 40/164          | 1    | High amplitudes of group at 2.2 c/d.                                                                    |
| 102724938 | 2.4, 0.2                 | 31        | 1    | 31/109          | 1    | Frequencies of highest amplitudes range from 2 to 2.7 c/d.                                              |
| 102725454 | 0.82, 1.7, 2.5, 0.1      | 9         | 0    | 22/127          | 3    | Tightly spaced frequencies, 0.1 c/d has highest amplitude. Spectrum fringed.                            |
| 102725480 | 0.5, 0.03, 1.5, 2.0      | 8         | 0    | 47/220          | 3    | Tightly spaced frequencies, same as 102713772.                                                          |
| 102726709 | 1.5, 0.04                | 12        | 0    | 32/103          | 1    | Main group at 1.5 c/d, single frequency at 0.78 and harmonics symptom of shallow eclipse in LC.         |

Continued on next page

Table 6.3 – continued from previous page

| CoRoT ID  | Groups of frequencies | DFT Noise | Mask | Number of Freqs | type | Remarks                                                                                         |
|-----------|-----------------------|-----------|------|-----------------|------|-------------------------------------------------------------------------------------------------|
| 102727441 | 2.3, 1.6, 5.0, 0.15   | 33        | 0    | 36/179          | 1    | Multiple groups, harmonics.                                                                     |
| 102730229 | 0.8, 0.33, 0.05       | 15        | 0    | 30/130          | 1,3? | Tightly spaced frequencies.                                                                     |
| 102732872 | 1, 0.56, 0.08         | 22        | 0    | 41/221          | 1,3? | Nearly identical with 102730229.                                                                |
| 102735825 | 0.7, 0.35, 0.04, 1.1  | 26        | 0    | 21/107          | 3    | Again, similar to 102730229.                                                                    |
| 102738809 | -                     | 16        | 0    | 63/233          | 1    | $\gamma$ Dor in eclipsing binary, main pulsation frequencies in the vicinity of 2 c/d.          |
| 102739932 | 0.06, 2, 4            | 20        | 2    | 33/83           | 3    | tightly spaced frequencies at 4 c/d, less tight at 2.                                           |
| 102742690 | 0.85, 0.13, 1.7, 2.5  | 12        | 0    | 24/127          | 3    | Tightly spaced frequencies around groups. Long period 0.135 c/d present.                        |
| 102742767 | 0.38, 0.04, 0.84      | 14        | 0    | 37/202          | 1,2? | All frequencies below 1 c/d.                                                                    |
| 102743567 | 1.2, 2.4, 3.4, 0.11   | 28        | 0    | 64/543          | 1,3? | High amplitude, tightly spaced frequencies in main group at 1.2 c/d.                            |
| 102749513 | 1.4, 0.9, 0.04        | 13        | 1    | 26/114          | 1,3? | Tightly spaced frequencies.                                                                     |
| 102749931 | 1.8                   | 9         | 0    | 21/75           | 1    | Eclipse with frequency 0.545 c/d? Tight group at 1.08 c/d.                                      |
| 102751858 | 0.02, 0.3, 0.06       | 13        | 0    | 22/73           | 3    | Low frequencies, strong long-term variation.                                                    |
| 102755653 | 0.03, 1.5, 3.0, 4.5   | 6         | 0    | 35/120          | 3    | Tightly spaced frequencies. Amplitudes < 150 ppm.                                               |
| 102757495 | 1.7, 1.1, 0.6, 0.02   | 10        | 2    | 35/135          | 1    | Two clear groups, not multiples.                                                                |
| 102758112 | 2.0, 3.8,             | 12        | 0    | 35/129          | 1    | Rich frequency spectrum.                                                                        |
| 102763149 | 0.78                  | 9         | 0    | 21/97           | 1    | Low amplitudes.                                                                                 |
| 102763156 | 1.7, 3.4, 6.4,        | 37        | 0    | 53/279          | 1    | High amplitude of strongest mode, frequencies at 6.4 and 8.6 not combinations.                  |
| 102765029 | 1.4, 0.16             | 16        | 0    | 28/190          | 1    | Spectrum fringed, long-periodic signal, stellar activity?                                       |
| 102766017 | 1.2                   | 7         | 0    | 35/111          | 1    | Red noise, one group at 1.2, minor group at 2.6 c/d, single mode at 3.75 has highest amplitude. |
| 102768606 | 2.2                   | 6         | 0    | 27/79           | 1    | Few modes at 2.2 d <sup>-1</sup> .                                                              |
| 102768672 | 0.62, 0.02, 1.3, 1.9  | 23        | 0    | 28/102          | 3    | Tightly spaced frequencies.                                                                     |
| 102775315 | 0.4, 0.7, 0.9         | 21        | 0    | 24/84           | 3    | All frequencies below 1 c/d.                                                                    |
| 102777271 | 0.91, 1.7, 1.05, 1.98 | 7         | 0    | 24/73           | 1?   | Narrow frequency bands, but frequencies distributed between 0 and 3.5 c/d.                      |
| 102777301 | 2.1                   | 21        | 0    | 31/111          | 1    | Main group at 2.1 is 0.6 c/d wide, lower frequencies less significant.                          |
| 102782290 | 0.58, 1.2, 1.75, 0.03 | 18        | 0    | 25/112          | 3    | Tightly spaced frequencies.                                                                     |
| 102784531 | 2.0                   | 10        | 0    | 26/76           | 1    | Low-frequencies due to artefacts, few frequencies at 2 c/d.                                     |
| 102787110 | 3.0, 6.0              | 16        | 2    | 34/83           | 1    | Bunch of frequencies at 3 and harmonics, LC retains artefacts.                                  |
| 102792193 | 2.0, 1.0, 0.2         | 50        | 0    | 42/206          | 1    | Frequencies up to 4 c/d, harmonics of main frequencies.                                         |
| 102792478 | 1.0, 2.0              | 5         | 0    | 26/126          | 3    | Tightly spaced frequencies, low amplitudes.                                                     |
| 102794331 | 0.5                   | 24        | 0    | 32/138          | 1    | Main group at 0.5 c/d.                                                                          |
| 102794767 | 2.2, 1.6, 2.9, 5.9    | 20        | 0    | 35/125          | 3    | Tightly spaced frequencies, 5.9 being the harmonics of 2.9. LC retains artefacts.               |
| 102795873 | 1.6, 0.22, 3.3        | 70        | 0    | 48/244          | 1    | High amplitudes of main modes.                                                                  |
| 102797129 | 1.1, 2.2, 0.05        | 20        | 0    | 26/91           | 3    | Tightly spaced frequencies.                                                                     |

Table 6.4: Notes on individual  $\gamma$  Dor candidate stars.

| CoRoT ID  | Groups of frequencies | DFT Noise | Mask | Number of Freqs | type | Remarks                                                                                                                     |
|-----------|-----------------------|-----------|------|-----------------|------|-----------------------------------------------------------------------------------------------------------------------------|
| 102575155 | 0.04, 0.45, 0.89      | 10        | 0    | 20/66           | 3?   | Sparse groups, strong low-freq (0.03 c/d), variability and 0.45 c/d.                                                        |
| 102581750 | 1, 0.08, 2.19, 3.28   | 4         | 0    | 20/158          | 1    | Dense frequency distribution between 0 and 4.4 c/d, 6 groups of tightly spaced frequencies, very low amplitudes, red giant? |
| -         | -                     | -         | -    | -               | -    | Bad LC, hence red noise? Frequency at 1.2 due to rotation or pulsation?                                                     |
| 102581832 | 0.09, 1.2, 2.2        | 8         | 0    | 29/140          | ?    | Groups are sparsely populated.                                                                                              |
| 102600525 | 0.26, 0.34, 0.04      | 8         | 0    | 18/63           | 1    | 6 tightly spaced frequencies at 0.7                                                                                         |
| 102612288 | 0.7, 0.03, 1.4        | 15        | 0    | 25/59           | 3?   | Stellar activity and rotation? Very low amplitudes.                                                                         |
| 102619496 | 0.1, 1.2, 2.5         | 7         | 0    | 19/149          | ?    | Main frequency at 0.2 c/d, Very low amplitudes.                                                                             |
| 102639381 | 0.2                   | 6         | 0    | 13/36           | ?    | Group at 0.15.                                                                                                              |
| 102641858 | 0.15                  | 9         | 0    | 15/52           | ?    | Few scattered frequencies, no groups except close to 0, spectrum fringed.                                                   |
| 102645683 | -                     | 8         | 0    | 21/44           | 2?   | Single frequency at 0.39, artefacts in LC.                                                                                  |
| 102647707 | 0.17                  | 6         | 0    | 22/67           | -    | Hydrogen lines sharp - giant? LC shows activity.                                                                            |
| 102650323 | 0.28, 1.6             | 9         | 0    | 29/81           | -    | Spectrum fringed, red noise thus many formally significant frequencies, hot star                                            |
| 102653792 | 1.0                   | 18        | 0    | 46/553          | 2    | Stellar activity?                                                                                                           |
| 102654138 | 1.0, 2.0              | 7         | 0    | 26/78           | 1?   | Possible $\gamma$ Dor modes exhibit amplitudes lower than 70 ppm!. Additionally stellar activity?                           |
| 102656705 | 0.02, 2.0, 1.4        | 5         | 0    | 29/52           | 1?   | 0.91 and 1.83 due to Rotation? Frequency at 3.2 is not multiple of 0.91, max. amplitude 160 ppm.                            |
| 102661313 | 0.91, 1.83, 3.2       | 5         | 0    | 23/67           | 3?   | Broad groups of frequencies.                                                                                                |
| 102663084 | 0.9, 1.8              | 14        | 2    | 23/65           | 1?   | Three frequencies, 0.49 and harmonics, red noise, thus rotation?                                                            |
| 102672729 | -                     | 14        | 0    | 31/99           | -    | Red noise, red-giant pulsation?                                                                                             |
| 102684117 | 0.18, 1.4, 2.5        | 15        | 0    | 27/293          | -    | Rotation variability probable.                                                                                              |
| 102685143 | 0.4                   | 5         | 0    | 22/71           | -    | Low amplitudes, few modes, low frequencies due to artefacts.                                                                |
| 102688846 | 0.06, 3.0, 1.0        | 17        | 2    | 16/41           | -    | Only two frequencies in the $\gamma$ Dor range, rotation probable. Amplitudes < 100 ppm.                                    |
| 102690340 | 1.1, 2.2              | 7         | 0    | 16/38           | -    | $\gamma$ Dor candidate in eclipsing binary (Carone et al. 2012).                                                            |
| 102694263 | 0.6, 1.0              | 39        | 2    | 16/37           | 1    | Hot star, frequencies at 0.21 and 0.42 might indicate rotation.                                                             |
| 102701987 | -                     | 12        | 0    | 20/47           | -    | Hot star, clear groups, amplitudes < 110 ppm.                                                                               |
| 102705144 | 1.9, 2.4, 4.2         | 8         | 1    | 24/73           | 1    | Three frequencies at $\approx 3.4$ c/d.                                                                                     |
| 102710558 | -                     | 8         | 0    | 18/37           | 1?   | Frequencies spread from 0 to 6.4 c/d, with an overdensity from 0 to 2.3 c/d. Max. amplitude $\approx 250$ ppm.              |
| 102735225 | -                     | 11        | 2    | 43/155          | 3    | LC unusual for $\gamma$ Dor. Long periods, frequencies at 0.19, 0.38, 0.55 not exact harmonics.                             |
| 102735515 | -                     | 3         | 0    | 38/103          | 3?   | Single frequency at 1.0 c/d, amplitude 200 ppm likely rotation.                                                             |
| 102748128 | -                     | 9         | 0    | 15/40           | -    | Low amplitudes, tightly spaced frequencies.                                                                                 |
| 102749148 | 0.1, 1.3, 2.3, 3.8    | 8         | 0    | 26/93           | 3    | Only three frequencies in $\gamma$ Dor regime at 1.6 c/d of low amplitudes.                                                 |
| 102764904 | -                     | 12        | 1    | 23/26           | -    | Few frequencies in $\gamma$ Dor regime, amplitudes < 130 ppm.                                                               |
| 102765500 | 1.0, 1.46             | 12        | 2    | 18/47           | 3?   | Stellar activity? Strongest mode 0.108 c/d. Second and third strongest modes not exact harmonics.                           |
| 102768290 | -                     | 15        | 2    | 19/80           | -    | Continued on next page                                                                                                      |

Table 6.4 – continued from previous page

| CoRoT ID  | Groups of frequencies | DFT Noise | Mask | Number of Freqs | type | Remarks                                                                                          |
|-----------|-----------------------|-----------|------|-----------------|------|--------------------------------------------------------------------------------------------------|
| 102782199 | -                     | 6         | 0    | 27/67           | 2    | Amplitudes < 90 ppm, however rich frequency spectrum, main frequency near $2.2 \text{ d}^{-1}$ . |
| 102785780 | 1.7                   | 14        | 2    | 34/202          | 1    | Spectrum indicates K star, but DFT is typical for $\gamma$ Dor.                                  |
| -         | -                     | -         | -    | -               | -    | PSF in mask is deformed, possibly $\gamma$ Dor together with K star.                             |
| 102788480 | -                     | 10        | 0    | 21/55           | -    | Only few modes at 0.54 and harmonics 1.08, 1.63, LC retains artefacts, rotation?                 |

Table 6.5: Notes on individual hybrids.

| CoRoT ID  | Groups of frequencies | DFT Noise | Mask | Number of Freqs | type | Remarks                                                                                                                                                                                                                                |
|-----------|-----------------------|-----------|------|-----------------|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 102568261 | -                     | 14        | 0    | 31/188          | -    | Rich $\gamma$ Dor frequency spectrum, but dominant $p$ -mode(?) at $7.432 \text{ d}^{-1}$ .                                                                                                                                            |
| 102584546 | 2?                    | 10        | 0    | 30/87           | G    | Single, but dominating $p$ mode at $15.51 \text{ d}^{-1}$ ; modes in the $\gamma$ Dor regime at $2 \text{ d}^{-1}$ . Spectrum from 4100Å bluewards unusable; binary?                                                                   |
| -         | -                     | -         | -    | -               | -    | Three groups of frequencies at 1.5, 8.5 and $17 \text{ c/d}$ . Similar to BD +18 4914                                                                                                                                                  |
| 102587000 | 3                     | 11        | 0    | 54/198          | G    | Main two $p$ modes may be fundamental ( $13.93 \text{ d}^{-1}$ ) and first overtone ( $18.65 \text{ d}^{-1}$ ), rich low-frequency spectrum.                                                                                           |
| 102589648 | -                     | 10        | 0    | 44/209          | -    | $\delta$ Sct modes dominate, $\gamma$ Dor modes near $1 \text{ d}^{-1}$ have low amplitudes.                                                                                                                                           |
| 102600015 | -                     | 21        | 0    | 46/275          | D    | $\gamma$ Dor and $\delta$ Sct modes have comparable amplitudes; main $p$ modes may be fundamental first and second overtone. Spectrum suffers from fringing, derived parameters are not usable.                                        |
| 102608837 | 3?                    | 9         | 0    | 39/71           | G, D | Dominant $p$ modes, most $g$ modes explicable by combinations. Modes at $0.6$ and $4.5 \text{ d}^{-1}$ remain.                                                                                                                         |
| -         | -                     | -         | -    | -               | -    | $g$ modes dominant, $p$ modes range from $11$ to $23 \text{ d}^{-1}$ and amplitudes $< 50 \text{ ppm}$ ; gap in between.                                                                                                               |
| 102612000 | 2-4?                  | 8         | 1    | 32/240          | D    | Frequencies until $37 \text{ d}^{-1}$ ; many are combination. The number of frequency increases towards low frequencies.                                                                                                               |
| 102615872 | -                     | 5         | 0    | 42/122          | G    | $p$ modes confined to $10$ to $16 \text{ d}^{-1}$ . $g$ modes tightly spaced like in the $\gamma$ Dor stars of type 3; probably binary.                                                                                                |
| 102620178 | -                     | 14        | 2    | 38/181          | ?    | Dominant $p$ mode $12.87 \text{ d}^{-1}$ possibly first overtone, $9.89$ or $10.04$ , ratios $0.768$ and $0.780$ respectively.                                                                                                         |
| 102624646 | 2                     | 10        | 1    | 33/125          | G    | possible $g$ modes between $2$ and $4.5 \text{ d}^{-1}$ .                                                                                                                                                                              |
| 102630019 | -                     | 29        | 0    | 45/176          | D    | $\gamma$ Dor with two groups of frequencies: $1.4$ and $2 \text{ d}^{-1}$ ; $p$ modes at $22 \text{ d}^{-1}$ .                                                                                                                         |
| -         | -                     | -         | -    | -               | -    | Main mode at $11.9 \text{ d}^{-1}$ , mode at $1.33 \text{ d}^{-1}$ second strongest, frequencies cluster near $3 \text{ d}^{-1}$ .                                                                                                     |
| 102636735 | 3                     | 24        | 2    | 51/181          | G    | $\gamma$ Dor with possible $p$ modes at $19.89$ , $8.36$ , $18.06$ and $6.74$ , the dominating $g$ modes range from $1.2$ to $1.8 \text{ d}^{-1}$ .                                                                                    |
| 102637003 | -                     | 13        | 0    | 37/152          | ?    | $\delta$ Sct with a frequency range from $2.8$ to $35 \text{ d}^{-1}$ .                                                                                                                                                                |
| 102651288 | 3?                    | 20        | 0    | 25/87           | G    | Dominating low frequencies from $1.6$ to $5.2 \text{ d}^{-1}$ . $p$ modes range up to $27.12 \text{ cd}$ .                                                                                                                             |
| 102657518 | -                     | 18        | 0    | 44/129          | D    | Too hot for $\gamma$ Dor, main frequencies cluster at $4$ , $1$ and $7.4 \text{ d}^{-1}$ , $p$ modes range from $11.8$ to $32.9 \text{ d}^{-1}$ .                                                                                      |
| 102658013 | -                     | 16        | 0    | 41/117          | G    | Spectrum fringed, separation between $p$ modes and $g$ modes. $p$ modes range from $10$ to $26 \text{ d}^{-1}$ , while $g$ modes range from $0.75$ to $4.1 \text{ d}^{-1}$ .                                                           |
| 102663289 | 4?                    | 17        | 0    | 43/92           | G?   | $g$ modes range from $3$ to $5.5 \text{ d}^{-1}$ (1st group), $p$ modes cluster near $10.5 \text{ d}^{-1}$ (2nd group) and a single mode at $20.77$ (3rd group or harmonic of $10.38 \text{ d}^{-1}$ ?)                                |
| 102664847 | 2 or 3                | 15        | 2    | 51/107          | -    | Strongest mode at $8.5 \text{ d}^{-1}$ no separation present between $p$ and $g$ modes.                                                                                                                                                |
| -         | -                     | -         | -    | -               | -    | $p$ modes range from $23 \text{ d}^{-1}$ to $34 \text{ d}^{-1}$ , $g$ modes dominant near $2 \text{ d}^{-1}$ .                                                                                                                         |
| 102665884 | 2 (3?)                | 22        | 2    | 46/133          | -    | $\delta$ Sct frequencies range from $9.0 \text{ d}^{-1}$ (strongest mode) to $23 \text{ d}^{-1}$ (1st group), frequencies between $6$ and $8 \text{ d}^{-1}$ (2nd group) and $g$ modes between $2$ and $4 \text{ d}^{-1}$ (3rd group). |
| -         | -                     | -         | -    | -               | -    | $\gamma$ Dor modes dominating, three main modes nearly equidistant in period ( $0.0356$ and $0.0344$ ).                                                                                                                                |
| 102666754 | -                     | 6         | 1    | 49/404          | ?    | 2nd group between $3.7$ and $5.4 \text{ d}^{-1}$ , $5 p$ modes between $19.5$ and $36 \text{ d}^{-1}$ , Spectrum fringed.                                                                                                              |
| 102669636 | -                     | 15        | 0    | 34/88           | G    | Rich $\delta$ Sct pulsation spectrum, $g$ modes at $1.1$ have low amplitudes, possible third group of frequencies between $4$ and $7$ consists mainly of combination frequencies.                                                      |
| 102669994 | 3?                    | 28        | 0    | 61/183          | D    |                                                                                                                                                                                                                                        |
| -         | -                     | -         | -    | -               | -    |                                                                                                                                                                                                                                        |
| 102670590 | 3?                    | 18        | 0    | 35/87           | G    |                                                                                                                                                                                                                                        |
| -         | -                     | -         | -    | -               | -    |                                                                                                                                                                                                                                        |
| 102673929 | 3?                    | 22        | 0    | 74/315          | D    |                                                                                                                                                                                                                                        |
| -         | -                     | -         | -    | -               | -    |                                                                                                                                                                                                                                        |

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Table 6.5 – continued from previous page

| CoRoT ID  | Groups of frequencies | DFT Noise | Mask | Number of Freqs | type | Remarks                                                                                                                                                                                                                                                      |
|-----------|-----------------------|-----------|------|-----------------|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 102676137 | -                     | 20        | 0    | 35/130          | G    | Dominant $\gamma$ Dor frequency at $2.5 \text{ d}^{-1}$ , $p$ mode at $9.6 \text{ d}^{-1}$ second strongest mode.                                                                                                                                            |
| 102676382 | -                     | 14        | 2    | 37/99           | -    | $g$ modes at $3.6$ , $p$ modes between $11.8$ to $24 \text{ d}^{-1}$ , strongest mode at $5.5 \text{ d}^{-1}$ . Spectrum fringed.                                                                                                                            |
| 102680857 | -                     | 9         | 0    | 39/72           | D    | Spectrum fringed. $\delta$ Sct modes range from $1.5$ to $4.5 \text{ d}^{-1}$ , $g$ modes at $2.5 \text{ d}^{-1}$ .                                                                                                                                          |
| 102682594 | 3?                    | 24        | 0    | 55/124          | D    | $p$ modes from $15$ to $35 \text{ d}^{-1}$ , $g$ modes at $2.5 \text{ d}^{-1}$ and possibly third group from $8.4$ to $13 \text{ d}^{-1}$ , which is hardly separated from the main $p$ mode group.                                                          |
| -         | -                     | -         | -    | -               | -    | $\delta$ Sct modes from $9$ to $20 \text{ d}^{-1}$ from the first group, the second is located at the $g$ modes between $2$ and $3.5 \text{ d}^{-1}$ and the third group ranges from $4$ to $6 \text{ d}^{-1}$ .                                             |
| 102683908 | 3?                    | 13        | 2    | 47/197          | D    | $g$ modes centre at $1.1 \text{ d}^{-1}$ ; $p$ modes confined to $26$ to $36 \text{ d}^{-1}$ .                                                                                                                                                               |
| —         | -                     | -         | -    | -               | -    | Spectrum fringed. $p$ modes spread over a large range from $6$ to $38 \text{ d}^{-1}$ , $g$ modes cluster at $4 \text{ d}^{-1}$ .                                                                                                                            |
| 102689913 | 2                     | 10        | 0    | 39/91           | G, D | H lines show bumps, binary? $g$ modes at $1.84$ have largest amplitudes, intermediate mode at $5.2 \text{ d}^{-1}$ show second largest amplitude and $p$ modes range from $11$ to $20 \text{ d}^{-1}$ .                                                      |
| 102698013 | 2?                    | 15        | 0    | 77/264          | D    | Rich $\delta$ Sct pulsation spectrum ranging from $8.4$ to $31 \text{ d}^{-1}$ , $g$ modes have highest amplitudes at $1.6 \text{ cd}$ .                                                                                                                     |
| 102699841 | 3                     | 17        | 0    | 44/149          | -    | Rich $g$ mode spectrum with maximum amplitude at $1.6 \text{ d}^{-1}$ ; only three $p$ modes between $12.75$ and $14.1 \text{ d}^{-1}$ .                                                                                                                     |
| -         | -                     | -         | -    | -               | -    | Rich $\delta$ Sct pulsation spectrum ranging from $10$ to $32 \text{ d}^{-1}$ ; $g$ modes span from $0.69$ to $2 \text{ d}^{-1}$ and have low amplitudes.                                                                                                    |
| 102702779 | 2                     | 15        | 0    | 62/180          | D    | Residual artefacts in LC, $g$ modes or mixed modes range from $3.7$ to $7 \text{ d}^{-1}$ ; intermediate group ranges from $15$ to $24 \text{ d}^{-1}$ and the third group ranges from $25$ to $38 \text{ d}^{-1}$ .                                         |
| 102705065 | -                     | 23        | 0    | 37/230          | G    | Rich and dense $\gamma$ Dor frequency spectrum, $p$ modes range from $10$ to $31 \text{ d}^{-1}$ .                                                                                                                                                           |
| 102706194 | 2                     | 21        | 0    | 72/179          | D    | Three groups of frequencies: $0.8 - 3.2 \text{ d}^{-1}$ ; $4.0 - 10 \text{ d}^{-1}$ and $18 - 23 \text{ d}^{-1}$ . Mode of maximum amplitude belongs to intermediate group; spectrum fringed.                                                                |
| 102715311 | 3?                    | 11        | 0    | 76/318          | D?   | Main mode at $24.73 \text{ d}^{-1}$ , second group between $15$ to $20 \text{ d}^{-1}$ and $g$ modes scatter from $0.9 - 5 \text{ d}^{-1}$ , of which $2.29$ and $2.93 \text{ d}^{-1}$ have highest amplitudes. H lines show bumps, binary?                  |
| -         | -                     | -         | -    | -               | -    | $g$ modes cluster at $4.0 \text{ d}^{-1}$ and $0.48$ , $1.3 \text{ d}^{-1}$ ; intermediate group consists only of one mode: $14.51 \text{ d}^{-1}$ , which is the overall dominant mode. The high-frequency group spans from $17.8$ to $34 \text{ d}^{-1}$ . |
| 102717566 | -                     | 11        | 0    | 44/221          | G    | $p$ modes range from $12.3 - 40 \text{ d}^{-1}$ ; $g$ modes cluster at $4 \text{ d}^{-1}$ .                                                                                                                                                                  |
| 102719759 | 3                     | 14        | 0    | 52/175          | -    | Rich $\gamma$ Dor pulsation spectrum up to $3.6 \text{ d}^{-1}$ , only few $p$ modes from $8.3$ to $16.4 \text{ d}^{-1}$ . Spectrum fringed.                                                                                                                 |
| -         | -                     | -         | -    | -               | -    | $g$ modes from $1.77$ (strongest mode) up to $6.7 \text{ d}^{-1}$ ; single $p$ mode at $23.67 \text{ d}^{-1}$ . Spectrum fringed.                                                                                                                            |
| 102720462 | 3                     | 19        | 0    | 45/118          | D    | $p$ modes range from $7.7$ to $36.6 \text{ d}^{-1}$ , $g$ modes from $2$ to $4.5 \text{ d}^{-1}$ .                                                                                                                                                           |
| -         | -                     | -         | -    | -               | -    | $p$ modes dominant but few; range from $15.4$ to $23 \text{ d}^{-1}$ , $g$ modes extend from $1.7$ to $7.3 \text{ d}^{-1}$ , rapid rotation?                                                                                                                 |
| 102721808 | 3?                    | 11        | 0    | 45/131          | -    | $p$ modes range from $11$ to $25 \text{ d}^{-1}$ , low frequencies range up to $8.3 \text{ d}^{-1}$ with clustering at $4 \text{ d}^{-1}$ .                                                                                                                  |
| -         | -                     | -         | -    | -               | -    | Rich $g$ and $p$ mode spectrum with $1.6 \text{ d}^{-1}$ as dominating $g$ mode and $10.8 \text{ d}^{-1}$ as strongest $p$ mode.                                                                                                                             |
| 102723244 | 2                     | 13        | 0    | 79/197          | D    | $p$ modes range from $18.2$ to $31.0 \text{ d}^{-1}$ , $g$ modes at $2.5 \text{ d}^{-1}$ .                                                                                                                                                                   |
| 102731107 | 2                     | 16        | 0    | 41/193          | G    | Frequencies are not clearly grouped, strongest mode at $14.07 \text{ d}^{-1}$ , strongest $g$ mode at $3.53 \text{ d}^{-1}$ .                                                                                                                                |
| 102732523 | -                     | 19        | 0    | 36/66           | G    | Only $4 p$ modes range from $10$ to $23.56 \text{ d}^{-1}$ (which is the strongest mode), $g$ modes cluster at $2.6$ and $5.1 \text{ d}^{-1}$ .                                                                                                              |
| 102740677 | -                     | 22        | 0    | 76/152          | D    | Spectrum fringed; $g$ modes at $1.9$ and $3.7 \text{ d}^{-1}$ ; $p$ modes scatter over the range up to $35 \text{ d}^{-1}$ .                                                                                                                                 |
| 102742047 | 2                     | 25        | 0    | 36/105          | D    |                                                                                                                                                                                                                                                              |
| 102746910 | -                     | 18        | 2    | 52/151          | D    |                                                                                                                                                                                                                                                              |
| 102750600 | -                     | 12        | 0    | 49/375          | G,D  |                                                                                                                                                                                                                                                              |
| 102752241 | 2                     | 26        | 0    | 49/87           | D    |                                                                                                                                                                                                                                                              |
| 102753221 | -                     | 21        | 0    | 36/120          | -    |                                                                                                                                                                                                                                                              |
| 102755594 | -                     | 6         | 0    | 29/84           | -    |                                                                                                                                                                                                                                                              |
| 102757904 | -                     | 16        | 0    | 46/106          | G    |                                                                                                                                                                                                                                                              |

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Table 6.5 – continued from previous page

| CoRoT ID  | Groups of frequencies | DFT Noise | Mask | Number of Freqs | type | Remarks                                                                                                                                                                                                               |
|-----------|-----------------------|-----------|------|-----------------|------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 102758436 | -                     | 19        | 2    | 63/160          | -    | $p$ modes range from 9.5 to 36 $\text{d}^{-1}$ , $g$ modes are clustered at 4.4 $\text{d}^{-1}$ .                                                                                                                     |
| 102759686 | 5?                    | 19        | 0    | 51/140          | D    | $p$ modes cluster at 29.5, 23.5, 17 and 10 $\text{d}^{-1}$ ; $g$ modes cluster at 0.8 $\text{d}^{-1}$ .                                                                                                               |
| 102762741 | 3                     | 7         | 0    | 46/220          | D    | Three groups: $g$ modes range from 1 to 2 $\text{d}^{-1}$ ; intermediate group from 6.4 to 10 and third group from 12.4 to 17 $\text{d}^{-1}$ ; strongest mode is within intermediate group at 7.65 $\text{d}^{-1}$ . |
| -         | -                     | -         | -    | -               | -    | $p$ modes range from 12.5 to 34 $\text{d}^{-1}$ , where 23.4 $\text{d}^{-1}$ has the highest amplitude, $g$ modes are around 2 $\text{d}^{-1}$ .                                                                      |
| 102765447 | 2                     | 9         | 0    | 63/310          | D    | $p$ modes range from 10.4 to 35 $\text{d}^{-1}$ ; 5 $g$ modes scatter from 1 to 3 $\text{d}^{-1}$ .                                                                                                                   |
| 102769842 | 2                     | 36        | 0    | 61/113          | D    | $g$ mode at 2.4 $\text{d}^{-1}$ has highest amplitude, other $g$ modes do not cluster but scatter.                                                                                                                    |
| 102783836 | 2 - 3?                | 23        | 2    | 35/139          | G    | $p$ modes (or mixed modes) range from 6.7 to 10.6 $\text{d}^{-1}$ and a single mode at 19.63 $\text{d}^{-1}$ (potential third group).                                                                                 |
| -         | -                     | -         | -    | -               | -    | Group with strongest mode at 24 $\text{d}^{-1}$ ranges from 23 to 36 $\text{d}^{-1}$ , $g$ modes range from 0.5 to 3.5 $\text{d}^{-1}$ .                                                                              |
| 102796616 | 2                     | 17        | 2    | 36/70           | D, G | and cluster at 2 $\text{d}^{-1}$ .                                                                                                                                                                                    |
| -         | -                     | -         | -    | -               | -    |                                                                                                                                                                                                                       |

Table 6.6: Notes on individual hybrid candidates.

| CoRoT ID  | Groups of frequencies | DFT Noise | Mask | Number of Freqs | type | Remarks                                                                                                                                                                                      |
|-----------|-----------------------|-----------|------|-----------------|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 102563681 | -                     | 11        | 0    | 65/131          | -    | Rich $\delta$ Sct frequency spectrum, single, but dominant $g$ mode(?) at $1.75 \text{ d}^{-1}$ .<br>Dominant modes in $\delta$ Sct regime: 32.722, 36.96, 39.972 $\text{d}^{-1}$ .          |
| -         | -                     | -         | -    | -               | -    | Rich $\delta$ Sct frequency spectrum, only 1.83 and 2.53 remain after combination check.                                                                                                     |
| 102573770 | -                     | 18        | 0    | 59/119          | D    | Like 102573770, but 1.84, 3.56 and 0.98 $\text{d}^{-1}$ remain.                                                                                                                              |
| 102580623 | -                     | 28        | 0    | 75/190          | D    | 2 dominant modes (18.92, 14.76 $\text{d}^{-1}$ ) may be radial modes (frequency ratio 0.78).                                                                                                 |
| 102580968 | 3?                    | 10        | 0    | 61/244          | D    | In the band from 7.3 to 13 $\text{d}^{-1}$ tightly spaced frequencies. $\gamma$ Dor range: only few modes remaining.                                                                         |
| -         | -                     | -         | -    | -               | -    | Rich $\delta$ Sct pulsation spectrum, large range of frequencies up to 44.8 $\text{d}^{-1}$ ;<br>only few low-amplitude peaks remaining. Hydrogen lines show bumps: binary?                  |
| 102581527 | -                     | 21        | 0    | 50/169          | D    | Main modes at 4 c/d, frequencies up to 52.18 c;                                                                                                                                              |
| -         | -                     | -         | -    | -               | -    | Long-periodic variation, unusual for $\gamma$ Dor modes, $p$ modes range from 9 to 34 $\text{d}^{-1}$ .                                                                                      |
| 102589566 | -                     | 16        | 0    | 54/198          | D    | Only freq frequencies from 2 to 6 c/d., amplitudes < 140 ppm.                                                                                                                                |
| 102600050 | -                     | 8         | 0    | 39/109          | D    | 2 $p$ modes at 17.18 and 20.44 $\text{d}^{-1}$ (ratio 0.84) and few frequencies in the $\gamma$ Dor regime.                                                                                  |
| 102600953 | -                     | 8         | 0    | 25/74           | G?   | Strong $p$ mode at 7.42 $\text{d}^{-1}$ and few low frequency signal - double wave?                                                                                                          |
| 102606502 | -                     | 20        | 2    | 18/33           | D    | Bad LC, long-period variability? $p$ mode at 11.31 $\text{d}^{-1}$ dominant, possible $g$ mode at 3.35 and 1.36 $\text{d}^{-1}$ .                                                            |
| 102608609 | -                     | 12        | 0    | 24/49           | D    | $\delta$ Sct pulsation spectrum rich, main modes range from 17 c/d. From low-frequency signal only two remain: 0.84 and harmonic 1.69 $\text{d}^{-1}$ .                                      |
| 102619330 | 2                     | 15        | 0    | 27/41           | D    | $\delta$ Sct star with rich pulsation spectrum and only few modes at 3.4 $\text{d}^{-1}$ .                                                                                                   |
| 102619560 | -                     | 41        | 0    | 61/236          | D    | Spectrum suffers from fringing. Main modes between 5 and 15 $\text{d}^{-1}$ . 7 possible $g$ mode between 1.5 and 3 $\text{d}^{-1}$ have amplitudes < 160 ppm.                               |
| -         | -                     | -         | -    | -               | -    | Strongest mode at 3.81, few modes scatter up to 62.81 $\text{d}^{-1}$ .                                                                                                                      |
| 102627276 | -                     | 0         | 19   | 78/180          | D    | Main mode at 5.03 $\text{d}^{-1}$ other frequencies spread over a range from 0 to 10 $\text{d}^{-1}$ .                                                                                       |
| 102629848 | -                     | 0         | 14   | 40/139          | D    | Rich $\delta$ Sct pulsation spectrum, tightly spaced frequencies at 3.25 $\text{d}^{-1}$ and harmonics at 6.5 $\text{d}^{-1}$ .                                                              |
| -         | -                     | -         | -    | -               | -    | Three modes near 18 $\text{d}^{-1}$ , one at 5.9 and few modes from 0.28 to 2.64 $\text{d}^{-1}$ . LC shows long-term variations.                                                            |
| 102630432 | -                     | 12        | 0    | 42/77           | D?   | The low frequencies of the alleged $p$ modes point hint to a $\delta$ Sct, which is consistent with the log $g$ determination; single frequency at 0.71 $\text{d}^{-1}$ .                    |
| 102637313 | -                     | 14        | 2    | 38/186          | -    | Hot star, outside $\delta$ Sct IS, main mode at 11.42 $\text{d}^{-1}$ , low frequencies: 2 peaks at 2.6 $\text{d}^{-1}$ one at 1.3 $\text{d}^{-1}$ .                                         |
| 102639658 | 3                     | 7         | 2    | 76/203          | D    | LC shows long-term variability.                                                                                                                                                              |
| 102642705 | 3?                    | 14        | 0    | 24/40           | D?   | $p$ modes range from 11 to 35 $\text{d}^{-1}$ , alleged $g$ mode range from 3 to 7 $\text{d}^{-1}$ . Strongest variation has a period of 6.575 d.                                            |
| 102645086 | -                     | 9         | 0    | 44/117          | D    | Spectrum fringed, Frequencies appear in 8 clusters centred at 1, 2, 2.8, 3.7, 4.6, 5.5, 6.5 and 7.3 $\text{d}^{-1}$ , where the peaks 4.44 and 5.46 $\text{d}^{-1}$ have highest amplitudes. |
| -         | -                     | -         | -    | -               | -    | Hot $\delta$ Sct with dominating peaks at 12.34 and 19.95 $\text{d}^{-1}$ . Possible $g$ mode cluster near 2 $\text{d}^{-1}$ .                                                               |
| 102649843 | -                     | 0         | 10   | 29/102          | D?   |                                                                                                                                                                                              |
| -         | -                     | -         | -    | -               | -    |                                                                                                                                                                                              |
| 102651182 | 3?                    | 11        | 2    | 49/104          | D    |                                                                                                                                                                                              |
| -         | -                     | -         | -    | -               | -    |                                                                                                                                                                                              |
| 102660478 | 8                     | 23        | 0    | 39/183          | -    |                                                                                                                                                                                              |
| -         | -                     | -         | -    | -               | -    |                                                                                                                                                                                              |
| 102662560 | -                     | 13        | 0    | 38/115          | D    |                                                                                                                                                                                              |

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Table 6.6 – continued from previous page

| CoRoT ID  | Groups of frequencies | DFT Noise | Mask | Number of Freqs | type | Remarks                                                                                                                                                                                                     |
|-----------|-----------------------|-----------|------|-----------------|------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 102669191 | -                     | 15        | 0    | 44/185          | D    | $p$ modes range from 7 to 14 $d^{-1}$ , possibly $g$ modes at 1.09, 2.09 and harmonics.                                                                                                                     |
| 10267302  | -                     | 8         | 0    | 37/107          | -    | Frequencies range from 1.4 to 6.24 $d^{-1}$ . Maximum amplitude of 180 ppm at 2.95 $d^{-1}$ ; red noise.                                                                                                    |
| 102677996 | -                     | 26        | 0    | 23/16           | D    | Due to strong residual artefacts only first 74 days of observations used. $\delta$ Sct modes range from 23 $d^{-1}$ to 36 $d^{-1}$ low frequency at 2.78 $d^{-1}$ .                                         |
| -         | -                     | -         | -    | -               | -    | Dominating $p$ mode at 15.9 $d^{-1}$ . Possible $g$ modes cluster at 1.27, 2.26 and 4.2 $d^{-1}$ .                                                                                                          |
| 102678268 | -                     | 15        | 0    | 44/141          | D    | Three groups of frequencies at 2 and 4 $d^{-1}$ and 7 $d^{-1}$ , single mode at 21.19 $d^{-1}$ of 270 ppm in amplitude.                                                                                     |
| 102685368 | 3                     | 25        | 2    | 29/105          | G    | Only two unambiguous modes: 14.56 $d^{-1}$ and 1.15 $d^{-1}$ , one frequency at the CoRoT-orbit, the lower frequencies are hardly significant.                                                              |
| 102690683 | -                     | 16        | 2    | 20/35           | ?    | Main frequency at 22.2 $d^{-1}$ , possible $g$ modes at 2.5 and 3.1 $d^{-1}$ ; frequencies around 0.1 $d^{-1}$ .                                                                                            |
| -         | -                     | -         | -    | -               | -    | Only three modes: 9.0, 1.23 and 2.69 $d^{-1}$ . The rest are low-frequencies due to artefacts and red noise.                                                                                                |
| 102705788 | -                     | 8         | 2    | 34/98           | D    | Rich $\delta$ Sct pulsation spectrum ranging from 11 to 41 $d^{-1}$ ; possible $g$ modes scatter from 2 to 6.5 $d^{-1}$ and are of low significance.                                                        |
| 102709431 | -                     | 15        | 2    | 21/133          | -    | $\delta$ Sct frequencies range from 6.5 to 19.4 $d^{-1}$ ; alleged $g$ modes scatter and are of low significance.                                                                                           |
| 102711885 | 2?                    | 21        | 0    | 74/189          | D    | Single $p$ mode at 11.34 $d^{-1}$ , low frequencies below 4 $d^{-1}$ , where 0.73 $d^{-1}$ is strongest.                                                                                                    |
| -         | -                     | -         | -    | -               | -    | Main frequency at 5.7 $d^{-1}$ and clusters at 1 and 2 $d^{-1}$ .                                                                                                                                           |
| 102711971 | -                     | 25        | 2    | 46/138          | D    | Only very few modes, main mode at 8.8 $d^{-1}$ and its harmonic (17.6 $d^{-1}$ ); one frequency at 2.54 $d^{-1}$ .                                                                                          |
| 102713978 | -                     | 14        | 0    | 23/73           | ?    | Main frequencies at 3 and 6 $d^{-1}$ , weak hardly significant possible $p$ mode at 20.76 $d^{-1}$ .                                                                                                        |
| 102718106 | -                     | 24        | 0    | 36/97           | -    | $p$ modes range from 10 to 23 $d^{-1}$ ; one low-frequency at 1.12 $d^{-1}$ .                                                                                                                               |
| 102721492 | -                     | 16        | 0    | 24/83           | -    | Few $p$ modes of which 22.03 is the strongest, red noise, 2.72 $d^{-1}$ as possible $g$ mode, deformed PSF may hint to binary.                                                                              |
| 102732058 | 2                     | 15        | 0    | 33/89           | G    | Rich $p$ mode spectrum, two possible $g$ modes: 2.12 and 4.26 $d^{-1}$ .                                                                                                                                    |
| 102733580 | -                     | 20        | 0    | 51/117          | D    | Rich $\delta$ Sct pulsation spectrum ranging from 15 to 45 $d^{-1}$ , but only 4 possible $g$ modes: 1.76, 0.6, 2.93 and 3.38 $d^{-1}$ .                                                                    |
| 102737008 | -                     | 15        | 2    | 21/82           | D?   | Main mode at 19.36 $d^{-1}$ ; possible $g$ modes at 2.1 and 3.2 $d^{-1}$ .                                                                                                                                  |
| -         | -                     | -         | -    | -               | -    | $p$ modes range from 10 to 28.3 $d^{-1}$ ; possibly $g$ modes at 1.1 $d^{-1}$ .                                                                                                                             |
| 102740052 | -                     | 15        | 0    | 86/309          | D    | Main mode at 20 $d^{-1}$ ; $p$ mode range from 8.8 to 35 $d^{-1}$ , only two possible $g$ modes at 2.67 and 2.53 $d^{-1}$ .                                                                                 |
| 102752122 | -                     | 19        | 0    | 70/104          | D    | Few high-frequency modes at 51 and 47 $d^{-1}$ , possible $g$ modes cluster near 0.4 $d^{-1}$ .                                                                                                             |
| 102755069 | -                     | 15        | 0    | 23/82           | -    | $p$ modes range from 12 to 45 $d^{-1}$ ; possible $g$ modes cluster at 6.6 of low amplitudes and 3.3 $d^{-1}$ .                                                                                             |
| 102756828 | -                     | 13        | 0    | 51/110          | D    | Frequencies up to 40 $d^{-1}$ ; lots of frequencies between 0 and 5 $d^{-1}$ . Spectrum may hint to binary (H lines).                                                                                       |
| 102757940 | -                     | 26        | 0    | 47/91           | D    | Frequencies range from 0 to 21 $d^{-1}$ , possible $g$ modes mainly combinations.                                                                                                                           |
| 102759370 | -                     | 20        | 0    | 23/46           | D    | Red noise, frequencies cluster in 9 groups from 0 to 10; strongest mode 7 $d^{-1}$ , hot star, Maia-candidate?                                                                                              |
| 102760159 | 3?                    | 10        | 0    | 41/99           | D    | $p$ modes range from 5 to 9 $d^{-1}$ (first group); potential second group is built by three frequencies from 10 to 16 $d^{-1}$ ; potential $g$ modes range from 0.8 to 2.8 $d^{-1}$ . Second star in mask. |
| 102760705 | -                     | 19        | 0    | 39/185          | -    | $p$ modes range from 13.7 to 23 $d^{-1}$ ; low-frequencies caused by bad LC and stellar activity or transit with a period of 21.83 d? Deformed PSF may hint to binary.                                      |
| 102761296 | -                     | 36        | 0    | 61/201          | D    |                                                                                                                                                                                                             |
| 102761327 | 9                     | 11        | 2    | 36/213          | ?    |                                                                                                                                                                                                             |
| 102780330 | 3?                    | 21        | 1    | 26/74           | -    |                                                                                                                                                                                                             |
| -         | -                     | -         | -    | -               | -    |                                                                                                                                                                                                             |
| 102782919 | -                     | 13        | 2    | 36/70           | D    |                                                                                                                                                                                                             |
| -         | -                     | -         | -    | -               | -    |                                                                                                                                                                                                             |

Continued on next page

Table 6.6 – continued from previous page

| CoRoT ID  | Groups of frequencies | DFT Noise | Mask | Number of Freqs | type | Remarks                                                                                                                         |
|-----------|-----------------------|-----------|------|-----------------|------|---------------------------------------------------------------------------------------------------------------------------------|
| 102791134 | -                     | 60        | 0    | 49/185          | D    | $\delta$ Sct with high amplitude at 11.01 d <sup>-1</sup> ; potential <i>g</i> modes at 0.9 d <sup>-1</sup> are not convincing. |
| 102792697 | -                     | 5         | 0    | 53/134          | D    | <i>p</i> modes range from 9.6 to 53 d <sup>-1</sup> , where 34.75 d <sup>-1</sup> has the highest amplitude;                    |
| -         | -                     | -         | -    | -               | -    | potential <i>g</i> modes cluster at 1.73 cd and 3.5 d <sup>-1</sup> , where their highest amplitude is 60 ppm.                  |

## 6.4 Conclusion

The frequency analysis of this chapter has shown that the numbers of genuine hybrids and still uncertain cases (termed hybrid candidates) are about the same. This shows the difficulty of detecting true hybrid stars. Of the 59 genuine cases, 23 show dominant  $\delta$  Sct pulsation and 17 show dominant  $\gamma$  Dor pulsation and 19 are unclear cases. Including the candidates the numbers change to 54  $p$  mode dominant and 18  $g$  mode dominant stars and 44 unclear cases.

The frequency analysis of  $\gamma$  Dor stars has revealed three different types. In these cases the stellar rotation may be the key. Unfortunately, the resolution of the AAOmega spectra does not allow to derive the  $v \sin i$  to corroborate this argument.



# Chapter 7

## Theory vs. Observation

In this chapter the results of the previous frequency analysis (Chap. 6 using the fundamental parameters (Chap. 5) are compared to theory of both  $g$  mode pulsation and  $p$  mode pulsation.

### 7.1 Instability strips

The hybrids reported from ground based observations were found in or close to the region in the HRD where the  $\delta$  Sct and the  $\gamma$  Dor IS overlap (e.g. HD 8801, HD 114839, BD +18 4914). It is natural to expect that for hybrids in this particular region the stellar pulsation behaves like  $\gamma$  Dor stars in the low-frequency regime and like  $\delta$  Sct stars in the high-frequency regime.

Figure 7.1 shows the location of the  $\gamma$  Dor stars compared to the position of the  $\delta$  Sct stars. The  $\gamma$  Dor stars concentrate at the red edge of the  $\delta$  Sct is and extend toward cooler temperatures even beyond the red edge of their IS. The  $\delta$  Sct stars are found as expected within their instability strip, with some outliers, of which the three hot cases are outstanding: CIDs 102620865, 102639464 and 102775698. These stars are classified by Sebastian et al. (2012) as A1V, A2V and A1V, which is in fair agreement with my independent parameter determination. The pulsation frequencies of these stars are typical for  $\delta$  Sct stars with dominant modes near 12, 20 and 15  $\text{d}^{-1}$ .

Fig. 7.2 shows that hybrid stars fill the whole  $\delta$  Sct instability strip and are even found beyond the red and the blue borders, like the  $\delta$  Sct stars. This finding is in good agreement with Uytterhoeven & WG#10 (2011), who analysed a sample from *Kepler* data. Thus, there is no distinct instability domain for hybrid stars, which would separate them from the  $\delta$  Sct stars. Like in the case of the  $\delta$  Sct stars one hot hybrid and two hybrid candidates are outstanding: CID 102649843 (A1V by Sebastian et al. 2012). Of the hybrid candidates CIDs 102677996 and 102792697 show  $\delta$  Sct and  $\gamma$  Dor frequencies but with amplitudes below 200 ppm and 250 ppm, respectively. Hence, background

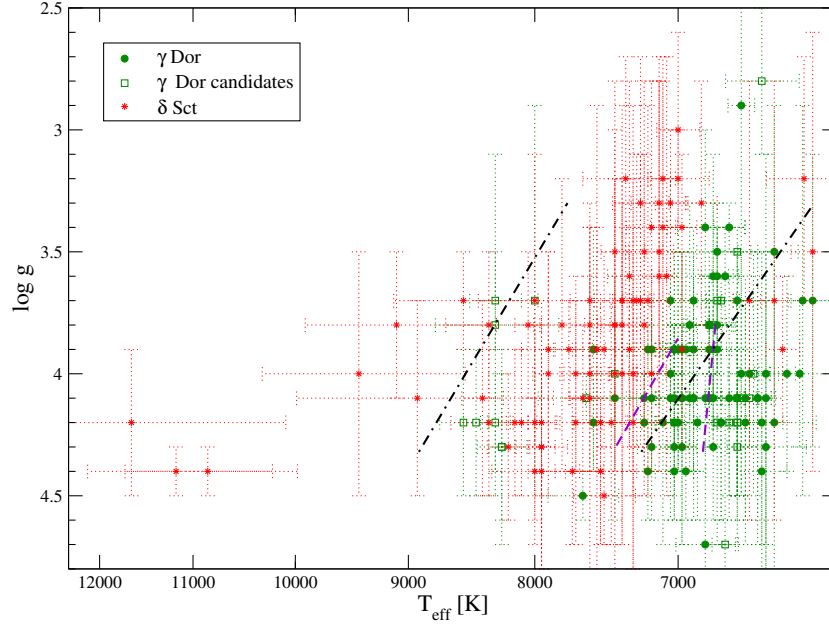


**Figure 7.1:**  $T_{\text{eff}} - \log g$  diagram for pure  $\delta$  Sct and  $\gamma$  Dor. The green filled circles mark the  $\gamma$  Dor stars, the candidate  $\gamma$  Dor stars are displayed by open symbols and the  $\delta$  Sct stars are represented by red asterisks. The instability domains of both  $\gamma$  Dor and  $\delta$  Sct are shown by the dashed violet and dash dotted black lines, respectively. The borders of the  $\delta$  Sct IS are taken from Pamyatnykh (2000) and that for the  $\gamma$  Dor IS are taken from Dupret et al. (2004).

$\delta$  Sct stars or background hybrids are likely. These two candidates were classified as B9.5III and B9V Sebastian et al. (2012), respectively, which confirms again, that my parameter determination yielded acceptable results.

The natural assumption that hybrid stars are to be found in the region in the HRD, where the  $\delta$  Sct and the  $\gamma$  Dor IS overlap, is proven wrong according to these two figures.

Since driving of  $g$  modes of  $\gamma$  Dor stars is explained as a convective flux blocking mechanism (see Chap.7), the treatment of convection in the models becomes crucial. The location of the transition region, where the pulsation periods are of the same order as the thermal relaxation time, is of importance. For  $\gamma$  Dor stars, this transition region is near the bottom of the convective envelope, which results in driving of  $g$  modes (Dupret et al. 2007).  $\gamma$  Dor stars are cooler than  $\delta$  Sct and cooler than hybrids, as can be easily seen in Fig. 7.1. The convective flux blocking mechanism, however, does not work in hotter stars, thus, the identification of  $g$  modes for at least the hotter hybrid stars is questionable. On the other hand, the frequency analysis described in Chap. 6 was done carefully and ruled out confusion with combination frequencies, the orbit frequency (and its harmonics), eclipsing binaries, and known instrumental artefacts.

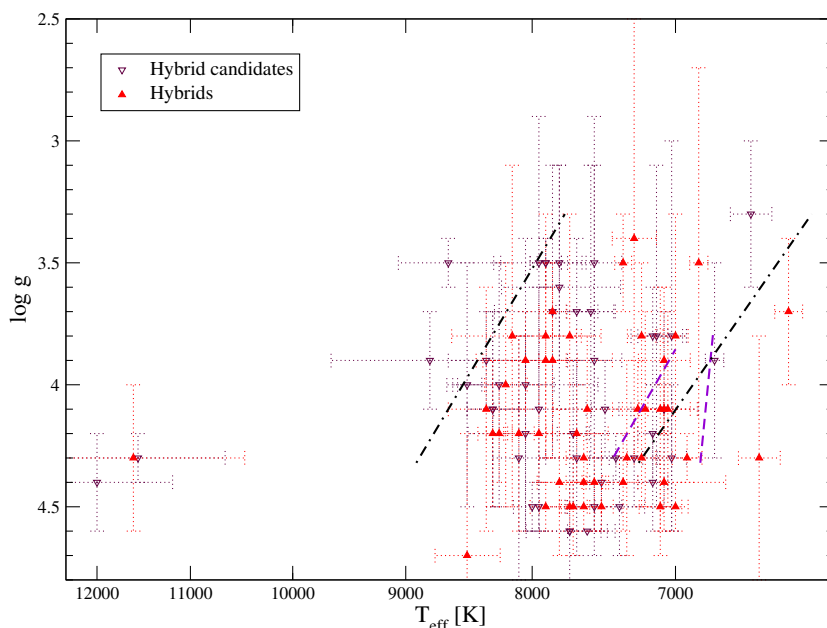


**Figure 7.2:** Same as Fig. 7.1 but for hybrids (filled triangles) and hybrid candidates (open triangles).

The outer convection zones of stars at  $T_{\text{eff}} \geq 7500$  K (hotter than the blue border of the  $\gamma$  Dor IS) near the ZAMS are shallow and should therefore play no significant role in the energy transport. Thus,  $g$  modes are expected to be stable (i.e., no pulsation) for such stars because of the lack of driving. On the other hand,  $g$  modes are observed in slowly pulsating B-stars (SPB stars). The modes of these stars are driven by the  $\kappa$  mechanism acting in the Fe-ionisation zone (Cox et al. 1992). Studies of the  $\kappa$  mechanism of F-type stars have shown that this mechanism cannot account for driving  $g$  modes of  $\gamma$  Dor stars (e.g. Gautschy & Loeffler 1996; Pamyatnykh 2000). Very recently, Shiode et al. (2012) investigated stochastically excited  $g$  modes for stars in the mass domain from 2 to  $30 M_{\odot}$ , which may explain hybrids hotter than the blue border of the  $\gamma$  Dor IS, but at this stage it is too early to draw firm conclusions.

The conjecture that there are practically no pure  $\delta$  Sct or  $\gamma$  Dor stars presented in the first *Kepler* publication by Grigahcène et al. (2010) is not confirmed by the CoRoT data of this thesis. I emphasise that in fact all of the presented  $\gamma$  Dor do not show evidence of  $p$  modes. The same is true for the  $\delta$  Sct stars, analogously. The slightly lower noise of the *Kepler* data does not explain the difference.

A strong case for a pure  $\gamma$  Dor star is HD 49434. The light curve of this Seismo target has a noise level of only 2 ppm in the Fourier domain and there are no frequencies near the expected fundamental mode or higher, that would indicate  $p$  mode pulsation. In this case the highest frequency is at  $12.03 \text{ d}^{-1}$  with an amplitude of  $\approx 30$  ppm, which is a mode of rather high spherical de-

gree between 6 and 8 according to the mode identification of Uytterhoeven et al. (2008). Hence, the identification as p mode has no solid basis and this star may be a fast rotating  $\gamma$  Dor.

## 7.2 Period – Temperature Relation

Figure 7.3 reveals a period – temperature relation for the program  $\gamma$  Dor stars, but no clear relation for hybrids. Generally, the cooler  $\gamma$  Dor stars have longer pulsation periods than the hotter stars. I considered here only the period with the highest amplitude for each star and for the hybrids combination modes were excluded.  $\gamma$  Dor stars discovered from the ground (listed by Henry et al. 2011) show a similar but not as tightly defined  $\log P - T_{\text{eff}}$  relation. For these stars a potential period - luminosity (in this case  $M_v$ ) relation was examined but no correlation was found (see Fig. 7.4). Instead of the luminosity, the absolute magnitude was chosen since it can be directly derived from the Hipparcos parallaxes.

Figure 7.5 shows  $T_{\text{eff}}$  vs.  $\log P$ , where the symbol sizes correspond to the square root of the amplitudes expressed in millimagnitudes. While the hybrids (filled triangles) scatter, the  $\gamma$  Dor stars (open symbols) show a correlation, as already depicted in Fig. 7.3. The upward pointing triangles mark the strongest  $g$  mode of the hybrids, while the downward pointing triangles display the strongest  $p$  modes of these stars. The open squares represent pure  $\delta$  Sct stars and linear fits to the  $\gamma$  Dor and  $\delta$  Sct stars are indicated by dashed lines. The 95% confidence intervals are displayed by the dash dotted lines. The hatched diamonds represent hybrids listed in Table 7.1.

The  $\gamma$  Dor stars cluster at  $\log T_{\text{eff}} = 3.85$  while the hybrids scatter in the  $g$  mode regime and do not show a  $T_{\text{eff}} - \log P$  relation. In the  $p$  mode regime the situation is similar: the pure  $\delta$  Sct stars also follow such a relation, but the hybrids do not at all. The hybrid stars have smaller  $g$  mode amplitudes than pure  $\gamma$  Dor stars, while their  $p$  mode amplitudes are comparable to that of the  $\delta$  Sct stars. Generally the  $g$  mode amplitudes of hybrids are lower than their  $p$  mode amplitudes. The amplitudes of  $\gamma$  Dor and  $\delta$  Sct stars are highest near  $\log T = 3.85$ , which is discussed later. The number of the hybrids from my analysis or from literature (Tab. 7.1) with reliable temperatures is too low to safely draw conclusions.

The  $\delta$  Sct stars show a very similar correlation of their temperatures vs. their strongest pulsation mode. The frequency of the radial fundamental mode and the first overtone show only a slight dependence on the effective temperature, but with increasing temperature higher radial orders are excited. More evolved  $\delta$  Sct stars tend to be cooler and have larger amplitudes, while the hotter  $\delta$  Sct stars have modes of higher radial orders excited. For a determination of the blue border of the  $\delta$  Sct instability strip I refer to Pamyatnykh



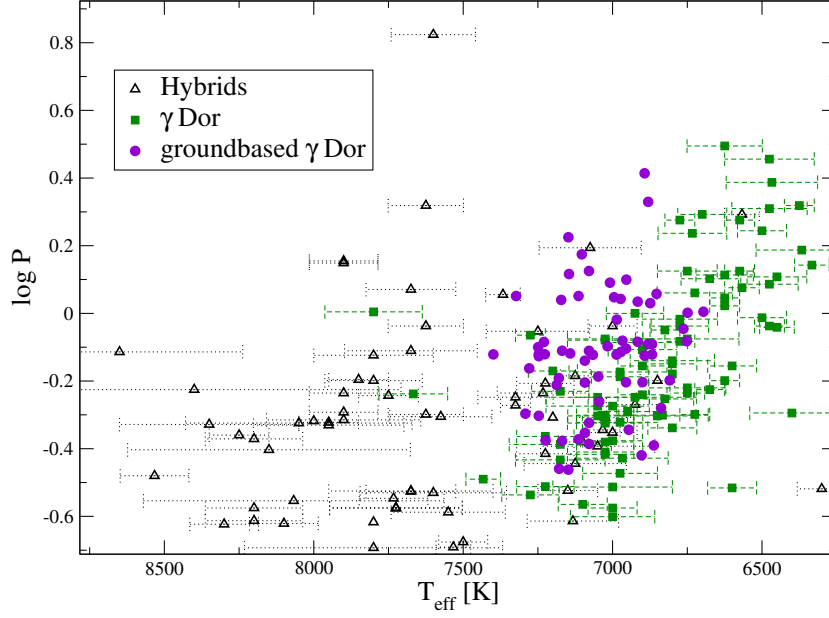


**Figure 7.3:** Effective temperature vs.  $\log P$  for hybrids (triangles),  $\gamma$  Dor stars (filled squares) and  $\gamma$  Dor stars from ground-based observations (violet dots). The data of the latter were taken from Henry et al. (2011).

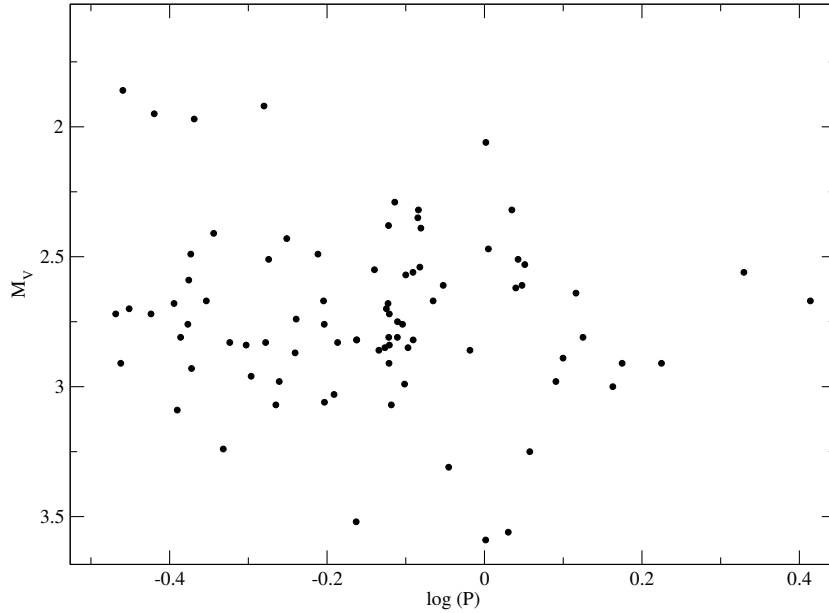


**Figure 7.4:** Logarithm of the period versus absolute magnitude of 84  $\gamma$  Dor stars from ground based observations. The data are taken from Tab. 8 in Henry et al. (2011).

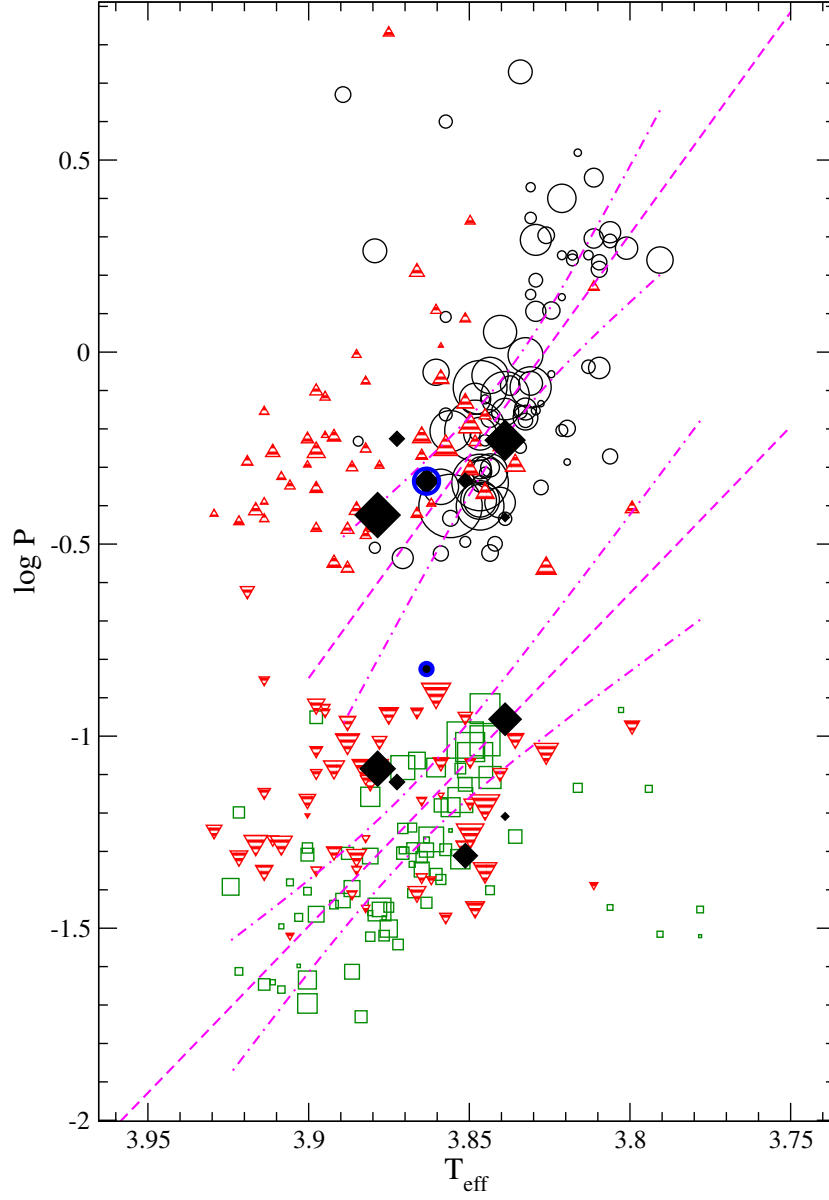


**Figure 7.5:** Log  $T_{\text{eff}}$  – log  $P$  diagram of the mean periods of  $\gamma$  Dor (open circles) compared to hybrids (triangles) and  $\delta$  Sct stars (open squares). The black filled diamonds represent the hybrids listed in Table 7.1 and the blue ring marks HD 49434. The mean period for each star is the average of the three  $g$  or  $p$  modes with highest amplitudes. The magenta dashed lines indicate linear regressions for the two samples, the dash dotted lines indicate the corresponding 95% confidence intervals.

**Table 7.1:** Hybrids of different sources for comparison

| ID<br>Source                                                        | $T_{\text{eff}}$<br>[K] | Mean g<br>[ $d^{-1}$ ] | Amp.<br>[mmag] | Mean p<br>[ $d^{-1}$ ] | Amp.<br>[mmag] |
|---------------------------------------------------------------------|-------------------------|------------------------|----------------|------------------------|----------------|
| HD 114839<br>King et al. (2006), this thesis                        | 7100                    | 2.163                  | 0.67           | 20.476                 | 1.74           |
| BD +18 4914<br>Rowe et al. (2006a), this thesis                     | 6900                    | 1.697                  | 4.67           | 9.035                  | 3.08           |
| HD 8801<br>Henry & Fekel (2005)                                     | 7560                    | 2.657                  | 6.0            | 12.156                 | 3.63           |
| HD 49862<br>this thesis                                             | 7000                    | 2.692                  | 0.21           | 16.177                 | 0.17           |
| HD 49434<br>Uytterhoeven et al. (2008),<br>Chapellier et al. (2011) | 7300                    | 2.169                  | 1.87           | 6.686                  | 0.44           |
| HD 73449<br>Ammons et al. (2006), this thesis                       | 7456                    | 1.682                  | 0.65           | 13.165                 | 0.68           |
| CID 102699796<br>Ripepi et al. (2011)                               | 7000                    | 3.38                   | 0.76           | 6.619                  | 1.73           |

(2000). The period – luminosity relation for HADS is known for a long time. A recent article on the period – luminosity relations of  $\delta$  Sct SX Phe and RR Lyrae stars can be found in McNamara (2011).

The linear regressions for  $\gamma$  Dor stars and for  $\delta$  Sct stars are given in Eq. 7.1 and 7.2.

$$\gamma \text{ Dor : } \log(P) = -11.56 * \log(T) + 44.23526, \quad (7.1)$$

and

$$\delta \text{ Sct : } \log(P) = -8.6723 * \log(T) + 32.327, \quad (7.2)$$

respectively, where P denotes the period in days of the strongest oscillation mode and T is the effective temperature in Kelvin.

Like in the case for g modes, the hybrids do not fit as nicely in this picture as the pure  $\delta$  Sct stars for p modes. There is generally more scatter than it is the case for pure  $\delta$  Sct. The hybrids listed in Table 7.1 are overplotted for comparison. The star HD 49434 is marked by a ring in Fig. 7.5, the hybrid status of which is disputed because of ambiguous p mode identifications.

Hotter stars generally show higher frequencies, which can be explained for pulsation driven by the  $\kappa$  mechanism ( $\delta$  Sct stars) in the following way: The opacity bump is located closer to the surface the hotter the star. Hence, the thermal relaxation time is shorter in this opacity bump and therefore excites modes of shorter periods. In the case of  $\gamma$  Dor stars the base of the convective envelope closer to the surface the hotter the star than in cooler stars. Again, the thermal relaxation time is shorter there which leads to shorter periods (Dupret, private communication).

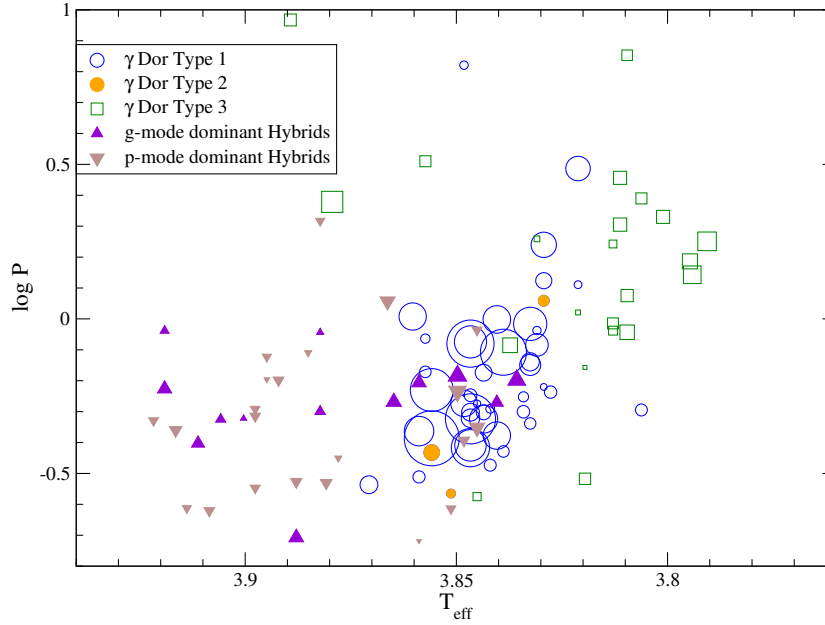


**Figure 7.6:** Log  $P$  –  $T_{\text{eff}}$  diagram for the  $g$  modes of  $\gamma$  Dor compared to hybrid stars. The symbol sizes correspond to the amplitudes.

The temperature – period relation for hybrids is absent in contrast to the pure  $\delta$  Sct and  $\gamma$  Dor stars. Most of the hybrid stars possess higher p-mode amplitudes compared to their  $g$  mode amplitudes. Fig. 7.5 suggests that hybrid stars form a separate group of pulsating stars rather than being a simple combination of  $\delta$  Sct and  $\gamma$  Dor stars. As a counter argument, the physical properties of the stars under consideration ( $\delta$  Sct, hybrids,  $\gamma$  Dor) are not much different except for the convective envelope.

Fig. 7.6 shows the sample of the  $\gamma$  Dor and hybrid stars in more detail. As already discussed in Chap. 6 three types of  $\gamma$  Dor stars were introduced. The  $\gamma$  Dor stars of Type 3 are in total 22 stars and are at the cool, long period tail of the  $\gamma$  Dor stars in the  $\log T$  -  $\log P$  plane. The type 2 stars are characterised by a scatter of frequencies over the  $\gamma$  Dor frequency regime without distinctive clustering. Pulsation modes perturbed by fast rotation would explain such frequency patterns, as the rotational splitting of the modes becomes large. Only three such cases were detected without doubt, which makes them rather rare cases among the  $\gamma$  Dor stars. HD 49434 represents such a case (Chapellier et al. 2011). The sample of the hybrid stars was divided into two subgroups where the  $g$  or  $p$  modes are dominant, respectively. For neither subgroup any correlation with  $T_{\text{eff}}$  is evident.

## 7.3 $g$ modes

### 7.3.1 Observations Compared to Theoretical Frequencies

A. Miglio, J. Montalbán and collaborators calculated theoretical frequencies (private communication) of  $g$  modes for a grid of models. They used the stellar evolution code CLES (Code Liégeois d'Evolution Stellaire) for their models and the oscillation code LOSC (Liège Oscillation Code, Scuflaire et al. 2008a,b) to calculate the frequencies. The model grid covers 1.2 to 1.9  $M_{\odot}$  models in steps of 0.1  $M_{\odot}$  of two metallicities ( $Z = 0.01$  and  $Z = 0.02$ ) and three different mixing length parameters ( $\alpha_{\text{MLT}} = 1.4, 1.7$  and 2.0). Rotation was not taken into account.

The model frequencies are illustrated in Fig. 7.7. The modes of different  $\ell$  are vertically shifted by a small amount in mass for better visibility. The  $\ell = 3$  and 4 modes are not complete and their calculation was done to explore the instability domain rather than to give the full spectrum of those modes. The masses of models with excited modes depend on the metallicity, which is evident from comparison between the left and the right panels. For instance, with same mixing length parameter  $\alpha_{\text{MLT}} = 2.0$  the pulsating models range from 1.5 to 1.9  $M_{\odot}$  for  $Z = 0.02$ , while for  $Z = 0.01$  the masses of pulsating models range only from 1.3 to 1.5  $M_{\odot}$ . Changing the mixing length parameter from  $\alpha_{\text{MLT}} = 2.0$  to 1.4 the masses of the pulsating models decline.

Figure 7.8 shows the effect of changing the metallicity (left panel vs. right panel) and  $\alpha_{\text{MLT}}$  (symbols) on the position of the theoretical instability strip for the models. The IS shifts towards cooler effective temperatures and becomes narrower for metal-poor models. The theoretical IS for  $\gamma$  Dor stars was already derived by Dupret et al. (2004) based on the same input physics as the models used in this thesis. The position of unstable model frequencies compared to the observed ones is shown in Fig. 7.9 and 7.10 for  $\ell = 1$  modes and Fig. 7.11 and 7.12 for  $\ell = 2$  modes. The left panels of both figures compare the range of excited modes calculated with  $Z = 0.02$ , while the right panels those of to  $Z = 0.01$ .

The  $\gamma$  Dor stars cluster at  $\log T_{\text{eff}} = 3.85$  and show a steep gradient in their periods with  $\log T_{\text{eff}}$ , while the hybrid and candidate stars scatter and do not show any correlation with  $T_{\text{eff}}$ . The amplitudes of the  $\gamma$  Dor stars are also higher than those of the hybrids. Hence, the  $g$  modes of  $\gamma$  Dor and hybrid stars behave differently. The comparison of the periods of the pure  $\gamma$  Dor stars to the model frequencies shows a good agreement for  $Z = 0.02$  and  $\ell = 1$  and 2. For  $Z = 0.01$  the range in log period is narrower, but fit to the observation as well. The agreement of the theoretical frequencies for  $\alpha_{\text{MLT}} = 1.7$  and 2.0 is well, while it is poor for  $\alpha_{\text{MLT}} = 1.4$ .

In contrast, the  $g$  modes of hybrids and their candidates do not fit at all in this picture. This poses problems to the definition of hybrids: if these stars are

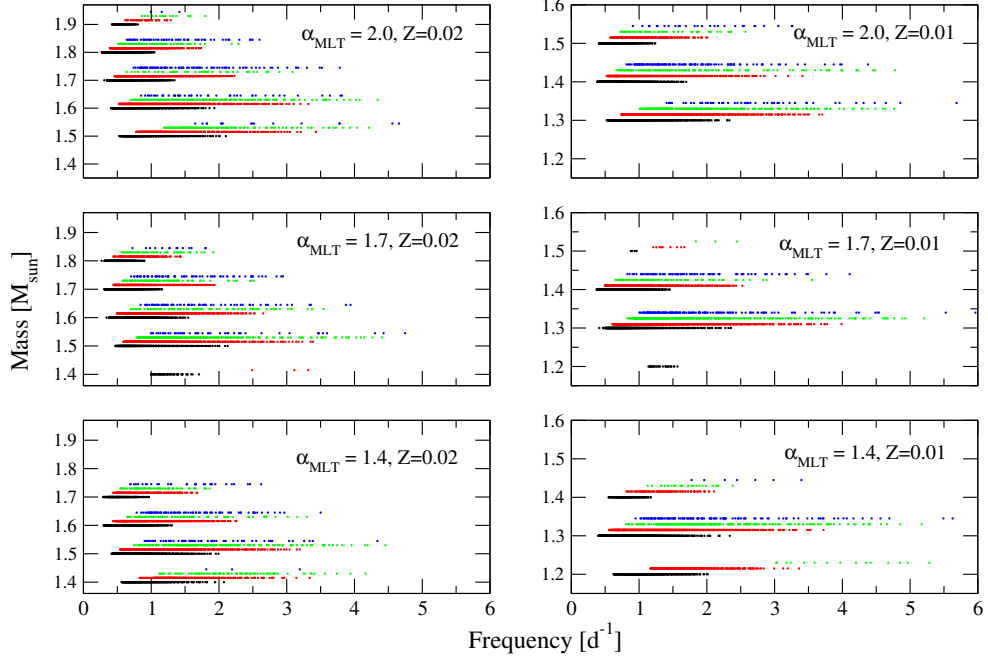


**Figure 7.7:** Frequency vs. mass of the models. Each dot represents one mode, the colours are as follows: black:  $\ell = 1$ , red:  $\ell = 2$ , green:  $\ell = 3$ , blue:  $\ell = 4$ , respectively. The  $\ell \neq 1$  are shifted in the vertical direction for better visibility. From top to bottom the panels show the effect of changing  $\alpha_{\text{MLT}}$ , and from right to left the effect of the metallicity.

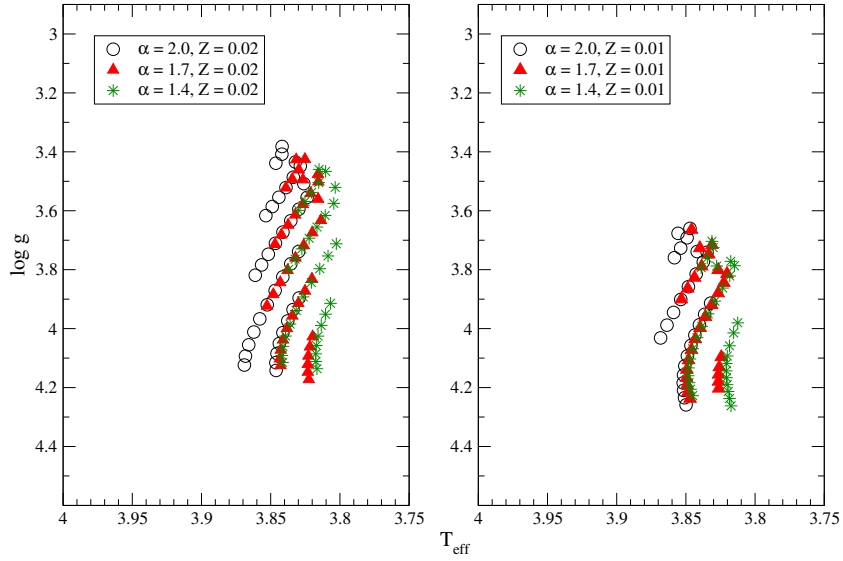


**Figure 7.8:**  $\gamma$  Dor models with unstable modes. In the left panel models are shown for  $Z = 0.02$ , and  $Z = 0.01$  right, respectively.

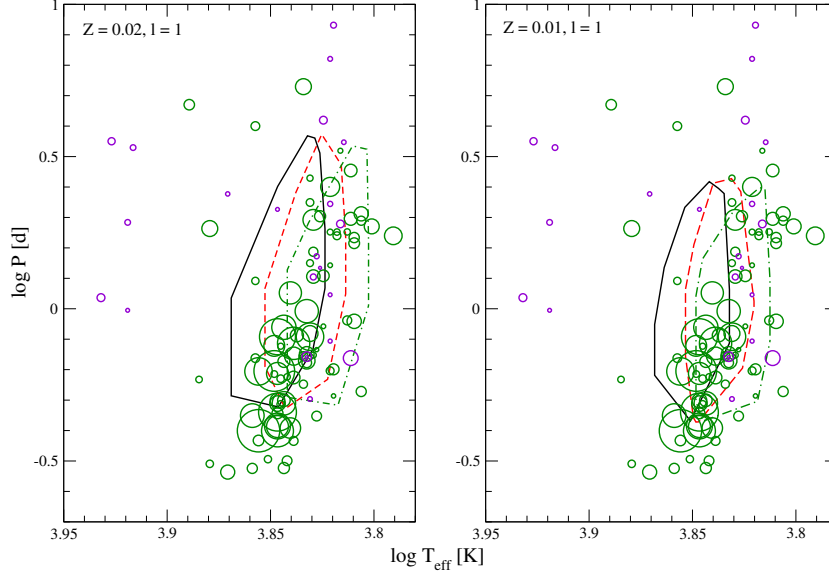


**Figure 7.9:**  $\log T_{\text{eff}}$  vs.  $\log$  Period for  $\gamma$  Dor (open green circles) and  $\gamma$  Dor candidates (open violet circles). The periods displayed are the averages of the three modes of highest amplitudes. The area enclosed by the lines marks the positions of unstable theoretical frequencies of  $\ell = 1$  for three different  $\alpha_{\text{MLT}} = 2.0$  (solid line), 1.7 (dashed line) and 1.4 (dash dotted line). Left panel: Metallicity  $Z = 0.02$ , right panel:  $Z = 0.01$ .

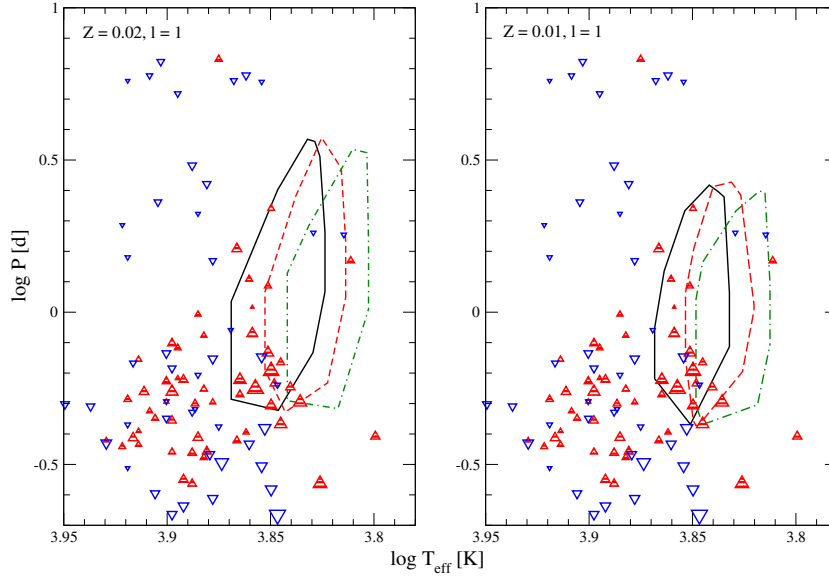


**Figure 7.10:** Same as Fig. 7.9, but for hybrids (hatched upward triangles) and respective candidates (open downward triangles).

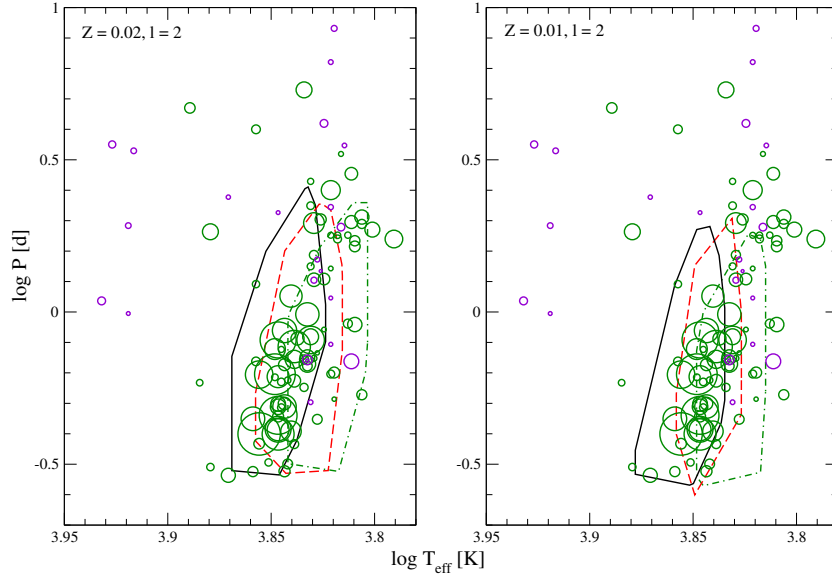


**Figure 7.11:** Same as Fig. 7.9, but for  $\ell = 2$  modes.

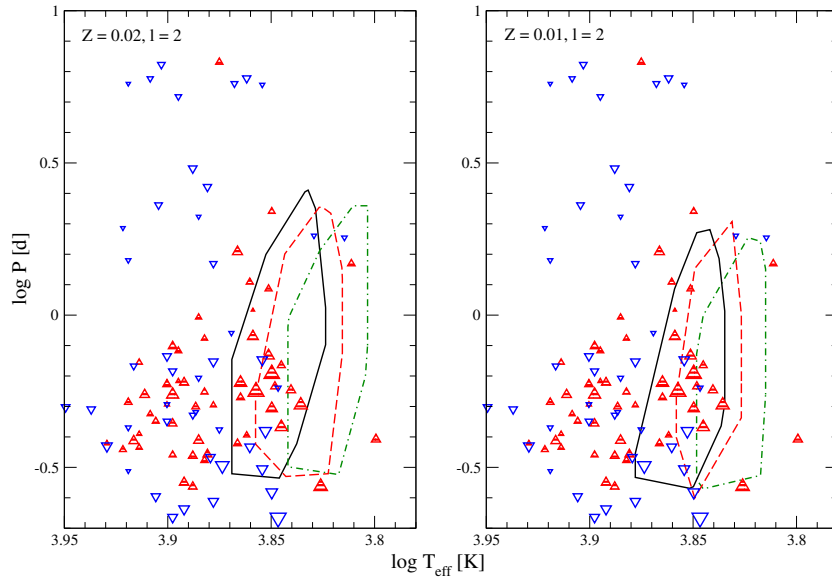


**Figure 7.12:** Same as Fig. 7.10, but for  $\ell = 2$  modes.



required to pulsate in the  $g$  mode regime as  $\gamma$  Dor and in the  $p$  mode regime as  $\delta$  Sct then they do not fulfil a strict definition of hybrids. On the other hand, I excluded combination frequencies and single frequencies in the  $\gamma$  Dor regime, to avoid confusion with rotation or other effects. Likewise, eclipsing binaries were excluded and the low frequencies of instrumental artefacts are below the  $\gamma$  Dor frequency range. Thus, these frequencies can only be explained either by  $g$  modes or by rotation variation caused by a complexly spotted surface, which is rather unlikely.

The problem of rotation should be discussed briefly. The rotation period of an observed  $\gamma$  Dor star is a priori unknown;  $v \sin i$ , if available, gives an upper limit of the true rotation period. Observations of  $\gamma$  Dor stars show that they can be fast, moderate or slow rotators. Moreover, the rotation period may be of the order of the pulsation periods, which causes asymmetric rotational splittings of the  $g$  modes. The perturbative approach widely used to calculate such splittings is valid for slow rotation only. The centrifugal force distorts the star and at high rotation rates the spherical harmonic approximation can no longer be applied because the star deviates from spherical symmetry. Unfortunately, the spectral resolution of the AAOmega spectra do not allow a determination of  $v \sin i$ .

The importance of convection may be indicated by the pulsation amplitudes: both pure  $\gamma$  Dor and  $\delta$  Sct stars show their highest amplitudes at a temperature of  $\approx 7000$  K. Warner et al. (2003) published a theoretical instability strip for  $\gamma$  Dor stars, where they also showed the growth rates for  $g$  modes versus  $T_{\text{eff}}$  and luminosity (Fig. 7.13). They found the largest growth rates for  $g$  modes close to  $T_{\text{eff}} = 7000$  K. The growth rates of  $p$  modes of  $\delta$  Sct stars are as well in agreement (see Chap. 7, Fig. 7.16). I note that from linear theory it is not possible to calculate amplitudes, nevertheless my finding correlates well with the trend in the growth rates. On the other hand, it is obvious that amplitudes carry important information but due to the lack of theoretical amplitudes this information cannot be exploited yet. Additionally, the fraction of constant stars has a minimum at this temperature (see Fig. A.1).

### 7.3.2 Period spacing

The first order asymptotic theory (Tassoul 1980) allows to compute the pulsation period for a given spherical degree  $\ell$  and radial order  $n$  as:

$$P_{n,\ell} = \Pi_0 \frac{2\pi^2(n + 1/2)}{\sqrt{\ell(\ell + 1)}}, \quad (7.3)$$

where

$$\Pi_0^{-1} = \int_{r_a}^{r_b} \frac{N}{r} dr, \quad (7.4)$$

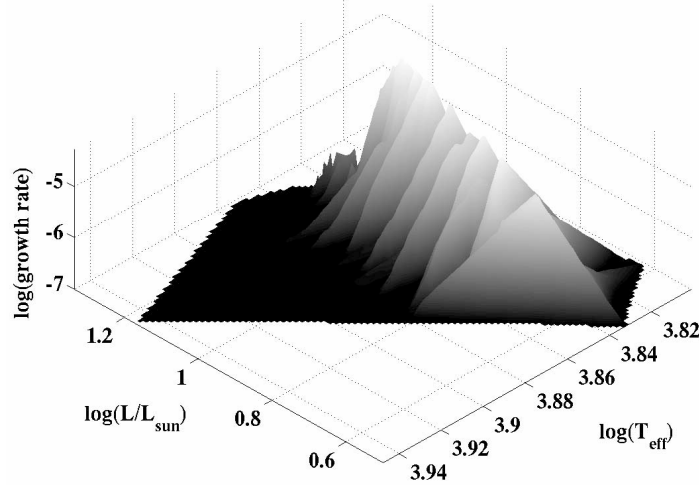


FIG. 3.—Plot of growth rates of models in our calculated instability strip for  $\ell = 1$  in the  $T_{\text{eff}}-L$  plane. This is the lower bounding value of  $\ell$ , representing the most restrictive case. The log of the growth rate (AKE/KE per period) is shown on the  $z$ -axis.

**Figure 7.13:** Growth rates from Warner et al. (2003, Fig. 3 therein). Reproduced by permission of the AAS.

$N$  denotes the Brunt-Väisälä frequency and  $r_{a,b}$  are the inner and outer turning points, respectively. The period spacing  $\Delta P$  is then defined as

$$\Delta P = P_{n,\ell} - P_{n-1,\ell}. \quad (7.5)$$

$\Delta P$  denotes the period spacing which becomes equal for high values of  $n$ . The asymptotic approximation may be valid at least for young unevolved stars. Miglio et al. (2008) showed that the period spacings of  $g$  modes are not only sensitive to chemical gradients deep inside the star, moreover, they become periodic with the radial order  $n$  as the star evolves. During the evolution, more and more hydrogen is fused to helium in the core and therefore a chemical gradient emerges and gets steeper and steeper. From the observation of white dwarfs (e.g. ZZ Ceti stars) it is known that the period spacings of  $g$  modes in the asymptotic regime are sensitive to chemical gradients in the interiors of these stars (e.g. Brassard et al. 1992). Not only the chemical gradient but even more the rotation of the star causes deviations from a constant period spacings. In real data a strict period spacing could be found, if the star rotates slow enough and shows only modes of equal  $\ell$ . From an observational point of view it is impossible to disentangle these effects if the  $v \sin i$  and the inclination angle  $i$  are unknown. To safely detect the period spacings mode identification is vital. With space-based data many periods are detected with low amplitudes and therefore there is the chance of accidentally detecting constant period spacings of unrelated modes.

In this thesis, I tried to detect such period spacings, where I limited the search to constant spacings. Such spacings were found, but they were unexpectedly small if  $\ell = 1$  modes are considered (see Chap. 6, Table 6.2). If the period spacings were due to higher  $\ell$ , the spacing scales according to

$$\frac{\Delta P(\ell_i)}{\Delta P(\ell_j)} = \frac{\sqrt{\ell_j(\ell_j + 1)}}{\sqrt{\ell_i(\ell_i + 1)}}, \quad (7.6)$$

where  $\Delta P(\ell_i, j)$  denotes the period spacing for  $\ell = 1, 2, \dots, n$  modes.

Figure 7.14 shows the average period spacing expected from theory as a function of the effective temperature. The lines connect models of the same mass and thus reflect the evolution of these models. The average period spacing declines along the evolutionary track from core hydrogen abundance  $X_c = 0.7$  (ZAMS) to  $X_c = 0.0$  (TAMS). When considering models on the ZAMS of different masses the graph shows that the period spacings of higher mass models are larger than those of lower mass models. The extreme values of the average spacings for stars in the  $\gamma$  Dor domain range from  $\approx 3600$  s ( $= 0.0417$  d) for model including core overshooting ( $\alpha_{ov} = 0.2$ ) at  $\log T_{\text{eff}} = 3.88$  to  $\approx 2000$  s ( $= 0.023$  d) for evolved models without core overshooting and  $\log T_{\text{eff}} = 3.82$ . As the stars evolves, the deviations of individual spacings from the average period spacing become significant and therefore such cases are not detectable with my method, which allows only for deviations of the order of the period resolution of the data set.

Figure 7.15 shows the period spacings versus  $\log P$ . The y-axis is plotted logarithmically and the dashed lines indicate the average period spacings expected for  $\ell = 1$  to 3 modes. The period spacing correlates weakly with the main period, so that for shorter periods shorter period spacings are detected. The detected spacings are in general too short to account for consecutive  $\ell = 1$  modes or even  $\ell = 2$  modes. No firm detection of  $\ell = 1$  or 2 modes was achieved. The results for the individual stars are listed in Tab 6.2.

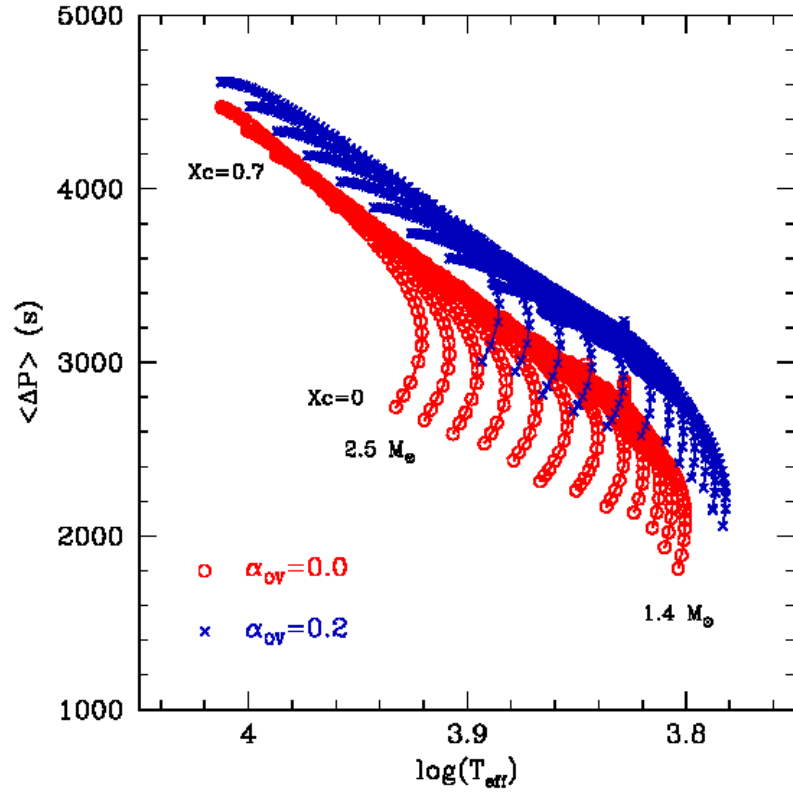


**Figure 7.14:** Theoretical period spacing as a function of  $\log T_{\text{eff}}$ . The red circles represent models without core overshooting, the blue crosses correspond to models calculated with core overshooting parameter  $\alpha_{ov} = 0.2$ . The period spacings shown are the average spacings for different evolutionary stages of the models.  $X_c = 0.7$  and  $X_c = 0$  indicate models on the ZAMS and TAMS, respectively. The models shown were calculated from  $2.5$  to  $1.4 M_{\odot}$  in  $0.1 M_{\odot}$  steps, which exceeds the  $\gamma$  Dor instability domain. Figure courtesy of A. Miglio.

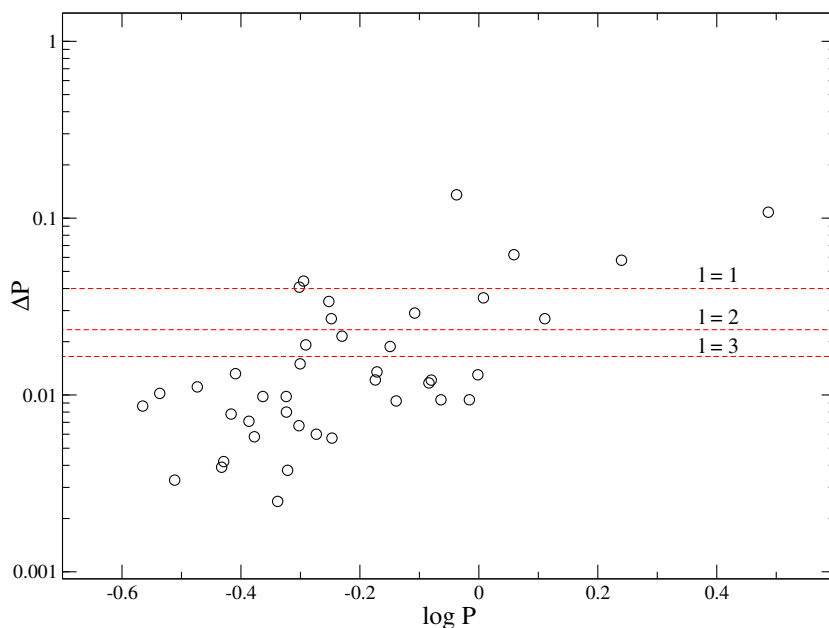


**Figure 7.15:** Period spacings vs. main period. The dashed lines indicate average period spacings for  $\ell = 1$  to 3 modes.

## 7.4 $p$ modes

Since hybrid stars pulsate with  $p$  modes like the normal  $\delta$  Sct stars, the  $p$  mode pulsation of  $\delta$  Sct stars are discussed here. The  $\kappa$  mechanism acting in the He II ionisation zone is commonly accepted as driving mechanism of these  $p$  modes. I refer to the Introduction and the cited papers therein for exhaustive information on  $\delta$  Sct stars. From my sample, 90  $\delta$  Sct stars were identified for which the parameter determination was done accordingly.

To compare the observations with theory, A. Pamyatnykh and T. Zdravkov (private communication) calculated radial modes from  $n = 1$  to 10 and their growth rates for a grid of models, ranging from  $M = 1.5$  to  $2.4 M_{\odot}$ . For a comprehensive discussion of the theoretical aspects of  $\delta$  Sct stars and the detailed input physics I refer to Pamyatnykh (2000). Fig 7.16 shows the period of the radial mode with the highest growth rate compared to the observations of pure  $\delta$  Sct stars. The symbol size of the model periods correspond to their respective growth rate (upper panel). The symbol sizes of the observations correspond to the amplitude (middle panel) and to the luminosity, which is substituted by the inverse  $\log g$  (bottom panel). The area enclosed by the thick orange line shows the range of the main sequence models. The red border of the  $\delta$  Sct IS is indicated by a horizontal red line. Generally, the agreement of the models and the observations is excellent. The calculated growth rates are compatible with the observed amplitudes and the more evolved stars show larger amplitudes. Again, the range in temperature of the red border of the

$\delta$  Sct IS is indicated by the red line, as in Fig.7.17.

Figure 7.17 compares the period of the mode of maximum amplitude of the  $\delta$  Sct stars (left panel) to that of the hybrids (right panel). The period-temperature relation for  $\delta$  Sct stars is evident, while it is completely missing for hybrids. Contrary, their pulsation modes scatter and do not show any correlation with temperature. Thus, not only do the  $g$  modes of hybrids behave differently as the  $g$  modes of  $\gamma$  Dor stars, also the  $p$  modes behave differently from that of pure  $\delta$  Sct stars. Based on these parameters ( $\log P$  and  $\log T_{\text{eff}}$ ), there is a difference of the pulsation behaviour of hybrids (the mix) to the pure  $g$ - or  $p$ -mode pulsators. Do the hybrids comprise a different class of pulsating stars? The amplitudes of the  $\delta$  Sct stars in the  $T_{\text{eff}}$  regime of  $\approx 7000$  K reveals that the maximum amplitudes are in this regime as it is the case for the  $\gamma$  Dor stars. These  $\delta$  Sct stars are near the TAMS and are therefore more luminous than stars close to the ZAMS. The  $p$  mode amplitudes of the hybrids, however, do not show a pronounced maximum in  $T_{\text{eff}}$ .

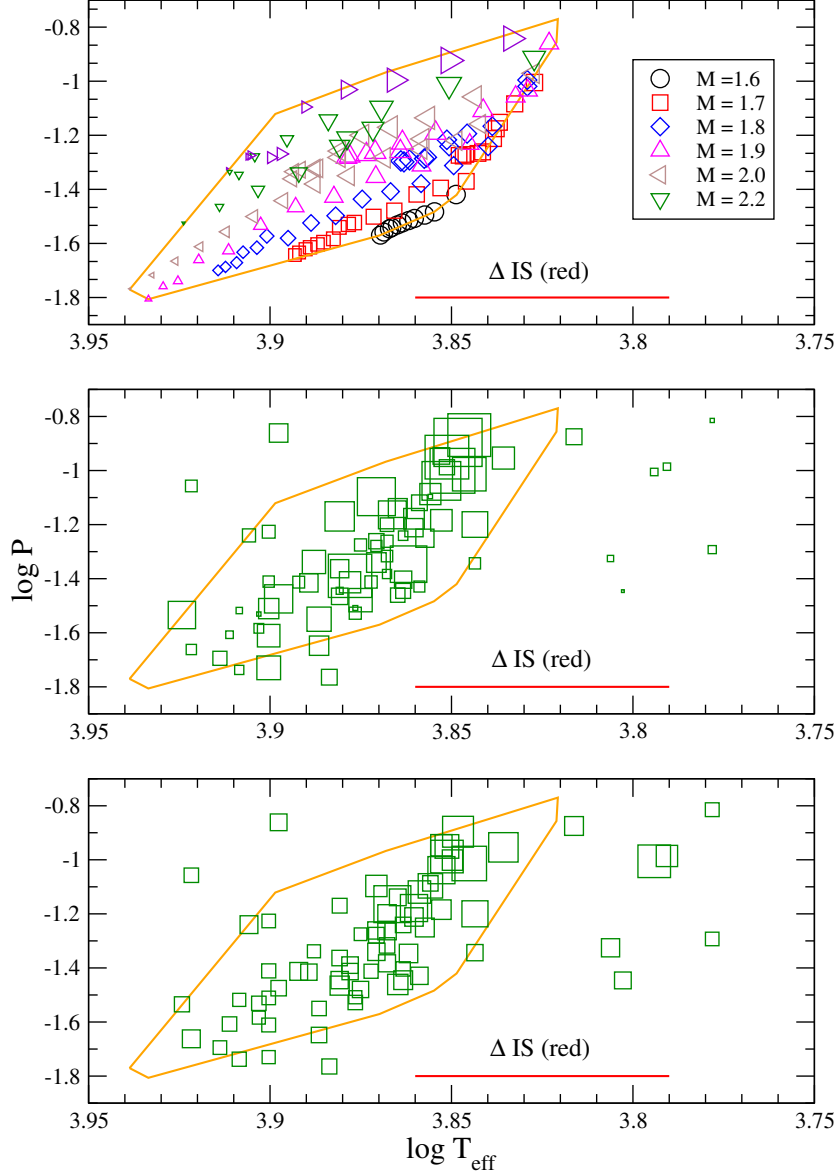


**Figure 7.16:**  $\log T_{\text{eff}}$  vs.  $\log P$  of  $\delta$  Sct models compared to 75 observed  $\delta$  Sct stars. Top panel: The symbols represent the  $\delta$  Sct models with masses ranging from 1.6 to  $2.2 M_{\odot}$ . The mode of the maximum growth rate is shown for each model and the symbol sizes corresponds to this maximum growth rate. For better visibility, only every tenth model is shown. The area enclosed by the full line shows the envelope of unstable radial modes of these models. Middle panel: Observed period of the p mode of maximum amplitude vs.  $T_{\text{eff}}$ . The symbol size scales with the amplitude. Bottom panel: the symbol size scales with  $\log g$ , where larger symbols represent evolved stars and the smallest symbols correspond to ZAMS stars. The horizontal red line displays the range of the red border of the  $\delta$  Sct instability strip.

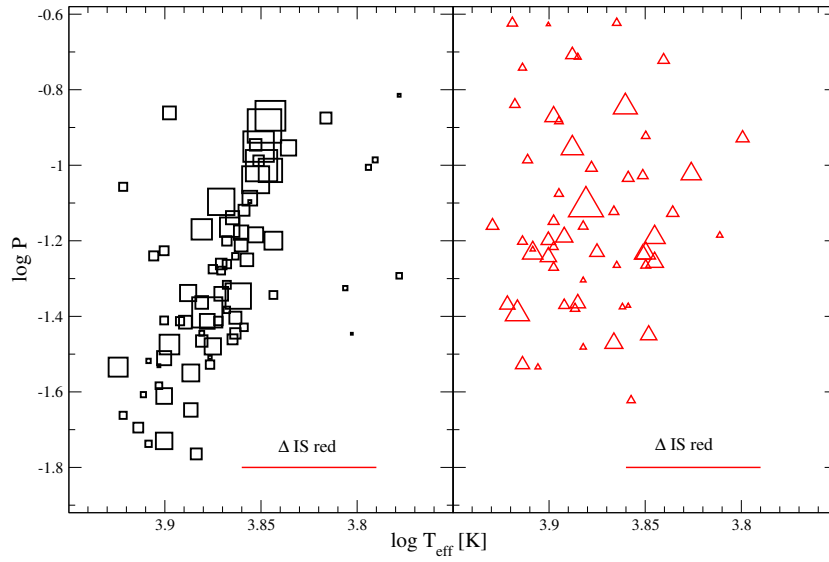


**Figure 7.17:** Comparison between the period of maximum amplitude of pure  $\delta$  Sct stars (left panel, black squares) and hybrid stars (right panel, red triangles). The red straight line, denoted by  $\Delta \text{ IS red}$ , indicates the temperature range of red border of the  $\delta$  Sct instability domain from ZAMS to evolved stars.



# Chapter 8

## Conclusions and Outlook

I have shown that  $\delta$  Sct -  $\gamma$  Dor hybrid stars do exist as a distinct group by means of thorough frequency analysis of about 250 stars. The frequency lists of each of these stars are enclosed in the Appendix and ready to use for the scientific community. Contrary to the *Kepler*-team (Grigahcène et al. 2010), I have shown that there are indeed pure  $\gamma$  Dor and  $\delta$  Sct stars, while the number of true hybrids is considerably lower in my sample. This sample included the LRA01 Exo data of the CoRoT mission and 5 individual stars of which 4 are hybrids and one is a  $\gamma$  Dor star. Of course the different noise levels of the two space mission's data sets has to be considered, however my detection limit of the CoRoT LRA01 data is 20 ppm for stars of about 12 mag and 100 ppm for 15 mag stars, which is sufficient for a well established conclusion.

One major finding is, that there is no specific instability strip for hybrid stars. Our finding is in good agreement with that of Uytterhoeven & WG#10 (2011) for *Kepler*, which confirms the fact that hybrid stars are found across the  $\delta$  Sct instability strip and are not confined to the overlapping region of the  $\delta$  Sct and  $\gamma$  Dor instability strip. The fundamental parameters determined in this thesis are derived from homogeneous classification spectra, whereas the temperatures of Uytterhoeven & WG#10 (2011) are derived from various sources. The *Kepler* light curves are available in long cadence (LC) or short cadence (SC) with Nyquist frequencies of  $\approx 24 \text{ d}^{-1}$  and  $\approx 730 \text{ d}^{-1}$ , respectively. The low Nyquist frequency of the LC data are problematic for detecting  $\delta$  Sct stars or hybrids, because their pulsation periods can be higher and reflections at the Nyquist frequency could lead to spurious identifications. In contrast, the CoRoT Exo data do not suffer from such spurious detections, because their Nyquist frequency is high enough to avoid this kind of problems.

The  $g$  modes of hybrids do not behave like those of the pure  $\gamma$  Dor stars which was found by a comparison of model frequencies to observed data (Chap: 7). Their periods do not correlate with  $T_{\text{eff}}$  as it is the case for  $\gamma$  Dor stars and their amplitudes are generally lower than that of the pure  $\gamma$  Dor stars. The effective temperatures of hybrid stars are hotter than the blue edge of the

$\gamma$  Dor IS, which means shallow sub-surface convection zones and therefore the conditions for driving g modes are not fulfilled. The amplitudes of their g modes are generally lower than that of pure  $\gamma$  Dor stars. The very recent theory of stochastically driven g modes of Shiode et al. (2012) could deliver an explanation, but it is speculation at this stage.

Even the p modes behave on average differently to that of the pure  $\delta$  Sct stars, which is a surprising result. A possible solution for this problem may be found in the excitation of low-order g modes, which are detected in  $\delta$  Sct stars (eg. Breger et al. 2005). In this case the low-order p modes are the dominant frequencies because I limited the comparisons in Chap. 7 to the three modes with highest amplitudes. This finding may point to unknown physical processes in the  $\delta$  Sct or hybrid stars. It could have an impact on the role of chemical mixing inside the stars and therefore on the opacities. The  $\kappa$  mechanism acts in the HeII ionisation zone and is sensitive to the opacities.

The  $\gamma$  Dor stars basically follow the instability strip which was determined from ground-based observations (Handler & Shobbrook 2002) and theoretical predictions (Warner et al. 2003; Dupret et al. 2004). But there are deviations: 1) the  $\gamma$  Dor instability strip determined in this work extends to cooler stars; 2) stars hotter than  $T_{\text{eff}} = 7500$  K were found showing low-amplitude variability within the  $\gamma$  Dor frequency regime, which may be interpreted as g mode pulsation. For such stars, the convective flux blocking mechanism can no longer explain the driving of such modes. Nevertheless, the observational evidence is striking. Again, the theory of stochastically excited g modes could provide a clue. However, at this stage it is too early to draw conclusions and this theory needs to be investigated in more detail, which could be done in a follow-up project.

The comparison of the g modes of  $\gamma$  Dor stars to model frequencies (see Chap. 7) showed a good agreement for  $\alpha_{\text{MLT}} = 2.0$  and 1.7, while for 1.4 the agreement is poor. Based on the comparison of  $T_{\text{eff}}$  vs. period between theoretical and observed frequencies, there is evidence that at least some of the  $\gamma$  Dor stars pulsate with  $\ell = 2$  modes, which have higher frequencies than  $\ell = 1$  modes. I also performed the search for regular period spacings among the  $\gamma$  Dor stars. For this purpose I modified the Comb Response Function (Kjeldsen et al. 1995) to accommodate the needs for g modes. I also used the routine of SigSpec (Reegen 2007), which calculates the significance spectrum and modified it in order to calculate the significances for a regular grid of periods instead of frequency. This search led to surprisingly low period spacings, where at this point it is not clear whether simply high  $\ell$  are excited or these spacings have another physical meaning. I consider it imperative to have for at least a statistically significant spectroscopic mode identification to prove or reject the hypothesis of consecutive modes of equal  $\ell$ .

$\gamma$  Dor stars show maximum g-mode amplitudes at  $T_{\text{eff}} \approx 7000$  K, and so do  $\delta$  Sct stars. This temperature regime is approximately the range, where

the growth rates of  $g$  modes calculated by Warner et al. (2003) are at maximum. In this same  $T_{\text{eff}}$  regime the model frequencies of Pamyatnikh (private communication) exhibit their maximum growth rates, when main sequence models are considered. However, from linear theory no amplitudes can be calculated, which limits the significance of this finding.

Detailed abundance analyses of  $\delta$  Sct -  $\gamma$  Dor hybrid stars are still lacking. I contributed two such analyses for BD +18 4914 and HD 114839 with the goal of investigating chemical peculiarities among hybrid pulsators. Peculiar chemical abundances may indicate diffusion processes that could influence the pulsation behaviour of  $\delta$  Sct or hybrid stars. Since the first reported hybrid is an Am star, (Henry & Fekel 2005) and HD 114839 and BD +18 4914 (King et al. 2006; Rowe et al. 2006b) were suspected Am stars, high resolution spectra for a detailed abundance analysis were acquired. The abundance analysis resulted in the finding that HD 114839 is not an Am star, while BD +18 4914 is. The conclusion from this abundance analysis is that hybrid stars are not necessarily Am stars. The research for common spectral features of hybrids gave a negative result. There is no common feature among the spectra of the hybrid stars that distinguishes them from other stars, however statistics is still poor.

To derive the fundamental parameters an IDL program was developed which compares synthetic to observed spectra and selecting the best fitting synthesis for the representative parameters. This IDL routine is not limited to my spectra, but can be modified to accommodate for the needs of other purposes. The easiest example is to use a different grid of synthetic spectra which uses more sophisticated model atmospheres than ATLAS9 or different metal abundances. It may be also adapted easily for other kinds of spectroscopy.

The total amount of identified  $\gamma$  Dor stars in the CoRoT LRA01 Exo field is 132 including candidates and cases with bad spectra. The total number of pure  $\delta$  Sct stars is 90 (also including candidates and bad spectra), and the total of hybrids is 111 including 57 unclear cases. This high number of remaining candidates shows the difficulty to firmly classify a given hybrid candidate as a firm detection because of a few remaining low-amplitude frequencies. Due to fringing problems with some fibres of the AAOmega spectrograph some stars were rejected because of uncertain parameter determination. I omitted such data in the comparison to theoretical frequencies and for investigating the  $T_{\text{eff}}$  – Period relations but they were retained for the frequency analysis.

In total 333 stars were found pulsating within the  $\delta$  Sct and  $\gamma$  Dor IS. Of these stars 40% were identified as  $\gamma$  Dor stars or candidates, 27% as pure  $\delta$  Sct stars, 17% are bona fide hybrids, where 23 of 58 show dominant  $p$  mode pulsation, 16 showing dominant  $g$  mode pulsation and 18 show no preferred class of pulsation (i.e.  $p$  or  $g$  modes). The considerably large portion of 16% are hybrid candidates, of which two thirds showing dominant  $\delta$  Sct pulsation, which means that the total number of true  $\delta$  Sct stars is somewhat higher.

Two of the stars in my sample are eclipsing binaries, listed in the catalogue of Carone et al. (2012). I found one  $\gamma$  Dor star (CID 102726709), which shows a dip in the phase diagram, that could indicate a grazing eclipse by a binary component with an orbit period of about 1.28 days. This star definitely show pulsation and is no misclassification of an eclipsing binary. Otherwise it would have been rejected.

Due to their position in the HRD the stellar structure of hybrid stars can be expected to be the same as for  $\delta$  Sct stars. Even though the  $\log g$  can only be determined with large errors from the AAOmega spectra, it still allows to distinguish giants from main sequence stars. The hybrids observed by MOST and CoRoT allow for a much better determination of their luminosities. Furthermore, the analysis of the high resolution spectra of HD 114839 and BD +18 4914 have shown that hybrid stars fit well in the  $\delta$  Sct IS and are therefore not evolved stars or even subdwarfs.

I restricted the volume of the examination of a large sample to the CoRoT LRA01 because of time limitation. The total amount of light curves observed by CoRoT meanwhile exceeds 100 000. More work on the definition of the  $\delta$  Sct IS is done by A. Kaiser (PhD thesis in preparation), whose thesis comprises data of about 14000 stars including stars of my sample.

The *Kepler* data benefit not only from the larger aperture and the location in the Lagrange point L2, which is 1.5 million km away from earth, but even more important from the long time base. So far more than 150,000 stars were continuously monitored for about 3.5 years. Such a long time base helps to overcome the problem of combinations and amplitude modulations, because of the small frequency error. On the other hand, only a few targets can be observed in short cadence mode. The long cadence data are problematic for  $\delta$  Sct stars, because their Nyquist frequency is well within the range of typical  $\delta$  Sct pulsation.

The importance of multi-object classification spectroscopy for a large number of stars is being recognised. High resolution spectroscopy of a large sample of stars are currently planned or already carried out at the time of writing. The APOGEE (APO Galaxy Evolution Experiment) project should be mentioned here. It will take medium resolution ( $R \approx 20000$ ) spectra of about 100000 stars, mainly red giants in the infrared (1.59 - 1.69  $\mu\text{m}$ ). For such a large number of spectra automated routines are of particular importance. The automated routine developed for the purpose of the thesis can be applied for spectra too, it is not not limited to AAOmega spectra.

We are at the beginning of large-sample stellar statistics based on highly accurate space-based data of both the fundamental parameters and the light curves. The launch of the European Space Agency's GAIA (Global Astrometric Interferometer for Astrophysics) spacecraft is planned for 2013 and the final data release is planned for 2020. It is an astrometric mission that will provide accurate parallaxes of a billion of stars in our milky way.

The accurate distances will allow to directly derive stellar luminosities and place the star in the HRD without the problem of the poor accuracy in  $\log g$ . The parallax errors are expected to be small that allows to reduce the error box of the observations, which is an important prerequisite for asteroseismology, since the models that fit the observational error box will be significantly constrained.

On one hand, the pulsation of  $\gamma$  Dor stars is in good agreement with theory, but on the other hand the g modes of the hybrids are generally a contradiction to the present theory. The high quality light curves of space instruments and their long time span are however only a snapshot of the main sequence lifetime of a star. During the investigation of the CoRoT LRA01 sample, non-variable stars were detected within the  $\delta$  Sct IS see Appendix A. These stars contradict the pulsation theory completely. On the other hand, such stars might undergo long time cycles of pulsation and quiescence.



# **Appendix A**

## **Byproducts**

In this appendix I discuss other stars encountered during the investigation that were not subject of the thesis.

## A.1 Nonvariable Stars

Not only pulsating stars are of interest, but also the distribution of constant stars within the  $\delta$  Sct IS can be explored. The AAOmega spectra were used to find stars within the  $T_{\text{eff}}$  range of 11000 to 6000 K. The CoRoT light curves of these stars were investigated for pulsation. Among  $\approx 1000$  stars, 424 did not show variability apart from instrumental artefacts in the light curves. Figure A.1 shows the fraction of constant stars and the classes of variables across the IS. Out of  $\approx 1000$  stars 424 are constant to a detection limit of  $\approx 20$  ppm for 12 mag stars, to about  $\approx 100$  ppm for the faintest stars. Stars were assigned to the class unclear if the light curves retained artefacts that may conceal intrinsic variability. Stars like Cepheids or stars with longer periods than 10 days are assigned to the class LPV, stars with a single frequency or strictly repeating patterns were assigned to the class rotation variability (Rot.var.). The fraction of constant stars within the IS is lowest at  $T_{\text{eff}}$  between 6900 and 7500 K, which is 14% at  $T_{\text{eff}} = 6900$  and 7200 K.

The distribution of constant stars is also investigated in this thesis, where constant means constant to the detection limit of about 20 ppm for brighter stars and 100 ppm for the faintest stars. The relative number of constant stars as a function of their temperature shows a local minimum at  $T_{\text{eff}} \approx 7000$  K. Our investigation has shown that 14% of the stars within this temperature regime are constant, or their amplitudes are too low to be detected with CoRoT. The fraction of constant stars in this  $T_{\text{eff}}$  regime may even be lower when *Kepler* data are investigated. It is unknown by now why a star within the  $\delta$  Sct or  $\gamma$  Dor instability regime is constant while others are pulsating. Strong global magnetic fields could serve as an explanation, because they can suppress pulsation. Thus, high resolution spectra and polarimetry of such constant stars may resolve this puzzle.

Not only the percentage of constant stars is lowest near  $T_{\text{eff}} \approx 7000$  K, but also pulsating stars show the highest amplitudes in this temperature regime. This may explain why hybrid stars were found by ground based observations in the overlapping region of the  $\delta$  Sct and  $\gamma$  Dor instability strips, which is located as well in this  $T_{\text{eff}}$  region.



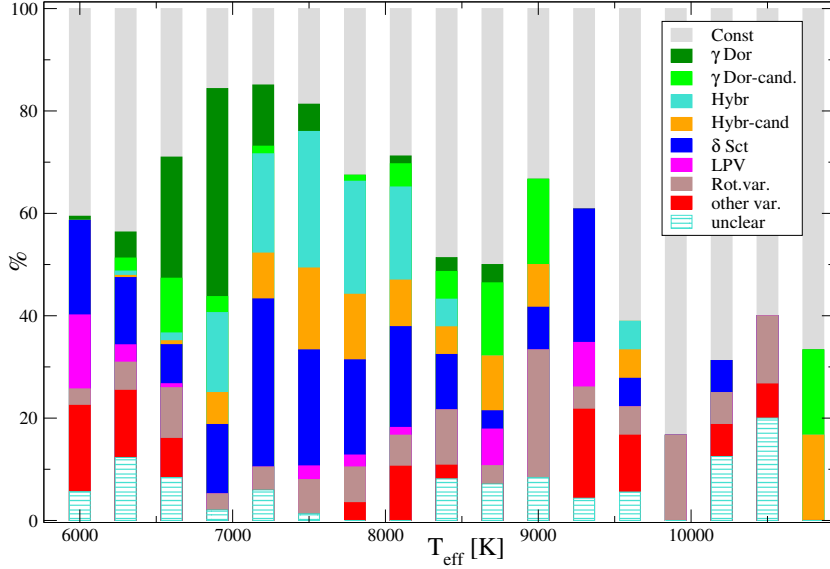


**Figure A.1:** Cumulative histogram of constant and variable stars. The variables are listed in the legend and to be read from top down. The colored bars on top represent the fraction of constant stars within a  $T_{\text{eff}}$  bin.

## A.2 Variables beyond the IS

This thesis puts the focus on  $\gamma$  Dor and  $\delta$  Sct type variability. Thus, the determination of the fundamental parameters and the analysis of the light curves was optimised for those stars. There are many other types of variables detected by CoRoT, which were not analysed in this thesis. However, some cases are mentioned below.

The blue edge of the  $\delta$  Sct strip was derived by Pamyatnykh (2000). It shifts towards hotter temperatures with increasing radial overtone. Stars hotter than 8900 K on the ZAMS or 7600 K on the TAMS (Terminal Age Main Sequence) are not expected to show  $\delta$  Sct pulsation, since their growth rates are negative. However, such hot pulsating stars were found.

On the other hand, hot  $\gamma$  Dor stars with low amplitudes were also discovered. One case is outstanding: The star CID 102597681, which was discussed in Chap. 6. High resolution spectroscopy (Carone et al. 2012) revealed a SB3 system whose integrated light is dominated by an A-type star. Neither the AAOmega spectrum nor the image of the mask shows peculiarities. Other cases of hot  $\gamma$  Dor stars were found, but with considerably lower amplitudes. Since no high resolution spectra are available for these stars, cannot be exclude cases like CID 102597681.

Rather cool stars showing frequencies in the  $\gamma$  Dor regime are also found. Their Fourier spectra show closely separated peaks and their overtones (twice and three-times the main frequency), which is the signature of a nonsinusoidal

variation. An explanation may involve spots at different latitudes and differential surface rotation.

### **A.2.1 Maia-Candidates**

Stars located in between the blue edge of the  $\delta$  Sct and the SPB IS in the HRD are not supposed to pulsate. The Maia variables were introduced by Struve (1955). They are B7V-III to A2V-II stars and named after the first candidate star Maia in the Pleiades. Scholz et al. (1998) presented a list of 14 Maia candidates. They found light variations as well as RV variations for a few of them line profile variations that they attribute to nonradial pulsation. The periods they presented are in the range of g modes of SPB stars. Thus these stars might be cool SPB stars. A number of the reported Maia candidates are binaries, such as  $\alpha$  Draconis (Kallinger et al. 2004). Therefore tidal excitation may play a key role to explain the variability of these Maia candidates. In the CoRoT data such stars can easily be found. We note, that our synthetic spectra fitting routine gives large uncertainties for such stars, which are typically of the order of 10 to 20 %. A detailed analysis of these stars was beyond the scope of this thesis.





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## **Appendix B**

### **Frequencies of individual $\gamma$ Dor Stars**

## Appendix B. Frequencies of individual $\gamma$ Dor Stars

**Table B.1:** Frequency list of 0102574350

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|--------------|------------------------------|------------------|--------------------------|-------|
| $f_1$        | 3.2566±0.0004                | 0.88±0.04        | -0.75±0.02               | 408.0 |
| $f_2$        | 3.2870±0.0004                | 0.85±0.04        | 0.01±0.02                | 430.9 |
| $f_3$        | 3.4636±0.0004                | 0.71±0.04        | 0.33±0.03                | 340.8 |
| $f_4$        | 1.7384±0.0004                | 0.67±0.04        | 2.98±0.02                | 359.2 |
| $f_5$        | 2.2520±0.0006                | 0.43±0.03        | -2.15±0.04               | 171.9 |
| $f_6$        | 3.3201±0.0010                | 0.26±0.03        | 0.98±0.06                | 62.4  |
| $f_7$        | 0.1446±0.0012                | 0.19±0.03        | -2.75±0.07               | 42.9  |
| $f_8$        | 3.5132±0.0013                | 0.18±0.03        | 1.86±0.08                | 34.3  |
| $f_9$        | 0.2060±0.0013                | 0.13±0.02        | 2.81±0.08                | 33.0  |
| $f_{10}$     | 0.1303±0.0014                | 0.19±0.03        | 1.49±0.08                | 31.5  |
| $f_{11}$     | 0.1738±0.0013                | 0.18±0.03        | 1.33±0.08                | 34.8  |
| $f_{12}$     | 4.2107±0.0014                | 0.16±0.03        | 0.47±0.08                | 31.6  |
| $f_{13}$     | 2.7379±0.0014                | 0.15±0.03        | -2.36±0.09               | 29.8  |
| $f_{14}$     | 3.2284±0.0014                | 0.16±0.03        | -0.81±0.09               | 29.0  |
| $f_{15}$     | 1.0890±0.0014                | 0.15±0.03        | 1.04±0.09                | 29.0  |
| $f_{16}$     | 0.1597±0.0014                | 0.14±0.03        | 1.93±0.09                | 28.7  |
| $f_{17}$     | 0.8563±0.0015                | 0.14±0.03        | -2.31±0.09               | 26.1  |
| $f_{18}$     | 0.2263±0.0016                | 0.12±0.03        | -1.10±0.10               | 22.6  |
| $f_{19}$     | 1.3748±0.0018                | 0.13±0.03        | -1.48±0.11               | 18.9  |
| $f_{20}$     | 3.3026±0.0018                | 0.12±0.03        | 2.78±0.11                | 18.0  |
| $f_{21}$     | 1.5498±0.0020                | 0.10±0.03        | 1.10±0.12                | 14.2  |
| $f_{22}$     | 1.4051±0.0020                | 0.10±0.03        | 1.08±0.12                | 14.1  |
| $f_{23}$     | 0.4074±0.0021                | 0.11±0.03        | 2.89±0.13                | 13.5  |
| $f_{24}$     | 0.1083±0.0021                | 0.11±0.03        | 2.46±0.13                | 13.0  |
| $f_{25}$     | 1.1338±0.0022                | 0.10±0.03        | -2.67±0.13               | 12.5  |
| $f_{26}$     | 1.5185±0.0022                | 0.10±0.03        | -1.10±0.13               | 12.6  |
| $f_{27}$     | 1.0024±0.0022                | 0.09±0.03        | -0.55±0.13               | 12.1  |
| $f_{28}$     | 0.5486±0.0022                | 0.11±0.03        | -1.70±0.13               | 12.0  |
| $f_{29}$     | 0.2149±0.0022                | 0.10±0.03        | -0.33±0.13               | 12.1  |
| $f_{30}$     | 0.3442±0.0023                | 0.08±0.02        | -1.60±0.14               | 10.8  |
| $f_{31}$     | 0.2683±0.0024                | 0.09±0.03        | 2.19±0.15                | 10.1  |
| $f_{32}$     | 0.3086±0.0025                | 0.09±0.03        | -0.81±0.15               | 9.7   |
| $f_{33}$     | 0.3275±0.0023                | 0.08±0.02        | -3.11±0.14               | 10.8  |
| $f_{34}$     | 2.4960±0.0025                | 0.08±0.03        | -0.46±0.15               | 9.4   |
| $f_{35}$     | 1.2591±0.0026                | 0.08±0.03        | 0.74±0.16                | 8.5   |
| $f_{36}$     | 0.2964±0.0027                | 0.09±0.03        | -3.07±0.17               | 7.8   |
| $f_{37}$     | 2.0049±0.0027                | 0.08±0.03        | 1.14±0.17                | 7.9   |
| $f_{38}$     | 0.6579±0.0028                | 0.07±0.03        | 1.89±0.17                | 7.3   |
| $f_{39}$     | 0.5297±0.0028                | 0.07±0.03        | 0.74±0.17                | 7.4   |
| $f_{40}$     | 0.7610±0.0029                | 0.07±0.03        | -2.51±0.17               | 7.1   |
| $f_{41}$     | 1.2489±0.0031                | 0.07±0.03        | 2.99±0.19                | 6.2   |
| $f_{42}$     | 0.4260±0.0031                | 0.07±0.03        | -0.33±0.19               | 6.1   |
| $f_{43}$     | 0.1911±0.0031                | 0.07±0.03        | -0.82±0.19               | 6.2   |
| $f_{44}$     | 0.9659±0.0031                | 0.06±0.02        | 2.34±0.19                | 6.1   |
| $f_{45}$     | 1.6661±0.0032                | 0.06±0.03        | -1.36±0.20               | 5.7   |
| $f_{46}$     | 0.4001±0.0032                | 0.06±0.03        | 2.18±0.20                | 5.6   |
| $f_{47}$     | 0.6828±0.0032                | 0.07±0.03        | 2.49±0.20                | 5.6   |
| $f_{48}$     | 0.7985±0.0032                | 0.06±0.03        | -2.06±0.20               | 5.7   |
| $f_{49}$     | 0.3153±0.0033                | 0.06±0.03        | 1.05±0.20                | 5.5   |
| $f_{50}$     | 1.7290±0.0033                | 0.06±0.03        | -0.23±0.20               | 5.2   |
| $f_{51}$     | 3.5686±0.0033                | 0.06±0.03        | 1.24±0.20                | 5.2   |

**Table B.2:** Frequency list of 0102579656

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|--------------|------------------------------|------------------|--------------------------|-------|
| $f_1$        | 0.4395±0.0006                | 0.21±0.02        | 1.01±0.04                | 173.0 |
| $f_2$        | 0.1240±0.0008                | 0.14±0.01        | 2.02±0.05                | 93.9  |
| $f_4$        | 0.3441±0.0009                | 0.14±0.02        | -0.75±0.06               | 68.9  |
| $f_5$        | 0.6311±0.0011                | 0.11±0.02        | -0.11±0.06               | 51.5  |
| $f_6$        | 0.6179±0.0010                | 0.10±0.01        | 3.10±0.06                | 63.3  |
| $f_7$        | 0.4767±0.0010                | 0.10±0.01        | -1.95±0.06               | 54.7  |
| $f_8$        | 0.1020±0.0011                | 0.07±0.01        | 2.97±0.07                | 48.3  |
| $f_9$        | 0.2033±0.0012                | 0.12±0.02        | 0.59±0.07                | 41.9  |
| $f_{10}$     | 0.2208±0.0012                | 0.10±0.02        | 0.60±0.08                | 37.5  |
| $f_{11}$     | 0.1491±0.0013                | 0.12±0.02        | -1.56±0.08               | 36.5  |
| $f_{12}$     | 0.6490±0.0014                | 0.08±0.01        | 2.18±0.09                | 29.0  |
| $f_{13}$     | 0.5775±0.0014                | 0.07±0.01        | 0.60±0.09                | 28.2  |
| $f_{14}$     | 0.2645±0.0015                | 0.08±0.02        | -0.83±0.09               | 24.5  |
| $f_{15}$     | 0.6900±0.0015                | 0.08±0.02        | -3.05±0.09               | 25.2  |
| $f_{16}$     | 2.0049±0.0015                | 0.07±0.01        | 1.37±0.09                | 24.6  |
| $f_{17}$     | 0.4620±0.0016                | 0.07±0.01        | 2.13±0.10                | 22.0  |
| $f_{18}$     | 0.8523±0.0016                | 0.05±0.01        | -2.84±0.10               | 22.0  |
| $f_{19}$     | 0.1593±0.0016                | 0.07±0.01        | 1.69±0.10                | 22.0  |
| $f_{20}$     | 0.5045±0.0017                | 0.05±0.01        | -1.31±0.10               | 20.2  |
| $f_{21}$     | 0.7035±0.0018                | 0.06±0.01        | -1.47±0.11               | 18.2  |

Frequency list of 0102579656 continued

| Frequency list of 0102579656 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{22}$                               | 0.3597±0.0018                | 0.07±0.02        | 0.75±0.11                | 18.0  |
| $f_{23}$                               | 0.3155±0.0018                | 0.06±0.01        | -1.37±0.11               | 18.9  |
| $f_{24}$                               | 0.5850±0.0018                | 0.06±0.01        | 1.72±0.11                | 17.7  |
| $f_{25}$                               | 0.1294±0.0018                | 0.07±0.02        | -2.99±0.11               | 17.5  |
| $f_{26}$                               | 0.1776±0.0018                | 0.08±0.02        | 2.43±0.11                | 18.1  |
| $f_{27}$                               | 0.1677±0.0019                | 0.06±0.01        | 3.10±0.12                | 16.3  |
| $f_{28}$                               | 0.5716±0.0020                | 0.05±0.01        | 2.99±0.12                | 15.0  |
| $f_{29}$                               | 1.6809±0.0020                | 0.04±0.01        | -2.44±0.12               | 14.4  |
| $f_{30}$                               | 0.6748±0.0020                | 0.04±0.01        | 2.10±0.12                | 14.0  |
| $f_{31}$                               | 0.4147±0.0020                | 0.06±0.02        | -0.31±0.12               | 14.1  |
| $f_{32}$                               | 0.3908±0.0020                | 0.06±0.02        | -3.01±0.12               | 14.9  |
| $f_{33}$                               | 0.3750±0.0019                | 0.06±0.01        | -1.91±0.12               | 16.4  |
| $f_{34}$                               | 0.2340±0.0021                | 0.04±0.01        | -0.69±0.13               | 13.6  |
| $f_{35}$                               | 0.5334±0.0020                | 0.06±0.02        | 2.36±0.12                | 13.9  |
| $f_{36}$                               | 0.5417±0.0020                | 0.05±0.01        | 1.81±0.12                | 14.0  |
| $f_{37}$                               | 0.9574±0.0021                | 0.05±0.01        | -1.43±0.13               | 12.9  |
| $f_{38}$                               | 0.2414±0.0022                | 0.05±0.01        | -1.60±0.13               | 12.3  |
| $f_{39}$                               | 1.9880±0.0021                | 0.04±0.01        | -1.66±0.13               | 12.9  |
| $f_{40}$                               | 1.9465±0.0022                | 0.05±0.01        | -1.11±0.13               | 12.4  |
| $f_{41}$                               | 1.1632±0.0022                | 0.05±0.01        | -0.16±0.14               | 11.9  |
| $f_{42}$                               | 0.4564±0.0023                | 0.04±0.01        | 2.26±0.14                | 11.3  |
| $f_{43}$                               | 2.0758±0.0022                | 0.05±0.01        | 1.46±0.14                | 11.7  |
| $f_{44}$                               | 1.3524±0.0023                | 0.04±0.01        | -1.73±0.14               | 11.1  |
| $f_{45}$                               | 0.7410±0.0023                | 0.04±0.01        | -0.66±0.14               | 11.5  |
| $f_{46}$                               | 0.3372±0.0023                | 0.05±0.02        | 0.96±0.14                | 11.0  |
| $f_{48}$                               | 1.2017±0.0024                | 0.05±0.02        | -2.92±0.15               | 9.9   |
| $f_{49}$                               | 1.8880±0.0025                | 0.05±0.02        | 0.15±0.15                | 9.3   |
| $f_{50}$                               | 1.0656±0.0025                | 0.04±0.01        | 1.63±0.15                | 9.3   |
| $f_{51}$                               | 0.7895±0.0026                | 0.04±0.01        | 1.46±0.16                | 8.9   |
| $f_{52}$                               | 0.2851±0.0026                | 0.04±0.01        | -0.90±0.16               | 8.9   |
| $f_{53}$                               | 1.3032±0.0026                | 0.05±0.02        | -0.18±0.16               | 8.8   |
| $f_{55}$                               | 0.6245±0.0026                | 0.04±0.01        | 2.61±0.16                | 8.5   |
| $f_{56}$                               | 1.4290±0.0026                | 0.03±0.01        | 1.24±0.16                | 8.8   |
| $f_{57}$                               | 1.5868±0.0026                | 0.04±0.01        | -0.96±0.16               | 8.6   |
| $f_{58}$                               | 1.1376±0.0026                | 0.04±0.01        | 2.62±0.16                | 8.3   |
| $f_{59}$                               | 1.0897±0.0026                | 0.04±0.01        | 1.72±0.16                | 8.8   |
| $f_{60}$                               | 1.2689±0.0027                | 0.04±0.01        | 1.00±0.17                | 7.8   |
| $f_{61}$                               | 1.8495±0.0028                | 0.04±0.01        | 1.24±0.17                | 7.7   |
| $f_{62}$                               | 1.9160±0.0028                | 0.03±0.01        | -3.03±0.17               | 7.4   |
| $f_{63}$                               | 0.7682±0.0029                | 0.03±0.01        | -0.45±0.17               | 7.1   |
| $f_{64}$                               | 0.8127±0.0028                | 0.03±0.01        | 0.68±0.17                | 7.5   |
| $f_{65}$                               | 0.9120±0.0028                | 0.04±0.01        | 2.42±0.17                | 7.2   |
| $f_{66}$                               | 0.9980±0.0029                | 0.03±0.01        | 1.28±0.18                | 6.8   |
| $f_{67}$                               | 0.5609±0.0029                | 0.03±0.01        | -1.72±0.18               | 6.7   |
| $f_{68}$                               | 1.5977±0.0029                | 0.04±0.02        | -2.84±0.18               | 6.7   |
| $f_{69}$                               | 1.4923±0.0029                | 0.04±0.02        | -0.97±0.18               | 6.8   |
| $f_{70}$                               | 1.6218±0.0029                | 0.04±0.02        | 2.51±0.18                | 6.7   |
| $f_{71}$                               | 1.7479±0.0030                | 0.03±0.01        | -1.76±0.19               | 6.3   |
| $f_{72}$                               | 1.7836±0.0031                | 0.03±0.01        | 2.99±0.19                | 6.2   |
| $f_{73}$                               | 0.1190±0.0030                | 0.03±0.01        | 1.83±0.18                | 6.5   |
| $f_{74}$                               | 1.5249±0.0031                | 0.03±0.01        | -2.82±0.19               | 6.1   |
| $f_{75}$                               | 1.3891±0.0031                | 0.03±0.01        | 0.21±0.19                | 6.2   |
| $f_{77}$                               | 0.5224±0.0032                | 0.03±0.01        | 0.71±0.19                | 5.8   |
| $f_{78}$                               | 1.1689±0.0031                | 0.03±0.01        | 0.91±0.19                | 5.9   |
| $f_{79}$                               | 1.1890±0.0031                | 0.03±0.01        | 2.04±0.19                | 6.1   |
| $f_{80}$                               | 1.8564±0.0032                | 0.03±0.01        | 0.11±0.19                | 5.8   |
| $f_{81}$                               | 1.6604±0.0032                | 0.03±0.01        | -0.78±0.19               | 5.8   |
| $f_{82}$                               | 0.6027±0.0032                | 0.03±0.01        | -0.32±0.19               | 5.8   |
| $f_{83}$                               | 3.1594±0.0031                | 0.03±0.01        | -0.99±0.19               | 6.0   |
| $f_{84}$                               | 2.0471±0.0031                | 0.03±0.01        | -1.65±0.19               | 6.0   |
| $f_{85}$                               | 1.9539±0.0031                | 0.03±0.01        | -0.02±0.19               | 5.9   |
| $f_{87}$                               | 0.7116±0.0033                | 0.03±0.01        | -0.86±0.20               | 5.5   |
| $f_{88}$                               | 2.6618±0.0033                | 0.03±0.01        | 2.79±0.20                | 5.5   |
| $f_{89}$                               | 1.5633±0.0033                | 0.03±0.01        | 2.79±0.20                | 5.3   |
| $f_{90}$                               | 1.6313±0.0032                | 0.03±0.01        | 0.67±0.19                | 5.8   |
| $f_{91}$                               | 1.2881±0.0033                | 0.03±0.01        | -0.08±0.20               | 5.3   |
| $f_{92}$                               | 0.1899±0.0034                | 0.03±0.01        | 1.57±0.21                | 5.1   |
| $f_{93}$                               | 2.7205±0.0033                | 0.03±0.01        | -0.56±0.20               | 5.2   |
| $f_{94}$                               | 2.2337±0.0033                | 0.03±0.01        | 2.17±0.20                | 5.2   |
| $f_{95}$                               | 1.6400±0.0034                | 0.03±0.01        | 2.37±0.21                | 5.1   |
| $f_{96}$                               | 1.4403±0.0034                | 0.03±0.01        | -2.57±0.21               | 5.1   |
| $f_{97}$                               | 0.9511±0.0034                | 0.03±0.01        | -2.66±0.21               | 5.0   |

**Table B.3:** Frequency list of 0102581739

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|--------------|------------------------------|------------------|--------------------------|-------|
| $f_1$        | 2.9742±0.0004                | 0.74±0.03        | -0.30±0.02               | 471.2 |
| $f_2$        | 3.3095±0.0004                | 0.59±0.03        | -1.87±0.03               | 326.8 |
| $f_3$        | 3.1865±0.0004                | 0.55±0.03        | 2.63±0.03                | 315.6 |
| $f_5$        | 2.2020±0.0008                | 0.29±0.03        | 1.55±0.05                | 102.0 |

Frequency list of 0102581739 continued

## Appendix B. Frequencies of individual $\gamma$ Dor Stars

| Frequency list of 0102581739 continued |                              |                  |                          |       | Frequency list of 0102581982 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_6$                                  | 0.1306±0.0008                | 0.27±0.03        | 3.01±0.05                | 94.5  | $f_{58}$                               | 4.4299±0.0026                | 0.10±0.03        | 0.62±0.16                | 8.5   |
| $f_{10}$                               | 5.9481±0.0012                | 0.17±0.03        | -2.98±0.07               | 39.9  | $f_{59}$                               | 4.0574±0.0026                | 0.10±0.03        | -0.60±0.16               | 8.4   |
| $f_{16}$                               | 0.1362±0.0017                | 0.09±0.02        | -2.82±0.10               | 20.2  | $f_{60}$                               | 4.3476±0.0026                | 0.10±0.03        | 1.85±0.16                | 8.3   |
| $f_{17}$                               | 6.3734±0.0017                | 0.12±0.03        | 0.08±0.10                | 20.0  | $f_{61}$                               | 2.1493±0.0026                | 0.10±0.03        | 2.99±0.16                | 8.4   |
| $f_{21}$                               | 6.6188±0.0018                | 0.11±0.03        | -0.80±0.11               | 18.6  | $f_{62}$                               | 0.8341±0.0026                | 0.10±0.03        | 1.59±0.16                | 8.3   |
| $f_{23}$                               | 0.1156±0.0018                | 0.11±0.03        | -2.90±0.11               | 17.1  | $f_{65}$                               | 0.4264±0.0027                | 0.10±0.04        | -1.70±0.16               | 8.1   |
| $f_{25}$                               | 0.2152±0.0019                | 0.10±0.03        | 2.89±0.12                | 15.5  | $f_{66}$                               | 3.7497±0.0027                | 0.10±0.03        | 1.51±0.16                | 8.2   |
| $f_{29}$                               | 0.3194±0.0023                | 0.08±0.02        | 0.72±0.14                | 10.8  | $f_{68}$                               | 2.0061±0.0027                | 0.10±0.04        | -0.21±0.17               | 7.9   |
| $f_{30}$                               | 2.0048±0.0023                | 0.08±0.02        | 0.54±0.14                | 10.6  | $f_{69}$                               | 4.4832±0.0028                | 0.10±0.04        | 2.83±0.17                | 7.7   |
| $f_{31}$                               | 0.2524±0.0024                | 0.07±0.02        | 2.37±0.15                | 10.2  | $f_{70}$                               | 5.9782±0.0028                | 0.10±0.04        | -0.20±0.17               | 7.6   |
| $f_{34}$                               | 0.1253±0.0024                | 0.08±0.03        | 0.46±0.15                | 10.1  | $f_{72}$                               | 1.1472±0.0028                | 0.09±0.03        | -0.21±0.17               | 7.4   |
| $f_{35}$                               | 0.7081±0.0025                | 0.08±0.03        | 2.68±0.15                | 9.6   | $f_{74}$                               | 2.2780±0.0028                | 0.09±0.03        | 1.14±0.17                | 7.6   |
| $f_{39}$                               | 0.1873±0.0026                | 0.07±0.02        | -0.49±0.16               | 8.3   | $f_{75}$                               | 0.1474±0.0029                | 0.09±0.03        | 2.78±0.17                | 7.1   |
| $f_{40}$                               | 0.5823±0.0027                | 0.07±0.02        | 0.85±0.16                | 8.2   | $f_{77}$                               | 3.3045±0.0029                | 0.09±0.03        | -0.20±0.18               | 7.0   |
| $f_{41}$                               | 0.1619±0.0027                | 0.08±0.03        | -0.98±0.17               | 7.9   | $f_{78}$                               | 0.3281±0.0029                | 0.10±0.04        | -0.71±0.18               | 7.0   |
| $f_{44}$                               | 0.1742±0.0028                | 0.07±0.03        | 0.25±0.17                | 7.4   | $f_{79}$                               | 0.2995±0.0029                | 0.10±0.04        | -2.22±0.18               | 7.0   |
| $f_{45}$                               | 0.4331±0.0027                | 0.07±0.03        | -2.11±0.17               | 7.8   | $f_{80}$                               | 7.0073±0.0029                | 0.09±0.03        | 0.12±0.18                | 6.9   |
| $f_{46}$                               | 0.4061±0.0028                | 0.08±0.03        | -1.25±0.17               | 7.6   | $f_{81}$                               | 0.1982±0.0029                | 0.09±0.03        | -1.44±0.18               | 6.9   |
| $f_{47}$                               | 0.3876±0.0026                | 0.07±0.02        | 2.36±0.16                | 8.8   | $f_{82}$                               | 2.5934±0.0029                | 0.09±0.03        | 3.02±0.17                | 7.1   |
| $f_{50}$                               | 0.3565±0.0027                | 0.07±0.03        | 2.51±0.17                | 7.8   | $f_{83}$                               | 1.8500±0.0029                | 0.09±0.03        | 3.01±0.18                | 6.8   |
| $f_{52}$                               | 3.3598±0.0029                | 0.06±0.02        | -0.36±0.17               | 7.1   | $f_{84}$                               | 6.1051±0.0029                | 0.09±0.03        | -0.18±0.18               | 6.7   |
| $f_{54}$                               | 1.1077±0.0030                | 0.06±0.02        | 1.66±0.18                | 6.5   | $f_{85}$                               | 8.2647±0.0030                | 0.09±0.04        | 0.64±0.18                | 6.4   |
| $f_{55}$                               | 0.2838±0.0030                | 0.06±0.02        | -1.10±0.18               | 6.4   | $f_{86}$                               | 0.6425±0.0030                | 0.08±0.03        | 1.24±0.19                | 6.3   |
| $f_{56}$                               | 57.0104±0.0031               | 0.06±0.02        | -2.55±0.19               | 6.2   | $f_{87}$                               | 1.6787±0.0031                | 0.08±0.03        | 0.22±0.19                | 6.2   |
| $f_{57}$                               | 41.8833±0.0032               | 0.06±0.03        | 2.01±0.20                | 5.7   | $f_{88}$                               | 0.9190±0.0030                | 0.08±0.03        | -2.28±0.19               | 6.3   |
| $f_{58}$                               | 0.3954±0.0032                | 0.06±0.03        | -2.08±0.20               | 5.6   | $f_{90}$                               | 6.2706±0.0031                | 0.08±0.03        | -1.53±0.19               | 6.1   |
| $f_{59}$                               | 0.7007±0.0032                | 0.06±0.03        | -2.16±0.20               | 5.7   | $f_{91}$                               | 0.1741±0.0031                | 0.08±0.03        | -1.44±0.19               | 6.1   |
| $f_{60}$                               | 0.4467±0.0033                | 0.06±0.03        | -0.70±0.20               | 5.3   | $f_{92}$                               | 2.8845±0.0031                | 0.08±0.03        | 2.37±0.19                | 6.0   |
| $f_{61}$                               | 2.3662±0.0033                | 0.06±0.03        | -1.59±0.20               | 5.4   | $f_{93}$                               | 2.5532±0.0031                | 0.08±0.03        | 0.67±0.19                | 6.1   |
| $f_{64}$                               | 55.8535±0.0033               | 0.06±0.03        | 0.42±0.20                | 5.3   | $f_{95}$                               | 1.5665±0.0031                | 0.08±0.03        | -1.68±0.19               | 5.9   |
| $f_{65}$                               | 55.8636±0.0032               | 0.06±0.03        | 2.38±0.20                | 5.6   | $f_{96}$                               | 2.3249±0.0032                | 0.08±0.03        | -0.57±0.20               | 5.6   |
| $f_{67}$                               | 56.9513±0.0034               | 0.05±0.02        | -0.53±0.21               | 5.1   | $f_{97}$                               | 4.5408±0.0033                | 0.08±0.03        | -2.54±0.20               | 5.5   |
| Frequency list of 0102581982 continued |                              |                  |                          |       | $f_{98}$                               | 0.8808±0.0033                | 0.08±0.03        | 1.27±0.20                | 5.5   |
|                                        |                              |                  |                          |       | $f_{99}$                               | 4.1182±0.0033                | 0.08±0.03        | 2.38±0.20                | 5.3   |
|                                        |                              |                  |                          |       | $f_{100}$                              | 2.2547±0.0033                | 0.08±0.03        | -0.91±0.20               | 5.3   |
|                                        |                              |                  |                          |       | $f_{101}$                              | 6.5909±0.0033                | 0.08±0.03        | 2.51±0.20                | 5.4   |
|                                        |                              |                  |                          |       | $f_{102}$                              | 3.9432±0.0033                | 0.08±0.03        | -2.29±0.20               | 5.3   |
|                                        |                              |                  |                          |       | $f_{103}$                              | 1.1992±0.0034                | 0.07±0.03        | -1.23±0.21               | 5.1   |
|                                        |                              |                  |                          |       | $f_{104}$                              | 3.4811±0.0034                | 0.07±0.03        | -1.90±0.21               | 5.1   |
|                                        |                              |                  |                          |       | $f_{105}$                              | 2.6544±0.0033                | 0.08±0.04        | 1.72±0.20                | 5.2   |
|                                        |                              |                  |                          |       | $f_{106}$                              | 0.7651±0.0034                | 0.07±0.03        | -1.30±0.21               | 5.1   |

| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| $f_1$                                  | 3.6742±0.0008                | 0.39±0.04        | -0.56±0.05               | 86.9  |
| $f_2$                                  | 1.8914±0.0009                | 0.36±0.04        | -0.31±0.05               | 78.6  |
| $f_4$                                  | 3.7947±0.0010                | 0.29±0.04        | 0.69±0.06                | 59.2  |
| $f_6$                                  | 1.2788±0.0010                | 0.30±0.04        | 0.40±0.06                | 55.5  |
| $f_7$                                  | 0.5142±0.0010                | 0.29±0.04        | 0.02±0.06                | 56.1  |
| $f_{10}$                               | 0.5716±0.0012                | 0.24±0.04        | 1.69±0.08                | 37.7  |
| $f_{12}$                               | 4.9515±0.0015                | 0.22±0.04        | -0.70±0.09               | 27.5  |
| $f_{13}$                               | 6.2394±0.0015                | 0.21±0.04        | -2.61±0.09               | 26.9  |
| $f_{14}$                               | 0.7342±0.0015                | 0.19±0.04        | 2.13±0.09                | 24.5  |
| $f_{15}$                               | 4.7290±0.0015                | 0.19±0.04        | -1.34±0.09               | 25.2  |
| $f_{16}$                               | 2.0821±0.0016                | 0.16±0.03        | 0.73±0.10                | 22.9  |
| $f_{18}$                               | 4.9633±0.0016                | 0.18±0.04        | 2.44±0.10                | 21.5  |
| $f_{21}$                               | 4.2163±0.0017                | 0.16±0.04        | 1.40±0.10                | 19.8  |
| $f_{22}$                               | 0.1202±0.0017                | 0.16±0.04        | 0.06±0.11                | 19.3  |
| $f_{23}$                               | 0.9955±0.0019                | 0.14±0.03        | -2.44±0.11               | 16.6  |
| $f_{24}$                               | 7.8067±0.0019                | 0.15±0.04        | -2.80±0.12               | 15.9  |
| $f_{27}$                               | 0.1586±0.0020                | 0.16±0.04        | 1.36±0.12                | 13.9  |
| $f_{28}$                               | 1.3173±0.0021                | 0.13±0.04        | 0.30±0.13                | 13.3  |
| $f_{32}$                               | 0.3753±0.0022                | 0.12±0.03        | 0.86±0.13                | 12.0  |
| $f_{34}$                               | 2.7627±0.0022                | 0.12±0.04        | 2.46±0.14                | 11.6  |
| $f_{35}$                               | 6.8111±0.0022                | 0.12±0.03        | -1.85±0.13               | 12.0  |
| $f_{36}$                               | 7.3837±0.0022                | 0.12±0.04        | 0.22±0.14                | 11.7  |
| $f_{37}$                               | 3.2484±0.0023                | 0.11±0.03        | -2.50±0.14               | 11.3  |
| $f_{40}$                               | 2.3109±0.0023                | 0.11±0.03        | 2.05±0.14                | 10.9  |
| $f_{41}$                               | 6.4370±0.0023                | 0.11±0.03        | 3.08±0.14                | 10.6  |
| $f_{42}$                               | 2.2207±0.0023                | 0.11±0.03        | -2.65±0.14               | 10.8  |
| $f_{43}$                               | 2.1716±0.0023                | 0.12±0.04        | -2.13±0.14               | 10.9  |
| $f_{44}$                               | 1.0155±0.0024                | 0.12±0.04        | -1.14±0.15               | 10.2  |
| $f_{45}$                               | 0.1033±0.0024                | 0.12±0.04        | -1.13±0.15               | 10.0  |
| $f_{46}$                               | 0.6730±0.0024                | 0.11±0.03        | 0.10±0.15                | 9.9   |
| $f_{47}$                               | 1.5090±0.0025                | 0.10±0.03        | -1.73±0.15               | 9.7   |
| $f_{48}$                               | 0.2401±0.0024                | 0.11±0.03        | -0.65±0.15               | 9.9   |
| $f_{51}$                               | 2.6618±0.0025                | 0.10±0.03        | 0.02±0.15                | 9.3   |
| $f_{52}$                               | 1.7466±0.0025                | 0.11±0.04        | 1.98±0.15                | 9.3   |
| $f_{53}$                               | 2.0230±0.0025                | 0.10±0.03        | 2.36±0.15                | 9.1   |
| $f_{54}$                               | 3.7755±0.0025                | 0.10±0.03        | 1.30±0.16                | 9.0   |
| $f_{55}$                               | 1.2490±0.0025                | 0.10±0.03        | 0.16±0.15                | 9.1   |
| $f_{56}$                               | 0.3396±0.0026                | 0.12±0.04        | -1.65±0.16               | 8.9   |
| $f_{57}$                               | 5.4932±0.0026                | 0.10±0.03        | 1.03±0.16                | 8.6   |
| Frequency list of 0102583546 continued |                              |                  |                          |       |

| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| $f_1$                                  | 1.5600±0.0002                | 0.69±0.02        | 2.91±0.02                | 954.5 |
| $f_2$                                  | 1.6344±0.0004                | 0.31±0.02        | -1.94±0.02               | 366.1 |
| $f_3$                                  | 1.6021±0.0005                | 0.25±0.02        | -3.09±0.03               | 240.1 |
| $f_4$                                  | 1.6242±0.0005                | 0.24±0.02        | 1.95±0.03                | 198.8 |
| $f_5$                                  | 1.6140±0.0007                | 0.21±0.02        | -0.13±0.04               | 118.3 |
| $f_6$                                  | 1.5922±0.0008                | 0.17±0.02        | 2.45±0.05                | 97.9  |
| $f_7$                                  | 1.5796±0.0008                | 0.16±0.02        | -1.30±0.05               | 84.6  |
| $f_8$                                  | 1.6467±0.0008                | 0.17±0.02        | -0.61±0.05               | 85.5  |
| $f_9$                                  | 3.2739±0.0009                | 0.13±0.01        | -0.41±0.05               | 78.2  |
| $f_{10}$                               | 3.1096±0.0009                | 0.13±0.02        | 0.91±0.06                | 66.5  |
| $f_{11}$                               | 1.5541±0.0009                | 0.11±0.01        | 0.93±0.06                | 65.5  |
| $f_{12}$                               | 1.6665±0.0010                | 0.10±0.01        | 2.63±0.06                | 57.9  |
| $f_{13}$                               | 3.2601±0.0010                | 0.12±0.02        | 1.84±0.06                | 59.2  |
| $f_{14}$                               | 3.1917±0.0010                | 0.12±0.02        | -1.00±0.06               | 60.4  |
| $f_{15}$                               | 3.2961±0.0011                | 0.11±0.02        | 0.86±0.07                | 49.1  |
| $f_{16}$                               | 1.6398±0.0011                | 0.09±0.01        | 0.53±0.07                | 45.5  |
| $f_{17}$                               | 1.5143±0.0011                | 0.10±0.02        | 2.60±0.07                | 44.4  |
| $f_{18}$                               | 1.5404±0.0012                | 0.11±0.02        | 1.72±0.07                | 44.0  |
| $f_{19}$                               | 0.1586±0.0011                | 0.09±0.01        | -1.40±0.07               | 45.7  |
| $f_{20}$                               | 3.2295±0.0011                | 0.09±0.01        | 1.25±0.07                | 44.4  |
| $f_{21}$                               | 3.2176±0.0011                | 0.09±0.01        | 3.06±0.07                | 45.2  |
| $f_{22}$                               | 1.5663±0.0013                | 0.09±0.01        | 0.71±0.08                | 37.2  |
| $f_{23}$                               | 0.1102±0.0013                | 0.10±0.02        | 1.43±0.08                | 36.7  |
| $f_{24}$                               | 1.6572±0.0013                | 0.10±0.02        | -1.48±0.08               | 36.5  |
| $f_{25}$                               | 1.6190±0.0012                | 0.08±0.01        | 2.21±0.08                | 38.0  |
| $f_{26}$                               | 3.1667±0.0013                | 0.08±0.01        | -2.14±0.08               | 35.4  |
| $f_{27}$                               | 0.2298±0.0014                | 0.08±0.01        | 3.05±0.08                | 30.8  |
| $f_{28}$                               | 1.6736±0.0014                | 0.06±0.01        | -0.22±0.09               | 28.3  |
| $f_{29}$                               | 3.2806±0.0014                | 0.08±0.02        | 1.96±0.09                | 27.8  |
| $f_{30}$                               | 1.6040±0.0014                | 0.09±0.02        | -0.04±0.09               | 28.4  |
| $f_{31}$                               | 3.1180±0.0015                | 0.07±0.01        | -1.08±0.09               | 27.2  |
| Frequency list of 0102583546 continued |                              |                  |                          |       |

## Appendix B. Frequencies of individual $\gamma$ Dor Stars

| Frequency list of 0102583546 continued |                              |                  |                          |       | Frequency list of 0102584409 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{32}$                               | 0.1471±0.0015                | 0.08±0.02        | -2.58±0.09               | 26.3  | $f_{10}$                               | 0.1070±0.0008                | 0.10±0.01        | -2.00±0.05               | 95.3  |
| $f_{33}$                               | 4.9349±0.0015                | 0.07±0.01        | -2.98±0.09               | 25.5  | $f_{11}$                               | 0.1559±0.0008                | 0.08±0.01        | 0.05±0.05                | 94.2  |
| $f_{34}$                               | 1.4493±0.0016                | 0.07±0.02        | -1.42±0.10               | 21.6  | $f_{12}$                               | 0.5187±0.0008                | 0.09±0.01        | -2.65±0.05               | 93.7  |
| $f_{35}$                               | 1.5043±0.0018                | 0.05±0.01        | -1.53±0.11               | 19.0  | $f_{13}$                               | 1.7092±0.0008                | 0.09±0.01        | 2.61±0.05                | 81.6  |
| $f_{36}$                               | 0.1032±0.0017                | 0.06±0.01        | -2.21±0.11               | 19.5  | $f_{14}$                               | 0.5562±0.0009                | 0.08±0.01        | 1.61±0.05                | 74.8  |
| $f_{37}$                               | 1.6847±0.0017                | 0.07±0.02        | -0.01±0.11               | 19.2  | $f_{15}$                               | 0.1309±0.0009                | 0.09±0.01        | -2.12±0.06               | 70.6  |
| $f_{39}$                               | 3.2034±0.0017                | 0.07±0.02        | 2.79±0.10                | 19.8  | $f_{17}$                               | 0.3049±0.0010                | 0.08±0.01        | 0.67±0.06                | 62.0  |
| $f_{40}$                               | 3.3113±0.0017                | 0.06±0.01        | -1.52±0.11               | 19.2  | $f_{18}$                               | 0.5958±0.0010                | 0.08±0.01        | 2.33±0.06                | 61.7  |
| $f_{41}$                               | 1.7383±0.0018                | 0.07±0.02        | -0.91±0.11               | 18.9  | $f_{20}$                               | 0.1445±0.0010                | 0.06±0.01        | 0.98±0.06                | 57.8  |
| $f_{42}$                               | 1.5291±0.0018                | 0.07±0.02        | 3.06±0.11                | 18.9  | $f_{21}$                               | 1.0986±0.0010                | 0.07±0.01        | 2.35±0.06                | 58.5  |
| $f_{43}$                               | 1.4664±0.0017                | 0.06±0.01        | 0.15±0.11                | 19.1  | $f_{23}$                               | 0.5769±0.0011                | 0.05±0.01        | 0.39±0.07                | 48.3  |
| $f_{44}$                               | 3.1337±0.0018                | 0.06±0.01        | 2.41±0.11                | 18.7  | $f_{25}$                               | 0.1788±0.0012                | 0.06±0.01        | 2.08±0.07                | 42.5  |
| $f_{45}$                               | 4.9258±0.0019                | 0.06±0.02        | -0.00±0.12               | 15.6  | $f_{26}$                               | 2.0047±0.0012                | 0.05±0.01        | 0.24±0.07                | 42.8  |
| $f_{46}$                               | 1.7112±0.0020                | 0.05±0.01        | -1.32±0.12               | 15.3  | $f_{27}$                               | 0.2396±0.0012                | 0.05±0.01        | -2.09±0.07               | 41.4  |
| $f_{47}$                               | 1.6308±0.0020                | 0.06±0.02        | 1.45±0.12                | 15.1  | $f_{28}$                               | 0.2924±0.0012                | 0.05±0.01        | -0.19±0.07               | 41.6  |
| $f_{48}$                               | 0.1323±0.0020                | 0.05±0.01        | 1.75±0.12                | 15.3  | $f_{29}$                               | 0.1183±0.0012                | 0.06±0.01        | 1.58±0.07                | 41.6  |
| $f_{49}$                               | 1.7802±0.0021                | 0.05±0.01        | -0.31±0.13               | 13.3  | $f_{30}$                               | 0.5056±0.0012                | 0.05±0.01        | 2.75±0.07                | 40.1  |
| $f_{50}$                               | 1.6937±0.0021                | 0.05±0.01        | 1.91±0.13                | 13.3  | $f_{31}$                               | 0.3428±0.0012                | 0.05±0.01        | -2.22±0.08               | 38.3  |
| $f_{51}$                               | 3.1413±0.0022                | 0.05±0.01        | 2.71±0.13                | 12.5  | $f_{32}$                               | 0.1871±0.0012                | 0.05±0.01        | -1.89±0.08               | 38.5  |
| $f_{52}$                               | 3.3288±0.0022                | 0.05±0.01        | -2.06±0.13               | 12.1  | $f_{33}$                               | 1.1089±0.0013                | 0.06±0.01        | 0.94±0.08                | 35.9  |
| $f_{53}$                               | 1.4936±0.0022                | 0.05±0.01        | 0.69±0.13                | 12.3  | $f_{35}$                               | 0.2322±0.0013                | 0.05±0.01        | -0.49±0.08               | 34.2  |
| $f_{55}$                               | 0.1239±0.0023                | 0.04±0.01        | 2.24±0.14                | 10.6  | $f_{37}$                               | 0.2546±0.0014                | 0.05±0.01        | 1.84±0.08                | 30.3  |
| $f_{56}$                               | 3.1787±0.0023                | 0.05±0.02        | 1.51±0.14                | 10.8  | $f_{38}$                               | 0.8183±0.0014                | 0.04±0.01        | -1.30±0.09               | 29.3  |
| $f_{58}$                               | 0.3063±0.0025                | 0.04±0.01        | 0.83±0.15                | 9.3   | $f_{40}$                               | 0.3952±0.0014                | 0.04±0.01        | 1.57±0.09                | 28.5  |
| $f_{59}$                               | 1.7863±0.0025                | 0.04±0.01        | -2.95±0.15               | 9.4   | $f_{42}$                               | 1.0836±0.0016                | 0.04±0.01        | 1.72±0.09                | 24.1  |
| $f_{60}$                               | 4.8941±0.0025                | 0.04±0.01        | 0.45±0.15                | 9.1   | $f_{43}$                               | 1.2572±0.0016                | 0.04±0.01        | 2.57±0.10                | 24.0  |
| $f_{61}$                               | 1.8692±0.0026                | 0.04±0.01        | 1.99±0.16                | 8.7   | $f_{44}$                               | 0.4140±0.0016                | 0.04±0.01        | 1.45±0.10                | 22.6  |
| $f_{62}$                               | 1.3354±0.0026                | 0.04±0.01        | -0.33±0.16               | 8.7   | $f_{46}$                               | 0.4713±0.0016                | 0.04±0.01        | 0.17±0.10                | 22.0  |
| $f_{63}$                               | 1.3941±0.0026                | 0.04±0.01        | 0.12±0.16                | 8.7   | $f_{47}$                               | 0.2229±0.0017                | 0.03±0.01        | -0.40±0.10               | 20.3  |
| $f_{64}$                               | 1.8085±0.0026                | 0.04±0.01        | -2.03±0.16               | 8.4   | $f_{49}$                               | 0.2682±0.0018                | 0.04±0.01        | -2.65±0.11               | 18.7  |
| $f_{65}$                               | 1.4724±0.0026                | 0.04±0.01        | 1.82±0.16                | 8.6   | $f_{52}$                               | 0.7946±0.0018                | 0.04±0.01        | 1.00±0.11                | 17.1  |
| $f_{67}$                               | 1.7580±0.0026                | 0.04±0.01        | 0.51±0.16                | 8.6   | $f_{53}$                               | 0.6153±0.0019                | 0.03±0.01        | 1.94±0.11                | 16.8  |
| $f_{68}$                               | 1.7007±0.0026                | 0.04±0.01        | -2.57±0.16               | 8.4   | $f_{54}$                               | 0.2836±0.0020                | 0.03±0.01        | -2.84±0.12               | 15.3  |
| $f_{69}$                               | 0.3715±0.0026                | 0.03±0.01        | 0.76±0.16                | 8.5   | $f_{56}$                               | 0.4893±0.0020                | 0.03±0.01        | -0.67±0.12               | 14.9  |
| $f_{70}$                               | 0.1947±0.0026                | 0.04±0.01        | 2.40±0.16                | 8.3   | $f_{57}$                               | 1.0731±0.0020                | 0.03±0.01        | 1.92±0.12                | 14.9  |
| $f_{71}$                               | 3.1024±0.0026                | 0.04±0.01        | 2.65±0.16                | 8.3   | $f_{58}$                               | 0.4286±0.0020                | 0.03±0.01        | -2.32±0.12               | 14.5  |
| $f_{72}$                               | 0.1872±0.0027                | 0.04±0.01        | -2.17±0.16               | 8.1   | $f_{60}$                               | 0.8674±0.0021                | 0.03±0.01        | -2.85±0.13               | 13.5  |
| $f_{73}$                               | 3.2245±0.0027                | 0.04±0.01        | -2.45±0.16               | 8.1   | $f_{62}$                               | 1.0580±0.0021                | 0.03±0.01        | 2.06±0.13                | 13.7  |
| $f_{74}$                               | 1.4431±0.0028                | 0.04±0.01        | 0.79±0.17                | 7.5   | $f_{63}$                               | 1.1854±0.0021                | 0.03±0.01        | 2.43±0.13                | 13.8  |
| $f_{75}$                               | 1.9604±0.0028                | 0.04±0.01        | 1.72±0.17                | 7.2   | $f_{64}$                               | 0.7588±0.0021                | 0.03±0.01        | -0.55±0.13               | 12.9  |
| $f_{76}$                               | 1.8946±0.0029                | 0.04±0.02        | -1.80±0.17               | 7.1   | $f_{65}$                               | 0.2126±0.0021                | 0.03±0.01        | 2.47±0.13                | 12.9  |
| $f_{77}$                               | 1.3609±0.0028                | 0.04±0.01        | -3.01±0.17               | 7.2   | $f_{66}$                               | 0.5689±0.0021                | 0.03±0.01        | 0.66±0.13                | 12.7  |
| $f_{78}$                               | 4.8773±0.0029                | 0.03±0.01        | -0.26±0.17               | 7.1   | $f_{68}$                               | 0.7883±0.0021                | 0.03±0.01        | -2.82±0.13               | 12.8  |
| $f_{79}$                               | 0.4736±0.0029                | 0.03±0.01        | -2.91±0.18               | 7.0   | $f_{69}$                               | 0.1004±0.0023                | 0.03±0.01        | -2.48±0.14               | 10.9  |
| $f_{80}$                               | 0.2352±0.0029                | 0.03±0.01        | -0.45±0.17               | 7.1   | $f_{70}$                               | 0.7139±0.0023                | 0.03±0.01        | 0.13±0.14                | 11.0  |
| $f_{81}$                               | 1.4311±0.0029                | 0.04±0.02        | 2.30±0.18                | 7.0   | $f_{71}$                               | 0.6950±0.0022                | 0.03±0.01        | 2.11±0.14                | 11.7  |
| $f_{82}$                               | 6.5855±0.0029                | 0.03±0.01        | -0.39±0.18               | 6.7   | $f_{73}$                               | 0.2052±0.0024                | 0.03±0.01        | -2.26±0.15               | 10.3  |
| $f_{83}$                               | 0.3845±0.0030                | 0.04±0.02        | -2.09±0.18               | 6.6   | $f_{74}$                               | 0.5262±0.0024                | 0.02±0.01        | 0.07±0.15                | 10.3  |
| $f_{84}$                               | 0.3960±0.0026                | 0.04±0.01        | 2.67±0.16                | 8.3   | $f_{75}$                               | 1.6429±0.0024                | 0.03±0.01        | -0.47±0.15               | 10.1  |
| $f_{85}$                               | 4.9509±0.0030                | 0.03±0.01        | 0.59±0.18                | 6.6   | $f_{76}$                               | 0.2470±0.0024                | 0.03±0.01        | -1.49±0.15               | 9.9   |
| $f_{86}$                               | 0.4379±0.0030                | 0.03±0.01        | -3.14±0.18               | 6.4   | $f_{77}$                               | 0.1662±0.0025                | 0.02±0.01        | -1.46±0.15               | 9.7   |
| $f_{87}$                               | 1.9712±0.0030                | 0.03±0.01        | -1.44±0.18               | 6.6   | $f_{78}$                               | 0.8063±0.0025                | 0.03±0.01        | -3.10±0.15               | 9.4   |
| $f_{89}$                               | 3.0807±0.0031                | 0.03±0.01        | 3.05±0.19                | 6.2   | $f_{79}$                               | 1.1482±0.0025                | 0.03±0.01        | -1.96±0.15               | 9.3   |
| $f_{90}$                               | 1.1706±0.0031                | 0.03±0.01        | 1.83±0.19                | 6.2   | $f_{83}$                               | 0.6365±0.0026                | 0.02±0.01        | 1.42±0.16                | 8.3   |
| $f_{91}$                               | 0.5193±0.0031                | 0.03±0.01        | -2.85±0.19               | 6.0   | $f_{84}$                               | 0.7399±0.0027                | 0.02±0.01        | 0.10±0.16                | 8.2   |
| $f_{92}$                               | 3.2442±0.0031                | 0.03±0.01        | -1.74±0.19               | 5.9   | $f_{86}$                               | 0.3528±0.0027                | 0.02±0.01        | 1.99±0.17                | 7.9   |
| $f_{93}$                               | 0.8062±0.0032                | 0.03±0.01        | 1.62±0.19                | 5.8   | $f_{88}$                               | 0.9181±0.0029                | 0.02±0.01        | 2.98±0.18                | 7.0   |
| $f_{94}$                               | 0.7408±0.0030                | 0.03±0.01        | -0.36±0.19               | 6.3   | $f_{90}$                               | 1.1214±0.0029                | 0.02±0.01        | 2.92±0.18                | 6.8   |
| $f_{95}$                               | 0.3507±0.0032                | 0.03±0.01        | 3.06±0.19                | 5.8   | $f_{91}$                               | 0.3109±0.0029                | 0.02±0.01        | -0.36±0.18               | 6.8   |
| $f_{96}$                               | 1.7511±0.0032                | 0.03±0.01        | -2.98±0.20               | 5.6   | $f_{95}$                               | 1.2379±0.0032                | 0.02±0.01        | -2.95±0.19               | 5.8   |
| $f_{98}$                               | 3.0632±0.0033                | 0.03±0.01        | -1.34±0.20               | 5.2   | $f_{96}$                               | 1.0443±0.0032                | 0.02±0.01        | -3.04±0.20               | 5.7   |
| $f_{99}$                               | 3.3819±0.0033                | 0.03±0.01        | -2.14±0.20               | 5.4   | $f_{98}$                               | 0.6494±0.0032                | 0.02±0.01        | 1.92±0.20                | 5.7   |
| $f_{100}$                              | 0.2449±0.0034                | 0.03±0.01        | -0.54±0.21               | 5.1   | $f_{99}$                               | 0.5857±0.0032                | 0.02±0.01        | -0.15±0.20               | 5.6   |
| $f_{101}$                              | 0.8810±0.0034                | 0.03±0.01        | 2.47±0.21                | 5.1   | $f_{100}$                              | 1.0893±0.0033                | 0.02±0.01        | -1.07±0.20               | 5.5   |
| $f_{102}$                              | 0.1680±0.0033                | 0.03±0.01        | 0.79±0.20                | 5.2   | $f_{101}$                              | 0.3822±0.0033                | 0.02±0.01        | 2.33±0.20                | 5.4   |
| $f_{103}$                              | 1.8587±0.0034                | 0.03±0.01        | -1.86±0.21               | 5.0   | $f_{102}$                              | 1.6592±0.0033                | 0.02±0.01        | 2.76±0.20                | 5.4   |
| Frequency list of 0102584409 continued |                              |                  |                          |       | $f_{103}$                              | 0.4621±0.0033                | 0.02±0.01        | 0.84±0.20                | 5.3   |
|                                        |                              |                  |                          |       | $f_{104}$                              | 0.4817±0.0033                | 0.02±0.01        | -1.26±0.20               | 5.5   |
|                                        |                              |                  |                          |       | $f_{105}$                              | 4.3550±0.0033                | 0.02±0.01        | 2.76±0.20                | 5.3   |
|                                        |                              |                  |                          |       | $f_{106}$                              | 0.2613±0.0034                | 0.02±0.01        | -3.10±0.21               | 5.1   |

**Table B.6:** Frequency list of 0102584409

| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| $f_1$                                  | 0.5335±0.0003                | 0.48±0.02        | 1.14±0.02                | 824.9 |
| $f_2$                                  | 0.5406±0.0004                | 0.35±0.02        | -0.99±0.02               | 471.1 |
| $f_3$                                  | 0.2686±0.0003                | 0.33±0.01        | -0.29±0.02               | 507.2 |
| $f_4$                                  | 0.2597±0.0004                | 0.25±0.01        | -2.15±0.02               | 388.4 |
| $f_5$                                  | 0.5122±0.0005                | 0.15±0.01        | 0.60±0.03                | 203.1 |
| $f_6$                                  | 0.4992±0.0006                | 0.12±0.01        | -2.50±0.04               | 174.2 |
| $f_7$                                  | 0.2770±0.0006                | 0.14±0.01        | 0.87±0.04                | 160.4 |
| $f_8$                                  | 0.5470±0.0007                | 0.10±0.01        | -0.36±0.04               | 122.9 |
| $f_9$                                  | 0.5246±0.0007                | 0.11±0.01        | -0.45±0.04               | 115.3 |
| Frequency list of 0102584409 continued |                              |                  |                          |       |

**Table B.7:** Frequency list of 0102587545

| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| $f_1$                                  | 1.9708±0.0003                | 0.74±0.03        | 1.15±0.02                | 586.4 |
| $f_2$                                  | 1.8350±0.0003                | 0.69±0.03        | -2.20±0.02               | 559.4 |
| $f_3$                                  | 1.8027±0.0003                | 0.60±0.03        | -1.83±0.02               | 495.4 |
| $f_4$                                  | 1.1986±0.0004                | 0.53±0.02        | 0.86±0.02                | 458.6 |
| $f_5$                                  | 1.6794±0.0004                | 0.36±0.02        | -0.29±0.03               | 299.0 |
| $f_6$                                  | 1.7135±0.0005                | 0.36±0.03        | -2.50±0.03               | 203.1 |
| Frequency list of 0102587545 continued |                              |                  |                          |       |

## Appendix B. Frequencies of individual $\gamma$ Dor Stars

| Frequency list of 0102587545 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_7$                                  | 1.9907±0.0006                | 0.27±0.02        | 1.31±0.04                | 145.4 |
| $f_8$                                  | 2.1577±0.0007                | 0.25±0.02        | 3.00±0.04                | 126.2 |
| $f_9$                                  | 0.1306±0.0008                | 0.20±0.02        | -2.49±0.05               | 91.7  |
| $f_{10}$                               | 0.1906±0.0009                | 0.25±0.03        | -2.42±0.05               | 80.4  |
| $f_{11}$                               | 0.2034±0.0009                | 0.18±0.02        | -1.57±0.06               | 65.1  |
| $f_{12}$                               | 1.1085±0.0009                | 0.17±0.02        | -1.74±0.06               | 65.5  |
| $f_{13}$                               | 0.2811±0.0009                | 0.16±0.02        | 1.96±0.06                | 65.2  |
| $f_{14}$                               | 0.1243±0.0010                | 0.15±0.02        | -0.84±0.06               | 57.3  |
| $f_{15}$                               | 1.7703±0.0011                | 0.15±0.02        | 2.63±0.06                | 52.8  |
| $f_{16}$                               | 1.1599±0.0011                | 0.14±0.02        | 1.54±0.07                | 46.8  |
| $f_{17}$                               | 0.1844±0.0011                | 0.17±0.03        | 1.20±0.07                | 44.5  |
| $f_{18}$                               | 1.7015±0.0012                | 0.15±0.02        | 2.06±0.07                | 43.4  |
| $f_{19}$                               | 0.1969±0.0011                | 0.13±0.02        | 2.60±0.07                | 45.7  |
| $f_{20}$                               | 1.0995±0.0012                | 0.14±0.02        | 1.43±0.07                | 43.0  |
| $f_{21}$                               | 1.6328±0.0011                | 0.14±0.02        | -0.56±0.07               | 44.4  |
| $f_{22}$                               | 0.7733±0.0012                | 0.12±0.02        | -2.96±0.08               | 37.7  |
| $f_{23}$                               | 0.1696±0.0013                | 0.11±0.02        | -0.05±0.08               | 34.8  |
| $f_{24}$                               | 1.0704±0.0014                | 0.13±0.02        | 0.89±0.08                | 31.6  |
| $f_{25}$                               | 1.0579±0.0014                | 0.12±0.02        | -2.57±0.09               | 28.8  |
| $f_{26}$                               | 1.7315±0.0014                | 0.09±0.02        | -1.51±0.09               | 29.7  |
| $f_{27}$                               | 0.3539±0.0014                | 0.09±0.02        | 1.13±0.09                | 28.5  |
| $f_{29}$                               | 0.2180±0.0015                | 0.08±0.02        | 1.75±0.09                | 27.3  |
| $f_{30}$                               | 1.8466±0.0015                | 0.09±0.02        | -1.76±0.09               | 25.3  |
| $f_{31}$                               | 0.6376±0.0016                | 0.09±0.02        | 2.54±0.10                | 23.5  |
| $f_{32}$                               | 0.1775±0.0016                | 0.09±0.02        | 2.77±0.10                | 22.5  |
| $f_{33}$                               | 0.1097±0.0016                | 0.09±0.02        | 2.07±0.10                | 21.9  |
| $f_{34}$                               | 0.5275±0.0017                | 0.08±0.02        | 2.95±0.10                | 20.1  |
| $f_{35}$                               | 1.6146±0.0018                | 0.09±0.02        | 2.36±0.11                | 18.8  |
| $f_{36}$                               | 0.6054±0.0017                | 0.09±0.02        | -1.44±0.11               | 19.2  |
| $f_{37}$                               | 0.2070±0.0018                | 0.09±0.02        | 2.83±0.11                | 18.9  |
| $f_{38}$                               | 1.7484±0.0018                | 0.07±0.02        | -1.62±0.11               | 18.1  |
| $f_{39}$                               | 0.4794±0.0018                | 0.07±0.02        | 1.20±0.11                | 17.6  |
| $f_{40}$                               | 0.1470±0.0019                | 0.07±0.02        | 2.44±0.12                | 15.6  |
| $f_{41}$                               | 1.6630±0.0019                | 0.08±0.02        | -0.15±0.12               | 15.4  |
| $f_{42}$                               | 0.2579±0.0020                | 0.06±0.02        | -0.68±0.12               | 14.6  |
| $f_{43}$                               | 1.6730±0.0020                | 0.08±0.02        | 1.59±0.12                | 14.1  |
| $f_{44}$                               | 0.4894±0.0020                | 0.06±0.02        | 1.98±0.12                | 14.0  |
| $f_{45}$                               | 1.6231±0.0020                | 0.07±0.02        | 2.01±0.12                | 14.4  |
| $f_{46}$                               | 0.4046±0.0022                | 0.10±0.03        | 2.20±0.13                | 12.5  |
| $f_{47}$                               | 1.7209±0.0022                | 0.07±0.02        | 2.52±0.13                | 12.4  |
| $f_{48}$                               | 1.5139±0.0022                | 0.06±0.02        | -2.30±0.13               | 12.2  |
| $f_{49}$                               | 1.0483±0.0022                | 0.07±0.02        | -1.74±0.14               | 11.9  |
| $f_{50}$                               | 2.0061±0.0023                | 0.06±0.02        | -2.09±0.14               | 11.4  |
| $f_{51}$                               | 0.2671±0.0022                | 0.06±0.02        | -2.22±0.14               | 11.8  |
| $f_{52}$                               | 0.4106±0.0023                | 0.09±0.03        | 1.85±0.14                | 11.1  |
| $f_{53}$                               | 0.3985±0.0022                | 0.07±0.02        | 0.83±0.13                | 12.2  |
| $f_{54}$                               | 2.2220±0.0023                | 0.06±0.02        | 1.73±0.14                | 11.4  |
| $f_{55}$                               | 0.9120±0.0024                | 0.05±0.02        | 0.50±0.15                | 10.3  |
| $f_{56}$                               | 1.0907±0.0023                | 0.06±0.02        | -2.07±0.14               | 10.6  |
| $f_{57}$                               | 0.5917±0.0024                | 0.06±0.02        | -2.92±0.15               | 10.3  |
| $f_{58}$                               | 0.4641±0.0024                | 0.05±0.02        | -2.61±0.15               | 10.1  |
| $f_{59}$                               | 1.8398±0.0024                | 0.06±0.02        | -2.48±0.15               | 10.0  |
| $f_{60}$                               | 0.1008±0.0025                | 0.05±0.02        | 3.06±0.15                | 9.2   |
| $f_{61}$                               | 0.1405±0.0025                | 0.06±0.02        | 2.39±0.15                | 9.2   |
| $f_{62}$                               | 0.3231±0.0026                | 0.05±0.02        | 2.23±0.16                | 8.6   |
| $f_{63}$                               | 3.1687±0.0026                | 0.05±0.02        | 0.37±0.16                | 8.5   |
| $f_{64}$                               | 0.7520±0.0026                | 0.05±0.02        | 2.66±0.16                | 8.7   |
| $f_{67}$                               | 1.0096±0.0027                | 0.05±0.02        | 0.91±0.16                | 8.1   |
| $f_{68}$                               | 0.8767±0.0027                | 0.05±0.02        | 0.75±0.16                | 8.0   |
| $f_{69}$                               | 0.3678±0.0027                | 0.05±0.02        | -2.76±0.16               | 8.0   |
| $f_{70}$                               | 0.9578±0.0028                | 0.05±0.02        | -0.01±0.17               | 7.6   |
| $f_{71}$                               | 1.6046±0.0028                | 0.05±0.02        | 3.09±0.17                | 7.4   |
| $f_{72}$                               | 1.8822±0.0029                | 0.05±0.02        | 1.73±0.17                | 7.1   |
| $f_{73}$                               | 0.3055±0.0028                | 0.05±0.02        | -0.87±0.17               | 7.3   |
| $f_{74}$                               | 3.7737±0.0028                | 0.05±0.02        | -0.95±0.17               | 7.4   |
| $f_{75}$                               | 1.4398±0.0029                | 0.05±0.02        | 1.33±0.17                | 7.1   |
| $f_{76}$                               | 1.5438±0.0028                | 0.05±0.02        | -2.68±0.17               | 7.2   |
| $f_{77}$                               | 1.8655±0.0029                | 0.05±0.02        | -0.56±0.18               | 7.0   |
| $f_{78}$                               | 2.1398±0.0029                | 0.05±0.02        | -1.46±0.18               | 6.8   |
| $f_{79}$                               | 1.2573±0.0029                | 0.05±0.02        | -0.50±0.18               | 6.7   |
| $f_{80}$                               | 0.8324±0.0029                | 0.05±0.02        | 0.52±0.18                | 6.9   |
| $f_{81}$                               | 1.1659±0.0029                | 0.05±0.02        | 2.49±0.18                | 6.8   |
| $f_{82}$                               | 0.4167±0.0029                | 0.05±0.02        | 2.92±0.18                | 6.7   |
| $f_{83}$                               | 2.0329±0.0030                | 0.04±0.02        | -2.62±0.18               | 6.5   |
| $f_{84}$                               | 0.6830±0.0030                | 0.04±0.02        | 1.01±0.18                | 6.5   |
| $f_{85}$                               | 0.5778±0.0030                | 0.05±0.02        | 0.93±0.19                | 6.3   |

Frequency list of 0102587545 continued

| Frequency list of 0102587545 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{86}$                               | 0.6218±0.0030                | 0.04±0.02        | -2.72±0.19               | 6.3   |
| $f_{87}$                               | 1.2434±0.0031                | 0.04±0.02        | 0.57±0.19                | 6.1   |
| $f_{88}$                               | 0.7935±0.0031                | 0.04±0.02        | -2.51±0.19               | 5.9   |
| $f_{90}$                               | 1.9763±0.0032                | 0.05±0.02        | -1.34±0.19               | 5.8   |
| $f_{91}$                               | 2.0892±0.0032                | 0.04±0.02        | -0.51±0.20               | 5.7   |
| $f_{92}$                               | 1.3329±0.0033                | 0.04±0.02        | 0.67±0.20                | 5.5   |
| $f_{93}$                               | 0.2314±0.0032                | 0.04±0.02        | 1.73±0.20                | 5.6   |
| $f_{94}$                               | 1.5639±0.0033                | 0.04±0.02        | -2.80±0.20               | 5.5   |
| $f_{95}$                               | 0.8918±0.0033                | 0.04±0.02        | 1.25±0.20                | 5.3   |
| $f_{96}$                               | 0.5521±0.0033                | 0.04±0.02        | -0.53±0.20               | 5.2   |

**Table B.8:** Frequency list of 0102595215

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|--------------|------------------------------|------------------|--------------------------|-------|
| $f_1$        | 0.7903±0.0003                | 1.26±0.04        | -1.04±0.02               | 869.0 |
| $f_2$        | 0.8126±0.0003                | 0.84±0.04        | -3.12±0.02               | 561.0 |
| $f_3$        | 0.7354±0.0005                | 0.54±0.04        | -2.91±0.03               | 217.1 |
| $f_4$        | 0.7979±0.0008                | 0.30±0.03        | 0.90±0.05                | 103.2 |
| $f_5$        | 1.5298±0.0009                | 0.26±0.03        | 2.58±0.06                | 71.5  |
| $f_6$        | 0.7815±0.0010                | 0.21±0.03        | 1.09±0.06                | 60.8  |
| $f_7$        | 1.0328±0.0010                | 0.23±0.03        | -0.02±0.06               | 53.9  |
| $f_8$        | 0.7543±0.0011                | 0.21±0.03        | -0.13±0.07               | 46.9  |
| $f_9$        | 0.1037±0.0012                | 0.19±0.03        | 0.99±0.07                | 39.8  |
| $f_{10}$     | 0.2233±0.0012                | 0.22±0.04        | -1.88±0.08               | 37.9  |
| $f_{11}$     | 0.1332±0.0013                | 0.16±0.03        | -0.53±0.08               | 34.4  |
| $f_{12}$     | 0.7171±0.0013                | 0.17±0.03        | 2.49±0.08                | 35.6  |
| $f_{13}$     | 0.1919±0.0013                | 0.17±0.03        | -3.01±0.08               | 34.3  |
| $f_{14}$     | 0.1424±0.0014                | 0.14±0.03        | 2.86±0.09                | 29.3  |
| $f_{15}$     | 0.1713±0.0014                | 0.16±0.03        | -1.48±0.09               | 27.9  |
| $f_{16}$     | 0.1517±0.0015                | 0.15±0.03        | -0.99±0.09               | 25.4  |
| $f_{17}$     | 1.6071±0.0015                | 0.15±0.03        | 2.92±0.09                | 25.1  |
| $f_{19}$     | 0.8188±0.0015                | 0.14±0.03        | -2.73±0.09               | 24.9  |
| $f_{20}$     | 0.7446±0.0016                | 0.14±0.03        | 2.87±0.10                | 22.8  |
| $f_{21}$     | 0.1253±0.0018                | 0.12±0.03        | -2.70±0.11               | 19.0  |
| $f_{22}$     | 0.2612±0.0018                | 0.12±0.03        | -2.58±0.11               | 17.9  |
| $f_{23}$     | 0.5344±0.0018                | 0.12±0.03        | -2.85±0.11               | 17.6  |
| $f_{24}$     | 0.5140±0.0017                | 0.13±0.03        | 2.24±0.10                | 20.2  |
| $f_{25}$     | 1.5455±0.0020                | 0.13±0.03        | -3.14±0.12               | 15.3  |
| $f_{26}$     | 1.5566±0.0019                | 0.12±0.03        | -0.93±0.11               | 16.9  |
| $f_{27}$     | 0.1116±0.0020                | 0.10±0.03        | -0.17±0.12               | 15.1  |
| $f_{28}$     | 2.0062±0.0020                | 0.10±0.03        | -0.17±0.12               | 14.1  |
| $f_{29}$     | 0.1830±0.0020                | 0.11±0.03        | 1.30±0.12                | 14.1  |
| $f_{30}$     | 0.4870±0.0020                | 0.11±0.03        | -2.87±0.12               | 13.9  |
| $f_{31}$     | 0.7712±0.0020                | 0.11±0.03        | -1.15±0.12               | 13.9  |
| $f_{32}$     | 0.2356±0.0021                | 0.10±0.03        | -2.30±0.13               | 13.3  |
| $f_{33}$     | 0.3146±0.0022                | 0.10±0.03        | 0.57±0.13                | 12.6  |
| $f_{34}$     | 0.3587±0.0022                | 0.10±0.03        | -0.54±0.14               | 11.8  |
| $f_{36}$     | 0.6328±0.0024                | 0.09±0.03        | -0.01±0.15               | 10.3  |
| $f_{37}$     | 0.1584±0.0024                | 0.08±0.03        | -1.41±0.15               | 10.1  |
| $f_{38}$     | 0.2680±0.0025                | 0.08±0.03        | 1.74±0.15                | 9.3   |
| $f_{39}$     | 0.2076±0.0027                | 0.08±0.03        | 1.87±0.16                | 8.1   |
| $f_{40}$     | 0.4421±0.0026                | 0.09±0.03        | 2.12±0.16                | 8.6   |
| $f_{41}$     | 0.8451±0.0026                | 0.08±0.03        | -1.73±0.16               | 8.3   |
| $f_{42}$     | 0.2161±0.0028                | 0.08±0.03        | 2.66±0.17                | 7.7   |
| $f_{44}$     | 0.3767±0.0028                | 0.07±0.03        | -0.76±0.17               | 7.2   |
| $f_{45}$     | 0.6661±0.0028                | 0.07±0.03        | 0.33±0.17                | 7.4   |
| $f_{47}$     | 1.3236±0.0030                | 0.07±0.03        | -1.91±0.18               | 6.4   |
| $f_{48}$     | 0.7270±0.0030                | 0.07±0.03        | -1.31±0.18               | 6.5   |
| $f_{49}$     | 0.9815±0.0031                | 0.07±0.03        | -2.87±0.19               | 6.2   |
| $f_{50}$     | 1.0950±0.0031                | 0.07±0.03        | 1.37±0.19                | 6.0   |
| $f_{51}$     | 0.5842±0.0031                | 0.07±0.03        | -1.52±0.19               | 5.9   |
| $f_{52}$     | 0.6114±0.0029                | 0.07±0.03        | 0.66±0.17                | 7.1   |
| $f_{53}$     | 0.8329±0.0031                | 0.07±0.03        | 0.22±0.19                | 5.9   |
| $f_{55}$     | 0.7644±0.0032                | 0.07±0.03        | -1.26±0.20               | 5.7   |
| $f_{56}$     | 1.6008±0.0033                | 0.06±0.03        | 2.84±0.20                | 5.4   |
| $f_{57}$     | 1.5107±0.0033                | 0.06±0.03        | -2.98±0.20               | 5.4   |
| $f_{58}$     | 0.4487±0.0034                | 0.06±0.03        | -0.41±0.21               | 5.1   |

**Table B.9:** Frequency list of 0102595296

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign.  |
|--------------|------------------------------|------------------|--------------------------|--------|
| $f_1$        | 1.4099±0.0002                | 2.27±0.07        | -3.05±0.01               | 1057.9 |
| $f_2$        | 1.4482±0.0003                | 1.53±0.06        | 0.51±0.02                | 579.0  |
| $f_3$        | 1.5868±0.0003                | 1.62±0.06        | 1.10±0.02                | 647.7  |
| $f_4$        | 0.8837±0.0003                | 1.41±0.06        | -2.59±0.02               | 500.4  |
| $f_5$        | 1.3733±0.0003                | 1.33±0.06        | -2.18±0.02               | 552.2  |
| $f_6$        | 1.5307±0.0004                | 0.88±0.05        | -1.69±0.03               | 322.0  |

Frequency list of 0102595296 continued

## Appendix B. Frequencies of individual $\gamma$ Dor Stars

| Frequency list of 0102595296 continued |                              |                  |                          |       | Frequency list of 0102595296 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_7$                                  | 0.8746±0.0004                | 0.82±0.05        | -1.57±0.03               | 326.8 | $f_{144}$                              | 1.2876±0.0020                | 0.10±0.03        | 0.33±0.12                | 14.6  |
| $f_8$                                  | 0.8950±0.0005                | 0.77±0.05        | 2.67±0.03                | 225.8 | $f_{145}$                              | 13.9404±0.0020               | 0.11±0.03        | -0.73±0.12               | 14.4  |
| $f_{10}$                               | 1.3080±0.0007                | 0.42±0.04        | -1.99±0.04               | 118.6 | $f_{146}$                              | 4.0101±0.0020                | 0.17±0.05        | -1.40±0.12               | 14.2  |
| $f_{14}$                               | 1.6264±0.0008                | 0.39±0.04        | -0.64±0.05               | 94.2  | $f_{148}$                              | 0.1384±0.0020                | 0.10±0.03        | -0.65±0.12               | 14.2  |
| $f_{15}$                               | 1.3474±0.0008                | 0.42±0.04        | 2.68±0.05                | 93.6  | $f_{151}$                              | 1.2382±0.0021                | 0.10±0.03        | 2.90±0.13                | 13.2  |
| $f_{16}$                               | 0.9399±0.0008                | 0.36±0.04        | 1.67±0.05                | 90.4  | $f_{152}$                              | 0.2339±0.0021                | 0.10±0.03        | 1.74±0.13                | 13.4  |
| $f_{19}$                               | 0.8596±0.0008                | 0.33±0.04        | 2.40±0.05                | 81.8  | $f_{153}$                              | 0.1793±0.0021                | 0.09±0.02        | -1.40±0.13               | 13.5  |
| $f_{21}$                               | 0.8445±0.0009                | 0.30±0.04        | -0.03±0.06               | 70.5  | $f_{157}$                              | 3.0219±0.0022                | 0.08±0.02        | 1.19±0.13                | 12.5  |
| $f_{23}$                               | 1.3228±0.0010                | 0.33±0.04        | 2.90±0.06                | 60.0  | $f_{158}$                              | 1.0404±0.0021                | 0.08±0.02        | 1.93±0.13                | 12.7  |
| $f_{24}$                               | 1.4367±0.0010                | 0.26±0.03        | 0.48±0.06                | 60.6  | $f_{160}$                              | 41.9430±0.0022               | 0.09±0.03        | -2.82±0.13               | 12.3  |
| $f_{25}$                               | 1.2789±0.0010                | 0.29±0.04        | 1.14±0.06                | 58.5  | $f_{161}$                              | 0.3122±0.0022                | 0.07±0.02        | 0.94±0.13                | 12.1  |
| $f_{26}$                               | 0.9633±0.0011                | 0.27±0.04        | -0.20±0.06               | 52.3  | $f_{162}$                              | 2.9616±0.0022                | 0.09±0.03        | -0.74±0.14               | 11.8  |
| $f_{27}$                               | 0.9292±0.0010                | 0.25±0.03        | -1.54±0.06               | 54.3  | $f_{163}$                              | 3.1012±0.0022                | 0.09±0.03        | -0.74±0.14               | 11.8  |
| $f_{30}$                               | 1.3825±0.0011                | 0.24±0.03        | 1.08±0.07                | 47.3  | $f_{164}$                              | 0.6471±0.0022                | 0.08±0.02        | 0.86±0.14                | 11.9  |
| $f_{31}$                               | 3.1738±0.0011                | 0.25±0.04        | 2.82±0.07                | 47.4  | $f_{165}$                              | 0.4241±0.0023                | 0.08±0.02        | -0.25±0.14               | 11.4  |
| $f_{32}$                               | 2.0061±0.0011                | 0.66±0.10        | 0.53±0.07                | 48.0  | $f_{166}$                              | 54.7663±0.0023               | 0.08±0.02        | -2.30±0.14               | 11.4  |
| $f_{33}$                               | 1.0015±0.0011                | 0.19±0.03        | 2.28±0.07                | 46.5  | $f_{168}$                              | 1.4418±0.0022                | 0.08±0.02        | 1.58±0.14                | 11.8  |
| $f_{34}$                               | 1.5125±0.0011                | 0.22±0.03        | -2.22±0.07               | 45.9  | $f_{170}$                              | 55.8450±0.0022               | 0.10±0.03        | -2.33±0.14               | 11.6  |
| $f_{35}$                               | 0.8826±0.0011                | 0.25±0.04        | -0.43±0.07               | 44.7  | $f_{172}$                              | 56.9784±0.0023               | 0.10±0.03        | 0.96±0.14                | 11.5  |
| $f_{36}$                               | 0.8154±0.0011                | 0.24±0.04        | -2.51±0.07               | 45.9  | $f_{173}$                              | 3.0777±0.0023                | 0.08±0.02        | -0.96±0.14               | 11.4  |
| $f_{39}$                               | 1.4695±0.0011                | 0.27±0.04        | 2.55±0.07                | 44.3  | $f_{175}$                              | 1.5021±0.0023                | 0.07±0.02        | 0.17±0.14                | 10.8  |
| $f_{40}$                               | 55.8644±0.0011               | 0.27±0.04        | -2.12±0.07               | 44.6  | $f_{176}$                              | 0.4610±0.0023                | 0.06±0.02        | 0.49±0.14                | 10.9  |
| $f_{42}$                               | 1.4273±0.0012                | 0.23±0.04        | 1.56±0.07                | 43.1  | $f_{180}$                              | 1.3878±0.0023                | 0.08±0.02        | 3.09±0.14                | 10.6  |
| $f_{45}$                               | 1.3637±0.0012                | 0.19±0.03        | -2.36±0.07               | 43.3  | $f_{181}$                              | 3.4638±0.0023                | 0.08±0.02        | -0.54±0.14               | 10.8  |
| $f_{46}$                               | 1.5986±0.0012                | 0.23±0.04        | -2.11±0.07               | 41.2  | $f_{182}$                              | 3.3810±0.0024                | 0.07±0.02        | -0.67±0.15               | 10.3  |
| $f_{56}$                               | 0.1248±0.0012                | 0.20±0.03        | 1.02±0.07                | 39.3  | $f_{183}$                              | 0.1106±0.0024                | 0.08±0.02        | -0.86±0.15               | 10.3  |
| $f_{57}$                               | 41.8956±0.0012               | 0.23±0.04        | -0.18±0.08               | 37.3  | $f_{184}$                              | 0.9910±0.0023                | 0.08±0.02        | 2.48±0.14                | 10.7  |
| $f_{58}$                               | 1.4152±0.0012                | 0.18±0.03        | 0.69±0.08                | 37.7  | $f_{186}$                              | 56.9600±0.0025               | 0.09±0.03        | 0.32±0.15                | 9.7   |
| $f_{59}$                               | 1.5513±0.0013                | 0.14±0.02        | 2.31±0.08                | 34.8  | $f_{187}$                              | 56.9410±0.0023               | 0.09±0.03        | 0.72±0.14                | 11.0  |
| $f_{60}$                               | 55.8538±0.0013               | 0.21±0.04        | 0.28±0.08                | 32.8  | $f_{188}$                              | 56.9866±0.0023               | 0.06±0.02        | -1.76±0.14               | 10.7  |
| $f_{61}$                               | 0.9716±0.0013                | 0.18±0.03        | -1.98±0.08               | 32.8  | $f_{189}$                              | 0.7038±0.0024                | 0.08±0.03        | 2.96±0.15                | 9.8   |
| $f_{65}$                               | 0.8364±0.0014                | 0.15±0.03        | -0.51±0.08               | 31.4  | $f_{191}$                              | 43.0025±0.0024               | 0.08±0.03        | 0.26±0.15                | 9.8   |
| $f_{66}$                               | 1.2159±0.0014                | 0.16±0.03        | 1.12±0.08                | 30.7  | $f_{195}$                              | 55.9105±0.0025               | 0.07±0.02        | -0.86±0.15               | 9.5   |
| $f_{67}$                               | 1.3539±0.0014                | 0.16±0.03        | 2.52±0.08                | 31.6  | $f_{198}$                              | 0.5369±0.0025                | 0.07±0.02        | 0.99±0.15                | 9.3   |
| $f_{68}$                               | 0.8684±0.0014                | 0.17±0.03        | 2.71±0.08                | 30.9  | $f_{199}$                              | 0.4883±0.0024                | 0.07±0.02        | 0.32±0.15                | 10.0  |
| $f_{69}$                               | 13.9502±0.0014               | 0.18±0.03        | 0.06±0.09                | 29.6  | $f_{200}$                              | 1.5224±0.0025                | 0.07±0.02        | 2.03±0.15                | 9.5   |
| $f_{73}$                               | 1.4533±0.0014                | 0.17±0.03        | -2.31±0.09               | 29.0  | $f_{202}$                              | 40.7982±0.0025               | 0.08±0.03        | -0.49±0.15               | 9.3   |
| $f_{75}$                               | 0.5272±0.0015                | 0.14±0.03        | -2.00±0.09               | 27.1  | $f_{203}$                              | 2.7610±0.0025                | 0.07±0.02        | 0.32±0.15                | 9.2   |
| $f_{76}$                               | 1.3150±0.0015                | 0.14±0.03        | 2.58±0.09                | 26.9  | $f_{206}$                              | 0.9560±0.0026                | 0.07±0.02        | 0.55±0.16                | 8.9   |
| $f_{78}$                               | 0.7975±0.0015                | 0.15±0.03        | 1.08±0.09                | 27.1  | $f_{208}$                              | 1.3321±0.0026                | 0.07±0.02        | -1.71±0.16               | 8.6   |
| $f_{79}$                               | 2.8960±0.0015                | 0.15±0.03        | 2.49±0.09                | 26.9  | $f_{209}$                              | 57.0475±0.0026               | 0.07±0.02        | -0.34±0.16               | 8.4   |
| $f_{80}$                               | 0.3588±0.0015                | 0.13±0.03        | 2.60±0.09                | 24.3  | $f_{214}$                              | 1.2456±0.0027                | 0.07±0.02        | 2.44±0.16                | 8.0   |
| $f_{83}$                               | 2.8579±0.0016                | 0.14±0.03        | -3.12±0.10               | 23.7  | $f_{215}$                              | 0.7651±0.0027                | 0.07±0.02        | -2.90±0.16               | 8.2   |
| $f_{85}$                               | 1.6421±0.0016                | 0.14±0.03        | 2.83±0.10                | 22.6  | $f_{217}$                              | 2.7854±0.0027                | 0.07±0.02        | 1.64±0.16                | 8.1   |
| $f_{86}$                               | 0.2135±0.0016                | 0.13±0.03        | -1.09±0.10               | 22.0  | $f_{218}$                              | 2.7293±0.0027                | 0.06±0.02        | 1.77±0.16                | 8.1   |
| $f_{90}$                               | 3.1187±0.0017                | 0.14±0.03        | 2.82±0.10                | 21.3  | $f_{219}$                              | 0.2769±0.0027                | 0.06±0.02        | -2.46±0.17               | 7.8   |
| $f_{92}$                               | 1.0094±0.0017                | 0.13±0.03        | -2.62±0.10               | 19.8  | $f_{220}$                              | 0.3291±0.0027                | 0.07±0.02        | 2.96±0.17                | 7.9   |
| $f_{93}$                               | 1.2643±0.0017                | 0.14±0.03        | -2.69±0.10               | 20.4  | $f_{223}$                              | 27.9652±0.0027               | 0.06±0.02        | -1.05±0.17               | 7.8   |
| $f_{94}$                               | 1.4766±0.0017                | 0.11±0.02        | 0.62±0.10                | 20.3  | $f_{224}$                              | 0.5622±0.0028                | 0.06±0.02        | 1.41±0.17                | 7.6   |
| $f_{95}$                               | 1.3941±0.0017                | 0.13±0.03        | -2.59±0.10               | 20.0  | $f_{225}$                              | 57.0109±0.0028               | 0.06±0.02        | 1.03±0.17                | 7.7   |
| $f_{96}$                               | 1.4031±0.0017                | 0.14±0.03        | 0.81±0.10                | 21.0  | $f_{226}$                              | 40.8056±0.0028               | 0.06±0.02        | -0.47±0.17               | 7.6   |
| $f_{97}$                               | 3.0415±0.0017                | 0.13±0.03        | -1.78±0.10               | 20.1  | $f_{228}$                              | 43.0083±0.0028               | 0.07±0.03        | -0.98±0.17               | 7.7   |
| $f_{98}$                               | 1.2948±0.0017                | 0.14±0.03        | -3.09±0.11               | 19.3  | $f_{231}$                              | 3.2761±0.0028                | 0.06±0.02        | 1.43±0.17                | 7.6   |
| $f_{99}$                               | 13.9971±0.0018               | 0.13±0.03        | -2.56±0.11               | 18.8  | $f_{232}$                              | 1.1788±0.0028                | 0.06±0.02        | 1.83±0.17                | 7.6   |
| $f_{103}$                              | 41.8747±0.0017               | 0.12±0.03        | 2.29±0.10                | 20.4  | $f_{236}$                              | 2.6646±0.0028                | 0.06±0.02        | -2.62±0.17               | 7.6   |
| $f_{104}$                              | 0.8232±0.0018                | 0.13±0.03        | -1.58±0.11               | 19.0  | $f_{237}$                              | 0.1309±0.0027                | 0.05±0.02        | 0.86±0.17                | 7.9   |
| $f_{106}$                              | 1.1967±0.0018                | 0.11±0.03        | 2.71±0.11                | 18.7  | $f_{238}$                              | 1.7150±0.0028                | 0.05±0.02        | 0.98±0.17                | 7.7   |
| $f_{109}$                              | 1.5632±0.0018                | 0.13±0.03        | 3.06±0.11                | 18.6  | $f_{239}$                              | 1.4319±0.0028                | 0.06±0.02        | 0.32±0.17                | 7.5   |
| $f_{110}$                              | 0.3724±0.0018                | 0.12±0.03        | -1.41±0.11               | 18.6  | $f_{244}$                              | 1.5385±0.0029                | 0.06±0.02        | -3.13±0.17               | 7.1   |
| $f_{114}$                              | 1.0704±0.0018                | 0.11±0.03        | 0.61±0.11                | 17.6  | $f_{245}$                              | 0.7900±0.0028                | 0.06±0.02        | -1.02±0.17               | 7.2   |
| $f_{115}$                              | 1.7634±0.0018                | 0.11±0.03        | -0.27±0.11               | 17.5  | $f_{246}$                              | 0.6169±0.0029                | 0.06±0.02        | 1.67±0.17                | 7.1   |
| $f_{116}$                              | 0.5106±0.0018                | 0.10±0.02        | 0.98±0.11                | 17.3  | $f_{247}$                              | 56.9707±0.0028               | 0.07±0.03        | 0.31±0.17                | 7.2   |
| $f_{119}$                              | 0.9187±0.0018                | 0.12±0.03        | -2.46±0.11               | 17.1  | $f_{250}$                              | 54.7991±0.0029               | 0.06±0.02        | 2.25±0.17                | 7.1   |
| $f_{120}$                              | 0.8995±0.0017                | 0.12±0.03        | 1.51±0.11                | 19.2  | $f_{252}$                              | 1.6136±0.0029                | 0.06±0.02        | 1.11±0.18                | 7.0   |
| $f_{122}$                              | 1.4930±0.0019                | 0.11±0.03        | -2.57±0.12               | 16.4  | $f_{253}$                              | 2.9979±0.0029                | 0.08±0.03        | -2.29±0.17               | 7.1   |
| $f_{126}$                              | 0.7788±0.0019                | 0.12±0.03        | 1.30±0.11                | 16.7  | $f_{256}$                              | 1.1569±0.0029                | 0.06±0.02        | 1.76±0.18                | 7.0   |
| $f_{127}$                              | 0.8513±0.0018                | 0.12±0.03        | -2.45±0.11               | 17.7  | $f_{257}$                              | 57.0948±0.0029               | 0.06±0.02        | -1.50±0.18               | 7.0   |
| $f_{128}$                              | 0.1925±0.0019                | 0.12±0.03        | 2.91±0.11                | 16.6  | $f_{259}$                              | 1.2551±0.0029                | 0.06±0.02        | 0.83±0.18                | 6.8   |
| $f_{129}$                              | 0.5712±0.0019                | 0.11±0.03        | 0.05±0.11                | 16.7  | $f_{260}$                              | 0.2563±0.0029                | 0.06±0.02        | -1.60±0.18               | 6.8   |
| $f_{131}$                              | 41.8837±0.0019               | 0.11±0.03        | -2.92±0.12               | 16.0  | $f_{261}$                              | 1.4592±0.0029                | 0.06±0.02        | 1.31±0.18                | 6.9   |
| $f_{136}$                              | 0.1709±0.0019                | 0.11±0.03        | -2.50±0.12               | 15.7  | $f_{262}$                              | 2.8303±0.0029                | 0.06±0.02        | -2.72±0.18               | 6.7   |
| $f_{137}$                              | 2.9398±0.0019                | 0.09±0.02        | 2.79±0.12                | 15.5  | $f_{263}$                              | 2.9324±0.0029                | 0.06±0.02        | 2.70±0.18                | 6.8   |
| $f_{140}$                              | 56.9515±0.0019               | 0.09±0.02        | 2.81±0.12                | 15.7  | $f_{264}$                              | 2.0011±0.0029                | 0.08±0.03        | -2.94±0.18               | 6.7   |
| $f_{141}$                              | 0.9804±0.0020                | 0.09±0.02        | -1.64±0.12               | 15.0  | $f_{268}$                              | 57.0378±0.0030               | 0.06±0.02        | -1.00±0.18               | 6.6   |
| $f_{142}$                              | 2.8200±0.0020                | 0.10±0.03        | 2.75±0.12                | 15.0  | $f_{269}$                              | 57.0194±0.0030               | 0.06±0.02        | -1.52±0.18               | 6.6   |
| $f_{143}$                              | 0.9466±0.0020                | 0.11±0.03        | -2.99±0.12               | 14.6  | $f_{271}$                              | 3.0113±0.0029                | 0.06±0.02        | -1.93±0.18               | 6.7   |

## Appendix B. Frequencies of individual $\gamma$ Dor Stars

| Frequency list of 0102595296 continued |                              |                  |                          |       | Frequency list of 0102595665 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| <i>f</i> <sub>272</sub>                | 2.9870±0.0029                | 0.06±0.02        | -1.52±0.18               | 6.7   | <i>f</i> <sub>51</sub>                 | 0.6250±0.0026                | 0.03±0.01        | 1.21±0.16                | 8.5   |
| <i>f</i> <sub>275</sub>                | 55.8358±0.0030               | 0.06±0.02        | -0.38±0.18               | 6.6   | <i>f</i> <sub>52</sub>                 | 0.4281±0.0026                | 0.03±0.01        | -0.61±0.16               | 8.4   |
| <i>f</i> <sub>277</sub>                | 2.4698±0.0030                | 0.06±0.02        | -1.24±0.18               | 6.5   | <i>f</i> <sub>53</sub>                 | 1.8397±0.0026                | 0.03±0.01        | 0.60±0.16                | 8.8   |
| <i>f</i> <sub>279</sub>                | 0.1535±0.0030                | 0.06±0.02        | 1.36±0.18                | 6.5   | <i>f</i> <sub>55</sub>                 | 2.1236±0.0026                | 0.04±0.01        | -0.57±0.16               | 8.3   |
| <i>f</i> <sub>280</sub>                | 43.0243±0.0030               | 0.05±0.02        | -1.63±0.18               | 6.4   | <i>f</i> <sub>56</sub>                 | 1.8779±0.0026                | 0.03±0.01        | 1.41±0.16                | 8.5   |
| <i>f</i> <sub>283</sub>                | 32.9571±0.0030               | 0.06±0.02        | -2.25±0.18               | 6.5   | <i>f</i> <sub>58</sub>                 | 4.2229±0.0027                | 0.03±0.01        | -2.74±0.17               | 7.9   |
| <i>f</i> <sub>285</sub>                | 0.3812±0.0030                | 0.06±0.02        | -1.33±0.18               | 6.5   | <i>f</i> <sub>59</sub>                 | 1.9623±0.0027                | 0.04±0.01        | -0.30±0.16               | 8.2   |
| <i>f</i> <sub>286</sub>                | 0.4706±0.0030                | 0.05±0.02        | -2.24±0.18               | 6.5   | <i>f</i> <sub>60</sub>                 | 1.9523±0.0026                | 0.03±0.01        | -1.19±0.16               | 8.9   |
| <i>f</i> <sub>287</sub>                | 42.9678±0.0030               | 0.05±0.02        | -1.91±0.18               | 6.4   | <i>f</i> <sub>61</sub>                 | 2.0538±0.0027                | 0.04±0.01        | 0.90±0.16                | 8.0   |
| <i>f</i> <sub>289</sub>                | 1.2269±0.0031                | 0.06±0.02        | -2.98±0.19               | 6.1   | <i>f</i> <sub>63</sub>                 | 13.9997±0.0027               | 0.03±0.01        | 2.78±0.17                | 7.9   |
| <i>f</i> <sub>290</sub>                | 2.4487±0.0031                | 0.05±0.02        | -2.69±0.19               | 6.2   | <i>f</i> <sub>64</sub>                 | 0.4524±0.0027                | 0.03±0.01        | -0.20±0.16               | 8.1   |
| <i>f</i> <sub>291</sub>                | 1.3023±0.0031                | 0.05±0.02        | -2.97±0.19               | 6.2   | <i>f</i> <sub>65</sub>                 | 0.5055±0.0027                | 0.03±0.01        | -0.22±0.16               | 8.1   |
| <i>f</i> <sub>292</sub>                | 44.0844±0.0031               | 0.05±0.02        | -0.04±0.19               | 5.9   | <i>f</i> <sub>66</sub>                 | 2.0205±0.0027                | 0.03±0.01        | -2.40±0.17               | 7.8   |
| <i>f</i> <sub>293</sub>                | 40.7805±0.0031               | 0.05±0.02        | -2.81±0.19               | 5.9   | <i>f</i> <sub>67</sub>                 | 0.3502±0.0028                | 0.03±0.01        | -0.38±0.17               | 7.5   |
| <i>f</i> <sub>297</sub>                | 28.9981±0.0031               | 0.05±0.02        | 0.07±0.19                | 5.9   | <i>f</i> <sub>69</sub>                 | 55.8575±0.0028               | 0.03±0.01        | -1.92±0.17               | 7.7   |
| <i>f</i> <sub>298</sub>                | 1.6963±0.0031                | 0.05±0.02        | -2.30±0.19               | 6.1   | <i>f</i> <sub>70</sub>                 | 0.1451±0.0028                | 0.04±0.01        | 2.38±0.17                | 7.4   |
| <i>f</i> <sub>299</sub>                | 0.5908±0.0032                | 0.05±0.02        | -1.76±0.19               | 5.8   | <i>f</i> <sub>71</sub>                 | 0.3029±0.0028                | 0.03±0.01        | 1.25±0.17                | 7.6   |
| <i>f</i> <sub>300</sub>                | 3.2137±0.0031                | 0.05±0.02        | -2.69±0.19               | 6.0   | <i>f</i> <sub>72</sub>                 | 0.5561±0.0029                | 0.03±0.01        | -0.65±0.18               | 7.0   |
| <i>f</i> <sub>301</sub>                | 2.8465±0.0031                | 0.05±0.02        | -0.63±0.19               | 5.9   | <i>f</i> <sub>74</sub>                 | 57.0469±0.0029               | 0.03±0.01        | 0.25±0.17                | 7.1   |
| <i>f</i> <sub>302</sub>                | 3.0569±0.0031                | 0.05±0.02        | 1.35±0.19                | 6.1   | <i>f</i> <sub>75</sub>                 | 1.8215±0.0029                | 0.03±0.01        | -1.29±0.18               | 7.0   |
| <i>f</i> <sub>304</sub>                | 43.0492±0.0032               | 0.05±0.02        | -2.50±0.19               | 5.8   | <i>f</i> <sub>76</sub>                 | 0.4902±0.0029                | 0.03±0.01        | 2.77±0.18                | 7.0   |
| <i>f</i> <sub>305</sub>                | 1.5883±0.0032                | 0.05±0.02        | 0.05±0.20                | 5.7   | <i>f</i> <sub>77</sub>                 | 2.4614±0.0029                | 0.03±0.01        | -2.13±0.17               | 7.1   |
| <i>f</i> <sub>306</sub>                | 13.9303±0.0032               | 0.05±0.02        | 1.35±0.19                | 5.8   | <i>f</i> <sub>78</sub>                 | 2.1064±0.0029                | 0.03±0.01        | -2.09±0.18               | 6.9   |
| <i>f</i> <sub>307</sub>                | 0.6917±0.0032                | 0.06±0.03        | 1.15±0.20                | 5.7   | <i>f</i> <sub>79</sub>                 | 0.2184±0.0030                | 0.03±0.01        | -1.33±0.18               | 6.6   |
| <i>f</i> <sub>308</sub>                | 0.1176±0.0031                | 0.05±0.02        | -1.34±0.19               | 5.9   | <i>f</i> <sub>80</sub>                 | 0.1114±0.0030                | 0.03±0.01        | 2.21±0.18                | 6.4   |
| <i>f</i> <sub>314</sub>                | 29.0806±0.0032               | 0.05±0.02        | 0.52±0.20                | 5.6   | <i>f</i> <sub>81</sub>                 | 0.3642±0.0030                | 0.03±0.01        | 3.00±0.18                | 6.4   |
| <i>f</i> <sub>315</sub>                | 27.9184±0.0032               | 0.05±0.02        | 1.04±0.20                | 5.6   | <i>f</i> <sub>82</sub>                 | 41.8944±0.0031               | 0.03±0.01        | 2.99±0.19                | 6.2   |
| <i>f</i> <sub>316</sub>                | 1.1069±0.0032                | 0.05±0.02        | 3.04±0.20                | 5.6   | <i>f</i> <sub>83</sub>                 | 0.8107±0.0031                | 0.03±0.01        | 2.58±0.19                | 6.1   |
| <i>f</i> <sub>320</sub>                | 54.8389±0.0033               | 0.05±0.02        | 1.56±0.20                | 5.4   | <i>f</i> <sub>84</sub>                 | 56.9414±0.0031               | 0.03±0.01        | -2.98±0.19               | 5.9   |
| <i>f</i> <sub>323</sub>                | 57.0011±0.0033               | 0.05±0.02        | -2.00±0.20               | 5.3   | <i>f</i> <sub>86</sub>                 | 0.5351±0.0031                | 0.03±0.01        | -1.05±0.19               | 5.9   |
| <i>f</i> <sub>326</sub>                | 0.4505±0.0033                | 0.05±0.02        | -0.29±0.20               | 5.3   | <i>f</i> <sub>87</sub>                 | 2.1664±0.0031                | 0.03±0.01        | 0.97±0.19                | 5.9   |
| <i>f</i> <sub>327</sub>                | 0.4145±0.0033                | 0.05±0.02        | -2.65±0.20               | 5.5   | <i>f</i> <sub>88</sub>                 | 0.1331±0.0031                | 0.03±0.01        | 2.79±0.19                | 6.0   |
| <i>f</i> <sub>328</sub>                | 1.0201±0.0033                | 0.05±0.02        | 0.76±0.20                | 5.3   | <i>f</i> <sub>89</sub>                 | 1.5241±0.0031                | 0.03±0.01        | 1.06±0.19                | 5.9   |
| <i>f</i> <sub>329</sub>                | 0.7405±0.0033                | 0.05±0.02        | 1.77±0.20                | 5.4   | <i>f</i> <sub>90</sub>                 | 1.3501±0.0032                | 0.03±0.01        | -2.31±0.20               | 5.7   |
| <i>f</i> <sub>330</sub>                | 0.6568±0.0033                | 0.05±0.02        | -2.68±0.20               | 5.3   | <i>f</i> <sub>91</sub>                 | 0.2784±0.0032                | 0.03±0.01        | -0.80±0.19               | 5.8   |
| <i>f</i> <sub>331</sub>                | 2.7465±0.0033                | 0.05±0.02        | -1.99±0.20               | 5.2   | <i>f</i> <sub>92</sub>                 | 0.2901±0.0031                | 0.03±0.01        | 1.68±0.19                | 6.2   |
| <i>f</i> <sub>335</sub>                | 1.1229±0.0033                | 0.05±0.02        | -2.29±0.20               | 5.3   | <i>f</i> <sub>93</sub>                 | 27.9650±0.0031               | 0.03±0.01        | 0.26±0.19                | 6.0   |
| <i>f</i> <sub>337</sub>                | 1.7407±0.0034                | 0.05±0.02        | -1.69±0.21               | 5.1   | <i>f</i> <sub>94</sub>                 | 2.3239±0.0032                | 0.03±0.01        | 0.99±0.20                | 5.7   |
| <i>f</i> <sub>338</sub>                | 0.2931±0.0033                | 0.05±0.02        | -1.97±0.20               | 5.2   | <i>f</i> <sub>97</sub>                 | 54.8400±0.0033               | 0.03±0.01        | 2.79±0.20                | 5.4   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>99</sub>                 | 3.9622±0.0033                | 0.03±0.01        | 0.30±0.20                | 5.3   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>100</sub>                | 1.2020±0.0033                | 0.03±0.01        | -2.29±0.20               | 5.3   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>102</sub>                | 2.1365±0.0033                | 0.03±0.01        | -2.05±0.20               | 5.3   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>103</sub>                | 1.1179±0.0033                | 0.03±0.01        | 1.08±0.20                | 5.2   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>104</sub>                | 4.2083±0.0033                | 0.03±0.01        | -0.52±0.20               | 5.2   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>105</sub>                | 4.0782±0.0034                | 0.03±0.01        | -0.05±0.21               | 5.1   |

**Table B.10:** Frequency list of 0102595665

| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| <i>f</i> <sub>1</sub>                  | 0.1096±0.0008                | 0.13±0.01        | -0.50±0.05               | 83.2  |
| <i>f</i> <sub>3</sub>                  | 1.9972±0.0009                | 0.12±0.01        | 2.02±0.05                | 75.8  |
| <i>f</i> <sub>4</sub>                  | 1.9817±0.0010                | 0.09±0.01        | -1.94±0.06               | 59.9  |
| <i>f</i> <sub>5</sub>                  | 4.0069±0.0011                | 0.10±0.01        | 3.12±0.06                | 52.8  |
| <i>f</i> <sub>6</sub>                  | 1.4155±0.0010                | 0.10±0.01        | -0.46±0.06               | 53.6  |
| <i>f</i> <sub>8</sub>                  | 0.1240±0.0013                | 0.08±0.01        | -0.57±0.08               | 34.5  |
| <i>f</i> <sub>11</sub>                 | 2.0090±0.0013                | 0.08±0.01        | 0.04±0.08                | 32.2  |
| <i>f</i> <sub>16</sub>                 | 0.1568±0.0016                | 0.05±0.01        | -0.55±0.10               | 21.9  |
| <i>f</i> <sub>17</sub>                 | 1.9699±0.0018                | 0.04±0.01        | -0.19±0.11               | 18.2  |
| <i>f</i> <sub>18</sub>                 | 2.0985±0.0018                | 0.05±0.01        | -0.94±0.11               | 17.8  |
| <i>f</i> <sub>21</sub>                 | 0.3868±0.0018                | 0.05±0.01        | 2.89±0.11                | 17.9  |
| <i>f</i> <sub>22</sub>                 | 0.2465±0.0018                | 0.05±0.01        | 0.11±0.11                | 17.3  |
| <i>f</i> <sub>24</sub>                 | 0.3430±0.0018                | 0.04±0.01        | 2.72±0.11                | 18.0  |
| <i>f</i> <sub>25</sub>                 | 0.1965±0.0018                | 0.06±0.01        | -2.03±0.11               | 17.2  |
| <i>f</i> <sub>26</sub>                 | 0.2613±0.0019                | 0.05±0.01        | 1.06±0.12                | 16.3  |
| <i>f</i> <sub>27</sub>                 | 0.2282±0.0018                | 0.05±0.01        | -1.00±0.11               | 17.6  |
| <i>f</i> <sub>28</sub>                 | 2.0889±0.0019                | 0.05±0.01        | -0.78±0.12               | 16.0  |
| <i>f</i> <sub>29</sub>                 | 0.3127±0.0019                | 0.05±0.01        | -1.33±0.12               | 15.8  |
| <i>f</i> <sub>32</sub>                 | 2.0779±0.0021                | 0.04±0.01        | -3.09±0.13               | 13.5  |
| <i>f</i> <sub>35</sub>                 | 0.1813±0.0021                | 0.04±0.01        | 0.95±0.13                | 13.1  |
| <i>f</i> <sub>36</sub>                 | 3.9881±0.0022                | 0.04±0.01        | -0.38±0.13               | 12.0  |
| <i>f</i> <sub>37</sub>                 | 3.9775±0.0022                | 0.04±0.01        | 2.05±0.13                | 12.2  |
| <i>f</i> <sub>38</sub>                 | 2.1146±0.0023                | 0.04±0.01        | -0.55±0.14               | 11.5  |
| <i>f</i> <sub>39</sub>                 | 1.9909±0.0023                | 0.04±0.01        | 0.54±0.14                | 11.0  |
| <i>f</i> <sub>40</sub>                 | 1.9444±0.0024                | 0.04±0.01        | 0.02±0.15                | 10.2  |
| <i>f</i> <sub>41</sub>                 | 0.3317±0.0024                | 0.04±0.01        | -1.34±0.15               | 10.3  |
| <i>f</i> <sub>42</sub>                 | 4.0848±0.0024                | 0.04±0.01        | -0.99±0.15               | 9.9   |
| <i>f</i> <sub>43</sub>                 | 0.2093±0.0024                | 0.04±0.01        | 0.21±0.15                | 10.0  |
| <i>f</i> <sub>45</sub>                 | 1.9251±0.0025                | 0.04±0.01        | 0.22±0.15                | 9.6   |
| <i>f</i> <sub>46</sub>                 | 1.8544±0.0025                | 0.03±0.01        | -2.68±0.15               | 9.4   |
| <i>f</i> <sub>47</sub>                 | 4.0154±0.0024                | 0.04±0.01        | -2.38±0.15               | 9.9   |
| <i>f</i> <sub>49</sub>                 | 0.3951±0.0025                | 0.03±0.01        | -2.99±0.15               | 9.4   |
| <i>f</i> <sub>50</sub>                 | 0.1628±0.0026                | 0.03±0.01        | -1.12±0.16               | 8.8   |
| Frequency list of 0102595665 continued |                              |                  |                          |       |

**Table B.11:** Frequency list of 0102596652

| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign.  |
|----------------------------------------|------------------------------|------------------|--------------------------|--------|
| <i>f</i> <sub>1</sub>                  | 0.4182±0.0002                | 3.19±0.09        | -1.78±0.01               | 1202.0 |
| <i>f</i> <sub>2</sub>                  | 0.3830±0.0004                | 1.05±0.06        | -2.34±0.03               | 307.1  |
| <i>f</i> <sub>3</sub>                  | 0.8343±0.0006                | 0.74±0.05        | -1.31±0.03               | 182.6  |
| <i>f</i> <sub>4</sub>                  | 0.4034±0.0006                | 0.74±0.06        | -0.93±0.04               | 149.4  |
| <i>f</i> <sub>5</sub>                  | 0.1717±0.0011                | 0.39±0.05        | 1.11±0.07                | 51.3   |
| <i>f</i> <sub>6</sub>                  | 0.8164±0.0011                | 0.38±0.06        | 1.21±0.07                | 44.2   |
| <i>f</i> <sub>7</sub>                  | 0.1627±0.0012                | 0.39±0.06        | 0.82±0.07                | 40.9   |
| <i>f</i> <sub>8</sub>                  | 0.2588±0.0012                | 0.33±0.05        | 0.24±0.07                | 39.4   |
| <i>f</i> <sub>9</sub>                  | 0.2963±0.0012                | 0.26±0.04        | -2.46±0.08               | 37.8   |
| <i>f</i> <sub>10</sub>                 | 0.1981±0.0013                | 0.39±0.07        | 2.16±0.08                | 34.9   |
| <i>f</i> <sub>11</sub>                 | 0.2110±0.0012                | 0.37±0.06        | 1.37±0.07                | 39.2   |
| <i>f</i> <sub>12</sub>                 | 0.1283±0.0013                | 0.32±0.05        | -1.01±0.08               | 34.4   |
| <i>f</i> <sub>13</sub>                 | 0.2224±0.0016                | 0.29±0.06        | -1.76±0.10               | 23.2   |
| <i>f</i> <sub>15</sub>                 | 0.1527±0.0017                | 0.31±0.07        | -0.78±0.10               | 20.9   |
| <i>f</i> <sub>16</sub>                 | 0.8287±0.0017                | 0.23±0.05        | -2.25±0.10               | 20.0   |
| <i>f</i> <sub>17</sub>                 | 0.5621±0.0017                | 0.23±0.05        | 1.32±0.10                | 19.9   |
| <i>f</i> <sub>18</sub>                 | 0.2456±0.0018                | 0.27±0.06        | 0.82±0.11                | 18.1   |
| <i>f</i> <sub>19</sub>                 | 0.8060±0.0019                | 0.21±0.05        | 0.20±0.12                | 16.0   |
| <i>f</i> <sub>20</sub>                 | 0.3234±0.0019                | 0.16±0.04        | 1.01±0.12                | 15.6   |
| <i>f</i> <sub>21</sub>                 | 0.2286±0.0019                | 0.23±0.06        | 1.18±0.12                | 15.6   |
| <i>f</i> <sub>22</sub>                 | 0.1019±0.0019                | 0.22±0.06        | 2.76±0.12                | 15.9   |
| <i>f</i> <sub>23</sub>                 | 2.9204±0.0020                | 0.17±0.04        | -0.30±0.12               | 15.1   |
| <i>f</i> <sub>24</sub>                 | 0.5973±0.0021                | 0.17±0.05        | -0.30±0.13               | 13.8   |
| <i>f</i> <sub>25</sub>                 | 0.4679±0.0021                | 0.22±0.06        | -0.66±0.13               | 13.4   |
| <i>f</i> <sub>26</sub>                 | 0.6349±0.0021                | 0.19±0.05        | -2.54±0.13               | 12.8   |
| <i>f</i> <sub>27</sub>                 | 3.6313±0.0021                | 0.18±0.05        | -0.91±0.13               | 13.2   |
| <i>f</i> <sub>28</sub>                 | 0.8600±0.0022                | 0.17±0.05        | 1.49±0.13                | 12.4   |
| <i>f</i> <sub>29</sub>                 | 0.6977±0.0023                | 0.17±0.05        | -1.88±0.14               | 11.3   |
| Frequency list of 0102596652 continued |                              |                  |                          |        |

| Frequency list of 0102596652 continued |                              |                  |               |        | Frequency list of 0102597681 continued |                              |                  |               |       |
|----------------------------------------|------------------------------|------------------|---------------|--------|----------------------------------------|------------------------------|------------------|---------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [-π, π] | Sign.  | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [-π, π] | Sign. |
| f <sub>30</sub>                        | 0.7091±0.0021                | 0.19±0.05        | -0.42±0.13    | 13.5   | f <sub>10</sub>                        | 1.1086±0.0007                | 0.54±0.05        | 0.65±0.04     | 117.6 |
| f <sub>31</sub>                        | 0.5112±0.0022                | 0.20±0.06        | 1.58±0.14     | 11.8   | f <sub>11</sub>                        | 1.0405±0.0007                | 0.61±0.06        | 0.95±0.04     | 119.9 |
| f <sub>32</sub>                        | 1.5506±0.0022                | 0.16±0.05        | -2.97±0.14    | 11.6   | f <sub>12</sub>                        | 1.8514±0.0007                | 0.51±0.05        | 2.56±0.04     | 113.9 |
| f <sub>33</sub>                        | 2.4388±0.0023                | 0.15±0.05        | -1.84±0.14    | 11.0   | f <sub>13</sub>                        | 0.7219±0.0007                | 0.49±0.05        | 1.41±0.04     | 113.6 |
| f <sub>34</sub>                        | 0.8431±0.0023                | 0.15±0.05        | 0.45±0.14     | 11.0   | f <sub>14</sub>                        | 1.9230±0.0007                | 0.47±0.05        | 0.41±0.04     | 108.2 |
| f <sub>35</sub>                        | 0.2677±0.0024                | 0.18±0.06        | 1.20±0.14     | 10.5   | f <sub>15</sub>                        | 0.8029±0.0007                | 0.49±0.05        | 2.45±0.05     | 104.7 |
| f <sub>36</sub>                        | 1.0764±0.0024                | 0.15±0.05        | 0.17±0.14     | 10.4   | f <sub>16</sub>                        | 0.8811±0.0007                | 0.47±0.05        | 2.07±0.05     | 106.7 |
| f <sub>37</sub>                        | 0.3748±0.0024                | 0.20±0.06        | -0.05±0.15    | 10.3   | f <sub>17</sub>                        | 1.0587±0.0007                | 0.34±0.03        | -2.09±0.05    | 104.2 |
| f <sub>38</sub>                        | 2.2486±0.0024                | 0.16±0.05        | -2.76±0.15    | 9.9    | f <sub>18</sub>                        | 1.8005±0.0008                | 0.37±0.04        | -1.87±0.05    | 103.2 |
| f <sub>39</sub>                        | 0.4248±0.0024                | 0.18±0.06        | -0.27±0.15    | 9.8    | f <sub>19</sub>                        | 0.9703±0.0008                | 0.40±0.04        | 1.35±0.05     | 88.9  |
| f <sub>40</sub>                        | 0.1350±0.0025                | 0.16±0.05        | -2.74±0.15    | 9.4    | f <sub>20</sub>                        | 1.1816±0.0008                | 0.38±0.04        | 1.09±0.05     | 87.3  |
| f <sub>41</sub>                        | 0.9887±0.0025                | 0.16±0.05        | -2.31±0.15    | 9.6    | f <sub>21</sub>                        | 1.6912±0.0008                | 0.40±0.04        | -1.16±0.05    | 84.6  |
| f <sub>42</sub>                        | 3.0071±0.0025                | 0.16±0.05        | -3.08±0.15    | 9.1    | f <sub>22</sub>                        | 1.9739±0.0008                | 0.37±0.04        | -2.07±0.05    | 81.4  |
| f <sub>43</sub>                        | 1.9516±0.0026                | 0.16±0.05        | 1.48±0.16     | 8.9    | f <sub>23</sub>                        | 0.7616±0.0008                | 0.40±0.04        | -1.02±0.05    | 85.7  |
| f <sub>44</sub>                        | 0.6094±0.0025                | 0.15±0.05        | 1.88±0.15     | 9.1    | f <sub>24</sub>                        | 1.0402±0.0009                | 0.39±0.04        | -2.65±0.05    | 77.7  |
| f <sub>45</sub>                        | 0.8945±0.0026                | 0.15±0.05        | -0.65±0.16    | 8.7    | f <sub>25</sub>                        | 1.8134±0.0008                | 0.37±0.04        | 0.86±0.05     | 80.8  |
| f <sub>46</sub>                        | 0.9417±0.0026                | 0.14±0.05        | -0.39±0.16    | 8.7    | f <sub>26</sub>                        | 0.2818±0.0009                | 0.33±0.04        | -2.34±0.06    | 71.7  |
| f <sub>47</sub>                        | 1.4157±0.0026                | 0.14±0.05        | -3.07±0.16    | 8.7    | f <sub>27</sub>                        | 0.4409±0.0009                | 0.30±0.04        | 0.99±0.06     | 67.9  |
| f <sub>48</sub>                        | 1.6748±0.0026                | 0.14±0.05        | 1.58±0.16     | 8.4    | f <sub>28</sub>                        | 0.2304±0.0009                | 0.33±0.04        | -0.77±0.06    | 70.8  |
| f <sub>49</sub>                        | 1.4075±0.0026                | 0.13±0.05        | 1.48±0.16     | 8.3    | f <sub>29</sub>                        | 1.0039±0.0009                | 0.31±0.04        | -3.05±0.06    | 68.3  |
| f <sub>50</sub>                        | 2.0747±0.0027                | 0.13±0.05        | 1.43±0.17     | 7.9    | f <sub>30</sub>                        | 0.4743±0.0009                | 0.33±0.04        | -1.01±0.06    | 68.6  |
| f <sub>51</sub>                        | 0.7329±0.0027                | 0.16±0.06        | 3.02±0.16     | 8.1    | f <sub>31</sub>                        | 0.3508±0.0009                | 0.32±0.04        | -1.48±0.05    | 72.1  |
| f <sub>52</sub>                        | 1.6489±0.0027                | 0.13±0.05        | -1.44±0.17    | 7.8    | f <sub>32</sub>                        | 1.1458±0.0009                | 0.33±0.04        | 2.05±0.06     | 69.3  |
| f <sub>53</sub>                        | 3.7240±0.0027                | 0.13±0.05        | -1.93±0.17    | 7.8    | f <sub>33</sub>                        | 0.8329±0.0009                | 0.33±0.04        | -0.61±0.06    | 69.4  |
| f <sub>54</sub>                        | 2.1695±0.0028                | 0.15±0.05        | 0.69±0.17     | 7.5    | f <sub>34</sub>                        | 0.7382±0.0009                | 0.31±0.04        | -0.85±0.06    | 66.7  |
| f <sub>55</sub>                        | 0.6272±0.0028                | 0.12±0.04        | 2.07±0.17     | 7.5    | f <sub>35</sub>                        | 1.0947±0.0009                | 0.30±0.04        | -0.89±0.06    | 68.7  |
| f <sub>56</sub>                        | 2.3048±0.0028                | 0.15±0.06        | 0.50±0.17     | 7.3    | f <sub>36</sub>                        | 0.1762±0.0010                | 0.29±0.04        | 2.42±0.06     | 62.7  |
| f <sub>57</sub>                        | 3.0504±0.0028                | 0.13±0.05        | -0.11±0.17    | 7.3    | f <sub>37</sub>                        | 1.3394±0.0010                | 0.28±0.04        | -1.71±0.06    | 60.8  |
| f <sub>58</sub>                        | 30.0067±0.0028               | 0.13±0.05        | 2.71±0.17     | 7.3    | f <sub>38</sub>                        | 0.9181±0.0010                | 0.28±0.04        | -0.93±0.06    | 58.6  |
| f <sub>59</sub>                        | 0.4539±0.0028                | 0.12±0.04        | 0.22±0.17     | 7.4    | f <sub>39</sub>                        | 0.3181±0.0010                | 0.26±0.03        | -0.58±0.06    | 56.4  |
| f <sub>60</sub>                        | 2.9042±0.0028                | 0.13±0.05        | -1.88±0.17    | 7.3    | f <sub>40</sub>                        | 0.2056±0.0010                | 0.26±0.04        | 2.23±0.06     | 54.1  |
| f <sub>61</sub>                        | 1.9795±0.0028                | 0.13±0.05        | 2.13±0.17     | 7.3    | f <sub>41</sub>                        | 1.8676±0.0010                | 0.25±0.03        | -0.25±0.06    | 53.5  |
| f <sub>62</sub>                        | 1.2746±0.0028                | 0.13±0.05        | -1.96±0.17    | 7.3    | f <sub>42</sub>                        | 0.7818±0.0010                | 0.25±0.03        | 0.60±0.06     | 53.2  |
| f <sub>63</sub>                        | 2.6202±0.0029                | 0.13±0.05        | -3.03±0.18    | 7.0    | f <sub>43</sub>                        | 2.1695±0.0011                | 0.24±0.03        | 0.68±0.07     | 49.8  |
| f <sub>64</sub>                        | 1.7053±0.0029                | 0.13±0.05        | 0.20±0.18     | 7.0    | f <sub>44</sub>                        | 0.6239±0.0011                | 0.24±0.03        | -0.68±0.07    | 49.9  |
| f <sub>65</sub>                        | 1.1488±0.0030                | 0.11±0.04        | 0.77±0.18     | 6.6    | f <sub>45</sub>                        | 1.3051±0.0011                | 0.24±0.03        | 1.56±0.07     | 51.3  |
| f <sub>66</sub>                        | 0.5767±0.0030                | 0.13±0.05        | -0.88±0.18    | 6.6    | f <sub>46</sub>                        | 0.8577±0.0011                | 0.23±0.03        | 0.32±0.07     | 48.5  |
| f <sub>67</sub>                        | 2.1477±0.0029                | 0.13±0.05        | -0.28±0.18    | 6.7    | f <sub>47</sub>                        | 0.2243±0.0011                | 0.23±0.03        | 1.34±0.07     | 48.4  |
| f <sub>68</sub>                        | 2.0036±0.0030                | 0.14±0.05        | 2.16±0.18     | 6.6    | f <sub>48</sub>                        | 1.1286±0.0011                | 0.23±0.03        | 0.23±0.07     | 47.8  |
| f <sub>69</sub>                        | 2.0226±0.0030                | 0.13±0.05        | -2.86±0.18    | 6.5    | f <sub>49</sub>                        | 2.0456±0.0011                | 0.23±0.03        | -2.92±0.07    | 48.4  |
| f <sub>70</sub>                        | 2.0501±0.0030                | 0.12±0.05        | -0.64±0.18    | 6.4    | f <sub>50</sub>                        | 1.2686±0.0011                | 0.22±0.03        | 0.91±0.07     | 46.6  |
| f <sub>71</sub>                        | 2.5447±0.0030                | 0.12±0.05        | 1.69±0.19     | 6.3    | f <sub>51</sub>                        | 1.368±0.0011                 | 0.22±0.03        | -1.87±0.07    | 47.8  |
| f <sub>72</sub>                        | 3.6747±0.0031                | 0.12±0.05        | -1.36±0.19    | 6.2    | f <sub>52</sub>                        | 0.1501±0.0011                | 0.22±0.03        | -2.56±0.07    | 46.2  |
| f <sub>73</sub>                        | 1.2572±0.0031                | 0.12±0.05        | -3.09±0.19    | 6.0    | f <sub>56</sub>                        | 1.2174±0.0011                | 0.22±0.03        | 1.19±0.07     | 46.8  |
| f <sub>74</sub>                        | 0.3874±0.0031                | 0.13±0.05        | -1.93±0.19    | 6.0    | f <sub>57</sub>                        | 0.8721±0.0011                | 0.22±0.03        | 1.78±0.07     | 48.6  |
| f <sub>75</sub>                        | 1.7489±0.0031                | 0.12±0.05        | 1.90±0.19     | 5.9    | f <sub>58</sub>                        | 1.8319±0.0011                | 0.21±0.03        | -2.72±0.07    | 46.7  |
| f <sub>76</sub>                        | 1.8865±0.0032                | 0.12±0.05        | 0.50±0.19     | 5.8    | f <sub>59</sub>                        | 1.7091±0.0011                | 0.21±0.03        | 2.44±0.07     | 47.5  |
| f <sub>77</sub>                        | 5.0583±0.0032                | 0.12±0.05        | -1.26±0.19    | 5.8    | f <sub>60</sub>                        | 1.3565±0.0011                | 0.21±0.03        | 0.32±0.07     | 47.1  |
| f <sub>78</sub>                        | 4.9802±0.0032                | 0.12±0.05        | 2.10±0.19     | 5.8    | f <sub>61</sub>                        | 1.9047±0.0011                | 0.21±0.03        | -1.12±0.07    | 47.0  |
| f <sub>79</sub>                        | 2.3581±0.0032                | 0.12±0.05        | -2.23±0.20    | 5.7    | f <sub>62</sub>                        | 0.3812±0.0011                | 0.21±0.03        | 2.66±0.07     | 47.1  |
| f <sub>80</sub>                        | 4.8554±0.0032                | 0.12±0.05        | 2.57±0.20     | 5.7    | f <sub>63</sub>                        | 0.8992±0.0012                | 0.20±0.03        | -2.44±0.07    | 43.7  |
| f <sub>81</sub>                        | 2.4207±0.0032                | 0.12±0.05        | 0.87±0.20     | 5.6    | f <sub>64</sub>                        | 0.8194±0.0011                | 0.20±0.03        | 1.91±0.07     | 45.5  |
| f <sub>82</sub>                        | 1.1318±0.0033                | 0.12±0.05        | -1.76±0.20    | 5.5    | f <sub>65</sub>                        | 1.2314±0.0011                | 0.20±0.03        | 1.60±0.07     | 44.9  |
| f <sub>83</sub>                        | 1.0080±0.0033                | 0.12±0.05        | -2.74±0.20    | 5.5    | f <sub>66</sub>                        | 0.2659±0.0012                | 0.20±0.03        | 1.62±0.07     | 42.9  |
| f <sub>84</sub>                        | 0.3336±0.0032                | 0.13±0.05        | -2.19±0.20    | 5.6    | f <sub>67</sub>                        | 1.7445±0.0012                | 0.20±0.03        | 1.20±0.07     | 43.2  |
| f <sub>85</sub>                        | 0.7186±0.0033                | 0.12±0.05        | -3.08±0.20    | 5.5    | f <sub>68</sub>                        | 0.5126±0.0012                | 0.19±0.03        | -0.74±0.07    | 42.9  |
| f <sub>86</sub>                        | 1.4964±0.0033                | 0.11±0.05        | 1.28±0.20     | 5.5    | f <sub>69</sub>                        | 0.6137±0.0012                | 0.19±0.03        | 2.73±0.07     | 42.7  |
| f <sub>87</sub>                        | 0.7475±0.0033                | 0.11±0.05        | 0.69±0.20     | 5.5    | f <sub>70</sub>                        | 0.4309±0.0012                | 0.19±0.03        | -0.54±0.07    | 43.8  |
| f <sub>88</sub>                        | 2.8688±0.0032                | 0.11±0.05        | -2.67±0.20    | 5.6    | f <sub>71</sub>                        | 0.1960±0.0012                | 0.19±0.03        | 0.23±0.07     | 40.9  |
| f <sub>89</sub>                        | 0.5024±0.0033                | 0.11±0.05        | 1.77±0.20     | 5.5    | f <sub>72</sub>                        | 0.9797±0.0012                | 0.18±0.03        | -1.21±0.07    | 39.9  |
| f <sub>90</sub>                        | 0.1723±0.0033                | 0.11±0.05        | 1.50±0.20     | 5.5    | f <sub>73</sub>                        | 0.6556±0.0012                | 0.18±0.03        | -1.05±0.07    | 40.4  |
| f <sub>91</sub>                        | 0.2534±0.0033                | 0.12±0.05        | 0.84±0.20     | 5.3    | f <sub>74</sub>                        | 1.0499±0.0012                | 0.18±0.03        | 2.15±0.07     | 40.3  |
| f <sub>92</sub>                        | 8.4602±0.0033                | 0.11±0.05        | -2.85±0.20    | 5.3    | f <sub>75</sub>                        | 1.6705±0.0012                | 0.19±0.03        | -2.87±0.07    | 41.9  |
| f <sub>93</sub>                        | 1.8585±0.0033                | 0.11±0.05        | 1.43±0.20     | 5.2    | f <sub>76</sub>                        | 0.5714±0.0012                | 0.18±0.03        | -1.48±0.07    | 40.0  |
| f <sub>95</sub>                        | 5.2253±0.0034                | 0.11±0.05        | 2.34±0.21     | 5.1    | f <sub>77</sub>                        | 1.9573±0.0012                | 0.17±0.03        | 0.61±0.08     | 37.5  |
| f <sub>96</sub>                        | 6.2666±0.0034                | 0.11±0.05        | -1.04±0.21    | 5.0    | f <sub>78</sub>                        | 0.1139±0.0012                | 0.17±0.03        | 1.57±0.08     | 37.5  |
|                                        |                              |                  |               |        | f <sub>79</sub>                        | 1.0743±0.0012                | 0.17±0.03        | 2.46±0.08     | 37.8  |
|                                        |                              |                  |               |        | f <sub>80</sub>                        | 1.1628±0.0012                | 0.17±0.03        | -1.34±0.08    | 38.2  |
|                                        |                              |                  |               |        | f <sub>81</sub>                        | 2.0048±0.0012                | 0.17±0.03        | 0.84±0.08     | 38.0  |
|                                        |                              |                  |               |        | f <sub>82</sub>                        | 0.7668±0.0012                | 0.17±0.03        | -2.26±0.08    | 37.6  |
|                                        |                              |                  |               |        | f <sub>83</sub>                        | 0.5955±0.0013                | 0.17±0.03        | 2.34±0.08     | 35.9  |
|                                        |                              |                  |               |        | f <sub>84</sub>                        | 0.4937±0.0013                | 0.17±0.03        | 1.15±0.08     | 37.1  |
|                                        |                              |                  |               |        | f <sub>85</sub>                        | 1.2875±0.0013                | 0.16±0.03        | 0.53±0.08     | 35.0  |
|                                        |                              |                  |               |        | f <sub>86</sub>                        | 0.4180±0.0013                | 0.16±0.03        | 2.34±0.08     | 35.1  |
|                                        |                              |                  |               |        | f <sub>87</sub>                        | 0.7458±0.0013                | 0.16±0.03        | 1.51±0.08     | 35.2  |
|                                        |                              |                  |               |        | f <sub>88</sub>                        | 1.7759±0.0013                | 0.16±0.03        | -0.25±0.08    | 34.5  |
| Frequency list of 0102597681 continued |                              |                  |               |        |                                        |                              |                  |               |       |
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [-π, π] | Sign.  |                                        |                              |                  |               |       |
| f <sub>1</sub>                         | 0.9871±0.0002                | 4.65±0.12        | 0.96±0.01     | 1497.7 |                                        |                              |                  |               |       |
| f <sub>2</sub>                         | 0.8642±0.0002                | 3.54±0.10        | -1.48±0.01    | 1350.5 |                                        |                              |                  |               |       |
| f <sub>3</sub>                         | 0.8265±0.0003                | 2.30±0.08        | 0.96±0.02     | 800.4  |                                        |                              |                  |               |       |
| f <sub>4</sub>                         | 0.9356±0.0003                | 1.89±0.07        | -1.56±0.02    | 668.0  |                                        |                              |                  |               |       |
| f <sub>5</sub>                         | 0.1224±0.0003                | 1.45±0.06        | 2.38±0.02     | 578.3  |                                        |                              |                  |               |       |
| f <sub>6</sub>                         | 0.8437±0.0005                | 0.84±0.05        | 0.31±0.03     | 275.4  |                                        |                              |                  |               |       |
| f <sub>7</sub>                         | 0.1603±0.0005                | 1.02±0.06        | 2.41±0.03     | 283.0  |                                        |                              |                  |               |       |
| f <sub>8</sub>                         | 0.8117±0.0005                | 0.92±0.06        | 1.82±0.03     | 259.6  |                                        |                              |                  |               |       |
| f <sub>9</sub>                         | 0.7042±0.0005                | 0.68±0.05        | -2.84±0.03    | 224.9  |                                        |                              |                  |               |       |
| Frequency list of 0102597681 continued |                              |                  |               |        |                                        |                              |                  |               |       |



## Appendix B. Frequencies of individual $\gamma$ Dor Stars

| Frequency list of 0102597681 continued |                              |                  |                          |       | Frequency list of 0102597681 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| <i>f</i> <sub>89</sub>                 | 0.9311±0.0013                | 0.16±0.03        | 2.39±0.08                | 35.2  | <i>f</i> <sub>181</sub>                | 2.5731±0.0020                | 0.08±0.02        | 0.01±0.12                | 14.9  |
| <i>f</i> <sub>90</sub>                 | 1.6423±0.0013                | 0.16±0.03        | 0.13±0.08                | 35.4  | <i>f</i> <sub>182</sub>                | 2.4034±0.0020                | 0.08±0.02        | -2.93±0.12               | 14.3  |
| <i>f</i> <sub>91</sub>                 | 2.0282±0.0013                | 0.16±0.03        | -1.88±0.08               | 34.5  | <i>f</i> <sub>183</sub>                | 0.9233±0.0020                | 0.08±0.02        | 2.40±0.12                | 15.1  |
| <i>f</i> <sub>92</sub>                 | 1.4614±0.0013                | 0.16±0.03        | 2.73±0.08                | 34.6  | <i>f</i> <sub>184</sub>                | 2.0140±0.0020                | 0.08±0.02        | 1.99±0.12                | 14.1  |
| <i>f</i> <sub>93</sub>                 | 1.7941±0.0013                | 0.15±0.03        | -0.64±0.08               | 32.3  | <i>f</i> <sub>185</sub>                | 2.0031±0.0019                | 0.08±0.02        | 2.53±0.12                | 15.4  |
| <i>f</i> <sub>94</sub>                 | 0.2506±0.0014                | 0.15±0.03        | -1.38±0.08               | 31.8  | <i>f</i> <sub>186</sub>                | 0.5766±0.0020                | 0.08±0.02        | -2.50±0.12               | 14.0  |
| <i>f</i> <sub>95</sub>                 | 0.3296±0.0013                | 0.15±0.03        | 0.51±0.08                | 32.7  | <i>f</i> <sub>187</sub>                | 1.2408±0.0020                | 0.08±0.02        | 3.12±0.12                | 14.4  |
| <i>f</i> <sub>96</sub>                 | 0.4026±0.0014                | 0.15±0.03        | -1.10±0.08               | 31.2  | <i>f</i> <sub>188</sub>                | 1.5940±0.0021                | 0.08±0.02        | -2.94±0.13               | 13.8  |
| <i>f</i> <sub>97</sub>                 | 0.5274±0.0014                | 0.15±0.03        | -0.31±0.08               | 31.8  | <i>f</i> <sub>189</sub>                | 2.2904±0.0021                | 0.08±0.02        | 1.36±0.13                | 13.8  |
| <i>f</i> <sub>98</sub>                 | 1.0107±0.0014                | 0.15±0.03        | 3.08±0.08                | 31.3  | <i>f</i> <sub>190</sub>                | 2.1531±0.0020                | 0.08±0.02        | -2.67±0.12               | 13.9  |
| <i>f</i> <sub>99</sub>                 | 1.9372±0.0014                | 0.14±0.03        | -1.29±0.08               | 30.4  | <i>f</i> <sub>191</sub>                | 0.1887±0.0021                | 0.08±0.02        | -0.01±0.13               | 13.1  |
| <i>f</i> <sub>100</sub>                | 0.5850±0.0014                | 0.14±0.03        | -0.52±0.09               | 29.9  | <i>f</i> <sub>192</sub>                | 0.3570±0.0021                | 0.08±0.02        | 0.94±0.13                | 13.3  |
| <i>f</i> <sub>101</sub>                | 0.6828±0.0014                | 0.14±0.03        | -2.35±0.09               | 29.4  | <i>f</i> <sub>193</sub>                | 1.1011±0.0022                | 0.07±0.02        | -0.50±0.13               | 12.6  |
| <i>f</i> <sub>102</sub>                | 0.9485±0.0014                | 0.14±0.03        | -1.93±0.09               | 29.3  | <i>f</i> <sub>194</sub>                | 2.5951±0.0021                | 0.07±0.02        | 0.19±0.13                | 13.0  |
| <i>f</i> <sub>103</sub>                | 0.2160±0.0014                | 0.14±0.03        | -2.01±0.09               | 29.8  | <i>f</i> <sub>195</sub>                | 1.5445±0.0022                | 0.07±0.02        | -3.10±0.13               | 12.6  |
| <i>f</i> <sub>105</sub>                | 2.1123±0.0014                | 0.14±0.03        | 2.89±0.09                | 28.0  | <i>f</i> <sub>197</sub>                | 1.0639±0.0021                | 0.07±0.02        | 2.77±0.13                | 13.0  |
| <i>f</i> <sub>106</sub>                | 1.7598±0.0014                | 0.14±0.03        | 3.13±0.09                | 28.2  | <i>f</i> <sub>198</sub>                | 0.4261±0.0022                | 0.07±0.02        | 0.08±0.13                | 12.2  |
| <i>f</i> <sub>107</sub>                | 0.1435±0.0014                | 0.13±0.02        | 2.79±0.09                | 28.1  | <i>f</i> <sub>199</sub>                | 2.9806±0.0022                | 0.07±0.02        | 0.73±0.13                | 12.2  |
| <i>f</i> <sub>109</sub>                | 1.1130±0.0015                | 0.13±0.02        | -0.85±0.09               | 27.1  | <i>f</i> <sub>200</sub>                | 1.4979±0.0022                | 0.07±0.02        | 2.50±0.14                | 11.9  |
| <i>f</i> <sub>110</sub>                | 0.1688±0.0015                | 0.13±0.02        | 0.09±0.09                | 27.2  | <i>f</i> <sub>201</sub>                | 0.5010±0.0022                | 0.07±0.02        | -2.08±0.13               | 12.4  |
| <i>f</i> <sub>111</sub>                | 1.3272±0.0015                | 0.13±0.03        | -1.61±0.09               | 26.6  | <i>f</i> <sub>202</sub>                | 2.2638±0.0022                | 0.07±0.02        | -1.67±0.13               | 12.3  |
| <i>f</i> <sub>112</sub>                | 2.0951±0.0015                | 0.13±0.03        | 0.08±0.09                | 26.7  | <i>f</i> <sub>203</sub>                | 0.9413±0.0022                | 0.07±0.02        | -1.54±0.14               | 11.9  |
| <i>f</i> <sub>113</sub>                | 2.2552±0.0015                | 0.13±0.03        | 2.08±0.09                | 25.8  | <i>f</i> <sub>204</sub>                | 1.7670±0.0022                | 0.07±0.02        | -1.79±0.13               | 12.0  |
| <i>f</i> <sub>117</sub>                | 0.1794±0.0015                | 0.13±0.03        | 0.75±0.09                | 26.5  | <i>f</i> <sub>205</sub>                | 2.2053±0.0022                | 0.07±0.02        | -1.82±0.13               | 12.0  |
| <i>f</i> <sub>118</sub>                | 1.7293±0.0015                | 0.13±0.03        | -2.91±0.09               | 26.7  | <i>f</i> <sub>207</sub>                | 0.4404±0.0022                | 0.07±0.02        | -2.78±0.14               | 11.9  |
| <i>f</i> <sub>119</sub>                | 0.3073±0.0015                | 0.12±0.02        | 1.97±0.09                | 26.1  | <i>f</i> <sub>208</sub>                | 0.1582±0.0022                | 0.07±0.02        | 1.49±0.14                | 11.7  |
| <i>f</i> <sub>120</sub>                | 1.1695±0.0015                | 0.12±0.02        | -2.28±0.09               | 25.1  | <i>f</i> <sub>209</sub>                | 2.7833±0.0022                | 0.07±0.02        | 1.57±0.13                | 12.0  |
| <i>f</i> <sub>121</sub>                | 0.3402±0.0015                | 0.12±0.02        | 1.10±0.09                | 24.7  | <i>f</i> <sub>210</sub>                | 1.1896±0.0022                | 0.07±0.02        | 0.00±0.14                | 11.8  |
| <i>f</i> <sub>123</sub>                | 1.5352±0.0016                | 0.12±0.02        | 2.23±0.09                | 24.1  | <i>f</i> <sub>212</sub>                | 1.9663±0.0023                | 0.07±0.02        | -1.95±0.14               | 10.8  |
| <i>f</i> <sub>124</sub>                | 2.1617±0.0016                | 0.12±0.02        | 0.92±0.10                | 24.0  | <i>f</i> <sub>213</sub>                | 2.3450±0.0023                | 0.07±0.02        | -1.85±0.14               | 10.8  |
| <i>f</i> <sub>125</sub>                | 2.1822±0.0015                | 0.12±0.02        | 2.40±0.09                | 24.4  | <i>f</i> <sub>214</sub>                | 2.4654±0.0023                | 0.07±0.02        | -1.58±0.14               | 10.6  |
| <i>f</i> <sub>126</sub>                | 2.7312±0.0016                | 0.12±0.02        | -2.76±0.10               | 23.9  | <i>f</i> <sub>215</sub>                | 2.5222±0.0024                | 0.06±0.02        | -2.71±0.15               | 9.9   |
| <i>f</i> <sub>127</sub>                | 2.0618±0.0016                | 0.12±0.02        | 0.45±0.10                | 23.4  | <i>f</i> <sub>216</sub>                | 0.9061±0.0024                | 0.06±0.02        | -1.12±0.15               | 9.9   |
| <i>f</i> <sub>128</sub>                | 1.8866±0.0016                | 0.11±0.02        | 0.22±0.10                | 22.7  | <i>f</i> <sub>217</sub>                | 0.4487±0.0025                | 0.06±0.02        | 0.26±0.15                | 9.7   |
| <i>f</i> <sub>129</sub>                | 1.6016±0.0016                | 0.12±0.02        | -2.22±0.10               | 23.5  | <i>f</i> <sub>218</sub>                | 1.8086±0.0024                | 0.06±0.02        | -1.38±0.15               | 9.8   |
| <i>f</i> <sub>130</sub>                | 0.8903±0.0016                | 0.11±0.02        | -1.83±0.10               | 22.6  | <i>f</i> <sub>220</sub>                | 2.8318±0.0025                | 0.06±0.02        | 0.19±0.15                | 9.6   |
| <i>f</i> <sub>131</sub>                | 0.7545±0.0016                | 0.11±0.02        | 2.96±0.10                | 22.3  | <i>f</i> <sub>222</sub>                | 1.3839±0.0025                | 0.06±0.02        | 2.01±0.15                | 9.7   |
| <i>f</i> <sub>132</sub>                | 0.7281±0.0015                | 0.12±0.02        | -3.03±0.09               | 24.7  | <i>f</i> <sub>223</sub>                | 3.8920±0.0024                | 0.06±0.02        | 2.32±0.15                | 9.8   |
| <i>f</i> <sub>135</sub>                | 0.2988±0.0016                | 0.11±0.02        | -1.53±0.10               | 21.5  | <i>f</i> <sub>224</sub>                | 4.4670±0.0025                | 0.06±0.02        | -2.78±0.15               | 9.4   |
| <i>f</i> <sub>136</sub>                | 1.1985±0.0016                | 0.11±0.02        | -0.82±0.10               | 21.5  | <i>f</i> <sub>225</sub>                | 3.7447±0.0025                | 0.06±0.02        | 0.33±0.15                | 9.3   |
| <i>f</i> <sub>137</sub>                | 1.4113±0.0016                | 0.11±0.02        | 0.74±0.10                | 21.6  | <i>f</i> <sub>226</sub>                | 0.6950±0.0025                | 0.06±0.02        | -2.63±0.15               | 9.4   |
| <i>f</i> <sub>139</sub>                | 1.0206±0.0017                | 0.11±0.02        | 0.15±0.10                | 21.1  | <i>f</i> <sub>227</sub>                | 1.6561±0.0025                | 0.06±0.02        | -0.46±0.15               | 9.2   |
| <i>f</i> <sub>140</sub>                | 1.3134±0.0017                | 0.11±0.02        | 0.09±0.10                | 21.3  | <i>f</i> <sub>228</sub>                | 2.8739±0.0025                | 0.06±0.02        | -2.52±0.15               | 9.3   |
| <i>f</i> <sub>141</sub>                | 2.2763±0.0017                | 0.10±0.02        | 3.00±0.10                | 20.8  | <i>f</i> <sub>229</sub>                | 2.9512±0.0025                | 0.06±0.02        | 0.78±0.15                | 9.3   |
| <i>f</i> <sub>142</sub>                | 2.1332±0.0016                | 0.11±0.02        | -3.08±0.10               | 21.8  | <i>f</i> <sub>230</sub>                | 2.2360±0.0025                | 0.06±0.02        | 1.70±0.15                | 9.5   |
| <i>f</i> <sub>148</sub>                | 3.0266±0.0017                | 0.10±0.02        | -2.56±0.10               | 21.4  | <i>f</i> <sub>231</sub>                | 1.2743±0.0025                | 0.06±0.02        | 2.14±0.15                | 9.3   |
| <i>f</i> <sub>149</sub>                | 0.2360±0.0017                | 0.10±0.02        | -0.77±0.10               | 20.4  | <i>f</i> <sub>233</sub>                | 3.3125±0.0025                | 0.06±0.02        | 2.60±0.15                | 9.2   |
| <i>f</i> <sub>150</sub>                | 1.4403±0.0017                | 0.10±0.02        | -1.18±0.10               | 20.6  | <i>f</i> <sub>234</sub>                | 1.1370±0.0025                | 0.06±0.02        | -2.86±0.15               | 9.2   |
| <i>f</i> <sub>151</sub>                | 1.2527±0.0017                | 0.10±0.02        | -0.00±0.10               | 20.1  | <i>f</i> <sub>235</sub>                | 1.6328±0.0025                | 0.06±0.02        | -0.00±0.15               | 9.5   |
| <i>f</i> <sub>152</sub>                | 0.7975±0.0017                | 0.10±0.02        | 2.96±0.10                | 20.1  | <i>f</i> <sub>236</sub>                | 0.6239±0.0026                | 0.06±0.02        | 0.87±0.16                | 8.8   |
| <i>f</i> <sub>153</sub>                | 0.8512±0.0017                | 0.10±0.02        | 2.20±0.10                | 21.2  | <i>f</i> <sub>237</sub>                | 0.5548±0.0026                | 0.06±0.02        | 0.94±0.16                | 8.9   |
| <i>f</i> <sub>154</sub>                | 1.8728±0.0017                | 0.10±0.02        | 2.59±0.10                | 19.8  | <i>f</i> <sub>238</sub>                | 3.9866±0.0025                | 0.06±0.02        | 1.63±0.15                | 9.1   |
| <i>f</i> <sub>155</sub>                | 3.0739±0.0017                | 0.10±0.02        | -0.64±0.10               | 20.0  | <i>f</i> <sub>239</sub>                | 3.0361±0.0025                | 0.06±0.02        | -0.17±0.15               | 9.1   |
| <i>f</i> <sub>156</sub>                | 2.8940±0.0017                | 0.10±0.02        | -2.96±0.10               | 20.1  | <i>f</i> <sub>240</sub>                | 4.2762±0.0025                | 0.06±0.02        | -1.94±0.15               | 9.1   |
| <i>f</i> <sub>157</sub>                | 1.1191±0.0017                | 0.10±0.02        | 2.64±0.10                | 20.2  | <i>f</i> <sub>241</sub>                | 1.5179±0.0026                | 0.06±0.02        | 1.15±0.16                | 8.8   |
| <i>f</i> <sub>158</sub>                | 0.9655±0.0017                | 0.10±0.02        | -1.59±0.10               | 20.1  | <i>f</i> <sub>242</sub>                | 1.4535±0.0025                | 0.06±0.02        | -0.97±0.15               | 9.5   |
| <i>f</i> <sub>159</sub>                | 0.5443±0.0017                | 0.10±0.02        | -2.54±0.10               | 19.7  | <i>f</i> <sub>243</sub>                | 1.4320±0.0025                | 0.06±0.02        | 2.62±0.15                | 9.5   |
| <i>f</i> <sub>160</sub>                | 0.3646±0.0018                | 0.09±0.02        | -2.49±0.11               | 18.0  | <i>f</i> <sub>244</sub>                | 3.2662±0.0025                | 0.06±0.02        | 0.82±0.15                | 9.2   |
| <i>f</i> <sub>161</sub>                | 1.3440±0.0018                | 0.09±0.02        | 2.22±0.11                | 18.0  | <i>f</i> <sub>245</sub>                | 3.6000±0.0026                | 0.06±0.02        | -0.94±0.16               | 8.7   |
| <i>f</i> <sub>162</sub>                | 1.3971±0.0018                | 0.09±0.02        | -3.04±0.11               | 18.7  | <i>f</i> <sub>246</sub>                | 1.9279±0.0026                | 0.06±0.02        | -1.02±0.16               | 8.6   |
| <i>f</i> <sub>163</sub>                | 0.1229±0.0018                | 0.09±0.02        | -2.98±0.11               | 17.9  | <i>f</i> <sub>248</sub>                | 2.1389±0.0026                | 0.06±0.02        | -2.05±0.16               | 8.5   |
| <i>f</i> <sub>164</sub>                | 0.9965±0.0018                | 0.09±0.02        | -2.98±0.11               | 17.6  | <i>f</i> <sub>249</sub>                | 3.3622±0.0026                | 0.06±0.02        | -2.62±0.16               | 8.3   |
| <i>f</i> <sub>165</sub>                | 2.6438±0.0018                | 0.09±0.02        | -2.78±0.11               | 17.5  | <i>f</i> <sub>250</sub>                | 3.1980±0.0026                | 0.06±0.02        | -2.28±0.16               | 8.7   |
| <i>f</i> <sub>166</sub>                | 1.4789±0.0018                | 0.09±0.02        | -1.15±0.11               | 17.6  | <i>f</i> <sub>251</sub>                | 1.7157±0.0026                | 0.06±0.02        | 0.21±0.16                | 8.4   |
| <i>f</i> <sub>167</sub>                | 1.6797±0.0018                | 0.09±0.02        | -2.11±0.11               | 17.6  | <i>f</i> <sub>252</sub>                | 3.4096±0.0026                | 0.06±0.02        | 1.88±0.16                | 8.3   |
| <i>f</i> <sub>168</sub>                | 0.6459±0.0018                | 0.09±0.02        | 2.20±0.11                | 18.0  | <i>f</i> <sub>256</sub>                | 0.4667±0.0026                | 0.06±0.02        | 0.53±0.16                | 8.5   |
| <i>f</i> <sub>169</sub>                | 1.0308±0.0018                | 0.09±0.02        | -0.56±0.11               | 17.6  | <i>f</i> <sub>257</sub>                | 4.8505±0.0026                | 0.06±0.02        | -0.46±0.16               | 8.4   |
| <i>f</i> <sub>171</sub>                | 1.5693±0.0018                | 0.09±0.02        | 0.74±0.11                | 17.1  | <i>f</i> <sub>258</sub>                | 1.2939±0.0026                | 0.06±0.02        | -0.88±0.16               | 8.4   |
| <i>f</i> <sub>172</sub>                | 2.6893±0.0019                | 0.09±0.02        | 1.84±0.12                | 16.2  | <i>f</i> <sub>259</sub>                | 1.3653±0.0026                | 0.06±0.02        | 1.11±0.16                | 8.4   |
| <i>f</i> <sub>173</sub>                | 1.6489±0.0019                | 0.09±0.02        | -2.72±0.12               | 15.8  | <i>f</i> <sub>264</sub>                | 0.7119±0.0027                | 0.05±0.02        | 0.19±0.16                | 8.1   |
| <i>f</i> <sub>174</sub>                | 0.4845±0.0019                | 0.09±0.02        | 1.27±0.12                | 15.8  | <i>f</i> <sub>265</sub>                | 2.2838±0.0027                | 0.05±0.02        | -1.81±0.16               | 8.1   |
| <i>f</i> <sub>175</sub>                | 2.3276±0.0019                | 0.08±0.02        | 2.36±0.12                | 15.7  | <i>f</i> <sub>266</sub>                | 2.5433±0.0026                | 0.06±0.02        | -2.78±0.16               | 8.4   |
| <i>f</i> <sub>176</sub>                | 2.3535±0.0019                | 0.09±0.02        | -0.98±0.11               | 16.8  | <i>f</i> <sub>267</sub>                | 2.6607±0.0027                | 0.05±0.02        | 0.12±0.16                | 8.2   |
| <i>f</i> <sub>177</sub>                | 2.2196±0.0019                | 0.09±0.02        | -1.40±0.12               | 16.3  | <i>f</i> <sub>268</sub>                | 0.7025±0.0027                | 0.05±0.02        | 2.85±0.16                | 8.1   |
| <i>f</i> <sub>178</sub>                | 3.1714±0.0019                | 0.08±0.02        | -0.88±0.12               | 15.9  | <i>f</i> <sub>270</sub>                | 1.3338±0.0027                | 0.05±0.02        | 0.93±0.16                | 8.0   |
| <i>f</i> <sub>180</sub>                | 2.4967±0.0020                | 0.08±0.02        | 1.88±0.12                | 14.4  | <i>f</i> <sub>273</sub>                | 3.5528±0.0027                | 0.05±0.02        | -0.95±0.17               | 7.8   |
| Frequency list of 0102597681 continued |                              |                  |                          |       | Frequency list of 0102597681 continued |                              |                  |                          |       |

## Appendix B. Frequencies of individual $\gamma$ Dor Stars

| Frequency list of 0102597681 continued |                              |                  |                          |       | Frequency list of 0102600197 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{274}$                              | 3.5043±0.0027                | 0.05±0.02        | -0.10±0.16               | 8.1   | $f_{15}$                               | 1.7688±0.0011                | 0.30±0.04        | 2.71±0.07                | 46.3  |
| $f_{275}$                              | 2.4156±0.0027                | 0.05±0.02        | 1.93±0.17                | 7.8   | $f_{16}$                               | 0.1469±0.0012                | 0.26±0.04        | 2.56±0.08                | 37.8  |
| $f_{280}$                              | 4.2273±0.0028                | 0.05±0.02        | -0.83±0.17               | 7.7   | $f_{17}$                               | 3.3951±0.0014                | 0.24±0.04        | 2.43±0.08                | 31.8  |
| $f_{281}$                              | 2.0518±0.0028                | 0.05±0.02        | 0.10±0.17                | 7.5   | $f_{19}$                               | 1.8566±0.0015                | 0.21±0.04        | 1.78±0.09                | 24.9  |
| $f_{282}$                              | 1.8224±0.0028                | 0.05±0.02        | 0.99±0.17                | 7.6   | $f_{20}$                               | 0.2391±0.0016                | 0.21±0.04        | 0.36±0.10                | 23.5  |
| $f_{283}$                              | 1.8372±0.0028                | 0.05±0.02        | -1.03±0.17               | 7.6   | $f_{21}$                               | 0.2080±0.0016                | 0.20±0.04        | 3.05±0.10                | 23.6  |
| $f_{284}$                              | 3.8410±0.0028                | 0.05±0.02        | -3.10±0.17               | 7.7   | $f_{22}$                               | 1.6665±0.0016                | 0.20±0.04        | 1.99±0.10                | 22.1  |
| $f_{285}$                              | 3.4023±0.0028                | 0.05±0.02        | -1.98±0.17               | 7.5   | $f_{23}$                               | 0.3311±0.0016                | 0.19±0.04        | 1.08±0.10                | 21.7  |
| $f_{287}$                              | 50.8719±0.0028               | 0.05±0.02        | -1.64±0.17               | 7.6   | $f_{24}$                               | 0.1172±0.0016                | 0.20±0.04        | -0.92±0.10               | 22.0  |
| $f_{288}$                              | 0.4120±0.0028                | 0.05±0.02        | 2.92±0.17                | 7.6   | $f_{25}$                               | 0.6257±0.0016                | 0.19±0.04        | 2.02±0.10                | 21.5  |
| $f_{289}$                              | 4.4191±0.0028                | 0.05±0.02        | -2.10±0.17               | 7.4   | $f_{26}$                               | 1.5533±0.0016                | 0.19±0.04        | 2.21±0.10                | 21.7  |
| $f_{291}$                              | 4.9012±0.0028                | 0.05±0.02        | -0.23±0.17               | 7.4   | $f_{27}$                               | 2.7376±0.0018                | 0.18±0.04        | 2.72±0.11                | 18.7  |
| $f_{292}$                              | 3.7940±0.0028                | 0.05±0.02        | 0.26±0.17                | 7.3   | $f_{31}$                               | 0.4306±0.0019                | 0.16±0.04        | -2.27±0.12               | 15.4  |
| $f_{294}$                              | 2.0072±0.0027                | 0.05±0.02        | 2.33±0.16                | 8.2   | $f_{32}$                               | 1.9021±0.0020                | 0.15±0.04        | -2.65±0.12               | 14.4  |
| $f_{295}$                              | 0.1074±0.0028                | 0.05±0.02        | -0.25±0.17               | 7.7   | $f_{33}$                               | 2.1481±0.0020                | 0.16±0.04        | 3.09±0.12                | 14.6  |
| $f_{296}$                              | 4.0829±0.0028                | 0.05±0.02        | -1.97±0.17               | 7.3   | $f_{34}$                               | 0.1612±0.0021                | 0.15±0.04        | -0.02±0.13               | 13.3  |
| $f_{299}$                              | 4.0355±0.0028                | 0.05±0.02        | 1.05±0.17                | 7.2   | $f_{35}$                               | 0.6979±0.0021                | 0.15±0.04        | -0.03±0.13               | 12.8  |
| $f_{301}$                              | 2.9294±0.0028                | 0.05±0.02        | 1.75±0.17                | 7.3   | $f_{36}$                               | 3.4599±0.0021                | 0.14±0.04        | 1.85±0.13                | 12.7  |
| $f_{302}$                              | 2.0883±0.0028                | 0.05±0.02        | 2.84±0.17                | 7.2   | $f_{37}$                               | 0.3543±0.0022                | 0.14±0.04        | -2.14±0.14               | 11.7  |
| $f_{303}$                              | 2.4554±0.0029                | 0.05±0.02        | 2.15±0.17                | 7.1   | $f_{38}$                               | 0.3778±0.0022                | 0.14±0.04        | -0.19±0.13               | 12.0  |
| $f_{304}$                              | 2.9116±0.0029                | 0.05±0.02        | -0.21±0.17               | 7.1   | $f_{39}$                               | 4.0506±0.0023                | 0.14±0.04        | 2.64±0.14                | 11.2  |
| $f_{305}$                              | 0.2031±0.0029                | 0.05±0.02        | -0.49±0.17               | 7.1   | $f_{40}$                               | 2.1158±0.0023                | 0.14±0.04        | -0.15±0.14               | 11.3  |
| $f_{306}$                              | 0.2432±0.0028                | 0.05±0.02        | -1.15±0.17               | 7.3   | $f_{41}$                               | 1.6127±0.0022                | 0.14±0.04        | -0.87±0.14               | 11.6  |
| $f_{307}$                              | 1.2661±0.0029                | 0.05±0.02        | 0.84±0.18                | 7.0   | $f_{42}$                               | 0.2943±0.0023                | 0.13±0.04        | -0.18±0.14               | 11.0  |
| $f_{309}$                              | 5.4773±0.0029                | 0.05±0.02        | 2.31±0.18                | 7.0   | $f_{43}$                               | 0.2700±0.0023                | 0.13±0.04        | 1.65±0.14                | 11.2  |
| $f_{310}$                              | 0.3243±0.0028                | 0.05±0.02        | -2.52±0.17               | 7.2   | $f_{44}$                               | 1.9410±0.0023                | 0.13±0.04        | 2.28±0.14                | 11.1  |
| $f_{311}$                              | 1.6873±0.0029                | 0.05±0.02        | 0.41±0.17                | 7.1   | $f_{46}$                               | 0.1910±0.0023                | 0.13±0.04        | -0.99±0.14               | 10.9  |
| $f_{312}$                              | 4.1791±0.0028                | 0.05±0.02        | -0.76±0.17               | 7.2   | $f_{47}$                               | 1.8711±0.0023                | 0.13±0.04        | -2.06±0.14               | 11.0  |
| $f_{313}$                              | 5.3801±0.0029                | 0.05±0.02        | 1.58±0.18                | 6.8   | $f_{49}$                               | 2.7578±0.0023                | 0.13±0.04        | 2.04±0.14                | 10.7  |
| $f_{314}$                              | 1.7878±0.0030                | 0.05±0.02        | -2.08±0.18               | 6.6   | $f_{50}$                               | 1.8436±0.0024                | 0.13±0.04        | -1.51±0.15               | 10.1  |
| $f_{315}$                              | 1.9020±0.0029                | 0.05±0.02        | 2.66±0.18                | 6.9   | $f_{51}$                               | 3.1872±0.0024                | 0.12±0.04        | -0.80±0.15               | 9.8   |
| $f_{316}$                              | 3.4589±0.0029                | 0.05±0.02        | 1.24±0.18                | 6.7   | $f_{52}$                               | 0.7229±0.0025                | 0.12±0.04        | 1.35±0.15                | 9.5   |
| $f_{317}$                              | 4.3224±0.0030                | 0.05±0.02        | -1.38±0.18               | 6.5   | $f_{53}$                               | 1.3009±0.0025                | 0.12±0.04        | -2.53±0.15               | 9.4   |
| $f_{318}$                              | 2.7556±0.0030                | 0.05±0.02        | -1.82±0.18               | 6.4   | $f_{54}$                               | 1.5273±0.0025                | 0.12±0.04        | 2.78±0.15                | 9.1   |
| $f_{319}$                              | 1.0439±0.0030                | 0.05±0.02        | -1.73±0.18               | 6.4   | $f_{55}$                               | 1.0706±0.0026                | 0.12±0.04        | -0.36±0.16               | 8.9   |
| $f_{320}$                              | 0.9135±0.0030                | 0.05±0.02        | 2.13±0.18                | 6.5   | $f_{56}$                               | 3.6019±0.0026                | 0.12±0.04        | 0.09±0.16                | 8.7   |
| $f_{321}$                              | 2.4725±0.0030                | 0.05±0.02        | -2.50±0.19               | 6.3   | $f_{57}$                               | 0.7778±0.0026                | 0.12±0.04        | -2.52±0.16               | 8.8   |
| $f_{322}$                              | 3.0884±0.0031                | 0.05±0.02        | 1.69±0.19                | 6.2   | $f_{58}$                               | 0.1090±0.0026                | 0.12±0.04        | 1.93±0.16                | 8.9   |
| $f_{323}$                              | 4.6594±0.0031                | 0.04±0.02        | 1.21±0.19                | 6.1   | $f_{59}$                               | 0.3245±0.0027                | 0.11±0.04        | -2.61±0.16               | 8.1   |
| $f_{325}$                              | 2.0231±0.0031                | 0.04±0.02        | -1.12±0.19               | 6.1   | $f_{60}$                               | 1.5043±0.0027                | 0.11±0.04        | 0.08±0.17                | 7.8   |
| $f_{326}$                              | 2.7726±0.0031                | 0.04±0.02        | -2.39±0.19               | 6.0   | $f_{61}$                               | 3.5370±0.0027                | 0.11±0.04        | -2.68±0.17               | 7.8   |
| $f_{327}$                              | 0.3742±0.0031                | 0.04±0.02        | 2.23±0.19                | 6.0   | $f_{62}$                               | 2.6051±0.0027                | 0.11±0.04        | 1.98±0.16                | 8.1   |
| $f_{328}$                              | 0.3324±0.0030                | 0.05±0.02        | -3.03±0.18               | 6.6   | $f_{63}$                               | 0.4596±0.0027                | 0.11±0.04        | -0.56±0.16               | 8.1   |
| $f_{329}$                              | 4.1307±0.0031                | 0.04±0.02        | 2.16±0.19                | 5.9   | $f_{64}$                               | 0.6693±0.0027                | 0.11±0.04        | -0.90±0.17               | 7.9   |
| $f_{330}$                              | 3.3224±0.0031                | 0.04±0.02        | 3.00±0.19                | 5.9   | $f_{66}$                               | 1.1281±0.0028                | 0.11±0.04        | -3.05±0.17               | 7.4   |
| $f_{332}$                              | 3.6979±0.0031                | 0.04±0.02        | -0.34±0.19               | 6.2   | $f_{67}$                               | 1.0873±0.0028                | 0.11±0.04        | 2.84±0.17                | 7.5   |
| $f_{333}$                              | 5.8597±0.0032                | 0.04±0.02        | 1.20±0.19                | 5.8   | $f_{68}$                               | 2.0936±0.0028                | 0.10±0.04        | -2.29±0.17               | 7.3   |
| $f_{334}$                              | 2.1029±0.0032                | 0.04±0.02        | 1.78±0.19                | 5.8   | $f_{69}$                               | 0.7478±0.0029                | 0.10±0.04        | 2.39±0.17                | 7.1   |
| $f_{336}$                              | 0.5369±0.0032                | 0.04±0.02        | -0.20±0.19               | 5.8   | $f_{70}$                               | 1.3422±0.0029                | 0.10±0.04        | 2.17±0.17                | 7.1   |
| $f_{339}$                              | 1.5358±0.0032                | 0.04±0.02        | 0.21±0.20                | 5.7   | $f_{71}$                               | 1.4045±0.0028                | 0.11±0.04        | -1.73±0.17               | 7.5   |
| $f_{340}$                              | 0.9861±0.0032                | 0.04±0.02        | -0.52±0.20               | 5.7   | $f_{73}$                               | 2.0015±0.0030                | 0.10±0.04        | -2.84±0.18               | 6.5   |
| $f_{341}$                              | 1.9551±0.0033                | 0.04±0.02        | -2.18±0.20               | 5.5   | $f_{74}$                               | 1.0129±0.0030                | 0.10±0.04        | -0.09±0.18               | 6.4   |
| $f_{342}$                              | 4.7552±0.0032                | 0.04±0.02        | 1.70±0.20                | 5.7   | $f_{75}$                               | 0.9349±0.0030                | 0.10±0.04        | -0.58±0.18               | 6.4   |
| $f_{343}$                              | 1.2590±0.0033                | 0.04±0.02        | 1.35±0.20                | 5.5   | $f_{76}$                               | 1.4268±0.0030                | 0.10±0.04        | 2.50±0.18                | 6.5   |
| $f_{344}$                              | 5.0426±0.0032                | 0.04±0.02        | 2.88±0.20                | 5.6   | $f_{77}$                               | 2.8446±0.0031                | 0.10±0.04        | -0.24±0.19               | 6.2   |
| $f_{345}$                              | 5.0928±0.0033                | 0.04±0.02        | 1.99±0.20                | 5.5   | $f_{78}$                               | 3.2573±0.0030                | 0.10±0.04        | 2.31±0.19                | 6.3   |
| $f_{346}$                              | 3.0125±0.0033                | 0.04±0.02        | 0.30±0.20                | 5.4   | $f_{79}$                               | 2.3377±0.0031                | 0.10±0.04        | 2.08±0.19                | 6.2   |
| $f_{347}$                              | 4.6111±0.0033                | 0.04±0.02        | -0.82±0.20               | 5.4   | $f_{82}$                               | 2.8332±0.0031                | 0.09±0.04        | 2.28±0.19                | 5.9   |
| $f_{348}$                              | 4.5618±0.0033                | 0.04±0.02        | -1.33±0.20               | 5.5   | $f_{83}$                               | 2.8049±0.0030                | 0.10±0.04        | -1.06±0.18               | 6.4   |
| $f_{350}$                              | 5.4489±0.0033                | 0.04±0.02        | 2.87±0.20                | 5.4   | $f_{84}$                               | 1.5734±0.0032                | 0.09±0.04        | -3.05±0.19               | 5.8   |
| $f_{352}$                              | 1.4901±0.0033                | 0.04±0.02        | 2.75±0.20                | 5.3   | $f_{85}$                               | 1.4551±0.0032                | 0.09±0.04        | 0.85±0.20                | 5.6   |
| $f_{353}$                              | 0.8371±0.0033                | 0.04±0.02        | -1.14±0.20               | 5.2   | $f_{86}$                               | 2.2151±0.0032                | 0.09±0.04        | -0.80±0.20               | 5.7   |
| Frequency list of 0102600197 continued |                              |                  |                          |       | $f_{87}$                               | 0.2164±0.0033                | 0.09±0.04        | 0.63±0.20                | 5.3   |
|                                        |                              |                  |                          |       | $f_{88}$                               | 0.6087±0.0033                | 0.09±0.04        | 1.24±0.20                | 5.4   |
|                                        |                              |                  |                          |       | $f_{89}$                               | 5.5118±0.0033                | 0.09±0.04        | 1.87±0.20                | 5.2   |
|                                        |                              |                  |                          |       | $f_{90}$                               | 3.2897±0.0034                | 0.09±0.04        | -1.65±0.21               | 5.1   |
|                                        |                              |                  |                          |       | $f_{91}$                               | 1.0346±0.0034                | 0.09±0.04        | -0.28±0.21               | 5.0   |

**Table B.13:** Frequency list of 0102600197

| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| $f_1$                                  | 2.0068±0.0004                | 1.13±0.06        | -0.13±0.02               | 387.4 |
| $f_2$                                  | 1.9045±0.0004                | 1.15±0.06        | -1.91±0.02               | 382.0 |
| $f_3$                                  | 2.0856±0.0005                | 0.82±0.05        | -0.16±0.03               | 239.0 |
| $f_4$                                  | 1.9832±0.0005                | 0.80±0.05        | -2.16±0.03               | 246.1 |
| $f_5$                                  | 3.4268±0.0007                | 0.56±0.05        | 2.97±0.04                | 120.2 |
| $f_6$                                  | 3.3666±0.0007                | 0.52±0.05        | -2.47±0.04               | 112.3 |
| $f_7$                                  | 1.9224±0.0007                | 0.53±0.05        | 1.06±0.04                | 114.0 |
| $f_8$                                  | 1.8870±0.0007                | 0.49±0.05        | 1.87±0.04                | 109.3 |
| $f_9$                                  | 1.1867±0.0009                | 0.38±0.05        | -0.89±0.06               | 70.3  |
| $f_{11}$                               | 0.1034±0.0010                | 0.37±0.05        | 0.79±0.06                | 60.2  |
| $f_{12}$                               | 2.0569±0.0010                | 0.33±0.04        | 0.53±0.06                | 56.5  |
| $f_{13}$                               | 1.5945±0.0010                | 0.33±0.04        | -2.70±0.06               | 56.8  |
| $f_{14}$                               | 1.5406±0.0011                | 0.31±0.04        | 1.67±0.07                | 50.6  |
| Frequency list of 0102600197 continued |                              |                  |                          |       |

**Table B.14:** Frequency list of 0102602901

| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign.  |
|----------------------------------------|------------------------------|------------------|--------------------------|--------|
| $f_1$                                  | 2.6096±0.0002                | 7.58±0.22        | 1.28±0.01                | 1208.7 |
| $f_2$                                  | 2.5621±0.0002                | 6.96±0.19        | 2.12±0.01                | 1382.5 |
| $f_3$                                  | 2.3862±0.0002                | 5.64±0.15        | -1.03±0.01               | 1424.0 |
| $f_4$                                  | 1.6536±0.0002                | 4.56±0.12        | -0.94±0.01               | 1392.2 |
| $f_5$                                  | 1.6330±0.0003                | 3.13±0.12        | -1.16±0.02               | 716.8  |
| $f_6$                                  | 1.6205±0.0003                | 2.14±0.09        | 1.74±0.02                | 514.6  |
| $f_7$                                  | 2.2862±0.0003                | 2.15±0.10        | -2.14±0.02               | 481.3  |
| $f_8$                                  | 2.6646±0.0004                | 1.43±0.08        | 2.56±0.03                | 305.3  |
| $f_9$                                  | 1.5796±0.0005                | 1.27±0.08        | 0.46±0.03                | 229.1  |
| Frequency list of 0102602901 continued |                              |                  |                          |        |

## Appendix B. Frequencies of individual $\gamma$ Dor Stars

| Frequency list of 0102602901 continued |                              |                  |                          |       | Frequency list of 0102602901 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{10}$                               | 1.6063±0.0005                | 0.93±0.06        | 3.02±0.03                | 207.7 | $f_{102}$                              | 0.1402±0.0015                | 0.16±0.03        | 3.04±0.09                | 25.6  |
| $f_{11}$                               | 1.5638±0.0006                | 1.05±0.08        | -0.90±0.03               | 186.6 | $f_{103}$                              | 0.7528±0.0016                | 0.22±0.05        | 1.81±0.10                | 23.9  |
| $f_{12}$                               | 2.3741±0.0006                | 1.09±0.08        | 0.87±0.04                | 169.9 | $f_{104}$                              | 2.8813±0.0016                | 0.20±0.04        | 2.80±0.10                | 23.6  |
| $f_{13}$                               | 2.2689±0.0006                | 0.92±0.07        | 2.89±0.04                | 167.7 | $f_{105}$                              | 0.1484±0.0016                | 0.20±0.04        | -1.14±0.10               | 23.7  |
| $f_{14}$                               | 5.1719±0.0006                | 0.97±0.08        | -2.90±0.04               | 164.6 | $f_{106}$                              | 4.4674±0.0016                | 0.18±0.04        | -0.32±0.10               | 23.9  |
| $f_{15}$                               | 1.5943±0.0006                | 0.90±0.08        | 0.18±0.04                | 140.8 | $f_{107}$                              | 0.7666±0.0016                | 0.21±0.04        | -2.80±0.10               | 23.8  |
| $f_{16}$                               | 2.6955±0.0007                | 0.78±0.07        | -2.87±0.04               | 132.6 | $f_{108}$                              | 0.7927±0.0015                | 0.18±0.04        | -1.93±0.09               | 24.8  |
| $f_{17}$                               | 2.4227±0.0007                | 0.76±0.07        | 0.97±0.04                | 116.5 | $f_{110}$                              | 2.0046±0.0015                | 0.58±0.12        | -0.27±0.09               | 24.3  |
| $f_{18}$                               | 1.7032±0.0007                | 0.80±0.07        | -1.54±0.04               | 115.5 | $f_{113}$                              | 2.7323±0.0015                | 0.20±0.04        | -0.43±0.09               | 25.0  |
| $f_{19}$                               | 1.5473±0.0007                | 0.73±0.07        | -0.99±0.04               | 113.8 | $f_{115}$                              | 2.2175±0.0015                | 0.20±0.04        | 1.90±0.09                | 24.5  |
| $f_{20}$                               | 2.5850±0.0007                | 0.70±0.07        | 2.73±0.05                | 106.8 | $f_{116}$                              | 2.4307±0.0015                | 0.21±0.04        | 2.90±0.09                | 24.8  |
| $f_{21}$                               | 0.2233±0.0007                | 0.71±0.07        | -2.44±0.04               | 109.1 | $f_{117}$                              | 0.1019±0.0015                | 0.21±0.04        | 0.94±0.09                | 25.2  |
| $f_{22}$                               | 5.2194±0.0007                | 0.67±0.06        | -2.58±0.04               | 110.7 | $f_{118}$                              | 5.0395±0.0016                | 0.17±0.04        | 0.46±0.10                | 23.0  |
| $f_{23}$                               | 2.3654±0.0008                | 0.70±0.07        | -2.17±0.05               | 101.8 | $f_{119}$                              | 0.9410±0.0016                | 0.19±0.04        | 0.18±0.10                | 22.9  |
| $f_{24}$                               | 0.9558±0.0008                | 0.61±0.06        | 2.59±0.05                | 90.6  | $f_{120}$                              | 2.2832±0.0016                | 0.18±0.04        | -2.83±0.10               | 23.5  |
| $f_{25}$                               | 2.3007±0.0008                | 0.64±0.07        | -1.30±0.05               | 85.9  | $f_{121}$                              | 2.2577±0.0016                | 0.20±0.04        | 2.31±0.10                | 22.4  |
| $f_{26}$                               | 0.1755±0.0008                | 0.65±0.07        | -1.27±0.05               | 85.6  | $f_{122}$                              | 1.6555±0.0016                | 0.14±0.03        | -2.07±0.10               | 23.1  |
| $f_{27}$                               | 2.4518±0.0008                | 0.59±0.06        | 0.23±0.05                | 85.7  | $f_{123}$                              | 2.1195±0.0016                | 0.17±0.04        | -0.33±0.10               | 23.1  |
| $f_{28}$                               | 2.6359±0.0008                | 0.56±0.06        | -1.73±0.05               | 87.3  | $f_{124}$                              | 2.5256±0.0017                | 0.17±0.04        | -2.42±0.10               | 21.3  |
| $f_{29}$                               | 2.3146±0.0008                | 0.50±0.05        | 1.53±0.05                | 85.2  | $f_{125}$                              | 4.5182±0.0017                | 0.19±0.04        | 0.90±0.10                | 21.2  |
| $f_{30}$                               | 5.2664±0.0008                | 0.57±0.06        | -1.51±0.05               | 87.5  | $f_{126}$                              | 4.3928±0.0016                | 0.11±0.02        | -1.98±0.10               | 21.5  |
| $f_{31}$                               | 2.5412±0.0008                | 0.59±0.06        | 0.99±0.05                | 87.0  | $f_{127}$                              | 0.3784±0.0017                | 0.17±0.04        | 0.31±0.10                | 20.5  |
| $f_{32}$                               | 1.8302±0.0008                | 0.55±0.06        | -2.55±0.05               | 84.4  | $f_{128}$                              | 4.2672±0.0017                | 0.18±0.04        | 0.54±0.10                | 20.6  |
| $f_{33}$                               | 1.7264±0.0009                | 0.54±0.06        | 2.04±0.05                | 76.6  | $f_{129}$                              | 1.9887±0.0017                | 0.17±0.04        | 2.75±0.10                | 20.7  |
| $f_{34}$                               | 2.2763±0.0009                | 0.44±0.05        | -1.28±0.05               | 75.4  | $f_{130}$                              | 0.2431±0.0017                | 0.16±0.04        | -1.39±0.10               | 20.3  |
| $f_{35}$                               | 2.1833±0.0009                | 0.46±0.05        | 2.78±0.05                | 73.5  | $f_{131}$                              | 0.8053±0.0017                | 0.17±0.04        | 2.27±0.10                | 21.3  |
| $f_{36}$                               | 2.4104±0.0009                | 0.40±0.05        | 0.78±0.05                | 78.1  | $f_{132}$                              | 4.5427±0.0017                | 0.17±0.04        | -2.52±0.10               | 20.5  |
| $f_{37}$                               | 4.9484±0.0009                | 0.43±0.05        | -0.49±0.06               | 68.5  | $f_{133}$                              | 4.9963±0.0017                | 0.14±0.03        | 0.18±0.10                | 20.5  |
| $f_{38}$                               | 2.2393±0.0009                | 0.53±0.06        | -0.08±0.06               | 69.3  | $f_{134}$                              | 0.5455±0.0017                | 0.15±0.03        | -2.82±0.10               | 20.1  |
| $f_{39}$                               | 2.2509±0.0008                | 0.52±0.06        | -0.83±0.05               | 81.8  | $f_{135}$                              | 2.6149±0.0017                | 0.17±0.04        | -0.94±0.10               | 20.3  |
| $f_{40}$                               | 2.1668±0.0009                | 0.47±0.05        | -2.72±0.05               | 74.0  | $f_{136}$                              | 1.4733±0.0017                | 0.16±0.04        | 2.78±0.10                | 20.6  |
| $f_{41}$                               | 0.7326±0.0009                | 0.40±0.05        | 1.77±0.06                | 68.0  | $f_{137}$                              | 2.4861±0.0017                | 0.16±0.04        | -0.14±0.10               | 20.4  |
| $f_{42}$                               | 2.3280±0.0009                | 0.46±0.06        | -2.66±0.06               | 66.2  | $f_{138}$                              | 0.3213±0.0017                | 0.15±0.03        | -1.36±0.10               | 20.0  |
| $f_{43}$                               | 1.5294±0.0009                | 0.45±0.06        | 2.92±0.06                | 65.2  | $f_{139}$                              | 2.1551±0.0017                | 0.16±0.04        | -1.78±0.10               | 19.9  |
| $f_{44}$                               | 0.9081±0.0009                | 0.41±0.05        | -1.11±0.06               | 67.7  | $f_{140}$                              | 4.8926±0.0017                | 0.15±0.03        | 0.39±0.10                | 19.8  |
| $f_{45}$                               | 2.3412±0.0010                | 0.39±0.05        | 0.73±0.06                | 62.0  | $f_{141}$                              | 0.1289±0.0017                | 0.13±0.03        | 1.62±0.10                | 19.9  |
| $f_{46}$                               | 4.4399±0.0010                | 0.40±0.05        | 0.06±0.06                | 56.1  | $f_{142}$                              | 2.6550±0.0018                | 0.17±0.04        | -1.66±0.11               | 18.3  |
| $f_{47}$                               | 1.5117±0.0010                | 0.39±0.05        | 1.81±0.06                | 55.7  | $f_{143}$                              | 1.6864±0.0018                | 0.18±0.04        | 0.50±0.11                | 18.5  |
| $f_{48}$                               | 2.3965±0.0010                | 0.44±0.06        | 0.58±0.06                | 56.5  | $f_{144}$                              | 1.7446±0.0018                | 0.15±0.03        | -1.10±0.11               | 18.9  |
| $f_{49}$                               | 5.1242±0.0010                | 0.42±0.06        | 1.81±0.06                | 57.4  | $f_{145}$                              | 3.1587±0.0018                | 0.15±0.04        | -1.39±0.11               | 17.6  |
| $f_{50}$                               | 2.2301±0.0010                | 0.37±0.05        | 2.84±0.06                | 57.6  | $f_{146}$                              | 2.8523±0.0018                | 0.13±0.03        | 1.60±0.11                | 17.5  |
| $f_{51}$                               | 2.2933±0.0011                | 0.34±0.05        | 2.42±0.06                | 52.3  | $f_{147}$                              | 5.2270±0.0018                | 0.15±0.04        | 0.45±0.11                | 17.6  |
| $f_{54}$                               | 1.6268±0.0011                | 0.32±0.05        | -2.29±0.07               | 46.6  | $f_{148}$                              | 1.9595±0.0018                | 0.16±0.04        | 3.04±0.11                | 17.5  |
| $f_{55}$                               | 2.1953±0.0011                | 0.38±0.06        | -1.00±0.07               | 44.2  | $f_{149}$                              | 2.0144±0.0018                | 0.15±0.04        | -1.86±0.11               | 17.4  |
| $f_{56}$                               | 1.7739±0.0011                | 0.28±0.04        | -1.92±0.07               | 44.1  | $f_{150}$                              | 2.7387±0.0019                | 0.14±0.03        | -0.48±0.11               | 16.9  |
| $f_{57}$                               | 0.9303±0.0012                | 0.36±0.06        | -1.81±0.07               | 42.8  | $f_{154}$                              | 0.3409±0.0019                | 0.13±0.03        | -0.92±0.11               | 16.9  |
| $f_{58}$                               | 2.2047±0.0012                | 0.28±0.04        | 1.88±0.07                | 43.9  | $f_{155}$                              | 4.2903±0.0019                | 0.14±0.03        | 2.45±0.11                | 16.5  |
| $f_{59}$                               | 0.1919±0.0012                | 0.34±0.05        | 0.82±0.07                | 43.5  | $f_{157}$                              | 2.3352±0.0019                | 0.16±0.04        | -2.63±0.11               | 16.6  |
| $f_{60}$                               | 2.0073±0.0011                | 0.80±0.12        | -3.00±0.07               | 46.2  | $f_{158}$                              | 2.0856±0.0019                | 0.15±0.04        | 1.42±0.11                | 16.7  |
| $f_{62}$                               | 2.7851±0.0012                | 0.29±0.04        | -2.24±0.07               | 42.1  | $f_{159}$                              | 2.3212±0.0018                | 0.13±0.03        | 0.43±0.11                | 17.3  |
| $f_{63}$                               | 4.7717±0.0012                | 0.29±0.05        | -0.02±0.07               | 40.6  | $f_{160}$                              | 4.0405±0.0019                | 0.14±0.03        | 0.20±0.11                | 16.9  |
| $f_{65}$                               | 1.7553±0.0012                | 0.32±0.05        | 2.39±0.07                | 40.0  | $f_{161}$                              | 2.1319±0.0019                | 0.14±0.03        | 1.36±0.12                | 16.4  |
| $f_{66}$                               | 2.3083±0.0012                | 0.29±0.05        | -0.54±0.08               | 37.6  | $f_{162}$                              | 2.9530±0.0019                | 0.14±0.03        | -2.12±0.12               | 16.4  |
| $f_{67}$                               | 2.0539±0.0013                | 0.29±0.05        | -0.65±0.08               | 36.6  | $f_{163}$                              | 0.1809±0.0019                | 0.13±0.03        | -1.91±0.12               | 16.4  |
| $f_{68}$                               | 2.3844±0.0013                | 0.27±0.04        | 0.39±0.08                | 36.4  | $f_{164}$                              | 4.3590±0.0019                | 0.15±0.04        | 1.99±0.12                | 16.2  |
| $f_{69}$                               | 4.8454±0.0013                | 0.28±0.05        | -1.53±0.08               | 36.2  | $f_{165}$                              | 4.4251±0.0019                | 0.15±0.04        | -2.72±0.11               | 16.5  |
| $f_{70}$                               | 1.4914±0.0013                | 0.26±0.04        | -1.59±0.08               | 36.4  | $f_{166}$                              | 4.3653±0.0019                | 0.14±0.03        | -0.97±0.11               | 17.0  |
| $f_{71}$                               | 2.8329±0.0013                | 0.27±0.05        | 2.16±0.08                | 35.7  | $f_{167}$                              | 0.8209±0.0019                | 0.13±0.03        | -0.23±0.11               | 16.6  |
| $f_{72}$                               | 0.9766±0.0013                | 0.24±0.04        | 1.38±0.08                | 35.5  | $f_{168}$                              | 2.4986±0.0019                | 0.14±0.04        | 0.03±0.12                | 15.6  |
| $f_{73}$                               | 1.7834±0.0013                | 0.26±0.04        | 0.68±0.08                | 33.5  | $f_{169}$                              | 4.5045±0.0019                | 0.15±0.04        | 0.88±0.12                | 16.1  |
| $f_{74}$                               | 2.4675±0.0013                | 0.29±0.05        | 0.16±0.08                | 33.9  | $f_{170}$                              | 3.5175±0.0019                | 0.14±0.03        | -0.86±0.12               | 16.2  |
| $f_{76}$                               | 2.5596±0.0013                | 0.14±0.02        | -1.18±0.08               | 32.3  | $f_{171}$                              | 0.5384±0.0020                | 0.11±0.03        | 0.09±0.12                | 14.5  |
| $f_{77}$                               | 2.6110±0.0013                | 0.18±0.03        | 1.83±0.08                | 32.3  | $f_{172}$                              | 4.6008±0.0020                | 0.13±0.03        | 0.92±0.12                | 14.7  |
| $f_{78}$                               | 1.8108±0.0014                | 0.27±0.05        | 1.51±0.08                | 31.6  | $f_{174}$                              | 0.1189±0.0020                | 0.15±0.04        | 1.66±0.12                | 14.7  |
| $f_{81}$                               | 2.7043±0.0014                | 0.22±0.04        | -1.50±0.09               | 30.0  | $f_{175}$                              | 4.8993±0.0020                | 0.13±0.03        | -1.24±0.12               | 14.1  |
| $f_{82}$                               | 4.2170±0.0014                | 0.26±0.05        | -3.07±0.08               | 31.0  | $f_{176}$                              | 2.0713±0.0020                | 0.13±0.03        | 1.10±0.12                | 13.9  |
| $f_{83}$                               | 0.3289±0.0014                | 0.22±0.04        | 0.96±0.09                | 28.7  | $f_{177}$                              | 0.6507±0.0021                | 0.13±0.03        | -0.40±0.13               | 13.8  |
| $f_{84}$                               | 1.8215±0.0014                | 0.24±0.05        | 1.79±0.09                | 28.2  | $f_{179}$                              | 0.3116±0.0021                | 0.14±0.04        | -1.85±0.13               | 13.6  |
| $f_{85}$                               | 0.1601±0.0014                | 0.17±0.03        | 1.35±0.09                | 28.5  | $f_{180}$                              | 1.6785±0.0020                | 0.13±0.03        | 2.75±0.12                | 13.9  |
| $f_{87}$                               | 1.0301±0.0014                | 0.22±0.04        | -0.36±0.09               | 28.2  | $f_{181}$                              | 3.2874±0.0020                | 0.13±0.03        | -2.94±0.12               | 13.9  |
| $f_{88}$                               | 1.6120±0.0014                | 0.28±0.05        | -0.50±0.09               | 28.3  | $f_{182}$                              | 1.0023±0.0021                | 0.11±0.03        | -3.01±0.13               | 13.4  |
| $f_{90}$                               | 5.2744±0.0015                | 0.21±0.04        | -2.39±0.09               | 26.6  | $f_{183}$                              | 0.8568±0.0021                | 0.14±0.04        | 0.08±0.13                | 13.7  |
| $f_{91}$                               | 0.9891±0.0015                | 0.16±0.03        | -3.06±0.09               | 24.7  | $f_{184}$                              | 4.2431±0.0021                | 0.13±0.04        | -1.34±0.13               | 13.0  |
| $f_{92}$                               | 1.6630±0.0015                | 0.21±0.04        | 1.51±0.09                | 25.9  | $f_{185}$                              | 2.4603±0.0021                | 0.15±0.04        | -0.77±0.13               | 13.0  |
| $f_{99}$                               | 0.2937±0.0015                | 0.18±0.04        | -1.68±0.09               | 26.4  | $f_{186}$                              | 0.7435±0.0021                | 0.13±0.04        | -0.95±0.13               | 12.7  |
| $f_{101}$                              | 1.6394±0.0015                | 0.17±0.03        | -1.33±0.09               | 25.2  | $f_{187}$                              | 1.7665±0.0022                | 0.13±0.04        | 3.02±0.13                | 12.6  |
| Frequency list of 0102602901 continued |                              |                  |                          |       | Frequency list of 0102602901 continued |                              |                  |                          |       |

## Appendix B. Frequencies of individual $\gamma$ Dor Stars

| Frequency list of 0102602901 continued |                              |                  |                          |        | Frequency list of 0102602901 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|--------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign.  | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{188}$                              | 4.0206±0.0022                | 0.11±0.03        | -0.34±0.13               | 12.2   | $f_{310}$                              | 2.1887±0.0028                | 0.09±0.03        | -2.31±0.17               | 7.5   |
| $f_{193}$                              | 2.0343±0.0022                | 0.11±0.03        | 0.88±0.13                | 12.3   | $f_{318}$                              | 32.9566±0.0028               | 0.09±0.03        | 1.59±0.17                | 7.6   |
| $f_{194}$                              | 0.1966±0.0022                | 0.11±0.03        | 3.02±0.13                | 12.5   | $f_{319}$                              | 4.7208±0.0028                | 0.08±0.03        | 2.32±0.17                | 7.6   |
| $f_{195}$                              | 4.9843±0.0022                | 0.14±0.04        | -2.68±0.14               | 11.9   | $f_{320}$                              | 4.6837±0.0027                | 0.08±0.03        | -3.07±0.17               | 7.8   |
| $f_{196}$                              | 0.7812±0.0022                | 0.12±0.03        | -1.61±0.14               | 11.9   | $f_{322}$                              | 3.0190±0.0028                | 0.08±0.03        | 1.03±0.17                | 7.7   |
| $f_{197}$                              | 4.9746±0.0022                | 0.12±0.03        | 2.12±0.14                | 11.9   | $f_{323}$                              | 3.2402±0.0028                | 0.09±0.03        | 0.54±0.17                | 7.5   |
| $f_{199}$                              | 4.6738±0.0022                | 0.10±0.03        | -0.53±0.14               | 11.7   | $f_{324}$                              | 0.3713±0.0028                | 0.08±0.03        | -1.27±0.17               | 7.4   |
| $f_{200}$                              | 0.7117±0.0023                | 0.12±0.04        | 0.61±0.14                | 11.5   | $f_{328}$                              | 4.6155±0.0028                | 0.07±0.03        | 2.67±0.17                | 7.2   |
| $f_{201}$                              | 0.7211±0.0022                | 0.13±0.04        | 2.80±0.13                | 12.0   | $f_{329}$                              | 0.2305±0.0029                | 0.08±0.03        | 1.19±0.17                | 7.1   |
| $f_{202}$                              | 0.5730±0.0022                | 0.11±0.03        | 0.16±0.14                | 11.6   | $f_{330}$                              | 0.4942±0.0029                | 0.08±0.03        | -1.81±0.17               | 7.1   |
| $f_{203}$                              | 2.7537±0.0023                | 0.11±0.03        | 0.11±0.14                | 11.4   | $f_{333}$                              | 0.2844±0.0029                | 0.08±0.03        | 2.45±0.17                | 7.1   |
| $f_{204}$                              | 0.6334±0.0023                | 0.13±0.04        | -2.17±0.14               | 11.4   | $f_{334}$                              | 0.3555±0.0029                | 0.08±0.03        | -2.50±0.18               | 7.0   |
| $f_{205}$                              | 1.0616±0.0023                | 0.10±0.03        | -1.77±0.14               | 11.5   | $f_{335}$                              | 0.4275±0.0028                | 0.08±0.03        | -0.39±0.17               | 7.2   |
| $f_{206}$                              | 0.9826±0.0022                | 0.13±0.04        | -1.89±0.14               | 11.7   | $f_{336}$                              | 0.3934±0.0029                | 0.08±0.03        | -0.35±0.17               | 7.1   |
| $f_{207}$                              | 2.8058±0.0022                | 0.12±0.04        | 2.76±0.14                | 11.6   | $f_{337}$                              | 0.5308±0.0029                | 0.07±0.03        | 2.04±0.18                | 6.9   |
| $f_{208}$                              | 0.2653±0.0022                | 0.13±0.04        | 1.81±0.14                | 11.8   | $f_{338}$                              | 22.9949±0.0029               | 0.08±0.03        | 0.28±0.18                | 6.9   |
| $f_{209}$                              | 3.2946±0.0022                | 0.11±0.03        | -1.34±0.14               | 11.8   | $f_{339}$                              | 8.0217±0.0029                | 0.07±0.03        | -0.70±0.17               | 7.1   |
| $f_{210}$                              | 4.2318±0.0023                | 0.12±0.04        | -1.16±0.14               | 11.5   | $f_{340}$                              | 0.6951±0.0029                | 0.08±0.03        | 1.64±0.17                | 7.1   |
| $f_{212}$                              | 2.5081±0.0023                | 0.10±0.03        | 2.57±0.14                | 11.3   | $f_{341}$                              | 2.3474±0.0029                | 0.09±0.03        | 0.96±0.18                | 6.9   |
| $f_{213}$                              | 4.3507±0.0023                | 0.11±0.03        | -2.71±0.14               | 11.3   | $f_{342}$                              | 2.3574±0.0026                | 0.09±0.03        | 1.45±0.16                | 8.6   |
| $f_{214}$                              | 1.9819±0.0023                | 0.12±0.04        | 0.63±0.14                | 11.3   | $f_{343}$                              | 4.8527±0.0029                | 0.07±0.03        | 1.49±0.18                | 6.9   |
| $f_{215}$                              | 2.3909±0.0023                | 0.14±0.04        | 1.86±0.14                | 11.5   | $f_{344}$                              | 2.7696±0.0029                | 0.07±0.03        | -1.75±0.18               | 6.9   |
| $f_{216}$                              | 2.4174±0.0022                | 0.14±0.04        | -1.68±0.13               | 12.3   | $f_{346}$                              | 3.6399±0.0030                | 0.07±0.03        | 1.15±0.18                | 6.5   |
| $f_{217}$                              | 5.0496±0.0023                | 0.11±0.03        | 0.70±0.14                | 11.4   | $f_{350}$                              | 1.5351±0.0030                | 0.08±0.03        | -0.30±0.18               | 6.5   |
| $f_{218}$                              | 4.8766±0.0022                | 0.11±0.03        | -0.90±0.14               | 11.6   | $f_{351}$                              | 4.2757±0.0030                | 0.07±0.03        | -0.63±0.18               | 6.5   |
| $f_{220}$                              | 4.4329±0.0023                | 0.10±0.03        | 2.04±0.14                | 10.9   | $f_{352}$                              | 4.1215±0.0030                | 0.08±0.03        | -1.15±0.18               | 6.5   |
| $f_{221}$                              | 4.4040±0.0022                | 0.11±0.03        | -0.94±0.14               | 11.9   | $f_{353}$                              | 4.4775±0.0030                | 0.08±0.03        | 0.69±0.18                | 6.6   |
| $f_{222}$                              | 0.6645±0.0023                | 0.10±0.03        | -2.69±0.14               | 11.2   | $f_{354}$                              | 1.6477±0.0030                | 0.08±0.03        | 2.06±0.18                | 6.5   |
| $f_{223}$                              | 0.9633±0.0023                | 0.11±0.03        | -1.02±0.14               | 10.8   | $f_{356}$                              | 4.6551±0.0031                | 0.07±0.03        | -1.23±0.19               | 6.2   |
| $f_{225}$                              | 1.0960±0.0023                | 0.10±0.03        | 0.09±0.14                | 10.6   | $f_{357}$                              | 2.6461±0.0030                | 0.07±0.03        | -2.71±0.18               | 6.5   |
| $f_{226}$                              | 0.5592±0.0024                | 0.10±0.03        | 0.24±0.15                | 10.3   | $f_{358}$                              | 10.0264±0.0030               | 0.07±0.03        | 2.98±0.18                | 6.4   |
| $f_{227}$                              | 0.2769±0.0023                | 0.11±0.03        | 0.05±0.14                | 10.6   | $f_{359}$                              | 0.6150±0.0031                | 0.07±0.03        | 2.18±0.19                | 6.2   |
| $f_{228}$                              | 2.6045±0.0023                | 0.07±0.02        | -1.75±0.14               | 10.9   | $f_{360}$                              | 5.4512±0.0031                | 0.07±0.03        | 2.90±0.19                | 6.2   |
| $f_{229}$                              | 3.1189±0.0024                | 0.10±0.03        | -1.98±0.15               | 10.3   | $f_{361}$                              | 5.1483±0.0031                | 0.07±0.03        | -2.56±0.19               | 6.1   |
| $f_{230}$                              | 4.7577±0.0024                | 0.10±0.03        | -2.74±0.15               | 10.3   | $f_{362}$                              | 2.8238±0.0031                | 0.07±0.03        | 2.55±0.19                | 6.1   |
| $f_{231}$                              | 3.4703±0.0024                | 0.10±0.03        | -1.45±0.15               | 10.2   | $f_{363}$                              | 5.0861±0.0030                | 0.07±0.03        | 2.51±0.18                | 6.4   |
| $f_{232}$                              | 4.3091±0.0024                | 0.11±0.03        | 0.99±0.15                | 10.2   | $f_{364}$                              | 22.9293±0.0031               | 0.07±0.03        | -0.58±0.19               | 6.2   |
| $f_{233}$                              | 0.1716±0.0024                | 0.10±0.03        | 0.91±0.15                | 10.3   | $f_{365}$                              | 2.5472±0.0031                | 0.08±0.03        | 1.71±0.19                | 6.1   |
| $f_{234}$                              | 1.6056±0.0024                | 0.12±0.04        | -0.35±0.15               | 10.2   | $f_{366}$                              | 4.9109±0.0031                | 0.07±0.03        | 2.04±0.19                | 6.1   |
| $f_{235}$                              | 4.4852±0.0024                | 0.11±0.03        | 0.82±0.15                | 10.3   | $f_{367}$                              | 4.8602±0.0030                | 0.07±0.03        | -0.53±0.19               | 6.3   |
| $f_{237}$                              | 2.1102±0.0024                | 0.11±0.03        | 0.62±0.15                | 10.2   | $f_{368}$                              | 1.1147±0.0031                | 0.07±0.03        | 0.16±0.19                | 6.0   |
| $f_{238}$                              | 3.6125±0.0024                | 0.11±0.03        | 1.30±0.15                | 9.9    | $f_{375}$                              | 3.4386±0.0031                | 0.07±0.03        | 2.14±0.19                | 5.9   |
| $f_{239}$                              | 4.7951±0.0024                | 0.09±0.03        | -1.70±0.15               | 10.3   | $f_{376}$                              | 3.5525±0.0032                | 0.07±0.03        | 2.21±0.19                | 5.8   |
| $f_{240}$                              | 1.0237±0.0025                | 0.10±0.03        | 2.12±0.15                | 9.7    | $f_{377}$                              | 4.5695±0.0032                | 0.07±0.03        | 0.17±0.19                | 5.8   |
| $f_{241}$                              | 0.4135±0.0024                | 0.07±0.02        | 2.77±0.15                | 10.0   | $f_{378}$                              | 0.6228±0.0031                | 0.07±0.03        | -2.24±0.19               | 6.1   |
| $f_{242}$                              | 3.2151±0.0025                | 0.10±0.03        | -2.71±0.15               | 9.4    | $f_{379}$                              | 8.9572±0.0032                | 0.07±0.03        | 0.93±0.19                | 5.8   |
| $f_{243}$                              | 1.5781±0.0025                | 0.08±0.03        | 0.53±0.15                | 9.3    | $f_{380}$                              | 3.2235±0.0032                | 0.06±0.03        | 0.73±0.20                | 5.7   |
| $f_{247}$                              | 2.9060±0.0025                | 0.08±0.03        | -2.65±0.16               | 9.0    | $f_{381}$                              | 4.0956±0.0032                | 0.07±0.03        | 1.74±0.19                | 5.8   |
| $f_{248}$                              | 4.3287±0.0025                | 0.10±0.03        | 0.79±0.16                | 9.0    | $f_{382}$                              | 1.6933±0.0032                | 0.07±0.03        | -1.66±0.20               | 5.7   |
| $f_{249}$                              | 1.7155±0.0026                | 0.10±0.03        | 2.33±0.16                | 8.9    | $f_{383}$                              | 1.7002±0.0032                | 0.08±0.03        | 3.01±0.19                | 5.8   |
| $f_{251}$                              | 3.5423±0.0026                | 0.10±0.03        | 2.13±0.16                | 8.9    | $f_{384}$                              | 1.9197±0.0031                | 0.07±0.03        | -2.76±0.19               | 6.1   |
| $f_{252}$                              | 1.7377±0.0026                | 0.10±0.03        | 2.86±0.16                | 8.9    | $f_{385}$                              | 1.0680±0.0031                | 0.07±0.03        | 0.69±0.19                | 5.9   |
| $f_{253}$                              | 2.5691±0.0026                | 0.10±0.03        | -1.47±0.16               | 8.8    | $f_{386}$                              | 0.6049±0.0032                | 0.07±0.03        | 0.06±0.20                | 5.6   |
| $f_{256}$                              | 4.4494±0.0026                | 0.09±0.03        | 2.58±0.16                | 8.6    | $f_{390}$                              | 2.7467±0.0032                | 0.06±0.03        | -0.80±0.20               | 5.7   |
| $f_{257}$                              | 3.3416±0.0026                | 0.09±0.03        | 2.08±0.16                | 8.6    | $f_{391}$                              | 1.8757±0.0033                | 0.06±0.03        | -2.98±0.20               | 5.5   |
| $f_{258}$                              | 0.8773±0.0026                | 0.08±0.03        | 1.39±0.16                | 8.5    | $f_{394}$                              | 3.2734±0.0033                | 0.06±0.03        | -2.41±0.20               | 5.5   |
| $f_{259}$                              | 2.4384±0.0026                | 0.09±0.03        | 2.30±0.16                | 8.4    | $f_{395}$                              | 1.5877±0.0033                | 0.07±0.03        | -0.80±0.20               | 5.3   |
| $f_{260}$                              | 4.3805±0.0026                | 0.09±0.03        | 2.65±0.16                | 8.7    | $f_{396}$                              | 1.5688±0.0032                | 0.08±0.03        | 2.40±0.20                | 5.6   |
| $f_{261}$                              | 2.3793±0.0026                | 0.10±0.03        | 0.87±0.16                | 8.4    | $f_{399}$                              | 3.0979±0.0033                | 0.07±0.03        | 2.90±0.20                | 5.4   |
| $f_{262}$                              | 4.8280±0.0026                | 0.08±0.03        | -2.32±0.16               | 8.4    | $f_{400}$                              | 3.0713±0.0033                | 0.06±0.03        | -2.09±0.20               | 5.5   |
| $f_{263}$                              | 3.5647±0.0026                | 0.09±0.03        | -0.56±0.16               | 8.5    | $f_{401}$                              | 2.2394±0.0033                | 0.07±0.03        | 2.69±0.20                | 5.3   |
| $f_{264}$                              | 3.1912±0.0027                | 0.08±0.03        | -1.62±0.16               | 8.1    | $f_{402}$                              | 2.4794±0.0033                | 0.06±0.03        | 0.28±0.20                | 5.3   |
| $f_{266}$                              | 1.7901±0.0026                | 0.08±0.03        | -2.10±0.16               | 8.3    | $f_{403}$                              | 0.7320±0.0033                | 0.07±0.03        | 1.97±0.20                | 5.2   |
| $f_{271}$                              | 1.6194±0.0026                | 0.10±0.03        | 1.56±0.16                | 8.5    | $f_{405}$                              | 2.0948±0.0033                | 0.06±0.03        | -0.28±0.20               | 5.3   |
| $f_{272}$                              | 4.0116±0.0026                | 0.21±0.07        | -0.06±0.16               | 8.8    | $f_{406}$                              | 2.0197±0.0034                | 0.06±0.03        | -1.57±0.21               | 5.1   |
| $f_{284}$                              | 1.4503±0.0026                | 0.08±0.03        | 1.36±0.16                | 8.7    | $f_{407}$                              | 0.2500±0.0033                | 0.06±0.03        | -2.62±0.20               | 5.3   |
| $f_{285}$                              | 2.7966±0.0026                | 0.09±0.03        | -3.05±0.16               | 8.5    | $f_{408}$                              | 2.2244±0.0034                | 0.07±0.03        | -2.22±0.21               | 5.1   |
| $f_{286}$                              | 2.9322±0.0026                | 0.09±0.03        | 2.49±0.16                | 8.3    | $f_{409}$                              | 4.4968±0.0034                | 0.06±0.03        | -0.72±0.21               | 5.1   |
| $f_{287}$                              | 3.9377±0.0027                | 0.08±0.03        | 2.76±0.16                | 8.0    |                                        |                              |                  |                          |       |
| $f_{288}$                              | 4.7641±0.0027                | 0.08±0.03        | -0.02±0.17               | 7.8    |                                        |                              |                  |                          |       |
| $f_{292}$                              | 2.0004±0.0027                | 0.12±0.04        | 3.02±0.16                | 8.1    |                                        |                              |                  |                          |       |
| $f_{298}$                              | 1.8377±0.0027                | 0.10±0.04        | -1.96±0.16               | 8.0    |                                        |                              |                  |                          |       |
| $f_{299}$                              | 1.8499±0.0025                | 0.09±0.03        | 0.38±0.15                | 9.2    |                                        |                              |                  |                          |       |
| $f_{301}$                              | 4.1695±0.0026                | 0.09±0.03        | 1.83±0.16                | 8.3    |                                        |                              |                  |                          |       |
| $f_{302}$                              | 4.2088±0.0028                | 0.08±0.03        | -0.70±0.17               | 7.7    |                                        |                              |                  |                          |       |
| $f_{307}$                              | 0.6870±0.0028                | 0.08±0.03        | 0.86±0.17                | 7.7    |                                        |                              |                  |                          |       |
| Frequency list of 0102602901 continued |                              |                  |                          |        | Frequency list of 0102603266 continued |                              |                  |                          |       |
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign.  | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_1$                                  | 2.4351±0.0002                | 15.60±0.33       | 2.47±0.01                | 2171.2 |                                        |                              |                  |                          |       |
| $f_2$                                  | 2.5290±0.0002                | 10.94±0.24       | -2.55±0.01               | 2062.9 |                                        |                              |                  |                          |       |
| $f_3$                                  | 2.5835±0.0002                | 8.86±0.18        | 0.87±0.01                | 2470.2 |                                        |                              |                  |                          |       |
| $f_4$                                  | 2.7876±0.0002                | 4.08±0.12        | 2.90±0.01                | 1154.2 |                                        |                              |                  |                          |       |
| $f_5$                                  | 1.1471±0.0004                | 1.85±0.09        | 1.10±0.02                | 443.0  |                                        |                              |                  |                          |       |
| $f_6$                                  | 2.6444±0.0004                | 1.69±0.10        | -2.98±0.03               | 305.7  |                                        |                              |                  |                          |       |
| $f_7$                                  | 0.8477±0.0005                | 1.36±0.09        | -1.47±0.03               | 214.4  |                                        |                              |                  |                          |       |
| $f_8$                                  | 4.9641±0.0005                | 1.35±0.09        | 2.62±0.03                | 221.5  |                                        |                              |                  |                          |       |

**Table B.15:** Frequency list of 0102603266

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign.  |
|--------------|------------------------------|------------------|--------------------------|--------|
| $f_1$        | 2.4351±0.0002                | 15.60±0.33       | 2.47±0.01                | 2171.2 |
| $f_2$        | 2.5290±0.0002                | 10.94±0.24       | -2.55±0.01               | 2062.9 |
| $f_3$        | 2.5835±0.0002                | 8.86±0.18        | 0.87±0.01                | 2470.2 |
| $f_4$        | 2.7876±0.0002                | 4.08±0.12        | 2.90±0.01                | 1154.2 |
| $f_5$        | 1.1471±0.0004                | 1.85±0.09        | 1.10±0.02                | 443.0  |
| $f_6$        | 2.6444±0.0004                | 1.69±0.10        | -2.98±0.03               | 305.7  |
| $f_7$        | 0.8477±0.0005                | 1.36±0.09        | -1.47±0.03               | 214.4  |
| $f_8$        | 4.9641±0.0005                | 1.35±0.09        | 2.62±0.03                | 221.5  |

## Appendix B. Frequencies of individual $\gamma$ Dor Stars

| Frequency list of 0102603266 continued |                              |                  |                          |       | Frequency list of 0102603266 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| <i>f</i> <sub>9</sub>                  | 1.1358±0.0005                | 1.37±0.09        | -1.03±0.03               | 223.4 | <i>f</i> <sub>115</sub>                | 1.1060±0.0021                | 0.21±0.06        | 2.40±0.13                | 13.2  |
| <i>f</i> <sub>10</sub>                 | 1.1225±0.0007                | 1.03±0.09        | -1.09±0.04               | 134.4 | <i>f</i> <sub>116</sub>                | 0.5175±0.0021                | 0.19±0.05        | -2.26±0.13               | 13.2  |
| <i>f</i> <sub>11</sub>                 | 3.7195±0.0007                | 0.99±0.09        | -0.53±0.04               | 130.7 | <i>f</i> <sub>119</sub>                | 0.4967±0.0021                | 0.20±0.06        | 1.11±0.13                | 12.7  |
| <i>f</i> <sub>12</sub>                 | 4.8703±0.0007                | 1.01±0.09        | 2.50±0.04                | 135.7 | <i>f</i> <sub>120</sub>                | 3.4316±0.0021                | 0.20±0.06        | -2.37±0.13               | 13.1  |
| <i>f</i> <sub>16</sub>                 | 5.0186±0.0008                | 0.80±0.08        | 0.47±0.05                | 97.0  | <i>f</i> <sub>121</sub>                | 0.9136±0.0022                | 0.21±0.06        | 2.20±0.13                | 12.6  |
| <i>f</i> <sub>18</sub>                 | 0.3515±0.0008                | 0.70±0.08        | 2.59±0.05                | 85.8  | <i>f</i> <sub>127</sub>                | 0.4429±0.0022                | 0.17±0.05        | -3.14±0.14               | 11.7  |
| <i>f</i> <sub>19</sub>                 | 0.1480±0.0008                | 0.79±0.09        | -1.68±0.05               | 84.9  | <i>f</i> <sub>128</sub>                | 0.6208±0.0022                | 0.17±0.05        | -1.99±0.14               | 11.8  |
| <i>f</i> <sub>20</sub>                 | 2.4802±0.0009                | 0.71±0.08        | -0.49±0.05               | 76.5  | <i>f</i> <sub>129</sub>                | 1.4364±0.0022                | 0.21±0.06        | 2.69±0.14                | 11.6  |
| <i>f</i> <sub>21</sub>                 | 2.0057±0.0009                | 1.14±0.14        | -0.36±0.06               | 66.8  | <i>f</i> <sub>131</sub>                | 1.2609±0.0022                | 0.18±0.05        | 0.74±0.14                | 11.6  |
| <i>f</i> <sub>22</sub>                 | 3.7313±0.0010                | 0.58±0.08        | -0.79±0.06               | 55.4  | <i>f</i> <sub>132</sub>                | 1.1355±0.0022                | 0.19±0.05        | -2.34±0.13               | 12.2  |
| <i>f</i> <sub>23</sub>                 | 2.2919±0.0011                | 0.54±0.07        | -2.43±0.06               | 51.9  | <i>f</i> <sub>133</sub>                | 0.8689±0.0022                | 0.19±0.06        | -0.83±0.14               | 11.6  |
| <i>f</i> <sub>24</sub>                 | 2.8739±0.0011                | 0.51±0.08        | 3.06±0.07                | 44.7  | <i>f</i> <sub>134</sub>                | 0.8884±0.0022                | 0.20±0.06        | 0.23±0.13                | 12.1  |
| <i>f</i> <sub>26</sub>                 | 2.1855±0.0012                | 0.44±0.07        | 1.87±0.07                | 42.1  | <i>f</i> <sub>135</sub>                | 0.6686±0.0023                | 0.20±0.06        | 2.67±0.14                | 11.5  |
| <i>f</i> <sub>27</sub>                 | 5.0583±0.0012                | 0.44±0.07        | -2.50±0.07               | 42.4  | <i>f</i> <sub>136</sub>                | 2.5286±0.0023                | 0.55±0.16        | -1.67±0.14               | 11.5  |
| <i>f</i> <sub>28</sub>                 | 2.1432±0.0012                | 0.49±0.08        | -0.19±0.07               | 42.4  | <i>f</i> <sub>137</sub>                | 2.5290±0.0015                | 0.64±0.12        | -0.37±0.09               | 26.6  |
| <i>f</i> <sub>30</sub>                 | 2.5351±0.0012                | 0.33±0.05        | 3.08±0.07                | 40.2  | <i>f</i> <sub>140</sub>                | 2.9537±0.0022                | 0.19±0.05        | 1.39±0.13                | 12.6  |
| <i>f</i> <sub>39</sub>                 | 3.9097±0.0012                | 0.41±0.06        | -0.65±0.07               | 40.0  | <i>f</i> <sub>141</sub>                | 0.9981±0.0022                | 0.20±0.06        | -0.16±0.13               | 12.2  |
| <i>f</i> <sub>40</sub>                 | 1.2991±0.0012                | 0.36±0.06        | -3.04±0.07               | 39.1  | <i>f</i> <sub>142</sub>                | 0.2867±0.0022                | 0.20±0.06        | 1.43±0.13                | 12.1  |
| <i>f</i> <sub>41</sub>                 | 3.2813±0.0012                | 0.44±0.07        | 1.44±0.07                | 38.9  | <i>f</i> <sub>145</sub>                | 0.1623±0.0022                | 0.21±0.06        | -2.40±0.14               | 11.6  |
| <i>f</i> <sub>42</sub>                 | 0.3693±0.0012                | 0.41±0.07        | -0.70±0.07               | 39.3  | <i>f</i> <sub>146</sub>                | 0.4742±0.0023                | 0.21±0.06        | 0.84±0.14                | 11.4  |
| <i>f</i> <sub>43</sub>                 | 2.4336±0.0012                | 0.29±0.05        | -2.90±0.08               | 38.2  | <i>f</i> <sub>147</sub>                | 3.9760±0.0022                | 0.17±0.05        | 0.30±0.14                | 11.7  |
| <i>f</i> <sub>44</sub>                 | 3.7081±0.0012                | 0.43±0.07        | -1.58±0.08               | 38.6  | <i>f</i> <sub>151</sub>                | 1.5866±0.0023                | 0.18±0.05        | -0.98±0.14               | 11.2  |
| <i>f</i> <sub>45</sub>                 | 5.2231±0.0013                | 0.42±0.07        | 1.74±0.08                | 36.7  | <i>f</i> <sub>152</sub>                | 0.4088±0.0023                | 0.17±0.05        | -1.12±0.14               | 10.8  |
| <i>f</i> <sub>46</sub>                 | 5.1128±0.0013                | 0.43±0.07        | 0.44±0.08                | 35.4  | <i>f</i> <sub>153</sub>                | 2.7327±0.0023                | 0.17±0.05        | 0.58±0.14                | 11.1  |
| <i>f</i> <sub>48</sub>                 | 0.2581±0.0013                | 0.35±0.06        | 2.51±0.08                | 33.3  | <i>f</i> <sub>155</sub>                | 3.8900±0.0023                | 0.17±0.05        | 2.66±0.14                | 11.1  |
| <i>f</i> <sub>49</sub>                 | 0.2752±0.0014                | 0.28±0.05        | 0.84±0.08                | 31.0  | <i>f</i> <sub>156</sub>                | 0.2334±0.0024                | 0.17±0.05        | -1.35±0.14               | 10.5  |
| <i>f</i> <sub>54</sub>                 | 2.0271±0.0014                | 0.36±0.07        | 1.61±0.09                | 29.7  | <i>f</i> <sub>157</sub>                | 2.7111±0.0024                | 0.16±0.05        | 2.92±0.15                | 10.3  |
| <i>f</i> <sub>55</sub>                 | 0.1233±0.0014                | 0.36±0.06        | -0.91±0.08               | 30.8  | <i>f</i> <sub>158</sub>                | 2.8821±0.0024                | 0.16±0.05        | 0.66±0.14                | 10.4  |
| <i>f</i> <sub>56</sub>                 | 2.3565±0.0014                | 0.33±0.06        | -3.14±0.09               | 29.8  | <i>f</i> <sub>160</sub>                | 2.2843±0.0024                | 0.14±0.04        | -0.95±0.15               | 10.0  |
| <i>f</i> <sub>57</sub>                 | 2.5255±0.0014                | 0.42±0.08        | -1.03±0.09               | 29.0  | <i>f</i> <sub>161</sub>                | 0.7628±0.0024                | 0.18±0.06        | 2.65±0.15                | 9.9   |
| <i>f</i> <sub>58</sub>                 | 3.8334±0.0014                | 0.33±0.06        | -0.07±0.09               | 28.1  | <i>f</i> <sub>164</sub>                | 1.6281±0.0024                | 0.16±0.05        | 1.81±0.15                | 9.8   |
| <i>f</i> <sub>60</sub>                 | 2.1231±0.0014                | 0.31±0.06        | 0.55±0.09                | 29.1  | <i>f</i> <sub>165</sub>                | 1.1140±0.0024                | 0.16±0.05        | 0.70±0.15                | 9.9   |
| <i>f</i> <sub>62</sub>                 | 5.3168±0.0014                | 0.34±0.06        | 1.09±0.09                | 28.1  | <i>f</i> <sub>167</sub>                | 0.4687±0.0024                | 0.13±0.04        | 1.36±0.15                | 9.9   |
| <i>f</i> <sub>63</sub>                 | 1.2876±0.0015                | 0.36±0.07        | -2.91±0.09               | 27.2  | <i>f</i> <sub>168</sub>                | 3.5715±0.0025                | 0.16±0.05        | 0.53±0.15                | 9.7   |
| <i>f</i> <sub>64</sub>                 | 1.3105±0.0015                | 0.30±0.06        | -0.10±0.09               | 25.4  | <i>f</i> <sub>169</sub>                | 2.5284±0.0017                | 0.14±0.03        | -1.93±0.10               | 20.0  |
| <i>f</i> <sub>65</sub>                 | 5.1680±0.0015                | 0.32±0.06        | -1.21±0.09               | 25.4  | <i>f</i> <sub>170</sub>                | 2.7872±0.0021                | 0.19±0.05        | -0.05±0.13               | 13.1  |
| <i>f</i> <sub>66</sub>                 | 3.6767±0.0015                | 0.31±0.06        | -0.18±0.09               | 24.8  | <i>f</i> <sub>171</sub>                | 4.0108±0.0021                | 0.19±0.05        | -2.83±0.13               | 13.1  |
| <i>f</i> <sub>68</sub>                 | 0.2027±0.0015                | 0.32±0.06        | 2.21±0.09                | 24.4  | <i>f</i> <sub>173</sub>                | 0.8804±0.0025                | 0.17±0.05        | 0.54±0.15                | 9.6   |
| <i>f</i> <sub>69</sub>                 | 5.0797±0.0015                | 0.28±0.06        | -0.90±0.09               | 24.7  | <i>f</i> <sub>177</sub>                | 2.5849±0.0025                | 0.16±0.05        | 1.00±0.15                | 9.7   |
| <i>f</i> <sub>70</sub>                 | 2.6777±0.0016                | 0.27±0.06        | -0.29±0.10               | 23.8  | <i>f</i> <sub>179</sub>                | 1.5693±0.0025                | 0.15±0.05        | -2.46±0.15               | 9.7   |
| <i>f</i> <sub>71</sub>                 | 2.3203±0.0016                | 0.31±0.06        | -2.75±0.10               | 23.8  | <i>f</i> <sub>180</sub>                | 2.3289±0.0025                | 0.14±0.05        | -3.12±0.15               | 9.5   |
| <i>f</i> <sub>72</sub>                 | 2.0839±0.0016                | 0.27±0.06        | -1.61±0.10               | 23.2  | <i>f</i> <sub>181</sub>                | 1.0055±0.0025                | 0.16±0.05        | -3.08±0.15               | 9.7   |
| <i>f</i> <sub>73</sub>                 | 3.3762±0.0016                | 0.29±0.06        | -3.14±0.10               | 23.5  | <i>f</i> <sub>182</sub>                | 0.5587±0.0025                | 0.17±0.06        | 1.84±0.15                | 9.5   |
| <i>f</i> <sub>75</sub>                 | 2.2317±0.0016                | 0.29±0.06        | 1.13±0.10                | 22.3  | <i>f</i> <sub>184</sub>                | 5.1751±0.0025                | 0.15±0.05        | -1.53±0.15               | 9.2   |
| <i>f</i> <sub>76</sub>                 | 0.7166±0.0017                | 0.29±0.07        | 2.80±0.11                | 19.4  | <i>f</i> <sub>186</sub>                | 13.9478±0.0025               | 0.15±0.05        | 1.15±0.15                | 9.2   |
| <i>f</i> <sub>77</sub>                 | 1.3955±0.0017                | 0.25±0.06        | 0.02±0.10                | 20.0  | <i>f</i> <sub>187</sub>                | 55.8622±0.0025               | 0.16±0.05        | 1.82±0.15                | 9.2   |
| <i>f</i> <sub>79</sub>                 | 0.1872±0.0018                | 0.28±0.07        | -1.97±0.11               | 18.4  | <i>f</i> <sub>188</sub>                | 3.8170±0.0025                | 0.15±0.05        | -2.87±0.16               | 9.0   |
| <i>f</i> <sub>80</sub>                 | 0.3854±0.0018                | 0.33±0.08        | -0.55±0.11               | 18.7  | <i>f</i> <sub>189</sub>                | 0.3920±0.0026                | 0.14±0.05        | -0.89±0.16               | 8.9   |
| <i>f</i> <sub>81</sub>                 | 2.3944±0.0017                | 0.29±0.07        | -0.45±0.10               | 19.8  | <i>f</i> <sub>190</sub>                | 1.5485±0.0025                | 0.15±0.05        | 1.17±0.15                | 9.1   |
| <i>f</i> <sub>82</sub>                 | 1.4627±0.0018                | 0.26±0.06        | -1.41±0.11               | 18.9  | <i>f</i> <sub>191</sub>                | 0.3335±0.0026                | 0.14±0.05        | 0.85±0.16                | 8.9   |
| <i>f</i> <sub>83</sub>                 | 1.0830±0.0018                | 0.26±0.06        | 0.17±0.11                | 17.9  | <i>f</i> <sub>192</sub>                | 2.0510±0.0026                | 0.13±0.04        | 1.15±0.16                | 8.8   |
| <i>f</i> <sub>84</sub>                 | 2.8034±0.0018                | 0.24±0.06        | -0.41±0.11               | 18.3  | <i>f</i> <sub>193</sub>                | 3.9509±0.0026                | 0.15±0.05        | 2.50±0.16                | 8.7   |
| <i>f</i> <sub>85</sub>                 | 2.0697±0.0018                | 0.23±0.05        | -2.97±0.11               | 18.1  | <i>f</i> <sub>197</sub>                | 5.3726±0.0026                | 0.15±0.05        | 0.99±0.16                | 8.8   |
| <i>f</i> <sub>86</sub>                 | 1.8791±0.0019                | 0.26±0.06        | 2.29±0.11                | 16.9  | <i>f</i> <sub>198</sub>                | 4.4622±0.0026                | 0.14±0.05        | 1.48±0.16                | 8.5   |
| <i>f</i> <sub>88</sub>                 | 0.5370±0.0019                | 0.25±0.06        | 1.51±0.11                | 16.6  | <i>f</i> <sub>199</sub>                | 0.9036±0.0026                | 0.13±0.04        | -0.49±0.16               | 8.5   |
| <i>f</i> <sub>89</sub>                 | 0.3104±0.0018                | 0.24±0.06        | -0.56±0.11               | 17.7  | <i>f</i> <sub>200</sub>                | 1.6535±0.0026                | 0.15±0.05        | -0.05±0.16               | 8.7   |
| <i>f</i> <sub>90</sub>                 | 2.4893±0.0019                | 0.24±0.06        | 3.00±0.11                | 16.6  | <i>f</i> <sub>201</sub>                | 1.6750±0.0025                | 0.14±0.05        | 0.31±0.15                | 9.1   |
| <i>f</i> <sub>91</sub>                 | 1.4471±0.0018                | 0.23±0.06        | 0.48±0.11                | 17.3  | <i>f</i> <sub>202</sub>                | 3.7883±0.0026                | 0.14±0.05        | 1.17±0.16                | 8.5   |
| <i>f</i> <sub>92</sub>                 | 2.0035±0.0019                | 0.44±0.11        | -2.83±0.11               | 16.5  | <i>f</i> <sub>203</sub>                | 2.2037±0.0026                | 0.14±0.05        | -2.01±0.16               | 8.6   |
| <i>f</i> <sub>93</sub>                 | 1.8702±0.0019                | 0.23±0.06        | 3.12±0.12                | 15.9  | <i>f</i> <sub>204</sub>                | 1.9366±0.0026                | 0.14±0.05        | -2.40±0.16               | 8.5   |
| <i>f</i> <sub>94</sub>                 | 0.1381±0.0019                | 0.25±0.06        | 1.70±0.12                | 16.3  | <i>f</i> <sub>205</sub>                | 2.9391±0.0026                | 0.14±0.05        | -0.71±0.16               | 8.4   |
| <i>f</i> <sub>95</sub>                 | 0.1106±0.0018                | 0.26±0.06        | 0.20±0.11                | 17.1  | <i>f</i> <sub>206</sub>                | 0.5238±0.0027                | 0.16±0.06        | -0.92±0.16               | 8.2   |
| <i>f</i> <sub>96</sub>                 | 1.0441±0.0019                | 0.24±0.06        | -2.62±0.11               | 16.6  | <i>f</i> <sub>207</sub>                | 0.6473±0.0027                | 0.15±0.05        | -2.37±0.16               | 8.2   |
| <i>f</i> <sub>97</sub>                 | 0.2948±0.0019                | 0.27±0.07        | -2.87±0.12               | 16.2  | <i>f</i> <sub>208</sub>                | 0.5737±0.0026                | 0.14±0.05        | 0.88±0.16                | 8.6   |
| <i>f</i> <sub>98</sub>                 | 3.6498±0.0019                | 0.21±0.05        | 0.13±0.12                | 16.2  | <i>f</i> <sub>209</sub>                | 3.7438±0.0026                | 0.12±0.04        | 2.62±0.16                | 8.3   |
| <i>f</i> <sub>100</sub>                | 1.5352±0.0019                | 0.21±0.05        | -1.01±0.12               | 15.9  | <i>f</i> <sub>211</sub>                | 0.7521±0.0027                | 0.15±0.05        | 2.23±0.16                | 8.1   |
| <i>f</i> <sub>101</sub>                | 0.2407±0.0019                | 0.26±0.07        | -2.40±0.12               | 15.6  | <i>f</i> <sub>212</sub>                | 0.7704±0.0026                | 0.16±0.05        | 2.14±0.16                | 8.7   |
| <i>f</i> <sub>102</sub>                | 2.1027±0.0019                | 0.24±0.06        | 1.40±0.12                | 15.6  | <i>f</i> <sub>213</sub>                | 0.7902±0.0026                | 0.14±0.05        | -1.52±0.16               | 8.9   |
| <i>f</i> <sub>103</sub>                | 1.3259±0.0020                | 0.21±0.05        | 1.07±0.12                | 15.2  | <i>f</i> <sub>214</sub>                | 0.6617±0.0026                | 0.15±0.05        | -2.75±0.16               | 8.7   |
| <i>f</i> <sub>105</sub>                | 0.6402±0.0020                | 0.22±0.06        | 1.57±0.12                | 14.6  | <i>f</i> <sub>215</sub>                | 1.3853±0.0027                | 0.15±0.05        | -0.92±0.16               | 8.1   |
| <i>f</i> <sub>106</sub>                | 1.5600±0.0020                | 0.22±0.06        | -0.03±0.12               | 14.2  | <i>f</i> <sub>216</sub>                | 0.1550±0.0027                | 0.13±0.05        | -2.88±0.16               | 8.2   |
| <i>f</i> <sub>107</sub>                | 2.6218±0.0020                | 0.20±0.05        | 1.31±0.12                | 14.1  | <i>f</i> <sub>217</sub>                | 0.2667±0.0026                | 0.15±0.05        | 0.83±0.16                | 8.6   |
| <i>f</i> <sub>108</sub>                | 3.9327±0.0021                | 0.19±0.05        | 3.13±0.13                | 13.6  | <i>f</i> <sub>218</sub>                | 2.3393±0.0026                | 0.15±0.05        | 2.27±0.16                | 8.4   |
| <i>f</i> <sub>109</sub>                | 1.9755±0.0021                | 0.24±0.07        | -2.88±0.13               | 13.5  | <i>f</i> <sub>219</sub>                | 0.2185±0.0026                | 0.15±0.05        | 1.54±0.16                | 8.3   |
| <i>f</i> <sub>110</sub>                | 1.9874±0.0020                | 0.21±0.05        | 1.58±0.12                | 15.0  | <i>f</i> <sub>223</sub>                | 32.9567±0.0027               | 0.15±0.05        | -2.68±0.16               | 8.1   |
| <i>f</i> <sub>113</sub>                | 0.2476±0.0021                | 0.22±0.06        | 3.02±0.13                | 13.8  | <i>f</i> <sub>225</sub>                | 3.8769±0.0027                | 0.14±0.05        | 1.57±0.16                | 8.0   |
| Frequency list of 0102603266 continued |                              |                  |                          |       | Frequency list of 0102603266 continued |                              |                  |                          |       |

## Appendix B. Frequencies of individual $\gamma$ Dor Stars

| Frequency list of 0102603266 continued |                              |                  |                          |       | Frequency list of 0102604639 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{226}$                              | 55.8507±0.0027               | 0.14±0.05        | 0.42±0.17                | 7.9   | $f_{10}$                               | 1.7973±0.0006                | 0.70±0.05        | 2.12±0.03                | 185.0 |
| $f_{228}$                              | 2.0896±0.0027                | 0.12±0.04        | -3.10±0.17               | 7.8   | $f_{11}$                               | 1.6537±0.0006                | 0.67±0.05        | 0.40±0.04                | 152.1 |
| $f_{232}$                              | 1.8872±0.0028                | 0.13±0.05        | -0.66±0.17               | 7.6   | $f_{12}$                               | 2.5900±0.0007                | 0.57±0.05        | 1.30±0.04                | 110.0 |
| $f_{233}$                              | 0.3751±0.0028                | 0.12±0.04        | -1.97±0.17               | 7.7   | $f_{13}$                               | 1.7308±0.0008                | 0.50±0.05        | 1.55±0.05                | 101.6 |
| $f_{236}$                              | 1.4744±0.0028                | 0.12±0.04        | -1.10±0.17               | 7.4   | $f_{14}$                               | 2.2808±0.0008                | 0.41±0.04        | 1.00±0.05                | 94.2  |
| $f_{237}$                              | 8.9591±0.0028                | 0.14±0.05        | -2.52±0.17               | 7.4   | $f_{16}$                               | 0.1751±0.0009                | 0.40±0.05        | 0.39±0.06                | 66.4  |
| $f_{240}$                              | 2.8589±0.0028                | 0.13±0.05        | -2.49±0.17               | 7.4   | $f_{17}$                               | 2.2639±0.0010                | 0.32±0.04        | 1.09±0.06                | 54.4  |
| $f_{241}$                              | 0.5435±0.0028                | 0.13±0.05        | -1.22±0.17               | 7.7   | $f_{18}$                               | 2.3999±0.0011                | 0.32±0.05        | 2.75±0.07                | 50.2  |
| $f_{242}$                              | 4.1381±0.0028                | 0.13±0.05        | 0.78±0.17                | 7.3   | $f_{19}$                               | 1.6202±0.0011                | 0.31±0.04        | 0.10±0.06                | 51.9  |
| $f_{243}$                              | 0.4340±0.0028                | 0.13±0.05        | 0.26±0.17                | 7.3   | $f_{22}$                               | 0.1047±0.0011                | 0.41±0.06        | -2.58±0.07               | 49.2  |
| $f_{245}$                              | 2.1530±0.0028                | 0.13±0.05        | 3.06±0.17                | 7.2   | $f_{23}$                               | 0.1111±0.0010                | 0.35±0.05        | -2.95±0.06               | 55.7  |
| $f_{246}$                              | 2.4505±0.0028                | 0.12±0.04        | -2.25±0.17               | 7.3   | $f_{25}$                               | 0.2394±0.0011                | 0.23±0.03        | 1.62±0.07                | 47.0  |
| $f_{247}$                              | 1.9957±0.0028                | 0.14±0.05        | 1.88±0.17                | 7.2   | $f_{26}$                               | 1.8084±0.0011                | 0.24±0.04        | 0.43±0.07                | 45.9  |
| $f_{248}$                              | 4.2457±0.0028                | 0.13±0.05        | 0.24±0.17                | 7.2   | $f_{27}$                               | 0.1701±0.0012                | 0.22±0.03        | 1.80±0.07                | 42.2  |
| $f_{249}$                              | 2.6941±0.0028                | 0.13±0.05        | 0.45±0.17                | 7.3   | $f_{28}$                               | 1.7418±0.0012                | 0.32±0.05        | -1.62±0.07               | 41.5  |
| $f_{250}$                              | 1.3653±0.0029                | 0.13±0.05        | -2.50±0.17               | 7.1   | $f_{29}$                               | 2.4996±0.0012                | 0.26±0.04        | 2.34±0.07                | 42.1  |
| $f_{251}$                              | 1.8442±0.0028                | 0.13±0.05        | 1.70±0.17                | 7.3   | $f_{30}$                               | 1.8463±0.0012                | 0.34±0.05        | 1.42±0.07                | 39.4  |
| $f_{253}$                              | 3.9913±0.0029                | 0.13±0.05        | -2.91±0.17               | 7.1   | $f_{31}$                               | 5.4951±0.0012                | 0.28±0.04        | 0.38±0.07                | 39.7  |
| $f_{258}$                              | 3.6314±0.0030                | 0.12±0.05        | 2.96±0.18                | 6.5   | $f_{32}$                               | 1.6386±0.0013                | 0.27±0.04        | -2.93±0.08               | 36.8  |
| $f_{262}$                              | 1.2363±0.0030                | 0.12±0.05        | -0.33±0.18               | 6.5   | $f_{33}$                               | 0.3630±0.0013                | 0.22±0.04        | -0.39±0.08               | 34.4  |
| $f_{263}$                              | 22.9297±0.0030               | 0.13±0.05        | 0.08±0.18                | 6.5   | $f_{34}$                               | 2.2459±0.0014                | 0.27±0.05        | 2.27±0.08                | 31.6  |
| $f_{264}$                              | 4.0194±0.0030                | 0.12±0.05        | 2.76±0.18                | 6.4   | $f_{35}$                               | 1.8271±0.0014                | 0.27±0.05        | -1.07±0.08               | 30.9  |
| $f_{265}$                              | 4.7265±0.0030                | 0.12±0.05        | -0.82±0.18               | 6.5   | $f_{36}$                               | 0.1808±0.0013                | 0.18±0.03        | 0.78±0.08                | 32.3  |
| $f_{266}$                              | 1.7130±0.0030                | 0.12±0.05        | 0.53±0.18                | 6.4   | $f_{38}$                               | 2.3690±0.0014                | 0.23±0.04        | 1.23±0.09                | 28.8  |
| $f_{267}$                              | 1.4905±0.0030                | 0.12±0.05        | -2.68±0.18               | 6.4   | $f_{40}$                               | 5.1117±0.0015                | 0.23±0.04        | 2.77±0.09                | 27.1  |
| $f_{268}$                              | 50.8723±0.0030               | 0.13±0.05        | -0.16±0.18               | 6.4   | $f_{41}$                               | 2.5406±0.0015                | 0.21±0.04        | 1.27±0.09                | 25.8  |
| $f_{271}$                              | 0.8278±0.0030                | 0.12±0.05        | 1.66±0.18                | 6.4   | $f_{42}$                               | 5.3379±0.0015                | 0.20±0.04        | 0.46±0.09                | 25.5  |
| $f_{272}$                              | 0.9230±0.0029                | 0.12±0.05        | -1.32±0.18               | 6.7   | $f_{43}$                               | 0.2583±0.0016                | 0.28±0.06        | 2.07±0.10                | 22.5  |
| $f_{273}$                              | 1.3475±0.0030                | 0.12±0.05        | 2.05±0.18                | 6.5   | $f_{44}$                               | 0.2229±0.0015                | 0.26±0.05        | 1.57±0.09                | 25.7  |
| $f_{274}$                              | 0.9366±0.0031                | 0.12±0.05        | 1.24±0.19                | 6.2   | $f_{45}$                               | 2.3420±0.0016                | 0.21±0.04        | -0.70±0.10               | 22.7  |
| $f_{275}$                              | 0.4559±0.0031                | 0.11±0.04        | -2.38±0.19               | 6.2   | $f_{46}$                               | 0.3951±0.0016                | 0.16±0.03        | 1.10±0.10                | 23.3  |
| $f_{276}$                              | 0.1727±0.0030                | 0.12±0.05        | 1.01±0.18                | 6.5   | $f_{49}$                               | 2.3037±0.0018                | 0.20±0.05        | 1.77±0.11                | 18.9  |
| $f_{278}$                              | 3.6220±0.0031                | 0.12±0.05        | 1.63±0.19                | 6.1   | $f_{50}$                               | 0.2645±0.0017                | 0.21±0.05        | -1.60±0.11               | 19.4  |
| $f_{279}$                              | 0.9610±0.0031                | 0.12±0.05        | 2.06±0.19                | 6.0   | $f_{51}$                               | 5.3039±0.0018                | 0.18±0.04        | -2.06±0.11               | 18.9  |
| $f_{280}$                              | 1.2452±0.0031                | 0.11±0.04        | -1.16±0.19               | 6.1   | $f_{52}$                               | 0.1402±0.0018                | 0.17±0.04        | 1.17±0.11                | 18.7  |
| $f_{284}$                              | 2.4736±0.0031                | 0.11±0.05        | -0.96±0.19               | 5.9   | $f_{53}$                               | 0.1594±0.0018                | 0.20±0.05        | 1.99±0.11                | 18.6  |
| $f_{285}$                              | 2.9947±0.0031                | 0.11±0.04        | -0.30±0.19               | 6.1   | $f_{54}$                               | 2.4732±0.0018                | 0.17±0.04        | 1.26±0.11                | 18.5  |
| $f_{286}$                              | 3.8544±0.0031                | 0.11±0.05        | 0.24±0.19                | 5.9   | $f_{55}$                               | 0.1968±0.0018                | 0.19±0.04        | -1.72±0.11               | 17.9  |
| $f_{287}$                              | 3.7245±0.0031                | 0.12±0.05        | 1.77±0.19                | 5.9   | $f_{56}$                               | 0.4399±0.0018                | 0.17±0.04        | 3.08±0.11                | 17.8  |
| $f_{288}$                              | 2.2727±0.0031                | 0.11±0.05        | -2.98±0.19               | 5.9   | $f_{57}$                               | 1.7657±0.0018                | 0.15±0.04        | 2.31±0.11                | 18.2  |
| $f_{289}$                              | 0.9683±0.0032                | 0.12±0.05        | 2.90±0.19                | 5.8   | $f_{59}$                               | 1.6059±0.0018                | 0.16±0.04        | -1.67±0.11               | 17.2  |
| $f_{290}$                              | 1.0174±0.0031                | 0.11±0.04        | -0.37±0.19               | 6.2   | $f_{60}$                               | 0.2335±0.0019                | 0.17±0.04        | -3.11±0.11               | 16.7  |
| $f_{291}$                              | 2.4328±0.0031                | 0.11±0.04        | 0.51±0.19                | 6.0   | $f_{61}$                               | 2.2955±0.0019                | 0.16±0.04        | -1.09±0.12               | 16.4  |
| $f_{293}$                              | 1.9670±0.0032                | 0.11±0.05        | -1.90±0.19               | 5.8   | $f_{62}$                               | 0.2958±0.0019                | 0.13±0.03        | 0.44±0.11                | 16.9  |
| $f_{294}$                              | 2.0332±0.0031                | 0.11±0.04        | 1.76±0.19                | 6.0   | $f_{63}$                               | 2.6701±0.0019                | 0.17±0.04        | -0.55±0.12               | 16.2  |
| $f_{296}$                              | 1.2149±0.0033                | 0.11±0.05        | 0.00±0.20                | 5.5   | $f_{64}$                               | 2.1700±0.0019                | 0.12±0.03        | -2.09±0.12               | 16.0  |
| $f_{297}$                              | 0.8594±0.0033                | 0.11±0.05        | 1.44±0.20                | 5.5   | $f_{67}$                               | 1.8517±0.0019                | 0.15±0.04        | 1.11±0.12                | 16.0  |
| $f_{298}$                              | 0.4794±0.0033                | 0.11±0.05        | -1.76±0.20               | 5.5   | $f_{68}$                               | 4.7321±0.0019                | 0.16±0.04        | 2.41±0.12                | 15.6  |
| $f_{299}$                              | 29.0566±0.0032               | 0.10±0.04        | -2.53±0.20               | 5.6   | $f_{69}$                               | 1.5876±0.0019                | 0.16±0.04        | 0.08±0.12                | 15.6  |
| $f_{303}$                              | 5.8128±0.0033                | 0.11±0.05        | -3.07±0.20               | 5.4   | $f_{70}$                               | 0.5016±0.0020                | 0.14±0.04        | 0.58±0.12                | 14.9  |
| $f_{305}$                              | 0.7072±0.0033                | 0.11±0.05        | 1.63±0.20                | 5.4   | $f_{71}$                               | 1.9871±0.0021                | 0.12±0.03        | 2.38±0.13                | 13.7  |
| $f_{306}$                              | 0.5524±0.0033                | 0.11±0.05        | 0.63±0.20                | 5.5   | $f_{72}$                               | 2.4621±0.0021                | 0.15±0.04        | -0.98±0.13               | 13.2  |
| $f_{307}$                              | 3.4852±0.0033                | 0.10±0.04        | 0.16±0.20                | 5.5   | $f_{73}$                               | 0.6568±0.0021                | 0.15±0.04        | -0.97±0.13               | 13.6  |
| $f_{308}$                              | 2.1746±0.0033                | 0.10±0.04        | 1.39±0.20                | 5.5   | $f_{74}$                               | 0.5816±0.0021                | 0.13±0.04        | -0.42±0.13               | 13.5  |
| $f_{309}$                              | 1.4200±0.0033                | 0.10±0.04        | 1.06±0.20                | 5.4   | $f_{76}$                               | 1.6912±0.0021                | 0.13±0.04        | 2.20±0.13                | 12.9  |
| $f_{310}$                              | 41.8921±0.0033               | 0.10±0.04        | -0.53±0.20               | 5.3   | $f_{77}$                               | 1.8135±0.0022                | 0.14±0.04        | -1.38±0.14               | 11.7  |
| $f_{311}$                              | 47.9316±0.0033               | 0.11±0.05        | -1.30±0.20               | 5.5   | $f_{78}$                               | 2.3619±0.0022                | 0.14±0.04        | 0.04±0.14                | 11.9  |
| $f_{312}$                              | 18.9866±0.0032               | 0.12±0.05        | -2.99±0.20               | 5.7   | $f_{79}$                               | 5.1334±0.0023                | 0.11±0.03        | 2.22±0.14                | 11.2  |
| $f_{313}$                              | 6.0161±0.0031                | 0.12±0.05        | 2.64±0.19                | 5.9   | $f_{80}$                               | 0.1656±0.0023                | 0.12±0.04        | -0.96±0.14               | 11.2  |
| $f_{314}$                              | 6.9526±0.0032                | 0.11±0.05        | 2.41±0.20                | 5.7   | $f_{81}$                               | 41.9364±0.0023               | 0.13±0.04        | -1.27±0.14               | 10.9  |
| $f_{315}$                              | 35.8980±0.0032               | 0.11±0.05        | -1.24±0.20               | 5.7   | $f_{83}$                               | 0.3544±0.0023                | 0.12±0.04        | 2.60±0.14                | 11.2  |
| $f_{319}$                              | 2.3783±0.0033                | 0.10±0.04        | 2.67±0.20                | 5.2   | $f_{85}$                               | 2.4900±0.0023                | 0.11±0.03        | -2.35±0.14               | 11.0  |
| $f_{320}$                              | 1.1567±0.0033                | 0.10±0.04        | -0.35±0.20               | 5.5   | $f_{87}$                               | 1.0370±0.0023                | 0.12±0.04        | 1.91±0.14                | 11.0  |
| $f_{321}$                              | 3.7673±0.0033                | 0.10±0.04        | 0.90±0.20                | 5.3   | $f_{89}$                               | 1.9507±0.0023                | 0.11±0.03        | 2.57±0.14                | 10.6  |
| $f_{327}$                              | 2.7873±0.0032                | 0.11±0.05        | -1.29±0.19               | 5.8   | $f_{92}$                               | 0.4047±0.0024                | 0.14±0.04        | -0.55±0.15               | 10.1  |
| $f_{331}$                              | 0.1199±0.0034                | 0.10±0.04        | 1.03±0.21                | 5.0   | $f_{93}$                               | 2.2571±0.0024                | 0.14±0.04        | 1.02±0.15                | 10.1  |
| $f_{332}$                              | 2.9199±0.0034                | 0.10±0.04        | 2.04±0.21                | 5.1   | $f_{94}$                               | 0.3223±0.0024                | 0.12±0.04        | -1.15±0.15               | 10.3  |
|                                        |                              |                  |                          |       | $f_{95}$                               | 2.2732±0.0024                | 0.13±0.04        | 0.53±0.15                | 9.8   |
|                                        |                              |                  |                          |       | $f_{97}$                               | 0.8989±0.0024                | 0.11±0.04        | -2.17±0.15               | 9.8   |
|                                        |                              |                  |                          |       | $f_{98}$                               | 0.6365±0.0025                | 0.11±0.04        | 1.93±0.15                | 9.5   |
|                                        |                              |                  |                          |       | $f_{99}$                               | 4.8381±0.0025                | 0.12±0.04        | 0.60±0.15                | 9.4   |
|                                        |                              |                  |                          |       | $f_{100}$                              | 0.2872±0.0025                | 0.11±0.04        | 2.48±0.15                | 9.3   |
|                                        |                              |                  |                          |       | $f_{101}$                              | 2.5259±0.0025                | 0.12±0.04        | -2.16±0.16               | 9.0   |
|                                        |                              |                  |                          |       | $f_{102}$                              | 1.6990±0.0025                | 0.11±0.04        | -2.69±0.15               | 9.1   |
|                                        |                              |                  |                          |       | $f_{104}$                              | 2.0059±0.0026                | 0.12±0.04        | 0.76±0.16                | 8.9   |
|                                        |                              |                  |                          |       | $f_{105}$                              | 2.1764±0.0025                | 0.13±0.04        | -2.84±0.15               | 9.1   |

**Table B.16:** Frequency list of 0102604639

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign.  |
|--------------|------------------------------|------------------|--------------------------|--------|
| $f_1$        | 2.3843±0.0002                | 3.86±0.11        | 1.38±0.01                | 1204.8 |
| $f_2$        | 2.4523±0.0003                | 2.40±0.09        | 2.36±0.02                | 657.4  |
| $f_3$        | 2.5561±0.0003                | 1.96±0.08        | 1.40±0.02                | 560.8  |
| $f_4$        | 2.7475±0.0004                | 1.67±0.08        | 1.35±0.02                | 455.6  |
| $f_5$        | 1.7231±0.0004                | 1.85±0.09        | -1.02±0.02               | 469.1  |
| $f_6$        | 2.3492±0.0004                | 1.46±0.07        | -0.30±0.02               | 442.8  |
| $f_7$        | 1.7132±0.0004                | 1.27±0.07        | -0.08±0.02               | 376.3  |
| $f_8$        | 1.7047±0.0005                | 0.95±0.06        | 2.76±0.03                | 247.3  |
| $f_9$        | 2.4172±0.0005                | 0.90±0.06        | 1.60±0.03                | 214.3  |

Frequency list of 0102604639 continued

Frequency list of 0102604639 continued

## Appendix B. Frequencies of individual $\gamma$ Dor Stars

| Frequency list of 0102604639 continued |                              |                  |                          |       | Frequency list of 0102605106 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| <i>f</i> <sub>106</sub>                | 5.1451±0.0026                | 0.11±0.04        | -1.29±0.16               | 8.8   | <i>f</i> <sub>37</sub>                 | 0.2584±0.0014                | 0.05±0.01        | -1.92±0.08               | 30.6  |
| <i>f</i> <sub>107</sub>                | 4.7003±0.0027                | 0.10±0.03        | -3.04±0.16               | 8.2   | <i>f</i> <sub>39</sub>                 | 0.8611±0.0014                | 0.04±0.01        | 0.99±0.09                | 29.6  |
| <i>f</i> <sub>108</sub>                | 1.6835±0.0027                | 0.11±0.04        | 1.82±0.17                | 7.9   | <i>f</i> <sub>41</sub>                 | 0.1080±0.0015                | 0.04±0.01        | -1.20±0.09               | 27.7  |
| <i>f</i> <sub>110</sub>                | 0.2515±0.0027                | 0.13±0.05        | -0.36±0.17               | 7.9   | <i>f</i> <sub>42</sub>                 | 1.4414±0.0015                | 0.04±0.01        | -0.20±0.09               | 27.3  |
| <i>f</i> <sub>111</sub>                | 0.4659±0.0027                | 0.11±0.04        | -0.88±0.17               | 7.8   | <i>f</i> <sub>43</sub>                 | 2.5260±0.0014                | 0.04±0.01        | -1.56±0.09               | 28.0  |
| <i>f</i> <sub>112</sub>                | 0.9591±0.0028                | 0.10±0.04        | -0.39±0.17               | 7.7   | <i>f</i> <sub>44</sub>                 | 1.5632±0.0015                | 0.04±0.01        | 0.54±0.09                | 26.2  |
| <i>f</i> <sub>113</sub>                | 0.5607±0.0027                | 0.11±0.04        | -0.17±0.17               | 7.9   | <i>f</i> <sub>48</sub>                 | 0.5127±0.0015                | 0.04±0.01        | 2.16±0.09                | 27.2  |
| <i>f</i> <sub>114</sub>                | 0.7460±0.0028                | 0.09±0.03        | 0.50±0.17                | 7.5   | <i>f</i> <sub>49</sub>                 | 2.3010±0.0015                | 0.04±0.01        | 1.43±0.09                | 26.5  |
| <i>f</i> <sub>116</sub>                | 5.3327±0.0027                | 0.10±0.04        | 1.33±0.17                | 7.8   | <i>f</i> <sub>50</sub>                 | 2.1598±0.0015                | 0.04±0.01        | -0.64±0.09               | 27.4  |
| <i>f</i> <sub>117</sub>                | 2.0222±0.0028                | 0.11±0.04        | 0.82±0.17                | 7.3   | <i>f</i> <sub>51</sub>                 | 0.8101±0.0015                | 0.04±0.01        | -1.61±0.09               | 26.4  |
| <i>f</i> <sub>118</sub>                | 55.8535±0.0028               | 0.10±0.04        | 0.19±0.17                | 7.2   | <i>f</i> <sub>52</sub>                 | 0.1532±0.0015                | 0.04±0.01        | 1.15±0.09                | 27.2  |
| <i>f</i> <sub>120</sub>                | 2.3322±0.0029                | 0.10±0.04        | 2.64±0.17                | 7.1   | <i>f</i> <sub>53</sub>                 | 0.6987±0.0015                | 0.04±0.01        | -1.09±0.09               | 26.8  |
| <i>f</i> <sub>121</sub>                | 0.1198±0.0029                | 0.12±0.05        | 3.03±0.18                | 7.0   | <i>f</i> <sub>56</sub>                 | 1.0464±0.0015                | 0.03±0.01        | 1.16±0.09                | 24.3  |
| <i>f</i> <sub>122</sub>                | 55.8635±0.0029               | 0.10±0.04        | 1.60±0.18                | 7.0   | <i>f</i> <sub>57</sub>                 | 0.6539±0.0016                | 0.04±0.01        | 2.17±0.10                | 23.7  |
| <i>f</i> <sub>123</sub>                | 0.4918±0.0029                | 0.10±0.04        | 1.16±0.18                | 7.0   | <i>f</i> <sub>59</sub>                 | 0.9450±0.0016                | 0.03±0.01        | -0.29±0.10               | 21.7  |
| <i>f</i> <sub>124</sub>                | 0.3429±0.0029                | 0.10±0.04        | 0.50±0.18                | 7.0   | <i>f</i> <sub>60</sub>                 | 0.7326±0.0016                | 0.03±0.01        | -0.67±0.10               | 22.2  |
| <i>f</i> <sub>125</sub>                | 1.7228±0.0029                | 0.10±0.04        | -0.61±0.18               | 6.8   | <i>f</i> <sub>62</sub>                 | 2.5118±0.0017                | 0.04±0.01        | -2.66±0.10               | 21.1  |
| <i>f</i> <sub>127</sub>                | 56.8673±0.0029               | 0.10±0.04        | 0.59±0.18                | 6.7   | <i>f</i> <sub>63</sub>                 | 0.2203±0.0017                | 0.03±0.01        | -2.27±0.10               | 21.2  |
| <i>f</i> <sub>128</sub>                | 0.7914±0.0030                | 0.10±0.04        | 0.92±0.18                | 6.6   | <i>f</i> <sub>64</sub>                 | 0.1874±0.0016                | 0.04±0.01        | 0.76±0.10                | 22.2  |
| <i>f</i> <sub>129</sub>                | 0.9440±0.0029                | 0.10±0.04        | 1.55±0.18                | 6.8   | <i>f</i> <sub>65</sub>                 | 0.6729±0.0017                | 0.04±0.01        | 2.92±0.10                | 21.1  |
| <i>f</i> <sub>130</sub>                | 2.1573±0.0029                | 0.10±0.04        | -0.56±0.18               | 7.0   | <i>f</i> <sub>66</sub>                 | 0.4181±0.0017                | 0.04±0.01        | -0.67±0.10               | 20.8  |
| <i>f</i> <sub>131</sub>                | 1.5226±0.0029                | 0.10±0.04        | -1.02±0.18               | 6.9   | <i>f</i> <sub>67</sub>                 | 0.3964±0.0017                | 0.04±0.01        | 0.79±0.10                | 21.0  |
| <i>f</i> <sub>132</sub>                | 2.5642±0.0030                | 0.09±0.04        | -2.34±0.18               | 6.6   | <i>f</i> <sub>68</sub>                 | 1.4823±0.0017                | 0.03±0.01        | -2.84±0.10               | 21.2  |
| <i>f</i> <sub>133</sub>                | 0.6795±0.0030                | 0.09±0.04        | 0.40±0.18                | 6.6   | <i>f</i> <sub>69</sub>                 | 0.4944±0.0017                | 0.03±0.01        | 1.47±0.11                | 19.5  |
| <i>f</i> <sub>134</sub>                | 4.9957±0.0030                | 0.09±0.04        | -2.51±0.18               | 6.5   | <i>f</i> <sub>70</sub>                 | 1.3904±0.0017                | 0.04±0.01        | 1.44±0.10                | 19.8  |
| <i>f</i> <sub>135</sub>                | 1.7568±0.0030                | 0.09±0.04        | -0.36±0.19               | 6.3   | <i>f</i> <sub>71</sub>                 | 2.1767±0.0017                | 0.04±0.01        | 1.34±0.10                | 20.0  |
| <i>f</i> <sub>137</sub>                | 4.6644±0.0030                | 0.10±0.04        | 2.81±0.19                | 6.3   | <i>f</i> <sub>72</sub>                 | 0.8166±0.0017                | 0.03±0.01        | 1.42±0.11                | 19.4  |
| <i>f</i> <sub>138</sub>                | 4.9191±0.0031                | 0.09±0.04        | -2.22±0.19               | 6.2   | <i>f</i> <sub>73</sub>                 | 0.8820±0.0017                | 0.03±0.01        | -1.66±0.10               | 21.3  |
| <i>f</i> <sub>139</sub>                | 0.6079±0.0031                | 0.09±0.04        | 1.64±0.19                | 6.2   | <i>f</i> <sub>74</sub>                 | 2.2640±0.0017                | 0.03±0.01        | -0.41±0.10               | 19.8  |
| <i>f</i> <sub>141</sub>                | 2.2080±0.0032                | 0.09±0.04        | -0.26±0.19               | 5.8   | <i>f</i> <sub>75</sub>                 | 1.6126±0.0017                | 0.03±0.01        | 0.23±0.11                | 19.2  |
| <i>f</i> <sub>142</sub>                | 2.4241±0.0031                | 0.09±0.04        | 2.68±0.19                | 5.9   | <i>f</i> <sub>76</sub>                 | 0.8505±0.0018                | 0.02±0.00        | 1.63±0.11                | 19.0  |
| <i>f</i> <sub>143</sub>                | 2.1343±0.0031                | 0.08±0.03        | -1.33±0.19               | 5.9   | <i>f</i> <sub>77</sub>                 | 2.3931±0.0018                | 0.03±0.01        | 2.89±0.11                | 19.0  |
| <i>f</i> <sub>144</sub>                | 2.8128±0.0032                | 0.09±0.04        | -2.77±0.19               | 5.8   | <i>f</i> <sub>78</sub>                 | 0.3491±0.0018                | 0.03±0.01        | 0.63±0.11                | 18.3  |
| <i>f</i> <sub>145</sub>                | 1.2694±0.0032                | 0.09±0.04        | 1.37±0.20                | 5.6   | <i>f</i> <sub>79</sub>                 | 2.5528±0.0018                | 0.03±0.01        | -0.24±0.11               | 18.3  |
| <i>f</i> <sub>146</sub>                | 1.3701±0.0031                | 0.09±0.04        | 0.91±0.19                | 5.9   | <i>f</i> <sub>80</sub>                 | 0.4437±0.0018                | 0.03±0.01        | 2.92±0.11                | 18.4  |
| <i>f</i> <sub>147</sub>                | 2.4414±0.0033                | 0.09±0.04        | -0.02±0.20               | 5.5   | <i>f</i> <sub>81</sub>                 | 0.2415±0.0018                | 0.03±0.01        | -2.50±0.11               | 17.9  |
| <i>f</i> <sub>149</sub>                | 4.8028±0.0033                | 0.08±0.03        | 0.47±0.20                | 5.3   | <i>f</i> <sub>82</sub>                 | 2.4418±0.0018                | 0.03±0.01        | 3.09±0.11                | 17.7  |
| <i>f</i> <sub>150</sub>                | 4.8707±0.0033                | 0.08±0.03        | -0.50±0.20               | 5.4   | <i>f</i> <sub>83</sub>                 | 0.2689±0.0018                | 0.03±0.01        | 2.21±0.11                | 18.0  |
| <i>f</i> <sub>151</sub>                | 2.2322±0.0034                | 0.08±0.04        | 1.16±0.21                | 5.1   | <i>f</i> <sub>84</sub>                 | 1.5302±0.0018                | 0.03±0.01        | 1.26±0.11                | 17.2  |
| <i>f</i> <sub>152</sub>                | 4.6448±0.0034                | 0.08±0.04        | -0.88±0.21               | 5.1   | <i>f</i> <sub>85</sub>                 | 1.1352±0.0019                | 0.02±0.00        | -0.30±0.11               | 16.8  |
| <i>f</i> <sub>153</sub>                | 1.8905±0.0034                | 0.10±0.04        | -0.92±0.21               | 5.0   | <i>f</i> <sub>86</sub>                 | 2.2318±0.0019                | 0.03±0.01        | -2.01±0.11               | 16.8  |
| <i>f</i> <sub>154</sub>                | 1.8797±0.0034                | 0.09±0.04        | 1.42±0.21                | 5.1   | <i>f</i> <sub>87</sub>                 | 0.5908±0.0019                | 0.03±0.01        | 0.86±0.12                | 16.3  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>88</sub>                 | 0.3194±0.0019                | 0.03±0.01        | -1.52±0.12               | 15.4  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>89</sub>                 | 1.3452±0.0019                | 0.04±0.01        | 0.36±0.12                | 15.5  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>90</sub>                 | 0.9778±0.0019                | 0.03±0.01        | -0.61±0.12               | 15.4  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>91</sub>                 | 1.5913±0.0020                | 0.03±0.01        | 1.28±0.12                | 15.2  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>92</sub>                 | 1.5122±0.0019                | 0.02±0.01        | -0.32±0.12               | 15.7  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>93</sub>                 | 0.8243±0.0019                | 0.03±0.01        | 3.03±0.12                | 16.2  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>94</sub>                 | 2.1398±0.0020                | 0.03±0.01        | -2.78±0.12               | 15.2  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>95</sub>                 | 2.0487±0.0019                | 0.03±0.01        | -0.72±0.12               | 15.4  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>96</sub>                 | 1.0208±0.0020                | 0.03±0.01        | 2.38±0.12                | 15.3  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>97</sub>                 | 0.7074±0.0020                | 0.02±0.01        | -1.24±0.12               | 14.6  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>98</sub>                 | 0.1367±0.0020                | 0.03±0.01        | -0.48±0.12               | 13.9  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>101</sub>                | 0.3038±0.0020                | 0.03±0.01        | 2.07±0.12                | 13.9  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>102</sub>                | 2.3314±0.0021                | 0.03±0.01        | -0.54±0.13               | 13.4  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>103</sub>                | 2.1517±0.0020                | 0.03±0.01        | -2.05±0.12               | 14.4  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>105</sub>                | 2.1867±0.0021                | 0.02±0.01        | 2.51±0.13                | 13.4  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>106</sub>                | 1.2560±0.0021                | 0.03±0.01        | -1.73±0.13               | 13.6  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>107</sub>                | 3.7197±0.0021                | 0.02±0.01        | 0.10±0.13                | 12.9  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>108</sub>                | 2.4015±0.0021                | 0.02±0.01        | 0.15±0.13                | 13.0  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>109</sub>                | 1.3236±0.0021                | 0.03±0.01        | -1.65±0.13               | 13.0  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>110</sub>                | 0.6176±0.0021                | 0.03±0.01        | 1.51±0.13                | 13.0  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>111</sub>                | 2.2862±0.0022                | 0.02±0.01        | -1.61±0.13               | 12.6  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>112</sub>                | 1.1025±0.0022                | 0.02±0.01        | -1.06±0.13               | 12.6  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>114</sub>                | 0.3767±0.0022                | 0.03±0.01        | -0.62±0.13               | 12.2  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>115</sub>                | 0.5378±0.0022                | 0.02±0.01        | 1.50±0.13                | 12.5  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>116</sub>                | 0.8706±0.0022                | 0.03±0.01        | -1.41±0.14               | 11.7  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>117</sub>                | 2.5660±0.0022                | 0.02±0.01        | 1.13±0.14                | 11.8  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>118</sub>                | 1.5446±0.0022                | 0.02±0.01        | 1.69±0.14                | 11.7  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>119</sub>                | 1.4183±0.0022                | 0.02±0.01        | -1.19±0.14               | 11.9  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>120</sub>                | 0.1290±0.0022                | 0.02±0.01        | -1.77±0.14               | 11.7  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>121</sub>                | 0.4312±0.0022                | 0.02±0.01        | 2.07±0.14                | 11.8  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>122</sub>                | 0.5479±0.0023                | 0.02±0.01        | 2.20±0.14                | 10.9  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>123</sub>                | 2.2003±0.0023                | 0.02±0.01        | -2.36±0.14               | 10.8  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>124</sub>                | 0.7713±0.0023                | 0.03±0.01        | -2.79±0.14               | 10.8  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>125</sub>                | 1.2767±0.0023                | 0.03±0.01        | -1.74±0.14               | 11.1  |
| Frequency list of 0102605106 continued |                              |                  |                          |       | Frequency list of 0102605106 continued |                              |                  |                          |       |
| Frequency list of 0102605106 continued |                              |                  |                          |       |                                        |                              |                  |                          |       |

