

<http://doi.org/10.69646/14sbac32a>

ACCRETION MECHANISMS AND SUPERHUMPS OF THE NOVA-LIKE SYSTEM V592 CAS

DANIELA BONEVA¹, KRASIMIRA YANKOVA¹

¹*Space Research and Technology Institute, Bulgarian Academy of Sciences*
E-mail: danvasan@space.bas.bg

Accretion discs are complex energetic systems ruled by various dynamical physical processes. We consider different mechanisms that are responsible for the accretion dynamics in Nova-like stars. In this work, we focus our study onto their relation with the superhumps activity of Cataclysmic variable binaries, particularly in the Nova-like system V 592 Cas.

Based on the observational data obtained from both the National Astronomical Observatory (NAO) Rozhen and the American Association of Variable Star Observers (AAVSO), an appearance of superhumps in this object are detected. They are mostly visible in U band, with amplitude variations of $\approx 0.2 - 0.3$ mag. The possible active mass-transfer mechanisms between the binary's components are suggested and discussed.