

GD 244: ASTEROSEISMOLOGY OF A PULSATOR IN THE MIDDLE OF THE ZZ CETI INSTABILITY STRIP

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We present our preliminary results on the asteroseismological investigations of the ZZ Ceti star GD 244. We used literature values of the effective temperature and surface gravity and the White Dwarf Evolution Code of Bischoff-Kim, Montgomery and Winget (2008) to build our model grid for the seismological analysis. Five observed pulsational modes published up to now were used to find acceptable model solutions. We found that the best model fits had masses between 0.61 and $0.74 M_{\odot}$ and constituted two groups with hydrogen layer masses of either $\sim 10^{-5}$ or $10^{-6} M_{\odot}$. Based on a statistical analysis of a larger sample of possible model solutions we assume that the mass of the star is smaller than $\sim 0.68 M_{\odot}$ and less than 60 percent for the oxygen content in the centre is preferable. In accordance with the result of Yeates et al. (2005) we found that the 203s mode is probably an $l = 1$, while Castanheira & Kepler (2009) gave $l = 2$ solution for this mode and their best fit has $10^{-7} M_{\odot}$ hydrogen layer. No detailed seismological investigation of the star has been published up to now.