## Appendix B. Frequencies of individual $\gamma$ Dor Stars

| Frequency list of 0102605106 continued |                              |                  |               |       | Frequency list of 0102605393 continued |                              |                  |               |       |
|----------------------------------------|------------------------------|------------------|---------------|-------|----------------------------------------|------------------------------|------------------|---------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [-π, π] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [-π, π] | Sign. |
| f <sub>126</sub>                       | 0.9154±0.0023                | 0.02±0.01        | 1.66±0.14     | 11.3  | f <sub>15</sub>                        | 0.1907±0.0010                | 0.27±0.03        | 2.84±0.06     | 61.1  |
| f <sub>127</sub>                       | 3.0586±0.0023                | 0.02±0.01        | -0.16±0.14    | 10.7  | f <sub>16</sub>                        | 0.1838±0.0010                | 0.23±0.03        | -0.11±0.06    | 61.2  |
| f <sub>128</sub>                       | 0.8897±0.0023                | 0.02±0.01        | -1.29±0.14    | 10.6  | f <sub>17</sub>                        | 0.1084±0.0010                | 0.21±0.03        | -3.06±0.06    | 59.9  |
| f <sub>129</sub>                       | 0.9282±0.0024                | 0.02±0.01        | -0.47±0.14    | 10.5  | f <sub>18</sub>                        | 0.4282±0.0011                | 0.14±0.02        | 0.67±0.07     | 50.6  |
| f <sub>130</sub>                       | 0.2855±0.0024                | 0.02±0.01        | 2.96±0.15     | 10.0  | f <sub>19</sub>                        | 1.1521±0.0011                | 0.19±0.03        | 0.92±0.07     | 49.2  |
| f <sub>131</sub>                       | 1.6221±0.0025                | 0.02±0.01        | 1.59±0.15     | 9.7   | f <sub>21</sub>                        | 0.1651±0.0011                | 0.19±0.03        | 2.00±0.07     | 46.2  |
| f <sub>132</sub>                       | 1.5734±0.0024                | 0.02±0.01        | 2.21±0.15     | 10.1  | f <sub>22</sub>                        | 1.8212±0.0012                | 0.17±0.03        | -2.37±0.07    | 42.5  |
| f <sub>133</sub>                       | 0.4098±0.0024                | 0.02±0.01        | 0.74±0.15     | 9.8   | f <sub>23</sub>                        | 0.2726±0.0012                | 0.15±0.02        | -0.65±0.07    | 42.5  |
| f <sub>135</sub>                       | 0.3361±0.0025                | 0.02±0.01        | 0.09±0.15     | 9.7   | f <sub>24</sub>                        | 0.3868±0.0012                | 0.19±0.03        | -2.03±0.07    | 39.4  |
| f <sub>136</sub>                       | 1.7056±0.0025                | 0.02±0.01        | -0.83±0.16    | 9.0   | f <sub>26</sub>                        | 1.1770±0.0012                | 0.16±0.03        | 2.45±0.07     | 39.1  |
| f <sub>137</sub>                       | 2.4193±0.0025                | 0.02±0.01        | 2.92±0.16     | 9.0   | f <sub>27</sub>                        | 0.6546±0.0012                | 0.18±0.03        | -2.98±0.08    | 38.3  |
| f <sub>138</sub>                       | 1.1951±0.0025                | 0.02±0.01        | -1.39±0.15    | 9.4   | f <sub>28</sub>                        | 3.4827±0.0013                | 0.16±0.03        | -2.50±0.08    | 37.2  |
| f <sub>141</sub>                       | 2.0072±0.0025                | 0.03±0.01        | 2.21±0.15     | 9.3   | f <sub>30</sub>                        | 1.2153±0.0013                | 0.16±0.03        | -1.46±0.08    | 33.7  |
| f <sub>143</sub>                       | 3.7823±0.0026                | 0.02±0.01        | -2.29±0.16    | 8.6   | f <sub>31</sub>                        | 0.2050±0.0014                | 0.15±0.03        | -2.39±0.08    | 30.8  |
| f <sub>146</sub>                       | 2.5366±0.0026                | 0.02±0.01        | -0.21±0.16    | 8.5   | f <sub>32</sub>                        | 1.2419±0.0014                | 0.18±0.03        | -1.83±0.08    | 31.2  |
| f <sub>147</sub>                       | 1.4267±0.0026                | 0.02±0.01        | -0.99±0.16    | 8.5   | f <sub>33</sub>                        | 1.5103±0.0014                | 0.13±0.02        | -2.46±0.08    | 30.5  |
| f <sub>148</sub>                       | 1.3680±0.0026                | 0.02±0.01        | 2.08±0.16     | 8.9   | f <sub>34</sub>                        | 1.6238±0.0014                | 0.14±0.02        | -2.47±0.08    | 31.4  |
| f <sub>149</sub>                       | 1.2459±0.0026                | 0.02±0.01        | 1.14±0.16     | 8.6   | f <sub>35</sub>                        | 1.5976±0.0014                | 0.14±0.03        | 1.87±0.08     | 30.9  |
| f <sub>150</sub>                       | 0.6279±0.0026                | 0.02±0.01        | 1.97±0.16     | 8.6   | f <sub>36</sub>                        | 1.2012±0.0014                | 0.12±0.02        | -1.78±0.09    | 28.0  |
| f <sub>151</sub>                       | 0.9535±0.0026                | 0.02±0.01        | 2.85±0.16     | 8.6   | f <sub>37</sub>                        | 0.2327±0.0015                | 0.17±0.03        | -0.26±0.09    | 25.4  |
| f <sub>152</sub>                       | 2.0559±0.0027                | 0.02±0.01        | -2.76±0.16    | 8.0   | f <sub>38</sub>                        | 3.4268±0.0015                | 0.13±0.03        | 0.20±0.09     | 25.7  |
| f <sub>153</sub>                       | 0.7858±0.0027                | 0.02±0.01        | -2.38±0.16    | 8.0   | f <sub>39</sub>                        | 3.7352±0.0015                | 0.13±0.03        | 0.29±0.09     | 24.3  |
| f <sub>154</sub>                       | 1.0538±0.0027                | 0.02±0.01        | 2.83±0.16     | 8.0   | f <sub>40</sub>                        | 0.3213±0.0016                | 0.15±0.03        | 2.15±0.10     | 22.9  |
| f <sub>155</sub>                       | 3.0869±0.0027                | 0.02±0.01        | 0.67±0.17     | 7.9   | f <sub>41</sub>                        | 0.3629±0.0016                | 0.11±0.02        | -2.67±0.10    | 22.0  |
| f <sub>157</sub>                       | 1.0870±0.0028                | 0.02±0.01        | 2.36±0.17     | 7.7   | f <sub>43</sub>                        | 0.3438±0.0017                | 0.12±0.03        | 2.72±0.10     | 20.5  |
| f <sub>158</sub>                       | 1.3349±0.0028                | 0.02±0.01        | 0.31±0.17     | 7.5   | f <sub>44</sub>                        | 1.2232±0.0017                | 0.10±0.02        | 1.14±0.11     | 19.5  |
| f <sub>159</sub>                       | 3.7269±0.0028                | 0.02±0.01        | -1.60±0.17    | 7.6   | f <sub>47</sub>                        | 0.1534±0.0017                | 0.14±0.03        | -3.08±0.11    | 19.4  |
| f <sub>161</sub>                       | 0.6844±0.0028                | 0.02±0.01        | 2.50±0.17     | 7.2   | f <sub>48</sub>                        | 0.3931±0.0017                | 0.14±0.03        | 2.57±0.10     | 20.0  |
| f <sub>162</sub>                       | 0.6917±0.0028                | 0.02±0.01        | 0.38±0.17     | 7.6   | f <sub>49</sub>                        | 0.3720±0.0017                | 0.13±0.03        | 1.80±0.10     | 20.6  |
| f <sub>163</sub>                       | 2.2138±0.0028                | 0.02±0.01        | 1.46±0.17     | 7.3   | f <sub>50</sub>                        | 0.2477±0.0017                | 0.14±0.03        | -1.08±0.10    | 20.4  |
| f <sub>166</sub>                       | 3.0325±0.0029                | 0.02±0.01        | 1.15±0.18     | 7.0   | f <sub>52</sub>                        | 0.6769±0.0018                | 0.13±0.03        | 1.47±0.11     | 17.4  |
| f <sub>167</sub>                       | 3.0240±0.0028                | 0.02±0.01        | 1.66±0.17     | 7.3   | f <sub>53</sub>                        | 0.4174±0.0019                | 0.11±0.03        | -0.42±0.11    | 16.9  |
| f <sub>171</sub>                       | 0.3663±0.0029                | 0.02±0.01        | -1.43±0.18    | 7.0   | f <sub>54</sub>                        | 0.6064±0.0018                | 0.11±0.03        | -0.01±0.11    | 18.3  |
| f <sub>172</sub>                       | 1.2118±0.0029                | 0.02±0.01        | -1.64±0.18    | 6.9   | f <sub>55</sub>                        | 0.4104±0.0019                | 0.10±0.02        | 0.77±0.11     | 16.7  |
| f <sub>173</sub>                       | 1.1228±0.0029                | 0.02±0.01        | 1.13±0.18     | 6.9   | f <sub>56</sub>                        | 1.5619±0.0019                | 0.13±0.03        | -0.70±0.12    | 16.2  |
| f <sub>174</sub>                       | 2.6949±0.0030                | 0.02±0.01        | 2.75±0.18     | 6.5   | f <sub>57</sub>                        | 0.5921±0.0019                | 0.08±0.02        | 1.15±0.12     | 15.4  |
| f <sub>175</sub>                       | 2.6736±0.0030                | 0.02±0.01        | -0.67±0.18    | 6.5   | f <sub>58</sub>                        | 1.6627±0.0020                | 0.10±0.03        | -0.42±0.12    | 15.2  |
| f <sub>181</sub>                       | 4.2894±0.0030                | 0.02±0.01        | 3.07±0.18     | 6.6   | f <sub>59</sub>                        | 0.9876±0.0020                | 0.09±0.02        | 0.34±0.12     | 14.9  |
| f <sub>182</sub>                       | 1.3139±0.0030                | 0.02±0.01        | 0.75±0.18     | 6.4   | f <sub>60</sub>                        | 0.4617±0.0020                | 0.09±0.02        | -0.67±0.12    | 14.9  |
| f <sub>183</sub>                       | 2.3233±0.0030                | 0.02±0.01        | 2.90±0.18     | 6.6   | f <sub>61</sub>                        | 3.2253±0.0020                | 0.10±0.03        | -2.27±0.12    | 14.5  |
| f <sub>184</sub>                       | 2.1025±0.0030                | 0.02±0.01        | -2.72±0.18    | 6.6   | f <sub>62</sub>                        | 2.4362±0.0020                | 0.08±0.02        | 2.33±0.12     | 15.1  |
| f <sub>186</sub>                       | 3.8107±0.0030                | 0.01±0.00        | 2.31±0.18     | 6.4   | f <sub>63</sub>                        | 1.1918±0.0020                | 0.09±0.02        | -0.92±0.12    | 14.3  |
| f <sub>188</sub>                       | 0.9836±0.0030                | 0.01±0.00        | -0.32±0.19    | 6.3   | f <sub>64</sub>                        | 0.6983±0.0020                | 0.11±0.03        | 1.88±0.12     | 14.1  |
| f <sub>189</sub>                       | 2.3827±0.0031                | 0.02±0.01        | 0.48±0.19     | 6.2   | f <sub>65</sub>                        | 3.5836±0.0020                | 0.09±0.02        | -2.04±0.12    | 14.2  |
| f <sub>190</sub>                       | 2.2428±0.0030                | 0.02±0.01        | 3.09±0.18     | 6.6   | f <sub>66</sub>                        | 0.1269±0.0020                | 0.09±0.02        | 2.28±0.12     | 14.2  |
| f <sub>191</sub>                       | 0.4832±0.0031                | 0.01±0.00        | 1.68±0.19     | 6.1   | f <sub>67</sub>                        | 0.2003±0.0020                | 0.10±0.03        | -2.22±0.12    | 14.4  |
| f <sub>192</sub>                       | 1.4068±0.0031                | 0.02±0.01        | 3.08±0.19     | 6.1   | f <sub>68</sub>                        | 1.7693±0.0020                | 0.08±0.02        | -2.43±0.12    | 14.8  |
| f <sub>193</sub>                       | 1.6306±0.0030                | 0.02±0.01        | -2.74±0.18    | 6.4   | f <sub>69</sub>                        | 0.2559±0.0021                | 0.11±0.03        | 0.01±0.13     | 13.6  |
| f <sub>194</sub>                       | 1.1723±0.0031                | 0.02±0.01        | 2.36±0.19     | 6.1   | f <sub>70</sub>                        | 1.1169±0.0021                | 0.08±0.02        | 0.68±0.13     | 13.5  |
| f <sub>195</sub>                       | 1.8265±0.0031                | 0.02±0.01        | -3.09±0.19    | 6.2   | f <sub>71</sub>                        | 1.5403±0.0021                | 0.09±0.02        | -3.00±0.13    | 13.2  |
| f <sub>196</sub>                       | 2.1153±0.0031                | 0.02±0.01        | 1.57±0.19     | 5.9   | f <sub>72</sub>                        | 0.6293±0.0021                | 0.09±0.02        | 2.19±0.13     | 13.1  |
| f <sub>197</sub>                       | 3.7746±0.0032                | 0.01±0.00        | -0.54±0.20    | 5.7   | f <sub>74</sub>                        | 0.1798±0.0021                | 0.08±0.02        | 2.72±0.13     | 12.8  |
| f <sub>198</sub>                       | 2.1272±0.0031                | 0.02±0.01        | -2.28±0.19    | 5.9   | f <sub>75</sub>                        | 0.2903±0.0021                | 0.09±0.03        | 2.21±0.13     | 12.8  |
| f <sub>200</sub>                       | 2.2738±0.0032                | 0.02±0.01        | 0.32±0.20     | 5.6   | f <sub>76</sub>                        | 0.3081±0.0020                | 0.10±0.03        | -2.64±0.12    | 14.1  |
| f <sub>201</sub>                       | 0.6678±0.0033                | 0.01±0.00        | -0.05±0.20    | 5.4   | f <sub>77</sub>                        | 1.9679±0.0021                | 0.09±0.02        | 2.13±0.13     | 13.1  |
| f <sub>204</sub>                       | 2.4675±0.0033                | 0.01±0.00        | 3.03±0.20     | 5.5   | f <sub>78</sub>                        | 0.5334±0.0022                | 0.08±0.02        | 2.25±0.13     | 12.6  |
| f <sub>205</sub>                       | 1.1877±0.0032                | 0.01±0.00        | -2.29±0.20    | 5.6   | f <sub>80</sub>                        | 1.4241±0.0022                | 0.10±0.03        | -0.87±0.13    | 12.4  |
| f <sub>206</sub>                       | 2.6256±0.0033                | 0.01±0.00        | -1.56±0.20    | 5.3   | f <sub>81</sub>                        | 1.4467±0.0022                | 0.08±0.02        | 2.38±0.13     | 12.2  |
| f <sub>207</sub>                       | 2.5923±0.0033                | 0.01±0.00        | 0.09±0.20     | 5.4   | f <sub>82</sub>                        | 0.7954±0.0022                | 0.10±0.03        | -0.48±0.14    | 11.7  |
| f <sub>208</sub>                       | 1.0071±0.0033                | 0.01±0.00        | -1.83±0.20    | 5.3   | f <sub>83</sub>                        | 0.7197±0.0022                | 0.09±0.03        | 2.11±0.13     | 12.5  |
| f <sub>209</sub>                       | 2.3456±0.0033                | 0.01±0.00        | -2.64±0.20    | 5.3   | f <sub>84</sub>                        | 0.8187±0.0022                | 0.09±0.03        | 2.70±0.14     | 11.6  |
| f <sub>210</sub>                       | 1.7256±0.0033                | 0.01±0.00        | 0.69±0.20     | 5.2   | f <sub>87</sub>                        | 1.4026±0.0022                | 0.08±0.02        | 3.01±0.14     | 11.6  |
|                                        |                              |                  |               |       | f <sub>88</sub>                        | 0.3343±0.0022                | 0.08±0.02        | -2.16±0.14    | 11.7  |
|                                        |                              |                  |               |       | f <sub>89</sub>                        | 0.2277±0.0022                | 0.10±0.03        | 0.50±0.13     | 12.1  |
|                                        |                              |                  |               |       | f <sub>90</sub>                        | 1.2610±0.0022                | 0.09±0.03        | -1.32±0.14    | 11.7  |
|                                        |                              |                  |               |       | f <sub>91</sub>                        | 0.5010±0.0022                | 0.07±0.02        | -1.95±0.14    | 11.6  |
|                                        |                              |                  |               |       | f <sub>92</sub>                        | 1.7322±0.0023                | 0.07±0.02        | 0.88±0.14     | 11.3  |
|                                        |                              |                  |               |       | f <sub>93</sub>                        | 2.1214±0.0023                | 0.08±0.02        | -2.54±0.14    | 11.1  |
|                                        |                              |                  |               |       | f <sub>94</sub>                        | 2.3958±0.0023                | 0.07±0.02        | 0.67±0.14     | 10.8  |
|                                        |                              |                  |               |       | f <sub>97</sub>                        | 0.1593±0.0024                | 0.09±0.03        | -0.07±0.14    | 10.5  |
|                                        |                              |                  |               |       | f <sub>98</sub>                        | 1.4996±0.0023                | 0.08±0.02        | -1.51±0.14    | 10.7  |
|                                        |                              |                  |               |       | f <sub>99</sub>                        | 1.5738±0.0024                | 0.09±0.03        | -0.95±0.15    | 9.9   |
|                                        |                              |                  |               |       | f <sub>100</sub>                       | 1.1655±0.0025                | 0.06±0.02        | -0.50±0.15    | 9.7   |
|                                        |                              |                  |               |       | f <sub>101</sub>                       | 0.9761±0.0024                | 0.05±0.02        | -1.24±0.15    | 9.8   |
|                                        |                              |                  |               |       | f <sub>102</sub>                       | 2.1037±0.0024                | 0.06±0.02        | -2.91±0.15    | 9.8   |
|                                        |                              |                  |               |       | f <sub>103</sub>                       | 1.5827±0.0025                | 0.07±0.02        | 0.14±0.15     | 9.4   |
| Frequency list of 0102605393 continued |                              |                  |               |       |                                        |                              |                  |               |       |
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## Appendix B. Frequencies of individual $\gamma$ Dor Stars

| Frequency list of 0102605393 continued |                              |                  |                          |       | Frequency list of 0102607721 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{104}$                              | 0.4470±0.0025                | 0.08±0.03        | -2.77±0.15               | 9.4   | $f_{26}$                               | 0.2973±0.0011                | 0.22±0.03        | -2.31±0.07               | 44.4  |
| $f_{105}$                              | 1.4696±0.0025                | 0.05±0.02        | -2.79±0.15               | 9.4   | $f_{27}$                               | 1.6646±0.0012                | 0.28±0.04        | 2.37±0.07                | 40.0  |
| $f_{108}$                              | 1.0922±0.0025                | 0.07±0.02        | 1.96±0.15                | 9.1   | $f_{28}$                               | 0.6525±0.0013                | 0.28±0.05        | 2.59±0.08                | 36.3  |
| $f_{109}$                              | 0.4915±0.0026                | 0.07±0.02        | -2.56±0.16               | 8.9   | $f_{29}$                               | 0.9057±0.0013                | 0.23±0.04        | 2.08±0.08                | 37.2  |
| $f_{111}$                              | 55.8646±0.0025               | 0.08±0.03        | 2.52±0.15                | 9.1   | $f_{30}$                               | 0.2119±0.0012                | 0.23±0.04        | -2.23±0.08               | 37.8  |
| $f_{112}$                              | 1.7587±0.0026                | 0.07±0.02        | 1.53±0.16                | 8.3   | $f_{31}$                               | 0.2330±0.0012                | 0.24±0.04        | -0.02±0.07               | 38.9  |
| $f_{113}$                              | 1.7468±0.0026                | 0.06±0.02        | 2.64±0.16                | 8.5   | $f_{32}$                               | 0.1153±0.0013                | 0.21±0.04        | -2.76±0.08               | 35.8  |
| $f_{115}$                              | 3.2836±0.0026                | 0.07±0.02        | 2.96±0.16                | 8.4   | $f_{33}$                               | 0.3529±0.0013                | 0.21±0.04        | 2.48±0.08                | 35.5  |
| $f_{116}$                              | 1.6491±0.0027                | 0.07±0.02        | 1.14±0.16                | 8.0   | $f_{34}$                               | 0.4273±0.0014                | 0.17±0.03        | 2.17±0.08                | 31.6  |
| $f_{117}$                              | 1.8387±0.0028                | 0.06±0.02        | -0.54±0.17               | 7.7   | $f_{35}$                               | 0.1623±0.0014                | 0.18±0.03        | -1.96±0.08               | 31.5  |
| $f_{119}$                              | 2.4259±0.0028                | 0.06±0.02        | -0.82±0.17               | 7.5   | $f_{36}$                               | 0.8096±0.0014                | 0.22±0.04        | -0.16±0.09               | 29.3  |
| $f_{120}$                              | 1.1032±0.0028                | 0.06±0.02        | 1.36±0.17                | 7.4   | $f_{37}$                               | 0.6796±0.0014                | 0.19±0.04        | 3.01±0.09                | 29.4  |
| $f_{122}$                              | 3.9688±0.0029                | 0.06±0.02        | -2.53±0.17               | 7.1   | $f_{38}$                               | 0.8480±0.0014                | 0.18±0.03        | 1.96±0.09                | 28.9  |
| $f_{123}$                              | 2.2191±0.0029                | 0.05±0.02        | -0.65±0.18               | 7.0   | $f_{39}$                               | 1.5719±0.0014                | 0.20±0.04        | 2.93±0.09                | 28.5  |
| $f_{124}$                              | 0.8868±0.0029                | 0.07±0.03        | -1.18±0.18               | 6.9   | $f_{40}$                               | 0.9467±0.0015                | 0.17±0.03        | -0.07±0.09               | 26.4  |
| $f_{127}$                              | 0.7581±0.0029                | 0.06±0.02        | -3.04±0.18               | 7.0   | $f_{41}$                               | 0.3975±0.0015                | 0.21±0.04        | -1.41±0.09               | 25.2  |
| $f_{128}$                              | 0.5218±0.0029                | 0.06±0.02        | -1.89±0.18               | 6.7   | $f_{42}$                               | 1.6789±0.0015                | 0.20±0.04        | -3.09±0.09               | 24.7  |
| $f_{129}$                              | 1.4356±0.0029                | 0.07±0.03        | 0.64±0.18                | 6.8   | $f_{43}$                               | 0.2744±0.0015                | 0.18±0.04        | 2.81±0.09                | 24.7  |
| $f_{130}$                              | 0.5675±0.0029                | 0.07±0.03        | -0.19±0.18               | 6.8   | $f_{44}$                               | 0.3269±0.0016                | 0.20±0.04        | -3.01±0.10               | 23.1  |
| $f_{131}$                              | 0.4743±0.0029                | 0.06±0.02        | -1.58±0.18               | 6.8   | $f_{45}$                               | 0.7029±0.0016                | 0.18±0.04        | -0.37±0.10               | 23.4  |
| $f_{132}$                              | 1.2930±0.0029                | 0.06±0.02        | -2.49±0.18               | 6.8   | $f_{46}$                               | 0.3676±0.0016                | 0.17±0.04        | 2.40±0.10                | 22.4  |
| $f_{133}$                              | 0.3800±0.0030                | 0.06±0.02        | -2.67±0.18               | 6.6   | $f_{49}$                               | 0.5919±0.0017                | 0.15±0.03        | -1.44±0.10               | 21.1  |
| $f_{134}$                              | 2.0408±0.0030                | 0.07±0.03        | 1.01±0.18                | 6.6   | $f_{50}$                               | 1.5898±0.0017                | 0.16±0.04        | -2.59±0.10               | 20.6  |
| $f_{135}$                              | 3.3252±0.0030                | 0.06±0.02        | -1.06±0.18               | 6.4   | $f_{51}$                               | 0.1875±0.0017                | 0.18±0.04        | -1.50±0.10               | 20.1  |
| $f_{136}$                              | 0.8416±0.0031                | 0.08±0.03        | -0.82±0.19               | 6.2   | $f_{52}$                               | 0.8590±0.0017                | 0.17±0.04        | -1.54±0.11               | 19.4  |
| $f_{137}$                              | 0.8625±0.0030                | 0.07±0.03        | 1.47±0.18                | 6.6   | $f_{53}$                               | 1.5513±0.0017                | 0.15±0.03        | -0.90±0.11               | 19.6  |
| $f_{138}$                              | 0.7724±0.0029                | 0.07±0.03        | 1.66±0.18                | 6.8   | $f_{54}$                               | 2.3870±0.0017                | 0.15±0.03        | 2.01±0.11                | 19.2  |
| $f_{139}$                              | 0.9382±0.0029                | 0.07±0.03        | 0.13±0.18                | 6.8   | $f_{55}$                               | 1.7119±0.0018                | 0.15±0.04        | -0.53±0.11               | 17.5  |
| $f_{140}$                              | 0.9598±0.0028                | 0.06±0.02        | -2.52±0.17               | 7.2   | $f_{56}$                               | 1.0111±0.0018                | 0.14±0.03        | 2.92±0.11                | 17.2  |
| $f_{141}$                              | 0.8248±0.0029                | 0.06±0.02        | 2.09±0.18                | 6.8   | $f_{57}$                               | 0.7304±0.0018                | 0.14±0.03        | 1.93±0.11                | 17.2  |
| $f_{142}$                              | 1.0076±0.0030                | 0.06±0.02        | 0.84±0.18                | 6.4   | $f_{59}$                               | 2.4841±0.0019                | 0.13±0.03        | -2.72±0.11               | 16.9  |
| $f_{143}$                              | 0.7256±0.0030                | 0.06±0.02        | -1.82±0.18               | 6.5   | $f_{60}$                               | 0.7563±0.0018                | 0.13±0.03        | -2.50±0.11               | 17.1  |
| $f_{144}$                              | 0.2131±0.0030                | 0.06±0.02        | 2.33±0.18                | 6.5   | $f_{61}$                               | 0.3211±0.0019                | 0.12±0.03        | -3.03±0.12               | 16.2  |
| $f_{145}$                              | 0.5804±0.0031                | 0.06±0.02        | -3.06±0.19               | 6.1   | $f_{62}$                               | 0.2043±0.0019                | 0.13±0.03        | 0.38±0.12                | 16.1  |
| $f_{146}$                              | 0.2622±0.0031                | 0.07±0.03        | -1.66±0.19               | 6.0   | $f_{63}$                               | 2.4118±0.0019                | 0.15±0.04        | 0.39±0.12                | 15.6  |
| $f_{147}$                              | 1.3156±0.0031                | 0.06±0.02        | 1.66±0.19                | 6.1   | $f_{64}$                               | 0.4445±0.0020                | 0.13±0.03        | -2.22±0.12               | 14.7  |
| $f_{148}$                              | 1.4585±0.0030                | 0.06±0.02        | 2.45±0.19                | 6.3   | $f_{65}$                               | 0.2428±0.0020                | 0.17±0.04        | -0.70±0.12               | 14.7  |
| $f_{149}$                              | 4.3315±0.0031                | 0.05±0.02        | 3.05±0.19                | 6.1   | $f_{66}$                               | 0.1502±0.0020                | 0.14±0.04        | 0.09±0.12                | 13.9  |
| $f_{150}$                              | 2.0181±0.0031                | 0.07±0.03        | 1.53±0.19                | 6.0   | $f_{67}$                               | 1.6126±0.0021                | 0.13±0.04        | 1.57±0.13                | 13.7  |
| $f_{151}$                              | 2.0001±0.0030                | 0.06±0.02        | 1.48±0.18                | 6.4   | $f_{68}$                               | 1.5332±0.0021                | 0.12±0.03        | 0.49±0.13                | 13.8  |
| $f_{152}$                              | 55.8549±0.0031               | 0.05±0.02        | 1.01±0.19                | 6.0   | $f_{69}$                               | 0.5089±0.0020                | 0.13±0.03        | 2.38±0.12                | 13.9  |
| $f_{153}$                              | 0.2408±0.0032                | 0.06±0.03        | 0.05±0.20                | 5.7   | $f_{70}$                               | 0.6359±0.0020                | 0.12±0.03        | -1.62±0.12               | 14.1  |
| $f_{156}$                              | 1.6737±0.0032                | 0.05±0.02        | -0.99±0.20               | 5.6   | $f_{72}$                               | 2.0045±0.0020                | 0.14±0.04        | -0.06±0.12               | 14.4  |
| $f_{157}$                              | 4.1041±0.0033                | 0.05±0.02        | 0.71±0.20                | 5.3   | $f_{73}$                               | 1.0306±0.0021                | 0.12±0.03        | -1.57±0.13               | 13.0  |
| $f_{158}$                              | 3.0508±0.0033                | 0.05±0.02        | 2.77±0.20                | 5.2   | $f_{74}$                               | 1.1958±0.0021                | 0.12±0.03        | -2.47±0.13               | 13.0  |
| $f_{159}$                              | 1.1380±0.0033                | 0.05±0.02        | 1.75±0.20                | 5.2   | $f_{75}$                               | 2.4052±0.0022                | 0.12±0.03        | -3.08±0.13               | 12.2  |
| $f_{160}$                              | 1.9229±0.0034                | 0.05±0.02        | 0.88±0.21                | 5.0   | $f_{76}$                               | 2.4406±0.0022                | 0.10±0.03        | 1.90±0.13                | 12.3  |
| $f_{163}$                              | 2.0636±0.0034                | 0.05±0.02        | -1.30±0.21               | 5.1   | $f_{77}$                               | 0.5370±0.0022                | 0.12±0.03        | -0.92±0.13               | 12.1  |
|                                        |                              |                  |                          |       | $f_{78}$                               | 1.1202±0.0023                | 0.10±0.03        | -1.10±0.14               | 11.2  |
|                                        |                              |                  |                          |       | $f_{79}$                               | 0.2532±0.0023                | 0.12±0.04        | 1.73±0.14                | 11.1  |
|                                        |                              |                  |                          |       | $f_{80}$                               | 0.9719±0.0023                | 0.11±0.03        | -0.06±0.14               | 11.0  |
|                                        |                              |                  |                          |       | $f_{81}$                               | 0.1211±0.0023                | 0.12±0.04        | -2.55±0.14               | 10.8  |
|                                        |                              |                  |                          |       | $f_{82}$                               | 0.8960±0.0023                | 0.11±0.03        | 1.03±0.14                | 10.6  |
|                                        |                              |                  |                          |       | $f_{83}$                               | 0.2890±0.0023                | 0.11±0.03        | 0.71±0.14                | 10.6  |
|                                        |                              |                  |                          |       | $f_{85}$                               | 0.8803±0.0024                | 0.11±0.03        | 1.18±0.14                | 10.4  |
|                                        |                              |                  |                          |       | $f_{86}$                               | 0.7106±0.0024                | 0.11±0.03        | -1.66±0.14               | 10.5  |
|                                        |                              |                  |                          |       | $f_{87}$                               | 0.3418±0.0024                | 0.12±0.04        | 1.51±0.15                | 10.3  |
|                                        |                              |                  |                          |       | $f_{88}$                               | 0.4167±0.0024                | 0.10±0.03        | -0.19±0.15               | 10.1  |
|                                        |                              |                  |                          |       | $f_{89}$                               | 0.3122±0.0024                | 0.11±0.03        | 0.34±0.15                | 10.0  |
|                                        |                              |                  |                          |       | $f_{90}$                               | 0.3804±0.0025                | 0.10±0.03        | 2.14±0.15                | 9.7   |
|                                        |                              |                  |                          |       | $f_{91}$                               | 0.7491±0.0025                | 0.09±0.03        | 2.19±0.15                | 9.7   |
|                                        |                              |                  |                          |       | $f_{92}$                               | 1.6700±0.0024                | 0.10±0.03        | 2.09±0.15                | 9.8   |
|                                        |                              |                  |                          |       | $f_{93}$                               | 0.6684±0.0024                | 0.11±0.03        | 2.41±0.15                | 10.0  |
|                                        |                              |                  |                          |       | $f_{94}$                               | 0.1424±0.0025                | 0.10±0.03        | 2.10±0.15                | 9.2   |
|                                        |                              |                  |                          |       | $f_{95}$                               | 1.4649±0.0025                | 0.08±0.03        | -0.57±0.15               | 9.3   |
|                                        |                              |                  |                          |       | $f_{96}$                               | 0.6220±0.0025                | 0.10±0.03        | 2.44±0.15                | 9.2   |
|                                        |                              |                  |                          |       | $f_{97}$                               | 1.1614±0.0025                | 0.11±0.04        | 2.84±0.15                | 9.1   |
|                                        |                              |                  |                          |       | $f_{98}$                               | 0.3569±0.0026                | 0.10±0.03        | 0.55±0.16                | 8.9   |
|                                        |                              |                  |                          |       | $f_{99}$                               | 1.9451±0.0026                | 0.10±0.03        | -3.02±0.16               | 8.8   |
|                                        |                              |                  |                          |       | $f_{100}$                              | 2.4567±0.0026                | 0.09±0.03        | 1.89±0.16                | 8.9   |
|                                        |                              |                  |                          |       | $f_{101}$                              | 1.2471±0.0026                | 0.12±0.04        | -0.70±0.16               | 8.8   |
|                                        |                              |                  |                          |       | $f_{102}$                              | 0.4707±0.0026                | 0.09±0.03        | 2.15±0.16                | 8.7   |
|                                        |                              |                  |                          |       | $f_{103}$                              | 1.7492±0.0026                | 0.09±0.03        | -1.20±0.16               | 8.4   |
|                                        |                              |                  |                          |       | $f_{104}$                              | 1.5106±0.0026                | 0.10±0.03        | -2.88±0.16               | 8.4   |
|                                        |                              |                  |                          |       | $f_{105}$                              | 0.9110±0.0027                | 0.09±0.03        | -0.39±0.16               | 8.1   |
|                                        |                              |                  |                          |       | $f_{106}$                              | 1.0058±0.0027                | 0.09±0.03        | -1.13±0.16               | 8.1   |
|                                        |                              |                  |                          |       | Frequency list of 0102607721 continued |                              |                  |                          |       |
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## Appendix B. Frequencies of individual $\gamma$ Dor Stars

| Frequency list of 0102607721 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{107}$                              | 1.0866±0.0026                | 0.09±0.03        | -0.81±0.16               | 8.4   |
| $f_{108}$                              | 0.2217±0.0027                | 0.10±0.04        | -0.49±0.16               | 8.1   |
| $f_{110}$                              | 0.8043±0.0028                | 0.11±0.04        | -2.24±0.17               | 7.5   |
| $f_{111}$                              | 2.3059±0.0028                | 0.09±0.03        | 0.33±0.17                | 7.6   |
| $f_{112}$                              | 4.0099±0.0028                | 0.09±0.03        | -1.73±0.17               | 7.6   |
| $f_{113}$                              | 2.2395±0.0028                | 0.08±0.03        | -0.01±0.17               | 7.4   |
| $f_{114}$                              | 1.4390±0.0028                | 0.08±0.03        | 0.15±0.17                | 7.2   |
| $f_{115}$                              | 0.9822±0.0028                | 0.09±0.03        | -1.22±0.17               | 7.4   |
| $f_{116}$                              | 1.3872±0.0029                | 0.09±0.03        | -0.99±0.17               | 7.1   |
| $f_{117}$                              | 1.0509±0.0029                | 0.09±0.03        | 1.29±0.18                | 6.7   |
| $f_{118}$                              | 1.2585±0.0030                | 0.08±0.03        | 1.84±0.18                | 6.5   |
| $f_{119}$                              | 0.6031±0.0030                | 0.09±0.04        | -1.27±0.18               | 6.4   |
| $f_{120}$                              | 1.5423±0.0030                | 0.08±0.03        | -2.99±0.18               | 6.4   |
| $f_{121}$                              | 2.3730±0.0030                | 0.08±0.03        | -2.65±0.19               | 6.3   |
| $f_{122}$                              | 0.5542±0.0030                | 0.08±0.03        | -1.32±0.18               | 6.4   |
| $f_{123}$                              | 1.1059±0.0030                | 0.08±0.03        | -2.37±0.19               | 6.3   |
| $f_{125}$                              | 3.5082±0.0031                | 0.08±0.03        | 0.42±0.19                | 6.2   |
| $f_{126}$                              | 1.2201±0.0030                | 0.08±0.03        | -1.38±0.19               | 6.3   |
| $f_{127}$                              | 0.7394±0.0031                | 0.08±0.03        | -2.61±0.19               | 6.1   |
| $f_{128}$                              | 0.4569±0.0031                | 0.08±0.03        | -1.67±0.19               | 6.1   |
| $f_{129}$                              | 2.6612±0.0031                | 0.08±0.03        | -1.03±0.19               | 6.2   |
| $f_{130}$                              | 2.4290±0.0031                | 0.08±0.03        | -0.24±0.19               | 5.9   |
| $f_{131}$                              | 1.7684±0.0032                | 0.08±0.03        | -0.97±0.19               | 5.8   |
| $f_{132}$                              | 1.6922±0.0032                | 0.07±0.03        | -0.90±0.19               | 5.8   |
| $f_{133}$                              | 1.5195±0.0033                | 0.08±0.03        | -1.32±0.20               | 5.5   |
| $f_{135}$                              | 0.6583±0.0033                | 0.08±0.03        | -1.75±0.20               | 5.5   |
| $f_{136}$                              | 1.4851±0.0033                | 0.08±0.03        | -0.13±0.20               | 5.4   |
| $f_{137}$                              | 2.1972±0.0033                | 0.07±0.03        | 0.46±0.20                | 5.4   |
| $f_{138}$                              | 2.3638±0.0033                | 0.07±0.03        | 2.65±0.20                | 5.3   |
| $f_{139}$                              | 2.5055±0.0033                | 0.07±0.03        | -1.79±0.20               | 5.2   |
| $f_{140}$                              | 1.6060±0.0033                | 0.08±0.03        | -1.66±0.20               | 5.3   |
| $f_{141}$                              | 1.3165±0.0033                | 0.07±0.03        | -2.95±0.20               | 5.2   |
| $f_{142}$                              | 1.6505±0.0034                | 0.08±0.04        | 2.05±0.21                | 5.0   |
| $f_{143}$                              | 0.5662±0.0034                | 0.07±0.03        | -1.92±0.21               | 5.0   |
| $f_{144}$                              | 0.3880±0.0034                | 0.07±0.03        | -1.81±0.21               | 5.0   |

**Table B.20:** Frequency list of 0102608070

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|--------------|------------------------------|------------------|--------------------------|-------|
| $f_1$        | 3.4392±0.0003                | 1.65±0.06        | -2.93±0.02               | 657.4 |
| $f_2$        | 3.3189±0.0004                | 1.21±0.06        | -0.01±0.02               | 417.8 |
| $f_3$        | 3.5593±0.0004                | 1.03±0.06        | 0.24±0.03                | 344.9 |
| $f_4$        | 3.5892±0.0006                | 0.63±0.05        | -2.89±0.04               | 172.2 |
| $f_5$        | 3.6964±0.0008                | 0.47±0.05        | -2.68±0.05               | 93.9  |
| $f_6$        | 0.1344±0.0008                | 0.46±0.05        | -0.17±0.05               | 87.1  |
| $f_7$        | 0.1631±0.0008                | 0.47±0.05        | -2.59±0.05               | 83.2  |
| $f_8$        | 3.3895±0.0009                | 0.42±0.05        | -2.32±0.05               | 79.0  |
| $f_9$        | 0.1465±0.0009                | 0.39±0.05        | 0.81±0.05                | 74.3  |
| $f_{11}$     | 0.2385±0.0012                | 0.35±0.05        | 0.06±0.07                | 43.7  |
| $f_{12}$     | 0.1251±0.0011                | 0.28±0.04        | 0.63±0.07                | 44.4  |
| $f_{13}$     | 3.8380±0.0012                | 0.27±0.04        | 2.17±0.07                | 39.7  |
| $f_{14}$     | 0.1840±0.0013                | 0.27±0.05        | -0.76±0.08               | 35.3  |
| $f_{15}$     | 0.2017±0.0013                | 0.27±0.04        | -0.71±0.08               | 36.9  |
| $f_{16}$     | 0.1136±0.0012                | 0.23±0.04        | -0.62±0.07               | 39.4  |
| $f_{18}$     | 0.2976±0.0015                | 0.18±0.04        | -3.03±0.09               | 24.8  |
| $f_{19}$     | 0.3549±0.0015                | 0.17±0.03        | -2.97±0.09               | 25.6  |
| $f_{20}$     | 0.4775±0.0016                | 0.22±0.05        | 0.73±0.10                | 22.3  |
| $f_{21}$     | 0.1548±0.0016                | 0.18±0.04        | 2.73±0.10                | 21.7  |
| $f_{25}$     | 0.1028±0.0018                | 0.20±0.05        | -2.55±0.11               | 18.6  |
| $f_{26}$     | 0.5635±0.0018                | 0.19±0.05        | -0.42±0.11               | 17.6  |
| $f_{27}$     | 0.2740±0.0018                | 0.16±0.04        | 2.35±0.11                | 17.8  |
| $f_{28}$     | 0.5094±0.0018                | 0.20±0.05        | -1.25±0.11               | 17.5  |
| $f_{29}$     | 0.3770±0.0019                | 0.18±0.04        | 2.50±0.11                | 17.0  |
| $f_{30}$     | 0.5027±0.0019                | 0.18±0.04        | -0.33±0.11               | 16.9  |
| $f_{32}$     | 0.1743±0.0019                | 0.16±0.04        | 1.63±0.12                | 16.4  |
| $f_{33}$     | 0.8691±0.0019                | 0.16±0.04        | -2.57±0.12               | 16.4  |
| $f_{34}$     | 0.3427±0.0019                | 0.17±0.04        | 1.35±0.12                | 15.8  |
| $f_{35}$     | 0.3997±0.0020                | 0.16±0.04        | -1.29±0.12               | 14.4  |
| $f_{36}$     | 0.7299±0.0020                | 0.15±0.04        | 2.52±0.12                | 14.6  |
| $f_{37}$     | 0.2219±0.0020                | 0.14±0.04        | 1.40±0.12                | 14.2  |
| $f_{38}$     | 3.1982±0.0021                | 0.15±0.04        | -2.17±0.13               | 13.3  |
| $f_{39}$     | 0.3273±0.0022                | 0.15±0.04        | -0.95±0.13               | 12.6  |
| $f_{40}$     | 1.2842±0.0022                | 0.13±0.04        | 2.34±0.14                | 11.8  |
| $f_{41}$     | 0.9565±0.0022                | 0.12±0.03        | 1.58±0.14                | 11.8  |
| $f_{42}$     | 0.3846±0.0023                | 0.14±0.04        | -0.71±0.14               | 11.0  |
| $f_{43}$     | 0.1405±0.0023                | 0.14±0.04        | -3.02±0.14               | 10.9  |

Frequency list of 0102608070 continued

| Frequency list of 0102608070 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{44}$                               | 0.3057±0.0023                | 0.13±0.04        | 2.25±0.14                | 11.2  |
| $f_{45}$                               | 0.4384±0.0024                | 0.12±0.04        | -0.10±0.14               | 10.4  |
| $f_{47}$                               | 0.6657±0.0025                | 0.12±0.04        | 2.92±0.15                | 9.7   |
| $f_{48}$                               | 0.2554±0.0025                | 0.13±0.04        | -0.75±0.15               | 9.4   |
| $f_{49}$                               | 0.2108±0.0026                | 0.12±0.04        | -0.80±0.16               | 8.9   |
| $f_{50}$                               | 0.6437±0.0026                | 0.13±0.04        | 1.49±0.16                | 8.6   |
| $f_{54}$                               | 1.0999±0.0026                | 0.11±0.04        | -2.23±0.16               | 8.3   |
| $f_{55}$                               | 0.6733±0.0028                | 0.12±0.04        | 1.60±0.17                | 7.7   |
| $f_{56}$                               | 0.1909±0.0028                | 0.11±0.04        | -1.90±0.17               | 7.7   |
| $f_{57}$                               | 1.2727±0.0028                | 0.11±0.04        | 0.77±0.17                | 7.6   |
| $f_{58}$                               | 3.4222±0.0028                | 0.11±0.04        | -1.40±0.17               | 7.4   |
| $f_{59}$                               | 0.4690±0.0028                | 0.11±0.04        | 0.92±0.17                | 7.3   |
| $f_{60}$                               | 0.4879±0.0028                | 0.10±0.04        | -2.26±0.17               | 7.6   |
| $f_{61}$                               | 0.8516±0.0028                | 0.10±0.04        | 0.14±0.17                | 7.7   |
| $f_{62}$                               | 0.2869±0.0028                | 0.11±0.04        | -2.34±0.17               | 7.2   |
| $f_{63}$                               | 1.4050±0.0029                | 0.10±0.04        | -2.95±0.18               | 6.8   |
| $f_{64}$                               | 0.7625±0.0030                | 0.10±0.04        | 2.26±0.18                | 6.6   |
| $f_{65}$                               | 6.7593±0.0030                | 0.10±0.04        | 1.18±0.18                | 6.5   |
| $f_{66}$                               | 0.6504±0.0030                | 0.11±0.04        | -0.29±0.18               | 6.5   |
| $f_{68}$                               | 1.2190±0.0031                | 0.11±0.04        | -1.99±0.19               | 6.2   |
| $f_{69}$                               | 1.1308±0.0030                | 0.11±0.04        | 1.99±0.19                | 6.3   |
| $f_{70}$                               | 0.7947±0.0032                | 0.10±0.04        | 1.25±0.19                | 5.8   |
| $f_{71}$                               | 1.1514±0.0032                | 0.10±0.04        | -2.10±0.19               | 5.8   |
| $f_{72}$                               | 0.9694±0.0032                | 0.09±0.04        | -2.98±0.20               | 5.6   |
| $f_{73}$                               | 1.2000±0.0032                | 0.09±0.04        | -0.56±0.20               | 5.7   |
| $f_{74}$                               | 1.0572±0.0032                | 0.09±0.04        | 2.97±0.20                | 5.7   |
| $f_{75}$                               | 0.7397±0.0033                | 0.10±0.04        | -1.39±0.20               | 5.4   |
| $f_{76}$                               | 0.5887±0.0033                | 0.10±0.04        | 3.06±0.20                | 5.4   |
| $f_{77}$                               | 3.2816±0.0032                | 0.09±0.04        | 1.17±0.20                | 5.7   |
| $f_{79}$                               | 0.5235±0.0033                | 0.09±0.04        | -1.10±0.20               | 5.3   |
| $f_{80}$                               | 7.1197±0.0033                | 0.09±0.04        | 1.13±0.20                | 5.3   |
| $f_{82}$                               | 4.0128±0.0034                | 0.09±0.04        | 1.25±0.21                | 5.1   |
| $f_{83}$                               | 3.4827±0.0033                | 0.09±0.04        | 2.72±0.20                | 5.2   |
| $f_{84}$                               | 0.4224±0.0034                | 0.09±0.04        | -3.06±0.21               | 5.1   |

**Table B.21:** Frequency list of 0102611108

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign.  |
|--------------|------------------------------|------------------|--------------------------|--------|
| $f_1$        | 1.2818±0.0002                | 10.92±0.24       | -0.29±0.01               | 2063.5 |
| $f_2$        | 1.2333±0.0003                | 4.64±0.16        | 1.02±0.02                | 859.4  |
| $f_3$        | 1.3815±0.0002                | 5.01±0.16        | -2.74±0.01               | 966.0  |
| $f_4$        | 1.4811±0.0003                | 3.99±0.14        | -2.59±0.02               | 847.7  |
| $f_5$        | 1.2020±0.0004                | 2.70±0.13        | -0.44±0.02               | 405.7  |
| $f_6$        | 1.0809±0.0004                | 1.98±0.11        | 1.20±0.03                | 345.6  |
| $f_7$        | 1.1535±0.0005                | 1.53±0.11        | -0.72±0.03               | 199.0  |
| $f_8$        | 1.1882±0.0006                | 1.48±0.12        | 0.28±0.04                | 159.1  |
| $f_9$        | 1.2461±0.0006                | 1.32±0.10        | 1.13±0.04                | 170.5  |
| $f_{10}$     | 1.1223±0.0006                | 1.38±0.11        | 2.43±0.04                | 156.3  |
| $f_{11}$     | 0.1900±0.0007                | 0.91±0.08        | 1.87±0.04                | 133.5  |
| $f_{12}$     | 0.2577±0.0007                | 0.93±0.08        | 1.90±0.04                | 121.2  |
| $f_{13}$     | 1.1588±0.0007                | 0.91±0.08        | -1.82±0.04               | 120.6  |
| $f_{14}$     | 0.1653±0.0007                | 1.35±0.13        | -2.40±0.05               | 104.4  |
| $f_{15}$     | 0.2990±0.0008                | 0.83±0.08        | -0.13±0.05               | 103.5  |
| $f_{16}$     | 1.3309±0.0007                | 1.04±0.10        | -0.26±0.05               | 104.1  |
| $f_{17}$     | 0.1399±0.0008                | 0.68±0.07        | -1.19±0.05               | 91.8   |
| $f_{18}$     | 0.1770±0.0008                | 1.12±0.11        | -0.58±0.05               | 97.8   |
| $f_{19}$     | 0.1079±0.0008                | 0.89±0.10        | -1.30±0.05               | 85.5   |
| $f_{20}$     | 1.1305±0.0008                | 0.96±0.10        | -2.08±0.05               | 87.3   |
| $f_{21}$     | 1.2880±0.0008                | 0.73±0.08        | -0.51±0.05               | 85.8   |
| $f_{22}$     | 1.0679±0.0008                | 0.87±0.10        | -1.48±0.05               | 82.6   |
| $f_{23}$     | 1.4291±0.0008                | 0.85±0.09        | -2.81±0.05               | 84.2   |
| $f_{24}$     | 1.4400±0.0008                | 0.94±0.10        | 2.04±0.05                | 86.3   |
| $f_{25}$     | 0.1525±0.0008                | 0.94±0.10        | 2.19±0.05                | 84.0   |
| $f_{26}$     | 0.1998±0.0008                | 0.87±0.09        | -2.15±0.05               | 87.2   |
| $f_{27}$     | 1.1029±0.0009                | 0.73±0.08        | 1.55±0.05                | 77.6   |
| $f_{28}$     | 1.4100±0.0009                | 0.78±0.09        | -1.53±0.05               | 76.2   |
| $f_{29}$     | 0.7666±0.0009                | 0.65±0.07        | 2.46±0.05                | 76.8   |
| $f_{30}$     | 1.5268±0.0009                | 0.60±0.07        | -0.48±0.06               | 67.8   |
| $f_{31}$     | 1.1677±0.0009                | 0.60±0.07        | 1.51±0.06                | 69.8   |
| $f_{32}$     | 0.1306±0.0009                | 0.79±0.10        | 0.41±0.06                | 68.8   |
| $f_{33}$     | 0.2473±0.0009                | 0.69±0.08        | 2.18±0.06                | 70.2   |
| $f_{34}$     | 1.2418±0.0009                | 0.61±0.07        | -1.13±0.06               | 70.6   |
| $f_{35}$     | 1.2810±0.0010                | -0.53±0.07       | 1.76±0.06                | 62.3   |
| $f_{36}$     | 1.4529±0.0010                | 0.67±0.09        | -1.02±0.06               | 61.4   |
| $f_{37}$     | 2.6626±0.0010                | 0.64±0.08        | 0.18±0.06                | 62.3   |

Frequency list of 0102611108 continued

## Appendix B. Frequencies of individual $\gamma$ Dor Stars

| Frequency list of 0102611108 continued |                              |                  |                          |       | Frequency list of 0102611108 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| <i>f</i> <sub>38</sub>                 | 1.0231±0.0010                | 0.66±0.08        | 2.99±0.06                | 62.7  | <i>f</i> <sub>130</sub>                | 0.8370±0.0013                | 0.25±0.04        | -1.73±0.08               | 32.6  |
| <i>f</i> <sub>39</sub>                 | 2.5143±0.0010                | 0.65±0.08        | 1.86±0.06                | 58.9  | <i>f</i> <sub>132</sub>                | 1.7380±0.0015                | 0.28±0.05        | -0.83±0.09               | 26.0  |
| <i>f</i> <sub>40</sub>                 | 0.3611±0.0010                | 0.54±0.07        | 2.00±0.06                | 56.3  | <i>f</i> <sub>133</sub>                | 1.4362±0.0015                | 0.23±0.05        | 0.70±0.09                | 25.5  |
| <i>f</i> <sub>41</sub>                 | 1.0360±0.0010                | 0.61±0.08        | 1.44±0.06                | 54.6  | <i>f</i> <sub>134</sub>                | 0.9337±0.0015                | 0.27±0.05        | -1.73±0.09               | 24.8  |
| <i>f</i> <sub>42</sub>                 | 1.2265±0.0010                | 0.53±0.07        | 1.95±0.06                | 55.6  | <i>f</i> <sub>135</sub>                | 0.9547±0.0014                | 0.27±0.05        | -2.49±0.09               | 29.3  |
| <i>f</i> <sub>43</sub>                 | 1.3075±0.0011                | 0.59±0.08        | 1.25±0.07                | 50.8  | <i>f</i> <sub>136</sub>                | 0.1131±0.0015                | 0.27±0.05        | -2.44±0.09               | 24.8  |
| <i>f</i> <sub>44</sub>                 | 0.8018±0.0011                | 0.65±0.09        | 1.25±0.06                | 52.7  | <i>f</i> <sub>137</sub>                | 2.2332±0.0015                | 0.22±0.04        | 1.04±0.09                | 24.6  |
| <i>f</i> <sub>47</sub>                 | 2.6146±0.0011                | 0.49±0.07        | -2.09±0.07               | 51.0  | <i>f</i> <sub>138</sub>                | 2.6251±0.0015                | 0.25±0.05        | -0.80±0.09               | 24.4  |
| <i>f</i> <sub>48</sub>                 | 2.5636±0.0011                | 0.50±0.07        | -3.06±0.07               | 51.3  | <i>f</i> <sub>139</sub>                | 0.1017±0.0016                | 0.26±0.05        | 0.38±0.10                | 23.7  |
| <i>f</i> <sub>49</sub>                 | 0.2808±0.0011                | 0.56±0.08        | -0.13±0.07               | 50.3  | <i>f</i> <sub>140</sub>                | 0.5304±0.0016                | 0.23±0.05        | 2.22±0.10                | 23.3  |
| <i>f</i> <sub>50</sub>                 | 1.0861±0.0010                | 0.55±0.08        | -2.28±0.06               | 53.4  | <i>f</i> <sub>141</sub>                | 0.2634±0.0016                | 0.22±0.05        | -2.43±0.10               | 22.4  |
| <i>f</i> <sub>52</sub>                 | 0.2891±0.0010                | 0.57±0.08        | 2.79±0.06                | 54.3  | <i>f</i> <sub>142</sub>                | 1.2168±0.0016                | 0.24±0.05        | 1.73±0.10                | 21.8  |
| <i>f</i> <sub>53</sub>                 | 0.2323±0.0010                | 0.51±0.07        | -0.23±0.06               | 52.9  | <i>f</i> <sub>144</sub>                | 0.7015±0.0016                | 0.24±0.05        | 2.92±0.10                | 21.7  |
| <i>f</i> <sub>54</sub>                 | 1.2115±0.0011                | 0.48±0.07        | -2.22±0.07               | 47.4  | <i>f</i> <sub>145</sub>                | 2.9024±0.0017                | 0.23±0.05        | 0.78±0.10                | 21.1  |
| <i>f</i> <sub>55</sub>                 | 2.4680±0.0011                | 0.49±0.07        | -0.73±0.07               | 44.9  | <i>f</i> <sub>146</sub>                | 2.8830±0.0015                | 0.22±0.04        | 0.11±0.09                | 24.3  |
| <i>f</i> <sub>56</sub>                 | 0.8994±0.0011                | 0.36±0.05        | -0.80±0.07               | 44.7  | <i>f</i> <sub>147</sub>                | 0.3992±0.0017                | 0.24±0.05        | -1.28±0.10               | 21.3  |
| <i>f</i> <sub>57</sub>                 | 1.1955±0.0012                | 0.49±0.08        | -2.66±0.07               | 42.2  | <i>f</i> <sub>148</sub>                | 0.5078±0.0016                | 0.20±0.04        | 0.95±0.10                | 23.2  |
| <i>f</i> <sub>58</sub>                 | 1.5513±0.0012                | 0.48±0.07        | -1.63±0.07               | 41.7  | <i>f</i> <sub>149</sub>                | 2.4598±0.0016                | 0.23±0.05        | -0.92±0.10               | 21.9  |
| <i>f</i> <sub>59</sub>                 | 1.3563±0.0012                | 0.40±0.06        | -1.07±0.07               | 40.8  | <i>f</i> <sub>150</sub>                | 2.6710±0.0017                | 0.20±0.04        | 1.56±0.10                | 21.2  |
| <i>f</i> <sub>60</sub>                 | 1.5337±0.0012                | 0.46±0.07        | -1.44±0.07               | 39.8  | <i>f</i> <sub>151</sub>                | 2.8349±0.0016                | 0.22±0.05        | -2.02±0.10               | 22.3  |
| <i>f</i> <sub>61</sub>                 | 1.5810±0.0012                | 0.44±0.07        | 0.34±0.07                | 39.3  | <i>f</i> <sub>152</sub>                | 1.8119±0.0016                | 0.20±0.04        | 0.18±0.10                | 21.6  |
| <i>f</i> <sub>62</sub>                 | 1.1791±0.0012                | 0.45±0.07        | -0.64±0.08               | 38.5  | <i>f</i> <sub>154</sub>                | 1.2995±0.0016                | 0.25±0.05        | -1.14±0.10               | 21.6  |
| <i>f</i> <sub>63</sub>                 | 0.2153±0.0012                | 0.40±0.06        | -1.30±0.08               | 37.9  | <i>f</i> <sub>155</sub>                | 2.0141±0.0017                | 0.26±0.06        | 2.53±0.10                | 21.0  |
| <i>f</i> <sub>64</sub>                 | 2.3620±0.0012                | 0.38±0.06        | -2.89±0.08               | 37.7  | <i>f</i> <sub>156</sub>                | 1.6883±0.0017                | 0.23±0.05        | -0.24±0.10               | 21.3  |
| <i>f</i> <sub>65</sub>                 | 0.1185±0.0012                | 0.44±0.07        | 2.46±0.08                | 37.3  | <i>f</i> <sub>157</sub>                | 2.5041±0.0017                | 0.22±0.05        | -3.02±0.10               | 21.3  |
| <i>f</i> <sub>66</sub>                 | 1.5699±0.0012                | 0.32±0.05        | -1.64±0.08               | 38.4  | <i>f</i> <sub>159</sub>                | 0.3228±0.0017                | 0.25±0.06        | 0.09±0.10                | 20.2  |
| <i>f</i> <sub>67</sub>                 | 0.9454±0.0013                | 0.42±0.07        | -2.94±0.08               | 36.4  | <i>f</i> <sub>160</sub>                | 0.3350±0.0017                | 0.22±0.05        | 3.09±0.10                | 21.2  |
| <i>f</i> <sub>68</sub>                 | 1.5016±0.0013                | 0.38±0.06        | 2.12±0.08                | 36.0  | <i>f</i> <sub>161</sub>                | 0.6261±0.0017                | 0.23±0.05        | 0.79±0.10                | 20.3  |
| <i>f</i> <sub>69</sub>                 | 1.4219±0.0013                | 0.39±0.06        | 0.07±0.08                | 37.2  | <i>f</i> <sub>162</sub>                | 2.0527±0.0017                | 0.22±0.05        | 1.19±0.10                | 19.9  |
| <i>f</i> <sub>70</sub>                 | 0.9909±0.0013                | 0.30±0.05        | -2.67±0.08               | 37.2  | <i>f</i> <sub>163</sub>                | 2.1830±0.0017                | 0.21±0.05        | 3.02±0.10                | 21.4  |
| <i>f</i> <sub>71</sub>                 | 2.5318±0.0013                | 0.31±0.05        | -0.89±0.08               | 34.3  | <i>f</i> <sub>165</sub>                | 1.7193±0.0017                | 0.19±0.04        | -0.59±0.11               | 19.6  |
| <i>f</i> <sub>72</sub>                 | 1.2688±0.0013                | 0.32±0.05        | 0.58±0.08                | 34.7  | <i>f</i> <sub>166</sub>                | 0.7195±0.0017                | 0.21±0.05        | -2.50±0.10               | 20.1  |
| <i>f</i> <sub>73</sub>                 | 1.3440±0.0013                | 0.39±0.06        | -2.73±0.08               | 36.3  | <i>f</i> <sub>167</sub>                | 1.0075±0.0017                | 0.21±0.05        | 0.50±0.10                | 20.0  |
| <i>f</i> <sub>74</sub>                 | 2.0047±0.0013                | 1.33±0.22        | -0.57±0.08               | 35.8  | <i>f</i> <sub>168</sub>                | 2.5225±0.0017                | 0.21±0.05        | 0.19±0.11                | 19.3  |
| <i>f</i> <sub>75</sub>                 | 1.0541±0.0013                | 0.34±0.06        | -2.43±0.08               | 36.7  | <i>f</i> <sub>169</sub>                | 2.0421±0.0017                | 0.22±0.05        | 1.31±0.11                | 19.4  |
| <i>f</i> <sub>76</sub>                 | 2.3153±0.0013                | 0.36±0.06        | 1.34±0.08                | 36.1  | <i>f</i> <sub>170</sub>                | 2.6386±0.0017                | 0.19±0.04        | -2.28±0.11               | 19.4  |
| <i>f</i> <sub>77</sub>                 | 0.7861±0.0013                | 0.37±0.06        | 0.78±0.08                | 36.8  | <i>f</i> <sub>171</sub>                | 1.5197±0.0017                | 0.19±0.04        | 3.07±0.10                | 19.9  |
| <i>f</i> <sub>78</sub>                 | 0.1458±0.0013                | 0.37±0.06        | -0.19±0.08               | 37.1  | <i>f</i> <sub>172</sub>                | 1.4903±0.0017                | 0.16±0.04        | -2.07±0.10               | 19.8  |
| <i>f</i> <sub>79</sub>                 | 0.9176±0.0013                | 0.34±0.06        | -0.92±0.08               | 36.5  | <i>f</i> <sub>173</sub>                | 1.2313±0.0017                | 0.14±0.03        | -2.16±0.11               | 19.4  |
| <i>f</i> <sub>80</sub>                 | 1.3192±0.0013                | 0.33±0.05        | 1.87±0.08                | 36.3  | <i>f</i> <sub>174</sub>                | 1.3695±0.0018                | 0.20±0.05        | -2.24±0.11               | 17.8  |
| <i>f</i> <sub>81</sub>                 | 1.6786±0.0013                | 0.33±0.06        | -0.60±0.08               | 35.9  | <i>f</i> <sub>175</sub>                | 0.1716±0.0018                | 0.28±0.07        | -2.45±0.11               | 18.5  |
| <i>f</i> <sub>82</sub>                 | 0.6639±0.0013                | 0.38±0.06        | -2.92±0.08               | 36.0  | <i>f</i> <sub>176</sub>                | 0.1893±0.0017                | 0.21±0.05        | -0.90±0.11               | 19.3  |
| <i>f</i> <sub>83</sub>                 | 1.2056±0.0013                | 0.16±0.03        | 0.83±0.08                | 33.4  | <i>f</i> <sub>177</sub>                | 0.5570±0.0017                | 0.17±0.04        | -2.08±0.11               | 19.1  |
| <i>f</i> <sub>84</sub>                 | 1.6030±0.0013                | 0.39±0.07        | -1.08±0.08               | 32.9  | <i>f</i> <sub>178</sub>                | 0.8903±0.0018                | 0.24±0.06        | -2.18±0.11               | 18.0  |
| <i>f</i> <sub>85</sub>                 | 0.2250±0.0013                | 0.29±0.05        | 0.33±0.08                | 33.0  | <i>f</i> <sub>179</sub>                | 0.9039±0.0017                | 0.21±0.05        | 1.95±0.11                | 19.5  |
| <i>f</i> <sub>86</sub>                 | 1.7270±0.0013                | 0.30±0.05        | 1.71±0.08                | 32.8  | <i>f</i> <sub>180</sub>                | 2.3304±0.0018                | 0.17±0.04        | -1.05±0.11               | 18.3  |
| <i>f</i> <sub>87</sub>                 | 0.4324±0.0013                | 0.25±0.04        | -0.75±0.08               | 33.2  | <i>f</i> <sub>181</sub>                | 2.9168±0.0018                | 0.18±0.04        | -1.96±0.11               | 18.6  |
| <i>f</i> <sub>88</sub>                 | 1.3933±0.0013                | 0.34±0.06        | -2.01±0.08               | 34.2  | <i>f</i> <sub>182</sub>                | 0.4262±0.0018                | 0.18±0.04        | -0.05±0.11               | 17.5  |
| <i>f</i> <sub>89</sub>                 | 1.5415±0.0014                | 0.32±0.06        | 1.70±0.08                | 31.9  | <i>f</i> <sub>183</sub>                | 1.2602±0.0018                | 0.16±0.04        | -2.48±0.11               | 17.4  |
| <i>f</i> <sub>90</sub>                 | 0.9105±0.0013                | 0.34±0.06        | -0.63±0.08               | 32.4  | <i>f</i> <sub>186</sub>                | 2.8060±0.0019                | 0.15±0.04        | -1.48±0.11               | 16.7  |
| <i>f</i> <sub>91</sub>                 | 1.0014±0.0014                | 0.36±0.06        | 0.14±0.08                | 31.6  | <i>f</i> <sub>187</sub>                | 2.3984±0.0019                | 0.20±0.05        | 0.61±0.12                | 15.9  |
| <i>f</i> <sub>94</sub>                 | 2.7148±0.0014                | 0.33±0.06        | 2.12±0.08                | 31.4  | <i>f</i> <sub>188</sub>                | 2.4520±0.0019                | 0.17±0.04        | -0.66±0.12               | 15.9  |
| <i>f</i> <sub>95</sub>                 | 2.4845±0.0014                | 0.32±0.06        | -3.13±0.09               | 29.9  | <i>f</i> <sub>189</sub>                | 0.6087±0.0019                | 0.15±0.04        | -2.23±0.12               | 16.2  |
| <i>f</i> <sub>96</sub>                 | 2.4358±0.0014                | 0.37±0.07        | 0.58±0.08                | 30.1  | <i>f</i> <sub>190</sub>                | 1.6524±0.0019                | 0.15±0.04        | 1.16±0.12                | 15.7  |
| <i>f</i> <sub>98</sub>                 | 2.7623±0.0014                | 0.34±0.06        | 0.58±0.08                | 30.2  | <i>f</i> <sub>191</sub>                | 2.9096±0.0019                | 0.16±0.04        | -1.31±0.12               | 15.4  |
| <i>f</i> <sub>100</sub>                | 0.7339±0.0014                | 0.29±0.05        | 2.43±0.09                | 29.1  | <i>f</i> <sub>192</sub>                | 1.8443±0.0019                | 0.13±0.03        | -3.07±0.12               | 15.4  |
| <i>f</i> <sub>108</sub>                | 0.8158±0.0014                | 0.38±0.07        | 1.52±0.08                | 30.6  | <i>f</i> <sub>193</sub>                | 1.4712±0.0020                | 0.16±0.04        | -1.46±0.12               | 14.8  |
| <i>f</i> <sub>109</sub>                | 1.0970±0.0014                | 0.34±0.06        | 1.97±0.08                | 30.6  | <i>f</i> <sub>195</sub>                | 2.4763±0.0020                | 0.17±0.04        | -0.35±0.12               | 14.6  |
| <i>f</i> <sub>110</sub>                | 1.1138±0.0014                | 0.33±0.06        | -2.89±0.08               | 31.1  | <i>f</i> <sub>197</sub>                | 2.0052±0.0019                | 0.34±0.08        | -1.99±0.11               | 16.5  |
| <i>f</i> <sub>111</sub>                | 2.3852±0.0014                | 0.27±0.05        | 0.91±0.08                | 30.5  | <i>f</i> <sub>198</sub>                | 2.2174±0.0019                | 0.19±0.05        | -1.68±0.12               | 15.5  |
| <i>f</i> <sub>112</sub>                | 0.4472±0.0014                | 0.34±0.06        | -1.56±0.09               | 29.5  | <i>f</i> <sub>200</sub>                | 0.4937±0.0020                | 0.16±0.04        | -2.90±0.12               | 14.8  |
| <i>f</i> <sub>113</sub>                | 0.9809±0.0014                | 0.35±0.06        | -0.24±0.09               | 29.6  | <i>f</i> <sub>201</sub>                | 2.9525±0.0020                | 0.15±0.04        | 1.81±0.12                | 14.2  |
| <i>f</i> <sub>114</sub>                | 0.3106±0.0014                | 0.29±0.05        | -2.13±0.08               | 30.2  | <i>f</i> <sub>202</sub>                | 2.2912±0.0020                | 0.14±0.04        | 0.36±0.12                | 14.0  |
| <i>f</i> <sub>115</sub>                | 2.0837±0.0014                | 0.26±0.05        | -0.40±0.08               | 31.1  | <i>f</i> <sub>205</sub>                | 2.8611±0.0020                | 0.16±0.04        | 1.41±0.12                | 14.3  |
| <i>f</i> <sub>116</sub>                | 1.6690±0.0014                | 0.37±0.07        | 0.07±0.08                | 30.5  | <i>f</i> <sub>208</sub>                | 1.1621±0.0020                | 0.15±0.04        | -3.01±0.12               | 14.0  |
| <i>f</i> <sub>117</sub>                | 1.6253±0.0014                | 0.28±0.05        | 2.57±0.09                | 29.7  | <i>f</i> <sub>209</sub>                | 0.7508±0.0021                | 0.14±0.04        | -2.03±0.13               | 13.7  |
| <i>f</i> <sub>118</sub>                | 2.1496±0.0014                | 0.25±0.05        | -0.87±0.09               | 28.8  | <i>f</i> <sub>210</sub>                | 1.2511±0.0020                | 0.20±0.05        | 3.11±0.12                | 14.2  |
| <i>f</i> <sub>119</sub>                | 0.6762±0.0014                | 0.25±0.05        | 3.03±0.09                | 29.0  | <i>f</i> <sub>211</sub>                | 1.1872±0.0019                | 0.19±0.05        | 2.30±0.12                | 16.0  |
| <i>f</i> <sub>120</sub>                | 0.3541±0.0014                | 0.28±0.05        | -2.59±0.09               | 28.8  | <i>f</i> <sub>212</sub>                | 0.4558±0.0020                | 0.15±0.04        | 1.93±0.12                | 14.2  |
| <i>f</i> <sub>121</sub>                | 0.5857±0.0014                | 0.26±0.05        | 1.35±0.09                | 28.6  | <i>f</i> <sub>213</sub>                | 2.2752±0.0021                | 0.14±0.04        | 0.83±0.13                | 13.5  |
| <i>f</i> <sub>122</sub>                | 0.6562±0.0014                | 0.24±0.04        | 2.91±0.09                | 28.6  | <i>f</i> <sub>214</sub>                | 2.2654±0.0020                | 0.17±0.04        | 1.49±0.12                | 14.7  |
| <i>f</i> <sub>124</sub>                | 2.4252±0.0015                | 0.29±0.06        | -1.74±0.09               | 25.5  | <i>f</i> <sub>215</sub>                | 1.9670±0.0021                | 0.14±0.04        | -2.26±0.13               | 13.6  |
| <i>f</i> <sub>125</sub>                | 2.4143±0.0014                | 0.32±0.06        | 0.08±0.09                | 28.0  | <i>f</i> <sub>216</sub>                | 2.3421±0.0021                | 0.14±0.04        | -0.49±0.13               | 12.8  |
| <i>f</i> <sub>127</sub>                | 0.3839±0.0015                | 0.21±0.04        | 1.26±0.09                | 25.3  | <i>f</i> <sub>217</sub>                | 2.5988±0.0021                | 0.17±0.05        | 1.64±0.13                | 13.0  |
| <i>f</i> <sub>128</sub>                | 2.0677±0.0015                | 0.21±0.04        | 1.92±0.09                | 25.3  | <i>f</i> <sub>218</sub>                | 1.5937±0.0022                | 0.15±0.04        | -1.78±0.13               | 12.6  |
| <i>f</i> <sub>129</sub>                | 0.8488±0.0015                | 0.25±0.05        | 0.79±0.09                | 25.6  | <i>f</i> <sub>219</sub>                | 2.9602±0.0022                | 0.15±0.04        | 2.71±0.13                | 12.5  |
| Frequency list of 0102611108 continued |                              |                  |                          |       | Frequency list of 0102611108 continued |                              |                  |                          |       |

## Appendix B. Frequencies of individual $\gamma$ Dor Stars

| Frequency list of 0102611108 continued |                              |                  |                          |       | Frequency list of 0102611108 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{220}$                              | 2.8214±0.0021                | 0.14±0.04        | 0.85±0.13                | 12.7  | $f_{341}$                              | 0.3281±0.0029                | 0.10±0.04        | 1.51±0.18                | 6.9   |
| $f_{221}$                              | 2.3518±0.0022                | 0.15±0.04        | 3.06±0.13                | 12.6  | $f_{342}$                              | 2.0588±0.0029                | 0.10±0.04        | -0.75±0.18               | 7.0   |
| $f_{222}$                              | 1.9856±0.0022                | 0.14±0.04        | -2.04±0.13               | 12.6  | $f_{345}$                              | 1.9292±0.0029                | 0.08±0.03        | 3.01±0.18                | 6.8   |
| $f_{223}$                              | 3.4653±0.0022                | 0.14±0.04        | 2.02±0.13                | 12.5  | $f_{346}$                              | 0.8248±0.0029                | 0.11±0.04        | 2.57±0.18                | 6.7   |
| $f_{224}$                              | 3.6547±0.0022                | 0.14±0.04        | 2.72±0.13                | 12.4  | $f_{348}$                              | 3.6981±0.0029                | 0.08±0.03        | 1.09±0.18                | 6.7   |
| $f_{225}$                              | 1.8703±0.0022                | 0.16±0.05        | -2.91±0.13               | 12.1  | $f_{350}$                              | 1.6958±0.0029                | 0.10±0.04        | -2.95±0.18               | 6.7   |
| $f_{226}$                              | 1.8272±0.0022                | 0.13±0.04        | -2.29±0.13               | 12.4  | $f_{351}$                              | 1.8898±0.0030                | 0.08±0.03        | 0.14±0.18                | 6.4   |
| $f_{227}$                              | 1.0439±0.0022                | 0.13±0.04        | -1.64±0.13               | 12.1  | $f_{352}$                              | 1.6167±0.0030                | 0.09±0.04        | -1.09±0.18               | 6.4   |
| $f_{228}$                              | 2.5529±0.0022                | 0.15±0.04        | 1.67±0.14                | 11.7  | $f_{353}$                              | 1.3765±0.0029                | 0.10±0.04        | -0.81±0.18               | 6.8   |
| $f_{229}$                              | 3.1058±0.0022                | 0.13±0.04        | -3.01±0.13               | 12.4  | $f_{354}$                              | 3.9968±0.0030                | 0.09±0.04        | -0.55±0.18               | 6.4   |
| $f_{230}$                              | 1.4477±0.0022                | 0.18±0.05        | 0.12±0.14                | 11.8  | $f_{355}$                              | 3.9493±0.0030                | 0.09±0.04        | 1.33±0.19                | 6.3   |
| $f_{231}$                              | 0.2448±0.0022                | 0.14±0.04        | 1.26±0.14                | 11.6  | $f_{360}$                              | 2.2371±0.0030                | 0.11±0.04        | -0.48±0.19               | 6.3   |
| $f_{232}$                              | 1.7548±0.0023                | 0.13±0.04        | 0.83±0.14                | 11.5  | $f_{361}$                              | 2.2987±0.0030                | 0.11±0.04        | 0.30±0.19                | 6.3   |
| $f_{233}$                              | 0.6854±0.0023                | 0.14±0.04        | -0.82±0.14               | 11.2  | $f_{362}$                              | 2.2810±0.0028                | 0.10±0.04        | -1.00±0.17               | 7.2   |
| $f_{234}$                              | 3.8580±0.0023                | 0.09±0.03        | 2.39±0.14                | 11.0  | $f_{363}$                              | 2.4428±0.0028                | 0.10±0.04        | -0.28±0.17               | 7.2   |
| $f_{236}$                              | 1.0907±0.0023                | 0.15±0.05        | -2.26±0.14               | 10.9  | $f_{364}$                              | 2.4052±0.0028                | 0.10±0.04        | 1.14±0.17                | 7.2   |
| $f_{237}$                              | 2.3725±0.0023                | 0.12±0.04        | -2.78±0.14               | 11.2  | $f_{365}$                              | 3.0927±0.0030                | 0.09±0.04        | -2.97±0.18               | 6.6   |
| $f_{239}$                              | 1.8363±0.0023                | 0.13±0.04        | -0.04±0.14               | 10.8  | $f_{366}$                              | 2.2073±0.0030                | 0.11±0.04        | 1.23±0.18                | 6.4   |
| $f_{240}$                              | 1.4618±0.0023                | 0.13±0.04        | 0.39±0.14                | 10.9  | $f_{367}$                              | 2.1968±0.0029                | 0.09±0.03        | -2.35±0.18               | 6.7   |
| $f_{241}$                              | 0.7794±0.0023                | 0.13±0.04        | 3.00±0.14                | 10.7  | $f_{368}$                              | 3.2016±0.0030                | 0.08±0.03        | 0.62±0.18                | 6.5   |
| $f_{242}$                              | 2.7203±0.0023                | 0.10±0.03        | 1.35±0.14                | 10.8  | $f_{370}$                              | 0.8434±0.0030                | 0.10±0.04        | 3.00±0.18                | 6.4   |
| $f_{248}$                              | 4.0109±0.0023                | 0.26±0.08        | -1.08±0.14               | 10.7  | $f_{371}$                              | 1.0770±0.0030                | 0.13±0.05        | -2.50±0.19               | 6.3   |
| $f_{249}$                              | 2.1679±0.0023                | 0.11±0.03        | -0.22±0.14               | 10.8  | $f_{373}$                              | 32.9574±0.0030               | 0.09±0.04        | -1.89±0.18               | 6.5   |
| $f_{251}$                              | 2.0993±0.0023                | 0.12±0.04        | 2.36±0.14                | 10.7  | $f_{374}$                              | 2.9379±0.0030                | 0.09±0.04        | 2.99±0.19                | 6.3   |
| $f_{253}$                              | 1.2740±0.0023                | 0.15±0.05        | 0.18±0.14                | 10.6  | $f_{378}$                              | 4.1963±0.0031                | 0.08±0.03        | 3.01±0.19                | 6.0   |
| $f_{255}$                              | 2.5728±0.0023                | 0.14±0.04        | 0.23±0.14                | 10.6  | $f_{379}$                              | 2.1056±0.0031                | 0.08±0.03        | 0.92±0.19                | 5.9   |
| $f_{256}$                              | 0.5663±0.0024                | 0.12±0.04        | 2.71±0.15                | 10.2  | $f_{381}$                              | 3.2651±0.0032                | 0.08±0.03        | 1.93±0.19                | 5.8   |
| $f_{259}$                              | 0.4080±0.0024                | 0.14±0.04        | -1.58±0.14               | 10.4  | $f_{382}$                              | 2.5894±0.0032                | 0.08±0.03        | -0.37±0.19               | 5.8   |
| $f_{260}$                              | 3.5474±0.0024                | 0.12±0.04        | 2.19±0.15                | 10.3  | $f_{383}$                              | 0.9745±0.0032                | 0.09±0.04        | -0.42±0.20               | 5.7   |
| $f_{261}$                              | 0.5796±0.0024                | 0.11±0.03        | 0.44±0.15                | 10.1  | $f_{384}$                              | 0.9935±0.0032                | 0.08±0.03        | -1.01±0.19               | 5.8   |
| $f_{262}$                              | 1.7133±0.0024                | 0.10±0.03        | -2.62±0.15               | 10.0  | $f_{385}$                              | 3.4531±0.0032                | 0.09±0.04        | -3.11±0.20               | 5.7   |
| $f_{263}$                              | 0.8093±0.0024                | 0.14±0.04        | 1.77±0.15                | 9.9   | $f_{386}$                              | 3.5159±0.0031                | 0.09±0.04        | -0.00±0.19               | 6.0   |
| $f_{269}$                              | 1.7639±0.0025                | 0.12±0.04        | -0.54±0.15               | 9.6   | $f_{387}$                              | 3.4025±0.0031                | 0.08±0.03        | 2.91±0.19                | 6.0   |
| $f_{270}$                              | 2.6878±0.0025                | 0.10±0.03        | -1.52±0.15               | 9.7   | $f_{388}$                              | 3.7609±0.0031                | 0.08±0.03        | 1.40±0.19                | 6.0   |
| $f_{271}$                              | 0.7127±0.0025                | 0.11±0.04        | 0.05±0.15                | 9.3   | $f_{390}$                              | 0.5486±0.0032                | 0.09±0.04        | -2.82±0.20               | 5.7   |
| $f_{272}$                              | 2.4917±0.0025                | 0.10±0.03        | 1.15±0.15                | 9.3   | $f_{393}$                              | 1.6435±0.0033                | 0.09±0.04        | -2.90±0.20               | 5.5   |
| $f_{273}$                              | 3.0737±0.0025                | 0.08±0.03        | -0.11±0.15               | 9.7   | $f_{394}$                              | 1.2926±0.0032                | 0.11±0.05        | 1.40±0.20                | 5.7   |
| $f_{274}$                              | 1.3877±0.0025                | 0.14±0.05        | -2.26±0.15               | 9.4   | $f_{395}$                              | 0.5000±0.0032                | 0.09±0.04        | -0.92±0.20               | 5.6   |
| $f_{275}$                              | 1.3645±0.0024                | 0.10±0.03        | 1.90±0.15                | 10.0  | $f_{396}$                              | 1.8617±0.0033                | 0.08±0.03        | 2.71±0.20                | 5.5   |
| $f_{276}$                              | 1.7944±0.0025                | 0.12±0.04        | 3.00±0.15                | 9.2   | $f_{398}$                              | 0.6492±0.0033                | 0.08±0.03        | 2.89±0.20                | 5.3   |
| $f_{277}$                              | 0.1221±0.0025                | 0.11±0.04        | 1.05±0.15                | 9.2   | $f_{400}$                              | 0.6964±0.0033                | 0.08±0.03        | -3.05±0.20               | 5.3   |
| $f_{278}$                              | 0.7941±0.0025                | 0.11±0.04        | -0.26±0.15               | 9.4   | $f_{401}$                              | 1.3276±0.0033                | 0.10±0.04        | 3.11±0.20                | 5.3   |
| $f_{279}$                              | 3.7749±0.0025                | 0.11±0.04        | 3.10±0.15                | 9.3   | $f_{402}$                              | 1.4952±0.0033                | 0.09±0.04        | 2.20±0.20                | 5.5   |
| $f_{280}$                              | 2.2491±0.0025                | 0.09±0.03        | 3.07±0.15                | 9.1   | $f_{403}$                              | 1.4162±0.0033                | 0.10±0.04        | 2.42±0.20                | 5.2   |
| $f_{282}$                              | 4.0965±0.0026                | 0.11±0.04        | -0.72±0.16               | 8.9   | $f_{404}$                              | 1.1492±0.0032                | 0.09±0.04        | 1.16±0.20                | 5.6   |
| $f_{283}$                              | 2.1751±0.0025                | 0.12±0.04        | -2.22±0.15               | 9.1   | $f_{405}$                              | 4.8302±0.0033                | 0.08±0.04        | -2.15±0.20               | 5.2   |
| $f_{284}$                              | 0.4844±0.0025                | 0.11±0.04        | 2.94±0.15                | 9.2   | $f_{408}$                              | 1.5749±0.0033                | 0.09±0.04        | -2.73±0.20               | 5.2   |
| $f_{285}$                              | 1.9199±0.0026                | 0.11±0.04        | -0.05±0.16               | 8.8   | $f_{409}$                              | 3.0638±0.0033                | 0.08±0.03        | 2.69±0.20                | 5.3   |
| $f_{286}$                              | 1.6113±0.0026                | 0.12±0.04        | -1.30±0.16               | 8.6   | $f_{410}$                              | 0.2716±0.0034                | 0.08±0.04        | 0.51±0.21                | 5.0   |
| $f_{287}$                              | 3.6098±0.0026                | 0.11±0.04        | 0.04±0.16                | 8.6   | $f_{411}$                              | 3.6833±0.0034                | 0.07±0.03        | 1.29±0.21                | 5.0   |
| $f_{290}$                              | 1.8518±0.0026                | 0.10±0.03        | -0.42±0.16               | 8.4   |                                        |                              |                  |                          |       |
| $f_{291}$                              | 0.2543±0.0026                | 0.07±0.02        | -2.98±0.16               | 8.5   |                                        |                              |                  |                          |       |
| $f_{292}$                              | 3.0087±0.0026                | 0.12±0.04        | 1.64±0.16                | 8.5   |                                        |                              |                  |                          |       |
| $f_{293}$                              | 0.6351±0.0026                | 0.10±0.03        | 2.65±0.16                | 8.5   |                                        |                              |                  |                          |       |
| $f_{300}$                              | 1.0161±0.0026                | 0.12±0.04        | 2.16±0.16                | 8.3   |                                        |                              |                  |                          |       |
| $f_{304}$                              | 3.2351±0.0027                | 0.10±0.04        | -0.23±0.16               | 8.0   |                                        |                              |                  |                          |       |
| $f_{305}$                              | 1.1734±0.0027                | 0.11±0.04        | -1.15±0.17               | 7.9   |                                        |                              |                  |                          |       |
| $f_{307}$                              | 1.1072±0.0027                | 0.12±0.04        | -2.93±0.16               | 8.0   |                                        |                              |                  |                          |       |
| $f_{308}$                              | 0.8591±0.0027                | 0.10±0.04        | -2.04±0.17               | 7.9   |                                        |                              |                  |                          |       |
| $f_{313}$                              | 3.8478±0.0027                | 0.11±0.04        | 0.10±0.17                | 7.8   |                                        |                              |                  |                          |       |
| $f_{314}$                              | 2.8149±0.0027                | 0.11±0.04        | 2.53±0.17                | 7.8   |                                        |                              |                  |                          |       |
| $f_{315}$                              | 2.7801±0.0026                | 0.10±0.03        | 1.16±0.16                | 8.5   |                                        |                              |                  |                          |       |
| $f_{317}$                              | 0.2073±0.0027                | 0.10±0.04        | 2.43±0.17                | 7.9   |                                        |                              |                  |                          |       |
| $f_{318}$                              | 2.5432±0.0028                | 0.12±0.04        | -2.39±0.17               | 7.5   |                                        |                              |                  |                          |       |
| $f_{320}$                              | 3.4196±0.0028                | 0.11±0.04        | -2.36±0.17               | 7.6   |                                        |                              |                  |                          |       |
| $f_{321}$                              | 3.8976±0.0028                | 0.10±0.04        | -2.65±0.17               | 7.5   |                                        |                              |                  |                          |       |
| $f_{322}$                              | 2.0143±0.0028                | 0.10±0.04        | 1.17±0.17                | 7.5   |                                        |                              |                  |                          |       |
| $f_{326}$                              | 1.5572±0.0028                | 0.10±0.04        | 1.11±0.17                | 7.6   |                                        |                              |                  |                          |       |
| $f_{328}$                              | 2.7087±0.0028                | 0.11±0.04        | -2.64±0.17               | 7.7   |                                        |                              |                  |                          |       |
| $f_{329}$                              | 1.1397±0.0028                | 0.09±0.03        | -1.36±0.17               | 7.6   |                                        |                              |                  |                          |       |
| $f_{330}$                              | 4.9364±0.0028                | 0.09±0.03        | 2.96±0.17                | 7.6   |                                        |                              |                  |                          |       |
| $f_{331}$                              | 2.9773±0.0028                | 0.10±0.04        | -0.38±0.17               | 7.3   |                                        |                              |                  |                          |       |
| $f_{332}$                              | 1.5127±0.0028                | 0.09±0.03        | 0.78±0.17                | 7.2   |                                        |                              |                  |                          |       |
| $f_{335}$                              | 2.7516±0.0029                | 0.09±0.03        | -1.24±0.18               | 6.9   |                                        |                              |                  |                          |       |
| $f_{336}$                              | 1.1216±0.0029                | 0.09±0.03        | 0.54±0.18                | 6.8   |                                        |                              |                  |                          |       |
| $f_{340}$                              | 3.1832±0.0029                | 0.10±0.04        | 0.74±0.18                | 6.8   |                                        |                              |                  |                          |       |
| Frequency list of 0102611108 continued |                              |                  |                          |       | Frequency list of 0102613079 continued |                              |                  |                          |       |
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_1$                                  | 2.6858±0.0004                | 0.69±0.04        | 2.46±0.03                | 292.3 | $f_{26}$                               | 3.2331±0.0020                | 0.13±0.03        | -1.11±0.12               | 15.3  |
| $f_2$                                  | 2.7161±0.0006                | 0.45±0.04        | -2.60±0.04               | 139.5 | $f_{27}$                               | 0.2802±0.0020                | 0.14±0.04        | -2.62±0.12               | 15.2  |
| $f_3$                                  | 2.7480±0.0007                | 0.43±0.04        | 1.07±0.04                | 127.8 | $f_{28}$                               | 0.1096±0.0020                | 0.15±0.04        | 1.61±0.12                | 15.1  |
| $f_5$                                  | 2.8217±0.0008                | 0.36±0.04        | 2.45±0.05                | 81.9  | $f_{29}$                               | 0.1586±0.0021                | 0.17±0.05        | 2.09±0.13                | 13.4  |
| $f_6$                                  | 2.5250±0.0009                | 0.33±0.04        | 0.76±0.05                | 77.3  |                                        |                              |                  |                          |       |
| $f_7$                                  | 0.1324±0.0012                | 0.22±0.03        | 2.44±0.07                | 42.1  |                                        |                              |                  |                          |       |
| $f_8$                                  | 4.6680±0.0013                | 0.23±0.04        | 0.88±0.08                | 35.6  |                                        |                              |                  |                          |       |
| $f_9$                                  | 5.3655±0.0013                | 0.22±0.04        | -1.00±0.08               | 32.9  |                                        |                              |                  |                          |       |
| $f_{10}$                               | 2.5437±0.0013                | 0.19±0.03        | -0.43±0.08               | 32.0  |                                        |                              |                  |                          |       |
| $f_{12}$                               | 2.8625±0.0015                | 0.18±0.04        | -2.91±0.09               | 25.9  |                                        |                              |                  |                          |       |
| $f_{13}$                               | 3.4822±0.0015                | 0.18±0.04        | -0.60±0.09               | 24.7  |                                        |                              |                  |                          |       |
| $f_{14}$                               | 5.2109±0.0016                | 0.18±0.04        | -0.18±0.10               | 23.8  |                                        |                              |                  |                          |       |
| $f_{15}$                               | 0.1489±0.0016                | 0.15±0.03        | 1.28±0.10                | 22.2  |                                        |                              |                  |                          |       |
| $f_{16}$                               | 0.2468±0.0016                | 0.19±0.04        | -3.05±0.10               | 21.6  |                                        |                              |                  |                          |       |
| $f_{18}$                               | 5.1785±0.0016                | 0.16±0.03        | -2.85±0.10               | 21.7  |                                        |                              |                  |                          |       |
| $f_{19}$                               | 0.2127±0.0017                | 0.19±0.04        | -2.21±0.10               | 20.8  |                                        |                              |                  |                          |       |
| $f_{21}$                               | 2.2039±0.0017                | 0.14±0.03        | 0.33±0.11                | 19.1  |                                        |                              |                  |                          |       |
| $f_{22}$                               | 0.4178±0.0017                | 0.16±0.04        | 2.19±0.10                | 19.9  |                                        |                              |                  |                          |       |
| $f_{24}$                               | 2.3900±0.0019                | 0.14±0.03        | 0.23±0.11                | 16.7  |                                        |                              |                  |                          |       |
| $f_{26}$                               | 3.2331±0.0020                | 0.13±0.03        | -1.11±0.12               | 15.3  |                                        |                              |                  |                          |       |
| $f_{27}$                               | 0.2802±0.0020                | 0.14±0.04        | -2.62±0.12               | 15.2  |                                        |                              |                  |                          |       |
| $f_{28}$                               | 0.1096±0.0020                | 0.15±0.04        | 1.61±0.12                | 15.1  |                                        |                              |                  |                          |       |
| $f_{29}$                               | 0.1586±0.0021                | 0.17±0.05        | 2.09±0.13                | 13.4  |                                        |                              |                  |                          |       |

**Table B.22:** Frequency list of 0102613079

| Frequency ID |
|--------------|
|--------------|

## Appendix B. Frequencies of individual $\gamma$ Dor Stars

| Frequency list of 0102613079 continued |                              |                  |                          |       | Frequency list of 0102623294 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{31}$                               | 7.0903±0.0021                | 0.12±0.03        | -3.07±0.13               | 12.9  | $f_{37}$                               | 3.3743±0.0014                | 0.13±0.02        | 2.69±0.09                | 27.9  |
| $f_{32}$                               | 4.3627±0.0022                | 0.11±0.03        | 1.64±0.14                | 11.9  | $f_{39}$                               | 0.1605±0.0015                | 0.11±0.02        | 0.13±0.09                | 26.3  |
| $f_{33}$                               | 2.4639±0.0022                | 0.12±0.03        | -2.34±0.13               | 12.0  | $f_{40}$                               | 0.3048±0.0014                | 0.12±0.02        | 2.51±0.09                | 29.2  |
| $f_{34}$                               | 0.1707±0.0023                | 0.12±0.04        | -2.86±0.14               | 11.3  | $f_{41}$                               | 2.2512±0.0014                | 0.13±0.02        | 1.32±0.09                | 28.0  |
| $f_{35}$                               | 0.2237±0.0023                | 0.12±0.04        | -3.13±0.14               | 11.3  | $f_{42}$                               | 2.2612±0.0015                | 0.13±0.03        | -2.63±0.09               | 26.7  |
| $f_{36}$                               | 0.1403±0.0022                | 0.12±0.04        | -2.85±0.14               | 11.6  | $f_{44}$                               | 0.4091±0.0016                | 0.12±0.03        | -1.90±0.10               | 23.0  |
| $f_{37}$                               | 5.0466±0.0024                | 0.11±0.03        | 2.22±0.14                | 10.5  | $f_{45}$                               | 3.3825±0.0016                | 0.11±0.02        | -1.58±0.10               | 23.3  |
| $f_{38}$                               | 0.4723±0.0024                | 0.11±0.03        | -0.60±0.15               | 10.3  | $f_{47}$                               | 0.9199±0.0017                | 0.10±0.02        | 3.11±0.10                | 21.3  |
| $f_{39}$                               | 0.2534±0.0025                | 0.09±0.03        | 0.85±0.15                | 9.7   | $f_{48}$                               | 0.9591±0.0017                | 0.08±0.02        | 0.66±0.10                | 21.2  |
| $f_{40}$                               | 2.7833±0.0026                | 0.10±0.03        | -0.36±0.16               | 8.3   | $f_{49}$                               | 1.3218±0.0017                | 0.11±0.02        | 0.76±0.10                | 20.9  |
| $f_{41}$                               | 0.4383±0.0027                | 0.10±0.03        | -1.02±0.16               | 8.2   | $f_{50}$                               | 0.2214±0.0017                | 0.11±0.02        | -1.85±0.11               | 19.6  |
| $f_{42}$                               | 0.3299±0.0026                | 0.11±0.04        | -1.77±0.16               | 8.4   | $f_{51}$                               | 0.3789±0.0017                | 0.11±0.02        | 0.31±0.10                | 20.5  |
| $f_{43}$                               | 0.3399±0.0026                | 0.11±0.04        | 0.82±0.16                | 8.3   | $f_{52}$                               | 1.0548±0.0017                | 0.09±0.02        | -0.34±0.10               | 20.2  |
| $f_{44}$                               | 0.1976±0.0026                | 0.11±0.04        | 3.13±0.16                | 8.3   | $f_{54}$                               | 2.1578±0.0018                | 0.12±0.03        | -1.39±0.11               | 18.6  |
| $f_{45}$                               | 1.0306±0.0028                | 0.09±0.03        | 1.87±0.17                | 7.6   | $f_{55}$                               | 2.2000±0.0018                | 0.07±0.02        | -0.71±0.11               | 17.5  |
| $f_{46}$                               | 2.3156±0.0028                | 0.09±0.03        | 0.02±0.17                | 7.7   | $f_{56}$                               | 1.1009±0.0019                | 0.09±0.02        | -2.74±0.11               | 16.9  |
| $f_{47}$                               | 6.6717±0.0028                | 0.09±0.03        | -0.58±0.17               | 7.4   | $f_{57}$                               | 0.4179±0.0019                | 0.09±0.02        | -2.49±0.11               | 17.0  |
| $f_{48}$                               | 1.2007±0.0028                | 0.09±0.03        | -1.83±0.17               | 7.3   | $f_{58}$                               | 1.2653±0.0019                | 0.08±0.02        | 2.02±0.12                | 15.7  |
| $f_{49}$                               | 3.6413±0.0028                | 0.09±0.03        | -2.03±0.17               | 7.2   | $f_{59}$                               | 0.8971±0.0019                | 0.09±0.02        | 1.83±0.12                | 15.8  |
| $f_{50}$                               | 1.3739±0.0029                | 0.09±0.03        | -2.70±0.17               | 7.1   | $f_{60}$                               | 0.1027±0.0019                | 0.09±0.02        | -2.85±0.12               | 15.5  |
| $f_{51}$                               | 2.0027±0.0028                | 0.09±0.03        | -1.04±0.17               | 7.2   | $f_{61}$                               | 1.0043±0.0020                | 0.10±0.03        | -2.51±0.12               | 15.2  |
| $f_{52}$                               | 0.5266±0.0029                | 0.10±0.04        | 2.48±0.17                | 7.1   | $f_{62}$                               | 2.2390±0.0020                | 0.10±0.03        | 0.13±0.12                | 15.2  |
| $f_{53}$                               | 0.5046±0.0029                | 0.09±0.03        | -1.92±0.18               | 7.0   | $f_{63}$                               | 3.6472±0.0020                | 0.09±0.02        | -0.41±0.12               | 15.2  |
| $f_{54}$                               | 0.2332±0.0028                | 0.10±0.04        | 0.92±0.17                | 7.2   | $f_{65}$                               | 0.8721±0.0021                | 0.08±0.02        | -0.75±0.13               | 13.7  |
| $f_{56}$                               | 0.4001±0.0029                | 0.09±0.03        | -0.40±0.18               | 6.9   | $f_{66}$                               | 0.9503±0.0021                | 0.07±0.02        | -1.88±0.13               | 13.4  |
| $f_{57}$                               | 0.3626±0.0029                | 0.09±0.03        | -0.62±0.18               | 7.0   | $f_{68}$                               | 0.6483±0.0021                | 0.07±0.02        | 0.12±0.13                | 13.4  |
| $f_{58}$                               | 2.4341±0.0029                | 0.08±0.03        | 1.01±0.18                | 6.7   | $f_{69}$                               | 0.2866±0.0021                | 0.07±0.02        | -0.37±0.13               | 13.5  |
| $f_{60}$                               | 0.6519±0.0031                | 0.08±0.03        | 2.52±0.19                | 6.2   | $f_{70}$                               | 2.2165±0.0021                | 0.08±0.02        | 1.16±0.13                | 13.3  |
| $f_{61}$                               | 1.8951±0.0030                | 0.08±0.03        | 0.62±0.19                | 6.3   | $f_{71}$                               | 1.2874±0.0022                | 0.08±0.02        | -0.61±0.13               | 12.5  |
| $f_{62}$                               | 0.9968±0.0030                | 0.09±0.04        | -1.46±0.19               | 6.3   | $f_{72}$                               | 0.2574±0.0022                | 0.08±0.02        | 0.77±0.13                | 12.3  |
| $f_{65}$                               | 2.3517±0.0031                | 0.08±0.03        | 0.04±0.19                | 6.1   | $f_{73}$                               | 0.5130±0.0022                | 0.08±0.02        | 1.52±0.13                | 12.2  |
| $f_{66}$                               | 1.4485±0.0031                | 0.08±0.03        | 2.89±0.19                | 5.9   | $f_{75}$                               | 1.2153±0.0022                | 0.08±0.02        | -2.91±0.14               | 11.7  |
| $f_{67}$                               | 2.0100±0.0031                | 0.08±0.03        | -0.49±0.19               | 6.0   | $f_{77}$                               | 0.9118±0.0023                | 0.07±0.02        | 2.99±0.14                | 11.3  |
| $f_{68}$                               | 2.2305±0.0031                | 0.08±0.03        | -0.14±0.19               | 6.0   | $f_{78}$                               | 2.1922±0.0023                | 0.06±0.02        | -1.64±0.14               | 11.3  |
| $f_{70}$                               | 2.5558±0.0032                | 0.08±0.03        | -0.97±0.20               | 5.6   | $f_{79}$                               | 0.9922±0.0024                | 0.07±0.02        | -3.03±0.14               | 10.5  |
| $f_{71}$                               | 1.2242±0.0032                | 0.08±0.03        | -0.25±0.20               | 5.7   | $f_{80}$                               | 0.7467±0.0023                | 0.08±0.02        | -0.06±0.14               | 10.9  |
| $f_{72}$                               | 2.1484±0.0032                | 0.08±0.03        | 1.03±0.20                | 5.6   | $f_{82}$                               | 0.6793±0.0024                | 0.08±0.02        | -1.43±0.14               | 10.5  |
| $f_{73}$                               | 0.8702±0.0034                | 0.07±0.03        | -0.71±0.21               | 5.1   | $f_{83}$                               | 0.7725±0.0024                | 0.07±0.02        | -0.32±0.15               | 10.1  |
|                                        |                              |                  |                          |       | $f_{84}$                               | 1.1204±0.0024                | 0.09±0.03        | 2.69±0.15                | 10.0  |
|                                        |                              |                  |                          |       | $f_{86}$                               | 1.1556±0.0024                | 0.08±0.03        | -0.52±0.15               | 9.8   |
|                                        |                              |                  |                          |       | $f_{87}$                               | 0.5454±0.0025                | 0.06±0.02        | -0.98±0.15               | 9.5   |
|                                        |                              |                  |                          |       | $f_{88}$                               | 2.1379±0.0025                | 0.05±0.02        | 0.37±0.15                | 9.3   |
|                                        |                              |                  |                          |       | $f_{89}$                               | 0.1431±0.0025                | 0.08±0.03        | 1.49±0.15                | 9.2   |
|                                        |                              |                  |                          |       | $f_{90}$                               | 0.3624±0.0025                | 0.06±0.02        | -1.33±0.15               | 9.5   |
|                                        |                              |                  |                          |       | $f_{91}$                               | 1.4543±0.0025                | 0.06±0.02        | -0.61±0.15               | 9.4   |
|                                        |                              |                  |                          |       | $f_{92}$                               | 1.1823±0.0025                | 0.07±0.02        | 0.31±0.15                | 9.5   |
|                                        |                              |                  |                          |       | $f_{93}$                               | 1.3043±0.0025                | 0.06±0.02        | -2.35±0.15               | 9.4   |
|                                        |                              |                  |                          |       | $f_{94}$                               | 1.2307±0.0026                | 0.07±0.02        | -1.79±0.16               | 8.8   |
|                                        |                              |                  |                          |       | $f_{95}$                               | 0.8023±0.0026                | 0.06±0.02        | 1.08±0.16                | 8.8   |
|                                        |                              |                  |                          |       | $f_{96}$                               | 0.2793±0.0026                | 0.07±0.02        | -0.57±0.16               | 8.5   |
|                                        |                              |                  |                          |       | $f_{97}$                               | 1.2488±0.0026                | 0.07±0.02        | -0.61±0.16               | 8.7   |
|                                        |                              |                  |                          |       | $f_{98}$                               | 1.4141±0.0026                | 0.07±0.02        | 0.05±0.16                | 8.9   |
|                                        |                              |                  |                          |       | $f_{100}$                              | 0.3936±0.0026                | 0.06±0.02        | 0.53±0.16                | 8.3   |
|                                        |                              |                  |                          |       | $f_{101}$                              | 0.5777±0.0027                | 0.06±0.02        | 2.31±0.16                | 8.2   |
|                                        |                              |                  |                          |       | $f_{102}$                              | 0.3370±0.0027                | 0.07±0.02        | 2.97±0.17                | 7.9   |
|                                        |                              |                  |                          |       | $f_{103}$                              | 2.1095±0.0027                | 0.06±0.02        | 1.19±0.16                | 8.0   |
|                                        |                              |                  |                          |       | $f_{104}$                              | 2.0034±0.0028                | 0.06±0.02        | 0.29±0.17                | 7.7   |
|                                        |                              |                  |                          |       | $f_{105}$                              | 55.8627±0.0027               | 0.06±0.02        | -1.37±0.17               | 7.8   |
|                                        |                              |                  |                          |       | $f_{106}$                              | 0.9391±0.0028                | 0.06±0.02        | -2.88±0.17               | 7.2   |
|                                        |                              |                  |                          |       | $f_{107}$                              | 0.3198±0.0028                | 0.06±0.02        | 0.10±0.17                | 7.2   |
|                                        |                              |                  |                          |       | $f_{109}$                              | 0.4417±0.0029                | 0.05±0.02        | -1.81±0.18               | 7.0   |
|                                        |                              |                  |                          |       | $f_{110}$                              | 0.2311±0.0029                | 0.06±0.02        | 1.45±0.18                | 7.0   |
|                                        |                              |                  |                          |       | $f_{112}$                              | 0.6218±0.0029                | 0.05±0.02        | 2.73±0.18                | 6.9   |
|                                        |                              |                  |                          |       | $f_{113}$                              | 0.7336±0.0029                | 0.05±0.02        | 3.02±0.18                | 6.8   |
|                                        |                              |                  |                          |       | $f_{114}$                              | 1.8437±0.0029                | 0.06±0.02        | -0.61±0.18               | 6.7   |
|                                        |                              |                  |                          |       | $f_{115}$                              | 1.5263±0.0030                | 0.05±0.02        | 1.59±0.18                | 6.5   |
|                                        |                              |                  |                          |       | $f_{116}$                              | 1.6994±0.0031                | 0.05±0.02        | 2.95±0.19                | 6.2   |
|                                        |                              |                  |                          |       | $f_{117}$                              | 2.1821±0.0030                | 0.06±0.02        | -1.86±0.18               | 6.5   |
|                                        |                              |                  |                          |       | $f_{118}$                              | 2.3159±0.0030                | 0.05±0.02        | -2.96±0.18               | 6.4   |
|                                        |                              |                  |                          |       | $f_{120}$                              | 2.1477±0.0031                | 0.06±0.02        | 2.46±0.19                | 6.2   |
|                                        |                              |                  |                          |       | $f_{121}$                              | 0.6374±0.0031                | 0.06±0.02        | -1.44±0.19               | 6.0   |
|                                        |                              |                  |                          |       | $f_{122}$                              | 0.4999±0.0030                | 0.05±0.02        | 0.68±0.19                | 6.3   |
|                                        |                              |                  |                          |       | $f_{123}$                              | 2.1245±0.0031                | 0.05±0.02        | 2.90±0.19                | 5.9   |
|                                        |                              |                  |                          |       | $f_{124}$                              | 1.3922±0.0031                | 0.05±0.02        | -2.64±0.19               | 6.0   |
|                                        |                              |                  |                          |       | $f_{125}$                              | 2.3441±0.0032                | 0.05±0.02        | -0.83±0.20               | 5.7   |
|                                        |                              |                  |                          |       | $f_{126}$                              | 1.0666±0.0033                | 0.06±0.03        | -0.42±0.20               | 5.4   |
| Frequency list of 0102623294 continued |                              |                  |                          |       | Frequency list of 0102623294 continued |                              |                  |                          |       |
| Frequency list of 0102623294 continued |                              |                  |                          |       |                                        |                              |                  |                          |       |

## Appendix B. Frequencies of individual $\gamma$ Dor Stars

| Frequency list of 0102623294 continued |                              |                  |                          |       | Frequency list of 0102631816 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{127}$                              | 0.6082±0.0033                | 0.05±0.02        | 2.28±0.20                | 5.5   | $f_{69}$                               | 1.0174±0.0020                | 0.09±0.02        | 0.95±0.12                | 15.2  |
| $f_{128}$                              | 0.6659±0.0031                | 0.05±0.02        | -0.17±0.19               | 5.9   | $f_{70}$                               | 1.0523±0.0020                | 0.14±0.04        | -1.67±0.12               | 15.3  |
| $f_{129}$                              | 0.2684±0.0032                | 0.05±0.02        | 1.62±0.20                | 5.7   | $f_{72}$                               | 1.2223±0.0019                | 0.12±0.03        | 1.28±0.12                | 15.4  |
| $f_{131}$                              | 0.5240±0.0033                | 0.05±0.02        | 1.81±0.20                | 5.2   | $f_{73}$                               | 3.5438±0.0020                | 0.10±0.03        | -2.38±0.12               | 13.9  |
| $f_{132}$                              | 1.3470±0.0033                | 0.05±0.02        | -2.46±0.20               | 5.2   | $f_{74}$                               | 1.8576±0.0020                | 0.10±0.03        | 2.55±0.12                | 13.9  |
|                                        |                              |                  |                          |       | $f_{77}$                               | 1.4175±0.0021                | 0.11±0.03        | -0.26±0.13               | 13.8  |
|                                        |                              |                  |                          |       | $f_{80}$                               | 0.2857±0.0021                | 0.10±0.03        | -0.56±0.13               | 13.7  |
|                                        |                              |                  |                          |       | $f_{81}$                               | 1.2835±0.0021                | 0.10±0.03        | -0.40±0.13               | 13.3  |
|                                        |                              |                  |                          |       | $f_{83}$                               | 2.0056±0.0022                | 0.20±0.06        | -3.10±0.13               | 12.5  |
|                                        |                              |                  |                          |       | $f_{86}$                               | 3.4626±0.0022                | 0.10±0.03        | -1.42±0.13               | 12.3  |
|                                        |                              |                  |                          |       | $f_{87}$                               | 1.0700±0.0022                | 0.10±0.03        | -0.65±0.13               | 12.4  |
|                                        |                              |                  |                          |       | $f_{88}$                               | 0.1281±0.0022                | 0.10±0.03        | -0.11±0.13               | 12.0  |
|                                        |                              |                  |                          |       | $f_{89}$                               | 0.3491±0.0022                | 0.10±0.03        | 1.88±0.12                | 12.1  |
|                                        |                              |                  |                          |       | $f_{90}$                               | 1.7844±0.0022                | 0.11±0.03        | 1.41±0.14                | 11.7  |
|                                        |                              |                  |                          |       | $f_{91}$                               | 1.5024±0.0023                | 0.09±0.03        | -1.40±0.14               | 11.5  |
|                                        |                              |                  |                          |       | $f_{92}$                               | 0.4190±0.0023                | 0.10±0.03        | 2.92±0.14                | 11.4  |
|                                        |                              |                  |                          |       | $f_{94}$                               | 1.6546±0.0022                | 0.08±0.02        | 1.32±0.14                | 11.8  |
|                                        |                              |                  |                          |       | $f_{95}$                               | 0.5614±0.0023                | 0.08±0.02        | -0.39±0.14               | 11.4  |
|                                        |                              |                  |                          |       | $f_{97}$                               | 4.2921±0.0023                | 0.09±0.03        | -2.92±0.14               | 10.9  |
|                                        |                              |                  |                          |       | $f_{98}$                               | 3.5154±0.0023                | 0.09±0.03        | -2.31±0.14               | 10.6  |
|                                        |                              |                  |                          |       | $f_{99}$                               | 1.3271±0.0023                | 0.09±0.03        | 1.45±0.14                | 10.7  |
|                                        |                              |                  |                          |       | $f_{100}$                              | 2.2613±0.0023                | 0.09±0.03        | 3.02±0.14                | 10.6  |
|                                        |                              |                  |                          |       | $f_{103}$                              | 2.9888±0.0024                | 0.10±0.03        | 0.24±0.15                | 10.2  |
|                                        |                              |                  |                          |       | $f_{104}$                              | 2.5731±0.0024                | 0.08±0.03        | -0.50±0.15               | 9.8   |
|                                        |                              |                  |                          |       | $f_{105}$                              | 3.5865±0.0024                | 0.08±0.03        | -0.55±0.15               | 9.9   |
|                                        |                              |                  |                          |       | $f_{106}$                              | 2.8671±0.0024                | 0.08±0.03        | -2.98±0.15               | 10.0  |
|                                        |                              |                  |                          |       | $f_{107}$                              | 0.8554±0.0024                | 0.08±0.03        | 0.47±0.15                | 10.2  |
|                                        |                              |                  |                          |       | $f_{110}$                              | 4.4760±0.0025                | 0.08±0.03        | -2.42±0.15               | 9.7   |
|                                        |                              |                  |                          |       | $f_{111}$                              | 4.0943±0.0025                | 0.08±0.03        | 2.12±0.15                | 9.7   |
|                                        |                              |                  |                          |       | $f_{112}$                              | 0.4300±0.0025                | 0.09±0.03        | 2.48±0.15                | 9.1   |
|                                        |                              |                  |                          |       | $f_{113}$                              | 1.6947±0.0025                | 0.09±0.03        | -2.22±0.15               | 9.3   |
|                                        |                              |                  |                          |       | $f_{114}$                              | 1.0428±0.0025                | 0.08±0.03        | -0.15±0.15               | 9.5   |
|                                        |                              |                  |                          |       | $f_{117}$                              | 2.5914±0.0025                | 0.07±0.02        | -1.84±0.15               | 9.5   |
|                                        |                              |                  |                          |       | $f_{118}$                              | 0.1719±0.0025                | 0.09±0.03        | 3.00±0.16                | 9.0   |
|                                        |                              |                  |                          |       | $f_{119}$                              | 2.9543±0.0025                | 0.08±0.03        | -1.88±0.16               | 9.0   |
|                                        |                              |                  |                          |       | $f_{120}$                              | 0.9276±0.0026                | 0.08±0.03        | -1.83±0.16               | 8.7   |
|                                        |                              |                  |                          |       | $f_{121}$                              | 2.0656±0.0025                | 0.08±0.03        | -1.30±0.15               | 9.1   |
|                                        |                              |                  |                          |       | $f_{123}$                              | 2.8182±0.0026                | 0.07±0.02        | -1.03±0.16               | 8.5   |
|                                        |                              |                  |                          |       | $f_{124}$                              | 3.1467±0.0026                | 0.08±0.03        | -2.56±0.16               | 8.4   |
|                                        |                              |                  |                          |       | $f_{125}$                              | 1.0078±0.0026                | 0.08±0.03        | -1.69±0.16               | 8.5   |
|                                        |                              |                  |                          |       | $f_{126}$                              | 0.3663±0.0026                | 0.08±0.03        | 1.60±0.16                | 8.5   |
|                                        |                              |                  |                          |       | $f_{127}$                              | 3.0934±0.0026                | 0.08±0.03        | 1.16±0.16                | 8.3   |
|                                        |                              |                  |                          |       | $f_{128}$                              | 2.2783±0.0026                | 0.08±0.03        | -1.32±0.16               | 8.3   |
|                                        |                              |                  |                          |       | $f_{129}$                              | 0.2758±0.0026                | 0.08±0.03        | -2.87±0.16               | 8.5   |
|                                        |                              |                  |                          |       | $f_{130}$                              | 0.3094±0.0026                | 0.07±0.02        | 1.83±0.16                | 8.3   |
|                                        |                              |                  |                          |       | $f_{131}$                              | 0.8099±0.0026                | 0.08±0.03        | 0.44±0.16                | 8.4   |
|                                        |                              |                  |                          |       | $f_{132}$                              | 1.4467±0.0026                | 0.08±0.03        | 0.85±0.16                | 8.4   |
|                                        |                              |                  |                          |       | $f_{133}$                              | 3.0708±0.0027                | 0.09±0.03        | -0.68±0.16               | 8.2   |
|                                        |                              |                  |                          |       | $f_{136}$                              | 1.4758±0.0027                | 0.08±0.03        | -1.83±0.17               | 7.8   |
|                                        |                              |                  |                          |       | $f_{138}$                              | 0.1913±0.0028                | 0.08±0.03        | -0.38±0.17               | 7.5   |
|                                        |                              |                  |                          |       | $f_{139}$                              | 0.5088±0.0028                | 0.07±0.03        | 1.44±0.17                | 7.4   |
|                                        |                              |                  |                          |       | $f_{141}$                              | 1.5375±0.0028                | 0.07±0.03        | 2.85±0.17                | 7.3   |
|                                        |                              |                  |                          |       | $f_{142}$                              | 1.6259±0.0028                | 0.08±0.03        | -1.57±0.17               | 7.6   |
|                                        |                              |                  |                          |       | $f_{144}$                              | 0.9351±0.0028                | 0.07±0.03        | -0.50±0.17               | 7.3   |
|                                        |                              |                  |                          |       | $f_{145}$                              | 2.7600±0.0028                | 0.07±0.03        | 1.01±0.17                | 7.2   |
|                                        |                              |                  |                          |       | $f_{146}$                              | 3.1387±0.0028                | 0.07±0.03        | -2.68±0.17               | 7.2   |
|                                        |                              |                  |                          |       | $f_{147}$                              | 3.0818±0.0028                | 0.07±0.03        | -2.73±0.17               | 7.5   |
|                                        |                              |                  |                          |       | $f_{149}$                              | 1.0885±0.0028                | 0.07±0.03        | 2.81±0.17                | 7.2   |
|                                        |                              |                  |                          |       | $f_{150}$                              | 1.9386±0.0029                | 0.06±0.02        | -2.29±0.18               | 6.9   |
|                                        |                              |                  |                          |       | $f_{151}$                              | 1.6731±0.0029                | 0.08±0.03        | 0.76±0.18                | 6.9   |
|                                        |                              |                  |                          |       | $f_{152}$                              | 1.3793±0.0028                | 0.07±0.03        | -0.21±0.17               | 7.2   |
|                                        |                              |                  |                          |       | $f_{153}$                              | 3.0572±0.0029                | 0.07±0.03        | 0.95±0.18                | 6.9   |
|                                        |                              |                  |                          |       | $f_{154}$                              | 0.3342±0.0029                | 0.07±0.03        | 1.24±0.18                | 6.7   |
|                                        |                              |                  |                          |       | $f_{155}$                              | 0.4647±0.0029                | 0.07±0.03        | 0.71±0.18                | 6.7   |
|                                        |                              |                  |                          |       | $f_{156}$                              | 0.4841±0.0030                | 0.07±0.03        | 3.06±0.18                | 6.6   |
|                                        |                              |                  |                          |       | $f_{158}$                              | 1.5702±0.0029                | 0.06±0.02        | -0.31±0.18               | 6.7   |
|                                        |                              |                  |                          |       | $f_{159}$                              | 0.6730±0.0030                | 0.06±0.02        | -1.48±0.18               | 6.5   |
|                                        |                              |                  |                          |       | $f_{160}$                              | 0.1112±0.0029                | 0.07±0.03        | 2.13±0.18                | 6.7   |
|                                        |                              |                  |                          |       | $f_{161}$                              | 0.2152±0.0029                | 0.07±0.03        | -1.95±0.18               | 6.7   |
|                                        |                              |                  |                          |       | $f_{162}$                              | 0.7243±0.0030                | 0.06±0.02        | 0.04±0.18                | 6.6   |
|                                        |                              |                  |                          |       | $f_{163}$                              | 1.2415±0.0029                | 0.07±0.03        | 1.82±0.18                | 6.8   |
|                                        |                              |                  |                          |       | $f_{165}$                              | 2.6029±0.0030                | 0.06±0.02        | -0.80±0.18               | 6.6   |
|                                        |                              |                  |                          |       | $f_{166}$                              | 3.6414±0.0030                | 0.06±0.02        | -0.87±0.19               | 6.3   |
|                                        |                              |                  |                          |       | $f_{167}$                              | 2.3336±0.0030                | 0.07±0.03        | -0.31±0.18               | 6.4   |
|                                        |                              |                  |                          |       | $f_{168}$                              | 1.7745±0.0030                | 0.07±0.03        | 1.40±0.19                | 6.3   |
|                                        |                              |                  |                          |       | $f_{169}$                              | 1.8963±0.0030                | 0.07±0.03        | -1.82±0.19               | 6.3   |
| Frequency list of 0102631816 continued |                              |                  |                          |       | Frequency list of 0102631816 continued |                              |                  |                          |       |

## Appendix B. Frequencies of individual $\gamma$ Dor Stars

| Frequency list of 0102631816 continued |                               |                  |                     |       | Frequency list of 0102636574 continued |                               |                  |                     |       |
|----------------------------------------|-------------------------------|------------------|---------------------|-------|----------------------------------------|-------------------------------|------------------|---------------------|-------|
| Frequency ID                           | Frequency [ $\text{d}^{-1}$ ] | Amplitude [mmag] | Phase $[-\pi, \pi]$ | Sign. | Frequency ID                           | Frequency [ $\text{d}^{-1}$ ] | Amplitude [mmag] | Phase $[-\pi, \pi]$ | Sign. |
| $f_{170}$                              | 2.3479±0.0031                 | 0.06±0.02        | -2.78±0.19          | 6.2   | $f_{51}$                               | 4.1360±0.0018                 | 0.10±0.02        | 0.87±0.11           | 17.9  |
| $f_{171}$                              | 0.2930±0.0031                 | 0.07±0.03        | -2.78±0.19          | 6.2   | $f_{52}$                               | 1.5460±0.0018                 | 0.08±0.02        | 1.77±0.11           | 17.6  |
| $f_{173}$                              | 2.5190±0.0031                 | 0.06±0.02        | -2.96±0.19          | 6.2   | $f_{53}$                               | 2.2889±0.0018                 | 0.08±0.02        | -0.18±0.11          | 17.5  |
| $f_{174}$                              | 0.9928±0.0031                 | 0.07±0.03        | -2.22±0.19          | 6.1   | $f_{54}$                               | 27.7782±0.0019                | 0.09±0.02        | -2.83±0.11          | 16.7  |
| $f_{175}$                              | 3.9012±0.0031                 | 0.06±0.02        | -1.10±0.19          | 6.0   | $f_{55}$                               | 22.9828±0.0019                | 0.09±0.02        | -2.06±0.11          | 16.6  |
| $f_{176}$                              | 0.7940±0.0031                 | 0.06±0.02        | -1.34±0.19          | 6.1   | $f_{56}$                               | 6.8619±0.0019                 | 0.08±0.02        | -1.78±0.12          | 15.8  |
| $f_{177}$                              | 1.1670±0.0031                 | 0.06±0.02        | 3.08±0.19           | 6.0   | $f_{57}$                               | 0.9537±0.0019                 | 0.08±0.02        | -1.06±0.12          | 15.7  |
| $f_{178}$                              | 1.5957±0.0032                 | 0.06±0.03        | 0.31±0.20           | 5.7   | $f_{58}$                               | 2.9169±0.0020                 | 0.08±0.02        | 2.58±0.12           | 15.2  |
| $f_{180}$                              | 2.8076±0.0032                 | 0.06±0.02        | 2.92±0.19           | 5.8   | $f_{59}$                               | 1.2005±0.0019                 | 0.08±0.02        | -2.84±0.12          | 15.5  |
| $f_{181}$                              | 1.9886±0.0032                 | 0.06±0.03        | -2.15±0.20          | 5.6   | $f_{60}$                               | 0.3530±0.0019                 | 0.07±0.02        | 2.25±0.12           | 15.6  |
| $f_{182}$                              | 1.9311±0.0032                 | 0.06±0.02        | -0.29±0.19          | 5.8   | $f_{61}$                               | 0.4024±0.0019                 | 0.10±0.03        | -0.97±0.12          | 15.4  |
| $f_{183}$                              | 2.6445±0.0033                 | 0.06±0.03        | -1.15±0.20          | 5.5   | $f_{62}$                               | 0.2461±0.0019                 | 0.07±0.02        | -2.47±0.12          | 15.4  |
| $f_{186}$                              | 0.3907±0.0033                 | 0.06±0.03        | 2.21±0.20           | 5.4   | $f_{63}$                               | 1.2661±0.0020                 | 0.08±0.02        | 2.91±0.12           | 14.7  |
| $f_{187}$                              | 0.6539±0.0033                 | 0.06±0.03        | -1.33±0.20          | 5.3   | $f_{64}$                               | 6.1880±0.0020                 | 0.08±0.02        | -1.81±0.12          | 14.7  |
| $f_{188}$                              | 1.1003±0.0033                 | 0.06±0.03        | 2.23±0.20           | 5.4   | $f_{65}$                               | 3.2902±0.0020                 | 0.08±0.02        | 0.36±0.12           | 14.4  |
| $f_{189}$                              | 0.7083±0.0033                 | 0.06±0.03        | 3.08±0.20           | 5.4   | $f_{66}$                               | 0.8698±0.0020                 | 0.07±0.02        | -1.29±0.12          | 14.4  |
| $f_{190}$                              | 0.6837±0.0033                 | 0.06±0.03        | -1.75±0.20          | 5.4   | $f_{67}$                               | 3.6615±0.0020                 | 0.08±0.02        | -2.55±0.12          | 14.0  |
| $f_{191}$                              | 3.3851±0.0033                 | 0.06±0.03        | -1.72±0.20          | 5.3   | $f_{68}$                               | 1.3540±0.0021                 | 0.07±0.02        | 0.85±0.13           | 12.7  |
| $f_{192}$                              | 1.5614±0.0033                 | 0.06±0.03        | -3.08±0.20          | 5.2   | $f_{69}$                               | 6.9452±0.0021                 | 0.07±0.02        | 1.53±0.13           | 12.7  |
| $f_{193}$                              | 2.6744±0.0034                 | 0.06±0.03        | 0.98±0.21           | 5.1   | $f_{70}$                               | 1.2523±0.0021                 | 0.08±0.02        | 1.30±0.13           | 12.9  |
| $f_{195}$                              | 2.9819±0.0034                 | 0.06±0.03        | -3.08±0.21          | 5.0   | $f_{71}$                               | 0.7938±0.0021                 | 0.07±0.02        | 1.81±0.13           | 12.9  |
|                                        |                               |                  |                     |       | $f_{72}$                               | 4.4275±0.0022                 | 0.07±0.02        | -2.89±0.13          | 12.1  |
|                                        |                               |                  |                     |       | $f_{73}$                               | 9.3564±0.0022                 | 0.07±0.02        | 2.84±0.14           | 11.6  |
|                                        |                               |                  |                     |       | $f_{74}$                               | 4.2187±0.0022                 | 0.07±0.02        | -0.17±0.14          | 11.9  |
|                                        |                               |                  |                     |       | $f_{75}$                               | 6.6906±0.0023                 | 0.07±0.02        | -1.57±0.14          | 11.4  |
|                                        |                               |                  |                     |       | $f_{76}$                               | 1.8838±0.0022                 | 0.06±0.02        | 2.20±0.14           | 11.7  |
|                                        |                               |                  |                     |       | $f_{77}$                               | 3.6376±0.0023                 | 0.07±0.02        | -2.96±0.14          | 11.3  |
|                                        |                               |                  |                     |       | $f_{78}$                               | 0.7033±0.0023                 | 0.07±0.02        | 0.07±0.14           | 11.2  |
|                                        |                               |                  |                     |       | $f_{79}$                               | 2.3680±0.0023                 | 0.07±0.02        | -0.57±0.14          | 11.1  |
|                                        |                               |                  |                     |       | $f_{80}$                               | 0.1501±0.0023                 | 0.08±0.02        | 2.50±0.14           | 10.9  |
|                                        |                               |                  |                     |       | $f_{81}$                               | 0.5233±0.0023                 | 0.06±0.02        | 1.19±0.14           | 11.0  |
|                                        |                               |                  |                     |       | $f_{82}$                               | 4.4624±0.0023                 | 0.07±0.02        | 2.38±0.14           | 11.2  |
|                                        |                               |                  |                     |       | $f_{83}$                               | 9.1439±0.0023                 | 0.07±0.02        | 0.50±0.14           | 10.6  |
|                                        |                               |                  |                     |       | $f_{84}$                               | 1.6214±0.0024                 | 0.07±0.02        | -3.13±0.14          | 10.4  |
|                                        |                               |                  |                     |       | $f_{85}$                               | 0.3904±0.0024                 | 0.08±0.02        | -2.42±0.15          | 10.3  |
|                                        |                               |                  |                     |       | $f_{86}$                               | 4.4056±0.0024                 | 0.07±0.02        | -2.51±0.15          | 10.2  |
|                                        |                               |                  |                     |       | $f_{87}$                               | 8.2547±0.0024                 | 0.06±0.02        | -2.10±0.15          | 10.1  |
|                                        |                               |                  |                     |       | $f_{88}$                               | 1.4678±0.0024                 | 0.07±0.02        | 1.31±0.15           | 10.0  |
|                                        |                               |                  |                     |       | $f_{89}$                               | 1.0664±0.0024                 | 0.06±0.02        | 2.92±0.15           | 10.1  |
|                                        |                               |                  |                     |       | $f_{90}$                               | 0.6626±0.0024                 | 0.06±0.02        | -0.44±0.14          | 10.5  |
|                                        |                               |                  |                     |       | $f_{91}$                               | 6.3698±0.0024                 | 0.06±0.02        | 2.09±0.14           | 10.4  |
|                                        |                               |                  |                     |       | $f_{92}$                               | 8.7733±0.0024                 | 0.07±0.02        | 1.95±0.15           | 10.3  |
|                                        |                               |                  |                     |       | $f_{93}$                               | 0.1760±0.0024                 | 0.07±0.02        | -1.42±0.15          | 10.3  |
|                                        |                               |                  |                     |       | $f_{94}$                               | 0.2088±0.0024                 | 0.07±0.02        | -0.46±0.15          | 10.0  |
|                                        |                               |                  |                     |       | $f_{95}$                               | 0.6099±0.0024                 | 0.07±0.02        | -0.88±0.15          | 9.9   |
|                                        |                               |                  |                     |       | $f_{96}$                               | 10.2945±0.0024                | 0.06±0.02        | 0.75±0.15           | 10.2  |
|                                        |                               |                  |                     |       | $f_{97}$                               | 2.4716±0.0024                 | 0.06±0.02        | 1.18±0.15           | 9.9   |
|                                        |                               |                  |                     |       | $f_{98}$                               | 3.8436±0.0025                 | 0.06±0.02        | 1.85±0.15           | 9.7   |
|                                        |                               |                  |                     |       | $f_{99}$                               | 8.5395±0.0024                 | 0.06±0.02        | -2.79±0.15          | 10.0  |
|                                        |                               |                  |                     |       | $f_{100}$                              | 5.3629±0.0025                 | 0.06±0.02        | 2.01±0.15           | 9.6   |
|                                        |                               |                  |                     |       | $f_{101}$                              | 0.3026±0.0025                 | 0.07±0.02        | -0.56±0.15          | 9.6   |
|                                        |                               |                  |                     |       | $f_{102}$                              | 0.3704±0.0025                 | 0.06±0.02        | -1.23±0.15          | 9.7   |
|                                        |                               |                  |                     |       | $f_{103}$                              | 0.3429±0.0023                 | 0.06±0.02        | 2.60±0.14           | 10.7  |
|                                        |                               |                  |                     |       | $f_{104}$                              | 5.2637±0.0025                 | 0.07±0.02        | -1.53±0.15          | 9.5   |
|                                        |                               |                  |                     |       | $f_{105}$                              | 1.9530±0.0025                 | 0.06±0.02        | -3.00±0.15          | 9.3   |
|                                        |                               |                  |                     |       | $f_{106}$                              | 1.6445±0.0025                 | 0.06±0.02        | -2.37±0.15          | 9.4   |
|                                        |                               |                  |                     |       | $f_{107}$                              | 5.1734±0.0025                 | 0.06±0.02        | 2.97±0.15           | 9.5   |
|                                        |                               |                  |                     |       | $f_{108}$                              | 2.1417±0.0025                 | 0.06±0.02        | -1.41±0.15          | 9.2   |
|                                        |                               |                  |                     |       | $f_{109}$                              | 1.4321±0.0025                 | 0.05±0.02        | 2.39±0.15           | 9.1   |
|                                        |                               |                  |                     |       | $f_{110}$                              | 0.2306±0.0025                 | 0.06±0.02        | -2.75±0.16          | 9.0   |
|                                        |                               |                  |                     |       | $f_{111}$                              | 2.2328±0.0025                 | 0.06±0.02        | 1.02±0.15           | 9.3   |
|                                        |                               |                  |                     |       | $f_{112}$                              | 4.3078±0.0025                 | 0.06±0.02        | -1.37±0.16          | 9.0   |
|                                        |                               |                  |                     |       | $f_{113}$                              | 2.4169±0.0026                 | 0.05±0.02        | -1.85±0.16          | 8.9   |
|                                        |                               |                  |                     |       | $f_{114}$                              | 5.9228±0.0025                 | 0.06±0.02        | 1.11±0.15           | 9.1   |
|                                        |                               |                  |                     |       | $f_{115}$                              | 2.7257±0.0026                 | 0.06±0.02        | -2.86±0.16          | 8.7   |
|                                        |                               |                  |                     |       | $f_{116}$                              | 0.7382±0.0026                 | 0.06±0.02        | 0.47±0.16           | 8.6   |
|                                        |                               |                  |                     |       | $f_{117}$                              | 0.9189±0.0026                 | 0.06±0.02        | 2.30±0.16           | 8.5   |
|                                        |                               |                  |                     |       | $f_{118}$                              | 4.9359±0.0026                 | 0.06±0.02        | 1.77±0.16           | 8.7   |
|                                        |                               |                  |                     |       | $f_{119}$                              | 5.5617±0.0026                 | 0.06±0.02        | 2.62±0.16           | 8.5   |
|                                        |                               |                  |                     |       | $f_{120}$                              | 2.8021±0.0026                 | 0.06±0.02        | -1.52±0.16          | 8.5   |
|                                        |                               |                  |                     |       | $f_{121}$                              | 0.5127±0.0027                 | 0.06±0.02        | -0.84±0.16          | 8.2   |
|                                        |                               |                  |                     |       | $f_{122}$                              | 0.4400±0.0026                 | 0.06±0.02        | -1.79±0.16          | 8.3   |
|                                        |                               |                  |                     |       | $f_{123}$                              | 4.8351±0.0026                 | 0.05±0.02        | 2.72±0.16           | 8.4   |
|                                        |                               |                  |                     |       | $f_{124}$                              | 3.9552±0.0027                 | 0.06±0.02        | 1.71±0.17           | 7.9   |
|                                        |                               |                  |                     |       | $f_{125}$                              | 3.1065±0.0027                 | 0.06±0.02        | 2.57±0.17           | 7.9   |
|                                        |                               |                  |                     |       | $f_{126}$                              | 7.2910±0.0028                 | 0.05±0.02        | 0.25±0.17           | 7.6   |
| Frequency list of 0102636574 continued |                               |                  |                     |       | Frequency list of 0102636574 continued |                               |                  |                     |       |

## Appendix B. Frequencies of individual $\gamma$ Dor Stars

| Frequency list of 0102636574 continued |                              |                  |                          |       | Frequency list of 0102643218 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{127}$                              | 1.0131±0.0028                | 0.06±0.02        | -2.96±0.17               | 7.6   | $f_{16}$                               | 0.7737±0.0008                | 0.34±0.04        | 0.98±0.05                | 86.2  |
| $f_{128}$                              | 8.6495±0.0028                | 0.05±0.02        | -0.18±0.17               | 7.7   | $f_{17}$                               | 0.5071±0.0008                | 0.39±0.04        | -0.14±0.05               | 84.4  |
| $f_{129}$                              | 4.3003±0.0028                | 0.05±0.02        | -2.48±0.17               | 7.5   | $f_{18}$                               | 0.5335±0.0008                | 0.46±0.05        | 0.27±0.05                | 94.5  |
| $f_{130}$                              | 1.9836±0.0028                | 0.05±0.02        | 1.59±0.17                | 7.2   | $f_{19}$                               | 0.8306±0.0008                | 0.41±0.04        | -2.48±0.05               | 84.9  |
| $f_{131}$                              | 0.2845±0.0028                | 0.05±0.02        | -1.19±0.17               | 7.5   | $f_{20}$                               | 0.7287±0.0008                | 0.36±0.04        | -2.54±0.05               | 87.3  |
| $f_{132}$                              | 1.4743±0.0029                | 0.05±0.02        | -0.09±0.17               | 7.1   | $f_{21}$                               | 0.7192±0.0008                | 0.39±0.04        | -0.93±0.05               | 84.8  |
| $f_{133}$                              | 0.8230±0.0029                | 0.05±0.02        | 2.71±0.18                | 7.0   | $f_{22}$                               | 0.2140±0.0008                | 0.37±0.04        | 0.34±0.05                | 86.5  |
| $f_{134}$                              | 7.0162±0.0028                | 0.05±0.02        | -1.75±0.17               | 7.2   | $f_{23}$                               | 3.3130±0.0009                | 0.40±0.05        | -2.50±0.05               | 78.3  |
| $f_{135}$                              | 0.9914±0.0029                | 0.05±0.02        | 1.70±0.18                | 7.0   | $f_{24}$                               | 3.2343±0.0009                | 0.36±0.04        | -2.68±0.05               | 77.7  |
| $f_{136}$                              | 2.6346±0.0029                | 0.05±0.02        | -0.58±0.17               | 7.1   | $f_{25}$                               | 3.1033±0.0009                | 0.33±0.04        | 1.91±0.05                | 79.3  |
| $f_{137}$                              | 4.3560±0.0029                | 0.05±0.02        | 2.69±0.17                | 7.1   | $f_{26}$                               | 0.6688±0.0009                | 0.35±0.04        | 1.73±0.05                | 80.1  |
| $f_{138}$                              | 4.0383±0.0028                | 0.05±0.02        | 0.38±0.17                | 7.3   | $f_{27}$                               | 0.5617±0.0009                | 0.38±0.04        | 0.65±0.05                | 74.1  |
| $f_{139}$                              | 22.1326±0.0029               | 0.05±0.02        | -2.00±0.18               | 7.0   | $f_{28}$                               | 0.1534±0.0009                | 0.36±0.04        | -0.23±0.05               | 72.6  |
| $f_{140}$                              | 9.5281±0.0029                | 0.05±0.02        | -3.08±0.18               | 7.0   | $f_{29}$                               | 0.6855±0.0009                | 0.26±0.03        | -1.44±0.05               | 76.6  |
| $f_{141}$                              | 0.6352±0.0029                | 0.05±0.02        | -2.72±0.18               | 6.8   | $f_{30}$                               | 0.5853±0.0009                | 0.28±0.03        | 1.09±0.05                | 73.3  |
| $f_{142}$                              | 1.1430±0.0029                | 0.05±0.02        | 0.64±0.18                | 6.7   | $f_{31}$                               | 0.1768±0.0009                | 0.31±0.04        | 1.02±0.05                | 74.2  |
| $f_{143}$                              | 5.3510±0.0029                | 0.05±0.02        | 2.55±0.18                | 6.7   | $f_{32}$                               | 3.1999±0.0009                | 0.30±0.04        | -0.67±0.06               | 70.9  |
| $f_{144}$                              | 1.9379±0.0030                | 0.05±0.02        | 2.51±0.18                | 6.6   | $f_{33}$                               | 3.0458±0.0009                | 0.29±0.04        | 0.28±0.06                | 64.8  |
| $f_{145}$                              | 1.9202±0.0028                | 0.05±0.02        | 2.25±0.17                | 7.5   | $f_{34}$                               | 3.0866±0.0009                | 0.30±0.04        | 2.19±0.06                | 66.5  |
| $f_{146}$                              | 0.8495±0.0029                | 0.05±0.02        | 2.68±0.18                | 6.7   | $f_{35}$                               | 3.7656±0.0010                | 0.27±0.03        | -2.16±0.06               | 63.2  |
| $f_{147}$                              | 8.0428±0.0030                | 0.05±0.02        | 2.72±0.18                | 6.6   | $f_{36}$                               | 0.1451±0.0009                | 0.26±0.03        | -0.51±0.06               | 64.8  |
| $f_{148}$                              | 1.8549±0.0030                | 0.05±0.02        | -0.10±0.19               | 6.3   | $f_{37}$                               | 3.3313±0.0010                | 0.26±0.03        | 2.07±0.06                | 64.5  |
| $f_{149}$                              | 7.6485±0.0031                | 0.05±0.02        | -2.34±0.19               | 6.1   | $f_{38}$                               | 0.2665±0.0010                | 0.33±0.04        | 0.41±0.06                | 61.7  |
| $f_{150}$                              | 2.1091±0.0031                | 0.05±0.02        | -1.78±0.19               | 6.1   | $f_{39}$                               | 3.9214±0.0010                | 0.27±0.04        | -2.26±0.06               | 58.6  |
| $f_{151}$                              | 6.7428±0.0031                | 0.05±0.02        | -0.82±0.19               | 6.1   | $f_{40}$                               | 0.7644±0.0010                | 0.27±0.04        | -2.02±0.06               | 55.9  |
| $f_{152}$                              | 1.0482±0.0031                | 0.05±0.02        | 2.59±0.19                | 6.0   | $f_{41}$                               | 0.3646±0.0010                | 0.26±0.03        | 1.58±0.06                | 57.6  |
| $f_{153}$                              | 1.3479±0.0031                | 0.05±0.02        | 1.16±0.19                | 6.2   | $f_{42}$                               | 0.4967±0.0010                | 0.28±0.04        | 1.69±0.06                | 56.0  |
| $f_{154}$                              | 0.4113±0.0031                | 0.05±0.02        | -1.02±0.19               | 6.2   | $f_{43}$                               | 0.5400±0.0010                | 0.23±0.03        | -2.93±0.06               | 56.2  |
| $f_{155}$                              | 1.3760±0.0031                | 0.04±0.02        | 2.82±0.19                | 6.2   | $f_{44}$                               | 0.8440±0.0010                | 0.24±0.03        | -1.18±0.06               | 54.3  |
| $f_{156}$                              | 1.7358±0.0031                | 0.05±0.02        | 0.29±0.19                | 6.0   | $f_{45}$                               | 0.8087±0.0010                | 0.24±0.03        | 1.38±0.06                | 58.9  |
| $f_{157}$                              | 1.6971±0.0031                | 0.04±0.02        | 2.25±0.19                | 6.1   | $f_{46}$                               | 3.6624±0.0010                | 0.23±0.03        | -1.08±0.06               | 54.8  |
| $f_{158}$                              | 3.1783±0.0031                | 0.05±0.02        | -0.66±0.19               | 5.9   | $f_{47}$                               | 3.4876±0.0010                | 0.21±0.03        | -3.07±0.06               | 53.3  |
| $f_{159}$                              | 7.1170±0.0031                | 0.05±0.02        | 2.40±0.19                | 6.0   | $f_{48}$                               | 3.5458±0.0010                | 0.22±0.03        | 3.13±0.06                | 54.2  |
| $f_{160}$                              | 4.6658±0.0031                | 0.05±0.02        | -0.80±0.19               | 5.9   | $f_{49}$                               | 2.8730±0.0011                | 0.23±0.03        | 0.46±0.06                | 52.8  |
| $f_{161}$                              | 4.8929±0.0032                | 0.04±0.02        | -1.76±0.19               | 5.8   | $f_{50}$                               | 0.4870±0.0010                | 0.25±0.03        | -0.33±0.06               | 53.3  |
| $f_{162}$                              | 1.7805±0.0032                | 0.05±0.02        | 2.57±0.19                | 5.8   | $f_{51}$                               | 0.2570±0.0011                | 0.21±0.03        | 1.99±0.07                | 51.0  |
| $f_{163}$                              | 1.6034±0.0032                | 0.05±0.02        | 1.36±0.20                | 5.7   | $f_{52}$                               | 0.6237±0.0011                | 0.24±0.03        | 2.50±0.07                | 50.6  |
| $f_{164}$                              | 1.5941±0.0032                | 0.05±0.02        | 0.19±0.19                | 5.8   | $f_{53}$                               | 0.3877±0.0011                | 0.23±0.03        | 2.80±0.07                | 50.0  |
| $f_{165}$                              | 1.1261±0.0032                | 0.04±0.02        | -0.27±0.20               | 5.6   | $f_{54}$                               | 0.1312±0.0011                | 0.27±0.04        | -0.55±0.07               | 49.4  |
| $f_{166}$                              | 2.8746±0.0032                | 0.04±0.02        | -1.54±0.20               | 5.7   | $f_{55}$                               | 0.1208±0.0009                | 0.28±0.03        | 2.38±0.06                | 65.8  |
| $f_{167}$                              | 10.5901±0.0033               | 0.04±0.02        | -1.67±0.20               | 5.5   | $f_{56}$                               | 2.4733±0.0011                | 0.20±0.03        | 0.28±0.07                | 50.3  |
| $f_{168}$                              | 4.1847±0.0032                | 0.05±0.02        | -0.35±0.20               | 5.6   | $f_{58}$                               | 0.7857±0.0011                | 0.23±0.03        | 2.95±0.07                | 46.6  |
| $f_{169}$                              | 0.1081±0.0033                | 0.05±0.02        | -0.01±0.20               | 5.5   | $f_{59}$                               | 3.3644±0.0012                | 0.17±0.03        | -0.71±0.07               | 41.5  |
| $f_{170}$                              | 4.0109±0.0033                | 0.04±0.02        | -2.82±0.20               | 5.4   | $f_{60}$                               | 0.5970±0.0012                | 0.20±0.03        | -2.31±0.07               | 41.1  |
| $f_{171}$                              | 4.1037±0.0033                | 0.04±0.02        | 0.86±0.20                | 5.4   | $f_{61}$                               | 0.7076±0.0012                | 0.17±0.03        | 1.93±0.07                | 39.4  |
| $f_{172}$                              | 5.2386±0.0033                | 0.04±0.02        | -2.85±0.20               | 5.4   | $f_{62}$                               | 0.3335±0.0012                | 0.20±0.03        | -1.84±0.07               | 40.2  |
| $f_{173}$                              | 8.8207±0.0033                | 0.04±0.02        | -2.75±0.20               | 5.4   | $f_{63}$                               | 3.0292±0.0012                | 0.21±0.03        | 2.27±0.08                | 38.4  |
| $f_{174}$                              | 1.6739±0.0033                | 0.04±0.02        | 2.92±0.20                | 5.3   | $f_{64}$                               | 3.0002±0.0012                | 0.16±0.02        | -1.57±0.07               | 41.7  |
| $f_{175}$                              | 4.7661±0.0033                | 0.04±0.02        | 2.15±0.20                | 5.4   | $f_{65}$                               | 0.1954±0.0013                | 0.16±0.03        | -0.86±0.08               | 35.2  |
| $f_{176}$                              | 0.1925±0.0033                | 0.04±0.02        | 0.84±0.20                | 5.2   | $f_{66}$                               | 3.0639±0.0013                | 0.17±0.03        | 1.11±0.08                | 35.5  |
| $f_{177}$                              | 1.8953±0.0033                | 0.04±0.02        | -2.81±0.20               | 5.3   | $f_{67}$                               | 3.4061±0.0013                | 0.16±0.03        | -1.22±0.08               | 33.7  |
| $f_{178}$                              | 1.4584±0.0033                | 0.04±0.02        | 2.64±0.20                | 5.2   | $f_{68}$                               | 3.1377±0.0013                | 0.20±0.03        | -1.70±0.08               | 34.5  |
| $f_{179}$                              | 1.7569±0.0033                | 0.04±0.02        | 2.39±0.20                | 5.2   | $f_{69}$                               | 3.5590±0.0013                | 0.18±0.03        | 2.27±0.08                | 36.4  |
| $f_{180}$                              | 7.9909±0.0033                | 0.04±0.02        | 0.27±0.20                | 5.2   | $f_{70}$                               | 0.4521±0.0013                | 0.18±0.03        | 1.78±0.08                | 34.1  |
| $f_{181}$                              | 8.3929±0.0033                | 0.04±0.02        | -1.57±0.20               | 5.4   | $f_{71}$                               | 0.4355±0.0013                | 0.17±0.03        | -2.73±0.08               | 33.8  |
| $f_{182}$                              | 9.3154±0.0033                | 0.04±0.02        | -2.36±0.20               | 5.3   | $f_{72}$                               | 3.5228±0.0013                | 0.16±0.03        | 1.31±0.08                | 34.3  |
| $f_{183}$                              | 6.0400±0.0033                | 0.04±0.02        | -2.51±0.20               | 5.2   | $f_{73}$                               | 2.8209±0.0013                | 0.16±0.03        | 1.45±0.08                | 34.0  |
| $f_{184}$                              | 1.8260±0.0033                | 0.04±0.02        | -3.09±0.20               | 5.2   | $f_{74}$                               | 3.3987±0.0013                | 0.14±0.02        | -1.17±0.08               | 33.8  |
| $f_{185}$                              | 0.6006±0.0033                | 0.04±0.02        | -0.48±0.20               | 5.2   | $f_{75}$                               | 3.6204±0.0013                | 0.16±0.03        | -1.97±0.08               | 33.5  |
| $f_{186}$                              | 3.3772±0.0034                | 0.04±0.02        | 1.09±0.21                | 5.1   | $f_{76}$                               | 0.5218±0.0013                | 0.17±0.03        | -1.47±0.08               | 34.9  |
|                                        |                              |                  |                          |       | $f_{77}$                               | 3.4664±0.0013                | 0.19±0.03        | -0.92±0.08               | 33.5  |
|                                        |                              |                  |                          |       | $f_{78}$                               | 3.2251±0.0013                | 0.17±0.03        | 0.18±0.08                | 33.2  |
|                                        |                              |                  |                          |       | $f_{79}$                               | 3.1596±0.0013                | 0.15±0.02        | 2.76±0.08                | 36.4  |
|                                        |                              |                  |                          |       | $f_{80}$                               | 3.1087±0.0013                | 0.15±0.02        | 1.49±0.08                | 36.3  |
|                                        |                              |                  |                          |       | $f_{81}$                               | 2.7406±0.0013                | 0.15±0.03        | -1.75±0.08               | 32.6  |
|                                        |                              |                  |                          |       | $f_{82}$                               | 2.6094±0.0014                | 0.14±0.03        | -0.80±0.08               | 30.9  |
|                                        |                              |                  |                          |       | $f_{83}$                               | 0.7593±0.0014                | 0.13±0.02        | -0.38±0.08               | 31.0  |
|                                        |                              |                  |                          |       | $f_{84}$                               | 3.7223±0.0014                | 0.14±0.03        | 2.45±0.08                | 31.0  |
|                                        |                              |                  |                          |       | $f_{85}$                               | 3.0127±0.0014                | 0.14±0.03        | -1.99±0.08               | 30.4  |
|                                        |                              |                  |                          |       | $f_{86}$                               | 0.6755±0.0014                | 0.14±0.03        | 0.39±0.08                | 30.1  |
|                                        |                              |                  |                          |       | $f_{87}$                               | 2.5564±0.0014                | 0.11±0.02        | 0.86±0.08                | 30.4  |
|                                        |                              |                  |                          |       | $f_{88}$                               | 2.7926±0.0014                | 0.14±0.03        | 3.13±0.08                | 31.1  |
|                                        |                              |                  |                          |       | $f_{89}$                               | 2.7690±0.0014                | 0.14±0.03        | -1.85±0.09               | 29.1  |
|                                        |                              |                  |                          |       | $f_{90}$                               | 0.6475±0.0014                | 0.13±0.02        | 0.69±0.09                | 29.1  |
|                                        |                              |                  |                          |       | $f_{91}$                               | 2.8290±0.0014                | 0.12±0.02        | 2.28±0.09                | 28.3  |
|                                        |                              |                  |                          |       | $f_{92}$                               | 0.5526±0.0014                | 0.15±0.03        | -1.74±0.09               | 28.4  |
|                                        |                              |                  |                          |       | Frequency list of 0102643218 continued |                              |                  |                          |       |
|                                        |                              |                  |                          |       |                                        |                              |                  |                          |       |
|                                        |                              |                  |                          |       |                                        |                              |                  |                          |       |
|                                        |                              |                  |                          |       |                                        |                              |                  |                          |       |
|                                        |                              |                  |                          |       |                                        |                              |                  |                          |       |
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## Appendix B. Frequencies of individual $\gamma$ Dor Stars

| Frequency list of 0102643218 continued |                              |                  |                          |       | Frequency list of 0102643218 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| <i>f</i> <sub>93</sub>                 | 2.6628±0.0015                | 0.14±0.03        | 0.39±0.09                | 27.2  | <i>f</i> <sub>170</sub>                | 0.7801±0.0022                | 0.07±0.02        | 2.23±0.13                | 12.0  |
| <i>f</i> <sub>94</sub>                 | 2.6301±0.0015                | 0.12±0.02        | 2.78±0.09                | 26.5  | <i>f</i> <sub>171</sub>                | 2.8407±0.0022                | 0.08±0.02        | -1.15±0.14               | 11.6  |
| <i>f</i> <sub>95</sub>                 | 3.4988±0.0015                | 0.12±0.02        | -0.46±0.09               | 26.6  | <i>f</i> <sub>172</sub>                | 1.0571±0.0023                | 0.09±0.03        | -1.43±0.14               | 11.2  |
| <i>f</i> <sub>96</sub>                 | 4.0086±0.0015                | 0.13±0.03        | 1.49±0.09                | 25.4  | <i>f</i> <sub>173</sub>                | 1.0453±0.0020                | 0.09±0.02        | 1.94±0.12                | 14.9  |
| <i>f</i> <sub>97</sub>                 | 3.7062±0.0015                | 0.14±0.03        | -0.79±0.09               | 25.9  | <i>f</i> <sub>174</sub>                | 0.8601±0.0022                | 0.08±0.02        | 1.52±0.14                | 11.7  |
| <i>f</i> <sub>98</sub>                 | 3.4353±0.0015                | 0.16±0.03        | 2.02±0.09                | 26.0  | <i>f</i> <sub>175</sub>                | 2.9733±0.0022                | 0.07±0.02        | 2.68±0.14                | 11.9  |
| <i>f</i> <sub>99</sub>                 | 0.6951±0.0015                | 0.15±0.03        | 1.40±0.09                | 26.2  | <i>f</i> <sub>176</sub>                | 2.3675±0.0023                | 0.07±0.02        | 2.85±0.14                | 11.2  |
| <i>f</i> <sub>100</sub>                | 3.3517±0.0015                | 0.14±0.03        | 2.43±0.09                | 25.9  | <i>f</i> <sub>178</sub>                | 4.1517±0.0023                | 0.07±0.02        | 2.57±0.14                | 11.1  |
| <i>f</i> <sub>101</sub>                | 0.3707±0.0015                | 0.11±0.02        | 2.70±0.09                | 24.8  | <i>f</i> <sub>179</sub>                | 1.6159±0.0023                | 0.07±0.02        | -2.06±0.14               | 11.1  |
| <i>f</i> <sub>102</sub>                | 0.4086±0.0016                | 0.11±0.02        | 2.61±0.10                | 24.0  | <i>f</i> <sub>180</sub>                | 3.6025±0.0023                | 0.08±0.02        | -1.11±0.14               | 11.0  |
| <i>f</i> <sub>103</sub>                | 0.2381±0.0016                | 0.13±0.03        | 0.65±0.10                | 23.2  | <i>f</i> <sub>181</sub>                | 3.5293±0.0023                | 0.06±0.02        | 2.48±0.14                | 10.9  |
| <i>f</i> <sub>104</sub>                | 3.4569±0.0016                | 0.12±0.03        | 0.58±0.10                | 22.9  | <i>f</i> <sub>182</sub>                | 2.4228±0.0023                | 0.06±0.02        | 1.06±0.14                | 10.9  |
| <i>f</i> <sub>105</sub>                | 1.5192±0.0016                | 0.12±0.03        | -1.26±0.10               | 22.8  | <i>f</i> <sub>183</sub>                | 3.7940±0.0023                | 0.06±0.02        | -1.94±0.14               | 10.7  |
| <i>f</i> <sub>106</sub>                | 3.2083±0.0016                | 0.13±0.03        | -1.73±0.10               | 22.7  | <i>f</i> <sub>184</sub>                | 0.7294±0.0023                | 0.07±0.02        | -1.58±0.14               | 11.0  |
| <i>f</i> <sub>107</sub>                | 3.1726±0.0016                | 0.14±0.03        | -1.18±0.10               | 23.4  | <i>f</i> <sub>185</sub>                | 1.8818±0.0023                | 0.07±0.02        | 0.69±0.14                | 10.9  |
| <i>f</i> <sub>108</sub>                | 0.4729±0.0016                | 0.14±0.03        | 2.19±0.10                | 23.1  | <i>f</i> <sub>186</sub>                | 1.4110±0.0024                | 0.07±0.02        | -1.50±0.14               | 10.4  |
| <i>f</i> <sub>109</sub>                | 3.3869±0.0016                | 0.12±0.03        | -1.95±0.10               | 21.8  | <i>f</i> <sub>187</sub>                | 2.0028±0.0024                | 0.08±0.02        | 1.31±0.14                | 10.5  |
| <i>f</i> <sub>110</sub>                | 0.3002±0.0017                | 0.14±0.03        | 1.39±0.10                | 20.9  | <i>f</i> <sub>188</sub>                | 1.0874±0.0024                | 0.07±0.02        | -1.63±0.14               | 10.5  |
| <i>f</i> <sub>111</sub>                | 2.8790±0.0017                | 0.09±0.02        | -1.10±0.10               | 20.3  | <i>f</i> <sub>189</sub>                | 2.8033±0.0024                | 0.08±0.02        | 0.43±0.14                | 10.4  |
| <i>f</i> <sub>112</sub>                | 2.7574±0.0017                | 0.12±0.03        | -2.67±0.10               | 20.0  | <i>f</i> <sub>190</sub>                | 2.8671±0.0023                | 0.07±0.02        | -2.84±0.14               | 10.6  |
| <i>f</i> <sub>113</sub>                | 3.6128±0.0017                | 0.12±0.03        | 1.42±0.10                | 20.3  | <i>f</i> <sub>191</sub>                | 2.5388±0.0024                | 0.07±0.02        | -2.47±0.15               | 10.3  |
| <i>f</i> <sub>114</sub>                | 0.3182±0.0017                | 0.09±0.02        | 0.38±0.10                | 20.7  | <i>f</i> <sub>193</sub>                | 0.6072±0.0024                | 0.07±0.02        | -2.21±0.15               | 10.2  |
| <i>f</i> <sub>115</sub>                | 3.6816±0.0017                | 0.10±0.02        | 0.68±0.10                | 20.2  | <i>f</i> <sub>194</sub>                | 2.4814±0.0024                | 0.07±0.02        | -0.47±0.15               | 9.9   |
| <i>f</i> <sub>116</sub>                | 0.3546±0.0017                | 0.12±0.03        | -0.08±0.10               | 20.6  | <i>f</i> <sub>195</sub>                | 1.5708±0.0024                | 0.07±0.02        | 0.52±0.15                | 9.9   |
| <i>f</i> <sub>117</sub>                | 0.7461±0.0017                | 0.11±0.02        | 1.99±0.10                | 19.8  | <i>f</i> <sub>196</sub>                | 1.5509±0.0024                | 0.08±0.02        | -2.60±0.15               | 10.3  |
| <i>f</i> <sub>118</sub>                | 2.5062±0.0017                | 0.11±0.02        | -2.50±0.11               | 19.6  | <i>f</i> <sub>197</sub>                | 0.8363±0.0024                | 0.07±0.02        | -2.06±0.15               | 9.9   |
| <i>f</i> <sub>119</sub>                | 0.6175±0.0017                | 0.09±0.02        | 0.67±0.10                | 19.9  | <i>f</i> <sub>198</sub>                | 4.7218±0.0024                | 0.06±0.02        | -1.97±0.15               | 9.8   |
| <i>f</i> <sub>120</sub>                | 2.9937±0.0017                | 0.10±0.02        | -0.34±0.11               | 19.1  | <i>f</i> <sub>199</sub>                | 4.2183±0.0024                | 0.06±0.02        | -0.56±0.15               | 9.8   |
| <i>f</i> <sub>121</sub>                | 2.8479±0.0018                | 0.09±0.02        | -2.45±0.11               | 18.7  | <i>f</i> <sub>200</sub>                | 3.6546±0.0024                | 0.06±0.02        | -3.12±0.15               | 9.8   |
| <i>f</i> <sub>122</sub>                | 3.3040±0.0018                | 0.10±0.02        | 0.72±0.11                | 18.3  | <i>f</i> <sub>201</sub>                | 0.9738±0.0024                | 0.07±0.02        | -1.05±0.15               | 9.8   |
| <i>f</i> <sub>123</sub>                | 0.8732±0.0018                | 0.09±0.02        | -0.96±0.11               | 17.8  | <i>f</i> <sub>202</sub>                | 0.5693±0.0024                | 0.07±0.02        | 3.11±0.15                | 9.9   |
| <i>f</i> <sub>124</sub>                | 0.1704±0.0018                | 0.08±0.02        | 2.50±0.11                | 18.6  | <i>f</i> <sub>203</sub>                | 3.1890±0.0025                | 0.06±0.02        | -1.24±0.15               | 9.7   |
| <i>f</i> <sub>125</sub>                | 3.0944±0.0018                | 0.10±0.02        | -0.97±0.11               | 17.1  | <i>f</i> <sub>204</sub>                | 2.3752±0.0025                | 0.07±0.02        | 0.57±0.15                | 9.6   |
| <i>f</i> <sub>126</sub>                | 0.4816±0.0018                | 0.09±0.02        | -1.01±0.11               | 17.3  | <i>f</i> <sub>205</sub>                | 2.9561±0.0024                | 0.07±0.02        | -2.18±0.15               | 9.8   |
| <i>f</i> <sub>127</sub>                | 3.8902±0.0018                | 0.09±0.02        | -0.82±0.11               | 17.4  | <i>f</i> <sub>206</sub>                | 2.9863±0.0025                | 0.07±0.02        | -2.22±0.15               | 9.4   |
| <i>f</i> <sub>128</sub>                | 3.2478±0.0019                | 0.10±0.02        | 0.82±0.11                | 17.0  | <i>f</i> <sub>207</sub>                | 3.3931±0.0025                | 0.07±0.02        | -2.48±0.15               | 9.3   |
| <i>f</i> <sub>129</sub>                | 2.7840±0.0019                | 0.09±0.02        | 1.18±0.11                | 16.7  | <i>f</i> <sub>208</sub>                | 2.6213±0.0025                | 0.06±0.02        | 1.16±0.15                | 9.6   |
| <i>f</i> <sub>130</sub>                | 2.5822±0.0018                | 0.09±0.02        | -0.89±0.11               | 17.2  | <i>f</i> <sub>209</sub>                | 1.8228±0.0024                | 0.07±0.02        | 1.87±0.15                | 9.8   |
| <i>f</i> <sub>131</sub>                | 0.8160±0.0019                | 0.09±0.02        | 1.31±0.11                | 16.7  | <i>f</i> <sub>210</sub>                | 4.1721±0.0025                | 0.06±0.02        | 2.12±0.15                | 9.2   |
| <i>f</i> <sub>132</sub>                | 3.0551±0.0018                | 0.10±0.02        | -1.48±0.11               | 17.3  | <i>f</i> <sub>211</sub>                | 4.6682±0.0025                | 0.06±0.02        | 0.68±0.15                | 9.2   |
| <i>f</i> <sub>133</sub>                | 2.6852±0.0019                | 0.09±0.02        | -1.83±0.12               | 16.4  | <i>f</i> <sub>212</sub>                | 0.2480±0.0025                | 0.07±0.02        | 0.85±0.15                | 9.1   |
| <i>f</i> <sub>134</sub>                | 2.3832±0.0019                | 0.10±0.02        | -2.49±0.12               | 16.4  | <i>f</i> <sub>213</sub>                | 0.1586±0.0025                | 0.08±0.03        | 3.03±0.15                | 9.4   |
| <i>f</i> <sub>135</sub>                | 2.3260±0.0019                | 0.08±0.02        | -3.02±0.11               | 16.6  | <i>f</i> <sub>214</sub>                | 1.2841±0.0026                | 0.06±0.02        | -0.97±0.16               | 8.9   |
| <i>f</i> <sub>136</sub>                | 3.1283±0.0019                | 0.10±0.02        | -2.77±0.12               | 16.3  | <i>f</i> <sub>215</sub>                | 2.5763±0.0025                | 0.06±0.02        | 0.87±0.16                | 9.0   |
| <i>f</i> <sub>137</sub>                | 3.3731±0.0019                | 0.09±0.02        | 0.57±0.11                | 16.6  | <i>f</i> <sub>216</sub>                | 0.3766±0.0026                | 0.07±0.02        | -2.00±0.16               | 8.7   |
| <i>f</i> <sub>138</sub>                | 3.4232±0.0019                | 0.09±0.02        | -0.83±0.11               | 17.0  | <i>f</i> <sub>217</sub>                | 0.1378±0.0025                | 0.07±0.02        | 0.29±0.16                | 9.0   |
| <i>f</i> <sub>139</sub>                | 4.1982±0.0019                | 0.08±0.02        | 1.62±0.11                | 16.9  | <i>f</i> <sub>218</sub>                | 0.1886±0.0025                | 0.07±0.02        | -2.99±0.15               | 9.2   |
| <i>f</i> <sub>140</sub>                | 3.5731±0.0019                | 0.09±0.02        | -2.23±0.11               | 16.6  | <i>f</i> <sub>219</sub>                | 0.8957±0.0026                | 0.06±0.02        | -1.50±0.16               | 8.9   |
| <i>f</i> <sub>141</sub>                | 3.5912±0.0018                | 0.11±0.03        | -1.18±0.11               | 17.7  | <i>f</i> <sub>220</sub>                | 2.7166±0.0026                | 0.06±0.02        | 2.35±0.16                | 8.9   |
| <i>f</i> <sub>142</sub>                | 2.2240±0.0019                | 0.08±0.02        | 0.06±0.11                | 16.9  | <i>f</i> <sub>221</sub>                | 3.0698±0.0026                | 0.06±0.02        | -1.26±0.16               | 8.7   |
| <i>f</i> <sub>143</sub>                | 0.3081±0.0019                | 0.09±0.02        | 1.75±0.12                | 15.8  | <i>f</i> <sub>222</sub>                | 3.4762±0.0026                | 0.06±0.02        | -2.12±0.16               | 8.8   |
| <i>f</i> <sub>144</sub>                | 3.2758±0.0019                | 0.07±0.02        | 2.98±0.12                | 15.7  | <i>f</i> <sub>223</sub>                | 4.1299±0.0026                | 0.06±0.02        | 0.31±0.16                | 8.7   |
| <i>f</i> <sub>145</sub>                | 2.9382±0.0020                | 0.09±0.02        | 0.37±0.12                | 15.0  | <i>f</i> <sub>224</sub>                | 3.8049±0.0026                | 0.06±0.02        | 1.63±0.16                | 8.9   |
| <i>f</i> <sub>146</sub>                | 0.8531±0.0020                | 0.08±0.02        | -1.15±0.12               | 14.8  | <i>f</i> <sub>225</sub>                | 2.1126±0.0026                | 0.05±0.02        | 0.80±0.16                | 8.4   |
| <i>f</i> <sub>147</sub>                | 0.2845±0.0020                | 0.10±0.03        | 0.72±0.12                | 14.8  | <i>f</i> <sub>226</sub>                | 2.8582±0.0026                | 0.06±0.02        | 2.86±0.16                | 8.4   |
| <i>f</i> <sub>148</sub>                | 1.4819±0.0020                | 0.08±0.02        | 1.91±0.12                | 14.8  | <i>f</i> <sub>227</sub>                | 0.6363±0.0026                | 0.07±0.02        | 0.72±0.16                | 8.5   |
| <i>f</i> <sub>149</sub>                | 0.9394±0.0020                | 0.08±0.02        | -0.15±0.12               | 14.5  | <i>f</i> <sub>229</sub>                | 1.6850±0.0027                | 0.06±0.02        | -2.27±0.16               | 8.1   |
| <i>f</i> <sub>150</sub>                | 2.0383±0.0020                | 0.07±0.02        | -1.60±0.12               | 14.3  | <i>f</i> <sub>230</sub>                | 2.9257±0.0026                | 0.06±0.02        | -2.97±0.16               | 8.4   |
| <i>f</i> <sub>151</sub>                | 4.3247±0.0020                | 0.08±0.02        | 1.97±0.12                | 14.3  | <i>f</i> <sub>231</sub>                | 3.6296±0.0026                | 0.06±0.02        | -1.64±0.16               | 8.3   |
| <i>f</i> <sub>152</sub>                | 3.5158±0.0020                | 0.09±0.02        | -2.52±0.12               | 14.3  | <i>f</i> <sub>232</sub>                | 1.3631±0.0027                | 0.06±0.02        | 2.43±0.16                | 8.2   |
| <i>f</i> <sub>153</sub>                | 2.4041±0.0020                | 0.08±0.02        | 0.22±0.12                | 14.2  | <i>f</i> <sub>233</sub>                | 1.1559±0.0027                | 0.06±0.02        | -1.73±0.16               | 8.2   |
| <i>f</i> <sub>154</sub>                | 2.8938±0.0020                | 0.08±0.02        | 3.09±0.12                | 14.1  | <i>f</i> <sub>234</sub>                | 2.0509±0.0027                | 0.06±0.02        | -1.11±0.16               | 8.1   |
| <i>f</i> <sub>155</sub>                | 2.9143±0.0019                | 0.08±0.02        | -1.19±0.12               | 15.6  | <i>f</i> <sub>235</sub>                | 0.7696±0.0027                | 0.06±0.02        | -3.08±0.16               | 8.2   |
| <i>f</i> <sub>156</sub>                | 0.4644±0.0020                | 0.08±0.02        | -1.84±0.12               | 13.9  | <i>f</i> <sub>236</sub>                | 3.2583±0.0027                | 0.06±0.02        | -2.71±0.16               | 8.1   |
| <i>f</i> <sub>158</sub>                | 2.5244±0.0020                | 0.08±0.02        | -0.18±0.12               | 14.3  | <i>f</i> <sub>237</sub>                | 3.3438±0.0027                | 0.06±0.02        | -0.02±0.17               | 7.9   |
| <i>f</i> <sub>159</sub>                | 2.4385±0.0020                | 0.09±0.02        | 1.25±0.12                | 14.1  | <i>f</i> <sub>238</sub>                | 4.8276±0.0027                | 0.06±0.02        | -2.56±0.17               | 7.8   |
| <i>f</i> <sub>160</sub>                | 2.4661±0.0021                | 0.08±0.02        | -2.02±0.13               | 13.4  | <i>f</i> <sub>239</sub>                | 1.1337±0.0028                | 0.06±0.02        | 2.79±0.17                | 7.7   |
| <i>f</i> <sub>161</sub>                | 2.7059±0.0022                | 0.08±0.02        | -1.74±0.13               | 12.6  | <i>f</i> <sub>240</sub>                | 1.9322±0.0028                | 0.06±0.02        | -3.12±0.17               | 7.7   |
| <i>f</i> <sub>162</sub>                | 3.9865±0.0021                | 0.08±0.02        | -0.95±0.13               | 12.8  | <i>f</i> <sub>241</sub>                | 1.6519±0.0027                | 0.06±0.02        | 1.87±0.17                | 7.8   |
| <i>f</i> <sub>163</sub>                | 0.9266±0.0022                | 0.08±0.02        | -0.96±0.13               | 12.6  | <i>f</i> <sub>242</sub>                | 2.5986±0.0027                | 0.06±0.02        | 2.44±0.17                | 7.9   |
| <i>f</i> <sub>164</sub>                | 3.1528±0.0022                | 0.07±0.02        | 2.93±0.13                | 12.5  | <i>f</i> <sub>243</sub>                | 2.2742±0.0028                | 0.06±0.02        | -3.08±0.17               | 7.7   |
| <i>f</i> <sub>165</sub>                | 2.1299±0.0022                | 0.08±0.02        | -1.77±0.13               | 12.2  | <i>f</i> <sub>244</sub>                | 1.7385±0.0028                | 0.06±0.02        | -0.59±0.17               | 7.6   |
| <i>f</i> <sub>166</sub>                | 3.2161±0.0022                | 0.08±0.02        | -0.92±0.13               | 12.3  | <i>f</i> <sub>245</sub>                | 3.7489±0.0027                | 0.05±0.02        | -0.16±0.16               | 8.0   |
| <i>f</i> <sub>167</sub>                | 1.7721±0.0022                | 0.07±0.02        | -1.99±0.13               | 12.4  | <i>f</i> <sub>246</sub>                | 2.8884±0.0028                | 0.05±0.02        | -2.81±0.17               | 7.6   |
| <i>f</i> <sub>168</sub>                | 2.6942±0.0022                | 0.08±0.02        | 2.98±0.13                | 12.0  | <i>f</i> <sub>247</sub>                | 2.4888±0.0028                | 0.05±0.02        | 1.92±0.17                | 7.5   |
| <i>f</i> <sub>169</sub>                | 0.6615±0.0022                | 0.08±0.02        | 1.81±0.14                | 11.6  | <i>f</i> <sub>248</sub>                | 4.9600±0.0028                | 0.05±0.02        | 0.22±0.17                | 7.5   |
| Frequency list of 0102643218 continued |                              |                  |                          |       | Frequency list of 0102643218 continued |                              |                  |                          |       |

## Appendix B. Frequencies of individual $\gamma$ Dor Stars

| Frequency list of 0102643218 continued |                               |                  |                     |       | Frequency list of 0102645784 continued |                               |                  |                     |       |
|----------------------------------------|-------------------------------|------------------|---------------------|-------|----------------------------------------|-------------------------------|------------------|---------------------|-------|
| Frequency ID                           | Frequency [ $\text{d}^{-1}$ ] | Amplitude [mmag] | Phase $[-\pi, \pi]$ | Sign. | Frequency ID                           | Frequency [ $\text{d}^{-1}$ ] | Amplitude [mmag] | Phase $[-\pi, \pi]$ | Sign. |
| $f_{249}$                              | 4.0460±0.0028                 | 0.05±0.02        | -1.70±0.17          | 7.6   | $f_7$                                  | 1.0604±0.0007                 | 0.43±0.04        | -1.56±0.04          | 126.4 |
| $f_{250}$                              | 2.1760±0.0028                 | 0.07±0.03        | -0.74±0.17          | 7.2   | $f_8$                                  | 0.5190±0.0008                 | 0.37±0.04        | -2.62±0.05          | 98.8  |
| $f_{251}$                              | 2.1877±0.0024                 | 0.07±0.02        | 0.44±0.14           | 10.4  | $f_9$                                  | 0.2216±0.0008                 | 0.37±0.04        | -1.12±0.05          | 90.2  |
| $f_{252}$                              | 4.2892±0.0028                 | 0.06±0.02        | 0.21±0.17           | 7.5   | $f_{10}$                               | 0.1439±0.0008                 | 0.35±0.04        | 2.94±0.05           | 82.8  |
| $f_{253}$                              | 1.6739±0.0028                 | 0.06±0.02        | -0.00±0.17          | 7.3   | $f_{11}$                               | 0.1136±0.0009                 | 0.38±0.04        | 2.66±0.05           | 78.3  |
| $f_{254}$                              | 2.2369±0.0028                 | 0.06±0.02        | -0.44±0.17          | 7.4   | $f_{12}$                               | 0.1521±0.0009                 | 0.33±0.04        | 0.31±0.06           | 66.4  |
| $f_{255}$                              | 2.8118±0.0028                 | 0.06±0.02        | -2.91±0.17          | 7.4   | $f_{13}$                               | 0.1758±0.0010                 | 0.30±0.04        | 1.00±0.06           | 63.7  |
| $f_{256}$                              | 3.6911±0.0028                 | 0.05±0.02        | 2.06±0.17           | 7.2   | $f_{14}$                               | 0.3073±0.0010                 | 0.26±0.03        | -1.05±0.06          | 62.7  |
| $f_{257}$                              | 1.0680±0.0028                 | 0.05±0.02        | -1.34±0.17          | 7.3   | $f_{15}$                               | 0.2889±0.0010                 | 0.25±0.03        | -0.85±0.06          | 60.6  |
| $f_{258}$                              | 4.4463±0.0029                 | 0.05±0.02        | -0.04±0.17          | 7.1   | $f_{16}$                               | 0.1886±0.0011                 | 0.18±0.03        | -2.17±0.07          | 51.1  |
| $f_{259}$                              | 1.4745±0.0028                 | 0.05±0.02        | 2.55±0.17           | 7.3   | $f_{17}$                               | 0.2560±0.0010                 | 0.19±0.03        | 1.29±0.06           | 53.1  |
| $f_{260}$                              | 0.4973±0.0028                 | 0.06±0.02        | 1.05±0.17           | 7.3   | $f_{18}$                               | 1.1338±0.0011                 | 0.24±0.04        | -1.99±0.07          | 45.4  |
| $f_{261}$                              | 0.7893±0.0029                 | 0.06±0.02        | -1.76±0.17          | 7.1   | $f_{19}$                               | 1.0444±0.0012                 | 0.25±0.04        | 1.19±0.07           | 43.5  |
| $f_{262}$                              | 0.5800±0.0028                 | 0.06±0.02        | -0.50±0.17          | 7.3   | $f_{20}$                               | 0.4959±0.0011                 | 0.22±0.03        | -1.21±0.07          | 44.8  |
| $f_{263}$                              | 4.7967±0.0028                 | 0.06±0.02        | 1.64±0.17           | 7.2   | $f_{21}$                               | 0.2142±0.0012                 | 0.23±0.04        | -1.42±0.07          | 41.8  |
| $f_{264}$                              | 2.5677±0.0029                 | 0.06±0.02        | -2.54±0.18          | 7.0   | $f_{22}$                               | 0.2825±0.0012                 | 0.19±0.03        | -0.08±0.07          | 42.3  |
| $f_{265}$                              | 4.3027±0.0029                 | 0.05±0.02        | 1.41±0.18           | 6.9   | $f_{23}$                               | 0.2285±0.0012                 | 0.18±0.03        | -2.73±0.08          | 37.8  |
| $f_{266}$                              | 2.6437±0.0029                 | 0.06±0.02        | 1.76±0.18           | 6.8   | $f_{24}$                               | 0.4428±0.0013                 | 0.19±0.03        | 0.89±0.08           | 34.9  |
| $f_{267}$                              | 0.4294±0.0030                 | 0.05±0.02        | -0.29±0.18          | 6.6   | $f_{25}$                               | 0.3599±0.0013                 | 0.22±0.04        | 0.26±0.08           | 35.2  |
| $f_{268}$                              | 3.9126±0.0029                 | 0.05±0.02        | 2.63±0.18           | 6.7   | $f_{26}$                               | 0.9822±0.0013                 | 0.17±0.03        | -0.01±0.08          | 34.0  |
| $f_{269}$                              | 0.2915±0.0030                 | 0.05±0.02        | -1.97±0.18          | 6.6   | $f_{27}$                               | 0.6174±0.0015                 | 0.15±0.03        | 1.88±0.09           | 27.5  |
| $f_{271}$                              | 2.3600±0.0030                 | 0.05±0.02        | -2.26±0.18          | 6.5   | $f_{28}$                               | 0.1984±0.0015                 | 0.16±0.03        | -1.53±0.09          | 25.7  |
| $f_{272}$                              | 4.3500±0.0029                 | 0.05±0.02        | -2.53±0.18          | 6.8   | $f_{29}$                               | 0.9636±0.0015                 | 0.17±0.03        | -1.04±0.09          | 25.2  |
| $f_{273}$                              | 4.2597±0.0030                 | 0.05±0.02        | -0.32±0.18          | 6.4   | $f_{30}$                               | 0.3137±0.0015                 | 0.17±0.03        | -0.62±0.09          | 24.5  |
| $f_{274}$                              | 3.4442±0.0030                 | 0.05±0.02        | 1.44±0.18           | 6.4   | $f_{31}$                               | 0.2988±0.0016                 | 0.17±0.03        | 1.62±0.10           | 23.6  |
| $f_{275}$                              | 3.5091±0.0030                 | 0.05±0.02        | 2.68±0.18           | 6.4   | $f_{32}$                               | 0.5468±0.0016                 | 0.16±0.03        | 1.52±0.10           | 23.8  |
| $f_{276}$                              | 1.8599±0.0030                 | 0.05±0.02        | -2.59±0.18          | 6.4   | $f_{33}$                               | 0.2477±0.0017                 | 0.14±0.03        | 2.99±0.10           | 21.3  |
| $f_{277}$                              | 3.8634±0.0029                 | 0.05±0.02        | -3.12±0.18          | 6.8   | $f_{35}$                               | 0.3304±0.0017                 | 0.16±0.04        | 1.78±0.10           | 20.3  |
| $f_{278}$                              | 1.1150±0.0030                 | 0.05±0.02        | -2.82±0.18          | 6.5   | $f_{36}$                               | 0.3977±0.0017                 | 0.16±0.04        | -3.12±0.10          | 19.7  |
| $f_{279}$                              | 2.0893±0.0030                 | 0.05±0.02        | -2.59±0.18          | 6.4   | $f_{37}$                               | 0.3713±0.0016                 | 0.16±0.03        | -2.69±0.10          | 21.8  |
| $f_{280}$                              | 1.6246±0.0030                 | 0.05±0.02        | 2.85±0.19           | 6.3   | $f_{38}$                               | 0.1592±0.0017                 | 0.14±0.03        | 2.64±0.10           | 20.3  |
| $f_{281}$                              | 3.6710±0.0030                 | 0.06±0.02        | -1.84±0.19          | 6.3   | $f_{39}$                               | 0.8462±0.0018                 | 0.15±0.03        | -0.12±0.11          | 18.8  |
| $f_{282}$                              | 3.7784±0.0031                 | 0.05±0.02        | -0.96±0.19          | 6.2   | $f_{40}$                               | 0.3512±0.0018                 | 0.13±0.03        | 1.65±0.11           | 18.9  |
| $f_{283}$                              | 2.3442±0.0031                 | 0.05±0.02        | -0.57±0.19          | 6.2   | $f_{41}$                               | 0.7655±0.0018                 | 0.13±0.03        | -1.81±0.11          | 18.9  |
| $f_{284}$                              | 3.3209±0.0031                 | 0.05±0.02        | -2.98±0.19          | 6.2   | $f_{42}$                               | 0.2730±0.0018                 | 0.13±0.03        | -1.85±0.11          | 18.2  |
| $f_{285}$                              | 5.2301±0.0031                 | 0.05±0.02        | -3.00±0.19          | 6.2   | $f_{43}$                               | 0.4766±0.0018                 | 0.15±0.04        | 2.91±0.11           | 18.1  |
| $f_{286}$                              | 4.0170±0.0031                 | 0.05±0.02        | -3.06±0.19          | 6.2   | $f_{44}$                               | 0.6494±0.0019                 | 0.12±0.03        | -2.57±0.11          | 16.8  |
| $f_{287}$                              | 3.5828±0.0031                 | 0.05±0.02        | 0.76±0.19           | 6.0   | $f_{45}$                               | 0.3780±0.0019                 | 0.11±0.03        | 1.01±0.12           | 15.7  |
| $f_{288}$                              | 1.5360±0.0031                 | 0.04±0.02        | -1.47±0.19          | 6.0   | $f_{46}$                               | 1.0190±0.0020                 | 0.14±0.04        | 1.67±0.12           | 14.9  |
| $f_{289}$                              | 3.8802±0.0031                 | 0.05±0.02        | 1.56±0.19           | 6.0   | $f_{47}$                               | 0.4095±0.0020                 | 0.12±0.03        | -0.51±0.12          | 14.8  |
| $f_{290}$                              | 2.3898±0.0031                 | 0.05±0.02        | -1.01±0.19          | 5.9   | $f_{48}$                               | 0.1297±0.0020                 | 0.15±0.04        | -0.12±0.12          | 14.6  |
| $f_{291}$                              | 2.9058±0.0031                 | 0.05±0.02        | 1.22±0.19           | 5.9   | $f_{49}$                               | 0.5732±0.0019                 | 0.12±0.03        | -1.69±0.12          | 15.5  |
| $f_{292}$                              | 1.8987±0.0031                 | 0.05±0.02        | 1.72±0.19           | 6.1   | $f_{50}$                               | 0.7467±0.0020                 | 0.12±0.03        | -0.01±0.12          | 13.9  |
| $f_{293}$                              | 2.4115±0.0031                 | 0.05±0.02        | -1.54±0.19          | 5.9   | $f_{51}$                               | 0.8690±0.0020                 | 0.11±0.03        | 3.11±0.12           | 13.9  |
| $f_{294}$                              | 0.4212±0.0031                 | 0.05±0.02        | -1.06±0.19          | 5.9   | $f_{52}$                               | 0.3208±0.0021                 | 0.11±0.03        | -0.37±0.13          | 13.6  |
| $f_{295}$                              | 3.7400±0.0032                 | 0.06±0.03        | 1.52±0.20           | 5.7   | $f_{53}$                               | 0.8154±0.0022                 | 0.09±0.03        | 1.38±0.13           | 12.1  |
| $f_{296}$                              | 3.8221±0.0032                 | 0.05±0.02        | 0.61±0.20           | 5.7   | $f_{54}$                               | 1.5742±0.0023                 | 0.10±0.03        | 0.16±0.14           | 11.3  |
| $f_{297}$                              | 0.3234±0.0032                 | 0.05±0.02        | 1.96±0.20           | 5.6   | $f_{55}$                               | 0.4679±0.0023                 | 0.10±0.03        | -1.25±0.14          | 10.9  |
| $f_{298}$                              | 0.4455±0.0032                 | 0.05±0.02        | -2.49±0.20          | 5.6   | $f_{56}$                               | 0.2374±0.0023                 | 0.10±0.03        | 0.57±0.14           | 10.7  |
| $f_{299}$                              | 1.5608±0.0031                 | 0.05±0.02        | -2.32±0.19          | 5.9   | $f_{57}$                               | 1.1033±0.0023                 | 0.10±0.03        | 1.20±0.14           | 10.6  |
| $f_{300}$                              | 4.2349±0.0033                 | 0.05±0.02        | -2.99±0.20          | 5.5   | $f_{58}$                               | 1.6828±0.0025                 | 0.09±0.03        | -1.04±0.15          | 9.7   |
| $f_{301}$                              | 3.1415±0.0033                 | 0.05±0.02        | 0.51±0.20           | 5.4   | $f_{59}$                               | 1.0679±0.0024                 | 0.10±0.03        | -2.98±0.15          | 10.0  |
| $f_{302}$                              | 1.4269±0.0033                 | 0.04±0.02        | 2.64±0.20           | 5.5   | $f_{60}$                               | 0.7379±0.0025                 | 0.09±0.03        | -3.08±0.15          | 9.4   |
| $f_{303}$                              | 4.1817±0.0033                 | 0.04±0.02        | -2.06±0.20          | 5.4   | $f_{61}$                               | 0.3369±0.0025                 | 0.09±0.03        | -0.13±0.16          | 9.0   |
| $f_{305}$                              | 3.7289±0.0033                 | 0.05±0.02        | -2.22±0.20          | 5.3   | $f_{62}$                               | 1.0115±0.0025                 | 0.10±0.03        | -0.75±0.16          | 9.0   |
| $f_{306}$                              | 2.2677±0.0032                 | 0.05±0.02        | 1.28±0.20           | 5.6   | $f_{63}$                               | 0.3865±0.0026                 | 0.10±0.03        | 1.80±0.16           | 8.9   |
| $f_{307}$                              | 3.7870±0.0033                 | 0.05±0.02        | 0.18±0.20           | 5.5   | $f_{64}$                               | 1.3086±0.0026                 | 0.10±0.03        | -0.10±0.16          | 8.8   |
| $f_{308}$                              | 0.9511±0.0033                 | 0.06±0.03        | -1.19±0.20          | 5.3   | $f_{65}$                               | 1.3857±0.0026                 | 0.09±0.03        | -3.10±0.16          | 8.9   |
| $f_{309}$                              | 0.9621±0.0030                 | 0.05±0.02        | -0.90±0.19          | 6.3   | $f_{66}$                               | 0.8376±0.0026                 | 0.08±0.03        | -1.60±0.16          | 8.9   |
| $f_{310}$                              | 4.7518±0.0033                 | 0.04±0.02        | -0.67±0.20          | 5.3   | $f_{67}$                               | 0.6090±0.0027                 | 0.09±0.03        | 0.75±0.16           | 8.2   |
| $f_{311}$                              | 4.8153±0.0033                 | 0.05±0.02        | -0.99±0.20          | 5.4   | $f_{68}$                               | 0.9425±0.0026                 | 0.08±0.03        | -2.48±0.16          | 8.4   |
| $f_{312}$                              | 1.2065±0.0033                 | 0.05±0.02        | -0.79±0.20          | 5.4   | $f_{70}$                               | 1.2298±0.0028                 | 0.09±0.03        | -2.27±0.17          | 7.6   |
| $f_{313}$                              | 1.1841±0.0033                 | 0.04±0.02        | 1.25±0.20           | 5.4   | $f_{71}$                               | 1.3005±0.0028                 | 0.08±0.03        | -0.74±0.17          | 7.6   |
| $f_{314}$                              | 0.1174±0.0033                 | 0.04±0.02        | 2.37±0.20           | 5.2   | $f_{72}$                               | 1.0333±0.0028                 | 0.08±0.03        | 1.30±0.17           | 7.7   |
| $f_{315}$                              | 2.6546±0.0033                 | 0.04±0.02        | 0.32±0.20           | 5.2   | $f_{73}$                               | 2.1167±0.0028                 | 0.08±0.03        | -0.06±0.17          | 7.3   |
| $f_{316}$                              | 1.5998±0.0033                 | 0.04±0.02        | 0.28±0.20           | 5.2   | $f_{74}$                               | 1.8352±0.0028                 | 0.08±0.03        | -3.00±0.17          | 7.3   |
| $f_{317}$                              | 5.0799±0.0034                 | 0.04±0.02        | -2.68±0.21          | 5.1   | $f_{75}$                               | 0.6792±0.0029                 | 0.08±0.03        | -1.60±0.17          | 7.1   |
| $f_{318}$                              | 4.4312±0.0034                 | 0.04±0.02        | 1.16±0.21           | 5.1   | $f_{76}$                               | 1.9882±0.0028                 | 0.08±0.03        | 1.64±0.17           | 7.3   |
| $f_{319}$                              | 3.1766±0.0034                 | 0.05±0.02        | 2.72±0.21           | 5.1   | $f_{77}$                               | 1.3153±0.0029                 | 0.08±0.03        | 0.97±0.18           | 6.9   |
| $f_{320}$                              | 3.4863±0.0034                 | 0.05±0.02        | 2.57±0.21           | 5.1   | $f_{78}$                               | 1.4035±0.0029                 | 0.08±0.03        | 1.19±0.18           | 6.7   |
|                                        |                               |                  |                     |       | $f_{79}$                               | 0.2081±0.0031                 | 0.07±0.03        | -1.51±0.19          | 6.2   |
|                                        |                               |                  |                     |       | $f_{80}$                               | 1.5206±0.0031                 | 0.08±0.03        | -0.81±0.19          | 6.1   |
|                                        |                               |                  |                     |       | $f_{82}$                               | 1.6438±0.0031                 | 0.07±0.03        | -0.79±0.19          | 5.9   |
|                                        |                               |                  |                     |       | $f_{83}$                               | 1.8661±0.0031                 | 0.07±0.03        | 1.94±0.19           | 5.9   |
|                                        |                               |                  |                     |       | $f_{84}$                               | 0.1689±0.0031                 | 0.08±0.03        | 1.71±0.19           | 5.9   |
|                                        |                               |                  |                     |       | $f_{85}$                               | 0.8251±0.0032                 | 0.07±0.03        | 0.19±0.20           | 5.7   |
| Frequency list of 0102645784 continued |                               |                  |                     |       | Frequency list of 0102645784 continued |                               |                  |                     |       |
| Frequency ID                           | Frequency [ $\text{d}^{-1}$ ] | Amplitude [mmag] | Phase $[-\pi, \pi]$ | Sign. |                                        |                               |                  |                     |       |
| $f_1$                                  | 0.5105±0.0004                 | 1.21±0.06        | -1.52±0.02          | 371.0 |                                        |                               |                  |                     |       |
| $f_2$                                  | 0.8770±0.0005                 | 0.65±0.05        | -0.94±0.03          | 196.7 |                                        |                               |                  |                     |       |
| $f_3$                                  | 0.1021±0.0005                 | 0.55±0.04        | 1.84±0.03           | 206.7 |                                        |                               |                  |                     |       |
| $f_4$                                  | 0.5037±0.0007                 | 0.50±0.04        | 0.86±0.04           | 135.9 |                                        |                               |                  |                     |       |
| $f_5$                                  | 0.1342±0.0007                 | 0.48±0.04        | -2.25±0.04          | 132.3 |                                        |                               |                  |                     |       |
| $f_6$                                  | 0.9521±0.0007                 | 0.37±0.03        | -0.26±0.04          | 119.7 |                                        |                               |                  |                     |       |
| Frequency list of 0102645784 continued |                               |                  |                     |       |                                        |                               |                  |                     |       |

## Appendix B. Frequencies of individual $\gamma$ Dor Stars

| Frequency list of 0102645784 continued |                              |                  |                          |       | Frequency list of 0102648939 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{86}$                               | 0.8942±0.0032                | 0.07±0.03        | 3.12±0.20                | 5.7   | $f_{65}$                               | 0.8842±0.0030                | 0.07±0.03        | 1.12±0.18                | 6.6   |
| $f_{87}$                               | 0.1001±0.0032                | 0.08±0.03        | -3.00±0.19               | 5.8   | $f_{67}$                               | 0.1942±0.0030                | 0.07±0.03        | 2.59±0.19                | 6.3   |
| $f_{88}$                               | 28.6034±0.0032               | 0.07±0.03        | -2.91±0.20               | 5.6   | $f_{68}$                               | 2.4836±0.0031                | 0.07±0.03        | -2.75±0.19               | 5.9   |
| $f_{89}$                               | 1.1620±0.0033                | 0.07±0.03        | -1.15±0.20               | 5.4   | $f_{69}$                               | 2.9392±0.0031                | 0.06±0.02        | 1.48±0.19                | 6.0   |
| $f_{90}$                               | 0.5101±0.0033                | 0.07±0.03        | 2.42±0.20                | 5.5   | $f_{70}$                               | 0.6514±0.0032                | 0.07±0.03        | 1.66±0.19                | 5.8   |
| $f_{91}$                               | 0.9168±0.0033                | 0.07±0.03        | 0.68±0.20                | 5.4   | $f_{71}$                               | 0.5813±0.0031                | 0.07±0.03        | -3.07±0.19               | 5.9   |
| $f_{92}$                               | 3.7024±0.0033                | 0.07±0.03        | -2.56±0.20               | 5.3   | $f_{72}$                               | 2.8143±0.0033                | 0.06±0.03        | -0.76±0.20               | 5.5   |
| $f_{93}$                               | 0.2632±0.0033                | 0.07±0.03        | -2.65±0.20               | 5.4   | $f_{73}$                               | 5.6690±0.0033                | 0.06±0.03        | -0.08±0.20               | 5.5   |
| $f_{94}$                               | 1.5149±0.0033                | 0.07±0.03        | -1.65±0.20               | 5.5   | $f_{74}$                               | 1.1143±0.0033                | 0.06±0.03        | -3.13±0.20               | 5.4   |
| $f_{95}$                               | 0.4192±0.0033                | 0.07±0.03        | 3.04±0.20                | 5.4   | $f_{75}$                               | 1.0519±0.0033                | 0.06±0.03        | -0.89±0.20               | 5.5   |
| $f_{97}$                               | 0.6355±0.0034                | 0.07±0.03        | -2.43±0.21               | 5.0   | $f_{76}$                               | 0.4711±0.0033                | 0.06±0.03        | 1.61±0.20                | 5.5   |
| $f_{98}$                               | 2.0645±0.0034                | 0.07±0.03        | -0.79±0.21               | 5.1   | $f_{77}$                               | 13.0032±0.0033               | 0.06±0.03        | 2.92±0.20                | 5.4   |

**Table B.28:** Frequency list of 0102648939

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|--------------|------------------------------|------------------|--------------------------|-------|
| $f_1$        | 0.1511±0.0008                | 0.38±0.04        | 1.59±0.05                | 102.5 |
| $f_2$        | 2.0061±0.0008                | 0.27±0.03        | -0.75±0.05               | 83.9  |
| $f_3$        | 2.7581±0.0009                | 0.24±0.03        | -2.65±0.06               | 68.9  |
| $f_4$        | 2.6848±0.0009                | 0.25±0.03        | -0.24±0.06               | 64.8  |
| $f_6$        | 2.0317±0.0010                | 0.23±0.03        | -0.34±0.06               | 59.3  |
| $f_7$        | 0.1694±0.0011                | 0.22±0.03        | 2.37±0.07                | 50.0  |
| $f_8$        | 0.2120±0.0011                | 0.22±0.03        | -1.21±0.07               | 44.9  |
| $f_9$        | 0.1331±0.0012                | 0.23±0.04        | -1.96±0.07               | 42.3  |
| $f_{10}$     | 0.1432±0.0013                | 0.16±0.03        | 0.47±0.08                | 33.2  |
| $f_{11}$     | 2.7764±0.0015                | 0.15±0.03        | -0.44±0.09               | 27.5  |
| $f_{12}$     | 2.6199±0.0015                | 0.15±0.03        | -0.94±0.09               | 27.3  |
| $f_{13}$     | 0.2951±0.0015                | 0.14±0.03        | 2.06±0.09                | 24.8  |
| $f_{14}$     | 0.4244±0.0016                | 0.14±0.03        | 0.63±0.10                | 23.9  |
| $f_{15}$     | 0.1000±0.0015                | 0.15±0.03        | -0.40±0.09               | 24.3  |
| $f_{17}$     | 0.2217±0.0017                | 0.12±0.03        | 1.38±0.10                | 20.4  |
| $f_{19}$     | 0.2320±0.0018                | 0.13±0.03        | -0.44±0.11               | 18.4  |
| $f_{21}$     | 0.3908±0.0019                | 0.11±0.03        | -2.71±0.11               | 16.7  |
| $f_{22}$     | 0.6621±0.0019                | 0.12±0.03        | -2.10±0.11               | 16.7  |
| $f_{23}$     | 0.7478±0.0020                | 0.11±0.03        | 1.35±0.12                | 15.1  |
| $f_{24}$     | 2.1536±0.0020                | 0.12±0.03        | 1.80±0.12                | 15.1  |
| $f_{25}$     | 0.2428±0.0020                | 0.11±0.03        | -2.97±0.12               | 14.3  |
| $f_{26}$     | 0.8972±0.0020                | 0.11±0.03        | -2.69±0.12               | 14.7  |
| $f_{27}$     | 0.6937±0.0021                | 0.09±0.02        | 1.96±0.13                | 13.6  |
| $f_{28}$     | 0.3722±0.0021                | 0.12±0.03        | 1.66±0.13                | 13.5  |
| $f_{29}$     | 0.4041±0.0021                | 0.10±0.03        | -1.72±0.13               | 13.6  |
| $f_{30}$     | 0.1791±0.0021                | 0.10±0.03        | -2.38±0.13               | 13.1  |
| $f_{32}$     | 2.0255±0.0022                | 0.10±0.03        | -1.21±0.13               | 12.4  |
| $f_{33}$     | 0.6798±0.0024                | 0.09±0.03        | -2.52±0.15               | 10.2  |
| $f_{34}$     | 0.8091±0.0024                | 0.09±0.03        | 0.39±0.15                | 9.9   |
| $f_{35}$     | 0.8443±0.0024                | 0.08±0.03        | 2.93±0.15                | 9.9   |
| $f_{36}$     | 1.4264±0.0025                | 0.09±0.03        | 2.90±0.15                | 9.4   |
| $f_{37}$     | 0.4395±0.0025                | 0.09±0.03        | 2.51±0.15                | 9.1   |
| $f_{38}$     | 0.5648±0.0025                | 0.09±0.03        | 2.38±0.15                | 9.2   |
| $f_{39}$     | 0.6058±0.0026                | 0.09±0.03        | -1.26±0.16               | 8.9   |
| $f_{40}$     | 0.5157±0.0026                | 0.09±0.03        | -1.92±0.16               | 8.9   |
| $f_{41}$     | 2.1367±0.0025                | 0.08±0.03        | -1.64±0.16               | 9.0   |
| $f_{42}$     | 0.6396±0.0026                | 0.11±0.04        | -2.65±0.16               | 8.5   |
| $f_{43}$     | 0.6279±0.0026                | 0.08±0.03        | -1.62±0.16               | 8.7   |
| $f_{44}$     | 0.9687±0.0027                | 0.08±0.03        | -0.00±0.16               | 8.1   |
| $f_{45}$     | 1.0402±0.0027                | 0.08±0.03        | -2.79±0.17               | 7.9   |
| $f_{46}$     | 2.7099±0.0026                | 0.07±0.02        | -2.18±0.16               | 8.3   |
| $f_{47}$     | 0.7583±0.0027                | 0.08±0.03        | -0.26±0.16               | 8.1   |
| $f_{48}$     | 0.5497±0.0027                | 0.09±0.03        | 1.57±0.16                | 8.2   |
| $f_{49}$     | 1.2303±0.0027                | 0.08±0.03        | 2.39±0.16                | 8.2   |
| $f_{50}$     | 0.5025±0.0027                | 0.08±0.03        | -0.05±0.17               | 7.8   |
| $f_{51}$     | 2.8833±0.0028                | 0.07±0.03        | -2.65±0.17               | 7.7   |
| $f_{53}$     | 0.8267±0.0027                | 0.07±0.02        | -0.81±0.17               | 7.9   |
| $f_{54}$     | 0.1233±0.0028                | 0.08±0.03        | -0.71±0.17               | 7.7   |
| $f_{55}$     | 0.2511±0.0028                | 0.07±0.03        | -1.20±0.17               | 7.7   |
| $f_{56}$     | 0.4480±0.0028                | 0.07±0.03        | -0.18±0.17               | 7.4   |
| $f_{57}$     | 0.2829±0.0029                | 0.08±0.03        | 2.76±0.18                | 6.9   |
| $f_{59}$     | 1.1976±0.0028                | 0.07±0.03        | -2.42±0.17               | 7.2   |
| $f_{60}$     | 2.6420±0.0029                | 0.07±0.03        | -0.02±0.18               | 6.8   |
| $f_{61}$     | 1.8780±0.0029                | 0.07±0.03        | 1.59±0.18                | 6.7   |
| $f_{62}$     | 0.5370±0.0030                | 0.08±0.03        | 0.70±0.18                | 6.5   |
| $f_{63}$     | 0.3533±0.0030                | 0.07±0.03        | -1.00±0.18               | 6.6   |
| $f_{64}$     | 0.7123±0.0029                | 0.07±0.03        | -0.78±0.18               | 6.7   |

Frequency list of 0102648939 continued

**Table B.29:** Frequency list of 0102649754

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|--------------|------------------------------|------------------|--------------------------|-------|
| $f_1$        | 1.7248±0.0003                | 0.80±0.03        | 2.20±0.02                | 879.5 |
| $f_2$        | 1.7458±0.0002                | 0.76±0.02        | -1.36±0.02               | 940.1 |
| $f_3$        | 3.2859±0.0005                | 0.32±0.02        | 2.62±0.03                | 255.6 |
| $f_4$        | 0.1130±0.0005                | 0.25±0.02        | -1.65±0.03               | 229.9 |
| $f_5$        | 1.5614±0.0006                | 0.25±0.02        | 0.72±0.03                | 178.5 |
| $f_6$        | 1.5396±0.0006                | 0.22±0.02        | 1.62±0.04                | 160.2 |
| $f_7$        | 0.1035±0.0008                | 0.21±0.02        | 2.38±0.05                | 93.8  |
| $f_8$        | 3.2992±0.0009                | 0.16±0.02        | -0.19±0.05               | 73.2  |
| $f_{10}$     | 1.8510±0.0010                | 0.14±0.02        | -2.34±0.06               | 60.8  |
| $f_{11}$     | 3.2723±0.0011                | 0.13±0.02        | 1.07±0.06                | 51.8  |
| $f_{12}$     | 0.2197±0.0011                | 0.15±0.02        | 0.69±0.07                | 49.8  |
| $f_{13}$     | 0.2364±0.0011                | 0.11±0.02        | -3.01±0.07               | 50.9  |
| $f_{14}$     | 2.5475±0.0011                | 0.13±0.02        | -1.15±0.07               | 51.1  |
| $f_{15}$     | 1.5259±0.0011                | 0.12±0.02        | -3.02±0.07               | 45.7  |
| $f_{16}$     | 0.1343±0.0011                | 0.11±0.02        | -0.20±0.07               | 46.4  |
| $f_{17}$     | 1.5508±0.0012                | 0.11±0.02        | 2.77±0.07                | 39.2  |
| $f_{18}$     | 0.1914±0.0013                | 0.11±0.02        | -0.83±0.08               | 37.2  |
| $f_{19}$     | 1.7245±0.0015                | 0.08±0.02        | 1.01±0.09                | 24.4  |
| $f_{20}$     | 0.1221±0.0016                | 0.08±0.02        | -2.74±0.10               | 23.3  |
| $f_{21}$     | 1.2211±0.0016                | 0.07±0.01        | 2.53±0.10                | 23.8  |
| $f_{22}$     | 0.2963±0.0017                | 0.08±0.02        | -1.29±0.10               | 21.2  |
| $f_{24}$     | 3.8221±0.0018                | 0.08±0.02        | 2.45±0.11                | 18.7  |
| $f_{25}$     | 0.1834±0.0020                | 0.06±0.02        | -0.44±0.12               | 15.3  |
| $f_{27}$     | 0.2665±0.0020                | 0.06±0.02        | 0.32±0.12                | 14.4  |
| $f_{28}$     | 1.4320±0.0021                | 0.06±0.02        | 2.23±0.13                | 13.4  |
| $f_{30}$     | 4.9268±0.0022                | 0.06±0.02        | -2.35±0.13               | 12.0  |
| $f_{31}$     | 1.2753±0.0022                | 0.06±0.02        | 1.51±0.13                | 12.1  |
| $f_{32}$     | 1.6127±0.0022                | 0.06±0.02        | -0.41±0.14               | 11.6  |
| $f_{33}$     | 0.2032±0.0023                | 0.06±0.02        | -2.41±0.14               | 11.3  |
| $f_{34}$     | 0.3305±0.0023                | 0.05±0.02        | 0.91±0.14                | 10.8  |
| $f_{35}$     | 1.2303±0.0024                | 0.05±0.02        | -2.47±0.14               | 10.5  |
| $f_{37}$     | 2.0049±0.0025                | 0.05±0.02        | 2.50±0.15                | 9.1   |
| $f_{38}$     | 0.9362±0.0026                | 0.05±0.02        | -3.01±0.16               | 8.8   |
| $f_{39}$     | 0.2872±0.0025                | 0.06±0.02        | 2.77±0.16                | 9.0   |
| $f_{43}$     | 0.4740±0.0027                | 0.05±0.02        | 0.26±0.17                | 7.8   |
| $f_{44}$     | 0.5849±0.0027                | 0.05±0.02        | 1.39±0.17                | 7.8   |
| $f_{45}$     | 0.5114±0.0027                | 0.05±0.02        | -0.70±0.16               | 8.1   |
| $f_{46}$     | 0.1546±0.0028                | 0.05±0.02        | -1.05±0.17               | 7.5   |
| $f_{47}$     | 0.2571±0.0027                | 0.05±0.02        | -0.75±0.16               | 8.1   |
| $f_{50}$     | 0.5341±0.0029                | 0.04±0.02        | -1.77±0.18               | 6.9   |
| $f_{51}$     | 0.4337±0.0030                | 0.04±0.02        | 0.53±0.18                | 6.5   |
| $f_{52}$     | 1.2495±0.0029                | 0.04±0.02        | -0.70±0.18               | 6.8   |
| $f_{53}$     | 1.0014±0.0029                | 0.04±0.02        | -1.22±0.18               | 6.7   |
| $f_{54}$     | 1.1956±0.0030                | 0.04±0.02        | 1.71±0.18                | 6.5   |
| $f_{55}$     | 0.3175±0.0031                | 0.04±0.02        | -0.97±0.19               | 5.9   |
| $f_{56}$     | 0.6992±0.0031                | 0.04±0.02        | 2.04±0.19                | 6.1   |
| $f_{57}$     | 0.1322±0.0031                | 0.04±0.02        | 0.45±0.19                | 6.1   |
| $f_{58}$     | 0.4082±0.0031                | 0.04±0.02        | -1.45±0.19               | 6.1   |
| $f_{59}$     | 3.8421±0.0031                | 0.04±0.02        | 2.54±0.19                | 5.9   |
| $f_{60}$     | 41.8847±0.0032               | 0.04±0.02        | 1.16±0.20                | 5.6   |
| $f_{61}$     | 1.5718±0.0032                | 0.04±0.02        | 2.26±0.20                | 5.6   |
| $f_{62}$     | 0.8297±0.0033                | 0.04±0.02        | -1.12±0.20               | 5.5   |

Frequency list of 0102649754 continued

## Appendix B. Frequencies of individual $\gamma$ Dor Stars

| Frequency list of 0102649754 continued          |                              |                  |                          |       | Frequency list of 0102653056 continued |                              |                  |                          |       |
|-------------------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                                    | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{63}$                                        | 13.9514±0.0033               | 0.04±0.02        | -1.83±0.20               | 5.5   | $f_{67}$                               | 3.2983±0.0015                | 0.31±0.06        | -0.52±0.09               | 25.3  |
| $f_{64}$                                        | 55.8628±0.0032               | 0.04±0.02        | 0.11±0.19                | 5.8   | $f_{68}$                               | 3.0785±0.0015                | 0.31±0.06        | -1.54±0.09               | 25.7  |
| <b>Table B.30: Frequency list of 0102653056</b> |                              |                  |                          |       | $f_{70}$                               | 3.6518±0.0015                | 0.29±0.06        | -1.77±0.09               | 24.8  |
| Frequency ID                                    | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | $f_{71}$                               | 0.1286±0.0015                | 0.26±0.05        | 1.77±0.09                | 24.3  |
| $f_1$                                           | 1.5387±0.0003                | 4.43±0.17        | 0.37±0.02                | 716.6 | $f_{72}$                               | 0.6258±0.0016                | 0.27±0.06        | -0.47±0.10               | 23.4  |
| $f_2$                                           | 0.9783±0.0003                | 3.71±0.15        | -0.43±0.02               | 608.8 | $f_{73}$                               | 1.2514±0.0017                | 0.30±0.06        | 1.98±0.10                | 21.4  |
| $f_3$                                           | 0.9342±0.0003                | 3.53±0.14        | 2.86±0.02                | 654.5 | $f_{74}$                               | 0.3719±0.0016                | 0.28±0.06        | -1.70±0.10               | 21.8  |
| $f_4$                                           | 1.8256±0.0003                | 3.24±0.13        | -1.08±0.02               | 646.8 | $f_{75}$                               | 0.3971±0.0016                | 0.22±0.05        | 1.61±0.10                | 21.6  |
| $f_5$                                           | 0.8984±0.0004                | 2.23±0.12        | -1.08±0.02               | 368.1 | $f_{76}$                               | 1.6579±0.0017                | 0.26±0.06        | -1.71±0.10               | 20.8  |
| $f_6$                                           | 1.7594±0.0004                | 2.37±0.12        | -1.92±0.02               | 383.0 | $f_{77}$                               | 1.9067±0.0017                | 0.25±0.05        | 1.33±0.10                | 21.3  |
| $f_7$                                           | 0.9196±0.0005                | 1.61±0.10        | -0.91±0.03               | 237.8 | $f_{78}$                               | 1.5613±0.0017                | 0.22±0.05        | 2.84±0.10                | 20.4  |
| $f_8$                                           | 0.9409±0.0006                | 1.45±0.11        | -0.98±0.03               | 185.8 | $f_{79}$                               | 1.8927±0.0018                | 0.24±0.06        | 0.18±0.11                | 18.6  |
| $f_9$                                           | 1.4824±0.0006                | 1.63±0.12        | 1.45±0.03                | 183.7 | $f_{80}$                               | 0.6771±0.0018                | 0.19±0.04        | -1.68±0.11               | 18.1  |
| $f_{10}$                                        | 1.4565±0.0005                | 1.31±0.09        | -1.12±0.03               | 201.9 | $f_{81}$                               | 3.3639±0.0018                | 0.22±0.05        | 0.69±0.11                | 18.3  |
| $f_{11}$                                        | 0.9983±0.0006                | 0.80±0.07        | 0.68±0.04                | 145.5 | $f_{83}$                               | 1.6422±0.0019                | 0.21±0.05        | 0.20±0.11                | 17.0  |
| $f_{12}$                                        | 1.4030±0.0007                | 0.68±0.06        | -1.60±0.04               | 110.5 | $f_{84}$                               | 1.2185±0.0018                | 0.19±0.04        | 2.41±0.11                | 17.9  |
| $f_{13}$                                        | 0.9506±0.0007                | 0.96±0.09        | 2.64±0.05                | 107.0 | $f_{85}$                               | 0.5838±0.0019                | 0.15±0.04        | 2.68±0.11                | 17.0  |
| $f_{14}$                                        | 1.0082±0.0007                | 0.77±0.07        | -2.70±0.04               | 107.9 | $f_{86}$                               | 0.2269±0.0020                | 0.22±0.06        | 1.43±0.12                | 15.3  |
| $f_{15}$                                        | 0.6048±0.0008                | 0.80±0.08        | 0.49±0.05                | 101.9 | $f_{87}$                               | 0.1808±0.0019                | 0.23±0.06        | 2.15±0.12                | 15.5  |
| $f_{16}$                                        | 1.7396±0.0008                | 0.81±0.08        | 2.24±0.05                | 96.3  | $f_{88}$                               | 1.0500±0.0020                | 0.25±0.06        | 1.87±0.12                | 15.1  |
| $f_{17}$                                        | 1.4919±0.0008                | 0.88±0.09        | 0.49±0.05                | 96.2  | $f_{90}$                               | 1.8420±0.0019                | 0.25±0.06        | -0.34±0.12               | 15.4  |
| $f_{18}$                                        | 0.8802±0.0008                | 0.73±0.08        | 0.38±0.05                | 83.1  | $f_{91}$                               | 1.0156±0.0020                | 0.26±0.07        | 2.13±0.12                | 14.8  |
| $f_{19}$                                        | 0.8899±0.0009                | 0.59±0.07        | -2.00±0.05               | 79.2  | $f_{92}$                               | 0.5222±0.0020                | 0.24±0.06        | -2.48±0.12               | 14.9  |
| $f_{20}$                                        | 0.1189±0.0009                | 0.64±0.08        | -1.87±0.06               | 68.8  | $f_{93}$                               | 0.7329±0.0020                | 0.24±0.06        | -1.79±0.12               | 14.9  |
| $f_{21}$                                        | 0.2846±0.0010                | 0.56±0.07        | 3.09±0.06                | 62.1  | $f_{94}$                               | 0.9221±0.0019                | 0.20±0.05        | 1.20±0.12                | 15.7  |
| $f_{22}$                                        | 1.4150±0.0010                | 0.54±0.07        | 2.17±0.06                | 63.1  | $f_{95}$                               | 2.0828±0.0020                | 0.20±0.05        | -1.26±0.12               | 15.3  |
| $f_{23}$                                        | 0.8272±0.0010                | 0.54±0.07        | -1.30±0.06               | 63.0  | $f_{96}$                               | 0.4678±0.0020                | 0.20±0.05        | 2.38±0.12                | 14.6  |
| $f_{24}$                                        | 0.8581±0.0010                | 0.58±0.08        | -1.50±0.06               | 58.7  | $f_{97}$                               | 0.8502±0.0020                | 0.24±0.06        | -3.03±0.12               | 14.1  |
| $f_{25}$                                        | 1.4993±0.0010                | 0.50±0.07        | -1.49±0.06               | 53.2  | $f_{98}$                               | 0.3292±0.0020                | 0.22±0.06        | -0.75±0.12               | 14.0  |
| $f_{26}$                                        | 0.9139±0.0011                | 0.41±0.06        | 2.32±0.06                | 51.5  | $f_{100}$                              | 1.8658±0.0021                | 0.21±0.06        | -1.19±0.13               | 13.5  |
| $f_{27}$                                        | 1.5962±0.0011                | 0.45±0.06        | 2.91±0.07                | 49.1  | $f_{101}$                              | 1.5483±0.0021                | 0.21±0.06        | -1.18±0.13               | 13.2  |
| $f_{28}$                                        | 0.9583±0.0011                | 0.49±0.07        | -1.14±0.07               | 49.8  | $f_{103}$                              | 0.4566±0.0022                | 0.18±0.05        | 1.88±0.13                | 12.3  |
| $f_{29}$                                        | 1.0477±0.0011                | 0.48±0.07        | -0.52±0.07               | 48.8  | $f_{104}$                              | 1.5169±0.0022                | 0.21±0.06        | 2.04±0.13                | 12.1  |
| $f_{30}$                                        | 0.9052±0.0011                | 0.51±0.08        | 2.48±0.07                | 46.1  | $f_{105}$                              | 1.6048±0.0021                | 0.21±0.06        | -2.03±0.13               | 13.0  |
| $f_{31}$                                        | 1.3169±0.0012                | 0.41±0.06        | 2.78±0.07                | 43.3  | $f_{106}$                              | 0.5062±0.0022                | 0.21±0.06        | -2.30±0.14               | 11.7  |
| $f_{32}$                                        | 0.5433±0.0012                | 0.50±0.08        | -0.55±0.07               | 42.3  | $f_{107}$                              | 1.7739±0.0022                | 0.17±0.05        | 1.88±0.14                | 11.6  |
| $f_{33}$                                        | 0.1697±0.0012                | 0.50±0.08        | -1.37±0.07               | 40.1  | $f_{108}$                              | 2.4292±0.0022                | 0.18±0.05        | -2.19±0.14               | 11.7  |
| $f_{34}$                                        | 0.1414±0.0012                | 0.42±0.07        | 1.07±0.07                | 38.7  | $f_{109}$                              | 0.6094±0.0023                | 0.24±0.07        | 2.26±0.14                | 11.3  |
| $f_{35}$                                        | 0.6198±0.0012                | 0.46±0.07        | -0.71±0.07               | 38.8  | $f_{110}$                              | 0.2932±0.0023                | 0.19±0.06        | -1.82±0.14               | 11.3  |
| $f_{36}$                                        | 1.0414±0.0012                | 0.41±0.07        | -1.52±0.08               | 37.3  | $f_{111}$                              | 0.2593±0.0022                | 0.21±0.06        | 2.08±0.13                | 12.4  |
| $f_{37}$                                        | 0.4756±0.0013                | 0.33±0.05        | -2.75±0.08               | 36.6  | $f_{112}$                              | 2.2316±0.0023                | 0.17±0.05        | 2.80±0.14                | 11.4  |
| $f_{38}$                                        | 1.5122±0.0013                | 0.45±0.08        | -0.71±0.08               | 35.9  | $f_{113}$                              | 1.0998±0.0023                | 0.19±0.06        | -2.74±0.14               | 11.1  |
| $f_{39}$                                        | 1.8773±0.0013                | 0.33±0.06        | -0.59±0.08               | 34.4  | $f_{114}$                              | 0.8424±0.0023                | 0.18±0.05        | -0.18±0.14               | 10.9  |
| $f_{40}$                                        | 1.6318±0.0013                | 0.40±0.07        | 1.51±0.08                | 35.8  | $f_{115}$                              | 1.6929±0.0023                | 0.16±0.05        | -2.06±0.14               | 11.2  |
| $f_{41}$                                        | 1.0327±0.0013                | 0.45±0.08        | 2.84±0.08                | 34.7  | $f_{116}$                              | 1.9162±0.0023                | 0.23±0.07        | -2.96±0.14               | 11.0  |
| $f_{42}$                                        | 1.4372±0.0013                | 0.37±0.06        | -1.94±0.08               | 34.4  | $f_{117}$                              | 1.9292±0.0022                | 0.17±0.05        | -3.11±0.14               | 11.7  |
| $f_{43}$                                        | 1.5323±0.0013                | 0.46±0.08        | -1.99±0.08               | 36.0  | $f_{118}$                              | 1.5697±0.0024                | 0.16±0.05        | -0.71±0.14               | 10.4  |
| $f_{44}$                                        | 0.7823±0.0013                | 0.43±0.07        | -0.34±0.08               | 33.5  | $f_{119}$                              | 1.5239±0.0024                | 0.19±0.06        | -0.02±0.15               | 10.3  |
| $f_{45}$                                        | 1.6190±0.0013                | 0.33±0.06        | -1.38±0.08               | 33.3  | $f_{120}$                              | 1.3499±0.0024                | 0.19±0.06        | 1.37±0.15                | 10.3  |
| $f_{46}$                                        | 0.5614±0.0013                | 0.38±0.07        | 2.59±0.08                | 33.8  | $f_{121}$                              | 1.2825±0.0023                | 0.19±0.06        | 0.11±0.14                | 11.1  |
| $f_{47}$                                        | 0.1910±0.0013                | 0.26±0.05        | -2.26±0.08               | 32.4  | $f_{123}$                              | 1.1997±0.0024                | 0.17±0.05        | 2.86±0.15                | 10.2  |
| $f_{48}$                                        | 0.9328±0.0014                | 0.31±0.06        | -1.59±0.08               | 31.6  | $f_{125}$                              | 2.3624±0.0025                | 0.15±0.05        | 0.09±0.15                | 9.4   |
| $f_{49}$                                        | 0.2174±0.0014                | 0.33±0.06        | 2.66±0.08                | 30.9  | $f_{126}$                              | 2.4762±0.0025                | 0.17±0.05        | 2.96±0.15                | 9.7   |
| $f_{50}$                                        | 1.8522±0.0014                | 0.42±0.08        | -0.48±0.09               | 29.8  | $f_{127}$                              | 1.3989±0.0026                | 0.17±0.06        | 0.22±0.16                | 8.7   |
| $f_{51}$                                        | 0.2694±0.0014                | 0.43±0.08        | -1.67±0.09               | 29.8  | $f_{128}$                              | 1.1708±0.0026                | 0.18±0.06        | 3.12±0.16                | 8.9   |
| $f_{52}$                                        | 1.2651±0.0014                | 0.40±0.07        | -0.24±0.09               | 29.7  | $f_{129}$                              | 1.1629±0.0026                | 0.18±0.06        | 1.69±0.16                | 8.8   |
| $f_{53}$                                        | 1.4476±0.0014                | 0.34±0.06        | -0.68±0.09               | 29.6  | $f_{130}$                              | 2.8563±0.0026                | 0.16±0.05        | 1.56±0.16                | 8.7   |
| $f_{54}$                                        | 0.9666±0.0014                | 0.35±0.06        | 2.21±0.09                | 29.8  | $f_{133}$                              | 3.3199±0.0026                | 0.14±0.05        | 1.02±0.16                | 8.3   |
| $f_{55}$                                        | 0.1125±0.0014                | 0.36±0.07        | 2.56±0.09                | 29.7  | $f_{134}$                              | 2.8680±0.0027                | 0.16±0.06        | -2.21±0.16               | 8.2   |
| $f_{57}$                                        | 0.4216±0.0014                | 0.33±0.06        | 1.56±0.08                | 30.5  | $f_{135}$                              | 2.7607±0.0026                | 0.15±0.05        | 1.48±0.16                | 8.3   |
| $f_{58}$                                        | 0.4434±0.0014                | 0.30±0.06        | -2.84±0.09               | 29.4  | $f_{136}$                              | 1.9712±0.0027                | 0.14±0.05        | -0.15±0.16               | 8.1   |
| $f_{59}$                                        | 1.3883±0.0015                | 0.44±0.08        | 0.85±0.09                | 27.2  | $f_{137}$                              | 2.1420±0.0026                | 0.15±0.05        | 0.25±0.16                | 8.4   |
| $f_{60}$                                        | 1.3685±0.0014                | 0.42±0.07        | -0.24±0.08               | 31.4  | $f_{138}$                              | 0.3614±0.0027                | 0.14±0.05        | -0.96±0.16               | 8.0   |
| $f_{61}$                                        | 0.3201±0.0014                | 0.26±0.05        | -2.28±0.09               | 28.2  | $f_{139}$                              | 0.9408±0.0027                | 0.16±0.06        | -1.61±0.17               | 7.9   |
| $f_{62}$                                        | 2.8039±0.0015                | 0.32±0.06        | 1.01±0.09                | 25.7  | $f_{140}$                              | 2.3071±0.0027                | 0.15±0.05        | -0.49±0.17               | 7.9   |
| $f_{63}$                                        | 1.4741±0.0015                | 0.27±0.05        | -1.75±0.09               | 25.1  | $f_{141}$                              | 1.2738±0.0027                | 0.16±0.06        | 1.64±0.16                | 8.0   |
| $f_{64}$                                        | 0.1482±0.0015                | 0.31±0.06        | 1.83±0.09                | 25.6  | $f_{142}$                              | 2.1261±0.0027                | 0.12±0.04        | 2.95±0.17                | 7.9   |
| $f_{65}$                                        | 0.2394±0.0015                | 0.30±0.06        | -2.97±0.09               | 25.7  | $f_{143}$                              | 0.8335±0.0028                | 0.17±0.06        | 0.85±0.17                | 7.7   |
| $f_{66}$                                        | 0.2493±0.0014                | 0.28±0.05        | -3.12±0.09               | 29.1  | $f_{144}$                              | 0.7629±0.0028                | 0.17±0.06        | 3.08±0.17                | 7.7   |
| Frequency list of 0102653056 continued          |                              |                  |                          |       | $f_{145}$                              | 0.5726±0.0028                | 0.16±0.06        | 0.25±0.17                | 7.6   |
|                                                 |                              |                  |                          |       | $f_{146}$                              | 0.6312±0.0028                | 0.15±0.05        | -3.07±0.17               | 7.7   |
|                                                 |                              |                  |                          |       | $f_{148}$                              | 3.5177±0.0028                | 0.14±0.05        | -0.54±0.17               | 7.3   |
|                                                 |                              |                  |                          |       | $f_{149}$                              | 3.0171±0.0028                | 0.15±0.06        | -0.87±0.17               | 7.3   |
|                                                 |                              |                  |                          |       | $f_{150}$                              | 2.9263±0.0028                | 0.15±0.05        | -1.74±0.17               | 7.6   |
|                                                 |                              |                  |                          |       | $f_{152}$                              | 2.6281±0.0028                | 0.13±0.05        | 0.84±0.17                | 7.2   |
|                                                 |                              |                  |                          |       | $f_{153}$                              | 0.1640±0.0029                | 0.14±0.05        | 2.74±0.18                | 7.0   |
|                                                 |                              |                  |                          |       | Frequency list of 0102653056 continued |                              |                  |                          |       |

## Appendix B. Frequencies of individual $\gamma$ Dor Stars

| Frequency list of 0102653056 continued |                              |                  |                          |       | Frequency list of 0102654663 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{154}$                              | 0.6561±0.0029                | 0.15±0.06        | 2.84±0.18                | 6.9   | $f_{42}$                               | 0.1019±0.0016                | 0.34±0.07        | 0.05±0.10                | 22.7  |
| $f_{155}$                              | 2.0458±0.0029                | 0.17±0.07        | -0.13±0.18               | 6.8   | $f_{43}$                               | 2.7796±0.0017                | 0.36±0.08        | -1.81±0.10               | 20.5  |
| $f_{156}$                              | 1.0264±0.0030                | 0.15±0.06        | -1.63±0.18               | 6.6   | $f_{44}$                               | 0.1994±0.0017                | 0.34±0.07        | 0.10±0.10                | 21.1  |
| $f_{157}$                              | 2.0595±0.0030                | 0.15±0.06        | -0.44±0.18               | 6.5   | $f_{45}$                               | 0.3098±0.0017                | 0.35±0.08        | 0.42±0.10                | 19.7  |
| $f_{158}$                              | 0.9732±0.0030                | 0.17±0.07        | 1.89±0.18                | 6.4   | $f_{46}$                               | 1.6346±0.0018                | 0.34±0.08        | -2.64±0.11               | 18.9  |
| $f_{159}$                              | 0.9863±0.0028                | 0.15±0.06        | -1.37±0.17               | 7.2   | $f_{47}$                               | 0.5058±0.0017                | 0.34±0.08        | 1.04±0.11                | 19.6  |
| $f_{160}$                              | 0.8097±0.0029                | 0.16±0.06        | 1.56±0.18                | 7.0   | $f_{49}$                               | 0.2390±0.0018                | 0.33±0.08        | -0.17±0.11               | 18.4  |
| $f_{161}$                              | 1.0576±0.0031                | 0.13±0.05        | -2.19±0.19               | 6.1   | $f_{50}$                               | 1.0550±0.0018                | 0.35±0.08        | -0.37±0.11               | 18.2  |
| $f_{162}$                              | 2.9428±0.0031                | 0.13±0.05        | -1.60±0.19               | 6.2   | $f_{51}$                               | 0.2545±0.0018                | 0.31±0.07        | 3.02±0.11                | 17.3  |
| $f_{163}$                              | 0.1346±0.0031                | 0.14±0.06        | -1.69±0.19               | 6.2   | $f_{52}$                               | 3.5751±0.0019                | 0.32±0.08        | -0.79±0.11               | 16.7  |
| $f_{164}$                              | 1.3591±0.0031                | 0.13±0.05        | -1.84±0.19               | 6.0   | $f_{53}$                               | 1.3356±0.0019                | 0.29±0.07        | -0.82±0.11               | 16.9  |
| $f_{165}$                              | 1.9979±0.0031                | 0.14±0.06        | -2.16±0.19               | 5.9   | $f_{54}$                               | 3.4890±0.0019                | 0.29±0.07        | 0.34±0.12                | 15.7  |
| $f_{167}$                              | 0.1755±0.0032                | 0.14±0.06        | 1.05±0.19                | 5.8   | $f_{57}$                               | 1.8626±0.0020                | 0.34±0.09        | 0.99±0.12                | 15.2  |
| $f_{168}$                              | 0.4492±0.0032                | 0.12±0.05        | 0.07±0.20                | 5.7   | $f_{58}$                               | 1.2247±0.0020                | 0.30±0.08        | 0.66±0.12                | 14.8  |
| $f_{169}$                              | 2.0895±0.0032                | 0.12±0.05        | -2.10±0.20               | 5.6   | $f_{59}$                               | 0.7946±0.0020                | 0.25±0.07        | 2.07±0.12                | 14.6  |
| $f_{170}$                              | 2.1940±0.0032                | 0.13±0.05        | -1.72±0.20               | 5.7   | $f_{60}$                               | 2.6424±0.0020                | 0.30±0.08        | -0.48±0.12               | 14.3  |
| $f_{171}$                              | 0.6836±0.0032                | 0.15±0.06        | -1.94±0.20               | 5.6   | $f_{63}$                               | 0.5588±0.0021                | 0.35±0.09        | 2.30±0.13                | 13.8  |
| $f_{172}$                              | 2.6366±0.0033                | 0.12±0.05        | -3.12±0.20               | 5.5   | $f_{64}$                               | 0.5752±0.0020                | 0.27±0.07        | -1.20±0.12               | 14.3  |
| $f_{173}$                              | 2.0258±0.0033                | 0.13±0.06        | 0.12±0.20                | 5.5   | $f_{65}$                               | 1.7023±0.0020                | 0.33±0.09        | 0.02±0.12                | 14.2  |
| $f_{174}$                              | 0.3483±0.0033                | 0.13±0.06        | -0.50±0.20               | 5.5   | $f_{66}$                               | 2.0509±0.0021                | 0.30±0.08        | 0.25±0.13                | 13.6  |
| $f_{175}$                              | 0.6925±0.0033                | 0.14±0.06        | -2.01±0.20               | 5.5   | $f_{67}$                               | 0.9320±0.0021                | 0.27±0.07        | -1.52±0.13               | 13.4  |
| $f_{176}$                              | 1.3339±0.0032                | 0.13±0.05        | 0.67±0.20                | 5.6   | $f_{70}$                               | 2.0045±0.0019                | 0.49±0.12        | 1.56±0.12                | 15.4  |
| $f_{177}$                              | 0.7915±0.0033                | 0.12±0.05        | -1.04±0.20               | 5.3   | $f_{71}$                               | 1.4069±0.0021                | 0.31±0.09        | 3.10±0.13                | 13.2  |
| $f_{178}$                              | 29.0383±0.0033               | 0.12±0.05        | -1.96±0.20               | 5.3   | $f_{72}$                               | 0.1727±0.0021                | 0.28±0.08        | 1.67±0.13                | 13.2  |
| $f_{179}$                              | 1.9396±0.0033                | 0.13±0.06        | 2.74±0.20                | 5.4   | $f_{73}$                               | 0.2198±0.0021                | 0.32±0.09        | 1.46±0.13                | 12.8  |
| $f_{180}$                              | 1.6828±0.0033                | 0.12±0.05        | -2.45±0.20               | 5.4   | $f_{74}$                               | 0.2316±0.0020                | 0.32±0.08        | -2.51±0.12               | 14.6  |
| $f_{181}$                              | 0.2342±0.0033                | 0.14±0.06        | 2.27±0.20                | 5.3   | $f_{75}$                               | 1.8239±0.0021                | 0.29±0.08        | 1.49±0.13                | 12.7  |
| $f_{182}$                              | 55.8620±0.0033               | 0.12±0.05        | -1.92±0.20               | 5.3   | $f_{76}$                               | 1.8556±0.0021                | 0.30±0.08        | 2.12±0.13                | 13.5  |
| $f_{183}$                              | 1.1157±0.0033                | 0.12±0.05        | -0.97±0.20               | 5.3   | $f_{81}$                               | 3.4521±0.0022                | 0.27±0.08        | -3.07±0.13               | 12.6  |
| $f_{184}$                              | 0.8684±0.0033                | 0.13±0.06        | 1.70±0.20                | 5.2   | $f_{84}$                               | 0.6082±0.0022                | 0.24±0.07        | -0.34±0.13               | 12.1  |
| $f_{185}$                              | 2.8349±0.0034                | 0.12±0.05        | -0.66±0.21               | 5.1   | $f_{85}$                               | 1.8947±0.0022                | 0.24±0.07        | 0.96±0.14                | 11.6  |
| $f_{186}$                              | 1.5815±0.0033                | 0.13±0.06        | -1.09±0.20               | 5.2   | $f_{86}$                               | 3.9596±0.0023                | 0.28±0.08        | 0.38±0.14                | 11.5  |
| $f_{187}$                              | 1.7176±0.0033                | 0.14±0.06        | 1.31±0.20                | 5.2   | $f_{87}$                               | 1.1672±0.0022                | 0.26±0.08        | 1.20±0.14                | 11.7  |
| $f_{188}$                              | 1.7065±0.0032                | 0.13±0.05        | -2.23±0.19               | 5.8   | $f_{88}$                               | 2.4896±0.0023                | 0.26±0.08        | 3.13±0.14                | 11.3  |
|                                        |                              |                  |                          |       | $f_{89}$                               | 0.7333±0.0022                | 0.22±0.06        | 1.35±0.14                | 11.7  |
|                                        |                              |                  |                          |       | $f_{90}$                               | 1.4635±0.0022                | 0.23±0.07        | -2.93±0.14               | 11.6  |
|                                        |                              |                  |                          |       | $f_{91}$                               | 0.8992±0.0023                | 0.27±0.08        | 0.58±0.14                | 11.3  |
|                                        |                              |                  |                          |       | $f_{92}$                               | 0.4065±0.0023                | 0.28±0.08        | 0.77±0.14                | 11.2  |
|                                        |                              |                  |                          |       | $f_{93}$                               | 0.3681±0.0024                | 0.30±0.09        | -2.40±0.15               | 10.2  |
|                                        |                              |                  |                          |       | $f_{94}$                               | 0.4662±0.0024                | 0.28±0.09        | -2.84±0.15               | 10.1  |
|                                        |                              |                  |                          |       | $f_{95}$                               | 0.3428±0.0024                | 0.22±0.07        | -1.23±0.14               | 10.5  |
|                                        |                              |                  |                          |       | $f_{96}$                               | 1.0750±0.0024                | 0.25±0.08        | -1.37±0.15               | 10.0  |
|                                        |                              |                  |                          |       | $f_{97}$                               | 1.3104±0.0024                | 0.25±0.08        | 1.65±0.14                | 10.5  |
|                                        |                              |                  |                          |       | $f_{98}$                               | 1.1826±0.0024                | 0.23±0.07        | -1.60±0.15               | 9.8   |
|                                        |                              |                  |                          |       | $f_{100}$                              | 3.7004±0.0025                | 0.24±0.08        | -2.52±0.15               | 9.6   |
|                                        |                              |                  |                          |       | $f_{101}$                              | 1.7217±0.0025                | 0.23±0.07        | -0.29±0.15               | 9.6   |
|                                        |                              |                  |                          |       | $f_{102}$                              | 0.8070±0.0025                | 0.22±0.07        | -1.55±0.15               | 9.4   |
|                                        |                              |                  |                          |       | $f_{103}$                              | 3.7986±0.0025                | 0.23±0.08        | -0.08±0.15               | 9.3   |
|                                        |                              |                  |                          |       | $f_{104}$                              | 2.1783±0.0025                | 0.23±0.08        | 2.24±0.16                | 9.0   |
|                                        |                              |                  |                          |       | $f_{105}$                              | 4.1791±0.0026                | 0.23±0.08        | 2.01±0.16                | 8.8   |
|                                        |                              |                  |                          |       | $f_{106}$                              | 0.6571±0.0026                | 0.24±0.08        | -1.27±0.16               | 8.8   |
|                                        |                              |                  |                          |       | $f_{107}$                              | 1.3483±0.0026                | 0.22±0.07        | 2.90±0.16                | 8.9   |
|                                        |                              |                  |                          |       | $f_{108}$                              | 1.9292±0.0026                | 0.22±0.07        | -1.58±0.16               | 8.7   |
|                                        |                              |                  |                          |       | $f_{109}$                              | 1.7553±0.0026                | 0.23±0.08        | -1.03±0.16               | 8.6   |
|                                        |                              |                  |                          |       | $f_{110}$                              | 0.5367±0.0026                | 0.24±0.08        | 2.10±0.16                | 8.6   |
|                                        |                              |                  |                          |       | $f_{111}$                              | 1.1131±0.0026                | 0.22±0.07        | 2.12±0.16                | 8.7   |
|                                        |                              |                  |                          |       | $f_{112}$                              | 0.5178±0.0026                | 0.21±0.07        | -2.03±0.16               | 8.6   |
|                                        |                              |                  |                          |       | $f_{113}$                              | 0.3268±0.0026                | 0.23±0.08        | -0.11±0.16               | 8.5   |
|                                        |                              |                  |                          |       | $f_{115}$                              | 0.1275±0.0026                | 0.22±0.08        | 0.67±0.16                | 8.5   |
|                                        |                              |                  |                          |       | $f_{116}$                              | 1.9892±0.0026                | 0.22±0.07        | 1.37±0.16                | 8.8   |
|                                        |                              |                  |                          |       | $f_{117}$                              | 0.8498±0.0026                | 0.24±0.08        | 2.04±0.16                | 8.4   |
|                                        |                              |                  |                          |       | $f_{118}$                              | 2.0361±0.0027                | 0.20±0.07        | -2.45±0.16               | 8.1   |
|                                        |                              |                  |                          |       | $f_{119}$                              | 1.2551±0.0026                | 0.22±0.08        | -2.08±0.16               | 8.3   |
|                                        |                              |                  |                          |       | $f_{120}$                              | 0.7833±0.0026                | 0.22±0.08        | -1.41±0.16               | 8.3   |
|                                        |                              |                  |                          |       | $f_{121}$                              | 0.7056±0.0027                | 0.22±0.08        | -1.18±0.16               | 8.0   |
|                                        |                              |                  |                          |       | $f_{122}$                              | 0.9667±0.0027                | 0.20±0.07        | -2.77±0.16               | 8.2   |
|                                        |                              |                  |                          |       | $f_{123}$                              | 0.1891±0.0027                | 0.20±0.07        | 2.82±0.17                | 7.9   |
|                                        |                              |                  |                          |       | $f_{124}$                              | 3.6054±0.0027                | 0.20±0.07        | 1.52±0.17                | 7.9   |
|                                        |                              |                  |                          |       | $f_{125}$                              | 0.4758±0.0028                | 0.21±0.08        | -0.66±0.17               | 7.7   |
|                                        |                              |                  |                          |       | $f_{126}$                              | 0.4833±0.0028                | 0.20±0.07        | -0.18±0.17               | 7.7   |
|                                        |                              |                  |                          |       | $f_{127}$                              | 1.4833±0.0028                | 0.21±0.08        | 1.57±0.17                | 7.5   |
|                                        |                              |                  |                          |       | $f_{128}$                              | 1.5319±0.0027                | 0.22±0.08        | -1.16±0.17               | 7.9   |
|                                        |                              |                  |                          |       | $f_{129}$                              | 1.2084±0.0028                | 0.21±0.08        | -1.42±0.17               | 7.6   |
|                                        |                              |                  |                          |       | $f_{131}$                              | 2.1025±0.0028                | 0.21±0.08        | 2.58±0.17                | 7.5   |
|                                        |                              |                  |                          |       | $f_{132}$                              | 2.4107±0.0028                | 0.20±0.07        | 1.48±0.17                | 7.4   |
|                                        |                              |                  |                          |       | $f_{133}$                              | 0.3869±0.0028                | 0.21±0.08        | 2.75±0.17                | 7.7   |
|                                        |                              |                  |                          |       | Frequency list of 0102654663 continued |                              |                  |                          |       |
| Frequency list of 0102654663 continued |                              |                  |                          |       |                                        |                              |                  |                          |       |

## Appendix B. Frequencies of individual $\gamma$ Dor Stars

| Frequency list of 0102654663 continued |                               |                  |                     |       |
|----------------------------------------|-------------------------------|------------------|---------------------|-------|
| Frequency ID                           | Frequency [ $\text{d}^{-1}$ ] | Amplitude [mmag] | Phase $[-\pi, \pi]$ | Sign. |
| $f_{134}$                              | 3.1593±0.0028                 | 0.19±0.07        | 0.93±0.17           | 7.6   |
| $f_{135}$                              | 1.0827±0.0028                 | 0.20±0.07        | -1.85±0.17          | 7.4   |
| $f_{137}$                              | 1.0359±0.0028                 | 0.19±0.07        | -0.31±0.17          | 7.2   |
| $f_{140}$                              | 0.8298±0.0029                 | 0.19±0.07        | -1.51±0.17          | 7.1   |
| $f_{141}$                              | 1.6965±0.0028                 | 0.20±0.07        | 1.52±0.17           | 7.5   |
| $f_{142}$                              | 1.5055±0.0028                 | 0.19±0.07        | -1.77±0.17          | 7.2   |
| $f_{143}$                              | 0.5441±0.0029                 | 0.19±0.07        | -2.42±0.18          | 6.9   |
| $f_{144}$                              | 0.9173±0.0030                 | 0.18±0.07        | 1.91±0.18           | 6.5   |
| $f_{145}$                              | 2.3303±0.0030                 | 0.18±0.07        | -1.51±0.18          | 6.4   |
| $f_{147}$                              | 2.0160±0.0029                 | 0.20±0.08        | 1.01±0.18           | 6.7   |
| $f_{148}$                              | 3.7675±0.0030                 | 0.19±0.08        | -2.50±0.18          | 6.4   |
| $f_{149}$                              | 2.9114±0.0030                 | 0.17±0.07        | 0.53±0.19           | 6.3   |
| $f_{150}$                              | 0.7588±0.0030                 | 0.17±0.07        | 1.18±0.19           | 6.3   |
| $f_{151}$                              | 0.6208±0.0030                 | 0.18±0.07        | 1.62±0.18           | 6.4   |
| $f_{153}$                              | 2.7944±0.0031                 | 0.18±0.07        | 2.02±0.19           | 6.1   |
| $f_{154}$                              | 2.7061±0.0030                 | 0.18±0.07        | -2.03±0.18          | 6.5   |
| $f_{155}$                              | 1.6264±0.0031                 | 0.18±0.07        | -1.04±0.19          | 6.1   |
| $f_{156}$                              | 2.1305±0.0030                 | 0.18±0.07        | 0.42±0.19           | 6.3   |
| $f_{157}$                              | 0.8602±0.0031                 | 0.18±0.07        | -1.97±0.19          | 6.0   |
| $f_{158}$                              | 3.3993±0.0031                 | 0.18±0.07        | 0.18±0.19           | 6.0   |
| $f_{159}$                              | 3.1310±0.0031                 | 0.18±0.07        | 0.60±0.19           | 6.0   |
| $f_{161}$                              | 1.8078±0.0031                 | 0.18±0.07        | -0.62±0.19          | 6.1   |
| $f_{162}$                              | 3.1003±0.0032                 | 0.17±0.07        | 0.19±0.19           | 5.8   |
| $f_{163}$                              | 0.6012±0.0031                 | 0.17±0.07        | 2.18±0.19           | 5.9   |
| $f_{164}$                              | 1.4425±0.0032                 | 0.17±0.07        | -0.04±0.20          | 5.7   |
| $f_{165}$                              | 1.3650±0.0032                 | 0.16±0.07        | 1.32±0.20           | 5.6   |
| $f_{166}$                              | 3.8511±0.0031                 | 0.17±0.07        | 0.05±0.19           | 5.9   |
| $f_{170}$                              | 1.1211±0.0032                 | 0.17±0.07        | 0.76±0.19           | 5.8   |
| $f_{171}$                              | 2.8182±0.0033                 | 0.16±0.07        | -1.53±0.20          | 5.4   |
| $f_{172}$                              | 1.0096±0.0033                 | 0.17±0.07        | 2.00±0.20           | 5.3   |
| $f_{173}$                              | 2.2230±0.0033                 | 0.16±0.07        | -1.98±0.20          | 5.3   |
| $f_{174}$                              | 0.5289±0.0033                 | 0.17±0.07        | -1.71±0.20          | 5.2   |
| $f_{175}$                              | 0.4224±0.0034                 | 0.16±0.07        | 1.79±0.21           | 5.1   |
| $f_{176}$                              | 2.9441±0.0034                 | 0.16±0.07        | -2.37±0.21          | 5.1   |
| $f_{177}$                              | 0.4101±0.0034                 | 0.16±0.07        | 0.30±0.21           | 5.1   |
| $f_{178}$                              | 3.3678±0.0034                 | 0.16±0.07        | -2.27±0.21          | 5.1   |
| $f_{179}$                              | 3.9200±0.0033                 | 0.16±0.07        | -1.98±0.20          | 5.3   |

**Table B.32:** Frequency list of 0102657207

| Frequency ID | Frequency [ $\text{d}^{-1}$ ] | Amplitude [mmag] | Phase $[-\pi, \pi]$ | Sign. |
|--------------|-------------------------------|------------------|---------------------|-------|
| $f_1$        | 1.7874±0.0007                 | 0.54±0.05        | -1.66±0.04          | 127.5 |
| $f_2$        | 1.7159±0.0008                 | 0.40±0.04        | -0.28±0.05          | 87.5  |
| $f_4$        | 1.8034±0.0009                 | 0.36±0.04        | -1.28±0.05          | 71.9  |
| $f_5$        | 1.5945±0.0010                 | 0.35±0.04        | -1.11±0.06          | 61.2  |
| $f_6$        | 0.3346±0.0011                 | 0.24±0.03        | 0.51±0.07           | 47.9  |
| $f_7$        | 1.9034±0.0011                 | 0.30±0.04        | 0.08±0.07           | 49.2  |
| $f_8$        | 0.1260±0.0012                 | 0.24±0.04        | 1.43±0.07           | 41.6  |
| $f_9$        | 1.9764±0.0012                 | 0.24±0.04        | -1.02±0.07          | 39.1  |
| $f_{13}$     | 0.1477±0.0015                 | 0.21±0.04        | -1.65±0.09          | 25.7  |
| $f_{14}$     | 0.1707±0.0015                 | 0.20±0.04        | -0.74±0.09          | 24.7  |
| $f_{15}$     | 0.2416±0.0015                 | 0.17±0.03        | 2.92±0.09           | 24.5  |
| $f_{16}$     | 0.2946±0.0017                 | 0.19±0.04        | -0.95±0.10          | 20.2  |
| $f_{17}$     | 0.2074±0.0016                 | 0.17±0.04        | 2.51±0.10           | 22.8  |
| $f_{18}$     | 0.1165±0.0018                 | 0.15±0.04        | 0.76±0.11           | 17.4  |
| $f_{20}$     | 1.6290±0.0019                 | 0.18±0.05        | -2.72±0.12          | 15.8  |
| $f_{21}$     | 1.6107±0.0018                 | 0.17±0.04        | 2.84±0.11           | 17.6  |
| $f_{22}$     | 0.3211±0.0020                 | 0.17±0.04        | 1.06±0.12           | 15.2  |
| $f_{24}$     | 3.5740±0.0019                 | 0.15±0.04        | 0.40±0.12           | 16.0  |
| $f_{25}$     | 3.6757±0.0020                 | 0.15±0.04        | 0.20±0.12           | 14.8  |
| $f_{26}$     | 0.1931±0.0020                 | 0.14±0.04        | 0.35±0.12           | 14.1  |
| $f_{27}$     | 1.5856±0.0020                 | 0.16±0.04        | -0.86±0.12          | 14.3  |
| $f_{28}$     | 0.4841±0.0020                 | 0.15±0.04        | 1.86±0.12           | 13.9  |
| $f_{29}$     | 1.6573±0.0021                 | 0.14±0.04        | -0.21±0.13          | 13.4  |
| $f_{30}$     | 0.3954±0.0021                 | 0.15±0.04        | 2.14±0.13           | 13.4  |
| $f_{31}$     | 1.0912±0.0021                 | 0.14±0.04        | 0.58±0.13           | 13.7  |
| $f_{32}$     | 3.3845±0.0021                 | 0.13±0.04        | 0.76±0.13           | 13.2  |
| $f_{35}$     | 0.3038±0.0023                 | 0.13±0.04        | 1.14±0.14           | 11.4  |
| $f_{36}$     | 0.1552±0.0023                 | 0.13±0.04        | 0.16±0.14           | 11.3  |
| $f_{38}$     | 0.2191±0.0026                 | 0.11±0.04        | 0.31±0.16           | 8.4   |
| $f_{39}$     | 3.5048±0.0026                 | 0.11±0.04        | -1.57±0.16          | 8.3   |
| $f_{40}$     | 1.7577±0.0026                 | 0.11±0.04        | -2.78±0.16          | 8.5   |
| $f_{41}$     | 0.4569±0.0027                 | 0.12±0.04        | 0.75±0.17           | 7.9   |
| $f_{42}$     | 0.4467±0.0027                 | 0.11±0.04        | 0.48±0.16           | 8.0   |
| $f_{43}$     | 3.6055±0.0028                 | 0.10±0.04        | -1.98±0.17          | 7.7   |
| $f_{46}$     | 3.6386±0.0028                 | 0.10±0.04        | 0.91±0.17           | 7.7   |

Frequency list of 0102657207 continued

| Frequency list of 0102657207 continued |                               |                  |                     |       |
|----------------------------------------|-------------------------------|------------------|---------------------|-------|
| Frequency ID                           | Frequency [ $\text{d}^{-1}$ ] | Amplitude [mmag] | Phase $[-\pi, \pi]$ | Sign. |
| $f_{47}$                               | 3.4560±0.0027                 | 0.11±0.04        | 1.09±0.17           | 7.8   |
| $f_{49}$                               | 0.4285±0.0028                 | 0.10±0.04        | 1.89±0.17           | 7.4   |
| $f_{50}$                               | 0.2496±0.0028                 | 0.10±0.04        | -3.05±0.17          | 7.2   |
| $f_{51}$                               | 1.8396±0.0029                 | 0.10±0.04        | 0.97±0.18           | 6.8   |
| $f_{52}$                               | 0.8716±0.0030                 | 0.09±0.04        | -1.53±0.19          | 6.3   |
| $f_{53}$                               | 55.8646±0.0030                | 0.10±0.04        | 1.75±0.18           | 6.5   |
| $f_{56}$                               | 0.6496±0.0032                 | 0.09±0.04        | -2.41±0.20          | 5.7   |
| $f_{57}$                               | 13.9975±0.0032                | 0.09±0.04        | -1.36±0.20          | 5.7   |
| $f_{58}$                               | 0.1375±0.0032                 | 0.09±0.04        | 1.69±0.20           | 5.6   |
| $f_{60}$                               | 0.5890±0.0033                 | 0.08±0.03        | 2.38±0.20           | 5.4   |
| $f_{61}$                               | 3.2982±0.0033                 | 0.08±0.03        | -0.53±0.20          | 5.3   |
| $f_{62}$                               | 0.9511±0.0032                 | 0.08±0.03        | 0.22±0.20           | 5.6   |
| $f_{63}$                               | 4.0556±0.0033                 | 0.08±0.03        | -1.76±0.20          | 5.3   |
| $f_{64}$                               | 1.5599±0.0034                 | 0.08±0.04        | 1.01±0.21           | 5.1   |
| $f_{65}$                               | 2.0030±0.0034                 | 0.08±0.04        | -1.52±0.21          | 5.1   |
| $f_{66}$                               | 3.4815±0.0034                 | 0.08±0.04        | -2.36±0.21          | 5.1   |
| $f_{67}$                               | 1.0085±0.0033                 | 0.09±0.04        | -0.78±0.20          | 5.4   |

**Table B.33:** Frequency list of 0102668415

| Frequency ID | Frequency [ $\text{d}^{-1}$ ] | Amplitude [mmag] | Phase $[-\pi, \pi]$ | Sign. |
|--------------|-------------------------------|------------------|---------------------|-------|
| $f_1$        | 1.2171±0.0003                 | 1.55±0.06        | -2.58±0.02          | 731.2 |
| $f_2$        | 1.1740±0.0004                 | 1.10±0.05        | 1.64±0.02           | 419.7 |
| $f_3$        | 1.2767±0.0006                 | 0.70±0.05        | 1.11±0.03           | 190.9 |
| $f_4$        | 0.7095±0.0006                 | 0.64±0.05        | -1.88±0.03          | 180.6 |
| $f_5$        | 1.1979±0.0006                 | 0.74±0.05        | 2.84±0.03           | 192.3 |
| $f_6$        | 1.2373±0.0006                 | 0.62±0.04        | 3.14±0.03           | 192.4 |
| $f_7$        | 1.1879±0.0006                 | 0.69±0.05        | -3.11±0.04          | 175.0 |
| $f_8$        | 0.6926±0.0006                 | 0.68±0.05        | -2.98±0.04          | 171.7 |
| $f_9$        | 0.1056±0.0006                 | 0.66±0.05        | -2.87±0.04          | 175.9 |
| $f_{10}$     | 1.1583±0.0006                 | 0.65±0.05        | -1.85±0.04          | 152.6 |
| $f_{11}$     | 0.6804±0.0006                 | 0.48±0.04        | -1.14±0.04          | 143.6 |
| $f_{12}$     | 0.7436±0.0007                 | 0.53±0.05        | -2.88±0.04          | 135.7 |
| $f_{13}$     | 0.6691±0.0007                 | 0.53±0.05        | 1.64±0.04           | 109.0 |
| $f_{14}$     | 1.2534±0.0007                 | 0.44±0.04        | -0.73±0.04          | 108.8 |
| $f_{15}$     | 0.7203±0.0008                 | 0.45±0.04        | -1.91±0.05          | 102.3 |
| $f_{16}$     | 1.1258±0.0007                 | 0.43±0.04        | 0.67±0.05           | 104.9 |
| $f_{17}$     | 1.2955±0.0008                 | 0.44±0.04        | -0.50±0.05          | 101.8 |
| $f_{18}$     | 0.1404±0.0008                 | 0.52±0.05        | -0.93±0.05          | 98.1  |
| $f_{19}$     | 0.7293±0.0008                 | 0.40±0.04        | -2.00±0.05          | 88.3  |
| $f_{20}$     | 0.1925±0.0008                 | 0.36±0.04        | 1.26±0.05           | 84.5  |
| $f_{21}$     | 0.1493±0.0009                 | 0.28±0.03        | -0.60±0.05          | 79.8  |
| $f_{22}$     | 0.6584±0.0009                 | 0.36±0.04        | -1.56±0.05          | 78.5  |
| $f_{23}$     | 0.2647±0.0008                 | 0.35±0.04        | 1.45±0.05           | 81.2  |
| $f_{24}$     | 1.1483±0.0008                 | 0.34±0.04        | -2.62±0.05          | 80.8  |
| $f_{25}$     | 1.3056±0.0009                 | 0.37±0.04        | -2.11±0.05          | 74.1  |
| $f_{26}$     | 0.1311±0.0009                 | 0.34±0.04        | -0.25±0.06          | 65.4  |
| $f_{27}$     | 0.2271±0.0010                 | 0.25±0.03        | 0.64±0.06           | 54.4  |
| $f_{28}$     | 0.6376±0.0010                 | 0.28±0.04        | 2.10±0.06           | 55.3  |
| $f_{29}$     | 1.2673±0.0011                 | 0.26±0.04        | -2.06±0.07          | 50.7  |
| $f_{30}$     | 0.2343±0.0011                 | 0.22±0.03        | 1.72±0.07           | 50.4  |
| $f_{32}$     | 1.1673±0.0011                 | 0.27±0.04        | -1.31±0.07          | 46.0  |
| $f_{33}$     | 1.3408±0.0011                 | 0.22±0.03        | -0.13±0.07          | 45.0  |
| $f_{34}$     | 1.1404±0.0012                 | 0.22±0.03        | 1.73±0.07           | 43.3  |
| $f_{35}$     | 0.4955±0.0012                 | 0.24±0.04        | -0.34±0.07          | 41.4  |
| $f_{36}$     | 1.3179±0.0012                 | 0.24±0.04        | -1.52±0.07          | 41.9  |
| $f_{37}$     | 0.2545±0.0012                 | 0.23±0.04        | -2.69±0.07          | 39.0  |
| $f_{39}$     | 0.7501±0.0013                 | 0.19±0.03        | -1.69±0.08          | 33.5  |
| $f_{40}$     | 0.1228±0.0013                 | 0.20±0.03        | 0.87±0.08           | 32.7  |
| $f_{41}$     | 0.1582±0.0013                 | 0.21±0.04        | 0.07±0.08           | 33.0  |
| $f_{42}$     | 1.1178±0.0014                 | 0.16±0.03        | 0.52±0.08           | 31.8  |
| $f_{43}$     | 0.3579±0.0014                 | 0.18±0.03        | -0.79±0.08          | 31.3  |
| $f_{44}$     | 0.2918±0.0014                 | 0.17±0.03        | -1.48±0.09          | 29.5  |
| $f_{45}$     | 0.1725±0.0015                 | 0.17±0.03        | -0.36±0.09          | 25.8  |
| $f_{47}$     | 1.2239±0.0015                 | 0.17±0.03        | 0.41±0.09           | 24.4  |
| $f_{48}$     | 0.7906±0.0015                 | 0.16±0.03        | 2.75±0.09           | 25.0  |
| $f_{50}$     | 0.4888±0.0015                 | 0.17±0.03        | -0.21±0.09          | 24.3  |
| $f_{51}$     | 0.7127±0.0016                 | 0.14±0.03        | -1.90±0.09          | 24.2  |
| $f_{52}$     | 1.2463±0.0016                 | 0.16±0.03        | 2.34±0.10           | 21.9  |
| $f_{53}$     | 1.0959±0.0016                 | 0.19±0.04        | 1.82±0.10           | 22.2  |
| $f_{54}$     | 0.7367±0.0017                 | 0.15±0.03        | 0.51±0.10           | 20.4  |
| $f_{55}$     | 0.5200±0.0017                 | 0.13±0.03        | 2.40±0.11           | 19.3  |
| $f_{56}$     | 0.3877±0.0017                 | 0.14±0.03        | 1.77±0.11           | 19.1  |

Frequency list of 0102668415 continued

## Appendix B. Frequencies of individual $\gamma$ Dor Stars

| Frequency list of 0102668415 continued |                              |                  |                          |       | Frequency list of 0102668415 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{57}$                               | 1.0696±0.0018                | 0.18±0.04        | 2.19±0.11                | 18.9  | $f_{143}$                              | 2.5726±0.0033                | 0.06±0.03        | -1.87±0.20               | 5.2   |
| $f_{58}$                               | 0.7813±0.0018                | 0.14±0.03        | 0.79±0.11                | 18.8  |                                        |                              |                  |                          |       |
| $f_{59}$                               | 1.1336±0.0018                | 0.15±0.03        | -2.63±0.11               | 18.4  |                                        |                              |                  |                          |       |
| $f_{60}$                               | 1.2124±0.0018                | 0.17±0.04        | 1.93±0.11                | 18.6  |                                        |                              |                  |                          |       |
| $f_{61}$                               | 1.1992±0.0016                | 0.16±0.03        | 2.90±0.10                | 22.1  |                                        |                              |                  |                          |       |
| $f_{62}$                               | 1.0337±0.0018                | 0.14±0.03        | 3.09±0.11                | 18.0  |                                        |                              |                  |                          |       |
| $f_{63}$                               | 1.0588±0.0018                | 0.13±0.03        | -0.58±0.11               | 18.1  |                                        |                              |                  |                          |       |
| $f_{64}$                               | 0.2101±0.0018                | 0.16±0.04        | -0.82±0.11               | 17.8  |                                        |                              |                  |                          |       |
| $f_{65}$                               | 0.1996±0.0017                | 0.15±0.03        | 2.31±0.10                | 20.1  |                                        |                              |                  |                          |       |
| $f_{66}$                               | 0.5044±0.0018                | 0.15±0.04        | 0.87±0.11                | 17.8  |                                        |                              |                  |                          |       |
| $f_{67}$                               | 0.4282±0.0018                | 0.12±0.03        | 0.75±0.11                | 17.2  |                                        |                              |                  |                          |       |
| $f_{68}$                               | 0.3646±0.0018                | 0.13±0.03        | 0.06±0.11                | 17.3  |                                        |                              |                  |                          |       |
| $f_{69}$                               | 0.4789±0.0018                | 0.12±0.03        | 0.04±0.11                | 17.7  |                                        |                              |                  |                          |       |
| $f_{70}$                               | 0.8031±0.0019                | 0.14±0.03        | -2.60±0.12               | 16.3  |                                        |                              |                  |                          |       |
| $f_{71}$                               | 1.0827±0.0019                | 0.12±0.03        | -1.24±0.12               | 15.9  |                                        |                              |                  |                          |       |
| $f_{72}$                               | 0.2430±0.0019                | 0.12±0.03        | 1.04±0.12                | 15.7  |                                        |                              |                  |                          |       |
| $f_{73}$                               | 0.3308±0.0020                | 0.12±0.03        | -2.56±0.12               | 15.3  |                                        |                              |                  |                          |       |
| $f_{74}$                               | 0.5683±0.0020                | 0.11±0.03        | 1.39±0.12                | 14.7  |                                        |                              |                  |                          |       |
| $f_{78}$                               | 1.2608±0.0021                | 0.10±0.03        | 2.95±0.13                | 13.4  |                                        |                              |                  |                          |       |
| $f_{79}$                               | 2.3907±0.0021                | 0.10±0.03        | 0.09±0.13                | 12.8  |                                        |                              |                  |                          |       |
| $f_{80}$                               | 0.8357±0.0022                | 0.10±0.03        | 0.92±0.13                | 12.0  |                                        |                              |                  |                          |       |
| $f_{81}$                               | 0.3211±0.0022                | 0.10±0.03        | 0.53±0.13                | 12.0  |                                        |                              |                  |                          |       |
| $f_{82}$                               | 2.5461±0.0023                | 0.09±0.03        | -1.81±0.14               | 11.5  |                                        |                              |                  |                          |       |
| $f_{84}$                               | 0.6483±0.0023                | 0.10±0.03        | 2.88±0.14                | 11.2  |                                        |                              |                  |                          |       |
| $f_{85}$                               | 0.9745±0.0023                | 0.10±0.03        | -1.06±0.14               | 11.0  |                                        |                              |                  |                          |       |
| $f_{86}$                               | 1.4422±0.0023                | 0.12±0.04        | 1.07±0.14                | 11.0  |                                        |                              |                  |                          |       |
| $f_{87}$                               | 0.7032±0.0024                | 0.10±0.03        | -2.41±0.15               | 10.1  |                                        |                              |                  |                          |       |
| $f_{88}$                               | 2.5857±0.0024                | 0.09±0.03        | -1.17±0.15               | 10.1  |                                        |                              |                  |                          |       |
| $f_{89}$                               | 0.4146±0.0025                | 0.10±0.03        | 1.36±0.15                | 9.5   |                                        |                              |                  |                          |       |
| $f_{90}$                               | 2.4299±0.0025                | 0.09±0.03        | 2.97±0.15                | 9.4   |                                        |                              |                  |                          |       |
| $f_{91}$                               | 0.7680±0.0025                | 0.09±0.03        | 2.98±0.15                | 9.5   |                                        |                              |                  |                          |       |
| $f_{92}$                               | 2.3610±0.0025                | 0.10±0.03        | -2.52±0.15               | 9.4   |                                        |                              |                  |                          |       |
| $f_{93}$                               | 0.6794±0.0025                | 0.10±0.03        | 1.27±0.15                | 9.6   |                                        |                              |                  |                          |       |
| $f_{94}$                               | 1.0163±0.0025                | 0.09±0.03        | 0.69±0.15                | 9.3   |                                        |                              |                  |                          |       |
| $f_{95}$                               | 0.4510±0.0025                | 0.09±0.03        | -1.27±0.16               | 9.0   |                                        |                              |                  |                          |       |
| $f_{96}$                               | 1.2331±0.0026                | 0.09±0.03        | 1.00±0.16                | 8.8   |                                        |                              |                  |                          |       |
| $f_{98}$                               | 2.4585±0.0026                | 0.09±0.03        | -2.37±0.16               | 8.7   |                                        |                              |                  |                          |       |
| $f_{99}$                               | 0.3513±0.0026                | 0.09±0.03        | 2.78±0.16                | 8.5   |                                        |                              |                  |                          |       |
| $f_{100}$                              | 0.3802±0.0026                | 0.09±0.03        | 0.22±0.16                | 8.3   |                                        |                              |                  |                          |       |
| $f_{101}$                              | 0.5863±0.0026                | 0.09±0.03        | -1.26±0.16               | 8.4   |                                        |                              |                  |                          |       |
| $f_{102}$                              | 0.9405±0.0027                | 0.08±0.03        | 2.14±0.16                | 8.1   |                                        |                              |                  |                          |       |
| $f_{103}$                              | 1.3279±0.0026                | 0.09±0.03        | -1.28±0.16               | 8.3   |                                        |                              |                  |                          |       |
| $f_{104}$                              | 1.4971±0.0027                | 0.08±0.03        | -0.14±0.16               | 8.0   |                                        |                              |                  |                          |       |
| $f_{105}$                              | 1.0481±0.0027                | 0.08±0.03        | 1.29±0.16                | 8.0   |                                        |                              |                  |                          |       |
| $f_{106}$                              | 2.4750±0.0027                | 0.08±0.03        | 2.29±0.17                | 7.9   |                                        |                              |                  |                          |       |
| $f_{107}$                              | 2.6518±0.0028                | 0.09±0.03        | 2.22±0.17                | 7.5   |                                        |                              |                  |                          |       |
| $f_{108}$                              | 0.5280±0.0028                | 0.09±0.03        | 0.37±0.17                | 7.5   |                                        |                              |                  |                          |       |
| $f_{109}$                              | 1.9645±0.0027                | 0.08±0.03        | 0.43±0.17                | 7.8   |                                        |                              |                  |                          |       |
| $f_{110}$                              | 0.6884±0.0028                | 0.09±0.03        | 0.79±0.17                | 7.5   |                                        |                              |                  |                          |       |
| $f_{111}$                              | 1.3781±0.0028                | 0.08±0.03        | -0.54±0.17               | 7.3   |                                        |                              |                  |                          |       |
| $f_{112}$                              | 0.2796±0.0028                | 0.07±0.03        | -3.09±0.17               | 7.3   |                                        |                              |                  |                          |       |
| $f_{113}$                              | 1.7103±0.0028                | 0.08±0.03        | 2.85±0.17                | 7.5   |                                        |                              |                  |                          |       |
| $f_{114}$                              | 1.1049±0.0029                | 0.08±0.03        | -2.96±0.18               | 7.0   |                                        |                              |                  |                          |       |
| $f_{115}$                              | 1.0756±0.0028                | 0.08±0.03        | -0.08±0.17               | 7.2   |                                        |                              |                  |                          |       |
| $f_{116}$                              | 1.3929±0.0028                | 0.08±0.03        | -0.92±0.17               | 7.3   |                                        |                              |                  |                          |       |
| $f_{117}$                              | 0.7596±0.0029                | 0.07±0.03        | -1.46±0.18               | 6.9   |                                        |                              |                  |                          |       |
| $f_{118}$                              | 2.6297±0.0029                | 0.08±0.03        | 2.95±0.18                | 6.9   |                                        |                              |                  |                          |       |
| $f_{119}$                              | 2.6077±0.0029                | 0.08±0.03        | -0.58±0.17               | 7.1   |                                        |                              |                  |                          |       |
| $f_{120}$                              | 0.1825±0.0029                | 0.08±0.03        | -0.36±0.18               | 6.8   |                                        |                              |                  |                          |       |
| $f_{121}$                              | 2.5197±0.0030                | 0.07±0.03        | 0.74±0.18                | 6.4   |                                        |                              |                  |                          |       |
| $f_{122}$                              | 0.3356±0.0030                | 0.08±0.03        | 2.12±0.18                | 6.5   |                                        |                              |                  |                          |       |
| $f_{125}$                              | 0.2189±0.0030                | 0.07±0.03        | -2.86±0.19               | 6.3   |                                        |                              |                  |                          |       |
| $f_{126}$                              | 1.2940±0.0031                | 0.07±0.03        | -1.18±0.19               | 6.1   |                                        |                              |                  |                          |       |
| $f_{127}$                              | 0.6055±0.0031                | 0.07±0.03        | -2.09±0.19               | 6.2   |                                        |                              |                  |                          |       |
| $f_{128}$                              | 2.8365±0.0031                | 0.07±0.03        | 1.33±0.19                | 5.9   |                                        |                              |                  |                          |       |
| $f_{129}$                              | 0.8580±0.0032                | 0.07±0.03        | -1.86±0.20               | 5.6   |                                        |                              |                  |                          |       |
| $f_{130}$                              | 1.3123±0.0031                | 0.07±0.03        | 2.54±0.19                | 5.9   |                                        |                              |                  |                          |       |
| $f_{131}$                              | 1.0099±0.0032                | 0.07±0.03        | -0.12±0.19               | 5.8   |                                        |                              |                  |                          |       |
| $f_{134}$                              | 1.3574±0.0032                | 0.07±0.03        | 0.90±0.19                | 5.8   |                                        |                              |                  |                          |       |
| $f_{136}$                              | 2.3750±0.0032                | 0.07±0.03        | -2.95±0.19               | 5.8   |                                        |                              |                  |                          |       |
| $f_{137}$                              | 2.3102±0.0031                | 0.07±0.03        | 0.75±0.19                | 6.0   |                                        |                              |                  |                          |       |
| $f_{138}$                              | 0.8174±0.0032                | 0.07±0.03        | -0.78±0.19               | 5.8   |                                        |                              |                  |                          |       |
| $f_{139}$                              | 1.1788±0.0032                | 0.07±0.03        | 1.73±0.20                | 5.6   |                                        |                              |                  |                          |       |
| $f_{140}$                              | 0.8103±0.0033                | 0.07±0.03        | -0.77±0.20               | 5.3   |                                        |                              |                  |                          |       |
| $f_{141}$                              | 55.8624±0.0034               | 0.07±0.03        | -0.25±0.21               | 5.1   |                                        |                              |                  |                          |       |
| $f_{142}$                              | 0.9969±0.0033                | 0.07±0.03        | -2.92±0.20               | 5.3   |                                        |                              |                  |                          |       |

| Frequency list of 0102671368 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_1$                                  | 1.1581±0.0005                | 0.45±0.03        | 2.62±0.03                | 225.9 |
| $f_2$                                  | 0.1044±0.0008                | 0.35±0.03        | 0.28±0.05                | 103.5 |
| $f_3$                                  | 1.1677±0.0008                | 0.25±0.03        | -1.31±0.05               | 80.9  |
| $f_4$                                  | 0.1670±0.0009                | 0.26±0.03        | 2.68±0.06                | 69.7  |
| $f_5$                                  | 0.1463±0.0010                | 0.23±0.03        | 1.94±0.06                | 62.1  |
| $f_6$                                  | 0.1872±0.0010                | 0.21±0.03        | -2.35±0.06               | 64.0  |
| $f_7$                                  | 1.8122±0.0010                | 0.21±0.03        | 1.34±0.06                | 58.2  |
| $f_8$                                  | 1.7529±0.0011                | 0.18±0.03        | -0.23±0.06               | 51.6  |
| $f_9$                                  | 1.1215±0.0011                | 0.17±0.02        | 1.49±0.07                | 47.8  |
| $f_{10}$                               | 0.1224±0.0011                | 0.18±0.03        | 2.90±0.07                | 45.6  |
| $f_{11}$                               | 1.6688±0.0012                | 0.17±0.03        | -0.21±0.08               | 38.2  |
| $f_{12}$                               | 0.2376±0.0013                | 0.16±0.03        | -0.29±0.08               | 36.7  |
| $f_{13}$                               | 1.6132±0.0013                | 0.17±0.03        | 2.83±0.08                | 36.7  |
| $f_{14}$                               | 1.6328±0.0012                | 0.17±0.03        | 0.88±0.07                | 42.5  |
| $f_{15}$                               | 1.7269±0.0015                | 0.12±0.02        | -0.99±0.09               | 24.9  |
| $f_{17}$                               | 1.5820±0.0017                | 0.10±0.02        | -1.23±0.10               | 19.9  |
| $f_{18}$                               | 1.2657±0.0018                | 0.08±0.02        | 1.01±0.11                | 18.7  |
| $f_{20}$                               | 1.6424±0.0018                | 0.09±0.02        | 2.70±0.11                | 17.3  |
| $f_{21}$                               | 1.1516±0.0019                | 0.10±0.02        | -2.77±0.11               | 16.5  |
| $f_{22}$                               | 0.1591±0.0019                | 0.11±0.03        | -2.72±0.12               | 16.3  |
| $f_{23}$                               | 0.2074±0.0019                | 0.11±0.03        | -0.83±0.11               | 16.8  |
| $f_{24}$                               | 0.9073±0.0019                | 0.09±0.02        | 2.15±0.11                | 16.5  |
| $f_{25}$                               | 0.3331±0.0020                | 0.07±0.02        | 2.54±0.12                | 15.0  |
| $f_{26}$                               | 0.4474±0.0020                | 0.09±0.02        | 0.70±0.12                | 14.8  |
| $f_{27}$                               | 0.3069±0.0020                | 0.08±0.02        | 0.43±0.12                | 15.2  |
| $f_{28}$                               | 0.8236±0.0020                | 0.08±0.02        | 1.24±0.12                | 14.4  |
| $f_{30}$                               | 0.7050±0.0020                | 0.09±0.02        | 3.12±0.12                | 13.9  |
| $f_{31}$                               | 0.1144±0.0021                | 0.09±0.02        | 0.73±0.13                | 13.5  |
| $f_{32}$                               | 1.0188±0.0021                | 0.08±0.02        | -0.85±0.13               | 12.7  |
| $f_{33}$                               | 0.6558±0.0022                | 0.09±0.03        | 0.18±0.13                | 12.0  |
| $f_{34}$                               | 1.0773±0.0022                | 0.08±0.02        | -1.51±0.13               | 12.6  |
| $f_{35}$                               | 1.1149±0.0022                | 0.08±0.02        | -1.52±0.13               | 12.4  |
| $f_{36}$                               | 1.2954±0.0022                | 0.07±0.02        | 2.48±0.13                | 12.1  |
| $f_{38}$                               | 0.2686±0.0022                | 0.09±0.03        | 1.46±0.14                | 11.8  |
| $f_{39}$                               | 0.2217±0.0023                | 0.08±0.02        | 0.40±0.14                | 11.4  |
| $f_{40}$                               | 1.4428±0.0022                | 0.08±0.02        | -1.16±0.14               | 11.6  |
| $f_{41}$                               | 0.8514±0.0022                | 0.10±0.03        | -0.87±0.14               | 11.6  |
| $f_{42}$                               | 1.5395±0.0023                | 0.08±0.02        | 2.68±0.14                | 11.1  |
| $f_{43}$                               | 1.3705±0.0024                | 0.07±0.02        | -1.51±0.14               | 10.5  |
| $f_{44}$                               | 1.5750±0.0024                | 0.08±0.02        | -1.29±0.14               | 10.5  |
| $f_{45}$                               | 0.9899±0.0024                | 0.06±0.02        | -2.88±0.15               | 10.3  |
| $f_{47}$                               | 0.7729±0.0024                | 0.08±0.03        | 2.87±0.15                | 10.2  |
| $f_{48}$                               | 0.1957±0.0024                | 0.08±0.03        | -1.86±0.15               | 9.9   |
| $f_{49}$                               | 1.4939±0.0024                | 0.07±0.02        | -0.42±0.15               | 10.0  |
| $f_{50}$                               | 1.7066±0.0024                | 0.07±0.02        | -2.71±0.15               | 10.0  |
| $f_{51}$                               | 0.1308±0.0024                | 0.08±0.03        | 0.44±0.15                | 10.1  |
| $f_{52}$                               | 0.3857±0.0024                | 0.07±0.02        | 0.25±0.15                | 9.8   |
| $f_{53}$                               | 0.4217±0.0025                | 0.09±0.03        | 1.26±0.15                | 9.5   |
| $f_{54}$                               | 0.4341±0.0024                | 0.07±0.02        | -2.42±0.15               | 10.1  |
| $f_{56}$                               | 1.5157±0.0025                | 0.07±0.02        | -2.46±0.15               | 9.4   |
| $f_{57}$                               | 1.2520±0.0025                | 0.07±0.02        | -3.01±0.15               | 9.4   |
| $f_{58}$                               | 0.2749±0.0025                | 0.06±0.02        | -0.77±0.15               | 9.3   |
| $f_{59}$                               | 0.5302±0.0026                | 0.07±0.02        | 2.06±0.16                | 8.8   |
| $f_{60}$                               | 0.4889±0.0025                | 0.06±0.02        | -0.76±0.15               | 9.4   |
| $f_{62}$                               | 1.6628±0.0026                | 0.06±0.02        | -0.23±0.16               | 8.4   |
| $f_{63}$                               | 2.9233±0.0027                | 0.07±0.02        | -1.46±0.16               | 8.2   |
| $f_{64}$                               | 0.4113±0.0027                | 0.06±0.02        | -2.94±0.17               | 7.9   |
| $f_{65}$                               | 0.3474±0.0027                | 0.06±0.02        | -2.94±0.17               | 7.9   |
| $f_{66}$                               | 0.3713±0.0028                | 0.07±0.03        | -2.33±0.17               | 7.7   |
| $f_{67}$                               | 1.1454±0.0028                | 0.07±0.03        | 1.64±0.17                | 7.6   |
| $f_{68}$                               | 1.0080±0.0028                | 0.06±0.02        | -2.55±0.17               | 7.5   |
| $f_{69}$                               | 0.5856±0.0027                | 0.05±0.02        | 0.36±0.17                | 7.8   |
| $f_{70}$                               | 1.2832±0.0028                | 0.07±0.03        | 0.67±0.17                | 7.4   |
| $f_{71}$                               | 1.0314±0.0028                | 0.07±0.03        | 0.58±0.17                | 7.4   |
| $f_{72}$                               | 0.8957±0.0028                | 0.06±0.02        | -2.65±0.17               | 7.2   |
| $f_{73}$                               | 0.6119±0.0029                | 0.05±0.02        | -2.41±0.18               | 6.8   |

## Appendix B. Frequencies of individual $\gamma$ Dor Stars

| Frequency list of 0102671368 continued |                              |                  |                          |       | Frequency list of 0102674135 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| <i>f</i> <sub>74</sub>                 | 0.7189±0.0029                | 0.06±0.02        | -2.19±0.18               | 6.9   | <i>f</i> <sub>64</sub>                 | 0.3588±0.0034                | 0.06±0.03        | 1.36±0.21                | 5.1   |
| <i>f</i> <sub>75</sub>                 | 2.3893±0.0029                | 0.06±0.02        | 0.60±0.18                | 7.0   | <i>f</i> <sub>65</sub>                 | 0.2897±0.0033                | 0.06±0.03        | 0.53±0.20                | 5.3   |
| <i>f</i> <sub>76</sub>                 | 0.5120±0.0030                | 0.06±0.02        | -1.25±0.18               | 6.5   | <i>f</i> <sub>66</sub>                 | 2.2189±0.0034                | 0.06±0.03        | -1.35±0.21               | 5.1   |
| <i>f</i> <sub>77</sub>                 | 0.5019±0.0029                | 0.07±0.03        | 3.09±0.18                | 7.0   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>78</sub>                 | 1.4014±0.0030                | 0.06±0.02        | -1.69±0.18               | 6.5   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>79</sub>                 | 0.5433±0.0030                | 0.06±0.02        | 0.30±0.19                | 6.3   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>80</sub>                 | 1.8264±0.0030                | 0.05±0.02        | -1.91±0.18               | 6.4   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>81</sub>                 | 0.2575±0.0031                | 0.06±0.02        | -0.57±0.19               | 6.2   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>83</sub>                 | 4.0226±0.0031                | 0.06±0.02        | -2.27±0.19               | 6.1   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>84</sub>                 | 2.5258±0.0031                | 0.05±0.02        | 1.38±0.19                | 6.0   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>85</sub>                 | 0.7484±0.0031                | 0.05±0.02        | -0.91±0.19               | 6.0   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>86</sub>                 | 0.4411±0.0031                | 0.06±0.02        | 1.00±0.19                | 5.9   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>87</sub>                 | 0.6258±0.0031                | 0.06±0.02        | -2.97±0.19               | 6.0   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>88</sub>                 | 1.3045±0.0032                | 0.05±0.02        | 2.31±0.19                | 5.8   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>90</sub>                 | 0.8583±0.0033                | 0.06±0.03        | 1.62±0.20                | 5.5   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>91</sub>                 | 0.8445±0.0031                | 0.06±0.02        | 0.93±0.19                | 6.1   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>92</sub>                 | 0.2926±0.0033                | 0.05±0.02        | -2.05±0.20               | 5.4   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>93</sub>                 | 4.3671±0.0033                | 0.05±0.02        | 0.89±0.20                | 5.4   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>94</sub>                 | 1.7887±0.0033                | 0.05±0.02        | -2.16±0.20               | 5.5   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>95</sub>                 | 3.9697±0.0033                | 0.05±0.02        | 1.49±0.20                | 5.4   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>96</sub>                 | 0.1797±0.0033                | 0.05±0.02        | -2.80±0.20               | 5.2   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>97</sub>                 | 1.2132±0.0033                | 0.05±0.02        | 0.59±0.20                | 5.3   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>98</sub>                 | 1.2767±0.0033                | 0.05±0.02        | -1.96±0.20               | 5.3   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>99</sub>                 | 0.6045±0.0033                | 0.05±0.02        | 0.38±0.20                | 5.3   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>100</sub>                | 1.0255±0.0033                | 0.05±0.02        | -2.76±0.20               | 5.4   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>101</sub>                | 2.4993±0.0033                | 0.05±0.02        | -3.09±0.20               | 5.2   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>102</sub>                | 56.9512±0.0033               | 0.05±0.02        | -2.60±0.20               | 5.2   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>103</sub>                | 1.2207±0.0033                | 0.05±0.02        | 2.55±0.20                | 5.2   |                                        |                              |                  |                          |       |

| Frequency list of 0102674135 |                              |                  |                          |       |
|------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                 | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| <i>f</i> <sub>1</sub>        | 1.7282±0.0006                | 0.45±0.03        | -0.42±0.03               | 177.8 |
| <i>f</i> <sub>3</sub>        | 1.7164±0.0011                | 0.21±0.03        | -2.81±0.07               | 46.3  |
| <i>f</i> <sub>6</sub>        | 1.6767±0.0012                | 0.18±0.03        | 2.70±0.07                | 43.9  |
| <i>f</i> <sub>8</sub>        | 0.1157±0.0012                | 0.21±0.03        | 0.44±0.08                | 37.6  |
| <i>f</i> <sub>10</sub>       | 1.6076±0.0013                | 0.17±0.03        | -2.48±0.08               | 36.5  |
| <i>f</i> <sub>11</sub>       | 0.1432±0.0014                | 0.15±0.03        | -1.60±0.09               | 29.7  |
| <i>f</i> <sub>12</sub>       | 0.1266±0.0015                | 0.14±0.03        | 0.49±0.09                | 25.7  |
| <i>f</i> <sub>14</sub>       | 0.1519±0.0017                | 0.12±0.03        | 2.42±0.11                | 19.2  |
| <i>f</i> <sub>16</sub>       | 0.1837±0.0020                | 0.08±0.02        | 0.12±0.12                | 15.1  |
| <i>f</i> <sub>18</sub>       | 0.3234±0.0020                | 0.09±0.02        | -2.48±0.12               | 13.9  |
| <i>f</i> <sub>20</sub>       | 1.7363±0.0021                | 0.09±0.02        | -1.38±0.13               | 13.3  |
| <i>f</i> <sub>21</sub>       | 0.3050±0.0021                | 0.09±0.02        | 2.94±0.13                | 13.5  |
| <i>f</i> <sub>22</sub>       | 2.3231±0.0021                | 0.10±0.03        | -0.64±0.13               | 12.7  |
| <i>f</i> <sub>23</sub>       | 0.1085±0.0022                | 0.10±0.03        | -1.43±0.13               | 12.5  |
| <i>f</i> <sub>24</sub>       | 0.2644±0.0022                | 0.11±0.03        | 2.00±0.13                | 12.2  |
| <i>f</i> <sub>25</sub>       | 0.2239±0.0021                | 0.10±0.03        | 0.19±0.13                | 12.9  |
| <i>f</i> <sub>26</sub>       | 0.2358±0.0019                | 0.10±0.03        | -0.82±0.12               | 16.0  |
| <i>f</i> <sub>27</sub>       | 1.6825±0.0022                | 0.08±0.02        | 0.05±0.13                | 12.2  |
| <i>f</i> <sub>28</sub>       | 0.5863±0.0022                | 0.09±0.03        | -2.59±0.13               | 12.5  |
| <i>f</i> <sub>29</sub>       | 0.4185±0.0022                | 0.08±0.02        | 2.27±0.14                | 11.6  |
| <i>f</i> <sub>31</sub>       | 0.2426±0.0025                | 0.08±0.03        | 2.48±0.15                | 9.6   |
| <i>f</i> <sub>34</sub>       | 1.5476±0.0026                | 0.07±0.02        | 1.38±0.16                | 8.6   |
| <i>f</i> <sub>35</sub>       | 1.7042±0.0026                | 0.10±0.03        | -0.84±0.16               | 8.8   |
| <i>f</i> <sub>36</sub>       | 1.6933±0.0023                | 0.09±0.03        | 0.25±0.14                | 11.4  |
| <i>f</i> <sub>38</sub>       | 0.6001±0.0027                | 0.07±0.02        | -0.13±0.17               | 7.9   |
| <i>f</i> <sub>39</sub>       | 0.3712±0.0027                | 0.06±0.02        | -0.85±0.17               | 7.8   |
| <i>f</i> <sub>40</sub>       | 2.3611±0.0029                | 0.07±0.03        | -1.21±0.17               | 7.1   |
| <i>f</i> <sub>41</sub>       | 2.3738±0.0028                | 0.07±0.03        | -1.71±0.17               | 7.3   |
| <i>f</i> <sub>42</sub>       | 0.7373±0.0028                | 0.07±0.03        | 3.13±0.17                | 7.3   |
| <i>f</i> <sub>43</sub>       | 0.7880±0.0028                | 0.07±0.03        | -2.84±0.17               | 7.3   |
| <i>f</i> <sub>44</sub>       | 0.4962±0.0028                | 0.07±0.03        | 2.92±0.17                | 7.5   |
| <i>f</i> <sub>48</sub>       | 2.0750±0.0029                | 0.07±0.03        | 1.91±0.18                | 6.7   |
| <i>f</i> <sub>49</sub>       | 0.3134±0.0030                | 0.07±0.03        | -1.68±0.18               | 6.5   |
| <i>f</i> <sub>50</sub>       | 0.2185±0.0029                | 0.07±0.03        | -2.93±0.18               | 7.0   |
| <i>f</i> <sub>51</sub>       | 0.4454±0.0029                | 0.07±0.03        | 0.07±0.18                | 6.7   |
| <i>f</i> <sub>52</sub>       | 55.8634±0.0030               | 0.07±0.03        | -0.90±0.18               | 6.5   |
| <i>f</i> <sub>53</sub>       | 1.0658±0.0030                | 0.06±0.02        | -0.56±0.18               | 6.5   |
| <i>f</i> <sub>54</sub>       | 1.1204±0.0030                | 0.06±0.02        | 2.98±0.18                | 6.4   |
| <i>f</i> <sub>55</sub>       | 2.2025±0.0031                | 0.06±0.02        | -2.53±0.19               | 6.0   |
| <i>f</i> <sub>58</sub>       | 2.7229±0.0031                | 0.06±0.02        | 1.87±0.19                | 6.0   |
| <i>f</i> <sub>59</sub>       | 42.9687±0.0032               | 0.06±0.03        | 0.50±0.20                | 5.7   |
| <i>f</i> <sub>61</sub>       | 0.1642±0.0032                | 0.06±0.03        | -0.39±0.20               | 5.6   |
| <i>f</i> <sub>63</sub>       | 2.0062±0.0033                | 0.06±0.03        | 0.21±0.20                | 5.3   |

| Frequency list of 0102674135 continued |                              |                  |                          |       | Frequency list of 0102674325 |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                 | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| <i>f</i> <sub>1</sub>                  | 0.1339±0.0012                | 0.16±0.03        | 0.97±0.07                | 40.1  | <i>f</i> <sub>64</sub>       | 0.3588±0.0034                | 0.06±0.03        | 1.36±0.21                | 5.1   |
| <i>f</i> <sub>2</sub>                  | 1.6595±0.0012                | 0.14±0.02        | -1.35±0.08               | 38.0  | <i>f</i> <sub>65</sub>       | 0.2897±0.0033                | 0.06±0.03        | 0.53±0.20                | 5.3   |
| <i>f</i> <sub>3</sub>                  | 1.6322±0.0014                | 0.13±0.02        | -1.23±0.09               | 28.6  | <i>f</i> <sub>66</sub>       | 2.2189±0.0034                | 0.06±0.03        | -1.35±0.21               | 5.1   |
| <i>f</i> <sub>4</sub>                  | 0.1036±0.0014                | 0.12±0.02        | -2.72±0.08               | 31.1  |                              |                              |                  |                          |       |
| <i>f</i> <sub>5</sub>                  | 0.2990±0.0016                | 0.12±0.03        | 2.08±0.10                | 22.0  |                              |                              |                  |                          |       |
| <i>f</i> <sub>6</sub>                  | 0.1257±0.0017                | 0.10±0.02        | 1.26±0.10                | 19.9  |                              |                              |                  |                          |       |
| <i>f</i> <sub>7</sub>                  | 0.2572±0.0018                | 0.10±0.02        | 1.55±0.11                | 18.2  |                              |                              |                  |                          |       |
| <i>f</i> <sub>8</sub>                  | 1.7046±0.0018                | 0.10±0.02        | -0.50±0.11               | 18.4  |                              |                              |                  |                          |       |
| <i>f</i> <sub>10</sub>                 | 0.1799±0.0018                | 0.10±0.02        | 1.15±0.11                | 17.7  |                              |                              |                  |                          |       |
| <i>f</i> <sub>11</sub>                 | 1.6736±0.0019                | 0.10±0.02        | 1.19±0.12                | 16.3  |                              |                              |                  |                          |       |
| <i>f</i> <sub>12</sub>                 | 0.2148±0.0020                | 0.08±0.02        | 1.88±0.12                | 15.0  |                              |                              |                  |                          |       |
| <i>f</i> <sub>14</sub>                 | 1.8890±0.0020                | 0.08±0.02        | -2.27±0.12               | 14.2  |                              |                              |                  |                          |       |
| <i>f</i> <sub>15</sub>                 | 1.5444±0.0022                | 0.08±0.02        | 2.30±0.13                | 12.2  |                              |                              |                  |                          |       |
| <i>f</i> <sub>16</sub>                 | 0.1129±0.0023                | 0.08±0.02        | 2.42±0.14                | 11.4  |                              |                              |                  |                          |       |
| <i>f</i> <sub>17</sub>                 | 0.1976±0.0024                | 0.08±0.03        | 1.14±0.15                | 10.2  |                              |                              |                  |                          |       |
| <i>f</i> <sub>19</sub>                 | 0.1627±0.0025                | 0.07±0.02        | -0.63±0.15               | 9.7   |                              |                              |                  |                          |       |
| <i>f</i> <sub>20</sub>                 | 0.3372±0.0026                | 0.08±0.03        | -0.41±0.16               | 8.9   |                              |                              |                  |                          |       |
| <i>f</i> <sub>21</sub>                 | 0.2339±0.0026                | 0.07±0.02        | 0.64±0.16                | 8.7   |                              |                              |                  |                          |       |
| <i>f</i> <sub>22</sub>                 | 0.5532±0.0026                | 0.07±0.02        | -1.42±0.16               | 8.3   |                              |                              |                  |                          |       |
| <i>f</i> <sub>23</sub>                 | 1.0511±0.0026                | 0.07±0.02        | 2.90±0.16                | 8.5   |                              |                              |                  |                          |       |
| <i>f</i> <sub>24</sub>                 | 0.3069±0.0029                | 0.06±0.02        | 0.40±0.17                | 7.1   |                              |                              |                  |                          |       |
| <i>f</i> <sub>25</sub>                 | 2.0047±0.0030                | 0.06±0.02        | -1.15±0.18               | 6.6   |                              |                              |                  |                          |       |
| <i>f</i> <sub>26</sub>                 | 0.3853±0.0029                | 0.06±0.02        | -0.73±0.18               | 6.7   |                              |                              |                  |                          |       |
| <i>f</i> <sub>27</sub>                 | 0.3236±0.0030                | 0.06±0.02        | 0.21±0.18                | 6.4   |                              |                              |                  |                          |       |
| <i>f</i> <sub>28</sub>                 | 0.6210±0.0031                | 0.06±0.02        | 3.06±0.19                | 6.0   |                              |                              |                  |                          |       |
| <i>f</i> <sub>29</sub>                 | 0.3607±0.0031                | 0.06±0.02        | -2.37±0.19               | 6.1   |                              |                              |                  |                          |       |
| <i>f</i> <sub>30</sub>                 | 0.7945±0.0031                | 0.05±0.02        | 2.26±0.19                | 5.9   |                              |                              |                  |                          |       |
| <i>f</i> <sub>31</sub>                 | 0.8104±0.0033                | 0.05±0.02        | 3.14±0.20                | 5.4   |                              |                              |                  |                          |       |

| Frequency list of 0102678624 |                              |                  |                          |       |
|------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                 | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| <i>f</i> <sub>1</sub>        | 1.0914±0.0005                | 0.56±0.04        | 2.69±0.03                | 222.6 |
| <i>f</i> <sub>2</sub>        | 1.1066±0.0005                | 0.57±0.04        | -1.75±0.03               | 196.9 |
| <i>f</i> <sub>3</sub>        | 1.0773±0.0006                | 0.50±0.04        | -2.28±0.04               | 160.1 |
| <i>f</i> <sub>4</sub>        | 1.1147±0.0007                | 0.42±0.04        | -2.35±0.04               | 114.4 |
| <i>f</i> <sub>5</sub>        | 2.2029±0.0007                | 0.40±0.04        | 1.51±0.05                | 104.6 |
| <i>f</i> <sub>6</sub>        | 1.0499±0.0008                | 0.32±0.03        | -2.20±0.05               | 91.2  |
| <i>f</i> <sub>7</sub>        | 1.1273±0.0009                | 0.28±0.03        | -3.13±0.05               | 75.8  |
| <i>f</i> <sub>10</sub>       | 1.1536±0.0010                | 0.25±0.03        | -2.71±0.06               | 60.0  |
| <i>f</i> <sub>11</sub>       | 2.1917±0.0011                | 0.24±0.03        | -2.30±0.07               | 50.2  |
| <i>f</i> <sub>13</sub>       | 1.0660±0.0012                | 0.22±0.04        | 1.58±0.07                | 39.3  |
| <i>f</i> <sub>14</sub>       | 1.0357±0.0013                | 0.18±0.03        | -2.04±0.08               | 34.7  |
| <i>f</i> <sub>16</sub>       | 3.3361±0.0013                | 0.15±0.03        | 2.52±0.08                | 32.1  |
| <i>f</i> <sub>17</sub>       | 0.1781±0.0014                | 0.19±0.03        | -2.28±0.08               | 31.7  |
| <i>f</i> <sub>18</sub>       | 1.2026±0.0014                | 0.11±0.02        | -2.49±0.09               | 29.8  |
| <i>f</i> <sub>19</sub>       | 2.2664±0.0014                | 0.16±0.03        | 1.55±0.09                | 29.0  |
| <i>f</i> <sub>20</sub>       | 0.2007±0.0015                | 0.15±0.03        | 1.98±0.09                | 27.6  |
| <i>f</i> <sub>21</sub>       | 0.1186±0.0015                | 0.14±0.03        | -2.35±0.09               | 26.9  |
| <i>f</i> <sub>22</sub>       | 3.3100±0.0015                | 0.15±0.03        | -0.56±0.09               | 26.2  |
| <i>f</i> <sub>23</sub>       | 0.9729±0.0016                | 0.15±0.03        | -0.92±0.09               | 24.1  |
| <i>f</i> <sub>24</sub>       | 1.1699±0.0016                | 0.15±0.03        | -2.71±0.10               | 22.4  |
| <i>f</i> <sub>26</sub>       | 1.1918±0.0017                | 0.14±0.03        | -1.60±0.10               | 21.0  |
| <i>f</i> <sub>28</sub>       | 0.1309±0.0017                | 0.13±0.03        | 1.98±0.10                | 20.1  |
| <i>f</i> <sub>31</sub>       | 1.0412±0.0018                | 0.10±0.02        | -0.16±0.11               | 17.2  |
| <i>f</i> <sub>34</sub>       | 1.2677±0.0019                | 0.11±0.03        | 1.79±0.12                | 15.7  |
| <i>f</i> <sub>35</sub>       | 0.1453±0.0020                | 0.12±0.03        | 0.42±0.12                | 15.0  |
| <i>f</i> <sub>36</sub>       | 3.3451±0.0020                | 0.11±0.03        | 0.65±0.12                | 15.3  |
| <i>f</i> <sub>38</sub>       | 0.2108±0.0020                | 0.12±0.03        | 2.96±0.12                | 14.4  |
| <i>f</i> <sub>39</sub>       | 1.0572±0.0020                | 0.13±0.03        | -1.70±0.12               | 14.2  |
| <i>f</i> <sub>42</sub>       | 0.2583±0.0021                | 0.12±0.03        | -2.21±0.13               | 13.4  |
| <i>f</i> <sub>43</sub>       | 1.2298±0.0021                | 0.09±0.02        | -2.36±0.13               | 13.2  |
| <i>f</i> <sub>44</sub>       | 2.2457±0.0021                | 0.10±0.03        | 1.70±0.13                | 13.2  |
| <i>f</i> <sub>45</sub>       | 2.2080±0.0021                | 0.10±0.03        | -2.55±0.13               | 13.4  |
| <i>f</i> <sub>46</sub>       | 2.1729±0.0021                | 0.10±0.03        | -1.79±0.13               | 13.1  |
| <i>f</i> <sub>47</sub>       | 0.4414±0.0022                | 0.12±0.03        | -0.87±0.13               | 12.4  |



## Appendix B. Frequencies of individual $\gamma$ Dor Stars

| Frequency list of 0102678624 continued |                              |                  |                          |        | Frequency list of 0102680138 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|--------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign.  | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| <i>f</i> <sub>48</sub>                 | 0.2471±0.0022                | 0.11±0.03        | -0.10±0.13               | 12.1   | <i>f</i> <sub>26</sub>                 | 2.5052±0.0010                | 0.25±0.03        | 2.75±0.06                | 53.7  |
| <i>f</i> <sub>49</sub>                 | 0.4798±0.0022                | 0.09±0.03        | -1.99±0.13               | 12.3   | <i>f</i> <sub>27</sub>                 | 2.6138±0.0011                | 0.22±0.03        | -2.16±0.07               | 45.9  |
| <i>f</i> <sub>51</sub>                 | 2.0959±0.0023                | 0.12±0.04        | 2.59±0.14                | 11.3   | <i>f</i> <sub>28</sub>                 | 4.4800±0.0011                | 0.23±0.03        | 0.84±0.07                | 44.4  |
| <i>f</i> <sub>52</sub>                 | 2.1158±0.0021                | 0.09±0.03        | 1.42±0.13                | 12.7   | <i>f</i> <sub>29</sub>                 | 3.1850±0.0012                | 0.23±0.04        | -3.00±0.07               | 42.9  |
| <i>f</i> <sub>54</sub>                 | 1.0212±0.0023                | 0.11±0.03        | -1.48±0.14               | 11.3   | <i>f</i> <sub>30</sub>                 | 0.3880±0.0012                | 0.17±0.03        | 2.30±0.07                | 41.5  |
| <i>f</i> <sub>55</sub>                 | 0.6675±0.0023                | 0.09±0.03        | -1.76±0.14               | 11.4   | <i>f</i> <sub>31</sub>                 | 0.2524±0.0012                | 0.20±0.03        | 0.60±0.07                | 40.7  |
| <i>f</i> <sub>58</sub>                 | 0.9787±0.0023                | 0.08±0.02        | 2.51±0.14                | 10.6   | <i>f</i> <sub>32</sub>                 | 0.3100±0.0012                | 0.21±0.03        | -0.05±0.07               | 39.8  |
| <i>f</i> <sub>59</sub>                 | 1.1333±0.0023                | 0.11±0.03        | 1.61±0.14                | 11.5   | <i>f</i> <sub>33</sub>                 | 2.1719±0.0012                | 0.21±0.03        | 1.70±0.08                | 37.8  |
| <i>f</i> <sub>60</sub>                 | 0.7998±0.0023                | 0.10±0.03        | -1.05±0.14               | 10.8   | <i>f</i> <sub>34</sub>                 | 4.6165±0.0012                | 0.21±0.03        | -2.41±0.08               | 37.6  |
| <i>f</i> <sub>61</sub>                 | 0.2187±0.0023                | 0.10±0.03        | -0.20±0.14               | 11.1   | <i>f</i> <sub>35</sub>                 | 2.0188±0.0012                | 0.20±0.03        | -0.60±0.08               | 37.8  |
| <i>f</i> <sub>62</sub>                 | 0.3025±0.0023                | 0.09±0.03        | -3.10±0.14               | 10.6   | <i>f</i> <sub>36</sub>                 | 1.1948±0.0013                | 0.20±0.03        | -2.18±0.08               | 35.3  |
| <i>f</i> <sub>63</sub>                 | 0.3361±0.0024                | 0.08±0.02        | 2.64±0.14                | 10.4   | <i>f</i> <sub>37</sub>                 | 1.8914±0.0013                | 0.20±0.03        | 2.13±0.08                | 36.8  |
| <i>f</i> <sub>65</sub>                 | 1.1762±0.0024                | 0.09±0.03        | -2.70±0.15               | 9.9    | <i>f</i> <sub>38</sub>                 | 0.4327±0.0013                | 0.20±0.03        | -2.37±0.08               | 35.6  |
| <i>f</i> <sub>66</sub>                 | 0.1880±0.0024                | 0.09±0.03        | 2.61±0.15                | 9.8    | <i>f</i> <sub>39</sub>                 | 1.7313±0.0013                | 0.17±0.03        | -3.14±0.08               | 35.8  |
| <i>f</i> <sub>67</sub>                 | 2.0751±0.0024                | 0.09±0.03        | -2.72±0.15               | 9.8    | <i>f</i> <sub>40</sub>                 | 0.1126±0.0013                | 0.19±0.03        | 1.40±0.08                | 35.2  |
| <i>f</i> <sub>68</sub>                 | 2.0610±0.0025                | 0.08±0.03        | 1.49±0.15                | 9.6    | <i>f</i> <sub>41</sub>                 | 2.2172±0.0013                | 0.17±0.03        | 1.99±0.08                | 33.8  |
| <i>f</i> <sub>69</sub>                 | 2.3105±0.0024                | 0.08±0.03        | -2.02±0.15               | 9.8    | <i>f</i> <sub>42</sub>                 | 1.3147±0.0013                | 0.16±0.03        | 2.38±0.08                | 33.8  |
| <i>f</i> <sub>70</sub>                 | 0.1622±0.0026                | 0.09±0.03        | 2.55±0.16                | 8.7    | <i>f</i> <sub>43</sub>                 | 2.6996±0.0014                | 0.18±0.03        | -2.61±0.09               | 29.1  |
| <i>f</i> <sub>71</sub>                 | 2.1526±0.0026                | 0.09±0.03        | 0.54±0.16                | 8.6    | <i>f</i> <sub>44</sub>                 | 4.5338±0.0014                | 0.18±0.03        | 2.32±0.09                | 29.7  |
| <i>f</i> <sub>73</sub>                 | 1.2135±0.0026                | 0.08±0.03        | -0.85±0.16               | 8.6    | <i>f</i> <sub>45</sub>                 | 3.3513±0.0014                | 0.16±0.03        | 2.40±0.09                | 29.0  |
| <i>f</i> <sub>74</sub>                 | 3.3293±0.0026                | 0.08±0.03        | 1.68±0.16                | 8.7    | <i>f</i> <sub>46</sub>                 | 1.4530±0.0014                | 0.16±0.03        | 0.91±0.09                | 28.8  |
| <i>f</i> <sub>76</sub>                 | 1.1845±0.0026                | 0.08±0.03        | -2.71±0.16               | 8.3    | <i>f</i> <sub>47</sub>                 | 5.0698±0.0015                | 0.17±0.03        | 3.09±0.09                | 27.7  |
| <i>f</i> <sub>80</sub>                 | 2.1253±0.0028                | 0.09±0.03        | 2.96±0.17                | 7.3    | <i>f</i> <sub>48</sub>                 | 0.6383±0.0015                | 0.13±0.02        | 1.87±0.09                | 27.5  |
| <i>f</i> <sub>81</sub>                 | 2.2240±0.0028                | 0.09±0.03        | 0.54±0.17                | 7.5    | <i>f</i> <sub>49</sub>                 | 0.1266±0.0015                | 0.17±0.03        | -1.86±0.09               | 27.5  |
| <i>f</i> <sub>82</sub>                 | 3.2754±0.0028                | 0.08±0.03        | 0.81±0.17                | 7.2    | <i>f</i> <sub>50</sub>                 | 0.3998±0.0015                | 0.18±0.03        | 2.55±0.09                | 27.6  |
| <i>f</i> <sub>83</sub>                 | 3.3022±0.0028                | 0.08±0.03        | 2.33±0.17                | 7.5    | <i>f</i> <sub>52</sub>                 | 1.8643±0.0015                | 0.15±0.03        | -0.27±0.09               | 26.1  |
| <i>f</i> <sub>84</sub>                 | 0.4635±0.0028                | 0.07±0.03        | 0.87±0.17                | 7.3    | <i>f</i> <sub>53</sub>                 | 2.5791±0.0015                | 0.15±0.03        | 2.62±0.09                | 26.1  |
| <i>f</i> <sub>85</sub>                 | 0.4529±0.0029                | 0.08±0.03        | -3.07±0.18               | 7.0    | <i>f</i> <sub>54</sub>                 | 2.2732±0.0015                | 0.16±0.03        | 2.88±0.09                | 25.4  |
| <i>f</i> <sub>86</sub>                 | 3.3700±0.0030                | 0.07±0.03        | 1.83±0.18                | 6.6    | <i>f</i> <sub>55</sub>                 | 2.6777±0.0015                | 0.15±0.03        | 0.72±0.09                | 25.9  |
| <i>f</i> <sub>87</sub>                 | 0.3770±0.0030                | 0.07±0.03        | 2.55±0.18                | 6.6    | <i>f</i> <sub>56</sub>                 | 2.1254±0.0015                | 0.14±0.03        | -1.91±0.09               | 25.1  |
| <i>f</i> <sub>88</sub>                 | 0.9498±0.0030                | 0.08±0.03        | -0.89±0.18               | 6.5    | <i>f</i> <sub>58</sub>                 | 1.2279±0.0015                | 0.15±0.03        | -2.17±0.09               | 25.1  |
| <i>f</i> <sub>89</sub>                 | 0.8883±0.0030                | 0.07±0.03        | 1.71±0.18                | 6.6    | <i>f</i> <sub>59</sub>                 | 4.3631±0.0015                | 0.16±0.03        | -1.31±0.09               | 25.4  |
| <i>f</i> <sub>90</sub>                 | 27.9184±0.0030               | 0.07±0.03        | 1.38±0.18                | 6.5    | <i>f</i> <sub>60</sub>                 | 4.4218±0.0015                | 0.15±0.03        | 0.06±0.09                | 25.7  |
| <i>f</i> <sub>91</sub>                 | 0.9895±0.0030                | 0.07±0.03        | -2.64±0.18               | 6.6    | <i>f</i> <sub>61</sub>                 | 4.6752±0.0015                | 0.15±0.03        | -1.16±0.09               | 25.6  |
| <i>f</i> <sub>93</sub>                 | 0.5833±0.0031                | 0.06±0.02        | -2.40±0.19               | 6.0    | <i>f</i> <sub>62</sub>                 | 0.2291±0.0015                | 0.16±0.03        | 1.74±0.09                | 25.1  |
| <i>f</i> <sub>94</sub>                 | 2.1818±0.0031                | 0.08±0.03        | -2.19±0.19               | 6.1    | <i>f</i> <sub>63</sub>                 | 0.2639±0.0015                | 0.17±0.03        | 2.96±0.09                | 25.4  |
| <i>f</i> <sub>95</sub>                 | 2.1618±0.0031                | 0.07±0.03        | -0.92±0.19               | 6.0    | <i>f</i> <sub>64</sub>                 | 2.3126±0.0015                | 0.14±0.03        | -2.06±0.09               | 25.4  |
| <i>f</i> <sub>97</sub>                 | 2.3450±0.0031                | 0.07±0.03        | -1.86±0.19               | 5.9    | <i>f</i> <sub>65</sub>                 | 2.1908±0.0016                | 0.14±0.03        | -0.88±0.09               | 24.1  |
| <i>f</i> <sub>98</sub>                 | 0.1091±0.0032                | 0.07±0.03        | -0.19±0.19               | 5.8    | <i>f</i> <sub>66</sub>                 | 0.5193±0.0016                | 0.15±0.03        | 2.47±0.09                | 24.1  |
| <i>f</i> <sub>99</sub>                 | 4.4483±0.0032                | 0.07±0.03        | -2.11±0.19               | 5.8    | <i>f</i> <sub>67</sub>                 | 1.7101±0.0016                | 0.14±0.03        | -1.72±0.10               | 23.6  |
| <i>f</i> <sub>101</sub>                | 0.5085±0.0032                | 0.07±0.03        | 0.90±0.20                | 5.7    | <i>f</i> <sub>68</sub>                 | 1.9118±0.0016                | 0.13±0.03        | 0.30±0.10                | 22.1  |
| <i>f</i> <sub>102</sub>                | 41.8765±0.0031               | 0.07±0.03        | -1.11±0.19               | 5.9    | <i>f</i> <sub>69</sub>                 | 4.2684±0.0016                | 0.13±0.03        | 2.66±0.10                | 22.2  |
| <i>f</i> <sub>103</sub>                | 0.6605±0.0032                | 0.07±0.03        | 0.17±0.20                | 5.7    | <i>f</i> <sub>70</sub>                 | 0.4650±0.0016                | 0.13±0.03        | 1.63±0.10                | 21.6  |
| <i>f</i> <sub>104</sub>                | 3.4023±0.0033                | 0.06±0.03        | -1.74±0.20               | 5.4    | <i>f</i> <sub>71</sub>                 | 4.7311±0.0017                | 0.13±0.03        | -2.71±0.10               | 21.1  |
| <i>f</i> <sub>105</sub>                | 0.1388±0.0033                | 0.07±0.03        | -2.84±0.20               | 5.5    | <i>f</i> <sub>75</sub>                 | 1.9959±0.0016                | 0.12±0.03        | -1.33±0.10               | 21.9  |
| <i>f</i> <sub>106</sub>                | 2.4089±0.0033                | 0.06±0.03        | -1.49±0.20               | 5.2    | <i>f</i> <sub>76</sub>                 | 2.0879±0.0017                | 0.16±0.03        | -1.57±0.10               | 21.0  |
| <i>f</i> <sub>107</sub>                | 1.3373±0.0033                | 0.06±0.03        | -2.00±0.20               | 5.3    | <i>f</i> <sub>77</sub>                 | 0.2733±0.0017                | 0.14±0.03        | -0.54±0.10               | 20.5  |
| <i>f</i> <sub>108</sub>                | 0.5426±0.0033                | 0.06±0.03        | 0.84±0.20                | 5.2    | <i>f</i> <sub>78</sub>                 | 0.2873±0.0017                | 0.14±0.03        | 0.16±0.10                | 21.1  |
| <i>f</i> <sub>111</sub>                | 29.0353±0.0033               | 0.06±0.03        | -0.62±0.20               | 5.2    | <i>f</i> <sub>79</sub>                 | 2.0766±0.0017                | 0.13±0.03        | -0.53±0.10               | 21.4  |
|                                        |                              |                  |                          |        | <i>f</i> <sub>80</sub>                 | 1.6550±0.0017                | 0.13±0.03        | -2.62±0.10               | 20.6  |
|                                        |                              |                  |                          |        | <i>f</i> <sub>81</sub>                 | 5.2776±0.0017                | 0.13±0.03        | -2.09±0.10               | 20.4  |
|                                        |                              |                  |                          |        | <i>f</i> <sub>82</sub>                 | 4.8532±0.0017                | 0.13±0.03        | -0.33±0.10               | 20.0  |
|                                        |                              |                  |                          |        | <i>f</i> <sub>83</sub>                 | 0.1636±0.0017                | 0.11±0.02        | -2.63±0.10               | 19.9  |
|                                        |                              |                  |                          |        | <i>f</i> <sub>84</sub>                 | 5.3316±0.0018                | 0.12±0.03        | 1.24±0.11                | 17.7  |
|                                        |                              |                  |                          |        | <i>f</i> <sub>86</sub>                 | 1.7692±0.0018                | 0.11±0.03        | 0.77±0.11                | 18.0  |
|                                        |                              |                  |                          |        | <i>f</i> <sub>87</sub>                 | 1.9777±0.0018                | 0.11±0.03        | -2.01±0.11               | 17.9  |
|                                        |                              |                  |                          |        | <i>f</i> <sub>88</sub>                 | 1.4792±0.0019                | 0.09±0.02        | 2.98±0.11                | 16.6  |
|                                        |                              |                  |                          |        | <i>f</i> <sub>89</sub>                 | 2.9131±0.0019                | 0.11±0.03        | -0.38±0.12               | 16.4  |
|                                        |                              |                  |                          |        | <i>f</i> <sub>90</sub>                 | 1.8444±0.0019                | 0.12±0.03        | -0.92±0.12               | 16.3  |
|                                        |                              |                  |                          |        | <i>f</i> <sub>91</sub>                 | 2.6916±0.0019                | 0.11±0.03        | 2.57±0.12                | 16.0  |
|                                        |                              |                  |                          |        | <i>f</i> <sub>94</sub>                 | 2.2010±0.0019                | 0.12±0.03        | -0.12±0.12               | 15.7  |
|                                        |                              |                  |                          |        | <i>f</i> <sub>95</sub>                 | 2.4217±0.0020                | 0.12±0.03        | 1.20±0.12                | 15.3  |
|                                        |                              |                  |                          |        | <i>f</i> <sub>96</sub>                 | 1.5559±0.0020                | 0.10±0.03        | -0.15±0.12               | 14.9  |
|                                        |                              |                  |                          |        | <i>f</i> <sub>97</sub>                 | 3.1678±0.0020                | 0.10±0.03        | -1.42±0.12               | 14.7  |
|                                        |                              |                  |                          |        | <i>f</i> <sub>99</sub>                 | 4.0742±0.0020                | 0.11±0.03        | 1.76±0.12                | 14.5  |
|                                        |                              |                  |                          |        | <i>f</i> <sub>100</sub>                | 1.2586±0.0020                | 0.10±0.03        | 0.57±0.12                | 14.6  |
|                                        |                              |                  |                          |        | <i>f</i> <sub>101</sub>                | 4.8153±0.0020                | 0.10±0.03        | -2.17±0.12               | 14.2  |
|                                        |                              |                  |                          |        | <i>f</i> <sub>102</sub>                | 4.5612±0.0020                | 0.10±0.03        | -2.74±0.12               | 14.0  |
|                                        |                              |                  |                          |        | <i>f</i> <sub>103</sub>                | 2.1394±0.0020                | 0.11±0.03        | 0.53±0.12                | 14.1  |
|                                        |                              |                  |                          |        | <i>f</i> <sub>104</sub>                | 1.9218±0.0020                | 0.10±0.03        | -3.10±0.12               | 14.5  |
|                                        |                              |                  |                          |        | <i>f</i> <sub>105</sub>                | 1.8275±0.0020                | 0.10±0.03        | -0.71±0.12               | 14.6  |
|                                        |                              |                  |                          |        | <i>f</i> <sub>106</sub>                | 1.7917±0.0020                | 0.10±0.03        | -2.71±0.12               | 14.1  |
|                                        |                              |                  |                          |        | <i>f</i> <sub>107</sub>                | 0.4075±0.0020                | 0.10±0.03        | -1.12±0.12               | 14.0  |
|                                        |                              |                  |                          |        | <i>f</i> <sub>108</sub>                | 3.4392±0.0020                | 0.10±0.03        | 2.18±0.12                | 13.9  |
|                                        |                              |                  |                          |        | <i>f</i> <sub>109</sub>                | 0.1768±0.0020                | 0.10±0.03        | -2.52±0.12               | 14.1  |
|                                        |                              |                  |                          |        | <i>f</i> <sub>110</sub>                | 0.3760±0.0021                | 0.11±0.03        | -2.30±0.13               | 13.0  |
|                                        |                              |                  |                          |        | Frequency list of 0102680138 continued |                              |                  |                          |       |
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign.  |                                        |                              |                  |                          |       |
| <i>f</i> <sub>1</sub>                  | 2.3074±0.0002                | 4.47±0.12        | -2.75±0.01               | 1421.8 |                                        |                              |                  |                          |       |
| <i>f</i> <sub>2</sub>                  | 2.3659±0.0002                | 4.11±0.10        | 0.92±0.01                | 1820.0 |                                        |                              |                  |                          |       |
| <i>f</i> <sub>3</sub>                  | 2.0561±0.0002                | 2.42±0.07        | -1.73±0.01               | 1127.2 |                                        |                              |                  |                          |       |
| <i>f</i> <sub>4</sub>                  | 2.2551±0.0002                | 2.34±0.06        | 0.54±0.01                | 1367.2 |                                        |                              |                  |                          |       |
| <i>f</i> <sub>5</sub>                  | 2.2087±0.0004                | 1.11±0.05        | 2.32±0.02                | 448.1  |                                        |                              |                  |                          |       |
| <i>f</i> <sub>6</sub>                  | 1.9023±0.0004                | 1.00±0.05        | 1.74±0.02                | 388.2  |                                        |                              |                  |                          |       |
| <i>f</i> <sub>7</sub>                  | 0.4877±0.0004                | 0.88±0.05        | -0.88±0.02               | 372.6  |                                        |                              |                  |                          |       |
| <i>f</i> <sub>8</sub>                  | 2.4961±0.0005                | 0.75±0.05        | 0.30±0.03                | 273.4  |                                        |                              |                  |                          |       |
| <i>f</i> <sub>9</sub>                  | 0.3464±0.0005                | 0.66±0.04        | -1.97±0.03               | 228.7  |                                        |                              |                  |                          |       |
| <i>f</i> <sub>10</sub>                 | 4.6687±0.0006                | 0.51±0.04        | -0.14±0.04               | 147.9  |                                        |                              |                  |                          |       |
| <i>f</i> <sub>11</sub>                 | 1.5637±0.0007                | 0.46±0.04        | -1.35±0.04               | 128.5  |                                        |                              |                  |                          |       |
| <i>f</i> <sub>12</sub>                 | 1.6681±0.0007                | 0.40±0.04        | -0.28±0.04               | 109.2  |                                        |                              |                  |                          |       |
| <i>f</i> <sub>13</sub>                 | 0.5764±0.0007                | 0.39±0.04        | 3.10±0.04                | 110.5  |                                        |                              |                  |                          |       |
| <i>f</i> <sub>14</sub>                 | 1.6048±0.0007                | 0.40±0.04        | 0.30±0.04                | 112.2  |                                        |                              |                  |                          |       |
| <i>f</i> <sub>15</sub>                 | 0.7388±0.0008                | 0.38±0.04        | -1.26±0.05               | 103.5  |                                        |                              |                  |                          |       |
| <i>f</i> <sub>17</sub>                 | 0.1404±0.0009                | 0.33±0.04        | -1.24±0.05               | 78.0   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>18</sub>                 | 2.0277±0.0009                | 0.29±0.03        | 3.12±0.05                | 75.7   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>19</sub>                 | 1.8193±0.0009                | 0.34±0.04        | -1.16±0.05               | 75.9   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>20</sub>                 | 4.5810±0.0009                | 0.32±0.04        | -0.35±0.05               | 72.9   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>21</sub>                 | 1.8805±0.0009                | 0.31±0.04        | 1.58±0.06                | 68.9   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>22</sub>                 | 1.0273±0.0009                | 0.30±0.04        | 1.67±0.06                | 70.3   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>23</sub>                 | 1.2830±0.0009                | 0.30±0.04        | 1.51±0.06                | 68.0   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>24</sub>                 | 1.9616±0.0009                | 0.31±0.04        | 0.06±0.06                | 67.5   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>25</sub>                 | 2.3717±0.0010                | 0.33±0.04        | -1.50±0.06               | 61.6   |                                        |                              |                  |                          |       |
| Frequency list of 0102680138 continued |                              |                  |                          |        |                                        |                              |                  |                          |       |

**Table B.39:** Frequency list of 0102681982

## Appendix B. Frequencies of individual $\gamma$ Dor Stars

| Frequency list of 0102681982 continued |                              |                  |                          |       | Frequency list of 0102681982 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{56}$                               | 0.6100±0.0017                | 0.14±0.03        | 2.82±0.10                | 20.1  | $f_{178}$                              | 0.6241±0.0033                | 0.06±0.03        | 2.37±0.20                | 5.2   |
| $f_{59}$                               | 0.6808±0.0018                | 0.13±0.03        | 0.65±0.11                | 18.3  | $f_{179}$                              | 1.7976±0.0034                | 0.06±0.03        | 2.15±0.21                | 5.1   |
| $f_{60}$                               | 1.0953±0.0018                | 0.15±0.03        | -1.13±0.11               | 18.5  |                                        |                              |                  |                          |       |
| $f_{61}$                               | 0.8650±0.0018                | 0.15±0.04        | -2.71±0.11               | 17.5  |                                        |                              |                  |                          |       |
| $f_{64}$                               | 0.9924±0.0019                | 0.13±0.03        | 1.35±0.11                | 16.7  |                                        |                              |                  |                          |       |
| $f_{65}$                               | 2.6911±0.0019                | 0.13±0.03        | 0.51±0.11                | 16.7  |                                        |                              |                  |                          |       |
| $f_{66}$                               | 1.2073±0.0019                | 0.13±0.03        | 1.66±0.11                | 16.7  |                                        |                              |                  |                          |       |
| $f_{67}$                               | 1.1344±0.0018                | 0.14±0.03        | -2.30±0.11               | 17.3  |                                        |                              |                  |                          |       |
| $f_{68}$                               | 0.2240±0.0019                | 0.13±0.03        | 2.76±0.11                | 16.5  |                                        |                              |                  |                          |       |
| $f_{69}$                               | 0.9159±0.0019                | 0.15±0.04        | -2.48±0.12               | 16.4  |                                        |                              |                  |                          |       |
| $f_{70}$                               | 1.8645±0.0019                | 0.10±0.02        | 2.33±0.11                | 16.5  |                                        |                              |                  |                          |       |
| $f_{71}$                               | 0.7503±0.0018                | 0.12±0.03        | 1.60±0.11                | 17.2  |                                        |                              |                  |                          |       |
| $f_{73}$                               | 1.8720±0.0019                | 0.12±0.03        | 0.73±0.12                | 15.5  |                                        |                              |                  |                          |       |
| $f_{74}$                               | 1.5894±0.0019                | 0.12±0.03        | -1.02±0.12               | 15.9  |                                        |                              |                  |                          |       |
| $f_{75}$                               | 0.1978±0.0019                | 0.12±0.03        | 2.29±0.12                | 15.5  |                                        |                              |                  |                          |       |
| $f_{76}$                               | 0.7186±0.0020                | 0.12±0.03        | -1.92±0.12               | 14.8  |                                        |                              |                  |                          |       |
| $f_{78}$                               | 2.1484±0.0020                | 0.12±0.03        | -0.45±0.12               | 14.4  |                                        |                              |                  |                          |       |
| $f_{82}$                               | 1.1687±0.0021                | 0.12±0.03        | 0.65±0.13                | 13.4  |                                        |                              |                  |                          |       |
| $f_{83}$                               | 2.3245±0.0021                | 0.11±0.03        | -0.11±0.13               | 13.0  |                                        |                              |                  |                          |       |
| $f_{84}$                               | 1.2411±0.0021                | 0.12±0.03        | -0.55±0.13               | 13.1  |                                        |                              |                  |                          |       |
| $f_{85}$                               | 0.1062±0.0021                | 0.11±0.03        | 1.65±0.13                | 13.4  |                                        |                              |                  |                          |       |
| $f_{86}$                               | 1.4412±0.0022                | 0.11±0.03        | -2.75±0.13               | 12.5  |                                        |                              |                  |                          |       |
| $f_{87}$                               | 3.3845±0.0021                | 0.11±0.03        | 3.02±0.13                | 12.9  |                                        |                              |                  |                          |       |
| $f_{89}$                               | 0.4587±0.0022                | 0.09±0.03        | 2.12±0.13                | 12.1  |                                        |                              |                  |                          |       |
| $f_{90}$                               | 2.6460±0.0023                | 0.11±0.03        | -2.41±0.14               | 11.5  |                                        |                              |                  |                          |       |
| $f_{93}$                               | 2.5180±0.0023                | 0.11±0.03        | 1.99±0.14                | 11.1  |                                        |                              |                  |                          |       |
| $f_{94}$                               | 2.1299±0.0023                | 0.10±0.03        | -2.47±0.14               | 11.2  |                                        |                              |                  |                          |       |
| $f_{95}$                               | 1.3961±0.0023                | 0.10±0.03        | -1.31±0.14               | 11.2  |                                        |                              |                  |                          |       |
| $f_{96}$                               | 2.4690±0.0023                | 0.10±0.03        | 2.79±0.14                | 10.9  |                                        |                              |                  |                          |       |
| $f_{100}$                              | 0.8773±0.0024                | 0.09±0.03        | 1.06±0.15                | 10.2  |                                        |                              |                  |                          |       |
| $f_{101}$                              | 1.5353±0.0024                | 0.10±0.03        | 2.47±0.15                | 10.1  |                                        |                              |                  |                          |       |
| $f_{102}$                              | 1.9688±0.0024                | 0.09±0.03        | 0.23±0.14                | 10.4  |                                        |                              |                  |                          |       |
| $f_{103}$                              | 0.8486±0.0024                | 0.09±0.03        | -3.06±0.15               | 10.1  |                                        |                              |                  |                          |       |
| $f_{106}$                              | 55.8628±0.0025               | 0.10±0.03        | 1.55±0.15                | 9.3   |                                        |                              |                  |                          |       |
| $f_{107}$                              | 0.5159±0.0025                | 0.10±0.03        | -2.05±0.15               | 9.1   |                                        |                              |                  |                          |       |
| $f_{109}$                              | 2.0067±0.0025                | 0.14±0.05        | -0.09±0.16               | 9.0   |                                        |                              |                  |                          |       |
| $f_{111}$                              | 13.9458±0.0026               | 0.09±0.03        | 2.75±0.16                | 8.9   |                                        |                              |                  |                          |       |
| $f_{112}$                              | 1.7492±0.0026                | 0.09±0.03        | -1.57±0.16               | 8.9   |                                        |                              |                  |                          |       |
| $f_{113}$                              | 0.3468±0.0025                | 0.11±0.04        | -2.19±0.15               | 9.1   |                                        |                              |                  |                          |       |
| $f_{115}$                              | 0.3940±0.0026                | 0.09±0.03        | 2.45±0.16                | 8.8   |                                        |                              |                  |                          |       |
| $f_{116}$                              | 43.0150±0.0026               | 0.07±0.02        | -0.72±0.16               | 8.9   |                                        |                              |                  |                          |       |
| $f_{117}$                              | 1.7207±0.0026                | 0.08±0.03        | -2.84±0.16               | 8.7   |                                        |                              |                  |                          |       |
| $f_{118}$                              | 2.8210±0.0026                | 0.08±0.03        | 0.88±0.16                | 8.5   |                                        |                              |                  |                          |       |
| $f_{119}$                              | 2.1779±0.0026                | 0.08±0.03        | -1.59±0.16               | 8.4   |                                        |                              |                  |                          |       |
| $f_{125}$                              | 0.9440±0.0027                | 0.08±0.03        | -3.12±0.16               | 8.1   |                                        |                              |                  |                          |       |
| $f_{126}$                              | 1.1200±0.0027                | 0.09±0.03        | 1.05±0.17                | 7.9   |                                        |                              |                  |                          |       |
| $f_{127}$                              | 3.6022±0.0027                | 0.08±0.03        | -1.09±0.16               | 8.0   |                                        |                              |                  |                          |       |
| $f_{128}$                              | 0.6401±0.0028                | 0.08±0.03        | -2.27±0.17               | 7.7   |                                        |                              |                  |                          |       |
| $f_{129}$                              | 1.3164±0.0028                | 0.08±0.03        | 0.04±0.17                | 7.7   |                                        |                              |                  |                          |       |
| $f_{132}$                              | 2.3549±0.0029                | 0.08±0.03        | 1.10±0.17                | 7.1   |                                        |                              |                  |                          |       |
| $f_{133}$                              | 0.3155±0.0029                | 0.09±0.03        | 1.68±0.17                | 7.1   |                                        |                              |                  |                          |       |
| $f_{135}$                              | 0.8994±0.0028                | 0.08±0.03        | 0.01±0.17                | 7.2   |                                        |                              |                  |                          |       |
| $f_{137}$                              | 1.1601±0.0029                | 0.08±0.03        | 0.10±0.18                | 7.0   |                                        |                              |                  |                          |       |
| $f_{138}$                              | 1.2802±0.0028                | 0.08±0.03        | 1.20±0.17                | 7.3   |                                        |                              |                  |                          |       |
| $f_{140}$                              | 56.9498±0.0028               | 0.07±0.03        | -3.08±0.17               | 7.2   |                                        |                              |                  |                          |       |
| $f_{141}$                              | 2.5257±0.0029                | 0.08±0.03        | 0.84±0.18                | 6.7   |                                        |                              |                  |                          |       |
| $f_{142}$                              | 2.4185±0.0029                | 0.07±0.03        | -1.44±0.18               | 6.7   |                                        |                              |                  |                          |       |
| $f_{143}$                              | 2.0552±0.0030                | 0.07±0.03        | -1.58±0.18               | 6.6   |                                        |                              |                  |                          |       |
| $f_{145}$                              | 2.4846±0.0030                | 0.07±0.03        | 2.12±0.18                | 6.5   |                                        |                              |                  |                          |       |
| $f_{151}$                              | 0.5701±0.0030                | 0.07±0.03        | -2.87±0.18               | 6.5   |                                        |                              |                  |                          |       |
| $f_{152}$                              | 1.8864±0.0030                | 0.08±0.03        | 3.12±0.19                | 6.3   |                                        |                              |                  |                          |       |
| $f_{153}$                              | 1.8533±0.0029                | 0.08±0.03        | 2.40±0.18                | 6.9   |                                        |                              |                  |                          |       |
| $f_{156}$                              | 0.1862±0.0030                | 0.08±0.03        | 0.26±0.19                | 6.3   |                                        |                              |                  |                          |       |
| $f_{157}$                              | 1.2699±0.0030                | 0.07±0.03        | 0.05±0.19                | 6.3   |                                        |                              |                  |                          |       |
| $f_{158}$                              | 0.5223±0.0031                | 0.07±0.03        | 1.86±0.19                | 6.0   |                                        |                              |                  |                          |       |
| $f_{159}$                              | 0.1399±0.0031                | 0.07±0.03        | -1.51±0.19               | 6.2   |                                        |                              |                  |                          |       |
| $f_{160}$                              | 3.5212±0.0032                | 0.07±0.03        | 2.29±0.19                | 5.8   |                                        |                              |                  |                          |       |
| $f_{161}$                              | 2.3695±0.0031                | 0.07±0.03        | -1.94±0.19               | 6.0   |                                        |                              |                  |                          |       |
| $f_{162}$                              | 0.3586±0.0031                | 0.07±0.03        | -0.04±0.19               | 5.9   |                                        |                              |                  |                          |       |
| $f_{165}$                              | 27.9198±0.0033               | 0.07±0.03        | 1.44±0.20                | 5.5   |                                        |                              |                  |                          |       |
| $f_{166}$                              | 2.8661±0.0033                | 0.07±0.03        | -1.66±0.20               | 5.5   |                                        |                              |                  |                          |       |
| $f_{167}$                              | 1.3765±0.0033                | 0.07±0.03        | -1.40±0.20               | 5.3   |                                        |                              |                  |                          |       |
| $f_{169}$                              | 43.0034±0.0033               | 0.07±0.03        | -1.02±0.20               | 5.3   |                                        |                              |                  |                          |       |
| $f_{175}$                              | 0.7937±0.0033                | 0.06±0.03        | 0.17±0.20                | 5.2   |                                        |                              |                  |                          |       |
| $f_{176}$                              | 2.6071±0.0033                | 0.06±0.03        | 1.89±0.20                | 5.2   |                                        |                              |                  |                          |       |
| $f_{177}$                              | 2.3387±0.0033                | 0.06±0.03        | 1.78±0.20                | 5.2   |                                        |                              |                  |                          |       |

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign.  |
|--------------|------------------------------|------------------|--------------------------|--------|
| $f_1$        | 1.0375±0.0002                | 5.72±0.12        | -2.97±0.01               | 2209.2 |
| $f_2$        | 0.9981±0.0002                | 2.75±0.08        | -2.99±0.01               | 1105.3 |
| $f_3$        | 1.0188±0.0003                | 2.19±0.08        | -0.03±0.02               | 717.3  |
| $f_4$        | 1.0662±0.0004                | 1.24±0.07        | 0.36±0.03                | 295.7  |
| $f_5$        | 1.2158±0.0005                | 1.09±0.07        | 0.04±0.03                | 253.6  |
| $f_6$        | 0.9854±0.0006                | 0.81±0.07        | 1.23±0.04                | 140.7  |
| $f_7$        | 1.0054±0.0008                | 0.48±0.05        | -1.84±0.05               | 83.7   |
| $f_8$        | 0.9692±0.0008                | 0.47±0.05        | 2.43±0.05                | 82.1   |
| $f_9$        | 1.1224±0.0010                | 0.51±0.06        | 0.44±0.06                | 62.6   |
| $f_{10}$     | 1.1066±0.0010                | 0.48±0.06        | 3.10±0.06                | 59.4   |
| $f_{12}$     | 0.9599±0.0010                | 0.44±0.06        | 0.10±0.06                | 55.2   |
| $f_{13}$     | 0.1776±0.0011                | 0.41±0.06        | -1.34±0.07               | 49.7   |
| $f_{14}$     | 2.0360±0.0011                | 0.38±0.06        | -1.72±0.07               | 46.4   |
| $f_{15}$     | 2.0749±0.0011                | 0.39±0.06        | -0.27±0.07               | 45.7   |
| $f_{16}$     | 1.1333±0.0012                | 0.38±0.06        | 1.39±0.07                | 41.1   |
| $f_{17}$     | 1.0240±0.0012                | 0.32±0.05        | -1.74±0.07               | 43.4   |
| $f_{21}$     | 1.0958±0.0013                | 0.33±0.06        | 0.39±0.08                | 34.2   |
| $f_{22}$     | 1.1405±0.0013                | 0.32±0.05        | 2.69±0.08                | 34.6   |
| $f_{24}$     | 0.1287±0.0014                | 0.31±0.06        | -1.54±0.09               | 29.2   |
| $f_{25}$     | 0.2153±0.0014                | 0.28±0.05        | -1.37±0.09               | 29.4   |
| $f_{26}$     | 1.1664±0.0015                | 0.28±0.06        | 1.45±0.09                | 25.0   |
| $f_{27}$     | 1.0835±0.0015                | 0.27±0.05        | -0.88±0.09               | 24.8   |
| $f_{28}$     | 0.1661±0.0016                | 0.23±0.05        | 0.07±0.10                | 22.9   |
| $f_{31}$     | 0.3555±0.0017                | 0.26±0.06        | 0.45±0.10                | 21.1   |
| $f_{32}$     | 0.1182±0.0017                | 0.26±0.06        | 0.54±0.10                | 19.7   |
| $f_{33}$     | 0.8409±0.0017                | 0.21±0.05        | 1.76±0.11                | 19.3   |
| $f_{34}$     | 0.3065±0.0018                | 0.24±0.06        | -2.54±0.11               | 18.8   |
| $f_{35}$     | 0.1380±0.0018                | 0.23±0.05        | 2.16±0.11                | 18.8   |
| $f_{36}$     | 2.0544±0.0018                | 0.25±0.06        | 2.97±0.11                | 18.8   |
| $f_{38}$     | 0.9354±0.0018                | 0.28±0.07        | -1.11±0.11               | 18.4   |
| $f_{39}$     | 2.2532±0.0018                | 0.22±0.05        | -3.10±0.11               | 17.6   |
| $f_{40}$     | 2.0055±0.0019                | 0.45±0.11        | 1.82±0.11                | 16.8   |
| $f_{49}$     | 1.0144±0.0018                | 0.21±0.05        | 1.97±0.11                | 17.7   |
| $f_{50}$     | 0.2680±0.0019                | 0.22±0.05        | 2.73±0.12                | 16.3   |
| $f_{51}$     | 1.0508±0.0019                | 0.23±0.06        | -2.11±0.12               | 16.1   |
| $f_{52}$     | 0.6819±0.0019                | 0.19±0.05        | -2.90±0.12               | 15.8   |
| $f_{53}$     | 1.0588±0.0020                | 0.21±0.05        | 2.22±0.12                | 15.2   |
| $f_{54}$     | 0.1950±0.0020                | 0.20±0.05        | -2.47±0.12               | 15.0   |
| $f_{55}$     | 1.5098±0.0020                | 0.20±0.05        | 2.37±0.12                | 15.1   |
| $f_{56}$     | 1.1864±0.0019                | 0.20±0.05        | -0.36±0.12               | 15.5   |
| $f_{57}$     | 0.2809±0.0020                | 0.20±0.05        | 2.36±0.12                | 14.7   |
| $f_{58}$     | 0.9488±0.0021                | 0.22±0.06        | -0.84±0.13               | 13.8   |
| $f_{59}$     | 0.4619±0.0020                | 0.18±0.05        | 2.34±0.12                | 14.1   |
| $f_{61}$     | 0.4186±0.0021                | 0.17±0.05        | 1.44±0.13                | 12.9   |
| $f_{63}$     | 2.2054±0.0022                | 0.17±0.05        | 0.23±0.13                | 12.5   |
| $f_{64}$     | 2.0147±0.0023                | 0.15±0.05        | -2.76±0.14               | 11.0   |
| $f_{65}$     | 0.3847±0.0024                | 0.16±0.05        | 1.64±0.15                | 10.3   |
| $f_{66}$     | 0.9221±0.0024                | 0.17±0.05        | -0.37±0.15               | 10.1   |
| $f_{68}$     | 0.7394±0.0024                | 0.15±0.05        | -1.21±0.15               | 10.2   |
| $f_{71}$     | 2.0231±0.0025                | 0.15±0.05        | -0.57±0.15               | 9.5    |
| $f_{72}$     | 1.0360±0.0026                | 0.15±0.05        | 2.78±0.16                | 8.9    |
| $f_{74}$     | 0.4354±0.0026                | 0.15±0.05        | 2.74±0.16                | 8.8    |
| $f_{76}$     | 1.2014±0.0026                | 0.14±0.05        | -0.84±0.16               | 8.5    |
| $f_{78}$     | 0.7995±0.0026                | 0.12±0.04        | -0.73±0.16               | 8.4    |
| $f_{81}$     | 2.1420±0.0027                | 0.13±0.05        | 2.56±0.16                | 8.2    |
| $f_{82}$     | 0.6538±0.0027                | 0.14±0.05        | 2.38±0.17                | 7.8    |
| $f_{85}$     | 0.8991±0.0027                | 0.14±0.05        | -0.35±0.17               | 7.9    |
| $f_{86}$     | 0.5334±0.0028                | 0.14±0.05        | -0.35±0.17               | 7.4    |
| $f_{87}$     | 0.6728±0.0028                | 0.14±0.05        | 2.48±0.17                | 7.3    |
| $f_{88}$     | 0.6231±0.0028                | 0.13±0.05        | 0.29±0.17                | 7.3    |
| $f_{89}$     | 2.1691±0.0028                | 0.13±0.05        | -0.39±0.17               | 7.3    |
| $f_{91}$     | 0.2378±0.0029                | 0.13±0.05        | -1.25±0.17               | 7.1    |
| $f_{93}$     | 0.3295±0.0030                | 0.13±0.05        | 2.29±0.18                | 6.6    |
| $f_{94}$     | 2.0612±0.0030                | 0.13±0.05        | -0.95±0.18               | 6.4    |
| $f_{95}$     | 2.1024±0.0029                | 0.13±0.05        | 0.46±0.18                | 6.9    |

## Appendix B. Frequencies of individual $\gamma$ Dor Stars

| Frequency list of 0102682158 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{99}$                               | 0.1815±0.0031                | 0.12±0.05        | -1.25±0.19               | 6.2   |
| $f_{100}$                              | 4.0111±0.0032                | 0.14±0.06        | 0.55±0.19                | 5.8   |
| $f_{103}$                              | 1.8909±0.0032                | 0.12±0.05        | -2.47±0.20               | 5.7   |
| $f_{104}$                              | 0.8489±0.0032                | 0.11±0.05        | 1.20±0.20                | 5.7   |
| $f_{107}$                              | 0.1581±0.0032                | 0.12±0.05        | -1.07±0.20               | 5.7   |
| $f_{108}$                              | 0.7902±0.0033                | 0.12±0.05        | 0.98±0.20                | 5.5   |
| $f_{110}$                              | 1.2408±0.0033                | 0.11±0.05        | 3.11±0.20                | 5.4   |

**Table B.41:** Frequency list of 0102684448

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|--------------|------------------------------|------------------|--------------------------|-------|
| $f_1$        | 1.8761±0.0002                | 3.60±0.12        | 0.10±0.01                | 967.2 |
| $f_2$        | 1.9184±0.0003                | 2.93±0.11        | 2.12±0.02                | 737.7 |
| $f_3$        | 0.1761±0.0004                | 2.00±0.10        | 2.22±0.02                | 441.7 |
| $f_4$        | 1.1446±0.0003                | 1.98±0.09        | 2.86±0.02                | 496.8 |
| $f_5$        | 3.2111±0.0003                | 1.92±0.08        | -0.21±0.02               | 514.4 |
| $f_6$        | 1.2926±0.0004                | 1.77±0.08        | 2.08±0.02                | 448.1 |
| $f_7$        | 1.3350±0.0004                | 1.57±0.07        | 0.43±0.02                | 442.4 |
| $f_8$        | 3.0350±0.0005                | 1.18±0.07        | 1.34±0.03                | 276.1 |
| $f_9$        | 2.3270±0.0006                | 0.86±0.06        | 1.06±0.03                | 178.9 |
| $f_{10}$     | 0.7075±0.0006                | 0.83±0.06        | -2.97±0.03               | 183.7 |
| $f_{11}$     | 1.7684±0.0006                | 0.75±0.06        | 0.41±0.04                | 142.4 |
| $f_{12}$     | 1.4922±0.0006                | 0.77±0.06        | 2.04±0.04                | 150.4 |
| $f_{13}$     | 1.8018±0.0007                | 0.66±0.06        | 0.03±0.04                | 123.3 |
| $f_{14}$     | 1.3777±0.0007                | 0.62±0.06        | -0.57±0.05               | 106.4 |
| $f_{15}$     | 0.2534±0.0008                | 0.52±0.05        | -2.12±0.05               | 95.8  |
| $f_{16}$     | 1.9641±0.0008                | 0.58±0.06        | -2.64±0.05               | 85.4  |
| $f_{18}$     | 0.1649±0.0010                | 0.42±0.05        | -1.71±0.06               | 59.1  |
| $f_{19}$     | 2.1312±0.0010                | 0.41±0.05        | 2.51±0.06                | 55.6  |
| $f_{20}$     | 3.4646±0.0010                | 0.42±0.06        | 2.36±0.06                | 55.4  |
| $f_{21}$     | 2.0164±0.0011                | 0.40±0.06        | -2.59±0.06               | 52.8  |
| $f_{22}$     | 1.7007±0.0011                | 0.39±0.05        | 2.33±0.07                | 50.3  |
| $f_{23}$     | 1.4293±0.0011                | 0.29±0.04        | -1.60±0.07               | 45.1  |
| $f_{24}$     | 3.3760±0.0012                | 0.34±0.05        | 0.99±0.07                | 41.7  |
| $f_{28}$     | 0.1226±0.0012                | 0.30±0.05        | -2.20±0.07               | 38.7  |
| $f_{29}$     | 0.4251±0.0013                | 0.30±0.05        | 1.91±0.08                | 36.0  |
| $f_{30}$     | 1.7411±0.0013                | 0.30±0.05        | -1.34±0.08               | 32.8  |
| $f_{31}$     | 1.8771±0.0013                | 0.32±0.06        | -2.22±0.08               | 32.3  |
| $f_{32}$     | 3.5701±0.0014                | 0.29±0.05        | -1.56±0.08               | 31.6  |
| $f_{33}$     | 0.5828±0.0014                | 0.27±0.05        | -1.22±0.08               | 30.4  |
| $f_{34}$     | 1.4088±0.0015                | 0.27±0.05        | -1.58±0.09               | 27.3  |
| $f_{37}$     | 3.1641±0.0016                | 0.26±0.05        | -2.70±0.10               | 23.7  |
| $f_{38}$     | 1.4454±0.0016                | 0.25±0.05        | 2.64±0.10                | 23.1  |
| $f_{41}$     | 0.6042±0.0017                | 0.22±0.05        | 1.63±0.10                | 20.2  |
| $f_{42}$     | 1.1162±0.0017                | 0.21±0.05        | -2.48±0.11               | 19.6  |
| $f_{43}$     | 1.5555±0.0017                | 0.21±0.05        | 2.62±0.11                | 19.3  |
| $f_{44}$     | 1.6600±0.0017                | 0.21±0.05        | 2.62±0.11                | 19.3  |
| $f_{46}$     | 0.3700±0.0018                | 0.19±0.04        | 1.28±0.11                | 19.0  |
| $f_{48}$     | 0.4983±0.0018                | 0.22±0.05        | -2.66±0.11               | 18.3  |
| $f_{50}$     | 2.0046±0.0018                | 0.68±0.16        | -1.82±0.11               | 18.4  |
| $f_{57}$     | 0.2653±0.0018                | 0.23±0.06        | 0.73±0.11                | 17.2  |
| $f_{59}$     | 1.9932±0.0019                | 0.18±0.05        | 2.62±0.12                | 15.9  |
| $f_{60}$     | 3.6357±0.0020                | 0.18±0.05        | -2.63±0.12               | 14.9  |
| $f_{61}$     | 1.1597±0.0020                | 0.16±0.04        | 2.46±0.12                | 14.7  |
| $f_{64}$     | 0.9917±0.0020                | 0.16±0.04        | 0.96±0.12                | 13.9  |
| $f_{65}$     | 3.2541±0.0021                | 0.16±0.04        | -1.09±0.13               | 13.7  |
| $f_{66}$     | 2.7335±0.0021                | 0.17±0.05        | 2.70±0.13                | 13.5  |
| $f_{67}$     | 4.2018±0.0021                | 0.16±0.04        | -1.65±0.13               | 13.3  |
| $f_{68}$     | 0.3415±0.0021                | 0.13±0.04        | -1.32±0.13               | 13.6  |
| $f_{69}$     | 0.4415±0.0021                | 0.16±0.04        | 0.64±0.13                | 13.0  |
| $f_{70}$     | 1.4781±0.0022                | 0.17±0.05        | 2.22±0.13                | 12.4  |
| $f_{71}$     | 2.0402±0.0022                | 0.16±0.05        | -1.21±0.14               | 11.6  |
| $f_{72}$     | 3.8728±0.0023                | 0.17±0.05        | 3.08±0.14                | 11.3  |
| $f_{75}$     | 0.1092±0.0023                | 0.18±0.05        | -0.41±0.14               | 10.8  |
| $f_{76}$     | 1.2030±0.0024                | 0.13±0.04        | 1.69±0.14                | 10.5  |
| $f_{77}$     | 3.2977±0.0024                | 0.15±0.05        | 1.68±0.15                | 10.3  |
| $f_{78}$     | 0.3846±0.0024                | 0.16±0.05        | -0.88±0.15               | 10.3  |
| $f_{79}$     | 2.5344±0.0024                | 0.15±0.05        | -0.86±0.15               | 10.2  |
| $f_{81}$     | 2.8152±0.0024                | 0.15±0.05        | -0.37±0.15               | 10.1  |
| $f_{82}$     | 55.8631±0.0024               | 0.13±0.04        | 0.65±0.15                | 9.8   |
| $f_{83}$     | 0.2069±0.0025                | 0.13±0.04        | 3.00±0.15                | 9.6   |
| $f_{84}$     | 1.8671±0.0025                | 0.14±0.05        | -0.12±0.15               | 9.2   |

Frequency list of 0102684448 continued

| Frequency list of 0102684448 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{85}$                               | 0.4323±0.0026                | 0.13±0.04        | -2.71±0.16               | 8.9   |
| $f_{86}$                               | 1.0705±0.0026                | 0.12±0.04        | -2.38±0.16               | 8.9   |
| $f_{87}$                               | 1.5062±0.0026                | 0.14±0.05        | -2.36±0.16               | 8.9   |
| $f_{89}$                               | 0.5417±0.0026                | 0.12±0.04        | 0.42±0.16                | 8.8   |
| $f_{90}$                               | 2.6653±0.0026                | 0.12±0.04        | -2.42±0.16               | 8.5   |
| $f_{91}$                               | 2.8580±0.0026                | 0.13±0.05        | -0.93±0.16               | 8.3   |
| $f_{93}$                               | 0.6491±0.0026                | 0.13±0.04        | 2.99±0.16                | 8.6   |
| $f_{95}$                               | 0.2804±0.0026                | 0.12±0.04        | 1.60±0.16                | 8.5   |
| $f_{96}$                               | 2.9310±0.0027                | 0.13±0.05        | 1.93±0.16                | 8.0   |
| $f_{97}$                               | 3.3949±0.0027                | 0.13±0.05        | 2.80±0.16                | 8.0   |
| $f_{98}$                               | 3.3257±0.0027                | 0.12±0.04        | -0.29±0.16               | 8.2   |
| $f_{99}$                               | 1.1880±0.0026                | 0.14±0.05        | -1.22±0.16               | 8.4   |
| $f_{100}$                              | 3.1968±0.0027                | 0.13±0.05        | 2.63±0.16                | 8.0   |
| $f_{101}$                              | 41.8951±0.0027               | 0.13±0.05        | -2.23±0.16               | 8.2   |
| $f_{102}$                              | 3.0774±0.0027                | 0.13±0.05        | -0.50±0.16               | 8.0   |
| $f_{103}$                              | 0.3343±0.0027                | 0.12±0.04        | 1.55±0.17                | 7.9   |
| $f_{105}$                              | 0.8837±0.0028                | 0.13±0.05        | 2.06±0.17                | 7.7   |
| $f_{106}$                              | 0.5984±0.0028                | 0.10±0.04        | -2.74±0.17               | 7.6   |
| $f_{107}$                              | 4.6347±0.0027                | 0.12±0.04        | 0.82±0.17                | 7.8   |
| $f_{109}$                              | 0.3908±0.0027                | 0.12±0.04        | -0.33±0.17               | 7.8   |
| $f_{110}$                              | 0.6268±0.0028                | 0.13±0.05        | -0.49±0.17               | 7.4   |
| $f_{111}$                              | 5.5387±0.0028                | 0.12±0.04        | 2.07±0.17                | 7.5   |
| $f_{115}$                              | 2.1712±0.0028                | 0.12±0.04        | -1.76±0.17               | 7.2   |
| $f_{116}$                              | 1.4176±0.0028                | 0.12±0.04        | -1.07±0.17               | 7.3   |
| $f_{118}$                              | 1.9826±0.0029                | 0.13±0.05        | -0.08±0.17               | 7.1   |
| $f_{121}$                              | 5.7328±0.0029                | 0.11±0.04        | -0.07±0.18               | 6.9   |
| $f_{123}$                              | 0.3138±0.0029                | 0.12±0.05        | -2.37±0.18               | 6.8   |
| $f_{124}$                              | 3.1239±0.0030                | 0.11±0.04        | 1.36±0.18                | 6.6   |
| $f_{125}$                              | 0.2295±0.0030                | 0.13±0.05        | -0.79±0.18               | 6.6   |
| $f_{126}$                              | 0.3602±0.0029                | 0.12±0.05        | 1.21±0.18                | 6.8   |
| $f_{128}$                              | 4.9112±0.0030                | 0.11±0.04        | -1.00±0.18               | 6.4   |
| $f_{129}$                              | 13.9427±0.0030               | 0.11±0.04        | 2.18±0.18                | 6.6   |
| $f_{130}$                              | 2.4138±0.0030                | 0.11±0.04        | -0.32±0.18               | 6.5   |
| $f_{134}$                              | 4.3279±0.0030                | 0.11±0.04        | -0.60±0.19               | 6.3   |
| $f_{138}$                              | 1.6246±0.0031                | 0.11±0.04        | 1.35±0.19                | 6.2   |
| $f_{139}$                              | 0.6731±0.0031                | 0.11±0.04        | 0.63±0.19                | 6.1   |
| $f_{140}$                              | 1.7846±0.0031                | 0.11±0.04        | -0.27±0.19               | 6.1   |
| $f_{141}$                              | 0.8006±0.0031                | 0.11±0.05        | -2.22±0.19               | 5.9   |
| $f_{142}$                              | 1.0546±0.0032                | 0.11±0.05        | -2.72±0.19               | 5.8   |
| $f_{146}$                              | 0.4483±0.0031                | 0.11±0.05        | 0.93±0.19                | 5.9   |
| $f_{147}$                              | 1.8813±0.0033                | 0.12±0.05        | 0.86±0.20                | 5.3   |
| $f_{148}$                              | 5.2770±0.0033                | 0.10±0.04        | -2.85±0.20               | 5.5   |
| $f_{150}$                              | 2.3167±0.0033                | 0.10±0.04        | -3.13±0.20               | 5.3   |
| $f_{151}$                              | 3.0638±0.0033                | 0.10±0.04        | 0.99±0.20                | 5.4   |
| $f_{155}$                              | 0.2195±0.0033                | 0.10±0.04        | 2.92±0.20                | 5.3   |
| $f_{156}$                              | 4.5670±0.0033                | 0.10±0.04        | -2.11±0.20               | 5.2   |
| $f_{157}$                              | 0.5774±0.0033                | 0.10±0.04        | -3.07±0.20               | 5.2   |
| $f_{158}$                              | 2.5560±0.0033                | 0.10±0.04        | -3.10±0.20               | 5.2   |

**Table B.42:** Frequency list of 0102692118

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|--------------|------------------------------|------------------|--------------------------|-------|
| $f_1$        | 0.1712±0.0003                | 2.09±0.08        | 0.90±0.02                | 769.5 |
| $f_2$        | 0.4677±0.0004                | 1.22±0.07        | 2.11±0.03                | 333.8 |
| $f_3$        | 0.9699±0.0004                | 1.08±0.06        | -2.98±0.03               | 296.2 |
| $f_4$        | 0.4611±0.0005                | 0.97±0.06        | 1.45±0.03                | 280.2 |
| $f_5$        | 0.3444±0.0007                | 0.64±0.05        | 2.28±0.04                | 135.7 |
| $f_6$        | 0.4870±0.0007                | 0.57±0.05        | -1.81±0.04               | 126.4 |
| $f_7$        | 0.4476±0.0007                | 0.52±0.05        | 1.69±0.04                | 112.1 |
| $f_8$        | 0.4932±0.0007                | 0.46±0.04        | -0.16±0.04               | 114.6 |
| $f_9$        | 0.1636±0.0007                | 0.47±0.05        | -1.17±0.04               | 107.9 |
| $f_{10}$     | 0.1006±0.0008                | 0.49±0.05        | -1.31±0.05               | 96.1  |
| $f_{11}$     | 0.9610±0.0008                | 0.45±0.05        | -2.28±0.05               | 85.6  |
| $f_{12}$     | 0.1451±0.0010                | 0.33±0.04        | -1.27±0.06               | 58.1  |
| $f_{14}$     | 0.4068±0.0010                | 0.36±0.05        | 1.19±0.06                | 57.0  |
| $f_{15}$     | 0.4228±0.0010                | 0.36±0.05        | -2.18±0.06               | 54.8  |
| $f_{16}$     | 0.5194±0.0010                | 0.33±0.04        | -0.37±0.06               | 54.2  |
| $f_{17}$     | 0.1869±0.0010                | 0.29±0.04        | 2.16±0.06                | 53.5  |
| $f_{18}$     | 0.2830±0.0011                | 0.33±0.05        | 2.23±0.07                | 47.5  |
| $f_{19}$     | 0.4761±0.0012                | 0.29±0.05        | 1.03±0.07                | 41.0  |
| $f_{20}$     | 0.9437±0.0012                | 0.24±0.04        | 2.38±0.07                | 41.0  |
| $f_{21}$     | 0.2207±0.0012                | 0.24±0.04        | -0.98±0.08               | 38.3  |
| $f_{23}$     | 0.5093±0.0013                | 0.28±0.05        | 2.86±0.08                | 32.7  |
| $f_{24}$     | 0.9766±0.0013                | 0.28±0.05        | 2.62±0.08                | 32.6  |
| $f_{25}$     | 0.1233±0.0013                | 0.25±0.04        | -0.04±0.08               | 33.5  |
| $f_{26}$     | 0.5020±0.0013                | 0.25±0.04        | 0.87±0.08                | 33.5  |
| $f_{27}$     | 0.2532±0.0014                | 0.25±0.05        | -2.83±0.09               | 29.9  |

Frequency list of 0102692118 continued

## Appendix B. Frequencies of individual $\gamma$ Dor Stars

| Frequency list of 0102692118 continued |                              |                  |                          |       | Frequency list of 0102694533 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| <i>f</i> <sub>28</sub>                 | 0.3015±0.0014                | 0.21±0.04        | -1.10±0.09               | 28.6  | <i>f</i> <sub>27</sub>                 | 0.3628±0.0010                | 0.24±0.03        | 1.92±0.06                | 54.1  |
| <i>f</i> <sub>29</sub>                 | 0.3758±0.0015                | 0.21±0.04        | -0.04±0.09               | 26.7  | <i>f</i> <sub>28</sub>                 | 0.2089±0.0011                | 0.21±0.03        | 0.63±0.07                | 48.7  |
| <i>f</i> <sub>31</sub>                 | 1.4515±0.0015                | 0.17±0.03        | 1.94±0.09                | 25.7  | <i>f</i> <sub>29</sub>                 | 0.1653±0.0012                | 0.17±0.03        | 0.42±0.07                | 41.7  |
| <i>f</i> <sub>32</sub>                 | 0.1990±0.0015                | 0.24±0.05        | 1.25±0.09                | 25.8  | <i>f</i> <sub>30</sub>                 | 0.4371±0.0012                | 0.22±0.03        | 0.83±0.07                | 41.1  |
| <i>f</i> <sub>33</sub>                 | 0.5808±0.0015                | 0.20±0.04        | -0.03±0.09               | 26.2  | <i>f</i> <sub>31</sub>                 | 0.3993±0.0012                | 0.22±0.04        | 2.05±0.08                | 37.6  |
| <i>f</i> <sub>34</sub>                 | 0.9535±0.0015                | 0.22±0.04        | 2.87±0.09                | 24.5  | <i>f</i> <sub>32</sub>                 | 0.4732±0.0013                | 0.18±0.03        | -2.04±0.08               | 35.8  |
| <i>f</i> <sub>35</sub>                 | 0.2612±0.0015                | 0.21±0.04        | -2.69±0.09               | 24.6  | <i>f</i> <sub>33</sub>                 | 0.1893±0.0013                | 0.19±0.03        | -1.42±0.08               | 34.4  |
| <i>f</i> <sub>36</sub>                 | 0.1789±0.0016                | 0.23±0.05        | 0.60±0.10                | 24.0  | <i>f</i> <sub>34</sub>                 | 0.1501±0.0013                | 0.16±0.03        | 0.11±0.08                | 32.3  |
| <i>f</i> <sub>37</sub>                 | 0.3082±0.0017                | 0.22±0.05        | 0.11±0.10                | 20.2  | <i>f</i> <sub>35</sub>                 | 0.4282±0.0013                | 0.19±0.03        | -0.05±0.08               | 32.9  |
| <i>f</i> <sub>38</sub>                 | 0.2286±0.0017                | 0.19±0.04        | -2.63±0.11               | 19.5  | <i>f</i> <sub>36</sub>                 | 0.3329±0.0014                | 0.18±0.03        | -2.98±0.08               | 31.8  |
| <i>f</i> <sub>39</sub>                 | 0.4363±0.0018                | 0.20±0.05        | -1.53±0.11               | 18.7  | <i>f</i> <sub>37</sub>                 | 0.2474±0.0014                | 0.17±0.03        | 1.63±0.08                | 30.3  |
| <i>f</i> <sub>40</sub>                 | 0.5529±0.0018                | 0.17±0.04        | -1.28±0.11               | 17.6  | <i>f</i> <sub>38</sub>                 | 0.8950±0.0014                | 0.15±0.03        | -2.77±0.09               | 27.9  |
| <i>f</i> <sub>43</sub>                 | 0.3647±0.0018                | 0.17±0.04        | 0.52±0.11                | 17.2  | <i>f</i> <sub>39</sub>                 | 0.9382±0.0015                | 0.17±0.03        | -1.36±0.09               | 27.4  |
| <i>f</i> <sub>44</sub>                 | 0.1543±0.0019                | 0.17±0.04        | -3.09±0.12               | 16.4  | <i>f</i> <sub>41</sub>                 | 0.5611±0.0015                | 0.16±0.03        | 1.83±0.09                | 26.9  |
| <i>f</i> <sub>45</sub>                 | 0.9247±0.0019                | 0.17±0.04        | 0.92±0.12                | 15.7  | <i>f</i> <sub>42</sub>                 | 0.5790±0.0015                | 0.15±0.03        | -1.69±0.09               | 26.6  |
| <i>f</i> <sub>46</sub>                 | 0.9904±0.0020                | 0.16±0.04        | 3.13±0.12                | 15.2  | <i>f</i> <sub>43</sub>                 | 0.5936±0.0015                | 0.14±0.03        | 2.01±0.09                | 27.3  |
| <i>f</i> <sub>47</sub>                 | 1.4643±0.0020                | 0.16±0.04        | 1.65±0.12                | 15.0  | <i>f</i> <sub>44</sub>                 | 0.6528±0.0015                | 0.17±0.03        | -0.99±0.09               | 25.3  |
| <i>f</i> <sub>48</sub>                 | 0.2907±0.0020                | 0.15±0.04        | -2.31±0.12               | 14.7  | <i>f</i> <sub>45</sub>                 | 1.0160±0.0015                | 0.14±0.03        | -2.20±0.09               | 25.7  |
| <i>f</i> <sub>49</sub>                 | 0.4533±0.0020                | 0.17±0.04        | 0.28±0.12                | 14.6  | <i>f</i> <sub>46</sub>                 | 0.9182±0.0015                | 0.13±0.03        | 0.13±0.09                | 25.0  |
| <i>f</i> <sub>50</sub>                 | 0.2445±0.0020                | 0.17±0.04        | -3.02±0.12               | 14.5  | <i>f</i> <sub>47</sub>                 | 0.2166±0.0015                | 0.14±0.03        | 2.83±0.09                | 24.7  |
| <i>f</i> <sub>51</sub>                 | 0.3845±0.0020                | 0.17±0.05        | 0.14±0.12                | 14.2  | <i>f</i> <sub>48</sub>                 | 1.1104±0.0016                | 0.15±0.03        | -2.72±0.09               | 24.1  |
| <i>f</i> <sub>52</sub>                 | 0.2694±0.0020                | 0.16±0.04        | 2.34±0.12                | 14.2  | <i>f</i> <sub>49</sub>                 | 0.6705±0.0015                | 0.14±0.03        | 0.59±0.09                | 24.4  |
| <i>f</i> <sub>53</sub>                 | 0.1094±0.0020                | 0.17±0.05        | 0.12±0.12                | 14.2  | <i>f</i> <sub>50</sub>                 | 0.3492±0.0016                | 0.14±0.03        | -1.55±0.10               | 22.7  |
| <i>f</i> <sub>54</sub>                 | 0.4006±0.0020                | 0.14±0.04        | 2.81±0.12                | 14.1  | <i>f</i> <sub>51</sub>                 | 0.3734±0.0017                | 0.13±0.03        | -0.08±0.10               | 21.3  |
| <i>f</i> <sub>55</sub>                 | 0.1337±0.0021                | 0.16±0.04        | 1.06±0.13                | 13.3  | <i>f</i> <sub>52</sub>                 | 0.8407±0.0017                | 0.13±0.03        | -0.97±0.10               | 20.6  |
| <i>f</i> <sub>56</sub>                 | 0.6219±0.0021                | 0.15±0.04        | -2.48±0.13               | 13.2  | <i>f</i> <sub>53</sub>                 | 0.1390±0.0017                | 0.14±0.03        | 0.43±0.10                | 20.7  |
| <i>f</i> <sub>59</sub>                 | 0.3515±0.0022                | 0.15±0.04        | -0.11±0.13               | 12.6  | <i>f</i> <sub>54</sub>                 | 0.7093±0.0018                | 0.12±0.03        | -1.28±0.11               | 18.1  |
| <i>f</i> <sub>60</sub>                 | 1.0208±0.0021                | 0.14±0.04        | 0.78±0.13                | 12.7  | <i>f</i> <sub>55</sub>                 | 0.1108±0.0018                | 0.11±0.03        | -1.15±0.11               | 18.1  |
| <i>f</i> <sub>61</sub>                 | 0.5302±0.0022                | 0.15±0.04        | 1.88±0.13                | 12.6  | <i>f</i> <sub>56</sub>                 | 0.8702±0.0018                | 0.14±0.03        | -0.46±0.11               | 17.8  |
| <i>f</i> <sub>62</sub>                 | 0.9965±0.0023                | 0.13±0.04        | 0.83±0.14                | 11.1  | <i>f</i> <sub>57</sub>                 | 0.8211±0.0018                | 0.12±0.03        | -0.23±0.11               | 18.7  |
| <i>f</i> <sub>66</sub>                 | 0.2081±0.0023                | 0.14±0.04        | -2.28±0.14               | 10.7  | <i>f</i> <sub>59</sub>                 | 1.1195±0.0019                | 0.13±0.03        | 2.37±0.11                | 16.9  |
| <i>f</i> <sub>67</sub>                 | 0.8930±0.0024                | 0.12±0.04        | -2.21±0.15               | 9.9   | <i>f</i> <sub>60</sub>                 | 1.2595±0.0019                | 0.10±0.03        | -3.08±0.12               | 16.0  |
| <i>f</i> <sub>68</sub>                 | 0.4139±0.0024                | 0.13±0.04        | -0.95±0.15               | 10.0  | <i>f</i> <sub>61</sub>                 | 0.9997±0.0019                | 0.11±0.03        | -0.04±0.12               | 16.0  |
| <i>f</i> <sub>69</sub>                 | 0.6918±0.0025                | 0.13±0.04        | -0.62±0.15               | 9.6   | <i>f</i> <sub>62</sub>                 | 1.0445±0.0019                | 0.11±0.03        | 2.32±0.12                | 15.6  |
| <i>f</i> <sub>70</sub>                 | 1.4400±0.0026                | 0.12±0.04        | 2.41±0.16                | 8.9   | <i>f</i> <sub>65</sub>                 | 0.6120±0.0020                | 0.11±0.03        | -1.07±0.12               | 14.9  |
| <i>f</i> <sub>72</sub>                 | 0.8389±0.0027                | 0.12±0.04        | -2.01±0.16               | 8.2   | <i>f</i> <sub>66</sub>                 | 0.7281±0.0020                | 0.10±0.03        | 2.18±0.12                | 14.0  |
| <i>f</i> <sub>73</sub>                 | 0.5691±0.0027                | 0.12±0.04        | 2.28±0.16                | 8.2   | <i>f</i> <sub>67</sub>                 | 0.2894±0.0020                | 0.11±0.03        | 0.03±0.12                | 14.1  |
| <i>f</i> <sub>74</sub>                 | 0.7036±0.0028                | 0.10±0.04        | 1.96±0.17                | 7.4   | <i>f</i> <sub>68</sub>                 | 0.4909±0.0021                | 0.11±0.03        | 2.65±0.13                | 13.7  |
| <i>f</i> <sub>77</sub>                 | 0.3916±0.0030                | 0.10±0.04        | 3.08±0.19                | 6.3   | <i>f</i> <sub>69</sub>                 | 0.7699±0.0021                | 0.10±0.03        | -1.88±0.13               | 13.2  |
| <i>f</i> <sub>78</sub>                 | 0.8015±0.0031                | 0.11±0.04        | -1.15±0.19               | 6.2   | <i>f</i> <sub>70</sub>                 | 0.1247±0.0021                | 0.10±0.03        | -0.28±0.13               | 13.6  |
| <i>f</i> <sub>79</sub>                 | 0.5990±0.0030                | 0.10±0.04        | 2.17±0.19                | 6.3   | <i>f</i> <sub>71</sub>                 | 0.8813±0.0021                | 0.11±0.03        | 2.55±0.13                | 13.6  |
| <i>f</i> <sub>83</sub>                 | 0.3286±0.0031                | 0.10±0.04        | 0.69±0.19                | 6.0   | <i>f</i> <sub>72</sub>                 | 0.6259±0.0022                | 0.09±0.03        | 2.18±0.13                | 12.6  |
| <i>f</i> <sub>85</sub>                 | 13.9389±0.0031               | 0.10±0.04        | 2.92±0.19                | 6.2   | <i>f</i> <sub>74</sub>                 | 1.2657±0.0021                | 0.09±0.03        | 1.46±0.13                | 12.9  |
| <i>f</i> <sub>87</sub>                 | 0.8099±0.0031                | 0.09±0.04        | 0.46±0.19                | 6.0   | <i>f</i> <sub>75</sub>                 | 0.8089±0.0022                | 0.09±0.03        | 1.96±0.13                | 12.6  |
| <i>f</i> <sub>88</sub>                 | 1.4000±0.0032                | 0.10±0.04        | 2.69±0.20                | 5.7   | <i>f</i> <sub>76</sub>                 | 0.5182±0.0021                | 0.09±0.03        | 1.71±0.13                | 12.9  |
| <i>f</i> <sub>90</sub>                 | 0.4695±0.0033                | 0.09±0.04        | 1.47±0.20                | 5.3   | <i>f</i> <sub>77</sub>                 | 0.9050±0.0023                | 0.09±0.03        | -2.65±0.14               | 11.4  |
| <i>f</i> <sub>91</sub>                 | 0.8668±0.0034                | 0.09±0.04        | -1.49±0.21               | 5.0   | <i>f</i> <sub>78</sub>                 | 1.1468±0.0023                | 0.10±0.03        | -1.23±0.14               | 11.1  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>79</sub>                 | 1.0285±0.0023                | 0.09±0.03        | -1.63±0.14               | 11.4  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>80</sub>                 | 1.3541±0.0023                | 0.09±0.03        | -2.06±0.14               | 10.8  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>81</sub>                 | 0.6047±0.0023                | 0.09±0.03        | 2.03±0.14                | 10.8  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>82</sub>                 | 1.1789±0.0023                | 0.09±0.03        | 1.30±0.14                | 10.7  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>83</sub>                 | 1.4712±0.0023                | 0.09±0.03        | -1.92±0.14               | 11.2  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>84</sub>                 | 1.4489±0.0024                | 0.10±0.03        | -0.65±0.15               | 9.9   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>85</sub>                 | 1.4615±0.0023                | 0.09±0.03        | -2.37±0.14               | 11.2  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>87</sub>                 | 1.1869±0.0025                | 0.09±0.03        | -0.88±0.15               | 9.5   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>88</sub>                 | 1.2296±0.0024                | 0.10±0.03        | 1.22±0.15                | 10.0  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>89</sub>                 | 0.1743±0.0025                | 0.08±0.03        | -0.10±0.15               | 9.4   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>90</sub>                 | 0.4196±0.0025                | 0.08±0.03        | -1.30±0.15               | 9.2   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>91</sub>                 | 0.5455±0.0025                | 0.08±0.03        | -2.36±0.15               | 9.2   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>92</sub>                 | 2.0064±0.0026                | 0.09±0.03        | 2.96±0.16                | 8.5   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>94</sub>                 | 0.9812±0.0026                | 0.09±0.03        | 2.35±0.16                | 8.3   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>95</sub>                 | 0.6341±0.0026                | 0.08±0.03        | 3.00±0.16                | 8.6   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>96</sub>                 | 2.4669±0.0026                | 0.07±0.02        | 1.45±0.16                | 8.4   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>97</sub>                 | 0.6624±0.0026                | 0.08±0.03        | 0.90±0.16                | 8.4   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>99</sub>                 | 1.2124±0.0027                | 0.07±0.02        | 2.84±0.16                | 8.2   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>100</sub>                | 0.9302±0.0028                | 0.09±0.03        | 2.21±0.17                | 7.5   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>101</sub>                | 1.0752±0.0027                | 0.08±0.03        | 0.11±0.16                | 8.0   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>102</sub>                | 0.6995±0.0028                | 0.07±0.03        | 1.05±0.17                | 7.2   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>103</sub>                | 1.9128±0.0029                | 0.07±0.03        | 2.17±0.17                | 7.1   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>104</sub>                | 1.2393±0.0028                | 0.07±0.03        | -2.90±0.17               | 7.2   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>106</sub>                | 0.3890±0.0028                | 0.08±0.03        | 1.38±0.17                | 7.3   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>107</sub>                | 0.3409±0.0028                | 0.07±0.03        | 1.91±0.17                | 7.2   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>108</sub>                | 2.0968±0.0029                | 0.07±0.03        | -0.90±0.17               | 7.1   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>110</sub>                | 1.6615±0.0029                | 0.06±0.02        | 0.90±0.18                | 6.9   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>111</sub>                | 0.6857±0.0029                | 0.07±0.03        | 0.25±0.18                | 6.8   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>112</sub>                | 0.6773±0.0030                | 0.06±0.02        | 1.61±0.18                | 6.6   |
|                                        |                              |                  |                          |       | Frequency list of 0102694533 continued |                              |                  |                          |       |
|                                        |                              |                  |                          |       |                                        |                              |                  |                          |       |
|                                        |                              |                  |                          |       |                                        |                              |                  |                          |       |
|                                        |                              |                  |                          |       |                                        |                              |                  |                          |       |
|                                        |                              |                  |                          |       |                                        |                              |                  |                          |       |
|                                        |                              |                  |                          |       |                                        |                              |                  |                          |       |
|                                        |                              |                  |                          |       |                                        |                              |                  |                          |       |
|                                        |                              |                  |                          |       |                                        |                              |                  |                          |       |
|                                        |                              |                  |                          |       |                                        |                              |                  |                          |       |
|                                        |                              |                  |                          |       |                                        |                              |                  |                          |       |
|                                        |                              |                  |                          |       |                                        |                              |                  |                          |       |
|                                        |                              |                  |                          |       |                                        |                              |                  |                          |       |
|                                        |                              |                  |                          |       |                                        |                              |                  |                          |       |
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## Appendix B. Frequencies of individual $\gamma$ Dor Stars

| Frequency list of 0102694533 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{113}$                              | 1.4778±0.0030                | 0.07±0.03        | -2.61±0.19               | 6.3   |
| $f_{114}$                              | 1.5591±0.0030                | 0.07±0.03        | -2.03±0.19               | 6.3   |
| $f_{115}$                              | 1.5326±0.0030                | 0.07±0.03        | 2.72±0.19                | 6.3   |
| $f_{116}$                              | 2.5606±0.0030                | 0.07±0.03        | -0.05±0.18               | 6.5   |
| $f_{117}$                              | 1.3964±0.0030                | 0.06±0.02        | -0.59±0.18               | 6.4   |
| $f_{122}$                              | 0.6441±0.0031                | 0.06±0.02        | 2.64±0.19                | 6.0   |
| $f_{124}$                              | 1.3106±0.0031                | 0.06±0.02        | -1.42±0.19               | 5.9   |
| $f_{125}$                              | 1.5219±0.0032                | 0.07±0.03        | 0.35±0.20                | 5.7   |
| $f_{126}$                              | 0.9114±0.0032                | 0.07±0.03        | -1.00±0.20               | 5.6   |
| $f_{127}$                              | 0.2822±0.0032                | 0.06±0.03        | -1.85±0.20               | 5.6   |
| $f_{128}$                              | 0.4797±0.0033                | 0.07±0.03        | 1.66±0.20                | 5.3   |
| $f_{129}$                              | 2.0263±0.0033                | 0.06±0.03        | -1.81±0.20               | 5.4   |
| $f_{130}$                              | 0.7918±0.0033                | 0.06±0.03        | 0.79±0.20                | 5.3   |
| $f_{131}$                              | 1.7392±0.0033                | 0.06±0.03        | -0.48±0.20               | 5.5   |
| $f_{132}$                              | 1.6805±0.0033                | 0.06±0.03        | -2.48±0.20               | 5.3   |
| $f_{133}$                              | 3.4793±0.0033                | 0.06±0.03        | 0.40±0.20                | 5.3   |

**Table B.44:** Frequency list of 0102695863

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|--------------|------------------------------|------------------|--------------------------|-------|
| $f_1$        | 0.5722±0.0004                | 0.43±0.02        | -1.67±0.02               | 381.8 |
| $f_2$        | 0.5472±0.0007                | 0.21±0.02        | -3.10±0.04               | 112.6 |
| $f_3$        | 0.5583±0.0009                | 0.15±0.02        | 2.40±0.06                | 69.4  |
| $f_4$        | 0.6470±0.0009                | 0.14±0.02        | 0.15±0.06                | 69.6  |
| $f_5$        | 0.5350±0.0010                | 0.15±0.02        | -0.54±0.06               | 61.2  |
| $f_6$        | 0.5805±0.0010                | 0.12±0.02        | -0.56±0.06               | 63.3  |
| $f_7$        | 1.1481±0.0010                | 0.12±0.02        | 1.40±0.06                | 62.6  |
| $f_8$        | 0.2562±0.0010                | 0.12±0.02        | 2.54±0.06                | 57.6  |
| $f_9$        | 1.1733±0.0010                | 0.13±0.02        | 1.26±0.06                | 56.9  |
| $f_{10}$     | 1.7456±0.0011                | 0.14±0.02        | -2.21±0.07               | 48.6  |
| $f_{11}$     | 0.5415±0.0011                | 0.11±0.02        | -3.00±0.07               | 47.9  |
| $f_{12}$     | 1.7346±0.0011                | 0.11±0.02        | 0.93±0.07                | 47.1  |
| $f_{13}$     | 1.1315±0.0012                | 0.10±0.02        | -0.22±0.07               | 42.2  |
| $f_{14}$     | 0.6357±0.0012                | 0.12±0.02        | -1.26±0.07               | 43.3  |
| $f_{15}$     | 0.3183±0.0012                | 0.09±0.01        | -1.79±0.07               | 42.3  |
| $f_{17}$     | 0.1032±0.0013                | 0.11±0.02        | -2.96±0.08               | 37.2  |
| $f_{18}$     | 0.1893±0.0013                | 0.12±0.02        | -1.19±0.08               | 35.6  |
| $f_{19}$     | 0.3447±0.0013                | 0.11±0.02        | 0.64±0.08                | 36.5  |
| $f_{20}$     | 1.7120±0.0012                | 0.09±0.01        | 2.81±0.08                | 38.2  |
| $f_{21}$     | 1.1640±0.0013                | 0.09±0.02        | -1.22±0.08               | 33.2  |
| $f_{22}$     | 0.1212±0.0013                | 0.10±0.02        | -2.13±0.08               | 33.6  |
| $f_{23}$     | 0.6083±0.0014                | 0.10±0.02        | 2.70±0.08                | 31.9  |
| $f_{24}$     | 0.1650±0.0014                | 0.10±0.02        | -1.76±0.08               | 31.6  |
| $f_{25}$     | 0.5890±0.0014                | 0.07±0.01        | 2.25±0.09                | 28.8  |
| $f_{26}$     | 0.1446±0.0014                | 0.10±0.02        | -2.60±0.09               | 30.0  |
| $f_{27}$     | 1.7264±0.0015                | 0.08±0.02        | -2.43±0.09               | 26.4  |
| $f_{28}$     | 0.5650±0.0015                | 0.08±0.02        | -1.66±0.09               | 27.7  |
| $f_{29}$     | 1.1564±0.0015                | 0.08±0.02        | -0.13±0.09               | 25.6  |
| $f_{31}$     | 0.2167±0.0015                | 0.09±0.02        | 0.31±0.09                | 24.4  |
| $f_{32}$     | 0.4376±0.0016                | 0.07±0.01        | -1.41±0.10               | 23.1  |
| $f_{33}$     | 1.7521±0.0016                | 0.08±0.02        | 1.73±0.10                | 23.3  |
| $f_{35}$     | 1.1241±0.0016                | 0.07±0.01        | -2.33±0.10               | 22.5  |
| $f_{36}$     | 0.2376±0.0016                | 0.07±0.01        | 2.44±0.10                | 22.0  |
| $f_{37}$     | 0.3029±0.0017                | 0.07±0.02        | -1.31±0.10               | 19.7  |
| $f_{38}$     | 1.1977±0.0017                | 0.08±0.02        | 2.80±0.10                | 19.7  |
| $f_{39}$     | 0.3758±0.0017                | 0.07±0.02        | 1.58±0.10                | 19.8  |
| $f_{40}$     | 0.4869±0.0017                | 0.06±0.01        | 2.39±0.11                | 19.6  |
| $f_{41}$     | 1.0957±0.0018                | 0.06±0.01        | 0.75±0.11                | 18.5  |
| $f_{43}$     | 1.2157±0.0018                | 0.07±0.02        | 2.98±0.11                | 18.0  |
| $f_{44}$     | 0.5998±0.0018                | 0.08±0.02        | 2.13±0.11                | 18.2  |
| $f_{45}$     | 1.2631±0.0018                | 0.06±0.01        | 2.67±0.11                | 18.5  |
| $f_{46}$     | 0.6643±0.0018                | 0.07±0.02        | 1.57±0.11                | 18.2  |
| $f_{47}$     | 0.4543±0.0018                | 0.06±0.01        | 0.56±0.11                | 18.6  |
| $f_{48}$     | 1.2287±0.0018                | 0.07±0.02        | 2.59±0.11                | 18.1  |
| $f_{49}$     | 0.3555±0.0018                | 0.06±0.01        | 2.67±0.11                | 17.9  |
| $f_{50}$     | 0.7341±0.0018                | 0.06±0.01        | 0.86±0.11                | 17.5  |
| $f_{51}$     | 1.6880±0.0018                | 0.07±0.02        | -0.22±0.11               | 17.6  |
| $f_{52}$     | 0.5130±0.0018                | 0.06±0.01        | 2.25±0.11                | 17.1  |
| $f_{53}$     | 0.4021±0.0019                | 0.06±0.01        | -0.72±0.11               | 16.5  |
| $f_{54}$     | 0.5214±0.0019                | 0.06±0.02        | -0.10±0.12               | 15.7  |
| $f_{55}$     | 0.1326±0.0019                | 0.06±0.02        | 1.67±0.12                | 15.7  |
| $f_{56}$     | 1.1163±0.0020                | 0.05±0.01        | 2.97±0.12                | 15.1  |
| $f_{57}$     | 0.7682±0.0019                | 0.04±0.01        | 2.54±0.12                | 15.4  |

Frequency list of 0102695863 continued

| Frequency list of 0102695863 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{58}$                               | 0.6794±0.0020                | 0.05±0.01        | -0.17±0.12               | 14.9  |
| $f_{59}$                               | 0.6221±0.0020                | 0.07±0.02        | -1.38±0.12               | 15.3  |
| $f_{60}$                               | 0.9684±0.0020                | 0.06±0.02        | 2.68±0.12                | 14.8  |
| $f_{62}$                               | 1.6993±0.0020                | 0.05±0.01        | -1.44±0.12               | 14.4  |
| $f_{63}$                               | 0.9339±0.0020                | 0.05±0.01        | 1.86±0.12                | 14.3  |
| $f_{64}$                               | 1.0158±0.0021                | 0.05±0.01        | -2.96±0.13               | 13.4  |
| $f_{65}$                               | 1.7210±0.0021                | 0.05±0.01        | 0.97±0.13                | 13.0  |
| $f_{66}$                               | 1.7727±0.0021                | 0.05±0.01        | -1.65±0.13               | 12.9  |
| $f_{67}$                               | 0.2960±0.0022                | 0.06±0.02        | -3.03±0.13               | 12.6  |
| $f_{68}$                               | 0.3284±0.0021                | 0.05±0.01        | -2.92±0.13               | 13.5  |
| $f_{69}$                               | 0.8445±0.0022                | 0.04±0.01        | -1.63±0.13               | 12.1  |
| $f_{70}$                               | 1.2049±0.0023                | 0.05±0.01        | -2.53±0.14               | 11.5  |
| $f_{71}$                               | 0.1970±0.0023                | 0.05±0.01        | -0.70±0.14               | 11.5  |
| $f_{72}$                               | 0.4088±0.0022                | 0.04±0.01        | -1.14±0.14               | 11.6  |
| $f_{73}$                               | 1.0556±0.0023                | 0.05±0.02        | 2.95±0.14                | 10.6  |
| $f_{74}$                               | 0.7486±0.0023                | 0.05±0.02        | 2.72±0.14                | 10.9  |
| $f_{75}$                               | 1.1044±0.0024                | 0.05±0.02        | 0.68±0.15                | 10.2  |
| $f_{76}$                               | 1.0729±0.0024                | 0.05±0.02        | -1.67±0.15               | 10.1  |
| $f_{77}$                               | 1.6642±0.0025                | 0.05±0.02        | 2.32±0.15                | 9.7   |
| $f_{78}$                               | 1.6761±0.0024                | 0.05±0.02        | 0.71±0.15                | 10.2  |
| $f_{79}$                               | 0.8726±0.0025                | 0.04±0.01        | 2.83±0.15                | 9.4   |
| $f_{82}$                               | 0.4781±0.0027                | 0.04±0.01        | 2.15±0.16                | 8.0   |
| $f_{83}$                               | 0.3677±0.0027                | 0.04±0.01        | -2.77±0.16               | 8.1   |
| $f_{84}$                               | 1.9794±0.0027                | 0.04±0.01        | 1.49±0.17                | 7.9   |
| $f_{85}$                               | 1.3709±0.0028                | 0.04±0.01        | 1.82±0.17                | 7.7   |
| $f_{87}$                               | 1.1886±0.0028                | 0.04±0.01        | -0.38±0.17               | 7.3   |
| $f_{88}$                               | 0.8201±0.0028                | 0.04±0.01        | 1.80±0.17                | 7.3   |
| $f_{89}$                               | 0.7089±0.0028                | 0.03±0.01        | 1.88±0.17                | 7.2   |
| $f_{91}$                               | 0.4950±0.0029                | 0.04±0.02        | -0.97±0.18               | 7.0   |
| $f_{92}$                               | 1.2797±0.0029                | 0.04±0.02        | -2.39±0.17               | 7.1   |
| $f_{93}$                               | 0.8885±0.0029                | 0.04±0.02        | 0.59±0.17                | 7.1   |
| $f_{94}$                               | 0.8567±0.0029                | 0.04±0.02        | 0.12±0.18                | 7.0   |
| $f_{95}$                               | 1.6379±0.0029                | 0.04±0.02        | -1.57±0.18               | 7.0   |
| $f_{96}$                               | 0.3374±0.0029                | 0.04±0.02        | 2.82±0.17                | 7.1   |
| $f_{97}$                               | 0.1115±0.0030                | 0.04±0.02        | -2.14±0.18               | 6.6   |
| $f_{98}$                               | 2.0027±0.0029                | 0.04±0.02        | -0.89±0.18               | 6.7   |
| $f_{99}$                               | 0.2467±0.0030                | 0.03±0.01        | -0.67±0.18               | 6.5   |
| $f_{100}$                              | 2.9057±0.0030                | 0.03±0.01        | -2.40±0.18               | 6.4   |
| $f_{101}$                              | 1.4607±0.0030                | 0.04±0.02        | 1.65±0.19                | 6.3   |
| $f_{102}$                              | 1.2459±0.0030                | 0.03±0.01        | 1.31±0.19                | 6.3   |
| $f_{105}$                              | 0.7783±0.0031                | 0.03±0.01        | -2.13±0.19               | 5.9   |
| $f_{106}$                              | 1.5014±0.0031                | 0.03±0.01        | -2.76±0.19               | 6.0   |
| $f_{107}$                              | 2.2540±0.0032                | 0.03±0.01        | -1.97±0.19               | 5.8   |
| $f_{108}$                              | 0.6551±0.0031                | 0.03±0.01        | -2.58±0.19               | 6.0   |
| $f_{109}$                              | 0.6322±0.0031                | 0.03±0.01        | 2.34±0.19                | 6.0   |
| $f_{110}$                              | 0.2097±0.0031                | 0.03±0.01        | 1.68±0.19                | 5.9   |
| $f_{111}$                              | 1.3319±0.0032                | 0.03±0.01        | -2.95±0.20               | 5.7   |
| $f_{112}$                              | 1.8303±0.0032                | 0.03±0.01        | -1.09±0.19               | 5.8   |
| $f_{114}$                              | 1.4458±0.0033                | 0.04±0.02        | 0.01±0.20                | 5.4   |
| $f_{115}$                              | 1.4261±0.0031                | 0.03±0.01        | -1.69±0.19               | 6.0   |
| $f_{116}$                              | 0.8659±0.0033                | 0.03±0.01        | -2.86±0.20               | 5.4   |
| $f_{117}$                              | 0.3950±0.0033                | 0.03±0.01        | 0.72±0.20                | 5.3   |
| $f_{118}$                              | 1.9606±0.0033                | 0.03±0.01        | 0.44±0.20                | 5.3   |
| $f_{119}$                              | 1.8488±0.0034                | 0.03±0.01        | 0.37±0.21                | 5.1   |
| $f_{120}$                              | 0.7188±0.0034                | 0.03±0.01        | -1.91±0.21               | 5.1   |
| $f_{121}$                              | 0.6991±0.0033                | 0.03±0.01        | 3.03±0.20                | 5.5   |
| $f_{122}$                              | 0.7569±0.0034                | 0.03±0.01        | -0.20±0.21               | 5.1   |

**Table B.45:** Frequency list of 0102698507

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|--------------|------------------------------|------------------|--------------------------|-------|
| $f_1$        | 3.2465±0.0003                | 0.76±0.03        | -1.48±0.02               | 530.1 |
| $f_2$        | 3.3748±0.0004                | 0.66±0.03        | -0.77±0.02               | 459.4 |
| $f_3$        | 3.4139±0.0004                | 0.58±0.03        | -0.74±0.02               | 407.6 |
| $f_5$        | 6.0118±0.0006                | 0.35±0.03        | -0.16±0.04               | 170.0 |
| $f_6$        | 3.3382±0.0009                | 0.21±0.03        | -1.88±0.06               | 65.9  |
| $f_8$        | 3.1963±0.0010                | 0.18±0.02        | 0.28±0.06                | 56.5  |
| $f_{11}$     | 0.2421±0.0010                | 0.15±0.02        | -1.81±0.06               | 58.8  |
| $f_{13}$     | 0.1260±0.0013                | 0.17±0.03        | 0.85±0.08                | 37.2  |
| $f_{14}$     | 0.1519±0.0014                | 0.12±0.02        | -1.65±0.08               | 31.0  |
| $f_{18}$     | 0.1837±0.0015                | 0.13±0.03        | -1.07±0.09               | 27.0  |
| $f_{19}$     | 0.1700±0.0015                | 0.12±0.02        | -0.98±0.09               | 27.2  |
| $f_{20}$     | 0.1929±0.0015                | 0.10±0.02        | 1.86±0.09                | 25.3  |
| $f_{21}$     | 0.2257±0.0016                | 0.09±0.02        | 0.75±0.10                | 23.1  |
| $f_{22}$     | 2.7645±0.0016                | 0.10±0.02        | -1.55±0.10               | 22.6  |
| $f_{23}$     | 0.2085±0.0018                | 0.09±0.02        | -0.81±0.11               | 18.7  |
| $f_{24}$     | 0.2791±0.0018                | 0.08±0.02        | 2.90±0.11                | 17.1  |
| $f_{29}$     | 0.2610±0.0019                | 0.09±0.02        | -1.02±0.12               | 15.5  |

Frequency list of 0102698507 continued

## Appendix B. Frequencies of individual $\gamma$ Dor Stars

| Frequency list of 0102698507 continued |                              |                  |                          |       | Frequency list of 0102703792 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{30}$                               | 0.3608±0.0020                | 0.10±0.03        | 0.38±0.12                | 14.6  | $f_{57}$                               | 2.1783±0.0018                | 0.18±0.04        | 0.81±0.11                | 17.1  |
| $f_{31}$                               | 0.3733±0.0020                | 0.08±0.02        | 2.93±0.12                | 13.9  | $f_{58}$                               | 2.0435±0.0018                | 0.21±0.05        | -2.52±0.11               | 17.1  |
| $f_{33}$                               | 55.8623±0.0022               | 0.08±0.02        | -1.62±0.13               | 12.2  | $f_{59}$                               | 4.1980±0.0019                | 0.17±0.04        | 1.78±0.12                | 15.4  |
| $f_{34}$                               | 0.1991±0.0022                | 0.07±0.02        | -2.23±0.14               | 11.8  | $f_{60}$                               | 0.5302±0.0019                | 0.21±0.05        | 1.12±0.12                | 15.5  |
| $f_{38}$                               | 0.5074±0.0023                | 0.08±0.02        | -2.48±0.14               | 10.9  | $f_{61}$                               | 0.5112±0.0018                | 0.18±0.04        | 2.14±0.11                | 17.1  |
| $f_{39}$                               | 0.1373±0.0025                | 0.07±0.02        | 1.31±0.15                | 9.3   | $f_{62}$                               | 2.0910±0.0019                | 0.19±0.05        | 0.08±0.12                | 16.4  |
| $f_{40}$                               | 2.5988±0.0025                | 0.07±0.02        | 2.82±0.15                | 9.3   | $f_{64}$                               | 0.5738±0.0020                | 0.17±0.04        | 2.66±0.12                | 14.8  |
| $f_{44}$                               | 0.4941±0.0026                | 0.06±0.02        | -0.91±0.16               | 8.4   | $f_{65}$                               | 1.7653±0.0020                | 0.17±0.04        | 0.55±0.12                | 15.0  |
| $f_{48}$                               | 0.4269±0.0028                | 0.06±0.02        | -2.60±0.17               | 7.2   | $f_{67}$                               | 0.4544±0.0020                | 0.17±0.05        | -1.96±0.12               | 14.1  |
| $f_{49}$                               | 1.0796±0.0029                | 0.05±0.02        | 2.89±0.18                | 6.9   | $f_{68}$                               | 0.3002±0.0021                | 0.18±0.05        | 0.19±0.13                | 13.7  |
| $f_{51}$                               | 0.7543±0.0029                | 0.06±0.02        | 1.65±0.18                | 7.0   | $f_{69}$                               | 0.2275±0.0020                | 0.16±0.04        | -1.13±0.12               | 13.9  |
| $f_{52}$                               | 0.5482±0.0029                | 0.06±0.02        | 1.16±0.18                | 6.8   | $f_{70}$                               | 1.8407±0.0020                | 0.15±0.04        | -0.12±0.12               | 13.9  |
| $f_{53}$                               | 0.2966±0.0029                | 0.05±0.02        | 2.54±0.18                | 6.7   | $f_{71}$                               | 3.7368±0.0021                | 0.15±0.04        | 1.03±0.13                | 13.6  |
| $f_{54}$                               | 41.9387±0.0030               | 0.05±0.02        | 1.57±0.18                | 6.4   | $f_{73}$                               | 1.5031±0.0021                | 0.15±0.04        | 2.48±0.13                | 13.1  |
| $f_{55}$                               | 0.8855±0.0030                | 0.05±0.02        | 1.64±0.19                | 6.3   | $f_{74}$                               | 0.2785±0.0021                | 0.17±0.05        | 2.16±0.13                | 13.1  |
| $f_{56}$                               | 2.5071±0.0030                | 0.05±0.02        | -0.82±0.18               | 6.5   | $f_{75}$                               | 3.8558±0.0021                | 0.15±0.04        | 0.33±0.13                | 12.8  |
| $f_{57}$                               | 13.9451±0.0031               | 0.05±0.02        | 1.87±0.19                | 5.9   | $f_{76}$                               | 2.1371±0.0021                | 0.14±0.04        | 0.06±0.13                | 12.8  |
| $f_{58}$                               | 0.3912±0.0031                | 0.05±0.02        | -1.54±0.19               | 6.0   | $f_{77}$                               | 0.3633±0.0021                | 0.16±0.04        | -2.00±0.13               | 12.7  |
| $f_{59}$                               | 0.6263±0.0031                | 0.05±0.02        | 0.04±0.19                | 6.0   | $f_{78}$                               | 3.6357±0.0022                | 0.16±0.05        | -1.34±0.13               | 12.6  |
| $f_{61}$                               | 1.2230±0.0032                | 0.05±0.02        | 2.70±0.20                | 5.7   | $f_{80}$                               | 2.0042±0.0022                | 0.18±0.05        | 1.70±0.13                | 12.2  |
| $f_{62}$                               | 0.3047±0.0033                | 0.05±0.02        | -2.34±0.20               | 5.5   | $f_{82}$                               | 1.7390±0.0022                | 0.14±0.04        | 0.80±0.14                | 11.6  |
| $f_{64}$                               | 0.7924±0.0033                | 0.05±0.02        | -0.41±0.20               | 5.3   | $f_{83}$                               | 1.5416±0.0022                | 0.15±0.04        | 0.01±0.14                | 11.9  |
| $f_{65}$                               | 0.5212±0.0033                | 0.05±0.02        | -2.99±0.20               | 5.2   | $f_{84}$                               | 1.2428±0.0023                | 0.13±0.04        | 1.57±0.14                | 11.5  |
| $f_{66}$                               | 44.0943±0.0034               | 0.05±0.02        | -2.49±0.21               | 5.1   | $f_{85}$                               | 3.4685±0.0022                | 0.15±0.04        | -2.23±0.14               | 11.6  |

**Table B.46:** Frequency list of 0102703792

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|--------------|------------------------------|------------------|--------------------------|-------|
| $f_1$        | 2.0970±0.0003                | 1.78±0.08        | -2.83±0.02               | 517.1 |
| $f_2$        | 2.0107±0.0004                | 1.56±0.07        | 0.49±0.02                | 439.8 |
| $f_3$        | 2.0370±0.0004                | 1.38±0.07        | 1.10±0.02                | 368.6 |
| $f_4$        | 2.0642±0.0004                | 1.45±0.08        | -2.36±0.02               | 351.7 |
| $f_5$        | 4.1893±0.0005                | 1.16±0.07        | -1.16±0.03               | 268.1 |
| $f_6$        | 2.0501±0.0005                | 1.20±0.07        | 0.63±0.03                | 276.3 |
| $f_7$        | 2.1931±0.0005                | 0.91±0.06        | -0.06±0.03               | 212.7 |
| $f_8$        | 0.4318±0.0005                | 0.93±0.06        | -1.38±0.03               | 210.7 |
| $f_9$        | 2.0800±0.0005                | 0.89±0.06        | 0.00±0.03                | 205.5 |
| $f_{10}$     | 4.0698±0.0006                | 0.76±0.06        | -1.03±0.03               | 181.0 |
| $f_{11}$     | 1.8617±0.0006                | 0.63±0.05        | 2.26±0.04                | 145.9 |
| $f_{12}$     | 1.7725±0.0008                | 0.57±0.06        | -1.56±0.05               | 99.2  |
| $f_{14}$     | 2.3265±0.0009                | 0.44±0.05        | -0.00±0.05               | 73.6  |
| $f_{15}$     | 2.2966±0.0012                | 0.31±0.05        | 2.85±0.07                | 40.2  |
| $f_{17}$     | 1.4041±0.0012                | 0.33±0.05        | -1.46±0.07               | 39.7  |
| $f_{18}$     | 1.8775±0.0012                | 0.30±0.05        | -2.86±0.08               | 38.4  |
| $f_{19}$     | 0.3100±0.0013                | 0.31±0.05        | 0.57±0.08                | 37.1  |
| $f_{21}$     | 2.1139±0.0013                | 0.28±0.05        | -2.89±0.08               | 32.3  |
| $f_{22}$     | 0.1350±0.0014                | 0.31±0.06        | -0.42±0.08               | 31.1  |
| $f_{23}$     | 3.7779±0.0014                | 0.26±0.05        | -3.08±0.08               | 31.4  |
| $f_{24}$     | 1.7907±0.0014                | 0.23±0.04        | -2.96±0.08               | 31.1  |
| $f_{26}$     | 0.2014±0.0014                | 0.28±0.05        | 2.39±0.08                | 30.2  |
| $f_{27}$     | 0.2488±0.0014                | 0.24±0.04        | 2.34±0.09                | 29.2  |
| $f_{28}$     | 2.2414±0.0014                | 0.27±0.05        | -1.30±0.09               | 30.0  |
| $f_{29}$     | 2.1518±0.0014                | 0.25±0.05        | -2.46±0.09               | 30.0  |
| $f_{30}$     | 0.1773±0.0014                | 0.24±0.04        | -1.40±0.09               | 29.0  |
| $f_{31}$     | 1.8525±0.0015                | 0.28±0.05        | 1.08±0.09                | 27.7  |
| $f_{32}$     | 0.1116±0.0014                | 0.23±0.04        | -1.91±0.09               | 28.7  |
| $f_{33}$     | 3.8070±0.0015                | 0.24±0.05        | -2.93±0.09               | 25.9  |
| $f_{34}$     | 1.8337±0.0015                | 0.22±0.04        | -2.06±0.09               | 25.5  |
| $f_{35}$     | 1.2915±0.0015                | 0.24±0.05        | -1.92±0.09               | 25.9  |
| $f_{36}$     | 2.0585±0.0015                | 0.29±0.06        | 2.79±0.09                | 25.0  |
| $f_{37}$     | 0.4011±0.0015                | 0.23±0.05        | -1.17±0.09               | 24.8  |
| $f_{38}$     | 1.9254±0.0015                | 0.24±0.05        | -0.98±0.09               | 24.9  |
| $f_{39}$     | 1.9557±0.0015                | 0.26±0.05        | 2.13±0.09                | 24.5  |
| $f_{40}$     | 1.9922±0.0016                | 0.24±0.05        | 0.77±0.10                | 23.1  |
| $f_{41}$     | 1.2351±0.0016                | 0.21±0.04        | 0.58±0.10                | 23.1  |
| $f_{42}$     | 3.9303±0.0016                | 0.23±0.05        | -2.46±0.10               | 21.8  |
| $f_{43}$     | 1.7815±0.0016                | 0.21±0.04        | 2.49±0.10                | 21.9  |
| $f_{45}$     | 0.2366±0.0017                | 0.23±0.05        | 0.03±0.10                | 21.4  |
| $f_{46}$     | 3.9720±0.0017                | 0.20±0.04        | 1.47±0.10                | 20.7  |
| $f_{47}$     | 0.4162±0.0017                | 0.21±0.05        | -3.01±0.10               | 19.9  |
| $f_{48}$     | 3.8231±0.0018                | 0.21±0.05        | -0.20±0.11               | 18.9  |
| $f_{49}$     | 2.2162±0.0018                | 0.19±0.04        | -2.16±0.11               | 18.7  |
| $f_{52}$     | 0.1663±0.0018                | 0.20±0.05        | 2.14±0.11                | 18.0  |
| $f_{53}$     | 1.7991±0.0018                | 0.18±0.04        | -2.39±0.11               | 17.2  |

Frequency list of 0102703792 continued

**Table B.47:** Frequency list of 0102704602

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|--------------|------------------------------|------------------|--------------------------|-------|
| $f_1$        | 2.0031±0.0003                | 1.63±0.06        | -2.38±0.02               | 670.0 |
| $f_2$        | 1.6102±0.0003                | 1.43±0.06        | 2.02±0.02                | 608.2 |
| $f_3$        | 2.3937±0.0004                | 1.15±0.05        | 0.18±0.02                | 461.8 |
| $f_4$        | 0.3928±0.0004                | 1.05±0.05        | 2.18±0.02                | 431.0 |
| $f_5$        | 1.6661±0.0005                | 0.77±0.05        | -0.50±0.03               | 267.7 |
| $f_6$        | 0.3385±0.0005                | 0.72±0.05        | -2.26±0.03               | 252.3 |
| $f_7$        | 2.0538±0.0005                | 0.72±0.04        | -0.82±0.03               | 259.2 |
| $f_8$        | 2.1449±0.0005                | 0.65±0.04        | -1.41±0.03               | 243.7 |
| $f_9$        | 1.7513±0.0005                | 0.59±0.04        | 1.41±0.03                | 238.5 |
| $f_{10}$     | 1.9976±0.0005                | 0.55±0.04        | 2.84±0.03                | 219.3 |
| $f_{11}$     | 1.9657±0.0007                | 0.43±0.04        | -0.52±0.04               | 137.8 |
| $f_{12}$     | 1.8069±0.0007                | 0.41±0.04        | 0.25±0.04                | 131.4 |

Frequency list of 0102704602 continued

## Appendix B. Frequencies of individual $\gamma$ Dor Stars

| Frequency list of 0102704602 continued |                               |                  |                     |       | Frequency list of 0102704602 continued |                               |                  |                     |       |
|----------------------------------------|-------------------------------|------------------|---------------------|-------|----------------------------------------|-------------------------------|------------------|---------------------|-------|
| Frequency ID                           | Frequency [ $\text{d}^{-1}$ ] | Amplitude [mmag] | Phase $[-\pi, \pi]$ | Sign. | Frequency ID                           | Frequency [ $\text{d}^{-1}$ ] | Amplitude [mmag] | Phase $[-\pi, \pi]$ | Sign. |
| $f_{13}$                               | 2.0460±0.0007                 | 0.39±0.04        | 1.88±0.04           | 123.1 | $f_{100}$                              | 1.1538±0.0025                 | 0.08±0.03        | -0.75±0.15          | 9.2   |
| $f_{14}$                               | 0.3874±0.0007                 | 0.35±0.03        | 2.24±0.04           | 109.8 | $f_{101}$                              | 1.3211±0.0025                 | 0.08±0.03        | -2.48±0.15          | 9.2   |
| $f_{15}$                               | 1.6545±0.0007                 | 0.39±0.04        | -1.08±0.05          | 106.0 | $f_{102}$                              | 2.9413±0.0025                 | 0.08±0.03        | 0.58±0.15           | 9.1   |
| $f_{16}$                               | 1.5713±0.0007                 | 0.35±0.03        | 0.33±0.05           | 103.8 | $f_{103}$                              | 1.9043±0.0026                 | 0.08±0.03        | -3.13±0.16          | 8.9   |
| $f_{17}$                               | 1.2455±0.0009                 | 0.30±0.03        | 0.51±0.05           | 79.0  | $f_{104}$                              | 1.5829±0.0026                 | 0.09±0.03        | 0.01±0.16           | 8.9   |
| $f_{18}$                               | 2.0071±0.0008                 | 0.25±0.03        | -2.96±0.05          | 84.0  | $f_{106}$                              | 1.4221±0.0026                 | 0.08±0.03        | -1.81±0.16          | 8.6   |
| $f_{19}$                               | 0.1413±0.0008                 | 0.29±0.03        | -1.45±0.05          | 81.1  | $f_{107}$                              | 1.6486±0.0026                 | 0.09±0.03        | -0.14±0.16          | 8.6   |
| $f_{20}$                               | 0.2484±0.0010                 | 0.24±0.03        | -2.36±0.06          | 58.2  | $f_{108}$                              | 3.6682±0.0026                 | 0.08±0.03        | -1.29±0.16          | 8.4   |
| $f_{21}$                               | 1.2597±0.0010                 | 0.24±0.03        | -0.24±0.06          | 54.6  | $f_{109}$                              | 1.4756±0.0027                 | 0.08±0.03        | -3.11±0.16          | 8.1   |
| $f_{22}$                               | 0.8644±0.0010                 | 0.23±0.03        | -2.51±0.06          | 57.1  | $f_{110}$                              | 1.0904±0.0027                 | 0.07±0.02        | -1.56±0.16          | 8.1   |
| $f_{23}$                               | 2.4394±0.0011                 | 0.21±0.03        | 1.05±0.06           | 52.5  | $f_{111}$                              | 0.9296±0.0028                 | 0.07±0.03        | -1.96±0.17          | 7.7   |
| $f_{24}$                               | 0.4297±0.0011                 | 0.23±0.03        | -2.12±0.07          | 48.5  | $f_{112}$                              | 2.0723±0.0027                 | 0.08±0.03        | 1.07±0.17           | 7.8   |
| $f_{25}$                               | 1.6277±0.0012                 | 0.22±0.03        | 0.39±0.07           | 43.6  | $f_{115}$                              | 0.1723±0.0027                 | 0.08±0.03        | 2.38±0.17           | 7.8   |
| $f_{26}$                               | 1.7109±0.0012                 | 0.19±0.03        | -1.04±0.08          | 37.7  | $f_{116}$                              | 1.6069±0.0028                 | 0.11±0.04        | 1.63±0.17           | 7.7   |
| $f_{27}$                               | 0.4391±0.0013                 | 0.18±0.03        | 1.38±0.08           | 36.1  | $f_{117}$                              | 0.8299±0.0027                 | 0.07±0.03        | -0.70±0.17          | 7.8   |
| $f_{28}$                               | 0.3964±0.0013                 | 0.19±0.03        | 1.66±0.08           | 37.0  | $f_{118}$                              | 0.3806±0.0028                 | 0.08±0.03        | 0.29±0.17           | 7.5   |
| $f_{29}$                               | 1.5389±0.0013                 | 0.19±0.03        | 2.05±0.08           | 33.4  | $f_{121}$                              | 0.2922±0.0028                 | 0.07±0.03        | -0.21±0.17          | 7.5   |
| $f_{30}$                               | 1.4164±0.0013                 | 0.18±0.03        | 2.28±0.08           | 32.6  | $f_{122}$                              | 0.5591±0.0028                 | 0.07±0.03        | 0.62±0.17           | 7.2   |
| $f_{31}$                               | 2.0640±0.0013                 | 0.19±0.03        | -2.96±0.08          | 33.0  | $f_{124}$                              | 1.5005±0.0029                 | 0.07±0.03        | -1.42±0.17          | 7.1   |
| $f_{32}$                               | 0.1156±0.0014                 | 0.17±0.03        | -2.75±0.08          | 30.9  | $f_{125}$                              | 1.1269±0.0029                 | 0.07±0.03        | 1.85±0.18           | 7.0   |
| $f_{33}$                               | 0.8858±0.0014                 | 0.16±0.03        | -1.71±0.09          | 29.2  | $f_{126}$                              | 1.2169±0.0029                 | 0.07±0.03        | -2.50±0.18          | 6.8   |
| $f_{34}$                               | 2.0941±0.0015                 | 0.13±0.02        | 0.07±0.09           | 27.6  | $f_{127}$                              | 0.1477±0.0029                 | 0.07±0.03        | -0.54±0.18          | 6.7   |
| $f_{35}$                               | 0.4861±0.0015                 | 0.15±0.03        | 2.35±0.09           | 27.3  | $f_{129}$                              | 1.8696±0.0030                 | 0.07±0.03        | 1.15±0.18           | 6.4   |
| $f_{36}$                               | 1.9903±0.0015                 | 0.18±0.03        | 2.68±0.09           | 26.8  | $f_{130}$                              | 1.5304±0.0031                 | 0.06±0.02        | -0.17±0.19          | 6.2   |
| $f_{38}$                               | 0.3314±0.0016                 | 0.14±0.03        | -2.43±0.10          | 23.8  | $f_{131}$                              | 0.6198±0.0031                 | 0.06±0.02        | 0.82±0.19           | 6.0   |
| $f_{39}$                               | 0.9503±0.0016                 | 0.12±0.03        | 1.44±0.10           | 23.0  | $f_{132}$                              | 4.0596±0.0031                 | 0.06±0.02        | -1.24±0.19          | 6.0   |
| $f_{40}$                               | 2.4893±0.0017                 | 0.13±0.03        | 0.06±0.10           | 21.0  | $f_{133}$                              | 1.6797±0.0031                 | 0.06±0.02        | 2.91±0.19           | 6.0   |
| $f_{41}$                               | 1.9343±0.0017                 | 0.17±0.04        | 1.28±0.10           | 21.0  | $f_{134}$                              | 1.7738±0.0031                 | 0.06±0.02        | 2.28±0.19           | 5.9   |
| $f_{42}$                               | 1.9233±0.0017                 | 0.13±0.03        | 0.89±0.10           | 21.1  | $f_{135}$                              | 0.4936±0.0031                 | 0.06±0.02        | 2.54±0.19           | 6.1   |
| $f_{43}$                               | 1.4539±0.0017                 | 0.14±0.03        | -2.81±0.10          | 21.1  | $f_{136}$                              | 2.2533±0.0032                 | 0.06±0.03        | -0.25±0.20          | 5.6   |
| $f_{44}$                               | 1.4665±0.0016                 | 0.14±0.03        | 2.89±0.10           | 21.8  | $f_{137}$                              | 2.1223±0.0032                 | 0.06±0.03        | -0.21±0.20          | 5.6   |
| $f_{45}$                               | 1.1356±0.0017                 | 0.14±0.03        | 2.82±0.10           | 20.2  | $f_{138}$                              | 2.0529±0.0032                 | 0.06±0.02        | 2.21±0.19           | 5.8   |
| $f_{46}$                               | 0.7459±0.0017                 | 0.13±0.03        | -1.91±0.10          | 19.9  | $f_{139}$                              | 0.8157±0.0033                 | 0.06±0.03        | 1.45±0.20           | 5.5   |
| $f_{47}$                               | 1.8484±0.0017                 | 0.13±0.03        | -2.90±0.11          | 19.5  | $f_{140}$                              | 1.8800±0.0032                 | 0.06±0.03        | -2.31±0.20          | 5.6   |
| $f_{48}$                               | 1.0050±0.0017                 | 0.13±0.03        | 1.61±0.10           | 20.4  | $f_{141}$                              | 1.4397±0.0033                 | 0.06±0.03        | -0.12±0.20          | 5.5   |
| $f_{49}$                               | 0.1790±0.0017                 | 0.15±0.03        | -2.41±0.11          | 19.3  | $f_{142}$                              | 3.7550±0.0032                 | 0.06±0.03        | -0.45±0.20          | 5.7   |
| $f_{50}$                               | 1.3390±0.0018                 | 0.15±0.03        | 3.13±0.11           | 19.0  | $f_{143}$                              | 12.0316±0.0033                | 0.06±0.03        | -1.65±0.20          | 5.4   |
| $f_{51}$                               | 1.8927±0.0017                 | 0.13±0.03        | -0.23±0.11          | 19.2  | $f_{144}$                              | 1.0494±0.0033                 | 0.06±0.03        | -2.31±0.20          | 5.4   |
| $f_{52}$                               | 0.2022±0.0018                 | 0.14±0.03        | 1.24±0.11           | 18.4  | $f_{145}$                              | 3.1084±0.0033                 | 0.06±0.03        | -2.36±0.20          | 5.4   |
| $f_{53}$                               | 1.6679±0.0018                 | 0.14±0.03        | -1.19±0.11          | 18.3  | $f_{148}$                              | 2.2142±0.0033                 | 0.06±0.03        | 3.05±0.20           | 5.2   |
| $f_{54}$                               | 0.3470±0.0018                 | 0.12±0.03        | 1.62±0.11           | 18.8  |                                        |                               |                  |                     |       |
| $f_{55}$                               | 1.2808±0.0018                 | 0.13±0.03        | 1.48±0.11           | 18.0  |                                        |                               |                  |                     |       |
| $f_{56}$                               | 1.0197±0.0019                 | 0.12±0.03        | 0.79±0.11           | 16.9  |                                        |                               |                  |                     |       |
| $f_{57}$                               | 0.1629±0.0019                 | 0.13±0.03        | -1.26±0.11          | 17.0  |                                        |                               |                  |                     |       |
| $f_{58}$                               | 0.1075±0.0018                 | 0.12±0.03        | 1.34±0.11           | 17.7  |                                        |                               |                  |                     |       |
| $f_{59}$                               | 0.5422±0.0019                 | 0.12±0.03        | -1.23±0.11          | 16.6  |                                        |                               |                  |                     |       |
| $f_{60}$                               | 1.7269±0.0019                 | 0.11±0.03        | 2.40±0.11           | 16.5  |                                        |                               |                  |                     |       |
| $f_{61}$                               | 1.5611±0.0019                 | 0.12±0.03        | 0.10±0.12           | 16.3  |                                        |                               |                  |                     |       |
| $f_{62}$                               | 1.9452±0.0020                 | 0.10±0.03        | 1.45±0.12           | 15.1  |                                        |                               |                  |                     |       |
| $f_{63}$                               | 1.1971±0.0019                 | 0.10±0.03        | -0.08±0.12          | 15.6  |                                        |                               |                  |                     |       |
| $f_{64}$                               | 3.6121±0.0020                 | 0.11±0.03        | -1.90±0.12          | 15.2  |                                        |                               |                  |                     |       |
| $f_{65}$                               | 2.1526±0.0020                 | 0.11±0.03        | -1.08±0.12          | 14.6  |                                        |                               |                  |                     |       |
| $f_{66}$                               | 1.5099±0.0020                 | 0.10±0.03        | -2.18±0.12          | 14.5  |                                        |                               |                  |                     |       |
| $f_{67}$                               | 0.9831±0.0021                 | 0.10±0.03        | 1.49±0.13           | 13.6  |                                        |                               |                  |                     |       |
| $f_{68}$                               | 0.9207±0.0021                 | 0.12±0.03        | 2.13±0.13           | 13.5  |                                        |                               |                  |                     |       |
| $f_{69}$                               | 4.0038±0.0021                 | 0.10±0.03        | 2.50±0.13           | 13.6  |                                        |                               |                  |                     |       |
| $f_{70}$                               | 2.1044±0.0021                 | 0.11±0.03        | 2.52±0.13           | 13.4  |                                        |                               |                  |                     |       |
| $f_{71}$                               | 2.3160±0.0021                 | 0.09±0.03        | -1.07±0.13          | 12.8  |                                        |                               |                  |                     |       |
| $f_{72}$                               | 1.0431±0.0022                 | 0.10±0.03        | -2.58±0.13          | 12.5  |                                        |                               |                  |                     |       |
| $f_{73}$                               | 0.9077±0.0022                 | 0.10±0.03        | 1.42±0.13           | 12.3  |                                        |                               |                  |                     |       |
| $f_{74}$                               | 1.3479±0.0022                 | 0.09±0.03        | 2.56±0.13           | 12.3  |                                        |                               |                  |                     |       |
| $f_{75}$                               | 0.9685±0.0022                 | 0.10±0.03        | -0.39±0.13          | 12.1  |                                        |                               |                  |                     |       |
| $f_{76}$                               | 1.4879±0.0022                 | 0.10±0.03        | -2.50±0.13          | 12.4  |                                        |                               |                  |                     |       |
| $f_{77}$                               | 0.4570±0.0022                 | 0.10±0.03        | 0.87±0.14           | 11.9  |                                        |                               |                  |                     |       |
| $f_{78}$                               | 0.2272±0.0022                 | 0.10±0.03        | -1.34±0.14          | 11.9  |                                        |                               |                  |                     |       |
| $f_{79}$                               | 0.1916±0.0022                 | 0.10±0.03        | 1.08±0.14           | 11.9  |                                        |                               |                  |                     |       |
| $f_{88}$                               | 1.6388±0.0023                 | 0.10±0.03        | -3.03±0.14          | 11.3  |                                        |                               |                  |                     |       |
| $f_{89}$                               | 0.3123±0.0023                 | 0.09±0.03        | -1.47±0.14          | 11.0  |                                        |                               |                  |                     |       |
| $f_{90}$                               | 1.8154±0.0023                 | 0.10±0.03        | 2.68±0.14           | 10.9  |                                        |                               |                  |                     |       |
| $f_{91}$                               | 1.7826±0.0023                 | 0.09±0.03        | 1.21±0.14           | 10.9  |                                        |                               |                  |                     |       |
| $f_{93}$                               | 1.1783±0.0023                 | 0.09±0.03        | 0.58±0.14           | 10.6  |                                        |                               |                  |                     |       |
| $f_{94}$                               | 0.7075±0.0024                 | 0.09±0.03        | -0.31±0.15          | 9.8   |                                        |                               |                  |                     |       |
| $f_{95}$                               | 0.6988±0.0024                 | 0.09±0.03        | 1.77±0.15           | 10.0  |                                        |                               |                  |                     |       |
| $f_{96}$                               | 1.3574±0.0025                 | 0.08±0.03        | -1.17±0.15          | 9.6   |                                        |                               |                  |                     |       |
| $f_{97}$                               | 1.1089±0.0025                 | 0.09±0.03        | 2.13±0.15           | 9.4   |                                        |                               |                  |                     |       |
| $f_{99}$                               | 0.7852±0.0025                 | 0.08±0.03        | -2.87±0.15          | 9.1   |                                        |                               |                  |                     |       |
| Frequency list of 0102704602 continued |                               |                  |                     |       | Frequency list of 0102705089 continued |                               |                  |                     |       |

