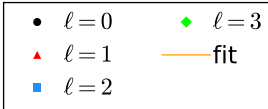
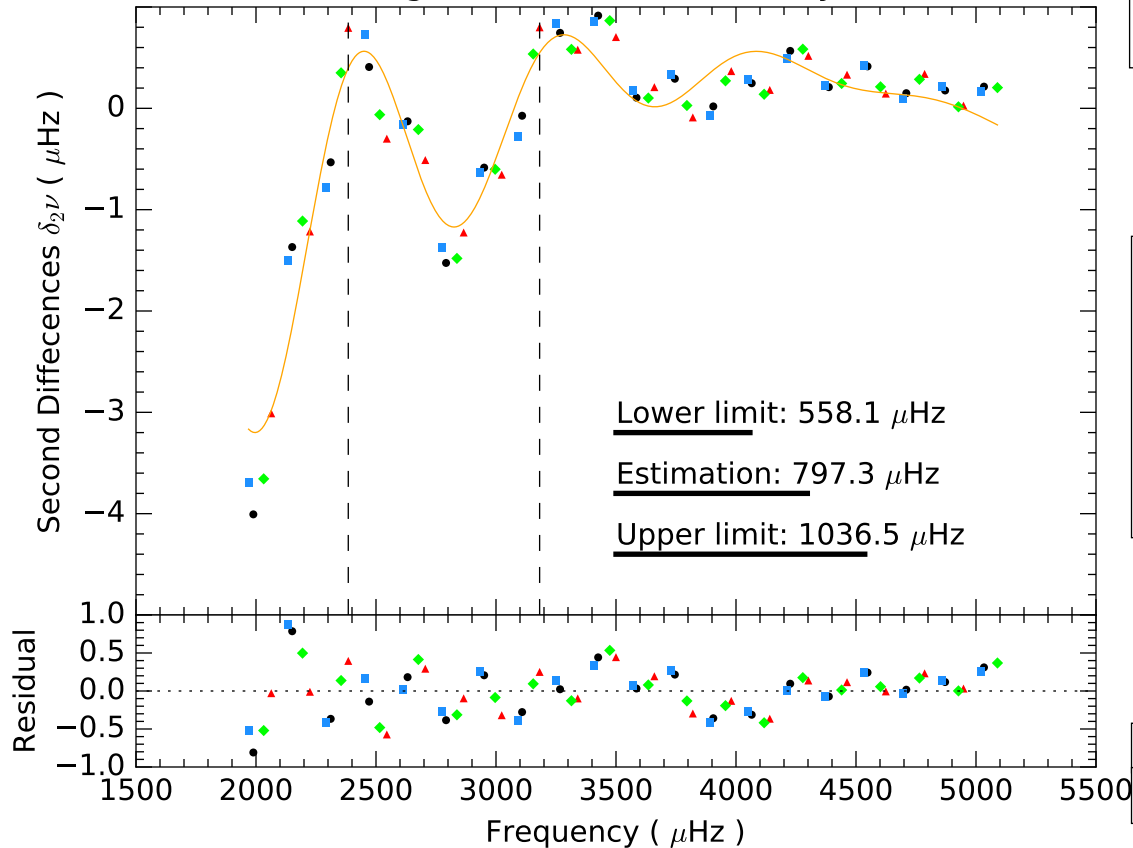


Age after ZAMS: 0.000 Gyr



$$a_0 = -7.2515 \mu\text{Hz}$$

$$a_1 = 0.0038291$$

$$a_2 = -4.7932e-07 \mu\text{Hz}^{-2}$$

$$c_0 = 0.0021936$$

$$c_2 = 2.3488e-07 \mu\text{Hz}^{-2}$$

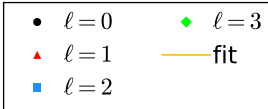
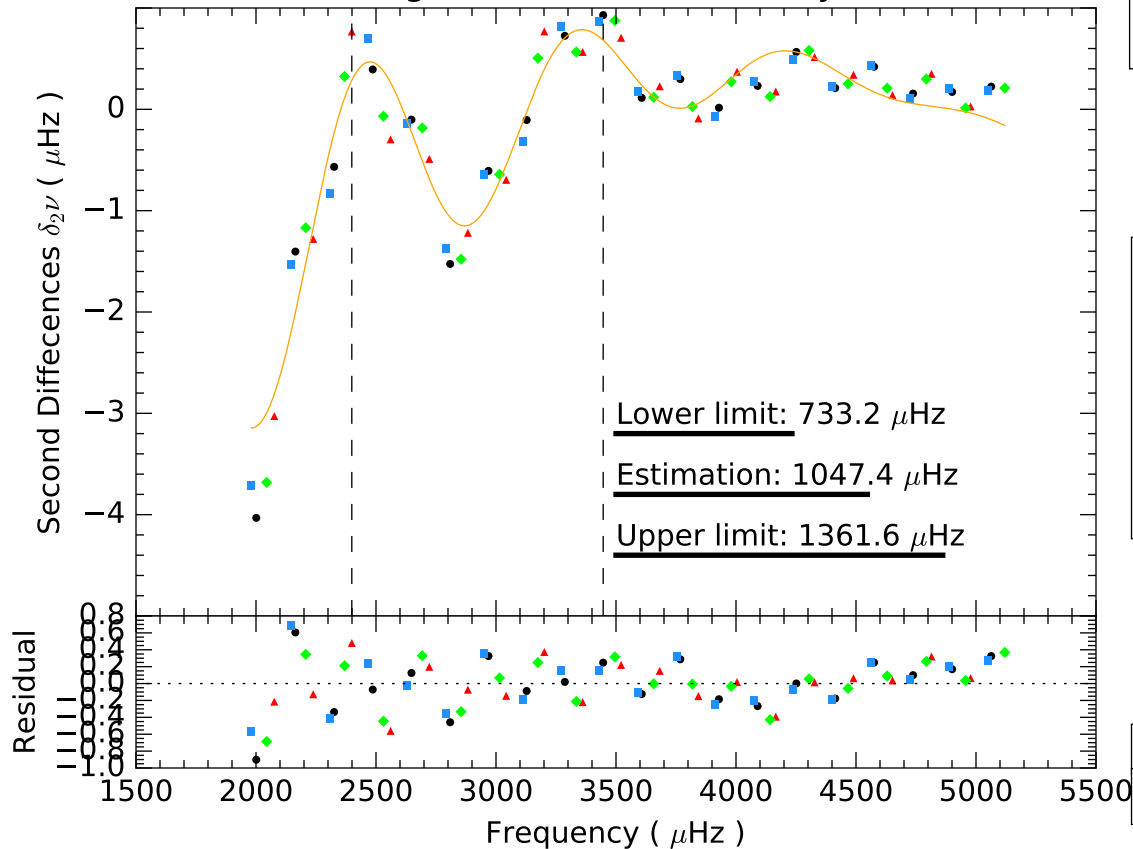
$$\tau_{HeII} = 595.22 \text{ s}$$

$$\phi_{HeII} = 2.1443$$

profile1

$$\chi^2_{\nu}(\text{dof} = 72) = 0.10596$$

Age after ZAMS: 0.000 Gyr



$$a_0 = -7.5477 \mu\text{Hz}$$

$$a_1 = 0.0039602$$

$$a_2 = -4.9329e-07 \mu\text{Hz}^{-2}$$

$$c_0 = 0.0017198$$

$$c_2 = 2.0113e-07 \mu\text{Hz}^{-2}$$

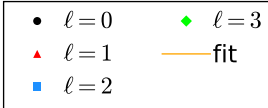
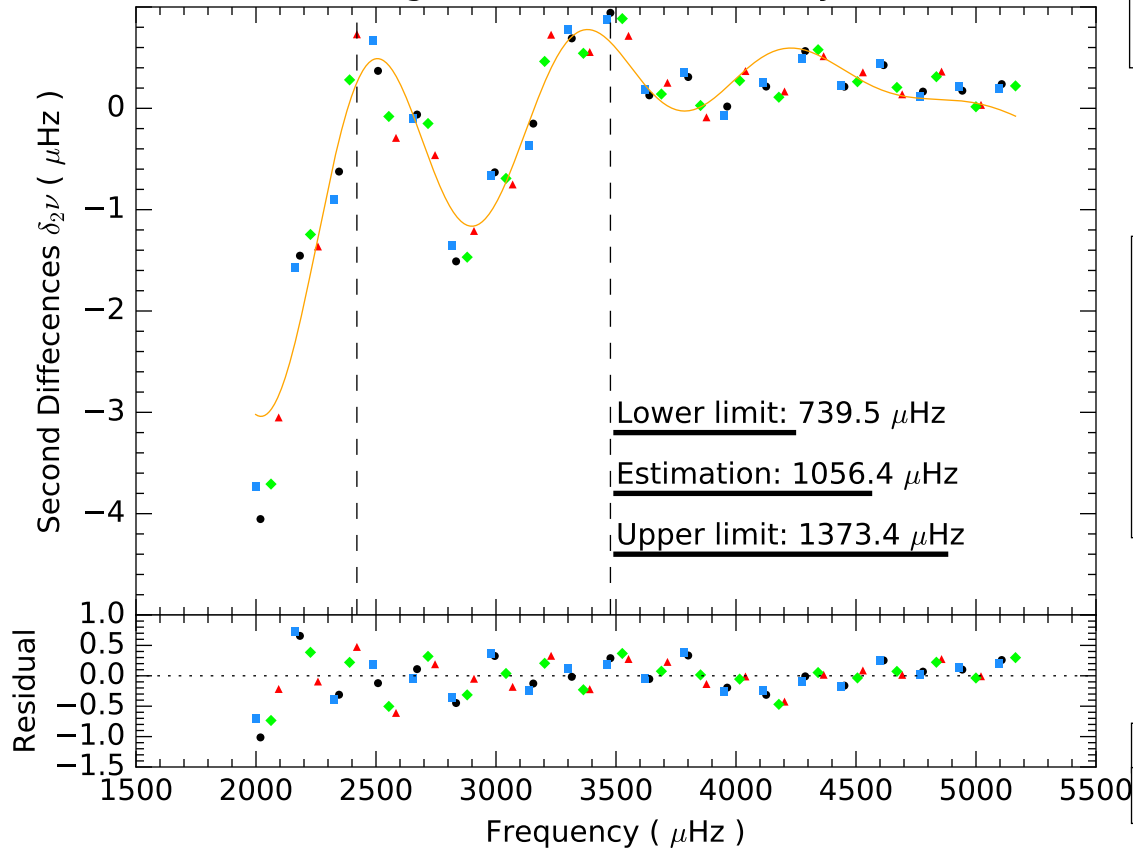
$$\tau_{\text{HeII}} = 558.32 \text{ s}$$

$$\phi_{\text{HeII}} = 3.1469$$

profile2

$$\chi^2_{\nu}(\text{dof} = 72) = 0.094892$$

Age after ZAMS: 0.001 Gyr



$$a_0 = -7.1626 \mu\text{Hz}$$

$$a_1 = 0.0036916$$

$$a_2 = -4.5097e-07 \mu\text{Hz}^{-2}$$

$$c_0 = 0.0016756$$

$$c_2 = 1.9442e-07 \mu\text{Hz}^{-2}$$

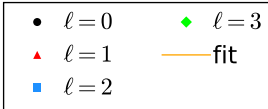
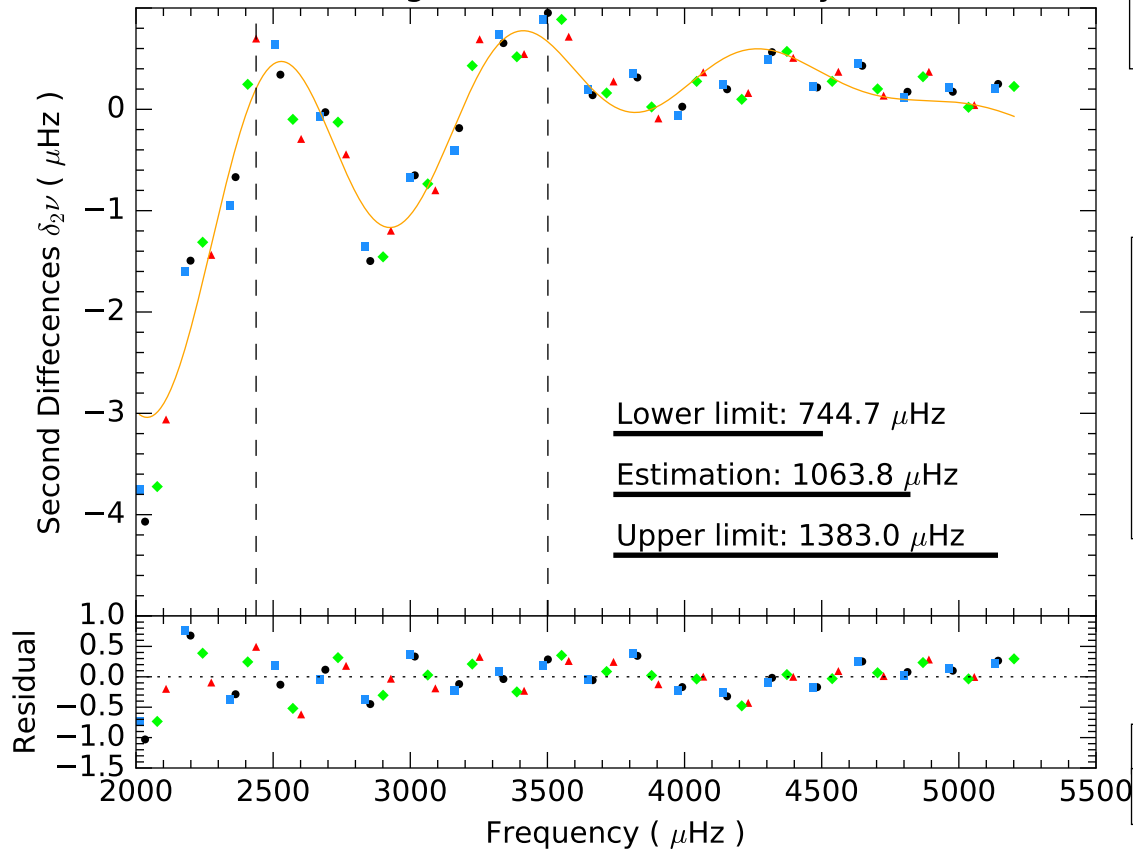
$$\tau_{HeII} = 564.0 \text{ s}$$

$$\phi_{HeII} = 2.7429$$

profile3

$$\chi^2_{\nu}(\text{dof} = 72) = 0.10473$$

Age after ZAMS: 0.002 Gyr



$$a_0 = -7.2298 \mu \text{ Hz}$$

$$a_1 = 0.0036902$$

$$a_2 = -4.4668e-07 \mu\text{Hz}^{-2}$$

$$c_0 = 0.0016339$$

$$c_2 = 1.8939e-07 \mu\text{Hz}^{-2}$$

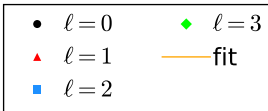
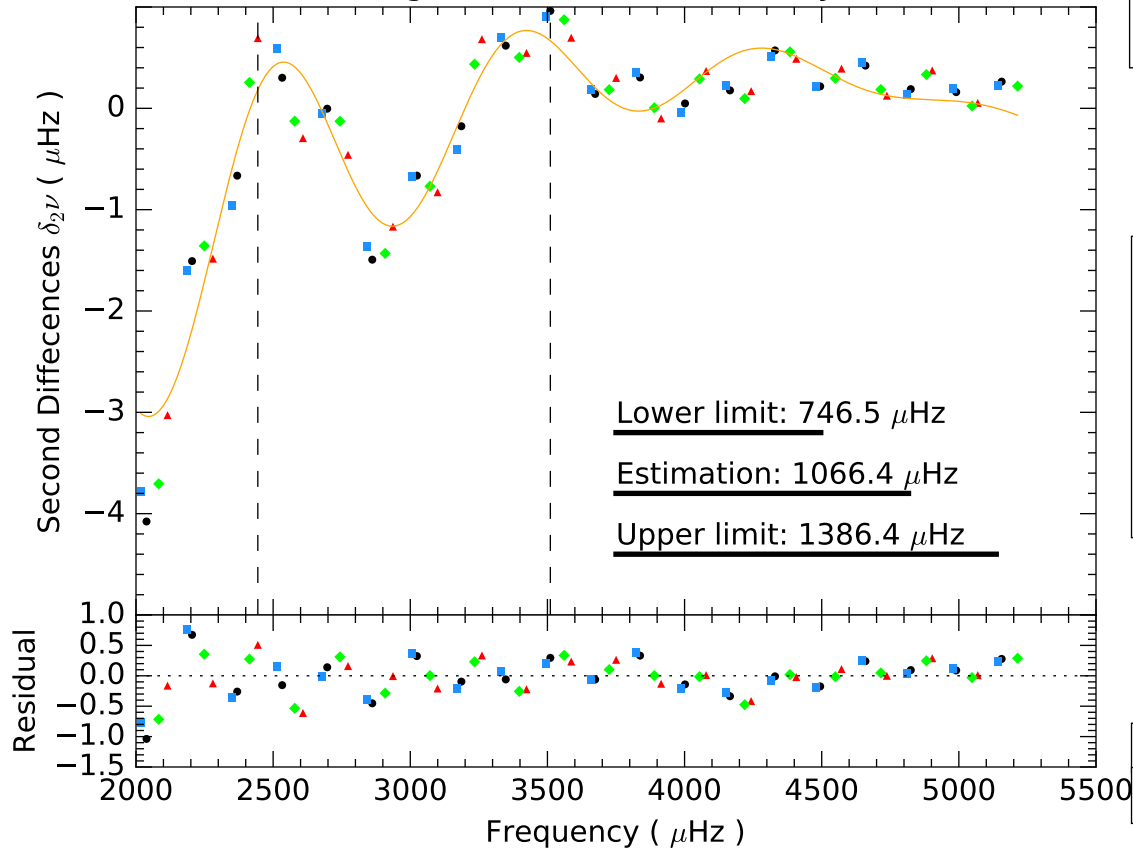
$$\tau_{HeII} = 559.67 \text{ s}$$

$$\phi_{HeII} = 2.7129$$

profile4

$$\chi^2_{\nu}(\text{dof} = 72) = 0.1075$$

Age after ZAMS: 0.004 Gyr

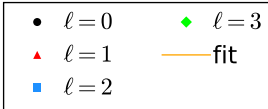
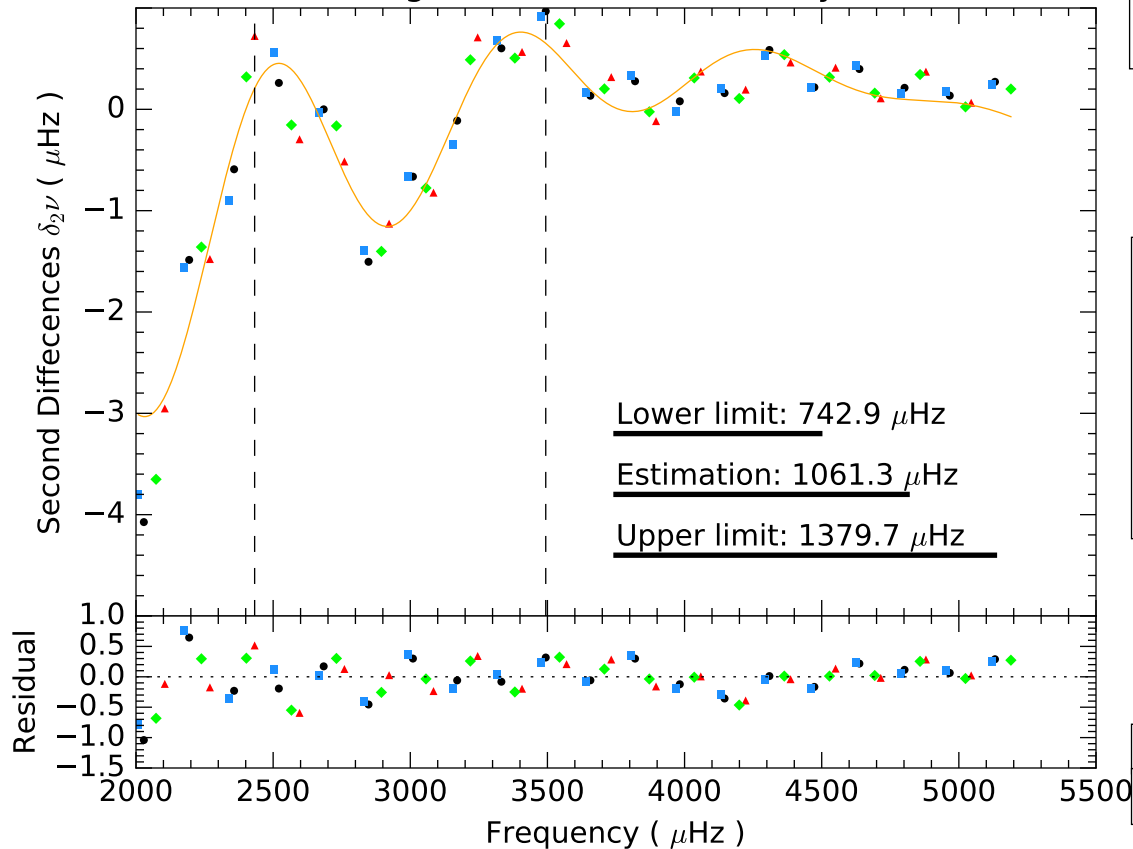


$$\begin{aligned}
 a_0 &= -7.2672 \mu\text{Hz} \\
 a_1 &= 0.003696 \\
 a_2 &= -4.4592e-07 \mu\text{Hz}^{-2} \\
 c_0 &= 0.0016179 \\
 c_2 &= 1.8837e-07 \mu\text{Hz}^{-2} \\
 \tau_{HeII} &= 557.45 \text{ s} \\
 \phi_{HeII} &= 2.7296
 \end{aligned}$$

profile5

$$\chi^2_{\nu}(\text{dof} = 72) = 0.1076$$

Age after ZAMS: 0.007 Gyr

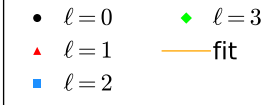
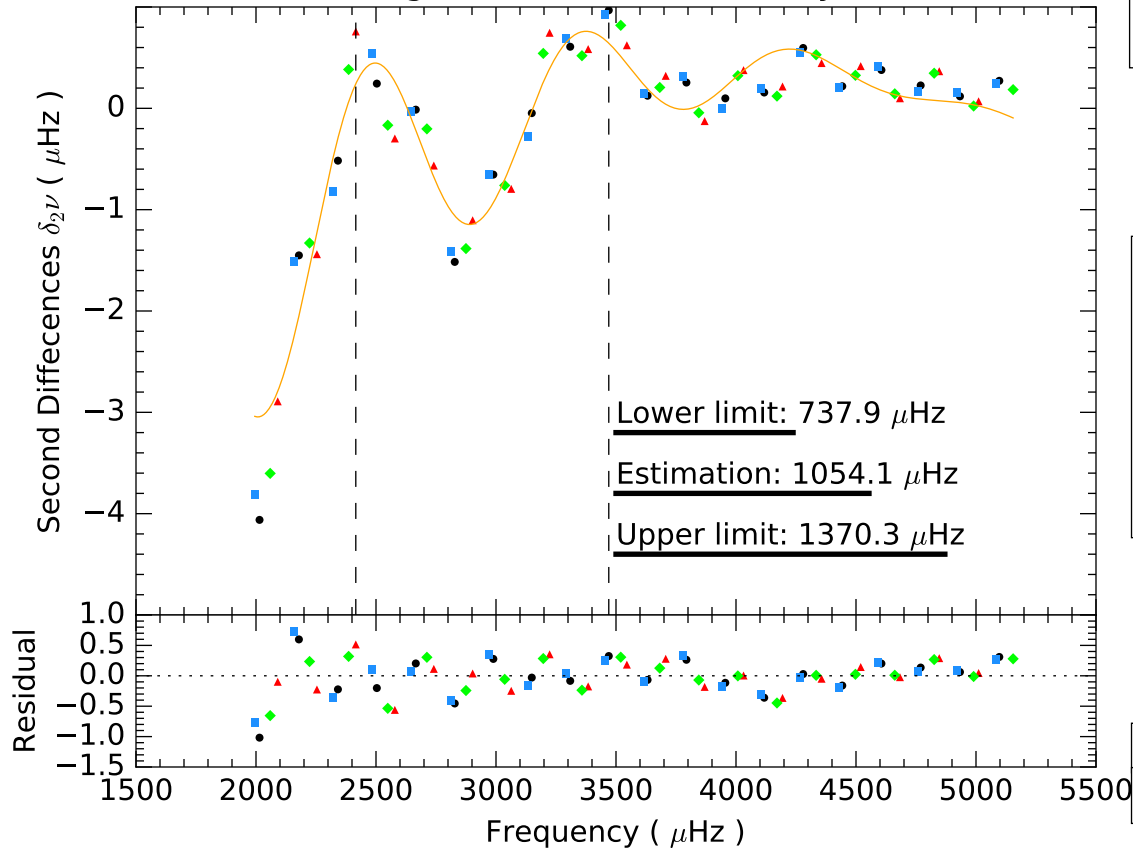


