

Abstract Submitted
for the TSF19 Meeting of
The American Physical Society

Kepler 212700993 (HS Vir): A Cataclysmic Variable in Super-outburst in the Kepler Campaign 17 Field WILLIAM MORRIS, University of Dallas — We present results from short cadence (SC) light curve of EPIC 212700993 observed during the *Kepler* K2 Campaign 17. The occurrence of a superoutburst and the frequency of the outbursts confirms that this system is a cataclysmic variable (CV) dwarf nova of the SU UMa type. Lomb-Scargle periodograms show that the orbital period is estimated to be $P_{\text{orb}} = 0.0780873$ days (1.874 hr). The SC light curve captures the star in outburst three times which lasted for 4 days on average had an increase in magnitude of 1.2 on average. The SC light curve also contains a superoutburst with a duration of 14.5 days and an increase in magnitude of 2.3. The SC light curve reveals a positive superhump period of $P_+ = 0.086181$ days (2.068 hr). The superhump period yields a secondary-to-primary mass ratio of $q = 0.2978$.

William Morris
University of Dallas

Date submitted: 30 Sep 2019

Electronic form version 1.4