**Table B.48:** Frequency list of 0102705089

| Frequency ID                           | Frequency [ $\text{d}^{-1}$ ] | Amplitude [mmag] | Phase $[-\pi, \pi]$ | Sign.  |
|----------------------------------------|-------------------------------|------------------|---------------------|--------|
| $f_1$                                  | 1.5095±0.0002                 | 5.72±0.18        | 2.33±0.01           | 1008.8 |
| $f_2$                                  | 1.4214±0.0002                 | 5.73±0.17        | -0.76±0.01          | 1165.7 |
| $f_3$                                  | 0.7750±0.0003                 | 3.46±0.14        | 1.99±0.02           | 640.3  |
| $f_4$                                  | 1.6477±0.0003                 | 3.28±0.13        | -1.13±0.02          | 652.8  |
| $f_5$                                  | 1.3342±0.0003                 | 2.40±0.10        | 1.40±0.02           | 537.1  |
| $f_6$                                  | 0.7073±0.0004                 | 2.11±0.11        | -2.85±0.03          | 338.6  |
| $f_7$                                  | 1.2201±0.0004                 | 2.12±0.12        | -0.01±0.03          | 327.6  |
| $f_8$                                  | 1.2454±0.0004                 | 1.95±0.11        | -0.47±0.03          | 334.7  |
| $f_9$                                  | 1.3180±0.0004                 | 1.64±0.09        | -0.22±0.03          | 309.3  |
| $f_{10}$                               | 1.1999±0.0005                 | 1.37±0.09        | -2.84±0.03          | 237.8  |
| $f_{11}$                               | 1.2733±0.0005                 | 1.43±0.10        | 2.95±0.03           | 215.9  |
| $f_{12}$                               | 1.4091±0.0005                 | 1.31±0.09        | 2.59±0.03           | 200.0  |
| $f_{13}$                               | 0.6908±0.0006                 | 1.13±0.09        | 0.35±0.04           | 176.2  |
| $f_{14}$                               | 0.7830±0.0006                 | 0.71±0.06        | 1.08±0.04           | 140.9  |
| $f_{15}$                               | 0.6809±0.0007                 | 0.89±0.08        | -2.72±0.04          | 134.8  |
| $f_{16}$                               | 0.7340±0.0007                 | 0.85±0.08        | 1.07±0.04           | 123.3  |
| $f_{17}$                               | 0.2266±0.0008                 | 0.72±0.07        | 2.88±0.05           | 102.9  |
| $f_{18}$                               | 0.8105±0.0008                 | 0.78±0.08        | -0.45±0.05          | 96.7   |
| $f_{19}$                               | 0.2781±0.0008                 | 0.62±0.06        | 2.55±0.05           | 95.0   |
| $f_{20}$                               | 1.1458±0.0009                 | 0.62±0.07        | 0.60±0.05           | 77.5   |
| $f_{21}$                               | 1.2255±0.0009                 | 0.45±0.05        | 2.23±0.05           | 75.9   |
| $f_{22}$                               | 0.7952±0.0009                 | 0.67±0.08        | -0.01±0.06          | 71.7   |
| $f_{23}$                               | 1.2987±0.0009                 | 0.60±0.07        | 2.85±0.05           | 73.2   |
| $f_{25}$                               | 1.1775±0.0009                 | 0.69±0.08        | -2.83±0.06          | 66.0   |
| $f_{26}$                               | 1.1904±0.0009                 | 0.57±0.07        | 0.62±0.06           | 68.1   |
| $f_{27}$                               | 0.2905±0.0009                 | 0.53±0.06        | 0.35±0.06           | 66.5   |
| $f_{28}$                               | 0.1928±0.0009                 | 0.48±0.06        | -1.24±0.06          | 66.1   |
| $f_{29}$                               | 0.8030±0.0009                 | 0.46±0.06        | 0.61±0.06           | 65.9   |
| $f_{30}$                               | 0.6982±0.0010                 | 0.55±0.07        | 0.89±0.06           | 63.3   |
| $f_{31}$                               | 0.6549±0.0010                 | 0.46±0.06        | 2.77±0.06           | 57.2   |
| $f_{32}$                               | 0.1180±0.0010                 | 0.41±0.06        | -1.56±0.06          | 53.6   |
| $f_{33}$                               | 0.1833±0.0010                 | 0.44±0.06        | -1.76±0.06          | 57.1   |
| Frequency list of 0102705089 continued |                               |                  |                     |        |



## Appendix B. Frequencies of individual $\gamma$ Dor Stars

| Frequency list of 0102705089 continued |                              |                  |                          |       | Frequency list of 0102705089 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{34}$                               | 0.7156±0.0010                | 0.44±0.06        | -1.99±0.06               | 54.0  | $f_{118}$                              | 0.4944±0.0021                | 0.16±0.04        | 0.41±0.13                | 13.3  |
| $f_{35}$                               | 1.2908±0.0010                | 0.50±0.07        | 0.15±0.06                | 54.3  | $f_{120}$                              | 0.6723±0.0022                | 0.18±0.05        | 1.74±0.13                | 12.6  |
| $f_{36}$                               | 2.2161±0.0011                | 0.46±0.07        | -0.75±0.07               | 48.6  | $f_{121}$                              | 0.2350±0.0022                | 0.15±0.04        | 1.27±0.13                | 12.0  |
| $f_{37}$                               | 1.1693±0.0011                | 0.40±0.06        | 0.30±0.07                | 49.4  | $f_{122}$                              | 0.1265±0.0021                | 0.15±0.04        | -1.05±0.13               | 13.1  |
| $f_{38}$                               | 1.0206±0.0011                | 0.40±0.06        | -1.96±0.07               | 45.3  | $f_{123}$                              | 1.4014±0.0023                | 0.13±0.04        | 0.12±0.14                | 11.4  |
| $f_{39}$                               | 1.1194±0.0012                | 0.50±0.08        | -3.01±0.07               | 43.5  | $f_{124}$                              | 2.2940±0.0023                | 0.17±0.05        | 0.34±0.14                | 11.5  |
| $f_{40}$                               | 1.3843±0.0012                | 0.42±0.06        | 2.39±0.07                | 42.1  | $f_{125}$                              | 1.1142±0.0023                | 0.16±0.05        | -2.42±0.14               | 11.2  |
| $f_{41}$                               | 1.3289±0.0012                | 0.37±0.06        | -2.07±0.07               | 40.9  | $f_{126}$                              | 1.4954±0.0023                | 0.11±0.03        | 0.96±0.14                | 11.5  |
| $f_{42}$                               | 1.3060±0.0012                | 0.37±0.06        | 1.72±0.07                | 41.7  | $f_{128}$                              | 2.4764±0.0023                | 0.17±0.05        | 0.30±0.14                | 11.4  |
| $f_{43}$                               | 2.9306±0.0012                | 0.34±0.05        | -1.42±0.07               | 41.3  | $f_{129}$                              | 1.9367±0.0023                | 0.15±0.04        | 1.73±0.14                | 11.2  |
| $f_{44}$                               | 0.1670±0.0012                | 0.41±0.07        | -2.68±0.07               | 39.2  | $f_{130}$                              | 1.1586±0.0023                | 0.13±0.04        | -2.92±0.14               | 10.8  |
| $f_{45}$                               | 0.8726±0.0012                | 0.40±0.06        | -2.20±0.07               | 40.7  | $f_{131}$                              | 1.7352±0.0023                | 0.16±0.05        | 3.11±0.14                | 11.2  |
| $f_{46}$                               | 0.1395±0.0012                | 0.35±0.06        | 3.09±0.08                | 38.5  | $f_{132}$                              | 0.3890±0.0023                | 0.17±0.05        | 0.35±0.14                | 11.0  |
| $f_{47}$                               | 0.5063±0.0013                | 0.37±0.06        | 0.58±0.08                | 35.8  | $f_{133}$                              | 2.1977±0.0023                | 0.15±0.05        | 0.46±0.14                | 11.1  |
| $f_{48}$                               | 1.4188±0.0013                | 0.54±0.09        | -1.29±0.08               | 35.4  | $f_{134}$                              | 2.8793±0.0024                | 0.12±0.04        | 2.55±0.15                | 10.2  |
| $f_{49}$                               | 1.0684±0.0013                | 0.38±0.06        | 1.83±0.08                | 34.7  | $f_{135}$                              | 2.8276±0.0024                | 0.12±0.04        | 0.13±0.15                | 10.3  |
| $f_{50}$                               | 1.2665±0.0013                | 0.31±0.05        | -2.29±0.08               | 35.9  | $f_{136}$                              | 0.5583±0.0024                | 0.16±0.05        | -2.95±0.15               | 10.2  |
| $f_{51}$                               | 2.3732±0.0013                | 0.32±0.05        | 0.48±0.08                | 35.4  | $f_{137}$                              | 1.5842±0.0024                | 0.17±0.05        | 0.18±0.15                | 10.3  |
| $f_{52}$                               | 0.6393±0.0013                | 0.26±0.05        | -1.86±0.08               | 32.9  | $f_{138}$                              | 0.2972±0.0024                | 0.13±0.04        | -0.54±0.15               | 10.2  |
| $f_{53}$                               | 3.0198±0.0013                | 0.33±0.06        | -1.28±0.08               | 32.5  | $f_{141}$                              | 2.6659±0.0024                | 0.16±0.05        | -2.10±0.15               | 10.2  |
| $f_{54}$                               | 0.2438±0.0013                | 0.29±0.05        | 2.99±0.08                | 33.1  | $f_{142}$                              | 2.4446±0.0024                | 0.15±0.05        | 1.35±0.15                | 10.2  |
| $f_{55}$                               | 1.2514±0.0014                | 0.23±0.04        | -2.34±0.08               | 30.1  | $f_{143}$                              | 2.6405±0.0024                | 0.17±0.05        | 2.64±0.15                | 9.8   |
| $f_{56}$                               | 1.0524±0.0014                | 0.31±0.06        | 1.58±0.09                | 29.1  | $f_{144}$                              | 2.7407±0.0024                | 0.15±0.05        | -0.39±0.15               | 10.0  |
| $f_{57}$                               | 0.2038±0.0014                | 0.33±0.06        | 2.11±0.09                | 29.2  | $f_{146}$                              | 1.9894±0.0024                | 0.10±0.03        | -1.68±0.14               | 10.4  |
| $f_{58}$                               | 0.6463±0.0015                | 0.27±0.05        | -2.10±0.09               | 27.4  | $f_{147}$                              | 2.0498±0.0025                | 0.14±0.05        | 0.03±0.15                | 9.6   |
| $f_{60}$                               | 0.9373±0.0014                | 0.31±0.06        | -1.04±0.09               | 27.9  | $f_{149}$                              | 2.0060±0.0025                | 0.29±0.09        | -0.48±0.15               | 9.6   |
| $f_{61}$                               | 0.7496±0.0015                | 0.31±0.06        | -2.26±0.09               | 27.7  | $f_{150}$                              | 0.8918±0.0025                | 0.14±0.05        | -1.80±0.15               | 9.3   |
| $f_{62}$                               | 1.5069±0.0014                | 0.19±0.04        | 1.25±0.09                | 27.8  | $f_{152}$                              | 1.5168±0.0027                | 0.16±0.06        | 0.50±0.16                | 8.2   |
| $f_{63}$                               | 1.1402±0.0014                | 0.34±0.06        | -1.18±0.09               | 29.0  | $f_{153}$                              | 2.9182±0.0027                | 0.16±0.06        | 2.07±0.16                | 8.1   |
| $f_{64}$                               | 1.1060±0.0014                | 0.30±0.06        | 2.49±0.09                | 29.1  | $f_{154}$                              | 0.2529±0.0027                | 0.12±0.04        | -3.00±0.16               | 8.0   |
| $f_{65}$                               | 0.4568±0.0015                | 0.24±0.05        | -2.13±0.09               | 26.7  | $f_{155}$                              | 2.6932±0.0027                | 0.17±0.06        | 2.74±0.16                | 8.0   |
| $f_{66}$                               | 1.0779±0.0015                | 0.27±0.05        | -0.59±0.09               | 26.1  | $f_{156}$                              | 2.9824±0.0027                | 0.14±0.05        | -1.05±0.17               | 7.8   |
| $f_{67}$                               | 1.2062±0.0015                | 0.36±0.07        | 0.91±0.09                | 26.3  | $f_{157}$                              | 2.8938±0.0027                | 0.14±0.05        | 2.18±0.16                | 8.1   |
| $f_{68}$                               | 0.1462±0.0015                | 0.27±0.05        | 2.16±0.09                | 25.9  | $f_{159}$                              | 2.0952±0.0027                | 0.14±0.05        | 1.41±0.17                | 7.8   |
| $f_{69}$                               | 0.3155±0.0015                | 0.24±0.05        | -0.44±0.09               | 24.7  | $f_{160}$                              | 1.0830±0.0026                | 0.13±0.05        | -2.47±0.16               | 8.3   |
| $f_{70}$                               | 1.2832±0.0015                | 0.28±0.06        | 3.13±0.09                | 24.5  | $f_{166}$                              | 2.7889±0.0027                | 0.13±0.05        | 0.04±0.16                | 8.0   |
| $f_{71}$                               | 0.7614±0.0015                | 0.25±0.05        | 0.45±0.09                | 24.5  | $f_{167}$                              | 2.2525±0.0027                | 0.14±0.05        | 1.00±0.17                | 7.9   |
| $f_{72}$                               | 0.9853±0.0015                | 0.22±0.04        | -0.82±0.09               | 25.3  | $f_{168}$                              | 2.3333±0.0027                | 0.13±0.05        | -2.51±0.17               | 7.9   |
| $f_{73}$                               | 2.3449±0.0016                | 0.25±0.05        | -0.83±0.10               | 23.9  | $f_{170}$                              | 0.8197±0.0027                | 0.12±0.04        | -1.81±0.17               | 7.8   |
| $f_{74}$                               | 1.6200±0.0016                | 0.26±0.05        | 2.93±0.10                | 23.3  | $f_{171}$                              | 0.1601±0.0028                | 0.16±0.06        | 1.75±0.17                | 7.5   |
| $f_{75}$                               | 1.1320±0.0017                | 0.25±0.05        | -2.16±0.10               | 21.3  | $f_{173}$                              | 1.4664±0.0028                | 0.12±0.04        | -2.82±0.17               | 7.5   |
| $f_{76}$                               | 0.5281±0.0016                | 0.28±0.06        | 2.17±0.10                | 21.6  | $f_{174}$                              | 1.4849±0.0027                | 0.14±0.05        | 1.17±0.16                | 8.2   |
| $f_{77}$                               | 1.3676±0.0016                | 0.29±0.06        | -0.01±0.10               | 21.6  | $f_{175}$                              | 1.3423±0.0026                | 0.15±0.05        | 2.27±0.16                | 8.4   |
| $f_{78}$                               | 3.0692±0.0017                | 0.22±0.05        | 2.87±0.10                | 20.8  | $f_{176}$                              | 0.9204±0.0027                | 0.13±0.05        | 0.66±0.17                | 7.9   |
| $f_{79}$                               | 2.7290±0.0017                | 0.20±0.04        | 0.54±0.10                | 21.1  | $f_{177}$                              | 0.2120±0.0028                | 0.15±0.06        | -2.03±0.17               | 7.3   |
| $f_{80}$                               | 1.4457±0.0017                | 0.26±0.06        | -2.01±0.10               | 20.1  | $f_{178}$                              | 0.1073±0.0027                | 0.14±0.05        | -0.16±0.17               | 7.9   |
| $f_{81}$                               | 1.5478±0.0017                | 0.25±0.05        | -0.01±0.10               | 20.8  | $f_{179}$                              | 1.7990±0.0028                | 0.14±0.05        | 0.25±0.17                | 7.5   |
| $f_{82}$                               | 0.5416±0.0017                | 0.26±0.06        | 0.56±0.10                | 20.9  | $f_{180}$                              | 1.4388±0.0028                | 0.13±0.05        | 1.94±0.17                | 7.6   |
| $f_{83}$                               | 1.2300±0.0017                | 0.26±0.06        | 1.04±0.10                | 20.1  | $f_{182}$                              | 0.7767±0.0028                | 0.16±0.06        | -2.28±0.17               | 7.4   |
| $f_{84}$                               | 0.7265±0.0017                | 0.28±0.06        | -1.53±0.10               | 19.7  | $f_{183}$                              | 2.5732±0.0029                | 0.14±0.05        | -0.26±0.17               | 7.1   |
| $f_{85}$                               | 0.3751±0.0017                | 0.24±0.05        | 0.53±0.11                | 19.6  | $f_{184}$                              | 0.9568±0.0028                | 0.12±0.04        | 1.44±0.17                | 7.6   |
| $f_{86}$                               | 2.3210±0.0017                | 0.20±0.05        | 0.28±0.11                | 19.4  | $f_{185}$                              | 1.4757±0.0028                | 0.11±0.04        | -0.46±0.17               | 7.2   |
| $f_{87}$                               | 2.2737±0.0017                | 0.21±0.05        | -1.30±0.10               | 20.2  | $f_{186}$                              | 0.5920±0.0028                | 0.12±0.04        | 1.72±0.17                | 7.4   |
| $f_{88}$                               | 0.3668±0.0017                | 0.25±0.06        | -2.16±0.10               | 19.7  | $f_{187}$                              | 2.0803±0.0029                | 0.13±0.05        | 2.55±0.17                | 7.1   |
| $f_{89}$                               | 1.0973±0.0018                | 0.22±0.05        | -0.84±0.11               | 18.9  | $f_{188}$                              | 3.2959±0.0029                | 0.13±0.05        | -2.11±0.17               | 7.1   |
| $f_{90}$                               | 0.8391±0.0017                | 0.26±0.06        | 1.85±0.11                | 19.2  | $f_{189}$                              | 0.6631±0.0029                | 0.13±0.05        | -2.39±0.17               | 7.1   |
| $f_{94}$                               | 0.6299±0.0018                | 0.20±0.05        | 0.48±0.11                | 19.0  | $f_{190}$                              | 55.8636±0.0029               | 0.12±0.05        | 2.00±0.18                | 6.9   |
| $f_{95}$                               | 0.3056±0.0018                | 0.23±0.05        | -1.22±0.11               | 18.3  | $f_{191}$                              | 1.8880±0.0028                | 0.13±0.05        | 0.27±0.17                | 7.2   |
| $f_{96}$                               | 0.5134±0.0018                | 0.25±0.06        | 1.01±0.11                | 18.6  | $f_{192}$                              | 0.4726±0.0029                | 0.12±0.05        | 2.47±0.18                | 6.8   |
| $f_{97}$                               | 1.3598±0.0018                | 0.22±0.05        | -0.12±0.11               | 18.1  | $f_{193}$                              | 3.3302±0.0029                | 0.11±0.04        | 2.66±0.18                | 6.8   |
| $f_{98}$                               | 0.4296±0.0019                | 0.23±0.06        | 2.28±0.11                | 17.0  | $f_{196}$                              | 3.6618±0.0029                | 0.11±0.04        | 2.94±0.18                | 6.8   |
| $f_{99}$                               | 0.8515±0.0018                | 0.21±0.05        | 3.03±0.11                | 17.1  | $f_{197}$                              | 2.1548±0.0030                | 0.12±0.05        | -2.22±0.18               | 6.5   |
| $f_{100}$                              | 0.4476±0.0019                | 0.22±0.06        | 2.05±0.12                | 15.8  | $f_{198}$                              | 2.1409±0.0030                | 0.12±0.05        | -1.03±0.18               | 6.6   |
| $f_{101}$                              | 0.3246±0.0020                | 0.21±0.05        | -1.16±0.12               | 15.1  | $f_{199}$                              | 2.0000±0.0030                | 0.13±0.05        | 1.22±0.18                | 6.6   |
| $f_{102}$                              | 1.4137±0.0019                | 0.23±0.06        | -2.21±0.12               | 15.6  | $f_{200}$                              | 0.4413±0.0030                | 0.12±0.05        | 0.24±0.18                | 6.4   |
| $f_{103}$                              | 0.1737±0.0020                | 0.16±0.04        | 2.65±0.12                | 14.8  | $f_{203}$                              | 0.4115±0.0030                | 0.12±0.05        | 1.79±0.18                | 6.5   |
| $f_{104}$                              | 0.8282±0.0020                | 0.17±0.04        | 0.60±0.12                | 14.8  | $f_{204}$                              | 0.6213±0.0030                | 0.11±0.04        | 2.82±0.18                | 6.4   |
| $f_{105}$                              | 2.2858±0.0020                | 0.18±0.05        | 2.68±0.12                | 15.0  | $f_{206}$                              | 1.0303±0.0030                | 0.11±0.04        | 0.31±0.18                | 6.4   |
| $f_{106}$                              | 2.8431±0.0020                | 0.21±0.06        | 0.21±0.12                | 14.4  | $f_{207}$                              | 1.0029±0.0030                | 0.13±0.05        | 0.26±0.18                | 6.5   |
| $f_{107}$                              | 0.9675±0.0020                | 0.17±0.05        | -1.94±0.12               | 14.0  | $f_{208}$                              | 1.0135±0.0029                | 0.12±0.05        | 0.06±0.18                | 6.8   |
| $f_{108}$                              | 0.4032±0.0020                | 0.20±0.05        | -0.60±0.12               | 14.1  | $f_{209}$                              | 1.5968±0.0030                | 0.12±0.05        | -1.81±0.18               | 6.4   |
| $f_{110}$                              | 0.6075±0.0021                | 0.18±0.05        | -1.86±0.13               | 13.6  | $f_{210}$                              | 1.1474±0.0031                | 0.12±0.05        | 2.35±0.19                | 5.9   |
| $f_{113}$                              | 2.3543±0.0020                | 0.15±0.04        | 0.34±0.12                | 14.4  | $f_{211}$                              | 2.5838±0.0031                | 0.11±0.04        | -1.54±0.19               | 6.0   |
| $f_{115}$                              | 1.7148±0.0021                | 0.14±0.04        | -0.85±0.13               | 13.4  | $f_{212}$                              | 0.1170±0.0032                | 0.11±0.05        | -2.92±0.20               | 5.6   |
| $f_{116}$                              | 1.2379±0.0020                | 0.18±0.05        | 0.55±0.12                | 14.0  | $f_{213}$                              | 2.6512±0.0032                | 0.11±0.05        | -1.07±0.20               | 5.6   |
| $f_{117}$                              | 3.1566±0.0021                | 0.18±0.05        | -0.45±0.13               | 13.3  | $f_{214}$                              | 2.6206±0.0032                | 0.10±0.04        | -2.04±0.20               | 5.7   |
| Frequency list of 0102705089 continued |                              |                  |                          |       | Frequency list of 0102705089 continued |                              |                  |                          |       |

## Appendix B. Frequencies of individual $\gamma$ Dor Stars

| Frequency list of 0102705089 continued |                               |                  |                     |       |
|----------------------------------------|-------------------------------|------------------|---------------------|-------|
| Frequency ID                           | Frequency [ $\text{d}^{-1}$ ] | Amplitude [mmag] | Phase $[-\pi, \pi]$ | Sign. |
| $f_{215}$                              | 1.7026 $\pm$ 0.0032           | 0.11 $\pm$ 0.05  | -2.82 $\pm$ 0.20    | 5.6   |
| $f_{216}$                              | 1.8154 $\pm$ 0.0032           | 0.11 $\pm$ 0.05  | 2.02 $\pm$ 0.19     | 5.8   |
| $f_{218}$                              | 0.6905 $\pm$ 0.0033           | 0.11 $\pm$ 0.05  | -1.40 $\pm$ 0.20    | 5.3   |
| $f_{219}$                              | 2.0168 $\pm$ 0.0033           | 0.10 $\pm$ 0.04  | -2.65 $\pm$ 0.20    | 5.3   |
| $f_{220}$                              | 3.0555 $\pm$ 0.0033           | 0.10 $\pm$ 0.04  | -0.57 $\pm$ 0.20    | 5.3   |
| $f_{221}$                              | 1.7681 $\pm$ 0.0033           | 0.10 $\pm$ 0.04  | 1.06 $\pm$ 0.20     | 5.3   |
| $f_{222}$                              | 2.7045 $\pm$ 0.0033           | 0.10 $\pm$ 0.04  | 2.26 $\pm$ 0.20     | 5.3   |
| $f_{223}$                              | 1.6408 $\pm$ 0.0034           | 0.10 $\pm$ 0.04  | 0.65 $\pm$ 0.21     | 5.1   |

**Table B.49:** Frequency list of 0102708748

| Frequency ID | Frequency [ $\text{d}^{-1}$ ] | Amplitude [mmag] | Phase $[-\pi, \pi]$ | Sign. |
|--------------|-------------------------------|------------------|---------------------|-------|
| $f_1$        | 0.8732 $\pm$ 0.0005           | 0.59 $\pm$ 0.04  | 3.07 $\pm$ 0.03     | 263.6 |
| $f_2$        | 0.2887 $\pm$ 0.0005           | 0.53 $\pm$ 0.04  | 2.71 $\pm$ 0.03     | 213.5 |
| $f_3$        | 0.7879 $\pm$ 0.0005           | 0.54 $\pm$ 0.04  | 1.10 $\pm$ 0.03     | 226.8 |
| $f_4$        | 0.6544 $\pm$ 0.0006           | 0.36 $\pm$ 0.03  | 0.73 $\pm$ 0.04     | 138.3 |
| $f_5$        | 0.1108 $\pm$ 0.0009           | 0.28 $\pm$ 0.03  | 2.87 $\pm$ 0.05     | 77.0  |
| $f_6$        | 0.9227 $\pm$ 0.0010           | 0.23 $\pm$ 0.03  | -2.57 $\pm$ 0.06    | 56.1  |
| $f_7$        | 0.8965 $\pm$ 0.0010           | 0.25 $\pm$ 0.03  | 1.79 $\pm$ 0.06     | 62.5  |
| $f_8$        | 0.4690 $\pm$ 0.0010           | 0.25 $\pm$ 0.03  | 0.32 $\pm$ 0.06     | 56.8  |
| $f_9$        | 0.7717 $\pm$ 0.0011           | 0.19 $\pm$ 0.03  | 2.44 $\pm$ 0.07     | 48.5  |
| $f_{10}$     | 1.9329 $\pm$ 0.0011           | 0.21 $\pm$ 0.03  | -0.24 $\pm$ 0.07    | 49.1  |
| $f_{11}$     | 0.2574 $\pm$ 0.0011           | 0.21 $\pm$ 0.03  | -3.11 $\pm$ 0.07    | 46.3  |
| $f_{12}$     | 1.2107 $\pm$ 0.0012           | 0.18 $\pm$ 0.03  | 2.69 $\pm$ 0.07     | 41.6  |
| $f_{13}$     | 0.8119 $\pm$ 0.0012           | 0.17 $\pm$ 0.03  | 2.11 $\pm$ 0.08     | 38.1  |
| $f_{14}$     | 1.6609 $\pm$ 0.0012           | 0.18 $\pm$ 0.03  | 3.13 $\pm$ 0.07     | 39.3  |
| $f_{15}$     | 0.1163 $\pm$ 0.0013           | 0.14 $\pm$ 0.02  | -1.31 $\pm$ 0.08    | 33.6  |
| $f_{16}$     | 2.2907 $\pm$ 0.0014           | 0.16 $\pm$ 0.03  | -1.88 $\pm$ 0.08    | 31.2  |
| $f_{17}$     | 0.2996 $\pm$ 0.0013           | 0.14 $\pm$ 0.02  | -1.05 $\pm$ 0.08    | 32.0  |
| $f_{18}$     | 0.1420 $\pm$ 0.0014           | 0.17 $\pm$ 0.03  | 1.36 $\pm$ 0.09     | 28.6  |
| $f_{19}$     | 2.6788 $\pm$ 0.0015           | 0.14 $\pm$ 0.03  | 3.06 $\pm$ 0.09     | 26.7  |
| $f_{20}$     | 0.6648 $\pm$ 0.0015           | 0.14 $\pm$ 0.03  | -1.77 $\pm$ 0.09    | 25.6  |
| $f_{21}$     | 1.9877 $\pm$ 0.0015           | 0.13 $\pm$ 0.03  | -0.07 $\pm$ 0.09    | 24.3  |
| $f_{22}$     | 1.1633 $\pm$ 0.0017           | 0.11 $\pm$ 0.03  | -0.87 $\pm$ 0.11    | 19.1  |
| $f_{23}$     | 0.1597 $\pm$ 0.0018           | 0.10 $\pm$ 0.02  | 3.14 $\pm$ 0.11     | 18.8  |
| $f_{24}$     | 1.8919 $\pm$ 0.0018           | 0.12 $\pm$ 0.03  | -2.34 $\pm$ 0.11    | 18.7  |
| $f_{25}$     | 0.2820 $\pm$ 0.0018           | 0.13 $\pm$ 0.03  | -2.41 $\pm$ 0.11    | 17.4  |
| $f_{26}$     | 0.2408 $\pm$ 0.0018           | 0.11 $\pm$ 0.03  | 2.80 $\pm$ 0.11     | 18.4  |
| $f_{27}$     | 0.4796 $\pm$ 0.0019           | 0.11 $\pm$ 0.03  | 0.04 $\pm$ 0.11     | 16.9  |
| $f_{29}$     | 1.7843 $\pm$ 0.0020           | 0.10 $\pm$ 0.03  | -0.88 $\pm$ 0.12    | 14.1  |
| $f_{30}$     | 2.7476 $\pm$ 0.0021           | 0.10 $\pm$ 0.03  | 1.99 $\pm$ 0.13     | 13.1  |
| $f_{31}$     | 1.1724 $\pm$ 0.0021           | 0.10 $\pm$ 0.03  | 1.28 $\pm$ 0.13     | 13.5  |
| $f_{32}$     | 0.5006 $\pm$ 0.0021           | 0.09 $\pm$ 0.03  | 3.00 $\pm$ 0.13     | 12.9  |
| $f_{33}$     | 0.3491 $\pm$ 0.0021           | 0.09 $\pm$ 0.02  | -0.80 $\pm$ 0.13    | 13.2  |
| $f_{34}$     | 0.8308 $\pm$ 0.0023           | 0.09 $\pm$ 0.03  | 1.75 $\pm$ 0.14     | 11.4  |
| $f_{35}$     | 2.0042 $\pm$ 0.0023           | 0.10 $\pm$ 0.03  | 0.99 $\pm$ 0.14     | 11.0  |
| $f_{36}$     | 1.7505 $\pm$ 0.0023           | 0.09 $\pm$ 0.03  | 1.45 $\pm$ 0.14     | 11.1  |
| $f_{37}$     | 0.1770 $\pm$ 0.0024           | 0.09 $\pm$ 0.03  | -0.90 $\pm$ 0.15    | 10.2  |
| $f_{38}$     | 0.5606 $\pm$ 0.0024           | 0.09 $\pm$ 0.03  | 2.98 $\pm$ 0.15     | 10.1  |
| $f_{39}$     | 0.2510 $\pm$ 0.0024           | 0.09 $\pm$ 0.03  | 3.10 $\pm$ 0.15     | 10.1  |
| $f_{40}$     | 0.1841 $\pm$ 0.0024           | 0.10 $\pm$ 0.03  | -2.52 $\pm$ 0.15    | 10.3  |
| $f_{41}$     | 0.3196 $\pm$ 0.0025           | 0.08 $\pm$ 0.03  | 1.70 $\pm$ 0.15     | 9.7   |
| $f_{42}$     | 1.5764 $\pm$ 0.0025           | 0.08 $\pm$ 0.03  | -2.86 $\pm$ 0.15    | 9.3   |
| $f_{43}$     | 2.5863 $\pm$ 0.0026           | 0.08 $\pm$ 0.03  | -2.12 $\pm$ 0.16    | 8.9   |
| $f_{44}$     | 0.7139 $\pm$ 0.0025           | 0.08 $\pm$ 0.03  | -2.22 $\pm$ 0.16    | 9.0   |
| $f_{45}$     | 0.6827 $\pm$ 0.0025           | 0.08 $\pm$ 0.03  | 1.51 $\pm$ 0.16     | 9.0   |
| $f_{46}$     | 0.1035 $\pm$ 0.0025           | 0.08 $\pm$ 0.03  | -1.03 $\pm$ 0.16    | 9.0   |
| $f_{47}$     | 0.3821 $\pm$ 0.0026           | 0.08 $\pm$ 0.03  | 0.93 $\pm$ 0.16     | 8.3   |
| $f_{48}$     | 1.3568 $\pm$ 0.0026           | 0.08 $\pm$ 0.03  | 2.11 $\pm$ 0.16     | 8.7   |
| $f_{49}$     | 0.2332 $\pm$ 0.0026           | 0.08 $\pm$ 0.03  | -2.78 $\pm$ 0.16    | 8.4   |
| $f_{50}$     | 0.2249 $\pm$ 0.0027           | 0.08 $\pm$ 0.03  | -0.16 $\pm$ 0.17    | 7.8   |
| $f_{51}$     | 0.6137 $\pm$ 0.0028           | 0.07 $\pm$ 0.03  | 2.56 $\pm$ 0.17     | 7.7   |
| $f_{52}$     | 1.1802 $\pm$ 0.0028           | 0.07 $\pm$ 0.03  | 0.69 $\pm$ 0.17     | 7.5   |
| $f_{53}$     | 0.7615 $\pm$ 0.0028           | 0.07 $\pm$ 0.03  | 1.05 $\pm$ 0.17     | 7.3   |
| $f_{54}$     | 1.6134 $\pm$ 0.0028           | 0.07 $\pm$ 0.03  | 0.07 $\pm$ 0.17     | 7.2   |
| $f_{55}$     | 0.5286 $\pm$ 0.0029           | 0.07 $\pm$ 0.03  | -1.14 $\pm$ 0.18    | 6.8   |
| $f_{58}$     | 2.6419 $\pm$ 0.0030           | 0.07 $\pm$ 0.03  | -0.62 $\pm$ 0.18    | 6.5   |
| $f_{59}$     | 1.5901 $\pm$ 0.0030           | 0.06 $\pm$ 0.02  | -1.71 $\pm$ 0.18    | 6.4   |
| $f_{60}$     | 1.5306 $\pm$ 0.0030           | 0.07 $\pm$ 0.03  | 1.46 $\pm$ 0.18     | 6.4   |
| $f_{61}$     | 3.8094 $\pm$ 0.0030           | 0.07 $\pm$ 0.03  | 2.54 $\pm$ 0.18     | 6.4   |
| $f_{62}$     | 0.9499 $\pm$ 0.0029           | 0.07 $\pm$ 0.03  | 2.78 $\pm$ 0.18     | 6.7   |
| $f_{63}$     | 1.0498 $\pm$ 0.0031           | 0.06 $\pm$ 0.02  | 0.72 $\pm$ 0.19     | 6.2   |

Frequency list of 0102708748 continued

| Frequency list of 0102708748 continued |                               |                  |                     |       |
|----------------------------------------|-------------------------------|------------------|---------------------|-------|
| Frequency ID                           | Frequency [ $\text{d}^{-1}$ ] | Amplitude [mmag] | Phase $[-\pi, \pi]$ | Sign. |
| $f_{64}$                               | 0.4135 $\pm$ 0.0031           | 0.07 $\pm$ 0.03  | -1.97 $\pm$ 0.19    | 5.9   |
| $f_{65}$                               | 2.0687 $\pm$ 0.0032           | 0.06 $\pm$ 0.03  | 0.73 $\pm$ 0.20     | 5.7   |
| $f_{66}$                               | 2.4575 $\pm$ 0.0032           | 0.06 $\pm$ 0.03  | -0.27 $\pm$ 0.20    | 5.6   |
| $f_{67}$                               | 3.2597 $\pm$ 0.0033           | 0.06 $\pm$ 0.03  | 0.58 $\pm$ 0.20     | 5.5   |
| $f_{68}$                               | 2.8683 $\pm$ 0.0033           | 0.06 $\pm$ 0.03  | -3.08 $\pm$ 0.20    | 5.5   |
| $f_{69}$                               | 1.7361 $\pm$ 0.0034           | 0.06 $\pm$ 0.03  | -1.10 $\pm$ 0.21    | 5.0   |
| $f_{70}$                               | 0.2097 $\pm$ 0.0034           | 0.06 $\pm$ 0.03  | 2.17 $\pm$ 0.21     | 5.1   |

**Table B.50:** Frequency list of 0102709598

| Frequency | Frequency          | Amplitude | Phase              | Sign.  |
|-----------|--------------------|-----------|--------------------|--------|
| ID        | [d <sup>-1</sup> ] | [mmag]    | [- $\pi$ , $\pi$ ] |        |
| $f_1$     | 0.1353±0.0002      | 2.24±0.07 | -2.75±0.01         | 1019.7 |
| $f_2$     | 0.1412±0.0003      | 1.62±0.07 | 1.87±0.02          | 567.0  |
| $f_3$     | 0.2827±0.0004      | 1.16±0.06 | 2.16±0.02          | 436.4  |
| $f_4$     | 0.1483±0.0006      | 0.68±0.06 | -1.49±0.04         | 148.0  |
| $f_5$     | 0.1261±0.0007      | 0.51±0.05 | -1.59±0.04         | 108.8  |
| $f_8$     | 0.1106±0.0009      | 0.36±0.04 | -1.90±0.05         | 78.9   |
| $f_9$     | 3.2169±0.0009      | 0.41±0.05 | 1.26±0.05          | 74.4   |
| $f_{11}$  | 0.2764±0.0010      | 0.34±0.04 | 2.68±0.06          | 62.9   |
| $f_{12}$  | 3.8932±0.0010      | 0.35±0.04 | -3.11±0.06         | 62.1   |
| $f_{14}$  | 2.0238±0.0011      | 0.33±0.05 | -0.72±0.06         | 52.2   |
| $f_{15}$  | 0.2917±0.0011      | 0.30±0.04 | -2.91±0.07         | 47.9   |
| $f_{16}$  | 0.4238±0.0011      | 0.31±0.04 | -1.49±0.07         | 48.1   |
| $f_{17}$  | 2.1522±0.0011      | 0.30±0.04 | 0.82±0.07          | 44.7   |
| $f_{18}$  | 0.1749±0.0013      | 0.27±0.04 | -2.95±0.08         | 37.0   |
| $f_{19}$  | 1.0734±0.0013      | 0.21±0.04 | 1.34±0.08          | 33.9   |
| $f_{25}$  | 1.8433±0.0016      | 0.20±0.04 | -2.40±0.10         | 21.5   |
| $f_{30}$  | 0.1166±0.0017      | 0.19±0.04 | -0.62±0.10         | 20.2   |
| $f_{31}$  | 1.0844±0.0017      | 0.20±0.05 | 0.52±0.11          | 19.6   |
| $f_{32}$  | 0.1939±0.0017      | 0.19±0.04 | -2.28±0.11         | 19.6   |
| $f_{33}$  | 1.3368±0.0018      | 0.17±0.04 | 0.48±0.11          | 18.0   |
| $f_{34}$  | 4.5757±0.0018      | 0.17±0.04 | -0.02±0.11         | 18.4   |
| $f_{35}$  | 4.6775±0.0018      | 0.17±0.04 | -2.95±0.11         | 17.6   |
| $f_{36}$  | 0.1564±0.0018      | 0.20±0.05 | -1.32±0.11         | 17.5   |
| $f_{37}$  | 5.1872±0.0018      | 0.17±0.04 | 2.88±0.11          | 17.2   |
| $f_{38}$  | 3.6109±0.0019      | 0.17±0.04 | -1.08±0.12         | 16.4   |
| $f_{39}$  | 0.2665±0.0019      | 0.21±0.05 | -1.98±0.11         | 16.6   |
| $f_{40}$  | 0.4383±0.0019      | 0.15±0.04 | -1.19±0.11         | 16.5   |
| $f_{42}$  | 3.9491±0.0019      | 0.16±0.04 | 1.23±0.12          | 15.7   |
| $f_{43}$  | 3.7788±0.0019      | 0.17±0.04 | 2.81±0.12          | 15.9   |
| $f_{44}$  | 0.2037±0.0020      | 0.20±0.05 | -0.90±0.12         | 15.2   |
| $f_{45}$  | 0.2151±0.0017      | 0.18±0.04 | 0.74±0.11          | 19.4   |
| $f_{46}$  | 0.1333±0.0019      | 0.17±0.04 | -0.75±0.12         | 15.9   |
| $f_{47}$  | 3.9784±0.0020      | 0.15±0.04 | 3.00±0.12          | 14.5   |
| $f_{48}$  | 1.7248±0.0020      | 0.14±0.04 | 0.67±0.12          | 14.3   |
| $f_{50}$  | 0.2528±0.0020      | 0.16±0.04 | -3.04±0.12         | 13.9   |
| $f_{51}$  | 3.2388±0.0020      | 0.14±0.04 | 2.30±0.12          | 13.9   |
| $f_{52}$  | 1.7766±0.0020      | 0.16±0.04 | 0.94±0.12          | 13.9   |
| $f_{54}$  | 7.3276±0.0023      | 0.13±0.04 | 1.75±0.14          | 11.5   |
| $f_{55}$  | 1.5173±0.0022      | 0.13±0.04 | -0.44±0.14         | 11.7   |
| $f_{59}$  | 3.2915±0.0023      | 0.14±0.04 | -1.18±0.14         | 10.6   |
| $f_{61}$  | 0.1038±0.0025      | 0.12±0.04 | 0.70±0.15          | 9.7    |
| $f_{62}$  | 5.1564±0.0025      | 0.12±0.04 | 1.17±0.15          | 9.7    |
| $f_{63}$  | 0.3097±0.0025      | 0.13±0.04 | -1.09±0.15         | 9.5    |
| $f_{66}$  | 3.4617±0.0026      | 0.12±0.04 | 2.15±0.16          | 8.7    |
| $f_{67}$  | 4.3225±0.0026      | 0.12±0.04 | -3.07±0.16         | 8.6    |
| $f_{68}$  | 4.9635±0.0026      | 0.11±0.04 | 0.82±0.16          | 8.6    |
| $f_{69}$  | 4.4024±0.0026      | 0.11±0.04 | 2.77±0.16          | 8.5    |
| $f_{70}$  | 2.1406±0.0026      | 0.12±0.04 | 1.82±0.16          | 8.5    |
| $f_{74}$  | 1.8696±0.0027      | 0.10±0.04 | -2.54±0.17         | 7.9    |
| $f_{76}$  | 3.7177±0.0027      | 0.11±0.04 | -2.49±0.17         | 7.9    |
| $f_{77}$  | 4.7344±0.0027      | 0.11±0.04 | -0.41±0.17         | 7.8    |
| $f_{79}$  | 1.1627±0.0028      | 0.10±0.04 | 2.22±0.17          | 7.3    |
| $f_{80}$  | 1.4965±0.0028      | 0.10±0.04 | -3.01±0.17         | 7.4    |
| $f_{81}$  | 0.8153±0.0028      | 0.10±0.04 | 1.72±0.17          | 7.5    |
| $f_{82}$  | 0.4923±0.0028      | 0.09±0.03 | -2.61±0.17         | 7.3    |
| $f_{83}$  | 2.2725±0.0029      | 0.10±0.04 | 0.72±0.18          | 6.9    |
| $f_{85}$  | 6.3011±0.0030      | 0.10±0.04 | -0.99±0.18         | 6.6    |
| $f_{86}$  | 0.5626±0.0030      | 0.10±0.04 | -3.01±0.19         | 6.3    |
| $f_{87}$  | 44.0946±0.0031     | 0.10±0.04 | 1.53±0.19          | 6.2    |
| $f_{88}$  | 1.9025±0.0031      | 0.10±0.04 | -2.17±0.19         | 6.0    |
| $f_{89}$  | 0.5850±0.0031      | 0.09±0.04 | -2.55±0.19         | 5.9    |

## Appendix B. Frequencies of individual $\gamma$ Dor Stars

| Frequency list of 0102709598 continued |                              |                  |                          |       | Frequency list of 0102713311 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{90}$                               | 0.7303±0.0032                | 0.09±0.04        | -2.97±0.20               | 5.6   | $f_{70}$                               | 2.8956±0.0026                | 0.09±0.03        | 1.99±0.16                | 8.8   |
| $f_{92}$                               | 3.5560±0.0033                | 0.09±0.04        | 2.09±0.20                | 5.5   | $f_{71}$                               | 1.1304±0.0027                | 0.09±0.03        | -2.73±0.16               | 8.2   |
| $f_{96}$                               | 0.4175±0.0033                | 0.09±0.04        | 0.54±0.20                | 5.5   | $f_{72}$                               | 1.3079±0.0027                | 0.10±0.03        | -1.18±0.16               | 8.2   |
| $f_{97}$                               | 0.3580±0.0032                | 0.09±0.04        | 2.48±0.20                | 5.7   | $f_{73}$                               | 1.3584±0.0027                | 0.09±0.03        | -2.43±0.16               | 8.2   |
| $f_{98}$                               | 0.5559±0.0032                | 0.09±0.04        | 1.55±0.20                | 5.6   | $f_{74}$                               | 0.2774±0.0027                | 0.09±0.03        | -0.71±0.17               | 7.8   |
| $f_{99}$                               | 41.8911±0.0033               | 0.09±0.04        | 2.82±0.20                | 5.5   | $f_{75}$                               | 2.7486±0.0027                | 0.08±0.03        | 1.32±0.17                | 7.8   |
| $f_{100}$                              | 1.7985±0.0033                | 0.09±0.04        | -2.59±0.20               | 5.4   | $f_{77}$                               | 0.3402±0.0028                | 0.10±0.04        | -0.48±0.17               | 7.6   |
| $f_{101}$                              | 1.8259±0.0031                | 0.09±0.04        | 2.12±0.19                | 6.0   | $f_{78}$                               | 0.3283±0.0025                | 0.09±0.03        | -1.04±0.15               | 9.3   |
| $f_{104}$                              | 3.3255±0.0033                | 0.09±0.04        | -2.64±0.20               | 5.5   | $f_{79}$                               | 0.9720±0.0028                | 0.10±0.04        | 0.47±0.17                | 7.6   |
| $f_{105}$                              | 2.5695±0.0034                | 0.09±0.04        | -3.06±0.21               | 5.1   | $f_{80}$                               | 1.0460±0.0028                | 0.09±0.03        | -0.19±0.17               | 7.4   |
| $f_{106}$                              | 0.5340±0.0033                | 0.09±0.04        | -1.55±0.20               | 5.2   | $f_{81}$                               | 0.4644±0.0029                | 0.08±0.03        | -1.05±0.17               | 7.1   |
| $f_{107}$                              | 3.6395±0.0034                | 0.08±0.04        | -2.76±0.21               | 5.1   | $f_{82}$                               | 1.1908±0.0029                | 0.09±0.03        | 0.00±0.17                | 7.1   |
|                                        |                              |                  |                          |       | $f_{83}$                               | 0.8649±0.0029                | 0.08±0.03        | 1.34±0.18                | 7.0   |
|                                        |                              |                  |                          |       | $f_{84}$                               | 0.9857±0.0028                | 0.08±0.03        | -0.90±0.17               | 7.2   |
|                                        |                              |                  |                          |       | $f_{85}$                               | 0.3018±0.0029                | 0.08±0.03        | -1.76±0.18               | 6.9   |
|                                        |                              |                  |                          |       | $f_{86}$                               | 2.1311±0.0029                | 0.08±0.03        | 1.07±0.18                | 6.7   |
|                                        |                              |                  |                          |       | $f_{87}$                               | 2.9630±0.0029                | 0.08±0.03        | -2.60±0.18               | 6.7   |
|                                        |                              |                  |                          |       | $f_{90}$                               | 1.6643±0.0030                | 0.08±0.03        | 2.67±0.18                | 6.4   |
|                                        |                              |                  |                          |       | $f_{94}$                               | 0.4292±0.0030                | 0.08±0.03        | 0.30±0.18                | 6.4   |
|                                        |                              |                  |                          |       | $f_{95}$                               | 1.1595±0.0031                | 0.07±0.03        | 0.43±0.19                | 5.9   |
|                                        |                              |                  |                          |       | $f_{97}$                               | 0.2223±0.0032                | 0.08±0.03        | -0.03±0.20               | 5.7   |
|                                        |                              |                  |                          |       | $f_{98}$                               | 1.7866±0.0032                | 0.07±0.03        | -2.01±0.20               | 5.7   |
|                                        |                              |                  |                          |       | $f_{99}$                               | 1.6980±0.0032                | 0.07±0.03        | -0.67±0.20               | 5.7   |
|                                        |                              |                  |                          |       | $f_{101}$                              | 2.6320±0.0033                | 0.08±0.03        | 2.50±0.20                | 5.4   |
|                                        |                              |                  |                          |       | $f_{102}$                              | 0.3644±0.0033                | 0.07±0.03        | 1.23±0.20                | 5.5   |
|                                        |                              |                  |                          |       | $f_{103}$                              | 0.6220±0.0033                | 0.07±0.03        | 1.12±0.20                | 5.3   |
|                                        |                              |                  |                          |       | $f_{104}$                              | 2.6605±0.0033                | 0.07±0.03        | -2.75±0.20               | 5.3   |
|                                        |                              |                  |                          |       | $f_{105}$                              | 41.8824±0.0033               | 0.07±0.03        | 3.02±0.20                | 5.2   |
|                                        |                              |                  |                          |       | $f_{106}$                              | 0.7580±0.0034                | 0.07±0.03        | -1.23±0.21               | 5.1   |
|                                        |                              |                  |                          |       | $f_{107}$                              | 0.6785±0.0033                | 0.07±0.03        | 3.09±0.20                | 5.3   |
|                                        |                              |                  |                          |       |                                        |                              |                  |                          |       |
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_1$                                  | 1.4930±0.0003                | 1.46±0.05        | 2.76±0.02                | 796.2 | $f_1$                                  | 0.3497±0.0003                | 1.23±0.05        | -1.76±0.02               | 586.1 |
| $f_2$                                  | 1.5351±0.0004                | 0.76±0.04        | 1.28±0.03                | 309.4 | $f_2$                                  | 0.3421±0.0003                | 1.02±0.05        | -0.42±0.02               | 501.9 |
| $f_3$                                  | 1.4403±0.0005                | 0.64±0.04        | -0.33±0.03               | 205.9 | $f_3$                                  | 0.3627±0.0004                | 0.86±0.04        | -2.52±0.02               | 455.8 |
| $f_4$                                  | 1.5028±0.0006                | 0.54±0.04        | 0.95±0.04                | 175.8 | $f_4$                                  | 0.7004±0.0004                | 0.66±0.03        | -0.39±0.02               | 461.2 |
| $f_5$                                  | 1.4836±0.0007                | 0.46±0.04        | -0.63±0.04               | 118.2 | $f_5$                                  | 0.6797±0.0005                | 0.49±0.03        | 2.57±0.03                | 252.2 |
| $f_6$                                  | 0.9051±0.0008                | 0.34±0.04        | -2.52±0.05               | 85.1  | $f_6$                                  | 0.6899±0.0005                | 0.56±0.04        | -0.72±0.03               | 197.1 |
| $f_7$                                  | 1.0288±0.0010                | 0.29±0.04        | -2.14±0.06               | 59.2  | $f_7$                                  | 0.6653±0.0005                | 0.44±0.03        | 0.48±0.03                | 204.0 |
| $f_8$                                  | 1.6497±0.0010                | 0.28±0.04        | 0.50±0.06                | 59.5  | $f_8$                                  | 0.7318±0.0006                | 0.37±0.03        | 1.23±0.04                | 155.7 |
| $f_{10}$                               | 1.4526±0.0010                | 0.25±0.03        | -1.77±0.06               | 56.7  | $f_9$                                  | 0.3857±0.0006                | 0.34±0.03        | -2.32±0.04               | 147.6 |
| $f_{11}$                               | 0.5834±0.0011                | 0.25±0.04        | -1.81±0.07               | 48.5  | $f_{10}$                               | 0.3556±0.0007                | 0.32±0.03        | -0.30±0.04               | 130.7 |
| $f_{13}$                               | 2.9447±0.0012                | 0.22±0.04        | 0.83±0.07                | 38.8  | $f_{11}$                               | 0.3947±0.0007                | 0.28±0.03        | 1.49±0.04                | 111.0 |
| $f_{14}$                               | 1.2977±0.0012                | 0.26±0.04        | 0.10±0.08                | 38.5  | $f_{12}$                               | 0.3118±0.0007                | 0.34±0.03        | 2.22±0.04                | 111.0 |
| $f_{15}$                               | 1.5604±0.0012                | 0.24±0.04        | -0.83±0.08               | 38.0  | $f_{13}$                               | 0.3707±0.0008                | 0.30±0.03        | -0.20±0.05               | 102.0 |
| $f_{16}$                               | 1.6161±0.0013                | 0.21±0.03        | 1.42±0.08                | 36.1  | $f_{14}$                               | 0.3223±0.0007                | 0.29±0.03        | -2.79±0.05               | 104.3 |
| $f_{17}$                               | 0.8727±0.0013                | 0.21±0.04        | -1.72±0.08               | 35.3  | $f_{15}$                               | 0.1013±0.0008                | 0.25±0.03        | 3.07±0.05                | 98.2  |
| $f_{18}$                               | 0.2864±0.0014                | 0.19±0.03        | -2.07±0.09               | 30.0  | $f_{16}$                               | 0.2844±0.0008                | 0.23±0.02        | 3.13±0.05                | 101.8 |
| $f_{20}$                               | 1.0366±0.0015                | 0.17±0.03        | 2.08±0.09                | 26.1  | $f_{17}$                               | 0.7230±0.0008                | 0.27±0.03        | -1.60±0.05               | 97.6  |
| $f_{22}$                               | 0.5560±0.0015                | 0.15±0.03        | 0.38±0.09                | 26.9  | $f_{18}$                               | 1.0368±0.0008                | 0.21±0.02        | 2.58±0.05                | 90.5  |
| $f_{23}$                               | 1.0592±0.0015                | 0.19±0.04        | 2.42±0.09                | 25.5  | $f_{19}$                               | 0.2287±0.0008                | 0.18±0.02        | 1.73±0.05                | 84.8  |
| $f_{24}$                               | 0.9544±0.0015                | 0.15±0.03        | -2.93±0.09               | 25.1  | $f_{20}$                               | 0.4070±0.0009                | 0.19±0.02        | 2.85±0.05                | 79.7  |
| $f_{25}$                               | 1.5875±0.0015                | 0.17±0.03        | -0.00±0.09               | 25.1  | $f_{21}$                               | 0.7060±0.0008                | 0.17±0.02        | 1.69±0.05                | 80.9  |
| $f_{26}$                               | 0.1693±0.0016                | 0.17±0.03        | -1.16±0.10               | 24.0  | $f_{22}$                               | 1.0630±0.0010                | 0.17±0.02        | 0.24±0.06                | 60.1  |
| $f_{27}$                               | 0.1578±0.0016                | 0.16±0.03        | 0.71±0.09                | 24.2  | $f_{23}$                               | 0.1473±0.0010                | 0.21±0.03        | 3.08±0.06                | 63.2  |
| $f_{28}$                               | 0.2555±0.0016                | 0.14±0.03        | 0.61±0.10                | 23.1  | $f_{24}$                               | 0.1241±0.0010                | 0.19±0.03        | 1.72±0.06                | 54.2  |
| $f_{29}$                               | 1.4635±0.0016                | 0.16±0.03        | 0.03±0.10                | 21.7  | $f_{25}$                               | 0.2682±0.0011                | 0.17±0.02        | 0.01±0.07                | 49.1  |
| $f_{30}$                               | 1.4155±0.0016                | 0.15±0.03        | 1.51±0.10                | 23.5  | $f_{26}$                               | 0.2564±0.0011                | 0.16±0.02        | 1.39±0.07                | 47.2  |
| $f_{31}$                               | 1.6325±0.0016                | 0.16±0.03        | 1.42±0.10                | 22.7  | $f_{27}$                               | 0.2492±0.0011                | 0.13±0.02        | -0.70±0.07               | 46.6  |
| $f_{32}$                               | 1.3416±0.0017                | 0.13±0.03        | -0.73±0.10               | 20.7  | $f_{28}$                               | 0.6709±0.0011                | 0.16±0.02        | 0.09±0.07                | 46.0  |
| $f_{33}$                               | 0.1157±0.0017                | 0.14±0.03        | -2.88±0.10               | 20.7  | $f_{29}$                               | 1.0307±0.0011                | 0.17±0.03        | -1.12±0.07               | 44.6  |
| $f_{34}$                               | 2.0879±0.0017                | 0.12±0.03        | 2.69±0.11                | 19.3  | $f_{30}$                               | 0.7163±0.0012                | 0.16±0.02        | 0.52±0.07                | 43.9  |
| $f_{37}$                               | 1.4944±0.0018                | 0.14±0.03        | 2.08±0.11                | 17.3  | $f_{31}$                               | 0.4411±0.0012                | 0.17±0.03        | 1.30±0.07                | 42.0  |
| $f_{38}$                               | 1.1371±0.0019                | 0.14±0.03        | 0.18±0.11                | 16.7  | $f_{32}$                               | 0.6546±0.0012                | 0.15±0.02        | 1.97±0.07                | 41.4  |
| $f_{40}$                               | 0.1849±0.0019                | 0.10±0.03        | 2.47±0.12                | 15.4  | $f_{33}$                               | 0.4334±0.0012                | 0.17±0.03        | 1.99±0.07                | 41.2  |
| $f_{41}$                               | 1.5116±0.0020                | 0.13±0.03        | -1.72±0.12               | 14.7  | $f_{34}$                               | 0.2063±0.0013                | 0.14±0.02        | 2.54±0.08                | 37.2  |
| $f_{43}$                               | 1.4017±0.0020                | 0.12±0.03        | -2.54±0.12               | 14.5  | $f_{35}$                               | 0.1902±0.0012                | 0.14±0.02        | 1.22±0.08                | 37.9  |
| $f_{44}$                               | 1.3710±0.0020                | 0.11±0.03        | 1.09±0.12                | 14.6  | $f_{36}$                               | 0.6105±0.0013                | 0.15±0.03        | -2.53±0.08               | 35.0  |
| $f_{46}$                               | 0.2924±0.0021                | 0.11±0.03        | -0.55±0.13               | 13.8  | $f_{37}$                               | 0.3343±0.0013                | 0.13±0.02        | 0.60±0.08                | 36.7  |
| $f_{47}$                               | 1.5461±0.0021                | 0.12±0.03        | -0.87±0.13               | 13.7  | $f_{38}$                               | 0.5015±0.0013                | 0.14±0.02        | -1.67±0.08               | 36.3  |
| $f_{49}$                               | 1.4351±0.0021                | 0.12±0.03        | 2.46±0.13                | 13.5  | $f_{39}$                               | 0.4180±0.0013                | 0.14±0.02        | 1.37±0.08                | 33.5  |
| $f_{50}$                               | 0.4402±0.0021                | 0.13±0.04        | 1.92±0.13                | 13.0  | $f_{40}$                               | 0.5168±0.0013                | 0.13±0.02        | -1.08±0.08               | 33.9  |
| $f_{51}$                               | 0.1761±0.0021                | 0.12±0.03        | 2.31±0.13                | 12.8  | $f_{41}$                               | 0.4497±0.0013                | 0.12±0.02        | -2.40±0.08               | 34.7  |
| $f_{52}$                               | 0.7248±0.0022                | 0.11±0.03        | -1.18±0.13               | 12.3  | Frequency list of 0102713772 continued |                              |                  |                          |       |
| $f_{53}$                               | 1.2861±0.0022                | 0.11±0.03        | -0.01±0.13               | 12.4  |                                        |                              |                  |                          |       |
| $f_{54}$                               | 0.8414±0.0022                | 0.13±0.04        | -3.14±0.13               | 12.5  |                                        |                              |                  |                          |       |
| $f_{56}$                               | 2.9842±0.0022                | 0.12±0.03        | 0.83±0.13                | 12.0  |                                        |                              |                  |                          |       |
| $f_{57}$                               | 0.8323±0.0022                | 0.11±0.03        | -1.87±0.13               | 12.0  |                                        |                              |                  |                          |       |
| $f_{58}$                               | 0.2047±0.0022                | 0.12±0.03        | -0.19±0.13               | 12.0  |                                        |                              |                  |                          |       |
| $f_{59}$                               | 0.1266±0.0022                | 0.11±0.03        | -2.44±0.13               | 12.3  |                                        |                              |                  |                          |       |
| $f_{60}$                               | 2.0764±0.0022                | 0.12±0.03        | -2.99±0.13               | 12.0  |                                        |                              |                  |                          |       |
| $f_{61}$                               | 0.3875±0.0022                | 0.12±0.03        | 2.74±0.13                | 12.5  |                                        |                              |                  |                          |       |
| $f_{62}$                               | 1.2016±0.0022                | 0.09±0.03        | -0.96±0.14               | 11.7  |                                        |                              |                  |                          |       |
| $f_{63}$                               | 0.1506±0.0023                | 0.10±0.03        | 3.09±0.14                | 10.7  |                                        |                              |                  |                          |       |
| $f_{64}$                               | 1.3307±0.0023                | 0.11±0.03        | -1.72±0.14               | 10.7  |                                        |                              |                  |                          |       |
| $f_{66}$                               | 0.5455±0.0025                | 0.10±0.03        | -2.23±0.15               | 9.6   |                                        |                              |                  |                          |       |
| $f_{67}$                               | 0.6536±0.0025                | 0.10±0.03        | -2.27±0.15               | 9.7   |                                        |                              |                  |                          |       |
| $f_{68}$                               | 1.5674±0.0025                | 0.10±0.03        | -0.22±0.15               | 9.5   |                                        |                              |                  |                          |       |
| $f_{69}$                               | 0.9244±0.0026                | 0.09±0.03        | -2.18±0.16               | 8.6   |                                        |                              |                  |                          |       |
| Frequency list of 0102713311 continued |                              |                  |                          |       |                                        |                              |                  |                          |       |

## Appendix B. Frequencies of individual $\gamma$ Dor Stars

| Frequency list of 0102713772 continued |                              |                  |                          |       | Frequency list of 0102719503 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{42}$                               | 0.7897±0.0013                | 0.13±0.02        | -0.80±0.08               | 33.2  | $f_{20}$                               | 1.0879±0.0014                | 0.12±0.02        | 1.86±0.09                | 29.6  |
| $f_{43}$                               | 1.0757±0.0013                | 0.12±0.02        | -0.67±0.08               | 33.1  | $f_{21}$                               | 0.6021±0.0014                | 0.10±0.02        | 0.77±0.08                | 30.3  |
| $f_{44}$                               | 0.1532±0.0013                | 0.13±0.02        | -0.61±0.08               | 33.0  | $f_{22}$                               | 0.5929±0.0013                | 0.10±0.02        | 2.07±0.08                | 32.7  |
| $f_{45}$                               | 0.3784±0.0014                | 0.12±0.02        | -2.74±0.08               | 30.2  | $f_{23}$                               | 0.1282±0.0014                | 0.13±0.02        | 2.59±0.09                | 29.2  |
| $f_{46}$                               | 1.0485±0.0014                | 0.15±0.03        | 1.19±0.08                | 30.9  | $f_{24}$                               | 0.1475±0.0013                | 0.13±0.02        | 2.15±0.08                | 35.5  |
| $f_{47}$                               | 0.3024±0.0015                | 0.12±0.02        | -0.73±0.09               | 27.6  | $f_{25}$                               | 0.1831±0.0013                | 0.13±0.02        | -2.26±0.08               | 33.7  |
| $f_{48}$                               | 0.6022±0.0016                | 0.10±0.02        | -2.88±0.10               | 23.3  | $f_{26}$                               | 0.2630±0.0016                | 0.09±0.02        | -3.02±0.10               | 23.2  |
| $f_{49}$                               | 0.6215±0.0016                | 0.11±0.02        | 3.09±0.10                | 23.8  | $f_{27}$                               | 0.1742±0.0016                | 0.10±0.02        | 2.96±0.09                | 24.1  |
| $f_{50}$                               | 1.0941±0.0016                | 0.10±0.02        | 0.61±0.10                | 23.3  | $f_{28}$                               | 0.3363±0.0016                | 0.09±0.02        | 2.17±0.10                | 21.8  |
| $f_{51}$                               | 0.7626±0.0017                | 0.11±0.02        | -0.95±0.10               | 21.3  | $f_{29}$                               | 0.3765±0.0016                | 0.08±0.02        | -2.21±0.10               | 22.0  |
| $f_{52}$                               | 0.1817±0.0017                | 0.10±0.02        | -0.94±0.10               | 20.9  | $f_{30}$                               | 1.0288±0.0018                | 0.09±0.02        | 0.35±0.11                | 18.3  |
| $f_{53}$                               | 0.6802±0.0017                | 0.11±0.02        | 3.05±0.10                | 20.4  | $f_{32}$                               | 0.2331±0.0018                | 0.07±0.02        | 2.57±0.11                | 18.6  |
| $f_{54}$                               | 0.5927±0.0017                | 0.09±0.02        | -2.84±0.11               | 19.1  | $f_{33}$                               | 0.4593±0.0019                | 0.09±0.02        | -1.58±0.12               | 16.3  |
| $f_{56}$                               | 0.2390±0.0018                | 0.09±0.02        | -0.62±0.11               | 18.9  | $f_{34}$                               | 0.5025±0.0020                | 0.09±0.02        | -1.74±0.12               | 15.3  |
| $f_{57}$                               | 0.6949±0.0018                | 0.09±0.02        | -1.77±0.11               | 17.3  | $f_{35}$                               | 0.4697±0.0020                | 0.08±0.02        | 1.54±0.12                | 15.1  |
| $f_{58}$                               | 1.0859±0.0019                | 0.09±0.02        | 1.55±0.12                | 16.2  | $f_{36}$                               | 0.4308±0.0020                | 0.07±0.02        | -2.98±0.12               | 15.2  |
| $f_{59}$                               | 1.0562±0.0018                | 0.10±0.02        | -0.04±0.11               | 17.1  | $f_{37}$                               | 0.7128±0.0020                | 0.09±0.02        | 1.59±0.12                | 14.1  |
| $f_{60}$                               | 0.6605±0.0019                | 0.09±0.02        | 2.84±0.11                | 16.5  | $f_{38}$                               | 0.5758±0.0021                | 0.07±0.02        | 1.47±0.13                | 13.3  |
| $f_{61}$                               | 0.4618±0.0019                | 0.08±0.02        | 0.63±0.12                | 15.5  | $f_{39}$                               | 1.1111±0.0021                | 0.07±0.02        | 1.50±0.13                | 13.5  |
| $f_{62}$                               | 0.6301±0.0019                | 0.08±0.02        | -0.46±0.12               | 15.7  | $f_{40}$                               | 1.1950±0.0020                | 0.07±0.02        | -1.33±0.12               | 13.9  |
| $f_{63}$                               | 0.5421±0.0020                | 0.07±0.02        | -1.15±0.12               | 14.7  | $f_{42}$                               | 0.2239±0.0021                | 0.07±0.02        | -0.32±0.13               | 13.1  |
| $f_{64}$                               | 1.0164±0.0020                | 0.08±0.02        | -0.63±0.12               | 15.0  | $f_{43}$                               | 0.9915±0.0021                | 0.07±0.02        | -2.96±0.13               | 13.5  |
| $f_{65}$                               | 0.7719±0.0020                | 0.07±0.02        | -1.14±0.12               | 14.5  | $f_{44}$                               | 1.6206±0.0021                | 0.08±0.02        | -1.05±0.13               | 13.1  |
| $f_{66}$                               | 0.7458±0.0020                | 0.07±0.02        | 0.05±0.12                | 14.6  | $f_{45}$                               | 0.3939±0.0022                | 0.06±0.02        | -0.40±0.13               | 12.3  |
| $f_{67}$                               | 0.1187±0.0020                | 0.08±0.02        | 1.11±0.12                | 14.1  | $f_{46}$                               | 2.8576±0.0023                | 0.06±0.02        | 1.43±0.14                | 11.2  |
| $f_{68}$                               | 0.8943±0.0021                | 0.08±0.02        | -0.82±0.13               | 13.7  | $f_{47}$                               | 0.8261±0.0023                | 0.07±0.02        | 1.80±0.14                | 11.4  |
| $f_{69}$                               | 0.2961±0.0021                | 0.08±0.02        | 1.87±0.13                | 13.5  | $f_{48}$                               | 1.1515±0.0022                | 0.06±0.02        | 0.97±0.14                | 11.6  |
| $f_{71}$                               | 0.2189±0.0022                | 0.07±0.02        | -0.79±0.13               | 12.2  | $f_{49}$                               | 0.6742±0.0024                | 0.07±0.02        | -2.44±0.15               | 10.0  |
| $f_{72}$                               | 0.7964±0.0022                | 0.08±0.02        | -2.27±0.14               | 11.6  | $f_{50}$                               | 0.3880±0.0024                | 0.07±0.02        | 2.47±0.15                | 9.9   |
| $f_{73}$                               | 0.4934±0.0022                | 0.07±0.02        | 0.32±0.14                | 11.7  | $f_{51}$                               | 0.6924±0.0025                | 0.06±0.02        | 2.43±0.15                | 9.7   |
| $f_{74}$                               | 1.3979±0.0023                | 0.07±0.02        | 1.00±0.14                | 11.2  | $f_{52}$                               | 0.2127±0.0025                | 0.06±0.02        | -1.93±0.15               | 9.3   |
| $f_{75}$                               | 0.5746±0.0023                | 0.06±0.02        | -3.02±0.14               | 11.0  | $f_{53}$                               | 0.3597±0.0025                | 0.07±0.02        | -1.45±0.15               | 9.1   |
| $f_{76}$                               | 2.0046±0.0025                | 0.08±0.03        | 2.93±0.15                | 9.1   | $f_{55}$                               | 0.7804±0.0025                | 0.05±0.02        | 1.00±0.15                | 9.1   |
| $f_{77}$                               | 1.7480±0.0025                | 0.07±0.02        | 3.08±0.16                | 9.0   | $f_{56}$                               | 0.2524±0.0025                | 0.06±0.02        | 1.13±0.15                | 9.3   |
| $f_{78}$                               | 0.8594±0.0025                | 0.07±0.02        | -1.08±0.15               | 9.1   | $f_{57}$                               | 1.5616±0.0026                | 0.05±0.02        | -3.06±0.16               | 8.6   |
| $f_{79}$                               | 0.8463±0.0024                | 0.07±0.02        | -2.42±0.15               | 10.2  | $f_{58}$                               | 0.3471±0.0026                | 0.06±0.02        | 1.97±0.16                | 8.9   |
| $f_{82}$                               | 0.2123±0.0026                | 0.06±0.02        | 0.45±0.16                | 8.6   | $f_{59}$                               | 0.7309±0.0026                | 0.06±0.02        | 3.13±0.16                | 8.9   |
| $f_{83}$                               | 0.4736±0.0027                | 0.06±0.02        | 0.50±0.16                | 8.2   | $f_{60}$                               | 0.3207±0.0025                | 0.06±0.02        | 1.94±0.15                | 9.1   |
| $f_{84}$                               | 0.8069±0.0027                | 0.06±0.02        | -2.08±0.17               | 7.8   | $f_{61}$                               | 0.2705±0.0026                | 0.05±0.02        | -0.59±0.16               | 8.4   |
| $f_{85}$                               | 0.9734±0.0028                | 0.05±0.02        | 0.47±0.17                | 7.7   | $f_{63}$                               | 1.0053±0.0027                | 0.05±0.02        | 0.97±0.16                | 8.1   |
| $f_{86}$                               | 0.3425±0.0028                | 0.05±0.02        | 1.81±0.17                | 7.4   | $f_{64}$                               | 0.9314±0.0027                | 0.05±0.02        | -0.67±0.16               | 8.0   |
| $f_{87}$                               | 1.1073±0.0028                | 0.05±0.02        | -0.71±0.17               | 7.2   | $f_{65}$                               | 0.4420±0.0027                | 0.05±0.02        | 2.48±0.16                | 8.0   |
| $f_{88}$                               | 0.1990±0.0029                | 0.06±0.02        | -0.18±0.18               | 7.0   | $f_{66}$                               | 1.2395±0.0028                | 0.05±0.02        | 2.28±0.17                | 7.6   |
| $f_{89}$                               | 0.7357±0.0029                | 0.06±0.02        | -0.41±0.18               | 6.9   | $f_{67}$                               | 1.3997±0.0029                | 0.05±0.02        | -1.30±0.17               | 7.1   |
| $f_{90}$                               | 0.5570±0.0030                | 0.05±0.02        | 0.80±0.18                | 6.5   | $f_{68}$                               | 1.4243±0.0028                | 0.05±0.02        | -2.82±0.17               | 7.6   |
| $f_{91}$                               | 1.3602±0.0030                | 0.05±0.02        | 2.53±0.18                | 6.5   | $f_{69}$                               | 1.6089±0.0028                | 0.05±0.02        | -3.00±0.17               | 7.4   |
| $f_{93}$                               | 1.7596±0.0031                | 0.05±0.02        | 1.39±0.19                | 6.1   | $f_{70}$                               | 0.8568±0.0029                | 0.04±0.02        | -2.11±0.17               | 7.1   |
| $f_{96}$                               | 1.0390±0.0031                | 0.05±0.02        | 2.63±0.19                | 6.1   | $f_{71}$                               | 0.9607±0.0029                | 0.05±0.02        | -0.26±0.18               | 6.9   |
| $f_{97}$                               | 0.9615±0.0030                | 0.05±0.02        | -2.00±0.18               | 6.6   | $f_{76}$                               | 0.4119±0.0031                | 0.05±0.02        | -3.00±0.19               | 6.2   |
| $f_{98}$                               | 1.1757±0.0031                | 0.05±0.02        | 1.35±0.19                | 6.2   | $f_{77}$                               | 2.6589±0.0031                | 0.04±0.02        | 2.34±0.19                | 5.9   |
| $f_{99}$                               | 0.3867±0.0030                | 0.05±0.02        | -0.10±0.18               | 6.5   | $f_{78}$                               | 0.6284±0.0032                | 0.05±0.02        | 1.96±0.19                | 5.8   |
| $f_{100}$                              | 0.7541±0.0032                | 0.05±0.02        | 0.05±0.20                | 5.6   | $f_{79}$                               | 1.6914±0.0032                | 0.04±0.02        | 1.02±0.20                | 5.7   |
| $f_{101}$                              | 0.5287±0.0032                | 0.05±0.02        | 1.42±0.20                | 5.6   | $f_{80}$                               | 1.6399±0.0032                | 0.04±0.02        | -2.98±0.20               | 5.7   |
| $f_{104}$                              | 1.0050±0.0032                | 0.05±0.02        | -0.58±0.20               | 5.7   | $f_{82}$                               | 1.1585±0.0033                | 0.05±0.02        | 1.48±0.20                | 5.4   |
| $f_{105}$                              | 1.4340±0.0034                | 0.04±0.02        | 1.01±0.21                | 5.1   | $f_{83}$                               | 1.0948±0.0032                | 0.05±0.02        | -0.88±0.20               | 5.6   |
| Frequency list of 0102719503 continued |                              |                  |                          |       | $f_{84}$                               | 1.2263±0.0033                | 0.04±0.02        | -2.31±0.20               | 5.5   |
|                                        |                              |                  |                          |       | $f_{87}$                               | 2.0039±0.0033                | 0.04±0.02        | 1.77±0.20                | 5.5   |
|                                        |                              |                  |                          |       | $f_{88}$                               | 2.7350±0.0033                | 0.05±0.02        | -2.27±0.20               | 5.4   |
|                                        |                              |                  |                          |       | $f_{89}$                               | 2.7250±0.0031                | 0.05±0.02        | 2.31±0.19                | 6.2   |
|                                        |                              |                  |                          |       | $f_{90}$                               | 0.6351±0.0033                | 0.04±0.02        | -2.87±0.20               | 5.3   |
|                                        |                              |                  |                          |       | $f_{91}$                               | 0.1188±0.0033                | 0.05±0.02        | -3.09±0.20               | 5.5   |

**Table B.53:** Frequency list of 0102719503

| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| $f_1$                                  | 0.5317±0.0004                | 0.51±0.03        | -0.45±0.02               | 360.6 |
| $f_2$                                  | 1.0824±0.0005                | 0.41±0.03        | -0.11±0.03               | 209.1 |
| $f_3$                                  | 0.1127±0.0005                | 0.31±0.02        | -0.73±0.03               | 195.1 |
| $f_4$                                  | 1.0480±0.0008                | 0.17±0.02        | 1.96±0.05                | 83.7  |
| $f_5$                                  | 1.0763±0.0009                | 0.18±0.02        | -0.76±0.05               | 77.3  |
| $f_6$                                  | 0.5685±0.0009                | 0.17±0.02        | 3.11±0.05                | 75.7  |
| $f_7$                                  | 0.5493±0.0009                | 0.15±0.02        | -1.85±0.06               | 70.3  |
| $f_8$                                  | 0.5257±0.0009                | 0.17±0.02        | 2.62±0.06                | 67.6  |
| $f_9$                                  | 0.4919±0.0010                | 0.14±0.02        | -1.07±0.06               | 57.6  |
| $f_{10}$                               | 0.5602±0.0011                | 0.12±0.02        | -1.67±0.07               | 50.2  |
| $f_{11}$                               | 0.2442±0.0011                | 0.13±0.02        | -0.11±0.07               | 45.2  |
| $f_{12}$                               | 0.1664±0.0011                | 0.13±0.02        | 2.82±0.07                | 46.3  |
| $f_{13}$                               | 0.5438±0.0012                | 0.11±0.02        | -0.24±0.07               | 41.3  |
| $f_{14}$                               | 0.6186±0.0012                | 0.10±0.02        | 2.08±0.08                | 37.5  |
| $f_{15}$                               | 0.1069±0.0012                | 0.09±0.01        | 2.78±0.08                | 38.0  |
| $f_{16}$                               | 0.1898±0.0013                | 0.15±0.03        | -3.07±0.08               | 34.4  |
| $f_{17}$                               | 0.5194±0.0013                | 0.12±0.02        | 1.50±0.08                | 33.6  |
| $f_{18}$                               | 0.4808±0.0013                | 0.14±0.02        | -0.30±0.08               | 33.2  |
| $f_{19}$                               | 1.0595±0.0013                | 0.14±0.02        | 2.77±0.08                | 32.7  |
| Frequency list of 0102719503 continued |                              |                  |                          |       |

**Table B.54:** Frequency list of 0102719846

| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| $f_1$                                  | 1.7661±0.0004                | 0.85±0.05        | 0.09±0.03                | 303.2 |
| $f_2$                                  | 3.0950±0.0005                | 0.83±0.05        | -2.17±0.03               | 287.4 |
| $f_3$                                  | 1.7496±0.0005                | 0.70±0.05        | -1.94±0.03               | 208.0 |
| $f_4$                                  | 0.1458±0.0008                | 0.44±0.04        | 1.81±0.05                | 98.9  |
| $f_5$                                  | 1.6707±0.0008                | 0.39±0.04        | -1.02±0.05               | 95.0  |
| $f_6$                                  | 0.8601±0.0009                | 0.35±0.04        | -0.09±0.05               | 74.4  |
| $f_7$                                  | 1.1308±0.0009                | 0.45±0.05        | -0.24±0.06               | 67.1  |
| $f_8$                                  | 3.0705±0.0009                | 0.30±0.04        | 1.40±0.06                | 69.2  |
| $f_9$                                  | 1.6950±0.0010                | 0.31±0.04        | 2.11±0.06                | 62.9  |
| $f_{10}$                               | 1.9040±0.0010                | 0.25±0.03        | -2.65±0.06               | 58.3  |
| $f_{11}$                               | 1.6187±0.0010                | 0.28±0.04        | 3.08±0.06                | 58.7  |
| $f_{12}$                               | 0.9843±0.0010                | 0.32±0.04        | -1.79±0.06               | 60.6  |
| $f_{13}$                               | 1.2777±0.0010                | 0.31±0.04        | -1.04±0.06               | 57.0  |
| $f_{14}$                               | 1.8183±0.0010                | 0.28±0.04        | -1.89±0.06               | 57.1  |
| Frequency list of 0102719846 continued |                              |                  |                          |       |

## Appendix B. Frequencies of individual $\gamma$ Dor Stars

| Frequency list of 0102719846 continued |                              |                  |                          |       | Frequency list of 0102719846 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{15}$                               | 1.0155±0.0012                | 0.27±0.04        | -2.71±0.07               | 39.3  | $f_{94}$                               | 0.6351±0.0031                | 0.08±0.03        | 0.62±0.19                | 6.1   |
| $f_{16}$                               | 1.8010±0.0012                | 0.26±0.04        | -0.33±0.07               | 39.9  | $f_{95}$                               | 1.9401±0.0031                | 0.08±0.03        | 2.12±0.19                | 6.2   |
| $f_{17}$                               | 1.5223±0.0012                | 0.25±0.04        | -2.54±0.07               | 41.0  | $f_{96}$                               | 1.7077±0.0031                | 0.08±0.03        | 0.93±0.19                | 6.0   |
| $f_{18}$                               | 3.4373±0.0012                | 0.25±0.04        | -1.63±0.07               | 42.0  | $f_{97}$                               | 3.2082±0.0031                | 0.08±0.03        | -1.35±0.19               | 6.0   |
| $f_{19}$                               | 1.8924±0.0013                | 0.22±0.04        | 1.16±0.08                | 36.3  | $f_{98}$                               | 1.4161±0.0031                | 0.08±0.03        | 3.00±0.19                | 6.1   |
| $f_{20}$                               | 2.8093±0.0013                | 0.19±0.03        | -1.62±0.08               | 37.1  | $f_{99}$                               | 1.5584±0.0031                | 0.08±0.03        | 2.73±0.19                | 6.1   |
| $f_{21}$                               | 1.3429±0.0013                | 0.25±0.04        | -1.76±0.08               | 35.4  | $f_{100}$                              | 6.0232±0.0031                | 0.08±0.03        | -1.69±0.19               | 5.9   |
| $f_{22}$                               | 3.0449±0.0013                | 0.23±0.04        | 1.99±0.08                | 32.2  | $f_{101}$                              | 1.1827±0.0032                | 0.08±0.03        | -2.85±0.20               | 5.7   |
| $f_{23}$                               | 3.9100±0.0014                | 0.20±0.04        | -1.82±0.08               | 30.2  | $f_{102}$                              | 2.8833±0.0032                | 0.08±0.03        | 0.46±0.20                | 5.6   |
| $f_{24}$                               | 1.9863±0.0014                | 0.20±0.04        | 1.68±0.09                | 29.7  | $f_{103}$                              | 1.4505±0.0032                | 0.09±0.04        | 2.01±0.20                | 5.7   |
| $f_{25}$                               | 0.1623±0.0014                | 0.24±0.04        | 1.38±0.09                | 29.2  | $f_{104}$                              | 1.4950±0.0032                | 0.08±0.03        | 0.64±0.20                | 5.7   |
| $f_{26}$                               | 3.0827±0.0015                | 0.20±0.04        | 1.32±0.09                | 26.2  | $f_{105}$                              | 0.4617±0.0033                | 0.08±0.03        | 2.50±0.20                | 5.5   |
| $f_{27}$                               | 0.2089±0.0015                | 0.22±0.04        | 0.37±0.09                | 25.3  | $f_{106}$                              | 0.9953±0.0032                | 0.08±0.03        | 0.04±0.20                | 5.6   |
| $f_{28}$                               | 3.1966±0.0016                | 0.20±0.04        | -1.04±0.10               | 23.6  | $f_{108}$                              | 0.8668±0.0033                | 0.08±0.04        | 2.56±0.20                | 5.2   |
| $f_{29}$                               | 1.6613±0.0016                | 0.21±0.04        | 0.61±0.10                | 23.9  | $f_{109}$                              | 0.1003±0.0034                | 0.08±0.04        | 0.37±0.21                | 5.1   |
| $f_{30}$                               | 0.1253±0.0016                | 0.23±0.05        | 2.35±0.10                | 23.0  | $f_{110}$                              | 0.6646±0.0033                | 0.08±0.03        | -2.11±0.20               | 5.3   |
| $f_{31}$                               | 0.4474±0.0016                | 0.16±0.03        | -1.01±0.10               | 23.1  | $f_{111}$                              | 2.6577±0.0033                | 0.08±0.04        | 2.44±0.20                | 5.2   |
| $f_{32}$                               | 1.4371±0.0017                | 0.16±0.03        | -1.45±0.10               | 21.3  | $f_{112}$                              | 3.1015±0.0034                | 0.08±0.04        | -2.39±0.21               | 5.0   |
| $f_{33}$                               | 0.1680±0.0017                | 0.12±0.03        | 0.56±0.10                | 21.4  |                                        |                              |                  |                          |       |
| $f_{34}$                               | 1.3327±0.0017                | 0.17±0.04        | 0.55±0.10                | 20.8  |                                        |                              |                  |                          |       |
| $f_{35}$                               | 1.4736±0.0017                | 0.12±0.03        | -2.61±0.10               | 21.2  |                                        |                              |                  |                          |       |
| $f_{36}$                               | 0.2154±0.0017                | 0.17±0.04        | 2.68±0.10                | 20.3  |                                        |                              |                  |                          |       |
| $f_{37}$                               | 1.2264±0.0018                | 0.15±0.03        | 0.13±0.11                | 18.4  |                                        |                              |                  |                          |       |
| $f_{38}$                               | 1.5992±0.0018                | 0.13±0.03        | -1.34±0.11               | 18.2  |                                        |                              |                  |                          |       |
| $f_{39}$                               | 1.7221±0.0019                | 0.15±0.04        | -0.26±0.11               | 16.6  |                                        |                              |                  |                          |       |
| $f_{40}$                               | 0.3031±0.0020                | 0.17±0.04        | 1.51±0.12                | 15.3  |                                        |                              |                  |                          |       |
| $f_{41}$                               | 0.3412±0.0019                | 0.15±0.04        | 1.69±0.11                | 16.5  |                                        |                              |                  |                          |       |
| $f_{42}$                               | 0.7348±0.0019                | 0.13±0.03        | -2.55±0.12               | 16.2  |                                        |                              |                  |                          |       |
| $f_{43}$                               | 2.8385±0.0020                | 0.14±0.04        | -3.05±0.12               | 14.9  |                                        |                              |                  |                          |       |
| $f_{44}$                               | 3.9408±0.0020                | 0.14±0.04        | 0.24±0.12                | 14.6  |                                        |                              |                  |                          |       |
| $f_{45}$                               | 1.0999±0.0020                | 0.14±0.04        | -3.13±0.12               | 14.5  |                                        |                              |                  |                          |       |
| $f_{46}$                               | 1.8560±0.0020                | 0.12±0.03        | 2.12±0.12                | 14.3  |                                        |                              |                  |                          |       |
| $f_{47}$                               | 1.4604±0.0020                | 0.14±0.04        | 2.63±0.12                | 13.9  |                                        |                              |                  |                          |       |
| $f_{48}$                               | 1.4871±0.0020                | 0.15±0.04        | -2.85±0.12               | 14.5  |                                        |                              |                  |                          |       |
| $f_{49}$                               | 1.2524±0.0020                | 0.14±0.04        | 1.18±0.12                | 14.3  |                                        |                              |                  |                          |       |
| $f_{50}$                               | 0.5458±0.0020                | 0.14±0.04        | -2.85±0.12               | 14.1  |                                        |                              |                  |                          |       |
| $f_{51}$                               | 0.2469±0.0020                | 0.14±0.04        | -0.67±0.12               | 13.9  |                                        |                              |                  |                          |       |
| $f_{52}$                               | 0.1129±0.0020                | 0.18±0.05        | -0.73±0.12               | 15.3  |                                        |                              |                  |                          |       |
| $f_{53}$                               | 0.2970±0.0020                | 0.16±0.04        | 1.19±0.12                | 15.1  |                                        |                              |                  |                          |       |
| $f_{54}$                               | 0.6719±0.0020                | 0.14±0.04        | 1.89±0.12                | 14.5  |                                        |                              |                  |                          |       |
| $f_{55}$                               | 0.5527±0.0020                | 0.14±0.04        | 0.07±0.12                | 14.1  |                                        |                              |                  |                          |       |
| $f_{56}$                               | 1.1993±0.0020                | 0.13±0.03        | -2.49±0.12               | 14.0  |                                        |                              |                  |                          |       |
| $f_{57}$                               | 0.8963±0.0021                | 0.12±0.03        | -1.90±0.13               | 13.0  |                                        |                              |                  |                          |       |
| $f_{58}$                               | 0.7513±0.0022                | 0.13±0.04        | -2.13±0.13               | 12.3  |                                        |                              |                  |                          |       |
| $f_{59}$                               | 0.9583±0.0022                | 0.11±0.03        | -2.94±0.14               | 11.7  |                                        |                              |                  |                          |       |
| $f_{60}$                               | 0.1593±0.0023                | 0.15±0.04        | 0.62±0.14                | 11.2  |                                        |                              |                  |                          |       |
| $f_{61}$                               | 1.8784±0.0023                | 0.11±0.03        | 1.90±0.14                | 11.2  |                                        |                              |                  |                          |       |
| $f_{62}$                               | 1.7738±0.0023                | 0.12±0.04        | -1.31±0.14               | 11.0  |                                        |                              |                  |                          |       |
| $f_{63}$                               | 1.4082±0.0023                | 0.12±0.04        | -1.37±0.14               | 11.4  |                                        |                              |                  |                          |       |
| $f_{64}$                               | 1.6432±0.0023                | 0.12±0.04        | -2.63±0.14               | 10.6  |                                        |                              |                  |                          |       |
| $f_{65}$                               | 1.9571±0.0023                | 0.11±0.03        | -1.21±0.14               | 10.7  |                                        |                              |                  |                          |       |
| $f_{66}$                               | 0.2032±0.0024                | 0.11±0.04        | 1.13±0.15                | 9.8   |                                        |                              |                  |                          |       |
| $f_{67}$                               | 0.1516±0.0024                | 0.12±0.04        | 2.68±0.14                | 10.5  |                                        |                              |                  |                          |       |
| $f_{68}$                               | 0.4552±0.0024                | 0.12±0.04        | 0.18±0.15                | 9.9   |                                        |                              |                  |                          |       |
| $f_{69}$                               | 11.5740±0.0024               | 0.11±0.04        | -0.80±0.15               | 9.8   |                                        |                              |                  |                          |       |
| $f_{70}$                               | 0.3208±0.0025                | 0.11±0.04        | -2.16±0.15               | 9.1   |                                        |                              |                  |                          |       |
| $f_{71}$                               | 0.4083±0.0025                | 0.11±0.04        | 0.59±0.15                | 9.5   |                                        |                              |                  |                          |       |
| $f_{72}$                               | 1.7393±0.0026                | 0.10±0.03        | -3.13±0.16               | 8.9   |                                        |                              |                  |                          |       |
| $f_{73}$                               | 1.9157±0.0026                | 0.10±0.03        | 2.71±0.16                | 8.8   |                                        |                              |                  |                          |       |
| $f_{74}$                               | 2.9484±0.0026                | 0.11±0.04        | 2.20±0.16                | 8.8   |                                        |                              |                  |                          |       |
| $f_{75}$                               | 3.3189±0.0026                | 0.10±0.03        | -2.91±0.16               | 8.5   |                                        |                              |                  |                          |       |
| $f_{76}$                               | 2.7989±0.0026                | 0.10±0.03        | -1.81±0.16               | 8.3   |                                        |                              |                  |                          |       |
| $f_{77}$                               | 1.6810±0.0027                | 0.10±0.04        | 1.73±0.16                | 8.0   |                                        |                              |                  |                          |       |
| $f_{78}$                               | 0.7992±0.0027                | 0.09±0.03        | -0.94±0.16               | 8.2   |                                        |                              |                  |                          |       |
| $f_{79}$                               | 0.2563±0.0027                | 0.09±0.03        | -0.35±0.17               | 7.9   |                                        |                              |                  |                          |       |
| $f_{80}$                               | 3.9709±0.0028                | 0.09±0.03        | 3.03±0.17                | 7.7   |                                        |                              |                  |                          |       |
| $f_{81}$                               | 0.6273±0.0028                | 0.10±0.04        | -0.11±0.17               | 7.4   |                                        |                              |                  |                          |       |
| $f_{82}$                               | 0.5843±0.0028                | 0.11±0.04        | -1.93±0.17               | 7.6   |                                        |                              |                  |                          |       |
| $f_{83}$                               | 0.8442±0.0028                | 0.10±0.04        | -2.81±0.17               | 7.6   |                                        |                              |                  |                          |       |
| $f_{84}$                               | 0.2892±0.0028                | 0.10±0.04        | 1.42±0.17                | 7.5   |                                        |                              |                  |                          |       |
| $f_{85}$                               | 0.1198±0.0028                | 0.11±0.04        | 1.43±0.17                | 7.7   |                                        |                              |                  |                          |       |
| $f_{86}$                               | 0.6035±0.0028                | 0.09±0.03        | 2.07±0.17                | 7.2   |                                        |                              |                  |                          |       |
| $f_{87}$                               | 0.7441±0.0028                | 0.09±0.03        | 0.55±0.17                | 7.2   |                                        |                              |                  |                          |       |
| $f_{88}$                               | 3.6654±0.0029                | 0.09±0.03        | 1.96±0.18                | 6.9   |                                        |                              |                  |                          |       |
| $f_{89}$                               | 1.5718±0.0029                | 0.09±0.03        | -1.69±0.18               | 7.0   |                                        |                              |                  |                          |       |
| $f_{90}$                               | 0.4310±0.0028                | 0.09±0.03        | 2.01±0.17                | 7.2   |                                        |                              |                  |                          |       |

**Table B.55:** Frequency list of 0102724031

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign.  |
|--------------|------------------------------|------------------|--------------------------|--------|
| $f_1$        | 1.3774±0.0002                | 1.71±0.05        | -1.89±0.01               | 1038.2 |
| $f_2$        | 1.4271±0.0003                | 1.34±0.06        | -1.02±0.02               | 568.9  |
| $f_3$        | 1.4157±0.0003                | 1.23±0.05        | -2.43±0.02               | 680.5  |
| $f_4$        | 1.5354±0.0003                | 0.94±0.03        | -0.67±0.02               | 725.0  |
| $f_5$        | 1.5459±0.0004                | 0.66±0.04        | 0.23±0.03                | 307.6  |
| $f_6$        | 1.3710±0.0004                | 0.60±0.03        | -0.76±0.03               | 303.8  |
| $f_7$        | 1.4210±0.0007                | 0.35±0.03        | 1.90±0.04                | 135.8  |
| $f_8$        | 0.1060±0.0009                | 0.26±0.03        | -1.35±0.06               | 64.7   |
| $f_9$        | 1.3210±0.0010                | 0.27±0.04        | 2.86±0.06                | 57.2   |
| $f_{11}$     | 1.4121±0.0011                | 0.22±0.03        | -1.34±0.07               | 50.7   |
| $f_{12}$     | 0.8513±0.0011                | 0.21±0.03        | -2.02±0.07               | 45.3   |
| $f_{13}$     | 1.3813±0.0011                | 0.23±0.03        | -3.08±0.07               | 44.2   |
| $f_{15}$     | 1.4297±0.0013                | 0.17±0.03        | 0.22±0.08                | 35.2   |
| $f_{16}$     | 1.3309±0.0013                | 0.15±0.03        | -2.61±0.08               | 34.5   |
| $f_{19}$     | 1.2734±0.0015                | 0.16±0.03        | -1.13±0.09               | 26.5   |
| $f_{20}$     | 1.5758±0.0015                | 0.16±0.03        | -0.91±0.09               | 26.2   |
| $f_{21}$     | 1.4888±0.0015                | 0.15±0.03        | 0.56±0.09                | 24.6   |
| $f_{22}$     | 1.2958±0.0015                | 0.15±0.03        | -0.77±0.09               | 24.4   |
| $f_{24}$     | 0.1349±0.0017                | 0.14±0.03        | -0.62±0.10               | 20.9   |
| $f_{25}$     | 2.7527±0.0018                | 0.12±0.03        | -1.12±0.11               | 17.6   |
| $f_{26}$     | 1.3882±0.0019                | 0.11±0.03        | 1.20±0.12                | 15.8   |
| $f_{27}$     | 1.2670±0.0019                | 0.11±0.03        | -0.43±0.12               | 15.9   |
| $f_{28}$     | 0.2678±0.0019                | 0.09±0.02        | -2.92±0.12               | 15.5   |
| $f_{32}$     | 1.3431±0.0021                | 0.12±0.03        | -2.10±0.13               | 13.6   |
| $f_{33}$     | 1.4486±0.0021                | 0.10±0.03        | 2.90±0.13                | 12.8   |
| $f_{35}$     | 0.1934±0.0022                | 0.10±0.03        | -0.88±0.14               | 11.8   |
| $f_{39}$     | 1.3108±0.0023                | 0.10±0.03        | 2.35±0.14                | 11.2   |
| $f_{40}$     | 2.9146±0.0023                | 0.10±0.03        | 1.63±0.14                | 11.3   |
| $f_{41}$     | 0.1219±0.0023                | 0.09±0.03        | -1.25±0.14               | 10.7   |
| $f_{42}$     | 0.2577±0.0024                | 0.10±0.03        | 3.07±0.15                | 10.1   |
| $f_{43}$     | 1.2035±0.0024                | 0.09±0.03        | 0.17±0.14                | 10.4   |
| $f_{44}$     | 1.3558±0.0025                | 0.09±0.03        | -1.10±0.15               | 9.7    |
| $f_{46}$     | 0.2090±0.0025                | 0.10±0.03        | 0.14±0.15                | 9.5    |
| $f_{47}$     | 0.1683±0.0025                | 0.09±0.03        | 1.97±0.15                | 9.1    |
| $f_{48}$     | 1.5111±0.0025                | 0.09±0.03        | -3.08±0.15               | 9.1    |
| $f_{49}$     | 1.2459±0.0026                | 0.09±0.03        | 0.98±0.16                | 8.9    |
| $f_{54}$     | 2.9221±0.0026                | 0.08±0.03        | -0.91±0.16               | 8.5    |
| $f_{55}$     | 3.0710±0.0027                | 0.08±0.03        | 1.78±0.17                | 7.8    |
| $f_{56}$     | 1.3641±0.0027                | 0.08±0.03        | 2.41±0.17                | 7.9    |
| $f_{57}$     | 0.3837±0.0028                | 0.08±0.03        | 0.45±0.17                | 7.3    |
| $f_{58}$     | 1.3985±0.0028                | 0.08±0.03        | 0.09±0.17                | 7.3    |
| $f_{61}$     | 0.3361±0.0030                | 0.07±0.03        | -0.58±0.18               | 6.5    |
| $f_{62}$     | 1.6958±0.0030                | 0.07±0.03        | 1.46±0.18                | 6.5    |
| $f_{63}$     | 27.9198±0.0029               | 0.08±0.03        | 1.30±0.18                | 6.7    |
| $f_{64}$     | 1.0944±0.0031                | 0.07±0.03        | 3.09±0.19                | 6.2    |
| $f_{68}$     | 2.8574±0.0032                | 0.07±0.03        | 1.37±0.19                | 5.8    |
| $f_{70}$     | 0.7890±0.0033                | 0.06±0.03        | -2.45±0.20               | 5.3    |
| $f_{71}$     | 0.2157±0.0034                | 0.07±0.03        | 2.64±0.21                | 5.1    |
| $f_{72}$     | 0.1132±0.0034                | 0.06±0.03        | 1.58±0.21                | 5.1    |

**Table B.56:** Frequency list of 0102724193

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign.  |
|--------------|------------------------------|------------------|--------------------------|--------|
| $f_1$        | 2.1062±0.0002                | 12.96±0.29       | 0.39±0.01                | 1947.7 |
| $f_2$        | 2.1799±0.0002                | 8.35±0.21        | -3.10±0.01               | 1546.5 |
| $f_3$        | 2.2692±0.0002                | 7.02±0.17        | 0.75±0.01                | 1659.0 |

Frequency list of 0102724193 continued

## Appendix B. Frequencies of individual $\gamma$ Dor Stars

| Frequency list of 0102724193 continued |                              |                  |                          |       | Frequency list of 0102724193 continued          |                              |                  |                          |        |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|-------------------------------------------------|------------------------------|------------------|--------------------------|--------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                                    | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign.  |
| $f_4$                                  | 2.3844±0.0003                | 2.94±0.13        | -2.63±0.02               | 494.6 | $f_{127}$                                       | 1.8856±0.0030                | 0.22±0.09        | -1.99±0.18               | 6.4    |
| $f_5$                                  | 2.0446±0.0006                | 1.66±0.13        | -0.85±0.04               | 166.8 | $f_{129}$                                       | 0.9480±0.0031                | 0.22±0.09        | 2.95±0.19                | 6.1    |
| $f_6$                                  | 1.9755±0.0007                | 1.42±0.13        | 0.93±0.04                | 118.2 | $f_{132}$                                       | 1.1847±0.0031                | 0.21±0.09        | -2.59±0.19               | 5.9    |
| $f_7$                                  | 2.4828±0.0008                | 1.15±0.12        | 0.79±0.05                | 92.3  | $f_{133}$                                       | 0.6569±0.0031                | 0.21±0.09        | 2.68±0.19                | 5.9    |
| $f_8$                                  | 0.1630±0.0009                | 1.06±0.13        | 2.11±0.06                | 69.9  | $f_{137}$                                       | 1.7943±0.0032                | 0.21±0.09        | 2.06±0.19                | 5.8    |
| $f_9$                                  | 1.0982±0.0009                | 1.01±0.12        | 3.05±0.06                | 70.3  | $f_{138}$                                       | 0.1239±0.0032                | 0.21±0.09        | -1.59±0.20               | 5.7    |
| $f_{14}$                               | 1.8033±0.0010                | 0.95±0.12        | 1.32±0.06                | 63.9  | $f_{139}$                                       | 1.9895±0.0032                | 0.21±0.09        | 2.52±0.20                | 5.7    |
| $f_{15}$                               | 1.9025±0.0010                | 0.78±0.10        | 1.53±0.06                | 60.9  | $f_{141}$                                       | 2.8142±0.0032                | 0.20±0.08        | 0.76±0.20                | 5.6    |
| $f_{16}$                               | 2.0065±0.0010                | 1.26±0.16        | 1.17±0.06                | 60.1  | $f_{145}$                                       | 20.9904±0.0033               | 0.20±0.09        | -1.35±0.20               | 5.2    |
| $f_{17}$                               | 4.2118±0.0010                | 0.77±0.11        | -1.88±0.06               | 53.4  | $f_{146}$                                       | 0.2910±0.0033                | 0.20±0.09        | 2.04±0.20                | 5.2    |
| $f_{18}$                               | 1.0685±0.0012                | 0.71±0.11        | -2.76±0.07               | 44.0  | $f_{147}$                                       | 2.3572±0.0034                | 0.20±0.09        | -2.93±0.21               | 5.1    |
| $f_{19}$                               | 4.3755±0.0012                | 0.76±0.12        | -1.74±0.07               | 43.5  | $f_{148}$                                       | 1.0991±0.0034                | 0.20±0.09        | 2.85±0.21                | 5.1    |
| $f_{20}$                               | 1.8782±0.0012                | 0.60±0.09        | -1.75±0.07               | 41.4  | $f_{149}$                                       | 3.4999±0.0034                | 0.19±0.08        | 1.97±0.21                | 5.0    |
| $f_{21}$                               | 4.2865±0.0012                | 0.66±0.10        | 0.77±0.07                | 40.4  | $f_{152}$                                       | 2.1057±0.0026                | 0.26±0.09        | 1.03±0.16                | 8.9    |
| $f_{22}$                               | 1.1547±0.0015                | 0.55±0.11        | -1.71±0.09               | 26.7  | <b>Table B.57: Frequency list of 0102724938</b> |                              |                  |                          |        |
| $f_{25}$                               | 2.0870±0.0015                | 0.46±0.09        | 2.74±0.09                | 24.6  | Frequency ID                                    | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign.  |
| $f_{26}$                               | 3.0720±0.0016                | 0.48±0.10        | -0.83±0.10               | 23.5  | $f_1$                                           | 2.4020±0.0002                | 4.22±0.12        | 3.14±0.01                | 1271.5 |
| $f_{27}$                               | 1.7134±0.0016                | 0.47±0.10        | 2.33±0.10                | 23.6  | $f_2$                                           | 2.1832±0.0002                | 3.56±0.09        | -3.03±0.01               | 1478.8 |
| $f_{28}$                               | 1.2735±0.0016                | 0.50±0.10        | 2.22±0.10                | 23.1  | $f_3$                                           | 2.7284±0.0003                | 1.68±0.07        | 0.99±0.02                | 654.1  |
| $f_{29}$                               | 2.6185±0.0016                | 0.47±0.10        | 1.34±0.10                | 22.6  | $f_4$                                           | 2.0753±0.0004                | 1.27±0.06        | -1.51±0.02               | 453.2  |
| $f_{30}$                               | 0.3375±0.0016                | 0.55±0.11        | 2.22±0.10                | 23.5  | $f_5$                                           | 1.9787±0.0005                | 0.92±0.06        | -2.50±0.03               | 262.7  |
| $f_{34}$                               | 2.6029±0.0016                | 0.47±0.10        | -1.28±0.10               | 21.6  | $f_6$                                           | 2.1702±0.0005                | 0.91±0.06        | -2.64±0.03               | 259.3  |
| $f_{36}$                               | 0.2144±0.0017                | 0.37±0.08        | -1.86±0.10               | 19.8  | $f_7$                                           | 1.4328±0.0007                | 0.56±0.05        | 2.48±0.04                | 125.2  |
| $f_{37}$                               | 1.8692±0.0017                | 0.43±0.10        | 0.62±0.11                | 19.6  | $f_8$                                           | 1.9643±0.0009                | 0.39±0.05        | -0.80±0.06               | 71.4   |
| $f_{38}$                               | 1.0367±0.0017                | 0.44±0.10        | -0.38±0.10               | 20.3  | $f_9$                                           | 4.8035±0.0009                | 0.43±0.05        | 1.29±0.05                | 73.7   |
| $f_{39}$                               | 2.1941±0.0017                | 0.28±0.06        | 2.27±0.11                | 19.5  | $f_{10}$                                        | 0.3004±0.0010                | 0.39±0.05        | 2.47±0.06                | 58.6   |
| $f_{47}$                               | 4.4489±0.0017                | 0.48±0.11        | 0.71±0.11                | 19.3  | $f_{11}$                                        | 0.3933±0.0010                | 0.37±0.05        | -3.09±0.06               | 53.8   |
| $f_{48}$                               | 0.9668±0.0018                | 0.44±0.10        | 0.40±0.11                | 18.8  | $f_{12}$                                        | 0.2185±0.0010                | 0.35±0.05        | -2.67±0.06               | 53.0   |
| $f_{50}$                               | 0.4391±0.0018                | 0.39±0.09        | 0.45±0.11                | 18.7  | $f_{13}$                                        | 2.7900±0.0011                | 0.31±0.05        | -0.94±0.07               | 44.3   |
| $f_{51}$                               | 0.2577±0.0018                | 0.38±0.09        | 0.12±0.11                | 17.1  | $f_{14}$                                        | 0.1077±0.0012                | 0.30±0.05        | -1.50±0.07               | 42.9   |
| $f_{52}$                               | 0.6327±0.0019                | 0.36±0.09        | 1.90±0.11                | 16.7  | $f_{15}$                                        | 0.3062±0.0013                | 0.23±0.04        | 0.40±0.08                | 33.2   |
| $f_{53}$                               | 1.7725±0.0019                | 0.34±0.08        | 0.59±0.12                | 16.4  | $f_{16}$                                        | 1.8695±0.0014                | 0.24±0.04        | -0.18±0.09               | 29.0   |
| $f_{54}$                               | 0.1055±0.0019                | 0.37±0.09        | 1.02±0.12                | 15.9  | $f_{17}$                                        | 0.1960±0.0014                | 0.29±0.05        | 1.97±0.09                | 28.1   |
| $f_{55}$                               | 0.1382±0.0019                | 0.42±0.10        | 0.03±0.11                | 16.7  | $f_{18}$                                        | 0.1171±0.0014                | 0.21±0.04        | -2.41±0.09               | 28.6   |
| $f_{56}$                               | 0.7313±0.0019                | 0.36±0.09        | -2.29±0.12               | 16.3  | $f_{19}$                                        | 2.4980±0.0014                | 0.24±0.05        | -2.79±0.09               | 28.1   |
| $f_{57}$                               | 2.1550±0.0019                | 0.41±0.10        | -1.48±0.12               | 15.5  | $f_{20}$                                        | 0.1544±0.0015                | 0.21±0.04        | 1.72±0.09                | 25.1   |
| $f_{58}$                               | 0.1852±0.0020                | 0.36±0.10        | 1.80±0.12                | 14.3  | $f_{21}$                                        | 0.2064±0.0015                | 0.23±0.05        | -2.29±0.09               | 24.4   |
| $f_{59}$                               | 0.2780±0.0020                | 0.38±0.10        | 2.00±0.12                | 14.1  | $f_{22}$                                        | 4.5858±0.0016                | 0.23±0.05        | 0.63±0.10                | 24.0   |
| $f_{60}$                               | 1.1189±0.0021                | 0.38±0.10        | 0.21±0.13                | 13.7  | $f_{26}$                                        | 2.6209±0.0016                | 0.20±0.04        | -0.61±0.10               | 21.6   |
| $f_{61}$                               | 2.1825±0.0021                | 0.52±0.14        | -0.90±0.13               | 12.9  | $f_{27}$                                        | 0.2318±0.0017                | 0.19±0.04        | 2.31±0.11                | 19.3   |
| $f_{62}$                               | 2.0047±0.0021                | 0.89±0.25        | -0.08±0.13               | 13.0  | $f_{28}$                                        | 0.1261±0.0018                | 0.19±0.05        | 0.02±0.11                | 17.4   |
| $f_{65}$                               | 1.0893±0.0021                | 0.35±0.10        | 0.00±0.13                | 13.0  | $f_{29}$                                        | 0.1445±0.0018                | 0.19±0.04        | 0.41±0.11                | 18.0   |
| $f_{67}$                               | 0.2217±0.0022                | 0.34±0.10        | -2.68±0.13               | 12.3  | $f_{31}$                                        | 2.0888±0.0019                | 0.17±0.04        | 0.01±0.11                | 16.5   |
| $f_{68}$                               | 0.5431±0.0023                | 0.34±0.10        | 2.11±0.14                | 11.5  | $f_{32}$                                        | 0.1821±0.0019                | 0.17±0.04        | -1.33±0.11               | 16.5   |
| $f_{69}$                               | 2.3432±0.0022                | 0.32±0.09        | 0.19±0.14                | 11.6  | $f_{34}$                                        | 0.3378±0.0019                | 0.17±0.04        | -1.73±0.12               | 15.5   |
| $f_{71}$                               | 0.1763±0.0023                | 0.32±0.10        | -0.17±0.14               | 11.2  | $f_{35}$                                        | 0.4247±0.0020                | 0.17±0.04        | -1.99±0.12               | 15.0   |
| $f_{73}$                               | 1.8154±0.0023                | 0.39±0.12        | -2.66±0.14               | 11.0  | $f_{38}$                                        | 2.1894±0.0021                | 0.19±0.05        | 0.08±0.13                | 13.5   |
| $f_{74}$                               | 4.4900±0.0023                | 0.31±0.10        | 1.62±0.14                | 10.6  | $f_{39}$                                        | 1.5301±0.0021                | 0.16±0.04        | -2.86±0.13               | 12.9   |
| $f_{75}$                               | 2.0314±0.0024                | 0.31±0.10        | 2.11±0.14                | 10.4  | $f_{44}$                                        | 4.3663±0.0021                | 0.15±0.04        | 1.22±0.13                | 13.2   |
| $f_{76}$                               | 2.1074±0.0023                | 0.31±0.09        | -1.17±0.14               | 11.3  | $f_{45}$                                        | 2.1809±0.0021                | 0.16±0.04        | -1.80±0.13               | 13.2   |
| $f_{80}$                               | 0.8795±0.0023                | 0.34±0.10        | 2.75±0.14                | 11.1  | $f_{47}$                                        | 1.8550±0.0021                | 0.15±0.04        | 1.57±0.13                | 12.9   |
| $f_{83}$                               | 1.8615±0.0024                | 0.32±0.10        | 2.23±0.15                | 10.0  | $f_{48}$                                        | 1.7597±0.0021                | 0.14±0.04        | -1.25±0.13               | 12.7   |
| $f_{84}$                               | 1.0748±0.0024                | 0.29±0.09        | 0.98±0.15                | 10.2  | $f_{49}$                                        | 0.5449±0.0023                | 0.12±0.04        | 0.56±0.14                | 11.3   |
| $f_{85}$                               | 0.4672±0.0024                | 0.29±0.09        | -1.88±0.14               | 10.4  | $f_{50}$                                        | 2.3080±0.0023                | 0.15±0.05        | 2.09±0.14                | 11.0   |
| $f_{90}$                               | 1.6699±0.0024                | 0.28±0.09        | -2.97±0.15               | 10.2  | $f_{51}$                                        | 5.4581±0.0024                | 0.14±0.04        | 1.25±0.14                | 10.5   |
| $f_{91}$                               | 1.8441±0.0024                | 0.29±0.09        | 0.36±0.15                | 10.3  | $f_{53}$                                        | 0.2440±0.0024                | 0.12±0.04        | 0.77±0.15                | 10.3   |
| $f_{92}$                               | 4.3589±0.0024                | 0.30±0.09        | -1.56±0.15               | 10.1  | $f_{54}$                                        | 0.7496±0.0024                | 0.13±0.04        | 1.28±0.15                | 10.3   |
| $f_{94}$                               | 4.5389±0.0025                | 0.28±0.09        | -1.53±0.15               | 9.6   | $f_{55}$                                        | 2.0117±0.0024                | 0.14±0.04        | 0.77±0.15                | 9.8    |
| $f_{95}$                               | 0.2038±0.0026                | 0.34±0.12        | 1.58±0.16                | 8.7   | $f_{58}$                                        | 4.5715±0.0025                | 0.13±0.04        | -3.13±0.15               | 9.7    |
| $f_{96}$                               | 0.1937±0.0026                | 0.27±0.09        | -1.07±0.16               | 8.8   | $f_{59}$                                        | 0.3854±0.0025                | 0.11±0.04        | 1.34±0.15                | 9.7    |
| $f_{97}$                               | 1.7303±0.0026                | 0.24±0.08        | -2.23±0.16               | 8.5   | $f_{60}$                                        | 5.1307±0.0025                | 0.12±0.04        | -2.51±0.15               | 9.3    |
| $f_{98}$                               | 0.9888±0.0026                | 0.28±0.10        | -1.29±0.16               | 8.5   | $f_{62}$                                        | 0.2871±0.0026                | 0.12±0.04        | 1.24±0.16                | 8.5    |
| $f_{99}$                               | 0.9213±0.0025                | 0.30±0.10        | 1.86±0.16                | 9.0   | $f_{63}$                                        | 42.9863±0.0026               | 0.17±0.06        | -2.49±0.16               | 8.8    |
| $f_{106}$                              | 1.1106±0.0027                | 0.30±0.11        | -0.11±0.16               | 8.1   | $f_{64}$                                        | 1.9495±0.0026                | 0.13±0.04        | -0.57±0.16               | 8.8    |
| $f_{109}$                              | 2.4334±0.0027                | 0.26±0.09        | 2.72±0.17                | 7.9   | $f_{65}$                                        | 1.1154±0.0028                | 0.11±0.04        | -0.51±0.17               | 7.7    |
| $f_{110}$                              | 2.2561±0.0026                | 0.25±0.09        | -1.50±0.16               | 8.3   | $f_{66}$                                        | 0.2938±0.0028                | 0.11±0.04        | -3.06±0.17               | 7.7    |
| $f_{111}$                              | 0.3003±0.0028                | 0.28±0.10        | 2.70±0.17                | 7.7   | $f_{67}$                                        | 0.8419±0.0028                | 0.11±0.04        | 2.23±0.17                | 7.4    |
| $f_{113}$                              | 1.0272±0.0028                | 0.26±0.09        | -1.79±0.17               | 7.5   | $f_{68}$                                        | 0.2245±0.0028                | 0.12±0.04        | 1.23±0.17                | 7.3    |
| $f_{116}$                              | 2.3034±0.0029                | 0.24±0.09        | -2.57±0.17               | 7.1   | $f_{69}$                                        | 4.0523±0.0029                | 0.11±0.04        | 0.99±0.18                | 6.9    |
| $f_{118}$                              | 0.3755±0.0028                | 0.23±0.09        | 2.90±0.17                | 7.2   | $f_{70}$                                        | 0.4021±0.0028                | 0.10±0.04        | 0.57±0.17                | 7.2    |
| $f_{119}$                              | 2.6743±0.0029                | 0.23±0.09        | 0.56±0.18                | 6.8   | $f_{71}$                                        | 2.3267±0.0029                | 0.11±0.04        | 2.58±0.18                | 6.7    |
| $f_{120}$                              | 4.1503±0.0029                | 0.23±0.09        | -1.47±0.18               | 6.8   | Frequency list of 0102724938 continued          |                              |                  |                          |        |
| $f_{121}$                              | 1.7441±0.0029                | 0.24±0.09        | -1.93±0.18               | 7.0   |                                                 |                              |                  |                          |        |
| $f_{123}$                              | 1.4479±0.0029                | 0.23±0.09        | 0.44±0.18                | 6.7   |                                                 |                              |                  |                          |        |
| $f_{124}$                              | 55.8628±0.0029               | 0.24±0.09        | 0.89±0.18                | 6.8   |                                                 |                              |                  |                          |        |
| $f_{125}$                              | 2.5741±0.0030                | 0.23±0.09        | 2.29±0.18                | 6.6   |                                                 |                              |                  |                          |        |
| Frequency list of 0102724193 continued |                              |                  |                          |       |                                                 |                              |                  |                          |        |

## Appendix B. Frequencies of individual $\gamma$ Dor Stars

| Frequency list of 0102724938 continued |                              |                  |                          |       | Frequency list of 0102725480 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| <i>f</i> <sub>72</sub>                 | 0.6650±0.0029                | 0.10±0.04        | -0.74±0.18               | 6.7   | <i>f</i> <sub>47</sub>                 | 0.1615±0.0011                | 0.12±0.02        | -0.25±0.07               | 46.3  |
| <i>f</i> <sub>73</sub>                 | 4.1465±0.0029                | 0.10±0.04        | -0.93±0.18               | 6.9   | <i>f</i> <sub>48</sub>                 | 0.3948±0.0011                | 0.12±0.02        | 0.26±0.07                | 45.4  |
| <i>f</i> <sub>75</sub>                 | 29.0185±0.0030               | 0.13±0.05        | -2.19±0.18               | 6.5   | <i>f</i> <sub>49</sub>                 | 0.7830±0.0011                | 0.14±0.02        | 2.31±0.07                | 44.1  |
| <i>f</i> <sub>76</sub>                 | 1.9068±0.0030                | 0.10±0.04        | 1.19±0.19                | 6.3   | <i>f</i> <sub>51</sub>                 | 0.1864±0.0012                | 0.12±0.02        | 0.50±0.07                | 41.8  |
| <i>f</i> <sub>77</sub>                 | 0.3468±0.0030                | 0.11±0.04        | 0.03±0.18                | 6.6   | <i>f</i> <sub>52</sub>                 | 1.0284±0.0012                | 0.12±0.02        | 1.31±0.07                | 39.0  |
| <i>f</i> <sub>78</sub>                 | 42.9934±0.0031               | 0.10±0.04        | -0.81±0.19               | 6.0   | <i>f</i> <sub>53</sub>                 | 0.2639±0.0012                | 0.10±0.02        | -1.49±0.07               | 39.2  |
| <i>f</i> <sub>79</sub>                 | 2.5774±0.0031                | 0.09±0.04        | -2.73±0.19               | 5.9   | <i>f</i> <sub>54</sub>                 | 0.5771±0.0012                | 0.12±0.02        | -1.51±0.07               | 39.6  |
| <i>f</i> <sub>80</sub>                 | 0.2710±0.0032                | 0.10±0.04        | 1.48±0.19                | 5.8   | <i>f</i> <sub>55</sub>                 | 0.6668±0.0013                | 0.10±0.02        | -1.11±0.08               | 37.1  |
| <i>f</i> <sub>82</sub>                 | 2.0176±0.0031                | 0.10±0.04        | -1.28±0.19               | 6.0   | <i>f</i> <sub>56</sub>                 | 1.4703±0.0013                | 0.11±0.02        | -0.26±0.08               | 36.5  |
| <i>f</i> <sub>83</sub>                 | 3.9457±0.0031                | 0.09±0.04        | 0.76±0.19                | 6.0   | <i>f</i> <sub>57</sub>                 | 0.4218±0.0013                | 0.11±0.02        | 2.17±0.08                | 36.1  |
| <i>f</i> <sub>84</sub>                 | 3.8375±0.0032                | 0.09±0.04        | 1.15±0.20                | 5.7   | <i>f</i> <sub>59</sub>                 | 0.3001±0.0013                | 0.12±0.02        | -2.98±0.08               | 32.4  |
| <i>f</i> <sub>85</sub>                 | 0.8561±0.0032                | 0.09±0.04        | 0.26±0.20                | 5.6   | <i>f</i> <sub>60</sub>                 | 0.3119±0.0013                | 0.12±0.02        | -0.18±0.08               | 36.2  |
| <i>f</i> <sub>87</sub>                 | 1.7466±0.0033                | 0.09±0.04        | 1.72±0.20                | 5.5   | <i>f</i> <sub>61</sub>                 | 0.3565±0.0013                | 0.13±0.02        | 0.33±0.08                | 34.8  |
| <i>f</i> <sub>88</sub>                 | 2.9486±0.0032                | 0.09±0.04        | 1.44±0.20                | 5.6   | <i>f</i> <sub>62</sub>                 | 0.3679±0.0012                | 0.10±0.02        | 1.81±0.08                | 37.5  |
| <i>f</i> <sub>89</sub>                 | 42.9798±0.0033               | 0.10±0.04        | 1.44±0.20                | 5.4   | <i>f</i> <sub>63</sub>                 | 0.8974±0.0014                | 0.10±0.02        | -1.11±0.08               | 31.8  |
| <i>f</i> <sub>90</sub>                 | 0.5230±0.0033                | 0.09±0.04        | 3.38±0.20                | 5.4   | <i>f</i> <sub>64</sub>                 | 0.8718±0.0013                | 0.08±0.01        | 0.77±0.08                | 35.4  |
| <i>f</i> <sub>92</sub>                 | 29.0255±0.0032               | 0.10±0.04        | 2.09±0.20                | 5.6   | <i>f</i> <sub>65</sub>                 | 1.5824±0.0014                | 0.10±0.02        | -0.35±0.08               | 30.4  |
| <i>f</i> <sub>93</sub>                 | 2.1997±0.0033                | 0.09±0.04        | 0.91±0.20                | 5.5   | <i>f</i> <sub>66</sub>                 | 1.0797±0.0014                | 0.08±0.01        | 3.10±0.08                | 30.8  |
| <i>f</i> <sub>94</sub>                 | 29.0114±0.0034               | 0.09±0.04        | 2.27±0.21                | 5.1   | <i>f</i> <sub>67</sub>                 | 1.0652±0.0014                | 0.10±0.02        | 1.02±0.08                | 30.9  |
| <i>f</i> <sub>95</sub>                 | 6.6709±0.0034                | 0.09±0.04        | -2.41±0.21               | 5.0   | <i>f</i> <sub>68</sub>                 | 0.6402±0.0014                | 0.09±0.02        | -1.84±0.09               | 29.9  |
| <i>f</i> <sub>96</sub>                 | 1.4416±0.0034                | 0.09±0.04        | -2.59±0.21               | 5.1   | <i>f</i> <sub>70</sub>                 | 0.2211±0.0014                | 0.09±0.02        | -2.95±0.09               | 28.8  |
| <i>f</i> <sub>97</sub>                 | 0.5622±0.0033                | 0.09±0.04        | 2.64±0.20                | 5.2   | <i>f</i> <sub>71</sub>                 | 0.1318±0.0014                | 0.07±0.01        | -0.62±0.09               | 30.0  |
| <i>f</i> <sub>98</sub>                 | 0.3748±0.0034                | 0.09±0.04        | -1.13±0.21               | 5.0   | <i>f</i> <sub>72</sub>                 | 0.5555±0.0014                | 0.09±0.02        | 2.92±0.09                | 28.4  |
| <i>f</i> <sub>99</sub>                 | 1.2638±0.0033                | 0.09±0.04        | -1.12±0.20               | 5.2   | <i>f</i> <sub>73</sub>                 | 1.4871±0.0015                | 0.08±0.02        | 0.01±0.09                | 27.4  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>74</sub>                 | 2.0040±0.0015                | 0.14±0.03        | 0.22±0.09                | 26.9  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>75</sub>                 | 0.5104±0.0014                | 0.07±0.01        | -0.11±0.09               | 27.8  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>78</sub>                 | 1.2091±0.0015                | 0.10±0.02        | -1.31±0.09               | 25.1  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>79</sub>                 | 1.2666±0.0015                | 0.08±0.02        | -2.71±0.09               | 26.5  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>80</sub>                 | 0.4731±0.0015                | 0.06±0.01        | 1.59±0.09                | 24.6  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>81</sub>                 | 1.0869±0.0015                | 0.07±0.01        | 0.65±0.09                | 24.9  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>82</sub>                 | 1.2215±0.0016                | 0.07±0.01        | 0.05±0.09                | 24.2  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>85</sub>                 | 0.2447±0.0016                | 0.07±0.01        | 1.01±0.10                | 23.6  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>86</sub>                 | 0.1471±0.0015                | 0.11±0.02        | 1.27±0.09                | 25.0  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>87</sub>                 | 0.6084±0.0016                | 0.07±0.01        | 3.01±0.10                | 22.4  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>88</sub>                 | 0.6502±0.0016                | 0.07±0.01        | 3.09±0.10                | 22.3  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>90</sub>                 | 0.4347±0.0016                | 0.07±0.01        | -3.00±0.10               | 22.5  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>91</sub>                 | 0.8385±0.0016                | 0.07±0.02        | -1.14±0.10               | 21.7  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>92</sub>                 | 0.6333±0.0016                | 0.06±0.01        | 2.58±0.10                | 21.8  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>93</sub>                 | 0.3321±0.0017                | 0.07±0.02        | 3.14±0.10                | 20.9  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>94</sub>                 | 1.1333±0.0017                | 0.08±0.02        | -0.48±0.10               | 20.4  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>95</sub>                 | 1.5136±0.0017                | 0.06±0.01        | -0.96±0.10               | 20.0  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>96</sub>                 | 1.1091±0.0018                | 0.08±0.02        | -1.41±0.11               | 18.2  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>99</sub>                 | 1.0955±0.0018                | 0.05±0.01        | -0.67±0.11               | 17.2  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>100</sub>                | 0.9073±0.0019                | 0.07±0.02        | -0.24±0.11               | 16.5  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>101</sub>                | 0.2928±0.0019                | 0.06±0.01        | 1.75±0.11                | 16.5  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>102</sub>                | 1.6164±0.0019                | 0.05±0.01        | 2.16±0.12                | 16.0  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>103</sub>                | 0.7335±0.0019                | 0.06±0.01        | -1.84±0.12               | 16.2  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>104</sub>                | 0.6945±0.0019                | 0.07±0.02        | 1.96±0.12                | 16.2  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>105</sub>                | 0.4277±0.0019                | 0.07±0.02        | 1.60±0.12                | 15.7  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>106</sub>                | 0.6603±0.0019                | 0.06±0.02        | -1.78±0.12               | 15.7  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>107</sub>                | 1.1249±0.0019                | 0.06±0.02        | 0.98±0.12                | 15.6  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>108</sub>                | 1.2780±0.0019                | 0.06±0.02        | 2.89±0.12                | 15.5  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>109</sub>                | 1.5044±0.0020                | 0.06±0.02        | 0.99±0.12                | 15.3  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>110</sub>                | 0.4620±0.0020                | 0.07±0.02        | 0.74±0.12                | 14.6  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>111</sub>                | 1.3569±0.0020                | 0.08±0.02        | -2.33±0.12               | 14.9  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>112</sub>                | 1.1441±0.0019                | 0.07±0.02        | -2.20±0.12               | 15.4  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>113</sub>                | 1.3090±0.0019                | 0.06±0.01        | -2.78±0.12               | 16.1  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>114</sub>                | 1.9979±0.0019                | 0.06±0.02        | -0.90±0.12               | 15.5  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>118</sub>                | 3.0538±0.0020                | 0.06±0.02        | 2.53±0.12                | 14.4  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>119</sub>                | 0.2557±0.0020                | 0.06±0.02        | -1.61±0.12               | 15.2  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>120</sub>                | 0.1982±0.0020                | 0.07±0.02        | -2.08±0.12               | 14.3  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>121</sub>                | 0.9188±0.0020                | 0.06±0.02        | 2.10±0.12                | 13.9  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>122</sub>                | 1.4596±0.0020                | 0.06±0.02        | -2.48±0.12               | 14.4  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>123</sub>                | 1.3668±0.0021                | 0.06±0.02        | 2.18±0.13                | 13.8  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>124</sub>                | 0.9351±0.0021                | 0.05±0.01        | -1.94±0.13               | 12.9  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>125</sub>                | 2.0797±0.0022                | 0.05±0.01        | -0.00±0.13               | 12.6  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>126</sub>                | 0.7739±0.0022                | 0.04±0.01        | 0.90±0.13                | 12.2  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>127</sub>                | 1.9737±0.0022                | 0.05±0.01        | 0.55±0.13                | 12.2  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>128</sub>                | 0.4007±0.0022                | 0.06±0.02        | 0.34±0.14                | 11.9  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>129</sub>                | 0.8781±0.0022                | 0.05±0.01        | 1.70±0.14                | 11.7  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>130</sub>                | 0.7455±0.0022                | 0.05±0.01        | 0.08±0.14                | 11.9  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>131</sub>                | 0.7644±0.0022                | 0.06±0.02        | -2.79±0.14               | 11.6  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>132</sub>                | 0.7197±0.0022                | 0.06±0.02        | 1.17±0.14                | 11.6  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>133</sub>                | 0.1257±0.0023                | 0.06±0.02        | 0.82±0.14                | 11.4  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>135</sub>                | 1.5744±0.0023                | 0.05±0.02        | 2.31±0.14                | 11.1  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>136</sub>                | 1.1683±0.0023                | 0.05±0.01        | -3.03±0.14               | 11.5  |
| Frequency list of 0102725480 continued |                              |                  |                          |       | Frequency list of 0102725480 continued |                              |                  |                          |       |

## Appendix B. Frequencies of individual $\gamma$ Dor Stars

| Frequency list of 0102725480 continued |                              |                  |                          |       | Frequency list of 0102726709 continued |                              |                  |                          |        |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|--------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign.  |
| $f_{137}$                              | 1.2001±0.0023                | 0.05±0.01        | 1.22±0.14                | 11.4  | $f_{26}$                               | 1.3645±0.0021                | 0.08±0.02        | -2.79±0.13               | 12.9   |
| $f_{141}$                              | 0.7945±0.0023                | 0.03±0.01        | 0.19±0.14                | 10.7  | $f_{27}$                               | 3.1470±0.0022                | 0.07±0.02        | 1.45±0.13                | 12.1   |
| $f_{142}$                              | 0.7010±0.0023                | 0.05±0.01        | -0.45±0.14               | 11.3  | $f_{28}$                               | 0.3385±0.0022                | 0.08±0.02        | -0.76±0.14               | 11.8   |
| $f_{144}$                              | 0.6866±0.0024                | 0.06±0.02        | -1.67±0.15               | 9.9   | $f_{29}$                               | 0.6110±0.0022                | 0.08±0.02        | -0.28±0.13               | 12.0   |
| $f_{145}$                              | 2.8809±0.0025                | 0.04±0.01        | -2.56±0.15               | 9.7   | $f_{30}$                               | 0.2596±0.0023                | 0.07±0.02        | -1.09±0.14               | 11.2   |
| $f_{150}$                              | 0.9718±0.0025                | 0.05±0.02        | -2.18±0.15               | 9.5   | $f_{32}$                               | 0.4854±0.0023                | 0.06±0.02        | -1.13±0.14               | 10.6   |
| $f_{151}$                              | 2.0395±0.0025                | 0.05±0.02        | 1.80±0.15                | 9.7   | $f_{33}$                               | 1.1124±0.0024                | 0.07±0.02        | 0.75±0.14                | 10.4   |
| $f_{152}$                              | 2.0564±0.0024                | 0.05±0.02        | 0.11±0.14                | 10.4  | $f_{34}$                               | 1.3999±0.0024                | 0.06±0.02        | -2.37±0.15               | 10.3   |
| $f_{153}$                              | 1.6065±0.0025                | 0.04±0.01        | 0.87±0.15                | 9.6   | $f_{35}$                               | 0.2341±0.0024                | 0.07±0.02        | -2.19±0.14               | 10.5   |
| $f_{154}$                              | 0.8250±0.0025                | 0.05±0.02        | 0.17±0.15                | 9.6   | $f_{36}$                               | 1.1908±0.0024                | 0.07±0.02        | -0.34±0.15               | 9.8    |
| $f_{156}$                              | 1.1565±0.0025                | 0.04±0.01        | -1.05±0.15               | 9.2   | $f_{37}$                               | 2.1117±0.0024                | 0.07±0.02        | 1.66±0.15                | 10.2   |
| $f_{157}$                              | 0.2764±0.0025                | 0.04±0.01        | -1.20±0.15               | 9.3   | $f_{38}$                               | 0.4206±0.0025                | 0.07±0.02        | 0.16±0.15                | 9.7    |
| $f_{158}$                              | 0.3500±0.0025                | 0.04±0.01        | 1.98±0.15                | 9.3   | $f_{39}$                               | 0.2003±0.0025                | 0.06±0.02        | 0.40±0.15                | 9.3    |
| $f_{159}$                              | 1.9011±0.0025                | 0.05±0.02        | 0.44±0.15                | 9.3   | $f_{40}$                               | 0.3918±0.0025                | 0.06±0.02        | 1.96±0.15                | 9.1    |
| $f_{162}$                              | 1.3460±0.0026                | 0.04±0.01        | -2.06±0.16               | 8.7   | $f_{41}$                               | 0.3510±0.0024                | 0.06±0.02        | 1.23±0.15                | 10.2   |
| $f_{163}$                              | 0.4905±0.0026                | 0.06±0.02        | -0.93±0.16               | 8.7   | $f_{42}$                               | 1.0344±0.0025                | 0.06±0.02        | 2.33±0.16                | 9.0    |
| $f_{164}$                              | 2.5483±0.0026                | 0.04±0.01        | 1.85±0.16                | 8.5   | $f_{43}$                               | 0.7481±0.0025                | 0.06±0.02        | -2.19±0.15               | 9.1    |
| $f_{165}$                              | 0.6747±0.0027                | 0.05±0.02        | 0.01±0.16                | 8.2   | $f_{44}$                               | 0.1524±0.0025                | 0.06±0.02        | 0.36±0.15                | 9.1    |
| $f_{166}$                              | 0.8078±0.0026                | 0.04±0.01        | 2.55±0.16                | 8.4   | $f_{45}$                               | 0.6615±0.0026                | 0.06±0.02        | -1.77±0.16               | 8.9    |
| $f_{171}$                              | 3.0442±0.0028                | 0.04±0.01        | -1.82±0.17               | 7.7   | $f_{46}$                               | 0.1314±0.0026                | 0.06±0.02        | -2.17±0.16               | 8.7    |
| $f_{173}$                              | 1.8922±0.0028                | 0.04±0.01        | -0.94±0.17               | 7.3   | $f_{47}$                               | 2.9944±0.0026                | 0.06±0.02        | -3.06±0.16               | 8.5    |
| $f_{174}$                              | 2.5749±0.0029                | 0.04±0.02        | -1.57±0.17               | 7.1   | $f_{48}$                               | 0.2781±0.0027                | 0.06±0.02        | 0.88±0.16                | 8.2    |
| $f_{175}$                              | 0.8944±0.0029                | 0.04±0.02        | 1.86±0.18                | 6.9   | $f_{49}$                               | 1.2198±0.0027                | 0.06±0.02        | 1.87±0.17                | 7.8    |
| $f_{176}$                              | 0.8483±0.0029                | 0.04±0.02        | -1.10±0.18               | 6.8   | $f_{50}$                               | 2.7911±0.0027                | 0.05±0.02        | 0.35±0.17                | 7.8    |
| $f_{177}$                              | 2.5036±0.0029                | 0.04±0.02        | 2.49±0.18                | 7.0   | $f_{51}$                               | 1.6608±0.0027                | 0.05±0.02        | 3.07±0.17                | 7.8    |
| $f_{178}$                              | 2.4003±0.0030                | 0.03±0.01        | -0.60±0.18               | 6.5   | $f_{53}$                               | 0.9998±0.0025                | 0.06±0.02        | 2.01±0.16                | 9.0    |
| $f_{179}$                              | 0.7096±0.0030                | 0.04±0.02        | -2.15±0.18               | 6.5   | $f_{54}$                               | 2.6461±0.0028                | 0.05±0.02        | -3.06±0.17               | 7.4    |
| $f_{180}$                              | 2.9961±0.0029                | 0.03±0.01        | -1.92±0.18               | 6.7   | $f_{55}$                               | 0.3652±0.0028                | 0.06±0.02        | -3.12±0.17               | 7.3    |
| $f_{181}$                              | 2.7394±0.0030                | 0.03±0.01        | -1.18±0.18               | 6.6   | $f_{56}$                               | 0.5327±0.0028                | 0.06±0.02        | -2.34±0.17               | 7.5    |
| $f_{182}$                              | 1.7093±0.0030                | 0.03±0.01        | -0.21±0.19               | 6.3   | $f_{58}$                               | 0.4073±0.0029                | 0.05±0.02        | 1.61±0.17                | 7.1    |
| $f_{183}$                              | 0.2101±0.0030                | 0.04±0.02        | 0.82±0.18                | 6.5   | $f_{59}$                               | 2.7302±0.0029                | 0.05±0.02        | 0.82±0.17                | 7.1    |
| $f_{184}$                              | 0.3617±0.0030                | 0.03±0.01        | -0.54±0.18               | 6.4   | $f_{60}$                               | 1.5434±0.0029                | 0.05±0.02        | -1.37±0.17               | 7.1    |
| $f_{187}$                              | 2.2838±0.0031                | 0.04±0.02        | 1.95±0.19                | 6.2   | $f_{61}$                               | 0.4527±0.0029                | 0.06±0.02        | -1.91±0.18               | 7.0    |
| $f_{188}$                              | 1.8153±0.0031                | 0.03±0.01        | 1.13±0.19                | 6.1   | $f_{62}$                               | 0.8444±0.0029                | 0.05±0.02        | -1.07±0.18               | 7.0    |
| $f_{189}$                              | 0.7570±0.0032                | 0.04±0.02        | 1.88±0.19                | 5.8   | $f_{63}$                               | 1.3868±0.0029                | 0.05±0.02        | -0.90±0.17               | 7.1    |
| $f_{190}$                              | 1.6310±0.0031                | 0.03±0.01        | -3.12±0.19               | 5.9   | $f_{64}$                               | 1.1218±0.0029                | 0.05±0.02        | 2.16±0.18                | 6.9    |
| $f_{192}$                              | 1.9493±0.0033                | 0.03±0.01        | -0.89±0.20               | 5.5   | $f_{65}$                               | 1.6847±0.0029                | 0.05±0.02        | 0.07±0.18                | 6.9    |
| $f_{193}$                              | 2.9298±0.0032                | 0.03±0.01        | 1.05±0.20                | 5.6   | $f_{66}$                               | 1.5667±0.0028                | 0.05±0.02        | -2.47±0.17               | 7.2    |
| $f_{194}$                              | 2.8675±0.0033                | 0.03±0.01        | 1.14±0.20                | 5.4   | $f_{67}$                               | 1.1834±0.0029                | 0.05±0.02        | -2.82±0.18               | 6.7    |
| $f_{195}$                              | 1.8413±0.0033                | 0.03±0.01        | 0.61±0.20                | 5.5   | $f_{68}$                               | 0.8540±0.0029                | 0.05±0.02        | -0.83±0.18               | 6.9    |
| $f_{196}$                              | 3.2715±0.0033                | 0.03±0.01        | -2.93±0.20               | 5.4   | $f_{69}$                               | 3.1124±0.0030                | 0.05±0.02        | 0.44±0.18                | 6.6    |
| $f_{197}$                              | 1.1149±0.0033                | 0.03±0.01        | 2.59±0.20                | 5.4   | $f_{70}$                               | 1.5231±0.0030                | 0.05±0.02        | 2.35±0.18                | 6.5    |
| $f_{198}$                              | 1.5495±0.0033                | 0.03±0.01        | 0.22±0.20                | 5.4   | $f_{71}$                               | 2.9058±0.0030                | 0.05±0.02        | 0.74±0.18                | 6.4    |
| $f_{199}$                              | 2.5898±0.0033                | 0.03±0.01        | -2.82±0.20               | 5.3   | $f_{72}$                               | 0.7989±0.0030                | 0.05±0.02        | -0.03±0.18               | 6.4    |
| $f_{200}$                              | 3.0980±0.0033                | 0.03±0.01        | -2.34±0.20               | 5.2   | $f_{73}$                               | 1.8458±0.0030                | 0.05±0.02        | -2.16±0.18               | 6.4    |
| $f_{201}$                              | 2.3585±0.0033                | 0.03±0.01        | 2.27±0.20                | 5.2   | $f_{74}$                               | 1.6183±0.0031                | 0.05±0.02        | -0.24±0.19               | 6.2    |
| $f_{203}$                              | 1.5914±0.0034                | 0.03±0.01        | 2.28±0.21                | 5.1   | $f_{75}$                               | 0.2181±0.0031                | 0.05±0.02        | 3.09±0.19                | 6.0    |
| $f_{204}$                              | 0.1555±0.0034                | 0.03±0.01        | -0.36±0.21               | 5.1   | $f_{76}$                               | 0.5177±0.0031                | 0.05±0.02        | -0.53±0.19               | 6.1    |
| $f_{205}$                              | 4.2378±0.0033                | 0.03±0.01        | 2.22±0.20                | 5.2   | $f_{77}$                               | 2.8501±0.0031                | 0.05±0.02        | -0.53±0.19               | 6.0    |
| $f_{206}$                              | 2.6616±0.0033                | 0.03±0.01        | -3.06±0.20               | 5.2   | $f_{78}$                               | 1.6932±0.0031                | 0.05±0.02        | -2.72±0.19               | 6.1    |
| Frequency list of 0102726709 continued |                              |                  |                          |       | $f_{80}$                               | 2.9353±0.0031                | 0.05±0.02        | -1.13±0.19               | 5.9    |
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | $f_{81}$                               | 1.7720±0.0032                | 0.05±0.02        | -0.29±0.20               | 5.6    |
| $f_1$                                  | 1.4840±0.0003                | 0.70±0.03        | 0.80±0.02                | 585.1 | $f_{82}$                               | 0.9203±0.0032                | 0.05±0.02        | 0.17±0.20                | 5.7    |
| $f_2$                                  | 1.4242±0.0004                | 0.48±0.03        | 2.53±0.03                | 336.8 | $f_{83}$                               | 0.6535±0.0033                | 0.04±0.02        | 1.28±0.20                | 5.4    |
| $f_3$                                  | 1.4516±0.0006                | 0.29±0.02        | -0.58±0.04               | 139.1 | $f_{84}$                               | 1.7921±0.0033                | 0.05±0.02        | -1.49±0.20               | 5.4    |
| $f_4$                                  | 0.7863±0.0007                | 0.24±0.02        | -1.30±0.04               | 113.2 | $f_{85}$                               | 2.3375±0.0033                | 0.04±0.02        | 2.10±0.20                | 5.4    |
| $f_5$                                  | 1.6286±0.0008                | 0.22±0.02        | 0.33±0.05                | 84.8  | $f_{86}$                               | 0.9511±0.0033                | 0.04±0.02        | 1.64±0.20                | 5.4    |
| $f_6$                                  | 0.1360±0.0010                | 0.17±0.02        | 2.09±0.06                | 59.0  | $f_{87}$                               | 0.3038±0.0033                | 0.04±0.02        | -0.85±0.20               | 5.2    |
| $f_7$                                  | 1.5743±0.0010                | 0.17±0.02        | -2.44±0.06               | 55.4  | $f_{88}$                               | 42.5829±0.0034               | 0.04±0.02        | 2.05±0.21                | 5.1    |
| $f_8$                                  | 1.2459±0.0011                | 0.17±0.02        | 2.13±0.06                | 51.4  | $f_{89}$                               | 0.7376±0.0034                | 0.04±0.02        | -0.82±0.21               | 5.1    |
| $f_{10}$                               | 0.1077±0.0012                | 0.12±0.02        | -0.46±0.07               | 38.8  | $f_{90}$                               | 0.1750±0.0033                | 0.05±0.02        | -2.47±0.20               | 5.3    |
| $f_{11}$                               | 1.3079±0.0013                | 0.13±0.02        | -1.91±0.08               | 34.4  | $f_{91}$                               | 3.4518±0.0034                | 0.04±0.02        | 1.33±0.21                | 5.1    |
| $f_{12}$                               | 0.1882±0.0014                | 0.11±0.02        | -2.32±0.08               | 30.2  | Frequency list of 0102727441 continued |                              |                  |                          |        |
| $f_{13}$                               | 0.1470±0.0015                | 0.11±0.02        | 1.87±0.09                | 25.9  | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign.  |
| $f_{14}$                               | 2.3606±0.0015                | 0.12±0.02        | 2.26±0.09                | 26.0  | $f_1$                                  | 2.5658±0.0002                | 5.10±0.15        | 2.60±0.01                | 1097.2 |
| $f_{15}$                               | 0.1648±0.0015                | 0.10±0.02        | -0.11±0.09               | 25.4  | $f_2$                                  | 2.3130±0.0002                | 4.54±0.13        | -2.58±0.01               | 1263.1 |
| $f_{16}$                               | 0.2488±0.0017                | 0.09±0.02        | 0.14±0.10                | 19.9  | $f_3$                                  | 2.4031±0.0002                | 3.55±0.11        | -0.52±0.01               | 1057.4 |
| $f_{18}$                               | 0.3185±0.0017                | 0.10±0.02        | 1.35±0.10                | 20.2  | $f_4$                                  | 2.2993±0.0004                | 2.05±0.10        | -0.32±0.02               | 441.3  |
| $f_{19}$                               | 1.1629±0.0017                | 0.08±0.02        | 0.15±0.10                | 19.7  | $f_5$                                  | 1.5790±0.0005                | 1.50±0.09        | -0.87±0.03               | 257.9  |
| $f_{20}$                               | 0.1219±0.0018                | 0.10±0.02        | 0.25±0.11                | 18.9  | $f_6$                                  | 1.6792±0.0005                | 1.04±0.07        | -2.65±0.03               | 207.3  |
| $f_{21}$                               | 0.2957±0.0019                | 0.09±0.02        | -0.62±0.11               | 16.6  | $f_7$                                  | 1.5528±0.0006                | 1.20±0.09        | 2.12±0.03                | 183.6  |
| $f_{22}$                               | 1.0559±0.0019                | 0.08±0.02        | -1.13±0.12               | 15.6  | $f_8$                                  | 2.5903±0.0006                | 1.09±0.08        | 1.34±0.04                | 174.5  |
| $f_{23}$                               | 0.5778±0.0020                | 0.09±0.02        | 2.10±0.12                | 14.8  | $f_9$                                  | 2.9389±0.0006                | 1.05±0.08        | -1.23±0.03               | 179.4  |
| $f_{24}$                               | 1.0934±0.0020                | 0.09±0.02        | 0.51±0.12                | 14.4  | $f_{10}$                               | 1.5240±0.0006                | 1.05±0.08        | 0.89±0.03                | 183.3  |
| $f_{25}$                               | 0.5984±0.0020                | 0.08±0.02        | 0.40±0.12                | 14.0  | $f_{11}$                               | 2.2895±0.0006                | 0.96±0.08        | 2.67±0.04                | 147.7  |
| Frequency list of 0102726709 continued |                              |                  |                          |       | $f_{12}$                               | 1.5917±0.0007                | 0.92±0.08        | -0.48±0.04               | 123.4  |
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | $f_{13}$                               | 1.7213±0.0007                | 0.90±0.08        | 0.71±0.04                | 134.7  |
| Frequency list of 0102726709 continued |                              |                  |                          |       | Frequency list of 0102727441 continued |                              |                  |                          |        |
| Frequency list of 0102726709 continued |                              |                  |                          |       | Frequency list of 0102727441 continued |                              |                  |                          |        |



## Appendix B. Frequencies of individual $\gamma$ Dor Stars

| Frequency list of 0102727441 continued |                              |                  |                          |       | Frequency list of 0102727441 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{14}$                               | 2.3054±0.0009                | 0.70±0.08        | -0.39±0.05               | 78.6  | $f_{119}$                              | 1.4347±0.0026                | 0.16±0.05        | 1.34±0.16                | 8.9   |
| $f_{15}$                               | 1.5083±0.0009                | 0.58±0.07        | -0.41±0.05               | 72.4  | $f_{121}$                              | 0.5910±0.0028                | 0.15±0.05        | 1.24±0.17                | 7.6   |
| $f_{16}$                               | 0.2524±0.0009                | 0.57±0.07        | 0.43±0.06                | 69.5  | $f_{122}$                              | 2.7301±0.0028                | 0.14±0.05        | -1.39±0.17               | 7.5   |
| $f_{17}$                               | 2.2591±0.0009                | 0.49±0.06        | -2.84±0.05               | 76.0  | $f_{123}$                              | 1.9411±0.0027                | 0.15±0.05        | -0.47±0.17               | 7.8   |
| $f_{18}$                               | 2.2065±0.0009                | 0.64±0.07        | -1.51±0.05               | 74.2  | $f_{124}$                              | 4.9953±0.0028                | 0.14±0.05        | -1.21±0.17               | 7.4   |
| $f_{19}$                               | 5.1318±0.0010                | 0.53±0.07        | 0.04±0.06                | 57.1  | $f_{127}$                              | 2.0446±0.0028                | 0.15±0.06        | 0.52±0.17                | 7.3   |
| $f_{20}$                               | 2.2942±0.0011                | 0.48±0.07        | -0.87±0.06               | 52.7  | $f_{128}$                              | 0.7581±0.0028                | 0.15±0.06        | -1.39±0.17               | 7.3   |
| $f_{21}$                               | 2.3787±0.0010                | 0.49±0.07        | -3.09±0.06               | 55.1  | $f_{129}$                              | 2.1566±0.0029                | 0.17±0.06        | -2.35±0.18               | 7.0   |
| $f_{22}$                               | 2.3173±0.0010                | 0.69±0.09        | -0.19±0.06               | 55.7  | $f_{130}$                              | 2.1452±0.0024                | 0.18±0.06        | 2.61±0.15                | 10.2  |
| $f_{26}$                               | 2.5413±0.0011                | 0.47±0.07        | 2.63±0.07                | 49.3  | $f_{131}$                              | 2.0116±0.0028                | 0.16±0.06        | -2.65±0.17               | 7.3   |
| $f_{28}$                               | 0.2682±0.0011                | 0.44±0.06        | -0.53±0.07               | 46.5  | $f_{133}$                              | 0.3536±0.0029                | 0.14±0.05        | 2.18±0.18                | 6.9   |
| $f_{29}$                               | 2.1366±0.0012                | 0.43±0.07        | 1.01±0.07                | 39.2  | $f_{134}$                              | 0.1796±0.0029                | 0.15±0.06        | -1.73±0.18               | 6.9   |
| $f_{30}$                               | 2.2859±0.0013                | 0.40±0.07        | 1.06±0.08                | 36.3  | $f_{135}$                              | 2.4241±0.0029                | 0.13±0.05        | -2.76±0.18               | 6.8   |
| $f_{31}$                               | 1.5386±0.0013                | 0.39±0.07        | -0.40±0.08               | 33.0  | $f_{136}$                              | 0.6844±0.0029                | 0.14±0.05        | 0.84±0.18                | 6.7   |
| $f_{32}$                               | 0.1599±0.0013                | 0.42±0.07        | -0.89±0.08               | 32.0  | $f_{137}$                              | 1.6704±0.0030                | 0.13±0.05        | -3.13±0.18               | 6.6   |
| $f_{33}$                               | 1.7426±0.0013                | 0.29±0.05        | 0.76±0.08                | 32.8  | $f_{138}$                              | 0.2721±0.0029                | 0.17±0.07        | 2.99±0.18                | 6.8   |
| $f_{34}$                               | 5.4141±0.0014                | 0.35±0.06        | 0.37±0.08                | 30.8  | $f_{139}$                              | 0.3006±0.0029                | 0.15±0.06        | -1.73±0.17               | 7.1   |
| $f_{35}$                               | 1.6593±0.0014                | 0.37±0.07        | -1.00±0.09               | 28.8  | $f_{144}$                              | 2.6716±0.0030                | 0.13±0.05        | 0.25±0.18                | 6.6   |
| $f_{36}$                               | 1.6904±0.0015                | 0.29±0.06        | -2.42±0.09               | 27.2  | $f_{145}$                              | 1.8118±0.0030                | 0.13±0.05        | 0.70±0.18                | 6.5   |
| $f_{37}$                               | 2.3554±0.0015                | 0.32±0.06        | 1.46±0.09                | 26.3  | $f_{146}$                              | 1.0127±0.0030                | 0.12±0.05        | -2.57±0.19               | 6.3   |
| $f_{38}$                               | 1.6213±0.0015                | 0.28±0.05        | -1.99±0.09               | 26.0  | $f_{147}$                              | 2.3989±0.0031                | 0.14±0.06        | 2.94±0.19                | 6.0   |
| $f_{39}$                               | 4.9691±0.0015                | 0.31±0.06        | 2.74±0.09                | 26.1  | $f_{148}$                              | 0.8516±0.0030                | 0.13±0.05        | -0.35±0.19               | 6.3   |
| $f_{40}$                               | 2.2216±0.0015                | 0.37±0.07        | 1.71±0.09                | 25.0  | $f_{149}$                              | 2.4826±0.0031                | 0.13±0.05        | -1.80±0.19               | 6.1   |
| $f_{44}$                               | 0.1299±0.0016                | 0.30±0.06        | -2.88±0.10               | 23.1  | $f_{151}$                              | 0.2936±0.0031                | 0.13±0.05        | 0.22±0.19                | 6.1   |
| $f_{46}$                               | 2.0062±0.0015                | 0.98±0.19        | 1.63±0.09                | 27.0  | $f_{152}$                              | 0.4336±0.0032                | 0.12±0.05        | -0.49±0.19               | 5.8   |
| $f_{54}$                               | 1.4907±0.0016                | 0.30±0.06        | -1.26±0.10               | 22.6  | $f_{153}$                              | 4.2806±0.0031                | 0.12±0.05        | 1.63±0.19                | 6.0   |
| $f_{57}$                               | 4.7154±0.0017                | 0.27±0.06        | -0.03±0.10               | 21.1  | $f_{154}$                              | 4.8091±0.0032                | 0.12±0.05        | -1.41±0.19               | 5.8   |
| $f_{58}$                               | 2.3233±0.0017                | 0.30±0.07        | 0.80±0.10                | 21.0  | $f_{155}$                              | 2.2300±0.0031                | 0.13±0.05        | 0.09±0.19                | 5.9   |
| $f_{59}$                               | 3.0694±0.0017                | 0.25±0.06        | 1.44±0.10                | 19.8  | $f_{161}$                              | 1.7763±0.0033                | 0.12±0.05        | -3.14±0.20               | 5.3   |
| $f_{60}$                               | 2.1658±0.0018                | 0.24±0.06        | 1.50±0.11                | 18.4  | $f_{162}$                              | 1.0568±0.0033                | 0.12±0.05        | 0.62±0.20                | 5.2   |
| $f_{61}$                               | 1.6985±0.0017                | 0.31±0.07        | 1.19±0.11                | 19.3  | $f_{163}$                              | 1.6286±0.0034                | 0.12±0.05        | -0.33±0.21               | 5.1   |
| $f_{62}$                               | 1.7707±0.0017                | 0.31±0.07        | -1.84±0.11               | 19.5  | $f_{164}$                              | 10.0256±0.0033               | 0.12±0.05        | 2.18±0.20                | 5.2   |
| $f_{63}$                               | 4.8788±0.0018                | 0.25±0.06        | -2.35±0.11               | 18.7  | $f_{165}$                              | 2.3459±0.0034                | 0.12±0.05        | -1.01±0.21               | 5.1   |
| $f_{64}$                               | 2.1858±0.0017                | 0.21±0.05        | 1.04±0.11                | 19.2  | $f_{168}$                              | 3.6084±0.0034                | 0.11±0.05        | 2.24±0.21                | 5.1   |
| $f_{65}$                               | 0.1069±0.0018                | 0.27±0.06        | 2.68±0.11                | 18.0  | $f_{169}$                              | 2.4747±0.0033                | 0.12±0.05        | -0.62±0.20               | 5.2   |
| $f_{66}$                               | 2.4164±0.0018                | 0.22±0.05        | 1.96±0.11                | 17.6  |                                        |                              |                  |                          |       |
| $f_{67}$                               | 0.9858±0.0018                | 0.24±0.06        | 0.49±0.11                | 17.5  |                                        |                              |                  |                          |       |
| $f_{68}$                               | 4.8628±0.0018                | 0.24±0.06        | 2.37±0.11                | 17.2  |                                        |                              |                  |                          |       |
| $f_{69}$                               | 0.3763±0.0019                | 0.23±0.06        | 0.03±0.11                | 16.9  |                                        |                              |                  |                          |       |
| $f_{70}$                               | 2.3382±0.0019                | 0.24±0.06        | 2.39±0.12                | 16.3  |                                        |                              |                  |                          |       |
| $f_{71}$                               | 2.2126±0.0019                | 0.21±0.05        | -1.29±0.11               | 17.0  |                                        |                              |                  |                          |       |
| $f_{73}$                               | 0.8250±0.0019                | 0.22±0.05        | 0.16±0.12                | 16.3  |                                        |                              |                  |                          |       |
| $f_{75}$                               | 2.1008±0.0019                | 0.17±0.04        | 1.17±0.12                | 15.5  |                                        |                              |                  |                          |       |
| $f_{76}$                               | 2.0731±0.0019                | 0.22±0.06        | 1.43±0.12                | 15.5  |                                        |                              |                  |                          |       |
| $f_{77}$                               | 1.4735±0.0020                | 0.20±0.05        | -1.58±0.12               | 14.9  |                                        |                              |                  |                          |       |
| $f_{78}$                               | 2.4986±0.0021                | 0.21±0.06        | -1.49±0.13               | 13.5  |                                        |                              |                  |                          |       |
| $f_{79}$                               | 1.6355±0.0021                | 0.23±0.06        | -0.78±0.13               | 13.0  |                                        |                              |                  |                          |       |
| $f_{80}$                               | 2.3680±0.0022                | 0.18±0.05        | 2.82±0.13                | 12.6  |                                        |                              |                  |                          |       |
| $f_{81}$                               | 1.5651±0.0022                | 0.18±0.05        | 3.02±0.13                | 12.4  |                                        |                              |                  |                          |       |
| $f_{82}$                               | 0.5714±0.0022                | 0.14±0.04        | -1.16±0.14               | 11.9  |                                        |                              |                  |                          |       |
| $f_{83}$                               | 5.5047±0.0022                | 0.19±0.05        | -0.45±0.13               | 12.2  |                                        |                              |                  |                          |       |
| $f_{84}$                               | 0.2390±0.0022                | 0.16±0.05        | 0.31±0.14                | 11.7  |                                        |                              |                  |                          |       |
| $f_{85}$                               | 0.2841±0.0022                | 0.17±0.05        | -2.56±0.14               | 11.8  |                                        |                              |                  |                          |       |
| $f_{87}$                               | 0.6317±0.0023                | 0.18±0.05        | 2.23±0.14                | 11.4  |                                        |                              |                  |                          |       |
| $f_{88}$                               | 2.2780±0.0023                | 0.19±0.06        | -2.32±0.14               | 11.0  |                                        |                              |                  |                          |       |
| $f_{89}$                               | 0.6252±0.0023                | 0.18±0.06        | -1.28±0.14               | 10.7  |                                        |                              |                  |                          |       |
| $f_{90}$                               | 2.1087±0.0023                | 0.20±0.06        | -0.12±0.14               | 10.7  |                                        |                              |                  |                          |       |
| $f_{91}$                               | 2.6552±0.0023                | 0.19±0.06        | -1.36±0.14               | 10.7  |                                        |                              |                  |                          |       |
| $f_{93}$                               | 2.0575±0.0024                | 0.17±0.05        | 0.69±0.15                | 10.1  |                                        |                              |                  |                          |       |
| $f_{94}$                               | 4.6262±0.0024                | 0.17±0.05        | 2.45±0.15                | 9.8   |                                        |                              |                  |                          |       |
| $f_{95}$                               | 0.7241±0.0024                | 0.16±0.05        | 2.10±0.15                | 9.8   |                                        |                              |                  |                          |       |
| $f_{96}$                               | 1.7284±0.0025                | 0.18±0.06        | 0.44±0.15                | 9.7   |                                        |                              |                  |                          |       |
| $f_{101}$                              | 2.1202±0.0025                | 0.19±0.06        | -1.33±0.15               | 9.4   |                                        |                              |                  |                          |       |
| $f_{102}$                              | 0.2086±0.0025                | 0.21±0.07        | -1.24±0.15               | 9.5   |                                        |                              |                  |                          |       |
| $f_{103}$                              | 0.1525±0.0025                | 0.17±0.05        | 0.31±0.15                | 9.7   |                                        |                              |                  |                          |       |
| $f_{104}$                              | 0.8844±0.0025                | 0.15±0.05        | -0.49±0.15               | 9.3   |                                        |                              |                  |                          |       |
| $f_{105}$                              | 2.8186±0.0025                | 0.16±0.05        | 1.52±0.15                | 9.6   |                                        |                              |                  |                          |       |
| $f_{106}$                              | 2.3853±0.0026                | 0.19±0.06        | -0.88±0.16               | 8.6   |                                        |                              |                  |                          |       |
| $f_{107}$                              | 0.5456±0.0026                | 0.15±0.05        | 0.17±0.16                | 8.8   |                                        |                              |                  |                          |       |
| $f_{109}$                              | 1.5817±0.0026                | 0.19±0.06        | -1.75±0.16               | 8.7   |                                        |                              |                  |                          |       |
| $f_{110}$                              | 1.7653±0.0026                | 0.15±0.05        | -2.61±0.16               | 8.8   |                                        |                              |                  |                          |       |
| $f_{111}$                              | 1.0403±0.0027                | 0.14±0.05        | -2.77±0.16               | 8.1   |                                        |                              |                  |                          |       |
| $f_{115}$                              | 0.1971±0.0027                | 0.19±0.07        | 0.19±0.16                | 8.0   |                                        |                              |                  |                          |       |
| $f_{116}$                              | 0.3603±0.0027                | 0.17±0.06        | 1.83±0.16                | 8.2   |                                        |                              |                  |                          |       |
| $f_{117}$                              | 2.2473±0.0027                | 0.15±0.05        | 1.06±0.16                | 8.2   |                                        |                              |                  |                          |       |
| $f_{118}$                              | 1.4536±0.0027                | 0.18±0.06        | 1.04±0.17                | 7.9   |                                        |                              |                  |                          |       |
| Frequency list of 0102727441 continued |                              |                  |                          |       | Frequency list of 0102730229 continued |                              |                  |                          |       |
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_1$                                  | 0.7522±0.0003                | 1.34±0.06        | 2.71±0.02                | 552.9 | $f_{119}$                              | 1.4347±0.0026                | 0.16±0.05        | 1.34±0.16                | 8.9   |
| $f_2$                                  | 0.8608±0.0003                | 1.22±0.05        | -1.51±0.02               | 548.9 | $f_{121}$                              | 0.5910±0.0028                | 0.15±0.05        | 1.24±0.17                | 7.6   |
| $f_3$                                  | 0.7374±0.0004                | 1.02±0.05        | 2.51±0.02                | 412.7 | $f_{122}$                              | 2.7301±0.0028                | 0.14±0.05        | -1.39±0.17               | 7.5   |
| $f_4$                                  | 0.3365±0.0004                | 0.84±0.04        | 2.03±0.02                | 393.3 | $f_{123}$                              | 1.9411±0.0027                | 0.15±0.05        | -0.47±0.17               | 7.8   |
| $f_5$                                  | 0.8821±0.0004                | 0.72±0.04        | 1.62±0.03                | 310.7 | $f_{124}$                              | 4.9953±0.0028                | 0.14±0.05        | -1.21±0.17               | 7.4   |
| $f_6$                                  | 0.7974±0.0005                | 0.66±0.04        | -2.29±0.03               | 275.2 | $f_{127}$                              | 2.0446±0.0028                | 0.15±0.06        | 0.52±0.17                | 7.3   |
| $f_7$                                  | 0.8469±0.0005                | 0.62±0.04        | -2.91±0.03               | 263.9 | $f_{128}$                              | 0.7581±0.0028                | 0.15±0.06        | -1.39±0.17               | 7.3   |
| $f_8$                                  | 0.3312±0.0005                | 0.57±0.04        | 1.14±0.03                | 230.6 | $f_{129}$                              | 2.1566±0.0029                | 0.17±0.06        | -2.35±0.18               | 7.0   |
| $f_9$                                  | 0.3469±0.0005                | 0.61±0.04        | 2.33±0.03                | 231.1 | $f_{130}$                              | 2.1452±0.0024                | 0.18±0.06        | 2.61±0.15                | 10.2  |
| $f_{10}$                               | 0.7178±0.0008                | 0.33±0.03        | -0.68±0.05               | 99.1  | $f_{131}$                              | 2.0116±0.0028                | 0.16±0.06        | -2.65±0.17               | 7.3   |
| $f_{11}$                               | 0.3401±0.0008                | 0.32±0.03        | -2.65±0.05               | 94.2  | $f_{133}$                              | 0.3536±0.0029                | 0.14±0.05        | 2.18±0.18                | 6.9   |
| $f_{12}$                               | 0.8049±0.0010                | 0.24±0.03        | 1.64±0.06                | 63.8  | $f_{134}$                              | 0.1796±0.0029                | 0.15±0.06        | -1.73±0.18               | 6.9   |
| $f_{13}$                               | 0.6729±0.0010                | 0.25±0.03        | -1.86±0.06               | 59.3  | $f_{135}$                              | 2.4241±0.0029                | 0.13±0.05        | -2.76±0.18               | 6.8   |
| $f_{14}$                               | 0.1748±0.0010                | 0.23±0.03        | 2.35±0.06                | 55.2  | $f_{136}$                              | 0.6844±0.0029                | 0.14±0.05        | 0.84±0.18                | 6.7   |
| $f_{15}$                               | 0.1248±0.0010                | 0.20±0.03        | 0.97±0.06                | 53.2  | $f_{137}$                              | 1.6704±0.0030                | 0.13±0.05        | -3.13±0.18               | 6.6   |
| $f_{16}$                               | 0.3635±0.0011                | 0.20±0.03        | 1.52±0.07                | 50.6  | $f_{138}$                              | 0.2721±0.0029                | 0.17±0.07        | 2.99±0.18                | 6.8   |
| $f_{17}$                               | 0.4030±0.0011                | 0.20±0.03        | -0.67±0.07               | 47.7  | $f_{139}$                              | 0.3006±0.0029                | 0.15±0.06        | -1.73±0.17               | 7.1   |
| $f_{18}$                               | 0.2904±0.0011                | 0.27±0.04        | -2.36±0.07               | 47.9  | $f_{144}$                              | 2.6716±0.0030                | 0.13±0.05        | 0.25±0.18                | 6.6   |
| $f_{19}$                               | 0.7050±0.0011                | 0.23±0.03        | 0.62±0.07                | 47.4  | $f_{145}$                              | 1.8118±0.0030                | 0.13±0.05        | 0.70±0.18                | 6.5   |
| $f_{20}$                               | 0.8344±0.0011                | 0.19±0.03        | 3.11±0.07                | 45.9  | $f_{146}$                              | 1.0127±0.0030                | 0.12±0.05        | -2.57±0.19               | 6.3   |
| $f_{22}$                               | 0.2847±0.0012                | 0.17±0.03        | 2.48±0.07                | 40.3  | $f_{147}$                              | 2.3989±0.0031                | 0.14±0.06        | 2.94±0.19                | 6.0   |
| $f_{23}$                               | 0.2959±0.0013                | 0.17±0.03        | 1.15±0.08                | 36.4  | $f_{148}$                              | 0.8516±0.0030                | 0.13±0.05        | -0.35±0.19               | 6.3   |
| $f_{24}$                               | 1.7090±0.0013                | 0.17±0.03        | 1.15±0.08                | 34.8  | $f_{149}$                              | 2.4                          |                  |                          |       |

## Appendix B. Frequencies of individual $\gamma$ Dor Stars

| Frequency list of 0102730229 continued |                              |                  |                          |       | Frequency list of 0102732872 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{42}$                               | 0.5069±0.0018                | 0.10±0.02        | -1.31±0.11               | 17.1  | $f_{16}$                               | 0.5596±0.0007                | 0.56±0.05        | 1.86±0.04                | 123.8 |
| $f_{43}$                               | 1.0890±0.0018                | 0.11±0.03        | 2.82±0.11                | 17.7  | $f_{17}$                               | 1.0277±0.0007                | 0.50±0.05        | -0.79±0.04               | 121.1 |
| $f_{44}$                               | 0.7730±0.0019                | 0.12±0.03        | 2.76±0.12                | 16.2  | $f_{18}$                               | 1.1600±0.0007                | 0.52±0.05        | -0.70±0.04               | 126.5 |
| $f_{45}$                               | 0.7336±0.0018                | 0.12±0.03        | -3.04±0.11               | 17.1  | $f_{19}$                               | 1.0757±0.0007                | 0.55±0.05        | -0.59±0.04               | 129.1 |
| $f_{46}$                               | 0.3162±0.0019                | 0.13±0.03        | 2.13±0.12                | 15.6  | $f_{20}$                               | 0.4745±0.0007                | 0.54±0.05        | -0.38±0.04               | 119.3 |
| $f_{47}$                               | 0.2534±0.0020                | 0.13±0.03        | -1.78±0.12               | 15.1  | $f_{21}$                               | 1.1773±0.0009                | 0.30±0.04        | 1.39±0.06                | 67.0  |
| $f_{48}$                               | 0.1966±0.0020                | 0.13±0.03        | -1.79±0.12               | 14.5  | $f_{22}$                               | 0.6333±0.0009                | 0.43±0.05        | -1.65±0.06               | 67.2  |
| $f_{49}$                               | 0.3900±0.0020                | 0.12±0.03        | 0.96±0.12                | 14.3  | $f_{23}$                               | 0.5890±0.0010                | 0.27±0.04        | 1.29±0.06                | 55.7  |
| $f_{50}$                               | 1.1622±0.0020                | 0.09±0.02        | 2.83±0.12                | 14.1  | $f_{24}$                               | 0.8851±0.0010                | 0.37±0.05        | 1.56±0.06                | 55.7  |
| $f_{51}$                               | 0.4180±0.0020                | 0.10±0.03        | -0.77±0.12               | 14.4  | $f_{25}$                               | 0.8378±0.0010                | 0.38±0.05        | 0.78±0.06                | 54.6  |
| $f_{52}$                               | 2.0065±0.0020                | 0.23±0.06        | 0.65±0.12                | 14.5  | $f_{26}$                               | 0.8049±0.0010                | 0.36±0.05        | -2.32±0.06               | 55.6  |
| $f_{53}$                               | 0.7898±0.0020                | 0.10±0.03        | 1.86±0.12                | 13.9  | $f_{27}$                               | 0.1853±0.0010                | 0.38±0.05        | -2.37±0.06               | 53.3  |
| $f_{54}$                               | 0.6420±0.0020                | 0.11±0.03        | -0.55±0.12               | 14.1  | $f_{28}$                               | 1.0419±0.0011                | 0.30±0.04        | -0.27±0.06               | 52.8  |
| $f_{55}$                               | 0.6242±0.0020                | 0.10±0.03        | -2.73±0.12               | 14.4  | $f_{30}$                               | 2.0951±0.0011                | 0.25±0.04        | -2.76±0.07               | 49.1  |
| $f_{57}$                               | 0.9745±0.0021                | 0.11±0.03        | -0.65±0.13               | 13.3  | $f_{31}$                               | 0.1589±0.0011                | 0.30±0.04        | -1.64±0.07               | 49.2  |
| $f_{58}$                               | 0.9511±0.0022                | 0.10±0.03        | -0.99±0.13               | 12.3  | $f_{32}$                               | 2.0060±0.0011                | 0.36±0.05        | -2.50±0.07               | 50.9  |
| $f_{59}$                               | 1.0340±0.0022                | 0.11±0.03        | 2.47±0.13                | 12.0  | $f_{33}$                               | 0.8916±0.0011                | 0.27±0.04        | -1.99±0.07               | 50.1  |
| $f_{64}$                               | 0.5566±0.0023                | 0.08±0.02        | -2.97±0.14               | 11.1  | $f_{34}$                               | 0.1927±0.0011                | 0.30±0.04        | -2.48±0.07               | 45.6  |
| $f_{65}$                               | 1.6584±0.0023                | 0.09±0.03        | 0.05±0.14                | 10.6  | $f_{35}$                               | 0.3494±0.0011                | 0.26±0.04        | 2.53±0.07                | 45.6  |
| $f_{66}$                               | 0.4108±0.0025                | 0.07±0.02        | 0.43±0.15                | 9.7   | $f_{37}$                               | 1.1182±0.0012                | 0.19±0.03        | -0.10±0.07               | 39.2  |
| $f_{67}$                               | 0.4807±0.0024                | 0.08±0.03        | -2.12±0.15               | 10.2  | $f_{39}$                               | 0.9004±0.0013                | 0.20±0.03        | -2.19±0.08               | 37.1  |
| $f_{68}$                               | 1.1023±0.0024                | 0.09±0.03        | 2.44±0.15                | 9.9   | $f_{40}$                               | 1.0819±0.0013                | 0.32±0.06        | -1.72±0.08               | 33.5  |
| $f_{69}$                               | 1.0794±0.0024                | 0.09±0.03        | 1.05±0.15                | 10.0  | $f_{41}$                               | 1.1022±0.0013                | 0.33±0.05        | -2.84±0.08               | 36.6  |
| $f_{70}$                               | 0.1513±0.0025                | 0.11±0.04        | -2.79±0.15               | 9.4   | $f_{42}$                               | 1.2364±0.0013                | 0.32±0.05        | 1.69±0.08                | 35.9  |
| $f_{71}$                               | 0.1620±0.0022                | 0.11±0.03        | -1.88±0.14               | 11.7  | $f_{43}$                               | 0.6171±0.0013                | 0.18±0.03        | -0.77±0.08               | 34.4  |
| $f_{72}$                               | 0.8270±0.0025                | 0.08±0.03        | 2.99±0.15                | 9.7   | $f_{44}$                               | 1.0346±0.0013                | 0.25±0.04        | -1.82±0.08               | 35.2  |
| $f_{74}$                               | 0.1313±0.0025                | 0.08±0.03        | 2.12±0.15                | 9.5   | $f_{45}$                               | 1.1338±0.0013                | 0.23±0.04        | 2.95±0.08                | 34.8  |
| $f_{75}$                               | 1.6210±0.0026                | 0.08±0.03        | 2.92±0.16                | 8.9   | $f_{46}$                               | 0.5418±0.0013                | 0.19±0.03        | -2.42±0.08               | 33.3  |
| $f_{76}$                               | 0.2666±0.0025                | 0.09±0.03        | 3.07±0.15                | 9.1   | $f_{47}$                               | 0.1094±0.0013                | 0.23±0.04        | 0.98±0.08                | 33.4  |
| $f_{84}$                               | 1.0042±0.0026                | 0.08±0.03        | -2.54±0.16               | 8.4   | $f_{48}$                               | 0.8494±0.0013                | 0.17±0.03        | -2.52±0.08               | 34.1  |
| $f_{85}$                               | 1.0499±0.0026                | 0.08±0.03        | 1.19±0.16                | 8.5   | $f_{49}$                               | 0.9942±0.0013                | 0.16±0.03        | -1.66±0.08               | 32.8  |
| $f_{86}$                               | 1.1889±0.0026                | 0.07±0.02        | 0.47±0.16                | 8.5   | $f_{50}$                               | 0.7054±0.0014                | 0.21±0.04        | 2.45±0.08                | 30.9  |
| $f_{87}$                               | 0.6567±0.0026                | 0.08±0.03        | 2.22±0.16                | 8.5   | $f_{51}$                               | 0.3685±0.0014                | 0.19±0.03        | -2.06±0.08               | 31.3  |
| $f_{90}$                               | 1.7504±0.0028                | 0.07±0.03        | 2.99±0.17                | 7.4   | $f_{52}$                               | 0.2810±0.0013                | 0.18±0.03        | 3.05±0.08                | 32.4  |
| $f_{91}$                               | 1.2537±0.0029                | 0.07±0.03        | -0.46±0.18               | 6.7   | $f_{53}$                               | 1.2071±0.0013                | 0.17±0.03        | 3.02±0.08                | 32.2  |
| $f_{92}$                               | 1.1422±0.0028                | 0.07±0.03        | 1.94±0.17                | 7.2   | $f_{55}$                               | 1.4416±0.0014                | 0.23±0.04        | -3.00±0.08               | 31.4  |
| $f_{93}$                               | 0.5641±0.0029                | 0.07±0.03        | -0.75±0.18               | 6.8   | $f_{56}$                               | 0.1498±0.0013                | 0.19±0.03        | 1.50±0.08                | 32.2  |
| $f_{94}$                               | 1.1262±0.0030                | 0.06±0.02        | -1.11±0.18               | 6.6   | $f_{57}$                               | 0.5102±0.0014                | 0.22±0.04        | 0.01±0.09                | 30.0  |
| $f_{95}$                               | 1.2694±0.0029                | 0.07±0.03        | 1.33±0.18                | 6.8   | $f_{58}$                               | 0.5973±0.0013                | 0.24±0.04        | 0.58±0.08                | 32.5  |
| $f_{96}$                               | 1.5241±0.0030                | 0.06±0.02        | -1.13±0.18               | 6.6   | $f_{59}$                               | 1.5288±0.0014                | 0.22±0.04        | 1.49±0.09                | 29.6  |
| $f_{97}$                               | 2.5379±0.0030                | 0.07±0.03        | 1.73±0.18                | 6.5   | $f_{60}$                               | 0.2317±0.0014                | 0.19±0.04        | 2.20±0.09                | 28.6  |
| $f_{98}$                               | 0.6489±0.0030                | 0.06±0.02        | 2.86±0.19                | 6.3   | $f_{61}$                               | 1.1910±0.0014                | 0.26±0.05        | -2.22±0.09               | 28.1  |
| $f_{99}$                               | 0.2364±0.0031                | 0.07±0.03        | -2.70±0.19               | 6.2   | $f_{62}$                               | 0.7505±0.0014                | 0.19±0.04        | 0.24±0.09                | 28.0  |
| $f_{100}$                              | 0.2826±0.0031                | 0.08±0.03        | -3.10±0.19               | 6.1   | $f_{63}$                               | 0.2755±0.0015                | 0.16±0.03        | -0.49±0.09               | 27.4  |
| $f_{101}$                              | 0.1386±0.0030                | 0.07±0.03        | -0.47±0.19               | 6.3   | $f_{64}$                               | 0.4290±0.0014                | 0.21±0.04        | 2.86±0.09                | 29.1  |
| $f_{103}$                              | 0.7444±0.0031                | 0.07±0.03        | -2.66±0.19               | 6.0   | $f_{65}$                               | 0.1277±0.0015                | 0.19±0.04        | 2.26±0.09                | 27.2  |
| $f_{104}$                              | 1.0648±0.0031                | 0.06±0.02        | 1.63±0.19                | 5.9   | $f_{66}$                               | 0.8606±0.0015                | 0.20±0.04        | -0.07±0.09               | 27.0  |
| $f_{105}$                              | 0.3570±0.0032                | 0.06±0.02        | -1.43±0.19               | 5.8   | $f_{67}$                               | 0.7744±0.0014                | 0.17±0.03        | 2.54±0.09                | 29.7  |
| $f_{106}$                              | 2.9005±0.0032                | 0.06±0.02        | -2.93±0.19               | 5.8   | $f_{68}$                               | 1.8944±0.0015                | 0.19±0.04        | -0.69±0.09               | 26.9  |
| $f_{108}$                              | 1.4565±0.0032                | 0.06±0.03        | -1.58±0.20               | 5.6   | $f_{69}$                               | 0.6252±0.0015                | 0.19±0.04        | -1.92±0.09               | 26.7  |
| $f_{109}$                              | 0.1013±0.0032                | 0.07±0.03        | -3.03±0.20               | 5.6   | $f_{70}$                               | 0.8761±0.0015                | 0.20±0.04        | 2.98±0.09                | 27.3  |
| $f_{110}$                              | 1.3280±0.0032                | 0.06±0.03        | -0.85±0.20               | 5.6   | $f_{71}$                               | 0.4801±0.0015                | 0.18±0.04        | -2.63±0.09               | 25.5  |
| $f_{111}$                              | 2.6350±0.0033                | 0.06±0.03        | -0.02±0.20               | 5.4   | $f_{72}$                               | 1.1469±0.0015                | 0.23±0.05        | 0.64±0.09                | 25.0  |
| $f_{112}$                              | 0.6915±0.0033                | 0.06±0.03        | 2.95±0.20                | 5.2   | $f_{73}$                               | 1.2785±0.0015                | 0.22±0.04        | 0.17±0.09                | 25.6  |
| $f_{113}$                              | 0.4447±0.0034                | 0.06±0.03        | 1.32±0.21                | 5.1   | $f_{74}$                               | 2.2664±0.0015                | 0.20±0.04        | 1.31±0.09                | 25.8  |
| $f_{114}$                              | 0.5136±0.0034                | 0.06±0.03        | 1.35±0.21                | 5.1   | $f_{76}$                               | 2.1803±0.0015                | 0.17±0.03        | 2.16±0.09                | 25.8  |
| $f_{115}$                              | 0.3036±0.0033                | 0.07±0.03        | 1.53±0.20                | 5.3   | $f_{79}$                               | 0.1429±0.0015                | 0.16±0.03        | 2.33±0.09                | 24.9  |
| $f_{116}$                              | 1.2182±0.0033                | 0.06±0.03        | 2.07±0.20                | 5.2   | $f_{80}$                               | 0.2068±0.0015                | 0.16±0.03        | 2.69±0.09                | 25.7  |
| $f_{117}$                              | 13.9471±0.0034               | 0.06±0.03        | 1.79±0.21                | 5.1   | $f_{82}$                               | 1.9823±0.0016                | 0.19±0.04        | -2.74±0.10               | 24.0  |
| $f_{118}$                              | 0.8684±0.0034                | 0.06±0.03        | 0.10±0.21                | 5.0   | $f_{83}$                               | 0.1779±0.0016                | 0.19±0.04        | -1.84±0.09               | 24.1  |

Table B.62: Frequency list of 0102732872

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign.  |
|--------------|------------------------------|------------------|--------------------------|--------|
| $f_1$        | 1.0040±0.0002                | 3.93±0.13        | -2.59±0.02               | 952.1  |
| $f_2$        | 1.0899±0.0002                | 3.64±0.11        | 0.60±0.01                | 1151.1 |
| $f_3$        | 0.5658±0.0003                | 2.14±0.09        | -1.93±0.02               | 583.7  |
| $f_4$        | 1.0201±0.0003                | 1.86±0.08        | 0.17±0.02                | 601.4  |
| $f_5$        | 0.5466±0.0004                | 1.11±0.06        | -0.43±0.03               | 308.8  |
| $f_6$        | 1.0587±0.0004                | 1.33±0.07        | -0.13±0.03               | 331.1  |
| $f_7$        | 1.1102±0.0004                | 1.05±0.06        | -0.71±0.03               | 289.2  |
| $f_8$        | 0.9291±0.0005                | 1.08±0.07        | 2.35±0.03                | 249.2  |
| $f_9$        | 0.9140±0.0005                | 0.92±0.06        | -0.88±0.03               | 233.5  |
| $f_{10}$     | 0.9973±0.0005                | 0.79±0.05        | -1.31±0.03               | 225.2  |
| $f_{11}$     | 0.5250±0.0005                | 0.95±0.07        | -1.38±0.03               | 196.0  |
| $f_{12}$     | 0.4378±0.0006                | 0.83±0.06        | 2.16±0.03                | 177.6  |
| $f_{13}$     | 0.9697±0.0006                | 0.72±0.06        | 0.32±0.04                | 163.4  |
| $f_{14}$     | 0.4563±0.0006                | 0.62±0.05        | 0.72±0.04                | 158.5  |
| $f_{15}$     | 0.9877±0.0006                | 0.64±0.05        | -2.77±0.04               | 153.6  |

Frequency list of 0102732872 continued

## Appendix B. Frequencies of individual $\gamma$ Dor Stars

| Frequency list of 0102732872 continued |                              |                  |                          |       | Frequency list of 0102732872 continued          |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|-------------------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                                    | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{102}$                              | 1.1689±0.0018                | 0.12±0.03        | -0.48±0.11               | 18.0  | $f_{205}$                                       | 1.7353±0.0033                | 0.07±0.03        | 1.46±0.20                | 5.3   |
| $f_{103}$                              | 0.2258±0.0019                | 0.12±0.03        | -0.05±0.11               | 16.8  | $f_{208}$                                       | 1.0511±0.0034                | 0.07±0.03        | -3.07±0.21               | 5.1   |
| $f_{106}$                              | 0.5340±0.0019                | 0.14±0.04        | 0.39±0.12                | 16.0  | $f_{209}$                                       | 1.4332±0.0033                | 0.07±0.03        | 0.25±0.20                | 5.2   |
| $f_{107}$                              | 2.0747±0.0019                | 0.16±0.04        | 2.62±0.12                | 16.2  | <b>Table B.63: Frequency list of 0102735515</b> |                              |                  |                          |       |
| $f_{108}$                              | 1.6169±0.0019                | 0.10±0.02        | 1.38±0.11                | 16.5  |                                                 |                              |                  |                          |       |
| $f_{109}$                              | 2.0560±0.0019                | 0.12±0.03        | 2.46±0.12                | 16.0  | Frequency ID                                    | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{110}$                              | 2.1663±0.0020                | 0.11±0.03        | -2.53±0.12               | 14.5  | $f_1$                                           | 0.3786±0.0003                | 0.27±0.01        | -0.96±0.02               | 550.1 |
| $f_{111}$                              | 0.9736±0.0020                | 0.13±0.03        | -0.72±0.12               | 14.8  | $f_2$                                           | 0.1876±0.0003                | 0.25±0.01        | 2.52±0.02                | 588.3 |
| $f_{112}$                              | 0.7884±0.0020                | 0.13±0.03        | -1.66±0.12               | 15.1  | $f_3$                                           | 0.5506±0.0003                | 0.23±0.01        | 3.08±0.02                | 504.2 |
| $f_{113}$                              | 1.3680±0.0020                | 0.13±0.03        | -2.72±0.12               | 14.9  | $f_4$                                           | 0.2809±0.0005                | 0.11±0.01        | -2.09±0.03               | 208.6 |
| $f_{114}$                              | 0.8120±0.0020                | 0.13±0.03        | -2.88±0.12               | 14.7  | $f_5$                                           | 0.5802±0.0006                | 0.12±0.01        | -1.36±0.03               | 182.9 |
| $f_{115}$                              | 0.7183±0.0020                | 0.12±0.03        | -2.43±0.12               | 14.2  | $f_6$                                           | 0.1820±0.0006                | 0.08±0.01        | 2.52±0.04                | 149.0 |
| $f_{116}$                              | 1.9765±0.0021                | 0.13±0.03        | 2.66±0.13                | 13.8  | $f_7$                                           | 0.6855±0.0007                | 0.09±0.01        | 0.03±0.04                | 134.9 |
| $f_{117}$                              | 1.8783±0.0020                | 0.15±0.04        | 1.63±0.12                | 14.7  | $f_8$                                           | 0.6132±0.0007                | 0.08±0.01        | 1.34±0.04                | 131.5 |
| $f_{118}$                              | 1.7908±0.0019                | 0.14±0.04        | 0.67±0.12                | 15.7  | $f_9$                                           | 0.2551±0.0007                | 0.07±0.01        | -0.06±0.04               | 109.9 |
| $f_{122}$                              | 0.3036±0.0020                | 0.13±0.03        | 2.70±0.12                | 14.1  | $f_{10}$                                        | 0.1038±0.0007                | 0.08±0.01        | 2.08±0.04                | 118.4 |
| $f_{123}$                              | 0.3905±0.0020                | 0.13±0.03        | 0.39±0.12                | 14.8  | $f_{11}$                                        | 0.1226±0.0008                | 0.06±0.01        | 2.60±0.05                | 95.4  |
| $f_{124}$                              | 0.9831±0.0020                | 0.12±0.03        | -1.90±0.12               | 14.0  | $f_{12}$                                        | 0.2220±0.0008                | 0.06±0.01        | 2.58±0.05                | 89.1  |
| $f_{125}$                              | 0.6834±0.0020                | 0.11±0.03        | 0.13±0.12                | 14.3  | $f_{13}$                                        | 0.2128±0.0010                | 0.05±0.01        | -0.49±0.06               | 64.5  |
| $f_{127}$                              | 1.8084±0.0021                | 0.11±0.03        | -0.83±0.13               | 13.2  | $f_{14}$                                        | 0.1339±0.0010                | 0.05±0.01        | -0.43±0.06               | 62.1  |
| $f_{128}$                              | 1.3526±0.0020                | 0.12±0.03        | -0.69±0.12               | 14.1  | $f_{15}$                                        | 0.3668±0.0010                | 0.05±0.01        | -1.86±0.06               | 53.9  |
| $f_{129}$                              | 2.1309±0.0021                | 0.12±0.03        | 0.55±0.13                | 12.9  | $f_{16}$                                        | 0.6305±0.0011                | 0.05±0.01        | -0.70±0.07               | 47.5  |
| $f_{130}$                              | 2.2298±0.0021                | 0.09±0.03        | 0.34±0.13                | 12.8  | $f_{17}$                                        | 0.3524±0.0012                | 0.05±0.01        | -0.23±0.07               | 43.7  |
| $f_{131}$                              | 0.9233±0.0022                | 0.10±0.03        | 1.25±0.13                | 12.1  | $f_{18}$                                        | 0.2447±0.0011                | 0.05±0.01        | 0.82±0.07                | 45.6  |
| $f_{133}$                              | 1.5454±0.0022                | 0.11±0.03        | 1.75±0.13                | 12.0  | $f_{19}$                                        | 0.1920±0.0011                | 0.04±0.01        | 1.59±0.07                | 45.1  |
| $f_{134}$                              | 2.1078±0.0023                | 0.12±0.04        | 1.59±0.14                | 11.4  | $f_{20}$                                        | 0.3201±0.0013                | 0.05±0.01        | -0.18±0.08               | 37.1  |
| $f_{135}$                              | 2.0224±0.0022                | 0.09±0.03        | -0.18±0.14               | 11.6  | $f_{21}$                                        | 0.5296±0.0013                | 0.04±0.01        | -1.79±0.08               | 32.7  |
| $f_{136}$                              | 1.6375±0.0022                | 0.11±0.03        | 1.67±0.14                | 11.7  | $f_{23}$                                        | 0.4266±0.0014                | 0.03±0.01        | 0.66±0.08                | 30.4  |
| $f_{137}$                              | 0.6500±0.0023                | 0.09±0.03        | 1.68±0.14                | 11.1  | $f_{24}$                                        | 0.8031±0.0014                | 0.03±0.01        | -2.10±0.08               | 30.1  |
| $f_{138}$                              | 1.2160±0.0023                | 0.10±0.03        | 2.54±0.14                | 10.8  | $f_{25}$                                        | 0.1560±0.0014                | 0.04±0.01        | -0.35±0.09               | 28.6  |
| $f_{139}$                              | 1.1406±0.0023                | 0.10±0.03        | 2.26±0.14                | 11.4  | $f_{26}$                                        | 0.1450±0.0014                | 0.03±0.01        | -1.79±0.08               | 30.3  |
| $f_{140}$                              | 0.9131±0.0022                | 0.12±0.04        | -0.17±0.14               | 11.6  | $f_{28}$                                        | 0.4079±0.0015                | 0.03±0.01        | -2.95±0.09               | 27.6  |
| $f_{141}$                              | 0.9497±0.0023                | 0.11±0.03        | 2.35±0.14                | 11.2  | $f_{29}$                                        | 0.3744±0.0015                | 0.03±0.01        | -1.32±0.09               | 26.1  |
| $f_{142}$                              | 55.8642±0.0023               | 0.11±0.03        | 1.54±0.14                | 11.3  | $f_{31}$                                        | 0.2747±0.0016                | 0.03±0.01        | -2.68±0.10               | 23.0  |
| $f_{145}$                              | 0.2454±0.0023                | 0.10±0.03        | 2.73±0.14                | 10.7  | $f_{32}$                                        | 0.7389±0.0016                | 0.03±0.01        | 1.22±0.10                | 21.5  |
| $f_{146}$                              | 0.2664±0.0023                | 0.10±0.03        | -1.00±0.14               | 10.8  | $f_{33}$                                        | 0.1708±0.0017                | 0.03±0.01        | 0.74±0.10                | 20.2  |
| $f_{147}$                              | 1.9036±0.0024                | 0.08±0.03        | 1.21±0.15                | 10.1  | $f_{34}$                                        | 0.5735±0.0017                | 0.03±0.01        | -1.96±0.10               | 20.6  |
| $f_{148}$                              | 0.3609±0.0024                | 0.10±0.03        | 2.50±0.15                | 9.9   | $f_{36}$                                        | 2.0061±0.0018                | 0.03±0.01        | -1.24±0.11               | 17.7  |
| $f_{149}$                              | 1.9652±0.0025                | 0.09±0.03        | 0.70±0.15                | 9.5   | $f_{37}$                                        | 0.2046±0.0018                | 0.03±0.01        | 2.07±0.11                | 17.7  |
| $f_{151}$                              | 1.5541±0.0025                | 0.10±0.03        | -0.03±0.15               | 9.4   | $f_{38}$                                        | 0.2663±0.0019                | 0.02±0.00        | 2.98±0.11                | 16.8  |
| $f_{152}$                              | 1.4836±0.0026                | 0.10±0.03        | -0.61±0.16               | 8.9   | $f_{40}$                                        | 0.7078±0.0019                | 0.03±0.01        | -0.93±0.12               | 15.7  |
| $f_{153}$                              | 1.4214±0.0025                | 0.08±0.03        | 0.02±0.15                | 9.6   | $f_{41}$                                        | 0.3931±0.0020                | 0.02±0.01        | -2.75±0.12               | 15.1  |
| $f_{154}$                              | 0.4603±0.0026                | 0.08±0.03        | -0.97±0.16               | 8.6   | $f_{42}$                                        | 0.4699±0.0020                | 0.02±0.01        | -2.51±0.12               | 14.1  |
| $f_{155}$                              | 1.3957±0.0026                | 0.08±0.03        | 2.49±0.16                | 8.6   | $f_{43}$                                        | 0.2922±0.0020                | 0.02±0.01        | 0.56±0.12                | 15.1  |
| $f_{156}$                              | 0.4969±0.0026                | 0.09±0.03        | 2.88±0.16                | 8.5   | $f_{44}$                                        | 1.0781±0.0021                | 0.02±0.01        | 0.91±0.13                | 13.8  |
| $f_{157}$                              | 2.0902±0.0026                | 0.09±0.03        | 0.33±0.16                | 8.6   | $f_{45}$                                        | 0.6623±0.0021                | 0.02±0.01        | 1.27±0.13                | 12.7  |
| $f_{161}$                              | 2.0094±0.0027                | 0.12±0.04        | -0.23±0.16               | 8.0   | $f_{46}$                                        | 0.7718±0.0021                | 0.02±0.01        | 1.96±0.13                | 12.8  |
| $f_{165}$                              | 1.4647±0.0027                | 0.08±0.03        | 1.47±0.17                | 7.9   | $f_{47}$                                        | 0.4480±0.0022                | 0.02±0.01        | -0.13±0.13               | 12.4  |
| $f_{166}$                              | 1.2290±0.0027                | 0.07±0.02        | -1.47±0.16               | 8.2   | $f_{49}$                                        | 0.7464±0.0022                | 0.02±0.01        | -0.51±0.13               | 12.0  |
| $f_{167}$                              | 1.9501±0.0027                | 0.09±0.03        | 2.38±0.17                | 7.8   | $f_{50}$                                        | 0.4163±0.0023                | 0.02±0.01        | -2.46±0.14               | 11.3  |
| $f_{168}$                              | 0.2983±0.0028                | 0.09±0.03        | -1.29±0.17               | 7.7   | $f_{51}$                                        | 0.8698±0.0023                | 0.02±0.01        | -2.33±0.14               | 11.2  |
| $f_{174}$                              | 1.8610±0.0027                | 0.09±0.03        | 2.16±0.17                | 7.8   | $f_{53}$                                        | 0.6408±0.0023                | 0.02±0.01        | 0.82±0.14                | 10.6  |
| $f_{175}$                              | 56.9519±0.0028               | 0.08±0.03        | -2.84±0.17               | 7.7   | $f_{54}$                                        | 0.3017±0.0023                | 0.02±0.01        | -0.32±0.14               | 10.8  |
| $f_{176}$                              | 2.2477±0.0028                | 0.09±0.03        | 0.96±0.17                | 7.4   | $f_{56}$                                        | 1.0590±0.0025                | 0.02±0.01        | 0.97±0.15                | 9.5   |
| $f_{177}$                              | 0.3981±0.0028                | 0.09±0.03        | 3.13±0.17                | 7.2   | $f_{57}$                                        | 0.6948±0.0025                | 0.02±0.01        | -0.71±0.15               | 9.3   |
| $f_{178}$                              | 0.4088±0.0025                | 0.09±0.03        | -1.94±0.15               | 9.2   | $f_{58}$                                        | 0.3262±0.0025                | 0.02±0.01        | 1.82±0.15                | 9.5   |
| $f_{179}$                              | 0.6408±0.0028                | 0.08±0.03        | 0.42±0.17                | 7.2   | $f_{59}$                                        | 0.1959±0.0026                | 0.02±0.01        | -0.99±0.16               | 8.4   |
| $f_{180}$                              | 1.2682±0.0028                | 0.08±0.03        | -2.84±0.17               | 7.5   | $f_{62}$                                        | 0.9044±0.0026                | 0.02±0.01        | -1.84±0.16               | 8.3   |
| $f_{182}$                              | 1.0722±0.0029                | 0.09±0.03        | 0.50±0.18                | 6.8   | $f_{63}$                                        | 1.0096±0.0028                | 0.02±0.01        | 1.78±0.17                | 7.6   |
| $f_{183}$                              | 2.0820±0.0030                | 0.08±0.03        | -1.31±0.18               | 6.5   | $f_{64}$                                        | 0.5932±0.0028                | 0.02±0.01        | -2.81±0.17               | 7.5   |
| $f_{185}$                              | 1.5882±0.0030                | 0.07±0.03        | 2.05±0.18                | 6.5   | $f_{65}$                                        | 1.0247±0.0028                | 0.02±0.01        | -0.58±0.17               | 7.5   |
| $f_{186}$                              | 2.2046±0.0030                | 0.07±0.03        | 2.77±0.18                | 6.5   | $f_{66}$                                        | 2.0715±0.0029                | 0.02±0.01        | -2.23±0.18               | 6.9   |
| $f_{187}$                              | 2.1547±0.0030                | 0.07±0.03        | -3.14±0.18               | 6.4   | $f_{67}$                                        | 1.3027±0.0029                | 0.01±0.00        | -0.58±0.18               | 6.8   |
| $f_{188}$                              | 2.0344±0.0030                | 0.08±0.03        | 2.83±0.18                | 6.4   | $f_{69}$                                        | 1.0324±0.0030                | 0.01±0.00        | 1.97±0.18                | 6.5   |
| $f_{189}$                              | 1.6301±0.0030                | 0.08±0.03        | 2.39±0.18                | 6.4   | $f_{70}$                                        | 2.2781±0.0030                | 0.01±0.00        | 2.70±0.19                | 6.3   |
| $f_{190}$                              | 1.6667±0.0030                | 0.07±0.03        | -0.12±0.18               | 6.6   | $f_{71}$                                        | 1.1333±0.0031                | 0.02±0.01        | 2.60±0.19                | 6.1   |
| $f_{191}$                              | 57.0219±0.0030               | 0.07±0.03        | -0.77±0.19               | 6.3   | $f_{72}$                                        | 1.1016±0.0031                | 0.01±0.00        | 1.86±0.19                | 6.2   |
| $f_{192}$                              | 55.8525±0.0030               | 0.08±0.03        | 0.90±0.18                | 6.4   | $f_{73}$                                        | 1.6889±0.0031                | 0.01±0.00        | -1.74±0.19               | 6.0   |
| $f_{193}$                              | 1.3004±0.0031                | 0.08±0.03        | 2.19±0.19                | 6.1   | $f_{74}$                                        | 1.5057±0.0031                | 0.01±0.00        | 1.76±0.19                | 6.0   |
| $f_{194}$                              | 1.7702±0.0031                | 0.07±0.03        | -2.76±0.19               | 6.2   | $f_{76}$                                        | 1.2858±0.0031                | 0.01±0.00        | -0.93±0.19               | 6.0   |
| $f_{197}$                              | 1.3228±0.0031                | 0.09±0.04        | 2.22±0.19                | 5.9   | $f_{78}$                                        | 0.3345±0.0031                | 0.01±0.00        | -0.47±0.19               | 5.9   |
| $f_{198}$                              | 0.7130±0.0032                | 0.07±0.03        | -0.68±0.19               | 5.8   | Frequency list of 0102735515 continued          |                              |                  |                          |       |
| $f_{199}$                              | 2.3513±0.0032                | 0.07±0.03        | 1.63±0.19                | 5.8   |                                                 |                              |                  |                          |       |
| $f_{200}$                              | 1.3336±0.0031                | 0.08±0.03        | -1.36±0.19               | 6.0   | Frequency list of 0102732872 continued          |                              |                  |                          |       |
| $f_{203}$                              | 1.7959±0.0032                | 0.07±0.03        | -0.09±0.20               | 5.6   |                                                 |                              |                  |                          |       |
| $f_{204}$                              | 1.1628±0.0033                | 0.08±0.03        | 2.44±0.20                | 5.5   |                                                 |                              |                  |                          |       |

## Appendix B. Frequencies of individual $\gamma$ Dor Stars

| Frequency list of 0102735515 continued |                               |                  |                     |       |
|----------------------------------------|-------------------------------|------------------|---------------------|-------|
| Frequency ID                           | Frequency [ $\text{d}^{-1}$ ] | Amplitude [mmag] | Phase $[-\pi, \pi]$ | Sign. |
| $f_{79}$                               | 0.9183 $\pm$ 0.0031           | 0.01 $\pm$ 0.00  | 0.34 $\pm$ 0.19     | 5.9   |
| $f_{80}$                               | 1.6444 $\pm$ 0.0031           | 0.01 $\pm$ 0.00  | 1.23 $\pm$ 0.19     | 5.9   |
| $f_{81}$                               | 0.6508 $\pm$ 0.0032           | 0.01 $\pm$ 0.00  | 2.70 $\pm$ 0.20     | 5.6   |
| $f_{82}$                               | 1.3094 $\pm$ 0.0032           | 0.01 $\pm$ 0.00  | 2.15 $\pm$ 0.20     | 5.7   |
| $f_{83}$                               | 1.4480 $\pm$ 0.0031           | 0.01 $\pm$ 0.00  | 0.84 $\pm$ 0.19     | 5.9   |
| $f_{84}$                               | 0.8608 $\pm$ 0.0033           | 0.01 $\pm$ 0.00  | -2.11 $\pm$ 0.20    | 5.2   |
| $f_{85}$                               | 0.4931 $\pm$ 0.0034           | 0.01 $\pm$ 0.00  | 2.24 $\pm$ 0.21     | 5.1   |
| $f_{86}$                               | 0.9382 $\pm$ 0.0034           | 0.01 $\pm$ 0.00  | -0.58 $\pm$ 0.21    | 5.0   |

**Table B.64:** Frequency list of 0102735825

| Frequency ID | Frequency [ $\text{d}^{-1}$ ] | Amplitude [mmag] | Phase $[-\pi, \pi]$ | Sign. |
|--------------|-------------------------------|------------------|---------------------|-------|
| $f_1$        | 0.7196 $\pm$ 0.0003           | 2.22 $\pm$ 0.09  | -0.62 $\pm$ 0.02    | 585.8 |
| $f_2$        | 0.3432 $\pm$ 0.0004           | 1.65 $\pm$ 0.08  | -2.69 $\pm$ 0.02    | 446.1 |
| $f_3$        | 0.7105 $\pm$ 0.0004           | 1.31 $\pm$ 0.07  | 1.78 $\pm$ 0.02     | 374.6 |
| $f_4$        | 0.3799 $\pm$ 0.0005           | 0.82 $\pm$ 0.06  | -2.05 $\pm$ 0.03    | 201.3 |
| $f_5$        | 0.3645 $\pm$ 0.0006           | 0.94 $\pm$ 0.07  | -1.45 $\pm$ 0.03    | 190.9 |
| $f_6$        | 0.6977 $\pm$ 0.0007           | 0.87 $\pm$ 0.08  | -2.17 $\pm$ 0.04    | 131.5 |
| $f_7$        | 0.3544 $\pm$ 0.0007           | 0.75 $\pm$ 0.06  | 0.03 $\pm$ 0.04     | 136.0 |
| $f_8$        | 0.7272 $\pm$ 0.0007           | 0.68 $\pm$ 0.06  | -1.07 $\pm$ 0.04    | 133.8 |
| $f_9$        | 0.6855 $\pm$ 0.0007           | 0.66 $\pm$ 0.06  | -1.19 $\pm$ 0.04    | 116.6 |
| $f_{10}$     | 0.3912 $\pm$ 0.0007           | 0.63 $\pm$ 0.06  | 1.31 $\pm$ 0.04     | 114.5 |
| $f_{11}$     | 0.3120 $\pm$ 0.0009           | 0.51 $\pm$ 0.06  | -1.49 $\pm$ 0.05    | 80.6  |
| $f_{12}$     | 0.4016 $\pm$ 0.0008           | 0.50 $\pm$ 0.05  | -0.04 $\pm$ 0.05    | 86.9  |
| $f_{13}$     | 1.0888 $\pm$ 0.0008           | 0.60 $\pm$ 0.07  | 2.87 $\pm$ 0.05     | 85.2  |
| $f_{14}$     | 0.1442 $\pm$ 0.0008           | 0.47 $\pm$ 0.05  | -2.18 $\pm$ 0.05    | 85.6  |
| $f_{15}$     | 0.7408 $\pm$ 0.0009           | 0.46 $\pm$ 0.05  | -1.11 $\pm$ 0.05    | 76.0  |
| $f_{16}$     | 0.1047 $\pm$ 0.0010           | 0.36 $\pm$ 0.05  | 3.01 $\pm$ 0.06     | 62.6  |
| $f_{17}$     | 0.2206 $\pm$ 0.0010           | 0.33 $\pm$ 0.04  | -2.99 $\pm$ 0.06    | 62.6  |
| $f_{18}$     | 0.6638 $\pm$ 0.0010           | 0.42 $\pm$ 0.06  | 0.97 $\pm$ 0.06     | 53.7  |
| $f_{20}$     | 1.0998 $\pm$ 0.0011           | 0.39 $\pm$ 0.05  | -2.51 $\pm$ 0.06    | 52.3  |
| $f_{21}$     | 0.3351 $\pm$ 0.0011           | 0.36 $\pm$ 0.05  | 0.08 $\pm$ 0.07     | 44.8  |
| $f_{22}$     | 0.3264 $\pm$ 0.0012           | 0.36 $\pm$ 0.06  | 3.03 $\pm$ 0.07     | 42.1  |
| $f_{23}$     | 0.2808 $\pm$ 0.0012           | 0.30 $\pm$ 0.05  | 1.30 $\pm$ 0.07     | 39.5  |
| $f_{24}$     | 0.7343 $\pm$ 0.0013           | 0.32 $\pm$ 0.05  | 0.47 $\pm$ 0.08     | 36.8  |
| $f_{25}$     | 0.4487 $\pm$ 0.0013           | 0.26 $\pm$ 0.04  | -0.83 $\pm$ 0.08    | 35.8  |
| $f_{26}$     | 0.4216 $\pm$ 0.0013           | 0.27 $\pm$ 0.05  | 0.24 $\pm$ 0.08     | 32.1  |
| $f_{27}$     | 0.7521 $\pm$ 0.0013           | 0.30 $\pm$ 0.05  | -2.45 $\pm$ 0.08    | 32.1  |
| $f_{28}$     | 0.1742 $\pm$ 0.0014           | 0.26 $\pm$ 0.05  | -2.03 $\pm$ 0.09    | 29.7  |
| $f_{29}$     | 0.1321 $\pm$ 0.0014           | 0.24 $\pm$ 0.04  | -2.45 $\pm$ 0.09    | 29.8  |
| $f_{30}$     | 0.2495 $\pm$ 0.0014           | 0.25 $\pm$ 0.05  | 1.77 $\pm$ 0.09     | 29.5  |
| $f_{31}$     | 0.2107 $\pm$ 0.0015           | 0.24 $\pm$ 0.05  | 0.35 $\pm$ 0.09     | 26.6  |
| $f_{32}$     | 0.3719 $\pm$ 0.0015           | 0.29 $\pm$ 0.06  | 0.73 $\pm$ 0.09     | 26.7  |
| $f_{33}$     | 1.0409 $\pm$ 0.0015           | 0.29 $\pm$ 0.06  | -2.82 $\pm$ 0.09    | 26.7  |
| $f_{34}$     | 0.6512 $\pm$ 0.0015           | 0.26 $\pm$ 0.05  | 2.41 $\pm$ 0.09     | 26.2  |
| $f_{35}$     | 0.7028 $\pm$ 0.0015           | 0.23 $\pm$ 0.04  | 0.88 $\pm$ 0.09     | 26.5  |
| $f_{36}$     | 0.6800 $\pm$ 0.0015           | 0.22 $\pm$ 0.04  | 1.38 $\pm$ 0.09     | 24.9  |
| $f_{37}$     | 0.4853 $\pm$ 0.0016           | 0.15 $\pm$ 0.03  | 2.25 $\pm$ 0.10     | 23.6  |
| $f_{38}$     | 0.3009 $\pm$ 0.0017           | 0.18 $\pm$ 0.04  | 0.08 $\pm$ 0.10     | 20.9  |
| $f_{39}$     | 1.0718 $\pm$ 0.0017           | 0.20 $\pm$ 0.04  | 1.33 $\pm$ 0.10     | 20.3  |
| $f_{40}$     | 0.1926 $\pm$ 0.0018           | 0.20 $\pm$ 0.05  | 1.82 $\pm$ 0.11     | 18.9  |
| $f_{41}$     | 0.5040 $\pm$ 0.0019           | 0.22 $\pm$ 0.06  | -1.13 $\pm$ 0.12    | 15.6  |
| $f_{42}$     | 0.1387 $\pm$ 0.0020           | 0.15 $\pm$ 0.04  | 2.00 $\pm$ 0.12     | 14.9  |
| $f_{43}$     | 0.2735 $\pm$ 0.0021           | 0.13 $\pm$ 0.03  | -2.46 $\pm$ 0.13    | 13.8  |
| $f_{44}$     | 0.4753 $\pm$ 0.0022           | 0.14 $\pm$ 0.04  | -2.24 $\pm$ 0.13    | 12.1  |
| $f_{45}$     | 0.4075 $\pm$ 0.0022           | 0.16 $\pm$ 0.05  | 1.60 $\pm$ 0.13     | 12.0  |
| $f_{46}$     | 1.0609 $\pm$ 0.0022           | 0.16 $\pm$ 0.05  | -1.99 $\pm$ 0.14    | 11.7  |
| $f_{50}$     | 0.1122 $\pm$ 0.0023           | 0.19 $\pm$ 0.06  | -3.06 $\pm$ 0.14    | 10.9  |
| $f_{51}$     | 0.6270 $\pm$ 0.0023           | 0.16 $\pm$ 0.05  | -2.28 $\pm$ 0.14    | 10.6  |
| $f_{52}$     | 0.8122 $\pm$ 0.0024           | 0.16 $\pm$ 0.05  | 1.91 $\pm$ 0.14     | 10.5  |
| $f_{53}$     | 0.8204 $\pm$ 0.0024           | 0.14 $\pm$ 0.04  | -2.78 $\pm$ 0.14    | 10.4  |
| $f_{54}$     | 0.5308 $\pm$ 0.0024           | 0.14 $\pm$ 0.04  | 1.93 $\pm$ 0.15     | 10.2  |
| $f_{55}$     | 0.7894 $\pm$ 0.0024           | 0.14 $\pm$ 0.04  | 2.93 $\pm$ 0.15     | 9.8   |
| $f_{56}$     | 0.7769 $\pm$ 0.0025           | 0.14 $\pm$ 0.05  | -1.98 $\pm$ 0.15    | 9.3   |
| $f_{57}$     | 0.4588 $\pm$ 0.0026           | 0.14 $\pm$ 0.05  | -2.82 $\pm$ 0.16    | 8.3   |
| $f_{58}$     | 0.3908 $\pm$ 0.0026           | 0.14 $\pm$ 0.05  | -2.74 $\pm$ 0.16    | 8.9   |
| $f_{63}$     | 1.1268 $\pm$ 0.0028           | 0.12 $\pm$ 0.04  | 0.99 $\pm$ 0.17     | 7.5   |
| $f_{64}$     | 0.2886 $\pm$ 0.0028           | 0.12 $\pm$ 0.04  | 2.19 $\pm$ 0.17     | 7.2   |
| $f_{65}$     | 0.4962 $\pm$ 0.0028           | 0.13 $\pm$ 0.05  | 2.97 $\pm$ 0.17     | 7.3   |
| $f_{66}$     | 0.5463 $\pm$ 0.0028           | 0.14 $\pm$ 0.05  | 0.30 $\pm$ 0.17     | 7.6   |
| $f_{67}$     | 0.9781 $\pm$ 0.0028           | 0.13 $\pm$ 0.05  | -1.14 $\pm$ 0.17    | 7.3   |
| $f_{68}$     | 0.7425 $\pm$ 0.0029           | 0.11 $\pm$ 0.04  | -2.33 $\pm$ 0.18    | 7.0   |

Frequency list of 0102735825 continued

| Frequency list of 0102735825 continued |                               |                  |                     |       |
|----------------------------------------|-------------------------------|------------------|---------------------|-------|
| Frequency ID                           | Frequency [ $\text{d}^{-1}$ ] | Amplitude [mmag] | Phase $[-\pi, \pi]$ | Sign. |
| $f_{69}$                               | 1.7837 $\pm$ 0.0029           | 0.11 $\pm$ 0.04  | 1.41 $\pm$ 0.18     | 6.7   |
| $f_{70}$                               | 0.9305 $\pm$ 0.0030           | 0.12 $\pm$ 0.05  | 0.55 $\pm$ 0.18     | 6.6   |
| $f_{71}$                               | 0.4351 $\pm$ 0.0030           | 0.11 $\pm$ 0.04  | 0.51 $\pm$ 0.18     | 6.6   |
| $f_{72}$                               | 0.5853 $\pm$ 0.0030           | 0.11 $\pm$ 0.04  | -1.62 $\pm$ 0.18    | 6.6   |
| $f_{73}$                               | 1.0262 $\pm$ 0.0030           | 0.13 $\pm$ 0.05  | -2.24 $\pm$ 0.18    | 6.4   |
| $f_{74}$                               | 13.9930 $\pm$ 0.0029          | 0.12 $\pm$ 0.05  | 0.04 $\pm$ 0.17     | 7.1   |
| $f_{75}$                               | 0.8505 $\pm$ 0.0030           | 0.12 $\pm$ 0.05  | -0.24 $\pm$ 0.18    | 6.5   |
| $f_{76}$                               | 1.4775 $\pm$ 0.0030           | 0.11 $\pm$ 0.04  | 0.90 $\pm$ 0.18     | 6.5   |
| $f_{77}$                               | 0.3204 $\pm$ 0.0029           | 0.13 $\pm$ 0.05  | 0.02 $\pm$ 0.18     | 6.7   |
| $f_{78}$                               | 0.7616 $\pm$ 0.0030           | 0.13 $\pm$ 0.05  | -2.78 $\pm$ 0.18    | 6.5   |
| $f_{79}$                               | 0.1593 $\pm$ 0.0030           | 0.12 $\pm$ 0.05  | 2.69 $\pm$ 0.18     | 6.5   |
| $f_{80}$                               | 0.7703 $\pm$ 0.0030           | 0.11 $\pm$ 0.04  | -0.33 $\pm$ 0.19    | 6.3   |
| $f_{83}$                               | 2.0473 $\pm$ 0.0031           | 0.11 $\pm$ 0.04  | -2.48 $\pm$ 0.19    | 6.0   |
| $f_{85}$                               | 1.4594 $\pm$ 0.0032           | 0.11 $\pm$ 0.05  | 2.31 $\pm$ 0.19     | 5.8   |
| $f_{86}$                               | 1.1781 $\pm$ 0.0033           | 0.11 $\pm$ 0.05  | 2.80 $\pm$ 0.20     | 5.5   |
| $f_{87}$                               | 0.3622 $\pm$ 0.0032           | 0.13 $\pm$ 0.05  | -0.85 $\pm$ 0.20    | 5.7   |
| $f_{88}$                               | 0.6597 $\pm$ 0.0033           | 0.11 $\pm$ 0.05  | -1.97 $\pm$ 0.20    | 5.5   |
| $f_{89}$                               | 0.6008 $\pm$ 0.0033           | 0.11 $\pm$ 0.05  | -2.51 $\pm$ 0.20    | 5.4   |
| $f_{90}$                               | 0.2608 $\pm$ 0.0033           | 0.13 $\pm$ 0.06  | -1.88 $\pm$ 0.20    | 5.5   |
| $f_{91}$                               | 0.3475 $\pm$ 0.0032           | 0.12 $\pm$ 0.05  | -1.12 $\pm$ 0.19    | 5.8   |
| $f_{92}$                               | 1.0502 $\pm$ 0.0033           | 0.10 $\pm$ 0.04  | 3.14 $\pm$ 0.20     | 5.3   |
| $f_{93}$                               | 0.1514 $\pm$ 0.0033           | 0.11 $\pm$ 0.05  | -2.64 $\pm$ 0.20    | 5.3   |
| $f_{94}$                               | 1.2708 $\pm$ 0.0034           | 0.10 $\pm$ 0.04  | -2.96 $\pm$ 0.21    | 5.1   |

**Table B.65:** Frequency list of 0102738809

| Frequency<br>ID | Frequency<br>[d <sup>-1</sup> ] | Amplitude<br>[mmag] | Phase<br>[- $\pi$ , $\pi$ ] | Sign.  |
|-----------------|---------------------------------|---------------------|-----------------------------|--------|
| $f_1$           | 0.9824±0.0002                   | 3.85±0.11           | 1.50±0.01                   | 1291.6 |
| $f_2$           | 1.9112±0.0004                   | 1.12±0.06           | -0.73±0.02                  | 377.4  |
| $f_3$           | 0.4930±0.0004                   | 1.09±0.06           | -1.14±0.02                  | 375.6  |
| $f_4$           | 2.2100±0.0004                   | 0.90±0.05           | 1.67±0.03                   | 290.5  |
| $f_5$           | 2.3975±0.0005                   | 0.80±0.05           | 0.05±0.03                   | 264.9  |
| $f_6$           | 2.0497±0.0005                   | 0.75±0.05           | -0.67±0.03                  | 226.9  |
| $f_7$           | 0.7200±0.0006                   | 0.61±0.05           | 2.11±0.04                   | 150.0  |
| $f_8$           | 0.4833±0.0006                   | 0.56±0.05           | -1.13±0.04                  | 145.9  |
| $f_9$           | 1.6197±0.0006                   | 0.59±0.05           | 2.97±0.04                   | 155.9  |
| $f_{10}$        | 0.8884±0.0006                   | 0.57±0.05           | -1.90±0.04                  | 156.8  |
| $f_{11}$        | 1.4740±0.0006                   | 0.50±0.04           | 0.90±0.04                   | 156.7  |
| $f_{12}$        | 1.1624±0.0006                   | 0.52±0.04           | 1.67±0.04                   | 144.7  |
| $f_{13}$        | 1.6834±0.0006                   | 0.50±0.04           | -2.12±0.04                  | 142.6  |
| $f_{14}$        | 12.6783±0.0009                  | 0.38±0.04           | 2.86±0.05                   | 79.6   |
| $f_{15}$        | 13.1121±0.0008                  | 0.35±0.04           | -0.87±0.05                  | 81.3   |
| $f_{16}$        | 12.3567±0.0008                  | 0.36±0.04           | -1.06±0.05                  | 81.5   |
| $f_{17}$        | 13.3025±0.0008                  | 0.36±0.04           | 0.73±0.05                   | 81.8   |
| $f_{18}$        | 0.5499±0.0009                   | 0.35±0.04           | 2.56±0.05                   | 80.4   |
| $f_{19}$        | 14.0309±0.0009                  | 0.37±0.04           | -2.40±0.05                  | 80.5   |
| $f_{20}$        | 13.0737±0.0009                  | 0.31±0.04           | 1.84±0.05                   | 73.6   |
| $f_{21}$        | 13.8723±0.0009                  | 0.35±0.04           | -1.34±0.05                  | 74.0   |
| $f_{22}$        | 0.1495±0.0009                   | 0.32±0.04           | 0.05±0.05                   | 73.0   |
| $f_{23}$        | 12.7260±0.0009                  | 0.31±0.04           | -2.76±0.06                  | 65.1   |
| $f_{24}$        | 0.6103±0.0010                   | 0.27±0.03           | 0.12±0.06                   | 60.4   |
| $f_{25}$        | 13.8383±0.0010                  | 0.32±0.04           | -0.53±0.06                  | 60.9   |
| $f_{26}$        | 13.8025±0.0010                  | 0.30±0.04           | -1.61±0.06                  | 61.5   |
| $f_{27}$        | 1.0361±0.0010                   | 0.26±0.03           | -2.75±0.06                  | 60.4   |
| $f_{28}$        | 1.2795±0.0011                   | 0.23±0.03           | 0.98±0.07                   | 48.4   |
| $f_{31}$        | 12.9509±0.0011                  | 0.24±0.04           | 0.83±0.07                   | 45.9   |
| $f_{33}$        | 13.4156±0.0011                  | 0.22±0.03           | 2.08±0.07                   | 46.3   |
| $f_{34}$        | 1.2162±0.0011                   | 0.22±0.03           | -1.24±0.07                  | 44.9   |
| $f_{35}$        | 0.8275±0.0012                   | 0.23±0.04           | -2.81±0.07                  | 42.3   |
| $f_{36}$        | 13.6285±0.0013                  | 0.20±0.03           | 0.64±0.08                   | 34.2   |
| $f_{37}$        | 0.4779±0.0014                   | 0.14±0.03           | 1.84±0.09                   | 29.7   |
| $f_{38}$        | 12.4642±0.0015                  | 0.17±0.03           | -1.45±0.09                  | 27.4   |
| $f_{39}$        | 13.1846±0.0015                  | 0.19±0.04           | 1.38±0.09                   | 26.9   |
| $f_{42}$        | 0.2290±0.0016                   | 0.16±0.03           | 1.08±0.10                   | 23.6   |
| $f_{43}$        | 13.4404±0.0016                  | 0.15±0.03           | 1.27±0.10                   | 23.4   |
| $f_{45}$        | 2.0046±0.0016                   | 0.40±0.08           | 1.46±0.10                   | 23.8   |
| $f_{49}$        | 0.5049±0.0017                   | 0.16±0.03           | -1.87±0.10                  | 21.1   |
| $f_{50}$        | 14.7379±0.0017                  | 0.34±0.08           | 1.60±0.10                   | 20.0   |
| $f_{51}$        | 15.1989±0.0017                  | 0.12±0.03           | 3.13±0.11                   | 19.3   |
| $f_{52}$        | 13.7561±0.0018                  | 0.23±0.05           | -1.19±0.11                  | 18.6   |
| $f_{53}$        | 15.7180±0.0017                  | 0.36±0.08           | -1.58±0.11                  | 19.5   |
| $f_{54}$        | 16.7020±0.0016                  | 0.46±0.09           | -2.51±0.09                  | 24.2   |
| $f_{55}$        | 0.1066±0.0018                   | 0.10±0.02           | -2.52±0.11                  | 17.4   |
| $f_{62}$        | 11.1834±0.0018                  | 0.13±0.03           | 1.87±0.11                   | 17.3   |

## Appendix B. Frequencies of individual $\gamma$ Dor Stars

| Frequency list of 0102738809 continued |                              |                  |                          |       | Frequency list of 0102738809 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{63}$                               | 1.9651±0.0018                | 1.03±0.25        | 1.71±0.11                | 17.4  | $f_{147}$                              | 11.8977±0.0027               | 0.08±0.03        | -2.14±0.16               | 8.1   |
| $f_{64}$                               | 2.9473±0.0014                | 0.90±0.16        | -2.58±0.08               | 30.4  | $f_{148}$                              | 0.6249±0.0027                | 0.08±0.03        | 0.29±0.17                | 7.8   |
| $f_{65}$                               | 3.9302±0.0015                | 0.67±0.13        | 2.27±0.09                | 24.7  | $f_{149}$                              | 13.7934±0.0028               | 0.08±0.03        | -2.25±0.17               | 7.7   |
| $f_{66}$                               | 17.6841±0.0016               | 0.44±0.09        | -1.72±0.10               | 22.0  | $f_{150}$                              | 0.2391±0.0028                | 0.07±0.03        | 1.58±0.17                | 7.5   |
| $f_{67}$                               | 4.9127±0.0016                | 0.45±0.09        | -2.63±0.10               | 23.1  | $f_{151}$                              | 1.7969±0.0028                | 0.07±0.03        | -0.21±0.17               | 7.3   |
| $f_{68}$                               | 18.6669±0.0018               | 0.39±0.09        | -0.40±0.11               | 18.3  | $f_{153}$                              | 12.4937±0.0029               | 0.06±0.02        | -1.46±0.17               | 7.1   |
| $f_{69}$                               | 13.0487±0.0018               | 0.12±0.03        | -0.27±0.11               | 18.6  | $f_{154}$                              | 0.3852±0.0028                | 0.08±0.03        | -2.13±0.17               | 7.2   |
| $f_{70}$                               | 13.5467±0.0018               | 0.10±0.02        | 1.82±0.11                | 18.2  | $f_{156}$                              | 13.8591±0.0029               | 0.07±0.03        | -0.23±0.18               | 7.0   |
| $f_{71}$                               | 12.7529±0.0018               | 0.14±0.03        | 3.06±0.11                | 17.1  | $f_{158}$                              | 11.9516±0.0029               | 0.07±0.03        | 2.69±0.18                | 6.9   |
| $f_{74}$                               | 0.9195±0.0019                | 0.12±0.03        | 0.31±0.12                | 16.2  | $f_{159}$                              | 12.2342±0.0029               | 0.07±0.03        | 1.45±0.17                | 7.1   |
| $f_{75}$                               | 13.4718±0.0020               | 0.11±0.03        | 2.33±0.12                | 14.9  | $f_{160}$                              | 0.3613±0.0029                | 0.07±0.03        | 0.00±0.18                | 6.9   |
| $f_{76}$                               | 12.7703±0.0020               | 0.10±0.03        | -0.48±0.12               | 15.0  | $f_{161}$                              | 12.6049±0.0028               | 0.07±0.03        | -1.87±0.17               | 7.5   |
| $f_{77}$                               | 1.2988±0.0020                | 0.11±0.03        | 2.54±0.12                | 14.9  | $f_{163}$                              | 15.6919±0.0029               | 0.07±0.03        | -2.88±0.18               | 6.9   |
| $f_{78}$                               | 0.3953±0.0020                | 0.11±0.03        | -0.74±0.12               | 14.9  | $f_{164}$                              | 14.0720±0.0029               | 0.07±0.03        | 0.13±0.18                | 6.7   |
| $f_{79}$                               | 19.6498±0.0020               | 0.32±0.08        | -2.74±0.12               | 14.7  | $f_{165}$                              | 0.5776±0.0029                | 0.06±0.02        | 2.05±0.18                | 6.7   |
| $f_{80}$                               | 0.4872±0.0020                | 0.14±0.04        | -0.14±0.12               | 14.3  | $f_{166}$                              | 4.0092±0.0030                | 0.06±0.02        | 2.18±0.18                | 6.6   |
| $f_{81}$                               | 0.5141±0.0020                | 0.10±0.03        | 2.37±0.12                | 14.2  | $f_{168}$                              | 0.4262±0.0030                | 0.07±0.03        | 2.38±0.18                | 6.5   |
| $f_{82}$                               | 8.8423±0.0021                | 0.20±0.05        | -1.97±0.13               | 13.8  | $f_{169}$                              | 1.5923±0.0029                | 0.06±0.02        | 1.22±0.18                | 6.7   |
| $f_{83}$                               | 14.7498±0.0021               | 0.13±0.04        | -1.49±0.13               | 13.4  | $f_{170}$                              | 0.9692±0.0030                | 0.07±0.03        | -0.34±0.18               | 6.6   |
| $f_{84}$                               | 0.2127±0.0021                | 0.11±0.03        | -2.57±0.13               | 13.4  | $f_{172}$                              | 0.6847±0.0030                | 0.06±0.02        | 0.08±0.19                | 6.3   |
| $f_{85}$                               | 1.0005±0.0021                | 0.13±0.04        | -1.21±0.13               | 13.6  | $f_{173}$                              | 15.9213±0.0030               | 0.07±0.03        | -1.13±0.19               | 6.3   |
| $f_{87}$                               | 12.9349±0.0021               | 0.10±0.03        | -1.46±0.13               | 13.4  | $f_{174}$                              | 12.8361±0.0031               | 0.07±0.03        | 1.78±0.19                | 6.2   |
| $f_{88}$                               | 9.8247±0.0021                | 0.21±0.06        | -2.08±0.13               | 13.5  | $f_{176}$                              | 26.5264±0.0031               | 0.07±0.03        | 2.46±0.19                | 6.2   |
| $f_{89}$                               | 7.8585±0.0018                | 0.12±0.03        | 2.27±0.11                | 17.5  | $f_{177}$                              | 1.3818±0.0030                | 0.07±0.03        | 0.49±0.19                | 6.3   |
| $f_{90}$                               | 13.0154±0.0021               | 0.10±0.03        | -2.10±0.13               | 13.2  | $f_{178}$                              | 15.1367±0.0030               | 0.07±0.03        | -1.36±0.19               | 6.3   |
| $f_{91}$                               | 12.0053±0.0021               | 0.09±0.03        | -2.88±0.13               | 12.8  | $f_{179}$                              | 1.6990±0.0030                | 0.06±0.02        | 1.71±0.19                | 6.3   |
| $f_{92}$                               | 12.8052±0.0021               | 0.10±0.03        | 0.52±0.13                | 13.2  | $f_{180}$                              | 13.4084±0.0031               | 0.07±0.03        | 0.68±0.19                | 6.1   |
| $f_{93}$                               | 0.7547±0.0021                | 0.11±0.03        | 0.49±0.13                | 12.7  | $f_{181}$                              | 13.3874±0.0030               | 0.07±0.03        | 1.39±0.18                | 6.4   |
| $f_{94}$                               | 12.2150±0.0021               | 0.11±0.03        | -2.48±0.13               | 13.4  | $f_{182}$                              | 14.7296±0.0030               | 0.07±0.03        | 1.71±0.19                | 6.3   |
| $f_{95}$                               | 14.2212±0.0021               | 0.11±0.03        | -2.83±0.13               | 13.5  | $f_{183}$                              | 10.9175±0.0031               | 0.06±0.02        | 0.48±0.19                | 5.9   |
| $f_{96}$                               | 13.8778±0.0021               | 0.09±0.03        | -1.89±0.13               | 12.9  | $f_{185}$                              | 5.7098±0.0031                | 0.06±0.02        | -0.08±0.19               | 6.1   |
| $f_{97}$                               | 14.2984±0.0022               | 0.08±0.02        | -0.66±0.13               | 12.6  | $f_{186}$                              | 11.2451±0.0032               | 0.06±0.02        | 0.43±0.19                | 5.8   |
| $f_{98}$                               | 1.9635±0.0021                | 0.20±0.06        | 2.30±0.13                | 12.8  | $f_{187}$                              | 15.3435±0.0032               | 0.06±0.02        | 3.02±0.19                | 5.8   |
| $f_{99}$                               | 20.6325±0.0021               | 0.24±0.07        | -2.19±0.13               | 13.6  | $f_{189}$                              | 0.7720±0.0032                | 0.06±0.03        | 2.23±0.20                | 5.7   |
| $f_{100}$                              | 0.3686±0.0022                | 0.10±0.03        | -2.47±0.13               | 12.4  | $f_{194}$                              | 3.9261±0.0031                | 0.07±0.03        | 1.29±0.19                | 6.1   |
| $f_{101}$                              | 14.7835±0.0022               | 0.10±0.03        | -3.12±0.13               | 12.3  | $f_{195}$                              | 9.3378±0.0032                | 0.07±0.03        | -2.58±0.19               | 5.8   |
| $f_{102}$                              | 14.0248±0.0022               | 0.09±0.03        | -2.04±0.13               | 12.3  | $f_{197}$                              | 12.0788±0.0032               | 0.07±0.03        | -0.66±0.19               | 5.8   |
| $f_{103}$                              | 1.5062±0.0022                | 0.10±0.03        | -1.67±0.13               | 12.3  | $f_{198}$                              | 12.1198±0.0032               | 0.06±0.02        | -2.22±0.19               | 5.8   |
| $f_{104}$                              | 0.3445±0.0022                | 0.10±0.03        | -1.42±0.14               | 11.8  | $f_{199}$                              | 8.3504±0.0032                | 0.06±0.03        | -1.07±0.20               | 5.7   |
| $f_{105}$                              | 1.0876±0.0023                | 0.11±0.03        | 1.38±0.14                | 11.5  | $f_{200}$                              | 13.0371±0.0032               | 0.06±0.03        | 3.01±0.20                | 5.7   |
| $f_{106}$                              | 0.9830±0.0022                | 0.14±0.04        | -2.79±0.14               | 11.7  | $f_{201}$                              | 14.9149±0.0032               | 0.06±0.03        | 2.32±0.20                | 5.6   |
| $f_{107}$                              | 13.6718±0.0023               | 0.10±0.03        | 2.20±0.14                | 11.4  | $f_{202}$                              | 2.0118±0.0032                | 0.07±0.03        | -0.59±0.20               | 5.6   |
| $f_{109}$                              | 14.2344±0.0023               | 0.10±0.03        | 0.40±0.14                | 11.2  | $f_{203}$                              | 0.3071±0.0031                | 0.06±0.02        | -2.12±0.19               | 5.9   |
| $f_{110}$                              | 13.1725±0.0023               | 0.09±0.03        | 1.00±0.14                | 11.4  | $f_{204}$                              | 0.5576±0.0032                | 0.06±0.03        | 1.12±0.20                | 5.7   |
| $f_{112}$                              | 11.6403±0.0023               | 0.09±0.03        | -2.50±0.14               | 10.7  | $f_{205}$                              | 22.5969±0.0032               | 0.08±0.03        | -1.21±0.19               | 5.8   |
| $f_{113}$                              | 0.1370±0.0023                | 0.11±0.03        | -2.34±0.14               | 11.0  | $f_{206}$                              | 13.8159±0.0033               | 0.06±0.03        | -2.41±0.20               | 5.3   |
| $f_{114}$                              | 13.2937±0.0023               | 0.09±0.03        | 0.52±0.14                | 10.7  | $f_{207}$                              | 10.3762±0.0033               | 0.06±0.03        | -0.77±0.20               | 5.4   |
| $f_{115}$                              | 13.4505±0.0023               | 0.09±0.03        | 1.83±0.14                | 10.8  | $f_{215}$                              | 14.5581±0.0033               | 0.06±0.03        | 2.59±0.20                | 5.2   |
| $f_{116}$                              | 12.5358±0.0024               | 0.08±0.02        | -0.41±0.14               | 10.4  | $f_{216}$                              | 13.1992±0.0034               | 0.06±0.03        | -1.24±0.21               | 5.1   |
| $f_{117}$                              | 5.8956±0.0024                | 0.22±0.07        | 1.55±0.14                | 10.5  | $f_{217}$                              | 13.1337±0.0032               | 0.06±0.03        | 0.35±0.20                | 5.7   |
| $f_{118}$                              | 2.9501±0.0021                | 0.13±0.04        | 0.73±0.13                | 13.1  | $f_{218}$                              | 13.4847±0.0033               | 0.06±0.03        | -0.16±0.20               | 5.3   |
| $f_{119}$                              | 11.9275±0.0024               | 0.09±0.03        | -2.39±0.14               | 10.4  | $f_{221}$                              | 11.0226±0.0033               | 0.06±0.03        | 1.59±0.20                | 5.5   |
| $f_{120}$                              | 13.6445±0.0024               | 0.08±0.03        | 2.96±0.15                | 10.1  | $f_{222}$                              | 12.4839±0.0033               | 0.06±0.03        | -1.95±0.20               | 5.2   |
| $f_{121}$                              | 14.4651±0.0024               | 0.08±0.03        | -2.27±0.15               | 9.8   |                                        |                              |                  |                          |       |
| $f_{122}$                              | 0.8202±0.0025                | 0.07±0.02        | 1.16±0.15                | 9.3   |                                        |                              |                  |                          |       |
| $f_{124}$                              | 0.2757±0.0026                | 0.08±0.03        | -1.97±0.16               | 8.7   |                                        |                              |                  |                          |       |
| $f_{125}$                              | 13.5267±0.0026               | 0.08±0.03        | -0.73±0.16               | 8.7   |                                        |                              |                  |                          |       |
| $f_{126}$                              | 0.4496±0.0026                | 0.08±0.03        | -1.14±0.16               | 8.7   |                                        |                              |                  |                          |       |
| $f_{127}$                              | 0.5374±0.0025                | 0.09±0.03        | 3.09±0.16                | 9.0   |                                        |                              |                  |                          |       |
| $f_{128}$                              | 0.5639±0.0026                | 0.08±0.03        | -2.56±0.16               | 8.7   |                                        |                              |                  |                          |       |
| $f_{129}$                              | 10.8075±0.0026               | 0.11±0.04        | -0.16±0.16               | 8.4   |                                        |                              |                  |                          |       |
| $f_{130}$                              | 2.6211±0.0026                | 0.08±0.03        | 0.68±0.16                | 8.5   |                                        |                              |                  |                          |       |
| $f_{132}$                              | 1.0704±0.0026                | 0.08±0.03        | 1.96±0.16                | 8.3   |                                        |                              |                  |                          |       |
| $f_{133}$                              | 13.0953±0.0027               | 0.08±0.03        | -1.89±0.16               | 8.1   |                                        |                              |                  |                          |       |
| $f_{134}$                              | 11.1106±0.0026               | 0.08±0.03        | 2.84±0.16                | 8.6   |                                        |                              |                  |                          |       |
| $f_{135}$                              | 11.0619±0.0026               | 0.08±0.03        | -1.46±0.16               | 8.3   |                                        |                              |                  |                          |       |
| $f_{136}$                              | 12.3237±0.0026               | 0.07±0.02        | -0.78±0.16               | 8.3   |                                        |                              |                  |                          |       |
| $f_{137}$                              | 21.6142±0.0026               | 0.15±0.05        | -0.93±0.16               | 8.6   |                                        |                              |                  |                          |       |
| $f_{138}$                              | 1.4746±0.0026                | 0.10±0.03        | -2.40±0.16               | 8.7   |                                        |                              |                  |                          |       |
| $f_{139}$                              | 14.3825±0.0027               | 0.07±0.02        | 2.44±0.16                | 8.1   |                                        |                              |                  |                          |       |
| $f_{140}$                              | 15.7235±0.0027               | 0.10±0.04        | -1.68±0.16               | 8.1   |                                        |                              |                  |                          |       |
| $f_{142}$                              | 15.6123±0.0027               | 0.08±0.03        | -2.45±0.16               | 8.1   |                                        |                              |                  |                          |       |
| $f_{143}$                              | 13.5582±0.0027               | 0.07±0.02        | 1.19±0.16                | 8.2   |                                        |                              |                  |                          |       |
| $f_{144}$                              | 12.6495±0.0027               | 0.07±0.02        | 1.99±0.16                | 8.0   |                                        |                              |                  |                          |       |
| $f_{145}$                              | 12.8587±0.0027               | 0.08±0.03        | -0.75±0.16               | 8.0   |                                        |                              |                  |                          |       |
| $f_{146}$                              | 11.7963±0.0028               | 0.07±0.03        | -2.91±0.17               | 7.7   |                                        |                              |                  |                          |       |
| Frequency list of 0102738809 continued |                              |                  |                          |       | Frequency list of 0102739932           |                              |                  |                          |       |
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_1$                                  | 3.9878±0.0008                | 0.48±0.05        | -1.99±0.05               | 100.0 | $f_1$                                  | 3.9878±0.0008                | 0.48±0.05        | -1.99±0.05               | 100.0 |
| $f_3$                                  | 0.1705±0.0010                | 0.36±0.04        | -2.55±0.06               | 64.4  | $f_3$                                  | 0.1705±0.0010                | 0.36±0.04        | -2.55±0.06               | 64.4  |
| $f_7$                                  | 2.0250±0.0011                | 0.28±0.04        | -2.41±0.07               | 49.7  | $f_7$                                  | 2.0250±0.0011                | 0.28±0.04        | -2.41±0.07               | 49.7  |
| $f_8$                                  | 0.1032±0.0011                | 0.29±0.04        | -2.56±0.07               | 45.2  | $f_8$                                  | 0.1032±0.0011                | 0.29±0.04        | -2.56±0.07               | 45.2  |
| $f_9$                                  | 0.1455±0.0011                | 0.33±0.05        | 1.54±0.07                | 44.6  | $f_9$                                  | 0.1455±0.0011                | 0.33±0.05        | 1.54±0.07                | 44.6  |
| $f_{10}$                               | 0.1345±0.0011                | 0.28±0.04        | -0.73±0.07               | 50.2  | $f_{10}$                               | 0.1345±0.0011                | 0.28±0.04        | -0.73±0.07               | 50.2  |
| $f_{12}$                               | 3.9622±0.0013                | 0.24±0.04        | 1.08±0.08                | 36.9  | $f_{12}$                               | 3.9622±0.0013                | 0.24±0.04        | 1.08±0.08                | 36.9  |
| $f_{13}$                               | 0.1916±0.0013                | 0.20±0.03        | 2.36±0.08                | 34.7  | $f_{13}$                               | 0.1916±0.0013                | 0.20±0.03        | 2.36±0.08                | 34.7  |
| $f_{14}$                               | 0.2310±0.0014                | 0.17±0.03        | -2.22±0.08               | 30.8  | $f_{14}$                               | 0.2310±0.0014                | 0.17±0.03        | -2.22±0.08               | 30.8  |
| $f_{15}$                               | 4.0320±0.0015                | 0.20±0.04        | 0.23±0.09                | 26.3  | $f_{15}$                               | 4.0320±0.0015                | 0.20±0.04        | 0.23±0.09                | 26.3  |
| $f_{17}$                               | 1.9335±0.0016                | 0.18±0.04        | -1.55±0.10               | 21.6  | $f_{17}$                               | 1.9335±0.0016                | 0.18±0.04        | -1.55±0.10               | 21.6  |
| $f_{19}$                               | 0.2198±0.0017                | 0.21±0.05        | 2.57±0.10                | 20.6  | $f_{19}$                               | 0.2198±0.0017                | 0.21±0.05        | 2.57±0.10                | 20.6  |
| $f_{20}$                               | 4.0025±0.0017                | 0.19±0.04        | -2.40±0.10               | 21.4  | $f_{20}$                               | 4.0025±0.0017                | 0.19±0.04        | -2.40±0.10               | 21.4  |
| $f_{21}$                               | 0.3439±0.0017                | 0.16±0.04        | -3.14±0.10               | 20.4  | $f_{21}$                               | 0.3439±0.0017                | 0.16±0.04        | -3.14±0.10               | 20.4  |
| $f_{22}$                               | 0.2007±0.0017                | 0.15±0.03        | 3.02±0.10                | 19.8  | $f_{22}$                               | 0.2007±0.0017                | 0.15±0.03        | 3.02±0.10                | 19.8  |
| $f_{23}$                               | 0.1613±0.0017                | 0.19±0.04        | -2.79±0.10               | 21.3  | $f_{23}$                               | 0.1613±0.0017                | 0.19±0.04        | -2.79±0.10               |       |

## Appendix B. Frequencies of individual $\gamma$ Dor Stars

| Frequency list of 0102739932 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{36}$                               | 2.1113±0.0021                | 0.13±0.04        | 0.42±0.13                | 13.7  |
| $f_{39}$                               | 4.0967±0.0022                | 0.14±0.04        | 1.52±0.13                | 12.1  |
| $f_{40}$                               | 4.1167±0.0021                | 0.14±0.04        | 0.85±0.13                | 13.0  |
| $f_{44}$                               | 0.1240±0.0023                | 0.14±0.04        | 0.45±0.14                | 10.9  |
| $f_{45}$                               | 2.1332±0.0025                | 0.12±0.04        | 1.14±0.15                | 9.7   |
| $f_{47}$                               | 0.3652±0.0025                | 0.11±0.04        | -1.48±0.15               | 9.3   |
| $f_{48}$                               | 0.7496±0.0025                | 0.12±0.04        | -0.21±0.16               | 9.0   |
| $f_{50}$                               | 0.6100±0.0027                | 0.11±0.04        | 1.10±0.16                | 8.2   |
| $f_{51}$                               | 0.2892±0.0026                | 0.11±0.04        | 1.87±0.16                | 8.4   |
| $f_{52}$                               | 0.7824±0.0027                | 0.11±0.04        | -3.02±0.16               | 8.2   |
| $f_{53}$                               | 1.8302±0.0027                | 0.09±0.03        | -2.07±0.16               | 8.1   |
| $f_{54}$                               | 0.7154±0.0027                | 0.10±0.04        | -2.24±0.17               | 7.8   |
| $f_{55}$                               | 0.2108±0.0028                | 0.11±0.04        | 2.31±0.17                | 7.5   |
| $f_{56}$                               | 3.1637±0.0029                | 0.10±0.04        | -1.11±0.18               | 6.9   |
| $f_{58}$                               | 0.2814±0.0029                | 0.10±0.04        | -1.11±0.18               | 6.9   |
| $f_{59}$                               | 0.4358±0.0030                | 0.10±0.04        | 1.32±0.18                | 6.6   |
| $f_{61}$                               | 0.8164±0.0030                | 0.09±0.04        | 3.04±0.18                | 6.4   |
| $f_{63}$                               | 1.7396±0.0031                | 0.09±0.04        | -0.13±0.19               | 6.2   |
| $f_{64}$                               | 1.8503±0.0031                | 0.09±0.04        | -2.05±0.19               | 6.1   |
| $f_{65}$                               | 0.6492±0.0031                | 0.09±0.04        | 3.08±0.19                | 6.0   |
| $f_{66}$                               | 2.0094±0.0032                | 0.09±0.04        | 1.62±0.20                | 5.7   |
| $f_{67}$                               | 1.2181±0.0032                | 0.09±0.04        | -0.63±0.20               | 5.6   |
| $f_{69}$                               | 0.1143±0.0032                | 0.09±0.04        | -0.22±0.20               | 5.6   |
| $f_{72}$                               | 0.4976±0.0033                | 0.08±0.03        | 0.45±0.20                | 5.4   |
| $f_{73}$                               | 1.0190±0.0034                | 0.08±0.04        | -0.02±0.21               | 5.1   |
| $f_{74}$                               | 1.2742±0.0033                | 0.08±0.03        | -1.22±0.20               | 5.3   |
| $f_{75}$                               | 0.6818±0.0033                | 0.08±0.04        | -1.08±0.20               | 5.2   |

**Table B.67:** Frequency list of 0102742690

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|--------------|------------------------------|------------------|--------------------------|-------|
| $f_1$        | 0.8405±0.0003                | 1.07±0.04        | 2.40±0.02                | 677.1 |
| $f_2$        | 0.1357±0.0004                | 0.66±0.03        | 2.77±0.02                | 364.4 |
| $f_3$        | 0.8511±0.0005                | 0.56±0.03        | 3.13±0.03                | 268.6 |
| $f_4$        | 0.1233±0.0006                | 0.39±0.03        | -2.30±0.03               | 185.4 |
| $f_5$        | 0.8188±0.0006                | 0.42±0.03        | 2.85±0.04                | 168.1 |
| $f_6$        | 1.6556±0.0007                | 0.32±0.03        | 0.26±0.04                | 125.7 |
| $f_7$        | 0.1112±0.0008                | 0.34±0.03        | -1.14±0.05               | 98.4  |
| $f_8$        | 0.8706±0.0008                | 0.23±0.02        | -1.70±0.05               | 95.0  |
| $f_9$        | 0.8796±0.0009                | 0.20±0.02        | 2.44±0.05                | 75.6  |
| $f_{10}$     | 0.8277±0.0010                | 0.23±0.03        | 1.04±0.06                | 63.3  |
| $f_{11}$     | 0.2616±0.0010                | 0.20±0.03        | -1.76±0.06               | 63.4  |
| $f_{12}$     | 0.4078±0.0009                | 0.20±0.02        | -1.08±0.06               | 65.5  |
| $f_{13}$     | 0.2063±0.0010                | 0.19±0.03        | 2.89±0.06                | 54.2  |
| $f_{14}$     | 1.6732±0.0011                | 0.22±0.03        | -2.54±0.07               | 46.9  |
| $f_{15}$     | 1.6831±0.0011                | 0.20±0.03        | 2.03±0.07                | 46.9  |
| $f_{16}$     | 0.9281±0.0012                | 0.13±0.02        | 1.13±0.07                | 43.5  |
| $f_{17}$     | 0.2521±0.0011                | 0.15±0.02        | -2.32±0.07               | 45.7  |
| $f_{18}$     | 1.6963±0.0012                | 0.14±0.02        | -1.19±0.07               | 42.6  |
| $f_{19}$     | 0.1716±0.0012                | 0.13±0.02        | -1.81±0.08               | 38.1  |
| $f_{20}$     | 0.7713±0.0012                | 0.16±0.03        | -3.14±0.08               | 38.2  |
| $f_{21}$     | 0.8061±0.0012                | 0.16±0.03        | 1.59±0.08                | 38.0  |
| $f_{22}$     | 0.7489±0.0013                | 0.15±0.02        | 2.84±0.08                | 37.2  |
| $f_{23}$     | 1.6421±0.0013                | 0.19±0.03        | -1.37±0.08               | 36.8  |
| $f_{24}$     | 0.8341±0.0013                | 0.15±0.03        | -2.15±0.08               | 34.5  |
| $f_{25}$     | 0.7963±0.0014                | 0.15±0.03        | -0.70±0.08               | 31.6  |
| $f_{26}$     | 0.3149±0.0013                | 0.13±0.02        | -1.45±0.08               | 32.2  |
| $f_{27}$     | 0.2129±0.0014                | 0.12±0.02        | 0.56±0.09                | 28.3  |
| $f_{28}$     | 1.7170±0.0015                | 0.14±0.03        | 0.52±0.09                | 26.5  |
| $f_{29}$     | 0.9053±0.0015                | 0.13±0.03        | -0.19±0.09               | 26.5  |
| $f_{30}$     | 0.7354±0.0015                | 0.11±0.02        | 1.84±0.09                | 25.9  |
| $f_{31}$     | 1.6659±0.0015                | 0.13±0.03        | 0.54±0.09                | 25.5  |
| $f_{32}$     | 0.1322±0.0015                | 0.14±0.03        | -2.45±0.09               | 25.6  |
| $f_{33}$     | 1.6895±0.0015                | 0.13±0.03        | 0.83±0.09                | 25.5  |
| $f_{34}$     | 2.4925±0.0015                | 0.11±0.02        | -3.11±0.09               | 24.3  |
| $f_{35}$     | 0.7800±0.0017                | 0.09±0.02        | 1.08±0.10                | 20.6  |
| $f_{36}$     | 0.8571±0.0017                | 0.10±0.02        | -0.16±0.10               | 20.0  |
| $f_{37}$     | 1.6182±0.0017                | 0.09±0.02        | 1.24±0.11                | 19.5  |
| $f_{38}$     | 0.9582±0.0018                | 0.10±0.02        | 1.90±0.11                | 17.9  |
| $f_{39}$     | 2.5387±0.0018                | 0.10±0.02        | -1.87±0.11               | 17.6  |
| $f_{40}$     | 0.2888±0.0018                | 0.11±0.03        | -0.42±0.11               | 17.6  |
| $f_{41}$     | 0.3370±0.0019                | 0.10±0.02        | -0.27±0.11               | 17.0  |
| $f_{42}$     | 0.1653±0.0019                | 0.10±0.02        | -0.07±0.12               | 16.4  |
| $f_{43}$     | 0.4770±0.0019                | 0.10±0.02        | -2.34±0.11               | 16.5  |
| $f_{44}$     | 1.6084±0.0019                | 0.12±0.03        | -0.16±0.12               | 16.3  |

Frequency list of 0102742690 continued

| Frequency list of 0102742690 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{45}$                               | 0.8419±0.0019                | 0.11±0.03        | -1.48±0.12               | 16.2  |
| $f_{46}$                               | 0.2358±0.0019                | 0.10±0.03        | -0.10±0.12               | 15.9  |
| $f_{47}$                               | 0.1942±0.0019                | 0.10±0.03        | 2.45±0.12                | 15.9  |
| $f_{48}$                               | 0.1055±0.0019                | 0.12±0.03        | -2.15±0.12               | 16.0  |
| $f_{49}$                               | 1.7657±0.0019                | 0.10±0.03        | 1.92±0.12                | 15.9  |
| $f_{50}$                               | 0.3787±0.0020                | 0.07±0.02        | 1.31±0.12                | 14.9  |
| $f_{51}$                               | 0.8989±0.0020                | 0.10±0.03        | 2.67±0.12                | 14.4  |
| $f_{52}$                               | 1.0578±0.0020                | 0.09±0.02        | 0.22±0.12                | 14.8  |
| $f_{53}$                               | 0.7086±0.0020                | 0.10±0.03        | -1.69±0.12               | 14.5  |
| $f_{54}$                               | 0.9831±0.0020                | 0.10±0.03        | 1.46±0.12                | 14.6  |
| $f_{55}$                               | 2.5062±0.0020                | 0.10±0.03        | 0.29±0.12                | 14.3  |
| $f_{56}$                               | 0.6290±0.0021                | 0.09±0.02        | 0.17±0.13                | 13.8  |
| $f_{57}$                               | 1.6309±0.0021                | 0.10±0.03        | 1.19±0.13                | 13.8  |
| $f_{58}$                               | 0.1451±0.0021                | 0.09±0.02        | 0.15±0.13                | 13.4  |
| $f_{59}$                               | 0.5938±0.0021                | 0.08±0.02        | 2.36±0.13                | 13.5  |
| $f_{60}$                               | 0.5232±0.0021                | 0.08±0.02        | 3.11±0.13                | 13.0  |
| $f_{61}$                               | 0.4440±0.0021                | 0.09±0.02        | -1.24±0.13               | 13.7  |
| $f_{62}$                               | 1.0062±0.0021                | 0.08±0.02        | 1.04±0.13                | 12.7  |
| $f_{63}$                               | 0.5569±0.0022                | 0.07±0.02        | -0.52±0.13               | 12.5  |
| $f_{64}$                               | 0.6465±0.0021                | 0.08±0.02        | -2.08±0.13               | 13.3  |
| $f_{65}$                               | 1.0887±0.0021                | 0.08±0.02        | 0.36±0.13                | 13.1  |
| $f_{66}$                               | 0.3277±0.0022                | 0.09±0.03        | -2.86±0.13               | 12.1  |
| $f_{67}$                               | 0.3591±0.0022                | 0.09±0.03        | -1.14±0.14               | 11.7  |
| $f_{68}$                               | 0.9113±0.0022                | 0.08±0.02        | 0.20±0.14                | 11.9  |
| $f_{69}$                               | 0.7649±0.0023                | 0.09±0.03        | 2.68±0.14                | 11.5  |
| $f_{71}$                               | 0.9368±0.0024                | 0.09±0.03        | -0.86±0.14               | 10.4  |
| $f_{72}$                               | 0.2727±0.0024                | 0.07±0.02        | 2.59±0.15                | 10.3  |
| $f_{73}$                               | 0.1206±0.0024                | 0.08±0.02        | -2.87±0.14               | 10.5  |
| $f_{74}$                               | 2.4778±0.0024                | 0.07±0.02        | -3.03±0.15               | 10.1  |
| $f_{75}$                               | 1.2479±0.0024                | 0.07±0.02        | 0.63±0.15                | 10.1  |
| $f_{76}$                               | 1.5991±0.0024                | 0.09±0.03        | 2.63±0.15                | 10.1  |
| $f_{77}$                               | 1.7250±0.0024                | 0.07±0.02        | -2.48±0.14               | 10.4  |
| $f_{78}$                               | 1.8925±0.0024                | 0.07±0.02        | 2.83±0.15                | 10.2  |
| $f_{79}$                               | 1.1445±0.0024                | 0.07±0.02        | 2.30±0.15                | 9.9   |
| $f_{80}$                               | 0.6143±0.0024                | 0.07±0.02        | -0.42±0.15               | 9.8   |
| $f_{81}$                               | 2.5226±0.0025                | 0.07±0.02        | 2.69±0.15                | 9.4   |
| $f_{82}$                               | 2.5823±0.0026                | 0.07±0.02        | -0.44±0.16               | 8.9   |
| $f_{83}$                               | 0.9467±0.0026                | 0.07±0.02        | -0.38±0.16               | 8.9   |
| $f_{84}$                               | 0.8100±0.0026                | 0.07±0.02        | -1.15±0.16               | 8.7   |
| $f_{85}$                               | 0.6717±0.0026                | 0.07±0.02        | 0.94±0.16                | 8.7   |
| $f_{86}$                               | 0.2975±0.0026                | 0.07±0.02        | 0.44±0.16                | 8.8   |
| $f_{87}$                               | 0.8640±0.0026                | 0.07±0.02        | 0.09±0.16                | 8.3   |
| $f_{88}$                               | 3.3383±0.0026                | 0.07±0.02        | 2.80±0.16                | 8.6   |
| $f_{89}$                               | 1.8216±0.0027                | 0.06±0.02        | -1.57±0.16               | 8.0   |
| $f_{90}$                               | 0.2445±0.0027                | 0.06±0.02        | -1.35±0.16               | 8.2   |
| $f_{91}$                               | 1.4219±0.0028                | 0.08±0.03        | 1.91±0.17                | 7.7   |
| $f_{92}$                               | 1.1137±0.0027                | 0.07±0.02        | -2.35±0.16               | 8.0   |
| $f_{93}$                               | 1.9617±0.0028                | 0.06±0.02        | 2.06±0.17                | 7.5   |
| $f_{94}$                               | 0.4157±0.0028                | 0.06±0.02        | 2.98±0.17                | 7.4   |
| $f_{95}$                               | 0.3505±0.0028                | 0.06±0.02        | -0.82±0.17               | 7.3   |
| $f_{96}$                               | 1.3646±0.0029                | 0.07±0.03        | 0.09±0.17                | 7.1   |
| $f_{97}$                               | 1.5006±0.0028                | 0.06±0.02        | -1.06±0.17               | 7.3   |
| $f_{98}$                               | 1.5861±0.0028                | 0.06±0.02        | 2.82±0.17                | 7.2   |
| $f_{99}$                               | 1.4422±0.0028                | 0.07±0.03        | 0.67±0.17                | 7.3   |
| $f_{100}$                              | 2.5500±0.0029                | 0.06±0.02        | -0.36±0.18               | 6.9   |
| $f_{101}$                              | 1.0303±0.0029                | 0.06±0.02        | 0.95±0.18                | 6.8   |
| $f_{102}$                              | 1.1247±0.0029                | 0.06±0.02        | -0.28±0.17               | 7.1   |
| $f_{103}$                              | 2.1516±0.0029                | 0.06±0.02        | -1.99±0.18               | 6.9   |
| $f_{104}$                              | 0.5444±0.0030                | 0.06±0.02        | -0.96±0.18               | 6.6   |
| $f_{105}$                              | 2.3893±0.0030                | 0.06±0.02        | -1.10±0.18               | 6.4   |
| $f_{106}$                              | 2.3648±0.0030                | 0.06±0.02        | 2.29±0.18                | 6.4   |
| $f_{107}$                              | 1.6510±0.0031                | 0.05±0.02        | 2.69±0.19                | 6.1   |
| $f_{108}$                              | 0.4860±0.0031                | 0.06±0.02        | -0.04±0.19               | 6.2   |
| $f_{109}$                              | 1.3987±0.0031                | 0.06±0.02        | -0.28±0.19               | 6.2   |
| $f_{110}$                              | 1.8510±0.0031                | 0.05±0.02        | 0.47±0.19                | 6.0   |
| $f_{111}$                              | 1.2310±0.0031                | 0.05±0.02        | -1.10±0.19               | 5.9   |
| $f_{112}$                              | 1.5334±0.0032                | 0.05±0.02        | 0.53±0.19                | 5.8   |
| $f_{113}$                              | 1.9759±0.0032                | 0.05±0.02        | -0.21±0.20               | 5.7   |
| $f_{114}$                              | 0.4584±0.0032                | 0.05±0.02        | 2.68±0.20                | 5.6   |
| $f_{115}$                              | 4.2164±0.0033                | 0.05±0.02        | -0.83±0.20               | 5.5   |
| $f_{116}$                              | 0.6972±0.0032                | 0.05±0.02        | 1.40±0.20                | 5.7   |
| $f_{117}$                              | 0.5367±0.0034                | 0.05±0.02        | 0.61±0.21                | 5.1   |
| $f_{118}$                              | 1.3471±0.0034                | 0.05±0.02        | 2.32±0.21                | 5.1   |

**Table B.68:** Frequency list of 0102742767

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign.  |
|--------------|------------------------------|------------------|--------------------------|--------|
| $f_1$        | 0.3261±0.0002                | 3.08±0.09        | -2.14±0.01               | 1281.9 |
| $f_2$        | 0.4512±0.0002                | 2.38±0.08        | 2.43±0.02                | 962.9  |
| $f_3$        | 0.4162±0.0003                | 1.68±0.06        | -1.58±0.02               | 693.2  |

Frequency list of 0102742767 continued

## Appendix B. Frequencies of individual $\gamma$ Dor Stars

| Frequency list of 0102742767 continued |                              |                  |                          |       | Frequency list of 0102742767 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_4$                                  | 0.4449±0.0004                | 1.27±0.06        | 0.63±0.02                | 474.6 | $f_{87}$                               | 0.7021±0.0017                | 0.11±0.02        | -1.37±0.10               | 20.0  |
| $f_5$                                  | 0.3643±0.0004                | 1.05±0.05        | 1.48±0.02                | 413.8 | $f_{88}$                               | 0.5360±0.0017                | 0.11±0.02        | 0.20±0.10                | 20.2  |
| $f_6$                                  | 0.1260±0.0004                | 0.90±0.05        | -0.97±0.03               | 315.7 | $f_{90}$                               | 0.8325±0.0018                | 0.12±0.03        | -0.11±0.11               | 19.0  |
| $f_7$                                  | 0.7726±0.0005                | 0.76±0.05        | -0.15±0.03               | 235.5 | $f_{91}$                               | 1.2610±0.0017                | 0.11±0.03        | 2.19±0.11                | 19.1  |
| $f_8$                                  | 0.8983±0.0006                | 0.53±0.04        | 1.25±0.04                | 152.4 | $f_{93}$                               | 0.3781±0.0018                | 0.11±0.03        | -2.60±0.11               | 18.5  |
| $f_9$                                  | 0.2892±0.0007                | 0.44±0.04        | 2.78±0.04                | 121.8 | $f_{94}$                               | 0.9040±0.0018                | 0.09±0.02        | -2.56±0.11               | 17.8  |
| $f_{10}$                               | 0.4020±0.0007                | 0.46±0.04        | 2.98±0.04                | 124.8 | $f_{96}$                               | 0.8696±0.0018                | 0.10±0.02        | -0.14±0.11               | 17.6  |
| $f_{11}$                               | 0.5426±0.0007                | 0.45±0.04        | -0.24±0.04               | 111.3 | $f_{98}$                               | 1.3505±0.0018                | 0.09±0.02        | -0.93±0.11               | 17.6  |
| $f_{12}$                               | 0.8631±0.0007                | 0.45±0.04        | -0.28±0.05               | 103.9 | $f_{99}$                               | 1.0779±0.0019                | 0.09±0.02        | 2.01±0.11                | 16.9  |
| $f_{13}$                               | 0.3550±0.0008                | 0.38±0.04        | -3.03±0.05               | 99.0  | $f_{100}$                              | 0.5933±0.0019                | 0.09±0.02        | -1.78±0.11               | 16.9  |
| $f_{14}$                               | 0.6517±0.0008                | 0.36±0.04        | 1.11±0.05                | 99.0  | $f_{101}$                              | 1.2178±0.0019                | 0.10±0.02        | 2.02±0.11                | 16.7  |
| $f_{15}$                               | 0.4567±0.0008                | 0.30±0.03        | 0.00±0.05                | 99.4  | $f_{102}$                              | 0.5093±0.0019                | 0.10±0.02        | -1.44±0.12               | 16.4  |
| $f_{16}$                               | 0.3345±0.0008                | 0.32±0.03        | 0.75±0.05                | 95.8  | $f_{103}$                              | 0.6720±0.0019                | 0.09±0.02        | 2.89±0.12                | 16.0  |
| $f_{17}$                               | 0.2332±0.0008                | 0.38±0.04        | 1.05±0.05                | 82.5  | $f_{104}$                              | 1.1443±0.0019                | 0.09±0.02        | 0.22±0.12                | 16.3  |
| $f_{18}$                               | 0.1931±0.0008                | 0.34±0.04        | 0.28±0.05                | 85.4  | $f_{105}$                              | 0.1544±0.0019                | 0.10±0.03        | 0.22±0.12                | 15.5  |
| $f_{19}$                               | 0.6936±0.0008                | 0.30±0.03        | -1.00±0.05               | 83.1  | $f_{106}$                              | 0.8231±0.0020                | 0.09±0.02        | -3.09±0.12               | 14.8  |
| $f_{20}$                               | 0.8074±0.0009                | 0.35±0.04        | -1.75±0.05               | 76.3  | $f_{110}$                              | 55.8646±0.0020               | 0.10±0.03        | 2.22±0.12                | 14.8  |
| $f_{21}$                               | 0.1170±0.0009                | 0.25±0.03        | -2.98±0.05               | 74.9  | $f_{111}$                              | 1.5071±0.0020                | 0.09±0.02        | 2.84±0.12                | 14.1  |
| $f_{22}$                               | 0.5272±0.0009                | 0.29±0.03        | 0.42±0.05                | 75.7  | $f_{112}$                              | 1.2063±0.0020                | 0.08±0.02        | -2.39±0.12               | 13.9  |
| $f_{23}$                               | 0.4846±0.0008                | 0.36±0.04        | -0.81±0.05               | 84.4  | $f_{115}$                              | 1.3838±0.0021                | 0.10±0.03        | 1.10±0.13                | 13.6  |
| $f_{24}$                               | 0.2715±0.0009                | 0.29±0.03        | 0.85±0.05                | 75.7  | $f_{116}$                              | 0.4062±0.0021                | 0.09±0.02        | 3.03±0.13                | 13.7  |
| $f_{25}$                               | 0.3927±0.0009                | 0.30±0.03        | -0.21±0.05               | 78.3  | $f_{117}$                              | 0.8470±0.0021                | 0.08±0.02        | -1.53±0.13               | 13.6  |
| $f_{26}$                               | 0.7175±0.0009                | 0.24±0.03        | -0.04±0.05               | 75.7  | $f_{119}$                              | 0.7339±0.0021                | 0.09±0.03        | -3.11±0.13               | 12.9  |
| $f_{27}$                               | 0.2538±0.0009                | 0.29±0.03        | -1.45±0.05               | 71.8  | $f_{120}$                              | 0.2562±0.0022                | 0.08±0.02        | 2.05±0.13                | 12.2  |
| $f_{28}$                               | 0.7396±0.0010                | 0.27±0.04        | -0.85±0.06               | 57.9  | $f_{121}$                              | 1.1149±0.0022                | 0.08±0.02        | -2.75±0.14               | 11.9  |
| $f_{29}$                               | 0.7279±0.0010                | 0.26±0.03        | -0.65±0.06               | 55.5  | $f_{122}$                              | 1.0302±0.0022                | 0.07±0.02        | 1.55±0.14                | 11.9  |
| $f_{30}$                               | 0.3219±0.0010                | 0.23±0.03        | 1.43±0.06                | 58.3  | $f_{123}$                              | 0.3403±0.0022                | 0.09±0.03        | -0.33±0.14               | 11.6  |
| $f_{32}$                               | 0.2429±0.0010                | 0.25±0.03        | 1.85±0.06                | 58.1  | $f_{124}$                              | 0.5833±0.0023                | 0.08±0.02        | -0.58±0.14               | 11.3  |
| $f_{33}$                               | 0.9342±0.0010                | 0.26±0.03        | 0.82±0.06                | 58.6  | $f_{125}$                              | 0.3167±0.0022                | 0.08±0.02        | 1.73±0.14                | 11.6  |
| $f_{34}$                               | 0.6105±0.0010                | 0.20±0.03        | -1.48±0.06               | 53.8  | $f_{126}$                              | 0.8947±0.0023                | 0.07±0.02        | 0.15±0.14                | 11.5  |
| $f_{35}$                               | 1.0217±0.0010                | 0.21±0.03        | -1.22±0.06               | 53.7  | $f_{127}$                              | 0.9794±0.0023                | 0.08±0.02        | -1.37±0.14               | 11.3  |
| $f_{36}$                               | 0.2090±0.0011                | 0.23±0.03        | 0.33±0.07                | 48.4  | $f_{128}$                              | 0.7114±0.0023                | 0.08±0.02        | 0.44±0.14                | 11.2  |
| $f_{38}$                               | 0.5168±0.0011                | 0.22±0.03        | 2.31±0.07                | 46.9  | $f_{129}$                              | 1.4325±0.0023                | 0.08±0.02        | 1.50±0.14                | 11.2  |
| $f_{39}$                               | 1.1904±0.0011                | 0.24±0.04        | -1.27±0.07               | 46.8  | $f_{130}$                              | 2.0029±0.0023                | 0.12±0.04        | -2.38±0.14               | 11.0  |
| $f_{40}$                               | 1.2248±0.0011                | 0.21±0.03        | -2.43±0.07               | 49.3  | $f_{131}$                              | 0.6336±0.0023                | 0.07±0.02        | -0.14±0.14               | 10.8  |
| $f_{41}$                               | 0.4319±0.0011                | 0.18±0.03        | -0.10±0.07               | 44.8  | $f_{134}$                              | 1.1732±0.0025                | 0.07±0.02        | -1.86±0.15               | 9.2   |
| $f_{42}$                               | 1.0609±0.0011                | 0.21±0.03        | 2.21±0.07                | 45.1  | $f_{135}$                              | 0.9219±0.0026                | 0.08±0.03        | -0.33±0.16               | 8.9   |
| $f_{43}$                               | 0.7774±0.0011                | 0.15±0.02        | -1.39±0.07               | 46.4  | $f_{138}$                              | 1.7030±0.0026                | 0.07±0.02        | 1.95±0.16                | 8.6   |
| $f_{45}$                               | 0.6433±0.0012                | 0.18±0.03        | -1.50±0.07               | 43.5  | $f_{140}$                              | 1.3392±0.0026                | 0.06±0.02        | -3.11±0.16               | 8.6   |
| $f_{46}$                               | 0.3712±0.0012                | 0.19±0.03        | 1.27±0.07                | 41.5  | $f_{141}$                              | 1.3717±0.0026                | 0.07±0.02        | -0.31±0.16               | 8.3   |
| $f_{47}$                               | 1.0977±0.0012                | 0.20±0.03        | 0.69±0.07                | 40.9  | $f_{142}$                              | 1.0646±0.0027                | 0.07±0.02        | -0.74±0.16               | 8.2   |
| $f_{49}$                               | 0.8536±0.0012                | 0.13±0.02        | 2.76±0.07                | 39.2  | $f_{143}$                              | 1.7608±0.0027                | 0.06±0.02        | -0.94±0.16               | 8.2   |
| $f_{50}$                               | 0.2001±0.0012                | 0.17±0.03        | 0.85±0.07                | 38.9  | $f_{146}$                              | 1.8913±0.0027                | 0.06±0.02        | 0.54±0.16                | 8.1   |
| $f_{51}$                               | 0.6793±0.0013                | 0.17±0.03        | 1.83±0.08                | 37.2  | $f_{147}$                              | 1.4835±0.0027                | 0.07±0.02        | 0.40±0.16                | 8.1   |
| $f_{52}$                               | 0.7472±0.0013                | 0.15±0.02        | -0.77±0.08               | 36.3  | $f_{148}$                              | 55.8544±0.0027               | 0.06±0.02        | -1.39±0.16               | 8.1   |
| $f_{53}$                               | 0.3490±0.0013                | 0.16±0.03        | -1.29±0.08               | 36.0  | $f_{149}$                              | 1.2446±0.0027                | 0.07±0.02        | 2.66±0.16                | 8.0   |
| $f_{54}$                               | 0.2628±0.0013                | 0.17±0.03        | 0.55±0.08                | 35.7  | $f_{150}$                              | 0.4163±0.0027                | 0.07±0.02        | -1.75±0.16               | 8.0   |
| $f_{55}$                               | 0.6173±0.0013                | 0.15±0.03        | 1.49±0.08                | 35.2  | $f_{151}$                              | 0.9968±0.0027                | 0.07±0.03        | 2.86±0.17                | 7.8   |
| $f_{56}$                               | 0.1401±0.0013                | 0.16±0.03        | 0.93±0.08                | 35.1  | $f_{152}$                              | 0.6249±0.0027                | 0.06±0.02        | 2.85±0.17                | 7.9   |
| $f_{57}$                               | 0.4921±0.0013                | 0.16±0.03        | 1.92±0.08                | 35.5  | $f_{154}$                              | 0.9406±0.0028                | 0.06±0.02        | 1.63±0.17                | 7.6   |
| $f_{58}$                               | 1.3140±0.0013                | 0.16±0.03        | 0.38±0.08                | 34.8  | $f_{155}$                              | 1.9631±0.0028                | 0.06±0.02        | 1.13±0.17                | 7.6   |
| $f_{59}$                               | 0.8803±0.0013                | 0.16±0.03        | -2.34±0.08               | 35.9  | $f_{156}$                              | 1.6361±0.0028                | 0.06±0.02        | 2.36±0.17                | 7.6   |
| $f_{60}$                               | 0.2968±0.0013                | 0.14±0.02        | 2.46±0.08                | 33.5  | $f_{157}$                              | 1.8342±0.0028                | 0.06±0.02        | -2.50±0.17               | 7.5   |
| $f_{61}$                               | 0.5626±0.0013                | 0.20±0.03        | -1.36±0.08               | 32.8  | $f_{158}$                              | 13.9506±0.0028               | 0.06±0.02        | 0.92±0.17                | 7.5   |
| $f_{62}$                               | 0.5729±0.0012                | 0.18±0.03        | -0.33±0.07               | 41.1  | $f_{159}$                              | 1.4238±0.0028                | 0.06±0.02        | -0.58±0.17               | 7.4   |
| $f_{63}$                               | 0.5488±0.0013                | 0.16±0.03        | -2.26±0.08               | 33.2  | $f_{160}$                              | 0.4772±0.0028                | 0.06±0.02        | -3.05±0.17               | 7.6   |
| $f_{64}$                               | 0.4692±0.0013                | 0.16±0.03        | -0.05±0.08               | 32.4  | $f_{161}$                              | 1.4042±0.0028                | 0.05±0.02        | 1.23±0.17                | 7.5   |
| $f_{65}$                               | 0.3869±0.0014                | 0.15±0.03        | -1.71±0.08               | 31.6  | $f_{162}$                              | 0.2767±0.0030                | 0.06±0.02        | 0.37±0.18                | 6.6   |
| $f_{66}$                               | 0.1714±0.0014                | 0.16±0.03        | 1.04±0.08                | 30.9  | $f_{163}$                              | 0.8151±0.0029                | 0.06±0.02        | -1.94±0.18               | 6.7   |
| $f_{67}$                               | 0.8411±0.0014                | 0.16±0.03        | 2.39±0.08                | 30.1  | $f_{164}$                              | 1.6099±0.0030                | 0.05±0.02        | 2.25±0.18                | 6.4   |
| $f_{68}$                               | 1.0425±0.0014                | 0.12±0.02        | 0.15±0.08                | 30.9  | $f_{165}$                              | 2.0882±0.0030                | 0.06±0.02        | -2.06±0.19               | 6.3   |
| $f_{69}$                               | 0.6869±0.0014                | 0.13±0.02        | -0.79±0.08               | 30.5  | $f_{166}$                              | 1.4420±0.0031                | 0.05±0.02        | -0.98±0.19               | 6.2   |
| $f_{70}$                               | 0.9710±0.0014                | 0.13±0.02        | -0.90±0.09               | 28.4  | $f_{167}$                              | 0.4258±0.0031                | 0.06±0.02        | -2.62±0.19               | 6.1   |
| $f_{72}$                               | 0.7674±0.0014                | 0.15±0.03        | -0.61±0.09               | 28.0  | $f_{169}$                              | 41.8825±0.0032               | 0.05±0.02        | -0.99±0.20               | 5.6   |
| $f_{73}$                               | 0.7226±0.0015                | 0.10±0.02        | 2.04±0.09                | 27.6  | $f_{175}$                              | 2.0288±0.0032                | 0.05±0.02        | 2.43±0.19                | 5.8   |
| $f_{74}$                               | 0.2178±0.0015                | 0.14±0.03        | -1.78±0.09               | 27.2  | $f_{176}$                              | 1.2807±0.0032                | 0.06±0.03        | 2.37±0.20                | 5.6   |
| $f_{75}$                               | 1.3329±0.0015                | 0.13±0.02        | 2.30±0.09                | 27.3  | $f_{177}$                              | 0.9571±0.0032                | 0.05±0.02        | 1.75±0.20                | 5.6   |
| $f_{76}$                               | 1.1356±0.0015                | 0.15±0.03        | -0.27±0.09               | 26.4  | $f_{178}$                              | 1.6961±0.0033                | 0.05±0.02        | -1.04±0.20               | 5.5   |
| $f_{77}$                               | 0.1064±0.0015                | 0.13±0.03        | -1.61±0.09               | 26.9  | $f_{179}$                              | 1.5697±0.0033                | 0.05±0.02        | -2.86±0.20               | 5.5   |
| $f_{78}$                               | 1.1815±0.0015                | 0.12±0.02        | -1.64±0.09               | 25.9  | $f_{181}$                              | 1.2998±0.0033                | 0.05±0.02        | 3.05±0.20                | 5.4   |
| $f_{79}$                               | 0.8008±0.0015                | 0.14±0.03        | 0.91±0.09                | 25.3  | $f_{183}$                              | 1.5152±0.0033                | 0.05±0.02        | -0.05±0.20               | 5.5   |
| $f_{80}$                               | 0.1624±0.0015                | 0.12±0.02        | 0.19±0.09                | 25.2  | $f_{185}$                              | 1.3910±0.0033                | 0.05±0.02        | -1.48±0.20               | 5.4   |
| $f_{81}$                               | 1.0074±0.0016                | 0.10±0.02        | 0.20±0.10                | 23.7  | $f_{186}$                              | 1.5774±0.0033                | 0.05±0.02        | 1.86±0.20                | 5.2   |
| $f_{83}$                               | 0.9890±0.0016                | 0.14±0.03        | -0.21±0.10               | 23.8  |                                        |                              |                  |                          |       |
| $f_{84}$                               | 0.9486±0.0017                | 0.11±0.02        | -1.95±0.10               | 21.2  |                                        |                              |                  |                          |       |
| $f_{86}$                               | 1.1529±0.0017                | 0.11±0.02        | 0.24±0.10                | 20.4  |                                        |                              |                  |                          |       |

**Table B.69:** Frequency list of 0102743567

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign.  |
|--------------|------------------------------|------------------|--------------------------|--------|
| $f_1$        | 1.2025±0.0002                | 11.46±0.28       | 2.22±0.01                | 1650.9 |
| $f_2$        | 1.2369±0.0002                | 7.47±0.23        | 1.66±0.01                | 1023.4 |
| $f_3$        | 1.2674±0.0002                | 6.72±0.20        | -1.43±0.01               | 1135.1 |

Frequency list of 0102743567 continued

## Appendix B. Frequencies of individual $\gamma$ Dor Stars

| Frequency list of 0102743567 continued |                              |                  |                          |       | Frequency list of 0102743567 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_4$                                  | 1.2490±0.0003                | 4.42±0.18        | -0.68±0.02               | 571.9 | $f_{80}$                               | 2.3297±0.0011                | 0.47±0.07        | -2.51±0.06               | 51.8  |
| $f_5$                                  | 1.2278±0.0004                | 2.68±0.15        | -1.40±0.03               | 315.3 | $f_{81}$                               | 1.2123±0.0010                | 0.42±0.06        | -0.67±0.06               | 53.4  |
| $f_6$                                  | 1.1956±0.0004                | 2.54±0.14        | -0.47±0.03               | 321.1 | $f_{82}$                               | 2.3033±0.0011                | 0.35±0.05        | -2.61±0.07               | 51.1  |
| $f_7$                                  | 1.2782±0.0004                | 2.72±0.15        | 1.86±0.03                | 328.8 | $f_{83}$                               | 2.3676±0.0011                | 0.39±0.05        | -2.62±0.07               | 51.2  |
| $f_8$                                  | 1.1360±0.0005                | 2.56±0.17        | 2.92±0.03                | 224.4 | $f_{84}$                               | 2.2078±0.0010                | 0.34±0.05        | -2.54±0.06               | 53.0  |
| $f_9$                                  | 1.3309±0.0005                | 2.14±0.14        | -0.23±0.03               | 223.4 | $f_{85}$                               | 1.2798±0.0011                | 0.37±0.05        | -1.82±0.07               | 50.9  |
| $f_{10}$                               | 1.1483±0.0005                | 1.91±0.13        | 1.16±0.03                | 224.0 | $f_{86}$                               | 1.3374±0.0011                | 0.37±0.05        | 0.58±0.07                | 50.4  |
| $f_{11}$                               | 1.1218±0.0005                | 2.32±0.16        | -0.39±0.03               | 214.1 | $f_{87}$                               | 0.9667±0.0011                | 0.35±0.05        | -3.01±0.07               | 49.2  |
| $f_{12}$                               | 1.1100±0.0004                | 2.36±0.14        | 2.50±0.03                | 299.7 | $f_{89}$                               | 1.1398±0.0011                | 0.38±0.05        | 1.40±0.06                | 51.8  |
| $f_{13}$                               | 1.3855±0.0005                | 1.79±0.12        | -1.19±0.03               | 237.0 | $f_{90}$                               | 0.2252±0.0011                | 0.42±0.06        | 0.94±0.07                | 49.8  |
| $f_{14}$                               | 1.1825±0.0005                | 1.85±0.13        | 0.51±0.03                | 215.7 | $f_{92}$                               | 2.2343±0.0011                | 0.28±0.04        | 2.00±0.07                | 51.2  |
| $f_{15}$                               | 2.4038±0.0005                | 1.61±0.11        | -0.50±0.03               | 210.7 | $f_{93}$                               | 2.5948±0.0011                | 0.35±0.05        | -0.33±0.07               | 50.2  |
| $f_{16}$                               | 1.2883±0.0006                | 1.23±0.09        | 2.81±0.04                | 174.7 | $f_{94}$                               | 1.4359±0.0011                | 0.34±0.05        | -0.43±0.07               | 51.2  |
| $f_{17}$                               | 1.3449±0.0006                | 1.45±0.10        | -1.22±0.03               | 191.2 | $f_{95}$                               | 1.4122±0.0011                | 0.33±0.05        | -0.73±0.07               | 47.2  |
| $f_{18}$                               | 1.1618±0.0006                | 1.52±0.12        | 0.25±0.04                | 166.6 | $f_{96}$                               | 2.6093±0.0011                | 0.36±0.05        | 0.42±0.07                | 49.0  |
| $f_{19}$                               | 1.0762±0.0006                | 1.50±0.12        | -2.34±0.04               | 163.6 | $f_{97}$                               | 2.6200±0.0011                | 0.34±0.05        | 2.28±0.07                | 51.2  |
| $f_{20}$                               | 1.2589±0.0006                | 1.25±0.10        | 0.20±0.04                | 150.4 | $f_{98}$                               | 2.4767±0.0011                | 0.33±0.05        | 2.42±0.07                | 44.9  |
| $f_{21}$                               | 1.1715±0.0006                | 1.10±0.09        | 1.30±0.04                | 142.6 | $f_{99}$                               | 2.2594±0.0012                | 0.28±0.04        | -2.55±0.07               | 43.1  |
| $f_{22}$                               | 1.0856±0.0007                | 1.14±0.10        | -1.74±0.04               | 131.5 | $f_{101}$                              | 1.3725±0.0012                | 0.36±0.06        | 0.92±0.07                | 42.3  |
| $f_{23}$                               | 2.4515±0.0007                | 0.91±0.08        | -1.04±0.04               | 124.4 | $f_{102}$                              | 1.1956±0.0012                | 0.27±0.04        | 1.10±0.07                | 42.4  |
| $f_{24}$                               | 0.2449±0.0007                | 1.03±0.09        | 2.00±0.04                | 122.3 | $f_{103}$                              | 1.4755±0.0012                | 0.22±0.03        | 1.19±0.07                | 41.3  |
| $f_{25}$                               | 1.3138±0.0007                | 1.10±0.10        | -2.07±0.04               | 119.3 | $f_{104}$                              | 2.2209±0.0012                | 0.28±0.04        | -2.34±0.07               | 40.1  |
| $f_{26}$                               | 0.1443±0.0007                | 1.30±0.12        | 1.94±0.04                | 126.9 | $f_{105}$                              | 0.2733±0.0012                | 0.26±0.04        | 0.07±0.07                | 39.9  |
| $f_{27}$                               | 2.4699±0.0007                | 0.99±0.10        | -1.35±0.05               | 104.9 | $f_{106}$                              | 1.5437±0.0012                | 0.27±0.04        | 2.01±0.07                | 39.9  |
| $f_{28}$                               | 0.9584±0.0007                | 0.85±0.08        | -0.60±0.05               | 105.8 | $f_{107}$                              | 0.6117±0.0012                | 0.29±0.05        | 1.87±0.07                | 40.0  |
| $f_{29}$                               | 1.0586±0.0008                | 0.98±0.10        | -1.61±0.05               | 95.2  | $f_{108}$                              | 0.3238±0.0012                | 0.32±0.05        | -1.44±0.07               | 40.7  |
| $f_{30}$                               | 1.0483±0.0007                | 0.89±0.08        | -1.32±0.04               | 112.0 | $f_{109}$                              | 2.2892±0.0012                | 0.32±0.05        | -1.46±0.07               | 40.2  |
| $f_{31}$                               | 1.3015±0.0008                | 0.93±0.10        | 2.62±0.05                | 95.3  | $f_{110}$                              | 2.1228±0.0012                | 0.30±0.05        | -0.71±0.07               | 40.0  |
| $f_{32}$                               | 1.3597±0.0007                | 0.81±0.08        | -2.72±0.05               | 105.2 | $f_{111}$                              | 0.9305±0.0012                | 0.24±0.04        | 2.65±0.07                | 40.1  |
| $f_{33}$                               | 0.1311±0.0008                | 0.97±0.10        | -0.56±0.05               | 100.6 | $f_{112}$                              | 2.1437±0.0012                | 0.29±0.05        | 1.85±0.07                | 40.0  |
| $f_{34}$                               | 0.1575±0.0008                | 0.88±0.09        | -1.35±0.05               | 97.8  | $f_{114}$                              | 0.8747±0.0012                | 0.31±0.05        | 2.92±0.08                | 38.4  |
| $f_{35}$                               | 2.5052±0.0008                | 0.76±0.08        | 1.33±0.05                | 92.2  | $f_{115}$                              | 2.3399±0.0012                | 0.28±0.04        | -2.73±0.07               | 39.1  |
| $f_{36}$                               | 0.2155±0.0008                | 0.78±0.08        | 0.13±0.05                | 87.7  | $f_{116}$                              | 0.8885±0.0013                | 0.27±0.04        | -2.56±0.08               | 36.6  |
| $f_{37}$                               | 1.3226±0.0008                | 0.67±0.07        | 3.14±0.05                | 82.0  | $f_{117}$                              | 2.1705±0.0013                | 0.27±0.04        | 1.96±0.08                | 36.3  |
| $f_{38}$                               | 1.2078±0.0009                | 0.61±0.07        | -3.12±0.05               | 80.1  | $f_{118}$                              | 0.3005±0.0013                | 0.30±0.05        | -1.14±0.08               | 36.8  |
| $f_{39}$                               | 2.5333±0.0009                | 0.76±0.09        | -2.13±0.05               | 78.4  | $f_{119}$                              | 0.1469±0.0013                | 0.29±0.05        | 0.76±0.08                | 37.0  |
| $f_{40}$                               | 1.2392±0.0008                | 0.59±0.06        | 2.85±0.05                | 82.4  | $f_{120}$                              | 2.3738±0.0013                | 0.26±0.04        | 2.22±0.08                | 35.9  |
| $f_{41}$                               | 2.3167±0.0008                | 0.79±0.09        | -1.14±0.05               | 81.4  | $f_{121}$                              | 2.0065±0.0013                | 0.70±0.12        | 1.78±0.08                | 33.8  |
| $f_{42}$                               | 0.9890±0.0008                | 0.71±0.08        | -1.52±0.05               | 84.4  | $f_{122}$                              | 1.2620±0.0013                | 0.35±0.06        | 1.70±0.08                | 35.4  |
| $f_{43}$                               | 0.6029±0.0008                | 0.67±0.07        | -2.45±0.05               | 85.4  | $f_{123}$                              | 3.5212±0.0013                | 0.31±0.05        | 2.47±0.08                | 33.4  |
| $f_{44}$                               | 0.1850±0.0008                | 0.74±0.08        | -1.19±0.05               | 82.3  | $f_{124}$                              | 0.2350±0.0013                | 0.23±0.04        | -0.90±0.08               | 33.0  |
| $f_{45}$                               | 2.3962±0.0008                | 0.61±0.07        | 2.80±0.05                | 82.2  | $f_{125}$                              | 1.6329±0.0013                | 0.24±0.04        | 1.87±0.08                | 33.4  |
| $f_{46}$                               | 1.4202±0.0008                | 0.72±0.08        | 2.67±0.05                | 84.2  | $f_{126}$                              | 1.5297±0.0013                | 0.20±0.03        | -0.98±0.08               | 33.2  |
| $f_{47}$                               | 1.1540±0.0008                | 0.63±0.07        | 1.00±0.05                | 82.9  | $f_{127}$                              | 0.8646±0.0013                | 0.23±0.04        | 0.25±0.08                | 33.2  |
| $f_{48}$                               | 2.4284±0.0009                | 0.44±0.05        | -1.70±0.05               | 77.3  | $f_{128}$                              | 0.5879±0.0013                | 0.22±0.04        | 2.23±0.08                | 32.6  |
| $f_{49}$                               | 1.4041±0.0009                | 0.64±0.07        | 0.36±0.05                | 77.6  | $f_{130}$                              | 0.9786±0.0014                | 0.25±0.04        | 2.81±0.08                | 31.8  |
| $f_{50}$                               | 0.1233±0.0009                | 0.66±0.07        | -0.48±0.05               | 78.3  | $f_{131}$                              | 0.2893±0.0013                | 0.24±0.04        | -0.24±0.08               | 32.2  |
| $f_{51}$                               | 0.1966±0.0009                | 0.58±0.07        | 3.06±0.05                | 73.1  | $f_{132}$                              | 3.5551±0.0013                | 0.22±0.04        | -1.59±0.08               | 34.1  |
| $f_{52}$                               | 1.2491±0.0009                | 0.86±0.10        | 0.98±0.06                | 68.6  | $f_{133}$                              | 2.2429±0.0014                | 0.17±0.03        | 0.24±0.08                | 31.4  |
| $f_{53}$                               | 1.0202±0.0009                | 0.50±0.06        | -0.48±0.06               | 68.1  | $f_{134}$                              | 1.5060±0.0014                | 0.22±0.04        | -2.46±0.08               | 31.0  |
| $f_{54}$                               | 2.5661±0.0009                | 0.58±0.07        | -0.59±0.06               | 67.0  | $f_{135}$                              | 2.6872±0.0014                | 0.21±0.04        | 2.84±0.08                | 30.7  |
| $f_{55}$                               | 1.1020±0.0009                | 0.54±0.07        | -0.13±0.06               | 68.7  | $f_{136}$                              | 1.0657±0.0014                | 0.19±0.03        | 1.84±0.08                | 30.1  |
| $f_{56}$                               | 2.3855±0.0009                | 0.60±0.07        | 2.66±0.06                | 69.0  | $f_{137}$                              | 1.4619±0.0014                | 0.25±0.05        | -0.78±0.09               | 29.3  |
| $f_{57}$                               | 0.1685±0.0009                | 0.59±0.07        | -0.31±0.06               | 67.8  | $f_{138}$                              | 0.3402±0.0014                | 0.19±0.04        | 2.03±0.09                | 28.5  |
| $f_{58}$                               | 2.5479±0.0009                | 0.53±0.07        | 2.05±0.06                | 65.8  | $f_{139}$                              | 1.1257±0.0014                | 0.23±0.04        | -3.00±0.09               | 28.0  |
| $f_{59}$                               | 2.1598±0.0009                | 0.52±0.06        | 2.86±0.06                | 64.7  | $f_{140}$                              | 1.5795±0.0014                | 0.19±0.03        | 1.10±0.09                | 29.5  |
| $f_{60}$                               | 1.1892±0.0009                | 0.51±0.06        | -0.78±0.06               | 65.0  | $f_{145}$                              | 2.1857±0.0015                | 0.14±0.03        | 2.71±0.09                | 27.4  |
| $f_{61}$                               | 2.4382±0.0010                | 0.52±0.07        | -1.56±0.06               | 62.7  | $f_{146}$                              | 1.3086±0.0015                | 0.22±0.04        | 0.54±0.09                | 26.8  |
| $f_{62}$                               | 0.9504±0.0009                | 0.51±0.06        | 0.67±0.06                | 65.1  | $f_{153}$                              | 0.3120±0.0014                | 0.22±0.04        | 2.16±0.09                | 28.5  |
| $f_{63}$                               | 2.4601±0.0009                | 0.51±0.06        | 0.15±0.06                | 65.3  | $f_{154}$                              | 2.0782±0.0014                | 0.18±0.03        | 1.78±0.09                | 29.2  |
| $f_{64}$                               | 1.4299±0.0010                | 0.50±0.06        | -2.20±0.06               | 63.7  | $f_{155}$                              | 0.9146±0.0014                | 0.17±0.03        | 1.74±0.09                | 29.4  |
| $f_{65}$                               | 1.0943±0.0010                | 0.47±0.06        | -1.42±0.06               | 64.5  | $f_{156}$                              | 0.4870±0.0015                | 0.20±0.04        | -1.27±0.09               | 27.7  |
| $f_{66}$                               | 0.1101±0.0010                | 0.51±0.06        | 0.48±0.06                | 64.4  | $f_{157}$                              | 1.9959±0.0014                | 0.21±0.04        | -0.61±0.09               | 29.1  |
| $f_{67}$                               | 1.0021±0.0009                | 0.47±0.06        | 1.76±0.06                | 66.6  | $f_{158}$                              | 1.6227±0.0015                | 0.19±0.04        | -1.89±0.09               | 27.5  |
| $f_{68}$                               | 2.1532±0.0010                | 0.42±0.05        | -0.74±0.06               | 61.3  | $f_{159}$                              | 3.4914±0.0015                | 0.16±0.03        | 0.33±0.09                | 27.5  |
| $f_{69}$                               | 2.5186±0.0010                | 0.46±0.06        | -2.55±0.06               | 60.0  | $f_{160}$                              | 1.0093±0.0015                | 0.22±0.04        | -2.77±0.09               | 26.7  |
| $f_{70}$                               | 1.0412±0.0010                | 0.42±0.05        | 1.99±0.06                | 60.5  | $f_{162}$                              | 2.2703±0.0015                | 0.20±0.04        | 2.97±0.09                | 26.6  |
| $f_{71}$                               | 1.2202±0.0010                | 0.42±0.05        | 0.49±0.06                | 59.4  | $f_{163}$                              | 0.5287±0.0015                | 0.18±0.03        | 0.76±0.09                | 26.8  |
| $f_{72}$                               | 2.4161±0.0010                | 0.52±0.07        | -2.38±0.06               | 61.9  | $f_{164}$                              | 3.3602±0.0015                | 0.17±0.03        | 1.19±0.09                | 26.7  |
| $f_{73}$                               | 2.1910±0.0010                | 0.43±0.06        | 0.74±0.06                | 60.0  | $f_{165}$                              | 2.5020±0.0015                | 0.20±0.04        | -0.12±0.09               | 26.1  |
| $f_{74}$                               | 2.6524±0.0010                | 0.46±0.06        | 3.02±0.06                | 58.3  | $f_{166}$                              | 3.4202±0.0015                | 0.20±0.04        | 0.76±0.09                | 25.2  |
| $f_{75}$                               | 1.4499±0.0010                | 0.38±0.05        | -2.52±0.06               | 59.5  | $f_{167}$                              | 3.4104±0.0015                | 0.20±0.04        | -1.94±0.09               | 26.0  |
| $f_{76}$                               | 0.5953±0.0010                | 0.43±0.06        | -0.62±0.06               | 60.0  | $f_{168}$                              | 1.2307±0.0015                | 0.15±0.03        | -0.15±0.09               | 25.1  |
| $f_{77}$                               | 2.3504±0.0010                | 0.40±0.05        | -2.72±0.06               | 57.0  | $f_{169}$                              | 0.8287±0.0015                | 0.15±0.03        | 0.23±0.09                | 26.0  |
| $f_{78}$                               | 2.5873±0.0010                | 0.39±0.05        | -2.02±0.06               | 57.9  | $f_{170}$                              | 0.3742±0.0015                | 0.20±0.04        | -1.19±0.09               | 24.4  |
| $f_{79}$                               | 2.4937±0.0011                | 0.41±0.06        | -2.36±0.06               | 51.5  | $f_{171}$                              | 2.4449±0.0015                | 0.18±0.04        | -2.68±0.09               | 25.9  |
| Frequency list of 0102743567 continued |                              |                  |                          |       | Frequency list of 0102743567 continued |                              |                  |                          |       |



## Appendix B. Frequencies of individual $\gamma$ Dor Stars

| Frequency list of 0102743567 continued |                              |                  |                          |       | Frequency list of 0102743567 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| <i>f</i> <sub>172</sub>                | 1.3935±0.0016                | 0.19±0.04        | 0.86±0.09                | 24.2  | <i>f</i> <sub>256</sub>                | 1.2942±0.0020                | 0.10±0.03        | 2.31±0.12                | 14.3  |
| <i>f</i> <sub>173</sub>                | 0.6356±0.0015                | 0.16±0.03        | -2.92±0.09               | 25.1  | <i>f</i> <sub>257</sub>                | 3.4505±0.0020                | 0.12±0.03        | 2.01±0.12                | 14.0  |
| <i>f</i> <sub>174</sub>                | 2.1078±0.0016                | 0.21±0.04        | 1.81±0.09                | 24.1  | <i>f</i> <sub>258</sub>                | 1.7052±0.0020                | 0.10±0.03        | 0.06±0.12                | 14.4  |
| <i>f</i> <sub>175</sub>                | 1.9832±0.0015                | 0.19±0.04        | 1.05±0.09                | 24.3  | <i>f</i> <sub>262</sub>                | 2.7315±0.0020                | 0.11±0.03        | -1.39±0.12               | 14.3  |
| <i>f</i> <sub>177</sub>                | 0.4010±0.0016                | 0.19±0.04        | -0.01±0.10               | 24.0  | <i>f</i> <sub>263</sub>                | 3.5323±0.0021                | 0.13±0.03        | -0.40±0.13               | 13.8  |
| <i>f</i> <sub>178</sub>                | 2.5421±0.0015                | 0.16±0.03        | -0.75±0.09               | 24.6  | <i>f</i> <sub>264</sub>                | 0.7661±0.0021                | 0.10±0.03        | -1.14±0.13               | 13.6  |
| <i>f</i> <sub>179</sub>                | 3.3921±0.0016                | 0.21±0.04        | -0.29±0.10               | 23.8  | <i>f</i> <sub>265</sub>                | 3.2647±0.0020                | 0.11±0.03        | 2.89±0.12                | 14.0  |
| <i>f</i> <sub>180</sub>                | 2.1987±0.0015                | 0.18±0.04        | -2.16±0.09               | 24.3  | <i>f</i> <sub>266</sub>                | 3.3077±0.0021                | 0.09±0.02        | -1.34±0.13               | 13.8  |
| <i>f</i> <sub>181</sub>                | 0.6663±0.0016                | 0.18±0.04        | -1.75±0.09               | 24.1  | <i>f</i> <sub>267</sub>                | 0.7827±0.0020                | 0.12±0.03        | -0.59±0.12               | 13.9  |
| <i>f</i> <sub>182</sub>                | 3.4624±0.0016                | 0.20±0.04        | 0.00±0.10                | 22.8  | <i>f</i> <sub>268</sub>                | 1.7317±0.0021                | 0.10±0.03        | -1.48±0.13               | 13.8  |
| <i>f</i> <sub>183</sub>                | 3.4274±0.0015                | 0.18±0.04        | 1.46±0.09                | 25.7  | <i>f</i> <sub>269</sub>                | 0.6523±0.0021                | 0.11±0.03        | -2.67±0.13               | 13.8  |
| <i>f</i> <sub>184</sub>                | 0.1999±0.0016                | 0.14±0.03        | 2.38±0.10                | 23.6  | <i>f</i> <sub>270</sub>                | 1.2234±0.0020                | 0.15±0.04        | -2.34±0.12               | 14.0  |
| <i>f</i> <sub>185</sub>                | 0.2590±0.0016                | 0.18±0.04        | -2.38±0.10               | 24.0  | <i>f</i> <sub>271</sub>                | 2.9867±0.0021                | 0.11±0.03        | -3.00±0.13               | 13.4  |
| <i>f</i> <sub>186</sub>                | 1.0274±0.0016                | 0.18±0.04        | -2.45±0.10               | 23.1  | <i>f</i> <sub>272</sub>                | 1.8150±0.0021                | 0.10±0.03        | -2.42±0.13               | 13.0  |
| <i>f</i> <sub>187</sub>                | 3.6082±0.0016                | 0.20±0.04        | 0.66±0.10                | 22.9  | <i>f</i> <sub>273</sub>                | 3.3413±0.0021                | 0.11±0.03        | 0.38±0.13                | 13.2  |
| <i>f</i> <sub>188</sub>                | 1.6554±0.0016                | 0.17±0.04        | 1.16±0.10                | 21.8  | <i>f</i> <sub>274</sub>                | 2.5265±0.0021                | 0.10±0.03        | 2.21±0.13                | 13.0  |
| <i>f</i> <sub>189</sub>                | 0.8807±0.0017                | 0.17±0.04        | 1.23±0.10                | 21.2  | <i>f</i> <sub>275</sub>                | 2.4835±0.0021                | 0.11±0.03        | -0.63±0.13               | 12.9  |
| <i>f</i> <sub>190</sub>                | 0.9015±0.0016                | 0.18±0.04        | 2.41±0.10                | 21.8  | <i>f</i> <sub>276</sub>                | 4.5756±0.0021                | 0.08±0.02        | 1.39±0.13                | 13.1  |
| <i>f</i> <sub>191</sub>                | 3.4789±0.0016                | 0.17±0.04        | 1.64±0.10                | 21.6  | <i>f</i> <sub>277</sub>                | 0.9903±0.0021                | 0.10±0.03        | -1.31±0.13               | 12.9  |
| <i>f</i> <sub>192</sub>                | 3.5460±0.0017                | 0.16±0.03        | 0.12±0.10                | 20.9  | <i>f</i> <sub>278</sub>                | 1.4692±0.0021                | 0.09±0.03        | 0.46±0.13                | 12.8  |
| <i>f</i> <sub>193</sub>                | 3.2800±0.0016                | 0.16±0.03        | -0.17±0.10               | 21.5  | <i>f</i> <sub>279</sub>                | 0.2671±0.0021                | 0.09±0.02        | 1.62±0.13                | 13.0  |
| <i>f</i> <sub>194</sub>                | 3.6815±0.0017                | 0.19±0.04        | 0.03±0.10                | 20.9  | <i>f</i> <sub>280</sub>                | 2.1732±0.0021                | 0.11±0.03        | 2.77±0.13                | 13.0  |
| <i>f</i> <sub>195</sub>                | 1.4980±0.0017                | 0.12±0.03        | -0.20±0.10               | 20.6  | <i>f</i> <sub>282</sub>                | 2.2562±0.0021                | 0.13±0.04        | 2.60±0.13                | 12.7  |
| <i>f</i> <sub>196</sub>                | 2.6609±0.0017                | 0.14±0.03        | 1.87±0.10                | 21.3  | <i>f</i> <sub>283</sub>                | 0.8370±0.0022                | 0.10±0.03        | -0.16±0.13               | 12.5  |
| <i>f</i> <sub>197</sub>                | 2.0697±0.0017                | 0.15±0.03        | -1.30±0.10               | 20.5  | <i>f</i> <sub>284</sub>                | 0.1899±0.0021                | 0.11±0.03        | -1.05±0.13               | 12.7  |
| <i>f</i> <sub>198</sub>                | 0.2815±0.0017                | 0.17±0.04        | 2.71±0.10                | 20.5  | <i>f</i> <sub>285</sub>                | 0.5610±0.0021                | 0.09±0.03        | -2.92±0.13               | 12.7  |
| <i>f</i> <sub>199</sub>                | 3.5850±0.0017                | 0.17±0.04        | -2.61±0.10               | 20.1  | <i>f</i> <sub>286</sub>                | 2.9085±0.0022                | 0.10±0.03        | 0.98±0.13                | 12.3  |
| <i>f</i> <sub>200</sub>                | 0.8113±0.0017                | 0.18±0.04        | 2.72±0.11                | 19.5  | <i>f</i> <sub>287</sub>                | 2.6009±0.0022                | 0.10±0.03        | -0.26±0.13               | 12.4  |
| <i>f</i> <sub>201</sub>                | 2.1651±0.0017                | 0.19±0.04        | 1.92±0.11                | 19.2  | <i>f</i> <sub>288</sub>                | 2.6695±0.0022                | 0.10±0.03        | -2.44±0.13               | 12.3  |
| <i>f</i> <sub>203</sub>                | 1.4254±0.0017                | 0.16±0.04        | -0.82±0.11               | 19.1  | <i>f</i> <sub>289</sub>                | 1.1150±0.0021                | 0.11±0.03        | -0.87±0.13               | 12.8  |
| <i>f</i> <sub>205</sub>                | 2.6295±0.0017                | 0.12±0.03        | 2.77±0.11                | 19.3  | <i>f</i> <sub>290</sub>                | 0.7216±0.0022                | 0.09±0.03        | 0.08±0.13                | 12.5  |
| <i>f</i> <sub>206</sub>                | 2.2131±0.0017                | 0.15±0.03        | -1.62±0.11               | 19.6  | <i>f</i> <sub>291</sub>                | 0.3477±0.0022                | 0.10±0.03        | 1.01±0.13                | 12.3  |
| <i>f</i> <sub>207</sub>                | 0.7402±0.0017                | 0.17±0.04        | 0.81±0.10                | 19.8  | <i>f</i> <sub>292</sub>                | 1.7861±0.0022                | 0.11±0.03        | 1.11±0.13                | 12.0  |
| <i>f</i> <sub>208</sub>                | 1.1617±0.0017                | 0.17±0.04        | 3.08±0.11                | 19.6  | <i>f</i> <sub>293</sub>                | 3.4027±0.0022                | 0.11±0.03        | -1.08±0.14               | 11.9  |
| <i>f</i> <sub>209</sub>                | 1.1774±0.0017                | 0.15±0.03        | 0.82±0.10                | 19.9  | <i>f</i> <sub>294</sub>                | 0.4084±0.0022                | 0.10±0.03        | -2.62±0.13               | 12.1  |
| <i>f</i> <sub>210</sub>                | 1.1313±0.0017                | 0.10±0.02        | -2.99±0.11               | 19.3  | <i>f</i> <sub>295</sub>                | 2.8387±0.0022                | 0.09±0.03        | -2.27±0.13               | 12.2  |
| <i>f</i> <sub>211</sub>                | 1.8571±0.0017                | 0.13±0.03        | 1.12±0.11                | 19.2  | <i>f</i> <sub>296</sub>                | 1.9561±0.0022                | 0.09±0.03        | -1.83±0.13               | 12.1  |
| <i>f</i> <sub>212</sub>                | 2.0526±0.0017                | 0.14±0.03        | -2.88±0.10               | 19.7  | <i>f</i> <sub>297</sub>                | 4.8145±0.0022                | 0.10±0.03        | 1.83±0.13                | 12.2  |
| <i>f</i> <sub>213</sub>                | 2.7043±0.0017                | 0.17±0.04        | 1.04±0.11                | 19.4  | <i>f</i> <sub>298</sub>                | 4.9598±0.0022                | 0.11±0.03        | -0.46±0.13               | 12.2  |
| <i>f</i> <sub>214</sub>                | 2.7233±0.0016                | 0.17±0.04        | 2.52±0.10                | 23.0  | <i>f</i> <sub>300</sub>                | 2.0863±0.0022                | 0.10±0.03        | 0.58±0.14                | 11.7  |
| <i>f</i> <sub>215</sub>                | 0.4317±0.0017                | 0.13±0.03        | 0.77±0.11                | 19.4  | <i>f</i> <sub>301</sub>                | 2.6464±0.0022                | 0.09±0.03        | -2.37±0.14               | 11.7  |
| <i>f</i> <sub>216</sub>                | 2.0039±0.0017                | 0.44±0.10        | -1.63±0.11               | 19.2  | <i>f</i> <sub>302</sub>                | 3.6689±0.0022                | 0.12±0.04        | 2.25±0.14                | 11.6  |
| <i>f</i> <sub>217</sub>                | 0.7732±0.0018                | 0.13±0.03        | -1.76±0.11               | 18.3  | <i>f</i> <sub>303</sub>                | 3.2884±0.0022                | 0.11±0.03        | 1.88±0.14                | 11.6  |
| <i>f</i> <sub>218</sub>                | 3.3762±0.0018                | 0.16±0.04        | -2.72±0.11               | 17.4  | <i>f</i> <sub>304</sub>                | 3.1912±0.0022                | 0.08±0.02        | 0.93±0.14                | 11.6  |
| <i>f</i> <sub>219</sub>                | 0.9400±0.0018                | 0.14±0.03        | 0.74±0.11                | 17.5  | <i>f</i> <sub>305</sub>                | 1.0844±0.0022                | 0.11±0.03        | -0.80±0.13               | 12.0  |
| <i>f</i> <sub>220</sub>                | 3.5960±0.0018                | 0.14±0.03        | -1.71±0.11               | 17.5  | <i>f</i> <sub>307</sub>                | 1.5723±0.0023                | 0.11±0.03        | -0.51±0.14               | 11.4  |
| <i>f</i> <sub>224</sub>                | 2.4106±0.0018                | 0.12±0.03        | -2.54±0.11               | 18.6  | <i>f</i> <sub>308</sub>                | 3.1205±0.0023                | 0.11±0.03        | -2.89±0.14               | 11.3  |
| <i>f</i> <sub>225</sub>                | 0.6438±0.0018                | 0.13±0.03        | 0.21±0.11                | 18.0  | <i>f</i> <sub>309</sub>                | 2.8908±0.0023                | 0.10±0.03        | -0.38±0.14               | 11.0  |
| <i>f</i> <sub>226</sub>                | 1.6876±0.0018                | 0.13±0.03        | -1.37±0.11               | 17.5  | <i>f</i> <sub>310</sub>                | 1.5366±0.0023                | 0.09±0.03        | 1.27±0.14                | 11.0  |
| <i>f</i> <sub>227</sub>                | 2.3248±0.0018                | 0.13±0.03        | 0.49±0.11                | 17.9  | <i>f</i> <sub>311</sub>                | 0.5794±0.0023                | 0.09±0.03        | 0.77±0.14                | 10.9  |
| <i>f</i> <sub>228</sub>                | 0.3890±0.0018                | 0.17±0.04        | -0.77±0.11               | 17.3  | <i>f</i> <sub>312</sub>                | 4.7262±0.0023                | 0.10±0.03        | -1.91±0.14               | 10.6  |
| <i>f</i> <sub>229</sub>                | 1.5973±0.0019                | 0.16±0.04        | -1.09±0.11               | 16.6  | <i>f</i> <sub>313</sub>                | 2.3114±0.0023                | 0.10±0.03        | 2.63±0.14                | 10.6  |
| <i>f</i> <sub>230</sub>                | 1.6075±0.0018                | 0.14±0.03        | -2.59±0.11               | 18.6  | <i>f</i> <sub>314</sub>                | 0.6950±0.0023                | 0.08±0.02        | -3.00±0.14               | 10.6  |
| <i>f</i> <sub>231</sub>                | 1.5587±0.0018                | 0.11±0.03        | -2.20±0.11               | 17.1  | <i>f</i> <sub>315</sub>                | 0.8581±0.0024                | 0.09±0.03        | -0.98±0.14               | 10.4  |
| <i>f</i> <sub>232</sub>                | 1.4870±0.0019                | 0.14±0.03        | 1.33±0.11                | 16.7  | <i>f</i> <sub>316</sub>                | 3.5127±0.0023                | 0.10±0.03        | 2.61±0.14                | 10.6  |
| <i>f</i> <sub>233</sub>                | 2.2830±0.0019                | 0.11±0.03        | -0.43±0.11               | 16.9  | <i>f</i> <sub>317</sub>                | 1.8238±0.0023                | 0.09±0.03        | 2.13±0.14                | 10.6  |
| <i>f</i> <sub>234</sub>                | 2.7480±0.0019                | 0.13±0.03        | 2.63±0.11                | 16.5  | <i>f</i> <sub>318</sub>                | 2.9773±0.0024                | 0.09±0.03        | -0.61±0.15               | 10.0  |
| <i>f</i> <sub>235</sub>                | 2.6795±0.0019                | 0.13±0.03        | -2.95±0.12               | 16.4  | <i>f</i> <sub>322</sub>                | 4.7892±0.0024                | 0.10±0.03        | 2.52±0.15                | 10.1  |
| <i>f</i> <sub>236</sub>                | 0.4741±0.0019                | 0.11±0.03        | 1.50±0.12                | 16.1  | <i>f</i> <sub>323</sub>                | 3.2449±0.0024                | 0.07±0.02        | 2.59±0.15                | 10.0  |
| <i>f</i> <sub>237</sub>                | 3.3529±0.0019                | 0.12±0.03        | -2.13±0.12               | 16.2  | <i>f</i> <sub>324</sub>                | 0.3331±0.0024                | 0.09±0.03        | -0.67±0.15               | 10.1  |
| <i>f</i> <sub>238</sub>                | 3.4370±0.0019                | 0.13±0.03        | -0.62±0.12               | 16.3  | <i>f</i> <sub>325</sub>                | 3.8410±0.0024                | 0.07±0.02        | 2.87±0.15                | 9.9   |
| <i>f</i> <sub>239</sub>                | 2.2271±0.0019                | 0.11±0.03        | -0.84±0.11               | 16.7  | <i>f</i> <sub>327</sub>                | 2.0963±0.0025                | 0.08±0.03        | -0.31±0.15               | 9.6   |
| <i>f</i> <sub>240</sub>                | 2.5595±0.0019                | 0.11±0.03        | -1.35±0.12               | 16.4  | <i>f</i> <sub>328</sub>                | 0.6256±0.0025                | 0.09±0.03        | 0.05±0.15                | 9.6   |
| <i>f</i> <sub>241</sub>                | 0.1160±0.0019                | 0.11±0.03        | -2.94±0.12               | 15.8  | <i>f</i> <sub>331</sub>                | 1.1688±0.0025                | 0.08±0.03        | 2.81±0.15                | 9.7   |
| <i>f</i> <sub>244</sub>                | 1.7184±0.0020                | 0.14±0.04        | -1.47±0.12               | 15.3  | <i>f</i> <sub>332</sub>                | 1.3675±0.0024                | 0.09±0.03        | -1.30±0.15               | 9.8   |
| <i>f</i> <sub>245</sub>                | 1.5190±0.0020                | 0.14±0.04        | 1.12±0.12                | 15.3  | <i>f</i> <sub>333</sub>                | 4.8938±0.0025                | 0.08±0.03        | -2.39±0.15               | 9.5   |
| <i>f</i> <sub>246</sub>                | 0.7905±0.0019                | 0.12±0.03        | 2.36±0.12                | 15.5  | <i>f</i> <sub>334</sub>                | 0.7537±0.0024                | 0.08±0.03        | 1.25±0.15                | 9.8   |
| <i>f</i> <sub>247</sub>                | 1.9189±0.0019                | 0.13±0.03        | 2.49±0.12                | 15.4  | <i>f</i> <sub>341</sub>                | 0.3003±0.0025                | 0.08±0.03        | 1.42±0.15                | 9.5   |
| <i>f</i> <sub>248</sub>                | 0.7107±0.0020                | 0.15±0.04        | -1.00±0.12               | 15.1  | <i>f</i> <sub>342</sub>                | 3.3283±0.0025                | 0.09±0.03        | -0.33±0.15               | 9.3   |
| <i>f</i> <sub>249</sub>                | 1.0766±0.0020                | 0.11±0.03        | 1.86±0.12                | 14.5  | <i>f</i> <sub>343</sub>                | 2.9553±0.0025                | 0.09±0.03        | -2.04±0.15               | 9.6   |
| <i>f</i> <sub>250</sub>                | 2.8728±0.0020                | 0.11±0.03        | 2.99±0.12                | 14.6  | <i>f</i> <sub>344</sub>                | 5.0331±0.0025                | 0.08±0.03        | -0.82±0.15               | 9.3   |
| <i>f</i> <sub>251</sub>                | 1.6662±0.0020                | 0.12±0.03        | -2.00±0.12               | 14.1  | <i>f</i> <sub>346</sub>                | 3.5613±0.0025                | 0.09±0.03        | -2.97±0.15               | 9.3   |
| <i>f</i> <sub>252</sub>                | 2.3927±0.0020                | 0.12±0.03        | 3.08±0.12                | 14.0  | <i>f</i> <sub>347</sub>                | 3.0592±0.0025                | 0.08±0.03        | -0.34±0.15               | 9.2   |
| <i>f</i> <sub>253</sub>                | 2.1149±0.0020                | 0.11±0.03        | 2.90±0.12                | 14.0  | <i>f</i> <sub>348</sub>                | 2.8002±0.0025                | 0.08±0.03        | -1.56±0.15               | 9.4   |
| <i>f</i> <sub>254</sub>                | 1.8029±0.0020                | 0.11±0.03        | -2.61±0.12               | 14.3  | <i>f</i> <sub>350</sub>                | 3.4951±0.0025                | 0.08±0.03        | 2.76±0.15                | 9.1   |
| <i>f</i> <sub>255</sub>                | 1.8395±0.0020                | 0.11±0.03        | -2.06±0.12               | 14.3  | <i>f</i> <sub>351</sub>                | 2.4354±0.0025                | 0.08±0.03        | 1.94±0.15                | 9.3   |

## Appendix B. Frequencies of individual $\gamma$ Dor Stars

| Frequency list of 0102743567 continued |                               |                  |                       |       | Frequency list of 0102743567 continued |                               |                  |                       |       |
|----------------------------------------|-------------------------------|------------------|-----------------------|-------|----------------------------------------|-------------------------------|------------------|-----------------------|-------|
| Frequency ID                           | Frequency [ $\text{d}^{-1}$ ] | Amplitude [mmag] | Phase [ $-\pi, \pi$ ] | Sign. | Frequency ID                           | Frequency [ $\text{d}^{-1}$ ] | Amplitude [mmag] | Phase [ $-\pi, \pi$ ] | Sign. |
| $f_{352}$                              | 2.9364±0.0026                 | 0.09±0.03        | -0.11±0.16            | 8.9   | $f_{465}$                              | 2.1323±0.0031                 | 0.06±0.02        | 1.91±0.19             | 6.2   |
| $f_{353}$                              | 4.6836±0.0026                 | 0.08±0.03        | 3.04±0.16             | 8.8   | $f_{472}$                              | 1.3571±0.0030                 | 0.06±0.02        | 1.40±0.19             | 6.3   |
| $f_{355}$                              | 0.1404±0.0025                 | 0.07±0.02        | -2.39±0.15            | 9.2   | $f_{473}$                              | 3.0088±0.0031                 | 0.05±0.02        | 1.95±0.19             | 6.2   |
| $f_{357}$                              | 0.6823±0.0026                 | 0.08±0.03        | 1.85±0.16             | 8.6   | $f_{474}$                              | 4.4898±0.0031                 | 0.06±0.02        | 0.95±0.19             | 6.1   |
| $f_{358}$                              | 3.6575±0.0026                 | 0.07±0.02        | 0.09±0.16             | 8.5   | $f_{475}$                              | 3.7228±0.0031                 | 0.06±0.02        | 2.86±0.19             | 6.0   |
| $f_{359}$                              | 3.7591±0.0026                 | 0.09±0.03        | 1.52±0.16             | 8.6   | $f_{477}$                              | 4.4500±0.0032                 | 0.06±0.02        | 0.37±0.19             | 5.8   |
| $f_{360}$                              | 3.8546±0.0026                 | 0.08±0.03        | -2.01±0.16            | 8.5   | $f_{478}$                              | 4.5834±0.0031                 | 0.06±0.02        | 0.70±0.19             | 6.0   |
| $f_{361}$                              | 0.7992±0.0026                 | 0.07±0.02        | 1.44±0.16             | 8.5   | $f_{481}$                              | 1.6131±0.0031                 | 0.06±0.02        | -1.70±0.19            | 5.9   |
| $f_{362}$                              | 4.6118±0.0026                 | 0.09±0.03        | 1.52±0.16             | 8.5   | $f_{484}$                              | 2.2978±0.0032                 | 0.06±0.02        | -1.69±0.19            | 5.8   |
| $f_{363}$                              | 4.6233±0.0025                 | 0.08±0.03        | -1.63±0.16            | 9.0   | $f_{485}$                              | 4.6929±0.0032                 | 0.06±0.03        | -0.21±0.20            | 5.6   |
| $f_{367}$                              | 1.9991±0.0025                 | 0.12±0.04        | -2.32±0.15            | 9.5   | $f_{486}$                              | 3.3693±0.0032                 | 0.06±0.03        | -0.90±0.20            | 5.7   |
| $f_{370}$                              | 6.0156±0.0026                 | 0.07±0.02        | 0.04±0.16             | 8.4   | $f_{487}$                              | 3.2287±0.0032                 | 0.06±0.02        | 1.02±0.19             | 5.8   |
| $f_{373}$                              | 3.0750±0.0027                 | 0.07±0.02        | -2.66±0.16            | 8.1   | $f_{488}$                              | 1.4473±0.0032                 | 0.06±0.02        | 0.80±0.19             | 5.8   |
| $f_{374}$                              | 3.1350±0.0027                 | 0.07±0.02        | -1.04±0.16            | 8.2   | $f_{489}$                              | 1.3820±0.0031                 | 0.06±0.02        | 2.11±0.19             | 6.0   |
| $f_{375}$                              | 4.5530±0.0027                 | 0.07±0.02        | 2.47±0.16             | 8.1   | $f_{490}$                              | 1.5897±0.0032                 | 0.06±0.03        | 1.63±0.20             | 5.7   |
| $f_{376}$                              | 0.5170±0.0027                 | 0.08±0.03        | 0.66±0.16             | 8.2   | $f_{491}$                              | 0.4964±0.0032                 | 0.06±0.03        | -0.08±0.20            | 5.7   |
| $f_{377}$                              | 0.2057±0.0026                 | 0.07±0.02        | -0.31±0.16            | 8.3   | $f_{492}$                              | 3.7822±0.0032                 | 0.06±0.02        | -0.81±0.19            | 5.8   |
| $f_{379}$                              | 3.7702±0.0028                 | 0.08±0.03        | -1.92±0.17            | 7.7   | $f_{493}$                              | 5.6897±0.0032                 | 0.05±0.02        | 2.90±0.19             | 5.8   |
| $f_{381}$                              | 2.4526±0.0027                 | 0.07±0.02        | 2.62±0.16             | 8.1   | $f_{494}$                              | 4.9725±0.0032                 | 0.06±0.03        | 1.20±0.20             | 5.7   |
| $f_{382}$                              | 4.0117±0.0027                 | 0.14±0.05        | 1.86±0.16             | 8.0   | $f_{496}$                              | 4.8829±0.0032                 | 0.06±0.03        | -1.32±0.20            | 5.7   |
| $f_{384}$                              | 0.5464±0.0027                 | 0.07±0.03        | -2.34±0.17            | 7.8   | $f_{497}$                              | 3.9342±0.0032                 | 0.05±0.02        | -0.02±0.20            | 5.6   |
| $f_{385}$                              | 1.8764±0.0027                 | 0.08±0.03        | -2.26±0.17            | 7.8   | $f_{499}$                              | 5.1212±0.0032                 | 0.05±0.02        | -1.36±0.20            | 5.6   |
| $f_{386}$                              | 0.2519±0.0027                 | 0.07±0.03        | -0.43±0.17            | 7.8   | $f_{500}$                              | 2.9462±0.0032                 | 0.06±0.03        | -2.24±0.20            | 5.7   |
| $f_{387}$                              | 2.0619±0.0028                 | 0.08±0.03        | -2.24±0.17            | 7.7   | $f_{501}$                              | 2.7756±0.0032                 | 0.06±0.02        | 1.95±0.19             | 5.8   |
| $f_{388}$                              | 2.0350±0.0027                 | 0.08±0.03        | -0.21±0.16            | 8.1   | $f_{502}$                              | 32.9566±0.0032                | 0.06±0.03        | 1.80±0.20             | 5.7   |
| $f_{389}$                              | 0.8186±0.0027                 | 0.07±0.02        | -0.29±0.17            | 7.9   | $f_{503}$                              | 1.3295±0.0032                 | 0.06±0.03        | -1.37±0.20            | 5.6   |
| $f_{390}$                              | 0.4159±0.0027                 | 0.07±0.02        | 0.85±0.17             | 7.9   | $f_{504}$                              | 2.0101±0.0033                 | 0.07±0.03        | -1.45±0.20            | 5.3   |
| $f_{391}$                              | 3.1649±0.0027                 | 0.07±0.03        | 2.60±0.17             | 7.8   | $f_{509}$                              | 2.1515±0.0033                 | 0.06±0.03        | 0.22±0.20             | 5.4   |
| $f_{392}$                              | 3.0840±0.0027                 | 0.07±0.02        | -2.26±0.16            | 8.1   | $f_{510}$                              | 2.0259±0.0033                 | 0.05±0.02        | 0.01±0.20             | 5.4   |
| $f_{393}$                              | 2.6129±0.0027                 | 0.07±0.02        | -0.43±0.16            | 8.1   | $f_{512}$                              | 0.3243±0.0033                 | 0.06±0.03        | 2.49±0.20             | 5.5   |
| $f_{394}$                              | 3.2544±0.0028                 | 0.07±0.03        | 3.11±0.17             | 7.7   | $f_{513}$                              | 0.3771±0.0032                 | 0.06±0.03        | 1.11±0.20             | 5.6   |
| $f_{398}$                              | 3.6948±0.0028                 | 0.07±0.03        | -0.49±0.17            | 7.6   | $f_{514}$                              | 1.7959±0.0033                 | 0.05±0.02        | -0.93±0.20            | 5.4   |
| $f_{399}$                              | 4.6554±0.0028                 | 0.09±0.03        | 0.64±0.17             | 7.4   | $f_{518}$                              | 2.3656±0.0033                 | 0.05±0.02        | 0.07±0.20             | 5.2   |
| $f_{400}$                              | 4.6668±0.0024                 | 0.08±0.03        | 2.51±0.15             | 9.9   | $f_{519}$                              | 4.0728±0.0033                 | 0.05±0.02        | 1.02±0.20             | 5.3   |
| $f_{401}$                              | 4.5950±0.0027                 | 0.08±0.03        | -1.07±0.17            | 7.9   | $f_{520}$                              | 3.0395±0.0033                 | 0.06±0.03        | 2.10±0.20             | 5.2   |
| $f_{402}$                              | 1.4017±0.0028                 | 0.08±0.03        | -2.87±0.17            | 7.5   | $f_{521}$                              | 1.0332±0.0033                 | 0.05±0.02        | 2.02±0.20             | 5.3   |
| $f_{408}$                              | 0.3545±0.0028                 | 0.07±0.03        | -1.08±0.17            | 7.6   | $f_{523}$                              | 4.3853±0.0034                 | 0.05±0.02        | 0.71±0.21             | 5.1   |
| $f_{409}$                              | 1.9785±0.0028                 | 0.07±0.03        | 0.97±0.17             | 7.5   | $f_{524}$                              | 0.8516±0.0034                 | 0.05±0.02        | 0.15±0.21             | 5.1   |
| $f_{410}$                              | 1.8655±0.0028                 | 0.07±0.03        | 0.42±0.17             | 7.3   | $f_{525}$                              | 1.9255±0.0033                 | 0.05±0.02        | -0.43±0.20            | 5.2   |
| $f_{411}$                              | 1.0578±0.0028                 | 0.07±0.03        | -3.09±0.17            | 7.5   | $f_{527}$                              | 1.1312±0.0034                 | 0.09±0.04        | -2.56±0.21            | 5.0   |
| $f_{420}$                              | 3.7456±0.0029                 | 0.06±0.02        | 0.50±0.17             | 7.1   | $f_{528}$                              | 1.6756±0.0034                 | 0.05±0.02        | 2.26±0.21             | 5.1   |
| $f_{421}$                              | 4.8000±0.0029                 | 0.07±0.03        | -0.39±0.18            | 6.9   | $f_{529}$                              | 4.9952±0.0034                 | 0.05±0.02        | -2.14±0.21            | 5.0   |
| $f_{422}$                              | 5.0047±0.0029                 | 0.06±0.02        | -0.66±0.18            | 6.9   | $f_{530}$                              | 4.4103±0.0034                 | 0.05±0.02        | 2.65±0.21             | 5.0   |
| $f_{424}$                              | 2.2645±0.0029                 | 0.07±0.03        | -0.32±0.18            | 6.8   |                                        |                               |                  |                       |       |
| $f_{425}$                              | 2.9168±0.0028                 | 0.06±0.02        | -1.59±0.17            | 7.2   |                                        |                               |                  |                       |       |
| $f_{430}$                              | 7.4732±0.0029                 | 0.06±0.02        | -2.86±0.18            | 6.7   |                                        |                               |                  |                       |       |
| $f_{431}$                              | 1.3395±0.0029                 | 0.06±0.02        | 1.74±0.18             | 6.7   |                                        |                               |                  |                       |       |
| $f_{432}$                              | 3.5734±0.0029                 | 0.06±0.02        | 0.22±0.18             | 6.7   |                                        |                               |                  |                       |       |
| $f_{433}$                              | 4.5431±0.0029                 | 0.07±0.03        | -1.96±0.17            | 7.1   |                                        |                               |                  |                       |       |
| $f_{434}$                              | 4.7742±0.0029                 | 0.07±0.03        | 0.64±0.18             | 6.9   |                                        |                               |                  |                       |       |
| $f_{435}$                              | 3.1792±0.0030                 | 0.06±0.02        | -1.06±0.18            | 6.6   |                                        |                               |                  |                       |       |
| $f_{436}$                              | 1.2544±0.0029                 | 0.08±0.03        | -1.29±0.18            | 7.0   |                                        |                               |                  |                       |       |
| $f_{437}$                              | 3.8674±0.0030                 | 0.06±0.02        | 1.58±0.18             | 6.5   |                                        |                               |                  |                       |       |
| $f_{438}$                              | 4.1112±0.0029                 | 0.06±0.02        | -1.92±0.18            | 6.8   |                                        |                               |                  |                       |       |
| $f_{439}$                              | 4.4671±0.0029                 | 0.06±0.02        | -0.09±0.18            | 6.7   |                                        |                               |                  |                       |       |
| $f_{440}$                              | 1.4814±0.0029                 | 0.07±0.03        | 1.09±0.18             | 6.7   |                                        |                               |                  |                       |       |
| $f_{441}$                              | 0.1242±0.0030                 | 0.06±0.02        | 1.36±0.18             | 6.6   |                                        |                               |                  |                       |       |
| $f_{443}$                              | 2.7166±0.0030                 | 0.07±0.03        | 0.29±0.18             | 6.6   |                                        |                               |                  |                       |       |
| $f_{445}$                              | 3.0252±0.0030                 | 0.05±0.02        | 1.35±0.18             | 6.6   |                                        |                               |                  |                       |       |
| $f_{446}$                              | 4.9475±0.0030                 | 0.06±0.02        | 2.34±0.18             | 6.6   |                                        |                               |                  |                       |       |
| $f_{447}$                              | 4.7356±0.0029                 | 0.08±0.03        | 0.38±0.18             | 6.7   |                                        |                               |                  |                       |       |
| $f_{448}$                              | 4.7466±0.0029                 | 0.06±0.02        | 1.71±0.18             | 7.0   |                                        |                               |                  |                       |       |
| $f_{449}$                              | 3.8824±0.0030                 | 0.06±0.02        | -0.75±0.18            | 6.6   |                                        |                               |                  |                       |       |
| $f_{450}$                              | 4.8686±0.0030                 | 0.06±0.02        | 0.78±0.18             | 6.5   |                                        |                               |                  |                       |       |
| $f_{452}$                              | 5.8581±0.0030                 | 0.06±0.02        | -1.53±0.19            | 6.3   |                                        |                               |                  |                       |       |
| $f_{454}$                              | 4.7024±0.0031                 | 0.06±0.02        | 1.83±0.19             | 6.2   |                                        |                               |                  |                       |       |
| $f_{455}$                              | 3.8087±0.0030                 | 0.06±0.02        | 0.33±0.19             | 6.3   |                                        |                               |                  |                       |       |
| $f_{456}$                              | 3.3171±0.0030                 | 0.06±0.02        | 2.59±0.19             | 6.3   |                                        |                               |                  |                       |       |
| $f_{457}$                              | 0.5531±0.0030                 | 0.06±0.02        | -2.28±0.18            | 6.5   |                                        |                               |                  |                       |       |
| $f_{458}$                              | 0.4636±0.0030                 | 0.07±0.03        | -1.75±0.19            | 6.3   |                                        |                               |                  |                       |       |
| $f_{459}$                              | 0.9496±0.0031                 | 0.06±0.02        | 0.07±0.19             | 6.2   |                                        |                               |                  |                       |       |
| $f_{460}$                              | 2.5764±0.0031                 | 0.07±0.03        | 0.51±0.19             | 6.2   |                                        |                               |                  |                       |       |
| $f_{461}$                              | 1.6968±0.0031                 | 0.06±0.02        | -2.09±0.19            | 6.1   |                                        |                               |                  |                       |       |
| $f_{462}$                              | 2.7919±0.0031                 | 0.06±0.02        | -1.94±0.19            | 6.1   |                                        |                               |                  |                       |       |
| $f_{463}$                              | 3.1098±0.0030                 | 0.06±0.02        | 2.00±0.18             | 6.5   |                                        |                               |                  |                       |       |
| $f_{464}$                              | 3.0497±0.0031                 | 0.07±0.03        | 1.73±0.19             | 6.2   |                                        |                               |                  |                       |       |
| Frequency list of 0102743567 continued |                               |                  |                       |       | Frequency list of 0102749513 continued |                               |                  |                       |       |
| Frequency ID                           | Frequency [ $\text{d}^{-1}$ ] | Amplitude [mmag] | Phase [ $-\pi, \pi$ ] | Sign. | Frequency ID                           | Frequency [ $\text{d}^{-1}$ ] | Amplitude [mmag] | Phase [ $-\pi, \pi$ ] | Sign. |
| $f_1$                                  | 1.4295±0.0007                 | 0.40±0.03        | -3.12±0.04            | 131.0 | $f_{27}$                               | 0.3483±0.0017                 | 0.12±0.03        | -0.40±0.10            | 20.7  |
| $f_2$                                  | 0.8772±0.0007                 | 0.35±0.03        | -3.01±0.04            | 131.5 | $f_{28}$                               | 0.5595±0.0017                 | 0.14±0.03        | -1.78±0.10            | 20.3  |
| $f_3$                                  | 1.6123±0.0008                 | 0.33±0.03        | 2.28±0.05             | 103.1 | $f_{29}$                               | 1.2397±0.0018                 | 0.12±0.03        | -1.83±0.11            | 18.7  |
| $f_4$                                  | 1.3171±0.0008                 | 0.24±0.03        | -1.57±0.05            | 80.9  | $f_{30}$                               | 1.0340±0.0018                 | 0.12±0.03        | 0.69±0.11             | 18.2  |
| $f_5$                                  | 0.8223±0.0009                 | 0.23±0.03        | -1.74±0.06            | 66.7  |                                        |                               |                  |                       |       |
| $f_6$                                  | 1.1382±0.0011                 | 0.21±0.03        | -1.23±0.07            | 49.5  |                                        |                               |                  |                       |       |
| $f_7$                                  | 1.3305±0.0011                 | 0.22±0.03        | 1.51±0.07             | 49.5  |                                        |                               |                  |                       |       |
| $f_8$                                  | 1.4584±0.0011                 | 0.21±0.03        | -0.59±0.07            | 45.8  |                                        |                               |                  |                       |       |
| $f_9$                                  | 0.1601±0.0012                 | 0.18±0.03        | 2.57±0.08             | 38.2  |                                        |                               |                  |                       |       |
| $f_{10}$                               | 0.9272±0.0012                 | 0.17±0.03        | -2.56±0.07            | 40.4  |                                        |                               |                  |                       |       |
| $f_{11}$                               | 1.2973±0.0012                 | 0.19±0.03        | 0.20±0.07             | 39.3  |                                        |                               |                  |                       |       |
| $f_{12}$                               | 0.8930±0.0013                 | 0.20±0.03        | 3.05±0.08             | 36.8  |                                        |                               |                  |                       |       |
| $f_{13}$                               | 0.1057±0.0014                 | 0.14±0.02        | -2.04±0.08            | 31.5  |                                        |                               |                  |                       |       |
| $f_{14}$                               | 0.2004±0.0014                 | 0.15±0.03        | -2.01±0.09            | 30.0  |                                        |                               |                  |                       |       |
| $f_{15}$                               | 1.5176±0.0015                 | 0.13±0.03        | 1.23±0.09             | 26.7  |                                        |                               |                  |                       |       |
| $f_{16}$                               | 0.3239±0.0015                 | 0.15±0.03        | -1.15±0.09            | 27.2  |                                        |                               |                  |                       |       |
| $f_{17}$                               | 0.1452±0.0014                 | 0.15±0.03        | 2.45±0.09             | 27.9  |                                        |                               |                  |                       |       |
| $f_{18}$                               | 1.2706±0.0015                 | 0.15±0.03        | 1.66±0.09             | 26.1  |                                        |                               |                  |                       |       |
| $f_{19}$                               | 0.8144±0.0015                 | 0.14±0.03        | -0.13±0.09            | 26.3  |                                        |                               |                  |                       |       |
| $f_{20}$                               | 0.5434±0.0015                 | 0.15±0.03        | 0.80±0.09             | 26.4  |                                        |                               |                  |                       |       |
| $f_{21}$                               | 0.2649±0.0016                 | 0.14±0.03        | 1.64±0.10             | 23.4  |                                        |                               |                  |                       |       |
| $f_{22}$                               | 0.9372±0.0016                 | 0.15±0.03        | 2.10±0.10             | 22.5  |                                        |                               |                  |                       |       |
| $f_{23}$                               | 0.4437±0.0016                 | 0.13±0.03        | -2.23±0.10            | 21.9  |                                        |                               |                  |                       |       |
| $f_{24}$                               | 0.8476±0.0016                 | 0.12±0.03        | 1.44±0.10             | 22.1  |                                        |                               |                  |                       |       |
| $f_{25}$                               | 0.1867±0.0017                 | 0.12±0.03        | 2.39±0.10             | 21.1  |                                        |                               |                  |                       |       |
| $f_{26}$                               | 0.1166±0.0016                 | 0.14±0.03        | 0.23±0.10             | 22.1  |                                        |                               |                  |                       |       |

**Table B.70:** Frequency list of 0102749513

| Frequency<br>ID | Frequency<br>[d <sup>-1</sup> ] | Amplitude<br>[mmag] | Phase<br>[- $\pi$ , $\pi$ ] | Sign. |
|-----------------|---------------------------------|---------------------|-----------------------------|-------|
| $f_1$           | 1.4295±0.0007                   | 0.40±0.03           | -3.12±0.04                  | 131.0 |
| $f_2$           | 0.8772±0.0007                   | 0.35±0.03           | -3.01±0.04                  | 131.5 |
| $f_3$           | 1.6123±0.0008                   | 0.33±0.03           | 2.28±0.05                   | 103.1 |
| $f_4$           | 1.3171±0.0008                   | 0.24±0.03           | -1.57±0.05                  | 80.9  |
| $f_5$           | 0.8223±0.0009                   | 0.23±0.03           | -1.74±0.06                  | 66.7  |
| $f_6$           | 0.1382±0.0011                   | 0.21±0.03           | -1.23±0.07                  | 49.5  |
| $f_7$           | 1.3305±0.0011                   | 0.22±0.03           | 1.51±0.07                   | 49.5  |
| $f_8$           | 1.4584±0.0011                   | 0.21±0.03           | -0.59±0.07                  | 45.8  |
| $f_9$           | 0.1601±0.0012                   | 0.18±0.03           | 2.57±0.08                   | 38.2  |
| $f_{10}$        | 0.9272±0.0012                   | 0.17±0.03           | -2.56±0.07                  | 40.4  |
| $f_{11}$        | 1.2973±0.0012                   | 0.19±0.03           | 0.20±0.07                   | 39.3  |
| $f_{12}$        | 0.8930±0.0013                   | 0.20±0.03           | 3.05±0.08                   | 36.8  |
| $f_{13}$        | 0.1057±0.0014                   | 0.14±0.02           | -2.04±0.08                  | 31.5  |
| $f_{14}$        | 0.2004±0.0014                   | 0.15±0.03           | -2.01±0.09                  | 30.0  |
| $f_{15}$        | 1.5176±0.0015                   | 0.13±0.03           | 1.23±0.09                   | 26.7  |
| $f_{16}$        | 0.3239±0.0015                   | 0.15±0.03           | -1.15±0.09                  | 27.2  |
| $f_{17}$        | 0.1452±0.0014                   | 0.15±0.03           | 2.45±0.09                   | 27.9  |
| $f_{18}$        | 1.2706±0.0015                   | 0.15±0.03           | 1.66±0.09                   | 26.1  |
| $f_{19}$        | 0.8144±0.0015                   | 0.14±0.03           | -0.13±0.09                  | 26.3  |
| $f_{20}$        | 0.5434±0.0015                   | 0.15±0.03           | 0.80±0.09                   | 26.4  |
| $f_{21}$        | 0.2649±0.0016                   | 0.14±0.03           | 1.64±0.10                   | 23.4  |
| $f_{22}$        | 0.9372±0.0016                   | 0.15±0.03           | 2.10±0.10                   | 22.5  |
| $f_{23}$        | 0.4437±0.0016                   | 0.13±0.03           | -2.23±0.10                  | 21.9  |
| $f_{24}$        | 0.8476±0.0016                   | 0.12±0.03           | 1.44±0.10                   | 22.1  |
| $f_{25}$        | 0.1867±0.0017                   | 0.12±0.03           | 2.39±0.10                   | 21.1  |
| $f_{26}$        | 0.1166±0.0016                   | 0.14±0.03           | 0.23±0.10                   | 22.1  |
| $f_{27}$        | 0.3483±0.0017                   | 0.12±0.03           | -0.40±0.10                  | 20.7  |
| $f_{28}$        | 0.5595±0.0017                   | 0.14±0.03           | -1.78±0.10                  | 20.3  |
| $f_{29}$        | 1.2397±0.0018                   | 0.12±0.03           | -1.83±0.11                  | 18.7  |
| $f_{30}$        | 1.0340±0.0018                   | 0.12±0.03           | 0.69±0.11                   | 18.2  |

Frequency list of 0102749513 continued

## Appendix B. Frequencies of individual $\gamma$ Dor Stars

| Frequency list of 0102749513 continued |                              |                  |                          |       | Frequency list of 0102749931 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{31}$                               | 0.2212±0.0019                | 0.12±0.03        | 1.55±0.11                | 16.8  | $f_7$                                  | 1.5476±0.0008                | 0.16±0.02        | 2.35±0.05                | 81.6  |
| $f_{32}$                               | 0.3004±0.0018                | 0.12±0.03        | 1.17±0.11                | 17.4  | $f_8$                                  | 0.1273±0.0009                | 0.13±0.02        | -2.05±0.06               | 67.9  |
| $f_{33}$                               | 0.4343±0.0019                | 0.12±0.03        | -1.27±0.11               | 16.6  | $f_9$                                  | 0.6077±0.0010                | 0.15±0.02        | 3.13±0.06                | 63.4  |
| $f_{35}$                               | 0.9822±0.0018                | 0.11±0.03        | -1.43±0.11               | 17.7  | $f_{10}$                               | 0.1751±0.0010                | 0.14±0.02        | 2.41±0.06                | 56.9  |
| $f_{36}$                               | 0.8348±0.0020                | 0.11±0.03        | 2.49±0.12                | 14.4  | $f_{11}$                               | 1.0436±0.0010                | 0.11±0.02        | 1.37±0.06                | 53.6  |
| $f_{37}$                               | 0.4049±0.0020                | 0.09±0.02        | -0.84±0.12               | 14.1  | $f_{12}$                               | 1.9795±0.0011                | 0.12±0.02        | 0.73±0.07                | 47.3  |
| $f_{38}$                               | 1.0089±0.0020                | 0.09±0.02        | 1.34±0.12                | 14.9  | $f_{13}$                               | 0.1640±0.0011                | 0.14±0.02        | -1.28±0.07               | 47.0  |
| $f_{39}$                               | 0.1673±0.0020                | 0.10±0.03        | -2.04±0.12               | 13.9  | $f_{14}$                               | 0.2445±0.0011                | 0.11±0.02        | 1.32±0.07                | 49.6  |
| $f_{40}$                               | 0.3377±0.0020                | 0.10±0.03        | -2.65±0.12               | 14.1  | $f_{15}$                               | 0.1539±0.0012                | 0.12±0.02        | -1.14±0.07               | 42.0  |
| $f_{41}$                               | 0.8005±0.0021                | 0.10±0.03        | -1.50±0.13               | 13.0  | $f_{16}$                               | 0.2234±0.0012                | 0.12±0.02        | -1.74±0.07               | 42.2  |
| $f_{42}$                               | 0.4269±0.0021                | 0.11±0.03        | 0.07±0.13                | 13.0  | $f_{17}$                               | 1.0557±0.0015                | 0.09±0.02        | 0.31±0.09                | 25.8  |
| $f_{43}$                               | 1.3880±0.0022                | 0.12±0.03        | 0.46±0.13                | 12.3  | $f_{18}$                               | 0.1828±0.0015                | 0.08±0.02        | 1.51±0.09                | 24.3  |
| $f_{44}$                               | 1.3996±0.0022                | 0.10±0.03        | 0.35±0.13                | 12.4  | $f_{19}$                               | 0.2537±0.0015                | 0.07±0.01        | 1.86±0.09                | 25.1  |
| $f_{45}$                               | 0.5521±0.0022                | 0.10±0.03        | 0.05±0.13                | 12.3  | $f_{20}$                               | 0.5364±0.0015                | 0.09±0.02        | 2.74±0.09                | 24.7  |
| $f_{46}$                               | 0.5346±0.0021                | 0.10±0.03        | 2.24±0.13                | 13.3  | $f_{21}$                               | 1.2269±0.0015                | 0.08±0.02        | -0.49±0.09               | 24.6  |
| $f_{47}$                               | 0.8676±0.0022                | 0.09±0.03        | 1.75±0.14                | 11.8  | $f_{22}$                               | 0.3056±0.0016                | 0.08±0.02        | 0.65±0.10                | 22.8  |
| $f_{48}$                               | 1.5295±0.0022                | 0.10±0.03        | -2.01±0.14               | 11.8  | $f_{23}$                               | 0.2044±0.0017                | 0.07±0.02        | 2.73±0.10                | 21.3  |
| $f_{49}$                               | 1.0649±0.0023                | 0.09±0.03        | 1.40±0.14                | 11.2  | $f_{24}$                               | 0.2350±0.0017                | 0.08±0.02        | -1.41±0.11               | 19.3  |
| $f_{50}$                               | 0.4819±0.0023                | 0.10±0.03        | -2.49±0.14               | 11.3  | $f_{25}$                               | 0.6292±0.0018                | 0.08±0.02        | -2.77±0.11               | 18.2  |
| $f_{51}$                               | 1.3570±0.0023                | 0.10±0.03        | -0.24±0.14               | 11.0  | $f_{26}$                               | 0.4376±0.0020                | 0.07±0.02        | -1.58±0.12               | 14.1  |
| $f_{52}$                               | 1.2861±0.0023                | 0.10±0.03        | 0.88±0.14                | 10.6  | $f_{27}$                               | 1.6856±0.0020                | 0.06±0.02        | 1.05±0.12                | 14.2  |
| $f_{53}$                               | 0.7927±0.0024                | 0.09±0.03        | -0.43±0.14               | 10.4  | $f_{28}$                               | 0.6572±0.0020                | 0.06±0.02        | 2.76±0.12                | 14.1  |
| $f_{54}$                               | 0.8552±0.0025                | 0.08±0.03        | -1.69±0.15               | 9.4   | $f_{29}$                               | 0.2701±0.0021                | 0.07±0.02        | -2.73±0.13               | 13.3  |
| $f_{55}$                               | 0.3309±0.0025                | 0.08±0.03        | -3.05±0.15               | 9.2   | $f_{30}$                               | 2.4462±0.0021                | 0.06±0.02        | 0.96±0.13                | 12.9  |
| $f_{56}$                               | 0.4193±0.0025                | 0.08±0.03        | -2.07±0.15               | 9.6   | $f_{31}$                               | 0.8536±0.0022                | 0.06±0.02        | 2.33±0.14                | 11.8  |
| $f_{58}$                               | 1.5517±0.0025                | 0.08±0.03        | -1.65±0.16               | 9.0   | $f_{32}$                               | 0.6781±0.0023                | 0.05±0.01        | 2.16±0.14                | 11.4  |
| $f_{59}$                               | 1.3404±0.0026                | 0.08±0.03        | 0.19±0.16                | 8.8   | $f_{33}$                               | 0.4503±0.0023                | 0.05±0.02        | -0.43±0.14               | 10.9  |
| $f_{60}$                               | 0.1320±0.0025                | 0.08±0.03        | 2.94±0.16                | 9.0   | $f_{34}$                               | 0.6903±0.0023                | 0.05±0.02        | 1.11±0.14                | 10.6  |
| $f_{61}$                               | 0.6959±0.0026                | 0.08±0.03        | 0.86±0.16                | 8.4   | $f_{35}$                               | 0.4038±0.0024                | 0.05±0.02        | 0.70±0.14                | 10.5  |
| $f_{62}$                               | 1.1409±0.0027                | 0.08±0.03        | -0.44±0.17               | 7.9   | $f_{36}$                               | 1.1107±0.0024                | 0.05±0.02        | -2.29±0.15               | 10.0  |
| $f_{63}$                               | 0.3785±0.0027                | 0.07±0.02        | 1.36±0.16                | 8.0   | $f_{37}$                               | 0.5957±0.0025                | 0.05±0.02        | 1.59±0.15                | 9.2   |
| $f_{64}$                               | 1.0427±0.0027                | 0.07±0.03        | -1.57±0.17               | 7.8   | $f_{38}$                               | 0.5450±0.0025                | 0.05±0.02        | -1.13±0.15               | 9.5   |
| $f_{65}$                               | 0.5097±0.0028                | 0.07±0.03        | 0.42±0.17                | 7.7   | $f_{39}$                               | 0.2873±0.0026                | 0.05±0.02        | 2.96±0.16                | 8.8   |
| $f_{66}$                               | 1.2244±0.0028                | 0.08±0.03        | 0.14±0.17                | 7.5   | $f_{40}$                               | 0.8829±0.0025                | 0.04±0.01        | 1.83±0.16                | 9.0   |
| $f_{67}$                               | 1.0224±0.0029                | 0.07±0.03        | -0.03±0.17               | 7.1   | $f_{41}$                               | 0.4702±0.0027                | 0.04±0.01        | 0.47±0.17                | 7.8   |
| $f_{69}$                               | 1.0751±0.0030                | 0.08±0.03        | 1.78±0.18                | 6.6   | $f_{42}$                               | 1.6411±0.0028                | 0.04±0.01        | -1.40±0.17               | 7.2   |
| $f_{70}$                               | 0.6681±0.0029                | 0.06±0.02        | -1.20±0.18               | 6.7   | $f_{43}$                               | 0.5239±0.0028                | 0.05±0.02        | -0.17±0.17               | 7.3   |
| $f_{71}$                               | 1.4838±0.0030                | 0.07±0.03        | 1.65±0.18                | 6.5   | $f_{44}$                               | 0.2944±0.0029                | 0.04±0.02        | 2.00±0.18                | 7.0   |
| $f_{72}$                               | 0.4700±0.0030                | 0.07±0.03        | -1.11±0.19               | 6.3   | $f_{45}$                               | 1.6019±0.0029                | 0.04±0.02        | 2.90±0.18                | 6.9   |
| $f_{73}$                               | 0.5902±0.0030                | 0.07±0.03        | -2.94±0.18               | 6.5   | $f_{46}$                               | 0.7368±0.0029                | 0.05±0.02        | 1.08±0.18                | 6.9   |
| $f_{74}$                               | 0.6476±0.0029                | 0.07±0.03        | 0.70±0.18                | 6.8   | $f_{47}$                               | 0.8963±0.0030                | 0.04±0.02        | -1.13±0.18               | 6.5   |
| $f_{75}$                               | 1.1585±0.0030                | 0.07±0.03        | 1.14±0.19                | 6.3   | $f_{48}$                               | 0.9616±0.0030                | 0.04±0.02        | -0.54±0.19               | 6.3   |
| $f_{76}$                               | 0.7380±0.0031                | 0.06±0.02        | -0.65±0.19               | 6.1   | $f_{49}$                               | 0.7166±0.0031                | 0.04±0.02        | -0.01±0.19               | 5.9   |
| $f_{77}$                               | 2.1328±0.0031                | 0.07±0.03        | 2.71±0.19                | 6.1   | $f_{50}$                               | 0.3522±0.0032                | 0.04±0.02        | 1.47±0.19                | 5.8   |
| $f_{78}$                               | 0.8863±0.0031                | 0.07±0.03        | 2.13±0.19                | 6.0   | $f_{51}$                               | 0.1422±0.0032                | 0.04±0.02        | -2.93±0.20               | 5.7   |
| $f_{79}$                               | 2.8872±0.0030                | 0.07±0.03        | -1.27±0.19               | 6.3   | $f_{52}$                               | 0.8027±0.0032                | 0.04±0.02        | 1.94±0.20                | 5.6   |
| $f_{80}$                               | 0.2918±0.0031                | 0.07±0.03        | -1.21±0.19               | 6.2   | $f_{53}$                               | 0.8353±0.0032                | 0.04±0.02        | -2.30±0.20               | 5.7   |
| $f_{81}$                               | 2.8280±0.0031                | 0.07±0.03        | -2.15±0.19               | 6.1   | $f_{54}$                               | 0.4870±0.0032                | 0.04±0.02        | 0.99±0.20                | 5.6   |
| $f_{82}$                               | 1.0558±0.0031                | 0.07±0.03        | -3.12±0.19               | 6.1   | $f_{55}$                               | 0.4986±0.0031                | 0.04±0.02        | 1.21±0.19                | 6.1   |
| $f_{84}$                               | 2.3499±0.0031                | 0.07±0.03        | -1.97±0.19               | 6.1   | $f_{56}$                               | 0.3919±0.0033                | 0.04±0.02        | -1.08±0.20               | 5.4   |
| $f_{85}$                               | 1.6225±0.0031                | 0.06±0.02        | -0.05±0.19               | 6.0   | $f_{57}$                               | 1.0101±0.0033                | 0.04±0.02        | -0.90±0.20               | 5.4   |
| $f_{86}$                               | 1.6964±0.0031                | 0.06±0.02        | 3.10±0.19                | 6.0   | $f_{58}$                               | 0.6190±0.0032                | 0.04±0.02        | -2.13±0.20               | 5.6   |
| $f_{87}$                               | 0.6285±0.0031                | 0.07±0.03        | -0.00±0.19               | 6.0   | $f_{59}$                               | 1.1441±0.0033                | 0.04±0.02        | 0.57±0.20                | 5.5   |
| $f_{88}$                               | 0.5669±0.0031                | 0.06±0.02        | -1.84±0.19               | 6.0   | $f_{60}$                               | 2.5083±0.0033                | 0.04±0.02        | 0.94±0.20                | 5.2   |
| $f_{89}$                               | 0.9479±0.0031                | 0.07±0.03        | -1.29±0.19               | 6.1   | $f_{61}$                               | 0.4127±0.0034                | 0.04±0.02        | 0.20±0.21                | 5.0   |
| $f_{90}$                               | 2.7778±0.0032                | 0.06±0.02        | -2.38±0.19               | 5.8   | $f_{62}$                               | 0.2157±0.0033                | 0.04±0.02        | 0.35±0.20                | 5.2   |
| $f_{91}$                               | 0.7210±0.0032                | 0.06±0.02        | -3.07±0.19               | 5.8   | $f_{63}$                               | 2.6142±0.0034                | 0.04±0.02        | 2.77±0.21                | 5.1   |
| $f_{92}$                               | 1.3063±0.0032                | 0.06±0.03        | 2.74±0.20                | 5.7   | $f_{64}$                               | 1.5339±0.0034                | 0.04±0.02        | 0.81±0.21                | 5.1   |
| $f_{93}$                               | 4.8234±0.0032                | 0.06±0.02        | 2.59±0.19                | 5.8   |                                        |                              |                  |                          |       |
| $f_{94}$                               | 3.4437±0.0032                | 0.06±0.03        | 2.68±0.20                | 5.6   |                                        |                              |                  |                          |       |
| $f_{95}$                               | 1.9444±0.0032                | 0.06±0.03        | 2.78±0.20                | 5.7   |                                        |                              |                  |                          |       |
| $f_{96}$                               | 1.7440±0.0033                | 0.06±0.03        | 0.02±0.20                | 5.4   |                                        |                              |                  |                          |       |
| $f_{97}$                               | 2.9550±0.0033                | 0.06±0.03        | 2.03±0.20                | 5.4   |                                        |                              |                  |                          |       |
| $f_{98}$                               | 2.2367±0.0033                | 0.06±0.03        | -2.97±0.20               | 5.4   |                                        |                              |                  |                          |       |
| $f_{99}$                               | 2.7295±0.0033                | 0.06±0.03        | -1.20±0.20               | 5.3   |                                        |                              |                  |                          |       |
| $f_{100}$                              | 0.9710±0.0033                | 0.06±0.03        | -0.46±0.20               | 5.3   |                                        |                              |                  |                          |       |
| $f_{102}$                              | 3.0029±0.0034                | 0.06±0.03        | 2.93±0.21                | 5.0   |                                        |                              |                  |                          |       |
| $f_{103}$                              | 4.1238±0.0033                | 0.06±0.03        | -1.66±0.20               | 5.4   |                                        |                              |                  |                          |       |
| $f_{104}$                              | 1.5054±0.0034                | 0.06±0.03        | 2.63±0.21                | 5.1   |                                        |                              |                  |                          |       |
| $f_{105}$                              | 10.7740±0.0033               | 0.06±0.03        | 0.18±0.20                | 5.2   |                                        |                              |                  |                          |       |

**Table B.71:** Frequency list of 0102749931

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|--------------|------------------------------|------------------|--------------------------|-------|
| $f_1$        | 1.0900±0.0005                | 0.36±0.02        | 2.26±0.03                | 269.8 |
| $f_2$        | 0.8426±0.0005                | 0.30±0.02        | 2.01±0.03                | 210.6 |
| $f_3$        | 0.1913±0.0006                | 0.27±0.02        | -1.39±0.03               | 181.6 |
| $f_4$        | 0.1182±0.0008                | 0.18±0.02        | -2.32±0.05               | 102.1 |
| $f_5$        | 1.0766±0.0008                | 0.18±0.02        | -0.60±0.05               | 98.9  |
| $f_6$        | 0.1057±0.0008                | 0.20±0.02        | -0.85±0.05               | 96.0  |

Frequency list of 0102749931 continued

**Table B.72:** Frequency list of 0102751858

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|--------------|------------------------------|------------------|--------------------------|-------|
| $f_1$        | 0.3089±0.0003                | 0.87±0.04        | 2.05±0.02                | 600.3 |
| $f_2$        | 0.3171±0.0006                | 0.35±0.03        | 2.19±0.04                | 167.8 |
| $f_3$        | 0.1275±0.0006                | 0.28±0.02        | 2.47±0.04                | 139.5 |
| $f_4$        | 0.6224±0.0007                | 0.28±0.03        | -2.49±0.05               | 105.2 |
| $f_5$        | 0.2936±0.0007                | 0.26±0.02        | 1.25±0.04                | 109.7 |
| $f_6$        | 0.1091±0.0011                | 0.18±0.03        | -1.22±0.07               | 51.1  |
| $f_7$        | 0.3018±0.0011                | 0.15±0.02        | -1.21±0.07               | 47.0  |
| $f_8$        | 0.1901±0.0012                | 0.14±0.02        | 1.40±0.07                | 43.2  |
| $f_9$        | 0.6394±0.0012                | 0.14±0.02        | -2.47±0.07               | 39.0  |
| $f_{10}$     | 0.3651±0.0014                | 0.11±0.02        | 1.03±0.09                | 29.9  |
| $f_{12}$     | 0.1162±0.0015                | 0.12±0.02        | 0.27±0.09                | 25.4  |
| $f_{13}$     | 0.2182±0.0015                | 0.09±0.02        | -2.43±0.09               | 24.9  |
| $f_{14}$     | 0.6479±0.0016                | 0.11±0.02        | 0.58±0.10                | 23.5  |
| $f_{15}$     | 0.1354±0.0016                | 0.13±0.03        | -2.39±0.10               | 23.2  |
| $f_{16}$     | 0.1474±0.0017                | 0.10±0.02        | -1.34±0.10               | 20.9  |
| $f_{17}$     | 0.2767±0.0017                | 0.10±0.02        | -0.05±0.10               | 20.2  |

Frequency list of 0102751858 continued

## Appendix B. Frequencies of individual $\gamma$ Dor Stars

| Frequency list of 0102751858 continued |                              |                  |                          |       | Frequency list of 0102755653 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{18}$                               | 0.2075±0.0018                | 0.10±0.02        | 0.01±0.11                | 18.7  | $f_{35}$                               | 4.3850±0.0021                | 0.04±0.01        | 0.91±0.13                | 13.8  |
| $f_{19}$                               | 1.7924±0.0019                | 0.09±0.02        | -1.81±0.11               | 16.9  | $f_{36}$                               | 4.3334±0.0020                | 0.04±0.01        | 0.76±0.12                | 14.4  |
| $f_{20}$                               | 0.2565±0.0019                | 0.09±0.02        | 1.80±0.12                | 15.8  | $f_{37}$                               | 4.4363±0.0020                | 0.04±0.01        | 1.58±0.12                | 15.0  |
| $f_{21}$                               | 0.3373±0.0019                | 0.09±0.02        | 2.34±0.11                | 17.0  | $f_{39}$                               | 1.5362±0.0021                | 0.04±0.01        | 0.38±0.13                | 13.4  |
| $f_{22}$                               | 0.1652±0.0019                | 0.09±0.02        | -2.19±0.12               | 15.4  | $f_{40}$                               | 4.5164±0.0021                | 0.04±0.01        | 2.70±0.13                | 13.2  |
| $f_{23}$                               | 1.8381±0.0020                | 0.09±0.02        | 3.06±0.12                | 14.8  | $f_{41}$                               | 2.8612±0.0021                | 0.04±0.01        | -1.65±0.13               | 13.2  |
| $f_{24}$                               | 0.4951±0.0021                | 0.08±0.02        | 0.02±0.13                | 13.2  | $f_{42}$                               | 4.4703±0.0022                | 0.04±0.01        | 0.05±0.13                | 12.1  |
| $f_{25}$                               | 0.9347±0.0020                | 0.08±0.02        | 2.13±0.12                | 14.0  | $f_{43}$                               | 4.3670±0.0022                | 0.04±0.01        | -1.51±0.13               | 12.4  |
| $f_{26}$                               | 0.9037±0.0021                | 0.08±0.02        | 2.75±0.13                | 13.0  | $f_{44}$                               | 1.6001±0.0022                | 0.04±0.01        | -3.02±0.13               | 12.3  |
| $f_{28}$                               | 0.5366±0.0022                | 0.08±0.02        | 0.31±0.14                | 11.8  | $f_{45}$                               | 1.6205±0.0023                | 0.04±0.01        | -1.47±0.14               | 11.3  |
| $f_{29}$                               | 0.6642±0.0023                | 0.07±0.02        | 2.79±0.14                | 11.2  | $f_{46}$                               | 1.3378±0.0023                | 0.04±0.01        | -1.46±0.14               | 11.4  |
| $f_{30}$                               | 0.5970±0.0023                | 0.07±0.02        | 2.10±0.14                | 10.6  | $f_{47}$                               | 0.3255±0.0023                | 0.04±0.01        | 1.76±0.14                | 11.0  |
| $f_{31}$                               | 0.4812±0.0024                | 0.07±0.02        | 2.53±0.14                | 10.4  | $f_{48}$                               | 4.5811±0.0023                | 0.04±0.01        | -1.74±0.14               | 11.0  |
| $f_{32}$                               | 0.9429±0.0024                | 0.07±0.02        | -1.20±0.15               | 10.1  | $f_{50}$                               | 2.8934±0.0023                | 0.04±0.01        | -2.49±0.14               | 11.3  |
| $f_{33}$                               | 0.7034±0.0025                | 0.07±0.02        | -2.75±0.15               | 9.6   | $f_{51}$                               | 3.0508±0.0023                | 0.04±0.01        | 1.93±0.14                | 10.9  |
| $f_{34}$                               | 0.1747±0.0025                | 0.07±0.02        | -1.71±0.15               | 9.6   | $f_{52}$                               | 3.0155±0.0023                | 0.03±0.01        | -2.37±0.14               | 10.8  |
| $f_{36}$                               | 0.2711±0.0025                | 0.07±0.02        | 1.98±0.15                | 9.5   | $f_{53}$                               | 1.2943±0.0023                | 0.03±0.01        | 0.56±0.14                | 11.0  |
| $f_{37}$                               | 0.3229±0.0026                | 0.06±0.02        | -2.69±0.16               | 8.6   | $f_{54}$                               | 3.0608±0.0023                | 0.04±0.01        | -2.57±0.14               | 10.6  |
| $f_{38}$                               | 0.5662±0.0027                | 0.06±0.02        | 1.48±0.16                | 8.2   | $f_{55}$                               | 2.8292±0.0024                | 0.03±0.01        | -1.32±0.15               | 10.1  |
| $f_{39}$                               | 1.4160±0.0027                | 0.06±0.02        | 0.51±0.16                | 8.0   | $f_{56}$                               | 4.3454±0.0025                | 0.03±0.01        | 1.45±0.15                | 9.7   |
| $f_{40}$                               | 1.4000±0.0027                | 0.06±0.02        | 1.11±0.16                | 8.1   | $f_{57}$                               | 4.6371±0.0024                | 0.03±0.01        | -0.87±0.15               | 10.1  |
| $f_{41}$                               | 0.2261±0.0028                | 0.06±0.02        | -0.15±0.17               | 7.7   | $f_{58}$                               | 1.4537±0.0024                | 0.04±0.01        | -0.89±0.15               | 9.9   |
| $f_{42}$                               | 0.6170±0.0027                | 0.06±0.02        | -1.80±0.16               | 8.0   | $f_{59}$                               | 1.5041±0.0025                | 0.04±0.01        | -2.99±0.15               | 9.7   |
| $f_{43}$                               | 0.4338±0.0028                | 0.06±0.02        | 2.59±0.17                | 7.6   | $f_{60}$                               | 4.3189±0.0025                | 0.03±0.01        | -0.39±0.16               | 9.0   |
| $f_{44}$                               | 0.5049±0.0027                | 0.06±0.02        | -0.27±0.17               | 7.8   | $f_{61}$                               | 1.7339±0.0026                | 0.03±0.01        | 2.74±0.16                | 8.8   |
| $f_{45}$                               | 1.1569±0.0028                | 0.06±0.02        | 2.32±0.17                | 7.4   | $f_{63}$                               | 4.5392±0.0026                | 0.03±0.01        | -2.99±0.16               | 8.8   |
| $f_{46}$                               | 0.9279±0.0029                | 0.05±0.02        | 0.31±0.18                | 6.7   | $f_{64}$                               | 4.2721±0.0025                | 0.03±0.01        | -0.09±0.16               | 9.0   |
| $f_{47}$                               | 0.7554±0.0030                | 0.06±0.02        | 2.86±0.18                | 6.6   | $f_{65}$                               | 1.5114±0.0026                | 0.03±0.01        | 0.15±0.16                | 8.5   |
| $f_{49}$                               | 0.6330±0.0030                | 0.06±0.02        | 2.25±0.19                | 6.3   | $f_{66}$                               | 0.1602±0.0026                | 0.03±0.01        | 1.95±0.16                | 8.5   |
| $f_{51}$                               | 2.3423±0.0031                | 0.05±0.02        | -0.22±0.19               | 6.2   | $f_{67}$                               | 2.9992±0.0026                | 0.03±0.01        | 1.37±0.16                | 8.3   |
| $f_{52}$                               | 1.0783±0.0032                | 0.05±0.02        | -2.62±0.20               | 5.7   | $f_{68}$                               | 1.2679±0.0026                | 0.03±0.01        | 1.60±0.16                | 8.3   |
| $f_{53}$                               | 0.4135±0.0032                | 0.05±0.02        | 2.02±0.19                | 5.8   | $f_{69}$                               | 2.7381±0.0027                | 0.03±0.01        | 0.52±0.16                | 8.2   |
| $f_{54}$                               | 0.9505±0.0032                | 0.05±0.02        | 2.06±0.20                | 5.6   | $f_{70}$                               | 0.2556±0.0027                | 0.03±0.01        | 2.72±0.16                | 8.2   |
| $f_{55}$                               | 0.9759±0.0031                | 0.05±0.02        | 0.82±0.19                | 5.9   | $f_{71}$                               | 0.1147±0.0027                | 0.03±0.01        | 2.92±0.16                | 8.1   |
| $f_{56}$                               | 0.5870±0.0032                | 0.06±0.03        | 1.20±0.20                | 5.6   | $f_{72}$                               | 0.7300±0.0027                | 0.03±0.01        | 1.60±0.17                | 7.9   |
| $f_{57}$                               | 0.5447±0.0031                | 0.05±0.02        | -1.22±0.19               | 6.0   | $f_{73}$                               | 3.0804±0.0027                | 0.03±0.01        | 1.18±0.16                | 8.0   |
| $f_{58}$                               | 1.5181±0.0033                | 0.05±0.02        | -1.84±0.20               | 5.5   | $f_{74}$                               | 0.8964±0.0027                | 0.02±0.01        | -0.85±0.16               | 8.1   |
| $f_{59}$                               | 0.1830±0.0033                | 0.05±0.02        | -0.41±0.20               | 5.3   | $f_{75}$                               | 4.5060±0.0027                | 0.03±0.01        | 2.05±0.16                | 8.1   |
|                                        |                              |                  |                          |       | $f_{76}$                               | 1.4090±0.0028                | 0.03±0.01        | -0.49±0.17               | 7.4   |
|                                        |                              |                  |                          |       | $f_{77}$                               | 3.0725±0.0028                | 0.03±0.01        | -1.20±0.17               | 7.3   |
|                                        |                              |                  |                          |       | $f_{78}$                               | 4.5292±0.0029                | 0.03±0.01        | -2.51±0.17               | 7.1   |
|                                        |                              |                  |                          |       | $f_{79}$                               | 1.1986±0.0029                | 0.03±0.01        | -0.89±0.18               | 7.0   |
|                                        |                              |                  |                          |       | $f_{80}$                               | 0.6344±0.0029                | 0.03±0.01        | 0.67±0.18                | 7.0   |
|                                        |                              |                  |                          |       | $f_{81}$                               | 2.5443±0.0029                | 0.03±0.01        | 1.40±0.18                | 6.7   |
|                                        |                              |                  |                          |       | $f_{82}$                               | 1.5742±0.0029                | 0.03±0.01        | 2.82±0.18                | 6.7   |
|                                        |                              |                  |                          |       | $f_{83}$                               | 4.2848±0.0029                | 0.03±0.01        | -1.36±0.18               | 6.7   |
|                                        |                              |                  |                          |       | $f_{84}$                               | 0.9993±0.0029                | 0.03±0.01        | -0.30±0.18               | 7.0   |
|                                        |                              |                  |                          |       | $f_{85}$                               | 3.5518±0.0030                | 0.03±0.01        | 2.43±0.18                | 6.6   |
|                                        |                              |                  |                          |       | $f_{87}$                               | 5.9444±0.0030                | 0.03±0.01        | 1.77±0.18                | 6.6   |
|                                        |                              |                  |                          |       | $f_{88}$                               | 2.9226±0.0030                | 0.03±0.01        | 2.11±0.18                | 6.5   |
|                                        |                              |                  |                          |       | $f_{89}$                               | 0.1677±0.0030                | 0.03±0.01        | 2.72±0.18                | 6.5   |
|                                        |                              |                  |                          |       | $f_{90}$                               | 2.9895±0.0030                | 0.03±0.01        | 1.88±0.18                | 6.4   |
|                                        |                              |                  |                          |       | $f_{91}$                               | 4.5575±0.0030                | 0.03±0.01        | -1.70±0.18               | 6.5   |
|                                        |                              |                  |                          |       | $f_{92}$                               | 0.3858±0.0031                | 0.03±0.01        | 1.02±0.19                | 6.2   |
|                                        |                              |                  |                          |       | $f_{93}$                               | 2.8799±0.0030                | 0.03±0.01        | -1.45±0.19               | 6.3   |
|                                        |                              |                  |                          |       | $f_{94}$                               | 3.1311±0.0030                | 0.03±0.01        | -1.62±0.18               | 6.5   |
|                                        |                              |                  |                          |       | $f_{95}$                               | 4.5866±0.0030                | 0.03±0.01        | -2.72±0.19               | 6.3   |
|                                        |                              |                  |                          |       | $f_{96}$                               | 4.6052±0.0031                | 0.03±0.01        | 2.37±0.19                | 6.2   |
|                                        |                              |                  |                          |       | $f_{97}$                               | 4.7561±0.0031                | 0.03±0.01        | 0.71±0.19                | 6.0   |
|                                        |                              |                  |                          |       | $f_{98}$                               | 3.0307±0.0031                | 0.03±0.01        | 1.35±0.19                | 6.0   |
|                                        |                              |                  |                          |       | $f_{99}$                               | 0.8862±0.0031                | 0.03±0.01        | -2.27±0.19               | 5.9   |
|                                        |                              |                  |                          |       | $f_{100}$                              | 2.7610±0.0031                | 0.02±0.01        | -0.58±0.19               | 5.9   |
|                                        |                              |                  |                          |       | $f_{101}$                              | 0.9097±0.0031                | 0.03±0.01        | 0.17±0.19                | 5.9   |
|                                        |                              |                  |                          |       | $f_{102}$                              | 0.7015±0.0032                | 0.02±0.01        | 3.08±0.19                | 5.8   |
|                                        |                              |                  |                          |       | $f_{104}$                              | 2.6381±0.0032                | 0.02±0.01        | 2.88±0.20                | 5.6   |
|                                        |                              |                  |                          |       | $f_{105}$                              | 3.3768±0.0032                | 0.02±0.01        | 0.51±0.20                | 5.6   |
|                                        |                              |                  |                          |       | $f_{106}$                              | 1.4697±0.0033                | 0.02±0.01        | 2.44±0.20                | 5.5   |
|                                        |                              |                  |                          |       | $f_{107}$                              | 1.6589±0.0033                | 0.02±0.01        | -2.86±0.20               | 5.4   |
|                                        |                              |                  |                          |       | $f_{108}$                              | 1.4324±0.0033                | 0.02±0.01        | 2.81±0.20                | 5.4   |
|                                        |                              |                  |                          |       | $f_{109}$                              | 2.0422±0.0033                | 0.02±0.01        | 2.84±0.20                | 5.2   |
|                                        |                              |                  |                          |       | $f_{110}$                              | 0.5119±0.0034                | 0.02±0.01        | -0.40±0.21               | 5.1   |
|                                        |                              |                  |                          |       | $f_{111}$                              | 1.7002±0.0034                | 0.02±0.01        | 1.27±0.21                | 5.0   |
|                                        |                              |                  |                          |       |                                        |                              |                  |                          |       |
| Frequency list of 0102755653 continued |                              |                  |                          |       | Frequency list of 0102757495 continued |                              |                  |                          |       |
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_1$                                  | 1.7364±0.0004                | 1.20±0.06        | 0.96±0.02                | 392.6 | $f_1$                                  | 1.7364±0.0004                | 1.20±0.06        | 0.96±0.02                | 392.6 |
| $f_2$                                  | 1.6390±0.0004                | 1.00±0.05        | -2.07±0.02               | 356.2 | $f_2$                                  | 1.6390±0.0004                | 1.00±0.05        | -2.07±0.02               | 356.2 |
| $f_3$                                  | 1.6711±0.0004                | 1.01±0.06        | 1.21±0.03                | 308.9 | $f_3$                                  | 1.6711±0.0004                | 1.01±0.06        | 1.21±0.03                | 308.9 |
| $f_4$                                  | 1.1281±0.0005                | 0.81±0.05        | -1.37±0.03               | 246.4 | $f_4$                                  | 1.1281±0.0005                | 0.81±0.05        | -1.37±0.03               | 246.4 |
|                                        |                              |                  |                          |       |                                        |                              |                  |                          |       |
| Frequency list of 0102755653 continued |                              |                  |                          |       | Frequency list of 0102757495 continued |                              |                  |                          |       |
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_1$                                  | 1.7364±0.0004                | 1.20±0.06        | 0.96±0.02                | 392.6 | $f_1$                                  | 1.7364±0.0004                | 1.20±0.06        | 0.96±0.02                | 392.6 |
| $f_2$                                  | 1.6390±0.0004                | 1.00±0.05        | -2.07±0.02               | 356.2 | $f_2$                                  | 1.6390±0.0004                | 1.00±0.05        | -2.07±0.02               | 356.2 |
| $f_3$                                  | 1.6711±0.0004                | 1.01±0.06        | 1.21±0.03                | 308.9 | $f_3$                                  | 1.6711±0.0004                | 1.01±0.06        | 1.21±0.03                | 308.9 |
| $f_4$                                  | 1.1281±0.0005                | 0.81±0.05        | -1.37±0.03               | 246.4 | $f_4$                                  | 1.1281±0.0005                | 0.81±0.05        | -1.37±0.03               | 246.4 |
|                                        |                              |                  |                          |       |                                        |                              |                  |                          |       |

## Appendix B. Frequencies of individual $\gamma$ Dor Stars

| Frequency list of 0102757495 continued |                              |                  |                          |       | Frequency list of 0102757495 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_5$                                  | 1.0729±0.0005                | 0.76±0.05        | -1.72±0.03               | 233.4 | $f_{93}$                               | 0.2916±0.0028                | 0.10±0.04        | 2.13±0.17                | 7.6   |
| $f_6$                                  | 1.8451±0.0005                | 0.78±0.05        | 2.83±0.03                | 241.2 | $f_{94}$                               | 1.7277±0.0028                | 0.09±0.03        | -0.60±0.17               | 7.5   |
| $f_7$                                  | 1.6266±0.0007                | 0.51±0.05        | 0.05±0.04                | 113.9 | $f_{97}$                               | 0.4876±0.0028                | 0.09±0.03        | -2.27±0.17               | 7.2   |
| $f_8$                                  | 1.6924±0.0008                | 0.47±0.05        | 2.93±0.05                | 97.8  | $f_{98}$                               | 0.6383±0.0029                | 0.09±0.03        | 2.36±0.18                | 6.8   |
| $f_{10}$                               | 0.1146±0.0008                | 0.42±0.05        | -2.75±0.05               | 82.2  | $f_{99}$                               | 0.4315±0.0029                | 0.10±0.04        | -2.24±0.18               | 6.7   |
| $f_{11}$                               | 1.0549±0.0008                | 0.38±0.04        | -0.12±0.05               | 81.6  | $f_{100}$                              | 0.1533±0.0029                | 0.09±0.03        | -2.90±0.17               | 7.1   |
| $f_{12}$                               | 1.6035±0.0009                | 0.39±0.04        | -0.62±0.05               | 78.0  | $f_{101}$                              | 1.4285±0.0029                | 0.08±0.03        | 2.91±0.18                | 6.7   |
| $f_{13}$                               | 1.7182±0.0009                | 0.38±0.04        | 1.02±0.05                | 73.0  | $f_{102}$                              | 1.5763±0.0030                | 0.09±0.04        | -0.69±0.18               | 6.5   |
| $f_{14}$                               | 1.0409±0.0009                | 0.36±0.04        | -0.51±0.06               | 65.7  | $f_{104}$                              | 0.4544±0.0030                | 0.09±0.04        | 1.00±0.18                | 6.4   |
| $f_{15}$                               | 1.0485±0.0009                | 0.30±0.04        | 2.24±0.06                | 64.6  | $f_{105}$                              | 1.3794±0.0030                | 0.09±0.04        | 0.27±0.18                | 6.5   |
| $f_{16}$                               | 1.2182±0.0010                | 0.30±0.04        | -2.08±0.06               | 58.0  | $f_{106}$                              | 3.4725±0.0030                | 0.08±0.03        | 0.97±0.19                | 6.3   |
| $f_{17}$                               | 1.0673±0.0011                | 0.29±0.04        | 2.42±0.07                | 50.4  | $f_{107}$                              | 1.2725±0.0031                | 0.09±0.04        | 2.99±0.19                | 6.2   |
| $f_{18}$                               | 1.8018±0.0012                | 0.29±0.04        | 0.69±0.07                | 43.6  | $f_{108}$                              | 0.8157±0.0030                | 0.09±0.04        | 2.28±0.19                | 6.3   |
| $f_{19}$                               | 1.5328±0.0012                | 0.23±0.04        | 2.62±0.07                | 41.7  | $f_{109}$                              | 1.2255±0.0030                | 0.09±0.04        | 0.89±0.19                | 6.3   |
| $f_{20}$                               | 1.1193±0.0012                | 0.24±0.04        | 2.38±0.07                | 42.1  | $f_{110}$                              | 1.5683±0.0030                | 0.09±0.04        | -1.56±0.19               | 6.3   |
| $f_{21}$                               | 0.6076±0.0012                | 0.21±0.03        | 0.81±0.07                | 41.8  | $f_{113}$                              | 0.2558±0.0031                | 0.09±0.04        | 0.30±0.19                | 6.2   |
| $f_{22}$                               | 1.1394±0.0013                | 0.28±0.05        | 3.03±0.08                | 35.0  | $f_{115}$                              | 1.7414±0.0032                | 0.08±0.03        | -3.10±0.19               | 5.8   |
| $f_{23}$                               | 1.0329±0.0013                | 0.23±0.04        | -2.44±0.08               | 34.5  | $f_{116}$                              | 6.0141±0.0032                | 0.08±0.03        | -3.10±0.20               | 5.7   |
| $f_{24}$                               | 1.1528±0.0013                | 0.25±0.04        | 2.58±0.08                | 34.4  | $f_{117}$                              | 0.9901±0.0033                | 0.09±0.04        | -2.55±0.20               | 5.4   |
| $f_{25}$                               | 0.1238±0.0013                | 0.24±0.04        | 2.46±0.08                | 33.4  | $f_{118}$                              | 0.9494±0.0031                | 0.09±0.04        | -1.94±0.19               | 6.2   |
| $f_{26}$                               | 0.1970±0.0013                | 0.25±0.04        | -0.06±0.08               | 36.0  | $f_{119}$                              | 1.4547±0.0033                | 0.08±0.03        | -2.41±0.20               | 5.4   |
| $f_{27}$                               | 1.0802±0.0014                | 0.19±0.04        | -1.14±0.09               | 29.1  | $f_{120}$                              | 3.0932±0.0033                | 0.08±0.03        | -1.50±0.20               | 5.4   |
| $f_{29}$                               | 1.1763±0.0014                | 0.22±0.04        | -0.11±0.09               | 28.6  | $f_{121}$                              | 0.9684±0.0033                | 0.08±0.04        | 3.01±0.20                | 5.2   |
| $f_{30}$                               | 1.5071±0.0014                | 0.21±0.04        | -0.43±0.09               | 28.3  | $f_{122}$                              | 1.4841±0.0033                | 0.08±0.04        | -0.26±0.20               | 5.2   |
| $f_{31}$                               | 1.5883±0.0015                | 0.22±0.04        | -0.55±0.09               | 26.0  | $f_{123}$                              | 0.9251±0.0033                | 0.08±0.04        | 2.69±0.20                | 5.2   |
| $f_{32}$                               | 0.2050±0.0015                | 0.21±0.04        | -2.09±0.09               | 25.5  |                                        |                              |                  |                          |       |
| $f_{33}$                               | 0.1767±0.0015                | 0.18±0.04        | 2.50±0.09                | 25.6  |                                        |                              |                  |                          |       |
| $f_{34}$                               | 1.1882±0.0015                | 0.21±0.04        | -0.61±0.09               | 25.7  |                                        |                              |                  |                          |       |
| $f_{35}$                               | 1.5158±0.0016                | 0.15±0.03        | 2.84±0.10                | 22.8  |                                        |                              |                  |                          |       |
| $f_{38}$                               | 0.5961±0.0016                | 0.19±0.04        | -1.38±0.10               | 22.3  |                                        |                              |                  |                          |       |
| $f_{39}$                               | 0.6602±0.0017                | 0.17±0.04        | -1.67±0.10               | 21.3  |                                        |                              |                  |                          |       |
| $f_{40}$                               | 1.2019±0.0017                | 0.20±0.04        | 0.70±0.10                | 21.1  |                                        |                              |                  |                          |       |
| $f_{41}$                               | 0.2275±0.0017                | 0.21±0.05        | -1.09±0.11               | 19.5  |                                        |                              |                  |                          |       |
| $f_{42}$                               | 1.5616±0.0018                | 0.15±0.03        | -2.72±0.11               | 18.9  |                                        |                              |                  |                          |       |
| $f_{43}$                               | 1.1058±0.0018                | 0.17±0.04        | -0.14±0.11               | 18.5  |                                        |                              |                  |                          |       |
| $f_{45}$                               | 0.2212±0.0018                | 0.16±0.04        | 1.06±0.11                | 17.5  |                                        |                              |                  |                          |       |
| $f_{47}$                               | 0.7055±0.0019                | 0.14±0.04        | 0.65±0.12                | 15.8  |                                        |                              |                  |                          |       |
| $f_{48}$                               | 1.5252±0.0019                | 0.14±0.04        | 1.80±0.12                | 15.7  |                                        |                              |                  |                          |       |
| $f_{49}$                               | 1.0254±0.0019                | 0.14±0.04        | -0.76±0.12               | 15.6  |                                        |                              |                  |                          |       |
| $f_{50}$                               | 0.3176±0.0020                | 0.14±0.04        | -1.11±0.12               | 15.3  |                                        |                              |                  |                          |       |
| $f_{51}$                               | 1.1666±0.0019                | 0.14±0.03        | 3.13±0.12                | 16.1  |                                        |                              |                  |                          |       |
| $f_{52}$                               | 0.3029±0.0019                | 0.12±0.03        | -1.12±0.12               | 15.5  |                                        |                              |                  |                          |       |
| $f_{53}$                               | 1.2411±0.0020                | 0.14±0.04        | 0.37±0.12                | 14.9  |                                        |                              |                  |                          |       |
| $f_{54}$                               | 1.2955±0.0020                | 0.14±0.04        | 1.45±0.12                | 14.4  |                                        |                              |                  |                          |       |
| $f_{56}$                               | 1.0405±0.0021                | 0.14±0.04        | 2.99±0.13                | 13.8  |                                        |                              |                  |                          |       |
| $f_{57}$                               | 1.6631±0.0020                | 0.16±0.04        | 0.08±0.12                | 14.3  |                                        |                              |                  |                          |       |
| $f_{58}$                               | 0.2336±0.0020                | 0.14±0.04        | -0.73±0.12               | 13.9  |                                        |                              |                  |                          |       |
| $f_{59}$                               | 1.0131±0.0021                | 0.13±0.04        | -3.14±0.13               | 13.7  |                                        |                              |                  |                          |       |
| $f_{62}$                               | 1.7033±0.0021                | 0.13±0.04        | 2.32±0.13                | 13.7  |                                        |                              |                  |                          |       |
| $f_{63}$                               | 0.2496±0.0021                | 0.15±0.04        | -2.25±0.13               | 13.3  |                                        |                              |                  |                          |       |
| $f_{64}$                               | 0.7178±0.0021                | 0.13±0.03        | -2.24±0.13               | 13.8  |                                        |                              |                  |                          |       |
| $f_{65}$                               | 0.7754±0.0021                | 0.13±0.04        | -1.88±0.13               | 13.7  |                                        |                              |                  |                          |       |
| $f_{66}$                               | 1.6458±0.0021                | 0.14±0.04        | 1.31±0.13                | 13.6  |                                        |                              |                  |                          |       |
| $f_{67}$                               | 1.7514±0.0022                | 0.16±0.05        | -1.91±0.13               | 12.4  |                                        |                              |                  |                          |       |
| $f_{68}$                               | 0.2853±0.0022                | 0.12±0.03        | -2.55±0.13               | 12.4  |                                        |                              |                  |                          |       |
| $f_{69}$                               | 1.5460±0.0022                | 0.13±0.04        | 0.49±0.13                | 12.0  |                                        |                              |                  |                          |       |
| $f_{70}$                               | 0.1047±0.0022                | 0.12±0.03        | 2.85±0.13                | 12.0  |                                        |                              |                  |                          |       |
| $f_{71}$                               | 0.1901±0.0023                | 0.12±0.04        | -0.13±0.14               | 11.5  |                                        |                              |                  |                          |       |
| $f_{72}$                               | 1.7603±0.0023                | 0.11±0.03        | 0.04±0.14                | 11.5  |                                        |                              |                  |                          |       |
| $f_{73}$                               | 1.2113±0.0023                | 0.12±0.04        | 1.65±0.14                | 10.9  |                                        |                              |                  |                          |       |
| $f_{74}$                               | 0.9765±0.0023                | 0.11±0.03        | -2.13±0.14               | 11.5  |                                        |                              |                  |                          |       |
| $f_{75}$                               | 0.5643±0.0023                | 0.12±0.04        | 1.81±0.14                | 10.8  |                                        |                              |                  |                          |       |
| $f_{76}$                               | 0.5449±0.0023                | 0.11±0.03        | 2.04±0.14                | 11.3  |                                        |                              |                  |                          |       |
| $f_{77}$                               | 1.2620±0.0023                | 0.11±0.03        | -2.25±0.14               | 10.8  |                                        |                              |                  |                          |       |
| $f_{78}$                               | 1.8620±0.0024                | 0.11±0.03        | -0.34±0.14               | 10.5  |                                        |                              |                  |                          |       |
| $f_{79}$                               | 0.4961±0.0024                | 0.13±0.04        | -1.07±0.15               | 10.0  |                                        |                              |                  |                          |       |
| $f_{80}$                               | 0.5149±0.0024                | 0.11±0.03        | 2.27±0.15                | 10.1  |                                        |                              |                  |                          |       |
| $f_{83}$                               | 0.6176±0.0024                | 0.10±0.03        | -1.26±0.15               | 9.8   |                                        |                              |                  |                          |       |
| $f_{85}$                               | 0.3574±0.0025                | 0.12±0.04        | -2.44±0.15               | 9.4   |                                        |                              |                  |                          |       |
| $f_{86}$                               | 2.0063±0.0025                | 0.12±0.04        | 0.18±0.15                | 9.2   |                                        |                              |                  |                          |       |
| $f_{87}$                               | 0.7339±0.0026                | 0.10±0.03        | -2.24±0.16               | 8.9   |                                        |                              |                  |                          |       |
| $f_{88}$                               | 1.1261±0.0026                | 0.11±0.04        | -1.77±0.16               | 8.7   |                                        |                              |                  |                          |       |
| $f_{89}$                               | 1.0877±0.0026                | 0.11±0.04        | -2.12±0.16               | 8.5   |                                        |                              |                  |                          |       |
| $f_{90}$                               | 0.7857±0.0027                | 0.09±0.03        | -1.18±0.16               | 8.0   |                                        |                              |                  |                          |       |
| $f_{91}$                               | 1.1935±0.0028                | 0.10±0.04        | -2.89±0.17               | 7.7   |                                        |                              |                  |                          |       |
| $f_{92}$                               | 0.3873±0.0028                | 0.10±0.04        | -1.69±0.17               | 7.5   |                                        |                              |                  |                          |       |

| Frequency list of 0102758112 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_1$                                  | 1.9540±0.0006                | 0.39±0.03        | -2.93±0.03               | 185.9 |
| $f_2$                                  | 1.1828±0.0010                | 0.25±0.03        | -0.48±0.06               | 58.1  |
| $f_3$                                  | 1.8867±0.0010                | 0.17±0.02        | 1.53±0.06                | 53.0  |
| $f_5$                                  | 1.8194±0.0011                | 0.22±0.03        | -1.36±0.07               | 46.0  |
| $f_6$                                  | 0.9465±0.0011                | 0.18±0.03        | -2.46±0.07               | 44.7  |
| $f_7$                                  | 0.1068±0.0012                | 0.16±0.02        | -0.61±0.07               | 43.6  |
| $f_9$                                  | 1.7985±0.0012                | 0.20±0.03        | 2.10±0.07                | 40.9  |
| $f_{10}$                               | 1.7485±0.0012                | 0.16±0.03        | -1.18±0.07               | 39.1  |
| $f_{11}$                               | 3.7925±0.0012                | 0.17±0.03        | -1.93±0.08               | 37.7  |
| $f_{12}$                               | 1.7142±0.0012                | 0.16±0.03        | 1.67±0.08                | 38.1  |
| $f_{13}$                               | 0.9925±0.0013                | 0.15±0.02        | -0.11±0.08               | 36.3  |
| $f_{14}$                               | 0.1212±0.0013                | 0.15±0.02        | 0.38±0.08                | 37.1  |
| $f_{16}$                               | 1.8631±0.0013                | 0.15±0.03        | 2.76±0.08                | 34.5  |
| $f_{17}$                               | 2.1901±0.0013                | 0.15±0.03        | 1.73±0.08                | 34.4  |
| $f_{18}$                               | 1.8328±0.0013                | 0.15±0.03        | 0.76±0.08                | 34.5  |
| $f_{19}$                               | 3.7019±0.0013                | 0.14±0.02        | 2.74±0.08                | 32.4  |
| $f_{21}$                               | 2.6408±0.0013                | 0.14±0.02        | 1.14±0.08                | 32.1  |
| $f_{22}$                               | 0.5928±0.0014                | 0.14±0.03        | -2.13±0.08               | 31.1  |
| $f_{23}$                               | 0.1461±0.0013                | 0.14±0.02        | 0.33±0.08                | 32.4  |
| $f_{24}$                               | 1.3699±0.0014                | 0.13±0.02        | 0.17±0.09                | 28.6  |
| $f_{25}$                               | 3.7542±0.0014                | 0.11±0.02        | -0.52±0.09               | 28.0  |
| $f_{26}$                               | 0.2059±0.0016                | 0.14±0.03        | 0.06±0.10                | 23.7  |
| $f_{27}$                               | 3.3068±0.0016                | 0.11±0.02        | -0.80±0.10               | 22.3  |
| $f_{28}$                               | 1.1718±0.0016                | 0.11±0.02        | -1.92±0.10               | 21.8  |
| $f_{29}$                               | 2.1153±0.0016                | 0.12±0.03        | -0.89±0.10               | 22.0  |
| $f_{30}$                               | 1.4684±0.0017                | 0.11±0.02        | 2.86±0.10                | 20.1  |
| $f_{31}$                               | 0.1802±0.0017                | 0.10±0.02        | 1.04±0.10                | 20.3  |
| $f_{32}$                               | 1.7889±0.0017                | 0.11±0.02        | -1.58±0.11               | 19.6  |
| $f_{33}$                               | 0.9715±0.0017                | 0.11±0.02        | 2.86±0.11                | 19.4  |
| $f_{34}$                               | 0.2138±0.0017                | 0.09±0.02        | 0.41±0.11                | 19.3  |
| $f_{35}$                               | 1.7575±0.0018                | 0.10±0.02        | -3.10±0.11               | 18.0  |
| $f_{36}$                               | 1.1589±0.0018                | 0.10±0.02        | -2.38±0.11               | 17.1  |
| $f_{38}$                               | 0.1582±0.0018                | 0.09±0.02        | 0.21±0.11                | 17.1  |
| $f_{39}$                               | 3.7727±0.0018                | 0.09±0.02        | -1.77±0.11               | 17.4  |
| $f_{40}$                               | 1.6841±0.0020                | 0.09±0.02        | 1.35±0.12                | 15.3  |
| $f_{41}$                               | 1.6386±0.0020                | 0.08±0.02        | 1.82±0.12                | 14.4  |
| $f_{42}$                               | 0.3464±0.0020                | 0.09±0.02        | 0.63±0.12                | 14.2  |
| $f_{43}$                               | 0.3686±0.0020                | 0.09±0.02        | 1.72±0.12                | 13.9  |
| $f_{44}$                               | 0.3173±0.0021                | 0.09±0.02        | 2.60±0.13                | 13.7  |
| $f_{45}$                               | 2.1764±0.0020                | 0.09±0.02        | -0.25±0.12               | 14.0  |
| $f_{46}$                               | 2.0846±0.0021                | 0.09±0.02        | -0.99±0.13               | 13.8  |
| $f_{47}$                               | 1.8419±0.0020                | 0.08±0.02        | 2.02±0.12                | 13.9  |
| $f_{49}$                               | 2.3049±0.0021                | 0.08±0.02        | 2.15±0.13                | 13.3  |
| $f_{50}$                               | 1.6921±0.0021                | 0.08±0.02        | 0.22±0.13                | 12.9  |
| $f_{51}$                               | 1.9014±0.0021                | 0.09±0.03        | -1.41±0.13               | 12.8  |