$$\begin{aligned}
 a_0 &= -7.2266 \mu \text{ Hz} \\
 a_1 &= 0.0036971 \\
 a_2 &= -4.4857e-07 \mu\text{Hz}^{-2} \\
 c_0 &= 0.0016307 \\
 c_2 &= 1.9175e-07 \mu\text{Hz}^{-2} \\
 \tau_{HeII} &= 560.17 \text{ s} \\
 \phi_{HeII} &= 2.7595
 \end{aligned}$$

profile6

$$\chi^2_{\nu}(\text{dof} = 72) = 0.10552$$

Age after ZAMS: 0.013 Gyr



$$a_0 = -7.27 \mu\text{Hz}$$

$$a_1 = 0.0037584$$

$$a_2 = -4.6083e-07 \mu\text{Hz}^{-2}$$

$$c_0 = 0.0016489$$

$$c_2 = 1.9631e-07 \mu\text{Hz}^{-2}$$

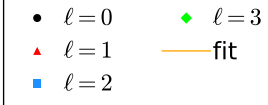
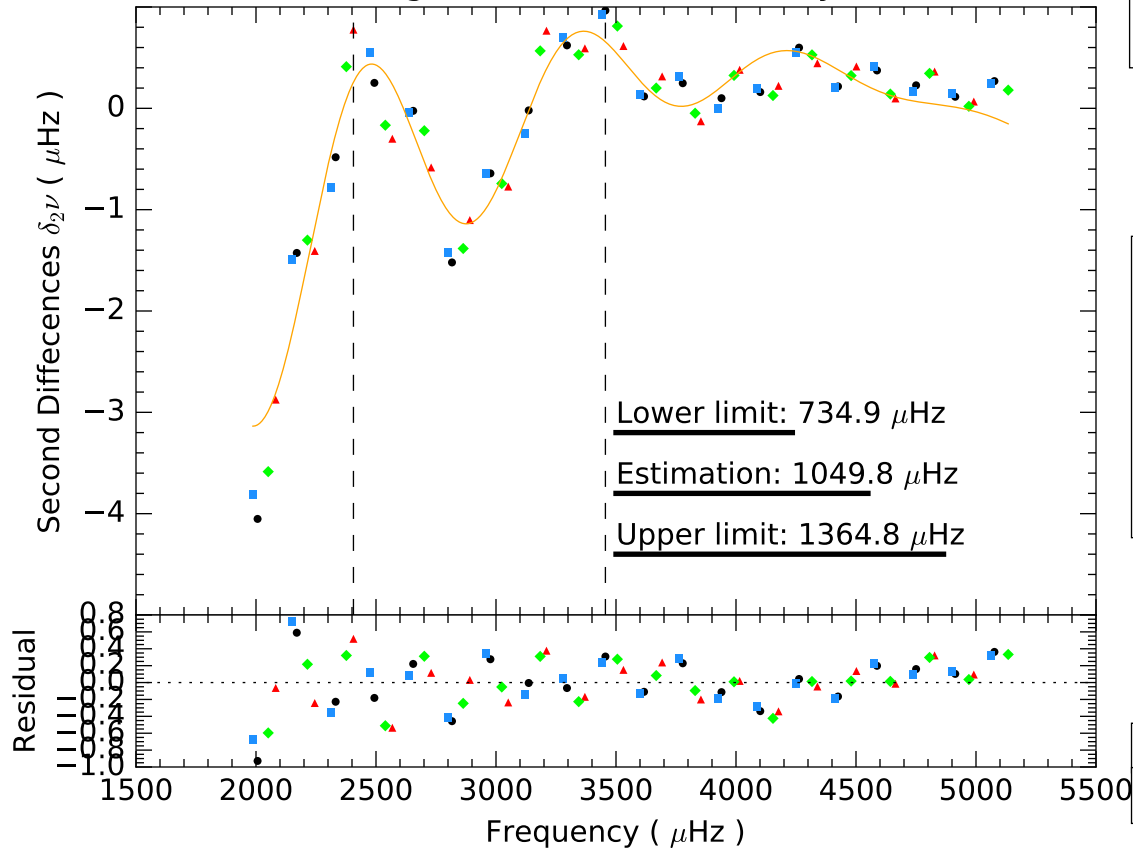
$$\tau_{HeII} = 561.75 \text{ s}$$

$$\phi_{HeII} = 2.8846$$

profile7

$$\chi^2_{\nu}(\text{dof} = 72) = 0.10107$$

Age after ZAMS: 0.023 Gyr



$$a_0 = -7.5602 \mu\text{Hz}$$

$$a_1 = 0.0039474$$

$$a_2 = -4.8942e-07 \mu\text{Hz}^{-2}$$

$$c_0 = 0.0017161$$

$$c_2 = 2.0294e-07 \mu\text{Hz}^{-2}$$

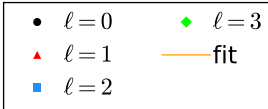
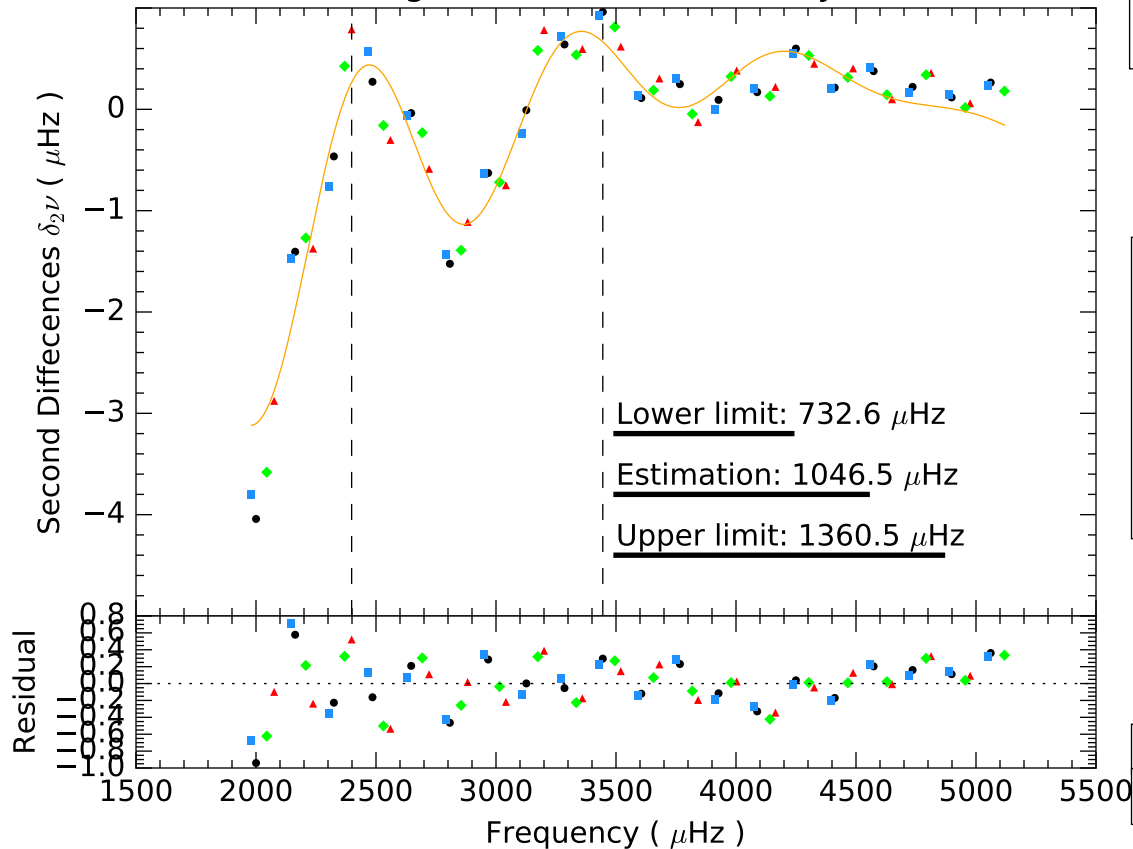
$$\tau_{\text{HeII}} = 558.25 \text{ s}$$

$$\phi_{\text{HeII}} = 3.1021$$

profile8

$$\chi^2_{\nu}(\text{dof} = 72) = 0.095264$$

Age after ZAMS: 0.039 Gyr



$$a_0 = -7.5401 \mu\text{Hz}$$

$$a_1 = 0.0039548$$

$$a_2 = -4.9244e-07 \mu\text{Hz}^{-2}$$

$$c_0 = 0.0016884$$

$$c_2 = 2.0175e-07 \mu\text{Hz}^{-2}$$

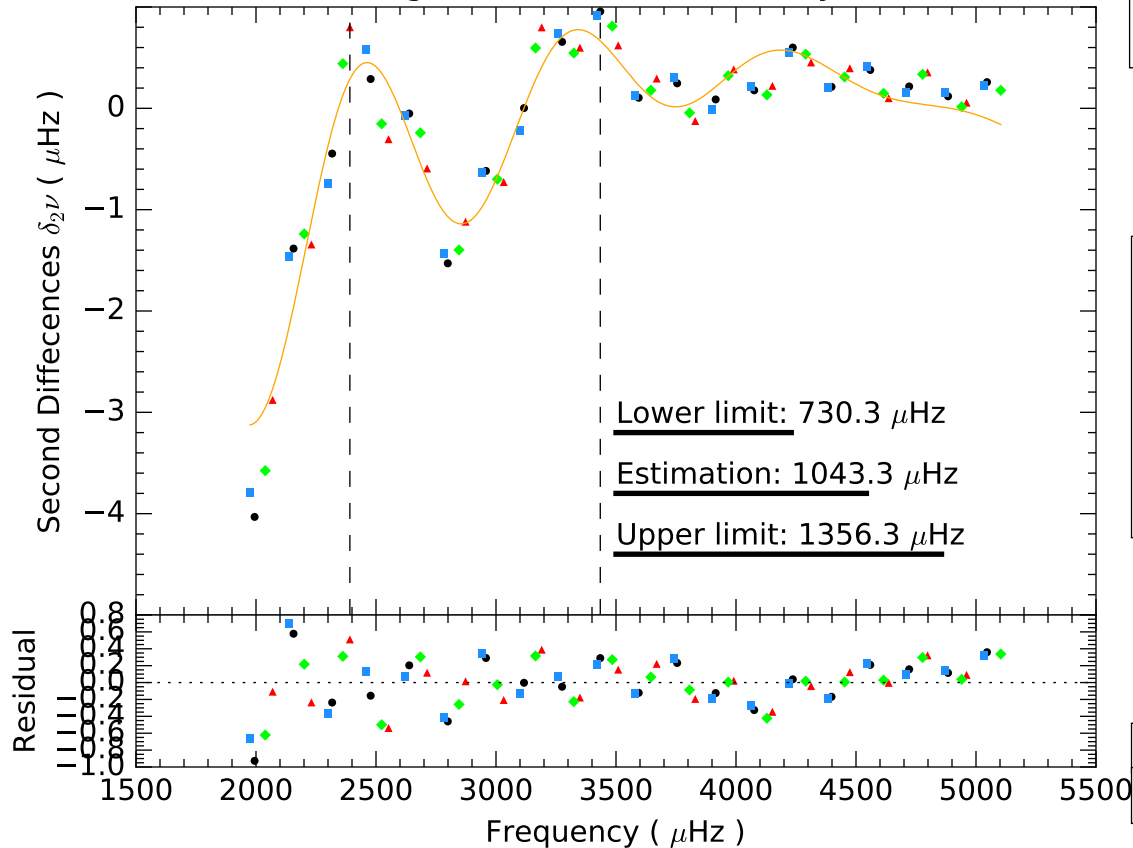
$$\tau_{HeII} = 558.79 \text{ s}$$

$$\phi_{HeII} = 3.1504$$

profile9

$$\chi^2_{\nu}(\text{dof} = 72) = 0.095371$$

Age after ZAMS: 0.068 Gyr



$$a_0 = -7.5224 \mu\text{Hz}$$

$$a_1 = 0.003962$$

$$a_2 = -4.9533e-07 \mu\text{Hz}^{-2}$$

$$c_0 = 0.001706$$

$$c_2 = 2.0308e-07 \mu\text{Hz}^{-2}$$

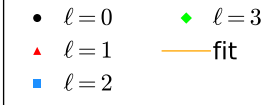
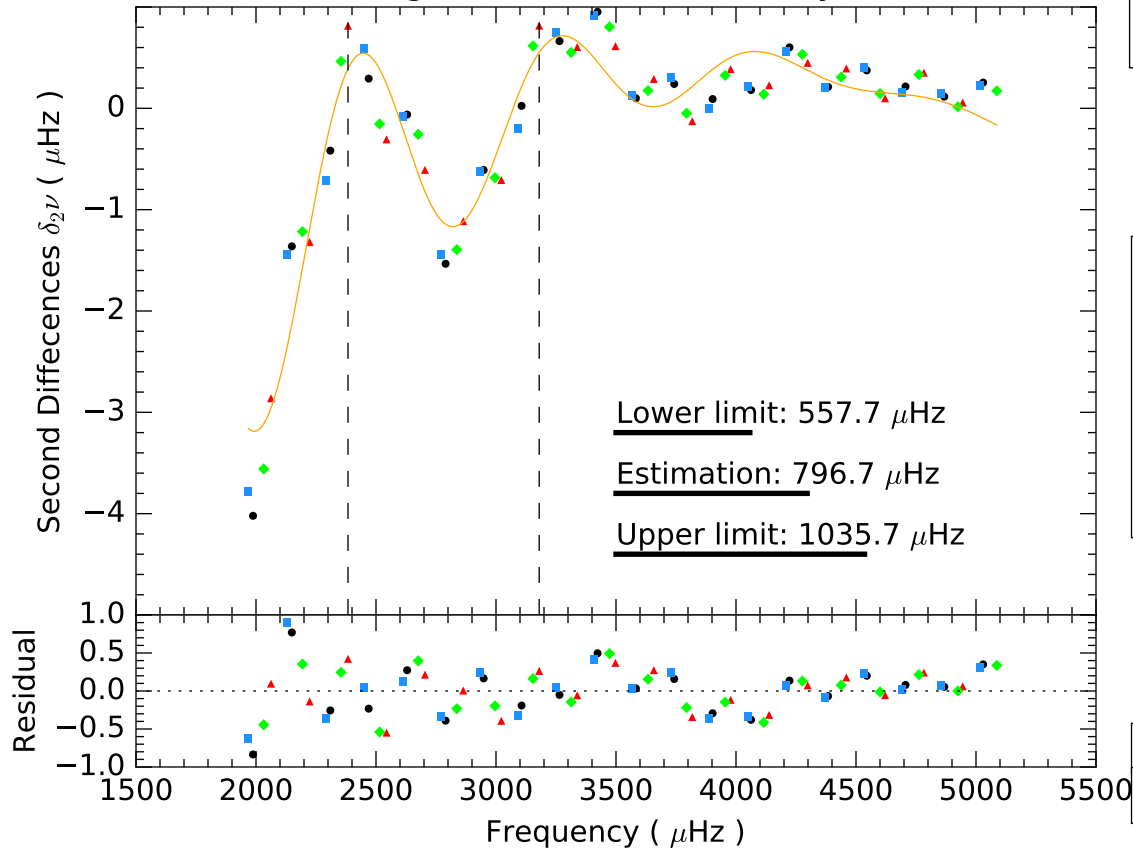
$$\tau_{HeII} = 560.59 \text{ s}$$

$$\phi_{HeII} = 3.1629$$

profile10

$$\chi^2_{\nu}(\text{dof} = 72) = 0.094187$$

Age after ZAMS: 0.118 Gyr



$$a_0 = -7.2543 \mu\text{Hz}$$

$$a_1 = 0.0038309$$

$$a_2 = -4.7964e-07 \mu\text{Hz}^{-2}$$

$$c_0 = 0.0021727$$

$$c_2 = 2.3548e-07 \mu\text{Hz}^{-2}$$

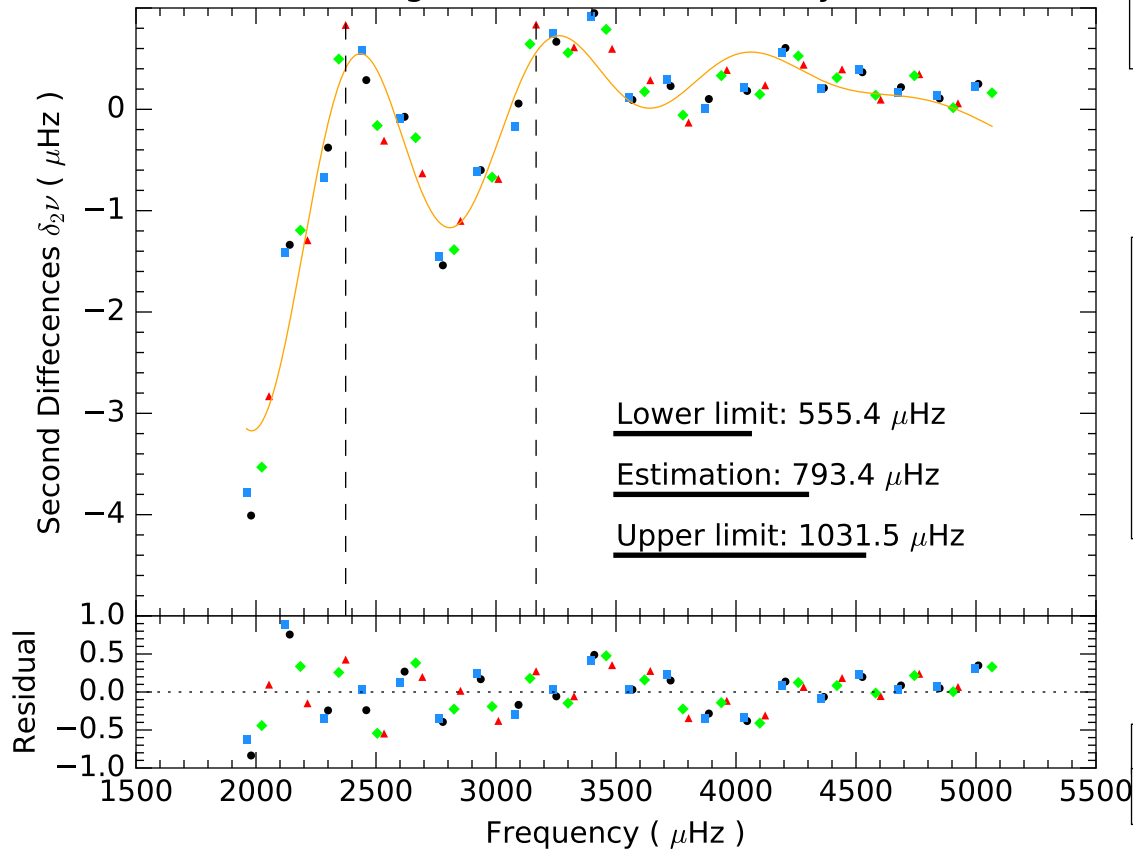
$$\tau_{HeII} = 596.63 \text{ s}$$

$$\phi_{HeII} = 2.1296$$

profile11

$$\chi^2_{\nu}(\text{dof} = 72) = 0.10638$$

Age after ZAMS: 0.205 Gyr

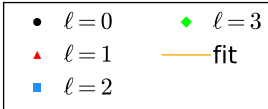
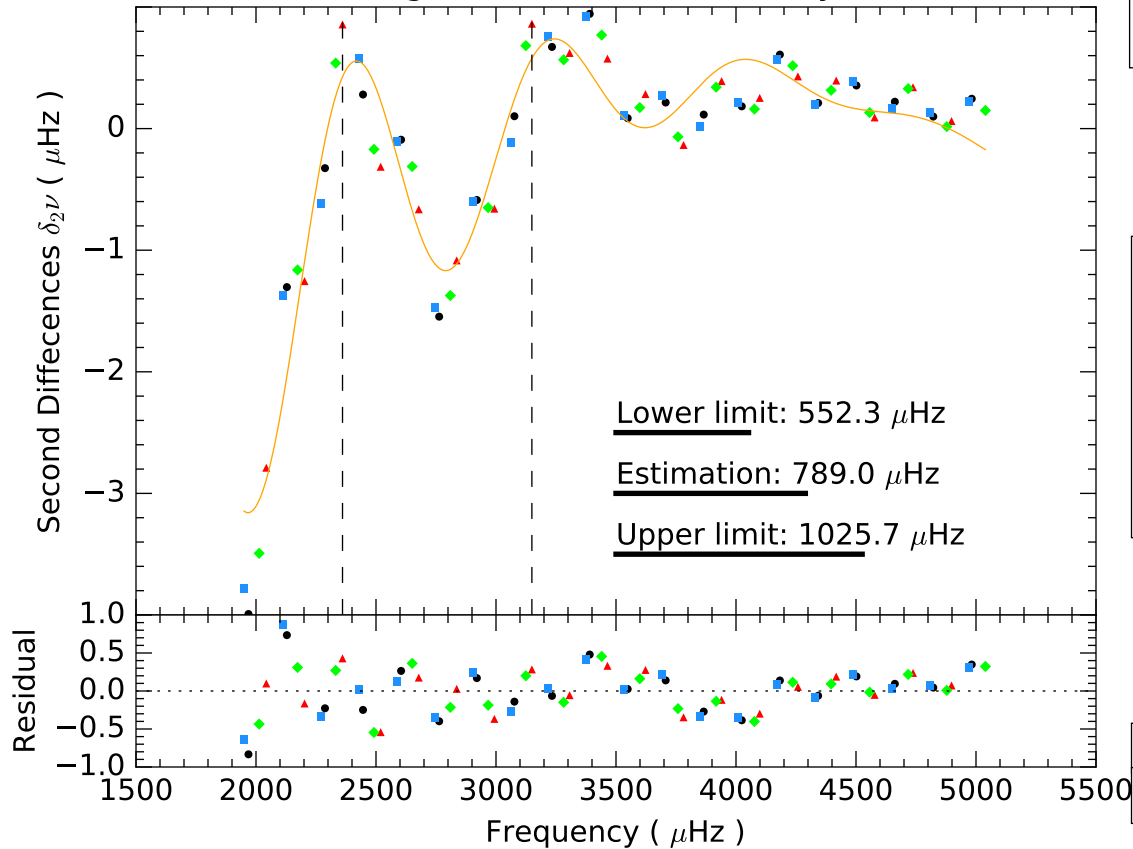


$$\begin{aligned}
 a_0 &= -7.2265 \mu\text{Hz} \\
 a_1 &= 0.0038368 \\
 a_2 &= -4.8284e-07 \mu\text{Hz}^{-2} \\
 c_0 &= 0.0021465 \\
 c_2 &= 2.3487e-07 \mu\text{Hz}^{-2} \\
 \tau_{HeII} &= 598.07 \text{ s} \\
 \phi_{HeII} &= 2.1751
 \end{aligned}$$

