The Remarkable DAV Pulsating White Dwarf WDJ1524-0030

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Convection remains one of the largest sources of theoretical uncertainty in our understanding of stellar physics. To this end, we embarked on a long term project to empirically determine the physical properties of convection in the atmospheres of pulsating white dwarfs. The technique, outlined by Montgomery et al. (2010), uses information from nonlinear (non-sinusoidal) pulse shapes of the target star to empirically probe the physical properties of its convection zone. WDJ1524-0030 was chosen as a candidate star for this technique based on the characteristics of its light curve. We survey the remarkable behavior of WDJ1524-003 over 3 years of observation, and present preliminary results from light curve fitting.