## Appendix B. Frequencies of individual $\gamma$ Dor Stars

| Frequency list of 0102758112 continued |                              |                  |                          |       | Frequency list of 0102763149 continued |                              |                  |                          |        |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|--------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign.  |
| $f_{52}$                               | 3.5724±0.0021                | 0.08±0.02        | 1.27±0.13                | 12.7  | $f_{22}$                               | 0.1361±0.0019                | 0.07±0.02        | -3.02±0.12               | 15.9   |
| $f_{53}$                               | 0.4712±0.0021                | 0.09±0.03        | 2.69±0.13                | 12.8  | $f_{23}$                               | 0.7423±0.0020                | 0.06±0.02        | 1.75±0.12                | 14.4   |
| $f_{54}$                               | 0.4538±0.0021                | 0.09±0.02        | 2.11±0.13                | 13.7  | $f_{24}$                               | 0.7824±0.0020                | 0.07±0.02        | 1.42±0.12                | 14.3   |
| $f_{56}$                               | 0.1740±0.0023                | 0.06±0.02        | 2.20±0.14                | 10.6  | $f_{25}$                               | 3.0033±0.0021                | 0.06±0.02        | -3.02±0.13               | 13.8   |
| $f_{57}$                               | 1.9861±0.0024                | 0.08±0.02        | -0.30±0.14               | 10.5  | $f_{26}$                               | 0.2000±0.0021                | 0.06±0.02        | 0.21±0.13                | 13.2   |
| $f_{58}$                               | 1.7335±0.0023                | 0.08±0.02        | -0.12±0.14               | 10.6  | $f_{27}$                               | 2.4095±0.0021                | 0.06±0.02        | 2.67±0.13                | 12.7   |
| $f_{59}$                               | 0.2962±0.0024                | 0.08±0.02        | -1.52±0.14               | 10.4  | $f_{28}$                               | 0.1786±0.0022                | 0.05±0.01        | -0.83±0.13               | 12.5   |
| $f_{62}$                               | 0.4369±0.0024                | 0.08±0.02        | -1.82±0.14               | 10.5  | $f_{29}$                               | 0.7021±0.0021                | 0.06±0.02        | 0.26±0.13                | 12.7   |
| $f_{63}$                               | 0.5467±0.0024                | 0.07±0.02        | -1.46±0.15               | 10.3  | $f_{30}$                               | 0.2447±0.0021                | 0.06±0.02        | 1.22±0.13                | 12.8   |
| $f_{64}$                               | 1.5467±0.0024                | 0.07±0.02        | -0.25±0.15               | 9.9   | $f_{31}$                               | 0.3484±0.0021                | 0.06±0.02        | -1.84±0.13               | 12.9   |
| $f_{65}$                               | 1.6135±0.0024                | 0.07±0.02        | 1.30±0.15                | 10.3  | $f_{32}$                               | 0.9360±0.0022                | 0.06±0.02        | 1.19±0.13                | 12.0   |
| $f_{67}$                               | 0.4904±0.0024                | 0.07±0.02        | -1.13±0.14               | 10.5  | $f_{33}$                               | 0.7672±0.0022                | 0.06±0.02        | -1.14±0.14               | 11.7   |
| $f_{68}$                               | 2.0301±0.0024                | 0.07±0.02        | 1.49±0.15                | 9.9   | $f_{34}$                               | 2.3551±0.0023                | 0.05±0.02        | 3.00±0.14                | 11.0   |
| $f_{69}$                               | 1.2856±0.0024                | 0.07±0.02        | 2.38±0.15                | 9.9   | $f_{35}$                               | 0.5016±0.0024                | 0.05±0.02        | 0.30±0.15                | 10.3   |
| $f_{70}$                               | 1.4529±0.0025                | 0.06±0.02        | 0.82±0.15                | 9.6   | $f_{36}$                               | 1.4855±0.0024                | 0.05±0.02        | -0.22±0.15               | 10.2   |
| $f_{71}$                               | 0.4174±0.0025                | 0.06±0.02        | 1.15±0.15                | 9.5   | $f_{37}$                               | 1.9505±0.0024                | 0.05±0.02        | -0.51±0.15               | 10.2   |
| $f_{72}$                               | 0.7011±0.0025                | 0.07±0.02        | -0.90±0.15               | 9.4   | $f_{38}$                               | 0.1448±0.0025                | 0.06±0.02        | 0.18±0.15                | 9.4    |
| $f_{75}$                               | 3.8798±0.0025                | 0.07±0.02        | 2.33±0.15                | 9.3   | $f_{39}$                               | 0.7517±0.0025                | 0.05±0.02        | -1.99±0.15               | 9.5    |
| $f_{76}$                               | 2.1547±0.0025                | 0.07±0.02        | 2.74±0.16                | 9.0   | $f_{40}$                               | 2.5154±0.0025                | 0.05±0.02        | 0.12±0.15                | 9.1    |
| $f_{77}$                               | 0.2589±0.0026                | 0.07±0.02        | 2.60±0.16                | 8.9   | $f_{41}$                               | 0.9653±0.0025                | 0.05±0.02        | -0.95±0.15               | 9.1    |
| $f_{78}$                               | 0.2382±0.0025                | 0.06±0.02        | -1.90±0.16               | 9.0   | $f_{42}$                               | 0.4012±0.0026                | 0.05±0.02        | 1.86±0.16                | 8.4    |
| $f_{79}$                               | 55.8647±0.0026               | 0.07±0.02        | 3.02±0.16                | 8.8   | $f_{43}$                               | 1.9571±0.0027                | 0.04±0.01        | 2.99±0.16                | 8.2    |
| $f_{80}$                               | 0.3598±0.0026                | 0.07±0.02        | -2.77±0.16               | 8.4   | $f_{44}$                               | 0.5697±0.0027                | 0.05±0.02        | -0.29±0.16               | 8.2    |
| $f_{81}$                               | 0.1896±0.0027                | 0.07±0.02        | 0.52±0.16                | 8.2   | $f_{45}$                               | 1.7394±0.0026                | 0.05±0.02        | -2.85±0.16               | 8.3    |
| $f_{82}$                               | 1.0205±0.0027                | 0.06±0.02        | 0.88±0.16                | 8.2   | $f_{46}$                               | 0.9901±0.0026                | 0.05±0.02        | 2.64±0.16                | 8.3    |
| $f_{84}$                               | 0.3847±0.0027                | 0.06±0.02        | -0.86±0.16               | 8.1   | $f_{47}$                               | 2.3760±0.0027                | 0.05±0.02        | -1.19±0.16               | 8.2    |
| $f_{85}$                               | 1.9303±0.0027                | 0.06±0.02        | -0.65±0.17               | 7.8   | $f_{48}$                               | 2.7934±0.0028                | 0.05±0.02        | 0.74±0.17                | 7.7    |
| $f_{86}$                               | 3.3270±0.0027                | 0.07±0.02        | -0.87±0.17               | 7.9   | $f_{49}$                               | 0.4631±0.0027                | 0.05±0.02        | -2.75±0.17               | 7.9    |
| $f_{87}$                               | 3.2392±0.0027                | 0.06±0.02        | -1.96±0.17               | 7.8   | $f_{50}$                               | 0.1632±0.0027                | 0.05±0.02        | -2.45±0.17               | 7.8    |
| $f_{88}$                               | 3.6380±0.0027                | 0.06±0.02        | 0.61±0.17                | 7.9   | $f_{51}$                               | 0.1917±0.0027                | 0.05±0.02        | -2.50±0.16               | 8.1    |
| $f_{89}$                               | 0.1369±0.0028                | 0.06±0.02        | 3.04±0.17                | 7.7   | $f_{52}$                               | 0.2907±0.0028                | 0.05±0.02        | 1.42±0.17                | 7.6    |
| $f_{90}$                               | 3.0590±0.0028                | 0.06±0.02        | -0.11±0.17               | 7.5   | $f_{53}$                               | 1.7753±0.0028                | 0.05±0.02        | -2.64±0.17               | 7.5    |
| $f_{92}$                               | 1.2227±0.0028                | 0.06±0.02        | -2.85±0.17               | 7.6   | $f_{54}$                               | 1.3899±0.0028                | 0.04±0.01        | 1.69±0.17                | 7.3    |
| $f_{93}$                               | 0.1647±0.0028                | 0.06±0.02        | -0.26±0.17               | 7.2   | $f_{55}$                               | 2.9757±0.0028                | 0.04±0.01        | -2.15±0.17               | 7.3    |
| $f_{95}$                               | 0.3258±0.0028                | 0.07±0.03        | -1.24±0.17               | 7.2   | $f_{56}$                               | 2.5540±0.0028                | 0.04±0.01        | 1.57±0.17                | 7.3    |
| $f_{96}$                               | 3.7361±0.0029                | 0.06±0.02        | -1.07±0.18               | 6.9   | $f_{57}$                               | 1.0070±0.0028                | 0.04±0.01        | -2.96±0.17               | 7.5    |
| $f_{97}$                               | 4.0968±0.0030                | 0.05±0.02        | -2.75±0.18               | 6.6   | $f_{58}$                               | 0.3806±0.0029                | 0.04±0.02        | -1.59±0.17               | 7.1    |
| $f_{98}$                               | 1.0033±0.0030                | 0.05±0.02        | -2.88±0.18               | 6.6   | $f_{59}$                               | 2.4571±0.0029                | 0.04±0.02        | 0.30±0.17                | 7.1    |
| $f_{99}$                               | 41.8825±0.0030               | 0.06±0.02        | -0.48±0.18               | 6.6   | $f_{60}$                               | 0.9184±0.0030                | 0.04±0.02        | 1.03±0.18                | 6.5    |
| $f_{100}$                              | 0.1989±0.0030                | 0.06±0.02        | 2.98±0.19                | 6.3   | $f_{61}$                               | 2.0152±0.0029                | 0.04±0.02        | -2.74±0.18               | 6.7    |
| $f_{102}$                              | 0.3372±0.0031                | 0.05±0.02        | -0.44±0.19               | 6.1   | $f_{62}$                               | 0.4307±0.0029                | 0.05±0.02        | 2.24±0.18                | 6.8    |
| $f_{103}$                              | 1.9091±0.0031                | 0.05±0.02        | -0.27±0.19               | 6.0   | $f_{63}$                               | 0.2209±0.0030                | 0.04±0.02        | -0.16±0.18               | 6.6    |
| $f_{104}$                              | 55.8548±0.0031               | 0.05±0.02        | -1.04±0.19               | 5.9   | $f_{64}$                               | 0.3170±0.0029                | 0.04±0.02        | 0.49±0.18                | 6.8    |
| $f_{105}$                              | 3.6544±0.0032                | 0.05±0.02        | 0.38±0.19                | 5.8   | $f_{65}$                               | 1.7625±0.0030                | 0.04±0.02        | 1.97±0.18                | 6.5    |
| $f_{106}$                              | 0.6515±0.0032                | 0.05±0.02        | 1.27±0.20                | 5.6   | $f_{66}$                               | 1.4598±0.0030                | 0.04±0.02        | -2.57±0.18               | 6.4    |
| $f_{108}$                              | 0.5293±0.0033                | 0.05±0.02        | -0.20±0.20               | 5.4   | $f_{67}$                               | 3.1641±0.0031                | 0.04±0.02        | 2.92±0.19                | 6.0    |
| $f_{109}$                              | 1.4428±0.0033                | 0.05±0.02        | 1.53±0.20                | 5.4   | $f_{68}$                               | 1.0742±0.0031                | 0.04±0.02        | -0.85±0.19               | 6.0    |
| $f_{110}$                              | 5.4604±0.0033                | 0.05±0.02        | -1.98±0.20               | 5.4   | $f_{70}$                               | 2.9065±0.0031                | 0.04±0.02        | 2.07±0.19                | 6.0    |
| $f_{111}$                              | 0.8954±0.0033                | 0.05±0.02        | 2.39±0.20                | 5.2   | $f_{71}$                               | 2.0893±0.0031                | 0.04±0.02        | -1.92±0.19               | 6.0    |
| $f_{114}$                              | 0.7507±0.0033                | 0.05±0.02        | -2.73±0.20               | 5.2   | $f_{72}$                               | 0.5944±0.0031                | 0.04±0.02        | 0.95±0.19                | 6.1    |
| $f_{115}$                              | 0.5037±0.0033                | 0.05±0.02        | 0.44±0.20                | 5.4   | $f_{73}$                               | 1.1619±0.0032                | 0.04±0.02        | 2.90±0.20                | 5.6    |
| $f_{116}$                              | 1.3067±0.0033                | 0.05±0.02        | -1.23±0.20               | 5.3   | $f_{74}$                               | 1.1853±0.0032                | 0.04±0.02        | -2.72±0.20               | 5.6    |
| $f_{118}$                              | 3.5111±0.0033                | 0.05±0.02        | -0.46±0.20               | 5.2   | $f_{75}$                               | 4.0253±0.0033                | 0.04±0.02        | -2.90±0.20               | 5.5    |
| $f_{119}$                              | 3.4774±0.0034                | 0.05±0.02        | 0.39±0.21                | 5.0   | $f_{76}$                               | 3.2198±0.0033                | 0.04±0.02        | 0.83±0.20                | 5.4    |
| Frequency list of 0102763149 continued |                              |                  |                          |       | $f_{77}$                               | 0.1203±0.0033                | 0.04±0.02        | -2.52±0.20               | 5.4    |
|                                        |                              |                  |                          |       | $f_{78}$                               | 1.0617±0.0033                | 0.04±0.02        | 2.42±0.20                | 5.4    |
|                                        |                              |                  |                          |       | $f_{79}$                               | 0.4111±0.0033                | 0.04±0.02        | -1.22±0.20               | 5.4    |
|                                        |                              |                  |                          |       | $f_{80}$                               | 2.3972±0.0033                | 0.04±0.02        | -1.76±0.20               | 5.5    |
|                                        |                              |                  |                          |       | $f_{81}$                               | 1.8249±0.0033                | 0.04±0.02        | 1.36±0.20                | 5.4    |
|                                        |                              |                  |                          |       | $f_{82}$                               | 1.7171±0.0033                | 0.04±0.02        | -1.02±0.20               | 5.2    |
|                                        |                              |                  |                          |       | $f_{83}$                               | 1.1198±0.0033                | 0.04±0.02        | -1.78±0.20               | 5.2    |
|                                        |                              |                  |                          |       | $f_{84}$                               | 2.1174±0.0033                | 0.04±0.02        | -1.36±0.20               | 5.3    |
|                                        |                              |                  |                          |       | $f_{85}$                               | 1.2711±0.0033                | 0.04±0.02        | 2.31±0.20                | 5.2    |
|                                        |                              |                  |                          |       | $f_{86}$                               | 0.9483±0.0034                | 0.04±0.02        | -1.50±0.21               | 5.1    |
|                                        |                              |                  |                          |       | $f_{87}$                               | 0.6400±0.0033                | 0.04±0.02        | -2.90±0.20               | 5.4    |
|                                        |                              |                  |                          |       | $f_{88}$                               | 1.6383±0.0034                | 0.04±0.02        | -2.92±0.21               | 5.1    |
|                                        |                              |                  |                          |       | Frequency list of 0102763156 continued |                              |                  |                          |        |
|                                        |                              |                  |                          |       | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign.  |
|                                        |                              |                  |                          |       | $f_1$                                  | 1.6986±0.0002                | 9.46±0.19        | 1.10±0.01                | 2510.3 |
|                                        |                              |                  |                          |       | $f_2$                                  | 1.5829±0.0003                | 3.03±0.12        | 1.45±0.02                | 620.1  |
|                                        |                              |                  |                          |       | $f_3$                                  | 1.5371±0.0004                | 2.37±0.11        | 0.11±0.02                | 445.0  |
|                                        |                              |                  |                          |       | $f_4$                                  | 1.8589±0.0004                | 1.90±0.10        | 2.34±0.03                | 347.0  |
|                                        |                              |                  |                          |       | $f_5$                                  | 2.0973±0.0004                | 1.93±0.10        | -0.62±0.03               | 342.3  |
|                                        |                              |                  |                          |       | $f_6$                                  | 1.5149±0.0005                | 0.60±0.10        | 1.14±0.03                | 254.4  |
|                                        |                              |                  |                          |       | $f_7$                                  | 6.4193±0.0006                | 1.32±0.10        | 2.17±0.03                | 180.5  |
|                                        |                              |                  |                          |       | $f_8$                                  | 1.6689±0.0007                | 1.07±0.09        | 0.53±0.04                | 137.4  |
|                                        |                              |                  |                          |       | $f_9$                                  | 0.1608±0.0007                | 1.02±0.09        | 0.30±0.04                | 135.8  |

**Table B.77:** Frequency list of 0102763156

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign.  |
|--------------|------------------------------|------------------|--------------------------|--------|
| $f_1$        | 1.6986±0.0002                | 9.46±0.19        | 1.10±0.01                | 2510.3 |
| $f_2$        | 1.5829±0.0003                | 3.03±0.12        | 1.45±0.02                | 620.1  |
| $f_3$        | 1.5371±0.0004                | 2.37±0.11        | 0.11±0.02                | 445.0  |
| $f_4$        | 1.8589±0.0004                | 1.90±0.10        | 2.34±0.03                | 347.0  |
| $f_5$        | 2.0973±0.0004                | 1.93±0.10        | -0.62±0.03               | 342.3  |
| $f_6$        | 1.5149±0.0005                | 0.60±0.10        | 1.14±0.03                | 254.4  |
| $f_7$        | 6.4193±0.0006                | 1.32±0.10        | 2.17±0.03                | 180.5  |
| $f_8$        | 1.6689±0.0007                | 1.07±0.09        | 0.53±0.04                | 137.4  |
| $f_9$        | 0.1608±0.0007                | 1.02±0.09        | 0.30±0.04                | 135.8  |

## Appendix B. Frequencies of individual $\gamma$ Dor Stars

| Frequency list of 0102763156 continued |                              |                  |                          |       | Frequency list of 0102763156 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{10}$                               | 3.3971±0.0007                | 1.01±0.09        | 1.15±0.04                | 129.8 | $f_{119}$                              | 1.4714±0.0021                | 0.19±0.05        | -2.65±0.13               | 12.8  |
| $f_{11}$                               | 4.0347±0.0007                | 1.02±0.09        | 3.03±0.04                | 133.3 | $f_{120}$                              | 1.1283±0.0022                | 0.19±0.05        | -2.78±0.13               | 12.1  |
| $f_{12}$                               | 0.6912±0.0007                | 0.91±0.09        | -0.20±0.04               | 112.5 | $f_{121}$                              | 0.6048±0.0022                | 0.18±0.05        | -0.30±0.13               | 12.0  |
| $f_{13}$                               | 1.8137±0.0008                | 0.82±0.08        | 1.18±0.05                | 94.7  | $f_{122}$                              | 0.6447±0.0021                | 0.20±0.06        | 2.92±0.13                | 12.7  |
| $f_{14}$                               | 1.3545±0.0008                | 0.80±0.09        | -1.61±0.05               | 83.3  | $f_{123}$                              | 2.4770±0.0022                | 0.19±0.06        | -0.57±0.14               | 11.9  |
| $f_{18}$                               | 0.1154±0.0009                | 0.70±0.08        | 0.60±0.05                | 76.5  | $f_{125}$                              | 3.7661±0.0023                | 0.18±0.05        | 1.71±0.14                | 11.2  |
| $f_{19}$                               | 2.0067±0.0009                | 1.59±0.19        | -0.59±0.06               | 70.0  | $f_{126}$                              | 5.0657±0.0023                | 0.18±0.05        | 0.76±0.14                | 11.3  |
| $f_{20}$                               | 0.3987±0.0009                | 0.62±0.08        | 1.87±0.06                | 65.3  | $f_{127}$                              | 1.3309±0.0023                | 0.20±0.06        | 0.04±0.14                | 11.3  |
| $f_{21}$                               | 1.5606±0.0010                | 0.59±0.08        | 1.65±0.06                | 60.8  | $f_{128}$                              | 0.5460±0.0023                | 0.21±0.06        | -0.20±0.14               | 11.3  |
| $f_{22}$                               | 3.2818±0.0011                | 0.57±0.08        | -1.97±0.06               | 52.3  | $f_{129}$                              | 2.4314±0.0023                | 0.18±0.05        | 0.37±0.14                | 11.2  |
| $f_{23}$                               | 3.3677±0.0010                | 0.56±0.07        | 1.23±0.06                | 57.7  | $f_{130}$                              | 3.1822±0.0023                | 0.19±0.06        | 0.50±0.14                | 11.2  |
| $f_{25}$                               | 1.6136±0.0011                | 0.56±0.08        | 0.85±0.06                | 52.6  | $f_{137}$                              | 1.8598±0.0023                | 0.20±0.06        | -1.13±0.14               | 10.6  |
| $f_{30}$                               | 2.3618±0.0011                | 0.53±0.08        | -2.03±0.07               | 48.9  | $f_{138}$                              | 3.7080±0.0024                | 0.17±0.05        | 0.39±0.14                | 10.5  |
| $f_{31}$                               | 8.6285±0.0011                | 0.51±0.07        | 3.06±0.07                | 50.2  | $f_{140}$                              | 2.0682±0.0024                | 0.17±0.05        | -1.08±0.15               | 9.9   |
| $f_{32}$                               | 6.3171±0.0011                | 0.53±0.07        | -2.03±0.07               | 50.5  | $f_{141}$                              | 0.8504±0.0024                | 0.15±0.05        | 1.15±0.15                | 9.8   |
| $f_{33}$                               | 0.6626±0.0011                | 0.47±0.07        | 2.90±0.07                | 45.8  | $f_{142}$                              | 1.4089±0.0025                | 0.17±0.05        | -2.42±0.15               | 9.6   |
| $f_{34}$                               | 1.0076±0.0011                | 0.43±0.06        | 1.02±0.07                | 44.3  | $f_{143}$                              | 3.1960±0.0025                | 0.17±0.06        | 3.13±0.15                | 9.5   |
| $f_{35}$                               | 1.4013±0.0012                | 0.42±0.06        | -2.19±0.07               | 43.0  | $f_{144}$                              | 0.5036±0.0024                | 0.19±0.06        | -1.01±0.15               | 9.8   |
| $f_{44}$                               | 3.2364±0.0012                | 0.40±0.06        | -2.69±0.08               | 38.5  | $f_{148}$                              | 1.3474±0.0025                | 0.17±0.06        | 2.01±0.15                | 9.4   |
| $f_{45}$                               | 3.7960±0.0013                | 0.39±0.06        | -1.09±0.08               | 36.1  | $f_{151}$                              | 3.4402±0.0025                | 0.16±0.05        | 2.49±0.15                | 9.5   |
| $f_{47}$                               | 6.3539±0.0013                | 0.39±0.07        | -1.84±0.08               | 35.6  | $f_{154}$                              | 2.6268±0.0025                | 0.17±0.06        | -1.87±0.15               | 9.1   |
| $f_{48}$                               | 1.3027±0.0013                | 0.41±0.07        | -1.69±0.08               | 35.0  | $f_{155}$                              | 2.5119±0.0025                | 0.16±0.05        | -1.88±0.15               | 9.3   |
| $f_{49}$                               | 5.2204±0.0013                | 0.37±0.07        | 2.55±0.08                | 32.4  | $f_{157}$                              | 0.4701±0.0026                | 0.16±0.05        | -2.92±0.16               | 8.8   |
| $f_{50}$                               | 2.0287±0.0014                | 0.32±0.06        | -1.27±0.08               | 30.9  | $f_{158}$                              | 1.7153±0.0026                | 0.17±0.06        | -2.11±0.16               | 8.9   |
| $f_{51}$                               | 2.2588±0.0014                | 0.37±0.07        | -1.65±0.08               | 31.3  | $f_{160}$                              | 0.4390±0.0026                | 0.16±0.05        | -0.17±0.16               | 8.9   |
| $f_{53}$                               | 1.1950±0.0014                | 0.30±0.05        | -1.14±0.08               | 30.8  | $f_{161}$                              | 1.2847±0.0026                | 0.16±0.05        | -3.05±0.16               | 8.5   |
| $f_{54}$                               | 1.3265±0.0014                | 0.31±0.06        | -0.42±0.09               | 29.2  | $f_{162}$                              | 1.4935±0.0026                | 0.15±0.05        | -1.15±0.16               | 8.9   |
| $f_{55}$                               | 1.3403±0.0015                | 0.35±0.07        | 1.94±0.09                | 27.6  | $f_{169}$                              | 1.9559±0.0027                | 0.15±0.05        | -2.19±0.16               | 8.2   |
| $f_{56}$                               | 2.4663±0.0015                | 0.35±0.07        | -1.36±0.09               | 24.7  | $f_{171}$                              | 2.6668±0.0027                | 0.14±0.05        | 1.40±0.16                | 8.1   |
| $f_{57}$                               | 0.1846±0.0015                | 0.33±0.07        | 0.69±0.09                | 25.7  | $f_{172}$                              | 4.0085±0.0027                | 0.15±0.05        | 1.00±0.16                | 8.1   |
| $f_{58}$                               | 0.2760±0.0015                | 0.29±0.06        | -2.44±0.09               | 26.3  | $f_{175}$                              | 2.0061±0.0026                | 0.16±0.05        | 2.69±0.16                | 8.7   |
| $f_{59}$                               | 0.6255±0.0015                | 0.32±0.06        | 0.62±0.09                | 25.2  | $f_{176}$                              | 2.1226±0.0026                | 0.16±0.05        | 1.60±0.16                | 8.5   |
| $f_{60}$                               | 3.2119±0.0016                | 0.31±0.06        | 0.12±0.09                | 24.2  | $f_{177}$                              | 1.3933±0.0027                | 0.15±0.05        | -1.78±0.16               | 8.0   |
| $f_{61}$                               | 3.5565±0.0015                | 0.30±0.06        | -0.21±0.09               | 24.5  | $f_{178}$                              | 0.5275±0.0027                | 0.15±0.05        | 2.26±0.16                | 8.0   |
| $f_{62}$                               | 0.5574±0.0016                | 0.28±0.06        | -1.13±0.10               | 23.5  | $f_{179}$                              | 0.7713±0.0027                | 0.15±0.05        | -1.04±0.16               | 8.0   |
| $f_{63}$                               | 2.2907±0.0016                | 0.27±0.06        | 1.11±0.10                | 22.0  | $f_{180}$                              | 1.2573±0.0027                | 0.15±0.05        | 2.59±0.17                | 7.8   |
| $f_{64}$                               | 2.7332±0.0016                | 0.29±0.06        | -0.62±0.10               | 21.6  | $f_{181}$                              | 3.0994±0.0027                | 0.14±0.05        | -2.54±0.17               | 7.8   |
| $f_{65}$                               | 0.3092±0.0016                | 0.28±0.06        | -1.91±0.10               | 21.5  | $f_{183}$                              | 0.3574±0.0028                | 0.14±0.05        | 2.44±0.17                | 7.3   |
| $f_{66}$                               | 1.3120±0.0016                | 0.26±0.06        | -1.44±0.10               | 21.6  | $f_{184}$                              | 0.9505±0.0028                | 0.15±0.06        | -2.01±0.17               | 7.4   |
| $f_{70}$                               | 0.3668±0.0017                | 0.31±0.07        | -1.06±0.10               | 20.3  | $f_{185}$                              | 4.0583±0.0028                | 0.14±0.05        | -0.16±0.17               | 7.3   |
| $f_{71}$                               | 1.4840±0.0017                | 0.20±0.04        | -0.80±0.10               | 20.3  | $f_{186}$                              | 0.2087±0.0028                | 0.14±0.05        | 0.68±0.17                | 7.3   |
| $f_{72}$                               | 1.3682±0.0017                | 0.25±0.06        | -0.25±0.10               | 20.4  | $f_{187}$                              | 0.1009±0.0028                | 0.14±0.05        | 0.73±0.17                | 7.3   |
| $f_{73}$                               | 1.4603±0.0017                | 0.26±0.06        | -1.05±0.10               | 20.0  | $f_{188}$                              | 0.5846±0.0028                | 0.14±0.05        | 1.54±0.17                | 7.3   |
| $f_{74}$                               | 1.2465±0.0017                | 0.32±0.07        | -0.80±0.10               | 19.9  | $f_{189}$                              | 0.8706±0.0028                | 0.14±0.05        | -0.42±0.17               | 7.5   |
| $f_{75}$                               | 3.5115±0.0018                | 0.25±0.06        | 2.49±0.11                | 18.9  | $f_{190}$                              | 1.1784±0.0028                | 0.14±0.05        | -2.55±0.17               | 7.4   |
| $f_{76}$                               | 2.3883±0.0018                | 0.26±0.06        | 1.02±0.11                | 18.0  | $f_{191}$                              | 2.8174±0.0028                | 0.14±0.05        | 2.10±0.17                | 7.2   |
| $f_{77}$                               | 3.1208±0.0018                | 0.23±0.05        | 0.75±0.11                | 18.5  | $f_{192}$                              | 2.2746±0.0028                | 0.14±0.05        | 1.60±0.17                | 7.2   |
| $f_{78}$                               | 1.7442±0.0018                | 0.24±0.06        | 1.18±0.11                | 17.7  | $f_{197}$                              | 3.2035±0.0028                | 0.14±0.05        | 2.28±0.17                | 7.2   |
| $f_{83}$                               | 1.9724±0.0018                | 0.26±0.06        | -1.50±0.11               | 17.1  | $f_{198}$                              | 3.6390±0.0028                | 0.14±0.05        | -1.14±0.17               | 7.3   |
| $f_{84}$                               | 2.3552±0.0018                | 0.24±0.06        | 0.56±0.11                | 17.3  | $f_{199}$                              | 1.6286±0.0029                | 0.13±0.05        | -1.73±0.17               | 7.1   |
| $f_{85}$                               | 1.1625±0.0019                | 0.28±0.07        | -0.39±0.11               | 16.5  | $f_{201}$                              | 1.0532±0.0029                | 0.13±0.05        | 1.11±0.17                | 7.1   |
| $f_{86}$                               | 0.3427±0.0019                | 0.26±0.06        | 2.12±0.12                | 16.4  | $f_{202}$                              | 1.6972±0.0019                | 0.20±0.05        | 0.96±0.12                | 15.8  |
| $f_{87}$                               | 0.3243±0.0018                | 0.22±0.05        | -0.42±0.11               | 17.4  | $f_{203}$                              | 1.7233±0.0027                | 0.14±0.05        | 2.57±0.17                | 7.9   |
| $f_{88}$                               | 0.5146±0.0018                | 0.29±0.07        | -2.61±0.11               | 17.2  | $f_{204}$                              | 0.9220±0.0028                | 0.14±0.05        | -0.10±0.17               | 7.4   |
| $f_{90}$                               | 2.0016±0.0018                | 0.36±0.09        | 0.38±0.11                | 17.3  | $f_{207}$                              | 4.9042±0.0028                | 0.13±0.05        | 1.59±0.17                | 7.2   |
| $f_{92}$                               | 1.8282±0.0019                | 0.22±0.05        | -1.95±0.12               | 16.2  | $f_{209}$                              | 1.5366±0.0029                | 0.13±0.05        | -0.78±0.18               | 7.0   |
| $f_{93}$                               | 1.5209±0.0019                | 0.22±0.05        | -2.76±0.11               | 16.7  | $f_{210}$                              | 1.2082±0.0029                | 0.13±0.05        | -1.81±0.18               | 6.8   |
| $f_{94}$                               | 0.2382±0.0019                | 0.24±0.06        | -0.02±0.12               | 15.6  | $f_{213}$                              | 3.4142±0.0029                | 0.13±0.05        | 1.01±0.18                | 6.8   |
| $f_{96}$                               | 1.7740±0.0020                | 0.21±0.05        | -1.01±0.12               | 14.7  | $f_{214}$                              | 2.8935±0.0029                | 0.13±0.05        | -0.18±0.18               | 6.9   |
| $f_{97}$                               | 1.9386±0.0020                | 0.23±0.06        | -1.08±0.12               | 15.2  | $f_{215}$                              | 2.6436±0.0029                | 0.13±0.05        | 1.17±0.18                | 6.7   |
| $f_{98}$                               | 2.8646±0.0020                | 0.23±0.06        | 1.99±0.12                | 15.0  | $f_{216}$                              | 2.1997±0.0029                | 0.13±0.05        | -0.34±0.18               | 6.8   |
| $f_{99}$                               | 3.5282±0.0020                | 0.22±0.06        | 1.44±0.12                | 14.3  | $f_{217}$                              | 3.1679±0.0029                | 0.13±0.05        | -0.68±0.18               | 6.7   |
| $f_{100}$                              | 1.1499±0.0020                | 0.23±0.06        | -1.79±0.12               | 14.8  | $f_{218}$                              | 50.8734±0.0030               | 0.13±0.05        | 0.25±0.18                | 6.4   |
| $f_{101}$                              | 1.2251±0.0020                | 0.23±0.06        | 0.51±0.12                | 14.6  | $f_{219}$                              | 22.9308±0.0030               | 0.13±0.05        | 1.70±0.18                | 6.6   |
| $f_{102}$                              | 2.2084±0.0020                | 0.22±0.06        | -2.59±0.12               | 14.4  | $f_{220}$                              | 18.9864±0.0030               | 0.13±0.05        | 0.59±0.18                | 6.5   |
| $f_{104}$                              | 2.5044±0.0021                | 0.19±0.05        | 2.30±0.13                | 13.4  | $f_{223}$                              | 36.9013±0.0030               | 0.12±0.05        | 0.48±0.18                | 6.4   |
| $f_{105}$                              | 1.5044±0.0021                | 0.23±0.06        | 2.19±0.13                | 13.2  | $f_{226}$                              | 3.6702±0.0031                | 0.12±0.05        | 0.53±0.19                | 6.2   |
| $f_{106}$                              | 1.5524±0.0021                | 0.20±0.05        | 0.14±0.13                | 13.3  | $f_{228}$                              | 0.9958±0.0031                | 0.12±0.05        | -2.73±0.19               | 6.2   |
| $f_{108}$                              | 2.1578±0.0021                | 0.20±0.05        | -1.33±0.13               | 13.3  | $f_{229}$                              | 2.6071±0.0031                | 0.12±0.05        | -1.11±0.19               | 6.2   |
| $f_{109}$                              | 0.3001±0.0021                | 0.19±0.05        | -0.83±0.13               | 12.8  | $f_{231}$                              | 0.8943±0.0031                | 0.12±0.05        | 0.13±0.19                | 6.2   |
| $f_{110}$                              | 3.2507±0.0021                | 0.21±0.06        | -1.57±0.13               | 13.2  | $f_{232}$                              | 0.8068±0.0031                | 0.12±0.05        | -0.78±0.19               | 6.1   |
| $f_{111}$                              | 1.0330±0.0021                | 0.18±0.05        | 1.34±0.13                | 12.8  | $f_{234}$                              | 3.0566±0.0031                | 0.12±0.05        | 1.78±0.19                | 6.1   |
| $f_{112}$                              | 3.3116±0.0022                | 0.20±0.06        | -0.78±0.13               | 12.6  | $f_{235}$                              | 1.5776±0.0031                | 0.12±0.05        | 0.21±0.19                | 6.1   |
| $f_{113}$                              | 1.9883±0.0022                | 0.17±0.05        | 2.08±0.13                | 12.2  | $f_{236}$                              | 0.7458±0.0031                | 0.12±0.05        | 1.23±0.19                | 6.0   |
| $f_{116}$                              | 1.8818±0.0022                | 0.21±0.06        | 1.53±0.13                | 12.5  | $f_{237}$                              | 7.7288±0.0032                | 0.12±0.05        | 2.48±0.20                | 5.7   |
| $f_{118}$                              | 1.4210±0.0022                | 0.20±0.06        | 0.52±0.13                | 12.3  | $f_{240}$                              | 8.9586±0.0032                | 0.12±0.05        | -0.37±0.19               | 5.8   |
| Frequency list of 0102763156 continued |                              |                  |                          |       | Frequency list of 0102763156 continued |                              |                  |                          |       |

## Appendix B. Frequencies of individual $\gamma$ Dor Stars

| Frequency list of 0102763156 continued |                              |                  |                          |       | Frequency list of 0102766017 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{241}$                              | 32.9566±0.0031               | 0.12±0.05        | 3.03±0.19                | 6.1   | $f_{54}$                               | 0.9089±0.0024                | 0.04±0.01        | 1.84±0.15                | 10.2  |
| $f_{243}$                              | 3.2604±0.0031                | 0.12±0.05        | 2.60±0.19                | 6.0   | $f_{55}$                               | 0.8016±0.0024                | 0.04±0.01        | -2.93±0.15               | 10.1  |
| $f_{244}$                              | 8.5925±0.0032                | 0.12±0.05        | 2.41±0.19                | 5.8   | $f_{56}$                               | 1.6096±0.0024                | 0.04±0.01        | -2.27±0.15               | 9.9   |
| $f_{245}$                              | 46.9276±0.0032               | 0.11±0.05        | 0.25±0.20                | 5.6   | $f_{57}$                               | 1.2156±0.0025                | 0.04±0.01        | 0.83±0.15                | 9.7   |
| $f_{247}$                              | 2.0555±0.0032                | 0.11±0.05        | 3.07±0.20                | 5.6   | $f_{58}$                               | 0.9974±0.0025                | 0.04±0.01        | 1.60±0.15                | 9.7   |
| $f_{252}$                              | 2.5620±0.0032                | 0.11±0.05        | 0.05±0.20                | 5.6   | $f_{59}$                               | 0.1582±0.0025                | 0.04±0.01        | -0.56±0.15               | 9.1   |
| $f_{253}$                              | 1.3614±0.0033                | 0.11±0.05        | -1.00±0.20               | 5.4   | $f_{61}$                               | 0.4003±0.0026                | 0.04±0.01        | 0.87±0.16                | 8.9   |
| $f_{255}$                              | 3.4782±0.0033                | 0.11±0.05        | -0.79±0.20               | 5.2   | $f_{62}$                               | 0.3803±0.0027                | 0.04±0.01        | 2.66±0.16                | 8.2   |
| $f_{256}$                              | 0.2678±0.0033                | 0.11±0.05        | -3.13±0.20               | 5.2   | $f_{63}$                               | 0.5760±0.0027                | 0.04±0.01        | -2.91±0.16               | 8.2   |
| $f_{257}$                              | 0.2264±0.0032                | 0.12±0.05        | -1.75±0.20               | 5.6   | $f_{64}$                               | 0.2411±0.0027                | 0.04±0.01        | -1.56±0.16               | 8.1   |
| $f_{258}$                              | 0.2864±0.0033                | 0.11±0.05        | 2.21±0.20                | 5.3   | $f_{65}$                               | 0.1733±0.0027                | 0.03±0.01        | -0.33±0.16               | 8.2   |
| $f_{259}$                              | 2.0417±0.0033                | 0.11±0.05        | 1.69±0.20                | 5.2   | $f_{66}$                               | 0.7689±0.0027                | 0.03±0.01        | 2.67±0.16                | 8.2   |
| $f_{260}$                              | 4.0426±0.0033                | 0.11±0.05        | -0.85±0.20               | 5.4   | $f_{67}$                               | 2.6450±0.0027                | 0.04±0.01        | 2.03±0.16                | 8.0   |
| $f_{262}$                              | 3.9559±0.0033                | 0.11±0.05        | -1.24±0.20               | 5.2   | $f_{69}$                               | 3.2430±0.0027                | 0.04±0.01        | 1.85±0.16                | 8.2   |
| $f_{264}$                              | 2.9033±0.0033                | 0.11±0.05        | -1.14±0.20               | 5.2   | $f_{70}$                               | 1.6338±0.0027                | 0.03±0.01        | -2.46±0.16               | 8.0   |
| $f_{265}$                              | 3.0054±0.0033                | 0.11±0.05        | -0.36±0.20               | 5.3   | $f_{71}$                               | 1.1496±0.0027                | 0.04±0.01        | 2.08±0.16                | 8.0   |
| $f_{266}$                              | 2.4423±0.0033                | 0.11±0.05        | -2.75±0.20               | 5.3   | $f_{72}$                               | 1.2286±0.0027                | 0.03±0.01        | 1.85±0.16                | 8.0   |
| $f_{267}$                              | 1.7812±0.0033                | 0.11±0.05        | -0.26±0.20               | 5.2   | $f_{73}$                               | 0.3386±0.0028                | 0.04±0.01        | -1.70±0.17               | 7.7   |
| $f_{268}$                              | 1.6047±0.0033                | 0.11±0.05        | -2.15±0.20               | 5.4   | $f_{74}$                               | 0.3485±0.0026                | 0.04±0.01        | -1.20±0.16               | 8.4   |
| $f_{270}$                              | 6.0152±0.0033                | 0.11±0.05        | -1.13±0.20               | 5.2   | $f_{75}$                               | 0.2216±0.0028                | 0.03±0.01        | 1.75±0.17                | 7.4   |
| $f_{271}$                              | 0.6330±0.0034                | 0.11±0.05        | -1.57±0.21               | 5.0   | $f_{76}$                               | 0.6572±0.0028                | 0.03±0.01        | -2.19±0.17               | 7.4   |
|                                        |                              |                  |                          |       | $f_{77}$                               | 0.6093±0.0028                | 0.03±0.01        | -2.38±0.17               | 7.3   |
|                                        |                              |                  |                          |       | $f_{79}$                               | 0.5617±0.0030                | 0.03±0.01        | -3.04±0.18               | 6.5   |
|                                        |                              |                  |                          |       | $f_{80}$                               | 5.1888±0.0030                | 0.03±0.01        | -0.63±0.19               | 6.3   |
|                                        |                              |                  |                          |       | $f_{81}$                               | 0.7440±0.0031                | 0.03±0.01        | -0.53±0.19               | 5.9   |
|                                        |                              |                  |                          |       | $f_{82}$                               | 1.6005±0.0031                | 0.03±0.01        | -0.84±0.19               | 5.9   |
|                                        |                              |                  |                          |       | $f_{83}$                               | 2.0046±0.0032                | 0.03±0.01        | -2.02±0.20               | 5.6   |
|                                        |                              |                  |                          |       | $f_{84}$                               | 9.3341±0.0032                | 0.03±0.01        | 2.62±0.19                | 5.8   |
|                                        |                              |                  |                          |       | $f_{85}$                               | 0.4963±0.0032                | 0.03±0.01        | -2.55±0.20               | 5.6   |
|                                        |                              |                  |                          |       | $f_{86}$                               | 1.2377±0.0032                | 0.03±0.01        | 0.64±0.20                | 5.6   |
|                                        |                              |                  |                          |       | $f_{87}$                               | 1.2663±0.0032                | 0.03±0.01        | 2.01±0.20                | 5.6   |
|                                        |                              |                  |                          |       | $f_{89}$                               | 2.6074±0.0033                | 0.03±0.01        | 2.22±0.20                | 5.4   |
|                                        |                              |                  |                          |       | $f_{90}$                               | 2.5895±0.0032                | 0.03±0.01        | 1.78±0.20                | 5.6   |
|                                        |                              |                  |                          |       | $f_{91}$                               | 0.2913±0.0033                | 0.03±0.01        | -0.02±0.20               | 5.4   |
|                                        |                              |                  |                          |       | $f_{93}$                               | 1.0932±0.0033                | 0.03±0.01        | -0.87±0.20               | 5.3   |
|                                        |                              |                  |                          |       | $f_{94}$                               | 2.2283±0.0033                | 0.03±0.01        | 2.10±0.20                | 5.3   |
|                                        |                              |                  |                          |       | $f_{95}$                               | 0.4659±0.0034                | 0.03±0.01        | -2.82±0.21               | 5.0   |
|                                        |                              |                  |                          |       | $f_{96}$                               | 3.0296±0.0034                | 0.03±0.01        | -0.39±0.21               | 5.0   |

**Table B.78:** Frequency list of 0102766017

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|--------------|------------------------------|------------------|--------------------------|-------|
| $f_1$        | 3.7591±0.0004                | 0.46±0.02        | -0.50±0.02               | 446.4 |
| $f_2$        | 1.1873±0.0004                | 0.44±0.02        | -0.61±0.02               | 447.9 |
| $f_3$        | 0.1453±0.0006                | 0.23±0.02        | -0.04±0.04               | 161.2 |
| $f_4$        | 1.2860±0.0006                | 0.20±0.02        | 0.74±0.04                | 159.9 |
| $f_5$        | 0.1366±0.0007                | 0.17±0.01        | 1.74±0.04                | 135.2 |
| $f_6$        | 0.1010±0.0006                | 0.14±0.01        | -2.15±0.04               | 138.9 |
| $f_7$        | 1.3298±0.0006                | 0.17±0.01        | -2.30±0.04               | 139.7 |
| $f_8$        | 0.1972±0.0007                | 0.18±0.02        | -2.70±0.04               | 115.8 |
| $f_9$        | 0.1797±0.0007                | 0.15±0.01        | -1.01±0.04               | 109.9 |
| $f_{10}$     | 0.3103±0.0008                | 0.15±0.02        | -1.43±0.05               | 94.6  |
| $f_{11}$     | 0.2170±0.0009                | 0.12±0.01        | -1.09±0.05               | 72.3  |
| $f_{12}$     | 0.2792±0.0009                | 0.13±0.02        | 0.10±0.05                | 74.9  |
| $f_{13}$     | 0.1195±0.0009                | 0.14±0.02        | -1.11±0.05               | 75.3  |
| $f_{14}$     | 0.1876±0.0009                | 0.13±0.01        | 1.96±0.05                | 76.0  |
| $f_{15}$     | 0.1269±0.0009                | 0.10±0.01        | -2.53±0.06               | 68.0  |
| $f_{16}$     | 0.2052±0.0010                | 0.11±0.01        | 0.37±0.06                | 64.2  |
| $f_{17}$     | 0.2691±0.0010                | 0.13±0.02        | 0.83±0.06                | 62.4  |
| $f_{18}$     | 0.2873±0.0011                | 0.08±0.01        | -0.43±0.07               | 47.7  |
| $f_{19}$     | 0.2592±0.0011                | 0.10±0.01        | 0.59±0.07                | 45.0  |
| $f_{20}$     | 2.6174±0.0011                | 0.08±0.01        | 0.88±0.07                | 45.9  |
| $f_{21}$     | 1.4298±0.0012                | 0.09±0.01        | 1.12±0.07                | 41.1  |
| $f_{23}$     | 0.2496±0.0013                | 0.09±0.01        | -1.34±0.08               | 37.0  |
| $f_{24}$     | 0.4192±0.0013                | 0.08±0.01        | 1.90±0.08                | 36.1  |
| $f_{25}$     | 0.3897±0.0013                | 0.09±0.02        | 0.52±0.08                | 34.9  |
| $f_{26}$     | 0.2999±0.0013                | 0.08±0.01        | 0.36±0.08                | 35.1  |
| $f_{27}$     | 0.6001±0.0014                | 0.07±0.01        | 2.15±0.08                | 30.2  |
| $f_{28}$     | 0.3229±0.0017                | 0.05±0.01        | -2.32±0.10               | 19.8  |
| $f_{29}$     | 0.7066±0.0017                | 0.06±0.01        | -0.75±0.11               | 19.4  |
| $f_{30}$     | 0.7299±0.0018                | 0.05±0.01        | -3.11±0.11               | 17.9  |
| $f_{31}$     | 0.4335±0.0018                | 0.06±0.01        | 1.29±0.11                | 17.3  |
| $f_{32}$     | 1.1679±0.0019                | 0.05±0.01        | -2.75±0.11               | 16.7  |
| $f_{33}$     | 0.7537±0.0019                | 0.05±0.01        | -1.82±0.11               | 16.9  |
| $f_{34}$     | 0.2293±0.0019                | 0.04±0.01        | 0.17±0.11                | 16.7  |
| $f_{35}$     | 0.4127±0.0019                | 0.05±0.01        | -0.09±0.12               | 16.2  |
| $f_{36}$     | 0.5340±0.0019                | 0.05±0.01        | -2.89±0.12               | 15.6  |
| $f_{37}$     | 0.7208±0.0020                | 0.05±0.01        | -3.01±0.12               | 14.9  |
| $f_{39}$     | 0.8095±0.0020                | 0.05±0.01        | -0.27±0.12               | 14.4  |
| $f_{40}$     | 0.6877±0.0020                | 0.05±0.01        | 1.59±0.12                | 14.4  |
| $f_{41}$     | 0.4827±0.0021                | 0.04±0.01        | -0.86±0.13               | 13.7  |
| $f_{42}$     | 1.2952±0.0021                | 0.04±0.01        | 2.47±0.13                | 13.6  |
| $f_{43}$     | 0.3602±0.0020                | 0.04±0.01        | -2.56±0.12               | 14.2  |
| $f_{44}$     | 0.1515±0.0021                | 0.04±0.01        | -2.58±0.13               | 13.4  |
| $f_{45}$     | 1.3089±0.0021                | 0.05±0.01        | -3.09±0.13               | 13.6  |
| $f_{46}$     | 0.9549±0.0021                | 0.05±0.01        | -2.19±0.13               | 12.9  |
| $f_{47}$     | 0.7612±0.0022                | 0.05±0.01        | -2.29±0.13               | 12.3  |
| $f_{50}$     | 0.1079±0.0023                | 0.05±0.02        | -0.21±0.14               | 11.0  |
| $f_{51}$     | 0.5061±0.0023                | 0.05±0.02        | 1.23±0.14                | 11.0  |
| $f_{52}$     | 0.9460±0.0023                | 0.04±0.01        | -2.03±0.14               | 11.0  |
| $f_{53}$     | 0.5411±0.0024                | 0.04±0.01        | -2.37±0.14               | 10.4  |

Frequency list of 0102766017 continued

**Table B.79:** Frequency list of 0102768290

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|--------------|------------------------------|------------------|--------------------------|-------|
| $f_1$        | 0.1078±0.0003                | 1.01±0.04        | -0.22±0.02               | 610.6 |
| $f_2$        | 0.2133±0.0004                | 0.72±0.04        | 3.05±0.03                | 318.0 |
| $f_3$        | 0.3197±0.0006                | 0.45±0.04        | 1.48±0.04                | 144.7 |
| $f_4$        | 0.1379±0.0006                | 0.40±0.03        | -1.16±0.04               | 142.6 |
| $f_5$        | 0.2283±0.0007                | 0.32±0.03        | 0.27±0.04                | 110.9 |
| $f_6$        | 0.1132±0.0007                | 0.27±0.03        | -1.26±0.04               | 115.5 |
| $f_7$        | 0.2073±0.0008                | 0.27±0.03        | -1.76±0.05               | 89.8  |
| $f_8$        | 0.3396±0.0009                | 0.29±0.03        | -2.40±0.05               | 79.8  |
| $f_9$        | 0.1240±0.0009                | 0.27±0.03        | -2.21±0.05               | 80.5  |
| $f_{10}$     | 0.2850±0.0010                | 0.25±0.03        | 1.74±0.06                | 63.6  |
| $f_{11}$     | 0.3478±0.0009                | 0.27±0.03        | 0.73±0.06                | 65.7  |
| $f_{12}$     | 0.3034±0.0010                | 0.25±0.03        | 2.40±0.06                | 55.5  |
| $f_{13}$     | 0.1596±0.0010                | 0.18±0.02        | -3.09±0.06               | 53.8  |
| $f_{14}$     | 0.2632±0.0011                | 0.20±0.03        | -2.94±0.07               | 45.3  |
| $f_{15}$     | 0.1974±0.0013                | 0.18±0.03        | 1.26±0.08                | 34.6  |
| $f_{16}$     | 0.3658±0.0013                | 0.18±0.03        | -0.42±0.08               | 34.5  |
| $f_{17}$     | 0.3904±0.0014                | 0.20±0.04        | -2.23±0.08               | 31.1  |
| $f_{18}$     | 0.1028±0.0014                | 0.18±0.03        | 0.16±0.09                | 28.4  |
| $f_{19}$     | 0.2436±0.0016                | 0.14±0.03        | 1.90±0.10                | 23.5  |
| $f_{20}$     | 0.2709±0.0016                | 0.14±0.03        | -1.92±0.10               | 22.6  |
| $f_{21}$     | 0.4646±0.0017                | 0.12±0.03        | 1.58±0.10                | 20.5  |
| $f_{22}$     | 0.3142±0.0017                | 0.14±0.03        | -0.39±0.10               | 20.2  |
| $f_{24}$     | 0.1443±0.0019                | 0.10±0.02        | -1.79±0.11               | 16.5  |
| $f_{25}$     | 0.4015±0.0019                | 0.12±0.03        | 0.54±0.11                | 16.6  |
| $f_{27}$     | 0.2188±0.0020                | 0.11±0.03        | 0.24±0.12                | 14.4  |
| $f_{28}$     | 0.3735±0.0022                | 0.09±0.03        | -0.06±0.13               | 12.6  |
| $f_{29}$     | 0.5111±0.0022                | 0.12±0.03        | -0.88±0.13               | 12.1  |
| $f_{30}$     | 0.7065±0.0022                | 0.10±0.03        | 0.09±0.13                | 12.1  |
| $f_{31}$     | 0.6928±0.0022                | 0.09±0.03        | 0.14±0.13                | 12.1  |
| $f_{32}$     | 0.9166±0.0023                | 0.10±0.03        | 2.70±0.14                | 11.2  |
| $f_{33}$     | 0.5007±0.0023                | 0.10±0.03        | 2.68±0.14                | 10.6  |
| $f_{34}$     | 0.7537±0.0024                | 0.10±0.03        | 3.05±0.14                | 10.4  |
| $f_{35}$     | 0.6253±0.0024                | 0.09±0.03        | 0.17±0.15                | 10.3  |
| $f_{36}$     | 1.5587±0.0024                | 0.09±0.03        | 0.99±0.15                | 10.1  |

Frequency list of 0102768290 continued



## Appendix B. Frequencies of individual $\gamma$ Dor Stars

| Frequency list of 0102768290 continued |                              |                  |                          |       | Frequency list of 0102768672 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{37}$                               | 0.7254±0.0024                | 0.08±0.03        | 1.65±0.15                | 9.9   | $f_{51}$                               | 41.8954±0.0022               | 0.15±0.04        | 1.73±0.13                | 12.6  |
| $f_{38}$                               | 0.4801±0.0025                | 0.08±0.03        | -1.80±0.15               | 9.1   | $f_{52}$                               | 1.2582±0.0022                | 0.13±0.04        | 1.77±0.13                | 12.0  |
| $f_{40}$                               | 0.2781±0.0026                | 0.08±0.03        | -2.79±0.16               | 8.8   | $f_{54}$                               | 55.8630±0.0022               | 0.15±0.04        | -2.42±0.14               | 11.6  |
| $f_{41}$                               | 0.1303±0.0025                | 0.09±0.03        | 2.82±0.15                | 9.1   | $f_{55}$                               | 0.3225±0.0022                | 0.16±0.05        | -1.30±0.14               | 11.6  |
| $f_{42}$                               | 0.1732±0.0025                | 0.09±0.03        | 2.05±0.15                | 9.1   | $f_{56}$                               | 1.9631±0.0023                | 0.15±0.04        | 1.05±0.14                | 11.3  |
| $f_{43}$                               | 0.9884±0.0026                | 0.09±0.03        | -0.64±0.16               | 8.7   | $f_{57}$                               | 1.3129±0.0022                | 0.15±0.04        | -1.57±0.14               | 11.6  |
| $f_{44}$                               | 2.3145±0.0026                | 0.08±0.03        | 2.05±0.16                | 8.4   | $f_{58}$                               | 0.1333±0.0023                | 0.15±0.04        | -0.72±0.14               | 11.4  |
| $f_{45}$                               | 1.6233±0.0026                | 0.08±0.03        | 0.53±0.16                | 8.3   | $f_{62}$                               | 0.7784±0.0023                | 0.12±0.04        | 1.50±0.14                | 10.6  |
| $f_{46}$                               | 0.4448±0.0027                | 0.09±0.03        | 2.22±0.17                | 7.9   | $f_{63}$                               | 0.3982±0.0024                | 0.14±0.04        | 1.81±0.14                | 10.4  |
| $f_{47}$                               | 0.8292±0.0028                | 0.08±0.03        | 0.88±0.17                | 7.6   | $f_{64}$                               | 55.8525±0.0025               | 0.13±0.04        | 1.90±0.15                | 9.4   |
| $f_{48}$                               | 0.8718±0.0028                | 0.08±0.03        | 1.02±0.17                | 7.4   | $f_{66}$                               | 1.2826±0.0025                | 0.13±0.04        | -0.81±0.16               | 9.0   |
| $f_{49}$                               | 1.2183±0.0028                | 0.08±0.03        | 0.09±0.17                | 7.2   | $f_{67}$                               | 1.3400±0.0026                | 0.14±0.05        | 2.55±0.16                | 8.8   |
| $f_{50}$                               | 0.3582±0.0029                | 0.08±0.03        | 2.90±0.17                | 7.1   | $f_{69}$                               | 41.8865±0.0026               | 0.12±0.04        | 2.15±0.16                | 8.6   |
| $f_{51}$                               | 0.2579±0.0029                | 0.08±0.03        | 1.83±0.17                | 7.1   | $f_{70}$                               | 0.2120±0.0026                | 0.13±0.04        | -0.97±0.16               | 8.5   |
| $f_{52}$                               | 0.7727±0.0029                | 0.08±0.03        | -3.05±0.18               | 7.0   | $f_{71}$                               | 0.8654±0.0026                | 0.13±0.04        | -1.05±0.16               | 8.5   |
| $f_{53}$                               | 0.4561±0.0029                | 0.07±0.03        | 2.95±0.18                | 7.0   | $f_{72}$                               | 0.3595±0.0026                | 0.12±0.04        | 0.64±0.16                | 8.3   |
| $f_{54}$                               | 1.0740±0.0030                | 0.07±0.03        | 0.32±0.18                | 6.5   | $f_{73}$                               | 0.3313±0.0027                | 0.12±0.04        | -1.65±0.16               | 8.1   |
| $f_{55}$                               | 0.7979±0.0030                | 0.07±0.03        | -0.08±0.18               | 6.4   | $f_{76}$                               | 0.6679±0.0028                | 0.13±0.05        | -1.19±0.17               | 7.4   |
| $f_{56}$                               | 2.4196±0.0031                | 0.07±0.03        | 1.23±0.19                | 6.1   | $f_{77}$                               | 1.3486±0.0028                | 0.12±0.04        | -1.59±0.17               | 7.6   |
| $f_{57}$                               | 0.1511±0.0030                | 0.07±0.03        | 2.26±0.19                | 6.3   | $f_{78}$                               | 0.7575±0.0029                | 0.11±0.04        | 1.11±0.17                | 7.1   |
| $f_{58}$                               | 1.2655±0.0031                | 0.07±0.03        | -0.32±0.19               | 6.2   | $f_{80}$                               | 0.1086±0.0029                | 0.12±0.05        | -1.65±0.18               | 6.8   |
| $f_{59}$                               | 0.9374±0.0031                | 0.07±0.03        | -3.03±0.19               | 5.9   | $f_{82}$                               | 1.9870±0.0029                | 0.11±0.04        | 1.97±0.18                | 6.8   |
| $f_{60}$                               | 1.2951±0.0031                | 0.07±0.03        | 1.59±0.19                | 6.0   | $f_{83}$                               | 0.2767±0.0030                | 0.11±0.04        | 0.79±0.18                | 6.4   |
| $f_{61}$                               | 1.0092±0.0031                | 0.07±0.03        | 0.85±0.19                | 5.9   | $f_{84}$                               | 0.5474±0.0030                | 0.11±0.04        | 0.20±0.18                | 6.5   |
| $f_{62}$                               | 1.3281±0.0031                | 0.07±0.03        | 1.13±0.19                | 5.9   | $f_{85}$                               | 41.9409±0.0030               | 0.10±0.04        | -1.86±0.18               | 6.4   |
| $f_{63}$                               | 0.5263±0.0032                | 0.06±0.03        | 1.21±0.20                | 5.7   | $f_{87}$                               | 0.2506±0.0031                | 0.10±0.04        | -1.74±0.19               | 6.2   |
| $f_{64}$                               | 2.8714±0.0033                | 0.06±0.03        | -2.62±0.20               | 5.4   | $f_{88}$                               | 1.2673±0.0031                | 0.11±0.04        | 2.45±0.19                | 6.1   |
| $f_{65}$                               | 1.8916±0.0033                | 0.06±0.03        | -0.04±0.20               | 5.5   | $f_{90}$                               | 1.3328±0.0033                | 0.10±0.04        | 0.37±0.20                | 5.5   |
| $f_{66}$                               | 2.1926±0.0033                | 0.06±0.03        | -1.94±0.20               | 5.4   | $f_{91}$                               | 1.9234±0.0033                | 0.10±0.04        | 2.46±0.20                | 5.4   |
| $f_{67}$                               | 0.3329±0.0033                | 0.06±0.03        | 1.33±0.20                | 5.3   | $f_{93}$                               | 0.5729±0.0033                | 0.10±0.04        | -3.14±0.20               | 5.2   |
| $f_{68}$                               | 1.2536±0.0033                | 0.06±0.03        | -0.22±0.20               | 5.2   | $f_{94}$                               | 0.3154±0.0034                | 0.09±0.04        | -2.05±0.21               | 5.1   |
| $f_{69}$                               | 0.6762±0.0034                | 0.06±0.03        | -0.33±0.21               | 5.1   |                                        |                              |                  |                          |       |

**Table B.80:** Frequency list of 0102768672

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|--------------|------------------------------|------------------|--------------------------|-------|
| $f_1$        | 0.6514±0.0003                | 1.61±0.07        | 1.42±0.02                | 564.9 |
| $f_2$        | 0.6407±0.0005                | 0.88±0.05        | 1.37±0.03                | 277.8 |
| $f_3$        | 0.6062±0.0005                | 1.09±0.07        | -1.29±0.03               | 275.9 |
| $f_4$        | 0.6176±0.0005                | 1.08±0.07        | -1.40±0.03               | 245.3 |
| $f_5$        | 0.5980±0.0006                | 0.76±0.06        | 0.09±0.04                | 173.5 |
| $f_6$        | 1.3066±0.0006                | 0.62±0.05        | 2.23±0.04                | 139.4 |
| $f_7$        | 1.2867±0.0008                | 0.47±0.05        | -2.08±0.05               | 100.6 |
| $f_8$        | 0.6716±0.0008                | 0.43±0.04        | -2.20±0.05               | 102.9 |
| $f_9$        | 1.2452±0.0008                | 0.46±0.05        | 1.76±0.05                | 95.4  |
| $f_{10}$     | 1.2757±0.0010                | 0.39±0.05        | -2.88±0.06               | 62.7  |
| $f_{11}$     | 0.5786±0.0010                | 0.38±0.05        | -2.05±0.06               | 57.1  |
| $f_{12}$     | 0.1233±0.0010                | 0.30±0.04        | 2.47±0.06                | 54.1  |
| $f_{13}$     | 0.6597±0.0011                | 0.43±0.06        | -2.02±0.07               | 45.9  |
| $f_{15}$     | 1.2990±0.0012                | 0.37±0.06        | 0.00±0.07                | 42.3  |
| $f_{17}$     | 1.2366±0.0012                | 0.33±0.05        | 3.10±0.08                | 37.7  |
| $f_{19}$     | 0.7011±0.0014                | 0.21±0.04        | 2.27±0.08                | 31.5  |
| $f_{21}$     | 0.6480±0.0015                | 0.28±0.05        | 2.62±0.09                | 27.2  |
| $f_{22}$     | 0.6081±0.0014                | 0.25±0.05        | -0.74±0.09               | 28.2  |
| $f_{23}$     | 0.6317±0.0015                | 0.25±0.05        | -2.30±0.09               | 25.9  |
| $f_{24}$     | 0.5856±0.0015                | 0.22±0.04        | -0.59±0.09               | 26.0  |
| $f_{25}$     | 0.7095±0.0015                | 0.19±0.04        | 1.50±0.09                | 24.8  |
| $f_{28}$     | 1.2523±0.0016                | 0.21±0.04        | -2.40±0.10               | 21.8  |
| $f_{29}$     | 0.1481±0.0016                | 0.25±0.05        | -0.69±0.10               | 22.6  |
| $f_{31}$     | 0.5220±0.0018                | 0.20±0.05        | 0.01±0.11                | 18.3  |
| $f_{33}$     | 0.2257±0.0018                | 0.19±0.05        | 2.86±0.11                | 17.4  |
| $f_{34}$     | 1.9407±0.0019                | 0.19±0.05        | 3.13±0.11                | 17.0  |
| $f_{35}$     | 1.2201±0.0019                | 0.16±0.04        | -2.77±0.11               | 16.8  |
| $f_{38}$     | 1.4001±0.0020                | 0.17±0.04        | 2.25±0.12                | 14.9  |
| $f_{39}$     | 0.7204±0.0020                | 0.19±0.05        | -2.49±0.12               | 14.4  |
| $f_{40}$     | 0.6828±0.0020                | 0.18±0.05        | 0.59±0.12                | 15.3  |
| $f_{42}$     | 0.7370±0.0020                | 0.16±0.04        | -3.03±0.12               | 14.3  |
| $f_{43}$     | 0.6922±0.0020                | 0.18±0.05        | -0.47±0.12               | 14.7  |
| $f_{44}$     | 0.5369±0.0020                | 0.13±0.03        | -0.97±0.12               | 14.0  |
| $f_{45}$     | 1.2276±0.0021                | 0.16±0.04        | 1.15±0.13                | 12.9  |
| $f_{46}$     | 1.2116±0.0021                | 0.16±0.04        | 0.82±0.13                | 13.6  |
| $f_{47}$     | 0.1019±0.0021                | 0.16±0.04        | 0.44±0.13                | 13.0  |
| $f_{48}$     | 0.2889±0.0021                | 0.15±0.04        | 1.00±0.13                | 13.0  |
| $f_{49}$     | 0.2433±0.0021                | 0.16±0.04        | 1.26±0.13                | 13.3  |
| $f_{50}$     | 0.1684±0.0022                | 0.16±0.05        | -1.27±0.13               | 12.6  |

Frequency list of 0102768672 continued

**Table B.81:** Frequency list of 0102775315

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|--------------|------------------------------|------------------|--------------------------|-------|
| $f_1$        | 0.4075±0.0004                | 0.88±0.05        | -0.97±0.03               | 325.8 |
| $f_2$        | 0.6960±0.0008                | 0.39±0.04        | -1.68±0.05               | 86.1  |
| $f_3$        | 0.4374±0.0008                | 0.37±0.04        | -2.59±0.05               | 87.7  |
| $f_4$        | 0.4190±0.0009                | 0.37±0.05        | -0.90±0.06               | 66.0  |
| $f_5$        | 0.7221±0.0009                | 0.39±0.05        | 0.36±0.06                | 65.7  |
| $f_6$        | 0.1310±0.0010                | 0.38±0.05        | 3.06±0.06                | 62.2  |
| $f_7$        | 0.7132±0.0011                | 0.30±0.04        | -0.51±0.07               | 50.3  |
| $f_8$        | 0.4760±0.0011                | 0.26±0.04        | -2.16±0.07               | 44.1  |
| $f_9$        | 0.3341±0.0012                | 0.28±0.04        | -1.19±0.07               | 41.9  |
| $f_{10}$     | 0.7051±0.0012                | 0.28±0.04        | -2.51±0.07               | 39.2  |
| $f_{11}$     | 0.6776±0.0012                | 0.24±0.04        | 0.22±0.07                | 38.9  |
| $f_{12}$     | 0.2212±0.0012                | 0.26±0.04        | 2.87±0.08                | 38.0  |
| $f_{13}$     | 0.1465±0.0012                | 0.26±0.04        | 2.20±0.08                | 38.5  |
| $f_{14}$     | 0.8688±0.0012                | 0.26±0.04        | -1.95±0.07               | 38.7  |
| $f_{15}$     | 0.1068±0.0013                | 0.29±0.05        | -0.70±0.08               | 36.5  |
| $f_{16}$     | 0.1243±0.0012                | 0.25±0.04        | 2.37±0.08                | 38.5  |
| $f_{17}$     | 0.4284±0.0014                | 0.22±0.04        | -0.50±0.08               | 31.5  |
| $f_{19}$     | 0.7663±0.0015                | 0.20±0.04        | -1.83±0.09               | 27.3  |
| $f_{20}$     | 0.3520±0.0015                | 0.24±0.05        | -2.74±0.09               | 26.9  |
| $f_{21}$     | 0.2514±0.0014                | 0.17±0.03        | -2.03±0.09               | 29.2  |
| $f_{22}$     | 0.5310±0.0015                | 0.15±0.03        | -0.71±0.09               | 26.6  |
| $f_{23}$     | 0.8547±0.0015                | 0.21±0.04        | 0.67±0.09                | 26.4  |
| $f_{24}$     | 0.3700±0.0015                | 0.23±0.05        | 2.03±0.09                | 24.8  |
| $f_{25}$     | 0.4854±0.0016                | 0.17±0.04        | 2.42±0.10                | 21.8  |
| $f_{26}$     | 0.3885±0.0017                | 0.19±0.04        | -0.96±0.10               | 21.0  |
| $f_{27}$     | 0.2860±0.0017                | 0.19±0.04        | -1.29±0.10               | 21.2  |
| $f_{28}$     | 0.6895±0.0017                | 0.20±0.04        | 1.07±0.10                | 21.2  |
| $f_{29}$     | 0.1383±0.0017                | 0.19±0.04        | 1.22±0.10                | 20.9  |
| $f_{30}$     | 0.1867±0.0016                | 0.18±0.04        | -1.49±0.10               | 22.2  |
| $f_{31}$     | 0.2314±0.0017                | 0.15±0.03        | 2.00±0.11                | 19.2  |
| $f_{33}$     | 0.7423±0.0018                | 0.17±0.04        | 2.72±0.11                | 18.1  |
| $f_{34}$     | 0.4003±0.0018                | 0.19±0.05        | -1.02±0.11               | 17.1  |
| $f_{35}$     | 0.4437±0.0017                | 0.19±0.04        | 2.73±0.11                | 19.1  |
| $f_{37}$     | 0.4528±0.0020                | 0.16±0.04        | 2.01±0.12                | 14.3  |
| $f_{38}$     | 0.4993±0.0020                | 0.18±0.05        | 0.63±0.12                | 14.4  |
| $f_{39}$     | 0.2767±0.0021                | 0.15±0.04        | -0.50±0.13               | 13.6  |
| $f_{40}$     | 0.5103±0.0021                | 0.13±0.04        | 2.20±0.13                | 13.6  |
| $f_{41}$     | 0.6429±0.0021                | 0.14±0.04        | 3.09±0.13                | 13.6  |
| $f_{43}$     | 0.5961±0.0022                | 0.13±0.04        | -0.67±0.14               | 11.7  |
| $f_{45}$     | 0.3763±0.0023                | 0.13±0.04        | 1.04±0.14                | 11.0  |

Frequency list of 0102775315 continued

## Appendix B. Frequencies of individual $\gamma$ Dor Stars

| Frequency list of 0102775315 continued |                               |                  |                     |       |
|----------------------------------------|-------------------------------|------------------|---------------------|-------|
| Frequency ID                           | Frequency [ $\text{d}^{-1}$ ] | Amplitude [mmag] | Phase $[-\pi, \pi]$ | Sign. |
| $f_{46}$                               | 0.3079±0.0024                 | 0.12±0.04        | -1.36±0.15          | 10.2  |
| $f_{47}$                               | 0.8200±0.0025                 | 0.12±0.04        | 3.08±0.15           | 9.1   |
| $f_{49}$                               | 0.2104±0.0026                 | 0.12±0.04        | 1.53±0.16           | 8.7   |
| $f_{50}$                               | 0.3237±0.0026                 | 0.12±0.04        | 1.01±0.16           | 8.5   |
| $f_{51}$                               | 0.1619±0.0026                 | 0.11±0.04        | 0.03±0.16           | 8.4   |
| $f_{52}$                               | 0.9640±0.0027                 | 0.12±0.04        | -1.18±0.16          | 8.2   |
| $f_{54}$                               | 1.0096±0.0027                 | 0.12±0.04        | 1.01±0.17           | 7.9   |
| $f_{55}$                               | 0.5817±0.0027                 | 0.10±0.04        | 1.27±0.17           | 7.8   |
| $f_{56}$                               | 0.8383±0.0027                 | 0.11±0.04        | -1.62±0.17          | 7.8   |
| $f_{57}$                               | 1.1081±0.0028                 | 0.10±0.04        | 0.55±0.17           | 7.4   |
| $f_{58}$                               | 0.9867±0.0029                 | 0.10±0.04        | -1.94±0.18          | 6.9   |
| $f_{59}$                               | 0.8956±0.0029                 | 0.10±0.04        | -1.38±0.18          | 7.0   |
| $f_{60}$                               | 0.6092±0.0029                 | 0.10±0.04        | 0.43±0.18           | 7.0   |
| $f_{61}$                               | 1.4547±0.0030                 | 0.10±0.04        | -0.53±0.18          | 6.6   |
| $f_{62}$                               | 1.5275±0.0031                 | 0.10±0.04        | -1.59±0.19          | 6.2   |
| $f_{63}$                               | 0.7979±0.0031                 | 0.09±0.04        | 1.01±0.19           | 6.2   |
| $f_{65}$                               | 1.8658±0.0032                 | 0.09±0.04        | 2.94±0.19           | 5.8   |
| $f_{66}$                               | 0.6674±0.0032                 | 0.09±0.04        | 0.52±0.19           | 5.8   |
| $f_{67}$                               | 0.5381±0.0032                 | 0.09±0.04        | 1.48±0.20           | 5.7   |
| $f_{68}$                               | 0.8888±0.0033                 | 0.09±0.04        | -2.16±0.20          | 5.3   |
| $f_{69}$                               | 0.2434±0.0033                 | 0.09±0.04        | -2.75±0.20          | 5.4   |
| $f_{72}$                               | 0.5211±0.0033                 | 0.10±0.04        | 1.18±0.20           | 5.3   |
| $f_{73}$                               | 1.3081±0.0033                 | 0.09±0.04        | -0.54±0.20          | 5.2   |
| $f_{74}$                               | 1.3218±0.0034                 | 0.09±0.04        | 0.07±0.21           | 5.0   |
| $f_{75}$                               | 1.1518±0.0033                 | 0.09±0.04        | 0.99±0.20           | 5.2   |

**Table B.82:** Frequency list of 0102777271

| Frequency ID | Frequency [ $\text{d}^{-1}$ ] | Amplitude [mmag] | Phase $[-\pi, \pi]$ | Sign. |
|--------------|-------------------------------|------------------|---------------------|-------|
| $f_1$        | 1.6604±0.0006                 | 0.24±0.02        | -1.36±0.03          | 180.6 |
| $f_2$        | 1.6886±0.0006                 | 0.22±0.02        | -0.01±0.03          | 186.7 |
| $f_3$        | 0.9090±0.0006                 | 0.22±0.02        | 0.41±0.04           | 145.0 |
| $f_4$        | 0.9215±0.0009                 | 0.15±0.02        | -2.91±0.05          | 80.0  |
| $f_5$        | 1.0457±0.0009                 | 0.14±0.02        | 0.77±0.05           | 76.9  |
| $f_6$        | 0.1043±0.0010                 | 0.11±0.01        | -0.56±0.06          | 59.7  |
| $f_7$        | 1.6769±0.0010                 | 0.11±0.01        | -2.08±0.06          | 57.1  |
| $f_{10}$     | 0.1538±0.0012                 | 0.09±0.01        | 2.00±0.08           | 37.8  |
| $f_{12}$     | 0.1763±0.0014                 | 0.06±0.01        | -1.99±0.09          | 28.6  |
| $f_{13}$     | 1.0574±0.0014                 | 0.08±0.02        | 2.88±0.09           | 28.0  |
| $f_{15}$     | 0.2385±0.0016                 | 0.07±0.01        | -2.08±0.10          | 23.7  |
| $f_{16}$     | 2.7348±0.0015                 | 0.07±0.01        | 0.38±0.09           | 24.3  |
| $f_{17}$     | 1.9706±0.0016                 | 0.07±0.01        | 2.28±0.10           | 22.6  |
| $f_{18}$     | 0.2194±0.0017                 | 0.07±0.02        | 2.42±0.10           | 20.6  |
| $f_{19}$     | 0.2836±0.0017                 | 0.05±0.01        | 2.38±0.10           | 20.9  |
| $f_{20}$     | 0.3234±0.0017                 | 0.07±0.02        | -0.65±0.11          | 19.5  |
| $f_{21}$     | 0.1955±0.0017                 | 0.06±0.01        | -0.70±0.11          | 19.3  |
| $f_{22}$     | 1.9566±0.0018                 | 0.06±0.01        | 2.62±0.11           | 17.6  |
| $f_{23}$     | 0.8964±0.0018                 | 0.06±0.01        | 1.07±0.11           | 17.1  |
| $f_{24}$     | 1.4073±0.0019                 | 0.06±0.01        | -2.09±0.12          | 16.4  |
| $f_{26}$     | 0.2591±0.0020                 | 0.06±0.02        | 2.03±0.12           | 14.2  |
| $f_{27}$     | 0.2706±0.0020                 | 0.05±0.01        | 0.37±0.12           | 15.3  |
| $f_{28}$     | 1.8188±0.0021                 | 0.05±0.01        | 1.74±0.13           | 13.8  |
| $f_{30}$     | 0.4718±0.0022                 | 0.05±0.01        | -2.23±0.13          | 12.3  |
| $f_{31}$     | 0.3162±0.0022                 | 0.05±0.01        | 2.99±0.13           | 12.1  |
| $f_{32}$     | 0.5015±0.0023                 | 0.04±0.01        | -1.25±0.14          | 11.4  |
| $f_{33}$     | 0.1469±0.0023                 | 0.05±0.02        | 2.23±0.14           | 11.0  |
| $f_{36}$     | 2.8655±0.0025                 | 0.04±0.01        | -2.72±0.15          | 9.5   |
| $f_{37}$     | 0.1151±0.0026                 | 0.04±0.01        | 2.66±0.16           | 8.4   |
| $f_{38}$     | 1.9785±0.0028                 | 0.04±0.01        | 2.69±0.17           | 7.7   |
| $f_{41}$     | 0.6032±0.0028                 | 0.03±0.01        | 2.88±0.17           | 7.7   |
| $f_{42}$     | 0.9814±0.0028                 | 0.04±0.01        | 2.33±0.17           | 7.4   |
| $f_{43}$     | 0.1645±0.0028                 | 0.04±0.01        | -1.49±0.17          | 7.3   |
| $f_{44}$     | 0.2288±0.0028                 | 0.04±0.01        | -1.35±0.17          | 7.4   |
| $f_{45}$     | 0.2977±0.0029                 | 0.03±0.01        | -0.50±0.18          | 7.0   |
| $f_{47}$     | 0.4891±0.0029                 | 0.04±0.02        | -1.26±0.18          | 6.8   |
| $f_{48}$     | 0.9374±0.0029                 | 0.03±0.01        | -0.55±0.18          | 6.8   |
| $f_{50}$     | 3.0780±0.0030                 | 0.03±0.01        | 0.21±0.18           | 6.4   |
| $f_{51}$     | 0.7606±0.0030                 | 0.03±0.01        | 2.34±0.19           | 6.3   |
| $f_{52}$     | 3.6559±0.0030                 | 0.03±0.01        | 2.86±0.19           | 6.3   |
| $f_{53}$     | 0.8755±0.0031                 | 0.03±0.01        | -2.76±0.19          | 6.1   |
| $f_{54}$     | 0.2485±0.0031                 | 0.03±0.01        | 0.03±0.19           | 6.1   |
| $f_{55}$     | 1.6684±0.0031                 | 0.03±0.01        | 0.18±0.19           | 6.2   |
| $f_{57}$     | 0.3797±0.0032                 | 0.03±0.01        | 1.97±0.19           | 5.8   |
| $f_{58}$     | 3.1718±0.0032                 | 0.03±0.01        | -0.98±0.20          | 5.6   |

Frequency list of 0102777271 continued

| Frequency list of 0102777271 continued |                               |                  |                     |       |
|----------------------------------------|-------------------------------|------------------|---------------------|-------|
| Frequency ID                           | Frequency [ $\text{d}^{-1}$ ] | Amplitude [mmag] | Phase $[-\pi, \pi]$ | Sign. |
| $f_{59}$                               | 0.3079±0.0033                 | 0.03±0.01        | -0.97±0.20          | 5.4   |
| $f_{60}$                               | 1.6986±0.0033                 | 0.03±0.01        | 0.61±0.20           | 5.5   |
| $f_{61}$                               | 0.5852±0.0033                 | 0.03±0.01        | -0.53±0.20          | 5.4   |
| $f_{62}$                               | 2.8721±0.0033                 | 0.03±0.01        | 1.93±0.20           | 5.3   |
| $f_{63}$                               | 0.7078±0.0034                 | 0.03±0.01        | -2.51±0.21          | 5.1   |
| $f_{66}$                               | 0.6565±0.0034                 | 0.03±0.01        | 0.15±0.21           | 5.1   |

**Table B.83:** Frequency list of 0102777301

| Frequency ID | Frequency [ $\text{d}^{-1}$ ] | Amplitude [mmag] | Phase $[-\pi, \pi]$ | Sign. |
|--------------|-------------------------------|------------------|---------------------|-------|
| $f_1$        | 1.9976±0.0005                 | 0.81±0.05        | 1.37±0.03           | 243.5 |
| $f_2$        | 2.1733±0.0008                 | 0.39±0.04        | 0.43±0.05           | 88.3  |
| $f_3$        | 0.1232±0.0009                 | 0.40±0.05        | 0.21±0.05           | 71.8  |
| $f_4$        | 0.1429±0.0009                 | 0.46±0.06        | -2.09±0.06          | 67.0  |
| $f_5$        | 2.0718±0.0009                 | 0.39±0.05        | -1.88±0.06          | 68.5  |
| $f_6$        | 0.1765±0.0010                 | 0.36±0.05        | 1.89±0.06           | 58.0  |
| $f_7$        | 0.1556±0.0010                 | 0.37±0.05        | -0.97±0.06          | 58.1  |
| $f_8$        | 1.9869±0.0010                 | 0.35±0.05        | 1.08±0.06           | 56.9  |
| $f_9$        | 2.0502±0.0010                 | 0.35±0.05        | -1.74±0.06          | 55.6  |
| $f_{10}$     | 2.1839±0.0011                 | 0.35±0.05        | -2.68±0.06          | 52.4  |
| $f_{11}$     | 2.1232±0.0011                 | 0.32±0.05        | -0.98±0.07          | 45.5  |
| $f_{13}$     | 2.3074±0.0012                 | 0.24±0.04        | 2.62±0.08           | 37.9  |
| $f_{14}$     | 1.0684±0.0013                 | 0.30±0.05        | 2.05±0.08           | 34.4  |
| $f_{15}$     | 2.0816±0.0013                 | 0.25±0.04        | 2.99±0.08           | 35.0  |
| $f_{16}$     | 0.2754±0.0013                 | 0.25±0.04        | 2.90±0.08           | 32.8  |
| $f_{17}$     | 0.2652±0.0013                 | 0.29±0.05        | 2.00±0.08           | 33.1  |
| $f_{18}$     | 0.7933±0.0014                 | 0.21±0.04        | 2.85±0.08           | 30.6  |
| $f_{19}$     | 2.2365±0.0014                 | 0.21±0.04        | 0.35±0.08           | 30.7  |
| $f_{20}$     | 0.1855±0.0015                 | 0.28±0.05        | 0.67±0.09           | 27.5  |
| $f_{21}$     | 0.2972±0.0015                 | 0.25±0.05        | -1.00±0.09          | 27.1  |
| $f_{22}$     | 0.2535±0.0015                 | 0.25±0.05        | 1.25±0.09           | 26.8  |
| $f_{24}$     | 0.2193±0.0016                 | 0.23±0.05        | -1.69±0.09          | 24.1  |
| $f_{25}$     | 1.3308±0.0016                 | 0.20±0.04        | -1.44±0.10          | 22.0  |
| $f_{26}$     | 2.3586±0.0016                 | 0.19±0.04        | -1.85±0.10          | 22.3  |
| $f_{27}$     | 0.2425±0.0017                 | 0.21±0.05        | -0.33±0.10          | 20.8  |
| $f_{29}$     | 0.1980±0.0017                 | 0.19±0.04        | -1.34±0.10          | 20.6  |
| $f_{30}$     | 2.0097±0.0018                 | 0.20±0.05        | 0.19±0.11           | 18.7  |
| $f_{31}$     | 0.4833±0.0018                 | 0.17±0.04        | -1.12±0.11          | 18.2  |
| $f_{32}$     | 0.8425±0.0018                 | 0.16±0.04        | 0.63±0.11           | 17.9  |
| $f_{33}$     | 0.3564±0.0018                 | 0.18±0.04        | -1.57±0.11          | 17.2  |
| $f_{35}$     | 1.8212±0.0019                 | 0.17±0.04        | 2.55±0.12           | 16.2  |
| $f_{36}$     | 1.8873±0.0019                 | 0.18±0.04        | -2.58±0.12          | 16.0  |
| $f_{37}$     | 2.1929±0.0020                 | 0.16±0.04        | 2.06±0.12           | 15.1  |
| $f_{38}$     | 0.1332±0.0020                 | 0.19±0.05        | -0.61±0.12          | 15.1  |
| $f_{39}$     | 0.6672±0.0020                 | 0.14±0.04        | 2.09±0.12           | 14.0  |
| $f_{40}$     | 2.0297±0.0020                 | 0.13±0.03        | -0.46±0.12          | 14.3  |
| $f_{41}$     | 0.8174±0.0020                 | 0.14±0.04        | -3.14±0.12          | 14.6  |
| $f_{42}$     | 2.2457±0.0021                 | 0.15±0.04        | -2.86±0.13          | 13.8  |
| $f_{43}$     | 2.3743±0.0021                 | 0.14±0.04        | -2.52±0.13          | 13.1  |
| $f_{44}$     | 0.1077±0.0021                 | 0.16±0.04        | -1.23±0.13          | 13.5  |
| $f_{45}$     | 0.1677±0.0021                 | 0.14±0.04        | 0.77±0.13           | 12.8  |
| $f_{46}$     | 0.5959±0.0021                 | 0.15±0.04        | 2.51±0.13           | 12.9  |
| $f_{47}$     | 0.9815±0.0022                 | 0.17±0.05        | -2.81±0.13          | 12.6  |
| $f_{48}$     | 0.7543±0.0022                 | 0.14±0.04        | 2.23±0.13           | 12.1  |
| $f_{49}$     | 0.3044±0.0023                 | 0.14±0.04        | 0.61±0.14           | 11.1  |
| $f_{50}$     | 2.1291±0.0023                 | 0.13±0.04        | -0.78±0.14          | 11.3  |
| $f_{51}$     | 2.0643±0.0022                 | 0.14±0.04        | 1.77±0.13           | 12.4  |
| $f_{52}$     | 2.3236±0.0024                 | 0.12±0.04        | -2.03±0.14          | 10.5  |
| $f_{54}$     | 0.7216±0.0024                 | 0.14±0.04        | -0.15±0.15          | 10.0  |
| $f_{55}$     | 0.6565±0.0024                 | 0.15±0.05        | 2.51±0.14           | 10.5  |
| $f_{56}$     | 0.3430±0.0025                 | 0.13±0.04        | 2.50±0.15           | 9.7   |
| $f_{57}$     | 2.0971±0.0025                 | 0.13±0.04        | 1.52±0.15           | 9.2   |
| $f_{58}$     | 1.9174±0.0026                 | 0.13±0.04        | -0.12±0.16          | 8.8   |
| $f_{59}$     | 1.9381±0.0025                 | 0.13±0.04        | -1.51±0.15          | 9.7   |
| $f_{60}$     | 1.0207±0.0026                 | 0.14±0.05        | -0.95±0.16          | 8.3   |
| $f_{61}$     | 0.9360±0.0026                 | 0.12±0.04        | -1.70±0.16          | 8.8   |
| $f_{62}$     | 1.0040±0.0025                 | 0.13±0.04        | -0.43±0.15          | 9.1   |
| $f_{63}$     | 0.9585±0.0025                 | 0.12±0.04        | -0.96±0.15          | 9.5   |
| $f_{64}$     | 2.0406±0.0026                 | 0.12±0.04        | -2.79±0.16          | 8.4   |
| $f_{65}$     | 0.2270±0.0027                 | 0.14±0.05        | 2.95±0.16           | 8.1   |
| $f_{66}$     | 0.2072±0.0026                 | 0.13±0.04        | -0.43±0.16          | 8.9   |
| $f_{67}$     | 0.4957±0.0028                 | 0.13±0.05        | 1.75±0.17           | 7.6   |

Frequency list of 0102777301 continued

## Appendix B. Frequencies of individual $\gamma$ Dor Stars

| Frequency list of 0102777301 continued |                              |                  |                          |       | Frequency list of 0102782290 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| <i>f</i> <sub>68</sub>                 | 0.4149±0.0028                | 0.11±0.04        | -0.21±0.17               | 7.6   | <i>f</i> <sub>56</sub>                 | 1.2445±0.0022                | 0.10±0.03        | -1.23±0.13               | 12.5  |
| <i>f</i> <sub>69</sub>                 | 56.9808±0.0028               | 0.11±0.04        | 1.79±0.17                | 7.5   | <i>f</i> <sub>60</sub>                 | 0.2815±0.0022                | 0.10±0.03        | 0.08±0.13                | 12.2  |
| <i>f</i> <sub>71</sub>                 | 2.2132±0.0028                | 0.12±0.04        | -2.25±0.17               | 7.6   | <i>f</i> <sub>63</sub>                 | 1.2717±0.0023                | 0.09±0.03        | 0.99±0.14                | 11.2  |
| <i>f</i> <sub>72</sub>                 | 1.4390±0.0028                | 0.11±0.04        | -0.73±0.17               | 7.3   | <i>f</i> <sub>64</sub>                 | 0.1695±0.0023                | 0.11±0.03        | -1.99±0.14               | 11.0  |
| <i>f</i> <sub>73</sub>                 | 1.2462±0.0029                | 0.11±0.04        | -0.08±0.17               | 7.1   | <i>f</i> <sub>65</sub>                 | 0.1867±0.0022                | 0.10±0.03        | 2.58±0.13                | 12.5  |
| <i>f</i> <sub>74</sub>                 | 2.0004±0.0028                | 0.10±0.04        | -1.86±0.17               | 7.2   | <i>f</i> <sub>66</sub>                 | 0.6412±0.0023                | 0.09±0.03        | -2.44±0.14               | 11.4  |
| <i>f</i> <sub>75</sub>                 | 1.4736±0.0029                | 0.10±0.04        | -2.99±0.17               | 7.1   | <i>f</i> <sub>67</sub>                 | 1.1206±0.0024                | 0.10±0.03        | 0.45±0.14                | 10.5  |
| <i>f</i> <sub>78</sub>                 | 0.6857±0.0029                | 0.10±0.04        | 2.85±0.18                | 6.9   | <i>f</i> <sub>68</sub>                 | 0.3326±0.0025                | 0.07±0.02        | -2.89±0.15               | 9.6   |
| <i>f</i> <sub>79</sub>                 | 0.1217±0.0029                | 0.11±0.04        | 1.94±0.18                | 6.7   | <i>f</i> <sub>69</sub>                 | 1.1515±0.0025                | 0.10±0.03        | -0.38±0.15               | 9.5   |
| <i>f</i> <sub>80</sub>                 | 2.2821±0.0029                | 0.10±0.04        | 0.41±0.18                | 6.7   | <i>f</i> <sub>70</sub>                 | 0.5307±0.0025                | 0.11±0.04        | 1.46±0.15                | 9.2   |
| <i>f</i> <sub>81</sub>                 | 1.9247±0.0029                | 0.10±0.04        | 2.90±0.18                | 6.8   | <i>f</i> <sub>71</sub>                 | 0.5724±0.0025                | 0.12±0.04        | -1.75±0.15               | 9.6   |
| <i>f</i> <sub>82</sub>                 | 1.2551±0.0029                | 0.10±0.04        | 1.73±0.18                | 6.9   | <i>f</i> <sub>72</sub>                 | 0.6178±0.0026                | 0.09±0.03        | -2.93±0.16               | 8.7   |
| <i>f</i> <sub>83</sub>                 | 1.5164±0.0030                | 0.11±0.04        | 1.64±0.18                | 6.5   | <i>f</i> <sub>73</sub>                 | 0.2637±0.0027                | 0.09±0.03        | 2.61±0.16                | 8.1   |
| <i>f</i> <sub>84</sub>                 | 0.5393±0.0030                | 0.10±0.04        | -1.82±0.19               | 6.3   | <i>f</i> <sub>77</sub>                 | 1.0898±0.0027                | 0.08±0.03        | -1.45±0.16               | 8.0   |
| <i>f</i> <sub>85</sub>                 | 1.3724±0.0030                | 0.11±0.04        | -3.12±0.19               | 6.3   | <i>f</i> <sub>78</sub>                 | 0.3697±0.0027                | 0.08±0.03        | -1.73±0.16               | 8.0   |
| <i>f</i> <sub>86</sub>                 | 2.4185±0.0031                | 0.10±0.04        | -1.03±0.19               | 6.1   | <i>f</i> <sub>79</sub>                 | 1.2101±0.0028                | 0.08±0.03        | 2.47±0.17                | 7.6   |
| <i>f</i> <sub>88</sub>                 | 0.5195±0.0031                | 0.10±0.04        | 0.32±0.19                | 6.1   | <i>f</i> <sub>80</sub>                 | 1.7666±0.0028                | 0.09±0.03        | 1.70±0.17                | 7.6   |
| <i>f</i> <sub>89</sub>                 | 1.9823±0.0031                | 0.10±0.04        | 1.17±0.19                | 5.9   | <i>f</i> <sub>81</sub>                 | 0.6696±0.0028                | 0.07±0.03        | -2.28±0.17               | 7.2   |
| <i>f</i> <sub>90</sub>                 | 0.4903±0.0031                | 0.10±0.04        | -1.60±0.19               | 6.1   | <i>f</i> <sub>83</sub>                 | 0.2305±0.0029                | 0.08±0.03        | 0.98±0.18                | 6.9   |
| <i>f</i> <sub>91</sub>                 | 0.6364±0.0033                | 0.10±0.04        | 0.04±0.20                | 5.5   | <i>f</i> <sub>84</sub>                 | 1.1751±0.0029                | 0.08±0.03        | 0.45±0.17                | 7.1   |
| <i>f</i> <sub>92</sub>                 | 0.7477±0.0032                | 0.10±0.04        | 2.15±0.20                | 5.6   | <i>f</i> <sub>85</sub>                 | 0.8908±0.0029                | 0.08±0.03        | 2.08±0.18                | 6.7   |
| <i>f</i> <sub>93</sub>                 | 0.8048±0.0033                | 0.10±0.04        | 2.49±0.20                | 5.5   | <i>f</i> <sub>86</sub>                 | 1.7322±0.0030                | 0.07±0.03        | 0.33±0.18                | 6.4   |
| <i>f</i> <sub>94</sub>                 | 0.8266±0.0032                | 0.10±0.04        | -2.15±0.20               | 5.7   | <i>f</i> <sub>87</sub>                 | 1.2971±0.0029                | 0.07±0.03        | -1.75±0.18               | 6.7   |
| <i>f</i> <sub>95</sub>                 | 2.1185±0.0032                | 0.10±0.04        | 2.09±0.20                | 5.6   | <i>f</i> <sub>88</sub>                 | 0.7535±0.0031                | 0.07±0.03        | -0.55±0.19               | 6.2   |
| <i>f</i> <sub>97</sub>                 | 1.0338±0.0033                | 0.10±0.04        | -3.06±0.20               | 5.4   | <i>f</i> <sub>89</sub>                 | 0.7015±0.0031                | 0.07±0.03        | 2.17±0.19                | 6.0   |
| <i>f</i> <sub>98</sub>                 | 1.3371±0.0033                | 0.09±0.04        | 0.15±0.20                | 5.5   | <i>f</i> <sub>90</sub>                 | 0.4445±0.0031                | 0.07±0.03        | 3.10±0.19                | 5.9   |
| <i>f</i> <sub>100</sub>                | 1.5740±0.0033                | 0.09±0.04        | -1.23±0.20               | 5.4   | <i>f</i> <sub>91</sub>                 | 0.9049±0.0032                | 0.07±0.03        | -2.94±0.20               | 5.6   |
| <i>f</i> <sub>101</sub>                | 1.8951±0.0034                | 0.09±0.04        | -1.85±0.21               | 5.1   | <i>f</i> <sub>92</sub>                 | 1.0274±0.0032                | 0.08±0.03        | -0.24±0.19               | 5.8   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>95</sub>                 | 1.0626±0.0033                | 0.07±0.03        | 2.37±0.20                | 5.3   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>96</sub>                 | 0.6292±0.0033                | 0.07±0.03        | 1.66±0.20                | 5.4   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>97</sub>                 | 1.0099±0.0033                | 0.06±0.03        | 2.28±0.20                | 5.2   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>98</sub>                 | 0.3827±0.0034                | 0.06±0.03        | -0.95±0.21               | 5.1   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>99</sub>                 | 1.7598±0.0034                | 0.06±0.03        | 0.21±0.21                | 5.1   |

**Table B.84:** Frequency list of 0102782290

| Frequency ID           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign.  |
|------------------------|------------------------------|------------------|--------------------------|--------|
| <i>f</i> <sub>1</sub>  | 0.5612±0.0002                | 2.48±0.07        | -2.71±0.01               | 1281.6 |
| <i>f</i> <sub>2</sub>  | 0.5777±0.0003                | 2.08±0.08        | -3.01±0.02               | 609.3  |
| <i>f</i> <sub>3</sub>  | 0.5887±0.0003                | 1.55±0.06        | -0.76±0.02               | 623.9  |
| <i>f</i> <sub>4</sub>  | 0.5545±0.0003                | 1.13±0.05        | 2.77±0.02                | 509.6  |
| <i>f</i> <sub>5</sub>  | 1.1705±0.0005                | 0.60±0.04        | -1.31±0.03               | 242.2  |
| <i>f</i> <sub>6</sub>  | 0.5681±0.0005                | 0.75±0.05        | -1.92±0.03               | 221.9  |
| <i>f</i> <sub>7</sub>  | 0.6173±0.0007                | 0.40±0.04        | 1.64±0.04                | 130.2  |
| <i>f</i> <sub>8</sub>  | 0.5830±0.0007                | 0.42±0.04        | 2.40±0.04                | 118.6  |
| <i>f</i> <sub>9</sub>  | 0.5071±0.0007                | 0.41±0.04        | 0.64±0.05                | 104.3  |
| <i>f</i> <sub>10</sub> | 1.1612±0.0008                | 0.40±0.04        | 1.07±0.05                | 99.0   |
| <i>f</i> <sub>11</sub> | 1.1874±0.0008                | 0.34±0.03        | 2.48±0.05                | 100.2  |
| <i>f</i> <sub>12</sub> | 0.5276±0.0008                | 0.30±0.03        | -1.27±0.05               | 89.2   |
| <i>f</i> <sub>13</sub> | 0.5974±0.0008                | 0.30±0.03        | 1.32±0.05                | 96.8   |
| <i>f</i> <sub>14</sub> | 1.1316±0.0008                | 0.37±0.04        | 0.42±0.05                | 87.6   |
| <i>f</i> <sub>15</sub> | 1.1791±0.0009                | 0.33±0.04        | 2.48±0.05                | 76.6   |
| <i>f</i> <sub>16</sub> | 0.1231±0.0010                | 0.31±0.04        | 2.77±0.06                | 63.3   |
| <i>f</i> <sub>17</sub> | 0.5392±0.0010                | 0.32±0.04        | 1.59±0.06                | 60.4   |
| <i>f</i> <sub>18</sub> | 1.1962±0.0011                | 0.25±0.03        | 0.18±0.06                | 51.5   |
| <i>f</i> <sub>19</sub> | 0.6367±0.0011                | 0.31±0.04        | 1.36±0.07                | 49.8   |
| <i>f</i> <sub>20</sub> | 0.6249±0.0011                | 0.21±0.03        | -0.48±0.07               | 49.2   |
| <i>f</i> <sub>21</sub> | 1.1396±0.0012                | 0.19±0.03        | 2.34±0.07                | 42.0   |
| <i>f</i> <sub>22</sub> | 0.1019±0.0012                | 0.21±0.03        | -0.56±0.07               | 42.4   |
| <i>f</i> <sub>23</sub> | 0.5160±0.0012                | 0.23±0.04        | 1.56±0.07                | 40.6   |
| <i>f</i> <sub>24</sub> | 0.5468±0.0012                | 0.25±0.04        | -2.18±0.07               | 41.8   |
| <i>f</i> <sub>25</sub> | 0.6102±0.0011                | 0.25±0.04        | 0.58±0.07                | 46.3   |
| <i>f</i> <sub>26</sub> | 1.7532±0.0012                | 0.19±0.03        | -2.08±0.07               | 40.3   |
| <i>f</i> <sub>27</sub> | 0.4992±0.0012                | 0.20±0.03        | -0.86±0.07               | 39.3   |
| <i>f</i> <sub>28</sub> | 0.1435±0.0013                | 0.17±0.03        | 2.68±0.08                | 35.4   |
| <i>f</i> <sub>29</sub> | 0.7225±0.0013                | 0.19±0.03        | 2.43±0.08                | 32.2   |
| <i>f</i> <sub>31</sub> | 1.7753±0.0013                | 0.17±0.03        | 2.63±0.08                | 32.2   |
| <i>f</i> <sub>33</sub> | 0.4627±0.0014                | 0.19±0.03        | -0.36±0.09               | 29.7   |
| <i>f</i> <sub>36</sub> | 1.1132±0.0015                | 0.16±0.03        | -1.38±0.09               | 26.4   |
| <i>f</i> <sub>37</sub> | 0.3005±0.0017                | 0.12±0.03        | -1.45±0.10               | 21.4   |
| <i>f</i> <sub>38</sub> | 0.6038±0.0017                | 0.14±0.03        | 1.64±0.10                | 20.2   |
| <i>f</i> <sub>39</sub> | 0.4382±0.0017                | 0.13±0.03        | -3.04±0.11               | 19.3   |
| <i>f</i> <sub>40</sub> | 0.2426±0.0018                | 0.15±0.03        | 2.83±0.11                | 18.7   |
| <i>f</i> <sub>41</sub> | 0.1151±0.0018                | 0.13±0.03        | -2.12±0.11               | 17.6   |
| <i>f</i> <sub>43</sub> | 0.7780±0.0019                | 0.12±0.03        | -0.81±0.12               | 16.2   |
| <i>f</i> <sub>44</sub> | 0.3613±0.0020                | 0.12±0.03        | -0.83±0.12               | 14.9   |
| <i>f</i> <sub>45</sub> | 0.1608±0.0020                | 0.12±0.03        | 0.01±0.12                | 14.0   |
| <i>f</i> <sub>49</sub> | 0.4079±0.0021                | 0.13±0.04        | -1.11±0.13               | 13.1   |
| <i>f</i> <sub>50</sub> | 0.3978±0.0021                | 0.12±0.03        | 0.50±0.13                | 13.2   |
| <i>f</i> <sub>52</sub> | 2.0047±0.0020                | 0.24±0.06        | 0.17±0.12                | 15.3   |

Frequency list of 0102782290 continued

**Table B.85:** Frequency list of 0102784531

| Frequency ID           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|------------------------|------------------------------|------------------|--------------------------|-------|
| <i>f</i> <sub>1</sub>  | 1.8809±0.0006                | 0.27±0.02        | -0.54±0.04               | 157.1 |
| <i>f</i> <sub>2</sub>  | 0.1197±0.0006                | 0.25±0.02        | -2.03±0.04               | 145.2 |
| <i>f</i> <sub>3</sub>  | 1.9817±0.0007                | 0.21±0.02        | 2.84±0.05                | 105.6 |
| <i>f</i> <sub>4</sub>  | 0.1384±0.0008                | 0.19±0.02        | 1.13±0.05                | 100.9 |
| <i>f</i> <sub>5</sub>  | 0.2765±0.0009                | 0.17±0.02        | 1.49±0.06                | 66.9  |
| <i>f</i> <sub>6</sub>  | 0.1555±0.0011                | 0.15±0.02        | 2.80±0.07                | 44.4  |
| <i>f</i> <sub>7</sub>  | 0.1672±0.0012                | 0.13±0.02        | -2.82±0.08               | 37.6  |
| <i>f</i> <sub>8</sub>  | 0.2356±0.0013                | 0.09±0.02        | 2.19±0.08                | 33.4  |
| <i>f</i> <sub>9</sub>  | 1.7342±0.0013                | 0.11±0.02        | 1.52±0.08                | 33.3  |
| <i>f</i> <sub>10</sub> | 0.1900±0.0015                | 0.10±0.02        | -1.00±0.09               | 27.5  |
| <i>f</i> <sub>11</sub> | 0.1250±0.0014                | 0.10±0.02        | -0.85±0.09               | 28.3  |
| <i>f</i> <sub>12</sub> | 0.1986±0.0016                | 0.10±0.02        | -0.22±0.10               | 23.1  |
| <i>f</i> <sub>13</sub> | 0.2702±0.0017                | 0.09±0.02        | 1.00±0.10                | 21.2  |
| <i>f</i> <sub>15</sub> | 0.2159±0.0017                | 0.08±0.02        | -0.26±0.10               | 21.3  |
| <i>f</i> <sub>16</sub> | 0.2551±0.0017                | 0.07±0.02        | -0.43±0.10               | 20.4  |
| <i>f</i> <sub>17</sub> | 0.1452±0.0017                | 0.09±0.02        | -1.23±0.10               | 19.8  |
| <i>f</i> <sub>18</sub> | 0.2995±0.0017                | 0.07±0.02        | 1.70±0.11                | 19.4  |
| <i>f</i> <sub>19</sub> | 0.4223±0.0018                | 0.08±0.02        | 0.08±0.11                | 17.1  |
| <i>f</i> <sub>20</sub> | 0.4963±0.0020                | 0.06±0.02        | -2.34±0.12               | 15.3  |
| <i>f</i> <sub>21</sub> | 1.3320±0.0020                | 0.07±0.02        | 0.35±0.12                | 14.9  |
| <i>f</i> <sub>22</sub> | 0.3310±0.0020                | 0.07±0.02        | 3.08±0.12                | 14.3  |
| <i>f</i> <sub>23</sub> | 1.3408±0.0021                | 0.07±0.02        | -0.27±0.13               | 13.7  |
| <i>f</i> <sub>24</sub> | 0.3850±0.0021                | 0.06±0.02        | -0.13±0.13               | 13.3  |
| <i>f</i> <sub>25</sub> | 0.1744±0.0021                | 0.07±0.02        | 2.39±0.13                | 12.8  |
| <i>f</i> <sub>26</sub> | 0.7738±0.0022                | 0.06±0.02        | -2.04±0.14               | 11.9  |
| <i>f</i> <sub>27</sub> | 0.5184±0.0022                | 0.06±0.02        | -0.66±0.13               | 12.3  |
| <i>f</i> <sub>28</sub> | 0.9848±0.0023                | 0.06±0.02        | -0.80±0.14               | 10.7  |
| <i>f</i> <sub>29</sub> | 0.2814±0.0024                | 0.06±0.02        | 1.62±0.15                | 10.3  |
| <i>f</i> <sub>30</sub> | 0.4517±0.0023                | 0.06±0.02        | -1.16±0.14               | 10.7  |
| <i>f</i> <sub>31</sub> | 0.7088±0.0024                | 0.06±0.02        | -1.15±0.15               | 9.9   |
| <i>f</i> <sub>32</sub> | 0.5945±0.0024                | 0.04±0.01        | 2.66±0.15                | 10.1  |
| <i>f</i> <sub>33</sub> | 1.3768±0.0025                | 0.05±0.02        | 0.55±0.15                | 9.2   |
| <i>f</i> <sub>34</sub> | 1.3125±0.0025                | 0.05±0.02        | 0.79±0.15                | 9.1   |
| <i>f</i> <sub>36</sub> | 0.5462±0.0026                | 0.04±0.01        | -1.24±0.16               | 8.3   |
| <i>f</i> <sub>37</sub> | 0.8038±0.0027                | 0.05±0.02        | -1.14±0.16               | 8.2   |
| <i>f</i> <sub>38</sub> | 0.3209±0.0027                | 0.05±0.02        | 2.57±0.16                | 8.0   |
| <i>f</i> <sub>39</sub> | 0.2894±0.0027                | 0.05±0.02        | -0.60±0.16               | 8.2   |
| <i>f</i> <sub>40</sub> | 0.2279±0.0028                | 0.05±0.02        | 1.27±0.17                | 7.7   |

Frequency list of 0102784531 continued

## Appendix B. Frequencies of individual $\gamma$ Dor Stars

| Frequency list of 0102784531 continued |                               |                  |                     |       |
|----------------------------------------|-------------------------------|------------------|---------------------|-------|
| Frequency ID                           | Frequency [ $\text{d}^{-1}$ ] | Amplitude [mmag] | Phase $[-\pi, \pi]$ | Sign. |
| $f_{41}$                               | 0.4796 $\pm$ 0.0028           | 0.05 $\pm$ 0.02  | -1.10 $\pm$ 0.17    | 7.7   |
| $f_{42}$                               | 0.6758 $\pm$ 0.0028           | 0.05 $\pm$ 0.02  | 2.08 $\pm$ 0.17     | 7.6   |
| $f_{43}$                               | 1.1907 $\pm$ 0.0028           | 0.05 $\pm$ 0.02  | 1.29 $\pm$ 0.17     | 7.2   |
| $f_{44}$                               | 1.3262 $\pm$ 0.0028           | 0.05 $\pm$ 0.02  | 3.13 $\pm$ 0.17     | 7.4   |
| $f_{45}$                               | 1.3483 $\pm$ 0.0029           | 0.05 $\pm$ 0.02  | 1.83 $\pm$ 0.18     | 6.7   |
| $f_{46}$                               | 0.5261 $\pm$ 0.0029           | 0.04 $\pm$ 0.02  | -0.35 $\pm$ 0.18    | 6.8   |
| $f_{47}$                               | 0.5586 $\pm$ 0.0029           | 0.05 $\pm$ 0.02  | 2.62 $\pm$ 0.18     | 6.8   |
| $f_{48}$                               | 3.5202 $\pm$ 0.0030           | 0.05 $\pm$ 0.02  | 2.92 $\pm$ 0.18     | 6.6   |
| $f_{49}$                               | 1.7170 $\pm$ 0.0030           | 0.05 $\pm$ 0.02  | 0.95 $\pm$ 0.18     | 6.6   |
| $f_{50}$                               | 1.0506 $\pm$ 0.0029           | 0.05 $\pm$ 0.02  | 1.26 $\pm$ 0.18     | 6.8   |
| $f_{51}$                               | 0.7968 $\pm$ 0.0030           | 0.04 $\pm$ 0.02  | -1.68 $\pm$ 0.18    | 6.4   |
| $f_{52}$                               | 0.6063 $\pm$ 0.0031           | 0.05 $\pm$ 0.02  | 2.72 $\pm$ 0.19     | 6.2   |
| $f_{53}$                               | 0.2650 $\pm$ 0.0030           | 0.05 $\pm$ 0.02  | 2.80 $\pm$ 0.19     | 6.3   |
| $f_{54}$                               | 1.6419 $\pm$ 0.0030           | 0.04 $\pm$ 0.02  | 0.51 $\pm$ 0.19     | 6.3   |
| $f_{55}$                               | 0.3765 $\pm$ 0.0031           | 0.04 $\pm$ 0.02  | -2.66 $\pm$ 0.19    | 6.0   |
| $f_{56}$                               | 0.2058 $\pm$ 0.0031           | 0.05 $\pm$ 0.02  | -0.25 $\pm$ 0.19    | 5.9   |
| $f_{57}$                               | 1.1038 $\pm$ 0.0031           | 0.04 $\pm$ 0.02  | 2.15 $\pm$ 0.19     | 5.9   |
| $f_{58}$                               | 0.4150 $\pm$ 0.0032           | 0.04 $\pm$ 0.02  | 0.30 $\pm$ 0.20     | 5.7   |
| $f_{60}$                               | 0.5079 $\pm$ 0.0033           | 0.04 $\pm$ 0.02  | -0.02 $\pm$ 0.20    | 5.4   |
| $f_{61}$                               | 0.1041 $\pm$ 0.0033           | 0.04 $\pm$ 0.02  | -0.33 $\pm$ 0.20    | 5.3   |
| $f_{62}$                               | 1.2817 $\pm$ 0.0034           | 0.04 $\pm$ 0.02  | -0.90 $\pm$ 0.21    | 5.0   |

**Table B.86:** Frequency list of 0102787110

| Frequency ID | Frequency [ $\text{d}^{-1}$ ] | Amplitude [mmag] | Phase $[-\pi, \pi]$ | Sign. |
|--------------|-------------------------------|------------------|---------------------|-------|
| $f_1$        | 3.0958 $\pm$ 0.0007           | 0.36 $\pm$ 0.03  | -0.83 $\pm$ 0.04    | 114.2 |
| $f_2$        | 3.4426 $\pm$ 0.0007           | 0.36 $\pm$ 0.03  | -2.23 $\pm$ 0.04    | 112.4 |
| $f_3$        | 3.1559 $\pm$ 0.0007           | 0.37 $\pm$ 0.03  | -3.06 $\pm$ 0.04    | 114.6 |
| $f_4$        | 2.9743 $\pm$ 0.0007           | 0.34 $\pm$ 0.03  | 1.43 $\pm$ 0.04     | 109.1 |
| $f_5$        | 0.1285 $\pm$ 0.0009           | 0.29 $\pm$ 0.03  | 0.65 $\pm$ 0.05     | 74.9  |
| $f_6$        | 0.1134 $\pm$ 0.0009           | 0.28 $\pm$ 0.03  | 2.54 $\pm$ 0.05     | 72.0  |
| $f_7$        | 0.1565 $\pm$ 0.0009           | 0.24 $\pm$ 0.03  | 0.84 $\pm$ 0.06     | 65.8  |
| $f_8$        | 3.2595 $\pm$ 0.0010           | 0.26 $\pm$ 0.03  | -2.39 $\pm$ 0.06    | 63.2  |
| $f_9$        | 3.2315 $\pm$ 0.0010           | 0.24 $\pm$ 0.03  | -0.92 $\pm$ 0.06    | 55.2  |
| $f_{10}$     | 0.2194 $\pm$ 0.0012           | 0.17 $\pm$ 0.03  | 0.19 $\pm$ 0.07     | 41.4  |
| $f_{11}$     | 0.2976 $\pm$ 0.0012           | 0.18 $\pm$ 0.03  | 1.50 $\pm$ 0.07     | 40.6  |
| $f_{12}$     | 0.1341 $\pm$ 0.0014           | 0.18 $\pm$ 0.03  | -1.30 $\pm$ 0.08    | 31.9  |
| $f_{13}$     | 0.2770 $\pm$ 0.0015           | 0.17 $\pm$ 0.03  | -0.58 $\pm$ 0.09    | 25.3  |
| $f_{14}$     | 2.9629 $\pm$ 0.0016           | 0.14 $\pm$ 0.03  | -1.12 $\pm$ 0.10    | 21.9  |
| $f_{15}$     | 3.1152 $\pm$ 0.0016           | 0.16 $\pm$ 0.03  | -2.32 $\pm$ 0.10    | 22.4  |
| $f_{17}$     | 0.1721 $\pm$ 0.0018           | 0.16 $\pm$ 0.04  | -2.95 $\pm$ 0.11    | 17.6  |
| $f_{18}$     | 0.2631 $\pm$ 0.0019           | 0.14 $\pm$ 0.03  | -2.66 $\pm$ 0.11    | 16.5  |
| $f_{19}$     | 0.1630 $\pm$ 0.0019           | 0.10 $\pm$ 0.02  | 0.76 $\pm$ 0.11     | 16.5  |
| $f_{20}$     | 2.9411 $\pm$ 0.0019           | 0.12 $\pm$ 0.03  | 1.39 $\pm$ 0.12     | 16.3  |
| $f_{22}$     | 0.3026 $\pm$ 0.0020           | 0.10 $\pm$ 0.03  | 0.34 $\pm$ 0.12     | 14.7  |
| $f_{24}$     | 0.2029 $\pm$ 0.0021           | 0.12 $\pm$ 0.03  | 1.20 $\pm$ 0.13     | 13.8  |
| $f_{25}$     | 0.4629 $\pm$ 0.0020           | 0.10 $\pm$ 0.03  | 2.34 $\pm$ 0.12     | 13.9  |
| $f_{26}$     | 0.1414 $\pm$ 0.0021           | 0.09 $\pm$ 0.02  | 2.61 $\pm$ 0.13     | 13.3  |
| $f_{27}$     | 2.8462 $\pm$ 0.0021           | 0.10 $\pm$ 0.03  | 1.15 $\pm$ 0.13     | 12.7  |
| $f_{28}$     | 6.5758 $\pm$ 0.0022           | 0.10 $\pm$ 0.03  | 1.75 $\pm$ 0.13     | 12.3  |
| $f_{29}$     | 3.1334 $\pm$ 0.0022           | 0.10 $\pm$ 0.03  | 0.87 $\pm$ 0.13     | 12.5  |
| $f_{32}$     | 6.1527 $\pm$ 0.0022           | 0.10 $\pm$ 0.03  | -1.39 $\pm$ 0.13    | 12.4  |
| $f_{33}$     | 0.3723 $\pm$ 0.0022           | 0.09 $\pm$ 0.03  | 1.27 $\pm$ 0.13     | 12.0  |
| $f_{35}$     | 0.1811 $\pm$ 0.0023           | 0.10 $\pm$ 0.03  | -0.94 $\pm$ 0.14    | 11.1  |
| $f_{36}$     | 3.0259 $\pm$ 0.0023           | 0.09 $\pm$ 0.03  | 0.77 $\pm$ 0.14     | 10.8  |
| $f_{37}$     | 0.3487 $\pm$ 0.0023           | 0.10 $\pm$ 0.03  | -1.59 $\pm$ 0.14    | 10.8  |
| $f_{39}$     | 2.8728 $\pm$ 0.0025           | 0.09 $\pm$ 0.03  | -2.99 $\pm$ 0.16    | 9.0   |
| $f_{40}$     | 2.0036 $\pm$ 0.0025           | 0.10 $\pm$ 0.03  | 1.48 $\pm$ 0.16     | 9.0   |
| $f_{43}$     | 0.4894 $\pm$ 0.0027           | 0.09 $\pm$ 0.03  | 0.01 $\pm$ 0.16     | 8.1   |
| $f_{44}$     | 0.4983 $\pm$ 0.0028           | 0.09 $\pm$ 0.03  | 1.57 $\pm$ 0.17     | 7.7   |
| $f_{45}$     | 0.5369 $\pm$ 0.0026           | 0.08 $\pm$ 0.03  | -1.16 $\pm$ 0.16    | 8.4   |
| $f_{46}$     | 0.5612 $\pm$ 0.0027           | 0.08 $\pm$ 0.03  | -2.91 $\pm$ 0.16    | 8.1   |
| $f_{47}$     | 0.6655 $\pm$ 0.0028           | 0.08 $\pm$ 0.03  | -2.09 $\pm$ 0.17    | 7.6   |
| $f_{48}$     | 0.5254 $\pm$ 0.0027           | 0.09 $\pm$ 0.03  | 2.82 $\pm$ 0.17     | 7.9   |
| $f_{49}$     | 0.4245 $\pm$ 0.0029           | 0.07 $\pm$ 0.03  | 0.52 $\pm$ 0.18     | 6.9   |
| $f_{52}$     | 0.2702 $\pm$ 0.0030           | 0.09 $\pm$ 0.04  | -0.56 $\pm$ 0.19    | 6.3   |
| $f_{53}$     | 0.2525 $\pm$ 0.0030           | 0.08 $\pm$ 0.03  | -1.64 $\pm$ 0.18    | 6.4   |
| $f_{54}$     | 0.2256 $\pm$ 0.0030           | 0.08 $\pm$ 0.03  | 3.08 $\pm$ 0.19     | 6.3   |
| $f_{55}$     | 1.0214 $\pm$ 0.0031           | 0.07 $\pm$ 0.03  | 0.94 $\pm$ 0.19     | 6.2   |
| $f_{56}$     | 5.8877 $\pm$ 0.0031           | 0.07 $\pm$ 0.03  | 1.25 $\pm$ 0.19     | 6.0   |
| $f_{57}$     | 2.5537 $\pm$ 0.0031           | 0.07 $\pm$ 0.03  | 1.11 $\pm$ 0.19     | 5.9   |
| $f_{58}$     | 0.2905 $\pm$ 0.0031           | 0.07 $\pm$ 0.03  | 2.61 $\pm$ 0.19     | 5.9   |
| $f_{61}$     | 3.2915 $\pm$ 0.0032           | 0.07 $\pm$ 0.03  | 0.92 $\pm$ 0.19     | 5.8   |
| $f_{62}$     | 0.4176 $\pm$ 0.0032           | 0.07 $\pm$ 0.03  | -3.07 $\pm$ 0.19    | 5.8   |

Frequency list of 0102787110 continued

| Frequency list of 0102787110 continued |                               |                  |                     |       |
|----------------------------------------|-------------------------------|------------------|---------------------|-------|
| Frequency ID                           | Frequency [ $\text{d}^{-1}$ ] | Amplitude [mmag] | Phase $[-\pi, \pi]$ | Sign. |
| $f_{63}$                               | 1.5223 $\pm$ 0.0032           | 0.07 $\pm$ 0.03  | 0.79 $\pm$ 0.20     | 5.7   |
| $f_{64}$                               | 6.4055 $\pm$ 0.0032           | 0.07 $\pm$ 0.03  | -2.69 $\pm$ 0.20    | 5.6   |
| $f_{66}$                               | 0.3852 $\pm$ 0.0033           | 0.07 $\pm$ 0.03  | -2.73 $\pm$ 0.20    | 5.4   |
| $f_{67}$                               | 3.0783 $\pm$ 0.0033           | 0.07 $\pm$ 0.03  | -1.43 $\pm$ 0.20    | 5.2   |
| $f_{69}$                               | 1.2674 $\pm$ 0.0033           | 0.06 $\pm$ 0.03  | -2.71 $\pm$ 0.20    | 5.3   |
| $f_{70}$                               | 14.6209 $\pm$ 0.0033          | 0.06 $\pm$ 0.03  | -0.63 $\pm$ 0.20    | 5.2   |

**Table B.87:** Frequency list of 0102792193

| Frequency<br>ID | Frequency<br>[d <sup>-1</sup> ] | Amplitude<br>[mmag] | Phase<br>[- $\pi$ , $\pi$ ] | Sign.  |
|-----------------|---------------------------------|---------------------|-----------------------------|--------|
| $f_1$           | 1.9403±0.0002                   | 7.86±0.21           | 2.12±0.01                   | 1399.7 |
| $f_2$           | 2.1165±0.0003                   | 5.29±0.17           | -0.42±0.02                  | 929.0  |
| $f_3$           | 1.7637±0.0003                   | 3.20±0.13           | -1.32±0.02                  | 602.6  |
| $f_4$           | 1.7521±0.0004                   | 3.01±0.15           | -2.26±0.02                  | 428.0  |
| $f_5$           | 1.5890±0.0006                   | 1.79±0.13           | -1.96±0.03                  | 183.0  |
| $f_6$           | 0.9937±0.0006                   | 1.53±0.12           | 0.40±0.04                   | 172.3  |
| $f_7$           | 0.3527±0.0007                   | 1.32±0.11           | 0.20±0.04                   | 134.4  |
| $f_8$           | 1.8973±0.0007                   | 1.15±0.11           | -0.26±0.04                  | 119.1  |
| $f_9$           | 0.9845±0.0007                   | 1.11±0.11           | -1.90±0.04                  | 111.1  |
| $f_{10}$        | 0.1878±0.0008                   | 1.04±0.11           | -0.86±0.05                  | 93.9   |
| $f_{11}$        | 4.0571±0.0008                   | 1.10±0.11           | 2.78±0.05                   | 92.7   |
| $f_{12}$        | 1.9177±0.0008                   | 1.11±0.12           | -2.43±0.05                  | 88.9   |
| $f_{13}$        | 0.9673±0.0008                   | 0.91±0.10           | 2.36±0.05                   | 90.0   |
| $f_{14}$        | 2.2436±0.0010                   | 0.81±0.11           | -1.55±0.06                  | 54.7   |
| $f_{15}$        | 0.9743±0.0010                   | 0.81±0.11           | -2.97±0.06                  | 54.1   |
| $f_{16}$        | 0.9472±0.0010                   | 0.75±0.10           | 3.00±0.06                   | 60.4   |
| $f_{17}$        | 1.1196±0.0011                   | 0.83±0.12           | 0.24±0.06                   | 52.0   |
| $f_{18}$        | 1.7916±0.0011                   | 0.69±0.10           | 1.36±0.07                   | 50.8   |
| $f_{19}$        | 3.7043±0.0011                   | 0.67±0.10           | -2.65±0.07                  | 49.7   |
| $f_{20}$        | 0.1324±0.0011                   | 0.68±0.10           | -1.33±0.07                  | 47.5   |
| $f_{21}$        | 0.3647±0.0011                   | 0.79±0.12           | -0.67±0.07                  | 47.0   |
| $f_{22}$        | 1.7211±0.0011                   | 0.66±0.10           | 1.03±0.07                   | 47.8   |
| $f_{23}$        | 1.6330±0.0011                   | 0.69±0.10           | 2.31±0.07                   | 45.0   |
| $f_{24}$        | 0.1771±0.0012                   | 0.67±0.10           | 2.75±0.07                   | 43.2   |
| $f_{25}$        | 0.1013±0.0012                   | 0.64±0.10           | -0.20±0.07                  | 39.2   |
| $f_{26}$        | 1.9911±0.0012                   | 0.70±0.11           | -2.42±0.07                  | 40.7   |
| $f_{27}$        | 2.2935±0.0012                   | 0.54±0.09           | -2.68±0.08                  | 38.4   |
| $f_{28}$        | 1.6982±0.0013                   | 0.62±0.10           | -1.78±0.08                  | 35.3   |
| $f_{29}$        | 0.2207±0.0013                   | 0.53±0.09           | -1.71±0.08                  | 36.1   |
| $f_{30}$        | 1.5673±0.0013                   | 0.52±0.09           | -2.24±0.08                  | 34.6   |
| $f_{31}$        | 2.4683±0.0013                   | 0.57±0.10           | -0.30±0.08                  | 34.3   |
| $f_{32}$        | 0.9583±0.0013                   | 0.61±0.10           | 1.96±0.08                   | 34.5   |
| $f_{33}$        | 1.6452±0.0013                   | 0.60±0.10           | 1.00±0.08                   | 34.6   |
| $f_{37}$        | 3.6920±0.0014                   | 0.54±0.10           | 0.87±0.08                   | 31.2   |
| $f_{38}$        | 1.6227±0.0014                   | 0.54±0.10           | -0.66±0.08                  | 30.7   |
| $f_{40}$        | 0.2926±0.0015                   | 0.49±0.09           | 1.43±0.09                   | 27.4   |
| $f_{41}$        | 0.3059±0.0015                   | 0.51±0.10           | 1.64±0.09                   | 25.8   |
| $f_{42}$        | 2.3054±0.0015                   | 0.49±0.10           | -1.89±0.09                  | 26.5   |
| $f_{43}$        | 1.0917±0.0015                   | 0.45±0.09           | -2.20±0.09                  | 25.8   |
| $f_{44}$        | 1.1420±0.0016                   | 0.44±0.09           | 2.71±0.10                   | 23.0   |
| $f_{45}$        | 2.1267±0.0016                   | 0.44±0.09           | -3.04±0.10                  | 23.5   |
| $f_{46}$        | 0.7680±0.0016                   | 0.36±0.08           | -2.56±0.10                  | 21.8   |
| $f_{47}$        | 4.2330±0.0017                   | 0.43±0.09           | 3.10±0.10                   | 20.9   |
| $f_{49}$        | 0.6577±0.0017                   | 0.36±0.08           | -2.32±0.11                  | 19.2   |
| $f_{50}$        | 2.0070±0.0017                   | 0.90±0.20           | -1.62±0.11                  | 19.3   |
| $f_{51}$        | 1.5388±0.0017                   | 0.37±0.08           | 0.09±0.11                   | 19.1   |
| $f_{52}$        | 3.8373±0.0018                   | 0.37±0.09           | -1.45±0.11                  | 18.8   |
| $f_{53}$        | 3.8809±0.0018                   | 0.44±0.10           | -1.27±0.11                  | 19.0   |
| $f_{55}$        | 1.8072±0.0018                   | 0.39±0.09           | 0.15±0.11                   | 17.7   |
| $f_{56}$        | 1.7404±0.0018                   | 0.45±0.11           | -2.85±0.11                  | 18.2   |
| $f_{57}$        | 1.0070±0.0018                   | 0.41±0.10           | -1.96±0.11                  | 17.5   |
| $f_{58}$        | 1.1107±0.0018                   | 0.41±0.10           | 1.28±0.11                   | 17.5   |
| $f_{60}$        | 1.7613±0.0018                   | 0.37±0.09           | 1.37±0.11                   | 17.4   |
| $f_{62}$        | 1.4704±0.0019                   | 0.43±0.10           | 0.78±0.11                   | 16.8   |
| $f_{63}$        | 1.5805±0.0018                   | 0.34±0.08           | -1.23±0.11                  | 17.1   |
| $f_{64}$        | 0.2663±0.0019                   | 0.32±0.08           | -0.48±0.11                  | 16.9   |
| $f_{66}$        | 32.2627±0.0019                  | 0.36±0.09           | 0.19±0.12                   | 15.9   |
| $f_{67}$        | 1.0466±0.0019                   | 0.43±0.11           | -1.31±0.12                  | 16.3   |
| $f_{75}$        | 0.5349±0.0019                   | 0.38±0.10           | 0.95±0.12                   | 15.7   |
| $f_{76}$        | 1.1680±0.0020                   | 0.30±0.08           | 2.23±0.12                   | 15.2   |
| $f_{77}$        | 0.3723±0.0019                   | 0.34±0.09           | 1.93±0.12                   | 15.4   |
| $f_{78}$        | 2.1044±0.0020                   | 0.35±0.09           | -1.69±0.12                  | 14.7   |

## Appendix B. Frequencies of individual $\gamma$ Dor Stars

| Frequency list of 0102792193 continued |                              |                  |                          |       | Frequency list of 0102792193 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{79}$                               | 1.5554±0.0020                | 0.32±0.08        | 0.44±0.12                | 14.8  | $f_{167}$                              | 0.3877±0.0031                | 0.21±0.09        | -1.49±0.19               | 6.1   |
| $f_{80}$                               | 3.0632±0.0020                | 0.29±0.08        | 2.42±0.12                | 14.2  | $f_{168}$                              | 2.4265±0.0031                | 0.19±0.08        | -1.92±0.19               | 6.2   |
| $f_{81}$                               | 0.4692±0.0020                | 0.39±0.10        | -1.11±0.12               | 14.3  | $f_{169}$                              | 2.3613±0.0031                | 0.19±0.08        | 1.53±0.19                | 6.2   |
| $f_{82}$                               | 0.8057±0.0020                | 0.33±0.09        | -0.45±0.12               | 14.2  | $f_{170}$                              | 2.8195±0.0031                | 0.19±0.08        | 1.28±0.19                | 6.1   |
| $f_{83}$                               | 0.5464±0.0021                | 0.36±0.10        | -1.71±0.13               | 13.8  | $f_{172}$                              | 0.2282±0.0031                | 0.21±0.09        | 2.96±0.19                | 6.1   |
| $f_{84}$                               | 1.7711±0.0020                | 0.32±0.08        | -2.31±0.12               | 14.2  | $f_{173}$                              | 1.0582±0.0031                | 0.21±0.09        | -2.44±0.19               | 6.1   |
| $f_{85}$                               | 0.5258±0.0022                | 0.31±0.09        | -1.08±0.13               | 12.6  | $f_{174}$                              | 3.2118±0.0032                | 0.19±0.08        | -0.15±0.20               | 5.7   |
| $f_{86}$                               | 0.4039±0.0021                | 0.34±0.10        | -2.08±0.13               | 12.8  | $f_{175}$                              | 0.1863±0.0032                | 0.19±0.08        | 2.68±0.19                | 5.8   |
| $f_{87}$                               | 0.1993±0.0021                | 0.37±0.10        | 2.31±0.13                | 12.8  | $f_{177}$                              | 3.1166±0.0032                | 0.18±0.08        | -2.18±0.20               | 5.6   |
| $f_{88}$                               | 0.1658±0.0021                | 0.28±0.08        | -0.41±0.13               | 12.8  | $f_{178}$                              | 0.5825±0.0032                | 0.20±0.08        | 2.66±0.20                | 5.6   |
| $f_{89}$                               | 1.5181±0.0022                | 0.30±0.08        | -2.12±0.13               | 12.5  | $f_{179}$                              | 1.5972±0.0032                | 0.18±0.08        | 2.19±0.20                | 5.6   |
| $f_{90}$                               | 0.4408±0.0021                | 0.36±0.10        | -0.31±0.13               | 12.8  | $f_{180}$                              | 1.9628±0.0033                | 0.21±0.09        | 1.81±0.20                | 5.5   |
| $f_{91}$                               | 1.1261±0.0022                | 0.31±0.09        | 2.51±0.13                | 12.4  | $f_{181}$                              | 1.5287±0.0033                | 0.18±0.08        | -1.81±0.20               | 5.5   |
| $f_{92}$                               | 3.2315±0.0022                | 0.29±0.08        | 1.84±0.13                | 12.4  | $f_{182}$                              | 0.3784±0.0033                | 0.18±0.08        | 3.05±0.20                | 5.3   |
| $f_{93}$                               | 0.1079±0.0020                | 0.33±0.09        | -2.15±0.12               | 13.9  | $f_{183}$                              | 0.1450±0.0033                | 0.19±0.08        | 2.95±0.20                | 5.2   |
| $f_{94}$                               | 2.7090±0.0022                | 0.26±0.08        | 2.71±0.13                | 12.0  | $f_{184}$                              | 1.9531±0.0033                | 0.18±0.08        | 0.11±0.20                | 5.4   |
| $f_{95}$                               | 0.5650±0.0022                | 0.33±0.10        | -2.13±0.14               | 11.9  | $f_{188}$                              | 0.7580±0.0033                | 0.19±0.08        | -1.38±0.20               | 5.3   |
| $f_{96}$                               | 2.8898±0.0023                | 0.27±0.08        | 0.10±0.14                | 11.4  | $f_{189}$                              | 0.6298±0.0033                | 0.18±0.08        | 0.28±0.20                | 5.3   |
| $f_{97}$                               | 3.8687±0.0023                | 0.29±0.09        | 0.78±0.14                | 11.0  | $f_{190}$                              | 1.3195±0.0033                | 0.18±0.08        | -2.55±0.20               | 5.2   |
| $f_{98}$                               | 0.7778±0.0023                | 0.27±0.08        | -2.41±0.14               | 10.7  | $f_{191}$                              | 1.2393±0.0033                | 0.18±0.08        | -0.44±0.20               | 5.2   |
| $f_{99}$                               | 3.5164±0.0023                | 0.29±0.09        | -1.45±0.14               | 10.6  | $f_{192}$                              | 2.7365±0.0033                | 0.18±0.08        | 2.13±0.20                | 5.4   |
| $f_{100}$                              | 3.4084±0.0024                | 0.26±0.08        | 0.65±0.14                | 10.4  | $f_{194}$                              | 2.5295±0.0034                | 0.17±0.08        | -2.38±0.21               | 5.0   |
| $f_{101}$                              | 0.9985±0.0024                | 0.30±0.09        | 2.70±0.14                | 10.5  | $f_{195}$                              | 2.3175±0.0034                | 0.17±0.08        | -0.84±0.21               | 5.1   |
| $f_{102}$                              | 1.8232±0.0024                | 0.27±0.08        | 1.16±0.14                | 10.4  |                                        |                              |                  |                          |       |
| $f_{104}$                              | 2.0704±0.0025                | 0.28±0.09        | -0.85±0.15               | 9.5   |                                        |                              |                  |                          |       |
| $f_{105}$                              | 0.2413±0.0024                | 0.29±0.09        | -1.46±0.15               | 9.9   |                                        |                              |                  |                          |       |
| $f_{106}$                              | 1.0720±0.0025                | 0.25±0.08        | -0.99±0.15               | 9.6   |                                        |                              |                  |                          |       |
| $f_{107}$                              | 2.2704±0.0025                | 0.25±0.08        | -0.49±0.15               | 9.5   |                                        |                              |                  |                          |       |
| $f_{108}$                              | 3.8584±0.0025                | 0.27±0.09        | 1.54±0.15                | 9.2   |                                        |                              |                  |                          |       |
| $f_{109}$                              | 3.0919±0.0025                | 0.25±0.08        | -0.46±0.15               | 9.3   |                                        |                              |                  |                          |       |
| $f_{110}$                              | 3.1084±0.0026                | 0.25±0.08        | -3.03±0.16               | 8.9   |                                        |                              |                  |                          |       |
| $f_{111}$                              | 3.9322±0.0026                | 0.24±0.08        | -1.56±0.16               | 8.9   |                                        |                              |                  |                          |       |
| $f_{112}$                              | 3.3373±0.0025                | 0.27±0.09        | 2.93±0.16                | 9.0   |                                        |                              |                  |                          |       |
| $f_{113}$                              | 2.3371±0.0025                | 0.23±0.07        | -0.40±0.15               | 9.5   |                                        |                              |                  |                          |       |
| $f_{114}$                              | 1.8403±0.0025                | 0.25±0.08        | 2.37±0.15                | 9.1   |                                        |                              |                  |                          |       |
| $f_{115}$                              | 1.4332±0.0025                | 0.22±0.07        | 2.08±0.15                | 9.2   |                                        |                              |                  |                          |       |
| $f_{116}$                              | 3.3547±0.0026                | 0.25±0.08        | -0.45±0.16               | 8.9   |                                        |                              |                  |                          |       |
| $f_{117}$                              | 1.6876±0.0026                | 0.26±0.09        | 0.81±0.16                | 8.9   |                                        |                              |                  |                          |       |
| $f_{118}$                              | 3.0834±0.0026                | 0.26±0.09        | 1.92±0.16                | 8.8   |                                        |                              |                  |                          |       |
| $f_{120}$                              | 0.2084±0.0026                | 0.25±0.09        | 1.85±0.16                | 8.6   |                                        |                              |                  |                          |       |
| $f_{121}$                              | 0.4193±0.0026                | 0.25±0.08        | -2.55±0.16               | 8.7   |                                        |                              |                  |                          |       |
| $f_{124}$                              | 3.6723±0.0026                | 0.24±0.08        | -0.72±0.16               | 8.6   |                                        |                              |                  |                          |       |
| $f_{126}$                              | 1.3487±0.0025                | 0.21±0.07        | 2.01±0.15                | 9.1   |                                        |                              |                  |                          |       |
| $f_{127}$                              | 0.5094±0.0026                | 0.27±0.09        | 0.60±0.16                | 8.3   |                                        |                              |                  |                          |       |
| $f_{128}$                              | 1.4991±0.0026                | 0.25±0.09        | -2.43±0.16               | 8.6   |                                        |                              |                  |                          |       |
| $f_{129}$                              | 1.7073±0.0027                | 0.23±0.08        | 1.58±0.16                | 8.2   |                                        |                              |                  |                          |       |
| $f_{130}$                              | 2.4360±0.0027                | 0.22±0.08        | -2.86±0.16               | 8.2   |                                        |                              |                  |                          |       |
| $f_{131}$                              | 2.0889±0.0026                | 0.24±0.08        | 2.51±0.16                | 8.4   |                                        |                              |                  |                          |       |
| $f_{132}$                              | 0.6101±0.0027                | 0.20±0.07        | -2.40±0.16               | 8.2   |                                        |                              |                  |                          |       |
| $f_{133}$                              | 1.4817±0.0027                | 0.23±0.08        | -1.19±0.16               | 8.1   |                                        |                              |                  |                          |       |
| $f_{134}$                              | 3.5073±0.0026                | 0.23±0.08        | 2.25±0.16                | 8.4   |                                        |                              |                  |                          |       |
| $f_{135}$                              | 2.9341±0.0027                | 0.23±0.08        | -0.13±0.16               | 8.2   |                                        |                              |                  |                          |       |
| $f_{136}$                              | 3.3202±0.0027                | 0.22±0.08        | -0.13±0.16               | 8.1   |                                        |                              |                  |                          |       |
| $f_{137}$                              | 0.1516±0.0027                | 0.20±0.07        | -0.95±0.17               | 7.9   |                                        |                              |                  |                          |       |
| $f_{138}$                              | 2.6975±0.0028                | 0.22±0.08        | 1.84±0.17                | 7.7   |                                        |                              |                  |                          |       |
| $f_{139}$                              | 1.9361±0.0027                | 0.33±0.12        | -2.24±0.16               | 8.0   |                                        |                              |                  |                          |       |
| $f_{140}$                              | 2.1389±0.0028                | 0.22±0.08        | -0.42±0.17               | 7.7   |                                        |                              |                  |                          |       |
| $f_{141}$                              | 2.4110±0.0028                | 0.22±0.08        | 0.10±0.17                | 7.6   |                                        |                              |                  |                          |       |
| $f_{142}$                              | 0.3188±0.0028                | 0.20±0.07        | 1.88±0.17                | 7.4   |                                        |                              |                  |                          |       |
| $f_{144}$                              | 2.9487±0.0028                | 0.22±0.08        | 2.49±0.17                | 7.6   |                                        |                              |                  |                          |       |
| $f_{147}$                              | 3.5300±0.0028                | 0.23±0.08        | 2.81±0.17                | 7.4   |                                        |                              |                  |                          |       |
| $f_{149}$                              | 1.8926±0.0029                | 0.21±0.08        | -0.37±0.18               | 7.0   |                                        |                              |                  |                          |       |
| $f_{150}$                              | 0.4919±0.0029                | 0.20±0.08        | -2.72±0.17               | 7.1   |                                        |                              |                  |                          |       |
| $f_{151}$                              | 3.7642±0.0029                | 0.21±0.08        | -0.69±0.18               | 6.9   |                                        |                              |                  |                          |       |
| $f_{152}$                              | 4.4098±0.0029                | 0.21±0.08        | 0.68±0.17                | 7.1   |                                        |                              |                  |                          |       |
| $f_{153}$                              | 1.0248±0.0029                | 0.23±0.09        | -1.72±0.18               | 6.8   |                                        |                              |                  |                          |       |
| $f_{154}$                              | 1.3087±0.0029                | 0.20±0.08        | 1.13±0.18                | 7.0   |                                        |                              |                  |                          |       |
| $f_{155}$                              | 0.2729±0.0029                | 0.23±0.09        | 2.83±0.18                | 6.7   |                                        |                              |                  |                          |       |
| $f_{157}$                              | 0.2835±0.0030                | 0.19±0.07        | 1.33±0.18                | 6.6   |                                        |                              |                  |                          |       |
| $f_{158}$                              | 0.9261±0.0029                | 0.21±0.08        | 1.88±0.18                | 6.7   |                                        |                              |                  |                          |       |
| $f_{159}$                              | 1.1581±0.0030                | 0.20±0.08        | -1.03±0.18               | 6.6   |                                        |                              |                  |                          |       |
| $f_{160}$                              | 4.0349±0.0030                | 0.20±0.08        | -0.46±0.18               | 6.6   |                                        |                              |                  |                          |       |
| $f_{161}$                              | 0.8814±0.0030                | 0.21±0.08        | -1.54±0.19               | 6.3   |                                        |                              |                  |                          |       |
| $f_{162}$                              | 2.1960±0.0030                | 0.20±0.08        | 1.25±0.18                | 6.4   |                                        |                              |                  |                          |       |
| $f_{164}$                              | 0.4512±0.0031                | 0.21±0.09        | 2.59±0.19                | 6.1   |                                        |                              |                  |                          |       |
| $f_{165}$                              | 1.4422±0.0030                | 0.20±0.08        | 1.30±0.19                | 6.3   |                                        |                              |                  |                          |       |

| Frequency list of 0102792478 |                              |                  |                          |       |
|------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                 | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_1$                        | 0.9533±0.0006                | 0.17±0.01        | 0.87±0.04                | 171.8 |
| $f_2$                        | 0.1176±0.0007                | 0.14±0.01        | 0.46±0.04                | 126.7 |
| $f_3$                        | 1.0876±0.0007                | 0.12±0.01        | -0.58±0.04               | 113.3 |
| $f_4$                        | 1.1414±0.0008                | 0.11±0.01        | -2.06±0.05               | 98.2  |
| $f_5$                        | 1.1176±0.0008                | 0.11±0.01        | -0.17±0.05               | 102.7 |
| $f_6$                        | 0.1704±0.0010                | 0.08±0.01        | 2.70±0.06                | 55.9  |
| $f_7$                        | 0.2154±0.0010                | 0.07±0.01        | -2.74±0.06               | 53.7  |
| $f_8$                        | 0.1474±0.0010                | 0.08±0.01        | 0.82±0.06                | 54.3  |
| $f_9$                        | 1.0093±0.0011                | 0.08±0.01        | -2.94±0.06               | 52.3  |
| $f_{10}$                     | 0.9387±0.0011                | 0.09±0.01        | 2.20±0.06                | 51.7  |
| $f_{11}$                     | 1.1531±0.0011                | 0.08±0.01        | 2.26±0.07                | 46.1  |
| $f_{12}$                     | 1.0705±0.0011                | 0.08±0.01        | -1.94±0.07               | 46.1  |
| $f_{13}$                     | 0.9683±0.0013                | 0.06±0.01        | -2.66±0.08               | 37.2  |
| $f_{14}$                     | 2.0097±0.0013                | 0.06±0.01        | 1.65±0.08                | 33.0  |
| $f_{15}$                     | 0.2433±0.0014                | 0.05±0.01        | 3.08±0.08                | 31.6  |
| $f_{16}$                     | 1.8722±0.0015                | 0.06±0.01        | 0.41±0.09                | 27.0  |
| $f_{17}$                     | 0.2613±0.0016                | 0.06±0.01        | 3.10±0.10                | 24.0  |
| $f_{18}$                     | 0.2788±0.0014                | 0.06±0.01        | 1.10±0.09                | 28.0  |
| $f_{19}$                     | 1.9596±0.0016                | 0.04±0.01        | -1.33±0.09               | 24.1  |
| $f_{20}$                     | 0.9938±0.0016                | 0.05±0.01        | 2.17±0.10                | 23.4  |
| $f_{21}$                     | 1.0525±0.0016                | 0.05±0.01        | -2.68±0.10               | 24.0  |
| $f_{22}$                     | 0.3104±0.0016                | 0.05±0.01        | 0.16±0.10                | 21.8  |
| $f_{23}$                     | 1.9833±0.0017                | 0.05±0.01        | 1.42±0.10                | 20.8  |
| $f_{24}$                     | 0.3948±0.0017                | 0.05±0.01        | -2.57±0.10               | 20.8  |
| $f_{25}$                     | 0.4662±0.0017                | 0.05±0.01        | -0.51±0.10               | 20.8  |
| $f_{27}$                     | 0.7224±0.0017                | 0.05±0.01        | 0.72±0.11                | 19.5  |
| $f_{28}$                     | 2.0545±0.0017                | 0.05±0.01        | -1.67±0.10               | 19.9  |
| $f_{29}$                     | 0.1873±0.0017                | 0.04±0.01        | -0.08±0.10               | 21.0  |
| $f_{30}$                     | 1.1101±0.0018                | 0.05±0.01        | 0.17±0.11                | 18.8  |
| $f_{31}$                     | 1.9050±0.0019                | 0.04±0.01        | 2.14±0.11                | 16.8  |
| $f_{32}$                     | 2.3081±0.0019                | 0.04±0.01        | 3.00±0.12                | 16.0  |
| $f_{33}$                     | 0.6989±0.0019                | 0.03±0.01        | -2.24±0.11               | 16.6  |
| $f_{34}$                     | 0.1000±0.0019                | 0.03±0.01        | -1.05±0.12               | 16.1  |
| $f_{36}$                     | 1.2007±0.0020                | 0.04±0.01        | -0.96±0.12               | 15.2  |
| $f_{37}$                     | 1.1313±0.0020                | 0.04±0.01        | 3.14±0.12                | 14.6  |
| $f_{38}$                     | 0.2079±0.0020                | 0.04±0.01        | -0.92±0.12               | 14.1  |
| $f_{39}$                     | 0.3756±0.0020                | 0.04±0.01        | -0.05±0.12               | 14.5  |
| $f_{41}$                     | 0.6084±0.0021                | 0.04±0.01        | 1.54±0.13                | 13.2  |
| $f_{42}$                     | 0.4523±0.0022                | 0.04±0.01        | -0.55±0.13               | 12.5  |
| $f_{43}$                     | 0.4302±0.0021                | 0.04±0.01        | -0.43±0.13               | 12.9  |
| $f_{44}$                     | 0.3355±0.0021                | 0.04±0.01        | -0.12±0.13               | 13.8  |
| $f_{46}$                     | 2.2709±0.0022                | 0.04±0.01        | -2.21±0.13               | 12.5  |
| $f_{47}$                     | 0.9842±0.0022                | 0.04±0.01        | 2.42±0.13                | 12.5  |
| $f_{48}$                     | 0.9300±0.0022                | 0.03±0.01        | 1.06±0.13                | 12.3  |
| $f_{49}$                     | 2.0700±0.0022                | 0.04±0.01        | 0.10±0.13                | 12.3  |
| $f_{50}$                     | 0.9478±0.0022                | 0.04±0.01        | -0.28±0.13               | 12.5  |
| $f_{51}$                     | 1.1004±0.0022                | 0.03±0.01        | -0.55±0.13               | 12.2  |

## Appendix B. Frequencies of individual $\gamma$ Dor Stars

| Frequency list of 0102792478 continued |                              |                  |                          |       | Frequency list of 0102794331 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| <i>f</i> <sub>52</sub>                 | 0.2330±0.0022                | 0.03±0.01        | -0.01±0.13               | 12.3  | <i>f</i> <sub>17</sub>                 | 0.9773±0.0010                | 0.37±0.05        | -0.95±0.06               | 55.5  |
| <i>f</i> <sub>53</sub>                 | 0.8734±0.0023                | 0.03±0.01        | -1.18±0.14               | 11.5  | <i>f</i> <sub>18</sub>                 | 0.1827±0.0011                | 0.33±0.05        | 0.48±0.06                | 51.9  |
| <i>f</i> <sub>54</sub>                 | 0.3199±0.0023                | 0.03±0.01        | -1.61±0.14               | 11.1  | <i>f</i> <sub>19</sub>                 | 0.2325±0.0011                | 0.32±0.04        | -2.76±0.06               | 52.5  |
| <i>f</i> <sub>55</sub>                 | 0.8953±0.0023                | 0.04±0.01        | 2.32±0.14                | 11.1  | <i>f</i> <sub>20</sub>                 | 0.3419±0.0011                | 0.30±0.04        | 2.25±0.07                | 47.8  |
| <i>f</i> <sub>56</sub>                 | 2.0844±0.0023                | 0.03±0.01        | 0.19±0.14                | 10.8  | <i>f</i> <sub>21</sub>                 | 0.8189±0.0011                | 0.27±0.04        | -1.27±0.07               | 47.6  |
| <i>f</i> <sub>57</sub>                 | 0.4745±0.0023                | 0.03±0.01        | 0.67±0.14                | 11.2  | <i>f</i> <sub>22</sub>                 | 0.1236±0.0012                | 0.27±0.04        | 0.53±0.07                | 43.0  |
| <i>f</i> <sub>58</sub>                 | 2.2994±0.0023                | 0.03±0.01        | -0.00±0.14               | 10.9  | <i>f</i> <sub>23</sub>                 | 0.5939±0.0012                | 0.34±0.05        | -0.14±0.07               | 41.1  |
| <i>f</i> <sub>59</sub>                 | 0.5844±0.0023                | 0.03±0.01        | -2.69±0.14               | 10.7  | <i>f</i> <sub>24</sub>                 | 0.1566±0.0013                | 0.25±0.04        | 0.76±0.08                | 36.4  |
| <i>f</i> <sub>60</sub>                 | 1.8476±0.0023                | 0.03±0.01        | -0.34±0.14               | 11.3  | <i>f</i> <sub>27</sub>                 | 0.4870±0.0013                | 0.31±0.05        | 2.05±0.08                | 34.3  |
| <i>f</i> <sub>61</sub>                 | 1.0157±0.0024                | 0.03±0.01        | 2.58±0.14                | 10.4  | <i>f</i> <sub>28</sub>                 | 0.5257±0.0014                | 0.24±0.04        | -2.35±0.08               | 31.9  |
| <i>f</i> <sub>62</sub>                 | 2.0479±0.0024                | 0.03±0.01        | 1.94±0.14                | 10.4  | <i>f</i> <sub>29</sub>                 | 0.4183±0.0014                | 0.28±0.05        | -2.15±0.08               | 30.8  |
| <i>f</i> <sub>63</sub>                 | 0.5096±0.0024                | 0.03±0.01        | 2.54±0.14                | 10.4  | <i>f</i> <sub>30</sub>                 | 0.2975±0.0014                | 0.29±0.05        | -0.08±0.08               | 30.5  |
| <i>f</i> <sub>64</sub>                 | 2.0267±0.0024                | 0.03±0.01        | -2.04±0.15               | 10.2  | <i>f</i> <sub>31</sub>                 | 0.9193±0.0014                | 0.20±0.04        | -1.66±0.09               | 29.9  |
| <i>f</i> <sub>65</sub>                 | 2.1478±0.0024                | 0.03±0.01        | -0.18±0.15               | 10.2  | <i>f</i> <sub>32</sub>                 | 1.0348±0.0015                | 0.21±0.04        | -2.36±0.09               | 26.8  |
| <i>f</i> <sub>66</sub>                 | 0.3530±0.0024                | 0.03±0.01        | -2.66±0.15               | 9.9   | <i>f</i> <sub>33</sub>                 | 0.8058±0.0015                | 0.24±0.05        | -0.14±0.09               | 27.1  |
| <i>f</i> <sub>67</sub>                 | 0.4047±0.0024                | 0.03±0.01        | -2.85±0.15               | 10.0  | <i>f</i> <sub>34</sub>                 | 0.1429±0.0015                | 0.24±0.05        | -1.55±0.09               | 25.5  |
| <i>f</i> <sub>68</sub>                 | 0.3035±0.0024                | 0.02±0.01        | -2.05±0.15               | 10.2  | <i>f</i> <sub>35</sub>                 | 1.0754±0.0015                | 0.19±0.04        | -0.30±0.09               | 26.5  |
| <i>f</i> <sub>69</sub>                 | 2.2912±0.0025                | 0.03±0.01        | 0.87±0.15                | 9.7   | <i>f</i> <sub>36</sub>                 | 0.1350±0.0016                | 0.22±0.05        | -0.67±0.10               | 23.3  |
| <i>f</i> <sub>70</sub>                 | 0.6795±0.0025                | 0.03±0.01        | -0.90±0.15               | 9.7   | <i>f</i> <sub>37</sub>                 | 0.4773±0.0016                | 0.21±0.04        | 1.93±0.10                | 22.1  |
| <i>f</i> <sub>71</sub>                 | 2.1308±0.0025                | 0.03±0.01        | -0.27±0.15               | 9.2   | <i>f</i> <sub>38</sub>                 | 0.3207±0.0017                | 0.19±0.04        | 1.70±0.10                | 20.9  |
| <i>f</i> <sub>72</sub>                 | 0.7544±0.0025                | 0.03±0.01        | 2.70±0.15                | 9.1   | <i>f</i> <sub>39</sub>                 | 0.3931±0.0017                | 0.20±0.04        | 2.47±0.10                | 20.7  |
| <i>f</i> <sub>73</sub>                 | 1.1247±0.0026                | 0.03±0.01        | 0.45±0.16                | 8.8   | <i>f</i> <sub>41</sub>                 | 0.5704±0.0017                | 0.24±0.05        | -1.91±0.11               | 19.3  |
| <i>f</i> <sub>74</sub>                 | 0.9762±0.0026                | 0.03±0.01        | 0.22±0.16                | 8.7   | <i>f</i> <sub>42</sub>                 | 0.2788±0.0017                | 0.15±0.03        | 0.40±0.10                | 20.0  |
| <i>f</i> <sub>75</sub>                 | 0.6003±0.0026                | 0.03±0.01        | -2.74±0.16               | 8.4   | <i>f</i> <sub>43</sub>                 | 0.3358±0.0017                | 0.18±0.04        | -1.86±0.10               | 20.3  |
| <i>f</i> <sub>76</sub>                 | 1.9244±0.0027                | 0.03±0.01        | -0.48±0.16               | 8.1   | <i>f</i> <sub>49</sub>                 | 2.0056±0.0016                | 0.63±0.13        | -2.77±0.10               | 21.9  |
| <i>f</i> <sub>77</sub>                 | 1.9917±0.0026                | 0.03±0.01        | -0.36±0.16               | 8.5   | <i>f</i> <sub>57</sub>                 | 0.4687±0.0018                | 0.18±0.04        | -0.57±0.11               | 18.4  |
| <i>f</i> <sub>78</sub>                 | 1.8666±0.0025                | 0.03±0.01        | 1.85±0.16                | 9.0   | <i>f</i> <sub>58</sub>                 | 0.8491±0.0018                | 0.18±0.04        | -2.00±0.11               | 18.4  |
| <i>f</i> <sub>79</sub>                 | 0.1563±0.0027                | 0.03±0.01        | -0.65±0.16               | 8.1   | <i>f</i> <sub>59</sub>                 | 0.5629±0.0018                | 0.16±0.04        | 0.77±0.11                | 17.7  |
| <i>f</i> <sub>80</sub>                 | 0.7859±0.0027                | 0.03±0.01        | -1.27±0.17               | 7.8   | <i>f</i> <sub>60</sub>                 | 0.9386±0.0018                | 0.18±0.04        | -2.70±0.11               | 17.9  |
| <i>f</i> <sub>81</sub>                 | 1.3340±0.0028                | 0.03±0.01        | 2.34±0.17                | 7.7   | <i>f</i> <sub>62</sub>                 | 1.1629±0.0018                | 0.17±0.04        | -2.36±0.11               | 17.3  |
| <i>f</i> <sub>82</sub>                 | 1.2540±0.0027                | 0.03±0.01        | 2.53±0.16                | 8.1   | <i>f</i> <sub>64</sub>                 | 0.2568±0.0021                | 0.12±0.03        | 0.93±0.13                | 12.7  |
| <i>f</i> <sub>83</sub>                 | 0.7413±0.0027                | 0.03±0.01        | 3.09±0.17                | 7.8   | <i>f</i> <sub>65</sub>                 | 0.6154±0.0022                | 0.16±0.05        | -0.54±0.13               | 12.6  |
| <i>f</i> <sub>84</sub>                 | 0.9087±0.0028                | 0.02±0.01        | 0.59±0.17                | 7.6   | <i>f</i> <sub>66</sub>                 | 0.6902±0.0022                | 0.17±0.05        | -0.57±0.14               | 11.9  |
| <i>f</i> <sub>86</sub>                 | 0.8508±0.0027                | 0.02±0.01        | 0.10±0.17                | 7.8   | <i>f</i> <sub>67</sub>                 | 0.8408±0.0022                | 0.15±0.04        | -1.33±0.14               | 11.8  |
| <i>f</i> <sub>87</sub>                 | 0.5272±0.0028                | 0.02±0.01        | -0.49±0.17               | 7.3   | <i>f</i> <sub>68</sub>                 | 0.3075±0.0022                | 0.14±0.04        | 1.70±0.14                | 11.6  |
| <i>f</i> <sub>88</sub>                 | 1.5011±0.0029                | 0.03±0.01        | 0.59±0.17                | 7.1   | <i>f</i> <sub>70</sub>                 | 0.2419±0.0023                | 0.11±0.03        | -2.58±0.14               | 10.7  |
| <i>f</i> <sub>89</sub>                 | 0.5600±0.0029                | 0.03±0.01        | 0.83±0.18                | 6.8   | <i>f</i> <sub>71</sub>                 | 0.7038±0.0024                | 0.11±0.03        | -0.89±0.15               | 10.2  |
| <i>f</i> <sub>90</sub>                 | 0.5017±0.0029                | 0.03±0.01        | -0.67±0.18               | 6.7   | <i>f</i> <sub>73</sub>                 | 1.2727±0.0026                | 0.12±0.04        | -2.58±0.16               | 8.9   |
| <i>f</i> <sub>91</sub>                 | 2.3435±0.0030                | 0.02±0.01        | 0.15±0.18                | 6.6   | <i>f</i> <sub>74</sub>                 | 1.2946±0.0025                | 0.12±0.04        | 0.57±0.15                | 9.1   |
| <i>f</i> <sub>92</sub>                 | 0.6320±0.0030                | 0.02±0.01        | -2.60±0.18               | 6.5   | <i>f</i> <sub>75</sub>                 | 0.7298±0.0027                | 0.12±0.04        | 1.67±0.16                | 8.2   |
| <i>f</i> <sub>93</sub>                 | 1.0365±0.0030                | 0.03±0.01        | 2.62±0.19                | 6.3   | <i>f</i> <sub>76</sub>                 | 0.2211±0.0026                | 0.13±0.04        | -0.97±0.16               | 8.4   |
| <i>f</i> <sub>94</sub>                 | 2.0629±0.0030                | 0.02±0.01        | 0.91±0.19                | 6.3   | <i>f</i> <sub>77</sub>                 | 0.2045±0.0025                | 0.14±0.05        | 0.81±0.16                | 9.0   |
| <i>f</i> <sub>95</sub>                 | 1.5309±0.0031                | 0.02±0.01        | -1.42±0.19               | 6.0   | <i>f</i> <sub>78</sub>                 | 1.0503±0.0026                | 0.12±0.04        | 2.91±0.16                | 8.5   |
| <i>f</i> <sub>96</sub>                 | 1.1922±0.0031                | 0.03±0.01        | -1.78±0.19               | 6.1   | <i>f</i> <sub>79</sub>                 | 0.8989±0.0026                | 0.12±0.04        | 1.95±0.16                | 8.6   |
| <i>f</i> <sub>97</sub>                 | 1.1816±0.0030                | 0.03±0.01        | -1.56±0.18               | 6.5   | <i>f</i> <sub>81</sub>                 | 0.1709±0.0027                | 0.12±0.04        | 0.32±0.16                | 8.1   |
| <i>f</i> <sub>98</sub>                 | 1.9693±0.0031                | 0.02±0.01        | -1.97±0.19               | 6.1   | <i>f</i> <sub>82</sub>                 | 0.1944±0.0027                | 0.12±0.04        | 3.03±0.17                | 7.9   |
| <i>f</i> <sub>99</sub>                 | 0.8593±0.0032                | 0.02±0.01        | 1.76±0.19                | 5.8   | <i>f</i> <sub>84</sub>                 | 0.2715±0.0028                | 0.12±0.04        | -0.81±0.17               | 7.6   |
| <i>f</i> <sub>100</sub>                | 0.2909±0.0032                | 0.02±0.01        | 2.76±0.20                | 5.7   | <i>f</i> <sub>85</sub>                 | 0.4480±0.0028                | 0.11±0.04        | -1.32±0.17               | 7.2   |
| <i>f</i> <sub>101</sub>                | 1.1656±0.0032                | 0.02±0.01        | 1.03±0.20                | 5.7   | <i>f</i> <sub>87</sub>                 | 1.5697±0.0028                | 0.11±0.04        | 1.00±0.17                | 7.3   |
| <i>f</i> <sub>102</sub>                | 0.8403±0.0031                | 0.02±0.01        | -0.97±0.19               | 5.9   | <i>f</i> <sub>89</sub>                 | 0.7767±0.0028                | 0.11±0.04        | -3.01±0.17               | 7.2   |
| <i>f</i> <sub>103</sub>                | 0.8891±0.0030                | 0.02±0.01        | 0.25±0.19                | 6.3   | <i>f</i> <sub>91</sub>                 | 0.3509±0.0029                | 0.10±0.04        | -1.92±0.18               | 6.9   |
| <i>f</i> <sub>104</sub>                | 0.6457±0.0032                | 0.02±0.01        | 1.01±0.20                | 5.7   | <i>f</i> <sub>92</sub>                 | 0.4102±0.0029                | 0.11±0.04        | 1.48±0.18                | 6.9   |
| <i>f</i> <sub>105</sub>                | 0.6658±0.0032                | 0.02±0.01        | 0.59±0.20                | 5.6   | <i>f</i> <sub>93</sub>                 | 1.0635±0.0029                | 0.12±0.05        | -1.70±0.18               | 6.7   |
| <i>f</i> <sub>106</sub>                | 0.4857±0.0033                | 0.02±0.01        | 1.41±0.20                | 5.5   | <i>f</i> <sub>94</sub>                 | 0.5333±0.0029                | 0.11±0.04        | 2.65±0.18                | 6.7   |
| <i>f</i> <sub>107</sub>                | 3.4663±0.0033                | 0.02±0.01        | -0.24±0.20               | 5.4   | <i>f</i> <sub>98</sub>                 | 1.2113±0.0030                | 0.10±0.04        | -2.85±0.18               | 6.4   |
| <i>f</i> <sub>108</sub>                | 0.3438±0.0033                | 0.02±0.01        | 2.22±0.20                | 5.4   | <i>f</i> <sub>102</sub>                | 0.9664±0.0031                | 0.09±0.04        | -2.24±0.19               | 6.1   |
| <i>f</i> <sub>110</sub>                | 2.7934±0.0033                | 0.02±0.01        | 0.08±0.20                | 5.3   | <i>f</i> <sub>103</sub>                | 0.1102±0.0031                | 0.10±0.04        | -2.54±0.19               | 6.1   |
| <i>f</i> <sub>111</sub>                | 1.0612±0.0033                | 0.02±0.01        | 2.00±0.20                | 5.3   | <i>f</i> <sub>107</sub>                | 1.1523±0.0032                | 0.10±0.04        | 1.51±0.19                | 5.8   |
| <i>f</i> <sub>112</sub>                | 0.4128±0.0033                | 0.02±0.01        | -3.06±0.20               | 5.2   | <i>f</i> <sub>108</sub>                | 1.2646±0.0032                | 0.09±0.04        | 1.03±0.19                | 5.8   |
| Frequency list of 0102794331 continued |                              |                  |                          |       | <i>f</i> <sub>109</sub>                | 0.6969±0.0031                | 0.10±0.04        | -0.89±0.19               | 6.1   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>110</sub>                | 0.6516±0.0032                | 0.10±0.04        | -1.49±0.19               | 5.8   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>111</sub>                | 0.2913±0.0032                | 0.10±0.04        | 0.12±0.20                | 5.7   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>116</sub>                | 1.1389±0.0032                | 0.09±0.04        | 1.18±0.20                | 5.6   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>118</sub>                | 0.6061±0.0033                | 0.09±0.04        | -2.78±0.20               | 5.4   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>120</sub>                | 1.0220±0.0032                | 0.09±0.04        | -0.69±0.20               | 5.6   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>121</sub>                | 1.5143±0.0033                | 0.09±0.04        | 2.97±0.20                | 5.4   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>123</sub>                | 1.3288±0.0033                | 0.09±0.04        | 2.75±0.20                | 5.2   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>124</sub>                | 1.7395±0.0033                | 0.09±0.04        | -0.49±0.20               | 5.2   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>126</sub>                | 0.5556±0.0034                | 0.09±0.04        | 2.71±0.21                | 5.0   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>127</sub>                | 0.7980±0.0033                | 0.09±0.04        | -0.90±0.20               | 5.3   |
|                                        |                              |                  |                          |       | Frequency list of 0102794767 continued |                              |                  |                          |       |
|                                        |                              |                  |                          |       | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|                                        |                              |                  |                          |       | <i>f</i> <sub>1</sub>                  | 2.1790±0.0005                | 0.68±0.05        | 0.00±0.03                | 198.8 |
|                                        |                              |                  |                          |       | <i>f</i> <sub>2</sub>                  | 2.1547±0.0006                | 0.70±0.06        | 2.98±0.04                | 161.3 |
|                                        |                              |                  |                          |       | <i>f</i> <sub>4</sub>                  | 0.1827±0.0008                | 0.43±0.05        | 1.91±0.05                | 82.3  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>5</sub>                  | 2.1193±0.0010                | 0.38±0.05        | 0.69±0.06                | 64.0  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>6</sub>                  | 2.9045±0.0010                | 0.33±0.04        | -2.44±0.06               | 59.6  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>7</sub>                  | 2.1644±0.0010                | 0.31±0.04        | -2.13±0.06               | 56.0  |

**Table B.89:** Frequency list of 0102794331

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|--------------|------------------------------|------------------|--------------------------|-------|
| $f_1$        | 0.5757±0.0002                | 3.30±0.11        | -2.47±0.02               | 953.8 |
| $f_2$        | 0.5183±0.0003                | 3.16±0.11        | -0.10±0.02               | 892.3 |
| $f_3$        | 0.4371±0.0003                | 1.99±0.07        | 1.91±0.02                | 759.0 |
| $f_4$        | 0.6764±0.0003                | 1.53±0.07        | 1.87±0.02                | 532.6 |
| $f_5$        | 0.5851±0.0004                | 1.30±0.07        | 2.44±0.02                | 393.6 |
| $f_6$        | 0.4789±0.0004                | 1.02±0.06        | 1.16±0.03                | 343.8 |
| $f_7$        | 0.4010±0.0005                | 0.94±0.06        | 0.70±0.03                | 268.5 |
| $f_8$        | 0.4599±0.0006                | 0.77±0.06        | -1.11±0.03               | 182.1 |
| $f_9$        | 0.5441±0.0007                | 0.48±0.04        | 1.34±0.04                | 117.9 |
| $f_{10}$     | 1.1132±0.0008                | 0.51±0.05        | -2.71±0.05               | 103.5 |
| $f_{11}$     | 0.1160±0.0008                | 0.45±0.04        | 1.93±0.05                | 100.9 |
| $f_{12}$     | 0.8124±0.0009                | 0.40±0.04        | 1.53±0.05                | 80.0  |
| $f_{13}$     | 0.4978±0.0009                | 0.37±0.05        | -2.35±0.06               | 67.3  |
| $f_{14}$     | 0.6431±0.0009                | 0.45±0.06        | -0.07±0.06               | 65.1  |
| $f_{15}$     | 0.6638±0.0010                | 0.41±0.05        | -0.89±0.06               | 64.1  |
| $f_{16}$     | 0.3740±0.0010                | 0.45±0.06        | 0.67±0.06                | 64.1  |

Frequency list of 0102794331 continued

## Appendix B. Frequencies of individual $\gamma$ Dor Stars

| Frequency list of 0102794767 continued |                              |                  |                          |       | Frequency list of 0102794767 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_8$                                  | 0.1097±0.0010                | 0.41±0.06        | 2.83±0.06                | 53.8  | $f_{103}$                              | 2.2624±0.0032                | 0.09±0.04        | -0.57±0.20               | 5.7   |
| $f_9$                                  | 0.2738±0.0011                | 0.36±0.05        | -2.32±0.07               | 46.8  | $f_{104}$                              | 1.4344±0.0032                | 0.09±0.04        | -0.00±0.20               | 5.7   |
| $f_{10}$                               | 0.2626±0.0010                | 0.35±0.05        | -0.99±0.06               | 54.0  | $f_{105}$                              | 1.0339±0.0032                | 0.09±0.04        | -1.95±0.20               | 5.6   |
| $f_{12}$                               | 1.6379±0.0012                | 0.33±0.05        | 1.21±0.08                | 38.6  | $f_{106}$                              | 0.5764±0.0031                | 0.09±0.04        | 3.07±0.19                | 5.9   |
| $f_{13}$                               | 1.6260±0.0011                | 0.31±0.04        | 2.85±0.07                | 48.9  | $f_{108}$                              | 2.2537±0.0032                | 0.09±0.04        | -2.57±0.20               | 5.6   |
| $f_{14}$                               | 0.1588±0.0012                | 0.26±0.04        | 0.55±0.08                | 37.5  | $f_{109}$                              | 0.5100±0.0032                | 0.08±0.03        | 1.10±0.20                | 5.6   |
| $f_{15}$                               | 2.9711±0.0013                | 0.26±0.04        | -1.04±0.08               | 37.0  | $f_{110}$                              | 1.5416±0.0033                | 0.08±0.03        | 0.56±0.20                | 5.5   |
| $f_{16}$                               | 2.8510±0.0013                | 0.26±0.04        | -0.36±0.08               | 36.0  | $f_{111}$                              | 3.0229±0.0033                | 0.08±0.04        | -2.96±0.20               | 5.2   |
| $f_{17}$                               | 0.3174±0.0013                | 0.29±0.05        | 0.44±0.08                | 34.7  | $f_{112}$                              | 1.8614±0.0033                | 0.08±0.04        | 0.79±0.20                | 5.2   |
| $f_{18}$                               | 0.1934±0.0013                | 0.25±0.04        | -2.10±0.08               | 34.0  | $f_{113}$                              | 0.5335±0.0033                | 0.08±0.04        | 2.52±0.20                | 5.2   |
| $f_{19}$                               | 0.1207±0.0013                | 0.29±0.05        | -2.90±0.08               | 35.6  | $f_{114}$                              | 41.9380±0.0033               | 0.08±0.04        | 1.44±0.20                | 5.2   |
| $f_{20}$                               | 2.1443±0.0013                | 0.26±0.04        | 0.25±0.08                | 33.8  |                                        |                              |                  |                          |       |
| $f_{21}$                               | 0.1367±0.0013                | 0.22±0.04        | -0.31±0.08               | 35.4  |                                        |                              |                  |                          |       |
| $f_{22}$                               | 0.2237±0.0014                | 0.23±0.04        | 0.70±0.09                | 29.1  |                                        |                              |                  |                          |       |
| $f_{24}$                               | 1.5797±0.0014                | 0.21±0.04        | 0.64±0.09                | 29.9  |                                        |                              |                  |                          |       |
| $f_{26}$                               | 0.3037±0.0014                | 0.24±0.05        | -0.48±0.09               | 28.1  |                                        |                              |                  |                          |       |
| $f_{28}$                               | 2.8670±0.0015                | 0.20±0.04        | 1.70±0.09                | 25.0  |                                        |                              |                  |                          |       |
| $f_{29}$                               | 0.1512±0.0016                | 0.20±0.04        | -2.45±0.09               | 24.1  |                                        |                              |                  |                          |       |
| $f_{31}$                               | 3.6588±0.0017                | 0.17±0.04        | 2.46±0.11                | 19.4  |                                        |                              |                  |                          |       |
| $f_{32}$                               | 0.2905±0.0017                | 0.19±0.04        | 2.06±0.11                | 19.6  |                                        |                              |                  |                          |       |
| $f_{33}$                               | 1.5666±0.0017                | 0.17±0.04        | 0.53±0.10                | 20.0  |                                        |                              |                  |                          |       |
| $f_{35}$                               | 1.5893±0.0018                | 0.15±0.04        | -1.36±0.11               | 18.0  |                                        |                              |                  |                          |       |
| $f_{36}$                               | 0.4147±0.0019                | 0.19±0.05        | -1.81±0.11               | 17.0  |                                        |                              |                  |                          |       |
| $f_{37}$                               | 0.4263±0.0020                | 0.16±0.04        | 2.46±0.12                | 15.3  |                                        |                              |                  |                          |       |
| $f_{38}$                               | 2.2254±0.0020                | 0.15±0.04        | 0.40±0.12                | 14.8  |                                        |                              |                  |                          |       |
| $f_{39}$                               | 0.7415±0.0020                | 0.14±0.04        | -0.65±0.12               | 14.1  |                                        |                              |                  |                          |       |
| $f_{40}$                               | 2.9476±0.0020                | 0.14±0.04        | -3.14±0.12               | 14.0  |                                        |                              |                  |                          |       |
| $f_{42}$                               | 0.3796±0.0020                | 0.16±0.04        | -0.17±0.12               | 14.0  |                                        |                              |                  |                          |       |
| $f_{43}$                               | 0.3250±0.0021                | 0.17±0.05        | -2.82±0.13               | 13.7  |                                        |                              |                  |                          |       |
| $f_{44}$                               | 1.5110±0.0020                | 0.14±0.04        | -2.72±0.12               | 13.9  |                                        |                              |                  |                          |       |
| $f_{45}$                               | 0.3356±0.0020                | 0.14±0.04        | 1.66±0.12                | 14.0  |                                        |                              |                  |                          |       |
| $f_{46}$                               | 0.3578±0.0021                | 0.11±0.03        | -0.28±0.13               | 13.2  |                                        |                              |                  |                          |       |
| $f_{48}$                               | 1.2863±0.0023                | 0.13±0.04        | 2.57±0.14                | 11.0  |                                        |                              |                  |                          |       |
| $f_{49}$                               | 2.0891±0.0023                | 0.15±0.05        | -1.28±0.14               | 10.9  |                                        |                              |                  |                          |       |
| $f_{50}$                               | 2.0757±0.0022                | 0.13±0.04        | -0.88±0.14               | 11.6  |                                        |                              |                  |                          |       |
| $f_{51}$                               | 1.6023±0.0023                | 0.13±0.04        | 1.16±0.14                | 10.9  |                                        |                              |                  |                          |       |
| $f_{52}$                               | 0.9856±0.0023                | 0.11±0.03        | -2.78±0.14               | 10.6  |                                        |                              |                  |                          |       |
| $f_{53}$                               | 2.8162±0.0024                | 0.13±0.04        | -2.94±0.15               | 10.0  |                                        |                              |                  |                          |       |
| $f_{55}$                               | 0.5569±0.0024                | 0.10±0.03        | -2.23±0.15               | 9.9   |                                        |                              |                  |                          |       |
| $f_{56}$                               | 1.6705±0.0025                | 0.11±0.04        | -1.14±0.15               | 9.6   |                                        |                              |                  |                          |       |
| $f_{57}$                               | 0.9144±0.0025                | 0.12±0.04        | 1.06±0.15                | 9.3   |                                        |                              |                  |                          |       |
| $f_{58}$                               | 0.6694±0.0025                | 0.12±0.04        | -0.42±0.15               | 9.2   |                                        |                              |                  |                          |       |
| $f_{59}$                               | 0.4534±0.0025                | 0.13±0.04        | -0.58±0.15               | 9.3   |                                        |                              |                  |                          |       |
| $f_{60}$                               | 0.1309±0.0024                | 0.11±0.04        | 1.48±0.15                | 9.8   |                                        |                              |                  |                          |       |
| $f_{61}$                               | 0.1687±0.0025                | 0.12±0.04        | 1.34±0.15                | 9.5   |                                        |                              |                  |                          |       |
| $f_{63}$                               | 5.9376±0.0025                | 0.11±0.04        | 1.97±0.15                | 9.1   |                                        |                              |                  |                          |       |
| $f_{64}$                               | 3.1187±0.0025                | 0.11±0.04        | 0.88±0.15                | 9.2   |                                        |                              |                  |                          |       |
| $f_{65}$                               | 1.1090±0.0026                | 0.11±0.04        | 1.45±0.16                | 8.7   |                                        |                              |                  |                          |       |
| $f_{66}$                               | 0.2410±0.0026                | 0.11±0.04        | 0.07±0.16                | 8.6   |                                        |                              |                  |                          |       |
| $f_{67}$                               | 0.1990±0.0026                | 0.11±0.04        | -1.43±0.16               | 8.9   |                                        |                              |                  |                          |       |
| $f_{68}$                               | 0.4011±0.0026                | 0.11±0.04        | 0.09±0.16                | 8.8   |                                        |                              |                  |                          |       |
| $f_{69}$                               | 0.2810±0.0026                | 0.11±0.04        | -2.05±0.16               | 8.9   |                                        |                              |                  |                          |       |
| $f_{70}$                               | 2.1356±0.0026                | 0.11±0.04        | 1.64±0.16                | 8.3   |                                        |                              |                  |                          |       |
| $f_{71}$                               | 0.9599±0.0026                | 0.10±0.03        | 0.43±0.16                | 8.3   |                                        |                              |                  |                          |       |
| $f_{73}$                               | 1.6434±0.0026                | 0.11±0.04        | 0.18±0.16                | 8.4   |                                        |                              |                  |                          |       |
| $f_{74}$                               | 0.4842±0.0027                | 0.13±0.05        | -0.83±0.16               | 8.0   |                                        |                              |                  |                          |       |
| $f_{75}$                               | 0.4971±0.0026                | 0.12±0.04        | -1.78±0.16               | 8.9   |                                        |                              |                  |                          |       |
| $f_{77}$                               | 0.7593±0.0028                | 0.12±0.04        | -1.90±0.17               | 7.5   |                                        |                              |                  |                          |       |
| $f_{78}$                               | 0.7705±0.0028                | 0.10±0.04        | 1.98±0.17                | 7.5   |                                        |                              |                  |                          |       |
| $f_{80}$                               | 0.6990±0.0028                | 0.09±0.03        | -1.15±0.17               | 7.2   |                                        |                              |                  |                          |       |
| $f_{81}$                               | 5.8480±0.0029                | 0.09±0.03        | 0.68±0.18                | 6.9   |                                        |                              |                  |                          |       |
| $f_{84}$                               | 2.1702±0.0029                | 0.10±0.04        | -0.04±0.18               | 6.8   |                                        |                              |                  |                          |       |
| $f_{85}$                               | 0.2146±0.0029                | 0.10±0.04        | -2.93±0.18               | 6.8   |                                        |                              |                  |                          |       |
| $f_{86}$                               | 1.0061±0.0029                | 0.09±0.03        | 2.22±0.18                | 6.8   |                                        |                              |                  |                          |       |
| $f_{87}$                               | 0.3705±0.0030                | 0.10±0.04        | -2.71±0.18               | 6.6   |                                        |                              |                  |                          |       |
| $f_{88}$                               | 13.9955±0.0030               | 0.09±0.04        | 1.40±0.18                | 6.6   |                                        |                              |                  |                          |       |
| $f_{89}$                               | 5.8082±0.0030                | 0.09±0.04        | -2.31±0.19               | 6.3   |                                        |                              |                  |                          |       |
| $f_{90}$                               | 0.9356±0.0030                | 0.09±0.04        | -1.94±0.18               | 6.4   |                                        |                              |                  |                          |       |
| $f_{91}$                               | 1.2095±0.0030                | 0.09±0.04        | 1.93±0.19                | 6.3   |                                        |                              |                  |                          |       |
| $f_{92}$                               | 3.2842±0.0031                | 0.09±0.04        | -2.86±0.19               | 6.1   |                                        |                              |                  |                          |       |
| $f_{94}$                               | 0.6620±0.0031                | 0.09±0.04        | 1.76±0.19                | 6.2   |                                        |                              |                  |                          |       |
| $f_{96}$                               | 1.9616±0.0031                | 0.09±0.04        | 1.39±0.19                | 6.0   |                                        |                              |                  |                          |       |
| $f_{98}$                               | 0.1765±0.0031                | 0.09±0.04        | 2.44±0.19                | 6.1   |                                        |                              |                  |                          |       |
| $f_{99}$                               | 0.4458±0.0031                | 0.09±0.04        | -0.20±0.19               | 5.9   |                                        |                              |                  |                          |       |
| $f_{100}$                              | 5.9870±0.0031                | 0.09±0.04        | -1.61±0.19               | 5.9   |                                        |                              |                  |                          |       |
| $f_{102}$                              | 1.0452±0.0032                | 0.10±0.04        | -1.42±0.19               | 5.8   |                                        |                              |                  |                          |       |

| Frequency list of 0102795873 |                              |                  |                          |        |
|------------------------------|------------------------------|------------------|--------------------------|--------|
| Frequency ID                 | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign.  |
| $f_1$                        | 1.7704±0.0002                | 14.53±0.37       | 2.31±0.01                | 1579.8 |
| $f_2$                        | 1.5474±0.0002                | 13.83±0.29       | -0.26±0.01               | 2249.5 |
| $f_3$                        | 1.4852±0.0004                | 4.27±0.21        | 3.13±0.02                | 401.2  |
| $f_4$                        | 0.2229±0.0004                | 3.74±0.19        | -2.25±0.02               | 388.7  |
| $f_5$                        | 1.5072±0.0005                | 3.00±0.18        | -2.84±0.03               | 266.1  |
| $f_6$                        | 1.6903±0.0005                | 2.71±0.18        | -0.46±0.03               | 228.6  |
| $f_7$                        | 1.5343±0.0007                | 2.22±0.19        | 0.86±0.04                | 130.1  |
| $f_8$                        | 3.3180±0.0007                | 1.68±0.16        | 0.86±0.04                | 108.2  |
| $f_9$                        | 1.6127±0.0007                | 1.78±0.17        | 2.73±0.04                | 111.6  |
| $f_{10}$                     | 1.9935±0.0008                | 1.48±0.15        | -1.46±0.05               | 100.4  |
| $f_{11}$                     | 3.5405±0.0008                | 1.60±0.16        | 1.69±0.05                | 102.5  |
| $f_{12}$                     | 0.2847±0.0009                | 1.40±0.16        | -0.85±0.05               | 73.9   |
| $f_{15}$                     | 1.3777±0.0009                | 1.31±0.16        | 1.22±0.06                | 68.5   |
| $f_{16}$                     | 1.3877±0.0009                | 1.41±0.16        | 1.50±0.05                | 79.7   |
| $f_{18}$                     | 1.3252±0.0010                | 1.22±0.16        | 1.78±0.06                | 60.5   |
| $f_{19}$                     | 0.3372±0.0010                | 1.14±0.15        | -1.67±0.06               | 57.2   |
| $f_{20}$                     | 3.0958±0.0010                | 1.08±0.14        | -0.16±0.06               | 58.0   |
| $f_{21}$                     | 0.2623±0.0010                | 0.86±0.12        | 1.96±0.06                | 55.6   |
| $f_{22}$                     | 1.4327±0.0010                | 1.16±0.16        | -0.72±0.06               | 54.8   |
| $f_{23}$                     | 1.6972±0.0011                | 0.97±0.13        | 1.55±0.06                | 52.6   |
| $f_{24}$                     | 1.5200±0.0011                | 1.17±0.17        | 2.89±0.07                | 50.0   |
| $f_{25}$                     | 1.4109±0.0011                | 1.08±0.15        | -2.86±0.07               | 49.9   |
| $f_{26}$                     | 0.3825±0.0011                | 1.03±0.15        | 1.05±0.07                | 48.2   |
| $f_{27}$                     | 2.0057±0.0011                | 1.14±0.16        | -0.33±0.07               | 49.1   |
| $f_{29}$                     | 0.1424±0.0011                | 1.06±0.15        | -0.93±0.07               | 46.9   |
| $f_{30}$                     | 0.1760±0.0012                | 0.83±0.13        | -0.96±0.07               | 38.9   |
| $f_{31}$                     | 3.2550±0.0013                | 0.82±0.14        | -3.10±0.08               | 36.3   |
| $f_{33}$                     | 1.5919±0.0013                | 0.86±0.14        | -2.96±0.08               | 36.5   |
| $f_{34}$                     | 1.4985±0.0013                | 0.81±0.13        | 2.33±0.08                | 36.9   |
| $f_{35}$                     | 1.4621±0.0013                | 0.81±0.14        | 1.58±0.08                | 33.5   |
| $f_{36}$                     | 1.7444±0.0013                | 0.79±0.14        | -1.98±0.08               | 33.7   |
| $f_{37}$                     | 0.2365±0.0013                | 0.95±0.16        | -1.23±0.08               | 33.3   |
| $f_{42}$                     | 1.1653±0.0014                | 0.72±0.13        | 2.47±0.09                | 29.7   |
| $f_{43}$                     | 1.6494±0.0014                | 0.70±0.13        | 2.70±0.09                | 28.0   |
| $f_{44}$                     | 1.8346±0.0015                | 0.72±0.14        | 2.11±0.09                | 27.1   |
| $f_{45}$                     | 1.7167±0.0015                | 0.61±0.12        | 0.97±0.09                | 27.3   |
| $f_{46}$                     | 1.4750±0.0015                | 0.66±0.13        | -2.22±0.09               | 25.2   |
| $f_{55}$                     | 3.0336±0.0015                | 0.63±0.13        | -0.87±0.09               | 24.9   |
| $f_{57}$                     | 1.3728±0.0016                | 0.58±0.12        | 2.99±0.10                | 23.2   |
| $f_{58}$                     | 1.2868±0.0016                | 0.66±0.14        | -2.27±0.10               | 23.8   |
| $f_{59}$                     | 0.1215±0.0016                | 0.73±0.16        | 3.04±0.10                | 21.9   |
| $f_{60}$                     | 1.3502±0.0016                | 0.55±0.12        | 2.32±0.10                | 22.1   |
| $f_{61}$                     | 1.9206±0.0016                | 0.52±0.11        | -0.83±0.10               | 21.5   |
| $f_{62}$                     | 3.4685±0.0016                | 0.54±0.12        | -1.57±0.10               | 22.0   |
| $f_{63}$                     | 0.3081±0.0017                | 0.58±0.13        | -0.79±0.10               | 20.8   |
| $f_{64}$                     | 1.8095±0.0017                | 0.48±0.11        | 1.70±0.10                | 20.8   |
| $f_{65}$                     | 3.1596±0.0017                | 0.59±0.13        | 2.33±0.10                | 20.0   |
| $f_{67}$                     | 2.0054±0.0017                | 0.73±0.16        | -0.16±0.10               | 19.8   |
| $f_{68}$                     | 0.1015±0.0017                | 0.60±0.13        | -1.73±0.10               | 19.8   |
| $f_{69}$                     | 3.1469±0.0017                | 0.55±0.12        | 2.27±0.10                | 20.0   |
| $f_{70}$                     | 1.7060±0.0017                | 0.53±0.12        | 1.88±0.10                | 20.1   |
| $f_{71}$                     | 0.2491±0.0017                | 0.63±0.14        | -2.46±0.11               | 19.2   |
| $f_{72}$                     | 2.0434±0.0018                | 0.42±0.10        | -0.70±0.11               | 18.6   |
| $f_{74}$                     | 1.5986±0.0018                | 0.52±0.12        | 0.58±0.11                | 18.7   |
| $f_{75}$                     | 3.2883±0.0018                | 0.48±0.11        | -0.85±0.11               | 18.4   |
| $f_{76}$                     | 1.5667±0.0018                | 0.45±0.11        | -1.03±0.11               | 17.8   |
| $f_{77}$                     | 1.8526±0.0019                | 0.48±0.12        | -2.14±0.11               | 16.9   |
| $f_{78}$                     | 1.7381±0.0019                | 0.50±0.12        | -2.99±0.11               | 17.0   |

## Appendix B. Frequencies of individual $\gamma$ Dor Stars

| Frequency list of 0102795873 continued |                              |                  |                          |       | Frequency list of 0102795873 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{80}$                               | 2.9810±0.0018                | 0.45±0.11        | -1.15±0.11               | 17.5  | $f_{186}$                              | 2.7586±0.0031                | 0.25±0.10        | 0.29±0.19                | 6.0   |
| $f_{81}$                               | 0.8916±0.0018                | 0.45±0.11        | -1.55±0.11               | 17.4  | $f_{191}$                              | 2.0045±0.0031                | 0.25±0.10        | 2.08±0.19                | 6.2   |
| $f_{82}$                               | 0.2963±0.0019                | 0.47±0.12        | -0.83±0.12               | 15.6  | $f_{193}$                              | 1.9729±0.0031                | 0.25±0.10        | -1.02±0.19               | 6.1   |
| $f_{84}$                               | 4.0106±0.0019                | 0.64±0.16        | 2.73±0.11                | 16.9  | $f_{194}$                              | 0.3564±0.0031                | 0.25±0.10        | 0.80±0.19                | 6.2   |
| $f_{86}$                               | 0.4486±0.0020                | 0.44±0.11        | 2.36±0.12                | 15.0  | $f_{195}$                              | 0.3462±0.0031                | 0.25±0.10        | -2.67±0.19               | 6.1   |
| $f_{87}$                               | 1.2111±0.0020                | 0.50±0.13        | -2.85±0.12               | 15.3  | $f_{196}$                              | 2.4935±0.0031                | 0.25±0.10        | 2.41±0.19                | 6.2   |
| $f_{88}$                               | 1.2695±0.0019                | 0.52±0.13        | -0.24±0.12               | 15.7  | $f_{197}$                              | 0.6953±0.0031                | 0.25±0.10        | 1.25±0.19                | 6.0   |
| $f_{89}$                               | 1.3104±0.0019                | 0.44±0.11        | 2.25±0.12                | 16.4  | $f_{198}$                              | 1.4898±0.0032                | 0.24±0.10        | 2.72±0.19                | 5.8   |
| $f_{90}$                               | 0.1618±0.0020                | 0.48±0.13        | 2.53±0.12                | 14.4  | $f_{199}$                              | 0.4330±0.0031                | 0.24±0.10        | 1.73±0.19                | 5.9   |
| $f_{92}$                               | 1.5088±0.0020                | 0.41±0.11        | -2.86±0.12               | 14.4  | $f_{201}$                              | 3.2201±0.0032                | 0.24±0.10        | 1.95±0.20                | 5.7   |
| $f_{94}$                               | 1.3934±0.0020                | 0.39±0.10        | 0.93±0.12                | 13.9  | $f_{202}$                              | 2.2170±0.0032                | 0.24±0.10        | -2.94±0.20               | 5.6   |
| $f_{95}$                               | 1.2391±0.0020                | 0.42±0.11        | 0.41±0.12                | 14.1  | $f_{208}$                              | 1.2198±0.0033                | 0.23±0.10        | -1.88±0.20               | 5.5   |
| $f_{96}$                               | 3.3060±0.0020                | 0.48±0.13        | -1.89±0.12               | 14.1  | $f_{209}$                              | 54.0046±0.0032               | 0.24±0.10        | -2.28±0.20               | 5.7   |
| $f_{99}$                               | 2.9232±0.0021                | 0.42±0.11        | 0.58±0.13                | 13.5  | $f_{210}$                              | 3.1829±0.0033                | 0.23±0.10        | -1.91±0.20               | 5.4   |
| $f_{100}$                              | 3.2033±0.0021                | 0.39±0.11        | 0.88±0.13                | 13.1  | $f_{211}$                              | 0.6537±0.0033                | 0.23±0.10        | 2.87±0.20                | 5.3   |
| $f_{102}$                              | 0.2756±0.0021                | 0.43±0.12        | -1.35±0.13               | 12.8  | $f_{214}$                              | 5.1200±0.0033                | 0.23±0.10        | -2.43±0.20               | 5.5   |
| $f_{103}$                              | 1.9109±0.0021                | 0.40±0.11        | 0.34±0.13                | 12.9  | $f_{215}$                              | 0.1683±0.0033                | 0.23±0.10        | 1.78±0.20                | 5.3   |
| $f_{104}$                              | 2.0337±0.0022                | 0.41±0.12        | 0.35±0.13                | 12.4  | $f_{216}$                              | 3.7640±0.0033                | 0.23±0.10        | -1.22±0.20               | 5.3   |
| $f_{105}$                              | 0.1152±0.0022                | 0.38±0.11        | 0.40±0.13                | 12.3  | $f_{217}$                              | 1.1807±0.0033                | 0.23±0.10        | 2.56±0.20                | 5.4   |
| $f_{106}$                              | 1.6296±0.0021                | 0.34±0.10        | 1.63±0.13                | 12.7  | $f_{218}$                              | 2.6249±0.0033                | 0.23±0.10        | -0.23±0.20               | 5.2   |
| $f_{107}$                              | 1.7809±0.0022                | 0.38±0.11        | 2.25±0.13                | 12.3  | $f_{223}$                              | 2.0126±0.0033                | 0.22±0.10        | 1.35±0.20                | 5.2   |
| $f_{108}$                              | 1.5450±0.0022                | 0.34±0.10        | 1.39±0.13                | 12.2  | $f_{231}$                              | 21.9273±0.0034               | 0.22±0.10        | -1.10±0.21               | 5.0   |
| $f_{112}$                              | 1.4689±0.0021                | 0.38±0.11        | -2.48±0.13               | 12.8  |                                        |                              |                  |                          |       |
| $f_{113}$                              | 2.9343±0.0022                | 0.35±0.10        | 2.00±0.14                | 11.9  |                                        |                              |                  |                          |       |
| $f_{114}$                              | 2.1114±0.0022                | 0.38±0.11        | -1.73±0.13               | 12.5  |                                        |                              |                  |                          |       |
| $f_{116}$                              | 8.9595±0.0022                | 0.56±0.16        | -2.00±0.14               | 11.8  |                                        |                              |                  |                          |       |
| $f_{117}$                              | 18.9860±0.0021               | 0.54±0.15        | -1.95±0.13               | 13.1  |                                        |                              |                  |                          |       |
| $f_{118}$                              | 1.8744±0.0022                | 0.36±0.10        | -2.79±0.13               | 12.2  |                                        |                              |                  |                          |       |
| $f_{119}$                              | 3.0660±0.0023                | 0.33±0.10        | -1.67±0.14               | 11.5  |                                        |                              |                  |                          |       |
| $f_{120}$                              | 0.5079±0.0023                | 0.37±0.11        | 2.74±0.14                | 11.4  |                                        |                              |                  |                          |       |
| $f_{121}$                              | 0.1290±0.0022                | 0.38±0.11        | -1.00±0.14               | 11.7  |                                        |                              |                  |                          |       |
| $f_{122}$                              | 1.7586±0.0023                | 0.35±0.11        | 0.42±0.14                | 11.1  |                                        |                              |                  |                          |       |
| $f_{124}$                              | 3.2340±0.0023                | 0.37±0.11        | 2.56±0.14                | 10.6  |                                        |                              |                  |                          |       |
| $f_{125}$                              | 0.9167±0.0023                | 0.35±0.11        | -1.03±0.14               | 10.9  |                                        |                              |                  |                          |       |
| $f_{126}$                              | 3.2750±0.0024                | 0.36±0.11        | -1.08±0.15               | 10.2  |                                        |                              |                  |                          |       |
| $f_{127}$                              | 2.9610±0.0024                | 0.31±0.10        | -1.65±0.15               | 9.8   |                                        |                              |                  |                          |       |
| $f_{128}$                              | 1.5563±0.0024                | 0.34±0.11        | -0.65±0.15               | 9.9   |                                        |                              |                  |                          |       |
| $f_{130}$                              | 0.3160±0.0025                | 0.35±0.11        | 1.32±0.15                | 9.7   |                                        |                              |                  |                          |       |
| $f_{131}$                              | 1.4462±0.0024                | 0.37±0.12        | 1.29±0.15                | 9.9   |                                        |                              |                  |                          |       |
| $f_{132}$                              | 1.5258±0.0024                | 0.31±0.10        | 0.31±0.15                | 9.9   |                                        |                              |                  |                          |       |
| $f_{133}$                              | 0.3687±0.0025                | 0.32±0.10        | 2.26±0.15                | 9.5   |                                        |                              |                  |                          |       |
| $f_{134}$                              | 22.9302±0.0025               | 0.41±0.13        | 2.65±0.15                | 9.3   |                                        |                              |                  |                          |       |
| $f_{136}$                              | 50.8739±0.0024               | 0.42±0.13        | -2.38±0.15               | 9.8   |                                        |                              |                  |                          |       |
| $f_{138}$                              | 46.9280±0.0024               | 0.38±0.12        | -0.63±0.15               | 9.9   |                                        |                              |                  |                          |       |
| $f_{139}$                              | 0.3925±0.0025                | 0.32±0.10        | 0.89±0.15                | 9.3   |                                        |                              |                  |                          |       |
| $f_{140}$                              | 0.1830±0.0025                | 0.33±0.11        | -3.05±0.15               | 9.2   |                                        |                              |                  |                          |       |
| $f_{141}$                              | 36.9008±0.0025               | 0.40±0.13        | -2.72±0.15               | 9.4   |                                        |                              |                  |                          |       |
| $f_{143}$                              | 1.8196±0.0025                | 0.34±0.11        | 1.80±0.16                | 9.0   |                                        |                              |                  |                          |       |
| $f_{144}$                              | 0.6266±0.0025                | 0.32±0.11        | -1.06±0.15               | 9.1   |                                        |                              |                  |                          |       |
| $f_{145}$                              | 1.3574±0.0025                | 0.33±0.11        | -0.47±0.15               | 9.1   |                                        |                              |                  |                          |       |
| $f_{146}$                              | 1.2936±0.0025                | 0.31±0.10        | 2.92±0.15                | 9.1   |                                        |                              |                  |                          |       |
| $f_{147}$                              | 2.7130±0.0025                | 0.32±0.11        | -2.48±0.15               | 9.1   |                                        |                              |                  |                          |       |
| $f_{148}$                              | 3.5082±0.0025                | 0.31±0.10        | 1.83±0.15                | 9.1   |                                        |                              |                  |                          |       |
| $f_{149}$                              | 0.4865±0.0025                | 0.32±0.10        | 2.38±0.15                | 9.5   |                                        |                              |                  |                          |       |
| $f_{152}$                              | 2.8201±0.0026                | 0.30±0.10        | 3.05±0.16                | 8.9   |                                        |                              |                  |                          |       |
| $f_{154}$                              | 2.9693±0.0026                | 0.32±0.11        | 0.31±0.16                | 8.3   |                                        |                              |                  |                          |       |
| $f_{155}$                              | 3.0566±0.0027                | 0.32±0.11        | -1.51±0.16               | 8.1   |                                        |                              |                  |                          |       |
| $f_{156}$                              | 1.9496±0.0027                | 0.30±0.11        | -0.33±0.16               | 8.0   |                                        |                              |                  |                          |       |
| $f_{157}$                              | 3.3842±0.0026                | 0.31±0.11        | 1.83±0.16                | 8.3   |                                        |                              |                  |                          |       |
| $f_{158}$                              | 1.0473±0.0027                | 0.29±0.10        | -1.97±0.16               | 8.0   |                                        |                              |                  |                          |       |
| $f_{160}$                              | 0.8797±0.0028                | 0.28±0.10        | -2.14±0.17               | 7.6   |                                        |                              |                  |                          |       |
| $f_{164}$                              | 1.4554±0.0028                | 0.28±0.10        | 1.04±0.17                | 7.3   |                                        |                              |                  |                          |       |
| $f_{165}$                              | 0.6039±0.0029                | 0.28±0.11        | -0.97±0.17               | 7.1   |                                        |                              |                  |                          |       |
| $f_{166}$                              | 2.0580±0.0029                | 0.28±0.11        | -0.38±0.17               | 7.1   |                                        |                              |                  |                          |       |
| $f_{167}$                              | 1.3182±0.0028                | 0.28±0.10        | -2.05±0.17               | 7.2   |                                        |                              |                  |                          |       |
| $f_{170}$                              | 5.0555±0.0030                | 0.26±0.10        | 2.64±0.18                | 6.6   |                                        |                              |                  |                          |       |
| $f_{171}$                              | 1.6177±0.0030                | 0.29±0.11        | 1.15±0.18                | 6.6   |                                        |                              |                  |                          |       |
| $f_{172}$                              | 0.1446±0.0030                | 0.27±0.11        | -3.14±0.18               | 6.6   |                                        |                              |                  |                          |       |
| $f_{173}$                              | 12.9047±0.0030               | 0.25±0.10        | -3.12±0.18               | 6.4   |                                        |                              |                  |                          |       |
| $f_{176}$                              | 1.5467±0.0031                | 0.43±0.17        | 0.36±0.19                | 6.2   |                                        |                              |                  |                          |       |
| $f_{179}$                              | 6.0154±0.0025                | 0.32±0.11        | 2.08±0.15                | 9.1   |                                        |                              |                  |                          |       |
| $f_{180}$                              | 32.9571±0.0029               | 0.26±0.10        | -0.08±0.18               | 6.8   |                                        |                              |                  |                          |       |
| $f_{181}$                              | 3.4578±0.0030                | 0.25±0.10        | -0.37±0.19               | 6.3   |                                        |                              |                  |                          |       |
| $f_{182}$                              | 0.5321±0.0030                | 0.26±0.10        | -0.67±0.18               | 6.5   |                                        |                              |                  |                          |       |
| $f_{183}$                              | 1.4198±0.0030                | 0.25±0.10        | 1.98±0.19                | 6.3   |                                        |                              |                  |                          |       |
| $f_{184}$                              | 2.6677±0.0031                | 0.25±0.10        | 2.23±0.19                | 6.2   |                                        |                              |                  |                          |       |
| Frequency list of 0102795873 continued |                              |                  |                          |       | Frequency list of 0102797129 continued |                              |                  |                          |       |
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_1$                                  | 1.0338±0.0004                | 0.85±0.05        | 0.76±0.02                | 356.0 | $f_{186}$                              | 2.7586±0.0031                | 0.25±0.10        | 0.29±0.19                | 6.0   |
| $f_2$                                  | 1.0648±0.0004                | 0.94±0.05        | 2.40±0.03                | 314.8 | $f_{191}$                              | 2.0045±0.0031                | 0.25±0.10        | 2.08±0.19                | 6.2   |
| $f_3$                                  | 1.0463±0.0004                | 0.80±0.05        | -0.07±0.03               | 289.5 | $f_{193}$                              | 1.9729±0.0031                | 0.25±0.10        | -1.02±0.19               | 6.1   |
| $f_4$                                  | 1.0542±0.0008                | 0.44±0.05        | 1.62±0.05                | 86.2  | $f_{194}$                              | 0.3564±0.0031                | 0.25±0.10        | 0.80±0.19                | 6.2   |
| $f_5$                                  | 1.0016±0.0009                | 0.39±0.04        | -0.44±0.05               | 78.1  | $f_{195}$                              | 0.3462±0.0031                | 0.25±0.10        | -2.67±0.19               | 6.1   |
| $f_6$                                  | 2.1545±0.0009                | 0.36±0.04        | -0.52±0.05               | 76.4  | $f_{196}$                              | 2.4935±0.0031                | 0.25±0.10        | 2.41±0.19                | 6.2   |
| $f_7$                                  | 1.0732±0.0009                | 0.32±0.04        | 1.82±0.05                | 77.1  | $f_{197}$                              | 0.6953±0.0031                | 0.25±0.10        | 1.25±0.19                | 6.0   |
| $f_8$                                  | 2.1244±0.0009                | 0.36±0.04        | 2.72±0.05                | 74.6  | $f_{198}$                              | 1.4898±0.0032                | 0.24±0.10        | 2.72±0.19                | 5.8   |
| $f_9$                                  | 0.1441±0.0009                | 0.36±0.04        | 0.11±0.06                | 66.2  | $f_{199}$                              | 0.4330±0.0031                | 0.24±0.10        | 1.73±0.19                | 5.9   |
| $f_{10}$                               | 0.1035±0.0009                | 0.41±0.05        | 1.49±0.06                | 68.7  | $f_{201}$                              | 3.2201±0.0032                | 0.24±0.10        | 1.95±0.20                | 5.7   |
| $f_{11}$                               | 0.1623±0.0010                | 0.29±0.04        | -1.34±0.06               | 61.0  | $f_{202}$                              | 2.2170±0.0032                | 0.24±0.10        | -2.94±0.20               | 5.6   |
| $f_{12}$                               | 1.0842±0.0010                | 0.27±0.04        | -0.24±0.06               | 55.4  | $f_{208}$                              | 1.2198±0.0033                | 0.23±0.10        | -1.88±0.20               | 5.5   |
| $f_{13}$                               | 0.1755±0.0011                | 0.25±0.04        | -2.83±0.07               | 47.5  | $f_{209}$                              | 54.0046±0.0032               | 0.24±0.10        | -2.28±0.20               | 5.7   |
| $f_{14}$                               | 1.0228±0.0011                | 0.23±0.03        | -2.66±0.07               | 47.2  | $f_{210}$                              | 3.1829±0.0033                | 0.23±0.10        | -1.91±0.20               | 5.4   |
| $f_{15}$                               | 1.1477±0.0011                | 0.29±0.04        | -0.49±0.07               | 47.0  | $f_{211}$                              | 0.6537±0.0033                | 0.23±0.10        | 2.87±0.20                | 5.3   |
| $f_{16}$                               | 0.1852±0.0014                | 0.19±0.03        | 1.35±0.08                | 30.6  | $f_{214}$                              | 5.1200±0.0033                | 0.23±0.10        | -2.43±0.20               | 5.5   |
| $f_{17}$                               | 1.0106±0.0014                | 0.22±0.04        | 1.59±0.08                | 31.4  | $f_{215}$                              | 0.1683±0.0033                | 0.23±0.10        | 1.78±0.20                | 5.3   |
| $f_{18}$                               | 2.0687±0.0014                | 0.17±0.03        | -1.02±0.09               | 29.9  | $f_{216}$                              | 3.7640±0.0033                | 0.23±0.10        | -1.22±0.20               | 5.3   |
| $f_{19}$                               | 0.2558±0.0014                | 0.19±0.04        | 1.02±0.09                | 27.9  | $f_{217}$                              | 1.1807±0.0033                | 0.23±0.10        | 2.56±0.20                | 5.4   |
| $f_{20}$                               | 0.9765±0.0015                | 0.20±0.04        | 0.10±0.09                | 26.8  | $f_{218}$                              | 2.6249±0.0033                | 0.23±0.10        | -0.23±0.20               | 5.2   |
| $f_{21}$                               | 0.1116±0.0015                | 0.18±0.04        | 0.12±0.09                | 25.8  | $f_{223}$                              | 2.0126±0.0033                | 0.22±0.10        | 1.35±0.20                | 5.2   |
| $f_{23}$                               | 0.8655±0.0016                | 0.19±0.04        | -0.50±0.10               | 22.8  | $f_{231}$                              | 21.9273±0.0034               | 0.22±0.10        | -1.10±0.21               | 5.0   |
| $f_{24}$                               | 0.1973±0.0016                | 0.18±0.04        | -1.14±0.10               | 22.9  |                                        |                              |                  |                          |       |
| $f_{25}$                               | 2.1459±0.0016                | 0.18±0.04        | 0.31±0.10                | 22.1  |                                        |                              |                  |                          |       |
| $f_{26}$                               | 0.1213±0.0016                | 0.18±0.04        | -0.58±0.10               | 22.3  |                                        |                              |                  |                          |       |
| $f_{27}$                               | 2.1019±0.0016                | 0.18±0.04        | -2.83±0.10               | 21.7  |                                        |                              |                  |                          |       |
| $f_{28}$                               | 0.2851±0.0017                | 0.14±0.03        | -0.88±0.11               | 19.6  |                                        |                              |                  |                          |       |
| $f_{30}$                               | 1.1642±0.0018                | 0.17±0.04        | -1.98±0.11               | 19.0  |                                        |                              |                  |                          |       |
| $f_{31}$                               | 1.1145±0.0017                | 0.17±0.04        | 0.12±0.11                | 19.2  |                                        |                              |                  |                          |       |
| $f_{32}$                               | 0.4377±0.002                 |                  |                          |       |                                        |                              |                  |                          |       |



## Appendix B. Frequencies of individual $\gamma$ Dor Stars

| Frequency list of 0102797129 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{54}$                               | 0.2455±0.0025                | 0.11±0.04        | -0.77±0.15               | 9.6   |
| $f_{55}$                               | 1.1020±0.0026                | 0.10±0.03        | -1.31±0.16               | 8.9   |
| $f_{56}$                               | 0.3053±0.0026                | 0.10±0.03        | -2.83±0.16               | 8.6   |
| $f_{57}$                               | 2.0591±0.0026                | 0.11±0.04        | 1.91±0.16                | 8.5   |
| $f_{58}$                               | 2.1092±0.0026                | 0.10±0.03        | 0.68±0.16                | 8.9   |
| $f_{59}$                               | 0.9612±0.0027                | 0.11±0.04        | -0.42±0.16               | 8.2   |
| $f_{60}$                               | 2.0787±0.0027                | 0.10±0.04        | -3.06±0.16               | 8.0   |
| $f_{61}$                               | 0.4606±0.0028                | 0.10±0.04        | -2.22±0.17               | 7.7   |
| $f_{63}$                               | 1.0944±0.0028                | 0.10±0.04        | 1.38±0.17                | 7.7   |
| $f_{64}$                               | 1.4142±0.0029                | 0.09±0.03        | -0.33±0.18               | 6.9   |
| $f_{65}$                               | 3.2062±0.0030                | 0.09±0.04        | -2.48±0.18               | 6.5   |
| $f_{67}$                               | 0.1307±0.0030                | 0.10±0.04        | -1.48±0.18               | 6.6   |
| $f_{68}$                               | 0.9703±0.0029                | 0.10±0.04        | 0.31±0.18                | 6.9   |
| $f_{71}$                               | 1.0405±0.0031                | 0.11±0.04        | -0.38±0.19               | 6.1   |
| $f_{72}$                               | 1.1401±0.0031                | 0.10±0.04        | -2.85±0.19               | 6.0   |
| $f_{73}$                               | 1.1211±0.0029                | 0.10±0.04        | -2.01±0.18               | 6.8   |
| $f_{75}$                               | 0.7743±0.0032                | 0.08±0.03        | -2.86±0.19               | 5.8   |
| $f_{76}$                               | 0.5328±0.0032                | 0.09±0.04        | -0.11±0.19               | 5.8   |
| $f_{77}$                               | 0.4144±0.0032                | 0.09±0.04        | 2.80±0.20                | 5.7   |
| $f_{78}$                               | 2.1755±0.0032                | 0.08±0.03        | -1.03±0.20               | 5.6   |
| $f_{83}$                               | 0.4964±0.0033                | 0.08±0.03        | 0.23±0.20                | 5.3   |



## **Appendix C**

### **Frequencies of individual $\gamma$ Dor Candidates**

## Appendix C. Frequencies of individual $\gamma$ Dor Candidates

**Table C.1:** Frequency list of 0102581750

| Frequency list of 0102581750 continued |                              |                  |                          |       | Frequency list of 0102581750 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_1$                                  | 0.7941±0.0006                | 0.13±0.01        | -0.03±0.04               | 144.3 | $f_{73}$                               | 1.0276±0.0025                | 0.03±0.01        | -2.59±0.15               | 9.5   |
| $f_2$                                  | 0.8101±0.0009                | 0.07±0.01        | 0.22±0.05                | 74.7  | $f_{74}$                               | 2.2351±0.0025                | 0.03±0.01        | 0.48±0.15                | 9.5   |
| $f_3$                                  | 1.0943±0.0009                | 0.08±0.01        | 0.01±0.05                | 73.9  | $f_{75}$                               | 0.1945±0.0025                | 0.03±0.01        | -1.01±0.15               | 9.4   |
| $f_4$                                  | 1.0374±0.0008                | 0.08±0.01        | -1.86±0.05               | 81.5  | $f_{76}$                               | 4.4246±0.0025                | 0.03±0.01        | 1.51±0.15                | 9.4   |
| $f_5$                                  | 0.1316±0.0009                | 0.07±0.01        | -0.32±0.06               | 66.4  | $f_{77}$                               | 4.4145±0.0023                | 0.03±0.01        | -1.37±0.14               | 11.4  |
| $f_6$                                  | 0.8384±0.0010                | 0.07±0.01        | 2.57±0.06                | 57.1  | $f_{78}$                               | 1.6659±0.0025                | 0.03±0.01        | -2.58±0.15               | 9.2   |
| $f_7$                                  | 0.1032±0.0010                | 0.08±0.01        | -0.33±0.06               | 56.2  | $f_{79}$                               | 0.9224±0.0025                | 0.03±0.01        | 0.47±0.15                | 9.2   |
| $f_8$                                  | 1.0756±0.0011                | 0.08±0.01        | 2.58±0.06                | 52.3  | $f_{80}$                               | 2.0547±0.0025                | 0.02±0.01        | -2.52±0.15               | 9.1   |
| $f_9$                                  | 0.1414±0.0012                | 0.06±0.01        | 2.10±0.08                | 37.7  | $f_{81}$                               | 4.3914±0.0026                | 0.03±0.01        | -3.13±0.16               | 8.5   |
| $f_{10}$                               | 0.2434±0.0014                | 0.06±0.01        | -2.94±0.08               | 31.5  | $f_{82}$                               | 1.5726±0.0026                | 0.02±0.01        | 0.25±0.16                | 8.4   |
| $f_{11}$                               | 0.2241±0.0013                | 0.06±0.01        | -2.39±0.08               | 36.3  | $f_{83}$                               | 0.5888±0.0026                | 0.03±0.01        | -1.08±0.16               | 8.4   |
| $f_{12}$                               | 0.1110±0.0013                | 0.05±0.01        | -0.18±0.08               | 34.4  | $f_{84}$                               | 0.4578±0.0026                | 0.03±0.01        | -0.43±0.16               | 8.4   |
| $f_{13}$                               | 0.8278±0.0014                | 0.06±0.01        | -2.42±0.09               | 29.5  | $f_{86}$                               | 1.8298±0.0026                | 0.02±0.01        | -2.71±0.16               | 8.3   |
| $f_{14}$                               | 3.2814±0.0014                | 0.05±0.01        | -0.72±0.08               | 30.3  | $f_{87}$                               | 2.3939±0.0027                | 0.02±0.01        | -0.84±0.16               | 8.2   |
| $f_{15}$                               | 0.8478±0.0015                | 0.05±0.01        | -2.65±0.09               | 26.1  | $f_{88}$                               | 2.6765±0.0026                | 0.02±0.01        | 0.06±0.16                | 8.3   |
| $f_{16}$                               | 1.0647±0.0016                | 0.06±0.01        | 1.45±0.10                | 23.2  | $f_{89}$                               | 2.7573±0.0027                | 0.03±0.01        | -2.61±0.17               | 7.9   |
| $f_{17}$                               | 1.0467±0.0016                | 0.05±0.01        | 2.63±0.10                | 22.9  | $f_{90}$                               | 4.1441±0.0027                | 0.02±0.01        | 0.54±0.17                | 7.9   |
| $f_{18}$                               | 0.9939±0.0016                | 0.06±0.01        | 0.73±0.10                | 21.7  | $f_{91}$                               | 4.3683±0.0027                | 0.02±0.01        | -1.90±0.17               | 7.8   |
| $f_{19}$                               | 0.8212±0.0017                | 0.04±0.01        | 1.05±0.10                | 21.3  | $f_{92}$                               | 3.0784±0.0027                | 0.02±0.01        | -2.37±0.17               | 7.9   |
| $f_{20}$                               | 0.2024±0.0017                | 0.05±0.01        | -1.30±0.10               | 21.2  | $f_{93}$                               | 2.7720±0.0027                | 0.02±0.01        | -2.23±0.16               | 8.0   |
| $f_{21}$                               | 0.9503±0.0017                | 0.04±0.01        | 0.98±0.10                | 20.7  | $f_{94}$                               | 0.8681±0.0027                | 0.03±0.01        | 2.24±0.16                | 8.2   |
| $f_{22}$                               | 1.1186±0.0017                | 0.05±0.01        | -1.87±0.10               | 20.5  | $f_{95}$                               | 2.2182±0.0027                | 0.02±0.01        | 0.07±0.16                | 8.2   |
| $f_{23}$                               | 1.1827±0.0016                | 0.04±0.01        | 2.73±0.10                | 22.4  | $f_{96}$                               | 2.5534±0.0027                | 0.02±0.01        | 2.08±0.17                | 7.9   |
| $f_{24}$                               | 1.0065±0.0017                | 0.04±0.01        | -0.94±0.10               | 20.4  | $f_{97}$                               | 1.8882±0.0028                | 0.02±0.01        | 2.81±0.17                | 7.4   |
| $f_{25}$                               | 1.0549±0.0017                | 0.04±0.01        | -2.08±0.10               | 20.4  | $f_{98}$                               | 0.2522±0.0028                | 0.02±0.01        | -2.20±0.17               | 7.7   |
| $f_{26}$                               | 0.6079±0.0017                | 0.04±0.01        | 1.30±0.10                | 19.9  | $f_{99}$                               | 0.6709±0.0028                | 0.03±0.01        | -1.19±0.17               | 7.4   |
| $f_{27}$                               | 2.1880±0.0017                | 0.05±0.01        | -0.86±0.10               | 20.5  | $f_{100}$                              | 0.7352±0.0027                | 0.02±0.01        | -0.41±0.16               | 8.0   |
| $f_{28}$                               | 0.7479±0.0017                | 0.04±0.01        | 0.64±0.11                | 19.4  | $f_{101}$                              | 4.3561±0.0028                | 0.02±0.01        | 2.80±0.17                | 7.4   |
| $f_{29}$                               | 0.8883±0.0018                | 0.04±0.01        | 1.80±0.11                | 18.5  | $f_{102}$                              | 0.8543±0.0028                | 0.03±0.01        | -1.93±0.17               | 7.2   |
| $f_{30}$                               | 0.4014±0.0018                | 0.04±0.01        | 0.43±0.11                | 18.0  | $f_{103}$                              | 1.4380±0.0029                | 0.02±0.01        | -0.80±0.17               | 7.1   |
| $f_{31}$                               | 0.1756±0.0018                | 0.03±0.01        | -0.32±0.11               | 18.7  | $f_{104}$                              | 3.0010±0.0029                | 0.02±0.01        | -1.03±0.18               | 7.0   |
| $f_{32}$                               | 0.9060±0.0018                | 0.03±0.01        | 3.13±0.11                | 18.3  | $f_{105}$                              | 3.3135±0.0028                | 0.02±0.01        | 1.04±0.17                | 7.3   |
| $f_{33}$                               | 0.2329±0.0018                | 0.04±0.01        | 2.92±0.11                | 18.1  | $f_{106}$                              | 0.5413±0.0029                | 0.02±0.01        | -2.84±0.17               | 7.1   |
| $f_{34}$                               | 2.0939±0.0018                | 0.03±0.01        | -2.48±0.11               | 17.5  | $f_{107}$                              | 3.1829±0.0029                | 0.02±0.01        | -1.89±0.17               | 7.1   |
| $f_{36}$                               | 2.2019±0.0019                | 0.04±0.01        | -0.49±0.11               | 16.5  | $f_{108}$                              | 0.6819±0.0029                | 0.03±0.01        | -1.80±0.17               | 7.1   |
| $f_{37}$                               | 3.2512±0.0019                | 0.03±0.01        | -2.95±0.11               | 16.9  | $f_{109}$                              | 0.4805±0.0028                | 0.02±0.01        | -1.83±0.17               | 7.3   |
| $f_{38}$                               | 2.0052±0.0019                | 0.04±0.01        | 1.89±0.11                | 16.7  | $f_{110}$                              | 0.1552±0.0029                | 0.02±0.01        | 2.74±0.18                | 7.0   |
| $f_{39}$                               | 0.3473±0.0019                | 0.04±0.01        | -1.01±0.11               | 16.5  | $f_{112}$                              | 2.5296±0.0029                | 0.02±0.01        | -1.48±0.18               | 6.7   |
| $f_{40}$                               | 0.1484±0.0019                | 0.04±0.01        | -0.46±0.12               | 15.4  | $f_{113}$                              | 0.7077±0.0030                | 0.02±0.01        | -0.02±0.18               | 6.5   |
| $f_{41}$                               | 1.2447±0.0019                | 0.04±0.01        | -1.70±0.12               | 16.0  | $f_{114}$                              | 1.1374±0.0030                | 0.03±0.01        | 2.01±0.18                | 6.5   |
| $f_{42}$                               | 1.2867±0.0018                | 0.04±0.01        | 1.35±0.11                | 17.2  | $f_{115}$                              | 3.2624±0.0030                | 0.02±0.01        | -1.87±0.18               | 6.6   |
| $f_{43}$                               | 0.8800±0.0019                | 0.04±0.01        | 2.35±0.12                | 15.8  | $f_{116}$                              | 0.3627±0.0030                | 0.02±0.01        | 0.77±0.19                | 6.3   |
| $f_{44}$                               | 2.1790±0.0019                | 0.04±0.01        | 2.36±0.12                | 15.6  | $f_{117}$                              | 2.3676±0.0030                | 0.02±0.01        | 0.02±0.19                | 6.3   |
| $f_{45}$                               | 3.3206±0.0019                | 0.03±0.01        | 1.85±0.12                | 15.7  | $f_{118}$                              | 2.8961±0.0031                | 0.02±0.01        | 0.49±0.19                | 6.2   |
| $f_{46}$                               | 2.4737±0.0019                | 0.03±0.01        | -0.12±0.12               | 15.8  | $f_{119}$                              | 1.2200±0.0030                | 0.02±0.01        | 0.39±0.18                | 6.4   |
| $f_{47}$                               | 0.8007±0.0020                | 0.04±0.01        | -0.27±0.12               | 15.2  | $f_{120}$                              | 1.9724±0.0031                | 0.02±0.01        | 3.00±0.19                | 6.2   |
| $f_{48}$                               | 3.3047±0.0020                | 0.03±0.01        | -2.07±0.12               | 15.0  | $f_{121}$                              | 0.7686±0.0031                | 0.02±0.01        | -2.31±0.19               | 6.0   |
| $f_{49}$                               | 0.6907±0.0020                | 0.04±0.01        | -2.46±0.12               | 14.9  | $f_{122}$                              | 0.1331±0.0031                | 0.02±0.01        | 0.49±0.19                | 6.1   |
| $f_{50}$                               | 0.6390±0.0020                | 0.03±0.01        | 2.26±0.12                | 14.0  | $f_{123}$                              | 0.9565±0.0031                | 0.02±0.01        | 2.69±0.19                | 6.1   |
| $f_{51}$                               | 0.3005±0.0020                | 0.04±0.01        | 0.90±0.12                | 14.2  | $f_{124}$                              | 1.6975±0.0031                | 0.02±0.01        | -0.18±0.19               | 6.2   |
| $f_{52}$                               | 0.3866±0.0020                | 0.04±0.01        | 1.20±0.12                | 14.6  | $f_{125}$                              | 4.2580±0.0031                | 0.02±0.01        | -3.03±0.19               | 5.9   |
| $f_{53}$                               | 0.3766±0.0020                | 0.03±0.01        | 1.71±0.12                | 13.9  | $f_{126}$                              | 1.1262±0.0031                | 0.02±0.01        | -2.33±0.19               | 6.0   |
| $f_{54}$                               | 1.1014±0.0021                | 0.03±0.01        | -0.46±0.13               | 13.1  | $f_{127}$                              | 2.7412±0.0031                | 0.02±0.01        | 2.12±0.19                | 6.1   |
| $f_{55}$                               | 1.2107±0.0020                | 0.03±0.01        | -2.87±0.12               | 14.6  | $f_{128}$                              | 0.2137±0.0031                | 0.02±0.01        | -1.36±0.19               | 6.0   |
| $f_{56}$                               | 1.1751±0.0021                | 0.03±0.01        | 0.50±0.13                | 13.4  | $f_{129}$                              | 0.1842±0.0031                | 0.02±0.01        | -0.82±0.19               | 5.9   |
| $f_{57}$                               | 3.2376±0.0021                | 0.04±0.01        | -2.21±0.13               | 13.1  | $f_{130}$                              | 3.3758±0.0031                | 0.02±0.01        | 2.44±0.19                | 5.9   |
| $f_{58}$                               | 0.7870±0.0022                | 0.03±0.01        | 0.87±0.13                | 12.1  | $f_{131}$                              | 4.4035±0.0031                | 0.02±0.01        | -0.72±0.19               | 5.9   |
| $f_{59}$                               | 0.9422±0.0021                | 0.03±0.01        | -1.52±0.13               | 13.1  | $f_{132}$                              | 3.1684±0.0032                | 0.02±0.01        | 0.31±0.19                | 5.8   |
| $f_{60}$                               | 1.8557±0.0022                | 0.03±0.01        | 0.33±0.13                | 12.0  | $f_{133}$                              | 6.6787±0.0032                | 0.02±0.01        | 2.37±0.20                | 5.7   |
| $f_{61}$                               | 0.1238±0.0022                | 0.03±0.01        | -0.54±0.13               | 12.0  | $f_{134}$                              | 2.9730±0.0032                | 0.02±0.01        | 1.38±0.19                | 5.8   |
| $f_{62}$                               | 3.3295±0.0022                | 0.03±0.01        | -1.33±0.14               | 11.9  | $f_{135}$                              | 2.9099±0.0032                | 0.02±0.01        | 1.26±0.19                | 5.8   |
| $f_{63}$                               | 1.7453±0.0022                | 0.03±0.01        | 0.19±0.14                | 11.8  | $f_{136}$                              | 1.1972±0.0032                | 0.02±0.01        | 2.17±0.19                | 5.8   |
| $f_{64}$                               | 2.1043±0.0022                | 0.03±0.01        | 3.08±0.14                | 11.8  | $f_{137}$                              | 0.9349±0.0032                | 0.02±0.01        | -0.22±0.20               | 5.6   |
| $f_{65}$                               | 2.6360±0.0023                | 0.03±0.01        | 0.34±0.14                | 11.2  | $f_{138}$                              | 2.6662±0.0033                | 0.02±0.01        | -1.95±0.20               | 5.4   |
| $f_{66}$                               | 2.1646±0.0023                | 0.03±0.01        | 0.50±0.14                | 11.3  | $f_{139}$                              | 3.5167±0.0033                | 0.02±0.01        | 2.94±0.20                | 5.4   |
| $f_{67}$                               | 2.5142±0.0023                | 0.03±0.01        | -1.68±0.14               | 10.8  | $f_{140}$                              | 2.4573±0.0033                | 0.02±0.01        | -1.80±0.20               | 5.4   |
| $f_{68}$                               | 1.1499±0.0023                | 0.02±0.01        | 2.53±0.14                | 10.7  | $f_{141}$                              | 2.4834±0.0032                | 0.02±0.01        | -1.46±0.20               | 5.6   |
| $f_{69}$                               | 3.2166±0.0023                | 0.03±0.01        | -0.72±0.14               | 10.6  | $f_{142}$                              | 3.5864±0.0033                | 0.02±0.01        | 3.02±0.20                | 5.3   |
| $f_{70}$                               | 1.9640±0.0024                | 0.03±0.01        | 0.31±0.15                | 10.2  | $f_{143}$                              | 0.3242±0.0033                | 0.02±0.01        | 0.84±0.20                | 5.5   |
| $f_{71}$                               | 0.6320±0.0024                | 0.03±0.01        | 1.34±0.15                | 10.3  | $f_{144}$                              | 2.7929±0.0033                | 0.02±0.01        | 3.05±0.20                | 5.4   |
| $f_{72}$                               | 0.3119±0.0025                | 0.02±0.01        | -2.35±0.15               | 9.5   | $f_{145}$                              | 1.3130±0.0033                | 0.02±0.01        | -1.63±0.20               | 5.3   |
| Frequency list of 0102581750 continued |                              |                  |                          |       | $f_{146}$                              | 2.4138±0.0033                | 0.02±0.01        | 1.69±0.20                | 5.2   |
|                                        |                              |                  |                          |       | $f_{147}$                              | 0.5941±0.0033                | 0.02±0.01        | -3.00±0.20               | 5.2   |
|                                        |                              |                  |                          |       | $f_{148}$                              | 1.0345±0.0034                | 0.02±0.01        | -1.69±0.21               | 5.0   |
|                                        |                              |                  |                          |       | $f_{149}$                              | 0.8322±0.0033                | 0.02±0.01        | -2.57±0.20               | 5.4   |
|                                        |                              |                  |                          |       | $f_{150}$                              | 0.7177±0.0033                | 0.02±0.01        | 0.88±0.20                | 5.2   |
|                                        |                              |                  |                          |       | Frequency list of 0102581750 continued |                              |                  |                          |       |

## Appendix C. Frequencies of individual $\gamma$ Dor Candidates

| Frequency list of 0102581750 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{151}$                              | 3.1504±0.0034                | 0.02±0.01        | -0.31±0.21               | 5.1   |

**Table C.2:** Frequency list of 0102581832

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|--------------|------------------------------|------------------|--------------------------|-------|
| $f_1$        | 0.1622±0.0007                | 0.23±0.02        | -0.89±0.04               | 120.4 |
| $f_2$        | 1.2306±0.0007                | 0.23±0.02        | 2.00±0.04                | 126.3 |
| $f_3$        | 0.1682±0.0007                | 0.17±0.01        | -2.99±0.04               | 133.3 |
| $f_4$        | 0.1236±0.0007                | 0.18±0.02        | 0.26±0.04                | 118.5 |
| $f_5$        | 0.1873±0.0007                | 0.21±0.02        | 0.82±0.04                | 121.8 |
| $f_6$        | 0.2205±0.0008                | 0.21±0.02        | -0.50±0.05               | 100.6 |
| $f_7$        | 0.1395±0.0008                | 0.17±0.02        | 1.95±0.05                | 81.5  |
| $f_8$        | 1.2222±0.0009                | 0.12±0.01        | -0.12±0.06               | 66.0  |
| $f_9$        | 0.1329±0.0010                | 0.12±0.02        | -2.62±0.06               | 61.8  |
| $f_{10}$     | 0.1788±0.0010                | 0.14±0.02        | 0.42±0.06                | 58.3  |
| $f_{11}$     | 1.2381±0.0010                | 0.11±0.01        | 2.23±0.06                | 59.1  |
| $f_{12}$     | 0.4500±0.0010                | 0.13±0.02        | 1.21±0.06                | 53.4  |
| $f_{13}$     | 0.3338±0.0010                | 0.13±0.02        | -1.56±0.06               | 56.3  |
| $f_{14}$     | 0.2668±0.0010                | 0.12±0.02        | -0.82±0.06               | 56.0  |
| $f_{15}$     | 0.2781±0.0011                | 0.11±0.02        | -0.64±0.07               | 49.9  |
| $f_{16}$     | 0.4882±0.0011                | 0.11±0.02        | 1.88±0.07                | 48.3  |
| $f_{17}$     | 0.1530±0.0012                | 0.10±0.02        | 1.34±0.07                | 39.9  |
| $f_{18}$     | 0.2077±0.0013                | 0.10±0.02        | 3.09±0.08                | 36.8  |
| $f_{19}$     | 0.1460±0.0013                | 0.09±0.02        | 2.56±0.08                | 35.6  |
| $f_{21}$     | 0.2394±0.0014                | 0.10±0.02        | -2.29±0.08               | 30.2  |
| $f_{22}$     | 0.3660±0.0014                | 0.10±0.02        | -2.77±0.09               | 29.9  |
| $f_{23}$     | 0.3796±0.0014                | 0.09±0.02        | 1.46±0.08                | 30.7  |
| $f_{24}$     | 0.6853±0.0014                | 0.08±0.01        | 1.11±0.09                | 29.8  |
| $f_{25}$     | 1.2006±0.0014                | 0.08±0.01        | 0.81±0.09                | 28.9  |
| $f_{26}$     | 0.8585±0.0014                | 0.07±0.01        | -1.81±0.09               | 29.6  |
| $f_{27}$     | 0.1990±0.0014                | 0.09±0.02        | 2.51±0.09                | 28.0  |
| $f_{28}$     | 0.7338±0.0015                | 0.09±0.02        | -2.34±0.09               | 27.1  |
| $f_{29}$     | 0.5810±0.0014                | 0.07±0.01        | 1.81±0.09                | 28.7  |
| $f_{30}$     | 0.4703±0.0015                | 0.09±0.02        | -1.84±0.09               | 27.4  |
| $f_{31}$     | 0.2522±0.0015                | 0.07±0.01        | -1.99±0.09               | 25.9  |
| $f_{32}$     | 0.3029±0.0016                | 0.07±0.01        | -2.16±0.10               | 23.8  |
| $f_{33}$     | 1.0961±0.0016                | 0.07±0.01        | 1.28±0.10                | 22.6  |
| $f_{34}$     | 0.3585±0.0016                | 0.06±0.01        | 2.38±0.10                | 21.7  |
| $f_{35}$     | 0.5989±0.0017                | 0.06±0.01        | 2.94±0.10                | 20.8  |
| $f_{36}$     | 0.7871±0.0017                | 0.07±0.02        | -1.42±0.10               | 20.3  |
| $f_{37}$     | 0.8309±0.0017                | 0.06±0.01        | -2.48±0.10               | 21.0  |
| $f_{38}$     | 0.5056±0.0017                | 0.06±0.01        | 0.45±0.10                | 20.1  |
| $f_{39}$     | 1.1688±0.0017                | 0.07±0.02        | -1.40±0.11               | 19.3  |
| $f_{40}$     | 1.0451±0.0019                | 0.06±0.01        | -2.70±0.11               | 16.6  |
| $f_{41}$     | 1.2643±0.0019                | 0.06±0.02        | 0.47±0.12                | 15.7  |
| $f_{42}$     | 0.9941±0.0019                | 0.04±0.01        | -1.01±0.12               | 16.1  |
| $f_{43}$     | 0.7184±0.0020                | 0.06±0.02        | -1.25±0.12               | 15.0  |
| $f_{44}$     | 0.5286±0.0020                | 0.05±0.01        | 2.53±0.12                | 14.3  |
| $f_{45}$     | 1.1273±0.0020                | 0.05±0.01        | 0.29±0.12                | 14.4  |
| $f_{46}$     | 0.6151±0.0020                | 0.07±0.02        | -0.29±0.12               | 14.1  |
| $f_{47}$     | 0.6497±0.0019                | 0.07±0.02        | 2.04±0.12                | 15.4  |
| $f_{48}$     | 0.4348±0.0020                | 0.06±0.02        | -0.94±0.12               | 14.5  |
| $f_{49}$     | 0.8765±0.0021                | 0.06±0.02        | 2.03±0.13                | 13.6  |
| $f_{50}$     | 0.7101±0.0020                | 0.06±0.02        | -1.02±0.12               | 14.0  |
| $f_{51}$     | 0.7464±0.0020                | 0.06±0.02        | 1.69±0.12                | 14.2  |
| $f_{52}$     | 0.3449±0.0021                | 0.06±0.02        | 0.78±0.13                | 13.4  |
| $f_{53}$     | 1.3364±0.0021                | 0.05±0.01        | -1.33±0.13               | 13.1  |
| $f_{54}$     | 1.9607±0.0021                | 0.05±0.01        | 2.64±0.13                | 12.9  |
| $f_{55}$     | 0.9062±0.0021                | 0.05±0.01        | -0.96±0.13               | 13.4  |
| $f_{56}$     | 1.1820±0.0021                | 0.06±0.02        | 1.39±0.13                | 13.6  |
| $f_{57}$     | 0.1168±0.0021                | 0.05±0.01        | -1.61±0.13               | 13.2  |
| $f_{58}$     | 0.3927±0.0021                | 0.05±0.01        | -1.05±0.13               | 12.7  |
| $f_{59}$     | 0.4065±0.0021                | 0.05±0.01        | -0.32±0.13               | 13.6  |
| $f_{60}$     | 0.1700±0.0022                | 0.05±0.01        | 0.19±0.13                | 12.3  |
| $f_{61}$     | 1.5720±0.0022                | 0.05±0.01        | -1.70±0.14               | 11.8  |
| $f_{62}$     | 0.3116±0.0023                | 0.05±0.01        | 1.92±0.14                | 11.2  |
| $f_{63}$     | 0.5569±0.0023                | 0.06±0.02        | -2.30±0.14               | 11.2  |
| $f_{64}$     | 0.8070±0.0023                | 0.04±0.01        | -2.05±0.14               | 11.5  |
| $f_{65}$     | 0.6047±0.0023                | 0.04±0.01        | -1.88±0.14               | 10.9  |
| $f_{66}$     | 0.8850±0.0023                | 0.04±0.01        | 1.95±0.14                | 10.8  |
| $f_{67}$     | 0.8449±0.0023                | 0.05±0.02        | 1.60±0.14                | 10.7  |

Frequency list of 0102581832 continued

| Frequency list of 0102581832 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{68}$                               | 1.3764±0.0024                | 0.05±0.02        | -1.34±0.15               | 10.3  |
| $f_{69}$                               | 1.3201±0.0024                | 0.04±0.01        | -2.13±0.15               | 10.2  |
| $f_{70}$                               | 2.2861±0.0024                | 0.04±0.01        | 1.47±0.15                | 9.8   |
| $f_{71}$                               | 2.0031±0.0025                | 0.05±0.02        | 0.47±0.15                | 9.7   |
| $f_{73}$                               | 0.6609±0.0025                | 0.04±0.01        | 0.36±0.15                | 9.6   |
| $f_{74}$                               | 1.1352±0.0025                | 0.04±0.01        | 1.55±0.15                | 9.3   |
| $f_{75}$                               | 0.6325±0.0024                | 0.05±0.02        | 1.82±0.15                | 9.8   |
| $f_{76}$                               | 0.5446±0.0025                | 0.04±0.01        | -0.25±0.15               | 9.7   |
| $f_{77}$                               | 0.9428±0.0025                | 0.05±0.02        | -2.70±0.15               | 9.7   |
| $f_{78}$                               | 0.4253±0.0025                | 0.05±0.02        | 2.55±0.15                | 9.7   |
| $f_{79}$                               | 1.4033±0.0025                | 0.05±0.02        | 1.72±0.16                | 9.0   |
| $f_{80}$                               | 1.5199±0.0026                | 0.03±0.01        | 0.51±0.16                | 8.9   |
| $f_{81}$                               | 0.2276±0.0026                | 0.05±0.02        | 0.16±0.16                | 8.6   |
| $f_{82}$                               | 1.7688±0.0026                | 0.04±0.01        | 0.50±0.16                | 8.3   |
| $f_{83}$                               | 1.3095±0.0027                | 0.04±0.01        | 1.10±0.16                | 8.0   |
| $f_{84}$                               | 0.4801±0.0027                | 0.04±0.01        | 2.64±0.16                | 8.1   |
| $f_{85}$                               | 0.4613±0.0025                | 0.04±0.01        | 2.46±0.15                | 9.5   |
| $f_{86}$                               | 1.3702±0.0026                | 0.04±0.01        | 1.56±0.16                | 8.3   |
| $f_{87}$                               | 1.1030±0.0028                | 0.04±0.01        | -2.95±0.17               | 7.7   |
| $f_{88}$                               | 1.0235±0.0028                | 0.04±0.01        | -0.61±0.17               | 7.5   |
| $f_{89}$                               | 0.9825±0.0028                | 0.04±0.01        | -2.96±0.17               | 7.7   |
| $f_{90}$                               | 1.2577±0.0028                | 0.04±0.01        | 0.79±0.17                | 7.6   |
| $f_{91}$                               | 2.2310±0.0028                | 0.04±0.01        | -1.20±0.17               | 7.4   |
| $f_{92}$                               | 0.6948±0.0028                | 0.04±0.01        | -1.25±0.17               | 7.5   |
| $f_{93}$                               | 0.9578±0.0028                | 0.04±0.01        | -0.37±0.17               | 7.5   |
| $f_{94}$                               | 0.9221±0.0027                | 0.04±0.01        | 2.04±0.17                | 7.8   |
| $f_{96}$                               | 2.0856±0.0028                | 0.04±0.01        | 1.44±0.17                | 7.2   |
| $f_{97}$                               | 2.9890±0.0029                | 0.04±0.02        | 1.29±0.17                | 7.1   |
| $f_{99}$                               | 1.5367±0.0029                | 0.04±0.02        | -1.27±0.18               | 6.8   |
| $f_{100}$                              | 0.8243±0.0028                | 0.04±0.01        | 2.48±0.17                | 7.2   |
| $f_{101}$                              | 1.2501±0.0029                | 0.04±0.02        | -2.37±0.18               | 6.9   |
| $f_{102}$                              | 0.3733±0.0029                | 0.04±0.02        | -0.26±0.18               | 6.8   |
| $f_{103}$                              | 2.3934±0.0030                | 0.04±0.02        | -1.99±0.18               | 6.6   |
| $f_{104}$                              | 0.5635±0.0029                | 0.03±0.01        | 1.97±0.18                | 6.7   |
| $f_{105}$                              | 0.1288±0.0030                | 0.04±0.02        | 2.12±0.18                | 6.4   |
| $f_{106}$                              | 1.4149±0.0030                | 0.04±0.02        | 0.39±0.19                | 6.3   |
| $f_{107}$                              | 0.2632±0.0030                | 0.04±0.02        | 1.18±0.18                | 6.4   |
| $f_{108}$                              | 0.7959±0.0030                | 0.04±0.02        | -1.86±0.19               | 6.3   |
| $f_{109}$                              | 2.1844±0.0031                | 0.03±0.01        | -0.11±0.19               | 6.1   |
| $f_{110}$                              | 1.3295±0.0031                | 0.03±0.01        | 3.12±0.19                | 6.1   |
| $f_{111}$                              | 2.1181±0.0031                | 0.03±0.01        | -2.28±0.19               | 6.1   |
| $f_{112}$                              | 2.3145±0.0031                | 0.03±0.01        | -0.62±0.19               | 6.0   |
| $f_{113}$                              | 0.6689±0.0031                | 0.03±0.01        | -1.46±0.19               | 5.9   |
| $f_{117}$                              | 0.5890±0.0032                | 0.03±0.01        | 0.41±0.19                | 5.8   |
| $f_{118}$                              | 1.7077±0.0032                | 0.03±0.01        | 0.13±0.20                | 5.6   |
| $f_{119}$                              | 1.7001±0.0033                | 0.03±0.01        | -1.66±0.20               | 5.5   |
| $f_{120}$                              | 14.0410±0.0032               | 0.03±0.01        | -1.08±0.20               | 5.6   |
| $f_{121}$                              | 2.0705±0.0032                | 0.03±0.01        | 1.15±0.20                | 5.6   |
| $f_{125}$                              | 1.0880±0.0033                | 0.03±0.01        | 0.25±0.20                | 5.4   |
| $f_{126}$                              | 1.4536±0.0033                | 0.03±0.01        | -2.68±0.20               | 5.5   |
| $f_{127}$                              | 1.5303±0.0033                | 0.03±0.01        | 0.66±0.20                | 5.3   |
| $f_{128}$                              | 0.1085±0.0034                | 0.03±0.01        | 3.03±0.21                | 5.1   |
| $f_{129}$                              | 0.9682±0.0034                | 0.03±0.01        | -1.35±0.21               | 5.1   |

**Table C.3:** Frequency list of 0102600525

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|--------------|------------------------------|------------------|--------------------------|-------|
| $f_1$        | 0.2588±0.0002                | 0.61±0.02        | -0.24±0.02               | 943.8 |
| $f_2$        | 0.3429±0.0003                | 0.42±0.02        | -0.23±0.02               | 586.5 |
| $f_3$        | 0.1187±0.0008                | 0.15±0.02        | -3.07±0.05               | 92.9  |
| $f_4$        | 0.1049±0.0009                | 0.12±0.01        | 3.02±0.06                | 71.6  |
| $f_5$        | 0.2645±0.0012                | 0.09±0.01        | 1.39±0.07                | 43.1  |
| $f_6$        | 0.2481±0.0012                | 0.09±0.01        | -2.56±0.08               | 37.8  |
| $f_7$        | 0.1924±0.0014                | 0.07±0.01        | -0.82±0.09               | 29.8  |
| $f_8$        | 0.2824±0.0014                | 0.09±0.02        | -0.89±0.09               | 29.1  |
| $f_9$        | 1.0266±0.0016                | 0.07±0.01        | 2.91±0.10                | 23.6  |
| $f_{10}$     | 0.1490±0.0016                | 0.07±0.01        | 1.52±0.10                | 23.8  |
| $f_{11}$     | 0.1121±0.0016                | 0.07±0.02        | -0.75±0.10               | 21.6  |
| $f_{12}$     | 0.1264±0.0017                | 0.07±0.02        | 2.79±0.10                | 19.7  |
| $f_{13}$     | 0.3202±0.0018                | 0.06±0.01        | 1.75±0.11                | 18.0  |
| $f_{14}$     | 0.6808±0.0019                | 0.06±0.02        | -2.25±0.12               | 15.6  |
| $f_{15}$     | 0.5166±0.0020                | 0.06±0.02        | 3.13±0.12                | 14.5  |
| $f_{16}$     | 0.3556±0.0020                | 0.05±0.01        | -1.86±0.12               | 14.2  |
| $f_{17}$     | 0.6901±0.0020                | 0.06±0.02        | 2.18±0.12                | 14.0  |
| $f_{18}$     | 0.5280±0.0021                | 0.06±0.02        | -0.48±0.13               | 12.9  |
| $f_{19}$     | 0.1824±0.0021                | 0.06±0.02        | 0.98±0.13                | 12.9  |
| $f_{21}$     | 1.3691±0.0022                | 0.05±0.01        | 2.38±0.14                | 11.9  |
| $f_{22}$     | 0.6613±0.0023                | 0.04±0.01        | 0.99±0.14                | 11.0  |

Frequency list of 0102600525 continued

## Appendix C. Frequencies of individual $\gamma$ Dor Candidates

| Frequency list of 0102600525 continued |                               |                  |                       |       | Frequency list of 0102619496 continued |                               |                  |                       |       |
|----------------------------------------|-------------------------------|------------------|-----------------------|-------|----------------------------------------|-------------------------------|------------------|-----------------------|-------|
| Frequency ID                           | Frequency [ $\text{d}^{-1}$ ] | Amplitude [mmag] | Phase [ $-\pi, \pi$ ] | Sign. | Frequency ID                           | Frequency [ $\text{d}^{-1}$ ] | Amplitude [mmag] | Phase [ $-\pi, \pi$ ] | Sign. |
| $f_{23}$                               | 0.3497±0.0024                 | 0.04±0.01        | 1.08±0.15             | 9.8   | $f_2$                                  | 0.1189±0.0007                 | 0.23±0.02        | -2.64±0.04            | 134.7 |
| $f_{24}$                               | 1.5758±0.0024                 | 0.04±0.01        | -2.15±0.15            | 10.1  | $f_3$                                  | 0.1267±0.0007                 | 0.22±0.02        | -1.40±0.04            | 116.2 |
| $f_{25}$                               | 0.2114±0.0024                 | 0.04±0.01        | 1.09±0.15             | 9.8   | $f_4$                                  | 0.1665±0.0008                 | 0.17±0.02        | -0.11±0.05            | 97.6  |
| $f_{26}$                               | 0.1569±0.0025                 | 0.04±0.01        | -0.13±0.16            | 9.0   | $f_5$                                  | 1.1761±0.0008                 | 0.17±0.02        | -2.71±0.05            | 85.9  |
| $f_{27}$                               | 0.4007±0.0026                 | 0.05±0.02        | 0.41±0.16             | 8.4   | $f_6$                                  | 0.1482±0.0008                 | 0.16±0.02        | -0.86±0.05            | 82.8  |
| $f_{28}$                               | 0.6006±0.0026                 | 0.04±0.01        | 0.07±0.16             | 8.6   | $f_7$                                  | 0.2312±0.0009                 | 0.17±0.02        | -1.57±0.05            | 78.3  |
| $f_{29}$                               | 0.6350±0.0026                 | 0.04±0.01        | -0.70±0.16            | 8.6   | $f_8$                                  | 0.1960±0.0010                 | 0.11±0.01        | 1.26±0.06             | 57.1  |
| $f_{30}$                               | 0.4264±0.0026                 | 0.04±0.01        | 0.71±0.16             | 8.3   | $f_9$                                  | 1.2624±0.0010                 | 0.10±0.01        | 0.22±0.06             | 53.6  |
| $f_{31}$                               | 0.2393±0.0027                 | 0.05±0.02        | 1.16±0.17             | 7.8   | $f_{10}$                               | 0.1813±0.0011                 | 0.13±0.02        | -1.86±0.07            | 48.8  |
| $f_{32}$                               | 0.6422±0.0027                 | 0.04±0.01        | 1.19±0.17             | 7.9   | $f_{11}$                               | 1.2266±0.0012                 | 0.11±0.02        | -1.75±0.07            | 39.1  |
| $f_{33}$                               | 0.7670±0.0028                 | 0.04±0.01        | 2.01±0.17             | 7.6   | $f_{12}$                               | 0.2545±0.0013                 | 0.08±0.01        | 2.92±0.08             | 36.3  |
| $f_{34}$                               | 2.0052±0.0028                 | 0.04±0.01        | 1.06±0.17             | 7.3   | $f_{13}$                               | 1.1629±0.0013                 | 0.10±0.02        | 0.66±0.08             | 33.8  |
| $f_{35}$                               | 2.0442±0.0029                 | 0.04±0.02        | 0.39±0.18             | 7.0   | $f_{14}$                               | 0.2717±0.0013                 | 0.09±0.02        | 0.89±0.08             | 33.0  |
| $f_{36}$                               | 0.2715±0.0029                 | 0.04±0.02        | 2.54±0.18             | 6.9   | $f_{15}$                               | 1.2348±0.0013                 | 0.09±0.02        | -0.99±0.08            | 33.6  |
| $f_{37}$                               | 0.4918±0.0029                 | 0.03±0.01        | 0.82±0.18             | 7.0   | $f_{16}$                               | 2.5577±0.0013                 | 0.08±0.01        | -2.08±0.08            | 32.1  |
| $f_{38}$                               | 0.7154±0.0029                 | 0.04±0.02        | 2.64±0.18             | 6.8   | $f_{17}$                               | 0.2842±0.0014                 | 0.10±0.02        | 2.79±0.08             | 31.5  |
| $f_{39}$                               | 0.7595±0.0029                 | 0.04±0.02        | -0.67±0.18            | 7.0   | $f_{18}$                               | 1.2518±0.0015                 | 0.07±0.01        | -2.27±0.09            | 27.3  |
| $f_{41}$                               | 0.5078±0.0030                 | 0.04±0.02        | 2.58±0.19             | 6.3   | $f_{19}$                               | 0.3251±0.0015                 | 0.07±0.01        | 1.29±0.09             | 26.8  |
| $f_{42}$                               | 0.2545±0.0030                 | 0.04±0.02        | 2.33±0.18             | 6.4   | $f_{20}$                               | 1.1290±0.0016                 | 0.07±0.01        | 1.38±0.10             | 23.7  |
| $f_{44}$                               | 0.5340±0.0030                 | 0.04±0.02        | -2.15±0.18            | 6.4   | $f_{21}$                               | 0.3397±0.0016                 | 0.09±0.02        | 2.70±0.10             | 21.9  |
| $f_{46}$                               | 0.2324±0.0031                 | 0.04±0.02        | -2.76±0.19            | 6.2   | $f_{22}$                               | 0.2161±0.0016                 | 0.08±0.02        | -1.76±0.10            | 22.0  |
| $f_{51}$                               | 0.2887±0.0032                 | 0.04±0.02        | 2.67±0.19             | 5.8   | $f_{23}$                               | 0.3059±0.0017                 | 0.08±0.02        | 1.56±0.10             | 19.8  |
| $f_{52}$                               | 0.2949±0.0031                 | 0.03±0.01        | 0.14±0.19             | 6.0   | $f_{24}$                               | 0.9419±0.0018                 | 0.06±0.01        | -2.62±0.11            | 18.3  |
| $f_{53}$                               | 0.6201±0.0032                 | 0.04±0.02        | -1.70±0.20            | 5.6   | $f_{25}$                               | 2.4899±0.0018                 | 0.06±0.01        | -2.00±0.11            | 17.9  |
| $f_{54}$                               | 0.5501±0.0031                 | 0.03±0.01        | -2.05±0.19            | 6.0   | $f_{26}$                               | 1.3342±0.0018                 | 0.07±0.02        | -1.54±0.11            | 17.4  |
| $f_{55}$                               | 0.7744±0.0034                 | 0.03±0.01        | 2.41±0.21             | 5.1   | $f_{27}$                               | 0.9671±0.0018                 | 0.06±0.01        | -1.61±0.11            | 17.1  |
|                                        |                               |                  |                       |       | $f_{28}$                               | 0.9882±0.0019                 | 0.07±0.02        | -0.09±0.11            | 16.7  |
|                                        |                               |                  |                       |       | $f_{29}$                               | 0.7528±0.0019                 | 0.07±0.02        | -1.18±0.11            | 16.7  |
|                                        |                               |                  |                       |       | $f_{30}$                               | 0.8847±0.0019                 | 0.07±0.02        | -1.93±0.11            | 16.9  |
|                                        |                               |                  |                       |       | $f_{31}$                               | 0.2626±0.0019                 | 0.07±0.02        | -0.74±0.11            | 16.5  |
|                                        |                               |                  |                       |       | $f_{32}$                               | 1.1370±0.0019                 | 0.06±0.01        | -1.50±0.12            | 16.2  |
|                                        |                               |                  |                       |       | $f_{33}$                               | 1.1066±0.0019                 | 0.07±0.02        | 2.86±0.12             | 16.2  |
|                                        |                               |                  |                       |       | $f_{34}$                               | 0.1352±0.0019                 | 0.07±0.02        | -0.37±0.12            | 15.6  |
|                                        |                               |                  |                       |       | $f_{35}$                               | 0.7625±0.0020                 | 0.06±0.02        | -0.13±0.12            | 15.3  |
|                                        |                               |                  |                       |       | $f_{36}$                               | 0.1896±0.0020                 | 0.05±0.01        | -0.58±0.12            | 14.9  |
|                                        |                               |                  |                       |       | $f_{37}$                               | 0.5614±0.0020                 | 0.05±0.01        | 1.62±0.12             | 14.5  |
|                                        |                               |                  |                       |       | $f_{38}$                               | 1.1507±0.0020                 | 0.06±0.02        | -1.57±0.12            | 14.4  |
|                                        |                               |                  |                       |       | $f_{39}$                               | 2.5390±0.0021                 | 0.07±0.02        | -0.49±0.13            | 13.8  |
|                                        |                               |                  |                       |       | $f_{40}$                               | 1.2197±0.0020                 | 0.05±0.01        | -0.03±0.12            | 14.1  |
|                                        |                               |                  |                       |       | $f_{41}$                               | 1.0347±0.0020                 | 0.05±0.01        | -0.38±0.12            | 13.9  |
|                                        |                               |                  |                       |       | $f_{42}$                               | 0.7811±0.0020                 | 0.06±0.02        | -0.51±0.12            | 14.0  |
|                                        |                               |                  |                       |       | $f_{43}$                               | 0.2470±0.0020                 | 0.05±0.01        | 2.22±0.12             | 13.9  |
|                                        |                               |                  |                       |       | $f_{44}$                               | 1.9041±0.0021                 | 0.06±0.02        | -2.97±0.13            | 13.7  |
|                                        |                               |                  |                       |       | $f_{45}$                               | 0.9576±0.0020                 | 0.06±0.02        | -0.48±0.12            | 14.3  |
|                                        |                               |                  |                       |       | $f_{46}$                               | 2.1989±0.0021                 | 0.05±0.01        | -0.20±0.13            | 13.5  |
|                                        |                               |                  |                       |       | $f_{47}$                               | 0.6171±0.0021                 | 0.06±0.02        | -3.11±0.13            | 13.8  |
|                                        |                               |                  |                       |       | $f_{48}$                               | 0.5946±0.0021                 | 0.06±0.02        | 1.70±0.13             | 13.5  |
|                                        |                               |                  |                       |       | $f_{49}$                               | 0.3923±0.0021                 | 0.06±0.02        | 1.88±0.13             | 13.4  |
|                                        |                               |                  |                       |       | $f_{50}$                               | 1.3031±0.0021                 | 0.05±0.01        | 1.59±0.13             | 13.0  |
|                                        |                               |                  |                       |       | $f_{51}$                               | 2.0053±0.0021                 | 0.06±0.02        | -2.82±0.13            | 13.6  |
|                                        |                               |                  |                       |       | $f_{52}$                               | 1.3901±0.0021                 | 0.06±0.02        | -0.98±0.13            | 12.8  |
|                                        |                               |                  |                       |       | $f_{53}$                               | 1.3148±0.0021                 | 0.06±0.02        | -2.88±0.13            | 13.6  |
|                                        |                               |                  |                       |       | $f_{54}$                               | 1.4361±0.0021                 | 0.06±0.02        | 2.29±0.13             | 13.6  |
|                                        |                               |                  |                       |       | $f_{55}$                               | 1.4690±0.0020                 | 0.05±0.01        | -1.12±0.12            | 14.0  |
|                                        |                               |                  |                       |       | $f_{56}$                               | 1.3678±0.0020                 | 0.05±0.01        | 2.33±0.12             | 14.1  |
|                                        |                               |                  |                       |       | $f_{57}$                               | 0.1096±0.0021                 | 0.06±0.02        | 3.10±0.13             | 13.2  |
|                                        |                               |                  |                       |       | $f_{58}$                               | 2.2558±0.0021                 | 0.05±0.01        | -1.85±0.13            | 12.8  |
|                                        |                               |                  |                       |       | $f_{59}$                               | 1.6471±0.0021                 | 0.05±0.01        | -0.73±0.13            | 12.7  |
|                                        |                               |                  |                       |       | $f_{60}$                               | 1.2671±0.0021                 | 0.05±0.01        | -0.38±0.13            | 12.9  |
|                                        |                               |                  |                       |       | $f_{61}$                               | 2.4592±0.0022                 | 0.05±0.01        | 2.43±0.13             | 12.3  |
|                                        |                               |                  |                       |       | $f_{62}$                               | 0.5723±0.0022                 | 0.06±0.02        | 2.93±0.13             | 12.1  |
|                                        |                               |                  |                       |       | $f_{63}$                               | 0.8089±0.0022                 | 0.05±0.01        | -2.20±0.13            | 12.3  |
|                                        |                               |                  |                       |       | $f_{64}$                               | 2.7006±0.0022                 | 0.05±0.01        | 1.61±0.14             | 11.9  |
|                                        |                               |                  |                       |       | $f_{65}$                               | 2.5134±0.0022                 | 0.05±0.01        | 2.74±0.13             | 12.3  |
|                                        |                               |                  |                       |       | $f_{66}$                               | 2.3937±0.0023                 | 0.05±0.01        | 0.75±0.14             | 11.5  |
|                                        |                               |                  |                       |       | $f_{67}$                               | 0.6884±0.0023                 | 0.05±0.01        | -0.39±0.14            | 11.2  |
|                                        |                               |                  |                       |       | $f_{68}$                               | 0.5881±0.0022                 | 0.05±0.01        | -0.33±0.14            | 11.8  |
|                                        |                               |                  |                       |       | $f_{69}$                               | 1.0662±0.0023                 | 0.05±0.02        | 0.58±0.14             | 10.9  |
|                                        |                               |                  |                       |       | $f_{70}$                               | 1.0776±0.0023                 | 0.05±0.01        | 2.89±0.14             | 11.2  |
|                                        |                               |                  |                       |       | $f_{71}$                               | 0.8925±0.0023                 | 0.04±0.01        | 0.39±0.14             | 11.2  |
|                                        |                               |                  |                       |       | $f_{72}$                               | 2.5735±0.0023                 | 0.05±0.02        | 1.19±0.14             | 11.0  |
|                                        |                               |                  |                       |       | $f_{73}$                               | 0.3801±0.0024                 | 0.05±0.02        | -2.60±0.15            | 10.0  |
|                                        |                               |                  |                       |       | $f_{74}$                               | 0.9145±0.0025                 | 0.04±0.01        | 1.00±0.15             | 9.7   |
|                                        |                               |                  |                       |       | $f_{75}$                               | 0.8598±0.0024                 | 0.05±0.02        | -2.89±0.15            | 9.9   |
|                                        |                               |                  |                       |       | $f_{76}$                               | 1.2031±0.0024                 | 0.04±0.01        | -1.86±0.15            | 10.0  |
|                                        |                               |                  |                       |       | $f_{77}$                               | 1.2762±0.0024                 | 0.04±0.01        | 1.00±0.15             | 9.9   |
|                                        |                               |                  |                       |       | $f_{78}$                               |                               |                  |                       |       |

**Table C.4:** Frequency list of 0102612288

| Frequency<br>ID | Frequency<br>[d <sup>-1</sup> ] | Amplitude<br>[mmag] | Phase<br>[- $\pi$ , $\pi$ ] | Sign. |
|-----------------|---------------------------------|---------------------|-----------------------------|-------|
| $f_1$           | 0.6939±0.0004                   | 0.69±0.03           | 2.92±0.02                   | 433.8 |
| $f_2$           | 0.6860±0.0008                   | 0.31±0.03           | 0.85±0.05                   | 96.4  |
| $f_4$           | 1.3785±0.0010                   | 0.23±0.03           | -0.00±0.06                  | 56.0  |
| $f_5$           | 0.1001±0.0011                   | 0.20±0.03           | -0.92±0.07                  | 44.9  |
| $f_6$           | 0.1528±0.0012                   | 0.19±0.03           | 1.54±0.07                   | 39.8  |
| $f_7$           | 0.2051±0.0013                   | 0.15±0.02           | 1.55±0.08                   | 36.2  |
| $f_8$           | 0.2270±0.0014                   | 0.17±0.03           | 3.00±0.08                   | 30.7  |
| $f_9$           | 0.1947±0.0014                   | 0.14±0.03           | -1.85±0.09                  | 28.2  |
| $f_{10}$        | 0.3097±0.0015                   | 0.11±0.02           | 0.98±0.09                   | 27.1  |
| $f_{11}$        | 0.4240±0.0016                   | 0.11±0.02           | 0.33±0.10                   | 22.5  |
| $f_{13}$        | 0.4810±0.0017                   | 0.11±0.02           | -0.11±0.10                  | 19.8  |
| $f_{14}$        | 0.1751±0.0018                   | 0.11±0.03           | -3.07±0.11                  | 17.6  |
| $f_{15}$        | 0.5709±0.0018                   | 0.11±0.03           | 2.88±0.11                   | 17.6  |
| $f_{16}$        | 1.3877±0.0019                   | 0.11±0.03           | -0.25±0.11                  | 17.0  |
| $f_{17}$        | 0.1215±0.0019                   | 0.11±0.03           | -2.18±0.12                  | 16.2  |
| $f_{18}$        | 0.3506±0.0019                   | 0.10±0.02           | 1.79±0.12                   | 16.3  |
| $f_{19}$        | 0.2597±0.0019                   | 0.11±0.03           | 1.11±0.12                   | 15.5  |
| $f_{20}$        | 0.2460±0.0020                   | 0.11±0.03           | 1.23±0.12                   | 14.6  |
| $f_{21}$        | 0.2740±0.0020                   | 0.11±0.03           | 0.35±0.12                   | 15.1  |
| $f_{22}$        | 0.3200±0.0021                   | 0.09±0.02           | -2.23±0.13                  | 13.4  |
| $f_{24}$        | 1.3708±0.0022                   | 0.09±0.03           | -2.54±0.13                  | 12.6  |
| $f_{25}$        | 0.4175±0.0021                   | 0.10±0.03           | -1.41±0.13                  | 13.0  |
| $f_{26}$        | 0.7004±0.0022                   | 0.09±0.03           | -0.66±0.13                  | 12.1  |
| $f_{27}$        | 0.6749±0.0023                   | 0.09±0.03           | 2.92±0.14                   | 11.5  |
| $f_{28}$        | 2.0052±0.0023                   | 0.09±0.03           | 1.24±0.14                   | 10.6  |
| $f_{29}$        | 0.3741±0.0024                   | 0.07±0.02           | 1.57±0.15                   | 9.8   |
| $f_{30}$        | 0.4958±0.0024                   | 0.08±0.03           | 2.13±0.15                   | 9.8   |
| $f_{32}$        | 0.5544±0.0025                   | 0.08±0.03           | 1.49±0.15                   | 9.4   |
| $f_{33}$        | 0.4042±0.0026                   | 0.09±0.03           | 0.76±0.16                   | 8.9   |
| $f_{34}$        | 0.7862±0.0027                   | 0.08±0.03           | -2.19±0.17                  | 7.9   |
| $f_{35}$        | 0.7748±0.0026                   | 0.08±0.03           | -2.29±0.16                  | 8.9   |
| $f_{36}$        | 0.6464±0.0027                   | 0.07±0.03           | -2.76±0.17                  | 7.8   |
| $f_{37}$        | 0.8068±0.0029                   | 0.07±0.03           | 0.15±0.17                   | 7.1   |
| $f_{39}$        | 0.6582±0.0030                   | 0.07±0.03           | 1.66±0.18                   | 6.4   |
| $f_{40}$        | 1.8025±0.0030                   | 0.07±0.03           | 3.01±0.18                   | 6.4   |
| $f_{41}$        | 1.1588±0.0030                   | 0.07±0.03           | 0.70±0.18                   | 6.4   |
| $f_{42}$        | 0.3417±0.0030                   | 0.07±0.03           | 0.27±0.19                   | 6.3   |
| $f_{43}$        | 0.7334±0.0030                   | 0.06±0.02           | 1.47±0.18                   | 6.4   |
| $f_{45}$        | 2.7739±0.0031                   | 0.06±0.02           | 2.02±0.19                   | 6.2   |
| $f_{46}$        | 0.2185±0.0031                   | 0.06±0.02           | 1.02±0.19                   | 6.0   |
| $f_{47}$        | 0.4632±0.0031                   | 0.06±0.02           | -0.52±0.19                  | 6.0   |
| $f_{49}$        | 0.3920±0.0033                   | 0.06±0.03           | -2.62±0.20                  | 5.2   |
| $f_{50}$        | 0.5773±0.0033                   | 0.06±0.03           | 1.82±0.20                   | 5.2   |

## Appendix C. Frequencies of individual $\gamma$ Dor Candidates

| Frequency list of 0102619496 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{79}$                               | 3.3916±0.0024                | 0.04±0.01        | 2.57±0.15                | 10.0  |
| $f_{80}$                               | 0.6341±0.0024                | 0.04±0.01        | -2.24±0.15               | 9.9   |
| $f_{81}$                               | 0.3326±0.0025                | 0.05±0.02        | -2.08±0.15               | 9.7   |
| $f_{82}$                               | 0.4152±0.0024                | 0.04±0.01        | -2.74±0.15               | 10.1  |
| $f_{83}$                               | 0.8773±0.0025                | 0.05±0.02        | -0.21±0.15               | 9.3   |
| $f_{84}$                               | 0.3181±0.0025                | 0.05±0.02        | 1.20±0.15                | 9.2   |
| $f_{85}$                               | 2.5266±0.0025                | 0.04±0.01        | -1.01±0.15               | 9.2   |
| $f_{86}$                               | 1.8712±0.0026                | 0.04±0.01        | -0.02±0.16               | 8.7   |
| $f_{87}$                               | 1.4042±0.0026                | 0.05±0.02        | -0.24±0.16               | 8.6   |
| $f_{89}$                               | 1.0502±0.0027                | 0.04±0.01        | -0.81±0.16               | 8.1   |
| $f_{90}$                               | 1.5017±0.0027                | 0.04±0.01        | 0.00±0.16                | 8.1   |
| $f_{91}$                               | 1.5729±0.0027                | 0.04±0.01        | -3.00±0.16               | 8.0   |
| $f_{92}$                               | 0.4801±0.0027                | 0.04±0.01        | 2.73±0.16                | 8.1   |
| $f_{93}$                               | 0.8257±0.0027                | 0.04±0.01        | 2.66±0.16                | 8.1   |
| $f_{94}$                               | 1.0068±0.0026                | 0.04±0.01        | -1.04±0.16               | 8.4   |
| $f_{95}$                               | 2.7886±0.0027                | 0.04±0.01        | -1.28±0.16               | 8.2   |
| $f_{96}$                               | 1.8341±0.0026                | 0.04±0.01        | 1.29±0.16                | 8.3   |
| $f_{97}$                               | 2.4510±0.0028                | 0.04±0.01        | 1.55±0.17                | 7.5   |
| $f_{98}$                               | 3.0551±0.0027                | 0.04±0.01        | 0.94±0.17                | 7.9   |
| $f_{99}$                               | 0.4283±0.0028                | 0.04±0.01        | 1.79±0.17                | 7.7   |
| $f_{100}$                              | 1.2862±0.0028                | 0.04±0.01        | -1.13±0.17               | 7.6   |
| $f_{101}$                              | 1.2584±0.0028                | 0.04±0.01        | 0.30±0.17                | 7.4   |
| $f_{102}$                              | 0.9295±0.0028                | 0.04±0.01        | -2.99±0.17               | 7.2   |
| $f_{103}$                              | 1.6579±0.0029                | 0.04±0.02        | 1.46±0.17                | 7.1   |
| $f_{104}$                              | 2.0873±0.0028                | 0.04±0.01        | 0.06±0.17                | 7.3   |
| $f_{105}$                              | 1.6254±0.0029                | 0.04±0.02        | -1.24±0.17               | 7.1   |
| $f_{106}$                              | 2.4075±0.0029                | 0.04±0.02        | 1.68±0.18                | 7.0   |
| $f_{107}$                              | 2.4293±0.0028                | 0.04±0.01        | 1.67±0.17                | 7.4   |
| $f_{108}$                              | 2.2721±0.0028                | 0.04±0.01        | -0.35±0.17               | 7.2   |
| $f_{110}$                              | 1.4937±0.0029                | 0.03±0.01        | 2.34±0.17                | 7.1   |
| $f_{111}$                              | 0.4690±0.0029                | 0.04±0.02        | 1.88±0.18                | 6.9   |
| $f_{112}$                              | 0.1584±0.0029                | 0.04±0.02        | 0.15±0.18                | 6.9   |
| $f_{113}$                              | 2.6003±0.0029                | 0.03±0.01        | 1.96±0.18                | 6.7   |
| $f_{114}$                              | 3.9970±0.0030                | 0.03±0.01        | 3.10±0.18                | 6.4   |
| $f_{115}$                              | 1.1189±0.0030                | 0.03±0.01        | 1.43±0.18                | 6.4   |
| $f_{116}$                              | 0.5454±0.0030                | 0.03±0.01        | -0.41±0.19               | 6.3   |
| $f_{117}$                              | 0.2027±0.0030                | 0.04±0.02        | -2.73±0.19               | 6.3   |
| $f_{118}$                              | 1.7197±0.0030                | 0.03±0.01        | 2.67±0.19                | 6.3   |
| $f_{119}$                              | 1.4529±0.0031                | 0.04±0.02        | 0.98±0.19                | 6.0   |
| $f_{120}$                              | 2.7396±0.0031                | 0.03±0.01        | 3.08±0.19                | 6.0   |
| $f_{121}$                              | 0.9040±0.0032                | 0.04±0.02        | -3.10±0.20               | 5.7   |
| $f_{122}$                              | 2.1053±0.0032                | 0.03±0.01        | 2.53±0.20                | 5.7   |
| $f_{123}$                              | 1.6080±0.0032                | 0.04±0.02        | 0.38±0.19                | 5.8   |
| $f_{124}$                              | 0.9799±0.0031                | 0.03±0.01        | -1.12±0.19               | 5.9   |
| $f_{125}$                              | 1.5445±0.0032                | 0.04±0.02        | 1.22±0.20                | 5.7   |
| $f_{126}$                              | 1.5335±0.0029                | 0.04±0.02        | 0.32±0.18                | 6.7   |
| $f_{128}$                              | 2.4993±0.0033                | 0.03±0.01        | -2.44±0.20               | 5.5   |
| $f_{129}$                              | 2.5503±0.0032                | 0.04±0.02        | -0.12±0.20               | 5.6   |
| $f_{130}$                              | 0.2246±0.0033                | 0.03±0.01        | 1.60±0.20                | 5.4   |
| $f_{131}$                              | 3.2545±0.0033                | 0.03±0.01        | -1.34±0.20               | 5.5   |
| $f_{132}$                              | 2.4743±0.0033                | 0.03±0.01        | 2.49±0.20                | 5.3   |
| $f_{133}$                              | 2.5646±0.0032                | 0.03±0.01        | -0.79±0.20               | 5.7   |
| $f_{134}$                              | 1.7025±0.0033                | 0.03±0.01        | 1.33±0.20                | 5.4   |
| $f_{135}$                              | 3.7671±0.0033                | 0.03±0.01        | -2.69±0.20               | 5.3   |
| $f_{136}$                              | 0.6593±0.0033                | 0.03±0.01        | 2.48±0.20                | 5.2   |
| $f_{137}$                              | 0.3576±0.0034                | 0.03±0.01        | -0.64±0.21               | 5.0   |
| $f_{138}$                              | 1.1703±0.0034                | 0.03±0.01        | -0.65±0.21               | 5.1   |
| $f_{139}$                              | 1.1919±0.0033                | 0.03±0.01        | 2.58±0.20                | 5.3   |
| $f_{140}$                              | 3.6866±0.0033                | 0.03±0.01        | -2.50±0.20               | 5.2   |

**Table C.6:** Frequency list of 0102639381

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|--------------|------------------------------|------------------|--------------------------|-------|
| $f_1$        | 0.1902±0.0004                | 0.25±0.01        | -1.74±0.02               | 406.1 |
| $f_2$        | 0.1212±0.0007                | 0.13±0.01        | -0.17±0.05               | 105.3 |
| $f_3$        | 0.1417±0.0010                | 0.08±0.01        | 1.06±0.06                | 60.4  |
| $f_4$        | 0.2382±0.0012                | 0.07±0.01        | -1.30±0.07               | 41.8  |
| $f_5$        | 0.1085±0.0014                | 0.06±0.01        | -1.23±0.08               | 31.2  |
| $f_6$        | 0.3580±0.0014                | 0.06±0.01        | 1.59±0.09                | 28.7  |
| $f_7$        | 0.2067±0.0015                | 0.05±0.01        | -1.71±0.09               | 26.7  |
| $f_8$        | 0.3789±0.0016                | 0.05±0.01        | 2.28±0.10                | 23.3  |
| $f_{13}$     | 0.2167±0.0023                | 0.04±0.01        | 0.99±0.14                | 11.4  |
| $f_{14}$     | 0.1002±0.0024                | 0.04±0.01        | -1.99±0.15               | 9.8   |
| $f_{15}$     | 0.5715±0.0025                | 0.03±0.01        | 0.02±0.15                | 9.4   |
| $f_{16}$     | 0.1311±0.0026                | 0.04±0.01        | -0.32±0.16               | 8.8   |
| $f_{17}$     | 0.1502±0.0026                | 0.03±0.01        | 1.07±0.16                | 8.9   |
| $f_{18}$     | 0.6682±0.0027                | 0.03±0.01        | -1.19±0.17               | 7.9   |
| $f_{19}$     | 0.2503±0.0028                | 0.03±0.01        | -2.77±0.17               | 7.5   |
| $f_{20}$     | 0.4965±0.0030                | 0.03±0.01        | -2.90±0.18               | 6.5   |

Frequency list of 0102639381 continued

| Frequency list of 0102639381 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{21}$                               | 0.4507±0.0031                | 0.03±0.01        | 1.80±0.19                | 6.0   |
| $f_{22}$                               | 0.2925±0.0031                | 0.03±0.01        | -0.97±0.19               | 6.1   |
| $f_{23}$                               | 0.4343±0.0032                | 0.03±0.01        | 0.03±0.19                | 5.8   |
| $f_{24}$                               | 1.4229±0.0034                | 0.02±0.01        | 2.15±0.21                | 5.1   |

**Table C.7:** Frequency list of 0102643144

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|--------------|------------------------------|------------------|--------------------------|-------|
| $f_1$        | 1.2675±0.0002                | 2.50±0.08        | -0.08±0.01               | 980.6 |
| $f_2$        | 0.1345±0.0006                | 0.91±0.07        | -1.77±0.03               | 192.2 |
| $f_3$        | 2.9549±0.0005                | 0.89±0.06        | -1.29±0.03               | 195.7 |
| $f_4$        | 1.5320±0.0006                | 0.74±0.05        | 1.54±0.03                | 187.7 |
| $f_5$        | 2.9100±0.0006                | 0.76±0.06        | -1.38±0.04               | 154.3 |
| $f_6$        | 1.4606±0.0006                | 0.71±0.06        | -3.01±0.04               | 155.1 |
| $f_7$        | 1.3824±0.0006                | 0.70±0.06        | -2.67±0.04               | 144.7 |
| $f_8$        | 1.7077±0.0007                | 0.58±0.06        | 1.49±0.05                | 106.4 |
| $f_9$        | 2.4641±0.0008                | 0.48±0.05        | 0.35±0.05                | 96.2  |
| $f_{10}$     | 0.1032±0.0008                | 0.47±0.05        | 2.09±0.05                | 88.4  |
| $f_{11}$     | 1.6397±0.0008                | 0.45±0.05        | -1.70±0.05               | 82.0  |
| $f_{12}$     | 0.1458±0.0009                | 0.47±0.05        | -0.24±0.05               | 80.1  |
| $f_{13}$     | 0.1605±0.0008                | 0.45±0.05        | -1.59±0.05               | 81.2  |
| $f_{14}$     | 2.9383±0.0009                | 0.45±0.05        | 0.63±0.05                | 80.0  |
| $f_{15}$     | 1.8309±0.0009                | 0.42±0.05        | 1.49±0.05                | 78.5  |
| $f_{16}$     | 2.4031±0.0009                | 0.48±0.06        | 2.02±0.05                | 74.1  |
| $f_{17}$     | 1.7633±0.0009                | 0.30±0.04        | 2.77±0.06                | 67.0  |
| $f_{18}$     | 0.2960±0.0010                | 0.29±0.04        | -1.50±0.06               | 54.7  |
| $f_{19}$     | 1.2268±0.0010                | 0.36±0.05        | -1.24±0.06               | 55.0  |
| $f_{20}$     | 1.8402±0.0010                | 0.36±0.05        | -2.71±0.06               | 55.9  |
| $f_{21}$     | 1.6147±0.0010                | 0.32±0.04        | 0.48±0.06                | 53.6  |
| $f_{22}$     | 4.0965±0.0011                | 0.30±0.04        | 0.10±0.07                | 50.1  |
| $f_{23}$     | 2.8915±0.0011                | 0.33±0.05        | 1.48±0.07                | 47.8  |
| $f_{24}$     | 2.4380±0.0011                | 0.33±0.05        | -2.05±0.07               | 48.4  |
| $f_{25}$     | 1.3161±0.0011                | 0.27±0.04        | -2.67±0.07               | 44.7  |
| $f_{26}$     | 2.3695±0.0011                | 0.33±0.05        | 0.13±0.07                | 44.6  |
| $f_{27}$     | 0.3650±0.0012                | 0.28±0.04        | -1.42±0.07               | 42.5  |
| $f_{28}$     | 0.4380±0.0012                | 0.31±0.05        | -1.27±0.07               | 44.0  |
| $f_{29}$     | 2.2798±0.0012                | 0.35±0.05        | -2.04±0.07               | 43.4  |
| $f_{30}$     | 1.3905±0.0012                | 0.26±0.04        | -1.39±0.07               | 40.8  |
| $f_{31}$     | 0.1890±0.0012                | 0.27±0.04        | -0.15±0.07               | 40.5  |
| $f_{32}$     | 1.2824±0.0012                | 0.29±0.04        | -1.22±0.07               | 41.6  |
| $f_{33}$     | 1.7754±0.0012                | 0.31±0.05        | 1.17±0.07                | 40.6  |
| $f_{34}$     | 2.3102±0.0012                | 0.25±0.04        | 2.55±0.08                | 38.1  |
| $f_{35}$     | 2.9776±0.0012                | 0.30±0.05        | 0.75±0.08                | 38.2  |
| $f_{36}$     | 1.1403±0.0012                | 0.29±0.05        | 3.09±0.08                | 37.7  |
| $f_{37}$     | 2.9181±0.0013                | 0.25±0.04        | -1.00±0.08               | 35.4  |
| $f_{38}$     | 1.3427±0.0013                | 0.23±0.04        | 1.67±0.08                | 35.3  |
| $f_{39}$     | 2.3759±0.0013                | 0.24±0.04        | 2.78±0.08                | 35.9  |
| $f_{40}$     | 2.4557±0.0013                | 0.27±0.04        | 2.81±0.08                | 36.2  |
| $f_{41}$     | 2.8280±0.0013                | 0.26±0.04        | -1.66±0.08               | 35.4  |
| $f_{42}$     | 0.1689±0.0013                | 0.25±0.04        | -2.11±0.08               | 36.3  |
| $f_{43}$     | 1.6029±0.0013                | 0.26±0.05        | 2.59±0.08                | 32.9  |
| $f_{44}$     | 1.5672±0.0013                | 0.31±0.05        | -2.24±0.08               | 35.7  |
| $f_{45}$     | 1.1886±0.0013                | 0.21±0.04        | -2.24±0.08               | 32.4  |
| $f_{46}$     | 1.3048±0.0013                | 0.22±0.04        | -0.78±0.08               | 32.4  |
| $f_{47}$     | 3.0260±0.0014                | 0.24±0.04        | -2.07±0.08               | 31.1  |
| $f_{48}$     | 0.3104±0.0014                | 0.24±0.04        | 0.96±0.08                | 31.1  |
| $f_{49}$     | 0.3342±0.0013                | 0.21±0.04        | -2.76±0.08               | 32.6  |
| $f_{50}$     | 0.1538±0.0014                | 0.23±0.04        | 2.53±0.08                | 31.6  |
| $f_{51}$     | 0.2452±0.0014                | 0.21±0.04        | -2.93±0.08               | 30.3  |
| $f_{52}$     | 1.5506±0.0014                | 0.21±0.04        | -2.42±0.09               | 29.7  |
| $f_{53}$     | 1.6833±0.0014                | 0.20±0.04        | 0.73±0.08                | 30.1  |
| $f_{54}$     | 1.7521±0.0014                | 0.24±0.04        | 0.43±0.09                | 29.5  |
| $f_{55}$     | 0.2606±0.0014                | 0.18±0.03        | 2.70±0.09                | 29.1  |
| $f_{56}$     | 1.4249±0.0014                | 0.20±0.04        | -1.83±0.09               | 28.4  |
| $f_{57}$     | 2.7266±0.0014                | 0.21±0.04        | -2.36±0.09               | 28.5  |
| $f_{59}$     | 2.3925±0.0014                | 0.23±0.04        | 3.12±0.09                | 28.1  |
| $f_{60}$     | 2.2913±0.0015                | 0.22±0.04        | 0.84±0.09                | 27.3  |
| $f_{61}$     | 1.5764±0.0015                | 0.22±0.04        | -3.13±0.09               | 26.6  |
| $f_{62}$     | 2.6551±0.0015                | 0.18±0.04        | -2.76±0.09               | 25.2  |
| $f_{63}$     | 0.2102±0.0016                | 0.20±0.04        | -1.49±0.10               | 23.9  |
| $f_{64}$     | 2.3630±0.0016                | 0.19±0.04        | 1.57±0.10                | 23.7  |
| $f_{65}$     | 1.4784±0.0016                | 0.19±0.04        | -1.67±0.10               | 23.3  |

Frequency list of 0102643144 continued

## Appendix C. Frequencies of individual $\gamma$ Dor Candidates

| Frequency list of 0102643144 continued |                              |                  |                          |       | Frequency list of 0102643144 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| <i>f</i> <sub>66</sub>                 | 2.8518±0.0016                | 0.21±0.04        | 2.64±0.10                | 23.7  | <i>f</i> <sub>148</sub>                | 3.0895±0.0024                | 0.09±0.03        | -0.27±0.15               | 9.8   |
| <i>f</i> <sub>67</sub>                 | 0.4193±0.0016                | 0.19±0.04        | -2.36±0.10               | 23.7  | <i>f</i> <sub>149</sub>                | 2.7563±0.0024                | 0.10±0.03        | -2.35±0.15               | 9.8   |
| <i>f</i> <sub>68</sub>                 | 1.0407±0.0016                | 0.17±0.04        | 3.00±0.10                | 22.7  | <i>f</i> <sub>150</sub>                | 0.5328±0.0025                | 0.10±0.03        | -0.90±0.15               | 9.6   |
| <i>f</i> <sub>70</sub>                 | 2.9030±0.0016                | 0.19±0.04        | 1.03±0.10                | 22.4  | <i>f</i> <sub>151</sub>                | 1.3334±0.0025                | 0.09±0.03        | -1.56±0.15               | 9.6   |
| <i>f</i> <sub>71</sub>                 | 2.9254±0.0016                | 0.17±0.04        | 1.31±0.10                | 22.5  | <i>f</i> <sub>152</sub>                | 1.1081±0.0024                | 0.09±0.03        | 1.13±0.15                | 10.0  |
| <i>f</i> <sub>72</sub>                 | 3.2360±0.0016                | 0.18±0.04        | 0.86±0.10                | 22.5  | <i>f</i> <sub>153</sub>                | 1.9142±0.0025                | 0.11±0.04        | -3.09±0.15               | 9.1   |
| <i>f</i> <sub>73</sub>                 | 0.1366±0.0016                | 0.19±0.04        | -0.25±0.10               | 21.9  | <i>f</i> <sub>154</sub>                | 0.6638±0.0026                | 0.09±0.03        | -1.09±0.16               | 8.9   |
| <i>f</i> <sub>74</sub>                 | 0.1170±0.0016                | 0.19±0.04        | 1.87±0.10                | 23.7  | <i>f</i> <sub>156</sub>                | 0.9824±0.0026                | 0.11±0.04        | 0.02±0.16                | 8.4   |
| <i>f</i> <sub>75</sub>                 | 1.3489±0.0016                | 0.15±0.03        | -1.03±0.10               | 22.3  | <i>f</i> <sub>157</sub>                | 1.5182±0.0026                | 0.10±0.03        | 2.27±0.16                | 8.4   |
| <i>f</i> <sub>76</sub>                 | 1.8672±0.0016                | 0.16±0.03        | -1.01±0.10               | 21.8  | <i>f</i> <sub>158</sub>                | 2.8840±0.0026                | 0.10±0.03        | -0.42±0.16               | 8.5   |
| <i>f</i> <sub>77</sub>                 | 1.1746±0.0016                | 0.16±0.03        | 0.97±0.10                | 21.6  | <i>f</i> <sub>159</sub>                | 2.8036±0.0026                | 0.11±0.04        | -2.15±0.16               | 8.6   |
| <i>f</i> <sub>78</sub>                 | 2.3397±0.0017                | 0.14±0.03        | -1.96±0.10               | 21.4  | <i>f</i> <sub>160</sub>                | 0.8002±0.0026                | 0.10±0.03        | -0.96±0.16               | 8.7   |
| <i>f</i> <sub>79</sub>                 | 1.5236±0.0017                | 0.11±0.02        | 1.97±0.10                | 20.9  | <i>f</i> <sub>161</sub>                | 3.9468±0.0026                | 0.10±0.03        | 1.79±0.16                | 8.3   |
| <i>f</i> <sub>80</sub>                 | 2.4780±0.0017                | 0.15±0.03        | 2.73±0.10                | 20.2  | <i>f</i> <sub>162</sub>                | 4.0210±0.0027                | 0.09±0.03        | -0.18±0.16               | 8.2   |
| <i>f</i> <sub>81</sub>                 | 2.4203±0.0017                | 0.16±0.04        | -2.04±0.10               | 20.5  | <i>f</i> <sub>163</sub>                | 1.6718±0.0027                | 0.10±0.03        | -0.15±0.16               | 8.2   |
| <i>f</i> <sub>82</sub>                 | 0.2708±0.0017                | 0.19±0.04        | 3.04±0.10                | 20.7  | <i>f</i> <sub>164</sub>                | 1.7246±0.0027                | 0.09±0.03        | -0.51±0.16               | 8.1   |
| <i>f</i> <sub>83</sub>                 | 0.5211±0.0016                | 0.16±0.03        | 2.71±0.10                | 21.5  | <i>f</i> <sub>165</sub>                | 1.9010±0.0027                | 0.09±0.03        | -0.87±0.16               | 8.1   |
| <i>f</i> <sub>84</sub>                 | 2.5346±0.0017                | 0.17±0.04        | 0.88±0.10                | 20.4  | <i>f</i> <sub>166</sub>                | 3.7588±0.0027                | 0.09±0.03        | 1.40±0.17                | 7.9   |
| <i>f</i> <sub>85</sub>                 | 0.4064±0.0017                | 0.17±0.04        | 0.11±0.11                | 19.6  | <i>f</i> <sub>167</sub>                | 0.3553±0.0027                | 0.10±0.04        | 1.25±0.17                | 7.9   |
| <i>f</i> <sub>86</sub>                 | 1.4175±0.0017                | 0.18±0.04        | 2.68±0.11                | 19.6  | <i>f</i> <sub>168</sub>                | 2.8610±0.0027                | 0.10±0.04        | 1.33±0.17                | 7.9   |
| <i>f</i> <sub>87</sub>                 | 3.0556±0.0017                | 0.15±0.03        | 1.78±0.11                | 19.1  | <i>f</i> <sub>169</sub>                | 1.1637±0.0027                | 0.09±0.03        | -1.72±0.17               | 7.9   |
| <i>f</i> <sub>88</sub>                 | 2.8734±0.0017                | 0.15±0.03        | -1.21±0.11               | 19.1  | <i>f</i> <sub>170</sub>                | 0.8457±0.0028                | 0.09±0.03        | 2.81±0.17                | 7.6   |
| <i>f</i> <sub>89</sub>                 | 0.3045±0.0018                | 0.14±0.03        | 0.67±0.11                | 19.0  | <i>f</i> <sub>171</sub>                | 4.1069±0.0028                | 0.09±0.03        | 0.69±0.17                | 7.6   |
| <i>f</i> <sub>90</sub>                 | 2.7116±0.0018                | 0.17±0.04        | 1.11±0.11                | 18.6  | <i>f</i> <sub>172</sub>                | 4.0797±0.0027                | 0.09±0.03        | -1.12±0.17               | 7.8   |
| <i>f</i> <sub>92</sub>                 | 1.4416±0.0018                | 0.15±0.04        | -0.39±0.11               | 18.2  | <i>f</i> <sub>173</sub>                | 4.0313±0.0028                | 0.09±0.03        | -0.98±0.17               | 7.2   |
| <i>f</i> <sub>93</sub>                 | 2.9608±0.0018                | 0.14±0.03        | 2.46±0.11                | 18.2  | <i>f</i> <sub>174</sub>                | 1.0279±0.0028                | 0.09±0.03        | -1.58±0.17               | 7.3   |
| <i>f</i> <sub>94</sub>                 | 0.4573±0.0018                | 0.17±0.04        | -2.28±0.11               | 17.8  | <i>f</i> <sub>175</sub>                | 4.4205±0.0029                | 0.08±0.03        | -1.76±0.17               | 7.1   |
| <i>f</i> <sub>95</sub>                 | 3.2206±0.0018                | 0.15±0.04        | 1.91±0.11                | 18.1  | <i>f</i> <sub>176</sub>                | 3.9082±0.0029                | 0.08±0.03        | 2.54±0.18                | 6.9   |
| <i>f</i> <sub>96</sub>                 | 1.9461±0.0019                | 0.13±0.03        | -2.83±0.11               | 16.7  | <i>f</i> <sub>177</sub>                | 1.8069±0.0029                | 0.09±0.03        | 0.26±0.18                | 7.0   |
| <i>f</i> <sub>97</sub>                 | 0.2786±0.0019                | 0.14±0.03        | 1.13±0.11                | 16.6  | <i>f</i> <sub>178</sub>                | 0.1250±0.0029                | 0.09±0.03        | -0.87±0.18               | 7.0   |
| <i>f</i> <sub>98</sub>                 | 1.8794±0.0019                | 0.14±0.04        | -1.23±0.12               | 15.7  | <i>f</i> <sub>179</sub>                | 2.7051±0.0029                | 0.08±0.03        | -1.12±0.18               | 6.9   |
| <i>f</i> <sub>99</sub>                 | 1.2413±0.0019                | 0.14±0.04        | -2.58±0.12               | 15.7  | <i>f</i> <sub>180</sub>                | 2.2417±0.0028                | 0.09±0.03        | 0.11±0.17                | 7.2   |
| <i>f</i> <sub>100</sub>                | 1.3167±0.0019                | 0.15±0.04        | 1.28±0.12                | 16.3  | <i>f</i> <sub>181</sub>                | 0.7051±0.0029                | 0.09±0.03        | 0.30±0.18                | 6.7   |
| <i>f</i> <sub>101</sub>                | 1.6312±0.0020                | 0.13±0.03        | -0.20±0.12               | 15.2  | <i>f</i> <sub>182</sub>                | 1.3208±0.0029                | 0.10±0.04        | 2.90±0.18                | 6.7   |
| <i>f</i> <sub>102</sub>                | 1.3753±0.0020                | 0.14±0.04        | 2.47±0.12                | 15.2  | <i>f</i> <sub>183</sub>                | 3.4249±0.0029                | 0.09±0.03        | -1.23±0.18               | 6.7   |
| <i>f</i> <sub>103</sub>                | 2.2734±0.0020                | 0.13±0.03        | -0.13±0.12               | 14.8  | <i>f</i> <sub>184</sub>                | 3.1092±0.0030                | 0.09±0.04        | 2.85±0.18                | 6.6   |
| <i>f</i> <sub>104</sub>                | 0.4100±0.0020                | 0.14±0.04        | -2.67±0.12               | 15.1  | <i>f</i> <sub>185</sub>                | 1.0919±0.0030                | 0.08±0.03        | -1.28±0.18               | 6.6   |
| <i>f</i> <sub>105</sub>                | 0.5127±0.0020                | 0.14±0.04        | 2.15±0.12                | 15.0  | <i>f</i> <sub>186</sub>                | 4.3629±0.0030                | 0.08±0.03        | -1.71±0.18               | 6.6   |
| <i>f</i> <sub>106</sub>                | 4.1375±0.0020                | 0.13±0.03        | 0.50±0.12                | 14.7  | <i>f</i> <sub>187</sub>                | 2.9465±0.0030                | 0.09±0.04        | 0.42±0.18                | 6.5   |
| <i>f</i> <sub>107</sub>                | 1.7850±0.0020                | 0.12±0.03        | 0.57±0.12                | 14.7  | <i>f</i> <sub>188</sub>                | 0.9402±0.0029                | 0.09±0.03        | 0.36±0.18                | 6.7   |
| <i>f</i> <sub>108</sub>                | 2.3509±0.0020                | 0.14±0.04        | 1.05±0.12                | 14.4  | <i>f</i> <sub>189</sub>                | 2.0066±0.0029                | 0.08±0.03        | 1.16±0.18                | 7.0   |
| <i>f</i> <sub>109</sub>                | 1.4707±0.0020                | 0.13±0.03        | -2.77±0.12               | 13.9  | <i>f</i> <sub>190</sub>                | 4.4384±0.0030                | 0.08±0.03        | -2.85±0.18               | 6.5   |
| <i>f</i> <sub>110</sub>                | 2.9971±0.0021                | 0.14±0.04        | 1.78±0.13                | 13.7  | <i>f</i> <sub>191</sub>                | 4.1162±0.0030                | 0.08±0.03        | -0.06±0.19               | 6.3   |
| <i>f</i> <sub>112</sub>                | 1.1280±0.0021                | 0.14±0.04        | -2.93±0.13               | 13.0  | <i>f</i> <sub>192</sub>                | 0.5825±0.0030                | 0.08±0.03        | -0.63±0.18               | 6.4   |
| <i>f</i> <sub>113</sub>                | 1.2081±0.0021                | 0.13±0.04        | -1.29±0.13               | 13.0  | <i>f</i> <sub>193</sub>                | 0.6000±0.0030                | 0.09±0.04        | -2.87±0.18               | 6.6   |
| <i>f</i> <sub>114</sub>                | 3.1765±0.0021                | 0.12±0.03        | 2.19±0.13                | 13.2  | <i>f</i> <sub>194</sub>                | 4.3553±0.0031                | 0.08±0.03        | 0.82±0.19                | 6.2   |
| <i>f</i> <sub>116</sub>                | 0.3804±0.0022                | 0.08±0.02        | 0.15±0.13                | 12.4  | <i>f</i> <sub>195</sub>                | 2.5269±0.0030                | 0.08±0.03        | -2.91±0.18               | 6.4   |
| <i>f</i> <sub>117</sub>                | 1.5290±0.0022                | 0.14±0.04        | 1.50±0.13                | 12.4  | <i>f</i> <sub>196</sub>                | 0.4004±0.0031                | 0.08±0.03        | 1.94±0.19                | 6.2   |
| <i>f</i> <sub>118</sub>                | 1.5411±0.0020                | 0.14±0.04        | 2.23±0.12                | 15.2  | <i>f</i> <sub>197</sub>                | 56.9871±0.0031               | 0.08±0.03        | 2.15±0.19                | 6.2   |
| <i>f</i> <sub>119</sub>                | 0.2285±0.0021                | 0.12±0.03        | -0.64±0.13               | 12.9  | <i>f</i> <sub>198</sub>                | 4.4970±0.0031                | 0.08±0.03        | -0.56±0.19               | 5.9   |
| <i>f</i> <sub>120</sub>                | 4.1591±0.0022                | 0.13±0.04        | -1.02±0.13               | 12.2  | <i>f</i> <sub>199</sub>                | 2.4702±0.0031                | 0.08±0.03        | -1.33±0.19               | 5.9   |
| <i>f</i> <sub>121</sub>                | 4.4070±0.0022                | 0.13±0.04        | 2.42±0.14                | 11.9  | <i>f</i> <sub>200</sub>                | 3.1996±0.0031                | 0.08±0.03        | 0.99±0.19                | 6.0   |
| <i>f</i> <sub>122</sub>                | 1.8166±0.0022                | 0.14±0.04        | 1.56±0.14                | 11.8  | <i>f</i> <sub>202</sub>                | 55.8615±0.0031               | 0.08±0.03        | 0.82±0.19                | 5.9   |
| <i>f</i> <sub>123</sub>                | 0.8316±0.0023                | 0.12±0.04        | 0.55±0.14                | 11.5  | <i>f</i> <sub>203</sub>                | 0.8639±0.0032                | 0.08±0.03        | 1.75±0.19                | 5.8   |
| <i>f</i> <sub>124</sub>                | 0.8706±0.0022                | 0.11±0.03        | 2.52±0.14                | 11.7  | <i>f</i> <sub>204</sub>                | 2.6168±0.0031                | 0.08±0.03        | -2.84±0.19               | 5.9   |
| <i>f</i> <sub>125</sub>                | 0.9678±0.0023                | 0.12±0.04        | -3.13±0.14               | 11.2  | <i>f</i> <sub>205</sub>                | 1.3614±0.0032                | 0.08±0.03        | -0.71±0.20               | 5.7   |
| <i>f</i> <sub>126</sub>                | 2.9689±0.0022                | 0.12±0.04        | -2.48±0.14               | 11.6  | <i>f</i> <sub>206</sub>                | 0.5002±0.0031                | 0.08±0.03        | -0.57±0.19               | 5.9   |
| <i>f</i> <sub>127</sub>                | 0.5675±0.0023                | 0.12±0.04        | 0.60±0.14                | 11.4  | <i>f</i> <sub>207</sub>                | 0.6353±0.0032                | 0.07±0.03        | 0.48±0.20                | 5.7   |
| <i>f</i> <sub>128</sub>                | 1.5946±0.0023                | 0.11±0.03        | -0.19±0.14               | 10.8  | <i>f</i> <sub>208</sub>                | 3.3607±0.0032                | 0.07±0.03        | -1.16±0.20               | 5.7   |
| <i>f</i> <sub>129</sub>                | 1.7587±0.0023                | 0.12±0.04        | -2.63±0.14               | 10.9  | <i>f</i> <sub>209</sub>                | 3.0695±0.0032                | 0.08±0.03        | -3.00±0.20               | 5.7   |
| <i>f</i> <sub>130</sub>                | 1.2753±0.0023                | 0.11±0.03        | 0.99±0.14                | 10.8  | <i>f</i> <sub>210</sub>                | 2.0836±0.0032                | 0.07±0.03        | 0.53±0.20                | 5.7   |
| <i>f</i> <sub>131</sub>                | 0.6123±0.0023                | 0.11±0.03        | -0.82±0.14               | 10.9  | <i>f</i> <sub>211</sub>                | 1.0091±0.0032                | 0.07±0.03        | 0.51±0.20                | 5.6   |
| <i>f</i> <sub>132</sub>                | 0.1999±0.0023                | 0.12±0.04        | -3.04±0.14               | 10.9  | <i>f</i> <sub>212</sub>                | 0.3292±0.0033                | 0.07±0.03        | -1.44±0.20               | 5.5   |
| <i>f</i> <sub>133</sub>                | 4.0085±0.0023                | 0.11±0.03        | 1.16±0.14                | 11.0  | <i>f</i> <sub>213</sub>                | 1.1173±0.0032                | 0.08±0.03        | -1.63±0.20               | 5.6   |
| <i>f</i> <sub>134</sub>                | 2.4317±0.0023                | 0.12±0.04        | -1.59±0.14               | 10.6  | <i>f</i> <sub>214</sub>                | 2.4095±0.0033                | 0.08±0.03        | -0.58±0.20               | 5.3   |
| <i>f</i> <sub>135</sub>                | 2.4951±0.0023                | 0.11±0.03        | 2.33±0.14                | 10.9  | <i>f</i> <sub>216</sub>                | 0.4707±0.0033                | 0.07±0.03        | 3.08±0.20                | 5.2   |
| <i>f</i> <sub>136</sub>                | 1.7990±0.0024                | 0.11±0.03        | 2.38±0.14                | 10.5  | <i>f</i> <sub>217</sub>                | 1.5562±0.0033                | 0.08±0.03        | -2.29±0.20               | 5.3   |
| <i>f</i> <sub>137</sub>                | 1.6998±0.0024                | 0.12±0.04        | -2.97±0.14               | 10.5  | <i>f</i> <sub>219</sub>                | 1.2924±0.0034                | 0.07±0.03        | 2.33±0.21                | 5.1   |
| <i>f</i> <sub>139</sub>                | 0.1101±0.0023                | 0.10±0.03        | -2.37±0.14               | 10.7  | <i>f</i> <sub>220</sub>                | 0.6722±0.0033                | 0.07±0.03        | -1.59±0.20               | 5.5   |
| <i>f</i> <sub>140</sub>                | 4.1815±0.0024                | 0.12±0.04        | -0.57±0.15               | 10.3  | <i>f</i> <sub>221</sub>                | 3.4427±0.0033                | 0.07±0.03        | -0.46±0.20               | 5.3   |
| <i>f</i> <sub>142</sub>                | 2.6835±0.0024                | 0.11±0.03        | 0.46±0.15                | 10.3  | <i>f</i> <sub>222</sub>                | 0.5417±0.0034                | 0.07±0.03        | 2.60±0.21                | 5.1   |
| <i>f</i> <sub>143</sub>                | 1.4061±0.0024                | 0.11±0.03        | -1.16±0.15               | 10.2  | <i>f</i> <sub>223</sub>                | 0.3702±0.0033                | 0.08±0.03        | -1.95±0.20               | 5.3   |
| <i>f</i> <sub>144</sub>                | 0.3463±0.0024                | 0.10±0.03        | 2.88±0.15                | 10.0  | <i>f</i> <sub>224</sub>                | 2.3811±0.0033                | 0.08±0.03        | 1.51±0.20                | 5.3   |
| <i>f</i> <sub>145</sub>                | 0.3189±0.0023                | 0.12±0.04        | 2.00±0.14                | 11.5  |                                        |                              |                  |                          |       |
| <i>f</i> <sub>146</sub>                | 1.4343±0.0024                | 0.10±0.03        | -1.13±0.15               | 9.8   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>147</sub>                | 1.2493±0.0024                | 0.11±0.03        | -2.58±0.15               | 10.0  |                                        |                              |                  |                          |       |
| Frequency list of 0102643144 continued |                              |                  |                          |       | Frequency list of 0102647707 continued |                              |                  |                          |       |
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| <i>f</i> <sub>1</sub>                  | 0.3887±0.0004                | 0.28±0.01        | 0.86±0.02                | 410.8 |                                        |                              |                  |                          |       |
| <i>f</i> <sub>2</sub>                  | 0.1751±0.0011                | 0.08±0.01        | 2.31±0.07                | 48.1  |                                        |                              |                  |                          |       |
| <i>f</i> <sub>3</sub>                  | 0.2876±0.0016                | 0.06±0.01        | 2.49±0.10                | 23.8  |                                        |                              |                  |                          |       |

**Table C.8:** Frequency list of 0102647707

| Frequency ID          | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|-----------------------|------------------------------|------------------|--------------------------|-------|
| <i>f</i> <sub>1</sub> | 0.3887±0.0004                | 0.28±0.01        | 0.86±0.02                | 410.8 |
| <i>f</i> <sub>2</sub> | 0.1751±0.0011                | 0.08±0.01        | 2.31±0.07                | 48.1  |
| <i>f</i> <sub>3</sub> | 0.2876±0.0016                | 0.06±0.01        | 2.49±0.10                | 23.8  |



## Appendix C. Frequencies of individual $\gamma$ Dor Candidates

| Frequency list of 0102647707 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_4$                                  | 0.1517±0.0015                | 0.06±0.01        | -2.31±0.09               | 24.7  |
| $f_5$                                  | 0.7780±0.0016                | 0.05±0.01        | -2.74±0.10               | 23.0  |
| $f_6$                                  | 1.1658±0.0016                | 0.06±0.01        | -0.28±0.10               | 22.2  |
| $f_7$                                  | 0.1291±0.0017                | 0.06±0.01        | -0.39±0.10               | 21.4  |
| $f_8$                                  | 0.1374±0.0017                | 0.06±0.01        | -2.89±0.10               | 20.1  |
| $f_9$                                  | 0.1990±0.0016                | 0.06±0.01        | -1.35±0.10               | 21.7  |
| $f_{10}$                               | 0.2488±0.0018                | 0.05±0.01        | 2.55±0.11                | 18.9  |
| $f_{12}$                               | 0.4648±0.0018                | 0.05±0.01        | -1.67±0.11               | 17.4  |
| $f_{13}$                               | 0.3735±0.0018                | 0.04±0.01        | -0.14±0.11               | 17.2  |
| $f_{14}$                               | 0.9989±0.0019                | 0.04±0.01        | 2.51±0.11                | 16.6  |
| $f_{15}$                               | 0.2586±0.0019                | 0.05±0.01        | 0.32±0.12                | 16.3  |
| $f_{16}$                               | 0.1896±0.0019                | 0.05±0.01        | 0.02±0.12                | 15.5  |
| $f_{17}$                               | 0.8390±0.0020                | 0.05±0.01        | 2.50±0.12                | 15.1  |
| $f_{18}$                               | 0.2247±0.0020                | 0.04±0.01        | 2.87±0.12                | 14.1  |
| $f_{19}$                               | 0.3401±0.0021                | 0.04±0.01        | -0.10±0.13               | 13.4  |
| $f_{20}$                               | 0.5226±0.0021                | 0.04±0.01        | -1.52±0.13               | 13.3  |
| $f_{21}$                               | 0.1593±0.0022                | 0.04±0.01        | 0.60±0.13                | 12.6  |
| $f_{22}$                               | 0.8823±0.0022                | 0.03±0.01        | 3.08±0.14                | 11.7  |
| $f_{23}$                               | 0.3023±0.0023                | 0.04±0.01        | -0.08±0.14               | 11.5  |
| $f_{24}$                               | 1.0055±0.0023                | 0.04±0.01        | 2.93±0.14                | 11.3  |
| $f_{25}$                               | 0.4850±0.0024                | 0.04±0.01        | 3.07±0.15                | 10.0  |
| $f_{26}$                               | 1.2444±0.0024                | 0.03±0.01        | -1.77±0.15               | 10.2  |
| $f_{28}$                               | 0.1033±0.0024                | 0.04±0.01        | 2.20±0.15                | 9.8   |
| $f_{29}$                               | 0.2190±0.0026                | 0.03±0.01        | -0.41±0.16               | 8.5   |
| $f_{30}$                               | 0.1686±0.0027                | 0.04±0.01        | 2.90±0.16                | 8.0   |
| $f_{31}$                               | 1.0774±0.0027                | 0.03±0.01        | -0.03±0.16               | 8.0   |
| $f_{32}$                               | 0.3233±0.0027                | 0.03±0.01        | 1.62±0.17                | 7.9   |
| $f_{33}$                               | 0.6958±0.0028                | 0.03±0.01        | -0.48±0.17               | 7.4   |
| $f_{34}$                               | 0.5457±0.0030                | 0.03±0.01        | 0.27±0.18                | 6.6   |
| $f_{35}$                               | 1.3207±0.0029                | 0.03±0.01        | -0.76±0.18               | 6.9   |
| $f_{36}$                               | 2.0056±0.0030                | 0.03±0.01        | -2.96±0.18               | 6.6   |
| $f_{37}$                               | 0.9585±0.0030                | 0.04±0.02        | -1.26±0.19               | 6.3   |
| $f_{38}$                               | 1.0462±0.0029                | 0.03±0.01        | -0.96±0.18               | 6.7   |
| $f_{39}$                               | 0.3634±0.0031                | 0.03±0.01        | -0.34±0.19               | 6.1   |
| $f_{40}$                               | 0.2372±0.0031                | 0.03±0.01        | 1.48±0.19                | 6.0   |
| $f_{41}$                               | 1.3516±0.0031                | 0.03±0.01        | -1.39±0.19               | 5.9   |
| $f_{42}$                               | 3.2434±0.0031                | 0.03±0.01        | -0.38±0.19               | 6.0   |
| $f_{43}$                               | 0.8882±0.0032                | 0.03±0.01        | 1.84±0.20                | 5.7   |
| $f_{44}$                               | 0.9798±0.0031                | 0.03±0.01        | -1.82±0.19               | 5.9   |
| $f_{45}$                               | 1.7734±0.0031                | 0.03±0.01        | -1.91±0.19               | 6.0   |
| $f_{46}$                               | 1.8789±0.0032                | 0.03±0.01        | -0.56±0.20               | 5.7   |
| $f_{47}$                               | 0.2663±0.0032                | 0.03±0.01        | 0.85±0.20                | 5.7   |
| $f_{49}$                               | 2.3869±0.0033                | 0.03±0.01        | 3.14±0.20                | 5.5   |
| $f_{50}$                               | 8.6238±0.0033                | 0.03±0.01        | -0.96±0.20               | 5.5   |
| $f_{51}$                               | 1.4971±0.0032                | 0.03±0.01        | -0.10±0.20               | 5.6   |
| $f_{52}$                               | 0.2940±0.0033                | 0.03±0.01        | -0.18±0.20               | 5.5   |
| $f_{53}$                               | 0.7423±0.0033                | 0.02±0.01        | -0.52±0.20               | 5.3   |
| $f_{55}$                               | 3.6478±0.0034                | 0.02±0.01        | 2.69±0.21                | 5.1   |
| $f_{56}$                               | 1.0248±0.0034                | 0.03±0.01        | 0.72±0.21                | 5.0   |
| $f_{57}$                               | 1.0553±0.0033                | 0.03±0.01        | -1.32±0.20               | 5.2   |

**Table C.9:** Frequency list of 0102650323

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|--------------|------------------------------|------------------|--------------------------|-------|
| $f_1$        | 0.2739±0.0006                | 0.24±0.02        | -0.41±0.04               | 172.4 |
| $f_3$        | 1.5987±0.0010                | 0.14±0.02        | 2.86±0.06                | 62.3  |
| $f_6$        | 0.1444±0.0010                | 0.13±0.02        | -2.03±0.06               | 54.8  |
| $f_7$        | 0.1217±0.0011                | 0.12±0.02        | 0.36±0.07                | 44.1  |
| $f_8$        | 0.1035±0.0011                | 0.12±0.02        | 2.92±0.07                | 48.5  |
| $f_{10}$     | 0.2297±0.0013                | 0.08±0.01        | 2.02±0.08                | 33.5  |
| $f_{11}$     | 0.1507±0.0014                | 0.09±0.02        | 1.74±0.08                | 30.9  |
| $f_{12}$     | 0.1692±0.0014                | 0.08±0.01        | -1.80±0.08               | 30.5  |
| $f_{13}$     | 0.6629±0.0014                | 0.09±0.02        | -1.05±0.09               | 29.7  |
| $f_{15}$     | 0.1136±0.0015                | 0.09±0.02        | 0.87±0.09                | 26.2  |
| $f_{16}$     | 0.5487±0.0015                | 0.08±0.02        | 3.07±0.09                | 24.8  |
| $f_{18}$     | 0.3375±0.0017                | 0.07±0.02        | -1.65±0.10               | 20.9  |
| $f_{19}$     | 0.1911±0.0017                | 0.07±0.02        | 1.90±0.11                | 19.5  |
| $f_{22}$     | 1.0926±0.0018                | 0.07±0.02        | -2.66±0.11               | 19.0  |
| $f_{23}$     | 1.8593±0.0018                | 0.07±0.02        | 0.68±0.11                | 17.6  |
| $f_{25}$     | 0.3534±0.0019                | 0.06±0.02        | -2.53±0.12               | 15.5  |
| $f_{27}$     | 0.4096±0.0020                | 0.06±0.02        | 1.50±0.12                | 14.5  |
| $f_{28}$     | 0.3289±0.0020                | 0.06±0.02        | 2.57±0.12                | 14.4  |
| $f_{29}$     | 0.6235±0.0020                | 0.05±0.01        | -0.13±0.12               | 13.9  |
| $f_{31}$     | 0.2649±0.0020                | 0.06±0.02        | 0.17±0.12                | 14.6  |
| $f_{34}$     | 0.4642±0.0020                | 0.06±0.02        | -1.84±0.12               | 13.9  |
| $f_{35}$     | 0.1286±0.0021                | 0.05±0.01        | 3.14±0.13                | 13.3  |
| $f_{37}$     | 0.5358±0.0022                | 0.05±0.01        | -1.94±0.14               | 11.9  |

Frequency list of 0102650323 continued

| Frequency list of 0102650323 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{38}$                               | 1.1362±0.0023                | 0.05±0.01        | -0.31±0.14               | 11.4  |
| $f_{39}$                               | 0.8188±0.0024                | 0.05±0.02        | 1.14±0.15                | 10.1  |
| $f_{41}$                               | 0.3167±0.0024                | 0.05±0.02        | -0.85±0.15               | 9.9   |
| $f_{42}$                               | 0.2417±0.0025                | 0.05±0.02        | 0.03±0.15                | 9.7   |
| $f_{46}$                               | 0.8078±0.0026                | 0.05±0.02        | 2.47±0.16                | 8.9   |
| $f_{47}$                               | 0.5697±0.0026                | 0.04±0.01        | -0.13±0.16               | 8.5   |
| $f_{48}$                               | 0.6329±0.0026                | 0.04±0.01        | -0.07±0.16               | 8.5   |
| $f_{49}$                               | 0.2560±0.0026                | 0.04±0.01        | -2.81±0.16               | 8.3   |
| $f_{50}$                               | 1.2451±0.0028                | 0.04±0.01        | 2.36±0.17                | 7.5   |
| $f_{51}$                               | 27.9205±0.0029               | 0.04±0.02        | 1.17±0.17                | 7.1   |
| $f_{52}$                               | 1.5830±0.0029                | 0.04±0.02        | 2.84±0.18                | 7.0   |
| $f_{53}$                               | 0.6835±0.0029                | 0.04±0.02        | -2.23±0.17               | 7.1   |
| $f_{54}$                               | 0.8962±0.0029                | 0.04±0.02        | 1.52±0.18                | 6.8   |
| $f_{56}$                               | 1.5438±0.0029                | 0.04±0.02        | -2.48±0.18               | 6.9   |
| $f_{58}$                               | 0.1395±0.0031                | 0.04±0.02        | -0.19±0.19               | 6.0   |
| $f_{59}$                               | 0.3671±0.0031                | 0.04±0.02        | 2.15±0.19                | 6.0   |
| $f_{60}$                               | 0.7248±0.0031                | 0.04±0.02        | 0.25±0.19                | 5.9   |
| $f_{61}$                               | 0.5207±0.0031                | 0.04±0.02        | -0.61±0.19               | 6.1   |
| $f_{62}$                               | 1.3590±0.0032                | 0.04±0.02        | 1.78±0.19                | 5.8   |
| $f_{63}$                               | 0.4246±0.0032                | 0.04±0.02        | -0.77±0.20               | 5.6   |
| $f_{65}$                               | 0.6713±0.0033                | 0.04±0.02        | -0.96±0.20               | 5.4   |
| $f_{66}$                               | 55.8542±0.0033               | 0.04±0.02        | 1.40±0.20                | 5.4   |
| $f_{67}$                               | 13.9501±0.0033               | 0.04±0.02        | -1.83±0.20               | 5.5   |
| $f_{68}$                               | 1.4390±0.0033                | 0.03±0.01        | -0.97±0.20               | 5.2   |
| $f_{69}$                               | 0.7392±0.0033                | 0.03±0.01        | -3.02±0.20               | 5.3   |
| $f_{70}$                               | 1.9445±0.0034                | 0.03±0.01        | -3.03±0.21               | 5.1   |

**Table C.10:** Frequency list of 0102654138

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|--------------|------------------------------|------------------|--------------------------|-------|
| $f_2$        | 0.1231±0.0010                | 0.11±0.01        | 0.11±0.06                | 60.1  |
| $f_3$        | 1.9432±0.0011                | 0.09±0.01        | 2.51±0.07                | 44.5  |
| $f_4$        | 0.9684±0.0012                | 0.08±0.01        | 1.10±0.07                | 38.8  |
| $f_5$        | 0.1371±0.0014                | 0.07±0.01        | -1.98±0.08               | 31.8  |
| $f_6$        | 0.2297±0.0014                | 0.09±0.02        | -0.04±0.09               | 29.5  |
| $f_7$        | 0.1064±0.0016                | 0.07±0.01        | 1.83±0.10                | 22.4  |
| $f_8$        | 1.9353±0.0016                | 0.05±0.01        | 2.12±0.10                | 21.5  |
| $f_9$        | 0.2586±0.0018                | 0.07±0.02        | 1.01±0.11                | 18.7  |
| $f_{10}$     | 0.1528±0.0018                | 0.06±0.01        | -2.45±0.11               | 18.2  |
| $f_{12}$     | 1.0010±0.0019                | 0.06±0.01        | -0.15±0.12               | 16.2  |
| $f_{13}$     | 0.9758±0.0018                | 0.05±0.01        | -2.98±0.11               | 17.5  |
| $f_{14}$     | 0.2091±0.0019                | 0.04±0.01        | -2.65±0.12               | 15.4  |
| $f_{16}$     | 0.3249±0.0020                | 0.05±0.01        | 0.79±0.12                | 14.3  |
| $f_{17}$     | 0.1454±0.0020                | 0.06±0.02        | -0.82±0.12               | 14.2  |
| $f_{18}$     | 2.0167±0.0020                | 0.05±0.01        | 1.93±0.12                | 14.5  |
| $f_{19}$     | 2.2028±0.0021                | 0.05±0.01        | 2.51±0.13                | 13.8  |
| $f_{21}$     | 0.1956±0.0022                | 0.05±0.01        | -1.09±0.13               | 12.1  |
| $f_{22}$     | 1.7888±0.0023                | 0.05±0.01        | -2.27±0.14               | 11.2  |
| $f_{23}$     | 1.9018±0.0024                | 0.05±0.02        | -2.32±0.15               | 9.9   |
| $f_{24}$     | 1.0095±0.0024                | 0.04±0.01        | -1.42±0.15               | 10.0  |
| $f_{25}$     | 0.6701±0.0024                | 0.04±0.01        | 0.63±0.15                | 10.0  |
| $f_{26}$     | 1.7664±0.0024                | 0.05±0.02        | -2.28±0.15               | 9.9   |
| $f_{27}$     | 2.9120±0.0024                | 0.04±0.01        | -0.09±0.15               | 9.9   |
| $f_{28}$     | 0.4984±0.0025                | 0.04±0.01        | -2.28±0.15               | 9.7   |
| $f_{29}$     | 1.9547±0.0025                | 0.04±0.01        | 1.26±0.15                | 9.7   |
| $f_{30}$     | 0.3057±0.0024                | 0.04±0.01        | 0.04±0.15                | 9.8   |
| $f_{31}$     | 1.9931±0.0025                | 0.04±0.01        | -1.20±0.15               | 9.5   |
| $f_{32}$     | 0.8662±0.0025                | 0.04±0.01        | -2.23±0.15               | 9.6   |
| $f_{33}$     | 2.1411±0.0025                | 0.04±0.01        | -0.62±0.15               | 9.3   |
| $f_{34}$     | 2.2318±0.0025                | 0.04±0.01        | -2.71±0.15               | 9.4   |
| $f_{35}$     | 0.1631±0.0025                | 0.04±0.01        | -0.94±0.15               | 9.3   |
| $f_{36}$     | 1.6761±0.0025                | 0.04±0.01        | -1.14±0.15               | 9.3   |
| $f_{38}$     | 2.1808±0.0026                | 0.04±0.01        | 1.63±0.16                | 8.3   |
| $f_{39}$     | 1.8812±0.0026                | 0.04±0.01        | 1.28±0.16                | 8.3   |
| $f_{40}$     | 1.9239±0.0026                | 0.04±0.01        | -0.85±0.16               | 8.9   |
| $f_{41}$     | 1.9760±0.0026                | 0.04±0.01        | 1.88±0.16                | 8.5   |
| $f_{42}$     | 2.5425±0.0026                | 0.04±0.01        | -0.78±0.16               | 8.3   |
| $f_{43}$     | 1.8183±0.0027                | 0.04±0.01        | -0.90±0.17               | 7.9   |
| $f_{44}$     | 0.8347±0.0028                | 0.03±0.01        | -0.60±0.17               | 7.6   |
| $f_{45}$     | 3.1549±0.0028                | 0.04±0.01        | -1.59±0.17               | 7.5   |
| $f_{46}$     | 0.3620±0.0028                | 0.04±0.01        | -0.80±0.17               | 7.3   |
| $f_{47}$     | 2.0864±0.0029                | 0.04±0.02        | 1.23±0.17                | 7.1   |
| $f_{48}$     | 0.2432±0.0029                | 0.04±0.02        | 1.47±0.18                | 6.9   |
| $f_{49}$     | 0.9566±0.0029                | 0.03±0.01        | -0.12±0.18               | 6.7   |

Frequency list of 0102654138 continued

## Appendix C. Frequencies of individual $\gamma$ Dor Candidates

| Frequency list of 0102654138 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{50}$                               | 0.8888±0.0029                | 0.03±0.01        | 1.12±0.18                | 6.7   |
| $f_{51}$                               | 0.2878±0.0030                | 0.04±0.02        | 2.48±0.18                | 6.6   |
| $f_{52}$                               | 1.8625±0.0030                | 0.03±0.01        | -2.67±0.18               | 6.5   |
| $f_{53}$                               | 1.6020±0.0030                | 0.03±0.01        | -0.48±0.18               | 6.4   |
| $f_{54}$                               | 0.1140±0.0030                | 0.03±0.01        | 0.20±0.19                | 6.3   |
| $f_{55}$                               | 0.4870±0.0031                | 0.03±0.01        | 0.61±0.19                | 6.1   |
| $f_{56}$                               | 1.2308±0.0031                | 0.03±0.01        | -1.73±0.19               | 6.2   |
| $f_{57}$                               | 0.4180±0.0031                | 0.03±0.01        | -1.77±0.19               | 6.1   |
| $f_{58}$                               | 1.1768±0.0031                | 0.03±0.01        | -0.88±0.19               | 6.0   |
| $f_{59}$                               | 0.8587±0.0030                | 0.03±0.01        | -1.45±0.19               | 6.3   |
| $f_{60}$                               | 1.1133±0.0031                | 0.04±0.02        | 2.27±0.19                | 6.0   |
| $f_{61}$                               | 1.1011±0.0029                | 0.03±0.01        | -1.17±0.18               | 6.9   |
| $f_{62}$                               | 0.7150±0.0032                | 0.03±0.01        | -2.74±0.20               | 5.6   |
| $f_{63}$                               | 0.3154±0.0033                | 0.03±0.01        | -1.33±0.20               | 5.5   |
| $f_{64}$                               | 1.8703±0.0032                | 0.03±0.01        | -2.88±0.19               | 5.8   |
| $f_{66}$                               | 1.850±0.0033                 | 0.03±0.01        | -2.48±0.20               | 5.5   |
| $f_{67}$                               | 0.9859±0.0033                | 0.03±0.01        | 2.37±0.20                | 5.5   |
| $f_{68}$                               | 0.2153±0.0033                | 0.03±0.01        | -0.04±0.20               | 5.3   |

**Table C.11:** Frequency list of 0102656705

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|--------------|------------------------------|------------------|--------------------------|-------|
| $f_2$        | 1.9631±0.0012                | 0.07±0.01        | -0.31±0.07               | 42.9  |
| $f_6$        | 0.1023±0.0011                | 0.06±0.01        | -0.52±0.07               | 44.2  |
| $f_{10}$     | 0.1363±0.0018                | 0.05±0.01        | 1.27±0.11                | 18.2  |
| $f_{12}$     | 0.1147±0.0019                | 0.04±0.01        | -0.71±0.11               | 16.6  |
| $f_{14}$     | 1.4341±0.0020                | 0.04±0.01        | -0.24±0.12               | 14.6  |
| $f_{15}$     | 0.3476±0.0020                | 0.04±0.01        | 0.86±0.12                | 14.6  |
| $f_{16}$     | 0.4332±0.0020                | 0.04±0.01        | -2.51±0.12               | 14.8  |
| $f_{17}$     | 0.6232±0.0021                | 0.04±0.01        | -0.44±0.13               | 13.5  |
| $f_{20}$     | 2.0058±0.0022                | 0.04±0.01        | -0.97±0.13               | 12.6  |
| $f_{22}$     | 0.1675±0.0025                | 0.03±0.01        | -2.31±0.15               | 9.7   |
| $f_{24}$     | 0.2625±0.0025                | 0.03±0.01        | -2.58±0.15               | 9.2   |
| $f_{25}$     | 1.4682±0.0025                | 0.03±0.01        | -1.72±0.15               | 9.1   |
| $f_{27}$     | 0.5265±0.0026                | 0.03±0.01        | 0.43±0.16                | 8.8   |
| $f_{28}$     | 0.3401±0.0026                | 0.03±0.01        | -2.75±0.16               | 8.8   |
| $f_{30}$     | 0.2237±0.0028                | 0.03±0.01        | 1.17±0.17                | 7.5   |
| $f_{32}$     | 0.4820±0.0030                | 0.02±0.01        | -0.68±0.18               | 6.4   |
| $f_{33}$     | 1.1753±0.0031                | 0.02±0.01        | -2.13±0.19               | 6.2   |
| $f_{34}$     | 1.4402±0.0031                | 0.02±0.01        | 0.65±0.19                | 6.1   |
| $f_{35}$     | 0.5140±0.0032                | 0.02±0.01        | -2.81±0.19               | 5.8   |
| $f_{36}$     | 0.8006±0.0032                | 0.02±0.01        | 1.77±0.20                | 5.7   |
| $f_{38}$     | 0.3095±0.0033                | 0.02±0.01        | -2.42±0.20               | 5.4   |
| $f_{39}$     | 55.8636±0.0033               | 0.02±0.01        | -2.84±0.20               | 5.2   |

**Table C.12:** Frequency list of 0102661313

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|--------------|------------------------------|------------------|--------------------------|-------|
| $f_1$        | 0.9154±0.0005                | 0.17±0.01        | 1.62±0.03                | 211.5 |
| $f_2$        | 1.8325±0.0006                | 0.14±0.01        | 2.03±0.04                | 161.3 |
| $f_3$        | 3.1897±0.0007                | 0.12±0.01        | -2.19±0.04               | 130.7 |
| $f_4$        | 0.1202±0.0009                | 0.10±0.01        | -1.88±0.06               | 67.7  |
| $f_5$        | 0.1377±0.0011                | 0.07±0.01        | 2.66±0.07                | 48.2  |
| $f_6$        | 0.1041±0.0012                | 0.06±0.01        | 0.64±0.07                | 39.1  |
| $f_7$        | 0.9099±0.0014                | 0.04±0.01        | 2.12±0.09                | 29.7  |
| $f_8$        | 0.1993±0.0015                | 0.06±0.01        | -2.17±0.09               | 25.4  |
| $f_9$        | 0.1834±0.0016                | 0.05±0.01        | -2.36±0.10               | 22.8  |
| $f_{10}$     | 0.3928±0.0017                | 0.05±0.01        | 2.98±0.10                | 20.6  |
| $f_{11}$     | 0.1684±0.0017                | 0.04±0.01        | 2.41±0.10                | 19.8  |
| $f_{12}$     | 1.7460±0.0018                | 0.04±0.01        | 1.63±0.11                | 18.7  |
| $f_{13}$     | 0.9207±0.0018                | 0.04±0.01        | 1.92±0.11                | 17.8  |
| $f_{15}$     | 3.3976±0.0020                | 0.04±0.01        | 2.91±0.12                | 15.3  |
| $f_{16}$     | 0.6277±0.0020                | 0.03±0.01        | -1.47±0.12               | 14.7  |
| $f_{17}$     | 0.2592±0.0022                | 0.04±0.01        | 1.35±0.13                | 12.2  |
| $f_{18}$     | 0.3092±0.0022                | 0.04±0.01        | -2.77±0.14               | 11.9  |
| $f_{19}$     | 3.5276±0.0023                | 0.03±0.01        | 2.84±0.14                | 11.4  |
| $f_{20}$     | 0.2521±0.0023                | 0.03±0.01        | 0.15±0.14                | 10.9  |
| $f_{21}$     | 0.1123±0.0023                | 0.03±0.01        | -1.31±0.14               | 10.9  |
| $f_{22}$     | 0.7773±0.0023                | 0.03±0.01        | -0.67±0.14               | 11.2  |
| $f_{25}$     | 0.3493±0.0024                | 0.03±0.01        | -1.16±0.14               | 10.5  |
| $f_{26}$     | 0.1591±0.0023                | 0.03±0.01        | 2.21±0.14                | 10.7  |
| $f_{27}$     | 0.5454±0.0023                | 0.03±0.01        | -0.14±0.14               | 10.7  |
| $f_{28}$     | 1.8195±0.0024                | 0.03±0.01        | -0.50±0.15               | 10.3  |
| $f_{29}$     | 0.5162±0.0024                | 0.03±0.01        | -0.88±0.15               | 9.8   |
| $f_{30}$     | 1.3724±0.0024                | 0.03±0.01        | 0.65±0.15                | 9.8   |

Frequency list of 0102661313 continued

| Frequency list of 0102661313 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{31}$                               | 0.2211±0.0025                | 0.03±0.01        | -1.84±0.15               | 9.6   |
| $f_{32}$                               | 0.2417±0.0023                | 0.03±0.01        | -2.34±0.14               | 11.3  |
| $f_{33}$                               | 0.9684±0.0025                | 0.03±0.01        | -2.71±0.15               | 9.5   |
| $f_{34}$                               | 0.6753±0.0026                | 0.03±0.01        | 2.48±0.16                | 8.9   |
| $f_{35}$                               | 0.6981±0.0025                | 0.03±0.01        | 0.74±0.15                | 9.1   |
| $f_{36}$                               | 2.7459±0.0026                | 0.03±0.01        | -2.67±0.16               | 8.8   |
| $f_{37}$                               | 0.5839±0.0027                | 0.03±0.01        | -2.76±0.17               | 7.9   |
| $f_{38}$                               | 0.4334±0.0028                | 0.03±0.01        | -2.42±0.17               | 7.4   |
| $f_{39}$                               | 2.0062±0.0028                | 0.03±0.01        | -0.09±0.17               | 7.4   |
| $f_{40}$                               | 1.0052±0.0028                | 0.03±0.01        | 1.27±0.17                | 7.2   |
| $f_{41}$                               | 0.1930±0.0029                | 0.02±0.01        | -2.48±0.18               | 6.7   |
| $f_{42}$                               | 0.4198±0.0029                | 0.03±0.01        | 0.64±0.18                | 6.7   |
| $f_{43}$                               | 3.6022±0.0030                | 0.02±0.01        | 1.53±0.18                | 6.4   |
| $f_{44}$                               | 0.3419±0.0030                | 0.02±0.01        | 1.01±0.18                | 6.5   |
| $f_{45}$                               | 0.2817±0.0030                | 0.02±0.01        | 0.89±0.18                | 6.4   |
| $f_{46}$                               | 0.7689±0.0030                | 0.02±0.01        | 1.68±0.18                | 6.4   |
| $f_{47}$                               | 16.9322±0.0031               | 0.02±0.01        | 1.38±0.19                | 6.2   |
| $f_{48}$                               | 1.0784±0.0031                | 0.02±0.01        | -0.69±0.19               | 6.1   |
| $f_{49}$                               | 0.5544±0.0031                | 0.02±0.01        | -2.51±0.19               | 5.9   |
| $f_{50}$                               | 1.6030±0.0031                | 0.02±0.01        | 2.89±0.19                | 6.0   |
| $f_{51}$                               | 0.3846±0.0032                | 0.02±0.01        | -2.51±0.19               | 5.8   |
| $f_{52}$                               | 0.3289±0.0032                | 0.02±0.01        | -2.30±0.20               | 5.6   |
| $f_{53}$                               | 0.4944±0.0033                | 0.02±0.01        | 2.11±0.20                | 5.5   |
| $f_{54}$                               | 0.1440±0.0033                | 0.02±0.01        | -2.11±0.20               | 5.3   |
| $f_{55}$                               | 0.5911±0.0033                | 0.02±0.01        | -0.97±0.20               | 5.2   |
| $f_{57}$                               | 3.2105±0.0034                | 0.02±0.01        | 0.45±0.21                | 5.1   |

**Table C.13:** Frequency list of 0102662271

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|--------------|------------------------------|------------------|--------------------------|-------|
| $f_1$        | 0.9222±0.0007                | 0.28±0.02        | -1.82±0.04               | 132.4 |
| $f_3$        | 0.2434±0.0013                | 0.11±0.02        | -2.09±0.08               | 35.5  |
| $f_4$        | 0.1913±0.0013                | 0.13±0.02        | -2.50±0.08               | 36.0  |
| $f_5$        | 2.7672±0.0013                | 0.13±0.02        | -2.07±0.08               | 34.3  |
| $f_6$        | 0.1685±0.0014                | 0.13±0.02        | -1.66±0.08               | 30.5  |
| $f_7$        | 0.2632±0.0014                | 0.13±0.02        | 2.51±0.09                | 29.5  |
| $f_8$        | 0.1180±0.0015                | 0.11±0.02        | 2.84±0.09                | 26.4  |
| $f_9$        | 0.3145±0.0016                | 0.12±0.02        | -0.77±0.10               | 23.2  |
| $f_{10}$     | 0.4062±0.0017                | 0.12±0.03        | 2.23±0.10                | 21.2  |
| $f_{11}$     | 0.1834±0.0017                | 0.09±0.02        | -0.35±0.10               | 21.3  |
| $f_{12}$     | 3.6905±0.0018                | 0.09±0.02        | 2.59±0.11                | 17.1  |
| $f_{13}$     | 0.4794±0.0019                | 0.10±0.02        | -0.55±0.12               | 16.3  |
| $f_{14}$     | 0.2066±0.0020                | 0.08±0.02        | 0.49±0.12                | 14.3  |
| $f_{15}$     | 0.1558±0.0021                | 0.08±0.02        | -0.07±0.13               | 12.9  |
| $f_{16}$     | 0.4859±0.0021                | 0.09±0.02        | 2.89±0.13                | 13.0  |
| $f_{17}$     | 0.4195±0.0021                | 0.09±0.02        | 1.29±0.13                | 13.2  |
| $f_{18}$     | 0.3248±0.0021                | 0.08±0.02        | 0.86±0.13                | 13.0  |
| $f_{19}$     | 0.3597±0.0022                | 0.06±0.02        | -0.35±0.13               | 12.1  |
| $f_{20}$     | 0.2963±0.0023                | 0.07±0.02        | -2.25±0.14               | 10.6  |
| $f_{21}$     | 0.1255±0.0024                | 0.07±0.02        | -1.71±0.14               | 10.5  |
| $f_{22}$     | 0.5425±0.0024                | 0.07±0.02        | -1.12±0.15               | 10.0  |
| $f_{24}$     | 0.2534±0.0025                | 0.06±0.02        | -2.96±0.16               | 9.0   |
| $f_{25}$     | 0.1415±0.0025                | 0.07±0.02        | 2.76±0.15                | 9.2   |
| $f_{26}$     | 0.8420±0.0026                | 0.06±0.02        | 2.47±0.16                | 8.7   |
| $f_{27}$     | 0.9851±0.0026                | 0.06±0.02        | 2.46±0.16                | 8.4   |
| $f_{28}$     | 0.4405±0.0026                | 0.07±0.02        | -0.30±0.16               | 8.3   |
| $f_{29}$     | 0.3501±0.0028                | 0.06±0.02        | 2.17±0.17                | 7.7   |
| $f_{30}$     | 2.0034±0.0027                | 0.06±0.02        | -0.23±0.16               | 8.0   |
| $f_{31}$     | 1.8453±0.0028                | 0.06±0.02        | -1.83±0.17               | 7.6   |
| $f_{32}$     | 0.6930±0.0029                | 0.06±0.02        | -1.13±0.17               | 7.1   |
| $f_{33}$     | 0.3905±0.0029                | 0.06±0.02        | 2.95±0.18                | 7.0   |
| $f_{34}$     | 0.7977±0.0029                | 0.06±0.02        | 2.99±0.18                | 7.0   |
| $f_{35}$     | 0.3799±0.0030                | 0.06±0.02        | -0.79±0.18               | 6.6   |
| $f_{37}$     | 0.4920±0.0031                | 0.06±0.02        | 2.64±0.19                | 6.2   |
| $f_{38}$     | 0.2823±0.0031                | 0.05±0.02        | -2.87±0.19               | 6.2   |
| $f_{39}$     | 3.1093±0.0031                | 0.05±0.02        | -0.47±0.19               | 6.1   |
| $f_{40}$     | 0.3381±0.0033                | 0.05±0.02        | 0.39±0.20                | 5.5   |
| $f_{41}$     | 0.7253±0.0032                | 0.05±0.02        | 1.69±0.20                | 5.6   |
| $f_{42}$     | 1.6715±0.0033                | 0.05±0.02        | 0.02±0.20                | 5.2   |
| $f_{43}$     | 0.4637±0.0034                | 0.05±0.02        | 0.29±0.21                | 5.0   |
| $f_{44}$     | 1.0277±0.0033                | 0.05±0.02        | 0.40±0.20                | 5.2   |
| $f_{45}$     | 1.5875±0.0034                | 0.05±0.02        | -0.76±0.21               | 5.1   |

**Table C.14:** Frequency list of 0102663084

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|--------------|------------------------------|------------------|--------------------------|-------|
| $f_2$        | 0.1256±0.0013                | 0.15±0.03        | -1.61±0.08               | 32.2  |
| $f_3$        | 0.9027±0.0013                | 0.15±0.03        | -2.29±0.08               | 33.3  |

Frequency list of 0102663084 continued

## Appendix C. Frequencies of individual $\gamma$ Dor Candidates

| Frequency list of 0102663084 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_4$                                  | 0.9242±0.0015                | 0.14±0.03        | 1.79±0.09                | 26.5  |
| $f_5$                                  | 0.1140±0.0015                | 0.14±0.03        | -2.87±0.09               | 25.6  |
| $f_6$                                  | 1.0409±0.0016                | 0.14±0.03        | 2.68±0.10                | 22.1  |
| $f_7$                                  | 1.8542±0.0017                | 0.14±0.03        | -0.21±0.11               | 19.3  |
| $f_8$                                  | 0.1573±0.0019                | 0.14±0.03        | -2.51±0.11               | 16.7  |
| $f_9$                                  | 0.1370±0.0017                | 0.13±0.03        | -0.12±0.11               | 19.3  |
| $f_{10}$                               | 1.1135±0.0019                | 0.11±0.03        | 1.37±0.12                | 16.0  |
| $f_{11}$                               | 1.8134±0.0020                | 0.11±0.03        | 0.77±0.12                | 15.1  |
| $f_{13}$                               | 0.8023±0.0022                | 0.11±0.03        | -2.91±0.13               | 12.3  |
| $f_{14}$                               | 0.1847±0.0022                | 0.10±0.03        | 2.29±0.14                | 11.9  |
| $f_{15}$                               | 0.8901±0.0022                | 0.09±0.03        | 2.58±0.14                | 11.7  |
| $f_{18}$                               | 1.8260±0.0023                | 0.10±0.03        | -0.62±0.14               | 11.1  |
| $f_{19}$                               | 0.2695±0.0024                | 0.08±0.03        | 2.96±0.15                | 10.0  |
| $f_{20}$                               | 0.2885±0.0023                | 0.09±0.03        | 1.56±0.14                | 10.7  |
| $f_{21}$                               | 0.9113±0.0026                | 0.09±0.03        | 1.19±0.16                | 8.9   |
| $f_{22}$                               | 0.2344±0.0026                | 0.09±0.03        | -0.33±0.16               | 8.4   |
| $f_{24}$                               | 0.2421±0.0027                | 0.08±0.03        | -1.90±0.16               | 8.0   |
| $f_{25}$                               | 0.9555±0.0027                | 0.08±0.03        | 1.09±0.16                | 8.0   |
| $f_{26}$                               | 0.8798±0.0026                | 0.08±0.03        | 0.11±0.16                | 8.3   |
| $f_{27}$                               | 0.9991±0.0027                | 0.09±0.03        | 1.69±0.16                | 8.1   |
| $f_{28}$                               | 0.9784±0.0026                | 0.08±0.03        | 0.61±0.16                | 8.9   |
| $f_{29}$                               | 0.7735±0.0028                | 0.08±0.03        | 1.96±0.17                | 7.3   |
| $f_{30}$                               | 1.8906±0.0028                | 0.07±0.03        | -0.90±0.17               | 7.2   |
| $f_{31}$                               | 0.6627±0.0028                | 0.08±0.03        | -2.94±0.17               | 7.4   |
| $f_{32}$                               | 0.3011±0.0028                | 0.07±0.03        | 2.50±0.17                | 7.3   |
| $f_{35}$                               | 2.0139±0.0029                | 0.07±0.03        | -0.63±0.18               | 6.9   |
| $f_{36}$                               | 2.7122±0.0029                | 0.07±0.03        | -3.08±0.18               | 6.8   |
| $f_{37}$                               | 0.2062±0.0029                | 0.07±0.03        | 0.52±0.18                | 7.0   |
| $f_{38}$                               | 1.1076±0.0029                | 0.07±0.03        | -2.85±0.18               | 7.0   |
| $f_{39}$                               | 0.4037±0.0029                | 0.08±0.03        | -2.86±0.18               | 6.8   |
| $f_{40}$                               | 1.9180±0.0030                | 0.07±0.03        | -2.63±0.18               | 6.6   |
| $f_{41}$                               | 0.3395±0.0031                | 0.07±0.03        | 1.79±0.19                | 6.1   |
| $f_{42}$                               | 1.7329±0.0032                | 0.06±0.03        | -1.05±0.20               | 5.7   |
| $f_{43}$                               | 0.4928±0.0032                | 0.06±0.03        | 1.51±0.20                | 5.6   |
| $f_{45}$                               | 0.3544±0.0032                | 0.07±0.03        | 0.64±0.20                | 5.6   |
| $f_{46}$                               | 0.8221±0.0032                | 0.07±0.03        | -2.03±0.20               | 5.6   |
| $f_{47}$                               | 0.7494±0.0032                | 0.06±0.03        | -3.02±0.20               | 5.6   |
| $f_{48}$                               | 1.4630±0.0033                | 0.06±0.03        | -2.36±0.20               | 5.5   |
| $f_{49}$                               | 1.6003±0.0032                | 0.07±0.03        | -2.02±0.20               | 5.7   |
| $f_{50}$                               | 0.8628±0.0033                | 0.06±0.03        | 2.30±0.20                | 5.4   |
| $f_{51}$                               | 0.3847±0.0033                | 0.07±0.03        | -2.51±0.20               | 5.3   |
| $f_{52}$                               | 0.4400±0.0033                | 0.06±0.03        | 0.07±0.20                | 5.5   |
| $f_{53}$                               | 2.2888±0.0033                | 0.06±0.03        | 1.10±0.20                | 5.4   |
| $f_{54}$                               | 1.2359±0.0033                | 0.06±0.03        | 1.56±0.20                | 5.2   |
| $f_{55}$                               | 1.7718±0.0033                | 0.07±0.03        | -1.83±0.20               | 5.2   |
| $f_{56}$                               | 1.7992±0.0033                | 0.06±0.03        | -0.49±0.20               | 5.4   |
| $f_{57}$                               | 1.8719±0.0034                | 0.06±0.03        | 1.69±0.21                | 5.1   |
| $f_{58}$                               | 1.5790±0.0034                | 0.06±0.03        | 0.67±0.21                | 5.0   |

**Table C.15:** Frequency list of 0102672729

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|--------------|------------------------------|------------------|--------------------------|-------|
| $f_1$        | 0.4898±0.0005                | 0.52±0.03        | 2.97±0.03                | 242.4 |
| $f_2$        | 0.1094±0.0008                | 0.33±0.03        | -2.87±0.05               | 92.6  |
| $f_3$        | 0.9795±0.0008                | 0.30±0.03        | -3.09±0.05               | 94.3  |
| $f_4$        | 0.1210±0.0008                | 0.29±0.03        | -2.61±0.05               | 89.9  |
| $f_7$        | 0.2196±0.0011                | 0.19±0.03        | -2.82±0.07               | 50.2  |
| $f_9$        | 0.4290±0.0012                | 0.17±0.03        | 1.47±0.07                | 39.5  |
| $f_{10}$     | 0.5502±0.0013                | 0.19±0.03        | -2.02±0.08               | 33.8  |
| $f_{11}$     | 0.1014±0.0013                | 0.14±0.02        | -0.21±0.08               | 32.0  |
| $f_{13}$     | 0.2292±0.0015                | 0.13±0.03        | 0.30±0.09                | 26.0  |
| $f_{14}$     | 0.5846±0.0016                | 0.14±0.03        | 2.46±0.10                | 21.6  |
| $f_{15}$     | 0.4040±0.0017                | 0.13±0.03        | 1.60±0.10                | 21.2  |
| $f_{16}$     | 0.5283±0.0017                | 0.13±0.03        | 2.94±0.10                | 20.7  |
| $f_{17}$     | 1.4699±0.0018                | 0.12±0.03        | -1.99±0.11               | 19.0  |
| $f_{19}$     | 0.5382±0.0018                | 0.11±0.03        | 2.46±0.11                | 18.8  |
| $f_{22}$     | 0.1589±0.0018                | 0.13±0.03        | 2.78±0.11                | 17.5  |
| $f_{23}$     | 0.2589±0.0018                | 0.11±0.03        | -0.01±0.11               | 17.9  |
| $f_{24}$     | 0.2423±0.0018                | 0.11±0.03        | 3.11±0.11                | 17.7  |
| $f_{25}$     | 0.9857±0.0019                | 0.10±0.03        | -0.88±0.12               | 15.5  |
| $f_{26}$     | 0.3767±0.0021                | 0.08±0.02        | -3.08±0.13               | 13.6  |
| $f_{27}$     | 0.1330±0.0020                | 0.12±0.03        | 1.31±0.12                | 13.9  |
| $f_{30}$     | 0.5131±0.0021                | 0.10±0.03        | 2.03±0.13                | 12.9  |
| $f_{31}$     | 0.1775±0.0022                | 0.10±0.03        | 1.25±0.14                | 11.8  |
| $f_{32}$     | 0.1904±0.0020                | 0.10±0.03        | -0.08±0.12               | 14.7  |
| $f_{33}$     | 0.2492±0.0023                | 0.09±0.03        | 1.40±0.14                | 11.0  |
| $f_{34}$     | 55.8635±0.0023               | 0.10±0.03        | 1.00±0.14                | 10.7  |

Frequency list of 0102672729 continued

| Frequency list of 0102672729 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{36}$                               | 1.0189±0.0023                | 0.07±0.02        | -2.55±0.14               | 10.6  |
| $f_{39}$                               | 0.3181±0.0024                | 0.10±0.03        | 0.69±0.15                | 10.0  |
| $f_{40}$                               | 1.6781±0.0025                | 0.09±0.03        | 1.75±0.15                | 9.2   |
| $f_{42}$                               | 0.5684±0.0025                | 0.08±0.03        | -0.85±0.15               | 9.2   |
| $f_{43}$                               | 0.3968±0.0025                | 0.08±0.03        | 1.82±0.15                | 9.3   |
| $f_{44}$                               | 0.2962±0.0025                | 0.08±0.03        | -1.54±0.15               | 9.1   |
| $f_{45}$                               | 0.1157±0.0024                | 0.09±0.03        | -0.92±0.15               | 9.9   |
| $f_{46}$                               | 0.4674±0.0025                | 0.09±0.03        | -2.00±0.15               | 9.3   |
| $f_{47}$                               | 0.8613±0.0025                | 0.08±0.03        | 0.08±0.15                | 9.1   |
| $f_{49}$                               | 1.6195±0.0026                | 0.07±0.02        | 0.45±0.16                | 8.3   |
| $f_{51}$                               | 55.8532±0.0027               | 0.08±0.03        | 2.34±0.16                | 8.0   |
| $f_{52}$                               | 0.7025±0.0028                | 0.08±0.03        | 0.65±0.17                | 7.7   |
| $f_{53}$                               | 0.2054±0.0028                | 0.07±0.03        | 0.38±0.17                | 7.7   |
| $f_{54}$                               | 0.5068±0.0029                | 0.07±0.03        | -2.03±0.17               | 7.1   |
| $f_{55}$                               | 0.3433±0.0028                | 0.07±0.03        | -1.37±0.17               | 7.3   |
| $f_{56}$                               | 0.6219±0.0029                | 0.08±0.03        | -0.45±0.17               | 7.1   |
| $f_{61}$                               | 0.6930±0.0029                | 0.08±0.03        | 2.15±0.18                | 6.9   |
| $f_{62}$                               | 0.2834±0.0029                | 0.08±0.03        | -1.18±0.18               | 6.8   |
| $f_{63}$                               | 1.9568±0.0029                | 0.07±0.03        | 0.58±0.18                | 6.8   |
| $f_{64}$                               | 0.7249±0.0030                | 0.07±0.03        | 1.65±0.18                | 6.4   |
| $f_{66}$                               | 0.6542±0.0030                | 0.08±0.03        | 0.13±0.19                | 6.3   |
| $f_{67}$                               | 1.6580±0.0030                | 0.06±0.02        | -0.51±0.19               | 6.3   |
| $f_{68}$                               | 1.0312±0.0030                | 0.07±0.03        | -0.61±0.19               | 6.3   |
| $f_{69}$                               | 1.1687±0.0031                | 0.06±0.02        | 2.41±0.19                | 6.1   |
| $f_{70}$                               | 0.5555±0.0031                | 0.07±0.03        | -1.41±0.19               | 6.0   |
| $f_{72}$                               | 13.9506±0.0032               | 0.07±0.03        | 2.09±0.19                | 5.8   |
| $f_{75}$                               | 1.4219±0.0032                | 0.07±0.03        | 0.54±0.19                | 5.8   |
| $f_{76}$                               | 1.3948±0.0031                | 0.06±0.02        | 0.02±0.19                | 5.9   |
| $f_{77}$                               | 2.0258±0.0032                | 0.06±0.03        | 1.29±0.20                | 5.7   |
| $f_{78}$                               | 0.9673±0.0033                | 0.06±0.03        | 1.58±0.20                | 5.5   |
| $f_{79}$                               | 1.1084±0.0033                | 0.06±0.03        | -1.53±0.20               | 5.5   |
| $f_{80}$                               | 57.0231±0.0033               | 0.06±0.03        | 2.61±0.20                | 5.5   |
| $f_{81}$                               | 0.4373±0.0033                | 0.06±0.03        | -0.58±0.20               | 5.2   |
| $f_{82}$                               | 0.3040±0.0033                | 0.06±0.03        | -2.83±0.20               | 5.2   |
| $f_{83}$                               | 1.5489±0.0033                | 0.06±0.03        | -1.56±0.20               | 5.2   |
| $f_{84}$                               | 1.1182±0.0033                | 0.06±0.03        | -2.40±0.20               | 5.2   |
| $f_{85}$                               | 0.8462±0.0034                | 0.06±0.03        | 2.17±0.21                | 5.1   |
| $f_{86}$                               | 1.0578±0.0034                | 0.06±0.03        | -2.18±0.21               | 5.1   |
| $f_{87}$                               | 0.6740±0.0034                | 0.06±0.03        | 1.92±0.21                | 5.1   |

**Table C.16:** Frequency list of 0102684117

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|--------------|------------------------------|------------------|--------------------------|-------|
| $f_1$        | 0.1659±0.0006                | 0.86±0.07        | 0.46±0.04                | 164.8 |
| $f_2$        | 2.6576±0.0009                | 0.44±0.05        | -3.07±0.05               | 80.2  |
| $f_3$        | 1.4850±0.0009                | 0.51±0.06        | -1.25±0.06               | 68.8  |
| $f_4$        | 2.4806±0.0009                | 0.40±0.05        | -1.35±0.06               | 65.5  |
| $f_5$        | 0.4221±0.0010                | 0.38±0.05        | 0.55±0.06                | 63.3  |
| $f_6$        | 0.1460±0.0010                | 0.51±0.06        | -0.81±0.06               | 64.2  |
| $f_7$        | 1.1086±0.0010                | 0.41±0.05        | 0.29±0.06                | 60.0  |
| $f_8$        | 1.1706±0.0010                | 0.40±0.05        | -2.88±0.06               | 64.1  |
| $f_9$        | 1.3851±0.0010                | 0.39±0.05        | -0.15±0.06               | 61.9  |
| $f_{10}$     | 0.2947±0.0010                | 0.40±0.05        | 2.25±0.06                | 61.0  |
| $f_{11}$     | 0.1553±0.0010                | 0.42±0.05        | 0.94±0.06                | 61.4  |
| $f_{12}$     | 0.2032±0.0010                | 0.38±0.05        | -2.38±0.06               | 56.4  |
| $f_{13}$     | 1.4424±0.0010                | 0.41±0.05        | -2.77±0.06               | 59.1  |
| $f_{14}$     | 1.4069±0.0010                | 0.32±0.04        | 0.03±0.06                | 61.2  |
| $f_{15}$     | 1.2087±0.0010                | 0.30±0.04        | -0.74±0.06               | 57.2  |
| $f_{16}$     | 0.3059±0.0010                | 0.41±0.05        | 0.35±0.06                | 56.5  |
| $f_{17}$     | 1.2421±0.0010                | 0.31±0.04        | -0.57±0.06               | 54.0  |
| $f_{18}$     | 1.2736±0.0010                | 0.34±0.05        | 1.75±0.06                | 53.7  |
| $f_{19}$     | 0.1915±0.0011                | 0.35±0.05        | 0.96±0.06                | 52.4  |
| $f_{20}$     | 0.1258±0.0011                | 0.39±0.05        | 1.35±0.06                | 51.5  |
| $f_{21}$     | 0.1368±0.0011                | 0.31±0.04        | -2.03±0.07               | 48.2  |
| $f_{22}$     | 0.6279±0.0011                | 0.31±0.04        | -2.85±0.07               | 48.2  |
| $f_{23}$     | 1.1841±0.0011                | 0.25±0.04        | -0.81±0.07               | 47.5  |
| $f_{24}$     | 0.3680±0.0011                | 0.28±0.04        | -1.32±0.07               | 47.6  |
| $f_{25}$     | 2.4921±0.0011                | 0.30±0.04        | 0.01±0.07                | 49.2  |
| $f_{26}$     | 1.6052±0.0011                | 0.25±0.04        | 3.05±0.07                | 47.6  |
| $f_{27}$     | 0.8566±0.0011                | 0.31±0.04        | -2.31±0.07               | 48.1  |
| $f_{28}$     | 0.4592±0.0011                | 0.31±0.04        | -1.56±0.07               | 48.0  |
| $f_{29}$     | 0.7114±0.0012                | 0.29±0.04        | -1.16±0.07               | 43.7  |
| $f_{30}$     | 1.5181±0.0011                | 0.28±0.04        | 0.61±0.07                | 44.4  |
| $f_{31}$     | 0.8269±0.0012                | 0.28±0.04        | 1.84±0.07                | 43.1  |
| $f_{32}$     | 0.1769±0.0012                | 0.29±0.04        | -2.71±0.07               | 42.7  |
| $f_{33}$     | 0.4327±0.0012                | 0.19±0.03        | -0.82±0.07               | 43.2  |

Frequency list of 0102684117 continued

## Appendix C. Frequencies of individual $\gamma$ Dor Candidates

| Frequency list of 0102684117 continued |                              |                  |                          |       | Frequency list of 0102684117 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{34}$                               | 0.5644±0.0012                | 0.20±0.03        | 1.87±0.07                | 40.1  | $f_{110}$                              | 0.6821±0.0019                | 0.11±0.03        | -2.35±0.12               | 15.6  |
| $f_{35}$                               | 1.5507±0.0012                | 0.31±0.05        | 1.82±0.07                | 40.8  | $f_{111}$                              | 0.5281±0.0020                | 0.12±0.03        | -2.07±0.12               | 15.3  |
| $f_{36}$                               | 0.3515±0.0012                | 0.25±0.04        | 0.08±0.07                | 38.7  | $f_{112}$                              | 2.3597±0.0020                | 0.13±0.03        | -0.44±0.12               | 15.1  |
| $f_{37}$                               | 0.3339±0.0012                | 0.25±0.04        | -0.15±0.07               | 42.2  | $f_{113}$                              | 0.1853±0.0019                | 0.13±0.03        | 0.08±0.12                | 15.5  |
| $f_{38}$                               | 1.1438±0.0012                | 0.24±0.04        | -1.22±0.07               | 39.4  | $f_{114}$                              | 0.2128±0.0020                | 0.09±0.02        | 0.17±0.12                | 14.4  |
| $f_{39}$                               | 1.3474±0.0012                | 0.26±0.04        | 1.75±0.07                | 39.1  | $f_{115}$                              | 1.2571±0.0020                | 0.09±0.02        | -0.48±0.12               | 14.0  |
| $f_{40}$                               | 1.0622±0.0013                | 0.28±0.05        | -2.72±0.08               | 34.1  | $f_{116}$                              | 2.3123±0.0020                | 0.11±0.03        | -2.37±0.12               | 14.0  |
| $f_{41}$                               | 1.1961±0.0013                | 0.21±0.04        | 2.74±0.08                | 34.9  | $f_{117}$                              | 2.5582±0.0020                | 0.12±0.03        | 0.67±0.12                | 14.0  |
| $f_{42}$                               | 1.4559±0.0013                | 0.27±0.04        | -0.95±0.08               | 37.1  | $f_{118}$                              | 0.9106±0.0020                | 0.13±0.03        | 2.78±0.12                | 13.9  |
| $f_{43}$                               | 0.5491±0.0013                | 0.24±0.04        | -2.87±0.08               | 34.3  | $f_{119}$                              | 0.9283±0.0019                | 0.14±0.03        | -1.73±0.12               | 16.1  |
| $f_{44}$                               | 1.4169±0.0014                | 0.23±0.04        | -0.78±0.08               | 31.6  | $f_{120}$                              | 1.0918±0.0020                | 0.12±0.03        | 2.21±0.12                | 14.4  |
| $f_{45}$                               | 0.6139±0.0014                | 0.22±0.04        | -0.97±0.08               | 30.5  | $f_{121}$                              | 1.6604±0.0021                | 0.12±0.03        | -0.88±0.13               | 13.7  |
| $f_{46}$                               | 2.5468±0.0014                | 0.20±0.04        | -2.24±0.08               | 31.0  | $f_{122}$                              | 4.0964±0.0021                | 0.12±0.03        | -0.72±0.13               | 13.5  |
| $f_{47}$                               | 2.7074±0.0013                | 0.21±0.04        | 0.16±0.08                | 33.2  | $f_{123}$                              | 1.9834±0.0021                | 0.08±0.02        | -1.20±0.13               | 13.1  |
| $f_{48}$                               | 2.4071±0.0013                | 0.23±0.04        | -2.88±0.08               | 32.6  | $f_{124}$                              | 2.6308±0.0021                | 0.13±0.04        | 1.96±0.13                | 13.4  |
| $f_{49}$                               | 0.7652±0.0014                | 0.19±0.03        | 1.58±0.08                | 31.0  | $f_{125}$                              | 1.6898±0.0021                | 0.11±0.03        | -2.72±0.13               | 13.3  |
| $f_{50}$                               | 2.3776±0.0014                | 0.20±0.04        | -0.33±0.08               | 30.1  | $f_{126}$                              | 1.4623±0.0021                | 0.14±0.04        | 1.96±0.13                | 13.1  |
| $f_{51}$                               | 0.9541±0.0014                | 0.22±0.04        | 2.44±0.09                | 29.6  | $f_{127}$                              | 1.0991±0.0021                | 0.12±0.03        | -2.05±0.13               | 13.1  |
| $f_{52}$                               | 0.4760±0.0014                | 0.21±0.04        | -0.70±0.09               | 28.8  | $f_{128}$                              | 2.9087±0.0021                | 0.14±0.04        | 0.19±0.13                | 13.6  |
| $f_{53}$                               | 0.4977±0.0013                | 0.18±0.03        | -1.63±0.08               | 32.4  | $f_{129}$                              | 3.0065±0.0021                | 0.13±0.03        | 0.42±0.13                | 13.8  |
| $f_{54}$                               | 0.6527±0.0014                | 0.20±0.04        | -1.18±0.09               | 28.1  | $f_{130}$                              | 3.0637±0.0021                | 0.12±0.03        | 0.29±0.13                | 13.5  |
| $f_{55}$                               | 0.2791±0.0015                | 0.17±0.03        | -2.44±0.09               | 27.6  | $f_{131}$                              | 2.7482±0.0021                | 0.07±0.02        | -2.23±0.13               | 13.2  |
| $f_{56}$                               | 2.3314±0.0015                | 0.25±0.05        | -1.76±0.09               | 26.6  | $f_{132}$                              | 2.5946±0.0021                | 0.12±0.03        | -1.48±0.13               | 13.5  |
| $f_{57}$                               | 2.2200±0.0014                | 0.22±0.04        | 2.02±0.09                | 28.2  | $f_{133}$                              | 3.8805±0.0021                | 0.12±0.03        | -2.46±0.13               | 13.6  |
| $f_{58}$                               | 1.2886±0.0015                | 0.17±0.03        | -1.94±0.09               | 27.1  | $f_{134}$                              | 0.8115±0.0021                | 0.11±0.03        | 0.02±0.13                | 12.7  |
| $f_{59}$                               | 1.1592±0.0015                | 0.20±0.04        | 2.52±0.09                | 26.4  | $f_{135}$                              | 1.2150±0.0021                | 0.12±0.03        | 2.80±0.13                | 12.9  |
| $f_{60}$                               | 1.5036±0.0015                | 0.20±0.04        | 2.98±0.09                | 25.7  | $f_{136}$                              | 0.1605±0.0021                | 0.15±0.04        | 0.99±0.13                | 13.6  |
| $f_{61}$                               | 0.4447±0.0015                | 0.24±0.05        | 2.38±0.09                | 25.7  | $f_{137}$                              | 2.1920±0.0021                | 0.11±0.03        | -2.97±0.13               | 12.9  |
| $f_{62}$                               | 0.4004±0.0015                | 0.30±0.06        | 2.60±0.09                | 27.5  | $f_{139}$                              | 3.5720±0.0021                | 0.11±0.03        | -1.55±0.13               | 12.8  |
| $f_{63}$                               | 0.4107±0.0014                | 0.23±0.04        | 2.55±0.09                | 29.1  | $f_{140}$                              | 0.4644±0.0022                | 0.12±0.03        | 1.77±0.13                | 12.3  |
| $f_{64}$                               | 0.2549±0.0015                | 0.25±0.05        | 2.87±0.09                | 26.5  | $f_{141}$                              | 0.3154±0.0022                | 0.12±0.03        | -1.56±0.13               | 12.2  |
| $f_{65}$                               | 0.2441±0.0015                | 0.24±0.05        | -1.05±0.09               | 27.1  | $f_{142}$                              | 3.2483±0.0022                | 0.10±0.03        | -2.03±0.13               | 12.2  |
| $f_{66}$                               | 0.3920±0.0015                | 0.21±0.04        | 2.95±0.09                | 26.1  | $f_{143}$                              | 1.7672±0.0022                | 0.08±0.02        | 1.59±0.13                | 12.5  |
| $f_{67}$                               | 1.2515±0.0015                | 0.17±0.03        | -0.95±0.09               | 26.0  | $f_{144}$                              | 0.7834±0.0022                | 0.10±0.03        | -3.01±0.13               | 12.0  |
| $f_{68}$                               | 0.2643±0.0015                | 0.17±0.03        | -1.09±0.09               | 24.8  | $f_{145}$                              | 0.6189±0.0021                | 0.08±0.02        | 2.87±0.13                | 12.8  |
| $f_{69}$                               | 0.9009±0.0015                | 0.21±0.04        | 2.47±0.09                | 24.6  | $f_{146}$                              | 1.3235±0.0022                | 0.11±0.03        | -2.27±0.13               | 12.2  |
| $f_{70}$                               | 0.8751±0.0015                | 0.17±0.03        | 1.43±0.09                | 25.0  | $f_{147}$                              | 1.0343±0.0022                | 0.11±0.03        | -0.73±0.13               | 12.2  |
| $f_{71}$                               | 0.9945±0.0016                | 0.15±0.03        | -1.98±0.09               | 24.1  | $f_{148}$                              | 2.1693±0.0022                | 0.10±0.03        | 0.01±0.14                | 11.9  |
| $f_{72}$                               | 1.7001±0.0016                | 0.13±0.03        | 1.23±0.10                | 23.4  | $f_{149}$                              | 1.3304±0.0022                | 0.10±0.03        | 1.10±0.13                | 12.1  |
| $f_{73}$                               | 0.8897±0.0016                | 0.16±0.03        | 2.80±0.10                | 23.2  | $f_{150}$                              | 3.0860±0.0023                | 0.11±0.03        | 3.13±0.14                | 11.1  |
| $f_{74}$                               | 0.3615±0.0016                | 0.18±0.04        | 0.03±0.10                | 23.0  | $f_{151}$                              | 3.0408±0.0023                | 0.09±0.03        | -1.00±0.14               | 11.3  |
| $f_{75}$                               | 1.6732±0.0016                | 0.14±0.03        | -1.47±0.10               | 23.0  | $f_{152}$                              | 3.8672±0.0023                | 0.09±0.03        | -1.66±0.14               | 11.5  |
| $f_{76}$                               | 2.2714±0.0016                | 0.14±0.03        | -0.68±0.10               | 23.4  | $f_{153}$                              | 2.3976±0.0023                | 0.10±0.03        | 1.74±0.14                | 10.9  |
| $f_{77}$                               | 1.5376±0.0016                | 0.17±0.03        | 2.27±0.10                | 23.7  | $f_{154}$                              | 0.9443±0.0023                | 0.10±0.03        | -2.96±0.14               | 11.3  |
| $f_{78}$                               | 1.8400±0.0016                | 0.16±0.03        | 0.40±0.10                | 23.2  | $f_{155}$                              | 3.7838±0.0023                | 0.10±0.03        | -2.62±0.14               | 10.7  |
| $f_{79}$                               | 2.2047±0.0016                | 0.15±0.03        | 1.03±0.10                | 22.5  | $f_{156}$                              | 1.8025±0.0024                | 0.11±0.03        | 0.53±0.14                | 10.5  |
| $f_{80}$                               | 1.7868±0.0016                | 0.17±0.04        | -1.39±0.10               | 22.0  | $f_{157}$                              | 1.8236±0.0023                | 0.10±0.03        | 2.53±0.14                | 10.8  |
| $f_{81}$                               | 1.5838±0.0017                | 0.16±0.03        | -2.79±0.10               | 21.4  | $f_{158}$                              | 3.9115±0.0023                | 0.08±0.02        | -0.74±0.14               | 10.6  |
| $f_{82}$                               | 0.5569±0.0017                | 0.21±0.05        | -2.59±0.10               | 20.9  | $f_{159}$                              | 2.1395±0.0024                | 0.10±0.03        | -2.23±0.15               | 10.3  |
| $f_{83}$                               | 0.7576±0.0016                | 0.17±0.04        | 0.24±0.10                | 21.7  | $f_{160}$                              | 2.8399±0.0024                | 0.09±0.03        | -2.08±0.14               | 10.5  |
| $f_{84}$                               | 0.7394±0.0017                | 0.17±0.04        | -3.09±0.10               | 21.0  | $f_{161}$                              | 4.1597±0.0024                | 0.10±0.03        | -0.60±0.14               | 10.4  |
| $f_{85}$                               | 0.5965±0.0016                | 0.16±0.03        | 2.05±0.10                | 21.5  | $f_{162}$                              | 3.2346±0.0024                | 0.10±0.03        | -0.06±0.15               | 10.0  |
| $f_{86}$                               | 0.2237±0.0017                | 0.18±0.04        | -0.48±0.10               | 21.1  | $f_{163}$                              | 5.3667±0.0024                | 0.09±0.03        | -2.24±0.15               | 9.9   |
| $f_{87}$                               | 2.3500±0.0017                | 0.18±0.04        | -2.75±0.10               | 20.7  | $f_{164}$                              | 1.9207±0.0024                | 0.10±0.03        | 0.00±0.15                | 9.9   |
| $f_{88}$                               | 1.2240±0.0017                | 0.13±0.03        | 2.49±0.10                | 21.4  | $f_{165}$                              | 0.8481±0.0025                | 0.08±0.03        | -1.19±0.15               | 9.7   |
| $f_{89}$                               | 0.7248±0.0017                | 0.14±0.03        | -1.13±0.10               | 20.9  | $f_{166}$                              | 2.0457±0.0025                | 0.13±0.04        | -1.41±0.15               | 9.6   |
| $f_{90}$                               | 1.0719±0.0017                | 0.18±0.04        | -1.10±0.10               | 21.1  | $f_{167}$                              | 2.8751±0.0025                | 0.11±0.04        | -1.80±0.15               | 9.6   |
| $f_{91}$                               | 0.1104±0.0017                | 0.13±0.03        | 1.33±0.10                | 20.5  | $f_{168}$                              | 3.0140±0.0024                | 0.09±0.03        | 2.10±0.15                | 9.8   |
| $f_{92}$                               | 0.8360±0.0017                | 0.14±0.03        | -0.83±0.10               | 21.1  | $f_{169}$                              | 2.0579±0.0025                | 0.11±0.04        | 1.74±0.15                | 9.6   |
| $f_{93}$                               | 2.4459±0.0017                | 0.14±0.03        | 2.02±0.10                | 20.2  | $f_{170}$                              | 0.5746±0.0025                | 0.09±0.03        | -0.27±0.15               | 9.6   |
| $f_{94}$                               | 1.4900±0.0017                | 0.14±0.03        | -2.75±0.10               | 20.8  | $f_{171}$                              | 0.5038±0.0025                | 0.11±0.04        | -1.69±0.15               | 9.3   |
| $f_{95}$                               | 2.1797±0.0018                | 0.16±0.04        | -2.34±0.11               | 19.0  | $f_{172}$                              | 1.1284±0.0025                | 0.09±0.03        | 1.22±0.15                | 9.7   |
| $f_{96}$                               | 1.6147±0.0018                | 0.16±0.04        | -0.60±0.11               | 18.1  | $f_{173}$                              | 0.6679±0.0025                | 0.11±0.04        | 2.04±0.15                | 9.4   |
| $f_{97}$                               | 0.5370±0.0018                | 0.16±0.04        | 0.47±0.11                | 18.6  | $f_{174}$                              | 2.6196±0.0025                | 0.09±0.03        | -2.12±0.15               | 9.4   |
| $f_{98}$                               | 2.8189±0.0018                | 0.14±0.03        | -0.58±0.11               | 18.5  | $f_{175}$                              | 2.5049±0.0025                | 0.10±0.03        | 1.41±0.15                | 9.2   |
| $f_{99}$                               | 2.2503±0.0018                | 0.12±0.03        | -2.13±0.11               | 18.8  | $f_{176}$                              | 2.0148±0.0025                | 0.10±0.03        | -0.59±0.15               | 9.4   |
| $f_{100}$                              | 1.0800±0.0018                | 0.11±0.03        | -0.92±0.11               | 18.4  | $f_{177}$                              | 2.0240±0.0024                | 0.11±0.03        | -1.13±0.15               | 10.1  |
| $f_{101}$                              | 0.6988±0.0018                | 0.15±0.03        | 0.13±0.11                | 18.7  | $f_{178}$                              | 2.0035±0.0025                | 0.11±0.04        | -2.57±0.15               | 9.6   |
| $f_{102}$                              | 1.4353±0.0018                | 0.14±0.03        | 0.75±0.11                | 18.6  | $f_{179}$                              | 2.7699±0.0025                | 0.11±0.04        | 0.58±0.15                | 9.2   |
| $f_{103}$                              | 0.2875±0.0018                | 0.14±0.03        | 0.34±0.11                | 17.1  | $f_{180}$                              | 2.7882±0.0025                | 0.09±0.03        | -1.54±0.15               | 9.1   |
| $f_{104}$                              | 2.0994±0.0019                | 0.14±0.03        | 2.54±0.12                | 16.4  | $f_{181}$                              | 2.7360±0.0025                | 0.10±0.03        | -2.61±0.15               | 9.2   |
| $f_{105}$                              | 0.6919±0.0019                | 0.12±0.03        | -2.56±0.12               | 15.7  | $f_{182}$                              | 1.7791±0.0025                | 0.10±0.03        | 2.40±0.16                | 9.0   |
| $f_{106}$                              | 2.6821±0.0019                | 0.10±0.03        | -1.59±0.12               | 15.8  | $f_{183}$                              | 1.7948±0.0026                | 0.08±0.03        | 2.11±0.16                | 8.8   |
| $f_{107}$                              | 0.4159±0.0019                | 0.15±0.04        | -0.58±0.12               | 15.4  | $f_{184}$                              | 1.4501±0.0025                | 0.11±0.04        | -2.53±0.16               | 9.0   |
| $f_{108}$                              | 1.7277±0.0019                | 0.12±0.03        | 2.99±0.12                | 15.5  | $f_{185}$                              | 1.4265±0.0025                | 0.09±0.03        | 0.42±0.15                | 9.1   |
| $f_{109}$                              | 1.3638±0.0020                | 0.10±0.03        | 3.01±0.12                | 15.0  | $f_{186}$                              | 3.5332±0.0026                | 0.10±0.03        | 1.82±0.16                | 8.7   |
| Frequency list of 0102684117 continued |                              |                  |                          |       | Frequency list of 0102684117 continued |                              |                  |                          |       |

## Appendix C. Frequencies of individual $\gamma$ Dor Candidates

| Frequency list of 0102684117 continued |                              |                  |                          |       | Frequency list of 0102684117 continued          |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|-------------------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                                    | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| <i>f</i> <sub>187</sub>                | 3.5268±0.0025                | 0.08±0.03        | 1.91±0.15                | 9.3   | <i>f</i> <sub>268</sub>                         | 0.6392±0.0033                | 0.08±0.03        | -1.31±0.20               | 5.5   |
| <i>f</i> <sub>189</sub>                | 1.5769±0.0026                | 0.09±0.03        | -1.33±0.16               | 8.5   | <i>f</i> <sub>269</sub>                         | 2.6444±0.0033                | 0.06±0.03        | -0.90±0.20               | 5.5   |
| <i>f</i> <sub>190</sub>                | 2.8864±0.0026                | 0.08±0.03        | -1.07±0.16               | 8.4   | <i>f</i> <sub>270</sub>                         | 0.6076±0.0033                | 0.07±0.03        | -0.46±0.20               | 5.4   |
| <i>f</i> <sub>191</sub>                | 2.7147±0.0026                | 0.09±0.03        | -0.64±0.16               | 8.9   | <i>f</i> <sub>271</sub>                         | 5.0066±0.0033                | 0.06±0.03        | 0.85±0.20                | 5.2   |
| <i>f</i> <sub>192</sub>                | 2.4745±0.0026                | 0.09±0.03        | 2.80±0.16                | 8.5   | <i>f</i> <sub>272</sub>                         | 6.0680±0.0034                | 0.06±0.03        | 2.92±0.21                | 5.1   |
| <i>f</i> <sub>193</sub>                | 2.5314±0.0026                | 0.08±0.03        | -0.94±0.16               | 8.4   | <i>f</i> <sub>273</sub>                         | 5.8669±0.0033                | 0.06±0.03        | -1.18±0.20               | 5.2   |
| <i>f</i> <sub>195</sub>                | 3.4971±0.0027                | 0.08±0.03        | 2.83±0.16                | 8.1   | <i>f</i> <sub>274</sub>                         | 6.2149±0.0033                | 0.06±0.03        | 3.04±0.20                | 5.2   |
| <i>f</i> <sub>196</sub>                | 0.2730±0.0026                | 0.09±0.03        | 2.91±0.16                | 8.4   | <i>f</i> <sub>275</sub>                         | 4.8334±0.0033                | 0.07±0.03        | 0.35±0.20                | 5.2   |
| <i>f</i> <sub>197</sub>                | 0.4265±0.0026                | 0.10±0.03        | -0.61±0.16               | 8.4   | <i>f</i> <sub>276</sub>                         | 4.8147±0.0032                | 0.06±0.02        | -0.42±0.19               | 5.8   |
| <i>f</i> <sub>198</sub>                | 1.6266±0.0026                | 0.08±0.03        | -0.83±0.16               | 8.3   | <i>f</i> <sub>277</sub>                         | 5.4885±0.0033                | 0.06±0.03        | -0.94±0.20               | 5.2   |
| <i>f</i> <sub>199</sub>                | 4.3895±0.0027                | 0.08±0.03        | 0.08±0.16                | 8.1   | <i>f</i> <sub>278</sub>                         | 5.6499±0.0034                | 0.06±0.03        | -1.54±0.21               | 5.1   |
| <i>f</i> <sub>200</sub>                | 5.5833±0.0027                | 0.07±0.02        | -2.31±0.17               | 7.9   | <i>f</i> <sub>279</sub>                         | 2.3423±0.0033                | 0.06±0.03        | 2.74±0.20                | 5.2   |
| <i>f</i> <sub>201</sub>                | 2.1227±0.0027                | 0.07±0.03        | 1.17±0.17                | 7.8   | <i>f</i> <sub>280</sub>                         | 3.9284±0.0034                | 0.06±0.03        | 1.46±0.21                | 5.1   |
| <i>f</i> <sub>202</sub>                | 1.3388±0.0028                | 0.07±0.03        | -0.22±0.17               | 7.7   | <i>f</i> <sub>281</sub>                         | 2.0917±0.0034                | 0.06±0.03        | 1.44±0.21                | 5.0   |
| <i>f</i> <sub>203</sub>                | 1.8846±0.0028                | 0.08±0.03        | 0.15±0.17                | 7.6   | <i>f</i> <sub>282</sub>                         | 1.1670±0.0033                | 0.06±0.03        | -1.40±0.20               | 5.2   |
| <i>f</i> <sub>204</sub>                | 1.1787±0.0028                | 0.09±0.03        | -0.39±0.17               | 7.7   | <i>f</i> <sub>283</sub>                         | 0.1172±0.0033                | 0.07±0.03        | 0.80±0.20                | 5.2   |
| <i>f</i> <sub>205</sub>                | 0.9857±0.0028                | 0.08±0.03        | -0.72±0.17               | 7.4   | <b>Table C.17: Frequency list of 0102685143</b> |                              |                  |                          |       |
| <i>f</i> <sub>206</sub>                | 4.0065±0.0028                | 0.07±0.03        | 2.84±0.17                | 7.3   | Frequency ID                                    | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| <i>f</i> <sub>207</sub>                | 3.1372±0.0028                | 0.07±0.03        | -0.91±0.17               | 7.4   | <i>f</i> <sub>1</sub>                           | 0.3873±0.0003                | 0.37±0.01        | 1.92±0.02                | 743.1 |
| <i>f</i> <sub>208</sub>                | 5.5271±0.0028                | 0.08±0.03        | 0.28±0.17                | 7.4   | <i>f</i> <sub>2</sub>                           | 0.1173±0.0006                | 0.15±0.01        | -0.49±0.04               | 139.3 |
| <i>f</i> <sub>209</sub>                | 3.1062±0.0028                | 0.08±0.03        | 0.18±0.17                | 7.4   | <i>f</i> <sub>3</sub>                           | 0.3818±0.0006                | 0.13±0.01        | -0.30±0.04               | 141.4 |
| <i>f</i> <sub>210</sub>                | 2.6017±0.0028                | 0.08±0.03        | 1.75±0.17                | 7.2   | <i>f</i> <sub>4</sub>                           | 0.1299±0.0006                | 0.14±0.01        | 0.36±0.04                | 143.2 |
| <i>f</i> <sub>211</sub>                | 4.5480±0.0028                | 0.07±0.03        | -2.79±0.17               | 7.4   | <i>f</i> <sub>5</sub>                           | 0.7833±0.0007                | 0.11±0.01        | 1.60±0.04                | 115.0 |
| <i>f</i> <sub>212</sub>                | 4.0325±0.0028                | 0.08±0.03        | -2.48±0.17               | 7.4   | <i>f</i> <sub>6</sub>                           | 0.1660±0.0009                | 0.07±0.01        | 1.52±0.06                | 70.6  |
| <i>f</i> <sub>213</sub>                | 2.2887±0.0028                | 0.07±0.03        | 0.30±0.17                | 7.4   | <i>f</i> <sub>7</sub>                           | 0.4015±0.0010                | 0.06±0.01        | 1.90±0.06                | 54.9  |
| <i>f</i> <sub>214</sub>                | 3.2128±0.0028                | 0.07±0.03        | -0.96±0.17               | 7.4   | <i>f</i> <sub>8</sub>                           | 0.2780±0.0011                | 0.08±0.01        | -2.96±0.07               | 48.8  |
| <i>f</i> <sub>216</sub>                | 1.2678±0.0029                | 0.08±0.03        | -1.79±0.18               | 7.0   | <i>f</i> <sub>9</sub>                           | 0.2316±0.0011                | 0.06±0.01        | -0.47±0.07               | 50.3  |
| <i>f</i> <sub>217</sub>                | 1.7190±0.0029                | 0.07±0.03        | 1.64±0.18                | 7.0   | <i>f</i> <sub>10</sub>                          | 0.1478±0.0012                | 0.07±0.01        | -0.55±0.07               | 43.0  |
| <i>f</i> <sub>218</sub>                | 3.7218±0.0029                | 0.07±0.03        | 1.16±0.18                | 7.0   | <i>f</i> <sub>11</sub>                          | 0.1870±0.0012                | 0.06±0.01        | 0.43±0.07                | 43.7  |
| <i>f</i> <sub>219</sub>                | 0.1440±0.0029                | 0.10±0.04        | -2.15±0.18               | 6.9   | <i>f</i> <sub>12</sub>                          | 0.3913±0.0013                | 0.06±0.01        | 0.28±0.08                | 33.9  |
| <i>f</i> <sub>220</sub>                | 3.7420±0.0029                | 0.07±0.03        | -0.99±0.18               | 6.8   | <i>f</i> <sub>13</sub>                          | 0.2454±0.0013                | 0.06±0.01        | -0.38±0.08               | 33.1  |
| <i>f</i> <sub>221</sub>                | 3.8184±0.0029                | 0.07±0.03        | 2.88±0.18                | 6.9   | <i>f</i> <sub>14</sub>                          | 0.1060±0.0013                | 0.06±0.01        | -1.94±0.08               | 32.3  |
| <i>f</i> <sub>222</sub>                | 0.1773±0.0030                | 0.09±0.04        | 1.77±0.18                | 6.6   | <i>f</i> <sub>15</sub>                          | 0.1983±0.0014                | 0.06±0.01        | -1.55±0.09               | 29.3  |
| <i>f</i> <sub>223</sub>                | 5.0985±0.0030                | 0.07±0.03        | -1.37±0.18               | 6.6   | <i>f</i> <sub>16</sub>                          | 0.2985±0.0015                | 0.04±0.01        | -0.52±0.09               | 26.4  |
| <i>f</i> <sub>224</sub>                | 5.1904±0.0030                | 0.07±0.03        | -0.77±0.18               | 6.5   | <i>f</i> <sub>17</sub>                          | 0.1767±0.0016                | 0.04±0.01        | -1.30±0.10               | 22.8  |
| <i>f</i> <sub>225</sub>                | 3.4543±0.0029                | 0.07±0.03        | 0.60±0.18                | 6.7   | <i>f</i> <sub>18</sub>                          | 0.3341±0.0017                | 0.04±0.01        | -0.10±0.10               | 20.2  |
| <i>f</i> <sub>226</sub>                | 4.9534±0.0030                | 0.07±0.03        | -0.53±0.18               | 6.5   | <i>f</i> <sub>19</sub>                          | 0.9040±0.0017                | 0.04±0.01        | 2.53±0.10                | 20.3  |
| <i>f</i> <sub>227</sub>                | 4.6431±0.0030                | 0.07±0.03        | 1.88±0.18                | 6.6   | <i>f</i> <sub>20</sub>                          | 0.2177±0.0017                | 0.05±0.01        | -0.40±0.10               | 19.8  |
| <i>f</i> <sub>228</sub>                | 6.8743±0.0030                | 0.07±0.03        | -2.50±0.19               | 6.3   | <i>f</i> <sub>21</sub>                          | 0.7959±0.0017                | 0.04±0.01        | 2.59±0.11                | 19.1  |
| <i>f</i> <sub>229</sub>                | 1.5581±0.0030                | 0.07±0.03        | -2.76±0.18               | 6.4   | <i>f</i> <sub>22</sub>                          | 0.7714±0.0018                | 0.04±0.01        | 0.71±0.11                | 17.1  |
| <i>f</i> <sub>230</sub>                | 2.1305±0.0030                | 0.07±0.03        | -2.07±0.18               | 6.4   | <i>f</i> <sub>23</sub>                          | 0.1384±0.0019                | 0.04±0.01        | -2.06±0.11               | 16.5  |
| <i>f</i> <sub>231</sub>                | 2.8322±0.0030                | 0.07±0.03        | -0.39±0.18               | 6.4   | <i>f</i> <sub>24</sub>                          | 0.4790±0.0020                | 0.04±0.01        | -1.54±0.12               | 14.9  |
| <i>f</i> <sub>232</sub>                | 1.9572±0.0030                | 0.07±0.03        | 0.47±0.19                | 6.3   | <i>f</i> <sub>25</sub>                          | 0.4215±0.0020                | 0.04±0.01        | 2.37±0.12                | 15.1  |
| <i>f</i> <sub>233</sub>                | 4.3626±0.0031                | 0.07±0.03        | -1.31±0.19               | 6.2   | <i>f</i> <sub>28</sub>                          | 0.3121±0.0020                | 0.04±0.01        | -1.67±0.12               | 14.0  |
| <i>f</i> <sub>234</sub>                | 0.9779±0.0031                | 0.06±0.02        | 2.33±0.19                | 6.2   | <i>f</i> <sub>29</sub>                          | 0.4694±0.0021                | 0.03±0.01        | 2.16±0.13                | 13.5  |
| <i>f</i> <sub>235</sub>                | 2.3242±0.0031                | 0.07±0.03        | -0.20±0.19               | 6.0   | <i>f</i> <sub>30</sub>                          | 0.3744±0.0021                | 0.04±0.01        | -0.44±0.13               | 13.8  |
| <i>f</i> <sub>236</sub>                | 3.3284±0.0031                | 0.07±0.03        | 1.11±0.19                | 6.0   | <i>f</i> <sub>31</sub>                          | 0.2091±0.0021                | 0.03±0.01        | 1.95±0.13                | 13.2  |
| <i>f</i> <sub>237</sub>                | 3.4187±0.0031                | 0.06±0.02        | -2.68±0.19               | 6.2   | <i>f</i> <sub>33</sub>                          | 2.0061±0.0022                | 0.04±0.01        | 0.41±0.13                | 12.6  |
| <i>f</i> <sub>238</sub>                | 3.4791±0.0030                | 0.07±0.03        | 2.33±0.18                | 6.5   | <i>f</i> <sub>34</sub>                          | 0.6393±0.0022                | 0.04±0.01        | -1.32±0.13               | 12.0  |
| <i>f</i> <sub>239</sub>                | 3.3644±0.0030                | 0.07±0.03        | -0.78±0.19               | 6.3   | <i>f</i> <sub>37</sub>                          | 1.7662±0.0024                | 0.03±0.01        | -3.01±0.15               | 10.3  |
| <i>f</i> <sub>240</sub>                | 3.7898±0.0031                | 0.07±0.03        | 1.88±0.19                | 6.2   | <i>f</i> <sub>38</sub>                          | 0.2615±0.0024                | 0.03±0.01        | -1.02±0.15               | 10.1  |
| <i>f</i> <sub>241</sub>                | 2.5731±0.0031                | 0.07±0.03        | -1.86±0.19               | 6.0   | <i>f</i> <sub>39</sub>                          | 0.6906±0.0024                | 0.03±0.01        | 3.11±0.15                | 9.8   |
| <i>f</i> <sub>242</sub>                | 0.2002±0.0031                | 0.08±0.03        | -1.77±0.19               | 6.0   | <i>f</i> <sub>40</sub>                          | 0.4524±0.0025                | 0.03±0.01        | 0.11±0.15                | 9.2   |
| <i>f</i> <sub>243</sub>                | 0.2365±0.0031                | 0.07±0.03        | 1.15±0.19                | 6.2   | <i>f</i> <sub>43</sub>                          | 0.7786±0.0026                | 0.03±0.01        | 1.32±0.16                | 8.9   |
| <i>f</i> <sub>244</sub>                | 0.2551±0.0030                | 0.07±0.03        | -0.97±0.18               | 6.4   | <i>f</i> <sub>44</sub>                          | 0.2881±0.0026                | 0.03±0.01        | -0.14±0.16               | 8.8   |
| <i>f</i> <sub>245</sub>                | 2.4164±0.0031                | 0.07±0.03        | -0.74±0.19               | 6.0   | <i>f</i> <sub>45</sub>                          | 0.5761±0.0028                | 0.03±0.01        | -1.60±0.17               | 7.2   |
| <i>f</i> <sub>246</sub>                | 2.2275±0.0030                | 0.06±0.02        | 2.51±0.18                | 6.4   | <i>f</i> <sub>46</sub>                          | 0.5946±0.0026                | 0.03±0.01        | 2.47±0.16                | 8.3   |
| <i>f</i> <sub>247</sub>                | 5.3137±0.0031                | 0.06±0.02        | -1.13±0.19               | 5.9   | <i>f</i> <sub>47</sub>                          | 0.7179±0.0027                | 0.03±0.01        | -0.28±0.17               | 7.8   |
| <i>f</i> <sub>250</sub>                | 4.6850±0.0031                | 0.06±0.02        | -2.66±0.19               | 5.9   | <i>f</i> <sub>49</sub>                          | 1.1812±0.0028                | 0.03±0.01        | 3.03±0.17                | 7.2   |
| <i>f</i> <sub>251</sub>                | 3.2943±0.0032                | 0.06±0.02        | -1.39±0.19               | 5.8   | <i>f</i> <sub>50</sub>                          | 0.5152±0.0029                | 0.03±0.01        | -3.10±0.17               | 7.1   |
| <i>f</i> <sub>252</sub>                | 4.0432±0.0032                | 0.07±0.03        | 0.32±0.20                | 5.6   | <i>f</i> <sub>51</sub>                          | 0.8327±0.0029                | 0.03±0.01        | 0.13±0.18                | 6.9   |
| <i>f</i> <sub>253</sub>                | 4.5157±0.0031                | 0.06±0.02        | -0.01±0.19               | 5.9   | <i>f</i> <sub>52</sub>                          | 1.3028±0.0029                | 0.03±0.01        | 1.68±0.18                | 6.9   |
| <i>f</i> <sub>254</sub>                | 6.2570±0.0032                | 0.06±0.03        | -0.58±0.20               | 5.6   | <i>f</i> <sub>53</sub>                          | 1.1674±0.0029                | 0.03±0.01        | -0.90±0.17               | 7.1   |
| <i>f</i> <sub>255</sub>                | 3.6939±0.0032                | 0.06±0.03        | -2.17±0.20               | 5.7   | <i>f</i> <sub>54</sub>                          | 0.1221±0.0029                | 0.03±0.01        | 2.29±0.18                | 6.8   |
| <i>f</i> <sub>256</sub>                | 2.6994±0.0032                | 0.06±0.03        | -0.97±0.20               | 5.7   | <i>f</i> <sub>55</sub>                          | 0.8861±0.0030                | 0.02±0.01        | 1.35±0.19                | 6.3   |
| <i>f</i> <sub>257</sub>                | 4.2528±0.0032                | 0.06±0.03        | -0.43±0.20               | 5.6   | <i>f</i> <sub>56</sub>                          | 0.9681±0.0030                | 0.02±0.01        | 3.10±0.18                | 6.4   |
| <i>f</i> <sub>258</sub>                | 1.3903±0.0033                | 0.07±0.03        | 1.61±0.20                | 5.5   | <i>f</i> <sub>57</sub>                          | 0.6127±0.0030                | 0.02±0.01        | -1.57±0.19               | 6.3   |
| <i>f</i> <sub>259</sub>                | 3.1544±0.0033                | 0.06±0.03        | 0.17±0.20                | 5.5   | <i>f</i> <sub>58</sub>                          | 0.4112±0.0031                | 0.03±0.01        | 0.59±0.19                | 6.2   |
| <i>f</i> <sub>260</sub>                | 2.4972±0.0033                | 0.06±0.03        | -3.13±0.20               | 5.4   | <i>f</i> <sub>59</sub>                          | 0.2399±0.0032                | 0.02±0.01        | 3.00±0.20                | 5.6   |
| <i>f</i> <sub>261</sub>                | 4.7298±0.0033                | 0.06±0.03        | -2.28±0.20               | 5.4   | <i>f</i> <sub>60</sub>                          | 1.6624±0.0033                | 0.02±0.01        | -2.41±0.20               | 5.4   |
| <i>f</i> <sub>262</sub>                | 7.6418±0.0032                | 0.06±0.03        | 0.66±0.20                | 5.6   | <i>f</i> <sub>61</sub>                          | 2.6979±0.0034                | 0.02±0.01        | -2.99±0.21               | 5.1   |
| <i>f</i> <sub>263</sub>                | 5.0558±0.0033                | 0.06±0.03        | 2.16±0.20                | 5.4   | Frequency list of 0102685143 continued          |                              |                  |                          |       |
| <i>f</i> <sub>264</sub>                | 5.3744±0.0033                | 0.06±0.03        | -0.69±0.20               | 5.3   | Frequency list of 0102684117 continued          |                              |                  |                          |       |
| <i>f</i> <sub>265</sub>                | 0.4844±0.0033                | 0.07±0.03        | 2.58±0.20                | 5.3   | Frequency ID                                    | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| <i>f</i> <sub>266</sub>                | 0.4501±0.0033                | 0.07±0.03        | 0.12±0.20                | 5.5   | <i>f</i> <sub>187</sub>                         | 3.5268±0.0025                | 0.08±0.03        | 1.91±0.15                | 9.3   |
| <i>f</i> <sub>267</sub>                | 0.5859±0.0033                | 0.08±0.03        | 1.96±0.20                | 5.3   | <i>f</i> <sub>189</sub>                         | 1.5769±0.0026                | 0.09±0.03        | -1.33±0.16               | 8.5   |

## Appendix C. Frequencies of individual $\gamma$ Dor Candidates

| Frequency list of 0102685143 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{62}$                               | 0.3210±0.0034                | 0.02±0.01        | -2.23±0.21               | 5.0   |
| $f_{63}$                               | 0.7013±0.0034                | 0.02±0.01        | 0.74±0.21                | 5.1   |

**Table C.18:** Frequency list of 0102688846

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|--------------|------------------------------|------------------|--------------------------|-------|
| $f_2$        | 0.1338±0.0011                | 0.20±0.03        | 2.80±0.07                | 44.1  |
| $f_4$        | 2.9599±0.0015                | 0.16±0.03        | -2.76±0.09               | 25.5  |
| $f_6$        | 0.1425±0.0016                | 0.13±0.03        | -2.06±0.10               | 23.9  |
| $f_7$        | 0.2238±0.0017                | 0.14±0.03        | -0.20±0.11               | 19.2  |
| $f_{11}$     | 0.1734±0.0020                | 0.12±0.03        | -2.18±0.12               | 15.0  |
| $f_{12}$     | 3.0060±0.0020                | 0.11±0.03        | -2.10±0.12               | 14.1  |
| $f_{15}$     | 0.2766±0.0021                | 0.10±0.03        | -1.94±0.13               | 13.1  |
| $f_{17}$     | 0.3580±0.0021                | 0.11±0.03        | -0.11±0.13               | 12.7  |
| $f_{19}$     | 0.3040±0.0023                | 0.09±0.03        | 1.75±0.14                | 11.3  |
| $f_{20}$     | 0.4537±0.0023                | 0.09±0.03        | -0.71±0.14               | 10.7  |
| $f_{21}$     | 0.2019±0.0024                | 0.10±0.03        | 1.61±0.15                | 10.1  |
| $f_{22}$     | 0.2431±0.0025                | 0.09±0.03        | -0.88±0.16               | 9.0   |
| $f_{23}$     | 0.1532±0.0025                | 0.10±0.03        | -2.64±0.15               | 9.4   |
| $f_{24}$     | 0.1811±0.0027                | 0.08±0.03        | -1.07±0.16               | 8.2   |
| $f_{28}$     | 0.2889±0.0030                | 0.08±0.03        | -3.00±0.18               | 6.6   |
| $f_{30}$     | 55.8642±0.0032               | 0.07±0.03        | 1.04±0.19                | 5.8   |
| $f_{31}$     | 1.3966±0.0031                | 0.07±0.03        | 2.91±0.19                | 5.9   |
| $f_{32}$     | 0.1297±0.0032                | 0.07±0.03        | 2.84±0.20                | 5.6   |
| $f_{33}$     | 0.9739±0.0032                | 0.07±0.03        | -2.16±0.20               | 5.6   |
| $f_{34}$     | 0.5378±0.0032                | 0.07±0.03        | -2.14±0.20               | 5.6   |

**Table C.19:** Frequency list of 0102690340

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|--------------|------------------------------|------------------|--------------------------|-------|
| $f_1$        | 1.1476±0.0010                | 0.10±0.01        | 0.63±0.06                | 54.0  |
| $f_3$        | 0.1063±0.0013                | 0.09±0.02        | -2.59±0.08               | 35.5  |
| $f_4$        | 0.1606±0.0012                | 0.09±0.01        | 0.64±0.08                | 38.0  |
| $f_5$        | 0.2414±0.0013                | 0.10±0.02        | 0.03±0.08                | 33.0  |
| $f_6$        | 2.2910±0.0013                | 0.08±0.01        | 1.74±0.08                | 32.0  |
| $f_7$        | 0.1208±0.0016                | 0.07±0.01        | 2.22±0.10                | 23.3  |
| $f_8$        | 0.2817±0.0016                | 0.08±0.02        | 2.08±0.10                | 22.5  |
| $f_9$        | 0.2644±0.0017                | 0.07±0.02        | -2.76±0.11               | 19.4  |
| $f_{10}$     | 0.3732±0.0019                | 0.07±0.02        | 3.10±0.11                | 16.8  |
| $f_{11}$     | 0.1454±0.0018                | 0.05±0.01        | 2.28±0.11                | 17.3  |
| $f_{12}$     | 0.3548±0.0019                | 0.06±0.01        | -2.41±0.11               | 16.5  |
| $f_{13}$     | 2.0050±0.0019                | 0.05±0.01        | -2.23±0.12               | 16.0  |
| $f_{14}$     | 0.3333±0.0023                | 0.05±0.02        | 1.84±0.14                | 11.1  |
| $f_{15}$     | 0.3169±0.0022                | 0.04±0.01        | 0.53±0.13                | 12.1  |
| $f_{16}$     | 0.6683±0.0023                | 0.04±0.01        | 0.33±0.14                | 10.6  |
| $f_{17}$     | 0.4148±0.0025                | 0.04±0.01        | -1.26±0.15               | 9.1   |
| $f_{18}$     | 1.2672±0.0027                | 0.04±0.01        | 3.13±0.17                | 7.8   |
| $f_{20}$     | 1.2592±0.0028                | 0.03±0.01        | 1.49±0.17                | 7.2   |
| $f_{21}$     | 0.5167±0.0029                | 0.03±0.01        | -0.06±0.17               | 7.1   |
| $f_{23}$     | 2.2481±0.0030                | 0.03±0.01        | -0.16±0.18               | 6.5   |
| $f_{24}$     | 0.9680±0.0030                | 0.03±0.01        | 1.52±0.18                | 6.4   |
| $f_{25}$     | 0.8690±0.0032                | 0.03±0.01        | 1.37±0.20                | 5.7   |
| $f_{26}$     | 3.4380±0.0032                | 0.03±0.01        | -0.99±0.19               | 5.8   |
| $f_{27}$     | 0.5969±0.0032                | 0.03±0.01        | 0.21±0.20                | 5.7   |
| $f_{28}$     | 0.3812±0.0032                | 0.03±0.01        | -2.01±0.19               | 5.8   |
| $f_{29}$     | 0.4765±0.0032                | 0.03±0.01        | 0.53±0.19                | 5.8   |
| $f_{30}$     | 0.6152±0.0033                | 0.03±0.01        | -1.18±0.20               | 5.4   |
| $f_{31}$     | 1.0113±0.0034                | 0.03±0.01        | 1.52±0.21                | 5.0   |