profile12

$$\chi^2_{\nu}(\text{dof} = 72) = 0.10442$$

Age after ZAMS: 0.354 Gyr



$$a_0 = -7.1991 \mu\text{Hz}$$

$$a_1 = 0.0038508$$

$$a_2 = -4.8812e-07 \mu\text{Hz}^{-2}$$

$$c_0 = 0.00212$$

$$c_2 = 2.3473e-07 \mu\text{Hz}^{-2}$$

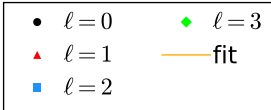
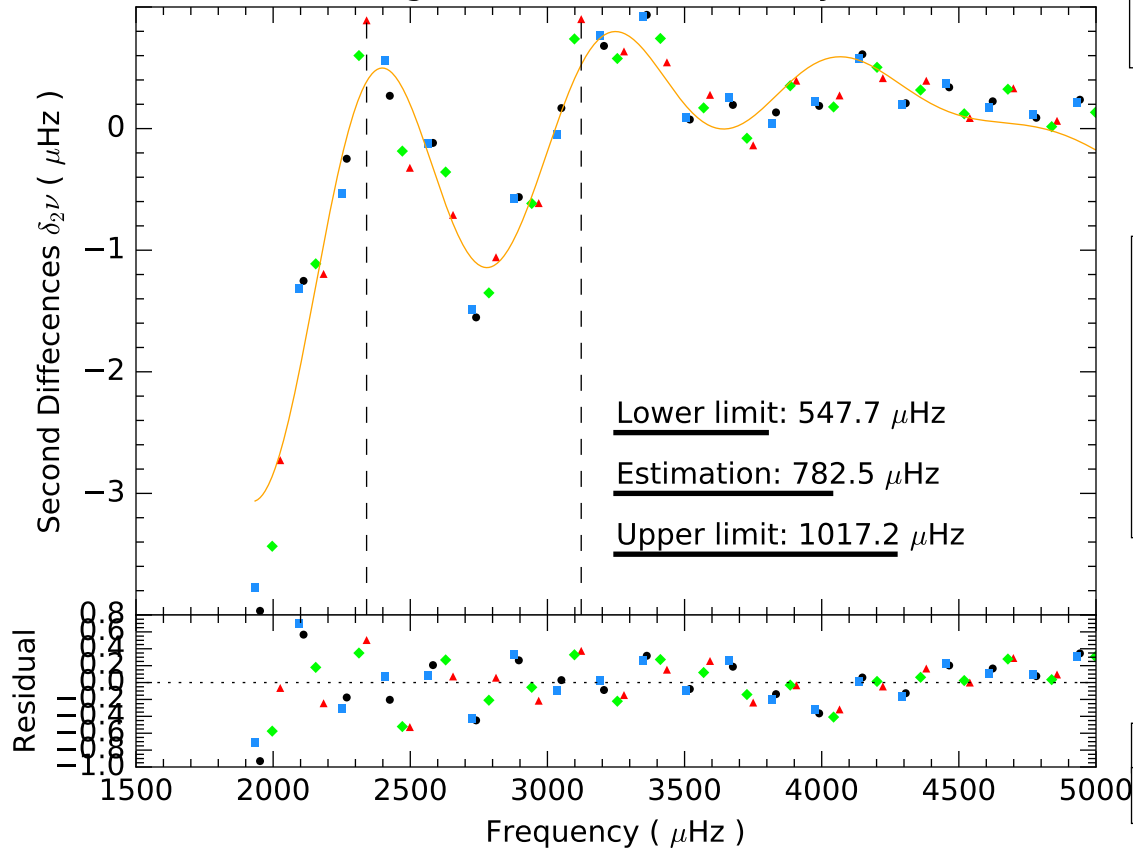
$$\tau_{HeII} = 600.06 \text{ s}$$

$$\phi_{HeII} = 2.2398$$

profile13

$$\chi^2_{\nu}(\text{dof} = 72) = 0.10169$$

Age after ZAMS: 0.610 Gyr



$$a_0 = -7.3048 \mu\text{Hz}$$

$$a_1 = 0.0039572$$

$$a_2 = -5.0806e-07 \mu\text{Hz}^{-2}$$

$$c_0 = 0.0017411$$

$$c_2 = 2.1111e-07 \mu\text{Hz}^{-2}$$

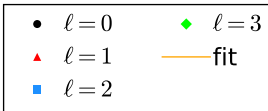
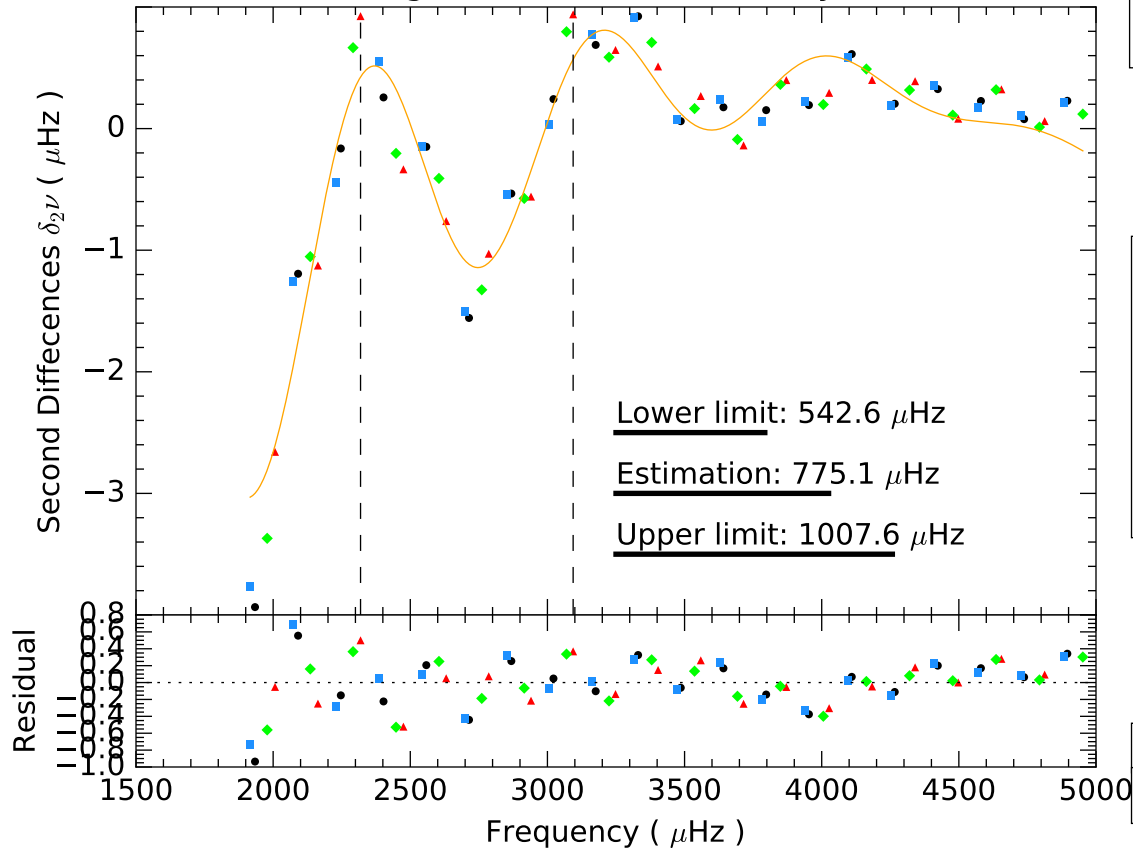
$$\tau_{\text{HeII}} = 580.18 \text{ s}$$

$$\phi_{\text{HeII}} = 3.025$$

profile14

$$\chi^2_{\nu}(\text{dof} = 72) = 0.092236$$

Age after ZAMS: 0.910 Gyr



$$a_0 = -7.2145 \mu\text{Hz}$$

$$a_1 = 0.0039578$$

$$a_2 = -5.1426e-07 \mu\text{Hz}^{-2}$$

$$c_0 = 0.001744$$

$$c_2 = 2.1386e-07 \mu\text{Hz}^{-2}$$

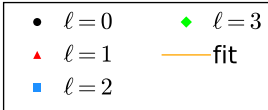
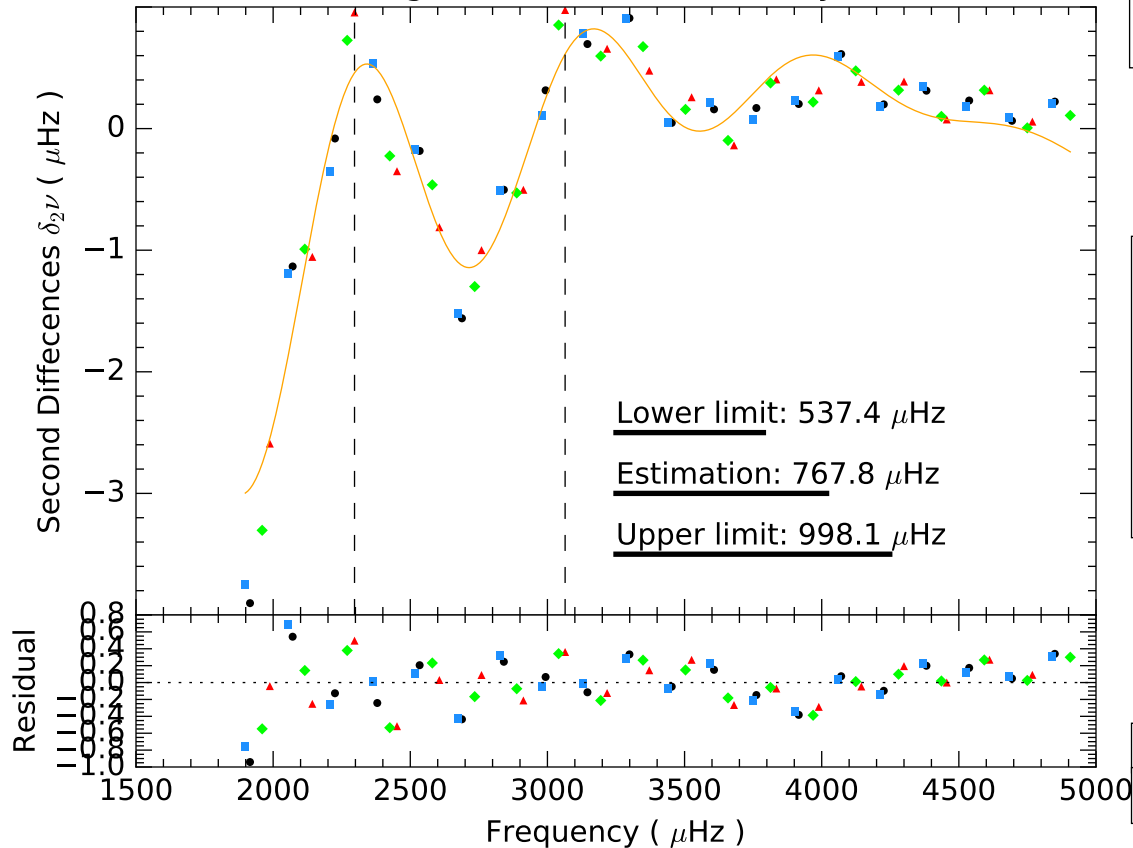
$$\tau_{\text{HeII}} = 588.16 \text{ s}$$

$$\phi_{\text{HeII}} = 2.9922$$

profile15

$$\chi^2_{\nu}(\text{dof} = 72) = 0.091639$$

Age after ZAMS: 1.210 Gyr



$$a_0 = -7.1254 \mu\text{Hz}$$

$$a_1 = 0.0039583$$

$$a_2 = -5.2047e-07 \mu\text{Hz}^{-2}$$

$$c_0 = 0.0017433$$

$$c_2 = 2.1639e-07 \mu\text{Hz}^{-2}$$

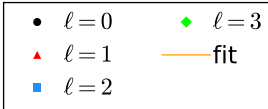
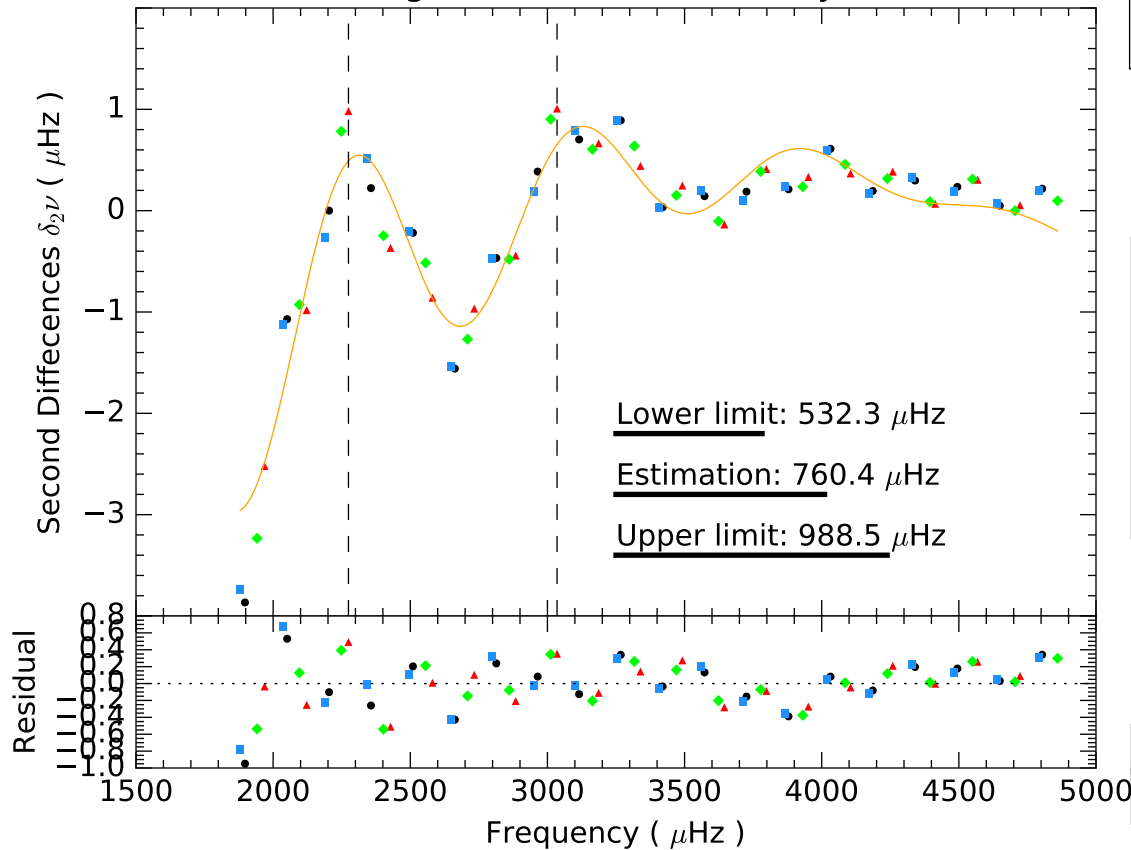
$$\tau_{\text{HeII}} = 596.13 \text{ s}$$

$$\phi_{\text{HeII}} = 2.9638$$

profile16

$$\chi^2_{\nu}(\text{dof} = 72) = 0.091146$$

Age after ZAMS: 1.510 Gyr



$$a_0 = -7.0303 \mu\text{Hz}$$

$$a_1 = 0.0039564$$

$$a_2 = -5.2666e-07 \mu\text{Hz}^{-2}$$

$$c_0 = 0.0017394$$

$$c_2 = 2.1882e-07 \mu\text{Hz}^{-2}$$

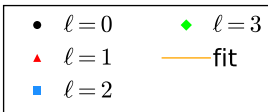
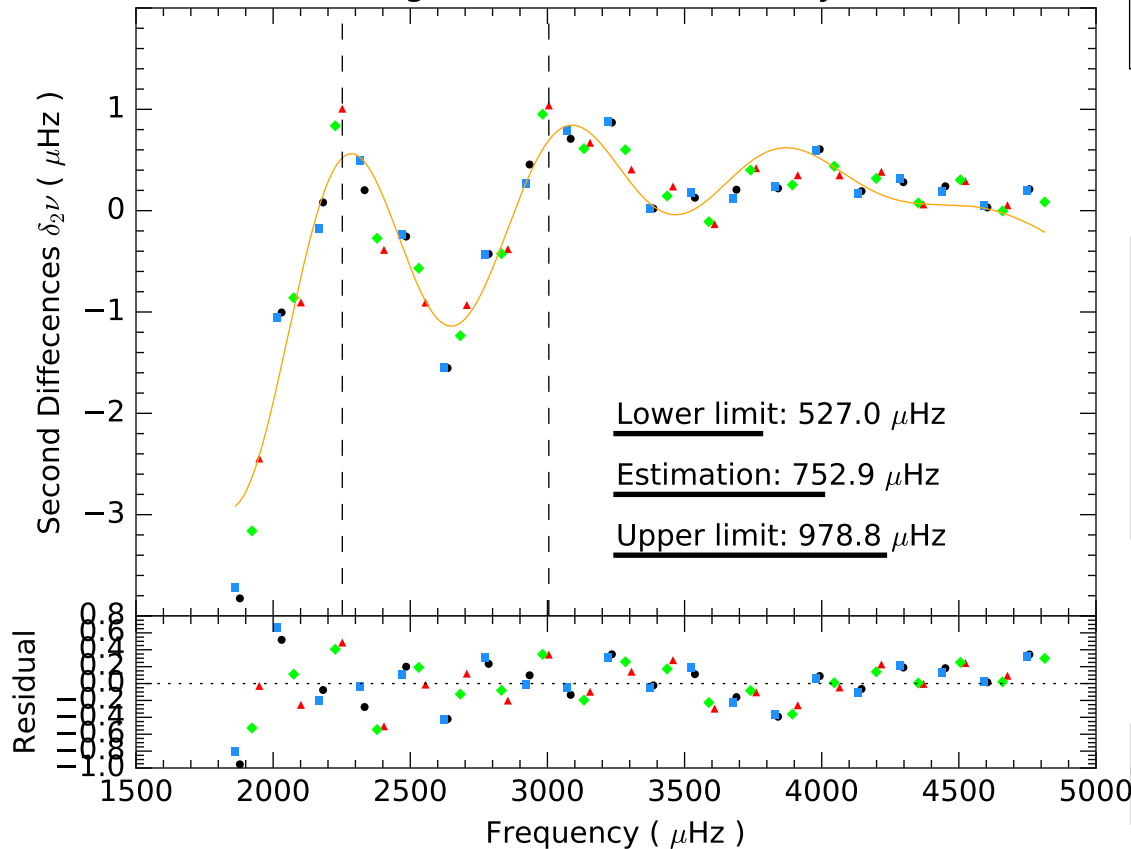
$$\tau_{\text{HeII}} = 604.3 \text{ s}$$

$$\phi_{\text{HeII}} = 2.936$$

profile17

$$\chi^2_{\nu}(\text{dof} = 72) = 0.090898$$

Age after ZAMS: 1.810 Gyr



$$a_0 = -6.9317 \mu\text{Hz}$$

$$a_1 = 0.0039532$$

$$a_2 = -5.329e-07 \mu\text{Hz}^{-1}$$

$$c_0 = 0.0017323$$

$$c_2 = 2.2117e-07 \mu\text{Hz}^{-2}$$

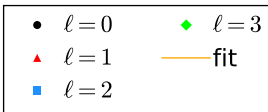
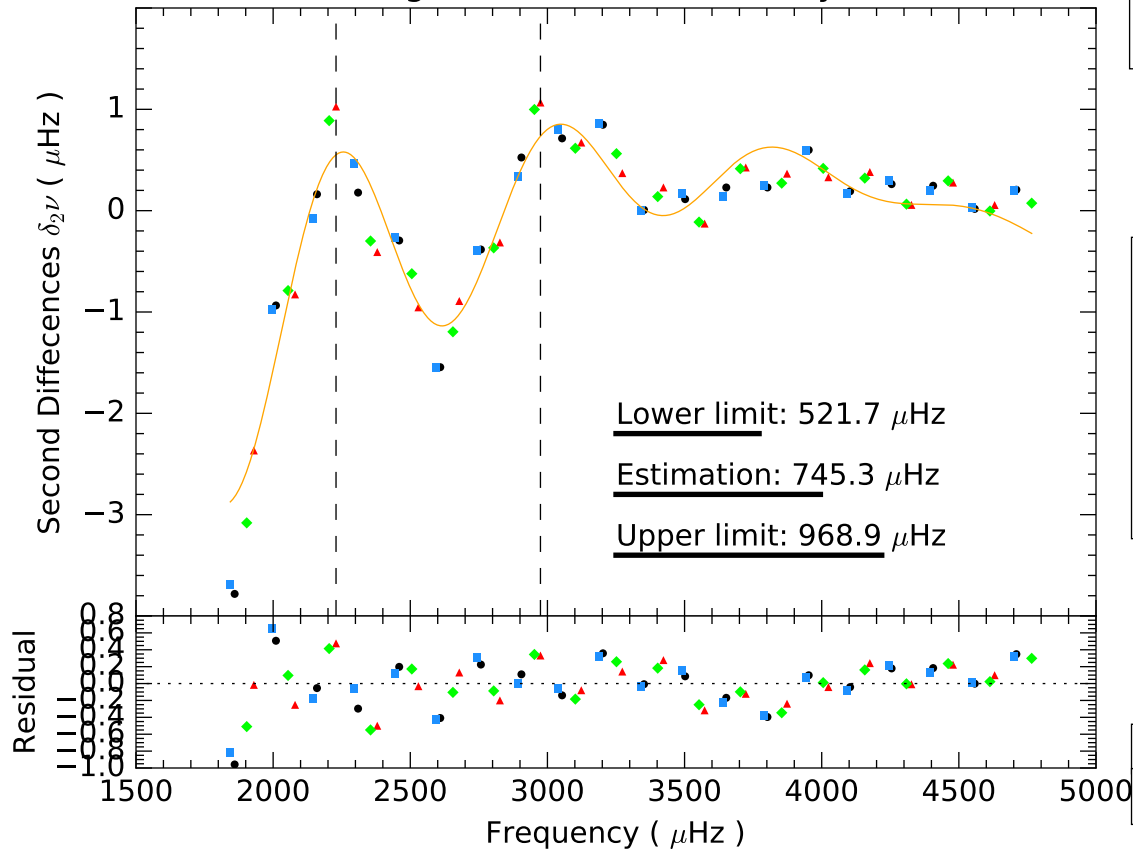
$$\tau_{\text{HeII}} = 612.64 \text{ s}$$

$$\phi_{\text{HeII}} = 2.9118$$

profile18

$$\chi^2_{\nu}(\text{dof} = 72) = 0.090719$$

Age after ZAMS: 2.110 Gyr



$$a_0 = -6.8278 \mu\text{Hz}$$

$$a_1 = 0.0039477$$

$$a_2 = -5.391e-07 \mu\text{Hz}^{-1}$$

$$c_0 = 0.0017363$$

$$c_2 = 2.2456e-07 \mu\text{Hz}^{-2}$$

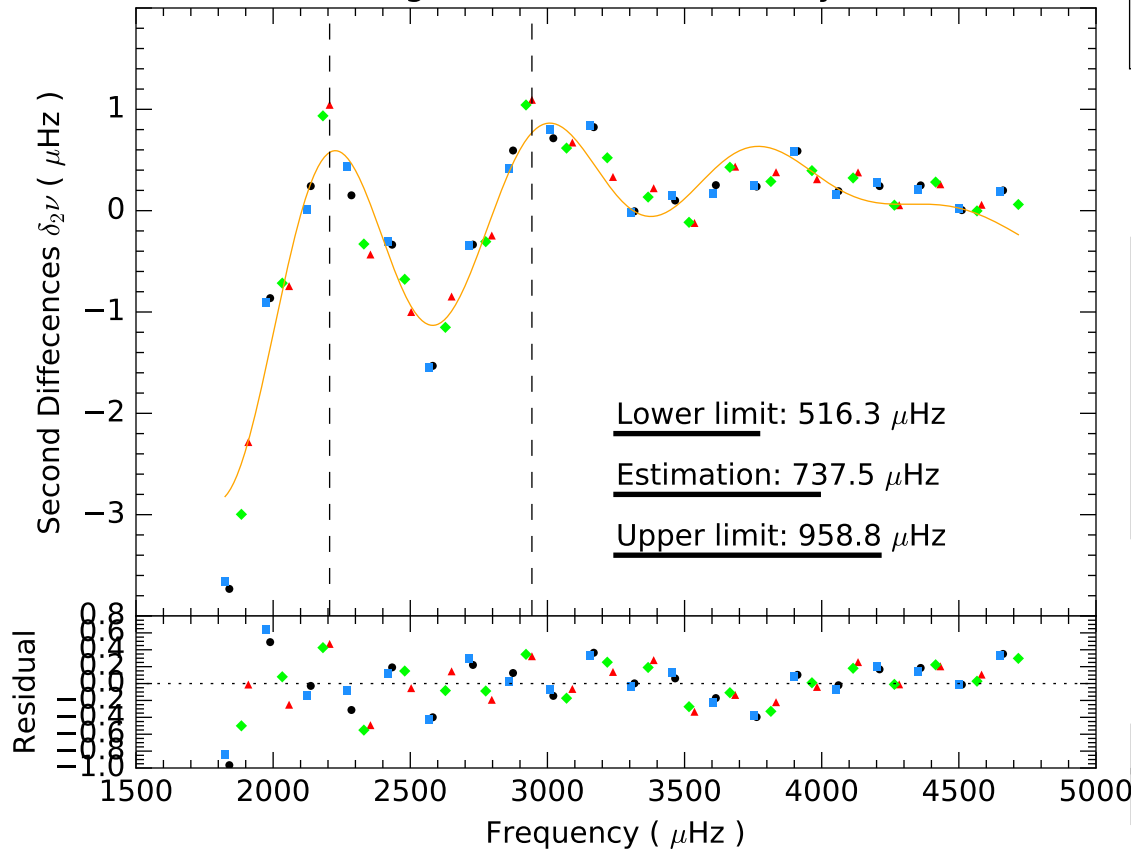
$$\tau_{\text{HeII}} = 621.81 \text{ s}$$

