

Abstract Submitted  
for the TSF19 Meeting of  
The American Physical Society

**Z Cha as seen by TESS: A New Method to trace the State of the Disk During Outburst** JAMES COURT, Texas Tech University — I present the results of a study on the eclipsing CV Z Cha using data from TESS observations of the source during both an outburst and a superoutburst in 2019. Using our data we are able to place better constraints on the postulated third body in this system which causes periodic fluctuations in the observed orbital period over time. We also present a new method for tracing the period associated with a superhump, and show that it tends towards the orbital period on the same timescale that the superoutburst decays. Finally, we show evidence for hysteresis in a plot of eclipse depth against out-of-eclipse flux during an outburst, and show how this hysteresis can be used to estimate the response time between the disk increasing in temperature and the disk increasing in size, breaking this long-standing degeneracy.

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Date submitted: 04 Oct 2019

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