**Table C.20:** Frequency list of 0102694263

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|--------------|------------------------------|------------------|--------------------------|-------|
| $f_2$        | 1.5584±0.0004                | 1.45±0.08        | 0.73±0.03                | 340.9 |
| $f_3$        | 1.1600±0.0006                | 0.99±0.08        | -2.82±0.04               | 166.1 |
| $f_4$        | 0.5748±0.0006                | 0.88±0.07        | 0.24±0.04                | 152.7 |
| $f_5$        | 1.0363±0.0007                | 0.79±0.07        | -0.45±0.04               | 121.8 |
| $f_6$        | 2.3379±0.0009                | 0.62±0.07        | -3.06±0.05               | 72.8  |
| $f_7$        | 0.7792±0.0009                | 0.57±0.07        | 2.90±0.06                | 68.6  |
| $f_8$        | 3.1165±0.0012                | 0.46±0.07        | 2.01±0.07                | 42.4  |
| $f_9$        | 0.5662±0.0012                | 0.48±0.07        | 0.71±0.07                | 42.1  |
| $f_{10}$     | 3.8959±0.0012                | 0.44±0.07        | -2.59±0.07               | 41.7  |
| $f_{11}$     | 1.0166±0.0012                | 0.49±0.08        | 2.99±0.07                | 42.1  |
| $f_{12}$     | 0.9652±0.0012                | 0.42±0.07        | 2.26±0.07                | 39.7  |
| $f_{13}$     | 0.5579±0.0015                | 0.36±0.07        | 0.82±0.09                | 27.1  |

Frequency list of 0102694263 continued

| Frequency list of 0102694263 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{14}$                               | 4.6748±0.0016                | 0.33±0.07        | 0.57±0.10                | 24.0  |
| $f_{15}$                               | 0.6071±0.0018                | 0.32±0.08        | -2.70±0.11               | 17.5  |
| $f_{16}$                               | 0.6174±0.0016                | 0.34±0.07        | -2.21±0.10               | 22.1  |
| $f_{17}$                               | 1.0019±0.0019                | 0.26±0.06        | 0.71±0.11                | 16.7  |
| $f_{18}$                               | 5.4539±0.0019                | 0.27±0.07        | -2.21±0.12               | 16.4  |
| $f_{19}$                               | 1.0266±0.0022                | 0.24±0.07        | -1.80±0.13               | 12.2  |
| $f_{20}$                               | 0.5954±0.0023                | 0.22±0.07        | 0.40±0.14                | 11.1  |
| $f_{22}$                               | 0.1176±0.0025                | 0.22±0.07        | -2.51±0.15               | 9.7   |
| $f_{24}$                               | 2.0048±0.0026                | 0.20±0.07        | -0.19±0.16               | 8.9   |
| $f_{25}$                               | 0.4313±0.0026                | 0.19±0.07        | 0.62±0.16                | 8.4   |
| $f_{26}$                               | 0.1003±0.0029                | 0.17±0.06        | -1.64±0.17               | 7.1   |
| $f_{27}$                               | 7.0146±0.0031                | 0.16±0.06        | 1.89±0.19                | 6.1   |
| $f_{28}$                               | 6.2334±0.0031                | 0.16±0.07        | -0.32±0.19               | 5.9   |
| $f_{29}$                               | 0.2849±0.0032                | 0.16±0.07        | 1.67±0.19                | 5.8   |
| $f_{30}$                               | 0.2291±0.0033                | 0.15±0.07        | 1.70±0.20                | 5.3   |
| $f_{31}$                               | 0.1831±0.0034                | 0.15±0.07        | -2.20±0.21               | 5.1   |

**Table C.21:** Frequency list of 0102701987

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|--------------|------------------------------|------------------|--------------------------|-------|
| $f_1$        | 0.2078±0.0004                | 0.61±0.03        | -2.03±0.02               | 467.0 |
| $f_2$        | 0.2172±0.0009                | 0.21±0.02        | -1.61±0.05               | 72.5  |
| $f_3$        | 0.4199±0.0009                | 0.21±0.03        | 2.97±0.06                | 68.7  |
| $f_4$        | 0.1434±0.0009                | 0.19±0.02        | 2.66±0.05                | 72.8  |
| $f_5$        | 0.1004±0.0011                | 0.16±0.02        | 1.71±0.07                | 50.4  |
| $f_6$        | 0.2533±0.0011                | 0.14±0.02        | -1.98±0.07               | 47.2  |
| $f_7$        | 0.1890±0.0012                | 0.15±0.02        | 1.88±0.07                | 42.3  |
| $f_8$        | 0.1236±0.0014                | 0.10±0.02        | -1.39±0.08               | 31.6  |
| $f_9$        | 0.1755±0.0014                | 0.12±0.02        | -2.82±0.09               | 29.7  |
| $f_{10}$     | 0.2328±0.0015                | 0.10±0.02        | 1.93±0.09                | 25.5  |
| $f_{13}$     | 0.1683±0.0018                | 0.10±0.02        | 0.02±0.11                | 17.2  |
| $f_{14}$     | 0.1501±0.0018                | 0.09±0.02        | 1.04±0.11                | 18.2  |
| $f_{15}$     | 0.2689±0.0020                | 0.08±0.02        | -3.07±0.12               | 14.1  |
| $f_{16}$     | 0.1355±0.0020                | 0.08±0.02        | 0.65±0.12                | 14.0  |
| $f_{17}$     | 0.4359±0.0020                | 0.08±0.02        | -1.47±0.12               | 13.9  |
| $f_{18}$     | 0.2994±0.0020                | 0.08±0.02        | -0.63±0.12               | 14.2  |
| $f_{19}$     | 0.3779±0.0021                | 0.06±0.02        | 0.13±0.13                | 13.2  |
| $f_{20}$     | 0.4553±0.0022                | 0.07±0.02        | -2.30±0.13               | 12.5  |
| $f_{21}$     | 0.3198±0.0023                | 0.07±0.02        | -1.25±0.14               | 11.0  |
| $f_{22}$     | 1.3898±0.0026                | 0.06±0.02        | -1.11±0.16               | 8.9   |
| $f_{23}$     | 0.3607±0.0026                | 0.06±0.02        | -0.91±0.16               | 8.7   |
| $f_{24}$     | 0.3962±0.0026                | 0.06±0.02        | 3.14±0.16                | 8.4   |
| $f_{26}$     | 0.2261±0.0029                | 0.06±0.02        | -0.14±0.17               | 7.1   |
| $f_{27}$     | 0.7699±0.0029                | 0.05±0.02        | 0.58±0.18                | 6.8   |
| $f_{29}$     | 2.0039±0.0029                | 0.05±0.02        | 1.64±0.18                | 6.7   |
| $f_{30}$     | 0.6987±0.0029                | 0.05±0.02        | 2.58±0.18                | 6.8   |
| $f_{31}$     | 0.8664±0.0031                | 0.05±0.02        | -2.49±0.19               | 6.0   |
| $f_{32}$     | 0.1101±0.0032                | 0.05±0.02        | -1.33±0.19               | 5.8   |
| $f_{33}$     | 0.3449±0.0032                | 0.06±0.02        | -2.74±0.19               | 5.8   |
| $f_{34}$     | 0.3278±0.0030                | 0.05±0.02        | 0.49±0.18                | 6.5   |
| $f_{35}$     | 0.9336±0.0032                | 0.05±0.02        | 0.09±0.20                | 5.6   |
| $f_{36}$     | 0.5006±0.0032                | 0.05±0.02        | 2.01±0.20                | 5.6   |
| $f_{37}$     | 0.4048±0.0034                | 0.05±0.02        | 1.05±0.21                | 5.1   |

**Table C.22:** Frequency list of 0102705144

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|--------------|------------------------------|------------------|--------------------------|-------|
| $f_1$        | 0.1478±0.0010                | 0.12±0.02        | -0.26±0.06               | 60.0  |
| $f_2$        | 1.8572±0.0010                | 0.11±0.01        | -2.96±0.06               | 55.8  |
| $f_3$        | 0.1024±0.0011                | 0.10±0.01        | -0.48±0.07               | 48.5  |
| $f_4$        | 0.1162±0.0011                | 0.09±0.01        | -2.57±0.07               | 44.7  |
| $f_5$        | 4.2204±0.0013                | 0.09±0.01        | -0.58±0.08               | 36.5  |
| $f_6$        | 2.3645±0.0013                | 0.08±0.01        | 0.86±0.08                | 34.9  |
| $f_7$        | 0.1400±0.0014                | 0.07±0.01        | 0.59±0.09                | 28.6  |
| $f_8$        | 0.3001±0.0016                | 0.07±0.01        | -1.97±0.10               | 23.4  |
| $f_9$        | 0.1635±0.0016                | 0.06±0.01        | 1.25±0.10                | 22.8  |
| $f_{10}$     | 4.2534±0.0016                | 0.07±0.01        | 0.36±0.10                | 23.1  |
| $f_{11}$     | 0.2477±0.0016                | 0.06±0.01        | -1.86±0.10               | 22.7  |
| $f_{12}$     | 0.2155±0.0017                | 0.07±0.02        | -2.34±0.10               | 20.2  |
| $f_{13}$     | 2.0157±0.0018                | 0.07±0.02        | -2.45±0.11               | 17.7  |
| $f_{14}$     | 1.8885±0.0019                | 0.06±0.01        | -2.20±0.11               | 16.8  |
| $f_{15}$     | 0.4093±0.0019                | 0.06±0.01        | 0.02±0.12                | 16.3  |
| $f_{16}$     | 0.1306±0.0019                | 0.06±0.02        | 1.69±0.12                | 15.9  |
| $f_{17}$     | 0.1879±0.0019                | 0.06±0.02        | -0.76±0.12               | 15.5  |
| $f_{18}$     | 0.1769±0.0018                | 0.06±0.01        | -2.07±0.11               | 17.3  |
| $f_{19}$     | 1.7824±0.0020                | 0.05±0.01        | 1.08±0.12                | 15.0  |

Frequency list of 0102705144 continued

## Appendix C. Frequencies of individual $\gamma$ Dor Candidates

| Frequency list of 0102705144 continued |                              |                  |                          |       | Frequency list of 0102735225 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{20}$                               | 2.3053±0.0020                | 0.05±0.01        | -2.55±0.12               | 14.7  | $f_{47}$                               | 1.4676±0.0020                | 0.08±0.02        | -0.21±0.12               | 14.7  |
| $f_{21}$                               | 0.5915±0.0020                | 0.05±0.01        | -2.07±0.12               | 14.2  | $f_{48}$                               | 0.1721±0.0021                | 0.09±0.02        | -1.87±0.13               | 13.8  |
| $f_{22}$                               | 2.4398±0.0021                | 0.05±0.01        | -1.49±0.13               | 12.9  | $f_{49}$                               | 0.5726±0.0020                | 0.07±0.02        | 2.29±0.12                | 14.9  |
| $f_{23}$                               | 0.3696±0.0021                | 0.05±0.01        | 1.67±0.13                | 12.9  | $f_{50}$                               | 2.3321±0.0020                | 0.09±0.02        | 0.95±0.12                | 13.9  |
| $f_{24}$                               | 0.4643±0.0022                | 0.05±0.01        | 0.12±0.14                | 11.8  | $f_{51}$                               | 3.7774±0.0021                | 0.09±0.02        | -2.23±0.13               | 13.6  |
| $f_{25}$                               | 0.2749±0.0022                | 0.04±0.01        | -2.62±0.14               | 11.9  | $f_{52}$                               | 0.3512±0.0021                | 0.08±0.02        | 1.04±0.13                | 13.5  |
| $f_{26}$                               | 1.9951±0.0024                | 0.04±0.01        | -0.03±0.15               | 9.8   | $f_{53}$                               | 1.5483±0.0021                | 0.08±0.02        | -2.45±0.13               | 12.8  |
| $f_{27}$                               | 0.5409±0.0025                | 0.04±0.01        | -1.75±0.15               | 9.1   | $f_{54}$                               | 2.1549±0.0022                | 0.08±0.02        | 2.98±0.13                | 12.4  |
| $f_{28}$                               | 0.6613±0.0026                | 0.05±0.02        | 2.31±0.16                | 8.5   | $f_{55}$                               | 5.3638±0.0022                | 0.08±0.02        | 3.07±0.13                | 12.0  |
| $f_{29}$                               | 0.1995±0.0026                | 0.05±0.02        | 2.79±0.16                | 8.4   | $f_{56}$                               | 0.7301±0.0023                | 0.07±0.02        | 2.86±0.14                | 11.3  |
| $f_{30}$                               | 0.3339±0.0025                | 0.04±0.01        | -2.04±0.15               | 9.1   | $f_{57}$                               | 0.3798±0.0023                | 0.08±0.02        | 1.29±0.14                | 11.1  |
| $f_{31}$                               | 1.9086±0.0026                | 0.04±0.01        | -1.09±0.16               | 8.6   | $f_{58}$                               | 2.8078±0.0023                | 0.07±0.02        | -1.07±0.14               | 11.1  |
| $f_{32}$                               | 0.8802±0.0026                | 0.04±0.01        | 2.30±0.16                | 8.4   | $f_{59}$                               | 0.2189±0.0023                | 0.08±0.02        | -2.06±0.14               | 11.1  |
| $f_{33}$                               | 1.5510±0.0026                | 0.04±0.01        | -0.30±0.16               | 8.6   | $f_{61}$                               | 0.1589±0.0024                | 0.07±0.02        | -0.07±0.15               | 10.2  |
| $f_{34}$                               | 0.3808±0.0027                | 0.04±0.01        | 1.16±0.16                | 8.0   | $f_{62}$                               | 0.1052±0.0024                | 0.07±0.02        | 1.50±0.15                | 10.3  |
| $f_{35}$                               | 0.4561±0.0027                | 0.04±0.01        | -1.80±0.16               | 8.1   | $f_{63}$                               | 1.3809±0.0024                | 0.07±0.02        | 2.59±0.15                | 10.2  |
| $f_{36}$                               | 0.4800±0.0028                | 0.04±0.01        | 2.13±0.17                | 7.7   | $f_{64}$                               | 0.9675±0.0024                | 0.07±0.02        | 1.58±0.15                | 10.1  |
| $f_{37}$                               | 0.5093±0.0028                | 0.04±0.01        | -0.19±0.17               | 7.5   | $f_{66}$                               | 0.5820±0.0024                | 0.07±0.02        | 0.75±0.15                | 9.8   |
| $f_{38}$                               | 1.8379±0.0028                | 0.04±0.01        | -0.24±0.17               | 7.4   | $f_{67}$                               | 1.4518±0.0025                | 0.07±0.02        | -0.68±0.15               | 9.6   |
| $f_{39}$                               | 0.2081±0.0028                | 0.04±0.01        | -1.92±0.17               | 7.2   | $f_{69}$                               | 1.0286±0.0025                | 0.06±0.02        | 0.82±0.15                | 9.1   |
| $f_{40}$                               | 1.1521±0.0029                | 0.04±0.02        | 0.29±0.17                | 7.1   | $f_{70}$                               | 2.1013±0.0026                | 0.06±0.02        | 2.88±0.16                | 8.9   |
| $f_{41}$                               | 0.6124±0.0029                | 0.04±0.02        | 1.46±0.18                | 6.9   | $f_{71}$                               | 0.6534±0.0026                | 0.06±0.02        | -1.93±0.16               | 8.9   |
| $f_{42}$                               | 0.5740±0.0029                | 0.04±0.02        | 1.54±0.17                | 7.1   | $f_{72}$                               | 1.5924±0.0026                | 0.07±0.02        | 0.22±0.16                | 8.8   |
| $f_{43}$                               | 1.9483±0.0028                | 0.04±0.01        | -2.16±0.17               | 7.3   | $f_{73}$                               | 0.3977±0.0026                | 0.06±0.02        | -2.74±0.16               | 8.7   |
| $f_{44}$                               | 1.6415±0.0029                | 0.03±0.01        | -2.50±0.18               | 6.7   | $f_{74}$                               | 27.9656±0.0026               | 0.07±0.02        | -2.31±0.16               | 8.6   |
| $f_{45}$                               | 1.3144±0.0030                | 0.03±0.01        | 1.79±0.18                | 6.6   | $f_{75}$                               | 0.7439±0.0027                | 0.06±0.02        | 0.39±0.16                | 8.2   |
| $f_{46}$                               | 0.8193±0.0029                | 0.04±0.02        | -1.74±0.18               | 6.8   | $f_{77}$                               | 12.5371±0.0027               | 0.06±0.02        | -0.83±0.16               | 8.0   |
| $f_{47}$                               | 0.7890±0.0029                | 0.03±0.01        | 3.04±0.18                | 6.9   | $f_{78}$                               | 2.7097±0.0027                | 0.06±0.02        | 1.67±0.16                | 8.0   |
| $f_{48}$                               | 2.3839±0.0029                | 0.04±0.02        | 0.42±0.18                | 6.9   | $f_{79}$                               | 2.0352±0.0026                | 0.07±0.02        | 3.12±0.16                | 8.3   |
| $f_{49}$                               | 2.4588±0.0030                | 0.03±0.01        | 2.52±0.18                | 6.4   | $f_{80}$                               | 0.9338±0.0026                | 0.06±0.02        | -1.34±0.16               | 8.4   |
| $f_{51}$                               | 2.0060±0.0030                | 0.04±0.02        | 2.06±0.18                | 6.4   | $f_{81}$                               | 1.6745±0.0027                | 0.06±0.02        | -0.10±0.16               | 8.0   |
| $f_{54}$                               | 0.4005±0.0031                | 0.03±0.01        | 0.86±0.19                | 6.2   | $f_{84}$                               | 41.8936±0.0027               | 0.08±0.03        | 2.34±0.16                | 8.0   |
| $f_{55}$                               | 3.9612±0.0032                | 0.03±0.01        | -1.61±0.19               | 5.8   | $f_{86}$                               | 0.3635±0.0027                | 0.06±0.02        | -0.26±0.17               | 7.8   |
| $f_{56}$                               | 0.6690±0.0032                | 0.03±0.01        | 0.56±0.19                | 5.8   | $f_{88}$                               | 1.5309±0.0027                | 0.06±0.02        | 1.70±0.17                | 7.9   |
| $f_{57}$                               | 0.1096±0.0032                | 0.03±0.01        | 1.13±0.19                | 5.8   | $f_{89}$                               | 10.6531±0.0027               | 0.06±0.02        | -3.12±0.16               | 8.0   |
| $f_{58}$                               | 0.8671±0.0032                | 0.03±0.01        | -2.91±0.20               | 5.7   | $f_{90}$                               | 6.3571±0.0028                | 0.06±0.02        | -1.68±0.17               | 7.7   |
| $f_{59}$                               | 0.6820±0.0032                | 0.03±0.01        | 1.33±0.20                | 5.6   | $f_{91}$                               | 0.4377±0.0028                | 0.06±0.02        | 0.18±0.17                | 7.6   |
| $f_{60}$                               | 4.7670±0.0033                | 0.03±0.01        | -1.17±0.20               | 5.4   | $f_{93}$                               | 3.7108±0.0028                | 0.06±0.02        | -2.57±0.17               | 7.4   |
| $f_{61}$                               | 0.3577±0.0033                | 0.03±0.01        | 2.11±0.20                | 5.3   | $f_{94}$                               | 3.2941±0.0029                | 0.06±0.02        | 0.14±0.17                | 7.1   |
| $f_{62}$                               | 0.3105±0.0033                | 0.03±0.01        | 1.48±0.20                | 5.3   | $f_{95}$                               | 0.1306±0.0029                | 0.06±0.02        | -0.03±0.17               | 7.1   |
|                                        |                              |                  |                          |       | $f_{96}$                               | 4.2568±0.0028                | 0.06±0.02        | -0.57±0.17               | 7.2   |
|                                        |                              |                  |                          |       | $f_{99}$                               | 0.9583±0.0029                | 0.05±0.02        | -0.69±0.18               | 7.0   |
|                                        |                              |                  |                          |       | $f_{100}$                              | 1.7853±0.0029                | 0.06±0.02        | 1.27±0.18                | 7.0   |
|                                        |                              |                  |                          |       | $f_{101}$                              | 1.7724±0.0029                | 0.05±0.02        | -1.52±0.18               | 6.8   |
|                                        |                              |                  |                          |       | $f_{102}$                              | 3.2872±0.0029                | 0.05±0.02        | 2.67±0.18                | 6.8   |
|                                        |                              |                  |                          |       | $f_{103}$                              | 0.8625±0.0030                | 0.05±0.02        | 3.02±0.18                | 6.6   |
|                                        |                              |                  |                          |       | $f_{104}$                              | 1.1849±0.0030                | 0.05±0.02        | -2.44±0.18               | 6.6   |
|                                        |                              |                  |                          |       | $f_{105}$                              | 1.2836±0.0029                | 0.06±0.02        | 0.76±0.18                | 6.8   |
|                                        |                              |                  |                          |       | $f_{106}$                              | 12.6814±0.0029               | 0.06±0.02        | -1.10±0.18               | 6.9   |
|                                        |                              |                  |                          |       | $f_{107}$                              | 8.2371±0.0030                | 0.06±0.02        | 0.65±0.18                | 6.4   |
|                                        |                              |                  |                          |       | $f_{110}$                              | 3.7498±0.0030                | 0.05±0.02        | 2.38±0.18                | 6.4   |
|                                        |                              |                  |                          |       | $f_{111}$                              | 1.0646±0.0030                | 0.05±0.02        | 1.57±0.18                | 6.5   |
|                                        |                              |                  |                          |       | $f_{113}$                              | 0.9063±0.0030                | 0.06±0.02        | -0.83±0.19               | 6.3   |
|                                        |                              |                  |                          |       | $f_{114}$                              | 2.5243±0.0030                | 0.05±0.02        | 1.35±0.19                | 6.3   |
|                                        |                              |                  |                          |       | $f_{115}$                              | 0.3109±0.0030                | 0.06±0.02        | 0.93±0.19                | 6.3   |
|                                        |                              |                  |                          |       | $f_{116}$                              | 1.7357±0.0031                | 0.05±0.02        | -2.40±0.19               | 6.2   |
|                                        |                              |                  |                          |       | $f_{117}$                              | 10.6268±0.0031               | 0.05±0.02        | 2.78±0.19                | 6.0   |
|                                        |                              |                  |                          |       | $f_{118}$                              | 3.1314±0.0031                | 0.05±0.02        | 0.14±0.19                | 6.1   |
|                                        |                              |                  |                          |       | $f_{119}$                              | 2.9797±0.0031                | 0.05±0.02        | 1.38±0.19                | 6.1   |
|                                        |                              |                  |                          |       | $f_{120}$                              | 56.9511±0.0031               | 0.05±0.02        | 3.03±0.19                | 6.0   |
|                                        |                              |                  |                          |       | $f_{122}$                              | 1.0003±0.0031                | 0.05±0.02        | -0.56±0.19               | 6.0   |
|                                        |                              |                  |                          |       | $f_{125}$                              | 0.7144±0.0032                | 0.05±0.02        | -2.46±0.19               | 5.8   |
|                                        |                              |                  |                          |       | $f_{126}$                              | 2.2903±0.0032                | 0.05±0.02        | -1.24±0.19               | 5.8   |
|                                        |                              |                  |                          |       | $f_{127}$                              | 4.0043±0.0032                | 0.05±0.02        | -0.11±0.19               | 5.8   |
|                                        |                              |                  |                          |       | $f_{128}$                              | 4.1945±0.0032                | 0.05±0.02        | 0.89±0.20                | 5.6   |
|                                        |                              |                  |                          |       | $f_{129}$                              | 2.1388±0.0032                | 0.05±0.02        | -1.85±0.20               | 5.7   |
|                                        |                              |                  |                          |       | $f_{130}$                              | 0.5633±0.0032                | 0.05±0.02        | -1.90±0.20               | 5.6   |
|                                        |                              |                  |                          |       | $f_{131}$                              | 4.7369±0.0032                | 0.05±0.02        | 2.84±0.20                | 5.6   |
|                                        |                              |                  |                          |       | $f_{132}$                              | 0.3874±0.0033                | 0.05±0.02        | 1.26±0.20                | 5.5   |
|                                        |                              |                  |                          |       | $f_{133}$                              | 13.9971±0.0033               | 0.05±0.02        | -0.01±0.20               | 5.5   |
|                                        |                              |                  |                          |       | $f_{134}$                              | 3.3788±0.0033                | 0.05±0.02        | 2.10±0.20                | 5.3   |
|                                        |                              |                  |                          |       | $f_{135}$                              | 3.8356±0.0033                | 0.05±0.02        | -2.51±0.20               | 5.3   |
|                                        |                              |                  |                          |       | $f_{136}$                              | 3.9320±0.0033                | 0.05±0.02        | 2.97±0.20                | 5.5   |
|                                        |                              |                  |                          |       | $f_{137}$                              | 0.6682±0.0033                | 0.05±0.02        | 1.70±0.20                | 5.5   |
|                                        |                              |                  |                          |       | $f_{138}$                              | 1.2308±0.0033                | 0.05±0.02        | 2.22±0.20                | 5.3   |
|                                        |                              |                  |                          |       | $f_{139}$                              | 1.7930±0.0033                | 0.05±0.02        | 0.09±0.20                | 5.3   |
|                                        |                              |                  |                          |       | Frequency list of 0102735225 continued |                              |                  |                          |       |
| Frequency list of 0102735225 continued |                              |                  |                          |       |                                        |                              |                  |                          |       |

## Appendix C. Frequencies of individual $\gamma$ Dor Candidates

| Frequency list of 0102735225 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{140}$                              | 0.3244±0.0033                | 0.05±0.02        | -1.99±0.20               | 5.2   |
| $f_{141}$                              | 3.0292±0.0034                | 0.05±0.02        | -3.07±0.21               | 5.1   |
| $f_{142}$                              | 0.4591±0.0034                | 0.05±0.02        | 3.04±0.21                | 5.1   |
| $f_{143}$                              | 4.4221±0.0034                | 0.05±0.02        | -1.64±0.21               | 5.1   |
| $f_{144}$                              | 8.2531±0.0033                | 0.05±0.02        | -0.55±0.20               | 5.2   |
| $f_{145}$                              | 1.7237±0.0033                | 0.05±0.02        | -0.00±0.20               | 5.2   |

**Table C.24:** Frequency list of 0102748128

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|--------------|------------------------------|------------------|--------------------------|-------|
| $f_1$        | 1.0193±0.0006                | 0.20±0.02        | 3.13±0.04                | 141.8 |
| $f_4$        | 0.1311±0.0016                | 0.09±0.02        | 0.33±0.10                | 23.0  |
| $f_7$        | 0.1084±0.0017                | 0.07±0.02        | 1.63±0.10                | 19.9  |
| $f_{10}$     | 0.1913±0.0020                | 0.06±0.02        | -0.02±0.12               | 15.0  |
| $f_{11}$     | 0.1017±0.0020                | 0.06±0.02        | 1.77±0.12                | 15.3  |
| $f_{13}$     | 0.2873±0.0023                | 0.06±0.02        | -1.69±0.14               | 11.4  |
| $f_{16}$     | 0.1393±0.0024                | 0.06±0.02        | 2.55±0.14                | 10.5  |
| $f_{17}$     | 0.1178±0.0023                | 0.06±0.02        | 2.08±0.14                | 10.6  |
| $f_{19}$     | 0.4658±0.0025                | 0.06±0.02        | -0.14±0.15               | 9.2   |
| $f_{20}$     | 0.3831±0.0025                | 0.05±0.02        | -2.97±0.15               | 9.1   |
| $f_{21}$     | 0.2464±0.0026                | 0.05±0.02        | 1.40±0.16                | 8.3   |
| $f_{23}$     | 0.1032±0.0028                | 0.05±0.02        | 2.76±0.17                | 7.3   |
| $f_{24}$     | 0.4748±0.0028                | 0.05±0.02        | 2.27±0.17                | 7.5   |
| $f_{25}$     | 0.6763±0.0028                | 0.04±0.01        | -0.51±0.17               | 7.4   |
| $f_{26}$     | 0.1698±0.0028                | 0.05±0.02        | 2.56±0.17                | 7.2   |
| $f_{27}$     | 0.1991±0.0030                | 0.04±0.02        | 0.24±0.18                | 6.5   |
| $f_{28}$     | 0.2956±0.0029                | 0.05±0.02        | 1.66±0.17                | 7.1   |
| $f_{29}$     | 0.3890±0.0029                | 0.04±0.02        | -0.29±0.18               | 6.9   |
| $f_{30}$     | 0.4445±0.0030                | 0.04±0.02        | -0.02±0.19               | 6.3   |

**Table C.25:** Frequency list of 0102749148

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|--------------|------------------------------|------------------|--------------------------|-------|
| $f_1$        | 1.3034±0.0010                | 0.12±0.02        | 0.38±0.06                | 59.2  |
| $f_2$        | 0.1972±0.0010                | 0.13±0.02        | -0.76±0.06               | 56.6  |
| $f_4$        | 2.3305±0.0014                | 0.09±0.02        | 1.86±0.08                | 30.6  |
| $f_5$        | 0.3389±0.0016                | 0.09±0.02        | -1.36±0.10               | 23.6  |
| $f_6$        | 0.1017±0.0016                | 0.09±0.02        | -1.15±0.10               | 22.0  |
| $f_7$        | 0.2577±0.0017                | 0.08±0.02        | -2.04±0.10               | 20.0  |
| $f_8$        | 0.1532±0.0017                | 0.09±0.02        | -1.55±0.11               | 19.3  |
| $f_9$        | 0.1731±0.0017                | 0.08±0.02        | 0.42±0.10                | 19.9  |
| $f_{10}$     | 0.4870±0.0018                | 0.08±0.02        | 1.92±0.11                | 19.0  |
| $f_{11}$     | 0.1656±0.0017                | 0.08±0.02        | -1.16±0.11               | 19.2  |
| $f_{12}$     | 0.1276±0.0017                | 0.07±0.02        | -2.50±0.11               | 19.6  |
| $f_{13}$     | 1.2937±0.0018                | 0.07±0.02        | 0.61±0.11                | 18.9  |
| $f_{14}$     | 0.1901±0.0018                | 0.07±0.02        | 0.84±0.11                | 18.5  |
| $f_{15}$     | 0.3954±0.0019                | 0.06±0.01        | 0.87±0.11                | 16.9  |
| $f_{16}$     | 2.3018±0.0019                | 0.07±0.02        | -1.47±0.12               | 15.5  |
| $f_{17}$     | 0.1146±0.0020                | 0.06±0.02        | -1.63±0.12               | 15.2  |
| $f_{18}$     | 0.3141±0.0021                | 0.05±0.01        | -2.46±0.13               | 13.8  |
| $f_{19}$     | 2.2911±0.0021                | 0.06±0.02        | -2.33±0.13               | 13.8  |
| $f_{20}$     | 2.4197±0.0021                | 0.06±0.02        | 0.95±0.13                | 13.2  |
| $f_{21}$     | 1.1876±0.0021                | 0.06±0.02        | -1.94±0.13               | 13.6  |
| $f_{22}$     | 2.5138±0.0021                | 0.06±0.02        | -1.27±0.13               | 12.9  |
| $f_{23}$     | 2.6027±0.0021                | 0.05±0.01        | -0.72±0.13               | 12.9  |
| $f_{24}$     | 1.3468±0.0022                | 0.05±0.01        | 0.27±0.13                | 12.4  |
| $f_{25}$     | 0.6187±0.0021                | 0.05±0.01        | -1.36±0.13               | 12.7  |
| $f_{27}$     | 2.4374±0.0022                | 0.05±0.01        | 2.33±0.14                | 11.6  |
| $f_{28}$     | 2.3169±0.0023                | 0.05±0.01        | 2.51±0.14                | 11.4  |
| $f_{29}$     | 1.4343±0.0023                | 0.05±0.02        | -2.15±0.14               | 10.8  |
| $f_{30}$     | 2.5431±0.0023                | 0.05±0.02        | 3.14±0.14                | 10.6  |
| $f_{32}$     | 0.5079±0.0024                | 0.05±0.02        | -1.49±0.14               | 10.4  |
| $f_{33}$     | 0.4103±0.0024                | 0.05±0.02        | 1.44±0.15                | 10.3  |
| $f_{34}$     | 0.2150±0.0024                | 0.05±0.02        | -0.22±0.15               | 9.9   |
| $f_{35}$     | 0.2329±0.0022                | 0.06±0.02        | -1.50±0.14               | 11.7  |
| $f_{36}$     | 0.5252±0.0025                | 0.05±0.02        | -0.19±0.15               | 9.6   |
| $f_{37}$     | 3.8385±0.0024                | 0.05±0.02        | 2.21±0.15                | 10.1  |
| $f_{38}$     | 0.7265±0.0025                | 0.05±0.02        | 0.68±0.15                | 9.5   |
| $f_{39}$     | 2.5854±0.0024                | 0.05±0.02        | 3.12±0.15                | 10.0  |
| $f_{40}$     | 0.4585±0.0026                | 0.05±0.02        | -0.28±0.16               | 8.7   |
| $f_{41}$     | 2.4792±0.0026                | 0.05±0.02        | -1.11±0.16               | 8.8   |
| $f_{42}$     | 0.3789±0.0026                | 0.06±0.02        | 1.13±0.16                | 8.7   |
| $f_{43}$     | 0.4043±0.0025                | 0.04±0.01        | 2.52±0.15                | 9.1   |

Frequency list of 0102749148 continued

| Frequency list of 0102749148 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{44}$                               | 0.3602±0.0026                | 0.04±0.01        | 1.99±0.16                | 8.8   |
| $f_{45}$                               | 3.8920±0.0026                | 0.04±0.01        | -1.92±0.16               | 8.9   |
| $f_{46}$                               | 0.2854±0.0026                | 0.05±0.02        | 1.50±0.16                | 8.4   |
| $f_{47}$                               | 2.4041±0.0026                | 0.05±0.02        | -0.16±0.16               | 8.4   |
| $f_{48}$                               | 2.5239±0.0026                | 0.05±0.02        | -1.60±0.16               | 8.6   |
| $f_{49}$                               | 0.7117±0.0026                | 0.04±0.01        | 1.26±0.16                | 8.4   |
| $f_{50}$                               | 0.9747±0.0026                | 0.04±0.01        | -1.67±0.16               | 8.7   |
| $f_{51}$                               | 0.2239±0.0027                | 0.05±0.02        | -2.18±0.16               | 8.2   |
| $f_{52}$                               | 1.2585±0.0027                | 0.04±0.01        | -0.61±0.17               | 7.9   |
| $f_{54}$                               | 3.7743±0.0028                | 0.04±0.01        | -1.40±0.17               | 7.7   |
| $f_{55}$                               | 2.3523±0.0028                | 0.04±0.01        | -2.26±0.17               | 7.4   |
| $f_{56}$                               | 0.9470±0.0029                | 0.05±0.02        | -1.28±0.18               | 6.9   |
| $f_{57}$                               | 1.1786±0.0029                | 0.05±0.02        | 1.32±0.18                | 7.0   |
| $f_{58}$                               | 1.1022±0.0028                | 0.04±0.01        | -1.11±0.17               | 7.2   |
| $f_{59}$                               | 0.7994±0.0028                | 0.04±0.01        | -0.68±0.17               | 7.2   |
| $f_{60}$                               | 3.9274±0.0029                | 0.04±0.02        | -0.60±0.18               | 6.7   |
| $f_{61}$                               | 2.6128±0.0030                | 0.04±0.02        | -0.64±0.18               | 6.5   |
| $f_{62}$                               | 1.1679±0.0030                | 0.04±0.02        | -0.96±0.18               | 6.5   |
| $f_{63}$                               | 2.6595±0.0030                | 0.04±0.02        | -2.97±0.18               | 6.4   |
| $f_{64}$                               | 1.2146±0.0030                | 0.04±0.02        | 2.91±0.18                | 6.4   |
| $f_{65}$                               | 0.9644±0.0031                | 0.04±0.02        | 0.52±0.19                | 6.2   |
| $f_{66}$                               | 2.2590±0.0030                | 0.04±0.02        | -2.87±0.19               | 6.3   |
| $f_{67}$                               | 0.5334±0.0030                | 0.04±0.02        | 1.93±0.18                | 6.4   |
| $f_{68}$                               | 1.3237±0.0031                | 0.04±0.02        | -1.51±0.19               | 6.1   |
| $f_{69}$                               | 3.8618±0.0031                | 0.04±0.02        | 2.06±0.19                | 6.0   |
| $f_{70}$                               | 3.8185±0.0031                | 0.04±0.02        | -0.27±0.19               | 6.2   |
| $f_{71}$                               | 1.3313±0.0031                | 0.04±0.02        | -2.76±0.19               | 6.0   |
| $f_{72}$                               | 2.4616±0.0031                | 0.04±0.02        | -1.62±0.19               | 6.1   |
| $f_{73}$                               | 0.3492±0.0031                | 0.04±0.02        | -1.29±0.19               | 5.9   |
| $f_{74}$                               | 0.6271±0.0031                | 0.04±0.02        | 0.31±0.19                | 5.9   |
| $f_{75}$                               | 5.1816±0.0032                | 0.04±0.02        | -2.79±0.19               | 5.8   |
| $f_{76}$                               | 0.3682±0.0032                | 0.04±0.02        | -0.38±0.19               | 5.8   |
| $f_{77}$                               | 3.6758±0.0032                | 0.04±0.02        | 2.91±0.20                | 5.6   |
| $f_{78}$                               | 4.3277±0.0032                | 0.04±0.02        | -2.51±0.20               | 5.7   |
| $f_{79}$                               | 0.6478±0.0032                | 0.04±0.02        | -0.54±0.20               | 5.7   |
| $f_{80}$                               | 1.1222±0.0032                | 0.04±0.02        | -2.54±0.20               | 5.6   |
| $f_{81}$                               | 1.8326±0.0033                | 0.04±0.02        | -1.80±0.20               | 5.5   |
| $f_{82}$                               | 1.3121±0.0033                | 0.04±0.02        | -1.75±0.20               | 5.3   |
| $f_{83}$                               | 0.1459±0.0033                | 0.04±0.02        | -3.04±0.20               | 5.3   |
| $f_{84}$                               | 0.8433±0.0033                | 0.04±0.02        | 1.43±0.20                | 5.3   |

**Table C.26:** Frequency list of 0102764904

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|--------------|------------------------------|------------------|--------------------------|-------|
| $f_1$        | 1.4495±0.0010                | 0.18±0.02        | 0.47±0.06                | 60.6  |
| $f_2$        | 1.6207±0.0010                | 0.17±0.02        | -3.06±0.06               | 56.0  |
| $f_4$        | 0.1017±0.0015                | 0.13±0.03        | -1.36±0.09               | 26.6  |
| $f_5$        | 0.1112±0.0018                | 0.10±0.02        | -1.43±0.11               | 17.1  |
| $f_{11}$     | 0.3804±0.0025                | 0.06±0.02        | 1.77±0.15                | 9.2   |
| $f_{12}$     | 0.2176±0.0026                | 0.06±0.02        | -0.20±0.16               | 8.5   |
| $f_{13}$     | 0.6956±0.0029                | 0.06±0.02        | -2.75±0.18               | 7.0   |
| $f_{14}$     | 0.1686±0.0029                | 0.06±0.02        | -2.78±0.18               | 7.0   |
| $f_{15}$     | 0.2987±0.0030                | 0.06±0.02        | -0.69±0.18               | 6.6   |
| $f_{16}$     | 0.8651±0.0031                | 0.05±0.02        | 0.15±0.19                | 6.1   |
| $f_{17}$     | 1.7531±0.0033                | 0.05±0.02        | 1.07±0.20                | 5.2   |

**Table C.27:** Frequency list of 0102765500

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|--------------|------------------------------|------------------|--------------------------|-------|
| $f_4$        | 1.4569±0.0014                | 0.13±0.02        | 0.45±0.09                | 28.1  |
| $f_6$        | 0.1821±0.0016                | 0.14±0.03        | -0.04±0.09               | 24.1  |
| $f_7$        | 0.1190±0.0015                | 0.12±0.02        | 2.39±0.09                | 24.3  |
| $f_8$        | 0.1610±0.0016                | 0.12±0.02        | -0.30±0.10               | 23.2  |
| $f_9$        | 1.4976±0.0019                | 0.09±0.02        | -0.44±0.12               | 15.8  |
| $f_{10}$     | 0.3180±0.0020                | 0.08±0.02        | -0.90±0.12               | 14.2  |
| $f_{12}$     | 0.2499±0.0020                | 0.09±0.02        | 0.40±0.12                | 14.1  |
| $f_{13}$     | 1.4380±0.0021                | 0.07±0.02        | -2.15±0.13               | 13.1  |
| $f_{14}$     | 0.9994±0.0022                | 0.07±0.02        | 1.34±0.13                | 12.5  |
| $f_{15}$     | 0.1749±0.0022                | 0.07±0.02        | -1.53±0.14               | 11.8  |
| $f_{16}$     | 0.2702±0.0022                | 0.08±0.02        | 0.75±0.14                | 11.9  |
| $f_{17}$     | 0.1337±0.0023                | 0.08±0.02        | -2.13±0.14               | 11.5  |
| $f_{18}$     | 3.0033±0.0025                | 0.07±0.02        | 1.27±0.15                | 9.4   |
| $f_{19}$     | 0.2252±0.0025                | 0.08±0.03        | -2.57±0.15               | 9.5   |
| $f_{20}$     | 0.3104±0.0025                | 0.06±0.02        | 0.54±0.15                | 9.5   |
| $f_{21}$     | 0.5173±0.0026                | 0.06±0.02        | 1.48±0.16                | 8.6   |
| $f_{22}$     | 0.2187±0.0026                | 0.07±0.02        | 1.99±0.16                | 8.3   |

Frequency list of 0102765500 continued



## Appendix C. Frequencies of individual $\gamma$ Dor Candidates

| Frequency list of 0102765500 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{23}$                               | 1.4269±0.0026                | 0.06±0.02        | -0.80±0.16               | 8.4   |
| $f_{24}$                               | 40.5840±0.0027               | 0.06±0.02        | 0.65±0.16                | 8.2   |
| $f_{25}$                               | 0.3447±0.0027                | 0.06±0.02        | 0.85±0.17                | 7.8   |
| $f_{26}$                               | 1.0673±0.0028                | 0.06±0.02        | 0.33±0.17                | 7.6   |
| $f_{27}$                               | 0.3031±0.0028                | 0.06±0.02        | -2.77±0.17               | 7.7   |
| $f_{28}$                               | 0.7385±0.0028                | 0.06±0.02        | 1.33±0.17                | 7.4   |
| $f_{30}$                               | 0.9907±0.0030                | 0.05±0.02        | 3.00±0.18                | 6.5   |
| $f_{31}$                               | 0.9247±0.0030                | 0.05±0.02        | -0.53±0.18               | 6.5   |
| $f_{32}$                               | 0.3681±0.0030                | 0.06±0.02        | 0.76±0.18                | 6.6   |
| $f_{33}$                               | 38.6216±0.0030               | 0.05±0.02        | -2.11±0.18               | 6.4   |
| $f_{34}$                               | 0.1962±0.0031                | 0.06±0.02        | 0.04±0.19                | 6.1   |
| $f_{35}$                               | 0.4389±0.0031                | 0.05±0.02        | 2.17±0.19                | 6.1   |
| $f_{36}$                               | 2.0029±0.0033                | 0.05±0.02        | 0.40±0.20                | 5.5   |
| $f_{37}$                               | 3.9690±0.0033                | 0.05±0.02        | 0.95±0.20                | 5.4   |
| $f_{38}$                               | 1.5356±0.0033                | 0.05±0.02        | -0.19±0.20               | 5.2   |

**Table C.28:** Frequency list of 0102782199

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|--------------|------------------------------|------------------|--------------------------|-------|
| $f_1$        | 2.2398±0.0012                | 0.08±0.01        | 0.08±0.07                | 39.5  |
| $f_2$        | 0.1098±0.0013                | 0.07±0.01        | 0.29±0.08                | 33.6  |
| $f_3$        | 1.9837±0.0014                | 0.06±0.01        | 1.29±0.09                | 29.9  |
| $f_4$        | 2.2169±0.0014                | 0.07±0.01        | 0.74±0.09                | 29.5  |
| $f_5$        | 0.1506±0.0014                | 0.06±0.01        | -0.35±0.09               | 27.9  |
| $f_6$        | 2.2955±0.0015                | 0.06±0.01        | -0.58±0.09               | 26.4  |
| $f_7$        | 2.1164±0.0016                | 0.06±0.01        | -2.92±0.10               | 22.7  |
| $f_8$        | 1.4698±0.0017                | 0.06±0.01        | -1.15±0.10               | 20.1  |
| $f_9$        | 3.8881±0.0018                | 0.05±0.01        | -1.77±0.11               | 18.8  |
| $f_{10}$     | 3.9637±0.0019                | 0.05±0.01        | 0.17±0.11                | 16.7  |
| $f_{11}$     | 1.0056±0.0019                | 0.05±0.01        | -2.17±0.12               | 16.1  |
| $f_{12}$     | 0.3719±0.0019                | 0.05±0.01        | 1.25±0.12                | 15.6  |
| $f_{13}$     | 0.3116±0.0020                | 0.04±0.01        | 2.13±0.12                | 15.0  |
| $f_{14}$     | 0.9761±0.0020                | 0.05±0.01        | 0.48±0.12                | 14.6  |
| $f_{15}$     | 0.1692±0.0022                | 0.05±0.01        | -1.03±0.13               | 12.6  |
| $f_{16}$     | 0.5057±0.0023                | 0.04±0.01        | 0.03±0.14                | 11.4  |
| $f_{17}$     | 0.3566±0.0023                | 0.04±0.01        | 2.75±0.14                | 10.9  |
| $f_{18}$     | 0.4597±0.0024                | 0.04±0.01        | 2.05±0.15                | 10.3  |
| $f_{20}$     | 4.7728±0.0024                | 0.04±0.01        | 1.83±0.15                | 10.0  |
| $f_{21}$     | 0.6374±0.0025                | 0.04±0.01        | -0.02±0.15               | 9.7   |
| $f_{22}$     | 0.1902±0.0025                | 0.03±0.01        | -2.32±0.15               | 9.5   |
| $f_{23}$     | 1.4804±0.0025                | 0.04±0.01        | -2.83±0.15               | 9.7   |
| $f_{24}$     | 1.0595±0.0025                | 0.04±0.01        | 0.30±0.15                | 9.2   |
| $f_{26}$     | 1.2431±0.0025                | 0.03±0.01        | -3.01±0.16               | 9.0   |
| $f_{27}$     | 1.3516±0.0025                | 0.04±0.01        | -2.84±0.16               | 9.0   |
| $f_{28}$     | 0.2564±0.0026                | 0.04±0.01        | -2.07±0.16               | 8.5   |
| $f_{30}$     | 0.8042±0.0027                | 0.04±0.01        | -2.59±0.16               | 8.1   |
| $f_{31}$     | 1.0281±0.0027                | 0.03±0.01        | -0.25±0.16               | 8.2   |
| $f_{32}$     | 0.6245±0.0028                | 0.03±0.01        | 0.57±0.17                | 7.7   |
| $f_{33}$     | 0.3658±0.0028                | 0.03±0.01        | 0.82±0.17                | 7.3   |
| $f_{34}$     | 0.2800±0.0028                | 0.03±0.01        | -0.79±0.17               | 7.2   |
| $f_{35}$     | 2.5752±0.0029                | 0.03±0.01        | 2.40±0.17                | 7.1   |
| $f_{37}$     | 0.1390±0.0029                | 0.03±0.01        | 2.09±0.18                | 7.0   |
| $f_{38}$     | 0.1043±0.0028                | 0.03±0.01        | -2.28±0.17               | 7.2   |
| $f_{39}$     | 0.6957±0.0029                | 0.03±0.01        | -3.04±0.18               | 6.7   |
| $f_{40}$     | 4.3025±0.0029                | 0.03±0.01        | -1.51±0.18               | 6.9   |
| $f_{41}$     | 0.1784±0.0030                | 0.03±0.01        | -1.52±0.18               | 6.6   |
| $f_{42}$     | 0.2410±0.0030                | 0.03±0.01        | -1.67±0.18               | 6.6   |
| $f_{43}$     | 0.7465±0.0029                | 0.03±0.01        | -0.47±0.18               | 6.7   |
| $f_{44}$     | 5.4352±0.0030                | 0.03±0.01        | 0.48±0.18                | 6.4   |
| $f_{45}$     | 2.0040±0.0030                | 0.03±0.01        | -2.94±0.19               | 6.3   |
| $f_{46}$     | 1.1728±0.0031                | 0.03±0.01        | 2.76±0.19                | 6.2   |
| $f_{47}$     | 0.9697±0.0031                | 0.03±0.01        | 1.22±0.19                | 6.1   |
| $f_{48}$     | 0.2656±0.0031                | 0.03±0.01        | 3.09±0.19                | 5.9   |
| $f_{49}$     | 0.5902±0.0032                | 0.03±0.01        | -2.17±0.20               | 5.7   |
| $f_{50}$     | 2.4749±0.0032                | 0.03±0.01        | 0.85±0.19                | 5.8   |
| $f_{51}$     | 1.3893±0.0032                | 0.03±0.01        | -1.20±0.20               | 5.6   |
| $f_{52}$     | 1.4004±0.0033                | 0.03±0.01        | 1.43±0.20                | 5.5   |
| $f_{53}$     | 0.4126±0.0033                | 0.03±0.01        | 1.49±0.20                | 5.4   |
| $f_{54}$     | 1.6423±0.0033                | 0.03±0.01        | 1.53±0.20                | 5.4   |
| $f_{55}$     | 1.3190±0.0033                | 0.03±0.01        | 2.65±0.20                | 5.4   |
| $f_{56}$     | 1.9715±0.0033                | 0.03±0.01        | 0.83±0.20                | 5.3   |
| $f_{57}$     | 1.0754±0.0033                | 0.03±0.01        | 0.56±0.20                | 5.5   |
| $f_{58}$     | 0.9155±0.0033                | 0.03±0.01        | 3.07±0.20                | 5.3   |

Frequency list of 0102782199 continued

| Frequency list of 0102782199 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{59}$                               | 1.0901±0.0034                | 0.03±0.01        | 2.09±0.21                | 5.1   |

**Table C.29:** Frequency list of 0102785780

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign.  |
|--------------|------------------------------|------------------|--------------------------|--------|
| $f_1$        | 1.6840±0.0002                | 1.84±0.05        | -0.15±0.01               | 1468.0 |
| $f_2$        | 1.7465±0.0004                | 0.73±0.04        | 2.68±0.03                | 337.4  |
| $f_3$        | 1.9790±0.0005                | 0.65±0.04        | 1.90±0.03                | 276.4  |
| $f_4$        | 1.8932±0.0005                | 0.59±0.04        | 0.32±0.03                | 235.4  |
| $f_5$        | 1.6278±0.0006                | 0.46±0.04        | -3.11±0.04               | 163.6  |
| $f_6$        | 0.1262±0.0006                | 0.33±0.03        | -0.54±0.04               | 154.2  |
| $f_7$        | 0.1408±0.0009                | 0.22±0.03        | 2.10±0.05                | 75.9   |
| $f_8$        | 0.1165±0.0009                | 0.24±0.03        | 1.78±0.06                | 68.9   |
| $f_9$        | 0.1767±0.0009                | 0.26±0.03        | 2.79±0.06                | 67.7   |
| $f_{10}$     | 1.8160±0.0010                | 0.24±0.03        | 0.50±0.06                | 55.6   |
| $f_{12}$     | 0.1039±0.0011                | 0.25±0.03        | -1.22±0.06               | 52.3   |
| $f_{13}$     | 0.1526±0.0011                | 0.24±0.03        | 2.26±0.07                | 51.1   |
| $f_{14}$     | 2.2694±0.0011                | 0.22±0.03        | 1.16±0.06                | 52.3   |
| $f_{15}$     | 0.4241±0.0011                | 0.20±0.03        | -1.04±0.06               | 52.7   |
| $f_{17}$     | 0.2565±0.0011                | 0.20±0.03        | 1.84±0.07                | 47.6   |
| $f_{18}$     | 0.2136±0.0011                | 0.18±0.03        | 1.45±0.07                | 44.6   |
| $f_{19}$     | 0.5191±0.0012                | 0.21±0.03        | 0.53±0.07                | 41.5   |
| $f_{20}$     | 0.3550±0.0012                | 0.19±0.03        | 1.83±0.07                | 40.1   |
| $f_{21}$     | 0.2845±0.0013                | 0.15±0.03        | -1.86±0.08               | 32.1   |
| $f_{22}$     | 0.4041±0.0013                | 0.15±0.03        | -0.63±0.08               | 32.8   |
| $f_{23}$     | 2.5653±0.0014                | 0.16±0.03        | -2.20±0.08               | 31.6   |
| $f_{24}$     | 0.7301±0.0014                | 0.17±0.03        | 0.62±0.08                | 30.8   |
| $f_{26}$     | 0.1103±0.0015                | 0.13±0.03        | -1.25±0.09               | 26.9   |
| $f_{28}$     | 1.8638±0.0015                | 0.15±0.03        | 2.43±0.09                | 24.5   |
| $f_{29}$     | 0.1819±0.0016                | 0.13±0.03        | 0.15±0.10                | 22.9   |
| $f_{30}$     | 0.2034±0.0015                | 0.15±0.03        | 1.79±0.09                | 25.4   |
| $f_{31}$     | 0.6109±0.0016                | 0.11±0.02        | 0.42±0.10                | 23.2   |
| $f_{32}$     | 0.3187±0.0016                | 0.16±0.03        | -0.37±0.10               | 23.4   |
| $f_{33}$     | 1.2364±0.0016                | 0.14±0.03        | 2.32±0.10                | 23.0   |
| $f_{34}$     | 2.1165±0.0016                | 0.16±0.03        | 2.32±0.10                | 22.3   |
| $f_{35}$     | 1.0671±0.0016                | 0.12±0.03        | -1.81±0.10               | 22.0   |
| $f_{39}$     | 3.3667±0.0017                | 0.12±0.03        | 2.41±0.10                | 20.7   |
| $f_{41}$     | 1.4591±0.0017                | 0.13±0.03        | 3.05±0.10                | 20.8   |
| $f_{42}$     | 0.4333±0.0017                | 0.12±0.03        | 1.46±0.10                | 20.9   |
| $f_{44}$     | 0.3611±0.0017                | 0.11±0.02        | 1.86±0.10                | 20.3   |
| $f_{45}$     | 2.0143±0.0017                | 0.13±0.03        | -1.06±0.10               | 20.0   |
| $f_{46}$     | 0.2432±0.0017                | 0.12±0.03        | 1.44±0.10                | 19.9   |
| $f_{47}$     | 0.2736±0.0017                | 0.13±0.03        | -2.76±0.11               | 19.2   |
| $f_{48}$     | 0.2945±0.0017                | 0.15±0.03        | 2.16±0.10                | 20.2   |
| $f_{49}$     | 0.3060±0.0016                | 0.13±0.03        | -0.29±0.10               | 22.4   |
| $f_{50}$     | 0.7583±0.0017                | 0.13±0.03        | 2.69±0.10                | 20.3   |
| $f_{51}$     | 0.1921±0.0017                | 0.13±0.03        | 1.76±0.10                | 20.8   |
| $f_{52}$     | 0.5368±0.0017                | 0.12±0.03        | 2.34±0.10                | 19.7   |
| $f_{53}$     | 1.3088±0.0017                | 0.12±0.03        | 2.64±0.11                | 19.1   |
| $f_{54}$     | 0.9438±0.0017                | 0.10±0.02        | 1.79±0.11                | 19.4   |
| $f_{55}$     | 0.3821±0.0018                | 0.13±0.03        | -1.54±0.11               | 18.4   |
| $f_{56}$     | 2.0603±0.0018                | 0.11±0.03        | 0.47±0.11                | 17.6   |
| $f_{57}$     | 0.2210±0.0018                | 0.11±0.03        | -2.48±0.11               | 18.3   |
| $f_{58}$     | 2.4599±0.0019                | 0.12±0.03        | -2.19±0.11               | 16.9   |
| $f_{59}$     | 0.8923±0.0019                | 0.09±0.02        | -0.99±0.11               | 17.0   |
| $f_{61}$     | 0.4945±0.0019                | 0.08±0.02        | 0.52±0.12                | 16.1   |
| $f_{62}$     | 0.5855±0.0020                | 0.11±0.03        | -2.48±0.12               | 15.0   |
| $f_{63}$     | 1.7622±0.0020                | 0.10±0.03        | 0.50±0.12                | 14.8   |
| $f_{64}$     | 2.3498±0.0020                | 0.10±0.03        | 1.26±0.12                | 14.9   |
| $f_{66}$     | 0.6527±0.0020                | 0.12±0.03        | -1.60±0.12               | 14.5   |
| $f_{67}$     | 1.3732±0.0020                | 0.09±0.02        | -2.15±0.12               | 14.5   |
| $f_{68}$     | 0.3355±0.0020                | 0.10±0.03        | -1.67±0.12               | 14.4   |
| $f_{69}$     | 0.6802±0.0020                | 0.11±0.03        | 0.34±0.12                | 14.0   |
| $f_{70}$     | 1.9072±0.0021                | 0.11±0.03        | -2.14±0.13               | 13.4   |
| $f_{71}$     | 1.8814±0.0020                | 0.10±0.03        | 1.67±0.12                | 15.0   |
| $f_{74}$     | 0.1690±0.0021                | 0.09±0.02        | -2.22±0.13               | 13.2   |
| $f_{75}$     | 0.8270±0.0021                | 0.09±0.02        | -1.29±0.13               | 13.3   |
| $f_{76}$     | 1.6417±0.0021                | 0.09±0.02        | 0.99±0.13                | 13.1   |
| $f_{77}$     | 2.0285±0.0021                | 0.09±0.02        | -2.06±0.13               | 13.4   |
| $f_{78}$     | 2.6129±0.0021                | 0.08±0.02        | -2.26±0.13               | 12.8   |
| $f_{79}$     | 2.2322±0.0021                | 0.09±0.03        | 1.84±0.13                | 12.9   |

Frequency list of 0102785780 continued

## Appendix C. Frequencies of individual $\gamma$ Dor Candidates

| Frequency list of 0102785780 continued |                              |                  |                          |       | Frequency list of 0102785780 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{80}$                               | 0.6220±0.0021                | 0.08±0.02        | -1.46±0.13               | 12.8  | $f_{176}$                              | 2.1864±0.0032                | 0.05±0.02        | -0.58±0.20               | 5.7   |
| $f_{81}$                               | 0.3904±0.0021                | 0.09±0.03        | 2.00±0.13                | 12.8  | $f_{177}$                              | 0.9902±0.0031                | 0.05±0.02        | -1.91±0.19               | 5.9   |
| $f_{82}$                               | 0.4560±0.0020                | 0.09±0.02        | 2.65±0.12                | 14.2  | $f_{178}$                              | 2.3321±0.0033                | 0.05±0.02        | 3.02±0.20                | 5.5   |
| $f_{83}$                               | 0.7876±0.0021                | 0.08±0.02        | -1.59±0.13               | 12.9  | $f_{179}$                              | 1.6553±0.0032                | 0.06±0.03        | -1.53±0.20               | 5.6   |
| $f_{84}$                               | 0.8785±0.0022                | 0.09±0.03        | 0.22±0.13                | 12.5  | $f_{180}$                              | 0.9188±0.0033                | 0.05±0.02        | 0.11±0.20                | 5.5   |
| $f_{85}$                               | 0.4834±0.0022                | 0.09±0.03        | 0.96±0.13                | 12.4  | $f_{181}$                              | 2.7926±0.0033                | 0.05±0.02        | 1.56±0.20                | 5.5   |
| $f_{86}$                               | 1.3905±0.0022                | 0.09±0.03        | 1.37±0.13                | 12.2  | $f_{182}$                              | 1.7929±0.0033                | 0.05±0.02        | 2.42±0.20                | 5.3   |
| $f_{87}$                               | 1.2198±0.0022                | 0.09±0.03        | -1.43±0.13               | 12.2  | $f_{186}$                              | 1.3603±0.0033                | 0.05±0.02        | 2.00±0.20                | 5.2   |
| $f_{88}$                               | 1.5631±0.0022                | 0.09±0.03        | 1.35±0.13                | 12.1  | $f_{188}$                              | 1.2050±0.0034                | 0.05±0.02        | 0.29±0.21                | 5.1   |
| $f_{89}$                               | 1.6132±0.0022                | 0.09±0.03        | -0.67±0.13               | 12.3  | $f_{189}$                              | 1.3216±0.0033                | 0.05±0.02        | 2.54±0.20                | 5.2   |
| $f_{90}$                               | 0.6400±0.0022                | 0.07±0.02        | -2.70±0.13               | 12.4  | $f_{190}$                              | 0.7168±0.0033                | 0.05±0.02        | 2.66±0.20                | 5.2   |
| $f_{92}$                               | 0.1318±0.0022                | 0.08±0.02        | -2.45±0.14               | 11.7  |                                        |                              |                  |                          |       |
| $f_{93}$                               | 0.7059±0.0023                | 0.07±0.02        | 0.31±0.14                | 11.2  |                                        |                              |                  |                          |       |
| $f_{95}$                               | 1.8096±0.0023                | 0.07±0.02        | 1.05±0.14                | 10.8  |                                        |                              |                  |                          |       |
| $f_{98}$                               | 0.3713±0.0024                | 0.09±0.03        | 2.90±0.14                | 10.5  |                                        |                              |                  |                          |       |
| $f_{99}$                               | 0.8051±0.0024                | 0.08±0.02        | -1.08±0.14               | 10.5  |                                        |                              |                  |                          |       |
| $f_{100}$                              | 2.6274±0.0023                | 0.08±0.02        | -1.31±0.14               | 10.8  |                                        |                              |                  |                          |       |
| $f_{101}$                              | 2.7344±0.0023                | 0.09±0.03        | -0.53±0.14               | 10.6  |                                        |                              |                  |                          |       |
| $f_{102}$                              | 2.6994±0.0024                | 0.08±0.02        | 1.65±0.14                | 10.5  |                                        |                              |                  |                          |       |
| $f_{103}$                              | 0.5038±0.0023                | 0.08±0.02        | -0.89±0.14               | 10.7  |                                        |                              |                  |                          |       |
| $f_{104}$                              | 2.1718±0.0024                | 0.07±0.02        | -0.84±0.14               | 10.5  |                                        |                              |                  |                          |       |
| $f_{105}$                              | 2.0477±0.0024                | 0.07±0.02        | -1.51±0.15               | 10.2  |                                        |                              |                  |                          |       |
| $f_{111}$                              | 2.0037±0.0022                | 0.16±0.05        | 0.43±0.14                | 11.9  |                                        |                              |                  |                          |       |
| $f_{116}$                              | 1.5009±0.0025                | 0.08±0.03        | 1.12±0.15                | 9.4   |                                        |                              |                  |                          |       |
| $f_{117}$                              | 0.9362±0.0025                | 0.07±0.02        | 2.22±0.15                | 9.5   |                                        |                              |                  |                          |       |
| $f_{118}$                              | 0.8551±0.0025                | 0.07±0.02        | 1.30±0.15                | 9.4   |                                        |                              |                  |                          |       |
| $f_{119}$                              | 0.7772±0.0025                | 0.08±0.03        | 0.36±0.15                | 9.1   |                                        |                              |                  |                          |       |
| $f_{120}$                              | 2.4191±0.0025                | 0.08±0.03        | -2.42±0.15               | 9.2   |                                        |                              |                  |                          |       |
| $f_{121}$                              | 3.4326±0.0025                | 0.07±0.02        | -1.75±0.16               | 9.0   |                                        |                              |                  |                          |       |
| $f_{122}$                              | 0.1430±0.0026                | 0.07±0.02        | -2.41±0.16               | 8.7   |                                        |                              |                  |                          |       |
| $f_{123}$                              | 2.9851±0.0026                | 0.07±0.02        | -2.43±0.16               | 8.9   |                                        |                              |                  |                          |       |
| $f_{124}$                              | 2.7764±0.0026                | 0.08±0.03        | 2.98±0.16                | 8.7   |                                        |                              |                  |                          |       |
| $f_{126}$                              | 1.0988±0.0026                | 0.07±0.02        | -0.18±0.16               | 8.5   |                                        |                              |                  |                          |       |
| $f_{128}$                              | 2.3033±0.0027                | 0.07±0.02        | 2.56±0.17                | 7.9   |                                        |                              |                  |                          |       |
| $f_{129}$                              | 0.1750±0.0026                | 0.07±0.02        | 2.42±0.16                | 8.3   |                                        |                              |                  |                          |       |
| $f_{130}$                              | 3.6627±0.0027                | 0.06±0.02        | -1.05±0.16               | 8.1   |                                        |                              |                  |                          |       |
| $f_{131}$                              | 1.5732±0.0027                | 0.07±0.02        | 0.87±0.16                | 8.1   |                                        |                              |                  |                          |       |
| $f_{133}$                              | 1.5440±0.0027                | 0.06±0.02        | 0.77±0.17                | 7.8   |                                        |                              |                  |                          |       |
| $f_{134}$                              | 0.5557±0.0027                | 0.08±0.03        | 0.75±0.16                | 8.0   |                                        |                              |                  |                          |       |
| $f_{135}$                              | 2.6458±0.0028                | 0.07±0.03        | -0.64±0.17               | 7.7   |                                        |                              |                  |                          |       |
| $f_{136}$                              | 0.9646±0.0028                | 0.08±0.03        | 2.37±0.17                | 7.6   |                                        |                              |                  |                          |       |
| $f_{137}$                              | 0.9538±0.0026                | 0.07±0.02        | -0.92±0.16               | 8.6   |                                        |                              |                  |                          |       |
| $f_{138}$                              | 0.6980±0.0028                | 0.06±0.02        | 2.12±0.17                | 7.6   |                                        |                              |                  |                          |       |
| $f_{140}$                              | 1.6973±0.0028                | 0.07±0.03        | 1.76±0.17                | 7.5   |                                        |                              |                  |                          |       |
| $f_{141}$                              | 1.8980±0.0028                | 0.07±0.03        | -3.00±0.17               | 7.5   |                                        |                              |                  |                          |       |
| $f_{142}$                              | 1.4833±0.0028                | 0.07±0.03        | 1.27±0.17                | 7.3   |                                        |                              |                  |                          |       |
| $f_{143}$                              | 1.4510±0.0027                | 0.06±0.02        | 2.27±0.17                | 7.9   |                                        |                              |                  |                          |       |
| $f_{144}$                              | 2.1268±0.0028                | 0.07±0.03        | 2.12±0.17                | 7.3   |                                        |                              |                  |                          |       |
| $f_{145}$                              | 0.5773±0.0028                | 0.07±0.03        | -2.35±0.17               | 7.3   |                                        |                              |                  |                          |       |
| $f_{146}$                              | 0.6293±0.0028                | 0.07±0.03        | -1.55±0.17               | 7.5   |                                        |                              |                  |                          |       |
| $f_{147}$                              | 0.6022±0.0028                | 0.07±0.03        | 0.16±0.17                | 7.3   |                                        |                              |                  |                          |       |
| $f_{148}$                              | 1.9904±0.0028                | 0.07±0.03        | 1.80±0.17                | 7.4   |                                        |                              |                  |                          |       |
| $f_{149}$                              | 1.2514±0.0028                | 0.06±0.02        | 2.52±0.17                | 7.3   |                                        |                              |                  |                          |       |
| $f_{150}$                              | 2.7222±0.0028                | 0.06±0.02        | 1.68±0.17                | 7.2   |                                        |                              |                  |                          |       |
| $f_{151}$                              | 0.1185±0.0029                | 0.06±0.02        | 0.85±0.17                | 7.1   |                                        |                              |                  |                          |       |
| $f_{152}$                              | 2.1637±0.0029                | 0.06±0.02        | 2.01±0.18                | 6.9   |                                        |                              |                  |                          |       |
| $f_{153}$                              | 2.7505±0.0030                | 0.06±0.02        | 0.22±0.18                | 6.5   |                                        |                              |                  |                          |       |
| $f_{154}$                              | 2.3897±0.0030                | 0.06±0.02        | -1.15±0.18               | 6.5   |                                        |                              |                  |                          |       |
| $f_{156}$                              | 0.8861±0.0030                | 0.06±0.02        | -2.82±0.18               | 6.5   |                                        |                              |                  |                          |       |
| $f_{157}$                              | 1.2753±0.0030                | 0.06±0.02        | 1.35±0.18                | 6.5   |                                        |                              |                  |                          |       |
| $f_{159}$                              | 0.2307±0.0031                | 0.06±0.02        | 0.66±0.19                | 6.2   |                                        |                              |                  |                          |       |
| $f_{160}$                              | 1.1954±0.0031                | 0.06±0.02        | 2.12±0.19                | 6.1   |                                        |                              |                  |                          |       |
| $f_{161}$                              | 1.1826±0.0028                | 0.06±0.02        | 0.89±0.17                | 7.5   |                                        |                              |                  |                          |       |
| $f_{163}$                              | 2.5982±0.0031                | 0.05±0.02        | 1.74±0.19                | 6.0   |                                        |                              |                  |                          |       |
| $f_{164}$                              | 1.0171±0.0031                | 0.06±0.02        | -2.48±0.19               | 6.1   |                                        |                              |                  |                          |       |
| $f_{165}$                              | 1.1183±0.0031                | 0.06±0.02        | -0.96±0.19               | 6.2   |                                        |                              |                  |                          |       |
| $f_{166}$                              | 1.0544±0.0030                | 0.06±0.02        | -0.01±0.19               | 6.3   |                                        |                              |                  |                          |       |
| $f_{167}$                              | 1.5259±0.0030                | 0.06±0.02        | 2.12±0.19                | 6.3   |                                        |                              |                  |                          |       |
| $f_{168}$                              | 0.1594±0.0031                | 0.06±0.02        | 1.78±0.19                | 6.1   |                                        |                              |                  |                          |       |
| $f_{169}$                              | 2.4823±0.0031                | 0.06±0.02        | -2.88±0.19               | 6.2   |                                        |                              |                  |                          |       |
| $f_{170}$                              | 1.9679±0.0031                | 0.06±0.02        | -2.81±0.19               | 6.1   |                                        |                              |                  |                          |       |
| $f_{171}$                              | 1.4059±0.0031                | 0.06±0.02        | 1.42±0.19                | 5.9   |                                        |                              |                  |                          |       |
| $f_{172}$                              | 0.4277±0.0031                | 0.06±0.02        | 0.69±0.19                | 6.2   |                                        |                              |                  |                          |       |
| $f_{173}$                              | 2.9022±0.0032                | 0.05±0.02        | 1.03±0.19                | 5.8   |                                        |                              |                  |                          |       |
| $f_{174}$                              | 2.4459±0.0031                | 0.05±0.02        | -2.19±0.19               | 6.0   |                                        |                              |                  |                          |       |
| $f_{175}$                              | 55.8646±0.0032               | 0.06±0.02        | -3.00±0.19               | 5.8   |                                        |                              |                  |                          |       |
| Frequency list of 0102785780 continued |                              |                  |                          |       |                                        |                              |                  |                          |       |

| Frequency list of 0102785780 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_1$                                  | 0.5437±0.0005                | 0.32±0.02        | 1.53±0.03                | 200.7 |
| $f_2$                                  | 1.6321±0.0007                | 0.23±0.02        | -2.53±0.04               | 127.4 |
| $f_3$                                  | 0.1823±0.0008                | 0.16±0.02        | -2.51±0.05               | 81.6  |
| $f_4$                                  | 0.2112±0.0009                | 0.13±0.02        | -1.67±0.06               | 67.7  |
| $f_5$                                  | 0.1116±0.0009                | 0.18±0.02        | -1.42±0.06               | 68.3  |
| $f_6$                                  | 0.1469±0.0010                | 0.14±0.02        | 3.08±0.06                | 61.2  |
| $f_7$                                  | 0.1634±0.0012                | 0.11±0.02        | 2.15±0.08                | 37.5  |
| $f_8$                                  | 1.0870±0.0012                | 0.11±0.02        | 0.39±0.08                | 38.0  |
| $f_9$                                  | 0.2008±0.0014                | 0.10±0.02        | -0.84±0.09               | 30.0  |
| $f_{10}$                               | 0.3461±0.0015                | 0.10±0.02        | 3.02±0.09                | 24.7  |
| $f_{11}$                               | 0.2890±0.0017                | 0.09±0.02        | -1.67±0.10               | 21.0  |
| $f_{12}$                               | 0.2211±0.0016                | 0.09±0.02        | 0.77±0.10                | 22.6  |
| $f_{13}$                               | 2.1758±0.0018                | 0.07±0.02        | -2.74±0.11               | 17.3  |
| $f_{14}$                               | 0.4941±0.0019                | 0.08±0.02        | -1.67±0.11               | 16.5  |
| $f_{15}$                               | 0.1257±0.0019                | 0.08±0.02        | 2.79±0.12                | 15.4  |
| $f_{16}$                               | 0.1916±0.0019                | 0.07±0.02        | 0.61±0.12                | 15.8  |
| $f_{17}$                               | 0.8558±0.0020                | 0.07±0.02        | -0.25±0.12               | 13.9  |
| $f_{18}$                               | 0.5951±0.0022                | 0.06±0.02        | -0.76±0.14               | 11.7  |
| $f_{19}$                               | 0.2717±0.0023                | 0.05±0.02        | -2.39±0.14               | 11.1  |
| $f_{20}$                               | 0.4478±0.0023                | 0.07±0.02        | -3.06±0.14               | 10.7  |
| $f_{21}$                               | 0.4578±0.0021                | 0.07±0.02        | 2.75±0.13                | 13.0  |
| $f_{22}$                               | 0.6682±0.0023                | 0.06±0.02        | -1.63±0.14               | 11.0  |
| $f_{23}$                               | 0.4177±0.0024                | 0.07±0.02        | -2.27±0.14               | 10.4  |
| $f_{24}$                               | 0.4358±0.0024                | 0.06±0.02        | 0.36±0.14                | 10.5  |
| $f_{25}$                               | 0.5498±0.0024                | 0.06±0.02        | 2.14±0.15                | 9.8   |
| $f_{26}$                               | 1.0299±0.0025                | 0.05±0.02        | 0.02±0.15                | 9.6   |
| $f_{27}$                               | 0.5144±0.0025                | 0.06±0.02        | -2.47±0.15               | 9.1   |
| $f_{28}$                               | 0.3181±0.0026                | 0.05±0.02        | -1.72±0.16               | 8.4   |
| $f_{29}$                               | 0.3637±0.0026                | 0.05±0.02        | 0.46±0.16                | 8.7   |
| $f_{30}$                               | 0.5857±0.0027                | 0.06±0.02        | -0.78±0.16               | 8.1   |
| $f_{31}$                               | 1.5947±0.0027                | 0.05±0.02        | 1.77±0.16                | 8.0   |
| $f_{32}$                               | 0.4854±0.0029                | 0.05±0.02        | -1.50±0.17               | 7.1   |
| $f_{33}$                               | 0.5715±0.0028                | 0.05±0.02        | 2.08±0.17                | 7.3   |
| $f_{34}$                               | 0.1737±0.0030                | 0.05±0.02        | 0.26±0.18                | 6.4   |
| $f_{35}$                               | 0.8300±0.0030                | 0.04±0.02        | 2.75±0.19                | 6.3   |
| $f_{36}$                               | 0.8024±0.0031                | 0.04±0.02        | 1.03±0.19                | 6.1   |
| $f_{37}$                               | 0.7086±0.0030                | 0.05±0.02        | 0.16±0.19                | 6.3   |
| $f_{38}$                               | 0.6828±0.0031                | 0.04±0.02        | -1.82±0.19               | 6.2   |
| $f_{39}$                               | 0.3370±0.0031                | 0.04±0.02        | 1.79±0.19                | 6.0   |
| $f_{40}$                               | 1.1196±0.0031                | 0.04±0.02        | 1.35±0.19                | 5.9   |
| $f_{41}$                               | 0.6197±0.0033                | 0.04±0.02        | -2.92±0.20               | 5.4   |
| $f_{42}$                               | 1.2486±0.0032                | 0.04±0.02        | 1.39±0.20                | 5.7   |
| $f_{43}$                               | 2.1513±0.0033                | 0.04±0.02        | -1.92±0.20               | 5.2   |
| $f_{44}$                               | 1.3114±0.0034                | 0.04±0.02        | -0.04±0.21               | 5.0   |

**Table C.30:** Frequency list of 0102788480

## **Appendix D**

### **Frequencies of individual Hybrid Stars**

## Appendix D. Frequencies of individual Hybrid Stars

**Table D.1:** Frequency list of 0102568261

|                                        |                              |                  |                          |        | Frequency list of 0102568261 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|--------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign.  | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_1$                                  | 7.4327±0.0002                | 1.92±0.05        | -3.02±0.01               | 1675.0 | $f_{76}$                               | 2.0060±0.0023                | 0.13±0.04        | -2.05±0.14               | 10.9  |
| $f_2$                                  | 2.0649±0.0005                | 0.57±0.03        | 1.68±0.03                | 266.2  | $f_{78}$                               | 2.9260±0.0023                | 0.08±0.02        | 0.94±0.14                | 10.7  |
| $f_3$                                  | 10.2147±0.0005               | 0.49±0.03        | -1.96±0.03               | 218.8  | $f_{79}$                               | 0.3920±0.0023                | 0.07±0.02        | -1.62±0.14               | 10.7  |
| $f_4$                                  | 1.9907±0.0005                | 0.52±0.03        | -2.65±0.03               | 221.0  | $f_{80}$                               | 1.5253±0.0023                | 0.07±0.02        | -2.38±0.14               | 10.7  |
| $f_5$                                  | 2.7540±0.0007                | 0.33±0.03        | -1.36±0.04               | 109.2  | $f_{81}$                               | 1.2431±0.0024                | 0.09±0.03        | -2.01±0.14               | 10.4  |
| $f_6$                                  | 2.6237±0.0008                | 0.30±0.03        | 2.37±0.05                | 83.9   | $f_{82}$                               | 0.1958±0.0024                | 0.08±0.02        | 0.58±0.14                | 10.4  |
| $f_7$                                  | 1.7761±0.0009                | 0.27±0.03        | 2.24±0.06                | 68.9   | $f_{83}$                               | 6.5633±0.0024                | 0.08±0.02        | -2.57±0.14               | 10.4  |
| $f_8$                                  | 2.8382±0.0009                | 0.26±0.03        | -1.84±0.06               | 69.3   | $f_{84}$                               | 3.5805±0.0024                | 0.07±0.02        | -1.51±0.15               | 10.2  |
| $f_9$                                  | 7.1112±0.0009                | 0.26±0.03        | -2.26±0.06               | 66.5   | $f_{85}$                               | 0.4736±0.0024                | 0.08±0.03        | -1.95±0.15               | 10.1  |
| $f_{10}$                               | 3.1408±0.0010                | 0.23±0.03        | 1.68±0.06                | 60.5   | $f_{86}$                               | 0.2790±0.0024                | 0.08±0.03        | -2.38±0.15               | 10.2  |
| $f_{11}$                               | 2.9131±0.0010                | 0.25±0.03        | -2.91±0.06               | 59.0   | $f_{87}$                               | 8.0668±0.0024                | 0.08±0.03        | 3.09±0.15                | 10.0  |
| $f_{12}$                               | 1.4763±0.0010                | 0.25±0.03        | -3.04±0.06               | 58.1   | $f_{88}$                               | 1.2165±0.0024                | 0.08±0.03        | 1.49±0.15                | 9.9   |
| $f_{13}$                               | 2.7329±0.0010                | 0.24±0.03        | 2.93±0.06                | 56.5   | $f_{89}$                               | 5.5921±0.0025                | 0.08±0.03        | -1.65±0.15               | 9.3   |
| $f_{14}$                               | 8.8700±0.0010                | 0.24±0.03        | -0.72±0.06               | 57.4   | $f_{91}$                               | 1.7821±0.0025                | 0.08±0.03        | 0.36±0.15                | 9.1   |
| $f_{15}$                               | 0.5156±0.0010                | 0.22±0.03        | 0.02±0.06                | 53.6   | $f_{92}$                               | 1.3355±0.0025                | 0.08±0.03        | -0.26±0.15               | 9.2   |
| $f_{16}$                               | 0.6727±0.0011                | 0.19±0.03        | 2.89±0.07                | 48.2   | $f_{93}$                               | 5.1075±0.0025                | 0.08±0.03        | 2.14±0.15                | 9.4   |
| $f_{17}$                               | 0.1074±0.0011                | 0.19±0.03        | 1.83±0.07                | 48.6   | $f_{94}$                               | 2.4007±0.0026                | 0.07±0.02        | 1.18±0.16                | 8.9   |
| $f_{18}$                               | 2.6089±0.0011                | 0.19±0.03        | 1.60±0.07                | 46.1   | $f_{95}$                               | 4.1351±0.0026                | 0.07±0.02        | -0.67±0.16               | 8.9   |
| $f_{20}$                               | 2.4236±0.0012                | 0.17±0.03        | -1.93±0.07               | 43.4   | $f_{96}$                               | 1.4230±0.0026                | 0.07±0.02        | 2.06±0.16                | 8.8   |
| $f_{21}$                               | 2.7639±0.0012                | 0.17±0.03        | 0.42±0.07                | 39.9   | $f_{97}$                               | 4.6774±0.0026                | 0.07±0.02        | -1.53±0.16               | 8.6   |
| $f_{22}$                               | 1.5515±0.0012                | 0.19±0.03        | 1.37±0.07                | 39.5   | $f_{98}$                               | 3.6126±0.0026                | 0.08±0.03        | -2.03±0.16               | 8.5   |
| $f_{23}$                               | 2.1967±0.0013                | 0.16±0.03        | -1.66±0.08               | 33.1   | $f_{99}$                               | 0.7970±0.0026                | 0.09±0.03        | -0.79±0.16               | 8.4   |
| $f_{24}$                               | 0.6347±0.0013                | 0.15±0.03        | 0.48±0.08                | 32.8   | $f_{100}$                              | 4.8217±0.0026                | 0.08±0.03        | 2.51±0.16                | 8.4   |
| $f_{25}$                               | 1.3895±0.0013                | 0.17±0.03        | 1.67±0.08                | 33.7   | $f_{101}$                              | 3.9247±0.0027                | 0.07±0.02        | -2.37±0.16               | 8.1   |
| $f_{26}$                               | 3.4208±0.0013                | 0.16±0.03        | 0.69±0.08                | 32.9   | $f_{102}$                              | 7.9519±0.0027                | 0.07±0.02        | -1.70±0.16               | 8.2   |
| $f_{27}$                               | 3.2158±0.0013                | 0.17±0.03        | 1.51±0.08                | 34.1   | $f_{103}$                              | 2.7845±0.0027                | 0.07±0.02        | 0.88±0.16                | 8.2   |
| $f_{28}$                               | 2.8672±0.0013                | 0.15±0.03        | 0.21±0.08                | 32.1   | $f_{104}$                              | 4.8850±0.0027                | 0.07±0.02        | 2.55±0.16                | 8.1   |
| $f_{29}$                               | 4.0488±0.0014                | 0.15±0.03        | -0.29±0.08               | 30.3   | $f_{105}$                              | 1.0068±0.0027                | 0.08±0.03        | -1.47±0.16               | 8.1   |
| $f_{30}$                               | 1.4953±0.0015                | 0.14±0.03        | -1.23±0.09               | 27.2   | $f_{106}$                              | 6.7989±0.0027                | 0.07±0.02        | -1.53±0.16               | 8.0   |
| $f_{31}$                               | 0.5544±0.0015                | 0.13±0.02        | -2.83±0.09               | 27.2   | $f_{107}$                              | 2.4713±0.0027                | 0.07±0.03        | 0.75±0.17                | 7.8   |
| $f_{32}$                               | 1.1460±0.0015                | 0.14±0.03        | -2.40±0.09               | 27.5   | $f_{108}$                              | 1.5907±0.0027                | 0.08±0.03        | 2.91±0.17                | 7.8   |
| $f_{33}$                               | 0.1530±0.0015                | 0.15±0.03        | -0.32±0.09               | 24.3   | $f_{109}$                              | 5.1785±0.0028                | 0.07±0.03        | -0.79±0.17               | 7.7   |
| $f_{34}$                               | 0.8510±0.0015                | 0.12±0.02        | 1.25±0.09                | 24.6   | $f_{110}$                              | 11.3148±0.0028               | 0.07±0.03        | -0.23±0.17               | 7.6   |
| $f_{35}$                               | 0.3300±0.0016                | 0.13±0.03        | -2.54±0.09               | 24.2   | $f_{111}$                              | 0.1681±0.0028                | 0.08±0.03        | -2.79±0.17               | 7.6   |
| $f_{36}$                               | 5.8924±0.0016                | 0.14±0.03        | -0.73±0.10               | 23.2   | $f_{112}$                              | 0.9536±0.0027                | 0.07±0.03        | 2.40±0.17                | 7.8   |
| $f_{37}$                               | 0.4398±0.0016                | 0.13±0.03        | -0.07±0.10               | 23.3   | $f_{113}$                              | 2.6789±0.0027                | 0.07±0.03        | -1.90±0.17               | 7.8   |
| $f_{38}$                               | 1.6230±0.0016                | 0.13±0.03        | -1.12±0.10               | 22.5   | $f_{114}$                              | 2.7194±0.0027                | 0.07±0.02        | 0.39±0.16                | 8.2   |
| $f_{39}$                               | 1.8818±0.0016                | 0.14±0.03        | -0.16±0.10               | 21.7   | $f_{115}$                              | 1.9456±0.0028                | 0.06±0.02        | -1.85±0.17               | 7.5   |
| $f_{40}$                               | 2.2401±0.0017                | 0.12±0.03        | 0.48±0.10                | 20.3   | $f_{116}$                              | 6.5525±0.0028                | 0.07±0.03        | -1.40±0.17               | 7.5   |
| $f_{41}$                               | 0.7014±0.0017                | 0.14±0.03        | -2.91±0.10               | 20.1   | $f_{117}$                              | 0.2939±0.0028                | 0.07±0.03        | -1.04±0.17               | 7.4   |
| $f_{42}$                               | 0.3042±0.0017                | 0.13±0.03        | -0.59±0.11               | 19.4   | $f_{118}$                              | 0.2421±0.0028                | 0.07±0.03        | 1.12±0.17                | 7.7   |
| $f_{44}$                               | 2.4623±0.0017                | 0.10±0.02        | -0.95±0.11               | 19.4   | $f_{119}$                              | 5.4278±0.0028                | 0.06±0.02        | 1.86±0.17                | 7.4   |
| $f_{45}$                               | 6.0448±0.0017                | 0.12±0.03        | 1.68±0.11                | 19.1   | $f_{120}$                              | 3.2780±0.0028                | 0.07±0.03        | 2.50±0.17                | 7.5   |
| $f_{46}$                               | 1.4708±0.0018                | 0.11±0.03        | -1.47±0.11               | 18.8   | $f_{121}$                              | 4.1746±0.0028                | 0.06±0.02        | -0.80±0.17               | 7.3   |
| $f_{47}$                               | 2.5851±0.0018                | 0.13±0.03        | -1.95±0.11               | 18.4   | $f_{123}$                              | 1.7083±0.0029                | 0.06±0.02        | -2.80±0.17               | 7.1   |
| $f_{48}$                               | 0.5978±0.0018                | 0.12±0.03        | -2.58±0.11               | 18.4   | $f_{124}$                              | 1.2807±0.0028                | 0.07±0.03        | 1.54±0.17                | 7.3   |
| $f_{49}$                               | 4.2601±0.0018                | 0.12±0.03        | -0.10±0.11               | 17.5   | $f_{125}$                              | 5.3357±0.0028                | 0.06±0.02        | 2.43±0.17                | 7.2   |
| $f_{50}$                               | 3.2719±0.0019                | 0.11±0.03        | -0.58±0.11               | 16.9   | $f_{126}$                              | 2.7754±0.0029                | 0.06±0.02        | 2.53±0.18                | 7.0   |
| $f_{51}$                               | 1.3140±0.0019                | 0.10±0.02        | 2.18±0.11                | 16.9   | $f_{127}$                              | 4.9596±0.0029                | 0.06±0.02        | 0.74±0.18                | 6.9   |
| $f_{52}$                               | 1.5105±0.0019                | 0.12±0.03        | -1.31±0.11               | 16.8   | $f_{128}$                              | 3.9816±0.0029                | 0.06±0.02        | 1.75±0.18                | 7.0   |
| $f_{53}$                               | 1.2223±0.0019                | 0.09±0.02        | -0.06±0.12               | 16.4   | $f_{129}$                              | 3.8301±0.0029                | 0.06±0.02        | -2.54±0.17               | 7.1   |
| $f_{54}$                               | 2.4943±0.0019                | 0.10±0.03        | 1.84±0.12                | 16.0   | $f_{130}$                              | 2.7921±0.0029                | 0.06±0.02        | -2.11±0.18               | 7.0   |
| $f_{55}$                               | 0.1254±0.0020                | 0.07±0.02        | -1.76±0.12               | 14.9   | $f_{131}$                              | 8.4753±0.0029                | 0.06±0.02        | 0.04±0.18                | 7.0   |
| $f_{57}$                               | 1.8733±0.0020                | 0.10±0.03        | 2.70±0.12                | 14.9   | $f_{132}$                              | 5.8610±0.0029                | 0.06±0.02        | 2.92±0.18                | 6.7   |
| $f_{58}$                               | 2.5696±0.0020                | 0.09±0.02        | 1.23±0.12                | 14.7   | $f_{133}$                              | 1.0982±0.0029                | 0.06±0.02        | 2.13±0.18                | 6.7   |
| $f_{59}$                               | 0.3577±0.0020                | 0.10±0.03        | -0.33±0.12               | 14.3   | $f_{134}$                              | 3.0755±0.0030                | 0.06±0.02        | -1.70±0.18               | 6.6   |
| $f_{60}$                               | 1.6022±0.0020                | 0.08±0.02        | -3.05±0.12               | 14.2   | $f_{135}$                              | 0.2209±0.0029                | 0.07±0.03        | -1.87±0.18               | 6.7   |
| $f_{62}$                               | 1.3669±0.0021                | 0.10±0.03        | -2.56±0.13               | 13.6   | $f_{136}$                              | 10.3226±0.0029               | 0.06±0.02        | 2.16±0.18                | 6.8   |
| $f_{63}$                               | 2.0552±0.0021                | 0.09±0.02        | 2.28±0.13                | 13.6   | $f_{137}$                              | 0.8434±0.0029                | 0.07±0.03        | 0.28±0.18                | 6.8   |
| $f_{64}$                               | 2.3407±0.0021                | 0.10±0.03        | 3.04±0.13                | 13.5   | $f_{138}$                              | 0.8061±0.0029                | 0.07±0.03        | -2.96±0.18               | 6.7   |
| $f_{65}$                               | 1.2711±0.0021                | 0.08±0.02        | -1.55±0.13               | 12.9   | $f_{139}$                              | 0.9378±0.0030                | 0.07±0.03        | -0.86±0.18               | 6.6   |
| $f_{66}$                               | 4.6903±0.0021                | 0.08±0.02        | 0.14±0.13                | 13.0   | $f_{140}$                              | 1.0387±0.0030                | 0.06±0.02        | -1.80±0.18               | 6.5   |
| $f_{67}$                               | 0.5426±0.0021                | 0.09±0.03        | 3.10±0.13                | 12.7   | $f_{142}$                              | 4.6099±0.0030                | 0.06±0.02        | -3.14±0.18               | 6.4   |
| $f_{68}$                               | 5.6034±0.0022                | 0.10±0.03        | 0.27±0.13                | 12.2   | $f_{143}$                              | 0.1776±0.0030                | 0.06±0.02        | 2.03±0.19                | 6.3   |
| $f_{69}$                               | 2.4427±0.0023                | 0.09±0.03        | 2.93±0.14                | 11.5   | $f_{144}$                              | 10.1871±0.0031               | 0.06±0.02        | -0.43±0.19               | 6.2   |
| $f_{70}$                               | 4.6170±0.0023                | 0.09±0.03        | -0.46±0.14               | 11.4   | $f_{145}$                              | 0.4327±0.0031                | 0.06±0.02        | -0.58±0.19               | 6.1   |
| $f_{71}$                               | 4.0581±0.0023                | 0.08±0.02        | -0.24±0.14               | 11.3   | $f_{146}$                              | 0.8134±0.0031                | 0.06±0.02        | -0.18±0.19               | 6.2   |
| $f_{72}$                               | 0.1135±0.0023                | 0.09±0.03        | 2.53±0.14                | 11.0   | $f_{147}$                              | 0.6522±0.0030                | 0.06±0.02        | 0.31±0.18                | 6.6   |
| $f_{73}$                               | 1.3604±0.0023                | 0.08±0.02        | -0.59±0.14               | 11.2   | $f_{148}$                              | 0.6607±0.0029                | 0.07±0.03        | -0.15±0.18               | 6.8   |
| $f_{74}$                               | 2.3118±0.0023                | 0.08±0.02        | -3.00±0.14               | 11.1   | $f_{149}$                              | 3.7579±0.0031                | 0.06±0.02        | 0.32±0.19                | 6.2   |
| $f_{75}$                               | 1.0282±0.0023                | 0.07±0.02        | 2.81±0.14                | 10.9   | $f_{150}$                              | 6.8848±0.0031                | 0.06±0.02        | -0.30±0.19               | 6.2   |
| Frequency list of 0102568261 continued |                              |                  |                          |        | $f_{151}$                              | 6.6683±0.0031                | 0.06±0.02        | 2.46±0.19                | 6.0   |
|                                        |                              |                  |                          |        | $f_{152}$                              | 0.9994±0.0031                | 0.06±0.02        | -0.17±0.19               | 6.0   |
|                                        |                              |                  |                          |        | $f_{156}$                              | 1.1551±0.0031                | 0.06±0.02        | -1.18±0.19               | 5.9   |
|                                        |                              |                  |                          |        | $f_{157}$                              | 0.1001±0.0032                | 0.07±0.03        | -1.61±0.19               | 5.8   |
|                                        |                              |                  |                          |        | $f_{165}$                              | 8.0232±0.0032                | 0.06±0.02        | -2.71±0.19               | 5.8   |
|                                        |                              |                  |                          |        | Frequency list of 0102568261 continued |                              |                  |                          |       |

## Appendix D. Frequencies of individual Hybrid Stars

| Frequency list of 0102568261 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{166}$                              | 1.8960±0.0032                | 0.06±0.02        | -0.88±0.19               | 5.8   |
| $f_{167}$                              | 2.0244±0.0031                | 0.06±0.02        | 2.86±0.19                | 6.0   |
| $f_{168}$                              | 1.7961±0.0031                | 0.06±0.02        | 0.94±0.19                | 6.0   |
| $f_{169}$                              | 5.3155±0.0032                | 0.05±0.02        | 2.76±0.20                | 5.7   |
| $f_{170}$                              | 2.8519±0.0032                | 0.06±0.03        | -0.86±0.20               | 5.7   |
| $f_{171}$                              | 4.2698±0.0032                | 0.06±0.03        | 2.80±0.20                | 5.6   |
| $f_{172}$                              | 0.1479±0.0032                | 0.06±0.03        | 2.48±0.20                | 5.6   |
| $f_{173}$                              | 2.2499±0.0033                | 0.06±0.03        | 0.30±0.20                | 5.5   |
| $f_{174}$                              | 3.1330±0.0033                | 0.05±0.02        | -1.47±0.20               | 5.5   |
| $f_{175}$                              | 3.1995±0.0033                | 0.06±0.03        | -2.37±0.20               | 5.3   |
| $f_{176}$                              | 3.4120±0.0033                | 0.05±0.02        | -0.71±0.20               | 5.4   |
| $f_{177}$                              | 3.3330±0.0033                | 0.05±0.02        | 1.26±0.20                | 5.4   |
| $f_{178}$                              | 2.5584±0.0033                | 0.06±0.03        | -0.73±0.20               | 5.2   |
| $f_{179}$                              | 6.8122±0.0033                | 0.05±0.02        | -1.54±0.20               | 5.2   |
| $f_{180}$                              | 1.6622±0.0034                | 0.05±0.02        | 2.21±0.21                | 5.1   |
| $f_{181}$                              | 1.0661±0.0034                | 0.05±0.02        | -1.06±0.21               | 5.1   |
| $f_{182}$                              | 9.2403±0.0034                | 0.05±0.02        | 0.65±0.21                | 5.0   |

**Table D.2:** Frequency list of 0102584546

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign.  |
|--------------|------------------------------|------------------|--------------------------|--------|
| $f_1$        | 15.5103±0.0002               | 1.14±0.03        | 1.11±0.01                | 1238.7 |
| $f_2$        | 0.2307±0.0004                | 0.51±0.03        | 2.54±0.03                | 334.9  |
| $f_3$        | 1.7637±0.0004                | 0.43±0.03        | -0.02±0.03               | 291.0  |
| $f_4$        | 2.0719±0.0004                | 0.45±0.03        | -2.25±0.03               | 297.7  |
| $f_5$        | 2.1793±0.0005                | 0.34±0.02        | -1.78±0.03               | 219.2  |
| $f_6$        | 0.4610±0.0006                | 0.30±0.02        | 1.40±0.04                | 165.5  |
| $f_7$        | 1.6866±0.0006                | 0.25±0.02        | -1.78±0.04               | 139.1  |
| $f_8$        | 1.6104±0.0007                | 0.27±0.02        | -2.81±0.04               | 124.3  |
| $f_9$        | 3.0229±0.0008                | 0.20±0.02        | 3.12±0.05                | 91.5   |
| $f_{10}$     | 1.4821±0.0010                | 0.15±0.02        | -0.42±0.06               | 63.5   |
| $f_{11}$     | 0.1144±0.0010                | 0.20±0.03        | -0.89±0.06               | 62.0   |
| $f_{12}$     | 2.2874±0.0011                | 0.14±0.02        | 2.29±0.07                | 47.6   |
| $f_{13}$     | 0.1462±0.0012                | 0.14±0.02        | -0.77±0.07               | 42.4   |
| $f_{14}$     | 1.4545±0.0012                | 0.12±0.02        | 1.51±0.07                | 40.7   |
| $f_{15}$     | 0.1080±0.0012                | 0.13±0.02        | 1.72±0.08                | 38.6   |
| $f_{16}$     | 0.1556±0.0014                | 0.11±0.02        | -0.16±0.08               | 30.3   |
| $f_{17}$     | 1.5222±0.0014                | 0.10±0.02        | -2.51±0.09               | 28.7   |
| $f_{18}$     | 0.1327±0.0015                | 0.12±0.02        | -2.05±0.09               | 26.0   |
| $f_{19}$     | 0.1761±0.0014                | 0.08±0.01        | 1.82±0.09                | 29.6   |
| $f_{20}$     | 1.5983±0.0015                | 0.10±0.02        | 1.46±0.09                | 25.7   |
| $f_{22}$     | 5.2438±0.0015                | 0.09±0.02        | -0.34±0.09               | 25.0   |
| $f_{24}$     | 0.1210±0.0018                | 0.09±0.02        | -1.95±0.11               | 18.4   |
| $f_{26}$     | 0.3220±0.0019                | 0.08±0.02        | 1.76±0.11                | 16.9   |
| $f_{27}$     | 2.5200±0.0019                | 0.08±0.02        | 0.13±0.11                | 17.0   |
| $f_{29}$     | 1.6213±0.0021                | 0.07±0.02        | 0.77±0.13                | 13.8   |
| $f_{30}$     | 4.9236±0.0021                | 0.07±0.02        | -1.51±0.13               | 13.7   |
| $f_{31}$     | 1.8402±0.0021                | 0.07±0.02        | -2.09±0.13               | 13.4   |
| $f_{32}$     | 0.2879±0.0021                | 0.08±0.02        | -2.98±0.13               | 13.1   |
| $f_{33}$     | 4.5026±0.0021                | 0.07±0.02        | -2.28±0.13               | 12.9   |
| $f_{34}$     | 0.3484±0.0021                | 0.06±0.02        | -2.74±0.13               | 12.7   |
| $f_{35}$     | 0.1903±0.0022                | 0.08±0.02        | 1.63±0.13                | 12.4   |
| $f_{36}$     | 0.1674±0.0023                | 0.07±0.02        | 1.22±0.14                | 11.5   |
| $f_{37}$     | 0.2673±0.0023                | 0.06±0.02        | -0.52±0.14               | 10.9   |
| $f_{38}$     | 1.9211±0.0023                | 0.06±0.02        | -0.94±0.14               | 10.6   |
| $f_{39}$     | 0.2093±0.0024                | 0.07±0.02        | 2.38±0.15                | 10.2   |
| $f_{40}$     | 1.2149±0.0024                | 0.06±0.02        | -0.55±0.15               | 10.3   |
| $f_{41}$     | 1.0076±0.0025                | 0.03±0.01        | 1.78±0.15                | 9.2    |
| $f_{42}$     | 1.5675±0.0025                | 0.05±0.02        | 2.04±0.15                | 9.1    |
| $f_{43}$     | 0.3536±0.0025                | 0.04±0.01        | -1.17±0.15               | 9.2    |
| $f_{44}$     | 0.6922±0.0025                | 0.06±0.02        | -2.49±0.15               | 9.4    |
| $f_{45}$     | 2.6725±0.0025                | 0.06±0.02        | -2.29±0.15               | 9.3    |
| $f_{46}$     | 1.3258±0.0026                | 0.06±0.02        | 0.89±0.16                | 8.9    |
| $f_{47}$     | 2.2779±0.0026                | 0.06±0.02        | 2.44±0.16                | 8.7    |
| $f_{48}$     | 2.7344±0.0026                | 0.06±0.02        | -2.09±0.16               | 8.7    |
| $f_{49}$     | 1.4658±0.0026                | 0.05±0.02        | -1.29±0.16               | 8.4    |
| $f_{50}$     | 0.4082±0.0027                | 0.06±0.02        | -1.49±0.16               | 8.0    |
| $f_{51}$     | 0.4181±0.0025                | 0.06±0.02        | -1.79±0.16               | 9.0    |
| $f_{52}$     | 1.1404±0.0027                | 0.05±0.02        | 1.71±0.16                | 8.1    |
| $f_{53}$     | 1.1293±0.0027                | 0.05±0.02        | 3.10±0.16                | 8.2    |
| $f_{54}$     | 3.1558±0.0026                | 0.05±0.02        | -1.27±0.16               | 8.3    |
| $f_{55}$     | 2.0056±0.0027                | 0.05±0.02        | 2.03±0.16                | 8.0    |
| $f_{56}$     | 1.7566±0.0027                | 0.05±0.02        | -1.52±0.16               | 8.1    |

Frequency list of 0102584546 continued

| Frequency list of 0102584546 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{57}$                               | 0.7496±0.0027                | 0.05±0.02        | 2.64±0.16                | 8.0   |
| $f_{58}$                               | 1.0490±0.0027                | 0.05±0.02        | 1.43±0.17                | 7.9   |
| $f_{59}$                               | 1.8709±0.0027                | 0.05±0.02        | 1.51±0.16                | 8.0   |
| $f_{60}$                               | 0.9101±0.0027                | 0.06±0.02        | -1.98±0.17               | 7.8   |
| $f_{61}$                               | 0.3035±0.0027                | 0.06±0.02        | -1.72±0.17               | 7.9   |
| $f_{62}$                               | 4.3346±0.0028                | 0.05±0.02        | -0.91±0.17               | 7.6   |
| $f_{64}$                               | 1.4328±0.0028                | 0.05±0.02        | 0.72±0.17                | 7.5   |
| $f_{65}$                               | 0.3657±0.0028                | 0.05±0.02        | -1.82±0.17               | 7.5   |
| $f_{66}$                               | 2.1249±0.0028                | 0.05±0.02        | 1.74±0.17                | 7.4   |
| $f_{67}$                               | 0.5255±0.0028                | 0.05±0.02        | 0.45±0.17                | 7.5   |
| $f_{68}$                               | 0.2018±0.0028                | 0.05±0.02        | -2.10±0.17               | 7.2   |
| $f_{70}$                               | 1.2473±0.0029                | 0.05±0.02        | 0.90±0.17                | 7.1   |
| $f_{71}$                               | 0.6116±0.0029                | 0.05±0.02        | 0.11±0.18                | 6.9   |
| $f_{72}$                               | 0.2508±0.0029                | 0.05±0.02        | 1.75±0.18                | 6.9   |
| $f_{73}$                               | 1.0197±0.0030                | 0.05±0.02        | -0.40±0.18               | 6.6   |
| $f_{74}$                               | 0.8560±0.0030                | 0.05±0.02        | 2.71±0.18                | 6.5   |
| $f_{75}$                               | 0.7742±0.0031                | 0.04±0.02        | -0.89±0.19               | 6.2   |
| $f_{77}$                               | 0.6984±0.0030                | 0.04±0.02        | 0.27±0.19                | 6.3   |

**Table D.3:** Frequency list of 0102587000

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|--------------|------------------------------|------------------|--------------------------|-------|
| $f_1$        | 1.8562±0.0003                | 1.17±0.04        | -2.58±0.02               | 825.8 |
| $f_2$        | 1.3972±0.0003                | 0.93±0.04        | 2.12±0.02                | 532.3 |
| $f_3$        | 1.7515±0.0003                | 0.86±0.04        | 3.09±0.02                | 558.9 |
| $f_4$        | 0.5143±0.0003                | 0.73±0.03        | -2.04±0.02               | 484.8 |
| $f_5$        | 1.1604±0.0004                | 0.59±0.03        | 2.46±0.03                | 342.1 |
| $f_6$        | 1.4500±0.0004                | 0.55±0.03        | -2.03±0.02               | 351.5 |
| $f_7$        | 1.3723±0.0005                | 0.47±0.03        | 2.96±0.03                | 250.3 |
| $f_8$        | 1.8723±0.0005                | 0.46±0.03        | -1.58±0.03               | 246.8 |
| $f_9$        | 1.3199±0.0005                | 0.46±0.03        | -2.48±0.03               | 244.1 |
| $f_{10}$     | 1.3422±0.0005                | 0.39±0.03        | -0.80±0.03               | 214.9 |
| $f_{11}$     | 18.4069±0.0006               | 0.31±0.03        | -0.09±0.04               | 139.3 |
| $f_{12}$     | 8.9365±0.0006                | 0.31±0.03        | 1.48±0.04                | 143.9 |
| $f_{13}$     | 1.8039±0.0006                | 0.31±0.03        | -2.57±0.04               | 146.2 |
| $f_{14}$     | 16.7062±0.0007               | 0.28±0.02        | 1.57±0.04                | 130.3 |
| $f_{15}$     | 17.8438±0.0007               | 0.26±0.02        | 2.09±0.04                | 116.7 |
| $f_{16}$     | 1.2687±0.0007                | 0.25±0.02        | 0.39±0.04                | 109.3 |
| $f_{17}$     | 0.9599±0.0008                | 0.23±0.02        | 3.07±0.05                | 99.8  |
| $f_{19}$     | 7.8321±0.0008                | 0.22±0.02        | 3.01±0.05                | 91.2  |
| $f_{25}$     | 8.2123±0.0012                | 0.14±0.02        | -2.19±0.07               | 44.0  |
| $f_{26}$     | 0.7227±0.0012                | 0.14±0.02        | -1.99±0.07               | 44.0  |
| $f_{27}$     | 9.0390±0.0012                | 0.14±0.02        | -2.25±0.07               | 43.8  |
| $f_{29}$     | 1.5016±0.0012                | 0.13±0.02        | 0.66±0.07                | 38.8  |
| $f_{30}$     | 10.6882±0.0013               | 0.12±0.02        | -1.06±0.08               | 36.7  |
| $f_{32}$     | 0.1134±0.0013                | 0.11±0.02        | 2.84±0.08                | 36.1  |
| $f_{33}$     | 8.8326±0.0013                | 0.11±0.02        | 2.86±0.08                | 32.4  |
| $f_{36}$     | 1.3293±0.0015                | 0.10±0.02        | 1.95±0.09                | 25.3  |
| $f_{38}$     | 16.6513±0.0016               | 0.10±0.02        | 2.21±0.10                | 23.8  |
| $f_{39}$     | 3.1495±0.0016                | 0.09±0.02        | -3.11±0.10               | 22.4  |
| $f_{40}$     | 0.1233±0.0016                | 0.09±0.02        | -1.78±0.10               | 22.3  |
| $f_{41}$     | 8.5557±0.0016                | 0.09±0.02        | -1.86±0.10               | 22.3  |
| $f_{46}$     | 18.2094±0.0017               | 0.09±0.02        | -0.02±0.11               | 19.4  |
| $f_{47}$     | 3.2540±0.0017                | 0.08±0.02        | 1.18±0.11                | 19.5  |
| $f_{48}$     | 8.8154±0.0017                | 0.09±0.02        | 2.78±0.11                | 19.3  |
| $f_{49}$     | 3.0175±0.0017                | 0.08±0.02        | 0.63±0.11                | 19.3  |
| $f_{50}$     | 1.8622±0.0017                | 0.09±0.02        | 1.66±0.11                | 19.3  |
| $f_{51}$     | 2.0054±0.0018                | 0.26±0.06        | -0.63±0.11               | 18.8  |
| $f_{54}$     | 7.5387±0.0018                | 0.08±0.02        | 2.95±0.11                | 18.7  |
| $f_{55}$     | 3.5043±0.0018                | 0.08±0.02        | -1.46±0.11               | 18.4  |
| $f_{57}$     | 0.2530±0.0018                | 0.08±0.02        | -0.40±0.11               | 18.0  |
| $f_{65}$     | 55.8627±0.0018               | 0.09±0.02        | -1.00±0.11               | 17.9  |
| $f_{66}$     | 0.5965±0.0019                | 0.07±0.02        | -1.68±0.11               | 16.5  |
| $f_{67}$     | 2.9132±0.0019                | 0.08±0.02        | 0.37±0.12                | 15.8  |
| $f_{68}$     | 0.2707±0.0019                | 0.07±0.02        | 0.64±0.12                | 15.6  |
| $f_{70}$     | 8.6573±0.0020                | 0.08±0.02        | -2.56±0.12               | 15.1  |
| $f_{72}$     | 8.8646±0.0020                | 0.07±0.02        | 2.85±0.12                | 15.2  |
| $f_{73}$     | 0.1565±0.0020                | 0.07±0.02        | -1.85±0.12               | 14.0  |
| $f_{75}$     | 1.0535±0.0021                | 0.06±0.02        | 3.03±0.13                | 13.0  |
| $f_{77}$     | 8.9598±0.0021                | 0.06±0.02        | 1.76±0.13                | 12.8  |
| $f_{79}$     | 3.7270±0.0023                | 0.06±0.02        | 2.87±0.14                | 11.1  |
| $f_{80}$     | 2.7705±0.0023                | 0.06±0.02        | 1.42±0.14                | 11.2  |
| $f_{81}$     | 0.2026±0.0023                | 0.06±0.02        | -0.03±0.14               | 11.0  |

Frequency list of 0102587000 continued

## Appendix D. Frequencies of individual Hybrid Stars

| Frequency list of 0102587000 continued |                              |                  |                          |       | Frequency list of 0102589648 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{82}$                               | 8.7914±0.0023                | 0.06±0.02        | -0.40±0.14               | 10.9  | $f_{15}$                               | 10.1935±0.0012               | 0.15±0.02        | 0.42±0.07                | 41.0  |
| $f_{84}$                               | 0.6035±0.0024                | 0.06±0.02        | -0.99±0.15               | 10.0  | $f_{16}$                               | 2.2515±0.0012                | 0.14±0.02        | 1.31±0.07                | 38.7  |
| $f_{88}$                               | 10.3091±0.0025               | 0.06±0.02        | 1.62±0.15                | 9.3   | $f_{17}$                               | 1.5039±0.0012                | 0.13±0.02        | 2.00±0.08                | 38.5  |
| $f_{89}$                               | 10.7933±0.0025               | 0.06±0.02        | 1.53±0.15                | 9.5   | $f_{18}$                               | 10.5108±0.0012               | 0.14±0.02        | 0.05±0.08                | 38.1  |
| $f_{91}$                               | 2.4750±0.0025                | 0.05±0.02        | -1.81±0.15               | 9.3   | $f_{19}$                               | 12.2675±0.0013               | 0.12±0.02        | 0.11±0.08                | 35.4  |
| $f_{92}$                               | 1.8489±0.0025                | 0.06±0.02        | -1.28±0.16               | 9.0   | $f_{20}$                               | 6.8780±0.0013                | 0.13±0.02        | -0.76±0.08               | 34.4  |
| $f_{93}$                               | 3.6223±0.0025                | 0.06±0.02        | 0.76±0.15                | 9.3   | $f_{21}$                               | 3.3221±0.0013                | 0.13±0.02        | 2.10±0.08                | 34.5  |
| $f_{94}$                               | 18.3153±0.0026               | 0.05±0.02        | -1.90±0.16               | 8.8   | $f_{22}$                               | 6.4065±0.0013                | 0.12±0.02        | 0.22±0.08                | 32.4  |
| $f_{97}$                               | 1.6261±0.0026                | 0.05±0.02        | -0.30±0.16               | 8.4   | $f_{23}$                               | 3.8201±0.0014                | 0.11±0.02        | 0.69±0.08                | 31.2  |
| $f_{98}$                               | 8.7512±0.0026                | 0.05±0.02        | -0.00±0.16               | 8.3   | $f_{24}$                               | 1.9218±0.0014                | 0.12±0.02        | -1.79±0.08               | 31.7  |
| $f_{99}$                               | 55.8526±0.0027               | 0.06±0.02        | -2.60±0.16               | 8.2   | $f_{25}$                               | 0.1059±0.0014                | 0.12±0.02        | -2.97±0.09               | 28.5  |
| $f_{103}$                              | 8.9206±0.0027                | 0.05±0.02        | 2.88±0.17                | 7.9   | $f_{26}$                               | 13.9434±0.0014               | 0.12±0.02        | 2.64±0.09                | 29.4  |
| $f_{105}$                              | 2.0048±0.0028                | 0.09±0.03        | -3.14±0.17               | 7.7   | $f_{27}$                               | 4.0702±0.0015                | 0.10±0.02        | -3.09±0.09               | 27.2  |
| $f_{111}$                              | 0.6413±0.0028                | 0.05±0.02        | -3.05±0.17               | 7.6   | $f_{28}$                               | 0.6233±0.0015                | 0.11±0.02        | 1.96±0.09                | 26.9  |
| $f_{112}$                              | 0.9251±0.0028                | 0.05±0.02        | 1.26±0.17                | 7.4   | $f_{29}$                               | 2.3554±0.0015                | 0.11±0.02        | 1.10±0.09                | 25.5  |
| $f_{113}$                              | 0.9895±0.0027                | 0.04±0.01        | -2.99±0.17               | 7.9   | $f_{30}$                               | 14.4477±0.0015               | 0.11±0.02        | -2.83±0.09               | 25.6  |
| $f_{114}$                              | 1.1860±0.0028                | 0.05±0.02        | 1.02±0.17                | 7.6   | $f_{31}$                               | 3.0755±0.0015                | 0.10±0.02        | -0.01±0.09               | 25.1  |
| $f_{115}$                              | 8.1096±0.0028                | 0.05±0.02        | -0.67±0.17               | 7.5   | $f_{32}$                               | 22.3579±0.0015               | 0.10±0.02        | -2.93±0.09               | 24.4  |
| $f_{117}$                              | 7.5623±0.0028                | 0.05±0.02        | -2.64±0.17               | 7.3   | $f_{33}$                               | 17.8180±0.0015               | 0.10±0.02        | 0.32±0.09                | 24.5  |
| $f_{118}$                              | 7.1589±0.0028                | 0.05±0.02        | -2.89±0.17               | 7.2   | $f_{34}$                               | 3.3860±0.0015                | 0.10±0.02        | -2.99±0.09               | 24.7  |
| $f_{120}$                              | 16.7275±0.0028               | 0.05±0.02        | 2.53±0.17                | 7.2   | $f_{35}$                               | 4.3947±0.0016                | 0.10±0.02        | -2.05±0.10               | 23.3  |
| $f_{121}$                              | 1.3843±0.0029                | 0.05±0.02        | -3.00±0.17               | 7.1   | $f_{36}$                               | 20.5095±0.0016               | 0.10±0.02        | -0.12±0.10               | 22.4  |
| $f_{122}$                              | 8.8560±0.0029                | 0.05±0.02        | 0.79±0.18                | 7.0   | $f_{37}$                               | 7.9359±0.0016                | 0.09±0.02        | -2.43±0.10               | 22.3  |
| $f_{123}$                              | 8.8908±0.0028                | 0.05±0.02        | 2.18±0.17                | 7.3   | $f_{38}$                               | 14.5376±0.0016               | 0.09±0.02        | 1.93±0.10                | 22.4  |
| $f_{125}$                              | 56.9864±0.0029               | 0.05±0.02        | 1.16±0.18                | 6.9   | $f_{39}$                               | 3.0179±0.0016                | 0.09±0.02        | 2.24±0.10                | 22.2  |
| $f_{127}$                              | 0.3697±0.0029                | 0.05±0.02        | -2.04±0.18               | 6.7   | $f_{40}$                               | 4.0210±0.0016                | 0.08±0.02        | -1.83±0.10               | 22.0  |
| $f_{128}$                              | 2.7381±0.0030                | 0.05±0.02        | -0.99±0.18               | 6.6   | $f_{41}$                               | 18.2329±0.0016               | 0.09±0.02        | -0.33±0.10               | 22.0  |
| $f_{129}$                              | 0.5695±0.0030                | 0.04±0.02        | 1.55±0.18                | 6.6   | $f_{42}$                               | 3.6991±0.0016                | 0.09±0.02        | -2.81±0.10               | 22.0  |
| $f_{130}$                              | 6.8056±0.0030                | 0.04±0.02        | 0.69±0.18                | 6.4   | $f_{43}$                               | 5.3802±0.0017                | 0.09±0.02        | -3.11±0.10               | 21.3  |
| $f_{131}$                              | 13.9492±0.0030               | 0.05±0.02        | 0.64±0.18                | 6.4   | $f_{44}$                               | 3.5673±0.0017                | 0.08±0.02        | -1.15±0.10               | 20.4  |
| $f_{132}$                              | 7.9367±0.0030                | 0.04±0.02        | 0.07±0.18                | 6.4   | $f_{45}$                               | 1.1976±0.0017                | 0.09±0.02        | 2.95±0.10                | 20.5  |
| $f_{133}$                              | 1.3917±0.0031                | 0.05±0.02        | -1.58±0.19               | 6.2   | $f_{46}$                               | 0.6967±0.0017                | 0.08±0.02        | 1.84±0.10                | 19.7  |
| $f_{136}$                              | 1.8229±0.0031                | 0.04±0.02        | 2.53±0.19                | 6.2   | $f_{47}$                               | 3.8957±0.0018                | 0.07±0.02        | -0.45±0.11               | 18.7  |
| $f_{137}$                              | 8.2984±0.0031                | 0.04±0.02        | 0.29±0.19                | 6.0   | $f_{48}$                               | 0.2141±0.0018                | 0.08±0.02        | 1.34±0.11                | 17.9  |
| $f_{138}$                              | 0.8240±0.0031                | 0.04±0.02        | 0.62±0.19                | 6.1   | $f_{49}$                               | 19.7427±0.0018               | 0.08±0.02        | -2.59±0.11               | 17.9  |
| $f_{139}$                              | 0.1346±0.0031                | 0.05±0.02        | -0.19±0.19               | 5.9   | $f_{50}$                               | 3.3145±0.0018                | 0.07±0.02        | 2.37±0.11                | 18.0  |
| $f_{140}$                              | 8.6633±0.0031                | 0.04±0.02        | -1.64±0.19               | 6.0   | $f_{51}$                               | 4.2216±0.0018                | 0.08±0.02        | -2.06±0.11               | 17.5  |
| $f_{147}$                              | 7.1120±0.0031                | 0.04±0.02        | -1.29±0.19               | 6.0   | $f_{52}$                               | 0.1325±0.0018                | 0.07±0.02        | -1.50±0.11               | 17.2  |
| $f_{148}$                              | 0.2420±0.0032                | 0.04±0.02        | 2.03±0.19                | 5.8   | $f_{54}$                               | 0.8275±0.0019                | 0.07±0.02        | 0.64±0.12                | 16.2  |
| $f_{149}$                              | 9.2632±0.0032                | 0.04±0.02        | -2.58±0.20               | 5.7   | $f_{55}$                               | 12.2505±0.0020               | 0.07±0.02        | -1.55±0.12               | 14.8  |
| $f_{150}$                              | 0.1884±0.0032                | 0.04±0.02        | 0.74±0.20                | 5.7   | $f_{56}$                               | 3.2623±0.0020                | 0.07±0.02        | 0.78±0.12                | 14.9  |
| $f_{151}$                              | 1.3149±0.0032                | 0.06±0.03        | 2.65±0.20                | 5.7   | $f_{58}$                               | 2.3949±0.0020                | 0.07±0.02        | -0.67±0.12               | 14.2  |
| $f_{153}$                              | 8.2266±0.0032                | 0.04±0.02        | -3.07±0.20               | 5.6   | $f_{59}$                               | 9.6474±0.0020                | 0.07±0.02        | -1.54±0.12               | 14.6  |
| $f_{154}$                              | 56.9788±0.0032               | 0.04±0.02        | 2.00±0.20                | 5.6   | $f_{60}$                               | 10.9305±0.0020               | 0.07±0.02        | -1.89±0.12               | 14.1  |
| $f_{157}$                              | 0.6708±0.0032                | 0.04±0.02        | 1.27±0.20                | 5.6   | $f_{61}$                               | 18.3329±0.0020               | 0.07±0.02        | 1.00±0.12                | 14.4  |
| $f_{160}$                              | 7.7211±0.0033                | 0.04±0.02        | 0.15±0.20                | 5.4   | $f_{62}$                               | 5.0053±0.0021                | 0.06±0.02        | -2.36±0.13               | 13.8  |
| $f_{161}$                              | 57.0355±0.0033               | 0.04±0.02        | 0.32±0.20                | 5.3   | $f_{63}$                               | 10.1706±0.0021               | 0.07±0.02        | -2.50±0.13               | 13.7  |
| $f_{164}$                              | 8.1891±0.0033                | 0.04±0.02        | 1.62±0.20                | 5.4   | $f_{66}$                               | 11.6403±0.0021               | 0.07±0.02        | -0.58±0.13               | 13.6  |
| $f_{165}$                              | 1.2166±0.0033                | 0.04±0.02        | 2.28±0.20                | 5.4   | $f_{67}$                               | 0.2315±0.0021                | 0.07±0.02        | -2.75±0.13               | 13.5  |
| $f_{166}$                              | 7.0110±0.0033                | 0.04±0.02        | 2.59±0.20                | 5.2   | $f_{68}$                               | 0.4685±0.0021                | 0.07±0.02        | 2.96±0.13                | 13.5  |
| $f_{168}$                              | 43.0045±0.0033               | 0.04±0.02        | -1.06±0.20               | 5.2   | $f_{69}$                               | 12.9406±0.0021               | 0.07±0.02        | -1.56±0.13               | 13.2  |
| $f_{169}$                              | 1.2885±0.0033                | 0.04±0.02        | 2.23±0.20                | 5.2   | $f_{70}$                               | 2.5898±0.0021                | 0.06±0.02        | -0.11±0.13               | 13.1  |
| $f_{170}$                              | 1.3075±0.0033                | 0.04±0.02        | 2.54±0.20                | 5.4   | $f_{71}$                               | 0.4019±0.0021                | 0.05±0.01        | 2.74±0.13                | 12.9  |
| $f_{171}$                              | 9.6547±0.0034                | 0.04±0.02        | -0.17±0.21               | 5.0   | $f_{72}$                               | 11.0006±0.0021               | 0.06±0.02        | -1.18±0.13               | 12.7  |
| $f_{172}$                              | 8.9893±0.0034                | 0.04±0.02        | -1.31±0.21               | 5.1   | $f_{73}$                               | 3.8846±0.0022                | 0.06±0.02        | 1.98±0.13                | 12.6  |
| $f_{173}$                              | 13.9412±0.0034               | 0.04±0.02        | 1.41±0.21                | 5.1   | $f_{74}$                               | 0.7985±0.0021                | 0.05±0.01        | -0.81±0.13               | 13.1  |
| $f_{174}$                              | 27.9684±0.0034               | 0.04±0.02        | 1.53±0.21                | 5.0   | $f_{75}$                               | 3.1654±0.0022                | 0.06±0.02        | 2.60±0.13                | 12.4  |
| $f_{176}$                              | 57.0127±0.0034               | 0.04±0.02        | 1.33±0.21                | 5.1   | $f_{76}$                               | 0.9390±0.0022                | 0.06±0.02        | -1.35±0.13               | 12.6  |
| $f_{177}$                              | 2.5807±0.0033                | 0.04±0.02        | -0.90±0.20               | 5.2   | $f_{77}$                               | 3.1880±0.0022                | 0.06±0.02        | -1.28±0.13               | 12.4  |
| $f_{178}$                              | 0.4095±0.0034                | 0.04±0.02        | -0.11±0.21               | 5.0   | $f_{78}$                               | 17.9152±0.0022               | 0.06±0.02        | -1.15±0.13               | 12.2  |
| $f_{179}$                              | 0.8886±0.0034                | 0.04±0.02        | -1.68±0.21               | 5.1   | $f_{79}$                               | 0.2548±0.0022                | 0.07±0.02        | 2.04±0.13                | 12.1  |
|                                        |                              |                  |                          |       | $f_{80}$                               | 3.3623±0.0022                | 0.06±0.02        | -0.16±0.14               | 11.8  |
|                                        |                              |                  |                          |       | $f_{81}$                               | 5.8607±0.0022                | 0.07±0.02        | -1.12±0.14               | 11.9  |
|                                        |                              |                  |                          |       | $f_{82}$                               | 0.1450±0.0022                | 0.05±0.01        | 1.82±0.14                | 11.8  |
|                                        |                              |                  |                          |       | $f_{83}$                               | 19.2313±0.0023               | 0.06±0.02        | -1.55±0.14               | 11.2  |
|                                        |                              |                  |                          |       | $f_{84}$                               | 8.6156±0.0023                | 0.06±0.02        | 2.65±0.14                | 11.2  |
|                                        |                              |                  |                          |       | $f_{85}$                               | 5.4937±0.0023                | 0.06±0.02        | -1.42±0.14               | 11.2  |
|                                        |                              |                  |                          |       | $f_{86}$                               | 3.9778±0.0023                | 0.06±0.02        | -1.79±0.14               | 10.9  |
|                                        |                              |                  |                          |       | $f_{87}$                               | 3.1116±0.0023                | 0.06±0.02        | -2.29±0.14               | 10.7  |
|                                        |                              |                  |                          |       | $f_{88}$                               | 12.4791±0.0023               | 0.06±0.02        | 1.87±0.14                | 10.9  |
|                                        |                              |                  |                          |       | $f_{89}$                               | 3.5506±0.0023                | 0.06±0.02        | 0.44±0.14                | 10.8  |
|                                        |                              |                  |                          |       | $f_{90}$                               | 0.2895±0.0023                | 0.05±0.02        | 2.71±0.14                | 11.1  |
|                                        |                              |                  |                          |       | $f_{91}$                               | 4.1719±0.0024                | 0.05±0.02        | 0.13±0.15                | 10.3  |
|                                        |                              |                  |                          |       | $f_{92}$                               | 1.0217±0.0024                | 0.05±0.02        | 2.33±0.14                | 10.4  |
|                                        |                              |                  |                          |       | $f_{93}$                               | 2.0241±0.0024                | 0.06±0.02        | -2.26±0.14               | 10.5  |
|                                        |                              |                  |                          |       | $f_{94}$                               | 2.8903±0.0025                | 0.05±0.02        | 3.01±0.15                | 9.6   |

**Table D.4:** Frequency list of 0102589648

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|--------------|------------------------------|------------------|--------------------------|-------|
| $f_1$        | 18.6455±0.0004               | 0.57±0.03        | 1.53±0.03                | 321.0 |
| $f_2$        | 1.9583±0.0005                | 0.48±0.03        | 0.90±0.03                | 250.9 |
| $f_3$        | 13.9261±0.0006               | 0.33±0.03        | -1.24±0.04               | 151.7 |
| $f_4$        | 3.7532±0.0007                | 0.29±0.03        | 2.75±0.04                | 119.2 |
| $f_5$        | 4.8062±0.0008                | 0.24±0.03        | -0.43±0.05               | 91.7  |
| $f_6$        | 2.9215±0.0009                | 0.20±0.02        | -2.37±0.06               | 65.2  |
| $f_7$        | 3.9388±0.0010                | 0.19±0.02        | 0.59±0.06                | 62.0  |
| $f_8$        | 3.4577±0.0010                | 0.19±0.02        | -0.00±0.06               | 58.2  |
| $f_9$        | 4.5105±0.0011                | 0.17±0.03        | 2.34±0.07                | 44.7  |
| $f_{10}$     | 2.1484±0.0012                | 0.16±0.02        | 0.51±0.07                | 42.9  |
| $f_{11}$     | 13.0200±0.0012               | 0.14±0.02        | 2.94±0.07                | 42.9  |
| $f_{12}$     | 1.4107±0.0012                | 0.15±0.02        | -2.32±0.07               | 41.2  |
| $f_{13}$     | 2.0033±0.0012                | 0.16±0.03        | -0.13±0.07               | 40.8  |
| $f_{14}$     | 12.2762±0.0012               | 0.16±0.02        | -1.34±0.07               | 42.1  |

Frequency list of 0102589648 continued

| Frequency list of 0102589648 continued |                              |                  |                          |       | Frequency list of 0102589648 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| f <sub>95</sub>                        | 2.1883±0.0025                | 0.05±0.02        | -2.51±0.15               | 9.6   | f <sub>177</sub>                       | 9.4114±0.0032                | 0.04±0.02        | -0.53±0.20               | 5.6   |
| f <sub>96</sub>                        | 8.0272±0.0024                | 0.06±0.02        | 3.06±0.15                | 9.8   | f <sub>178</sub>                       | 8.0610±0.0032                | 0.04±0.02        | -2.33±0.20               | 5.7   |
| f <sub>97</sub>                        | 4.8856±0.0025                | 0.05±0.02        | -2.33±0.15               | 9.4   | f <sub>180</sub>                       | 0.5597±0.0033                | 0.04±0.02        | 0.63±0.20                | 5.5   |
| f <sub>98</sub>                        | 0.8972±0.0025                | 0.05±0.02        | 2.64±0.15                | 9.4   | f <sub>181</sub>                       | 2.5411±0.0033                | 0.04±0.02        | -0.87±0.20               | 5.5   |
| f <sub>100</sub>                       | 1.5904±0.0025                | 0.05±0.02        | -2.81±0.15               | 9.3   | f <sub>182</sub>                       | 0.9255±0.0033                | 0.03±0.01        | -2.53±0.20               | 5.5   |
| f <sub>101</sub>                       | 3.2861±0.0025                | 0.05±0.02        | -1.60±0.15               | 9.2   | f <sub>183</sub>                       | 7.8104±0.0033                | 0.04±0.02        | -1.31±0.20               | 5.5   |
| f <sub>102</sub>                       | 6.6453±0.0025                | 0.05±0.02        | 3.09±0.15                | 9.2   | f <sub>184</sub>                       | 1.3996±0.0033                | 0.04±0.02        | 0.37±0.20                | 5.3   |
| f <sub>103</sub>                       | 16.7332±0.0025               | 0.05±0.02        | 0.62±0.15                | 9.1   | f <sub>185</sub>                       | 3.4019±0.0033                | 0.04±0.02        | 2.86±0.20                | 5.3   |
| f <sub>104</sub>                       | 5.9246±0.0025                | 0.05±0.02        | -0.52±0.15               | 9.1   | f <sub>186</sub>                       | 2.7898±0.0033                | 0.03±0.01        | 0.82±0.20                | 5.2   |
| f <sub>105</sub>                       | 14.9925±0.0026               | 0.05±0.02        | 0.21±0.16                | 8.9   | f <sub>187</sub>                       | 21.8933±0.0034               | 0.04±0.02        | -0.48±0.21               | 5.1   |
| f <sub>106</sub>                       | 2.7231±0.0025                | 0.05±0.02        | 1.31±0.16                | 9.0   | f <sub>188</sub>                       | 4.3601±0.0034                | 0.03±0.01        | 2.06±0.21                | 5.1   |
| f <sub>107</sub>                       | 9.8393±0.0026                | 0.05±0.02        | 2.15±0.16                | 8.9   | f <sub>189</sub>                       | 2.9557±0.0034                | 0.03±0.01        | -1.74±0.21               | 5.1   |
| f <sub>108</sub>                       | 6.7555±0.0026                | 0.05±0.02        | -0.19±0.16               | 8.7   | f <sub>191</sub>                       | 1.5624±0.0034                | 0.03±0.01        | -2.22±0.21               | 5.1   |
| f <sub>109</sub>                       | 0.4156±0.0026                | 0.05±0.02        | -0.65±0.16               | 8.7   | f <sub>192</sub>                       | 4.0308±0.0033                | 0.03±0.01        | -1.50±0.20               | 5.2   |
| f <sub>110</sub>                       | 12.7644±0.0026               | 0.05±0.02        | 1.99±0.16                | 8.6   | f <sub>193</sub>                       | 2.1661±0.0034                | 0.04±0.02        | 0.29±0.21                | 5.1   |
| f <sub>111</sub>                       | 1.3222±0.0026                | 0.05±0.02        | -0.75±0.16               | 8.5   | f <sub>194</sub>                       | 2.1364±0.0033                | 0.03±0.01        | 1.57±0.20                | 5.3   |
| f <sub>112</sub>                       | 3.8585±0.0026                | 0.05±0.02        | -0.88±0.16               | 8.4   | f <sub>195</sub>                       | 8.2234±0.0034                | 0.03±0.01        | 1.29±0.21                | 5.1   |
| f <sub>113</sub>                       | 0.6723±0.0026                | 0.05±0.02        | -0.93±0.16               | 8.4   | f <sub>196</sub>                       | 4.5040±0.0034                | 0.03±0.01        | -0.57±0.21               | 5.0   |
| f <sub>114</sub>                       | 0.2733±0.0026                | 0.05±0.02        | 0.41±0.16                | 8.4   | f <sub>197</sub>                       | 2.0133±0.0034                | 0.03±0.01        | -0.19±0.21               | 5.1   |
| f <sub>115</sub>                       | 0.3752±0.0026                | 0.05±0.02        | 1.47±0.16                | 8.6   | f <sub>198</sub>                       | 9.8840±0.0034                | 0.03±0.01        | 1.37±0.21                | 5.1   |
| f <sub>116</sub>                       | 2.0498±0.0026                | 0.04±0.01        | 1.71±0.16                | 8.5   |                                        |                              |                  |                          |       |
| f <sub>117</sub>                       | 12.8658±0.0026               | 0.05±0.02        | 2.30±0.16                | 8.4   |                                        |                              |                  |                          |       |
| f <sub>118</sub>                       | 4.7789±0.0027                | 0.04±0.01        | 0.29±0.16                | 8.2   |                                        |                              |                  |                          |       |
| f <sub>119</sub>                       | 0.2629±0.0027                | 0.05±0.02        | -0.95±0.16               | 8.2   |                                        |                              |                  |                          |       |
| f <sub>120</sub>                       | 17.5855±0.0027               | 0.04±0.01        | 1.60±0.16                | 8.1   |                                        |                              |                  |                          |       |
| f <sub>121</sub>                       | 2.8597±0.0027                | 0.04±0.01        | 2.75±0.17                | 7.9   |                                        |                              |                  |                          |       |
| f <sub>122</sub>                       | 9.4649±0.0027                | 0.04±0.01        | 1.83±0.17                | 7.9   |                                        |                              |                  |                          |       |
| f <sub>125</sub>                       | 1.6670±0.0027                | 0.05±0.02        | 2.06±0.17                | 7.8   |                                        |                              |                  |                          |       |
| f <sub>127</sub>                       | 0.7809±0.0028                | 0.05±0.02        | 1.57±0.17                | 7.6   |                                        |                              |                  |                          |       |
| f <sub>128</sub>                       | 1.0460±0.0028                | 0.04±0.01        | -1.38±0.17               | 7.7   |                                        |                              |                  |                          |       |
| f <sub>129</sub>                       | 10.2061±0.0028               | 0.04±0.01        | 0.15±0.17                | 7.4   |                                        |                              |                  |                          |       |
| f <sub>130</sub>                       | 3.7659±0.0028                | 0.04±0.01        | -1.54±0.17               | 7.5   |                                        |                              |                  |                          |       |
| f <sub>131</sub>                       | 0.6057±0.0028                | 0.05±0.02        | -2.79±0.17               | 7.5</ |                                        |                              |                  |                          |       |

## Appendix D. Frequencies of individual Hybrid Stars

| Frequency list of 0102600015 continued |                              |                  |                          |       | Frequency list of 0102600015 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| <i>f</i> <sub>73</sub>                 | 0.1788±0.0018                | 0.13±0.03        | 2.39±0.11                | 18.2  | <i>f</i> <sub>191</sub>                | 4.2289±0.0032                | 0.06±0.02        | 2.26±0.19                | 5.8   |
| <i>f</i> <sub>74</sub>                 | 7.8906±0.0018                | 0.12±0.03        | -1.52±0.11               | 18.4  | <i>f</i> <sub>192</sub>                | 1.4625±0.0032                | 0.06±0.02        | -2.28±0.19               | 5.8   |
| <i>f</i> <sub>77</sub>                 | 2.1935±0.0018                | 0.12±0.03        | 1.78±0.11                | 18.0  | <i>f</i> <sub>194</sub>                | 6.0402±0.0032                | 0.06±0.03        | 2.22±0.20                | 5.6   |
| <i>f</i> <sub>80</sub>                 | 0.3430±0.0019                | 0.09±0.02        | -1.59±0.12               | 16.2  | <i>f</i> <sub>195</sub>                | 7.1245±0.0032                | 0.06±0.03        | 2.25±0.20                | 5.6   |
| <i>f</i> <sub>81</sub>                 | 11.4837±0.0019               | 0.11±0.03        | -1.50±0.12               | 16.3  | <i>f</i> <sub>196</sub>                | 0.8072±0.0032                | 0.06±0.03        | -1.64±0.20               | 5.7   |
| <i>f</i> <sub>82</sub>                 | 0.2983±0.0019                | 0.11±0.03        | 1.52±0.12                | 15.9  | <i>f</i> <sub>197</sub>                | 12.9449±0.0033               | 0.06±0.03        | 2.11±0.20                | 5.5   |
| <i>f</i> <sub>83</sub>                 | 8.2040±0.0019                | 0.11±0.03        | -2.97±0.12               | 16.0  | <i>f</i> <sub>198</sub>                | 1.6447±0.0032                | 0.06±0.03        | 0.27±0.20                | 5.6   |
| <i>f</i> <sub>86</sub>                 | 2.3883±0.0020                | 0.08±0.02        | 0.80±0.12                | 14.5  | <i>f</i> <sub>199</sub>                | 2.4041±0.0032                | 0.06±0.03        | 0.53±0.20                | 5.6   |
| <i>f</i> <sub>87</sub>                 | 0.2601±0.0020                | 0.10±0.03        | -3.13±0.12               | 14.5  | <i>f</i> <sub>200</sub>                | 7.9628±0.0033                | 0.06±0.03        | -2.40±0.20               | 5.5   |
| <i>f</i> <sub>88</sub>                 | 1.2275±0.0020                | 0.10±0.03        | 2.26±0.12                | 14.4  | <i>f</i> <sub>201</sub>                | 20.9341±0.0031               | 0.06±0.02        | 1.28±0.19                | 6.0   |
| <i>f</i> <sub>89</sub>                 | 8.6674±0.0021                | 0.10±0.03        | -1.50±0.13               | 13.2  | <i>f</i> <sub>202</sub>                | 19.9770±0.0032               | 0.06±0.02        | -0.38±0.19               | 5.8   |
| <i>f</i> <sub>91</sub>                 | 11.8723±0.0022               | 0.10±0.03        | -0.23±0.13               | 12.6  | <i>f</i> <sub>203</sub>                | 34.9532±0.0031               | 0.06±0.02        | -1.74±0.19               | 6.1   |
| <i>f</i> <sub>92</sub>                 | 5.4005±0.0021                | 0.10±0.03        | 1.62±0.13                | 12.7  | <i>f</i> <sub>204</sub>                | 0.1393±0.0032                | 0.06±0.03        | -0.50±0.20               | 5.6   |
| <i>f</i> <sub>93</sub>                 | 7.1429±0.0022                | 0.09±0.03        | 0.63±0.13                | 12.5  | <i>f</i> <sub>205</sub>                | 5.9019±0.0033                | 0.06±0.03        | -1.85±0.20               | 5.5   |
| <i>f</i> <sub>94</sub>                 | 0.4214±0.0022                | 0.09±0.03        | 2.25±0.13                | 12.5  | <i>f</i> <sub>206</sub>                | 0.6667±0.0033                | 0.06±0.03        | 1.18±0.20                | 5.4   |
| <i>f</i> <sub>95</sub>                 | 3.8800±0.0021                | 0.10±0.03        | -0.18±0.13               | 12.9  | <i>f</i> <sub>207</sub>                | 6.4728±0.0033                | 0.06±0.03        | 2.22±0.20                | 5.5   |
| <i>f</i> <sub>97</sub>                 | 1.9584±0.0022                | 0.09±0.03        | 2.27±0.13                | 12.5  | <i>f</i> <sub>208</sub>                | 3.7531±0.0033                | 0.06±0.03        | -2.41±0.20               | 5.2   |
| <i>f</i> <sub>98</sub>                 | 3.9934±0.0022                | 0.08±0.02        | -0.71±0.13               | 12.2  | <i>f</i> <sub>209</sub>                | 5.9864±0.0033                | 0.06±0.03        | 1.11±0.20                | 5.3   |
| <i>f</i> <sub>99</sub>                 | 5.9627±0.0022                | 0.10±0.03        | 1.50±0.13                | 12.1  | <i>f</i> <sub>210</sub>                | 4.8295±0.0033                | 0.06±0.03        | -0.79±0.20               | 5.4   |
| <i>f</i> <sub>100</sub>                | 4.7442±0.0022                | 0.10±0.03        | -2.37±0.13               | 12.1  | <i>f</i> <sub>211</sub>                | 0.5795±0.0033                | 0.06±0.03        | -1.25±0.20               | 5.2   |
| <i>f</i> <sub>101</sub>                | 0.7529±0.0022                | 0.08±0.02        | -2.06±0.14               | 11.6  | <i>f</i> <sub>212</sub>                | 0.5478±0.0033                | 0.06±0.03        | -0.81±0.20               | 5.2   |
| <i>f</i> <sub>102</sub>                | 0.2901±0.0023                | 0.09±0.03        | -1.98±0.14               | 11.5  | <i>f</i> <sub>213</sub>                | 3.5958±0.0033                | 0.06±0.03        | 2.26±0.20                | 5.2   |
| <i>f</i> <sub>103</sub>                | 10.7625±0.0023               | 0.09±0.03        | -1.71±0.14               | 11.5  | <i>f</i> <sub>215</sub>                | 0.9853±0.0033                | 0.05±0.02        | -2.88±0.20               | 5.2   |
| <i>f</i> <sub>104</sub>                | 3.2073±0.0022                | 0.09±0.03        | 3.14±0.14                | 11.6  | <i>f</i> <sub>217</sub>                | 0.6024±0.0034                | 0.06±0.03        | 1.64±0.21                | 5.0   |
| <i>f</i> <sub>106</sub>                | 1.1850±0.0023                | 0.08±0.02        | -0.41±0.14               | 11.1  | <i>f</i> <sub>218</sub>                | 0.7002±0.0034                | 0.05±0.02        | 0.89±0.21                | 5.1   |
| <i>f</i> <sub>107</sub>                | 8.0758±0.0023                | 0.09±0.03        | -0.19±0.14               | 11.1  | <i>f</i> <sub>219</sub>                | 1.0443±0.0033                | 0.05±0.02        | -0.98±0.20               | 5.2   |
| <i>f</i> <sub>108</sub>                | 2.0084±0.0023                | 0.14±0.04        | 0.14±0.14                | 10.6  |                                        |                              |                  |                          |       |
| <i>f</i> <sub>111</sub>                | 5.9384±0.0023                | 0.09±0.03        | -1.88±0.14               | 10.8  |                                        |                              |                  |                          |       |
| <i>f</i> <sub>112</sub>                | 5.7868±0.0024                | 0.08±0.03        | 0.66±0.15                | 10.2  |                                        |                              |                  |                          |       |
| <i>f</i> <sub>113</sub>                | 2.2995±0.0024                | 0.08±0.02        | 1.57±0.15                | 10.3  |                                        |                              |                  |                          |       |
| <i>f</i> <sub>114</sub>                | 0.1067±0.0024                | 0.09±0.03        | 2.53±0.15                | 9.9   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>115</sub>                | 0.3485±0.0024                | 0.08±0.03        | 0.82±0.15                | 10.1  |                                        |                              |                  |                          |       |
| <i>f</i> <sub>116</sub>                | 0.3285±0.0023                | 0.10±0.03        | 0.56±0.14                | 11.5  |                                        |                              |                  |                          |       |
| <i>f</i> <sub>117</sub>                | 0.9150±0.0024                | 0.08±0.02        | 1.73±0.15                | 10.3  |                                        |                              |                  |                          |       |
| <i>f</i> <sub>119</sub>                | 0.3867±0.0025                | 0.08±0.03        | -0.91±0.15               | 9.5   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>120</sub>                | 0.6140±0.0025                | 0.07±0.02        | -3.04±0.15               | 9.6   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>121</sub>                | 4.7305±0.0025                | 0.08±0.03        | -2.94±0.15               | 9.4   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>122</sub>                | 4.1513±0.0025                | 0.08±0.03        | 0.36±0.15                | 9.4   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>123</sub>                | 2.9433±0.0025                | 0.08±0.03        | -2.56±0.15               | 9.1   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>124</sub>                | 0.1532±0.0026                | 0.07±0.02        | 0.80±0.16                | 8.8   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>126</sub>                | 0.4365±0.0026                | 0.07±0.02        | -1.47±0.16               | 8.5   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>127</sub>                | 0.3756±0.0026                | 0.07±0.02        | -0.25±0.16               | 8.4   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>129</sub>                | 1.1617±0.0026                | 0.08±0.03        | -1.77±0.16               | 8.6   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>130</sub>                | 2.3774±0.0026                | 0.08±0.03        | -0.18±0.16               | 8.4   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>131</sub>                | 5.5564±0.0026                | 0.08±0.03        | -0.60±0.16               | 8.3   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>132</sub>                | 0.2443±0.0026                | 0.07±0.02        | 1.79±0.16                | 8.4   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>141</sub>                | 1.1163±0.0027                | 0.07±0.02        | 1.17±0.16                | 8.2   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>142</sub>                | 2.4637±0.0026                | 0.07±0.02        | -2.24±0.16               | 8.3   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>150</sub>                | 1.1735±0.0028                | 0.07±0.03        | 0.05±0.17                | 7.7   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>152</sub>                | 2.0653±0.0028                | 0.07±0.03        | 2.24±0.17                | 7.5   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>153</sub>                | 11.2193±0.0028               | 0.07±0.03        | 1.91±0.17                | 7.6   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>154</sub>                | 4.0113±0.0028                | 0.09±0.03        | 0.61±0.17                | 7.4   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>155</sub>                | 0.7710±0.0028                | 0.07±0.03        | 1.80±0.17                | 7.2   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>156</sub>                | 7.0808±0.0029                | 0.07±0.03        | 0.72±0.17                | 7.1   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>157</sub>                | 1.6025±0.0029                | 0.07±0.03        | 0.18±0.18                | 7.0   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>160</sub>                | 3.6565±0.0029                | 0.06±0.02        | -2.27±0.18               | 6.9   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>161</sub>                | 2.2348±0.0030                | 0.06±0.02        | 0.82±0.18                | 6.6   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>162</sub>                | 4.9491±0.0030                | 0.06±0.02        | 0.34±0.18                | 6.6   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>163</sub>                | 0.4489±0.0030                | 0.06±0.02        | 2.24±0.18                | 6.6   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>164</sub>                | 2.9212±0.0030                | 0.06±0.02        | 0.54±0.18                | 6.4   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>165</sub>                | 1.0362±0.0030                | 0.07±0.03        | -0.66±0.18               | 6.4   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>166</sub>                | 1.0090±0.0029                | 0.07±0.03        | 2.92±0.17                | 7.1   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>168</sub>                | 4.5837±0.0030                | 0.06±0.02        | -2.09±0.19               | 6.3   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>170</sub>                | 2.8057±0.0031                | 0.07±0.03        | -2.18±0.19               | 6.2   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>171</sub>                | 2.4900±0.0030                | 0.07±0.03        | 2.57±0.18                | 6.4   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>172</sub>                | 2.4716±0.0029                | 0.07±0.03        | 2.29±0.18                | 6.9   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>174</sub>                | 1.5005±0.0031                | 0.06±0.02        | -2.03±0.19               | 6.2   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>175</sub>                | 14.9161±0.0030               | 0.06±0.02        | 2.66±0.19                | 6.3   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>176</sub>                | 1.8204±0.0031                | 0.06±0.02        | -1.29±0.19               | 6.2   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>177</sub>                | 1.2559±0.0031                | 0.07±0.03        | -1.98±0.19               | 6.2   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>179</sub>                | 0.8548±0.0031                | 0.06±0.02        | 1.11±0.19                | 5.9   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>183</sub>                | 0.3388±0.0031                | 0.06±0.02        | 3.13±0.19                | 6.0   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>184</sub>                | 0.2340±0.0032                | 0.06±0.02        | -2.82±0.19               | 5.8   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>185</sub>                | 0.6248±0.0032                | 0.06±0.02        | 1.20±0.19                | 5.8   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>186</sub>                | 11.2805±0.0032               | 0.06±0.02        | 1.84±0.19                | 5.8   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>187</sub>                | 2.1835±0.0032                | 0.06±0.02        | 2.69±0.19                | 5.8   |                                        |                              |                  |                          |       |
| Frequency list of 0102600015 continued |                              |                  |                          |       | Frequency list of 0102608837 continued |                              |                  |                          |       |
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| <i>f</i> <sub>1</sub>                  | 2.5872±0.0005                | 0.30±0.02        | 0.83±0.03                | 216.1 |                                        |                              |                  |                          |       |
| <i>f</i> <sub>2</sub>                  | 23.7247±0.0006               | 0.25±0.02        | 0.73±0.04                | 152.3 |                                        |                              |                  |                          |       |
| <i>f</i> <sub>3</sub>                  | 18.6195±0.0006               | 0.24±0.02        | 2.74±0.04                | 150.2 |                                        |                              |                  |                          |       |
| <i>f</i> <sub>4</sub>                  | 2.3964±0.0007                | 0.22±0.02        | -2.49±0.04               | 118.9 |                                        |                              |                  |                          |       |
| <i>f</i> <sub>5</sub>                  | 2.4531±0.0007                | 0.21±0.02        | 1.36±0.04                | 117.8 |                                        |                              |                  |                          |       |
| <i>f</i> <sub>6</sub>                  | 28.4929±0.0007               | 0.20±0.02        | -0.87±0.04               | 108.7 |                                        |                              |                  |                          |       |
| <i>f</i> <sub>8</sub>                  | 16.1522±0.0011               | 0.13±0.02        | 1.26±0.07                | 50.4  |                                        |                              |                  |                          |       |
| <i>f</i> <sub>9</sub>                  | 2.0059±0.0012                | 0.12±0.02        | 0.08±0.07                | 42.7  |                                        |                              |                  |                          |       |
| <i>f</i> <sub>10</sub>                 | 2.7569±0.0013                | 0.11±0.02        | 0.06±0.08                | 36.1  |                                        |                              |                  |                          |       |
| <i>f</i> <sub>11</sub>                 | 16.5440±0.0013               | 0.11±0.02        | 0.81±0.08                | 33.3  |                                        |                              |                  |                          |       |
| <i>f</i> <sub>12</sub>                 | 2.2986±0.0014                | 0.10±0.02        | -2.13±0.08               | 30.2  |                                        |                              |                  |                          |       |
| <i>f</i> <sub>13</sub>                 | 0.1573±0.0014                | 0.09±0.02        | 1.80±0.08                | 30.8  |                                        |                              |                  |                          |       |
| <i>f</i> <sub>14</sub>                 | 0.9022±0.0015                | 0.09±0.02        | 1.81±0.09                | 26.8  |                                        |                              |                  |                          |       |
| <i>f</i> <sub>15</sub>                 | 20.6675±0.0015               | 0.09±0.02        | 0.68±0.09                | 26.7  |                                        |                              |                  |                          |       |
| <i>f</i> <sub>17</sub>                 | 22.1051±0.0015               | 0.09±0.02        | 2.86±0.09                | 26.3  |                                        |                              |                  |                          |       |
| <i>f</i> <sub>18</sub>                 | 8.1795±0.0015                | 0.09±0.02        | 0.44±0.09                | 24.7  |                                        |                              |                  |                          |       |
| <i>f</i> <sub>19</sub>                 | 0.1790±0.0017                | 0.08±0.02        | -1.69±0.10               | 21.1  |                                        |                              |                  |                          |       |
| <i>f</i> <sub>22</sub>                 | 7.2533±0.0018                | 0.07±0.02        | 0.97±0.11                | 18.0  |                                        |                              |                  |                          |       |
| <i>f</i> <sub>23</sub>                 | 0.1029±0.0018                | 0.07±0.02        | 0.69±0.11                | 17.6  |                                        |                              |                  |                          |       |
| <i>f</i> <sub>24</sub>                 | 0.9827±0.0018                | 0.07±0.02        | 1.55±0.11                | 17.6  |                                        |                              |                  |                          |       |
| <i>f</i> <sub>25</sub>                 | 0.2928±0.0019                | 0.06±0.01        | -1.29±0.12               | 16.3  |                                        |                              |                  |                          |       |
| <i>f</i> <sub>26</sub>                 | 23.0472±0.0019               | 0.07±0.02        | 2.56±0.12                | 15.9  |                                        |                              |                  |                          |       |
| <i>f</i> <sub>28</sub>                 | 0.5764±0.0020                | 0.06±0.02        | 1.61±0.12                | 14.2  |                                        |                              |                  |                          |       |
| <i>f</i> <sub>29</sub>                 | 26.9024±0.0021               | 0.06±0.02        | 2.79±0.13                | 12.9  |                                        |                              |                  |                          |       |
| <i>f</i> <sub>30</sub>                 | 0.4418±0.0021                | 0.06±0.02        | -0.32±0.13               | 12.9  |                                        |                              |                  |                          |       |
| <i>f</i> <sub>31</sub>                 | 2.3450±0.0021                | 0.06±0.02        | 0.66±0.13                | 12.9  |                                        |                              |                  |                          |       |
| <i>f</i> <sub>32</sub>                 | 19.4390±0.0021               | 0.06±0.02        | 0.50±0.13                | 12.8  |                                        |                              |                  |                          |       |
| <i>f</i> <sub>34</sub>                 | 21.1318±0.0024               | 0.05±0.02        | 0.47±0.15                | 10.1  |                                        |                              |                  |                          |       |
| <i>f</i> <sub>35</sub>                 | 0.6933±0.0024                | 0.06±0.02        | -2.98±0.15               | 10.3  |                                        |                              |                  |                          |       |
| <i>f</i> <sub>36</sub>                 | 0.1501±0.0025                | 0.05±0.02        | -0.65±0.15               | 9.5   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>37</sub>                 | 0.1862±0.0024                | 0.06±0.02        | -0.70±0.15               | 10.0  |                                        |                              |                  |                          |       |
| <i>f</i> <sub>38</sub>                 | 0.9269±0.0025                | 0.04±0.01        | -2.19±0.15               | 9.3   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>39</sub>                 | 0.1964±0.0026                | 0.05±0.02        | -2.81±0.16               |       |                                        |                              |                  |                          |       |



## Appendix D. Frequencies of individual Hybrid Stars

| Frequency list of 0102608837 continued |                              |                  |                          |       | Frequency list of 0102612000 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{55}$                               | 1.1383±0.0028                | 0.04±0.01        | 1.17±0.17                | 7.3   | $f_{61}$                               | 0.2079±0.0018                | 0.08±0.02        | -2.88±0.11               | 18.7  |
| $f_{56}$                               | 7.6177±0.0029                | 0.04±0.02        | -0.70±0.18               | 7.0   | $f_{62}$                               | 0.6344±0.0018                | 0.09±0.02        | -2.66±0.11               | 18.5  |
| $f_{57}$                               | 0.5592±0.0030                | 0.04±0.02        | -1.81±0.18               | 6.6   | $f_{63}$                               | 1.0962±0.0018                | 0.07±0.02        | 2.04±0.11                | 18.5  |
| $f_{58}$                               | 0.2342±0.0030                | 0.04±0.02        | -1.17±0.18               | 6.5   | $f_{64}$                               | 1.1974±0.0018                | 0.06±0.01        | -1.73±0.11               | 18.2  |
| $f_{60}$                               | 0.9388±0.0030                | 0.04±0.02        | 0.16±0.18                | 6.4   | $f_{65}$                               | 0.1496±0.0018                | 0.07±0.02        | 0.87±0.11                | 17.5  |
| $f_{61}$                               | 1.6028±0.0030                | 0.04±0.02        | 0.34±0.18                | 6.4   | $f_{66}$                               | 7.5929±0.0018                | 0.07±0.02        | 1.70±0.11                | 17.3  |
| $f_{62}$                               | 0.3679±0.0030                | 0.04±0.02        | 2.74±0.18                | 6.5   | $f_{67}$                               | 0.6953±0.0019                | 0.08±0.02        | -0.94±0.11               | 17.0  |
| $f_{63}$                               | 29.4241±0.0030               | 0.04±0.02        | 0.69±0.18                | 6.4   | $f_{68}$                               | 0.6483±0.0019                | 0.08±0.02        | 0.99±0.11                | 16.9  |
| $f_{64}$                               | 0.1187±0.0031                | 0.04±0.02        | -0.84±0.19               | 6.1   | $f_{69}$                               | 1.0574±0.0019                | 0.08±0.02        | 2.78±0.11                | 16.5  |
|                                        |                              |                  |                          |       | $f_{70}$                               | 6.8095±0.0019                | 0.07±0.02        | -0.03±0.12               | 16.0  |
|                                        |                              |                  |                          |       | $f_{71}$                               | 1.0750±0.0019                | 0.07±0.02        | 2.22±0.12                | 16.2  |
|                                        |                              |                  |                          |       | $f_{72}$                               | 1.2312±0.0019                | 0.07±0.02        | -2.31±0.12               | 16.1  |
|                                        |                              |                  |                          |       | $f_{73}$                               | 3.6945±0.0019                | 0.07±0.02        | 2.74±0.12                | 15.8  |
|                                        |                              |                  |                          |       | $f_{74}$                               | 2.1079±0.0019                | 0.07±0.02        | -0.39±0.12               | 16.1  |
|                                        |                              |                  |                          |       | $f_{75}$                               | 0.4359±0.0020                | 0.07±0.02        | 0.84±0.12                | 15.3  |
|                                        |                              |                  |                          |       | $f_{76}$                               | 1.1815±0.0019                | 0.05±0.01        | 2.87±0.12                | 15.5  |
|                                        |                              |                  |                          |       | $f_{77}$                               | 0.4930±0.0020                | 0.07±0.02        | -1.16±0.12               | 15.2  |
|                                        |                              |                  |                          |       | $f_{78}$                               | 0.2934±0.0020                | 0.07±0.02        | -2.95±0.12               | 15.1  |
|                                        |                              |                  |                          |       | $f_{79}$                               | 0.1732±0.0019                | 0.07±0.02        | -1.45±0.12               | 15.8  |
|                                        |                              |                  |                          |       | $f_{80}$                               | 0.4010±0.0020                | 0.08±0.02        | 2.58±0.12                | 15.0  |
|                                        |                              |                  |                          |       | $f_{81}$                               | 6.3684±0.0020                | 0.06±0.02        | 2.91±0.12                | 15.1  |
|                                        |                              |                  |                          |       | $f_{82}$                               | 1.0307±0.0020                | 0.05±0.01        | 1.64±0.12                | 15.0  |
|                                        |                              |                  |                          |       | $f_{83}$                               | 25.2851±0.0020               | 0.06±0.02        | 0.09±0.12                | 14.8  |
|                                        |                              |                  |                          |       | $f_{84}$                               | 0.9715±0.0020                | 0.06±0.02        | -1.70±0.12               | 14.1  |
|                                        |                              |                  |                          |       | $f_{85}$                               | 0.7533±0.0020                | 0.06±0.02        | 0.67±0.12                | 14.1  |
|                                        |                              |                  |                          |       | $f_{86}$                               | 0.9244±0.0021                | 0.05±0.01        | -1.97±0.13               | 13.8  |
|                                        |                              |                  |                          |       | $f_{87}$                               | 1.2994±0.0021                | 0.06±0.02        | -0.58±0.13               | 13.8  |
|                                        |                              |                  |                          |       | $f_{88}$                               | 1.5168±0.0021                | 0.07±0.02        | 0.05±0.13                | 13.8  |
|                                        |                              |                  |                          |       | $f_{89}$                               | 2.3713±0.0021                | 0.06±0.02        | -0.07±0.13               | 13.3  |
|                                        |                              |                  |                          |       | $f_{90}$                               | 0.7301±0.0021                | 0.06±0.02        | 0.62±0.13                | 13.5  |
|                                        |                              |                  |                          |       | $f_{91}$                               | 1.3497±0.0021                | 0.06±0.02        | -2.73±0.13               | 13.1  |
|                                        |                              |                  |                          |       | $f_{92}$                               | 1.3086±0.0020                | 0.06±0.02        | -2.11±0.12               | 14.3  |
|                                        |                              |                  |                          |       | $f_{93}$                               | 1.2845±0.0020                | 0.06±0.02        | -2.93±0.12               | 14.4  |
|                                        |                              |                  |                          |       | $f_{94}$                               | 4.4437±0.0021                | 0.06±0.02        | -1.94±0.13               | 13.2  |
|                                        |                              |                  |                          |       | $f_{95}$                               | 5.1698±0.0021                | 0.06±0.02        | 3.05±0.13                | 13.6  |
|                                        |                              |                  |                          |       | $f_{97}$                               | 1.4077±0.0021                | 0.06±0.02        | -0.44±0.13               | 12.9  |
|                                        |                              |                  |                          |       | $f_{98}$                               | 15.5553±0.0021               | 0.06±0.02        | 2.89±0.13                | 12.8  |
|                                        |                              |                  |                          |       | $f_{99}$                               | 4.6393±0.0021                | 0.06±0.02        | -2.09±0.13               | 12.9  |
|                                        |                              |                  |                          |       | $f_{100}$                              | 4.9930±0.0021                | 0.05±0.01        | 2.25±0.13                | 12.9  |
|                                        |                              |                  |                          |       | $f_{101}$                              | 1.7730±0.0022                | 0.04±0.01        | -2.10±0.13               | 12.6  |
|                                        |                              |                  |                          |       | $f_{102}$                              | 0.7883±0.0021                | 0.06±0.02        | 0.46±0.13                | 12.8  |
|                                        |                              |                  |                          |       | $f_{103}$                              | 0.3841±0.0022                | 0.05±0.01        | -2.87±0.13               | 12.3  |
|                                        |                              |                  |                          |       | $f_{105}$                              | 5.5373±0.0022                | 0.06±0.02        | 2.32±0.14                | 11.9  |
|                                        |                              |                  |                          |       | $f_{106}$                              | 3.3944±0.0022                | 0.05±0.01        | 0.11±0.14                | 11.6  |
|                                        |                              |                  |                          |       | $f_{107}$                              | 2.0788±0.0022                | 0.06±0.02        | 1.74±0.14                | 11.6  |
|                                        |                              |                  |                          |       | $f_{108}$                              | 2.1432±0.0022                | 0.07±0.02        | -1.65±0.13               | 12.4  |
|                                        |                              |                  |                          |       | $f_{109}$                              | 1.0174±0.0023                | 0.05±0.01        | 0.43±0.14                | 11.5  |
|                                        |                              |                  |                          |       | $f_{110}$                              | 0.3633±0.0023                | 0.07±0.02        | -1.18±0.14               | 11.2  |
|                                        |                              |                  |                          |       | $f_{111}$                              | 0.3235±0.0022                | 0.08±0.02        | -1.07±0.13               | 12.5  |
|                                        |                              |                  |                          |       | $f_{112}$                              | 0.5179±0.0022                | 0.06±0.02        | 1.89±0.14                | 11.9  |
|                                        |                              |                  |                          |       | $f_{113}$                              | 2.3556±0.0022                | 0.05±0.01        | 2.24±0.14                | 11.6  |
|                                        |                              |                  |                          |       | $f_{114}$                              | 0.4611±0.0022                | 0.06±0.02        | 2.93±0.14                | 11.6  |
|                                        |                              |                  |                          |       | $f_{115}$                              | 1.7475±0.0023                | 0.06±0.02        | -0.02±0.14               | 11.3  |
|                                        |                              |                  |                          |       | $f_{116}$                              | 1.6843±0.0022                | 0.06±0.02        | 0.52±0.13                | 12.0  |
|                                        |                              |                  |                          |       | $f_{117}$                              | 0.5785±0.0023                | 0.05±0.02        | 0.91±0.14                | 10.7  |
|                                        |                              |                  |                          |       | $f_{118}$                              | 1.8994±0.0023                | 0.07±0.02        | -0.55±0.14               | 10.7  |
|                                        |                              |                  |                          |       | $f_{121}$                              | 4.8176±0.0024                | 0.05±0.02        | -1.24±0.14               | 10.4  |
|                                        |                              |                  |                          |       | $f_{123}$                              | 10.5077±0.0023               | 0.05±0.02        | -1.34±0.14               | 10.6  |
|                                        |                              |                  |                          |       | $f_{124}$                              | 0.8607±0.0023                | 0.05±0.02        | 2.92±0.14                | 10.6  |
|                                        |                              |                  |                          |       | $f_{125}$                              | 9.4242±0.0024                | 0.05±0.02        | -0.84±0.15               | 10.3  |
|                                        |                              |                  |                          |       | $f_{126}$                              | 4.8654±0.0024                | 0.05±0.02        | -1.50±0.14               | 10.4  |
|                                        |                              |                  |                          |       | $f_{127}$                              | 0.7376±0.0024                | 0.05±0.02        | -1.36±0.15               | 9.9   |
|                                        |                              |                  |                          |       | $f_{128}$                              | 2.2800±0.0025                | 0.05±0.02        | -2.71±0.15               | 9.6   |
|                                        |                              |                  |                          |       | $f_{129}$                              | 5.0681±0.0025                | 0.05±0.02        | -2.24±0.15               | 9.4   |
|                                        |                              |                  |                          |       | $f_{130}$                              | 0.2862±0.0025                | 0.06±0.02        | 1.11±0.15                | 9.6   |
|                                        |                              |                  |                          |       | $f_{131}$                              | 0.3065±0.0025                | 0.05±0.02        | -0.61±0.15               | 9.6   |
|                                        |                              |                  |                          |       | $f_{132}$                              | 0.2536±0.0024                | 0.06±0.02        | 2.55±0.15                | 10.2  |
|                                        |                              |                  |                          |       | $f_{133}$                              | 5.9802±0.0025                | 0.05±0.02        | -1.05±0.15               | 9.4   |
|                                        |                              |                  |                          |       | $f_{136}$                              | 2.6682±0.0025                | 0.05±0.02        | -1.30±0.15               | 9.1   |
|                                        |                              |                  |                          |       | $f_{137}$                              | 18.3189±0.0025               | 0.04±0.01        | -0.70±0.15               | 9.1   |
|                                        |                              |                  |                          |       | $f_{138}$                              | 2.4707±0.0025                | 0.05±0.02        | -1.58±0.15               | 9.2   |
|                                        |                              |                  |                          |       | $f_{139}$                              | 8.0113±0.0025                | 0.04±0.01        | -3.02±0.15               | 9.3   |
|                                        |                              |                  |                          |       | $f_{140}$                              | 1.4435±0.0025                | 0.04±0.01        | 2.51±0.16                | 9.0   |
|                                        |                              |                  |                          |       | $f_{141}$                              | 1.5000±0.0025                | 0.05±0.02        | 2.07±0.15                | 9.5   |
|                                        |                              |                  |                          |       | $f_{142}$                              | 1.0441±0.0025                | 0.05±0.02        | -1.37±0.15               | 9.1   |
|                                        |                              |                  |                          |       | $f_{143}$                              | 7.1955±0.0025                | 0.04±0.01        | 1.22±0.15                | 9.1   |

## Appendix D. Frequencies of individual Hybrid Stars

| Frequency list of 0102612000 continued |                              |                  |                          |       | Frequency list of 0102615872 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{144}$                              | 1.9341±0.0025                | 0.05±0.02        | -0.93±0.16               | 9.0   | $f_3$                                  | 3.6502±0.0007                | 0.12±0.01        | 1.31±0.04                | 113.2 |
| $f_{145}$                              | 2.7751±0.0025                | 0.04±0.01        | -2.18±0.15               | 9.4   | $f_4$                                  | 0.1622±0.0008                | 0.11±0.01        | 0.85±0.05                | 90.5  |
| $f_{146}$                              | 1.7121±0.0025                | 0.05±0.02        | -0.26±0.15               | 9.1   | $f_5$                                  | 4.2386±0.0008                | 0.10±0.01        | 0.37±0.05                | 90.1  |
| $f_{148}$                              | 1.6113±0.0026                | 0.05±0.02        | 2.05±0.16                | 8.6   | $f_6$                                  | 2.9850±0.0009                | 0.09±0.01        | 0.54±0.06                | 64.7  |
| $f_{149}$                              | 1.3747±0.0026                | 0.04±0.01        | -1.80±0.16               | 8.3   | $f_7$                                  | 0.1923±0.0010                | 0.08±0.01        | 2.95±0.06                | 56.9  |
| $f_{150}$                              | 0.5537±0.0026                | 0.05±0.02        | 0.05±0.16                | 8.3   | $f_8$                                  | 0.1188±0.0010                | 0.09±0.01        | 2.72±0.06                | 56.3  |
| $f_{151}$                              | 0.5940±0.0026                | 0.05±0.02        | 2.03±0.16                | 8.9   | $f_9$                                  | 0.1415±0.0010                | 0.07±0.01        | -2.76±0.06               | 57.1  |
| $f_{152}$                              | 1.2053±0.0026                | 0.04±0.01        | 2.24±0.16                | 8.5   | $f_{10}$                               | 2.5584±0.0013                | 0.06±0.01        | -0.63±0.08               | 33.2  |
| $f_{153}$                              | 2.2668±0.0026                | 0.05±0.02        | 1.34±0.16                | 8.3   | $f_{11}$                               | 0.3377±0.0013                | 0.06±0.01        | 2.03±0.08                | 32.0  |
| $f_{154}$                              | 4.0173±0.0026                | 0.04±0.01        | 2.08±0.16                | 8.7   | $f_{12}$                               | 2.0440±0.0014                | 0.06±0.01        | 2.86±0.08                | 30.2  |
| $f_{155}$                              | 2.9863±0.0026                | 0.04±0.01        | 2.69±0.16                | 8.4   | $f_{13}$                               | 0.1280±0.0014                | 0.06±0.01        | 2.74±0.09                | 29.0  |
| $f_{156}$                              | 8.0508±0.0026                | 0.04±0.01        | 2.58±0.16                | 8.6   | $f_{14}$                               | 0.3076±0.0014                | 0.06±0.01        | -0.43±0.09               | 28.1  |
| $f_{158}$                              | 4.2490±0.0026                | 0.04±0.01        | 0.61±0.16                | 8.3   | $f_{15}$                               | 22.9717±0.0015               | 0.05±0.01        | 1.82±0.09                | 24.5  |
| $f_{159}$                              | 0.3561±0.0027                | 0.05±0.02        | 1.61±0.16                | 8.2   | $f_{16}$                               | 0.4028±0.0016                | 0.05±0.01        | 0.12±0.10                | 22.2  |
| $f_{160}$                              | 1.4752±0.0027                | 0.04±0.01        | -0.84±0.16               | 8.1   | $f_{17}$                               | 20.9936±0.0016               | 0.05±0.01        | 0.35±0.10                | 22.8  |
| $f_{161}$                              | 1.4925±0.0026                | 0.04±0.01        | -2.11±0.16               | 8.9   | $f_{18}$                               | 10.7871±0.0016               | 0.05±0.01        | -1.85±0.10               | 22.0  |
| $f_{162}$                              | 1.3233±0.0026                | 0.05±0.02        | 0.51±0.16                | 8.4   | $f_{19}$                               | 2.5312±0.0017                | 0.05±0.01        | 2.43±0.10                | 21.3  |
| $f_{163}$                              | 0.3349±0.0027                | 0.05±0.02        | -0.89±0.17               | 7.9   | $f_{20}$                               | 0.4392±0.0017                | 0.05±0.01        | 3.05±0.10                | 19.8  |
| $f_{165}$                              | 3.0700±0.0027                | 0.04±0.01        | -2.74±0.17               | 7.9   | $f_{21}$                               | 0.2389±0.0017                | 0.05±0.01        | -1.03±0.11               | 19.6  |
| $f_{167}$                              | 5.4361±0.0027                | 0.04±0.01        | -0.36±0.16               | 8.1   | $f_{22}$                               | 0.4506±0.0018                | 0.05±0.01        | -0.87±0.11               | 19.0  |
| $f_{168}$                              | 0.6605±0.0028                | 0.04±0.01        | -1.32±0.17               | 7.5   | $f_{23}$                               | 0.3284±0.0017                | 0.05±0.01        | 1.14±0.11                | 19.4  |
| $f_{169}$                              | 1.6723±0.0028                | 0.05±0.02        | 0.52±0.17                | 7.6   | $f_{25}$                               | 5.2388±0.0018                | 0.04±0.01        | -2.91±0.11               | 17.3  |
| $f_{170}$                              | 1.7252±0.0028                | 0.05±0.02        | -2.24±0.17               | 7.6   | $f_{26}$                               | 17.3425±0.0018               | 0.04±0.01        | 0.33±0.11                | 17.2  |
| $f_{171}$                              | 0.8921±0.0028                | 0.04±0.01        | 2.46±0.17                | 7.4   | $f_{27}$                               | 0.2137±0.0019                | 0.04±0.01        | -1.25±0.12               | 16.4  |
| $f_{172}$                              | 6.7329±0.0028                | 0.04±0.01        | 0.77±0.17                | 7.6   | $f_{28}$                               | 0.2030±0.0018                | 0.04±0.01        | -1.69±0.11               | 17.3  |
| $f_{173}$                              | 1.1380±0.0028                | 0.05±0.02        | 0.69±0.17                | 7.3   | $f_{29}$                               | 1.8486±0.0020                | 0.04±0.01        | 2.84±0.12                | 15.2  |
| $f_{174}$                              | 1.1202±0.0027                | 0.05±0.02        | -0.96±0.16               | 8.1   | $f_{30}$                               | 17.7266±0.0019               | 0.04±0.01        | 2.88±0.12                | 15.6  |
| $f_{175}$                              | 0.9877±0.0027                | 0.04±0.01        | 1.49±0.16                | 8.2   | $f_{31}$                               | 0.8321±0.0020                | 0.04±0.01        | 2.19±0.12                | 15.1  |
| $f_{176}$                              | 1.9183±0.0028                | 0.05±0.02        | 1.49±0.17                | 7.2   | $f_{32}$                               | 1.8277±0.0020                | 0.03±0.01        | -1.48±0.12               | 14.4  |
| $f_{177}$                              | 7.6149±0.0028                | 0.04±0.01        | 2.94±0.17                | 7.2   | $f_{33}$                               | 0.1021±0.0020                | 0.03±0.01        | 1.23±0.12                | 14.6  |
| $f_{178}$                              | 3.8595±0.0028                | 0.04±0.01        | 0.01±0.17                | 7.5   | $f_{34}$                               | 0.5970±0.0021                | 0.04±0.01        | 2.73±0.13                | 12.7  |
| $f_{179}$                              | 0.1662±0.0028                | 0.04±0.01        | 1.48±0.17                | 7.3   | $f_{35}$                               | 0.1780±0.0021                | 0.03±0.01        | 0.10±0.13                | 12.9  |
| $f_{180}$                              | 0.5348±0.0029                | 0.04±0.02        | -0.45±0.18               | 7.0   | $f_{36}$                               | 0.8682±0.0021                | 0.04±0.01        | -0.33±0.13               | 12.8  |
| $f_{181}$                              | 1.8807±0.0029                | 0.04±0.02        | 0.43±0.18                | 6.8   | $f_{37}$                               | 0.8211±0.0022                | 0.03±0.01        | 1.05±0.13                | 12.3  |
| $f_{182}$                              | 2.2341±0.0029                | 0.04±0.02        | -0.31±0.18               | 6.8   | $f_{38}$                               | 0.6458±0.0022                | 0.03±0.01        | -2.23±0.13               | 12.4  |
| $f_{183}$                              | 1.5389±0.0029                | 0.04±0.02        | -1.06±0.18               | 6.7   | $f_{39}$                               | 15.0370±0.0022               | 0.03±0.01        | -0.58±0.14               | 11.7  |
| $f_{184}$                              | 0.5007±0.0029                | 0.04±0.02        | -1.49±0.18               | 6.7   | $f_{40}$                               | 0.5201±0.0022                | 0.03±0.01        | -2.77±0.14               | 11.8  |
| $f_{185}$                              | 3.2719±0.0029                | 0.04±0.02        | 0.21±0.18                | 7.0   | $f_{41}$                               | 2.4560±0.0022                | 0.03±0.01        | -1.07±0.14               | 11.7  |
| $f_{186}$                              | 3.4518±0.0029                | 0.04±0.02        | 0.93±0.18                | 6.7   | $f_{42}$                               | 0.9847±0.0023                | 0.03±0.01        | 1.52±0.14                | 11.1  |
| $f_{187}$                              | 1.9759±0.0030                | 0.05±0.02        | 2.46±0.18                | 6.6   | $f_{43}$                               | 2.0054±0.0023                | 0.03±0.01        | -2.39±0.14               | 11.1  |
| $f_{188}$                              | 1.9915±0.0029                | 0.03±0.01        | 2.54±0.18                | 6.7   | $f_{44}$                               | 0.2590±0.0024                | 0.03±0.01        | -0.47±0.14               | 10.5  |
| $f_{189}$                              | 19.5614±0.0029               | 0.04±0.02        | 0.82±0.18                | 6.7   | $f_{45}$                               | 0.5729±0.0024                | 0.03±0.01        | 1.42±0.15                | 10.2  |
| $f_{190}$                              | 11.0599±0.0030               | 0.04±0.02        | -1.05±0.18               | 6.4   | $f_{46}$                               | 0.1352±0.0025                | 0.03±0.01        | -2.00±0.15               | 9.7   |
| $f_{191}$                              | 1.7830±0.0030                | 0.04±0.02        | 2.40±0.18                | 6.4   | $f_{47}$                               | 0.7411±0.0024                | 0.03±0.01        | -1.29±0.15               | 9.8   |
| $f_{193}$                              | 2.4936±0.0030                | 0.04±0.02        | -0.65±0.19               | 6.3   | $f_{48}$                               | 0.9231±0.0025                | 0.03±0.01        | -0.72±0.15               | 9.3   |
| $f_{194}$                              | 1.6451±0.0031                | 0.03±0.01        | 3.13±0.19                | 6.1   | $f_{49}$                               | 0.5458±0.0025                | 0.03±0.01        | 0.96±0.16                | 9.0   |
| $f_{195}$                              | 2.6860±0.0031                | 0.04±0.02        | 0.14±0.19                | 6.2   | $f_{50}$                               | 0.3581±0.0025                | 0.04±0.01        | -0.93±0.15               | 9.2   |
| $f_{196}$                              | 2.5632±0.0031                | 0.03±0.01        | -0.63±0.19               | 6.1   | $f_{51}$                               | 0.2921±0.0025                | 0.03±0.01        | -0.94±0.15               | 9.3   |
| $f_{197}$                              | 18.3870±0.0031               | 0.03±0.01        | -2.73±0.19               | 6.0   | $f_{52}$                               | 3.1152±0.0026                | 0.03±0.01        | 0.75±0.16                | 8.8   |
| $f_{198}$                              | 21.7358±0.0031               | 0.04±0.02        | -0.29±0.19               | 5.9   | $f_{53}$                               | 0.5849±0.0026                | 0.03±0.01        | 2.92±0.16                | 8.8   |
| $f_{199}$                              | 4.4530±0.0031                | 0.04±0.02        | -2.06±0.19               | 6.1   | $f_{54}$                               | 0.6165±0.0025                | 0.03±0.01        | 1.08±0.15                | 9.3   |
| $f_{200}$                              | 4.7065±0.0031                | 0.03±0.01        | -2.44±0.19               | 5.9   | $f_{55}$                               | 0.3463±0.0026                | 0.03±0.01        | 2.77±0.16                | 8.8   |
| $f_{201}$                              | 2.0408±0.0032                | 0.04±0.02        | 1.96±0.19                | 5.8   | $f_{56}$                               | 0.2666±0.0025                | 0.03±0.01        | 1.80±0.15                | 9.3   |
| $f_{202}$                              | 2.4014±0.0032                | 0.04±0.02        | 2.33±0.19                | 5.8   | $f_{57}$                               | 0.2770±0.0026                | 0.03±0.01        | 2.60±0.16                | 8.8   |
| $f_{203}$                              | 2.9230±0.0032                | 0.03±0.01        | -0.57±0.19               | 5.8   | $f_{60}$                               | 6.0773±0.0026                | 0.03±0.01        | 2.84±0.16                | 8.8   |
| $f_{204}$                              | 1.9494±0.0032                | 0.03±0.01        | 1.63±0.20                | 5.6   | $f_{61}$                               | 1.0303±0.0026                | 0.03±0.01        | -1.78±0.16               | 8.6   |
| $f_{205}$                              | 3.4827±0.0032                | 0.03±0.01        | 0.25±0.20                | 5.6   | $f_{62}$                               | 1.5440±0.0026                | 0.03±0.01        | 2.72±0.16                | 8.4   |
| $f_{206}$                              | 5.9556±0.0033                | 0.03±0.01        | 1.68±0.20                | 5.5   | $f_{63}$                               | 0.8808±0.0026                | 0.03±0.01        | -1.70±0.16               | 8.4   |
| $f_{207}$                              | 2.3088±0.0033                | 0.04±0.02        | 2.33±0.20                | 5.4   | $f_{64}$                               | 0.7200±0.0026                | 0.03±0.01        | -0.37±0.16               | 8.4   |
| $f_{208}$                              | 0.5705±0.0033                | 0.03±0.01        | 2.14±0.20                | 5.4   | $f_{65}$                               | 0.7322±0.0027                | 0.03±0.01        | -2.22±0.16               | 8.1   |
| $f_{210}$                              | 17.8701±0.0033               | 0.03±0.01        | 0.37±0.20                | 5.3   | $f_{66}$                               | 0.6559±0.0026                | 0.03±0.01        | 0.88±0.16                | 8.3   |
| $f_{211}$                              | 7.3065±0.0033                | 0.03±0.01        | 2.00±0.20                | 5.3   | $f_{67}$                               | 2.6456±0.0027                | 0.03±0.01        | -1.97±0.16               | 8.1   |
| $f_{212}$                              | 7.4241±0.0032                | 0.03±0.01        | 1.86±0.20                | 5.6   | $f_{68}$                               | 0.5651±0.0027                | 0.03±0.01        | 0.76±0.16                | 8.1   |
| $f_{213}$                              | 1.1721±0.0033                | 0.03±0.01        | -1.52±0.20               | 5.3   | $f_{69}$                               | 1.1766±0.0027                | 0.03±0.01        | 1.67±0.17                | 7.9   |
| $f_{214}$                              | 1.1105±0.0033                | 0.03±0.01        | -1.06±0.20               | 5.3   | $f_{70}$                               | 1.1319±0.0028                | 0.03±0.01        | -2.46±0.17               | 7.4   |
| $f_{215}$                              | 4.6271±0.0033                | 0.03±0.01        | -1.89±0.20               | 5.2   | $f_{71}$                               | 0.4801±0.0028                | 0.03±0.01        | 1.26±0.17                | 7.5   |
| $f_{221}$                              | 4.9545±0.0033                | 0.03±0.01        | -1.68±0.20               | 5.2   | $f_{72}$                               | 0.2284±0.0028                | 0.03±0.01        | 0.58±0.17                | 7.3   |
| $f_{223}$                              | 2.2739±0.0033                | 0.03±0.01        | 0.46±0.20                | 5.2   | $f_{74}$                               | 0.5288±0.0028                | 0.02±0.01        | -1.11±0.17               | 7.2   |
| $f_{224}$                              | 2.2077±0.0033                | 0.03±0.01        | 2.96±0.20                | 5.2   | $f_{75}$                               | 2.4297±0.0028                | 0.03±0.01        | 3.14±0.17                | 7.3   |
| $f_{225}$                              | 1.4201±0.0033                | 0.03±0.01        | -0.79±0.20               | 5.2   | $f_{78}$                               | 29.9674±0.0028               | 0.02±0.01        | 2.12±0.17                | 7.3   |
| $f_{226}$                              | 1.5609±0.0034                | 0.04±0.02        | 1.60±0.21                | 5.1   | $f_{79}$                               | 0.9400±0.0029                | 0.03±0.01        | 0.95±0.18                | 6.8   |
| $f_{227}$                              | 1.5778±0.0032                | 0.03±0.01        | -0.56±0.20               | 5.7   | $f_{80}$                               | 0.9588±0.0028                | 0.03±0.01        | -3.08±0.17               | 7.4   |
| $f_{228}$                              | 3.6463±0.0033                | 0.03±0.01        | -1.24±0.20               | 5.4   | $f_{81}$                               | 0.6378±0.0029                | 0.02±0.01        | -0.30±0.18               | 6.8   |
| $f_{229}$                              | 0.1184±0.0034                | 0.04±0.02        | 1.88±0.21                | 5.0   | $f_{82}$                               | 1.6406±0.0029                | 0.02±0.01        | 1.70±0.18                | 6.7   |
| $f_{230}$                              | 3.3693±0.0034                | 0.03±0.01        | 0.90±0.21                | 5.0   | $f_{83}$                               | 1.0639±0.0029                | 0.02±0.01        | 2.07±0.18                | 6.8   |
|                                        |                              |                  |                          |       | $f_{84}$                               | 5.9184±0.0029                | 0.02±0.01        | -0.55±0.18               | 6.7   |

**Table D.8:** Frequency list of 0102615872

| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| $f_1$                                  | 2.0984±0.0005                | 0.20±0.01        | 2.83±0.03                | 242.6 |
| $f_2$                                  | 0.1521±0.0006                | 0.17±0.01        | -2.37±0.04               | 165.7 |
| Frequency list of 0102615872 continued |                              |                  |                          |       |

## Appendix D. Frequencies of individual Hybrid Stars

| Frequency list of 0102615872 continued |                              |                  |                          |       | Frequency list of 0102620178 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| <i>f</i> <sub>85</sub>                 | 1.2320±0.0030                | 0.02±0.01        | -2.31±0.18               | 6.5   | <i>f</i> <sub>51</sub>                 | 1.8163±0.0018                | 0.11±0.03        | -0.96±0.11               | 18.6  |
| <i>f</i> <sub>86</sub>                 | 2.7055±0.0030                | 0.02±0.01        | -1.12±0.18               | 6.6   | <i>f</i> <sub>52</sub>                 | 7.8913±0.0018                | 0.12±0.03        | 2.78±0.11                | 18.6  |
| <i>f</i> <sub>87</sub>                 | 1.8664±0.0030                | 0.02±0.01        | 0.91±0.18                | 6.5   | <i>f</i> <sub>53</sub>                 | 4.4011±0.0018                | 0.12±0.03        | -1.98±0.11               | 17.8  |
| <i>f</i> <sub>88</sub>                 | 1.2970±0.0030                | 0.02±0.01        | -0.88±0.19               | 6.3   | <i>f</i> <sub>54</sub>                 | 3.6096±0.0018                | 0.11±0.03        | -0.75±0.11               | 17.4  |
| <i>f</i> <sub>89</sub>                 | 3.3802±0.0030                | 0.02±0.01        | 1.97±0.18                | 6.6   | <i>f</i> <sub>55</sub>                 | 3.9951±0.0018                | 0.11±0.03        | 2.12±0.11                | 17.3  |
| <i>f</i> <sub>90</sub>                 | 1.0898±0.0031                | 0.02±0.01        | 0.74±0.19                | 6.2   | <i>f</i> <sub>56</sub>                 | 0.1083±0.0019                | 0.12±0.03        | 2.18±0.11                | 17.0  |
| <i>f</i> <sub>91</sub>                 | 20.2159±0.0030               | 0.02±0.01        | 3.12±0.18                | 6.4   | <i>f</i> <sub>57</sub>                 | 0.5262±0.0019                | 0.11±0.03        | -0.97±0.12               | 15.8  |
| <i>f</i> <sub>92</sub>                 | 1.4099±0.0031                | 0.02±0.01        | -0.17±0.19               | 6.1   | <i>f</i> <sub>58</sub>                 | 10.1223±0.0020               | 0.10±0.03        | -0.32±0.12               | 15.1  |
| <i>f</i> <sub>93</sub>                 | 22.0515±0.0031               | 0.02±0.01        | 2.55±0.19                | 6.0   | <i>f</i> <sub>59</sub>                 | 3.5424±0.0020                | 0.10±0.03        | -0.57±0.12               | 14.3  |
| <i>f</i> <sub>94</sub>                 | 1.0116±0.0031                | 0.02±0.01        | 1.21±0.19                | 6.0   | <i>f</i> <sub>60</sub>                 | 6.3937±0.0020                | 0.10±0.03        | 1.98±0.12                | 14.2  |
| <i>f</i> <sub>95</sub>                 | 0.5373±0.0031                | 0.02±0.01        | -0.09±0.19               | 6.2   | <i>f</i> <sub>61</sub>                 | 1.5973±0.0020                | 0.10±0.03        | 2.89±0.12                | 14.0  |
| <i>f</i> <sub>96</sub>                 | 2.3293±0.0032                | 0.02±0.01        | 3.07±0.19                | 5.8   | <i>f</i> <sub>62</sub>                 | 1.1739±0.0020                | 0.10±0.03        | 0.75±0.12                | 14.2  |
| <i>f</i> <sub>97</sub>                 | 15.9927±0.0032               | 0.02±0.01        | 2.90±0.19                | 5.8   | <i>f</i> <sub>63</sub>                 | 0.4685±0.0020                | 0.11±0.03        | -2.03±0.12               | 14.0  |
| <i>f</i> <sub>98</sub>                 | 2.2261±0.0031                | 0.02±0.01        | -0.56±0.19               | 5.9   | <i>f</i> <sub>64</sub>                 | 1.8990±0.0021                | 0.11±0.03        | -1.78±0.13               | 13.7  |
| <i>f</i> <sub>99</sub>                 | 2.1465±0.0031                | 0.02±0.01        | 1.51±0.19                | 6.0   | <i>f</i> <sub>65</sub>                 | 1.0983±0.0021                | 0.10±0.03        | -2.48±0.13               | 13.6  |
| <i>f</i> <sub>100</sub>                | 0.7925±0.0032                | 0.02±0.01        | 1.68±0.19                | 5.8   | <i>f</i> <sub>66</sub>                 | 2.7524±0.0021                | 0.10±0.03        | -0.70±0.13               | 13.4  |
| <i>f</i> <sub>101</sub>                | 1.3391±0.0032                | 0.02±0.01        | -2.63±0.19               | 5.8   | <i>f</i> <sub>67</sub>                 | 3.6605±0.0022                | 0.09±0.03        | 2.88±0.13                | 12.4  |
| <i>f</i> <sub>102</sub>                | 0.3676±0.0032                | 0.02±0.01        | -1.60±0.20               | 5.7   | <i>f</i> <sub>68</sub>                 | 0.4397±0.0022                | 0.10±0.03        | -3.14±0.13               | 12.1  |
| <i>f</i> <sub>104</sub>                | 0.6869±0.0032                | 0.02±0.01        | -0.33±0.20               | 5.6   | <i>f</i> <sub>69</sub>                 | 0.4828±0.0021                | 0.10±0.03        | -3.10±0.13               | 12.9  |
| <i>f</i> <sub>108</sub>                | 18.9689±0.0033               | 0.02±0.01        | -2.27±0.20               | 5.3   | <i>f</i> <sub>70</sub>                 | 0.3492±0.0021                | 0.08±0.02        | 2.66±0.13                | 13.3  |
| <i>f</i> <sub>111</sub>                | 27.4216±0.0033               | 0.02±0.01        | 2.33±0.20                | 5.2   | <i>f</i> <sub>71</sub>                 | 0.7099±0.0021                | 0.09±0.03        | 0.36±0.13                | 12.7  |
| <i>f</i> <sub>112</sub>                | 2.6001±0.0034                | 0.02±0.01        | -2.83±0.21               | 5.1   | <i>f</i> <sub>72</sub>                 | 5.4537±0.0022                | 0.10±0.03        | 1.13±0.13                | 12.1  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>73</sub>                 | 1.8037±0.0022                | 0.09±0.03        | -2.83±0.13               | 12.3  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>74</sub>                 | 2.0156±0.0023                | 0.11±0.03        | 0.04±0.14                | 11.4  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>75</sub>                 | 1.7582±0.0023                | 0.09±0.03        | -2.21±0.14               | 11.4  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>76</sub>                 | 11.6959±0.0023               | 0.09±0.03        | 1.84±0.14                | 11.0  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>77</sub>                 | 0.3086±0.0023                | 0.09±0.03        | -1.88±0.14               | 10.9  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>78</sub>                 | 1.7911±0.0023                | 0.09±0.03        | 1.21±0.14                | 10.8  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>79</sub>                 | 0.5607±0.0023                | 0.08±0.02        | 1.19±0.14                | 10.7  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>80</sub>                 | 9.9072±0.0023                | 0.09±0.03        | 3.00±0.14                | 10.8  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>81</sub>                 | 0.7557±0.0023                | 0.08±0.02        | -2.18±0.14               | 10.6  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>82</sub>                 | 9.1691±0.0023                | 0.08±0.02        | 0.35±0.14                | 10.7  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>83</sub>                 | 1.0828±0.0024                | 0.08±0.02        | -0.52±0.14               | 10.4  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>84</sub>                 | 23.8874±0.0024               | 0.08±0.02        | -2.72±0.15               | 10.3  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>85</sub>                 | 13.9074±0.0024               | 0.09±0.03        | 0.62±0.15                | 10.2  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>87</sub>                 | 0.8636±0.0025                | 0.08±0.03        | 2.48±0.15                | 9.7   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>88</sub>                 | 7.0021±0.0025                | 0.07±0.02        | 0.67±0.15                | 9.2   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>90</sub>                 | 3.5933±0.0025                | 0.07±0.02        | 1.83±0.15                | 9.1   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>91</sub>                 | 0.4321±0.0026                | 0.07±0.02        | -2.93±0.16               | 8.7   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>92</sub>                 | 1.3128±0.0026                | 0.07±0.02        | -2.85±0.16               | 8.8   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>93</sub>                 | 3.9801±0.0026                | 0.08±0.03        | -1.60±0.16               | 8.6   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>94</sub>                 | 10.1562±0.0026               | 0.07±0.02        | -1.95±0.16               | 8.9   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>95</sub>                 | 2.2158±0.0026                | 0.08±0.03        | -0.31±0.16               | 8.4   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>96</sub>                 | 20.7412±0.0026               | 0.07±0.02        | 1.34±0.16                | 8.3   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>97</sub>                 | 9.5210±0.0026                | 0.07±0.02        | -1.13±0.16               | 8.4   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>98</sub>                 | 2.1754±0.0027                | 0.08±0.03        | -0.60±0.16               | 8.0   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>99</sub>                 | 1.9069±0.0027                | 0.08±0.03        | 3.11±0.16                | 8.1   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>100</sub>                | 9.2238±0.0027                | 0.07±0.02        | 0.48±0.16                | 8.1   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>101</sub>                | 11.0907±0.0027               | 0.07±0.02        | 2.02±0.17                | 7.9   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>102</sub>                | 22.2385±0.0027               | 0.07±0.03        | -1.43±0.17               | 7.8   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>103</sub>                | 1.2730±0.0028                | 0.08±0.03        | -2.42±0.17               | 7.5   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>104</sub>                | 11.6685±0.0028               | 0.07±0.03        | 1.42±0.17                | 7.4   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>105</sub>                | 2.4095±0.0028                | 0.07±0.03        | 3.04±0.17                | 7.4   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>106</sub>                | 1.2286±0.0028                | 0.06±0.02        | -2.72±0.17               | 7.4   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>107</sub>                | 8.1815±0.0029                | 0.07±0.03        | 1.28±0.17                | 7.1   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>108</sub>                | 0.1550±0.0028                | 0.07±0.03        | 0.70±0.17                | 7.5   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>112</sub>                | 8.1390±0.0029                | 0.07±0.03        | 1.42±0.18                | 6.9   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>113</sub>                | 0.6420±0.0029                | 0.06±0.02        | 2.69±0.17                | 7.1   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>114</sub>                | 0.1946±0.0029                | 0.07±0.03        | -2.24±0.18               | 7.0   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>115</sub>                | 0.3879±0.0029                | 0.08±0.03        | -2.66±0.18               | 6.7   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>116</sub>                | 4.1634±0.0029                | 0.07±0.03        | 1.71±0.18                | 6.8   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>117</sub>                | 3.9127±0.0029                | 0.07±0.03        | 0.87±0.18                | 7.0   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>118</sub>                | 1.2076±0.0029                | 0.07±0.03        | 2.43±0.18                | 6.7   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>119</sub>                | 6.4799±0.0029                | 0.06±0.02        | 0.27±0.18                | 6.8   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>120</sub>                | 0.4002±0.0029                | 0.07±0.03        | 2.04±0.18                | 6.7   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>121</sub>                | 1.9989±0.0030                | 0.08±0.03        | -0.53±0.18               | 6.6   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>122</sub>                | 1.5887±0.0029                | 0.07±0.03        | 3.02±0.18                | 6.7   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>123</sub>                | 23.8436±0.0030               | 0.06±0.02        | 2.52±0.18                | 6.5   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>124</sub>                | 2.8598±0.0030                | 0.06±0.02        | -1.40±0.18               | 6.4   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>125</sub>                | 5.2887±0.0030                | 0.06±0.02        | -1.10±0.19               | 6.3   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>126</sub>                | 10.1468±0.0030               | 0.07±0.03        | -0.64±0.18               | 6.4   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>127</sub>                | 1.8638±0.0031                | 0.07±0.03        | 3.08±0.19                | 6.1   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>128</sub>                | 3.2156±0.0031                | 0.06±0.02        | -2.40±0.19               | 6.1   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>129</sub>                | 14.0537±0.0031               | 0.06±0.02        | -2.77±0.19               | 6.0   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>130</sub>                | 4.5256±0.0031                | 0.06±0.02        | -1.07±0.19               | 6.0   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>131</sub>                | 1.3715±0.0031                | 0.06±0.02        | 1.99±0.19                | 6.0   |
| Frequency list of 0102620178 continued |                              |                  |                          |       | Frequency list of 0102620178 continued |                              |                  |                          |       |

## Appendix D. Frequencies of individual Hybrid Stars

| Frequency list of 0102620178 continued |                              |                  |                          |       | Frequency list of 0102624646 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{132}$                              | 2.6413±0.0031                | 0.06±0.02        | -1.64±0.19               | 5.9   | $f_{52}$                               | 1.5631±0.0022                | 0.07±0.02        | 2.11±0.13                | 12.4  |
| $f_{133}$                              | 0.7891±0.0031                | 0.06±0.02        | 0.83±0.19                | 5.9   | $f_{53}$                               | 1.1070±0.0022                | 0.07±0.02        | 0.99±0.14                | 11.7  |
| $f_{134}$                              | 22.5509±0.0031               | 0.06±0.02        | -0.29±0.19               | 6.0   | $f_{54}$                               | 1.1198±0.0022                | 0.05±0.01        | 2.85±0.14                | 11.7  |
| $f_{135}$                              | 5.7563±0.0032                | 0.06±0.03        | -2.26±0.20               | 5.7   | $f_{55}$                               | 0.2889±0.0022                | 0.06±0.02        | -1.00±0.14               | 11.7  |
| $f_{136}$                              | 3.0460±0.0032                | 0.06±0.03        | 0.24±0.20                | 5.7   | $f_{56}$                               | 1.5253±0.0023                | 0.06±0.02        | -2.94±0.14               | 10.8  |
| $f_{137}$                              | 19.5751±0.0032               | 0.06±0.02        | 0.20±0.19                | 5.8   | $f_{57}$                               | 1.4758±0.0023                | 0.06±0.02        | -2.02±0.14               | 10.9  |
| $f_{141}$                              | 6.4353±0.0032                | 0.06±0.03        | 1.69±0.20                | 5.7   | $f_{58}$                               | 0.1583±0.0023                | 0.07±0.02        | -2.98±0.14               | 10.9  |
| $f_{142}$                              | 0.3300±0.0032                | 0.06±0.02        | -1.22±0.19               | 5.8   | $f_{60}$                               | 0.3994±0.0023                | 0.06±0.02        | -1.71±0.14               | 10.6  |
| $f_{143}$                              | 2.6975±0.0031                | 0.06±0.02        | -2.10±0.19               | 5.9   | $f_{62}$                               | 0.3434±0.0024                | 0.07±0.02        | 0.22±0.14                | 10.5  |
| $f_{144}$                              | 0.6925±0.0032                | 0.06±0.03        | 1.66±0.20                | 5.7   | $f_{64}$                               | 0.9392±0.0024                | 0.05±0.02        | -0.40±0.15               | 9.9   |
| $f_{145}$                              | 0.3156±0.0032                | 0.06±0.03        | -3.09±0.20               | 5.6   | $f_{65}$                               | 0.6692±0.0025                | 0.05±0.02        | -2.93±0.15               | 9.5   |
| $f_{146}$                              | 6.9695±0.0032                | 0.06±0.03        | 0.64±0.20                | 5.6   | $f_{67}$                               | 12.5651±0.0025               | 0.05±0.02        | -2.90±0.15               | 9.6   |
| $f_{147}$                              | 0.6159±0.0033                | 0.06±0.03        | -0.38±0.20               | 5.5   | $f_{68}$                               | 0.8330±0.0025                | 0.05±0.02        | -2.88±0.15               | 9.3   |
| $f_{148}$                              | 0.5957±0.0031                | 0.06±0.02        | 1.48±0.19                | 5.9   | $f_{69}$                               | 15.2069±0.0025               | 0.05±0.02        | 2.43±0.15                | 9.2   |
| $f_{150}$                              | 1.5044±0.0033                | 0.06±0.03        | 2.03±0.20                | 5.5   | $f_{70}$                               | 9.9968±0.0026                | 0.05±0.02        | 0.81±0.16                | 8.9   |
| $f_{151}$                              | 1.5181±0.0032                | 0.06±0.03        | 3.12±0.20                | 5.7   | $f_{71}$                               | 0.5179±0.0026                | 0.05±0.02        | 3.05±0.16                | 8.7   |
| $f_{152}$                              | 2.9738±0.0033                | 0.06±0.03        | -2.71±0.20               | 5.5   | $f_{72}$                               | 0.1256±0.0026                | 0.06±0.02        | 1.03±0.16                | 8.8   |
| $f_{155}$                              | 5.3812±0.0032                | 0.06±0.03        | 2.23±0.20                | 5.6   | $f_{73}$                               | 0.2798±0.0025                | 0.07±0.02        | -1.52±0.15               | 9.4   |
| $f_{156}$                              | 2.2813±0.0032                | 0.06±0.03        | -1.32±0.20               | 5.6   | $f_{74}$                               | 0.2618±0.0024                | 0.06±0.02        | -0.11±0.14               | 10.4  |
| $f_{157}$                              | 14.6171±0.0033               | 0.06±0.03        | -2.61±0.20               | 5.5   | $f_{75}$                               | 0.7810±0.0025                | 0.05±0.02        | -0.95±0.15               | 9.1   |
| $f_{158}$                              | 3.9665±0.0033                | 0.06±0.03        | -0.69±0.20               | 5.3   | $f_{76}$                               | 0.6356±0.0026                | 0.04±0.01        | -1.19±0.16               | 8.7   |
| $f_{161}$                              | 3.6788±0.0033                | 0.06±0.03        | 1.15±0.20                | 5.5   | $f_{77}$                               | 2.0071±0.0027                | 0.05±0.02        | -2.90±0.16               | 8.2   |
| $f_{163}$                              | 1.8452±0.0033                | 0.06±0.03        | 2.98±0.20                | 5.3   | $f_{79}$                               | 1.4066±0.0027                | 0.05±0.02        | 1.49±0.16                | 8.2   |
| $f_{164}$                              | 1.2852±0.0033                | 0.06±0.03        | 1.22±0.20                | 5.3   | $f_{80}$                               | 56.9408±0.0027               | 0.05±0.02        | -0.86±0.16               | 8.0   |
| $f_{165}$                              | 2.3621±0.0033                | 0.06±0.03        | -1.88±0.20               | 5.2   | $f_{82}$                               | 0.7551±0.0028                | 0.05±0.02        | -1.11±0.17               | 7.7   |
| $f_{166}$                              | 0.1240±0.0033                | 0.06±0.03        | 0.48±0.20                | 5.2   | $f_{85}$                               | 1.3547±0.0028                | 0.05±0.02        | -2.40±0.17               | 7.7   |
| $f_{167}$                              | 11.2591±0.0033               | 0.06±0.03        | 0.98±0.20                | 5.3   | $f_{86}$                               | 1.1317±0.0028                | 0.05±0.02        | -1.43±0.17               | 7.5   |
| $f_{170}$                              | 0.3380±0.0033                | 0.06±0.03        | 1.91±0.20                | 5.2   | $f_{87}$                               | 1.0560±0.0028                | 0.05±0.02        | -0.10±0.17               | 7.7   |
| $f_{172}$                              | 6.7650±0.0033                | 0.06±0.03        | 2.17±0.20                | 5.2   | $f_{88}$                               | 0.8525±0.0028                | 0.05±0.02        | -2.54±0.17               | 7.3   |
| $f_{173}$                              | 9.7940±0.0034                | 0.05±0.02        | -0.55±0.21               | 5.1   | $f_{89}$                               | 0.5769±0.0029                | 0.05±0.02        | 1.70±0.18                | 6.9   |
|                                        |                              |                  |                          |       | $f_{90}$                               | 1.3876±0.0030                | 0.05±0.02        | -3.09±0.18               | 6.6   |
|                                        |                              |                  |                          |       | $f_{91}$                               | 1.5844±0.0030                | 0.04±0.02        | -2.26±0.18               | 6.6   |
|                                        |                              |                  |                          |       | $f_{92}$                               | 0.3191±0.0030                | 0.04±0.02        | 2.36±0.18                | 6.4   |
|                                        |                              |                  |                          |       | $f_{95}$                               | 1.8220±0.0031                | 0.04±0.02        | -0.31±0.19               | 6.1   |
|                                        |                              |                  |                          |       | $f_{96}$                               | 0.6864±0.0031                | 0.05±0.02        | -0.92±0.19               | 6.1   |
|                                        |                              |                  |                          |       | $f_{97}$                               | 0.5885±0.0031                | 0.05±0.02        | -2.55±0.19               | 5.9   |
|                                        |                              |                  |                          |       | $f_{98}$                               | 1.6369±0.0031                | 0.04±0.02        | -1.64±0.19               | 5.9   |
|                                        |                              |                  |                          |       | $f_{101}$                              | 0.9642±0.0032                | 0.05±0.02        | -0.95±0.20               | 5.7   |
|                                        |                              |                  |                          |       | $f_{102}$                              | 0.9527±0.0031                | 0.04±0.02        | -0.06±0.19               | 6.2   |
|                                        |                              |                  |                          |       | $f_{103}$                              | 0.8818±0.0032                | 0.04±0.02        | -2.94±0.20               | 5.7   |
|                                        |                              |                  |                          |       | $f_{104}$                              | 0.5090±0.0032                | 0.05±0.02        | -0.91±0.20               | 5.6   |
|                                        |                              |                  |                          |       | $f_{105}$                              | 2.7076±0.0032                | 0.04±0.02        | -0.41±0.20               | 5.6   |
|                                        |                              |                  |                          |       | $f_{106}$                              | 0.4753±0.0033                | 0.05±0.02        | -2.30±0.20               | 5.5   |
|                                        |                              |                  |                          |       | $f_{107}$                              | 0.4619±0.0032                | 0.04±0.02        | -0.88±0.20               | 5.7   |
|                                        |                              |                  |                          |       | $f_{108}$                              | 0.6554±0.0032                | 0.04±0.02        | -2.64±0.19               | 5.8   |
|                                        |                              |                  |                          |       | $f_{109}$                              | 1.0899±0.0033                | 0.04±0.02        | -0.82±0.20               | 5.5   |
|                                        |                              |                  |                          |       | $f_{112}$                              | 0.1852±0.0034                | 0.04±0.02        | 1.68±0.21                | 5.1   |
|                                        |                              |                  |                          |       | $f_{113}$                              | 2.1136±0.0033                | 0.04±0.02        | -0.42±0.20               | 5.3   |
|                                        |                              |                  |                          |       | $f_{115}$                              | 27.9188±0.0034               | 0.04±0.02        | 2.43±0.21                | 5.1   |

**Table D.10:** Frequency list of 0102624646

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|--------------|------------------------------|------------------|--------------------------|-------|
| $f_1$        | 0.5103±0.0004                | 0.42±0.02        | -1.68±0.03               | 301.7 |
| $f_2$        | 1.0316±0.0005                | 0.36±0.03        | 1.46±0.03                | 196.0 |
| $f_3$        | 0.4907±0.0006                | 0.30±0.02        | -0.48±0.04               | 170.4 |
| $f_4$        | 0.5236±0.0006                | 0.33±0.03        | 0.97±0.04                | 151.1 |
| $f_5$        | 0.1038±0.0007                | 0.21±0.02        | 1.65±0.04                | 134.2 |
| $f_6$        | 0.4820±0.0007                | 0.24±0.02        | -1.89±0.04               | 114.5 |
| $f_7$        | 15.3282±0.0007               | 0.25±0.02        | 1.63±0.04                | 115.5 |
| $f_8$        | 0.5316±0.0007                | 0.22±0.02        | -1.58±0.04               | 117.9 |
| $f_{10}$     | 0.4990±0.0008                | 0.21±0.02        | 2.88±0.05                | 91.1  |
| $f_{11}$     | 0.5513±0.0009                | 0.21±0.03        | 0.83±0.06                | 65.6  |
| $f_{12}$     | 15.9409±0.0010               | 0.17±0.02        | 1.31±0.06                | 62.0  |
| $f_{13}$     | 1.0455±0.0010                | 0.15±0.02        | -0.01±0.06               | 55.9  |
| $f_{15}$     | 0.1494±0.0011                | 0.13±0.02        | -2.49±0.07               | 51.1  |
| $f_{16}$     | 0.9986±0.0011                | 0.18±0.02        | -1.89±0.06               | 52.0  |
| $f_{17}$     | 0.4540±0.0011                | 0.15±0.02        | 1.52±0.07                | 46.3  |
| $f_{19}$     | 0.1320±0.0012                | 0.13±0.02        | 0.49±0.07                | 41.3  |
| $f_{21}$     | 1.0176±0.0012                | 0.11±0.02        | -0.87±0.07               | 40.5  |
| $f_{22}$     | 0.9757±0.0011                | 0.14±0.02        | -2.62±0.07               | 45.6  |
| $f_{23}$     | 0.2268±0.0012                | 0.11±0.02        | -0.94±0.08               | 37.9  |
| $f_{24}$     | 0.3810±0.0013                | 0.12±0.02        | -2.36±0.08               | 34.1  |
| $f_{25}$     | 0.1761±0.0013                | 0.10±0.02        | 1.53±0.08                | 33.9  |
| $f_{26}$     | 0.5935±0.0014                | 0.11±0.02        | 2.15±0.08                | 30.2  |
| $f_{27}$     | 10.8281±0.0014               | 0.10±0.02        | -1.48±0.09               | 28.9  |
| $f_{28}$     | 0.1144±0.0014                | 0.09±0.02        | 0.43±0.09                | 27.8  |
| $f_{29}$     | 0.5620±0.0015                | 0.11±0.02        | 0.60±0.09                | 26.5  |
| $f_{30}$     | 0.1961±0.0015                | 0.10±0.02        | -2.50±0.09               | 26.9  |
| $f_{32}$     | 1.0085±0.0015                | 0.09±0.02        | -1.26±0.09               | 26.6  |
| $f_{33}$     | 0.2723±0.0015                | 0.08±0.02        | 0.13±0.09                | 26.0  |
| $f_{34}$     | 1.0649±0.0017                | 0.09±0.02        | -1.00±0.10               | 20.3  |
| $f_{36}$     | 1.5421±0.0017                | 0.08±0.02        | 0.07±0.10                | 20.2  |
| $f_{37}$     | 0.6082±0.0017                | 0.09±0.02        | 0.66±0.11                | 19.3  |
| $f_{38}$     | 0.9896±0.0017                | 0.09±0.02        | 2.50±0.11                | 19.2  |
| $f_{41}$     | 0.4416±0.0019                | 0.07±0.02        | 1.72±0.12                | 16.4  |
| $f_{42}$     | 0.9023±0.0019                | 0.07±0.02        | -3.11±0.12               | 15.8  |
| $f_{43}$     | 0.3236±0.0019                | 0.07±0.02        | 1.99±0.12                | 16.0  |
| $f_{44}$     | 0.3580±0.0019                | 0.06±0.01        | 2.17±0.12                | 16.1  |
| $f_{46}$     | 0.2156±0.0020                | 0.06±0.02        | 2.35±0.12                | 14.9  |
| $f_{48}$     | 0.7086±0.0020                | 0.07±0.02        | -2.94±0.12               | 14.4  |
| $f_{49}$     | 0.4128±0.0020                | 0.08±0.02        | -0.98±0.12               | 14.1  |
| $f_{50}$     | 1.2424±0.0021                | 0.06±0.02        | -1.66±0.13               | 13.2  |
| $f_{51}$     | 0.5387±0.0022                | 0.06±0.02        | 1.87±0.13                | 12.4  |

Frequency list of 0102624646 continued

**Table D.11:** Frequency list of 0102630019

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign.  |
|--------------|------------------------------|------------------|--------------------------|--------|
| $f_1$        | 12.8708±0.0001               | 7.63±0.14        | 0.25±0.01                | 2896.8 |
| $f_3$        | 9.8880±0.0006                | 0.79±0.07        | -2.90±0.04               | 146.4  |
| $f_4$        | 13.3453±0.0007               | 0.72±0.06        | 2.81±0.04                | 130.1  |
| $f_5$        | 3.3945±0.0007                | 0.69±0.06        | -0.00±0.04               | 118.4  |
| $f_6$        | 14.7762±0.0008               | 0.60±0.06        | 0.24±0.05                | 102.9  |
| $f_{10}$     | 2.2998±0.0010                | 0.46±0.06        | -1.52±0.06               | 54.6   |
| $f_{12}$     | 2.9048±0.0010                | 0.42±0.06        | 0.99±0.06                | 53.4   |
| $f_{13}$     | 10.0376±0.0012               | 0.37±0.06        | -2.72±0.07               | 38.9   |
| $f_{14}$     | 2.0983±0.0013                | 0.33±0.06        | 0.74±0.08                | 34.2   |
| $f_{15}$     | 12.8816±0.0014               | 0.32±0.06        | -1.34±0.08               | 30.4   |
| $f_{17}$     | 2.0057±0.0013                | 1.31±0.23        | -0.98±0.08               | 33.5   |
| $f_{21}$     | 11.8053±0.0014               | 0.31±0.06        | 1.72±0.09                | 28.9   |
| $f_{22}$     | 15.8347±0.0014               | 0.30±0.06        | 2.02±0.09                | 28.2   |
| $f_{23}$     | 5.6948±0.0014                | 0.30±0.06        | -1.92±0.09               | 28.4   |
| $f_{24}$     | 3.5955±0.0015                | 0.29±0.06        | 1.78±0.09                | 26.4   |
| $f_{25}$     | 12.8611±0.0015               | 0.32±0.06        | 0.16±0.09                | 26.4   |
| $f_{33}$     | 18.8391±0.0015               | 0.28±0.05        | 2.60±0.09                | 27.6   |
| $f_{34}$     | 1.0710±0.0015                | 0.27±0.05        | -2.28±0.09               | 25.6   |
| $f_{35}$     | 3.0458±0.0016                | 0.27±0.06        | -2.73±0.10               | 23.6   |
| $f_{37}$     | 18.5461±0.0016               | 0.24±0.05        | 0.07±0.10                | 22.9   |
| $f_{38}$     | 13.9930±0.0016               | 0.25±0.05        | -1.49±0.10               | 23.0   |
| $f_{39}$     | 18.0101±0.0016               | 0.25±0.05        | 2.31±0.10                | 22.2   |
| $f_{41}$     | 3.0069±0.0016                | 0.25±0.05        | -0.71±0.10               | 22.4   |
| $f_{43}$     | 1.0550±0.0016                | 0.24±0.05        | -0.61±0.10               | 21.8   |

Frequency list of 0102630019 continued

## Appendix D. Frequencies of individual Hybrid Stars

| Frequency list of 0102630019 continued |                              |                  |                          |       | Frequency list of 0102636735 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| <i>f</i> <sub>44</sub>                 | 4.4480±0.0017                | 0.24±0.05        | 2.88±0.10                | 20.7  | <i>f</i> <sub>11</sub>                 | 1.3202±0.0008                | 0.56±0.06        | 0.11±0.05                | 93.5  |
| <i>f</i> <sub>45</sub>                 | 1.1559±0.0017                | 0.21±0.05        | -1.22±0.10               | 19.9  | <i>f</i> <sub>13</sub>                 | 22.4180±0.0008               | 0.51±0.06        | 3.06±0.05                | 83.1  |
| <i>f</i> <sub>49</sub>                 | 10.2491±0.0017               | 0.23±0.05        | 0.56±0.10                | 19.7  | <i>f</i> <sub>14</sub>                 | 1.4457±0.0009                | 0.45±0.05        | 0.23±0.05                | 73.7  |
| <i>f</i> <sub>50</sub>                 | 2.2834±0.0017                | 0.22±0.05        | -2.77±0.11               | 19.4  | <i>f</i> <sub>15</sub>                 | 1.4687±0.0010                | 0.43±0.06        | 2.12±0.06                | 58.3  |
| <i>f</i> <sub>51</sub>                 | 15.3193±0.0018               | 0.22±0.05        | 0.86±0.11                | 18.6  | <i>f</i> <sub>16</sub>                 | 1.3295±0.0010                | 0.45±0.06        | -1.53±0.06               | 60.0  |
| <i>f</i> <sub>52</sub>                 | 9.4161±0.0019                | 0.21±0.05        | 2.93±0.12                | 16.1  | <i>f</i> <sub>17</sub>                 | 1.4055±0.0010                | 0.41±0.06        | 0.77±0.06                | 54.6  |
| <i>f</i> <sub>53</sub>                 | 16.5343±0.0019               | 0.21±0.05        | 0.03±0.12                | 15.4  | <i>f</i> <sub>18</sub>                 | 1.9757±0.0010                | 0.40±0.05        | -0.02±0.06               | 56.4  |
| <i>f</i> <sub>54</sub>                 | 1.1370±0.0020                | 0.20±0.05        | -2.94±0.12               | 15.1  | <i>f</i> <sub>20</sub>                 | 0.1108±0.0011                | 0.36±0.05        | -1.95±0.07               | 47.1  |
| <i>f</i> <sub>55</sub>                 | 0.1349±0.0020                | 0.23±0.06        | -0.97±0.12               | 15.2  | <i>f</i> <sub>21</sub>                 | 1.3763±0.0011                | 0.35±0.05        | -1.14±0.07               | 45.5  |
| <i>f</i> <sub>56</sub>                 | 2.1394±0.0019                | 0.21±0.05        | -1.25±0.12               | 15.9  | <i>f</i> <sub>22</sub>                 | 24.2640±0.0011               | 0.35±0.05        | -1.37±0.07               | 45.2  |
| <i>f</i> <sub>57</sub>                 | 16.2886±0.0020               | 0.20±0.05        | -1.05±0.12               | 14.7  | <i>f</i> <sub>26</sub>                 | 1.2852±0.0013                | 0.29±0.05        | 0.12±0.08                | 36.3  |
| <i>f</i> <sub>65</sub>                 | 4.2949±0.0021                | 0.18±0.05        | -0.98±0.13               | 13.3  | <i>f</i> <sub>30</sub>                 | 55.8646±0.0014               | 0.31±0.06        | 1.15±0.08                | 31.4  |
| <i>f</i> <sub>68</sub>                 | 2.2400±0.0021                | 0.18±0.05        | 2.37±0.13                | 12.9  | <i>f</i> <sub>33</sub>                 | 1.9603±0.0014                | 0.25±0.05        | -2.25±0.09               | 29.8  |
| <i>f</i> <sub>69</sub>                 | 2.0560±0.0021                | 0.18±0.05        | -0.80±0.13               | 12.9  | <i>f</i> <sub>34</sub>                 | 0.6391±0.0014                | 0.27±0.05        | -1.27±0.09               | 29.9  |
| <i>f</i> <sub>70</sub>                 | 2.8471±0.0022                | 0.18±0.05        | -0.67±0.13               | 12.4  | <i>f</i> <sub>35</sub>                 | 1.4300±0.0015                | 0.29±0.06        | -0.84±0.09               | 27.7  |
| <i>f</i> <sub>71</sub>                 | 10.3108±0.0022               | 0.18±0.05        | -1.38±0.13               | 12.4  | <i>f</i> <sub>36</sub>                 | 0.1503±0.0014                | 0.26±0.05        | -0.77±0.09               | 28.1  |
| <i>f</i> <sub>72</sub>                 | 5.4492±0.0022                | 0.19±0.06        | -1.39±0.14               | 11.6  | <i>f</i> <sub>38</sub>                 | 2.0731±0.0015                | 0.23±0.04        | -2.20±0.09               | 27.3  |
| <i>f</i> <sub>73</sub>                 | 0.3376±0.0024                | 0.16±0.05        | 0.50±0.14                | 10.5  | <i>f</i> <sub>39</sub>                 | 2.3302±0.0015                | 0.24±0.05        | 1.66±0.09                | 25.4  |
| <i>f</i> <sub>74</sub>                 | 11.3875±0.0024               | 0.18±0.06        | -0.10±0.14               | 10.5  | <i>f</i> <sub>41</sub>                 | 1.2722±0.0016                | 0.23±0.05        | 2.20±0.10                | 23.8  |
| <i>f</i> <sub>75</sub>                 | 20.3619±0.0024               | 0.16±0.05        | -0.62±0.15               | 10.0  | <i>f</i> <sub>43</sub>                 | 2.0995±0.0016                | 0.23±0.05        | 2.60±0.10                | 23.0  |
| <i>f</i> <sub>76</sub>                 | 0.1975±0.0024                | 0.16±0.05        | -1.80±0.15               | 10.1  | <i>f</i> <sub>44</sub>                 | 1.4542±0.0016                | 0.21±0.04        | -1.15±0.10               | 22.0  |
| <i>f</i> <sub>77</sub>                 | 2.6655±0.0024                | 0.16±0.05        | 1.66±0.15                | 10.1  | <i>f</i> <sub>45</sub>                 | 22.1922±0.0017               | 0.22±0.05        | -0.45±0.10               | 21.4  |
| <i>f</i> <sub>78</sub>                 | 0.1122±0.0024                | 0.15±0.05        | -2.17±0.15               | 10.0  | <i>f</i> <sub>49</sub>                 | 0.5634±0.0017                | 0.20±0.05        | -0.64±0.11               | 19.3  |
| <i>f</i> <sub>79</sub>                 | 15.3547±0.0025               | 0.15±0.05        | 2.67±0.15                | 9.4   | <i>f</i> <sub>50</sub>                 | 1.3997±0.0018                | 0.19±0.04        | 2.58±0.11                | 18.8  |
| <i>f</i> <sub>80</sub>                 | 13.3814±0.0025               | 0.14±0.05        | -2.82±0.15               | 9.6   | <i>f</i> <sub>51</sub>                 | 0.5839±0.0017                | 0.18±0.04        | 0.20±0.10                | 19.7  |
| <i>f</i> <sub>81</sub>                 | 11.2090±0.0025               | 0.15±0.05        | 0.50±0.16                | 9.0   | <i>f</i> <sub>52</sub>                 | 2.3045±0.0017                | 0.20±0.05        | 2.67±0.11                | 19.3  |
| <i>f</i> <sub>82</sub>                 | 3.2943±0.0026                | 0.14±0.05        | 1.76±0.16                | 8.9   | <i>f</i> <sub>54</sub>                 | 0.1814±0.0018                | 0.20±0.05        | -0.21±0.11               | 18.0  |
| <i>f</i> <sub>83</sub>                 | 11.3001±0.0026               | 0.15±0.05        | 0.72±0.16                | 8.9   | <i>f</i> <sub>56</sub>                 | 1.8810±0.0018                | 0.20±0.05        | 2.67±0.11                | 17.7  |
| <i>f</i> <sub>86</sub>                 | 12.1444±0.0025               | 0.15±0.05        | 0.73±0.16                | 9.0   | <i>f</i> <sub>57</sub>                 | 2.1294±0.0019                | 0.20±0.05        | -2.80±0.11               | 16.9  |
| <i>f</i> <sub>91</sub>                 | 5.4301±0.0026                | 0.14±0.05        | -2.27±0.16               | 8.3   | <i>f</i> <sub>58</sub>                 | 0.1414±0.0019                | 0.18±0.04        | -2.15±0.11               | 17.0  |
| <i>f</i> <sub>92</sub>                 | 21.0074±0.0026               | 0.15±0.05        | -1.77±0.16               | 8.5   | <i>f</i> <sub>59</sub>                 | 1.3357±0.0019                | 0.17±0.04        | 3.07±0.12                | 16.4  |
| <i>f</i> <sub>93</sub>                 | 5.9327±0.0026                | 0.14±0.05        | 2.01±0.16                | 8.3   | <i>f</i> <sub>62</sub>                 | 1.3827±0.0019                | 0.18±0.05        | -0.99±0.12               | 15.7  |
| <i>f</i> <sub>95</sub>                 | 0.2696±0.0028                | 0.14±0.05        | -0.70±0.17               | 7.6   | <i>f</i> <sub>64</sub>                 | 21.0945±0.0019               | 0.18±0.05        | 0.24±0.12                | 15.9  |
| <i>f</i> <sub>97</sub>                 | 7.7029±0.0028                | 0.13±0.05        | -1.60±0.17               | 7.5   | <i>f</i> <sub>67</sub>                 | 55.8533±0.0020               | 0.19±0.05        | 2.82±0.12                | 14.5  |
| <i>f</i> <sub>98</sub>                 | 20.7959±0.0028               | 0.13±0.05        | 0.30±0.17                | 7.2   | <i>f</i> <sub>68</sub>                 | 1.9052±0.0020                | 0.18±0.05        | 1.77±0.12                | 14.8  |
| <i>f</i> <sub>99</sub>                 | 2.3156±0.0028                | 0.13±0.05        | 2.26±0.17                | 7.2   | <i>f</i> <sub>70</sub>                 | 1.8363±0.0020                | 0.15±0.04        | -1.69±0.12               | 14.4  |
| <i>f</i> <sub>100</sub>                | 2.5820±0.0029                | 0.13±0.05        | 0.05±0.17                | 7.1   | <i>f</i> <sub>71</sub>                 | 4.0592±0.0021                | 0.17±0.05        | -2.93±0.13               | 13.7  |
| <i>f</i> <sub>101</sub>                | 4.7398±0.0029                | 0.13±0.05        | 0.94±0.18                | 7.0   | <i>f</i> <sub>72</sub>                 | 33.1296±0.0020               | 0.16±0.04        | 2.00±0.12                | 14.0  |
| <i>f</i> <sub>103</sub>                | 2.2690±0.0029                | 0.13±0.05        | -1.71±0.18               | 6.8   | <i>f</i> <sub>73</sub>                 | 13.9966±0.0021               | 0.16±0.04        | 2.74±0.13                | 13.3  |
| <i>f</i> <sub>105</sub>                | 0.1828±0.0029                | 0.13±0.05        | 1.89±0.18                | 6.9   | <i>f</i> <sub>74</sub>                 | 0.6626±0.0021                | 0.14±0.04        | -1.53±0.13               | 13.6  |
| <i>f</i> <sub>106</sub>                | 17.6990±0.0029               | 0.12±0.05        | -1.39±0.18               | 6.7   | <i>f</i> <sub>75</sub>                 | 13.9505±0.0021               | 0.18±0.05        | 0.15±0.13                | 13.1  |
| <i>f</i> <sub>107</sub>                | 12.8508±0.0030               | 0.13±0.05        | 1.47±0.18                | 6.6   | <i>f</i> <sub>76</sub>                 | 0.7884±0.0021                | 0.17±0.05        | 1.94±0.13                | 13.4  |
| <i>f</i> <sub>108</sub>                | 2.1300±0.0029                | 0.12±0.05        | 1.30±0.18                | 6.7   | <i>f</i> <sub>78</sub>                 | 0.5936±0.0021                | 0.16±0.04        | -0.37±0.13               | 13.2  |
| <i>f</i> <sub>113</sub>                | 13.3903±0.0030               | 0.12±0.05        | 1.68±0.18                | 6.5   | <i>f</i> <sub>79</sub>                 | 0.1260±0.0022                | 0.16±0.05        | 1.43±0.13                | 12.6  |
| <i>f</i> <sub>114</sub>                | 2.3843±0.0030                | 0.12±0.05        | 0.95±0.18                | 6.5   | <i>f</i> <sub>80</sub>                 | 1.9198±0.0022                | 0.16±0.05        | 0.25±0.13                | 12.4  |
| <i>f</i> <sub>115</sub>                | 22.4191±0.0030               | 0.12±0.05        | -0.52±0.18               | 6.4   | <i>f</i> <sub>81</sub>                 | 0.6126±0.0021                | 0.16±0.04        | -2.40±0.13               | 12.8  |
| <i>f</i> <sub>116</sub>                | 2.4230±0.0030                | 0.12±0.05        | 0.73±0.18                | 6.5   | <i>f</i> <sub>82</sub>                 | 1.8079±0.0022                | 0.15±0.04        | 0.28±0.13                | 12.3  |
| <i>f</i> <sub>124</sub>                | 0.1452±0.0031                | 0.13±0.05        | -0.50±0.19               | 6.1   | <i>f</i> <sub>83</sub>                 | 1.8509±0.0023                | 0.15±0.05        | -0.71±0.14               | 11.0  |
| <i>f</i> <sub>125</sub>                | 11.3066±0.0031               | 0.11±0.04        | 2.48±0.19                | 6.2   | <i>f</i> <sub>85</sub>                 | 0.2452±0.0024                | 0.14±0.04        | 2.07±0.15                | 10.3  |
| <i>f</i> <sub>126</sub>                | 13.8373±0.0031               | 0.12±0.05        | -0.61±0.19               | 6.0   | <i>f</i> <sub>90</sub>                 | 0.3519±0.0024                | 0.13±0.04        | 0.03±0.15                | 10.0  |
| <i>f</i> <sub>127</sub>                | 11.8866±0.0031               | 0.11±0.04        | -0.07±0.19               | 6.1   | <i>f</i> <sub>91</sub>                 | 56.9412±0.0024               | 0.13±0.04        | -0.31±0.15               | 10.2  |
| <i>f</i> <sub>128</sub>                | 4.3648±0.0031                | 0.12±0.05        | -2.35±0.19               | 5.9   | <i>f</i> <sub>92</sub>                 | 1.9950±0.0024                | 0.14±0.04        | -0.76±0.14               | 10.4  |
| <i>f</i> <sub>134</sub>                | 1.6065±0.0031                | 0.11±0.04        | -1.55±0.19               | 6.1   | <i>f</i> <sub>93</sub>                 | 0.6996±0.0024                | 0.11±0.03        | -1.14±0.15               | 9.9   |
| <i>f</i> <sub>139</sub>                | 2.0071±0.0031                | 0.15±0.06        | 1.61±0.19                | 6.1   | <i>f</i> <sub>94</sub>                 | 0.9074±0.0024                | 0.13±0.04        | 1.51±0.15                | 10.2  |
| <i>f</i> <sub>140</sub>                | 4.0108±0.0031                | 0.14±0.06        | -2.02±0.19               | 6.1   | <i>f</i> <sub>96</sub>                 | 4.2088±0.0024                | 0.13±0.04        | -0.17±0.15               | 9.8   |
| <i>f</i> <sub>143</sub>                | 8.1237±0.0031                | 0.11±0.04        | 0.21±0.19                | 6.0   | <i>f</i> <sub>97</sub>                 | 0.4974±0.0025                | 0.13±0.04        | -0.88±0.15               | 9.3   |
| <i>f</i> <sub>152</sub>                | 0.7627±0.0032                | 0.11±0.05        | -1.45±0.19               | 5.8   | <i>f</i> <sub>98</sub>                 | 0.2048±0.0025                | 0.14±0.05        | 1.90±0.15                | 9.3   |
| <i>f</i> <sub>153</sub>                | 0.4055±0.0032                | 0.11±0.05        | -0.97±0.19               | 5.8   | <i>f</i> <sub>99</sub>                 | 1.8647±0.0025                | 0.14±0.05        | 2.48±0.15                | 9.5   |
| <i>f</i> <sub>154</sub>                | 15.2267±0.0032               | 0.11±0.05        | 2.60±0.19                | 5.8   | <i>f</i> <sub>100</sub>                | 0.2251±0.0025                | 0.14±0.05        | 0.16±0.15                | 9.4   |
| <i>f</i> <sub>155</sub>                | 0.4532±0.0032                | 0.11±0.05        | 1.07±0.20                | 5.7   | <i>f</i> <sub>101</sub>                | 1.7832±0.0024                | 0.14±0.04        | -0.63±0.15               | 9.9   |
| <i>f</i> <sub>156</sub>                | 18.9779±0.0033               | 0.11±0.05        | 2.65±0.20                | 5.5   | <i>f</i> <sub>102</sub>                | 1.4391±0.0025                | 0.12±0.04        | 2.84±0.15                | 9.4   |
| <i>f</i> <sub>157</sub>                | 11.2346±0.0032               | 0.11±0.05        | -2.51±0.20               | 5.7   | <i>f</i> <sub>103</sub>                | 57.0215±0.0026               | 0.10±0.03        | -2.92±0.16               | 8.9   |
| <i>f</i> <sub>159</sub>                | 14.0611±0.0033               | 0.11±0.05        | -0.15±0.20               | 5.2   | <i>f</i> <sub>104</sub>                | 0.5415±0.0026                | 0.13±0.04        | -0.76±0.16               | 8.7   |
| <i>f</i> <sub>160</sub>                | 18.5580±0.0033               | 0.11±0.05        | 1.33±0.20                | 5.2   | <i>f</i> <sub>106</sub>                | 0.8434±0.0026                | 0.12±0.04        | -1.61±0.16               | 8.4   |
| <i>f</i> <sub>161</sub>                | 8.3226±0.0033                | 0.11±0.05        | -2.53±0.20               | 5.3   | <i>f</i> <sub>107</sub>                | 1.3144±0.0026                | 0.14±0.05        | -2.69±0.16               | 8.7   |
| <i>f</i> <sub>163</sub>                | 14.7852±0.0033               | 0.11±0.05        | -1.11±0.20               | 5.2   | <i>f</i> <sub>108</sub>                | 1.4118±0.0026                | 0.15±0.05        | 2.97±0.16                | 8.4   |
| <i>f</i> <sub>165</sub>                | 1.8745±0.0033                | 0.11±0.05        | 0.45±0.20                | 5.4   | <i>f</i> <sub>109</sub>                | 0.4166±0.0027                | 0.12±0.04        | -1.37±0.16               | 8.1   |
| <i>f</i> <sub>169</sub>                | 22.9292±0.0034               | 0.10±0.04        | -0.90±0.21               | 5.1   | <i>f</i> <sub>111</sub>                | 24.8351±0.0027               | 0.12±0.04        | -2.87±0.16               | 8.0   |
| <i>f</i> <sub>170</sub>                | 16.8451±0.0034               | 0.10±0.04        | 1.32±0.21                | 5.0   | <i>f</i> <sub>114</sub>                | 54.7661±0.0026               | 0.12±0.04        | -0.21±0.16               | 8.3   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>115</sub>                | 0.6504±0.0027                | 0.12±0.04        | 3.01±0.16                | 8.1   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>118</sub>                | 0.5172±0.0027                | 0.12±0.04        | -0.12±0.16               | 8.0   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>119</sub>                | 21.1268±0.0027               | 0.12±0.04        | 2.04±0.16                | 8.0   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>120</sub>                | 0.2903±0.0028                | 0.12±0.04        | -0.69±0.17               | 7.6   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>121</sub>                | 1.7458±0.0028                | 0.11±0.04        | 1.19±0.17                | 7.6   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>122</sub>                | 1.5159±0.0028                | 0.11±0.04        | -1.59±0.17               | 7.4   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>123</sub>                | 41.8835±0.0028               | 0.11±0.04        | -1.39±0.17               | 7.4   |
|                                        |                              |                  |                          |       | Frequency list of 0102636735 continued |                              |                  |                          |       |
|                                        |                              |                  |                          |       |                                        |                              |                  |                          |       |
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| </                                     |                              |                  |                          |       |                                        |                              |                  |                          |       |

## Appendix D. Frequencies of individual Hybrid Stars

| Frequency list of 0102636735 continued |                              |                  |                          |       | Frequency list of 0102637003 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{124}$                              | 56.9499±0.0028               | 0.10±0.04        | -1.45±0.17               | 7.2   | $f_{52}$                               | 1.0102±0.0023                | 0.09±0.03        | -0.23±0.14               | 11.4  |
| $f_{125}$                              | 3.9617±0.0029                | 0.11±0.04        | -0.62±0.17               | 7.1   | $f_{54}$                               | 1.1620±0.0023                | 0.09±0.03        | 1.72±0.14                | 11.2  |
| $f_{127}$                              | 1.3534±0.0029                | 0.11±0.04        | 0.71±0.18                | 6.9   | $f_{55}$                               | 0.8338±0.0023                | 0.08±0.02        | 1.72±0.14                | 11.0  |
| $f_{128}$                              | 23.4014±0.0029               | 0.11±0.04        | 1.24±0.18                | 6.8   | $f_{56}$                               | 4.3189±0.0023                | 0.09±0.03        | 0.08±0.14                | 10.9  |
| $f_{136}$                              | 2.0039±0.0026                | 0.16±0.05        | -1.43±0.16               | 8.5   | $f_{57}$                               | 2.8535±0.0023                | 0.09±0.03        | 1.55±0.14                | 11.1  |
| $f_{138}$                              | 30.3871±0.0030               | 0.11±0.04        | -0.98±0.18               | 6.5   | $f_{58}$                               | 3.1213±0.0023                | 0.09±0.03        | -2.07±0.14               | 11.4  |
| $f_{139}$                              | 0.1577±0.0029                | 0.11±0.04        | -2.68±0.18               | 6.8   | $f_{59}$                               | 0.3111±0.0023                | 0.08±0.02        | -1.67±0.14               | 11.1  |
| $f_{140}$                              | 1.9441±0.0030                | 0.11±0.04        | 2.11±0.18                | 6.4   | $f_{60}$                               | 0.1964±0.0023                | 0.09±0.03        | 2.74±0.14                | 11.1  |
| $f_{141}$                              | 2.2351±0.0030                | 0.10±0.04        | 0.95±0.19                | 6.3   | $f_{61}$                               | 1.9217±0.0023                | 0.09±0.03        | -0.15±0.14               | 10.7  |
| $f_{142}$                              | 57.0119±0.0030               | 0.10±0.04        | 1.00±0.18                | 6.4   | $f_{62}$                               | 1.6414±0.0023                | 0.09±0.03        | 1.99±0.14                | 11.1  |
| $f_{144}$                              | 0.5699±0.0030                | 0.10±0.04        | 1.55±0.19                | 6.3   | $f_{63}$                               | 7.3363±0.0024                | 0.08±0.02        | 2.96±0.14                | 10.4  |
| $f_{146}$                              | 3.8660±0.0031                | 0.10±0.04        | 1.51±0.19                | 6.2   | $f_{64}$                               | 5.0709±0.0024                | 0.08±0.03        | -1.25±0.15               | 10.2  |
| $f_{147}$                              | 1.6869±0.0030                | 0.10±0.04        | -2.94±0.19               | 6.3   | $f_{65}$                               | 1.8725±0.0024                | 0.08±0.03        | 0.27±0.15                | 10.2  |
| $f_{148}$                              | 1.6135±0.0030                | 0.10±0.04        | -2.67±0.18               | 6.4   | $f_{66}$                               | 12.5055±0.0024               | 0.08±0.03        | 0.61±0.15                | 10.2  |
| $f_{149}$                              | 0.1183±0.0031                | 0.10±0.04        | 1.52±0.19                | 6.0   | $f_{67}$                               | 0.5544±0.0024                | 0.09±0.03        | 2.19±0.15                | 9.8   |
| $f_{150}$                              | 18.2429±0.0031               | 0.10±0.04        | 1.88±0.19                | 5.9   | $f_{68}$                               | 1.0857±0.0025                | 0.09±0.03        | 2.72±0.15                | 9.3   |
| $f_{152}$                              | 1.4750±0.0031                | 0.10±0.04        | 1.66±0.19                | 6.2   | $f_{69}$                               | 2.6327±0.0025                | 0.08±0.03        | -0.53±0.15               | 9.3   |
| $f_{153}$                              | 0.9377±0.0031                | 0.10±0.04        | 3.04±0.19                | 6.1   | $f_{70}$                               | 0.4171±0.0026                | 0.09±0.03        | 1.13±0.16                | 8.8   |
| $f_{154}$                              | 41.9368±0.0032               | 0.10±0.04        | -0.86±0.19               | 5.8   | $f_{71}$                               | 1.5078±0.0025                | 0.08±0.03        | 3.06±0.15                | 9.2   |
| $f_{155}$                              | 43.0026±0.0031               | 0.12±0.05        | -2.83±0.19               | 5.9   | $f_{72}$                               | 0.2499±0.0026                | 0.07±0.02        | 0.85±0.16                | 8.9   |
| $f_{156}$                              | 1.2514±0.0031                | 0.10±0.04        | -0.17±0.19               | 5.9   | $f_{73}$                               | 0.9550±0.0025                | 0.09±0.03        | -2.26±0.15               | 9.2   |
| $f_{157}$                              | 0.7471±0.0032                | 0.10±0.04        | -0.35±0.19               | 5.8   | $f_{74}$                               | 5.2367±0.0026                | 0.07±0.02        | -1.82±0.16               | 8.6   |
| $f_{158}$                              | 57.0372±0.0031               | 0.10±0.04        | 1.20±0.19                | 6.0   | $f_{76}$                               | 2.4399±0.0026                | 0.07±0.02        | 2.87±0.16                | 8.3   |
| $f_{159}$                              | 56.9852±0.0032               | 0.10±0.04        | -0.43±0.19               | 5.8   | $f_{78}$                               | 0.4067±0.0026                | 0.08±0.03        | -2.27±0.16               | 8.4   |
| $f_{160}$                              | 0.7102±0.0032                | 0.10±0.04        | 1.41±0.19                | 5.8   | $f_{80}$                               | 0.7666±0.0027                | 0.07±0.02        | -1.36±0.16               | 8.1   |
| $f_{161}$                              | 0.2672±0.0033                | 0.09±0.04        | 1.01±0.20                | 5.5   | $f_{81}$                               | 0.7041±0.0026                | 0.08±0.03        | -1.43±0.16               | 8.3   |
| $f_{162}$                              | 27.9125±0.0032               | 0.10±0.04        | 0.72±0.20                | 5.6   | $f_{82}$                               | 2.1511±0.0027                | 0.06±0.02        | -2.94±0.16               | 8.2   |
| $f_{163}$                              | 2.5448±0.0033                | 0.10±0.04        | 0.72±0.20                | 5.5   | $f_{83}$                               | 6.5187±0.0027                | 0.07±0.02        | -2.77±0.16               | 8.2   |
| $f_{165}$                              | 4.5083±0.0033                | 0.09±0.04        | -0.64±0.20               | 5.3   | $f_{84}$                               | 1.9031±0.0027                | 0.07±0.02        | 2.24±0.16                | 8.1   |
| $f_{166}$                              | 41.8602±0.0033               | 0.09±0.04        | 1.27±0.20                | 5.4   | $f_{85}$                               | 55.8635±0.0027               | 0.07±0.02        | 1.38±0.16                | 8.0   |
| $f_{167}$                              | 1.8226±0.0033                | 0.09±0.04        | 1.19±0.20                | 5.3   | $f_{86}$                               | 1.5234±0.0027                | 0.08±0.03        | -2.04±0.16               | 8.0   |
| $f_{170}$                              | 43.0088±0.0033               | 0.09±0.04        | 1.08±0.20                | 5.2   | $f_{87}$                               | 0.4569±0.0027                | 0.07±0.02        | 0.28±0.16                | 8.0   |
| $f_{172}$                              | 1.0005±0.0034                | 0.09±0.04        | 2.84±0.21                | 5.1   | $f_{88}$                               | 3.0630±0.0028                | 0.07±0.03        | -1.22±0.17               | 7.7   |
|                                        |                              |                  |                          |       | $f_{89}$                               | 1.5426±0.0028                | 0.07±0.03        | 0.66±0.17                | 7.7   |
|                                        |                              |                  |                          |       | $f_{90}$                               | 0.9904±0.0028                | 0.07±0.03        | 1.25±0.17                | 7.6   |
|                                        |                              |                  |                          |       | $f_{91}$                               | 0.6029±0.0028                | 0.08±0.03        | 1.03±0.17                | 7.7   |
|                                        |                              |                  |                          |       | $f_{92}$                               | 0.8667±0.0028                | 0.07±0.03        | -1.63±0.17               | 7.7   |
|                                        |                              |                  |                          |       | $f_{93}$                               | 0.9309±0.0027                | 0.07±0.02        | 3.02±0.16                | 8.0   |
|                                        |                              |                  |                          |       | $f_{95}$                               | 2.5837±0.0028                | 0.07±0.03        | -0.93±0.17               | 7.7   |
|                                        |                              |                  |                          |       | $f_{96}$                               | 0.2208±0.0027                | 0.07±0.02        | -0.34±0.16               | 8.0   |
|                                        |                              |                  |                          |       | $f_{97}$                               | 0.1683±0.0028                | 0.07±0.03        | 1.43±0.17                | 7.6   |
|                                        |                              |                  |                          |       | $f_{98}$                               | 2.2024±0.0028                | 0.07±0.03        | 1.82±0.17                | 7.5   |
|                                        |                              |                  |                          |       | $f_{99}$                               | 0.7916±0.0028                | 0.07±0.03        | -1.36±0.17               | 7.4   |
|                                        |                              |                  |                          |       | $f_{100}$                              | 3.7748±0.0028                | 0.07±0.03        | 0.85±0.17                | 7.4   |
|                                        |                              |                  |                          |       | $f_{101}$                              | 2.0805±0.0028                | 0.07±0.03        | 0.89±0.17                | 7.3   |
|                                        |                              |                  |                          |       | $f_{102}$                              | 57.0116±0.0028               | 0.07±0.03        | 0.09±0.17                | 7.5   |
|                                        |                              |                  |                          |       | $f_{103}$                              | 8.1796±0.0028                | 0.07±0.03        | -0.29±0.17               | 7.3   |
|                                        |                              |                  |                          |       | $f_{104}$                              | 3.1326±0.0028                | 0.07±0.03        | -2.74±0.17               | 7.4   |
|                                        |                              |                  |                          |       | $f_{105}$                              | 1.1048±0.0028                | 0.07±0.03        | -1.08±0.17               | 7.2   |
|                                        |                              |                  |                          |       | $f_{106}$                              | 0.9219±0.0029                | 0.06±0.02        | -2.97±0.17               | 7.1   |
|                                        |                              |                  |                          |       | $f_{108}$                              | 2.1211±0.0029                | 0.07±0.03        | -3.06±0.17               | 7.1   |
|                                        |                              |                  |                          |       | $f_{109}$                              | 1.0416±0.0029                | 0.06±0.02        | 0.35±0.18                | 6.8   |
|                                        |                              |                  |                          |       | $f_{110}$                              | 0.5043±0.0029                | 0.07±0.03        | 2.69±0.18                | 6.8   |
|                                        |                              |                  |                          |       | $f_{111}$                              | 0.5733±0.0029                | 0.06±0.02        | -1.42±0.18               | 6.9   |
|                                        |                              |                  |                          |       | $f_{112}$                              | 1.4728±0.0029                | 0.06±0.02        | -1.78±0.18               | 6.8   |
|                                        |                              |                  |                          |       | $f_{113}$                              | 0.3270±0.0030                | 0.06±0.02        | 1.73±0.18                | 6.5   |
|                                        |                              |                  |                          |       | $f_{114}$                              | 0.3938±0.0030                | 0.06±0.02        | -1.21±0.18               | 6.6   |
|                                        |                              |                  |                          |       | $f_{115}$                              | 2.7199±0.0030                | 0.06±0.02        | -2.39±0.18               | 6.6   |
|                                        |                              |                  |                          |       | $f_{118}$                              | 1.2048±0.0031                | 0.06±0.02        | 1.83±0.19                | 6.2   |
|                                        |                              |                  |                          |       | $f_{119}$                              | 0.4794±0.0031                | 0.06±0.02        | -0.41±0.19               | 6.2   |
|                                        |                              |                  |                          |       | $f_{120}$                              | 3.4049±0.0031                | 0.06±0.02        | 2.69±0.19                | 6.0   |
|                                        |                              |                  |                          |       | $f_{121}$                              | 1.2675±0.0031                | 0.06±0.02        | -2.39±0.19               | 5.9   |
|                                        |                              |                  |                          |       | $f_{122}$                              | 10.6075±0.0031               | 0.06±0.02        | -1.33±0.19               | 5.9   |
|                                        |                              |                  |                          |       | $f_{123}$                              | 2.1740±0.0032                | 0.06±0.03        | -0.75±0.20               | 5.6   |
|                                        |                              |                  |                          |       | $f_{126}$                              | 2.7651±0.0032                | 0.06±0.03        | -1.50±0.20               | 5.6   |
|                                        |                              |                  |                          |       | $f_{127}$                              | 3.6189±0.0032                | 0.06±0.03        | -2.25±0.20               | 5.6   |
|                                        |                              |                  |                          |       | $f_{128}$                              | 0.2328±0.0033                | 0.06±0.03        | 1.44±0.20                | 5.5   |
|                                        |                              |                  |                          |       | $f_{129}$                              | 0.6240±0.0032                | 0.07±0.03        | -2.99±0.20               | 5.7   |
|                                        |                              |                  |                          |       | $f_{131}$                              | 6.7667±0.0033                | 0.06±0.03        | -2.52±0.20               | 5.3   |
|                                        |                              |                  |                          |       | $f_{132}$                              | 0.6419±0.0033                | 0.06±0.03        | 1.31±0.20                | 5.3   |
|                                        |                              |                  |                          |       | $f_{133}$                              | 2.0469±0.0033                | 0.06±0.03        | 1.20±0.20                | 5.4   |
|                                        |                              |                  |                          |       | $f_{134}$                              | 4.1877±0.0033                | 0.06±0.03        | -3.13±0.20               | 5.3   |
|                                        |                              |                  |                          |       | $f_{135}$                              | 1.5550±0.0033                | 0.06±0.03        | -2.86±0.20               | 5.2   |
|                                        |                              |                  |                          |       | $f_{136}$                              | 0.9627±0.0033                | 0.06±0.03        | -1.36±0.20               | 5.3   |
|                                        |                              |                  |                          |       | $f_{137}$                              | 1.0647±0.0033                | 0.06±0.03        | -2.74±0.20               | 5.3   |
|                                        |                              |                  |                          |       | $f_{138}$                              | 0.3496±0.0034                | 0.06±0.03        | -3.04±0.21               | 5.1   |
| Frequency list of 0102637003 continued |                              |                  |                          |       | Frequency list of 0102637003 continued |                              |                  |                          |       |

## Appendix D. Frequencies of individual Hybrid Stars

| Frequency list of 0102637003 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{139}$                              | 5.8205±0.0034                | 0.05±0.02        | -0.87±0.21               | 5.1   |
| $f_{140}$                              | 3.1889±0.0034                | 0.06±0.03        | 1.71±0.21                | 5.1   |
| $f_{141}$                              | 2.3051±0.0033                | 0.06±0.03        | -2.84±0.20               | 5.2   |
| $f_{142}$                              | 0.3041±0.0033                | 0.06±0.03        | -0.67±0.20               | 5.3   |
| $f_{143}$                              | 0.8158±0.0034                | 0.05±0.02        | -3.05±0.21               | 5.1   |
| $f_{144}$                              | 1.3868±0.0034                | 0.05±0.02        | 0.09±0.21                | 5.1   |
| $f_{145}$                              | 1.7177±0.0034                | 0.05±0.02        | -3.07±0.21               | 5.1   |

**Table D.14:** Frequency list of 0102649843

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|--------------|------------------------------|------------------|--------------------------|-------|
| $f_1$        | 11.4209±0.0003               | 0.83±0.03        | -0.43±0.02               | 734.5 |
| $f_2$        | 2.6224±0.0004                | 0.44±0.02        | -2.25±0.03               | 323.3 |
| $f_3$        | 8.7987±0.0004                | 0.41±0.02        | 2.36±0.03                | 297.6 |
| $f_4$        | 7.4950±0.0005                | 0.38±0.02        | -2.23±0.03               | 278.1 |
| $f_5$        | 0.1809±0.0005                | 0.32±0.02        | -1.27±0.03               | 220.2 |
| $f_6$        | 11.6019±0.0005               | 0.30±0.02        | -0.16±0.03               | 205.9 |
| $f_7$        | 1.3045±0.0006                | 0.24±0.02        | -2.59±0.04               | 154.0 |
| $f_8$        | 2.6057±0.0008                | 0.21±0.02        | 0.26±0.05                | 100.2 |
| $f_9$        | 8.8142±0.0008                | 0.19±0.02        | 3.08±0.05                | 96.7  |
| $f_{10}$     | 4.3687±0.0008                | 0.18±0.02        | 2.40±0.05                | 81.6  |
| $f_{11}$     | 2.8033±0.0009                | 0.15±0.02        | 2.17±0.06                | 65.6  |
| $f_{12}$     | 3.9257±0.0010                | 0.14±0.02        | -1.54±0.06               | 54.4  |
| $f_{13}$     | 0.1199±0.0011                | 0.14±0.02        | -0.76±0.07               | 49.3  |
| $f_{14}$     | 1.2348±0.0012                | 0.11±0.02        | -0.49±0.07               | 41.7  |
| $f_{15}$     | 1.3258±0.0013                | 0.11±0.02        | -1.85±0.08               | 32.0  |
| $f_{16}$     | 0.2694±0.0014                | 0.09±0.02        | 2.13±0.09                | 28.4  |
| $f_{17}$     | 0.2053±0.0015                | 0.10±0.02        | -0.49±0.09               | 24.5  |
| $f_{18}$     | 0.1958±0.0015                | 0.10±0.02        | 0.52±0.09                | 27.4  |
| $f_{20}$     | 1.2943±0.0017                | 0.09±0.02        | 1.99±0.10                | 21.2  |
| $f_{21}$     | 0.3520±0.0017                | 0.08±0.02        | 1.53±0.10                | 20.6  |
| $f_{22}$     | 0.2441±0.0017                | 0.08±0.02        | 0.68±0.10                | 20.4  |
| $f_{23}$     | 0.1592±0.0018                | 0.07±0.02        | 2.35±0.11                | 17.3  |
| $f_{24}$     | 1.5066±0.0019                | 0.07±0.02        | 0.85±0.11                | 16.5  |
| $f_{25}$     | 0.4395±0.0019                | 0.07±0.02        | -2.89±0.12               | 16.2  |
| $f_{28}$     | 0.1883±0.0019                | 0.05±0.01        | -2.72±0.12               | 15.5  |
| $f_{30}$     | 4.1070±0.0021                | 0.06±0.02        | -1.55±0.13               | 13.7  |
| $f_{31}$     | 0.1711±0.0023                | 0.06±0.02        | 2.91±0.14                | 11.0  |
| $f_{32}$     | 4.6104±0.0023                | 0.06±0.02        | 0.58±0.14                | 11.1  |
| $f_{33}$     | 1.3167±0.0023                | 0.06±0.02        | 1.69±0.14                | 11.0  |
| $f_{34}$     | 0.7664±0.0024                | 0.05±0.02        | -1.64±0.14               | 10.4  |
| $f_{35}$     | 2.5970±0.0024                | 0.06±0.02        | -2.26±0.14               | 10.4  |
| $f_{36}$     | 10.0936±0.0024               | 0.05±0.02        | 1.85±0.15                | 10.0  |
| $f_{39}$     | 1.5470±0.0025                | 0.05±0.02        | 2.55±0.15                | 9.7   |
| $f_{40}$     | 0.5334±0.0025                | 0.04±0.01        | -3.00±0.15               | 9.1   |
| $f_{41}$     | 0.1473±0.0025                | 0.04±0.01        | 2.98±0.16                | 9.0   |
| $f_{42}$     | 0.1364±0.0025                | 0.07±0.02        | -2.19±0.15               | 9.3   |
| $f_{43}$     | 0.2771±0.0026                | 0.06±0.02        | 2.63±0.16                | 8.6   |
| $f_{44}$     | 2.7865±0.0026                | 0.05±0.02        | -2.96±0.16               | 8.4   |
| $f_{46}$     | 2.0054±0.0026                | 0.09±0.03        | -0.94±0.16               | 8.7   |
| $f_{48}$     | 0.6916±0.0026                | 0.05±0.02        | 1.00±0.16                | 8.3   |
| $f_{49}$     | 0.8284±0.0027                | 0.05±0.02        | -0.69±0.16               | 8.1   |
| $f_{50}$     | 0.5967±0.0028                | 0.04±0.01        | -0.91±0.17               | 7.4   |
| $f_{51}$     | 0.3385±0.0029                | 0.04±0.02        | 0.58±0.17                | 7.1   |
| $f_{53}$     | 0.1083±0.0029                | 0.06±0.02        | -1.36±0.17               | 7.1   |
| $f_{65}$     | 2.0026±0.0028                | 0.05±0.02        | -0.32±0.17               | 7.5   |
| $f_{67}$     | 0.4208±0.0029                | 0.05±0.02        | 1.18±0.18                | 6.7   |
| $f_{68}$     | 0.6659±0.0029                | 0.04±0.02        | -0.38±0.18               | 6.8   |
| $f_{69}$     | 0.9829±0.0029                | 0.04±0.02        | -1.35±0.18               | 6.7   |
| $f_{70}$     | 1.1949±0.0030                | 0.05±0.02        | 0.91±0.18                | 6.6   |
| $f_{71}$     | 0.4950±0.0030                | 0.05±0.02        | -1.77±0.18               | 6.5   |
| $f_{72}$     | 0.4786±0.0028                | 0.05±0.02        | 0.99±0.17                | 7.2   |
| $f_{73}$     | 0.3997±0.0029                | 0.05±0.02        | 0.86±0.18                | 6.9   |
| $f_{74}$     | 2.4414±0.0030                | 0.04±0.02        | -3.13±0.18               | 6.4   |
| $f_{75}$     | 0.3687±0.0031                | 0.04±0.02        | -1.87±0.19               | 6.2   |
| $f_{76}$     | 1.1292±0.0030                | 0.04±0.02        | -0.85±0.19               | 6.3   |
| $f_{77}$     | 1.2109±0.0031                | 0.04±0.02        | 1.15±0.19                | 6.2   |
| $f_{78}$     | 0.3166±0.0031                | 0.05±0.02        | -1.40±0.19               | 6.1   |
| $f_{79}$     | 0.5714±0.0032                | 0.04±0.02        | -2.69±0.19               | 5.8   |
| $f_{80}$     | 0.6429±0.0032                | 0.04±0.02        | 2.26±0.20                | 5.7   |
| $f_{81}$     | 1.2646±0.0032                | 0.04±0.02        | 2.76±0.20                | 5.6   |
| $f_{82}$     | 0.1266±0.0032                | 0.05±0.02        | -0.59±0.19               | 5.8   |

Frequency list of 0102649843 continued

| Frequency list of 0102649843 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{83}$                               | 0.2288±0.0032                | 0.04±0.02        | -1.48±0.20               | 5.7   |
| $f_{84}$                               | 0.4616±0.0032                | 0.04±0.02        | 0.70±0.20                | 5.6   |
| $f_{85}$                               | 1.8886±0.0033                | 0.04±0.02        | -0.79±0.20               | 5.4   |
| $f_{86}$                               | 6.2775±0.0033                | 0.04±0.02        | -2.84±0.20               | 5.2   |
| $f_{87}$                               | 1.4418±0.0033                | 0.04±0.02        | -0.71±0.20               | 5.2   |
| $f_{89}$                               | 1.8319±0.0034                | 0.04±0.02        | -1.36±0.21               | 5.1   |

**Table D.15:** Frequency list of 0102651288

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|--------------|------------------------------|------------------|--------------------------|-------|
| $f_1$        | 1.5282±0.0003                | 1.74±0.06        | -1.49±0.02               | 749.5 |
| $f_2$        | 1.3774±0.0003                | 1.64±0.06        | -0.41±0.02               | 710.2 |
| $f_3$        | 1.7754±0.0003                | 1.30±0.05        | 2.65±0.02                | 578.4 |
| $f_4$        | 1.3434±0.0003                | 1.07±0.05        | 2.37±0.02                | 478.5 |
| $f_5$        | 1.5618±0.0004                | 0.79±0.04        | -1.05±0.03               | 315.7 |
| $f_6$        | 1.4952±0.0005                | 0.69±0.04        | -2.20±0.03               | 255.0 |
| $f_7$        | 1.2443±0.0005                | 0.71±0.05        | 1.23±0.03                | 228.5 |
| $f_8$        | 1.8091±0.0005                | 0.68±0.05        | -1.31±0.03               | 227.8 |
| $f_9$        | 8.3672±0.0007                | 0.46±0.04        | -2.92±0.04               | 118.4 |
| $f_{10}$     | 1.4768±0.0007                | 0.47±0.04        | 0.00±0.04                | 116.1 |
| $f_{11}$     | 1.5770±0.0008                | 0.41±0.04        | 1.43±0.05                | 88.8  |
| $f_{12}$     | 1.2784±0.0008                | 0.39±0.04        | 1.51±0.05                | 91.5  |
| $f_{13}$     | 1.5454±0.0008                | 0.39±0.04        | 0.93±0.05                | 91.6  |
| $f_{14}$     | 1.3609±0.0009                | 0.34±0.04        | 2.33±0.05                | 80.2  |
| $f_{15}$     | 1.4608±0.0009                | 0.33±0.04        | -1.53±0.05               | 74.0  |
| $f_{16}$     | 1.6359±0.0009                | 0.32±0.04        | 2.91±0.06                | 70.6  |
| $f_{17}$     | 19.8917±0.0009               | 0.31±0.04        | -0.35±0.06               | 66.1  |
| $f_{18}$     | 6.7433±0.0011                | 0.27±0.04        | 1.35±0.07                | 50.7  |
| $f_{20}$     | 1.4339±0.0012                | 0.23±0.04        | -0.62±0.07               | 41.3  |
| $f_{21}$     | 0.1433±0.0013                | 0.18±0.03        | -0.08±0.08               | 35.8  |
| $f_{22}$     | 1.3996±0.0015                | 0.19±0.04        | -1.60±0.09               | 27.3  |
| $f_{23}$     | 2.9061±0.0015                | 0.18±0.03        | -1.75±0.09               | 26.8  |
| $f_{28}$     | 2.0232±0.0018                | 0.16±0.04        | -2.66±0.11               | 17.3  |
| $f_{29}$     | 3.3367±0.0019                | 0.14±0.03        | -2.88±0.12               | 16.1  |
| $f_{30}$     | 0.2454±0.0020                | 0.16±0.04        | -3.14±0.12               | 14.8  |
| $f_{31}$     | 0.9641±0.0020                | 0.13±0.03        | -0.20±0.12               | 14.9  |
| $f_{32}$     | 3.0546±0.0021                | 0.13±0.04        | 0.62±0.13                | 13.0  |
| $f_{33}$     | 2.7203±0.0021                | 0.13±0.04        | 1.81±0.13                | 13.0  |
| $f_{34}$     | 2.8382±0.0021                | 0.13±0.04        | 1.90±0.13                | 12.7  |
| $f_{35}$     | 3.1234±0.0022                | 0.11±0.03        | -2.95±0.13               | 12.6  |
| $f_{36}$     | 1.3105±0.0022                | 0.12±0.03        | -2.69±0.13               | 12.5  |
| $f_{37}$     | 18.0623±0.0023               | 0.11±0.03        | -0.90±0.14               | 11.2  |
| $f_{38}$     | 0.5150±0.0023                | 0.12±0.04        | 1.83±0.14                | 11.2  |
| $f_{39}$     | 1.3028±0.0023                | 0.12±0.04        | 1.62±0.14                | 11.1  |
| $f_{40}$     | 0.1560±0.0023                | 0.14±0.04        | -3.00±0.14               | 10.6  |
| $f_{41}$     | 0.1757±0.0023                | 0.13±0.04        | -2.47±0.14               | 11.2  |
| $f_{42}$     | 10.7928±0.0023               | 0.12±0.04        | -0.98±0.14               | 11.1  |
| $f_{44}$     | 1.2601±0.0024                | 0.11±0.03        | -1.91±0.15               | 9.9   |
| $f_{45}$     | 0.2828±0.0025                | 0.12±0.04        | -2.17±0.15               | 9.2   |
| $f_{46}$     | 1.8939±0.0025                | 0.11±0.04        | 0.58±0.15                | 9.3   |
| $f_{47}$     | 1.7911±0.0025                | 0.11±0.04        | -0.31±0.15               | 9.4   |
| $f_{49}$     | 3.0200±0.0025                | 0.11±0.04        | 0.70±0.15                | 9.2   |
| $f_{51}$     | 2.9401±0.0026                | 0.10±0.03        | -2.00±0.16               | 8.6   |
| $f_{52}$     | 0.1904±0.0026                | 0.09±0.03        | -2.88±0.16               | 8.4   |
| $f_{53}$     | 0.2689±0.0027                | 0.09±0.03        | 0.45±0.16                | 8.0   |
| $f_{54}$     | 3.0917±0.0028                | 0.09±0.03        | 1.01±0.17                | 7.6   |
| $f_{55}$     | 2.0040±0.0028                | 0.10±0.04        | -2.21±0.17               | 7.4   |
| $f_{56}$     | 0.1198±0.0028                | 0.11±0.04        | -0.57±0.17               | 7.6   |
| $f_{57}$     | 13.0849±0.0028               | 0.10±0.04        | 2.26±0.17                | 7.6   |
| $f_{58}$     | 1.0970±0.0028                | 0.09±0.03        | -0.27±0.17               | 7.4   |
| $f_{59}$     | 0.2368±0.0028                | 0.11±0.04        | -2.84±0.17               | 7.3   |
| $f_{60}$     | 0.2047±0.0028                | 0.10±0.04        | -0.10±0.17               | 7.4   |
| $f_{61}$     | 3.1520±0.0028                | 0.09±0.03        | -1.86±0.17               | 7.2   |
| $f_{63}$     | 0.1484±0.0029                | 0.09±0.03        | 1.13±0.17                | 7.1   |
| $f_{64}$     | 3.3034±0.0029                | 0.09±0.03        | 1.09±0.18                | 6.9   |
| $f_{70}$     | 1.5664±0.0029                | 0.11±0.04        | 1.40±0.18                | 6.8   |
| $f_{71}$     | 0.2174±0.0030                | 0.09±0.04        | 1.24±0.19                | 6.3   |
| $f_{72}$     | 1.5215±0.0031                | 0.09±0.04        | -2.16±0.19               | 6.2   |
| $f_{73}$     | 2.8060±0.0031                | 0.09±0.04        | -1.29±0.19               | 6.2   |
| $f_{74}$     | 0.8275±0.0031                | 0.08±0.03        | 2.64±0.19                | 6.0   |
| $f_{75}$     | 1.0075±0.0032                | 0.09±0.04        | -0.14±0.19               | 5.8   |
| $f_{76}$     | 2.5897±0.0032                | 0.08±0.03        | -0.82±0.20               | 5.6   |

Frequency list of 0102651288 continued

## Appendix D. Frequencies of individual Hybrid Stars

| Frequency list of 0102651288 continued |                               |                  |                     |       |
|----------------------------------------|-------------------------------|------------------|---------------------|-------|
| Frequency ID                           | Frequency [ $\text{d}^{-1}$ ] | Amplitude [mmag] | Phase $[-\pi, \pi]$ | Sign. |
| $f_{77}$                               | 0.2763±0.0032                 | 0.08±0.03        | -2.93±0.20          | 5.7   |
| $f_{78}$                               | 0.1056±0.0033                 | 0.08±0.03        | -2.58±0.20          | 5.3   |
| $f_{79}$                               | 3.5853±0.0033                 | 0.08±0.04        | 2.09±0.20           | 5.2   |
| $f_{80}$                               | 1.2668±0.0033                 | 0.08±0.04        | -0.29±0.20          | 5.2   |

**Table D.16:** Frequency list of 0102657518

| Frequency ID | Frequency [ $\text{d}^{-1}$ ] | Amplitude [mmag] | Phase $[-\pi, \pi]$ | Sign. |
|--------------|-------------------------------|------------------|---------------------|-------|
| $f_1$        | 10.1623±0.0004                | 0.83±0.05        | -0.93±0.03          | 330.2 |
| $f_2$        | 4.9073±0.0006                 | 0.55±0.04        | 1.39±0.04           | 158.5 |
| $f_4$        | 15.7704±0.0006                | 0.52±0.04        | 2.09±0.04           | 154.3 |
| $f_5$        | 14.1684±0.0007                | 0.41±0.04        | 2.88±0.04           | 109.1 |
| $f_6$        | 26.6931±0.0008                | 0.39±0.04        | 1.91±0.05           | 99.9  |
| $f_7$        | 18.0272±0.0008                | 0.39±0.04        | 2.82±0.05           | 94.5  |
| $f_8$        | 5.6007±0.0008                 | 0.33±0.04        | 1.06±0.05           | 83.0  |
| $f_9$        | 7.6533±0.0009                 | 0.32±0.04        | -1.56±0.06          | 69.0  |
| $f_{10}$     | 0.1055±0.0009                 | 0.28±0.03        | 1.44±0.06           | 68.5  |
| $f_{11}$     | 13.2607±0.0011                | 0.27±0.04        | -0.14±0.07          | 49.7  |
| $f_{15}$     | 2.8208±0.0011                 | 0.25±0.04        | 1.36±0.07           | 48.1  |
| $f_{17}$     | 11.0939±0.0013                | 0.21±0.04        | -1.09±0.08          | 34.2  |
| $f_{18}$     | 3.0000±0.0014                 | 0.19±0.04        | 0.50±0.09           | 28.4  |
| $f_{20}$     | 3.9095±0.0015                 | 0.19±0.04        | 2.00±0.09           | 26.3  |
| $f_{21}$     | 0.1137±0.0015                 | 0.18±0.04        | -1.26±0.09          | 26.2  |
| $f_{22}$     | 5.3732±0.0015                 | 0.17±0.03        | 2.24±0.09           | 24.7  |
| $f_{23}$     | 29.1816±0.0016                | 0.17±0.03        | -1.65±0.10          | 23.8  |
| $f_{24}$     | 10.2995±0.0016                | 0.16±0.03        | -2.63±0.10          | 22.8  |
| $f_{25}$     | 10.7332±0.0017                | 0.16±0.03        | 2.26±0.10           | 20.9  |
| $f_{27}$     | 8.9097±0.0017                 | 0.15±0.03        | 1.98±0.11           | 19.6  |
| $f_{28}$     | 4.6662±0.0017                 | 0.15±0.03        | -1.37±0.11          | 19.4  |
| $f_{30}$     | 0.2643±0.0018                 | 0.14±0.03        | -2.59±0.11          | 18.0  |
| $f_{31}$     | 0.2050±0.0018                 | 0.14±0.03        | -1.21±0.11          | 18.0  |
| $f_{33}$     | 16.0273±0.0019                | 0.14±0.04        | 1.08±0.12           | 16.0  |
| $f_{34}$     | 15.1396±0.0020                | 0.11±0.03        | 0.48±0.12           | 14.7  |
| $f_{35}$     | 17.8158±0.0020                | 0.13±0.03        | 0.38±0.12           | 15.0  |
| $f_{36}$     | 0.5386±0.0020                 | 0.11±0.03        | -2.03±0.12          | 14.7  |
| $f_{37}$     | 4.4529±0.0020                 | 0.13±0.03        | 1.25±0.12           | 14.2  |
| $f_{38}$     | 47.9191±0.0020                | 0.13±0.03        | 1.15±0.12           | 14.1  |
| $f_{39}$     | 19.1775±0.0020                | 0.13±0.03        | -2.71±0.12          | 14.0  |
| $f_{40}$     | 0.2375±0.0020                 | 0.12±0.03        | -1.35±0.12          | 13.9  |
| $f_{41}$     | 10.6559±0.0020                | 0.12±0.03        | -0.11±0.12          | 13.9  |
| $f_{42}$     | 0.1551±0.0021                 | 0.11±0.03        | 0.53±0.13           | 13.5  |
| $f_{43}$     | 12.0446±0.0021                | 0.12±0.03        | 0.15±0.13           | 12.8  |
| $f_{44}$     | 0.6936±0.0022                 | 0.11±0.03        | -0.39±0.14          | 11.9  |
| $f_{47}$     | 26.4967±0.0022                | 0.11±0.03        | 1.23±0.14           | 11.6  |
| $f_{49}$     | 6.4772±0.0023                 | 0.11±0.03        | 0.71±0.14           | 11.4  |
| $f_{50}$     | 26.6995±0.0023                | 0.12±0.04        | -0.94±0.14          | 11.5  |
| $f_{51}$     | 2.7305±0.0023                 | 0.11±0.03        | 1.76±0.14           | 11.4  |
| $f_{52}$     | 5.8856±0.0023                 | 0.11±0.03        | 1.33±0.14           | 11.2  |
| $f_{53}$     | 19.2137±0.0024                | 0.11±0.03        | -0.69±0.14          | 10.5  |
| $f_{54}$     | 34.8027±0.0024                | 0.11±0.03        | 0.46±0.15           | 10.1  |
| $f_{55}$     | 2.4790±0.0025                 | 0.10±0.03        | -1.09±0.15          | 9.7   |
| $f_{56}$     | 15.1485±0.0024                | 0.11±0.03        | -2.38±0.15          | 10.0  |
| $f_{57}$     | 16.1325±0.0025                | 0.10±0.03        | -1.28±0.15          | 9.5   |
| $f_{59}$     | 5.5912±0.0025                 | 0.10±0.03        | -0.23±0.15          | 9.7   |
| $f_{60}$     | 27.3441±0.0025                | 0.10±0.03        | -0.93±0.15          | 9.6   |
| $f_{61}$     | 24.0000±0.0025                | 0.10±0.03        | 1.78±0.15           | 9.3   |
| $f_{64}$     | 26.4318±0.0025                | 0.10±0.03        | 2.49±0.15           | 9.4   |
| $f_{65}$     | 3.8330±0.0025                 | 0.10±0.03        | -1.49±0.15          | 9.3   |
| $f_{66}$     | 3.7342±0.0025                 | 0.10±0.03        | -0.29±0.15          | 9.1   |
| $f_{67}$     | 0.1911±0.0025                 | 0.10±0.03        | 0.21±0.15           | 9.1   |
| $f_{68}$     | 2.5023±0.0026                 | 0.10±0.03        | 1.59±0.16           | 8.9   |
| $f_{69}$     | 3.0491±0.0026                 | 0.09±0.03        | 3.03±0.16           | 8.7   |
| $f_{70}$     | 2.8934±0.0026                 | 0.10±0.03        | 1.48±0.16           | 8.8   |
| $f_{71}$     | 8.3792±0.0026                 | 0.09±0.03        | -2.66±0.16          | 8.8   |
| $f_{72}$     | 0.1327±0.0026                 | 0.09±0.03        | -2.58±0.16          | 8.4   |
| $f_{73}$     | 2.9580±0.0026                 | 0.09±0.03        | 1.23±0.16           | 8.3   |
| $f_{74}$     | 19.9406±0.0026                | 0.09±0.03        | -2.87±0.16          | 8.3   |
| $f_{75}$     | 32.5692±0.0026                | 0.09±0.03        | -2.72±0.16          | 8.6   |
| $f_{76}$     | 0.2577±0.0026                 | 0.09±0.03        | -2.85±0.16          | 8.4   |
| $f_{77}$     | 0.7419±0.0027                 | 0.09±0.03        | 0.87±0.16           | 8.2   |
| $f_{78}$     | 47.5153±0.0027                | 0.09±0.03        | 1.98±0.16           | 8.1   |
| $f_{79}$     | 48.4026±0.0027                | 0.09±0.03        | -2.51±0.16          | 8.1   |

Frequency list of 0102657518 continued

| Frequency list of 0102657518 continued |                               |                  |                     |       |
|----------------------------------------|-------------------------------|------------------|---------------------|-------|
| Frequency ID                           | Frequency [ $\text{d}^{-1}$ ] | Amplitude [mmag] | Phase $[-\pi, \pi]$ | Sign. |
| $f_{80}$                               | 6.1529±0.0027                 | 0.09±0.03        | 1.04±0.16           | 8.2   |
| $f_{81}$                               | 6.3998±0.0026                 | 0.09±0.03        | -2.92±0.16          | 8.3   |
| $f_{82}$                               | 7.5250±0.0027                 | 0.09±0.03        | -2.71±0.17          | 7.9   |
| $f_{83}$                               | 18.7742±0.0027                | 0.09±0.03        | 1.24±0.17           | 7.9   |
| $f_{84}$                               | 8.1629±0.0026                 | 0.09±0.03        | -0.18±0.16          | 8.3   |
| $f_{86}$                               | 1.5875±0.0028                 | 0.09±0.03        | 1.19±0.17           | 7.7   |
| $f_{87}$                               | 12.6610±0.0027                | 0.09±0.03        | 2.12±0.17           | 7.8   |
| $f_{88}$                               | 0.3709±0.0028                 | 0.08±0.03        | 1.99±0.17           | 7.4   |
| $f_{89}$                               | 3.4806±0.0028                 | 0.09±0.03        | -0.56±0.17          | 7.6   |
| $f_{90}$                               | 5.9984±0.0028                 | 0.09±0.03        | 2.89±0.17           | 7.6   |
| $f_{91}$                               | 16.2165±0.0029                | 0.09±0.03        | -1.55±0.18          | 7.0   |
| $f_{92}$                               | 0.3196±0.0029                 | 0.08±0.03        | 2.07±0.17           | 7.1   |
| $f_{93}$                               | 2.0049±0.0029                 | 0.08±0.03        | 0.70±0.18           | 6.8   |
| $f_{95}$                               | 55.8629±0.0030                | 0.10±0.04        | 2.12±0.18           | 6.6   |
| $f_{96}$                               | 13.7502±0.0030                | 0.08±0.03        | 2.26±0.18           | 6.5   |
| $f_{97}$                               | 12.0008±0.0030                | 0.08±0.03        | -0.82±0.19          | 6.3   |
| $f_{98}$                               | 2.9206±0.0030                 | 0.08±0.03        | 0.06±0.18           | 6.5   |
| $f_{99}$                               | 2.7157±0.0030                 | 0.08±0.03        | 2.60±0.18           | 6.6   |
| $f_{100}$                              | 32.0541±0.0030                | 0.08±0.03        | 2.53±0.19           | 6.3   |
| $f_{102}$                              | 0.1263±0.0031                 | 0.08±0.03        | 2.92±0.19           | 6.1   |
| $f_{103}$                              | 0.3362±0.0030                 | 0.08±0.03        | -0.12±0.19          | 6.3   |
| $f_{104}$                              | 15.6257±0.0031                | 0.08±0.03        | 1.21±0.19           | 6.0   |
| $f_{105}$                              | 1.2405±0.0031                 | 0.08±0.03        | 2.59±0.19           | 5.9   |
| $f_{106}$                              | 0.5518±0.0031                 | 0.08±0.03        | -2.40±0.19          | 6.0   |
| $f_{107}$                              | 2.1755±0.0032                 | 0.07±0.03        | 0.00±0.19           | 5.8   |
| $f_{110}$                              | 8.8803±0.0033                 | 0.07±0.03        | -2.98±0.20          | 5.5   |
| $f_{111}$                              | 4.7467±0.0032                 | 0.07±0.03        | -1.81±0.20          | 5.6   |
| $f_{112}$                              | 2.2689±0.0032                 | 0.07±0.03        | -1.39±0.20          | 5.6   |
| $f_{115}$                              | 17.3766±0.0033                | 0.07±0.03        | 1.93±0.20           | 5.2   |
| $f_{117}$                              | 55.8527±0.0033                | 0.07±0.03        | -0.86±0.20          | 5.2   |
| $f_{118}$                              | 0.4872±0.0033                 | 0.07±0.03        | -0.61±0.20          | 5.2   |
| $f_{119}$                              | 20.2818±0.0033                | 0.07±0.03        | -2.28±0.20          | 5.3   |
| $f_{120}$                              | 9.1102±0.0034                 | 0.07±0.03        | 2.66±0.21           | 5.0   |
| $f_{121}$                              | 27.8224±0.0033                | 0.07±0.03        | 1.36±0.20           | 5.2   |
| $f_{122}$                              | 2.6428±0.0034                 | 0.07±0.03        | 1.83±0.21           | 5.1   |

**Table D.17:** Frequency list of 0102658013

| Frequency ID | Frequency [ $\text{d}^{-1}$ ] | Amplitude [mmag] | Phase $[-\pi, \pi]$ | Sign. |
|--------------|-------------------------------|------------------|---------------------|-------|
| $f_1$        | 1.6840±0.0003                 | 1.04±0.05        | -2.80±0.02          | 502.4 |
| $f_2$        | 3.5318±0.0003                 | 0.96±0.04        | -0.67±0.02          | 490.9 |
| $f_3$        | 5.2475±0.0004                 | 0.79±0.04        | 2.12±0.02           | 373.2 |
| $f_4$        | 23.5928±0.0005                | 0.60±0.04        | -0.60±0.03          | 240.4 |
| $f_5$        | 2.4303±0.0006                 | 0.46±0.04        | 0.87±0.04           | 147.9 |
| $f_6$        | 1.8543±0.0007                 | 0.42±0.04        | 0.23±0.04           | 133.2 |
| $f_7$        | 1.9817±0.0007                 | 0.40±0.04        | 2.44±0.04           | 120.5 |
| $f_8$        | 12.7742±0.0009                | 0.31±0.04        | 2.39±0.05           | 77.9  |
| $f_9$        | 2.9819±0.0009                 | 0.29±0.04        | -1.75±0.06          | 66.6  |
| $f_{11}$     | 1.7949±0.0010                 | 0.28±0.03        | -2.49±0.06          | 64.1  |
| $f_{12}$     | 10.8186±0.0010                | 0.25±0.03        | -2.97±0.06          | 59.0  |
| $f_{13}$     | 2.9654±0.0010                 | 0.25±0.03        | -1.26±0.06          | 54.9  |
| $f_{14}$     | 0.5269±0.0010                 | 0.24±0.03        | -1.32±0.06          | 54.4  |
| $f_{15}$     | 5.5577±0.0011                 | 0.23±0.03        | 0.13±0.07           | 47.0  |
| $f_{16}$     | 0.1723±0.0012                 | 0.22±0.03        | 1.34±0.07           | 44.0  |
| $f_{18}$     | 8.2329±0.0012                 | 0.21±0.03        | -0.04±0.07          | 41.3  |
| $f_{20}$     | 0.1972±0.0012                 | 0.18±0.03        | 2.77±0.08           | 38.5  |
| $f_{21}$     | 0.1377±0.0012                 | 0.18±0.03        | -3.02±0.07          | 39.1  |
| $f_{22}$     | 2.1568±0.0013                 | 0.18±0.03        | 1.87±0.08           | 36.0  |
| $f_{23}$     | 3.8722±0.0013                 | 0.19±0.03        | 0.45±0.08           | 37.1  |
| $f_{24}$     | 3.5890±0.0013                 | 0.18±0.03        | -2.70±0.08          | 34.7  |
| $f_{26}$     | 4.7793±0.0014                 | 0.17±0.03        | 1.81±0.08           | 31.2  |
| $f_{27}$     | 0.5498±0.0013                 | 0.16±0.03        | 2.46±0.08           | 32.2  |
| $f_{28}$     | 5.3509±0.0014                 | 0.17±0.03        | 2.36±0.08           | 30.3  |
| $f_{29}$     | 27.1259±0.0014                | 0.17±0.03        | -0.26±0.08          | 30.3  |
| $f_{30}$     | 16.8458±0.0014                | 0.17±0.03        | -1.07±0.08          | 30.9  |
| $f_{31}$     | 16.4658±0.0014                | 0.16±0.03        | -1.18±0.09          | 29.9  |
| $f_{32}$     | 0.2289±0.0015                 | 0.15±0.03        | 1.32±0.09           | 26.8  |
| $f_{33}$     | 0.1100±0.0016                 | 0.16±0.03        | 1.46±0.10           | 22.6  |
| $f_{34}$     | 1.8457±0.0016                 | 0.12±0.03        | 3.10±0.10           | 22.2  |
| $f_{35}$     | 6.5535±0.0017                 | 0.13±0.03        | 1.38±0.10           | 20.5  |
| $f_{38}$     | 0.2458±0.0018                 | 0.12±0.03        | -1.49±0.11          | 17.3  |
| $f_{40}$     | 2.0261±0.0019                 | 0.12±0.03        | -2.95±0.12          | 16.0  |
| $f_{41}$     | 5.7209±0.0019                 | 0.11±0.03        | 2.36±0.12           | 16.3  |
| $f_{44}$     | 7.5027±0.0020                 | 0.11±0.03        | -2.33±0.12          | 15.2  |
| $f_{47}$     | 0.1317±0.0020                 | 0.11±0.03        | 2.57±0.12           | 14.6  |
| $f_{48}$     | 0.2863±0.0020                 | 0.09±0.02        | -1.13±0.12          | 14.0  |

Frequency list of 0102658013 continued



## Appendix D. Frequencies of individual Hybrid Stars

| Frequency list of 0102658013 continued |                              |                  |                          |       | Frequency list of 0102663289 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| <i>f</i> <sub>49</sub>                 | 4.1237±0.0022                | 0.10±0.03        | 3.11±0.13                | 12.6  | <i>f</i> <sub>30</sub>                 | 6.0860±0.0019                | 0.13±0.03        | -0.51±0.12               | 15.6  |
| <i>f</i> <sub>50</sub>                 | 4.1779±0.0022                | 0.09±0.03        | -1.34±0.13               | 12.3  | <i>f</i> <sub>31</sub>                 | 7.3086±0.0020                | 0.12±0.03        | 1.28±0.12                | 15.0  |
| <i>f</i> <sub>51</sub>                 | 2.2092±0.0022                | 0.10±0.03        | 2.12±0.14                | 11.9  | <i>f</i> <sub>32</sub>                 | 4.0124±0.0020                | 0.13±0.03        | -1.84±0.12               | 14.7  |
| <i>f</i> <sub>52</sub>                 | 1.1311±0.0022                | 0.10±0.03        | -0.17±0.14               | 11.9  | <i>f</i> <sub>33</sub>                 | 19.6537±0.0020               | 0.12±0.03        | -1.16±0.12               | 14.2  |
| <i>f</i> <sub>53</sub>                 | 14.6894±0.0022               | 0.10±0.03        | 1.94±0.14                | 11.7  | <i>f</i> <sub>34</sub>                 | 1.7873±0.0021                | 0.12±0.03        | -1.78±0.13               | 13.7  |
| <i>f</i> <sub>54</sub>                 | 0.5602±0.0023                | 0.10±0.03        | 2.90±0.14                | 11.5  | <i>f</i> <sub>35</sub>                 | 18.3978±0.0021               | 0.12±0.03        | 1.10±0.13                | 13.7  |
| <i>f</i> <sub>55</sub>                 | 3.6846±0.0022                | 0.09±0.03        | 1.70±0.14                | 11.6  | <i>f</i> <sub>36</sub>                 | 0.8996±0.0022                | 0.11±0.03        | -2.57±0.13               | 12.3  |
| <i>f</i> <sub>56</sub>                 | 1.6712±0.0023                | 0.10±0.03        | -2.26±0.14               | 11.4  | <i>f</i> <sub>37</sub>                 | 15.3002±0.0022               | 0.11±0.03        | -3.01±0.13               | 12.4  |
| <i>f</i> <sub>57</sub>                 | 1.8349±0.0023                | 0.09±0.03        | 3.13±0.14                | 11.4  | <i>f</i> <sub>39</sub>                 | 3.3008±0.0022                | 0.12±0.03        | -2.68±0.14               | 11.8  |
| <i>f</i> <sub>58</sub>                 | 6.7474±0.0022                | 0.10±0.03        | -1.37±0.14               | 11.6  | <i>f</i> <sub>40</sub>                 | 15.8598±0.0023               | 0.11±0.03        | -1.32±0.14               | 11.2  |
| <i>f</i> <sub>59</sub>                 | 1.1007±0.0023                | 0.10±0.03        | 1.44±0.14                | 11.4  | <i>f</i> <sub>41</sub>                 | 2.5112±0.0023                | 0.11±0.03        | -2.45±0.14               | 11.2  |
| <i>f</i> <sub>61</sub>                 | 0.3198±0.0024                | 0.11±0.03        | -1.88±0.15               | 10.3  | <i>f</i> <sub>43</sub>                 | 24.3216±0.0023               | 0.11±0.03        | 0.39±0.14                | 10.9  |
| <i>f</i> <sub>62</sub>                 | 36.3672±0.0024               | 0.09±0.03        | 2.41±0.15                | 10.2  | <i>f</i> <sub>44</sub>                 | 32.0237±0.0023               | 0.11±0.03        | 0.00±0.14                | 10.9  |
| <i>f</i> <sub>63</sub>                 | 0.9885±0.0024                | 0.09±0.03        | 1.41±0.15                | 9.8   | <i>f</i> <sub>45</sub>                 | 20.8168±0.0023               | 0.10±0.03        | 2.26±0.14                | 10.8  |
| <i>f</i> <sub>65</sub>                 | 1.6985±0.0024                | 0.09±0.03        | -2.43±0.15               | 9.9   | <i>f</i> <sub>46</sub>                 | 3.2115±0.0024                | 0.10±0.03        | -1.39±0.14               | 10.5  |
| <i>f</i> <sub>66</sub>                 | 55.8639±0.0025               | 0.09±0.03        | 2.83±0.15                | 9.4   | <i>f</i> <sub>47</sub>                 | 4.7355±0.0024                | 0.10±0.03        | 1.21±0.14                | 10.5  |
| <i>f</i> <sub>67</sub>                 | 0.7475±0.0025                | 0.09±0.03        | 1.86±0.15                | 9.1   | <i>f</i> <sub>48</sub>                 | 32.4381±0.0023               | 0.11±0.03        | 1.49±0.14                | 10.7  |
| <i>f</i> <sub>68</sub>                 | 3.6124±0.0025                | 0.08±0.03        | -0.02±0.15               | 9.3   | <i>f</i> <sub>49</sub>                 | 22.4455±0.0023               | 0.11±0.03        | 1.39±0.14                | 10.9  |
| <i>f</i> <sub>69</sub>                 | 0.5933±0.0025                | 0.08±0.03        | -0.78±0.15               | 9.1   | <i>f</i> <sub>50</sub>                 | 3.4075±0.0024                | 0.10±0.03        | 2.43±0.14                | 10.5  |
| <i>f</i> <sub>70</sub>                 | 0.2983±0.0026                | 0.09±0.03        | -2.10±0.16               | 8.8   | <i>f</i> <sub>51</sub>                 | 0.9285±0.0024                | 0.10±0.03        | 1.43±0.15                | 10.2  |
| <i>f</i> <sub>71</sub>                 | 0.4170±0.0026                | 0.08±0.03        | -0.74±0.16               | 8.5   | <i>f</i> <sub>52</sub>                 | 27.0285±0.0024               | 0.11±0.03        | 2.59±0.15                | 10.0  |
| <i>f</i> <sub>74</sub>                 | 1.9561±0.0027                | 0.08±0.03        | -0.17±0.16               | 8.0   | <i>f</i> <sub>53</sub>                 | 2.8395±0.0024                | 0.10±0.03        | -0.55±0.15               | 10.0  |
| <i>f</i> <sub>75</sub>                 | 0.4910±0.0029                | 0.09±0.03        | 1.99±0.18                | 6.9   | <i>f</i> <sub>54</sub>                 | 7.0848±0.0025                | 0.10±0.03        | 2.48±0.15                | 9.5   |
| <i>f</i> <sub>76</sub>                 | 0.4799±0.0026                | 0.08±0.03        | -0.35±0.16               | 8.9   | <i>f</i> <sub>56</sub>                 | 16.0853±0.0025               | 0.10±0.03        | -0.37±0.15               | 9.5   |
| <i>f</i> <sub>77</sub>                 | 3.7649±0.0029                | 0.08±0.03        | -1.61±0.18               | 6.9   | <i>f</i> <sub>57</sub>                 | 0.2464±0.0025                | 0.09±0.03        | 1.43±0.15                | 9.3   |
| <i>f</i> <sub>79</sub>                 | 0.3388±0.0029                | 0.07±0.03        | -2.53±0.18               | 6.7   | <i>f</i> <sub>58</sub>                 | 3.0953±0.0025                | 0.10±0.03        | -1.76±0.15               | 9.2   |
| <i>f</i> <sub>80</sub>                 | 3.9511±0.0030                | 0.06±0.02        | -1.76±0.18               | 6.6   | <i>f</i> <sub>61</sub>                 | 4.0570±0.0026                | 0.10±0.03        | 0.69±0.16                | 8.4   |
| <i>f</i> <sub>81</sub>                 | 2.3032±0.0030                | 0.07±0.03        | -2.62±0.18               | 6.6   | <i>f</i> <sub>62</sub>                 | 0.2771±0.0026                | 0.09±0.03        | 2.07±0.16                | 8.4   |
| <i>f</i> <sub>84</sub>                 | 0.6565±0.0030                | 0.07±0.03        | -0.57±0.19               | 6.3   | <i>f</i> <sub>63</sub>                 | 3.3379±0.0026                | 0.09±0.03        | -0.78±0.16               | 8.3   |
| <i>f</i> <sub>87</sub>                 | 8.9029±0.0031                | 0.07±0.03        | 2.47±0.19                | 6.0   | <i>f</i> <sub>64</sub>                 | 2.1350±0.0028                | 0.09±0.03        | -0.13±0.17               | 7.6   |
| <i>f</i> <sub>88</sub>                 | 0.3953±0.0031                | 0.07±0.03        | -0.11±0.19               | 6.0   | <i>f</i> <sub>65</sub>                 | 1.7132±0.0028                | 0.09±0.03        | 0.44±0.17                | 7.6   |
| <i>f</i> <sub>89</sub>                 | 5.7118±0.0031                | 0.07±0.03        | 0.34±0.19                | 6.0   | <i>f</i> <sub>66</sub>                 | 6.1439±0.0028                | 0.09±0.03        | -0.09±0.17               | 7.6   |
| <i>f</i> <sub>90</sub>                 | 0.7384±0.0031                | 0.07±0.03        | 2.73±0.19                | 5.9   | <i>f</i> <sub>70</sub>                 | 7.7926±0.0029                | 0.08±0.03        | 0.70±0.17                | 7.1   |
| <i>f</i> <sub>91</sub>                 | 0.1450±0.0031                | 0.07±0.03        | -2.90±0.19               | 5.9   | <i>f</i> <sub>71</sub>                 | 15.8354±0.0029               | 0.08±0.03        | -1.68±0.17               | 7.1   |
| <i>f</i> <sub>92</sub>                 | 5.3836±0.0032                | 0.07±0.03        | 1.67±0.20                | 5.7   | <i>f</i> <sub>72</sub>                 | 20.2800±0.0028               | 0.08±0.03        | -0.56±0.17               | 7.2   |
| <i>f</i> <sub>93</sub>                 | 0.3688±0.0032                | 0.06±0.03        | -2.76±0.20               | 5.7   | <i>f</i> <sub>73</sub>                 | 19.0531±0.0029               | 0.08±0.03        | -1.91±0.18               | 6.9   |
| <i>f</i> <sub>94</sub>                 | 7.9436±0.0032                | 0.06±0.03        | -1.47±0.20               | 5.6   | <i>f</i> <sub>74</sub>                 | 1.7592±0.0029                | 0.08±0.03        | 0.84±0.18                | 6.7   |
| <i>f</i> <sub>95</sub>                 | 1.9661±0.0032                | 0.07±0.03        | -0.53±0.19               | 5.8   | <i>f</i> <sub>75</sub>                 | 0.1643±0.0030                | 0.08±0.03        | 0.61±0.18                | 6.6   |
| <i>f</i> <sub>96</sub>                 | 16.9924±0.0032               | 0.06±0.03        | -2.89±0.20               | 5.7   | <i>f</i> <sub>76</sub>                 | 7.0424±0.0031                | 0.08±0.03        | 2.04±0.19                | 6.1   |
| <i>f</i> <sub>97</sub>                 | 5.4906±0.0033                | 0.06±0.03        | -2.38±0.20               | 5.5   | <i>f</i> <sub>78</sub>                 | 2.8584±0.0031                | 0.08±0.03        | 0.38±0.19                | 5.9   |
| <i>f</i> <sub>98</sub>                 | 0.1671±0.0032                | 0.07±0.03        | -1.10±0.20               | 5.7   | <i>f</i> <sub>80</sub>                 | 21.6712±0.0032               | 0.07±0.03        | 2.73±0.20                | 5.6   |
| <i>f</i> <sub>99</sub>                 | 0.5347±0.0032                | 0.07±0.03        | 3.00±0.20                | 5.6   | <i>f</i> <sub>81</sub>                 | 13.0007±0.0033               | 0.07±0.03        | -2.44±0.20               | 5.5   |
| <i>f</i> <sub>100</sub>                | 20.6107±0.0033               | 0.06±0.03        | -0.10±0.20               | 5.4   | <i>f</i> <sub>82</sub>                 | 0.2248±0.0033                | 0.07±0.03        | 1.72±0.20                | 5.4   |
| <i>f</i> <sub>101</sub>                | 4.0580±0.0033                | 0.07±0.03        | -1.92±0.20               | 5.5   | <i>f</i> <sub>83</sub>                 | 3.1964±0.0033                | 0.07±0.03        | 3.03±0.20                | 5.2   |
| <i>f</i> <sub>102</sub>                | 3.9719±0.0032                | 0.07±0.03        | 1.80±0.20                | 5.7   | <i>f</i> <sub>84</sub>                 | 2.3955±0.0034                | 0.07±0.03        | 2.84±0.21                | 5.1   |
| <i>f</i> <sub>103</sub>                | 1.8612±0.0032                | 0.07±0.03        | -2.68±0.20               | 5.6   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>104</sub>                | 2.7848±0.0033                | 0.06±0.03        | 2.24±0.20                | 5.5   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>105</sub>                | 3.5411±0.0033                | 0.06±0.03        | -2.97±0.20               | 5.3   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>107</sub>                | 4.1664±0.0033                | 0.06±0.03        | -1.76±0.20               | 5.2   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>108</sub>                | 6.0265±0.0034                | 0.06±0.03        | 0.59±0.21                | 5.1   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>109</sub>                | 2.1733±0.0034                | 0.06±0.03        | -1.00±0.21               | 5.0   |                                        |                              |                  |                          |       |

**Table D.18:** Frequency list of 0102663289

| Frequency ID           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|------------------------|------------------------------|------------------|--------------------------|-------|
| <i>f</i> <sub>1</sub>  | 4.2025±0.0005                | 0.67±0.04        | 1.22±0.03                | 248.9 |
| <i>f</i> <sub>2</sub>  | 4.3041±0.0005                | 0.67±0.04        | -1.45±0.03               | 270.6 |
| <i>f</i> <sub>3</sub>  | 1.0917±0.0007                | 0.41±0.04        | -0.28±0.04               | 112.1 |
| <i>f</i> <sub>4</sub>  | 4.0372±0.0007                | 0.41±0.04        | 2.84±0.04                | 109.9 |
| <i>f</i> <sub>5</sub>  | 0.7344±0.0008                | 0.38±0.04        | -0.44±0.05               | 95.5  |
| <i>f</i> <sub>6</sub>  | 18.7742±0.0009               | 0.32±0.04        | -1.17±0.05               | 75.4  |
| <i>f</i> <sub>7</sub>  | 3.9700±0.0009                | 0.31±0.04        | -2.48±0.06               | 66.7  |
| <i>f</i> <sub>8</sub>  | 11.9454±0.0009               | 0.30±0.04        | 0.74±0.06                | 66.9  |
| <i>f</i> <sub>9</sub>  | 24.3754±0.0009               | 0.30±0.04        | 2.12±0.06                | 64.6  |
| <i>f</i> <sub>10</sub> | 32.8438±0.0011               | 0.26±0.04        | 2.04±0.06                | 52.3  |
| <i>f</i> <sub>11</sub> | 1.0449±0.0011                | 0.25±0.04        | 2.55±0.07                | 49.4  |
| <i>f</i> <sub>13</sub> | 25.8428±0.0012               | 0.24±0.04        | 1.45±0.07                | 43.7  |
| <i>f</i> <sub>14</sub> | 3.9102±0.0011                | 0.24±0.04        | -2.03±0.07               | 44.5  |
| <i>f</i> <sub>17</sub> | 1.6450±0.0015                | 0.17±0.03        | -1.18±0.09               | 26.2  |
| <i>f</i> <sub>18</sub> | 7.5264±0.0015                | 0.17±0.03        | 2.68±0.09                | 24.8  |
| <i>f</i> <sub>20</sub> | 7.3754±0.0016                | 0.17±0.04        | -2.48±0.10               | 23.2  |
| <i>f</i> <sub>21</sub> | 4.1154±0.0017                | 0.15±0.03        | 0.36±0.10                | 20.2  |
| <i>f</i> <sub>22</sub> | 3.8028±0.0017                | 0.15±0.03        | -2.18±0.11               | 19.2  |
| <i>f</i> <sub>23</sub> | 26.7940±0.0018               | 0.15±0.03        | -0.62±0.11               | 19.0  |
| <i>f</i> <sub>24</sub> | 12.6876±0.0018               | 0.15±0.03        | 2.18±0.11                | 18.8  |
| <i>f</i> <sub>26</sub> | 2.6482±0.0018                | 0.14±0.03        | -1.58±0.11               | 18.5  |
| <i>f</i> <sub>27</sub> | 7.8109±0.0018                | 0.13±0.03        | -0.88±0.11               | 17.2  |
| <i>f</i> <sub>28</sub> | 15.3955±0.0018               | 0.14±0.03        | -2.11±0.11               | 17.6  |

Frequency list of 0102663289 continued

**Table D.19:** Frequency list of 0102664847

| Frequency ID           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|------------------------|------------------------------|------------------|--------------------------|-------|
| <i>f</i> <sub>1</sub>  | 15.9127±0.0005               | 0.59±0.04        | 2.55±0.03                | 254.8 |
| <i>f</i> <sub>2</sub>  | 9.9091±0.0007                | 0.39±0.04        | -2.66±0.04               | 118.2 |
| <i>f</i> <sub>3</sub>  | 16.1411±0.0007               | 0.38±0.03        | -2.66±0.04               | 119.8 |
| <i>f</i> <sub>4</sub>  | 2.3482±0.0007                | 0.37±0.03        | -0.46±0.04               | 116.9 |
| <i>f</i> <sub>6</sub>  | 1.8359±0.0010                | 0.25±0.03        | 1.17±0.06                | 53.9  |
| <i>f</i> <sub>10</sub> | 4.1319±0.0012                | 0.20±0.03        | -2.20±0.07               | 39.9  |
| <i>f</i> <sub>11</sub> | 21.0066±0.0014               | 0.18±0.03        | -2.51±0.08               | 31.8  |
| <i>f</i> <sub>12</sub> | 17.2148±0.0014               | 0.17±0.03        | 2.79±0.09                | 28.7  |
| <i>f</i> <sub>13</sub> | 24.0911±0.0014               | 0.17±0.03        | -2.63±0.09               | 28.4  |
| <i>f</i> <sub>14</sub> | 0.1056±0.0014                | 0.17±0.03        | -1.97±0.09               | 28.2  |
| <i>f</i> <sub>15</sub> | 4.0055±0.0015                | 0.16±0.03        | -2.89±0.09               | 25.4  |
| <i>f</i> <sub>16</sub> | 21.8253±0.0015               | 0.16±0.03        | 2.26±0.09                | 24.5  |
| <i>f</i> <sub>17</sub> | 4.0282±0.0016                | 0.13±0.03        | -2.42±0.10               | 23.5  |
| <i>f</i> <sub>18</sub> | 14.5348±0.0016               | 0.15±0.03        | 1.93±0.10                | 23.0  |
| <i>f</i> <sub>19</sub> | 29.3879±0.0016               | 0.15±0.03        | -0.69±0.10               | 23.3  |
| <i>f</i> <sub>21</sub> | 16.6827±0.0016               | 0.15±0.03        | 0.90±0.10                | 22.1  |
| <i>f</i> <sub>25</sub> | 24.4078±0.0018               | 0.13±0.03        | 0.55±0.11                | 18.9  |
| <i>f</i> <sub>26</sub> | 13.6630±0.0018               | 0.13±0.03        | -2.57±0.11               | 18.1  |
| <i>f</i> <sub>27</sub> | 15.4993±0.0019               | 0.12±0.03        | 2.12±0.11                | 16.6  |
| <i>f</i> <sub>28</sub> | 1.3404±0.0019                | 0.12±0.03        | -1.56±0.12               | 16.3  |
| <i>f</i> <sub>29</sub> | 3.6029±0.0019                | 0.12±0.03        | -0.35±0.12               | 15.9  |
| <i>f</i> <sub>30</sub> | 26.1812±0.0019               | 0.12±0.03        | 2.52±0.12                | 15.4  |
| <i>f</i> <sub>33</sub> | 0.2586±0.0020                | 0.11±0.03        | 1.02±0.12                | 14.2  |
| <i>f</i> <sub>34</sub> | 3.0857±0.0020                | 0.11±0.03        | 1.15±0.12                | 14.5  |
| <i>f</i> <sub>35</sub> | 0.1411±0.0020                | 0.11±0.03        | -0.26±0.12               | 14.1  |
| <i>f</i> <sub>36</sub> | 1.7188±0.0020                | 0.11±0.03        | -0.76±0.12               | 13.9  |
| <i>f</i> <sub>38</sub> | 4.0398±0.0021                | 0.11±0.03        | -0.08±0.13               | 13.5  |
| <i>f</i> <sub>39</sub> | 26.5210±0.0021               | 0.10±0.03        | 0.24±0.13                | 13.2  |

Frequency list of 0102664847 continued

## Appendix D. Frequencies of individual Hybrid Stars

| Frequency list of 0102664847 continued |                              |                  |                          |       | Frequency list of 0102665884 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| <i>f</i> <sub>41</sub>                 | 0.7674±0.0022                | 0.11±0.03        | 1.52±0.13                | 12.4  | <i>f</i> <sub>42</sub>                 | 3.6611±0.0020                | 0.16±0.04        | 3.04±0.12                | 15.0  |
| <i>f</i> <sub>43</sub>                 | 3.8104±0.0022                | 0.10±0.03        | 2.20±0.13                | 12.2  | <i>f</i> <sub>43</sub>                 | 0.1996±0.0020                | 0.15±0.04        | -1.22±0.12               | 14.2  |
| <i>f</i> <sub>44</sub>                 | 19.0289±0.0022               | 0.10±0.03        | -2.27±0.13               | 12.0  | <i>f</i> <sub>46</sub>                 | 13.8600±0.0021               | 0.14±0.04        | -2.27±0.13               | 12.7  |
| <i>f</i> <sub>45</sub>                 | 17.6660±0.0023               | 0.10±0.03        | -1.77±0.14               | 11.5  | <i>f</i> <sub>47</sub>                 | 3.0478±0.0022                | 0.14±0.04        | -2.84±0.13               | 12.2  |
| <i>f</i> <sub>46</sub>                 | 21.9009±0.0023               | 0.10±0.03        | -1.44±0.14               | 10.7  | <i>f</i> <sub>49</sub>                 | 0.3164±0.0022                | 0.14±0.04        | -2.73±0.14               | 11.6  |
| <i>f</i> <sub>47</sub>                 | 16.6689±0.0023               | 0.10±0.03        | -2.26±0.14               | 11.1  | <i>f</i> <sub>50</sub>                 | 0.6794±0.0022                | 0.13±0.04        | -0.53±0.14               | 11.7  |
| <i>f</i> <sub>48</sub>                 | 1.9424±0.0023                | 0.09±0.03        | -2.60±0.14               | 10.8  | <i>f</i> <sub>51</sub>                 | 0.1759±0.0022                | 0.15±0.04        | 1.33±0.14                | 11.8  |
| <i>f</i> <sub>50</sub>                 | 23.3467±0.0024               | 0.09±0.03        | 0.74±0.15                | 10.3  | <i>f</i> <sub>52</sub>                 | 0.1624±0.0022                | 0.15±0.04        | -0.13±0.13               | 12.2  |
| <i>f</i> <sub>51</sub>                 | 0.7847±0.0024                | 0.09±0.03        | 1.12±0.15                | 10.0  | <i>f</i> <sub>53</sub>                 | 4.1430±0.0023                | 0.13±0.04        | 2.52±0.14                | 11.3  |
| <i>f</i> <sub>52</sub>                 | 3.4846±0.0024                | 0.09±0.03        | -0.13±0.15               | 10.0  | <i>f</i> <sub>54</sub>                 | 1.0508±0.0023                | 0.12±0.04        | 3.08±0.14                | 11.0  |
| <i>f</i> <sub>53</sub>                 | 3.5018±0.0024                | 0.09±0.03        | -1.85±0.14               | 10.4  | <i>f</i> <sub>55</sub>                 | 4.9861±0.0023                | 0.13±0.04        | 0.99±0.14                | 10.8  |
| <i>f</i> <sub>54</sub>                 | 20.2831±0.0024               | 0.09±0.03        | -0.98±0.15               | 10.2  | <i>f</i> <sub>56</sub>                 | 4.9180±0.0023                | 0.12±0.04        | 0.30±0.14                | 10.6  |
| <i>f</i> <sub>55</sub>                 | 12.7794±0.0024               | 0.09±0.03        | 1.63±0.15                | 9.9   | <i>f</i> <sub>57</sub>                 | 3.1436±0.0023                | 0.12±0.04        | 1.07±0.14                | 10.7  |
| <i>f</i> <sub>57</sub>                 | 55.8525±0.0025               | 0.10±0.03        | 1.67±0.15                | 9.5   | <i>f</i> <sub>58</sub>                 | 4.6855±0.0024                | 0.12±0.04        | 2.18±0.15                | 10.3  |
| <i>f</i> <sub>60</sub>                 | 2.9049±0.0025                | 0.09±0.03        | 2.93±0.15                | 9.5   | <i>f</i> <sub>59</sub>                 | 0.4714±0.0024                | 0.13±0.04        | -2.80±0.15               | 10.3  |
| <i>f</i> <sub>61</sub>                 | 18.2694±0.0025               | 0.09±0.03        | 1.62±0.15                | 9.5   | <i>f</i> <sub>62</sub>                 | 2.0055±0.0022                | 0.21±0.06        | 2.69±0.13                | 12.2  |
| <i>f</i> <sub>62</sub>                 | 19.8925±0.0025               | 0.08±0.03        | 1.87±0.16                | 9.0   | <i>f</i> <sub>69</sub>                 | 10.5617±0.0024               | 0.12±0.04        | -0.19±0.15               | 9.8   |
| <i>f</i> <sub>66</sub>                 | 3.5425±0.0026                | 0.08±0.03        | -2.24±0.16               | 8.9   | <i>f</i> <sub>70</sub>                 | 6.3698±0.0024                | 0.12±0.04        | 2.52±0.15                | 9.8   |
| <i>f</i> <sub>67</sub>                 | 2.0766±0.0026                | 0.08±0.03        | -2.75±0.16               | 8.5   | <i>f</i> <sub>71</sub>                 | 4.8013±0.0024                | 0.12±0.04        | -1.07±0.15               | 9.8   |
| <i>f</i> <sub>68</sub>                 | 3.3149±0.0026                | 0.08±0.03        | 1.68±0.16                | 8.6   | <i>f</i> <sub>72</sub>                 | 0.1310±0.0025                | 0.11±0.04        | -2.51±0.15               | 9.5   |
| <i>f</i> <sub>70</sub>                 | 55.8634±0.0026               | 0.09±0.03        | -1.20±0.16               | 8.6   | <i>f</i> <sub>73</sub>                 | 3.7730±0.0025                | 0.12±0.04        | -1.26±0.15               | 9.3   |
| <i>f</i> <sub>71</sub>                 | 1.0301±0.0026                | 0.08±0.03        | -3.13±0.16               | 8.7   | <i>f</i> <sub>75</sub>                 | 4.2375±0.0025                | 0.11±0.04        | -0.37±0.15               | 9.3   |
| <i>f</i> <sub>72</sub>                 | 27.8162±0.0026               | 0.08±0.03        | -0.78±0.16               | 8.5   | <i>f</i> <sub>78</sub>                 | 7.2015±0.0026                | 0.11±0.04        | -1.33±0.16               | 8.8   |
| <i>f</i> <sub>73</sub>                 | 18.3907±0.0027               | 0.08±0.03        | -1.24±0.17               | 7.9   | <i>f</i> <sub>79</sub>                 | 0.4582±0.0026                | 0.11±0.04        | -1.65±0.16               | 8.7   |
| <i>f</i> <sub>74</sub>                 | 11.9265±0.0028               | 0.08±0.03        | 1.50±0.17                | 7.7   | <i>f</i> <sub>80</sub>                 | 4.3454±0.0026                | 0.11±0.04        | -0.38±0.16               | 8.8   |
| <i>f</i> <sub>75</sub>                 | 3.4030±0.0028                | 0.08±0.03        | -1.59±0.17               | 7.6   | <i>f</i> <sub>81</sub>                 | 6.6500±0.0026                | 0.11±0.04        | -2.43±0.16               | 8.6   |
| <i>f</i> <sub>77</sub>                 | 13.6168±0.0028               | 0.08±0.03        | -2.05±0.17               | 7.5   | <i>f</i> <sub>82</sub>                 | 55.8644±0.0026               | 0.12±0.04        | -1.42±0.16               | 8.6   |
| <i>f</i> <sub>78</sub>                 | 4.2880±0.0028                | 0.08±0.03        | 0.52±0.17                | 7.6   | <i>f</i> <sub>83</sub>                 | 5.2033±0.0026                | 0.10±0.03        | -1.21±0.16               | 8.5   |
| <i>f</i> <sub>79</sub>                 | 1.5529±0.0028                | 0.08±0.03        | -0.88±0.17               | 7.4   | <i>f</i> <sub>84</sub>                 | 0.3715±0.0026                | 0.11±0.04        | -1.43±0.16               | 8.4   |
| <i>f</i> <sub>80</sub>                 | 1.8066±0.0028                | 0.07±0.03        | -0.24±0.17               | 7.4   | <i>f</i> <sub>85</sub>                 | 4.5528±0.0027                | 0.11±0.04        | 2.90±0.16                | 8.2   |
| <i>f</i> <sub>81</sub>                 | 2.3129±0.0028                | 0.07±0.03        | -1.85±0.17               | 7.2   | <i>f</i> <sub>86</sub>                 | 0.7089±0.0026                | 0.11±0.04        | 2.84±0.16                | 8.4   |
| <i>f</i> <sub>82</sub>                 | 7.0944±0.0028                | 0.07±0.03        | 2.87±0.17                | 7.2   | <i>f</i> <sub>87</sub>                 | 0.6360±0.0026                | 0.11±0.04        | 0.32±0.16                | 8.5   |
| <i>f</i> <sub>83</sub>                 | 14.8053±0.0029               | 0.07±0.03        | -0.02±0.17               | 7.1   | <i>f</i> <sub>88</sub>                 | 5.5418±0.0027                | 0.11±0.04        | -1.60±0.16               | 8.0   |
| <i>f</i> <sub>84</sub>                 | 1.6484±0.0029                | 0.07±0.03        | -0.00±0.17               | 7.1   | <i>f</i> <sub>90</sub>                 | 3.9938±0.0027                | 0.11±0.04        | 2.40±0.17                | 7.8   |
| <i>f</i> <sub>85</sub>                 | 6.3265±0.0029                | 0.07±0.03        | -0.71±0.18               | 6.9   | <i>f</i> <sub>92</sub>                 | 0.1216±0.0027                | 0.11±0.04        | -0.05±0.17               | 7.8   |
| <i>f</i> <sub>86</sub>                 | 0.2135±0.0029                | 0.07±0.03        | 2.96±0.18                | 6.9   | <i>f</i> <sub>93</sub>                 | 4.0859±0.0028                | 0.10±0.04        | -2.61±0.17               | 7.7   |
| <i>f</i> <sub>87</sub>                 | 7.5982±0.0029                | 0.07±0.03        | -2.49±0.18               | 6.7   | <i>f</i> <sub>94</sub>                 | 0.2949±0.0028                | 0.10±0.04        | 1.16±0.17                | 7.6   |
| <i>f</i> <sub>88</sub>                 | 0.5346±0.0029                | 0.07±0.03        | 0.36±0.18                | 6.9   | <i>f</i> <sub>95</sub>                 | 4.1880±0.0028                | 0.11±0.04        | 1.61±0.17                | 7.7   |
| <i>f</i> <sub>89</sub>                 | 3.6904±0.0030                | 0.07±0.03        | 2.65±0.18                | 6.6   | <i>f</i> <sub>96</sub>                 | 4.3733±0.0028                | 0.10±0.04        | -2.00±0.17               | 7.3   |
| <i>f</i> <sub>91</sub>                 | 13.9492±0.0030               | 0.07±0.03        | 0.50±0.18                | 6.5   | <i>f</i> <sub>97</sub>                 | 6.1145±0.0029                | 0.10±0.04        | -2.32±0.17               | 7.1   |
| <i>f</i> <sub>92</sub>                 | 8.4960±0.0030                | 0.07±0.03        | 0.38±0.18                | 6.4   | <i>f</i> <sub>98</sub>                 | 3.4108±0.0029                | 0.10±0.04        | 0.37±0.18                | 7.0   |
| <i>f</i> <sub>93</sub>                 | 0.5172±0.0030                | 0.07±0.03        | 0.54±0.18                | 6.5   | <i>f</i> <sub>99</sub>                 | 0.8260±0.0029                | 0.10±0.04        | -2.21±0.18               | 6.9   |
| <i>f</i> <sub>95</sub>                 | 0.3189±0.0030                | 0.07±0.03        | 2.70±0.18                | 6.6   | <i>f</i> <sub>100</sub>                | 1.0653±0.0029                | 0.09±0.03        | 1.40±0.17                | 7.1   |
| <i>f</i> <sub>96</sub>                 | 17.1692±0.0030               | 0.07±0.03        | -2.93±0.19               | 6.3   | <i>f</i> <sub>101</sub>                | 5.4068±0.0029                | 0.09±0.03        | -2.51±0.18               | 7.0   |
| <i>f</i> <sub>98</sub>                 | 25.7241±0.0031               | 0.07±0.03        | -0.03±0.19               | 6.0   | <i>f</i> <sub>102</sub>                | 0.4197±0.0029                | 0.10±0.04        | -1.43±0.18               | 7.0   |

**Table D.20:** Frequency list of 0102665884

| Frequency ID           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign.  |
|------------------------|------------------------------|------------------|--------------------------|--------|
| <i>f</i> <sub>1</sub>  | 10.5449±0.0002               | 2.55±0.08        | 2.26±0.02                | 950.8  |
| <i>f</i> <sub>2</sub>  | 3.6009±0.0002                | 2.48±0.07        | 1.00±0.01                | 1191.7 |
| <i>f</i> <sub>3</sub>  | 11.7468±0.0003               | 1.39±0.06        | -1.42±0.02               | 519.0  |
| <i>f</i> <sub>4</sub>  | 10.3849±0.0004               | 1.21±0.06        | -3.00±0.02               | 441.6  |
| <i>f</i> <sub>5</sub>  | 9.8365±0.0004                | 1.14±0.05        | -0.03±0.02               | 431.8  |
| <i>f</i> <sub>6</sub>  | 3.8721±0.0006                | 0.69±0.05        | -2.54±0.03               | 181.8  |
| <i>f</i> <sub>8</sub>  | 9.9096±0.0006                | 0.64±0.05        | 0.43±0.04                | 168.6  |
| <i>f</i> <sub>9</sub>  | 4.2823±0.0007                | 0.56±0.05        | -0.62±0.04               | 129.0  |
| <i>f</i> <sub>10</sub> | 3.3292±0.0007                | 0.48±0.05        | -2.26±0.05               | 104.3  |
| <i>f</i> <sub>11</sub> | 3.5043±0.0008                | 0.45±0.05        | 1.77±0.05                | 96.9   |
| <i>f</i> <sub>12</sub> | 10.1405±0.0008               | 0.45±0.05        | 0.98±0.05                | 95.9   |
| <i>f</i> <sub>13</sub> | 3.6969±0.0009                | 0.40±0.05        | 1.34±0.05                | 77.7   |
| <i>f</i> <sub>15</sub> | 5.1466±0.0010                | 0.35±0.04        | -2.29±0.06               | 62.0   |
| <i>f</i> <sub>16</sub> | 0.1145±0.0011                | 0.25±0.03        | 0.77±0.06                | 51.5   |
| <i>f</i> <sub>17</sub> | 20.7702±0.0011               | 0.31±0.04        | -0.82±0.06               | 51.4   |
| <i>f</i> <sub>21</sub> | 10.1557±0.0013               | 0.24±0.04        | -3.03±0.08               | 34.8   |
| <i>f</i> <sub>25</sub> | 5.5883±0.0015                | 0.22±0.04        | 0.02±0.09                | 26.5   |
| <i>f</i> <sub>26</sub> | 5.6623±0.0015                | 0.20±0.04        | -1.42±0.09               | 27.4   |
| <i>f</i> <sub>28</sub> | 0.2737±0.0016                | 0.20±0.04        | 0.15±0.10                | 22.3   |
| <i>f</i> <sub>29</sub> | 0.1002±0.0016                | 0.22±0.05        | -0.87±0.10               | 22.0   |
| <i>f</i> <sub>30</sub> | 4.0117±0.0017                | 0.15±0.03        | -2.41±0.10               | 20.5   |
| <i>f</i> <sub>31</sub> | 0.2334±0.0017                | 0.20±0.04        | 0.60±0.10                | 19.9   |
| <i>f</i> <sub>32</sub> | 10.6304±0.0018               | 0.17±0.04        | 3.06±0.11                | 18.3   |
| <i>f</i> <sub>35</sub> | 19.7467±0.0019               | 0.16±0.04        | -0.81±0.11               | 16.8   |
| <i>f</i> <sub>37</sub> | 0.2192±0.0019                | 0.18±0.05        | 2.44±0.12                | 15.4   |
| <i>f</i> <sub>38</sub> | 10.9267±0.0019               | 0.15±0.04        | -0.08±0.12               | 15.4   |
| <i>f</i> <sub>39</sub> | 0.1489±0.0020                | 0.20±0.05        | 2.18±0.12                | 15.3   |
| <i>f</i> <sub>40</sub> | 9.3578±0.0020                | 0.15±0.04        | -1.84±0.12               | 14.9   |

Frequency list of 0102665884 continued

| Frequency ID            | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|-------------------------|------------------------------|------------------|--------------------------|-------|
| <i>f</i> <sub>103</sub> | 1.2465±0.0029                | 0.09±0.03        | 2.07±0.18                | 6.8   |
| <i>f</i> <sub>104</sub> | 10.0441±0.0029               | 0.10±0.04        | -1.14±0.18               | 7.0   |
| <i>f</i> <sub>105</sub> | 2.7835±0.0029                | 0.09±0.03        | 0.49±0.18                | 6.8   |
| <i>f</i> <sub>109</sub> | 13.9501±0.0029               | 0.10±0.04        | -1.28±0.18               | 6.9   |
| <i>f</i> <sub>110</sub> | 55.8525±0.0029               | 0.10±0.04        | 0.72±0.18                | 7.0   |
| <i>f</i> <sub>111</sub> | 3.2302±0.0029                | 0.10±0.04        | -1.31±0.18               | 6.8   |
| <i>f</i> <sub>112</sub> | 5.0155±0.0029                | 0.09±0.03        | 0.95±0.18                | 7.0   |
| <i>f</i> <sub>113</sub> | 5.2675±0.0029                | 0.10±0.04        | 0.51±0.18                | 6.8   |
| <i>f</i> <sub>114</sub> | 1.0284±0.0029                | 0.10±0.04        | -1.99±0.18               | 6.9   |
| <i>f</i> <sub>115</sub> | 1.2395±0.0029                | 0.10±0.04        | -3.11±0.17               | 7.1   |
| <i>f</i> <sub>116</sub> | 5.2396±0.0029                | 0.09±0.03        | -0.85±0.18               | 6.8   |
| <i>f</i> <sub>118</sub> | 4.3812±0.0030                | 0.09±0.04        | 1.87±0.18                | 6.6   |
| <i>f</i> <sub>119</sub> | 1.1362±0.0030                | 0.09±0.04        | 2.42±0.18                | 6.4   |
| <i>f</i> <sub>120</sub> | 5.0819±0.0030                | 0.09±0.04        | -0.51±0.19               | 6.3   |
| <i>f</i> <sub>121</sub> | 5.6525±0.0031                | 0.09±0.04        | -0.32±0.19               | 6.2   |
| <i>f</i> <sub>122</sub> | 1.0060±0.0031                | 0.09±0.04        | -0.41±0.19               | 6.2   |
| <i>f</i> <sub>123</sub> | 6.9444±0.0031                | 0.09±0.04        | 1.67±0.19                | 6.0   |

**Table D.21:** Frequency list of 0102666754

| Frequency ID           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign.  |
|------------------------|------------------------------|------------------|--------------------------|--------|
| <i>f</i> <sub>1</sub>  | 8.4714±0.0002                | 1.06±0.03        | 2.86±0.01                | 1214.6 |
| <i>f</i> <sub>2</sub>  | 3.2963±0.0003                | 0.73±0.03        | -0.81±0.02               | 807.9  |
| <i>f</i> <sub>3</sub>  | 1.4030±0.0003                | 0.66±0.02        | 1.40±0.02                | 833.6  |
| <i>f</i> <sub>4</sub>  | 15.3540±0.0003               | 0.53±0.02        | 2.14±0.02                | 628.6  |
| <i>f</i> <sub>5</sub>  | 4.3009±0.0003                | 0.42±0.02        | 0.72±0.02                | 494.0  |
| <i>f</i> <sub>6</sub>  | 2.9767±0.0006                | 0.24±0.02        | 2.43±0.04                | 167.6  |
| <i>f</i> <sub>7</sub>  | 15.8316±0.0006               | 0.22±0.02        | -2.92±0.04               | 155.0  |
| <i>f</i> <sub>8</sub>  | 1.0250±0.0007                | 0.21±0.02        | 0.40±0.04                | 134.3  |
| <i>f</i> <sub>9</sub>  | 6.7795±0.0007                | 0.21±0.02        | -0.39±0.04               | 136.9  |
| <i>f</i> <sub>10</sub> | 0.2146±0.0007                | 0.20±0.02        | -1.17±0.04               | 109.8  |
| <i>f</i> <sub>11</sub> | 12.5350±0.0007               | 0.18±0.02        | 3.05±0.05                | 104.1  |
| <i>f</i> <sub>12</sub> | 3.3024±0.0007                | 0.15±0.01        | -0.65±0.05               | 106.5  |
| <i>f</i> <sub>13</sub> | 4.7805±0.0008                | 0.17±0.02        | -0.07±0.05               | 102.7  |

Frequency list of 0102666754 continued

## Appendix D. Frequencies of individual Hybrid Stars

| Frequency list of 0102666754 continued |                              |                  |                          |       | Frequency list of 0102666754 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| <i>f</i> <sub>14</sub>                 | 5.3761±0.0008                | 0.16±0.02        | -0.78±0.05               | 97.3  | <i>f</i> <sub>107</sub>                | 6.8017±0.0020                | 0.04±0.01        | 0.92±0.12                | 15.2  |
| <i>f</i> <sub>16</sub>                 | 6.5159±0.0009                | 0.15±0.02        | 2.05±0.05                | 73.0  | <i>f</i> <sub>108</sub>                | 4.8851±0.0020                | 0.04±0.01        | 0.54±0.12                | 14.8  |
| <i>f</i> <sub>18</sub>                 | 2.8300±0.0009                | 0.13±0.02        | 2.25±0.06                | 70.8  | <i>f</i> <sub>109</sub>                | 27.2687±0.0020               | 0.05±0.01        | 0.56±0.12                | 14.8  |
| <i>f</i> <sub>19</sub>                 | 31.6632±0.0009               | 0.12±0.01        | -1.99±0.06               | 64.6  | <i>f</i> <sub>110</sub>                | 8.9652±0.0020                | 0.04±0.01        | 1.34±0.12                | 14.7  |
| <i>f</i> <sub>20</sub>                 | 17.2349±0.0009               | 0.12±0.01        | 0.09±0.06                | 65.0  | <i>f</i> <sub>111</sub>                | 1.5862±0.0020                | 0.05±0.01        | -1.91±0.12               | 14.3  |
| <i>f</i> <sub>21</sub>                 | 4.3984±0.0010                | 0.11±0.01        | -1.45±0.06               | 59.3  | <i>f</i> <sub>112</sub>                | 0.5809±0.0020                | 0.04±0.01        | 2.40±0.12                | 14.5  |
| <i>f</i> <sub>22</sub>                 | 3.6495±0.0010                | 0.11±0.01        | 1.82±0.06                | 56.0  | <i>f</i> <sub>113</sub>                | 7.7202±0.0020                | 0.04±0.01        | -1.57±0.12               | 14.4  |
| <i>f</i> <sub>23</sub>                 | 0.2319±0.0010                | 0.12±0.02        | -0.99±0.06               | 55.5  | <i>f</i> <sub>114</sub>                | 26.2666±0.0020               | 0.04±0.01        | -1.39±0.12               | 14.1  |
| <i>f</i> <sub>24</sub>                 | 2.8977±0.0010                | 0.11±0.01        | -2.72±0.06               | 55.8  | <i>f</i> <sub>115</sub>                | 17.1697±0.0020               | 0.04±0.01        | -2.20±0.12               | 13.9  |
| <i>f</i> <sub>25</sub>                 | 8.3422±0.0010                | 0.11±0.02        | 2.58±0.06                | 52.9  | <i>f</i> <sub>116</sub>                | 2.4760±0.0021                | 0.04±0.01        | 2.57±0.13                | 13.6  |
| <i>f</i> <sub>26</sub>                 | 2.7876±0.0011                | 0.10±0.01        | 2.03±0.07                | 49.2  | <i>f</i> <sub>117</sub>                | 5.5778±0.0021                | 0.04±0.01        | -1.11±0.13               | 13.6  |
| <i>f</i> <sub>27</sub>                 | 4.0726±0.0011                | 0.10±0.01        | 3.01±0.06                | 51.5  | <i>f</i> <sub>118</sub>                | 0.3358±0.0020                | 0.03±0.01        | -2.19±0.12               | 14.2  |
| <i>f</i> <sub>29</sub>                 | 16.1883±0.0011               | 0.10±0.01        | -2.03±0.07               | 48.5  | <i>f</i> <sub>120</sub>                | 4.2748±0.0021                | 0.04±0.01        | -1.86±0.13               | 13.3  |
| <i>f</i> <sub>30</sub>                 | 2.0061±0.0011                | 0.13±0.02        | 0.35±0.07                | 45.6  | <i>f</i> <sub>121</sub>                | 7.2663±0.0021                | 0.04±0.01        | 1.45±0.13                | 13.2  |
| <i>f</i> <sub>31</sub>                 | 3.3207±0.0012                | 0.09±0.01        | 2.65±0.07                | 42.8  | <i>f</i> <sub>122</sub>                | 8.7955±0.0021                | 0.03±0.01        | 0.02±0.13                | 13.2  |
| <i>f</i> <sub>32</sub>                 | 1.4834±0.0012                | 0.08±0.01        | -2.18±0.07               | 41.9  | <i>f</i> <sub>123</sub>                | 0.5065±0.0021                | 0.04±0.01        | 2.91±0.13                | 13.3  |
| <i>f</i> <sub>33</sub>                 | 5.8738±0.0012                | 0.09±0.01        | 1.00±0.07                | 42.9  | <i>f</i> <sub>124</sub>                | 5.6539±0.0021                | 0.04±0.01        | 2.00±0.13                | 12.9  |
| <i>f</i> <sub>34</sub>                 | 6.7345±0.0012                | 0.09±0.01        | 2.81±0.08                | 38.2  | <i>f</i> <sub>125</sub>                | 4.5859±0.0021                | 0.04±0.01        | 1.83±0.13                | 13.1  |
| <i>f</i> <sub>35</sub>                 | 3.1579±0.0012                | 0.08±0.01        | -2.10±0.08               | 38.5  | <i>f</i> <sub>126</sub>                | 8.6004±0.0021                | 0.04±0.01        | 3.06±0.13                | 13.0  |
| <i>f</i> <sub>36</sub>                 | 2.5308±0.0012                | 0.08±0.01        | 1.09±0.08                | 37.3  | <i>f</i> <sub>127</sub>                | 0.1095±0.0021                | 0.04±0.01        | -1.13±0.13               | 12.7  |
| <i>f</i> <sub>37</sub>                 | 5.1745±0.0013                | 0.08±0.01        | -2.31±0.08               | 36.4  | <i>f</i> <sub>128</sub>                | 1.0800±0.0021                | 0.04±0.01        | 0.10±0.13                | 12.7  |
| <i>f</i> <sub>38</sub>                 | 6.5054±0.0013                | 0.08±0.01        | -0.05±0.08               | 36.5  | <i>f</i> <sub>129</sub>                | 1.2158±0.0022                | 0.04±0.01        | 3.12±0.13                | 12.5  |
| <i>f</i> <sub>39</sub>                 | 0.3269±0.0013                | 0.08±0.01        | 2.68±0.08                | 36.7  | <i>f</i> <sub>130</sub>                | 8.2907±0.0022                | 0.04±0.01        | 2.65±0.13                | 12.2  |
| <i>f</i> <sub>40</sub>                 | 7.5972±0.0013                | 0.08±0.01        | 2.43±0.08                | 34.7  | <i>f</i> <sub>131</sub>                | 3.4845±0.0022                | 0.04±0.01        | -1.32±0.14               | 11.9  |
| <i>f</i> <sub>41</sub>                 | 11.4347±0.0013               | 0.08±0.01        | -1.40±0.08               | 34.9  | <i>f</i> <sub>132</sub>                | 1.3193±0.0022                | 0.04±0.01        | 1.04±0.14                | 11.8  |
| <i>f</i> <sub>44</sub>                 | 5.1471±0.0013                | 0.08±0.01        | -2.81±0.08               | 35.3  | <i>f</i> <sub>133</sub>                | 6.1233±0.0022                | 0.04±0.01        | -1.28±0.14               | 11.8  |
| <i>f</i> <sub>45</sub>                 | 4.6992±0.0013                | 0.08±0.01        | -2.16±0.08               | 33.5  | <i>f</i> <sub>134</sub>                | 4.1036±0.0022                | 0.04±0.01        | -0.50±0.14               | 11.9  |
| <i>f</i> <sub>48</sub>                 | 8.4786±0.0013                | 0.07±0.01        | -2.31±0.08               | 32.8  | <i>f</i> <sub>135</sub>                | 0.1938±0.0022                | 0.04±0.01        | -1.89±0.14               | 11.8  |
| <i>f</i> <sub>49</sub>                 | 1.7196±0.0014                | 0.07±0.01        | -0.84±0.09               | 28.9  | <i>f</i> <sub>136</sub>                | 8.1349±0.0022                | 0.04±0.01        | 1.22±0.14                | 11.9  |
| <i>f</i> <sub>51</sub>                 | 28.3664±0.0014               | 0.07±0.01        | -0.99±0.09               | 29.3  | <i>f</i> <sub>137</sub>                | 9.2362±0.0022                | 0.04±0.01        | -1.85±0.14               | 11.8  |
| <i>f</i> <sub>52</sub>                 | 3.0196±0.0015                | 0.07±0.01        | -1.68±0.09               | 27.6  | <i>f</i> <sub>138</sub>                | 8.7530±0.0023                | 0.04±0.01        | 1.53±0.14                | 11.5  |
| <i>f</i> <sub>53</sub>                 | 2.5454±0.0014                | 0.07±0.01        | 3.03±0.09                | 28.7  | <i>f</i> <sub>139</sub>                | 7.8022±0.0023                | 0.03±0.01        | 0.95±0.14                | 11.5  |
| <i>f</i> <sub>55</sub>                 | 4.0645±0.0015                | 0.06±0.01        | 0.78±0.09                | 27.7  | <i>f</i> <sub>140</sub>                | 2.6009±0.0022                | 0.03±0.01        | 1.84±0.14                | 11.6  |
| <i>f</i> <sub>56</sub>                 | 8.7862±0.0015                | 0.07±0.01        | -2.27±0.09               | 27.2  | <i>f</i> <sub>141</sub>                | 7.1319±0.0023                | 0.04±0.01        | 0.10±0.14                | 11.4  |
| <i>f</i> <sub>57</sub>                 | 5.8886±0.0014                | 0.07±0.01        | -1.80±0.09               | 28.8  | <i>f</i> <sub>142</sub>                | 4.6833±0.0023                | 0.03±0.01        | 0.66±0.14                | 11.4  |
| <i>f</i> <sub>58</sub>                 | 0.2617±0.0014                | 0.06±0.01        | -2.51±0.09               | 28.5  | <i>f</i> <sub>143</sub>                | 5.3304±0.0023                | 0.03±0.01        | -1.84±0.14               | 11.1  |
| <i>f</i> <sub>64</sub>                 | 2.3434±0.0015                | 0.07±0.01        | 2.91±0.09                | 25.3  | <i>f</i> <sub>144</sub>                | 10.6834±0.0023               | 0.04±0.01        | -1.68±0.14               | 11.1  |
| <i>f</i> <sub>65</sub>                 | 13.4867±0.0015               | 0.06±0.01        | -0.92±0.09               | 24.3  | <i>f</i> <sub>145</sub>                | 9.7998±0.0023                | 0.04±0.01        | -1.22±0.14               | 11.0  |
| <i>f</i> <sub>66</sub>                 | 1.8502±0.0016                | 0.06±0.01        | 1.77±0.09                | 24.2  | <i>f</i> <sub>146</sub>                | 7.2283±0.0023                | 0.03±0.01        | -0.06±0.14               | 10.7  |
| <i>f</i> <sub>67</sub>                 | 12.8583±0.0015               | 0.06±0.01        | -0.10±0.09               | 25.1  | <i>f</i> <sub>147</sub>                | 5.0993±0.0023                | 0.03±0.01        | -1.83±0.14               | 11.1  |
| <i>f</i> <sub>68</sub>                 | 0.1590±0.0015                | 0.05±0.01        | -0.46±0.09               | 25.0  | <i>f</i> <sub>148</sub>                | 0.5556±0.0023                | 0.04±0.01        | 2.89±0.14                | 10.6  |
| <i>f</i> <sub>69</sub>                 | 2.3052±0.0016                | 0.06±0.01        | 0.99±0.10                | 23.3  | <i>f</i> <sub>149</sub>                | 1.7419±0.0024                | 0.03±0.01        | -1.30±0.14               | 10.4  |
| <i>f</i> <sub>70</sub>                 | 0.3004±0.0016                | 0.06±0.01        | 2.08±0.10                | 23.6  | <i>f</i> <sub>151</sub>                | 1.1033±0.0024                | 0.03±0.01        | 2.34±0.14                | 10.4  |
| <i>f</i> <sub>71</sub>                 | 0.3766±0.0016                | 0.06±0.01        | 0.45±0.10                | 23.0  | <i>f</i> <sub>152</sub>                | 1.0709±0.0023                | 0.03±0.01        | 1.01±0.14                | 10.7  |
| <i>f</i> <sub>72</sub>                 | 5.3159±0.0016                | 0.06±0.01        | 0.80±0.10                | 23.4  | <i>f</i> <sub>153</sub>                | 2.9951±0.0024                | 0.04±0.01        | 0.66±0.14                | 10.4  |
| <i>f</i> <sub>73</sub>                 | 4.9927±0.0016                | 0.06±0.01        | -0.30±0.10               | 23.8  | <i>f</i> <sub>154</sub>                | 3.5551±0.0023                | 0.03±0.01        | -2.49±0.14               | 10.8  |
| <i>f</i> <sub>75</sub>                 | 1.9804±0.0016                | 0.05±0.01        | -0.50±0.10               | 23.3  | <i>f</i> <sub>155</sub>                | 0.1788±0.0024                | 0.04±0.01        | 2.26±0.15                | 10.2  |
| <i>f</i> <sub>76</sub>                 | 0.4903±0.0016                | 0.06±0.01        | 0.69±0.10                | 22.6  | <i>f</i> <sub>156</sub>                | 0.3571±0.0023                | 0.04±0.01        | -1.97±0.14               | 10.9  |
| <i>f</i> <sub>77</sub>                 | 0.6278±0.0016                | 0.06±0.01        | -2.42±0.10               | 22.2  | <i>f</i> <sub>157</sub>                | 12.2588±0.0024               | 0.03±0.01        | -2.35±0.14               | 10.5  |
| <i>f</i> <sub>78</sub>                 | 1.5298±0.0017                | 0.06±0.01        | -1.18±0.10               | 21.4  | <i>f</i> <sub>158</sub>                | 2.8083±0.0024                | 0.03±0.01        | -1.89±0.15               | 10.3  |
| <i>f</i> <sub>79</sub>                 | 0.3662±0.0017                | 0.05±0.01        | 0.48±0.10                | 21.1  | <i>f</i> <sub>159</sub>                | 10.0325±0.0024               | 0.03±0.01        | -1.68±0.14               | 10.4  |
| <i>f</i> <sub>80</sub>                 | 8.4624±0.0017                | 0.05±0.01        | 1.52±0.10                | 20.6  | <i>f</i> <sub>160</sub>                | 10.0161±0.0024               | 0.04±0.01        | 2.60±0.14                | 10.5  |
| <i>f</i> <sub>81</sub>                 | 4.3203±0.0017                | 0.06±0.01        | -1.11±0.10               | 20.7  | <i>f</i> <sub>161</sub>                | 8.2342±0.0024                | 0.03±0.01        | -3.05±0.15               | 10.1  |
| <i>f</i> <sub>82</sub>                 | 1.6158±0.0017                | 0.05±0.01        | -1.42±0.10               | 20.9  | <i>f</i> <sub>162</sub>                | 1.4945±0.0024                | 0.03±0.01        | -2.79±0.15               | 10.0  |
| <i>f</i> <sub>83</sub>                 | 1.8905±0.0017                | 0.05±0.01        | 2.66±0.10                | 19.9  | <i>f</i> <sub>163</sub>                | 5.9973±0.0024                | 0.03±0.01        | -1.72±0.14               | 10.4  |
| <i>f</i> <sub>84</sub>                 | 0.4104±0.0017                | 0.05±0.01        | -1.90±0.11               | 19.2  | <i>f</i> <sub>164</sub>                | 3.3103±0.0024                | 0.03±0.01        | 2.27±0.15                | 10.2  |
| <i>f</i> <sub>85</sub>                 | 3.0800±0.0017                | 0.05±0.01        | -0.21±0.11               | 19.3  | <i>f</i> <sub>165</sub>                | 6.2892±0.0024                | 0.03±0.01        | 0.91±0.15                | 10.0  |
| <i>f</i> <sub>86</sub>                 | 7.4602±0.0018                | 0.06±0.01        | 0.95±0.11                | 18.7  | <i>f</i> <sub>166</sub>                | 5.6984±0.0024                | 0.03±0.01        | 1.71±0.14                | 10.5  |
| <i>f</i> <sub>87</sub>                 | 6.9893±0.0017                | 0.05±0.01        | -1.07±0.11               | 19.2  | <i>f</i> <sub>167</sub>                | 6.5461±0.0024                | 0.03±0.01        | -0.68±0.15               | 10.2  |
| <i>f</i> <sub>88</sub>                 | 7.0970±0.0018                | 0.05±0.01        | -1.72±0.11               | 18.6  | <i>f</i> <sub>168</sub>                | 2.9040±0.0024                | 0.03±0.01        | 3.08±0.15                | 9.8   |
| <i>f</i> <sub>89</sub>                 | 5.7677±0.0018                | 0.05±0.01        | 2.74±0.11                | 18.3  | <i>f</i> <sub>169</sub>                | 4.3083±0.0024                | 0.03±0.01        | 1.02±0.15                | 10.3  |
| <i>f</i> <sub>90</sub>                 | 3.0042±0.0018                | 0.05±0.01        | 0.16±0.11                | 18.6  | <i>f</i> <sub>170</sub>                | 10.1931±0.0024               | 0.03±0.01        | 2.86±0.15                | 9.8   |
| <i>f</i> <sub>91</sub>                 | 8.6738±0.0018                | 0.05±0.01        | -2.14±0.11               | 17.8  | <i>f</i> <sub>171</sub>                | 1.1298±0.0024                | 0.03±0.01        | 0.21±0.15                | 9.9   |
| <i>f</i> <sub>92</sub>                 | 0.4464±0.0018                | 0.04±0.01        | -1.29±0.11               | 17.4  | <i>f</i> <sub>172</sub>                | 7.0589±0.0024                | 0.03±0.01        | 0.13±0.15                | 9.9   |
| <i>f</i> <sub>93</sub>                 | 8.7026±0.0018                | 0.05±0.01        | 1.46±0.11                | 17.4  | <i>f</i> <sub>173</sub>                | 7.1900±0.0024                | 0.03±0.01        | 2.98±0.15                | 9.9   |
| <i>f</i> <sub>94</sub>                 | 7.8714±0.0019                | 0.05±0.01        | -0.23±0.11               | 16.7  | <i>f</i> <sub>174</sub>                | 4.4979±0.0024                | 0.03±0.01        | -0.64±0.15               | 9.9   |
| <i>f</i> <sub>95</sub>                 | 19.6137±0.0019               | 0.05±0.01        | -1.81±0.11               | 16.5  | <i>f</i> <sub>175</sub>                | 8.5214±0.0024                | 0.03±0.01        | -2.73±0.15               | 9.8   |
| <i>f</i> <sub>96</sub>                 | 0.2737±0.0019                | 0.05±0.01        | -0.05±0.12               | 15.9  | <i>f</i> <sub>176</sub>                | 5.4953±0.0024                | 0.03±0.01        | -0.78±0.15               | 9.8   |
| <i>f</i> <sub>97</sub>                 | 3.7602±0.0019                | 0.05±0.01        | -0.65±0.12               | 16.1  | <i>f</i> <sub>177</sub>                | 5.4074±0.0023                | 0.03±0.01        | 2.62±0.14                | 10.7  |
| <i>f</i> <sub>98</sub>                 | 3.2935±0.0019                | 0.04±0.01        | -2.79±0.12               | 15.8  | <i>f</i> <sub>179</sub>                | 7.3609±0.0025                | 0.04±0.01        | 0.19±0.15                | 9.6   |
| <i>f</i> <sub>100</sub>                | 17.7437±0.0019               | 0.05±0.01        | 0.00±0.12                | 16.1  | <i>f</i> <sub>180</sub>                | 7.3496±0.0024                | 0.03±0.01        | -1.08±0.15               | 10.2  |
| <i>f</i> <sub>101</sub>                | 7.0896±0.0019                | 0.04±0.01        | 2.79±0.12                | 15.6  | <i>f</i> <sub>181</sub>                | 5.7611±0.0024                | 0.03±0.01        | 2.43±0.15                | 10.0  |
| <i>f</i> <sub>103</sub>                | 16.8572±0.0019               | 0.05±0.01        | -2.10±0.12               | 15.7  | <i>f</i> <sub>182</sub>                | 9.2875±0.0025                | 0.04±0.01        | -2.84±0.15               | 9.4   |
| <i>f</i> <sub>104</sub>                | 8.3532±0.0019                | 0.04±0.01        | -0.57±0.12               | 15.4  | <i>f</i> <sub>183</sub>                | 1.2620±0.0025                | 0.03±0.01        | 2.58±0.15                | 9.5   |
| <i>f</i> <sub>105</sub>                | 5.4767±0.0020                | 0.05±0.01        | 1.52±0.12                | 15.0  | <i>f</i> <sub>184</sub>                | 1.1959±0.0025                | 0.04±0.01        | -1.26±0.15               | 9.7   |
| <i>f</i> <sub>106</sub>                | 7.5575±0.0020                | 0.04±0.01        | -2.72±0.12               | 14.9  | <i>f</i> <sub>185</sub>                | 0.8282±0.0025                | 0.03±0.01        | -2.37±0.15               | 9.6   |
| Frequency list of 0102666754 continued |                              |                  |                          |       | Frequency list of 0102666754 continued |                              |                  |                          |       |

## Appendix D. Frequencies of individual Hybrid Stars

| Frequency list of 0102666754 continued |                              |                  |                          |       | Frequency list of 0102666754 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| <i>f</i> <sub>186</sub>                | 8.0120±0.0025                | 0.03±0.01        | -2.70±0.15               | 9.2   | <i>f</i> <sub>286</sub>                | 2.6635±0.0028                | 0.03±0.01        | 1.78±0.17                | 7.7   |
| <i>f</i> <sub>187</sub>                | 13.5316±0.0025               | 0.03±0.01        | -0.88±0.15               | 9.4   | <i>f</i> <sub>287</sub>                | 26.6582±0.0029               | 0.02±0.01        | -2.70±0.18               | 6.8   |
| <i>f</i> <sub>188</sub>                | 7.4231±0.0025                | 0.03±0.01        | 0.89±0.15                | 9.5   | <i>f</i> <sub>288</sub>                | 4.4136±0.0029                | 0.02±0.01        | -1.74±0.18               | 6.7   |
| <i>f</i> <sub>189</sub>                | 0.3465±0.0025                | 0.03±0.01        | -3.13±0.15               | 9.1   | <i>f</i> <sub>289</sub>                | 2.4936±0.0029                | 0.03±0.01        | 2.97±0.18                | 6.8   |
| <i>f</i> <sub>190</sub>                | 20.4726±0.0025               | 0.03±0.01        | 0.50±0.15                | 9.2   | <i>f</i> <sub>290</sub>                | 6.6615±0.0029                | 0.02±0.01        | 1.35±0.18                | 6.7   |
| <i>f</i> <sub>196</sub>                | 2.0049±0.0025                | 0.05±0.02        | -1.17±0.16               | 9.0   | <i>f</i> <sub>291</sub>                | 9.1909±0.0029                | 0.02±0.01        | 0.24±0.18                | 6.7   |
| <i>f</i> <sub>197</sub>                | 10.0424±0.0025               | 0.03±0.01        | 2.05±0.16                | 9.0   | <i>f</i> <sub>293</sub>                | 13.4647±0.0029               | 0.02±0.01        | -1.93±0.18               | 6.8   |
| <i>f</i> <sub>198</sub>                | 11.7682±0.0025               | 0.03±0.01        | -0.19±0.15               | 9.1   | <i>f</i> <sub>296</sub>                | 4.2462±0.0030                | 0.02±0.01        | 0.10±0.18                | 6.6   |
| <i>f</i> <sub>201</sub>                | 8.1772±0.0026                | 0.03±0.01        | -1.75±0.16               | 8.8   | <i>f</i> <sub>297</sub>                | 1.5750±0.0029                | 0.03±0.01        | -0.16±0.18               | 6.7   |
| <i>f</i> <sub>203</sub>                | 6.8116±0.0026                | 0.03±0.01        | 0.87±0.16                | 8.7   | <i>f</i> <sub>298</sub>                | 4.7349±0.0030                | 0.02±0.01        | 2.35±0.18                | 6.6   |
| <i>f</i> <sub>205</sub>                | 0.3922±0.0026                | 0.03±0.01        | -0.69±0.16               | 8.7   | <i>f</i> <sub>299</sub>                | 2.9579±0.0029                | 0.02±0.01        | 2.25±0.18                | 6.9   |
| <i>f</i> <sub>206</sub>                | 0.1869±0.0026                | 0.03±0.01        | 1.29±0.16                | 8.8   | <i>f</i> <sub>300</sub>                | 10.5257±0.0030               | 0.02±0.01        | -1.68±0.18               | 6.6   |
| <i>f</i> <sub>207</sub>                | 1.5503±0.0026                | 0.03±0.01        | -1.28±0.16               | 8.7   | <i>f</i> <sub>301</sub>                | 0.6866±0.0030                | 0.02±0.01        | 0.61±0.18                | 6.5   |
| <i>f</i> <sub>209</sub>                | 8.3999±0.0026                | 0.03±0.01        | -1.65±0.16               | 8.4   | <i>f</i> <sub>302</sub>                | 8.7617±0.0029                | 0.03±0.01        | 0.12±0.18                | 6.7   |
| <i>f</i> <sub>210</sub>                | 1.7547±0.0026                | 0.03±0.01        | -0.88±0.16               | 8.5   | <i>f</i> <sub>303</sub>                | 14.2604±0.0030               | 0.02±0.01        | 2.33±0.18                | 6.5   |
| <i>f</i> <sub>211</sub>                | 1.8275±0.0026                | 0.03±0.01        | 1.32±0.16                | 8.7   | <i>f</i> <sub>304</sub>                | 3.8425±0.0030                | 0.02±0.01        | -1.36±0.18               | 6.6   |
| <i>f</i> <sub>212</sub>                | 9.8464±0.0026                | 0.03±0.01        | -0.68±0.16               | 8.5   | <i>f</i> <sub>305</sub>                | 25.2247±0.0030               | 0.02±0.01        | -1.59±0.18               | 6.5   |
| <i>f</i> <sub>213</sub>                | 33.7453±0.0027               | 0.03±0.01        | 2.45±0.16                | 8.2   | <i>f</i> <sub>306</sub>                | 3.1282±0.0030                | 0.02±0.01        | -2.37±0.19               | 6.3   |
| <i>f</i> <sub>215</sub>                | 1.7110±0.0026                | 0.03±0.01        | 0.21±0.16                | 8.3   | <i>f</i> <sub>307</sub>                | 0.2094±0.0030                | 0.02±0.01        | 0.18±0.19                | 6.3   |
| <i>f</i> <sub>216</sub>                | 1.8755±0.0026                | 0.03±0.01        | 0.44±0.16                | 8.4   | <i>f</i> <sub>309</sub>                | 5.6363±0.0031                | 0.02±0.01        | 2.03±0.19                | 6.2   |
| <i>f</i> <sub>217</sub>                | 1.1532±0.0026                | 0.03±0.01        | 2.89±0.16                | 8.6   | <i>f</i> <sub>310</sub>                | 5.3952±0.0031                | 0.02±0.01        | -1.06±0.19               | 6.2   |
| <i>f</i> <sub>218</sub>                | 0.2010±0.0026                | 0.03±0.01        | -1.61±0.16               | 8.4   | <i>f</i> <sub>311</sub>                | 4.8129±0.0031                | 0.02±0.01        | 0.64±0.19                | 6.2   |
| <i>f</i> <sub>219</sub>                | 6.3114±0.0026                | 0.03±0.01        | 0.38±0.16                | 8.3   | <i>f</i> <sub>312</sub>                | 1.2848±0.0030                | 0.02±0.01        | -2.12±0.18               | 6.4   |
| <i>f</i> <sub>220</sub>                | 3.4434±0.0026                | 0.03±0.01        | 0.52±0.16                | 8.3   | <i>f</i> <sub>313</sub>                | 8.8428±0.0031                | 0.02±0.01        | -3.11±0.19               | 6.2   |
| <i>f</i> <sub>221</sub>                | 3.4021±0.0026                | 0.03±0.01        | -3.06±0.16               | 8.3   | <i>f</i> <sub>314</sub>                | 8.4861±0.0030                | 0.02±0.01        | -0.34±0.18               | 6.4   |
| <i>f</i> <sub>222</sub>                | 14.4427±0.0026               | 0.03±0.01        | 3.09±0.16                | 8.3   | <i>f</i> <sub>315</sub>                | 10.1076±0.0031               | 0.02±0.01        | -1.94±0.19               | 6.2   |
| <i>f</i> <sub>223</sub>                | 6.0327±0.0026                | 0.02±0.01        | 1.60±0.16                | 8.3   | <i>f</i> <sub>316</sub>                | 6.7611±0.0030                | 0.02±0.01        | -0.32±0.18               | 6.4   |
| <i>f</i> <sub>224</sub>                | 12.2278±0.0027               | 0.03±0.01        | -0.05±0.16               | 8.1   | <i>f</i> <sub>318</sub>                | 3.5437±0.0030                | 0.02±0.01        | -0.86±0.18               | 6.4   |
| <i>f</i> <sub>225</sub>                | 3.1947±0.0027                | 0.03±0.01        | -0.94±0.16               | 8.1   | <i>f</i> <sub>319</sub>                | 5.9425±0.0031                | 0.02±0.01        | 2.39±0.19                | 6.0   |
| <i>f</i> <sub>227</sub>                | 7.4477±0.0026                | 0.03±0.01        | -0.40±0.16               | 8.3   | <i>f</i> <sub>320</sub>                | 5.9102±0.0030                | 0.02±0.01        | -2.47±0.18               | 6.6   |
| <i>f</i> <sub>228</sub>                | 4.3658±0.0027                | 0.03±0.01        | 2.59±0.16                | 8.2   | <i>f</i> <sub>321</sub>                | 5.0754±0.0031                | 0.02±0.01        | -1.92±0.19               | 6.0   |
| <i>f</i> <sub>229</sub>                | 2.8371±0.0027                | 0.03±0.01        | 1.88±0.16                | 8.1   | <i>f</i> <sub>322</sub>                | 13.9165±0.0031               | 0.02±0.01        | 0.25±0.19                | 6.0   |
| <i>f</i> <sub>230</sub>                | 2.7673±0.0026                | 0.03±0.01        | -1.69±0.16               | 8.4   | <i>f</i> <sub>323</sub>                | 1.9924±0.0031                | 0.02±0.01        | 2.19±0.19                | 6.1   |
| <i>f</i> <sub>231</sub>                | 0.7635±0.0026                | 0.03±0.01        | -0.76±0.16               | 8.6   | <i>f</i> <sub>324</sub>                | 14.4054±0.0031               | 0.02±0.01        | 1.00±0.19                | 6.0   |
| <i>f</i> <sub>236</sub>                | 5.6763±0.0027                | 0.03±0.01        | -0.76±0.16               | 8.1   | <i>f</i> <sub>325</sub>                | 7.5695±0.0031                | 0.02±0.01        | 0.83±0.19                | 6.2   |
| <i>f</i> <sub>237</sub>                | 12.7705±0.0026               | 0.03±0.01        | -2.50±0.16               | 8.4   | <i>f</i> <sub>326</sub>                | 8.9798±0.0031                | 0.02±0.01        | 3.12±0.19                | 6.0   |
| <i>f</i> <sub>238</sub>                | 1.9147±0.0027                | 0.03±0.01        | 1.28±0.17                | 7.9   | <i>f</i> <sub>327</sub>                | 8.8153±0.0030                | 0.02±0.01        | -1.87±0.18               | 6.4   |
| <i>f</i> <sub>239</sub>                | 3.5877±0.0027                | 0.03±0.01        | -2.19±0.16               | 8.0   | <i>f</i> <sub>328</sub>                | 1.0597±0.0031                | 0.02±0.01        | 0.03±0.19                | 6.1   |
| <i>f</i> <sub>241</sub>                | 13.8758±0.0027               | 0.02±0.01        | -1.68±0.16               | 8.0   | <i>f</i> <sub>329</sub>                | 3.9629±0.0031                | 0.02±0.01        | 1.37±0.19                | 6.0   |
| <i>f</i> <sub>242</sub>                | 0.8792±0.0027                | 0.03±0.01        | -2.29±0.17               | 7.8   | <i>f</i> <sub>330</sub>                | 13.2129±0.0031               | 0.02±0.01        | -2.73±0.19               | 6.0   |
| <i>f</i> <sub>243</sub>                | 0.4613±0.0027                | 0.03±0.01        | -1.28±0.17               | 7.9   | <i>f</i> <sub>331</sub>                | 10.1550±0.0031               | 0.02±0.01        | 1.61±0.19                | 6.0   |
| <i>f</i> <sub>244</sub>                | 7.2937±0.0027                | 0.03±0.01        | 1.36±0.17                | 7.8   | <i>f</i> <sub>332</sub>                | 6.9014±0.0031                | 0.02±0.01        | 0.68±0.19                | 6.0   |
| <i>f</i> <sub>245</sub>                | 1.3960±0.0028                | 0.02±0.01        | 2.26±0.17                | 7.6   | <i>f</i> <sub>333</sub>                | 4.9774±0.0031                | 0.02±0.01        | 1.81±0.19                | 6.1   |
| <i>f</i> <sub>246</sub>                | 2.3961±0.0028                | 0.02±0.01        | -0.45±0.17               | 7.6   | <i>f</i> <sub>334</sub>                | 15.6153±0.0031               | 0.02±0.01        | -2.14±0.19               | 6.1   |
| <i>f</i> <sub>247</sub>                | 8.9997±0.0027                | 0.03±0.01        | 0.71±0.17                | 7.9   | <i>f</i> <sub>335</sub>                | 3.7516±0.0031                | 0.02±0.01        | -0.74±0.19               | 5.9   |
| <i>f</i> <sub>248</sub>                | 0.7268±0.0028                | 0.02±0.01        | 1.42±0.17                | 7.5   | <i>f</i> <sub>336</sub>                | 13.5699±0.0031               | 0.02±0.01        | 0.86±0.19                | 5.9   |
| <i>f</i> <sub>249</sub>                | 2.6911±0.0028                | 0.03±0.01        | 2.39±0.17                | 7.5   | <i>f</i> <sub>337</sub>                | 16.4845±0.0031               | 0.02±0.01        | -0.18±0.19               | 6.1   |
| <i>f</i> <sub>250</sub>                | 0.7562±0.0028                | 0.03±0.01        | -1.57±0.17               | 7.6   | <i>f</i> <sub>338</sub>                | 7.9227±0.0031                | 0.02±0.01        | -2.22±0.19               | 5.9   |
| <i>f</i> <sub>251</sub>                | 18.6618±0.0028               | 0.03±0.01        | -2.02±0.17               | 7.6   | <i>f</i> <sub>339</sub>                | 11.5368±0.0031               | 0.02±0.01        | -0.40±0.19               | 6.0   |
| <i>f</i> <sub>252</sub>                | 0.2481±0.0028                | 0.03±0.01        | -0.17±0.17               | 7.7   | <i>f</i> <sub>340</sub>                | 8.7774±0.0031                | 0.02±0.01        | 0.61±0.19                | 6.0   |
| <i>f</i> <sub>253</sub>                | 7.0498±0.0028                | 0.03±0.01        | 0.24±0.17                | 7.4   | <i>f</i> <sub>341</sub>                | 0.6648±0.0031                | 0.02±0.01        | -2.05±0.19               | 6.1   |
| <i>f</i> <sub>254</sub>                | 13.1866±0.0028               | 0.03±0.01        | 1.41±0.17                | 7.4   | <i>f</i> <sub>342</sub>                | 12.8644±0.0031               | 0.02±0.01        | 2.33±0.19                | 5.9   |
| <i>f</i> <sub>258</sub>                | 0.7937±0.0028                | 0.03±0.01        | 1.54±0.17                | 7.5   | <i>f</i> <sub>343</sub>                | 9.2755±0.0031                | 0.02±0.01        | 2.43±0.19                | 5.9   |
| <i>f</i> <sub>259</sub>                | 2.1255±0.0028                | 0.03±0.01        | -1.82±0.17               | 7.4   | <i>f</i> <sub>344</sub>                | 2.1547±0.0032                | 0.02±0.01        | -0.86±0.19               | 5.8   |
| <i>f</i> <sub>260</sub>                | 11.7596±0.0028               | 0.02±0.01        | 1.19±0.17                | 7.3   | <i>f</i> <sub>345</sub>                | 23.4479±0.0032               | 0.02±0.01        | 2.15±0.20                | 5.7   |
| <i>f</i> <sub>261</sub>                | 4.3337±0.0028                | 0.02±0.01        | -1.75±0.17               | 7.2   | <i>f</i> <sub>346</sub>                | 13.5474±0.0032               | 0.02±0.01        | 2.54±0.20                | 5.7   |
| <i>f</i> <sub>262</sub>                | 6.3477±0.0028                | 0.03±0.01        | -2.96±0.17               | 7.2   | <i>f</i> <sub>347</sub>                | 7.0801±0.0032                | 0.02±0.01        | 2.95±0.20                | 5.7   |
| <i>f</i> <sub>263</sub>                | 7.2467±0.0028                | 0.03±0.01        | -1.63±0.17               | 7.3   | <i>f</i> <sub>348</sub>                | 18.9776±0.0031               | 0.02±0.01        | -1.46±0.19               | 5.9   |
| <i>f</i> <sub>265</sub>                | 5.9483±0.0029                | 0.03±0.01        | -2.82±0.17               | 7.1   | <i>f</i> <sub>349</sub>                | 5.5703±0.0032                | 0.02±0.01        | -1.44±0.20               | 5.7   |
| <i>f</i> <sub>266</sub>                | 15.6892±0.0029               | 0.02±0.01        | 1.71±0.17                | 7.1   | <i>f</i> <sub>350</sub>                | 1.9518±0.0032                | 0.02±0.01        | 2.53±0.20                | 5.7   |
| <i>f</i> <sub>267</sub>                | 9.5589±0.0028                | 0.02±0.01        | -0.07±0.17               | 7.4   | <i>f</i> <sub>351</sub>                | 5.1679±0.0031                | 0.02±0.01        | 2.91±0.19                | 5.9   |
| <i>f</i> <sub>268</sub>                | 3.6250±0.0029                | 0.03±0.01        | -2.18±0.17               | 7.1   | <i>f</i> <sub>352</sub>                | 4.2204±0.0032                | 0.02±0.01        | 1.75±0.20                | 5.7   |
| <i>f</i> <sub>269</sub>                | 3.8019±0.0028                | 0.03±0.01        | 1.98±0.17                | 7.3   | <i>f</i> <sub>353</sub>                | 3.8920±0.0032                | 0.02±0.01        | -1.67±0.20               | 5.7   |
| <i>f</i> <sub>271</sub>                | 6.2190±0.0028                | 0.02±0.01        | 2.13±0.17                | 7.2   | <i>f</i> <sub>354</sub>                | 0.9798±0.0032                | 0.02±0.01        | -0.65±0.20               | 5.6   |
| <i>f</i> <sub>272</sub>                | 8.5718±0.0028                | 0.02±0.01        | 1.85±0.17                | 7.4   | <i>f</i> <sub>355</sub>                | 7.3781±0.0033                | 0.02±0.01        | 2.12±0.20                | 5.5   |
| <i>f</i> <sub>273</sub>                | 5.8014±0.0028                | 0.02±0.01        | 1.79±0.17                | 7.2   | <i>f</i> <sub>357</sub>                | 3.5981±0.0033                | 0.02±0.01        | 0.10±0.20                | 5.4   |
| <i>f</i> <sub>274</sub>                | 5.8377±0.0028                | 0.02±0.01        | 0.68±0.17                | 7.2   | <i>f</i> <sub>358</sub>                | 21.0837±0.0033               | 0.02±0.01        | -0.39±0.20               | 5.4   |
| <i>f</i> <sub>275</sub>                | 4.0205±0.0029                | 0.02±0.01        | -0.83±0.17               | 7.1   | <i>f</i> <sub>359</sub>                | 7.8442±0.0033                | 0.02±0.01        | 2.61±0.20                | 5.4   |
| <i>f</i> <sub>277</sub>                | 0.9959±0.0028                | 0.02±0.01        | -1.47±0.17               | 7.2   | <i>f</i> <sub>360</sub>                | 9.0433±0.0032                | 0.02±0.01        | -1.70±0.20               | 5.6   |
| <i>f</i> <sub>279</sub>                | 5.5945±0.0029                | 0.03±0.01        | -0.63±0.18               | 6.9   | <i>f</i> <sub>361</sub>                | 13.7913±0.0033               | 0.02±0.01        | -0.72±0.20               | 5.5   |
| <i>f</i> <sub>280</sub>                | 5.6144±0.0026                | 0.03±0.01        | -1.24±0.16               | 8.3   | <i>f</i> <sub>362</sub>                | 11.2601±0.0033               | 0.02±0.01        | -0.46±0.20               | 5.4   |
| <i>f</i> <sub>281</sub>                | 0.1341±0.0028                | 0.03±0.01        | 1.25±0.17                | 7.2   | <i>f</i> <sub>365</sub>                | 12.8251±0.0033               | 0.02±0.01        | -2.54±0.20               | 5.4   |
| <i>f</i> <sub>282</sub>                | 30.2465±0.0029               | 0.02±0.01        | 2.72±0.18                | 6.8   | <i>f</i> <sub>366</sub>                | 13.0417±0.0033               | 0.02±0.01        | 2.03±0.20                | 5.4   |
| <i>f</i> <sub>283</sub>                | 2.0811±0.0029                | 0.03±0.01        | 0.07±0.18                | 7.0   | <i>f</i> <sub>367</sub>                | 0.5382±0.0033                | 0.02±0.01        | -0.58±0.20               | 5.4   |
| <i>f</i> <sub>284</sub>                | 11.3699±0.0029               | 0.02±0.01        | 2.90±0.18                | 6.8   | <i>f</i> <sub>368</sub>                | 3.4760±0.0033                | 0.02±0.01        | 0.09±0.20                | 5.3   |
| <i>f</i> <sub>285</sub>                | 2.6417±0.0029                | 0.03±0.01        | 0.63±0.18                | 6.8   | <i>f</i> <sub>369</sub>                | 8.5462±0.0033                | 0.02±0.01        | -2.01±0.20               | 5.3   |
| Frequency list of 0102666754 continued |                              |                  |                          |       | Frequency list of 0102666754 continued |                              |                  |                          |       |

## Appendix D. Frequencies of individual Hybrid Stars

| Frequency list of 0102666754 continued          |                              |                  |                          |       | Frequency list of 0102669636 continued          |                              |                  |                          |        |
|-------------------------------------------------|------------------------------|------------------|--------------------------|-------|-------------------------------------------------|------------------------------|------------------|--------------------------|--------|
| Frequency ID                                    | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                                    | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign.  |
| <i>f</i> <sub>370</sub>                         | 4.4330±0.0033                | 0.02±0.01        | 1.41±0.20                | 5.4   | <i>f</i> <sub>75</sub>                          | 1.3152±0.0033                | 0.06±0.03        | -2.45±0.20               | 5.3    |
| <i>f</i> <sub>371</sub>                         | 2.5379±0.0033                | 0.02±0.01        | -2.91±0.20               | 5.5   | <i>f</i> <sub>76</sub>                          | 1.0220±0.0033                | 0.06±0.03        | -1.72±0.20               | 5.3    |
| <i>f</i> <sub>372</sub>                         | 2.3520±0.0033                | 0.02±0.01        | -1.67±0.20               | 5.3   | <i>f</i> <sub>77</sub>                          | 0.1334±0.0033                | 0.06±0.03        | -2.44±0.20               | 5.3    |
| <i>f</i> <sub>373</sub>                         | 1.8139±0.0033                | 0.02±0.01        | 0.08±0.20                | 5.4   | <i>f</i> <sub>78</sub>                          | 26.1346±0.0033               | 0.06±0.03        | -0.12±0.20               | 5.2    |
| <i>f</i> <sub>374</sub>                         | 6.7941±0.0033                | 0.02±0.01        | 1.36±0.20                | 5.4   | <i>f</i> <sub>79</sub>                          | 3.1110±0.0034                | 0.06±0.03        | -0.05±0.21               | 5.1    |
| <i>f</i> <sub>375</sub>                         | 1.4748±0.0032                | 0.02±0.01        | 1.91±0.20                | 5.6   | <i>f</i> <sub>80</sub>                          | 1.6441±0.0034                | 0.06±0.03        | 0.79±0.21                | 5.1    |
| <i>f</i> <sub>376</sub>                         | 4.8506±0.0033                | 0.02±0.01        | 0.90±0.20                | 5.5   | <b>Table D.23: Frequency list of 0102669994</b> |                              |                  |                          |        |
| <i>f</i> <sub>378</sub>                         | 9.6172±0.0033                | 0.02±0.01        | -0.98±0.20               | 5.3   |                                                 |                              |                  |                          |        |
| <i>f</i> <sub>379</sub>                         | 6.0756±0.0034                | 0.02±0.01        | 0.39±0.21                | 5.1   | Frequency ID                                    | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign.  |
| <i>f</i> <sub>381</sub>                         | 31.6548±0.0033               | 0.02±0.01        | 2.27±0.20                | 5.2   | <i>f</i> <sub>1</sub>                           | 9.0170±0.0002                | 3.11±0.09        | -0.16±0.01               | 1281.7 |
| <i>f</i> <sub>383</sub>                         | 1.3569±0.0033                | 0.02±0.01        | 2.63±0.20                | 5.5   | <i>f</i> <sub>2</sub>                           | 11.0741±0.0005               | 1.10±0.07        | 2.43±0.03                | 217.8  |
| <i>f</i> <sub>384</sub>                         | 0.7476±0.0034                | 0.02±0.01        | 0.23±0.21                | 5.1   | <i>f</i> <sub>3</sub>                           | 10.7430±0.0006               | 0.88±0.07        | 1.84±0.04                | 159.2  |
| <i>f</i> <sub>385</sub>                         | 3.5711±0.0034                | 0.02±0.01        | 0.63±0.21                | 5.1   | <i>f</i> <sub>4</sub>                           | 23.3941±0.0007               | 0.69±0.07        | 2.92±0.04                | 107.9  |
| <i>f</i> <sub>386</sub>                         | 3.6734±0.0033                | 0.02±0.01        | -2.06±0.20               | 5.4   | <i>f</i> <sub>5</sub>                           | 3.3632±0.0008                | 0.66±0.07        | 2.49±0.05                | 103.0  |
| <i>f</i> <sub>388</sub>                         | 13.7775±0.0034               | 0.02±0.01        | -1.14±0.21               | 5.1   | <i>f</i> <sub>6</sub>                           | 12.7170±0.0008               | 0.63±0.06        | 2.31±0.05                | 95.3   |
| <i>f</i> <sub>389</sub>                         | 1.6441±0.0033                | 0.02±0.01        | 2.44±0.20                | 5.3   | <i>f</i> <sub>8</sub>                           | 15.6259±0.0009               | 0.57±0.06        | -3.08±0.05               | 77.0   |
| <i>f</i> <sub>390</sub>                         | 5.3056±0.0034                | 0.02±0.01        | -1.44±0.21               | 5.1   | <i>f</i> <sub>9</sub>                           | 6.8901±0.0009                | 0.53±0.06        | -1.05±0.06               | 69.5   |
| <i>f</i> <sub>393</sub>                         | 10.3191±0.0034               | 0.02±0.01        | -2.37±0.21               | 5.1   | <i>f</i> <sub>10</sub>                          | 13.3175±0.0010               | 0.49±0.06        | 0.49±0.06                | 63.3   |
| <i>f</i> <sub>394</sub>                         | 8.6616±0.0034                | 0.02±0.01        | -1.86±0.21               | 5.1   | <i>f</i> <sub>11</sub>                          | 17.6327±0.0010               | 0.47±0.06        | 2.45±0.06                | 57.6   |
| <i>f</i> <sub>395</sub>                         | 6.0941±0.0034                | 0.02±0.01        | 2.49±0.21                | 5.1   | <i>f</i> <sub>12</sub>                          | 2.0662±0.0010                | 0.45±0.06        | 2.28±0.06                | 55.3   |
| <b>Table D.22: Frequency list of 0102669636</b> |                              |                  |                          |       | <i>f</i> <sub>14</sub>                          | 15.0472±0.0011               | 0.44±0.06        | -1.77±0.06               | 52.5   |
| Frequency ID                                    | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | <i>f</i> <sub>15</sub>                          | 7.1512±0.0012                | 0.40±0.06        | -1.61±0.07               | 43.6   |
| <i>f</i> <sub>1</sub>                           | 2.1124±0.0005                | 0.51±0.03        | 0.48±0.03                | 229.9 | <i>f</i> <sub>18</sub>                          | 19.3723±0.0013               | 0.37±0.06        | 1.73±0.08                | 36.5   |
| <i>f</i> <sub>3</sub>                           | 2.1951±0.0010                | 0.24±0.03        | -0.07±0.06               | 61.5  | <i>f</i> <sub>19</sub>                          | 16.1490±0.0013               | 0.34±0.06        | -2.32±0.08               | 35.5   |
| <i>f</i> <sub>4</sub>                           | 2.3851±0.0010                | 0.20±0.03        | 0.83±0.06                | 53.3  | <i>f</i> <sub>20</sub>                          | 17.3505±0.0013               | 0.34±0.06        | 0.76±0.08                | 34.0   |
| <i>f</i> <sub>5</sub>                           | 34.2445±0.0010               | 0.22±0.03        | 0.68±0.06                | 53.5  | <i>f</i> <sub>21</sub>                          | 3.2674±0.0013                | 0.34±0.06        | 2.52±0.08                | 32.7   |
| <i>f</i> <sub>7</sub>                           | 0.1185±0.0012                | 0.18±0.03        | 1.85±0.07                | 43.1  | <i>f</i> <sub>22</sub>                          | 18.8339±0.0014               | 0.31±0.06        | -1.02±0.09               | 30.0   |
| <i>f</i> <sub>8</sub>                           | 2.8992±0.0013                | 0.17±0.03        | -0.60±0.08               | 35.9  | <i>f</i> <sub>23</sub>                          | 13.4623±0.0014               | 0.31±0.06        | 0.92±0.08                | 30.8   |
| <i>f</i> <sub>10</sub>                          | 2.3752±0.0013                | 0.17±0.03        | -1.35±0.08               | 32.2  | <i>f</i> <sub>24</sub>                          | 4.4999±0.0014                | 0.31±0.06        | -0.94±0.09               | 29.8   |
| <i>f</i> <sub>12</sub>                          | 22.9633±0.0015               | 0.15±0.03        | -2.02±0.09               | 27.0  | <i>f</i> <sub>25</sub>                          | 2.0980±0.0014                | 0.28±0.05        | -1.36±0.09               | 29.9   |
| <i>f</i> <sub>13</sub>                          | 0.1063±0.0015                | 0.15±0.03        | -3.08±0.09               | 25.9  | <i>f</i> <sub>26</sub>                          | 0.7441±0.0014                | 0.32±0.06        | 0.84±0.09                | 28.6   |
| <i>f</i> <sub>16</sub>                          | 3.0664±0.0017                | 0.13±0.03        | 0.00±0.10                | 21.2  | <i>f</i> <sub>27</sub>                          | 1.5018±0.0014                | 0.30±0.05        | 1.33±0.08                | 30.4   |
| <i>f</i> <sub>17</sub>                          | 0.2424±0.0018                | 0.11±0.03        | -2.24±0.11               | 17.8  | <i>f</i> <sub>28</sub>                          | 28.0904±0.0014               | 0.30±0.06        | -1.42±0.09               | 28.5   |
| <i>f</i> <sub>18</sub>                          | 3.1364±0.0018                | 0.12±0.03        | 0.25±0.11                | 17.1  | <i>f</i> <sub>29</sub>                          | 2.7465±0.0015                | 0.28±0.06        | 0.32±0.09                | 25.9   |
| <i>f</i> <sub>20</sub>                          | 0.1674±0.0019                | 0.10±0.02        | -0.86±0.12               | 16.4  | <i>f</i> <sub>30</sub>                          | 13.2768±0.0015               | 0.28±0.06        | -1.74±0.09               | 25.6   |
| <i>f</i> <sub>21</sub>                          | 25.4365±0.0020               | 0.11±0.03        | -1.46±0.12               | 15.1  | <i>f</i> <sub>31</sub>                          | 14.0941±0.0016               | 0.26±0.05        | -0.75±0.10               | 23.2   |
| <i>f</i> <sub>25</sub>                          | 0.1954±0.0022                | 0.12±0.03        | -1.86±0.13               | 12.5  | <i>f</i> <sub>33</sub>                          | 17.5190±0.0016               | 0.27±0.06        | 1.45±0.10                | 23.7   |
| <i>f</i> <sub>26</sub>                          | 1.7957±0.0023                | 0.09±0.03        | 3.13±0.14                | 11.4  | <i>f</i> <sub>34</sub>                          | 13.0547±0.0016               | 0.28±0.06        | 0.11±0.10                | 23.0   |
| <i>f</i> <sub>27</sub>                          | 0.1264±0.0023                | 0.10±0.03        | 3.07±0.14                | 10.8  | <i>f</i> <sub>35</sub>                          | 6.1424±0.0016                | 0.26±0.06        | -2.38±0.10               | 21.5   |
| <i>f</i> <sub>29</sub>                          | 26.5361±0.0024               | 0.09±0.03        | 2.54±0.15                | 10.2  | <i>f</i> <sub>36</sub>                          | 1.3506±0.0016                | 0.28±0.06        | 2.26±0.10                | 22.0   |
| <i>f</i> <sub>30</sub>                          | 1.6524±0.0024                | 0.08±0.03        | -0.29±0.15               | 10.1  | <i>f</i> <sub>38</sub>                          | 0.1102±0.0017                | 0.25±0.05        | -1.73±0.10               | 21.2   |
| <i>f</i> <sub>31</sub>                          | 0.5192±0.0025                | 0.08±0.03        | 2.43±0.15                | 9.6   | <i>f</i> <sub>39</sub>                          | 11.0671±0.0017               | 0.25±0.05        | 2.55±0.10                | 20.7   |
| <i>f</i> <sub>33</sub>                          | 0.4959±0.0025                | 0.08±0.03        | 0.99±0.15                | 9.2   | <i>f</i> <sub>40</sub>                          | 27.7881±0.0017               | 0.25±0.06        | -1.85±0.10               | 20.2   |
| <i>f</i> <sub>34</sub>                          | 4.0758±0.0025                | 0.08±0.03        | 2.66±0.16                | 9.0   | <i>f</i> <sub>41</sub>                          | 12.5770±0.0017               | 0.26±0.06        | 2.83±0.10                | 20.2   |
| <i>f</i> <sub>38</sub>                          | 3.3447±0.0026                | 0.08±0.03        | 2.59±0.16                | 8.8   | <i>f</i> <sub>42</sub>                          | 14.9146±0.0017               | 0.24±0.05        | 1.08±0.11                | 19.3   |
| <i>f</i> <sub>39</sub>                          | 0.3488±0.0026                | 0.08±0.03        | -1.16±0.16               | 8.7   | <i>f</i> <sub>44</sub>                          | 0.2555±0.0017                | 0.23±0.05        | 1.15±0.11                | 19.6   |
| <i>f</i> <sub>40</sub>                          | 0.2094±0.0026                | 0.09±0.03        | 3.02±0.16                | 8.8   | <i>f</i> <sub>45</sub>                          | 14.5400±0.0017               | 0.24±0.05        | -2.67±0.11               | 19.5   |
| <i>f</i> <sub>41</sub>                          | 2.4270±0.0026                | 0.08±0.03        | 2.39±0.16                | 8.7   | <i>f</i> <sub>47</sub>                          | 15.7699±0.0018               | 0.24±0.06        | 0.51±0.11                | 18.6   |
| <i>f</i> <sub>43</sub>                          | 30.1393±0.0026               | 0.08±0.03        | 0.84±0.16                | 8.6   | <i>f</i> <sub>48</sub>                          | 17.4933±0.0018               | 0.23±0.05        | -0.65±0.11               | 17.8   |
| <i>f</i> <sub>46</sub>                          | 1.5258±0.0027                | 0.08±0.03        | -1.17±0.16               | 8.2   | <i>f</i> <sub>49</sub>                          | 1.1606±0.0018                | 0.22±0.05        | 1.72±0.11                | 17.9   |
| <i>f</i> <sub>47</sub>                          | 4.7704±0.0027                | 0.08±0.03        | 0.07±0.17                | 7.8   | <i>f</i> <sub>50</sub>                          | 9.3882±0.0018                | 0.23±0.05        | -1.88±0.11               | 18.5   |
| <i>f</i> <sub>50</sub>                          | 0.4636±0.0028                | 0.08±0.03        | 2.10±0.17                | 7.5   | <i>f</i> <sub>52</sub>                          | 3.1844±0.0018                | 0.22±0.05        | -1.29±0.11               | 17.1   |
| <i>f</i> <sub>51</sub>                          | 10.7886±0.0028               | 0.07±0.03        | 2.60±0.17                | 7.5   | <i>f</i> <sub>53</sub>                          | 0.1571±0.0019                | 0.18±0.04        | -2.94±0.11               | 16.6   |
| <i>f</i> <sub>52</sub>                          | 2.3283±0.0028                | 0.07±0.03        | 2.58±0.17                | 7.3   | <i>f</i> <sub>55</sub>                          | 0.6389±0.0019                | 0.22±0.05        | 1.56±0.11                | 16.6   |
| <i>f</i> <sub>53</sub>                          | 0.1819±0.0028                | 0.08±0.03        | 1.67±0.17                | 7.3   | <i>f</i> <sub>56</sub>                          | 4.1453±0.0019                | 0.20±0.05        | -2.64±0.12               | 16.2   |
| <i>f</i> <sub>55</sub>                          | 55.8638±0.0029               | 0.08±0.03        | 0.66±0.17                | 7.1   | <i>f</i> <sub>57</sub>                          | 2.6501±0.0019                | 0.18±0.05        | -0.70±0.12               | 15.8   |
| <i>f</i> <sub>56</sub>                          | 56.9404±0.0029               | 0.07±0.03        | 2.83±0.18                | 6.7   | <i>f</i> <sub>58</sub>                          | 2.3635±0.0019                | 0.21±0.05        | -1.84±0.12               | 15.6   |
| <i>f</i> <sub>58</sub>                          | 0.4882±0.0030                | 0.07±0.03        | 2.74±0.18                | 6.6   | <i>f</i> <sub>59</sub>                          | 13.6212±0.0019               | 0.21±0.05        | 3.06±0.12                | 15.8   |
| <i>f</i> <sub>59</sub>                          | 24.1792±0.0030               | 0.07±0.03        | -2.83±0.19               | 6.3   | <i>f</i> <sub>60</sub>                          | 6.3304±0.0019                | 0.21±0.05        | 2.37±0.12                | 15.4   |
| <i>f</i> <sub>60</sub>                          | 0.7118±0.0030                | 0.07±0.03        | 2.15±0.19                | 6.3   | <i>f</i> <sub>61</sub>                          | 10.0599±0.0020               | 0.19±0.05        | -2.96±0.12               | 15.0   |
| <i>f</i> <sub>61</sub>                          | 0.2792±0.0030                | 0.07±0.03        | 2.13±0.19                | 6.3   | <i>f</i> <sub>62</sub>                          | 3.2186±0.0019                | 0.20±0.05        | 0.63±0.12                | 15.4   |
| <i>f</i> <sub>64</sub>                          | 1.7362±0.0032                | 0.06±0.02        | -1.22±0.19               | 5.8   | <i>f</i> <sub>63</sub>                          | 4.1079±0.0020                | 0.19±0.05        | -3.13±0.12               | 14.1   |
| <i>f</i> <sub>65</sub>                          | 4.3228±0.0032                | 0.06±0.02        | -0.62±0.19               | 5.8   | <i>f</i> <sub>66</sub>                          | 0.1261±0.0021                | 0.19±0.05        | 3.07±0.13                | 13.3   |
| <i>f</i> <sub>66</sub>                          | 1.1641±0.0032                | 0.06±0.02        | 1.64±0.19                | 5.8   | <i>f</i> <sub>67</sub>                          | 11.9443±0.0021               | 0.19±0.05        | 2.03±0.13                | 13.2   |
| <i>f</i> <sub>67</sub>                          | 1.0910±0.0031                | 0.06±0.02        | 0.75±0.19                | 6.0   | <i>f</i> <sub>68</sub>                          | 3.0345±0.0021                | 0.18±0.05        | -1.55±0.13               | 13.0   |
| <i>f</i> <sub>68</sub>                          | 0.6745±0.0032                | 0.06±0.03        | 1.47±0.20                | 5.6   | <i>f</i> <sub>69</sub>                          | 0.2144±0.0022                | 0.16±0.05        | 0.65±0.13                | 12.6   |
| <i>f</i> <sub>69</sub>                          | 6.3765±0.0033                | 0.06±0.03        | -1.46±0.20               | 5.5   | <i>f</i> <sub>70</sub>                          | 0.9176±0.0022                | 0.18±0.05        | 3.08±0.13                | 12.6   |
| <i>f</i> <sub>70</sub>                          | 0.5584±0.0033                | 0.06±0.03        | 3.13±0.20                | 5.5   | <i>f</i> <sub>71</sub>                          | 2.6859±0.0022                | 0.16±0.05        | 2.75±0.13                | 12.2   |
| <i>f</i> <sub>71</sub>                          | 2.5367±0.0033                | 0.06±0.03        | -2.00±0.20               | 5.4   | <i>f</i> <sub>72</sub>                          | 1.0438±0.0022                | 0.17±0.05        | 0.60±0.13                | 12.0   |
| <i>f</i> <sub>72</sub>                          | 48.8442±0.0033               | 0.06±0.03        | 1.89±0.20                | 5.4   | <i>f</i> <sub>73</sub>                          | 5.8387±0.0023                | 0.17±0.05        | -2.51±0.14               | 11.4   |
| <i>f</i> <sub>73</sub>                          | 55.8536±0.0033               | 0.06±0.03        | 3.06±0.20                | 5.4   | <i>f</i> <sub>74</sub>                          | 55.8645±0.0023               | 0.18±0.05        | 0.49±0.14                | 11.3   |
| <i>f</i> <sub>74</sub>                          | 0.1537±0.0033                | 0.07±0.03        | 1.16±0.20                | 5.3   | Frequency list of 0102669994 continued          |                              |                  |                          |        |
| Frequency list of 0102669636 continued          |                              |                  |                          |       |                                                 |                              |                  |                          |        |

## Appendix D. Frequencies of individual Hybrid Stars

| Frequency list of 0102669994 continued |                              |                  |                          |       | Frequency list of 0102669994 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{77}$                               | 0.8562±0.0023                | 0.17±0.05        | 0.63±0.14                | 11.1  | $f_{174}$                              | 13.8837±0.0034               | 0.11±0.05        | -0.12±0.21               | 5.1   |
| $f_{78}$                               | 17.8759±0.0023               | 0.17±0.05        | 0.32±0.14                | 11.1  | $f_{175}$                              | 1.3715±0.0033                | 0.11±0.05        | -0.06±0.20               | 5.2   |
| $f_{79}$                               | 0.1379±0.0023                | 0.16±0.05        | 2.96±0.14                | 10.8  |                                        |                              |                  |                          |       |
| $f_{80}$                               | 3.3754±0.0023                | 0.17±0.05        | 1.74±0.14                | 11.3  |                                        |                              |                  |                          |       |
| $f_{81}$                               | 5.3091±0.0023                | 0.17±0.05        | 2.59±0.14                | 10.8  |                                        |                              |                  |                          |       |
| $f_{82}$                               | 19.3618±0.0023               | 0.17±0.05        | 1.90±0.14                | 10.8  |                                        |                              |                  |                          |       |
| $f_{83}$                               | 18.7910±0.0023               | 0.17±0.05        | 0.32±0.14                | 10.7  |                                        |                              |                  |                          |       |
| $f_{84}$                               | 13.9389±0.0024               | 0.17±0.05        | 2.84±0.15                | 10.3  |                                        |                              |                  |                          |       |
| $f_{85}$                               | 16.8780±0.0024               | 0.16±0.05        | 2.85±0.15                | 10.2  |                                        |                              |                  |                          |       |
| $f_{86}$                               | 0.5703±0.0024                | 0.16±0.05        | 3.11±0.15                | 10.3  |                                        |                              |                  |                          |       |
| $f_{87}$                               | 27.6771±0.0024               | 0.16±0.05        | -2.66±0.14               | 10.4  |                                        |                              |                  |                          |       |
| $f_{88}$                               | 0.2404±0.0024                | 0.16±0.05        | -3.09±0.15               | 10.0  |                                        |                              |                  |                          |       |
| $f_{89}$                               | 2.0743±0.0024                | 0.15±0.05        | -2.61±0.15               | 10.0  |                                        |                              |                  |                          |       |
| $f_{90}$                               | 0.2826±0.0025                | 0.16±0.05        | 2.75±0.15                | 9.4   |                                        |                              |                  |                          |       |
| $f_{92}$                               | 22.4060±0.0025               | 0.16±0.05        | -1.77±0.15               | 9.6   |                                        |                              |                  |                          |       |
| $f_{93}$                               | 1.0967±0.0025                | 0.16±0.05        | -0.55±0.15               | 9.6   |                                        |                              |                  |                          |       |
| $f_{94}$                               | 6.6754±0.0025                | 0.15±0.05        | -0.41±0.15               | 9.7   |                                        |                              |                  |                          |       |
| $f_{96}$                               | 17.8001±0.0025               | 0.15±0.05        | -0.06±0.15               | 9.4   |                                        |                              |                  |                          |       |
| $f_{97}$                               | 0.1824±0.0025                | 0.16±0.05        | -0.44±0.15               | 9.4   |                                        |                              |                  |                          |       |
| $f_{98}$                               | 0.2624±0.0025                | 0.14±0.05        | -0.21±0.15               | 9.5   |                                        |                              |                  |                          |       |
| $f_{99}$                               | 31.5801±0.0025               | 0.15±0.05        | 2.97±0.15                | 9.1   |                                        |                              |                  |                          |       |
| $f_{100}$                              | 10.5998±0.0025               | 0.15±0.05        | 1.03±0.15                | 9.2   |                                        |                              |                  |                          |       |
| $f_{101}$                              | 4.9142±0.0025                | 0.15±0.05        | -1.76±0.15               | 9.4   |                                        |                              |                  |                          |       |
| $f_{102}$                              | 3.7828±0.0025                | 0.15±0.05        | 2.44±0.16                | 9.0   |                                        |                              |                  |                          |       |
| $f_{103}$                              | 5.8918±0.0026                | 0.14±0.05        | 2.89±0.16                | 8.7   |                                        |                              |                  |                          |       |
| $f_{104}$                              | 4.1607±0.0026                | 0.14±0.05        | -0.93±0.16               | 8.7   |                                        |                              |                  |                          |       |
| $f_{107}$                              | 2.7032±0.0026                | 0.15±0.05        | -0.50±0.16               | 8.5   |                                        |                              |                  |                          |       |
| $f_{108}$                              | 13.6360±0.0026               | 0.15±0.05        | 0.80±0.16                | 8.4   |                                        |                              |                  |                          |       |
| $f_{109}$                              | 4.7454±0.0027                | 0.14±0.05        | 1.28±0.16                | 8.1   |                                        |                              |                  |                          |       |
| $f_{111}$                              | 3.1503±0.0027                | 0.13±0.05        | 1.36±0.17                | 7.9   |                                        |                              |                  |                          |       |
| $f_{113}$                              | 4.4166±0.0027                | 0.14±0.05        | -0.47±0.17               | 7.8   |                                        |                              |                  |                          |       |
| $f_{114}$                              | 0.2260±0.0027                | 0.15±0.05        | -3.00±0.17               | 7.8   |                                        |                              |                  |                          |       |
| $f_{117}$                              | 21.4481±0.0027               | 0.14±0.05        | 0.14±0.16                | 8.1   |                                        |                              |                  |                          |       |
| $f_{118}$                              | 0.3909±0.0028                | 0.14±0.05        | 0.95±0.17                | 7.7   |                                        |                              |                  |                          |       |
| $f_{119}$                              | 2.6383±0.0028                | 0.14±0.05        | 0.17±0.17                | 7.4   |                                        |                              |                  |                          |       |
| $f_{120}$                              | 0.1455±0.0028                | 0.13±0.05        | -0.34±0.17               | 7.4   |                                        |                              |                  |                          |       |
| $f_{123}$                              | 0.2064±0.0028                | 0.13±0.05        | 1.07±0.17                | 7.2   |                                        |                              |                  |                          |       |
| $f_{124}$                              | 9.8185±0.0028                | 0.13±0.05        | -2.62±0.17               | 7.4   |                                        |                              |                  |                          |       |
| $f_{125}$                              | 7.4543±0.0029                | 0.13±0.05        | -2.60±0.17               | 7.1   |                                        |                              |                  |                          |       |
| $f_{126}$                              | 13.9928±0.0029               | 0.13±0.05        | 2.04±0.18                | 6.8   |                                        |                              |                  |                          |       |
| $f_{127}$                              | 10.9117±0.0029               | 0.13±0.05        | -2.90±0.18               | 6.9   |                                        |                              |                  |                          |       |
| $f_{129}$                              | 4.1374±0.0030                | 0.12±0.05        | -0.58±0.18               | 6.6   |                                        |                              |                  |                          |       |
| $f_{130}$                              | 2.0870±0.0029                | 0.14±0.05        | 0.79±0.18                | 6.7   |                                        |                              |                  |                          |       |
| $f_{131}$                              | 22.6170±0.0030               | 0.12±0.05        | -2.96±0.18               | 6.5   |                                        |                              |                  |                          |       |
| $f_{132}$                              | 0.5405±0.0030                | 0.12±0.05        | 0.49±0.18                | 6.5   |                                        |                              |                  |                          |       |
| $f_{133}$                              | 13.9506±0.0030               | 0.12±0.05        | 0.53±0.19                | 6.3   |                                        |                              |                  |                          |       |
| $f_{135}$                              | 20.1494±0.0030               | 0.12±0.05        | 0.27±0.18                | 6.4   |                                        |                              |                  |                          |       |
| $f_{136}$                              | 12.4506±0.0030               | 0.12±0.05        | 2.26±0.18                | 6.4   |                                        |                              |                  |                          |       |
| $f_{137}$                              | 0.7764±0.0031                | 0.12±0.05        | -0.72±0.19               | 6.1   |                                        |                              |                  |                          |       |
| $f_{138}$                              | 18.2328±0.0031               | 0.12±0.05        | -1.10±0.19               | 6.1   |                                        |                              |                  |                          |       |
| $f_{139}$                              | 15.7466±0.0031               | 0.12±0.05        | 1.50±0.19                | 6.2   |                                        |                              |                  |                          |       |
| $f_{141}$                              | 17.0476±0.0031               | 0.12±0.05        | 2.40±0.19                | 6.0   |                                        |                              |                  |                          |       |
| $f_{142}$                              | 0.3468±0.0031                | 0.12±0.05        | -2.62±0.19               | 6.1   |                                        |                              |                  |                          |       |
| $f_{143}$                              | 2.2282±0.0031                | 0.12±0.05        | -1.53±0.19               | 6.1   |                                        |                              |                  |                          |       |
| $f_{145}$                              | 0.5490±0.0031                | 0.11±0.05        | -1.86±0.19               | 5.9   |                                        |                              |                  |                          |       |
| $f_{146}$                              | 1.4290±0.0031                | 0.11±0.04        | 0.14±0.19                | 6.0   |                                        |                              |                  |                          |       |
| $f_{147}$                              | 3.9061±0.0032                | 0.11±0.05        | -2.32±0.19               | 5.8   |                                        |                              |                  |                          |       |
| $f_{148}$                              | 21.4551±0.0032               | 0.11±0.05        | 1.27±0.19                | 5.8   |                                        |                              |                  |                          |       |
| $f_{150}$                              | 16.3137±0.0032               | 0.11±0.05        | -3.03±0.20               | 5.6   |                                        |                              |                  |                          |       |
| $f_{151}$                              | 23.2104±0.0032               | 0.11±0.05        | 1.77±0.20                | 5.6   |                                        |                              |                  |                          |       |
| $f_{152}$                              | 1.7303±0.0033                | 0.11±0.05        | -1.51±0.20               | 5.5   |                                        |                              |                  |                          |       |
| $f_{153}$                              | 1.2822±0.0032                | 0.11±0.05        | 2.36±0.20                | 5.7   |                                        |                              |                  |                          |       |
| $f_{154}$                              | 23.6446±0.0032               | 0.11±0.05        | -0.44±0.20               | 5.6   |                                        |                              |                  |                          |       |
| $f_{155}$                              | 2.1800±0.0033                | 0.11±0.05        | 1.46±0.20                | 5.5   |                                        |                              |                  |                          |       |
| $f_{156}$                              | 55.8530±0.0033               | 0.12±0.05        | -1.66±0.20               | 5.4   |                                        |                              |                  |                          |       |
| $f_{160}$                              | 4.0129±0.0032                | 0.11±0.05        | 2.16±0.20                | 5.6   |                                        |                              |                  |                          |       |
| $f_{163}$                              | 18.7146±0.0033               | 0.11±0.05        | -1.66±0.20               | 5.5   |                                        |                              |                  |                          |       |
| $f_{164}$                              | 23.4019±0.0033               | 0.11±0.05        | 0.52±0.20                | 5.5   |                                        |                              |                  |                          |       |
| $f_{165}$                              | 43.0095±0.0033               | 0.11±0.05        | 1.70±0.20                | 5.4   |                                        |                              |                  |                          |       |
| $f_{166}$                              | 0.6072±0.0033                | 0.11±0.05        | 0.41±0.20                | 5.3   |                                        |                              |                  |                          |       |
| $f_{167}$                              | 21.0220±0.0033               | 0.11±0.05        | -0.85±0.20               | 5.4   |                                        |                              |                  |                          |       |
| $f_{168}$                              | 16.9396±0.0033               | 0.11±0.05        | 1.70±0.20                | 5.3   |                                        |                              |                  |                          |       |
| $f_{170}$                              | 0.6468±0.0033                | 0.11±0.05        | -3.00±0.20               | 5.3   |                                        |                              |                  |                          |       |
| $f_{171}$                              | 0.6817±0.0032                | 0.11±0.05        | 0.32±0.20                | 5.6   |                                        |                              |                  |                          |       |
| $f_{172}$                              | 2.5962±0.0034                | 0.10±0.04        | -0.70±0.21               | 5.1   |                                        |                              |                  |                          |       |
| $f_{173}$                              | 4.3289±0.0034                | 0.11±0.05        | -0.05±0.21               | 5.1   |                                        |                              |                  |                          |       |
| Frequency list of 0102669994 continued |                              |                  |                          |       | Frequency list of 0102670590           |                              |                  |                          |       |
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_1$                                  | 2.8182±0.0005                | 0.73±0.04        | 1.98±0.03                | 279.1 | $f_1$                                  | 2.8182±0.0005                | 0.73±0.04        | 1.98±0.03                | 279.1 |
| $f_2$                                  | 2.5691±0.0005                | 0.66±0.04        | -3.01±0.03               | 244.2 | $f_2$                                  | 2.5691±0.0005                | 0.66±0.04        | -3.01±0.03               | 244.2 |
| $f_3$                                  | 2.3535±0.0006                | 0.50±0.04        | -0.61±0.04               | 172.6 | $f_3$                                  | 2.3535±0.0006                | 0.50±0.04        | -0.61±0.04               | 172.6 |
| $f_5$                                  | 4.9225±0.0009                | 0.31±0.04        | -0.85±0.06               | 65.5  | $f_5$                                  | 4.9225±0.0009                | 0.31±0.04        | -0.85±0.06               | 65.5  |
| $f_6$                                  | 5.1726±0.0010                | 0.30±0.04        | 2.37±0.06                | 60.2  | $f_6$                                  | 5.1726±0.0010                | 0.30±0.04        | 2.37±0.06                | 60.2  |
| $f_7$                                  | 19.5205±0.0010               | 0.29±0.04        | 0.39±0.06                | 54.0  | $f_7$                                  | 19.5205±0.0010               | 0.29±0.04        | 0.39±0.06                | 54.0  |
| $f_{10}$                               | 25.6318±0.0012               | 0.23±0.04        | 1.39±0.08                | 37.4  | $f_{10}$                               | 25.6318±0.0012               | 0.23±0.04        | 1.39±0.08                | 37.4  |
| $f_{11}$                               | 5.2976±0.0013                | 0.22±0.04        | 2.01±0.08                | 34.3  | $f_{11}$                               | 5.2976±0.0013                | 0.22±0.04        | 2.01±0.08                | 34.3  |
| $f_{12}$                               | 4.1945±0.0013                | 0.21±0.04        | -0.48±0.08               | 34.7  | $f_{12}$                               | 4.1945±0.0013                | 0.21±0.04        | -0.48±0.08               | 34.7  |
| $f_{14}$                               | 0.2481±0.0013                | 0.20±0.04        | 0.69±0.08                | 32.5  | $f_{14}$                               | 0.2481±0.0013                | 0.20±0.04        | 0.69±0.08                | 32.5  |
| $f_{15}$                               | 0.2208±0.0014                | 0.22±0.04        | 1.83±0.09                | 28.5  | $f_{15}$                               | 0.2208±0.0014                | 0.22±0.04        | 1.83±0.09                | 28.5  |
| $f_{16}$                               | 0.1393±0.0014                | 0.24±0.04        | -0.76±0.09               | 29.3  | $f_{16}$                               | 0.1393±0.0014                | 0.24±0.04        | -0.76±0.09               | 29.3  |
| $f_{17}$                               | 3.6935±0.0014                | 0.19±0.04        | 0.39±0.09                | 28.3  | $f_{17}$                               | 3.6935±0.0014                | 0.19±0.04        | 0.39±0.09                | 28.3  |
| $f_{18}$                               | 0.1526±0.0016                | 0.18±0.04        | -2.46±0.10               | 23.3  | $f_{18}$                               | 0.1526±0.0016                | 0.18±0.04        | -2.46±0.10               | 23.3  |
| $f_{21}$                               | 0.1177±0.0017                | 0.17±0.04        | 1.48±0.10                | 20.4  | $f_{21}$                               | 0.1177±0.0017                | 0.17±0.04        | 1.48±0.10                | 20.4  |
| $f_{23}$                               | 0.1831±0.0018                | 0.12±0.03        | 1.34±0.11                | 18.3  | $f_{23}$                               | 0.1831±0.0018                | 0.12±0.03        | 1.34±0.11                | 18.3  |
| $f_{25}$                               | 3.8305±0.0018                | 0.15±0.04        | -0.63±0.11               | 17.5  | $f_{25}$                               | 3.8305±0.0018                | 0.15±0.04        | -0.63±0.11               | 17.5  |
| $f_{26}$                               | 13.1247±0.0018               | 0.14±0.03        | 0.70±0.11                | 17.1  | $f_{26}$                               | 13.1247±0.0018               | 0.14±0.03        | 0.70±0.11                | 17.1  |
| $f_{27}$                               | 4.6416±0.0019                | 0.14±0.03        | 0.80±0.12                | 16.3  | $f_{27}$                               | 4.6416±0.0019                | 0.14±0.03        | 0.80±0.12                | 16.3  |
| $f_{29}$                               | 0.5342±0.0019                | 0.13±0.03        | -0.63±0.12               | 15.4  | $f_{29}$                               | 0.5342±0.0019                | 0.13±0.03        | -0.63±0.12               | 15.4  |
| $f_{30}$                               | 13.9458±0.0020               | 0.14±0.04        | 1.77±0.12                | 15.3  | $f_{30}$                               | 13.9458±0.0020               | 0.14±0.04        | 1.77±0.12                | 15.3  |
| $f_{31}$                               | 2.3481±0.0020                | 0.12±0.03        | -1.99±0.12               | 14.9  | $f_{31}$                               | 2.3481±0.0020                | 0.12±0.03        | -1.99±0.12               | 14.9  |
| $f_{35}$                               | 2.0248±0.0021                | 0.13±0.04        | -1.43±0.13               | 13.6  | $f_{35}$                               | 2.0248±0.0021                | 0.13±0.04        | -1.43±0.13               | 13.6  |
| $f_{37}$                               | 0.1313±0.0022                | 0.12±0.03        | 2.14±0.14                | 11.8  | $f_{37}$                               | 0.1313±0.0022                | 0.12±0.03        | 2.14±0.14                | 11.8  |
| $f_{38}$                               | 0.1946±0.0021                | 0.13±0.04        | 2.44±0.13                | 12.7  | $f_{38}$                               | 0.1946±0.0021                | 0.13±0.04        | 2.44±0.13                | 12.7  |
| $f_{39}$                               | 3.0517±0.0022                | 0.11±0.03        | -2.93±0.14               | 11.8  | $f_{39}$                               | 3.0517±0.0022                | 0.11±0.03        | -2.93±0.14               | 11.8  |
| $f_{40}$                               | 1.2141±0.0022                | 0.12±0.03        | -2.68±0.14               | 11.9  | $f_{40}$                               | 1.2141±0.0022                | 0.12±0.03        | -2.68±0.14               | 11.9  |
| $f_{41}$                               | 34.0104±0.0022               | 0.12±0.03        | 2.35±0.14                | 11.8  | $f_{41}$                               | 34.0104±0.0022               | 0.12±0.03        | 2.35±0.14                | 11.8  |
| $f_{42}$                               | 1.5557±0.0023                | 0.12±0.04        | 0.46±0.14                | 11.4  | $f_{42}$                               | 1.5557±0.0023                | 0.12±0.04        | 0.46±0.14                | 11.4  |
| $f_{43}$                               | 19.7053±0.0022               | 0.12±0.04        | 2.98±0.14                | 11.6  | $f_{43}$                               | 19.7053±0.0022               | 0.12±0.04        | 2.98±0.14                | 11.6  |
| $f_{44}$                               | 5.4175±0.0023                | 0.11±0.03        | -0.45±0.14               | 11.1  | $f_{44}$                               | 5.4175±0.0023                | 0.11±0.03        | -0.45±0.14               | 11.1  |
| $f_{47}$                               | 0.2543±0.0024                | 0.10±0.03        | 1.09±0.15                | 9.8   | $f_{47}$                               | 0.2543±0.0024                | 0.10±0.03        | 1.09±0.15                | 9.8   |
| $f_{48}$                               | 2.3337±0.0025                | 0.11±0.04        | -0.79±0.15               | 9.7   | $f_{48}$                               | 2.3337±0.0025                | 0.11±0.04        | -0.79±0.15               | 9.7   |
| $f_{49}$                               | 4.7103±0.0025                | 0.10±0.03        | -0.01±0.15               | 9.6   | $f_{49}$                               | 4.7103±0.0                   |                  |                          |       |