$$\phi_{\text{HeII}} = 2.8747$$

profile19

$$\chi^2_{\nu}(\text{dof} = 72) = 0.090307$$

Age after ZAMS: 2.410 Gyr

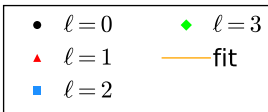
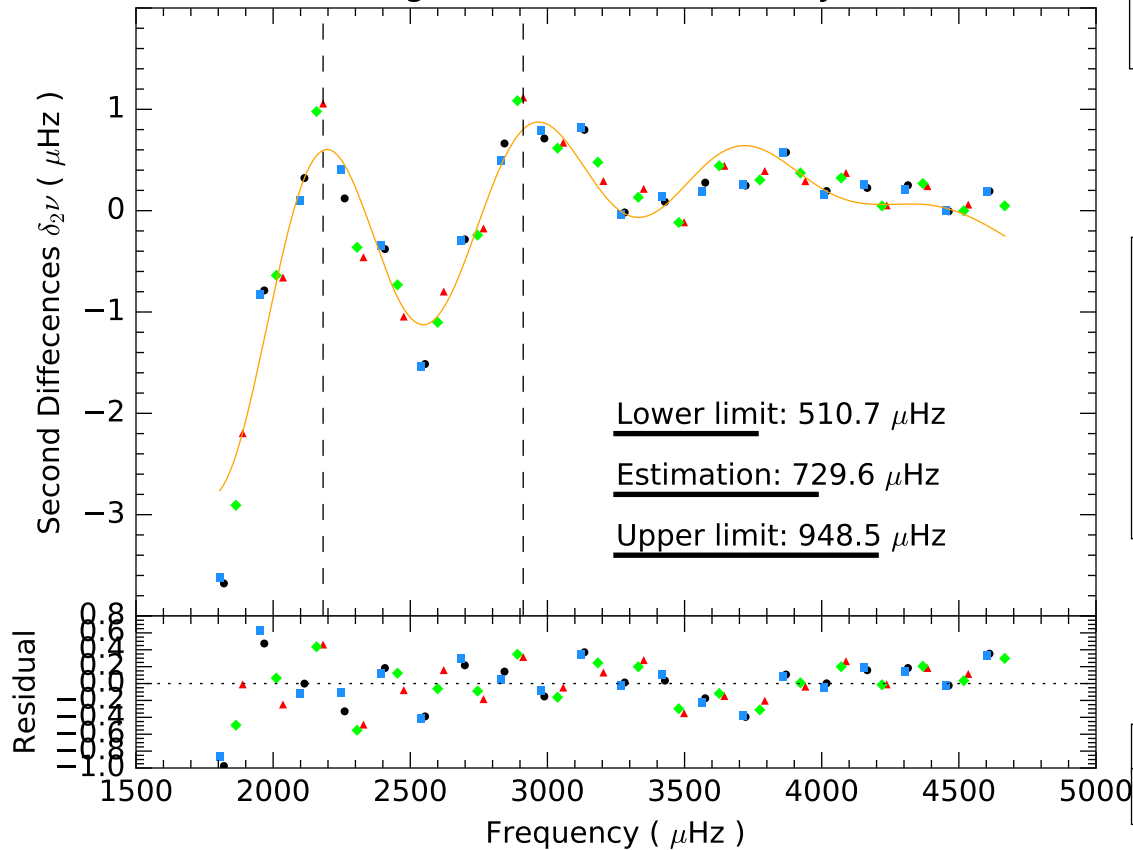


$$\begin{aligned}
 a_0 &= -6.7221 \mu \text{ Hz} \\
 a_1 &= 0.0039423 \\
 a_2 &= -5.4564e-07 \mu\text{Hz}^{-1} \\
 c_0 &= 0.0017242 \\
 c_2 &= 2.2702e-07 \mu\text{Hz}^{-2} \\
 \tau_{HeII} &= 630.44 \text{ s} \\
 \phi_{HeII} &= 2.8635
 \end{aligned}$$

profile20

$$\chi^2_{\nu}(\text{dof} = 72) = 0.090152$$

Age after ZAMS: 2.710 Gyr

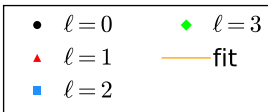
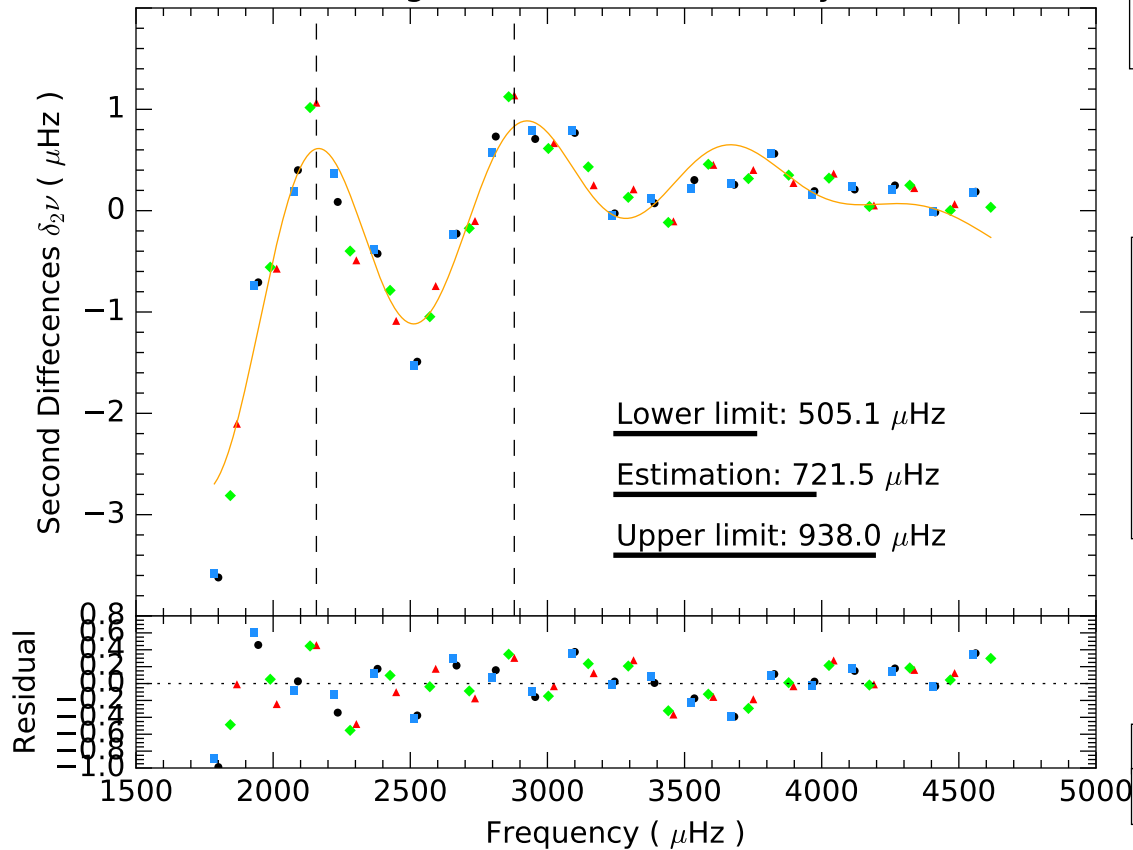


$$\begin{aligned}
 a_0 &= -6.6118 \mu\text{Hz} \\
 a_1 &= 0.0039351 \\
 a_2 &= -5.5225e-07 \mu\text{Hz}^{-2} \\
 c_0 &= 0.0017073 \\
 c_2 &= 2.2927e-07 \mu\text{Hz}^{-2} \\
 \tau_{HeII} &= 639.26 \text{ s} \\
 \phi_{HeII} &= 2.858
 \end{aligned}$$

profile21

$$\chi^2_{\nu}(\text{dof} = 72) = 0.090188$$

Age after ZAMS: 3.010 Gyr

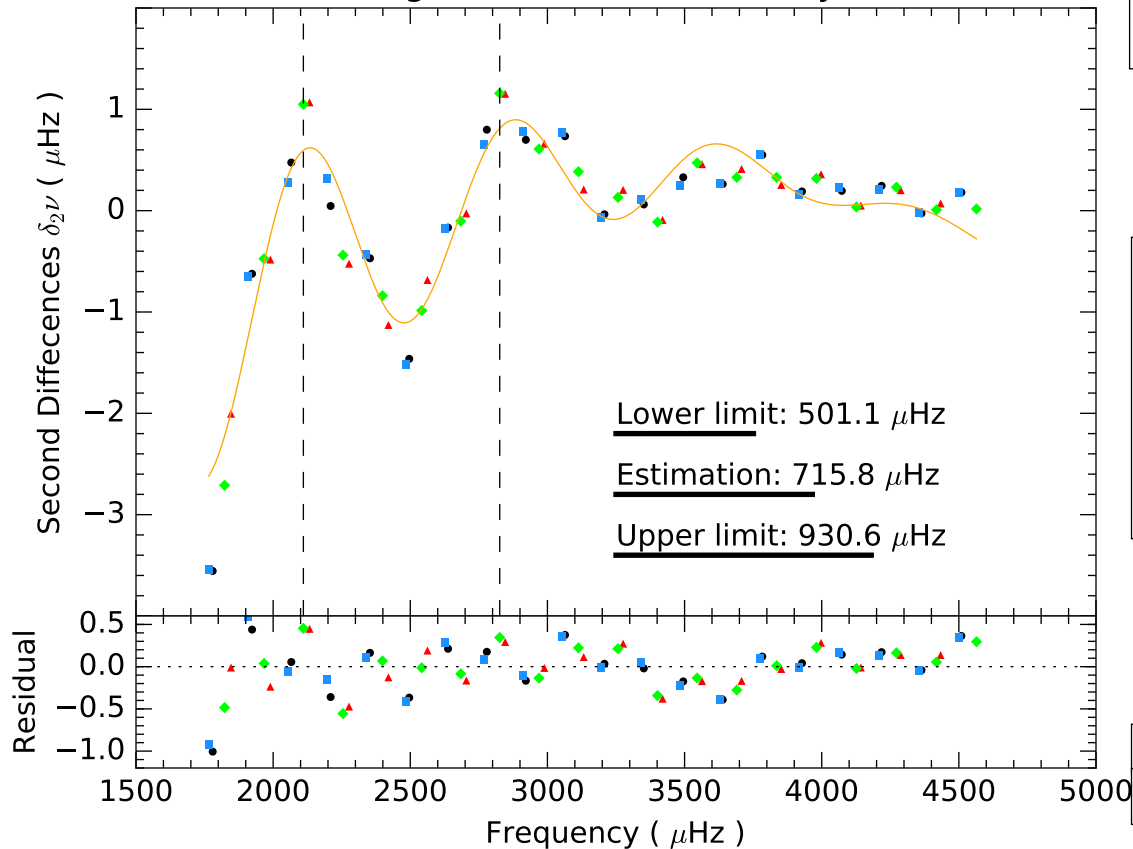


$$\begin{aligned}
 a_0 &= -6.4967 \mu\text{Hz} \\
 a_1 &= 0.003926 \\
 a_2 &= -5.5895e-07 \mu\text{Hz}^{-2} \\
 c_0 &= 0.0016847 \\
 c_2 &= 2.3122e-07 \mu\text{Hz}^{-2} \\
 \tau_{\text{HeII}} &= 648.27 \text{ s} \\
 \phi_{\text{HeII}} &= 2.8596
 \end{aligned}$$

profile22

$$\chi^2_{\nu}(\text{dof} = 72) = 0.090548$$

Age after ZAMS: 3.310 Gyr



$$a_0 = -6.3763 \mu\text{Hz}$$

$$a_1 = 0.0039148$$

$$a_2 = -5.6572e-07 \mu\text{Hz}^{-2}$$

$$c_0 = 0.0016538$$

$$c_2 = 2.3263e-07 \mu\text{Hz}^{-2}$$

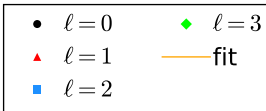
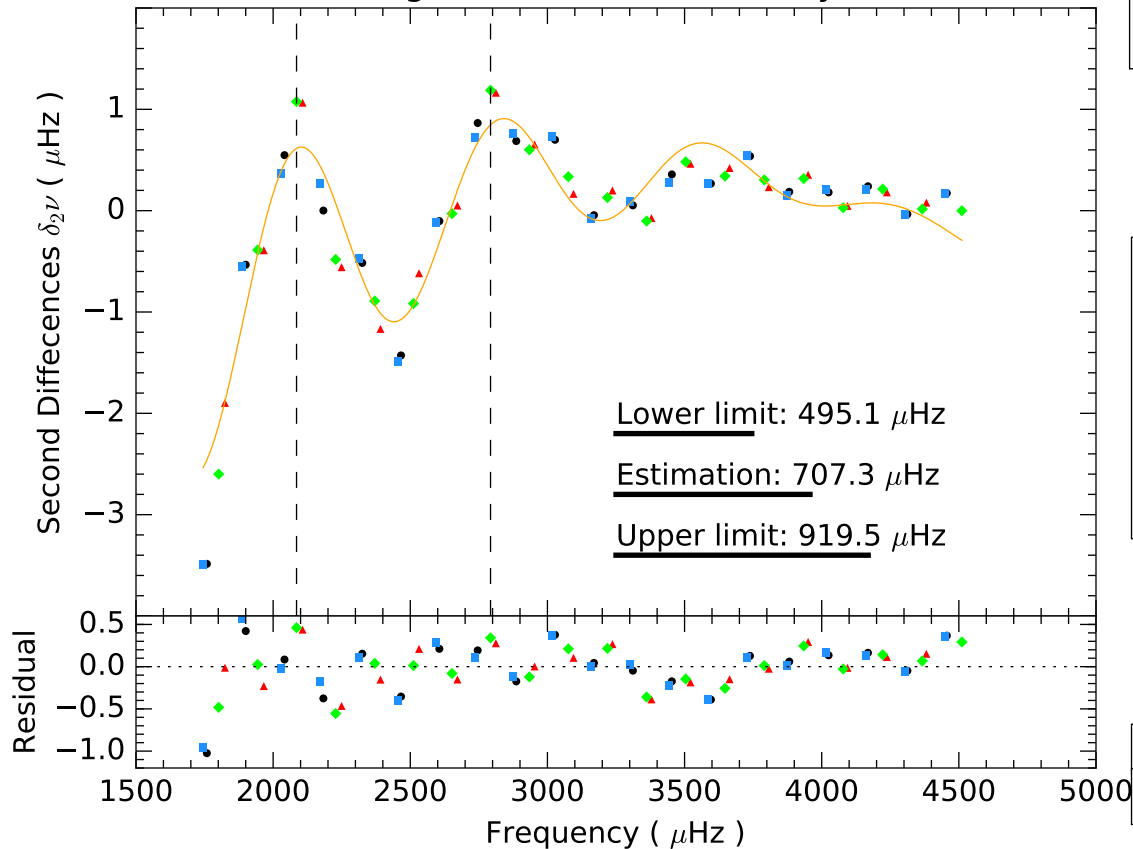
$$\tau_{HeII} = 657.32 \text{ s}$$

$$\phi_{HeII} = 2.8733$$

profile23

$$\chi^2_{\nu}(\text{dof} = 72) = 0.091316$$

Age after ZAMS: 3.610 Gyr

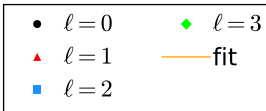
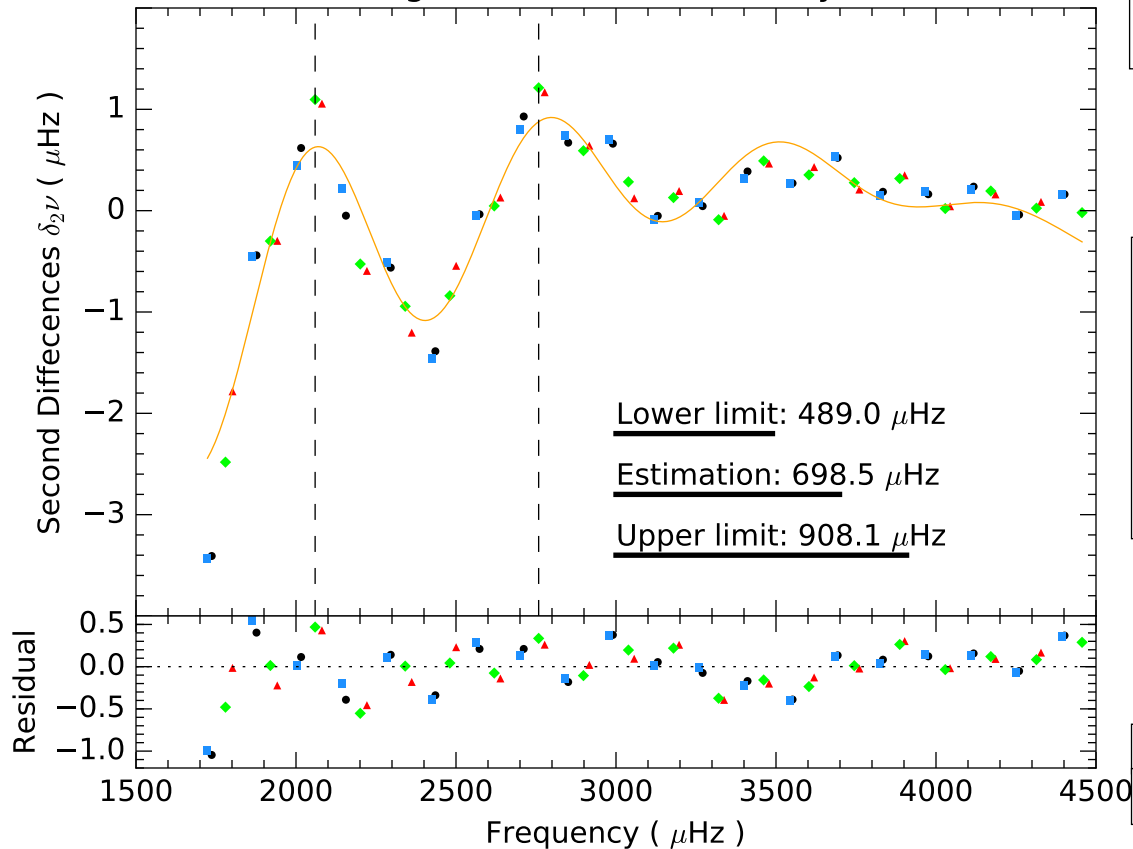


$$\begin{aligned}
 a_0 &= -6.249 \mu\text{Hz} \\
 a_1 &= 0.0039003 \\
 a_2 &= -5.724e-07 \mu\text{Hz}^{-1} \\
 c_0 &= 0.0016184 \\
 c_2 &= 2.3371e-07 \mu\text{Hz}^{-2} \\
 \tau_{HeII} &= 666.67 \text{ s} \\
 \phi_{HeII} &= 2.8928
 \end{aligned}$$

profile24

$$\chi^2_{\nu}(\text{dof} = 72) = 0.092416$$

Age after ZAMS: 3.910 Gyr



$$a_0 = -6.1158 \mu\text{Hz}$$

$$a_1 = 0.0038831$$

$$a_2 = -5.7909e-07 \mu\text{Hz}^{-2}$$

$$c_0 = 0.0015776$$

$$c_2 = 2.3443e-07 \mu\text{Hz}^{-2}$$

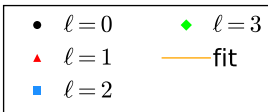
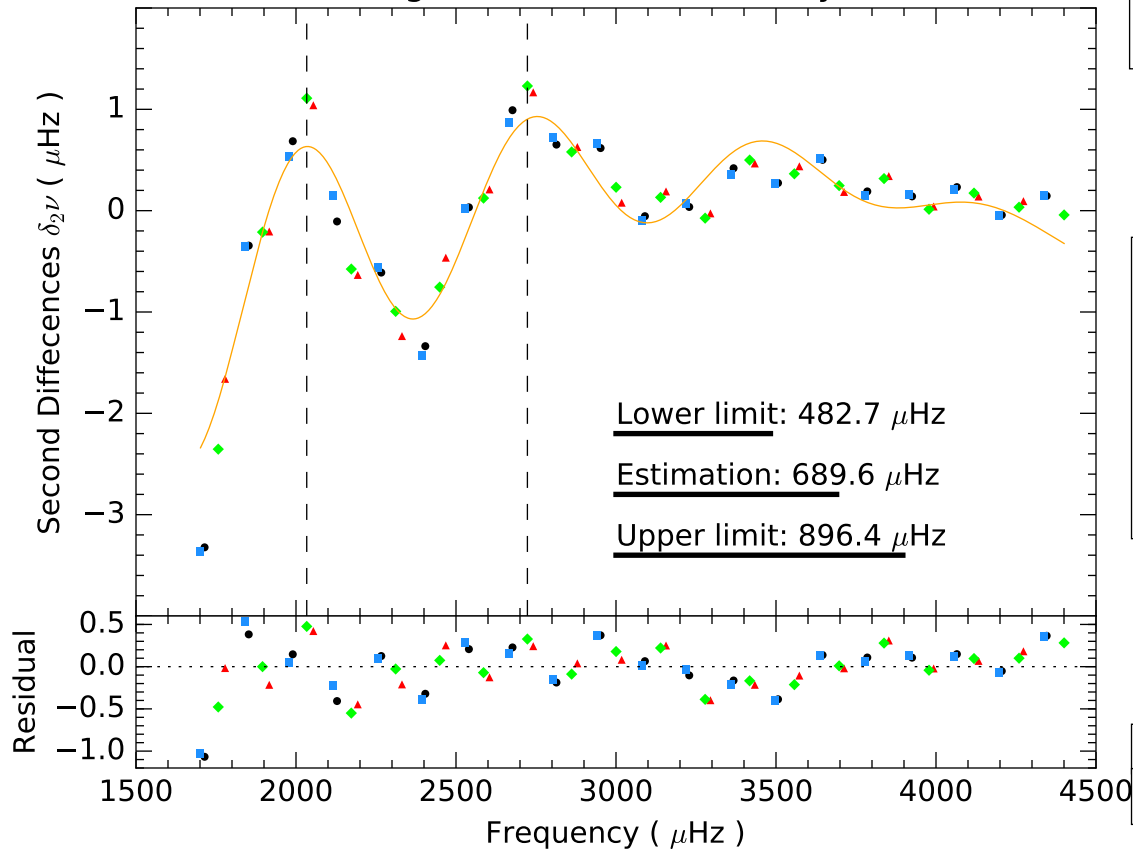
$$\tau_{HeII} = 676.1 \text{ s}$$

$$\phi_{HeII} = 2.9253$$

profile25

$$\chi^2_{\nu}(\text{dof} = 72) = 0.093711$$

Age after ZAMS: 4.210 Gyr



$$a_0 = -5.9797 \mu\text{Hz}$$

$$a_1 = 0.0038648$$

$$a_2 = -5.8605e-07 \mu\text{Hz}^{-2}$$

$$c_0 = 0.0015347$$

$$c_2 = 2.3517e-07 \mu\text{Hz}^{-2}$$

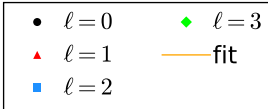
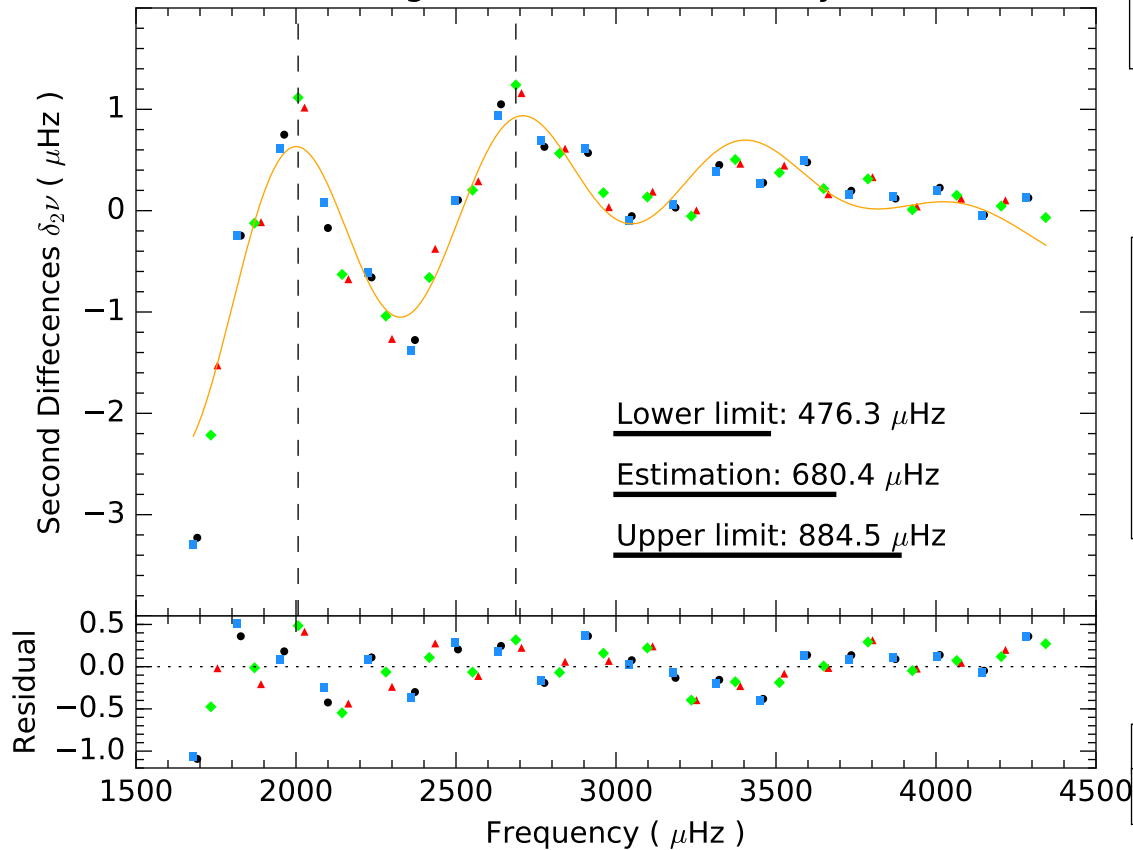
$$\tau_{HeII} = 685.58 \text{ s}$$

