

ASTEROSEISMIC STUDY OF KUV03442+0719 WITH PARALLAX CONSTRAINTS

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We perform the asteroseismic analysis of the pulsating hydrogen atmosphere white dwarf, KUV03442+0719. In addition to the unusually rich period spectrum of the star (for this class of objects), we also bring to bear constraints from Gaia parallaxes to find a best fit model. We contrast our result with previous work done on the object. The main disagreement arises in the identification of the radial overtone values for the modes, leading to different conclusions about the parameters and structure of the star. We are able to find a best fit model that is (mostly) consistent with all the data we have for the star (pulsations, spectroscopy, parallax). We also find that the asteroseismology shows a strong preference for models with envelopes that are fully differentiated, consistent with what we expect from stellar evolution models. This work has been submitted to a journal for publication. The aim of this poster is to highlight the main points of that work.