## Appendix D. Frequencies of individual Hybrid Stars

| Frequency list of 0102673929 continued |                              |                  |                          |       | Frequency list of 0102673929 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_7$                                  | 14.5208±0.0006               | 0.89±0.07        | 1.57±0.04                | 165.0 | $f_{113}$                              | 27.6025±0.0020               | 0.13±0.03        | -2.47±0.12               | 14.6  |
| $f_8$                                  | 14.8858±0.0006               | 0.80±0.07        | 2.98±0.04                | 147.4 | $f_{115}$                              | 29.2700±0.0021               | 0.13±0.03        | 0.88±0.13                | 13.8  |
| $f_9$                                  | 16.1645±0.0006               | 0.77±0.06        | -0.03±0.04               | 146.5 | $f_{116}$                              | 15.5187±0.0021               | 0.14±0.04        | -0.09±0.13               | 13.6  |
| $f_{10}$                               | 20.3375±0.0006               | 0.81±0.07        | 1.48±0.04                | 152.4 | $f_{117}$                              | 4.6188±0.0021                | 0.13±0.04        | -2.88±0.13               | 13.4  |
| $f_{11}$                               | 18.7228±0.0006               | 0.77±0.06        | -0.41±0.04               | 144.9 | $f_{118}$                              | 20.7240±0.0021               | 0.13±0.04        | -1.41±0.13               | 13.5  |
| $f_{12}$                               | 13.1091±0.0006               | 0.71±0.06        | 0.11±0.04                | 148.3 | $f_{119}$                              | 2.0056±0.0021                | 0.23±0.06        | -0.48±0.13               | 13.3  |
| $f_{13}$                               | 12.4650±0.0006               | 0.74±0.06        | -1.18±0.04               | 139.1 | $f_{120}$                              | 0.9842±0.0022                | 0.13±0.04        | 2.26±0.13                | 12.2  |
| $f_{14}$                               | 18.2083±0.0007               | 0.70±0.06        | -0.05±0.04               | 136.8 | $f_{121}$                              | 18.1854±0.0022               | 0.12±0.03        | 2.95±0.13                | 12.3  |
| $f_{15}$                               | 10.9488±0.0007               | 0.65±0.06        | 2.13±0.04                | 124.0 | $f_{122}$                              | 21.7489±0.0022               | 0.12±0.03        | 1.02±0.13                | 12.5  |
| $f_{16}$                               | 11.3100±0.0007               | 0.67±0.06        | -2.94±0.04               | 128.6 | $f_{123}$                              | 19.1512±0.0022               | 0.13±0.04        | -2.56±0.13               | 12.6  |
| $f_{17}$                               | 13.2846±0.0007               | 0.67±0.06        | -0.83±0.04               | 131.5 | $f_{125}$                              | 17.4559±0.0022               | 0.12±0.03        | -2.56±0.13               | 12.0  |
| $f_{18}$                               | 20.7639±0.0007               | 0.64±0.06        | 1.61±0.04                | 124.6 | $f_{128}$                              | 20.2482±0.0022               | 0.11±0.03        | -2.09±0.14               | 11.8  |
| $f_{19}$                               | 12.2386±0.0007               | 0.59±0.05        | -0.11±0.04               | 121.0 | $f_{129}$                              | 23.7011±0.0022               | 0.12±0.03        | -0.37±0.14               | 11.9  |
| $f_{20}$                               | 13.1733±0.0008               | 0.55±0.05        | 2.34±0.05                | 102.7 | $f_{130}$                              | 5.1514±0.0023                | 0.11±0.03        | 1.20±0.14                | 10.9  |
| $f_{22}$                               | 1.0864±0.0008                | 0.53±0.05        | 3.03±0.05                | 93.7  | $f_{131}$                              | 12.9031±0.0023               | 0.11±0.03        | -2.64±0.14               | 10.7  |
| $f_{23}$                               | 11.4475±0.0008               | 0.51±0.05        | -2.59±0.05               | 98.2  | $f_{132}$                              | 2.8414±0.0023                | 0.11±0.03        | 1.08±0.14                | 11.0  |
| $f_{24}$                               | 14.6198±0.0008               | 0.52±0.05        | 1.11±0.05                | 94.7  | $f_{133}$                              | 3.2780±0.0023                | 0.11±0.03        | 1.37±0.14                | 10.7  |
| $f_{25}$                               | 21.3350±0.0008               | 0.49±0.05        | -1.53±0.05               | 88.5  | $f_{134}$                              | 7.7557±0.0023                | 0.11±0.03        | -1.93±0.14               | 10.7  |
| $f_{26}$                               | 2.2807±0.0009                | 0.41±0.05        | -2.28±0.05               | 73.0  | $f_{135}$                              | 16.7547±0.0023               | 0.12±0.04        | 1.83±0.14                | 10.7  |
| $f_{27}$                               | 24.3316±0.0009               | 0.42±0.05        | 1.13±0.06                | 71.2  | $f_{137}$                              | 6.3477±0.0024                | 0.11±0.03        | 3.01±0.14                | 10.5  |
| $f_{28}$                               | 11.1245±0.0009               | 0.43±0.05        | -2.16±0.06               | 70.4  | $f_{138}$                              | 2.2910±0.0023                | 0.11±0.03        | 0.97±0.14                | 10.8  |
| $f_{32}$                               | 24.6731±0.0009               | 0.39±0.05        | -1.41±0.06               | 64.6  | $f_{139}$                              | 1.2810±0.0024                | 0.10±0.03        | 0.13±0.14                | 10.4  |
| $f_{33}$                               | 1.1283±0.0010                | 0.36±0.05        | -1.19±0.06               | 62.1  | $f_{141}$                              | 0.6308±0.0024                | 0.11±0.03        | -2.71±0.15               | 10.3  |
| $f_{34}$                               | 5.8835±0.0010                | 0.37±0.05        | -0.74±0.06               | 60.1  | $f_{142}$                              | 4.4368±0.0024                | 0.09±0.03        | -0.26±0.15               | 10.3  |
| $f_{36}$                               | 13.3173±0.0011               | 0.33±0.05        | -2.87±0.07               | 50.4  | $f_{143}$                              | 0.1210±0.0024                | 0.10±0.03        | -1.33±0.15               | 10.3  |
| $f_{37}$                               | 5.8137±0.0011                | 0.33±0.05        | -1.76±0.07               | 50.2  | $f_{144}$                              | 7.2162±0.0024                | 0.10±0.03        | 2.26±0.15                | 10.2  |
| $f_{38}$                               | 5.2236±0.0011                | 0.34±0.05        | 0.65±0.06                | 51.8  | $f_{145}$                              | 4.1383±0.0024                | 0.11±0.04        | -2.13±0.15               | 9.8   |
| $f_{39}$                               | 1.0189±0.0011                | 0.29±0.04        | -0.80±0.07               | 47.2  | $f_{147}$                              | 4.0107±0.0025                | 0.20±0.06        | -3.01±0.15               | 9.6   |
| $f_{40}$                               | 1.1611±0.0011                | 0.30±0.04        | -0.33±0.07               | 46.2  | $f_{155}$                              | 23.3418±0.0024               | 0.11±0.03        | -1.51±0.15               | 9.9   |
| $f_{41}$                               | 2.0055±0.0011                | 1.09±0.16        | 1.99±0.07                | 45.1  | $f_{158}$                              | 1.9124±0.0025                | 0.10±0.03        | 2.95±0.15                | 9.5   |
| $f_{42}$                               | 18.7653±0.0011               | 0.33±0.05        | 0.07±0.07                | 46.0  | $f_{160}$                              | 0.1375±0.0025                | 0.10±0.03        | 2.04±0.15                | 9.4   |
| $f_{43}$                               | 18.8216±0.0011               | 0.29±0.04        | 2.75±0.07                | 45.1  | $f_{162}$                              | 0.6527±0.0025                | 0.11±0.04        | -2.24±0.15               | 9.7   |
| $f_{45}$                               | 16.1542±0.0012               | 0.29±0.05        | 2.38±0.07                | 41.1  | $f_{163}$                              | 6.9365±0.0026                | 0.09±0.03        | 0.98±0.16                | 8.9   |
| $f_{47}$                               | 6.7168±0.0013                | 0.26±0.04        | 2.38±0.08                | 35.9  | $f_{164}$                              | 6.9146±0.0025                | 0.10±0.03        | 2.56±0.15                | 9.2   |
| $f_{49}$                               | 11.7105±0.0013               | 0.26±0.04        | -0.61±0.08               | 35.8  | $f_{165}$                              | 20.3170±0.0026               | 0.09±0.03        | -1.72±0.16               | 8.8   |
| $f_{50}$                               | 2.2468±0.0013                | 0.24±0.04        | 1.94±0.08                | 35.7  | $f_{167}$                              | 6.6447±0.0026                | 0.09±0.03        | -0.28±0.16               | 8.6   |
| $f_{61}$                               | 10.2871±0.0014               | 0.22±0.04        | -1.43±0.08               | 30.9  | $f_{171}$                              | 25.7442±0.0025               | 0.09±0.03        | -0.67±0.16               | 9.0   |
| $f_{62}$                               | 15.6080±0.0014               | 0.22±0.04        | -2.00±0.09               | 28.9  | $f_{174}$                              | 19.0133±0.0026               | 0.10±0.03        | -1.50±0.16               | 8.8   |
| $f_{63}$                               | 21.0799±0.0014               | 0.23±0.04        | -1.15±0.09               | 28.5  | $f_{175}$                              | 11.2170±0.0026               | 0.10±0.03        | -2.96±0.16               | 8.6   |
| $f_{64}$                               | 0.7959±0.0014                | 0.20±0.04        | 2.25±0.09                | 28.1  | $f_{177}$                              | 0.7668±0.0026                | 0.10±0.03        | 1.59±0.16                | 8.6   |
| $f_{65}$                               | 15.9072±0.0014               | 0.22±0.04        | 0.18±0.09                | 28.5  | $f_{178}$                              | 0.8093±0.0026                | 0.10±0.03        | 1.29±0.16                | 8.9   |
| $f_{66}$                               | 14.1723±0.0015               | 0.21±0.04        | -0.25±0.09               | 27.0  | $f_{179}$                              | 5.7116±0.0026                | 0.08±0.03        | 2.04±0.16                | 8.5   |
| $f_{67}$                               | 5.6317±0.0015                | 0.21±0.04        | 2.92±0.09                | 24.5  | $f_{180}$                              | 15.6567±0.0026               | 0.09±0.03        | 2.69±0.16                | 8.8   |
| $f_{68}$                               | 0.5889±0.0015                | 0.21±0.04        | 0.82±0.09                | 24.7  | $f_{181}$                              | 5.6406±0.0026                | 0.08±0.03        | -2.67±0.16               | 8.3   |
| $f_{69}$                               | 22.9562±0.0015               | 0.18±0.04        | -1.27±0.09               | 24.5  | $f_{182}$                              | 4.5026±0.0026                | 0.09±0.03        | 2.03±0.16                | 8.6   |
| $f_{71}$                               | 15.0719±0.0015               | 0.20±0.04        | -1.79±0.09               | 25.8  | $f_{183}$                              | 14.3272±0.0026               | 0.09±0.03        | 0.69±0.16                | 8.3   |
| $f_{74}$                               | 13.9434±0.0016               | 0.20±0.04        | -1.08±0.10               | 23.6  | $f_{190}$                              | 6.0290±0.0027                | 0.08±0.03        | 0.70±0.17                | 7.9   |
| $f_{76}$                               | 5.5222±0.0016                | 0.17±0.04        | 0.46±0.10                | 21.8  | $f_{191}$                              | 55.8621±0.0027               | 0.10±0.04        | 1.41±0.17                | 7.9   |
| $f_{77}$                               | 13.6278±0.0016               | 0.17±0.04        | -2.90±0.10               | 21.5  | $f_{192}$                              | 4.8793±0.0027                | 0.10±0.03        | -3.11±0.16               | 8.2   |
| $f_{78}$                               | 19.3734±0.0016               | 0.17±0.04        | -0.49±0.10               | 21.7  | $f_{193}$                              | 5.5753±0.0027                | 0.11±0.04        | -2.27±0.17               | 7.9   |
| $f_{79}$                               | 1.0523±0.0016                | 0.19±0.04        | 2.66±0.10                | 21.8  | $f_{194}$                              | 5.5944±0.0027                | 0.10±0.04        | 0.94±0.16                | 8.1   |
| $f_{80}$                               | 0.1656±0.0017                | 0.20±0.04        | -2.72±0.10               | 21.0  | $f_{195}$                              | 8.9012±0.0027                | 0.10±0.04        | 1.53±0.16                | 8.0   |
| $f_{81}$                               | 4.7974±0.0017                | 0.16±0.04        | 3.06±0.10                | 20.7  | $f_{196}$                              | 18.0416±0.0028               | 0.09±0.03        | -2.11±0.17               | 7.6   |
| $f_{82}$                               | 22.1205±0.0017               | 0.17±0.04        | 0.24±0.10                | 20.3  | $f_{197}$                              | 0.5492±0.0027                | 0.09±0.03        | 1.49±0.17                | 7.9   |
| $f_{83}$                               | 2.3172±0.0018                | 0.16±0.04        | 2.02±0.11                | 18.8  | $f_{198}$                              | 4.6879±0.0028                | 0.09±0.03        | -0.94±0.17               | 7.7   |
| $f_{84}$                               | 16.0686±0.0018               | 0.17±0.04        | -1.49±0.11               | 18.7  | $f_{199}$                              | 17.8381±0.0027               | 0.09±0.03        | 0.42±0.16                | 8.0   |
| $f_{85}$                               | 1.1940±0.0017                | 0.16±0.04        | -3.09±0.11               | 19.4  | $f_{201}$                              | 0.2527±0.0028                | 0.08±0.03        | 2.33±0.17                | 7.4   |
| $f_{86}$                               | 4.7276±0.0018                | 0.16±0.04        | 0.31±0.11                | 18.8  | $f_{202}$                              | 19.0902±0.0028               | 0.08±0.03        | -0.10±0.17               | 7.3   |
| $f_{87}$                               | 28.2561±0.0017               | 0.17±0.04        | 1.95±0.11                | 19.5  | $f_{204}$                              | 5.3870±0.0029                | 0.09±0.03        | -1.00±0.17               | 7.1   |
| $f_{88}$                               | 17.9205±0.0017               | 0.15±0.03        | -2.28±0.11               | 19.4  | $f_{205}$                              | 25.4630±0.0028               | 0.08±0.03        | 0.21±0.17                | 7.2   |
| $f_{89}$                               | 16.6485±0.0018               | 0.17±0.04        | 2.42±0.11                | 18.8  | $f_{206}$                              | 5.0441±0.0028                | 0.09±0.03        | 3.08±0.17                | 7.2   |
| $f_{90}$                               | 19.0267±0.0018               | 0.18±0.04        | 1.33±0.11                | 18.8  | $f_{208}$                              | 4.4496±0.0029                | 0.08±0.03        | -0.69±0.18               | 7.0   |
| $f_{91}$                               | 13.7308±0.0018               | 0.16±0.04        | 1.07±0.11                | 18.2  | $f_{209}$                              | 14.2516±0.0029               | 0.09±0.03        | 0.75±0.17                | 7.1   |
| $f_{92}$                               | 18.1495±0.0018               | 0.15±0.03        | -3.10±0.11               | 18.9  | $f_{210}$                              | 9.3541±0.0029                | 0.09±0.03        | 0.32±0.17                | 7.1   |
| $f_{93}$                               | 15.3305±0.0018               | 0.16±0.04        | 2.52±0.11                | 18.0  | $f_{211}$                              | 1.6672±0.0029                | 0.08±0.03        | 0.63±0.18                | 6.9   |
| $f_{94}$                               | 12.0029±0.0018               | 0.16±0.04        | -2.16±0.11               | 17.7  | $f_{212}$                              | 0.1972±0.0029                | 0.10±0.04        | -2.48±0.18               | 6.9   |
| $f_{95}$                               | 17.7595±0.0018               | 0.15±0.04        | -2.13±0.11               | 18.1  | $f_{213}$                              | 0.2204±0.0029                | 0.09±0.03        | -1.08±0.17               | 7.1   |
| $f_{96}$                               | 13.9266±0.0018               | 0.16±0.04        | 2.54±0.11                | 17.7  | $f_{214}$                              | 18.4952±0.0029               | 0.09±0.03        | -1.37±0.18               | 6.9   |
| $f_{102}$                              | 16.3919±0.0018               | 0.15±0.04        | 0.39±0.11                | 17.4  | $f_{215}$                              | 1.0430±0.0029                | 0.08±0.03        | -2.09±0.18               | 7.0   |
| $f_{103}$                              | 26.7925±0.0018               | 0.15±0.04        | -1.79±0.11               | 17.4  | $f_{216}$                              | 6.3081±0.0029                | 0.08±0.03        | 3.03±0.18                | 6.8   |
| $f_{104}$                              | 12.8935±0.0019               | 0.14±0.03        | 0.40±0.11                | 16.9  | $f_{217}$                              | 5.1873±0.0029                | 0.09±0.03        | -0.83±0.18               | 7.0   |
| $f_{105}$                              | 22.9813±0.0019               | 0.15±0.04        | -1.84±0.11               | 16.9  | $f_{218}$                              | 14.1484±0.0029               | 0.09±0.03        | 0.06±0.17                | 7.1   |
| $f_{107}$                              | 5.2629±0.0019                | 0.13±0.03        | -1.97±0.12               | 15.9  | $f_{221}$                              | 0.1752±0.0029                | 0.09±0.03        | -2.59±0.18               | 7.0   |
| $f_{108}$                              | 2.2131±0.0019                | 0.13±0.03        | -1.93±0.12               | 15.7  | $f_{222}$                              | 0.5355±0.0029                | 0.09±0.03        | -1.05±0.17               | 7.1   |
| $f_{111}$                              | 17.3920±0.0020               | 0.14±0.04        | -0.17±0.12               | 14.4  | $f_{223}$                              | 19.5392±0.0029               | 0.08±0.03        | 2.29±0.17                | 7.1   |
| $f_{112}$                              | 0.9925±0.0020                | 0.13±0.03        | 2.64±0.12                | 14.2  | $f_{224}$                              | 16.8161±0.0029               | 0.08±0.03        | 0.83±0.18                | 6.9   |
| Frequency list of 0102673929 continued |                              |                  |                          |       | Frequency list of 0102673929 continued |                              |                  |                          |       |

## Appendix D. Frequencies of individual Hybrid Stars

| Frequency list of 0102673929 continued |                              |                  |                          |       | Frequency list of 0102676137 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{225}$                              | 28.4322±0.0029               | 0.08±0.03        | -0.47±0.18               | 6.9   | $f_{32}$                               | 0.1939±0.0017                | 0.17±0.04        | -2.90±0.10               | 21.3  |
| $f_{226}$                              | 0.9172±0.0029                | 0.08±0.03        | -0.33±0.18               | 6.7   | $f_{33}$                               | 2.6320±0.0017                | 0.19±0.04        | 0.68±0.10                | 20.6  |
| $f_{228}$                              | 6.4767±0.0029                | 0.08±0.03        | -0.48±0.18               | 6.7   | $f_{34}$                               | 2.7308±0.0018                | 0.16±0.04        | -2.01±0.11               | 17.2  |
| $f_{229}$                              | 22.6907±0.0029               | 0.08±0.03        | -0.54±0.18               | 6.7   | $f_{37}$                               | 0.1171±0.0019                | 0.16±0.04        | -0.56±0.11               | 16.7  |
| $f_{230}$                              | 26.9238±0.0029               | 0.08±0.03        | -2.92±0.18               | 7.0   | $f_{38}$                               | 1.0998±0.0019                | 0.16±0.04        | -0.06±0.11               | 16.9  |
| $f_{232}$                              | 7.0077±0.0030                | 0.08±0.03        | -2.84±0.18               | 6.5   | $f_{39}$                               | 0.2190±0.0019                | 0.14±0.04        | -0.52±0.12               | 15.8  |
| $f_{234}$                              | 21.5096±0.0030               | 0.08±0.03        | -2.79±0.19               | 6.3   | $f_{41}$                               | 7.0715±0.0020                | 0.15±0.04        | 2.04±0.12                | 15.1  |
| $f_{235}$                              | 20.7930±0.0030               | 0.08±0.03        | 1.12±0.18                | 6.5   | $f_{42}$                               | 2.5098±0.0020                | 0.14±0.04        | -1.44±0.12               | 14.9  |
| $f_{236}$                              | 4.4689±0.0030                | 0.08±0.03        | -1.85±0.19               | 6.3   | $f_{43}$                               | 1.4426±0.0020                | 0.14±0.04        | 2.03±0.12                | 15.1  |
| $f_{239}$                              | 0.4331±0.0030                | 0.08±0.03        | -1.72±0.18               | 6.5   | $f_{44}$                               | 5.2423±0.0021                | 0.14±0.04        | 1.14±0.13                | 13.8  |
| $f_{240}$                              | 4.5703±0.0031                | 0.08±0.03        | 0.20±0.19                | 6.2   | $f_{45}$                               | 0.3722±0.0020                | 0.15±0.04        | -0.02±0.12               | 13.9  |
| $f_{241}$                              | 1.7793±0.0030                | 0.08±0.03        | 0.47±0.19                | 6.3   | $f_{46}$                               | 0.2937±0.0020                | 0.13±0.03        | 3.02±0.12                | 14.6  |
| $f_{245}$                              | 0.9594±0.0031                | 0.07±0.03        | 1.20±0.19                | 6.2   | $f_{49}$                               | 1.2711±0.0021                | 0.14±0.04        | -2.12±0.13               | 13.2  |
| $f_{247}$                              | 7.8355±0.0031                | 0.08±0.03        | 0.25±0.19                | 6.2   | $f_{52}$                               | 2.4515±0.0022                | 0.13±0.04        | 1.18±0.13                | 12.6  |
| $f_{249}$                              | 25.6895±0.0031               | 0.07±0.03        | -2.43±0.19               | 6.2   | $f_{53}$                               | 0.2396±0.0022                | 0.14±0.04        | -0.15±0.13               | 12.0  |
| $f_{250}$                              | 2.2071±0.0030                | 0.08±0.03        | 0.73±0.19                | 6.3   | $f_{54}$                               | 0.4805±0.0022                | 0.13±0.04        | 1.64±0.14                | 11.8  |
| $f_{251}$                              | 5.5050±0.0031                | 0.08±0.03        | -0.61±0.19               | 6.0   | $f_{55}$                               | 2.5814±0.0022                | 0.12±0.03        | -0.55±0.14               | 11.8  |
| $f_{252}$                              | 41.8882±0.0031               | 0.07±0.03        | -3.13±0.19               | 6.0   | $f_{59}$                               | 0.2855±0.0023                | 0.13±0.04        | -0.30±0.14               | 11.0  |
| $f_{260}$                              | 27.0380±0.0031               | 0.07±0.03        | 0.38±0.19                | 6.2   | $f_{60}$                               | 0.3033±0.0023                | 0.13±0.04        | 0.77±0.14                | 10.9  |
| $f_{272}$                              | 4.2736±0.0030                | 0.08±0.03        | -0.18±0.18               | 6.5   | $f_{61}$                               | 0.1400±0.0023                | 0.12±0.04        | -2.29±0.14               | 10.7  |
| $f_{273}$                              | 6.2114±0.0031                | 0.07±0.03        | -3.11±0.19               | 6.2   | $f_{62}$                               | 0.1718±0.0024                | 0.09±0.03        | 0.50±0.14                | 10.5  |
| $f_{274}$                              | 5.7729±0.0031                | 0.07±0.03        | 1.74±0.19                | 5.9   | $f_{63}$                               | 2.0575±0.0024                | 0.12±0.04        | 2.47±0.15                | 10.3  |
| $f_{275}$                              | 7.2654±0.0031                | 0.07±0.03        | 2.98±0.19                | 5.9   | $f_{64}$                               | 0.9787±0.0025                | 0.11±0.04        | 2.10±0.15                | 9.6   |
| $f_{276}$                              | 6.1142±0.0031                | 0.07±0.03        | -1.89±0.19               | 6.0   | $f_{65}$                               | 6.4483±0.0025                | 0.11±0.04        | -0.14±0.15               | 9.3   |
| $f_{277}$                              | 15.6381±0.0031               | 0.07±0.03        | 0.42±0.19                | 5.9   | $f_{66}$                               | 2.2477±0.0025                | 0.11±0.04        | 2.00±0.15                | 9.3   |
| $f_{278}$                              | 0.3473±0.0031                | 0.07±0.03        | -2.06±0.19               | 5.9   | $f_{67}$                               | 0.5770±0.0025                | 0.11±0.04        | 2.69±0.15                | 9.3   |
| $f_{279}$                              | 3.6354±0.0032                | 0.07±0.03        | -0.77±0.19               | 5.8   | $f_{68}$                               | 5.1245±0.0025                | 0.11±0.04        | 2.01±0.15                | 9.4   |
| $f_{280}$                              | 6.3966±0.0032                | 0.07±0.03        | 2.12±0.20                | 5.6   | $f_{69}$                               | 7.2649±0.0025                | 0.11±0.04        | 0.82±0.16                | 9.0   |
| $f_{281}$                              | 5.6712±0.0032                | 0.07±0.03        | -0.07±0.20               | 5.6   | $f_{70}$                               | 4.9675±0.0025                | 0.11±0.04        | -0.25±0.15               | 9.1   |
| $f_{282}$                              | 5.0925±0.0033                | 0.07±0.03        | -0.77±0.20               | 5.5   | $f_{71}$                               | 6.3938±0.0026                | 0.11±0.04        | 0.64±0.16                | 8.6   |
| $f_{285}$                              | 0.7579±0.0032                | 0.07±0.03        | -1.20±0.20               | 5.7   | $f_{72}$                               | 0.1854±0.0026                | 0.11±0.04        | 1.90±0.16                | 8.3   |
| $f_{286}$                              | 2.9692±0.0033                | 0.07±0.03        | 0.57±0.20                | 5.5   | $f_{73}$                               | 0.4144±0.0026                | 0.10±0.03        | 2.85±0.16                | 8.4   |
| $f_{287}$                              | 0.6035±0.0033                | 0.07±0.03        | -0.57±0.20               | 5.5   | $f_{74}$                               | 1.3096±0.0027                | 0.10±0.03        | 0.29±0.16                | 8.2   |
| $f_{288}$                              | 16.6164±0.0032               | 0.07±0.03        | -3.12±0.20               | 5.6   | $f_{75}$                               | 0.3246±0.0027                | 0.10±0.04        | 0.41±0.16                | 8.0   |
| $f_{289}$                              | 1.0701±0.0033                | 0.07±0.03        | 0.76±0.20                | 5.4   | $f_{76}$                               | 1.7789±0.0027                | 0.11±0.04        | -2.21±0.16               | 8.1   |
| $f_{290}$                              | 10.1855±0.0033               | 0.07±0.03        | -2.20±0.20               | 5.4   | $f_{77}$                               | 1.8309±0.0027                | 0.10±0.04        | 0.64±0.16                | 8.1   |
| $f_{291}$                              | 0.8766±0.0033                | 0.07±0.03        | 0.33±0.20                | 5.5   | $f_{78}$                               | 0.3808±0.0028                | 0.10±0.04        | 0.66±0.17                | 7.6   |
| $f_{292}$                              | 5.6241±0.0033                | 0.07±0.03        | 2.50±0.20                | 5.3   | $f_{79}$                               | 0.3459±0.0028                | 0.10±0.04        | 3.08±0.17                | 7.7   |
| $f_{293}$                              | 5.9451±0.0033                | 0.07±0.03        | -0.47±0.20               | 5.3   | $f_{80}$                               | 0.7588±0.0028                | 0.10±0.04        | -0.91±0.17               | 7.5   |
| $f_{294}$                              | 5.9865±0.0031                | 0.07±0.03        | -1.94±0.19               | 6.0   | $f_{81}$                               | 8.7775±0.0028                | 0.10±0.04        | 0.54±0.17                | 7.3   |
| $f_{295}$                              | 3.5990±0.0033                | 0.07±0.03        | 2.07±0.20                | 5.3   | $f_{83}$                               | 0.2112±0.0028                | 0.10±0.04        | 2.49±0.17                | 7.5   |
| $f_{296}$                              | 14.5071±0.0033               | 0.07±0.03        | 2.74±0.20                | 5.2   | $f_{84}$                               | 0.5180±0.0028                | 0.10±0.04        | 0.64±0.17                | 7.2   |
| $f_{298}$                              | 6.8019±0.0033                | 0.07±0.03        | -1.87±0.20               | 5.3   | $f_{86}$                               | 1.2326±0.0029                | 0.09±0.03        | -0.67±0.18               | 6.8   |
| $f_{299}$                              | 6.7531±0.0033                | 0.07±0.03        | -0.32±0.20               | 5.3   | $f_{87}$                               | 5.9543±0.0029                | 0.09±0.03        | 0.87±0.18                | 6.9   |
| $f_{300}$                              | 36.9009±0.0033               | 0.07±0.03        | -0.66±0.20               | 5.2   | $f_{89}$                               | 0.1603±0.0030                | 0.10±0.04        | 0.01±0.18                | 6.5   |
| $f_{303}$                              | 15.8931±0.0033               | 0.07±0.03        | -2.74±0.20               | 5.2   | $f_{90}$                               | 7.3182±0.0030                | 0.09±0.04        | 2.14±0.18                | 6.5   |
| $f_{304}$                              | 4.0299±0.0034                | 0.07±0.03        | -2.30±0.21               | 5.1   | $f_{91}$                               | 1.0104±0.0029                | 0.10±0.04        | -1.16±0.18               | 6.7   |
|                                        |                              |                  |                          |       | $f_{92}$                               | 2.2025±0.0030                | 0.09±0.04        | -0.67±0.18               | 6.5   |
|                                        |                              |                  |                          |       | $f_{93}$                               | 0.4963±0.0030                | 0.09±0.04        | 1.62±0.18                | 6.6   |
|                                        |                              |                  |                          |       | $f_{94}$                               | 1.3320±0.0030                | 0.09±0.04        | -2.56±0.18               | 6.4   |
|                                        |                              |                  |                          |       | $f_{95}$                               | 0.2029±0.0030                | 0.09±0.04        | 1.84±0.18                | 6.4   |
|                                        |                              |                  |                          |       | $f_{96}$                               | 9.0196±0.0030                | 0.09±0.04        | 3.01±0.19                | 6.3   |
|                                        |                              |                  |                          |       | $f_{97}$                               | 5.2891±0.0030                | 0.09±0.04        | -0.25±0.18               | 6.5   |
|                                        |                              |                  |                          |       | $f_{98}$                               | 2.6803±0.0031                | 0.09±0.04        | 1.94±0.19                | 6.2   |
|                                        |                              |                  |                          |       | $f_{100}$                              | 5.7354±0.0031                | 0.09±0.04        | 0.82±0.19                | 6.2   |
|                                        |                              |                  |                          |       | $f_{101}$                              | 6.1322±0.0030                | 0.08±0.03        | -2.72±0.18               | 6.4   |
|                                        |                              |                  |                          |       | $f_{102}$                              | 0.7349±0.0031                | 0.09±0.04        | 1.05±0.19                | 6.2   |
|                                        |                              |                  |                          |       | $f_{103}$                              | 0.7096±0.0030                | 0.09±0.04        | 2.05±0.18                | 6.6   |
|                                        |                              |                  |                          |       | $f_{105}$                              | 2.3933±0.0031                | 0.09±0.04        | -0.32±0.19               | 5.9   |
|                                        |                              |                  |                          |       | $f_{106}$                              | 1.1206±0.0032                | 0.08±0.03        | 0.03±0.19                | 5.8   |
|                                        |                              |                  |                          |       | $f_{107}$                              | 6.4165±0.0032                | 0.09±0.04        | 2.57±0.19                | 5.8   |
|                                        |                              |                  |                          |       | $f_{110}$                              | 0.9853±0.0031                | 0.09±0.04        | -2.60±0.19               | 6.1   |
|                                        |                              |                  |                          |       | $f_{111}$                              | 5.2563±0.0032                | 0.09±0.04        | 2.05±0.20                | 5.7   |
|                                        |                              |                  |                          |       | $f_{112}$                              | 4.7879±0.0032                | 0.08±0.03        | 0.01±0.20                | 5.7   |
|                                        |                              |                  |                          |       | $f_{113}$                              | 5.9940±0.0033                | 0.08±0.03        | 2.75±0.20                | 5.5   |
|                                        |                              |                  |                          |       | $f_{115}$                              | 2.2862±0.0033                | 0.08±0.03        | 2.14±0.20                | 5.3   |
|                                        |                              |                  |                          |       | $f_{116}$                              | 8.2235±0.0033                | 0.08±0.03        | -0.99±0.20               | 5.4   |
|                                        |                              |                  |                          |       | $f_{117}$                              | 3.3308±0.0034                | 0.08±0.04        | 1.28±0.21                | 5.1   |
|                                        |                              |                  |                          |       | $f_{119}$                              | 0.8648±0.0034                | 0.08±0.04        | 0.18±0.21                | 5.1   |
|                                        |                              |                  |                          |       | $f_{120}$                              | 0.8018±0.0033                | 0.08±0.03        | -2.81±0.20               | 5.5   |
|                                        |                              |                  |                          |       | $f_{121}$                              | 4.0004±0.0034                | 0.08±0.04        | 0.85±0.21                | 5.1   |
|                                        |                              |                  |                          |       | $f_{122}$                              | 1.8151±0.0034                | 0.08±0.04        | -1.54±0.21               | 5.0   |

**Table D.26:** Frequency list of 0102676137

| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| $f_1$                                  | 2.5281±0.0004                | 0.86±0.05        | 2.28±0.03                | 298.3 |
| $f_2$                                  | 9.6822±0.0006                | 0.60±0.05        | 3.07±0.04                | 163.9 |
| $f_3$                                  | 1.3630±0.0006                | 0.55±0.05        | -1.73±0.04               | 145.7 |
| $f_4$                                  | 4.0836±0.0009                | 0.40±0.04        | -2.86±0.05               | 80.5  |
| $f_6$                                  | 1.5847±0.0009                | 0.36±0.04        | -1.45±0.06               | 67.7  |
| $f_7$                                  | 2.4622±0.0010                | 0.32±0.04        | -2.14±0.06               | 55.0  |
| $f_8$                                  | 1.2393±0.0011                | 0.30±0.04        | 0.56±0.06                | 51.5  |
| $f_9$                                  | 1.1657±0.0012                | 0.29±0.04        | -0.93±0.07               | 43.6  |
| $f_{11}$                               | 0.1311±0.0012                | 0.27±0.04        | 1.03±0.07                | 42.9  |
| $f_{12}$                               | 3.6899±0.0012                | 0.27±0.04        | -0.48±0.07               | 38.7  |
| $f_{13}$                               | 14.6110±0.0012               | 0.26±0.04        | 1.71±0.08                | 38.3  |
| $f_{14}$                               | 0.7499±0.0013                | 0.26±0.04        | -2.34±0.08               | 37.0  |
| $f_{15}$                               | 10.9217±0.0013               | 0.26±0.04        | -1.09±0.08               | 36.9  |
| $f_{17}$                               | 1.8726±0.0013                | 0.25±0.04        | -2.87±0.08               | 35.9  |
| $f_{18}$                               | 0.1776±0.0014                | 0.26±0.05        | -0.72±0.09               | 29.7  |
| $f_{21}$                               | 0.8838±0.0014                | 0.21±0.04        | 1.45±0.09                | 29.0  |
| $f_{22}$                               | 0.2721±0.0014                | 0.20±0.04        | 2.97±0.09                | 29.0  |
| $f_{23}$                               | 6.4107±0.0014                | 0.21±0.04        | 1.75±0.09                | 28.0  |
| $f_{24}$                               | 4.9279±0.0014                | 0.22±0.04        | -2.08±0.09               | 29.1  |
| $f_{25}$                               | 0.1533±0.0015                | 0.20±0.04        | -0.57±0.09               | 26.9  |
| $f_{26}$                               | 5.2500±0.0015                | 0.19±0.04        | -1.20±0.09               | 26.2  |
| $f_{27}$                               | 9.5876±0.0015                | 0.20±0.04        | -2.90±0.09               | 25.6  |
| $f_{28}$                               | 2.5994±0.0015                | 0.19±0.04        | 1.11±0.09                | 24.5  |
| $f_{29}$                               | 0.1049±0.0016                | 0.14±0.03        | -0.84±0.10               | 23.7  |
| $f_{30}$                               | 2.8085±0.0016                | 0.19±0.04        | 1.00±0.10                | 22.3  |
| $f_{31}$                               | 2.3795±0.0016                | 0.18±0.04        | -1.38±0.10               | 22.8  |
| Frequency list of 0102676137 continued |                              |                  |                          |       |

**Table D.27:** Frequency list of 0102676382

| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| $f_1$                                  | 5.5187±0.0006                | 0.41±0.03        | 1.40±0.04                | 169.9 |
| $f_2$                                  | 3.7623±0.0007                | 0.35±0.03        | 1.83±0.04                | 129.9 |
| $f_3$                                  | 4.0229±0.0008                | 0.30±0.03        | -2.15±0.05               | 103.1 |
| $f_4$                                  | 11.8656±0.0010               | 0.22±0.03        | 2.02±0.06                | 59.9  |
| Frequency list of 0102676382 continued |                              |                  |                          |       |



## Appendix D. Frequencies of individual Hybrid Stars

| Frequency list of 0102676382 continued |                              |                  |                          |       | Frequency list of 0102680857 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_5$                                  | 2.2654±0.0011                | 0.20±0.03        | -2.72±0.07               | 51.0  | $f_9$                                  | 26.0949±0.0013               | 0.11±0.02        | -2.94±0.08               | 32.6  |
| $f_6$                                  | 2.1335±0.0011                | 0.21±0.03        | -2.41±0.07               | 49.4  | $f_{10}$                               | 0.1348±0.0014                | 0.10±0.02        | 2.20±0.08                | 30.8  |
| $f_8$                                  | 3.8780±0.0012                | 0.17±0.03        | -1.20±0.07               | 39.0  | $f_{11}$                               | 3.1173±0.0014                | 0.10±0.02        | 1.03±0.09                | 27.8  |
| $f_{10}$                               | 3.4290±0.0012                | 0.17±0.03        | 0.90±0.08                | 38.2  | $f_{12}$                               | 28.8523±0.0015               | 0.09±0.02        | 0.61±0.09                | 24.6  |
| $f_{11}$                               | 0.2249±0.0013                | 0.20±0.03        | 1.25±0.08                | 37.2  | $f_{13}$                               | 34.9398±0.0015               | 0.09±0.02        | 1.62±0.09                | 24.6  |
| $f_{12}$                               | 0.1227±0.0013                | 0.18±0.03        | 0.24±0.08                | 35.6  | $f_{14}$                               | 0.2218±0.0015                | 0.08±0.02        | -1.54±0.09               | 25.6  |
| $f_{13}$                               | 3.5003±0.0013                | 0.16±0.03        | -1.43±0.08               | 36.7  | $f_{15}$                               | 0.1845±0.0016                | 0.08±0.02        | -2.51±0.10               | 22.7  |
| $f_{14}$                               | 24.1476±0.0013               | 0.15±0.03        | -1.17±0.08               | 32.4  | $f_{17}$                               | 32.0374±0.0017               | 0.09±0.02        | -0.86±0.10               | 20.9  |
| $f_{16}$                               | 0.5273±0.0014                | 0.15±0.03        | -2.81±0.09               | 29.4  | $f_{18}$                               | 44.7748±0.0017               | 0.08±0.02        | 1.61±0.10                | 20.2  |
| $f_{17}$                               | 0.2545±0.0015                | 0.14±0.03        | 1.91±0.09                | 27.5  | $f_{19}$                               | 2.4216±0.0017                | 0.08±0.02        | 0.36±0.10                | 19.9  |
| $f_{18}$                               | 5.1240±0.0015                | 0.14±0.03        | 0.91±0.09                | 27.2  | $f_{20}$                               | 5.3070±0.0017                | 0.08±0.02        | -1.67±0.11               | 19.3  |
| $f_{19}$                               | 0.4176±0.0015                | 0.14±0.03        | -2.30±0.09               | 27.4  | $f_{22}$                               | 26.6546±0.0019               | 0.07±0.02        | -1.63±0.12               | 15.9  |
| $f_{22}$                               | 2.5807±0.0015                | 0.13±0.03        | -0.78±0.09               | 25.3  | $f_{23}$                               | 0.1214±0.0020                | 0.07±0.02        | -2.10±0.12               | 14.3  |
| $f_{23}$                               | 0.3327±0.0015                | 0.13±0.03        | -0.34±0.09               | 24.8  | $f_{24}$                               | 31.1561±0.0020               | 0.07±0.02        | 2.77±0.12                | 14.5  |
| $f_{24}$                               | 3.6657±0.0016                | 0.12±0.02        | -1.90±0.10               | 23.5  | $f_{25}$                               | 30.6949±0.0021               | 0.06±0.02        | -0.37±0.13               | 13.2  |
| $f_{25}$                               | 0.1595±0.0016                | 0.13±0.03        | -1.26±0.10               | 23.4  | $f_{26}$                               | 0.2300±0.0022                | 0.06±0.02        | 3.00±0.13                | 12.6  |
| $f_{26}$                               | 0.2025±0.0016                | 0.15±0.03        | 0.57±0.10                | 21.7  | $f_{27}$                               | 0.1525±0.0022                | 0.07±0.02        | -2.43±0.13               | 12.0  |
| $f_{27}$                               | 11.5295±0.0016               | 0.12±0.03        | -0.87±0.10               | 21.5  | $f_{28}$                               | 0.1119±0.0022                | 0.06±0.02        | -0.10±0.14               | 11.6  |
| $f_{28}$                               | 0.1119±0.0017                | 0.10±0.02        | -2.56±0.10               | 21.1  | $f_{29}$                               | 0.6303±0.0022                | 0.06±0.02        | -3.02±0.13               | 12.3  |
| $f_{29}$                               | 3.3675±0.0017                | 0.12±0.03        | -2.87±0.10               | 21.0  | $f_{30}$                               | 38.5986±0.0023               | 0.06±0.02        | 1.15±0.14                | 11.1  |
| $f_{31}$                               | 0.4607±0.0017                | 0.11±0.02        | -2.51±0.10               | 19.7  | $f_{31}$                               | 2.1904±0.0023                | 0.06±0.02        | 0.19±0.14                | 10.9  |
| $f_{32}$                               | 7.4876±0.0017                | 0.12±0.03        | -0.64±0.10               | 20.4  | $f_{32}$                               | 0.2134±0.0025                | 0.05±0.02        | -1.60±0.15               | 9.4   |
| $f_{34}$                               | 2.8446±0.0018                | 0.11±0.03        | 0.33±0.11                | 17.5  | $f_{33}$                               | 7.3953±0.0025                | 0.05±0.02        | -1.26±0.15               | 9.4   |
| $f_{35}$                               | 0.2867±0.0018                | 0.10±0.02        | -2.99±0.11               | 17.2  | $f_{34}$                               | 0.4002±0.0025                | 0.05±0.02        | -0.11±0.15               | 9.7   |
| $f_{36}$                               | 0.1391±0.0018                | 0.11±0.03        | -2.88±0.11               | 17.1  | $f_{35}$                               | 5.1033±0.0026                | 0.05±0.02        | 1.31±0.16                | 8.7   |
| $f_{37}$                               | 0.2340±0.0019                | 0.10±0.02        | -0.68±0.11               | 16.6  | $f_{36}$                               | 1.6684±0.0026                | 0.05±0.02        | 2.35±0.16                | 8.4   |
| $f_{39}$                               | 2.5571±0.0019                | 0.10±0.03        | -0.42±0.12               | 15.8  | $f_{37}$                               | 1.7131±0.0027                | 0.05±0.02        | -0.92±0.16               | 8.1   |
| $f_{40}$                               | 0.1918±0.0019                | 0.10±0.03        | -0.97±0.12               | 15.4  | $f_{38}$                               | 0.7215±0.0026                | 0.05±0.02        | 1.82±0.16                | 8.4   |
| $f_{41}$                               | 0.3590±0.0020                | 0.09±0.02        | -2.81±0.12               | 14.3  | $f_{39}$                               | 15.5544±0.0028               | 0.05±0.02        | -0.45±0.17               | 7.6   |
| $f_{44}$                               | 5.5374±0.0022                | 0.08±0.02        | 1.37±0.13                | 12.0  | $f_{40}$                               | 29.7802±0.0028               | 0.05±0.02        | 0.88±0.17                | 7.4   |
| $f_{45}$                               | 0.1308±0.0022                | 0.09±0.03        | -0.89±0.14               | 11.9  | $f_{42}$                               | 0.1757±0.0028                | 0.04±0.01        | 3.11±0.17                | 7.2   |
| $f_{47}$                               | 6.0061±0.0023                | 0.08±0.02        | -0.46±0.14               | 11.3  | $f_{43}$                               | 20.7898±0.0028               | 0.05±0.02        | -0.06±0.17               | 7.2   |
| $f_{49}$                               | 0.2746±0.0024                | 0.10±0.03        | -2.20±0.15               | 9.9   | $f_{44}$                               | 11.4109±0.0028               | 0.05±0.02        | 0.21±0.17                | 7.2   |
| $f_{50}$                               | 0.2945±0.0023                | 0.09±0.03        | 2.38±0.14                | 10.8  | $f_{45}$                               | 0.6220±0.0029                | 0.05±0.02        | -1.75±0.18               | 6.8   |
| $f_{51}$                               | 1.5921±0.0025                | 0.08±0.03        | 1.56±0.15                | 9.7   | $f_{46}$                               | 0.7830±0.0029                | 0.04±0.02        | 2.89±0.18                | 6.7   |
| $f_{52}$                               | 4.7988±0.0024                | 0.07±0.02        | -0.99±0.15               | 10.0  | $f_{47}$                               | 0.3093±0.0029                | 0.05±0.02        | 0.53±0.18                | 6.8   |
| $f_{53}$                               | 0.3027±0.0025                | 0.08±0.03        | 2.97±0.15                | 9.7   | $f_{48}$                               | 20.3257±0.0030               | 0.04±0.02        | 2.59±0.19                | 6.3   |
| $f_{54}$                               | 0.3512±0.0024                | 0.09±0.03        | -2.85±0.14               | 10.5  | $f_{49}$                               | 3.7656±0.0031                | 0.04±0.02        | 3.06±0.19                | 6.2   |
| $f_{55}$                               | 0.2614±0.0024                | 0.08±0.03        | 1.38±0.15                | 10.1  | $f_{50}$                               | 23.5326±0.0030               | 0.04±0.02        | -1.22±0.19               | 6.3   |
| $f_{56}$                               | 4.4330±0.0024                | 0.08±0.03        | 2.43±0.15                | 10.0  | $f_{51}$                               | 3.0574±0.0031                | 0.04±0.02        | -1.29±0.19               | 6.1   |
| $f_{57}$                               | 7.7090±0.0025                | 0.07±0.02        | -0.37±0.15               | 9.5   | $f_{52}$                               | 4.9954±0.0032                | 0.04±0.02        | -2.43±0.19               | 5.8   |
| $f_{58}$                               | 0.5828±0.0025                | 0.08±0.03        | -1.30±0.15               | 9.4   | $f_{55}$                               | 1.2557±0.0032                | 0.04±0.02        | -1.98±0.20               | 5.7   |
| $f_{59}$                               | 1.0414±0.0025                | 0.07±0.02        | -0.44±0.15               | 9.3   | $f_{56}$                               | 40.1893±0.0032               | 0.04±0.02        | 2.23±0.19                | 5.8   |
| $f_{60}$                               | 0.2424±0.0025                | 0.08±0.03        | -2.19±0.15               | 9.6   | $f_{57}$                               | 24.8216±0.0032               | 0.04±0.02        | -2.81±0.20               | 5.7   |
| $f_{61}$                               | 3.5866±0.0026                | 0.07±0.02        | 0.05±0.16                | 8.9   | $f_{58}$                               | 0.6901±0.0033                | 0.04±0.02        | -2.09±0.20               | 5.5   |
| $f_{64}$                               | 0.7370±0.0026                | 0.07±0.02        | -0.97±0.16               | 8.9   | $f_{59}$                               | 37.4354±0.0032               | 0.04±0.02        | -2.74±0.20               | 5.6   |
| $f_{65}$                               | 0.8522±0.0026                | 0.08±0.03        | -1.37±0.16               | 8.8   | $f_{60}$                               | 0.6379±0.0033                | 0.04±0.02        | 1.82±0.20                | 5.5   |
| $f_{66}$                               | 0.6467±0.0026                | 0.07±0.02        | -3.02±0.16               | 8.8   | $f_{61}$                               | 9.7541±0.0033                | 0.04±0.02        | -2.09±0.20               | 5.3   |
| $f_{67}$                               | 0.4444±0.0026                | 0.07±0.02        | 3.12±0.16                | 8.3   | $f_{62}$                               | 2.6565±0.0034                | 0.04±0.02        | -2.93±0.21               | 5.1   |
| $f_{68}$                               | 0.3243±0.0026                | 0.08±0.03        | 0.47±0.16                | 8.4   | $f_{63}$                               | 29.8683±0.0033               | 0.04±0.02        | 0.48±0.20                | 5.2   |
| $f_{69}$                               | 7.3018±0.0027                | 0.07±0.02        | 0.25±0.16                | 8.2   | $f_{64}$                               | 1.2025±0.0033                | 0.04±0.02        | 0.55±0.20                | 5.2   |
| $f_{70}$                               | 4.8174±0.0027                | 0.07±0.02        | 1.47±0.16                | 8.2   | $f_{65}$                               | 0.4557±0.0034                | 0.04±0.02        | -2.45±0.21               | 5.0   |
| $f_{72}$                               | 1.6694±0.0028                | 0.06±0.02        | 2.50±0.17                | 7.5   |                                        |                              |                  |                          |       |
| $f_{73}$                               | 0.1688±0.0028                | 0.07±0.03        | 1.23±0.17                | 7.4   |                                        |                              |                  |                          |       |
| $f_{74}$                               | 5.6146±0.0028                | 0.06±0.02        | 2.57±0.17                | 7.4   |                                        |                              |                  |                          |       |
| $f_{76}$                               | 0.4990±0.0028                | 0.06±0.02        | -1.22±0.17               | 7.3   |                                        |                              |                  |                          |       |
| $f_{77}$                               | 8.7521±0.0028                | 0.07±0.03        | 1.58±0.17                | 7.2   |                                        |                              |                  |                          |       |
| $f_{78}$                               | 8.7623±0.0026                | 0.07±0.02        | -0.11±0.16               | 8.6   |                                        |                              |                  |                          |       |
| $f_{79}$                               | 0.9599±0.0028                | 0.06±0.02        | -0.83±0.17               | 7.3   |                                        |                              |                  |                          |       |
| $f_{80}$                               | 0.3433±0.0028                | 0.07±0.03        | 1.40±0.17                | 7.3   |                                        |                              |                  |                          |       |
| $f_{81}$                               | 0.8236±0.0028                | 0.06±0.02        | 1.78±0.17                | 7.3   |                                        |                              |                  |                          |       |
| $f_{82}$                               | 6.3560±0.0029                | 0.06±0.02        | 1.80±0.17                | 7.1   |                                        |                              |                  |                          |       |
| $f_{84}$                               | 1.0076±0.0029                | 0.07±0.03        | 1.00±0.18                | 6.9   |                                        |                              |                  |                          |       |
| $f_{85}$                               | 55.8662±0.0029               | 0.06±0.02        | -0.36±0.18               | 6.8   |                                        |                              |                  |                          |       |
| $f_{86}$                               | 15.6242±0.0029               | 0.06±0.02        | 2.35±0.18                | 6.8   |                                        |                              |                  |                          |       |
| $f_{87}$                               | 3.5785±0.0029                | 0.06±0.02        | -0.42±0.18               | 6.8   |                                        |                              |                  |                          |       |
| $f_{88}$                               | 0.4050±0.0030                | 0.06±0.02        | -2.29±0.18               | 6.5   |                                        |                              |                  |                          |       |
| $f_{89}$                               | 4.7009±0.0031                | 0.06±0.02        | 0.15±0.19                | 6.2   |                                        |                              |                  |                          |       |
| $f_{90}$                               | 8.3241±0.0031                | 0.06±0.02        | 1.48±0.19                | 6.0   |                                        |                              |                  |                          |       |

| Frequency list of 0102680857 |                              |                  |                          |       |
|------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                 | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_1$                        | 16.7010±0.0009               | 0.18±0.02        | -1.87±0.05               | 74.4  |
| $f_2$                        | 21.6808±0.0009               | 0.17±0.02        | -0.11±0.06               | 67.0  |
| $f_4$                        | 28.0697±0.0011               | 0.15±0.02        | 2.21±0.06                | 52.5  |
| $f_5$                        | 2.6502±0.0011                | 0.14±0.02        | 2.33±0.07                | 46.5  |
| $f_6$                        | 29.8372±0.0012               | 0.13±0.02        | -0.10±0.07               | 41.3  |
| $f_7$                        | 23.2489±0.0012               | 0.12±0.02        | -1.27±0.07               | 41.3  |
| $f_8$                        | 0.1055±0.0012                | 0.11±0.02        | 0.96±0.08                | 37.4  |

| Frequency list of 0102680857 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_1$                                  | 18.0678±0.0003               | 1.93±0.08        | 1.74±0.02                | 590.9 |
| $f_2$                                  | 20.3930±0.0003               | 1.65±0.07        | -0.29±0.02               | 503.4 |
| $f_3$                                  | 28.2740±0.0004               | 1.35±0.07        | 0.96±0.02                | 386.1 |
| $f_4$                                  | 19.3910±0.0004               | 1.37±0.07        | -3.05±0.02               | 437.8 |
| $f_5$                                  | 17.9375±0.0004               | 1.25±0.06        | 2.47±0.02                | 408.5 |
| $f_6$                                  | 2.2485±0.0004                | 1.25±0.06        | 1.32±0.02                | 453.2 |
| $f_7$                                  | 2.4184±0.0004                | 1.03±0.06        | 2.63±0.02                | 347.6 |
| $f_8$                                  | 18.6968±0.0004               | 0.91±0.05        | 2.59±0.03                | 298.9 |
| $f_9$                                  | 2.3278±0.0006                | 0.65±0.05        | 1.30±0.04                | 164.9 |
| $f_{10}$                               | 2.5187±0.0006                | 0.62±0.05        | 0.91±0.04                | 155.4 |
| $f_{11}$                               | 12.4199±0.0007               | 0.53±0.05        | -0.67±0.04               | 115.2 |
| $f_{12}$                               | 23.8021±0.0007               | 0.51±0.05        | -0.12±0.04               | 113.8 |
| $f_{13}$                               | 23.1028±0.0008               | 0.48±0.05        | -1.36±0.05               | 100.7 |
| $f_{14}$                               | 29.4907±0.0008               | 0.43±0.05        | -2.70±0.05               | 84.1  |
| $f_{15}$                               | 16.8256±0.0009               | 0.40±0.05        | 0.57±0.05                | 73.3  |
| $f_{17}$                               | 17.4200±0.0009               | 0.38±0.05        | -0.31±0.06               | 68.5  |
| $f_{18}$                               | 18.1513±0.0010               | 0.34±0.05        | -3.13±0.06               | 57.0  |
| $f_{19}$                               | 2.7651±0.0010                | 0.34±0.05        | 0.24±0.06                | 57.0  |
| $f_{20}$                               | 2.9172±0.0010                | 0.33±0.04        | 0.55±0.06                | 54.8  |
| $f_{21}$                               | 28.9129±0.0011               | 0.31±0.04        | -2.82±0.07               | 48.6  |
| $f_{22}$                               | 2.1132±0.0011                | 0.29±0.04        | 2.26±0.07                | 44.1  |
| $f_{23}$                               | 24.8549±0.0012               | 0.29±0.04        | -0.79±0.07               | 42.9  |

| Frequency list of 0102682594 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |

## Appendix D. Frequencies of individual Hybrid Stars

| Frequency list of 0102682594 continued |                              |                  |                          |       | Frequency list of 0102683908 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| <i>f</i> <sub>25</sub>                 | 16.3292±0.0013               | 0.25±0.04        | 2.48±0.08                | 32.8  | <i>f</i> <sub>8</sub>                  | 0.1222±0.0007                | 0.38±0.04        | 1.26±0.05                | 105.8 |
| <i>f</i> <sub>26</sub>                 | 3.0969±0.0015                | 0.22±0.04        | 1.27±0.09                | 26.4  | <i>f</i> <sub>9</sub>                  | 3.0250±0.0007                | 0.34±0.03        | -0.98±0.05               | 106.0 |
| <i>f</i> <sub>27</sub>                 | 35.3634±0.0015               | 0.22±0.04        | -2.82±0.09               | 26.3  | <i>f</i> <sub>10</sub>                 | 2.5836±0.0008                | 0.30±0.03        | 1.51±0.05                | 85.6  |
| <i>f</i> <sub>28</sub>                 | 12.3218±0.0015               | 0.22±0.04        | 2.86±0.09                | 25.5  | <i>f</i> <sub>11</sub>                 | 5.2426±0.0009                | 0.27±0.03        | -1.30±0.05               | 78.9  |
| <i>f</i> <sub>30</sub>                 | 11.0455±0.0016               | 0.20±0.04        | -2.53±0.10               | 21.6  | <i>f</i> <sub>12</sub>                 | 6.1751±0.0009                | 0.27±0.03        | -0.17±0.05               | 72.3  |
| <i>f</i> <sub>32</sub>                 | 15.2147±0.0017               | 0.19±0.04        | -2.67±0.10               | 20.2  | <i>f</i> <sub>13</sub>                 | 9.8347±0.0009                | 0.25±0.03        | 0.70±0.06                | 68.2  |
| <i>f</i> <sub>33</sub>                 | 12.2660±0.0018               | 0.18±0.04        | -1.93±0.11               | 19.0  | <i>f</i> <sub>14</sub>                 | 0.1094±0.0009                | 0.23±0.03        | -1.40±0.06               | 66.6  |
| <i>f</i> <sub>35</sub>                 | 1.3758±0.0018                | 0.17±0.04        | -2.87±0.11               | 17.4  | <i>f</i> <sub>15</sub>                 | 2.8736±0.0010                | 0.23±0.03        | -0.22±0.06               | 60.6  |
| <i>f</i> <sub>36</sub>                 | 0.1797±0.0019                | 0.17±0.04        | -2.78±0.11               | 16.9  | <i>f</i> <sub>16</sub>                 | 2.3636±0.0010                | 0.25±0.03        | 2.17±0.06                | 58.4  |
| <i>f</i> <sub>39</sub>                 | 2.5715±0.0020                | 0.16±0.04        | -0.60±0.12               | 15.0  | <i>f</i> <sub>17</sub>                 | 5.6882±0.0010                | 0.23±0.03        | 0.47±0.06                | 58.1  |
| <i>f</i> <sub>40</sub>                 | 0.2730±0.0020                | 0.16±0.04        | 1.20±0.12                | 15.0  | <i>f</i> <sub>18</sub>                 | 0.5405±0.0010                | 0.22±0.03        | -1.73±0.06               | 55.6  |
| <i>f</i> <sub>42</sub>                 | 10.1714±0.0020               | 0.16±0.04        | 2.84±0.12                | 14.2  | <i>f</i> <sub>19</sub>                 | 4.3716±0.0010                | 0.22±0.03        | 1.53±0.06                | 53.9  |
| <i>f</i> <sub>43</sub>                 | 12.2336±0.0021               | 0.15±0.04        | -0.20±0.13               | 13.6  | <i>f</i> <sub>20</sub>                 | 1.1860±0.0010                | 0.21±0.03        | 2.19±0.06                | 55.0  |
| <i>f</i> <sub>44</sub>                 | 2.5483±0.0021                | 0.15±0.04        | 2.97±0.13                | 13.0  | <i>f</i> <sub>21</sub>                 | 15.8291±0.0011               | 0.20±0.03        | -1.83±0.07               | 49.9  |
| <i>f</i> <sub>45</sub>                 | 0.1033±0.0021                | 0.15±0.04        | -1.49±0.13               | 13.1  | <i>f</i> <sub>22</sub>                 | 3.2533±0.0011                | 0.19±0.03        | -0.36±0.07               | 47.2  |
| <i>f</i> <sub>46</sub>                 | 24.2695±0.0021               | 0.15±0.04        | -0.08±0.13               | 13.2  | <i>f</i> <sub>23</sub>                 | 5.0828±0.0011                | 0.20±0.03        | 1.84±0.07                | 46.3  |
| <i>f</i> <sub>47</sub>                 | 11.2653±0.0022               | 0.14±0.04        | 1.20±0.13                | 12.5  | <i>f</i> <sub>24</sub>                 | 3.8926±0.0012                | 0.19±0.03        | -0.35±0.07               | 43.2  |
| <i>f</i> <sub>49</sub>                 | 0.3305±0.0022                | 0.14±0.04        | 2.77±0.13                | 12.3  | <i>f</i> <sub>25</sub>                 | 27.6496±0.0012               | 0.19±0.03        | -0.10±0.07               | 41.7  |
| <i>f</i> <sub>50</sub>                 | 0.3987±0.0021                | 0.15±0.04        | -1.91±0.13               | 13.1  | <i>f</i> <sub>26</sub>                 | 11.8102±0.0012               | 0.19±0.03        | 1.68±0.07                | 41.6  |
| <i>f</i> <sub>51</sub>                 | 12.7531±0.0022               | 0.14±0.04        | 0.54±0.14                | 11.9  | <i>f</i> <sub>27</sub>                 | 4.7021±0.0012                | 0.18±0.03        | -1.85±0.08               | 37.5  |
| <i>f</i> <sub>52</sub>                 | 10.0780±0.0023               | 0.14±0.04        | 2.23±0.14                | 11.4  | <i>f</i> <sub>29</sub>                 | 5.5565±0.0013                | 0.17±0.03        | -1.47±0.08               | 37.2  |
| <i>f</i> <sub>53</sub>                 | 5.3358±0.0023                | 0.14±0.04        | -2.46±0.14               | 11.3  | <i>f</i> <sub>31</sub>                 | 1.6164±0.0013                | 0.17±0.03        | 2.98±0.08                | 34.6  |
| <i>f</i> <sub>54</sub>                 | 18.6829±0.0023               | 0.14±0.04        | 2.22±0.14                | 11.2  | <i>f</i> <sub>32</sub>                 | 4.1608±0.0013                | 0.16±0.03        | 1.62±0.08                | 33.4  |
| <i>f</i> <sub>56</sub>                 | 0.3554±0.0023                | 0.13±0.04        | 1.30±0.14                | 10.8  | <i>f</i> <sub>33</sub>                 | 1.6881±0.0014                | 0.16±0.03        | -2.83±0.08               | 31.1  |
| <i>f</i> <sub>57</sub>                 | 12.5985±0.0023               | 0.13±0.04        | 1.51±0.14                | 10.7  | <i>f</i> <sub>34</sub>                 | 18.4123±0.0014               | 0.15±0.03        | -2.46±0.08               | 30.5  |
| <i>f</i> <sub>60</sub>                 | 20.9204±0.0024               | 0.13±0.04        | 1.68±0.14                | 10.4  | <i>f</i> <sub>35</sub>                 | 5.1580±0.0014                | 0.14±0.03        | -1.02±0.09               | 28.9  |
| <i>f</i> <sub>61</sub>                 | 14.7191±0.0024               | 0.13±0.04        | -1.54±0.15               | 9.8   | <i>f</i> <sub>36</sub>                 | 0.2479±0.0014                | 0.11±0.02        | -0.03±0.09               | 29.7  |
| <i>f</i> <sub>62</sub>                 | 2.5044±0.0025                | 0.12±0.04        | 1.86±0.15                | 9.4   | <i>f</i> <sub>37</sub>                 | 13.7941±0.0015               | 0.13±0.03        | -0.00±0.09               | 25.0  |
| <i>f</i> <sub>63</sub>                 | 38.4601±0.0025               | 0.12±0.04        | -1.28±0.15               | 9.7   | <i>f</i> <sub>38</sub>                 | 6.1617±0.0015                | 0.13±0.03        | 0.66±0.09                | 24.3  |
| <i>f</i> <sub>65</sub>                 | 27.1811±0.0025               | 0.12±0.04        | -1.73±0.15               | 9.4   | <i>f</i> <sub>39</sub>                 | 4.8874±0.0015                | 0.13±0.03        | 0.13±0.09                | 25.3  |
| <i>f</i> <sub>66</sub>                 | 11.9173±0.0025               | 0.12±0.04        | 1.44±0.16                | 9.0   | <i>f</i> <sub>40</sub>                 | 6.7766±0.0016                | 0.13±0.03        | 1.03±0.10                | 23.8  |
| <i>f</i> <sub>67</sub>                 | 11.9321±0.0025               | 0.12±0.04        | -2.30±0.15               | 9.6   | <i>f</i> <sub>41</sub>                 | 6.9041±0.0016                | 0.12±0.02        | 1.14±0.10                | 23.5  |
| <i>f</i> <sub>68</sub>                 | 24.3582±0.0025               | 0.12±0.04        | 2.94±0.15                | 9.1   | <i>f</i> <sub>42</sub>                 | 5.4438±0.0016                | 0.13±0.03        | -1.01±0.10               | 23.4  |
| <i>f</i> <sub>70</sub>                 | 0.2000±0.0026                | 0.12±0.04        | 1.21±0.16                | 8.9   | <i>f</i> <sub>43</sub>                 | 4.9476±0.0017                | 0.12±0.03        | -2.72±0.10               | 20.1  |
| <i>f</i> <sub>71</sub>                 | 10.0920±0.0026               | 0.12±0.04        | -0.74±0.16               | 8.6   | <i>f</i> <sub>45</sub>                 | 3.1241±0.0017                | 0.12±0.03        | -2.67±0.10               | 20.2  |
| <i>f</i> <sub>72</sub>                 | 8.4879±0.0027                | 0.11±0.04        | -2.16±0.16               | 8.1   | <i>f</i> <sub>46</sub>                 | 0.1523±0.0017                | 0.13±0.03        | -1.47±0.10               | 20.3  |
| <i>f</i> <sub>73</sub>                 | 13.2032±0.0027               | 0.11±0.04        | -0.40±0.16               | 8.1   | <i>f</i> <sub>47</sub>                 | 0.1777±0.0017                | 0.12±0.03        | -0.95±0.10               | 21.0  |
| <i>f</i> <sub>74</sub>                 | 0.2455±0.0026                | 0.11±0.04        | -2.62±0.16               | 8.4   | <i>f</i> <sub>48</sub>                 | 20.1857±0.0017               | 0.12±0.03        | -0.41±0.10               | 20.1  |
| <i>f</i> <sub>76</sub>                 | 12.5008±0.0028               | 0.11±0.04        | -0.36±0.17               | 7.3   | <i>f</i> <sub>49</sub>                 | 0.3577±0.0018                | 0.13±0.03        | 2.00±0.11                | 18.5  |
| <i>f</i> <sub>77</sub>                 | 0.7276±0.0028                | 0.11±0.04        | 2.01±0.17                | 7.5   | <i>f</i> <sub>50</sub>                 | 7.3157±0.0018                | 0.11±0.03        | 2.21±0.11                | 18.7  |
| <i>f</i> <sub>79</sub>                 | 12.3989±0.0028               | 0.11±0.04        | 1.93±0.17                | 7.2   | <i>f</i> <sub>51</sub>                 | 2.3055±0.0018                | 0.11±0.03        | -2.31±0.11               | 18.0  |
| <i>f</i> <sub>80</sub>                 | 0.9957±0.0029                | 0.10±0.04        | -0.41±0.18               | 7.0   | <i>f</i> <sub>54</sub>                 | 8.5641±0.0018                | 0.11±0.03        | 0.49±0.11                | 18.2  |
| <i>f</i> <sub>81</sub>                 | 17.8251±0.0029               | 0.10±0.04        | -1.40±0.17               | 7.1   | <i>f</i> <sub>55</sub>                 | 5.3399±0.0018                | 0.11±0.03        | 2.70±0.11                | 17.7  |
| <i>f</i> <sub>82</sub>                 | 55.8636±0.0029               | 0.10±0.04        | 2.01±0.18                | 7.0   | <i>f</i> <sub>56</sub>                 | 6.9980±0.0018                | 0.10±0.02        | 1.23±0.11                | 17.7  |
| <i>f</i> <sub>83</sub>                 | 0.1228±0.0030                | 0.10±0.04        | -0.60±0.18               | 6.6   | <i>f</i> <sub>57</sub>                 | 1.9417±0.0018                | 0.10±0.02        | 2.92±0.11                | 17.1  |
| <i>f</i> <sub>84</sub>                 | 0.2242±0.0029                | 0.10±0.04        | -1.72±0.18               | 6.7   | <i>f</i> <sub>58</sub>                 | 15.3376±0.0019               | 0.10±0.02        | 3.00±0.11                | 16.8  |
| <i>f</i> <sub>85</sub>                 | 11.5839±0.0029               | 0.10±0.04        | 0.56±0.18                | 6.9   | <i>f</i> <sub>59</sub>                 | 0.2201±0.0019                | 0.09±0.02        | 0.21±0.11                | 16.6  |
| <i>f</i> <sub>87</sub>                 | 1.3125±0.0030                | 0.10±0.04        | -0.15±0.18               | 6.5   | <i>f</i> <sub>60</sub>                 | 17.8607±0.0019               | 0.10±0.02        | 2.54±0.11                | 16.5  |
| <i>f</i> <sub>88</sub>                 | 12.3353±0.0030               | 0.10±0.04        | 2.70±0.18                | 6.4   | <i>f</i> <sub>61</sub>                 | 0.1437±0.0019                | 0.09±0.02        | -0.21±0.12               | 15.5  |
| <i>f</i> <sub>90</sub>                 | 10.5135±0.0031               | 0.10±0.04        | -2.13±0.19               | 6.1   | <i>f</i> <sub>62</sub>                 | 0.5538±0.0019                | 0.11±0.03        | 2.04±0.12                | 15.4  |
| <i>f</i> <sub>91</sub>                 | 10.5696±0.0031               | 0.10±0.04        | 1.35±0.19                | 5.9   | <i>f</i> <sub>63</sub>                 | 5.1804±0.0019                | 0.09±0.02        | 1.45±0.12                | 15.4  |
| <i>f</i> <sub>93</sub>                 | 0.1111±0.0031                | 0.10±0.04        | -2.71±0.19               | 6.0   | <i>f</i> <sub>64</sub>                 | 10.5370±0.0020               | 0.10±0.03        | 0.48±0.12                | 15.0  |
| <i>f</i> <sub>94</sub>                 | 0.6469±0.0031                | 0.09±0.04        | 2.08±0.19                | 6.0   | <i>f</i> <sub>65</sub>                 | 2.8603±0.0020                | 0.10±0.03        | -0.48±0.12               | 14.6  |
| <i>f</i> <sub>95</sub>                 | 1.3484±0.0031                | 0.10±0.04        | 1.04±0.19                | 6.1   | <i>f</i> <sub>66</sub>                 | 3.3702±0.0020                | 0.08±0.02        | -2.41±0.12               | 14.7  |
| <i>f</i> <sub>96</sub>                 | 9.8499±0.0031                | 0.10±0.04        | 0.73±0.19                | 6.2   | <i>f</i> <sub>67</sub>                 | 0.3460±0.0020                | 0.10±0.03        | 0.26±0.12                | 14.5  |
| <i>f</i> <sub>97</sub>                 | 41.8827±0.0031               | 0.09±0.04        | -2.60±0.19               | 5.9   | <i>f</i> <sub>68</sub>                 | 7.8758±0.0020                | 0.09±0.02        | -2.75±0.12               | 14.3  |
| <i>f</i> <sub>99</sub>                 | 41.4106±0.0032               | 0.09±0.04        | 0.13±0.20                | 5.7   | <i>f</i> <sub>69</sub>                 | 1.7196±0.0020                | 0.09±0.02        | -2.25±0.12               | 14.6  |
| <i>f</i> <sub>100</sub>                | 0.5662±0.0032                | 0.09±0.04        | 3.02±0.20                | 5.6   | <i>f</i> <sub>70</sub>                 | 0.7295±0.0020                | 0.09±0.02        | 1.61±0.12                | 14.7  |
| <i>f</i> <sub>101</sub>                | 0.5594±0.0032                | 0.09±0.04        | 1.98±0.19                | 5.8   | <i>f</i> <sub>71</sub>                 | 2.1607±0.0021                | 0.09±0.02        | 2.77±0.13                | 13.8  |
| <i>f</i> <sub>102</sub>                | 9.9122±0.0032                | 0.09±0.04        | 0.93±0.20                | 5.6   | <i>f</i> <sub>72</sub>                 | 4.3475±0.0021                | 0.09±0.02        | 0.70±0.13                | 13.7  |
| <i>f</i> <sub>103</sub>                | 10.8517±0.0032               | 0.09±0.04        | -0.94±0.19               | 5.8   | <i>f</i> <sub>74</sub>                 | 0.3050±0.0020                | 0.09±0.02        | -1.41±0.12               | 13.9  |
| <i>f</i> <sub>105</sub>                | 56.9403±0.0032               | 0.09±0.04        | 2.57±0.20                | 5.7   | <i>f</i> <sub>75</sub>                 | 4.4768±0.0021                | 0.09±0.02        | 0.62±0.13                | 13.5  |
| <i>f</i> <sub>106</sub>                | 12.7041±0.0032               | 0.09±0.04        | 1.47±0.20                | 5.6   | <i>f</i> <sub>77</sub>                 | 7.4046±0.0021                | 0.09±0.02        | 2.58±0.13                | 13.3  |
| <i>f</i> <sub>107</sub>                | 0.1660±0.0033                | 0.09±0.04        | 2.73±0.20                | 5.3   | <i>f</i> <sub>78</sub>                 | 1.6751±0.0021                | 0.09±0.03        | -1.71±0.13               | 12.8  |
| <i>f</i> <sub>108</sub>                | 9.6845±0.0033                | 0.09±0.04        | -2.17±0.20               | 5.2   | <i>f</i> <sub>79</sub>                 | 0.3186±0.0021                | 0.08±0.02        | 2.38±0.13                | 13.0  |
| <i>f</i> <sub>109</sub>                | 8.4670±0.0033                | 0.09±0.04        | -0.59±0.20               | 5.2   | <i>f</i> <sub>80</sub>                 | 1.2101±0.0022                | 0.08±0.02        | 0.97±0.14                | 11.7  |
| <i>f</i> <sub>116</sub>                | 17.9006±0.0033               | 0.09±0.04        | 2.31±0.20                | 5.2   | <i>f</i> <sub>81</sub>                 | 0.2670±0.0022                | 0.09±0.03        | 2.76±0.13                | 12.1  |
| <i>f</i> <sub>117</sub>                | 0.5973±0.0033                | 0.09±0.04        | -1.66±0.20               | 5.3   | <i>f</i> <sub>82</sub>                 | 18.1075±0.0022               | 0.09±0.03        | 1.17±0.14                | 11.8  |
| <i>f</i> <sub>118</sub>                | 0.8571±0.0033                | 0.09±0.04        | 1.08±0.20                | 5.2   | <i>f</i> <sub>84</sub>                 | 9.6222±0.0023                | 0.08±0.02        | 0.15±0.14                | 11.5  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>85</sub>                 | 0.5762±0.0023                | 0.11±0.03        | -1.04±0.14               | 11.5  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>86</sub>                 | 0.5654±0.0021                | 0.09±0.02        | 2.20±0.13                | 13.2  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>87</sub>                 | 0.5142±0.0022                | 0.08±0.02        | 1.50±0.13                | 12.0  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>88</sub>                 | 6.9216±0.0022                | 0.09±0.03        | 1.38±0.14                | 11.7  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>89</sub>                 | 4.2915±0.0023                | 0.08±0.02        | -2.14±0.14               | 11.3  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>90</sub>                 | 8.5122±0.0023                | 0.08±0.02        | -2.35±0.14               | 11.4  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>91</sub>                 | 6.0850±0.0023                | 0.08±0.02        | -2.21±0.14               | 10.9  |
| Frequency list of 0102683908 continued |                              |                  |                          |       | Frequency list of 0102683908 continued |                              |                  |                          |       |
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |                                        |                              |                  |                          |       |
| <i>f</i> <sub>1</sub>                  | 15.8001±0.0003               | 1.32±0.04        | 2.77±0.02                | 916.3 |                                        |                              |                  |                          |       |
| <i>f</i> <sub>2</sub>                  | 15.5016±0.0004               | 0.66±0.04        | -1.50±0.03               | 289.4 |                                        |                              |                  |                          |       |
| <i>f</i> <sub>3</sub>                  | 0.2888±0.0006                | 0.52±0.04        | 1.78±0.03                | 192.4 |                                        |                              |                  |                          |       |
| <i>f</i> <sub>4</sub>                  | 2.6287±0.0006                | 0.44±0.04        | -0.18±0.04               | 144.5 |                                        |                              |                  |                          |       |
| <i>f</i> <sub>5</sub>                  | 12.4693±0.0006               | 0.43±0.04        | 1.98±0.04                | 146.4 |                                        |                              |                  |                          |       |
| <i>f</i> <sub>6</sub>                  | 2.1424±0.0006                | 0.40±0.03        | 0.17±0.04                | 149.2 |                                        |                              |                  |                          |       |
| <i>f</i> <sub>7</sub>                  | 13.7290±0.0006               | 0.41±0.03        | 0.57±0.04                | 144.6 |                                        |                              |                  |                          |       |
| Frequency list of 0102683908 continued |                              |                  |                          |       |                                        |                              |                  |                          |       |

## Appendix D. Frequencies of individual Hybrid Stars

| Frequency list of 0102683908 continued |                              |                  |                          |       | Frequency list of 0102683908 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{92}$                               | 15.8998±0.0023               | 0.08±0.02        | -1.56±0.14               | 10.9  | $f_{186}$                              | 1.7388±0.0033                | 0.05±0.02        | -1.08±0.20               | 5.2   |
| $f_{93}$                               | 2.1329±0.0023                | 0.08±0.02        | -2.35±0.14               | 11.1  | $f_{187}$                              | 13.7773±0.0034               | 0.05±0.02        | -3.02±0.21               | 5.1   |
| $f_{94}$                               | 3.7424±0.0023                | 0.08±0.02        | -2.27±0.14               | 11.3  | $f_{188}$                              | 21.0723±0.0033               | 0.05±0.02        | -0.73±0.20               | 5.3   |
| $f_{95}$                               | 28.1749±0.0023               | 0.07±0.02        | 1.95±0.14                | 11.1  | $f_{189}$                              | 2.5324±0.0034                | 0.05±0.02        | 0.81±0.21                | 5.1   |
| $f_{97}$                               | 8.7166±0.0024                | 0.07±0.02        | -2.97±0.15               | 10.2  |                                        |                              |                  |                          |       |
| $f_{98}$                               | 0.1925±0.0024                | 0.07±0.02        | 1.47±0.15                | 10.0  |                                        |                              |                  |                          |       |
| $f_{99}$                               | 2.4129±0.0024                | 0.07±0.02        | -2.27±0.15               | 9.8   |                                        |                              |                  |                          |       |
| $f_{100}$                              | 32.1904±0.0025               | 0.07±0.02        | 2.11±0.15                | 9.7   |                                        |                              |                  |                          |       |
| $f_{101}$                              | 1.7922±0.0024                | 0.09±0.03        | 0.25±0.15                | 9.8   |                                        |                              |                  |                          |       |
| $f_{102}$                              | 0.4075±0.0025                | 0.08±0.03        | -0.46±0.15               | 9.5   |                                        |                              |                  |                          |       |
| $f_{103}$                              | 3.4265±0.0025                | 0.07±0.02        | -2.59±0.15               | 9.6   |                                        |                              |                  |                          |       |
| $f_{104}$                              | 0.4910±0.0025                | 0.07±0.02        | -2.58±0.15               | 9.5   |                                        |                              |                  |                          |       |
| $f_{105}$                              | 7.7118±0.0025                | 0.07±0.02        | -2.95±0.15               | 9.3   |                                        |                              |                  |                          |       |
| $f_{106}$                              | 5.2686±0.0025                | 0.07±0.02        | 0.78±0.15                | 9.1   |                                        |                              |                  |                          |       |
| $f_{107}$                              | 2.1091±0.0025                | 0.07±0.02        | 2.47±0.15                | 9.1   |                                        |                              |                  |                          |       |
| $f_{108}$                              | 2.9697±0.0025                | 0.07±0.02        | -1.14±0.15               | 9.2   |                                        |                              |                  |                          |       |
| $f_{109}$                              | 0.9136±0.0026                | 0.07±0.02        | -0.68±0.16               | 8.9   |                                        |                              |                  |                          |       |
| $f_{110}$                              | 1.0062±0.0026                | 0.07±0.02        | 0.14±0.16                | 8.9   |                                        |                              |                  |                          |       |
| $f_{111}$                              | 6.9571±0.0026                | 0.07±0.02        | 2.78±0.16                | 8.9   |                                        |                              |                  |                          |       |
| $f_{112}$                              | 23.6577±0.0026               | 0.07±0.02        | 0.80±0.16                | 8.9   |                                        |                              |                  |                          |       |
| $f_{114}$                              | 3.3905±0.0025                | 0.07±0.02        | -0.69±0.16               | 9.0   |                                        |                              |                  |                          |       |
| $f_{116}$                              | 1.3063±0.0026                | 0.06±0.02        | -0.10±0.16               | 8.8   |                                        |                              |                  |                          |       |
| $f_{117}$                              | 4.8476±0.0026                | 0.07±0.02        | 2.05±0.16                | 8.5   |                                        |                              |                  |                          |       |
| $f_{118}$                              | 15.4125±0.0027               | 0.07±0.02        | 1.35±0.16                | 8.2   |                                        |                              |                  |                          |       |
| $f_{119}$                              | 0.1605±0.0026                | 0.07±0.02        | -1.14±0.16               | 8.3   |                                        |                              |                  |                          |       |
| $f_{120}$                              | 0.3767±0.0026                | 0.07±0.02        | 2.67±0.16                | 8.5   |                                        |                              |                  |                          |       |
| $f_{121}$                              | 4.5714±0.0027                | 0.07±0.02        | -2.69±0.16               | 8.2   |                                        |                              |                  |                          |       |
| $f_{122}$                              | 7.8348±0.0027                | 0.07±0.02        | -1.61±0.16               | 8.1   |                                        |                              |                  |                          |       |
| $f_{123}$                              | 0.7157±0.0027                | 0.06±0.02        | 2.82±0.16                | 8.1   |                                        |                              |                  |                          |       |
| $f_{124}$                              | 18.2282±0.0027               | 0.07±0.02        | 2.02±0.16                | 8.1   |                                        |                              |                  |                          |       |
| $f_{125}$                              | 2.0264±0.0027                | 0.07±0.02        | 0.73±0.17                | 7.9   |                                        |                              |                  |                          |       |
| $f_{126}$                              | 3.0955±0.0027                | 0.07±0.02        | 2.38±0.16                | 8.1   |                                        |                              |                  |                          |       |
| $f_{127}$                              | 5.8413±0.0027                | 0.07±0.02        | -1.99±0.16               | 8.2   |                                        |                              |                  |                          |       |
| $f_{128}$                              | 2.9401±0.0027                | 0.06±0.02        | 2.34±0.17                | 7.8   |                                        |                              |                  |                          |       |
| $f_{129}$                              | 2.7322±0.0027                | 0.06±0.02        | 2.75±0.17                | 7.8   |                                        |                              |                  |                          |       |
| $f_{130}$                              | 0.2750±0.0028                | 0.06±0.02        | 0.76±0.17                | 7.7   |                                        |                              |                  |                          |       |
| $f_{131}$                              | 1.5586±0.0027                | 0.06±0.02        | -3.03±0.17               | 7.8   |                                        |                              |                  |                          |       |
| $f_{132}$                              | 4.0871±0.0028                | 0.06±0.02        | 0.46±0.17                | 7.6   |                                        |                              |                  |                          |       |
| $f_{133}$                              | 4.6450±0.0028                | 0.06±0.02        | -1.70±0.17               | 7.4   |                                        |                              |                  |                          |       |
| $f_{134}$                              | 20.4008±0.0028               | 0.06±0.02        | 3.05±0.17                | 7.2   |                                        |                              |                  |                          |       |
| $f_{135}$                              | 0.2300±0.0028                | 0.07±0.03        | 2.28±0.17                | 7.3   |                                        |                              |                  |                          |       |
| $f_{137}$                              | 2.6775±0.0028                | 0.06±0.02        | -3.09±0.17               | 7.5   |                                        |                              |                  |                          |       |
| $f_{138}$                              | 2.0019±0.0029                | 0.12±0.05        | -1.92±0.18               | 6.8   |                                        |                              |                  |                          |       |
| $f_{140}$                              | 3.4629±0.0029                | 0.06±0.02        | 1.27±0.18                | 6.7   |                                        |                              |                  |                          |       |
| $f_{144}$                              | 3.1323±0.0029                | 0.06±0.02        | -3.07±0.18               | 6.8   |                                        |                              |                  |                          |       |
| $f_{145}$                              | 2.0101±0.0029                | 0.09±0.03        | -2.07±0.18               | 6.7   |                                        |                              |                  |                          |       |
| $f_{151}$                              | 1.6960±0.0030                | 0.05±0.02        | 1.88±0.19                | 6.3   |                                        |                              |                  |                          |       |
| $f_{152}$                              | 20.0291±0.0030               | 0.06±0.02        | -2.15±0.19               | 6.3   |                                        |                              |                  |                          |       |
| $f_{153}$                              | 19.4918±0.0030               | 0.06±0.02        | -0.90±0.19               | 6.3   |                                        |                              |                  |                          |       |
| $f_{154}$                              | 3.6469±0.0030                | 0.06±0.02        | -0.24±0.19               | 6.3   |                                        |                              |                  |                          |       |
| $f_{155}$                              | 1.8876±0.0030                | 0.06±0.02        | -0.44±0.18               | 6.4   |                                        |                              |                  |                          |       |
| $f_{156}$                              | 0.5304±0.0030                | 0.06±0.02        | 0.46±0.18                | 6.4   |                                        |                              |                  |                          |       |
| $f_{157}$                              | 0.6431±0.0030                | 0.06±0.02        | 2.69±0.18                | 6.5   |                                        |                              |                  |                          |       |
| $f_{160}$                              | 1.7805±0.0031                | 0.06±0.02        | 0.24±0.19                | 6.1   |                                        |                              |                  |                          |       |
| $f_{161}$                              | 1.7699±0.0030                | 0.06±0.02        | 2.00±0.18                | 6.6   |                                        |                              |                  |                          |       |
| $f_{162}$                              | 25.2320±0.0031               | 0.06±0.02        | -2.05±0.19               | 6.2   |                                        |                              |                  |                          |       |
| $f_{163}$                              | 2.2965±0.0031                | 0.05±0.02        | 0.48±0.19                | 6.0   |                                        |                              |                  |                          |       |
| $f_{164}$                              | 0.8887±0.0031                | 0.05±0.02        | -3.11±0.19               | 6.0   |                                        |                              |                  |                          |       |
| $f_{168}$                              | 9.6977±0.0031                | 0.06±0.02        | -2.28±0.19               | 6.1   |                                        |                              |                  |                          |       |
| $f_{169}$                              | 5.4298±0.0031                | 0.05±0.02        | -1.77±0.19               | 6.0   |                                        |                              |                  |                          |       |
| $f_{170}$                              | 1.4512±0.0031                | 0.05±0.02        | -1.64±0.19               | 5.9   |                                        |                              |                  |                          |       |
| $f_{171}$                              | 0.3378±0.0032                | 0.05±0.02        | 2.41±0.19                | 5.8   |                                        |                              |                  |                          |       |
| $f_{172}$                              | 22.6613±0.0032               | 0.05±0.02        | -1.23±0.20               | 5.6   |                                        |                              |                  |                          |       |
| $f_{173}$                              | 2.5100±0.0033                | 0.05±0.02        | 0.06±0.20                | 5.5   |                                        |                              |                  |                          |       |
| $f_{174}$                              | 0.4286±0.0033                | 0.05±0.02        | -0.88±0.20               | 5.5   |                                        |                              |                  |                          |       |
| $f_{175}$                              | 10.0203±0.0032               | 0.05±0.02        | -0.31±0.20               | 5.6   |                                        |                              |                  |                          |       |
| $f_{176}$                              | 3.1066±0.0033                | 0.05±0.02        | 0.33±0.20                | 5.4   |                                        |                              |                  |                          |       |
| $f_{177}$                              | 4.4216±0.0033                | 0.05±0.02        | -1.16±0.20               | 5.4   |                                        |                              |                  |                          |       |
| $f_{178}$                              | 1.2289±0.0033                | 0.05±0.02        | -0.27±0.20               | 5.4   |                                        |                              |                  |                          |       |
| $f_{179}$                              | 16.2290±0.0033               | 0.05±0.02        | 1.23±0.20                | 5.2   |                                        |                              |                  |                          |       |
| $f_{180}$                              | 4.1255±0.0033                | 0.05±0.02        | 2.13±0.20                | 5.2   |                                        |                              |                  |                          |       |
| $f_{181}$                              | 4.7796±0.0033                | 0.05±0.02        | 0.63±0.20                | 5.2   |                                        |                              |                  |                          |       |
| $f_{182}$                              | 7.8044±0.0033                | 0.05±0.02        | 2.85±0.20                | 5.2   |                                        |                              |                  |                          |       |
| $f_{183}$                              | 17.8456±0.0033               | 0.05±0.02        | 2.31±0.20                | 5.2   |                                        |                              |                  |                          |       |
| $f_{184}$                              | 1.8514±0.0033                | 0.05±0.02        | -0.33±0.20               | 5.2   |                                        |                              |                  |                          |       |
| $f_{185}$                              | 2.3752±0.0033                | 0.05±0.02        | -0.26±0.20               | 5.2   |                                        |                              |                  |                          |       |
| Frequency list of 0102683908 continued |                              |                  |                          |       |                                        |                              |                  |                          |       |

| Frequency list of 0102683908 continued |                              |                  |                          |       | Frequency list of 0102683908 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_2$                                  | 1.1053±0.0006                | 0.26±0.02        | -1.28±0.04               | 149.6 | $f_{186}$                              | 1.7388±0.0033                | 0.05±0.02        | -1.08±0.20               | 5.2   |
| $f_3$                                  | 30.3257±0.0007               | 0.25±0.02        | -0.74±0.04               | 120.9 | $f_{187}$                              | 13.7773±0.0034               | 0.05±0.02        | -3.02±0.21               | 5.1   |
| $f_4$                                  | 1.0938±0.0007                | 0.25±0.02        | 0.03±0.04                | 118.0 | $f_{188}$                              | 21.0723±0.0033               | 0.05±0.02        | -0.73±0.20               | 5.3   |
| $f_5$                                  | 26.4693±0.0007               | 0.24±0.02        | -0.99±0.04               | 114.1 | $f_{189}$                              | 2.5324±0.0034                | 0.05±0.02        | 0.81±0.21                | 5.1   |
| $f_6$                                  | 1.3769±0.0007                | 0.23±0.02        | 2.07±0.05                | 105.6 |                                        |                              |                  |                          |       |
| $f_7$                                  | 1.4926±0.0008                | 0.20±0.02        | -1.52±0.05               | 92.3  |                                        |                              |                  |                          |       |
| $f_8$                                  | 0.9875±0.0010                | 0.18±0.02        | -3.11±0.06               | 58.8  |                                        |                              |                  |                          |       |
| $f_{10}$                               | 32.4402±0.0011               | 0.15±0.02        | 0.36±0.06                | 52.7  |                                        |                              |                  |                          |       |
| $f_{12}$                               | 1.0778±0.0011                | 0.14±0.02        | -1.68±0.07               | 49.9  |                                        |                              |                  |                          |       |
| $f_{13}$                               | 1.1262±0.0011                | 0.16±0.02        | -0.77±0.07               | 45.7  |                                        |                              |                  |                          |       |
| $f_{14}$                               | 27.1325±0.0012               | 0.13±0.02        | -2.80±0.07               | 43.1  |                                        |                              |                  |                          |       |
| $f_{15}$                               | 1.1159±0.0012                | 0.13±0.02        | -0.15±0.07               | 42.4  |                                        |                              |                  |                          |       |
| $f_{16}$                               | 33.8337±0.0012               | 0.12±0.02        | -2.75±0.07               | 38.8  |                                        |                              |                  |                          |       |
| $f_{19}$                               | 0.5611±0.0013                | 0.12±0.02        | -2.93±0.08               | 35.7  |                                        |                              |                  |                          |       |
| $f_{20}$                               | 31.9079±0.0013               | 0.11±0.02        | -0.53±0.08               | 32.3  |                                        |                              |                  |                          |       |
| $f_{21}$                               | 0.9260±0.0014                | 0.10±0.02        | 2.19±0.08                | 30.2  |                                        |                              |                  |                          |       |
| $f_{22}$                               | 0.1167±0.0015                | 0.09±0.02        | 2.87±0.09                | 25.6  |                                        |                              |                  |                          |       |
| $f_{23}$                               | 35.4411±0.0015               | 0.10±0.02        | 1.36±0.09                | 26.4  |                                        |                              |                  |                          |       |
| $f_{25}$                               | 0.8165±0.0017                | 0.09±0.02        | 2.70±0.10                | 20.2  |                                        |                              |                  |                          |       |
| $f_{29}$                               | 1.2508±0.0017                | 0.08±0.02        | 2.77±0.11                | 19.3  |                                        |                              |                  |                          |       |
| $f_{30}$                               | 1.3974±0.0018                | 0.08±0.02        | -1.92±0.11               | 18.1  |                                        |                              |                  |                          |       |
| $f_{32}$                               | 35.8153±0.0018               | 0.08±0.02        | -1.13±0.11               | 17.2  |                                        |                              |                  |                          |       |
| $f_{33}$                               | 0.9559±0.0019                | 0.07±0.02        | -0.30±0.12               | 16.2  |                                        |                              |                  |                          |       |
| $f_{34}$                               | 30.2579±0.0019               | 0.07±0.02        | 0.31±0.12                | 16.0  |                                        |                              |                  |                          |       |
| $f_{35}$                               | 1.1333±0.0019                | 0.08±0.02        | 2.63±0.12                | 16.0  |                                        |                              |                  |                          |       |
| $f_{38}$                               | 26.1372±0.0020               | 0.07±0.02        | -0.04±0.12               | 14.7  |                                        |                              |                  |                          |       |
| $f_{39}$                               | 0.1273±0.0020                | 0.06±0.02        | -2.07±0.12               | 15.3  |                                        |                              |                  |                          |       |
| $f_{40}$                               | 0.1860±0.0020                | 0.06±0.02        | 1.83±0.12                | 14.2  |                                        |                              |                  |                          |       |
| $f_{41}$                               | 0.1948±0.0019                | 0.07±0.02        | 0.01±0.12                | 15.6  |                                        |                              |                  |                          |       |
| $f_{44}$                               | 28.7103±0.0022               | 0.07±0.02        | -2.60±0.13               | 12.3  |                                        |                              |                  |                          |       |
| $f_{45}$                               | 0.1572±0.0022                | 0.06±0.02        | -1.00±0.13               | 12.2  |                                        |                              |                  |                          |       |
| $f_{47}$                               | 0.2651±0.0023                | 0.07±0.02        | 2.11±0.14                | 11.1  |                                        |                              |                  |                          |       |
| $f_{48}$                               | 0.2450±0.0023                | 0.06±0.02        | 0.40±0.14                | 11.4  |                                        |                              |                  |                          |       |
| $f_{49}$                               | 1.2014±0.0023                | 0.06±0.02        | -3.06±0.14               | 11.4  |                                        |                              |                  |                          |       |
| $f_{50}$                               | 1.4399±0.0024                | 0.06±0.02        | 2.25±0.15                | 9.9   |                                        |                              |                  |                          |       |
| $f_{51}$                               | 0.7172±0.0025                | 0.05±0.02        | 2.43±0.15                | 9.5   |                                        |                              |                  |                          |       |
| $f_{52}$                               | 1.1418±0.0025                | 0.05±0.02        | 1.04±0.15                | 9.5   |                                        |                              |                  |                          |       |
| $f_{54}$                               | 55.8627±0.0025               | 0.06±0.02        | 0.12±0.15                | 9.4   |                                        |                              |                  |                          |       |
| $f_{57}$                               | 2.7585±0.0026                | 0.05±0.02        | 2.52±0.16                | 8.6   |                                        |                              |                  |                          |       |
| $f_{60}$                               | 0.2283±0.0027                | 0.05±0.02        | 2.78±0.16                | 8.2   |                                        |                              |                  |                          |       |
| $f_{61}$                               | 0.1081±0.0027                | 0.05±0.02        | -1.76±0.16               | 8.2   |                                        |                              |                  |                          |       |
| $f_{62}$                               | 0.5501±0.0027                | 0.05±0.02        | 2.93±0.16                | 8.1   |                                        |                              |                  |                          |       |
| $f_{63}$                               | 0.3847±0.0028                | 0.05±0.02        | 0.15±0.17                | 7.6   |                                        |                              |                  |                          |       |
| $f_{64}$                               | 0.4087±0.0027                | 0.05±0.02        | -0.06±0.17               | 7.8   |                                        |                              |                  |                          |       |
| $f_{67}$                               | 0.1470±0.0028                | 0.05±0.02        | 2.84±0.17                | 7.2   |                                        |                              |                  |                          |       |
| $f_{68}$                               | 2.2115±0.0029                | 0.05±0.02        | -2.13±0.18               | 6.9   |                                        |                              |                  |                          |       |
| $f_{70}$                               | 0.6389±0.0031                | 0.05±0.02        | 1.81±0.19                | 6.2   |                                        |                              |                  |                          |       |

## Appendix D. Frequencies of individual Hybrid Stars

| Frequency list of 0102698013 continued |                              |                  |                          |       | Frequency list of 0102698013 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| <i>f</i> <sub>9</sub>                  | 13.3096±0.0007               | 0.47±0.04        | -2.72±0.04               | 115.1 | <i>f</i> <sub>104</sub>                | 2.3367±0.0019                | 0.11±0.03        | -1.70±0.12               | 15.4  |
| <i>f</i> <sub>10</sub>                 | 15.1192±0.0007               | 0.47±0.04        | 0.82±0.04                | 116.4 | <i>f</i> <sub>105</sub>                | 24.1540±0.0020               | 0.11±0.03        | -1.62±0.12               | 15.3  |
| <i>f</i> <sub>11</sub>                 | 11.3932±0.0007               | 0.48±0.05        | -0.23±0.04               | 113.7 | <i>f</i> <sub>106</sub>                | 26.5833±0.0020               | 0.11±0.03        | 2.14±0.12                | 15.2  |
| <i>f</i> <sub>12</sub>                 | 8.9507±0.0007                | 0.43±0.04        | 2.73±0.04                | 110.8 | <i>f</i> <sub>107</sub>                | 35.8635±0.0020               | 0.13±0.03        | 2.86±0.12                | 14.5  |
| <i>f</i> <sub>13</sub>                 | 3.3994±0.0008                | 0.38±0.04        | -1.78±0.05               | 89.8  | <i>f</i> <sub>108</sub>                | 3.6287±0.0020                | 0.11±0.03        | 1.75±0.12                | 14.3  |
| <i>f</i> <sub>14</sub>                 | 33.0024±0.0008               | 0.40±0.04        | 2.94±0.05                | 90.8  | <i>f</i> <sub>109</sub>                | 3.1848±0.0020                | 0.11±0.03        | -0.79±0.12               | 14.3  |
| <i>f</i> <sub>15</sub>                 | 23.2299±0.0008               | 0.38±0.04        | 2.28±0.05                | 83.5  | <i>f</i> <sub>110</sub>                | 33.5328±0.0020               | 0.11±0.03        | 2.00±0.12                | 14.1  |
| <i>f</i> <sub>16</sub>                 | 14.8549±0.0008               | 0.36±0.04        | -2.10±0.05               | 83.0  | <i>f</i> <sub>111</sub>                | 2.9719±0.0020                | 0.11±0.03        | -0.93±0.12               | 14.1  |
| <i>f</i> <sub>17</sub>                 | 29.0935±0.0009               | 0.37±0.04        | -0.63±0.05               | 80.3  | <i>f</i> <sub>112</sub>                | 1.6016±0.0020                | 0.11±0.03        | -0.01±0.12               | 14.1  |
| <i>f</i> <sub>18</sub>                 | 13.1282±0.0009               | 0.36±0.04        | -1.75±0.05               | 79.9  | <i>f</i> <sub>113</sub>                | 5.5509±0.0020                | 0.11±0.03        | -0.35±0.12               | 13.9  |
| <i>f</i> <sub>19</sub>                 | 3.3550±0.0008                | 0.37±0.04        | -2.58±0.05               | 81.2  | <i>f</i> <sub>114</sub>                | 28.5179±0.0020               | 0.11±0.03        | 2.86±0.12                | 14.1  |
| <i>f</i> <sub>20</sub>                 | 4.5237±0.0008                | 0.35±0.04        | -0.67±0.05               | 81.8  | <i>f</i> <sub>115</sub>                | 19.5645±0.0021               | 0.10±0.03        | 0.39±0.13                | 13.8  |
| <i>f</i> <sub>21</sub>                 | 3.7867±0.0009                | 0.35±0.04        | -1.17±0.05               | 77.9  | <i>f</i> <sub>117</sub>                | 35.8098±0.0021               | 0.10±0.03        | -2.37±0.13               | 13.5  |
| <i>f</i> <sub>22</sub>                 | 3.7025±0.0009                | 0.33±0.04        | -0.45±0.05               | 72.4  | <i>f</i> <sub>118</sub>                | 5.9246±0.0021                | 0.10±0.03        | 0.47±0.13                | 13.4  |
| <i>f</i> <sub>23</sub>                 | 17.6539±0.0009               | 0.32±0.04        | -1.07±0.05               | 72.7  | <i>f</i> <sub>119</sub>                | 6.1764±0.0021                | 0.10±0.03        | 2.08±0.13                | 12.9  |
| <i>f</i> <sub>24</sub>                 | 20.3702±0.0010               | 0.30±0.04        | 1.82±0.06                | 63.3  | <i>f</i> <sub>120</sub>                | 5.1492±0.0021                | 0.10±0.03        | -2.56±0.13               | 13.0  |
| <i>f</i> <sub>25</sub>                 | 36.3047±0.0010               | 0.30±0.04        | 1.21±0.06                | 60.1  | <i>f</i> <sub>121</sub>                | 2.5374±0.0022                | 0.10±0.03        | 0.39±0.13                | 12.6  |
| <i>f</i> <sub>26</sub>                 | 3.4489±0.0010                | 0.29±0.04        | 1.68±0.06                | 57.2  | <i>f</i> <sub>122</sub>                | 31.0780±0.0021               | 0.10±0.03        | -0.10±0.13               | 12.7  |
| <i>f</i> <sub>27</sub>                 | 2.7025±0.0010                | 0.27±0.04        | 1.00±0.06                | 55.7  | <i>f</i> <sub>123</sub>                | 24.0297±0.0022               | 0.09±0.03        | 2.16±0.13                | 12.3  |
| <i>f</i> <sub>28</sub>                 | 2.2474±0.0010                | 0.29±0.04        | 2.48±0.06                | 57.9  | <i>f</i> <sub>125</sub>                | 0.1100±0.0022                | 0.10±0.03        | -2.93±0.13               | 12.3  |
| <i>f</i> <sub>29</sub>                 | 0.4653±0.0010                | 0.26±0.03        | -1.31±0.06               | 57.9  | <i>f</i> <sub>126</sub>                | 17.4531±0.0021               | 0.10±0.03        | -1.29±0.13               | 12.7  |
| <i>f</i> <sub>30</sub>                 | 22.1181±0.0011               | 0.25±0.04        | 1.97±0.07                | 48.6  | <i>f</i> <sub>127</sub>                | 12.8941±0.0022               | 0.10±0.03        | -0.17±0.13               | 12.0  |
| <i>f</i> <sub>31</sub>                 | 30.5755±0.0011               | 0.24±0.03        | 2.68±0.07                | 48.1  | <i>f</i> <sub>128</sub>                | 4.6670±0.0022                | 0.09±0.03        | 2.93±0.13                | 12.1  |
| <i>f</i> <sub>32</sub>                 | 0.3513±0.0011                | 0.22±0.03        | 0.17±0.07                | 48.3  | <i>f</i> <sub>129</sub>                | 3.0441±0.0022                | 0.10±0.03        | 2.49±0.13                | 12.0  |
| <i>f</i> <sub>33</sub>                 | 19.0431±0.0011               | 0.24±0.04        | -0.74±0.07               | 46.3  | <i>f</i> <sub>130</sub>                | 10.7148±0.0022               | 0.09±0.03        | 2.78±0.14                | 11.8  |
| <i>f</i> <sub>34</sub>                 | 38.6188±0.0012               | 0.23±0.04        | 1.11±0.07                | 42.5  | <i>f</i> <sub>131</sub>                | 0.5197±0.0022                | 0.09±0.03        | 1.27±0.14                | 11.8  |
| <i>f</i> <sub>35</sub>                 | 23.2773±0.0012               | 0.23±0.03        | 1.59±0.07                | 43.9  | <i>f</i> <sub>132</sub>                | 22.2265±0.0022               | 0.10±0.03        | 0.53±0.14                | 11.6  |
| <i>f</i> <sub>36</sub>                 | 2.8512±0.0012                | 0.22±0.03        | 1.24±0.07                | 40.0  | <i>f</i> <sub>133</sub>                | 8.2321±0.0023                | 0.09±0.03        | -2.80±0.14               | 11.4  |
| <i>f</i> <sub>37</sub>                 | 19.4101±0.0012               | 0.21±0.03        | 2.92±0.07                | 39.4  | <i>f</i> <sub>134</sub>                | 35.9226±0.0023               | 0.10±0.03        | 0.12±0.14                | 11.4  |
| <i>f</i> <sub>38</sub>                 | 6.2651±0.0012                | 0.20±0.03        | 1.34±0.08                | 38.0  | <i>f</i> <sub>135</sub>                | 34.9508±0.0023               | 0.09±0.03        | -2.46±0.14               | 11.3  |
| <i>f</i> <sub>39</sub>                 | 20.3410±0.0013               | 0.19±0.03        | -1.44±0.08               | 34.4  | <i>f</i> <sub>136</sub>                | 32.7037±0.0023               | 0.09±0.03        | -2.67±0.14               | 11.5  |
| <i>f</i> <sub>40</sub>                 | 14.7647±0.0013               | 0.19±0.03        | -2.20±0.08               | 33.3  | <i>f</i> <sub>137</sub>                | 2.9163±0.0023                | 0.10±0.03        | 1.18±0.14                | 11.2  |
| <i>f</i> <sub>41</sub>                 | 23.5183±0.0014               | 0.18±0.03        | 2.32±0.08                | 30.1  | <i>f</i> <sub>138</sub>                | 23.7332±0.0023               | 0.09±0.03        | -0.94±0.14               | 11.4  |
| <i>f</i> <sub>42</sub>                 | 19.7233±0.0014               | 0.18±0.03        | -0.04±0.08               | 30.3  | <i>f</i> <sub>139</sub>                | 0.6820±0.0023                | 0.09±0.03        | -3.11±0.14               | 11.2  |
| <i>f</i> <sub>43</sub>                 | 2.0048±0.0014                | 0.41±0.07        | 2.11±0.08                | 30.1  | <i>f</i> <sub>140</sub>                | 35.8520±0.0023               | 0.09±0.03        | -0.64±0.14               | 11.0  |
| <i>f</i> <sub>44</sub>                 | 35.9076±0.0014               | 0.20±0.04        | -0.91±0.09               | 29.2  | <i>f</i> <sub>141</sub>                | 29.4140±0.0023               | 0.09±0.03        | 2.33±0.14                | 10.7  |
| <i>f</i> <sub>45</sub>                 | 1.9520±0.0014                | 0.18±0.03        | -1.44±0.09               | 28.9  | <i>f</i> <sub>142</sub>                | 21.3663±0.0023               | 0.09±0.03        | 0.55±0.14                | 10.8  |
| <i>f</i> <sub>46</sub>                 | 2.1639±0.0014                | 0.18±0.03        | 1.29±0.09                | 30.0  | <i>f</i> <sub>143</sub>                | 0.8151±0.0023                | 0.09±0.03        | -1.15±0.14               | 10.7  |
| <i>f</i> <sub>47</sub>                 | 25.5480±0.0014               | 0.17±0.03        | -3.11±0.09               | 28.4  | <i>f</i> <sub>144</sub>                | 18.6828±0.0023               | 0.09±0.03        | 0.46±0.14                | 10.7  |
| <i>f</i> <sub>48</sub>                 | 0.6475±0.0015                | 0.17±0.03        | -1.08±0.09               | 27.3  | <i>f</i> <sub>145</sub>                | 0.3417±0.0024                | 0.09±0.03        | -2.66±0.14               | 10.5  |
| <i>f</i> <sub>49</sub>                 | 1.2791±0.0014                | 0.16±0.03        | -2.90±0.09               | 28.1  | <i>f</i> <sub>146</sub>                | 41.6163±0.0024               | 0.09±0.03        | 0.03±0.14                | 10.5  |
| <i>f</i> <sub>50</sub>                 | 27.9726±0.0015               | 0.16±0.03        | 0.84±0.09                | 26.5  | <i>f</i> <sub>147</sub>                | 19.4320±0.0024               | 0.08±0.03        | 2.00±0.15                | 10.2  |
| <i>f</i> <sub>51</sub>                 | 0.4394±0.0015                | 0.17±0.03        | 0.01±0.09                | 25.8  | <i>f</i> <sub>148</sub>                | 7.3914±0.0024                | 0.09±0.03        | 0.19±0.14                | 10.4  |
| <i>f</i> <sub>52</sub>                 | 5.4586±0.0015                | 0.15±0.03        | 0.50±0.09                | 25.4  | <i>f</i> <sub>149</sub>                | 23.0508±0.0024               | 0.09±0.03        | -0.60±0.15               | 10.3  |
| <i>f</i> <sub>53</sub>                 | 24.8479±0.0015               | 0.16±0.03        | 2.56±0.09                | 25.5  | <i>f</i> <sub>150</sub>                | 19.2169±0.0024               | 0.09±0.03        | -0.16±0.14               | 10.4  |
| <i>f</i> <sub>54</sub>                 | 31.8966±0.0015               | 0.15±0.03        | 2.06±0.09                | 24.9  | <i>f</i> <sub>151</sub>                | 32.7613±0.0024               | 0.08±0.03        | 1.11±0.15                | 10.1  |
| <i>f</i> <sub>55</sub>                 | 17.4478±0.0016               | 0.15±0.03        | 0.63±0.10                | 22.1  | <i>f</i> <sub>152</sub>                | 20.4050±0.0024               | 0.08±0.03        | -1.00±0.15               | 10.2  |
| <i>f</i> <sub>56</sub>                 | 0.1350±0.0016                | 0.13±0.03        | 0.05±0.10                | 21.5  | <i>f</i> <sub>153</sub>                | 14.7705±0.0024               | 0.09±0.03        | 1.73±0.15                | 10.2  |
| <i>f</i> <sub>57</sub>                 | 0.4585±0.0016                | 0.15±0.03        | 1.41±0.10                | 22.1  | <i>f</i> <sub>154</sub>                | 17.8977±0.0024               | 0.08±0.03        | -2.77±0.15               | 9.8   |
| <i>f</i> <sub>58</sub>                 | 1.3345±0.0017                | 0.14±0.03        | -1.01±0.10               | 21.3  | <i>f</i> <sub>155</sub>                | 22.2059±0.0024               | 0.08±0.03        | 1.03±0.15                | 9.9   |
| <i>f</i> <sub>59</sub>                 | 31.1144±0.0017               | 0.14±0.03        | 2.11±0.10                | 21.4  | <i>f</i> <sub>156</sub>                | 2.0789±0.0024                | 0.08±0.03        | 2.70±0.15                | 9.9   |
| <i>f</i> <sub>60</sub>                 | 26.2480±0.0017               | 0.13±0.03        | -1.65±0.10               | 21.0  | <i>f</i> <sub>157</sub>                | 26.3657±0.0024               | 0.08±0.03        | -1.40±0.15               | 9.8   |
| <i>f</i> <sub>61</sub>                 | 19.4536±0.0017               | 0.14±0.03        | -3.08±0.11               | 19.5  | <i>f</i> <sub>158</sub>                | 2.7657±0.0024                | 0.08±0.03        | -3.03±0.15               | 9.9   |
| <i>f</i> <sub>62</sub>                 | 15.5228±0.0017               | 0.12±0.03        | -1.65±0.11               | 19.6  | <i>f</i> <sub>159</sub>                | 15.4877±0.0025               | 0.08±0.03        | 2.90±0.15                | 9.2   |
| <i>f</i> <sub>63</sub>                 | 26.2677±0.0017               | 0.13±0.03        | -2.66±0.11               | 19.3  | <i>f</i> <sub>160</sub>                | 26.8580±0.0025               | 0.08±0.03        | -2.91±0.15               | 9.1   |
| <i>f</i> <sub>64</sub>                 | 27.0471±0.0017               | 0.13±0.03        | -3.08±0.11               | 19.1  | <i>f</i> <sub>161</sub>                | 21.6989±0.0025               | 0.08±0.03        | -0.40±0.15               | 9.1   |
| <i>f</i> <sub>65</sub>                 | 46.1662±0.0017               | 0.13±0.03        | -2.84±0.11               | 19.3  | <i>f</i> <sub>162</sub>                | 29.1738±0.0026               | 0.08±0.03        | 1.76±0.16                | 8.9   |
| <i>f</i> <sub>66</sub>                 | 25.7685±0.0018               | 0.13±0.03        | 2.12±0.11                | 18.7  | <i>f</i> <sub>163</sub>                | 19.0103±0.0025               | 0.08±0.03        | -2.33±0.15               | 9.1   |
| <i>f</i> <sub>67</sub>                 | 2.9056±0.0018                | 0.17±0.04        | 0.12±0.11                | 18.6  | <i>f</i> <sub>164</sub>                | 14.7771±0.0025               | 0.08±0.03        | -0.48±0.16               | 9.0   |
| <i>f</i> <sub>68</sub>                 | 2.9252±0.0017                | 0.12±0.03        | 3.04±0.11                | 19.4  | <i>f</i> <sub>165</sub>                | 2.9789±0.0025                | 0.08±0.03        | -3.13±0.16               | 9.0   |
| <i>f</i> <sub>69</sub>                 | 7.6417±0.0018                | 0.13±0.03        | 1.72±0.11                | 18.3  | <i>f</i> <sub>166</sub>                | 15.5029±0.0026               | 0.08±0.03        | -1.00±0.16               | 8.8   |
| <i>f</i> <sub>70</sub>                 | 21.6320±0.0018               | 0.12±0.03        | 3.10±0.11                | 17.1  | <i>f</i> <sub>167</sub>                | 13.2701±0.0026               | 0.08±0.03        | -1.90±0.16               | 8.9   |
| <i>f</i> <sub>71</sub>                 | 31.1426±0.0018               | 0.12±0.03        | 2.74±0.11                | 17.1  | <i>f</i> <sub>168</sub>                | 35.8974±0.0026               | 0.08±0.03        | 1.88±0.16                | 8.8   |
| <i>f</i> <sub>72</sub>                 | 5.5071±0.0018                | 0.12±0.03        | -1.60±0.11               | 17.2  | <i>f</i> <sub>169</sub>                | 35.6007±0.0026               | 0.08±0.03        | -2.64±0.16               | 8.8   |
| <i>f</i> <sub>73</sub>                 | 27.0097±0.0018               | 0.12±0.03        | 1.30±0.11                | 17.6  | <i>f</i> <sub>170</sub>                | 4.2890±0.0026                | 0.08±0.03        | 2.30±0.16                | 8.8   |
| <i>f</i> <sub>74</sub>                 | 36.3690±0.0018               | 0.12±0.03        | 0.15±0.11                | 17.3  | <i>f</i> <sub>171</sub>                | 10.7058±0.0026               | 0.08±0.03        | -1.79±0.16               | 8.6   |
| <i>f</i> <sub>75</sub>                 | 23.8167±0.0019               | 0.12±0.03        | -0.19±0.11               | 16.8  | <i>f</i> <sub>172</sub>                | 24.1284±0.0026               | 0.08±0.03        | -2.80±0.16               | 8.6   |
| <i>f</i> <sub>76</sub>                 | 5.3994±0.0019                | 0.12±0.03        | -2.13±0.11               | 16.8  | <i>f</i> <sub>173</sub>                | 32.7195±0.0026               | 0.07±0.02        | 0.69±0.16                | 8.4   |
| <i>f</i> <sub>77</sub>                 | 3.6765±0.0019                | 0.12±0.03        | 0.45±0.11                | 16.6  | <i>f</i> <sub>174</sub>                | 28.9201±0.0027               | 0.07±0.02        | 0.09±0.16                | 8.1   |
| <i>f</i> <sub>78</sub>                 | 16.6649±0.0019               | 0.12±0.03        | -3.00±0.11               | 16.7  | <i>f</i> <sub>175</sub>                | 18.9448±0.0027               | 0.07±0.02        | 0.50±0.16                | 8.0   |
| <i>f</i> <sub>79</sub>                 | 33.1146±0.0019               | 0.11±0.03        | 1.69±0.12                | 16.2  | <i>f</i> <sub>176</sub>                | 19.5272±0.0027               | 0.07±0.02        | 1.71±0.16                | 8.0   |
| <i>f</i> <sub>80</sub>                 | 10.2435±0.0019               | 0.12±0.03        | -2.12±0.11               | 16.5  | <i>f</i> <sub>177</sub>                | 1.5457±0.0027                | 0.07±0.02        | -0.81±0.16               | 8.2   |
| <i>f</i> <sub>81</sub>                 | 19.5009±0.0019               | 0.10±0.03        | 0.16±0.12                | 15.5  | <i>f</i> <sub>178</sub>                | 2.2283±0.0027                | 0.07±0.02        | 1.51±0.16                | 8.1   |
| <i>f</i> <sub>82</sub>                 | 27.8160±0.0019               | 0.11±0.03        | -2.36±0.12               | 15.5  | <i>f</i> <sub>179</sub>                | 19.9427±0.0027               | 0.07±0.02        | -0.16±0.16               | 8.1   |
| <i>f</i> <sub>83</sub>                 | 13.4177±0.0019               | 0.11±0.03        | 0.89±0.12                | 15.5  | <i>f</i> <sub>180</sub>                | 5.4874±0.0027                | 0.07±0.02        | -0.33±0.16               | 8.0   |
| <i>f</i> <sub>84</sub>                 | 55.8677±0.0020               | 0.11±0.03        | 1.43±0.12                | 15.3  | <i>f</i> <sub>181</sub>                | 4.0093±0.0027                | 0.07±0.02        | 2.91±0.16                | 8.0   |

## Appendix D. Frequencies of individual Hybrid Stars

| Frequency list of 0102698013 continued |                              |                  |                          |       | Frequency list of 0102699841 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{200}$                              | 0.2362±0.0027                | 0.07±0.02        | 3.05±0.17                | 7.9   | $f_{25}$                               | 0.1482±0.0013                | 0.25±0.04        | 2.81±0.08                | 35.2  |
| $f_{201}$                              | 0.4333±0.0027                | 0.07±0.03        | -2.95±0.17               | 7.8   | $f_{26}$                               | 5.2190±0.0013                | 0.22±0.04        | 0.32±0.08                | 34.1  |
| $f_{202}$                              | 31.0425±0.0027               | 0.07±0.02        | 2.34±0.16                | 8.0   | $f_{27}$                               | 4.3072±0.0013                | 0.21±0.04        | 0.98±0.08                | 32.7  |
| $f_{203}$                              | 24.7415±0.0028               | 0.07±0.03        | -1.18±0.17               | 7.7   | $f_{28}$                               | 1.8171±0.0014                | 0.22±0.04        | -0.38±0.08               | 30.2  |
| $f_{204}$                              | 31.7686±0.0028               | 0.07±0.03        | -1.00±0.17               | 7.7   | $f_{29}$                               | 0.2513±0.0014                | 0.24±0.04        | 3.04±0.08                | 30.4  |
| $f_{205}$                              | 41.9403±0.0027               | 0.07±0.03        | -1.40±0.17               | 7.8   | $f_{30}$                               | 8.7674±0.0014                | 0.20±0.04        | 2.70±0.09                | 27.8  |
| $f_{206}$                              | 33.0692±0.0028               | 0.07±0.03        | -0.44±0.17               | 7.6   | $f_{31}$                               | 0.3345±0.0015                | 0.19±0.04        | 1.51±0.09                | 27.2  |
| $f_{208}$                              | 2.5181±0.0028                | 0.07±0.03        | -3.14±0.17               | 7.5   | $f_{32}$                               | 3.0196±0.0014                | 0.19±0.04        | 1.65±0.09                | 28.2  |
| $f_{209}$                              | 2.6878±0.0028                | 0.07±0.03        | -1.30±0.17               | 7.7   | $f_{33}$                               | 0.2806±0.0015                | 0.20±0.04        | -1.63±0.09               | 25.4  |
| $f_{210}$                              | 36.3243±0.0028               | 0.07±0.03        | -2.73±0.17               | 7.5   | $f_{35}$                               | 1.5678±0.0015                | 0.20±0.04        | -1.28±0.09               | 25.2  |
| $f_{211}$                              | 21.2899±0.0028               | 0.07±0.03        | 1.97±0.17                | 7.5   | $f_{36}$                               | 0.8702±0.0015                | 0.20±0.04        | -2.34±0.09               | 25.4  |
| $f_{212}$                              | 15.3393±0.0028               | 0.07±0.03        | 1.55±0.17                | 7.5   | $f_{37}$                               | 4.4662±0.0015                | 0.17±0.03        | -0.33±0.09               | 25.4  |
| $f_{213}$                              | 4.2241±0.0028                | 0.07±0.03        | 1.74±0.17                | 7.3   | $f_{38}$                               | 0.1423±0.0015                | 0.21±0.04        | -1.84±0.09               | 25.7  |
| $f_{218}$                              | 34.9576±0.0028               | 0.07±0.03        | -3.12±0.17               | 7.4   | $f_{39}$                               | 0.1947±0.0015                | 0.16±0.03        | 1.65±0.09                | 25.4  |
| $f_{219}$                              | 17.3299±0.0028               | 0.07±0.03        | 2.00±0.17                | 7.2   | $f_{40}$                               | 0.3918±0.0015                | 0.19±0.04        | 2.32±0.09                | 24.3  |
| $f_{220}$                              | 13.7804±0.0028               | 0.07±0.03        | 2.82±0.17                | 7.2   | $f_{41}$                               | 0.3518±0.0015                | 0.19±0.04        | -0.55±0.09               | 26.6  |
| $f_{221}$                              | 30.2546±0.0029               | 0.07±0.03        | 2.79±0.17                | 7.1   | $f_{42}$                               | 0.6016±0.0015                | 0.18±0.04        | -2.39±0.09               | 24.9  |
| $f_{222}$                              | 33.1306±0.0029               | 0.07±0.03        | 0.91±0.18                | 6.9   | $f_{43}$                               | 7.4963±0.0015                | 0.18±0.04        | 2.39±0.09                | 24.4  |
| $f_{223}$                              | 24.6445±0.0029               | 0.07±0.03        | -2.78±0.18               | 7.0   | $f_{44}$                               | 0.2617±0.0016                | 0.17±0.03        | -0.37±0.10               | 23.7  |
| $f_{224}$                              | 36.8996±0.0029               | 0.06±0.02        | -0.93±0.18               | 6.8   | $f_{45}$                               | 5.5530±0.0016                | 0.16±0.03        | 0.97±0.10                | 23.4  |
| $f_{225}$                              | 1.2559±0.0029                | 0.06±0.02        | 1.21±0.18                | 6.8   | $f_{47}$                               | 6.7000±0.0016                | 0.15±0.03        | -0.59±0.10               | 21.7  |
| $f_{226}$                              | 1.8737±0.0029                | 0.06±0.02        | -1.54±0.18               | 6.8   | $f_{48}$                               | 16.5579±0.0017               | 0.16±0.04        | -1.47±0.10               | 20.6  |
| $f_{227}$                              | 25.3050±0.0030               | 0.06±0.02        | -2.86±0.18               | 6.6   | $f_{49}$                               | 2.9874±0.0017                | 0.16±0.03        | 1.68±0.10                | 21.3  |
| $f_{228}$                              | 14.4822±0.0029               | 0.06±0.02        | -0.80±0.18               | 6.7   | $f_{50}$                               | 0.1165±0.0017                | 0.13±0.03        | 0.66±0.10                | 19.7  |
| $f_{229}$                              | 12.4208±0.0029               | 0.06±0.02        | -1.85±0.18               | 6.7   | $f_{52}$                               | 1.3760±0.0018                | 0.15±0.04        | -1.55±0.11               | 17.4  |
| $f_{230}$                              | 24.5132±0.0030               | 0.06±0.02        | -0.44±0.18               | 6.6   | $f_{53}$                               | 1.3553±0.0018                | 0.14±0.03        | -0.85±0.11               | 17.5  |
| $f_{231}$                              | 38.8749±0.0030               | 0.06±0.02        | -1.13±0.18               | 6.6   | $f_{54}$                               | 1.9182±0.0018                | 0.14±0.03        | 1.79±0.11                | 17.4  |
| $f_{232}$                              | 32.9458±0.0029               | 0.06±0.02        | 1.98±0.18                | 6.7   | $f_{55}$                               | 0.2310±0.0019                | 0.16±0.04        | -2.58±0.12               | 16.3  |
| $f_{233}$                              | 2.0126±0.0029                | 0.06±0.02        | -0.87±0.18               | 6.7   | $f_{56}$                               | 5.0974±0.0019                | 0.13±0.03        | -1.35±0.12               | 16.3  |
| $f_{235}$                              | 25.5670±0.0030               | 0.06±0.02        | 3.13±0.18                | 6.5   | $f_{57}$                               | 0.4721±0.0019                | 0.14±0.04        | 2.53±0.12                | 15.7  |
| $f_{237}$                              | 33.4439±0.0030               | 0.06±0.02        | -0.52±0.19               | 6.3   | $f_{58}$                               | 3.3488±0.0019                | 0.14±0.04        | -0.60±0.12               | 16.0  |
| $f_{238}$                              | 15.5899±0.0030               | 0.06±0.02        | -2.93±0.18               | 6.5   | $f_{60}$                               | 4.6628±0.0020                | 0.12±0.03        | -1.12±0.12               | 14.8  |
| $f_{239}$                              | 32.7535±0.0030               | 0.06±0.02        | 1.72±0.19                | 6.3   | $f_{61}$                               | 0.5483±0.0020                | 0.12±0.03        | 1.38±0.12                | 14.8  |
| $f_{240}$                              | 8.4394±0.0030                | 0.06±0.02        | -2.60±0.19               | 6.3   | $f_{62}$                               | 0.3085±0.0021                | 0.10±0.03        | -0.26±0.13               | 13.3  |
| $f_{241}$                              | 17.4438±0.0030               | 0.06±0.02        | 1.69±0.18                | 6.4   | $f_{63}$                               | 18.6985±0.0022               | 0.12±0.03        | -3.06±0.13               | 12.3  |
| $f_{242}$                              | 13.9519±0.0030               | 0.06±0.02        | -0.56±0.19               | 6.3   | $f_{64}$                               | 4.5483±0.0022                | 0.11±0.03        | 3.00±0.13                | 12.0  |
| $f_{243}$                              | 0.1796±0.0030                | 0.06±0.02        | -2.29±0.19               | 6.3   | $f_{65}$                               | 0.9738±0.0022                | 0.12±0.03        | -0.11±0.13               | 12.1  |
| $f_{244}$                              | 2.0695±0.0031                | 0.06±0.02        | -2.57±0.19               | 6.2   | $f_{66}$                               | 0.9955±0.0022                | 0.11±0.03        | -0.27±0.13               | 12.1  |
| $f_{246}$                              | 4.4184±0.0031                | 0.06±0.02        | 0.58±0.19                | 6.1   | $f_{67}$                               | 19.6537±0.0022               | 0.12±0.03        | -0.93±0.13               | 12.3  |
| $f_{247}$                              | 29.4830±0.0031               | 0.06±0.02        | -2.65±0.19               | 6.1   | $f_{68}$                               | 5.5883±0.0022                | 0.11±0.03        | 0.07±0.14                | 11.6  |
| $f_{248}$                              | 1.0173±0.0030                | 0.06±0.02        | 0.58±0.19                | 6.3   | $f_{69}$                               | 0.4555±0.0022                | 0.10±0.03        | 0.59±0.14                | 11.6  |
| $f_{249}$                              | 7.2673±0.0031                | 0.06±0.02        | 2.72±0.19                | 6.2   | $f_{70}$                               | 0.8514±0.0022                | 0.12±0.03        | 2.71±0.14                | 11.8  |
| $f_{250}$                              | 14.2823±0.0030               | 0.06±0.02        | 2.97±0.19                | 6.3   | $f_{71}$                               | 3.4019±0.0022                | 0.11±0.03        | -2.17±0.14               | 11.7  |
| $f_{251}$                              | 6.3139±0.0031                | 0.06±0.02        | -1.30±0.19               | 6.0   | $f_{72}$                               | 4.0612±0.0023                | 0.11±0.03        | 2.54±0.14                | 10.8  |
| $f_{252}$                              | 6.2949±0.0029                | 0.06±0.02        | -1.91±0.18               | 6.9   | $f_{73}$                               | 5.5595±0.0023                | 0.11±0.03        | 2.14±0.14                | 10.6  |
| $f_{253}$                              | 20.3287±0.0031               | 0.06±0.02        | -2.20±0.19               | 6.1   | $f_{75}$                               | 0.6411±0.0023                | 0.09±0.03        | 1.07±0.14                | 10.6  |
| $f_{254}$                              | 35.6333±0.0031               | 0.06±0.02        | 2.83±0.19                | 6.0   | $f_{76}$                               | 0.2387±0.0024                | 0.12±0.04        | 2.39±0.14                | 10.5  |
| $f_{255}$                              | 8.1051±0.0031                | 0.06±0.02        | 0.22±0.19                | 6.0   | $f_{77}$                               | 19.2553±0.0024               | 0.10±0.03        | 2.96±0.15                | 10.0  |
| $f_{256}$                              | 0.4687±0.0031                | 0.06±0.02        | 1.80±0.19                | 6.0   | $f_{78}$                               | 0.7060±0.0024                | 0.10±0.03        | -1.31±0.15               | 9.9   |
|                                        |                              |                  |                          |       | $f_{79}$                               | 15.6985±0.0024               | 0.10±0.03        | 1.00±0.15                | 10.3  |
|                                        |                              |                  |                          |       | $f_{80}$                               | 2.5679±0.0025                | 0.10±0.03        | -2.02±0.15               | 9.7   |
|                                        |                              |                  |                          |       | $f_{81}$                               | 5.5440±0.0025                | 0.10±0.03        | 1.43±0.15                | 9.5   |
|                                        |                              |                  |                          |       | $f_{82}$                               | 4.2547±0.0024                | 0.10±0.03        | 0.52±0.15                | 10.0  |
|                                        |                              |                  |                          |       | $f_{83}$                               | 5.6342±0.0025                | 0.10±0.03        | 2.04±0.15                | 9.2   |
|                                        |                              |                  |                          |       | $f_{84}$                               | 0.2146±0.0025                | 0.11±0.04        | 0.30±0.15                | 9.2   |
|                                        |                              |                  |                          |       | $f_{85}$                               | 0.3790±0.0025                | 0.11±0.04        | -0.99±0.15               | 9.7   |
|                                        |                              |                  |                          |       | $f_{86}$                               | 0.1368±0.0024                | 0.11±0.04        | -2.33±0.15               | 9.8   |
|                                        |                              |                  |                          |       | $f_{87}$                               | 0.1798±0.0025                | 0.11±0.04        | 1.27±0.15                | 9.4   |
|                                        |                              |                  |                          |       | $f_{88}$                               | 0.4068±0.0025                | 0.10±0.03        | -2.68±0.15               | 9.3   |
|                                        |                              |                  |                          |       | $f_{89}$                               | 1.7224±0.0026                | 0.09±0.03        | 2.82±0.16                | 8.9   |
|                                        |                              |                  |                          |       | $f_{90}$                               | 0.7984±0.0025                | 0.11±0.04        | 1.84±0.15                | 9.3   |
|                                        |                              |                  |                          |       | $f_{91}$                               | 0.8924±0.0025                | 0.09±0.03        | -0.15±0.15               | 9.4   |
|                                        |                              |                  |                          |       | $f_{93}$                               | 7.1279±0.0026                | 0.09±0.03        | 2.67±0.16                | 8.9   |
|                                        |                              |                  |                          |       | $f_{94}$                               | 0.5948±0.0026                | 0.09±0.03        | 3.04±0.16                | 8.4   |
|                                        |                              |                  |                          |       | $f_{95}$                               | 4.8281±0.0026                | 0.09±0.03        | -3.12±0.16               | 8.8   |
|                                        |                              |                  |                          |       | $f_{96}$                               | 6.7124±0.0027                | 0.09±0.03        | -1.86±0.16               | 8.1   |
|                                        |                              |                  |                          |       | $f_{98}$                               | 1.8400±0.0027                | 0.09±0.03        | -1.45±0.16               | 8.0   |
|                                        |                              |                  |                          |       | $f_{99}$                               | 5.9894±0.0027                | 0.09±0.03        | 2.95±0.17                | 7.8   |
|                                        |                              |                  |                          |       | $f_{100}$                              | 3.6392±0.0027                | 0.09±0.03        | -1.95±0.16               | 8.0   |
|                                        |                              |                  |                          |       | $f_{101}$                              | 1.4793±0.0028                | 0.08±0.03        | 2.02±0.17                | 7.7   |
|                                        |                              |                  |                          |       | $f_{102}$                              | 0.8206±0.0027                | 0.09±0.03        | 2.23±0.17                | 7.9   |
|                                        |                              |                  |                          |       | $f_{103}$                              | 0.3618±0.0027                | 0.09±0.03        | 1.47±0.17                | 7.9   |
|                                        |                              |                  |                          |       | $f_{104}$                              | 14.5301±0.0027               | 0.09±0.03        | 1.72±0.17                | 7.8   |
|                                        |                              |                  |                          |       | $f_{105}$                              | 0.5614±0.0028                | 0.09±0.03        | 0.36±0.17                | 7.6   |
|                                        |                              |                  |                          |       | $f_{106}$                              | 0.5000±0.0028                | 0.10±0.04        | -1.61±0.17               | 7.6   |
|                                        |                              |                  |                          |       | $f_{107}$                              | 0.6884±0.0028                | 0.09±0.03        | -0.80±0.17               | 7.4   |
|                                        |                              |                  |                          |       | Frequency list of 0102699841 continued |                              |                  |                          |       |
|                                        |                              |                  |                          |       |                                        |                              |                  |                          |       |
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## Appendix D. Frequencies of individual Hybrid Stars

| Frequency list of 0102699841 continued |                              |                  |                          |       | Frequency list of 0102702779 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{109}$                              | 1.1649±0.0028                | 0.08±0.03        | 0.88±0.17                | 7.4   | $f_{48}$                               | 2.2622±0.0015                | 0.14±0.03        | 1.65±0.09                | 24.7  |
| $f_{110}$                              | 0.3233±0.0028                | 0.09±0.03        | -1.58±0.17               | 7.3   | $f_{49}$                               | 20.8702±0.0016               | 0.15±0.03        | 2.15±0.10                | 23.8  |
| $f_{111}$                              | 4.6987±0.0029                | 0.08±0.03        | 2.76±0.18                | 6.8   | $f_{51}$                               | 4.6406±0.0016                | 0.14±0.03        | -3.04±0.10               | 23.6  |
| $f_{112}$                              | 0.4186±0.0030                | 0.08±0.03        | 2.06±0.18                | 6.6   | $f_{52}$                               | 22.3478±0.0016               | 0.13±0.03        | -0.19±0.10               | 23.0  |
| $f_{113}$                              | 2.6858±0.0030                | 0.08±0.03        | 2.86±0.18                | 6.4   | $f_{53}$                               | 19.4603±0.0016               | 0.14±0.03        | 1.94±0.10                | 21.8  |
| $f_{114}$                              | 2.0488±0.0030                | 0.08±0.03        | 0.02±0.18                | 6.4   | $f_{54}$                               | 4.5656±0.0016                | 0.13±0.03        | 2.23±0.10                | 21.8  |
| $f_{115}$                              | 1.0547±0.0030                | 0.09±0.04        | 0.86±0.19                | 6.3   | $f_{55}$                               | 19.2605±0.0016               | 0.14±0.03        | -2.85±0.10               | 21.7  |
| $f_{117}$                              | 3.3219±0.0031                | 0.08±0.03        | 2.77±0.19                | 6.0   | $f_{56}$                               | 17.0422±0.0016               | 0.13±0.03        | -0.01±0.10               | 21.7  |
| $f_{118}$                              | 4.8009±0.0032                | 0.08±0.03        | 2.62±0.19                | 5.8   | $f_{57}$                               | 9.1637±0.0017                | 0.14±0.03        | 3.04±0.10                | 21.3  |
| $f_{119}$                              | 4.9283±0.0032                | 0.07±0.03        | -0.19±0.20               | 5.7   | $f_{58}$                               | 4.2709±0.0017                | 0.14±0.03        | -0.87±0.10               | 20.4  |
| $f_{121}$                              | 1.7467±0.0032                | 0.07±0.03        | 0.29±0.20                | 5.7   | $f_{59}$                               | 19.0783±0.0017               | 0.13±0.03        | -2.57±0.10               | 20.2  |
| $f_{122}$                              | 6.4646±0.0031                | 0.08±0.03        | -2.48±0.19               | 6.0   | $f_{60}$                               | 8.1090±0.0017                | 0.13±0.03        | -2.40±0.10               | 20.0  |
| $f_{123}$                              | 1.1341±0.0032                | 0.07±0.03        | 0.84±0.20                | 5.6   | $f_{62}$                               | 21.6958±0.0018               | 0.12±0.03        | -1.29±0.11               | 18.9  |
| $f_{124}$                              | 1.4335±0.0032                | 0.07±0.03        | -1.70±0.20               | 5.6   | $f_{63}$                               | 18.6128±0.0018               | 0.12±0.03        | 0.01±0.11                | 18.6  |
| $f_{125}$                              | 13.9482±0.0033               | 0.07±0.03        | 2.41±0.20                | 5.5   | $f_{64}$                               | 31.5175±0.0018               | 0.12±0.03        | 1.60±0.11                | 18.7  |
| $f_{126}$                              | 0.7509±0.0032                | 0.08±0.03        | -2.52±0.20               | 5.6   | $f_{65}$                               | 3.3459±0.0018                | 0.12±0.03        | 2.96±0.11                | 18.7  |
| $f_{127}$                              | 0.8364±0.0032                | 0.08±0.03        | -0.09±0.19               | 5.8   | $f_{66}$                               | 8.4434±0.0018                | 0.12±0.03        | -2.61±0.11               | 17.5  |
| $f_{128}$                              | 0.6206±0.0032                | 0.08±0.03        | 1.25±0.19                | 5.8   | $f_{67}$                               | 4.7328±0.0018                | 0.12±0.03        | -2.90±0.11               | 17.6  |
| $f_{129}$                              | 0.9279±0.0032                | 0.07±0.03        | -2.62±0.19               | 5.8   | $f_{68}$                               | 0.7240±0.0019                | 0.11±0.03        | -2.72±0.11               | 17.0  |
| $f_{130}$                              | 5.7545±0.0033                | 0.07±0.03        | -0.68±0.20               | 5.5   | $f_{69}$                               | 15.7330±0.0019               | 0.11±0.03        | -1.21±0.12               | 16.1  |
| $f_{131}$                              | 0.4816±0.0033                | 0.07±0.03        | 2.78±0.20                | 5.5   | $f_{73}$                               | 12.7020±0.0019               | 0.11±0.03        | -2.66±0.12               | 16.1  |
| $f_{132}$                              | 3.7362±0.0032                | 0.07±0.03        | 0.35±0.20                | 5.6   | $f_{74}$                               | 2.3161±0.0019                | 0.12±0.03        | -2.41±0.12               | 16.0  |
| $f_{133}$                              | 5.0516±0.0033                | 0.07±0.03        | -3.01±0.20               | 5.5   | $f_{75}$                               | 18.2742±0.0019               | 0.11±0.03        | 2.59±0.12                | 15.6  |
| $f_{134}$                              | 2.7967±0.0033                | 0.07±0.03        | 2.86±0.20                | 5.3   | $f_{76}$                               | 14.3980±0.0019               | 0.11±0.03        | -2.24±0.12               | 15.4  |
| $f_{135}$                              | 1.0344±0.0033                | 0.08±0.04        | 2.54±0.20                | 5.2   | $f_{77}$                               | 55.8641±0.0020               | 0.11±0.03        | -1.04±0.12               | 14.2  |
| $f_{136}$                              | 2.3095±0.0033                | 0.07±0.03        | -0.88±0.20               | 5.2   | $f_{78}$                               | 2.4990±0.0020                | 0.10±0.03        | 2.63±0.12                | 13.9  |
| $f_{139}$                              | 3.3765±0.0033                | 0.07±0.03        | 1.23±0.20                | 5.3   | $f_{82}$                               | 0.1011±0.0020                | 0.09±0.02        | -2.60±0.12               | 13.9  |
| $f_{140}$                              | 1.5555±0.0033                | 0.07±0.03        | -0.25±0.20               | 5.3   | $f_{83}$                               | 3.9564±0.0021                | 0.10±0.03        | -0.29±0.13               | 13.3  |
| $f_{141}$                              | 1.0158±0.0033                | 0.07±0.03        | -2.59±0.20               | 5.3   | $f_{84}$                               | 7.0730±0.0021                | 0.10±0.03        | 1.08±0.13                | 13.1  |
| $f_{142}$                              | 11.4714±0.0034               | 0.07±0.03        | 2.72±0.21                | 5.1   | $f_{85}$                               | 2.1551±0.0021                | 0.10±0.03        | -1.88±0.13               | 12.9  |
|                                        |                              |                  |                          |       | $f_{86}$                               | 0.2139±0.0022                | 0.09±0.03        | -1.88±0.13               | 12.6  |
|                                        |                              |                  |                          |       | $f_{88}$                               | 1.9530±0.0022                | 0.09±0.03        | 0.62±0.14                | 11.8  |
|                                        |                              |                  |                          |       | $f_{89}$                               | 9.4063±0.0022                | 0.09±0.03        | 1.18±0.14                | 11.7  |
|                                        |                              |                  |                          |       | $f_{90}$                               | 19.2274±0.0022               | 0.09±0.03        | 1.45±0.14                | 11.7  |
|                                        |                              |                  |                          |       | $f_{91}$                               | 3.7659±0.0022                | 0.09±0.03        | 3.08±0.14                | 11.7  |
|                                        |                              |                  |                          |       | $f_{93}$                               | 28.6083±0.0023               | 0.10±0.03        | -2.06±0.14               | 11.1  |
|                                        |                              |                  |                          |       | $f_{94}$                               | 0.3338±0.0023                | 0.08±0.02        | 0.49±0.14                | 10.6  |
|                                        |                              |                  |                          |       | $f_{95}$                               | 30.8524±0.0024               | 0.09±0.03        | -2.01±0.15               | 10.3  |
|                                        |                              |                  |                          |       | $f_{96}$                               | 22.2552±0.0024               | 0.09±0.03        | -2.89±0.15               | 10.2  |
|                                        |                              |                  |                          |       | $f_{98}$                               | 26.5676±0.0024               | 0.09±0.03        | -2.79±0.15               | 10.2  |
|                                        |                              |                  |                          |       | $f_{99}$                               | 0.6673±0.0024                | 0.08±0.03        | -2.82±0.15               | 9.9   |
|                                        |                              |                  |                          |       | $f_{100}$                              | 0.6826±0.0025                | 0.08±0.03        | 1.65±0.15                | 9.4   |
|                                        |                              |                  |                          |       | $f_{102}$                              | 3.1481±0.0025                | 0.08±0.03        | 0.57±0.15                | 9.4   |
|                                        |                              |                  |                          |       | $f_{103}$                              | 0.1160±0.0024                | 0.09±0.03        | -1.69±0.15               | 9.9   |
|                                        |                              |                  |                          |       | $f_{104}$                              | 31.4433±0.0025               | 0.08±0.03        | 0.52±0.15                | 9.4   |
|                                        |                              |                  |                          |       | $f_{105}$                              | 2.0543±0.0025                | 0.08±0.03        | -2.84±0.15               | 9.3   |
|                                        |                              |                  |                          |       | $f_{106}$                              | 3.0405±0.0025                | 0.08±0.03        | -2.54±0.15               | 9.3   |
|                                        |                              |                  |                          |       | $f_{107}$                              | 19.3468±0.0025               | 0.08±0.03        | 2.93±0.15                | 9.2   |
|                                        |                              |                  |                          |       | $f_{108}$                              | 19.5278±0.0025               | 0.08±0.03        | 2.93±0.15                | 9.4   |
|                                        |                              |                  |                          |       | $f_{109}$                              | 22.4282±0.0025               | 0.08±0.03        | 0.42±0.15                | 9.1   |
|                                        |                              |                  |                          |       | $f_{110}$                              | 22.3153±0.0025               | 0.08±0.03        | 0.73±0.15                | 9.5   |
|                                        |                              |                  |                          |       | $f_{111}$                              | 0.1242±0.0025                | 0.09±0.03        | -1.00±0.15               | 9.1   |
|                                        |                              |                  |                          |       | $f_{112}$                              | 0.2049±0.0025                | 0.08±0.03        | 1.00±0.15                | 9.3   |
|                                        |                              |                  |                          |       | $f_{113}$                              | 0.1412±0.0025                | 0.08±0.03        | -0.32±0.15               | 9.5   |
|                                        |                              |                  |                          |       | $f_{114}$                              | 26.8115±0.0025               | 0.08±0.03        | 0.35±0.15                | 9.1   |
|                                        |                              |                  |                          |       | $f_{115}$                              | 15.0936±0.0026               | 0.08±0.03        | 2.58±0.16                | 8.4   |
|                                        |                              |                  |                          |       | $f_{116}$                              | 7.5045±0.0026                | 0.08±0.03        | -0.74±0.16               | 8.4   |
|                                        |                              |                  |                          |       | $f_{117}$                              | 20.7736±0.0026               | 0.08±0.03        | -0.72±0.16               | 8.4   |
|                                        |                              |                  |                          |       | $f_{118}$                              | 42.3707±0.0026               | 0.07±0.02        | -1.32±0.16               | 8.3   |
|                                        |                              |                  |                          |       | $f_{122}$                              | 2.0050±0.0026                | 0.12±0.04        | -1.39±0.16               | 8.9   |
|                                        |                              |                  |                          |       | $f_{123}$                              | 36.5444±0.0027               | 0.07±0.02        | 2.42±0.16                | 8.1   |
|                                        |                              |                  |                          |       | $f_{124}$                              | 3.2303±0.0027                | 0.07±0.02        | 0.83±0.16                | 8.1   |
|                                        |                              |                  |                          |       | $f_{125}$                              | 13.2703±0.0027               | 0.07±0.02        | -0.82±0.16               | 8.1   |
|                                        |                              |                  |                          |       | $f_{126}$                              | 5.1451±0.0028                | 0.07±0.03        | 2.53±0.17                | 7.7   |
|                                        |                              |                  |                          |       | $f_{130}$                              | 13.8213±0.0028               | 0.07±0.03        | 0.37±0.17                | 7.6   |
|                                        |                              |                  |                          |       | $f_{131}$                              | 5.0250±0.0028                | 0.07±0.03        | 0.96±0.17                | 7.5   |
|                                        |                              |                  |                          |       | $f_{132}$                              | 17.9238±0.0028               | 0.07±0.03        | -0.23±0.17               | 7.4   |
|                                        |                              |                  |                          |       | $f_{140}$                              | 22.7192±0.0028               | 0.07±0.03        | 2.87±0.17                | 7.3   |
|                                        |                              |                  |                          |       | $f_{145}$                              | 16.5837±0.0028               | 0.07±0.03        | 2.81±0.17                | 7.3   |
|                                        |                              |                  |                          |       | $f_{146}$                              | 3.5864±0.0028                | 0.07±0.03        | -0.48±0.17               | 7.2   |
|                                        |                              |                  |                          |       | $f_{147}$                              | 8.2152±0.0028                | 0.07±0.03        | 1.47±0.17                | 7.2   |
|                                        |                              |                  |                          |       | $f_{148}$                              | 55.8552±0.0029               | 0.07±0.03        | 0.27±0.17                | 7.1   |
|                                        |                              |                  |                          |       | $f_{150}$                              | 15.6806±0.0029               | 0.07±0.03        | -0.82±0.18               | 6.8   |
|                                        |                              |                  |                          |       | $f_{151}$                              | 6.7192±0.0029                | 0.06±0.02        | 1.49±0.18                | 6.8   |
|                                        |                              |                  |                          |       | $f_{152}$                              | 6.2769±0.0030                | 0.06±0.02        | 2.82±0.18                | 6.5   |
|                                        |                              |                  |                          |       | $f_{153}$                              | 18.9175±0.0030               | 0.06±0.02        | -0.35±0.18               | 6.4   |
| Frequency list of 0102702779 continued |                              |                  |                          |       | Frequency list of 0102702779 continued |                              |                  |                          |       |

## Appendix D. Frequencies of individual Hybrid Stars

| Frequency list of 0102702779 continued |                              |                  |                          |       | Frequency list of 0102705065 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| <i>f</i> <sub>154</sub>                | 17.0135±0.0030               | 0.06±0.02        | -1.21±0.19               | 6.3   | <i>f</i> <sub>57</sub>                 | 6.9803±0.0019                | 0.19±0.05        | -0.84±0.12               | 16.3  |
| <i>f</i> <sub>156</sub>                | 20.3965±0.0030               | 0.06±0.02        | -1.90±0.19               | 6.3   | <i>f</i> <sub>59</sub>                 | 4.8625±0.0019                | 0.21±0.05        | 2.90±0.12                | 15.6  |
| <i>f</i> <sub>157</sub>                | 0.4384±0.0030                | 0.06±0.02        | -0.43±0.19               | 6.3   | <i>f</i> <sub>60</sub>                 | 2.3969±0.0019                | 0.18±0.05        | 0.81±0.12                | 15.5  |
| <i>f</i> <sub>158</sub>                | 20.8650±0.0031               | 0.06±0.02        | -0.86±0.19               | 6.1   | <i>f</i> <sub>61</sub>                 | 1.1804±0.0019                | 0.16±0.04        | -0.60±0.12               | 15.8  |
| <i>f</i> <sub>159</sub>                | 5.4290±0.0032                | 0.06±0.03        | -2.75±0.20               | 5.7   | <i>f</i> <sub>62</sub>                 | 2.3052±0.0020                | 0.19±0.05        | -1.97±0.12               | 15.2  |
| <i>f</i> <sub>160</sub>                | 14.3620±0.0032               | 0.06±0.03        | -1.35±0.20               | 5.7   | <i>f</i> <sub>63</sub>                 | 4.8173±0.0020                | 0.18±0.05        | -0.26±0.12               | 14.8  |
| <i>f</i> <sub>162</sub>                | 4.7094±0.0033                | 0.06±0.03        | 2.70±0.20                | 5.5   | <i>f</i> <sub>64</sub>                 | 0.8962±0.0020                | 0.16±0.04        | -1.72±0.12               | 14.6  |
| <i>f</i> <sub>163</sub>                | 0.4643±0.0033                | 0.06±0.03        | 0.90±0.20                | 5.5   | <i>f</i> <sub>65</sub>                 | 3.1503±0.0020                | 0.18±0.05        | 2.02±0.12                | 14.4  |
| <i>f</i> <sub>164</sub>                | 0.2230±0.0033                | 0.06±0.03        | -1.18±0.20               | 5.4   | <i>f</i> <sub>66</sub>                 | 3.3536±0.0020                | 0.21±0.06        | 1.90±0.12                | 14.5  |
| <i>f</i> <sub>165</sub>                | 29.0348±0.0033               | 0.06±0.03        | 2.18±0.20                | 5.4   | <i>f</i> <sub>67</sub>                 | 1.1607±0.0020                | 0.18±0.05        | 0.10±0.12                | 14.2  |
| <i>f</i> <sub>166</sub>                | 2.3583±0.0033                | 0.06±0.03        | -1.20±0.20               | 5.3   | <i>f</i> <sub>69</sub>                 | 2.7311±0.0020                | 0.20±0.05        | 0.92±0.12                | 14.5  |
| <i>f</i> <sub>167</sub>                | 0.8371±0.0033                | 0.06±0.03        | 0.50±0.20                | 5.3   | <i>f</i> <sub>70</sub>                 | 0.5172±0.0020                | 0.18±0.05        | -1.07±0.12               | 14.6  |
| <i>f</i> <sub>168</sub>                | 0.1630±0.0033                | 0.06±0.03        | 2.23±0.20                | 5.3   | <i>f</i> <sub>71</sub>                 | 4.0010±0.0020                | 0.17±0.05        | -2.89±0.12               | 14.0  |
| <i>f</i> <sub>169</sub>                | 17.1997±0.0033               | 0.06±0.03        | 0.05±0.20                | 5.3   | <i>f</i> <sub>72</sub>                 | 1.2486±0.0021                | 0.17±0.05        | 2.90±0.13                | 13.6  |
| <i>f</i> <sub>170</sub>                | 14.5976±0.0033               | 0.06±0.03        | 0.45±0.20                | 5.2   | <i>f</i> <sub>73</sub>                 | 0.7162±0.0020                | 0.15±0.04        | -2.87±0.12               | 14.0  |
| <i>f</i> <sub>171</sub>                | 12.9211±0.0034               | 0.06±0.03        | -0.13±0.21               | 5.1   | <i>f</i> <sub>74</sub>                 | 2.6265±0.0021                | 0.19±0.05        | -0.33±0.13               | 13.4  |
| <i>f</i> <sub>172</sub>                | 13.9414±0.0034               | 0.06±0.03        | -1.36±0.21               | 5.1   | <i>f</i> <sub>75</sub>                 | 0.8326±0.0020                | 0.18±0.05        | 1.81±0.12                | 13.9  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>76</sub>                 | 2.0557±0.0021                | 0.18±0.05        | 2.76±0.13                | 13.4  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>77</sub>                 | 2.6166±0.0021                | 0.17±0.05        | -0.46±0.13               | 13.5  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>78</sub>                 | 0.7477±0.0021                | 0.18±0.05        | -0.28±0.13               | 12.8  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>79</sub>                 | 3.8360±0.0021                | 0.17±0.05        | -2.45±0.13               | 13.3  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>80</sub>                 | 3.8821±0.0021                | 0.18±0.05        | 1.69±0.13                | 13.7  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>82</sub>                 | 4.8719±0.0021                | 0.16±0.04        | 1.32±0.13                | 12.7  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>83</sub>                 | 1.7542±0.0021                | 0.16±0.04        | -1.49±0.13               | 13.1  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>84</sub>                 | 3.4845±0.0021                | 0.17±0.05        | -3.05±0.13               | 12.8  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>85</sub>                 | 0.1326±0.0022                | 0.17±0.05        | 1.91±0.13                | 12.5  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>86</sub>                 | 1.8374±0.0022                | 0.14±0.04        | -0.41±0.13               | 12.3  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>89</sub>                 | 3.7311±0.0022                | 0.15±0.04        | -2.67±0.13               | 12.1  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>90</sub>                 | 3.5619±0.0022                | 0.17±0.05        | 2.78±0.14                | 11.6  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>91</sub>                 | 2.8243±0.0022                | 0.15±0.04        | -1.16±0.14               | 11.7  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>92</sub>                 | 2.6005±0.0022                | 0.16±0.05        | -1.15±0.14               | 11.6  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>93</sub>                 | 0.7999±0.0022                | 0.15±0.04        | 1.61±0.14                | 11.7  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>95</sub>                 | 1.9636±0.0023                | 0.14±0.04        | 0.25±0.14                | 10.9  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>96</sub>                 | 1.6881±0.0023                | 0.16±0.05        | -0.72±0.14               | 10.9  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>97</sub>                 | 0.5916±0.0023                | 0.14±0.04        | -1.68±0.14               | 11.3  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>98</sub>                 | 4.3715±0.0023                | 0.14±0.04        | -2.52±0.14               | 11.3  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>99</sub>                 | 0.9604±0.0023                | 0.11±0.03        | -1.95±0.14               | 10.9  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>100</sub>                | 13.9213±0.0023               | 0.15±0.04        | -0.09±0.14               | 11.4  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>103</sub>                | 1.6096±0.0024                | 0.14±0.04        | 1.32±0.15                | 10.2  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>104</sub>                | 4.9172±0.0024                | 0.14±0.04        | 0.41±0.15                | 10.3  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>105</sub>                | 2.4377±0.0024                | 0.14±0.04        | 1.72±0.15                | 10.0  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>106</sub>                | 0.8229±0.0024                | 0.13±0.04        | 2.34±0.15                | 10.3  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>107</sub>                | 2.7433±0.0025                | 0.14±0.05        | -1.55±0.15               | 9.6   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>108</sub>                | 2.9760±0.0024                | 0.16±0.05        | -2.97±0.15               | 10.0  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>109</sub>                | 2.4229±0.0024                | 0.13±0.04        | -0.96±0.15               | 9.9   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>110</sub>                | 3.5359±0.0025                | 0.15±0.05        | -2.34±0.15               | 9.7   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>113</sub>                | 0.7062±0.0025                | 0.14±0.05        | 0.92±0.15                | 9.4   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>114</sub>                | 0.7650±0.0025                | 0.14±0.05        | -2.57±0.15               | 9.5   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>115</sub>                | 3.3875±0.0025                | 0.14±0.05        | 0.12±0.15                | 9.3   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>116</sub>                | 2.6450±0.0025                | 0.15±0.05        | -3.12±0.15               | 9.6   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>117</sub>                | 2.9044±0.0025                | 0.14±0.05        | -2.14±0.15               | 9.3   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>118</sub>                | 6.0433±0.0025                | 0.13±0.04        | -1.17±0.16               | 9.0   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>119</sub>                | 5.8795±0.0025                | 0.13±0.04        | -1.63±0.15               | 9.2   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>120</sub>                | 4.4802±0.0025                | 0.12±0.04        | 2.77±0.15                | 9.3   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>121</sub>                | 3.3436±0.0025                | 0.13±0.04        | -0.87±0.16               | 9.0   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>122</sub>                | 4.2676±0.0026                | 0.12±0.04        | -2.03±0.16               | 8.8   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>123</sub>                | 3.1760±0.0026                | 0.11±0.04        | -1.31±0.16               | 8.7   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>124</sub>                | 3.0229±0.0026                | 0.12±0.04        | -1.17±0.16               | 8.6   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>125</sub>                | 1.6535±0.0026                | 0.13±0.04        | 2.77±0.16                | 8.5   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>126</sub>                | 2.5508±0.0026                | 0.13±0.04        | 0.85±0.16                | 8.6   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>127</sub>                | 1.6753±0.0026                | 0.12±0.04        | -2.91±0.16               | 8.6   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>128</sub>                | 2.1056±0.0026                | 0.13±0.04        | 0.08±0.16                | 8.7   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>129</sub>                | 3.5772±0.0027                | 0.16±0.06        | -3.14±0.16               | 8.2   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>130</sub>                | 3.5886±0.0025                | 0.13±0.04        | -2.62±0.16               | 9.0   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>131</sub>                | 3.7727±0.0026                | 0.11±0.04        | 0.88±0.16                | 8.6   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>132</sub>                | 2.9977±0.0026                | 0.13±0.05        | 0.13±0.16                | 8.3   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>133</sub>                | 0.6128±0.0026                | 0.12±0.04        | 2.40±0.16                | 8.4   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>134</sub>                | 3.3724±0.0027                | 0.12±0.04        | -2.62±0.16               | 8.1   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>135</sub>                | 4.4311±0.0027                | 0.12±0.04        | 1.60±0.16                | 8.2   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>136</sub>                | 5.7792±0.0027                | 0.12±0.04        | -0.35±0.16               | 8.1   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>137</sub>                | 5.6033±0.0027                | 0.12±0.04        | -2.56±0.16               | 8.2   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>138</sub>                | 1.2009±0.0027                | 0.13±0.05        | -2.93±0.16               | 8.1   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>139</sub>                | 4.2091±0.0026                | 0.13±0.04        | -0.12±0.16               | 8.4   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>140</sub>                | 1.0446±0.0026                | 0.12±0.04        | 0.76±0.16                | 8.5   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>141</sub>                | 0.9706±0.0026                | 0.13±0.04        | 0.21±0.16                | 8.5   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>142</sub>                | 55.8645±0.0027               | 0.12±0.04        | 0.51±0.16                | 8.2   |
| Frequency list of 0102705065 continued |                              |                  |                          |       | Frequency list of 0102705065 continued |                              |                  |                          |       |

## Appendix D. Frequencies of individual Hybrid Stars

| Frequency list of 0102705065 continued |                              |                  |                          |       | Frequency list of 0102706194 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{144}$                              | 5.0179±0.0026                | 0.13±0.04        | 2.58±0.16                | 8.5   | $f_4$                                  | 20.1366±0.0006               | 0.74±0.06        | 1.91±0.04                | 169.8 |
| $f_{145}$                              | 4.9751±0.0026                | 0.12±0.04        | -2.62±0.16               | 8.5   | $f_5$                                  | 20.5945±0.0008               | 0.58±0.06        | -0.74±0.05               | 96.7  |
| $f_{146}$                              | 5.1098±0.0027                | 0.12±0.04        | -0.92±0.16               | 8.2   | $f_6$                                  | 24.3516±0.0008               | 0.53±0.06        | 0.09±0.05                | 88.9  |
| $f_{147}$                              | 0.4585±0.0027                | 0.12±0.04        | 2.63±0.16                | 8.1   | $f_7$                                  | 24.3092±0.0008               | 0.55±0.05        | 2.22±0.05                | 100.6 |
| $f_{149}$                              | 0.8712±0.0027                | 0.11±0.04        | -3.09±0.16               | 8.0   | $f_8$                                  | 21.7686±0.0008               | 0.49±0.05        | -0.03±0.05               | 88.9  |
| $f_{150}$                              | 0.9194±0.0027                | 0.11±0.04        | 2.97±0.17                | 7.9   | $f_9$                                  | 20.0970±0.0008               | 0.48±0.05        | -1.39±0.05               | 87.2  |
| $f_{151}$                              | 0.1747±0.0027                | 0.11±0.04        | 0.32±0.16                | 8.1   | $f_{10}$                               | 17.1242±0.0008               | 0.50±0.05        | -1.06±0.05               | 86.6  |
| $f_{153}$                              | 2.4514±0.0027                | 0.12±0.04        | 2.20±0.17                | 7.8   | $f_{11}$                               | 17.0798±0.0008               | 0.50±0.05        | 1.83±0.05                | 93.5  |
| $f_{154}$                              | 3.0444±0.0027                | 0.14±0.05        | -1.81±0.17               | 7.9   | $f_{12}$                               | 16.9063±0.0009               | 0.45±0.05        | 1.70±0.05                | 79.8  |
| $f_{155}$                              | 3.0322±0.0026                | 0.13±0.04        | 1.78±0.16                | 8.6   | $f_{13}$                               | 20.5504±0.0009               | 0.47±0.05        | 0.91±0.05                | 73.5  |
| $f_{156}$                              | 4.1139±0.0028                | 0.12±0.04        | 0.31±0.17                | 7.7   | $f_{14}$                               | 20.5057±0.0010               | 0.39±0.05        | -2.43±0.06               | 63.3  |
| $f_{157}$                              | 1.4622±0.0028                | 0.10±0.04        | 0.32±0.17                | 7.5   | $f_{15}$                               | 13.8104±0.0010               | 0.38±0.05        | -1.65±0.06               | 59.3  |
| $f_{158}$                              | 5.8283±0.0028                | 0.12±0.04        | 2.09±0.17                | 7.7   | $f_{16}$                               | 22.7263±0.0010               | 0.37±0.05        | -2.15±0.06               | 60.8  |
| $f_{159}$                              | 3.9752±0.0028                | 0.12±0.04        | -2.25±0.17               | 7.4   | $f_{17}$                               | 25.8351±0.0011               | 0.35±0.05        | -1.75±0.07               | 50.4  |
| $f_{160}$                              | 3.4344±0.0028                | 0.11±0.04        | -1.13±0.17               | 7.5   | $f_{18}$                               | 19.9834±0.0011               | 0.31±0.05        | 3.09±0.07                | 45.7  |
| $f_{161}$                              | 3.7981±0.0028                | 0.12±0.04        | -2.04±0.17               | 7.4   | $f_{19}$                               | 19.0124±0.0012               | 0.29±0.05        | 1.79±0.07                | 38.8  |
| $f_{162}$                              | 4.4148±0.0029                | 0.11±0.04        | -1.84±0.17               | 7.1   | $f_{20}$                               | 0.1433±0.0012                | 0.22±0.04        | -1.01±0.07               | 39.2  |
| $f_{163}$                              | 4.7987±0.0029                | 0.11±0.04        | 1.43±0.18                | 6.9   | $f_{21}$                               | 22.9440±0.0012               | 0.29±0.05        | -0.93±0.08               | 38.5  |
| $f_{164}$                              | 4.7006±0.0029                | 0.11±0.04        | 1.03±0.17                | 7.1   | $f_{22}$                               | 1.2866±0.0012                | 0.26±0.04        | -2.95±0.08               | 38.6  |
| $f_{165}$                              | 13.5200±0.0029               | 0.10±0.04        | -0.88±0.18               | 6.9   | $f_{23}$                               | 17.0324±0.0012               | 0.27±0.04        | -2.75±0.08               | 38.6  |
| $f_{167}$                              | 4.3255±0.0029                | 0.10±0.04        | 0.07±0.18                | 6.8   | $f_{24}$                               | 22.4306±0.0013               | 0.26±0.04        | -0.85±0.08               | 34.0  |
| $f_{168}$                              | 4.1331±0.0029                | 0.10±0.04        | -1.51±0.18               | 6.7   | $f_{25}$                               | 1.6191±0.0014                | 0.25±0.04        | 1.17±0.08                | 31.8  |
| $f_{169}$                              | 1.2641±0.0030                | 0.10±0.04        | -2.52±0.18               | 6.5   | $f_{26}$                               | 30.6873±0.0015               | 0.23±0.04        | -1.97±0.09               | 27.2  |
| $f_{170}$                              | 2.3202±0.0030                | 0.11±0.04        | 0.30±0.18                | 6.5   | $f_{27}$                               | 20.6276±0.0015               | 0.23±0.04        | 0.39±0.09                | 26.2  |
| $f_{171}$                              | 5.2859±0.0030                | 0.10±0.04        | 2.75±0.19                | 6.3   | $f_{28}$                               | 16.6692±0.0015               | 0.23±0.04        | 0.90±0.09                | 27.5  |
| $f_{172}$                              | 4.2413±0.0030                | 0.10±0.04        | -1.99±0.18               | 6.4   | $f_{29}$                               | 1.3110±0.0015                | 0.20±0.04        | 2.01±0.09                | 25.4  |
| $f_{173}$                              | 4.2201±0.0030                | 0.11±0.04        | 1.42±0.19                | 6.3   | $f_{30}$                               | 0.2759±0.0015                | 0.21±0.04        | 2.70±0.09                | 24.8  |
| $f_{175}$                              | 2.8781±0.0030                | 0.10±0.04        | -1.01±0.18               | 6.4   | $f_{31}$                               | 19.8684±0.0016               | 0.21±0.04        | -0.18±0.10               | 23.7  |
| $f_{176}$                              | 1.2396±0.0030                | 0.10±0.04        | 1.97±0.19                | 6.3   | $f_{32}$                               | 22.6831±0.0016               | 0.20±0.04        | 0.32±0.10                | 23.4  |
| $f_{177}$                              | 1.3118±0.0030                | 0.10±0.04        | -0.57±0.18               | 6.4   | $f_{33}$                               | 24.2471±0.0016               | 0.19±0.04        | -3.09±0.10               | 23.5  |
| $f_{178}$                              | 7.1122±0.0031                | 0.10±0.04        | 0.97±0.19                | 6.1   | $f_{34}$                               | 23.0300±0.0016               | 0.22±0.05        | -0.83±0.10               | 23.3  |
| $f_{179}$                              | 2.5870±0.0031                | 0.10±0.04        | -2.90±0.19               | 6.0   | $f_{35}$                               | 1.3874±0.0016                | 0.20±0.04        | -2.44±0.10               | 22.6  |
| $f_{180}$                              | 9.7946±0.0031                | 0.10±0.04        | 0.53±0.19                | 6.0   | $f_{36}$                               | 25.7474±0.0016               | 0.21±0.04        | -0.85±0.10               | 21.8  |
| $f_{181}$                              | 2.2741±0.0031                | 0.10±0.04        | 1.57±0.19                | 6.2   | $f_{37}$                               | 16.8614±0.0016               | 0.19±0.04        | 2.33±0.10                | 22.5  |
| $f_{182}$                              | 5.9366±0.0031                | 0.10±0.04        | -0.70±0.19               | 5.9   | $f_{39}$                               | 0.1905±0.0016                | 0.17±0.04        | -1.70±0.10               | 21.7  |
| $f_{183}$                              | 3.8894±0.0031                | 0.10±0.04        | 0.88±0.19                | 6.1   | $f_{40}$                               | 1.1191±0.0016                | 0.19±0.04        | -0.90±0.10               | 22.5  |
| $f_{184}$                              | 0.7566±0.0031                | 0.11±0.05        | -0.85±0.19               | 5.9   | $f_{41}$                               | 0.1007±0.0017                | 0.20±0.04        | 1.41±0.10                | 20.6  |
| $f_{185}$                              | 4.1844±0.0031                | 0.10±0.04        | 2.66±0.19                | 6.0   | $f_{42}$                               | 1.0347±0.0017                | 0.17±0.04        | 0.80±0.11                | 19.4  |
| $f_{186}$                              | 2.4046±0.0031                | 0.10±0.04        | 2.83±0.19                | 5.9   | $f_{43}$                               | 26.3632±0.0017               | 0.19±0.04        | 1.42±0.11                | 19.5  |
| $f_{187}$                              | 0.7281±0.0032                | 0.10±0.04        | 2.79±0.19                | 5.8   | $f_{44}$                               | 44.7959±0.0017               | 0.17±0.04        | 2.18±0.11                | 19.2  |
| $f_{189}$                              | 3.2108±0.0031                | 0.10±0.04        | 2.02±0.19                | 5.9   | $f_{45}$                               | 16.9492±0.0018               | 0.17±0.04        | 2.89±0.11                | 17.7  |
| $f_{190}$                              | 0.1658±0.0032                | 0.09±0.04        | -1.36±0.19               | 5.8   | $f_{46}$                               | 23.3866±0.0019               | 0.17±0.04        | -1.21±0.11               | 17.0  |
| $f_{191}$                              | 3.9918±0.0032                | 0.10±0.04        | -2.48±0.20               | 5.6   | $f_{47}$                               | 21.7953±0.0019               | 0.17±0.04        | 2.34±0.11                | 16.8  |
| $f_{192}$                              | 2.9655±0.0032                | 0.10±0.04        | -0.01±0.20               | 5.7   | $f_{48}$                               | 0.4810±0.0019                | 0.15±0.04        | 1.23±0.11                | 16.7  |
| $f_{193}$                              | 0.4508±0.0032                | 0.11±0.05        | -2.78±0.20               | 5.7   | $f_{49}$                               | 0.3718±0.0019                | 0.15±0.04        | -2.15±0.11               | 17.0  |
| $f_{194}$                              | 1.4363±0.0032                | 0.10±0.04        | 0.56±0.20                | 5.7   | $f_{50}$                               | 18.0025±0.0019               | 0.16±0.04        | 2.89±0.12                | 16.3  |
| $f_{195}$                              | 1.5832±0.0032                | 0.11±0.05        | -2.33±0.20               | 5.7   | $f_{51}$                               | 1.4910±0.0020                | 0.16±0.04        | 1.47±0.12                | 15.0  |
| $f_{196}$                              | 0.5773±0.0032                | 0.09±0.04        | -3.14±0.20               | 5.6   | $f_{52}$                               | 1.2639±0.0020                | 0.16±0.04        | -1.86±0.12               | 15.3  |
| $f_{197}$                              | 3.5254±0.0032                | 0.12±0.05        | -2.17±0.20               | 5.6   | $f_{53}$                               | 0.5172±0.0020                | 0.12±0.03        | 2.84±0.12                | 14.7  |
| $f_{198}$                              | 3.5146±0.0029                | 0.11±0.04        | 0.24±0.18                | 7.0   | $f_{54}$                               | 21.9856±0.0020               | 0.16±0.04        | 1.80±0.12                | 14.6  |
| $f_{199}$                              | 2.0674±0.0032                | 0.10±0.04        | -2.09±0.19               | 5.8   | $f_{55}$                               | 21.7373±0.0020               | 0.15±0.04        | 0.07±0.12                | 15.1  |
| $f_{200}$                              | 1.8596±0.0032                | 0.10±0.04        | -1.64±0.20               | 5.7   | $f_{56}$                               | 0.1080±0.0020                | 0.16±0.04        | -0.97±0.12               | 14.1  |
| $f_{201}$                              | 2.2365±0.0032                | 0.10±0.04        | 0.97±0.20                | 5.6   | $f_{57}$                               | 0.1636±0.0021                | 0.12±0.03        | -0.85±0.13               | 12.8  |
| $f_{202}$                              | 1.7642±0.0032                | 0.09±0.04        | -2.31±0.20               | 5.6   | $f_{58}$                               | 11.3855±0.0022               | 0.15±0.04        | 1.64±0.13                | 12.2  |
| $f_{204}$                              | 55.8500±0.0032               | 0.10±0.04        | 0.62±0.20                | 5.7   | $f_{59}$                               | 22.0296±0.0022               | 0.16±0.05        | 1.85±0.13                | 12.3  |
| $f_{205}$                              | 1.9031±0.0032                | 0.10±0.04        | 2.44±0.19                | 5.8   | $f_{60}$                               | 26.3738±0.0022               | 0.14±0.04        | -0.74±0.13               | 12.3  |
| $f_{206}$                              | 0.2939±0.0033                | 0.10±0.04        | 1.55±0.20                | 5.5   | $f_{61}$                               | 0.2429±0.0022                | 0.13±0.04        | 1.54±0.13                | 12.4  |
| $f_{207}$                              | 1.9491±0.0032                | 0.09±0.04        | 0.43±0.20                | 5.6   | $f_{62}$                               | 23.2187±0.0022               | 0.13±0.04        | -0.20±0.13               | 12.6  |
| $f_{208}$                              | 7.0096±0.0033                | 0.09±0.04        | -1.43±0.20               | 5.5   | $f_{63}$                               | 20.5687±0.0022               | 0.14±0.04        | -0.06±0.13               | 12.1  |
| $f_{209}$                              | 1.6962±0.0033                | 0.09±0.04        | 2.82±0.20                | 5.3   | $f_{64}$                               | 18.2668±0.0022               | 0.14±0.04        | -1.53±0.14               | 11.8  |
| $f_{210}$                              | 0.4294±0.0033                | 0.10±0.04        | 3.07±0.20                | 5.5   | $f_{65}$                               | 31.0132±0.0022               | 0.15±0.04        | 1.74±0.14                | 11.6  |
| $f_{211}$                              | 0.6386±0.0033                | 0.10±0.04        | 1.39±0.20                | 5.4   | $f_{66}$                               | 30.1780±0.0023               | 0.12±0.04        | -0.66±0.14               | 10.9  |
| $f_{214}$                              | 4.6706±0.0033                | 0.09±0.04        | -2.12±0.20               | 5.2   | $f_{67}$                               | 34.3490±0.0024               | 0.13±0.04        | -2.45±0.14               | 10.5  |
| $f_{215}$                              | 5.5631±0.0033                | 0.09±0.04        | -2.14±0.20               | 5.2   | $f_{68}$                               | 1.8246±0.0024                | 0.11±0.03        | -0.86±0.15               | 10.3  |
| $f_{216}$                              | 2.5030±0.0033                | 0.09±0.04        | -2.91±0.20               | 5.2   | $f_{69}$                               | 26.4276±0.0024               | 0.12±0.04        | -2.88±0.15               | 9.8   |
| $f_{217}$                              | 3.7801±0.0033                | 0.09±0.04        | -0.28±0.20               | 5.2   | $f_{70}$                               | 0.4421±0.0024                | 0.10±0.03        | -1.20±0.14               | 10.5  |
| $f_{218}$                              | 4.0608±0.0034                | 0.09±0.04        | 1.46±0.21                | 5.1   | $f_{71}$                               | 30.8189±0.0024               | 0.12±0.04        | 1.74±0.15                | 9.8   |
| $f_{219}$                              | 0.9057±0.0034                | 0.09±0.04        | 0.64±0.21                | 5.1   | $f_{72}$                               | 0.1492±0.0024                | 0.13±0.04        | 2.27±0.15                | 10.3  |
| $f_{221}$                              | 0.2552±0.0033                | 0.09±0.04        | 2.34±0.20                | 5.2   | $f_{73}$                               | 0.2042±0.0024                | 0.12±0.04        | -0.07±0.15               | 10.0  |
| $f_{222}$                              | 0.3267±0.0034                | 0.09±0.04        | -0.65±0.21               | 5.1   | $f_{74}$                               | 0.5236±0.0024                | 0.13±0.04        | -0.62±0.15               | 10.1  |
| $f_{223}$                              | 4.5738±0.0034                | 0.09±0.04        | -0.17±0.21               | 5.1   | $f_{75}$                               | 27.6037±0.0024               | 0.12±0.04        | 1.28±0.15                | 9.8   |
| $f_{224}$                              | 3.7420±0.0034                | 0.09±0.04        | -0.71±0.21               | 5.0   | $f_{76}$                               | 22.0201±0.0025               | 0.12±0.04        | -2.87±0.15               | 9.7   |
| $f_{225}$                              | 2.6964±0.0034                | 0.09±0.04        | -2.32±0.21               | 5.1   | $f_{77}$                               | 20.1426±0.0025               | 0.13±0.04        | -2.69±0.15               | 9.6   |
|                                        |                              |                  |                          |       | $f_{78}$                               | 27.4898±0.0024               | 0.10±0.03        | 0.42±0.15                | 10.0  |
|                                        |                              |                  |                          |       | $f_{79}$                               | 11.2353±0.0025               | 0.11±0.04        | 2.58±0.15                | 9.1   |
|                                        |                              |                  |                          |       | $f_{80}$                               | 23.2275±0.0025               | 0.12±0.04        | 2.17±0.15                | 9.1   |

**Table D.36:** Frequency list of 0102706194

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|--------------|------------------------------|------------------|--------------------------|-------|
| $f_1$        | 23.2084±0.0003               | 1.49±0.07        | 2.72±0.02                | 500.3 |
| $f_2$        | 19.0532±0.0004               | 1.10±0.06        | -0.21±0.03               | 313.0 |
| $f_3$        | 18.9710±0.0005               | 0.88±0.06        | -2.19±0.03               | 203.2 |

Frequency list of 0102706194 continued



## Appendix D. Frequencies of individual Hybrid Stars

| Frequency list of 0102706194 continued |                              |                  |                          |       | Frequency list of 0102706194 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{81}$                               | 25.8068±0.0025               | 0.12±0.04        | 2.37±0.15                | 9.4   | $f_{163}$                              | 0.4515±0.0033                | 0.09±0.04        | -2.02±0.20               | 5.4   |
| $f_{82}$                               | 29.7542±0.0025               | 0.12±0.04        | 2.89±0.16                | 9.0   | $f_{164}$                              | 0.5789±0.0033                | 0.08±0.03        | -2.23±0.20               | 5.5   |
| $f_{83}$                               | 21.5293±0.0026               | 0.11±0.04        | -1.61±0.16               | 8.7   | $f_{165}$                              | 13.4131±0.0033               | 0.08±0.03        | -2.11±0.20               | 5.3   |
| $f_{84}$                               | 38.7507±0.0026               | 0.11±0.04        | 2.09±0.16                | 8.5   | $f_{166}$                              | 25.8931±0.0033               | 0.08±0.03        | -1.15±0.20               | 5.3   |
| $f_{85}$                               | 32.2912±0.0026               | 0.11±0.04        | 1.12±0.16                | 8.7   | $f_{167}$                              | 30.2824±0.0033               | 0.08±0.04        | 1.48±0.20                | 5.2   |
| $f_{86}$                               | 15.3243±0.0026               | 0.11±0.04        | -3.14±0.16               | 8.5   | $f_{168}$                              | 14.2137±0.0033               | 0.08±0.03        | 0.02±0.20                | 5.3   |
| $f_{88}$                               | 24.2592±0.0026               | 0.11±0.04        | 1.59±0.16                | 8.5   | $f_{169}$                              | 32.1311±0.0034               | 0.08±0.04        | 2.52±0.21                | 5.1   |
| $f_{89}$                               | 0.5484±0.0026                | 0.11±0.04        | -1.01±0.16               | 8.5   | $f_{170}$                              | 22.5350±0.0034               | 0.08±0.04        | 0.84±0.21                | 5.0   |
| $f_{90}$                               | 40.3169±0.0026               | 0.11±0.04        | 2.43±0.16                | 8.4   | $f_{171}$                              | 11.2575±0.0034               | 0.08±0.04        | 0.29±0.21                | 5.1   |
| $f_{91}$                               | 10.6569±0.0027               | 0.11±0.04        | 0.56±0.17                | 7.9   |                                        |                              |                  |                          |       |
| $f_{92}$                               | 22.1245±0.0027               | 0.11±0.04        | -0.92±0.16               | 8.0   |                                        |                              |                  |                          |       |
| $f_{93}$                               | 20.1178±0.0027               | 0.12±0.04        | 2.67±0.16                | 8.1   |                                        |                              |                  |                          |       |
| $f_{94}$                               | 20.6367±0.0027               | 0.11±0.04        | -0.60±0.16               | 8.0   |                                        |                              |                  |                          |       |
| $f_{95}$                               | 11.6628±0.0027               | 0.10±0.04        | -0.38±0.16               | 8.1   |                                        |                              |                  |                          |       |
| $f_{96}$                               | 1.1659±0.0027                | 0.11±0.04        | 1.99±0.16                | 8.0   |                                        |                              |                  |                          |       |
| $f_{97}$                               | 0.7674±0.0027                | 0.11±0.04        | -0.53±0.16               | 8.2   |                                        |                              |                  |                          |       |
| $f_{98}$                               | 43.2944±0.0027               | 0.11±0.04        | 0.57±0.16                | 8.1   |                                        |                              |                  |                          |       |
| $f_{99}$                               | 16.9932±0.0028               | 0.10±0.04        | -2.48±0.17               | 7.6   |                                        |                              |                  |                          |       |
| $f_{100}$                              | 22.2105±0.0027               | 0.10±0.04        | 2.93±0.16                | 8.0   |                                        |                              |                  |                          |       |
| $f_{102}$                              | 1.7869±0.0028                | 0.10±0.04        | 1.57±0.17                | 7.6   |                                        |                              |                  |                          |       |
| $f_{103}$                              | 30.7333±0.0027               | 0.10±0.04        | -2.20±0.17               | 7.8   |                                        |                              |                  |                          |       |
| $f_{104}$                              | 11.1221±0.0028               | 0.09±0.03        | -1.08±0.17               | 7.7   |                                        |                              |                  |                          |       |
| $f_{105}$                              | 31.5520±0.0028               | 0.10±0.04        | -0.26±0.17               | 7.6   |                                        |                              |                  |                          |       |
| $f_{106}$                              | 22.7508±0.0028               | 0.12±0.04        | 2.00±0.17                | 7.6   |                                        |                              |                  |                          |       |
| $f_{107}$                              | 22.7697±0.0025               | 0.12±0.04        | -1.15±0.15               | 9.2   |                                        |                              |                  |                          |       |
| $f_{108}$                              | 20.7603±0.0029               | 0.10±0.04        | 1.95±0.18                | 6.9   |                                        |                              |                  |                          |       |
| $f_{109}$                              | 20.8066±0.0029               | 0.10±0.04        | 2.16±0.18                | 6.9   |                                        |                              |                  |                          |       |
| $f_{110}$                              | 21.9081±0.0028               | 0.10±0.04        | 1.82±0.17                | 7.2   |                                        |                              |                  |                          |       |
| $f_{111}$                              | 0.6971±0.0029                | 0.10±0.04        | 1.34±0.18                | 7.0   |                                        |                              |                  |                          |       |
| $f_{112}$                              | 25.7528±0.0029               | 0.11±0.04        | 1.45±0.18                | 6.8   |                                        |                              |                  |                          |       |
| $f_{113}$                              | 24.3348±0.0029               | 0.10±0.04        | 0.48±0.18                | 6.8   |                                        |                              |                  |                          |       |
| $f_{114}$                              | 34.8847±0.0029               | 0.10±0.04        | 1.33±0.18                | 6.8   |                                        |                              |                  |                          |       |
| $f_{115}$                              | 11.0038±0.0029               | 0.09±0.03        | -0.03±0.18               | 7.0   |                                        |                              |                  |                          |       |
| $f_{116}$                              | 0.5972±0.0029                | 0.10±0.04        | 1.54±0.18                | 6.7   |                                        |                              |                  |                          |       |
| $f_{117}$                              | 40.0114±0.0029               | 0.10±0.04        | 3.04±0.18                | 6.7   |                                        |                              |                  |                          |       |
| $f_{118}$                              | 19.0694±0.0029               | 0.09±0.03        | 2.97±0.18                | 6.7   |                                        |                              |                  |                          |       |
| $f_{119}$                              | 34.0594±0.0030               | 0.09±0.04        | 1.37±0.18                | 6.6   |                                        |                              |                  |                          |       |
| $f_{121}$                              | 0.4747±0.0029                | 0.10±0.04        | -0.62±0.18               | 6.7   |                                        |                              |                  |                          |       |
| $f_{122}$                              | 11.0795±0.0030               | 0.10±0.04        | 0.07±0.18                | 6.5   |                                        |                              |                  |                          |       |
| $f_{123}$                              | 32.8388±0.0030               | 0.10±0.04        | 0.42±0.18                | 6.6   |                                        |                              |                  |                          |       |
| $f_{124}$                              | 25.7036±0.0030               | 0.09±0.04        | -2.93±0.18               | 6.5   |                                        |                              |                  |                          |       |
| $f_{125}$                              | 20.1733±0.0030               | 0.10±0.04        | 2.85±0.18                | 6.4   |                                        |                              |                  |                          |       |
| $f_{127}$                              | 34.2039±0.0030               | 0.09±0.04        | 2.49±0.19                | 6.3   |                                        |                              |                  |                          |       |
| $f_{128}$                              | 27.4998±0.0030               | 0.09±0.04        | -0.93±0.18               | 6.4   |                                        |                              |                  |                          |       |
| $f_{129}$                              | 11.7472±0.0030               | 0.09±0.04        | -2.15±0.18               | 6.4   |                                        |                              |                  |                          |       |
| $f_{131}$                              | 30.5690±0.0030               | 0.09±0.04        | -2.02±0.18               | 6.4   |                                        |                              |                  |                          |       |
| $f_{132}$                              | 22.9866±0.0030               | 0.09±0.04        | 1.10±0.18                | 6.5   |                                        |                              |                  |                          |       |
| $f_{133}$                              | 1.5702±0.0031                | 0.09±0.04        | -2.83±0.19               | 6.2   |                                        |                              |                  |                          |       |
| $f_{134}$                              | 22.6702±0.0031               | 0.09±0.04        | 2.10±0.19                | 6.0   |                                        |                              |                  |                          |       |
| $f_{135}$                              | 33.4735±0.0031               | 0.09±0.04        | 1.64±0.19                | 6.0   |                                        |                              |                  |                          |       |
| $f_{136}$                              | 4.5870±0.0031                | 0.08±0.03        | 2.67±0.19                | 5.9   |                                        |                              |                  |                          |       |
| $f_{137}$                              | 0.6314±0.0031                | 0.09±0.04        | -1.90±0.19               | 5.9   |                                        |                              |                  |                          |       |
| $f_{138}$                              | 18.9288±0.0031               | 0.09±0.04        | 0.85±0.19                | 5.9   |                                        |                              |                  |                          |       |
| $f_{139}$                              | 23.7409±0.0032               | 0.09±0.04        | -1.07±0.20               | 5.7   |                                        |                              |                  |                          |       |
| $f_{140}$                              | 24.1570±0.0032               | 0.09±0.04        | 1.81±0.20                | 5.7   |                                        |                              |                  |                          |       |
| $f_{141}$                              | 11.5327±0.0031               | 0.09±0.04        | 0.89±0.19                | 5.9   |                                        |                              |                  |                          |       |
| $f_{142}$                              | 2.0054±0.0031                | 0.09±0.04        | 0.01±0.19                | 5.9   |                                        |                              |                  |                          |       |
| $f_{144}$                              | 4.3039±0.0032                | 0.08±0.03        | -1.61±0.20               | 5.7   |                                        |                              |                  |                          |       |
| $f_{145}$                              | 32.4244±0.0031               | 0.09±0.04        | 2.57±0.19                | 5.9   |                                        |                              |                  |                          |       |
| $f_{146}$                              | 38.7985±0.0032               | 0.08±0.03        | 1.46±0.20                | 5.7   |                                        |                              |                  |                          |       |
| $f_{147}$                              | 31.0000±0.0032               | 0.09±0.04        | -1.80±0.20               | 5.7   |                                        |                              |                  |                          |       |
| $f_{148}$                              | 24.2837±0.0032               | 0.08±0.03        | -0.45±0.19               | 5.8   |                                        |                              |                  |                          |       |
| $f_{149}$                              | 17.1673±0.0032               | 0.09±0.04        | 1.36±0.19                | 5.8   |                                        |                              |                  |                          |       |
| $f_{150}$                              | 43.8030±0.0032               | 0.08±0.03        | 2.57±0.20                | 5.6   |                                        |                              |                  |                          |       |
| $f_{151}$                              | 10.9121±0.0033               | 0.08±0.03        | 2.42±0.20                | 5.5   |                                        |                              |                  |                          |       |
| $f_{152}$                              | 24.1127±0.0032               | 0.09±0.04        | 1.30±0.20                | 5.7   |                                        |                              |                  |                          |       |
| $f_{153}$                              | 3.9820±0.0033                | 0.08±0.03        | 2.91±0.20                | 5.5   |                                        |                              |                  |                          |       |
| $f_{154}$                              | 35.0276±0.0032               | 0.08±0.03        | 3.01±0.20                | 5.7   |                                        |                              |                  |                          |       |
| $f_{155}$                              | 23.1409±0.0032               | 0.08±0.03        | 1.57±0.20                | 5.6   |                                        |                              |                  |                          |       |
| $f_{156}$                              | 18.1969±0.0033               | 0.08±0.03        | 2.16±0.20                | 5.5   |                                        |                              |                  |                          |       |
| $f_{157}$                              | 32.8458±0.0033               | 0.08±0.03        | 1.51±0.20                | 5.3   |                                        |                              |                  |                          |       |
| $f_{158}$                              | 11.1647±0.0033               | 0.08±0.03        | -2.47±0.20               | 5.4   |                                        |                              |                  |                          |       |
| $f_{159}$                              | 4.4851±0.0032                | 0.08±0.03        | 2.45±0.20                | 5.7   |                                        |                              |                  |                          |       |
| $f_{160}$                              | 25.7926±0.0033               | 0.09±0.04        | 2.47±0.20                | 5.4   |                                        |                              |                  |                          |       |
| $f_{161}$                              | 25.7785±0.0033               | 0.08±0.03        | 0.08±0.20                | 5.3   |                                        |                              |                  |                          |       |
| $f_{162}$                              | 21.8863±0.0033               | 0.08±0.03        | -1.08±0.20               | 5.3   |                                        |                              |                  |                          |       |

| Frequency list of 0102715311 |                              |                  |                          |       |
|------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                 | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_1$                        | 5.1001±0.0003                | 1.10±0.04        | 1.81±0.02                | 620.7 |
| $f_2$                        | 3.7530±0.0004                | 0.82±0.04        | 2.34±0.02                | 404.1 |
| $f_3$                        | 15.3180±0.0004               | 0.71±0.04        | 0.79±0.02                | 356.6 |
| $f_4$                        | 6.9881±0.0004                | 0.62±0.04        | -1.59±0.03               | 311.8 |
| $f_5$                        | 28.6997±0.0004               | 0.61±0.03        | -0.74±0.03               | 316.7 |
| $f_6$                        | 25.4265±0.0004               | 0.54±0.03        | 3.13±0.03                | 298.9 |
| $f_7$                        | 35.4007±0.0005               | 0.50±0.03        | 1.23±0.03                | 250.8 |
| $f_8$                        | 4.5209±0.0005                | 0.49±0.03        | -1.66±0.03               | 264.2 |
| $f_9$                        | 3.6761±0.0005                | 0.43±0.03        | 2.41±0.03                | 210.0 |
| $f_{11}$                     | 4.0530±0.0005                | 0.40±0.03        | 0.41±0.03                | 210.6 |
| $f_{12}$                     | 29.2855±0.0006               | 0.38±0.03        | 2.74±0.03                | 180.1 |
| $f_{13}$                     | 35.2447±0.0007               | 0.30±0.03        | -1.93±0.04               | 119.1 |
| $f_{14}$                     | 8.3124±0.0007                | 0.28±0.03        | -1.30±0.04               | 117.3 |
| $f_{15}$                     | 4.1807±0.0009                | 0.22±0.03        | -1.67±0.05               | 72.1  |
| $f_{16}$                     | 3.8409±0.0009                | 0.22±0.03        | 2.69±0.05                | 75.5  |
| $f_{17}$                     | 30.7348±0.0009               | 0.20±0.02        | 0.88±0.06                | 69.3  |
| $f_{21}$                     | 36.3319±0.0009               | 0.20±0.02        | -0.59±0.06               | 65.3  |
| $f_{22}$                     | 6.7417±0.0010                | 0.19±0.02        | -0.83±0.06               | 60.0  |
| $f_{23}$                     | 3.5496±0.0011                | 0.17±0.02        | -1.42±0.06               | 52.0  |
| $f_{24}$                     | 16.7064±0.0011               | 0.17±0.02        | 2.38±0.06                | 51.7  |
| $f_{25}$                     | 10.0382±0.0011               | 0.18±0.03        | 0.57±0.07                | 51.2  |
| $f_{26}$                     | 29.6087±0.0011               | 0.17±0.02        | 1.25±0.07                | 47.5  |
| $f_{27}$                     | 18.2828±0.0012               | 0.15±0.02        | 0.03±0.07                | 43.5  |
| $f_{28}$                     | 20.5110±0.0012               | 0.15±0.02        | 0.65±0.08                | 38.6  |
| $f_{29}$                     | 14.6340±0.0013               | 0.14±0.02        | -1.00±0.08               | 36.5  |
| $f_{30}$                     | 28.6169±0.0013               | 0.13±0.02        | 2.25±0.08                | 34.4  |
| $f_{31}$                     | 21.9000±0.0013               | 0.13±0.02        | 2.59±0.08                | 32.8  |
| $f_{32}$                     | 2.0057±0.0013                | 0.31±0.05        | -0.04±0.08               | 33.2  |
| $f_{34}$                     | 1.2383±0.0013                | 0.13±0.02        | -1.65±0.08               | 33.5  |
| $f_{35}$                     | 0.1276±0.0013                | 0.10±0.02        | -0.40±0.08               | 32.2  |
| $f_{36}$                     | 23.5274±0.0013               | 0.12±0.02        | -0.61±0.08               | 33.0  |
| $f_{38}$                     | 22.7542±0.0014               | 0.12±0.02        | -1.16±0.08               | 31.0  |
| $f_{39}$                     | 0.1579±0.0014                | 0.12±0.02        | 2.82±0.08                | 31.3  |
| $f_{40}$                     | 30.6938±0.0014               | 0.12±0.02        | 0.62±0.09                | 30.0  |
| $f_{41}$                     | 3.4125±0.0014                | 0.12±0.02        | 0.95±0.09                | 28.9  |
| $f_{42}$                     | 38.0676±0.0015               | 0.11±0.02        | 0.15±0.09                | 27.5  |
| $f_{53}$                     | 17.1328±0.0014               | 0.11±0.02        | -2.37±0.09               | 28.5  |
| $f_{54}$                     | 17.5452±0.0015               | 0.11±0.02        | 1.16±0.09                | 27.6  |
| $f_{55}$                     | 3.6950±0.0015                | 0.11±0.02        | 0.80±0.09                | 27.6  |
| $f_{56}$                     | 0.2356±0.0014                | 0.13±0.02        | -2.97±0.09               | 27.9  |
| $f_{57}$                     | 0.1821±0.0015                | 0.10±0.02        | -0.86±0.09               | 26.9  |
| $f_{58}$                     | 3.3201±0.0015                | 0.10±0.02        | -2.52±0.09               | 27.5  |
| $f_{59}$                     | 18.4164±0.0015               | 0.11±0.02        | -2.65±0.09               | 26.2  |
| $f_{60}$                     | 3.6091±0.0015                | 0.10±0.02        | 1.67±0.09                | 26.2  |
| $f_{61}$                     | 7.3360±0.0015                | 0.10±0.02        | 2.63±0.09                | 25.7  |
| $f_{62}$                     | 6.5482±0.0015                | 0.11±0.02        | 2.24±0.09                | 26.4  |
| $f_{63}$                     | 6.1498±0.0015                | 0.10±0.02        | -2.72±0.09               | 25.0  |
| $f_{64}$                     | 26.9200±0.0016               | 0.10±0.02        | 0.48±0.09                | 24.1  |
| $f_{66}$                     | 26.1342±0.0016               | 0.10±0.02        | -2.22±0.10               | 23.1  |
| $f_{69}$                     | 18.9883±0.0017               | 0.09±0.02        | -2.33±0.10               | 21.0  |
| $f_{70}$                     | 28.6929±0.0017               | 0.09±0.02        | -1.55±0.10               | 20.3  |
| $f_{71}$                     | 0.1379±0.0017                | 0.08±0.02        | 2.56±0.10                | 19.9  |
| $f_{72}$                     | 2.4392±0.0017                | 0.10±0.02        | -0.97±0.11               | 19.4  |
| $f_{73}$                     | 1.7424±0.0017                | 0.09±0.02        | -0.32±0.11               | 19.5  |
| $f_{74}$                     | 3.3400±0.0017                | 0.09±0.02        | -1.69±0.11               | 19.3  |
| $f_{75}$                     | 13.5383±0.0018               | 0.09±0.02        | 0.32±0.11                | 18.8  |
| $f_{76}$                     | 2.4189±0.0018                | 0.09±0.02        | 1.56±0.11                | 18.6  |
| $f_{77}$                     | 31.2880±0.0018               | 0.09±0.02        | -0.33±0.11               | 18.7  |
| $f_{78}$                     | 18.3841±0.0018               | 0.08±0.02        | 0.85±0.11                | 17.9  |

## Appendix D. Frequencies of individual Hybrid Stars

| Frequency list of 0102715311 continued |                              |                  |                          |       | Frequency list of 0102715311 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| <i>f</i> <sub>79</sub>                 | 0.2167±0.0019                | 0.08±0.02        | -1.20±0.11               | 17.0  | <i>f</i> <sub>168</sub>                | 12.7873±0.0028               | 0.05±0.02        | -2.14±0.17               | 7.5   |
| <i>f</i> <sub>80</sub>                 | 0.1978±0.0018                | 0.07±0.02        | -0.12±0.11               | 17.8  | <i>f</i> <sub>170</sub>                | 2.1292±0.0028                | 0.05±0.02        | -2.70±0.17               | 7.3   |
| <i>f</i> <sub>81</sub>                 | 6.6076±0.0018                | 0.08±0.02        | 2.24±0.11                | 17.1  | <i>f</i> <sub>171</sub>                | 34.5591±0.0028               | 0.05±0.02        | 1.67±0.17                | 7.3   |
| <i>f</i> <sub>82</sub>                 | 25.3865±0.0019               | 0.08±0.02        | 1.01±0.12                | 16.2  | <i>f</i> <sub>173</sub>                | 0.9349±0.0028                | 0.05±0.02        | 2.15±0.17                | 7.4   |
| <i>f</i> <sub>83</sub>                 | 2.9441±0.0019                | 0.08±0.02        | 1.71±0.12                | 16.1  | <i>f</i> <sub>174</sub>                | 10.0246±0.0028               | 0.05±0.02        | 1.60±0.17                | 7.2   |
| <i>f</i> <sub>84</sub>                 | 0.2704±0.0019                | 0.07±0.02        | 2.92±0.12                | 16.4  | <i>f</i> <sub>175</sub>                | 8.9432±0.0029                | 0.05±0.02        | -1.55±0.17               | 7.1   |
| <i>f</i> <sub>85</sub>                 | 33.0848±0.0019               | 0.08±0.02        | 2.81±0.12                | 16.2  | <i>f</i> <sub>176</sub>                | 17.3847±0.0029               | 0.04±0.02        | 1.02±0.18                | 7.0   |
| <i>f</i> <sub>86</sub>                 | 30.7287±0.0019               | 0.08±0.02        | -0.04±0.12               | 15.8  | <i>f</i> <sub>177</sub>                | 1.4677±0.0029                | 0.04±0.02        | -2.08±0.18               | 7.0   |
| <i>f</i> <sub>87</sub>                 | 6.8994±0.0019                | 0.08±0.02        | -1.30±0.12               | 15.5  | <i>f</i> <sub>178</sub>                | 34.4825±0.0029               | 0.04±0.02        | 0.99±0.18                | 6.8   |
| <i>f</i> <sub>88</sub>                 | 0.9700±0.0019                | 0.08±0.02        | 1.40±0.12                | 15.5  | <i>f</i> <sub>179</sub>                | 0.3365±0.0029                | 0.05±0.02        | 0.46±0.18                | 6.8   |
| <i>f</i> <sub>89</sub>                 | 7.6578±0.0019                | 0.08±0.02        | -0.70±0.12               | 15.4  | <i>f</i> <sub>180</sub>                | 0.5971±0.0029                | 0.05±0.02        | 2.90±0.18                | 6.7   |
| <i>f</i> <sub>91</sub>                 | 10.6516±0.0020               | 0.08±0.02        | 1.76±0.12                | 14.9  | <i>f</i> <sub>181</sub>                | 0.2777±0.0029                | 0.05±0.02        | 1.18±0.18                | 6.7   |
| <i>f</i> <sub>92</sub>                 | 2.7920±0.0020                | 0.08±0.02        | 0.42±0.12                | 15.0  | <i>f</i> <sub>182</sub>                | 38.3251±0.0029               | 0.05±0.02        | -1.38±0.18               | 6.9   |
| <i>f</i> <sub>93</sub>                 | 1.6066±0.0020                | 0.07±0.02        | 3.03±0.12                | 15.1  | <i>f</i> <sub>183</sub>                | 34.0071±0.0029               | 0.05±0.02        | 1.66±0.18                | 6.8   |
| <i>f</i> <sub>97</sub>                 | 33.4307±0.0020               | 0.07±0.02        | -0.79±0.12               | 14.8  | <i>f</i> <sub>184</sub>                | 19.1520±0.0029               | 0.05±0.02        | 0.59±0.18                | 6.7   |
| <i>f</i> <sub>98</sub>                 | 4.9283±0.0020                | 0.07±0.02        | 0.50±0.12                | 14.5  | <i>f</i> <sub>185</sub>                | 38.3767±0.0029               | 0.05±0.02        | 0.88±0.18                | 7.0   |
| <i>f</i> <sub>99</sub>                 | 0.6943±0.0020                | 0.07±0.02        | 0.18±0.12                | 14.2  | <i>f</i> <sub>186</sub>                | 29.2801±0.0029               | 0.05±0.02        | 2.74±0.18                | 6.7   |
| <i>f</i> <sub>100</sub>                | 0.1132±0.0021                | 0.06±0.02        | 1.18±0.13                | 13.4  | <i>f</i> <sub>188</sub>                | 5.7213±0.0029                | 0.05±0.02        | 2.90±0.18                | 6.7   |
| <i>f</i> <sub>101</sub>                | 15.9345±0.0021               | 0.07±0.02        | 1.38±0.13                | 12.8  | <i>f</i> <sub>189</sub>                | 20.0791±0.0029               | 0.05±0.02        | -2.42±0.18               | 6.7   |
| <i>f</i> <sub>102</sub>                | 12.8056±0.0021               | 0.07±0.02        | -1.96±0.13               | 12.7  | <i>f</i> <sub>190</sub>                | 9.8717±0.0029                | 0.05±0.02        | 0.08±0.17                | 7.1   |
| <i>f</i> <sub>103</sub>                | 0.4270±0.0022                | 0.07±0.02        | 0.74±0.13                | 12.5  | <i>f</i> <sub>191</sub>                | 3.0185±0.0029                | 0.04±0.02        | 1.06±0.18                | 6.9   |
| <i>f</i> <sub>104</sub>                | 16.7920±0.0022               | 0.07±0.02        | -1.09±0.13               | 12.5  | <i>f</i> <sub>192</sub>                | 16.2967±0.0029               | 0.05±0.02        | -1.39±0.18               | 6.7   |
| <i>f</i> <sub>105</sub>                | 3.5942±0.0021                | 0.07±0.02        | 2.91±0.13                | 13.0  | <i>f</i> <sub>193</sub>                | 38.1805±0.0030               | 0.04±0.02        | 0.42±0.18                | 6.5   |
| <i>f</i> <sub>106</sub>                | 0.5020±0.0022                | 0.07±0.02        | 1.58±0.13                | 12.4  | <i>f</i> <sub>196</sub>                | 21.0354±0.0030               | 0.04±0.02        | 1.34±0.18                | 6.5   |
| <i>f</i> <sub>107</sub>                | 35.4608±0.0022               | 0.06±0.02        | 1.93±0.13                | 12.6  | <i>f</i> <sub>197</sub>                | 29.2952±0.0030               | 0.05±0.02        | -2.42±0.18               | 6.5   |
| <i>f</i> <sub>109</sub>                | 35.4083±0.0023               | 0.06±0.02        | 1.45±0.14                | 11.0  | <i>f</i> <sub>198</sub>                | 30.0916±0.0030               | 0.04±0.02        | 0.96±0.18                | 6.5   |
| <i>f</i> <sub>111</sub>                | 0.2526±0.0023                | 0.06±0.02        | -3.00±0.14               | 10.6  | <i>f</i> <sub>199</sub>                | 0.2842±0.0029                | 0.05±0.02        | -0.29±0.18               | 6.7   |
| <i>f</i> <sub>113</sub>                | 0.1764±0.0024                | 0.05±0.02        | 1.79±0.14                | 10.5  | <i>f</i> <sub>200</sub>                | 46.0133±0.0030               | 0.05±0.02        | 1.53±0.18                | 6.5   |
| <i>f</i> <sub>116</sub>                | 20.5328±0.0024               | 0.06±0.02        | -0.41±0.14               | 10.5  | <i>f</i> <sub>201</sub>                | 46.0380±0.0030               | 0.05±0.02        | 3.12±0.18                | 6.6   |
| <i>f</i> <sub>117</sub>                | 5.7567±0.0024                | 0.06±0.02        | -2.23±0.15               | 10.1  | <i>f</i> <sub>202</sub>                | 2.8839±0.0030                | 0.05±0.02        | 2.30±0.18                | 6.4   |
| <i>f</i> <sub>118</sub>                | 13.4456±0.0024               | 0.06±0.02        | -0.73±0.15               | 10.0  | <i>f</i> <sub>203</sub>                | 5.6980±0.0030                | 0.04±0.02        | -2.07±0.19               | 6.3   |
| <i>f</i> <sub>119</sub>                | 2.0038±0.0024                | 0.08±0.03        | -3.09±0.15               | 9.9   | <i>f</i> <sub>204</sub>                | 0.1873±0.0030                | 0.05±0.02        | -2.62±0.19               | 6.3   |
| <i>f</i> <sub>120</sub>                | 0.3814±0.0024                | 0.06±0.02        | 0.94±0.15                | 9.9   | <i>f</i> <sub>205</sub>                | 36.0042±0.0030               | 0.04±0.02        | 0.01±0.18                | 6.5   |
| <i>f</i> <sub>121</sub>                | 0.2982±0.0025                | 0.05±0.02        | 0.17±0.15                | 9.6   | <i>f</i> <sub>206</sub>                | 0.4946±0.0030                | 0.05±0.02        | 1.91±0.18                | 6.6   |
| <i>f</i> <sub>122</sub>                | 0.5227±0.0025                | 0.06±0.02        | 1.23±0.15                | 9.7   | <i>f</i> <sub>207</sub>                | 17.5392±0.0030               | 0.04±0.02        | -1.82±0.19               | 6.3   |
| <i>f</i> <sub>123</sub>                | 0.3592±0.0024                | 0.06±0.02        | -0.05±0.15               | 9.8   | <i>f</i> <sub>208</sub>                | 7.4514±0.0030                | 0.04±0.02        | 0.14±0.18                | 6.6   |
| <i>f</i> <sub>125</sub>                | 27.1055±0.0024               | 0.06±0.02        | -1.53±0.15               | 9.9   | <i>f</i> <sub>209</sub>                | 0.9058±0.0030                | 0.05±0.02        | -0.89±0.18               | 6.6   |
| <i>f</i> <sub>126</sub>                | 0.8161±0.0024                | 0.06±0.02        | -0.34±0.15               | 10.0  | <i>f</i> <sub>210</sub>                | 13.3692±0.0030               | 0.04±0.02        | -1.63±0.19               | 6.3   |
| <i>f</i> <sub>127</sub>                | 5.7836±0.0025                | 0.06±0.02        | -0.68±0.15               | 9.5   | <i>f</i> <sub>211</sub>                | 35.2526±0.0030               | 0.04±0.02        | -2.49±0.18               | 6.4   |
| <i>f</i> <sub>128</sub>                | 2.3488±0.0025                | 0.05±0.02        | 2.77±0.15                | 9.7   | <i>f</i> <sub>212</sub>                | 3.0402±0.0031                | 0.04±0.02        | -1.02±0.19               | 6.2   |
| <i>f</i> <sub>129</sub>                | 5.2192±0.0025                | 0.06±0.02        | 1.08±0.15                | 9.1   | <i>f</i> <sub>213</sub>                | 14.3192±0.0030               | 0.04±0.02        | 2.81±0.19                | 6.3   |
| <i>f</i> <sub>130</sub>                | 5.2734±0.0025                | 0.06±0.02        | 0.66±0.15                | 9.2   | <i>f</i> <sub>214</sub>                | 22.8300±0.0031               | 0.04±0.02        | -0.94±0.19               | 6.2   |
| <i>f</i> <sub>131</sub>                | 35.4749±0.0025               | 0.06±0.02        | 1.73±0.16                | 9.0   | <i>f</i> <sub>215</sub>                | 8.5728±0.0030                | 0.04±0.02        | -1.29±0.18               | 6.5   |
| <i>f</i> <sub>132</sub>                | 0.4759±0.0025                | 0.04±0.01        | -0.98±0.15               | 9.1   | <i>f</i> <sub>218</sub>                | 1.9980±0.0030                | 0.04±0.02        | 2.80±0.18                | 6.5   |
| <i>f</i> <sub>133</sub>                | 15.3114±0.0025               | 0.05±0.02        | -2.05±0.15               | 9.5   | <i>f</i> <sub>219</sub>                | 1.1568±0.0030                | 0.04±0.02        | -0.08±0.18               | 6.4   |
| <i>f</i> <sub>134</sub>                | 2.0735±0.0025                | 0.06±0.02        | -2.00±0.16               | 9.0   | <i>f</i> <sub>221</sub>                | 3.2159±0.0031                | 0.04±0.02        | -1.59±0.19               | 6.1   |
| <i>f</i> <sub>135</sub>                | 2.6057±0.0026                | 0.06±0.02        | 0.73±0.16                | 8.9   | <i>f</i> <sub>222</sub>                | 9.7154±0.0031                | 0.04±0.02        | -1.60±0.19               | 6.1   |
| <i>f</i> <sub>136</sub>                | 0.1014±0.0025                | 0.06±0.02        | 0.19±0.16                | 9.0   | <i>f</i> <sub>223</sub>                | 5.8047±0.0031                | 0.04±0.02        | -0.59±0.19               | 6.1   |
| <i>f</i> <sub>137</sub>                | 0.1450±0.0025                | 0.06±0.02        | -2.85±0.15               | 9.2   | <i>f</i> <sub>224</sub>                | 4.7512±0.0031                | 0.04±0.02        | -1.30±0.19               | 6.0   |
| <i>f</i> <sub>138</sub>                | 10.7281±0.0025               | 0.06±0.02        | -1.63±0.16               | 9.0   | <i>f</i> <sub>225</sub>                | 45.0903±0.0031               | 0.04±0.02        | -2.29±0.19               | 6.0   |
| <i>f</i> <sub>139</sub>                | 26.5084±0.0025               | 0.06±0.02        | 2.81±0.15                | 9.4   | <i>f</i> <sub>226</sub>                | 18.3728±0.0031               | 0.04±0.02        | -1.31±0.19               | 6.2   |
| <i>f</i> <sub>140</sub>                | 25.8911±0.0026               | 0.06±0.02        | -0.65±0.16               | 8.9   | <i>f</i> <sub>227</sub>                | 19.4971±0.0031               | 0.04±0.02        | -0.81±0.19               | 6.0   |
| <i>f</i> <sub>141</sub>                | 14.8086±0.0025               | 0.05±0.02        | -0.39±0.15               | 9.1   | <i>f</i> <sub>228</sub>                | 0.2255±0.0031                | 0.04±0.02        | -1.43±0.19               | 6.0   |
| <i>f</i> <sub>142</sub>                | 35.9377±0.0026               | 0.05±0.02        | -1.00±0.16               | 8.9   | <i>f</i> <sub>229</sub>                | 0.4622±0.0031                | 0.04±0.02        | 0.52±0.19                | 6.2   |
| <i>f</i> <sub>143</sub>                | 0.3222±0.0025                | 0.05±0.02        | -0.55±0.15               | 9.2   | <i>f</i> <sub>230</sub>                | 4.2871±0.0031                | 0.04±0.02        | 2.66±0.19                | 6.2   |
| <i>f</i> <sub>144</sub>                | 28.7106±0.0025               | 0.06±0.02        | -2.27±0.15               | 9.4   | <i>f</i> <sub>231</sub>                | 39.8682±0.0031               | 0.04±0.02        | 1.48±0.19                | 5.9   |
| <i>f</i> <sub>145</sub>                | 29.2230±0.0025               | 0.05±0.02        | 0.06±0.16                | 9.0   | <i>f</i> <sub>232</sub>                | 40.1631±0.0031               | 0.04±0.02        | 2.45±0.19                | 5.9   |
| <i>f</i> <sub>148</sub>                | 32.5480±0.0026               | 0.05±0.02        | -1.37±0.16               | 8.7   | <i>f</i> <sub>234</sub>                | 3.8565±0.0031                | 0.04±0.02        | -0.63±0.19               | 6.1   |
| <i>f</i> <sub>149</sub>                | 10.8052±0.0026               | 0.06±0.02        | 1.15±0.16                | 8.8   | <i>f</i> <sub>235</sub>                | 28.6849±0.0032               | 0.04±0.02        | 0.27±0.19                | 5.8   |
| <i>f</i> <sub>150</sub>                | 18.1370±0.0026               | 0.05±0.02        | -1.21±0.16               | 8.7   | <i>f</i> <sub>236</sub>                | 4.9206±0.0031                | 0.04±0.02        | -0.49±0.19               | 5.9   |
| <i>f</i> <sub>151</sub>                | 16.3768±0.0026               | 0.05±0.02        | 0.25±0.16                | 8.7   | <i>f</i> <sub>237</sub>                | 2.9582±0.0032                | 0.04±0.02        | 2.44±0.19                | 5.8   |
| <i>f</i> <sub>152</sub>                | 34.6518±0.0026               | 0.05±0.02        | 1.55±0.16                | 8.6   | <i>f</i> <sub>240</sub>                | 21.7145±0.0032               | 0.04±0.02        | -1.98±0.20               | 5.7   |
| <i>f</i> <sub>153</sub>                | 2.7444±0.0026                | 0.05±0.02        | -2.18±0.16               | 8.3   | <i>f</i> <sub>241</sub>                | 55.8673±0.0032               | 0.04±0.02        | 0.63±0.20                | 5.6   |
| <i>f</i> <sub>154</sub>                | 4.7694±0.0026                | 0.05±0.02        | 0.25±0.16                | 8.4   | <i>f</i> <sub>242</sub>                | 15.2940±0.0031               | 0.04±0.02        | -0.00±0.19               | 5.9   |
| <i>f</i> <sub>155</sub>                | 30.0760±0.0027               | 0.05±0.02        | -1.17±0.16               | 8.2   | <i>f</i> <sub>243</sub>                | 36.1209±0.0031               | 0.04±0.02        | -0.53±0.19               | 5.9   |
| <i>f</i> <sub>156</sub>                | 13.7449±0.0027               | 0.05±0.02        | -1.46±0.16               | 8.2   | <i>f</i> <sub>244</sub>                | 37.8671±0.0033               | 0.04±0.02        | -1.76±0.20               | 5.5   |
| <i>f</i> <sub>157</sub>                | 17.4565±0.0026               | 0.05±0.02        | -2.11±0.16               | 8.3   | <i>f</i> <sub>245</sub>                | 3.4626±0.0032                | 0.04±0.02        | -1.77±0.20               | 5.6   |
| <i>f</i> <sub>158</sub>                | 0.3887±0.0027                | 0.05±0.02        | -0.01±0.16               | 8.1   | <i>f</i> <sub>246</sub>                | 19.1149±0.0032               | 0.04±0.02        | -0.19±0.20               | 5.6   |
| <i>f</i> <sub>159</sub>                | 30.3824±0.0027               | 0.05±0.02        | -0.92±0.16               | 8.0   | <i>f</i> <sub>247</sub>                | 2.3269±0.0032                | 0.04±0.02        | 2.80±0.20                | 5.6   |
| <i>f</i> <sub>160</sub>                | 14.8505±0.0026               | 0.05±0.02        | -0.31±0.16               | 8.3   | <i>f</i> <sub>248</sub>                | 2.5445±0.0032                | 0.04±0.02        | 1.88±0.20                | 5.6   |
| <i>f</i> <sub>161</sub>                | 0.7427±0.0027                | 0.05±0.02        | -2.08±0.17               | 7.9   | <i>f</i> <sub>249</sub>                | 2.9034±0.0032                | 0.04±0.02        | -0.98±0.20               | 5.7   |
| <i>f</i> <sub>162</sub>                | 2.1807±0.0027                | 0.05±0.02        | 1.42±0.17                | 7.9   | <i>f</i> <sub>250</sub>                | 0.3080±0.0033                | 0.04±0.02        | 0.90±0.20                | 5.5   |
| <i>f</i> <sub>163</sub>                | 7.8511±0.0027                | 0.05±0.02        | -2.67±0.16               | 8.0   | <i>f</i> <sub>251</sub>                | 13.3622±0.0032               | 0.04±0.02        | 2.82±0.20                | 5.6   |
| <i>f</i> <sub>164</sub>                | 38.4392±0.0028               | 0.05±0.02        | 3.01±0.17                | 7.7   | <i>f</i> <sub>252</sub>                | 31.1621±0.0032               | 0.04±0.02        | -0.20±0.20               | 5.6   |
| <i>f</i> <sub>165</sub>                | 31.9766±0.0027               | 0.05±0.02        | -2.16±0.16               | 8.0   | <i>f</i> <sub>253</sub>                | 6.2392±0.0033                | 0.04±0.02        | 1.75±0.20                | 5.5   |
| <i>f</i> <sub>166</sub>                | 29.3501±0.0028               | 0.05±0.02        | 1.62±0.17                | 7.7   | <i>f</i> <sub>254</sub>                | 3.0955±0.0032                | 0.04±0.02        | 2.56±0.20                | 5.6   |
| Frequency list of 0102715311 continued |                              |                  |                          |       | Frequency list of 0102715311 continued |                              |                  |                          |       |

| Frequency list of 01021715311 continued |                              |                  |                          |       | Frequency list of 0102171566 continued |                              |                  |                          |       |
|-----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                            | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| f <sub>255</sub>                        | 3.2311±0.0032                | 0.04±0.02        | 0.51±0.20                | 5.7   | f <sub>39</sub>                        | 9.2569±0.0016                | 0.12±0.02        | 1.47±0.10                | 23.4  |
| f <sub>256</sub>                        | 7.5933±0.0032                | 0.04±0.02        | 2.97±0.20                | 5.6   | f <sub>40</sub>                        | 4.7221±0.0016                | 0.11±0.02        | 1.12±0.10                | 23.3  |
| f <sub>257</sub>                        | 18.7354±0.0033               | 0.04±0.02        | 0.22±0.20                | 5.5   | f <sub>41</sub>                        | 3.9324±0.0016                | 0.11±0.02        | 2.89±0.10                | 23.7  |
| f <sub>258</sub>                        | 2.0141±0.0032                | 0.04±0.02        | -3.00±0.20               | 5.6   | f <sub>43</sub>                        | 0.3980±0.0016                | 0.11±0.02        | 1.16±0.10                | 23.6  |
| f <sub>259</sub>                        | 1.2592±0.0033                | 0.04±0.02        | 0.87±0.20                | 5.5   | f <sub>44</sub>                        | 0.6123±0.0016                | 0.12±0.02        | -2.38±0.10               | 23.4  |
| f <sub>260</sub>                        | 1.4856±0.0032                | 0.04±0.02        | -0.77±0.20               | 5.7   | f <sub>45</sub>                        | 0.1651±0.0016                | 0.09±0.02        | -0.47±0.10               | 23.3  |
| f <sub>261</sub>                        | 30.4590±0.0032               | 0.04±0.02        | -1.54±0.20               | 5.6   | f <sub>46</sub>                        | 4.3387±0.0016                | 0.12±0.03        | 1.35±0.10                | 22.9  |
| f <sub>262</sub>                        | 5.6040±0.0033                | 0.04±0.02        | -0.06±0.20               | 5.4   | f <sub>47</sub>                        | 3.3025±0.0016                | 0.11±0.02        | 1.63±0.10                | 22.8  |
| f <sub>263</sub>                        | 25.4175±0.0033               | 0.04±0.02        | -1.38±0.20               | 5.5   | f <sub>48</sub>                        | 2.1423±0.0016                | 0.10±0.02        | -1.42±0.10               | 22.6  |
| f <sub>264</sub>                        | 16.1716±0.0033               | 0.04±0.02        | 1.05±0.20                | 5.4   | f <sub>49</sub>                        | 0.3378±0.0017                | 0.11±0.02        | -1.19±0.10               | 21.4  |
| f <sub>265</sub>                        | 3.3751±0.0033                | 0.04±0.02        | -2.04±0.20               | 5.4   | f <sub>50</sub>                        | 13.1732±0.0017               | 0.10±0.02        | -0.52±0.10               | 21.1  |
| f <sub>266</sub>                        | 41.6058±0.0033               | 0.04±0.02        | 1.03±0.20                | 5.4   | f <sub>51</sub>                        | 0.6350±0.0017                | 0.10±0.02        | 1.42±0.10                | 20.9  |
| f <sub>268</sub>                        | 29.6906±0.0033               | 0.04±0.02        | -3.12±0.20               | 5.5   | f <sub>52</sub>                        | 5.2965±0.0017                | 0.10±0.02        | -0.90±0.10               | 21.0  |
| f <sub>278</sub>                        | 15.4509±0.0032               | 0.04±0.02        | -2.46±0.20               | 5.6   | f <sub>53</sub>                        | 8.7029±0.0017                | 0.10±0.02        | -1.55±0.10               | 19.9  |
| f <sub>279</sub>                        | 15.3263±0.0033               | 0.04±0.02        | 1.07±0.20                | 5.5   | f <sub>54</sub>                        | 0.3576±0.0017                | 0.10±0.02        | -1.10±0.10               | 19.9  |
| f <sub>280</sub>                        | 35.4156±0.0033               | 0.04±0.02        | -1.21±0.20               | 5.3   | f <sub>55</sub>                        | 2.0438±0.0017                | 0.10±0.02        | 1.31±0.10                | 19.9  |
| f <sub>281</sub>                        | 4.1485±0.0033                | 0.04±0.02        | 2.57±0.20                | 5.4   | f <sub>56</sub>                        | 8.1588±0.0017                | 0.10±0.02        | 2.71±0.10                | 21.0  |
| f <sub>282</sub>                        | 0.6301±0.0033                | 0.04±0.02        | -0.44±0.20               | 5.4   | f <sub>57</sub>                        | 2.4044±0.0017                | 0.10±0.02        | -2.76±0.10               | 20.4  |
| f <sub>283</sub>                        | 6.1837±0.0033                | 0.04±0.02        | 2.45±0.20                | 5.3   | f <sub>58</sub>                        | 1.7333±0.0017                | 0.10±0.02        | 1.52±0.10                | 20.3  |
| f <sub>284</sub>                        | 33.0138±0.0033               | 0.04±0.02        | -0.56±0.20               | 5.5   | f <sub>59</sub>                        | 0.6984±0.0017                | 0.09±0.02        | 2.86±0.11                | 19.5  |
| f <sub>285</sub>                        | 40.7226±0.0033               | 0.04±0.02        | -2.48±0.20               | 5.4   | f <sub>60</sub>                        | 4.3597±0.0018                | 0.09±0.02        | -0.20±0.11               | 18.6  |
| f <sub>286</sub>                        | 35.5142±0.0033               | 0.04±0.02        | -0.09±0.20               | 5.3   | f <sub>63</sub>                        | 0.6761±0.0018                | 0.10±0.02        | 1.87±0.11                | 18.0  |
| f <sub>288</sub>                        | 46.4683±0.0033               | 0.04±0.02        | -0.37±0.20               | 5.3   | f <sub>64</sub>                        | 1.4137±0.0018                | 0.09±0.02        | 2.04±0.11                | 18.0  |
| f <sub>289</sub>                        | 3.4990±0.0033                | 0.04±0.02        | -0.53±0.20               | 5.2   | f <sub>67</sub>                        | 0.9098±0.0019                | 0.08±0.02        | -0.59±0.12               | 15.8  |
| f <sub>290</sub>                        | 2.5804±0.0033                | 0.04±0.02        | -0.54±0.20               | 5.3   | f <sub>68</sub>                        | 0.7495±0.0020                | 0.09±0.02        | -1.89±0.12               | 15.2  |
| f <sub>291</sub>                        | 1.1503±0.0033                | 0.04±0.02        | -2.21±0.20               | 5.2   | f <sub>69</sub>                        | 0.1926±0.0020                | 0.07±0.02        | -2.72±0.12               | 15.0  |
| f <sub>293</sub>                        | 32.9546±0.0033               | 0.04±0.02        | 2.84±0.20                | 5.5   | f <sub>70</sub>                        | 17.3800±0.0020               | 0.08±0.02        | -0.69±0.12               | 14.3  |
| f <sub>294</sub>                        | 0.2088±0.0034                | 0.04±0.02        | 2.52±0.21                | 5.1   | f <sub>71</sub>                        | 5.5038±0.0020                | 0.08±0.02        | 2.67±0.12                | 14.0  |
| f <sub>295</sub>                        | 0.1199±0.0033                | 0.04±0           |                          |       |                                        |                              |                  |                          |       |

## Appendix D. Frequencies of individual Hybrid Stars

| Frequency list of 0102717566 continued |                              |                  |                          |       | Frequency list of 0102719759 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{127}$                              | 22.7436±0.0026               | 0.06±0.02        | 0.03±0.16                | 8.3   | $f_3$                                  | 18.3668±0.0006               | 0.46±0.04        | 1.03±0.04                | 157.6 |
| $f_{128}$                              | 4.1206±0.0026                | 0.06±0.02        | -2.05±0.16               | 8.4   | $f_4$                                  | 3.2245±0.0008                | 0.36±0.04        | -0.86±0.05               | 99.0  |
| $f_{129}$                              | 4.3480±0.0026                | 0.06±0.02        | -2.89±0.16               | 8.5   | $f_5$                                  | 2.3887±0.0008                | 0.36±0.04        | 2.75±0.05                | 99.8  |
| $f_{130}$                              | 2.1740±0.0027                | 0.06±0.02        | 1.08±0.17                | 7.9   | $f_6$                                  | 7.4671±0.0008                | 0.35±0.04        | 0.95±0.05                | 92.5  |
| $f_{131}$                              | 0.5652±0.0027                | 0.06±0.02        | 3.12±0.17                | 7.9   | $f_7$                                  | 6.8179±0.0009                | 0.34±0.04        | 1.78±0.05                | 78.6  |
| $f_{132}$                              | 6.4494±0.0027                | 0.06±0.02        | -1.97±0.17               | 7.8   | $f_8$                                  | 7.3597±0.0009                | 0.31±0.04        | -1.06±0.05               | 78.4  |
| $f_{133}$                              | 10.4569±0.0027               | 0.06±0.02        | 2.52±0.17                | 7.8   | $f_9$                                  | 19.6734±0.0009               | 0.30±0.04        | -0.34±0.05               | 72.0  |
| $f_{134}$                              | 0.2334±0.0028                | 0.06±0.02        | -1.67±0.17               | 7.5   | $f_{10}$                               | 1.5245±0.0009                | 0.27±0.03        | -2.64±0.06               | 70.0  |
| $f_{135}$                              | 0.7976±0.0028                | 0.05±0.02        | -2.46±0.17               | 7.6   | $f_{11}$                               | 2.1363±0.0009                | 0.27±0.03        | 2.67±0.06                | 70.3  |
| $f_{136}$                              | 4.2055±0.0028                | 0.06±0.02        | 2.98±0.17                | 7.5   | $f_{12}$                               | 4.4288±0.0010                | 0.27±0.03        | -1.99±0.06               | 64.5  |
| $f_{137}$                              | 3.8504±0.0028                | 0.06±0.02        | 1.36±0.17                | 7.4   | $f_{13}$                               | 1.1615±0.0010                | 0.24±0.03        | -1.37±0.06               | 56.8  |
| $f_{138}$                              | 1.8691±0.0028                | 0.06±0.02        | 1.23±0.17                | 7.5   | $f_{14}$                               | 22.8835±0.0011               | 0.23±0.03        | -1.76±0.07               | 48.5  |
| $f_{139}$                              | 2.5853±0.0028                | 0.05±0.02        | 2.34±0.17                | 7.5   | $f_{15}$                               | 5.8535±0.0011                | 0.23±0.03        | -2.19±0.07               | 46.0  |
| $f_{140}$                              | 55.8639±0.0028               | 0.06±0.02        | 1.81±0.17                | 7.3   | $f_{16}$                               | 2.0019±0.0012                | 0.18±0.03        | 2.63±0.08                | 37.5  |
| $f_{141}$                              | 24.5290±0.0028               | 0.06±0.02        | 1.15±0.17                | 7.2   | $f_{17}$                               | 0.8690±0.0013                | 0.20±0.03        | 2.20±0.08                | 33.8  |
| $f_{142}$                              | 3.8846±0.0028                | 0.05±0.02        | 2.08±0.17                | 7.2   | $f_{18}$                               | 4.5097±0.0013                | 0.19±0.03        | -0.73±0.08               | 34.2  |
| $f_{143}$                              | 4.3724±0.0029                | 0.05±0.02        | -0.10±0.17               | 7.1   | $f_{19}$                               | 2.0784±0.0014                | 0.18±0.03        | 1.57±0.08                | 31.7  |
| $f_{144}$                              | 4.9514±0.0029                | 0.06±0.02        | -0.93±0.17               | 7.1   | $f_{20}$                               | 21.7082±0.0014               | 0.17±0.03        | 0.88±0.08                | 30.7  |
| $f_{145}$                              | 18.8078±0.0028               | 0.06±0.02        | 0.78±0.17                | 7.4   | $f_{22}$                               | 9.2914±0.0014                | 0.18±0.03        | 0.33±0.09                | 28.8  |
| $f_{146}$                              | 3.6919±0.0029                | 0.05±0.02        | -2.37±0.18               | 7.0   | $f_{23}$                               | 23.8092±0.0015               | 0.17±0.03        | -0.58±0.09               | 27.6  |
| $f_{147}$                              | 2.7860±0.0029                | 0.05±0.02        | -3.12±0.17               | 7.1   | $f_{24}$                               | 9.3775±0.0015                | 0.17±0.03        | 2.23±0.09                | 27.5  |
| $f_{148}$                              | 0.7065±0.0029                | 0.05±0.02        | 3.11±0.17                | 7.1   | $f_{26}$                               | 8.5755±0.0015                | 0.17±0.03        | 0.19±0.09                | 27.3  |
| $f_{150}$                              | 4.2464±0.0029                | 0.05±0.02        | 1.35±0.18                | 7.0   | $f_{27}$                               | 2.4749±0.0015                | 0.15±0.03        | 0.53±0.09                | 27.2  |
| $f_{152}$                              | 24.8806±0.0029               | 0.05±0.02        | 1.94±0.18                | 6.9   | $f_{28}$                               | 7.7900±0.0015                | 0.16±0.03        | -1.05±0.09               | 27.6  |
| $f_{153}$                              | 0.2184±0.0029                | 0.05±0.02        | 2.37±0.18                | 6.8   | $f_{29}$                               | 2.3270±0.0014                | 0.15±0.03        | -1.30±0.09               | 28.3  |
| $f_{154}$                              | 3.1068±0.0029                | 0.05±0.02        | 3.13±0.18                | 6.7   | $f_{30}$                               | 4.6142±0.0015                | 0.17±0.03        | 2.43±0.09                | 27.2  |
| $f_{155}$                              | 2.3932±0.0029                | 0.05±0.02        | 0.62±0.18                | 6.8   | $f_{31}$                               | 19.1179±0.0015               | 0.16±0.03        | 1.50±0.09                | 27.3  |
| $f_{156}$                              | 1.1402±0.0029                | 0.05±0.02        | 2.60±0.18                | 6.9   | $f_{32}$                               | 2.2818±0.0015                | 0.17±0.03        | 1.96±0.09                | 25.6  |
| $f_{157}$                              | 6.1127±0.0029                | 0.05±0.02        | -2.78±0.18               | 6.7   | $f_{34}$                               | 6.1168±0.0015                | 0.16±0.03        | -1.66±0.09               | 25.1  |
| $f_{158}$                              | 3.4151±0.0029                | 0.05±0.02        | 0.27±0.18                | 6.7   | $f_{35}$                               | 7.6408±0.0015                | 0.15±0.03        | 0.58±0.09                | 25.1  |
| $f_{159}$                              | 0.7667±0.0030                | 0.05±0.02        | -2.18±0.18               | 6.6   | $f_{36}$                               | 22.6858±0.0015               | 0.15±0.03        | 1.79±0.09                | 25.1  |
| $f_{161}$                              | 25.4890±0.0030               | 0.05±0.02        | -0.54±0.18               | 6.5   | $f_{37}$                               | 5.5896±0.0016                | 0.15±0.03        | -2.79±0.10               | 23.5  |
| $f_{164}$                              | 10.0270±0.0030               | 0.05±0.02        | 2.00±0.18                | 6.6   | $f_{38}$                               | 0.3866±0.0016                | 0.14±0.03        | -2.87±0.10               | 22.4  |
| $f_{165}$                              | 13.3693±0.0030               | 0.05±0.02        | 0.04±0.18                | 6.6   | $f_{39}$                               | 20.7093±0.0017               | 0.14±0.03        | 0.93±0.10                | 20.4  |
| $f_{166}$                              | 7.9105±0.0030                | 0.05±0.02        | 1.42±0.18                | 6.6   | $f_{40}$                               | 8.9704±0.0017                | 0.13±0.03        | -2.89±0.11               | 19.6  |
| $f_{168}$                              | 2.2722±0.0029                | 0.05±0.02        | -0.97±0.18               | 6.7   | $f_{41}$                               | 19.8958±0.0017               | 0.13±0.03        | -0.64±0.10               | 19.7  |
| $f_{169}$                              | 1.4880±0.0030                | 0.05±0.02        | -0.57±0.18               | 6.4   | $f_{42}$                               | 1.6650±0.0017                | 0.14±0.03        | -0.50±0.10               | 19.9  |
| $f_{170}$                              | 7.4343±0.0030                | 0.05±0.02        | -1.57±0.18               | 6.4   | $f_{43}$                               | 8.0666±0.0017                | 0.13±0.03        | -2.96±0.11               | 19.6  |
| $f_{171}$                              | 0.4673±0.0030                | 0.05±0.02        | -0.34±0.19               | 6.3   | $f_{44}$                               | 0.1818±0.0017                | 0.13±0.03        | 0.82±0.11                | 19.6  |
| $f_{172}$                              | 7.1107±0.0031                | 0.05±0.02        | -1.48±0.19               | 6.2   | $f_{45}$                               | 7.4132±0.0017                | 0.13±0.03        | 0.75±0.11                | 19.6  |
| $f_{173}$                              | 1.6214±0.0031                | 0.05±0.02        | 2.79±0.19                | 6.1   | $f_{47}$                               | 8.2113±0.0017                | 0.13±0.03        | 0.56±0.11                | 19.2  |
| $f_{174}$                              | 1.7916±0.0031                | 0.05±0.02        | -3.04±0.19               | 6.1   | $f_{48}$                               | 4.1088±0.0017                | 0.13±0.03        | -2.13±0.11               | 19.1  |
| $f_{175}$                              | 24.5472±0.0030               | 0.05±0.02        | -0.58±0.18               | 6.4   | $f_{49}$                               | 25.7020±0.0018               | 0.12±0.03        | -1.68±0.11               | 17.9  |
| $f_{176}$                              | 10.3326±0.0030               | 0.05±0.02        | 1.76±0.18                | 6.4   | $f_{50}$                               | 0.1137±0.0018                | 0.13±0.03        | 0.37±0.11                | 17.4  |
| $f_{177}$                              | 0.5077±0.0031                | 0.05±0.02        | -2.10±0.19               | 6.2   | $f_{52}$                               | 0.8782±0.0019                | 0.12±0.03        | -1.58±0.12               | 16.4  |
| $f_{178}$                              | 4.8434±0.0031                | 0.05±0.02        | 1.64±0.19                | 6.1   | $f_{53}$                               | 10.6560±0.0019               | 0.11±0.03        | -2.00±0.12               | 16.3  |
| $f_{179}$                              | 5.4236±0.0031                | 0.05±0.02        | 2.96±0.19                | 6.0   | $f_{54}$                               | 7.9510±0.0019                | 0.13±0.03        | 1.28±0.11                | 16.7  |
| $f_{180}$                              | 8.5715±0.0031                | 0.05±0.02        | -2.26±0.19               | 6.1   | $f_{55}$                               | 4.6930±0.0019                | 0.12±0.03        | -1.42±0.12               | 16.4  |
| $f_{182}$                              | 3.6465±0.0031                | 0.05±0.02        | -2.97±0.19               | 6.0   | $f_{57}$                               | 7.6341±0.0019                | 0.12±0.03        | 3.06±0.12                | 16.0  |
| $f_{183}$                              | 8.3986±0.0031                | 0.05±0.02        | -1.96±0.19               | 5.9   | $f_{58}$                               | 7.9794±0.0019                | 0.11±0.03        | -0.32±0.12               | 15.5  |
| $f_{184}$                              | 6.1655±0.0031                | 0.05±0.02        | 2.15±0.19                | 5.9   | $f_{59}$                               | 7.1659±0.0020                | 0.11±0.03        | -0.80±0.12               | 15.0  |
| $f_{185}$                              | 0.1448±0.0031                | 0.05±0.02        | 1.89±0.19                | 5.9   | $f_{60}$                               | 0.8454±0.0020                | 0.09±0.02        | -1.79±0.12               | 15.1  |
| $f_{186}$                              | 7.6952±0.0031                | 0.05±0.02        | 2.09±0.19                | 5.9   | $f_{61}$                               | 0.2557±0.0020                | 0.11±0.03        | -2.48±0.12               | 14.5  |
| $f_{188}$                              | 0.3896±0.0032                | 0.05±0.02        | -0.59±0.19               | 5.8   | $f_{62}$                               | 9.0805±0.0020                | 0.11±0.03        | -0.17±0.12               | 14.3  |
| $f_{189}$                              | 0.6672±0.0032                | 0.05±0.02        | -0.77±0.20               | 5.7   | $f_{63}$                               | 8.3741±0.0021                | 0.11±0.03        | -0.35±0.13               | 13.6  |
| $f_{190}$                              | 22.3847±0.0031               | 0.05±0.02        | -0.91±0.19               | 5.9   | $f_{64}$                               | 0.6384±0.0020                | 0.10±0.03        | -1.31±0.12               | 13.9  |
| $f_{192}$                              | 7.5988±0.0032                | 0.05±0.02        | 0.62±0.19                | 5.8   | $f_{65}$                               | 6.2380±0.0021                | 0.10±0.03        | 0.39±0.13                | 12.8  |
| $f_{193}$                              | 9.8113±0.0032                | 0.05±0.02        | 0.36±0.20                | 5.6   | $f_{66}$                               | 6.7376±0.0021                | 0.10±0.03        | 2.13±0.13                | 13.0  |
| $f_{194}$                              | 6.3154±0.0032                | 0.05±0.02        | 0.39±0.20                | 5.6   | $f_{67}$                               | 23.8409±0.0021               | 0.09±0.03        | 3.09±0.13                | 12.7  |
| $f_{195}$                              | 0.1767±0.0032                | 0.05±0.02        | 0.11±0.20                | 5.6   | $f_{68}$                               | 8.6294±0.0022                | 0.10±0.03        | 1.56±0.13                | 12.2  |
| $f_{196}$                              | 11.1353±0.0033               | 0.05±0.02        | -0.13±0.20               | 5.5   | $f_{69}$                               | 6.1764±0.0022                | 0.10±0.03        | 1.20±0.13                | 12.1  |
| $f_{197}$                              | 0.5951±0.0033                | 0.04±0.02        | -0.48±0.20               | 5.4   | $f_{70}$                               | 6.0058±0.0022                | 0.10±0.03        | -0.24±0.13               | 12.1  |
| $f_{198}$                              | 26.4107±0.0033               | 0.04±0.02        | -1.05±0.20               | 5.4   | $f_{71}$                               | 0.1006±0.0022                | 0.10±0.03        | -1.41±0.14               | 11.8  |
| $f_{199}$                              | 7.0821±0.0033                | 0.04±0.02        | -1.74±0.20               | 5.4   | $f_{72}$                               | 0.1412±0.0022                | 0.11±0.03        | 2.26±0.14                | 11.7  |
| $f_{200}$                              | 2.6643±0.0033                | 0.05±0.02        | -2.63±0.20               | 5.5   | $f_{73}$                               | 5.2358±0.0022                | 0.10±0.03        | 1.20±0.14                | 11.7  |
| $f_{201}$                              | 0.2447±0.0033                | 0.05±0.02        | -0.27±0.20               | 5.3   | $f_{74}$                               | 5.3884±0.0022                | 0.09±0.03        | -1.02±0.14               | 11.7  |
| $f_{202}$                              | 7.3381±0.0033                | 0.04±0.02        | -2.07±0.20               | 5.4   | $f_{75}$                               | 2.1854±0.0022                | 0.09±0.03        | -1.36±0.14               | 11.7  |
| $f_{203}$                              | 2.3401±0.0033                | 0.04±0.02        | -1.02±0.20               | 5.3   | $f_{76}$                               | 0.8384±0.0022                | 0.08±0.02        | -2.73±0.14               | 11.6  |
| $f_{204}$                              | 2.5752±0.0033                | 0.05±0.02        | 2.78±0.20                | 5.4   | $f_{77}$                               | 7.5640±0.0022                | 0.09±0.03        | -0.85±0.14               | 11.8  |
| $f_{205}$                              | 0.8421±0.0032                | 0.05±0.02        | 1.28±0.20                | 5.6   | $f_{78}$                               | 4.6248±0.0023                | 0.08±0.02        | 2.67±0.14                | 11.5  |
| $f_{206}$                              | 10.5805±0.0033               | 0.04±0.02        | 2.95±0.20                | 5.4   | $f_{79}$                               | 0.1999±0.0023                | 0.10±0.03        | -1.05±0.14               | 11.3  |
| $f_{207}$                              | 1.7191±0.0033                | 0.04±0.02        | -1.98±0.20               | 5.3   | $f_{80}$                               | 1.7039±0.0023                | 0.09±0.03        | -3.03±0.14               | 10.8  |
| $f_{208}$                              | 27.4010±0.0033               | 0.04±0.02        | -1.68±0.20               | 5.2   | $f_{81}$                               | 2.2316±0.0023                | 0.09±0.03        | 1.02±0.14                | 10.7  |
| $f_{210}$                              | 4.0729±0.0033                | 0.04±0.02        | 1.83±0.20                | 5.2   | $f_{82}$                               | 5.2026±0.0023                | 0.08±0.02        | -1.33±0.14               | 10.9  |
| $f_{211}$                              | 13.9386±0.0034               | 0.04±0.02        | -2.03±0.21               | 5.1   | $f_{83}$                               | 10.1943±0.0023               | 0.09±0.03        | 1.36±0.14                | 10.6  |
|                                        |                              |                  |                          |       | $f_{84}$                               | 2.2690±0.0024                | 0.09±0.03        | -1.18±0.15               | 10.2  |

**Table D.39:** Frequency list of 0102719759

| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| $f_1$                                  | 6.9033±0.0005                | 0.65±0.04        | 2.16±0.03                | 259.9 |
| $f_2$                                  | 1.7108±0.0006                | 0.46±0.04        | 0.20±0.04                | 152.3 |
| Frequency list of 0102719759 continued |                              |                  |                          |       |

Frequency list of 0102719759 continued

## Appendix D. Frequencies of individual Hybrid Stars

| Frequency list of 0102719759 continued |                              |                  |                          |       | Frequency list of 0102720462 continued                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                              |                  |                          |       |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------|------------------|--------------------------|-------|--------------|------------------------------|------------------|--------------------------|-------|-----------------------|----------------|-----------|------------|-------|-----------------------|---------------|-----------|-----------|-------|-----------------------|---------------|-----------|------------|-------|-----------------------|---------------|-----------|------------|-------|-----------------------|---------------|-----------|-----------|------|-----------------------|---------------|-----------|------------|------|-----------------------|----------------|-----------|------------|------|-----------------------|---------------|-----------|-----------|------|-----------------------|---------------|-----------|------------|------|------------------------|---------------|-----------|-----------|------|------------------------|---------------|-----------|-----------|------|------------------------|----------------|-----------|------------|------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>87</sub>                 | 0.5713±0.0024                | 0.08±0.03        | 1.08±0.15                | 10.0  | <i>f</i> <sub>4</sub>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 2.9296±0.0004                | 0.72±0.04        | 0.55±0.02                | 349.4 |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>88</sub>                 | 1.5130±0.0024                | 0.09±0.03        | -1.61±0.15               | 9.8   | <i>f</i> <sub>5</sub>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 16.4968±0.0006               | 0.44±0.04        | 2.92±0.04                | 138.8 |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>89</sub>                 | 6.6617±0.0024                | 0.09±0.03        | 0.57±0.15                | 9.9   | <i>f</i> <sub>6</sub>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 16.3550±0.0007               | 0.38±0.04        | -1.91±0.05               | 104.6 |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>90</sub>                 | 0.2777±0.0024                | 0.08±0.03        | 2.85±0.15                | 9.8   | <i>f</i> <sub>7</sub>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 4.1617±0.0008                | 0.36±0.04        | -1.72±0.05               | 97.0  |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>91</sub>                 | 0.2168±0.0025                | 0.08±0.03        | -2.69±0.15               | 9.7   | <i>f</i> <sub>8</sub>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 21.9883±0.0008               | 0.35±0.04        | -0.49±0.05               | 90.0  |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>92</sub>                 | 0.8564±0.0025                | 0.09±0.03        | 3.05±0.15                | 9.6   | <i>f</i> <sub>9</sub>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 7.9850±0.0010                | 0.27±0.04        | 2.08±0.06                | 56.7  |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>93</sub>                 | 2.4659±0.0025                | 0.08±0.03        | 1.85±0.15                | 9.5   | <i>f</i> <sub>10</sub>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 2.5449±0.0011                | 0.25±0.04        | 2.29±0.07                | 48.3  |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>94</sub>                 | 7.8507±0.0025                | 0.08±0.03        | -0.74±0.15               | 9.4   | <i>f</i> <sub>13</sub>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 28.5487±0.0012               | 0.23±0.04        | 2.56±0.07                | 41.7  |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>95</sub>                 | 8.5193±0.0025                | 0.08±0.03        | 0.34±0.15                | 9.3   | <i>f</i> <sub>14</sub>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 4.0745±0.0012                | 0.23±0.04        | -0.02±0.07               | 41.5  |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>96</sub>                 | 8.1881±0.0025                | 0.08±0.03        | 2.84±0.15                | 9.6   | <i>f</i> <sub>15</sub>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 3.4825±0.0012                | 0.21±0.03        | -0.80±0.07               | 40.2  |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>97</sub>                 | 5.1402±0.0025                | 0.07±0.02        | 2.00±0.15                | 9.4   | <i>f</i> <sub>16</sub>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 3.9989±0.0012                | 0.22±0.03        | -2.74±0.07               | 39.6  |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>99</sub>                 | 0.1233±0.0025                | 0.08±0.03        | -1.85±0.15               | 9.4   | <i>f</i> <sub>17</sub>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 4.6906±0.0013                | 0.21±0.03        | 0.00±0.08                | 36.7  |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>100</sub>                | 2.3091±0.0025                | 0.08±0.03        | -2.75±0.15               | 9.2   | <i>f</i> <sub>21</sub>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 17.4308±0.0013               | 0.21±0.03        | -2.81±0.08               | 37.0  |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>101</sub>                | 7.7081±0.0025                | 0.08±0.03        | -2.58±0.15               | 9.1   | <i>f</i> <sub>22</sub>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 0.9206±0.0014                | 0.18±0.03        | -3.05±0.09               | 28.9  |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>102</sub>                | 7.1086±0.0026                | 0.08±0.03        | 1.65±0.16                | 8.9   | <i>f</i> <sub>23</sub>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 4.5216±0.0014                | 0.17±0.03        | 2.41±0.09                | 28.1  |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>103</sub>                | 7.4938±0.0025                | 0.08±0.03        | -2.58±0.16               | 9.0   | <i>f</i> <sub>24</sub>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 24.6716±0.0015               | 0.17±0.03        | 1.71±0.09                | 26.2  |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>104</sub>                | 1.9726±0.0026                | 0.08±0.03        | -0.97±0.16               | 8.7   | <i>f</i> <sub>25</sub>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 7.6348±0.0016                | 0.16±0.03        | 3.00±0.10                | 23.9  |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>105</sub>                | 9.7503±0.0026                | 0.08±0.03        | -2.77±0.16               | 8.7   | <i>f</i> <sub>26</sub>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 11.4851±0.0015               | 0.17±0.03        | 1.32±0.09                | 25.2  |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>106</sub>                | 3.0362±0.0026                | 0.07±0.02        | 2.24±0.16                | 8.7   | <i>f</i> <sub>29</sub>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 13.9013±0.0016               | 0.16±0.03        | 2.38±0.10                | 23.1  |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>107</sub>                | 1.5943±0.0026                | 0.10±0.03        | -2.09±0.16               | 8.7   | <i>f</i> <sub>30</sub>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 4.0156±0.0016                | 0.14±0.03        | 0.53±0.10                | 22.0  |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>108</sub>                | 1.5837±0.0024                | 0.09±0.03        | -2.22±0.15               | 10.2  | <i>f</i> <sub>31</sub>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 3.6948±0.0016                | 0.15±0.03        | -2.33±0.10               | 22.0  |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>109</sub>                | 7.3364±0.0026                | 0.08±0.03        | -2.61±0.16               | 8.6   | <i>f</i> <sub>32</sub>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 3.8030±0.0017                | 0.15±0.03        | -1.04±0.10               | 21.4  |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>110</sub>                | 0.8115±0.0026                | 0.08±0.03        | -1.98±0.16               | 8.5   | <i>f</i> <sub>33</sub>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 2.6160±0.0016                | 0.15±0.03        | -1.27±0.10               | 22.0  |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>112</sub>                | 7.0728±0.0026                | 0.07±0.02        | -0.86±0.16               | 8.4   | <i>f</i> <sub>34</sub>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 6.0936±0.0017                | 0.14±0.03        | -1.52±0.10               | 20.5  |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>113</sub>                | 2.0302±0.0026                | 0.08±0.03        | -2.99±0.16               | 8.4   | <i>f</i> <sub>38</sub>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 2.0045±0.0019                | 0.25±0.06        | 1.98±0.12                | 16.0  |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>114</sub>                | 4.6343±0.0027                | 0.07±0.02        | -1.41±0.16               | 8.1   | <i>f</i> <sub>40</sub>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 0.1063±0.0019                | 0.11±0.03        | -1.72±0.12               | 15.7  |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>115</sub>                | 3.0873±0.0027                | 0.07±0.02        | -2.98±0.16               | 8.1   | <i>f</i> <sub>48</sub>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 23.1079±0.0021               | 0.11±0.03        | 0.35±0.13                | 13.1  |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>117</sub>                | 1.1327±0.0027                | 0.07±0.02        | 1.91±0.17                | 7.9   | <i>f</i> <sub>49</sub>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 1.9532±0.0022                | 0.11±0.03        | 1.08±0.13                | 12.6  |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>118</sub>                | 1.2373±0.0027                | 0.07±0.03        | -1.71±0.17               | 7.8   | <i>f</i> <sub>51</sub>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 24.7317±0.0021               | 0.10±0.03        | -0.86±0.13               | 12.7  |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>119</sub>                | 7.9072±0.0027                | 0.07±0.02        | -2.89±0.17               | 7.9   | <i>f</i> <sub>53</sub>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 28.2324±0.0023               | 0.10±0.03        | 1.04±0.14                | 11.1  |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>120</sub>                | 9.8341±0.0027                | 0.07±0.02        | 0.56±0.16                | 8.0   | <i>f</i> <sub>54</sub>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 13.0492±0.0024               | 0.10±0.03        | -0.52±0.14               | 10.5  |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>121</sub>                | 5.1890±0.0027                | 0.07±0.02        | -2.13±0.17               | 7.9   | <i>f</i> <sub>55</sub>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 5.0863±0.0025                | 0.09±0.03        | -1.09±0.15               | 9.5   |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>122</sub>                | 0.5977±0.0028                | 0.07±0.03        | 2.57±0.17                | 7.7   | <i>f</i> <sub>56</sub>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 1.8008±0.0025                | 0.10±0.03        | 2.48±0.15                | 9.4   |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>123</sub>                | 6.9364±0.0028                | 0.07±0.03        | 1.86±0.17                | 7.7   | <i>f</i> <sub>58</sub>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 7.5703±0.0025                | 0.09±0.03        | -3.02±0.15               | 9.3   |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>124</sub>                | 0.3159±0.0027                | 0.07±0.03        | -2.18±0.17               | 7.8   | <i>f</i> <sub>59</sub>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 0.1152±0.0025                | 0.09±0.03        | 1.17±0.16                | 9.0   |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>125</sub>                | 1.8252±0.0028                | 0.07±0.03        | 2.64±0.17                | 7.6   | <i>f</i> <sub>64</sub>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 0.1746±0.0028                | 0.09±0.03        | -0.69±0.17               | 7.7   |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>126</sub>                | 6.3815±0.0028                | 0.07±0.03        | -2.50±0.17               | 7.6   | <i>f</i> <sub>68</sub>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 0.2356±0.0028                | 0.07±0.03        | 2.42±0.17                | 7.5   |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>127</sub>                | 8.3875±0.0028                | 0.07±0.03        | 1.46±0.17                | 7.6   | <i>f</i> <sub>69</sub>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 24.5795±0.0028               | 0.08±0.03        | -2.33±0.17               | 7.5   |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>128</sub>                | 3.2120±0.0028                | 0.07±0.03        | -0.83±0.17               | 7.4   | <i>f</i> <sub>70</sub>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 0.5838±0.0028                | 0.08±0.03        | -0.67±0.17               | 7.4   |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>129</sub>                | 6.9112±0.0028                | 0.07±0.03        | 2.57±0.17                | 7.5   | <i>f</i> <sub>73</sub>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 1.0755±0.0029                | 0.08±0.03        | 2.65±0.17                | 7.1   |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>130</sub>                | 10.4247±0.0028               | 0.07±0.03        | -0.27±0.17               | 7.4   | <i>f</i> <sub>74</sub>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 3.5240±0.0029                | 0.08±0.03        | -1.24±0.18               | 6.9   |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>131</sub>                | 2.7506±0.0028                | 0.07±0.03        | 2.38±0.17                | 7.5   | <i>f</i> <sub>75</sub>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 6.0420±0.0029                | 0.08±0.03        | 2.94±0.18                | 6.9   |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>132</sub>                | 6.5646±0.0028                | 0.07±0.03        | -2.42±0.17               | 7.3   | <i>f</i> <sub>76</sub>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 2.0058±0.0029                | 0.11±0.04        | 2.41±0.18                | 6.9   |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>133</sub>                | 1.7339±0.0028                | 0.07±0.03        | 2.25±0.17                | 7.4   | <i>f</i> <sub>82</sub>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 14.1567±0.0030               | 0.08±0.03        | -1.51±0.18               | 6.6   |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>134</sub>                | 30.5564±0.0029               | 0.07±0.03        | 1.29±0.17                | 7.1   | <i>f</i> <sub>83</sub>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 0.1595±0.0029                | 0.08±0.03        | 2.04±0.18                | 6.7   |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>135</sub>                | 1.9225±0.0029                | 0.07±0.03        | -1.29±0.18               | 7.0   | <i>f</i> <sub>84</sub>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 28.7269±0.0030               | 0.08±0.03        | 2.02±0.18                | 6.5   |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>136</sub>                | 8.2704±0.0029                | 0.07±0.03        | 0.33±0.17                | 7.1   | <i>f</i> <sub>86</sub>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 21.8669±0.0030               | 0.08±0.03        | -2.83±0.18               | 6.4   |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>137</sub>                | 5.9102±0.0029                | 0.07±0.03        | 2.04±0.18                | 7.0   | <i>f</i> <sub>87</sub>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 21.7975±0.0031               | 0.07±0.03        | 2.11±0.19                | 6.2   |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>139</sub>                | 6.7993±0.0028                | 0.07±0.03        | -1.88±0.17               | 7.2   | <i>f</i> <sub>89</sub>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 19.6504±0.0030               | 0.07±0.03        | -3.00±0.19               | 6.3   |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>140</sub>                | 8.3023±0.0029                | 0.07±0.03        | 2.44±0.18                | 7.0   | <i>f</i> <sub>90</sub>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 0.3249±0.0031                | 0.07±0.03        | -1.90±0.19               | 5.9   |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>141</sub>                | 8.3251±0.0029                | 0.07±0.03        | -1.30±0.18               | 7.0   | <i>f</i> <sub>91</sub>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 19.2195±0.0031               | 0.07±0.03        | 1.05±0.19                | 6.1   |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>142</sub>                | 1.5511±0.0029                | 0.07±0.03        | 2.65±0.18                | 7.0   | <i>f</i> <sub>92</sub>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 3.2521±0.0032                | 0.07±0.03        | 0.87±0.20                | 5.7   |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>143</sub>                | 5.4725±0.0029                | 0.07±0.03        | -2.12±0.18               | 6.9   | <i>f</i> <sub>93</sub>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 4.2276±0.0033                | 0.07±0.03        | 0.53±0.20                | 5.5   |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>144</sub>                | 1.9457±0.0029                | 0.07±0.03        | -2.78±0.18               | 6.9   | <i>f</i> <sub>95</sub>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 4.9498±0.0032                | 0.07±0.03        | -1.63±0.20               | 5.6   |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>146</sub>                | 20.1222±0.0029               | 0.07±0.03        | -1.66±0.18               | 6.9   | <i>f</i> <sub>98</sub>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 0.1353±0.0033                | 0.07±0.03        | 1.03±0.20                | 5.5   |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>147</sub>                | 10.2351±0.0029               | 0.07±0.03        | -1.37±0.18               | 6.8   | <i>f</i> <sub>99</sub>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 3.3043±0.0033                | 0.07±0.03        | -0.51±0.20               | 5.4   |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>149</sub>                | 0.9809±0.0029                | 0.07±0.03        | -0.76±0.18               | 6.9   | <i>f</i> <sub>100</sub>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 10.7578±0.0033               | 0.07±0.03        | 1.37±0.20                | 5.4   |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>150</sub>                | 0.9540±0.0028                | 0.07±0.03        | 0.81±0.17                | 7.4   | <i>f</i> <sub>101</sub>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 16.8909±0.0033               | 0.07±0.03        | -2.84±0.20               | 5.3   |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>151</sub>                | 1.8630±0.0029                | 0.07±0.03        | 2.96±0.18                | 6.8   | <i>f</i> <sub>105</sub>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 0.2270±0.0033                | 0.07±0.03        | -1.25±0.20               | 5.2   |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>152</sub>                | 6.7126±0.0029                | 0.06±0.02        | 2.44±0.18                | 6.7   | <i>f</i> <sub>106</sub>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 2.2190±0.0034                | 0.07±0.03        | 2.92±0.21                | 5.1   |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>153</sub>                | 0.8273±0.0029                | 0.07±0.03        | -2.40±0.18               | 6.7   | <i>f</i> <sub>107</sub>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 24.7205±0.0034               | 0.07±0.03        | -2.59±0.21               | 5.1   |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>154</sub>                | 9.9420±0.0030                | 0.07±0.03        | -0.72±0.18               | 6.6   | <i>f</i> <sub>109</sub>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 3.6723±0.0034                | 0.07±0.03        | -1.80±0.21               | 5.1   |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>155</sub>                | 8.9503±0.0030                | 0.06±0.02        | -0.64±0.18               | 6.5   | <i>f</i> <sub>110</sub>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | 3.5688±0.0033                | 0.07±0.03        | 2.80±0.20                | 5.4   |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>156</sub>                | 1.7611±0.0030                | 0.06±0.02        | -1.86±0.18               | 6.6   | <b>Table D.41: Frequency list of 0102721808</b> <table><thead><tr><th>Frequency ID</th><th>Frequency [d<sup>-1</sup>]</th><th>Amplitude [mmag]</th><th>Phase [-<math>\pi</math>, <math>\pi</math>]</th><th>Sign.</th></tr></thead><tbody><tr><td><i>f</i><sub>1</sub></td><td>14.5135±0.0004</td><td>0.58±0.03</td><td>-2.55±0.02</td><td>401.0</td></tr><tr><td><i>f</i><sub>2</sub></td><td>0.4819±0.0005</td><td>0.43±0.03</td><td>0.48±0.03</td><td>267.7</td></tr><tr><td><i>f</i><sub>3</sub></td><td>0.9603±0.0006</td><td>0.29±0.02</td><td>-2.68±0.04</td><td>141.6</td></tr><tr><td><i>f</i><sub>4</sub></td><td>3.9228±0.0007</td><td>0.29±0.03</td><td>-0.92±0.04</td><td>132.6</td></tr><tr><td><i>f</i><sub>5</sub></td><td>0.4684±0.0008</td><td>0.21±0.02</td><td>1.89±0.05</td><td>95.7</td></tr><tr><td><i>f</i><sub>6</sub></td><td>4.0234±0.0008</td><td>0.23±0.02</td><td>-1.76±0.05</td><td>94.2</td></tr><tr><td><i>f</i><sub>7</sub></td><td>20.1529±0.0010</td><td>0.18±0.02</td><td>-2.74±0.06</td><td>63.4</td></tr><tr><td><i>f</i><sub>8</sub></td><td>1.3145±0.0010</td><td>0.19±0.02</td><td>0.80±0.06</td><td>58.2</td></tr><tr><td><i>f</i><sub>9</sub></td><td>0.1273±0.0010</td><td>0.18±0.02</td><td>-1.36±0.06</td><td>60.3</td></tr><tr><td><i>f</i><sub>10</sub></td><td>3.9697±0.0010</td><td>0.17±0.02</td><td>1.00±0.06</td><td>60.9</td></tr><tr><td><i>f</i><sub>11</sub></td><td>1.0481±0.0010</td><td>0.17±0.02</td><td>0.61±0.06</td><td>56.5</td></tr><tr><td><i>f</i><sub>12</sub></td><td>24.5534±0.0011</td><td>0.15±0.02</td><td>-2.21±0.07</td><td>49.6</td></tr></tbody></table> |                              |                  |                          |       | Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | <i>f</i> <sub>1</sub> | 14.5135±0.0004 | 0.58±0.03 | -2.55±0.02 | 401.0 | <i>f</i> <sub>2</sub> | 0.4819±0.0005 | 0.43±0.03 | 0.48±0.03 | 267.7 | <i>f</i> <sub>3</sub> | 0.9603±0.0006 | 0.29±0.02 | -2.68±0.04 | 141.6 | <i>f</i> <sub>4</sub> | 3.9228±0.0007 | 0.29±0.03 | -0.92±0.04 | 132.6 | <i>f</i> <sub>5</sub> | 0.4684±0.0008 | 0.21±0.02 | 1.89±0.05 | 95.7 | <i>f</i> <sub>6</sub> | 4.0234±0.0008 | 0.23±0.02 | -1.76±0.05 | 94.2 | <i>f</i> <sub>7</sub> | 20.1529±0.0010 | 0.18±0.02 | -2.74±0.06 | 63.4 | <i>f</i> <sub>8</sub> | 1.3145±0.0010 | 0.19±0.02 | 0.80±0.06 | 58.2 | <i>f</i> <sub>9</sub> | 0.1273±0.0010 | 0.18±0.02 | -1.36±0.06 | 60.3 | <i>f</i> <sub>10</sub> | 3.9697±0.0010 | 0.17±0.02 | 1.00±0.06 | 60.9 | <i>f</i> <sub>11</sub> | 1.0481±0.0010 | 0.17±0.02 | 0.61±0.06 | 56.5 | <i>f</i> <sub>12</sub> | 24.5534±0.0011 | 0.15±0.02 | -2.21±0.07 | 49.6 |
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |                  |                          |       |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>1</sub>                  | 14.5135±0.0004               | 0.58±0.03        | -2.55±0.02               | 401.0 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |                  |                          |       |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>2</sub>                  | 0.4819±0.0005                | 0.43±0.03        | 0.48±0.03                | 267.7 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |                  |                          |       |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>3</sub>                  | 0.9603±0.0006                | 0.29±0.02        | -2.68±0.04               | 141.6 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |                  |                          |       |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>4</sub>                  | 3.9228±0.0007                | 0.29±0.03        | -0.92±0.04               | 132.6 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |                  |                          |       |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>5</sub>                  | 0.4684±0.0008                | 0.21±0.02        | 1.89±0.05                | 95.7  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |                  |                          |       |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>6</sub>                  | 4.0234±0.0008                | 0.23±0.02        | -1.76±0.05               | 94.2  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |                  |                          |       |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>7</sub>                  | 20.1529±0.0010               | 0.18±0.02        | -2.74±0.06               | 63.4  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |                  |                          |       |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>8</sub>                  | 1.3145±0.0010                | 0.19±0.02        | 0.80±0.06                | 58.2  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |                  |                          |       |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>9</sub>                  | 0.1273±0.0010                | 0.18±0.02        | -1.36±0.06               | 60.3  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |                  |                          |       |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>10</sub>                 | 3.9697±0.0010                | 0.17±0.02        | 1.00±0.06                | 60.9  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |                  |                          |       |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>11</sub>                 | 1.0481±0.0010                | 0.17±0.02        | 0.61±0.06                | 56.5  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |                  |                          |       |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>12</sub>                 | 24.5534±0.0011               | 0.15±0.02        | -2.21±0.07               | 49.6  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |                  |                          |       |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>157</sub>                | 10.0638±0.0030               | 0.06±0.02        | -1.54±0.18               | 6.5   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |                  |                          |       |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>158</sub>                | 6.3009±0.0030                | 0.06±0.02        | 2.46±0.18                | 6.5   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |                  |                          |       |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>159</sub>                | 8.5906±0.0030                | 0.06±0.02        | 2.86±0.18                | 6.5   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |                  |                          |       |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>160</sub>                | 0.3973±0.0030                | 0.06±0.02        | 1.44±0.18                | 6.4   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |                  |                          |       |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>162</sub>                | 1.1002±0.0030                | 0.06±0.02        | 2.06±0.18                | 6.4   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |                  |                          |       |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>163</sub>                | 2.6201±0.0031                | 0.06±0.02        | -2.54±0.19               | 6.2   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |                  |                          |       |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>164</sub>                | 0.9709±0.0031                | 0.06±0.02        | -1.62±0.19               | 6.1   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |                  |                          |       |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>165</sub>                | 1.3114±0.0031                | 0.06±0.02        | 2.35±0.19                | 6.2   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |                  |                          |       |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |
| <i>f</i> <sub>167</sub>                | 8.7087±0.0031                | 0.06±0.02        | -2.01±0.19               | 6.0   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                              |                  |                          |       |              |                              |                  |                          |       |                       |                |           |            |       |                       |               |           |           |       |                       |               |           |            |       |                       |               |           |            |       |                       |               |           |           |      |                       |               |           |            |      |                       |                |           |            |      |                       |               |           |           |      |                       |               |           |            |      |                        |               |           |           |      |                        |               |           |           |      |                        |                |           |            |      |

| Frequency list of 0102720462 |                              |                  |                          |        |
|------------------------------|------------------------------|------------------|--------------------------|--------|
| Frequency ID                 | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign.  |
| <i>f</i> <sub>1</sub>        | 24.7264±0.0001               | 3.63±0.07        | -1.97±0.01               | 2671.4 |
| <i>f</i> <sub>2</sub>        | 15.4096±0.0004               | 0.80±0.04        | 1.94±0.03                | 344.0  |
| <i>f</i> <sub>3</sub>        | 2.2910±0.0004                | 0.80±0.04        | 1.52±0.02                | 381.2  |

| Frequency list of 0102720462 continued |                              |                  |                          |       | Frequency list of 0102721808 continued |                              |                  |                          |     |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-----|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | ]</ |

**Table D.40: Frequency list of 0102720462**

| Frequency ID          | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign.  |
|-----------------------|------------------------------|------------------|--------------------------|--------|
| <i>f</i> <sub>1</sub> | 24.7264±0.0001               | 3.63±0.07        | -1.97±0.01               | 2671.4 |
| <i>f</i> <sub>2</sub> | 15.4096±0.0004               | 0.80±0.04        | 1.94±0.03                | 344.0  |
| <i>f</i> <sub>3</sub> | 2.2910±0.0004                | 0.80±0.04        | 1.52±0.02                | 381.2  |

Frequency list of 0102720462 continued

## Appendix D. Frequencies of individual Hybrid Stars

| Frequency list of 0102721808 continued |                              |                  |                          |       | Frequency list of 0102721808 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{13}$                               | 4.1500±0.0011                | 0.15±0.02        | -1.90±0.07               | 49.3  | $f_{97}$                               | 7.7615±0.0031                | 0.05±0.02        | 2.02±0.19                | 6.2   |
| $f_{14}$                               | 23.7472±0.0011               | 0.15±0.02        | 0.53±0.07                | 48.6  | $f_{98}$                               | 24.7792±0.0031               | 0.04±0.02        | -0.61±0.19               | 6.0   |
| $f_{15}$                               | 23.6984±0.0011               | 0.15±0.02        | 1.91±0.07                | 46.6  | $f_{101}$                              | 0.2500±0.0031                | 0.05±0.02        | -0.23±0.19               | 6.1   |
| $f_{16}$                               | 0.1349±0.0012                | 0.16±0.02        | 1.58±0.07                | 41.7  | $f_{102}$                              | 1.0862±0.0032                | 0.04±0.02        | -2.39±0.19               | 5.8   |
| $f_{17}$                               | 19.2020±0.0012               | 0.14±0.02        | 3.00±0.07                | 41.1  | $f_{103}$                              | 2.1383±0.0031                | 0.04±0.02        | 0.05±0.19                | 5.9   |
| $f_{19}$                               | 0.1537±0.0012                | 0.12±0.02        | 2.65±0.07                | 39.6  | $f_{104}$                              | 29.2408±0.0032               | 0.04±0.02        | 0.22±0.20                | 5.7   |
| $f_{20}$                               | 1.2952±0.0012                | 0.12±0.02        | -1.99±0.08               | 38.5  | $f_{105}$                              | 0.9455±0.0032                | 0.04±0.02        | 3.11±0.20                | 5.7   |
| $f_{21}$                               | 3.5366±0.0013                | 0.12±0.02        | -0.76±0.08               | 33.6  | $f_{106}$                              | 0.5361±0.0032                | 0.04±0.02        | -1.21±0.20               | 5.7   |
| $f_{22}$                               | 0.2322±0.0014                | 0.13±0.02        | 1.80±0.08                | 31.2  | $f_{107}$                              | 17.8919±0.0031               | 0.04±0.02        | -1.13±0.19               | 5.9   |
| $f_{23}$                               | 0.2606±0.0015                | 0.10±0.02        | 0.38±0.09                | 27.1  | $f_{110}$                              | 36.7864±0.0032               | 0.04±0.02        | -1.81±0.20               | 5.6   |
| $f_{24}$                               | 1.3341±0.0015                | 0.10±0.02        | 1.37±0.09                | 24.8  | $f_{111}$                              | 0.4504±0.0033                | 0.04±0.02        | -1.32±0.20               | 5.4   |
| $f_{25}$                               | 4.0834±0.0015                | 0.10±0.02        | -2.94±0.09               | 24.5  | $f_{114}$                              | 5.7344±0.0033                | 0.04±0.02        | -0.38±0.20               | 5.3   |
| $f_{26}$                               | 3.0280±0.0016                | 0.10±0.02        | -1.18±0.09               | 24.2  | $f_{115}$                              | 2.8389±0.0034                | 0.04±0.02        | 0.29±0.21                | 5.1   |
| $f_{28}$                               | 0.4751±0.0016                | 0.08±0.02        | 2.01±0.10                | 23.8  | $f_{116}$                              | 2.6728±0.0033                | 0.04±0.02        | -2.90±0.20               | 5.4   |
| $f_{29}$                               | 1.8757±0.0016                | 0.09±0.02        | 0.12±0.10                | 21.7  | $f_{117}$                              | 0.6452±0.0034                | 0.04±0.02        | 0.27±0.21                | 5.1   |
| $f_{30}$                               | 26.5365±0.0016               | 0.09±0.02        | 2.32±0.10                | 21.5  | $f_{118}$                              | 24.5661±0.0034               | 0.04±0.02        | -2.83±0.21               | 5.0   |
| $f_{31}$                               | 0.1084±0.0017                | 0.08±0.02        | -3.11±0.10               | 20.0  | $f_{119}$                              | 2.0063±0.0034                | 0.04±0.02        | 0.74±0.21                | 5.0   |
| $f_{32}$                               | 22.8583±0.0017               | 0.09±0.02        | 0.01±0.11                | 19.2  | $f_{120}$                              | 39.9822±0.0034               | 0.04±0.02        | -1.62±0.21               | 5.1   |
| $f_{33}$                               | 0.1887±0.0018                | 0.09±0.02        | -0.89±0.11               | 17.8  |                                        |                              |                  |                          |       |
| $f_{34}$                               | 0.3742±0.0019                | 0.08±0.02        | 0.56±0.11                | 16.6  |                                        |                              |                  |                          |       |
| $f_{35}$                               | 19.9193±0.0019               | 0.08±0.02        | -1.40±0.11               | 16.6  |                                        |                              |                  |                          |       |
| $f_{36}$                               | 0.2118±0.0019                | 0.08±0.02        | 2.12±0.11                | 16.6  |                                        |                              |                  |                          |       |
| $f_{37}$                               | 1.2601±0.0019                | 0.08±0.02        | -2.00±0.12               | 16.4  |                                        |                              |                  |                          |       |
| $f_{38}$                               | 24.6235±0.0019               | 0.07±0.02        | 2.83±0.12                | 15.4  |                                        |                              |                  |                          |       |
| $f_{39}$                               | 0.4877±0.0019                | 0.07±0.02        | -1.95±0.12               | 15.6  |                                        |                              |                  |                          |       |
| $f_{40}$                               | 1.3641±0.0020                | 0.06±0.02        | -2.99±0.12               | 15.3  |                                        |                              |                  |                          |       |
| $f_{41}$                               | 0.1448±0.0021                | 0.07±0.02        | 0.72±0.13                | 13.1  |                                        |                              |                  |                          |       |
| $f_{42}$                               | 0.4084±0.0021                | 0.07±0.02        | -0.04±0.13               | 12.9  |                                        |                              |                  |                          |       |
| $f_{44}$                               | 33.9167±0.0022               | 0.07±0.02        | 2.84±0.13                | 12.2  |                                        |                              |                  |                          |       |
| $f_{45}$                               | 31.9890±0.0022               | 0.07±0.02        | 2.92±0.14                | 11.8  |                                        |                              |                  |                          |       |
| $f_{46}$                               | 0.1222±0.0023                | 0.07±0.02        | 2.90±0.14                | 11.4  |                                        |                              |                  |                          |       |
| $f_{47}$                               | 0.3237±0.0023                | 0.05±0.01        | 1.16±0.14                | 11.2  |                                        |                              |                  |                          |       |
| $f_{48}$                               | 0.1603±0.0023                | 0.06±0.02        | 2.81±0.14                | 10.7  |                                        |                              |                  |                          |       |
| $f_{49}$                               | 18.3324±0.0024               | 0.06±0.02        | -2.67±0.15               | 10.2  |                                        |                              |                  |                          |       |
| $f_{50}$                               | 1.3780±0.0024                | 0.06±0.02        | 1.15±0.14                | 10.5  |                                        |                              |                  |                          |       |
| $f_{51}$                               | 0.5109±0.0024                | 0.06±0.02        | 2.83±0.15                | 10.2  |                                        |                              |                  |                          |       |
| $f_{52}$                               | 3.7741±0.0024                | 0.06±0.02        | -1.44±0.15               | 10.2  |                                        |                              |                  |                          |       |
| $f_{53}$                               | 20.3108±0.0024               | 0.06±0.02        | -2.48±0.15               | 10.3  |                                        |                              |                  |                          |       |
| $f_{54}$                               | 25.8401±0.0024               | 0.06±0.02        | -1.94±0.15               | 9.8   |                                        |                              |                  |                          |       |
| $f_{56}$                               | 2.5625±0.0024                | 0.06±0.02        | -0.66±0.15               | 10.0  |                                        |                              |                  |                          |       |
| $f_{57}$                               | 9.8027±0.0025                | 0.06±0.02        | 0.32±0.15                | 9.4   |                                        |                              |                  |                          |       |
| $f_{58}$                               | 0.5491±0.0025                | 0.05±0.02        | 0.93±0.15                | 9.3   |                                        |                              |                  |                          |       |
| $f_{59}$                               | 0.4581±0.0025                | 0.06±0.02        | -2.51±0.15               | 9.1   |                                        |                              |                  |                          |       |
| $f_{60}$                               | 0.1725±0.0025                | 0.06±0.02        | 1.91±0.15                | 9.3   |                                        |                              |                  |                          |       |
| $f_{61}$                               | 0.2786±0.0025                | 0.06±0.02        | -0.78±0.15               | 9.6   |                                        |                              |                  |                          |       |
| $f_{62}$                               | 1.2850±0.0026                | 0.06±0.02        | 1.96±0.16                | 8.8   |                                        |                              |                  |                          |       |
| $f_{63}$                               | 2.7424±0.0026                | 0.05±0.02        | 1.06±0.16                | 8.7   |                                        |                              |                  |                          |       |
| $f_{64}$                               | 2.6790±0.0026                | 0.06±0.02        | -0.66±0.16               | 8.8   |                                        |                              |                  |                          |       |
| $f_{65}$                               | 14.1037±0.0026               | 0.06±0.02        | -1.63±0.16               | 8.8   |                                        |                              |                  |                          |       |
| $f_{66}$                               | 4.2255±0.0026                | 0.05±0.02        | 1.16±0.16                | 8.5   |                                        |                              |                  |                          |       |
| $f_{67}$                               | 24.1400±0.0026               | 0.05±0.02        | -3.07±0.16               | 8.4   |                                        |                              |                  |                          |       |
| $f_{68}$                               | 28.1635±0.0026               | 0.05±0.02        | -0.86±0.16               | 8.4   |                                        |                              |                  |                          |       |
| $f_{69}$                               | 4.5857±0.0026                | 0.05±0.02        | -2.77±0.16               | 8.6   |                                        |                              |                  |                          |       |
| $f_{70}$                               | 6.4908±0.0026                | 0.05±0.02        | 0.33±0.16                | 8.3   |                                        |                              |                  |                          |       |
| $f_{72}$                               | 29.3128±0.0027               | 0.05±0.02        | -2.99±0.17               | 7.9   |                                        |                              |                  |                          |       |
| $f_{73}$                               | 24.6122±0.0027               | 0.05±0.02        | -1.62±0.16               | 8.1   |                                        |                              |                  |                          |       |
| $f_{74}$                               | 1.2113±0.0027                | 0.05±0.02        | 0.13±0.17                | 7.8   |                                        |                              |                  |                          |       |
| $f_{75}$                               | 0.3145±0.0027                | 0.05±0.02        | 1.05±0.16                | 8.0   |                                        |                              |                  |                          |       |
| $f_{76}$                               | 1.1021±0.0028                | 0.05±0.02        | -0.62±0.17               | 7.7   |                                        |                              |                  |                          |       |
| $f_{77}$                               | 22.7711±0.0028               | 0.05±0.02        | -2.37±0.17               | 7.4   |                                        |                              |                  |                          |       |
| $f_{78}$                               | 0.9687±0.0028                | 0.05±0.02        | 1.70±0.17                | 7.6   |                                        |                              |                  |                          |       |
| $f_{79}$                               | 31.0216±0.0028               | 0.05±0.02        | 1.15±0.17                | 7.4   |                                        |                              |                  |                          |       |
| $f_{80}$                               | 14.4711±0.0028               | 0.05±0.02        | -0.02±0.17               | 7.5   |                                        |                              |                  |                          |       |
| $f_{81}$                               | 20.9523±0.0028               | 0.05±0.02        | 2.30±0.17                | 7.3   |                                        |                              |                  |                          |       |
| $f_{82}$                               | 33.9240±0.0027               | 0.05±0.02        | 0.84±0.16                | 8.0   |                                        |                              |                  |                          |       |
| $f_{83}$                               | 1.3519±0.0029                | 0.05±0.02        | 2.60±0.17                | 7.1   |                                        |                              |                  |                          |       |
| $f_{84}$                               | 5.5693±0.0028                | 0.05±0.02        | -2.21±0.17               | 7.2   |                                        |                              |                  |                          |       |
| $f_{85}$                               | 2.3094±0.0028                | 0.05±0.02        | -0.28±0.17               | 7.3   |                                        |                              |                  |                          |       |
| $f_{86}$                               | 0.3589±0.0029                | 0.05±0.02        | -0.21±0.18               | 7.0   |                                        |                              |                  |                          |       |
| $f_{87}$                               | 0.3394±0.0028                | 0.05±0.02        | 1.37±0.17                | 7.5   |                                        |                              |                  |                          |       |
| $f_{88}$                               | 24.8067±0.0029               | 0.04±0.02        | -2.15±0.18               | 7.0   |                                        |                              |                  |                          |       |
| $f_{91}$                               | 2.1008±0.0029                | 0.05±0.02        | 0.36±0.18                | 6.8   |                                        |                              |                  |                          |       |
| $f_{92}$                               | 1.3255±0.0029                | 0.05±0.02        | 2.14±0.18                | 6.7   |                                        |                              |                  |                          |       |
| $f_{93}$                               | 0.1970±0.0029                | 0.05±0.02        | -2.91±0.18               | 6.7   |                                        |                              |                  |                          |       |
| $f_{94}$                               | 16.4447±0.0030               | 0.05±0.02        | 0.00±0.18                | 6.6   |                                        |                              |                  |                          |       |
| $f_{96}$                               | 1.2402±0.0031                | 0.04±0.02        | -0.69±0.19               | 6.2   |                                        |                              |                  |                          |       |

| Frequency list of 0102723244 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_1$                                  | 33.7189±0.0002               | 1.24±0.04        | 2.13±0.02                | 947.9 |
| $f_2$                                  | 18.2815±0.0003               | 0.96±0.03        | 2.86±0.02                | 759.9 |
| $f_3$                                  | 15.0828±0.0005               | 0.47±0.03        | -1.18±0.03               | 217.5 |
| $f_4$                                  | 4.1005±0.0006                | 0.41±0.03        | 1.69±0.03                | 179.0 |
| $f_5$                                  | 4.1585±0.0006                | 0.39±0.03        | -0.89±0.03               | 186.2 |
| $f_6$                                  | 20.5685±0.0007               | 0.34±0.03        | -3.14±0.04               | 136.1 |
| $f_7$                                  | 15.5289±0.0007               | 0.32±0.03        | 1.85±0.04                | 130.4 |
| $f_8$                                  | 14.0313±0.0007               | 0.30±0.03        | 1.68±0.04                | 117.7 |
| $f_9$                                  | 24.9911±0.0007               | 0.29±0.03        | -0.95±0.04               | 110.2 |
| $f_{10}$                               | 18.0369±0.0008               | 0.27±0.03        | 2.39±0.05                | 101.8 |
| $f_{11}$                               | 33.7246±0.0008               | 0.21±0.02        | 2.24±0.05                | 102.0 |
| $f_{12}$                               | 36.8085±0.0008               | 0.26±0.03        | -0.79±0.05               | 101.2 |
| $f_{14}$                               | 3.6251±0.0009                | 0.21±0.02        | -2.80±0.05               | 72.0  |
| $f_{15}$                               | 33.8107±0.0009               | 0.21±0.02        | 0.35±0.05                | 72.6  |
| $f_{16}$                               | 19.8308±0.0009               | 0.20±0.02        | 0.30±0.06                | 70.8  |
| $f_{17}$                               | 18.1761±0.0010               | 0.18±0.02        | 2.93±0.06                | 56.5  |
| $f_{18}$                               | 19.0375±0.0011               | 0.18±0.02        | -1.00±0.06               | 52.7  |
| $f_{19}$                               | 17.4621±0.0011               | 0.16±0.02        | 2.69±0.07                | 47.8  |
| $f_{20}$                               | 33.7132±0.0011               | 0.18±0.03        | 2.52±0.07                | 44.4  |
| $f_{21}$                               | 30.4229±0.0011               | 0.16±0.02        | 1.68±0.07                | 44.5  |
| $f_{22}$                               | 31.0021±0.0011               | 0.16±0.02        | 2.65±0.07                | 44.3  |
| $f_{23}$                               | 24.5365±0.0012               | 0.14±0.02        | -2.37±0.07               | 41.9  |
| $f_{24}$                               | 16.2783±0.0012               | 0.14±0.02        | 2.46±0.07                | 38.7  |
| $f_{25}$                               | 3.5194±0.0012                | 0.13±0.02        | 2.11±0.08                | 37.8  |
| $f_{26}$                               | 39.8596±0.0013               | 0.14±0.02        | 0.45±0.08                | 35.1  |
| $f_{27}$                               | 33.7322±0.0013               | 0.13±0.02        | 1.86±0.08                | 33.5  |
| $f_{28}$                               | 36.9813±0.0013               | 0.13±0.02        | -2.06±0.08               | 34.7  |
| $f_{29}$                               | 12.3653±0.0014               | 0.13±0.02        | -2.20±0.08               | 31.4  |
| $f_{30}$                               | 0.2229±0.0014                | 0.16±0.03        | 1.65±0.08                | 30.7  |
| $f_{31}$                               | 0.2148±0.0014                | 0.15±0.03        | 2.67±0.08                | 31.3  |
| $f_{32}$                               | 24.6675±0.0014               | 0.12±0.02        | -2.55±0.08               | 31.6  |
| $f_{33}$                               | 0.2861±0.0014                | 0.13±0.02        | 2.07±0.08                | 31.0  |
| $f_{34}$                               | 29.7059±0.0014               | 0.12±0.02        | -0.85±0.08               | 30.4  |
| $f_{35}$                               | 0.2322±0.0014                | 0.12±0.02        | -1.08±0.09               | 28.2  |
| $f_{36}$                               | 25.5678±0.0015               | 0.11±0.02        | -2.16±0.09               | 26.9  |
| $f_{37}$                               | 0.2402±0.0015                | 0.11±0.02        | 2.99±0.09                | 27.4  |
| $f_{38}$                               | 4.2967±0.0015                | 0.11±0.02        | -0.66±0.09               | 26.6  |
| $f_{39}$                               | 14.2960±0.0015               | 0.11±0.02        | 2.14±0.09                | 26.1  |
| $f_{40}$                               | 0.2956±0.0015                | 0.11±0.02        | 2.14±0.09                | 24.3  |
| $f_{41}$                               | 0.2775±0.0015                | 0.11±0.02        | 0.71±0.09                | 27.5  |
| $f_{42}$                               | 0.2705±0.0016                | 0.10±0.02        | 1.58±0.10                | 23.6  |
| $f_{43}$                               | 0.2061±0.0015                | 0.10±0.02        | -1.86±0.09               | 25.9  |
| $f_{44}$                               | 8.8368±0.0016                | 0.09±0.02        | 1.81±0.10                | 21.6  |
| $f_{45}$                               | 25.1276±0.0016               | 0.10±0.02        | 0.88±0.10                | 21.6  |
| $f_{47}$                               | 42.4173±0.0017               | 0.09±0.02        | -1.00±0.10               | 20.8  |
| $f_{48}$                               | 33.7497±0.0017               | 0.08±0.02        | -0.31±0.10               | 20.8  |
| $f_{49}$                               | 3.0487±0.0017                | 0.09±0.02        | -0.14±0.10               | 19.9  |
| $f_{50}$                               | 17.6106±0.0017               | 0.09±0.02        | -1.17±0.10               | 20.8  |
| $f_{51}$                               | 40.0931±0.0018               | 0.09±0.02        | -0.20±0.11               | 18.4  |
| $f_{52}$                               | 24.5476±0.0018               | 0.09±0.02        | -1.19±0.11               | 18.5  |
| $f_{53}$                               | 11.1054±0.0018               | 0.09±0.02        | -1.36±0.11               | 18.3  |

**Table D.42:** Frequency list of 0102723244

## Appendix D. Frequencies of individual Hybrid Stars

| Frequency list of 0102723244 continued |                              |                  |                          |       | Frequency list of 0102723244 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| <i>f</i> <sub>54</sub>                 | 27.7066±0.0018               | 0.09±0.02        | -2.11±0.11               | 18.8  | <i>f</i> <sub>149</sub>                | 35.9201±0.0030               | 0.05±0.02        | 3.00±0.18                | 6.4   |
| <i>f</i> <sub>55</sub>                 | 20.9243±0.0019               | 0.08±0.02        | 1.13±0.11                | 16.5  | <i>f</i> <sub>150</sub>                | 36.8996±0.0030               | 0.04±0.02        | 0.33±0.19                | 6.3   |
| <i>f</i> <sub>56</sub>                 | 49.6582±0.0019               | 0.08±0.02        | -1.25±0.11               | 16.8  | <i>f</i> <sub>151</sub>                | 33.6649±0.0031               | 0.05±0.02        | 2.35±0.19                | 6.2   |
| <i>f</i> <sub>57</sub>                 | 38.0747±0.0019               | 0.08±0.02        | 2.58±0.11                | 16.9  | <i>f</i> <sub>153</sub>                | 39.8491±0.0031               | 0.04±0.02        | -2.05±0.19               | 6.2   |
| <i>f</i> <sub>58</sub>                 | 0.3027±0.0019                | 0.07±0.02        | 2.59±0.12                | 15.9  | <i>f</i> <sub>154</sub>                | 7.0784±0.0031                | 0.04±0.02        | -0.67±0.19               | 5.9   |
| <i>f</i> <sub>59</sub>                 | 0.1444±0.0019                | 0.09±0.02        | 1.18±0.12                | 15.5  | <i>f</i> <sub>155</sub>                | 18.3971±0.0031               | 0.04±0.02        | 1.60±0.19                | 5.9   |
| <i>f</i> <sub>60</sub>                 | 16.7286±0.0019               | 0.08±0.02        | 0.60±0.12                | 15.4  | <i>f</i> <sub>156</sub>                | 18.2881±0.0031               | 0.05±0.02        | -1.95±0.19               | 6.2   |
| <i>f</i> <sub>62</sub>                 | 37.6644±0.0020               | 0.08±0.02        | -0.78±0.12               | 15.2  | <i>f</i> <sub>157</sub>                | 18.2737±0.0031               | 0.04±0.02        | 2.35±0.19                | 6.0   |
| <i>f</i> <sub>63</sub>                 | 17.9296±0.0020               | 0.08±0.02        | -1.31±0.12               | 15.1  | <i>f</i> <sub>158</sub>                | 31.8469±0.0031               | 0.04±0.02        | 1.11±0.19                | 5.9   |
| <i>f</i> <sub>64</sub>                 | 0.1560±0.0020                | 0.09±0.02        | 0.50±0.12                | 14.7  | <i>f</i> <sub>159</sub>                | 24.8356±0.0032               | 0.04±0.02        | -1.89±0.19               | 5.8   |
| <i>f</i> <sub>69</sub>                 | 0.3768±0.0021                | 0.08±0.02        | -1.01±0.13               | 13.7  | <i>f</i> <sub>161</sub>                | 38.7142±0.0032               | 0.04±0.02        | -1.11±0.19               | 5.8   |
| <i>f</i> <sub>70</sub>                 | 0.3510±0.0021                | 0.08±0.02        | -2.32±0.13               | 13.2  | <i>f</i> <sub>162</sub>                | 0.3700±0.0032                | 0.05±0.02        | -2.12±0.19               | 5.8   |
| <i>f</i> <sub>71</sub>                 | 24.1625±0.0021               | 0.07±0.02        | -0.95±0.13               | 12.8  | <i>f</i> <sub>163</sub>                | 0.4422±0.0031                | 0.05±0.02        | 2.29±0.19                | 6.2   |
| <i>f</i> <sub>72</sub>                 | 36.5641±0.0022               | 0.06±0.02        | -0.80±0.13               | 12.2  | <i>f</i> <sub>164</sub>                | 0.4153±0.0030                | 0.04±0.02        | -0.75±0.19               | 6.3   |
| <i>f</i> <sub>73</sub>                 | 22.6679±0.0022               | 0.06±0.02        | -1.57±0.13               | 12.1  | <i>f</i> <sub>165</sub>                | 0.1373±0.0032                | 0.05±0.02        | 0.34±0.19                | 5.8   |
| <i>f</i> <sub>74</sub>                 | 18.5206±0.0022               | 0.06±0.02        | -2.22±0.14               | 11.9  | <i>f</i> <sub>166</sub>                | 35.7557±0.0032               | 0.04±0.02        | -0.41±0.20               | 5.7   |
| <i>f</i> <sub>75</sub>                 | 0.1721±0.0022                | 0.06±0.02        | -2.51±0.13               | 12.1  | <i>f</i> <sub>167</sub>                | 44.5264±0.0032               | 0.04±0.02        | 0.37±0.20                | 5.7   |
| <i>f</i> <sub>76</sub>                 | 33.6987±0.0022               | 0.07±0.02        | 2.59±0.14                | 11.7  | <i>f</i> <sub>168</sub>                | 7.7502±0.0032                | 0.04±0.02        | 2.04±0.20                | 5.7   |
| <i>f</i> <sub>77</sub>                 | 18.2973±0.0022               | 0.07±0.02        | -1.71±0.14               | 11.9  | <i>f</i> <sub>170</sub>                | 37.6770±0.0032               | 0.04±0.02        | -0.88±0.20               | 5.7   |
| <i>f</i> <sub>78</sub>                 | 51.3176±0.0023               | 0.07±0.02        | -2.01±0.14               | 11.5  | <i>f</i> <sub>171</sub>                | 44.1784±0.0033               | 0.04±0.02        | -2.61±0.20               | 5.5   |
| <i>f</i> <sub>80</sub>                 | 20.8908±0.0022               | 0.06±0.02        | 0.66±0.14                | 11.6  | <i>f</i> <sub>173</sub>                | 28.5974±0.0033               | 0.04±0.02        | -1.74±0.20               | 5.5   |
| <i>f</i> <sub>81</sub>                 | 32.0458±0.0023               | 0.06±0.02        | 3.04±0.14                | 11.0  | <i>f</i> <sub>174</sub>                | 36.8662±0.0033               | 0.04±0.02        | -2.44±0.20               | 5.5   |
| <i>f</i> <sub>82</sub>                 | 37.9596±0.0023               | 0.06±0.02        | -1.47±0.14               | 10.6  | <i>f</i> <sub>175</sub>                | 23.8120±0.0032               | 0.04±0.02        | -2.69±0.20               | 5.7   |
| <i>f</i> <sub>83</sub>                 | 43.2737±0.0023               | 0.06±0.02        | 1.63±0.14                | 10.8  | <i>f</i> <sub>176</sub>                | 22.1636±0.0033               | 0.04±0.02        | 1.24±0.20                | 5.5   |
| <i>f</i> <sub>84</sub>                 | 20.3821±0.0024               | 0.06±0.02        | -0.87±0.15               | 10.3  | <i>f</i> <sub>178</sub>                | 16.5385±0.0033               | 0.04±0.02        | 0.15±0.20                | 5.4   |
| <i>f</i> <sub>85</sub>                 | 33.7824±0.0024               | 0.06±0.02        | -0.95±0.15               | 10.1  | <i>f</i> <sub>179</sub>                | 1.0907±0.0033                | 0.04±0.02        | 1.86±0.20                | 5.5   |
| <i>f</i> <sub>86</sub>                 | 17.6804±0.0024               | 0.06±0.02        | -1.84±0.15               | 9.8   | <i>f</i> <sub>180</sub>                | 19.4447±0.0033               | 0.04±0.02        | -0.29±0.20               | 5.3   |
| <i>f</i> <sub>87</sub>                 | 0.5830±0.0024                | 0.06±0.02        | -0.32±0.15               | 9.9   | <i>f</i> <sub>181</sub>                | 0.8276±0.0033                | 0.04±0.02        | -3.08±0.20               | 5.4   |
| <i>f</i> <sub>89</sub>                 | 0.5629±0.0026                | 0.07±0.02        | -1.34±0.16               | 8.9   | <i>f</i> <sub>182</sub>                | 0.3105±0.0033                | 0.04±0.02        | -3.12±0.20               | 5.4   |
| <i>f</i> <sub>90</sub>                 | 21.5886±0.0025               | 0.06±0.02        | -0.38±0.15               | 9.1   | <i>f</i> <sub>183</sub>                | 35.3504±0.0033               | 0.04±0.02        | 1.71±0.20                | 5.3   |
| <i>f</i> <sub>91</sub>                 | 33.7069±0.0025               | 0.06±0.02        | -1.85±0.16               | 9.0   | <i>f</i> <sub>184</sub>                | 5.8657±0.0033                | 0.04±0.02        | 1.43±0.20                | 5.5   |
| <i>f</i> <sub>92</sub>                 | 39.0024±0.0026               | 0.05±0.02        | 0.46±0.16                | 8.8   | <i>f</i> <sub>185</sub>                | 3.8606±0.0033                | 0.04±0.02        | -1.35±0.20               | 5.3   |
| <i>f</i> <sub>93</sub>                 | 21.6476±0.0026               | 0.06±0.02        | 1.61±0.16                | 8.9   | <i>f</i> <sub>186</sub>                | 7.6444±0.0033                | 0.04±0.02        | 2.55±0.20                | 5.2   |
| <i>f</i> <sub>94</sub>                 | 3.5294±0.0026                | 0.06±0.02        | 2.56±0.16                | 8.7   | <i>f</i> <sub>187</sub>                | 29.2294±0.0034               | 0.04±0.02        | -1.73±0.21               | 5.1   |
| <i>f</i> <sub>95</sub>                 | 43.1871±0.0026               | 0.06±0.02        | 1.14±0.16                | 8.7   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>96</sub>                 | 53.1777±0.0026               | 0.06±0.02        | -2.12±0.16               | 8.8   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>97</sub>                 | 8.4954±0.0026                | 0.05±0.02        | 2.34±0.16                | 8.7   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>98</sub>                 | 0.3580±0.0026                | 0.05±0.02        | 2.01±0.16                | 8.5   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>99</sub>                 | 34.1902±0.0026               | 0.05±0.02        | 2.49±0.16                | 8.4   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>100</sub>                | 18.5806±0.0026               | 0.05±0.02        | -0.45±0.16               | 8.4   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>101</sub>                | 39.5191±0.0027               | 0.05±0.02        | 2.36±0.17                | 7.9   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>102</sub>                | 2.0034±0.0027                | 0.08±0.03        | -0.02±0.16               | 8.1   | <i>f</i> <sub>1</sub>                  | 1.7235±0.0003                | 1.39±0.05        | 2.80±0.02                | 736.9 |
| <i>f</i> <sub>103</sub>                | 0.1296±0.0028                | 0.06±0.02        | 0.43±0.17                | 7.7   | <i>f</i> <sub>2</sub>                  | 1.5240±0.0005                | 0.78±0.05        | 0.41±0.03                | 286.4 |
| <i>f</i> <sub>104</sub>                | 33.3778±0.0027               | 0.05±0.02        | 2.01±0.17                | 7.9   | <i>f</i> <sub>3</sub>                  | 2.2267±0.0005                | 0.66±0.04        | 2.24±0.03                | 221.0 |
| <i>f</i> <sub>105</sub>                | 15.3731±0.0028               | 0.05±0.02        | 1.80±0.17                | 7.5   | <i>f</i> <sub>4</sub>                  | 16.4445±0.0006               | 0.51±0.04        | 0.11±0.04                | 138.3 |
| <i>f</i> <sub>106</sub>                | 34.3406±0.0028               | 0.05±0.02        | -1.33±0.17               | 7.4   | <i>f</i> <sub>5</sub>                  | 1.6625±0.0006                | 0.52±0.04        | 1.87±0.04                | 138.9 |
| <i>f</i> <sub>107</sub>                | 36.7207±0.0027               | 0.05±0.02        | -1.33±0.17               | 7.8   | <i>f</i> <sub>6</sub>                  | 1.1357±0.0007                | 0.49±0.04        | -1.36±0.04               | 137.1 |
| <i>f</i> <sub>109</sub>                | 7.0363±0.0028                | 0.05±0.02        | -2.51±0.17               | 7.3   | <i>f</i> <sub>7</sub>                  | 0.9111±0.0007                | 0.48±0.04        | -1.34±0.04               | 127.5 |
| <i>f</i> <sub>110</sub>                | 8.6166±0.0028                | 0.05±0.02        | -0.38±0.17               | 7.2   | <i>f</i> <sub>8</sub>                  | 3.2226±0.0007                | 0.43±0.04        | -0.02±0.04               | 128.1 |
| <i>f</i> <sub>112</sub>                | 37.3567±0.0028               | 0.05±0.02        | 0.64±0.17                | 7.2   | <i>f</i> <sub>9</sub>                  | 1.4266±0.0007                | 0.45±0.04        | -0.82±0.04               | 108.4 |
| <i>f</i> <sub>113</sub>                | 6.4003±0.0028                | 0.05±0.02        | -1.36±0.17               | 7.5   | <i>f</i> <sub>10</sub>                 | 1.8794±0.0008                | 0.36±0.04        | 1.55±0.05                | 96.1  |
| <i>f</i> <sub>114</sub>                | 10.3226±0.0028               | 0.05±0.02        | 2.54±0.17                | 7.2   | <i>f</i> <sub>11</sub>                 | 1.3255±0.0008                | 0.33±0.04        | 0.62±0.05                | 84.2  |
| <i>f</i> <sub>115</sub>                | 0.2636±0.0028                | 0.05±0.02        | -0.83±0.17               | 7.4   | <i>f</i> <sub>12</sub>                 | 8.5854±0.0009                | 0.31±0.04        | 0.61±0.06                | 69.5  |
| <i>f</i> <sub>116</sub>                | 0.1781±0.0028                | 0.04±0.01        | -3.01±0.17               | 7.6   | <i>f</i> <sub>13</sub>                 | 1.3163±0.0009                | 0.33±0.04        | -0.90±0.06               | 70.6  |
| <i>f</i> <sub>117</sub>                | 34.1127±0.0029               | 0.05±0.02        | 2.72±0.17                | 7.1   | <i>f</i> <sub>14</sub>                 | 3.1490±0.0009                | 0.29±0.04        | -2.84±0.06               | 65.6  |
| <i>f</i> <sub>119</sub>                | 33.8590±0.0028               | 0.05±0.02        | -0.47±0.17               | 7.3   | <i>f</i> <sub>15</sub>                 | 0.5036±0.0011                | 0.27±0.04        | 2.74±0.06                | 51.8  |
| <i>f</i> <sub>120</sub>                | 33.7759±0.0029               | 0.05±0.02        | -1.80±0.17               | 7.1   | <i>f</i> <sub>17</sub>                 | 1.4994±0.0011                | 0.26±0.04        | 1.79±0.07                | 48.0  |
| <i>f</i> <sub>121</sub>                | 0.8683±0.0029                | 0.06±0.02        | 2.64±0.17                | 7.1   | <i>f</i> <sub>18</sub>                 | 0.1557±0.0011                | 0.22±0.03        | 2.78±0.07                | 47.3  |
| <i>f</i> <sub>122</sub>                | 0.4891±0.0029                | 0.05±0.02        | 2.92±0.18                | 6.9   | <i>f</i> <sub>20</sub>                 | 0.1196±0.0011                | 0.20±0.03        | -2.14±0.07               | 45.1  |
| <i>f</i> <sub>124</sub>                | 33.8278±0.0029               | 0.05±0.02        | 1.65±0.18                | 6.9   | <i>f</i> <sub>21</sub>                 | 0.5782±0.0011                | 0.24±0.04        | -1.76±0.07               | 44.7  |
| <i>f</i> <sub>125</sub>                | 1.2160±0.0029                | 0.05±0.02        | 1.61±0.18                | 7.0   | <i>f</i> <sub>22</sub>                 | 2.2512±0.0012                | 0.22±0.03        | -0.68±0.07               | 40.1  |
| <i>f</i> <sub>129</sub>                | 2.9554±0.0029                | 0.05±0.02        | 2.94±0.18                | 6.9   | <i>f</i> <sub>23</sub>                 | 3.6340±0.0012                | 0.23±0.04        | 1.39±0.08                | 38.2  |
| <i>f</i> <sub>130</sub>                | 23.5014±0.0029               | 0.05±0.02        | 0.66±0.18                | 6.8   | <i>f</i> <sub>24</sub>                 | 1.6099±0.0012                | 0.22±0.03        | 1.34±0.07                | 39.6  |
| <i>f</i> <sub>131</sub>                | 0.5918±0.0029                | 0.05±0.02        | 0.47±0.18                | 6.7   | <i>f</i> <sub>26</sub>                 | 2.4004±0.0013                | 0.21±0.04        | 2.47±0.08                | 35.7  |
| <i>f</i> <sub>132</sub>                | 0.5717±0.0027                | 0.05±0.02        | -2.48±0.17               | 7.8   | <i>f</i> <sub>27</sub>                 | 2.7796±0.0013                | 0.19±0.03        | -0.47±0.08               | 35.7  |
| <i>f</i> <sub>133</sub>                | 8.2060±0.0030                | 0.05±0.02        | -2.67±0.18               | 6.6   | <i>f</i> <sub>28</sub>                 | 2.9929±0.0013                | 0.19±0.03        | 1.84±0.08                | 34.2  |
| <i>f</i> <sub>137</sub>                | 52.7555±0.0029               | 0.05±0.02        | 0.51±0.18                | 6.7   | <i>f</i> <sub>30</sub>                 | 0.1428±0.0013                | 0.20±0.03        | 0.22±0.08                | 33.1  |
| <i>f</i> <sub>138</sub>                | 0.8980±0.0030                | 0.05±0.02        | -0.94±0.18               | 6.5   | <i>f</i> <sub>31</sub>                 | 1.5654±0.0013                | 0.19±0.03        | -0.56±0.08               | 32.5  |
| <i>f</i> <sub>139</sub>                | 0.9520±0.0030                | 0.05±0.02        | -0.55±0.18               | 6.6   | <i>f</i> <sub>32</sub>                 | 3.0558±0.0014                | 0.18±0.03        | -0.85±0.08               | 30.5  |
| <i>f</i> <sub>140</sub>                | 25.4445±0.0030               | 0.05±0.02        | 2.98±0.18                | 6.5   | <i>f</i> <sub>33</sub>                 | 1.7947±0.0014                | 0.19±0.03        | 2.21±0.08                | 30.4  |
| <i>f</i> <sub>141</sub>                | 3.5560±0.0030                | 0.05±0.02        | 1.44±0.18                | 6.4   | <i>f</i> <sub>34</sub>                 | 0.9773±0.0014                | 0.19±0.04        | 0.38±0.09                | 28.7  |
| <i>f</i> <sub>144</sub>                | 33.7411±0.0030               | 0.04±0.02        | -2.18±0.19               | 6.3   | <i>f</i> <sub>35</sub>                 | 5.3621±0.0014                | 0.18±0.03        | 1.26±0.09                | 28.8  |
| <i>f</i> <sub>145</sub>                | 3.5452±0.0030                | 0.05±0.02        | -1.66±0.19               | 6.3   | <i>f</i> <sub>36</sub>                 | 0.2072±0.0014                | 0.17±0.03        | -0.81±0.09               | 29.5  |
| <i>f</i> <sub>146</sub>                | 28.1421±0.0030               | 0.04±0.02        | -3.02±0.18               | 6.4   | <i>f</i> <sub>37</sub>                 | 0.2402±0.0014                | 0.16±0.03        | -2.19±0.09               | 29.4  |
| <i>f</i> <sub>147</sub>                | 0.8893±0.0030                | 0.05±0.02        | 1.51±0.18                | 6.4   | <i>f</i> <sub>38</sub>                 | 1.8680±0.0015                | 0.19±0.04        | -2.41±0.09               | 27.5  |
| <i>f</i> <sub>148</sub>                | 26.0650±0.0030               | 0.05±0.02        | 1.09±0.19                | 6.3   | <i>f</i> <sub>39</sub>                 | 1.7442±0.0014                | 0.17±0.03        | -2.02±0.09               | 28.0  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>40</sub>                 | 8.3178±0.0015                | 0.17±0.03        | -1.24±0.09               | 26.6  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>41</sub>                 | 0.9928±0.0015                | 0.17±0.03        | 2.14±0.09                | 26.6  |
| Frequency list of 0102723244 continued |                              |                  |                          |       | Frequency list of 0102731107 continued |                              |                  |                          |       |

**Table D.43:** Frequency list of 0102731107

| Frequency ID          | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|-----------------------|------------------------------|------------------|--------------------------|-------|
| <i>f</i> <sub>1</sub> | 1.7235±0.0003                | 1.39±0.05        | 2.80±0.02                | 736.9 |
| <i>f</i> <sub>2</sub> | 1.5240±0.0005                | 0.78±0.05        | 0.41±0.03                | 286.4 |
| <i>f</i> <sub>3</sub> | 2.2267±0.0005                | 0.66±0.04        | 2.24±0.03                | 221.0 |
| <i>f</i> <sub>4</sub> | 16.4445±0.0006               | 0.51±0.04        | 0.11±0.04                | 138.3 |
| <i>f</i> <sub>5</sub> | 1.6625±0.0006                | 0.52±0.04        | 1.87±0.04                | 138.9 |
| <i>f</i> <sub>6</sub> | 1.1357±0.0007                | 0.49±0.04        | -1.36±0.04               | 137.1 |
| <i>f</i> <sub>7</sub> | 0.9111±0.0007                | 0.48±0.04        | -1.34±0.04               | 127.5 |
| <i>f</i> <sub>8</sub> | 3.2226±0.0007                | 0.43±0.04        | -0.02±0.04               | 128.1 |
| <i>f</i> <sub>9</sub> | 1.4266±0.0007                | 0.45±0.04        | -0.82±0.04               | 108.4 |

## Appendix D. Frequencies of individual Hybrid Stars

| Frequency list of 0102731107 continued |                              |                  |                          |       | Frequency list of 0102731107 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| <i>f</i> <sub>42</sub>                 | 0.4273±0.0015                | 0.15±0.03        | 1.77±0.09                | 27.4  | <i>f</i> <sub>132</sub>                | 1.1517±0.0028                | 0.08±0.03        | 2.67±0.17                | 7.6   |
| <i>f</i> <sub>43</sub>                 | 12.7396±0.0015               | 0.16±0.03        | -3.00±0.09               | 27.4  | <i>f</i> <sub>133</sub>                | 2.3064±0.0028                | 0.08±0.03        | -0.10±0.17               | 7.4   |
| <i>f</i> <sub>44</sub>                 | 0.2569±0.0015                | 0.16±0.03        | 2.25±0.09                | 25.4  | <i>f</i> <sub>134</sub>                | 2.5270±0.0028                | 0.07±0.03        | 0.20±0.17                | 7.2   |
| <i>f</i> <sub>45</sub>                 | 3.3416±0.0015                | 0.16±0.03        | -3.08±0.09               | 24.8  | <i>f</i> <sub>135</sub>                | 1.7761±0.0028                | 0.07±0.03        | 1.48±0.17                | 7.2   |
| <i>f</i> <sub>46</sub>                 | 17.8704±0.0015               | 0.16±0.03        | -0.96±0.09               | 24.3  | <i>f</i> <sub>136</sub>                | 10.2349±0.0028               | 0.08±0.03        | -3.13±0.17               | 7.3   |
| <i>f</i> <sub>47</sub>                 | 3.1071±0.0016                | 0.16±0.03        | -2.04±0.09               | 24.2  | <i>f</i> <sub>137</sub>                | 0.4340±0.0028                | 0.08±0.03        | 1.28±0.17                | 7.2   |
| <i>f</i> <sub>48</sub>                 | 0.4070±0.0016                | 0.14±0.03        | 1.39±0.10                | 23.0  | <i>f</i> <sub>139</sub>                | 4.3834±0.0029                | 0.08±0.03        | -0.76±0.17               | 7.1   |
| <i>f</i> <sub>50</sub>                 | 0.6619±0.0017                | 0.15±0.03        | 0.64±0.10                | 20.7  | <i>f</i> <sub>140</sub>                | 1.7310±0.0029                | 0.08±0.03        | -1.63±0.17               | 7.1   |
| <i>f</i> <sub>51</sub>                 | 1.3435±0.0016                | 0.16±0.03        | 3.09±0.10                | 22.6  | <i>f</i> <sub>141</sub>                | 1.3755±0.0028                | 0.08±0.03        | -2.43±0.17               | 7.3   |
| <i>f</i> <sub>53</sub>                 | 0.2155±0.0017                | 0.13±0.03        | 3.13±0.10                | 19.8  | <i>f</i> <sub>142</sub>                | 1.6029±0.0028                | 0.08±0.03        | -2.81±0.17               | 7.2   |
| <i>f</i> <sub>54</sub>                 | 1.0590±0.0018                | 0.13±0.03        | 0.44±0.11                | 18.9  | <i>f</i> <sub>143</sub>                | 3.6245±0.0029                | 0.07±0.03        | 2.34±0.17                | 7.1   |
| <i>f</i> <sub>55</sub>                 | 0.3116±0.0018                | 0.13±0.03        | -3.12±0.11               | 18.6  | <i>f</i> <sub>144</sub>                | 12.9291±0.0029               | 0.07±0.03        | -0.42±0.18               | 7.0   |
| <i>f</i> <sub>56</sub>                 | 0.1708±0.0018                | 0.15±0.04        | -1.30±0.11               | 18.2  | <i>f</i> <sub>145</sub>                | 13.4002±0.0029               | 0.07±0.03        | -0.60±0.18               | 6.9   |
| <i>f</i> <sub>57</sub>                 | 6.7224±0.0019                | 0.14±0.03        | -2.56±0.11               | 16.9  | <i>f</i> <sub>146</sub>                | 0.1795±0.0029                | 0.07±0.03        | 2.05±0.18                | 7.0   |
| <i>f</i> <sub>58</sub>                 | 7.1594±0.0019                | 0.13±0.03        | 0.89±0.11                | 17.0  | <i>f</i> <sub>147</sub>                | 3.5213±0.0029                | 0.08±0.03        | -1.11±0.18               | 7.0   |
| <i>f</i> <sub>59</sub>                 | 8.5116±0.0019                | 0.13±0.03        | 0.89±0.11                | 16.6  | <i>f</i> <sub>148</sub>                | 7.4751±0.0029                | 0.07±0.03        | 2.61±0.18                | 6.9   |
| <i>f</i> <sub>60</sub>                 | 19.6667±0.0018               | 0.13±0.03        | 2.73±0.11                | 17.1  | <i>f</i> <sub>149</sub>                | 0.9853±0.0029                | 0.07±0.03        | 1.48±0.18                | 6.9   |
| <i>f</i> <sub>61</sub>                 | 1.6798±0.0019                | 0.13±0.03        | -0.18±0.11               | 16.7  | <i>f</i> <sub>150</sub>                | 0.1600±0.0029                | 0.08±0.03        | 2.02±0.18                | 6.9   |
| <i>f</i> <sub>64</sub>                 | 3.3616±0.0019                | 0.13±0.03        | -2.64±0.11               | 16.5  | <i>f</i> <sub>151</sub>                | 6.6215±0.0029                | 0.08±0.03        | -0.41±0.18               | 6.9   |
| <i>f</i> <sub>65</sub>                 | 1.1605±0.0019                | 0.14±0.03        | 0.48±0.12                | 16.4  | <i>f</i> <sub>153</sub>                | 2.3432±0.0029                | 0.07±0.03        | -0.76±0.18               | 6.7   |
| <i>f</i> <sub>66</sub>                 | 4.5742±0.0019                | 0.13±0.03        | 2.71±0.11                | 16.6  | <i>f</i> <sub>155</sub>                | 0.4188±0.0029                | 0.08±0.03        | 1.19±0.18                | 6.7   |
| <i>f</i> <sub>67</sub>                 | 0.3420±0.0019                | 0.13±0.03        | -0.61±0.12               | 16.1  | <i>f</i> <sub>156</sub>                | 1.5853±0.0029                | 0.08±0.03        | -1.67±0.17               | 7.1   |
| <i>f</i> <sub>68</sub>                 | 8.6090±0.0020                | 0.11±0.03        | 0.14±0.12                | 14.8  | <i>f</i> <sub>157</sub>                | 41.8827±0.0029               | 0.07±0.03        | 2.22±0.18                | 6.8   |
| <i>f</i> <sub>69</sub>                 | 0.2884±0.0020                | 0.11±0.03        | 2.98±0.12                | 14.9  | <i>f</i> <sub>158</sub>                | 0.7210±0.0030                | 0.07±0.03        | 0.16±0.18                | 6.6   |
| <i>f</i> <sub>70</sub>                 | 1.1244±0.0020                | 0.12±0.03        | 1.36±0.12                | 14.6  | <i>f</i> <sub>159</sub>                | 0.3712±0.0030                | 0.07±0.03        | 0.05±0.18                | 6.6   |
| <i>f</i> <sub>71</sub>                 | 1.5520±0.0020                | 0.12±0.03        | 2.40±0.12                | 14.6  | <i>f</i> <sub>160</sub>                | 7.2557±0.0030                | 0.07±0.03        | -2.48±0.18               | 6.5   |
| <i>f</i> <sub>72</sub>                 | 3.2945±0.0020                | 0.12±0.03        | 1.49±0.12                | 14.3  | <i>f</i> <sub>161</sub>                | 6.7135±0.0030                | 0.07±0.03        | -1.14±0.18               | 6.6   |
| <i>f</i> <sub>76</sub>                 | 2.9552±0.0021                | 0.10±0.03        | 1.72±0.13                | 13.7  | <i>f</i> <sub>162</sub>                | 3.4199±0.0030                | 0.07±0.03        | 0.69±0.18                | 6.4   |
| <i>f</i> <sub>77</sub>                 | 1.4088±0.0021                | 0.12±0.03        | 1.07±0.13                | 13.4  | <i>f</i> <sub>163</sub>                | 2.0777±0.0030                | 0.07±0.03        | -2.52±0.18               | 6.6   |
| <i>f</i> <sub>78</sub>                 | 0.5319±0.0021                | 0.13±0.04        | 1.32±0.13                | 13.4  | <i>f</i> <sub>164</sub>                | 6.0293±0.0030                | 0.07±0.03        | -0.51±0.18               | 6.4   |
| <i>f</i> <sub>80</sub>                 | 0.5630±0.0021                | 0.12±0.03        | -0.43±0.13               | 13.0  | <i>f</i> <sub>166</sub>                | 3.2502±0.0030                | 0.07±0.03        | -0.28±0.18               | 6.4   |
| <i>f</i> <sub>81</sub>                 | 4.2297±0.0021                | 0.11±0.03        | -1.12±0.13               | 13.1  | <i>f</i> <sub>167</sub>                | 4.7834±0.0030                | 0.07±0.03        | 2.95±0.18                | 6.6   |
| <i>f</i> <sub>82</sub>                 | 3.5572±0.0021                | 0.11±0.03        | 1.24±0.13                | 12.9  | <i>f</i> <sub>168</sub>                | 0.1292±0.0030                | 0.07±0.03        | 3.02±0.18                | 6.4   |
| <i>f</i> <sub>83</sub>                 | 4.8700±0.0022                | 0.11±0.03        | 1.78±0.13                | 12.5  | <i>f</i> <sub>169</sub>                | 1.8257±0.0030                | 0.07±0.03        | -1.28±0.18               | 6.4   |
| <i>f</i> <sub>86</sub>                 | 0.4422±0.0022                | 0.13±0.04        | -0.76±0.13               | 12.3  | <i>f</i> <sub>171</sub>                | 1.3920±0.0031                | 0.07±0.03        | -2.81±0.19               | 6.2   |
| <i>f</i> <sub>87</sub>                 | 0.8686±0.0022                | 0.10±0.03        | -0.24±0.14               | 11.6  | <i>f</i> <sub>173</sub>                | 2.7896±0.0031                | 0.07±0.03        | -0.85±0.19               | 6.2   |
| <i>f</i> <sub>88</sub>                 | 4.9947±0.0022                | 0.10±0.03        | 2.01±0.14                | 11.7  | <i>f</i> <sub>174</sub>                | 1.2059±0.0030                | 0.07±0.03        | -0.53±0.19               | 6.3   |
| <i>f</i> <sub>89</sub>                 | 8.1439±0.0023                | 0.10±0.03        | -2.08±0.14               | 11.4  | <i>f</i> <sub>176</sub>                | 2.4741±0.0031                | 0.07±0.03        | -1.57±0.19               | 6.2   |
| <i>f</i> <sub>90</sub>                 | 0.4534±0.0023                | 0.10±0.03        | -1.10±0.14               | 11.0  | <i>f</i> <sub>177</sub>                | 0.3783±0.0031                | 0.07±0.03        | -0.78±0.19               | 6.2   |
| <i>f</i> <sub>91</sub>                 | 8.4039±0.0023                | 0.10±0.03        | 2.45±0.14                | 11.1  | <i>f</i> <sub>178</sub>                | 5.0942±0.0031                | 0.07±0.03        | -0.84±0.19               | 6.2   |
| <i>f</i> <sub>93</sub>                 | 1.2634±0.0023                | 0.10±0.03        | -1.03±0.14               | 10.8  | <i>f</i> <sub>179</sub>                | 6.1930±0.0031                | 0.07±0.03        | -3.04±0.19               | 6.1   |
| <i>f</i> <sub>94</sub>                 | 2.2356±0.0023                | 0.10±0.03        | -0.49±0.14               | 10.8  | <i>f</i> <sub>180</sub>                | 5.2887±0.0031                | 0.07±0.03        | -1.86±0.19               | 6.0   |
| <i>f</i> <sub>95</sub>                 | 3.7058±0.0024                | 0.10±0.03        | -0.39±0.14               | 10.5  | <i>f</i> <sub>181</sub>                | 5.3869±0.0031                | 0.07±0.03        | -1.02±0.19               | 6.1   |
| <i>f</i> <sub>97</sub>                 | 3.1375±0.0023                | 0.10±0.03        | -2.17±0.14               | 10.7  | <i>f</i> <sub>182</sub>                | 6.9629±0.0031                | 0.07±0.03        | -1.82±0.19               | 6.2   |
| <i>f</i> <sub>98</sub>                 | 0.1106±0.0024                | 0.09±0.03        | -0.73±0.15               | 10.3  | <i>f</i> <sub>183</sub>                | 1.0349±0.0031                | 0.07±0.03        | 2.16±0.19                | 6.0   |
| <i>f</i> <sub>99</sub>                 | 6.7900±0.0024                | 0.10±0.03        | -0.36±0.14               | 10.4  |                                        |                              |                  |                          |       |
| <i>f</i> <sub>100</sub>                | 0.4974±0.0025                | 0.09±0.03        | 1.30±0.15                | 9.5   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>101</sub>                | 5.4523±0.0025                | 0.09±0.03        | -1.34±0.15               | 9.5   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>102</sub>                | 2.0406±0.0025                | 0.08±0.03        | 1.91±0.15                | 9.4   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>103</sub>                | 0.3900±0.0025                | 0.09±0.03        | 2.26±0.15                | 9.3   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>104</sub>                | 1.1031±0.0025                | 0.08±0.03        | 2.93±0.15                | 9.1   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>105</sub>                | 55.8645±0.0025               | 0.09±0.03        | -0.93±0.16               | 9.0   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>106</sub>                | 0.7859±0.0025                | 0.08±0.03        | -1.38±0.16               | 9.0   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>107</sub>                | 1.4179±0.0026                | 0.09±0.03        | -2.91±0.16               | 8.9   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>108</sub>                | 1.6963±0.0026                | 0.08±0.03        | -2.92±0.16               | 8.9   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>109</sub>                | 0.9522±0.0025                | 0.08±0.03        | -1.16±0.15               | 9.2   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>110</sub>                | 0.6300±0.0026                | 0.08±0.03        | -1.44±0.16               | 8.8   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>111</sub>                | 0.2292±0.0026                | 0.09±0.03        | 1.97±0.16                | 8.6   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>112</sub>                | 2.1036±0.0026                | 0.09±0.03        | 0.18±0.16                | 8.7   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>113</sub>                | 1.3374±0.0027                | 0.08±0.03        | 2.54±0.16                | 8.1   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>114</sub>                | 4.8619±0.0027                | 0.08±0.03        | 2.23±0.16                | 8.0   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>115</sub>                | 7.9332±0.0027                | 0.09±0.03        | 0.65±0.16                | 8.0   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>117</sub>                | 5.4600±0.0027                | 0.08±0.03        | -0.58±0.16               | 8.0   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>118</sub>                | 7.8921±0.0027                | 0.08±0.03        | 0.23±0.16                | 8.0   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>119</sub>                | 1.2451±0.0027                | 0.08±0.03        | -0.30±0.17               | 7.9   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>120</sub>                | 6.7473±0.0027                | 0.08±0.03        | -3.11±0.16               | 8.2   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>122</sub>                | 3.4481±0.0027                | 0.09±0.03        | 2.66±0.16                | 8.1   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>123</sub>                | 3.2338±0.0027                | 0.08±0.03        | 0.60±0.16                | 8.0   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>124</sub>                | 0.5426±0.0027                | 0.08±0.03        | -2.86±0.17               | 7.8   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>125</sub>                | 2.9666±0.0027                | 0.08±0.03        | 1.20±0.17                | 7.8   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>126</sub>                | 11.5346±0.0027               | 0.08±0.03        | 2.67±0.17                | 7.9   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>127</sub>                | 0.1924±0.0028                | 0.08±0.03        | 0.07±0.17                | 7.7   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>128</sub>                | 6.5789±0.0028                | 0.08±0.03        | -0.91±0.17               | 7.7   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>129</sub>                | 6.6029±0.0027                | 0.08±0.03        | -1.10±0.17               | 7.8   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>130</sub>                | 1.8040±0.0028                | 0.07±0.03        | 2.59±0.17                | 7.7   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>131</sub>                | 4.7668±0.0027                | 0.08±0.03        | -0.50±0.17               | 7.8   |                                        |                              |                  |                          |       |
| Frequency list of 0102731107 continued |                              |                  |                          |       | Frequency list of 0102732523 continued |                              |                  |                          |       |
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| <i>f</i> <sub>1</sub>                  | 1.7678±0.0005                | 0.69±0.04        | -1.95±0.03               | 265.9 | <i>f</i> <sub>1</sub>                  | 1.7678±0.0005                | 0.69±0.04        | -1.95±0.03               | 265.9 |
| <i>f</i> <sub>2</sub>                  | 4.1989±0.0007                | 0.45±0.04        | -0.68±0.04               | 135.2 | <i>f</i> <sub>2</sub>                  | 4.1989±0.0007                | 0.45±0.04        | -0.68±0.04               | 135.2 |
| <i>f</i> <sub>3</sub>                  | 23.6784±0.0007               | 0.42±0.04        | -2.53±0.04               | 121.9 | <i>f</i> <sub>3</sub>                  | 23.6784±0.0007               | 0.42±0.04        | -2.53±0.04               | 121.9 |
| <i>f</i> <sub>5</sub>                  | 3.7223±0.0008                | 0.36±0.04        | -1.55±0.05               | 93.8  | <i>f</i> <sub>5</sub>                  | 3.7223±0.0008                | 0.36±0.04        | -1.55±0.05               | 93.8  |
| <i>f</i> <sub>6</sub>                  | 2.4313±0.0009                | 0.30±0.04        | 0.27±0.06                | 67.0  | <i>f</i> <sub>6</sub>                  | 2.4313±0.0009                | 0.30±0.04        | 0.27±0.06                | 67.0  |
| <i>f</i> <sub>9</sub>                  | 6.1109±0.0014                | 0.20±0.04        | 2.14±0.08                | 31.3  | <i>f</i> <sub>9</sub>                  | 6.1109±0.0014                | 0.20±0.04        | 2.14±0.08                | 31.3  |
| <i>f</i> <sub>11</sub>                 | 0.1013±0.0015                | 0.16±0.03        | 1.82±0.09                | 25.4  | <i>f</i> <sub>11</sub>                 | 0.1013±0.0015                | 0.16±0.03        | 1.82±0.09                | 25.4  |
| <i>f</i> <sub>12</sub>                 | 6.2316±0.0015                | 0.17±0.03        | -0.04±0.09               | 25.2  | <i>f</i> <sub>12</sub>                 | 6.2316±0.0015                | 0.17±0.03        | -0.04±0.09               | 25.2  |
| <i>f</i> <sub>13</sub>                 | 0.1480±0.0017                | 0.16±0.04        | 1.04±0.10                | 19.7  | <i>f</i> <sub>13</sub>                 | 0.1480±0.0017                | 0.16±0.04        | 1.04±0.10                | 19.7  |
| <i>f</i> <sub>15</sub>                 | 4.4500±0.0018                | 0.15±0.04        | -0.16±0.11               | 17.9  | <i>f</i> <sub>15</sub>                 | 4.4500±0.0018                | 0.15±0.04        | -0.16±0.11               | 17.9  |
| <i>f</i> <sub>17</sub>                 | 3.5352±0.0018                | 0.14±0.03        | 1.80±0.11                | 17.2  | <i>f</i> <sub>17</sub>                 | 3.5352±0.0018                | 0.14±0.03        | 1.80±0.11                | 17.2  |
| <i>f</i> <sub>18</sub>                 | 0.1601±0.0019                | 0.14±0.03        | 1.15±0.11                | 16.5  | <i>f</i> <sub>18</sub>                 | 0.1601±0.0019                | 0.14±0.03        | 1.15±0.11                | 16.5  |
| <i>f</i> <sub>19</sub>                 | 3.4767±0.0020                | 0.14±0.04        | 0.78±0.12                | 15.1  | <i>f</i> <sub>19</sub>                 | 3.4767±0.0020                | 0.14±0.04        | 0.78±0.12                | 15.1  |
| <i>f</i> <sub>21</sub>                 | 0.2392±0.0021                | 0.13±0.04        | -1.01±0.13               | 13.7  | <i>f</i> <sub>21</sub>                 | 0.2392±0.0021                | 0.13±0.04        | -1.01±0.13               | 13.7  |
| <i>f</i> <sub>22</sub>                 | 0.1890±0.0020                | 0.14±0.04        | -0.55±0.12               | 14.4  | <i>f</i> <sub>22</sub>                 | 0.1890±0.0020                | 0.14±0.04        | -0.55±0.12               |       |



## Appendix D. Frequencies of individual Hybrid Stars

| Frequency list of 0102732523 continued |                              |                  |                          |       | Frequency list of 0102740677 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{48}$                               | 6.7071±0.0029                | 0.09±0.03        | -0.31±0.18               | 7.0   | $f_{62}$                               | 2.7701±0.0024                | 0.13±0.04        | -1.80±0.15               | 9.8   |
| $f_{49}$                               | 0.6380±0.0030                | 0.08±0.03        | -0.35±0.18               | 6.5   | $f_{63}$                               | 2.0443±0.0025                | 0.12±0.04        | 0.38±0.16                | 9.0   |
| $f_{51}$                               | 2.2047±0.0030                | 0.08±0.03        | -0.15±0.18               | 6.5   | $f_{64}$                               | 6.2231±0.0025                | 0.12±0.04        | 0.68±0.15                | 9.1   |
| $f_{52}$                               | 1.2894±0.0030                | 0.08±0.03        | 0.94±0.19                | 6.3   | $f_{65}$                               | 12.5756±0.0026               | 0.11±0.04        | 0.03±0.16                | 8.7   |
| $f_{53}$                               | 0.2557±0.0031                | 0.08±0.03        | -1.26±0.19               | 6.1   | $f_{66}$                               | 9.8275±0.0026                | 0.12±0.04        | 2.05±0.16                | 8.6   |
| $f_{54}$                               | 0.3730±0.0031                | 0.08±0.03        | 1.73±0.19                | 6.1   | $f_{67}$                               | 25.9122±0.0026               | 0.11±0.04        | 0.13±0.16                | 8.3   |
| $f_{55}$                               | 1.2328±0.0031                | 0.08±0.03        | -1.94±0.19               | 6.1   | $f_{68}$                               | 23.1368±0.0026               | 0.12±0.04        | -2.45±0.16               | 8.5   |
| $f_{56}$                               | 3.2846±0.0031                | 0.08±0.03        | -0.71±0.19               | 6.0   | $f_{69}$                               | 8.6020±0.0026                | 0.12±0.04        | -1.17±0.16               | 8.5   |
| $f_{57}$                               | 11.1604±0.0031               | 0.08±0.03        | 1.28±0.19                | 6.1   | $f_{72}$                               | 10.5887±0.0027               | 0.12±0.04        | 0.35±0.16                | 8.0   |

**Table D.45:** Frequency list of 0102740677

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign.  |
|--------------|------------------------------|------------------|--------------------------|--------|
| $f_1$        | 17.0845±0.0002               | 2.63±0.07        | -0.32±0.01               | 1403.8 |
| $f_2$        | 21.0331±0.0005               | 0.83±0.06        | -1.06±0.03               | 198.8  |
| $f_3$        | 18.6481±0.0005               | 0.79±0.06        | -0.67±0.03               | 194.8  |
| $f_4$        | 20.5897±0.0006               | 0.65±0.05        | -0.42±0.04               | 141.0  |
| $f_5$        | 4.1760±0.0007                | 0.59±0.05        | 2.04±0.04                | 124.2  |
| $f_6$        | 19.7383±0.0007               | 0.58±0.05        | 2.76±0.04                | 124.8  |
| $f_7$        | 13.0532±0.0008               | 0.49±0.05        | -0.16±0.05               | 87.3   |
| $f_8$        | 19.5227±0.0008               | 0.48±0.05        | 1.05±0.05                | 88.1   |
| $f_9$        | 21.3018±0.0008               | 0.44±0.05        | -1.09±0.05               | 83.0   |
| $f_{11}$     | 15.3865±0.0010               | 0.35±0.05        | -0.33±0.06               | 54.1   |
| $f_{12}$     | 26.3458±0.0010               | 0.34±0.05        | -2.51±0.06               | 54.0   |
| $f_{13}$     | 4.3065±0.0010                | 0.33±0.04        | -2.65±0.06               | 56.8   |
| $f_{14}$     | 14.7532±0.0010               | 0.34±0.05        | 2.44±0.06                | 52.9   |
| $f_{15}$     | 9.2496±0.0010                | 0.33±0.05        | 1.51±0.06                | 53.3   |
| $f_{16}$     | 7.2280±0.0012                | 0.28±0.04        | 0.58±0.07                | 41.7   |
| $f_{17}$     | 2.3502±0.0012                | 0.27±0.04        | 1.60±0.08                | 37.7   |
| $f_{18}$     | 3.7617±0.0014                | 0.24±0.05        | -0.11±0.09               | 27.9   |
| $f_{19}$     | 36.6009±0.0014               | 0.23±0.04        | 1.76±0.09                | 28.4   |
| $f_{20}$     | 0.2249±0.0015                | 0.22±0.04        | 1.35±0.09                | 26.6   |
| $f_{21}$     | 0.1106±0.0015                | 0.21±0.04        | 1.70±0.09                | 25.8   |
| $f_{22}$     | 20.5415±0.0016               | 0.21±0.04        | 2.02±0.10                | 23.9   |
| $f_{23}$     | 11.5546±0.0016               | 0.21±0.04        | 1.91±0.10                | 22.8   |
| $f_{24}$     | 15.3378±0.0016               | 0.21±0.04        | -2.56±0.10               | 22.8   |
| $f_{25}$     | 29.6238±0.0016               | 0.20±0.04        | 0.57±0.10                | 22.3   |
| $f_{26}$     | 19.4833±0.0016               | 0.20±0.04        | -2.08±0.10               | 22.2   |
| $f_{27}$     | 4.0666±0.0017                | 0.19±0.04        | 0.49±0.10                | 21.3   |
| $f_{28}$     | 0.2084±0.0017                | 0.21±0.05        | 0.91±0.11                | 19.1   |
| $f_{29}$     | 0.1424±0.0018                | 0.24±0.06        | 0.84±0.11                | 17.5   |
| $f_{30}$     | 0.1312±0.0017                | 0.20±0.05        | 1.30±0.11                | 19.5   |
| $f_{31}$     | 17.8944±0.0018               | 0.18±0.04        | -0.76±0.11               | 17.9   |
| $f_{32}$     | 2.4874±0.0018                | 0.17±0.04        | 1.33±0.11                | 17.5   |
| $f_{33}$     | 19.1121±0.0018               | 0.17±0.04        | 3.09±0.11                | 17.4   |
| $f_{34}$     | 33.4148±0.0018               | 0.18±0.04        | -1.82±0.11               | 17.5   |
| $f_{35}$     | 37.9521±0.0018               | 0.17±0.04        | -2.45±0.11               | 17.3   |
| $f_{36}$     | 7.8135±0.0018                | 0.18±0.04        | 1.87±0.11                | 17.6   |
| $f_{37}$     | 0.3061±0.0019                | 0.17±0.04        | 2.41±0.11                | 16.8   |
| $f_{38}$     | 0.2393±0.0018                | 0.16±0.04        | -1.14±0.11               | 17.1   |
| $f_{39}$     | 24.9127±0.0019               | 0.17±0.04        | -1.50±0.11               | 16.7   |
| $f_{40}$     | 0.1618±0.0019                | 0.17±0.04        | 2.52±0.12                | 16.2   |
| $f_{41}$     | 23.3098±0.0019               | 0.17±0.04        | -1.28±0.12               | 16.4   |
| $f_{42}$     | 6.1436±0.0019                | 0.16±0.04        | -1.40±0.12               | 16.0   |
| $f_{43}$     | 7.6315±0.0020                | 0.16±0.04        | 2.13±0.12                | 15.3   |
| $f_{44}$     | 13.0606±0.0020               | 0.16±0.04        | 2.22±0.12                | 14.5   |
| $f_{45}$     | 25.7471±0.0021               | 0.15±0.04        | -1.17±0.13               | 13.5   |
| $f_{46}$     | 0.2569±0.0022                | 0.17±0.05        | 2.02±0.13                | 12.5   |
| $f_{47}$     | 0.1927±0.0021                | 0.18±0.05        | 2.73±0.13                | 13.5   |
| $f_{48}$     | 0.2695±0.0021                | 0.15±0.04        | -1.44±0.13               | 13.4   |
| $f_{49}$     | 0.3371±0.0021                | 0.16±0.04        | -2.96±0.13               | 13.1   |
| $f_{50}$     | 0.1819±0.0021                | 0.18±0.05        | -0.31±0.13               | 13.0   |
| $f_{52}$     | 0.4403±0.0022                | 0.14±0.04        | -1.05±0.14               | 11.8   |
| $f_{53}$     | 0.4027±0.0022                | 0.15±0.04        | -1.02±0.14               | 11.6   |
| $f_{54}$     | 31.9653±0.0023               | 0.13±0.04        | -2.57±0.14               | 10.8   |
| $f_{55}$     | 24.2186±0.0023               | 0.13±0.04        | -1.38±0.14               | 10.8   |
| $f_{56}$     | 22.1848±0.0024               | 0.13±0.04        | -1.49±0.14               | 10.4   |
| $f_{57}$     | 25.8696±0.0023               | 0.13±0.04        | 2.76±0.14                | 10.7   |
| $f_{58}$     | 0.2160±0.0024                | 0.13±0.04        | -1.05±0.15               | 10.2   |
| $f_{59}$     | 15.1403±0.0024               | 0.13±0.04        | -1.30±0.15               | 10.3   |
| $f_{60}$     | 29.0394±0.0024               | 0.13±0.04        | -1.71±0.15               | 10.0   |
| $f_{61}$     | 13.8825±0.0024               | 0.13±0.04        | -1.28±0.15               | 9.8    |

Frequency list of 0102740677 continued

**Table D.46:** Frequency list of 0102742047

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|--------------|------------------------------|------------------|--------------------------|-------|
| $f_1$        | 17.2097±0.0003               | 1.73±0.06        | -3.08±0.02               | 742.9 |
| $f_2$        | 17.9508±0.0006               | 0.72±0.05        | -2.28±0.03               | 178.1 |
| $f_3$        | 22.9567±0.0006               | 0.67±0.06        | 0.25±0.04                | 140.7 |
| $f_4$        | 20.0447±0.0008               | 0.54±0.05        | 0.95±0.05                | 99.8  |

Frequency list of 0102742047 continued

## Appendix D. Frequencies of individual Hybrid Stars

| Frequency list of 0102742047 continued |                              |                  |                          |       | Frequency list of 0102746910 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_5$                                  | 4.1141±0.0008                | 0.49±0.05        | 0.61±0.05                | 87.0  | $f_7$                                  | 16.2211±0.0010               | 0.31±0.04        | 0.34±0.06                | 58.7  |
| $f_6$                                  | 15.4281±0.0011               | 0.36±0.05        | 0.10±0.06                | 52.4  | $f_{14}$                               | 11.6831±0.0012               | 0.25±0.04        | 0.48±0.07                | 42.2  |
| $f_7$                                  | 0.5027±0.0011                | 0.37±0.05        | 2.21±0.07                | 50.6  | $f_{15}$                               | 23.9034±0.0012               | 0.25±0.04        | -2.45±0.07               | 42.2  |
| $f_{10}$                               | 0.2330±0.0012                | 0.32±0.05        | 0.28±0.08                | 37.4  | $f_{16}$                               | 11.3378±0.0012               | 0.25±0.04        | 3.05±0.07                | 43.0  |
| $f_{11}$                               | 1.7226±0.0013                | 0.29±0.05        | -1.16±0.08               | 34.1  | $f_{17}$                               | 12.0548±0.0012               | 0.24±0.04        | 2.29±0.07                | 39.7  |
| $f_{12}$                               | 0.1050±0.0013                | 0.28±0.05        | 1.38±0.08                | 34.2  | $f_{18}$                               | 3.0206±0.0013                | 0.23±0.04        | 3.04±0.08                | 36.8  |
| $f_{14}$                               | 3.5875±0.0014                | 0.27±0.05        | -2.04±0.08               | 31.0  | $f_{19}$                               | 11.9152±0.0013               | 0.23±0.04        | 0.85±0.08                | 35.9  |
| $f_{15}$                               | 2.0643±0.0014                | 0.27±0.05        | 1.41±0.09                | 30.0  | $f_{20}$                               | 22.1527±0.0014               | 0.21±0.04        | 0.50±0.08                | 31.6  |
| $f_{16}$                               | 0.1903±0.0014                | 0.27±0.05        | -1.17±0.09               | 28.0  | $f_{21}$                               | 19.9722±0.0014               | 0.20±0.04        | -1.00±0.09               | 29.9  |
| $f_{17}$                               | 0.1237±0.0015                | 0.24±0.05        | -2.87±0.09               | 26.4  | $f_{22}$                               | 18.7886±0.0014               | 0.21±0.04        | 0.11±0.09                | 29.8  |
| $f_{18}$                               | 5.8376±0.0015                | 0.24±0.05        | -0.57±0.09               | 25.4  | $f_{23}$                               | 17.4793±0.0014               | 0.19±0.04        | 3.00±0.09                | 28.2  |
| $f_{19}$                               | 0.1529±0.0016                | 0.30±0.06        | -2.25±0.10               | 22.5  | $f_{24}$                               | 8.3575±0.0014                | 0.20±0.04        | -2.52±0.09               | 28.3  |
| $f_{20}$                               | 0.1424±0.0015                | 0.26±0.05        | 1.02±0.09                | 26.6  | $f_{25}$                               | 24.3514±0.0014               | 0.20±0.04        | -2.07±0.09               | 28.1  |
| $f_{21}$                               | 5.3336±0.0016                | 0.23±0.05        | 0.32±0.10                | 22.7  | $f_{27}$                               | 15.4524±0.0015               | 0.19±0.04        | -2.49±0.09               | 26.9  |
| $f_{22}$                               | 6.4356±0.0016                | 0.23±0.05        | -1.20±0.10               | 22.0  | $f_{28}$                               | 4.8345±0.0015                | 0.19±0.04        | 1.07±0.09                | 25.9  |
| $f_{23}$                               | 0.7670±0.0016                | 0.23±0.05        | 0.48±0.10                | 22.0  | $f_{29}$                               | 3.6020±0.0015                | 0.19±0.04        | -0.30±0.09               | 25.7  |
| $f_{25}$                               | 4.6168±0.0016                | 0.23±0.05        | 1.88±0.10                | 21.9  | $f_{32}$                               | 4.1074±0.0016                | 0.17±0.04        | 2.19±0.10                | 22.0  |
| $f_{26}$                               | 0.2098±0.0017                | 0.24±0.05        | -2.83±0.10               | 20.6  | $f_{33}$                               | 7.3595±0.0016                | 0.16±0.03        | -1.83±0.10               | 21.6  |
| $f_{27}$                               | 5.7305±0.0017                | 0.21±0.05        | -0.63±0.10               | 20.5  | $f_{34}$                               | 0.1009±0.0017                | 0.09±0.02        | 1.96±0.10                | 20.6  |
| $f_{28}$                               | 0.2445±0.0017                | 0.23±0.05        | -2.74±0.11               | 19.6  | $f_{37}$                               | 3.8167±0.0017                | 0.15±0.03        | -2.01±0.10               | 20.0  |
| $f_{30}$                               | 0.4937±0.0018                | 0.21±0.05        | -1.45±0.11               | 18.4  | $f_{38}$                               | 1.0760±0.0018                | 0.17±0.04        | 2.37±0.11                | 18.6  |
| $f_{31}$                               | 5.1192±0.0018                | 0.20±0.05        | -1.82±0.11               | 18.4  | $f_{42}$                               | 8.1843±0.0019                | 0.14±0.03        | -0.35±0.11               | 16.8  |
| $f_{32}$                               | 3.1041±0.0018                | 0.20±0.05        | -0.44±0.11               | 17.9  | $f_{43}$                               | 29.5982±0.0019               | 0.14±0.03        | -1.58±0.11               | 16.8  |
| $f_{33}$                               | 0.3025±0.0018                | 0.19±0.05        | -1.82±0.11               | 17.2  | $f_{44}$                               | 22.4263±0.0019               | 0.13±0.03        | -3.11±0.12               | 15.8  |
| $f_{34}$                               | 0.7063±0.0018                | 0.18±0.04        | -0.52±0.11               | 17.5  | $f_{45}$                               | 3.0042±0.0019                | 0.12±0.03        | -2.29±0.12               | 15.5  |
| $f_{35}$                               | 15.4018±0.0018               | 0.19±0.05        | -1.67±0.11               | 17.2  | $f_{46}$                               | 0.8189±0.0020                | 0.11±0.03        | -0.45±0.12               | 15.1  |
| $f_{36}$                               | 0.3242±0.0019                | 0.16±0.04        | -1.82±0.11               | 16.8  | $f_{49}$                               | 0.9999±0.0021                | 0.12±0.03        | -2.56±0.13               | 13.0  |
| $f_{38}$                               | 1.9489±0.0019                | 0.18±0.05        | -2.79±0.12               | 15.7  | $f_{50}$                               | 19.9141±0.0021               | 0.12±0.03        | 1.61±0.13                | 12.8  |
| $f_{39}$                               | 0.4050±0.0021                | 0.18±0.05        | -2.15±0.13               | 13.3  | $f_{51}$                               | 0.1145±0.0020                | 0.13±0.03        | -1.97±0.12               | 14.0  |
| $f_{41}$                               | 0.2601±0.0021                | 0.19±0.05        | -2.54±0.13               | 13.2  | $f_{52}$                               | 4.2363±0.0022                | 0.12±0.03        | 1.93±0.13                | 12.1  |
| $f_{42}$                               | 0.2785±0.0020                | 0.18±0.05        | 0.30±0.12                | 15.2  | $f_{53}$                               | 17.8120±0.0022               | 0.12±0.03        | -0.59±0.14               | 11.8  |
| $f_{43}$                               | 0.3095±0.0020                | 0.18±0.05        | 2.34±0.12                | 14.0  | $f_{54}$                               | 55.8620±0.0022               | 0.13±0.04        | -1.27±0.14               | 11.6  |
| $f_{45}$                               | 17.9449±0.0022               | 0.17±0.05        | 1.20±0.13                | 12.0  | $f_{56}$                               | 0.1773±0.0023                | 0.12±0.04        | 2.44±0.14                | 11.2  |
| $f_{47}$                               | 0.6381±0.0023                | 0.15±0.05        | 0.33±0.14                | 10.8  | $f_{57}$                               | 0.1247±0.0023                | 0.12±0.04        | -1.64±0.14               | 11.4  |
| $f_{48}$                               | 4.3953±0.0023                | 0.15±0.05        | 0.31±0.14                | 10.7  | $f_{58}$                               | 3.7668±0.0023                | 0.12±0.04        | 2.81±0.14                | 11.1  |
| $f_{49}$                               | 0.3670±0.0024                | 0.13±0.04        | -0.10±0.14               | 10.4  | $f_{59}$                               | 12.9386±0.0023               | 0.11±0.03        | 2.78±0.14                | 10.7  |
| $f_{50}$                               | 3.3325±0.0024                | 0.14±0.04        | -1.67±0.15               | 10.2  | $f_{60}$                               | 0.2844±0.0023                | 0.10±0.03        | -1.45±0.14               | 10.9  |
| $f_{51}$                               | 2.1499±0.0024                | 0.14±0.04        | -1.87±0.14               | 10.4  | $f_{61}$                               | 32.9300±0.0024               | 0.11±0.03        | -1.28±0.14               | 10.4  |
| $f_{54}$                               | 5.6319±0.0025                | 0.14±0.05        | -1.94±0.15               | 9.4   | $f_{63}$                               | 11.9492±0.0023               | 0.11±0.03        | -0.96±0.14               | 10.6  |
| $f_{55}$                               | 4.4627±0.0025                | 0.13±0.04        | -1.84±0.15               | 9.2   | $f_{64}$                               | 18.3164±0.0025               | 0.10±0.03        | 2.00±0.15                | 9.6   |
| $f_{56}$                               | 2.4645±0.0025                | 0.13±0.04        | 2.43±0.15                | 9.2   | $f_{65}$                               | 5.6634±0.0024                | 0.10±0.03        | 0.63±0.15                | 9.9   |
| $f_{57}$                               | 1.2061±0.0025                | 0.14±0.05        | 0.79±0.15                | 9.2   | $f_{66}$                               | 19.3843±0.0025               | 0.10±0.03        | -1.35±0.15               | 9.7   |
| $f_{58}$                               | 0.1096±0.0025                | 0.13±0.04        | -0.03±0.15               | 9.2   | $f_{71}$                               | 3.8548±0.0025                | 0.10±0.03        | 2.91±0.15                | 9.6   |
| $f_{59}$                               | 1.0081±0.0025                | 0.14±0.05        | 0.66±0.16                | 9.0   | $f_{72}$                               | 6.5687±0.0025                | 0.10±0.03        | -0.03±0.15               | 9.2   |
| $f_{61}$                               | 0.1708±0.0025                | 0.15±0.05        | 3.11±0.15                | 9.1   | $f_{73}$                               | 22.4336±0.0025               | 0.10±0.03        | 0.08±0.15                | 9.7   |
| $f_{62}$                               | 0.4495±0.0026                | 0.13±0.04        | -2.09±0.16               | 8.9   | $f_{74}$                               | 1.0570±0.0025                | 0.10±0.03        | 2.52±0.15                | 9.1   |
| $f_{63}$                               | 1.3020±0.0026                | 0.14±0.05        | 2.18±0.16                | 8.8   | $f_{75}$                               | 1.0269±0.0025                | 0.10±0.03        | -2.28±0.15               | 9.3   |
| $f_{64}$                               | 2.2388±0.0026                | 0.13±0.04        | 0.23±0.16                | 8.4   | $f_{76}$                               | 36.1027±0.0026               | 0.09±0.03        | 1.51±0.16                | 8.5   |
| $f_{65}$                               | 21.1798±0.0026               | 0.13±0.04        | 2.11±0.16                | 8.6   | $f_{77}$                               | 5.8415±0.0026                | 0.09±0.03        | -2.52±0.16               | 8.3   |
| $f_{70}$                               | 0.6981±0.0027                | 0.12±0.04        | 2.21±0.17                | 7.9   | $f_{78}$                               | 20.2241±0.0027               | 0.09±0.03        | 0.16±0.16                | 8.1   |
| $f_{71}$                               | 0.4763±0.0028                | 0.13±0.05        | 2.87±0.17                | 7.7   | $f_{79}$                               | 0.2753±0.0027                | 0.09±0.03        | -0.92±0.16               | 8.0   |
| $f_{72}$                               | 2.0017±0.0028                | 0.12±0.04        | -2.35±0.17               | 7.4   | $f_{80}$                               | 3.8730±0.0027                | 0.10±0.04        | -2.18±0.17               | 7.9   |
| $f_{73}$                               | 7.3770±0.0028                | 0.12±0.04        | 2.03±0.17                | 7.6   | $f_{81}$                               | 0.8406±0.0027                | 0.09±0.03        | 2.29±0.16                | 8.0   |
| $f_{74}$                               | 0.5544±0.0028                | 0.13±0.05        | -1.39±0.17               | 7.4   | $f_{82}$                               | 7.6522±0.0027                | 0.09±0.03        | -2.23±0.17               | 7.8   |
| $f_{75}$                               | 0.5680±0.0028                | 0.12±0.04        | -2.43±0.17               | 7.5   | $f_{83}$                               | 8.5396±0.0028                | 0.09±0.03        | -0.82±0.17               | 7.5   |
| $f_{76}$                               | 6.5776±0.0028                | 0.12±0.04        | 1.00±0.17                | 7.5   | $f_{84}$                               | 10.1477±0.0028               | 0.09±0.03        | -0.30±0.17               | 7.5   |
| $f_{78}$                               | 0.8183±0.0029                | 0.11±0.04        | 1.02±0.18                | 6.7   | $f_{85}$                               | 1.6890±0.0028                | 0.08±0.03        | 2.68±0.17                | 7.7   |
| $f_{79}$                               | 0.2198±0.0029                | 0.12±0.05        | -1.43±0.18               | 6.7   | $f_{86}$                               | 14.2347±0.0028               | 0.09±0.03        | 2.19±0.17                | 7.5   |
| $f_{81}$                               | 0.1338±0.0030                | 0.11±0.04        | 1.18±0.18                | 6.4   | $f_{87}$                               | 13.9922±0.0028               | 0.09±0.03        | 2.83±0.17                | 7.6   |
| $f_{82}$                               | 0.3534±0.0030                | 0.12±0.05        | -2.17±0.18               | 6.6   | $f_{89}$                               | 4.6502±0.0028                | 0.08±0.03        | -0.52±0.17               | 7.6   |
| $f_{83}$                               | 1.5671±0.0030                | 0.11±0.04        | -1.76±0.19               | 6.3   | $f_{90}$                               | 2.9970±0.0028                | 0.09±0.03        | -2.77±0.17               | 7.2   |
| $f_{85}$                               | 1.1133±0.0031                | 0.11±0.04        | -0.39±0.19               | 6.0   | $f_{91}$                               | 7.4044±0.0029                | 0.09±0.03        | -2.96±0.17               | 7.1   |
| $f_{86}$                               | 3.2622±0.0032                | 0.11±0.05        | 2.54±0.19                | 5.8   | $f_{92}$                               | 56.9401±0.0029               | 0.09±0.03        | -2.24±0.18               | 7.0   |
| $f_{87}$                               | 2.5325±0.0032                | 0.11±0.05        | 2.48±0.19                | 5.8   | $f_{93}$                               | 9.4254±0.0029                | 0.09±0.03        | -0.40±0.18               | 7.0   |
| $f_{88}$                               | 0.1775±0.0032                | 0.11±0.05        | 1.26±0.20                | 5.7   | $f_{94}$                               | 6.4211±0.0028                | 0.09±0.03        | 2.11±0.17                | 7.2   |
| $f_{90}$                               | 1.6612±0.0033                | 0.10±0.04        | 0.73±0.20                | 5.5   | $f_{95}$                               | 6.6173±0.0028                | 0.09±0.03        | 0.42±0.17                | 7.2   |
| $f_{91}$                               | 1.0287±0.0033                | 0.10±0.04        | 0.31±0.20                | 5.5   | $f_{96}$                               | 17.1262±0.0029               | 0.09±0.03        | -2.19±0.17               | 7.1   |
| $f_{92}$                               | 0.9814±0.0033                | 0.10±0.04        | 3.05±0.20                | 5.3   | $f_{97}$                               | 3.9327±0.0029                | 0.08±0.03        | -0.30±0.18               | 6.9   |
| $f_{93}$                               | 1.5032±0.0033                | 0.10±0.04        | 1.05±0.20                | 5.2   | $f_{98}$                               | 5.7285±0.0029                | 0.09±0.03        | -0.78±0.17               | 7.1   |
| $f_{94}$                               | 3.8043±0.0033                | 0.10±0.04        | 1.25±0.20                | 5.2   | $f_{99}$                               | 5.9944±0.0028                | 0.09±0.03        | 3.05±0.17                | 7.3   |
| $f_{96}$                               | 0.6065±0.0034                | 0.10±0.04        | 0.23±0.21                | 5.0   | $f_{100}$                              | 14.8923±0.0029               | 0.08±0.03        | 1.85±0.18                | 6.8   |
| $f_{97}$                               | 5.0427±0.0034                | 0.10±0.04        | -0.53±0.21               | 5.1   | $f_{103}$                              | 4.1920±0.0029                | 0.08±0.03        | 2.45±0.18                | 6.7   |
| $f_{98}$                               | 1.2723±0.0034                | 0.10±0.04        | -0.98±0.21               | 5.1   | $f_{104}$                              | 21.3894±0.0029               | 0.08±0.03        | 0.51±0.18                | 6.7   |
|                                        |                              |                  |                          |       | $f_{105}$                              | 4.5851±0.0029                | 0.08±0.03        | -0.98±0.18               | 6.7   |
|                                        |                              |                  |                          |       | $f_{106}$                              | 13.9425±0.0030               | 0.09±0.04        | -2.29±0.18               | 6.5   |
|                                        |                              |                  |                          |       | $f_{107}$                              | 18.8002±0.0030               | 0.09±0.04        | -0.48±0.18               | 6.5   |

**Table D.47:** Frequency list of 0102746910

| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| $f_1$                                  | 14.4551±0.0004               | 0.98±0.05        | -2.03±0.02               | 418.2 |
| $f_2$                                  | 24.5515±0.0005               | 0.63±0.05        | -0.28±0.03               | 194.2 |
| $f_3$                                  | 13.5779±0.0006               | 0.59±0.04        | 1.54±0.04                | 175.1 |
| Frequency list of 0102746910 continued |                              |                  |                          |       |

## Appendix D. Frequencies of individual Hybrid Stars

| Frequency list of 0102746910 continued |                              |                  |                          |       | Frequency list of 0102750600 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{108}$                              | 7.2922±0.0029                | 0.08±0.03        | 2.75±0.18                | 6.7   | $f_{38}$                               | 9.0104±0.0013                | 0.21±0.03        | -2.39±0.08               | 36.0  |
| $f_{109}$                              | 0.6596±0.0030                | 0.08±0.03        | 0.93±0.18                | 6.5   | $f_{39}$                               | 0.1413±0.0013                | 0.23±0.04        | 1.43±0.08                | 36.0  |
| $f_{110}$                              | 3.6915±0.0030                | 0.08±0.03        | 0.74±0.18                | 6.5   | $f_{40}$                               | 10.5618±0.0013               | 0.19±0.03        | -3.06±0.08               | 35.0  |
| $f_{111}$                              | 5.0294±0.0030                | 0.09±0.04        | 0.66±0.18                | 6.5   | $f_{41}$                               | 9.5144±0.0013                | 0.20±0.03        | -0.88±0.08               | 34.8  |
| $f_{112}$                              | 57.0131±0.0030               | 0.08±0.03        | 3.11±0.18                | 6.5   | $f_{42}$                               | 8.4714±0.0013                | 0.21±0.03        | -1.70±0.08               | 36.1  |
| $f_{113}$                              | 2.8881±0.0030                | 0.08±0.03        | 1.93±0.18                | 6.4   | $f_{43}$                               | 8.6307±0.0012                | 0.20±0.03        | -0.99±0.08               | 37.3  |
| $f_{114}$                              | 15.1031±0.0030               | 0.08±0.03        | 0.59±0.19                | 6.3   | $f_{44}$                               | 1.5737±0.0013                | 0.18±0.03        | -0.64±0.08               | 36.8  |
| $f_{115}$                              | 0.4760±0.0031                | 0.07±0.03        | 2.63±0.19                | 6.2   | $f_{45}$                               | 1.0552±0.0013                | 0.19±0.03        | 1.67±0.08                | 34.6  |
| $f_{116}$                              | 1.5654±0.0031                | 0.08±0.03        | -2.88±0.19               | 6.0   | $f_{46}$                               | 14.0612±0.0013               | 0.19±0.03        | 2.73±0.08                | 35.1  |
| $f_{118}$                              | 1.7604±0.0031                | 0.08±0.03        | -1.53±0.19               | 5.9   | $f_{47}$                               | 0.1254±0.0013                | 0.18±0.03        | 1.51±0.08                | 33.4  |
| $f_{119}$                              | 1.8110±0.0031                | 0.08±0.03        | -2.66±0.19               | 6.1   | $f_{48}$                               | 0.9552±0.0013                | 0.19±0.03        | -1.35±0.08               | 33.9  |
| $f_{120}$                              | 19.4939±0.0031               | 0.08±0.03        | -1.14±0.19               | 5.9   | $f_{49}$                               | 0.7442±0.0013                | 0.17±0.03        | 0.98±0.08                | 35.1  |
| $f_{121}$                              | 3.8820±0.0031                | 0.08±0.03        | 0.85±0.19                | 6.0   | $f_{50}$                               | 8.6660±0.0013                | 0.17±0.03        | -0.48±0.08               | 33.3  |
| $f_{122}$                              | 55.8519±0.0032               | 0.08±0.03        | -2.78±0.19               | 5.8   | $f_{51}$                               | 1.5123±0.0013                | 0.15±0.03        | -1.60±0.08               | 34.2  |
| $f_{123}$                              | 57.0469±0.0032               | 0.07±0.03        | -0.66±0.19               | 5.8   | $f_{52}$                               | 12.3111±0.0013               | 0.17±0.03        | 1.21±0.08                | 32.2  |
| $f_{124}$                              | 41.9384±0.0032               | 0.07±0.03        | 2.88±0.20                | 5.7   | $f_{53}$                               | 3.3100±0.0013                | 0.17±0.03        | 0.40±0.08                | 32.4  |
| $f_{127}$                              | 21.2473±0.0032               | 0.07±0.03        | 1.11±0.20                | 5.6   | $f_{54}$                               | 7.7929±0.0014                | 0.18±0.03        | -2.33±0.08               | 30.9  |
| $f_{128}$                              | 0.1350±0.0032                | 0.08±0.03        | 1.07±0.20                | 5.6   | $f_{55}$                               | 7.0417±0.0014                | 0.17±0.03        | 0.02±0.08                | 31.1  |
| $f_{129}$                              | 5.0931±0.0033                | 0.07±0.03        | -3.02±0.20               | 5.5   | $f_{56}$                               | 13.8559±0.0014               | 0.17±0.03        | -2.38±0.09               | 29.9  |
| $f_{130}$                              | 5.2322±0.0033                | 0.07±0.03        | 2.92±0.20                | 5.5   | $f_{57}$                               | 2.2517±0.0015                | 0.16±0.03        | -2.14±0.09               | 25.9  |
| $f_{131}$                              | 22.9854±0.0033               | 0.07±0.03        | 2.74±0.20                | 5.4   | $f_{58}$                               | 1.9141±0.0015                | 0.18±0.04        | -3.10±0.09               | 26.1  |
| $f_{132}$                              | 4.6049±0.0033                | 0.07±0.03        | -2.95±0.20               | 5.5   | $f_{59}$                               | 1.9211±0.0015                | 0.14±0.03        | -0.00±0.09               | 26.1  |
| $f_{134}$                              | 7.1565±0.0033                | 0.07±0.03        | 0.71±0.20                | 5.5   | $f_{60}$                               | 8.3822±0.0015                | 0.15±0.03        | -1.23±0.09               | 25.7  |
| $f_{135}$                              | 26.4436±0.0033               | 0.07±0.03        | -1.03±0.20               | 5.3   | $f_{61}$                               | 0.5624±0.0015                | 0.14±0.03        | 1.70±0.09                | 25.4  |
| $f_{136}$                              | 5.7078±0.0033                | 0.07±0.03        | -0.09±0.20               | 5.4   | $f_{62}$                               | 9.6244±0.0015                | 0.14±0.03        | 2.73±0.09                | 25.0  |
| $f_{137}$                              | 5.1543±0.0033                | 0.07±0.03        | 0.46±0.20                | 5.2   | $f_{63}$                               | 6.2676±0.0016                | 0.15±0.03        | 1.62±0.10                | 23.8  |
| $f_{139}$                              | 0.7980±0.0033                | 0.07±0.03        | 0.00±0.20                | 5.4   | $f_{64}$                               | 0.8110±0.0015                | 0.16±0.03        | 3.03±0.09                | 25.4  |
| $f_{140}$                              | 9.3837±0.0033                | 0.07±0.03        | 1.34±0.20                | 5.3   | $f_{65}$                               | 9.2260±0.0016                | 0.14±0.03        | -0.29±0.10               | 23.7  |
| $f_{141}$                              | 2.8323±0.0033                | 0.07±0.03        | -1.95±0.20               | 5.4   | $f_{66}$                               | 9.8247±0.0016                | 0.13±0.03        | -1.48±0.10               | 22.5  |
| $f_{142}$                              | 24.1254±0.0033               | 0.07±0.03        | -2.37±0.20               | 5.4   | $f_{67}$                               | 1.4941±0.0016                | 0.15±0.03        | -2.28±0.10               | 22.7  |
| $f_{143}$                              | 6.2453±0.0034                | 0.07±0.03        | 2.60±0.21                | 5.1   | $f_{68}$                               | 8.8812±0.0016                | 0.12±0.03        | 1.76±0.10                | 22.0  |
| $f_{144}$                              | 0.4483±0.0033                | 0.07±0.03        | 0.75±0.20                | 5.3   | $f_{69}$                               | 9.3526±0.0016                | 0.14±0.03        | 2.55±0.10                | 22.0  |
| $f_{145}$                              | 20.3608±0.0034               | 0.07±0.03        | -0.57±0.21               | 5.1   | $f_{70}$                               | 2.0584±0.0016                | 0.15±0.03        | -1.88±0.10               | 22.3  |
| $f_{146}$                              | 6.8888±0.0034                | 0.07±0.03        | -1.88±0.21               | 5.1   | $f_{71}$                               | 10.1901±0.0016               | 0.15±0.03        | 0.20±0.10                | 22.2  |
|                                        |                              |                  |                          |       | $f_{72}$                               | 7.6304±0.0016                | 0.13±0.03        | -2.36±0.10               | 22.1  |
|                                        |                              |                  |                          |       | $f_{73}$                               | 12.9431±0.0017               | 0.13±0.03        | 0.92±0.10                | 21.2  |
|                                        |                              |                  |                          |       | $f_{74}$                               | 12.0278±0.0017               | 0.13±0.03        | 2.31±0.10                | 21.1  |
|                                        |                              |                  |                          |       | $f_{75}$                               | 12.7263±0.0017               | 0.13±0.03        | -1.70±0.10               | 20.7  |
|                                        |                              |                  |                          |       | $f_{77}$                               | 10.6765±0.0017               | 0.12±0.03        | 0.17±0.10                | 20.3  |
|                                        |                              |                  |                          |       | $f_{78}$                               | 9.6650±0.0017                | 0.13±0.03        | -2.48±0.10               | 20.8  |
|                                        |                              |                  |                          |       | $f_{79}$                               | 3.8504±0.0017                | 0.12±0.03        | 1.35±0.10                | 20.3  |
|                                        |                              |                  |                          |       | $f_{80}$                               | 7.0649±0.0017                | 0.12±0.03        | 0.04±0.10                | 20.0  |
|                                        |                              |                  |                          |       | $f_{81}$                               | 6.6749±0.0017                | 0.12±0.03        | 0.01±0.10                | 19.8  |
|                                        |                              |                  |                          |       | $f_{82}$                               | 2.1857±0.0017                | 0.11±0.02        | -1.32±0.10               | 20.4  |
|                                        |                              |                  |                          |       | $f_{83}$                               | 8.1516±0.0017                | 0.13±0.03        | -0.51±0.10               | 20.7  |
|                                        |                              |                  |                          |       | $f_{84}$                               | 11.6046±0.0017               | 0.13±0.03        | 2.29±0.10                | 20.1  |
|                                        |                              |                  |                          |       | $f_{85}$                               | 0.6437±0.0017                | 0.14±0.03        | 1.73±0.10                | 20.1  |
|                                        |                              |                  |                          |       | $f_{86}$                               | 12.3614±0.0017               | 0.13±0.03        | -0.01±0.11               | 19.5  |
|                                        |                              |                  |                          |       | $f_{87}$                               | 6.4897±0.0017                | 0.11±0.02        | 1.93±0.10                | 19.9  |
|                                        |                              |                  |                          |       | $f_{88}$                               | 6.1271±0.0017                | 0.12±0.03        | 2.81±0.11                | 19.2  |
|                                        |                              |                  |                          |       | $f_{89}$                               | 13.2957±0.0017               | 0.12±0.03        | 2.69±0.10                | 20.0  |
|                                        |                              |                  |                          |       | $f_{92}$                               | 11.0273±0.0017               | 0.13±0.03        | 1.91±0.11                | 19.6  |
|                                        |                              |                  |                          |       | $f_{93}$                               | 0.7692±0.0017                | 0.10±0.02        | -1.16±0.10               | 20.2  |
|                                        |                              |                  |                          |       | $f_{94}$                               | 8.7285±0.0018                | 0.12±0.03        | 0.67±0.11                | 18.9  |
|                                        |                              |                  |                          |       | $f_{95}$                               | 3.0523±0.0018                | 0.11±0.03        | 1.81±0.11                | 18.5  |
|                                        |                              |                  |                          |       | $f_{96}$                               | 5.9690±0.0018                | 0.11±0.03        | -2.45±0.11               | 18.5  |
|                                        |                              |                  |                          |       | $f_{97}$                               | 7.1603±0.0018                | 0.14±0.03        | 1.29±0.11                | 17.3  |
|                                        |                              |                  |                          |       | $f_{98}$                               | 0.1728±0.0019                | 0.13±0.03        | -2.82±0.11               | 16.7  |
|                                        |                              |                  |                          |       | $f_{99}$                               | 0.1633±0.0017                | 0.12±0.03        | -0.07±0.11               | 19.2  |
|                                        |                              |                  |                          |       | $f_{100}$                              | 0.7251±0.0019                | 0.11±0.03        | -3.08±0.11               | 17.0  |
|                                        |                              |                  |                          |       | $f_{101}$                              | 9.7849±0.0019                | 0.12±0.03        | 1.62±0.11                | 16.8  |
|                                        |                              |                  |                          |       | $f_{102}$                              | 13.1049±0.0019               | 0.14±0.03        | -0.39±0.11               | 16.6  |
|                                        |                              |                  |                          |       | $f_{103}$                              | 13.1152±0.0018               | 0.10±0.02        | -0.21±0.11               | 17.6  |
|                                        |                              |                  |                          |       | $f_{104}$                              | 2.4038±0.0019                | 0.09±0.02        | 3.13±0.12                | 16.4  |
|                                        |                              |                  |                          |       | $f_{105}$                              | 5.2140±0.0019                | 0.11±0.03        | 1.24±0.12                | 16.4  |
|                                        |                              |                  |                          |       | $f_{106}$                              | 10.4931±0.0019               | 0.11±0.03        | 0.62±0.12                | 16.4  |
|                                        |                              |                  |                          |       | $f_{107}$                              | 5.9553±0.0019                | 0.11±0.03        | 1.12±0.11                | 16.6  |
|                                        |                              |                  |                          |       | $f_{108}$                              | 0.2222±0.0019                | 0.09±0.02        | 0.38±0.12                | 15.4  |
|                                        |                              |                  |                          |       | $f_{109}$                              | 2.9261±0.0019                | 0.10±0.03        | 2.17±0.12                | 15.7  |
|                                        |                              |                  |                          |       | $f_{110}$                              | 0.4851±0.0020                | 0.10±0.03        | -0.97±0.12               | 15.3  |
|                                        |                              |                  |                          |       | $f_{111}$                              | 3.4092±0.0019                | 0.10±0.03        | 2.50±0.12                | 15.5  |
|                                        |                              |                  |                          |       | $f_{112}$                              | 10.6907±0.0019               | 0.11±0.03        | 0.29±0.12                | 15.4  |
|                                        |                              |                  |                          |       | $f_{113}$                              | 2.4119±0.0019                | 0.11±0.03        | -0.54±0.12               | 15.4  |
|                                        |                              |                  |                          |       | $f_{114}$                              | 8.8568±0.0019                | 0.09±0.02        | -1.83±0.12               | 15.7  |
|                                        |                              |                  |                          |       | $f_{115}$                              | 2.6629±0.0019                | 0.09±0.02        | 1.84±0.12                | 15.4  |
|                                        |                              |                  |                          |       | $f_{116}$                              | 11.6672±0.0020               | 0.09±0.02        | -2.83±0.12               | 15.1  |
|                                        |                              |                  |                          |       | Frequency list of 0102750600 continued |                              |                  |                          |       |
| Frequency list of 0102750600 continued |                              |                  |                          |       |                                        |                              |                  |                          |       |

## Appendix D. Frequencies of individual Hybrid Stars

| Frequency list of 0102750600 continued |                              |                  |                          |       | Frequency list of 0102750600 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{118}$                              | 12.2851±0.0020               | 0.10±0.03        | -1.66±0.12               | 15.0  | $f_{199}$                              | 0.7601±0.0025                | 0.08±0.03        | -1.01±0.15               | 9.5   |
| $f_{119}$                              | 7.4553±0.0020                | 0.09±0.02        | -0.14±0.12               | 15.2  | $f_{200}$                              | 0.6943±0.0024                | 0.07±0.02        | 1.80±0.15                | 9.8   |
| $f_{120}$                              | 7.1713±0.0020                | 0.10±0.03        | 3.08±0.12                | 14.7  | $f_{201}$                              | 0.5977±0.0025                | 0.07±0.02        | -0.91±0.15               | 9.5   |
| $f_{121}$                              | 0.9862±0.0019                | 0.07±0.02        | 1.92±0.12                | 15.4  | $f_{202}$                              | 15.3716±0.0025               | 0.06±0.02        | -2.22±0.15               | 9.1   |
| $f_{122}$                              | 14.7805±0.0020               | 0.10±0.03        | -1.35±0.12               | 15.0  | $f_{203}$                              | 3.6686±0.0025                | 0.07±0.02        | 2.27±0.16                | 9.0   |
| $f_{123}$                              | 7.9812±0.0020                | 0.10±0.03        | -3.13±0.12               | 14.6  | $f_{204}$                              | 0.1982±0.0025                | 0.05±0.02        | 2.26±0.15                | 9.1   |
| $f_{124}$                              | 8.0192±0.0020                | 0.10±0.03        | 0.23±0.12                | 14.7  | $f_{205}$                              | 0.3273±0.0025                | 0.08±0.03        | -0.42±0.15               | 9.1   |
| $f_{125}$                              | 5.0902±0.0020                | 0.09±0.02        | 2.38±0.12                | 14.9  | $f_{206}$                              | 0.5250±0.0025                | 0.08±0.03        | -0.44±0.15               | 9.1   |
| $f_{126}$                              | 0.3038±0.0020                | 0.07±0.02        | 0.75±0.12                | 14.4  | $f_{207}$                              | 1.6390±0.0025                | 0.07±0.02        | 2.83±0.16                | 9.0   |
| $f_{127}$                              | 7.5624±0.0020                | 0.10±0.03        | 1.25±0.12                | 14.4  | $f_{208}$                              | 2.8635±0.0025                | 0.07±0.02        | -0.62±0.15               | 9.1   |
| $f_{128}$                              | 1.0474±0.0020                | 0.09±0.02        | 1.43±0.12                | 14.0  | $f_{209}$                              | 2.6378±0.0025                | 0.07±0.02        | 2.31±0.15                | 9.1   |
| $f_{129}$                              | 12.5016±0.0021               | 0.11±0.03        | -2.42±0.13               | 13.6  | $f_{211}$                              | 9.8953±0.0025                | 0.07±0.02        | -0.95±0.15               | 9.1   |
| $f_{130}$                              | 8.5726±0.0021                | 0.08±0.02        | 2.28±0.13                | 13.3  | $f_{212}$                              | 9.1791±0.0026                | 0.06±0.02        | -2.01±0.16               | 8.9   |
| $f_{131}$                              | 8.4587±0.0021                | 0.08±0.02        | -3.10±0.13               | 13.1  | $f_{213}$                              | 6.4641±0.0026                | 0.07±0.02        | 1.50±0.16                | 8.7   |
| $f_{132}$                              | 2.4305±0.0021                | 0.09±0.03        | -0.27±0.13               | 12.7  | $f_{214}$                              | 0.3408±0.0026                | 0.05±0.02        | 1.80±0.16                | 8.7   |
| $f_{133}$                              | 6.7144±0.0021                | 0.09±0.03        | -0.65±0.13               | 12.7  | $f_{215}$                              | 8.6010±0.0026                | 0.06±0.02        | -2.06±0.16               | 8.5   |
| $f_{134}$                              | 13.6656±0.0021               | 0.08±0.02        | -2.55±0.13               | 12.7  | $f_{216}$                              | 12.5598±0.0026               | 0.07±0.02        | -2.89±0.16               | 8.8   |
| $f_{135}$                              | 1.3389±0.0022                | 0.10±0.03        | -2.02±0.13               | 12.2  | $f_{217}$                              | 6.2260±0.0026                | 0.06±0.02        | -1.04±0.16               | 8.4   |
| $f_{136}$                              | 1.3257±0.0021                | 0.09±0.03        | -0.60±0.13               | 12.7  | $f_{218}$                              | 9.8686±0.0026                | 0.06±0.02        | 1.37±0.16                | 8.6   |
| $f_{137}$                              | 0.6193±0.0021                | 0.08±0.02        | 1.60±0.13                | 12.7  | $f_{219}$                              | 0.6588±0.0027                | 0.06±0.02        | -1.90±0.16               | 8.2   |
| $f_{138}$                              | 10.6689±0.0022               | 0.09±0.03        | -0.23±0.13               | 12.4  | $f_{220}$                              | 13.5340±0.0027               | 0.06±0.02        | -0.00±0.16               | 8.1   |
| $f_{139}$                              | 3.5441±0.0021                | 0.09±0.03        | -3.09±0.13               | 12.7  | $f_{221}$                              | 11.5708±0.0026               | 0.06±0.02        | 1.64±0.16                | 8.5   |
| $f_{140}$                              | 4.8237±0.0021                | 0.09±0.03        | 2.25±0.13                | 12.8  | $f_{222}$                              | 5.7759±0.0027                | 0.07±0.02        | -3.14±0.16               | 8.1   |
| $f_{141}$                              | 0.1862±0.0022                | 0.07±0.02        | 1.84±0.13                | 12.3  | $f_{223}$                              | 11.6401±0.0027               | 0.06±0.02        | -0.26±0.16               | 8.0   |
| $f_{142}$                              | 1.8962±0.0022                | 0.09±0.03        | -1.51±0.13               | 12.3  | $f_{224}$                              | 1.4882±0.0026                | 0.06±0.02        | 1.19±0.16                | 8.4   |
| $f_{143}$                              | 1.8545±0.0020                | 0.09±0.02        | -0.05±0.12               | 14.0  | $f_{225}$                              | 0.8357±0.0027                | 0.07±0.02        | -0.54±0.16               | 8.2   |
| $f_{144}$                              | 0.2392±0.0022                | 0.07±0.02        | 1.48±0.13                | 12.3  | $f_{226}$                              | 0.1153±0.0026                | 0.09±0.03        | 1.04±0.16                | 8.3   |
| $f_{145}$                              | 0.8510±0.0022                | 0.09±0.03        | 0.78±0.13                | 12.6  | $f_{227}$                              | 0.2705±0.0026                | 0.07±0.02        | -0.67±0.16               | 8.4   |
| $f_{146}$                              | 4.3454±0.0022                | 0.08±0.02        | -1.71±0.13               | 12.0  | $f_{228}$                              | 6.5508±0.0026                | 0.06±0.02        | 2.57±0.16                | 8.3   |
| $f_{147}$                              | 8.9185±0.0022                | 0.09±0.03        | 2.87±0.13                | 12.0  | $f_{229}$                              | 0.1547±0.0026                | 0.08±0.03        | 0.91±0.16                | 8.3   |
| $f_{148}$                              | 4.1907±0.0022                | 0.09±0.03        | -1.84±0.13               | 12.1  | $f_{230}$                              | 0.1348±0.0025                | 0.08±0.03        | -2.46±0.15               | 9.7   |
| $f_{149}$                              | 8.2314±0.0022                | 0.09±0.03        | -1.80±0.13               | 12.3  | $f_{231}$                              | 1.0768±0.0027                | 0.06±0.02        | -0.71±0.16               | 8.2   |
| $f_{150}$                              | 1.6903±0.0022                | 0.09±0.03        | -2.57±0.13               | 12.0  | $f_{232}$                              | 9.1333±0.0027                | 0.06±0.02        | 1.27±0.16                | 8.0   |
| $f_{151}$                              | 7.5163±0.0022                | 0.08±0.02        | 1.44±0.13                | 12.6  | $f_{233}$                              | 1.9294±0.0027                | 0.07±0.02        | 0.34±0.16                | 8.2   |
| $f_{152}$                              | 12.5105±0.0022               | 0.08±0.02        | -0.82±0.14               | 11.8  | $f_{234}$                              | 11.7898±0.0027               | 0.06±0.02        | -2.85±0.16               | 8.1   |
| $f_{153}$                              | 9.4717±0.0022                | 0.09±0.03        | 0.32±0.14                | 11.8  | $f_{235}$                              | 13.9938±0.0027               | 0.06±0.02        | -1.95±0.16               | 8.0   |
| $f_{154}$                              | 3.4976±0.0022                | 0.08±0.02        | -2.08±0.13               | 12.5  | $f_{236}$                              | 2.7120±0.0027                | 0.05±0.02        | -1.97±0.17               | 7.8   |
| $f_{155}$                              | 0.1066±0.0022                | 0.06±0.02        | 0.32±0.14                | 11.6  | $f_{237}$                              | 10.4599±0.0027               | 0.06±0.02        | -1.52±0.17               | 7.9   |
| $f_{156}$                              | 6.1191±0.0022                | 0.08±0.02        | -0.30±0.14               | 11.7  | $f_{238}$                              | 15.3412±0.0027               | 0.06±0.02        | -1.61±0.17               | 7.8   |
| $f_{157}$                              | 13.2342±0.0022               | 0.09±0.03        | -0.48±0.14               | 11.6  | $f_{239}$                              | 0.4994±0.0027                | 0.05±0.02        | -1.81±0.17               | 7.9   |
| $f_{158}$                              | 9.9184±0.0022                | 0.09±0.03        | -1.55±0.13               | 12.0  | $f_{240}$                              | 7.7255±0.0027                | 0.06±0.02        | -2.61±0.16               | 8.0   |
| $f_{159}$                              | 0.3985±0.0022                | 0.09±0.03        | -0.05±0.14               | 11.9  | $f_{241}$                              | 12.0965±0.0028               | 0.06±0.02        | 1.78±0.17                | 7.7   |
| $f_{160}$                              | 0.3867±0.0021                | 0.09±0.02        | -1.96±0.13               | 13.3  | $f_{242}$                              | 2.1683±0.0028                | 0.06±0.02        | -1.22±0.17               | 7.5   |
| $f_{161}$                              | 1.6043±0.0022                | 0.08±0.02        | -0.10±0.13               | 12.1  | $f_{243}$                              | 2.8944±0.0028                | 0.06±0.02        | 3.14±0.17                | 7.6   |
| $f_{162}$                              | 3.1735±0.0022                | 0.08±0.02        | -2.95±0.14               | 11.6  | $f_{244}$                              | 4.6041±0.0028                | 0.06±0.02        | 1.95±0.17                | 7.5   |
| $f_{163}$                              | 8.5256±0.0022                | 0.07±0.02        | -1.26±0.14               | 11.6  | $f_{245}$                              | 0.9346±0.0027                | 0.06±0.02        | 0.33±0.17                | 7.9   |
| $f_{164}$                              | 9.1876±0.0022                | 0.08±0.02        | -2.02±0.14               | 11.6  | $f_{246}$                              | 11.3079±0.0028               | 0.07±0.03        | 1.58±0.17                | 7.5   |
| $f_{166}$                              | 2.2205±0.0023                | 0.07±0.02        | 2.63±0.14                | 11.4  | $f_{247}$                              | 11.3416±0.0027               | 0.06±0.02        | 1.70±0.16                | 8.0   |
| $f_{167}$                              | 1.6720±0.0023                | 0.07±0.02        | 0.07±0.14                | 11.2  | $f_{248}$                              | 6.8826±0.0028                | 0.06±0.02        | -0.02±0.17               | 7.4   |
| $f_{168}$                              | 8.8694±0.0023                | 0.09±0.03        | 1.28±0.14                | 11.1  | $f_{249}$                              | 1.0190±0.0028                | 0.06±0.02        | -0.18±0.17               | 7.4   |
| $f_{169}$                              | 4.1189±0.0023                | 0.08±0.02        | 0.15±0.14                | 11.1  | $f_{250}$                              | 0.8270±0.0028                | 0.06±0.02        | 2.23±0.17                | 7.4   |
| $f_{170}$                              | 14.2820±0.0023               | 0.09±0.03        | 2.55±0.14                | 11.1  | $f_{251}$                              | 1.3660±0.0028                | 0.06±0.02        | -0.49±0.17               | 7.7   |
| $f_{171}$                              | 9.4016±0.0023                | 0.07±0.02        | -1.59±0.14               | 10.8  | $f_{252}$                              | 7.4470±0.0028                | 0.06±0.02        | -1.31±0.17               | 7.3   |
| $f_{172}$                              | 1.2472±0.0023                | 0.07±0.02        | 0.27±0.14                | 10.9  | $f_{253}$                              | 2.0332±0.0028                | 0.05±0.02        | 0.03±0.17                | 7.3   |
| $f_{173}$                              | 14.6078±0.0023               | 0.08±0.02        | -0.47±0.14               | 11.2  | $f_{254}$                              | 0.3597±0.0028                | 0.06±0.02        | 1.64±0.17                | 7.3   |
| $f_{174}$                              | 11.5853±0.0023               | 0.07±0.02        | 2.12±0.14                | 10.6  | $f_{255}$                              | 0.4292±0.0028                | 0.06±0.02        | -0.29±0.17               | 7.4   |
| $f_{175}$                              | 10.2167±0.0023               | 0.08±0.02        | 3.09±0.14                | 11.1  | $f_{265}$                              | 2.9352±0.0028                | 0.07±0.03        | -2.22±0.17               | 7.6   |
| $f_{176}$                              | 12.6770±0.0024               | 0.08±0.02        | -1.31±0.14               | 10.4  | $f_{266}$                              | 8.4531±0.0028                | 0.06±0.02        | -0.35±0.17               | 7.4   |
| $f_{177}$                              | 8.6760±0.0024                | 0.08±0.03        | -1.36±0.15               | 10.1  | $f_{267}$                              | 3.1429±0.0028                | 0.06±0.02        | 1.85±0.17                | 7.3   |
| $f_{179}$                              | 1.4448±0.0024                | 0.07±0.02        | -2.52±0.15               | 10.1  | $f_{268}$                              | 16.4294±0.0028               | 0.06±0.02        | -1.77±0.17               | 7.3   |
| $f_{180}$                              | 0.4684±0.0024                | 0.06±0.02        | 1.89±0.15                | 10.1  | $f_{269}$                              | 0.5428±0.0028                | 0.06±0.02        | 1.13±0.17                | 7.4   |
| $f_{181}$                              | 6.8539±0.0024                | 0.07±0.02        | -2.54±0.15               | 9.8   | $f_{270}$                              | 0.1790±0.0028                | 0.06±0.02        | -2.32±0.17               | 7.2   |
| $f_{183}$                              | 3.4531±0.0025                | 0.07±0.02        | -1.62±0.15               | 9.7   | $f_{271}$                              | 10.1430±0.0029               | 0.05±0.02        | 2.79±0.17                | 7.1   |
| $f_{184}$                              | 5.8511±0.0024                | 0.08±0.03        | 0.07±0.15                | 9.8   | $f_{272}$                              | 11.6970±0.0029               | 0.06±0.02        | 2.87±0.18                | 7.0   |
| $f_{185}$                              | 7.4385±0.0024                | 0.08±0.03        | -0.98±0.15               | 10.1  | $f_{273}$                              | 2.1551±0.0029                | 0.06±0.02        | -2.16±0.18               | 7.0   |
| $f_{186}$                              | 0.2944±0.0025                | 0.09±0.03        | 1.37±0.15                | 9.6   | $f_{274}$                              | 0.9674±0.0029                | 0.06±0.02        | 1.85±0.18                | 6.9   |
| $f_{188}$                              | 2.0048±0.0025                | 0.13±0.04        | 1.71±0.15                | 9.5   | $f_{275}$                              | 10.0002±0.0029               | 0.06±0.02        | -2.10±0.17               | 7.1   |
| $f_{190}$                              | 1.1642±0.0025                | 0.09±0.03        | 3.10±0.15                | 9.3   | $f_{276}$                              | 9.1957±0.0029                | 0.06±0.02        | 0.93±0.18                | 7.0   |
| $f_{191}$                              | 13.1338±0.0025               | 0.07±0.02        | 0.93±0.15                | 9.5   | $f_{277}$                              | 15.6324±0.0029               | 0.06±0.02        | 0.15±0.18                | 6.9   |
| $f_{192}$                              | 3.2150±0.0025                | 0.08±0.03        | -1.75±0.15               | 9.6   | $f_{278}$                              | 4.0118±0.0029                | 0.05±0.02        | 1.04±0.17                | 7.1   |
| $f_{193}$                              | 3.2329±0.0023                | 0.08±0.02        | 3.07±0.14                | 11.3  | $f_{279}$                              | 7.4901±0.0029                | 0.06±0.02        | -2.62±0.18               | 6.9   |
| $f_{194}$                              | 12.2486±0.0025               | 0.07±0.02        | 2.97±0.15                | 9.2   | $f_{280}$                              | 8.5460±0.0029                | 0.06±0.02        | 2.10±0.18                | 6.7   |
| $f_{195}$                              | 10.2939±0.0025               | 0.07±0.02        | -3.12±0.15               | 9.2   | $f_{281}$                              | 1.6529±0.0030                | 0.06±0.02        | 1.80±0.18                | 6.6   |
| $f_{196}$                              | 6.6491±0.0025                | 0.06±0.02        | 0.09±0.15                | 9.6   | $f_{282}$                              | 1.5897±0.0028                | 0.06±0.02        | -2.93±0.17               | 7.3   |
| $f_{197}$                              | 1.1767±0.0025                | 0.08±0.03        | -1.52±0.15               | 9.2   | $f_{283}$                              | 8.6877±0.0029                | 0.06±0.02        | 0.45±0.18                | 6.8   |
| $f_{198}$                              | 0.5504±0.0025                | 0.07±0.02        | 0.21±0.15                | 9.3   | $f_{284}$                              | 9.4147±0.0030                | 0.06±0.02        | -2.11±0.18               | 6.5   |
| Frequency list of 0102750600 continued |                              |                  |                          |       | Frequency list of 0102750600 continued |                              |                  |                          |       |