$$\phi_{HeII} = 2.9738$$

profile26

$$\chi^2_{\nu}(\text{dof} = 72) = 0.095$$

Age after ZAMS: 4.510 Gyr



$$a_0 = -5.8352 \mu\text{Hz}$$

$$a_1 = 0.0038422$$

$$a_2 = -5.9282e-07 \mu\text{Hz}^{-2}$$

$$c_0 = 0.001488$$

$$c_2 = 2.3578e-07 \mu\text{Hz}^{-2}$$

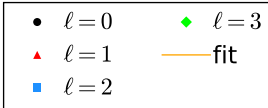
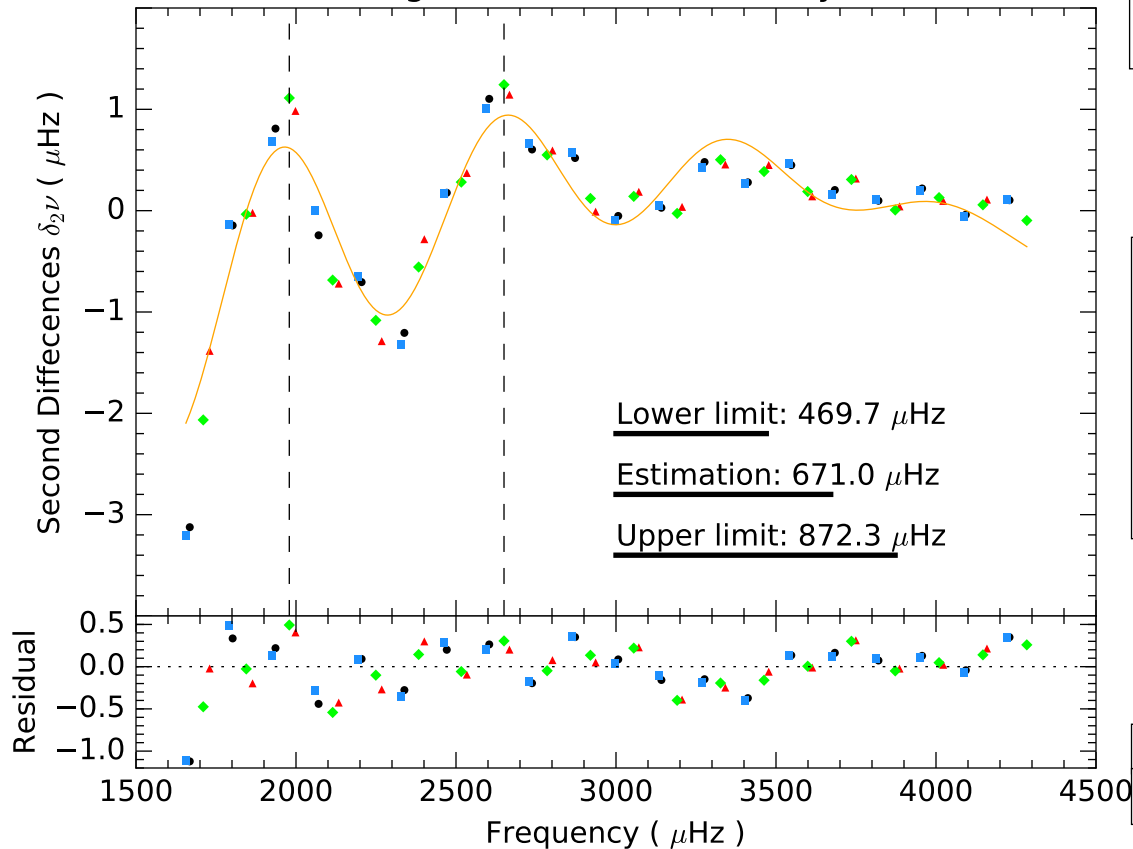
$$\tau_{\text{HeII}} = 695.09 \text{ s}$$

$$\phi_{\text{HeII}} = 3.0385$$

profile27

$$\chi^2_{\nu}(\text{dof} = 72) = 0.096555$$

Age after ZAMS: 4.810 Gyr



$$a_0 = -5.6843 \mu\text{Hz}$$

$$a_1 = 0.0038163$$

$$a_2 = -5.9958e-07 \mu\text{Hz}^{-2}$$

$$c_0 = 0.0014371$$

$$c_2 = 2.3624e-07 \mu\text{Hz}^{-2}$$

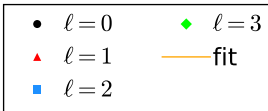
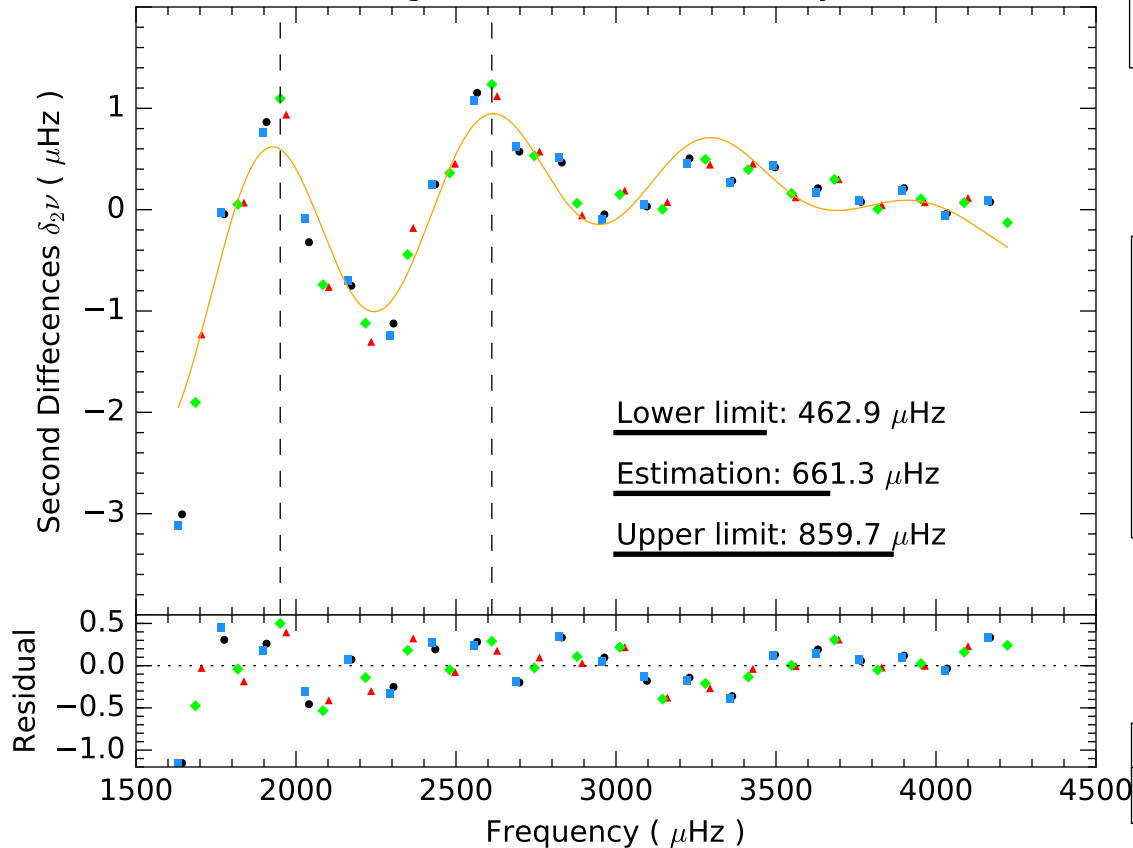
$$\tau_{HeII} = 704.44 \text{ s}$$

$$\phi_{HeII} = 3.1272$$

profile28

$$\chi^2_{\nu}(\text{dof} = 72) = 0.098347$$

Age after ZAMS: 5.110 Gyr

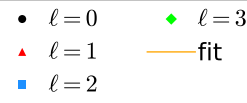
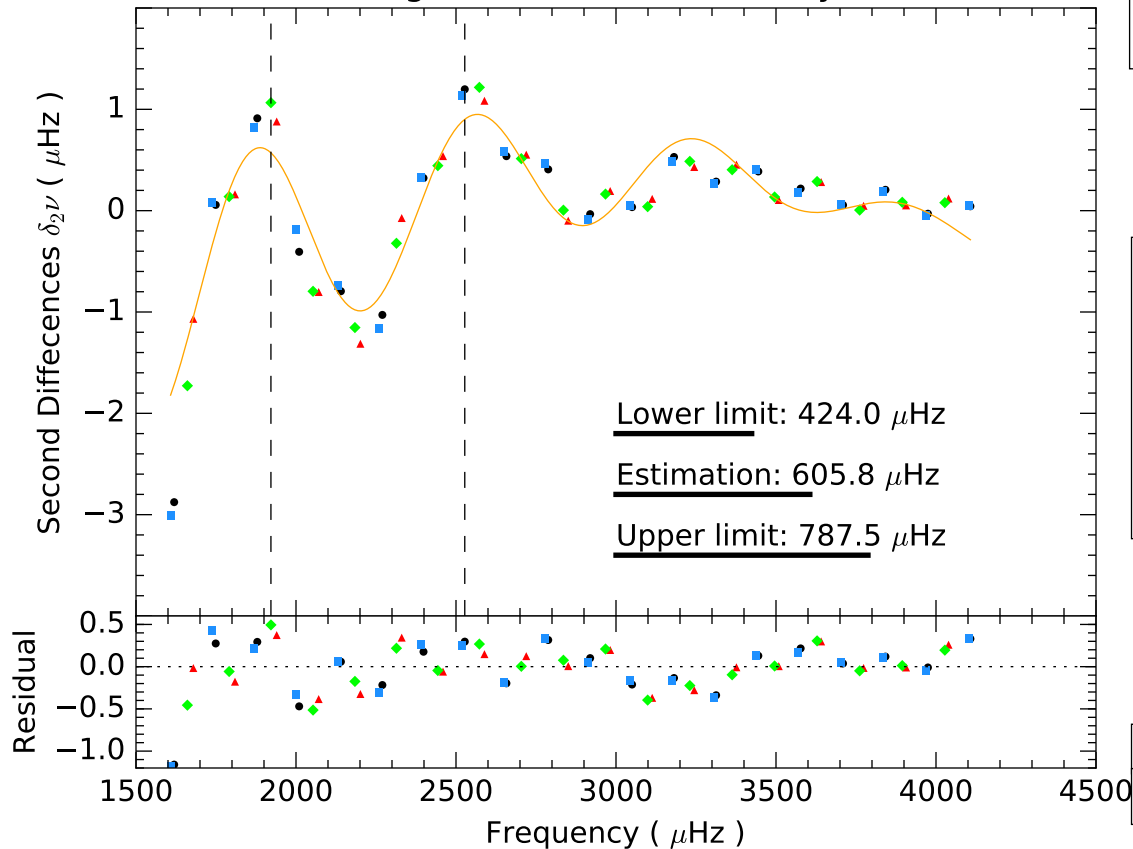


$$\begin{aligned}
 a_0 &= -5.526 \mu\text{Hz} \\
 a_1 &= 0.0037862 \\
 a_2 &= -6.0618e-07 \mu\text{Hz}^{-2} \\
 c_0 &= 0.0013825 \\
 c_2 &= 2.3645e-07 \mu\text{Hz}^{-2} \\
 \tau_{\text{HeII}} &= 713.59 \text{ s} \\
 \phi_{\text{HeII}} &= 3.242
 \end{aligned}$$

profile29

$$\chi^2_{\nu}(\text{dof} = 72) = 0.10038$$

Age after ZAMS: 5.410 Gyr

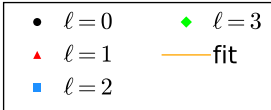
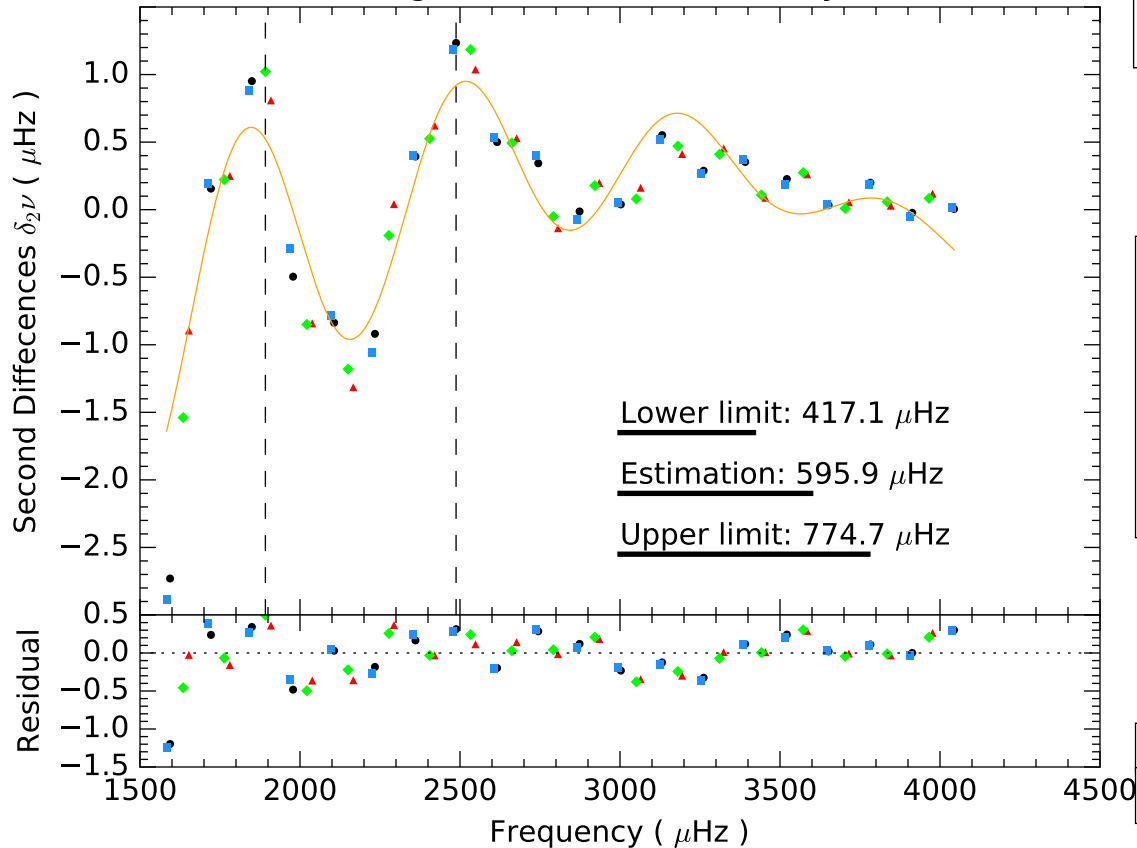


$$\begin{aligned}
 a_0 &= -5.4212 \mu\text{Hz} \\
 a_1 &= 0.0037974 \\
 a_2 &= -6.209e-07 \mu\text{Hz}^{-1} \\
 c_0 &= 0.0013708 \\
 c_2 &= 2.4184e-07 \mu\text{Hz}^{-2} \\
 \tau_{HeII} &= 723.72 \text{ s} \\
 \phi_{HeII} &= 3.3567
 \end{aligned}$$

profile30

$$\chi^2_{\nu}(\text{dof} = 71) = 0.10078$$

Age after ZAMS: 5.710 Gyr



$$a_0 = -5.2407 \mu\text{Hz}$$

$$a_1 = 0.0037537$$

$$a_2 = -6.265e-07 \mu\text{Hz}^{-1}$$

$$c_0 = 0.0013123$$

$$c_2 = 2.4234e-07 \mu\text{Hz}^{-2}$$

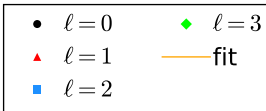
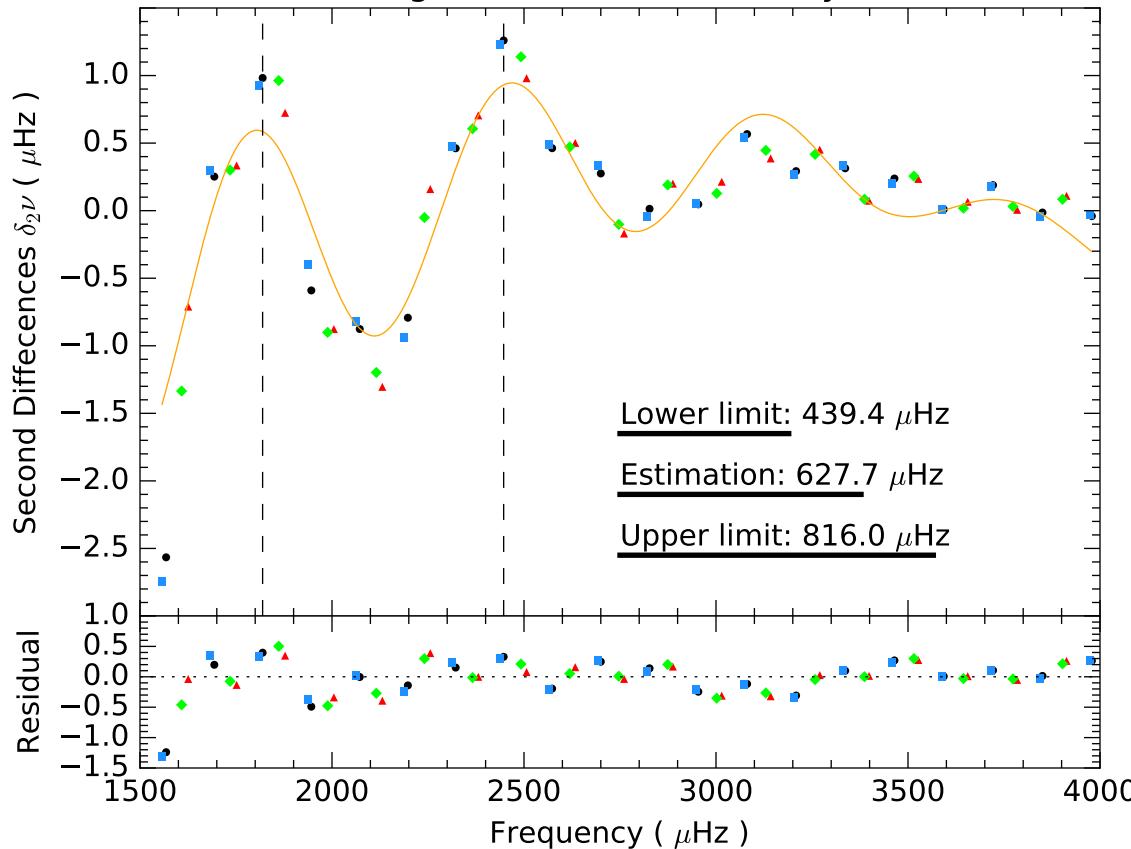
$$\tau_{HeII} = 732.2 \text{ s}$$

$$\phi_{HeII} = 3.5337$$

profile31

$$\chi^2_{\nu}(\text{dof} = 71) = 0.10347$$

Age after ZAMS: 6.010 Gyr

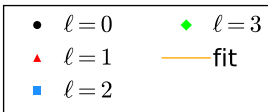
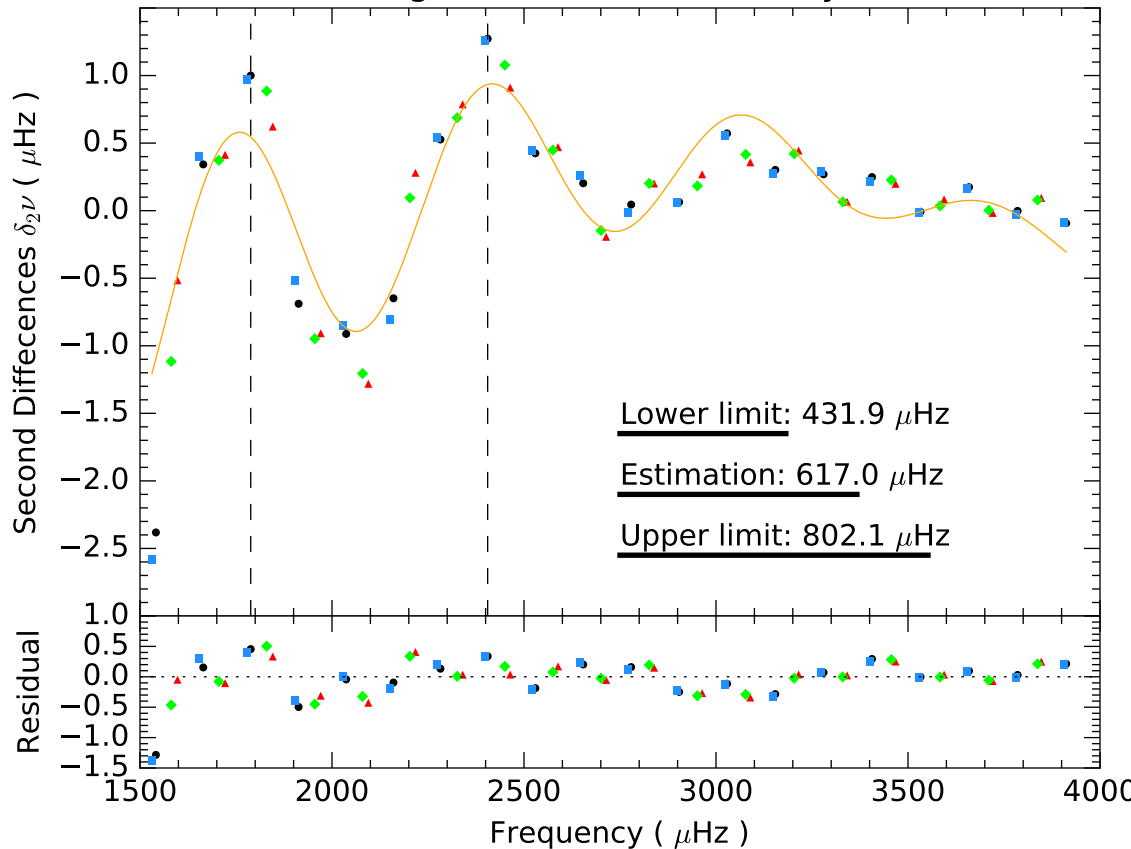


$$\begin{aligned}
 a_0 &= -5.0439 \mu\text{Hz} \\
 a_1 &= 0.003699 \\
 a_2 &= -6.3085e-07 \mu\text{Hz}^{-2} \\
 c_0 &= 0.0012552 \\
 c_2 &= 2.4349e-07 \mu\text{Hz}^{-2} \\
 \tau_{\text{HeII}} &= 739.78 \text{ s} \\
 \phi_{\text{HeII}} &= 3.7594
 \end{aligned}$$

