Abstract Submitted
for the APR13 Meeting of
The American Physical Society

The Outbursts of the Cataclysmic Variable V425 Cassiopeiae DILLON TRELAWNY, FRED RINGWALD, California State University, Fresno — We report time-resolved photometry of the cataclysmic variable V425 Cassiopeiae, taken over several weeks in 2010, 2011, and 2012 at Fresno State's station at Sierra Remote Observatories. We measure a long-term period of 4.24 ± 0.71 days and a 1.0 magnitude amplitude. This is separate from the orbital period of 0.1496 days (Shafter 1983). Our period value is in direct contrast with a period measured by Kato et al. (2001) of 2.65 days for the same system. As a result of this long-term variability, Kato et al. proposed that V425 Cas is a VY Scl-type system, which is characterized by periods of high mass transfer rate and periods of very low mass transfer rates. We argue that, based on our extended observations, V425 Cas is instead a Z Cam-type system, characterized by standstills, between dwarf nova outbursts that recur rapidly. Observations from Kato et al. (2001) are included for comparison. Further evidence of near-infrared magnitudes of V425 Cas from the 2MASS survey and its absolute magnitudes at outburst maximum, standstill, and minimum are included to support our argument.

Dillon Trelawny
California State University, Fresno

Date submitted: 15 Jan 2013 Electronic form version 1.4