## Appendix D. Frequencies of individual Hybrid Stars

| Frequency list of 0102750600 continued |                              |                  |                          |       | Frequency list of 0102750600 continued                    |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|-----------------------------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                                              | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| <i>f</i> <sub>285</sub>                | 13.1772±0.0030               | 0.05±0.02        | -1.37±0.18               | 6.6   | <b>Table D.49: Frequency list of 0102752241</b>           |                              |                  |                          |       |
| <i>f</i> <sub>286</sub>                | 5.1208±0.0030                | 0.05±0.02        | 2.70±0.18                | 6.5   |                                                           |                              |                  |                          |       |
| <i>f</i> <sub>287</sub>                | 5.0752±0.0030                | 0.05±0.02        | 1.62±0.18                | 6.6   | <b>Table D.50: Frequency list of 0102753221</b>           |                              |                  |                          |       |
| <i>f</i> <sub>288</sub>                | 10.2749±0.0030               | 0.05±0.02        | -1.09±0.18               | 6.4   |                                                           |                              |                  |                          |       |
| <i>f</i> <sub>289</sub>                | 10.0352±0.0030               | 0.05±0.02        | -2.64±0.18               | 6.4   | <b>Table D.51: Frequency list of 0102753221 continued</b> |                              |                  |                          |       |
| <i>f</i> <sub>290</sub>                | 2.7190±0.0030                | 0.05±0.02        | -1.80±0.19               | 6.3   |                                                           |                              |                  |                          |       |
| <i>f</i> <sub>291</sub>                | 7.0228±0.0030                | 0.05±0.02        | 2.81±0.19                | 6.3   | <b>Table D.52: Frequency list of 0102753221 continued</b> |                              |                  |                          |       |
| <i>f</i> <sub>292</sub>                | 0.4571±0.0030                | 0.06±0.02        | -1.42±0.19               | 6.3   |                                                           |                              |                  |                          |       |
| <i>f</i> <sub>293</sub>                | 11.2367±0.0031               | 0.05±0.02        | 1.56±0.19                | 6.2   | <b>Table D.53: Frequency list of 0102753221 continued</b> |                              |                  |                          |       |
| <i>f</i> <sub>294</sub>                | 6.4244±0.0031                | 0.05±0.02        | -0.72±0.19               | 6.1   |                                                           |                              |                  |                          |       |
| <i>f</i> <sub>295</sub>                | 11.7657±0.0032               | 0.05±0.02        | 2.99±0.19                | 5.8   | <b>Table D.54: Frequency list of 0102753221 continued</b> |                              |                  |                          |       |
| <i>f</i> <sub>296</sub>                | 9.1040±0.0031                | 0.05±0.02        | 1.84±0.19                | 5.9   |                                                           |                              |                  |                          |       |
| <i>f</i> <sub>297</sub>                | 8.9958±0.0030                | 0.05±0.02        | -0.24±0.19               | 6.3   | <b>Table D.55: Frequency list of 0102753221 continued</b> |                              |                  |                          |       |
| <i>f</i> <sub>298</sub>                | 5.3027±0.0031                | 0.06±0.02        | 1.88±0.19                | 6.1   |                                                           |                              |                  |                          |       |
| <i>f</i> <sub>299</sub>                | 5.3094±0.0031                | 0.05±0.02        | 0.72±0.19                | 6.1   | <b>Table D.56: Frequency list of 0102753221 continued</b> |                              |                  |                          |       |
| <i>f</i> <sub>300</sub>                | 1.2838±0.0032                | 0.05±0.02        | -1.37±0.19               | 5.8   |                                                           |                              |                  |                          |       |
| <i>f</i> <sub>301</sub>                | 1.1068±0.0032                | 0.06±0.03        | -2.76±0.20               | 5.7   | <b>Table D.57: Frequency list of 0102753221 continued</b> |                              |                  |                          |       |
| <i>f</i> <sub>302</sub>                | 1.0891±0.0030                | 0.05±0.02        | 2.05±0.18                | 6.6   |                                                           |                              |                  |                          |       |
| <i>f</i> <sub>303</sub>                | 1.9394±0.0032                | 0.05±0.02        | -3.09±0.20               | 5.7   | <b>Table D.58: Frequency list of 0102753221 continued</b> |                              |                  |                          |       |
| <i>f</i> <sub>304</sub>                | 10.7977±0.0032               | 0.05±0.02        | 2.90±0.20                | 5.7   |                                                           |                              |                  |                          |       |
| <i>f</i> <sub>305</sub>                | 0.9611±0.0031                | 0.05±0.02        | -2.15±0.19               | 6.0   | <b>Table D.59: Frequency list of 0102753221 continued</b> |                              |                  |                          |       |
| <i>f</i> <sub>306</sub>                | 14.2717±0.0032               | 0.05±0.02        | 0.43±0.20                | 5.7   |                                                           |                              |                  |                          |       |
| <i>f</i> <sub>307</sub>                | 7.9102±0.0031                | 0.05±0.02        | -0.90±0.19               | 5.9   | <b>Table D.60: Frequency list of 0102753221 continued</b> |                              |                  |                          |       |
| <i>f</i> <sub>308</sub>                | 0.6825±0.0032                | 0.05±0.02        | -2.60±0.20               | 5.7   |                                                           |                              |                  |                          |       |
| <i>f</i> <sub>309</sub>                | 5.8912±0.0032                | 0.05±0.02        | 0.04±0.20                | 5.7   | <b>Table D.61: Frequency list of 0102753221 continued</b> |                              |                  |                          |       |
| <i>f</i> <sub>310</sub>                | 5.9969±0.0031                | 0.05±0.02        | -1.93±0.19               | 5.9   |                                                           |                              |                  |                          |       |
| <i>f</i> <sub>311</sub>                | 2.9442±0.0032                | 0.05±0.02        | -1.40±0.20               | 5.7   | <b>Table D.62: Frequency list of 0102753221 continued</b> |                              |                  |                          |       |
| <i>f</i> <sub>312</sub>                | 14.7017±0.0032               | 0.05±0.02        | -0.46±0.20               | 5.6   |                                                           |                              |                  |                          |       |
| <i>f</i> <sub>313</sub>                | 15.0720±0.0032               | 0.05±0.02        | 2.56±0.19                | 5.8   | <b>Table D.63: Frequency list of 0102753221 continued</b> |                              |                  |                          |       |
| <i>f</i> <sub>314</sub>                | 9.7779±0.0032                | 0.05±0.02        | 0.03±0.20                | 5.7   |                                                           |                              |                  |                          |       |
| <i>f</i> <sub>315</sub>                | 7.3020±0.0032                | 0.05±0.02        | -0.89±0.20               | 5.7   | <b>Table D.64: Frequency list of 0102753221 continued</b> |                              |                  |                          |       |
| <i>f</i> <sub>316</sub>                | 13.7887±0.0032               | 0.05±0.02        | -2.79±0.20               | 5.6   |                                                           |                              |                  |                          |       |
| <i>f</i> <sub>317</sub>                | 14.4283±0.0032               | 0.05±0.02        | -0.58±0.20               | 5.6   | <b>Table D.65: Frequency list of 0102753221 continued</b> |                              |                  |                          |       |
| <i>f</i> <sub>318</sub>                | 5.4278±0.0032                | 0.05±0.02        | -2.65±0.20               | 5.6   |                                                           |                              |                  |                          |       |
| <i>f</i> <sub>319</sub>                | 3.5088±0.0033                | 0.05±0.02        | -0.69±0.20               | 5.5   | <b>Table D.66: Frequency list of 0102753221 continued</b> |                              |                  |                          |       |
| <i>f</i> <sub>320</sub>                | 2.7034±0.0032                | 0.05±0.02        | -1.52±0.20               | 5.6   |                                                           |                              |                  |                          |       |
| <i>f</i> <sub>321</sub>                | 11.2031±0.0033               | 0.05±0.02        | -0.39±0.20               | 5.4   | <b>Table D.67: Frequency list of 0102753221 continued</b> |                              |                  |                          |       |
| <i>f</i> <sub>322</sub>                | 5.6777±0.0033                | 0.05±0.02        | 2.93±0.20                | 5.5   |                                                           |                              |                  |                          |       |
| <i>f</i> <sub>323</sub>                | 6.0521±0.0032                | 0.05±0.02        | 0.46±0.19                | 5.8   | <b>Table D.68: Frequency list of 0102753221 continued</b> |                              |                  |                          |       |
| <i>f</i> <sub>325</sub>                | 9.6136±0.0033                | 0.05±0.02        | -2.73±0.20               | 5.4   |                                                           |                              |                  |                          |       |
| <i>f</i> <sub>326</sub>                | 9.5444±0.0033                | 0.05±0.02        | -0.83±0.20               | 5.3   | <b>Table D.69: Frequency list of 0102753221 continued</b> |                              |                  |                          |       |
| <i>f</i> <sub>327</sub>                | 1.9734±0.0033                | 0.05±0.02        | -1.84±0.20               | 5.3   |                                                           |                              |                  |                          |       |
| <i>f</i> <sub>328</sub>                | 12.2780±0.0033               | 0.05±0.02        | -0.65±0.20               | 5.4   | <b>Table D.70: Frequency list of 0102753221 continued</b> |                              |                  |                          |       |
| <i>f</i> <sub>329</sub>                | 11.3298±0.0033               | 0.05±0.02        | -2.12±0.20               | 5.3   |                                                           |                              |                  |                          |       |
| <i>f</i> <sub>330</sub>                | 10.8585±0.0033               | 0.05±0.02        | -0.86±0.20               | 5.3   | <b>Table D.71: Frequency list of 0102753221 continued</b> |                              |                  |                          |       |
| <i>f</i> <sub>331</sub>                | 0.5136±0.0033                | 0.05±0.02        | -1.85±0.20               | 5.3   |                                                           |                              |                  |                          |       |
| <i>f</i> <sub>332</sub>                | 0.6513±0.0033                | 0.05±0.02        | -0.14±0.20               | 5.5   | <b>Table D.72: Frequency list of 0102753221 continued</b> |                              |                  |                          |       |
| <i>f</i> <sub>333</sub>                | 0.7746±0.0033                | 0.05±0.02        | 2.68±0.20                | 5.5   |                                                           |                              |                  |                          |       |
| <i>f</i> <sub>334</sub>                | 6.5436±0.0033                | 0.04±0.02        | -1.28±0.20               | 5.2   | <b>Table D.73: Frequency list of 0102753221 continued</b> |                              |                  |                          |       |
| <i>f</i> <sub>335</sub>                | 9.7217±0.0033                | 0.05±0.02        | 2.80±0.20                | 5.2   |                                                           |                              |                  |                          |       |
| <i>f</i> <sub>336</sub>                | 10.7038±0.0033               | 0.05±0.02        | 1.08±0.20                | 5.4   | <b>Table D.74: Frequency list of 0102753221 continued</b> |                              |                  |                          |       |
| <i>f</i> <sub>337</sub>                | 2.2409±0.0033                | 0.05±0.02        | 0.82±0.20                | 5.3   |                                                           |                              |                  |                          |       |
| <i>f</i> <sub>338</sub>                | 9.7088±0.0033                | 0.05±0.02        | -0.46±0.20               | 5.2   | <b>Table D.75: Frequency list of 0102753221 continued</b> |                              |                  |                          |       |
| <i>f</i> <sub>339</sub>                | 2.5313±0.0033                | 0.05±0.02        | 0.45±0.20                | 5.2   |                                                           |                              |                  |                          |       |
| <i>f</i> <sub>340</sub>                | 15.4494±0.0033               | 0.05±0.02        | -1.35±0.20               | 5.2   | <b>Table D.76: Frequency list of 0102753221 continued</b> |                              |                  |                          |       |
| <i>f</i> <sub>341</sub>                | 6.6600±0.0033                | 0.05±0.02        | 1.90±0.20                | 5.2   |                                                           |                              |                  |                          |       |
| <i>f</i> <sub>345</sub>                | 4.9520±0.0033                | 0.05±0.02        | 1.53±0.20                | 5.2   | <b>Table D.77: Frequency list of 0102753221 continued</b> |                              |                  |                          |       |
| <i>f</i> <sub>346</sub>                | 4.1973±0.0033                | 0.05±0.02        | -1.11±0.20               | 5.2   |                                                           |                              |                  |                          |       |
| <i>f</i> <sub>347</sub>                | 11.3766±0.0033               | 0.05±0.02        | -1.86±0.20               | 5.3   | <b>Table D.78: Frequency list of 0102753221 continued</b> |                              |                  |                          |       |
| <i>f</i> <sub>348</sub>                | 12.4824±0.0034               | 0.05±0.02        | 2.41±0.21                | 5.1   |                                                           |                              |                  |                          |       |
| <i>f</i> <sub>349</sub>                | 12.0467±0.0034               | 0.05±0.02        | -2.84±0.21               | 5.1   | <b>Table D.79: Frequency list of 0102753221 continued</b> |                              |                  |                          |       |
| <i>f</i> <sub>350</sub>                | 8.1796±0.0033                | 0.05±0.02        | 2.62±0.20                | 5.2   |                                                           |                              |                  |                          |       |
| <i>f</i> <sub>351</sub>                | 6.1351±0.0034                | 0.05±0.02        | 0.49±0.21                | 5.1   | <b>Table D.80: Frequency list of 0102753221 continued</b> |                              |                  |                          |       |
| <i>f</i> <sub>352</sub>                | 13.2411±0.0034               | 0.05±0.02        | 2.38±0.21                | 5.1   |                                                           |                              |                  |                          |       |
| <i>f</i> <sub>353</sub>                | 1.8833±0.0033                | 0.05±0.02        | -1.67±0.20               | 5.2   | <b>Table D.81: Frequency list of 0102753221 continued</b> |                              |                  |                          |       |
| <i>f</i> <sub>354</sub>                | 2.0121±0.0033                | 0.05±0.02        | 2.96±0.20                | 5.2   |                                                           |                              |                  |                          |       |
| <i>f</i> <sub>355</sub>                | 1.1519±0.0033                | 0.05±0.02        | 2.10±0.20                | 5.2   | <b>Table D.82: Frequency list of 0102753221 continued</b> |                              |                  |                          |       |
| <i>f</i> <sub>356</sub>                | 1.2235±0.0033                | 0.05±0.02        | 1.53±0.20                | 5.3   |                                                           |                              |                  |                          |       |
| <i>f</i> <sub>357</sub>                | 1.5250±0.0033                | 0.05±0.02        | 1.65±0.20                | 5.2   | <b>Table D.83: Frequency list of 0102753221 continued</b> |                              |                  |                          |       |
| <i>f</i> <sub>358</sub>                | 14.9004±0.0033               | 0.04±0.02        | -1.58±0.20               | 5.3   |                                                           |                              |                  |                          |       |
| <i>f</i> <sub>359</sub>                | 2.3954±0.0033                | 0.05±0.02        | 2.02±0.20                | 5.3   | <b>Table D.84: Frequency list of 0102753221 continued</b> |                              |                  |                          |       |
| <i>f</i> <sub>360</sub>                | 7.6205±0.0034                | 0.05±0.02        | 1.18±0.21                | 5.1   |                                                           |                              |                  |                          |       |
| <i>f</i> <sub>361</sub>                | 5.9199±0.0034                | 0.04±0.02        | -2.88±0.21               | 5.1   | <b>Table D.85: Frequency list of 0102753221 continued</b> |                              |                  |                          |       |
| <i>f</i> <sub>362</sub>                | 2.8346±0.0033                | 0.05±0.02        | -2.17±0.20               | 5.2   |                                                           |                              |                  |                          |       |
| <i>f</i> <sub>363</sub>                | 7.6038±0.0033                | 0.05±0.02        | 1.31±0.20                | 5.3   | <b>Table D.86: Frequency list of 0102753221 continued</b> |                              |                  |                          |       |
| <i>f</i> <sub>364</sub>                | 12.5756±0.0034               | 0.04±0.02        | 2.73±0.21                | 5.1   |                                                           |                              |                  |                          |       |
| Frequency list of 0102750600 continued |                              |                  |                          |       | Frequency list of 0102750600 continued                    |                              |                  |                          |       |
| Frequency list of 0102750600 continued |                              |                  |                          |       | Frequency list of 0102750600 continued                    |                              |                  |                          |       |
| Frequency list of 0102750600 continued |                              |                  |                          |       | Frequency list of 0102750600 continued                    |                              |                  |                          |       |
| Frequency list of 0102750600 continued |                              |                  |                          |       | Frequency list of 0102750600 continued                    |                              |                  |                          |       |
| Frequency list of 0102750600 continued |                              |                  |                          |       | Frequency list of 0102750600 continued                    |                              |                  |                          |       |
| Frequency list of 0102750600 continued |                              |                  |                          |       | Frequency list of 0102750600 continued                    |                              |                  |                          |       |
| Frequency list of 0102750600 continued |                              |                  |                          |       | Frequency list of 0102750600 continued                    |                              |                  |                          |       |
| Frequency list of 0102750600 continued |                              |                  |                          |       | Frequency list of 0102750600 continued                    |                              |                  |                          |       |
| Frequency list of 0102750600 continued |                              |                  |                          |       | Frequency list of 0102750600 continued                    |                              |                  |                          |       |
| Frequency list of 0102750600 continued |                              |                  |                          |       | Frequency list of 0102750600 continued                    |                              |                  |                          |       |
| Frequency list of 0102750600 continued |                              |                  |                          |       | Frequency list of 0102750600 continued                    |                              |                  |                          |       |
| Frequency list of 0102750600 continued |                              |                  |                          |       | Frequency list of 0102750600 continued                    |                              |                  |                          |       |
| Frequency list of 0102750600 continued |                              |                  |                          |       | Frequency list of 0102750600 continued                    |                              |                  |                          |       |

## Appendix D. Frequencies of individual Hybrid Stars

| Frequency list of 0102753221 continued |                              |                  |                          |       | Frequency list of 0102753221 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{16}$                               | 0.2104±0.0016                | 0.22±0.05        | 1.22±0.10                | 22.4  | $f_{94}$                               | 3.4209±0.0032                | 0.09±0.04        | -2.15±0.20               | 5.6   |
| $f_{17}$                               | 1.3191±0.0016                | 0.19±0.04        | -0.46±0.10               | 22.1  | $f_{95}$                               | 14.7667±0.0033               | 0.09±0.04        | 1.45±0.20                | 5.5   |
| $f_{18}$                               | 21.6920±0.0017               | 0.19±0.04        | -1.86±0.10               | 20.5  | $f_{96}$                               | 8.3883±0.0033                | 0.09±0.04        | 1.06±0.20                | 5.4   |
| $f_{19}$                               | 16.7423±0.0017               | 0.19±0.04        | 2.08±0.10                | 20.4  | $f_{97}$                               | 2.4169±0.0033                | 0.09±0.04        | 0.17±0.20                | 5.4   |
| $f_{20}$                               | 30.6029±0.0017               | 0.18±0.04        | 0.36±0.10                | 20.5  | $f_{98}$                               | 0.8551±0.0033                | 0.09±0.04        | -1.91±0.20               | 5.5   |
| $f_{21}$                               | 0.1803±0.0017                | 0.17±0.04        | 2.88±0.10                | 19.7  | $f_{99}$                               | 0.9743±0.0033                | 0.09±0.04        | 1.95±0.20                | 5.5   |
| $f_{22}$                               | 2.6272±0.0018                | 0.18±0.04        | -1.66±0.11               | 18.8  | $f_{100}$                              | 6.8876±0.0033                | 0.09±0.04        | 1.54±0.20                | 5.3   |
| $f_{23}$                               | 0.5424±0.0018                | 0.14±0.03        | -2.99±0.11               | 17.9  | $f_{101}$                              | 20.5709±0.0033               | 0.09±0.04        | -0.80±0.20               | 5.3   |
| $f_{24}$                               | 25.0160±0.0018               | 0.18±0.04        | 0.18±0.11                | 17.9  | $f_{102}$                              | 3.5689±0.0033                | 0.09±0.04        | -0.06±0.20               | 5.4   |
| $f_{25}$                               | 0.1963±0.0019                | 0.18±0.04        | 0.93±0.11                | 17.0  | $f_{103}$                              | 0.3745±0.0033                | 0.09±0.04        | -1.72±0.20               | 5.3   |
| $f_{26}$                               | 0.4034±0.0019                | 0.16±0.04        | -2.89±0.11               | 16.6  | $f_{104}$                              | 1.1389±0.0034                | 0.09±0.04        | 2.06±0.21                | 5.0   |
| $f_{27}$                               | 0.2515±0.0019                | 0.13±0.03        | -1.93±0.12               | 16.4  | $f_{105}$                              | 1.5067±0.0034                | 0.09±0.04        | -1.35±0.21               | 5.1   |
| $f_{28}$                               | 0.1876±0.0019                | 0.14±0.03        | 0.29±0.12                | 16.3  | $f_{106}$                              | 2.4663±0.0034                | 0.09±0.04        | -2.57±0.21               | 5.1   |
| $f_{30}$                               | 18.7766±0.0019               | 0.16±0.04        | 2.62±0.12                | 15.9  | $f_{107}$                              | 1.5567±0.0033                | 0.09±0.04        | -1.27±0.20               | 5.3   |
| $f_{31}$                               | 2.4549±0.0019                | 0.15±0.04        | -0.48±0.12               | 15.6  | $f_{108}$                              | 0.4361±0.0034                | 0.09±0.04        | 3.01±0.21                | 5.0   |
| $f_{32}$                               | 1.2352±0.0020                | 0.13±0.03        | 2.50±0.12                | 14.6  | $f_{109}$                              | 0.2420±0.0034                | 0.09±0.04        | 1.46±0.21                | 5.1   |
| $f_{33}$                               | 2.8604±0.0021                | 0.16±0.04        | 0.37±0.13                | 13.8  | $f_{110}$                              | 10.3899±0.0033               | 0.08±0.04        | 2.60±0.20                | 5.2   |
| $f_{34}$                               | 0.4426±0.0022                | 0.14±0.04        | 3.01±0.13                | 12.6  |                                        |                              |                  |                          |       |
| $f_{35}$                               | 0.4112±0.0021                | 0.15±0.04        | 1.36±0.13                | 13.6  |                                        |                              |                  |                          |       |
| $f_{36}$                               | 0.2982±0.0021                | 0.20±0.06        | -1.32±0.13               | 12.8  |                                        |                              |                  |                          |       |
| $f_{37}$                               | 0.3288±0.0022                | 0.15±0.04        | -1.96±0.13               | 12.1  |                                        |                              |                  |                          |       |
| $f_{38}$                               | 1.1485±0.0023                | 0.12±0.04        | -1.30±0.14               | 11.4  |                                        |                              |                  |                          |       |
| $f_{39}$                               | 0.5994±0.0023                | 0.15±0.05        | -2.74±0.14               | 11.0  |                                        |                              |                  |                          |       |
| $f_{40}$                               | 4.0642±0.0023                | 0.14±0.04        | 2.53±0.14                | 11.0  |                                        |                              |                  |                          |       |
| $f_{41}$                               | 7.9924±0.0023                | 0.13±0.04        | 1.75±0.14                | 10.9  |                                        |                              |                  |                          |       |
| $f_{42}$                               | 0.9835±0.0023                | 0.12±0.04        | -2.51±0.14               | 10.6  |                                        |                              |                  |                          |       |
| $f_{43}$                               | 11.3093±0.0023               | 0.13±0.04        | 0.70±0.14                | 10.6  |                                        |                              |                  |                          |       |
| $f_{44}$                               | 6.1489±0.0023                | 0.13±0.04        | -1.25±0.14               | 10.9  |                                        |                              |                  |                          |       |
| $f_{45}$                               | 0.6242±0.0024                | 0.14±0.04        | -1.20±0.14               | 10.5  |                                        |                              |                  |                          |       |
| $f_{46}$                               | 0.5352±0.0023                | 0.14±0.04        | -1.42±0.14               | 11.4  |                                        |                              |                  |                          |       |
| $f_{47}$                               | 0.3667±0.0024                | 0.13±0.04        | 0.26±0.15                | 10.2  |                                        |                              |                  |                          |       |
| $f_{48}$                               | 0.1665±0.0024                | 0.12±0.04        | 1.80±0.15                | 10.2  |                                        |                              |                  |                          |       |
| $f_{49}$                               | 0.1433±0.0024                | 0.14±0.04        | -1.43±0.14               | 10.4  |                                        |                              |                  |                          |       |
| $f_{50}$                               | 1.8527±0.0024                | 0.12±0.04        | -0.86±0.15               | 10.2  |                                        |                              |                  |                          |       |
| $f_{51}$                               | 0.8121±0.0024                | 0.14±0.04        | 1.45±0.15                | 9.9   |                                        |                              |                  |                          |       |
| $f_{52}$                               | 0.3576±0.0024                | 0.10±0.03        | 1.84±0.15                | 9.8   |                                        |                              |                  |                          |       |
| $f_{53}$                               | 0.3084±0.0024                | 0.14±0.04        | 2.16±0.15                | 10.1  |                                        |                              |                  |                          |       |
| $f_{54}$                               | 10.3252±0.0024               | 0.12±0.04        | 2.33±0.15                | 10.3  |                                        |                              |                  |                          |       |
| $f_{55}$                               | 1.3038±0.0024                | 0.12±0.04        | 1.34±0.15                | 10.0  |                                        |                              |                  |                          |       |
| $f_{56}$                               | 0.6505±0.0025                | 0.12±0.04        | 0.94±0.16                | 9.0   |                                        |                              |                  |                          |       |
| $f_{57}$                               | 0.9360±0.0025                | 0.09±0.03        | -0.60±0.15               | 9.1   |                                        |                              |                  |                          |       |
| $f_{58}$                               | 0.6305±0.0025                | 0.12±0.04        | -3.00±0.15               | 9.2   |                                        |                              |                  |                          |       |
| $f_{59}$                               | 1.1782±0.0025                | 0.11±0.04        | 3.10±0.15                | 9.2   |                                        |                              |                  |                          |       |
| $f_{60}$                               | 8.5004±0.0026                | 0.12±0.04        | -1.19±0.16               | 8.6   |                                        |                              |                  |                          |       |
| $f_{61}$                               | 0.4848±0.0026                | 0.11±0.04        | 0.34±0.16                | 8.3   |                                        |                              |                  |                          |       |
| $f_{62}$                               | 8.2371±0.0026                | 0.11±0.04        | -2.81±0.16               | 8.4   |                                        |                              |                  |                          |       |
| $f_{63}$                               | 0.9186±0.0027                | 0.09±0.03        | -2.11±0.17               | 7.9   |                                        |                              |                  |                          |       |
| $f_{64}$                               | 0.5589±0.0028                | 0.11±0.04        | -0.48±0.17               | 7.7   |                                        |                              |                  |                          |       |
| $f_{65}$                               | 28.5196±0.0027               | 0.11±0.04        | -2.45±0.17               | 7.8   |                                        |                              |                  |                          |       |
| $f_{66}$                               | 1.0983±0.0028                | 0.11±0.04        | 0.42±0.17                | 7.7   |                                        |                              |                  |                          |       |
| $f_{67}$                               | 2.7500±0.0029                | 0.11±0.04        | -1.90±0.17               | 7.1   |                                        |                              |                  |                          |       |
| $f_{68}$                               | 0.9026±0.0028                | 0.11±0.04        | 1.77±0.17                | 7.4   |                                        |                              |                  |                          |       |
| $f_{69}$                               | 4.7739±0.0028                | 0.11±0.04        | -1.49±0.17               | 7.2   |                                        |                              |                  |                          |       |
| $f_{70}$                               | 2.6971±0.0029                | 0.11±0.04        | -0.43±0.18               | 7.0   |                                        |                              |                  |                          |       |
| $f_{71}$                               | 9.2161±0.0029                | 0.10±0.04        | -1.22±0.18               | 6.9   |                                        |                              |                  |                          |       |
| $f_{72}$                               | 0.7630±0.0029                | 0.11±0.04        | -0.54±0.18               | 6.8   |                                        |                              |                  |                          |       |
| $f_{73}$                               | 0.7124±0.0029                | 0.12±0.05        | 0.72±0.18                | 7.0   |                                        |                              |                  |                          |       |
| $f_{75}$                               | 0.9986±0.0029                | 0.10±0.04        | 2.86±0.17                | 7.1   |                                        |                              |                  |                          |       |
| $f_{76}$                               | 1.3117±0.0030                | 0.10±0.04        | 2.99±0.18                | 6.6   |                                        |                              |                  |                          |       |
| $f_{77}$                               | 0.6934±0.0029                | 0.11±0.04        | 0.90±0.18                | 7.0   |                                        |                              |                  |                          |       |
| $f_{78}$                               | 0.2257±0.0030                | 0.11±0.04        | -0.35±0.18               | 6.6   |                                        |                              |                  |                          |       |
| $f_{79}$                               | 0.2704±0.0029                | 0.10±0.04        | -2.84±0.17               | 7.1   |                                        |                              |                  |                          |       |
| $f_{80}$                               | 0.8365±0.0030                | 0.10±0.04        | 1.07±0.18                | 6.4   |                                        |                              |                  |                          |       |
| $f_{81}$                               | 1.5988±0.0030                | 0.09±0.04        | -3.09±0.18               | 6.5   |                                        |                              |                  |                          |       |
| $f_{82}$                               | 11.8919±0.0030               | 0.09±0.04        | -1.14±0.18               | 6.5   |                                        |                              |                  |                          |       |
| $f_{83}$                               | 2.1190±0.0030                | 0.09±0.04        | -1.96±0.19               | 6.3   |                                        |                              |                  |                          |       |
| $f_{84}$                               | 2.2925±0.0030                | 0.10±0.04        | 2.12±0.18                | 6.5   |                                        |                              |                  |                          |       |
| $f_{85}$                               | 9.6216±0.0030                | 0.09±0.04        | -1.46±0.18               | 6.4   |                                        |                              |                  |                          |       |
| $f_{86}$                               | 1.0334±0.0030                | 0.08±0.03        | 2.89±0.19                | 6.3   |                                        |                              |                  |                          |       |
| $f_{87}$                               | 9.4772±0.0031                | 0.09±0.04        | -1.48±0.19               | 6.2   |                                        |                              |                  |                          |       |
| $f_{88}$                               | 10.4944±0.0030               | 0.09±0.04        | -1.28±0.19               | 6.3   |                                        |                              |                  |                          |       |
| $f_{89}$                               | 0.5268±0.0031                | 0.09±0.04        | -0.76±0.19               | 5.9   |                                        |                              |                  |                          |       |
| $f_{90}$                               | 1.4625±0.0032                | 0.09±0.04        | 0.44±0.20                | 5.7   |                                        |                              |                  |                          |       |
| $f_{91}$                               | 15.4546±0.0032               | 0.09±0.04        | -0.97±0.20               | 5.7   |                                        |                              |                  |                          |       |
| $f_{92}$                               | 0.7814±0.0032                | 0.09±0.04        | -1.69±0.20               | 5.7   |                                        |                              |                  |                          |       |
| $f_{93}$                               | 0.9261±0.0032                | 0.10±0.04        | -2.51±0.19               | 5.8   |                                        |                              |                  |                          |       |

| Frequency list of 0102755594 |                              |                  |                          |       |
|------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                 | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_1$                        | 23.5611±0.0008               | 0.14±0.01        | -2.84±0.05               | 102.6 |
| $f_2$                        | 13.9051±0.0009               | 0.11±0.01        | 1.00±0.05                | 76.1  |
| $f_3$                        | 5.2313±0.0010                | 0.11±0.01        | -1.20±0.06               | 61.5  |
| $f_5$                        | 0.1502±0.0012                | 0.08±0.01        | 0.88±0.07                | 41.2  |
| $f_6$                        | 5.1020±0.0012                | 0.08±0.01        | 2.05±0.08                | 38.2  |
| $f_{10}$                     | 0.1215±0.0013                | 0.07±0.01        | 0.24±0.08                | 36.5  |
| $f_{11}$                     | 2.6164±0.0014                | 0.07±0.01        | -2.34±0.09               | 30.0  |
| $f_{12}$                     | 4.5264±0.0014                | 0.07±0.01        | 0.42±0.09                | 29.5  |
| $f_{13}$                     | 2.6691±0.0014                | 0.07±0.01        | -1.65±0.09               | 28.8  |
| $f_{14}$                     | 0.2370±0.0016                | 0.06±0.01        | 1.79±0.10                | 23.5  |
| $f_{15}$                     | 0.1657±0.0016                | 0.06±0.01        | 2.29±0.10                | 23.4  |
| $f_{16}$                     | 10.4757±0.0016               | 0.06±0.01        | 0.02±0.10                | 23.1  |
| $f_{17}$                     | 0.1920±0.0018                | 0.05±0.01        | -1.07±0.11               | 18.7  |
| $f_{18}$                     | 0.1416±0.0018                | 0.04±0.01        | 2.98±0.11                | 18.1  |
| $f_{19}$                     | 2.4858±0.0018                | 0.05±0.01        | 1.54±0.11                | 17.6  |
| $f_{20}$                     | 2.2624±0.0018                | 0.05±0.01        | 1.84±0.11                | 17.8  |
| $f_{21}$                     | 1.0227±0.0019                | 0.05±0.01        | -1.74±0.12               | 16.2  |
| $f_{22}$                     | 5.1398±0.0019                | 0.05±0.01        | -0.84±0.11               | 16.5  |
| $f_{24}$                     | 0.1083±0.0020                | 0.06±0.02        | 0.46±0.12                | 15.0  |
| $f_{27}$                     | 0.6252±0.0021                | 0.04±0.01        | -0.32±0.13               | 13.3  |
| $f_{28}$                     | 2.7197±0.0021                | 0.04±0.01        | -0.47±0.13               | 13.5  |
| $f_{30}$                     | 0.5897±0.0023                | 0.03±0.01        | 2.11±0.14                | 10.8  |
| $f_{31}$                     | 0.2911±0.0024                | 0.04±0.01        | -1.17±0.14               | 10.4  |
| $f_{32}$                     | 0.2693±0.0022                | 0.04±0.01        | -1.64±0.13               | 12.3  |
| $f_{34}$                     | 0.2465±0.0024                | 0.04±0.01        | 2.99±0.15                | 9.8   |
| $f_{35}$                     | 2.5634±0.0024                | 0.03±0.01        | -2.26±0.15               | 9.8   |
| $f_{37}$                     | 10.4249±0.0025               | 0.03±0.01        | -2.10±0.15               | 9.1   |
| $f_{38}$                     | 1.1991±0.0025                | 0.04±0.01        | -1.21±0.16               | 9.0   |
| $f_{39}$                     | 2.9205±0.0026                | 0.04±0.01        | -1.04±0.16               | 8.8   |
| $f_{40}$                     | 0.8156±0.0026                | 0.04±0.01        | 1.56±0.16                | 8.6   |
| $f_{42}$                     | 2.5988±0.0027                | 0.03±0.01        | -0.68±0.17               | 7.8   |
| $f_{43}$                     | 2.5232±0.0028                | 0.03±0.01        | -1.72±0.17               | 7.7   |
| $f_{44}$                     | 0.6377±0.0027                | 0.03±0.01        | 0.56±0.17                | 7.8   |
| $f_{46}$                     | 55.8643±0.0028               | 0.04±0.01        | 2.39±0.17                | 7.7   |
| $f_{47}$                     | 19.5426±0.0028               | 0.03±0.01        | 2.24±0.17                | 7.2   |
| $f_{48}$                     | 0.1742±0.0029                | 0.03±0.01        | -1.13±0.17               | 7.1   |
| $f_{49}$                     | 1.1213±0.0028                | 0.03±0.01        | -0.38±0.17               | 7.3   |
| $f_{51}$                     | 5.0762±0.0029                | 0.03±0.01        | -0.08±0.18               | 6.7   |
| $f_{52}$                     | 0.8541±0.0029                | 0.03±0.01        | 2.53±0.18                | 6.7   |
| $f_{53}$                     | 55.8529±0.0029               | 0.03±0.01        | 2.04±0.18                | 6.7   |
| $f_{54}$                     | 0.7007±0.0029                | 0.03±0.01        | -2.89±0.18               | 6.9   |
| $f_{55}$                     | 0.6013±0.0030                | 0.03±0.01        | -0.54±0.18               | 6.4   |
| $f_{56}$                     | 1.9476±0.0030                | 0.03±0.01        | -0.58±0.19               | 6.3   |
| $f_{57}$                     | 0.8977±0.0030                | 0.03±0.01        | -0.74±0.18               | 6.4   |
| $f_{58}$                     | 0.3374±0.0031                | 0.03±0.01        | -2.07±0.19               | 6.1   |
| $f_{59}$                     | 0.5329±0.0031                | 0.03±0.01        | 0.59±0.19                | 6.0   |
| $f_{60}$                     | 2.2277±0.0031                | 0.03±0.01        | -1.59±0.19               | 6.0   |
| $f_{62}$                     | 0.4165±0.0032                | 0.03±0.01        | -1.32±0.19               | 5.8   |
| $f_{63}$                     | 56.9518±0.0032               | 0.03±0.01        | 1.84±0.20                | 5.7   |
| $f_{65}$                     | 1.5083±0.0033                | 0.03±0.01        | -2.69±0.20               | 5.5   |
| $f_{69}$                     | 0.3584±0.0032                | 0.03±0.01        | -2.58±0.20               | 5.7   |
| $f_{70}$                     | 2.2841±0.0033                | 0.03±0.01        | 2.59±0.20                | 5.4   |

## Appendix D. Frequencies of individual Hybrid Stars

| Frequency list of 0102755594 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{71}$                               | 2.8795±0.0033                | 0.03±0.01        | 1.35±0.20                | 5.3   |
| $f_{72}$                               | 0.6854±0.0033                | 0.03±0.01        | 0.77±0.20                | 5.3   |
| $f_{74}$                               | 0.5534±0.0033                | 0.03±0.01        | -2.95±0.20               | 5.3   |
| $f_{75}$                               | 1.8940±0.0033                | 0.03±0.01        | -2.26±0.20               | 5.2   |

**Table D.52:** Frequency list of 0102757904

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|--------------|------------------------------|------------------|--------------------------|-------|
| $f_1$        | 17.4834±0.0003               | 1.67±0.06        | 2.81±0.02                | 917.6 |
| $f_2$        | 3.7087±0.0003                | 1.14±0.05        | 0.56±0.02                | 564.8 |
| $f_3$        | 1.8560±0.0003                | 1.10±0.04        | -1.32±0.02               | 602.5 |
| $f_4$        | 8.9123±0.0005                | 0.62±0.04        | -0.80±0.03               | 220.7 |
| $f_5$        | 21.1921±0.0006               | 0.50±0.04        | 0.20±0.04                | 158.4 |
| $f_6$        | 3.7865±0.0006                | 0.45±0.04        | 2.72±0.04                | 140.1 |
| $f_7$        | 1.7665±0.0007                | 0.47±0.04        | -1.52±0.04               | 132.3 |
| $f_8$        | 2.1769±0.0007                | 0.43±0.04        | -0.59±0.04               | 135.6 |
| $f_9$        | 2.3412±0.0007                | 0.39±0.03        | -0.60±0.04               | 124.2 |
| $f_{10}$     | 7.9751±0.0009                | 0.32±0.04        | 0.01±0.05                | 80.4  |
| $f_{11}$     | 1.7777±0.0010                | 0.27±0.04        | -1.32±0.06               | 54.6  |
| $f_{12}$     | 9.5086±0.0011                | 0.25±0.04        | -1.18±0.07               | 50.1  |
| $f_{13}$     | 10.6891±0.0011               | 0.25±0.04        | -0.94±0.07               | 50.5  |
| $f_{14}$     | 1.9471±0.0011                | 0.22±0.03        | -2.84±0.07               | 48.5  |
| $f_{16}$     | 3.5677±0.0011                | 0.25±0.04        | -2.92±0.07               | 49.9  |
| $f_{19}$     | 5.9404±0.0012                | 0.20±0.03        | -3.00±0.07               | 38.8  |
| $f_{21}$     | 12.1971±0.0013               | 0.19±0.03        | 1.47±0.08                | 35.2  |
| $f_{23}$     | 2.4552±0.0015                | 0.17±0.03        | 1.25±0.09                | 26.9  |
| $f_{24}$     | 6.7512±0.0015                | 0.16±0.03        | 2.32±0.09                | 25.8  |
| $f_{25}$     | 0.1700±0.0015                | 0.15±0.03        | 1.21±0.09                | 25.7  |
| $f_{27}$     | 0.1405±0.0015                | 0.17±0.03        | 3.01±0.09                | 24.5  |
| $f_{28}$     | 34.9673±0.0015               | 0.16±0.03        | 1.28±0.09                | 24.5  |
| $f_{29}$     | 0.9366±0.0015                | 0.15±0.03        | 2.01±0.09                | 24.3  |
| $f_{30}$     | 3.6235±0.0016                | 0.15±0.03        | -2.88±0.10               | 23.2  |
| $f_{31}$     | 0.2323±0.0016                | 0.14±0.03        | -0.29±0.10               | 22.6  |
| $f_{32}$     | 1.9306±0.0016                | 0.15±0.03        | 1.61±0.10                | 22.3  |
| $f_{33}$     | 38.6756±0.0017               | 0.14±0.03        | -2.13±0.10               | 20.5  |
| $f_{34}$     | 23.0154±0.0018               | 0.13±0.03        | 2.93±0.11                | 18.5  |
| $f_{35}$     | 0.1226±0.0018                | 0.13±0.03        | -1.76±0.11               | 18.6  |
| $f_{36}$     | 3.0418±0.0018                | 0.13±0.03        | 2.03±0.11                | 18.5  |
| $f_{37}$     | 14.4419±0.0019               | 0.13±0.03        | -2.41±0.11               | 16.8  |
| $f_{38}$     | 0.1500±0.0019                | 0.12±0.03        | -0.90±0.12               | 16.1  |
| $f_{39}$     | 3.8009±0.0019                | 0.13±0.03        | -2.80±0.12               | 16.1  |
| $f_{40}$     | 1.3675±0.0019                | 0.12±0.03        | 1.57±0.12                | 16.1  |
| $f_{41}$     | 5.5492±0.0019                | 0.11±0.03        | 2.27±0.12                | 15.5  |
| $f_{42}$     | 23.5748±0.0019               | 0.12±0.03        | 0.54±0.12                | 15.7  |
| $f_{45}$     | 0.2538±0.0020                | 0.11±0.03        | 1.96±0.12                | 14.1  |
| $f_{46}$     | 8.3495±0.0020                | 0.12±0.03        | -0.85±0.12               | 14.1  |
| $f_{49}$     | 0.1135±0.0021                | 0.11±0.03        | -2.12±0.13               | 13.5  |
| $f_{52}$     | 3.1143±0.0021                | 0.11±0.03        | 2.80±0.13                | 12.7  |
| $f_{53}$     | 2.0517±0.0022                | 0.11±0.03        | 1.17±0.13                | 12.2  |
| $f_{56}$     | 3.6789±0.0022                | 0.09±0.03        | -1.79±0.14               | 11.9  |
| $f_{57}$     | 6.7358±0.0022                | 0.10±0.03        | 1.89±0.14                | 11.6  |
| $f_{58}$     | 10.7608±0.0022               | 0.10±0.03        | -0.65±0.14               | 11.8  |
| $f_{59}$     | 0.4282±0.0023                | 0.10±0.03        | 0.49±0.14                | 11.5  |
| $f_{61}$     | 3.6538±0.0023                | 0.10±0.03        | -2.05±0.14               | 11.5  |
| $f_{62}$     | 0.3084±0.0023                | 0.10±0.03        | 1.47±0.14                | 11.3  |
| $f_{63}$     | 10.0206±0.0023               | 0.10±0.03        | -0.29±0.14               | 10.9  |
| $f_{64}$     | 0.5949±0.0023                | 0.10±0.03        | 0.90±0.14                | 10.8  |
| $f_{65}$     | 7.7321±0.0024                | 0.10±0.03        | -0.27±0.15               | 10.3  |
| $f_{66}$     | 3.9543±0.0024                | 0.10±0.03        | -2.16±0.15               | 10.3  |
| $f_{67}$     | 4.6384±0.0024                | 0.10±0.03        | 1.92±0.14                | 10.5  |
| $f_{68}$     | 0.1309±0.0024                | 0.10±0.03        | -1.53±0.15               | 10.3  |
| $f_{70}$     | 18.4198±0.0024               | 0.09±0.03        | -0.36±0.15               | 10.0  |
| $f_{71}$     | 0.1570±0.0024                | 0.09±0.03        | -0.02±0.15               | 10.0  |
| $f_{72}$     | 4.8930±0.0024                | 0.09±0.03        | 1.85±0.15                | 10.0  |
| $f_{73}$     | 2.0215±0.0024                | 0.09±0.03        | 0.51±0.15                | 10.0  |
| $f_{74}$     | 11.0901±0.0025               | 0.09±0.03        | -0.88±0.16               | 9.0   |
| $f_{75}$     | 0.3397±0.0026                | 0.09±0.03        | 0.70±0.16                | 8.9   |
| $f_{76}$     | 3.6989±0.0025                | 0.09±0.03        | -0.86±0.15               | 9.1   |
| $f_{77}$     | 5.5674±0.0026                | 0.08±0.03        | -3.00±0.16               | 8.5   |
| $f_{79}$     | 2.3827±0.0026                | 0.08±0.03        | 3.00±0.16                | 8.4   |
| $f_{80}$     | 4.0241±0.0027                | 0.08±0.03        | -2.46±0.16               | 8.1   |
| $f_{81}$     | 8.6504±0.0027                | 0.08±0.03        | 2.43±0.16                | 8.1   |

Frequency list of 0102757904 continued

| Frequency list of 0102757904 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{84}$                               | 0.1639±0.0027                | 0.09±0.03        | -1.56±0.17               | 7.8   |
| $f_{85}$                               | 0.3630±0.0028                | 0.08±0.03        | -0.59±0.17               | 7.6   |
| $f_{86}$                               | 13.9999±0.0029               | 0.08±0.03        | -1.80±0.18               | 7.0   |
| $f_{87}$                               | 1.2925±0.0029                | 0.08±0.03        | -0.50±0.18               | 7.0   |
| $f_{90}$                               | 5.4711±0.0029                | 0.08±0.03        | 2.48±0.18                | 6.8   |
| $f_{91}$                               | 2.6065±0.0030                | 0.07±0.03        | 2.13±0.18                | 6.5   |
| $f_{92}$                               | 15.6283±0.0030               | 0.07±0.03        | -2.45±0.18               | 6.4   |
| $f_{94}$                               | 55.8649±0.0030               | 0.07±0.03        | 0.29±0.19                | 6.3   |
| $f_{95}$                               | 13.9465±0.0030               | 0.07±0.03        | 2.33±0.18                | 6.5   |
| $f_{96}$                               | 0.2891±0.0031                | 0.07±0.03        | 1.30±0.19                | 6.2   |

**Table D.53:** Frequency list of 0102758436

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|--------------|------------------------------|------------------|--------------------------|-------|
| $f_2$        | 4.7405±0.0004                | 1.11±0.06        | -1.34±0.02               | 401.2 |
| $f_3$        | 4.4083±0.0005                | 0.82±0.05        | 1.84±0.03                | 249.5 |
| $f_4$        | 21.9251±0.0006               | 0.67±0.05        | -2.55±0.03               | 191.3 |
| $f_5$        | 22.7218±0.0006               | 0.65±0.05        | 2.44±0.03                | 192.0 |
| $f_6$        | 4.2822±0.0005                | 0.64±0.05        | -1.16±0.03               | 193.9 |
| $f_7$        | 0.1320±0.0006                | 0.51±0.04        | 2.99±0.04                | 167.5 |
| $f_8$        | 17.4406±0.0007               | 0.42±0.04        | 1.62±0.05                | 104.8 |
| $f_{10}$     | 18.6498±0.0008               | 0.39±0.04        | -2.02±0.05               | 91.2  |
| $f_{11}$     | 10.6410±0.0009               | 0.36±0.04        | -2.47±0.05               | 80.0  |
| $f_{13}$     | 4.5579±0.0010                | 0.32±0.04        | -1.94±0.06               | 62.6  |
| $f_{15}$     | 17.3239±0.0010               | 0.32±0.04        | 1.76±0.06                | 63.0  |
| $f_{17}$     | 0.1111±0.0010                | 0.28±0.04        | -2.63±0.06               | 58.1  |
| $f_{18}$     | 9.4703±0.0011                | 0.28±0.04        | -2.84±0.06               | 51.9  |
| $f_{19}$     | 21.3017±0.0011               | 0.26±0.04        | 0.12±0.07                | 46.8  |
| $f_{20}$     | 0.1996±0.0012                | 0.24±0.04        | -2.35±0.07               | 40.1  |
| $f_{22}$     | 0.1923±0.0013                | 0.20±0.03        | -2.57±0.08               | 34.2  |
| $f_{23}$     | 0.3119±0.0013                | 0.19±0.03        | 2.48±0.08                | 32.5  |
| $f_{24}$     | 1.2981±0.0014                | 0.19±0.04        | -0.08±0.09               | 28.4  |
| $f_{27}$     | 4.1747±0.0015                | 0.19±0.04        | 2.50±0.09                | 27.0  |
| $f_{30}$     | 25.0786±0.0015               | 0.18±0.04        | 1.81±0.09                | 24.4  |
| $f_{31}$     | 17.2817±0.0015               | 0.17±0.03        | 1.82±0.09                | 24.3  |
| $f_{32}$     | 0.2531±0.0016                | 0.17±0.03        | 0.89±0.09                | 24.2  |
| $f_{34}$     | 11.4184±0.0016               | 0.17±0.04        | -1.84±0.10               | 22.8  |
| $f_{36}$     | 0.1455±0.0017                | 0.15±0.03        | -1.34±0.10               | 20.5  |
| $f_{37}$     | 17.5206±0.0017               | 0.16±0.04        | -0.38±0.10               | 20.3  |
| $f_{39}$     | 53.9949±0.0017               | 0.15±0.03        | -2.63±0.10               | 19.8  |
| $f_{41}$     | 3.2180±0.0018                | 0.15±0.03        | 0.31±0.11                | 18.9  |
| $f_{43}$     | 0.1545±0.0018                | 0.13±0.03        | 1.52±0.11                | 18.0  |
| $f_{44}$     | 36.1919±0.0018               | 0.14±0.03        | -2.02±0.11               | 17.4  |
| $f_{45}$     | 27.2930±0.0018               | 0.15±0.04        | 2.87±0.11                | 17.9  |
| $f_{46}$     | 0.2299±0.0019                | 0.16±0.04        | -0.02±0.11               | 16.9  |
| $f_{47}$     | 0.1729±0.0018                | 0.13±0.03        | -2.19±0.11               | 16.7  |
| $f_{48}$     | 13.9333±0.0019               | 0.14±0.03        | -1.41±0.11               | 17.7  |
| $f_{50}$     | 55.8643±0.0019               | 0.16±0.04        | -2.89±0.11               | 16.5  |
| $f_{52}$     | 0.4718±0.0020                | 0.14±0.04        | -2.06±0.12               | 14.1  |
| $f_{53}$     | 0.3864±0.0021                | 0.14±0.04        | 1.12±0.13                | 13.8  |
| $f_{54}$     | 55.8522±0.0022               | 0.13±0.04        | 2.03±0.13                | 12.3  |
| $f_{55}$     | 19.9771±0.0021               | 0.12±0.03        | -2.96±0.13               | 12.7  |
| $f_{58}$     | 0.3178±0.0022                | 0.11±0.03        | 2.33±0.13                | 12.6  |
| $f_{59}$     | 7.4399±0.0022                | 0.12±0.03        | -1.54±0.13               | 12.3  |
| $f_{60}$     | 0.1854±0.0022                | 0.11±0.03        | -1.39±0.14               | 11.8  |
| $f_{61}$     | 0.1211±0.0022                | 0.12±0.03        | 2.42±0.14                | 11.8  |
| $f_{62}$     | 0.1643±0.0022                | 0.12±0.03        | -3.00±0.13               | 12.2  |
| $f_{63}$     | 0.4073±0.0022                | 0.12±0.03        | -2.29±0.14               | 11.9  |
| $f_{64}$     | 30.1754±0.0023               | 0.11±0.03        | -0.33±0.14               | 11.5  |
| $f_{65}$     | 25.4276±0.0022               | 0.11±0.03        | 2.81±0.13                | 12.0  |
| $f_{66}$     | 19.5838±0.0022               | 0.11±0.03        | 1.63±0.14                | 11.6  |
| $f_{67}$     | 42.5816±0.0022               | 0.11±0.03        | -1.23±0.14               | 11.6  |
| $f_{68}$     | 0.2193±0.0023                | 0.12±0.04        | -0.67±0.14               | 11.3  |
| $f_{72}$     | 3.4892±0.0024                | 0.10±0.03        | 1.63±0.14                | 10.5  |
| $f_{74}$     | 0.5098±0.0024                | 0.09±0.03        | 1.02±0.14                | 10.5  |
| $f_{75}$     | 1.0362±0.0024                | 0.11±0.03        | -1.19±0.15               | 10.2  |
| $f_{76}$     | 0.2411±0.0024                | 0.10±0.03        | -0.90±0.15               | 10.1  |
| $f_{77}$     | 13.5271±0.0024               | 0.10±0.03        | -2.05±0.15               | 10.0  |
| $f_{79}$     | 24.5828±0.0025               | 0.10±0.03        | -1.49±0.15               | 9.7   |
| $f_{80}$     | 14.4502±0.0024               | 0.09±0.03        | -3.02±0.15               | 9.8   |
| $f_{81}$     | 0.6760±0.0024                | 0.10±0.03        | 2.92±0.15                | 9.8   |
| $f_{82}$     | 32.0998±0.0025               | 0.10±0.03        | -2.50±0.15               | 9.6   |

Frequency list of 0102758436 continued

## Appendix D. Frequencies of individual Hybrid Stars

| Frequency list of 0102758436 continued |                              |                  |                          |       | Frequency list of 0102759686 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{83}$                               | 0.1041±0.0024                | 0.10±0.03        | -2.74±0.15               | 9.8   | $f_{29}$                               | 30.9941±0.0016               | 0.17±0.04        | 0.63±0.10                | 22.4  |
| $f_{84}$                               | 36.9614±0.0026               | 0.09±0.03        | 1.26±0.16                | 8.8   | $f_{30}$                               | 0.6144±0.0017                | 0.17±0.04        | 2.56±0.10                | 20.6  |
| $f_{86}$                               | 0.3720±0.0026                | 0.10±0.03        | -0.20±0.16               | 8.5   | $f_{31}$                               | 17.3015±0.0017               | 0.16±0.04        | 1.48±0.10                | 20.1  |
| $f_{87}$                               | 0.2791±0.0026                | 0.09±0.03        | 2.31±0.16                | 8.3   | $f_{32}$                               | 1.0000±0.0018                | 0.15±0.03        | -2.84±0.11               | 18.9  |
| $f_{88}$                               | 28.1457±0.0026               | 0.09±0.03        | 0.28±0.16                | 8.6   | $f_{34}$                               | 18.7444±0.0018               | 0.15±0.04        | -1.45±0.11               | 18.2  |
| $f_{89}$                               | 0.5343±0.0025                | 0.09±0.03        | 2.08±0.16                | 9.0   | $f_{35}$                               | 28.6291±0.0018               | 0.15±0.03        | 1.31±0.11                | 18.4  |
| $f_{90}$                               | 42.5383±0.0026               | 0.09±0.03        | -0.00±0.16               | 8.4   | $f_{37}$                               | 2.1371±0.0018                | 0.15±0.04        | 3.11±0.11                | 17.6  |
| $f_{91}$                               | 17.8353±0.0026               | 0.09±0.03        | 0.83±0.16                | 8.4   | $f_{38}$                               | 0.5356±0.0018                | 0.15±0.04        | 2.16±0.11                | 17.2  |
| $f_{93}$                               | 57.0231±0.0026               | 0.10±0.03        | 2.37±0.16                | 8.7   | $f_{39}$                               | 2.1102±0.0020                | 0.13±0.03        | -1.24±0.12               | 15.1  |
| $f_{94}$                               | 14.8624±0.0026               | 0.09±0.03        | 2.76±0.16                | 8.3   | $f_{40}$                               | 17.6808±0.0020               | 0.14±0.04        | 2.76±0.12                | 14.7  |
| $f_{96}$                               | 13.9960±0.0027               | 0.09±0.03        | -2.20±0.17               | 7.9   | $f_{41}$                               | 16.9336±0.0020               | 0.13±0.03        | 1.94±0.12                | 14.5  |
| $f_{98}$                               | 0.8608±0.0027                | 0.09±0.03        | -1.79±0.17               | 7.8   | $f_{42}$                               | 0.7762±0.0020                | 0.14±0.04        | -0.10±0.12               | 14.1  |
| $f_{99}$                               | 12.1794±0.0028               | 0.09±0.03        | 0.82±0.17                | 7.6   | $f_{43}$                               | 0.7381±0.0020                | 0.13±0.03        | -1.20±0.12               | 13.9  |
| $f_{101}$                              | 47.1248±0.0028               | 0.09±0.03        | 1.21±0.17                | 7.4   | $f_{44}$                               | 1.8595±0.0020                | 0.13±0.03        | 0.78±0.12                | 14.3  |
| $f_{103}$                              | 6.3495±0.0028                | 0.08±0.03        | 2.03±0.17                | 7.5   | $f_{45}$                               | 0.3669±0.0021                | 0.13±0.04        | 0.31±0.13                | 13.5  |
| $f_{104}$                              | 23.0809±0.0028               | 0.09±0.03        | -1.24±0.17               | 7.4   | $f_{46}$                               | 10.7091±0.0021               | 0.13±0.04        | -1.43±0.13               | 13.5  |
| $f_{105}$                              | 26.5050±0.0029               | 0.08±0.03        | -0.39±0.17               | 7.1   | $f_{47}$                               | 0.2761±0.0021                | 0.14±0.04        | 0.98±0.13                | 13.4  |
| $f_{107}$                              | 0.3362±0.0029                | 0.10±0.04        | -1.56±0.18               | 6.9   | $f_{48}$                               | 7.6615±0.0021                | 0.13±0.04        | -2.01±0.13               | 13.3  |
| $f_{108}$                              | 0.3257±0.0029                | 0.09±0.03        | 1.04±0.17                | 7.1   | $f_{49}$                               | 0.4832±0.0021                | 0.13±0.04        | 0.34±0.13                | 13.0  |
| $f_{109}$                              | 0.4277±0.0029                | 0.09±0.03        | -2.19±0.18               | 7.0   | $f_{50}$                               | 9.6858±0.0021                | 0.13±0.04        | -1.88±0.13               | 12.7  |
| $f_{110}$                              | 17.2732±0.0029               | 0.08±0.03        | 0.58±0.18                | 6.9   | $f_{51}$                               | 16.4460±0.0022               | 0.12±0.03        | 0.98±0.13                | 12.4  |
| $f_{112}$                              | 13.9489±0.0029               | 0.09±0.03        | 1.63±0.18                | 6.7   | $f_{52}$                               | 0.2584±0.0022                | 0.14±0.04        | -1.61±0.13               | 12.1  |
| $f_{113}$                              | 35.2042±0.0029               | 0.08±0.03        | 2.97±0.18                | 6.8   | $f_{53}$                               | 0.6375±0.0022                | 0.11±0.03        | 0.26±0.13                | 12.2  |
| $f_{114}$                              | 0.7674±0.0029                | 0.09±0.03        | -0.59±0.18               | 6.8   | $f_{54}$                               | 30.5572±0.0022               | 0.12±0.04        | 1.81±0.14                | 11.6  |
| $f_{115}$                              | 32.9880±0.0030               | 0.08±0.03        | 1.15±0.18                | 6.5   | $f_{55}$                               | 30.7902±0.0023               | 0.12±0.04        | 1.14±0.14                | 10.9  |
| $f_{116}$                              | 3.0261±0.0030                | 0.08±0.03        | -1.78±0.19               | 6.3   | $f_{56}$                               | 16.3997±0.0023               | 0.11±0.03        | -1.84±0.14               | 10.6  |
| $f_{117}$                              | 56.9860±0.0030               | 0.08±0.03        | 0.34±0.19                | 6.3   | $f_{57}$                               | 16.2066±0.0024               | 0.11±0.03        | -2.23±0.14               | 10.5  |
| $f_{119}$                              | 1.1219±0.0031                | 0.08±0.03        | 1.40±0.19                | 6.1   | $f_{58}$                               | 7.7644±0.0024                | 0.11±0.03        | 3.09±0.14                | 10.5  |
| $f_{120}$                              | 3.1410±0.0031                | 0.08±0.03        | 1.99±0.19                | 6.2   | $f_{59}$                               | 2.2904±0.0024                | 0.11±0.03        | 0.53±0.15                | 10.2  |
| $f_{121}$                              | 6.1157±0.0031                | 0.08±0.03        | 1.82±0.19                | 6.1   | $f_{62}$                               | 0.9707±0.0024                | 0.11±0.03        | -2.04±0.15               | 9.9   |
| $f_{122}$                              | 0.4923±0.0030                | 0.08±0.03        | -0.25±0.19               | 6.3   | $f_{63}$                               | 34.0872±0.0024               | 0.11±0.03        | -1.36±0.15               | 10.1  |
| $f_{123}$                              | 0.4411±0.0030                | 0.08±0.03        | -1.10±0.19               | 6.3   | $f_{64}$                               | 0.1785±0.0025                | 0.12±0.04        | -0.95±0.15               | 9.7   |
| $f_{124}$                              | 34.4289±0.0031               | 0.08±0.03        | -2.01±0.19               | 6.0   | $f_{65}$                               | 1.5665±0.0025                | 0.11±0.04        | -1.41±0.15               | 9.5   |
| $f_{125}$                              | 18.6798±0.0031               | 0.08±0.03        | -0.16±0.19               | 5.9   | $f_{67}$                               | 0.7960±0.0025                | 0.09±0.03        | 0.59±0.15                | 9.3   |
| $f_{127}$                              | 14.6925±0.0031               | 0.08±0.03        | -2.91±0.19               | 6.1   | $f_{68}$                               | 18.4010±0.0025               | 0.10±0.03        | -1.17±0.15               | 9.1   |
| $f_{129}$                              | 48.5093±0.0031               | 0.07±0.03        | 2.09±0.19                | 5.9   | $f_{72}$                               | 0.6465±0.0026                | 0.10±0.03        | -2.25±0.16               | 8.8   |
| $f_{130}$                              | 42.9677±0.0031               | 0.08±0.03        | 1.60±0.19                | 6.1   | $f_{73}$                               | 24.2545±0.0025               | 0.10±0.03        | 2.28±0.16                | 9.0   |
| $f_{132}$                              | 2.3364±0.0032                | 0.07±0.03        | 0.08±0.19                | 5.8   | $f_{74}$                               | 0.2071±0.0026                | 0.11±0.04        | -2.27±0.16               | 8.7   |
| $f_{133}$                              | 14.4045±0.0031               | 0.07±0.03        | 2.29±0.19                | 5.9   | $f_{76}$                               | 0.5624±0.0026                | 0.09±0.03        | 2.29±0.16                | 8.3   |
| $f_{134}$                              | 10.8162±0.0032               | 0.07±0.03        | 2.59±0.20                | 5.7   | $f_{77}$                               | 29.0184±0.0026               | 0.10±0.03        | 1.56±0.16                | 8.3   |
| $f_{135}$                              | 0.8084±0.0032                | 0.07±0.03        | -1.72±0.20               | 5.6   | $f_{78}$                               | 8.4351±0.0027                | 0.10±0.04        | 0.57±0.16                | 8.1   |
| $f_{137}$                              | 0.2635±0.0033                | 0.07±0.03        | 1.84±0.20                | 5.5   | $f_{79}$                               | 10.1322±0.0026               | 0.10±0.03        | -0.35±0.16               | 8.3   |
| $f_{138}$                              | 6.3218±0.0033                | 0.07±0.03        | -1.14±0.20               | 5.5   | $f_{80}$                               | 0.2303±0.0026                | 0.10±0.03        | -2.14±0.16               | 8.3   |
| $f_{139}$                              | 3.9336±0.0032                | 0.07±0.03        | -2.61±0.20               | 5.7   | $f_{81}$                               | 0.1636±0.0027                | 0.10±0.03        | -2.66±0.16               | 8.2   |
| $f_{141}$                              | 23.7685±0.0033               | 0.07±0.03        | 0.81±0.20                | 5.5   | $f_{82}$                               | 16.7894±0.0027               | 0.09±0.03        | -0.91±0.17               | 7.9   |
| $f_{144}$                              | 26.7002±0.0033               | 0.07±0.03        | 1.05±0.20                | 5.4   | $f_{83}$                               | 0.8642±0.0028                | 0.08±0.03        | 0.35±0.17                | 7.7   |
| $f_{145}$                              | 31.5015±0.0033               | 0.07±0.03        | -0.83±0.20               | 5.2   | $f_{84}$                               | 18.9650±0.0027               | 0.09±0.03        | -2.77±0.17               | 7.8   |
| $f_{146}$                              | 0.7025±0.0033                | 0.07±0.03        | -0.58±0.20               | 5.2   | $f_{86}$                               | 8.1005±0.0028                | 0.09±0.03        | 1.13±0.17                | 7.4   |
| $f_{147}$                              | 0.5252±0.0033                | 0.07±0.03        | 2.37±0.20                | 5.2   | $f_{87}$                               | 1.7992±0.0028                | 0.09±0.03        | -0.65±0.17               | 7.2   |
|                                        |                              |                  |                          |       | $f_{88}$                               | 1.0092±0.0029                | 0.09±0.03        | -0.93±0.18               | 6.9   |
|                                        |                              |                  |                          |       | $f_{89}$                               | 0.7051±0.0029                | 0.09±0.03        | -2.84±0.18               | 6.9   |
|                                        |                              |                  |                          |       | $f_{90}$                               | 0.8983±0.0029                | 0.09±0.03        | -2.87±0.18               | 6.8   |
|                                        |                              |                  |                          |       | $f_{91}$                               | 1.5083±0.0029                | 0.09±0.03        | -0.82±0.18               | 6.8   |
|                                        |                              |                  |                          |       | $f_{94}$                               | 29.6423±0.0029               | 0.09±0.03        | 2.68±0.18                | 6.8   |
|                                        |                              |                  |                          |       | $f_{95}$                               | 0.4205±0.0030                | 0.08±0.03        | -0.33±0.18               | 6.5   |
|                                        |                              |                  |                          |       | $f_{96}$                               | 0.6844±0.0030                | 0.07±0.03        | -0.46±0.18               | 6.4   |
|                                        |                              |                  |                          |       | $f_{97}$                               | 1.0756±0.0030                | 0.09±0.04        | 2.72±0.18                | 6.6   |
|                                        |                              |                  |                          |       | $f_{98}$                               | 9.5053±0.0030                | 0.08±0.03        | -2.84±0.18               | 6.4   |
|                                        |                              |                  |                          |       | $f_{100}$                              | 1.4127±0.0031                | 0.08±0.03        | 2.99±0.19                | 6.2   |
|                                        |                              |                  |                          |       | $f_{101}$                              | 6.9255±0.0030                | 0.08±0.03        | 2.16±0.18                | 6.4   |
|                                        |                              |                  |                          |       | $f_{102}$                              | 29.5362±0.0031               | 0.08±0.03        | -0.99±0.19               | 6.1   |
|                                        |                              |                  |                          |       | $f_{103}$                              | 0.5993±0.0031                | 0.08±0.03        | 1.07±0.19                | 6.2   |
|                                        |                              |                  |                          |       | $f_{104}$                              | 1.0440±0.0031                | 0.08±0.03        | 1.80±0.19                | 5.9   |
|                                        |                              |                  |                          |       | $f_{105}$                              | 19.0313±0.0031               | 0.08±0.03        | 3.00±0.19                | 6.0   |
|                                        |                              |                  |                          |       | $f_{107}$                              | 34.2777±0.0031               | 0.08±0.03        | 2.20±0.19                | 5.9   |
|                                        |                              |                  |                          |       | $f_{108}$                              | 56.5185±0.0031               | 0.08±0.03        | -2.74±0.19               | 6.0   |
|                                        |                              |                  |                          |       | $f_{110}$                              | 0.6545±0.0031                | 0.09±0.04        | 1.68±0.19                | 5.9   |
|                                        |                              |                  |                          |       | $f_{111}$                              | 0.8511±0.0031                | 0.08±0.03        | 1.41±0.19                | 6.0   |
|                                        |                              |                  |                          |       | $f_{112}$                              | 1.4700±0.0032                | 0.08±0.03        | 0.93±0.19                | 5.8   |
|                                        |                              |                  |                          |       | $f_{113}$                              | 2.9027±0.0031                | 0.08±0.03        | 0.44±0.19                | 5.9   |
|                                        |                              |                  |                          |       | $f_{114}$                              | 0.8085±0.0032                | 0.08±0.03        | 0.33±0.19                | 5.8   |
|                                        |                              |                  |                          |       | $f_{115}$                              | 0.3441±0.0031                | 0.08±0.03        | 1.64±0.19                | 5.9   |
|                                        |                              |                  |                          |       | $f_{118}$                              | 17.4087±0.0032               | 0.08±0.03        | -0.14±0.19               | 5.8   |
|                                        |                              |                  |                          |       | $f_{119}$                              | 18.5236±0.0032               | 0.08±0.03        | 2.77±0.20                | 5.7   |
|                                        |                              |                  |                          |       | $f_{120}$                              | 19.1282±0.0032               | 0.08±0.03        | -2.36±0.20               | 5.6   |
|                                        |                              |                  |                          |       | $f_{121}$                              | 25.8305±0.0032               | 0.08±0.03        | -0.50±0.20               | 5.7   |
|                                        |                              |                  |                          |       | Frequency list of 0102759686 continued |                              |                  |                          |       |
| Frequency list of 0102759686 continued |                              |                  |                          |       |                                        |                              |                  |                          |       |

**Table D.54:** Frequency list of 0102759686



## Appendix D. Frequencies of individual Hybrid Stars

| Frequency list of 0102759686 continued          |                              |                  |                          |       | Frequency list of 0102762741 continued |                              |                  |                          |       |
|-------------------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                                    | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{122}$                                       | 1.7703±0.0033                | 0.08±0.03        | -0.93±0.20               | 5.5   | $f_{67}$                               | 2.0227±0.0020                | 0.05±0.01        | 0.93±0.12                | 13.9  |
| $f_{123}$                                       | 18.8913±0.0032               | 0.08±0.03        | -1.47±0.20               | 5.6   | $f_{68}$                               | 8.9062±0.0020                | 0.06±0.02        | -3.09±0.12               | 14.0  |
| $f_{124}$                                       | 13.9469±0.0033               | 0.08±0.03        | 2.61±0.20                | 5.5   | $f_{69}$                               | 10.7065±0.0021               | 0.06±0.02        | 2.85±0.13                | 13.8  |
| $f_{125}$                                       | 8.7138±0.0033                | 0.08±0.03        | 0.82±0.20                | 5.5   | $f_{70}$                               | 1.0554±0.0021                | 0.05±0.01        | 0.31±0.13                | 13.7  |
| $f_{126}$                                       | 0.6727±0.0033                | 0.08±0.03        | 0.77±0.20                | 5.4   | $f_{71}$                               | 1.8366±0.0020                | 0.05±0.01        | -2.78±0.12               | 14.0  |
| $f_{127}$                                       | 1.1163±0.0033                | 0.08±0.03        | 1.31±0.20                | 5.4   | $f_{72}$                               | 2.1009±0.0021                | 0.05±0.01        | 2.04±0.13                | 13.1  |
| $f_{128}$                                       | 0.5442±0.0033                | 0.08±0.03        | -2.89±0.20               | 5.4   | $f_{73}$                               | 12.9071±0.0021               | 0.05±0.01        | 2.86±0.13                | 13.2  |
| $f_{129}$                                       | 34.6379±0.0033               | 0.07±0.03        | 2.27±0.20                | 5.3   | $f_{74}$                               | 1.3093±0.0021                | 0.06±0.02        | 2.67±0.13                | 12.9  |
| <b>Table D.55: Frequency list of 0102762741</b> |                              |                  |                          |       | $f_{75}$                               | 0.4661±0.0021                | 0.05±0.01        | 3.12±0.13                | 12.8  |
|                                                 |                              |                  |                          |       | $f_{76}$                               | 0.8938±0.0021                | 0.06±0.02        | 1.82±0.13                | 13.0  |
| Frequency ID                                    | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | $f_{77}$                               | 2.3982±0.0021                | 0.05±0.01        | 2.90±0.13                | 12.8  |
| $f_1$                                           | 7.6483±0.0004                | 0.45±0.02        | 3.13±0.02                | 468.0 | $f_{78}$                               | 0.6692±0.0022                | 0.05±0.01        | -2.32±0.13               | 12.6  |
| $f_2$                                           | 9.1921±0.0007                | 0.21±0.02        | 1.61±0.04                | 109.7 | $f_{79}$                               | 0.7675±0.0021                | 0.06±0.02        | -0.35±0.13               | 13.0  |
| $f_3$                                           | 1.5702±0.0009                | 0.16±0.02        | -1.84±0.05               | 72.4  | $f_{80}$                               | 6.4190±0.0022                | 0.05±0.01        | 1.44±0.13                | 12.3  |
| $f_4$                                           | 2.0829±0.0009                | 0.15±0.02        | -1.55±0.05               | 75.2  | $f_{81}$                               | 0.3546±0.0022                | 0.05±0.01        | -0.90±0.13               | 12.4  |
| $f_5$                                           | 1.2891±0.0009                | 0.14±0.02        | 1.02±0.06                | 66.9  | $f_{83}$                               | 0.1272±0.0022                | 0.05±0.01        | -2.99±0.13               | 12.3  |
| $f_6$                                           | 0.2937±0.0010                | 0.14±0.02        | 3.11±0.06                | 58.2  | $f_{84}$                               | 1.3940±0.0022                | 0.04±0.01        | -2.77±0.13               | 12.0  |
| $f_7$                                           | 9.1360±0.0010                | 0.13±0.02        | -0.18±0.06               | 59.3  | $f_{85}$                               | 0.9633±0.0022                | 0.05±0.01        | 0.22±0.13                | 12.1  |
| $f_8$                                           | 1.1055±0.0010                | 0.12±0.02        | -3.08±0.06               | 53.2  | $f_{86}$                               | 1.3570±0.0022                | 0.05±0.01        | -0.73±0.13               | 12.1  |
| $f_9$                                           | 14.2763±0.0011               | 0.12±0.02        | 0.75±0.07                | 47.0  | $f_{90}$                               | 0.4286±0.0022                | 0.05±0.01        | -0.66±0.14               | 11.6  |
| $f_{10}$                                        | 17.1260±0.0011               | 0.12±0.02        | -2.38±0.07               | 48.6  | $f_{91}$                               | 5.7762±0.0023                | 0.05±0.01        | 2.79±0.14                | 11.4  |
| $f_{11}$                                        | 10.1752±0.0011               | 0.11±0.02        | -1.75±0.07               | 47.0  | $f_{92}$                               | 2.3759±0.0022                | 0.04±0.01        | -0.11±0.14               | 11.6  |
| $f_{12}$                                        | 3.1720±0.0011                | 0.12±0.02        | 0.92±0.07                | 45.5  | $f_{93}$                               | 8.6476±0.0023                | 0.05±0.01        | 1.06±0.14                | 11.3  |
| $f_{13}$                                        | 8.4619±0.0012                | 0.11±0.02        | 2.88±0.07                | 42.0  | $f_{94}$                               | 16.0186±0.0023               | 0.05±0.01        | -2.98±0.14               | 11.2  |
| $f_{14}$                                        | 0.4524±0.0012                | 0.11±0.02        | 2.50±0.07                | 42.6  | $f_{95}$                               | 12.4214±0.0023               | 0.05±0.01        | 1.80±0.14                | 11.2  |
| $f_{15}$                                        | 0.1183±0.0013                | 0.09±0.02        | 0.73±0.08                | 34.2  | $f_{97}$                               | 9.8582±0.0023                | 0.04±0.01        | -0.49±0.14               | 11.0  |
| $f_{17}$                                        | 1.3357±0.0014                | 0.09±0.02        | 1.45±0.09                | 29.4  | $f_{98}$                               | 0.3326±0.0023                | 0.04±0.01        | 1.71±0.14                | 10.9  |
| $f_{18}$                                        | 10.2158±0.0014               | 0.09±0.02        | -0.47±0.09               | 28.3  | $f_{99}$                               | 0.6339±0.0023                | 0.04±0.01        | -2.23±0.14               | 11.2  |
| $f_{19}$                                        | 13.4618±0.0015               | 0.08±0.02        | -2.31±0.09               | 26.8  | $f_{100}$                              | 0.3026±0.0023                | 0.04±0.01        | -1.48±0.14               | 10.8  |
| $f_{20}$                                        | 1.5246±0.0015                | 0.09±0.02        | 0.18±0.09                | 27.2  | $f_{101}$                              | 7.9996±0.0024                | 0.04±0.01        | 0.49±0.14                | 10.5  |
| $f_{22}$                                        | 9.2159±0.0015                | 0.09±0.02        | 1.91±0.09                | 26.3  | $f_{103}$                              | 2.4179±0.0023                | 0.04±0.01        | 0.01±0.14                | 10.6  |
| $f_{23}$                                        | 3.0728±0.0015                | 0.08±0.02        | -2.99±0.09               | 26.6  | $f_{104}$                              | 8.9175±0.0024                | 0.05±0.02        | 3.11±0.15                | 10.2  |
| $f_{24}$                                        | 3.5238±0.0015                | 0.08±0.02        | -1.18±0.09               | 25.5  | $f_{105}$                              | 9.1185±0.0024                | 0.05±0.02        | 0.24±0.14                | 10.5  |
| $f_{25}$                                        | 2.8509±0.0015                | 0.08±0.02        | -2.57±0.09               | 26.0  | $f_{106}$                              | 0.5619±0.0024                | 0.05±0.02        | 1.92±0.15                | 10.0  |
| $f_{26}$                                        | 1.0446±0.0016                | 0.08±0.02        | -1.71±0.10               | 23.7  | $f_{107}$                              | 0.3821±0.0024                | 0.04±0.01        | 2.44±0.15                | 10.2  |
| $f_{27}$                                        | 0.3486±0.0016                | 0.07±0.01        | -3.10±0.10               | 23.9  | $f_{108}$                              | 1.5995±0.0024                | 0.05±0.02        | 2.70±0.14                | 10.4  |
| $f_{28}$                                        | 0.1348±0.0016                | 0.08±0.02        | 2.84±0.10                | 23.7  | $f_{109}$                              | 0.8040±0.0024                | 0.04±0.01        | 0.33±0.14                | 10.4  |
| $f_{29}$                                        | 1.5855±0.0017                | 0.07±0.02        | 0.52±0.10                | 21.3  | $f_{110}$                              | 3.1110±0.0024                | 0.04±0.01        | 0.27±0.15                | 9.8   |
| $f_{30}$                                        | 0.2141±0.0017                | 0.07±0.02        | -2.87±0.10               | 20.3  | $f_{111}$                              | 8.2309±0.0025                | 0.04±0.01        | -1.23±0.15               | 9.7   |
| $f_{31}$                                        | 9.3751±0.0017                | 0.07±0.02        | -2.34±0.10               | 21.3  | $f_{113}$                              | 1.3779±0.0024                | 0.04±0.01        | -1.24±0.15               | 9.9   |
| $f_{32}$                                        | 1.2968±0.0017                | 0.06±0.01        | 0.94±0.10                | 20.6  | $f_{115}$                              | 10.8432±0.0024               | 0.04±0.01        | 2.14±0.15                | 9.9   |
| $f_{33}$                                        | 1.7419±0.0017                | 0.07±0.02        | 0.91±0.10                | 20.7  | $f_{116}$                              | 1.0117±0.0025                | 0.04±0.01        | 1.03±0.15                | 9.3   |
| $f_{35}$                                        | 11.3076±0.0017               | 0.07±0.02        | 2.52±0.11                | 19.3  | $f_{117}$                              | 1.9534±0.0025                | 0.04±0.01        | -0.44±0.15               | 9.4   |
| $f_{36}$                                        | 2.9601±0.0017                | 0.07±0.02        | 0.69±0.11                | 19.3  | $f_{118}$                              | 7.1733±0.0025                | 0.04±0.01        | 0.01±0.15                | 9.3   |
| $f_{37}$                                        | 15.5565±0.0017               | 0.07±0.02        | -1.80±0.10               | 20.2  | $f_{119}$                              | 12.5940±0.0025               | 0.04±0.01        | -0.40±0.16               | 9.0   |
| $f_{39}$                                        | 0.2766±0.0017                | 0.06±0.01        | 0.36±0.11                | 19.6  | $f_{120}$                              | 7.3870±0.0025                | 0.04±0.01        | -1.45±0.15               | 9.2   |
| $f_{40}$                                        | 1.1208±0.0017                | 0.06±0.01        | -0.92±0.11               | 19.1  | $f_{121}$                              | 0.1550±0.0026                | 0.04±0.01        | 0.74±0.16                | 8.8   |
| $f_{41}$                                        | 2.4767±0.0017                | 0.07±0.02        | 1.26±0.11                | 19.4  | $f_{122}$                              | 2.0539±0.0026                | 0.04±0.01        | -2.49±0.16               | 8.9   |
| $f_{42}$                                        | 1.3681±0.0017                | 0.05±0.01        | -1.17±0.11               | 19.5  | $f_{123}$                              | 14.9102±0.0025               | 0.04±0.01        | -2.76±0.15               | 9.2   |
| $f_{43}$                                        | 0.8248±0.0018                | 0.06±0.01        | 3.01±0.11                | 19.0  | $f_{124}$                              | 7.3293±0.0025                | 0.04±0.01        | -2.99±0.15               | 9.1   |
| $f_{44}$                                        | 16.6734±0.0019               | 0.06±0.01        | 2.24±0.11                | 16.7  | $f_{125}$                              | 2.9008±0.0026                | 0.04±0.01        | 1.43±0.16                | 8.8   |
| $f_{45}$                                        | 9.8767±0.0019                | 0.06±0.01        | 1.09±0.12                | 16.3  | $f_{126}$                              | 15.8306±0.0026               | 0.04±0.01        | 1.32±0.16                | 8.4   |
| $f_{47}$                                        | 0.4156±0.0019                | 0.06±0.01        | -2.04±0.12               | 16.1  | $f_{127}$                              | 15.3247±0.0026               | 0.04±0.01        | 1.63±0.16                | 8.5   |
| $f_{48}$                                        | 0.3389±0.0019                | 0.06±0.01        | -0.56±0.12               | 16.1  | $f_{129}$                              | 0.8853±0.0026                | 0.04±0.01        | 1.15±0.16                | 8.3   |
| $f_{49}$                                        | 11.0703±0.0019               | 0.06±0.02        | 0.71±0.12                | 15.4  | $f_{130}$                              | 7.9825±0.0027                | 0.04±0.01        | 1.37±0.16                | 8.2   |
| $f_{50}$                                        | 4.0784±0.0019                | 0.06±0.02        | -1.24±0.12               | 15.5  | $f_{131}$                              | 8.4945±0.0027                | 0.04±0.01        | -1.27±0.16               | 8.2   |
| $f_{51}$                                        | 4.5316±0.0020                | 0.06±0.02        | -3.01±0.12               | 15.3  | $f_{132}$                              | 6.6876±0.0027                | 0.04±0.01        | 1.45±0.16                | 8.2   |
| $f_{52}$                                        | 3.1390±0.0020                | 0.06±0.02        | -2.92±0.12               | 14.9  | $f_{133}$                              | 10.3046±0.0026               | 0.04±0.01        | -1.32±0.16               | 8.4   |
| $f_{53}$                                        | 14.3416±0.0020               | 0.05±0.01        | -2.47±0.12               | 14.8  | $f_{134}$                              | 6.8514±0.0026                | 0.04±0.01        | -0.35±0.16               | 8.5   |
| $f_{54}$                                        | 4.2186±0.0019                | 0.06±0.02        | -2.38±0.12               | 15.5  | $f_{135}$                              | 8.0656±0.0027                | 0.04±0.01        | -0.64±0.16               | 8.2   |
| $f_{55}$                                        | 15.2484±0.0020               | 0.06±0.02        | -1.72±0.12               | 15.2  | $f_{136}$                              | 1.5640±0.0027                | 0.03±0.01        | 2.00±0.17                | 7.9   |
| $f_{56}$                                        | 4.8401±0.0020                | 0.06±0.02        | 1.59±0.12                | 14.9  | $f_{137}$                              | 16.1388±0.0027               | 0.04±0.01        | 2.00±0.17                | 7.9   |
| $f_{58}$                                        | 0.1903±0.0020                | 0.06±0.02        | -0.22±0.12               | 14.7  | $f_{138}$                              | 10.1592±0.0027               | 0.04±0.01        | -0.26±0.16               | 8.2   |
| $f_{59}$                                        | 0.2358±0.0020                | 0.07±0.02        | 2.66±0.12                | 14.9  | $f_{140}$                              | 2.5527±0.0027                | 0.04±0.01        | 2.42±0.17                | 7.8   |
| $f_{60}$                                        | 0.2477±0.0018                | 0.06±0.01        | 1.50±0.11                | 17.7  | $f_{141}$                              | 0.6120±0.0028                | 0.04±0.01        | 1.53±0.17                | 7.7   |
| $f_{61}$                                        | 2.2084±0.0020                | 0.06±0.02        | 0.95±0.12                | 14.8  | $f_{142}$                              | 0.2053±0.0027                | 0.04±0.01        | 2.34±0.17                | 7.9   |
| $f_{62}$                                        | 1.5570±0.0020                | 0.07±0.02        | 1.75±0.12                | 14.7  | $f_{143}$                              | 1.8685±0.0028                | 0.04±0.01        | 0.31±0.17                | 7.5   |
| $f_{63}$                                        | 14.2523±0.0020               | 0.06±0.02        | -2.17±0.12               | 14.8  | $f_{144}$                              | 10.7646±0.0028               | 0.04±0.01        | 1.47±0.17                | 7.4   |
| $f_{64}$                                        | 0.2848±0.0020                | 0.06±0.02        | 0.86±0.12                | 14.8  | $f_{145}$                              | 1.9760±0.0028                | 0.04±0.01        | -3.13±0.17               | 7.5   |
| $f_{65}$                                        | 0.4821±0.0020                | 0.06±0.02        | -2.11±0.12               | 14.5  | $f_{146}$                              | 55.8617±0.0028               | 0.04±0.01        | -1.09±0.17               | 7.4   |
| $f_{66}$                                        | 10.2558±0.0020               | 0.06±0.02        | 1.02±0.12                | 14.0  | $f_{147}$                              | 1.2588±0.0028                | 0.03±0.01        | -2.04±0.17               | 7.4   |
| Frequency list of 0102762741 continued          |                              |                  |                          |       | $f_{148}$                              | 11.7631±0.0028               | 0.04±0.01        | 0.63±0.17                | 7.4   |
|                                                 |                              |                  |                          |       | $f_{149}$                              | 14.4336±0.0029               | 0.03±0.01        | -1.85±0.18               | 7.0   |
|                                                 |                              |                  |                          |       | $f_{150}$                              | 15.1964±0.0029               | 0.03±0.01        | 0.63±0.18                | 7.0   |
|                                                 |                              |                  |                          |       | $f_{151}$                              | 2.6124±0.0029                | 0.04±0.02        | -1.03±0.18               | 7.0   |
|                                                 |                              |                  |                          |       | $f_{152}$                              | 2.1313±0.0029                | 0.03±0.01        | 1.40±0.18                | 7.0   |
|                                                 |                              |                  |                          |       | Frequency list of 0102762741 continued |                              |                  |                          |       |

## Appendix D. Frequencies of individual Hybrid Stars

| Frequency list of 0102762741 continued |                              |                  |                          |        | Frequency list of 0102765447 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|--------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign.  | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{153}$                              | 3.9114±0.0029                | 0.03±0.01        | -0.74±0.18               | 7.0    | $f_{24}$                               | 10.7407±0.0012               | 0.12±0.02        | 1.87±0.07                | 39.9  |
| $f_{155}$                              | 1.1113±0.0029                | 0.03±0.01        | -1.23±0.18               | 6.9    | $f_{25}$                               | 2.5887±0.0012                | 0.12±0.02        | -0.07±0.07               | 39.7  |
| $f_{156}$                              | 8.9722±0.0029                | 0.03±0.01        | -0.91±0.18               | 6.7    | $f_{26}$                               | 1.9937±0.0012                | 0.11±0.02        | 2.61±0.07                | 40.6  |
| $f_{159}$                              | 0.9336±0.0030                | 0.04±0.02        | -2.45±0.19               | 6.3    | $f_{27}$                               | 22.9005±0.0013               | 0.11±0.02        | 1.21±0.08                | 37.2  |
| $f_{160}$                              | 1.3302±0.0030                | 0.03±0.01        | 2.48±0.18                | 6.5    | $f_{28}$                               | 1.7715±0.0013                | 0.10±0.02        | 1.15±0.08                | 33.9  |
| $f_{161}$                              | 3.9525±0.0030                | 0.03±0.01        | 0.76±0.19                | 6.3    | $f_{29}$                               | 12.9008±0.0013               | 0.11±0.02        | 1.45±0.08                | 32.7  |
| $f_{162}$                              | 0.9118±0.0031                | 0.04±0.02        | 2.56±0.19                | 6.2    | $f_{30}$                               | 0.9996±0.0013                | 0.11±0.02        | 1.82±0.08                | 33.3  |
| $f_{163}$                              | 0.8510±0.0030                | 0.03±0.01        | -1.72±0.18               | 6.5    | $f_{31}$                               | 22.3966±0.0013               | 0.10±0.02        | -1.44±0.08               | 32.0  |
| $f_{164}$                              | 0.7448±0.0030                | 0.03±0.01        | 1.48±0.18                | 6.6    | $f_{32}$                               | 14.4642±0.0014               | 0.10±0.02        | 1.66±0.08                | 30.6  |
| $f_{165}$                              | 13.6023±0.0030               | 0.03±0.01        | 2.58±0.18                | 6.5    | $f_{33}$                               | 16.1011±0.0014               | 0.10±0.02        | -1.12±0.08               | 31.1  |
| $f_{168}$                              | 1.5128±0.0031                | 0.03±0.01        | -1.74±0.19               | 6.2    | $f_{35}$                               | 4.1014±0.0014                | 0.10±0.02        | 1.31±0.09                | 28.8  |
| $f_{169}$                              | 10.2086±0.0031               | 0.03±0.01        | -2.70±0.19               | 6.1    | $f_{37}$                               | 7.5582±0.0015                | 0.09±0.02        | 0.92±0.09                | 27.0  |
| $f_{170}$                              | 7.4201±0.0031                | 0.03±0.01        | -0.91±0.19               | 6.1    | $f_{38}$                               | 26.0862±0.0015               | 0.09±0.02        | 2.24±0.09                | 25.6  |
| $f_{171}$                              | 7.2916±0.0031                | 0.03±0.01        | -0.61±0.19               | 6.1    | $f_{39}$                               | 13.7472±0.0015               | 0.09±0.02        | 0.18±0.09                | 24.5  |
| $f_{172}$                              | 2.4953±0.0031                | 0.03±0.01        | -1.15±0.19               | 6.0    | $f_{40}$                               | 6.6895±0.0015                | 0.09±0.02        | 0.87±0.09                | 24.5  |
| $f_{173}$                              | 1.0836±0.0031                | 0.03±0.01        | 2.29±0.19                | 6.1    | $f_{41}$                               | 26.2846±0.0016               | 0.09±0.02        | -0.30±0.10               | 23.9  |
| $f_{174}$                              | 0.6752±0.0031                | 0.03±0.01        | 3.14±0.19                | 6.1    | $f_{42}$                               | 1.6456±0.0016                | 0.10±0.02        | -1.98±0.10               | 23.8  |
| $f_{175}$                              | 11.4709±0.0031               | 0.03±0.01        | -1.82±0.19               | 6.1    | $f_{45}$                               | 11.1208±0.0016               | 0.09±0.02        | -0.65±0.10               | 23.7  |
| $f_{176}$                              | 11.4145±0.0031               | 0.03±0.01        | 0.37±0.19                | 6.0    | $f_{46}$                               | 9.5495±0.0016                | 0.08±0.02        | -2.46±0.09               | 24.1  |
| $f_{177}$                              | 0.4901±0.0031                | 0.03±0.01        | -0.01±0.19               | 6.1    | $f_{47}$                               | 28.6460±0.0016               | 0.09±0.02        | 1.78±0.10                | 23.7  |
| $f_{178}$                              | 2.6283±0.0031                | 0.03±0.01        | -0.87±0.19               | 5.9    | $f_{48}$                               | 3.9272±0.0016                | 0.08±0.02        | 2.82±0.10                | 22.4  |
| $f_{179}$                              | 2.7558±0.0031                | 0.03±0.01        | -1.90±0.19               | 6.0    | $f_{49}$                               | 4.0606±0.0016                | 0.08±0.02        | -0.35±0.10               | 22.7  |
| $f_{180}$                              | 2.9930±0.0031                | 0.03±0.01        | -1.46±0.19               | 6.0    | $f_{50}$                               | 8.0016±0.0016                | 0.08±0.02        | 2.32±0.10                | 22.7  |
| $f_{181}$                              | 3.0275±0.0031                | 0.03±0.01        | 0.23±0.19                | 5.9    | $f_{51}$                               | 1.7463±0.0016                | 0.07±0.01        | 2.77±0.10                | 22.5  |
| $f_{182}$                              | 0.3712±0.0032                | 0.04±0.02        | 1.79±0.20                | 5.7    | $f_{52}$                               | 10.3896±0.0016               | 0.08±0.02        | -1.94±0.10               | 22.3  |
| $f_{183}$                              | 0.1802±0.0031                | 0.03±0.01        | -2.36±0.19               | 5.9    | $f_{53}$                               | 28.0562±0.0016               | 0.08±0.02        | -2.70±0.10               | 21.7  |
| $f_{184}$                              | 15.1099±0.0032               | 0.03±0.01        | -2.30±0.19               | 5.8    | $f_{54}$                               | 3.4738±0.0017                | 0.08±0.02        | -2.53±0.10               | 21.1  |
| $f_{185}$                              | 10.0802±0.0032               | 0.03±0.01        | 2.30±0.19                | 5.8    | $f_{55}$                               | 3.7645±0.0016                | 0.08±0.02        | 2.90±0.10                | 21.5  |
| $f_{186}$                              | 10.0039±0.0031               | 0.03±0.01        | 0.23±0.19                | 6.0    | $f_{56}$                               | 23.0194±0.0017               | 0.08±0.02        | 0.54±0.10                | 21.0  |
| $f_{187}$                              | 2.2396±0.0031                | 0.03±0.01        | 1.02±0.19                | 5.9    | $f_{57}$                               | 5.7418±0.0017                | 0.08±0.02        | -1.79±0.10               | 20.6  |
| $f_{188}$                              | 1.5437±0.0032                | 0.04±0.02        | 0.71±0.20                | 5.7    | $f_{59}$                               | 5.0046±0.0017                | 0.07±0.02        | -1.93±0.10               | 20.7  |
| $f_{189}$                              | 1.8604±0.0032                | 0.03±0.01        | -2.41±0.20               | 5.6    | $f_{60}$                               | 32.5729±0.0017               | 0.08±0.02        | 2.52±0.10                | 20.3  |
| $f_{190}$                              | 1.6525±0.0032                | 0.03±0.01        | 2.07±0.20                | 5.7    | $f_{61}$                               | 18.5203±0.0017               | 0.07±0.02        | -2.54±0.11               | 19.4  |
| $f_{191}$                              | 8.4718±0.0032                | 0.03±0.01        | 1.94±0.20                | 5.6    | $f_{62}$                               | 2.6604±0.0017                | 0.06±0.01        | -2.10±0.11               | 19.2  |
| $f_{192}$                              | 0.5420±0.0031                | 0.03±0.01        | -2.38±0.19               | 5.9    | $f_{63}$                               | 11.3072±0.0018               | 0.07±0.02        | 3.00±0.11                | 18.8  |
| $f_{193}$                              | 10.1280±0.0033               | 0.03±0.01        | -3.12±0.20               | 5.4    | $f_{65}$                               | 5.3094±0.0018                | 0.07±0.02        | 0.58±0.11                | 18.4  |
| $f_{194}$                              | 1.7107±0.0033                | 0.03±0.01        | 2.32±0.20                | 5.5    | $f_{66}$                               | 8.2659±0.0018                | 0.07±0.02        | -0.96±0.11               | 19.0  |
| $f_{195}$                              | 1.5764±0.0033                | 0.03±0.01        | 0.42±0.20                | 5.5    | $f_{68}$                               | 0.8984±0.0018                | 0.07±0.02        | 2.95±0.11                | 18.9  |
| $f_{196}$                              | 7.1513±0.0033                | 0.03±0.01        | -0.98±0.20               | 5.4    | $f_{69}$                               | 14.8451±0.0018               | 0.07±0.02        | -1.96±0.11               | 18.5  |
| $f_{197}$                              | 12.1085±0.0033               | 0.03±0.01        | 0.59±0.20                | 5.2    | $f_{70}$                               | 17.1541±0.0018               | 0.07±0.02        | 1.26±0.11                | 19.0  |
| $f_{198}$                              | 16.7673±0.0033               | 0.03±0.01        | 2.74±0.20                | 5.2    | $f_{71}$                               | 2.1892±0.0018                | 0.07±0.02        | 1.46±0.11                | 18.1  |
| $f_{199}$                              | 3.7640±0.0033                | 0.03±0.01        | -2.57±0.20               | 5.2    | $f_{72}$                               | 23.4035±0.0018               | 0.07±0.02        | -2.20±0.11               | 18.5  |
| $f_{200}$                              | 15.6508±0.0033               | 0.03±0.01        | -2.15±0.20               | 5.2    | $f_{73}$                               | 0.1417±0.0018                | 0.06±0.01        | 0.56±0.11                | 19.0  |
| $f_{201}$                              | 1.0377±0.0033                | 0.03±0.01        | 2.85±0.20                | 5.2    | $f_{74}$                               | 28.9670±0.0018               | 0.06±0.01        | -2.42±0.11               | 17.3  |
| $f_{202}$                              | 0.4350±0.0033                | 0.03±0.01        | -1.35±0.20               | 5.5    | $f_{80}$                               | 2.0053±0.0016                | 0.10±0.02        | -1.48±0.09               | 24.2  |
| $f_{203}$                              | 2.5446±0.0034                | 0.03±0.01        | 2.22±0.21                | 5.1    | $f_{81}$                               | 6.3985±0.0018                | 0.07±0.02        | 1.34±0.11                | 17.6  |
| $f_{205}$                              | 55.8520±0.0033               | 0.03±0.01        | -1.39±0.20               | 5.4    | $f_{82}$                               | 0.2393±0.0019                | 0.06±0.01        | 0.08±0.11                | 16.9  |
| $f_{206}$                              | 9.1821±0.0034                | 0.03±0.01        | -1.51±0.21               | 5.1    | $f_{83}$                               | 6.0910±0.0019                | 0.07±0.02        | -2.60±0.11               | 17.0  |
| $f_{207}$                              | 2.9355±0.0034                | 0.03±0.01        | -2.11±0.21               | 5.1    | $f_{85}$                               | 31.3287±0.0019               | 0.06±0.01        | -0.73±0.12               | 16.2  |
| $f_{208}$                              | 3.0668±0.0033                | 0.03±0.01        | -0.03±0.20               | 5.2    | $f_{86}$                               | 10.6287±0.0019               | 0.07±0.02        | 0.47±0.12                | 16.1  |
| $f_{209}$                              | 0.5995±0.0034                | 0.03±0.01        | 2.55±0.21                | 5.1    | $f_{87}$                               | 2.8981±0.0019                | 0.06±0.01        | -0.59±0.12               | 16.0  |
| $f_{210}$                              | 3.1999±0.0033                | 0.03±0.01        | 3.04±0.20                | 5.2    | $f_{88}$                               | 16.2217±0.0019               | 0.06±0.02        | -3.14±0.12               | 15.8  |
| $f_{211}$                              | 9.0448±0.0034                | 0.03±0.01        | 2.29±0.21                | 5.1    | $f_{89}$                               | 5.6627±0.0019                | 0.07±0.02        | 0.32±0.12                | 15.9  |
|                                        |                              |                  |                          |        | $f_{90}$                               | 14.0873±0.0019               | 0.06±0.02        | 2.43±0.12                | 15.9  |
|                                        |                              |                  |                          |        | $f_{91}$                               | 0.1231±0.0019                | 0.07±0.02        | 0.68±0.12                | 15.5  |
|                                        |                              |                  |                          |        | $f_{92}$                               | 5.4634±0.0020                | 0.06±0.02        | -3.10±0.12               | 14.9  |
|                                        |                              |                  |                          |        | $f_{93}$                               | 1.3369±0.0020                | 0.06±0.02        | 1.89±0.12                | 14.9  |
|                                        |                              |                  |                          |        | $f_{94}$                               | 21.3818±0.0020               | 0.06±0.02        | -1.83±0.12               | 15.3  |
|                                        |                              |                  |                          |        | $f_{95}$                               | 25.2665±0.0020               | 0.06±0.02        | 0.06±0.12                | 14.9  |
|                                        |                              |                  |                          |        | $f_{96}$                               | 2.6705±0.0020                | 0.06±0.02        | -2.80±0.12               | 14.8  |
|                                        |                              |                  |                          |        | $f_{97}$                               | 29.1099±0.0020               | 0.06±0.02        | -1.79±0.12               | 14.8  |
|                                        |                              |                  |                          |        | $f_{98}$                               | 0.3108±0.0020                | 0.06±0.02        | -1.54±0.12               | 14.7  |
|                                        |                              |                  |                          |        | $f_{99}$                               | 18.4550±0.0020               | 0.06±0.02        | -0.88±0.12               | 14.8  |
|                                        |                              |                  |                          |        | $f_{100}$                              | 0.7939±0.0020                | 0.05±0.01        | -0.39±0.12               | 14.8  |
|                                        |                              |                  |                          |        | $f_{101}$                              | 5.8887±0.0020                | 0.06±0.02        | -2.02±0.12               | 14.5  |
|                                        |                              |                  |                          |        | $f_{102}$                              | 33.2279±0.0021               | 0.06±0.02        | 1.76±0.13                | 13.4  |
|                                        |                              |                  |                          |        | $f_{103}$                              | 10.9155±0.0021               | 0.05±0.01        | 1.28±0.13                | 13.2  |
|                                        |                              |                  |                          |        | $f_{104}$                              | 5.7496±0.0021                | 0.05±0.01        | -1.86±0.13               | 13.3  |
|                                        |                              |                  |                          |        | $f_{105}$                              | 25.3683±0.0021               | 0.06±0.02        | 1.78±0.13                | 12.8  |
|                                        |                              |                  |                          |        | $f_{106}$                              | 16.5379±0.0021               | 0.05±0.01        | 1.63±0.13                | 13.3  |
|                                        |                              |                  |                          |        | $f_{107}$                              | 1.3888±0.0021                | 0.05±0.01        | 2.88±0.13                | 12.9  |
|                                        |                              |                  |                          |        | $f_{108}$                              | 22.8376±0.0021               | 0.05±0.01        | -0.36±0.13               | 12.7  |
|                                        |                              |                  |                          |        | $f_{109}$                              | 18.5811±0.0021               | 0.05±0.01        | -1.52±0.13               | 12.7  |
|                                        |                              |                  |                          |        | $f_{110}$                              | 4.6638±0.0021                | 0.05±0.01        | 1.82±0.13                | 12.8  |
|                                        |                              |                  |                          |        | $f_{111}$                              | 6.9084±0.0022                | 0.05±0.01        | 2.40±0.13                | 12.6  |
|                                        |                              |                  |                          |        | $f_{112}$                              | 20.8418±0.0021               | 0.06±0.02        | -2.88±0.13               | 13.0  |
|                                        |                              |                  |                          |        | Frequency list of 0102765447 continued |                              |                  |                          |       |
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign.  |                                        |                              |                  |                          |       |
| $f_1$                                  | 23.3970±0.0002               | 1.46±0.03        | -2.72±0.01               | 1763.3 |                                        |                              |                  |                          |       |
| $f_2$                                  | 17.5421±0.0003               | 0.74±0.03        | -2.53±0.02               | 715.0  |                                        |                              |                  |                          |       |
| $f_3$                                  | 20.6042±0.0003               | 0.57±0.03        | -0.70±0.02               | 491.6  |                                        |                              |                  |                          |       |
| $f_4$                                  | 2.1341±0.0004                | 0.49±0.02        | -1.04±0.02               | 444.1  |                                        |                              |                  |                          |       |
| $f_5$                                  | 12.4757±0.0006               | 0.32±0.02        | -0.04±0.03               | 188.5  |                                        |                              |                  |                          |       |
| $f_6$                                  | 2.3655±0.0006                | 0.26±0.02        | 0.51±0.04                | 144.2  |                                        |                              |                  |                          |       |
| $f_7$                                  | 17.9187±0.0007               | 0.24±0.02        | 2.65±0.04                | 128.3  |                                        |                              |                  |                          |       |
| $f_8$                                  | 12.2983±0.0008               | 0.21±0.02        | 3.02±0.05                | 102.4  |                                        |                              |                  |                          |       |
| $f_9$                                  | 7.8879±0.0008                | 0.20±0.02        | 2.26±0.05                | 87.8   |                                        |                              |                  |                          |       |
| $f_{10}$                               | 19.2508±0.0008               | 0.20±0.02        | 0.10±0.05                | 88.8   |                                        |                              |                  |                          |       |
| $f_{11}$                               | 23.8865±0.0008               | 0.20±0.02        | 2.96±0.05                | 92.2   |                                        |                              |                  |                          |       |
| $f_{12}$                               | 3.7922±0.0008                | 0.18±0.02        | -1.25±0.05               | 85.2   |                                        |                              |                  |                          |       |
| $f_{15}$                               | 14.0670±0.0010               | 0.15±0.02        | 1.27±0.06                | 55.5   |                                        |                              |                  |                          |       |
| $f_{16}$                               | 21.1183±0.0010               | 0.15±0.02        | 1.33±0.06                | 56.0   |                                        |                              |                  |                          |       |
| $f_{17}$                               | 16.5312±0.0011               | 0.14±0.02        | 0.01±0.07                | 48.0   |                                        |                              |                  |                          |       |
| $f_{18}$                               | 20.4009±0.0011               | 0.14±0.02        | -0.55±0.07               | 47.7   |                                        |                              |                  |                          |       |
| $f_{19}$                               | 7.7829±0.0011                | 0.14±0.02        | -1.65±0.07               | 49.0   |                                        |                              |                  |                          |       |
| $f_{20}$                               | 31.1483±0.0011               | 0.14±0.02        | 1.64±0.07                | 48.5   |                                        |                              |                  |                          |       |
| $f_{21}$                               | 6.4651±0.0011                | 0.14±0.02        | -0.34±0.07               | 46.5   |                                        |                              |                  |                          |       |
| $f_{22}$                               | 13.5979±0.0011               | 0.13±0.02        | -2.00±0.07               | 45.5   |                                        |                              |                  |                          |       |
| $f_{23}$                               | 16.3771±0.0012               | 0.12±0.02        | 1.43±0.07                | 40.4   |                                        |                              |                  |                          |       |
|                                        |                              |                  |                          |        | Frequency list of 0102765447 continued |                              |                  |                          |       |

## Appendix D. Frequencies of individual Hybrid Stars

| Frequency list of 0102765447 continued |                              |                  |                          |       | Frequency list of 0102765447 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| <i>f</i> <sub>113</sub>                | 20.2076±0.0022               | 0.05±0.01        | 0.90±0.13                | 12.5  | <i>f</i> <sub>197</sub>                | 12.5531±0.0029               | 0.04±0.02        | -1.72±0.17               | 7.1   |
| <i>f</i> <sub>114</sub>                | 2.9434±0.0022                | 0.05±0.01        | -0.80±0.13               | 12.5  | <i>f</i> <sub>198</sub>                | 6.5097±0.0028                | 0.04±0.01        | 0.94±0.17                | 7.2   |
| <i>f</i> <sub>115</sub>                | 1.8099±0.0022                | 0.05±0.01        | -2.11±0.13               | 12.5  | <i>f</i> <sub>199</sub>                | 10.4267±0.0029               | 0.04±0.02        | -3.11±0.17               | 7.1   |
| <i>f</i> <sub>117</sub>                | 10.4892±0.0022               | 0.06±0.02        | 0.14±0.13                | 12.0  | <i>f</i> <sub>200</sub>                | 29.8404±0.0028               | 0.04±0.01        | 0.39±0.17                | 7.3   |
| <i>f</i> <sub>118</sub>                | 14.8029±0.0022               | 0.05±0.01        | -0.92±0.14               | 11.9  | <i>f</i> <sub>201</sub>                | 2.2165±0.0028                | 0.04±0.01        | -1.38±0.17               | 7.5   |
| <i>f</i> <sub>119</sub>                | 4.2286±0.0022                | 0.05±0.01        | 2.49±0.14                | 11.9  | <i>f</i> <sub>202</sub>                | 4.5330±0.0028                | 0.04±0.01        | -0.22±0.17               | 7.2   |
| <i>f</i> <sub>120</sub>                | 4.6248±0.0022                | 0.05±0.01        | 0.40±0.14                | 11.9  | <i>f</i> <sub>203</sub>                | 7.5908±0.0028                | 0.04±0.01        | 2.78±0.17                | 7.4   |
| <i>f</i> <sub>121</sub>                | 33.7221±0.0022               | 0.05±0.01        | -2.09±0.14               | 11.8  | <i>f</i> <sub>204</sub>                | 0.3438±0.0029                | 0.04±0.02        | -2.65±0.18               | 7.0   |
| <i>f</i> <sub>122</sub>                | 6.8000±0.0022                | 0.05±0.01        | -1.05±0.14               | 11.7  | <i>f</i> <sub>205</sub>                | 15.4972±0.0029               | 0.04±0.02        | 1.38±0.18                | 6.9   |
| <i>f</i> <sub>123</sub>                | 21.3994±0.0023               | 0.05±0.01        | 1.80±0.14                | 11.4  | <i>f</i> <sub>206</sub>                | 12.1064±0.0029               | 0.04±0.02        | 2.63±0.18                | 6.9   |
| <i>f</i> <sub>124</sub>                | 4.3594±0.0022                | 0.05±0.01        | -2.76±0.14               | 11.7  | <i>f</i> <sub>207</sub>                | 25.7629±0.0029               | 0.04±0.02        | 1.38±0.17                | 7.1   |
| <i>f</i> <sub>125</sub>                | 1.6203±0.0023                | 0.05±0.02        | 2.69±0.14                | 11.1  | <i>f</i> <sub>208</sub>                | 12.4044±0.0029               | 0.04±0.02        | -1.11±0.18               | 6.9   |
| <i>f</i> <sub>126</sub>                | 14.3854±0.0022               | 0.05±0.01        | 0.74±0.14                | 11.6  | <i>f</i> <sub>209</sub>                | 0.7053±0.0029                | 0.04±0.02        | -2.51±0.18               | 6.9   |
| <i>f</i> <sub>127</sub>                | 30.4174±0.0023               | 0.05±0.02        | 1.01±0.14                | 10.8  | <i>f</i> <sub>210</sub>                | 11.6527±0.0029               | 0.04±0.02        | -0.74±0.17               | 7.1   |
| <i>f</i> <sub>128</sub>                | 0.9123±0.0023                | 0.05±0.02        | -2.65±0.14               | 10.6  | <i>f</i> <sub>211</sub>                | 14.3450±0.0029               | 0.04±0.02        | 2.77±0.18                | 7.0   |
| <i>f</i> <sub>129</sub>                | 3.2120±0.0024                | 0.05±0.02        | -0.52±0.14               | 10.4  | <i>f</i> <sub>212</sub>                | 4.1683±0.0029                | 0.04±0.02        | -3.08±0.18               | 6.8   |
| <i>f</i> <sub>130</sub>                | 3.9992±0.0024                | 0.05±0.02        | -2.93±0.14               | 10.5  | <i>f</i> <sub>213</sub>                | 4.0164±0.0029                | 0.04±0.02        | 2.57±0.18                | 7.0   |
| <i>f</i> <sub>132</sub>                | 13.2141±0.0023               | 0.05±0.02        | 2.54±0.14                | 10.6  | <i>f</i> <sub>214</sub>                | 8.1897±0.0029                | 0.04±0.02        | -0.38±0.18               | 7.0   |
| <i>f</i> <sub>133</sub>                | 1.3071±0.0024                | 0.05±0.02        | 2.31±0.14                | 10.4  | <i>f</i> <sub>215</sub>                | 6.6715±0.0029                | 0.04±0.02        | -1.80±0.18               | 6.8   |
| <i>f</i> <sub>134</sub>                | 1.2455±0.0024                | 0.05±0.02        | 1.12±0.14                | 10.5  | <i>f</i> <sub>217</sub>                | 34.2108±0.0029               | 0.04±0.02        | -1.17±0.18               | 6.9   |
| <i>f</i> <sub>135</sub>                | 1.4040±0.0023                | 0.05±0.02        | -2.20±0.14               | 10.9  | <i>f</i> <sub>218</sub>                | 4.9496±0.0029                | 0.03±0.01        | 1.13±0.18                | 6.9   |
| <i>f</i> <sub>136</sub>                | 1.2371±0.0023                | 0.05±0.02        | 3.01±0.14                | 10.6  | <i>f</i> <sub>219</sub>                | 11.4464±0.0029               | 0.04±0.02        | 1.13±0.18                | 6.7   |
| <i>f</i> <sub>137</sub>                | 0.8207±0.0024                | 0.05±0.02        | -2.69±0.14               | 10.4  | <i>f</i> <sub>220</sub>                | 33.0864±0.0029               | 0.04±0.02        | -0.93±0.18               | 6.9   |
| <i>f</i> <sub>139</sub>                | 24.3950±0.0024               | 0.05±0.02        | 0.98±0.15                | 10.0  | <i>f</i> <sub>221</sub>                | 1.7354±0.0029                | 0.04±0.02        | -0.13±0.18               | 6.7   |
| <i>f</i> <sub>140</sub>                | 8.7610±0.0024                | 0.04±0.01        | 3.05±0.15                | 9.9   | <i>f</i> <sub>223</sub>                | 25.5321±0.0030               | 0.04±0.02        | 0.11±0.18                | 6.5   |
| <i>f</i> <sub>141</sub>                | 11.1684±0.0025               | 0.04±0.01        | -3.12±0.15               | 9.3   | <i>f</i> <sub>224</sub>                | 19.3402±0.0030               | 0.03±0.01        | 3.04±0.18                | 6.4   |
| <i>f</i> <sub>142</sub>                | 17.6814±0.0025               | 0.04±0.01        | -0.34±0.15               | 9.5   | <i>f</i> <sub>225</sub>                | 1.0347±0.0030                | 0.03±0.01        | 0.89±0.18                | 6.4   |
| <i>f</i> <sub>143</sub>                | 24.0753±0.0025               | 0.04±0.01        | 1.30±0.15                | 9.2   | <i>f</i> <sub>226</sub>                | 3.9387±0.0030                | 0.04±0.02        | 1.63±0.19                | 6.3   |
| <i>f</i> <sub>144</sub>                | 4.9701±0.0025                | 0.05±0.02        | 1.05±0.15                | 9.6   | <i>f</i> <sub>227</sub>                | 2.2469±0.0030                | 0.03±0.01        | -0.70±0.18               | 6.6   |
| <i>f</i> <sub>145</sub>                | 0.1322±0.0025                | 0.05±0.02        | -1.89±0.15               | 9.6   | <i>f</i> <sub>228</sub>                | 23.8055±0.0030               | 0.03±0.01        | 1.02±0.19                | 6.3   |
| <i>f</i> <sub>146</sub>                | 2.9107±0.0025                | 0.04±0.01        | 0.48±0.15                | 9.5   | <i>f</i> <sub>230</sub>                | 4.2226±0.0030                | 0.04±0.02        | -1.99±0.18               | 6.5   |
| <i>f</i> <sub>147</sub>                | 0.1674±0.0025                | 0.03±0.01        | 2.51±0.15                | 9.1   | <i>f</i> <sub>231</sub>                | 17.0046±0.0030               | 0.03±0.01        | -0.82±0.19               | 6.3   |
| <i>f</i> <sub>148</sub>                | 6.4057±0.0025                | 0.04±0.01        | -2.21±0.15               | 9.4   | <i>f</i> <sub>232</sub>                | 1.1467±0.0031                | 0.03±0.01        | 1.26±0.19                | 6.1   |
| <i>f</i> <sub>149</sub>                | 19.3739±0.0025               | 0.04±0.01        | 1.07±0.15                | 9.1   | <i>f</i> <sub>233</sub>                | 3.5187±0.0031                | 0.03±0.01        | 0.66±0.19                | 6.2   |
| <i>f</i> <sub>151</sub>                | 4.8211±0.0025                | 0.05±0.02        | -2.19±0.16               | 9.0   | <i>f</i> <sub>234</sub>                | 3.6840±0.0030                | 0.03±0.01        | 1.98±0.18                | 6.4   |
| <i>f</i> <sub>152</sub>                | 5.1608±0.0026                | 0.04±0.01        | 1.90±0.16                | 8.9   | <i>f</i> <sub>235</sub>                | 20.4215±0.0031               | 0.03±0.01        | 2.52±0.19                | 6.2   |
| <i>f</i> <sub>153</sub>                | 28.4730±0.0025               | 0.04±0.01        | -0.06±0.15               | 9.1   | <i>f</i> <sub>236</sub>                | 0.1567±0.0031                | 0.04±0.02        | 2.62±0.19                | 6.2   |
| <i>f</i> <sub>154</sub>                | 9.6684±0.0026                | 0.04±0.01        | 1.21±0.16                | 8.8   | <i>f</i> <sub>237</sub>                | 18.8908±0.0031               | 0.03±0.01        | -1.80±0.19               | 6.2   |
| <i>f</i> <sub>155</sub>                | 31.4211±0.0025               | 0.04±0.01        | 0.73±0.16                | 9.0   | <i>f</i> <sub>238</sub>                | 2.8839±0.0031                | 0.03±0.01        | 1.90±0.19                | 6.2   |
| <i>f</i> <sub>156</sub>                | 0.5386±0.0026                | 0.04±0.01        | -2.41±0.16               | 8.9   | <i>f</i> <sub>239</sub>                | 1.9103±0.0030                | 0.03±0.01        | -3.08±0.18               | 6.4   |
| <i>f</i> <sub>158</sub>                | 1.1396±0.0026                | 0.05±0.02        | -0.21±0.16               | 8.9   | <i>f</i> <sub>240</sub>                | 3.2940±0.0031                | 0.03±0.01        | 0.74±0.19                | 6.1   |
| <i>f</i> <sub>160</sub>                | 3.8853±0.0026                | 0.04±0.01        | -2.78±0.16               | 8.7   | <i>f</i> <sub>241</sub>                | 5.6437±0.0031                | 0.03±0.01        | 1.66±0.19                | 6.2   |
| <i>f</i> <sub>161</sub>                | 26.1118±0.0026               | 0.04±0.01        | 2.87±0.16                | 8.5   | <i>f</i> <sub>242</sub>                | 12.5153±0.0031               | 0.03±0.01        | -1.28±0.19               | 6.1   |
| <i>f</i> <sub>162</sub>                | 3.3288±0.0026                | 0.04±0.01        | 3.13±0.16                | 8.8   | <i>f</i> <sub>243</sub>                | 5.0287±0.0031                | 0.04±0.02        | 2.38±0.19                | 6.2   |
| <i>f</i> <sub>163</sub>                | 15.6852±0.0026               | 0.04±0.01        | 0.91±0.16                | 8.4   | <i>f</i> <sub>244</sub>                | 3.7985±0.0030                | 0.03±0.01        | 0.29±0.19                | 6.3   |
| <i>f</i> <sub>164</sub>                | 7.9011±0.0026                | 0.04±0.01        | 2.02±0.16                | 8.3   | <i>f</i> <sub>247</sub>                | 19.0358±0.0031               | 0.03±0.01        | 2.42±0.19                | 6.0   |
| <i>f</i> <sub>165</sub>                | 0.3846±0.0026                | 0.04±0.01        | 0.90±0.16                | 8.4   | <i>f</i> <sub>248</sub>                | 9.5905±0.0031                | 0.03±0.01        | 0.03±0.19                | 6.0   |
| <i>f</i> <sub>166</sub>                | 2.4211±0.0027                | 0.04±0.01        | 2.98±0.16                | 8.1   | <i>f</i> <sub>249</sub>                | 23.3705±0.0031               | 0.03±0.01        | -1.69±0.19               | 6.1   |
| <i>f</i> <sub>167</sub>                | 1.9455±0.0027                | 0.04±0.01        | 0.68±0.16                | 8.2   | <i>f</i> <sub>250</sub>                | 23.3412±0.0031               | 0.03±0.01        | 0.22±0.19                | 6.0   |
| <i>f</i> <sub>168</sub>                | 26.6531±0.0026               | 0.04±0.01        | 2.91±0.16                | 8.5   | <i>f</i> <sub>251</sub>                | 1.5059±0.0031                | 0.03±0.01        | -2.33±0.19               | 6.0   |
| <i>f</i> <sub>169</sub>                | 12.1270±0.0027               | 0.04±0.01        | 2.14±0.16                | 8.1   | <i>f</i> <sub>252</sub>                | 27.8003±0.0031               | 0.03±0.01        | -1.36±0.19               | 6.0   |
| <i>f</i> <sub>170</sub>                | 25.6557±0.0027               | 0.04±0.01        | 0.64±0.16                | 8.0   | <i>f</i> <sub>253</sub>                | 4.1963±0.0031                | 0.03±0.01        | -0.00±0.19               | 6.0   |
| <i>f</i> <sub>171</sub>                | 1.1781±0.0027                | 0.04±0.01        | -2.99±0.16               | 8.2   | <i>f</i> <sub>254</sub>                | 11.7486±0.0032               | 0.03±0.01        | 0.67±0.19                | 5.8   |
| <i>f</i> <sub>172</sub>                | 30.2121±0.0027               | 0.04±0.01        | -0.21±0.16               | 8.0   | <i>f</i> <sub>255</sub>                | 5.3315±0.0031                | 0.03±0.01        | -1.53±0.19               | 6.1   |
| <i>f</i> <sub>173</sub>                | 30.8390±0.0027               | 0.04±0.01        | -2.36±0.16               | 8.1   | <i>f</i> <sub>256</sub>                | 14.3317±0.0032               | 0.03±0.01        | -2.00±0.19               | 5.8   |
| <i>f</i> <sub>174</sub>                | 1.5144±0.0027                | 0.04±0.01        | -2.10±0.17               | 7.9   | <i>f</i> <sub>257</sub>                | 6.5636±0.0031                | 0.03±0.01        | -1.14±0.19               | 6.1   |
| <i>f</i> <sub>175</sub>                | 1.5504±0.0027                | 0.04±0.01        | -2.77±0.16               | 8.1   | <i>f</i> <sub>258</sub>                | 5.0474±0.0032                | 0.03±0.01        | 1.56±0.20                | 5.7   |
| <i>f</i> <sub>177</sub>                | 17.7662±0.0028               | 0.04±0.01        | 1.66±0.17                | 7.7   | <i>f</i> <sub>259</sub>                | 9.2285±0.0032                | 0.03±0.01        | 2.39±0.19                | 5.8   |
| <i>f</i> <sub>178</sub>                | 3.5369±0.0028                | 0.04±0.01        | 1.20±0.17                | 7.6   | <i>f</i> <sub>262</sub>                | 2.1088±0.0032                | 0.03±0.01        | 1.27±0.20                | 5.7   |
| <i>f</i> <sub>179</sub>                | 0.9754±0.0028                | 0.04±0.01        | -1.86±0.17               | 7.6   | <i>f</i> <sub>263</sub>                | 25.3831±0.0032               | 0.03±0.01        | 2.90±0.19                | 5.8   |
| <i>f</i> <sub>180</sub>                | 31.1636±0.0028               | 0.04±0.01        | 2.75±0.17                | 7.7   | <i>f</i> <sub>264</sub>                | 30.2587±0.0031               | 0.03±0.01        | 0.66±0.19                | 5.9   |
| <i>f</i> <sub>181</sub>                | 7.1608±0.0027                | 0.04±0.01        | 2.21±0.16                | 8.0   | <i>f</i> <sub>265</sub>                | 17.6158±0.0032               | 0.03±0.01        | -0.99±0.20               | 5.7   |
| <i>f</i> <sub>182</sub>                | 20.0064±0.0028               | 0.04±0.01        | -2.45±0.17               | 7.6   | <i>f</i> <sub>266</sub>                | 3.5816±0.0032                | 0.03±0.01        | -2.84±0.20               | 5.7   |
| <i>f</i> <sub>183</sub>                | 13.3231±0.0028               | 0.04±0.01        | -0.10±0.17               | 7.4   | <i>f</i> <sub>267</sub>                | 3.6467±0.0030                | 0.03±0.01        | 1.49±0.18                | 6.4   |
| <i>f</i> <sub>184</sub>                | 2.4005±0.0028                | 0.04±0.01        | -1.64±0.17               | 7.6   | <i>f</i> <sub>268</sub>                | 4.7517±0.0032                | 0.03±0.01        | -2.31±0.20               | 5.7   |
| <i>f</i> <sub>185</sub>                | 1.0957±0.0028                | 0.04±0.01        | 0.37±0.17                | 7.4   | <i>f</i> <sub>269</sub>                | 4.8090±0.0032                | 0.03±0.01        | 1.20±0.19                | 5.8   |
| <i>f</i> <sub>186</sub>                | 23.4184±0.0027               | 0.04±0.01        | 1.93±0.17                | 7.9   | <i>f</i> <sub>270</sub>                | 23.4425±0.0033               | 0.03±0.01        | 0.73±0.20                | 5.5   |
| <i>f</i> <sub>187</sub>                | 11.7410±0.0028               | 0.04±0.01        | 0.38±0.17                | 7.3   | <i>f</i> <sub>271</sub>                | 23.0253±0.0033               | 0.03±0.01        | -2.95±0.20               | 5.5   |
| <i>f</i> <sub>188</sub>                | 9.2935±0.0028                | 0.04±0.01        | 1.64±0.17                | 7.3   | <i>f</i> <sub>272</sub>                | 0.4807±0.0033                | 0.03±0.01        | 0.29±0.20                | 5.5   |
| <i>f</i> <sub>189</sub>                | 21.5815±0.0028               | 0.04±0.01        | -0.01±0.17               | 7.5   | <i>f</i> <sub>273</sub>                | 10.7358±0.0032               | 0.03±0.01        | 0.40±0.20                | 5.6   |
| <i>f</i> <sub>190</sub>                | 8.7975±0.0028                | 0.04±0.01        | 1.40±0.17                | 7.3   | <i>f</i> <sub>275</sub>                | 2.0518±0.0033                | 0.03±0.01        | -2.67±0.20               | 5.4   |
| <i>f</i> <sub>191</sub>                | 24.2882±0.0028               | 0.04±0.01        | 1.20±0.17                | 7.3   | <i>f</i> <sub>276</sub>                | 37.3492±0.0033               | 0.03±0.01        | -2.65±0.20               | 5.3   |
| <i>f</i> <sub>192</sub>                | 25.1498±0.0028               | 0.04±0.01        | 1.92±0.17                | 7.2   | <i>f</i> <sub>277</sub>                | 2.7457±0.0033                | 0.03±0.01        | -2.74±0.20               | 5.3   |
| <i>f</i> <sub>193</sub>                | 7.2537±0.0028                | 0.04±0.01        | -1.39±0.17               | 7.3   | <i>f</i> <sub>279</sub>                | 4.9321±0.0032                | 0.03±0.01        | 0.64±0.20                | 5.6   |
| <i>f</i> <sub>194</sub>                | 5.7789±0.0028                | 0.04±0.01        | -1.01±0.17               | 7.2   | <i>f</i> <sub>280</sub>                | 1.6268±0.0033                | 0.03±0.01        | 1.89±0.20                | 5.4   |
| <i>f</i> <sub>195</sub>                | 1.2010±0.0028                | 0.04±0.01        | -2.35±0.17               | 7.5   | <i>f</i> <sub>281</sub>                | 1.7089±0.0033                | 0.04±0.02        | -1.99±0.20               | 5.3   |

Frequency list of 0102765447 continued

Frequency list of 0102765447 continued

## Appendix D. Frequencies of individual Hybrid Stars

| Frequency list of 0102765447 continued |                              |                  |                          |       | Frequency list of 0102769842 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{282}$                              | 1.8192±0.0033                | 0.03±0.01        | 0.43±0.20                | 5.5   | $f_{56}$                               | 0.5712±0.0024                | 0.19±0.06        | 2.92±0.15                | 10.1  |
| $f_{283}$                              | 1.6993±0.0033                | 0.03±0.01        | -3.09±0.20               | 5.5   | $f_{57}$                               | 0.3349±0.0024                | 0.20±0.06        | 1.19±0.15                | 9.8   |
| $f_{284}$                              | 4.6083±0.0033                | 0.03±0.01        | -1.15±0.20               | 5.3   | $f_{59}$                               | 3.5507±0.0025                | 0.18±0.06        | -0.84±0.15               | 9.1   |
| $f_{285}$                              | 12.3176±0.0033               | 0.03±0.01        | -2.34±0.20               | 5.2   | $f_{60}$                               | 0.1826±0.0025                | 0.20±0.06        | 0.73±0.15                | 9.6   |
| $f_{286}$                              | 0.2063±0.0033                | 0.03±0.01        | -3.05±0.20               | 5.4   | $f_{61}$                               | 13.7858±0.0026               | 0.17±0.06        | -0.25±0.16               | 8.5   |
| $f_{287}$                              | 0.1743±0.0033                | 0.03±0.01        | 1.95±0.20                | 5.4   | $f_{62}$                               | 22.0740±0.0026               | 0.17±0.06        | -2.29±0.16               | 8.4   |
| $f_{288}$                              | 33.0604±0.0033               | 0.03±0.01        | -2.40±0.20               | 5.3   | $f_{63}$                               | 0.1204±0.0027                | 0.16±0.06        | 0.35±0.16                | 8.2   |
| $f_{290}$                              | 22.8935±0.0033               | 0.03±0.01        | -1.34±0.20               | 5.5   | $f_{65}$                               | 0.3147±0.0026                | 0.16±0.06        | -2.55±0.16               | 8.3   |
| $f_{291}$                              | 1.4562±0.0033                | 0.03±0.01        | -2.11±0.20               | 5.2   | $f_{67}$                               | 13.2330±0.0027               | 0.17±0.06        | -2.51±0.17               | 7.8   |
| $f_{292}$                              | 4.4082±0.0034                | 0.03±0.01        | -2.90±0.21               | 5.1   | $f_{69}$                               | 0.2191±0.0027                | 0.16±0.06        | 2.29±0.17                | 7.8   |
| $f_{293}$                              | 4.3916±0.0033                | 0.03±0.01        | -2.91±0.20               | 5.4   | $f_{70}$                               | 12.8347±0.0028               | 0.16±0.06        | 0.82±0.17                | 7.6   |
| $f_{294}$                              | 5.4019±0.0033                | 0.03±0.01        | -0.73±0.20               | 5.3   | $f_{71}$                               | 3.4455±0.0028                | 0.16±0.06        | -2.60±0.17               | 7.3   |
| $f_{295}$                              | 2.6318±0.0034                | 0.03±0.01        | -0.18±0.21               | 5.1   | $f_{72}$                               | 44.1011±0.0029               | 0.15±0.06        | -2.59±0.18               | 6.9   |
| $f_{296}$                              | 14.4727±0.0033               | 0.03±0.01        | 0.32±0.20                | 5.2   | $f_{73}$                               | 2.0031±0.0029                | 0.27±0.10        | 1.68±0.18                | 7.0   |
| $f_{297}$                              | 2.8611±0.0034                | 0.03±0.01        | -1.44±0.21               | 5.1   | $f_{75}$                               | 0.4583±0.0029                | 0.15±0.06        | 1.49±0.18                | 6.8   |
| $f_{298}$                              | 2.8772±0.0033                | 0.03±0.01        | -0.67±0.20               | 5.4   | $f_{78}$                               | 12.8591±0.0030               | 0.15±0.06        | 1.59±0.18                | 6.6   |
| $f_{299}$                              | 3.0680±0.0033                | 0.03±0.01        | 1.09±0.20                | 5.4   | $f_{80}$                               | 13.4464±0.0030               | 0.15±0.06        | 2.37±0.18                | 6.6   |
| $f_{300}$                              | 0.8693±0.0034                | 0.03±0.01        | -0.25±0.21               | 5.1   | $f_{81}$                               | 0.4817±0.0031                | 0.14±0.06        | 0.61±0.19                | 6.1   |
| $f_{301}$                              | 38.3708±0.0034               | 0.03±0.01        | -1.49±0.21               | 5.1   | $f_{82}$                               | 42.7421±0.0030               | 0.14±0.06        | 2.52±0.19                | 6.3   |
| $f_{302}$                              | 12.1807±0.0034               | 0.03±0.01        | -1.87±0.21               | 5.0   | $f_{83}$                               | 0.3542±0.0031                | 0.14±0.06        | 1.51±0.19                | 5.9   |
| $f_{303}$                              | 5.2289±0.0033                | 0.03±0.01        | 0.84±0.20                | 5.3   | $f_{84}$                               | 18.2942±0.0031               | 0.14±0.06        | 2.17±0.19                | 5.9   |
| $f_{304}$                              | 0.6454±0.0033                | 0.03±0.01        | -2.75±0.20               | 5.2   | $f_{86}$                               | 28.4354±0.0031               | 0.14±0.06        | 1.25±0.19                | 5.9   |
| $f_{305}$                              | 0.7582±0.0034                | 0.03±0.01        | 1.61±0.21                | 5.1   | $f_{87}$                               | 27.4289±0.0031               | 0.14±0.06        | -2.83±0.19               | 6.1   |
|                                        |                              |                  |                          |       | $f_{88}$                               | 41.3088±0.0032               | 0.14±0.06        | 1.57±0.19                | 5.8   |
|                                        |                              |                  |                          |       | $f_{89}$                               | 12.3650±0.0032               | 0.14±0.06        | -0.84±0.19               | 5.8   |
|                                        |                              |                  |                          |       | $f_{92}$                               | 13.4708±0.0032               | 0.13±0.05        | 2.57±0.20                | 5.7   |
|                                        |                              |                  |                          |       | $f_{93}$                               | 27.2559±0.0033               | 0.13±0.06        | 0.21±0.20                | 5.5   |
|                                        |                              |                  |                          |       | $f_{94}$                               | 2.7357±0.0033                | 0.13±0.06        | 0.54±0.20                | 5.5   |
|                                        |                              |                  |                          |       | $f_{95}$                               | 31.0545±0.0033               | 0.13±0.06        | -0.06±0.20               | 5.4   |
|                                        |                              |                  |                          |       | $f_{96}$                               | 1.2175±0.0033                | 0.13±0.06        | 0.08±0.20                | 5.4   |
|                                        |                              |                  |                          |       | $f_{97}$                               | 16.6654±0.0033               | 0.13±0.06        | -2.71±0.20               | 5.2   |
|                                        |                              |                  |                          |       | $f_{98}$                               | 0.1522±0.0033                | 0.13±0.06        | 1.90±0.20                | 5.4   |
|                                        |                              |                  |                          |       | $f_{99}$                               | 10.4306±0.0033               | 0.13±0.06        | -0.10±0.20               | 5.2   |
|                                        |                              |                  |                          |       | $f_{101}$                              | 19.5150±0.0033               | 0.13±0.06        | -1.87±0.20               | 5.3   |
|                                        |                              |                  |                          |       | $f_{105}$                              | 18.2203±0.0017               | 0.25±0.06        | -0.39±0.10               | 19.7  |

**Table D.57:** Frequency list of 0102769842

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|--------------|------------------------------|------------------|--------------------------|-------|
| $f_1$        | 17.1095±0.0004               | 2.39±0.12        | 2.89±0.02                | 399.7 |
| $f_2$        | 17.9460±0.0004               | 2.32±0.11        | -2.60±0.02               | 433.0 |
| $f_3$        | 18.2206±0.0004               | 2.07±0.10        | -2.61±0.02               | 399.2 |
| $f_4$        | 22.0602±0.0004               | 1.79±0.10        | 1.67±0.03                | 320.4 |
| $f_5$        | 23.3109±0.0004               | 1.69±0.09        | -0.01±0.03               | 319.4 |
| $f_6$        | 1.7162±0.0004                | 1.63±0.09        | 1.70±0.03                | 327.2 |
| $f_7$        | 23.1903±0.0005               | 1.37±0.09        | 2.48±0.03                | 256.7 |
| $f_8$        | 17.4002±0.0005               | 1.28±0.09        | 0.83±0.03                | 222.9 |
| $f_9$        | 20.2302±0.0005               | 1.18±0.08        | -2.21±0.03               | 208.6 |
| $f_{10}$     | 27.6999±0.0006               | 1.12±0.08        | -1.57±0.03               | 190.1 |
| $f_{11}$     | 22.1857±0.0006               | 1.10±0.08        | 1.99±0.03                | 188.7 |
| $f_{12}$     | 17.4707±0.0006               | 1.01±0.08        | -1.63±0.04               | 174.7 |
| $f_{13}$     | 19.7607±0.0006               | 0.90±0.07        | 0.26±0.04                | 146.7 |
| $f_{14}$     | 22.8747±0.0007               | 0.81±0.07        | 0.14±0.04                | 124.8 |
| $f_{15}$     | 27.1982±0.0007               | 0.76±0.07        | -1.12±0.04               | 109.7 |
| $f_{16}$     | 16.4542±0.0007               | 0.72±0.07        | -2.95±0.04               | 107.6 |
| $f_{17}$     | 25.8301±0.0008               | 0.71±0.07        | 1.83±0.05                | 101.9 |
| $f_{18}$     | 18.7248±0.0008               | 0.68±0.07        | 0.83±0.05                | 99.9  |
| $f_{19}$     | 28.8388±0.0009               | 0.60±0.07        | 0.61±0.05                | 75.8  |
| $f_{20}$     | 1.4289±0.0009                | 0.54±0.07        | 2.80±0.06                | 67.2  |
| $f_{21}$     | 23.6940±0.0010               | 0.52±0.07        | 0.07±0.06                | 60.8  |
| $f_{22}$     | 21.4549±0.0011               | 0.46±0.07        | -0.68±0.07               | 49.4  |
| $f_{23}$     | 27.2135±0.0013               | 0.38±0.06        | -1.61±0.08               | 36.6  |
| $f_{24}$     | 32.0579±0.0013               | 0.38±0.06        | -1.57±0.08               | 35.5  |
| $f_{25}$     | 5.6886±0.0013                | 0.38±0.07        | -2.18±0.08               | 33.7  |
| $f_{27}$     | 30.4266±0.0014               | 0.35±0.06        | -1.66±0.09               | 29.2  |
| $f_{30}$     | 2.9334±0.0015                | 0.32±0.06        | 0.27±0.09                | 26.3  |
| $f_{31}$     | 32.2037±0.0015               | 0.32±0.06        | 2.89±0.09                | 26.2  |
| $f_{32}$     | 15.9068±0.0015               | 0.32±0.06        | 2.73±0.09                | 25.6  |
| $f_{33}$     | 13.2078±0.0015               | 0.31±0.06        | -1.54±0.09               | 25.2  |
| $f_{34}$     | 13.2936±0.0016               | 0.30±0.06        | 1.28±0.10                | 22.8  |
| $f_{35}$     | 17.7480±0.0016               | 0.30±0.06        | 1.18±0.10                | 22.6  |
| $f_{36}$     | 33.1242±0.0017               | 0.28±0.06        | 0.99±0.10                | 20.1  |
| $f_{37}$     | 39.8085±0.0017               | 0.27±0.06        | -1.91±0.11               | 19.2  |
| $f_{38}$     | 20.6418±0.0017               | 0.27±0.06        | -0.47±0.11               | 19.1  |
| $f_{41}$     | 4.2423±0.0018                | 0.26±0.06        | -0.48±0.11               | 18.1  |
| $f_{42}$     | 35.1795±0.0018               | 0.25±0.06        | -1.20±0.11               | 17.2  |
| $f_{43}$     | 33.9272±0.0019               | 0.25±0.06        | -2.65±0.11               | 16.7  |
| $f_{45}$     | 29.3978±0.0021               | 0.22±0.06        | 0.08±0.13                | 13.4  |
| $f_{46}$     | 2.3518±0.0021                | 0.22±0.06        | -1.11±0.13               | 12.9  |
| $f_{48}$     | 1.1439±0.0021                | 0.21±0.06        | -1.78±0.13               | 12.7  |
| $f_{49}$     | 20.1142±0.0022               | 0.21±0.06        | -1.33±0.13               | 12.4  |
| $f_{50}$     | 19.5667±0.0022               | 0.20±0.06        | -0.83±0.13               | 12.3  |
| $f_{51}$     | 30.1877±0.0022               | 0.20±0.06        | 1.45±0.14                | 11.9  |
| $f_{52}$     | 28.8030±0.0023               | 0.20±0.06        | -0.60±0.14               | 11.1  |
| $f_{54}$     | 0.6181±0.0023                | 0.20±0.06        | -2.40±0.14               | 11.1  |
| $f_{55}$     | 21.0786±0.0023               | 0.19±0.06        | -2.42±0.14               | 10.6  |

Frequency list of 0102769842 continued

**Table D.58:** Frequency list of 0102783836

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|--------------|------------------------------|------------------|--------------------------|-------|
| $f_1$        | 2.3998±0.0004                | 1.27±0.07        | -2.92±0.02               | 379.3 |
| $f_2$        | 10.6478±0.0007               | 0.70±0.06        | -1.92±0.04               | 133.7 |
| $f_3$        | 0.1003±0.0007                | 0.63±0.06        | 1.98±0.04                | 120.6 |
| $f_4$        | 8.9237±0.0007                | 0.68±0.06        | -3.05±0.04               | 120.1 |
| $f_5$        | 1.5766±0.0007                | 0.63±0.06        | -3.08±0.04               | 119.4 |
| $f_6$        | 1.2301±0.0007                | 0.61±0.06        | 2.55±0.04                | 116.4 |
| $f_7$        | 2.0450±0.0008                | 0.50±0.05        | -0.96±0.05               | 87.9  |
| $f_8$        | 0.2067±0.0008                | 0.50±0.05        | -2.73±0.05               | 88.7  |
| $f_9$        | 0.1090±0.0008                | 0.49±0.05        | 2.37±0.05                | 87.8  |
| $f_{10}$     | 1.3014±0.0008                | 0.51±0.06        | 1.64±0.05                | 80.8  |
| $f_{11}$     | 0.1794±0.0008                | 0.50±0.06        | -2.73±0.05               | 81.2  |
| $f_{12}$     | 7.0999±0.0009                | 0.45±0.05        | -0.86±0.05               | 77.3  |
| $f_{13}$     | 8.4242±0.0009                | 0.45±0.05        | -1.71±0.05               | 77.1  |
| $f_{14}$     | 9.0903±0.0009                | 0.46±0.05        | 2.30±0.05                | 77.0  |
| $f_{15}$     | 0.1639±0.0009                | 0.39±0.05        | 0.90±0.06                | 68.5  |
| $f_{16}$     | 0.2343±0.0009                | 0.45±0.06        | 2.70±0.06                | 65.0  |
| $f_{17}$     | 19.6363±0.0010               | 0.37±0.05        | 2.76±0.06                | 54.1  |
| $f_{18}$     | 9.5257±0.0010                | 0.36±0.05        | 0.51±0.06                | 54.2  |
| $f_{19}$     | 0.3013±0.0011                | 0.30±0.04        | 0.24±0.07                | 47.2  |
| $f_{20}$     | 7.4150±0.0012                | 0.32±0.05        | 1.72±0.07                | 41.1  |
| $f_{21}$     | 0.1722±0.0012                | 0.28±0.04        | -0.40±0.07               | 40.8  |
| $f_{23}$     | 9.7012±0.0012                | 0.31±0.05        | -2.47±0.07               | 41.4  |
| $f_{24}$     | 0.2672±0.0013                | 0.29±0.05        | -1.88±0.08               | 36.5  |
| $f_{25}$     | 8.2931±0.0014                | 0.26±0.05        | -3.01±0.08               | 31.6  |
| $f_{26}$     | 8.6753±0.0014                | 0.25±0.05        | -1.58±0.09               | 29.1  |
| $f_{27}$     | 0.2236±0.0015                | 0.25±0.05        | 2.39±0.09                | 26.2  |
| $f_{28}$     | 7.5902±0.0015                | 0.23±0.05        | 0.89±0.09                | 25.1  |
| $f_{29}$     | 0.9130±0.0015                | 0.22±0.04        | -2.02±0.09               | 25.0  |
| $f_{30}$     | 0.3465±0.0015                | 0.19±0.04        | -2.92±0.09               | 24.6  |
| $f_{31}$     | 7.8033±0.0016                | 0.23±0.05        | 0.42±0.09                | 24.2  |
| $f_{32}$     | 8.9801±0.0016                | 0.23±0.05        | -0.23±0.10               | 24.0  |
| $f_{33}$     | 8.5798±0.0016                | 0.21±0.04        | 0.01±0.10                | 23.5  |
| $f_{34}$     | 0.1378±0.0016                | 0.23±0.05        | -2.03±0.10               | 23.0  |
| $f_{35}$     | 1.0308±0.0016                | 0.21±0.04        | 0.15±0.10                | 23.0  |
| $f_{36}$     | 1.5913±0.0017                | 0.22±0.05        | 1.52±0.10                | 21.1  |
| $f_{37}$     | 8.9450±0.0017                | 0.21±0.05        | -1.00±0.10               | 21.1  |
| $f_{38}$     | 0.6514±0.0017                | 0.20±0.04        | 1.84±0.10                | 20.2  |

Frequency list of 0102783836 continued

## Appendix D. Frequencies of individual Hybrid Stars

| Frequency list of 0102783836 continued |                              |                  |                          |       | Frequency list of 0102783836 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{39}$                               | 2.4306±0.0017                | 0.20±0.05        | -1.76±0.11               | 19.4  | $f_{121}$                              | 1.6922±0.0033                | 0.10±0.04        | -2.37±0.20               | 5.4   |
| $f_{40}$                               | 0.3680±0.0018                | 0.22±0.05        | -2.70±0.11               | 18.9  | $f_{122}$                              | 1.5291±0.0033                | 0.09±0.04        | 2.21±0.20                | 5.3   |
| $f_{41}$                               | 9.3600±0.0018                | 0.20±0.05        | 1.62±0.11                | 18.4  | $f_{124}$                              | 7.1762±0.0033                | 0.09±0.04        | 1.20±0.20                | 5.2   |
| $f_{42}$                               | 0.5346±0.0018                | 0.20±0.05        | 0.79±0.11                | 18.3  | $f_{126}$                              | 0.5664±0.0033                | 0.10±0.04        | -1.75±0.20               | 5.2   |
| $f_{43}$                               | 0.1268±0.0019                | 0.18±0.04        | 2.41±0.11                | 17.0  | $f_{127}$                              | 8.8629±0.0033                | 0.09±0.04        | -0.72±0.20               | 5.2   |
| $f_{44}$                               | 1.4415±0.0019                | 0.21±0.05        | 1.59±0.11                | 16.9  | $f_{128}$                              | 7.2760±0.0033                | 0.09±0.04        | 1.91±0.20                | 5.3   |
| $f_{46}$                               | 8.1179±0.0019                | 0.19±0.05        | -0.93±0.11               | 16.5  | $f_{129}$                              | 0.4554±0.0034                | 0.09±0.04        | 2.33±0.21                | 5.1   |
| $f_{47}$                               | 7.5979±0.0019                | 0.17±0.04        | 1.94±0.12                | 16.4  |                                        |                              |                  |                          |       |
| $f_{48}$                               | 4.1013±0.0019                | 0.17±0.04        | -2.39±0.12               | 16.3  |                                        |                              |                  |                          |       |
| $f_{49}$                               | 0.5126±0.0019                | 0.17±0.04        | 2.55±0.12                | 16.1  |                                        |                              |                  |                          |       |
| $f_{50}$                               | 0.3892±0.0019                | 0.18±0.05        | 0.08±0.12                | 15.7  |                                        |                              |                  |                          |       |
| $f_{51}$                               | 0.2877±0.0020                | 0.18±0.05        | 3.10±0.12                | 15.3  |                                        |                              |                  |                          |       |
| $f_{52}$                               | 6.7432±0.0020                | 0.16±0.04        | -1.81±0.12               | 14.9  |                                        |                              |                  |                          |       |
| $f_{53}$                               | 0.6002±0.0020                | 0.16±0.04        | 1.11±0.12                | 14.4  |                                        |                              |                  |                          |       |
| $f_{54}$                               | 8.3199±0.0020                | 0.16±0.04        | 1.62±0.12                | 14.5  |                                        |                              |                  |                          |       |
| $f_{55}$                               | 0.3107±0.0020                | 0.16±0.04        | 1.89±0.12                | 14.2  |                                        |                              |                  |                          |       |
| $f_{56}$                               | 0.3382±0.0020                | 0.16±0.04        | -1.60±0.12               | 14.4  |                                        |                              |                  |                          |       |
| $f_{57}$                               | 9.7242±0.0021                | 0.16±0.04        | 2.49±0.13                | 13.8  |                                        |                              |                  |                          |       |
| $f_{58}$                               | 0.2135±0.0021                | 0.15±0.04        | 1.02±0.13                | 13.3  |                                        |                              |                  |                          |       |
| $f_{60}$                               | 7.3238±0.0021                | 0.15±0.04        | 0.35±0.13                | 12.9  |                                        |                              |                  |                          |       |
| $f_{61}$                               | 0.5254±0.0022                | 0.16±0.05        | 1.37±0.13                | 12.4  |                                        |                              |                  |                          |       |
| $f_{62}$                               | 0.1471±0.0022                | 0.15±0.04        | 2.62±0.13                | 12.4  |                                        |                              |                  |                          |       |
| $f_{63}$                               | 1.4510±0.0022                | 0.15±0.04        | 0.47±0.13                | 12.3  |                                        |                              |                  |                          |       |
| $f_{64}$                               | 7.9144±0.0022                | 0.16±0.05        | -2.35±0.13               | 12.4  |                                        |                              |                  |                          |       |
| $f_{65}$                               | 1.2212±0.0022                | 0.14±0.04        | -2.66±0.14               | 11.9  |                                        |                              |                  |                          |       |
| $f_{66}$                               | 8.0575±0.0023                | 0.15±0.04        | -1.45±0.14               | 11.5  |                                        |                              |                  |                          |       |
| $f_{67}$                               | 9.1904±0.0023                | 0.14±0.04        | -2.57±0.14               | 11.2  |                                        |                              |                  |                          |       |
| $f_{68}$                               | 1.1978±0.0023                | 0.14±0.04        | -0.33±0.14               | 11.2  |                                        |                              |                  |                          |       |
| $f_{69}$                               | 0.8508±0.0023                | 0.14±0.04        | 0.12±0.14                | 11.1  |                                        |                              |                  |                          |       |
| $f_{70}$                               | 2.0046±0.0023                | 0.14±0.04        | -0.30±0.14               | 10.8  |                                        |                              |                  |                          |       |
| $f_{72}$                               | 7.5129±0.0023                | 0.14±0.04        | 2.08±0.14                | 10.8  |                                        |                              |                  |                          |       |
| $f_{73}$                               | 8.0990±0.0024                | 0.13±0.04        | 0.10±0.14                | 10.4  |                                        |                              |                  |                          |       |
| $f_{74}$                               | 0.4397±0.0024                | 0.12±0.04        | -1.59±0.14               | 10.4  |                                        |                              |                  |                          |       |
| $f_{75}$                               | 1.0186±0.0024                | 0.13±0.04        | -0.03±0.15               | 10.0  |                                        |                              |                  |                          |       |
| $f_{76}$                               | 0.7005±0.0024                | 0.15±0.05        | -0.33±0.15               | 10.1  |                                        |                              |                  |                          |       |
| $f_{77}$                               | 6.7686±0.0024                | 0.14±0.04        | 2.94±0.15                | 9.9   |                                        |                              |                  |                          |       |
| $f_{78}$                               | 1.5501±0.0025                | 0.13±0.04        | -0.85±0.15               | 9.7   |                                        |                              |                  |                          |       |
| $f_{79}$                               | 0.7120±0.0025                | 0.14±0.05        | 1.51±0.15                | 9.3   |                                        |                              |                  |                          |       |
| $f_{80}$                               | 0.3307±0.0025                | 0.10±0.03        | -2.75±0.15               | 9.2   |                                        |                              |                  |                          |       |
| $f_{81}$                               | 0.9885±0.0026                | 0.12±0.04        | 0.16±0.16                | 8.9   |                                        |                              |                  |                          |       |
| $f_{82}$                               | 0.1853±0.0026                | 0.12±0.04        | -1.96±0.16               | 8.6   |                                        |                              |                  |                          |       |
| $f_{83}$                               | 0.5763±0.0026                | 0.13±0.04        | 1.48±0.16                | 8.5   |                                        |                              |                  |                          |       |
| $f_{84}$                               | 8.2068±0.0027                | 0.12±0.04        | -1.89±0.16               | 8.2   |                                        |                              |                  |                          |       |
| $f_{85}$                               | 0.4683±0.0027                | 0.15±0.05        | -1.38±0.16               | 8.2   |                                        |                              |                  |                          |       |
| $f_{86}$                               | 0.6818±0.0027                | 0.11±0.04        | -0.79±0.16               | 8.0   |                                        |                              |                  |                          |       |
| $f_{87}$                               | 0.2587±0.0027                | 0.12±0.04        | -0.99±0.17               | 7.9   |                                        |                              |                  |                          |       |
| $f_{89}$                               | 0.4178±0.0027                | 0.12±0.04        | -0.02±0.17               | 7.9   |                                        |                              |                  |                          |       |
| $f_{91}$                               | 1.0785±0.0028                | 0.11±0.04        | 1.33±0.17                | 7.7   |                                        |                              |                  |                          |       |
| $f_{92}$                               | 1.3572±0.0028                | 0.12±0.04        | 0.84±0.17                | 7.5   |                                        |                              |                  |                          |       |
| $f_{93}$                               | 2.1530±0.0028                | 0.11±0.04        | -1.95±0.17               | 7.3   |                                        |                              |                  |                          |       |
| $f_{94}$                               | 1.3348±0.0029                | 0.11±0.04        | 0.99±0.18                | 7.0   |                                        |                              |                  |                          |       |
| $f_{95}$                               | 9.4648±0.0029                | 0.11±0.04        | 0.50±0.18                | 7.0   |                                        |                              |                  |                          |       |
| $f_{96}$                               | 0.4793±0.0029                | 0.12±0.05        | -1.81±0.18               | 7.0   |                                        |                              |                  |                          |       |
| $f_{97}$                               | 0.6371±0.0029                | 0.10±0.04        | -0.45±0.17               | 7.1   |                                        |                              |                  |                          |       |
| $f_{98}$                               | 3.1129±0.0029                | 0.11±0.04        | 0.99±0.18                | 7.0   |                                        |                              |                  |                          |       |
| $f_{99}$                               | 8.9527±0.0029                | 0.10±0.04        | 1.64±0.18                | 6.8   |                                        |                              |                  |                          |       |
| $f_{100}$                              | 0.7894±0.0030                | 0.10±0.04        | -0.74±0.18               | 6.5   |                                        |                              |                  |                          |       |
| $f_{101}$                              | 0.3573±0.0030                | 0.12±0.05        | 2.98±0.18                | 6.4   |                                        |                              |                  |                          |       |
| $f_{102}$                              | 0.3171±0.0030                | 0.11±0.04        | 0.21±0.18                | 6.6   |                                        |                              |                  |                          |       |
| $f_{103}$                              | 7.6408±0.0030                | 0.10±0.04        | -1.36±0.18               | 6.4   |                                        |                              |                  |                          |       |
| $f_{104}$                              | 9.3288±0.0030                | 0.10±0.04        | 0.23±0.18                | 6.4   |                                        |                              |                  |                          |       |
| $f_{105}$                              | 8.5526±0.0030                | 0.11±0.04        | 1.61±0.19                | 6.3   |                                        |                              |                  |                          |       |
| $f_{106}$                              | 1.8817±0.0031                | 0.10±0.04        | -2.74±0.19               | 6.1   |                                        |                              |                  |                          |       |
| $f_{107}$                              | 1.3872±0.0031                | 0.10±0.04        | -0.55±0.19               | 6.1   |                                        |                              |                  |                          |       |
| $f_{108}$                              | 10.0297±0.0031               | 0.10±0.04        | -1.58±0.19               | 5.9   |                                        |                              |                  |                          |       |
| $f_{109}$                              | 8.4877±0.0031                | 0.10±0.04        | 2.36±0.19                | 6.0   |                                        |                              |                  |                          |       |
| $f_{110}$                              | 1.9137±0.0032                | 0.10±0.04        | 0.22±0.19                | 5.8   |                                        |                              |                  |                          |       |
| $f_{111}$                              | 1.1246±0.0032                | 0.10±0.04        | 2.21±0.19                | 5.8   |                                        |                              |                  |                          |       |
| $f_{112}$                              | 6.8302±0.0032                | 0.10±0.04        | -0.70±0.19               | 5.8   |                                        |                              |                  |                          |       |
| $f_{113}$                              | 7.8883±0.0032                | 0.10±0.04        | -2.21±0.19               | 5.8   |                                        |                              |                  |                          |       |
| $f_{114}$                              | 0.1177±0.0032                | 0.10±0.04        | -0.27±0.19               | 5.8   |                                        |                              |                  |                          |       |
| $f_{115}$                              | 0.6268±0.0032                | 0.10±0.04        | 1.07±0.20                | 5.7   |                                        |                              |                  |                          |       |
| $f_{116}$                              | 0.5567±0.0031                | 0.11±0.05        | -2.84±0.19               | 5.9   |                                        |                              |                  |                          |       |
| $f_{117}$                              | 0.4254±0.0032                | 0.10±0.04        | 0.07±0.20                | 5.7   |                                        |                              |                  |                          |       |
| $f_{118}$                              | 8.0104±0.0032                | 0.09±0.04        | 0.44±0.20                | 5.6   |                                        |                              |                  |                          |       |
| $f_{119}$                              | 8.6237±0.0033                | 0.09±0.04        | -1.71±0.20               | 5.5   |                                        |                              |                  |                          |       |

**Table D.59:** Frequency list of 0102796616

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|--------------|------------------------------|------------------|--------------------------|-------|
| $f_2$        | 1.7465±0.0005                | 0.53±0.04        | -2.47±0.03               | 204.2 |
| $f_3$        | 2.1289±0.0008                | 0.37±0.04        | -0.53±0.05               | 94.9  |
| $f_4$        | 2.1179±0.0011                | 0.24±0.03        | -1.91±0.07               | 51.1  |
| $f_5$        | 1.9906±0.0011                | 0.28±0.04        | 0.04±0.06                | 52.5  |
| $f_6$        | 29.4348±0.0012               | 0.21±0.03        | -1.27±0.07               | 42.9  |
| $f_7$        | 1.3803±0.0012                | 0.21±0.03        | 1.03±0.07                | 40.5  |
| $f_8$        | 1.0251±0.0013                | 0.20±0.03        | -1.57±0.08               | 36.1  |
| $f_9$        | 2.0471±0.0013                | 0.20±0.03        | 3.00±0.08                | 35.2  |
| $f_{10}$     | 2.0678±0.0012                | 0.20±0.03        | 2.15±0.08                | 38.3  |
| $f_{11}$     | 0.1304±0.0013                | 0.18±0.03        | -0.76±0.08               | 32.8  |
| $f_{12}$     | 1.3116±0.0013                | 0.19±0.03        | 2.09±0.08                | 32.3  |
| $f_{13}$     | 0.8812±0.0013                | 0.17±0.03        | -1.40±0.08               | 32.0  |
| $f_{14}$     | 1.9790±0.0014                | 0.18±0.03        | -0.09±0.08               | 30.4  |
| $f_{15}$     | 23.8227±0.0014               | 0.17±0.03        | 0.30±0.09                | 29.4  |
| $f_{16}$     | 2.0079±0.0014                | 0.16±0.03        | -0.88±0.09               | 29.0  |
| $f_{17}$     | 1.7102±0.0014                | 0.16±0.03        | -2.13±0.09               | 28.7  |
| $f_{18}$     | 2.1618±0.0015                | 0.15±0.03        | -2.01±0.09               | 24.7  |
| $f_{19}$     | 28.7852±0.0016               | 0.15±0.03        | -2.53±0.10               | 23.3  |
| $f_{20}$     | 23.4448±0.0016               | 0.14±0.03        | 1.25±0.10                | 22.3  |
| $f_{21}$     | 0.1208±0.0017                | 0.15±0.03        | -2.57±0.10               | 19.7  |
| $f_{22}$     | 1.2507±0.0017                | 0.14±0.03        | 1.03±0.11                | 19.6  |
| $f_{23}$     | 0.2748±0.0017                | 0.14±0.03        | 0.54±0.11                | 19.2  |
| $f_{24}$     | 0.3897±0.0019                | 0.12±0.03        | -2.76±0.11               | 16.9  |
| $f_{25}$     | 0.1041±0.0019                | 0.13±0.03        | 0.43±0.11                | 16.7  |
| $f_{26}$     | 2.2789±0.0019                | 0.12±0.03        | 1.83±0.12                | 15.8  |
| $f_{27}$     | 0.1644±0.0019                | 0.11±0.03        | 0.08±0.12                | 15.5  |
| $f_{28}$     | 0.1111±0.0020                | 0.12±0.03        | 1.87±0.12                | 14.4  |
| $f_{29}$     | 0.2005±0.0020                | 0.12±0.03        | 2.36±0.12                | 14.3  |
| $f_{30}$     | 0.1914±0.0020                | 0.11±0.03        | -0.80±0.12               | 14.7  |
| $f_{32}$     | 35.6667±0.0020               | 0.11±0.03        | 1.49±0.12                | 14.1  |
| $f_{33}$     | 23.0078±0.0020               | 0.11±0.03        | 2.19±0.12                | 13.9  |
| $f_{34}$     | 0.5769±0.0021                | 0.12±0.03        | -1.58±0.13               | 13.6  |
| $f_{35}$     | 2.6837±0.0021                | 0.11±0.03        | 0.36±0.13                | 13.0  |
| $f_{36}$     | 0.9650±0.0022                | 0.10±0.03        | 0.89±0.13                | 12.3  |
| $f_{37}$     | 0.2560±0.0023                | 0.12±0.04        | -2.76±0.14               | 11.4  |
| $f_{38}$     | 0.4420±0.0022                | 0.09±0.03        | -1.89±0.14               | 11.6  |
| $f_{39}$     | 23.5883±0.0023               | 0.10±0.03        | -0.16±0.14               | 11.2  |
| $f_{40}$     | 0.2352±0.0024                | 0.10±0.03        | 1.56±0.15                | 10.2  |
| $f_{41}$     | 0.4154±0.0025                | 0.09±0.03        | -1.54±0.15               | 9.5   |
| $f_{42}$     | 0.8428±0.0025                | 0.09±0.03        | 3.09±0.15                | 9.4   |
| $f_{43}$     | 0.8631±0.0027                | 0.08±0.03        | 0.14±0.17                | 7.9   |
| $f_{44}$     | 0.1801±0.0028                | 0.09±0.03        | 0.64±0.17                | 7.6   |
| $f_{45}$     | 0.3236±0.0028                | 0.08±0.03        | 1.20±0.17                | 7.6   |
| $f_{46}$     | 7.6022±0.0028                | 0.08±0.03        | -1.95±0.17               | 7.6   |
| $f_{47}$     | 0.5162±0.0028                | 0.07±0.03        | -0.77±0.17               | 7.6   |
| $f_{48}$     | 1.5455±0.0028                | 0.08±0.03        | -1.26±0.17               | 7.5   |
| $f_{49}$     | 2.1393±0.0029                | 0.08±0.03        | -1.92±0.18               | 6.8   |
| $f_{50}$     | 0.6043±0.0029                | 0.07±0.03        | -2.33±0.18               | 6.7   |
| $f_{51}$     | 1.2927±0.0030                | 0.07±0.03        | -1.64±0.18               | 6.6   |
| $f_{52}$     | 3.4351±0.0030                | 0.07±0.03        | -0.95±0.18               | 6.4   |
| $f_{53}$     | 0.8191±0.0031                | 0.07±0.03        | 1.74±0.19                | 6.2   |
| $f_{54}$     | 0.1454±0.0031                | 0.07±0.03        | 1.75±0.19                | 6.0   |
| $f_{55}$     | 0.4672±0.0031                | 0.07±0.03        | -0.43±0.19               | 5.9   |
| $f_{56}$     | 1.1390±0.0032                | 0.07±0.03        | 2.55±0.20                | 5.7   |
| $f_{57}$     | 2.9502±0.0032                | 0.07±0.03        | -2.35±0.20               | 5.7   |
| $f_{58}$     | 2.7382±0.0032                | 0.07±0.03        | -1.49±0.20               | 5.6   |
| $f_{59}$     | 0.9803±0.0034                | 0.07±0.03        | 1.75±0.21                | 5.0   |
| $f_{60}$     | 0.4897±0.0034                | 0.07±0.03        | 1.58±0.21                | 5.0   |

Frequency list of 0102783836 continued



## **Appendix E**

### **Frequencies of individual Hybrid Candidate Stars**

## Appendix E. Frequencies of individual Hybrid Candidate Stars

**Table E.1:** Frequency list of 0102563681

| Frequency list of 0102563681 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_1$                                  | 1.7491±0.0003                | 0.78±0.03        | 2.11±0.02                | 613.2 |
| $f_2$                                  | 32.7225±0.0004               | 0.61±0.03        | -0.21±0.02               | 445.6 |
| $f_3$                                  | 36.9599±0.0004               | 0.58±0.03        | 1.60±0.02                | 459.5 |
| $f_4$                                  | 39.9725±0.0003               | 0.57±0.03        | 2.50±0.02                | 493.3 |
| $f_5$                                  | 40.1599±0.0004               | 0.44±0.02        | -0.79±0.03               | 336.3 |
| $f_6$                                  | 17.1870±0.0005               | 0.39±0.02        | -2.57±0.03               | 264.6 |
| $f_7$                                  | 19.4532±0.0006               | 0.27±0.02        | 2.88±0.04                | 150.3 |
| $f_8$                                  | 19.1277±0.0006               | 0.27±0.02        | 0.40±0.04                | 153.3 |
| $f_9$                                  | 24.9688±0.0007               | 0.22±0.02        | -2.38±0.04               | 108.1 |
| $f_{10}$                               | 31.3199±0.0010               | 0.16±0.02        | 2.52±0.06                | 59.2  |
| $f_{11}$                               | 29.7784±0.0010               | 0.16±0.02        | 1.58±0.06                | 55.5  |
| $f_{12}$                               | 0.1762±0.0011                | 0.14±0.02        | -2.29±0.06               | 52.7  |
| $f_{13}$                               | 17.1957±0.0010               | 0.15±0.02        | -0.30±0.06               | 53.4  |
| $f_{14}$                               | 20.6772±0.0010               | 0.15±0.02        | 0.07±0.06                | 53.9  |
| $f_{15}$                               | 18.9798±0.0011               | 0.15±0.02        | -1.53±0.07               | 50.7  |
| $f_{16}$                               | 27.8873±0.0012               | 0.13±0.02        | -0.13±0.07               | 43.5  |
| $f_{17}$                               | 0.1076±0.0012                | 0.11±0.02        | 1.10±0.07                | 39.4  |
| $f_{18}$                               | 35.9079±0.0012               | 0.12±0.02        | -1.44±0.07               | 39.6  |
| $f_{19}$                               | 42.5805±0.0012               | 0.12±0.02        | -2.16±0.07               | 40.1  |
| $f_{20}$                               | 27.5977±0.0013               | 0.11±0.02        | -0.62±0.08               | 32.2  |
| $f_{22}$                               | 24.4737±0.0014               | 0.11±0.02        | 0.52±0.08                | 30.5  |
| $f_{23}$                               | 22.5765±0.0014               | 0.11±0.02        | 0.89±0.08                | 30.2  |
| $f_{24}$                               | 21.8178±0.0014               | 0.10±0.02        | -2.54±0.09               | 29.6  |
| $f_{25}$                               | 39.1914±0.0014               | 0.11±0.02        | -2.87±0.09               | 29.5  |
| $f_{27}$                               | 17.1803±0.0015               | 0.10±0.02        | -0.90±0.09               | 25.1  |
| $f_{28}$                               | 40.1957±0.0015               | 0.08±0.02        | -2.68±0.09               | 24.7  |
| $f_{29}$                               | 33.1350±0.0016               | 0.09±0.02        | 0.90±0.10                | 24.0  |
| $f_{30}$                               | 0.2236±0.0016                | 0.10±0.02        | 1.59±0.10                | 22.5  |
| $f_{31}$                               | 0.1488±0.0016                | 0.11±0.02        | 1.09±0.10                | 22.8  |
| $f_{32}$                               | 22.6907±0.0016               | 0.09±0.02        | -1.77±0.10               | 22.4  |
| $f_{33}$                               | 21.4970±0.0016               | 0.09±0.02        | -0.51±0.10               | 22.5  |
| $f_{34}$                               | 22.7514±0.0017               | 0.09±0.02        | -0.75±0.10               | 21.2  |
| $f_{35}$                               | 0.1366±0.0017                | 0.09±0.02        | 2.70±0.10                | 20.7  |
| $f_{37}$                               | 32.7149±0.0017               | 0.08±0.02        | -2.94±0.11               | 19.4  |
| $f_{38}$                               | 39.9628±0.0017               | 0.08±0.02        | -1.23±0.11               | 19.1  |
| $f_{39}$                               | 21.0202±0.0017               | 0.08±0.02        | 2.38±0.11                | 19.3  |
| $f_{40}$                               | 26.6282±0.0018               | 0.07±0.02        | -2.24±0.11               | 17.9  |
| $f_{41}$                               | 29.7291±0.0018               | 0.08±0.02        | 1.20±0.11                | 18.1  |
| $f_{42}$                               | 32.0908±0.0018               | 0.08±0.02        | -2.08±0.11               | 18.1  |
| $f_{43}$                               | 33.8260±0.0018               | 0.08±0.02        | 1.36±0.11                | 17.6  |
| $f_{44}$                               | 17.6374±0.0019               | 0.07±0.02        | 0.70±0.11                | 16.7  |
| $f_{45}$                               | 43.2060±0.0019               | 0.08±0.02        | -0.61±0.12               | 15.6  |
| $f_{46}$                               | 0.2983±0.0019                | 0.08±0.02        | -0.64±0.12               | 15.4  |
| $f_{47}$                               | 24.2473±0.0019               | 0.07±0.02        | -2.25±0.12               | 15.4  |
| $f_{48}$                               | 31.2152±0.0020               | 0.07±0.02        | -0.28±0.12               | 14.9  |
| $f_{49}$                               | 26.7386±0.0020               | 0.07±0.02        | 0.58±0.12                | 15.1  |
| $f_{50}$                               | 0.2015±0.0020                | 0.07±0.02        | -0.94±0.12               | 15.0  |
| $f_{51}$                               | 19.6779±0.0020               | 0.07±0.02        | -1.60±0.12               | 14.5  |
| $f_{52}$                               | 19.9463±0.0020               | 0.06±0.02        | 1.04±0.12                | 14.0  |
| $f_{53}$                               | 26.0054±0.0021               | 0.07±0.02        | 0.96±0.13                | 13.1  |
| $f_{54}$                               | 36.9835±0.0021               | 0.06±0.02        | -1.59±0.13               | 12.8  |
| $f_{56}$                               | 0.1247±0.0022                | 0.06±0.02        | -0.11±0.14               | 11.9  |
| $f_{57}$                               | 40.1528±0.0022               | 0.06±0.02        | -0.94±0.13               | 12.0  |
| $f_{58}$                               | 29.8481±0.0022               | 0.06±0.02        | 1.31±0.13                | 12.2  |
| $f_{59}$                               | 42.2385±0.0023               | 0.06±0.02        | -0.03±0.14               | 11.2  |
| $f_{60}$                               | 56.5617±0.0023               | 0.06±0.02        | 1.54±0.14                | 11.4  |
| $f_{61}$                               | 0.6380±0.0023                | 0.06±0.02        | 2.31±0.14                | 11.2  |
| $f_{62}$                               | 1.5225±0.0023                | 0.06±0.02        | 2.39±0.14                | 11.0  |
| $f_{63}$                               | 36.9514±0.0023               | 0.05±0.02        | 0.31±0.14                | 11.1  |
| $f_{64}$                               | 0.5590±0.0023                | 0.07±0.02        | 0.99±0.14                | 10.7  |
| $f_{65}$                               | 26.5158±0.0024               | 0.06±0.02        | -3.08±0.14               | 10.4  |
| $f_{66}$                               | 0.2664±0.0024                | 0.05±0.02        | 1.88±0.15                | 10.3  |
| $f_{67}$                               | 14.7374±0.0024               | 0.06±0.02        | 3.10±0.15                | 10.2  |
| $f_{68}$                               | 39.9788±0.0024               | 0.05±0.02        | -2.01±0.14               | 10.4  |
| $f_{69}$                               | 33.7674±0.0024               | 0.06±0.02        | 2.94±0.15                | 10.3  |
| $f_{70}$                               | 0.4485±0.0024                | 0.06±0.02        | 0.95±0.15                | 10.2  |
| $f_{71}$                               | 18.8648±0.0024               | 0.06±0.02        | -0.64±0.15               | 9.9   |
| $f_{73}$                               | 2.0034±0.0024                | 0.06±0.02        | -0.49±0.15               | 10.1  |
| $f_{75}$                               | 40.1755±0.0025               | 0.05±0.02        | -2.92±0.15               | 9.1   |
| $f_{76}$                               | 32.7388±0.0025               | 0.05±0.02        | -1.24±0.15               | 9.4   |
| $f_{77}$                               | 0.3180±0.0025                | 0.04±0.01        | 0.10±0.16                | 9.0   |

Frequency list of 0102563681 continued

| Frequency list of 0102563681 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{78}$                               | 43.2405±0.0025               | 0.05±0.02        | 0.98±0.15                | 9.2   |
| $f_{79}$                               | 39.9874±0.0026               | 0.05±0.02        | 1.28±0.16                | 8.9   |
| $f_{80}$                               | 46.3194±0.0026               | 0.05±0.02        | -2.21±0.16               | 8.8   |
| $f_{81}$                               | 29.9851±0.0026               | 0.05±0.02        | -0.33±0.16               | 8.9   |
| $f_{82}$                               | 31.8709±0.0026               | 0.05±0.02        | 0.92±0.16                | 8.3   |
| $f_{83}$                               | 33.6901±0.0027               | 0.05±0.02        | 1.47±0.16                | 8.0   |
| $f_{84}$                               | 35.8450±0.0027               | 0.05±0.02        | 2.86±0.17                | 7.9   |
| $f_{87}$                               | 1.1250±0.0027                | 0.05±0.02        | -1.57±0.17               | 7.8   |
| $f_{88}$                               | 49.4006±0.0028               | 0.05±0.02        | -1.05±0.17               | 7.7   |
| $f_{89}$                               | 22.3365±0.0028               | 0.05±0.02        | -0.10±0.17               | 7.5   |
| $f_{90}$                               | 28.2272±0.0028               | 0.05±0.02        | -2.24±0.17               | 7.5   |
| $f_{91}$                               | 26.6172±0.0028               | 0.05±0.02        | 0.67±0.17                | 7.5   |
| $f_{92}$                               | 0.3343±0.0028                | 0.04±0.01        | 2.90±0.17                | 7.6   |
| $f_{93}$                               | 26.7154±0.0028               | 0.05±0.02        | 1.21±0.17                | 7.4   |
| $f_{94}$                               | 18.8093±0.0028               | 0.05±0.02        | -1.42±0.17               | 7.4   |
| $f_{95}$                               | 39.7352±0.0028               | 0.05±0.02        | 2.67±0.17                | 7.3   |
| $f_{96}$                               | 45.7545±0.0029               | 0.04±0.02        | -1.92±0.17               | 7.1   |
| $f_{97}$                               | 0.9506±0.0029                | 0.05±0.02        | -2.61±0.17               | 7.1   |
| $f_{98}$                               | 16.0512±0.0028               | 0.04±0.01        | -1.59±0.17               | 7.2   |
| $f_{99}$                               | 0.4950±0.0029                | 0.06±0.02        | -1.49±0.17               | 7.1   |
| $f_{100}$                              | 0.5928±0.0028                | 0.05±0.02        | 2.50±0.17                | 7.4   |
| $f_{101}$                              | 0.2762±0.0028                | 0.05±0.02        | -2.72±0.17               | 7.4   |
| $f_{103}$                              | 0.4871±0.0029                | 0.05±0.02        | -2.94±0.17               | 7.1   |
| $f_{104}$                              | 0.3742±0.0028                | 0.05±0.02        | -2.54±0.17               | 7.2   |
| $f_{105}$                              | 0.2564±0.0029                | 0.05±0.02        | 1.21±0.17                | 7.1   |
| $f_{106}$                              | 0.7646±0.0029                | 0.05±0.02        | -3.10±0.18               | 7.0   |
| $f_{107}$                              | 50.1001±0.0029               | 0.04±0.02        | -2.37±0.18               | 6.9   |
| $f_{108}$                              | 1.7421±0.0029                | 0.04±0.02        | -1.53±0.18               | 6.8   |
| $f_{109}$                              | 41.7602±0.0029               | 0.04±0.02        | -2.29±0.18               | 6.8   |
| $f_{110}$                              | 46.1010±0.0029               | 0.04±0.02        | -2.64±0.18               | 6.8   |
| $f_{111}$                              | 0.8370±0.0030                | 0.04±0.02        | -3.04±0.18               | 6.4   |
| $f_{112}$                              | 25.7315±0.0030               | 0.04±0.02        | -1.08±0.18               | 6.6   |
| $f_{113}$                              | 24.3876±0.0030               | 0.04±0.02        | 2.25±0.18                | 6.4   |
| $f_{114}$                              | 0.4758±0.0030                | 0.04±0.02        | 1.36±0.18                | 6.4   |
| $f_{115}$                              | 26.4694±0.0030               | 0.04±0.02        | 2.89±0.18                | 6.6   |
| $f_{116}$                              | 2.3454±0.0030                | 0.04±0.02        | -1.38±0.18               | 6.6   |
| $f_{117}$                              | 0.8942±0.0030                | 0.04±0.02        | 1.87±0.18                | 6.4   |
| $f_{119}$                              | 36.9387±0.0030               | 0.04±0.02        | -2.66±0.19               | 6.3   |
| $f_{120}$                              | 36.4154±0.0030               | 0.04±0.02        | 1.78±0.19                | 6.3   |
| $f_{121}$                              | 8.9992±0.0030                | 0.04±0.02        | -0.73±0.19               | 6.3   |
| $f_{122}$                              | 35.8240±0.0030               | 0.04±0.02        | -0.79±0.19               | 6.3   |
| $f_{123}$                              | 18.8265±0.0031               | 0.04±0.02        | 0.85±0.19                | 6.2   |
| $f_{124}$                              | 43.2705±0.0031               | 0.04±0.02        | 3.00±0.19                | 6.2   |
| $f_{125}$                              | 19.7387±0.0031               | 0.04±0.02        | 2.71±0.19                | 6.1   |

**Table E.2:** Frequency list of 0102573770

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign.  |
|--------------|------------------------------|------------------|--------------------------|--------|
| $f_1$        | 28.8962±0.0002               | 2.69±0.06        | 0.80±0.01                | 2024.5 |
| $f_2$        | 15.3466±0.0005               | 0.72±0.04        | -2.04±0.03               | 279.8  |
| $f_3$        | 15.3867±0.0005               | 0.56±0.04        | 1.17±0.03                | 197.3  |
| $f_4$        | 13.1407±0.0006               | 0.47±0.04        | 0.63±0.04                | 138.2  |
| $f_5$        | 17.5294±0.0006               | 0.46±0.04        | -1.36±0.04               | 143.2  |
| $f_6$        | 26.3240±0.0006               | 0.45±0.04        | -1.27±0.04               | 149.2  |
| $f_7$        | 16.8521±0.0007               | 0.43±0.04        | 2.64±0.04                | 130.0  |
| $f_8$        | 20.4845±0.0007               | 0.39±0.04        | -0.05±0.04               | 115.9  |
| $f_9$        | 22.6320±0.0008               | 0.34±0.04        | 0.33±0.05                | 86.6   |
| $f_{10}$     | 36.0899±0.0008               | 0.32±0.04        | 1.05±0.05                | 83.5   |
| $f_{11}$     | 33.9107±0.0008               | 0.32±0.04        | 0.94±0.05                | 83.4   |
| $f_{12}$     | 16.2131±0.0008               | 0.31±0.03        | -0.79±0.05               | 81.0   |
| $f_{13}$     | 1.8272±0.0009                | 0.28±0.03        | -2.15±0.06               | 69.9   |
| $f_{14}$     | 18.6979±0.0010               | 0.27±0.03        | -0.56±0.06               | 63.3   |
| $f_{15}$     | 13.4144±0.0010               | 0.24±0.03        | -2.59±0.06               | 54.6   |
| $f_{16}$     | 26.4441±0.0011               | 0.25±0.03        | -2.08±0.06               | 51.4   |
| $f_{17}$     | 16.6451±0.0011               | 0.23±0.03        | 1.01±0.07                | 48.9   |
| $f_{18}$     | 13.5397±0.0011               | 0.22±0.03        | -2.32±0.07               | 47.8   |
| $f_{19}$     | 10.4420±0.0014               | 0.18±0.03        | 0.28±0.09                | 29.3   |
| $f_{20}$     | 31.2407±0.0014               | 0.17±0.03        | -0.00±0.09               | 28.7   |
| $f_{21}$     | 19.7525±0.0015               | 0.16±0.03        | 2.10±0.09                | 25.3   |
| $f_{22}$     | 28.9010±0.0015               | 0.15±0.03        | -2.11±0.09               | 26.6   |
| $f_{23}$     | 18.6563±0.0015               | 0.16±0.03        | -1.60±0.09               | 25.6   |
| $f_{24}$     | 33.0202±0.0015               | 0.15±0.03        | 1.08±0.09                | 24.7   |
| $f_{25}$     | 1.4853±0.0016                | 0.15±0.03        | 1.15±0.10                | 23.5   |
| $f_{26}$     | 13.3728±0.0016               | 0.15±0.03        | -1.75±0.10               | 21.6   |
| $f_{27}$     | 28.8922±0.0017               | 0.13±0.03        | -2.26±0.10               | 19.9   |
| $f_{28}$     | 27.4348±0.0017               | 0.14±0.03        | 0.67±0.10                | 20.6   |
| $f_{29}$     | 2.5782±0.0017                | 0.14±0.03        | 0.46±0.10                | 20.1   |

Frequency list of 0102573770 continued



## Appendix E. Frequencies of individual Hybrid Candidate Stars

| Frequency list of 0102573770 continued |                              |                  |                          |       | Frequency list of 0102580623 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{30}$                               | 17.9318±0.0017               | 0.14±0.03        | -2.13±0.10               | 19.9  | $f_3$                                  | 24.3295±0.0004               | 1.39±0.08        | 1.27±0.03                | 303.0 |
| $f_{31}$                               | 25.5304±0.0018               | 0.14±0.03        | -2.41±0.11               | 18.8  | $f_4$                                  | 25.3598±0.0005               | 1.28±0.08        | -1.27±0.03               | 283.5 |
| $f_{32}$                               | 26.4051±0.0018               | 0.14±0.03        | 0.08±0.11                | 18.5  | $f_5$                                  | 29.9965±0.0005               | 1.09±0.07        | 1.94±0.03                | 216.1 |
| $f_{34}$                               | 29.4183±0.0019               | 0.12±0.03        | 3.07±0.11                | 17.0  | $f_6$                                  | 15.5146±0.0006               | 0.88±0.07        | -0.06±0.04               | 155.1 |
| $f_{35}$                               | 24.9005±0.0019               | 0.12±0.03        | 1.39±0.12                | 15.7  | $f_7$                                  | 28.0221±0.0007               | 0.75±0.07        | -1.14±0.04               | 127.1 |
| $f_{36}$                               | 12.5579±0.0019               | 0.12±0.03        | -2.03±0.12               | 15.8  | $f_8$                                  | 28.3355±0.0007               | 0.75±0.07        | -1.94±0.04               | 123.2 |
| $f_{37}$                               | 25.2640±0.0020               | 0.12±0.03        | -1.94±0.12               | 15.0  | $f_9$                                  | 32.5743±0.0007               | 0.69±0.07        | 1.18±0.04                | 108.4 |
| $f_{38}$                               | 2.6164±0.0020                | 0.12±0.03        | 0.46±0.12                | 14.8  | $f_{10}$                               | 32.7164±0.0007               | 0.66±0.06        | 2.81±0.05                | 104.2 |
| $f_{39}$                               | 20.3979±0.0020               | 0.12±0.03        | -2.24±0.12               | 14.6  | $f_{11}$                               | 22.3107±0.0007               | 0.66±0.06        | 1.63±0.05                | 105.5 |
| $f_{40}$                               | 30.1480±0.0020               | 0.11±0.03        | -0.37±0.12               | 14.1  | $f_{12}$                               | 30.1161±0.0008               | 0.59±0.06        | 0.02±0.05                | 89.5  |
| $f_{41}$                               | 26.9843±0.0021               | 0.10±0.03        | -2.12±0.13               | 13.8  | $f_{13}$                               | 34.5050±0.0008               | 0.58±0.06        | -2.94±0.05               | 85.6  |
| $f_{42}$                               | 23.1501±0.0020               | 0.12±0.03        | 3.02±0.12                | 14.3  | $f_{14}$                               | 14.3750±0.0009               | 0.54±0.06        | 2.87±0.05                | 80.3  |
| $f_{43}$                               | 23.7063±0.0022               | 0.11±0.03        | -0.86±0.13               | 12.5  | $f_{15}$                               | 29.8567±0.0009               | 0.51±0.06        | 2.41±0.05                | 72.5  |
| $f_{44}$                               | 22.1760±0.0022               | 0.11±0.03        | 1.30±0.13                | 12.4  | $f_{16}$                               | 22.6206±0.0010               | 0.46±0.06        | 2.26±0.06                | 58.3  |
| $f_{45}$                               | 34.3775±0.0022               | 0.10±0.03        | -0.79±0.14               | 11.6  | $f_{17}$                               | 25.9172±0.0010               | 0.46±0.06        | -0.22±0.06               | 57.0  |
| $f_{46}$                               | 29.4403±0.0023               | 0.10±0.03        | -1.47±0.14               | 10.9  | $f_{18}$                               | 29.1377±0.0011               | 0.39±0.06        | -1.98±0.07               | 46.2  |
| $f_{47}$                               | 36.2088±0.0023               | 0.10±0.03        | 1.69±0.14                | 11.1  | $f_{19}$                               | 33.1634±0.0011               | 0.40±0.06        | 0.97±0.07                | 46.8  |
| $f_{48}$                               | 16.3602±0.0023               | 0.10±0.03        | 0.62±0.14                | 10.6  | $f_{20}$                               | 21.2374±0.0011               | 0.39±0.06        | 3.12±0.07                | 47.3  |
| $f_{49}$                               | 17.1416±0.0023               | 0.10±0.03        | -1.36±0.14               | 10.6  | $f_{21}$                               | 1.8439±0.0011                | 0.37±0.05        | -0.27±0.07               | 47.0  |
| $f_{50}$                               | 0.1043±0.0024                | 0.10±0.03        | 0.92±0.14                | 10.4  | $f_{22}$                               | 14.1116±0.0011               | 0.38±0.06        | 2.31±0.07                | 46.0  |
| $f_{51}$                               | 26.5473±0.0024               | 0.09±0.03        | 2.06±0.15                | 10.1  | $f_{23}$                               | 30.5984±0.0012               | 0.38±0.06        | -0.68±0.07               | 43.1  |
| $f_{52}$                               | 14.3145±0.0024               | 0.10±0.03        | -2.53±0.15               | 10.0  | $f_{24}$                               | 29.6481±0.0012               | 0.35±0.05        | -2.62±0.07               | 41.5  |
| $f_{53}$                               | 5.1171±0.0025                | 0.10±0.03        | 1.62±0.15                | 9.6   | $f_{25}$                               | 29.6876±0.0012               | 0.35±0.06        | 0.16±0.08                | 38.6  |
| $f_{54}$                               | 17.1665±0.0025               | 0.09±0.03        | 0.72±0.15                | 9.4   | $f_{26}$                               | 34.7268±0.0012               | 0.33±0.05        | 2.30±0.08                | 37.3  |
| $f_{55}$                               | 3.7805±0.0025                | 0.09±0.03        | 1.84±0.15                | 9.1   | $f_{27}$                               | 25.8282±0.0012               | 0.34±0.06        | 2.09±0.08                | 37.9  |
| $f_{56}$                               | 2.5376±0.0025                | 0.09±0.03        | -2.66±0.15               | 9.5   | $f_{28}$                               | 29.9825±0.0013               | 0.33±0.05        | 2.16±0.08                | 37.2  |
| $f_{58}$                               | 18.1517±0.0026               | 0.09±0.03        | 0.21±0.16                | 8.8   | $f_{29}$                               | 15.5572±0.0013               | 0.33±0.05        | 3.10±0.08                | 36.1  |
| $f_{59}$                               | 36.3240±0.0026               | 0.09±0.03        | 0.40±0.16                | 8.7   | $f_{30}$                               | 22.0663±0.0013               | 0.31±0.05        | -2.42±0.08               | 36.1  |
| $f_{60}$                               | 12.9939±0.0026               | 0.09±0.03        | 1.46±0.16                | 8.7   | $f_{31}$                               | 16.7848±0.0013               | 0.33±0.06        | -2.27±0.08               | 35.4  |
| $f_{61}$                               | 34.8888±0.0026               | 0.08±0.03        | 2.43±0.16                | 8.6   | $f_{32}$                               | 13.1866±0.0013               | 0.33±0.06        | -0.96±0.08               | 35.1  |
| $f_{62}$                               | 33.6829±0.0026               | 0.09±0.03        | -0.59±0.16               | 8.5   | $f_{33}$                               | 24.5325±0.0013               | 0.31±0.05        | -2.72±0.08               | 35.4  |
| $f_{63}$                               | 28.8817±0.0026               | 0.09±0.03        | 3.09±0.16                | 8.5   | $f_{34}$                               | 32.6160±0.0013               | 0.31±0.05        | -1.44±0.08               | 32.2  |
| $f_{64}$                               | 5.1521±0.0027                | 0.08±0.03        | 0.78±0.16                | 8.0   | $f_{35}$                               | 0.9879±0.0014                | 0.28±0.05        | -0.29±0.09               | 30.0  |
| $f_{65}$                               | 28.9085±0.0027               | 0.09±0.03        | 0.40±0.16                | 8.2   | $f_{36}$                               | 30.1472±0.0015               | 0.27±0.05        | 2.27±0.09                | 27.1  |
| $f_{66}$                               | 30.9923±0.0027               | 0.08±0.03        | 2.52±0.17                | 7.9   | $f_{38}$                               | 24.5942±0.0015               | 0.28±0.06        | -1.49±0.09               | 25.4  |
| $f_{67}$                               | 31.2948±0.0027               | 0.08±0.03        | -2.68±0.17               | 7.8   | $f_{39}$                               | 27.0759±0.0015               | 0.28±0.06        | -2.33±0.09               | 24.8  |
| $f_{68}$                               | 27.8498±0.0028               | 0.08±0.03        | 1.09±0.17                | 7.6   | $f_{40}$                               | 18.5650±0.0015               | 0.25±0.05        | -1.46±0.09               | 25.4  |
| $f_{69}$                               | 7.4752±0.0028                | 0.08±0.03        | 2.05±0.17                | 7.5   | $f_{41}$                               | 18.9697±0.0016               | 0.25±0.05        | 1.38±0.10                | 23.8  |
| $f_{70}$                               | 0.1234±0.0028                | 0.08±0.03        | -1.26±0.17               | 7.4   | $f_{42}$                               | 17.3333±0.0016               | 0.24±0.05        | 0.57±0.10                | 24.0  |
| $f_{72}$                               | 26.9708±0.0028               | 0.08±0.03        | -0.75±0.17               | 7.4   | $f_{43}$                               | 3.5628±0.0015                | 0.25±0.05        | -0.88±0.09               | 24.5  |
| $f_{73}$                               | 22.5913±0.0028               | 0.07±0.03        | -2.83±0.17               | 7.4   | $f_{44}$                               | 5.8740±0.0016                | 0.24±0.05        | -1.44±0.10               | 23.6  |
| $f_{74}$                               | 21.9148±0.0028               | 0.08±0.03        | -1.85±0.17               | 7.3   | $f_{45}$                               | 13.0034±0.0016               | 0.26±0.06        | 0.13±0.10                | 22.2  |
| $f_{75}$                               | 21.9341±0.0027               | 0.08±0.03        | -3.12±0.17               | 7.8   | $f_{46}$                               | 32.7103±0.0016               | 0.21±0.04        | -2.82±0.10               | 22.1  |
| $f_{76}$                               | 18.4250±0.0028               | 0.08±0.03        | 0.08±0.17                | 7.2   | $f_{47}$                               | 23.2081±0.0017               | 0.22±0.05        | -2.36±0.10               | 20.0  |
| $f_{77}$                               | 1.0553±0.0029                | 0.08±0.03        | -0.71±0.17               | 7.1   | $f_{48}$                               | 6.3154±0.0017                | 0.23±0.05        | 0.89±0.10                | 19.9  |
| $f_{78}$                               | 4.6551±0.0029                | 0.08±0.03        | 0.39±0.17                | 7.1   | $f_{49}$                               | 28.1087±0.0017               | 0.23±0.05        | 0.10±0.10                | 19.9  |
| $f_{79}$                               | 31.0589±0.0028               | 0.08±0.03        | 0.59±0.17                | 7.2   | $f_{50}$                               | 14.7701±0.0018               | 0.22±0.05        | 2.01±0.11                | 19.0  |
| $f_{80}$                               | 31.6960±0.0029               | 0.08±0.03        | -2.75±0.18               | 7.0   | $f_{51}$                               | 21.8814±0.0017               | 0.22±0.05        | 0.07±0.11                | 19.4  |
| $f_{81}$                               | 13.0189±0.0029               | 0.07±0.03        | -2.94±0.18               | 6.8   | $f_{52}$                               | 12.5948±0.0018               | 0.21±0.05        | -0.51±0.11               | 19.0  |
| $f_{82}$                               | 33.8541±0.0029               | 0.07±0.03        | -0.03±0.18               | 6.7   | $f_{53}$                               | 18.1621±0.0017               | 0.21±0.05        | 0.58±0.11                | 19.1  |
| $f_{83}$                               | 5.3988±0.0030                | 0.07±0.03        | -2.33±0.18               | 6.6   | $f_{54}$                               | 5.3819±0.0018                | 0.21±0.05        | -2.53±0.11               | 17.7  |
| $f_{84}$                               | 0.5855±0.0030                | 0.07±0.03        | -2.54±0.18               | 6.5   | $f_{55}$                               | 2.0057±0.0018                | 0.19±0.04        | -1.70±0.11               | 18.0  |
| $f_{85}$                               | 24.3277±0.0030               | 0.07±0.03        | 1.20±0.18                | 6.5   | $f_{56}$                               | 0.1686±0.0019                | 0.22±0.05        | -0.11±0.12               | 16.4  |
| $f_{88}$                               | 27.0005±0.0030               | 0.07±0.03        | -2.75±0.18               | 6.4   | $f_{57}$                               | 20.4784±0.0019               | 0.21±0.05        | 2.79±0.11                | 16.5  |
| $f_{89}$                               | 0.1455±0.0030                | 0.07±0.03        | 2.61±0.18                | 6.6   | $f_{58}$                               | 20.4568±0.0019               | 0.20±0.05        | -0.74±0.12               | 16.4  |
| $f_{90}$                               | 7.2704±0.0030                | 0.07±0.03        | -0.80±0.18               | 6.4   | $f_{59}$                               | 30.2065±0.0019               | 0.19±0.05        | 3.10±0.12                | 15.4  |
| $f_{91}$                               | 16.3926±0.0030               | 0.07±0.03        | 0.68±0.19                | 6.3   | $f_{60}$                               | 13.4118±0.0020               | 0.18±0.05        | 2.71±0.12                | 14.1  |
| $f_{92}$                               | 27.5330±0.0030               | 0.07±0.03        | -1.86±0.18               | 6.5   | $f_{61}$                               | 22.2567±0.0021               | 0.18±0.05        | -0.27±0.13               | 13.5  |
| $f_{93}$                               | 36.4124±0.0030               | 0.07±0.03        | -1.82±0.18               | 6.5   | $f_{62}$                               | 27.3917±0.0021               | 0.17±0.05        | -1.97±0.13               | 13.2  |
| $f_{94}$                               | 25.0663±0.0031               | 0.07±0.03        | 3.04±0.19                | 6.2   | $f_{63}$                               | 0.1252±0.0021                | 0.16±0.04        | 1.39±0.13                | 13.0  |
| $f_{95}$                               | 42.8840±0.0030               | 0.07±0.03        | 3.05±0.19                | 6.3   | $f_{64}$                               | 0.8619±0.0021                | 0.17±0.05        | 1.26±0.13                | 13.1  |
| $f_{97}$                               | 14.9330±0.0031               | 0.07±0.03        | -0.14±0.19               | 6.1   | $f_{65}$                               | 20.5805±0.0021               | 0.17±0.05        | 1.87±0.13                | 12.9  |
| $f_{98}$                               | 24.7891±0.0031               | 0.07±0.03        | 1.51±0.19                | 6.1   | $f_{66}$                               | 13.5356±0.0021               | 0.17±0.05        | 2.32±0.13                | 12.7  |
| $f_{99}$                               | 8.6336±0.0031                | 0.07±0.03        | 1.50±0.19                | 6.0   | $f_{67}$                               | 34.4426±0.0022               | 0.17±0.05        | -0.08±0.13               | 12.5  |
| $f_{100}$                              | 0.8395±0.0031                | 0.07±0.03        | -2.05±0.19               | 6.1   | $f_{68}$                               | 0.7903±0.0023                | 0.16±0.05        | -0.20±0.14               | 11.0  |
| $f_{101}$                              | 38.9564±0.0032               | 0.07±0.03        | 3.09±0.19                | 5.8   | $f_{69}$                               | 33.0171±0.0024               | 0.15±0.05        | -0.38±0.14               | 10.5  |
| $f_{102}$                              | 0.3092±0.0031                | 0.07±0.03        | -2.21±0.19               | 5.9   | $f_{70}$                               | 29.6409±0.0023               | 0.16±0.05        | -1.03±0.14               | 10.8  |
| $f_{103}$                              | 34.0429±0.0031               | 0.07±0.03        | 0.65±0.19                | 6.0   | $f_{71}$                               | 41.7210±0.0024               | 0.14±0.04        | -1.52±0.14               | 10.4  |
| $f_{104}$                              | 15.0871±0.0032               | 0.07±0.03        | -0.26±0.19               | 5.8   | $f_{73}$                               | 18.7166±0.0024               | 0.15±0.05        | -2.33±0.15               | 10.3  |
| $f_{106}$                              | 0.3709±0.0032                | 0.07±0.03        | 1.62±0.20                | 5.6   | $f_{74}$                               | 0.1503±0.0024                | 0.18±0.06        | 0.17±0.15                | 10.2  |
| $f_{107}$                              | 22.7611±0.0033               | 0.07±0.03        | 1.91±0.20                | 5.5   | $f_{75}$                               | 0.1076±0.0023                | 0.17±0.05        | 1.42±0.14                | 10.9  |
| $f_{108}$                              | 9.6515±0.0033                | 0.06±0.03        | -0.03±0.20               | 5.4   | $f_{76}$                               | 0.1392±0.0023                | 0.15±0.05        | -1.99±0.14               | 10.6  |
| $f_{109}$                              | 20.8514±0.0033               | 0.06±0.03        | 1.23±0.20                | 5.3   | $f_{78}$                               | 23.4200±0.0024               | 0.16±0.05        | 1.98±0.15                | 10.1  |
| $f_{110}$                              | 14.5116±0.0034               | 0.06±0.03        | 1.52±0.21                | 5.1   | $f_{79}$                               | 29.4259±0.0024               | 0.15±0.05        | -1.69±0.15               | 10.2  |
| $f_{111}$                              | 19.1078±0.0034               | 0.06±0.03        | -1.41±0.21               | 5.1   | $f_{80}$                               | 25.4090±0.0024               | 0.16±0.05        | -1.86±0.15               | 10.0  |
|                                        |                              |                  |                          |       | $f_{81}$                               | 28.2127±0.0024               | 0.15±0.05        | 0.20±0.15                | 10.0  |

**Table E.3:** Frequency list of 0102580623

| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign.  |
|----------------------------------------|------------------------------|------------------|--------------------------|--------|
| $f_1$                                  | 27.7450±0.0002               | 3.37±0.10        | 2.62±0.01                | 1120.0 |
| $f_2$                                  | 27.0021±0.0004               | 1.79±0.09        | 0.50±0.02                | 438.8  |
| Frequency list of 0102580623 continued |                              |                  |                          |        |

## Appendix E. Frequencies of individual Hybrid Candidate Stars

| Frequency list of 0102580623 continued |                              |                  |                          |       | Frequency list of 0102580623 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| <i>f</i> <sub>82</sub>                 | 13.5435±0.0025               | 0.14±0.04        | -0.85±0.15               | 9.7   | <i>f</i> <sub>173</sub>                | 21.8890±0.0033               | 0.10±0.04        | -3.01±0.20               | 5.3   |
| <i>f</i> <sub>83</sub>                 | 23.3413±0.0025               | 0.15±0.05        | -3.02±0.15               | 9.5   | <i>f</i> <sub>174</sub>                | 35.1048±0.0033               | 0.10±0.04        | -0.62±0.20               | 5.2   |
| <i>f</i> <sub>84</sub>                 | 21.0000±0.0025               | 0.15±0.05        | 0.87±0.15                | 9.5   | <i>f</i> <sub>175</sub>                | 1.8299±0.0033                | 0.10±0.04        | 0.46±0.20                | 5.3   |
| <i>f</i> <sub>85</sub>                 | 43.8050±0.0025               | 0.15±0.05        | 0.85±0.15                | 9.4   | <i>f</i> <sub>176</sub>                | 1.3013±0.0033                | 0.10±0.04        | 2.43±0.20                | 5.3   |
| <i>f</i> <sub>86</sub>                 | 23.7870±0.0025               | 0.15±0.05        | -3.02±0.15               | 9.3   | <i>f</i> <sub>177</sub>                | 3.1191±0.0033                | 0.10±0.04        | 2.12±0.20                | 5.2   |
| <i>f</i> <sub>87</sub>                 | 32.6924±0.0026               | 0.14±0.05        | 0.77±0.16                | 8.8   | <i>f</i> <sub>178</sub>                | 13.7574±0.0033               | 0.10±0.04        | -1.72±0.20               | 5.2   |
| <i>f</i> <sub>88</sub>                 | 34.4900±0.0026               | 0.14±0.05        | -3.01±0.16               | 8.8   | <i>f</i> <sub>179</sub>                | 42.0942±0.0034               | 0.10±0.04        | 0.38±0.21                | 5.1   |
| <i>f</i> <sub>89</sub>                 | 20.5884±0.0025               | 0.14±0.05        | -0.62±0.16               | 9.0   | <i>f</i> <sub>180</sub>                | 11.4984±0.0033               | 0.10±0.04        | -2.75±0.20               | 5.3   |
| <i>f</i> <sub>90</sub>                 | 35.7712±0.0026               | 0.14±0.05        | -0.13±0.16               | 8.9   | <i>f</i> <sub>181</sub>                | 1.7903±0.0033                | 0.10±0.04        | -0.84±0.20               | 5.2   |
| <i>f</i> <sub>91</sub>                 | 17.8002±0.0026               | 0.14±0.05        | -1.13±0.16               | 8.8   | <i>f</i> <sub>182</sub>                | 6.9631±0.0033                | 0.10±0.04        | 0.69±0.20                | 5.3   |
| <i>f</i> <sub>92</sub>                 | 18.2220±0.0026               | 0.15±0.05        | -2.92±0.16               | 8.6   | <i>f</i> <sub>183</sub>                | 2.5808±0.0034                | 0.10±0.04        | 1.91±0.21                | 5.0   |
| <i>f</i> <sub>93</sub>                 | 18.2320±0.0024               | 0.14±0.04        | 3.06±0.15                | 10.0  |                                        |                              |                  |                          |       |
| <i>f</i> <sub>94</sub>                 | 27.7229±0.0026               | 0.13±0.04        | -0.41±0.16               | 8.5   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>95</sub>                 | 32.6772±0.0026               | 0.13±0.04        | 0.14±0.16                | 8.6   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>96</sub>                 | 29.6552±0.0026               | 0.13±0.04        | 2.01±0.16                | 8.5   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>97</sub>                 | 27.7386±0.0026               | 0.13±0.05        | 2.96±0.16                | 8.3   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>98</sub>                 | 1.8376±0.0027                | 0.13±0.05        | -1.73±0.16               | 8.2   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>99</sub>                 | 0.9280±0.0027                | 0.14±0.05        | -0.79±0.16               | 8.1   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>100</sub>                | 1.4586±0.0027                | 0.13±0.05        | -0.30±0.16               | 8.2   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>101</sub>                | 0.2264±0.0026                | 0.13±0.05        | -0.62±0.16               | 8.3   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>102</sub>                | 16.4909±0.0026               | 0.13±0.05        | 1.26±0.16                | 8.3   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>103</sub>                | 25.4592±0.0027               | 0.13±0.05        | -2.92±0.16               | 8.2   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>104</sub>                | 39.0578±0.0026               | 0.13±0.04        | 1.32±0.16                | 8.5   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>105</sub>                | 28.0141±0.0027               | 0.13±0.05        | -0.80±0.16               | 8.1   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>106</sub>                | 32.7634±0.0027               | 0.12±0.04        | 0.71±0.16                | 8.1   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>107</sub>                | 32.8859±0.0027               | 0.13±0.05        | -2.60±0.16               | 8.0   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>108</sub>                | 32.8539±0.0026               | 0.13±0.04        | -1.59±0.16               | 8.5   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>109</sub>                | 29.6713±0.0027               | 0.12±0.04        | 2.10±0.17                | 7.8   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>113</sub>                | 25.3068±0.0028               | 0.12±0.04        | -1.86±0.17               | 7.7   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>114</sub>                | 33.1694±0.0028               | 0.12±0.04        | -0.37±0.17               | 7.5   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>115</sub>                | 0.5709±0.0028                | 0.12±0.04        | 0.10±0.17                | 7.5   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>116</sub>                | 1.6453±0.0028                | 0.12±0.04        | -1.52±0.17               | 7.5   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>117</sub>                | 28.0995±0.0028               | 0.13±0.05        | 0.42±0.17                | 7.4   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>118</sub>                | 3.0798±0.0028                | 0.13±0.05        | 2.57±0.17                | 7.7   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>119</sub>                | 28.0293±0.0028               | 0.11±0.04        | 1.68±0.17                | 7.2   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>120</sub>                | 30.8220±0.0029               | 0.11±0.04        | -0.26±0.18               | 6.9   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>121</sub>                | 16.4103±0.0029               | 0.12±0.05        | 1.77±0.18                | 6.9   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>122</sub>                | 34.4349±0.0029               | 0.12±0.05        | -1.76±0.17               | 7.1   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>123</sub>                | 35.6627±0.0029               | 0.12±0.05        | 1.61±0.18                | 6.9   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>124</sub>                | 24.3707±0.0029               | 0.12±0.05        | -1.50±0.18               | 6.8   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>125</sub>                | 37.1403±0.0029               | 0.12±0.05        | 2.76±0.18                | 6.8   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>126</sub>                | 32.7219±0.0029               | 0.12±0.05        | -0.92±0.18               | 6.9   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>127</sub>                | 32.9498±0.0029               | 0.12±0.05        | -1.11±0.18               | 6.9   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>128</sub>                | 21.6768±0.0029               | 0.12±0.05        | -0.43±0.18               | 6.8   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>129</sub>                | 34.1189±0.0029               | 0.11±0.04        | 2.66±0.18                | 7.0   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>131</sub>                | 11.6726±0.0030               | 0.11±0.04        | 2.15±0.18                | 6.6   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>132</sub>                | 22.3539±0.0030               | 0.11±0.04        | 2.01±0.18                | 6.6   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>133</sub>                | 47.2250±0.0030               | 0.11±0.04        | -2.62±0.18               | 6.6   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>134</sub>                | 50.8794±0.0030               | 0.11±0.04        | -0.03±0.18               | 6.4   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>135</sub>                | 5.5254±0.0029                | 0.12±0.05        | -2.60±0.18               | 6.7   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>136</sub>                | 41.7066±0.0030               | 0.11±0.04        | 0.88±0.18                | 6.4   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>137</sub>                | 3.7065±0.0031                | 0.11±0.04        | 2.25±0.19                | 6.0   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>138</sub>                | 31.2484±0.0031               | 0.11±0.04        | -1.75±0.19               | 6.0   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>139</sub>                | 33.2618±0.0031               | 0.11±0.04        | -2.31±0.19               | 6.0   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>140</sub>                | 27.0656±0.0031               | 0.11±0.04        | -1.57±0.19               | 6.1   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>141</sub>                | 30.1245±0.0032               | 0.11±0.05        | -2.80±0.19               | 5.8   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>142</sub>                | 34.7898±0.0031               | 0.10±0.04        | -0.03±0.19               | 5.9   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>143</sub>                | 32.9340±0.0031               | 0.10±0.04        | 2.49±0.19                | 5.9   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>144</sub>                | 37.7590±0.0031               | 0.11±0.05        | 1.89±0.19                | 5.9   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>146</sub>                | 18.5469±0.0032               | 0.10±0.04        | 0.11±0.20                | 5.6   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>147</sub>                | 6.8099±0.0032                | 0.10±0.04        | -2.83±0.20               | 5.6   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>148</sub>                | 14.1694±0.0033               | 0.10±0.04        | 0.41±0.20                | 5.5   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>149</sub>                | 24.6037±0.0032               | 0.10±0.04        | 2.54±0.20                | 5.6   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>150</sub>                | 1.5171±0.0032                | 0.10±0.04        | 3.07±0.20                | 5.6   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>151</sub>                | 31.2412±0.0033               | 0.10±0.04        | -1.15±0.20               | 5.5   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>152</sub>                | 25.6440±0.0032               | 0.11±0.05        | 0.65±0.20                | 5.7   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>153</sub>                | 29.1935±0.0032               | 0.10±0.04        | 0.59±0.20                | 5.6   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>154</sub>                | 35.3498±0.0033               | 0.10±0.04        | 2.97±0.20                | 5.4   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>155</sub>                | 31.7321±0.0033               | 0.10±0.04        | -2.51±0.20               | 5.4   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>156</sub>                | 37.1487±0.0033               | 0.10±0.04        | 1.24±0.20                | 5.4   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>162</sub>                | 2.0071±0.0033                | 0.16±0.07        | -0.75±0.20               | 5.4   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>168</sub>                | 34.7341±0.0033               | 0.10±0.04        | -1.72±0.20               | 5.3   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>169</sub>                | 28.3553±0.0033               | 0.10±0.04        | -3.03±0.20               | 5.4   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>170</sub>                | 0.1149±0.0033                | 0.10±0.04        | 2.43±0.20                | 5.4   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>171</sub>                | 27.7524±0.0033               | 0.10±0.04        | 0.71±0.20                | 5.3   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>172</sub>                | 1.1131±0.0033                | 0.10±0.04        | -3.12±0.20               | 5.3   |                                        |                              |                  |                          |       |

| Frequency list of 0102580968 |                              |                  |                          |        |
|------------------------------|------------------------------|------------------|--------------------------|--------|
| Frequency ID                 | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign.  |
| <i>f</i> <sub>1</sub>        | 18.9211±0.0002               | 1.25±0.04        | 1.24±0.01                | 1078.3 |
| <i>f</i> <sub>2</sub>        | 14.7602±0.0005               | 0.48±0.03        | -0.91±0.03               | 216.3  |
| <i>f</i> <sub>3</sub>        | 8.9910±0.0007                | 0.36±0.03        | 0.96±0.04                | 136.5  |
| <i>f</i> <sub>4</sub>        | 11.0065±0.0007               | 0.31±0.03        | 1.63±0.04                | 108.9  |
| <i>f</i> <sub>5</sub>        | 10.5143±0.0007               | 0.31±0.03        | -1.55±0.05               | 106.8  |
| <i>f</i> <sub>6</sub>        | 2.0308±0.0007                | 0.30±0.03        | 2.24±0.04                | 107.3  |
| <i>f</i> <sub>7</sub>        | 0.9442±0.0010                | 0.22±0.03        | 0.55±0.06                | 58.9   |
| <i>f</i> <sub>8</sub>        | 10.3309±0.0011               | 0.18±0.03        | 1.40±0.07                | 50.4   |
| <i>f</i> <sub>9</sub>        | 12.8947±0.0011               | 0.19±0.03        | -0.51±0.07               | 49.9   |
| <i>f</i> <sub>10</sub>       | 11.0659±0.0011               | 0.21±0.03        | -1.48±0.07               | 49.7   |
| <i>f</i> <sub>11</sub>       | 10.0605±0.0011               | 0.19±0.03        | 2.92±0.07                | 49.8   |
| <i>f</i> <sub>12</sub>       | 7.9293±0.0011                | 0.19±0.03        | 2.42±0.07                | 48.3   |
| <i>f</i> <sub>13</sub>       | 9.7349±0.0012                | 0.15±0.02        | -1.37±0.07               | 43.8   |
| <i>f</i> <sub>14</sub>       | 11.4982±0.0012               | 0.17±0.03        | -1.67±0.07               | 41.1   |
| <i>f</i> <sub>15</sub>       | 9.0766±0.0012                | 0.17±0.03        | -2.80±0.07               | 41.2   |
| <i>f</i> <sub>16</sub>       | 2.2258±0.0012                | 0.17±0.03        | 1.57±0.07                | 40.6   |
| <i>f</i> <sub>17</sub>       | 1.2721±0.0012                | 0.17±0.03        | -3.01±0.07               | 38.9   |
| <i>f</i> <sub>18</sub>       | 21.9983±0.0012               | 0.16±0.03        | -2.70±0.08               | 38.2   |
| <i>f</i> <sub>19</sub>       | 9.4766±0.0013                | 0.15±0.03        | -0.65±0.08               | 35.7   |
| <i>f</i> <sub>20</sub>       | 0.1160±0.0013                | 0.15±0.03        | 2.79±0.08                | 34.9   |
| <i>f</i> <sub>21</sub>       | 21.8147±0.0013               | 0.15±0.03        | -0.30±0.08               | 34.1   |
| <i>f</i> <sub>22</sub>       | 8.9304±0.0014                | 0.15±0.03        | 2.51±0.08                | 31.9   |
| <i>f</i> <sub>23</sub>       | 9.5696±0.0014                | 0.14±0.03        | 1.77±0.08                | 31.0   |
| <i>f</i> <sub>24</sub>       | 1.5474±0.0014                | 0.14±0.03        | 0.19±0.08                | 30.6   |
| <i>f</i> <sub>25</sub>       | 9.7242±0.0014                | 0.13±0.02        | 0.67±0.09                | 29.1   |
| <i>f</i> <sub>26</sub>       | 11.0831±0.0015               | 0.13±0.02        | 2.98±0.09                | 27.2   |
| <i>f</i> <sub>27</sub>       | 0.2097±0.0015                | 0.16±0.03        | 1.40±0.09                | 27.4   |
| <i>f</i> <sub>28</sub>       | 22.4331±0.0015               | 0.13±0.03        | 2.01±0.09                | 26.8   |
| <i>f</i> <sub>29</sub>       | 2.1316±0.0015                | 0.13±0.03        | 0.58±0.09                | 26.0   |
| <i>f</i> <sub>30</sub>       | 10.5396±0.0015               | 0.14±0.03        | -3.08±0.09               | 26.1   |
| <i>f</i> <sub>31</sub>       | 10.6472±0.0015               | 0.13±0.02        | 0.28±0.09                | 27.7   |
| <i>f</i> <sub>32</sub>       | 11.1620±0.0015               | 0.12±0.02        | -0.61±0.09               | 25.5   |
| <i>f</i> <sub>33</sub>       | 8.5596±0.0015                | 0.13±0.03        | -0.72±0.09               | 25.1   |
| <i>f</i> <sub>34</sub>       | 0.7823±0.0016                | 0.12±0.02        | 2.13±0.10                | 23.1   |
| <i>f</i> <sub>35</sub>       | 10.1377±0.0016               | 0.13±0.03        | -0.79±0.10               | 21.8   |
| <i>f</i> <sub>36</sub>       | 9.8620±0.0016                | 0.12±0.03        | -1.34±0.10               | 21.9   |
| <i>f</i> <sub>37</sub>       | 10.6782±0.0016               | 0.13±0.03        | 2.14±0.10                | 21.8   |
| <i>f</i> <sub>38</sub>       | 8.4938±0.0016                | 0.11±0.02        | 1.93±0.10                | 21.6   |
| <i>f</i> <sub>39</sub>       | 10.4846±0.0016               | 0.13±0.03        | 0.85±0.10                | 21.9   |
| <i>f</i> <sub>40</sub>       | 1.4374±0.0016                | 0.11±0.02        | -3.10±0.10               | 21.7   |
| <i>f</i> <sub>41</sub>       | 11.4586±0.0017               | 0.12±0.03        | 1.03±0.10                | 20.6   |
| <i>f</i> <sub>42</sub>       | 0.5636±0.0017                | 0.13±0.03        | -0.73±0.10               | 20.6   |
| <i>f</i> <sub>43</sub>       | 8.7726±0.0017                | 0.09±0.02        | -1.75±0.10               | 19.9   |
| <i>f</i> <sub>45</sub>       | 9.3614±0.0017                | 0.10±0.02        | -0.91±0.10               | 19.7   |
| <i>f</i> <sub>46</sub>       | 14.3105±0.0018               | 0.11±0.03        | 2.39±0.11                | 18.5   |
| <i>f</i> <sub>47</sub>       | 3.6298±0.0019                | 0.10±0.02        | -0.10±0.11               | 17.0   |
| <i>f</i> <sub>49</sub>       | 10.3618±0.0019               | 0.10±0.02        | 2.47±0.11                | 16.9   |
| <i>f</i> <sub>50</sub>       | 10.8091±0.0019               | 0.09±0.02        | 2.19±0.11                | 16.6   |
| <i>f</i> <sub>51</sub>       | 9.6103±0.0019                | 0.11±0.03        | 1.21±0.11                | 16.7   |
| <i>f</i> <sub>52</sub>       | 10.4269±0.0019               | 0.07±0.02        | -2.06±0.11               | 16.5   |
| <i>f</i> <sub>53</sub>       | 10.2730±0.0018               | 0.09±0.02        | -0.92±0.11               | 17.1   |
| <i>f</i> <sub>54</sub>       | 8.8596±0.0019                | 0.09±0.02        | 0.27±0.11                | 16.9   |
| <i>f</i> <sub>55</sub>       |                              |                  |                          |        |

## Appendix E. Frequencies of individual Hybrid Candidate Stars

| Frequency list of 0102580968 continued |                              |                  |                          |       | Frequency list of 0102580968 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| <i>f</i> <sub>62</sub>                 | 9.1392±0.0020                | 0.09±0.02        | -1.20±0.12               | 15.0  | <i>f</i> <sub>140</sub>                | 0.4101±0.0026                | 0.06±0.02        | 2.46±0.16                | 8.3   |
| <i>f</i> <sub>63</sub>                 | 9.8229±0.0020                | 0.08±0.02        | -2.50±0.12               | 15.2  | <i>f</i> <sub>141</sub>                | 2.0918±0.0027                | 0.06±0.02        | -2.18±0.16               | 8.1   |
| <i>f</i> <sub>64</sub>                 | 1.0672±0.0020                | 0.08±0.02        | -1.77±0.12               | 15.0  | <i>f</i> <sub>142</sub>                | 9.4963±0.0027                | 0.06±0.02        | -2.20±0.16               | 8.1   |
| <i>f</i> <sub>65</sub>                 | 9.5447±0.0020                | 0.09±0.02        | -0.72±0.12               | 14.4  | <i>f</i> <sub>143</sub>                | 10.4758±0.0027               | 0.06±0.02        | 1.31±0.16                | 8.0   |
| <i>f</i> <sub>66</sub>                 | 0.4945±0.0020                | 0.09±0.02        | 0.86±0.12                | 14.3  | <i>f</i> <sub>146</sub>                | 12.2256±0.0027               | 0.07±0.02        | 0.67±0.17                | 7.9   |
| <i>f</i> <sub>67</sub>                 | 10.7934±0.0020               | 0.07±0.02        | 2.22±0.12                | 14.2  | <i>f</i> <sub>147</sub>                | 0.9042±0.0027                | 0.06±0.02        | -2.50±0.16               | 8.0   |
| <i>f</i> <sub>68</sub>                 | 11.9478±0.0020               | 0.10±0.03        | -0.54±0.12               | 14.1  | <i>f</i> <sub>148</sub>                | 1.7613±0.0027                | 0.06±0.02        | 0.29±0.16                | 8.0   |
| <i>f</i> <sub>69</sub>                 | 8.8931±0.0020                | 0.09±0.02        | 2.56±0.12                | 14.4  | <i>f</i> <sub>149</sub>                | 1.2374±0.0027                | 0.06±0.02        | 1.12±0.16                | 8.1   |
| <i>f</i> <sub>70</sub>                 | 13.8558±0.0021               | 0.09±0.02        | 0.67±0.13                | 13.8  | <i>f</i> <sub>150</sub>                | 11.3074±0.0027               | 0.06±0.02        | -2.64±0.16               | 8.0   |
| <i>f</i> <sub>71</sub>                 | 0.6066±0.0021                | 0.09±0.02        | 2.57±0.13                | 13.4  | <i>f</i> <sub>151</sub>                | 7.3291±0.0027                | 0.06±0.02        | 1.88±0.16                | 8.1   |
| <i>f</i> <sub>72</sub>                 | 8.1739±0.0021                | 0.09±0.02        | -0.98±0.13               | 13.3  | <i>f</i> <sub>152</sub>                | 7.9883±0.0027                | 0.06±0.02        | 1.48±0.17                | 7.9   |
| <i>f</i> <sub>73</sub>                 | 0.2168±0.0021                | 0.09±0.02        | -2.30±0.13               | 13.6  | <i>f</i> <sub>153</sub>                | 10.8027±0.0027               | 0.06±0.02        | -0.59±0.17               | 7.8   |
| <i>f</i> <sub>75</sub>                 | 0.8682±0.0021                | 0.08±0.02        | -0.77±0.13               | 13.3  | <i>f</i> <sub>154</sub>                | 6.8225±0.0027                | 0.06±0.02        | 0.92±0.17                | 7.9   |
| <i>f</i> <sub>76</sub>                 | 11.6167±0.0021               | 0.08±0.02        | -3.11±0.13               | 13.0  | <i>f</i> <sub>155</sub>                | 9.8834±0.0027                | 0.06±0.02        | 0.38±0.17                | 7.9   |
| <i>f</i> <sub>77</sub>                 | 10.3884±0.0021               | 0.09±0.02        | -2.32±0.13               | 13.2  | <i>f</i> <sub>156</sub>                | 10.1567±0.0028               | 0.06±0.02        | 0.87±0.17                | 7.6   |
| <i>f</i> <sub>78</sub>                 | 8.0000±0.0021                | 0.09±0.03        | 1.17±0.13                | 12.7  | <i>f</i> <sub>157</sub>                | 8.2996±0.0028                | 0.06±0.02        | -2.31±0.17               | 7.7   |
| <i>f</i> <sub>79</sub>                 | 11.3597±0.0022               | 0.08±0.02        | -2.59±0.13               | 12.2  | <i>f</i> <sub>158</sub>                | 8.2356±0.0027                | 0.06±0.02        | 2.35±0.16                | 8.1   |
| <i>f</i> <sub>80</sub>                 | 0.5778±0.0022                | 0.07±0.02        | -1.08±0.13               | 12.2  | <i>f</i> <sub>159</sub>                | 10.3048±0.0027               | 0.06±0.02        | -2.32±0.16               | 8.2   |
| <i>f</i> <sub>81</sub>                 | 0.4301±0.0022                | 0.08±0.02        | -2.45±0.13               | 12.1  | <i>f</i> <sub>160</sub>                | 0.2696±0.0028                | 0.06±0.02        | -0.05±0.17               | 7.6   |
| <i>f</i> <sub>82</sub>                 | 0.5081±0.0022                | 0.08±0.02        | -1.93±0.13               | 12.2  | <i>f</i> <sub>161</sub>                | 12.8179±0.0028               | 0.06±0.02        | -0.54±0.17               | 7.6   |
| <i>f</i> <sub>83</sub>                 | 0.8117±0.0022                | 0.08±0.02        | 2.98±0.13                | 12.4  | <i>f</i> <sub>162</sub>                | 8.7543±0.0028                | 0.06±0.02        | 1.48±0.17                | 7.5   |
| <i>f</i> <sub>84</sub>                 | 10.0485±0.0022               | 0.08±0.02        | 1.73±0.13                | 12.0  | <i>f</i> <sub>163</sub>                | 18.9374±0.0028               | 0.06±0.02        | -0.17±0.17               | 7.6   |
| <i>f</i> <sub>85</sub>                 | 10.5517±0.0022               | 0.08±0.02        | 0.80±0.13                | 12.0  | <i>f</i> <sub>164</sub>                | 12.4460±0.0028               | 0.05±0.02        | 1.96±0.17                | 7.5   |
| <i>f</i> <sub>86</sub>                 | 12.5557±0.0021               | 0.08±0.02        | -1.59±0.13               | 12.7  | <i>f</i> <sub>173</sub>                | 3.2212±0.0027                | 0.06±0.02        | -2.25±0.17               | 7.8   |
| <i>f</i> <sub>87</sub>                 | 3.5688±0.0022                | 0.07±0.02        | 2.44±0.14                | 11.9  | <i>f</i> <sub>174</sub>                | 1.4090±0.0028                | 0.06±0.02        | -2.73±0.17               | 7.5   |
| <i>f</i> <sub>88</sub>                 | 0.3715±0.0023                | 0.09±0.03        | -2.77±0.14               | 11.5  | <i>f</i> <sub>175</sub>                | 9.3937±0.0028                | 0.06±0.02        | 0.67±0.17                | 7.7   |
| <i>f</i> <sub>89</sub>                 | 10.2872±0.0023               | 0.07±0.02        | 1.50±0.14                | 11.4  | <i>f</i> <sub>176</sub>                | 8.9115±0.0028                | 0.05±0.02        | 2.61±0.17                | 7.7   |
| <i>f</i> <sub>90</sub>                 | 0.7355±0.0022                | 0.07±0.02        | 2.54±0.14                | 11.6  | <i>f</i> <sub>177</sub>                | 11.1272±0.0028               | 0.06±0.02        | -2.86±0.17               | 7.5   |
| <i>f</i> <sub>91</sub>                 | 1.0848±0.0023                | 0.08±0.02        | -0.44±0.14               | 11.1  | <i>f</i> <sub>178</sub>                | 12.0700±0.0028               | 0.06±0.02        | 2.63±0.17                | 7.6   |
| <i>f</i> <sub>92</sub>                 | 11.7552±0.0023               | 0.07±0.02        | 1.08±0.14                | 11.1  | <i>f</i> <sub>179</sub>                | 12.1830±0.0028               | 0.05±0.02        | -1.00±0.17               | 7.7   |
| <i>f</i> <sub>93</sub>                 | 0.3911±0.0023                | 0.08±0.02        | 1.11±0.14                | 10.9  | <i>f</i> <sub>180</sub>                | 9.5515±0.0028                | 0.06±0.02        | 0.50±0.17                | 7.5   |
| <i>f</i> <sub>94</sub>                 | 1.3314±0.0023                | 0.07±0.02        | -1.94±0.14               | 10.8  | <i>f</i> <sub>181</sub>                | 8.0192±0.0028                | 0.06±0.02        | -1.80±0.17               | 7.5   |
| <i>f</i> <sub>95</sub>                 | 9.8562±0.0023                | 0.07±0.02        | 1.33±0.14                | 11.1  | <i>f</i> <sub>182</sub>                | 8.3077±0.0028                | 0.06±0.02        | 0.58±0.17                | 7.4   |
| <i>f</i> <sub>96</sub>                 | 10.1052±0.0023               | 0.08±0.02        | -2.51±0.14               | 10.8  | <i>f</i> <sub>183</sub>                | 12.4213±0.0028               | 0.06±0.02        | 1.61±0.17                | 7.4   |
| <i>f</i> <sub>97</sub>                 | 10.4537±0.0023               | 0.08±0.02        | 0.09±0.14                | 10.7  | <i>f</i> <sub>184</sub>                | 9.9937±0.0028                | 0.06±0.02        | 0.98±0.17                | 7.3   |
| <i>f</i> <sub>98</sub>                 | 0.1554±0.0023                | 0.08±0.02        | -2.95±0.14               | 11.0  | <i>f</i> <sub>185</sub>                | 0.6860±0.0028                | 0.05±0.02        | -0.22±0.17               | 7.2   |
| <i>f</i> <sub>99</sub>                 | 0.2307±0.0023                | 0.09±0.03        | -0.29±0.14               | 10.9  | <i>f</i> <sub>186</sub>                | 10.9350±0.0028               | 0.05±0.02        | -0.27±0.17               | 7.2   |
| <i>f</i> <sub>100</sub>                | 11.5673±0.0023               | 0.07±0.02        | -1.02±0.14               | 10.6  | <i>f</i> <sub>187</sub>                | 10.2171±0.0028               | 0.06±0.02        | 1.98±0.17                | 7.2   |
| <i>f</i> <sub>101</sub>                | 0.4826±0.0024                | 0.07±0.02        | -1.96±0.14               | 10.5  | <i>f</i> <sub>188</sub>                | 11.2648±0.0028               | 0.06±0.02        | -1.19±0.17               | 7.2   |
| <i>f</i> <sub>102</sub>                | 9.9495±0.0024                | 0.07±0.02        | -3.02±0.15               | 10.2  | <i>f</i> <sub>190</sub>                | 7.6934±0.0029                | 0.05±0.02        | -1.93±0.18               | 6.9   |
| <i>f</i> <sub>103</sub>                | 0.1763±0.0024                | 0.08±0.03        | 1.63±0.15                | 10.2  | <i>f</i> <sub>191</sub>                | 6.9444±0.0028                | 0.05±0.02        | -2.96±0.17               | 7.2   |
| <i>f</i> <sub>104</sub>                | 0.1970±0.0023                | 0.07±0.02        | -0.32±0.14               | 10.6  | <i>f</i> <sub>192</sub>                | 12.9233±0.0029               | 0.05±0.02        | 1.28±0.18                | 7.0   |
| <i>f</i> <sub>105</sub>                | 9.2742±0.0025                | 0.07±0.02        | 0.13±0.15                | 9.7   | <i>f</i> <sub>193</sub>                | 10.8820±0.0029               | 0.05±0.02        | 2.46±0.18                | 6.9   |
| <i>f</i> <sub>106</sub>                | 9.2087±0.0024                | 0.07±0.02        | 1.85±0.15                | 9.9   | <i>f</i> <sub>194</sub>                | 1.0149±0.0029                | 0.06±0.02        | 1.61±0.18                | 6.9   |
| <i>f</i> <sub>107</sub>                | 1.2822±0.0025                | 0.07±0.02        | 0.06±0.15                | 9.6   | <i>f</i> <sub>195</sub>                | 1.5655±0.0029                | 0.05±0.02        | -2.55±0.18               | 6.9   |
| <i>f</i> <sub>108</sub>                | 2.0038±0.0025                | 0.08±0.03        | 1.99±0.15                | 9.4   | <i>f</i> <sub>196</sub>                | 8.7918±0.0029                | 0.06±0.02        | -2.26±0.18               | 6.8   |
| <i>f</i> <sub>109</sub>                | 0.1260±0.0025                | 0.07±0.02        | 0.70±0.15                | 9.2   | <i>f</i> <sub>197</sub>                | 10.5211±0.0029               | 0.06±0.02        | 0.73±0.18                | 6.9   |
| <i>f</i> <sub>110</sub>                | 9.4843±0.0025                | 0.07±0.02        | -2.13±0.15               | 9.1   | <i>f</i> <sub>198</sub>                | 8.2538±0.0029                | 0.05±0.02        | 1.13±0.18                | 6.8   |
| <i>f</i> <sub>111</sub>                | 8.7291±0.0025                | 0.06±0.02        | -0.15±0.15               | 9.1   | <i>f</i> <sub>199</sub>                | 9.8403±0.0029                | 0.05±0.02        | -2.81±0.18               | 6.8   |
| <i>f</i> <sub>112</sub>                | 12.8509±0.0026               | 0.06±0.02        | 2.13±0.16                | 8.9   | <i>f</i> <sub>200</sub>                | 0.9703±0.0029                | 0.05±0.02        | 1.14±0.18                | 6.8   |
| <i>f</i> <sub>113</sub>                | 0.5452±0.0025                | 0.07±0.02        | -2.52±0.16               | 9.0   | <i>f</i> <sub>201</sub>                | 10.4086±0.0029               | 0.05±0.02        | 0.21±0.18                | 6.9   |
| <i>f</i> <sub>115</sub>                | 11.5932±0.0026               | 0.06±0.02        | 1.72±0.16                | 8.8   | <i>f</i> <sub>202</sub>                | 11.6239±0.0029               | 0.06±0.02        | -1.66±0.18               | 6.9   |
| <i>f</i> <sub>116</sub>                | 20.8621±0.0026               | 0.06±0.02        | 1.08±0.16                | 8.8   | <i>f</i> <sub>203</sub>                | 11.6352±0.0028               | 0.06±0.02        | 2.94±0.17                | 7.4   |
| <i>f</i> <sub>117</sub>                | 10.4936±0.0026               | 0.06±0.02        | 1.63±0.16                | 8.9   | <i>f</i> <sub>204</sub>                | 10.6681±0.0029               | 0.06±0.02        | -2.79±0.18               | 6.7   |
| <i>f</i> <sub>118</sub>                | 0.6390±0.0026                | 0.06±0.02        | 2.70±0.16                | 8.6   | <i>f</i> <sub>205</sub>                | 12.7838±0.0029               | 0.05±0.02        | -0.65±0.18               | 6.7   |
| <i>f</i> <sub>119</sub>                | 0.3359±0.0026                | 0.07±0.02        | 0.81±0.16                | 8.7   | <i>f</i> <sub>207</sub>                | 9.6182±0.0030                | 0.06±0.02        | 1.36±0.18                | 6.6   |
| <i>f</i> <sub>120</sub>                | 12.3969±0.0026               | 0.06±0.02        | -2.73±0.16               | 8.7   | <i>f</i> <sub>208</sub>                | 8.9816±0.0030                | 0.05±0.02        | -1.15±0.18               | 6.6   |
| <i>f</i> <sub>121</sub>                | 12.2757±0.0026               | 0.06±0.02        | -0.21±0.16               | 8.6   | <i>f</i> <sub>209</sub>                | 8.7015±0.0029                | 0.05±0.02        | 1.24±0.18                | 6.7   |
| <i>f</i> <sub>122</sub>                | 9.6448±0.0026                | 0.06±0.02        | 1.76±0.16                | 8.9   | <i>f</i> <sub>210</sub>                | 0.1352±0.0030                | 0.05±0.02        | -0.76±0.18               | 6.5   |
| <i>f</i> <sub>123</sub>                | 11.4269±0.0026               | 0.06±0.02        | 2.17±0.16                | 8.5   | <i>f</i> <sub>211</sub>                | 1.2028±0.0029                | 0.05±0.02        | -0.52±0.18               | 6.7   |
| <i>f</i> <sub>124</sub>                | 11.8259±0.0026               | 0.07±0.02        | 2.02±0.16                | 8.5   | <i>f</i> <sub>212</sub>                | 1.5355±0.0030                | 0.05±0.02        | -0.05±0.18               | 6.5   |
| <i>f</i> <sub>125</sub>                | 11.6622±0.0026               | 0.06±0.02        | -1.41±0.16               | 8.6   | <i>f</i> <sub>213</sub>                | 12.2114±0.0030               | 0.05±0.02        | 2.82±0.18                | 6.4   |
| <i>f</i> <sub>126</sub>                | 18.9134±0.0026               | 0.06±0.02        | 1.45±0.16                | 8.4   | <i>f</i> <sub>214</sub>                | 0.7510±0.0029                | 0.05±0.02        | 2.75±0.18                | 6.7   |
| <i>f</i> <sub>127</sub>                | 1.3842±0.0026                | 0.06±0.02        | 2.58±0.16                | 8.4   | <i>f</i> <sub>215</sub>                | 9.5959±0.0030                | 0.05±0.02        | -3.07±0.18               | 6.6   |
| <i>f</i> <sub>128</sub>                | 12.7600±0.0026               | 0.06±0.02        | -0.27±0.16               | 8.4   | <i>f</i> <sub>216</sub>                | 11.7800±0.0030               | 0.05±0.02        | 1.50±0.18                | 6.4   |
| <i>f</i> <sub>129</sub>                | 10.1284±0.0026               | 0.06±0.02        | -1.22±0.16               | 8.6   | <i>f</i> <sub>217</sub>                | 2.9454±0.0030                | 0.05±0.02        | -2.53±0.18               | 6.4   |
| <i>f</i> <sub>130</sub>                | 12.3373±0.0026               | 0.07±0.02        | 3.09±0.16                | 8.6   | <i>f</i> <sub>218</sub>                | 7.1988±0.0030                | 0.05±0.02        | 1.47±0.18                | 6.4   |
| <i>f</i> <sub>131</sub>                | 10.8641±0.0026               | 0.06±0.02        | 0.17±0.16                | 8.4   | <i>f</i> <sub>219</sub>                | 17.4516±0.0030               | 0.05±0.02        | -1.37±0.19               | 6.3   |
| <i>f</i> <sub>132</sub>                | 11.8736±0.0026               | 0.06±0.02        | -2.10±0.16               | 8.5   | <i>f</i> <sub>220</sub>                | 8.9663±0.0030                | 0.05±0.02        | 0.10±0.18                | 6.4   |
| <i>f</i> <sub>133</sub>                | 11.8107±0.0026               | 0.06±0.02        | -2.27±0.16               | 8.6   | <i>f</i> <sub>221</sub>                | 10.8289±0.0030               | 0.05±0.02        | 0.39±0.19                | 6.3   |
| <i>f</i> <sub>134</sub>                | 10.0786±0.0026               | 0.06±0.02        | 1.14±0.16                | 8.5   | <i>f</i> <sub>222</sub>                | 0.2219±0.0030                | 0.05±0.02        | 0.97±0.19                | 6.3   |
| <i>f</i> <sub>135</sub>                | 9.7909±0.0027                | 0.06±0.02        | -1.26±0.16               | 8.2   | <i>f</i> <sub>223</sub>                | 2.5265±0.0030                | 0.05±0.02        | -1.80±0.18               | 6.4   |
| <i>f</i> <sub>136</sub>                | 1.8240±0.0027                | 0.06±0.02        | 0.95±0.16                | 8.1   | <i>f</i> <sub>224</sub>                | 8.5004±0.0030                | 0.05±0.02        | 1.63±0.18                | 6.4   |
| <i>f</i> <sub>137</sub>                | 12.1721±0.0027               | 0.06±0.02        | 2.29±0.16                | 8.2   | <i>f</i> <sub>225</sub>                | 8.3978±0.0030                | 0.05±0.02        | -1.23±0.19               | 6.3   |
| <i>f</i> <sub>138</sub>                | 12.7238±0.0026               | 0.07±0.02        | 0.09±0.16                | 8.4   | <i>f</i> <sub>226</sub>                | 13.5369±0.0031               | 0.05±0.02        | 1.97±0.19                | 6.2   |
| <i>f</i> <sub>139</sub>                | 12.6136±0.0026               | 0.06±0.02        | -1.30±0.16               | 8.6   | <i>f</i> <sub>227</sub>                | 12.5098±0.0031               | 0.05±0.02        | 2.79±0.19                | 6.2   |
| Frequency list of 0102580968 continued |                              |                  |                          |       | Frequency list of 0102580968 continued |                              |                  |                          |       |

## Appendix E. Frequencies of individual Hybrid Candidate Stars

| Frequency list of 0102580968 continued |                              |                  |                          |       | Frequency list of 0102581527 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{228}$                              | 8.8727±0.0031                | 0.05±0.02        | -0.57±0.19               | 6.1   | $f_{80}$                               | 21.4834±0.0022               | 0.12±0.03        | -0.50±0.13               | 12.6  |
| $f_{229}$                              | 10.8521±0.0031               | 0.05±0.02        | 1.07±0.19                | 6.2   | $f_{81}$                               | 29.3916±0.0021               | 0.12±0.03        | 0.12±0.13                | 12.7  |
| $f_{230}$                              | 10.6955±0.0030               | 0.05±0.02        | 3.04±0.18                | 6.5   | $f_{82}$                               | 5.8585±0.0022                | 0.13±0.04        | -1.57±0.13               | 12.5  |
| $f_{231}$                              | 0.6511±0.0031                | 0.05±0.02        | 1.36±0.19                | 6.2   | $f_{83}$                               | 18.4089±0.0022               | 0.12±0.03        | 2.54±0.13                | 12.2  |
| $f_{232}$                              | 10.4353±0.0031               | 0.05±0.02        | -3.12±0.19               | 6.1   | $f_{84}$                               | 12.3426±0.0022               | 0.12±0.03        | -1.23±0.14               | 11.8  |

**Table E.5:** Frequency list of 0102581527

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|--------------|------------------------------|------------------|--------------------------|-------|
| $f_1$        | 7.7437±0.0003                | 1.81±0.07        | -1.29±0.02               | 669.0 |
| $f_2$        | 7.6427±0.0004                | 1.34±0.06        | -0.39±0.02               | 446.5 |
| $f_3$        | 12.0242±0.0004               | 1.06±0.06        | -1.79±0.03               | 324.7 |
| $f_4$        | 4.9256±0.0004                | 1.03±0.05        | -2.43±0.02               | 354.6 |
| $f_5$        | 7.9500±0.0005                | 0.85±0.05        | 2.48±0.03                | 253.0 |
| $f_6$        | 23.3297±0.0005               | 0.75±0.05        | 0.88±0.03                | 219.5 |
| $f_7$        | 4.2219±0.0005                | 0.75±0.05        | -2.59±0.03               | 232.7 |
| $f_8$        | 44.8132±0.0009               | 0.41±0.05        | 0.39±0.06                | 71.6  |
| $f_{10}$     | 6.7046±0.0010                | 0.38±0.05        | 2.57±0.06                | 63.7  |
| $f_{11}$     | 3.8493±0.0010                | 0.38±0.05        | 1.72±0.06                | 62.0  |
| $f_{12}$     | 7.9412±0.0010                | 0.38±0.05        | 2.37±0.06                | 58.6  |
| $f_{13}$     | 23.1650±0.0010               | 0.36±0.05        | 0.31±0.06                | 58.9  |
| $f_{14}$     | 2.8502±0.0010                | 0.33±0.04        | -1.73±0.06               | 60.5  |
| $f_{15}$     | 6.9465±0.0010                | 0.33±0.04        | -2.18±0.06               | 57.6  |
| $f_{17}$     | 4.4047±0.0010                | 0.33±0.04        | 0.80±0.06                | 56.6  |
| $f_{18}$     | 4.4866±0.0010                | 0.33±0.04        | -2.34±0.06               | 58.0  |
| $f_{19}$     | 4.5077±0.0011                | 0.29±0.04        | -0.87±0.07               | 50.0  |
| $f_{20}$     | 4.5703±0.0011                | 0.29±0.04        | 0.11±0.07                | 50.4  |
| $f_{21}$     | 12.3137±0.0011               | 0.29±0.04        | 0.06±0.07                | 50.0  |
| $f_{22}$     | 27.7352±0.0011               | 0.28±0.04        | 1.55±0.07                | 46.2  |
| $f_{24}$     | 17.0592±0.0011               | 0.26±0.04        | -2.16±0.07               | 44.5  |
| $f_{25}$     | 0.1962±0.0012                | 0.29±0.04        | 1.12±0.07                | 44.0  |
| $f_{26}$     | 1.6571±0.0012                | 0.26±0.04        | -0.94±0.07               | 44.0  |
| $f_{27}$     | 18.6456±0.0012               | 0.26±0.04        | 0.61±0.07                | 38.9  |
| $f_{29}$     | 3.2409±0.0013                | 0.24±0.04        | 1.17±0.08                | 33.5  |
| $f_{30}$     | 1.4954±0.0013                | 0.23±0.04        | -0.84±0.08               | 32.9  |
| $f_{32}$     | 13.8802±0.0013               | 0.23±0.04        | 1.03±0.08                | 32.7  |
| $f_{33}$     | 11.0232±0.0013               | 0.21±0.04        | 1.96±0.08                | 33.2  |
| $f_{34}$     | 14.2535±0.0014               | 0.22±0.04        | -0.71±0.08               | 31.7  |
| $f_{35}$     | 4.3176±0.0014                | 0.20±0.04        | 2.42±0.09                | 29.6  |
| $f_{36}$     | 0.1656±0.0014                | 0.23±0.04        | -1.65±0.09               | 28.0  |
| $f_{37}$     | 0.1381±0.0014                | 0.19±0.04        | -2.98±0.09               | 28.1  |
| $f_{38}$     | 0.2770±0.0014                | 0.21±0.04        | 2.25±0.09                | 28.2  |
| $f_{39}$     | 6.0886±0.0015                | 0.19±0.04        | 0.29±0.09                | 26.1  |
| $f_{40}$     | 6.2260±0.0015                | 0.18±0.04        | -1.79±0.09               | 24.7  |
| $f_{41}$     | 3.2799±0.0015                | 0.19±0.04        | -1.48±0.09               | 25.2  |
| $f_{42}$     | 7.4008±0.0016                | 0.19±0.04        | 0.72±0.10                | 24.0  |
| $f_{43}$     | 15.2968±0.0016               | 0.18±0.04        | 2.58±0.10                | 23.5  |
| $f_{44}$     | 10.6569±0.0016               | 0.19±0.04        | 0.58±0.10                | 23.3  |
| $f_{47}$     | 4.9802±0.0016                | 0.18±0.04        | 2.74±0.10                | 22.5  |
| $f_{48}$     | 4.7288±0.0017                | 0.18±0.04        | 0.53±0.10                | 20.7  |
| $f_{49}$     | 5.8781±0.0017                | 0.16±0.03        | -1.54±0.10               | 21.1  |
| $f_{50}$     | 0.8499±0.0017                | 0.16±0.03        | 3.07±0.10                | 21.0  |
| $f_{51}$     | 0.1049±0.0017                | 0.19±0.04        | -0.28±0.10               | 20.0  |
| $f_{53}$     | 10.2332±0.0018               | 0.16±0.04        | -2.40±0.11               | 18.0  |
| $f_{54}$     | 4.9064±0.0018                | 0.15±0.04        | -1.55±0.11               | 18.1  |
| $f_{58}$     | 13.0677±0.0018               | 0.15±0.04        | -1.12±0.11               | 17.2  |
| $f_{59}$     | 7.9081±0.0018                | 0.15±0.04        | -3.10±0.11               | 17.1  |
| $f_{60}$     | 4.2659±0.0019                | 0.15±0.04        | 2.00±0.11                | 17.0  |
| $f_{61}$     | 20.5320±0.0019               | 0.15±0.04        | 2.11±0.11                | 16.9  |
| $f_{62}$     | 3.1463±0.0019                | 0.15±0.04        | 2.63±0.12                | 16.2  |
| $f_{63}$     | 0.1542±0.0019                | 0.16±0.04        | 1.49±0.12                | 16.1  |
| $f_{64}$     | 0.1274±0.0019                | 0.15±0.04        | 0.06±0.11                | 16.5  |
| $f_{67}$     | 2.0220±0.0019                | 0.14±0.04        | 2.01±0.12                | 15.7  |
| $f_{68}$     | 17.0786±0.0019               | 0.14±0.04        | 0.07±0.12                | 15.9  |
| $f_{70}$     | 10.7586±0.0019               | 0.14±0.04        | -0.78±0.12               | 15.6  |
| $f_{71}$     | 2.0889±0.0020                | 0.13±0.03        | 2.56±0.12                | 15.3  |
| $f_{73}$     | 6.9272±0.0020                | 0.13±0.03        | 2.75±0.12                | 14.4  |
| $f_{74}$     | 1.0689±0.0020                | 0.14±0.04        | 3.01±0.12                | 14.0  |
| $f_{75}$     | 0.4353±0.0020                | 0.13±0.03        | -0.77±0.12               | 14.0  |
| $f_{76}$     | 6.1842±0.0020                | 0.13±0.03        | 1.97±0.12                | 14.0  |
| $f_{77}$     | 4.1550±0.0021                | 0.13±0.03        | -1.01±0.13               | 13.8  |
| $f_{78}$     | 39.8876±0.0021               | 0.13±0.04        | 0.47±0.13                | 13.5  |

Frequency list of 0102581527 continued

**Table E.6:** Frequency list of 0102589566

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|--------------|------------------------------|------------------|--------------------------|-------|
| $f_1$        | 5.9837±0.0004                | 1.08±0.05        | 1.99±0.02                | 391.2 |
| $f_2$        | 3.8706±0.0005                | 0.75±0.05        | 1.13±0.03                | 217.3 |
| $f_3$        | 3.9384±0.0005                | 0.72±0.05        | 0.23±0.03                | 206.0 |
| $f_4$        | 10.8013±0.0006               | 0.59±0.05        | 0.98±0.04                | 158.1 |
| $f_5$        | 8.8868±0.0006                | 0.55±0.05        | 1.66±0.04                | 145.9 |
| $f_6$        | 4.4681±0.0006                | 0.57±0.05        | -3.06±0.04               | 147.1 |
| $f_7$        | 4.0143±0.0007                | 0.52±0.05        | 2.36±0.04                | 131.5 |
| $f_8$        | 25.3084±0.0007               | 0.50±0.04        | -0.39±0.04               | 129.6 |
| $f_9$        | 3.2101±0.0007                | 0.45±0.04        | 2.55±0.04                | 111.3 |
| $f_{10}$     | 3.7071±0.0007                | 0.47±0.04        | 2.12±0.04                | 113.8 |
| $f_{11}$     | 4.2049±0.0007                | 0.43±0.04        | -0.94±0.04               | 108.1 |
| $f_{12}$     | 9.2181±0.0007                | 0.44±0.04        | -1.73±0.04               | 108.5 |

Frequency list of 0102589566 continued

## Appendix E. Frequencies of individual Hybrid Candidate Stars

| Frequency list of 0102589566 continued |                              |                  |                          |       | Frequency list of 0102589566 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{13}$                               | 7.5040±0.0007                | 0.43±0.04        | 0.35±0.04                | 110.1 | $f_{97}$                               | 18.1236±0.0022               | 0.11±0.03        | 3.01±0.13                | 12.3  |
| $f_{14}$                               | 4.1025±0.0008                | 0.36±0.04        | 2.97±0.05                | 84.0  | $f_{100}$                              | 2.8236±0.0022                | 0.10±0.03        | -1.40±0.13               | 12.0  |
| $f_{15}$                               | 18.2964±0.0009               | 0.33±0.04        | -0.35±0.05               | 76.6  | $f_{101}$                              | 22.0630±0.0022               | 0.11±0.03        | -0.51±0.13               | 12.0  |
| $f_{16}$                               | 52.1814±0.0010               | 0.31±0.04        | -3.07±0.06               | 63.2  | $f_{102}$                              | 15.6971±0.0022               | 0.10±0.03        | -2.23±0.14               | 11.7  |
| $f_{17}$                               | 10.1400±0.0010               | 0.29±0.04        | 0.81±0.06                | 56.3  | $f_{103}$                              | 11.8924±0.0022               | 0.10±0.03        | 2.02±0.14                | 11.8  |
| $f_{18}$                               | 8.0105±0.0010                | 0.29±0.04        | -1.66±0.06               | 57.4  | $f_{104}$                              | 32.9438±0.0022               | 0.10±0.03        | -0.60±0.14               | 11.6  |
| $f_{20}$                               | 4.3254±0.0010                | 0.28±0.04        | 3.00±0.06                | 52.9  | $f_{105}$                              | 8.1592±0.0022                | 0.10±0.03        | 0.01±0.14                | 11.7  |
| $f_{21}$                               | 3.7568±0.0011                | 0.26±0.04        | 0.56±0.07                | 47.6  | $f_{106}$                              | 22.8470±0.0023               | 0.10±0.03        | -2.93±0.14               | 11.5  |
| $f_{22}$                               | 0.1018±0.0011                | 0.26±0.04        | -1.61±0.07               | 48.3  | $f_{107}$                              | 18.8207±0.0023               | 0.10±0.03        | 2.71±0.14                | 11.3  |
| $f_{23}$                               | 12.8737±0.0011               | 0.25±0.04        | 1.84±0.07                | 47.7  | $f_{108}$                              | 2.0077±0.0023                | 0.13±0.04        | 3.03±0.14                | 11.3  |
| $f_{24}$                               | 3.3307±0.0011                | 0.25±0.04        | 1.02±0.07                | 47.5  | $f_{109}$                              | 7.0302±0.0023                | 0.10±0.03        | -0.14±0.14               | 11.5  |
| $f_{25}$                               | 14.2810±0.0012               | 0.24±0.04        | -1.85±0.07               | 41.0  | $f_{110}$                              | 29.5006±0.0023               | 0.10±0.03        | -1.67±0.14               | 11.1  |
| $f_{26}$                               | 28.5064±0.0012               | 0.23±0.04        | 0.70±0.07                | 40.4  | $f_{111}$                              | 18.4562±0.0023               | 0.10±0.03        | -1.01±0.14               | 11.0  |
| $f_{27}$                               | 46.5002±0.0012               | 0.22±0.03        | 3.01±0.07                | 39.6  | $f_{113}$                              | 25.4700±0.0023               | 0.10±0.03        | -0.68±0.14               | 10.8  |
| $f_{28}$                               | 4.8580±0.0013                | 0.22±0.04        | -2.49±0.08               | 36.4  | $f_{114}$                              | 3.0929±0.0023                | 0.09±0.03        | 2.02±0.14                | 10.8  |
| $f_{29}$                               | 15.7664±0.0013               | 0.19±0.03        | 0.06±0.08                | 35.0  | $f_{115}$                              | 31.5935±0.0023               | 0.10±0.03        | 0.97±0.14                | 11.0  |
| $f_{30}$                               | 11.9252±0.0013               | 0.21±0.04        | -2.64±0.08               | 34.6  | $f_{116}$                              | 0.2284±0.0023                | 0.09±0.03        | -0.24±0.14               | 10.8  |
| $f_{31}$                               | 17.5178±0.0013               | 0.21±0.04        | -2.95±0.08               | 33.9  | $f_{117}$                              | 16.2394±0.0023               | 0.10±0.03        | -1.46±0.14               | 10.8  |
| $f_{32}$                               | 7.2737±0.0014                | 0.20±0.04        | -3.03±0.09               | 29.8  | $f_{118}$                              | 24.0648±0.0024               | 0.09±0.03        | -0.84±0.14               | 10.4  |
| $f_{33}$                               | 23.9937±0.0014               | 0.19±0.03        | 1.97±0.08                | 30.8  | $f_{119}$                              | 0.3203±0.0024                | 0.09±0.03        | -1.93±0.14               | 10.5  |
| $f_{34}$                               | 23.7178±0.0014               | 0.19±0.04        | 1.48±0.09                | 28.9  | $f_{120}$                              | 23.2543±0.0024               | 0.09±0.03        | 0.56±0.15                | 10.3  |
| $f_{35}$                               | 4.6410±0.0014                | 0.19±0.03        | -0.20±0.09               | 29.5  | $f_{121}$                              | 18.4651±0.0024               | 0.09±0.03        | -0.11±0.15               | 10.1  |
| $f_{37}$                               | 0.1935±0.0014                | 0.16±0.03        | 1.91±0.09                | 29.7  | $f_{122}$                              | 3.0106±0.0024                | 0.09±0.03        | 3.12±0.15                | 10.3  |
| $f_{38}$                               | 5.6813±0.0014                | 0.19±0.03        | 1.46±0.09                | 29.7  | $f_{123}$                              | 3.2205±0.0024                | 0.09±0.03        | 0.40±0.15                | 10.0  |
| $f_{39}$                               | 35.2739±0.0014               | 0.18±0.03        | -0.61±0.09               | 29.0  | $f_{124}$                              | 13.1394±0.0024               | 0.09±0.03        | -2.54±0.15               | 9.9   |
| $f_{40}$                               | 3.6430±0.0014                | 0.20±0.04        | 1.45±0.09                | 28.0  | $f_{125}$                              | 18.9124±0.0025               | 0.09±0.03        | 2.77±0.15                | 9.7   |
| $f_{41}$                               | 16.1833±0.0014               | 0.18±0.03        | 0.35±0.09                | 28.0  | $f_{128}$                              | 0.1413±0.0025                | 0.09±0.03        | 1.53±0.15                | 9.6   |
| $f_{42}$                               | 5.7442±0.0015                | 0.18±0.03        | 2.07±0.09                | 27.0  | $f_{129}$                              | 25.7111±0.0025               | 0.09±0.03        | -0.77±0.15               | 9.4   |
| $f_{43}$                               | 40.6107±0.0015               | 0.18±0.04        | 2.70±0.09                | 26.3  | $f_{130}$                              | 1.0069±0.0025                | 0.09±0.03        | 0.75±0.15                | 9.4   |
| $f_{44}$                               | 3.6971±0.0016                | 0.18±0.04        | 0.47±0.10                | 23.8  | $f_{132}$                              | 5.2690±0.0025                | 0.08±0.03        | -1.16±0.16               | 9.0   |
| $f_{45}$                               | 32.4499±0.0016               | 0.16±0.03        | -1.38±0.10               | 23.3  | $f_{133}$                              | 15.7547±0.0025               | 0.09±0.03        | -2.56±0.15               | 9.1   |
| $f_{46}$                               | 19.0817±0.0016               | 0.16±0.03        | 1.47±0.10                | 23.2  | $f_{134}$                              | 6.6700±0.0026                | 0.09±0.03        | -2.48±0.16               | 8.8   |
| $f_{47}$                               | 22.6915±0.0016               | 0.16±0.03        | 1.40±0.10                | 22.3  | $f_{136}$                              | 18.4182±0.0026               | 0.08±0.03        | -0.05±0.16               | 8.7   |
| $f_{48}$                               | 0.1729±0.0016                | 0.16±0.03        | 1.27±0.10                | 22.1  | $f_{137}$                              | 7.8600±0.0026                | 0.09±0.03        | 1.57±0.16                | 8.6   |
| $f_{49}$                               | 20.5308±0.0016               | 0.16±0.03        | 2.04±0.10                | 21.7  | $f_{138}$                              | 20.1973±0.0026               | 0.08±0.03        | 2.38±0.16                | 8.6   |
| $f_{50}$                               | 12.2263±0.0017               | 0.16±0.03        | -0.94±0.10               | 21.3  | $f_{139}$                              | 2.4636±0.0026                | 0.07±0.02        | -3.13±0.16               | 8.5   |
| $f_{51}$                               | 2.7499±0.0017                | 0.15±0.03        | -2.67±0.10               | 20.3  | $f_{140}$                              | 2.7250±0.0026                | 0.08±0.03        | -2.07±0.16               | 8.4   |
| $f_{53}$                               | 15.7726±0.0017               | 0.15±0.03        | -0.94±0.10               | 20.6  | $f_{141}$                              | 0.3070±0.0026                | 0.08±0.03        | 1.52±0.16                | 8.3   |
| $f_{54}$                               | 3.6630±0.0017                | 0.15±0.03        | 0.04±0.10                | 20.1  | $f_{142}$                              | 57.9261±0.0027               | 0.08±0.03        | -1.89±0.16               | 8.2   |
| $f_{55}$                               | 21.6384±0.0017               | 0.15±0.03        | -0.66±0.10               | 20.4  | $f_{143}$                              | 10.3298±0.0027               | 0.08±0.03        | -1.48±0.16               | 8.2   |
| $f_{56}$                               | 21.5642±0.0017               | 0.14±0.03        | 2.10±0.10                | 19.9  | $f_{144}$                              | 34.4872±0.0027               | 0.08±0.03        | -1.58±0.16               | 8.2   |
| $f_{57}$                               | 0.1524±0.0017                | 0.13±0.03        | -1.25±0.10               | 20.5  | $f_{145}$                              | 21.2513±0.0026               | 0.08±0.03        | -2.69±0.16               | 8.3   |
| $f_{58}$                               | 7.1633±0.0017                | 0.15±0.03        | -1.66±0.10               | 20.0  | $f_{146}$                              | 5.3997±0.0026                | 0.08±0.03        | -1.77±0.16               | 8.3   |
| $f_{59}$                               | 18.4483±0.0017               | 0.16±0.04        | 2.75±0.11                | 19.4  | $f_{147}$                              | 5.3073±0.0027                | 0.08±0.03        | -2.14±0.16               | 8.2   |
| $f_{60}$                               | 41.3851±0.0017               | 0.14±0.03        | 0.55±0.11                | 19.5  | $f_{148}$                              | 9.6259±0.0026                | 0.08±0.03        | 0.06±0.16                | 8.3   |
| $f_{61}$                               | 12.5788±0.0017               | 0.15±0.03        | -2.30±0.11               | 19.6  | $f_{149}$                              | 26.2952±0.0027               | 0.08±0.03        | -2.38±0.16               | 8.1   |
| $f_{62}$                               | 32.1459±0.0017               | 0.15±0.03        | -0.68±0.10               | 19.9  | $f_{150}$                              | 15.4544±0.0027               | 0.08±0.03        | 2.38±0.16                | 8.0   |
| $f_{63}$                               | 6.8679±0.0017                | 0.14±0.03        | 1.23±0.11                | 19.6  | $f_{151}$                              | 26.4747±0.0027               | 0.07±0.02        | -1.18±0.16               | 8.0   |
| $f_{64}$                               | 7.7291±0.0017                | 0.14±0.03        | -2.91±0.11               | 19.4  | $f_{152}$                              | 6.4668±0.0028                | 0.08±0.03        | -3.03±0.17               | 7.5   |
| $f_{65}$                               | 9.4828±0.0018                | 0.14±0.03        | 1.87±0.11                | 18.4  | $f_{153}$                              | 6.6523±0.0028                | 0.08±0.03        | 2.30±0.17                | 7.7   |
| $f_{66}$                               | 16.8625±0.0018               | 0.13±0.03        | 0.95±0.11                | 18.3  | $f_{154}$                              | 17.6239±0.0028               | 0.08±0.03        | 2.81±0.17                | 7.5   |
| $f_{67}$                               | 28.3422±0.0018               | 0.14±0.03        | -2.44±0.11               | 18.3  | $f_{159}$                              | 0.2347±0.0028                | 0.08±0.03        | -1.55±0.17               | 7.5   |
| $f_{68}$                               | 20.0657±0.0018               | 0.13±0.03        | 1.82±0.11                | 18.0  | $f_{160}$                              | 0.1836±0.0028                | 0.08±0.03        | -1.29±0.17               | 7.3   |
| $f_{69}$                               | 31.9876±0.0018               | 0.13±0.03        | 1.99±0.11                | 17.7  | $f_{161}$                              | 1.7295±0.0028                | 0.08±0.03        | 1.08±0.17                | 7.4   |
| $f_{70}$                               | 20.4499±0.0018               | 0.13±0.03        | 0.28±0.11                | 18.1  | $f_{162}$                              | 26.4345±0.0028               | 0.08±0.03        | -0.77±0.17               | 7.2   |
| $f_{71}$                               | 1.3689±0.0019                | 0.13±0.03        | -2.35±0.11               | 17.0  | $f_{163}$                              | 3.5164±0.0028                | 0.08±0.03        | -0.33±0.17               | 7.3   |
| $f_{72}$                               | 0.2031±0.0019                | 0.13±0.03        | 2.63±0.11                | 16.9  | $f_{164}$                              | 22.6842±0.0028               | 0.07±0.03        | 0.51±0.17                | 7.2   |
| $f_{73}$                               | 3.2330±0.0019                | 0.13±0.03        | -2.84±0.11               | 16.8  | $f_{165}$                              | 39.6439±0.0029               | 0.07±0.03        | 1.61±0.17                | 7.1   |
| $f_{74}$                               | 26.6282±0.0019               | 0.13±0.03        | -1.54±0.12               | 16.4  | $f_{166}$                              | 7.9702±0.0029                | 0.07±0.03        | 2.45±0.18                | 7.0   |
| $f_{75}$                               | 3.8116±0.0019                | 0.13±0.03        | 3.14±0.12                | 16.4  | $f_{167}$                              | 3.4869±0.0029                | 0.07±0.03        | -1.37±0.17               | 7.1   |
| $f_{76}$                               | 0.1245±0.0019                | 0.13±0.03        | 2.93±0.11                | 16.5  | $f_{168}$                              | 2.1436±0.0028                | 0.07±0.03        | 1.57±0.17                | 7.3   |
| $f_{77}$                               | 6.6022±0.0019                | 0.12±0.03        | 1.07±0.12                | 16.4  | $f_{169}$                              | 1.4662±0.0028                | 0.07±0.03        | -0.51±0.17               | 7.2   |
| $f_{80}$                               | 6.9194±0.0019                | 0.12±0.03        | 2.32±0.12                | 15.4  | $f_{170}$                              | 4.6553±0.0029                | 0.07±0.03        | -2.61±0.17               | 7.1   |
| $f_{81}$                               | 12.1634±0.0019               | 0.13±0.03        | -1.07±0.12               | 15.7  | $f_{171}$                              | 0.1172±0.0029                | 0.07±0.03        | 0.45±0.18                | 7.0   |
| $f_{82}$                               | 25.1339±0.0019               | 0.12±0.03        | -0.57±0.12               | 16.3  | $f_{172}$                              | 0.2981±0.0029                | 0.07±0.03        | 0.29±0.17                | 7.1   |
| $f_{83}$                               | 21.1381±0.0019               | 0.12±0.03        | 3.01±0.12                | 15.5  | $f_{174}$                              | 2.9861±0.0029                | 0.07±0.03        | 0.58±0.18                | 7.0   |
| $f_{85}$                               | 5.8558±0.0020                | 0.12±0.03        | -2.92±0.12               | 15.1  | $f_{178}$                              | 3.2820±0.0029                | 0.07±0.03        | -2.50±0.18               | 6.9   |
| $f_{86}$                               | 15.6264±0.0020               | 0.12±0.03        | -2.84±0.12               | 14.8  | $f_{179}$                              | 0.9678±0.0029                | 0.07±0.03        | 1.81±0.18                | 6.8   |
| $f_{87}$                               | 7.4063±0.0020                | 0.11±0.03        | 2.87±0.12                | 14.8  | $f_{180}$                              | 4.9511±0.0029                | 0.07±0.03        | -2.61±0.18               | 6.7   |
| $f_{88}$                               | 5.1151±0.0020                | 0.11±0.03        | -1.18±0.12               | 14.1  | $f_{181}$                              | 14.2183±0.0029               | 0.07±0.03        | 1.62±0.18                | 6.7   |
| $f_{89}$                               | 3.1568±0.0020                | 0.12±0.03        | 0.38±0.12                | 13.9  | $f_{184}$                              | 3.1446±0.0030                | 0.09±0.04        | -2.17±0.18               | 6.6   |
| $f_{91}$                               | 3.3157±0.0021                | 0.12±0.03        | -1.94±0.13               | 13.2  | $f_{185}$                              | 3.1350±0.0029                | 0.07±0.03        | -2.56±0.18               | 6.8   |
| $f_{92}$                               | 20.9314±0.0021               | 0.11±0.03        | 0.41±0.13                | 12.9  | $f_{186}$                              | 17.7668±0.0030               | 0.07±0.03        | 1.52±0.18                | 6.5   |
| $f_{93}$                               | 14.9976±0.0022               | 0.10±0.03        | 0.38±0.13                | 12.6  | $f_{187}$                              | 3.9011±0.0030                | 0.07±0.03        | -1.88±0.18               | 6.6   |
| $f_{95}$                               | 0.9398±0.0022                | 0.09±0.03        | 0.90±0.13                | 12.6  | $f_{188}$                              | 1.7513±0.0030                | 0.07±0.03        | -2.42±0.18               | 6.5   |
| $f_{96}$                               | 7.6103±0.0022                | 0.11±0.03        | 2.96±0.13                | 12.4  | $f_{189}$                              | 21.2029±0.0031               | 0.07±0.03        | 1.15±0.19                | 6.2   |
| Frequency list of 0102589566 continued |                              |                  |                          |       | Frequency list of 0102589566 continued |                              |                  |                          |       |

## Appendix E. Frequencies of individual Hybrid Candidate Stars

| Frequency list of 0102589566 continued |                              |                  |                          |       | Frequency list of 0102600050 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{190}$                              | 5.7848±0.0031                | 0.07±0.03        | 1.99±0.19                | 6.2   | $f_{67}$                               | 0.3106±0.0026                | 0.04±0.01        | 0.27±0.16                | 8.3   |
| $f_{191}$                              | 4.9018±0.0031                | 0.07±0.03        | -2.27±0.19               | 6.1   | $f_{68}$                               | 0.4645±0.0026                | 0.04±0.01        | -0.38±0.16               | 8.3   |
| $f_{192}$                              | 0.2651±0.0031                | 0.07±0.03        | -0.47±0.19               | 6.1   | $f_{69}$                               | 0.5860±0.0027                | 0.04±0.01        | 1.38±0.16                | 8.2   |
| $f_{193}$                              | 2.4513±0.0031                | 0.07±0.03        | -0.07±0.19               | 6.1   | $f_{70}$                               | 20.1822±0.0027               | 0.04±0.01        | 1.00±0.16                | 8.1   |
| $f_{194}$                              | 15.1523±0.0031               | 0.07±0.03        | 0.68±0.19                | 6.1   | $f_{71}$                               | 0.5996±0.0027                | 0.04±0.01        | -2.29±0.16               | 8.2   |
| $f_{195}$                              | 2.8636±0.0031                | 0.07±0.03        | -0.87±0.19               | 6.1   | $f_{72}$                               | 36.8177±0.0027               | 0.04±0.01        | -0.93±0.17               | 7.9   |
| $f_{196}$                              | 3.0246±0.0031                | 0.07±0.03        | 2.34±0.19                | 6.1   | $f_{73}$                               | 1.3928±0.0027                | 0.04±0.01        | 2.38±0.17                | 7.8   |
| $f_{197}$                              | 11.7562±0.0031               | 0.07±0.03        | 2.06±0.19                | 6.1   | $f_{74}$                               | 1.4905±0.0028                | 0.03±0.01        | -1.27±0.17               | 7.7   |
|                                        |                              |                  |                          |       | $f_{75}$                               | 1.6153±0.0028                | 0.04±0.01        | 0.18±0.17                | 7.7   |

**Table E.7:** Frequency list of 0102600050

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|--------------|------------------------------|------------------|--------------------------|-------|
| $f_1$        | 0.1298±0.0003                | 0.79±0.03        | 0.13±0.02                | 921.5 |
| $f_2$        | 0.2573±0.0005                | 0.33±0.02        | 2.39±0.03                | 260.5 |
| $f_3$        | 31.1422±0.0005               | 0.28±0.02        | -2.21±0.03               | 210.7 |
| $f_4$        | 21.6235±0.0005               | 0.26±0.02        | -0.36±0.03               | 194.9 |
| $f_5$        | 0.1131±0.0005                | 0.23±0.02        | -0.22±0.03               | 200.7 |
| $f_6$        | 9.1822±0.0006                | 0.22±0.02        | -2.00±0.04               | 152.1 |
| $f_7$        | 23.1930±0.0008               | 0.17±0.02        | 1.76±0.05                | 95.2  |
| $f_8$        | 0.1244±0.0008                | 0.14±0.01        | -2.37±0.05               | 88.6  |
| $f_9$        | 32.5410±0.0009               | 0.15±0.02        | -2.20±0.05               | 80.4  |
| $f_{10}$     | 0.1540±0.0009                | 0.13±0.01        | -2.88±0.05               | 78.8  |
| $f_{11}$     | 18.2259±0.0009               | 0.13±0.02        | 1.41±0.06                | 69.0  |
| $f_{12}$     | 2.6104±0.0010                | 0.12±0.02        | 2.79±0.06                | 57.2  |
| $f_{13}$     | 16.6998±0.0011               | 0.11±0.02        | -2.16±0.07               | 48.4  |
| $f_{14}$     | 0.1447±0.0011                | 0.09±0.01        | -1.77±0.07               | 45.2  |
| $f_{15}$     | 28.7406±0.0012               | 0.10±0.02        | -0.28±0.07               | 40.7  |
| $f_{16}$     | 16.4727±0.0012               | 0.09±0.01        | -0.14±0.07               | 39.6  |
| $f_{17}$     | 0.3845±0.0013                | 0.09±0.02        | -0.54±0.08               | 35.5  |
| $f_{18}$     | 0.7725±0.0014                | 0.08±0.01        | 2.94±0.08                | 31.3  |
| $f_{19}$     | 0.2115±0.0014                | 0.09±0.02        | -2.08±0.09               | 28.7  |
| $f_{20}$     | 1.5439±0.0016                | 0.07±0.01        | -0.46±0.09               | 24.1  |
| $f_{21}$     | 0.3217±0.0016                | 0.06±0.01        | -1.03±0.10               | 23.2  |
| $f_{23}$     | 0.2283±0.0017                | 0.06±0.01        | -2.25±0.10               | 21.3  |
| $f_{24}$     | 0.5696±0.0016                | 0.07±0.01        | -0.04±0.10               | 22.4  |
| $f_{25}$     | 31.4292±0.0017               | 0.06±0.01        | -0.27±0.10               | 20.2  |
| $f_{26}$     | 5.2228±0.0017                | 0.06±0.01        | -3.11±0.10               | 19.8  |
| $f_{27}$     | 0.2435±0.0018                | 0.06±0.01        | -1.81±0.11               | 18.9  |
| $f_{28}$     | 26.0108±0.0018               | 0.06±0.01        | -2.15±0.11               | 17.3  |
| $f_{29}$     | 0.2860±0.0018                | 0.06±0.01        | 2.01±0.11                | 17.3  |
| $f_{30}$     | 0.1608±0.0018                | 0.05±0.01        | -1.79±0.11               | 17.6  |
| $f_{31}$     | 0.3769±0.0019                | 0.06±0.01        | 0.84±0.11                | 16.6  |
| $f_{32}$     | 0.1896±0.0019                | 0.06±0.01        | -1.17±0.11               | 16.5  |
| $f_{33}$     | 0.2725±0.0019                | 0.06±0.02        | -2.24±0.12               | 15.7  |
| $f_{34}$     | 0.6829±0.0020                | 0.06±0.02        | 1.25±0.12                | 14.7  |
| $f_{35}$     | 0.6473±0.0019                | 0.06±0.02        | 0.58±0.12                | 15.4  |
| $f_{36}$     | 33.3776±0.0020               | 0.05±0.01        | 2.67±0.12                | 14.9  |
| $f_{37}$     | 0.4726±0.0020                | 0.06±0.02        | -2.26±0.12               | 14.7  |
| $f_{38}$     | 0.4997±0.0019                | 0.05±0.01        | -2.25±0.12               | 16.3  |
| $f_{39}$     | 0.6149±0.0020                | 0.06±0.02        | 1.78±0.12                | 14.8  |
| $f_{40}$     | 0.4206±0.0020                | 0.05±0.01        | -1.28±0.12               | 14.1  |
| $f_{43}$     | 0.7110±0.0021                | 0.05±0.01        | 0.15±0.13                | 12.8  |
| $f_{44}$     | 0.7800±0.0022                | 0.04±0.01        | -1.33±0.13               | 12.5  |
| $f_{45}$     | 7.8347±0.0022                | 0.05±0.01        | 2.42±0.13                | 12.1  |
| $f_{48}$     | 0.5335±0.0021                | 0.05±0.01        | 2.73±0.13                | 12.7  |
| $f_{49}$     | 0.1339±0.0022                | 0.06±0.02        | -1.07±0.13               | 12.1  |
| $f_{50}$     | 0.4390±0.0023                | 0.05±0.01        | -2.18±0.14               | 11.3  |
| $f_{51}$     | 0.3683±0.0024                | 0.05±0.02        | -1.48±0.14               | 10.5  |
| $f_{52}$     | 0.2187±0.0023                | 0.05±0.02        | 1.70±0.14                | 10.6  |
| $f_{53}$     | 0.2051±0.0023                | 0.05±0.02        | 2.87±0.14                | 11.1  |
| $f_{54}$     | 0.3403±0.0024                | 0.05±0.02        | 0.07±0.15                | 10.2  |
| $f_{55}$     | 0.5181±0.0024                | 0.04±0.01        | -2.00±0.15               | 9.9   |
| $f_{56}$     | 0.8142±0.0025                | 0.04±0.01        | -1.62±0.15               | 9.7   |
| $f_{57}$     | 7.4630±0.0025                | 0.04±0.01        | 0.87±0.15                | 9.7   |
| $f_{58}$     | 10.5563±0.0025               | 0.04±0.01        | -1.48±0.16               | 9.0   |
| $f_{59}$     | 1.4282±0.0025                | 0.04±0.01        | -1.82±0.16               | 9.0   |
| $f_{60}$     | 0.5514±0.0026                | 0.04±0.01        | -0.68±0.16               | 8.9   |
| $f_{61}$     | 7.0611±0.0026                | 0.04±0.01        | 2.27±0.16                | 8.7   |
| $f_{63}$     | 0.2618±0.0026                | 0.04±0.01        | 2.02±0.16                | 8.7   |
| $f_{64}$     | 18.1695±0.0026               | 0.04±0.01        | 1.75±0.16                | 8.7   |
| $f_{65}$     | 0.9115±0.0026                | 0.04±0.01        | 1.01±0.16                | 8.6   |
| $f_{66}$     | 0.7984±0.0026                | 0.04±0.01        | -2.58±0.16               | 8.6   |

Frequency list of 0102600050 continued

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|--------------|------------------------------|------------------|--------------------------|-------|
| $f_{67}$     | 0.3106±0.0026                | 0.04±0.01        | 0.27±0.16                | 8.3   |
| $f_{68}$     | 0.4645±0.0026                | 0.04±0.01        | -0.38±0.16               | 8.3   |
| $f_{69}$     | 0.5860±0.0027                | 0.04±0.01        | 1.38±0.16                | 8.2   |
| $f_{70}$     | 20.1822±0.0027               | 0.04±0.01        | 1.00±0.16                | 8.1   |
| $f_{71}$     | 0.5996±0.0027                | 0.04±0.01        | -2.29±0.16               | 8.2   |
| $f_{72}$     | 36.8177±0.0027               | 0.04±0.01        | -0.93±0.17               | 7.9   |
| $f_{73}$     | 1.3928±0.0027                | 0.04±0.01        | 2.38±0.17                | 7.8   |
| $f_{74}$     | 1.4905±0.0028                | 0.03±0.01        | -1.27±0.17               | 7.7   |
| $f_{75}$     | 1.6153±0.0028                | 0.04±0.01        | 0.18±0.17                | 7.7   |
| $f_{76}$     | 20.2648±0.0028               | 0.04±0.01        | 2.45±0.17                | 7.4   |
| $f_{77}$     | 0.1817±0.0028                | 0.04±0.01        | -1.70±0.17               | 7.6   |
| $f_{78}$     | 0.3524±0.0029                | 0.04±0.02        | 0.90±0.17                | 7.1   |
| $f_{79}$     | 0.7267±0.0029                | 0.04±0.02        | -0.41±0.18               | 6.7   |
| $f_{80}$     | 0.7329±0.0027                | 0.04±0.01        | 1.99±0.16                | 8.0   |
| $f_{81}$     | 0.6661±0.0029                | 0.04±0.02        | 0.89±0.18                | 7.0   |
| $f_{82}$     | 13.5764±0.0029               | 0.04±0.02        | -0.65±0.18               | 6.8   |
| $f_{84}$     | 23.5327±0.0029               | 0.03±0.01        | -0.59±0.18               | 6.8   |
| $f_{85}$     | 1.0665±0.0030                | 0.03±0.01        | -0.77±0.18               | 6.6   |
| $f_{86}$     | 0.6762±0.0030                | 0.04±0.02        | 2.77±0.18                | 6.6   |
| $f_{87}$     | 0.9744±0.0030                | 0.03±0.01        | -1.24±0.18               | 6.5   |
| $f_{88}$     | 0.8242±0.0030                | 0.04±0.02        | -1.12±0.18               | 6.5   |
| $f_{89}$     | 0.8617±0.0031                | 0.03±0.01        | -1.55±0.19               | 6.2   |
| $f_{90}$     | 0.6209±0.0030                | 0.03±0.01        | 1.03±0.18                | 6.4   |
| $f_{91}$     | 1.4109±0.0031                | 0.03±0.01        | -3.07±0.19               | 5.9   |
| $f_{92}$     | 0.1965±0.0031                | 0.03±0.01        | -1.81±0.19               | 6.0   |
| $f_{93}$     | 0.7190±0.0031                | 0.03±0.01        | -0.40±0.19               | 6.0   |
| $f_{94}$     | 5.2168±0.0032                | 0.03±0.01        | -1.12±0.20               | 5.7   |
| $f_{95}$     | 0.5638±0.0031                | 0.03±0.01        | -0.77±0.19               | 5.9   |
| $f_{96}$     | 2.6169±0.0033                | 0.03±0.01        | -1.31±0.20               | 5.3   |
| $f_{97}$     | 0.4579±0.0034                | 0.03±0.01        | -1.22±0.21               | 5.1   |

**Table E.8:** Frequency list of 0102600953

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|--------------|------------------------------|------------------|--------------------------|-------|
| $f_1$        | 5.9424±0.0009                | 0.13±0.02        | 2.51±0.06                | 69.9  |
| $f_2$        | 0.2473±0.0010                | 0.13±0.02        | -0.29±0.06               | 58.8  |
| $f_3$        | 0.1122±0.0011                | 0.12±0.02        | -2.87±0.06               | 51.4  |
| $f_4$        | 0.1613±0.0010                | 0.11±0.02        | 1.02±0.06                | 53.2  |
| $f_5$        | 0.1390±0.0011                | 0.10±0.02        | -1.87±0.07               | 44.2  |
| $f_7$        | 3.3575±0.0011                | 0.10±0.01        | 2.24±0.07                | 45.8  |
| $f_8$        | 3.0485±0.0012                | 0.10±0.02        | 0.07±0.07                | 41.8  |
| $f_9$        | 0.2917±0.0012                | 0.08±0.01        | -2.40±0.07               | 40.7  |
| $f_{10}$     | 0.1245±0.0012                | 0.09±0.01        | 0.73±0.08                | 37.3  |
| $f_{11}$     | 0.1842±0.0014                | 0.09±0.02        | -2.64±0.09               | 29.0  |
| $f_{12}$     | 0.2420±0.0016                | 0.06±0.01        | -2.26±0.10               | 21.8  |
| $f_{14}$     | 2.0052±0.0017                | 0.08±0.02        | 0.99±0.10                | 20.2  |
| $f_{15}$     | 0.4392±0.0017                | 0.07±0.02        | 2.05±0.11                | 19.3  |
| $f_{16}$     | 0.3080±0.0018                | 0.06±0.01        | 1.85±0.11                | 18.0  |
| $f_{18}$     | 3.1344±0.0019                | 0.06±0.01        | -1.77±0.12               | 16.2  |
| $f_{19}$     | 0.3798±0.0019                | 0.06±0.02        | -1.60±0.12               | 15.4  |
| $f_{20}$     | 0.4775±0.0019                | 0.06±0.01        | 0.32±0.12                | 16.1  |
| $f_{21}$     | 0.2665±0.0021                | 0.05±0.01        | 2.68±0.13                | 13.4  |
| $f_{22}$     | 5.9792±0.0022                | 0.05±0.01        | 0.32±0.13                | 12.6  |
| $f_{23}$     | 0.3306±0.0021                | 0.05±0.01        | -0.52±0.13               | 12.7  |
| $f_{24}$     | 0.2085±0.0022                | 0.05±0.01        | -1.70±0.13               | 12.0  |
| $f_{25}$     | 0.1453±0.0021                | 0.04±0.01        | -1.24±0.13               | 13.7  |
| $f_{27}$     | 2.6392±0.0024                | 0.05±0.02        | -2.87±0.14               | 10.5  |
| $f_{28}$     | 0.4621±0.0024                | 0.05±0.02        | 1.34±0.15                | 10.2  |
| $f_{29}$     | 6.1856±0.0024                | 0.04±0.01        | 1.39±0.15                | 10.0  |
| $f_{30}$     | 5.2649±0.0026                | 0.04±0.01        | 2.78±0.16                | 8.6   |
| $f_{31}$     | 0.3170±0.0026                | 0.04±0.01        | 0.35±0.16                | 8.3   |
| $f_{32}$     | 2.6295±0.0027                | 0.04±0.01        | 0.25±0.16                | 8.2   |
| $f_{33}$     | 2.4628±0.0026                | 0.04±0.01        | -1.43±0.16               | 8.3   |
| $f_{34}$     | 0.5210±0.0027                | 0.04±0.01        | 2.76±0.17                | 7.8   |
| $f_{35}$     | 0.3954±0.0028                | 0.04±0.01        | 1.18±0.17                | 7.6   |
| $f_{36}$     | 0.6407±0.0028                | 0.03±0.01        | 2.15±0.17                | 7.5   |
| $f_{37}$     | 1.0093±0.0028                | 0.04±0.01        | 1.06±0.17                | 7.5   |
| $f_{38}$     | 5.2716±0.0028                | 0.04±0.01        | 1.71±0.17                | 7.4   |
| $f_{42}$     | 1.3035±0.0028                | 0.04±0.01        | 2.96±0.17                | 7.3   |
| $f_{43}$     | 0.1324±0.0028                | 0.04±0.01        | 2.85±0.17                | 7.2   |
| $f_{44}$     | 3.2465±0.0029                | 0.04±0.02        | 0.25±0.18                | 7.0   |
| $f_{45}$     | 0.9006±0.0028                | 0.04±0.01        | -2.34±0.17               | 7.3   |
| $f_{46}$     | 0.2319±0.0029                | 0.04±0.02        | -0.53±0.18               | 6.9   |
| $f_{47}$     | 0.1737±0.0029                | 0.04±0.02        | -0.60±0.18               | 6.9   |
| $f_{48}$     | 1.0582±0.0028                | 0.04±0.01        | 1.49±0.17                | 7.3   |

Frequency list of 0102600953 continued

## Appendix E. Frequencies of individual Hybrid Candidate Stars

| Frequency list of 0102600953 continued |                              |                  |                          |       | Frequency list of 0102608609 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{49}$                               | 0.4233±0.0029                | 0.04±0.02        | 0.19±0.18                | 6.8   | $f_{24}$                               | 0.3748±0.0025                | 0.05±0.02        | -2.36±0.15               | 9.7   |
| $f_{50}$                               | 0.8617±0.0030                | 0.03±0.01        | 1.57±0.18                | 6.4   | $f_{25}$                               | 0.2314±0.0028                | 0.05±0.02        | 2.79±0.17                | 7.7   |
| $f_{51}$                               | 0.3025±0.0030                | 0.04±0.02        | -2.95±0.19               | 6.3   | $f_{26}$                               | 9.3185±0.0029                | 0.05±0.02        | 2.89±0.17                | 7.1   |
| $f_{52}$                               | 1.1100±0.0030                | 0.04±0.02        | 2.84±0.19                | 6.3   | $f_{27}$                               | 0.3294±0.0029                | 0.06±0.02        | 0.30±0.17                | 7.1   |
| $f_{53}$                               | 1.3199±0.0031                | 0.03±0.01        | 1.54±0.19                | 6.0   | $f_{28}$                               | 0.3180±0.0029                | 0.06±0.02        | -0.23±0.17               | 7.1   |
| $f_{55}$                               | 0.7787±0.0030                | 0.04±0.02        | -0.67±0.19               | 6.3   | $f_{29}$                               | 0.8511±0.0029                | 0.05±0.02        | -2.86±0.17               | 7.1   |
| $f_{56}$                               | 0.1024±0.0031                | 0.04±0.02        | -0.79±0.19               | 5.9   | $f_{30}$                               | 1.7915±0.0030                | 0.05±0.02        | 1.36±0.18                | 6.5   |
| $f_{57}$                               | 0.2169±0.0031                | 0.03±0.01        | -0.23±0.19               | 5.9   | $f_{31}$                               | 7.2575±0.0030                | 0.05±0.02        | 1.25±0.18                | 6.4   |
| $f_{58}$                               | 0.4540±0.0031                | 0.04±0.02        | -1.51±0.19               | 5.9   | $f_{32}$                               | 0.1542±0.0031                | 0.04±0.02        | 2.69±0.19                | 5.9   |
| $f_{59}$                               | 1.5035±0.0031                | 0.03±0.01        | 2.35±0.19                | 6.0   | $f_{33}$                               | 1.0093±0.0031                | 0.05±0.02        | 2.57±0.19                | 5.9   |
| $f_{60}$                               | 1.0875±0.0032                | 0.03±0.01        | 0.96±0.20                | 5.7   | $f_{34}$                               | 0.5212±0.0032                | 0.05±0.02        | 2.34±0.20                | 5.7   |
| $f_{61}$                               | 0.5273±0.0032                | 0.03±0.01        | 2.22±0.20                | 5.6   | $f_{35}$                               | 0.3864±0.0032                | 0.05±0.02        | 0.31±0.20                | 5.7   |
| $f_{62}$                               | 0.3707±0.0033                | 0.03±0.01        | 1.38±0.20                | 5.2   | $f_{36}$                               | 0.8980±0.0032                | 0.04±0.02        | -0.37±0.20               | 5.7   |
| $f_{63}$                               | 11.2632±0.0034               | 0.03±0.01        | 0.87±0.21                | 5.1   | $f_{37}$                               | 0.7632±0.0032                | 0.04±0.02        | 2.96±0.19                | 5.8   |
| $f_{64}$                               | 4.0079±0.0033                | 0.03±0.01        | 0.18±0.20                | 5.2   | $f_{38}$                               | 0.2696±0.0032                | 0.04±0.02        | 1.30±0.20                | 5.6   |
| $f_{65}$                               | 0.8263±0.0034                | 0.03±0.01        | -0.66±0.21               | 5.0   | $f_{39}$                               | 1.2190±0.0033                | 0.04±0.02        | -1.83±0.20               | 5.3   |
|                                        |                              |                  |                          |       | $f_{40}$                               | 1.0924±0.0033                | 0.04±0.02        | -0.50±0.20               | 5.5   |

**Table E.9:** Frequency list of 0102606502

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign.  |
|--------------|------------------------------|------------------|--------------------------|--------|
| $f_1$        | 17.1762±0.0002               | 2.07±0.06        | -1.20±0.01               | 1357.7 |
| $f_2$        | 20.4434±0.0007               | 0.50±0.05        | 0.11±0.04                | 118.8  |
| $f_3$        | 0.9013±0.0009                | 0.37±0.04        | 1.94±0.05                | 77.3   |
| $f_4$        | 5.4297±0.0009                | 0.39±0.04        | 2.27±0.05                | 78.3   |
| $f_5$        | 0.2756±0.0009                | 0.41±0.05        | -0.82±0.05               | 77.5   |
| $f_6$        | 0.1277±0.0009                | 0.35±0.04        | 0.19±0.06                | 66.9   |
| $f_7$        | 0.2026±0.0010                | 0.33±0.05        | -1.15±0.06               | 53.4   |
| $f_8$        | 2.4994±0.0011                | 0.30±0.04        | -0.26±0.07               | 50.8   |
| $f_9$        | 0.1063±0.0011                | 0.28±0.04        | -2.52±0.07               | 44.9   |
| $f_{10}$     | 0.3375±0.0011                | 0.25±0.04        | 1.54±0.07                | 44.1   |
| $f_{11}$     | 0.4618±0.0012                | 0.22±0.03        | -1.71±0.07               | 41.0   |
| $f_{12}$     | 0.1552±0.0013                | 0.25±0.04        | 1.66±0.08                | 36.5   |
| $f_{13}$     | 0.1215±0.0013                | 0.20±0.04        | -2.09±0.08               | 32.0   |
| $f_{14}$     | 5.8887±0.0013                | 0.23±0.04        | -2.63±0.08               | 32.0   |
| $f_{15}$     | 0.4363±0.0014                | 0.24±0.04        | 0.18±0.09                | 29.7   |
| $f_{16}$     | 0.6271±0.0014                | 0.23±0.04        | 2.72±0.09                | 28.7   |
| $f_{17}$     | 0.3000±0.0015                | 0.24±0.05        | 1.45±0.09                | 26.4   |
| $f_{18}$     | 0.4471±0.0015                | 0.18±0.04        | 2.85±0.09                | 24.6   |
| $f_{19}$     | 0.1799±0.0016                | 0.20±0.04        | 1.86±0.10                | 23.8   |
| $f_{20}$     | 0.5651±0.0016                | 0.18±0.04        | -3.13±0.10               | 22.8   |
| $f_{21}$     | 0.4866±0.0017                | 0.21±0.05        | 1.42±0.11                | 19.1   |
| $f_{22}$     | 0.3537±0.0017                | 0.22±0.05        | 2.76±0.10                | 19.7   |
| $f_{23}$     | 0.4786±0.0018                | 0.18±0.04        | -2.74±0.11               | 18.1   |
| $f_{24}$     | 0.1430±0.0018                | 0.18±0.04        | 0.50±0.11                | 17.5   |
| $f_{25}$     | 0.1627±0.0017                | 0.17±0.04        | 2.22±0.11                | 19.1   |
| $f_{26}$     | 0.6208±0.0018                | 0.16±0.04        | -1.71±0.11               | 17.8   |
| $f_{27}$     | 0.3988±0.0018                | 0.19±0.05        | -0.17±0.11               | 17.5   |
| $f_{28}$     | 0.2582±0.0018                | 0.21±0.05        | -2.68±0.11               | 17.3   |
| $f_{29}$     | 0.3914±0.0018                | 0.18±0.04        | 0.70±0.11                | 18.8   |

**Table E.10:** Frequency list of 0102608609

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign.  |
|--------------|------------------------------|------------------|--------------------------|--------|
| $f_1$        | 7.4182±0.0002                | 1.44±0.03        | -2.36±0.01               | 2126.4 |
| $f_2$        | 1.0197±0.0006                | 0.27±0.02        | 1.35±0.03                | 178.7  |
| $f_3$        | 0.5101±0.0008                | 0.18±0.02        | 2.39±0.05                | 82.5   |
| $f_4$        | 0.1396±0.0010                | 0.13±0.02        | -0.91±0.06               | 64.5   |
| $f_5$        | 0.1466±0.0010                | 0.14±0.02        | -1.65±0.06               | 55.0   |
| $f_6$        | 0.1291±0.0015                | 0.12±0.02        | -1.97±0.09               | 27.1   |
| $f_7$        | 1.5290±0.0017                | 0.09±0.02        | -0.86±0.10               | 20.7   |
| $f_8$        | 0.3967±0.0017                | 0.09±0.02        | -0.17±0.10               | 21.2   |
| $f_9$        | 11.7309±0.0018               | 0.08±0.02        | -0.88±0.11               | 18.6   |
| $f_{11}$     | 0.2451±0.0018                | 0.07±0.02        | 3.10±0.11                | 18.4   |
| $f_{12}$     | 0.1634±0.0018                | 0.08±0.02        | 1.85±0.11                | 17.8   |
| $f_{13}$     | 0.3540±0.0018                | 0.08±0.02        | 0.14±0.11                | 17.2   |
| $f_{14}$     | 0.4533±0.0020                | 0.07±0.02        | -1.86±0.12               | 15.2   |
| $f_{15}$     | 6.7696±0.0021                | 0.07±0.02        | 2.17±0.13                | 13.5   |
| $f_{16}$     | 2.0050±0.0021                | 0.07±0.02        | -2.53±0.13               | 13.2   |
| $f_{17}$     | 0.5902±0.0022                | 0.06±0.02        | -2.73±0.13               | 12.2   |
| $f_{18}$     | 0.1816±0.0022                | 0.06±0.02        | 0.21±0.13                | 12.1   |
| $f_{19}$     | 0.3092±0.0023                | 0.07±0.02        | -2.98±0.14               | 11.2   |
| $f_{20}$     | 0.1224±0.0024                | 0.07±0.02        | 0.42±0.14                | 10.4   |
| $f_{21}$     | 0.2555±0.0024                | 0.06±0.02        | 2.73±0.15                | 10.2   |
| $f_{22}$     | 0.6696±0.0024                | 0.06±0.02        | 0.56±0.15                | 9.8    |
| $f_{23}$     | 0.4193±0.0025                | 0.06±0.02        | -3.03±0.15               | 9.6    |

Frequency list of 0102608609 continued

**Table E.11:** Frequency list of 0102619330

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|--------------|------------------------------|------------------|--------------------------|-------|
| $f_1$        | 11.3088±0.0006               | 0.44±0.03        | 2.24±0.03                | 185.4 |
| $f_2$        | 3.3465±0.0009                | 0.27±0.03        | 1.40±0.05                | 79.8  |
| $f_3$        | 13.6913±0.0011               | 0.21±0.03        | 0.37±0.06                | 52.8  |
| $f_4$        | 1.3614±0.0011                | 0.21±0.03        | 0.16±0.06                | 51.8  |
| $f_5$        | 0.1172±0.0012                | 0.19±0.03        | 2.58±0.08                | 37.4  |
| $f_8$        | 0.5470±0.0018                | 0.12±0.03        | 0.94±0.11                | 18.1  |
| $f_9$        | 0.9039±0.0018                | 0.12±0.03        | -0.05±0.11               | 17.4  |
| $f_{10}$     | 0.2467±0.0019                | 0.10±0.02        | 1.82±0.12                | 16.4  |
| $f_{11}$     | 2.0047±0.0019                | 0.12±0.03        | -2.54±0.11               | 16.5  |
| $f_{12}$     | 0.1067±0.0019                | 0.11±0.03        | 2.63±0.12                | 15.6  |
| $f_{13}$     | 0.1355±0.0019                | 0.11±0.03        | -1.81±0.12               | 16.0  |
| $f_{14}$     | 1.3216±0.0020                | 0.11±0.03        | -3.09±0.12               | 14.7  |
| $f_{15}$     | 0.2758±0.0020                | 0.10±0.03        | 1.73±0.12                | 13.9  |
| $f_{16}$     | 0.1497±0.0024                | 0.09±0.03        | 1.71±0.15                | 10.1  |
| $f_{17}$     | 0.2057±0.0024                | 0.09±0.03        | -1.65±0.15               | 9.9   |
| $f_{18}$     | 4.0515±0.0026                | 0.08±0.03        | -0.60±0.16               | 8.8   |
| $f_{19}$     | 2.4239±0.0027                | 0.08±0.03        | 2.50±0.16                | 8.2   |
| $f_{20}$     | 0.4594±0.0028                | 0.08±0.03        | 2.09±0.17                | 7.7   |
| $f_{21}$     | 0.2652±0.0028                | 0.08±0.03        | 0.38±0.17                | 7.6   |
| $f_{22}$     | 0.6615±0.0028                | 0.07±0.03        | -0.84±0.17               | 7.4   |
| $f_{26}$     | 0.3019±0.0029                | 0.07±0.03        | -2.68±0.18               | 7.0   |
| $f_{27}$     | 1.2011±0.0029                | 0.07±0.03        | -0.47±0.18               | 7.0   |
| $f_{29}$     | 10.9414±0.0031               | 0.07±0.03        | 2.34±0.19                | 6.2   |
| $f_{30}$     | 1.9838±0.0031                | 0.07±0.03        | -1.87±0.19               | 6.2   |
| $f_{31}$     | 0.3329±0.0031                | 0.07±0.03        | 1.26±0.19                | 6.2   |

**Table E.12:** Frequency list of 0102619560

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|--------------|------------------------------|------------------|--------------------------|-------|
| $f_1$        | 11.7371±0.0004               | 3.27±0.18        | 1.61±0.03                | 321.4 |
| $f_2$        | 14.1248±0.0004               | 3.04±0.17        | -0.08±0.03               | 330.4 |
| $f_3$        | 14.0660±0.0004               | 2.84±0.16        | 0.12±0.03                | 323.7 |
| $f_4$        | 11.6011±0.0004               | 2.82±0.15        | -3.02±0.02               | 366.4 |
| $f_5$        | 12.5533±0.0004               | 2.61±0.14        | -3.07±0.02               | 358.2 |
| $f_6$        | 15.4404±0.0004               | 2.52±0.13        | -0.43±0.02               | 384.1 |
| $f_7$        | 15.7830±0.0004               | 2.16±0.12        | -0.60±0.03               | 333.1 |
| $f_8$        | 14.4280±0.0004               | 1.92±0.11        | -1.24±0.03               | 288.1 |
| $f_9$        | 10.9195±0.0006               | 1.44±0.11        | 2.74±0.04                | 171.8 |
| $f_{10}$     | 8.9726±0.0006                | 1.40±0.11        | 1.93±0.04                | 175.4 |
| $f_{11}$     | 16.8439±0.0006               | 1.33±0.10        | -1.04±0.03               | 184.5 |
| $f_{12}$     | 0.8447±0.0007                | 1.01±0.09        | 1.69±0.04                | 121.3 |
| $f_{13}$     | 11.8424±0.0008               | 0.97±0.10        | -0.90±0.05               | 100.1 |
| $f_{14}$     | 21.5246±0.0008               | 0.94±0.10        | 1.54±0.05                | 97.4  |
| $f_{15}$     | 13.4206±0.0008               | 0.92±0.10        | 1.05±0.05                | 93.0  |
| $f_{16}$     | 16.0545±0.0008               | 0.86±0.09        | 1.34±0.05                | 82.6  |
| $f_{17}$     | 16.8120±0.0009               | 0.77±0.09        | -1.92±0.05               | 80.4  |
| $f_{18}$     | 15.2536±0.0009               | 0.85±0.10        | 0.36±0.06                | 69.5  |
| $f_{19}$     | 14.1788±0.0009               | 0.65±0.08        | 2.61±0.06                | 67.6  |
| $f_{20}$     | 1.6884±0.0009                | 0.69±0.09        | -0.17±0.06               | 65.4  |
| $f_{21}$     | 15.2421±0.0010               | 0.66±0.09        | -2.94±0.06               | 57.8  |
| $f_{22}$     | 14.7478±0.0010               | 0.61±0.08        | 1.25±0.06                | 57.6  |
| $f_{23}$     | 16.7842±0.0011               | 0.65±0.09        | 0.91±0.06                | 51.9  |
| $f_{24}$     | 16.7708±0.0011               | 0.59±0.08        | -0.67±0.07               | 50.7  |
| $f_{25}$     | 14.4183±0.0011               | 0.64±0.09        | -0.79±0.06               | 51.4  |

Frequency list of 0102619560 continued

## Appendix E. Frequencies of individual Hybrid Candidate Stars

| Frequency list of 0102619560 continued |                              |                  |                          |       | Frequency list of 0102619560 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| <i>f</i> <sub>26</sub>                 | 14.1989±0.0010               | 0.64±0.09        | 0.25±0.06                | 54.5  | <i>f</i> <sub>107</sub>                | 10.0820±0.0025               | 0.21±0.07        | 0.52±0.15                | 9.6   |
| <i>f</i> <sub>27</sub>                 | 12.9049±0.0011               | 0.63±0.09        | 1.73±0.07                | 50.8  | <i>f</i> <sub>108</sub>                | 25.1065±0.0025               | 0.21±0.07        | -2.97±0.15               | 9.5   |
| <i>f</i> <sub>28</sub>                 | 12.4959±0.0012               | 0.54±0.08        | -2.67±0.07               | 43.5  | <i>f</i> <sub>109</sub>                | 0.5142±0.0025                | 0.21±0.07        | 2.12±0.15                | 9.5   |
| <i>f</i> <sub>29</sub>                 | 6.3909±0.0012                | 0.55±0.09        | -0.20±0.07               | 41.3  | <i>f</i> <sub>110</sub>                | 7.8834±0.0025                | 0.22±0.07        | 0.17±0.15                | 9.7   |
| <i>f</i> <sub>30</sub>                 | 17.8413±0.0012               | 0.53±0.08        | -2.04±0.07               | 40.1  | <i>f</i> <sub>111</sub>                | 24.6398±0.0025               | 0.20±0.07        | -0.51±0.15               | 9.3   |
| <i>f</i> <sub>31</sub>                 | 15.9379±0.0012               | 0.54±0.09        | 0.34±0.08                | 37.8  | <i>f</i> <sub>112</sub>                | 27.5202±0.0025               | 0.23±0.07        | -1.93±0.15               | 9.5   |
| <i>f</i> <sub>32</sub>                 | 9.6154±0.0012                | 0.51±0.08        | -2.31±0.08               | 38.2  | <i>f</i> <sub>113</sub>                | 15.4342±0.0025               | 0.21±0.07        | -3.11±0.15               | 9.2   |
| <i>f</i> <sub>33</sub>                 | 17.2288±0.0013               | 0.47±0.08        | -1.18±0.08               | 35.3  | <i>f</i> <sub>116</sub>                | 0.3083±0.0025                | 0.21±0.07        | -0.72±0.15               | 9.2   |
| <i>f</i> <sub>34</sub>                 | 13.2582±0.0013               | 0.41±0.07        | -1.55±0.08               | 35.3  | <i>f</i> <sub>117</sub>                | 13.2460±0.0025               | 0.22±0.07        | -2.09±0.15               | 9.2   |
| <i>f</i> <sub>35</sub>                 | 16.8762±0.0013               | 0.48±0.08        | 2.37±0.08                | 35.6  | <i>f</i> <sub>118</sub>                | 10.8271±0.0025               | 0.21±0.07        | -2.24±0.15               | 9.5   |
| <i>f</i> <sub>36</sub>                 | 14.7658±0.0013               | 0.47±0.08        | -1.34±0.08               | 33.8  | <i>f</i> <sub>119</sub>                | 16.4920±0.0026               | 0.21±0.07        | -1.95±0.16               | 8.7   |
| <i>f</i> <sub>37</sub>                 | 13.8943±0.0013               | 0.48±0.08        | 2.77±0.08                | 33.1  | <i>f</i> <sub>120</sub>                | 12.6474±0.0026               | 0.20±0.07        | -1.39±0.16               | 8.9   |
| <i>f</i> <sub>38</sub>                 | 1.6753±0.0015                | 0.41±0.08        | -0.19±0.09               | 26.9  | <i>f</i> <sub>121</sub>                | 17.1098±0.0026               | 0.20±0.07        | -0.52±0.16               | 8.6   |
| <i>f</i> <sub>39</sub>                 | 9.1792±0.0015                | 0.39±0.08        | -0.64±0.09               | 25.4  | <i>f</i> <sub>122</sub>                | 15.1049±0.0026               | 0.19±0.07        | -0.42±0.16               | 8.3   |
| <i>f</i> <sub>40</sub>                 | 16.2558±0.0015               | 0.31±0.06        | -0.38±0.09               | 25.5  | <i>f</i> <sub>123</sub>                | 0.9634±0.0026                | 0.19±0.07        | 1.37±0.16                | 8.5   |
| <i>f</i> <sub>41</sub>                 | 2.7993±0.0015                | 0.38±0.08        | 1.94±0.09                | 25.2  | <i>f</i> <sub>125</sub>                | 0.7653±0.0026                | 0.20±0.07        | -2.76±0.16               | 8.7   |
| <i>f</i> <sub>42</sub>                 | 17.3061±0.0015               | 0.37±0.07        | 0.66±0.09                | 25.5  | <i>f</i> <sub>129</sub>                | 28.3366±0.0027               | 0.19±0.07        | -2.51±0.16               | 8.1   |
| <i>f</i> <sub>43</sub>                 | 0.1437±0.0015                | 0.43±0.09        | -1.41±0.09               | 24.6  | <i>f</i> <sub>130</sub>                | 16.2662±0.0027               | 0.20±0.07        | -0.15±0.16               | 8.1   |
| <i>f</i> <sub>44</sub>                 | 17.1793±0.0016               | 0.43±0.09        | 2.24±0.10                | 23.4  | <i>f</i> <sub>132</sub>                | 22.9365±0.0025               | 0.19±0.06        | -0.00±0.16               | 9.0   |
| <i>f</i> <sub>45</sub>                 | 5.9745±0.0016                | 0.38±0.08        | 0.33±0.10                | 23.8  | <i>f</i> <sub>133</sub>                | 17.4401±0.0027               | 0.18±0.06        | 2.79±0.16                | 8.0   |
| <i>f</i> <sub>46</sub>                 | 0.1314±0.0016                | 0.37±0.08        | -0.38±0.10               | 23.3  | <i>f</i> <sub>134</sub>                | 15.9498±0.0027               | 0.18±0.06        | 3.09±0.17                | 7.9   |
| <i>f</i> <sub>47</sub>                 | 6.8784±0.0016                | 0.35±0.07        | -1.94±0.10               | 22.2  | <i>f</i> <sub>135</sub>                | 16.1880±0.0027               | 0.18±0.06        | -0.46±0.16               | 8.0   |
| <i>f</i> <sub>48</sub>                 | 15.0366±0.0016               | 0.35±0.07        | -3.12±0.10               | 21.9  | <i>f</i> <sub>136</sub>                | 16.8316±0.0027               | 0.16±0.06        | -1.40±0.17               | 7.8   |
| <i>f</i> <sub>49</sub>                 | 8.8295±0.0017                | 0.34±0.08        | -0.98±0.10               | 20.5  | <i>f</i> <sub>137</sub>                | 13.0188±0.0028               | 0.18±0.06        | 2.39±0.17                | 7.7   |
| <i>f</i> <sub>50</sub>                 | 3.4822±0.0017                | 0.31±0.07        | 2.49±0.11                | 19.5  | <i>f</i> <sub>138</sub>                | 30.5082±0.0028               | 0.17±0.06        | -0.80±0.17               | 7.7   |
| <i>f</i> <sub>51</sub>                 | 7.8509±0.0017                | 0.36±0.08        | -1.48±0.10               | 20.2  | <i>f</i> <sub>139</sub>                | 1.1202±0.0028                | 0.19±0.07        | -2.07±0.17               | 7.5   |
| <i>f</i> <sub>52</sub>                 | 17.5302±0.0018               | 0.34±0.08        | 0.85±0.11                | 18.2  | <i>f</i> <sub>140</sub>                | 26.9804±0.0028               | 0.17±0.06        | 2.11±0.17                | 7.4   |
| <i>f</i> <sub>53</sub>                 | 16.1775±0.0018               | 0.31±0.07        | -0.31±0.11               | 18.1  | <i>f</i> <sub>141</sub>                | 21.6237±0.0028               | 0.19±0.07        | -2.09±0.17               | 7.3   |
| <i>f</i> <sub>54</sub>                 | 10.7759±0.0018               | 0.33±0.08        | -2.61±0.11               | 18.8  | <i>f</i> <sub>142</sub>                | 1.0082±0.0028                | 0.20±0.07        | 0.62±0.17                | 7.2   |
| <i>f</i> <sub>55</sub>                 | 24.2901±0.0018               | 0.32±0.08        | 2.15±0.11                | 18.1  | <i>f</i> <sub>144</sub>                | 9.1305±0.0028                | 0.18±0.07        | -0.90±0.17               | 7.3   |
| <i>f</i> <sub>56</sub>                 | 19.0595±0.0018               | 0.31±0.07        | 2.75±0.11                | 18.2  | <i>f</i> <sub>145</sub>                | 0.4909±0.0028                | 0.18±0.07        | -0.63±0.17               | 7.2   |
| <i>f</i> <sub>57</sub>                 | 16.2456±0.0018               | 0.32±0.08        | -1.09±0.11               | 18.0  | <i>f</i> <sub>146</sub>                | 21.6409±0.0029               | 0.17±0.06        | 2.54±0.18                | 7.0   |
| <i>f</i> <sub>58</sub>                 | 20.3897±0.0018               | 0.30±0.07        | -0.57±0.11               | 17.5  | <i>f</i> <sub>147</sub>                | 0.5360±0.0029                | 0.17±0.06        | 2.24±0.18                | 7.0   |
| <i>f</i> <sub>59</sub>                 | 18.9845±0.0018               | 0.31±0.07        | -1.66±0.11               | 17.1  | <i>f</i> <sub>149</sub>                | 15.8887±0.0029               | 0.17±0.06        | -2.48±0.18               | 7.0   |
| <i>f</i> <sub>60</sub>                 | 17.3301±0.0019               | 0.29±0.07        | -1.88±0.12               | 16.3  | <i>f</i> <sub>150</sub>                | 15.8218±0.0028               | 0.17±0.06        | 0.46±0.17                | 7.2   |
| <i>f</i> <sub>61</sub>                 | 4.6136±0.0019                | 0.29±0.07        | 0.64±0.12                | 15.7  | <i>f</i> <sub>151</sub>                | 5.2177±0.0029                | 0.17±0.06        | 0.32±0.17                | 7.1   |
| <i>f</i> <sub>62</sub>                 | 18.1003±0.0019               | 0.28±0.07        | -1.66±0.12               | 15.5  | <i>f</i> <sub>152</sub>                | 9.0619±0.0029                | 0.17±0.06        | 0.52±0.17                | 7.1   |
| <i>f</i> <sub>63</sub>                 | 8.1572±0.0019                | 0.31±0.08        | 0.13±0.12                | 16.4  | <i>f</i> <sub>153</sub>                | 1.8752±0.0029                | 0.17±0.06        | 2.17±0.18                | 7.0   |
| <i>f</i> <sub>64</sub>                 | 16.4781±0.0019               | 0.26±0.07        | -1.46±0.12               | 15.5  | <i>f</i> <sub>160</sub>                | 0.8305±0.0028                | 0.18±0.07        | 2.02±0.17                | 7.5   |
| <i>f</i> <sub>65</sub>                 | 25.8025±0.0020               | 0.27±0.07        | -1.88±0.12               | 14.7  | <i>f</i> <sub>161</sub>                | 17.7198±0.0028               | 0.18±0.07        | -2.52±0.17               | 7.3   |
| <i>f</i> <sub>66</sub>                 | 12.7478±0.0020               | 0.26±0.07        | 2.61±0.12                | 14.5  | <i>f</i> <sub>164</sub>                | 20.8555±0.0028               | 0.18±0.07        | -2.27±0.17               | 7.2   |
| <i>f</i> <sub>67</sub>                 | 2.6918±0.0020                | 0.26±0.07        | -2.22±0.12               | 14.7  | <i>f</i> <sub>166</sub>                | 11.3720±0.0029               | 0.17±0.06        | -0.27±0.18               | 7.0   |
| <i>f</i> <sub>68</sub>                 | 16.8544±0.0020               | 0.28±0.08        | -0.04±0.12               | 13.9  | <i>f</i> <sub>167</sub>                | 20.3353±0.0029               | 0.17±0.06        | -0.03±0.17               | 7.1   |
| <i>f</i> <sub>69</sub>                 | 20.6372±0.0020               | 0.27±0.07        | 2.52±0.12                | 13.9  | <i>f</i> <sub>168</sub>                | 21.7913±0.0029               | 0.17±0.06        | -0.90±0.18               | 7.0   |
| <i>f</i> <sub>70</sub>                 | 10.4409±0.0020               | 0.26±0.07        | -0.32±0.12               | 14.2  | <i>f</i> <sub>169</sub>                | 30.2111±0.0029               | 0.18±0.07        | 2.38±0.17                | 7.1   |
| <i>f</i> <sub>71</sub>                 | 15.0954±0.0021               | 0.27±0.07        | -0.28±0.13               | 13.7  | <i>f</i> <sub>170</sub>                | 17.2215±0.0029               | 0.17±0.07        | -1.95±0.18               | 6.8   |
| <i>f</i> <sub>72</sub>                 | 17.0076±0.0020               | 0.24±0.06        | -0.79±0.12               | 13.9  | <i>f</i> <sub>171</sub>                | 11.9312±0.0029               | 0.16±0.06        | 2.11±0.18                | 6.7   |
| <i>f</i> <sub>76</sub>                 | 20.1036±0.0021               | 0.24±0.07        | -1.71±0.13               | 12.9  | <i>f</i> <sub>174</sub>                | 0.1155±0.0028                | 0.18±0.06        | -0.55±0.17               | 7.7   |
| <i>f</i> <sub>77</sub>                 | 0.1658±0.0022                | 0.24±0.07        | -0.97±0.13               | 12.6  | <i>f</i> <sub>175</sub>                | 14.8030±0.0029               | 0.16±0.06        | -0.06±0.18               | 6.7   |
| <i>f</i> <sub>78</sub>                 | 0.2850±0.0022                | 0.23±0.07        | 2.47±0.13                | 12.1  | <i>f</i> <sub>176</sub>                | 21.0999±0.0030               | 0.16±0.06        | 2.39±0.18                | 6.6   |
| <i>f</i> <sub>79</sub>                 | 0.9491±0.0022                | 0.26±0.08        | 1.71±0.14                | 11.7  | <i>f</i> <sub>177</sub>                | 11.1025±0.0030               | 0.15±0.06        | -1.74±0.18               | 6.4   |
| <i>f</i> <sub>80</sub>                 | 5.5709±0.0022                | 0.25±0.07        | 0.87±0.13                | 12.4  | <i>f</i> <sub>178</sub>                | 24.5294±0.0030               | 0.15±0.06        | -1.64±0.19               | 6.3   |
| <i>f</i> <sub>81</sub>                 | 2.0058±0.0022                | 0.62±0.18        | 1.24±0.14                | 11.8  | <i>f</i> <sub>179</sub>                | 1.1535±0.0030                | 0.16±0.06        | -1.31±0.19               | 6.3   |
| <i>f</i> <sub>82</sub>                 | 14.5994±0.0022               | 0.24±0.07        | 0.28±0.14                | 11.8  | <i>f</i> <sub>180</sub>                | 15.4841±0.0030               | 0.16±0.06        | 3.13±0.18                | 6.4   |
| <i>f</i> <sub>83</sub>                 | 17.6111±0.0023               | 0.25±0.07        | -0.02±0.14               | 11.5  | <i>f</i> <sub>181</sub>                | 19.0966±0.0031               | 0.15±0.06        | -0.95±0.19               | 6.2   |
| <i>f</i> <sub>84</sub>                 | 3.4426±0.0022                | 0.24±0.07        | -2.76±0.14               | 11.6  | <i>f</i> <sub>182</sub>                | 20.6620±0.0031               | 0.16±0.06        | -1.43±0.19               | 6.2   |
| <i>f</i> <sub>85</sub>                 | 16.8940±0.0023               | 0.24±0.07        | 0.69±0.14                | 11.2  | <i>f</i> <sub>183</sub>                | 26.6768±0.0031               | 0.17±0.07        | 1.88±0.19                | 6.1   |
| <i>f</i> <sub>86</sub>                 | 1.9831±0.0023                | 0.24±0.07        | -0.27±0.14               | 11.1  | <i>f</i> <sub>184</sub>                | 17.0280±0.0031               | 0.16±0.06        | 1.93±0.19                | 6.1   |
| <i>f</i> <sub>87</sub>                 | 5.2809±0.0023                | 0.23±0.07        | 0.57±0.14                | 10.8  | <i>f</i> <sub>185</sub>                | 2.4215±0.0031                | 0.16±0.06        | 2.02±0.19                | 6.1   |
| <i>f</i> <sub>88</sub>                 | 14.1202±0.0023               | 0.27±0.08        | 1.99±0.14                | 10.8  | <i>f</i> <sub>186</sub>                | 1.3697±0.0031                | 0.15±0.06        | 2.46±0.19                | 6.0   |
| <i>f</i> <sub>89</sub>                 | 0.8542±0.0023                | 0.23±0.07        | 0.96±0.14                | 11.1  | <i>f</i> <sub>187</sub>                | 21.6828±0.0031               | 0.15±0.06        | 0.71±0.19                | 5.9   |
| <i>f</i> <sub>90</sub>                 | 22.5316±0.0023               | 0.23±0.07        | -2.36±0.14               | 10.9  | <i>f</i> <sub>188</sub>                | 7.1704±0.0031                | 0.15±0.06        | -0.48±0.19               | 6.0   |
| <i>f</i> <sub>91</sub>                 | 21.4741±0.0023               | 0.23±0.07        | -1.06±0.14               | 10.9  | <i>f</i> <sub>189</sub>                | 4.7299±0.0032                | 0.15±0.06        | 1.97±0.19                | 5.8   |
| <i>f</i> <sub>92</sub>                 | 15.6641±0.0023               | 0.22±0.07        | 2.87±0.14                | 10.6  | <i>f</i> <sub>190</sub>                | 1.7243±0.0032                | 0.15±0.06        | -0.60±0.19               | 5.8   |
| <i>f</i> <sub>93</sub>                 | 21.1268±0.0023               | 0.21±0.06        | -2.29±0.14               | 11.1  | <i>f</i> <sub>191</sub>                | 14.9446±0.0031               | 0.15±0.06        | -2.50±0.19               | 5.9   |
| <i>f</i> <sub>94</sub>                 | 17.1666±0.0024               | 0.24±0.08        | 1.18±0.15                | 10.2  | <i>f</i> <sub>192</sub>                | 4.0260±0.0032                | 0.15±0.06        | 2.12±0.20                | 5.7   |
| <i>f</i> <sub>95</sub>                 | 17.6274±0.0024               | 0.23±0.07        | 2.09±0.15                | 10.2  | <i>f</i> <sub>193</sub>                | 3.2397±0.0032                | 0.16±0.07        | -2.16±0.19               | 5.8   |
| <i>f</i> <sub>96</sub>                 | 13.9002±0.0024               | 0.23±0.07        | 2.32±0.14                | 10.5  | <i>f</i> <sub>194</sub>                | 8.8176±0.0032                | 0.15±0.06        | -0.65±0.20               | 5.6   |
| <i>f</i> <sub>97</sub>                 | 16.2954±0.0024               | 0.20±0.06        | -2.59±0.15               | 10.0  | <i>f</i> <sub>195</sub>                | 21.3060±0.0032               | 0.15±0.06        | 0.46±0.20                | 5.6   |
| <i>f</i> <sub>98</sub>                 | 5.1016±0.0024                | 0.22±0.07        | -0.55±0.15               | 10.2  | <i>f</i> <sub>196</sub>                | 17.0850±0.0032               | 0.15±0.06        | -2.65±0.20               | 5.6   |
| <i>f</i> <sub>99</sub>                 | 0.1012±0.0024                | 0.22±0.07        | -3.14±0.15               | 9.9   | <i>f</i> <sub>197</sub>                | 16.8198±0.0032               | 0.16±0.07        | -1.05±0.20               | 5.6   |
| <i>f</i> <sub>100</sub>                | 0.3982±0.0024                | 0.22±0.07        | -2.28±0.15               | 10.0  | <i>f</i> <sub>198</sub>                | 7.4536±0.0032                | 0.14±0.06        | 0.74±0.19                | 5.8   |
| <i>f</i> <sub>101</sub>                | 0.1981±0.0025                | 0.21±0.07        | 1.40±0.15                | 9.7   | <i>f</i> <sub>200</sub>                | 0.7127±0.0032                | 0.14±0.06        | 1.70±0.20                | 5.6   |
| <i>f</i> <sub>103</sub>                | 16.7499±0.0025               | 0.20±0.06        | 1.67±0.15                | 9.6   | <i>f</i> <sub>201</sub>                | 17.6626±0.0033               | 0.15±0.06        | -1.23±0.20               | 5.5   |
| <i>f</i> <sub>104</sub>                | 17.1880±0.0025               | 0.22±0.07        | -0.61±0.15               | 9.7   | <i>f</i> <sub>202</sub>                | 1.9462±0.0032                | 0.15±0.06        | 2.70±0.20                | 5.6   |
| <i>f</i> <sub>106</sub>                | 18.8259±0.0025               | 0.21±0.07        | -2.57±0.15               | 9.7   | <i>f</i> <sub>203</sub>                | 16.0241±0.0032               | 0.14±0.06        | -1.19±0.20               | 5.6   |
| Frequency list of 0102619560 continued |                              |                  |                          |       | Frequency list of 0102619560 continued |                              |                  |                          |       |



## Appendix E. Frequencies of individual Hybrid Candidate Stars

| Frequency list of 0102619560 continued |                              |                  |                          |        | Frequency list of 0102627276 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|--------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign.  | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| <i>f</i> <sub>204</sub>                | 0.2487±0.0033                | 0.17±0.07        | 0.65±0.20                | 5.5    | <i>f</i> <sub>52</sub>                 | 22.8619±0.0020               | 0.12±0.03        | 3.01±0.12                | 14.6  |
| <i>f</i> <sub>205</sub>                | 0.2595±0.0030                | 0.16±0.06        | -1.66±0.18               | 6.4    | <i>f</i> <sub>53</sub>                 | 7.9975±0.0020                | 0.12±0.03        | 2.24±0.12                | 15.3  |
| <i>f</i> <sub>206</sub>                | 26.7109±0.0033               | 0.14±0.06        | 2.40±0.20                | 5.3    | <i>f</i> <sub>54</sub>                 | 12.7597±0.0020               | 0.11±0.03        | 0.64±0.12                | 14.2  |
| <i>f</i> <sub>207</sub>                | 16.2154±0.0033               | 0.14±0.06        | 2.64±0.20                | 5.3    | <i>f</i> <sub>55</sub>                 | 0.1107±0.0020                | 0.13±0.03        | -1.07±0.12               | 13.9  |
| <i>f</i> <sub>208</sub>                | 2.4060±0.0033                | 0.14±0.06        | 2.88±0.20                | 5.4    | <i>f</i> <sub>56</sub>                 | 25.4570±0.0020               | 0.12±0.03        | 0.09±0.12                | 14.3  |
| <i>f</i> <sub>209</sub>                | 13.4928±0.0033               | 0.15±0.06        | -0.54±0.20               | 5.4    | <i>f</i> <sub>57</sub>                 | 45.8097±0.0021               | 0.11±0.03        | -1.54±0.13               | 13.8  |
| <i>f</i> <sub>210</sub>                | 0.5209±0.0033                | 0.14±0.06        | -2.56±0.20               | 5.4    | <i>f</i> <sub>58</sub>                 | 7.0611±0.0021                | 0.10±0.03        | -0.46±0.13               | 13.8  |
| <i>f</i> <sub>211</sub>                | 3.5636±0.0033                | 0.14±0.06        | -2.33±0.20               | 5.3    | <i>f</i> <sub>59</sub>                 | 38.0677±0.0020               | 0.11±0.03        | 2.20±0.12                | 13.9  |
| <i>f</i> <sub>212</sub>                | 15.6435±0.0033               | 0.15±0.07        | 1.89±0.20                | 5.3    | <i>f</i> <sub>60</sub>                 | 23.7966±0.0021               | 0.11±0.03        | 3.07±0.13                | 13.8  |
| <i>f</i> <sub>213</sub>                | 16.8047±0.0033               | 0.14±0.06        | -0.41±0.20               | 5.3    | <i>f</i> <sub>61</sub>                 | 21.6259±0.0021               | 0.10±0.03        | 2.77±0.13                | 13.2  |
| <i>f</i> <sub>214</sub>                | 12.7604±0.0033               | 0.15±0.07        | -3.09±0.20               | 5.2    | <i>f</i> <sub>62</sub>                 | 32.9267±0.0021               | 0.11±0.03        | 0.90±0.13                | 12.8  |
| <i>f</i> <sub>215</sub>                | 21.4321±0.0033               | 0.14±0.06        | 0.81±0.20                | 5.2    | <i>f</i> <sub>63</sub>                 | 44.7138±0.0021               | 0.10±0.03        | 2.03±0.13                | 13.1  |
| <i>f</i> <sub>216</sub>                | 0.8604±0.0032                | 0.15±0.06        | -0.11±0.20               | 5.6    | <i>f</i> <sub>64</sub>                 | 0.1548±0.0021                | 0.11±0.03        | 1.23±0.13                | 13.1  |
| <i>f</i> <sub>217</sub>                | 14.0768±0.0033               | 0.14±0.06        | -0.95±0.20               | 5.4    | <i>f</i> <sub>65</sub>                 | 0.1431±0.0019                | 0.11±0.03        | -1.71±0.12               | 15.5  |
| <i>f</i> <sub>218</sub>                | 20.7342±0.0033               | 0.14±0.06        | -0.61±0.20               | 5.2    | <i>f</i> <sub>66</sub>                 | 27.4645±0.0022               | 0.12±0.03        | -1.85±0.13               | 12.6  |
| <i>f</i> <sub>219</sub>                | 15.8363±0.0033               | 0.14±0.06        | 0.59±0.20                | 5.4    | <i>f</i> <sub>67</sub>                 | 27.4550±0.0021               | 0.11±0.03        | -1.08±0.13               | 12.9  |
| <i>f</i> <sub>220</sub>                | 15.8749±0.0033               | 0.14±0.06        | -2.34±0.20               | 5.3    | <i>f</i> <sub>68</sub>                 | 22.6758±0.0022               | 0.11±0.03        | -1.85±0.13               | 12.6  |
| <i>f</i> <sub>221</sub>                | 1.2054±0.0033                | 0.15±0.07        | 1.67±0.20                | 5.2    | <i>f</i> <sub>69</sub>                 | 50.3227±0.0022               | 0.10±0.03        | 0.99±0.13                | 12.2  |
| <i>f</i> <sub>222</sub>                | 2.4433±0.0033                | 0.14±0.06        | 2.71±0.20                | 5.2    | <i>f</i> <sub>70</sub>                 | 0.3431±0.0022                | 0.09±0.03        | 2.39±0.13                | 12.6  |
| <i>f</i> <sub>223</sub>                | 8.5237±0.0033                | 0.14±0.06        | -2.06±0.20               | 5.2    | <i>f</i> <sub>71</sub>                 | 29.0331±0.0023               | 0.09±0.03        | 3.04±0.14                | 11.2  |
| <i>f</i> <sub>224</sub>                | 0.5789±0.0033                | 0.14±0.06        | -2.99±0.20               | 5.3    | <i>f</i> <sub>72</sub>                 | 14.3716±0.0023               | 0.10±0.03        | 3.13±0.14                | 11.1  |
| <i>f</i> <sub>225</sub>                | 3.2093±0.0033                | 0.14±0.06        | 1.81±0.20                | 5.3    | <i>f</i> <sub>73</sub>                 | 17.6965±0.0023               | 0.10±0.03        | -0.92±0.14               | 11.2  |
| <i>f</i> <sub>226</sub>                | 7.1257±0.0034                | 0.14±0.06        | -0.13±0.21               | 5.1    | <i>f</i> <sub>75</sub>                 | 43.1703±0.0023               | 0.10±0.03        | 0.86±0.14                | 10.9  |
| <i>f</i> <sub>227</sub>                | 20.8736±0.0034               | 0.14±0.06        | -2.06±0.21               | 5.1    | <i>f</i> <sub>76</sub>                 | 7.0356±0.0023                | 0.10±0.03        | -1.95±0.14               | 10.6  |
| <i>f</i> <sub>228</sub>                | 3.5307±0.0034                | 0.14±0.06        | -0.58±0.21               | 5.1    | <i>f</i> <sub>77</sub>                 | 7.0150±0.0023                | 0.11±0.03        | -0.14±0.14               | 11.2  |
|                                        |                              |                  |                          |        | <i>f</i> <sub>78</sub>                 | 4.9128±0.0024                | 0.09±0.03        | 0.14±0.14                | 10.4  |
|                                        |                              |                  |                          |        | <i>f</i> <sub>79</sub>                 | 40.3144±0.0024               | 0.09±0.03        | -2.45±0.15               | 10.2  |
|                                        |                              |                  |                          |        | <i>f</i> <sub>81</sub>                 | 0.3695±0.0024                | 0.09±0.03        | -0.80±0.15               | 10.0  |
|                                        |                              |                  |                          |        | <i>f</i> <sub>82</sub>                 | 0.2727±0.0024                | 0.10±0.03        | -1.63±0.15               | 10.1  |
|                                        |                              |                  |                          |        | <i>f</i> <sub>83</sub>                 | 3.5296±0.0024                | 0.08±0.03        | -0.68±0.15               | 9.8   |
|                                        |                              |                  |                          |        | <i>f</i> <sub>84</sub>                 | 19.5750±0.0024               | 0.09±0.03        | 0.73±0.14                | 10.4  |
|                                        |                              |                  |                          |        | <i>f</i> <sub>86</sub>                 | 32.9103±0.0025               | 0.09±0.03        | -3.10±0.15               | 9.6   |
|                                        |                              |                  |                          |        | <i>f</i> <sub>87</sub>                 | 33.4291±0.0025               | 0.08±0.03        | -1.00±0.15               | 9.7   |
|                                        |                              |                  |                          |        | <i>f</i> <sub>88</sub>                 | 18.1221±0.0025               | 0.09±0.03        | -3.01±0.15               | 9.5   |
|                                        |                              |                  |                          |        | <i>f</i> <sub>89</sub>                 | 32.9721±0.0025               | 0.09±0.03        | 1.63±0.15                | 9.2   |
|                                        |                              |                  |                          |        | <i>f</i> <sub>90</sub>                 | 9.7268±0.0025                | 0.09±0.03        | -2.42±0.16               | 9.0   |
|                                        |                              |                  |                          |        | <i>f</i> <sub>91</sub>                 | 33.6434±0.0025               | 0.09±0.03        | 3.11±0.16                | 9.0   |
|                                        |                              |                  |                          |        | <i>f</i> <sub>92</sub>                 | 38.6211±0.0025               | 0.09±0.03        | -0.44±0.16               | 9.0   |
|                                        |                              |                  |                          |        | <i>f</i> <sub>95</sub>                 | 0.4596±0.0026                | 0.09±0.03        | 2.41±0.16                | 8.6   |
|                                        |                              |                  |                          |        | <i>f</i> <sub>97</sub>                 | 33.6782±0.0026               | 0.08±0.03        | -2.24±0.16               | 8.7   |
|                                        |                              |                  |                          |        | <i>f</i> <sub>98</sub>                 | 21.2335±0.0026               | 0.08±0.03        | -2.83±0.16               | 8.8   |
|                                        |                              |                  |                          |        | <i>f</i> <sub>99</sub>                 | 36.9067±0.0026               | 0.08±0.03        | 0.64±0.16                | 8.5   |
|                                        |                              |                  |                          |        | <i>f</i> <sub>100</sub>                | 3.2805±0.0026                | 0.08±0.03        | 2.48±0.16                | 8.4   |
|                                        |                              |                  |                          |        | <i>f</i> <sub>101</sub>                | 9.5460±0.0026                | 0.08±0.03        | -2.46±0.16               | 8.5   |
|                                        |                              |                  |                          |        | <i>f</i> <sub>102</sub>                | 0.1865±0.0027                | 0.08±0.03        | 1.79±0.16                | 8.2   |
|                                        |                              |                  |                          |        | <i>f</i> <sub>103</sub>                | 4.9031±0.0027                | 0.08±0.03        | 2.35±0.16                | 8.2   |
|                                        |                              |                  |                          |        | <i>f</i> <sub>104</sub>                | 24.4077±0.0027               | 0.08±0.03        | -1.44±0.16               | 8.2   |
|                                        |                              |                  |                          |        | <i>f</i> <sub>105</sub>                | 7.0721±0.0027                | 0.08±0.03        | -2.13±0.16               | 8.0   |
|                                        |                              |                  |                          |        | <i>f</i> <sub>106</sub>                | 43.8190±0.0027               | 0.08±0.03        | 2.56±0.17                | 7.8   |
|                                        |                              |                  |                          |        | <i>f</i> <sub>107</sub>                | 36.5734±0.0028               | 0.08±0.03        | 0.73±0.17                | 7.6   |
|                                        |                              |                  |                          |        | <i>f</i> <sub>108</sub>                | 2.0036±0.0027                | 0.11±0.04        | -2.42±0.17               | 7.9   |
|                                        |                              |                  |                          |        | <i>f</i> <sub>109</sub>                | 24.4877±0.0028               | 0.08±0.03        | 1.75±0.17                | 7.5   |
|                                        |                              |                  |                          |        | <i>f</i> <sub>110</sub>                | 0.5653±0.0028                | 0.07±0.03        | -1.89±0.17               | 7.5   |
|                                        |                              |                  |                          |        | <i>f</i> <sub>111</sub>                | 3.5026±0.0028                | 0.08±0.03        | -1.62±0.17               | 7.5   |
|                                        |                              |                  |                          |        | <i>f</i> <sub>112</sub>                | 22.5939±0.0028               | 0.07±0.03        | 2.60±0.17                | 7.2   |
|                                        |                              |                  |                          |        | <i>f</i> <sub>113</sub>                | 6.7221±0.0029                | 0.08±0.03        | -0.28±0.17               | 7.1   |
|                                        |                              |                  |                          |        | <i>f</i> <sub>114</sub>                | 0.2278±0.0029                | 0.07±0.03        | -2.88±0.17               | 7.1   |
|                                        |                              |                  |                          |        | <i>f</i> <sub>115</sub>                | 38.0461±0.0029               | 0.07±0.03        | 3.02±0.17                | 7.1   |
|                                        |                              |                  |                          |        | <i>f</i> <sub>116</sub>                | 33.0863±0.0029               | 0.08±0.03        | -1.94±0.18               | 6.8   |
|                                        |                              |                  |                          |        | <i>f</i> <sub>118</sub>                | 4.5255±0.0029                | 0.07±0.03        | -2.30±0.18               | 6.7   |
|                                        |                              |                  |                          |        | <i>f</i> <sub>119</sub>                | 18.9448±0.0030               | 0.08±0.03        | 0.95±0.18                | 6.6   |
|                                        |                              |                  |                          |        | <i>f</i> <sub>120</sub>                | 0.2588±0.0030                | 0.07±0.03        | 1.04±0.18                | 6.6   |
|                                        |                              |                  |                          |        | <i>f</i> <sub>121</sub>                | 7.0911±0.0030                | 0.07±0.03        | -0.81±0.18               | 6.6   |
|                                        |                              |                  |                          |        | <i>f</i> <sub>123</sub>                | 0.7385±0.0030                | 0.07±0.03        | -0.12±0.18               | 6.5   |
|                                        |                              |                  |                          |        | <i>f</i> <sub>124</sub>                | 0.4266±0.0030                | 0.08±0.03        | -0.58±0.18               | 6.5   |
|                                        |                              |                  |                          |        | <i>f</i> <sub>125</sub>                | 0.4077±0.0027                | 0.08±0.03        | 0.66±0.16                | 8.0   |
|                                        |                              |                  |                          |        | <i>f</i> <sub>126</sub>                | 8.9592±0.0030                | 0.08±0.03        | -0.92±0.18               | 6.4   |
|                                        |                              |                  |                          |        | <i>f</i> <sub>129</sub>                | 19.5836±0.0030               | 0.08±0.03        | 2.89±0.19                | 6.3   |
|                                        |                              |                  |                          |        | <i>f</i> <sub>130</sub>                | 21.6489±0.0031               | 0.07±0.03        | -2.30±0.19               | 6.2   |
|                                        |                              |                  |                          |        | <i>f</i> <sub>132</sub>                | 24.1665±0.0031               | 0.07±0.03        | 1.55±0.19                | 6.1   |
|                                        |                              |                  |                          |        | <i>f</i> <sub>136</sub>                | 35.8785±0.0030               | 0.07±0.03        | 1.00±0.19                | 6.3   |
|                                        |                              |                  |                          |        | <i>f</i> <sub>137</sub>                | 24.4359±0.0030               | 0.07±0.03        | 2.69±0.18                | 6.5   |
|                                        |                              |                  |                          |        | <i>f</i> <sub>138</sub>                | 50.2648±0.0030               | 0.07±0.03        | -1.78±0.18               | 6.4   |
|                                        |                              |                  |                          |        | <i>f</i> <sub>139</sub>                | 3.3563±0.0031                | 0.07±0.03        | 0.79±0.19                | 6.0   |
|                                        |                              |                  |                          |        | <i>f</i> <sub>141</sub>                | 0.5503±0.0031                | 0.06±0.02        | -3.10±0.19               | 6.1   |
|                                        |                              |                  |                          |        | <i>f</i> <sub>142</sub>                | 22.9372±0.0031               | 0.07±0.03        | 0.87±0.19                | 6.0   |
| Frequency list of 0102627276 continued |                              |                  |                          |        | Frequency list of 0102627276 continued |                              |                  |                          |       |
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign.  | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| <i>f</i> <sub>1</sub>                  | 32.9449±0.0002               | 2.51±0.06        | 0.11±0.01                | 1775.0 |                                        |                              |                  |                          |       |
| <i>f</i> <sub>2</sub>                  | 24.4589±0.0003               | 1.29±0.04        | 2.54±0.02                | 827.0  |                                        |                              |                  |                          |       |
| <i>f</i> <sub>3</sub>                  | 21.1243±0.0004               | 0.74±0.04        | 3.00±0.03                | 344.4  |                                        |                              |                  |                          |       |
| <i>f</i> <sub>5</sub>                  | 38.9634±0.0009               | 0.32±0.04        | 0.34±0.06                | 70.7   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>6</sub>                  | 15.5021±0.0010               | 0.28±0.04        | -1.30±0.06               | 56.1   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>7</sub>                  | 32.9372±0.0010               | 0.25±0.03        | 1.93±0.06                | 55.2   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>8</sub>                  | 3.3644±0.0011                | 0.24±0.04        | 0.06±0.07                | 46.5   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>9</sub>                  | 39.7045±0.0011               | 0.25±0.04        | 1.57±0.07                | 48.5   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>10</sub>                 | 38.9789±0.0011               | 0.24±0.04        | -2.64±0.07               | 45.9   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>11</sub>                 | 0.1189±0.0011                | 0.20±0.03        | 0.42±0.07                | 46.7   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>12</sub>                 | 9.2212±0.0012                | 0.23±0.04        | -1.47±0.07               | 41.1   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>13</sub>                 | 38.0981±0.0012               | 0.23±0.04        | 0.16±0.07                | 41.9   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>14</sub>                 | 16.7082±0.0012               | 0.21±0.03        | -1.74±0.07               | 40.5   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>15</sub>                 | 17.2259±0.0012               | 0.21±0.03        | -1.17±0.08               | 37.7   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>16</sub>                 | 13.0835±0.0013               | 0.20±0.03        | 3.02±0.08                | 34.0   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>17</sub>                 | 32.9555±0.0013               | 0.21±0.04        | 0.46±0.08                | 33.5   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>18</sub>                 | 3.5387±0.0013                | 0.19±0.03        | 0.18±0.08                | 32.6   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>19</sub>                 | 30.3223±0.0014               | 0.18±0.03        | 2.15±0.08                | 30.8   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>20</sub>                 | 27.2755±0.0014               | 0.18±0.03        | -3.03±0.08               | 31.2   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>21</sub>                 | 24.4526±0.0014               | 0.18±0.03        | -1.89±0.08               | 31.0   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>22</sub>                 | 3.5098±0.0014                | 0.16±0.03        | -0.13±0.09               | 29.0   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>23</sub>                 | 16.0679±0.0014               | 0.17±0.03        | 1.00±0.09                | 28.3   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>24</sub>                 | 22.9481±0.0015               | 0.18±0.03        | -1.46±0.09               | 26.5   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>25</sub>                 | 19.5697±0.0015               | 0.17±0.03        | -2.23±0.09               | 26.9   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>26</sub>                 | 17.8204±0.0015               | 0.17±0.03        | -0.98±0.09               | 26.3   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>28</sub>                 | 29.0224±0.0015               | 0.17±0.03        | 1.09±0.09                | 24.8   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>29</sub>                 | 13.5487±0.0015               | 0.16±0.03        | 2.03±0.09                | 24.7   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>30</sub>                 | 17.0711±0.0016               | 0.15±0.03        | -1.88±0.10               | 23.1   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>31</sub>                 | 0.1662±0.0016                | 0.11±0.02        | 1.02±0.10                | 23.6   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>32</sub>                 | 0.1298±0.0016                | 0.11±0.02        | -2.75±0.10               | 22.1   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>33</sub>                 | 17.9116±0.0017               | 0.14±0.03        | 2.84±0.10                | 21.4   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>34</sub>                 | 32.9612±0.0017               | 0.13±0.03        | 0.48±0.10                | 21.4   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>35</sub>                 | 33.3945±0.0017               | 0.14±0.03        | -0.88±0.10               | 20.8   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>36</sub>                 | 20.6283±0.0017               | 0.14±0.03        | 1.72±0.10                | 19.8   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>37</sub>                 | 38.5335±0.0018               | 0.14±0.03        | 2.31±0.11                | 18.9   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>38</sub>                 | 57.4357±0.0018               | 0.13±0.03        | 0.24±0.11                | 17.4   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>39</sub>                 | 0.2195±0.0018                | 0.14±0.03        | 1.18±0.11                | 17.2   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>40</sub>                 | 13.8884±0.0019               | 0.13±0.03        | 1.48±0.11                | 16.8   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>41</sub>                 | 30.2749±0.0019               | 0.12±0.03        | 2.32±0.11                | 16.5   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>42</sub>                 | 18.7948±0.0019               | 0.12±0.03        | -2.31±0.12               | 16.3   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>43</sub>                 | 20.8883±0.0019               | 0.12±0.03        | 2.28±0.12                | 16.2   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>48</sub>                 | 23.5084±0.0020               | 0.11±0.03        | 2.15±0.12                | 14.7   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>49</sub>                 | 5.3048±0.0020                | 0.12±0.03        | -1.50±0.12               | 15.2   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>50</sub>                 | 24.7795±0.0020               | 0.11±0.03        |                          |        |                                        |                              |                  |                          |       |

## Appendix E. Frequencies of individual Hybrid Candidate Stars

| Frequency list of 0102627276 continued |                              |                  |                          |       | Frequency list of 0102629848 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| <i>f</i> <sub>143</sub>                | 0.4525±0.0031                | 0.06±0.02        | -3.01±0.19               | 5.9   | <i>f</i> <sub>48</sub>                 | 3.2754±0.0023                | 0.06±0.02        | 2.78±0.14                | 11.0  |
| <i>f</i> <sub>144</sub>                | 32.9330±0.0031               | 0.07±0.03        | -1.62±0.19               | 5.9   | <i>f</i> <sub>49</sub>                 | 0.5048±0.0023                | 0.06±0.02        | -0.22±0.14               | 11.0  |
| <i>f</i> <sub>145</sub>                | 32.8954±0.0032               | 0.07±0.03        | 1.92±0.20                | 5.7   | <i>f</i> <sub>50</sub>                 | 2.4259±0.0024                | 0.06±0.02        | 0.09±0.14                | 10.4  |
| <i>f</i> <sub>146</sub>                | 46.9341±0.0032               | 0.06±0.03        | -2.42±0.20               | 5.7   | <i>f</i> <sub>51</sub>                 | 2.3797±0.0024                | 0.06±0.02        | -1.15±0.14               | 10.5  |
| <i>f</i> <sub>147</sub>                | 10.0932±0.0031               | 0.06±0.02        | 0.78±0.19                | 6.0   | <i>f</i> <sub>52</sub>                 | 2.2948±0.0024                | 0.07±0.02        | 1.74±0.15                | 10.2  |
| <i>f</i> <sub>148</sub>                | 1.0171±0.0032                | 0.06±0.03        | -2.68±0.20               | 5.7   | <i>f</i> <sub>53</sub>                 | 1.9496±0.0024                | 0.06±0.02        | -2.89±0.15               | 9.8   |
| <i>f</i> <sub>149</sub>                | 7.0085±0.0032                | 0.06±0.02        | 1.17±0.19                | 5.8   | <i>f</i> <sub>54</sub>                 | 0.6008±0.0025                | 0.06±0.02        | 2.53±0.15                | 9.7   |
| <i>f</i> <sub>150</sub>                | 21.9241±0.0032               | 0.06±0.03        | 1.00±0.20                | 5.7   | <i>f</i> <sub>55</sub>                 | 0.1756±0.0024                | 0.06±0.02        | 0.51±0.15                | 9.8   |
| <i>f</i> <sub>151</sub>                | 6.7028±0.0032                | 0.06±0.03        | -0.54±0.20               | 5.7   | <i>f</i> <sub>56</sub>                 | 0.4339±0.0025                | 0.06±0.02        | -1.62±0.15               | 9.5   |
| <i>f</i> <sub>152</sub>                | 27.2132±0.0032               | 0.06±0.03        | -2.35±0.20               | 5.6   | <i>f</i> <sub>57</sub>                 | 4.1515±0.0025                | 0.06±0.02        | -0.17±0.15               | 9.3   |
| <i>f</i> <sub>153</sub>                | 0.2896±0.0032                | 0.06±0.03        | -1.59±0.20               | 5.6   | <i>f</i> <sub>58</sub>                 | 1.0286±0.0025                | 0.05±0.02        | -2.09±0.15               | 9.3   |
| <i>f</i> <sub>154</sub>                | 30.0199±0.0033               | 0.06±0.03        | -1.02±0.20               | 5.5   | <i>f</i> <sub>59</sub>                 | 1.5594±0.0025                | 0.06±0.02        | 1.62±0.16                | 9.0   |
| <i>f</i> <sub>155</sub>                | 12.4200±0.0033               | 0.06±0.03        | -2.62±0.20               | 5.5   | <i>f</i> <sub>60</sub>                 | 2.2604±0.0025                | 0.06±0.02        | 2.71±0.15                | 9.2   |
| <i>f</i> <sub>156</sub>                | 18.9539±0.0033               | 0.06±0.03        | -1.78±0.20               | 5.5   | <i>f</i> <sub>61</sub>                 | 0.2478±0.0025                | 0.06±0.02        | -0.24±0.15               | 9.1   |
| <i>f</i> <sub>158</sub>                | 36.8683±0.0033               | 0.06±0.03        | -0.93±0.20               | 5.4   | <i>f</i> <sub>62</sub>                 | 4.9120±0.0026                | 0.06±0.02        | 2.75±0.16                | 8.9   |
| <i>f</i> <sub>159</sub>                | 33.0056±0.0033               | 0.06±0.03        | -2.29±0.20               | 5.4   | <i>f</i> <sub>63</sub>                 | 0.3437±0.0026                | 0.05±0.02        | -2.90±0.16               | 8.8   |
| <i>f</i> <sub>160</sub>                | 19.6038±0.0033               | 0.06±0.03        | -0.44±0.20               | 5.4   | <i>f</i> <sub>64</sub>                 | 1.8074±0.0026                | 0.05±0.02        | 1.04±0.16                | 8.8   |
| <i>f</i> <sub>161</sub>                | 4.2391±0.0033                | 0.06±0.03        | -2.51±0.20               | 5.3   | <i>f</i> <sub>65</sub>                 | 2.5917±0.0026                | 0.06±0.02        | 2.38±0.16                | 8.5   |
| <i>f</i> <sub>162</sub>                | 22.3452±0.0033               | 0.06±0.03        | 2.16±0.20                | 5.3   | <i>f</i> <sub>66</sub>                 | 7.1269±0.0026                | 0.06±0.02        | -1.12±0.16               | 8.4   |
| <i>f</i> <sub>163</sub>                | 3.0968±0.0033                | 0.06±0.03        | 0.70±0.20                | 5.5   | <i>f</i> <sub>67</sub>                 | 0.3134±0.0026                | 0.06±0.02        | -1.44±0.16               | 8.4   |
| <i>f</i> <sub>164</sub>                | 25.9912±0.0033               | 0.06±0.03        | 1.04±0.20                | 5.3   | <i>f</i> <sub>68</sub>                 | 2.5310±0.0027                | 0.05±0.02        | 0.29±0.16                | 8.2   |
| <i>f</i> <sub>166</sub>                | 28.5008±0.0034               | 0.06±0.03        | 0.23±0.21                | 5.1   | <i>f</i> <sub>69</sub>                 | 4.5165±0.0027                | 0.06±0.02        | 2.81±0.16                | 8.1   |
| <i>f</i> <sub>167</sub>                | 8.9395±0.0034                | 0.06±0.03        | -1.59±0.21               | 5.1   | <i>f</i> <sub>70</sub>                 | 0.3496±0.0027                | 0.05±0.02        | 0.73±0.17                | 7.9   |
| <i>f</i> <sub>168</sub>                | 39.6283±0.0033               | 0.06±0.03        | 1.22±0.20                | 5.3   | <i>f</i> <sub>71</sub>                 | 2.0871±0.0026                | 0.05±0.02        | -0.86±0.16               | 8.3   |
| <i>f</i> <sub>169</sub>                | 3.3100±0.0033                | 0.06±0.03        | -0.45±0.20               | 5.3   | <i>f</i> <sub>72</sub>                 | 7.5747±0.0027                | 0.05±0.02        | -2.12±0.17               | 7.8   |
| <i>f</i> <sub>170</sub>                | 18.9929±0.0034               | 0.06±0.03        | 1.55±0.21                | 5.0   | <i>f</i> <sub>73</sub>                 | 5.5679±0.0028                | 0.05±0.02        | -0.58±0.17               | 7.6   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>74</sub>                 | 0.7720±0.0028                | 0.06±0.02        | 0.48±0.17                | 7.6   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>75</sub>                 | 2.2176±0.0028                | 0.05±0.02        | 2.61±0.17                | 7.5   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>76</sub>                 | 1.0879±0.0028                | 0.05±0.02        | -3.14±0.17               | 7.2   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>77</sub>                 | 0.2713±0.0028                | 0.05±0.02        | -0.88±0.17               | 7.3   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>78</sub>                 | 3.6709±0.0028                | 0.05±0.02        | -0.11±0.17               | 7.3   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>79</sub>                 | 1.1486±0.0029                | 0.05±0.02        | 2.55±0.17                | 7.1   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>80</sub>                 | 13.7588±0.0029               | 0.05±0.02        | 0.97±0.17                | 7.1   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>81</sub>                 | 2.1459±0.0028                | 0.05±0.02        | -2.11±0.17               | 7.2   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>82</sub>                 | 0.5136±0.0029                | 0.05±0.02        | 0.95±0.18                | 6.9   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>83</sub>                 | 0.5468±0.0028                | 0.05±0.02        | -2.00±0.17               | 7.2   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>84</sub>                 | 0.6244±0.0029                | 0.05±0.02        | 1.70±0.18                | 6.9   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>85</sub>                 | 3.7063±0.0029                | 0.05±0.02        | 0.27±0.18                | 6.7   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>86</sub>                 | 2.6661±0.0029                | 0.05±0.02        | -1.22±0.18               | 6.7   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>87</sub>                 | 11.6271±0.0029               | 0.05±0.02        | 2.67±0.18                | 6.7   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>88</sub>                 | 0.8793±0.0029                | 0.05±0.02        | 1.02±0.18                | 6.8   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>89</sub>                 | 0.9150±0.0029                | 0.05±0.02        | 0.46±0.17                | 7.1   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>90</sub>                 | 3.0339±0.0029                | 0.05±0.02        | 2.93±0.18                | 6.8   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>91</sub>                 | 0.7285±0.0030                | 0.05±0.02        | -0.21±0.18               | 6.6   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>92</sub>                 | 1.4495±0.0030                | 0.05±0.02        | 2.42±0.18                | 6.5   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>93</sub>                 | 1.7215±0.0030                | 0.05±0.02        | 0.72±0.18                | 6.5   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>94</sub>                 | 2.3295±0.0030                | 0.05±0.02        | 1.47±0.18                | 6.4   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>95</sub>                 | 17.9436±0.0030               | 0.05±0.02        | -1.87±0.18               | 6.5   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>96</sub>                 | 1.7912±0.0031                | 0.05±0.02        | 1.52±0.19                | 6.2   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>97</sub>                 | 9.4592±0.0031                | 0.05±0.02        | 0.15±0.19                | 6.2   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>98</sub>                 | 12.2940±0.0031               | 0.04±0.02        | 1.71±0.19                | 6.2   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>99</sub>                 | 0.7863±0.0030                | 0.04±0.02        | 1.94±0.19                | 6.3   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>100</sub>                | 0.3569±0.0031                | 0.05±0.02        | -2.06±0.19               | 6.2   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>101</sub>                | 2.3603±0.0031                | 0.05±0.02        | -2.74±0.19               | 6.2   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>102</sub>                | 1.1143±0.0031                | 0.04±0.02        | -1.62±0.19               | 6.1   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>103</sub>                | 4.6805±0.0031                | 0.04±0.02        | -1.70±0.19               | 6.1   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>104</sub>                | 0.4420±0.0031                | 0.05±0.02        | -1.03±0.19               | 6.1   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>106</sub>                | 1.4283±0.0031                | 0.05±0.02        | -1.24±0.19               | 5.9   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>107</sub>                | 4.8715±0.0031                | 0.04±0.02        | 1.47±0.19                | 6.0   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>108</sub>                | 2.4881±0.0031                | 0.05±0.02        | 1.22±0.19                | 6.0   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>109</sub>                | 1.6783±0.0031                | 0.04±0.02        | 0.13±0.19                | 6.0   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>110</sub>                | 3.4477±0.0032                | 0.04±0.02        | -1.08±0.19               | 5.8   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>111</sub>                | 3.6343±0.0031                | 0.04±0.02        | -1.74±0.19               | 5.9   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>112</sub>                | 1.3246±0.0031                | 0.04±0.02        | -0.22±0.19               | 6.0   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>113</sub>                | 3.9746±0.0033                | 0.04±0.02        | -2.94±0.20               | 5.5   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>114</sub>                | 0.7026±0.0032                | 0.04±0.02        | -2.61±0.20               | 5.7   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>115</sub>                | 1.7605±0.0032                | 0.04±0.02        | 2.87±0.20                | 5.6   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>116</sub>                | 5.1216±0.0033                | 0.04±0.02        | -2.31±0.20               | 5.5   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>117</sub>                | 1.1682±0.0033                | 0.04±0.02        | -1.64±0.20               | 5.5   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>118</sub>                | 0.5564±0.0033                | 0.04±0.02        | -0.64±0.20               | 5.4   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>119</sub>                | 1.0638±0.0033                | 0.04±0.02        | 0.93±0.20                | 5.4   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>120</sub>                | 0.4060±0.0032                | 0.05±0.02        | 0.71±0.20                | 5.6   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>121</sub>                | 1.6420±0.0033                | 0.04±0.02        | 1.37±0.20                | 5.5   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>122</sub>                | 0.8682±0.0033                | 0.04±0.02        | 1.44±0.20                | 5.5   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>123</sub>                | 0.9562±0.0033                | 0.04±0.02        | 0.05±0.20                | 5.3   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>124</sub>                | 4.4977±0.0033                | 0.04±0.02        | -1.28±0.20               | 5.2   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>125</sub>                |                              |                  |                          |       |
| Frequency list of 0102629848 continued |                              |                  |                          |       | Frequency list of 0102629848 continued |                              |                  |                          |       |

## Appendix E. Frequencies of individual Hybrid Candidate Stars

| Frequency list of 0102629848 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{126}$                              | 1.2190±0.0033                | 0.04±0.02        | 1.38±0.20                | 5.2   |
| $f_{127}$                              | 2.8473±0.0033                | 0.04±0.02        | -0.11±0.20               | 5.2   |
| $f_{128}$                              | 2.7492±0.0034                | 0.04±0.02        | 0.92±0.21                | 5.1   |
| $f_{129}$                              | 3.1230±0.0034                | 0.04±0.02        | -0.40±0.21               | 5.0   |
| $f_{130}$                              | 4.8900±0.0034                | 0.04±0.02        | 2.00±0.21                | 5.0   |
| $f_{131}$                              | 2.4066±0.0033                | 0.04±0.02        | -2.43±0.20               | 5.2   |

**Table E.15:** Frequency list of 0102630432

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign.  |
|--------------|------------------------------|------------------|--------------------------|--------|
| $f_1$        | 3.8068±0.0002                | 1.45±0.03        | 2.18±0.01                | 1760.0 |
| $f_2$        | 1.4198±0.0004                | 0.46±0.03        | 1.82±0.03                | 305.9  |
| $f_3$        | 36.1314±0.0004               | 0.44±0.03        | 1.97±0.03                | 304.0  |
| $f_4$        | 7.6135±0.0005                | 0.39±0.03        | 1.24±0.03                | 240.7  |
| $f_5$        | 2.8478±0.0006                | 0.31±0.02        | -2.22±0.03               | 184.2  |
| $f_6$        | 3.7598±0.0006                | 0.28±0.02        | 0.54±0.04                | 154.9  |
| $f_7$        | 24.5949±0.0008               | 0.20±0.02        | -0.18±0.05               | 92.1   |
| $f_8$        | 7.5195±0.0008                | 0.20±0.02        | -3.06±0.05               | 88.2   |
| $f_9$        | 20.7882±0.0009               | 0.18±0.02        | 2.39±0.05                | 76.4   |
| $f_{10}$     | 18.9374±0.0009               | 0.18±0.02        | -0.06±0.05               | 72.4   |
| $f_{11}$     | 2.8352±0.0010                | 0.17±0.02        | -2.40±0.06               | 60.2   |
| $f_{12}$     | 18.9851±0.0010               | 0.15±0.02        | 2.41±0.06                | 53.9   |
| $f_{13}$     | 0.1411±0.0014                | 0.11±0.02        | 0.52±0.08                | 30.7   |
| $f_{14}$     | 1.4096±0.0014                | 0.11±0.02        | 1.85±0.09                | 28.0   |
| $f_{15}$     | 19.9668±0.0014               | 0.12±0.02        | -1.01±0.09               | 28.5   |
| $f_{16}$     | 0.1251±0.0015                | 0.10±0.02        | 1.59±0.09                | 26.8   |
| $f_{17}$     | 18.8906±0.0015               | 0.10±0.02        | 1.96±0.09                | 25.1   |
| $f_{18}$     | 1.4268±0.0016                | 0.10±0.02        | -2.69±0.10               | 23.8   |
| $f_{19}$     | 20.7411±0.0016               | 0.10±0.02        | 1.19±0.10                | 23.9   |
| $f_{20}$     | 16.9336±0.0016               | 0.09±0.02        | 0.37±0.10                | 22.4   |
| $f_{21}$     | 38.6354±0.0017               | 0.09±0.02        | 2.55±0.10                | 20.6   |
| $f_{22}$     | 22.8080±0.0017               | 0.09±0.02        | -2.83±0.11               | 19.5   |
| $f_{23}$     | 0.1565±0.0018                | 0.08±0.02        | -0.01±0.11               | 17.6   |
| $f_{24}$     | 0.1047±0.0019                | 0.09±0.02        | -0.42±0.11               | 16.8   |
| $f_{25}$     | 0.2496±0.0019                | 0.08±0.02        | -2.12±0.11               | 16.8   |
| $f_{26}$     | 0.1882±0.0019                | 0.08±0.02        | -0.66±0.12               | 16.1   |
| $f_{27}$     | 47.1416±0.0020               | 0.08±0.02        | -2.67±0.12               | 15.3   |
| $f_{28}$     | 6.6522±0.0021                | 0.07±0.02        | 3.13±0.13                | 13.8   |
| $f_{29}$     | 1.4001±0.0021                | 0.07±0.02        | 2.03±0.13                | 13.5   |
| $f_{30}$     | 17.0283±0.0021               | 0.07±0.02        | 0.81±0.13                | 13.3   |
| $f_{31}$     | 19.9479±0.0021               | 0.07±0.02        | 0.86±0.13                | 13.0   |
| $f_{32}$     | 36.0839±0.0022               | 0.07±0.02        | -0.56±0.13               | 12.6   |
| $f_{34}$     | 0.2953±0.0023                | 0.06±0.02        | -1.77±0.14               | 11.3   |
| $f_{35}$     | 38.7585±0.0023               | 0.06±0.02        | -2.24±0.14               | 11.0   |
| $f_{36}$     | 18.9045±0.0023               | 0.06±0.02        | 0.86±0.14                | 10.8   |
| $f_{37}$     | 0.1108±0.0025                | 0.06±0.02        | 0.60±0.15                | 9.7    |
| $f_{38}$     | 20.8349±0.0025               | 0.06±0.02        | 0.03±0.15                | 9.3    |
| $f_{39}$     | 7.5657±0.0025                | 0.06±0.02        | -2.15±0.15               | 9.6    |
| $f_{40}$     | 0.2880±0.0025                | 0.05±0.02        | 0.05±0.15                | 9.6    |
| $f_{41}$     | 0.2138±0.0025                | 0.06±0.02        | 1.28±0.15                | 9.1    |
| $f_{42}$     | 0.4008±0.0025                | 0.06±0.02        | 2.36±0.16                | 9.0    |
| $f_{43}$     | 1.4417±0.0027                | 0.05±0.02        | 2.04±0.16                | 8.2    |
| $f_{44}$     | 36.1045±0.0026               | 0.06±0.02        | -1.83±0.16               | 8.5    |
| $f_{45}$     | 0.9340±0.0026                | 0.06±0.02        | 2.16±0.16                | 8.4    |
| $f_{46}$     | 0.1821±0.0027                | 0.05±0.02        | 2.43±0.17                | 7.9    |
| $f_{47}$     | 0.3186±0.0028                | 0.05±0.02        | 1.18±0.17                | 7.7    |
| $f_{48}$     | 2.8440±0.0028                | 0.05±0.02        | 1.63±0.17                | 7.6    |
| $f_{49}$     | 2.0057±0.0028                | 0.05±0.02        | -1.44±0.17               | 7.3    |
| $f_{50}$     | 45.0424±0.0028               | 0.05±0.02        | 2.00±0.17                | 7.2    |
| $f_{51}$     | 3.4159±0.0029                | 0.05±0.02        | -0.65±0.18               | 7.0    |
| $f_{53}$     | 34.8294±0.0030               | 0.05±0.02        | 1.63±0.18                | 6.6    |
| $f_{54}$     | 0.2573±0.0030                | 0.05±0.02        | 3.10±0.18                | 6.5    |
| $f_{56}$     | 0.8007±0.0030                | 0.05±0.02        | 3.10±0.18                | 6.4    |
| $f_{57}$     | 6.8753±0.0031                | 0.05±0.02        | 1.25±0.19                | 6.2    |
| $f_{58}$     | 26.0804±0.0031               | 0.05±0.02        | 2.35±0.19                | 6.0    |
| $f_{59}$     | 0.3735±0.0031                | 0.04±0.02        | -0.51±0.19               | 6.0    |
| $f_{60}$     | 42.5673±0.0032               | 0.04±0.02        | -0.95±0.19               | 5.8    |
| $f_{61}$     | 23.0055±0.0031               | 0.05±0.02        | -1.44±0.19               | 6.0    |
| $f_{62}$     | 2.9285±0.0032                | 0.04±0.02        | 0.34±0.19                | 5.8    |
| $f_{63}$     | 39.9388±0.0033               | 0.04±0.02        | -2.22±0.20               | 5.5    |
| $f_{64}$     | 0.6624±0.0033                | 0.04±0.02        | 1.84±0.20                | 5.4    |
| $f_{66}$     | 0.2757±0.0033                | 0.04±0.02        | -2.24±0.20               | 5.2    |

Frequency list of 0102630432 continued

| Frequency list of 0102630432 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{67}$                               | 8.9102±0.0033                | 0.04±0.02        | 1.08±0.20                | 5.2   |

**Table E.16:** Frequency list of 0102637313

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign.  |
|--------------|------------------------------|------------------|--------------------------|--------|
| $f_1$        | 5.0369±0.0001                | 2.92±0.06        | -1.87±0.01               | 2633.2 |
| $f_2$        | 0.6958±0.0006                | 0.49±0.04        | 1.69±0.04                | 176.3  |
| $f_3$        | 0.9853±0.0006                | 0.41±0.03        | 0.33±0.04                | 149.5  |
| $f_4$        | 6.2571±0.0006                | 0.43±0.04        | -1.78±0.04               | 147.8  |
| $f_5$        | 2.9059±0.0007                | 0.37±0.03        | -0.42±0.04               | 114.3  |
| $f_6$        | 6.2185±0.0007                | 0.34±0.03        | 1.01±0.04                | 107.4  |
| $f_7$        | 2.0114±0.0009                | 0.29±0.03        | 2.91±0.05                | 77.5   |
| $f_9$        | 3.5678±0.0011                | 0.22±0.03        | -0.33±0.06               | 52.1   |
| $f_{10}$     | 0.3766±0.0011                | 0.21±0.03        | 2.87±0.07                | 49.9   |
| $f_{11}$     | 7.3533±0.0012                | 0.20±0.03        | -1.45±0.07               | 42.4   |
| $f_{12}$     | 1.6202±0.0012                | 0.19±0.03        | 1.87±0.07                | 42.4   |
| $f_{13}$     | 4.4626±0.0012                | 0.18±0.03        | 0.80±0.07                | 39.7   |
| $f_{14}$     | 10.0738±0.0012               | 0.19±0.03        | 1.62±0.07                | 39.6   |
| $f_{15}$     | 3.0251±0.0013                | 0.18±0.03        | 1.19±0.08                | 37.0   |
| $f_{19}$     | 1.9347±0.0013                | 0.17±0.03        | 1.12±0.08                | 35.3   |
| $f_{20}$     | 2.9326±0.0013                | 0.17±0.03        | 0.21±0.08                | 34.9   |
| $f_{21}$     | 1.2245±0.0014                | 0.17±0.03        | -2.46±0.08               | 31.8   |
| $f_{22}$     | 2.2653±0.0014                | 0.17±0.03        | 0.21±0.08                | 31.4   |
| $f_{23}$     | 1.8051±0.0014                | 0.15±0.03        | 2.69±0.09                | 28.4   |
| $f_{25}$     | 0.1227±0.0014                | 0.18±0.03        | 0.10±0.09                | 28.3   |
| $f_{26}$     | 2.3165±0.0014                | 0.16±0.03        | -1.65±0.09               | 28.5   |
| $f_{27}$     | 2.3625±0.0014                | 0.15±0.03        | -2.80±0.09               | 27.9   |
| $f_{28}$     | 0.1817±0.0015                | 0.16±0.03        | -3.02±0.09               | 27.3   |
| $f_{29}$     | 4.2835±0.0015                | 0.16±0.03        | -1.19±0.09               | 27.5   |
| $f_{30}$     | 1.6393±0.0015                | 0.14±0.03        | 0.21±0.09                | 26.2   |
| $f_{31}$     | 0.3377±0.0015                | 0.14±0.03        | 1.78±0.09                | 24.9   |
| $f_{32}$     | 4.3176±0.0016                | 0.13±0.03        | -1.22±0.10               | 23.6   |
| $f_{33}$     | 2.3853±0.0015                | 0.14±0.03        | 0.04±0.09                | 24.3   |
| $f_{34}$     | 0.1956±0.0016                | 0.13±0.03        | -0.69±0.10               | 23.5   |
| $f_{35}$     | 0.1324±0.0016                | 0.11±0.02        | 1.09±0.09                | 24.2   |
| $f_{37}$     | 6.3743±0.0016                | 0.13±0.03        | 2.21±0.10                | 21.5   |
| $f_{42}$     | 0.1527±0.0018                | 0.10±0.02        | 2.63±0.11                | 18.1   |
| $f_{43}$     | 8.6033±0.0018                | 0.11±0.03        | -2.24±0.11               | 17.4   |
| $f_{45}$     | 2.8768±0.0018                | 0.11±0.03        | -1.49±0.11               | 17.1   |
| $f_{46}$     | 0.6185±0.0019                | 0.09±0.02        | 2.92±0.12                | 15.4   |
| $f_{47}$     | 1.7260±0.0020                | 0.10±0.03        | 0.56±0.12                | 15.2   |
| $f_{49}$     | 6.3182±0.0020                | 0.10±0.03        | -2.01±0.12               | 14.1   |
| $f_{50}$     | 0.1143±0.0020                | 0.11±0.03        | 0.54±0.12                | 13.9   |
| $f_{54}$     | 2.0052±0.0018                | 0.27±0.06        | 2.51±0.11                | 18.7   |
| $f_{57}$     | 0.7087±0.0020                | 0.09±0.02        | -1.45±0.12               | 14.0   |
| $f_{58}$     | 1.0607±0.0020                | 0.10±0.03        | 1.93±0.12                | 14.3   |
| $f_{59}$     | 12.3909±0.0020               | 0.10±0.03        | 1.40±0.12                | 14.1   |
| $f_{60}$     | 3.4181±0.0021                | 0.09±0.02        | 0.68±0.13                | 13.8   |
| $f_{61}$     | 0.3131±0.0021                | 0.10±0.03        | 0.39±0.13                | 13.8   |
| $f_{62}$     | 5.2682±0.0020                | 0.10±0.03        | -1.10±0.12               | 14.1   |
| $f_{63}$     | 5.2784±0.0021                | 0.10±0.03        | 3.07±0.13                | 13.7   |
| $f_{64}$     | 0.4184±0.0020                | 0.09±0.02        | -1.46±0.12               | 14.0   |
| $f_{65}$     | 1.3281±0.0021                | 0.09±0.02        | 3.03±0.13                | 13.6   |
| $f_{66}$     | 0.2054±0.0021                | 0.10±0.03        | -1.16±0.13               | 13.1   |
| $f_{67}$     | 1.8652±0.0021                | 0.09±0.02        | -2.73±0.13               | 13.3   |
| $f_{68}$     | 0.5237±0.0021                | 0.08±0.02        | 0.96±0.13                | 13.4   |
| $f_{70}$     | 0.4508±0.0021                | 0.09±0.03        | 0.34±0.13                | 12.7   |
| $f_{71}$     | 0.9337±0.0021                | 0.10±0.03        | -0.62±0.13               | 12.8   |
| $f_{72}$     | 2.6733±0.0022                | 0.09±0.03        | 1.10±0.13                | 12.2   |
| $f_{73}$     | 6.7197±0.0022                | 0.09±0.03        | -2.88±0.13               | 12.4   |
| $f_{74}$     | 8.2607±0.0022                | 0.09±0.03        | 2.63±0.13                | 12.0   |
| $f_{75}$     | 4.2544±0.0022                | 0.08±0.02        | 0.13±0.13                | 12.3   |
| $f_{76}$     | 3.1620±0.0022                | 0.09±0.03        | -2.50±0.13               | 12.2   |
| $f_{78}$     | 7.5888±0.0022                | 0.09±0.03        | -1.02±0.13               | 12.0   |
| $f_{79}$     | 0.2704±0.0022                | 0.09±0.03        | -2.46±0.14               | 11.6   |
| $f_{80}$     | 0.4419±0.0022                | 0.09±0.03        | -2.88±0.14               | 11.8   |
| $f_{81}$     | 0.5320±0.0022                | 0.09±0.03        | -2.95±0.14               | 11.6   |
| $f_{82}$     | 2.2097±0.0022                | 0.08±0.02        | -1.52±0.14               | 11.6   |
| $f_{83}$     | 0.3539±0.0022                | 0.09±0.03        | -0.45±0.14               | 11.7   |
| $f_{84}$     | 7.4216±0.0023                | 0.08±0.02        | -1.04±0.14               | 11.5   |
| $f_{85}$     | 3.1024±0.0023                | 0.08±0.02        | -0.47±0.14               | 11.5   |

Frequency list of 0102637313 continued

## Appendix E. Frequencies of individual Hybrid Candidate Stars

| Frequency list of 0102637313 continued |                              |                  |                          |       | Frequency list of 0102639658 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| <i>f</i> <sub>87</sub>                 | 0.9741±0.0023                | 0.09±0.03        | -1.18±0.14               | 10.8  | <i>f</i> <sub>16</sub>                 | 53.4272±0.0013               | 0.08±0.01        | -2.35±0.08               | 35.1  |
| <i>f</i> <sub>89</sub>                 | 2.1042±0.0024                | 0.08±0.02        | 0.20±0.14                | 10.4  | <i>f</i> <sub>17</sub>                 | 43.2645±0.0013               | 0.08±0.01        | 2.63±0.08                | 33.3  |
| <i>f</i> <sub>90</sub>                 | 5.1188±0.0024                | 0.08±0.03        | 1.22±0.15                | 10.2  | <i>f</i> <sub>18</sub>                 | 6.4361±0.0014                | 0.08±0.01        | -2.84±0.08               | 30.2  |
| <i>f</i> <sub>91</sub>                 | 0.5965±0.0024                | 0.07±0.02        | 0.27±0.15                | 9.9   | <i>f</i> <sub>19</sub>                 | 41.2372±0.0014               | 0.08±0.01        | -1.74±0.09               | 29.0  |
| <i>f</i> <sub>92</sub>                 | 0.4938±0.0024                | 0.08±0.03        | 0.47±0.15                | 9.9   | <i>f</i> <sub>20</sub>                 | 3.2814±0.0014                | 0.06±0.01        | 1.67±0.09                | 28.9  |
| <i>f</i> <sub>93</sub>                 | 1.5153±0.0024                | 0.08±0.03        | 2.48±0.15                | 9.9   | <i>f</i> <sub>21</sub>                 | 36.2153±0.0014               | 0.07±0.01        | 2.35±0.09                | 28.0  |
| <i>f</i> <sub>94</sub>                 | 0.9090±0.0024                | 0.08±0.03        | -0.21±0.15               | 9.8   | <i>f</i> <sub>22</sub>                 | 21.0987±0.0015               | 0.07±0.01        | -1.44±0.09               | 27.7  |
| <i>f</i> <sub>97</sub>                 | 0.2629±0.0025                | 0.07±0.02        | 2.29±0.15                | 9.5   | <i>f</i> <sub>23</sub>                 | 23.3289±0.0015               | 0.07±0.01        | 2.50±0.09                | 26.9  |
| <i>f</i> <sub>98</sub>                 | 0.7196±0.0024                | 0.08±0.03        | 1.13±0.15                | 9.9   | <i>f</i> <sub>24</sub>                 | 13.9291±0.0015               | 0.07±0.01        | 3.13±0.09                | 25.7  |
| <i>f</i> <sub>100</sub>                | 4.2755±0.0025                | 0.08±0.03        | 2.24±0.15                | 9.6   | <i>f</i> <sub>25</sub>                 | 14.6676±0.0015               | 0.06±0.01        | -1.14±0.09               | 24.7  |
| <i>f</i> <sub>101</sub>                | 0.8245±0.0025                | 0.07±0.02        | -1.86±0.15               | 9.2   | <i>f</i> <sub>26</sub>                 | 33.3713±0.0016               | 0.07±0.01        | -2.85±0.10               | 23.8  |
| <i>f</i> <sub>102</sub>                | 1.2494±0.0025                | 0.07±0.02        | 2.25±0.16                | 9.0   | <i>f</i> <sub>27</sub>                 | 34.8728±0.0016               | 0.06±0.01        | -1.96±0.10               | 23.1  |
| <i>f</i> <sub>103</sub>                | 1.0960±0.0025                | 0.08±0.03        | 1.01±0.15                | 9.1   | <i>f</i> <sub>28</sub>                 | 41.6086±0.0017               | 0.06±0.01        | -0.15±0.10               | 21.2  |
| <i>f</i> <sub>104</sub>                | 2.1955±0.0025                | 0.07±0.02        | -2.89±0.16               | 9.0   | <i>f</i> <sub>29</sub>                 | 12.1573±0.0017               | 0.06±0.01        | 0.97±0.10                | 20.9  |
| <i>f</i> <sub>105</sub>                | 2.1808±0.0026                | 0.09±0.03        | 0.36±0.16                | 8.7   | <i>f</i> <sub>30</sub>                 | 46.9031±0.0017               | 0.06±0.01        | -1.89±0.10               | 20.6  |
| <i>f</i> <sub>106</sub>                | 5.2044±0.0026                | 0.07±0.02        | 2.22±0.16                | 8.7   | <i>f</i> <sub>31</sub>                 | 38.7350±0.0017               | 0.06±0.01        | 1.23±0.10                | 21.0  |
| <i>f</i> <sub>107</sub>                | 0.6673±0.0026                | 0.07±0.02        | 2.49±0.16                | 8.4   | <i>f</i> <sub>32</sub>                 | 3.5622±0.0017                | 0.06±0.01        | 2.05±0.11                | 19.3  |
| <i>f</i> <sub>108</sub>                | 5.3270±0.0027                | 0.07±0.02        | -3.11±0.16               | 8.2   | <i>f</i> <sub>33</sub>                 | 0.1212±0.0018                | 0.06±0.01        | -1.74±0.11               | 19.0  |
| <i>f</i> <sub>110</sub>                | 0.3911±0.0027                | 0.07±0.02        | -1.79±0.16               | 8.2   | <i>f</i> <sub>34</sub>                 | 49.8307±0.0017               | 0.06±0.01        | 2.38±0.11                | 19.2  |
| <i>f</i> <sub>111</sub>                | 0.9636±0.0027                | 0.07±0.02        | -0.57±0.16               | 8.0   | <i>f</i> <sub>35</sub>                 | 40.9470±0.0018               | 0.06±0.01        | -1.68±0.11               | 19.0  |
| <i>f</i> <sub>113</sub>                | 0.2249±0.0027                | 0.06±0.02        | 2.37±0.16                | 8.0   | <i>f</i> <sub>36</sub>                 | 51.0808±0.0017               | 0.06±0.01        | 0.21±0.11                | 19.2  |
| <i>f</i> <sub>114</sub>                | 3.2157±0.0026                | 0.07±0.02        | 1.02±0.16                | 8.3   | <i>f</i> <sub>37</sub>                 | 32.2724±0.0017               | 0.06±0.01        | 1.86±0.11                | 19.1  |
| <i>f</i> <sub>115</sub>                | 0.1667±0.0027                | 0.07±0.02        | -2.26±0.17               | 7.9   | <i>f</i> <sub>38</sub>                 | 34.6787±0.0018               | 0.06±0.01        | -2.36±0.11               | 19.0  |
| <i>f</i> <sub>117</sub>                | 0.2977±0.0028                | 0.07±0.03        | -0.93±0.17               | 7.6   | <i>f</i> <sub>40</sub>                 | 46.3064±0.0018               | 0.05±0.01        | 2.46±0.11                | 17.3  |
| <i>f</i> <sub>118</sub>                | 5.5263±0.0028                | 0.06±0.02        | 1.61±0.17                | 7.4   | <i>f</i> <sub>41</sub>                 | 36.1184±0.0018               | 0.05±0.01        | -2.94±0.11               | 17.6  |
| <i>f</i> <sub>119</sub>                | 1.0358±0.0028                | 0.07±0.03        | -2.22±0.17               | 7.4   | <i>f</i> <sub>42</sub>                 | 46.6586±0.0018               | 0.06±0.01        | -1.27±0.11               | 17.7  |
| <i>f</i> <sub>121</sub>                | 3.0527±0.0028                | 0.06±0.02        | -0.56±0.17               | 7.2   | <i>f</i> <sub>43</sub>                 | 19.8656±0.0018               | 0.06±0.01        | -1.63±0.11               | 17.3  |
| <i>f</i> <sub>122</sub>                | 4.2910±0.0028                | 0.07±0.03        | -1.32±0.17               | 7.4   | <i>f</i> <sub>44</sub>                 | 18.3716±0.0018               | 0.05±0.01        | -1.45±0.11               | 17.3  |
| <i>f</i> <sub>123</sub>                | 0.7980±0.0028                | 0.06±0.02        | 2.11±0.17                | 7.3   | <i>f</i> <sub>45</sub>                 | 43.4491±0.0019               | 0.05±0.01        | -0.82±0.11               | 17.0  |
| <i>f</i> <sub>124</sub>                | 6.3116±0.0028                | 0.06±0.02        | -2.36±0.17               | 7.2   | <i>f</i> <sub>46</sub>                 | 3.2055±0.0019                | 0.05±0.01        | 2.17±0.11                | 16.9  |
| <i>f</i> <sub>125</sub>                | 20.0098±0.0029               | 0.06±0.02        | 1.73±0.17                | 7.1   | <i>f</i> <sub>47</sub>                 | 36.0831±0.0019               | 0.05±0.01        | 3.00±0.12                | 16.1  |
| <i>f</i> <sub>127</sub>                | 4.6792±0.0029                | 0.06±0.02        | 1.66±0.18                | 7.0   | <i>f</i> <sub>48</sub>                 | 15.5538±0.0019               | 0.05±0.01        | -2.37±0.12               | 15.8  |
| <i>f</i> <sub>128</sub>                | 3.4030±0.0029                | 0.06±0.02        | 0.60±0.18                | 6.7   | <i>f</i> <sub>49</sub>                 | 36.5991±0.0019               | 0.05±0.01        | 1.65±0.12                | 16.3  |
| <i>f</i> <sub>131</sub>                | 18.0035±0.0030               | 0.06±0.02        | 0.16±0.18                | 6.6   | <i>f</i> <sub>50</sub>                 | 0.1418±0.0019                | 0.05±0.01        | 1.51±0.12                | 16.2  |
| <i>f</i> <sub>132</sub>                | 1.6814±0.0030                | 0.06±0.02        | 2.83±0.18                | 6.6   | <i>f</i> <sub>51</sub>                 | 3.2623±0.0019                | 0.05±0.01        | 2.02±0.12                | 15.9  |
| <i>f</i> <sub>133</sub>                | 3.4558±0.0029                | 0.06±0.02        | 1.04±0.18                | 6.8   | <i>f</i> <sub>52</sub>                 | 26.5854±0.0020               | 0.05±0.01        | 1.56±0.12                | 15.2  |
| <i>f</i> <sub>134</sub>                | 0.6597±0.0030                | 0.06±0.02        | 0.76±0.18                | 6.6   | <i>f</i> <sub>53</sub>                 | 0.1975±0.0020                | 0.05±0.01        | -2.55±0.12               | 15.1  |
| <i>f</i> <sub>135</sub>                | 1.3714±0.0030                | 0.06±0.02        | -0.50±0.18               | 6.6   | <i>f</i> <sub>54</sub>                 | 34.8468±0.0020               | 0.05±0.01        | 1.04±0.12                | 14.9  |
| <i>f</i> <sub>136</sub>                | 0.6384±0.0029                | 0.06±0.02        | -2.76±0.18               | 6.8   | <i>f</i> <sub>55</sub>                 | 2.7763±0.0020                | 0.05±0.01        | 0.64±0.12                | 14.6  |
| <i>f</i> <sub>137</sub>                | 0.8472±0.0030                | 0.06±0.02        | -1.01±0.18               | 6.6   | <i>f</i> <sub>56</sub>                 | 22.2105±0.0020               | 0.05±0.01        | -0.50±0.12               | 14.7  |
| <i>f</i> <sub>139</sub>                | 0.5850±0.0029                | 0.07±0.03        | -0.45±0.18               | 6.7   | <i>f</i> <sub>57</sub>                 | 43.6561±0.0020               | 0.05±0.01        | -2.09±0.12               | 15.0  |
| <i>f</i> <sub>140</sub>                | 0.3841±0.0030                | 0.06±0.02        | -0.57±0.18               | 6.4   | <i>f</i> <sub>58</sub>                 | 29.3131±0.0020               | 0.05±0.01        | 1.24±0.12                | 14.5  |
| <i>f</i> <sub>141</sub>                | 1.2918±0.0030                | 0.06±0.02        | 1.41±0.18                | 6.4   | <i>f</i> <sub>59</sub>                 | 47.8674±0.0021               | 0.04±0.01        | -0.70±0.13               | 13.6  |
| <i>f</i> <sub>144</sub>                | 7.2308±0.0030                | 0.06±0.02        | 2.34±0.18                | 6.4   | <i>f</i> <sub>60</sub>                 | 0.4474±0.0021                | 0.04±0.01        | 0.70±0.13                | 13.8  |
| <i>f</i> <sub>145</sub>                | 4.1685±0.0030                | 0.06±0.02        | -0.75±0.18               | 6.4   | <i>f</i> <sub>61</sub>                 | 9.0830±0.0021                | 0.04±0.01        | 0.70±0.13                | 13.7  |
| <i>f</i> <sub>146</sub>                | 2.1693±0.0030                | 0.06±0.02        | 2.82±0.18                | 6.4   | <i>f</i> <sub>62</sub>                 | 22.6974±0.0021               | 0.05±0.01        | -2.32±0.13               | 13.6  |
| <i>f</i> <sub>148</sub>                | 1.0077±0.0030                | 0.06±0.02        | -0.39±0.18               | 6.4   | <i>f</i> <sub>63</sub>                 | 15.1105±0.0021               | 0.04±0.01        | 1.45±0.13                | 13.5  |
| <i>f</i> <sub>152</sub>                | 2.4479±0.0030                | 0.06±0.02        | 2.01±0.18                | 6.5   | <i>f</i> <sub>64</sub>                 | 54.3129±0.0021               | 0.05±0.01        | -1.84±0.13               | 13.5  |
| <i>f</i> <sub>161</sub>                | 0.7753±0.0030                | 0.07±0.03        | -0.57±0.19               | 6.3   | <i>f</i> <sub>65</sub>                 | 6.0423±0.0021                | 0.04±0.01        | 2.45±0.13                | 13.2  |
| <i>f</i> <sub>162</sub>                | 0.7870±0.0026                | 0.07±0.02        | 0.92±0.16                | 8.7   | <i>f</i> <sub>67</sub>                 | 31.0126±0.0021               | 0.04±0.01        | 0.55±0.13                | 12.9  |
| <i>f</i> <sub>163</sub>                | 1.3970±0.0030                | 0.06±0.02        | 1.61±0.18                | 6.5   | <i>f</i> <sub>68</sub>                 | 18.9359±0.0021               | 0.04±0.01        | 2.78±0.13                | 13.1  |
| <i>f</i> <sub>165</sub>                | 8.4310±0.0031                | 0.06±0.02        | 1.76±0.19                | 6.2   | <i>f</i> <sub>69</sub>                 | 0.2246±0.0022                | 0.03±0.01        | -0.74±0.13               | 12.5  |
| <i>f</i> <sub>166</sub>                | 8.4674±0.0031                | 0.06±0.02        | -1.06±0.19               | 6.2   | <i>f</i> <sub>70</sub>                 | 31.8827±0.0021               | 0.05±0.01        | -1.54±0.13               | 13.0  |
| <i>f</i> <sub>167</sub>                | 5.5105±0.0031                | 0.06±0.02        | 2.31±0.19                | 6.1   | <i>f</i> <sub>71</sub>                 | 32.1706±0.0022               | 0.04±0.01        | 1.73±0.13                | 12.4  |
| <i>f</i> <sub>168</sub>                | 1.0820±0.0031                | 0.06±0.02        | 0.67±0.19                | 6.1   | <i>f</i> <sub>72</sub>                 | 6.4138±0.0022                | 0.05±0.01        | -2.05±0.13               | 12.6  |
| <i>f</i> <sub>169</sub>                | 1.2108±0.0031                | 0.06±0.02        | -1.81±0.19               | 6.1   | <i>f</i> <sub>73</sub>                 | 14.8964±0.0022               | 0.04±0.01        | 2.78±0.13                | 12.5  |
| <i>f</i> <sub>170</sub>                | 1.2823±0.0030                | 0.06±0.02        | 2.39±0.18                | 6.4   | <i>f</i> <sub>74</sub>                 | 14.5855±0.0022               | 0.04±0.01        | 0.46±0.13                | 12.3  |
| <i>f</i> <sub>171</sub>                | 1.1468±0.0031                | 0.06±0.02        | -2.83±0.19               | 6.1   | <i>f</i> <sub>75</sub>                 | 3.2700±0.0022                | 0.04±0.01        | -1.51±0.13               | 12.6  |
| <i>f</i> <sub>172</sub>                | 0.2340±0.0031                | 0.06±0.02        | 2.27±0.19                | 6.1   | <i>f</i> <sub>76</sub>                 | 46.1649±0.0022               | 0.04±0.01        | -2.62±0.13               | 12.4  |
| <i>f</i> <sub>173</sub>                | 4.0372±0.0031                | 0.06±0.02        | 1.26±0.19                | 6.2   | <i>f</i> <sub>77</sub>                 | 56.1777±0.0022               | 0.04±0.01        | -0.25±0.14               | 11.9  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>78</sub>                 | 20.7477±0.0022               | 0.04±0.01        | 2.98±0.14                | 11.7  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>79</sub>                 | 32.3658±0.0022               | 0.04±0.01        | 2.45±0.14                | 11.9  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>80</sub>                 | 16.6582±0.0023               | 0.04±0.01        | -1.91±0.14               | 11.5  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>81</sub>                 | 34.4942±0.0023               | 0.04±0.01        | -1.14±0.14               | 11.4  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>82</sub>                 | 11.8736±0.0023               | 0.04±0.01        | 0.77±0.14                | 11.3  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>83</sub>                 | 9.5883±0.0023                | 0.04±0.01        | 2.01±0.14                | 11.1  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>84</sub>                 | 15.2723±0.0023               | 0.04±0.01        | -1.12±0.14               | 10.9  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>85</sub>                 | 37.8893±0.0023               | 0.04±0.01        | 0.87±0.14                | 10.8  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>86</sub>                 | 17.4432±0.0023               | 0.03±0.01        | -1.15±0.14               | 11.0  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>87</sub>                 | 3.1675±0.0023                | 0.04±0.01        | -1.62±0.14               | 10.7  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>88</sub>                 | 37.1549±0.0024               | 0.04±0.01        | -1.48±0.15               | 10.3  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>89</sub>                 | 34.8994±0.0024               | 0.04±0.01        | -2.19±0.15               | 10.0  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>90</sub>                 | 27.9139±0.0024               | 0.04±0.01        | 2.77±0.15                | 10.3  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>91</sub>                 | 3.8563±0.0024                | 0.04±0.01        | -1.76±0.15               | 9.8   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>92</sub>                 | 4.4648±0.0025                | 0.04±0.01        | -2.53±0.15               | 9.7   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>93</sub>                 | 17.8689±0.0024               | 0.04±0.01        | 1.23±0.15                | 9.9   |
| Frequency list of 0102639658 continued |                              |                  |                          |       |                                        |                              |                  |                          |       |
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |                                        |                              |                  |                          |       |
| <i>f</i> <sub>1</sub>                  | 16.2455±0.0004               | 0.37±0.02        | 2.23±0.02                | 415.1 |                                        |                              |                  |                          |       |
| <i>f</i> <sub>2</sub>                  | 24.8467±0.0006               | 0.21±0.02        | -2.39±0.04               | 157.2 |                                        |                              |                  |                          |       |
| <i>f</i> <sub>3</sub>                  | 24.2501±0.0006               | 0.20±0.02        | -1.16±0.04               | 151.4 |                                        |                              |                  |                          |       |
| <i>f</i> <sub>4</sub>                  | 17.5485±0.0006               | 0.19±0.02        | 2.53±0.04                | 138.6 |                                        |                              |                  |                          |       |
| <i>f</i> <sub>5</sub>                  | 3.2127±0.0006                | 0.18±0.02        | 1.55±0.04                | 140.2 |                                        |                              |                  |                          |       |
| <i>f</i> <sub>6</sub>                  | 3.2569±0.0008                | 0.14±0.01        | -2.72±0.05               | 95.4  |                                        |                              |                  |                          |       |
| <i>f</i> <sub>7</sub>                  | 39.0633±0.0009               | 0.14±0.02        | 3.00±0.05                | 77.0  |                                        |                              |                  |                          |       |
| <i>f</i> <sub>8</sub>                  | 17.8636±0.0010               | 0.12±0.02        | -0.08±0.06               | 58.5  |                                        |                              |                  |                          |       |
| <i>f</i> <sub>9</sub>                  | 35.4465±0.0010               | 0.11±0.02        | 2.29±0.06                | 53.3  |                                        |                              |                  |                          |       |
| <i>f</i> <sub>10</sub>                 | 19.9086±0.0011               | 0.10±0.01        | 2.02±0.07                | 48.9  |                                        |                              |                  |                          |       |
| <i>f</i> <sub>11</sub>                 | 40.4242±0.0011               | 0.10±0.01        | 0.64±0.07                | 48.5  |                                        |                              |                  |                          |       |
| <i>f</i> <sub>12</sub>                 | 27.0863±0.0011               | 0.10±0.01        | 1.11±0.07                | 45.2  |                                        |                              |                  |                          |       |
| <i>f</i> <sub>13</sub>                 | 38.5735±0.0012               | 0.09±0.01        | 0.90±0.07                | 43.5  |                                        |                              |                  |                          |       |
| <i>f</i> <sub>14</sub>                 | 20.1492±0.0012               | 0.09±0.01        | -2.08±0.07               | 43.6  |                                        |                              |                  |                          |       |
| <i>f</i> <sub>15</sub>                 | 32.9404±0.0012               | 0.09±0.01        | 1.51±0.07                | 38.9  |                                        |                              |                  |                          |       |
| Frequency list of 0102639658 continued |                              |                  |                          |       |                                        |                              |                  |                          |       |

| Frequency list of 0102639658 continued |                              |                  |                          |       | Frequency list of 0102639658 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| f <sub>94</sub>                        | 35.0292±0.0025               | 0.04±0.01        | -1.53±0.15               | 9.5   | f <sub>176</sub>                       | 53.2196±0.0032               | 0.03±0.01        | -0.69±0.20               | 5.6   |
| f <sub>95</sub>                        | 3.2919±0.0025                | 0.04±0.01        | -1.04±0.15               | 9.5   | f <sub>178</sub>                       | 0.2542±0.0032                | 0.03±0.01        | -2.51±0.20               | 5.7   |
| f <sub>96</sub>                        | 32.6723±0.0025               | 0.04±0.01        | 0.18±0.15                | 9.6   | f <sub>179</sub>                       | 20.7080±0.0032               | 0.03±0.01        | 1.39±0.20                | 5.6   |
| f <sub>97</sub>                        | 6.5422±0.0025                | 0.03±0.01        | -0.29±0.15               | 9.5   | f <sub>180</sub>                       | 2.7461±0.0033                | 0.03±0.01        | -0.95±0.20               | 5.5   |
| f <sub>98</sub>                        | 0.2667±0.0025                | 0.03±0.01        | -2.35±0.15               | 9.4   | f <sub>181</sub>                       | 0.2809±0.0032                | 0.03±0.01        | 2.60±0.20                | 5.6   |
| f <sub>99</sub>                        | 51.0307±0.0025               | 0.03±0.01        | 0.37±0.15                | 9.3   | f <sub>182</sub>                       | 57.4662±0.0032               | 0.03±0.01        | -1.57±0.20               | 5.7   |
| f <sub>100</sub>                       | 20.6881±0.0025               | 0.03±0.01        | -0.64±0.15               | 9.4   | f <sub>184</sub>                       | 2.7132±0.0032                | 0.03±0.01        | 2.65±0.20                | 5.6   |
| f <sub>101</sub>                       | 0.2334±0.0025                | 0.03±0.01        | -0.87±0.15               | 9.2   | f <sub>185</sub>                       | 4.0586±0.0033                | 0.02±0.01        | -0.19±0.20               | 5.4   |
| f <sub>102</sub>                       | 3.0253±0.0025                | 0.03±0.01        | -1.87±0.16               | 9.0   | f <sub>186</sub>                       | 36.9099±0.0033               | 0.02±0.01        | -0.48±0.20               | 5.4   |
| f <sub>103</sub>                       | 3.2239±0.0025                | 0.04±0.01        | 1.33±0.15                | 9.1   | f <sub>187</sub>                       | 36.5942±0.0032               | 0.03±0.01        | -2.29±0.20               | 5.6   |
| f <sub>104</sub>                       | 39.5385±0.0026               | 0.03±0.01        | 2.35±0.16                | 8.8   | f <sub>188</sub>                       | 2.4451±0.0033                | 0.02±0.01        | 1.32±0.20                | 5.5   |
| f <sub>105</sub>                       | 31.8410±0.0025               | 0.03±0.01        | 1.84±0.16                | 9.0   | f <sub>189</sub>                       | 1.2422±0.0033                | 0.02±0.01        | 2.04±0.20                | 5.4   |
| f <sub>106</sub>                       | 3.3090±0.0026                | 0.04±0.01        | 1.19±0.16                | 8.6   | f <sub>190</sub>                       | 2.7836±0.0033                | 0.02±0.01        | 0.61±0.20                | 5.3   |
| f <sub>107</sub>                       | 0.2924±0.0026                | 0.03±0.01        | -1.32±0.16               | 8.7   | f <sub>191</sub>                       | 46.6175±0.0033               | 0.02±0.01        | -0.28±0.20               | 5.2   |
| f <sub>108</sub>                       | 0.2134±0.0026                | 0.04±0.01        | -2.29±0.16               | 8.8   | f <sub>192</sub>                       | 54.4860±0.0033               | 0.02±0.01        | 1.19±0.20                | 5.3   |
| f <sub>109</sub>                       | 55.2434±0.0025               | 0.03±0.01        | 2.37±0.15                | 9.1   | f <sub>193</sub>                       | 13.0469±0.0034               | 0.02±0.01        | -2.53±0.21               | 5.1   |
| f <sub>110</sub>                       | 39.4028±0.0026               | 0.03±0.01        | -1.12±0.16               | 8.7   | f <sub>194</sub>                       | 2.1269±0.0033                | 0.02±0.01        | 0.01±0.20                | 5.2   |
| f <sub>111</sub>                       | 12.8016±0.0026               | 0.03±0.01        | -2.46±0.16               | 8.8   | f <sub>195</sub>                       | 6.4966±0.0034                | 0.02±0.01        | 0.90±0.21                | 5.1   |
| f <sub>112</sub>                       | 17.4553±0.0026               | 0.03±0.01        | -0.02±0.16               | 8.6   | f <sub>196</sub>                       | 37.6476±0.0034               | 0.02±0.01        | 0.04±0.21                | 5.0   |
| f <sub>113</sub>                       | 7.0695±0.0026                | 0.03±0.01        | -2.54±0.16               | 8.9   |                                        |                              |                  |                          |       |
| f <sub>114</sub>                       | 40.6763±0.0026               | 0.03±0.01        | 0.63±0.16                | 8.7   |                                        |                              |                  |                          |       |
| f <sub>115</sub>                       | 6.3911±0.0026                | 0.03±0.01        | 1.60±0.16                | 8.5   |                                        |                              |                  |                          |       |
| f <sub>116</sub>                       | 43.7020±0.0026               | 0.03±0.01        | 3.03±0.16                | 8.7   |                                        |                              |                  |                          |       |
| f <sub>119</sub>                       | 35.5086±0.0026               | 0.03±0.01        | 0.28±0.16                | 8.3   |                                        |                              |                  |                          |       |
| f <sub>120</sub>                       | 54.0035±0.0026               | 0.03±0.01        | 1.52±0.16                | 8.5   |                                        |                              |                  |                          |       |
| f <sub>121</sub>                       | 3.2436±0.0026                | 0.03±0.01        | 1.62±0.16                | 8.3   |                                        |                              |                  |                          |       |
| f <sub>122</sub>                       | 6.4427±0.0027                | 0.03±0.01        | -2.24±0.16               | 8.0   |                                        |                              |                  |                          |       |
| f <sub>123</sub>                       | 0.4287±0.0027                | 0.03±0.01        | -2.19±0.16               | 8.2   |                                        |                              |                  |                          |       |
| f <sub>124</sub>                       | 41.3409±0.0027               | 0.03±0.01        | 0.50±0.17                | 7.9   |                                        |                              |                  |                          |       |
| f <sub>125</sub>                       | 3.0651±0.0027                | 0.03±0.01        | 1.71±0.16                | 8.0   |                                        |                              |                  |                          |       |
| f <sub>126</sub>                       | 34.9223±0.0027               | 0.03±0.01        | 0.57±0.17                | 7.9   |                                        |                              |                  |                          |       |
| f <sub>127</sub>                       | 6.4623±0.0028                | 0.02±0.01        |                          |       |                                        |                              |                  |                          |       |

## Appendix E. Frequencies of individual Hybrid Candidate Stars

| Frequency list of 0102645086 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| <i>f</i> <sub>37</sub>                 | 0.4971±0.0018                | 0.07±0.02        | -1.11±0.11               | 18.7  |
| <i>f</i> <sub>39</sub>                 | 0.2097±0.0019                | 0.06±0.01        | 1.54±0.11                | 16.7  |
| <i>f</i> <sub>46</sub>                 | 0.6008±0.0019                | 0.08±0.02        | 1.62±0.12                | 16.4  |
| <i>f</i> <sub>47</sub>                 | 0.3620±0.0019                | 0.07±0.02        | -1.63±0.11               | 16.9  |
| <i>f</i> <sub>48</sub>                 | 0.6714±0.0018                | 0.07±0.02        | 1.13±0.11                | 17.2  |
| <i>f</i> <sub>49</sub>                 | 0.2258±0.0019                | 0.06±0.01        | -0.17±0.11               | 16.5  |
| <i>f</i> <sub>50</sub>                 | 0.1080±0.0019                | 0.07±0.02        | 1.04±0.12                | 15.7  |
| <i>f</i> <sub>51</sub>                 | 0.1467±0.0019                | 0.07±0.02        | -1.47±0.11               | 16.5  |
| <i>f</i> <sub>52</sub>                 | 8.6332±0.0019                | 0.06±0.02        | -0.54±0.12               | 15.6  |
| <i>f</i> <sub>53</sub>                 | 0.5126±0.0020                | 0.07±0.02        | 0.43±0.12                | 14.1  |
| <i>f</i> <sub>55</sub>                 | 4.6422±0.0021                | 0.06±0.02        | 3.03±0.13                | 13.7  |
| <i>f</i> <sub>56</sub>                 | 4.0870±0.0021                | 0.06±0.02        | -1.98±0.13               | 13.5  |
| <i>f</i> <sub>57</sub>                 | 0.4189±0.0021                | 0.06±0.02        | 2.33±0.13                | 12.8  |
| <i>f</i> <sub>58</sub>                 | 5.6638±0.0022                | 0.05±0.01        | -1.89±0.13               | 12.4  |
| <i>f</i> <sub>59</sub>                 | 1.3376±0.0022                | 0.06±0.02        | 1.29±0.14                | 11.8  |
| <i>f</i> <sub>60</sub>                 | 0.6643±0.0022                | 0.06±0.02        | 1.12±0.14                | 11.9  |
| <i>f</i> <sub>61</sub>                 | 0.6080±0.0022                | 0.06±0.02        | -1.72±0.13               | 12.2  |
| <i>f</i> <sub>62</sub>                 | 0.5670±0.0022                | 0.05±0.01        | -0.10±0.13               | 12.6  |
| <i>f</i> <sub>63</sub>                 | 1.0288±0.0022                | 0.06±0.02        | -0.66±0.14               | 11.8  |
| <i>f</i> <sub>65</sub>                 | 0.1528±0.0023                | 0.05±0.01        | -0.48±0.14               | 11.5  |
| <i>f</i> <sub>66</sub>                 | 0.3372±0.0022                | 0.04±0.01        | 0.48±0.14                | 11.8  |
| <i>f</i> <sub>67</sub>                 | 1.3991±0.0022                | 0.05±0.01        | 0.79±0.14                | 11.6  |
| <i>f</i> <sub>68</sub>                 | 0.4609±0.0023                | 0.05±0.02        | -2.96±0.14               | 11.1  |
| <i>f</i> <sub>69</sub>                 | 5.5265±0.0023                | 0.05±0.02        | 1.44±0.14                | 10.6  |
| <i>f</i> <sub>70</sub>                 | 0.6787±0.0023                | 0.05±0.02        | -0.10±0.14               | 10.7  |
| <i>f</i> <sub>74</sub>                 | 0.3086±0.0024                | 0.05±0.02        | 3.05±0.15                | 10.2  |
| <i>f</i> <sub>75</sub>                 | 0.1158±0.0024                | 0.05±0.02        | 2.03±0.15                | 10.0  |
| <i>f</i> <sub>76</sub>                 | 1.0348±0.0025                | 0.05±0.02        | -1.30±0.15               | 9.6   |
| <i>f</i> <sub>77</sub>                 | 1.0680±0.0025                | 0.05±0.02        | 2.48±0.15                | 9.5   |
| <i>f</i> <sub>78</sub>                 | 0.1912±0.0025                | 0.05±0.02        | 1.45±0.15                | 9.5   |
| <i>f</i> <sub>79</sub>                 | 0.2853±0.0025                | 0.05±0.02        | 0.31±0.15                | 9.5   |
| <i>f</i> <sub>80</sub>                 | 0.9667±0.0025                | 0.05±0.02        | 2.85±0.15                | 9.2   |
| <i>f</i> <sub>81</sub>                 | 0.9600±0.0025                | 0.05±0.02        | -2.69±0.15               | 9.1   |
| <i>f</i> <sub>82</sub>                 | 0.6396±0.0026                | 0.05±0.02        | -3.13±0.16               | 8.9   |
| <i>f</i> <sub>85</sub>                 | 0.2360±0.0027                | 0.05±0.02        | 0.52±0.16                | 8.2   |
| <i>f</i> <sub>86</sub>                 | 4.7006±0.0027                | 0.05±0.02        | -1.03±0.17               | 7.9   |
| <i>f</i> <sub>87</sub>                 | 0.5052±0.0028                | 0.05±0.02        | 0.66±0.17                | 7.6   |
| <i>f</i> <sub>88</sub>                 | 0.8598±0.0028                | 0.04±0.01        | -1.62±0.17               | 7.5   |
| <i>f</i> <sub>89</sub>                 | 0.8233±0.0028                | 0.04±0.01        | 1.00±0.17                | 7.6   |
| <i>f</i> <sub>90</sub>                 | 0.5937±0.0028                | 0.04±0.01        | 0.32±0.17                | 7.5   |
| <i>f</i> <sub>91</sub>                 | 7.7964±0.0028                | 0.04±0.01        | -1.46±0.17               | 7.7   |
| <i>f</i> <sub>92</sub>                 | 5.5741±0.0028                | 0.04±0.01        | 1.16±0.17                | 7.5   |
| <i>f</i> <sub>93</sub>                 | 4.9006±0.0028                | 0.04±0.01        | 2.79±0.17                | 7.4   |
| <i>f</i> <sub>94</sub>                 | 6.9131±0.0029                | 0.04±0.02        | 0.17±0.18                | 6.9   |
| <i>f</i> <sub>95</sub>                 | 0.4124±0.0029                | 0.04±0.02        | 0.36±0.18                | 6.8   |
| <i>f</i> <sub>98</sub>                 | 8.5115±0.0030                | 0.04±0.02        | 0.35±0.18                | 6.6   |
| <i>f</i> <sub>99</sub>                 | 0.4346±0.0030                | 0.04±0.02        | 1.76±0.18                | 6.6   |
| <i>f</i> <sub>100</sub>                | 1.0208±0.0030                | 0.04±0.02        | 1.64±0.18                | 6.5   |
| <i>f</i> <sub>101</sub>                | 0.5445±0.0031                | 0.04±0.02        | -2.64±0.19               | 6.2   |
| <i>f</i> <sub>103</sub>                | 2.0484±0.0031                | 0.04±0.02        | -0.64±0.19               | 6.2   |
| <i>f</i> <sub>104</sub>                | 2.1731±0.0030                | 0.04±0.02        | -1.60±0.19               | 6.3   |
| <i>f</i> <sub>105</sub>                | 6.2629±0.0030                | 0.04±0.02        | 0.13±0.19                | 6.3   |
| <i>f</i> <sub>106</sub>                | 0.9379±0.0031                | 0.04±0.02        | -0.65±0.19               | 6.0   |