profile32

$$\chi^2_{\nu}(\text{dof} = 71) = 0.10659$$

Age after ZAMS: 6.310 Gyr

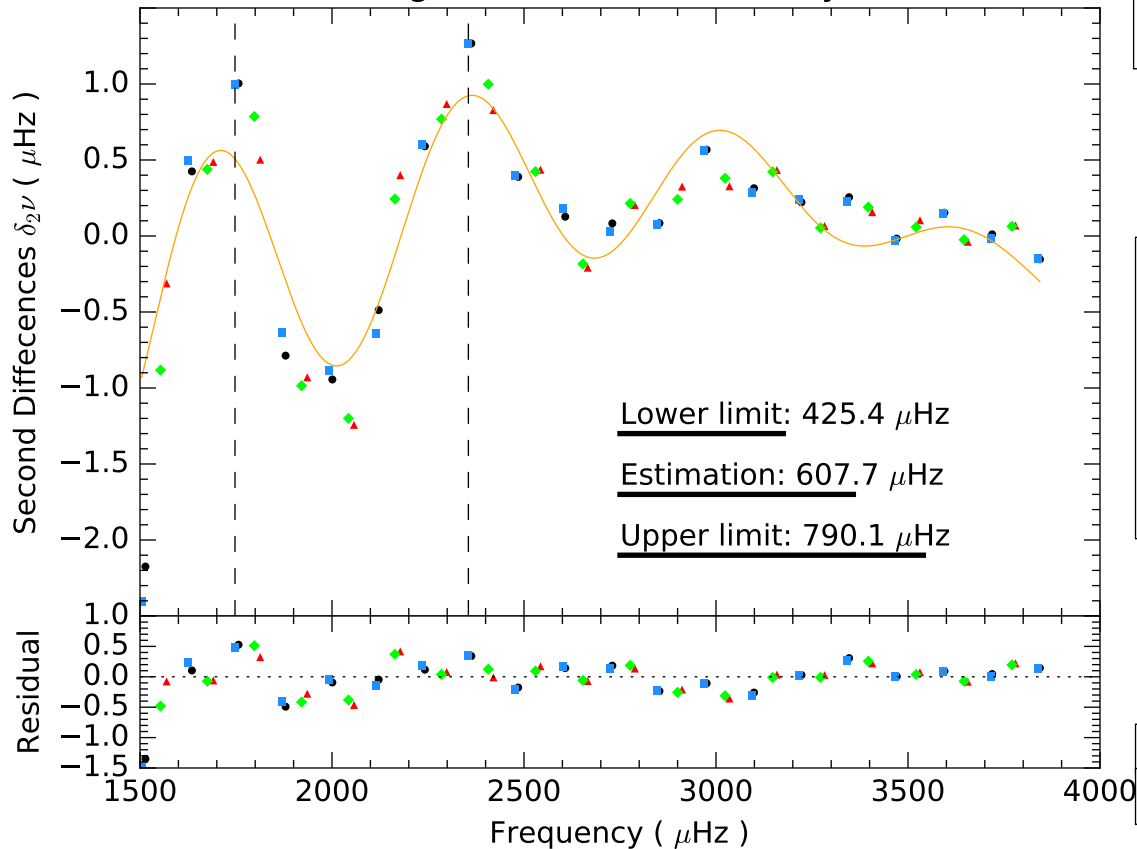


$$\begin{aligned}
 a_0 &= -4.8355 \mu\text{Hz} \\
 a_1 &= 0.0036354 \\
 a_2 &= -6.3417e-07 \mu\text{Hz}^{-2} \\
 c_0 &= 0.0012046 \\
 c_2 &= 2.4587e-07 \mu\text{Hz}^{-2} \\
 \tau_{HeII} &= 746.33 \text{ s} \\
 \phi_{HeII} &= 4.0395
 \end{aligned}$$

profile33

$$\chi^2_{\nu}(\text{dof} = 71) = 0.10989$$

Age after ZAMS: 6.610 Gyr

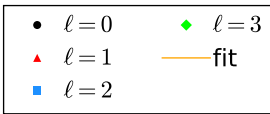
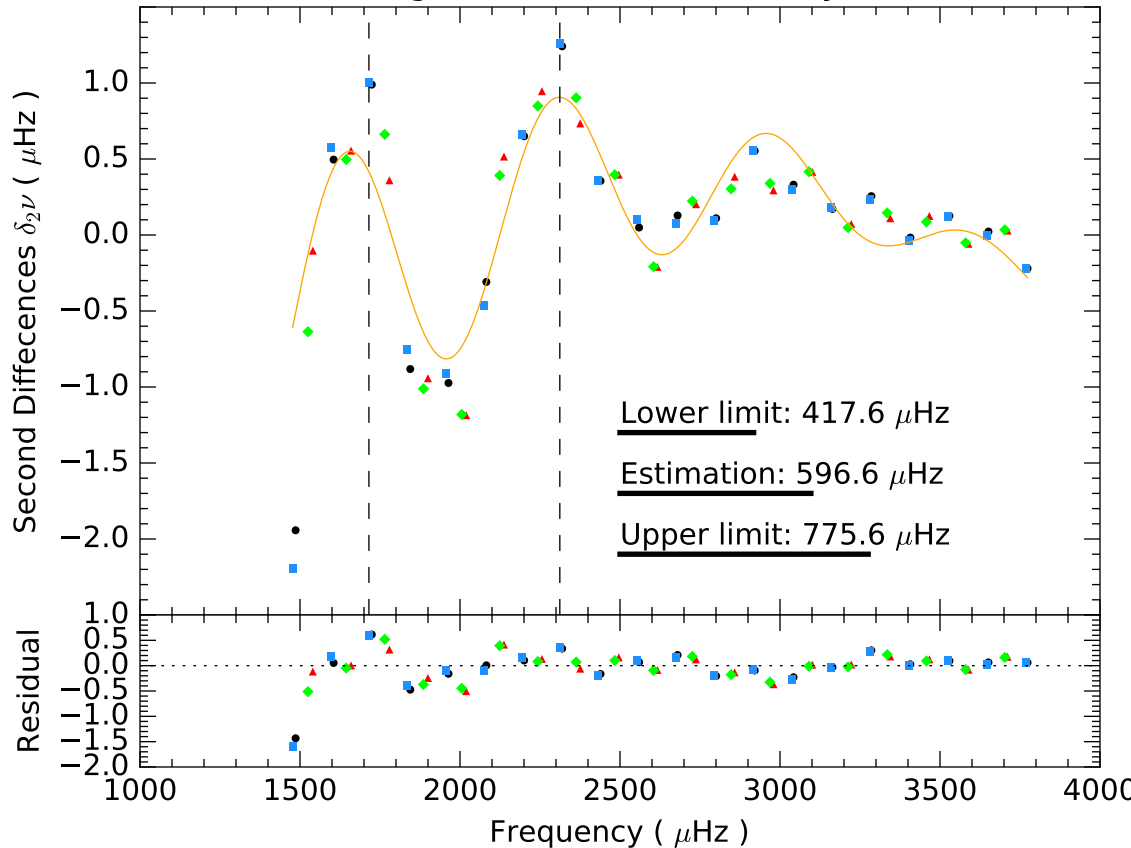


$$\begin{aligned}
 a_0 &= -4.5957 \mu\text{Hz} \\
 a_1 &= 0.0035482 \\
 a_2 &= -6.3386e-07 \mu\text{Hz}^{-2} \\
 c_0 &= 0.0011572 \\
 c_2 &= 2.5024e-07 \mu\text{Hz}^{-2} \\
 \tau_{HeII} &= 749.4 \text{ s} \\
 \phi_{HeII} &= 4.439
 \end{aligned}$$

profile34

$$\chi^2_{\nu}(\text{dof} = 71) = 0.11549$$

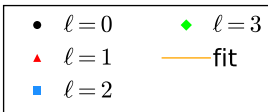
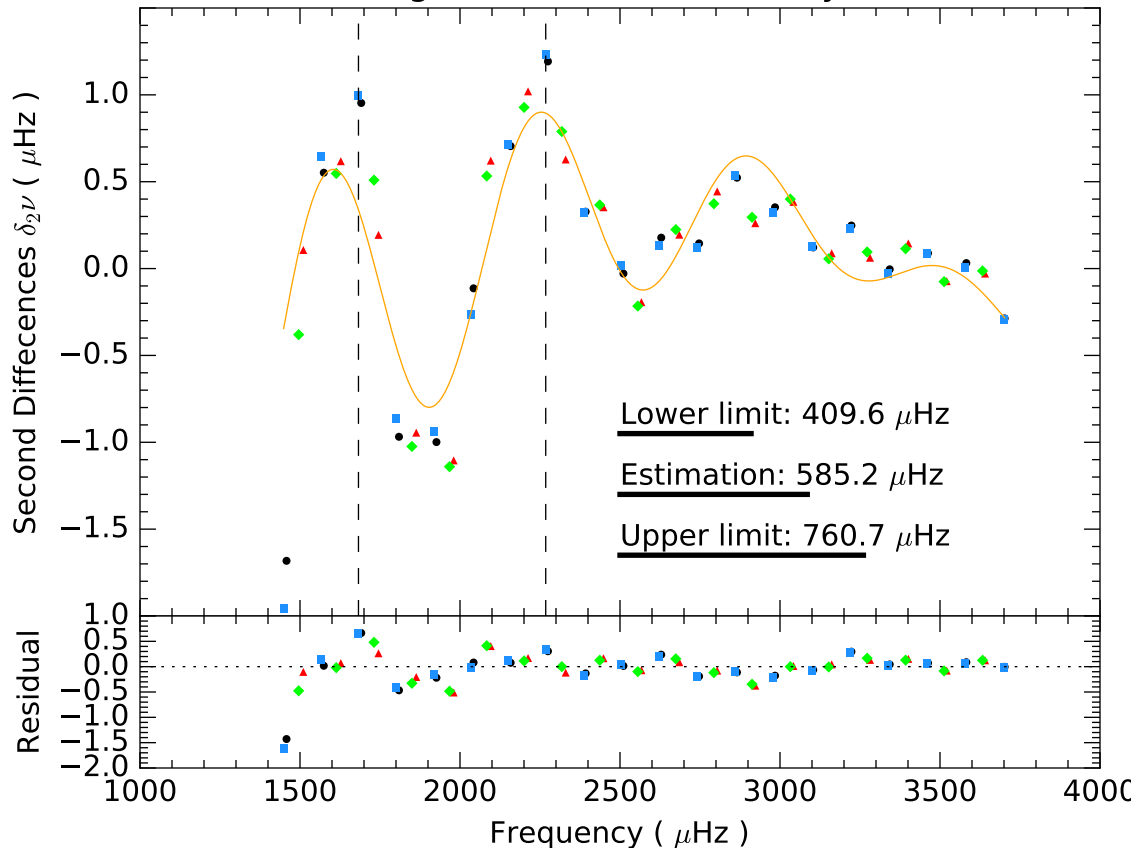
Age after ZAMS: 6.910 Gyr



$a_0 = -4.319 \mu\text{Hz}$
 $a_1 = 0.0034313$
 $a_2 = -6.2856e-07 \mu\text{Hz}^{-2}$
 $c_0 = 0.0011314$
 $c_2 = 2.6e-07 \mu\text{Hz}^{-2}$
 $\tau_{HeII} = 747.96 \text{ s}$
 $\phi_{HeII} = 4.9837$

profile35
 $\chi^2_{\nu}(\text{dof} = 71) = 0.12458$

Age after ZAMS: 7.210 Gyr



$$a_0 = -4.0672 \mu\text{Hz}$$

$$a_1 = 0.0033299$$

$$a_2 = -6.2637e-07 \mu\text{Hz}^{-2}$$

$$c_0 = 0.0011612$$

$$c_2 = 2.7587e-07 \mu\text{Hz}^{-2}$$

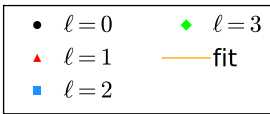
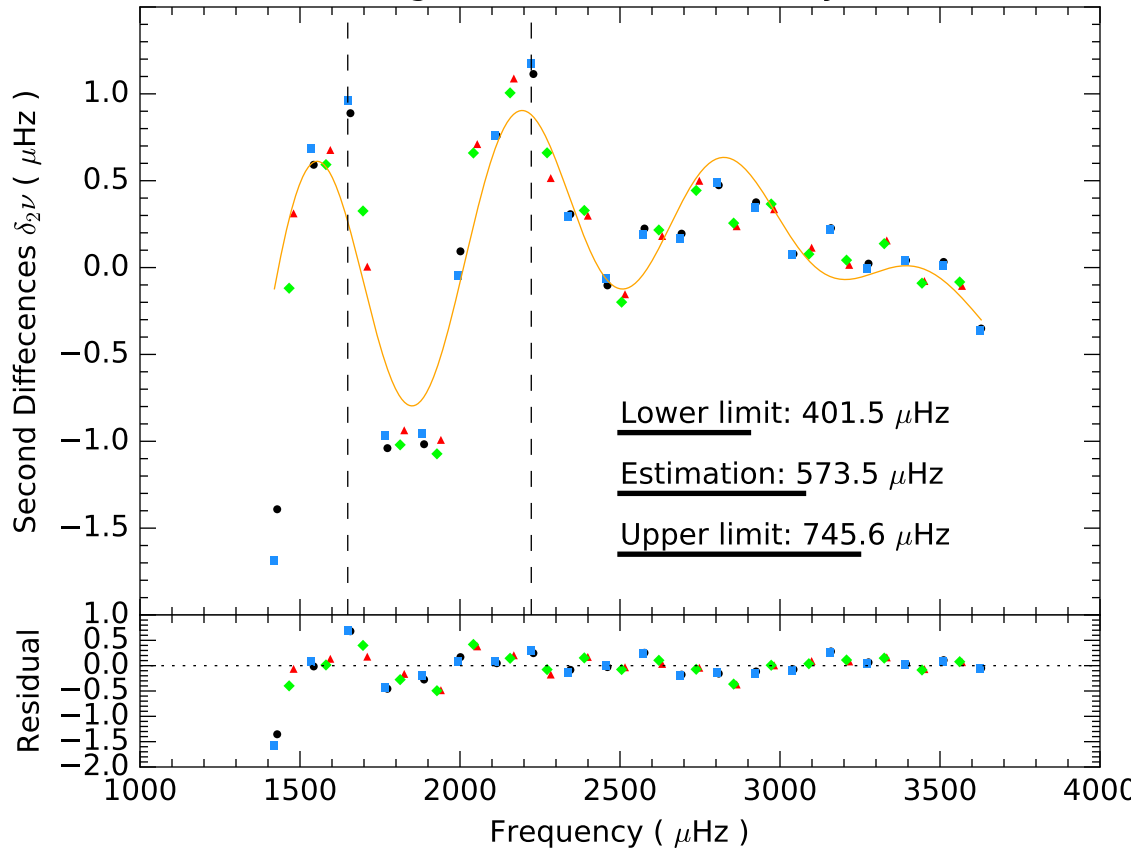
$$\tau_{\text{HeII}} = 753.67 \text{ s}$$

$$\phi_{\text{HeII}} = 5.3551$$

profile36

$$\chi^2_{\nu}(\text{dof} = 71) = 0.12436$$

Age after ZAMS: 7.510 Gyr

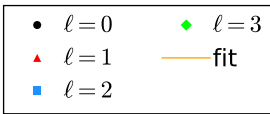
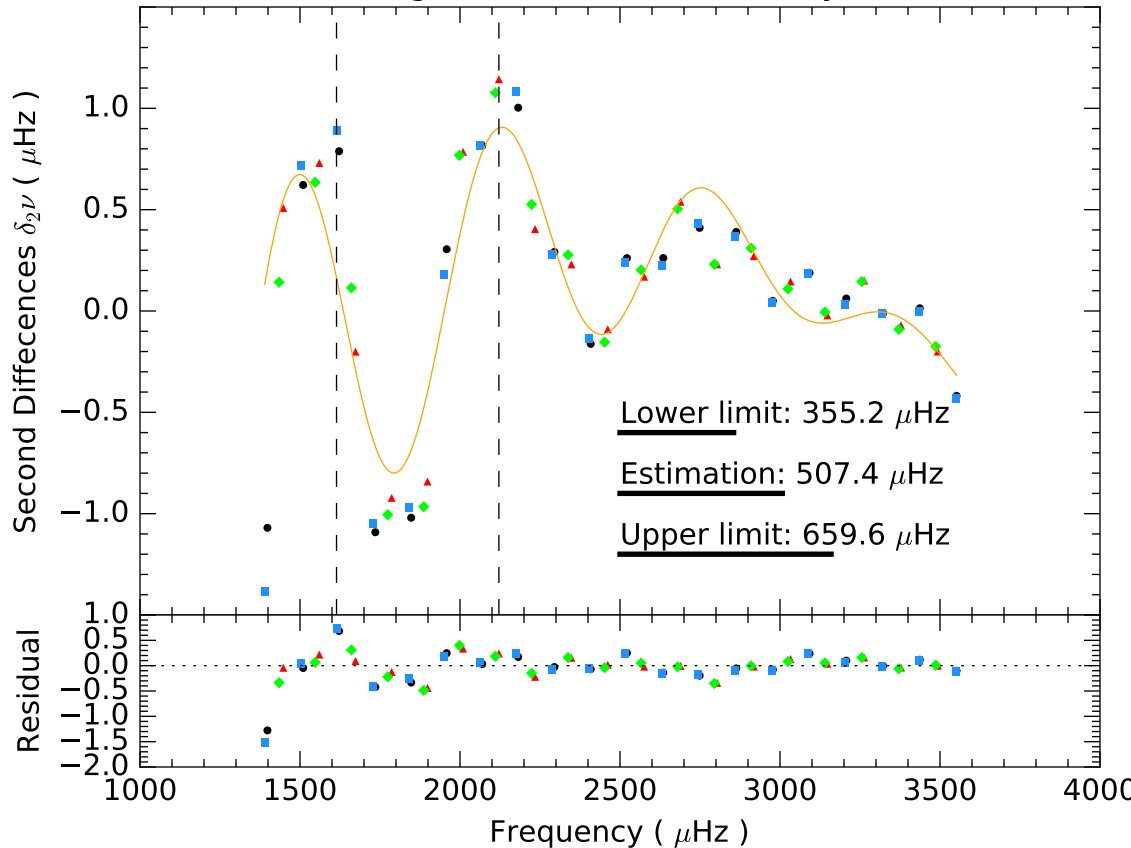


$a_0 = -3.8432 \mu\text{Hz}$
 $a_1 = 0.0032477$
 $a_2 = -6.2837e-07 \mu\text{Hz}^{-2}$
 $c_0 = 0.0012269$
 $c_2 = 2.9627e-07 \mu\text{Hz}^{-2}$
 $\tau_{HeII} = 765.0 \text{ s}$
 $\phi_{HeII} = 5.6019$

profile37

$\chi^2_{\nu}(\text{dof} = 71) = 0.11616$

Age after ZAMS: 7.810 Gyr

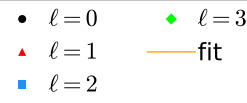
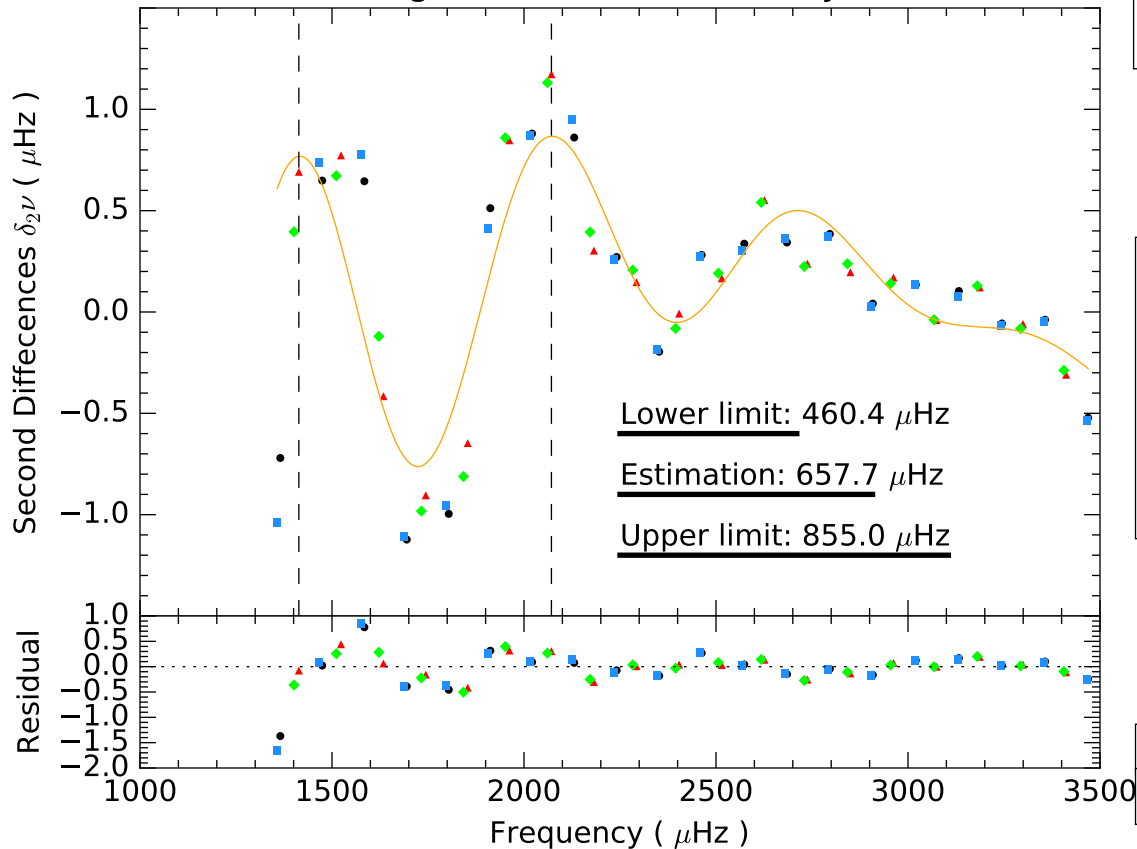


$a_0 = -3.5958 \mu\text{Hz}$
 $a_1 = 0.0031481$
 $a_2 = -6.2832e-07 \mu\text{Hz}^{-2}$
 $c_0 = 0.0013486$
 $c_2 = 3.2827e-07 \mu\text{Hz}^{-2}$
 $\tau_{HeII} = 775.49 \text{ s}$
 $\phi_{HeII} = 5.9119$

profile38

$\chi^2_{\nu}(\text{dof} = 71) = 0.10792$

Age after ZAMS: 8.110 Gyr

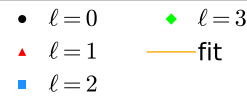
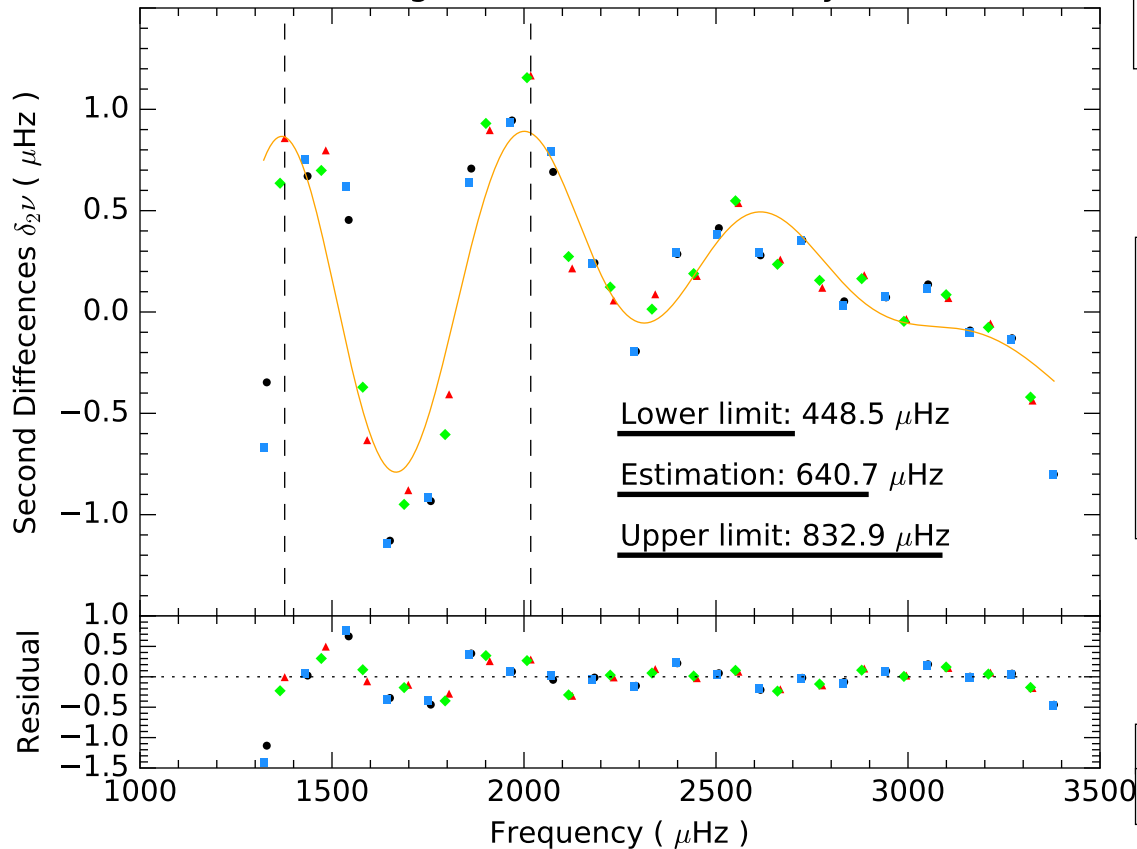


$$\begin{aligned} a_0 &= -3.0425 \mu\text{Hz} \\ a_1 &= 0.0028057 \\ a_2 &= -5.8275e-07 \mu\text{Hz}^{-2} \\ c_0 &= 0.0015704 \\ c_2 &= 3.9397e-07 \mu\text{Hz}^{-2} \\ \tau_{\text{HeII}} &= 745.06 \text{ s} \\ \phi_{\text{HeII}} &= 0.954 \end{aligned}$$

profile39

$$\chi^2_{\nu}(\text{dof} = 71) = 0.13036$$

Age after ZAMS: 8.410 Gyr

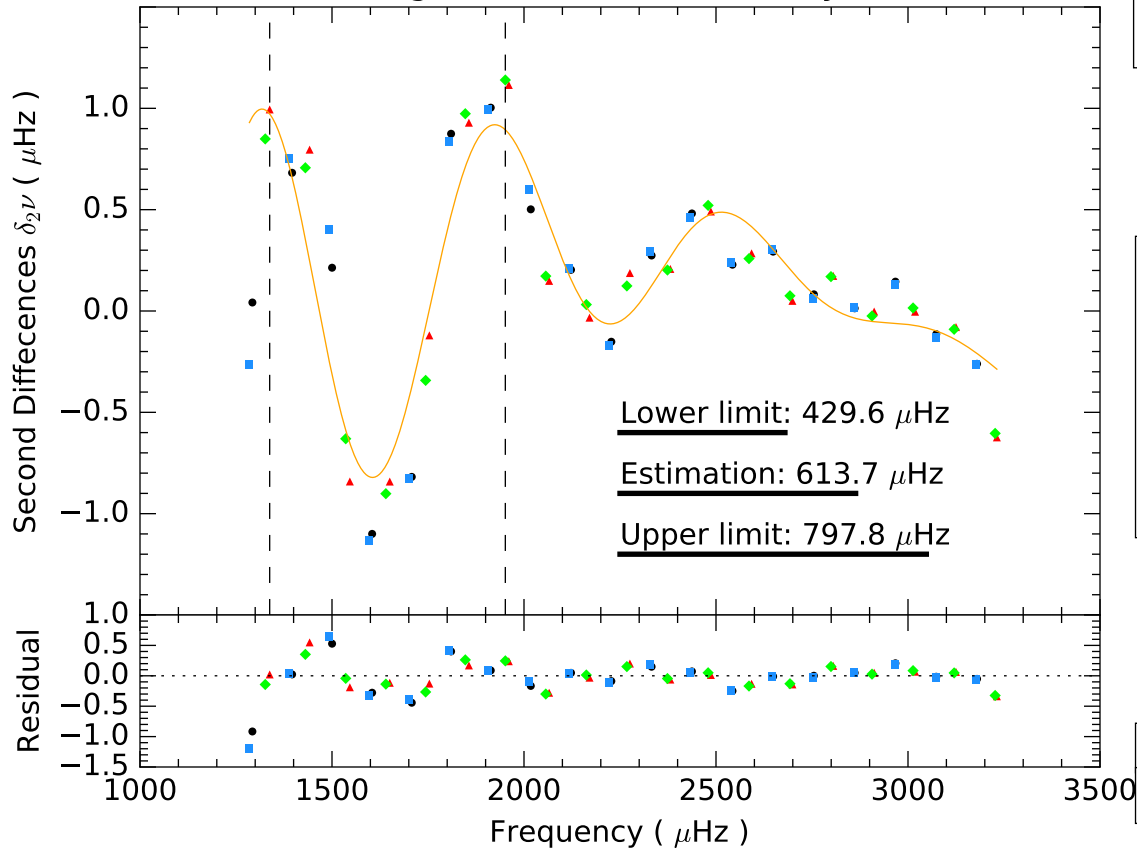


$$\begin{aligned}
 a_0 &= -2.9534 \mu\text{Hz} \\
 a_1 &= 0.0028447 \\
 a_2 &= -6.1532e-07 \mu\text{Hz}^{-2} \\
 c_0 &= 0.0018037 \\
 c_2 &= 4.4087e-07 \mu\text{Hz}^{-2} \\
 \tau_{\text{HeII}} &= 775.56 \text{ s} \\
 \phi_{\text{HeII}} &= 0.8537
 \end{aligned}$$

profile40

$$\chi^2_{\nu}(\text{dof} = 71) = 0.10668$$

Age after ZAMS: 8.708 Gyr



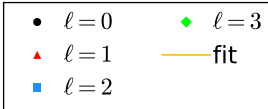
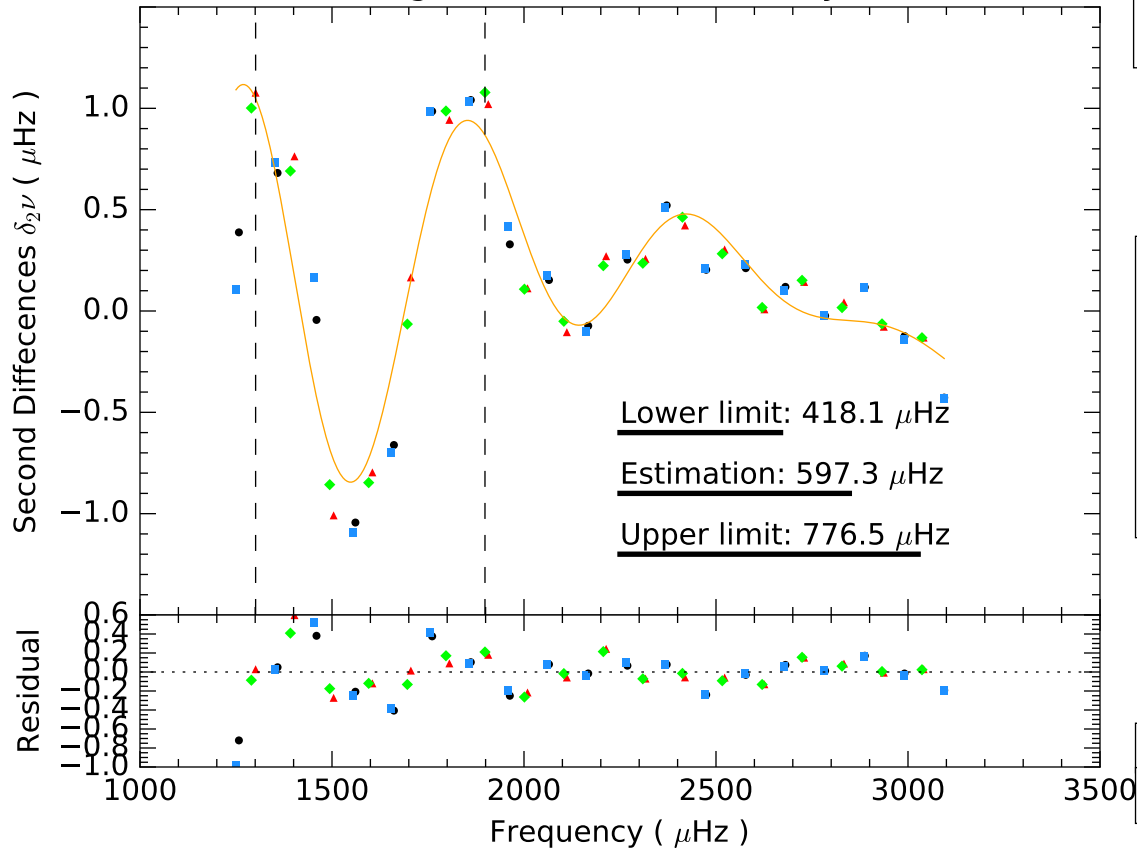
- \bullet $\ell=0$
- \blacktriangle $\ell=1$
- \blacksquare $\ell=2$
- \blacklozenge $\ell=3$
- fit

$$\begin{aligned}
 a_0 &= -2.7257 \mu\text{Hz} \\
 a_1 &= 0.0027628 \\
 a_2 &= -6.2436e-07 \mu\text{Hz}^{-2} \\
 c_0 &= 0.0020957 \\
 c_2 &= 4.9619e-07 \mu\text{Hz}^{-2} \\
 \tau_{HeII} &= 808.83 \text{ s} \\
 \phi_{HeII} &= 0.78469
 \end{aligned}$$

profile41

$$\chi^2_{\nu}(\text{dof} = 69) = 0.081416$$

Age after ZAMS: 8.972 Gyr



$$a_0 = -2.4843 \mu\text{Hz}$$

$$a_1 = 0.0026522$$

$$a_2 = -6.2559e-07 \mu\text{Hz}^{-2}$$

$$c_0 = 0.0023929$$

$$c_2 = 5.5412e-07 \mu\text{Hz}^{-2}$$

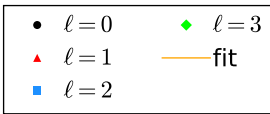
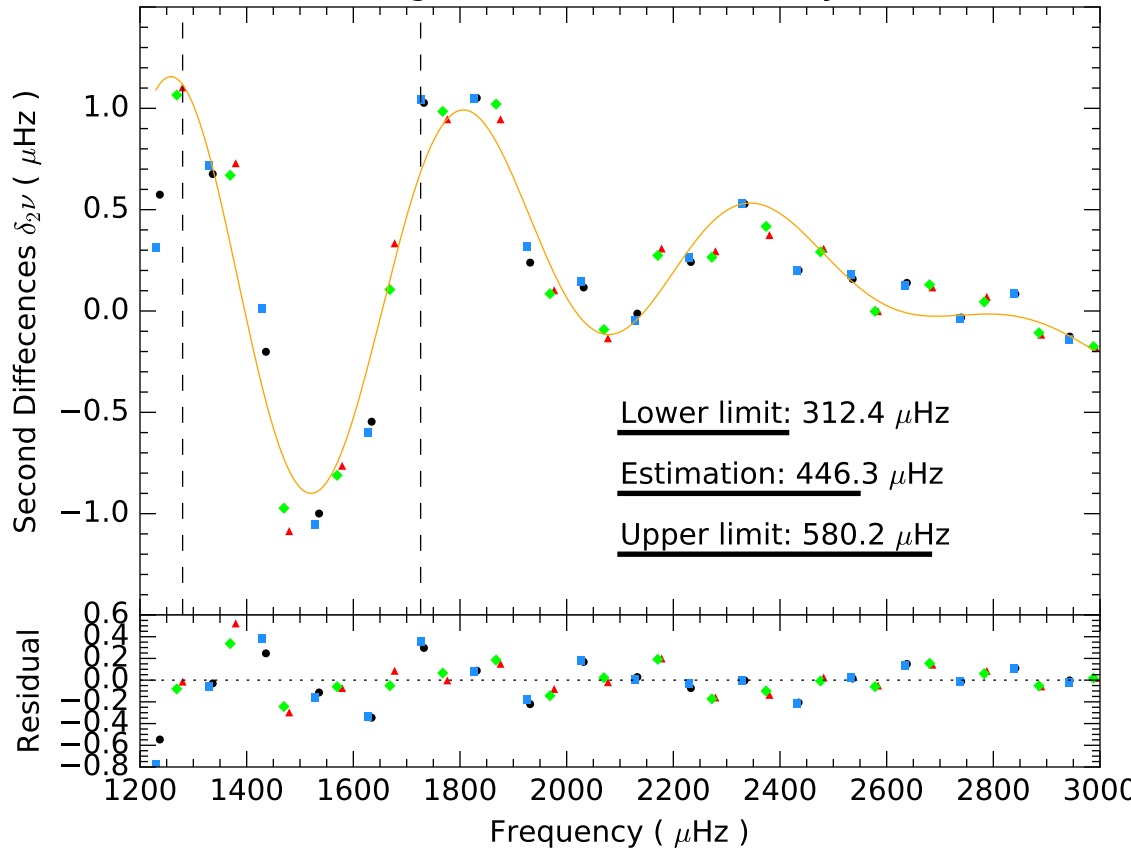
$$\tau_{HeII} = 840.31 \text{ s}$$

$$\phi_{HeII} = 0.75779$$

profile42

$$\chi^2_{\nu}(\text{dof} = 67) = 0.062806$$

Age after ZAMS: 9.117 Gyr

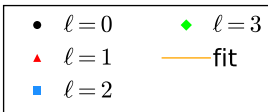
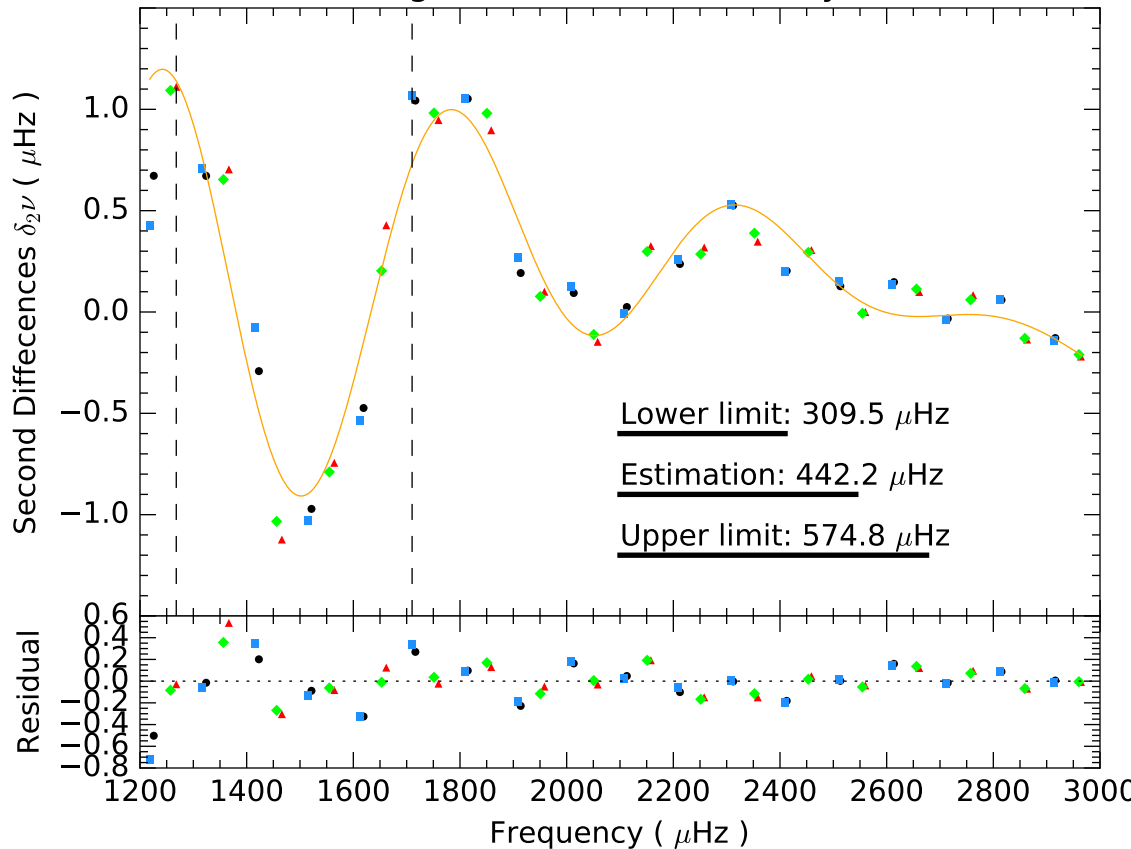


$a_0 = -2.6223 \mu\text{Hz}$
 $a_1 = 0.0028393$
 $a_2 = -6.8257e-07 \mu\text{Hz}^{-2}$
 $c_0 = 0.002503$
 $c_2 = 5.6506e-07 \mu\text{Hz}^{-2}$
 $\tau_{HeII} = 895.76 \text{ s}$
 $\phi_{HeII} = 6.2832$

profile43

$\chi^2_{\nu}(\text{dof} = 65) = 0.042998$

Age after ZAMS: 9.197 Gyr



$$a_0 = -2.5445 \mu\text{Hz}$$

$$a_1 = 0.002804$$

$$a_2 = -6.8395e-07 \mu\text{Hz}^{-2}$$

$$c_0 = 0.0026203$$

$$c_2 = 5.8754e-07 \mu\text{Hz}^{-2}$$

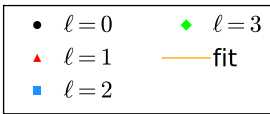
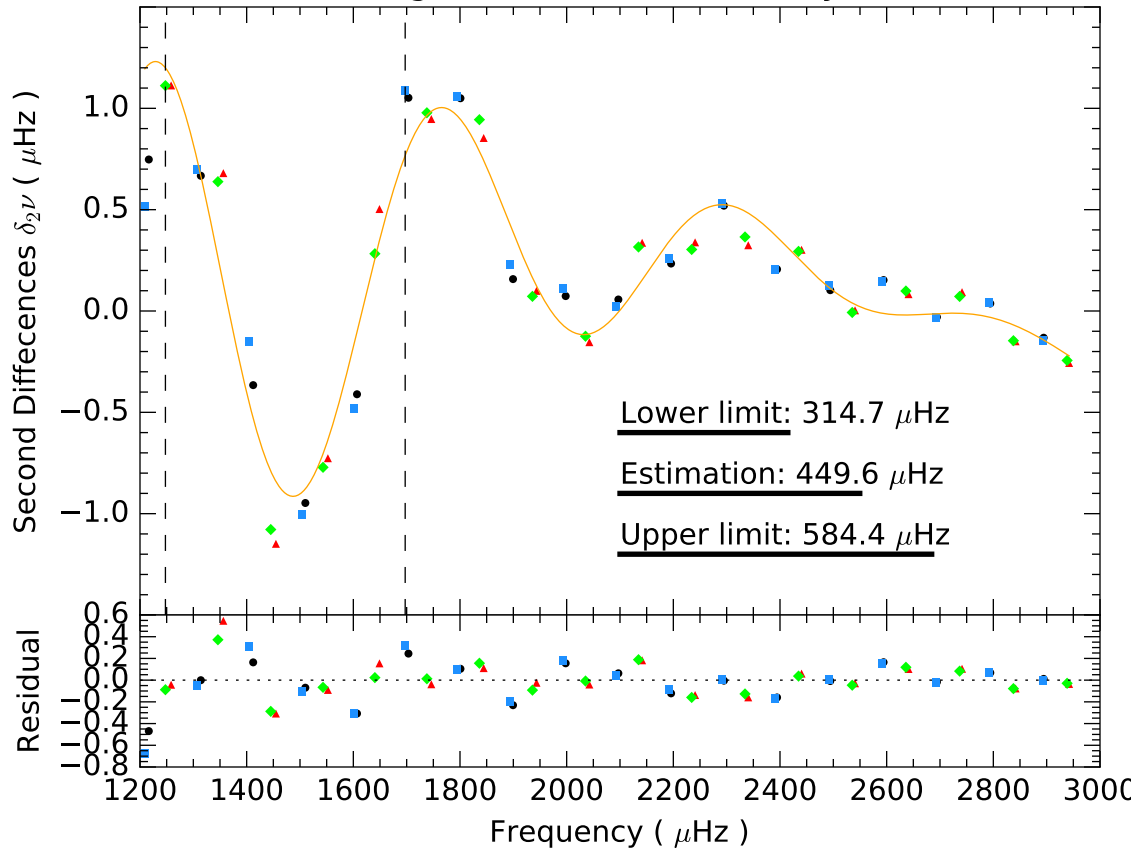
$$\tau_{HeII} = 906.96 \text{ s}$$

$$\phi_{HeII} = 6.2832$$

profile44

$$\chi^2_{\nu}(\text{dof} = 65) = 0.039603$$

Age after ZAMS: 9.260 Gyr

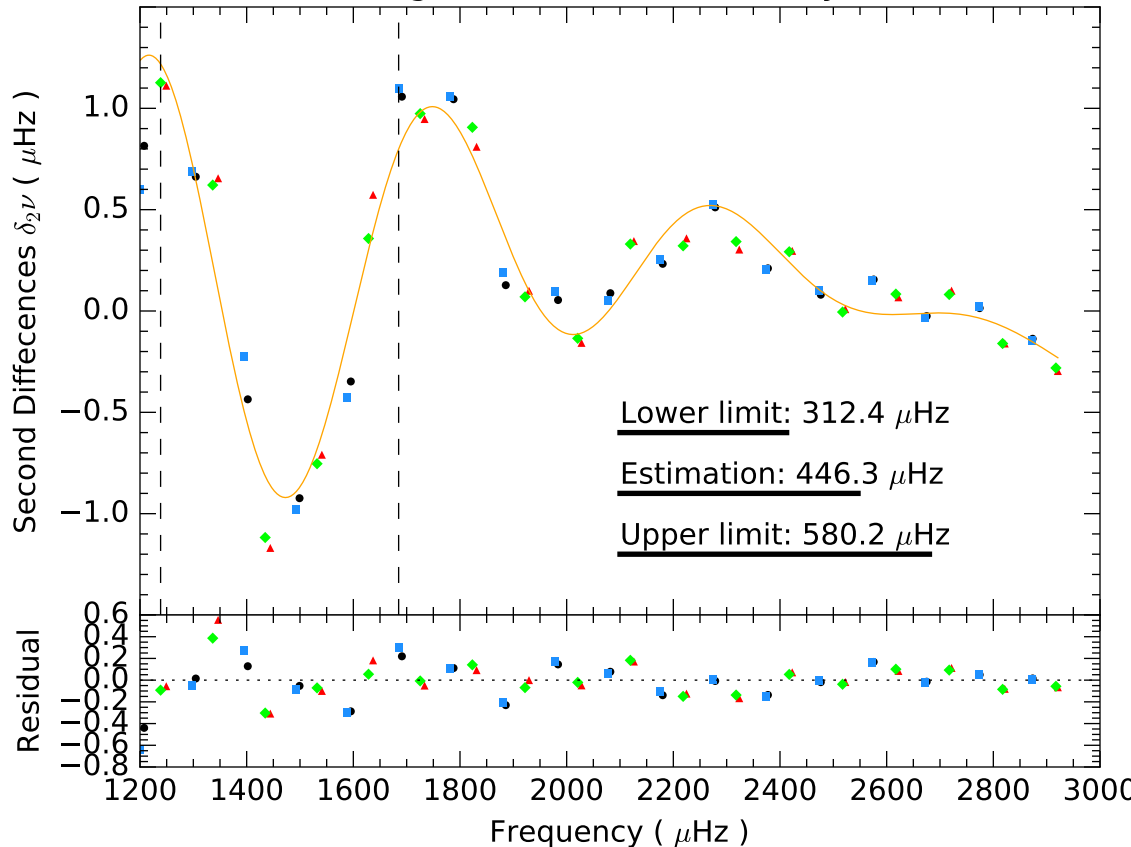


$a_0 = -2.4839 \mu\text{Hz}$
 $a_1 = 0.0027773$
 $a_2 = -6.8563e-07 \mu\text{Hz}^{-2}$
 $c_0 = 0.0027205$
 $c_2 = 6.0669e-07 \mu\text{Hz}^{-2}$
 $\tau_{HeII} = 916.21 \text{ s}$
 $\phi_{HeII} = 6.2832$

profile45

$\chi^2_{\nu}(\text{dof} = 65) = 0.037163$

Age after ZAMS: 9.319 Gyr



$$a_0 = -2.429 \mu\text{Hz}$$

$$a_1 = 0.002754$$

$$a_2 = -6.8779e-07 \mu\text{Hz}^{-2}$$

$$c_0 = 0.0028199$$

$$c_2 = 6.2569e-07 \mu\text{Hz}^{-2}$$

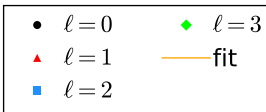
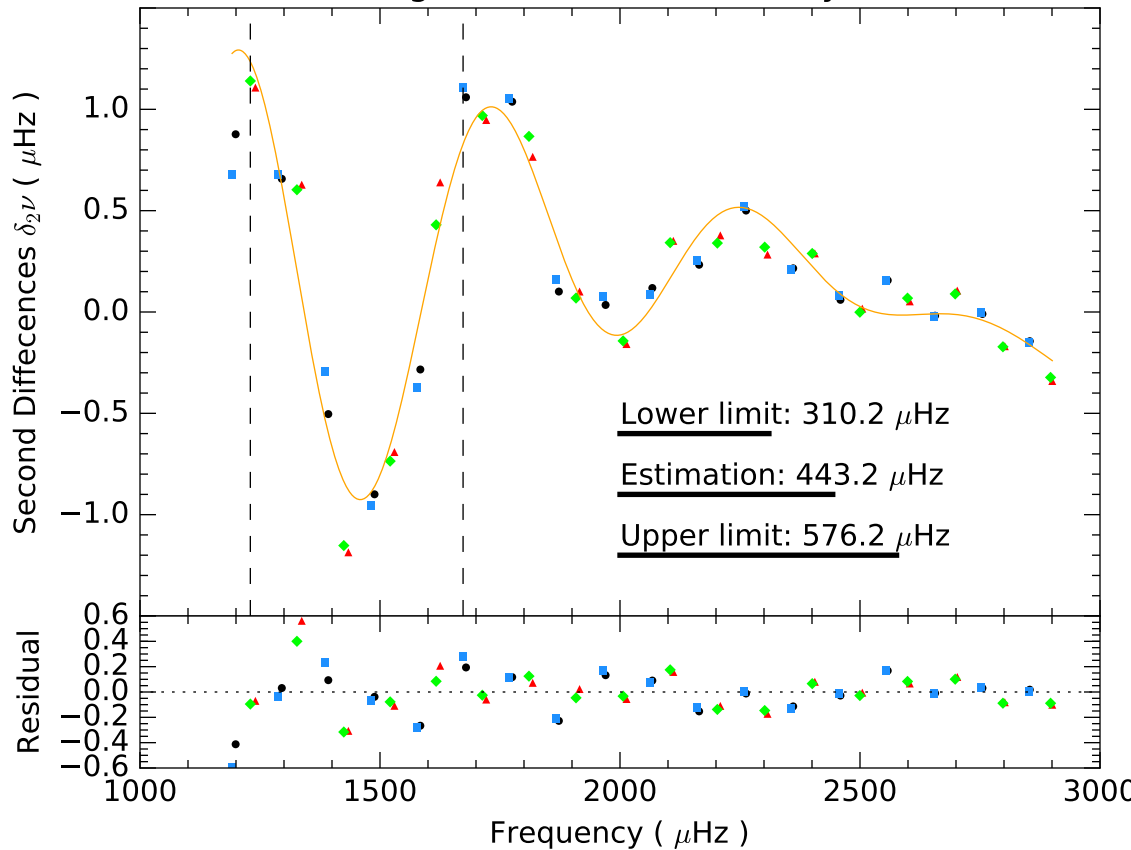
$$\tau_{\text{HeII}} = 925.09 \text{ s}$$