**Table E.20:** Frequency list of 0102651182

| Frequency ID           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|------------------------|------------------------------|------------------|--------------------------|-------|
| <i>f</i> <sub>1</sub>  | 0.1521±0.0003                | 0.96±0.03        | -2.15±0.02               | 863.2 |
| <i>f</i> <sub>3</sub>  | 17.5236±0.0007               | 0.28±0.03        | 0.87±0.04                | 109.9 |
| <i>f</i> <sub>4</sub>  | 24.0559±0.0008               | 0.25±0.03        | 0.78±0.05                | 96.2  |
| <i>f</i> <sub>5</sub>  | 0.3087±0.0008                | 0.20±0.02        | -0.38±0.05               | 83.6  |
| <i>f</i> <sub>9</sub>  | 0.6766±0.0010                | 0.18±0.02        | -1.68±0.06               | 57.6  |
| <i>f</i> <sub>10</sub> | 0.1299±0.0011                | 0.19±0.03        | -3.04±0.07               | 48.5  |
| <i>f</i> <sub>11</sub> | 26.6166±0.0011               | 0.17±0.02        | 3.09±0.07                | 49.8  |
| <i>f</i> <sub>12</sub> | 0.2985±0.0012                | 0.17±0.03        | -2.90±0.07               | 43.0  |
| <i>f</i> <sub>13</sub> | 27.0033±0.0012               | 0.15±0.02        | -3.14±0.07               | 43.3  |
| <i>f</i> <sub>15</sub> | 0.1450±0.0012                | 0.15±0.02        | -1.99±0.07               | 40.5  |
| <i>f</i> <sub>17</sub> | 20.8446±0.0012               | 0.14±0.02        | -0.40±0.07               | 39.2  |
| <i>f</i> <sub>19</sub> | 4.1379±0.0013                | 0.13±0.02        | 1.74±0.08                | 33.3  |
| <i>f</i> <sub>20</sub> | 21.5773±0.0014               | 0.12±0.02        | 2.98±0.09                | 28.4  |
| <i>f</i> <sub>21</sub> | 0.1124±0.0014                | 0.12±0.02        | -2.40±0.09               | 28.2  |
| <i>f</i> <sub>22</sub> | 0.1839±0.0015                | 0.11±0.02        | 1.93±0.09                | 26.6  |
| <i>f</i> <sub>24</sub> | 32.0853±0.0015               | 0.11±0.02        | 1.17±0.09                | 25.0  |
| <i>f</i> <sub>25</sub> | 0.1369±0.0015                | 0.12±0.02        | -2.42±0.09               | 24.5  |
| <i>f</i> <sub>27</sub> | 22.6005±0.0016               | 0.10±0.02        | 1.28±0.10                | 21.9  |
| <i>f</i> <sub>32</sub> | 20.4060±0.0018               | 0.09±0.02        | 1.28±0.11                | 17.1  |
| <i>f</i> <sub>33</sub> | 55.8617±0.0019               | 0.09±0.02        | -0.66±0.11               | 16.6  |
| <i>f</i> <sub>36</sub> | 0.2807±0.0019                | 0.09±0.02        | 0.00±0.11                | 16.8  |

Frequency list of 0102651182 continued

| Frequency list of 0102651182 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| <i>f</i> <sub>37</sub>                 | 0.2360±0.0019                | 0.08±0.02        | 2.91±0.11                | 16.7  |
| <i>f</i> <sub>38</sub>                 | 2.9809±0.0019                | 0.08±0.02        | -2.88±0.12               | 16.3  |
| <i>f</i> <sub>39</sub>                 | 20.4478±0.0019               | 0.09±0.02        | 1.80±0.12                | 16.3  |
| <i>f</i> <sub>41</sub>                 | 29.5098±0.0020               | 0.08±0.02        | -2.64±0.12               | 14.3  |
| <i>f</i> <sub>43</sub>                 | 21.9238±0.0021               | 0.08±0.02        | 0.42±0.13                | 13.8  |
| <i>f</i> <sub>46</sub>                 | 0.1917±0.0022                | 0.07±0.02        | -2.47±0.13               | 12.3  |
| <i>f</i> <sub>47</sub>                 | 24.2970±0.0022               | 0.07±0.02        | -0.52±0.13               | 12.1  |
| <i>f</i> <sub>50</sub>                 | 0.4829±0.0023                | 0.07±0.02        | -0.61±0.14               | 10.9  |
| <i>f</i> <sub>51</sub>                 | 43.0040±0.0023               | 0.08±0.02        | -2.86±0.14               | 10.8  |
| <i>f</i> <sub>52</sub>                 | 3.4286±0.0023                | 0.07±0.02        | -1.75±0.14               | 10.8  |
| <i>f</i> <sub>53</sub>                 | 6.7375±0.0023                | 0.07±0.02        | 0.09±0.14                | 10.6  |
| <i>f</i> <sub>54</sub>                 | 0.2512±0.0024                | 0.06±0.02        | 0.72±0.15                | 10.2  |
| <i>f</i> <sub>55</sub>                 | 0.4597±0.0024                | 0.06±0.02        | 2.27±0.14                | 10.5  |
| <i>f</i> <sub>56</sub>                 | 0.3310±0.0024                | 0.07±0.02        | 0.47±0.15                | 10.3  |
| <i>f</i> <sub>57</sub>                 | 21.5654±0.0024               | 0.06±0.02        | -0.83±0.15               | 9.9   |
| <i>f</i> <sub>59</sub>                 | 24.1181±0.0024               | 0.06±0.02        | -2.32±0.15               | 9.8   |
| <i>f</i> <sub>62</sub>                 | 13.9954±0.0025               | 0.06±0.02        | -1.71±0.15               | 9.4   |
| <i>f</i> <sub>63</sub>                 | 0.1597±0.0025                | 0.06±0.02        | -2.28±0.15               | 9.1   |
| <i>f</i> <sub>65</sub>                 | 11.1987±0.0026               | 0.06±0.02        | 0.41±0.16                | 8.6   |
| <i>f</i> <sub>70</sub>                 | 0.4503±0.0027                | 0.06±0.02        | 1.48±0.17                | 7.9   |
| <i>f</i> <sub>71</sub>                 | 27.0333±0.0028               | 0.06±0.02        | 2.04±0.17                | 7.5   |
| <i>f</i> <sub>72</sub>                 | 55.8528±0.0028               | 0.06±0.02        | 0.37±0.17                | 7.4   |
| <i>f</i> <sub>73</sub>                 | 0.2257±0.0028                | 0.06±0.02        | -0.31±0.17               | 7.2   |
| <i>f</i> <sub>75</sub>                 | 34.8631±0.0029               | 0.05±0.02        | -0.17±0.18               | 7.0   |
| <i>f</i> <sub>76</sub>                 | 0.7455±0.0029                | 0.05±0.02        | 0.40±0.17                | 7.1   |
| <i>f</i> <sub>77</sub>                 | 5.7645±0.0029                | 0.05±0.02        | 2.32±0.18                | 7.0   |
| <i>f</i> <sub>78</sub>                 | 21.9911±0.0029               | 0.05±0.02        | -2.96±0.18               | 6.9   |
| <i>f</i> <sub>79</sub>                 | 0.2033±0.0029                | 0.06±0.02        | -1.41±0.18               | 6.8   |
| <i>f</i> <sub>80</sub>                 | 1.1542±0.0029                | 0.05±0.02        | -0.41±0.18               | 6.9   |
| <i>f</i> <sub>81</sub>                 | 0.5689±0.0029                | 0.05±0.02        | 1.26±0.18                | 6.8   |
| <i>f</i> <sub>82</sub>                 | 11.1229±0.0029               | 0.05±0.02        | 1.65±0.18                | 6.8   |
| <i>f</i> <sub>83</sub>                 | 5.4321±0.0029                | 0.05±0.02        | 2.18±0.18                | 6.7   |
| <i>f</i> <sub>84</sub>                 | 17.7242±0.0030               | 0.05±0.02        | 1.59±0.18                | 6.6   |
| <i>f</i> <sub>85</sub>                 | 27.9214±0.0030               | 0.05±0.02        | -1.13±0.18               | 6.6   |
| <i>f</i> <sub>86</sub>                 | 43.0100±0.0030               | 0.05±0.02        | -2.78±0.18               | 6.6   |
| <i>f</i> <sub>88</sub>                 | 41.9370±0.0030               | 0.05±0.02        | 2.07±0.18                | 6.4   |
| <i>f</i> <sub>89</sub>                 | 2.0063±0.0030                | 0.05±0.02        | 2.69±0.18                | 6.4   |
| <i>f</i> <sub>90</sub>                 | 0.6942±0.0030                | 0.05±0.02        | 2.53±0.18                | 6.4   |
| <i>f</i> <sub>91</sub>                 | 46.5317±0.0031               | 0.05±0.02        | 2.78±0.19                | 6.0   |
| <i>f</i> <sub>92</sub>                 | 18.4231±0.0031               | 0.05±0.02        | -1.12±0.19               | 6.1   |

**Table E.21:** Frequency list of 0102660478

| Frequency ID           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|------------------------|------------------------------|------------------|--------------------------|-------|
| <i>f</i> <sub>1</sub>  | 4.4471±0.0002                | 2.87±0.09        | -3.03±0.02               | 959.4 |
| <i>f</i> <sub>2</sub>  | 5.4635±0.0002                | 2.53±0.08        | 0.86±0.01                | 999.0 |
| <i>f</i> <sub>3</sub>  | 0.9731±0.0004                | 1.36±0.07        | -2.38±0.02               | 385.2 |
| <i>f</i> <sub>4</sub>  | 1.9603±0.0007                | 0.68±0.06        | -0.37±0.04               | 135.3 |
| <i>f</i> <sub>5</sub>  | 0.5397±0.0007                | 0.73±0.07        | -1.84±0.04               | 122.3 |
| <i>f</i> <sub>6</sub>  | 6.4723±0.0007                | 0.71±0.07        | -0.20±0.04               | 118.6 |
| <i>f</i> <sub>7</sub>  | 1.6267±0.0007                | 0.69±0.06        | -1.25±0.04               | 119.6 |
| <i>f</i> <sub>8</sub>  | 0.9429±0.0007                | 0.55±0.05        | -0.47±0.04               | 111.2 |
| <i>f</i> <sub>9</sub>  | 6.4062±0.0007                | 0.65±0.06        | 1.57±0.04                | 108.7 |
| <i>f</i> <sub>10</sub> | 0.3846±0.0008                | 0.60±0.06        | -2.44±0.05               | 99.2  |
| <i>f</i> <sub>11</sub> | 4.6175±0.0009                | 0.50±0.06        | 2.17±0.05                | 72.4  |
| <i>f</i> <sub>12</sub> | 4.7937±0.0010                | 0.46±0.06        | -1.41±0.06               | 63.3  |
| <i>f</i> <sub>13</sub> | 3.7045±0.0010                | 0.45±0.06        | 3.00±0.06                | 61.7  |
| <i>f</i> <sub>14</sub> | 7.3655±0.0010                | 0.44±0.06        | 1.29±0.06                | 61.5  |
| <i>f</i> <sub>15</sub> | 1.8873±0.0010                | 0.47±0.06        | -1.56±0.06               | 62.2  |
| <i>f</i> <sub>16</sub> | 4.4998±0.0010                | 0.45±0.06        | -2.37±0.06               | 63.9  |
| <i>f</i> <sub>17</sub> | 0.9330±0.0010                | 0.43±0.05        | -2.84±0.06               | 64.2  |
| <i>f</i> <sub>19</sub> | 1.0725±0.0010                | 0.42±0.05        | -2.03±0.06               | 60.6  |
| <i>f</i> <sub>20</sub> | 1.9501±0.0010                | 0.42±0.05        | -2.49±0.06               | 59.8  |
| <i>f</i> <sub>21</sub> | 0.9583±0.0010                | 0.37±0.05        | -0.64±0.06               | 58.1  |
| <i>f</i> <sub>22</sub> | 4.6438±0.0010                | 0.41±0.05        | 1.82±0.06                | 59.5  |
| <i>f</i> <sub>23</sub> | 3.6540±0.0011                | 0.38±0.06        | 1.51±0.07                | 47.7  |
| <i>f</i> <sub>24</sub> | 2.7695±0.0011                | 0.37±0.05        | 1.31±0.07                | 45.3  |
| <i>f</i> <sub>25</sub> | 2.8599±0.0011                | 0.36±0.05        | 0.35±0.07                | 47.6  |
| <i>f</i> <sub>26</sub> | 2.3053±0.0011                | 0.36±0.05        | -0.68±0.07               | 47.1  |
| <i>f</i> <sub>27</sub> | 3.5041±0.0011                | 0.36±0.05        | 1.60±0.07                | 45.6  |
| <i>f</i> <sub>28</sub> | 17.7027±0.0012               | 0.33±0.05        | -2.31±0.07               | 41.5  |
| <i>f</i> <sub>29</sub> | 3.8619±0.0012                | 0.33±0.05        | -0.76±0.07               | 41.4  |
| <i>f</i> <sub>30</sub> | 2.0508±0.0012                | 0.34±0.05        | 0.64±0.07                | 41.1  |
| <i>f</i> <sub>31</sub> | 7.3366±0.0012                | 0.32±0.05        | 2.41±0.07                | 39.6  |
| <i>f</i> <sub>32</sub> | 1.0097±0.0012                | 0.37±0.06        | -1.90±0.07               | 38.9  |
| <i>f</i> <sub>33</sub> | 0.9889±0.0011                | 0.35±0.05        | 2.82±0.07                | 49.1  |

Frequency list of 0102660478 continued

| Frequency list of 0102660478 continued |                              |                  |                          |       | Frequency list of 0102660478 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| f <sub>34</sub>                        | 0.8922±0.0012                | 0.31±0.05        | 0.62±0.08                | 37.9  | f <sub>136</sub>                       | 4.5258±0.0026                | 0.12±0.04        | -1.78±0.16               | 8.7   |
| f <sub>35</sub>                        | 3.6896±0.0012                | 0.31±0.05        | -0.33±0.08               | 38.3  | f <sub>137</sub>                       | 55.8621±0.0026               | 0.12±0.04        | 1.43±0.16                | 8.5   |
| f <sub>36</sub>                        | 5.4582±0.0013                | 0.31±0.05        | 0.09±0.08                | 35.7  | f <sub>138</sub>                       | 2.0149±0.0026                | 0.12±0.04        | 0.23±0.16                | 8.7   |
| f <sub>37</sub>                        | 2.0058±0.0013                | 0.29±0.05        | -0.29±0.08               | 35.7  | f <sub>139</sub>                       | 1.1075±0.0026                | 0.12±0.04        | 2.78±0.16                | 8.5   |
| f <sub>38</sub>                        | 0.9653±0.0013                | 0.29±0.05        | 0.41±0.08                | 35.2  | f <sub>140</sub>                       | 1.8166±0.0026                | 0.11±0.04        | -2.37±0.16               | 8.3   |
| f <sub>39</sub>                        | 1.3504±0.0013                | 0.28±0.05        | -0.38±0.08               | 34.1  | f <sub>142</sub>                       | 4.6928±0.0027                | 0.11±0.04        | 0.30±0.16                | 8.1   |
| f <sub>40</sub>                        | 4.5395±0.0013                | 0.28±0.05        | -0.93±0.08               | 34.5  | f <sub>143</sub>                       | 2.0049±0.0027                | 0.11±0.04        | 3.04±0.17                | 7.9   |
| f <sub>41</sub>                        | 5.5278±0.0013                | 0.28±0.05        | 2.09±0.08                | 34.7  | f <sub>144</sub>                       | 1.7478±0.0027                | 0.11±0.04        | 1.89±0.17                | 7.9   |
| f <sub>42</sub>                        | 5.4081±0.0013                | 0.28±0.05        | 2.73±0.08                | 33.8  | f <sub>145</sub>                       | 2.9386±0.0027                | 0.11±0.04        | -1.24±0.16               | 8.0   |
| f <sub>44</sub>                        | 0.7771±0.0014                | 0.26±0.05        | -2.29±0.08               | 30.1  | f <sub>146</sub>                       | 3.6704±0.0027                | 0.11±0.04        | 3.12±0.17                | 7.8   |
| f <sub>47</sub>                        | 1.9655±0.0014                | 0.25±0.05        | 2.60±0.09                | 28.1  | f <sub>147</sub>                       | 0.9833±0.0028                | 0.11±0.04        | 0.56±0.17                | 7.7   |
| f <sub>48</sub>                        | 1.8564±0.0014                | 0.25±0.05        | -1.98±0.09               | 29.0  | f <sub>149</sub>                       | 6.3738±0.0028                | 0.11±0.04        | -2.88±0.17               | 7.7   |
| f <sub>49</sub>                        | 1.8661±0.0013                | 0.27±0.05        | 1.03±0.08                | 34.0  | f <sub>150</sub>                       | 3.6300±0.0027                | 0.11±0.04        | -2.75±0.17               | 7.9   |
| f <sub>50</sub>                        | 2.9774±0.0014                | 0.25±0.05        | -0.19±0.09               | 28.8  | f <sub>151</sub>                       | 2.2167±0.0028                | 0.11±0.04        | -1.63±0.17               | 7.7   |
| f <sub>51</sub>                        | 0.2322±0.0014                | 0.25±0.05        | -2.42±0.09               | 28.7  | f <sub>152</sub>                       | 3.8057±0.0028                | 0.11±0.04        | -2.27±0.17               | 7.6   |
| f <sub>52</sub>                        | 1.9252±0.0014                | 0.25±0.05        | -2.69±0.09               | 28.5  | f <sub>153</sub>                       | 1.3368±0.0028                | 0.11±0.04        | -2.89±0.17               | 7.3   |
| f <sub>53</sub>                        | 0.1419±0.0014                | 0.25±0.05        | -0.75±0.09               | 29.2  | f <sub>154</sub>                       | 5.5190±0.0028                | 0.10±0.04        | -2.05±0.17               | 7.3   |
| f <sub>55</sub>                        | 2.9469±0.0014                | 0.24±0.05        | -2.30±0.09               | 28.4  | f <sub>155</sub>                       | 4.0736±0.0028                | 0.11±0.04        | 1.27±0.17                | 7.3   |
| f <sub>56</sub>                        | 3.7570±0.0014                | 0.24±0.05        | 0.32±0.09                | 28.3  | f <sub>156</sub>                       | 0.4511±0.0029                | 0.10±0.04        | 1.98±0.17                | 7.1   |
| f <sub>57</sub>                        | 0.5138±0.0016                | 0.21±0.04        | -2.30±0.10               | 22.5  | f <sub>157</sub>                       | 3.2222±0.0029                | 0.10±0.04        | -0.31±0.18               | 7.0   |
| f <sub>58</sub>                        | 4.5121±0.0016                | 0.21±0.04        | 1.00±0.10                | 22.6  | f <sub>158</sub>                       | 2.8856±0.0029                | 0.10±0.04        | 1.61±0.18                | 7.0   |
| f <sub>59</sub>                        | 4.5977±0.0016                | 0.22±0.05        | -0.21±0.10               | 23.3  | f <sub>159</sub>                       | 4.5659±0.0028                | 0.10±0.04        | 2.93±0.17                | 7.2   |
| f <sub>62</sub>                        | 0.1670±0.0017                | 0.20±0.04        | 1.39±0.10                | 20.5  | f <sub>160</sub>                       | 4.5053±0.0029                | 0.10±0.04        | 1.05±0.18                | 7.0   |
| f <sub>63</sub>                        | 0.1590±0.0018                | 0.19±0.04        | -1.52±0.11               | 18.9  | f <sub>161</sub>                       | 4.6242±0.0028                | 0.11±0.04        | -0.30±0.17               | 7.4   |
| f <sub>64</sub>                        | 7.3130±0.0018                | 0.19±0.04        | 0.65±0.11                | 18.6  | f <sub>163</sub>                       | 0.9196±0.0029                | 0.10±0.04        | -1.18±0.18               | 6.7   |
| f <sub>66</sub>                        | 0.9066±0.0018                | 0.18±0.04        | -1.08±0.11               | 17.5  | f <sub>164</sub>                       | 0.3380±0.0030                | 0.10±0.04        | 1.22±0.19                | 6.3   |
| f <sub>67</sub>                        | 2.7121±0.0019                | 0.18±0.04        | 1.70±0.11                | 16.7  | f <sub>165</sub>                       | 7.5622±0.0030                | 0.10±0.04        | -0.09±0.19               | 6.3   |
| f <sub>68</sub>                        | 2.0259±0.0019                | 0.18±0.04        | -2.12±0.11               | 16.8  | f <sub>166</sub>                       | 3.6985±0.0030                | 0.10±0.04        | 2.08±0.19                | 6.3   |
| f <sub>71</sub>                        | 9.2361±0.0019                | 0.17±0.04        | -0.82±0.12               |       |                                        |                              |                  |                          |       |

## Appendix E. Frequencies of individual Hybrid Candidate Stars

| Frequency list of 0102662560 continued |                              |                  |                          |       | Frequency list of 0102669191 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{41}$                               | 15.0596±0.0024               | 0.07±0.02        | 2.66±0.15                | 10.1  | $f_{13}$                               | 2.0897±0.0007                | 0.30±0.03        | -1.46±0.04               | 107.8 |
| $f_{42}$                               | 24.2946±0.0024               | 0.08±0.03        | -0.96±0.15               | 10.1  | $f_{14}$                               | 1.0487±0.0009                | 0.31±0.04        | -2.85±0.05               | 74.8  |
| $f_{43}$                               | 1.3006±0.0025                | 0.07±0.02        | -0.84±0.15               | 9.7   | $f_{15}$                               | 2.0681±0.0009                | 0.22±0.03        | -2.24±0.06               | 65.6  |
| $f_{44}$                               | 1.0302±0.0025                | 0.07±0.02        | 0.65±0.15                | 9.5   | $f_{16}$                               | 4.9119±0.0010                | 0.24±0.03        | 2.41±0.06                | 56.6  |
| $f_{45}$                               | 0.5552±0.0025                | 0.08±0.03        | -0.41±0.15               | 9.3   | $f_{17}$                               | 2.1850±0.0010                | 0.24±0.03        | 1.88±0.06                | 53.3  |
| $f_{46}$                               | 1.8536±0.0025                | 0.08±0.03        | 2.74±0.15                | 9.4   | $f_{18}$                               | 2.1735±0.0010                | 0.24±0.03        | -1.22±0.06               | 61.3  |
| $f_{47}$                               | 1.8325±0.0024                | 0.08±0.03        | 3.10±0.15                | 10.0  | $f_{19}$                               | 5.5571±0.0011                | 0.21±0.03        | -2.73±0.06               | 52.2  |
| $f_{48}$                               | 5.7898±0.0025                | 0.07±0.02        | -0.74±0.15               | 9.4   | $f_{20}$                               | 5.7449±0.0011                | 0.22±0.03        | 2.13±0.07                | 50.6  |
| $f_{49}$                               | 0.2346±0.0025                | 0.07±0.02        | 2.54±0.15                | 9.3   | $f_{21}$                               | 8.4924±0.0011                | 0.21±0.03        | 1.75±0.06                | 51.6  |
| $f_{50}$                               | 0.6467±0.0025                | 0.07±0.02        | -0.86±0.16               | 9.0   | $f_{22}$                               | 1.0311±0.0012                | 0.19±0.03        | -1.37±0.08               | 37.9  |
| $f_{51}$                               | 1.3450±0.0025                | 0.07±0.02        | 0.50±0.15                | 9.2   | $f_{23}$                               | 11.4887±0.0012               | 0.17±0.03        | -0.33±0.08               | 37.3  |
| $f_{52}$                               | 3.3829±0.0026                | 0.07±0.02        | 2.54±0.16                | 8.8   | $f_{24}$                               | 3.1247±0.0013                | 0.16±0.03        | -1.00±0.08               | 36.8  |
| $f_{53}$                               | 3.6211±0.0026                | 0.07±0.02        | 1.68±0.16                | 8.9   | $f_{25}$                               | 6.6996±0.0013                | 0.16±0.03        | -1.65±0.08               | 32.8  |
| $f_{54}$                               | 0.1562±0.0026                | 0.09±0.03        | 2.31±0.16                | 8.7   | $f_{26}$                               | 3.1321±0.0013                | 0.14±0.02        | 0.03±0.08                | 33.0  |
| $f_{57}$                               | 22.1286±0.0026               | 0.07±0.02        | -2.32±0.16               | 8.4   | $f_{27}$                               | 1.0800±0.0014                | 0.13±0.02        | 2.56±0.08                | 31.4  |
| $f_{58}$                               | 4.1857±0.0027                | 0.06±0.02        | 0.63±0.16                | 8.2   | $f_{29}$                               | 0.1185±0.0014                | 0.16±0.03        | -2.20±0.08               | 31.0  |
| $f_{59}$                               | 1.3162±0.0027                | 0.07±0.02        | -3.02±0.16               | 8.2   | $f_{30}$                               | 5.2993±0.0014                | 0.16±0.03        | -1.70±0.09               | 29.6  |
| $f_{60}$                               | 2.3367±0.0027                | 0.07±0.02        | 0.02±0.16                | 8.2   | $f_{31}$                               | 20.3153±0.0016               | 0.13±0.03        | 1.51±0.10                | 23.8  |
| $f_{61}$                               | 0.1371±0.0027                | 0.07±0.02        | 0.89±0.16                | 8.0   | $f_{32}$                               | 8.6752±0.0016                | 0.15±0.03        | -1.65±0.10               | 23.4  |
| $f_{62}$                               | 1.1396±0.0027                | 0.06±0.02        | -2.81±0.17               | 7.9   | $f_{33}$                               | 9.2172±0.0016                | 0.13±0.03        | -1.37±0.10               | 23.4  |
| $f_{63}$                               | 0.2895±0.0027                | 0.07±0.02        | 0.84±0.17                | 7.9   | $f_{34}$                               | 10.7526±0.0016               | 0.12±0.03        | 0.48±0.10                | 22.7  |
| $f_{64}$                               | 0.4658±0.0028                | 0.07±0.03        | -1.62±0.17               | 7.7   | $f_{35}$                               | 0.1596±0.0016                | 0.12±0.03        | -0.84±0.10               | 22.2  |
| $f_{65}$                               | 2.4950±0.0028                | 0.06±0.02        | 1.83±0.17                | 7.5   | $f_{36}$                               | 9.0875±0.0016                | 0.13±0.03        | -0.72±0.10               | 22.3  |
| $f_{66}$                               | 2.6805±0.0027                | 0.06±0.02        | 1.62±0.17                | 7.8   | $f_{37}$                               | 3.2814±0.0016                | 0.13±0.03        | -1.31±0.10               | 22.7  |
| $f_{67}$                               | 2.0797±0.0028                | 0.06±0.02        | 0.17±0.17                | 7.6   | $f_{38}$                               | 24.2548±0.0016               | 0.13±0.03        | -1.50±0.10               | 21.7  |
| $f_{68}$                               | 1.9285±0.0028                | 0.07±0.03        | -2.29±0.17               | 7.3   | $f_{39}$                               | 4.1606±0.0017                | 0.12±0.03        | 3.12±0.10                | 21.1  |
| $f_{69}$                               | 16.1819±0.0028               | 0.06±0.02        | 1.40±0.17                | 7.2   | $f_{40}$                               | 2.0796±0.0017                | 0.14±0.03        | -2.77±0.10               | 21.4  |
| $f_{70}$                               | 1.5412±0.0028                | 0.06±0.02        | -2.93±0.17               | 7.3   | $f_{41}$                               | 5.2034±0.0017                | 0.12±0.03        | 2.33±0.10                | 20.0  |
| $f_{71}$                               | 0.7430±0.0029                | 0.06±0.02        | -1.59±0.17               | 7.1   | $f_{42}$                               | 8.6628±0.0017                | 0.13±0.03        | 1.97±0.11                | 19.2  |
| $f_{72}$                               | 1.6643±0.0029                | 0.06±0.02        | 0.36±0.17                | 7.1   | $f_{43}$                               | 11.1168±0.0017               | 0.11±0.02        | 1.44±0.10                | 19.8  |
| $f_{73}$                               | 15.0222±0.0029               | 0.06±0.02        | -0.98±0.17               | 7.1   | $f_{44}$                               | 0.3013±0.0018                | 0.11±0.03        | 1.06±0.11                | 18.5  |
| $f_{74}$                               | 0.4376±0.0029                | 0.06±0.02        | -1.08±0.18               | 7.0   | $f_{45}$                               | 0.9486±0.0018                | 0.12±0.03        | 2.30±0.11                | 18.3  |
| $f_{75}$                               | 0.2051±0.0029                | 0.07±0.03        | -1.31±0.18               | 6.7   | $f_{46}$                               | 6.6512±0.0018                | 0.12±0.03        | 1.58±0.11                | 18.5  |
| $f_{76}$                               | 0.9189±0.0029                | 0.06±0.02        | -1.13±0.18               | 6.7   | $f_{48}$                               | 0.1109±0.0018                | 0.10±0.02        | 0.08±0.11                | 17.9  |
| $f_{77}$                               | 4.3906±0.0030                | 0.06±0.02        | -0.08±0.18               | 6.6   | $f_{49}$                               | 2.1921±0.0018                | 0.10±0.02        | -1.19±0.11               | 17.8  |
| $f_{78}$                               | 6.1359±0.0029                | 0.06±0.02        | 2.74±0.18                | 6.8   | $f_{50}$                               | 8.1612±0.0018                | 0.12±0.03        | -0.81±0.11               | 17.6  |
| $f_{80}$                               | 2.4546±0.0030                | 0.06±0.02        | 2.07±0.18                | 6.6   | $f_{51}$                               | 9.0361±0.0019                | 0.11±0.03        | -3.00±0.11               | 16.7  |
| $f_{81}$                               | 0.5646±0.0030                | 0.06±0.02        | -1.94±0.18               | 6.4   | $f_{52}$                               | 3.1123±0.0019                | 0.10±0.03        | 0.94±0.12                | 16.0  |
| $f_{82}$                               | 3.5677±0.0030                | 0.06±0.02        | -1.30±0.18               | 6.4   | $f_{53}$                               | 7.5089±0.0019                | 0.10±0.03        | 0.16±0.12                | 15.8  |
| $f_{83}$                               | 19.9249±0.0030               | 0.06±0.02        | 2.12±0.18                | 6.6   | $f_{54}$                               | 9.2886±0.0019                | 0.10±0.03        | 1.36±0.12                | 15.4  |
| $f_{84}$                               | 5.0460±0.0030                | 0.06±0.02        | -1.76±0.18               | 6.5   | $f_{55}$                               | 0.1410±0.0020                | 0.11±0.03        | -0.41±0.12               | 15.2  |
| $f_{85}$                               | 2.5013±0.0031                | 0.06±0.02        | 2.79±0.19                | 6.2   | $f_{56}$                               | 3.3693±0.0019                | 0.10±0.03        | 2.75±0.12                | 15.5  |
| $f_{86}$                               | 2.5427±0.0031                | 0.05±0.02        | -0.33±0.19               | 6.0   | $f_{57}$                               | 10.3857±0.0020               | 0.10±0.03        | -1.98±0.12               | 14.3  |
| $f_{87}$                               | 1.6156±0.0031                | 0.05±0.02        | -3.12±0.19               | 6.2   | $f_{58}$                               | 1.0916±0.0020                | 0.10±0.03        | -1.91±0.12               | 14.0  |
| $f_{88}$                               | 3.8752±0.0031                | 0.06±0.02        | 3.10±0.19                | 5.9   | $f_{59}$                               | 8.6539±0.0020                | 0.10±0.03        | 1.33±0.12                | 14.3  |
| $f_{89}$                               | 3.9021±0.0030                | 0.06±0.02        | -0.81±0.18               | 6.4   | $f_{60}$                               | 20.9454±0.0020               | 0.09±0.02        | 0.42±0.12                | 13.9  |
| $f_{90}$                               | 0.1025±0.0032                | 0.06±0.02        | 1.69±0.19                | 5.8   | $f_{61}$                               | 4.0660±0.0021                | 0.08±0.02        | -1.29±0.13               | 13.5  |
| $f_{91}$                               | 0.4052±0.0032                | 0.05±0.02        | 2.97±0.19                | 5.8   | $f_{62}$                               | 7.0642±0.0020                | 0.09±0.02        | -2.92±0.12               | 13.9  |
| $f_{92}$                               | 4.2435±0.0032                | 0.06±0.02        | -2.96±0.19               | 5.8   | $f_{63}$                               | 0.8988±0.0021                | 0.09±0.02        | -1.82±0.13               | 13.7  |
| $f_{93}$                               | 2.2041±0.0032                | 0.06±0.03        | 1.18±0.20                | 5.7   | $f_{64}$                               | 19.8510±0.0021               | 0.09±0.02        | 1.37±0.13                | 13.4  |
| $f_{94}$                               | 2.2621±0.0031                | 0.06±0.02        | -1.48±0.19               | 6.0   | $f_{65}$                               | 0.2163±0.0021                | 0.08±0.02        | -0.50±0.13               | 13.1  |
| $f_{95}$                               | 1.7370±0.0032                | 0.06±0.03        | 1.70±0.20                | 5.7   | $f_{66}$                               | 2.1660±0.0021                | 0.09±0.02        | -0.34±0.13               | 13.4  |
| $f_{96}$                               | 1.7024±0.0031                | 0.06±0.02        | -1.97±0.19               | 6.2   | $f_{67}$                               | 1.0054±0.0021                | 0.10±0.03        | -0.78±0.13               | 13.6  |
| $f_{97}$                               | 0.5201±0.0031                | 0.06±0.02        | 1.03±0.19                | 6.1   | $f_{68}$                               | 1.0427±0.0021                | 0.08±0.02        | -2.67±0.13               | 13.1  |
| $f_{98}$                               | 1.7535±0.0032                | 0.05±0.02        | -1.73±0.20               | 5.6   | $f_{69}$                               | 6.1769±0.0022                | 0.09±0.03        | -2.86±0.13               | 12.5  |
| $f_{99}$                               | 2.6402±0.0032                | 0.05±0.02        | 1.91±0.20                | 5.7   | $f_{70}$                               | 3.0551±0.0022                | 0.09±0.03        | -0.76±0.13               | 12.6  |
| $f_{100}$                              | 1.0888±0.0031                | 0.06±0.02        | -2.17±0.19               | 5.9   | $f_{71}$                               | 2.9709±0.0022                | 0.09±0.03        | 0.84±0.13                | 12.6  |
| $f_{101}$                              | 4.8324±0.0033                | 0.05±0.02        | 2.41±0.20                | 5.5   | $f_{72}$                               | 12.4147±0.0022               | 0.09±0.03        | 2.98±0.13                | 12.5  |
| $f_{102}$                              | 13.3850±0.0032               | 0.05±0.02        | 1.79±0.20                | 5.7   | $f_{73}$                               | 10.0678±0.0022               | 0.10±0.03        | 0.09±0.13                | 12.2  |
| $f_{103}$                              | 2.8071±0.0034                | 0.05±0.02        | -2.02±0.21               | 5.1   | $f_{74}$                               | 7.7444±0.0022                | 0.09±0.03        | -1.66±0.13               | 12.0  |
| $f_{104}$                              | 4.3441±0.0034                | 0.05±0.02        | 2.13±0.21                | 5.1   | $f_{75}$                               | 0.4017±0.0022                | 0.09±0.03        | 1.13±0.13                | 12.1  |
| $f_{105}$                              | 4.2020±0.0033                | 0.05±0.02        | 2.98±0.20                | 5.4   | $f_{76}$                               | 0.1514±0.0022                | 0.08±0.02        | 1.31±0.14                | 11.6  |
| $f_{106}$                              | 13.0293±0.0033               | 0.05±0.02        | -1.82±0.20               | 5.2   | $f_{77}$                               | 10.1303±0.0023               | 0.08±0.02        | -1.51±0.14               | 10.9  |
|                                        |                              |                  |                          |       | $f_{78}$                               | 1.0553±0.0023                | 0.08±0.02        | 2.46±0.14                | 10.9  |
|                                        |                              |                  |                          |       | $f_{79}$                               | 6.7407±0.0023                | 0.08±0.02        | 1.82±0.14                | 11.3  |
|                                        |                              |                  |                          |       | $f_{80}$                               | 7.4259±0.0024                | 0.08±0.02        | -0.22±0.15               | 10.3  |
|                                        |                              |                  |                          |       | $f_{81}$                               | 10.0211±0.0024               | 0.08±0.02        | -0.77±0.15               | 10.3  |
|                                        |                              |                  |                          |       | $f_{83}$                               | 1.4362±0.0025                | 0.08±0.03        | 2.41±0.15                | 9.6   |
|                                        |                              |                  |                          |       | $f_{84}$                               | 11.0581±0.0025               | 0.08±0.03        | -2.96±0.15               | 9.7   |
|                                        |                              |                  |                          |       | $f_{85}$                               | 4.1696±0.0024                | 0.08±0.03        | -2.27±0.15               | 9.8   |
|                                        |                              |                  |                          |       | $f_{86}$                               | 2.1808±0.0025                | 0.08±0.03        | 2.59±0.15                | 9.7   |
|                                        |                              |                  |                          |       | $f_{88}$                               | 8.0586±0.0025                | 0.07±0.02        | 1.28±0.15                | 9.1   |
|                                        |                              |                  |                          |       | $f_{89}$                               | 3.2163±0.0026                | 0.06±0.02        | 0.39±0.16                | 8.7   |
|                                        |                              |                  |                          |       | $f_{90}$                               | 0.1855±0.0025                | 0.08±0.03        | -2.77±0.16               | 9.0   |
|                                        |                              |                  |                          |       | $f_{92}$                               | 19.2295±0.0026               | 0.07±0.02        | -1.22±0.16               | 8.8   |
|                                        |                              |                  |                          |       | $f_{94}$                               | 11.4741±0.0026               | 0.07±0.02        | 0.88±0.16                | 8.6   |
|                                        |                              |                  |                          |       | Frequency list of 0102669191 continued |                              |                  |                          |       |
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |                                        |                              |                  |                          |       |
| $f_1$                                  | 9.8552±0.0002                | 1.79±0.06        | -0.59±0.02               | 935.0 |                                        |                              |                  |                          |       |
| $f_2$                                  | 1.0962±0.0004                | 0.71±0.04        | -0.62±0.03               | 289.6 |                                        |                              |                  |                          |       |
| $f_3$                                  | 7.1516±0.0004                | 0.89±0.05        | -0.02±0.03               | 306.5 |                                        |                              |                  |                          |       |
| $f_4$                                  | 2.0838±0.0005                | 0.64±0.04        | -2.45±0.03               | 253.1 |                                        |                              |                  |                          |       |
| $f_5$                                  | 9.0978±0.0005                | 0.76±0.05        | -0.06±0.03               | 260.7 |                                        |                              |                  |                          |       |
| $f_6$                                  | 11.4798±0.0004               | 0.71±0.04        | -2.17±0.03               | 296.7 |                                        |                              |                  |                          |       |
| $f_7$                                  | 8.0234±0.0004                | 0.68±0.04        | 1.35±0.03                | 292.7 |                                        |                              |                  |                          |       |
| $f_8$                                  | 7.2216±0.0004                | 0.70±0.04        | 2.04±0.03                | 329.8 |                                        |                              |                  |                          |       |
| $f_9$                                  | 12.0965±0.0006               | 0.46±0.04        | -1.02±0.04               | 164.0 |                                        |                              |                  |                          |       |
| $f_{10}$                               | 13.7015±0.0006               | 0.43±0.03        | -2.45±0.04               | 152.1 |                                        |                              |                  |                          |       |
| $f_{11}$                               | 18.7558±0.0006               | 0.40±0.03        | 1.29±0.04                | 149.1 |                                        |                              |                  |                          |       |
| $f_{12}$                               | 1.0854±0.0007                | 0.35±0.03        | -0.90±0.04               | 133.4 |                                        |                              |                  |                          |       |
|                                        |                              |                  |                          |       | Frequency list of 0102669191 continued |                              |                  |                          |       |



## Appendix E. Frequencies of individual Hybrid Candidate Stars

| Frequency list of 0102669191 continued |                              |                  |                          |       | Frequency list of 0102677302 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| <i>f</i> <sub>95</sub>                 | 0.6232±0.0026                | 0.07±0.02        | 2.40±0.16                | 8.3   | <i>f</i> <sub>6</sub>                  | 4.7992±0.0011                | 0.11±0.02        | -2.05±0.07               | 47.8  |
| <i>f</i> <sub>96</sub>                 | 9.5159±0.0027                | 0.07±0.02        | -1.78±0.16               | 8.0   | <i>f</i> <sub>7</sub>                  | 0.1607±0.0011                | 0.08±0.01        | -0.38±0.07               | 48.0  |
| <i>f</i> <sub>97</sub>                 | 3.1834±0.0028                | 0.07±0.03        | -0.37±0.17               | 7.7   | <i>f</i> <sub>8</sub>                  | 0.2453±0.0011                | 0.09±0.01        | 0.91±0.07                | 44.3  |
| <i>f</i> <sub>98</sub>                 | 0.7405±0.0027                | 0.07±0.02        | 0.98±0.16                | 8.0   | <i>f</i> <sub>9</sub>                  | 3.8887±0.0012                | 0.11±0.02        | 0.75±0.07                | 41.4  |
| <i>f</i> <sub>99</sub>                 | 1.0629±0.0028                | 0.07±0.03        | 2.51±0.17                | 7.7   | <i>f</i> <sub>10</sub>                 | 4.2354±0.0012                | 0.10±0.02        | -1.45±0.07               | 40.3  |
| <i>f</i> <sub>100</sub>                | 8.8613±0.0027                | 0.07±0.02        | 0.34±0.16                | 8.1   | <i>f</i> <sub>11</sub>                 | 4.1160±0.0012                | 0.10±0.02        | 2.78±0.07                | 38.9  |
| <i>f</i> <sub>101</sub>                | 4.9410±0.0028                | 0.07±0.03        | 2.45±0.17                | 7.7   | <i>f</i> <sub>12</sub>                 | 0.1190±0.0012                | 0.11±0.02        | -2.30±0.08               | 38.5  |
| <i>f</i> <sub>102</sub>                | 0.2650±0.0027                | 0.06±0.02        | -1.02±0.17               | 7.8   | <i>f</i> <sub>13</sub>                 | 0.1258±0.0013                | 0.09±0.02        | -0.17±0.08               | 32.2  |
| <i>f</i> <sub>103</sub>                | 0.9202±0.0028                | 0.07±0.03        | 2.63±0.17                | 7.4   | <i>f</i> <sub>14</sub>                 | 0.1375±0.0014                | 0.08±0.02        | -0.59±0.09               | 28.3  |
| <i>f</i> <sub>104</sub>                | 7.9365±0.0028                | 0.07±0.03        | -1.99±0.17               | 7.5   | <i>f</i> <sub>15</sub>                 | 20.4900±0.0014               | 0.08±0.02        | -2.44±0.09               | 27.9  |
| <i>f</i> <sub>105</sub>                | 0.9628±0.0028                | 0.06±0.02        | 0.19±0.17                | 7.6   | <i>f</i> <sub>16</sub>                 | 3.8628±0.0015                | 0.08±0.02        | 2.75±0.09                | 27.7  |
| <i>f</i> <sub>106</sub>                | 6.7215±0.0028                | 0.07±0.03        | -2.45±0.17               | 7.5   | <i>f</i> <sub>17</sub>                 | 2.5555±0.0016                | 0.07±0.01        | -0.21±0.09               | 24.2  |
| <i>f</i> <sub>107</sub>                | 11.7677±0.0028               | 0.06±0.02        | -1.01±0.17               | 7.4   | <i>f</i> <sub>18</sub>                 | 0.3338±0.0015                | 0.08±0.02        | -0.47±0.09               | 24.3  |
| <i>f</i> <sub>108</sub>                | 6.9512±0.0028                | 0.06±0.02        | 0.74±0.17                | 7.4   | <i>f</i> <sub>19</sub>                 | 1.4482±0.0015                | 0.08±0.02        | 2.50±0.09                | 25.0  |
| <i>f</i> <sub>109</sub>                | 0.7965±0.0028                | 0.07±0.03        | 1.21±0.17                | 7.3   | <i>f</i> <sub>20</sub>                 | 0.7593±0.0016                | 0.08±0.02        | -0.76±0.10               | 23.9  |
| <i>f</i> <sub>110</sub>                | 0.1053±0.0028                | 0.07±0.03        | -1.15±0.17               | 7.4   | <i>f</i> <sub>22</sub>                 | 0.1798±0.0016                | 0.07±0.01        | -1.01±0.10               | 22.9  |
| <i>f</i> <sub>111</sub>                | 4.0779±0.0028                | 0.07±0.03        | 1.73±0.17                | 7.2   | <i>f</i> <sub>23</sub>                 | 0.3119±0.0016                | 0.07±0.01        | 1.68±0.10                | 22.3  |
| <i>f</i> <sub>112</sub>                | 2.1331±0.0028                | 0.06±0.02        | 0.40±0.17                | 7.2   | <i>f</i> <sub>24</sub>                 | 0.3408±0.0016                | 0.06±0.01        | -3.04±0.10               | 22.5  |
| <i>f</i> <sub>113</sub>                | 1.6034±0.0029                | 0.06±0.02        | 2.95±0.18                | 6.9   | <i>f</i> <sub>25</sub>                 | 0.4667±0.0017                | 0.06±0.01        | -1.41±0.10               | 19.7  |
| <i>f</i> <sub>114</sub>                | 7.0218±0.0029                | 0.06±0.02        | 2.86±0.18                | 7.0   | <i>f</i> <sub>26</sub>                 | 0.7285±0.0018                | 0.06±0.01        | 0.81±0.11                | 18.9  |
| <i>f</i> <sub>115</sub>                | 8.1694±0.0029                | 0.06±0.02        | 2.32±0.17                | 7.1   | <i>f</i> <sub>27</sub>                 | 3.9816±0.0018                | 0.06±0.01        | -1.62±0.11               | 18.2  |
| <i>f</i> <sub>116</sub>                | 18.1442±0.0029               | 0.06±0.02        | -0.09±0.18               | 6.9   | <i>f</i> <sub>28</sub>                 | 0.3684±0.0018                | 0.06±0.01        | 1.95±0.11                | 17.3  |
| <i>f</i> <sub>117</sub>                | 3.3235±0.0029                | 0.06±0.02        | 0.66±0.18                | 7.0   | <i>f</i> <sub>29</sub>                 | 1.8380±0.0019                | 0.06±0.01        | 0.06±0.11                | 16.6  |
| <i>f</i> <sub>118</sub>                | 5.8635±0.0029                | 0.06±0.02        | -1.04±0.18               | 6.7   | <i>f</i> <sub>30</sub>                 | 1.7177±0.0019                | 0.06±0.01        | -2.94±0.12               | 16.3  |
| <i>f</i> <sub>121</sub>                | 0.6067±0.0030                | 0.06±0.02        | 2.61±0.18                | 6.5   | <i>f</i> <sub>31</sub>                 | 5.9164±0.0019                | 0.06±0.02        | -0.52±0.12               | 15.6  |
| <i>f</i> <sub>122</sub>                | 6.2321±0.0030                | 0.06±0.02        | -0.72±0.18               | 6.5   | <i>f</i> <sub>32</sub>                 | 0.4427±0.0020                | 0.06±0.02        | 0.84±0.12                | 15.2  |
| <i>f</i> <sub>123</sub>                | 1.0230±0.0030                | 0.06±0.02        | 0.93±0.18                | 6.4   | <i>f</i> <sub>33</sub>                 | 2.4590±0.0020                | 0.06±0.02        | 2.88±0.12                | 14.6  |
| <i>f</i> <sub>126</sub>                | 7.0778±0.0030                | 0.06±0.02        | 2.36±0.18                | 6.5   | <i>f</i> <sub>34</sub>                 | 0.1706±0.0020                | 0.06±0.02        | 2.28±0.12                | 14.7  |
| <i>f</i> <sub>127</sub>                | 26.4506±0.0030               | 0.06±0.02        | 1.39±0.18                | 6.5   | <i>f</i> <sub>35</sub>                 | 0.2669±0.0020                | 0.06±0.02        | -1.71±0.12               | 15.0  |
| <i>f</i> <sub>128</sub>                | 2.0066±0.0031                | 0.06±0.02        | 2.33±0.19                | 6.2   | <i>f</i> <sub>36</sub>                 | 0.2222±0.0020                | 0.05±0.01        | 0.93±0.12                | 14.4  |
| <i>f</i> <sub>129</sub>                | 7.9948±0.0031                | 0.06±0.02        | 1.00±0.19                | 6.2   | <i>f</i> <sub>37</sub>                 | 1.5001±0.0020                | 0.05±0.01        | 1.44±0.12                | 14.1  |
| <i>f</i> <sub>130</sub>                | 4.5163±0.0031                | 0.06±0.02        | -1.03±0.19               | 6.2   | <i>f</i> <sub>38</sub>                 | 1.9679±0.0020                | 0.05±0.01        | 0.34±0.12                | 13.9  |
| <i>f</i> <sub>131</sub>                | 0.4640±0.0031                | 0.06±0.02        | -2.08±0.19               | 6.1   | <i>f</i> <sub>39</sub>                 | 0.5625±0.0021                | 0.04±0.01        | -1.52±0.13               | 13.2  |
| <i>f</i> <sub>132</sub>                | 7.9064±0.0030                | 0.06±0.02        | 1.91±0.19                | 6.3   | <i>f</i> <sub>40</sub>                 | 4.7191±0.0022                | 0.05±0.01        | -2.69±0.13               | 12.3  |
| <i>f</i> <sub>133</sub>                | 11.2757±0.0031               | 0.06±0.02        | -2.16±0.19               | 6.1   | <i>f</i> <sub>41</sub>                 | 0.6186±0.0022                | 0.06±0.02        | -1.13±0.13               | 12.2  |
| <i>f</i> <sub>134</sub>                | 2.0295±0.0031                | 0.06±0.02        | 2.60±0.19                | 6.1   | <i>f</i> <sub>42</sub>                 | 6.2520±0.0022                | 0.05±0.01        | -1.98±0.13               | 12.4  |
| <i>f</i> <sub>135</sub>                | 10.4945±0.0031               | 0.06±0.02        | -1.04±0.19               | 6.1   | <i>f</i> <sub>43</sub>                 | 2.2310±0.0022                | 0.05±0.01        | 2.87±0.14                | 11.8  |
| <i>f</i> <sub>136</sub>                | 3.8013±0.0031                | 0.06±0.02        | 2.89±0.19                | 6.1   | <i>f</i> <sub>47</sub>                 | 0.2360±0.0023                | 0.05±0.02        | -1.85±0.14               | 10.6  |
| <i>f</i> <sub>138</sub>                | 2.7056±0.0031                | 0.06±0.02        | 2.14±0.19                | 6.1   | <i>f</i> <sub>48</sub>                 | 0.4798±0.0023                | 0.05±0.02        | 1.71±0.14                | 10.8  |
| <i>f</i> <sub>139</sub>                | 8.9743±0.0031                | 0.06±0.02        | -0.91±0.19               | 6.0   | <i>f</i> <sub>49</sub>                 | 0.8874±0.0023                | 0.04±0.01        | -1.41±0.14               | 11.1  |
| <i>f</i> <sub>140</sub>                | 12.5223±0.0031               | 0.06±0.02        | 0.28±0.19                | 6.2   | <i>f</i> <sub>50</sub>                 | 0.1143±0.0024                | 0.05±0.02        | -2.78±0.15               | 10.1  |
| <i>f</i> <sub>141</sub>                | 1.2191±0.0031                | 0.06±0.02        | -2.85±0.19               | 5.9   | <i>f</i> <sub>51</sub>                 | 0.9469±0.0024                | 0.05±0.02        | -0.22±0.15               | 10.1  |
| <i>f</i> <sub>142</sub>                | 9.3204±0.0031                | 0.06±0.02        | -1.48±0.19               | 5.9   | <i>f</i> <sub>52</sub>                 | 0.9101±0.0024                | 0.04±0.01        | -1.64±0.15               | 9.9   |
| <i>f</i> <sub>143</sub>                | 11.3219±0.0030               | 0.06±0.02        | 1.21±0.19                | 6.3   | <i>f</i> <sub>53</sub>                 | 0.4246±0.0024                | 0.04±0.01        | -0.16±0.15               | 9.8   |
| <i>f</i> <sub>144</sub>                | 18.7501±0.0031               | 0.06±0.02        | 2.77±0.19                | 6.0   | <i>f</i> <sub>54</sub>                 | 0.5257±0.0025                | 0.05±0.02        | -2.32±0.15               | 9.3   |
| <i>f</i> <sub>146</sub>                | 0.5510±0.0032                | 0.05±0.02        | 1.97±0.19                | 5.8   | <i>f</i> <sub>55</sub>                 | 0.5491±0.0026                | 0.05±0.02        | 1.88±0.16                | 8.9   |
| <i>f</i> <sub>147</sub>                | 0.9984±0.0032                | 0.06±0.03        | -0.27±0.20               | 5.6   | <i>f</i> <sub>57</sub>                 | 0.6120±0.0026                | 0.05±0.02        | -3.09±0.16               | 8.6   |
| <i>f</i> <sub>149</sub>                | 22.1934±0.0032               | 0.05±0.02        | -0.52±0.20               | 5.7   | <i>f</i> <sub>58</sub>                 | 2.8363±0.0026                | 0.04±0.01        | 0.99±0.16                | 8.5   |
| <i>f</i> <sub>150</sub>                | 0.3466±0.0032                | 0.06±0.03        | -0.63±0.20               | 5.6   | <i>f</i> <sub>60</sub>                 | 3.7222±0.0027                | 0.04±0.01        | 2.13±0.17                | 7.8   |
| <i>f</i> <sub>151</sub>                | 0.2059±0.0032                | 0.06±0.03        | -1.80±0.20               | 5.7   | <i>f</i> <sub>61</sub>                 | 0.3270±0.0028                | 0.04±0.01        | -0.89±0.17               | 7.6   |
| <i>f</i> <sub>152</sub>                | 2.8776±0.0032                | 0.05±0.02        | 1.26±0.20                | 5.6   | <i>f</i> <sub>62</sub>                 | 0.9671±0.0028                | 0.04±0.01        | 2.40±0.17                | 7.7   |
| <i>f</i> <sub>153</sub>                | 1.1053±0.0032                | 0.06±0.03        | -2.57±0.20               | 5.6   | <i>f</i> <sub>63</sub>                 | 0.2023±0.0028                | 0.04±0.01        | 1.27±0.17                | 7.7   |
| <i>f</i> <sub>154</sub>                | 12.0558±0.0032               | 0.06±0.03        | -0.51±0.20               | 5.6   | <i>f</i> <sub>64</sub>                 | 4.0832±0.0028                | 0.04±0.01        | 1.24±0.17                | 7.4   |
| <i>f</i> <sub>155</sub>                | 3.4075±0.0032                | 0.06±0.03        | 2.51±0.20                | 5.6   | <i>f</i> <sub>65</sub>                 | 0.4522±0.0028                | 0.04±0.01        | -0.25±0.17               | 7.2   |
| <i>f</i> <sub>156</sub>                | 8.3124±0.0033                | 0.06±0.03        | 1.15±0.20                | 5.5   | <i>f</i> <sub>66</sub>                 | 4.5839±0.0028                | 0.04±0.01        | -1.70±0.17               | 7.3   |
| <i>f</i> <sub>157</sub>                | 8.1426±0.0032                | 0.05±0.02        | 0.52±0.20                | 5.7   | <i>f</i> <sub>67</sub>                 | 5.4206±0.0028                | 0.04±0.01        | 1.19±0.17                | 7.3   |
| <i>f</i> <sub>158</sub>                | 25.4088±0.0033               | 0.05±0.02        | 2.42±0.20                | 5.5   | <i>f</i> <sub>68</sub>                 | 2.0055±0.0029                | 0.04±0.02        | 1.54±0.17                | 7.1   |
| <i>f</i> <sub>159</sub>                | 1.1291±0.0033                | 0.05±0.02        | -1.79±0.20               | 5.4   | <i>f</i> <sub>69</sub>                 | 1.4301±0.0029                | 0.04±0.02        | -0.34±0.18               | 6.8   |
| <i>f</i> <sub>160</sub>                | 7.6950±0.0033                | 0.05±0.02        | 1.16±0.20                | 5.4   | <i>f</i> <sub>70</sub>                 | 0.7890±0.0029                | 0.04±0.02        | -2.40±0.18               | 6.7   |
| <i>f</i> <sub>161</sub>                | 5.2235±0.0033                | 0.06±0.03        | 2.49±0.20                | 5.4   | <i>f</i> <sub>71</sub>                 | 0.3536±0.0030                | 0.04±0.02        | 0.49±0.18                | 6.6   |
| <i>f</i> <sub>166</sub>                | 2.2098±0.0033                | 0.05±0.02        | 1.93±0.20                | 5.3   | <i>f</i> <sub>72</sub>                 | 0.6933±0.0029                | 0.04±0.02        | 0.85±0.18                | 6.8   |
| <i>f</i> <sub>167</sub>                | 2.2462±0.0033                | 0.06±0.03        | 1.15±0.20                | 5.5   | <i>f</i> <sub>73</sub>                 | 1.1030±0.0030                | 0.03±0.01        | -1.93±0.18               | 6.6   |
| <i>f</i> <sub>168</sub>                | 2.2566±0.0032                | 0.06±0.03        | 1.93±0.20                | 5.6   | <i>f</i> <sub>74</sub>                 | 3.5250±0.0029                | 0.04±0.02        | 1.94±0.18                | 6.7   |
| <i>f</i> <sub>169</sub>                | 24.3663±0.0033               | 0.05±0.02        | 1.95±0.20                | 5.4   | <i>f</i> <sub>75</sub>                 | 5.5399±0.0030                | 0.04±0.02        | -2.80±0.18               | 6.4   |
| <i>f</i> <sub>170</sub>                | 22.2806±0.0033               | 0.05±0.02        | -1.37±0.20               | 5.2   | <i>f</i> <sub>76</sub>                 | 3.1446±0.0030                | 0.03±0.01        | -2.22±0.18               | 6.6   |
| <i>f</i> <sub>171</sub>                | 8.3569±0.0033                | 0.05±0.02        | -1.83±0.20               | 5.2   | <i>f</i> <sub>77</sub>                 | 1.0264±0.0030                | 0.04±0.02        | 0.06±0.18                | 6.4   |
| <i>f</i> <sub>172</sub>                | 3.4758±0.0033                | 0.05±0.02        | -1.37±0.20               | 5.2   | <i>f</i> <sub>78</sub>                 | 2.5878±0.0030                | 0.03±0.01        | -0.23±0.18               | 6.4   |
| <i>f</i> <sub>173</sub>                | 9.2028±0.0034                | 0.05±0.02        | 1.22±0.21                | 5.0   | <i>f</i> <sub>79</sub>                 | 1.3872±0.0030                | 0.04±0.02        | 3.06±0.18                | 6.6   |
| <i>f</i> <sub>174</sub>                | 9.7466±0.0034                | 0.05±0.02        | 1.37±0.21                | 5.1   | <i>f</i> <sub>80</sub>                 | 1.5748±0.0031                | 0.03±0.01        | 1.23±0.19                | 6.2   |
| <i>f</i> <sub>175</sub>                | 7.2685±0.0034                | 0.05±0.02        | 1.65±0.21                | 5.1   | <i>f</i> <sub>81</sub>                 | 1.3208±0.0031                | 0.03±0.01        | 2.84±0.19                | 6.1   |
| <i>f</i> <sub>176</sub>                | 10.1373±0.0033               | 0.05±0.02        | 2.24±0.20                | 5.2   | <i>f</i> <sub>82</sub>                 | 1.1590±0.0030                | 0.03±0.01        | 2.67±0.18                | 6.5   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>83</sub>                 | 0.5701±0.0031                | 0.04±0.02        | 1.38±0.19                | 6.0   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>84</sub>                 | 5.0226±0.0031                | 0.03±0.01        | 0.62±0.19                | 6.0   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>85</sub>                 | 4.4657±0.0031                | 0.03±0.01        | -2.40±0.19               | 6.0   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>86</sub>                 | 19.5877±0.0032               | 0.03±0.01        | -2.23±0.20               | 5.7   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>88</sub>                 | 4.0075±0.0032                | 0.03±0.01        | 3.09±0.20                | 5.7   |
| Frequency list of 0102677302 continued |                              |                  |                          |       | Frequency list of 0102677302 continued |                              |                  |                          |       |
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |                                        |                              |                  |                          |       |
| <i>f</i> <sub>1</sub>                  | 0.2083±0.0006                | 0.23±0.02        | 1.53±0.03                | 180.3 |                                        |                              |                  |                          |       |
| <i>f</i> <sub>2</sub>                  | 2.9619±0.0007                | 0.18±0.02        | -1.17±0.04               | 109.4 |                                        |                              |                  |                          |       |
| <i>f</i> <sub>3</sub>                  | 3.0811±0.0008                | 0.16±0.02        | 0.63±0.05                | 92.6  |                                        |                              |                  |                          |       |
| <i>f</i> <sub>4</sub>                  | 0.1052±0.0009                | 0.14±0.02        | 2.49±0.05                | 74.2  |                                        |                              |                  |                          |       |
| <i>f</i> <sub>5</sub>                  | 0.1893±0.0010                | 0.10±0.01        | -0.34±0.06               | 56.4  |                                        |                              |                  |                          |       |
| Frequency list of 0102677302 continued |                              |                  |                          |       |                                        |                              |                  |                          |       |

## Appendix E. Frequencies of individual Hybrid Candidate Stars

| Frequency list of 0102677302 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{89}$                               | 2.9537±0.0032                | 0.03±0.01        | 0.94±0.20                | 5.7   |
| $f_{90}$                               | 0.5925±0.0032                | 0.03±0.01        | -0.12±0.20               | 5.7   |
| $f_{91}$                               | 1.0538±0.0033                | 0.03±0.01        | -1.69±0.20               | 5.5   |
| $f_{93}$                               | 1.5213±0.0033                | 0.03±0.01        | -2.25±0.20               | 5.3   |
| $f_{94}$                               | 2.3079±0.0033                | 0.03±0.01        | 0.93±0.20                | 5.2   |
| $f_{95}$                               | 0.4950±0.0034                | 0.03±0.01        | 1.56±0.21                | 5.1   |
| $f_{96}$                               | 2.1935±0.0034                | 0.03±0.01        | -2.30±0.21               | 5.1   |

**Table E.25:** Frequency list of 0102677996

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|--------------|------------------------------|------------------|--------------------------|-------|
| $f_1$        | 0.1520±0.0015                | 0.21±0.04        | 1.86±0.09                | 25.5  |
| $f_3$        | 29.6268±0.0019               | 0.19±0.05        | -1.94±0.12               | 16.1  |
| $f_4$        | 0.1119±0.0021                | 0.21±0.06        | 0.08±0.13                | 13.4  |
| $f_5$        | 2.7842±0.0021                | 0.17±0.05        | 2.62±0.13                | 13.5  |
| $f_6$        | 35.6861±0.0025               | 0.14±0.05        | -0.25±0.15               | 9.4   |
| $f_7$        | 0.1329±0.0027                | 0.14±0.05        | -1.44±0.16               | 8.2   |
| $f_8$        | 23.0234±0.0028               | 0.13±0.05        | -0.56±0.17               | 7.7   |
| $f_9$        | 0.2268±0.0028                | 0.12±0.04        | -2.16±0.17               | 7.6   |
| $f_{10}$     | 29.2002±0.0028               | 0.13±0.05        | -2.06±0.17               | 7.6   |
| $f_{12}$     | 0.1721±0.0029                | 0.13±0.05        | -2.82±0.18               | 6.7   |
| $f_{13}$     | 24.3255±0.0030               | 0.12±0.05        | 3.07±0.18                | 6.6   |
| $f_{14}$     | 0.4396±0.0030                | 0.11±0.04        | -1.24±0.18               | 6.4   |
| $f_{15}$     | 0.3322±0.0031                | 0.11±0.04        | 2.25±0.19                | 6.0   |
| $f_{16}$     | 0.5976±0.0032                | 0.12±0.05        | 1.03±0.20                | 5.6   |
| $f_{17}$     | 0.3867±0.0034                | 0.11±0.05        | -2.20±0.21               | 5.1   |
| $f_{18}$     | 0.2696±0.0033                | 0.11±0.05        | -2.71±0.20               | 5.2   |

**Table E.26:** Frequency list of 0102678268

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign.  |
|--------------|------------------------------|------------------|--------------------------|--------|
| $f_1$        | 15.9052±0.0001               | 4.39±0.08        | 2.45±0.01                | 3330.2 |
| $f_2$        | 18.3656±0.0005               | 0.53±0.04        | 1.73±0.03                | 223.2  |
| $f_3$        | 18.6323±0.0007               | 0.34±0.03        | 2.08±0.05                | 107.0  |
| $f_4$        | 12.3180±0.0008               | 0.34±0.03        | 3.00±0.05                | 102.5  |
| $f_5$        | 14.6376±0.0008               | 0.33±0.03        | -0.09±0.05               | 99.0   |
| $f_6$        | 20.6837±0.0011               | 0.22±0.03        | -2.09±0.07               | 47.4   |
| $f_7$        | 2.5504±0.0012                | 0.21±0.03        | 1.70±0.07                | 43.1   |
| $f_8$        | 2.5700±0.0013                | 0.17±0.03        | 2.09±0.08                | 33.3   |
| $f_9$        | 1.2857±0.0014                | 0.18±0.03        | 0.95±0.08                | 31.0   |
| $f_{10}$     | 17.5762±0.0014               | 0.18±0.03        | 2.16±0.09                | 30.0   |
| $f_{12}$     | 4.1905±0.0014                | 0.18±0.03        | 0.56±0.09                | 29.9   |
| $f_{13}$     | 6.7602±0.0014                | 0.17±0.03        | -0.43±0.09               | 29.3   |
| $f_{15}$     | 1.2580±0.0014                | 0.17±0.03        | -2.27±0.09               | 28.2   |
| $f_{16}$     | 4.2046±0.0016                | 0.15±0.03        | 0.53±0.10                | 23.4   |
| $f_{17}$     | 2.3287±0.0016                | 0.15±0.03        | 1.70±0.10                | 23.4   |
| $f_{18}$     | 14.9344±0.0016               | 0.15±0.03        | -0.13±0.10               | 23.1   |
| $f_{19}$     | 19.1501±0.0016               | 0.14±0.03        | -0.98±0.10               | 22.4   |
| $f_{20}$     | 1.2735±0.0017                | 0.16±0.04        | 2.12±0.10                | 20.6   |
| $f_{21}$     | 19.9730±0.0017               | 0.15±0.03        | 2.76±0.10                | 20.8   |
| $f_{22}$     | 19.7950±0.0017               | 0.15±0.03        | -0.64±0.10               | 21.4   |
| $f_{24}$     | 19.6575±0.0017               | 0.13±0.03        | 1.96±0.10                | 19.9   |
| $f_{25}$     | 19.5232±0.0017               | 0.13±0.03        | -2.58±0.10               | 20.6   |
| $f_{26}$     | 14.6310±0.0017               | 0.14±0.03        | 2.41±0.11                | 19.2   |
| $f_{27}$     | 4.4367±0.0017                | 0.13±0.03        | 2.34±0.11                | 19.2   |
| $f_{28}$     | 19.1014±0.0018               | 0.14±0.03        | 1.57±0.11                | 18.8   |
| $f_{30}$     | 13.3432±0.0018               | 0.13±0.03        | -2.31±0.11               | 18.6   |
| $f_{31}$     | 10.7318±0.0018               | 0.13±0.03        | -1.64±0.11               | 18.3   |
| $f_{32}$     | 0.2035±0.0018                | 0.10±0.02        | -1.21±0.11               | 17.6   |
| $f_{33}$     | 5.4799±0.0018                | 0.12±0.03        | -2.02±0.11               | 17.5   |
| $f_{34}$     | 1.1508±0.0018                | 0.13±0.03        | -3.13±0.11               | 17.8   |
| $f_{35}$     | 2.0051±0.0018                | 0.43±0.10        | 0.84±0.11                | 17.1   |
| $f_{47}$     | 1.1576±0.0018                | 0.12±0.03        | -2.34±0.11               | 17.5   |
| $f_{48}$     | 15.9169±0.0018               | 0.13±0.03        | -3.04±0.11               | 17.2   |
| $f_{49}$     | 0.2687±0.0018                | 0.13±0.03        | -0.29±0.11               | 17.8   |
| $f_{50}$     | 20.4983±0.0019               | 0.12±0.03        | -1.83±0.11               | 16.8   |
| $f_{53}$     | 20.9142±0.0019               | 0.11±0.03        | 0.95±0.12                | 15.7   |
| $f_{54}$     | 17.3415±0.0019               | 0.11±0.03        | -3.08±0.12               | 15.4   |
| $f_{55}$     | 24.4024±0.0020               | 0.11±0.03        | -2.92±0.12               | 15.2   |
| $f_{56}$     | 19.8763±0.0020               | 0.11±0.03        | 3.11±0.12                | 14.8   |
| $f_{57}$     | 18.6540±0.0020               | 0.11±0.03        | -0.87±0.12               | 14.6   |
| $f_{58}$     | 0.2851±0.0021                | 0.10±0.03        | -2.41±0.13               | 13.5   |

Frequency list of 0102678268 continued

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|--------------|------------------------------|------------------|--------------------------|-------|
| $f_{59}$     | 21.4019±0.0021               | 0.10±0.03        | -2.29±0.13               | 13.0  |
| $f_{60}$     | 26.3547±0.0021               | 0.10±0.03        | -2.36±0.13               | 12.7  |
| $f_{61}$     | 21.9748±0.0022               | 0.09±0.03        | 2.29±0.14                | 11.9  |
| $f_{64}$     | 0.1466±0.0022                | 0.09±0.03        | -1.88±0.14               | 11.6  |
| $f_{65}$     | 5.3438±0.0022                | 0.09±0.03        | 1.35±0.14                | 11.6  |
| $f_{66}$     | 15.3128±0.0023               | 0.09±0.03        | -0.14±0.14               | 11.4  |
| $f_{67}$     | 25.7136±0.0023               | 0.09±0.03        | -1.06±0.14               | 10.7  |
| $f_{68}$     | 26.4270±0.0024               | 0.09±0.03        | -1.25±0.14               | 10.4  |
| $f_{69}$     | 16.0208±0.0024               | 0.09±0.03        | 0.87±0.14                | 10.5  |
| $f_{71}$     | 23.3189±0.0024               | 0.09±0.03        | 1.23±0.15                | 10.3  |
| $f_{72}$     | 23.1564±0.0024               | 0.09±0.03        | 1.60±0.15                | 10.2  |
| $f_{75}$     | 2.0072±0.0023                | 0.13±0.04        | 2.29±0.14                | 10.7  |
| $f_{77}$     | 1.9715±0.0024                | 0.09±0.03        | -3.04±0.15               | 10.2  |
| $f_{78}$     | 22.0750±0.0024               | 0.09±0.03        | 1.87±0.15                | 9.9   |
| $f_{79}$     | 1.2639±0.0024                | 0.09±0.03        | 2.32±0.15                | 9.9   |
| $f_{82}$     | 19.5457±0.0025               | 0.08±0.03        | 2.04±0.15                | 9.3   |
| $f_{83}$     | 3.2876±0.0025                | 0.08±0.03        | -2.16±0.15               | 9.1   |
| $f_{84}$     | 3.2146±0.0025                | 0.08±0.03        | -2.60±0.15               | 9.4   |
| $f_{85}$     | 19.1685±0.0026               | 0.08±0.03        | -2.67±0.16               | 8.9   |
| $f_{86}$     | 2.5079±0.0025                | 0.07±0.02        | -1.49±0.16               | 9.0   |
| $f_{87}$     | 26.0085±0.0026               | 0.08±0.03        | 0.70±0.16                | 8.6   |
| $f_{88}$     | 9.2488±0.0026                | 0.08±0.03        | 1.12±0.16                | 8.6   |
| $f_{89}$     | 4.4424±0.0026                | 0.08±0.03        | 0.06±0.16                | 8.3   |
| $f_{90}$     | 0.1915±0.0027                | 0.08±0.03        | 0.63±0.16                | 8.2   |
| $f_{91}$     | 20.8152±0.0027               | 0.08±0.03        | -1.67±0.16               | 8.2   |
| $f_{92}$     | 1.3122±0.0026                | 0.07±0.02        | 2.36±0.16                | 8.4   |
| $f_{93}$     | 2.5601±0.0027                | 0.08±0.03        | -1.71±0.16               | 8.1   |
| $f_{94}$     | 3.4427±0.0027                | 0.08±0.03        | 0.26±0.16                | 8.0   |
| $f_{95}$     | 20.9466±0.0027               | 0.08±0.03        | -2.91±0.16               | 8.2   |
| $f_{97}$     | 23.0948±0.0027               | 0.07±0.02        | -1.12±0.17               | 7.9   |
| $f_{98}$     | 2.3533±0.0028                | 0.07±0.03        | -3.05±0.17               | 7.6   |
| $f_{99}$     | 1.0058±0.0028                | 0.07±0.03        | 1.48±0.17                | 7.5   |
| $f_{100}$    | 1.9293±0.0028                | 0.07±0.03        | 2.79±0.17                | 7.4   |
| $f_{105}$    | 19.3789±0.0028               | 0.07±0.03        | 1.37±0.17                | 7.3   |
| $f_{106}$    | 4.4572±0.0028                | 0.08±0.03        | 3.07±0.17                | 7.3   |
| $f_{107}$    | 4.6349±0.0028                | 0.07±0.03        | 1.48±0.17                | 7.5   |
| $f_{113}$    | 0.2266±0.0028                | 0.08±0.03        | -0.34±0.17               | 7.3   |
| $f_{114}$    | 20.3769±0.0028               | 0.07±0.03        | -1.84±0.17               | 7.3   |
| $f_{115}$    | 0.5021±0.0029                | 0.07±0.03        | 1.23±0.17                | 7.1   |
| $f_{116}$    | 2.2985±0.0028                | 0.07±0.03        | 1.09±0.17                | 7.2   |
| $f_{117}$    | 11.9122±0.0029               | 0.07±0.03        | -1.13±0.17               | 7.1   |
| $f_{118}$    | 1.2909±0.0028                | 0.07±0.03        | 1.82±0.17                | 7.2   |
| $f_{119}$    | 39.9756±0.0028               | 0.07±0.03        | 1.51±0.17                | 7.2   |
| $f_{120}$    | 1.7937±0.0029                | 0.07±0.03        | -2.75±0.18               | 6.9   |
| $f_{121}$    | 23.8477±0.0029               | 0.07±0.03        | -1.99±0.18               | 7.0   |
| $f_{125}$    | 0.4164±0.0029                | 0.07±0.03        | 1.14±0.18                | 6.7   |
| $f_{127}$    | 19.3636±0.0030               | 0.07±0.03        | -1.69±0.19               | 6.3   |
| $f_{128}$    | 25.9782±0.0030               | 0.07±0.03        | -2.32±0.19               | 6.3   |
| $f_{129}$    | 28.8737±0.0030               | 0.06±0.02        | 2.61±0.19                | 6.3   |
| $f_{131}$    | 16.3418±0.0031               | 0.06±0.02        | -0.16±0.19               | 6.2   |
| $f_{132}$    | 27.7081±0.0031               | 0.06±0.02        | -2.81±0.19               | 6.0   |
| $f_{133}$    | 50.8712±0.0031               | 0.06±0.02        | -0.62±0.19               | 6.1   |

**Table E.27:** Frequency list of 0102685368

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|--------------|------------------------------|------------------|--------------------------|-------|
| $f_1$        | 2.2116±0.0005                | 0.95±0.07        | -1.81±0.03               | 211.7 |
| $f_2$        | 4.3704±0.0005                | 0.90±0.06        | -1.87±0.03               | 193.0 |
| $f_3$        | 4.8741±0.0006                | 0.77±0.06        | 1.25±0.04                | 167.6 |
| $f_4$        | 0.1596±0.0008                | 0.52±0.06        | -1.28±0.05               | 86.0  |
| $f_5$        | 0.1245±0.0008                | 0.55±0.06        | -0.79±0.05               | 92.6  |
| $f_6$        | 4.0703±0.0008                | 0.53±0.06        | -2.43±0.05               | 85.1  |
| $f_7$        | 0.2382±0.0008                | 0.44±0.05        | -1.40±0.05               | 82.8  |
| $f_8$        | 0.1394±0.0009                | 0.53±0.06        | -1.90±0.05               | 74.5  |
| $f_9$        | 1.7412±0.0009                | 0.44±0.05        | -2.85±0.06               | 70.9  |
| $f_{10}$     | 0.3086±0.0011                | 0.45±0.06        | 1.38±0.07                | 48.0  |
| $f_{11}$     | 0.1107±0.0012                | 0.41±0.06        | 1.47±0.07                | 43.3  |
| $f_{12}$     | 0.2323±0.0012                | 0.39±0.06        | 0.30±0.07                | 41.0  |
| $f_{13}$     | 0.3261±0.0013                | 0.33±0.05        | -1.64±0.08               | 37.1  |
| $f_{14}$     | 2.4350±0.0012                | 0.31±0.05        | -2.69±0.08               | 37.3  |
| $f_{15}$     | 4.2549±0.0013                | 0.30±0.05        | -1.91±0.08               | 35.9  |
| $f_{16}$     | 6.8336±0.0013                | 0.30±0.05        | -0.36±0.08               | 36.1  |
| $f_{17}$     | 0.2915±0.0013                | 0.26±0.04        | -0.18±0.08               | 34.3  |
| $f_{18}$     | 4.9802±0.0013                | 0.29±0.05        | -0.28±0.08               | 34.4  |
| $f_{19}$     | 1.8393±0.0013                | 0.30±0.05        | -0.19±0.08               | 32.3  |
| $f_{20}$     | 21.1635±0.0014               | 0.27±0.05        | -2.29±0.08               | 31.0  |
| $f_{21}$     | 2.5304±0.0015                | 0.26±0.05        | 0.22±0.09                | 27.7  |
| $f_{22}$     | 7.3072±0.0015                | 0.25±0.05        | -0.36±0.09               | 26.7  |

Frequency list of 0102685368 continued

## Appendix E. Frequencies of individual Hybrid Candidate Stars

| Frequency list of 0102685368 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{23}$                               | 7.4529±0.0015                | 0.25±0.05        | -0.31±0.09               | 26.2  |
| $f_{24}$                               | 0.6191±0.0015                | 0.23±0.05        | 1.29±0.09                | 26.0  |
| $f_{25}$                               | 0.9346±0.0015                | 0.25±0.05        | 1.70±0.09                | 25.3  |
| $f_{26}$                               | 4.4934±0.0015                | 0.25±0.05        | 1.65±0.09                | 25.6  |
| $f_{27}$                               | 0.8511±0.0015                | 0.22±0.04        | -0.13±0.09               | 25.1  |
| $f_{28}$                               | 0.2454±0.0015                | 0.29±0.06        | -2.84±0.09               | 24.6  |
| $f_{29}$                               | 0.1551±0.0015                | 0.29±0.06        | -0.81±0.09               | 25.2  |
| $f_{30}$                               | 1.6339±0.0015                | 0.23±0.05        | -0.15±0.09               | 24.9  |
| $f_{31}$                               | 3.6608±0.0016                | 0.24±0.05        | 2.84±0.10                | 23.6  |
| $f_{32}$                               | 0.4238±0.0016                | 0.25±0.05        | 1.77±0.10                | 24.0  |
| $f_{33}$                               | 6.2718±0.0016                | 0.22±0.05        | -1.55±0.10               | 23.1  |
| $f_{34}$                               | 0.7247±0.0018                | 0.23±0.05        | 2.53±0.11                | 18.5  |
| $f_{35}$                               | 0.3934±0.0018                | 0.26±0.06        | -1.07±0.11               | 17.1  |
| $f_{36}$                               | 0.3509±0.0019                | 0.25±0.06        | 0.08±0.11                | 16.7  |
| $f_{37}$                               | 4.1614±0.0019                | 0.19±0.05        | -2.77±0.12               | 16.0  |
| $f_{38}$                               | 0.8707±0.0019                | 0.19±0.05        | 1.33±0.12                | 15.7  |
| $f_{39}$                               | 5.2606±0.0020                | 0.18±0.05        | 2.31±0.12                | 15.2  |
| $f_{40}$                               | 0.5856±0.0020                | 0.20±0.05        | 2.06±0.12                | 15.0  |
| $f_{41}$                               | 0.1809±0.0020                | 0.20±0.05        | -1.11±0.12               | 14.7  |
| $f_{42}$                               | 0.6564±0.0020                | 0.16±0.04        | -0.94±0.12               | 15.2  |
| $f_{43}$                               | 0.2754±0.0020                | 0.20±0.05        | -2.15±0.12               | 14.0  |
| $f_{44}$                               | 0.4095±0.0020                | 0.20±0.05        | 2.40±0.12                | 14.3  |
| $f_{45}$                               | 1.9625±0.0020                | 0.17±0.05        | 2.94±0.12                | 14.0  |
| $f_{46}$                               | 0.3699±0.0021                | 0.19±0.05        | -2.70±0.13               | 13.1  |
| $f_{47}$                               | 0.7342±0.0021                | 0.17±0.05        | 0.40±0.13                | 12.7  |
| $f_{48}$                               | 1.0257±0.0022                | 0.16±0.05        | 1.74±0.13                | 12.2  |
| $f_{49}$                               | 2.1012±0.0022                | 0.15±0.04        | -0.72±0.13               | 12.3  |
| $f_{50}$                               | 5.9070±0.0022                | 0.16±0.05        | 2.59±0.14                | 11.9  |
| $f_{51}$                               | 0.5337±0.0022                | 0.17±0.05        | 1.69±0.14                | 11.8  |
| $f_{52}$                               | 0.9514±0.0022                | 0.17±0.05        | -2.63±0.14               | 11.7  |
| $f_{53}$                               | 3.3617±0.0023                | 0.15±0.04        | -3.10±0.14               | 11.2  |
| $f_{54}$                               | 1.1553±0.0023                | 0.14±0.04        | 1.07±0.14                | 10.9  |
| $f_{55}$                               | 1.0755±0.0023                | 0.15±0.05        | -2.54±0.14               | 10.6  |
| $f_{56}$                               | 0.1045±0.0023                | 0.17±0.05        | 0.01±0.14                | 10.8  |
| $f_{57}$                               | 0.7144±0.0023                | 0.15±0.05        | 1.07±0.14                | 10.6  |
| $f_{58}$                               | 0.3006±0.0024                | 0.17±0.05        | -0.87±0.14               | 10.5  |
| $f_{59}$                               | 0.2167±0.0023                | 0.16±0.05        | 1.23±0.14                | 11.1  |
| $f_{60}$                               | 0.1681±0.0022                | 0.16±0.05        | 0.59±0.13                | 12.0  |
| $f_{61}$                               | 0.4610±0.0024                | 0.16±0.05        | -2.21±0.15               | 10.2  |
| $f_{62}$                               | 0.7990±0.0024                | 0.14±0.04        | 1.22±0.15                | 9.9   |
| $f_{63}$                               | 0.8275±0.0024                | 0.13±0.04        | 1.92±0.15                | 10.1  |
| $f_{64}$                               | 0.4751±0.0024                | 0.13±0.04        | 1.67±0.15                | 10.0  |
| $f_{65}$                               | 1.3302±0.0024                | 0.14±0.04        | 1.67±0.15                | 9.9   |
| $f_{66}$                               | 0.6035±0.0025                | 0.14±0.05        | -1.67±0.15               | 9.5   |
| $f_{67}$                               | 6.3284±0.0025                | 0.14±0.05        | -2.78±0.16               | 9.0   |
| $f_{68}$                               | 1.5486±0.0026                | 0.14±0.05        | 2.14±0.16                | 8.9   |
| $f_{69}$                               | 1.0035±0.0025                | 0.13±0.04        | 0.48±0.15                | 9.1   |
| $f_{70}$                               | 4.3602±0.0026                | 0.14±0.05        | 0.33±0.16                | 8.8   |
| $f_{71}$                               | 7.9928±0.0026                | 0.13±0.04        | 1.37±0.16                | 8.8   |
| $f_{72}$                               | 0.8991±0.0026                | 0.13±0.04        | 1.69±0.16                | 8.5   |
| $f_{73}$                               | 1.8124±0.0027                | 0.12±0.04        | -3.05±0.16               | 8.2   |
| $f_{74}$                               | 0.5024±0.0027                | 0.13±0.05        | 2.76±0.17                | 7.9   |
| $f_{75}$                               | 1.3738±0.0027                | 0.12±0.04        | 1.44±0.17                | 7.9   |
| $f_{76}$                               | 0.7714±0.0027                | 0.13±0.05        | 0.35±0.17                | 7.9   |
| $f_{77}$                               | 0.8134±0.0028                | 0.13±0.05        | 3.09±0.17                | 7.5   |
| $f_{78}$                               | 1.4748±0.0028                | 0.12±0.04        | 0.45±0.17                | 7.7   |
| $f_{79}$                               | 2.4961±0.0029                | 0.11±0.04        | -0.41±0.18               | 7.0   |
| $f_{80}$                               | 2.2809±0.0029                | 0.12±0.05        | 1.37±0.18                | 6.9   |
| $f_{81}$                               | 2.6362±0.0029                | 0.12±0.05        | -3.04±0.18               | 6.9   |
| $f_{82}$                               | 1.1304±0.0029                | 0.12±0.05        | -1.11±0.18               | 6.8   |
| $f_{83}$                               | 0.6822±0.0029                | 0.12±0.05        | -2.56±0.18               | 6.8   |
| $f_{84}$                               | 0.3076±0.0030                | 0.11±0.04        | 2.46±0.18                | 6.6   |
| $f_{85}$                               | 8.6263±0.0029                | 0.11±0.04        | -0.60±0.18               | 6.7   |
| $f_{86}$                               | 1.2252±0.0030                | 0.11±0.04        | -1.86±0.18               | 6.5   |
| $f_{87}$                               | 2.3771±0.0029                | 0.11±0.04        | 1.92±0.18                | 6.7   |
| $f_{88}$                               | 6.3787±0.0030                | 0.11±0.04        | -1.27±0.18               | 6.4   |
| $f_{89}$                               | 7.4703±0.0030                | 0.11±0.04        | -2.43±0.18               | 6.4   |
| $f_{90}$                               | 1.8883±0.0030                | 0.11±0.04        | -2.45±0.19               | 6.3   |
| $f_{92}$                               | 0.7404±0.0031                | 0.11±0.04        | 3.07±0.19                | 6.2   |
| $f_{93}$                               | 1.0610±0.0030                | 0.11±0.04        | -0.72±0.19               | 6.3   |
| $f_{94}$                               | 1.6825±0.0031                | 0.11±0.04        | -1.85±0.19               | 6.2   |

**Table E.28:** Frequency list of 0102690683

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|--------------|------------------------------|------------------|--------------------------|-------|
| $f_2$        | 14.5627±0.0008               | 0.29±0.03        | -2.14±0.05               | 91.1  |
| $f_4$        | 1.1545±0.0012                | 0.19±0.03        | 0.77±0.07                | 41.7  |
| $f_6$        | 0.1917±0.0013                | 0.18±0.03        | -2.22±0.08               | 36.6  |
| $f_7$        | 0.2983±0.0016                | 0.14±0.03        | 2.08±0.10                | 22.5  |
| $f_8$        | 0.1082±0.0016                | 0.13±0.03        | -0.08±0.10               | 23.0  |

Frequency list of 0102690683 continued

| Frequency list of 0102690683 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_9$                                  | 0.2008±0.0019                | 0.11±0.03        | 2.73±0.11                | 16.6  |
| $f_{10}$                               | 0.1362±0.0021                | 0.12±0.03        | 0.53±0.13                | 12.7  |
| $f_{11}$                               | 0.1558±0.0023                | 0.10±0.03        | -0.02±0.14               | 11.3  |
| $f_{12}$                               | 0.1755±0.0025                | 0.09±0.03        | 0.16±0.15                | 9.5   |
| $f_{13}$                               | 1.3669±0.0028                | 0.08±0.03        | -1.22±0.17               | 7.7   |
| $f_{14}$                               | 0.2635±0.0028                | 0.07±0.03        | 2.10±0.17                | 7.7   |
| $f_{15}$                               | 0.1262±0.0028                | 0.08±0.03        | -0.26±0.17               | 7.6   |
| $f_{17}$                               | 2.2456±0.0029                | 0.07±0.03        | -1.79±0.17               | 7.1   |
| $f_{19}$                               | 0.3393±0.0030                | 0.07±0.03        | 1.25±0.18                | 6.4   |
| $f_{20}$                               | 1.5093±0.0031                | 0.07±0.03        | -0.33±0.19               | 6.1   |
| $f_{21}$                               | 2.9705±0.0032                | 0.07±0.03        | 2.73±0.20                | 5.6   |
| $f_{22}$                               | 0.2227±0.0032                | 0.06±0.03        | -1.34±0.20               | 5.6   |
| $f_{23}$                               | 1.1647±0.0032                | 0.07±0.03        | -2.94±0.20               | 5.6   |
| $f_{24}$                               | 0.3799±0.0033                | 0.06±0.03        | 2.21±0.20                | 5.3   |
| $f_{25}$                               | 0.7272±0.0033                | 0.06±0.03        | -2.10±0.20               | 5.3   |
| $f_{26}$                               | 2.6560±0.0034                | 0.06±0.03        | -2.20±0.21               | 5.1   |
| $f_{27}$                               | 1.4559±0.0034                | 0.06±0.03        | 2.15±0.21                | 5.1   |

**Table E.29:** Frequency list of 0102705788

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign.  |
|--------------|------------------------------|------------------|--------------------------|--------|
| $f_1$        | 22.1725±0.0002               | 0.85±0.02        | 0.73±0.01                | 1497.4 |
| $f_2$        | 0.1058±0.0006                | 0.21±0.02        | -0.79±0.04               | 153.5  |
| $f_4$        | 17.2310±0.0006               | 0.19±0.02        | -1.55±0.04               | 138.3  |
| $f_6$        | 3.1300±0.0008                | 0.15±0.02        | -0.55±0.05               | 88.6   |
| $f_7$        | 0.1980±0.0008                | 0.14±0.01        | -1.07±0.05               | 89.5   |
| $f_9$        | 17.5086±0.0009               | 0.13±0.02        | -0.69±0.05               | 74.0   |
| $f_{10}$     | 2.5523±0.0009                | 0.13±0.01        | 2.81±0.05                | 77.2   |
| $f_{13}$     | 2.6189±0.0013                | 0.08±0.01        | -1.01±0.08               | 33.5   |
| $f_{16}$     | 0.1484±0.0013                | 0.08±0.01        | 2.74±0.08                | 32.6   |
| $f_{17}$     | 0.1682±0.0015                | 0.07±0.01        | -1.43±0.09               | 25.8   |
| $f_{20}$     | 0.2168±0.0015                | 0.06±0.01        | 2.90±0.09                | 24.9   |
| $f_{30}$     | 1.0406±0.0019                | 0.06±0.01        | 0.56±0.11                | 16.9   |
| $f_{31}$     | 0.3079±0.0019                | 0.05±0.01        | -1.88±0.11               | 16.6   |
| $f_{32}$     | 0.1269±0.0019                | 0.06±0.01        | -2.67±0.12               | 16.2   |
| $f_{36}$     | 0.2046±0.0020                | 0.05±0.01        | 1.17±0.12                | 14.6   |
| $f_{37}$     | 6.0988±0.0021                | 0.05±0.01        | 2.51±0.13                | 13.8   |
| $f_{38}$     | 5.0939±0.0021                | 0.05±0.01        | -2.13±0.13               | 13.7   |
| $f_{39}$     | 3.2751±0.0021                | 0.05±0.01        | -1.63±0.13               | 13.3   |
| $f_{41}$     | 0.1828±0.0022                | 0.05±0.01        | 3.09±0.13                | 12.0   |
| $f_{42}$     | 25.0054±0.0022               | 0.04±0.01        | -2.02±0.14               | 11.8   |
| $f_{44}$     | 17.1695±0.0024               | 0.04±0.01        | 0.35±0.14                | 10.5   |
| $f_{45}$     | 55.8636±0.0024               | 0.04±0.01        | 2.75±0.15                | 10.2   |
| $f_{47}$     | 5.7205±0.0024                | 0.04±0.01        | -1.17±0.15               | 10.0   |
| $f_{48}$     | 0.4278±0.0025                | 0.04±0.01        | -2.23±0.15               | 9.7    |
| $f_{51}$     | 4.6052±0.0025                | 0.04±0.01        | -3.07±0.15               | 9.2    |
| $f_{54}$     | 13.9971±0.0025               | 0.04±0.01        | -0.53±0.15               | 9.1    |
| $f_{55}$     | 21.2397±0.0025               | 0.04±0.01        | -1.56±0.15               | 9.4    |
| $f_{56}$     | 0.2729±0.0025                | 0.04±0.01        | 0.72±0.15                | 9.2    |
| $f_{57}$     | 2.0055±0.0025                | 0.05±0.02        | 0.92±0.15                | 9.1    |
| $f_{61}$     | 41.9363±0.0026               | 0.04±0.01        | 2.54±0.16                | 8.6    |
| $f_{63}$     | 1.9352±0.0026                | 0.04±0.01        | 2.24±0.16                | 8.3    |
| $f_{64}$     | 0.6503±0.0027                | 0.04±0.01        | 0.05±0.16                | 8.2    |
| $f_{65}$     | 55.8524±0.0027               | 0.04±0.01        | -0.95±0.17               | 7.8    |
| $f_{66}$     | 0.3232±0.0027                | 0.04±0.01        | -0.47±0.17               | 7.9    |
| $f_{68}$     | 0.2643±0.0028                | 0.04±0.01        | -2.12±0.17               | 7.5    |
| $f_{69}$     | 0.2393±0.0028                | 0.04±0.01        | -1.11±0.17               | 7.4    |
| $f_{70}$     | 0.2899±0.0028                | 0.04±0.01        | 1.91±0.17                | 7.5    |
| $f_{73}$     | 0.1909±0.0029                | 0.03±0.01        | 0.57±0.17                | 7.1    |
| $f_{74}$     | 54.7750±0.0029               | 0.03±0.01        | -2.66±0.17               | 7.1    |
| $f_{75}$     | 1.9000±0.0029                | 0.03±0.01        | -1.66±0.18               | 6.9    |
| $f_{76}$     | 4.9793±0.0029                | 0.03±0.01        | -1.99±0.18               | 6.9    |
| $f_{77}$     | 15.2435±0.0029               | 0.03±0.01        | 2.39±0.18                | 6.7    |
| $f_{78}$     | 2.4582±0.0029                | 0.03±0.01        | -1.77±0.18               | 6.8    |
| $f_{81}$     | 0.4039±0.0030                | 0.03±0.01        | 2.06±0.18                | 6.6    |
| $f_{82}$     | 41.8743±0.0029               | 0.03±0.01        | 2.15±0.18                | 6.7    |
| $f_{84}$     | 13.9504±0.0030               | 0.03±0.01        | -3.10±0.18               | 6.4    |
| $f_{85}$     | 0.3745±0.0030                | 0.03±0.01        | -2.79±0.18               | 6.4    |
| $f_{86}$     | 0.3471±0.0030                | 0.03±0.01        | 1.92±0.18                | 6.5    |
| $f_{87}$     | 56.9518±0.0030               | 0.03±0.01        | 1.82±0.18                | 6.4    |
| $f_{88}$     | 0.8597±0.0030                | 0.03±0.01        | 1.60±0.19                | 6.3    |
| $f_{90}$     | 41.8813±0.0031               | 0.03±0.01        | 3.13±0.19                | 6.0    |

**Table E.30:** Frequency list of 0102709431

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|--------------|------------------------------|------------------|--------------------------|-------|
| $f_1$        | 8.9828±0.0003                | 1.01±0.04        | -1.17±0.02               | 644.4 |
| $f_2$        | 1.2341±0.0004                | 0.61±0.03        | -2.08±0.03               | 311.9 |

Frequency list of 0102709431 continued

## Appendix E. Frequencies of individual Hybrid Candidate Stars

| Frequency list of 0102709431 continued |                              |                  |                          |       | Frequency list of 0102709431 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_3$                                  | 2.6866±0.0005                | 0.55±0.03        | 1.75±0.03                | 256.3 | $f_{81}$                               | 4.7499±0.0026                | 0.07±0.02        | 0.14±0.16                | 8.3   |
| $f_4$                                  | 0.1740±0.0008                | 0.33±0.04        | -0.09±0.05               | 86.2  | $f_{82}$                               | 1.9713±0.0026                | 0.07±0.02        | -2.13±0.16               | 8.4   |
| $f_5$                                  | 0.1442±0.0008                | 0.43±0.05        | 1.07±0.05                | 82.4  | $f_{83}$                               | 3.4438±0.0026                | 0.08±0.03        | -2.21±0.16               | 8.3   |
| $f_6$                                  | 0.1319±0.0008                | 0.39±0.04        | 2.19±0.05                | 91.0  | $f_{84}$                               | 1.6196±0.0027                | 0.08±0.03        | -1.97±0.16               | 8.0   |
| $f_7$                                  | 0.1050±0.0008                | 0.32±0.03        | -1.24±0.05               | 102.0 | $f_{85}$                               | 1.5958±0.0026                | 0.06±0.02        | 3.14±0.16                | 8.3   |
| $f_8$                                  | 0.1585±0.0008                | 0.32±0.03        | -1.12±0.05               | 92.1  | $f_{86}$                               | 1.0624±0.0027                | 0.07±0.02        | 0.60±0.16                | 8.1   |
| $f_9$                                  | 0.2557±0.0012                | 0.20±0.03        | 0.19±0.07                | 43.1  | $f_{87}$                               | 0.6665±0.0027                | 0.08±0.03        | 2.96±0.16                | 8.1   |
| $f_{10}$                               | 0.2072±0.0013                | 0.13±0.02        | -0.42±0.08               | 34.7  | $f_{88}$                               | 1.3070±0.0028                | 0.10±0.04        | -1.34±0.17               | 7.7   |
| $f_{11}$                               | 0.3321±0.0013                | 0.19±0.03        | 1.87±0.08                | 35.8  | $f_{89}$                               | 1.2939±0.0026                | 0.08±0.03        | -1.10±0.16               | 8.7   |
| $f_{12}$                               | 0.5804±0.0014                | 0.22±0.04        | 1.98±0.08                | 31.7  | $f_{90}$                               | 0.5585±0.0028                | 0.07±0.03        | -3.05±0.17               | 7.4   |
| $f_{13}$                               | 0.4200±0.0014                | 0.21±0.04        | 2.41±0.09                | 29.1  | $f_{91}$                               | 1.7223±0.0028                | 0.08±0.03        | 2.54±0.17                | 7.3   |
| $f_{14}$                               | 0.3082±0.0014                | 0.17±0.03        | -2.90±0.09               | 29.4  | $f_{92}$                               | 0.1120±0.0029                | 0.07±0.03        | 2.88±0.17                | 7.1   |
| $f_{15}$                               | 0.5117±0.0015                | 0.15±0.03        | -0.56±0.09               | 27.4  | $f_{93}$                               | 0.6243±0.0029                | 0.07±0.03        | -2.90±0.18               | 7.0   |
| $f_{16}$                               | 0.2464±0.0015                | 0.20±0.04        | 0.26±0.09                | 26.1  | $f_{94}$                               | 0.3617±0.0029                | 0.07±0.03        | -1.45±0.18               | 6.9   |
| $f_{17}$                               | 7.7483±0.0015                | 0.15±0.03        | -2.18±0.09               | 26.2  | $f_{95}$                               | 3.3914±0.0029                | 0.06±0.02        | 2.22±0.17                | 7.1   |
| $f_{18}$                               | 0.2195±0.0015                | 0.13±0.03        | 2.85±0.09                | 25.0  | $f_{96}$                               | 0.4758±0.0029                | 0.07±0.03        | 2.42±0.18                | 6.7   |
| $f_{19}$                               | 0.1815±0.0016                | 0.13±0.03        | 2.87±0.10                | 23.7  | $f_{97}$                               | 0.8218±0.0030                | 0.07±0.03        | -2.97±0.18               | 6.5   |
| $f_{20}$                               | 0.5424±0.0016                | 0.13±0.03        | -2.95±0.10               | 22.0  | $f_{98}$                               | 4.2406±0.0030                | 0.06±0.02        | -2.39±0.18               | 6.4   |
| $f_{21}$                               | 37.5341±0.0016               | 0.14±0.03        | 2.08±0.10                | 22.3  | $f_{99}$                               | 1.3189±0.0030                | 0.07±0.03        | -1.76±0.18               | 6.5   |
| $f_{22}$                               | 0.4327±0.0016                | 0.15±0.03        | -2.76±0.10               | 21.7  | $f_{101}$                              | 2.1752±0.0031                | 0.06±0.02        | 2.54±0.19                | 6.2   |
| $f_{23}$                               | 0.5674±0.0017                | 0.15±0.03        | -1.93±0.10               | 21.4  | $f_{102}$                              | 1.4572±0.0030                | 0.07±0.03        | 0.29±0.19                | 6.3   |
| $f_{24}$                               | 0.7633±0.0017                | 0.14±0.03        | 0.06±0.10                | 19.8  | $f_{103}$                              | 1.0401±0.0031                | 0.06±0.02        | 0.38±0.19                | 6.2   |
| $f_{25}$                               | 0.2705±0.0018                | 0.16±0.04        | 2.75±0.11                | 18.8  | $f_{104}$                              | 1.5763±0.0030                | 0.07±0.03        | 2.81±0.19                | 6.3   |
| $f_{26}$                               | 0.3879±0.0018                | 0.14±0.03        | 1.59±0.11                | 18.2  | $f_{105}$                              | 4.3752±0.0031                | 0.06±0.02        | 0.46±0.19                | 6.1   |
| $f_{28}$                               | 0.5204±0.0018                | 0.12±0.03        | -1.95±0.11               | 17.3  | $f_{106}$                              | 1.8802±0.0031                | 0.06±0.02        | -1.93±0.19               | 6.0   |
| $f_{29}$                               | 0.2358±0.0018                | 0.12±0.03        | 0.50±0.11                | 17.4  | $f_{107}$                              | 2.0252±0.0031                | 0.06±0.02        | -0.42±0.19               | 6.0   |
| $f_{30}$                               | 1.3347±0.0018                | 0.11±0.03        | 2.97±0.11                | 17.1  | $f_{108}$                              | 1.7870±0.0031                | 0.06±0.02        | -0.27±0.19               | 6.1   |
| $f_{31}$                               | 0.9513±0.0018                | 0.16±0.04        | -2.81±0.11               | 17.2  | $f_{109}$                              | 0.8651±0.0031                | 0.06±0.02        | -0.25±0.19               | 5.9   |
| $f_{32}$                               | 0.1209±0.0019                | 0.13±0.03        | 1.84±0.12                | 16.1  | $f_{110}$                              | 0.9066±0.0031                | 0.06±0.02        | -0.37±0.19               | 5.9   |
| $f_{33}$                               | 0.1385±0.0019                | 0.12±0.03        | 1.19±0.11                | 17.0  | $f_{111}$                              | 0.7703±0.0032                | 0.06±0.03        | 1.66±0.20                | 5.6   |
| $f_{34}$                               | 0.6948±0.0019                | 0.12±0.03        | 0.25±0.12                | 16.3  | $f_{112}$                              | 2.4042±0.0032                | 0.06±0.03        | 2.30±0.20                | 5.6   |
| $f_{35}$                               | 0.9407±0.0019                | 0.12±0.03        | 2.99±0.12                | 15.7  | $f_{113}$                              | 2.1836±0.0033                | 0.06±0.03        | -1.59±0.20               | 5.5   |
| $f_{36}$                               | 0.4073±0.0020                | 0.12±0.03        | 1.92±0.12                | 15.3  | $f_{114}$                              | 1.9384±0.0032                | 0.06±0.03        | 2.71±0.20                | 5.6   |
| $f_{37}$                               | 9.7090±0.0019                | 0.11±0.03        | 1.75±0.12                | 15.8  | $f_{115}$                              | 1.2638±0.0033                | 0.06±0.03        | -0.37±0.20               | 5.5   |
| $f_{38}$                               | 0.1920±0.0020                | 0.11±0.03        | -2.37±0.12               | 14.2  | $f_{116}$                              | 1.6962±0.0033                | 0.06±0.03        | 0.68±0.20                | 5.5   |
| $f_{39}$                               | 0.7951±0.0020                | 0.13±0.03        | -1.81±0.12               | 14.3  | $f_{117}$                              | 1.5295±0.0033                | 0.06±0.03        | -0.77±0.20               | 5.5   |
| $f_{40}$                               | 1.0095±0.0020                | 0.11±0.03        | -0.29±0.12               | 14.4  | $f_{118}$                              | 0.9873±0.0033                | 0.06±0.03        | -2.74±0.20               | 5.4   |
| $f_{41}$                               | 1.2112±0.0020                | 0.11±0.03        | 2.19±0.12                | 14.5  | $f_{119}$                              | 1.6658±0.0033                | 0.06±0.03        | 3.11±0.20                | 5.3   |
| $f_{42}$                               | 0.5010±0.0020                | 0.11±0.03        | 0.58±0.12                | 14.4  | $f_{120}$                              | 1.9909±0.0033                | 0.06±0.03        | -1.29±0.20               | 5.4   |
| $f_{43}$                               | 1.9103±0.0020                | 0.11±0.03        | -0.12±0.12               | 14.5  | $f_{122}$                              | 1.4857±0.0033                | 0.06±0.03        | 1.28±0.20                | 5.2   |
| $f_{44}$                               | 4.3660±0.0021                | 0.11±0.03        | 2.41±0.13                | 13.8  | $f_{123}$                              | 4.7391±0.0034                | 0.06±0.03        | 0.14±0.21                | 5.1   |
| $f_{45}$                               | 1.1955±0.0021                | 0.11±0.03        | -2.15±0.13               | 13.3  | $f_{124}$                              | 3.4114±0.0034                | 0.06±0.03        | -1.04±0.21               | 5.0   |
| $f_{46}$                               | 0.6475±0.0021                | 0.10±0.03        | 0.78±0.13                | 12.7  |                                        |                              |                  |                          |       |
| $f_{47}$                               | 0.2014±0.0022                | 0.11±0.03        | -1.23±0.13               | 12.1  |                                        |                              |                  |                          |       |
| $f_{48}$                               | 0.7801±0.0022                | 0.12±0.03        | -0.10±0.14               | 11.9  |                                        |                              |                  |                          |       |
| $f_{49}$                               | 0.7078±0.0022                | 0.11±0.03        | -0.14±0.14               | 11.7  |                                        |                              |                  |                          |       |
| $f_{51}$                               | 1.1066±0.0022                | 0.11±0.03        | 3.04±0.14                | 11.6  |                                        |                              |                  |                          |       |
| $f_{52}$                               | 0.7499±0.0022                | 0.10±0.03        | -0.70±0.14               | 11.6  |                                        |                              |                  |                          |       |
| $f_{53}$                               | 0.6744±0.0022                | 0.10±0.03        | -2.02±0.14               | 11.9  |                                        |                              |                  |                          |       |
| $f_{54}$                               | 0.8063±0.0023                | 0.09±0.03        | -3.05±0.14               | 11.5  |                                        |                              |                  |                          |       |
| $f_{55}$                               | 0.9636±0.0023                | 0.10±0.03        | 1.34±0.14                | 11.2  |                                        |                              |                  |                          |       |
| $f_{56}$                               | 0.2988±0.0023                | 0.09±0.03        | -0.49±0.14               | 10.7  |                                        |                              |                  |                          |       |
| $f_{57}$                               | 0.2267±0.0023                | 0.09±0.03        | -2.21±0.14               | 11.3  |                                        |                              |                  |                          |       |
| $f_{58}$                               | 0.6053±0.0023                | 0.08±0.02        | 0.51±0.14                | 11.0  |                                        |                              |                  |                          |       |
| $f_{59}$                               | 18.6930±0.0023               | 0.09±0.03        | 0.37±0.14                | 10.6  |                                        |                              |                  |                          |       |
| $f_{60}$                               | 1.1412±0.0024                | 0.12±0.04        | 0.80±0.14                | 10.4  |                                        |                              |                  |                          |       |
| $f_{61}$                               | 1.2451±0.0023                | 0.08±0.02        | 3.08±0.14                | 10.7  |                                        |                              |                  |                          |       |
| $f_{62}$                               | 0.9231±0.0023                | 0.09±0.03        | 1.42±0.14                | 10.7  |                                        |                              |                  |                          |       |
| $f_{63}$                               | 2.1131±0.0023                | 0.09±0.03        | 2.05±0.14                | 10.6  |                                        |                              |                  |                          |       |
| $f_{64}$                               | 0.2603±0.0025                | 0.09±0.03        | -2.31±0.15               | 9.7   |                                        |                              |                  |                          |       |
| $f_{65}$                               | 0.3471±0.0023                | 0.09±0.03        | -1.02±0.14               | 10.7  |                                        |                              |                  |                          |       |
| $f_{66}$                               | 1.3694±0.0025                | 0.08±0.03        | -1.20±0.15               | 9.5   |                                        |                              |                  |                          |       |
| $f_{67}$                               | 7.0211±0.0025                | 0.08±0.03        | -1.80±0.15               | 9.2   |                                        |                              |                  |                          |       |
| $f_{68}$                               | 1.1519±0.0025                | 0.09±0.03        | 3.02±0.15                | 9.3   |                                        |                              |                  |                          |       |
| $f_{69}$                               | 1.1285±0.0024                | 0.10±0.03        | 1.28±0.15                | 9.8   |                                        |                              |                  |                          |       |
| $f_{70}$                               | 1.1187±0.0023                | 0.10±0.03        | -2.39±0.14               | 10.7  |                                        |                              |                  |                          |       |
| $f_{71}$                               | 0.4155±0.0025                | 0.09±0.03        | 2.20±0.15                | 9.2   |                                        |                              |                  |                          |       |
| $f_{72}$                               | 1.5878±0.0025                | 0.09±0.03        | 0.03±0.15                | 9.4   |                                        |                              |                  |                          |       |
| $f_{73}$                               | 6.2961±0.0026                | 0.08±0.03        | -2.61±0.16               | 8.9   |                                        |                              |                  |                          |       |
| $f_{74}$                               | 0.5904±0.0025                | 0.07±0.02        | -0.97±0.16               | 9.0   |                                        |                              |                  |                          |       |
| $f_{75}$                               | 1.2234±0.0026                | 0.09±0.03        | 0.46±0.16                | 8.9   |                                        |                              |                  |                          |       |
| $f_{76}$                               | 1.6797±0.0026                | 0.08±0.03        | -0.55±0.16               | 8.5   |                                        |                              |                  |                          |       |
| $f_{77}$                               | 0.4841±0.0026                | 0.08±0.03        | -0.73±0.16               | 8.7   |                                        |                              |                  |                          |       |
| $f_{78}$                               | 2.4999±0.0026                | 0.08±0.03        | -0.07±0.16               | 8.6   |                                        |                              |                  |                          |       |
| $f_{79}$                               | 5.3012±0.0026                | 0.08±0.03        | 1.82±0.16                | 8.5   |                                        |                              |                  |                          |       |
| $f_{80}$                               | 0.4478±0.0026                | 0.08±0.03        | -2.93±0.16               | 8.5   |                                        |                              |                  |                          |       |
| Frequency list of 0102709431 continued |                              |                  |                          |       |                                        |                              |                  |                          |       |

| Frequency list of 0102711885 continued |                              |                  |                          |        |
|----------------------------------------|------------------------------|------------------|--------------------------|--------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign.  |
| $f_1$                                  | 16.5395±0.0002               | 2.94±0.07        | 2.93±0.01                | 1562.0 |
| $f_2$                                  | 28.7264±0.0004               | 1.18±0.06        | -1.43±0.02               | 405.5  |
| $f_3$                                  | 18.6271±0.0004               | 1.02±0.06        | -1.36±0.03               | 340.0  |
| $f_4$                                  | 20.9225±0.0004               | 0.97±0.05        | 1.96±0.03                | 337.9  |
| $f_5$                                  | 28.6941±0.0004               | 0.98±0.05        | 2.91±0.02                | 376.6  |
| $f_6$                                  | 13.6679±0.0004               | 0.90±0.05        | -1.59±0.02               | 363.7  |
| $f_7$                                  | 13.1500±0.0004               | 0.89±0.05        | 2.34±0.02                | 388.1  |
| $f_8$                                  | 24.6189±0.0006               | 0.54±0.04        | 1.71±0.04                | 153.5  |
| $f_9$                                  | 31.7472±0.0007               | 0.47±0.04        | 1.69±0.04                | 130.5  |
| $f_{10}$                               | 16.3811±0.0007               | 0.44±0.04        | -2.91±0.04               | 120.1  |
| $f_{11}$                               | 19.2153±0.0007               | 0.40±0.04        | -1.79±0.05               | 106.3  |
| $f_{12}$                               | 3.7108±0.0008                | 0.38±0.04        | -2.90±0.05               | 96.5   |
| $f_{13}$                               | 26.7754±0.0010               | 0.29±0.04        | -3.01±0.06               | 57.5   |
| $f_{14}$                               | 20.0373±0.0011               | 0.27±0.04        | 3.08±0.07                | 48.2   |
| $f_{15}$                               | 12.8437±0.0011               | 0.27±0.04        | 2.13±0.07                | 47.0   |
| $f_{16}$                               | 26.0291±0.0011               | 0.25±0.04        | -0.27±0.07               | 44.9   |
| $f_{17}$                               | 29.3448±0.0012               | 0.23±0.04        | -3.07±0.08               | 37.6   |
| $f_{18}$                               | 41.1747±0.0012               | 0.23±0.04        | 0.24±0.08                | 38.1   |
| $f_{19}$                               | 30.5105±0.0012               | 0.23±0.04        | 0.47±0.08                | 37.5   |
| $f_{20}$                               | 24.3015±0.0013               | 0.23±0.04        | -0.07±0.08               | 35.9   |
| $f_{21}$                               | 22.9863±0.0013               | 0.23±0.04        | 0.95±0.08                | 36.0   |
| $f_{22}$                               | 27.6607±0.0013               | 0.21±0.04        | 2.26±0.08                | 34.4   |
| $f_{23}$                               | 21.1520±0.0013               | 0.22±0.04        | 2.43±0.08                | 34.2   |
| $f_{24}$                               | 17.8619±0.0013               | 0.21±0.04        | 1.71±0.08                | 33.2   |
| $f_{25}$                               | 2.3995±0.0013                | 0.20±0.03        | 0.77±0.08                | 33.0   |
| $f_{26}$                               | 37.8953±0.0014               | 0.19±0.03        | 0.93±0.08                | 30.4   |
| $f_{27}$                               | 11.5969±0.0014               | 0.19±0.04        | 2.58±0.09                | 29.2   |
| $f_{28}$                               | 5.2376±0.0014                | 0.18±0.03        | 2.76±0.09                | 29.2   |
| $f_{29}$                               | 23.7181±0.0014               | 0.19±0.04        | 2.56±0.09                | 29.2   |
| $f_{30}$                               | 6.4942±0.0015                | 0.18±0.03        | -2.69±0.09               | 27.4   |
| Frequency list of 0102711885 continued |                              |                  |                          |        |

## Appendix E. Frequencies of individual Hybrid Candidate Stars

| Frequency list of 0102711885 continued |                              |                  |                          |       | Frequency list of 0102711885 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| <i>f</i> <sub>31</sub>                 | 36.5339±0.0015               | 0.17±0.03        | 0.28±0.09                | 24.7  | <i>f</i> <sub>127</sub>                | 2.7028±0.0028                | 0.08±0.03        | 0.46±0.17                | 7.4   |
| <i>f</i> <sub>32</sub>                 | 32.1239±0.0015               | 0.17±0.03        | -0.79±0.09               | 24.3  | <i>f</i> <sub>128</sub>                | 35.5985±0.0028               | 0.07±0.03        | -1.80±0.17               | 7.6   |
| <i>f</i> <sub>33</sub>                 | 28.3965±0.0016               | 0.17±0.04        | 1.73±0.10                | 23.4  | <i>f</i> <sub>129</sub>                | 43.9967±0.0028               | 0.08±0.03        | 2.90±0.17                | 7.3   |
| <i>f</i> <sub>35</sub>                 | 1.0241±0.0017                | 0.15±0.03        | 0.82±0.10                | 21.1  | <i>f</i> <sub>130</sub>                | 38.3985±0.0028               | 0.08±0.03        | 2.59±0.17                | 7.2   |
| <i>f</i> <sub>36</sub>                 | 37.4627±0.0017               | 0.15±0.03        | 0.34±0.10                | 20.1  | <i>f</i> <sub>131</sub>                | 0.1212±0.0028                | 0.09±0.03        | -2.77±0.17               | 7.2   |
| <i>f</i> <sub>37</sub>                 | 21.3564±0.0017               | 0.15±0.03        | -2.56±0.10               | 20.3  | <i>f</i> <sub>132</sub>                | 0.1413±0.0028                | 0.08±0.03        | -1.38±0.17               | 7.4   |
| <i>f</i> <sub>38</sub>                 | 21.9293±0.0017               | 0.17±0.04        | -2.07±0.10               | 20.4  | <i>f</i> <sub>133</sub>                | 2.4150±0.0029                | 0.08±0.03        | -3.10±0.18               | 6.9   |
| <i>f</i> <sub>39</sub>                 | 20.8572±0.0017               | 0.15±0.03        | 2.66±0.10                | 19.7  | <i>f</i> <sub>136</sub>                | 3.2544±0.0029                | 0.07±0.03        | 1.85±0.18                | 7.0   |
| <i>f</i> <sub>40</sub>                 | 6.0030±0.0017                | 0.15±0.03        | -1.78±0.10               | 19.8  | <i>f</i> <sub>137</sub>                | 33.0748±0.0029               | 0.08±0.03        | -1.72±0.18               | 7.0   |
| <i>f</i> <sub>41</sub>                 | 2.5968±0.0017                | 0.15±0.03        | 2.88±0.10                | 19.9  | <i>f</i> <sub>138</sub>                | 54.3640±0.0029               | 0.08±0.03        | -0.98±0.18               | 6.9   |
| <i>f</i> <sub>42</sub>                 | 37.4108±0.0017               | 0.15±0.03        | 1.12±0.11                | 19.3  | <i>f</i> <sub>139</sub>                | 36.9563±0.0029               | 0.08±0.03        | 1.41±0.18                | 6.9   |
| <i>f</i> <sub>43</sub>                 | 19.5663±0.0018               | 0.15±0.03        | -0.30±0.11               | 18.4  | <i>f</i> <sub>140</sub>                | 26.1296±0.0029               | 0.08±0.03        | 0.74±0.18                | 6.7   |
| <i>f</i> <sub>44</sub>                 | 26.1409±0.0018               | 0.15±0.03        | -2.67±0.11               | 18.5  | <i>f</i> <sub>141</sub>                | 14.4815±0.0030               | 0.08±0.03        | 0.51±0.18                | 6.6   |
| <i>f</i> <sub>45</sub>                 | 26.5496±0.0018               | 0.15±0.04        | -0.07±0.11               | 18.1  | <i>f</i> <sub>145</sub>                | 32.5253±0.0029               | 0.08±0.03        | -0.43±0.18               | 6.8   |
| <i>f</i> <sub>46</sub>                 | 27.6295±0.0018               | 0.14±0.03        | 3.13±0.11                | 18.1  | <i>f</i> <sub>146</sub>                | 2.8702±0.0029                | 0.07±0.03        | -3.07±0.18               | 6.7   |
| <i>f</i> <sub>48</sub>                 | 5.6352±0.0018                | 0.14±0.03        | -0.48±0.11               | 17.2  | <i>f</i> <sub>147</sub>                | 19.2458±0.0030               | 0.08±0.03        | 2.23±0.18                | 6.6   |
| <i>f</i> <sub>49</sub>                 | 32.3205±0.0019               | 0.13±0.03        | 1.92±0.11                | 17.0  | <i>f</i> <sub>148</sub>                | 1.5652±0.0030                | 0.07±0.03        | -1.76±0.19               | 6.3   |
| <i>f</i> <sub>50</sub>                 | 17.3780±0.0019               | 0.14±0.03        | -1.30±0.11               | 17.0  | <i>f</i> <sub>149</sub>                | 23.2773±0.0030               | 0.07±0.03        | -2.19±0.18               | 6.5   |
| <i>f</i> <sub>51</sub>                 | 23.4014±0.0019               | 0.15±0.04        | 0.75±0.11                | 16.8  | <i>f</i> <sub>150</sub>                | 32.1694±0.0030               | 0.07±0.03        | -2.32±0.18               | 6.4   |
| <i>f</i> <sub>52</sub>                 | 0.1112±0.0019                | 0.13±0.03        | -0.72±0.12               | 16.4  | <i>f</i> <sub>151</sub>                | 31.4958±0.0030               | 0.07±0.03        | 1.52±0.18                | 6.4   |
| <i>f</i> <sub>53</sub>                 | 31.7674±0.0019               | 0.13±0.03        | 0.06±0.12                | 15.7  | <i>f</i> <sub>152</sub>                | 33.3848±0.0030               | 0.07±0.03        | 2.04±0.18                | 6.5   |
| <i>f</i> <sub>54</sub>                 | 5.5896±0.0019                | 0.13±0.03        | -2.82±0.12               | 15.7  | <i>f</i> <sub>153</sub>                | 0.1654±0.0031                | 0.07±0.03        | -2.53±0.19               | 6.2   |
| <i>f</i> <sub>56</sub>                 | 33.8156±0.0020               | 0.13±0.03        | 1.81±0.12                | 14.6  | <i>f</i> <sub>154</sub>                | 30.3128±0.0031               | 0.07±0.03        | 1.94±0.19                | 6.0   |
| <i>f</i> <sub>57</sub>                 | 5.0807±0.0020                | 0.13±0.03        | -1.20±0.12               | 14.9  | <i>f</i> <sub>155</sub>                | 23.7116±0.0031               | 0.07±0.03        | 1.33±0.19                | 6.0   |
| <i>f</i> <sub>58</sub>                 | 23.9867±0.0020               | 0.12±0.03        | -0.24±0.12               | 14.6  | <i>f</i> <sub>156</sub>                | 31.4806±0.0031               | 0.07±0.03        | -0.53±0.19               | 5.9   |
| <i>f</i> <sub>59</sub>                 | 32.6630±0.0021               | 0.12±0.03        | -3.04±0.13               | 13.8  | <i>f</i> <sub>157</sub>                | 28.7325±0.0032               | 0.07±0.03        | 0.24±0.19                | 5.8   |
| <i>f</i> <sub>60</sub>                 | 20.8504±0.0021               | 0.12±0.03        | 1.79±0.13                | 13.5  | <i>f</i> <sub>158</sub>                | 23.8107±0.0032               | 0.07±0.03        | 1.65±0.19                | 5.8   |
| <i>f</i> <sub>61</sub>                 | 26.8421±0.0021               | 0.12±0.03        | 2.19±0.13                | 13.3  | <i>f</i> <sub>159</sub>                | 2.0032±0.0031                | 0.08±0.03        | -0.61±0.19               | 6.0   |
| <i>f</i> <sub>62</sub>                 | 34.5154±0.0021               | 0.12±0.03        | 0.42±0.13                | 13.2  | <i>f</i> <sub>162</sub>                | 19.4690±0.0032               | 0.07±0.03        | 0.05±0.19                | 5.8   |
| <i>f</i> <sub>64</sub>                 | 29.0044±0.0021               | 0.11±0.03        | -3.10±0.13               | 12.9  | <i>f</i> <sub>165</sub>                | 16.2626±0.0032               | 0.07±0.03        | -0.12±0.19               | 5.8   |
| <i>f</i> <sub>65</sub>                 | 22.4463±0.0021               | 0.12±0.03        | 1.64±0.13                | 13.2  | <i>f</i> <sub>166</sub>                | 4.0306±0.0031                | 0.07±0.03        | 2.83±0.19                | 6.0   |
| <i>f</i> <sub>66</sub>                 | 15.9346±0.0021               | 0.12±0.03        | 2.37±0.13                | 12.8  | <i>f</i> <sub>167</sub>                | 32.6924±0.0032               | 0.07±0.03        | -0.89±0.20               | 5.7   |
| <i>f</i> <sub>67</sub>                 | 2.9677±0.0021                | 0.12±0.03        | -0.44±0.13               | 13.3  | <i>f</i> <sub>168</sub>                | 33.6963±0.0033               | 0.07±0.03        | -0.66±0.20               | 5.5   |
| <i>f</i> <sub>68</sub>                 | 12.4727±0.0021               | 0.11±0.03        | 1.82±0.13                | 12.8  | <i>f</i> <sub>169</sub>                | 14.2953±0.0033               | 0.07±0.03        | -1.67±0.20               | 5.5   |
| <i>f</i> <sub>69</sub>                 | 2.4551±0.0022                | 0.11±0.03        | -0.20±0.13               | 12.6  | <i>f</i> <sub>170</sub>                | 4.8548±0.0033                | 0.07±0.03        | -0.39±0.20               | 5.5   |
| <i>f</i> <sub>70</sub>                 | 18.9993±0.0021               | 0.12±0.03        | 1.75±0.13                | 12.7  | <i>f</i> <sub>171</sub>                | 32.5513±0.0033               | 0.07±0.03        | 1.03±0.20                | 5.4   |
| <i>f</i> <sub>71</sub>                 | 35.4998±0.0021               | 0.12±0.03        | 0.92±0.13                | 12.9  | <i>f</i> <sub>172</sub>                | 36.8149±0.0033               | 0.07±0.03        | 1.64±0.20                | 5.4   |
| <i>f</i> <sub>72</sub>                 | 4.8943±0.0022                | 0.12±0.03        | 2.52±0.13                | 12.6  | <i>f</i> <sub>173</sub>                | 3.4404±0.0033                | 0.07±0.03        | -0.04±0.20               | 5.4   |
| <i>f</i> <sub>73</sub>                 | 28.0264±0.0022               | 0.11±0.03        | 1.42±0.14                | 11.8  | <i>f</i> <sub>174</sub>                | 28.0038±0.0033               | 0.07±0.03        | -2.13±0.20               | 5.4   |
| <i>f</i> <sub>74</sub>                 | 3.3991±0.0022                | 0.11±0.03        | 1.94±0.14                | 11.8  | <i>f</i> <sub>175</sub>                | 17.1855±0.0033               | 0.07±0.03        | -0.92±0.20               | 5.3   |
| <i>f</i> <sub>78</sub>                 | 2.0061±0.0023                | 0.22±0.07        | 0.52±0.14                | 10.8  | <i>f</i> <sub>176</sub>                | 28.7172±0.0033               | 0.07±0.03        | -0.97±0.20               | 5.3   |
| <i>f</i> <sub>80</sub>                 | 0.6286±0.0023                | 0.10±0.03        | 2.28±0.14                | 10.8  | <i>f</i> <sub>177</sub>                | 23.2973±0.0033               | 0.07±0.03        | -0.35±0.20               | 5.3   |
| <i>f</i> <sub>81</sub>                 | 21.2533±0.0024               | 0.10±0.03        | 1.14±0.15                | 10.2  | <i>f</i> <sub>178</sub>                | 23.4356±0.0033               | 0.07±0.03        | 0.90±0.20                | 5.4   |
| <i>f</i> <sub>88</sub>                 | 24.7932±0.0023               | 0.10±0.03        | -1.18±0.14               | 10.8  | <i>f</i> <sub>179</sub>                | 2.7936±0.0033                | 0.07±0.03        | -0.29±0.20               | 5.2   |
| <i>f</i> <sub>89</sub>                 | 19.2551±0.0024               | 0.10±0.03        | -0.77±0.15               | 10.3  | <i>f</i> <sub>180</sub>                | 35.5848±0.0033               | 0.07±0.03        | 1.45±0.20                | 5.2   |
| <i>f</i> <sub>90</sub>                 | 17.8302±0.0024               | 0.10±0.03        | 2.38±0.15                | 10.1  | <i>f</i> <sub>183</sub>                | 14.3157±0.0034               | 0.06±0.03        | 0.26±0.21                | 5.0   |
| <i>f</i> <sub>91</sub>                 | 33.0644±0.0024               | 0.09±0.03        | -1.24±0.15               | 10.1  | <i>f</i> <sub>184</sub>                | 28.2104±0.0033               | 0.07±0.03        | 2.97±0.20                | 5.3   |
| <i>f</i> <sub>92</sub>                 | 1.8142±0.0024                | 0.10±0.03        | -2.75±0.15               | 10.1  |                                        |                              |                  |                          |       |
| <i>f</i> <sub>93</sub>                 | 43.5548±0.0024               | 0.10±0.03        | 2.32±0.15                | 10.2  |                                        |                              |                  |                          |       |
| <i>f</i> <sub>95</sub>                 | 36.9140±0.0025               | 0.10±0.03        | -1.25±0.15               | 9.7   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>96</sub>                 | 32.1086±0.0025               | 0.10±0.03        | -2.80±0.15               | 9.6   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>97</sub>                 | 6.2714±0.0025                | 0.09±0.03        | 2.14±0.15                | 9.3   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>98</sub>                 | 31.5257±0.0025               | 0.10±0.03        | -1.16±0.15               | 9.4   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>99</sub>                 | 8.6446±0.0025                | 0.10±0.03        | -0.15±0.15               | 9.3   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>100</sub>                | 13.3160±0.0025               | 0.09±0.03        | -0.79±0.15               | 9.2   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>103</sub>                | 32.3278±0.0025               | 0.09±0.03        | -1.36±0.15               | 9.3   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>104</sub>                | 29.2592±0.0025               | 0.09±0.03        | 1.74±0.16                | 9.0   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>105</sub>                | 35.4684±0.0025               | 0.09±0.03        | -2.22±0.16               | 9.0   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>106</sub>                | 0.4409±0.0026                | 0.08±0.03        | -3.13±0.16               | 8.7   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>107</sub>                | 0.1055±0.0025                | 0.09±0.03        | -2.41±0.15               | 9.3   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>108</sub>                | 3.8555±0.0026                | 0.09±0.03        | -2.33±0.16               | 8.7   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>109</sub>                | 24.4719±0.0026               | 0.09±0.03        | -0.48±0.16               | 8.8   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>110</sub>                | 18.3756±0.0026               | 0.09±0.03        | -1.21±0.16               | 8.4   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>111</sub>                | 35.5657±0.0026               | 0.08±0.03        | 0.93±0.16                | 8.4   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>112</sub>                | 0.1754±0.0026                | 0.08±0.03        | 1.51±0.16                | 8.3   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>113</sub>                | 2.7756±0.0026                | 0.09±0.03        | -1.60±0.16               | 8.4   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>114</sub>                | 1.7115±0.0027                | 0.08±0.03        | -0.12±0.17               | 7.9   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>115</sub>                | 8.5880±0.0027                | 0.08±0.03        | -0.63±0.17               | 7.8   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>117</sub>                | 9.1217±0.0027                | 0.09±0.03        | 1.04±0.17                | 7.9   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>118</sub>                | 15.2905±0.0027               | 0.08±0.03        | 2.01±0.16                | 8.0   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>119</sub>                | 34.6760±0.0028               | 0.08±0.03        | -0.31±0.17               | 7.7   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>120</sub>                | 15.8557±0.0028               | 0.08±0.03        | 0.93±0.17                | 7.6   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>121</sub>                | 5.8953±0.0028                | 0.08±0.03        | -0.13±0.17               | 7.5   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>122</sub>                | 3.9081±0.0028                | 0.08±0.03        | -0.54±0.17               | 7.4   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>123</sub>                | 37.3932±0.0028               | 0.08±0.03        | -1.89±0.17               | 7.4   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>124</sub>                | 7.5369±0.0028                | 0.08±0.03        | 0.04±0.17                | 7.6   |                                        |                              |                  |                          |       |
| Frequency list of 0102711885 continued |                              |                  |                          |       | Frequency list of 0102711971 continued |                              |                  |                          |       |
|                                        |                              |                  |                          |       | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|                                        |                              |                  |                          |       | <i>f</i> <sub>1</sub>                  | 11.8277±0.0003               | 2.10±0.08        | 2.35±0.02                | 716.8 |
|                                        |                              |                  |                          |       | <i>f</i> <sub>2</sub>                  | 11.9976±0.0003               | 1.63±0.07        | -0.43±0.02               | 540.5 |
|                                        |                              |                  |                          |       | <i>f</i> <sub>3</sub>                  | 11.4584±0.0004               | 1.18±0.06        | 2.04±0.03                | 330.7 |
|                                        |                              |                  |                          |       | <i>f</i> <sub>6</sub>                  | 13.6960±0.0008               | 0.57±0.06        | 0.95±0.05                | 88.5  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>9</sub>                  | 6.5748±0.0008                | 0.52±0.06        | -2.47±0.05               | 82.7  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>11</sub>                 | 10.1117±0.0009               | 0.49±0.06        | -1.93±0.05               | 76.4  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>12</sub>                 | 12.5939±0.0010               | 0.43±0.05        | 0.42±0.06                | 62.4  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>16</sub>                 | 15.1639±0.0013               | 0.32±0.05        | 3.13±0.08                | 37.2  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>19</sub>                 | 12.3529±0.0014               | 0.30±0.05        | -2.78±0.08               | 30.8  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>20</sub>                 | 12.3945±0.0013               | 0.30±0.05        | -0.25±0.08               | 33.0  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>23</sub>                 | 8.0673±0.0015                | 0.27±0.05        | 2.87±0.09                | 27.6  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>26</sub>                 | 7.7089±0.0016                | 0.23±0.05        | -1.71±0.10               | 22.1  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>31</sub>                 | 16.1999±0.0017               | 0.23±0.05        | 1.50±0.10                | 21.1  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>32</sub>                 | 7.1927±0.0017                | 0.23±0.05        | -0.71±0.10               | 20.9  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>34</sub>                 | 7.8236±0.0017                | 0.22±0.05        | 2.48±0.11                | 19.6  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>36</sub>                 | 9.1341±0.0018                | 0.21±0.05        | -1.12±0.11               | 17.9  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>37</sub>                 | 9.7124±0.0018                | 0.20±0.05        | 2.63±0.11                | 17.3  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>39</sub>                 | 1.3525±0.0019                | 0.19±0.05        | -0.84±0.12               | 16.3  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>40</sub>                 | 14.4154±0.0019               | 0.19±0.05        | 3.05±0.12                | 15.6  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>42</sub>                 | 10.3665±0.0020               | 0.18±0.05        | -1.42±0.12               | 15.2  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>43</sub>                 | 13.9486±0.0020               | 0.20±0.05        | 2.09±0.12                | 14.3  |
|                                        |                              |                  |                          |       | <i>f</i> <                             |                              |                  |                          |       |

## Appendix E. Frequencies of individual Hybrid Candidate Stars

| Frequency list of 0102711971 continued |                              |                  |                          |       | Frequency list of 0102713978 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{50}$                               | 1.5156±0.0021                | 0.17±0.05        | -3.08±0.13               | 12.7  | $f_{18}$                               | 0.1801±0.0019                | 0.11±0.03        | 0.62±0.12                | 15.8  |
| $f_{51}$                               | 0.9769±0.0021                | 0.16±0.04        | 1.57±0.13                | 12.7  | $f_{19}$                               | 0.3175±0.0020                | 0.10±0.03        | 2.09±0.12                | 14.8  |
| $f_{52}$                               | 0.4561±0.0021                | 0.17±0.05        | -0.64±0.13               | 12.7  | $f_{20}$                               | 0.2195±0.0020                | 0.11±0.03        | -0.36±0.12               | 15.1  |
| $f_{57}$                               | 55.8639±0.0022               | 0.19±0.06        | 2.62±0.14                | 11.6  | $f_{21}$                               | 0.4433±0.0020                | 0.09±0.02        | 1.50±0.12                | 14.3  |
| $f_{58}$                               | 55.8528±0.0022               | 0.18±0.05        | 0.25±0.13                | 12.0  | $f_{22}$                               | 1.3700±0.0020                | 0.10±0.03        | 2.45±0.12                | 14.3  |
| $f_{59}$                               | 3.7955±0.0023                | 0.16±0.05        | -1.63±0.14               | 11.3  | $f_{23}$                               | 2.0443±0.0021                | 0.09±0.02        | 1.98±0.13                | 13.0  |
| $f_{62}$                               | 3.3496±0.0024                | 0.15±0.05        | 1.74±0.14                | 10.4  | $f_{24}$                               | 0.1127±0.0021                | 0.08±0.02        | 1.64±0.13                | 12.8  |
| $f_{64}$                               | 8.4989±0.0024                | 0.14±0.04        | 2.96±0.15                | 9.9   | $f_{25}$                               | 2.1663±0.0022                | 0.09±0.03        | 2.20±0.13                | 12.4  |
| $f_{65}$                               | 15.6860±0.0024               | 0.15±0.05        | 1.08±0.15                | 9.9   | $f_{26}$                               | 0.5255±0.0022                | 0.09±0.03        | -0.83±0.13               | 12.3  |
| $f_{66}$                               | 3.7105±0.0024                | 0.15±0.05        | 2.57±0.15                | 9.9   | $f_{27}$                               | 4.1651±0.0022                | 0.09±0.03        | -2.81±0.13               | 12.3  |
| $f_{67}$                               | 12.5349±0.0024               | 0.15±0.05        | -2.68±0.15               | 10.1  | $f_{28}$                               | 1.3866±0.0022                | 0.08±0.02        | 1.54±0.14                | 11.9  |
| $f_{69}$                               | 57.0221±0.0025               | 0.14±0.05        | 2.32±0.15                | 9.4   | $f_{29}$                               | 0.4905±0.0023                | 0.08±0.02        | -2.07±0.14               | 10.7  |
| $f_{70}$                               | 8.8600±0.0025                | 0.14±0.05        | 0.02±0.15                | 9.4   | $f_{30}$                               | 1.7807±0.0023                | 0.08±0.02        | 2.54±0.14                | 10.8  |
| $f_{71}$                               | 56.9505±0.0025               | 0.12±0.04        | -1.92±0.15               | 9.4   | $f_{31}$                               | 3.6525±0.0023                | 0.08±0.02        | 2.99±0.14                | 10.6  |
| $f_{73}$                               | 11.6100±0.0025               | 0.14±0.05        | 2.18±0.16                | 9.0   | $f_{32}$                               | 1.0812±0.0024                | 0.08±0.02        | 1.09±0.14                | 10.4  |
| $f_{74}$                               | 13.3891±0.0026               | 0.14±0.05        | -1.67±0.16               | 8.9   | $f_{33}$                               | 1.5840±0.0024                | 0.08±0.03        | -0.20±0.15               | 10.1  |
| $f_{77}$                               | 10.7648±0.0026               | 0.14±0.05        | -0.43±0.16               | 8.8   | $f_{34}$                               | 1.0508±0.0024                | 0.08±0.03        | -2.51±0.15               | 10.1  |
| $f_{78}$                               | 9.4270±0.0026                | 0.14±0.05        | 2.24±0.16                | 8.9   | $f_{35}$                               | 0.6462±0.0024                | 0.07±0.02        | 2.43±0.15                | 9.9   |
| $f_{79}$                               | 1.3472±0.0026                | 0.13±0.04        | 0.60±0.16                | 8.7   | $f_{36}$                               | 0.3377±0.0025                | 0.08±0.03        | 2.28±0.15                | 9.3   |
| $f_{80}$                               | 13.7506±0.0026               | 0.14±0.05        | -2.45±0.16               | 8.8   | $f_{37}$                               | 0.3644±0.0026                | 0.07±0.02        | 0.36±0.16                | 8.5   |
| $f_{81}$                               | 10.3045±0.0026               | 0.14±0.05        | 0.96±0.16                | 8.7   | $f_{39}$                               | 0.4815±0.0027                | 0.06±0.02        | -1.36±0.16               | 8.0   |
| $f_{82}$                               | 8.2966±0.0025                | 0.14±0.05        | 0.81±0.15                | 9.1   | $f_{40}$                               | 0.8308±0.0027                | 0.07±0.03        | -1.00±0.17               | 7.8   |
| $f_{83}$                               | 0.1288±0.0026                | 0.13±0.04        | -3.01±0.16               | 8.6   | $f_{41}$                               | 0.9216±0.0027                | 0.07±0.02        | 0.92±0.17                | 7.9   |
| $f_{84}$                               | 16.1395±0.0026               | 0.13±0.04        | -1.33±0.16               | 8.5   | $f_{42}$                               | 0.1495±0.0027                | 0.07±0.03        | 2.90±0.17                | 7.8   |
| $f_{85}$                               | 43.0116±0.0026               | 0.13±0.04        | 1.55±0.16                | 8.4   | $f_{43}$                               | 1.1152±0.0028                | 0.07±0.03        | 0.22±0.17                | 7.3   |
| $f_{86}$                               | 3.4886±0.0026                | 0.13±0.05        | -1.07±0.16               | 8.3   | $f_{44}$                               | 0.5420±0.0029                | 0.06±0.02        | 2.60±0.18                | 7.0   |
| $f_{87}$                               | 1.0781±0.0027                | 0.13±0.05        | -0.29±0.16               | 8.1   | $f_{45}$                               | 0.2393±0.0029                | 0.07±0.03        | 1.07±0.18                | 7.0   |
| $f_{88}$                               | 13.6016±0.0027               | 0.13±0.05        | -1.85±0.16               | 8.1   | $f_{46}$                               | 1.3137±0.0029                | 0.06±0.02        | -0.49±0.18               | 6.9   |
| $f_{89}$                               | 10.6037±0.0027               | 0.13±0.05        | -0.99±0.17               | 7.9   | $f_{47}$                               | 0.3514±0.0029                | 0.07±0.03        | 0.30±0.18                | 6.8   |
| $f_{90}$                               | 15.1287±0.0027               | 0.13±0.05        | 2.68±0.16                | 8.0   | $f_{48}$                               | 3.9720±0.0029                | 0.06±0.02        | 2.44±0.18                | 6.8   |
| $f_{91}$                               | 0.3494±0.0027                | 0.13±0.05        | -2.53±0.16               | 8.0   | $f_{50}$                               | 0.6257±0.0031                | 0.07±0.03        | 2.70±0.19                | 6.2   |
| $f_{92}$                               | 9.5412±0.0027                | 0.13±0.05        | 2.72±0.17                | 7.9   | $f_{51}$                               | 0.6076±0.0029                | 0.06±0.02        | 1.97±0.18                | 7.0   |
| $f_{93}$                               | 9.2744±0.0027                | 0.13±0.05        | -0.09±0.16               | 8.0   | $f_{52}$                               | 0.4618±0.0031                | 0.06±0.02        | 0.19±0.19                | 6.1   |
| $f_{94}$                               | 41.9385±0.0027               | 0.13±0.05        | -1.24±0.17               | 7.8   | $f_{53}$                               | 0.3728±0.0031                | 0.06±0.02        | 2.17±0.19                | 6.2   |
| $f_{95}$                               | 56.9870±0.0027               | 0.13±0.05        | -0.46±0.17               | 7.8   | $f_{54}$                               | 3.0651±0.0031                | 0.06±0.02        | -1.81±0.19               | 6.2   |
| $f_{96}$                               | 1.8503±0.0028                | 0.12±0.04        | -2.59±0.17               | 7.7   | $f_{55}$                               | 0.3098±0.0031                | 0.06±0.02        | -0.97±0.19               | 6.1   |
| $f_{97}$                               | 18.0637±0.0028               | 0.12±0.04        | -0.23±0.17               | 7.5   | $f_{56}$                               | 1.6178±0.0031                | 0.06±0.02        | 1.15±0.19                | 5.9   |
| $f_{98}$                               | 9.0630±0.0028                | 0.12±0.04        | 1.68±0.17                | 7.4   | $f_{57}$                               | 0.3945±0.0032                | 0.06±0.02        | 2.85±0.19                | 5.8   |
| $f_{99}$                               | 1.3844±0.0028                | 0.12±0.04        | -3.12±0.17               | 7.2   | $f_{58}$                               | 1.0076±0.0033                | 0.06±0.03        | 1.75±0.20                | 5.3   |
| $f_{101}$                              | 1.0494±0.0029                | 0.11±0.04        | -3.12±0.18               | 7.0   | $f_{59}$                               | 3.6217±0.0033                | 0.06±0.03        | 2.11±0.20                | 5.4   |
| $f_{102}$                              | 10.1418±0.0029               | 0.12±0.05        | 2.04±0.18                | 6.8   | $f_{60}$                               | 1.9856±0.0034                | 0.05±0.02        | -1.14±0.21               | 5.1   |
| $f_{103}$                              | 0.1158±0.0028                | 0.13±0.05        | 0.76±0.17                | 7.4   | $f_{61}$                               | 1.3977±0.0034                | 0.05±0.02        | -2.92±0.21               | 5.1   |
| $f_{104}$                              | 14.7870±0.0029               | 0.12±0.05        | 1.19±0.18                | 6.7   | $f_{62}$                               | 1.2349±0.0033                | 0.05±0.02        | 2.44±0.20                | 5.3   |
| $f_{108}$                              | 11.8139±0.0029               | 0.11±0.04        | -0.26±0.18               | 6.7   | $f_{63}$                               | 3.1364±0.0034                | 0.05±0.02        | -1.09±0.21               | 5.1   |
| $f_{109}$                              | 7.1371±0.0029                | 0.12±0.05        | -2.05±0.18               | 6.8   | $f_{64}$                               | 2.1026±0.0034                | 0.05±0.02        | 0.53±0.21                | 5.0   |
| $f_{111}$                              | 15.3269±0.0030               | 0.11±0.04        | -0.74±0.18               | 6.4   |                                        |                              |                  |                          |       |
| $f_{112}$                              | 10.0825±0.0030               | 0.11±0.04        | -2.51±0.18               | 6.5   |                                        |                              |                  |                          |       |
| $f_{113}$                              | 15.0876±0.0030               | 0.11±0.04        | 1.67±0.18                | 6.5   |                                        |                              |                  |                          |       |
| $f_{114}$                              | 3.8861±0.0030                | 0.11±0.04        | -3.00±0.18               | 6.4   |                                        |                              |                  |                          |       |
| $f_{115}$                              | 6.1408±0.0030                | 0.11±0.04        | 1.41±0.18                | 6.4   |                                        |                              |                  |                          |       |
| $f_{116}$                              | 8.3603±0.0030                | 0.11±0.04        | -2.98±0.19               | 6.3   |                                        |                              |                  |                          |       |
| $f_{120}$                              | 11.0135±0.0030               | 0.11±0.04        | 0.73±0.19                | 6.3   |                                        |                              |                  |                          |       |
| $f_{121}$                              | 56.9393±0.0030               | 0.12±0.05        | 1.59±0.18                | 6.4   |                                        |                              |                  |                          |       |
| $f_{122}$                              | 2.8017±0.0030                | 0.11±0.04        | -1.95±0.19               | 6.3   |                                        |                              |                  |                          |       |
| $f_{123}$                              | 0.8700±0.0030                | 0.11±0.04        | -2.58±0.19               | 6.3   |                                        |                              |                  |                          |       |
| $f_{124}$                              | 42.9565±0.0030               | 0.11±0.04        | -0.01±0.18               | 6.4   |                                        |                              |                  |                          |       |
| $f_{125}$                              | 13.8365±0.0030               | 0.11±0.04        | 2.61±0.18                | 6.5   |                                        |                              |                  |                          |       |
| $f_{126}$                              | 0.1468±0.0031                | 0.11±0.04        | -1.25±0.19               | 6.1   |                                        |                              |                  |                          |       |
| $f_{127}$                              | 41.8914±0.0031               | 0.11±0.04        | -2.88±0.19               | 6.1   |                                        |                              |                  |                          |       |

**Table E.33:** Frequency list of 0102713978

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign.  |
|--------------|------------------------------|------------------|--------------------------|--------|
| $f_1$        | 11.3497±0.0002               | 1.35±0.04        | -1.17±0.01               | 1396.7 |
| $f_2$        | 0.7312±0.0006                | 0.37±0.03        | -2.93±0.04               | 164.0  |
| $f_3$        | 0.1365±0.0010                | 0.17±0.02        | 1.68±0.06                | 56.8   |
| $f_4$        | 0.1934±0.0012                | 0.19±0.03        | -1.63±0.07               | 42.9   |
| $f_5$        | 0.1025±0.0012                | 0.18±0.03        | -1.71±0.08               | 38.5   |
| $f_6$        | 0.1194±0.0013                | 0.16±0.03        | -1.88±0.08               | 34.1   |
| $f_7$        | 3.4344±0.0013                | 0.15±0.03        | 1.23±0.08                | 33.3   |
| $f_8$        | 0.2317±0.0013                | 0.13±0.02        | 1.75±0.08                | 33.3   |
| $f_9$        | 0.1675±0.0014                | 0.12±0.02        | -2.02±0.09               | 30.0   |
| $f_{10}$     | 0.2961±0.0014                | 0.15±0.03        | 1.65±0.09                | 29.8   |
| $f_{11}$     | 0.5122±0.0016                | 0.12±0.03        | -2.58±0.10               | 22.0   |
| $f_{12}$     | 1.5319±0.0016                | 0.12±0.03        | -2.78±0.10               | 22.2   |
| $f_{13}$     | 0.2084±0.0017                | 0.14±0.03        | 1.60±0.10                | 19.7   |
| $f_{14}$     | 0.2565±0.0017                | 0.12±0.03        | 0.27±0.10                | 20.2   |
| $f_{16}$     | 0.8006±0.0018                | 0.11±0.03        | -0.31±0.11               | 18.2   |
| $f_{17}$     | 1.4642±0.0019                | 0.10±0.03        | 2.13±0.12                | 15.8   |

Frequency list of 0102713978 continued

**Table E.34:** Frequency list of 0102718106

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|--------------|------------------------------|------------------|--------------------------|-------|
| $f_1$        | 5.6887±0.0003                | 2.11±0.07        | 1.56±0.02                | 885.7 |
| $f_2$        | 5.7341±0.0003                | 1.68±0.06        | 0.99±0.02                | 745.4 |
| $f_3$        | 5.8053±0.0004                | 1.03±0.06        | -2.73±0.03               | 339.4 |
| $f_4$        | 4.7553±0.0006                | 0.72±0.05        | 0.82±0.03                | 189.6 |
| $f_6$        | 2.0228±0.0006                | 0.53±0.04        | 1.78±0.04                | 170.9 |
| $f_7$        | 7.6770±0.0006                | 0.61±0.05        | -3.07±0.04               | 156.1 |
| $f_8$        | 2.0149±0.0007                | 0.54±0.05        | -2.59±0.04               | 134.0 |
| $f_9$        | 6.3507±0.0008                | 0.45±0.05        | 3.03±0.05                | 90.9  |
| $f_{10}$     | 1.0075±0.0009                | 0.33±0.04        | -2.34±0.05               | 75.5  |
| $f_{11}$     | 6.7433±0.0009                | 0.42±0.05        | -2.42±0.05               | 74.8  |
| $f_{14}$     | 2.0097±0.0012                | 0.33±0.05        | -2.42±0.07               | 44.0  |
| $f_{15}$     | 0.1202±0.0011                | 0.31±0.05        | -0.39±0.07               | 44.7  |
| $f_{16}$     | 6.6767±0.0012                | 0.29±0.04        | 1.75±0.07                | 42.5  |
| $f_{17}$     | 7.7502±0.0012                | 0.27±0.04        | -3.05±0.08               | 38.6  |
| $f_{19}$     | 1.9440±0.0013                | 0.28±0.05        | -0.07±0.08               | 37.0  |
| $f_{20}$     | 0.6576±0.0013                | 0.25±0.04        | 2.69±0.08                | 34.4  |
| $f_{22}$     | 1.9855±0.0013                | 0.22±0.04        | 2.40±0.08                | 32.1  |
| $f_{24}$     | 7.6283±0.0014                | 0.24±0.04        | 3.12±0.08                | 31.3  |
| $f_{25}$     | 1.0155±0.0014                | 0.18±0.03        | 3.11±0.09                | 28.1  |
| $f_{27}$     | 3.7880±0.0015                | 0.21±0.04        | 0.38±0.09                | 25.1  |
| $f_{28}$     | 9.6890±0.0016                | 0.20±0.04        | -2.84±0.10               | 23.5  |
| $f_{29}$     | 7.1171±0.0017                | 0.19±0.04        | -1.38±0.10               | 21.0  |
| $f_{31}$     | 1.4676±0.0018                | 0.17±0.04        | -2.55±0.11               | 18.5  |
| $f_{32}$     | 0.2526±0.0018                | 0.16±0.04        | -1.71±0.11               | 17.8  |
| $f_{34}$     | 6.7615±0.0019                | 0.16±0.04        | 2.20±0.11                | 17.0  |
| $f_{35}$     | 0.3084±0.0020                | 0.16±0.04        | 1.68±0.12                | 15.0  |
| $f_{36}$     | 0.1345±0.0020                | 0.13±0.03        | -0.12±0.12               | 14.6  |
| $f_{38}$     | 0.2119±0.0020                | 0.16±0.04        | -2.78±0.12               | 14.3  |

Frequency list of 0102718106 continued

## Appendix E. Frequencies of individual Hybrid Candidate Stars

| Frequency list of 0102718106 continued |                              |                  |                          |       | Frequency list of 0102721492 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| <i>f</i> <sub>39</sub>                 | 0.9379±0.0021                | 0.17±0.05        | -2.05±0.13               | 13.8  | <i>f</i> <sub>35</sub>                 | 0.2263±0.0020                | 0.11±0.03        | 0.30±0.12                | 13.9  |
| <i>f</i> <sub>41</sub>                 | 0.9922±0.0021                | 0.13±0.04        | -1.34±0.13               | 13.4  | <i>f</i> <sub>36</sub>                 | 1.1499±0.0024                | 0.09±0.03        | 3.10±0.15                | 10.2  |
| <i>f</i> <sub>44</sub>                 | 4.7866±0.0022                | 0.14±0.04        | -0.82±0.14               | 11.6  | <i>f</i> <sub>37</sub>                 | 0.3079±0.0024                | 0.08±0.03        | -0.71±0.15               | 9.8   |
| <i>f</i> <sub>45</sub>                 | 0.1958±0.0023                | 0.14±0.04        | -2.58±0.14               | 11.2  | <i>f</i> <sub>38</sub>                 | 0.3388±0.0025                | 0.08±0.03        | 1.82±0.15                | 9.6   |
| <i>f</i> <sub>46</sub>                 | 0.2674±0.0023                | 0.14±0.04        | -1.61±0.14               | 11.4  | <i>f</i> <sub>39</sub>                 | 0.5136±0.0025                | 0.08±0.03        | -2.02±0.15               | 9.2   |
| <i>f</i> <sub>47</sub>                 | 2.0174±0.0023                | 0.16±0.05        | -3.04±0.14               | 11.1  | <i>f</i> <sub>40</sub>                 | 0.4961±0.0024                | 0.10±0.03        | 1.07±0.15                | 10.3  |
| <i>f</i> <sub>48</sub>                 | 0.9741±0.0023                | 0.13±0.04        | 0.00±0.14                | 11.1  | <i>f</i> <sub>41</sub>                 | 0.6542±0.0027                | 0.08±0.03        | -0.73±0.16               | 8.2   |
| <i>f</i> <sub>49</sub>                 | 0.5021±0.0023                | 0.13±0.04        | -2.84±0.14               | 11.2  | <i>f</i> <sub>42</sub>                 | 0.9921±0.0026                | 0.09±0.03        | 3.03±0.16                | 8.4   |
| <i>f</i> <sub>50</sub>                 | 0.1773±0.0023                | 0.13±0.04        | -0.57±0.14               | 10.9  | <i>f</i> <sub>43</sub>                 | 0.9214±0.0026                | 0.08±0.03        | 0.82±0.16                | 8.5   |
| <i>f</i> <sub>51</sub>                 | 2.0027±0.0023                | 0.12±0.04        | -2.62±0.14               | 10.9  | <i>f</i> <sub>44</sub>                 | 1.2754±0.0028                | 0.07±0.03        | -0.15±0.17               | 7.3   |
| <i>f</i> <sub>52</sub>                 | 3.0290±0.0023                | 0.11±0.03        | -3.01±0.14               | 11.0  | <i>f</i> <sub>45</sub>                 | 0.1207±0.0028                | 0.08±0.03        | 1.49±0.17                | 7.4   |
| <i>f</i> <sub>53</sub>                 | 0.1087±0.0024                | 0.14±0.04        | 1.11±0.14                | 10.5  | <i>f</i> <sub>46</sub>                 | 1.1838±0.0028                | 0.08±0.03        | 0.78±0.17                | 7.2   |
| <i>f</i> <sub>54</sub>                 | 1.2887±0.0023                | 0.13±0.04        | 2.05±0.14                | 10.7  | <i>f</i> <sub>47</sub>                 | 1.0980±0.0028                | 0.07±0.03        | -1.69±0.17               | 7.3   |
| <i>f</i> <sub>55</sub>                 | 3.9359±0.0024                | 0.13±0.04        | -2.01±0.14               | 10.5  | <i>f</i> <sub>48</sub>                 | 2.1727±0.0028                | 0.07±0.03        | -1.20±0.17               | 7.3   |
| <i>f</i> <sub>56</sub>                 | 5.7970±0.0024                | 0.13±0.04        | -3.09±0.15               | 10.2  | <i>f</i> <sub>49</sub>                 | 0.5650±0.0029                | 0.07±0.03        | -2.93±0.18               | 6.7   |
| <i>f</i> <sub>57</sub>                 | 4.7305±0.0025                | 0.12±0.04        | 1.13±0.15                | 9.3   | <i>f</i> <sub>50</sub>                 | 1.3974±0.0030                | 0.07±0.03        | -2.00±0.18               | 6.6   |
| <i>f</i> <sub>58</sub>                 | 4.1083±0.0025                | 0.12±0.04        | 2.52±0.15                | 9.3   | <i>f</i> <sub>51</sub>                 | 1.1579±0.0030                | 0.07±0.03        | -2.57±0.18               | 6.6   |
| <i>f</i> <sub>60</sub>                 | 2.6358±0.0026                | 0.12±0.04        | -0.23±0.16               | 8.6   | <i>f</i> <sub>52</sub>                 | 0.7940±0.0029                | 0.08±0.03        | -2.81±0.18               | 7.0   |
| <i>f</i> <sub>63</sub>                 | 1.8712±0.0026                | 0.11±0.04        | -1.53±0.16               | 8.4   | <i>f</i> <sub>53</sub>                 | 0.1944±0.0030                | 0.07±0.03        | -1.84±0.18               | 6.5   |
| <i>f</i> <sub>64</sub>                 | 1.3961±0.0027                | 0.11±0.04        | -2.17±0.16               | 8.0   | <i>f</i> <sub>54</sub>                 | 3.6460±0.0030                | 0.07±0.03        | -0.50±0.18               | 6.5   |
| <i>f</i> <sub>65</sub>                 | 55.8632±0.0027               | 0.12±0.04        | 2.38±0.17                | 7.8   | <i>f</i> <sub>55</sub>                 | 1.0012±0.0030                | 0.07±0.03        | 1.39±0.18                | 6.6   |
| <i>f</i> <sub>66</sub>                 | 1.0267±0.0027                | 0.12±0.04        | 2.77±0.16                | 8.1   | <i>f</i> <sub>56</sub>                 | 2.6213±0.0030                | 0.07±0.03        | -2.93±0.18               | 6.5   |
| <i>f</i> <sub>67</sub>                 | 0.9486±0.0027                | 0.11±0.04        | -0.32±0.17               | 7.9   | <i>f</i> <sub>57</sub>                 | 0.6200±0.0030                | 0.08±0.03        | -3.04±0.19               | 6.3   |
| <i>f</i> <sub>68</sub>                 | 5.7275±0.0027                | 0.11±0.04        | 0.84±0.17                | 7.8   | <i>f</i> <sub>58</sub>                 | 0.6088±0.0027                | 0.08±0.03        | -1.76±0.17               | 7.8   |
| <i>f</i> <sub>69</sub>                 | 41.9370±0.0028               | 0.11±0.04        | 1.76±0.17                | 7.7   | <i>f</i> <sub>59</sub>                 | 0.6773±0.0032                | 0.07±0.03        | -0.70±0.19               | 5.8   |
| <i>f</i> <sub>73</sub>                 | 1.1032±0.0028                | 0.11±0.04        | -1.18±0.17               | 7.5   | <i>f</i> <sub>60</sub>                 | 0.3527±0.0031                | 0.07±0.03        | 1.67±0.19                | 6.1   |
| <i>f</i> <sub>74</sub>                 | 2.0305±0.0028                | 0.10±0.04        | 2.63±0.17                | 7.5   | <i>f</i> <sub>61</sub>                 | 1.3218±0.0031                | 0.06±0.02        | 2.57±0.19                | 5.9   |
| <i>f</i> <sub>75</sub>                 | 1.9547±0.0028                | 0.11±0.04        | 1.53±0.17                | 7.4   | <i>f</i> <sub>62</sub>                 | 2.0819±0.0031                | 0.07±0.03        | 1.46±0.19                | 5.9   |
| <i>f</i> <sub>76</sub>                 | 8.6879±0.0028                | 0.10±0.04        | -2.33±0.17               | 7.4   | <i>f</i> <sub>64</sub>                 | 0.8974±0.0032                | 0.07±0.03        | -1.85±0.20               | 5.7   |
| <i>f</i> <sub>77</sub>                 | 55.8517±0.0028               | 0.11±0.04        | -0.91±0.17               | 7.2   | <i>f</i> <sub>65</sub>                 | 0.2931±0.0033                | 0.07±0.03        | 1.64±0.20                | 5.4   |
| <i>f</i> <sub>78</sub>                 | 0.1549±0.0029                | 0.11±0.04        | -1.74±0.17               | 7.1   | <i>f</i> <sub>66</sub>                 | 0.2485±0.0032                | 0.07±0.03        | 1.65±0.19                | 5.8   |
| <i>f</i> <sub>79</sub>                 | 0.3935±0.0029                | 0.10±0.04        | -1.27±0.18               | 7.0   | <i>f</i> <sub>67</sub>                 | 1.9019±0.0033                | 0.06±0.03        | 2.00±0.20                | 5.5   |
| <i>f</i> <sub>80</sub>                 | 0.2997±0.0028                | 0.11±0.04        | -0.71±0.17               | 7.2   | <i>f</i> <sub>68</sub>                 | 3.2706±0.0033                | 0.06±0.03        | -2.88±0.20               | 5.5   |
| <i>f</i> <sub>81</sub>                 | 13.9398±0.0029               | 0.10±0.04        | -0.10±0.18               | 6.9   | <i>f</i> <sub>69</sub>                 | 0.7776±0.0033                | 0.07±0.03        | 2.71±0.20                | 5.4   |
| <i>f</i> <sub>82</sub>                 | 6.6166±0.0029                | 0.10±0.04        | -0.32±0.18               | 6.9   | <i>f</i> <sub>70</sub>                 | 0.8129±0.0031                | 0.07±0.03        | 0.21±0.19                | 6.1   |
| <i>f</i> <sub>83</sub>                 | 4.0355±0.0029                | 0.10±0.04        | -2.17±0.17               | 7.1   | <i>f</i> <sub>71</sub>                 | 0.5458±0.0033                | 0.07±0.03        | -0.90±0.20               | 5.5   |
| <i>f</i> <sub>84</sub>                 | 1.9930±0.0030                | 0.10±0.04        | -1.76±0.18               | 6.6   | <i>f</i> <sub>72</sub>                 | 0.5746±0.0031                | 0.07±0.03        | -0.98±0.19               | 6.0   |
| <i>f</i> <sub>85</sub>                 | 27.9190±0.0030               | 0.10±0.04        | -0.37±0.18               | 6.4   | <i>f</i> <sub>73</sub>                 | 0.7002±0.0033                | 0.06±0.03        | -2.22±0.20               | 5.4   |
| <i>f</i> <sub>86</sub>                 | 6.7318±0.0030                | 0.10±0.04        | 1.07±0.18                | 6.4   | <i>f</i> <sub>74</sub>                 | 0.7328±0.0034                | 0.06±0.03        | 1.75±0.21                | 5.1   |
| <i>f</i> <sub>87</sub>                 | 0.7124±0.0030                | 0.10±0.04        | 0.47±0.19                | 6.3   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>88</sub>                 | 0.7428±0.0030                | 0.10±0.04        | 0.10±0.18                | 6.4   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>90</sub>                 | 0.4204±0.0031                | 0.09±0.04        | 0.61±0.19                | 6.2   |                                        |                              |                  |                          |       |

**Table E.36:** Frequency list of 0102732058

**Table E.35:** Frequency list of 0102721492

| Frequency ID           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|------------------------|------------------------------|------------------|--------------------------|-------|------------------------|------------------------------|------------------|--------------------------|-------|
| <i>f</i> <sub>1</sub>  | 8.8053±0.0002                | 1.23±0.04        | -2.54±0.02               | 946.2 | <i>f</i> <sub>1</sub>  | 3.3361±0.0003                | 1.08±0.04        | 0.13±0.02                | 701.3 |
| <i>f</i> <sub>3</sub>  | 0.2140±0.0008                | 0.29±0.03        | 2.85±0.05                | 94.1  | <i>f</i> <sub>2</sub>  | 3.2707±0.0004                | 0.69±0.04        | 2.35±0.03                | 319.8 |
| <i>f</i> <sub>4</sub>  | 0.1047±0.0008                | 0.32±0.03        | -1.04±0.05               | 86.5  | <i>f</i> <sub>3</sub>  | 3.0058±0.0004                | 0.65±0.04        | -2.20±0.03               | 308.8 |
| <i>f</i> <sub>5</sub>  | 0.2557±0.0010                | 0.21±0.03        | -1.94±0.06               | 61.8  | <i>f</i> <sub>4</sub>  | 0.6324±0.0005                | 0.50±0.03        | -2.84±0.03               | 212.8 |
| <i>f</i> <sub>6</sub>  | 17.6110±0.0012               | 0.20±0.03        | 1.22±0.07                | 42.5  | <i>f</i> <sub>5</sub>  | 6.0682±0.0006                | 0.42±0.03        | -3.04±0.04               | 156.1 |
| <i>f</i> <sub>7</sub>  | 0.1490±0.0012                | 0.23±0.04        | -1.97±0.07               | 42.9  | <i>f</i> <sub>6</sub>  | 6.4786±0.0007                | 0.37±0.03        | -3.10±0.04               | 116.8 |
| <i>f</i> <sub>8</sub>  | 0.1265±0.0012                | 0.22±0.03        | 1.70±0.07                | 42.4  | <i>f</i> <sub>7</sub>  | 3.0551±0.0007                | 0.31±0.03        | -2.94±0.04               | 110.0 |
| <i>f</i> <sub>9</sub>  | 0.1145±0.0011                | 0.20±0.03        | -2.99±0.07               | 48.2  | <i>f</i> <sub>9</sub>  | 6.2834±0.0008                | 0.32±0.03        | -2.88±0.05               | 93.6  |
| <i>f</i> <sub>10</sub> | 0.2436±0.0012                | 0.21±0.03        | -1.13±0.08               | 37.7  | <i>f</i> <sub>10</sub> | 2.9467±0.0008                | 0.31±0.03        | 1.26±0.05                | 83.6  |
| <i>f</i> <sub>11</sub> | 0.1853±0.0013                | 0.16±0.03        | 0.30±0.08                | 34.1  | <i>f</i> <sub>11</sub> | 3.0861±0.0009                | 0.25±0.03        | -1.75±0.06               | 65.4  |
| <i>f</i> <sub>12</sub> | 2.5400±0.0014                | 0.17±0.03        | -1.24±0.08               | 31.2  | <i>f</i> <sub>12</sub> | 3.1431±0.0009                | 0.21±0.03        | 1.60±0.06                | 68.0  |
| <i>f</i> <sub>13</sub> | 0.3628±0.0014                | 0.13±0.02        | 0.71±0.09                | 28.9  | <i>f</i> <sub>13</sub> | 3.6199±0.0009                | 0.26±0.03        | 2.89±0.06                | 67.7  |
| <i>f</i> <sub>16</sub> | 0.4541±0.0016                | 0.13±0.03        | 0.52±0.10                | 22.2  | <i>f</i> <sub>14</sub> | 6.0994±0.0010                | 0.23±0.03        | -2.24±0.06               | 56.2  |
| <i>f</i> <sub>17</sub> | 0.3001±0.0017                | 0.13±0.03        | -2.24±0.10               | 20.4  | <i>f</i> <sub>15</sub> | 3.0445±0.0011                | 0.24±0.03        | -1.63±0.06               | 52.2  |
| <i>f</i> <sub>18</sub> | 0.5590±0.0017                | 0.10±0.02        | -1.09±0.11               | 19.3  | <i>f</i> <sub>16</sub> | 3.1224±0.0010                | 0.25±0.03        | -1.81±0.06               | 53.4  |
| <i>f</i> <sub>19</sub> | 0.3768±0.0018                | 0.14±0.03        | 2.35±0.11                | 18.2  | <i>f</i> <sub>17</sub> | 3.1037±0.0010                | 0.22±0.03        | -0.76±0.06               | 54.0  |
| <i>f</i> <sub>20</sub> | 0.2732±0.0018                | 0.14±0.03        | 1.56±0.11                | 17.9  | <i>f</i> <sub>18</sub> | 3.6879±0.0012                | 0.20±0.03        | -2.59±0.07               | 43.3  |
| <i>f</i> <sub>21</sub> | 0.4354±0.0018                | 0.13±0.03        | 1.61±0.11                | 17.3  | <i>f</i> <sub>19</sub> | 2.9786±0.0012                | 0.22±0.03        | 2.15±0.07                | 41.9  |
| <i>f</i> <sub>22</sub> | 0.8494±0.0018                | 0.12±0.03        | 1.97±0.11                | 17.1  | <i>f</i> <sub>20</sub> | 6.0116±0.0013                | 0.17±0.03        | 2.26±0.08                | 35.2  |
| <i>f</i> <sub>23</sub> | 0.1733±0.0019                | 0.12±0.03        | 1.80±0.12                | 16.0  | <i>f</i> <sub>21</sub> | 0.7279±0.0013                | 0.16±0.03        | 0.59±0.08                | 33.6  |
| <i>f</i> <sub>24</sub> | 0.3456±0.0019                | 0.13±0.03        | -1.40±0.12               | 16.1  | <i>f</i> <sub>22</sub> | 5.7979±0.0014                | 0.16±0.03        | 0.55±0.09                | 28.9  |
| <i>f</i> <sub>25</sub> | 0.1394±0.0019                | 0.11±0.03        | -2.31±0.12               | 16.1  | <i>f</i> <sub>23</sub> | 0.1282±0.0014                | 0.18±0.03        | 0.87±0.09                | 28.5  |
| <i>f</i> <sub>26</sub> | 0.5838±0.0021                | 0.11±0.03        | -1.25±0.13               | 13.4  | <i>f</i> <sub>24</sub> | 0.1406±0.0014                | 0.15±0.03        | 2.50±0.09                | 28.4  |
| <i>f</i> <sub>27</sub> | 1.8437±0.0021                | 0.11±0.03        | -1.25±0.13               | 13.5  | <i>f</i> <sub>25</sub> | 2.3806±0.0015                | 0.15±0.03        | -2.95±0.09               | 26.7  |
| <i>f</i> <sub>28</sub> | 0.5297±0.0022                | 0.11±0.03        | 0.54±0.13                | 12.6  | <i>f</i> <sub>26</sub> | 9.4846±0.0015                | 0.14±0.03        | 3.05±0.09                | 25.9  |
| <i>f</i> <sub>29</sub> | 1.2288±0.0023                | 0.09±0.03        | -2.83±0.14               | 10.9  | <i>f</i> <sub>27</sub> | 1.9522±0.0016                | 0.14±0.03        | -1.60±0.10               | 23.9  |
| <i>f</i> <sub>30</sub> | 0.4629±0.0023                | 0.10±0.03        | 2.55±0.14                | 11.1  | <i>f</i> <sub>28</sub> | 6.1667±0.0017                | 0.13±0.03        | 1.35±0.10                | 20.7  |
| <i>f</i> <sub>31</sub> | 0.5919±0.0023                | 0.10±0.03        | -1.40±0.14               | 10.8  | <i>f</i> <sub>29</sub> | 2.8213±0.0017                | 0.14±0.03        | -0.71±0.10               | 20.2  |
| <i>f</i> <sub>32</sub> | 0.3284±0.0023                | 0.11±0.03        | -0.39±0.14               | 10.7  | <i>f</i> <sub>30</sub> | 0.2125±0.0018                | 0.11±0.03        | 2.73±0.11                | 19.0  |
| <i>f</i> <sub>34</sub> | 0.2372±0.0024                | 0.10±0.03        | -1.60±0.14               | 10.4  | <i>f</i> <sub>31</sub> | 11.6274±0.0018               | 0.12±0.03        | -1.47±0.11               | 19.0  |
|                        |                              |                  |                          |       | <i>f</i> <sub>32</sub> | 0.1044±0.0017                | 0.12±0.03        | -0.47±0.11               | 19.1  |
|                        |                              |                  |                          |       | <i>f</i> <sub>33</sub> | 5.8651±0.0017                | 0.12±0.03        | -0.01±0.11               | 19.2  |
|                        |                              |                  |                          |       | <i>f</i> <sub>34</sub> | 2.4359±0.0018                | 0.11±0.03        | 0.85±0.11                | 17.9  |

Frequency list of 0102721492 continued

Frequency list of 0102732058 continued

## Appendix E. Frequencies of individual Hybrid Candidate Stars

| Frequency list of 0102732058 continued |                              |                  |                          |       | Frequency list of 0102735380 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{36}$                               | 3.2413±0.0020                | 0.11±0.03        | -2.84±0.12               | 15.0  | $f_{45}$                               | 21.7725±0.0021               | 0.14±0.04        | 0.66±0.13                | 13.4  |
| $f_{37}$                               | 2.9267±0.0020                | 0.12±0.03        | -2.63±0.12               | 14.7  | $f_{46}$                               | 11.3183±0.0021               | 0.14±0.04        | 2.02±0.13                | 13.5  |
| $f_{38}$                               | 2.9681±0.0019                | 0.12±0.03        | -2.44±0.12               | 15.6  | $f_{47}$                               | 10.7129±0.0021               | 0.14±0.04        | -0.23±0.13               | 12.8  |
| $f_{39}$                               | 2.8598±0.0020                | 0.11±0.03        | -0.74±0.12               | 14.8  | $f_{48}$                               | 7.5064±0.0022                | 0.13±0.04        | 2.82±0.14                | 11.6  |
| $f_{40}$                               | 2.9915±0.0020                | 0.10±0.03        | 0.66±0.12                | 15.1  | $f_{49}$                               | 12.3938±0.0023               | 0.13±0.04        | -0.61±0.14               | 11.0  |
| $f_{41}$                               | 2.5196±0.0020                | 0.11±0.03        | -2.48±0.12               | 14.6  | $f_{50}$                               | 18.3143±0.0023               | 0.12±0.04        | -0.49±0.14               | 10.8  |
| $f_{42}$                               | 0.9506±0.0020                | 0.10±0.03        | 2.73±0.12                | 14.1  | $f_{51}$                               | 17.0876±0.0023               | 0.13±0.04        | 2.18±0.14                | 10.6  |
| $f_{43}$                               | 0.1534±0.0020                | 0.11±0.03        | 2.18±0.12                | 13.9  | $f_{52}$                               | 13.5792±0.0024               | 0.13±0.04        | 1.64±0.14                | 10.4  |
| $f_{44}$                               | 2.1423±0.0022                | 0.10±0.03        | -3.13±0.13               | 12.5  | $f_{53}$                               | 0.1434±0.0024                | 0.13±0.04        | 1.87±0.15                | 10.2  |
| $f_{45}$                               | 2.9572±0.0022                | 0.10±0.03        | 0.55±0.14                | 11.8  | $f_{54}$                               | 4.5363±0.0024                | 0.12±0.04        | 0.14±0.15                | 9.9   |
| $f_{46}$                               | 0.2669±0.0023                | 0.09±0.03        | -1.37±0.14               | 10.6  | $f_{55}$                               | 19.0636±0.0024               | 0.12±0.04        | -1.23±0.15               | 10.2  |
| $f_{47}$                               | 0.1714±0.0023                | 0.08±0.02        | -0.95±0.14               | 10.7  | $f_{57}$                               | 12.0523±0.0024               | 0.12±0.04        | 1.88±0.15                | 9.8   |
| $f_{48}$                               | 0.3499±0.0024                | 0.09±0.03        | -1.08±0.14               | 10.5  | $f_{58}$                               | 3.5891±0.0024                | 0.12±0.04        | 2.23±0.15                | 9.8   |
| $f_{49}$                               | 2.8008±0.0024                | 0.08±0.03        | -1.05±0.15               | 10.2  | $f_{59}$                               | 0.5796±0.0025                | 0.11±0.04        | -2.00±0.15               | 9.6   |
| $f_{50}$                               | 4.7168±0.0024                | 0.08±0.03        | 1.16±0.15                | 10.0  | $f_{60}$                               | 4.3661±0.0025                | 0.11±0.04        | 2.74±0.15                | 9.5   |
| $f_{51}$                               | 1.7388±0.0024                | 0.09±0.03        | 0.50±0.15                | 10.1  | $f_{61}$                               | 14.2204±0.0025               | 0.11±0.04        | -1.12±0.15               | 9.3   |
| $f_{55}$                               | 1.1210±0.0025                | 0.08±0.03        | 1.13±0.15                | 9.3   | $f_{62}$                               | 0.5211±0.0025                | 0.11±0.04        | 1.52±0.15                | 9.4   |
| $f_{56}$                               | 2.8306±0.0025                | 0.08±0.03        | 0.11±0.15                | 9.4   | $f_{64}$                               | 13.4806±0.0025               | 0.12±0.04        | 1.26±0.16                | 9.0   |
| $f_{59}$                               | 0.4016±0.0025                | 0.09±0.03        | 0.41±0.15                | 9.2   | $f_{66}$                               | 15.0908±0.0026               | 0.11±0.04        | -1.40±0.16               | 8.7   |
| $f_{60}$                               | 4.4738±0.0025                | 0.08±0.03        | 0.27±0.16                | 9.0   | $f_{67}$                               | 5.1342±0.0026                | 0.11±0.04        | -2.99±0.16               | 8.4   |
| $f_{61}$                               | 11.4132±0.0026               | 0.08±0.03        | -1.33±0.16               | 8.9   | $f_{69}$                               | 20.3487±0.0026               | 0.11±0.04        | 1.03±0.16                | 8.4   |
| $f_{62}$                               | 2.7161±0.0026                | 0.08±0.03        | -0.73±0.16               | 8.8   | $f_{70}$                               | 22.1555±0.0026               | 0.11±0.04        | -0.15±0.16               | 8.4   |
| $f_{63}$                               | 3.2162±0.0026                | 0.08±0.03        | 0.93±0.16                | 8.6   | $f_{71}$                               | 11.7153±0.0027               | 0.11±0.04        | 2.91±0.16                | 8.1   |
| $f_{64}$                               | 0.4756±0.0027                | 0.08±0.03        | -2.53±0.16               | 8.1   | $f_{72}$                               | 17.6146±0.0027               | 0.11±0.04        | -0.28±0.16               | 8.0   |
| $f_{65}$                               | 7.1529±0.0027                | 0.08±0.03        | 0.54±0.16                | 8.2   | $f_{73}$                               | 17.2953±0.0026               | 0.11±0.04        | 0.16±0.16                | 8.3   |
| $f_{66}$                               | 2.2970±0.0027                | 0.07±0.02        | -2.31±0.16               | 8.0   | $f_{74}$                               | 2.0721±0.0027                | 0.11±0.04        | 0.48±0.17                | 7.9   |
| $f_{67}$                               | 5.5680±0.0027                | 0.07±0.02        | 1.05±0.16                | 8.0   | $f_{76}$                               | 7.5408±0.0028                | 0.10±0.04        | -1.06±0.17               | 7.7   |
| $f_{68}$                               | 0.1817±0.0028                | 0.07±0.03        | 2.56±0.17                | 7.4   | $f_{77}$                               | 13.9921±0.0028               | 0.11±0.04        | 0.87±0.17                | 7.5   |
| $f_{69}$                               | 2.8992±0.0028                | 0.07±0.03        | -1.89±0.17               | 7.5   | $f_{79}$                               | 4.9491±0.0028                | 0.10±0.04        | -2.57±0.17               | 7.4   |
| $f_{71}$                               | 4.2593±0.0028                | 0.07±0.03        | 1.83±0.17                | 7.2   | $f_{80}$                               | 2.6469±0.0028                | 0.10±0.04        | -1.05±0.17               | 7.4   |
| $f_{72}$                               | 6.6671±0.0029                | 0.07±0.03        | 1.99±0.18                | 6.9   | $f_{81}$                               | 20.8456±0.0028               | 0.10±0.04        | -1.44±0.17               | 7.3   |
| $f_{73}$                               | 0.1338±0.0029                | 0.07±0.03        | -0.94±0.17               | 7.1   | $f_{82}$                               | 1.8268±0.0028                | 0.10±0.04        | -2.70±0.17               | 7.4   |
| $f_{74}$                               | 20.7617±0.0029               | 0.07±0.03        | 2.94±0.18                | 6.8   | $f_{83}$                               | 1.2765±0.0028                | 0.10±0.04        | -2.86±0.17               | 7.2   |
| $f_{75}$                               | 4.7690±0.0030                | 0.07±0.03        | 1.07±0.18                | 6.6   | $f_{87}$                               | 15.4646±0.0029               | 0.10±0.04        | 1.21±0.17                | 7.1   |
| $f_{76}$                               | 0.4530±0.0030                | 0.07±0.03        | 1.80±0.19                | 6.3   | $f_{88}$                               | 4.6821±0.0029                | 0.10±0.04        | -0.45±0.17               | 7.1   |
| $f_{79}$                               | 1.6460±0.0030                | 0.07±0.03        | 0.99±0.19                | 6.3   | $f_{89}$                               | 14.0954±0.0029               | 0.10±0.04        | -2.90±0.18               | 6.9   |
| $f_{80}$                               | 0.5129±0.0030                | 0.07±0.03        | 2.52±0.19                | 6.3   | $f_{90}$                               | 41.8729±0.0028               | 0.10±0.04        | 1.97±0.17                | 7.2   |
| $f_{81}$                               | 6.2008±0.0031                | 0.06±0.02        | -2.43±0.19               | 6.2   | $f_{91}$                               | 3.5414±0.0029                | 0.10±0.04        | -0.26±0.17               | 7.1   |
| $f_{82}$                               | 2.5739±0.0031                | 0.06±0.02        | 0.02±0.19                | 6.1   | $f_{92}$                               | 2.0183±0.0029                | 0.10±0.04        | -2.29±0.18               | 6.9   |
|                                        |                              |                  |                          |       | $f_{94}$                               | 19.2634±0.0029               | 0.10±0.04        | 2.64±0.18                | 6.7   |
|                                        |                              |                  |                          |       | $f_{95}$                               | 0.9326±0.0030                | 0.09±0.04        | -2.08±0.18               | 6.6   |
|                                        |                              |                  |                          |       | $f_{96}$                               | 7.7596±0.0029                | 0.10±0.04        | 1.12±0.18                | 6.7   |
|                                        |                              |                  |                          |       | $f_{97}$                               | 21.5855±0.0030               | 0.10±0.04        | 2.01±0.18                | 6.6   |
|                                        |                              |                  |                          |       | $f_{98}$                               | 18.3317±0.0030               | 0.10±0.04        | -1.81±0.18               | 6.4   |
|                                        |                              |                  |                          |       | $f_{99}$                               | 15.2484±0.0030               | 0.09±0.04        | -1.09±0.19               | 6.3   |
|                                        |                              |                  |                          |       | $f_{100}$                              | 19.7206±0.0030               | 0.09±0.04        | 1.45±0.19                | 6.3   |
|                                        |                              |                  |                          |       | $f_{101}$                              | 0.7532±0.0030                | 0.09±0.04        | -1.31±0.18               | 6.4   |
|                                        |                              |                  |                          |       | $f_{102}$                              | 9.7541±0.0031                | 0.10±0.04        | -0.64±0.19               | 6.2   |
|                                        |                              |                  |                          |       | $f_{103}$                              | 9.7973±0.0030                | 0.10±0.04        | -0.99±0.18               | 6.6   |
|                                        |                              |                  |                          |       | $f_{104}$                              | 12.7442±0.0031               | 0.09±0.04        | 1.51±0.19                | 6.1   |
|                                        |                              |                  |                          |       | $f_{105}$                              | 23.5631±0.0031               | 0.09±0.04        | -2.74±0.19               | 6.1   |
|                                        |                              |                  |                          |       | $f_{106}$                              | 0.5577±0.0031                | 0.11±0.04        | 1.71±0.19                | 6.0   |
|                                        |                              |                  |                          |       | $f_{107}$                              | 0.5683±0.0029                | 0.10±0.04        | -0.57±0.18               | 6.8   |
|                                        |                              |                  |                          |       | $f_{108}$                              | 20.5176±0.0031               | 0.09±0.04        | 2.14±0.19                | 6.0   |
|                                        |                              |                  |                          |       | $f_{109}$                              | 20.0998±0.0031               | 0.09±0.04        | -1.65±0.19               | 6.1   |
|                                        |                              |                  |                          |       | $f_{110}$                              | 0.8223±0.0031                | 0.09±0.04        | -1.44±0.19               | 6.0   |

**Table E.37:** Frequency list of 0102735380

| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign.  |
|----------------------------------------|------------------------------|------------------|--------------------------|--------|
| $f_1$                                  | 17.6203±0.0002               | 1.98±0.06        | -2.56±0.01               | 1060.4 |
| $f_2$                                  | 16.4128±0.0004               | 1.02±0.05        | 1.12±0.02                | 371.3  |
| $f_3$                                  | 1.1193±0.0007                | 0.60±0.05        | 1.32±0.04                | 136.3  |
| $f_4$                                  | 14.6842±0.0007               | 0.56±0.05        | -2.10±0.04               | 126.5  |
| $f_5$                                  | 15.8853±0.0007               | 0.49±0.05        | 1.19±0.05                | 105.6  |
| $f_6$                                  | 16.5765±0.0007               | 0.50±0.05        | -2.84±0.05               | 105.0  |
| $f_8$                                  | 18.3235±0.0009               | 0.40±0.05        | -2.63±0.06               | 67.7   |
| $f_9$                                  | 11.0917±0.0010               | 0.35±0.04        | -1.97±0.06               | 63.4   |
| $f_{10}$                               | 15.2304±0.0010               | 0.36±0.05        | -1.98±0.06               | 58.1   |
| $f_{11}$                               | 17.9926±0.0010               | 0.35±0.05        | -2.53±0.06               | 59.9   |
| $f_{12}$                               | 10.5942±0.0010               | 0.34±0.04        | 1.39±0.06                | 59.1   |
| $f_{13}$                               | 9.8472±0.0010                | 0.34±0.05        | 2.66±0.06                | 57.0   |
| $f_{14}$                               | 17.4439±0.0011               | 0.32±0.04        | 2.19±0.06                | 51.8   |
| $f_{16}$                               | 7.2111±0.0012                | 0.28±0.05        | 2.18±0.08                | 38.5   |
| $f_{18}$                               | 17.1824±0.0013               | 0.27±0.04        | 1.11±0.08                | 36.5   |
| $f_{19}$                               | 13.2875±0.0013               | 0.26±0.04        | -1.09±0.08               | 35.3   |
| $f_{20}$                               | 13.0990±0.0013               | 0.25±0.04        | 0.93±0.08                | 35.2   |
| $f_{22}$                               | 12.2023±0.0013               | 0.24±0.04        | 2.35±0.08                | 33.3   |
| $f_{23}$                               | 19.0574±0.0013               | 0.23±0.04        | 2.66±0.08                | 32.2   |
| $f_{24}$                               | 18.3051±0.0014               | 0.25±0.04        | -1.96±0.08               | 31.5   |
| $f_{25}$                               | 13.2396±0.0014               | 0.23±0.04        | 1.72±0.08                | 30.6   |
| $f_{26}$                               | 16.5131±0.0014               | 0.22±0.04        | 1.69±0.09                | 29.9   |
| $f_{27}$                               | 15.6642±0.0014               | 0.22±0.04        | 1.76±0.09                | 28.4   |
| $f_{28}$                               | 17.7826±0.0015               | 0.20±0.04        | 2.36±0.09                | 25.3   |
| $f_{30}$                               | 15.2408±0.0016               | 0.20±0.04        | -1.05±0.10               | 23.8   |
| $f_{32}$                               | 23.2574±0.0016               | 0.20±0.04        | -1.16±0.10               | 23.9   |
| $f_{34}$                               | 16.4216±0.0016               | 0.19±0.04        | -1.49±0.10               | 21.6   |
| $f_{36}$                               | 20.2521±0.0017               | 0.18±0.04        | 0.73±0.10                | 20.7   |
| $f_{37}$                               | 1.0535±0.0018                | 0.17±0.04        | -1.30±0.11               | 18.6   |
| $f_{38}$                               | 12.6544±0.0018               | 0.17±0.04        | 0.55±0.11                | 18.5   |
| $f_{41}$                               | 10.4426±0.0018               | 0.16±0.04        | -1.35±0.11               | 17.3   |
| $f_{42}$                               | 15.4001±0.0019               | 0.16±0.04        | 1.82±0.12                | 16.2   |
| $f_{43}$                               | 2.2351±0.0019                | 0.15±0.04        | 1.31±0.12                | 15.8   |
| Frequency list of 0102735380 continued |                              |                  |                          |        |

**Table E.38:** Frequency list of 0102737008

| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| $f_1$                                  | 0.1834±0.0008                | 0.33±0.04        | -0.25±0.05               | 87.7  |
| $f_2$                                  | 0.1377±0.0009                | 0.30±0.03        | 2.95±0.05                | 77.5  |
| $f_3$                                  | 0.1995±0.0009                | 0.27±0.03        | 2.20±0.05                | 79.0  |
| $f_4$                                  | 0.1060±0.0008                | 0.27±0.03        | -2.82±0.05               | 82.5  |
| $f_5$                                  | 0.1764±0.0009                | 0.26±0.03        | 1.41±0.06                | 71.1  |
| $f_6$                                  | 22.0308±0.0010               | 0.25±0.03        | -0.37±0.06               | 60.9  |
| $f_7$                                  | 0.1228±0.0010                | 0.25±0.03        | 1.91±0.06                | 60.9  |
| $f_8$                                  | 0.2855±0.0011                | 0.25±0.04        | -0.74±0.07               | 50.0  |
| $f_9$                                  | 0.2519±0.0011                | 0.21±0.03        | 2.78±0.07                | 49.9  |
| $f_{10}$                               | 0.3183±0.0014                | 0.18±0.03        | 1.94±0.08                | 31.7  |
| $f_{11}$                               | 0.3336±0.0015                | 0.11±0.02        | 1.13±0.09                | 26.7  |
| $f_{12}$                               | 0.1926±0.0015                | 0.14±0.03        | 0.92±0.09                | 24.3  |
| $f_{13}$                               | 0.4568±0.0016                | 0.12±0.02        | -2.77±0.10               | 23.4  |
| $f_{14}$                               | 0.2296±0.0016                | 0.14±0.03        | 0.53±0.10                | 23.2  |
| $f_{15}$                               | 0.2607±0.0016                | 0.17±0.04        | 2.89±0.10                | 21.8  |
| $f_{16}$                               | 0.4201±0.0016                | 0.13±0.03        | 0.77±0.10                | 21.8  |
| $f_{17}$                               | 0.2138±0.0017                | 0.13±0.03        | 0.29±0.11                | 19.2  |
| $f_{18}$                               | 0.1649±0.0017                | 0.14±0.03        | 1.12±0.11                | 19.2  |
| Frequency list of 0102737008 continued |                              |                  |                          |       |



## Appendix E. Frequencies of individual Hybrid Candidate Stars

| Frequency list of 0102737008 continued |                              |                  |                          |       | Frequency list of 0102740052 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| <i>f</i> <sub>19</sub>                 | 0.3821±0.0018                | 0.10±0.02        | -0.83±0.11               | 17.4  | <i>f</i> <sub>26</sub>                 | 28.1840±0.0014               | 0.20±0.04        | -2.67±0.08               | 31.6  |
| <i>f</i> <sub>20</sub>                 | 0.3485±0.0018                | 0.13±0.03        | 2.09±0.11                | 18.1  | <i>f</i> <sub>27</sub>                 | 1.5383±0.0014                | 0.21±0.04        | -0.96±0.08               | 30.3  |
| <i>f</i> <sub>21</sub>                 | 0.9036±0.0019                | 0.12±0.03        | -1.22±0.12               | 16.4  | <i>f</i> <sub>28</sub>                 | 0.2260±0.0014                | 0.16±0.03        | -0.80±0.09               | 30.0  |
| <i>f</i> <sub>22</sub>                 | 0.2924±0.0020                | 0.13±0.03        | 2.93±0.12                | 15.0  | <i>f</i> <sub>29</sub>                 | 0.6642±0.0014                | 0.17±0.03        | -2.20±0.08               | 30.4  |
| <i>f</i> <sub>23</sub>                 | 0.5213±0.0020                | 0.15±0.04        | -0.37±0.12               | 14.9  | <i>f</i> <sub>30</sub>                 | 18.9437±0.0014               | 0.19±0.03        | -0.99±0.08               | 31.1  |
| <i>f</i> <sub>24</sub>                 | 2.7228±0.0020                | 0.11±0.03        | -1.10±0.12               | 14.7  | <i>f</i> <sub>31</sub>                 | 18.2049±0.0014               | 0.19±0.04        | -0.53±0.09               | 29.3  |
| <i>f</i> <sub>25</sub>                 | 0.1160±0.0020                | 0.11±0.03        | 0.59±0.12                | 14.6  | <i>f</i> <sub>32</sub>                 | 23.7154±0.0014               | 0.18±0.03        | 2.06±0.09                | 27.9  |
| <i>f</i> <sub>26</sub>                 | 16.5729±0.0022               | 0.10±0.03        | -1.41±0.14               | 11.7  | <i>f</i> <sub>33</sub>                 | 33.6340±0.0014               | 0.18±0.03        | 1.62±0.09                | 28.2  |
| <i>f</i> <sub>27</sub>                 | 0.2057±0.0022                | 0.11±0.03        | -2.59±0.14               | 11.6  | <i>f</i> <sub>34</sub>                 | 33.1868±0.0015               | 0.17±0.03        | -0.96±0.09               | 27.4  |
| <i>f</i> <sub>28</sub>                 | 0.4431±0.0023                | 0.12±0.04        | -0.55±0.14               | 11.5  | <i>f</i> <sub>35</sub>                 | 1.3163±0.0015                | 0.16±0.03        | -2.86±0.09               | 26.3  |
| <i>f</i> <sub>29</sub>                 | 1.0085±0.0022                | 0.08±0.02        | 0.19±0.14                | 11.8  | <i>f</i> <sub>36</sub>                 | 0.3313±0.0016                | 0.18±0.04        | 2.96±0.10                | 24.0  |
| <i>f</i> <sub>30</sub>                 | 0.4875±0.0023                | 0.10±0.03        | -2.68±0.14               | 11.5  | <i>f</i> <sub>37</sub>                 | 22.4336±0.0016               | 0.15±0.03        | 1.64±0.09                | 24.1  |
| <i>f</i> <sub>31</sub>                 | 0.6571±0.0023                | 0.10±0.03        | 1.81±0.14                | 11.3  | <i>f</i> <sub>38</sub>                 | 0.1986±0.0015                | 0.12±0.02        | -0.74±0.09               | 24.4  |
| <i>f</i> <sub>33</sub>                 | 0.7957±0.0024                | 0.08±0.03        | 1.96±0.15                | 10.0  | <i>f</i> <sub>39</sub>                 | 0.4064±0.0016                | 0.14±0.03        | 0.12±0.10                | 22.1  |
| <i>f</i> <sub>34</sub>                 | 0.1470±0.0024                | 0.10±0.03        | -0.17±0.15               | 9.8   | <i>f</i> <sub>40</sub>                 | 31.5537±0.0016               | 0.15±0.03        | -1.74±0.10               | 22.3  |
| <i>f</i> <sub>35</sub>                 | 0.4787±0.0025                | 0.09±0.03        | -2.73±0.15               | 9.6   | <i>f</i> <sub>41</sub>                 | 1.7421±0.0016                | 0.16±0.03        | -1.35±0.10               | 21.5  |
| <i>f</i> <sub>36</sub>                 | 0.4031±0.0025                | 0.09±0.03        | 1.77±0.15                | 9.7   | <i>f</i> <sub>42</sub>                 | 25.6116±0.0017               | 0.16±0.03        | -1.76±0.10               | 21.3  |
| <i>f</i> <sub>37</sub>                 | 0.8456±0.0025                | 0.10±0.03        | -2.44±0.15               | 9.4   | <i>f</i> <sub>43</sub>                 | 0.7877±0.0017                | 0.12±0.03        | -2.64±0.10               | 21.1  |
| <i>f</i> <sub>38</sub>                 | 0.8655±0.0024                | 0.09±0.03        | 0.08±0.15                | 9.8   | <i>f</i> <sub>44</sub>                 | 20.9025±0.0017               | 0.16±0.03        | 1.61±0.10                | 21.2  |
| <i>f</i> <sub>39</sub>                 | 0.5267±0.0025                | 0.08±0.03        | 0.24±0.15                | 9.3   | <i>f</i> <sub>45</sub>                 | 36.0681±0.0017               | 0.14±0.03        | -2.91±0.10               | 20.0  |
| <i>f</i> <sub>40</sub>                 | 0.1555±0.0025                | 0.10±0.03        | -0.31±0.15               | 9.3   | <i>f</i> <sub>46</sub>                 | 12.4352±0.0017               | 0.14±0.03        | 2.21±0.11                | 19.2  |
| <i>f</i> <sub>41</sub>                 | 0.2436±0.0024                | 0.08±0.03        | -0.02±0.15               | 10.2  | <i>f</i> <sub>47</sub>                 | 22.4241±0.0017               | 0.14±0.03        | -0.09±0.11               | 19.4  |
| <i>f</i> <sub>42</sub>                 | 1.3100±0.0026                | 0.08±0.03        | -0.46±0.16               | 8.8   | <i>f</i> <sub>48</sub>                 | 0.6279±0.0017                | 0.13±0.03        | -1.16±0.11               | 19.4  |
| <i>f</i> <sub>43</sub>                 | 0.7153±0.0026                | 0.07±0.02        | -1.41±0.16               | 8.6   | <i>f</i> <sub>49</sub>                 | 0.5860±0.0018                | 0.12±0.03        | -1.00±0.11               | 18.2  |
| <i>f</i> <sub>44</sub>                 | 0.2996±0.0027                | 0.08±0.03        | -1.04±0.16               | 8.0   | <i>f</i> <sub>50</sub>                 | 27.1348±0.0018               | 0.14±0.03        | -1.56±0.11               | 17.7  |
| <i>f</i> <sub>45</sub>                 | 29.6341±0.0028               | 0.08±0.03        | 2.67±0.17                | 7.5   | <i>f</i> <sub>51</sub>                 | 29.7260±0.0018               | 0.14±0.03        | -0.62±0.11               | 18.3  |
| <i>f</i> <sub>46</sub>                 | 0.9408±0.0028                | 0.08±0.03        | 2.78±0.17                | 7.6   | <i>f</i> <sub>52</sub>                 | 1.2352±0.0018                | 0.12±0.03        | -3.02±0.11               | 18.5  |
| <i>f</i> <sub>47</sub>                 | 0.6026±0.0028                | 0.08±0.03        | -1.89±0.17               | 7.6   | <i>f</i> <sub>53</sub>                 | 35.0149±0.0018               | 0.14±0.03        | 1.50±0.11                | 18.1  |
| <i>f</i> <sub>48</sub>                 | 0.7324±0.0028                | 0.07±0.03        | -2.76±0.17               | 7.2   | <i>f</i> <sub>54</sub>                 | 30.3549±0.0018               | 0.14±0.03        | -1.52±0.11               | 17.9  |
| <i>f</i> <sub>50</sub>                 | 1.5676±0.0029                | 0.07±0.03        | 3.00±0.18                | 6.9   | <i>f</i> <sub>55</sub>                 | 26.3577±0.0018               | 0.13±0.03        | -1.22±0.11               | 17.5  |
| <i>f</i> <sub>51</sub>                 | 1.1215±0.0030                | 0.08±0.03        | -1.69±0.18               | 6.6   | <i>f</i> <sub>56</sub>                 | 0.4250±0.0018                | 0.13±0.03        | -2.04±0.11               | 18.0  |
| <i>f</i> <sub>52</sub>                 | 1.0327±0.0030                | 0.09±0.04        | 2.61±0.18                | 6.5   | <i>f</i> <sub>57</sub>                 | 19.6927±0.0018               | 0.12±0.03        | -2.46±0.11               | 17.7  |
| <i>f</i> <sub>53</sub>                 | 0.8309±0.0030                | 0.08±0.03        | -0.82±0.18               | 6.6   | <i>f</i> <sub>58</sub>                 | 0.3606±0.0018                | 0.12±0.03        | 1.36±0.11                | 17.5  |
| <i>f</i> <sub>54</sub>                 | 0.3934±0.0030                | 0.08±0.03        | 2.04±0.18                | 6.4   | <i>f</i> <sub>59</sub>                 | 0.6003±0.0018                | 0.10±0.02        | 2.98±0.11                | 17.1  |
| <i>f</i> <sub>55</sub>                 | 0.3718±0.0029                | 0.08±0.03        | -1.08±0.17               | 7.1   | <i>f</i> <sub>60</sub>                 | 2.2997±0.0019                | 0.13±0.03        | 0.93±0.11                | 16.5  |
| <i>f</i> <sub>56</sub>                 | 0.6795±0.0031                | 0.06±0.02        | -0.99±0.19               | 6.2   | <i>f</i> <sub>61</sub>                 | 1.3864±0.0019                | 0.11±0.03        | -2.75±0.12               | 15.7  |
| <i>f</i> <sub>58</sub>                 | 0.2707±0.0031                | 0.07±0.03        | -2.20±0.19               | 5.9   | <i>f</i> <sub>62</sub>                 | 0.4640±0.0019                | 0.13±0.03        | 1.36±0.12                | 15.6  |
| <i>f</i> <sub>59</sub>                 | 1.4300±0.0032                | 0.06±0.03        | 2.61±0.20                | 5.6   | <i>f</i> <sub>63</sub>                 | 15.1754±0.0020               | 0.13±0.03        | -2.86±0.12               | 15.3  |
| <i>f</i> <sub>60</sub>                 | 0.5503±0.0033                | 0.07±0.03        | 2.54±0.20                | 5.5   | <i>f</i> <sub>64</sub>                 | 0.9311±0.0020                | 0.11±0.03        | 1.39±0.12                | 15.2  |
| <i>f</i> <sub>61</sub>                 | 1.7055±0.0033                | 0.06±0.03        | -0.57±0.20               | 5.3   | <i>f</i> <sub>65</sub>                 | 1.6386±0.0020                | 0.11±0.03        | 2.78±0.12                | 14.9  |
| <i>f</i> <sub>62</sub>                 | 1.0413±0.0033                | 0.07±0.03        | -0.92±0.20               | 5.4   | <i>f</i> <sub>66</sub>                 | 22.2143±0.0020               | 0.12±0.03        | -1.19±0.12               | 15.1  |
| <i>f</i> <sub>63</sub>                 | 0.6639±0.0033                | 0.06±0.03        | 2.47±0.20                | 5.3   | <i>f</i> <sub>67</sub>                 | 0.2421±0.0020                | 0.13±0.03        | 0.43±0.12                | 14.9  |
| <i>f</i> <sub>64</sub>                 | 2.1474±0.0033                | 0.06±0.03        | 2.62±0.20                | 5.3   | <i>f</i> <sub>68</sub>                 | 25.6576±0.0020               | 0.12±0.03        | -2.81±0.12               | 14.7  |
| <i>f</i> <sub>66</sub>                 | 0.4968±0.0034                | 0.07±0.03        | 1.99±0.21                | 5.1   | <i>f</i> <sub>69</sub>                 | 6.9058±0.0020                | 0.11±0.03        | -1.21±0.12               | 14.7  |
| <i>f</i> <sub>67</sub>                 | 0.4303±0.0033                | 0.07±0.03        | -2.70±0.20               | 5.3   | <i>f</i> <sub>70</sub>                 | 0.6861±0.0020                | 0.12±0.03        | -0.95±0.12               | 14.3  |
| <i>f</i> <sub>68</sub>                 | 1.4950±0.0034                | 0.06±0.03        | -0.25±0.21               | 5.1   | <i>f</i> <sub>71</sub>                 | 0.1711±0.0020                | 0.09±0.02        | 0.49±0.12                | 14.3  |
| <i>f</i> <sub>69</sub>                 | 1.0208±0.0034                | 0.06±0.03        | -3.01±0.21               | 5.1   | <i>f</i> <sub>72</sub>                 | 28.6107±0.0020               | 0.11±0.03        | -2.68±0.12               | 13.9  |
| <i>f</i> <sub>70</sub>                 | 0.8212±0.0034                | 0.06±0.03        | 2.54±0.21                | 5.1   | <i>f</i> <sub>73</sub>                 | 1.1965±0.0020                | 0.11±0.03        | 2.05±0.12                | 14.0  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>74</sub>                 | 2.8217±0.0020                | 0.13±0.03        | 0.83±0.12                | 14.0  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>75</sub>                 | 17.2779±0.0020               | 0.12±0.03        | 1.14±0.12                | 14.4  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>76</sub>                 | 32.9085±0.0020               | 0.11±0.03        | -1.40±0.12               | 13.9  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>77</sub>                 | 1.1382±0.0020                | 0.10±0.03        | 1.60±0.12                | 14.0  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>78</sub>                 | 0.5580±0.0021                | 0.10±0.03        | 0.20±0.13                | 13.8  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>79</sub>                 | 23.1736±0.0021               | 0.11±0.03        | 1.36±0.13                | 13.3  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>80</sub>                 | 21.5419±0.0021               | 0.11±0.03        | -0.83±0.13               | 13.3  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>81</sub>                 | 1.2469±0.0021                | 0.11±0.03        | 0.74±0.13                | 13.2  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>82</sub>                 | 0.4367±0.0021                | 0.10±0.03        | 1.95±0.13                | 13.6  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>83</sub>                 | 0.8163±0.0021                | 0.11±0.03        | -2.17±0.13               | 13.0  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>84</sub>                 | 0.9595±0.0021                | 0.12±0.03        | -2.10±0.13               | 13.2  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>85</sub>                 | 1.3290±0.0021                | 0.10±0.03        | 3.11±0.13                | 13.1  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>87</sub>                 | 0.6558±0.0021                | 0.11±0.03        | -1.43±0.13               | 12.8  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>88</sub>                 | 1.0741±0.0021                | 0.11±0.03        | 3.03±0.13                | 12.8  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>89</sub>                 | 24.4517±0.0022               | 0.11±0.03        | 1.18±0.13                | 12.5  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>90</sub>                 | 0.5221±0.0021                | 0.11±0.03        | 1.71±0.13                | 12.8  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>91</sub>                 | 44.4646±0.0022               | 0.10±0.03        | 1.77±0.14                | 11.9  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>92</sub>                 | 1.9814±0.0022                | 0.10±0.03        | -3.01±0.14               | 11.8  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>93</sub>                 | 0.4963±0.0022                | 0.10±0.03        | 0.84±0.14                | 11.8  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>94</sub>                 | 0.7228±0.0022                | 0.09±0.03        | 1.23±0.13                | 12.0  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>95</sub>                 | 2.1448±0.0022                | 0.11±0.03        | 2.34±0.14                | 11.8  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>96</sub>                 | 2.8720±0.0022                | 0.12±0.03        | -2.99±0.13               | 12.2  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>97</sub>                 | 1.3681±0.0022                | 0.09±0.03        | -1.06±0.13               | 12.3  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>98</sub>                 | 1.6201±0.0022                | 0.09±0.03        | 1.78±0.14                | 11.9  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>99</sub>                 | 0.1458±0.0022                | 0.10±0.03        | -2.47±0.13               | 12.1  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>100</sub>                | 0.3739±0.0023                | 0.11±0.03        | -1.75±0.14               | 11.5  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>101</sub>                | 0.2808±0.0022                | 0.10±0.03        | 1.48±0.14                | 11.9  |
|                                        |                              |                  |                          |       | <i>f</i> <sub>102</sub>                | 0.2633±0.0022                | 0.10±0.03        | -2.27±0.13               | 12.4  |
|                                        |                              |                  |                          |       | Frequency list of 0102740052 continued |                              |                  |                          |       |
| Frequency list of 0102740052 continued |                              |                  |                          |       |                                        |                              |                  |                          |       |
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |                                        |                              |                  |                          |       |
| <i>f</i> <sub>1</sub>                  | 28.0359±0.0006               | 0.74±0.05        | 1.90±0.03                | 190.5 |                                        |                              |                  |                          |       |
| <i>f</i> <sub>2</sub>                  | 16.9271±0.0006               | 0.71±0.05        | -2.53±0.03               | 187.4 |                                        |                              |                  |                          |       |
| <i>f</i> <sub>3</sub>                  | 2.1186±0.0006                | 0.65±0.05        | -1.23±0.03               | 180.9 |                                        |                              |                  |                          |       |
| <i>f</i> <sub>4</sub>                  | 33.3580±0.0006               | 0.67±0.05        | 2.64±0.03                | 186.3 |                                        |                              |                  |                          |       |
| <i>f</i> <sub>5</sub>                  | 17.2276±0.0006               | 0.63±0.05        | 2.55±0.03                | 187.0 |                                        |                              |                  |                          |       |
| <i>f</i> <sub>6</sub>                  | 15.2163±0.0006               | 0.61±0.05        | -1.66±0.03               | 178.0 |                                        |                              |                  |                          |       |
| <i>f</i> <sub>7</sub>                  | 27.0420±0.0006               | 0.61±0.05        | 0.59±0.03                | 179.4 |                                        |                              |                  |                          |       |
| <i>f</i> <sub>8</sub>                  | 29.7668±0.0006               | 0.53±0.04        | -1.76±0.04               | 144.2 |                                        |                              |                  |                          |       |
| <i>f</i> <sub>9</sub>                  | 24.3291±0.0006               | 0.52±0.04        | -1.05±0.04               | 142.5 |                                        |                              |                  |                          |       |
| <i>f</i> <sub>10</sub>                 | 30.9806±0.0007               | 0.46±0.04        | 2.71±0.04                | 123.7 |                                        |                              |                  |                          |       |

## Appendix E. Frequencies of individual Hybrid Candidate Stars

| Frequency list of 0102740052 continued |                              |                  |                          |       | Frequency list of 0102740052 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| <i>f</i> <sub>103</sub>                | 0.7993±0.0022                | 0.10±0.03        | 0.95±0.14                | 11.6  | <i>f</i> <sub>179</sub>                | 2.1105±0.0028                | 0.07±0.03        | 1.05±0.17                | 7.4   |
| <i>f</i> <sub>104</sub>                | 26.1751±0.0023               | 0.10±0.03        | -2.43±0.14               | 11.2  | <i>f</i> <sub>180</sub>                | 36.0735±0.0028               | 0.07±0.03        | -2.65±0.17               | 7.6   |
| <i>f</i> <sub>105</sub>                | 0.8806±0.0023                | 0.11±0.03        | -2.74±0.14               | 11.1  | <i>f</i> <sub>181</sub>                | 13.6607±0.0027               | 0.08±0.03        | -0.77±0.17               | 7.8   |
| <i>f</i> <sub>106</sub>                | 2.6553±0.0023                | 0.10±0.03        | 2.55±0.14                | 10.8  | <i>f</i> <sub>182</sub>                | 1.4818±0.0028                | 0.08±0.03        | -0.68±0.17               | 7.4   |
| <i>f</i> <sub>107</sub>                | 0.1888±0.0023                | 0.09±0.03        | -1.89±0.14               | 10.7  | <i>f</i> <sub>183</sub>                | 36.5749±0.0028               | 0.07±0.03        | 2.30±0.17                | 7.2   |
| <i>f</i> <sub>108</sub>                | 1.8218±0.0024                | 0.10±0.03        | 0.58±0.15                | 10.3  | <i>f</i> <sub>184</sub>                | 2.2720±0.0028                | 0.08±0.03        | 2.12±0.17                | 7.4   |
| <i>f</i> <sub>109</sub>                | 1.7360±0.0024                | 0.08±0.02        | -1.96±0.14               | 10.4  | <i>f</i> <sub>185</sub>                | 3.6364±0.0028                | 0.08±0.03        | -0.07±0.17               | 7.3   |
| <i>f</i> <sub>110</sub>                | 14.4486±0.0024               | 0.11±0.03        | 0.83±0.15                | 10.2  | <i>f</i> <sub>186</sub>                | 17.9425±0.0028               | 0.07±0.03        | -0.20±0.17               | 7.2   |
| <i>f</i> <sub>111</sub>                | 1.4903±0.0024                | 0.08±0.02        | 1.15±0.14                | 10.5  | <i>f</i> <sub>188</sub>                | 3.2151±0.0028                | 0.08±0.03        | 1.16±0.17                | 7.4   |
| <i>f</i> <sub>112</sub>                | 1.3046±0.0024                | 0.10±0.03        | -1.29±0.14               | 10.4  | <i>f</i> <sub>189</sub>                | 1.9462±0.0028                | 0.08±0.03        | -0.95±0.17               | 7.4   |
| <i>f</i> <sub>113</sub>                | 21.8807±0.0024               | 0.09±0.03        | 0.15±0.15                | 10.2  | <i>f</i> <sub>190</sub>                | 0.9436±0.0029                | 0.07±0.03        | -2.52±0.18               | 7.0   |
| <i>f</i> <sub>114</sub>                | 32.6613±0.0024               | 0.09±0.03        | -0.94±0.15               | 10.1  | <i>f</i> <sub>191</sub>                | 0.6333±0.0029                | 0.07±0.03        | -1.54±0.18               | 7.0   |
| <i>f</i> <sub>115</sub>                | 4.1645±0.0024                | 0.09±0.03        | -0.08±0.15               | 10.1  | <i>f</i> <sub>192</sub>                | 33.0588±0.0029               | 0.07±0.03        | -2.21±0.18               | 7.0   |
| <i>f</i> <sub>116</sub>                | 22.5000±0.0024               | 0.09±0.03        | -1.27±0.15               | 10.2  | <i>f</i> <sub>193</sub>                | 2.7533±0.0029                | 0.08±0.03        | -3.04±0.18               | 7.0   |
| <i>f</i> <sub>117</sub>                | 3.1341±0.0024                | 0.09±0.03        | 1.79±0.15                | 10.0  | <i>f</i> <sub>194</sub>                | 2.7674±0.0028                | 0.08±0.03        | -1.59±0.17               | 7.2   |
| <i>f</i> <sub>118</sub>                | 3.8072±0.0024                | 0.09±0.03        | 2.89±0.15                | 10.0  | <i>f</i> <sub>195</sub>                | 1.7611±0.0029                | 0.07±0.03        | 2.35±0.18                | 7.0   |
| <i>f</i> <sub>119</sub>                | 39.0694±0.0024               | 0.09±0.03        | 2.42±0.15                | 10.2  | <i>f</i> <sub>196</sub>                | 33.1724±0.0029               | 0.07±0.03        | 0.19±0.18                | 7.0   |
| <i>f</i> <sub>120</sub>                | 0.6188±0.0024                | 0.09±0.03        | 2.63±0.15                | 10.3  | <i>f</i> <sub>197</sub>                | 14.8234±0.0029               | 0.07±0.03        | -0.28±0.18               | 7.0   |
| <i>f</i> <sub>121</sub>                | 21.9316±0.0024               | 0.09±0.03        | 2.55±0.15                | 9.9   | <i>f</i> <sub>198</sub>                | 2.2314±0.0029                | 0.07±0.03        | 0.46±0.17                | 7.1   |
| <i>f</i> <sub>122</sub>                | 1.1551±0.0024                | 0.08±0.03        | -1.74±0.15               | 10.1  | <i>f</i> <sub>199</sub>                | 2.1972±0.0028                | 0.07±0.03        | -2.79±0.17               | 7.4   |
| <i>f</i> <sub>123</sub>                | 2.5111±0.0024                | 0.10±0.03        | 3.10±0.15                | 10.0  | <i>f</i> <sub>200</sub>                | 32.4053±0.0029               | 0.07±0.03        | 0.79±0.17                | 7.1   |
| <i>f</i> <sub>124</sub>                | 0.7040±0.0025                | 0.09±0.03        | 1.22±0.15                | 9.7   | <i>f</i> <sub>201</sub>                | 3.0929±0.0028                | 0.07±0.03        | -0.77±0.17               | 7.2   |
| <i>f</i> <sub>125</sub>                | 2.2222±0.0024                | 0.08±0.03        | -1.31±0.15               | 10.2  | <i>f</i> <sub>202</sub>                | 1.2890±0.0029                | 0.08±0.03        | 0.36±0.18                | 6.9   |
| <i>f</i> <sub>126</sub>                | 2.6147±0.0025                | 0.09±0.03        | -0.83±0.15               | 9.7   | <i>f</i> <sub>203</sub>                | 1.5801±0.0029                | 0.06±0.02        | -0.06±0.18               | 6.9   |
| <i>f</i> <sub>127</sub>                | 1.1117±0.0024                | 0.09±0.03        | 1.08±0.15                | 9.9   | <i>f</i> <sub>204</sub>                | 4.4107±0.0029                | 0.07±0.03        | 2.69±0.17                | 7.1   |
| <i>f</i> <sub>128</sub>                | 13.5001±0.0025               | 0.09±0.03        | -1.44±0.15               | 9.4   | <i>f</i> <sub>205</sub>                | 1.0957±0.0029                | 0.07±0.03        | -1.00±0.18               | 7.0   |
| <i>f</i> <sub>129</sub>                | 25.2693±0.0025               | 0.08±0.03        | -1.13±0.15               | 9.4   | <i>f</i> <sub>206</sub>                | 3.4386±0.0029                | 0.07±0.03        | 2.66±0.18                | 6.9   |
| <i>f</i> <sub>130</sub>                | 1.3998±0.0025                | 0.09±0.03        | 2.77±0.15                | 9.4   | <i>f</i> <sub>207</sub>                | 31.8141±0.0029               | 0.07±0.03        | 2.36±0.17                | 7.1   |
| <i>f</i> <sub>131</sub>                | 2.4725±0.0025                | 0.08±0.03        | -1.57±0.15               | 9.3   | <i>f</i> <sub>208</sub>                | 23.5953±0.0029               | 0.07±0.03        | 2.60±0.18                | 7.0   |
| <i>f</i> <sub>132</sub>                | 0.1615±0.0025                | 0.09±0.03        | -2.46±0.15               | 9.3   | <i>f</i> <sub>209</sub>                | 36.1602±0.0029               | 0.06±0.02        | 2.76±0.18                | 6.9   |
| <i>f</i> <sub>133</sub>                | 0.3453±0.0025                | 0.09±0.03        | 1.08±0.15                | 9.5   | <i>f</i> <sub>210</sub>                | 13.8652±0.0029               | 0.07±0.03        | -1.47±0.18               | 6.8   |
| <i>f</i> <sub>134</sub>                | 0.4476±0.0025                | 0.08±0.03        | -2.17±0.15               | 9.6   | <i>f</i> <sub>211</sub>                | 0.9883±0.0029                | 0.06±0.02        | 1.77±0.18                | 6.9   |
| <i>f</i> <sub>135</sub>                | 16.2395±0.0025               | 0.08±0.03        | -0.14±0.15               | 9.6   | <i>f</i> <sub>212</sub>                | 41.4527±0.0029               | 0.06±0.02        | -1.00±0.18               | 6.7   |
| <i>f</i> <sub>136</sub>                | 2.9410±0.0024                | 0.08±0.03        | 0.43±0.15                | 9.8   | <i>f</i> <sub>213</sub>                | 31.5473±0.0029               | 0.07±0.03        | -1.83±0.18               | 6.7   |
| <i>f</i> <sub>137</sub>                | 13.1809±0.0025               | 0.09±0.03        | -2.10±0.15               | 9.2   | <i>f</i> <sub>214</sub>                | 0.2897±0.0029                | 0.07±0.03        | -1.55±0.18               | 6.8   |
| <i>f</i> <sub>138</sub>                | 27.5845±0.0025               | 0.08±0.03        | -1.03±0.16               | 9.0   | <i>f</i> <sub>215</sub>                | 39.6801±0.0030               | 0.07±0.03        | -1.15±0.18               | 6.6   |
| <i>f</i> <sub>139</sub>                | 19.1367±0.0026               | 0.08±0.03        | -2.02±0.16               | 8.8   | <i>f</i> <sub>216</sub>                | 3.5873±0.0029                | 0.07±0.03        | 1.48±0.18                | 6.7   |
| <i>f</i> <sub>140</sub>                | 0.7620±0.0025                | 0.08±0.03        | 0.64±0.16                | 9.0   | <i>f</i> <sub>217</sub>                | 4.0983±0.0030                | 0.07±0.03        | -1.21±0.18               | 6.5   |
| <i>f</i> <sub>141</sub>                | 1.6665±0.0025                | 0.08±0.03        | -1.54±0.16               | 9.0   | <i>f</i> <sub>219</sub>                | 1.7498±0.0030                | 0.07±0.03        | -1.93±0.18               | 6.4   |
| <i>f</i> <sub>142</sub>                | 2.6809±0.0026                | 0.08±0.03        | 2.86±0.16                | 8.8   | <i>f</i> <sub>220</sub>                | 3.0196±0.0030                | 0.06±0.02        | 1.05±0.18                | 6.4   |
| <i>f</i> <sub>143</sub>                | 2.0705±0.0026                | 0.08±0.03        | -2.72±0.16               | 8.8   | <i>f</i> <sub>221</sub>                | 2.8657±0.0030                | 0.07±0.03        | -2.34±0.18               | 6.4   |
| <i>f</i> <sub>144</sub>                | 3.3598±0.0026                | 0.07±0.02        | 0.40±0.16                | 8.8   | <i>f</i> <sub>222</sub>                | 2.8987±0.0029                | 0.07±0.03        | 2.79±0.18                | 6.7   |
| <i>f</i> <sub>145</sub>                | 33.3515±0.0026               | 0.08±0.03        | 1.27±0.16                | 8.5   | <i>f</i> <sub>223</sub>                | 0.8711±0.0030                | 0.07±0.03        | -0.58±0.18               | 6.4   |
| <i>f</i> <sub>146</sub>                | 22.6913±0.0026               | 0.08±0.03        | 2.14±0.16                | 8.6   | <i>f</i> <sub>224</sub>                | 1.2068±0.0030                | 0.06±0.02        | -0.79±0.18               | 6.6   |
| <i>f</i> <sub>147</sub>                | 1.0070±0.0026                | 0.07±0.02        | -1.01±0.16               | 8.9   | <i>f</i> <sub>225</sub>                | 0.9218±0.0030                | 0.06±0.02        | -2.81±0.18               | 6.5   |
| <i>f</i> <sub>148</sub>                | 34.6629±0.0026               | 0.08±0.03        | -2.24±0.16               | 8.7   | <i>f</i> <sub>226</sub>                | 14.4390±0.0030               | 0.07±0.03        | 0.72±0.18                | 6.5   |
| <i>f</i> <sub>149</sub>                | 1.3937±0.0027                | 0.08±0.03        | 1.95±0.16                | 8.2   | <i>f</i> <sub>227</sub>                | 0.5489±0.0030                | 0.06±0.02        | 0.20±0.18                | 6.6   |
| <i>f</i> <sub>150</sub>                | 0.2348±0.0026                | 0.08±0.03        | 0.68±0.16                | 8.6   | <i>f</i> <sub>228</sub>                | 38.6194±0.0030               | 0.06±0.02        | -2.35±0.18               | 6.4   |
| <i>f</i> <sub>151</sub>                | 1.2158±0.0026                | 0.08±0.03        | -0.02±0.16               | 8.4   | <i>f</i> <sub>229</sub>                | 31.3559±0.0030               | 0.07±0.03        | 1.00±0.18                | 6.5   |
| <i>f</i> <sub>152</sub>                | 20.0770±0.0026               | 0.08±0.03        | 0.34±0.16                | 8.4   | <i>f</i> <sub>230</sub>                | 1.8027±0.0030                | 0.07±0.03        | 0.41±0.19                | 6.3   |
| <i>f</i> <sub>153</sub>                | 37.8920±0.0026               | 0.08±0.03        | 2.02±0.16                | 8.6   | <i>f</i> <sub>231</sub>                | 6.7505±0.0030                | 0.06±0.02        | -0.08±0.18               | 6.4   |
| <i>f</i> <sub>154</sub>                | 4.0653±0.0026                | 0.08±0.03        | 1.43±0.16                | 8.3   | <i>f</i> <sub>232</sub>                | 7.6895±0.0029                | 0.07±0.03        | -1.62±0.18               | 6.7   |
| <i>f</i> <sub>155</sub>                | 0.9053±0.0027                | 0.08±0.03        | -1.24±0.16               | 8.1   | <i>f</i> <sub>233</sub>                | 3.0510±0.0030                | 0.07±0.03        | -1.78±0.18               | 6.5   |
| <i>f</i> <sub>156</sub>                | 13.5286±0.0027               | 0.08±0.03        | -1.15±0.16               | 8.0   | <i>f</i> <sub>234</sub>                | 1.2988±0.0030                | 0.07±0.03        | -2.75±0.19               | 6.3   |
| <i>f</i> <sub>157</sub>                | 1.8856±0.0027                | 0.08±0.03        | 1.98±0.16                | 8.2   | <i>f</i> <sub>235</sub>                | 30.9666±0.0030               | 0.06±0.02        | 1.68±0.19                | 6.3   |
| <i>f</i> <sub>158</sub>                | 1.9065±0.0027                | 0.07±0.02        | -2.43±0.16               | 8.2   | <i>f</i> <sub>236</sub>                | 0.8265±0.0030                | 0.07±0.03        | 2.90±0.19                | 6.3   |
| <i>f</i> <sub>159</sub>                | 1.1702±0.0027                | 0.08±0.03        | 1.86±0.16                | 8.0   | <i>f</i> <sub>237</sub>                | 0.5054±0.0031                | 0.07±0.03        | -1.22±0.19               | 6.2   |
| <i>f</i> <sub>160</sub>                | 3.6059±0.0027                | 0.07±0.02        | -2.99±0.17               | 7.9   | <i>f</i> <sub>238</sub>                | 0.4787±0.0029                | 0.07±0.03        | -0.46±0.18               | 6.8   |
| <i>f</i> <sub>161</sub>                | 16.9367±0.0027               | 0.08±0.03        | -2.97±0.17               | 7.8   | <i>f</i> <sub>239</sub>                | 3.4000±0.0031                | 0.06±0.02        | -1.29±0.19               | 6.1   |
| <i>f</i> <sub>162</sub>                | 0.1170±0.0027                | 0.08±0.03        | -1.12±0.16               | 8.2   | <i>f</i> <sub>240</sub>                | 3.1280±0.0031                | 0.06±0.02        | 2.40±0.19                | 6.1   |
| <i>f</i> <sub>163</sub>                | 1.5485±0.0027                | 0.07±0.03        | 2.45±0.17                | 7.8   | <i>f</i> <sub>241</sub>                | 0.7512±0.0031                | 0.07±0.03        | -0.94±0.19               | 6.1   |
| <i>f</i> <sub>164</sub>                | 1.5280±0.0026                | 0.08±0.03        | 0.71±0.16                | 8.4   | <i>f</i> <sub>242</sub>                | 1.6950±0.0031                | 0.07±0.03        | -1.07±0.19               | 6.1   |
| <i>f</i> <sub>165</sub>                | 0.5764±0.0027                | 0.08±0.03        | 2.20±0.17                | 7.8   | <i>f</i> <sub>243</sub>                | 1.8613±0.0031                | 0.06±0.02        | -0.19±0.19               | 6.1   |
| <i>f</i> <sub>166</sub>                | 1.6118±0.0027                | 0.08±0.03        | -2.56±0.16               | 8.1   | <i>f</i> <sub>245</sub>                | 32.3917±0.0031               | 0.06±0.02        | 2.87±0.19                | 6.1   |
| <i>f</i> <sub>167</sub>                | 1.1215±0.0027                | 0.08±0.03        | -1.83±0.17               | 7.8   | <i>f</i> <sub>246</sub>                | 0.1074±0.0031                | 0.07±0.03        | 1.71±0.19                | 6.2   |
| <i>f</i> <sub>168</sub>                | 1.0581±0.0026                | 0.07±0.02        | 0.67±0.16                | 8.4   | <i>f</i> <sub>247</sub>                | 1.0475±0.0031                | 0.06±0.02        | -2.72±0.19               | 6.0   |
| <i>f</i> <sub>169</sub>                | 27.5778±0.0028               | 0.07±0.03        | 1.36±0.17                | 7.7   | <i>f</i> <sub>249</sub>                | 1.9892±0.0031                | 0.06±0.02        | -1.12±0.19               | 6.0   |
| <i>f</i> <sub>170</sub>                | 28.1639±0.0027               | 0.07±0.03        | 0.71±0.17                | 7.8   | <i>f</i> <sub>250</sub>                | 4.5282±0.0031                | 0.06±0.02        | -2.15±0.19               | 6.0   |
| <i>f</i> <sub>171</sub>                | 30.9864±0.0027               | 0.08±0.03        | -2.16±0.17               | 7.8   | <i>f</i> <sub>251</sub>                | 5.6345±0.0032                | 0.06±0.03        | -2.68±0.20               | 5.7   |
| <i>f</i> <sub>172</sub>                | 1.4285±0.0028                | 0.08±0.03        | -1.74±0.17               | 7.6   | <i>f</i> <sub>252</sub>                | 2.3649±0.0031                | 0.06±0.02        | -0.30±0.19               | 5.9   |
| <i>f</i> <sub>173</sub>                | 3.2857±0.0028                | 0.07±0.03        | 1.01±0.17                | 7.6   | <i>f</i> <sub>253</sub>                | 2.6959±0.0031                | 0.06±0.02        | -0.78±0.19               | 6.0   |
| <i>f</i> <sub>174</sub>                | 0.3024±0.0028                | 0.07±0.03        | -2.13±0.17               | 7.5   | <i>f</i> <sub>254</sub>                | 0.8480±0.0032                | 0.06±0.03        | -2.34±0.20               | 5.7   |
| <i>f</i> <sub>175</sub>                | 0.3975±0.0028                | 0.07±0.03        | -2.02±0.17               | 7.6   | <i>f</i> <sub>255</sub>                | 3.3414±0.0032                | 0.06±0.03        | 1.66±0.20                | 5.7   |
| <i>f</i> <sub>176</sub>                | 2.8800±0.0028                | 0.08±0.03        | 0.96±0.17                | 7.7   | <i>f</i> <sub>256</sub>                | 3.6565±0.0032                | 0.06±0.03        | 1.03±0.20                | 5.6   |
| <i>f</i> <sub>177</sub>                | 2.5921±0.0028                | 0.07±0.03        | -2.63±0.17               | 7.4   | <i>f</i> <sub>257</sub>                | 3.7295±0.0031                | 0.06±0.02        | 1.03±0.19                | 6.0   |
| <i>f</i> <sub>178</sub>                | 25.2520±0.0028               | 0.08±0.03        | -2.87±0.17               | 7.4   | <i>f</i> <sub>258</sub>                | 1.9209±0.0032                | 0.06±0.03        | 0.65±0.20                | 5.6   |
| Frequency list of 0102740052 continued |                              |                  |                          |       | Frequency list of 0102740052 continued |                              |                  |                          |       |

## Appendix E. Frequencies of individual Hybrid Candidate Stars

| Frequency list of 0102740052 continued |                              |                  |                          |       | Frequency list of 0102752122 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| <i>f</i> <sub>259</sub>                | 36.6034±0.0032               | 0.06±0.03        | 0.39±0.20                | 5.6   | <i>f</i> <sub>48</sub>                 | 0.1566±0.0021                | 0.12±0.03        | -1.71±0.13               | 13.7  |
| <i>f</i> <sub>260</sub>                | 38.6405±0.0032               | 0.06±0.03        | 2.36±0.20                | 5.6   | <i>f</i> <sub>49</sub>                 | 30.8654±0.0021               | 0.11±0.03        | -0.84±0.13               | 13.0  |
| <i>f</i> <sub>261</sub>                | 5.0264±0.0032                | 0.06±0.03        | -2.92±0.20               | 5.6   | <i>f</i> <sub>52</sub>                 | 34.1009±0.0022               | 0.11±0.03        | -1.44±0.14               | 11.9  |
| <i>f</i> <sub>262</sub>                | 0.7309±0.0032                | 0.07±0.03        | 0.75±0.20                | 5.7   | <i>f</i> <sub>53</sub>                 | 13.3529±0.0022               | 0.11±0.03        | -1.61±0.14               | 11.9  |
| <i>f</i> <sub>263</sub>                | 0.7728±0.0032                | 0.06±0.02        | 1.27±0.19                | 5.8   | <i>f</i> <sub>54</sub>                 | 21.5168±0.0022               | 0.12±0.04        | -2.62±0.14               | 11.7  |
| <i>f</i> <sub>264</sub>                | 2.6297±0.0033                | 0.06±0.03        | 1.87±0.20                | 5.5   | <i>f</i> <sub>55</sub>                 | 15.1459±0.0023               | 0.11±0.03        | 2.96±0.14                | 11.5  |
| <i>f</i> <sub>265</sub>                | 0.4124±0.0033                | 0.07±0.03        | 0.68±0.20                | 5.5   | <i>f</i> <sub>57</sub>                 | 25.1848±0.0023               | 0.10±0.03        | -1.13±0.14               | 11.0  |
| <i>f</i> <sub>267</sub>                | 6.2185±0.0033                | 0.06±0.03        | 3.05±0.20                | 5.5   | <i>f</i> <sub>58</sub>                 | 55.8628±0.0023               | 0.11±0.03        | 0.80±0.14                | 11.1  |
| <i>f</i> <sub>268</sub>                | 1.4669±0.0032                | 0.06±0.03        | -2.88±0.20               | 5.6   | <i>f</i> <sub>59</sub>                 | 34.3408±0.0023               | 0.10±0.03        | -1.93±0.14               | 11.2  |
| <i>f</i> <sub>269</sub>                | 0.6109±0.0033                | 0.06±0.03        | -1.64±0.20               | 5.5   | <i>f</i> <sub>60</sub>                 | 19.4668±0.0023               | 0.10±0.03        | 1.61±0.14                | 10.9  |
| <i>f</i> <sub>271</sub>                | 36.1217±0.0032               | 0.06±0.03        | -0.09±0.20               | 5.6   | <i>f</i> <sub>61</sub>                 | 15.5854±0.0023               | 0.10±0.03        | 1.73±0.14                | 11.1  |
| <i>f</i> <sub>272</sub>                | 36.1867±0.0032               | 0.06±0.03        | 2.35±0.20                | 5.6   | <i>f</i> <sub>65</sub>                 | 31.8410±0.0024               | 0.10±0.03        | -1.30±0.15               | 10.0  |
| <i>f</i> <sub>273</sub>                | 1.7135±0.0033                | 0.06±0.03        | 1.77±0.20                | 5.5   | <i>f</i> <sub>66</sub>                 | 38.5257±0.0024               | 0.10±0.03        | 1.33±0.15                | 9.9   |
| <i>f</i> <sub>274</sub>                | 18.1914±0.0033               | 0.06±0.03        | 1.48±0.20                | 5.5   | <i>f</i> <sub>67</sub>                 | 36.1603±0.0025               | 0.10±0.03        | -1.73±0.15               | 9.4   |
| <i>f</i> <sub>275</sub>                | 5.3897±0.0033                | 0.06±0.03        | 1.28±0.20                | 5.5   | <i>f</i> <sub>69</sub>                 | 18.3593±0.0025               | 0.09±0.03        | -3.02±0.15               | 9.1   |
| <i>f</i> <sub>276</sub>                | 3.5529±0.0033                | 0.06±0.03        | -1.22±0.20               | 5.4   | <i>f</i> <sub>70</sub>                 | 20.1551±0.0025               | 0.09±0.03        | 2.23±0.16                | 9.0   |
| <i>f</i> <sub>277</sub>                | 4.1413±0.0033                | 0.06±0.03        | 2.01±0.20                | 5.4   | <i>f</i> <sub>72</sub>                 | 17.8593±0.0026               | 0.09±0.03        | 2.52±0.16                | 8.5   |
| <i>f</i> <sub>278</sub>                | 15.2874±0.0033               | 0.06±0.03        | -2.83±0.20               | 5.3   | <i>f</i> <sub>73</sub>                 | 32.3510±0.0026               | 0.09±0.03        | -0.83±0.16               | 8.3   |
| <i>f</i> <sub>279</sub>                | 27.0529±0.0033               | 0.06±0.03        | -2.39±0.20               | 5.3   | <i>f</i> <sub>74</sub>                 | 22.6649±0.0027               | 0.09±0.03        | -0.44±0.16               | 8.1   |
| <i>f</i> <sub>280</sub>                | 0.9760±0.0033                | 0.06±0.03        | -1.78±0.20               | 5.3   | <i>f</i> <sub>75</sub>                 | 30.9984±0.0027               | 0.09±0.03        | 1.65±0.17                | 7.9   |
| <i>f</i> <sub>281</sub>                | 4.9157±0.0033                | 0.06±0.03        | -2.75±0.20               | 5.2   | <i>f</i> <sub>77</sub>                 | 22.6081±0.0027               | 0.08±0.03        | 0.15±0.17                | 7.8   |
| <i>f</i> <sub>282</sub>                | 2.0937±0.0034                | 0.06±0.03        | 0.80±0.21                | 5.1   | <i>f</i> <sub>78</sub>                 | 21.5078±0.0027               | 0.09±0.03        | 2.65±0.17                | 7.8   |
| <i>f</i> <sub>283</sub>                | 2.1648±0.0033                | 0.06±0.03        | -2.33±0.20               | 5.4   | <i>f</i> <sub>80</sub>                 | 0.4738±0.0028                | 0.08±0.03        | 0.50±0.17                | 7.4   |
| <i>f</i> <sub>284</sub>                | 17.7447±0.0033               | 0.06±0.03        | -2.02±0.20               | 5.2   | <i>f</i> <sub>81</sub>                 | 41.8845±0.0028               | 0.09±0.03        | -1.55±0.17               | 7.3   |
| <i>f</i> <sub>285</sub>                | 1.6752±0.0033                | 0.06±0.03        | 3.11±0.20                | 5.2   | <i>f</i> <sub>82</sub>                 | 35.0512±0.0028               | 0.08±0.03        | -1.12±0.17               | 7.2   |
| <i>f</i> <sub>286</sub>                | 29.7927±0.0033               | 0.06±0.03        | 0.32±0.20                | 5.3   | <i>f</i> <sub>83</sub>                 | 17.9517±0.0029               | 0.08±0.03        | 2.60±0.18                | 7.0   |
| <i>f</i> <sub>287</sub>                | 2.5279±0.0034                | 0.06±0.03        | -1.62±0.21               | 5.1   | <i>f</i> <sub>84</sub>                 | 41.3464±0.0029               | 0.08±0.03        | 1.61±0.18                | 6.9   |
| <i>f</i> <sub>288</sub>                | 19.7244±0.0034               | 0.06±0.03        | -2.80±0.21               | 5.1   | <i>f</i> <sub>85</sub>                 | 29.3489±0.0029               | 0.08±0.03        | -1.02±0.18               | 6.9   |
| <i>f</i> <sub>289</sub>                | 3.5127±0.0034                | 0.06±0.03        | -1.49±0.21               | 5.1   | <i>f</i> <sub>87</sub>                 | 19.3715±0.0029               | 0.08±0.03        | -3.13±0.18               | 6.7   |
| <i>f</i> <sub>290</sub>                | 0.4555±0.0033                | 0.06±0.03        | -2.66±0.20               | 5.3   | <i>f</i> <sub>88</sub>                 | 27.4413±0.0029               | 0.08±0.03        | -0.57±0.18               | 6.8   |
| <i>f</i> <sub>291</sub>                | 5.0918±0.0033                | 0.06±0.03        | -2.07±0.20               | 5.3   | <i>f</i> <sub>89</sub>                 | 23.5900±0.0030               | 0.08±0.03        | 2.44±0.18                | 6.6   |
| <i>f</i> <sub>292</sub>                | 1.2703±0.0034                | 0.06±0.03        | 2.54±0.21                | 5.0   | <i>f</i> <sub>90</sub>                 | 0.4402±0.0030                | 0.08±0.03        | 1.64±0.18                | 6.5   |
| <i>f</i> <sub>295</sub>                | 6.0453±0.0034                | 0.06±0.03        | -0.26±0.21               | 5.0   | <i>f</i> <sub>91</sub>                 | 0.5050±0.0030                | 0.08±0.03        | -1.35±0.18               | 6.5   |
| <i>f</i> <sub>296</sub>                | 5.8993±0.0034                | 0.05±0.02        | -2.55±0.21               | 5.0   | <i>f</i> <sub>92</sub>                 | 3.3830±0.0030                | 0.08±0.03        | -1.74±0.18               | 6.5   |
| <i>f</i> <sub>299</sub>                | 35.3816±0.0033               | 0.06±0.03        | 0.40±0.20                | 5.2   | <i>f</i> <sub>93</sub>                 | 38.4517±0.0030               | 0.08±0.03        | 1.64±0.18                | 6.6   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>94</sub>                 | 44.7741±0.0029               | 0.08±0.03        | 0.96±0.18                | 6.7   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>95</sub>                 | 29.8865±0.0030               | 0.07±0.03        | 0.20±0.19                | 6.3   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>96</sub>                 | 56.9509±0.0031               | 0.07±0.03        | -1.29±0.19               | 6.0   |

**Table E.40:** Frequency list of 0102752122

| Frequency ID           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Table E.41: Frequency list of 0102755069 |                              |                  |                          |       |
|------------------------|------------------------------|------------------|--------------------------|-------|------------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                             | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| <i>f</i> <sub>1</sub>  | 35.3251±0.0004               | 0.80±0.04        | -1.89±0.03               | 327.8 | <i>f</i> <sub>1</sub>                    | 19.3650±0.0004               | 0.68±0.04        | 2.42±0.02                | 354.4 |
| <i>f</i> <sub>2</sub>  | 27.8472±0.0006               | 0.52±0.04        | 3.12±0.04                | 151.8 | <i>f</i> <sub>2</sub>                    | 0.1714±0.0006                | 0.46±0.04        | -1.79±0.04               | 163.6 |
| <i>f</i> <sub>3</sub>  | 19.5607±0.0007               | 0.44±0.04        | 1.05±0.04                | 117.6 | <i>f</i> <sub>3</sub>                    | 0.1177±0.0006                | 0.33±0.03        | 2.21±0.04                | 157.0 |
| <i>f</i> <sub>4</sub>  | 38.1221±0.0007               | 0.41±0.04        | 2.09±0.05                | 103.6 | <i>f</i> <sub>4</sub>                    | 0.1619±0.0007                | 0.32±0.03        | 0.25±0.04                | 115.3 |
| <i>f</i> <sub>5</sub>  | 29.6559±0.0007               | 0.41±0.04        | 0.31±0.04                | 108.8 | <i>f</i> <sub>5</sub>                    | 0.2238±0.0010                | 0.20±0.03        | -2.78±0.06               | 59.6  |
| <i>f</i> <sub>6</sub>  | 17.3140±0.0007               | 0.40±0.04        | -1.96±0.05               | 107.2 | <i>f</i> <sub>6</sub>                    | 2.0848±0.0010                | 0.23±0.03        | 0.76±0.06                | 57.6  |
| <i>f</i> <sub>7</sub>  | 26.2288±0.0008               | 0.38±0.04        | 0.31±0.05                | 103.3 | <i>f</i> <sub>7</sub>                    | 0.3156±0.0010                | 0.21±0.03        | 0.16±0.06                | 57.2  |
| <i>f</i> <sub>8</sub>  | 32.2110±0.0009               | 0.32±0.04        | -2.62±0.05               | 73.5  | <i>f</i> <sub>8</sub>                    | 0.3595±0.0011                | 0.18±0.03        | -0.79±0.07               | 47.2  |
| <i>f</i> <sub>9</sub>  | 15.3767±0.0010               | 0.27±0.04        | -2.82±0.06               | 53.7  | <i>f</i> <sub>9</sub>                    | 0.2578±0.0012                | 0.16±0.02        | 0.23±0.07                | 42.2  |
| <i>f</i> <sub>10</sub> | 28.5884±0.0010               | 0.28±0.04        | 2.51±0.06                | 54.2  | <i>f</i> <sub>10</sub>                   | 0.2075±0.0014                | 0.16±0.03        | -0.40±0.08               | 30.2  |
| <i>f</i> <sub>11</sub> | 22.6142±0.0011               | 0.27±0.04        | 3.05±0.06                | 51.9  | <i>f</i> <sub>11</sub>                   | 0.3851±0.0014                | 0.14±0.03        | 0.32±0.09                | 29.6  |
| <i>f</i> <sub>12</sub> | 29.0600±0.0011               | 0.25±0.04        | -2.86±0.07               | 50.5  | <i>f</i> <sub>12</sub>                   | 0.1302±0.0014                | 0.19±0.04        | 2.10±0.09                | 28.9  |
| <i>f</i> <sub>13</sub> | 19.8059±0.0011               | 0.25±0.04        | -0.97±0.07               | 47.0  | <i>f</i> <sub>13</sub>                   | 0.3383±0.0015                | 0.13±0.03        | -0.44±0.09               | 26.6  |
| <i>f</i> <sub>16</sub> | 17.6205±0.0012               | 0.21±0.03        | -0.56±0.08               | 37.9  | <i>f</i> <sub>14</sub>                   | 0.3028±0.0014                | 0.17±0.03        | -1.13±0.09               | 28.7  |
| <i>f</i> <sub>17</sub> | 30.1954±0.0013               | 0.22±0.04        | 0.38±0.08                | 37.1  | <i>f</i> <sub>15</sub>                   | 0.4377±0.0015                | 0.16±0.03        | 1.64±0.09                | 27.0  |
| <i>f</i> <sub>18</sub> | 36.6370±0.0013               | 0.20±0.03        | -1.01±0.08               | 33.1  | <i>f</i> <sub>16</sub>                   | 0.3215±0.0015                | 0.12±0.02        | 0.65±0.09                | 25.5  |
| <i>f</i> <sub>19</sub> | 18.0691±0.0013               | 0.20±0.03        | 1.49±0.08                | 34.0  | <i>f</i> <sub>17</sub>                   | 0.4604±0.0015                | 0.15±0.03        | -0.02±0.09               | 24.9  |
| <i>f</i> <sub>20</sub> | 17.2401±0.0013               | 0.20±0.03        | -1.43±0.08               | 34.1  | <i>f</i> <sub>18</sub>                   | 0.2169±0.0015                | 0.14±0.03        | 1.06±0.09                | 24.3  |
| <i>f</i> <sub>21</sub> | 0.1076±0.0014                | 0.19±0.03        | 0.18±0.08                | 31.6  | <i>f</i> <sub>19</sub>                   | 0.2375±0.0015                | 0.13±0.03        | 0.39±0.09                | 24.7  |
| <i>f</i> <sub>22</sub> | 0.1144±0.0014                | 0.17±0.03        | 1.59±0.09                | 29.1  | <i>f</i> <sub>20</sub>                   | 0.1414±0.0015                | 0.15±0.03        | 1.60±0.09                | 24.3  |
| <i>f</i> <sub>24</sub> | 20.8766±0.0015               | 0.18±0.03        | 2.64±0.09                | 27.2  | <i>f</i> <sub>21</sub>                   | 17.6143±0.0016               | 0.13±0.03        | 1.08±0.10                | 22.1  |
| <i>f</i> <sub>25</sub> | 25.7045±0.0015               | 0.18±0.03        | 0.22±0.09                | 27.5  | <i>f</i> <sub>22</sub>                   | 3.4508±0.0016                | 0.13±0.03        | 1.58±0.10                | 21.5  |
| <i>f</i> <sub>26</sub> | 16.3037±0.0015               | 0.17±0.03        | -0.18±0.09               | 26.4  | <i>f</i> <sub>23</sub>                   | 2.0052±0.0017                | 0.12±0.03        | 2.27±0.10                | 20.1  |
| <i>f</i> <sub>27</sub> | 30.8299±0.0015               | 0.17±0.03        | -1.98±0.09               | 25.2  | <i>f</i> <sub>24</sub>                   | 0.3460±0.0017                | 0.11±0.02        | -1.73±0.10               | 19.7  |
| <i>f</i> <sub>28</sub> | 1.7588±0.0015                | 0.16±0.03        | -3.11±0.09               | 25.0  | <i>f</i> <sub>25</sub>                   | 0.5444±0.0017                | 0.11±0.02        | 1.66±0.11                | 19.5  |
| <i>f</i> <sub>31</sub> | 17.1968±0.0016               | 0.15±0.03        | 2.82±0.10                | 22.5  | <i>f</i> <sub>26</sub>                   | 3.2221±0.0019                | 0.11±0.03        | 1.11±0.12                | 16.4  |
| <i>f</i> <sub>32</sub> | 37.7723±0.0017               | 0.15±0.03        | 0.25±0.10                | 21.0  | <i>f</i> <sub>27</sub>                   | 0.1496±0.0019                | 0.10±0.03        | -1.55±0.12               | 15.6  |
| <i>f</i> <sub>34</sub> | 21.3310±0.0017               | 0.14±0.03        | 1.41±0.10                | 20.1  | <i>f</i> <sub>28</sub>                   | 1.5303±0.0020                | 0.11±0.03        | 2.62±0.12                | 15.0  |
| <i>f</i> <sub>35</sub> | 26.5834±0.0018               | 0.14±0.03        | 0.28±0.11                | 18.9  | <i>f</i> <sub>29</sub>                   | 0.2873±0.0020                | 0.12±0.03        | -1.10±0.12               | 15.2  |
| <i>f</i> <sub>37</sub> | 19.2062±0.0019               | 0.13±0.03        | 1.76±0.11                | 16.8  | <i>f</i> <sub>30</sub>                   | 0.2699±0.0020                | 0.13±0.03        | -1.90±0.12               | 15.0  |
| <i>f</i> <sub>38</sub> | 22.6578±0.0019               | 0.13±0.03        | -1.40±0.11               | 16.9  | <i>f</i> <sub>31</sub>                   | 0.2007±0.0020                | 0.10±0.03        | 0.78±0.12                | 14.3  |
| <i>f</i> <sub>41</sub> | 28.0335±0.0020               | 0.12±0.03        | 0.43±0.12                | 14.7  | <i>f</i> <sub>32</sub>                   | 0.6946±0.0020                | 0.08±0.02        | -2.18±0.12               | 14.2  |
| <i>f</i> <sub>42</sub> | 25.0779±0.0020               | 0.12±0.03        | 0.36±0.12                | 14.2  | <i>f</i> <sub>33</sub>                   | 3.2611±0.0021                | 0.10±0.03        | -0.86±0.13               | 13.7  |
| <i>f</i> <sub>43</sub> | 33.6718±0.0020               | 0.12±0.03        | -0.93±0.12               | 14.2  | <i>f</i> <sub>34</sub>                   | 0.8597±0.0021                | 0.10±0.03        | 2.97±0.13                | 13.1  |
| <i>f</i> <sub>45</sub> | 0.6063±0.0021                | 0.12±0.03        | -0.19±0.13               | 13.8  |                                          |                              |                  |                          |       |
| <i>f</i> <sub>46</sub> | 2.9336±0.0021                | 0.12±0.03        | 0.68±0.13                | 13.5  |                                          |                              |                  |                          |       |
| <i>f</i> <sub>47</sub> | 0.1441±0.0021                | 0.13±0.04        | 1.57±0.13                | 13.2  |                                          |                              |                  |                          |       |

Frequency list of 0102752122 continued

Frequency list of 0102755069 continued

## Appendix E. Frequencies of individual Hybrid Candidate Stars

| Frequency list of 0102755069 continued |                              |                  |                          |       | Frequency list of 0102756828 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| <i>f</i> <sub>35</sub>                 | 0.5655±0.0022                | 0.11±0.03        | 0.59±0.13                | 12.3  | <i>f</i> <sub>57</sub>                 | 2.7691±0.0024                | 0.08±0.03        | 1.14±0.15                | 10.0  |
| <i>f</i> <sub>36</sub>                 | 0.5548±0.0021                | 0.10±0.03        | -0.99±0.13               | 13.0  | <i>f</i> <sub>58</sub>                 | 17.8677±0.0025               | 0.08±0.03        | 0.79±0.15                | 9.7   |
| <i>f</i> <sub>37</sub>                 | 0.3734±0.0023                | 0.09±0.03        | 1.66±0.14                | 11.3  | <i>f</i> <sub>59</sub>                 | 1.5549±0.0025                | 0.07±0.02        | -2.80±0.15               | 9.6   |
| <i>f</i> <sub>38</sub>                 | 0.8430±0.0024                | 0.08±0.02        | -1.54±0.14               | 10.4  | <i>f</i> <sub>60</sub>                 | 14.9942±0.0024               | 0.08±0.03        | 1.50±0.15                | 9.8   |
| <i>f</i> <sub>39</sub>                 | 0.2508±0.0023                | 0.09±0.03        | 1.52±0.14                | 10.6  | <i>f</i> <sub>61</sub>                 | 19.4731±0.0025               | 0.08±0.03        | -0.43±0.15               | 9.2   |
| <i>f</i> <sub>40</sub>                 | 0.4462±0.0024                | 0.08±0.03        | -2.29±0.15               | 10.0  | <i>f</i> <sub>62</sub>                 | 13.7000±0.0025               | 0.08±0.03        | 3.04±0.15                | 9.3   |
| <i>f</i> <sub>41</sub>                 | 0.7548±0.0024                | 0.07±0.02        | -3.02±0.15               | 9.9   | <i>f</i> <sub>63</sub>                 | 55.8633±0.0026               | 0.08±0.03        | -3.09±0.16               | 8.9   |
| <i>f</i> <sub>42</sub>                 | 3.7878±0.0025                | 0.08±0.03        | 0.89±0.16                | 9.0   | <i>f</i> <sub>64</sub>                 | 0.1671±0.0026                | 0.07±0.02        | -1.89±0.16               | 8.7   |
| <i>f</i> <sub>43</sub>                 | 0.1794±0.0026                | 0.08±0.03        | 1.92±0.16                | 8.9   | <i>f</i> <sub>67</sub>                 | 12.1300±0.0027               | 0.07±0.02        | 2.79±0.16                | 8.2   |
| <i>f</i> <sub>44</sub>                 | 1.5033±0.0026                | 0.08±0.03        | 3.08±0.16                | 8.9   | <i>f</i> <sub>68</sub>                 | 18.8351±0.0027               | 0.07±0.02        | 2.43±0.16                | 8.1   |
| <i>f</i> <sub>45</sub>                 | 1.0966±0.0026                | 0.07±0.02        | -2.64±0.16               | 8.9   | <i>f</i> <sub>70</sub>                 | 15.6226±0.0028               | 0.07±0.03        | 1.49±0.17                | 7.7   |
| <i>f</i> <sub>46</sub>                 | 1.0005±0.0025                | 0.08±0.03        | -1.12±0.16               | 9.0   | <i>f</i> <sub>71</sub>                 | 28.5799±0.0028               | 0.07±0.03        | -2.12±0.17               | 7.6   |
| <i>f</i> <sub>48</sub>                 | 1.5500±0.0027                | 0.08±0.03        | -1.52±0.16               | 8.2   | <i>f</i> <sub>73</sub>                 | 1.0798±0.0028                | 0.06±0.02        | -2.07±0.17               | 7.4   |
| <i>f</i> <sub>49</sub>                 | 0.7050±0.0027                | 0.08±0.03        | -2.69±0.16               | 8.2   | <i>f</i> <sub>74</sub>                 | 26.9008±0.0028               | 0.07±0.03        | -1.10±0.17               | 7.4   |
| <i>f</i> <sub>50</sub>                 | 0.4114±0.0027                | 0.07±0.02        | 0.99±0.16                | 8.1   | <i>f</i> <sub>75</sub>                 | 28.9046±0.0028               | 0.07±0.03        | -1.76±0.17               | 7.5   |
| <i>f</i> <sub>51</sub>                 | 0.4871±0.0027                | 0.07±0.02        | 1.26±0.16                | 8.2   | <i>f</i> <sub>77</sub>                 | 19.4003±0.0028               | 0.07±0.03        | 2.49±0.17                | 7.4   |
| <i>f</i> <sub>52</sub>                 | 0.7739±0.0027                | 0.08±0.03        | 0.45±0.16                | 8.0   | <i>f</i> <sub>78</sub>                 | 22.7183±0.0028               | 0.06±0.02        | 1.14±0.17                | 7.3   |
| <i>f</i> <sub>53</sub>                 | 0.7378±0.0027                | 0.07±0.02        | 0.28±0.16                | 8.1   | <i>f</i> <sub>79</sub>                 | 55.8520±0.0028               | 0.07±0.03        | -1.36±0.17               | 7.2   |
| <i>f</i> <sub>54</sub>                 | 1.0443±0.0027                | 0.07±0.02        | 2.37±0.16                | 8.0   | <i>f</i> <sub>80</sub>                 | 16.7602±0.0028               | 0.06±0.02        | -0.30±0.17               | 7.2   |
| <i>f</i> <sub>55</sub>                 | 0.6752±0.0028                | 0.07±0.03        | 1.53±0.17                | 7.7   | <i>f</i> <sub>81</sub>                 | 2.3590±0.0028                | 0.07±0.03        | -0.69±0.17               | 7.2   |
| <i>f</i> <sub>56</sub>                 | 16.0741±0.0028               | 0.07±0.03        | -2.59±0.17               | 7.6   | <i>f</i> <sub>82</sub>                 | 15.6562±0.0028               | 0.06±0.02        | -1.20±0.17               | 7.2   |
| <i>f</i> <sub>57</sub>                 | 1.2747±0.0028                | 0.07±0.03        | -2.14±0.17               | 7.3   | <i>f</i> <sub>83</sub>                 | 0.7907±0.0029                | 0.06±0.02        | 1.67±0.17                | 7.1   |
| <i>f</i> <sub>58</sub>                 | 29.1383±0.0028               | 0.07±0.03        | -2.35±0.17               | 7.3   | <i>f</i> <sub>84</sub>                 | 43.0130±0.0028               | 0.07±0.03        | 0.65±0.17                | 7.3   |
| <i>f</i> <sub>59</sub>                 | 0.8116±0.0028                | 0.07±0.03        | 0.49±0.17                | 7.5   | <i>f</i> <sub>85</sub>                 | 11.0373±0.0028               | 0.06±0.02        | -1.87±0.17               | 7.2   |
| <i>f</i> <sub>60</sub>                 | 0.5240±0.0028                | 0.07±0.03        | -0.39±0.17               | 7.4   | <i>f</i> <sub>86</sub>                 | 1.2273±0.0028                | 0.06±0.02        | -0.70±0.17               | 7.2   |
| <i>f</i> <sub>61</sub>                 | 20.6136±0.0028               | 0.07±0.03        | -0.67±0.17               | 7.3   | <i>f</i> <sub>87</sub>                 | 3.4108±0.0029                | 0.06±0.02        | -2.61±0.18               | 6.8   |
| <i>f</i> <sub>62</sub>                 | 0.3119±0.0029                | 0.07±0.03        | 2.58±0.18                | 7.0   | <i>f</i> <sub>89</sub>                 | 18.1564±0.0030               | 0.06±0.02        | 1.58±0.18                | 6.6   |
| <i>f</i> <sub>63</sub>                 | 0.2309±0.0030                | 0.07±0.03        | 0.77±0.18                | 6.6   | <i>f</i> <sub>90</sub>                 | 41.9388±0.0029               | 0.06±0.02        | -2.36±0.18               | 6.7   |
| <i>f</i> <sub>64</sub>                 | 0.7914±0.0030                | 0.07±0.03        | -2.07±0.18               | 6.6   | <i>f</i> <sub>91</sub>                 | 24.4015±0.0030               | 0.06±0.02        | 2.33±0.18                | 6.6   |
| <i>f</i> <sub>65</sub>                 | 2.1443±0.0030                | 0.07±0.03        | 2.79±0.18                | 6.6   | <i>f</i> <sub>92</sub>                 | 18.6840±0.0030               | 0.06±0.02        | -0.77±0.18               | 6.4   |
| <i>f</i> <sub>66</sub>                 | 1.1118±0.0030                | 0.07±0.03        | -1.54±0.19               | 6.3   | <i>f</i> <sub>93</sub>                 | 19.2426±0.0030               | 0.06±0.02        | 2.43±0.18                | 6.4   |
| <i>f</i> <sub>67</sub>                 | 1.1464±0.0029                | 0.07±0.03        | 0.93±0.18                | 6.7   | <i>f</i> <sub>94</sub>                 | 15.0177±0.0030               | 0.06±0.02        | -1.48±0.19               | 6.3   |
| <i>f</i> <sub>68</sub>                 | 0.3527±0.0031                | 0.07±0.03        | -3.03±0.19               | 6.1   | <i>f</i> <sub>95</sub>                 | 0.9404±0.0030                | 0.06±0.02        | -1.54±0.19               | 6.3   |
| <i>f</i> <sub>69</sub>                 | 0.7442±0.0031                | 0.06±0.02        | -0.02±0.19               | 6.1   | <i>f</i> <sub>98</sub>                 | 4.1294±0.0031                | 0.06±0.02        | 2.31±0.19                | 6.1   |
| <i>f</i> <sub>70</sub>                 | 0.2808±0.0031                | 0.07±0.03        | -1.76±0.19               | 6.2   | <i>f</i> <sub>99</sub>                 | 16.8970±0.0030               | 0.06±0.02        | -1.38±0.19               | 6.3   |
|                                        |                              |                  |                          |       | <i>f</i> <sub>100</sub>                | 1.1245±0.0031                | 0.06±0.02        | 3.11±0.19                | 6.1   |

**Table E.42:** Frequency list of 0102756828

**Table E.43:** Frequency list of 0102757940

| Frequency ID           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign.  | Frequency ID           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign.  |
|------------------------|------------------------------|------------------|--------------------------|--------|------------------------|------------------------------|------------------|--------------------------|--------|
| <i>f</i> <sub>1</sub>  | 12.1169±0.0002               | 1.79±0.04        | 0.31±0.01                | 1629.1 | <i>f</i> <sub>1</sub>  | 19.9431±0.0002               | 3.99±0.10        | 0.93±0.01                | 1737.7 |
| <i>f</i> <sub>2</sub>  | 14.7550±0.0003               | 0.77±0.03        | 2.74±0.02                | 501.4  | <i>f</i> <sub>2</sub>  | 25.1534±0.0002               | 2.54±0.08        | -1.70±0.01               | 1146.2 |
| <i>f</i> <sub>3</sub>  | 12.9265±0.0006               | 0.45±0.03        | 2.78±0.03                | 189.8  | <i>f</i> <sub>3</sub>  | 21.9446±0.0003               | 1.81±0.06        | -0.10±0.02               | 798.0  |
| <i>f</i> <sub>4</sub>  | 10.0158±0.0007               | 0.33±0.03        | 2.59±0.04                | 113.8  | <i>f</i> <sub>4</sub>  | 2.6759±0.0003                | 1.51±0.06        | 0.11±0.02                | 694.6  |
| <i>f</i> <sub>7</sub>  | 14.5787±0.0008               | 0.27±0.03        | 2.69±0.05                | 87.0   | <i>f</i> <sub>5</sub>  | 2.5273±0.0004                | 0.97±0.05        | -1.42±0.03               | 341.5  |
| <i>f</i> <sub>8</sub>  | 11.2149±0.0009               | 0.25±0.03        | -2.56±0.05               | 72.0   | <i>f</i> <sub>6</sub>  | 18.1056±0.0006               | 0.62±0.05        | -0.48±0.04               | 152.2  |
| <i>f</i> <sub>12</sub> | 12.1228±0.0011               | 0.19±0.03        | -1.27±0.07               | 45.4   | <i>f</i> <sub>7</sub>  | 18.8478±0.0006               | 0.62±0.05        | -0.84±0.04               | 157.2  |
| <i>f</i> <sub>14</sub> | 24.2729±0.0012               | 0.17±0.03        | 2.82±0.07                | 39.8   | <i>f</i> <sub>8</sub>  | 9.8318±0.0008                | 0.49±0.05        | 1.84±0.05                | 100.0  |
| <i>f</i> <sub>15</sub> | 28.2871±0.0012               | 0.17±0.03        | -0.81±0.08               | 38.3   | <i>f</i> <sub>10</sub> | 8.7473±0.0009                | 0.41±0.05        | 1.45±0.05                | 75.2   |
| <i>f</i> <sub>16</sub> | 0.1130±0.0013                | 0.13±0.02        | -1.01±0.08               | 33.1   | <i>f</i> <sub>12</sub> | 20.6003±0.0011               | 0.34±0.05        | 3.09±0.06                | 51.8   |
| <i>f</i> <sub>17</sub> | 1.2081±0.0014                | 0.16±0.03        | 2.17±0.08                | 31.8   | <i>f</i> <sub>14</sub> | 21.2000±0.0012               | 0.30±0.05        | -1.35±0.07               | 43.0   |
| <i>f</i> <sub>18</sub> | 16.4389±0.0014               | 0.15±0.03        | 0.39±0.08                | 31.0   | <i>f</i> <sub>18</sub> | 24.2859±0.0012               | 0.29±0.04        | -0.34±0.07               | 43.6   |
| <i>f</i> <sub>20</sub> | 0.1033±0.0015                | 0.13±0.03        | 0.26±0.09                | 27.0   | <i>f</i> <sub>19</sub> | 25.8791±0.0012               | 0.27±0.04        | -1.52±0.08               | 38.2   |
| <i>f</i> <sub>21</sub> | 19.2315±0.0016               | 0.12±0.03        | 2.49±0.10                | 22.2   | <i>f</i> <sub>24</sub> | 20.2424±0.0015               | 0.22±0.04        | 1.80±0.09                | 26.5   |
| <i>f</i> <sub>22</sub> | 21.2288±0.0016               | 0.12±0.03        | -0.64±0.10               | 21.6   | <i>f</i> <sub>25</sub> | 10.6312±0.0016               | 0.21±0.04        | -1.04±0.10               | 23.8   |
| <i>f</i> <sub>26</sub> | 19.5317±0.0017               | 0.12±0.03        | 0.55±0.10                | 19.8   | <i>f</i> <sub>28</sub> | 2.0070±0.0016                | 0.44±0.09        | -2.52±0.10               | 21.7   |
| <i>f</i> <sub>30</sub> | 20.5706±0.0017               | 0.11±0.03        | -1.49±0.11               | 19.1   | <i>f</i> <sub>31</sub> | 20.6739±0.0017               | 0.19±0.04        | 2.24±0.10                | 20.2   |
| <i>f</i> <sub>31</sub> | 21.8288±0.0018               | 0.11±0.03        | 1.44±0.11                | 18.9   | <i>f</i> <sub>39</sub> | 19.9434±0.0020               | 0.14±0.04        | 1.51±0.12                | 14.4   |
| <i>f</i> <sub>32</sub> | 13.9478±0.0017               | 0.12±0.03        | 0.09±0.11                | 19.1   | <i>f</i> <sub>40</sub> | 21.4797±0.0020               | 0.15±0.04        | 0.63±0.12                | 13.9   |
| <i>f</i> <sub>34</sub> | 0.1745±0.0020                | 0.11±0.03        | -2.15±0.12               | 15.2   | <i>f</i> <sub>42</sub> | 0.5925±0.0021                | 0.15±0.04        | 0.86±0.13                | 12.9   |
| <i>f</i> <sub>35</sub> | 29.2543±0.0020               | 0.10±0.03        | 1.49±0.12                | 14.9   | <i>f</i> <sub>50</sub> | 1.6423±0.0024                | 0.13±0.04        | 0.79±0.14                | 10.4   |
| <i>f</i> <sub>37</sub> | 12.1067±0.0020               | 0.10±0.03        | -1.02±0.12               | 15.2   | <i>f</i> <sub>51</sub> | 0.1445±0.0024                | 0.14±0.04        | -0.40±0.15               | 10.3   |
| <i>f</i> <sub>38</sub> | 18.6359±0.0020               | 0.10±0.03        | -2.13±0.12               | 14.7   | <i>f</i> <sub>54</sub> | 10.7989±0.0024               | 0.13±0.04        | 1.52±0.15                | 10.3   |
| <i>f</i> <sub>39</sub> | 15.3473±0.0020               | 0.10±0.03        | 3.01±0.12                | 14.0   | <i>f</i> <sub>55</sub> | 11.4215±0.0024               | 0.13±0.04        | -0.90±0.15               | 9.8    |
| <i>f</i> <sub>41</sub> | 20.4866±0.0020               | 0.09±0.02        | -0.67±0.12               | 14.0   | <i>f</i> <sub>57</sub> | 0.7288±0.0025                | 0.12±0.04        | 2.36±0.15                | 9.4    |
| <i>f</i> <sub>42</sub> | 0.3355±0.0021                | 0.09±0.02        | -0.77±0.13               | 13.3   | <i>f</i> <sub>58</sub> | 2.2605±0.0026                | 0.12±0.04        | 2.09±0.16                | 8.8    |
| <i>f</i> <sub>43</sub> | 15.6309±0.0021               | 0.09±0.02        | 1.10±0.13                | 13.1   | <i>f</i> <sub>59</sub> | 0.1225±0.0026                | 0.12±0.04        | 2.82±0.16                | 8.8    |
| <i>f</i> <sub>44</sub> | 22.3371±0.0021               | 0.09±0.02        | 1.36±0.13                | 13.2   | <i>f</i> <sub>63</sub> | 19.5667±0.0026               | 0.12±0.04        | -0.78±0.16               | 8.7    |
| <i>f</i> <sub>45</sub> | 0.1486±0.0021                | 0.10±0.03        | 0.46±0.13                | 12.9   | <i>f</i> <sub>64</sub> | 11.1839±0.0026               | 0.12±0.04        | -1.51±0.16               | 8.6    |
| <i>f</i> <sub>46</sub> | 1.1597±0.0022                | 0.09±0.03        | 2.65±0.13                | 12.2   | <i>f</i> <sub>67</sub> | 0.6876±0.0027                | 0.12±0.04        | 2.69±0.16                | 8.2    |
| <i>f</i> <sub>48</sub> | 15.3200±0.0022               | 0.09±0.03        | -0.69±0.13               | 12.1   | <i>f</i> <sub>68</sub> | 19.2678±0.0027               | 0.11±0.04        | -1.11±0.16               | 8.1    |
| <i>f</i> <sub>50</sub> | 0.3538±0.0023                | 0.08±0.02        | 0.85±0.14                | 10.6   | <i>f</i> <sub>70</sub> | 1.1031±0.0027                | 0.11±0.04        | 2.27±0.17                | 7.9    |
| <i>f</i> <sub>52</sub> | 18.0891±0.0024               | 0.08±0.03        | 1.69±0.15                | 10.2   | <i>f</i> <sub>72</sub> | 1.9674±0.0028                | 0.11±0.04        | -1.31±0.17               | 7.3    |
| <i>f</i> <sub>53</sub> | 2.1832±0.0024                | 0.08±0.02        | 3.03±0.15                | 10.3   | <i>f</i> <sub>73</sub> | 32.9105±0.0029               | 0.11±0.04        | -0.36±0.18               | 7.0    |
| <i>f</i> <sub>54</sub> | 18.8783±0.0024               | 0.08±0.03        | 2.44±0.15                | 10.1   | <i>f</i> <sub>74</sub> | 20.1403±0.0030               | 0.10±0.04        | 2.96±0.18                | 6.6    |
| <i>f</i> <sub>55</sub> | 0.2593±0.0024                | 0.08±0.03        | 0.94±0.15                | 10.1   | <i>f</i> <sub>78</sub> | 2.0007±0.0029                | 0.11±0.04        | 1.80±0.18                | 7.0    |
| <i>f</i> <sub>56</sub> | 1.0927±0.0024                | 0.07±0.02        | -2.54±0.15               | 9.9    |                        |                              |                  |                          |        |

Frequency list of 0102756828 continued

Frequency list of 0102757940 continued

## Appendix E. Frequencies of individual Hybrid Candidate Stars

| Frequency list of 0102757940 continued |                              |                  |                          |       | Frequency list of 0102760159 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{79}$                               | 10.1182±0.0029               | 0.10±0.04        | -0.60±0.18               | 6.8   | $f_{32}$                               | 23.3760±0.0023               | 0.06±0.02        | -2.72±0.14               | 11.4  |
| $f_{80}$                               | 9.3368±0.0030                | 0.10±0.04        | 1.11±0.18                | 6.6   | $f_{33}$                               | 30.9050±0.0023               | 0.06±0.02        | -2.33±0.14               | 11.4  |
| $f_{81}$                               | 3.2661±0.0030                | 0.10±0.04        | -2.34±0.18               | 6.6   | $f_{34}$                               | 0.2173±0.0023                | 0.07±0.02        | 0.05±0.14                | 10.8  |

**Table E.44:** Frequency list of 0102759370

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|--------------|------------------------------|------------------|--------------------------|-------|
| $f_1$        | 51.2139±0.0003               | 1.11±0.04        | 1.35±0.02                | 785.7 |
| $f_2$        | 47.1589±0.0003               | 0.78±0.03        | 2.00±0.02                | 586.1 |
| $f_3$        | 0.4314±0.0004                | 0.53±0.03        | -0.69±0.03               | 324.2 |
| $f_4$        | 0.1410±0.0005                | 0.48±0.03        | -0.03±0.03               | 284.5 |
| $f_5$        | 47.3488±0.0005               | 0.42±0.03        | -3.12±0.03               | 225.2 |
| $f_6$        | 0.4165±0.0005                | 0.44±0.03        | -1.21±0.03               | 238.7 |
| $f_7$        | 0.3995±0.0009                | 0.23±0.03        | 2.48±0.05                | 79.4  |
| $f_8$        | 0.1485±0.0009                | 0.21±0.02        | 0.48±0.05                | 75.7  |
| $f_9$        | 0.1055±0.0010                | 0.19±0.03        | 1.79±0.06                | 56.0  |
| $f_{10}$     | 0.4067±0.0011                | 0.15±0.02        | 2.28±0.07                | 47.5  |
| $f_{11}$     | 0.1184±0.0011                | 0.15±0.02        | -1.81±0.07               | 44.5  |
| $f_{12}$     | 0.4249±0.0013                | 0.14±0.02        | 0.93±0.08                | 32.5  |
| $f_{13}$     | 0.2745±0.0014                | 0.11±0.02        | 2.09±0.08                | 31.2  |
| $f_{14}$     | 0.1739±0.0014                | 0.15±0.03        | -1.61±0.09               | 28.4  |
| $f_{15}$     | 0.3796±0.0015                | 0.13±0.03        | -0.96±0.09               | 24.8  |
| $f_{16}$     | 0.2848±0.0016                | 0.10±0.02        | 0.09±0.10                | 22.1  |
| $f_{17}$     | 0.2608±0.0017                | 0.11±0.02        | -2.58±0.10               | 20.9  |
| $f_{18}$     | 0.3078±0.0018                | 0.11±0.03        | 2.81±0.11                | 18.8  |
| $f_{19}$     | 0.4534±0.0018                | 0.11±0.03        | 1.19±0.11                | 18.1  |
| $f_{20}$     | 0.2679±0.0019                | 0.09±0.02        | -2.30±0.12               | 15.9  |
| $f_{21}$     | 0.1121±0.0021                | 0.06±0.02        | 2.56±0.13                | 12.9  |
| $f_{22}$     | 0.8585±0.0022                | 0.08±0.02        | -2.89±0.14               | 11.6  |
| $f_{23}$     | 0.2944±0.0023                | 0.08±0.02        | 2.08±0.14                | 11.1  |
| $f_{24}$     | 0.3601±0.0023                | 0.08±0.02        | 2.64±0.14                | 11.1  |
| $f_{25}$     | 0.1891±0.0024                | 0.08±0.03        | 0.32±0.15                | 10.1  |
| $f_{26}$     | 0.1623±0.0023                | 0.08±0.02        | 0.76±0.14                | 10.7  |
| $f_{28}$     | 0.5482±0.0027                | 0.06±0.02        | 1.28±0.17                | 7.9   |
| $f_{29}$     | 0.2120±0.0027                | 0.06±0.02        | -2.55±0.17               | 7.9   |
| $f_{30}$     | 53.5481±0.0029               | 0.06±0.02        | 0.24±0.18                | 7.0   |
| $f_{31}$     | 0.1244±0.0030                | 0.06±0.02        | 0.20±0.18                | 6.5   |
| $f_{32}$     | 38.0148±0.0030               | 0.06±0.02        | -2.70±0.18               | 6.5   |
| $f_{33}$     | 51.2001±0.0030               | 0.06±0.02        | -1.95±0.18               | 6.6   |

**Table E.45:** Frequency list of 0102760159

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|--------------|------------------------------|------------------|--------------------------|-------|
| $f_1$        | 16.6983±0.0004               | 0.50±0.03        | -0.46±0.02               | 377.8 |
| $f_2$        | 0.2289±0.0006                | 0.32±0.03        | 2.81±0.04                | 156.2 |
| $f_3$        | 0.1239±0.0007                | 0.26±0.02        | 1.93±0.04                | 110.1 |
| $f_4$        | 6.6453±0.0010                | 0.18±0.02        | -2.66±0.06               | 63.1  |
| $f_5$        | 6.6708±0.0010                | 0.16±0.02        | -1.44±0.06               | 53.5  |
| $f_6$        | 0.1486±0.0010                | 0.16±0.02        | -2.65±0.06               | 53.3  |
| $f_7$        | 21.4159±0.0011               | 0.16±0.02        | 1.88±0.06                | 51.7  |
| $f_8$        | 0.1970±0.0011                | 0.15±0.02        | 2.91±0.07                | 46.6  |
| $f_9$        | 0.1833±0.0011                | 0.14±0.02        | 3.03±0.07                | 48.9  |
| $f_{10}$     | 34.9071±0.0012               | 0.14±0.02        | -0.03±0.07               | 43.9  |
| $f_{11}$     | 0.1168±0.0014                | 0.12±0.02        | 1.56±0.08                | 30.7  |
| $f_{12}$     | 19.9331±0.0014               | 0.11±0.02        | 2.65±0.08                | 30.2  |
| $f_{13}$     | 18.6830±0.0014               | 0.11±0.02        | 0.26±0.08                | 31.1  |
| $f_{14}$     | 35.9352±0.0014               | 0.11±0.02        | -1.90±0.09               | 30.0  |
| $f_{15}$     | 0.3644±0.0016                | 0.09±0.02        | -1.56±0.10               | 22.6  |
| $f_{16}$     | 0.2832±0.0016                | 0.09±0.02        | 0.76±0.10                | 23.0  |
| $f_{17}$     | 0.3346±0.0017                | 0.08±0.02        | 1.85±0.10                | 20.7  |
| $f_{18}$     | 3.1787±0.0017                | 0.09±0.02        | 1.44±0.10                | 20.9  |
| $f_{19}$     | 0.4470±0.0017                | 0.06±0.01        | -0.78±0.10               | 19.9  |
| $f_{20}$     | 0.4545±0.0017                | 0.09±0.02        | 0.63±0.11                | 19.2  |
| $f_{21}$     | 0.1066±0.0017                | 0.09±0.02        | 2.81±0.11                | 19.3  |
| $f_{22}$     | 0.2342±0.0018                | 0.08±0.02        | -2.99±0.11               | 18.3  |
| $f_{23}$     | 0.3471±0.0018                | 0.09±0.02        | -2.38±0.11               | 18.1  |
| $f_{24}$     | 24.9893±0.0019               | 0.08±0.02        | -0.10±0.12               | 15.7  |
| $f_{25}$     | 0.4202±0.0020                | 0.09±0.02        | 1.74±0.12                | 15.3  |
| $f_{26}$     | 0.2422±0.0020                | 0.07±0.02        | 0.92±0.12                | 15.3  |
| $f_{27}$     | 0.7917±0.0020                | 0.07±0.02        | 3.08±0.12                | 14.9  |
| $f_{28}$     | 0.1655±0.0021                | 0.07±0.02        | -2.09±0.13               | 13.4  |
| $f_{29}$     | 0.3055±0.0021                | 0.08±0.02        | -0.42±0.13               | 12.7  |
| $f_{30}$     | 0.9113±0.0022                | 0.06±0.02        | 1.94±0.13                | 12.1  |
| $f_{31}$     | 0.1899±0.0022                | 0.07±0.02        | -0.15±0.14               | 11.7  |

Frequency list of 0102760159 continued

**Table E.46:** Frequency list of 0102760705

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|--------------|------------------------------|------------------|--------------------------|-------|
| $f_1$        | 3.5805±0.0007                | 0.57±0.05        | 0.30±0.04                | 113.9 |
| $f_2$        | 4.4487±0.0007                | 0.58±0.05        | 2.97±0.04                | 116.1 |
| $f_3$        | 3.7941±0.0008                | 0.49±0.05        | -1.71±0.05               | 93.9  |
| $f_4$        | 5.8321±0.0009                | 0.43±0.05        | -3.01±0.06               | 69.0  |
| $f_5$        | 2.2903±0.0009                | 0.43±0.05        | -1.39±0.06               | 70.4  |
| $f_6$        | 2.9399±0.0009                | 0.44±0.05        | -0.78±0.06               | 69.7  |
| $f_7$        | 10.2157±0.0009               | 0.42±0.05        | 2.89±0.06                | 71.5  |
| $f_8$        | 1.9546±0.0010                | 0.40±0.05        | 2.62±0.06                | 62.2  |
| $f_9$        | 0.1682±0.0010                | 0.36±0.05        | 2.16±0.06                | 60.8  |
| $f_{10}$     | 1.7322±0.0010                | 0.37±0.05        | 0.98±0.06                | 55.6  |
| $f_{11}$     | 3.3737±0.0010                | 0.36±0.05        | -1.04±0.06               | 54.7  |
| $f_{12}$     | 0.1882±0.0011                | 0.32±0.05        | -2.53±0.07               | 46.1  |
| $f_{13}$     | 4.9509±0.0012                | 0.31±0.05        | -0.94±0.07               | 43.7  |
| $f_{14}$     | 2.5203±0.0012                | 0.28±0.04        | -0.10±0.07               | 39.1  |
| $f_{15}$     | 0.1359±0.0012                | 0.26±0.04        | -1.67±0.07               | 38.8  |
| $f_{16}$     | 0.4370±0.0013                | 0.23±0.04        | -0.16±0.08               | 32.7  |
| $f_{17}$     | 4.2258±0.0014                | 0.26±0.05        | -1.84±0.08               | 31.9  |
| $f_{18}$     | 0.3056±0.0014                | 0.25±0.04        | 1.77±0.08                | 31.9  |
| $f_{19}$     | 0.1129±0.0014                | 0.26±0.05        | -1.36±0.08               | 31.9  |
| $f_{20}$     | 23.1441±0.0014               | 0.25±0.05        | 1.38±0.09                | 29.8  |
| $f_{22}$     | 1.1470±0.0014                | 0.23±0.04        | -2.83±0.09               | 28.4  |

Frequency list of 0102760705 continued

## Appendix E. Frequencies of individual Hybrid Candidate Stars

| Frequency list of 0102760705 continued |                              |                  |                          |        | Frequency list of 0102760705 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|--------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign.  | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| <i>f</i> <sub>23</sub>                 | 0.5717±0.0014                | 0.25±0.05        | 0.26±0.09                | 28.1   | <i>f</i> <sub>106</sub>                | 2.6795±0.0026                | 0.11±0.04        | 2.12±0.16                | 8.8   |
| <i>f</i> <sub>24</sub>                 | 0.2162±0.0014                | 0.16±0.03        | -1.78±0.09               | 29.5   | <i>f</i> <sub>107</sub>                | 0.4799±0.0026                | 0.10±0.03        | -2.16±0.16               | 8.8   |
| <i>f</i> <sub>25</sub>                 | 0.2728±0.0015                | 0.21±0.04        | -2.78±0.09               | 24.9   | <i>f</i> <sub>108</sub>                | 0.4032±0.0026                | 0.09±0.03        | 0.58±0.16                | 8.9   |
| <i>f</i> <sub>27</sub>                 | 4.9964±0.0016                | 0.22±0.04        | -2.26±0.10               | 24.0   | <i>f</i> <sub>110</sub>                | 8.2595±0.0026                | 0.11±0.04        | 0.52±0.16                | 8.6   |
| <i>f</i> <sub>28</sub>                 | 4.7750±0.0016                | 0.21±0.04        | 0.21±0.09                | 24.2   | <i>f</i> <sub>111</sub>                | 5.9085±0.0026                | 0.11±0.04        | 2.51±0.16                | 8.4   |
| <i>f</i> <sub>29</sub>                 | 1.5864±0.0016                | 0.21±0.04        | -2.73±0.10               | 23.6   | <i>f</i> <sub>112</sub>                | 6.1549±0.0026                | 0.11±0.04        | 0.83±0.16                | 8.5   |
| <i>f</i> <sub>30</sub>                 | 0.4710±0.0016                | 0.21±0.04        | 1.06±0.10                | 23.4   | <i>f</i> <sub>113</sub>                | 0.5529±0.0026                | 0.10±0.03        | -1.66±0.16               | 8.7   |
| <i>f</i> <sub>31</sub>                 | 0.7158±0.0016                | 0.19±0.04        | 0.60±0.10                | 23.2   | <i>f</i> <sub>114</sub>                | 1.9337±0.0026                | 0.10±0.03        | -0.34±0.16               | 8.4   |
| <i>f</i> <sub>32</sub>                 | 14.5715±0.0016               | 0.19±0.04        | -1.41±0.10               | 23.3   | <i>f</i> <sub>115</sub>                | 3.8706±0.0026                | 0.11±0.04        | -3.09±0.16               | 8.5   |
| <i>f</i> <sub>33</sub>                 | 6.7285±0.0016                | 0.21±0.04        | 1.52±0.10                | 23.1   | <i>f</i> <sub>116</sub>                | 1.7951±0.0026                | 0.12±0.04        | 0.31±0.16                | 8.5   |
| <i>f</i> <sub>34</sub>                 | 0.1554±0.0016                | 0.19±0.04        | 2.51±0.10                | 22.7   | <i>f</i> <sub>117</sub>                | 0.6968±0.0026                | 0.12±0.04        | -2.70±0.16               | 8.6   |
| <i>f</i> <sub>35</sub>                 | 4.0835±0.0016                | 0.21±0.04        | 1.74±0.10                | 22.3   | <i>f</i> <sub>118</sub>                | 0.8713±0.0026                | 0.11±0.04        | -0.20±0.16               | 8.6   |
| <i>f</i> <sub>36</sub>                 | 6.5286±0.0016                | 0.19±0.04        | 1.55±0.10                | 21.8   | <i>f</i> <sub>119</sub>                | 1.0836±0.0026                | 0.11±0.04        | -2.23±0.16               | 8.5   |
| <i>f</i> <sub>37</sub>                 | 2.1474±0.0017                | 0.20±0.04        | 2.50±0.10                | 21.2   | <i>f</i> <sub>120</sub>                | 1.2382±0.0026                | 0.11±0.04        | 2.60±0.16                | 8.8   |
| <i>f</i> <sub>38</sub>                 | 2.1232±0.0016                | 0.19±0.04        | -1.63±0.10               | 21.9   | <i>f</i> <sub>121</sub>                | 1.8021±0.0026                | 0.11±0.04        | -1.51±0.16               | 8.3   |
| <i>f</i> <sub>39</sub>                 | 18.1788±0.0017               | 0.20±0.04        | -1.56±0.10               | 21.2   | <i>f</i> <sub>122</sub>                | 12.4726±0.0027               | 0.11±0.04        | -0.86±0.16               | 8.1   |
| <i>f</i> <sub>40</sub>                 | 0.3785±0.0017                | 0.21±0.05        | 0.28±0.10                | 20.5   | <i>f</i> <sub>123</sub>                | 4.3480±0.0027                | 0.10±0.04        | -1.10±0.16               | 8.1   |
| <i>f</i> <sub>41</sub>                 | 1.9021±0.0017                | 0.18±0.04        | 0.74±0.10                | 20.4   | <i>f</i> <sub>125</sub>                | 4.2101±0.0027                | 0.10±0.03        | 0.53±0.16                | 8.2   |
| <i>f</i> <sub>42</sub>                 | 0.2448±0.0017                | 0.24±0.05        | -1.18±0.10               | 19.9   | <i>f</i> <sub>126</sub>                | 0.4629±0.0027                | 0.09±0.03        | -0.35±0.16               | 8.1   |
| <i>f</i> <sub>43</sub>                 | 39.2559±0.0017               | 0.19±0.04        | -0.83±0.11               | 19.4   | <i>f</i> <sub>127</sub>                | 0.2135±0.0027                | 0.10±0.03        | -2.18±0.16               | 8.2   |
| <i>f</i> <sub>44</sub>                 | 1.4474±0.0017                | 0.18±0.04        | 2.45±0.11                | 19.2   | <i>f</i> <sub>128</sub>                | 17.1950±0.0027               | 0.10±0.04        | -0.90±0.16               | 8.0   |
| <i>f</i> <sub>45</sub>                 | 16.6483±0.0018               | 0.17±0.04        | 0.86±0.11                | 18.6   | <i>f</i> <sub>129</sub>                | 1.2630±0.0027                | 0.11±0.04        | 2.77±0.17                | 7.9   |
| <i>f</i> <sub>46</sub>                 | 0.1285±0.0018                | 0.21±0.05        | 2.18±0.11                | 18.4   | <i>f</i> <sub>130</sub>                | 4.6590±0.0027                | 0.10±0.04        | 0.24±0.17                | 7.8   |
| <i>f</i> <sub>48</sub>                 | 0.2358±0.0018                | 0.17±0.04        | 1.92±0.11                | 17.1   | <i>f</i> <sub>131</sub>                | 14.1190±0.0027               | 0.10±0.04        | -0.99±0.17               | 7.8   |
| <i>f</i> <sub>49</sub>                 | 0.1964±0.0018                | 0.20±0.05        | 2.39±0.11                | 18.7   | <i>f</i> <sub>132</sub>                | 3.9422±0.0027                | 0.10±0.04        | -0.07±0.16               | 8.0   |
| <i>f</i> <sub>50</sub>                 | 10.1216±0.0018               | 0.17±0.04        | -0.81±0.11               | 17.1   | <i>f</i> <sub>133</sub>                | 1.5102±0.0027                | 0.11±0.04        | 2.70±0.17                | 7.9   |
| <i>f</i> <sub>51</sub>                 | 27.8437±0.0019               | 0.17±0.04        | -0.88±0.11               | 17.0   | <i>f</i> <sub>134</sub>                | 5.1542±0.0028                | 0.10±0.04        | -0.31±0.17               | 7.5   |
| <i>f</i> <sub>52</sub>                 | 13.3487±0.0018               | 0.17±0.04        | 2.89±0.11                | 17.1   | <i>f</i> <sub>135</sub>                | 2.7251±0.0028                | 0.10±0.04        | -2.83±0.17               | 7.4   |
| <i>f</i> <sub>53</sub>                 | 8.2743±0.0019                | 0.16±0.04        | -0.99±0.11               | 16.8   | <i>f</i> <sub>136</sub>                | 0.9657±0.0028                | 0.10±0.04        | -2.62±0.17               | 7.5   |
| <i>f</i> <sub>55</sub>                 | 4.5816±0.0019                | 0.17±0.04        | 2.66±0.11                | 17.0   | <i>f</i> <sub>137</sub>                | 5.0951±0.0028                | 0.10±0.04        | 2.94±0.17                | 7.2   |
| <i>f</i> <sub>56</sub>                 | 0.2045±0.0019                | 0.17±0.04        | 1.50±0.11                | 16.5   | <i>f</i> <sub>138</sub>                | 10.2678±0.0028               | 0.10±0.04        | -0.03±0.17               | 7.2   |
| <i>f</i> <sub>57</sub>                 | 4.0632±0.0019                | 0.17±0.04        | -0.82±0.12               | 16.3   | <i>f</i> <sub>139</sub>                | 1.3771±0.0028                | 0.10±0.04        | 2.31±0.17                | 7.2   |
| <i>f</i> <sub>58</sub>                 | 2.0758±0.0019                | 0.17±0.04        | -1.08±0.12               | 16.0   | <i>f</i> <sub>141</sub>                | 0.8108±0.0029                | 0.10±0.04        | 2.68±0.18                | 6.9   |
| <i>f</i> <sub>59</sub>                 | 3.2719±0.0019                | 0.15±0.04        | -1.49±0.12               | 15.6   | <i>f</i> <sub>142</sub>                | 4.0043±0.0029                | 0.10±0.04        | -0.49±0.18               | 6.9   |
| <i>f</i> <sub>60</sub>                 | 3.0097±0.0019                | 0.17±0.04        | 2.36±0.12                | 15.4   | <i>f</i> <sub>143</sub>                | 41.9387±0.0029               | 0.10±0.04        | 1.48±0.18                | 6.9   |
| <i>f</i> <sub>61</sub>                 | 1.3163±0.0019                | 0.16±0.04        | 1.73±0.12                | 15.7   | <i>f</i> <sub>144</sub>                | 2.3607±0.0029                | 0.10±0.04        | 0.98±0.17                | 7.1   |
| <i>f</i> <sub>62</sub>                 | 9.3977±0.0019                | 0.16±0.04        | 2.50±0.12                | 15.6   | <i>f</i> <sub>145</sub>                | 5.5166±0.0029                | 0.09±0.03        | -1.14±0.18               | 6.7   |
| <i>f</i> <sub>63</sub>                 | 0.2932±0.0019                | 0.16±0.04        | -0.71±0.12               | 15.4   | <i>f</i> <sub>147</sub>                | 0.6434±0.0030                | 0.10±0.04        | 2.38±0.18                | 6.6   |
| <i>f</i> <sub>64</sub>                 | 4.5342±0.0019                | 0.17±0.04        | -0.72±0.12               | 15.4   | <i>f</i> <sub>148</sub>                | 1.4754±0.0029                | 0.10±0.04        | 0.21±0.18                | 6.7   |
| <i>f</i> <sub>65</sub>                 | 25.8339±0.0020               | 0.15±0.04        | 0.71±0.12                | 14.7   | <i>f</i> <sub>149</sub>                | 2.1929±0.0030                | 0.09±0.04        | 1.45±0.18                | 6.6   |
| <i>f</i> <sub>66</sub>                 | 1.0210±0.0020                | 0.14±0.04        | -2.33±0.12               | 15.1   | <i>f</i> <sub>150</sub>                | 29.9769±0.0029               | 0.09±0.03        | -3.10±0.18               | 6.7   |
| <i>f</i> <sub>67</sub>                 | 2.4628±0.0020                | 0.15±0.04        | 2.49±0.12                | 14.4   | <i>f</i> <sub>151</sub>                | 11.5940±0.0030               | 0.09±0.04        | 2.94±0.18                | 6.5   |
| <i>f</i> <sub>68</sub>                 | 28.3203±0.0020               | 0.14±0.04        | -0.93±0.12               | 14.0   | <i>f</i> <sub>152</sub>                | 14.8754±0.0030               | 0.09±0.04        | 0.02±0.18                | 6.5   |
| <i>f</i> <sub>69</sub>                 | 0.4463±0.0021                | 0.16±0.04        | -0.42±0.13               | 13.8   | <i>f</i> <sub>153</sub>                | 0.1474±0.0030                | 0.11±0.04        | -1.92±0.18               | 6.6   |
| <i>f</i> <sub>70</sub>                 | 11.7144±0.0021               | 0.15±0.04        | -1.70±0.13               | 13.8   | <i>f</i> <sub>154</sub>                | 0.4995±0.0030                | 0.12±0.05        | -0.27±0.18               | 6.6   |
| <i>f</i> <sub>71</sub>                 | 22.8762±0.0021               | 0.14±0.04        | 1.54±0.13                | 13.8   | <i>f</i> <sub>155</sub>                | 0.5392±0.0029                | 0.10±0.04        | -0.95±0.18               | 6.9   |
| <i>f</i> <sub>72</sub>                 | 0.5231±0.0021                | 0.14±0.04        | -3.05±0.13               | 13.4   | <i>f</i> <sub>156</sub>                | 0.5103±0.0029                | 0.10±0.04        | -2.47±0.18               | 6.9   |
| <i>f</i> <sub>73</sub>                 | 3.3234±0.0021                | 0.15±0.04        | -1.40±0.13               | 13.3   | <i>f</i> <sub>157</sub>                | 0.4202±0.0029                | 0.10±0.04        | -1.61±0.18               | 7.0   |
| <i>f</i> <sub>74</sub>                 | 11.1483±0.0021               | 0.14±0.04        | 2.29±0.13                | 13.3   | <i>f</i> <sub>159</sub>                | 5.4157±0.0031                | 0.10±0.04        | -2.10±0.19               | 6.2   |
| <i>f</i> <sub>75</sub>                 | 18.4955±0.0021               | 0.15±0.04        | -2.63±0.13               | 13.4   | <i>f</i> <sub>160</sub>                | 5.4337±0.0028                | 0.10±0.04        | -0.67±0.17               | 7.3   |
| <i>f</i> <sub>77</sub>                 | 9.5153±0.0021                | 0.15±0.04        | 1.75±0.13                | 13.4   | <i>f</i> <sub>161</sub>                | 12.1649±0.0030               | 0.09±0.04        | 0.17±0.18                | 6.4   |
| <i>f</i> <sub>78</sub>                 | 2.8738±0.0021                | 0.14±0.04        | -1.38±0.13               | 13.2   | <i>f</i> <sub>162</sub>                | 2.4169±0.0030                | 0.09±0.04        | 0.28±0.19                | 6.3   |
| <i>f</i> <sub>79</sub>                 | 0.8961±0.0021                | 0.14±0.04        | 1.95±0.13                | 13.3   | <i>f</i> <sub>163</sub>                | 34.9534±0.0030               | 0.09±0.04        | 3.10±0.19                | 6.3   |
| <i>f</i> <sub>80</sub>                 | 5.0185±0.0021                | 0.13±0.04        | -2.68±0.13               | 13.2   | <i>f</i> <sub>164</sub>                | 6.2178±0.0030                | 0.09±0.04        | -1.61±0.19               | 6.3   |
| <i>f</i> <sub>81</sub>                 | 0.3475±0.0021                | 0.15±0.04        | 1.99±0.13                | 13.2   | <i>f</i> <sub>165</sub>                | 2.9137±0.0031                | 0.09±0.04        | -2.30±0.19               | 6.2   |
| <i>f</i> <sub>82</sub>                 | 3.6872±0.0022                | 0.13±0.04        | -1.36±0.13               | 12.2   | <i>f</i> <sub>166</sub>                | 46.6271±0.0031               | 0.09±0.04        | -1.47±0.19               | 6.2   |
| <i>f</i> <sub>83</sub>                 | 7.5439±0.0022                | 0.13±0.04        | -1.50±0.13               | 12.1   | <i>f</i> <sub>167</sub>                | 8.4340±0.0031                | 0.09±0.04        | 2.68±0.19                | 6.1   |
| <i>f</i> <sub>85</sub>                 | 0.5928±0.0023                | 0.12±0.04        | 2.89±0.14                | 11.3   | <i>f</i> <sub>168</sub>                | 2.6346±0.0030                | 0.09±0.04        | -3.00±0.19               | 6.3   |
| <i>f</i> <sub>86</sub>                 | 18.8562±0.0023               | 0.13±0.04        | 0.53±0.14                | 11.3   | <i>f</i> <sub>169</sub>                | 14.9429±0.0031               | 0.09±0.04        | 1.60±0.19                | 6.0   |
| <i>f</i> <sub>87</sub>                 | 0.7540±0.0023                | 0.13±0.04        | 2.27±0.14                | 10.9   | <i>f</i> <sub>170</sub>                | 5.1197±0.0031                | 0.09±0.04        | -0.12±0.19               | 6.1   |
| <i>f</i> <sub>88</sub>                 | 5.1064±0.0023                | 0.15±0.05        | 3.02±0.14                | 10.6   | <i>f</i> <sub>172</sub>                | 10.0247±0.0031               | 0.09±0.04        | 1.84±0.19                | 6.1   |
| <i>f</i> <sub>89</sub>                 | 2.4844±0.0023                | 0.12±0.04        | -2.99±0.14               | 10.7   | <i>f</i> <sub>173</sub>                | 41.6296±0.0031               | 0.09±0.04        | 2.56±0.19                | 6.0   |
| <i>f</i> <sub>90</sub>                 | 12.6558±0.0024               | 0.12±0.04        | 1.62±0.14                | 10.5   | <i>f</i> <sub>174</sub>                | 1.0391±0.0031                | 0.09±0.04        | 1.66±0.19                | 6.0   |
| <i>f</i> <sub>91</sub>                 | 13.8179±0.0024               | 0.12±0.04        | 0.35±0.15                | 10.1   | <i>f</i> <sub>175</sub>                | 1.0120±0.0030                | 0.09±0.04        | 1.46±0.18                | 6.6   |
| <i>f</i> <sub>92</sub>                 | 1.2152±0.0024                | 0.11±0.03        | 1.39±0.15                | 10.3   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>93</sub>                 | 3.2276±0.0024                | 0.12±0.04        | 0.20±0.15                | 9.9    |                                        |                              |                  |                          |       |
| <i>f</i> <sub>94</sub>                 | 0.3323±0.0024                | 0.11±0.04        | -1.31±0.15               | 9.8    |                                        |                              |                  |                          |       |
| <i>f</i> <sub>95</sub>                 | 0.2258±0.0024                | 0.15±0.05        | -2.61±0.15               | 10.1   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>97</sub>                 | 2.2636±0.0025                | 0.11±0.04        | 0.86±0.15                | 9.6    |                                        |                              |                  |                          |       |
| <i>f</i> <sub>98</sub>                 | 0.5792±0.0025                | 0.10±0.03        | -0.26±0.15               | 9.4    |                                        |                              |                  |                          |       |
| <i>f</i> <sub>99</sub>                 | 4.7575±0.0025                | 0.12±0.04        | 0.03±0.15                | 9.4    |                                        |                              |                  |                          |       |
| <i>f</i> <sub>100</sub>                | 4.9820±0.0025                | 0.11±0.04        | 1.60±0.15                | 9.4    |                                        |                              |                  |                          |       |
| <i>f</i> <sub>101</sub>                | 11.6171±0.0025               | 0.11±0.04        | -0.18±0.15               | 9.4    |                                        |                              |                  |                          |       |
| <i>f</i> <sub>102</sub>                | 34.1008±0.0025               | 0.12±0.04        | -2.54±0.15               | 9.1    |                                        |                              |                  |                          |       |
| <i>f</i> <sub>103</sub>                | 12.5164±0.0025               | 0.12±0.04        | -1.99±0.16               | 9.0    |                                        |                              |                  |                          |       |
| <i>f</i> <sub>105</sub>                | 7.4854±0.0026                | 0.11±0.04        | -2.75±0.16               | 8.8    |                                        |                              |                  |                          |       |
| Frequency list of 0102760705 continued |                              |                  |                          |        |                                        |                              |                  |                          |       |
| Frequency list of 0102761296 continued |                              |                  |                          |        | Frequency list of 0102761296 continued |                              |                  |                          |       |
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign.  | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| <i>f</i> <sub>1</sub>                  | 7.2565±0.0002                | 5.46±0.14        | -1.09±0.01               | 1585.3 | <i>f</i> <sub>106</sub>                | 2.6795±0.0026                | 0.11±0.04        | 2.12±0.16                | 8.8   |
| <i>f</i> <sub>2</sub>                  | 9.3415±0.0003                | 2.69±0.11        | 3.02±0.02                | 620.0  | <i>f</i> <sub>107</sub>                | 0.4799±0.0026                | 0.10±0.03        | -2.16±0.16               | 8.8   |
| <i>f</i> <sub>3</sub>                  | 4.0241±0.0004                | 2.00±0.10        | -1.58±0.02               | 419.2  | <i>f</i> <sub>108</sub>                | 0.4032±0.0026                | 0.09±0.03        | 0.58±0.16                | 8.9   |
| <i>f</i> <sub>4</sub>                  | 6.6562±0.0004                | 1.94±0.09        | -2.87±0.02               | 427.2  | <i>f</i> <sub>110</sub>                | 8.2595±0.0026                | 0.11±0.04        | 0.52±0.16                | 8.6   |
| <i>f</i> <sub>5</sub>                  | 17.3780±0.0005               | 1.33±0.09        | -0.85±0.03               | 224.6  | <i>f</i> <sub>111</sub>                | 5.9085±0.0026                | 0.11±0.04        | 2.51±0.16                | 8.4   |
| <i>f</i> <sub>6</sub>                  | 11.2578±0.0005               | 1.28±0.09        | -0.56±0.03               | 215.3  | <i>f</i> <sub>112</sub>                | 6.1549±0.0026                | 0.11±0.04        | 0.83±0.16                | 8.5   |
| <i>f</i> <sub>7</sub>                  | 4.0635±0.0006                | 1.01±0.08        | -2.71±0.04               | 143.4  | <i>f</i> <sub>113</sub>                | 0.5529±0.0026                | 0.10±0.03        | -1.66±0.16               | 8.7   |
| <i>f</i> <sub>8</sub>                  | 6.4378±0.0007                | 0.86±0.08        | 0.61±0.04                | 113.6  | <i>f</i>                               |                              |                  |                          |       |

## Appendix E. Frequencies of individual Hybrid Candidate Stars

| Frequency list of 0102761296 continued |                              |                  |                          |       | Frequency list of 0102761296 continued   |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|------------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                             | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{12}$                               | 13.6973±0.0009               | 0.64±0.08        | -2.18±0.06               | 67.2  | $f_{109}$                                | 21.9666±0.0023               | 0.19±0.06        | 1.63±0.14                | 11.5  |
| $f_{13}$                               | 16.0811±0.0010               | 0.60±0.08        | -2.95±0.06               | 59.6  | $f_{110}$                                | 11.7890±0.0023               | 0.19±0.06        | -2.98±0.14               | 11.4  |
| $f_{14}$                               | 8.6529±0.0010                | 0.59±0.08        | 3.10±0.06                | 60.1  | $f_{111}$                                | 12.0760±0.0023               | 0.19±0.06        | -0.46±0.14               | 11.4  |
| $f_{15}$                               | 1.6446±0.0010                | 0.56±0.08        | -0.85±0.06               | 54.8  | $f_{112}$                                | 13.8427±0.0023               | 0.19±0.06        | -1.41±0.14               | 11.2  |
| $f_{16}$                               | 9.3940±0.0011                | 0.51±0.07        | 1.88±0.07                | 48.4  | $f_{113}$                                | 8.1842±0.0023                | 0.19±0.06        | -1.72±0.14               | 11.0  |
| $f_{17}$                               | 0.3914±0.0011                | 0.51±0.08        | 0.73±0.07                | 45.1  | $f_{114}$                                | 12.2695±0.0023               | 0.18±0.05        | -0.54±0.14               | 10.9  |
| $f_{20}$                               | 8.4747±0.0012                | 0.46±0.07        | 1.35±0.07                | 42.2  | $f_{115}$                                | 2.6981±0.0023                | 0.19±0.06        | -0.75±0.14               | 10.9  |
| $f_{21}$                               | 12.6611±0.0013               | 0.43±0.07        | 2.46±0.08                | 36.3  | $f_{116}$                                | 6.0187±0.0023                | 0.18±0.05        | -2.79±0.14               | 11.0  |
| $f_{22}$                               | 21.4175±0.0013               | 0.39±0.07        | -2.47±0.08               | 32.3  | $f_{117}$                                | 13.4321±0.0023               | 0.20±0.06        | 1.58±0.14                | 10.9  |
| $f_{23}$                               | 11.3043±0.0013               | 0.41±0.07        | 1.26±0.08                | 32.2  | $f_{118}$                                | 18.6116±0.0023               | 0.18±0.05        | -1.70±0.14               | 11.1  |
| $f_{24}$                               | 0.4184±0.0013                | 0.39±0.07        | -0.38±0.08               | 33.0  | $f_{119}$                                | 15.6841±0.0023               | 0.18±0.06        | 0.77±0.14                | 10.7  |
| $f_{27}$                               | 1.2531±0.0013                | 0.37±0.07        | -2.00±0.08               | 32.1  | $f_{120}$                                | 0.8600±0.0023                | 0.18±0.06        | 1.40±0.14                | 10.7  |
| $f_{28}$                               | 15.9923±0.0014               | 0.38±0.07        | 2.85±0.09                | 29.3  | $f_{121}$                                | 11.2496±0.0023               | 0.18±0.06        | -1.91±0.14               | 10.6  |
| $f_{29}$                               | 14.6483±0.0014               | 0.36±0.07        | 0.06±0.09                | 29.7  | $f_{125}$                                | 13.4465±0.0024               | 0.17±0.05        | 1.60±0.14                | 10.5  |
| $f_{30}$                               | 17.7646±0.0014               | 0.36±0.07        | -0.07±0.09               | 28.8  | $f_{126}$                                | 2.9175±0.0024                | 0.17±0.05        | -0.36±0.15               | 9.8   |
| $f_{31}$                               | 28.6362±0.0014               | 0.35±0.07        | 1.84±0.09                | 28.3  | $f_{127}$                                | 0.3454±0.0025                | 0.16±0.05        | 2.31±0.15                | 9.6   |
| $f_{32}$                               | 3.1175±0.0015                | 0.33±0.06        | 2.06±0.09                | 27.1  | $f_{128}$                                | 12.7095±0.0025               | 0.17±0.05        | 0.27±0.15                | 9.7   |
| $f_{33}$                               | 0.1276±0.0015                | 0.32±0.06        | 2.62±0.09                | 26.7  | $f_{129}$                                | 0.1756±0.0025                | 0.17±0.05        | -1.97±0.15               | 9.6   |
| $f_{34}$                               | 8.1560±0.0015                | 0.35±0.07        | 2.38±0.09                | 26.5  | $f_{130}$                                | 3.6056±0.0025                | 0.17±0.05        | -1.44±0.15               | 9.7   |
| $f_{35}$                               | 14.3190±0.0015               | 0.32±0.06        | 1.88±0.09                | 25.2  | $f_{133}$                                | 9.6720±0.0025                | 0.16±0.05        | -0.79±0.15               | 9.1   |
| $f_{36}$                               | 14.6792±0.0015               | 0.33±0.07        | 2.44±0.09                | 25.5  | $f_{135}$                                | 1.0167±0.0025                | 0.16±0.05        | 2.34±0.16                | 9.0   |
| $f_{37}$                               | 6.1437±0.0015                | 0.33±0.07        | -0.01±0.09               | 24.3  | $f_{136}$                                | 2.5621±0.0026                | 0.16±0.05        | -1.56±0.16               | 8.9   |
| $f_{38}$                               | 5.7550±0.0016                | 0.32±0.07        | 0.93±0.10                | 23.8  | $f_{137}$                                | 23.6133±0.0026               | 0.16±0.05        | -2.32±0.16               | 8.7   |
| $f_{39}$                               | 2.7869±0.0016                | 0.30±0.06        | 2.89±0.10                | 23.5  | $f_{138}$                                | 23.1339±0.0026               | 0.16±0.05        | 1.19±0.16                | 8.6   |
| $f_{40}$                               | 1.2956±0.0016                | 0.33±0.07        | 2.91±0.10                | 23.3  | $f_{139}$                                | 9.1739±0.0026                | 0.16±0.06        | -1.68±0.16               | 8.4   |
| $f_{41}$                               | 1.3318±0.0016                | 0.31±0.06        | -2.76±0.10               | 23.8  | $f_{140}$                                | 7.9193±0.0027                | 0.15±0.05        | 1.76±0.16                | 8.0   |
| $f_{42}$                               | 1.6707±0.0016                | 0.29±0.06        | -1.51±0.10               | 23.4  | $f_{141}$                                | 0.3190±0.0027                | 0.14±0.05        | -0.82±0.16               | 8.2   |
| $f_{43}$                               | 4.8836±0.0016                | 0.31±0.07        | -1.59±0.10               | 22.2  | $f_{142}$                                | 2.3923±0.0027                | 0.15±0.05        | 0.46±0.17                | 7.8   |
| $f_{44}$                               | 8.7474±0.0016                | 0.31±0.07        | 3.01±0.10                | 22.4  | $f_{143}$                                | 16.8013±0.0027               | 0.15±0.05        | 2.18±0.17                | 7.8   |
| $f_{46}$                               | 2.6192±0.0017                | 0.32±0.07        | -2.59±0.10               | 20.5  | $f_{145}$                                | 15.3283±0.0028               | 0.15±0.05        | 1.38±0.17                | 7.7   |
| $f_{47}$                               | 9.5656±0.0017                | 0.30±0.07        | -0.67±0.10               | 20.1  | $f_{146}$                                | 20.3188±0.0028               | 0.15±0.05        | 3.02±0.17                | 7.7   |
| $f_{48}$                               | 2.6719±0.0017                | 0.30±0.07        | -1.30±0.11               | 19.6  | $f_{147}$                                | 0.1998±0.0027                | 0.15±0.05        | 1.12±0.17                | 7.8   |
| $f_{49}$                               | 0.1498±0.0018                | 0.27±0.06        | -1.57±0.11               | 18.9  | $f_{148}$                                | 26.9013±0.0027               | 0.15±0.05        | 2.21±0.17                | 7.9   |
| $f_{50}$                               | 3.8609±0.0018                | 0.28±0.06        | -0.39±0.11               | 18.6  | $f_{149}$                                | 2.0920±0.0028                | 0.15±0.05        | -0.18±0.17               | 7.5   |
| $f_{51}$                               | 3.3137±0.0017                | 0.27±0.06        | -1.36±0.11               | 19.1  | $f_{150}$                                | 3.8705±0.0028                | 0.14±0.05        | 0.92±0.17                | 7.4   |
| $f_{52}$                               | 2.0065±0.0018                | 0.65±0.15        | 1.11±0.11                | 18.5  | $f_{151}$                                | 16.5979±0.0028               | 0.14±0.05        | -2.02±0.17               | 7.2   |
| $f_{53}$                               | 5.2738±0.0018                | 0.27±0.06        | 2.13±0.11                | 18.4  | $f_{152}$                                | 17.6734±0.0028               | 0.14±0.05        | 2.07±0.17                | 7.2   |
| $f_{54}$                               | 3.5857±0.0018                | 0.29±0.07        | 0.64±0.11                | 18.9  | $f_{153}$                                | 19.6965±0.0029               | 0.14±0.05        | -0.32±0.17               | 7.1   |
| $f_{55}$                               | 1.2676±0.0018                | 0.27±0.06        | -2.57±0.11               | 18.1  | $f_{154}$                                | 0.1353±0.0028                | 0.14±0.05        | -0.73±0.17               | 7.3   |
| $f_{58}$                               | 12.2879±0.0018               | 0.24±0.06        | 2.88±0.11                | 17.8  | $f_{155}$                                | 0.8198±0.0029                | 0.14±0.05        | 3.09±0.17                | 7.1   |
| $f_{61}$                               | 2.6300±0.0018                | 0.27±0.06        | -2.90±0.11               | 18.0  | $f_{156}$                                | 0.8858±0.0028                | 0.14±0.05        | 2.88±0.17                | 7.2   |
| $f_{62}$                               | 15.5867±0.0018               | 0.26±0.06        | 1.31±0.11                | 17.3  | $f_{157}$                                | 14.5074±0.0028               | 0.14±0.05        | -2.28±0.17               | 7.2   |
| $f_{64}$                               | 10.3577±0.0019               | 0.23±0.06        | -2.25±0.11               | 16.9  | $f_{158}$                                | 0.2512±0.0028                | 0.14±0.05        | -0.35±0.17               | 7.2   |
| $f_{65}$                               | 11.6222±0.0018               | 0.26±0.06        | -1.97±0.11               | 17.2  | $f_{160}$                                | 13.2775±0.0029               | 0.14±0.05        | 0.23±0.18                | 7.0   |
| $f_{66}$                               | 9.5234±0.0018                | 0.27±0.06        | -0.76±0.11               | 17.5  | $f_{161}$                                | 0.3042±0.0028                | 0.14±0.05        | -1.62±0.17               | 7.2   |
| $f_{67}$                               | 15.9283±0.0019               | 0.25±0.06        | 0.61±0.11                | 16.8  | $f_{162}$                                | 0.3752±0.0028                | 0.14±0.05        | 1.13±0.17                | 7.2   |
| $f_{68}$                               | 2.5506±0.0019                | 0.23±0.06        | -0.77±0.11               | 17.0  | $f_{163}$                                | 10.4187±0.0029               | 0.14±0.05        | -2.80±0.18               | 7.0   |
| $f_{69}$                               | 1.7011±0.0019                | 0.23±0.06        | 0.54±0.12                | 16.1  | $f_{164}$                                | 18.0697±0.0029               | 0.14±0.05        | 1.92±0.18                | 7.0   |
| $f_{70}$                               | 0.8765±0.0019                | 0.25±0.06        | 1.54±0.12                | 15.9  | $f_{165}$                                | 5.3555±0.0029                | 0.14±0.05        | 0.23±0.17                | 7.1   |
| $f_{71}$                               | 3.2041±0.0019                | 0.24±0.06        | -0.75±0.12               | 15.5  | $f_{166}$                                | 0.7599±0.0029                | 0.14±0.05        | 1.92±0.18                | 6.8   |
| $f_{73}$                               | 8.3920±0.0020                | 0.24±0.06        | 2.47±0.12                | 14.8  | $f_{170}$                                | 20.2261±0.0029               | 0.14±0.05        | -0.02±0.18               | 6.8   |
| $f_{74}$                               | 5.3174±0.0020                | 0.24±0.06        | 1.71±0.12                | 15.0  | $f_{171}$                                | 13.0096±0.0029               | 0.13±0.05        | 0.70±0.18                | 6.7   |
| $f_{75}$                               | 9.2823±0.0020                | 0.22±0.06        | 1.45±0.12                | 14.7  | $f_{174}$                                | 0.5219±0.0030                | 0.13±0.05        | 0.08±0.18                | 6.5   |
| $f_{76}$                               | 10.3442±0.0020               | 0.23±0.06        | 2.62±0.12                | 14.1  | $f_{175}$                                | 4.3501±0.0030                | 0.13±0.05        | -1.10±0.18               | 6.5   |
| $f_{82}$                               | 4.0230±0.0009                | 0.48±0.06        | 1.66±0.06                | 71.0  | $f_{176}$                                | 13.2284±0.0030               | 0.13±0.05        | 1.16±0.18                | 6.4   |
| $f_{87}$                               | 1.1780±0.0020                | 0.24±0.06        | 1.82±0.12                | 14.3  | $f_{177}$                                | 1.2470±0.0030                | 0.13±0.05        | -1.56±0.18               | 6.5   |
| $f_{88}$                               | 11.8973±0.0020               | 0.20±0.05        | 0.49±0.12                | 13.9  | $f_{178}$                                | 17.3929±0.0030               | 0.13±0.05        | 2.15±0.19                | 6.3   |
| $f_{90}$                               | 1.6345±0.0021                | 0.22±0.06        | 2.47±0.13                | 13.7  | $f_{179}$                                | 14.9146±0.0030               | 0.13±0.05        | -0.21±0.18               | 6.4   |
| $f_{91}$                               | 1.4042±0.0021                | 0.21±0.06        | 0.34±0.13                | 13.3  | $f_{180}$                                | 0.6123±0.0030                | 0.13±0.05        | -0.24±0.19               | 6.3   |
| $f_{92}$                               | 1.7372±0.0021                | 0.20±0.05        | 1.57±0.13                | 13.4  | $f_{181}$                                | 0.5011±0.0030                | 0.13±0.05        | -2.19±0.18               | 6.4   |
| $f_{93}$                               | 19.0344±0.0021               | 0.21±0.06        | -0.96±0.13               | 13.3  | $f_{182}$                                | 1.0234±0.0031                | 0.13±0.05        | 1.34±0.19                | 6.2   |
| $f_{94}$                               | 13.3784±0.0021               | 0.21±0.06        | 2.77±0.13                | 12.8  | $f_{183}$                                | 24.6362±0.0030               | 0.13±0.05        | -0.65±0.19               | 6.3   |
| $f_{95}$                               | 2.9501±0.0021                | 0.20±0.06        | 1.71±0.13                | 12.7  | $f_{184}$                                | 4.4900±0.0030                | 0.13±0.05        | -2.02±0.19               | 6.3   |
| $f_{96}$                               | 9.6492±0.0022                | 0.20±0.06        | 2.78±0.13                | 12.6  | $f_{185}$                                | 3.9277±0.0031                | 0.13±0.05        | -0.35±0.19               | 6.1   |
| $f_{97}$                               | 0.3672±0.0022                | 0.21±0.06        | -1.17±0.13               | 12.6  | $f_{186}$                                | 15.4612±0.0031               | 0.13±0.05        | 2.48±0.19                | 6.0   |
| $f_{98}$                               | 12.0462±0.0022               | 0.20±0.06        | 1.88±0.13                | 12.4  | $f_{187}$                                | 2.4698±0.0031                | 0.13±0.05        | 0.41±0.19                | 6.1   |
| $f_{99}$                               | 0.4691±0.0022                | 0.19±0.05        | 0.32±0.13                | 12.5  | $f_{188}$                                | 16.0658±0.0031               | 0.13±0.05        | 0.42±0.19                | 6.0   |
| $f_{100}$                              | 13.0521±0.0022               | 0.19±0.05        | -0.64±0.13               | 12.2  | $f_{189}$                                | 5.4483±0.0031                | 0.13±0.05        | 1.02±0.19                | 6.1   |
| $f_{101}$                              | 12.0676±0.0022               | 0.19±0.06        | -0.42±0.14               | 11.9  | $f_{190}$                                | 10.7657±0.0031               | 0.13±0.05        | -0.67±0.19               | 6.0   |
| $f_{102}$                              | 7.2344±0.0022                | 0.20±0.06        | -3.11±0.14               | 11.9  | $f_{191}$                                | 27.3384±0.0031               | 0.13±0.05        | -2.78±0.19               | 6.0   |
| $f_{103}$                              | 0.1092±0.0022                | 0.19±0.06        | 1.45±0.14                | 11.9  | $f_{192}$                                | 9.1456±0.0031                | 0.13±0.05        | -0.21±0.19               | 6.1   |
| $f_{104}$                              | 1.1138±0.0022                | 0.19±0.06        | -2.77±0.14               | 11.8  |                                          |                              |                  |                          |       |
| $f_{105}$                              | 11.2770±0.0022               | 0.18±0.05        | 2.81±0.14                | 11.7  |                                          |                              |                  |                          |       |
| $f_{106}$                              | 9.8081±0.0022                | 0.19±0.06        | 1.99±0.14                | 11.7  |                                          |                              |                  |                          |       |
| $f_{107}$                              | 4.9405±0.0022                | 0.18±0.05        | 1.55±0.14                | 11.6  |                                          |                              |                  |                          |       |
| $f_{108}$                              | 2.0044±0.0022                | 0.26±0.08        | 0.73±0.14                | 11.7  |                                          |                              |                  |                          |       |
| Frequency list of 0102761296 continued |                              |                  |                          |       | Table E.48: Frequency list of 0102761327 |                              |                  |                          |       |
|                                        |                              |                  |                          |       | Frequency ID                             | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|                                        |                              |                  |                          |       | $f_1$                                    | 6.9654±0.0003                | 0.83±0.04        | 0.93±0.02                | 548.0 |
|                                        |                              |                  |                          |       | $f_2$                                    | 4.7107±0.0003                | 0.73±0.03        | -2.57±0.02               | 516.4 |
|                                        |                              |                  |                          |       | $f_3$                                    | 1.2969±0.0007                | 0.33±0.03        | 2.37±0.04                | 125.5 |
|                                        |                              |                  |                          |       | $f_4$                                    | 0.1105±0.0007                | 0.32±0.03        | -2.19±0.04               | 114.0 |
|                                        |                              |                  |                          |       | $f_5$                                    | 1.2163±0.0007                | 0.32±0.03        | -0.02±0.05               | 106.8 |
|                                        |                              |                  |                          |       | Frequency list of 0102761327 continued   |                              |                  |                          |       |

## Appendix E. Frequencies of individual Hybrid Candidate Stars

| Frequency list of 0102761327 continued |                              |                  |                          |       | Frequency list of 0102761327 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_6$                                  | 2.4503±0.0007                | 0.29±0.03        | -0.16±0.05               | 104.5 | $f_{84}$                               | 6.2538±0.0021                | 0.08±0.02        | 2.15±0.13                | 13.5  |
| $f_7$                                  | 8.6228±0.0008                | 0.27±0.03        | -1.73±0.05               | 86.4  | $f_{85}$                               | 2.0576±0.0021                | 0.08±0.02        | -2.40±0.13               | 13.2  |
| $f_8$                                  | 5.0927±0.0008                | 0.26±0.03        | 0.31±0.05                | 82.1  | $f_{86}$                               | 1.3106±0.0021                | 0.07±0.02        | -2.50±0.13               | 13.1  |
| $f_9$                                  | 8.4887±0.0008                | 0.26±0.03        | -2.17±0.05               | 81.8  | $f_{87}$                               | 7.1810±0.0021                | 0.08±0.02        | -2.35±0.13               | 13.0  |
| $f_{10}$                               | 6.2434±0.0009                | 0.23±0.03        | 0.80±0.05                | 76.0  | $f_{88}$                               | 6.0575±0.0021                | 0.08±0.02        | -1.90±0.13               | 13.1  |
| $f_{11}$                               | 3.0260±0.0009                | 0.23±0.03        | 1.72±0.06                | 66.8  | $f_{89}$                               | 2.6329±0.0021                | 0.08±0.02        | 1.34±0.13                | 12.9  |
| $f_{12}$                               | 2.4745±0.0010                | 0.20±0.03        | 2.13±0.06                | 59.3  | $f_{90}$                               | 2.0071±0.0021                | 0.10±0.03        | 0.19±0.13                | 13.2  |
| $f_{13}$                               | 1.4331±0.0010                | 0.19±0.03        | -1.60±0.06               | 53.4  | $f_{93}$                               | 12.8288±0.0021               | 0.08±0.02        | -0.85±0.13               | 12.8  |
| $f_{14}$                               | 6.1988±0.0010                | 0.18±0.02        | -1.60±0.06               | 54.4  | $f_{94}$                               | 0.2109±0.0021                | 0.08±0.02        | -2.09±0.13               | 12.7  |
| $f_{15}$                               | 2.7498±0.0011                | 0.18±0.03        | 2.37±0.06                | 51.7  | $f_{95}$                               | 3.6675±0.0022                | 0.08±0.02        | -1.30±0.13               | 12.6  |
| $f_{16}$                               | 1.2662±0.0011                | 0.21±0.03        | -0.55±0.07               | 44.4  | $f_{96}$                               | 0.4323±0.0022                | 0.07±0.02        | -0.88±0.13               | 12.6  |
| $f_{17}$                               | 3.7064±0.0012                | 0.19±0.03        | -1.18±0.07               | 43.6  | $f_{97}$                               | 0.9481±0.0022                | 0.08±0.02        | -0.20±0.13               | 12.2  |
| $f_{18}$                               | 1.7067±0.0012                | 0.17±0.03        | -0.05±0.07               | 42.7  | $f_{98}$                               | 5.0813±0.0022                | 0.07±0.02        | -0.17±0.13               | 12.1  |
| $f_{19}$                               | 3.7700±0.0012                | 0.19±0.03        | 0.92±0.07                | 42.6  | $f_{99}$                               | 2.4933±0.0022                | 0.08±0.02        | -3.01±0.13               | 12.1  |
| $f_{20}$                               | 5.2987±0.0012                | 0.17±0.03        | 0.38±0.07                | 42.8  | $f_{100}$                              | 1.1775±0.0022                | 0.07±0.02        | -1.18±0.14               | 11.8  |
| $f_{21}$                               | 4.8717±0.0012                | 0.16±0.02        | 0.84±0.07                | 42.7  | $f_{101}$                              | 0.8623±0.0022                | 0.07±0.02        | 0.39±0.14                | 11.9  |
| $f_{22}$                               | 2.5742±0.0012                | 0.16±0.02        | -0.53±0.07               | 41.4  | $f_{102}$                              | 6.2956±0.0022                | 0.07±0.02        | 3.05±0.14                | 11.6  |
| $f_{24}$                               | 5.0293±0.0014                | 0.13±0.02        | -1.50±0.08               | 30.5  | $f_{103}$                              | 2.3101±0.0023                | 0.07±0.02        | 2.58±0.14                | 11.5  |
| $f_{25}$                               | 0.1982±0.0014                | 0.14±0.03        | 2.90±0.08                | 30.9  | $f_{104}$                              | 1.8107±0.0023                | 0.07±0.02        | -2.35±0.14               | 11.5  |
| $f_{26}$                               | 4.7866±0.0014                | 0.14±0.03        | 2.59±0.08                | 30.9  | $f_{105}$                              | 1.5893±0.0022                | 0.08±0.02        | 0.87±0.14                | 11.6  |
| $f_{27}$                               | 0.1268±0.0014                | 0.13±0.02        | -1.19±0.09               | 27.8  | $f_{106}$                              | 5.5967±0.0023                | 0.07±0.02        | -1.79±0.14               | 11.1  |
| $f_{28}$                               | 7.3487±0.0014                | 0.11±0.02        | -0.94±0.09               | 28.7  | $f_{107}$                              | 4.9201±0.0023                | 0.06±0.02        | -2.72±0.14               | 11.5  |
| $f_{30}$                               | 9.7813±0.0015                | 0.12±0.02        | 2.87±0.09                | 26.3  | $f_{108}$                              | 5.2821±0.0023                | 0.07±0.02        | -2.98±0.14               | 10.9  |
| $f_{31}$                               | 0.1902±0.0015                | 0.13±0.02        | 2.51±0.09                | 27.2  | $f_{109}$                              | 3.1404±0.0023                | 0.07±0.02        | -2.79±0.14               | 10.9  |
| $f_{32}$                               | 0.2351±0.0015                | 0.10±0.02        | -0.92±0.09               | 25.9  | $f_{110}$                              | 9.4523±0.0023                | 0.06±0.02        | -1.90±0.14               | 10.7  |
| $f_{33}$                               | 0.2619±0.0015                | 0.13±0.03        | 0.37±0.09                | 24.9  | $f_{111}$                              | 1.0845±0.0023                | 0.06±0.02        | 1.71±0.14                | 10.7  |
| $f_{34}$                               | 0.1171±0.0015                | 0.12±0.02        | 0.58±0.09                | 24.4  | $f_{112}$                              | 1.9406±0.0023                | 0.07±0.02        | -0.79±0.14               | 11.0  |
| $f_{35}$                               | 2.6198±0.0016                | 0.12±0.03        | 2.25±0.10                | 22.6  | $f_{113}$                              | 8.7299±0.0023                | 0.07±0.02        | -2.60±0.14               | 11.0  |
| $f_{36}$                               | 0.2995±0.0016                | 0.10±0.02        | -0.95±0.10               | 22.6  | $f_{114}$                              | 2.8116±0.0024                | 0.06±0.02        | -2.33±0.14               | 10.5  |
| $f_{37}$                               | 6.1669±0.0016                | 0.11±0.02        | 3.03±0.10                | 22.0  | $f_{115}$                              | 0.7942±0.0024                | 0.07±0.02        | 1.86±0.14                | 10.4  |
| $f_{38}$                               | 3.5825±0.0016                | 0.12±0.03        | -1.01±0.10               | 22.2  | $f_{116}$                              | 3.5340±0.0023                | 0.07±0.02        | -0.48±0.14               | 10.6  |
| $f_{39}$                               | 1.5567±0.0016                | 0.10±0.02        | -1.43±0.10               | 21.8  | $f_{117}$                              | 3.0477±0.0024                | 0.06±0.02        | -1.75±0.15               | 10.3  |
| $f_{40}$                               | 4.7330±0.0016                | 0.11±0.02        | -0.29±0.10               | 22.0  | $f_{118}$                              | 4.0041±0.0024                | 0.06±0.02        | -0.92±0.15               | 9.9   |
| $f_{41}$                               | 0.2223±0.0016                | 0.10±0.02        | -1.60±0.10               | 21.8  | $f_{119}$                              | 1.0191±0.0025                | 0.07±0.02        | 1.49±0.15                | 9.3   |
| $f_{42}$                               | 3.8235±0.0017                | 0.12±0.03        | -2.52±0.10               | 21.2  | $f_{120}$                              | 6.7663±0.0025                | 0.06±0.02        | 1.89±0.15                | 9.2   |
| $f_{43}$                               | 3.7819±0.0016                | 0.12±0.03        | 0.45±0.10                | 21.9  | $f_{121}$                              | 5.9756±0.0025                | 0.06±0.02        | -1.34±0.15               | 9.1   |
| $f_{44}$                               | 2.3873±0.0017                | 0.11±0.02        | 0.79±0.10                | 21.0  | $f_{122}$                              | 5.4621±0.0025                | 0.07±0.02        | -0.25±0.16               | 9.0   |
| $f_{45}$                               | 9.6109±0.0017                | 0.11±0.02        | -2.19±0.10               | 21.3  | $f_{123}$                              | 4.9344±0.0026                | 0.06±0.02        | -0.60±0.16               | 8.8   |
| $f_{46}$                               | 11.0606±0.0017               | 0.10±0.02        | 1.79±0.10                | 20.3  | $f_{124}$                              | 0.4200±0.0026                | 0.06±0.02        | -1.25±0.16               | 8.9   |
| $f_{47}$                               | 2.1135±0.0017                | 0.09±0.02        | 0.80±0.10                | 19.9  | $f_{125}$                              | 6.1268±0.0026                | 0.06±0.02        | 3.10±0.16                | 8.9   |
| $f_{48}$                               | 1.5072±0.0017                | 0.11±0.02        | -3.08±0.10               | 19.9  | $f_{126}$                              | 9.4852±0.0026                | 0.06±0.02        | -1.59±0.16               | 8.9   |
| $f_{49}$                               | 9.7947±0.0017                | 0.09±0.02        | -1.38±0.11               | 19.2  | $f_{127}$                              | 10.7700±0.0026               | 0.06±0.02        | -3.09±0.16               | 8.9   |
| $f_{50}$                               | 7.4657±0.0018                | 0.09±0.02        | -1.99±0.11               | 18.4  | $f_{128}$                              | 2.5567±0.0025                | 0.06±0.02        | -1.72±0.16               | 9.0   |
| $f_{51}$                               | 0.7861±0.0018                | 0.11±0.03        | -2.85±0.11               | 18.3  | $f_{129}$                              | 0.9332±0.0026                | 0.06±0.02        | 0.19±0.16                | 8.8   |
| $f_{52}$                               | 0.2758±0.0018                | 0.08±0.02        | 0.94±0.11                | 18.2  | $f_{130}$                              | 1.7328±0.0026                | 0.06±0.02        | 0.52±0.16                | 8.8   |
| $f_{53}$                               | 2.6645±0.0018                | 0.10±0.02        | -1.98±0.11               | 18.1  | $f_{131}$                              | 0.8437±0.0025                | 0.06±0.02        | -0.68±0.16               | 9.0   |
| $f_{54}$                               | 1.2750±0.0018                | 0.09±0.02        | -2.71±0.11               | 18.2  | $f_{132}$                              | 2.7858±0.0026                | 0.06±0.02        | 2.58±0.16                | 8.8   |
| $f_{55}$                               | 0.3457±0.0018                | 0.11±0.03        | 2.20±0.11                | 17.5  | $f_{133}$                              | 4.8171±0.0026                | 0.06±0.02        | -0.82±0.16               | 8.8   |
| $f_{56}$                               | 4.7930±0.0018                | 0.10±0.02        | 2.59±0.11                | 17.6  | $f_{134}$                              | 1.4115±0.0026                | 0.06±0.02        | -1.51±0.16               | 8.6   |
| $f_{57}$                               | 2.6118±0.0018                | 0.09±0.02        | -1.39±0.11               | 17.6  | $f_{135}$                              | 5.0378±0.0026                | 0.05±0.02        | 0.79±0.16                | 8.7   |
| $f_{58}$                               | 7.2431±0.0018                | 0.10±0.02        | 1.19±0.11                | 17.3  | $f_{136}$                              | 5.1740±0.0026                | 0.05±0.02        | -2.23±0.16               | 8.7   |
| $f_{59}$                               | 0.6410±0.0019                | 0.09±0.02        | 1.14±0.11                | 17.0  | $f_{137}$                              | 7.1204±0.0026                | 0.06±0.02        | -0.78±0.16               | 8.6   |
| $f_{60}$                               | 12.0840±0.0019               | 0.09±0.02        | 0.37±0.11                | 16.5  | $f_{138}$                              | 0.6504±0.0026                | 0.06±0.02        | 1.26±0.16                | 8.5   |
| $f_{61}$                               | 1.1977±0.0019                | 0.09±0.02        | 3.01±0.12                | 16.3  | $f_{139}$                              | 4.1039±0.0026                | 0.06±0.02        | -0.73±0.16               | 8.4   |
| $f_{62}$                               | 1.4722±0.0019                | 0.09±0.02        | 1.32±0.11                | 16.7  | $f_{140}$                              | 4.0576±0.0026                | 0.05±0.02        | -2.49±0.16               | 8.5   |
| $f_{63}$                               | 6.0501±0.0019                | 0.08±0.02        | 2.57±0.11                | 16.7  | $f_{141}$                              | 6.6598±0.0026                | 0.06±0.02        | -0.29±0.16               | 8.5   |
| $f_{64}$                               | 0.5116±0.0019                | 0.10±0.02        | 1.22±0.12                | 16.4  | $f_{142}$                              | 2.3405±0.0026                | 0.06±0.02        | 2.07±0.16                | 8.5   |
| $f_{65}$                               | 0.5011±0.0019                | 0.09±0.02        | -2.25±0.11               | 16.7  | $f_{143}$                              | 1.0121±0.0026                | 0.06±0.02        | 2.99±0.16                | 8.6   |
| $f_{66}$                               | 6.0742±0.0019                | 0.08±0.02        | -3.04±0.12               | 15.8  | $f_{144}$                              | 1.3903±0.0026                | 0.05±0.02        | -2.22±0.16               | 8.5   |
| $f_{67}$                               | 3.7527±0.0019                | 0.10±0.02        | 2.17±0.12                | 16.2  | $f_{145}$                              | 7.3369±0.0026                | 0.06±0.02        | -1.39±0.16               | 8.5   |
| $f_{68}$                               | 6.2204±0.0020                | 0.10±0.03        | 0.68±0.12                | 14.9  | $f_{146}$                              | 2.5124±0.0026                | 0.05±0.02        | -2.43±0.16               | 8.5   |
| $f_{69}$                               | 5.0473±0.0020                | 0.09±0.02        | 0.91±0.12                | 14.6  | $f_{147}$                              | 0.3735±0.0026                | 0.06±0.02        | -2.58±0.16               | 8.3   |
| $f_{70}$                               | 2.2692±0.0020                | 0.09±0.02        | -2.78±0.12               | 14.9  | $f_{148}$                              | 0.7358±0.0026                | 0.06±0.02        | -0.13±0.16               | 8.3   |
| $f_{71}$                               | 1.2486±0.0020                | 0.10±0.03        | -0.40±0.12               | 14.7  | $f_{149}$                              | 3.5610±0.0027                | 0.06±0.02        | 2.66±0.16                | 8.2   |
| $f_{72}$                               | 0.7450±0.0020                | 0.08±0.02        | -2.48±0.12               | 14.8  | $f_{150}$                              | 6.3250±0.0027                | 0.05±0.02        | 2.34±0.16                | 8.2   |
| $f_{73}$                               | 0.2529±0.0020                | 0.09±0.02        | -2.58±0.12               | 15.0  | $f_{151}$                              | 6.8627±0.0026                | 0.06±0.02        | 2.50±0.16                | 8.3   |
| $f_{74}$                               | 0.4044±0.0020                | 0.08±0.02        | 1.15±0.12                | 15.3  | $f_{152}$                              | 0.1638±0.0027                | 0.06±0.02        | 1.61±0.16                | 8.1   |
| $f_{75}$                               | 7.3587±0.0020                | 0.08±0.02        | 1.15±0.12                | 14.0  | $f_{153}$                              | 2.2519±0.0027                | 0.06±0.02        | -0.66±0.17               | 7.9   |
| $f_{76}$                               | 0.3629±0.0020                | 0.09±0.02        | -1.68±0.12               | 14.0  | $f_{154}$                              | 4.8964±0.0027                | 0.05±0.02        | 3.01±0.17                | 7.8   |
| $f_{77}$                               | 0.5565±0.0020                | 0.08±0.02        | -1.06±0.12               | 14.3  | $f_{155}$                              | 4.1718±0.0027                | 0.05±0.02        | 0.72±0.16                | 8.0   |
| $f_{78}$                               | 0.6911±0.0020                | 0.08±0.02        | -0.50±0.12               | 14.3  | $f_{156}$                              | 5.7032±0.0028                | 0.05±0.02        | -1.12±0.17               | 7.7   |
| $f_{79}$                               | 2.3503±0.0020                | 0.08±0.02        | 1.87±0.12                | 14.2  | $f_{157}$                              | 4.5135±0.0028                | 0.06±0.02        | 1.15±0.17                | 7.6   |
| $f_{80}$                               | 1.6008±0.0020                | 0.07±0.02        | 1.53±0.12                | 13.9  | $f_{158}$                              | 9.8902±0.0028                | 0.05±0.02        | -2.70±0.17               | 7.6   |
| $f_{81}$                               | 0.4760±0.0021                | 0.08±0.02        | -1.97±0.13               | 13.2  | $f_{159}$                              | 0.8855±0.0028                | 0.06±0.02        | -2.61±0.17               | 7.6   |
| $f_{82}$                               | 7.1946±0.0021                | 0.08±0.02        | 1.46±0.13                | 13.2  | $f_{160}$                              | 0.8130±0.0027                | 0.06±0.02        | -0.41±0.17               | 7.8   |
| $f_{83}$                               | 3.7180±0.0021                | 0.07±0.02        | -2.89±0.13               | 13.3  | $f_{161}$                              | 3.5912±0.0028                | 0.06±0.02        | 2.55±0.17                | 7.5   |



## Appendix E. Frequencies of individual Hybrid Candidate Stars

| Frequency list of 0102761327 continued |                              |                  |                          |       | Frequency list of 0102780330 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| <i>f</i> <sub>162</sub>                | 0.1404±0.0028                | 0.06±0.02        | 1.97±0.17                | 7.4   | <i>f</i> <sub>38</sub>                 | 8.8753±0.0025                | 0.11±0.04        | -1.14±0.16               | 9.0   |
| <i>f</i> <sub>163</sub>                | 1.1119±0.0028                | 0.05±0.02        | 1.76±0.17                | 7.5   | <i>f</i> <sub>39</sub>                 | 0.1061±0.0026                | 0.10±0.03        | 1.12±0.16                | 8.8   |
| <i>f</i> <sub>164</sub>                | 2.6031±0.0028                | 0.06±0.02        | 1.03±0.17                | 7.4   | <i>f</i> <sub>40</sub>                 | 16.3909±0.0026               | 0.10±0.03        | 0.51±0.16                | 8.4   |
| <i>f</i> <sub>165</sub>                | 5.2749±0.0028                | 0.06±0.02        | -2.11±0.17               | 7.4   | <i>f</i> <sub>41</sub>                 | 4.9370±0.0027                | 0.10±0.03        | -2.44±0.16               | 8.2   |
| <i>f</i> <sub>167</sub>                | 1.9693±0.0028                | 0.05±0.02        | -1.48±0.17               | 7.3   | <i>f</i> <sub>42</sub>                 | 1.9073±0.0027                | 0.10±0.04        | 1.63±0.17                | 7.9   |
| <i>f</i> <sub>168</sub>                | 5.3896±0.0028                | 0.05±0.02        | 1.84±0.17                | 7.2   | <i>f</i> <sub>43</sub>                 | 0.8918±0.0028                | 0.10±0.04        | -2.32±0.17               | 7.6   |
| <i>f</i> <sub>169</sub>                | 5.0556±0.0029                | 0.05±0.02        | 0.39±0.17                | 7.1   | <i>f</i> <sub>44</sub>                 | 0.9937±0.0027                | 0.10±0.04        | 2.61±0.16                | 8.0   |
| <i>f</i> <sub>170</sub>                | 6.2271±0.0028                | 0.05±0.02        | -0.49±0.17               | 7.2   | <i>f</i> <sub>45</sub>                 | 3.9884±0.0027                | 0.10±0.04        | 1.92±0.17                | 7.8   |
| <i>f</i> <sub>171</sub>                | 3.8015±0.0028                | 0.06±0.02        | -3.04±0.17               | 7.3   | <i>f</i> <sub>46</sub>                 | 2.1383±0.0027                | 0.10±0.04        | 0.22±0.17                | 7.9   |
| <i>f</i> <sub>172</sub>                | 9.7174±0.0029                | 0.05±0.02        | -0.66±0.17               | 7.1   | <i>f</i> <sub>47</sub>                 | 0.1781±0.0027                | 0.10±0.04        | 0.68±0.17                | 7.8   |
| <i>f</i> <sub>177</sub>                | 6.1772±0.0028                | 0.05±0.02        | -0.11±0.17               | 7.3   | <i>f</i> <sub>49</sub>                 | 0.4127±0.0028                | 0.10±0.04        | -1.26±0.17               | 7.3   |
| <i>f</i> <sub>178</sub>                | 1.5696±0.0029                | 0.05±0.02        | 0.02±0.18                | 7.0   | <i>f</i> <sub>50</sub>                 | 1.4238±0.0028                | 0.10±0.04        | -2.48±0.17               | 7.4   |
| <i>f</i> <sub>179</sub>                | 8.5131±0.0029                | 0.05±0.02        | 1.80±0.18                | 7.0   | <i>f</i> <sub>51</sub>                 | 0.5958±0.0028                | 0.10±0.04        | -1.07±0.17               | 7.6   |
| <i>f</i> <sub>180</sub>                | 3.2715±0.0029                | 0.05±0.02        | -1.74±0.18               | 6.9   | <i>f</i> <sub>52</sub>                 | 0.2458±0.0030                | 0.09±0.04        | -2.34±0.18               | 6.5   |
| <i>f</i> <sub>181</sub>                | 6.0421±0.0029                | 0.05±0.02        | -2.24±0.18               | 6.9   | <i>f</i> <sub>53</sub>                 | 0.5438±0.0030                | 0.08±0.03        | -1.93±0.19               | 6.3   |
| <i>f</i> <sub>182</sub>                | 5.0646±0.0029                | 0.05±0.02        | 1.77±0.18                | 6.9   | <i>f</i> <sub>54</sub>                 | 0.1220±0.0028                | 0.11±0.04        | 0.84±0.17                | 7.6   |
| <i>f</i> <sub>183</sub>                | 5.5195±0.0029                | 0.05±0.02        | -0.47±0.18               | 6.9   | <i>f</i> <sub>55</sub>                 | 0.7911±0.0031                | 0.09±0.04        | 0.07±0.19                | 6.2   |
| <i>f</i> <sub>184</sub>                | 2.8847±0.0029                | 0.05±0.02        | -0.95±0.18               | 6.8   | <i>f</i> <sub>56</sub>                 | 1.1042±0.0031                | 0.09±0.04        | -2.50±0.19               | 6.2   |
| <i>f</i> <sub>187</sub>                | 4.3863±0.0029                | 0.05±0.02        | -0.33±0.18               | 6.8   | <i>f</i> <sub>57</sub>                 | 0.2577±0.0031                | 0.09±0.04        | -2.17±0.19               | 6.2   |
| <i>f</i> <sub>188</sub>                | 1.2536±0.0029                | 0.05±0.02        | 0.02±0.18                | 6.8   | <i>f</i> <sub>58</sub>                 | 7.8613±0.0031                | 0.09±0.04        | 2.44±0.19                | 5.9   |
| <i>f</i> <sub>189</sub>                | 0.9725±0.0029                | 0.05±0.02        | -0.59±0.18               | 6.7   | <i>f</i> <sub>59</sub>                 | 2.9322±0.0032                | 0.08±0.03        | 1.40±0.20                | 5.7   |
| <i>f</i> <sub>190</sub>                | 11.1408±0.0030               | 0.05±0.02        | -2.88±0.18               | 6.6   | <i>f</i> <sub>60</sub>                 | 7.3494±0.0033                | 0.08±0.03        | 2.11±0.20                | 5.5   |
| <i>f</i> <sub>191</sub>                | 1.2056±0.0029                | 0.05±0.02        | -0.94±0.18               | 6.7   | <i>f</i> <sub>61</sub>                 | 2.3253±0.0033                | 0.08±0.03        | -3.14±0.20               | 5.4   |
| <i>f</i> <sub>192</sub>                | 3.4408±0.0029                | 0.05±0.02        | -0.97±0.18               | 6.8   | <i>f</i> <sub>62</sub>                 | 0.4973±0.0032                | 0.09±0.04        | 2.79±0.20                | 5.6   |
| <i>f</i> <sub>193</sub>                | 3.5685±0.0029                | 0.05±0.02        | 2.51±0.18                | 6.8   | <i>f</i> <sub>63</sub>                 | 0.3863±0.0033                | 0.08±0.03        | 0.97±0.20                | 5.3   |
| <i>f</i> <sub>194</sub>                | 5.2590±0.0029                | 0.05±0.02        | 1.88±0.18                | 6.7   | <i>f</i> <sub>64</sub>                 | 5.0213±0.0033                | 0.08±0.03        | -0.85±0.20               | 5.3   |
| <i>f</i> <sub>195</sub>                | 6.5147±0.0030                | 0.05±0.02        | -2.48±0.18               | 6.6   | <i>f</i> <sub>65</sub>                 | 0.8486±0.0034                | 0.08±0.04        | -1.03±0.21               | 5.0   |
| <i>f</i> <sub>196</sub>                | 9.7520±0.0030                | 0.05±0.02        | -2.18±0.18               | 6.6   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>197</sub>                | 3.7369±0.0030                | 0.05±0.02        | -2.25±0.18               | 6.6   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>198</sub>                | 2.8256±0.0030                | 0.05±0.02        | -1.49±0.18               | 6.6   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>199</sub>                | 5.4717±0.0030                | 0.05±0.02        | -0.59±0.18               | 6.4   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>200</sub>                | 1.0565±0.0030                | 0.05±0.02        | 1.27±0.19                | 6.3   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>201</sub>                | 7.0341±0.0031                | 0.05±0.02        | -0.74±0.19               | 6.2   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>202</sub>                | 5.9645±0.0031                | 0.05±0.02        | 1.37±0.19                | 6.2   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>203</sub>                | 6.1205±0.0030                | 0.05±0.02        | -1.31±0.18               | 6.5   |                                        |                              |                  |                          |       |
| <i>f</i> <sub>204</sub>                | 5.9839±0.0031                | 0.05±0.02        | 2.32±0.19                | 6.2   |                                        |                              |                  |                          |       |

**Table E.49:** Frequency list of 0102780330

| Frequency ID           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|------------------------|------------------------------|------------------|--------------------------|-------|
| <i>f</i> <sub>1</sub>  | 6.2600±0.0003                | 1.19±0.05        | 1.09±0.02                | 574.3 |
| <i>f</i> <sub>2</sub>  | 0.9365±0.0006                | 0.55±0.05        | 1.62±0.04                | 147.8 |
| <i>f</i> <sub>3</sub>  | 4.8748±0.0006                | 0.53±0.04        | -2.62±0.04               | 142.7 |
| <i>f</i> <sub>4</sub>  | 0.2093±0.0008                | 0.39±0.04        | -0.58±0.05               | 91.7  |
| <i>f</i> <sub>5</sub>  | 0.1471±0.0009                | 0.22±0.03        | -0.09±0.06               | 65.6  |
| <i>f</i> <sub>6</sub>  | 0.1237±0.0010                | 0.37±0.05        | 2.49±0.06                | 61.6  |
| <i>f</i> <sub>7</sub>  | 0.1295±0.0011                | 0.31±0.05        | -1.43±0.07               | 45.0  |
| <i>f</i> <sub>8</sub>  | 0.1610±0.0011                | 0.27±0.04        | 1.63±0.07                | 49.3  |
| <i>f</i> <sub>9</sub>  | 1.2568±0.0012                | 0.24±0.04        | -1.67±0.08               | 37.8  |
| <i>f</i> <sub>10</sub> | 5.0021±0.0012                | 0.24±0.04        | -1.63±0.07               | 39.1  |
| <i>f</i> <sub>11</sub> | 0.1372±0.0012                | 0.24±0.04        | -2.37±0.07               | 38.7  |
| <i>f</i> <sub>12</sub> | 0.1680±0.0012                | 0.20±0.03        | -1.01±0.08               | 38.6  |
| <i>f</i> <sub>13</sub> | 5.7065±0.0013                | 0.23±0.04        | -0.17±0.08               | 34.8  |
| <i>f</i> <sub>14</sub> | 0.2779±0.0013                | 0.21±0.04        | 2.08±0.08                | 33.3  |
| <i>f</i> <sub>15</sub> | 1.7189±0.0015                | 0.20±0.04        | 1.94±0.09                | 26.8  |
| <i>f</i> <sub>16</sub> | 7.9777±0.0016                | 0.18±0.04        | 1.42±0.10                | 22.3  |
| <i>f</i> <sub>17</sub> | 0.3951±0.0017                | 0.16±0.03        | 2.97±0.10                | 21.1  |
| <i>f</i> <sub>18</sub> | 0.2852±0.0017                | 0.16±0.04        | -0.98±0.11               | 19.4  |
| <i>f</i> <sub>19</sub> | 10.1335±0.0017               | 0.17±0.04        | -1.26±0.10               | 19.8  |
| <i>f</i> <sub>20</sub> | 1.0661±0.0017                | 0.16±0.04        | 1.78±0.10                | 19.9  |
| <i>f</i> <sub>21</sub> | 0.1945±0.0017                | 0.15±0.03        | -0.59±0.11               | 19.3  |
| <i>f</i> <sub>23</sub> | 7.4486±0.0019                | 0.15±0.04        | 0.79±0.12                | 16.0  |
| <i>f</i> <sub>24</sub> | 6.6038±0.0019                | 0.15±0.04        | -2.95±0.12               | 15.9  |
| <i>f</i> <sub>25</sub> | 12.5205±0.0021               | 0.13±0.04        | -0.53±0.13               | 13.2  |
| <i>f</i> <sub>26</sub> | 2.2705±0.0022                | 0.14±0.04        | -2.01±0.14               | 11.8  |
| <i>f</i> <sub>27</sub> | 0.2688±0.0023                | 0.14±0.04        | 0.77±0.14                | 11.5  |
| <i>f</i> <sub>28</sub> | 1.3903±0.0023                | 0.13±0.04        | 1.85±0.14                | 11.1  |
| <i>f</i> <sub>29</sub> | 10.0862±0.0023               | 0.12±0.04        | -1.93±0.14               | 10.9  |
| <i>f</i> <sub>30</sub> | 0.1546±0.0023                | 0.13±0.04        | 1.84±0.14                | 10.9  |
| <i>f</i> <sub>31</sub> | 1.4498±0.0023                | 0.12±0.04        | 0.92±0.14                | 10.9  |
| <i>f</i> <sub>32</sub> | 0.2190±0.0024                | 0.10±0.03        | 0.78±0.15                | 10.2  |
| <i>f</i> <sub>33</sub> | 0.5063±0.0024                | 0.12±0.04        | 2.21±0.15                | 10.2  |
| <i>f</i> <sub>34</sub> | 2.1761±0.0024                | 0.12±0.04        | 0.81±0.15                | 10.2  |
| <i>f</i> <sub>35</sub> | 0.5129±0.0024                | 0.12±0.04        | -0.34±0.15               | 10.0  |
| <i>f</i> <sub>36</sub> | 0.3498±0.0025                | 0.11±0.04        | 1.56±0.15                | 9.7   |
| <i>f</i> <sub>37</sub> | 0.9714±0.0025                | 0.11±0.04        | 0.78±0.15                | 9.3   |

Frequency list of 0102780330 continued

**Table E.50:** Frequency list of 0102782919

| Frequency ID           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|------------------------|------------------------------|------------------|--------------------------|-------|
| <i>f</i> <sub>1</sub>  | 20.2540±0.0007               | 0.32±0.03        | -0.76±0.04               | 116.7 |
| <i>f</i> <sub>2</sub>  | 18.5613±0.0008               | 0.27±0.03        | -2.63±0.05               | 84.6  |
| <i>f</i> <sub>4</sub>  | 14.9995±0.0009               | 0.23±0.03        | -3.03±0.06               | 67.8  |
| <i>f</i> <sub>5</sub>  | 0.1686±0.0010                | 0.19±0.03        | -2.17±0.06               | 56.8  |
| <i>f</i> <sub>6</sub>  | 13.7771±0.0010               | 0.20±0.03        | 1.26±0.06                | 56.0  |
| <i>f</i> <sub>7</sub>  | 17.4193±0.0010               | 0.20±0.03        | -1.82±0.06               | 54.9  |
| <i>f</i> <sub>11</sub> | 0.1041±0.0012                | 0.15±0.02        | 0.23±0.07                | 40.2  |
| <i>f</i> <sub>12</sub> | 0.2526±0.0013                | 0.16±0.03        | -0.91±0.08               | 34.4  |
| <i>f</i> <sub>13</sub> | 0.3369±0.0013                | 0.14±0.02        | 1.17±0.08                | 33.5  |
| <i>f</i> <sub>14</sub> | 0.2928±0.0013                | 0.15±0.03        | 0.70±0.08                | 32.1  |
| <i>f</i> <sub>15</sub> | 0.1989±0.0015                | 0.14±0.03        | -2.03±0.09               | 26.2  |
| <i>f</i> <sub>17</sub> | 0.1206±0.0015                | 0.12±0.02        | 0.19±0.09                | 24.7  |
| <i>f</i> <sub>18</sub> | 20.0038±0.0016               | 0.12±0.02        | -1.64±0.10               | 23.7  |
| <i>f</i> <sub>19</sub> | 21.4732±0.0016               | 0.12±0.03        | 1.69±0.10                | 21.5  |
| <i>f</i> <sub>20</sub> | 0.1456±0.0017                | 0.13±0.03        | 2.19±0.10                | 20.6  |
| <i>f</i> <sub>21</sub> | 0.3188±0.0017                | 0.11±0.03        | 0.58±0.11                | 19.2  |
| <i>f</i> <sub>22</sub> | 0.2384±0.0018                | 0.11±0.03        | 2.61±0.11                | 17.6  |
| <i>f</i> <sub>25</sub> | 2.1283±0.0020                | 0.09±0.02        | 1.44±0.12                | 14.7  |
| <i>f</i> <sub>26</sub> | 0.1571±0.0020                | 0.08±0.02        | -1.62±0.12               | 14.0  |
| <i>f</i> <sub>27</sub> | 16.0584±0.0021               | 0.09±0.02        | -2.04±0.13               | 13.8  |
| <i>f</i> <sub>28</sub> | 1.7259±0.0021                | 0.09±0.02        | 1.20±0.13                | 13.5  |
| <i>f</i> <sub>30</sub> | 0.2098±0.0021                | 0.10±0.03        | 3.10±0.13                | 13.3  |
| <i>f</i> <sub>33</sub> | 0.3713±0.0021                | 0.08±0.02        | 0.68±0.13                | 12.9  |
| <i>f</i> <sub>34</sub> | 20.9026±0.0021               | 0.09±0.02        | 0.54±0.13                | 13.2  |
| <i>f</i> <sub>36</sub> | 0.1381±0.0022                | 0.09±0.03        | 0.30±0.13                | 12.5  |
| <i>f</i> <sub>37</sub> | 22.9484±0.0022               | 0.08±0.02        | -3.08±0.13               | 12.3  |
| <i>f</i> <sub>39</sub> | 22.0794±0.0023               | 0.08±0.02        | 2.52±0.14                | 11.1  |
| <i>f</i> <sub>41</sub> | 17.4656±0.0024               | 0.08±0.02        | -0.46±0.14               | 10.5  |
| <i>f</i> <sub>42</sub> | 0.2212±0.0024                | 0.07±0.02        | -1.72±0.14               | 10.5  |
| <i>f</i> <sub>43</sub> | 0.1135±0.0024                | 0.08±0.02        | 0.19±0.14                | 10.4  |
| <i>f</i> <sub>44</sub> | 0.1836±0.0024                | 0.07±0.02        | 2.66±0.15                | 9.9   |
| <i>f</i> <sub>46</sub> | 0.4138±0.0024                | 0.08±0.03        | -3.07±0.15               | 9.9   |
| <i>f</i> <sub>47</sub> | 0.2845±0.0025                | 0.08±0.03        | -3.12±0.15               | 9.4   |
| <i>f</i> <sub>49</sub> | 15.0922±0.0025               | 0.07±0.02        | -1.80±0.15               | 9.6   |
| <i>f</i> <sub>50</sub> | 0.2712±0.0026                | 0.08±0.03        | -2.64±0.16               | 8.7   |
| <i>f</i> <sub>51</sub> | 0.2614±0.0026                | 0.07±0.02        | -1.01±0.16               | 8.8   |
| <i>f</i> <sub>52</sub> | 0.5295±0.0026                | 0.07±0.02        | -1.53±0.16               | 8.5   |
| <i>f</i> <sub>53</sub> | 0.3632±0.0026                | 0.07±0.02        | 2.01±0.16                | 8.6   |
| <i>f</i> <sub>55</sub> | 55.8631±0.0029               | 0.06±0.02        | -0.49±0.17               | 7.1   |
| <i>f</i> <sub>58</sub> | 0.7948±0.0029                | 0.06±0.02        | 0.27±0.18                | 6.8   |
| <i>f</i> <sub>59</sub> | 0.4785±0.0031                | 0.06±0.02        | -1.11±0.19               | 6.0   |
| <i>f</i> <sub>60</sub> | 5.1859±0.0031                | 0.06±0.02        | 2.96±0.19                | 6.1   |

**Table E.51:** Frequency list of 0102791134

| Frequency ID          | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign.  |
|-----------------------|------------------------------|------------------|--------------------------|--------|
| <i>f</i> <sub>1</sub> | 11.0098±0.0001               | 13.69±0.27       | -0.25±0.01               | 2602.6 |

Frequency list of 0102791134 continued

## Appendix E. Frequencies of individual Hybrid Candidate Stars

| Frequency list of 0102791134 continued |                              |                  |                          |       | Frequency list of 0102791134 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. | Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_2$                                  | 5.8788±0.0003                | 5.05±0.17        | -1.99±0.02               | 886.8 | $f_{130}$                              | 0.9482±0.0027                | 0.23±0.08        | -2.91±0.17               | 7.9   |
| $f_3$                                  | 8.7469±0.0003                | 3.29±0.15        | -1.81±0.02               | 476.9 | $f_{135}$                              | 1.0078±0.0026                | 0.24±0.08        | 0.03±0.16                | 8.6   |
| $f_4$                                  | 4.9862±0.0004                | 2.86±0.14        | -0.36±0.02               | 398.5 | $f_{139}$                              | 4.0115±0.0026                | 0.33±0.11        | -2.34±0.16               | 8.4   |
| $f_5$                                  | 9.2884±0.0005                | 1.99±0.13        | 0.63±0.03                | 227.6 | $f_{142}$                              | 7.4956±0.0027                | 0.23±0.08        | 0.60±0.16                | 8.2   |
| $f_6$                                  | 5.1624±0.0005                | 1.93±0.13        | -1.16±0.03               | 226.3 | $f_{143}$                              | 8.5279±0.0027                | 0.23±0.08        | -0.70±0.16               | 8.1   |
| $f_7$                                  | 5.1078±0.0005                | 1.82±0.12        | -0.97±0.03               | 214.6 | $f_{145}$                              | 7.1038±0.0027                | 0.22±0.08        | -0.60±0.17               | 7.8   |
| $f_9$                                  | 11.6997±0.0007               | 1.40±0.12        | -0.93±0.04               | 134.4 | $f_{148}$                              | 11.6129±0.0028               | 0.22±0.08        | -2.89±0.17               | 7.7   |
| $f_{10}$                               | 4.3486±0.0008                | 1.21±0.12        | -2.73±0.05               | 99.6  | $f_{149}$                              | 4.7184±0.0028                | 0.22±0.08        | 2.51±0.17                | 7.7   |
| $f_{11}$                               | 7.7660±0.0008                | 1.03±0.11        | 0.59±0.05                | 84.7  | $f_{150}$                              | 10.5391±0.0027               | 0.22±0.08        | -2.44±0.17               | 7.8   |
| $f_{12}$                               | 8.2233±0.0008                | 1.03±0.11        | 0.30±0.05                | 83.6  | $f_{151}$                              | 4.8551±0.0028                | 0.21±0.08        | 1.95±0.17                | 7.4   |
| $f_{16}$                               | 4.5608±0.0009                | 0.97±0.11        | -0.02±0.05               | 72.4  | $f_{156}$                              | 16.2226±0.0028               | 0.21±0.08        | -2.49±0.17               | 7.2   |
| $f_{17}$                               | 0.9139±0.0009                | 0.84±0.10        | 2.64±0.05                | 73.8  | $f_{157}$                              | 9.1184±0.0028                | 0.22±0.08        | 2.52±0.17                | 7.3   |
| $f_{18}$                               | 7.7762±0.0009                | 0.92±0.11        | -0.22±0.06               | 68.3  | $f_{160}$                              | 7.8955±0.0029                | 0.20±0.08        | 1.97±0.18                | 7.0   |
| $f_{19}$                               | 3.2335±0.0009                | 0.87±0.11        | -0.38±0.06               | 65.9  | $f_{161}$                              | 8.1048±0.0029                | 0.21±0.08        | -0.86±0.17               | 7.1   |
| $f_{20}$                               | 5.5349±0.0010                | 0.85±0.11        | -1.82±0.06               | 63.6  | $f_{162}$                              | 7.2882±0.0029                | 0.21±0.08        | 0.53±0.18                | 6.9   |
| $f_{22}$                               | 9.1953±0.0011                | 0.71±0.10        | -2.07±0.07               | 48.6  | $f_{164}$                              | 12.8730±0.0029               | 0.21±0.08        | -1.91±0.18               | 6.8   |
| $f_{23}$                               | 6.2086±0.0011                | 0.75±0.11        | 2.09±0.07                | 47.2  | $f_{165}$                              | 1.9810±0.0029                | 0.20±0.08        | -2.71±0.18               | 6.8   |
| $f_{24}$                               | 7.2277±0.0012                | 0.64±0.10        | -0.51±0.07               | 43.3  | $f_{167}$                              | 15.1484±0.0029               | 0.20±0.08        | 2.76±0.18                | 6.7   |
| $f_{26}$                               | 2.0060±0.0012                | 2.63±0.41        | -0.50±0.07               | 40.5  | $f_{173}$                              | 8.2041±0.0030                | 0.20±0.08        | 1.38±0.18                | 6.6   |
| $f_{37}$                               | 7.1286±0.0013                | 0.57±0.10        | -0.31±0.08               | 35.8  | $f_{175}$                              | 1.1620±0.0030                | 0.20±0.08        | -1.24±0.18               | 6.4   |
| $f_{38}$                               | 10.7592±0.0013               | 0.59±0.10        | -0.08±0.08               | 35.4  | $f_{176}$                              | 16.4616±0.0030               | 0.20±0.08        | 0.96±0.18                | 6.5   |
| $f_{39}$                               | 13.9051±0.0013               | 0.54±0.09        | 1.16±0.08                | 33.7  | $f_{177}$                              | 8.4683±0.0030                | 0.20±0.08        | 1.21±0.18                | 6.6   |
| $f_{42}$                               | 9.8478±0.0014                | 0.53±0.10        | -1.68±0.09               | 28.6  | $f_{178}$                              | 15.5436±0.0030               | 0.19±0.08        | 1.10±0.19                | 6.3   |
| $f_{43}$                               | 12.1807±0.0015               | 0.49±0.09        | 0.76±0.09                | 27.7  | $f_{179}$                              | 20.6766±0.0030               | 0.20±0.08        | -2.36±0.18               | 6.4   |
| $f_{44}$                               | 9.3716±0.0015                | 0.51±0.10        | -0.13±0.09               | 27.6  | $f_{180}$                              | 8.0195±0.0031                | 0.19±0.08        | 3.10±0.19                | 6.1   |
| $f_{45}$                               | 0.9034±0.0015                | 0.50±0.10        | 2.01±0.09                | 27.4  | $f_{181}$                              | 11.9436±0.0031               | 0.19±0.08        | -2.16±0.19               | 6.0   |
| $f_{46}$                               | 13.6767±0.0015               | 0.49±0.10        | 3.07±0.09                | 25.4  |                                        |                              |                  |                          |       |
| $f_{47}$                               | 10.0470±0.0016               | 0.47±0.10        | 1.88±0.10                | 23.8  |                                        |                              |                  |                          |       |
| $f_{48}$                               | 11.2432±0.0017               | 0.43±0.09        | 3.12±0.10                | 21.4  |                                        |                              |                  |                          |       |
| $f_{49}$                               | 10.8871±0.0017               | 0.44±0.10        | -2.03±0.10               | 21.4  |                                        |                              |                  |                          |       |
| $f_{51}$                               | 8.5119±0.0018                | 0.41±0.09        | 0.83±0.11                | 18.8  |                                        |                              |                  |                          |       |
| $f_{52}$                               | 19.7569±0.0018               | 0.40±0.09        | -1.68±0.11               | 18.4  |                                        |                              |                  |                          |       |
| $f_{53}$                               | 16.4013±0.0018               | 0.38±0.09        | 2.05±0.11                | 17.7  |                                        |                              |                  |                          |       |
| $f_{54}$                               | 9.6683±0.0018                | 0.37±0.09        | -2.35±0.11               | 17.7  |                                        |                              |                  |                          |       |
| $f_{55}$                               | 17.0034±0.0019               | 0.39±0.09        | -2.88±0.11               | 17.0  |                                        |                              |                  |                          |       |
| $f_{56}$                               | 10.0555±0.0019               | 0.36±0.09        | 2.63±0.11                | 16.9  |                                        |                              |                  |                          |       |
| $f_{57}$                               | 22.0194±0.0018               | 0.36±0.09        | -2.55±0.11               | 17.2  |                                        |                              |                  |                          |       |
| $f_{58}$                               | 11.8182±0.0019               | 0.36±0.09        | -2.67±0.12               | 16.1  |                                        |                              |                  |                          |       |
| $f_{59}$                               | 14.1947±0.0019               | 0.37±0.09        | 1.98±0.12                | 16.1  |                                        |                              |                  |                          |       |
| $f_{60}$                               | 7.3909±0.0019                | 0.38±0.10        | -1.64±0.12               | 16.0  |                                        |                              |                  |                          |       |
| $f_{61}$                               | 8.8682±0.0019                | 0.34±0.09        | 3.13±0.12                | 15.7  |                                        |                              |                  |                          |       |
| $f_{64}$                               | 9.2294±0.0019                | 0.33±0.08        | 2.05±0.12                | 15.5  |                                        |                              |                  |                          |       |
| $f_{66}$                               | 8.6961±0.0020                | 0.34±0.09        | 1.43±0.12                | 14.5  |                                        |                              |                  |                          |       |
| $f_{67}$                               | 10.5818±0.0020               | 0.36±0.09        | 2.73±0.12                | 14.5  |                                        |                              |                  |                          |       |
| $f_{68}$                               | 3.7022±0.0021                | 0.33±0.09        | -2.04±0.13               | 13.8  |                                        |                              |                  |                          |       |
| $f_{71}$                               | 6.0137±0.0020                | 0.36±0.10        | 2.44±0.12                | 14.2  |                                        |                              |                  |                          |       |
| $f_{72}$                               | 8.8155±0.0020                | 0.34±0.09        | 2.42±0.12                | 14.2  |                                        |                              |                  |                          |       |
| $f_{73}$                               | 7.8488±0.0020                | 0.33±0.09        | -1.26±0.12               | 13.9  |                                        |                              |                  |                          |       |
| $f_{74}$                               | 4.1343±0.0021                | 0.30±0.08        | 2.12±0.13                | 13.4  |                                        |                              |                  |                          |       |
| $f_{75}$                               | 15.5694±0.0021               | 0.32±0.09        | -1.09±0.13               | 12.7  |                                        |                              |                  |                          |       |
| $f_{77}$                               | 14.5139±0.0021               | 0.32±0.09        | -1.62±0.13               | 12.8  |                                        |                              |                  |                          |       |
| $f_{83}$                               | 11.0098±0.0018               | 0.42±0.10        | -2.04±0.11               | 17.5  |                                        |                              |                  |                          |       |
| $f_{88}$                               | 10.3430±0.0021               | 0.31±0.09        | 1.63±0.13                | 13.0  |                                        |                              |                  |                          |       |
| $f_{93}$                               | 9.0214±0.0021                | 0.29±0.08        | 2.20±0.13                | 12.8  |                                        |                              |                  |                          |       |
| $f_{94}$                               | 19.6348±0.0022               | 0.30±0.09        | 0.04±0.13                | 12.4  |                                        |                              |                  |                          |       |
| $f_{96}$                               | 13.3575±0.0022               | 0.28±0.08        | 2.84±0.13                | 12.4  |                                        |                              |                  |                          |       |
| $f_{98}$                               | 4.0883±0.0023                | 0.28±0.08        | -1.56±0.14               | 11.3  |                                        |                              |                  |                          |       |
| $f_{99}$                               | 1.8124±0.0023                | 0.28±0.09        | 2.73±0.14                | 10.7  |                                        |                              |                  |                          |       |
| $f_{100}$                              | 7.5808±0.0024                | 0.27±0.08        | 0.80±0.14                | 10.5  |                                        |                              |                  |                          |       |
| $f_{102}$                              | 13.7666±0.0024               | 0.27±0.08        | -0.53±0.14               | 10.4  |                                        |                              |                  |                          |       |
| $f_{103}$                              | 2.5573±0.0024                | 0.27±0.08        | -3.02±0.14               | 10.5  |                                        |                              |                  |                          |       |
| $f_{104}$                              | 13.2929±0.0024               | 0.27±0.08        | -1.45±0.15               | 10.1  |                                        |                              |                  |                          |       |
| $f_{106}$                              | 0.2100±0.0024                | 0.27±0.08        | 1.57±0.15                | 10.1  |                                        |                              |                  |                          |       |
| $f_{107}$                              | 12.7593±0.0023               | 0.27±0.08        | -2.85±0.14               | 11.0  |                                        |                              |                  |                          |       |
| $f_{108}$                              | 15.6837±0.0024               | 0.27±0.08        | -2.61±0.15               | 10.1  |                                        |                              |                  |                          |       |
| $f_{109}$                              | 1.8575±0.0024                | 0.27±0.08        | 2.16±0.15                | 10.1  |                                        |                              |                  |                          |       |
| $f_{112}$                              | 13.5004±0.0025               | 0.27±0.09        | 2.05±0.15                | 9.7   |                                        |                              |                  |                          |       |
| $f_{116}$                              | 1.7973±0.0025                | 0.26±0.08        | -0.34±0.15               | 9.5   |                                        |                              |                  |                          |       |
| $f_{117}$                              | 2.0085±0.0025                | 0.40±0.13        | 2.09±0.15                | 9.5   |                                        |                              |                  |                          |       |
| $f_{119}$                              | 6.4397±0.0026                | 0.24±0.08        | -1.75±0.16               | 8.7   |                                        |                              |                  |                          |       |
| $f_{123}$                              | 6.0549±0.0026                | 0.24±0.08        | 1.17±0.16                | 8.4   |                                        |                              |                  |                          |       |
| $f_{124}$                              | 20.2986±0.0026               | 0.24±0.08        | -3.10±0.16               | 8.3   |                                        |                              |                  |                          |       |
| $f_{125}$                              | 0.1250±0.0027                | 0.25±0.09        | 0.75±0.16                | 8.2   |                                        |                              |                  |                          |       |
| $f_{126}$                              | 11.3336±0.0027               | 0.23±0.08        | -2.64±0.16               | 8.1   |                                        |                              |                  |                          |       |
| $f_{127}$                              | 12.8434±0.0027               | 0.22±0.08        | 0.90±0.16                | 8.0   |                                        |                              |                  |                          |       |
| $f_{128}$                              | 10.0407±0.0027               | 0.24±0.08        | -2.13±0.16               | 8.0   |                                        |                              |                  |                          |       |
| Frequency list of 0102791134 continued |                              |                  |                          |       | Frequency list of 0102792697 continued |                              |                  |                          |       |

**Table E.52:** Frequency list of 0102792697

| Frequency ID | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
|--------------|------------------------------|------------------|--------------------------|-------|
| $f_1$        | 34.7433±0.0003               | 0.27±0.01        | -2.01±0.02               | 533.9 |
| $f_2$        | 14.4637±0.0005               | 0.16±0.01        | 2.06±0.03                | 201.0 |
| $f_3$        | 15.2477±0.0007               | 0.12±0.01        | -2.39±0.04               | 127.1 |
| $f_4$        | 0.1017±0.0007                | 0.09±0.01        | 1.10±0.04                | 130.4 |
| $f_5$        | 26.1323±0.0007               | 0.10±0.01        | -2.06±0.05               | 103.7 |
| $f_6$        | 0.1515±0.0008                | 0.09±0.01        | 1.66±0.05                | 103.5 |
| $f_7$        | 26.1409±0.0009               | 0.08±0.01        | 2.02±0.06                | 69.2  |
| $f_8$        | 0.1999±0.0009                | 0.09±0.01        | 2.05±0.06                | 68.1  |
| $f_9$        | 10.9270±0.0009               | 0.08±0.01        | 1.38±0.06                | 68.6  |
| $f_{10}$     | 0.3147±0.0010                | 0.07±0.01        | -2.29±0.06               | 63.5  |
| $f_{11}$     | 0.2304±0.0010                | 0.07±0.01        | 2.65±0.06                | 62.2  |
| $f_{12}$     | 17.1920±0.0010               | 0.07±0.01        | 1.95±0.06                | 62.9  |
| $f_{13}$     | 0.1117±0.0010                | 0.07±0.01        | 1.67±0.06                | 57.9  |
| $f_{14}$     | 40.9815±0.0010               | 0.07±0.01        | -2.43±0.06               | 56.9  |
| $f_{15}$     | 1.7373±0.0011                | 0.06±0.01        | 2.40±0.07                | 44.3  |
| $f_{16}$     | 18.4461±0.0012               | 0.06±0.01        | -2.18±0.07               | 41.7  |
| $f_{17}$     | 17.5475±0.0012               | 0.06±0.01        | -3.06±0.07               | 41.9  |
| $f_{18}$     | 0.2571±0.0012                | 0.05±0.01        | -2.01±0.08               | 37.7  |
| $f_{19}$     | 0.3238±0.0013                | 0.05±0.01        | 1.50±0.08                | 35.6  |
| $f_{20}$     | 0.4021±0.0014                | 0.06±0.01        | -0.55±0.08               | 31.1  |
| $f_{21}$     | 25.3446±0.0014               | 0.05±0.01        | -2.37±0.08               | 30.5  |
| $f_{22}$     | 0.1403±0.0015                | 0.05±0.01        | 0.63±0.09                | 25.7  |
| $f_{23}$     | 24.2148±0.0015               | 0.04±0.01        | -2.15±0.09               | 25.2  |
| $f_{24}$     | 18.0834±0.0016               | 0.04±0.01        | -1.06±0.10               | 21.7  |
| $f_{25}$     | 0.3858±0.0017                | 0.04±0.01        | -1.27±0.10               | 20.1  |
| $f_{26}$     | 0.2754±0.0016                | 0.04±0.01        | 0.59±0.10                | 21.8  |
| $f_{27}$     | 1.7231±0.0017                | 0.04±0.01        | 1.37±0.10                | 20.2  |
| $f_{28}$     | 52.3098±0.0017               | 0.04±0.01        | -0.77±0.11               | 19.4  |
| $f_{29}$     | 0.3484±0.0017                | 0.04±0.01        | -0.77±0.11               | 19.5  |
| $f_{30}$     | 19.2513±0.0017               | 0.04±0.01        | -2.68±0.11               | 19.1  |
| $f_{31}$     | 0.3334±0.0018                | 0.04±0.01        | -2.42±0.11               | 18.0  |
| $f_{32}$     | 21.1898±0.0018               | 0.04±0.01        | -0.91±0.11               | 18.3  |
| $f_{33}$     | 24.5156±0.0018               | 0.04±0.01        | -1.45±0.11               | 18.6  |
| $f_{34}$     | 45.1006±0.0018               | 0.04±0.01        | -2.88±0.11               | 17.8  |
| $f_{35}$     | 3.4892±0.0018                | 0.03±0.01        | 1.82±0.11                | 17.6  |
| $f_{36}$     | 0.1262±0.0019                | 0.04±0.01        | -3.11±0.12               | 16.1  |
| $f_{37}$     | 0.2102±0.0019                | 0.04±0.01        | -2.07±0.11               | 16.9  |
| $f_{38}$     | 0.1913±0.0017                | 0.04±0.01        | 0.11±0.10                | 19.8  |
| $f_{39}$     | 0.1769±0.0019                | 0.03±0.01        | -2.18±0.12               | 16.1  |
| $f_{40}$     | 20.6088±0.0019               | 0.03±0.01        | -0.01±0.12               | 15.8  |
| $f_{41}$     | 1.6962±0.0019                | 0.03±0.01        | 3.02±0.12                | 15.5  |
| $f_{42}$     | 0.3638±0.0019                | 0.03±0.01        | 2.87±0.12                | 15.5  |
| $f_{43}$     | 15.0988±0.0019               | 0.03±0.01        | 0.84±0.12                | 15.4  |
| $f_{44}$     | 36.4056±0.0020               | 0.03±0.01        | 0.47±0.12                | 15.2  |

## Appendix E. Frequencies of individual Hybrid Candidate Stars

| Frequency list of 0102792697 continued |                              |                  |                          |       |
|----------------------------------------|------------------------------|------------------|--------------------------|-------|
| Frequency ID                           | Frequency [d <sup>-1</sup> ] | Amplitude [mmag] | Phase [- $\pi$ , $\pi$ ] | Sign. |
| $f_{45}$                               | 37.8375±0.0020               | 0.03±0.01        | 2.01±0.12                | 14.4  |
| $f_{46}$                               | 19.7386±0.0020               | 0.03±0.01        | -1.67±0.12               | 14.7  |
| $f_{47}$                               | 3.3928±0.0020                | 0.03±0.01        | 1.97±0.12                | 14.0  |
| $f_{48}$                               | 25.3036±0.0021               | 0.03±0.01        | 1.56±0.13                | 13.4  |
| $f_{49}$                               | 0.7987±0.0021                | 0.03±0.01        | 0.90±0.13                | 13.2  |
| $f_{50}$                               | 0.5551±0.0021                | 0.03±0.01        | -1.75±0.13               | 13.2  |
| $f_{51}$                               | 0.2228±0.0021                | 0.03±0.01        | -0.55±0.13               | 13.4  |
| $f_{52}$                               | 21.7118±0.0021               | 0.03±0.01        | -0.81±0.13               | 12.9  |
| $f_{53}$                               | 17.7755±0.0022               | 0.03±0.01        | 0.82±0.13                | 12.6  |
| $f_{55}$                               | 0.3397±0.0022                | 0.03±0.01        | 2.09±0.13                | 12.4  |
| $f_{56}$                               | 0.3944±0.0021                | 0.03±0.01        | 1.80±0.13                | 12.8  |
| $f_{57}$                               | 2.0043±0.0022                | 0.03±0.01        | -2.75±0.14               | 11.9  |
| $f_{58}$                               | 0.9380±0.0022                | 0.03±0.01        | -2.95±0.14               | 11.9  |
| $f_{59}$                               | 40.9954±0.0022               | 0.03±0.01        | -1.05±0.13               | 12.0  |
| $f_{60}$                               | 3.5178±0.0023                | 0.02±0.01        | -1.30±0.14               | 11.4  |
| $f_{61}$                               | 0.5112±0.0023                | 0.03±0.01        | -0.14±0.14               | 11.2  |
| $f_{62}$                               | 0.7586±0.0023                | 0.03±0.01        | 2.81±0.14                | 11.2  |
| $f_{63}$                               | 35.3408±0.0023               | 0.03±0.01        | 0.98±0.14                | 10.7  |
| $f_{64}$                               | 0.5756±0.0023                | 0.03±0.01        | 1.08±0.14                | 10.6  |
| $f_{65}$                               | 0.7925±0.0023                | 0.02±0.01        | -1.54±0.14               | 10.6  |
| $f_{66}$                               | 0.4701±0.0024                | 0.02±0.01        | 0.65±0.14                | 10.5  |
| $f_{67}$                               | 1.4972±0.0025                | 0.03±0.01        | 0.79±0.15                | 9.3   |
| $f_{69}$                               | 1.2109±0.0026                | 0.02±0.01        | -3.00±0.16               | 8.6   |
| $f_{70}$                               | 0.1329±0.0026                | 0.02±0.01        | -1.08±0.16               | 8.6   |
| $f_{71}$                               | 16.7028±0.0026               | 0.02±0.01        | -1.07±0.16               | 8.5   |
| $f_{72}$                               | 22.2772±0.0026               | 0.02±0.01        | 1.43±0.16                | 8.5   |
| $f_{73}$                               | 0.2418±0.0027                | 0.02±0.01        | 1.17±0.17                | 7.9   |
| $f_{74}$                               | 1.2050±0.0027                | 0.02±0.01        | -0.66±0.16               | 8.0   |
| $f_{75}$                               | 0.5849±0.0027                | 0.02±0.01        | 1.94±0.17                | 7.8   |
| $f_{76}$                               | 26.1944±0.0028               | 0.02±0.01        | -2.93±0.17               | 7.4   |
| $f_{77}$                               | 37.8065±0.0028               | 0.02±0.01        | 0.90±0.17                | 7.6   |
| $f_{78}$                               | 31.8936±0.0028               | 0.02±0.01        | -1.06±0.17               | 7.2   |
| $f_{79}$                               | 0.9162±0.0029                | 0.02±0.01        | -0.28±0.17               | 7.1   |
| $f_{80}$                               | 24.0090±0.0029               | 0.02±0.01        | 1.86±0.18                | 6.9   |
| $f_{81}$                               | 0.7806±0.0028                | 0.02±0.01        | 3.11±0.17                | 7.2   |
| $f_{82}$                               | 29.0966±0.0029               | 0.02±0.01        | 1.87±0.18                | 7.0   |
| $f_{83}$                               | 1.7102±0.0029                | 0.02±0.01        | 0.20±0.18                | 6.9   |
| $f_{84}$                               | 9.5531±0.0029                | 0.02±0.01        | -2.01±0.17               | 7.1   |
| $f_{85}$                               | 1.6551±0.0029                | 0.02±0.01        | 0.03±0.18                | 6.9   |
| $f_{86}$                               | 0.9092±0.0029                | 0.02±0.01        | 1.29±0.18                | 6.7   |
| $f_{87}$                               | 6.8768±0.0030                | 0.02±0.01        | -3.11±0.18               | 6.6   |
| $f_{90}$                               | 1.4563±0.0030                | 0.02±0.01        | -0.15±0.18               | 6.4   |
| $f_{91}$                               | 1.5204±0.0030                | 0.02±0.01        | -1.84±0.18               | 6.6   |
| $f_{92}$                               | 2.6788±0.0030                | 0.02±0.01        | -0.08±0.18               | 6.5   |
| $f_{93}$                               | 0.7026±0.0030                | 0.02±0.01        | -2.34±0.18               | 6.6   |
| $f_{94}$                               | 3.8438±0.0030                | 0.02±0.01        | -2.77±0.18               | 6.4   |
| $f_{95}$                               | 3.4103±0.0030                | 0.02±0.01        | 0.24±0.18                | 6.4   |
| $f_{96}$                               | 0.1603±0.0030                | 0.02±0.01        | 0.01±0.18                | 6.5   |
| $f_{97}$                               | 20.5570±0.0031               | 0.02±0.01        | -1.30±0.19               | 6.1   |
| $f_{98}$                               | 34.7489±0.0030               | 0.02±0.01        | 2.61±0.19                | 6.3   |
| $f_{99}$                               | 6.3177±0.0031                | 0.02±0.01        | -2.12±0.19               | 5.9   |
| $f_{100}$                              | 3.4976±0.0031                | 0.02±0.01        | -1.91±0.19               | 5.9   |
| $f_{101}$                              | 3.2148±0.0030                | 0.02±0.01        | -2.80±0.18               | 6.4   |
| $f_{102}$                              | 3.1175±0.0031                | 0.02±0.01        | 2.32±0.19                | 6.0   |
| $f_{103}$                              | 0.4912±0.0031                | 0.02±0.01        | -1.27±0.19               | 5.9   |
| $f_{104}$                              | 0.2872±0.0032                | 0.02±0.01        | -2.84±0.20               | 5.7   |
| $f_{105}$                              | 0.3787±0.0032                | 0.02±0.01        | 2.81±0.20                | 5.6   |
| $f_{106}$                              | 0.4198±0.0031                | 0.02±0.01        | 2.47±0.19                | 6.0   |
| $f_{107}$                              | 1.4362±0.0032                | 0.02±0.01        | -2.54±0.20               | 5.6   |
| $f_{108}$                              | 1.8109±0.0033                | 0.02±0.01        | -2.90±0.20               | 5.5   |
| $f_{109}$                              | 0.8849±0.0033                | 0.02±0.01        | -1.09±0.20               | 5.5   |
| $f_{113}$                              | 27.4728±0.0032               | 0.02±0.01        | 1.10±0.20                | 5.6   |
| $f_{116}$                              | 0.8339±0.0033                | 0.02±0.01        | -1.51±0.20               | 5.3   |
| $f_{117}$                              | 0.6556±0.0033                | 0.02±0.01        | 1.72±0.20                | 5.2   |
| $f_{118}$                              | 0.8243±0.0033                | 0.02±0.01        | 2.47±0.20                | 5.5   |
| $f_{119}$                              | 3.6653±0.0033                | 0.02±0.01        | -2.79±0.20               | 5.3   |
| $f_{120}$                              | 0.6626±0.0033                | 0.02±0.01        | 0.31±0.20                | 5.4   |
| $f_{121}$                              | 40.5118±0.0034               | 0.02±0.01        | -0.22±0.21               | 5.0   |
| $f_{122}$                              | 26.1263±0.0033               | 0.02±0.01        | -1.77±0.20               | 5.4   |
| $f_{123}$                              | 1.7456±0.0034                | 0.02±0.01        | 2.48±0.21                | 5.0   |

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# Appendix F

## Zusammenfassung

Die Pulsation eines Sterns enthält Information über die physikalischen Bedingungen in seinen tieferen Schichten. Druckmoden (p Moden) laufen durch seine äußeren Schichten, während sich Schwerkraftmoden (g Moden) tief im Inneren der Sterne ausbreiten. Daher sind g Moden besonders interessant, können jedoch nur bei bestimmten Sternen beobachtet werden.  $\gamma$  Dor Sterne oder langsam pulsierende B Sterne (SPB) sind beispielsweise solche Sterne, bei denen die g Moden hohe Amplituden zeigen und daher leicht beobachtet werden können. Hybridsterne (Mischformen), welche gleichzeitig in p und g Moden pulsieren, eignen sich besonders für Asteroseismologie.

Die CoRoT Langzeitbeobachtungen (Long Runs) bieten eine großartige Gelegenheit eine große Stichprobe solcher Sterne zu analysieren. Diese Daten wurden unter homogenen Beobachtungsbedingungen, ohne signifikante Datenlücken und für eine Dauer von ca. 150 Tagen gewonnen, was mit bodengebundenen Instrumenten praktisch nicht möglich ist. Da die Weltraumteleskope die Szintillation der Erdatmosphäre umgehen, ermöglichen sie stellare Oszillation auf unter tausendstel Magnituden zu finden, sogar für 15 mag schwache Sterne. Die photometrischen Daten werden ergänzt durch AAOmega Klassifikationsspektren, die die Bestimmung der Effektivtemperatur und der Schwerebeschleunigung an der Oberfläche erlauben.

Mit diesen Daten wurde ein statistischer Ansatz verfolgt um das Pulsationsverhalten der  $\gamma$  Dor und  $\gamma$  Dor –  $\delta$  Sct Hybridsterne zu beschreiben. Eine Perioden – Temperatur-Beziehung wurde für  $\gamma$  Dor und  $\delta$  Sct Sterne gefunden, nicht aber für Hybridsterne, wenn man nur ihre stärksten Pulsationsmoden (g bzw p Moden) berücksichtigt. Hybridsterne verhalten sich anders im Bereich der g Moden als  $\gamma$  Dor Sterne, was die ernste Frage nach einer adequaten Definition von Hybridstern aufwirft. Der Anregungsmechanismus der g Moden sollte bei Sternen heisser als die  $\gamma$  Dor Sterne nicht mehr funktionieren, trotzdem wurden g Moden bei Hybridsternen gefunden, die heisser sind als  $\gamma$  Dor Sterne. Das weist auf einen anderen Anregungsmechanismus hin, der g Moden bei diesen Hybridsternen und  $\gamma$  Dor Kandidaten anregt, die

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jenseits der blauen Grenze des  $\gamma$  Dor Instabilitätsstreifens liegen.

Der Vergleich der Pulsationsperioden der Hybridsterne zu jenen der  $\delta$  Sct Sternen zeigt ebenfalls eine signifikante Abweichung. Da die Hybridsterne keine Temperatur – Perioden-Beziehung zeigen, wird nahegelegt, dass es sich bei Hybridsternen um eine eigenständige Klasse von pulsierenden Sternen handelt. Da jedoch die Lage im Hertzsprung-Russell-Diagramm mit der der  $\delta$  Sct übereinstimmt, wird erwartet dass der innere Aufbau dieser beiden Gruppen gleich ist.

Die Untersuchung auf konstanten Periodenabstand der g Moden der  $\gamma$  Dor Sterne ergibt allgemein zu niedrige Werte, als die von der Theorie erwartet werden. Ich finde Periodenabstände, die mit  $\ell > 3$  Moden erklärt werden können. Solche Moden aber unterliegen bereits Auslöschungseffekten und sind kaum nachweisbar sogar mit hochgenauen Photometer wie CoRoT eines ist. Jedoch ist zu beachten, dass mit meinen Daten keine Modenidentifikation durchgeführt werden kann, daher besteht die Möglichkeit, dass Moden mit verschiedenen  $\ell$  diese Periodenabstände vortäuschen.

Um einen möglichen Zusammenhang des Hybridphänomens mit einem Elementhäufigkeits-muster zu untersuchen, wurde für zwei Hybridsterne eine detaillierte Häufigkeitsanalyse durchgeführt. Diese Analyse ergibt keinen Zusammenhang mit dem Auftreten von Hybridpulsation mit chemischen Häufigkeitsmustern (z.B. Am), und pekuläre chemische Oberflächenhäufigkeiten und Pulsation schließen sich nicht gegenseitig aus.

# Appendix G

## Abstract

Stellar pulsation carries information on the physical condition within the star. While pressure modes (p modes) probe the outer layers of a star, gravity modes (g modes) penetrate deep into the radiative zone and thus carry valuable information on the physical conditions there.  $\gamma$  Dor stars are stars that pulsate in such modes, apart from white dwarfs and slowly pulsating B (SPB) stars. Therefore, these stars are important test benches for stellar evolution and pulsation theory.  $\delta$  Sct -  $\gamma$  Dor hybrids are stars that pulsate like  $\gamma$  Dor stars with g modes but also with p modes as the  $\delta$  Sct stars do. This makes them even more suited for asteroseismology.

The CoRoT long runs offer a great opportunity to analyse a large sample of stars observed homogeneously, uninterrupted and long time base of  $\approx 150$  days, which is practically unachievable with ground based observation. Since space missions avoid the scintillation caused by the Earth's atmosphere, they allow to detect stellar oscillations on a sub-millimagnitude level even for stars as faint as 15th magnitude. The photometric data is supplemented by AAOmega classification spectroscopy, allowing to determine effective temperatures and surface gravity.

With these data a statistical approach was adopted to describe the pulsation behaviour  $\gamma$  Dor and  $\delta$  Sct -  $\gamma$  Dor hybrid stars. A temperature – period relation was found for  $\gamma$  Dor and  $\delta$  Sct stars, but none for  $\delta$  Sct -  $\gamma$  Dor hybrid stars, when considering their strongest g mode or p mode, respectively. The instability domain of hybrid stars is equal to that of  $\delta$  Sct stars and is not confined to the overlapping region of the  $\delta$  Sct and  $\gamma$  Dor IS in the Hertzsprung-Russell diagram. Hybrid stars behave differently in the g mode regime than  $\gamma$  Dor stars, which poses a serious question on how to define properly a  $\delta$  Sct -  $\gamma$  Dor hybrid. The convective flux blocking mechanism is supposed to work for stars in the  $\gamma$  Dor regime, but not for stars hotter than the blue border of the  $\gamma$  Dor instability strip, as the hybrids are. Thus, my finding is an evidence for another driving mechanism, which excites the observed g modes of hybrid stars and  $\gamma$  Dor candidates beyond the hot border of the  $\gamma$  Dor instability strip.

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A comparison to the pulsation periods of  $\delta$  Sct stars show a discrepancy for p modes as well. For  $\delta$  Sct stars a temperature – period relation was found but none for hybrids. This finding suggests that the hybrid stars form a different class of pulsating stars and are not merely a mixture of  $\delta$  Sct and  $\gamma$  Dor type pulsation. On the other hand the hybrid stars occupy the same area in the Hertzsprung-Russell diagram as  $\delta$  Sct do and therefore a different stellar structure seems unreasonable.

The investigation of constant period spacings of the g modes of the  $\gamma$  Dor stars yields generally too low values of what is expected from theory. I find spacings that would require  $\ell > 3$  modes to explain my findings. Such modes, however, suffer from cancellation effects and are hardly detectable even by such a high precision photometer as CoRoT is. As a caveat I mention that based on my data no mode identification can be done which leaves the possibility that modes of different  $\ell$  mimic a constant period spacing.

To explore a possible connection between the hybrid pulsation and chemical abundance patterns, a detailed abundance analysis was done for two stars. This analysis resulted in one hybrid and Am star, while the other hybrid does not show this kind of chemical peculiarity. Thus, there is no connection between the hybrid phenomenon and hybrid pulsation.



# **Appendix H**

## **Danksagung**

To whom it may concern: Thank you!  
An alle, die es angeht: Danke!

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# **Appendix I**

## **Lebenslauf**

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## Curriculum Vitae

Mag. Markus Hareter

### Education after school

October 1997 - April 1998 military service 1998 - 2001 study of computer sciences, University of technology Vienna 2001 - 2007 study of astronomy June 20, 2007 graduation in astronomy master thesis: MOST Guide Star reduction October 2007: start of PhD-Thesis, title “Investigation of  $\gamma$  Doradus -  $\delta$  Scuti hybrid stars based on high precision space photometry and complementary ground bases spectroscopy”.

### Scientific Work since March 2005

Work on the data reduction of space based data from the MOST satellite, focus on the guide star data. Abundance analysis of selected  $\gamma$  Doradus and  $\gamma$  Doradus -  $\delta$  Scuti hybrid stars. Current work on CoRoT LRA01 data on  $\gamma$  Doradus and  $\gamma$  Doradus -  $\delta$  Scuti hybrid stars, frequency analyses and fundamental parameters from classification spectra.

### Meetings and Conferences

December 2005: MOST Science Team Meeting, Vienna (Talk)  
December 2006: MOST Science Team Meeting, Montreal (Talk)  
July 2007: MOST Science Team Meeting, Vancouver (Talk)  
July 2007: Conference New Challenges in Pulsating Stars, Vancouver (Poster)  
May 2008: Workshop on Doradus stars observed by CoRoT, Nice (Talk)  
June 2008: MOST Science Team Meeting, Vienna (Talk)  
June 2008: BRITE Workshop, Vienna (Talk)  
June 2011: 2nd CoRoT Symposium, Marseille, (Poster)  
December 2011: MOST Science Team Meeting Vienna  
May 2012: ESF Conference, Obergurgl, Austria (Talk)  
December 2012: MOST Science Team Meeting Vienna

### Schools

March 2011, EURO-VO ICE, Strasbourg

### Observing Runs

May 2008: SAAO, Sutherland, South Africa, 0.5-m Telescope  
December 2009: ESO, La Silla, Chile, 3.6-m Telescope, HARPS  
July 2011: ESO, La Silla, Chile, 3.6-m Telescope, HARPS

### Employments

April 2005 - September 2005: marginal employment

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October 2005 - October 2007: FWF research support  
November 2007 - August 2008: PhD-Position, IfA  
September 2009 - August 2010: half PhD-Position, IfA  
September 2010 - December 2012: PhD-Position, IfA  
since January 2013: Postdoc position at the Konkoly Observatory, Hungary