$$\phi_{\text{HeII}} = 6.2832$$

profile46

$$\chi^2_{\nu}(\text{dof} = 65) = 0.03513$$

Age after ZAMS: 9.376 Gyr



$$a_0 = -2.3776 \mu \text{ Hz}$$

$$a_1 = 0.0027331$$

$$a_2 = -6.9039e-07 \mu\text{Hz}^{-2}$$

$$c_0 = 0.0029206$$

$$c_2 = 6.4494e-07 \mu\text{Hz}^{-2}$$

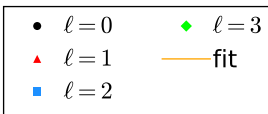
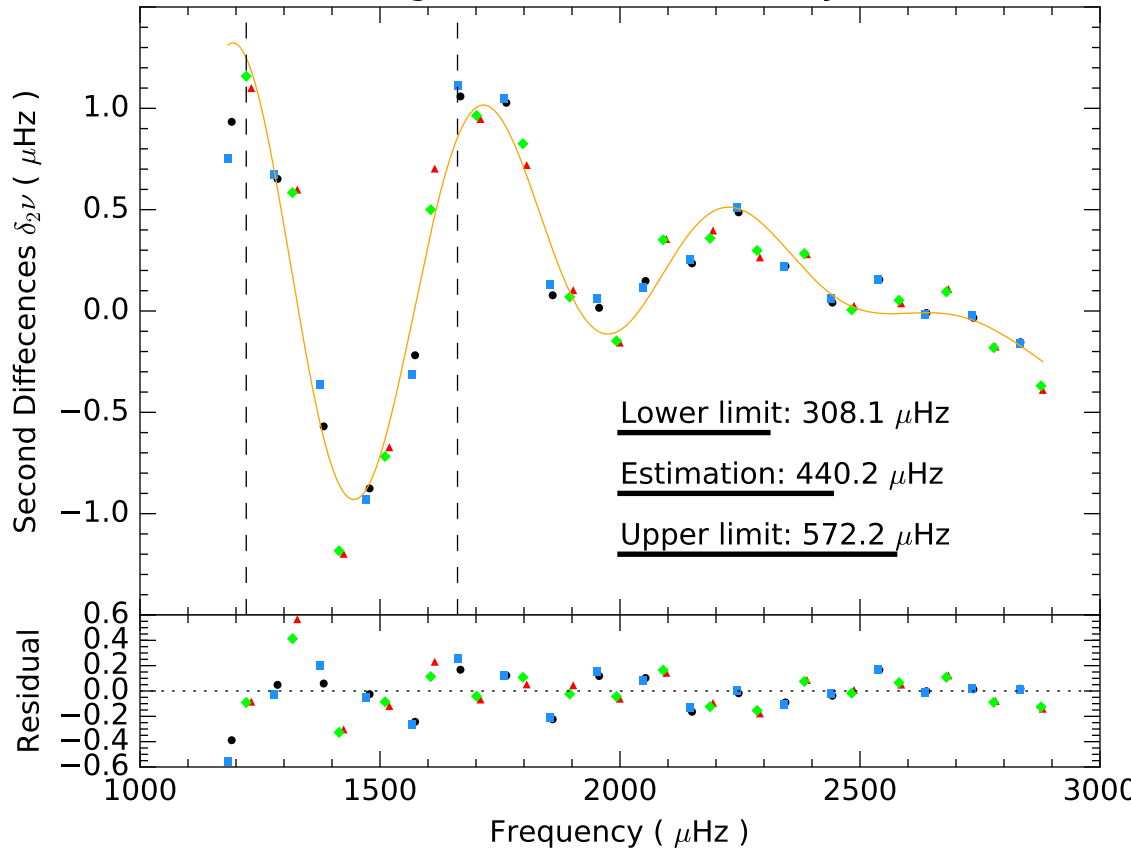
$$\tau_{\text{HeII}} = 933.82 \text{ s}$$

$$\phi_{\text{HeII}} = 6.2832$$

profile47

$$\chi^2_{\nu}(\text{dof} = 65) = 0.033434$$

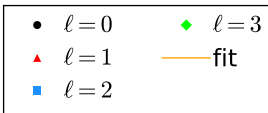
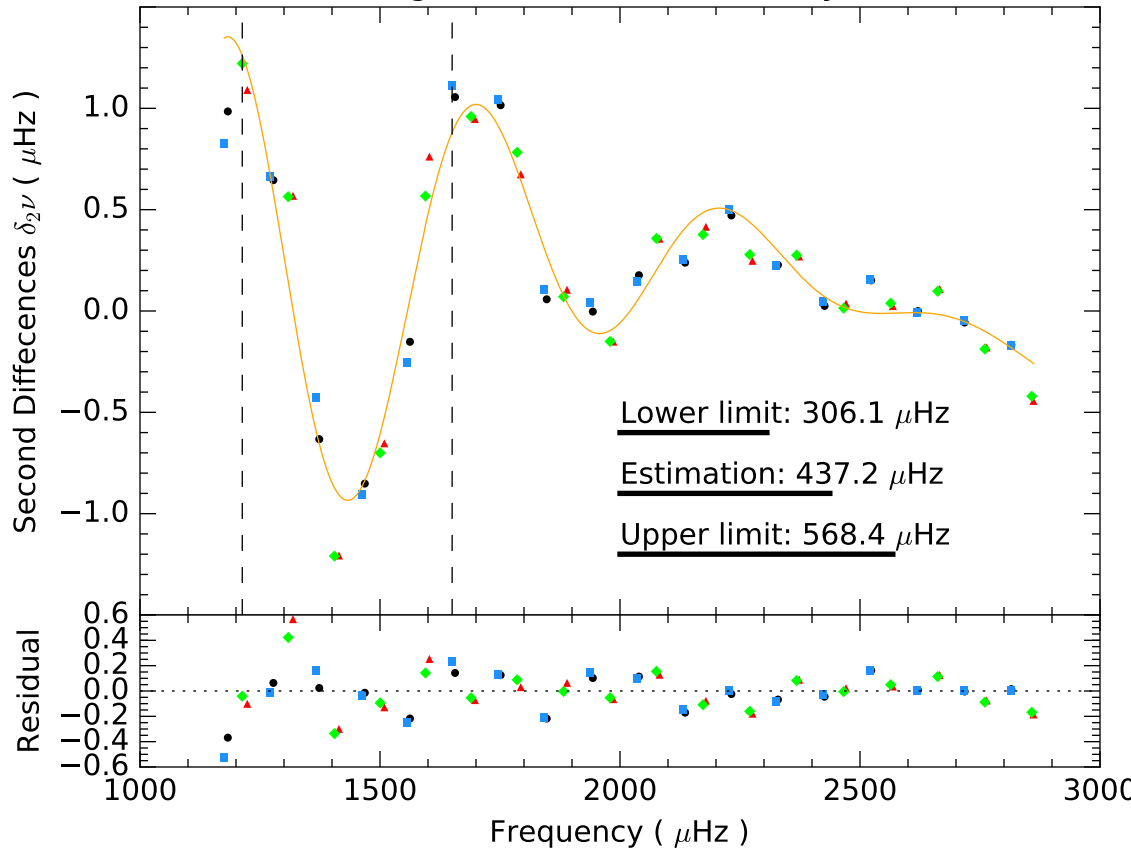
Age after ZAMS: 9.430 Gyr



$a_0 = -2.3288 \mu\text{Hz}$
 $a_1 = 0.0027139$
 $a_2 = -6.9333e-07 \mu\text{Hz}^{-2}$
 $c_0 = 0.0030231$
 $c_2 = 6.6454e-07 \mu\text{Hz}^{-2}$
 $\tau_{\text{HeII}} = 942.44 \text{ s}$
 $\phi_{\text{HeII}} = 6.2832$

profile48
 $\chi^2_{\nu}(\text{dof} = 65) = 0.032048$

Age after ZAMS: 9.483 Gyr

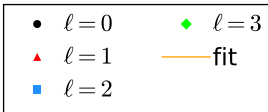
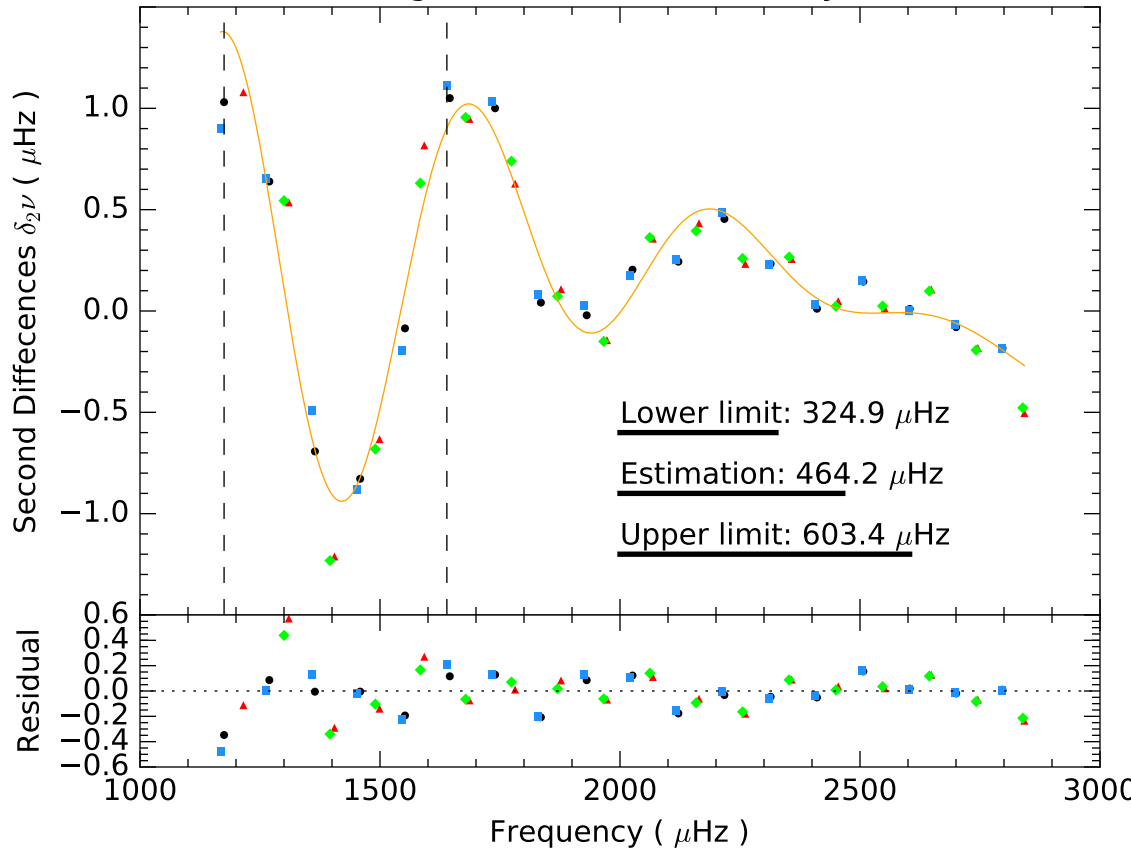


$a_0 = -2.2772 \mu\text{Hz}$
 $a_1 = 0.0026914$
 $a_2 = -6.9548e-07 \mu\text{Hz}^{-2}$
 $c_0 = 0.0031275$
 $c_2 = 6.8446e-07 \mu\text{Hz}^{-2}$
 $\tau_{\text{HeII}} = 950.85 \text{ s}$
 $\phi_{\text{HeII}} = 6.2832$

profile49

$\chi^2_{\nu}(\text{dof} = 65) = 0.03089$

Age after ZAMS: 9.533 Gyr



$$a_0 = -2.2457 \mu\text{Hz}$$

$$a_1 = 0.0026874$$

$$a_2 = -7.0191e-07 \mu\text{Hz}^{-2}$$

$$c_0 = 0.0032327$$

$$c_2 = 7.047e-07 \mu\text{Hz}^{-2}$$

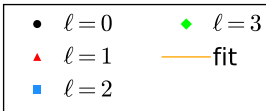
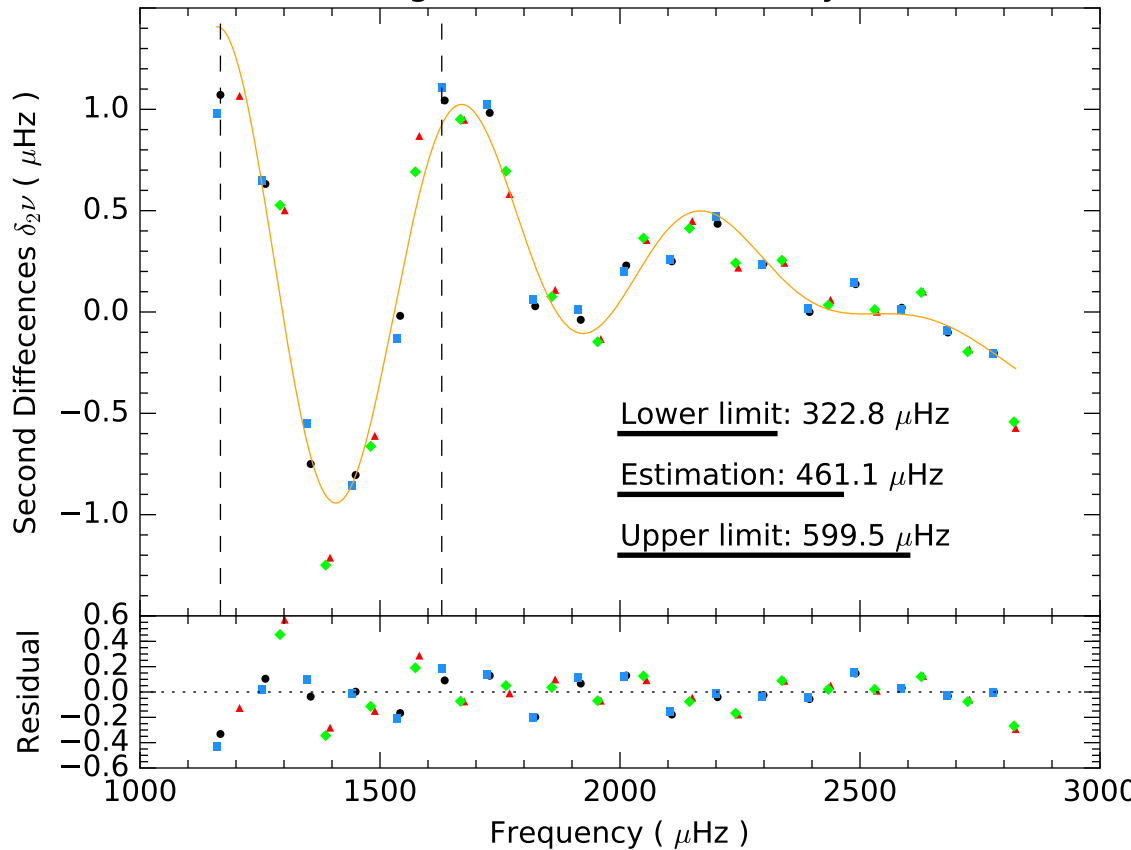
$$\tau_{\text{HeII}} = 959.35 \text{ s}$$

$$\phi_{\text{HeII}} = 6.2832$$

profile50

$$\chi^2_{\nu}(\text{dof} = 64) = 0.030693$$

Age after ZAMS: 9.581 Gyr



$$a_0 = -2.2068 \mu\text{Hz}$$

$$a_1 = 0.0026761$$

$$a_2 = -7.0668e-07 \mu\text{Hz}^{-2}$$

$$c_0 = 0.003342$$

$$c_2 = 7.2552e-07 \mu\text{Hz}^{-2}$$

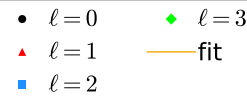
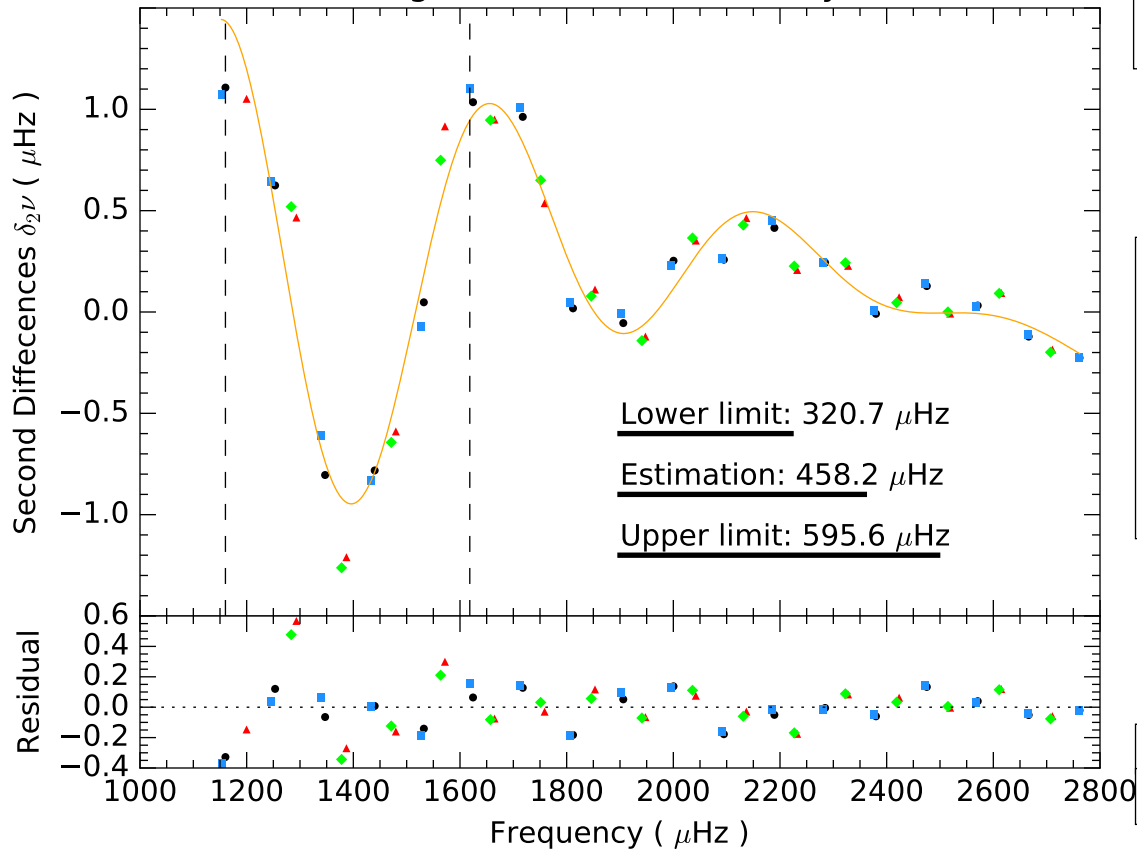
$$\tau_{\text{HeII}} = 967.59 \text{ s}$$

$$\phi_{\text{HeII}} = 6.2832$$

profile51

$$\chi^2_{\nu}(\text{dof} = 64) = 0.030418$$

Age after ZAMS: 9.627 Gyr

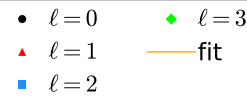
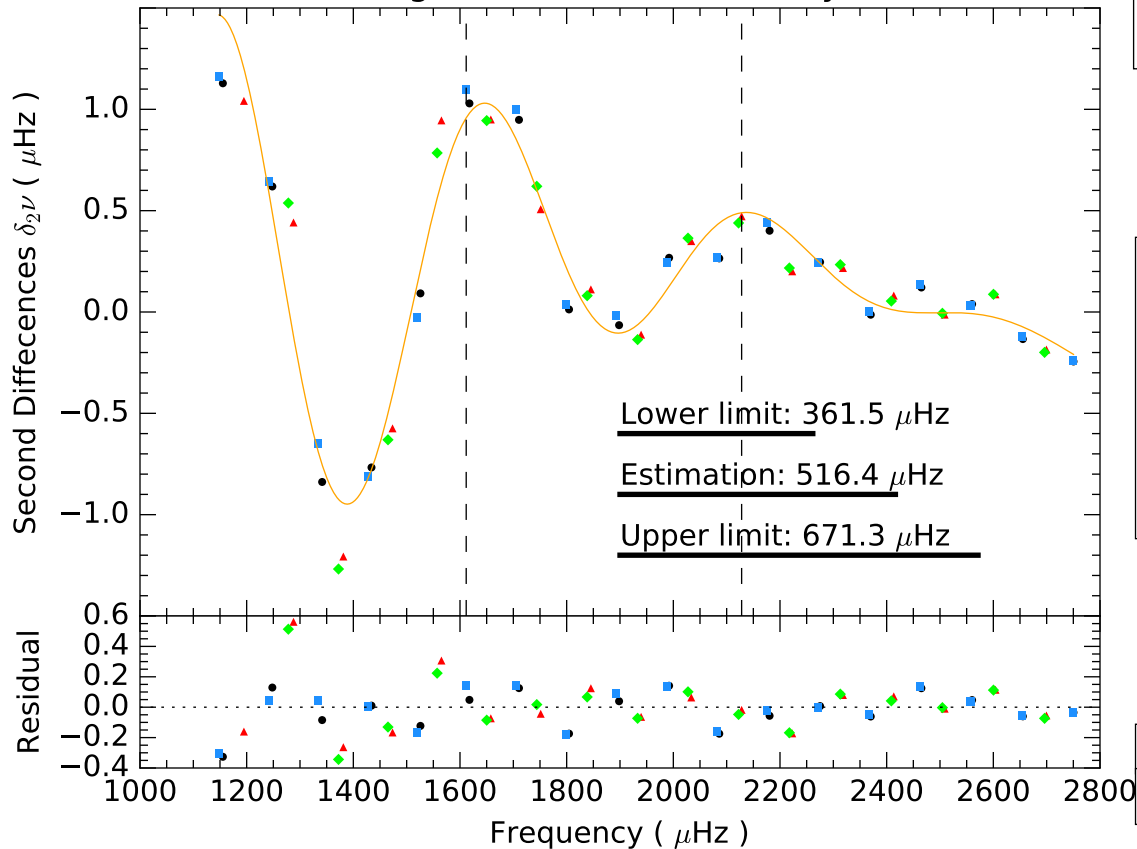


$$\begin{aligned}
 a_0 &= -2.1213 \mu\text{Hz} \\
 a_1 &= 0.0026131 \\
 a_2 &= -6.9768e-07 \mu\text{Hz}^{-2} \\
 c_0 &= 0.0034562 \\
 c_2 &= 7.456e-07 \mu\text{Hz}^{-2} \\
 \tau_{HeII} &= 975.84 \text{ s} \\
 \phi_{HeII} &= 6.2832
 \end{aligned}$$

profile52

$$\chi^2_{\nu}(\text{dof} = 62) = 0.02794$$

Age after ZAMS: 9.657 Gyr



$$\begin{aligned}
 a_0 &= -2.0747 \mu\text{Hz} \\
 a_1 &= 0.002583 \\
 a_2 &= -6.9502e-07 \mu\text{Hz}^{-2} \\
 c_0 &= 0.0035386 \\
 c_2 &= 7.6035e-07 \mu\text{Hz}^{-2} \\
 \tau_{\text{HeII}} &= 981.16 \text{ s} \\
 \phi_{\text{HeII}} &= 6.2832
 \end{aligned}$$

profile53

$$\chi^2_{\nu}(\text{dof} = 62) = 0.027544$$