

On the role of short period Cataclysmic Variables from Catalina Sky Survey

Thursday, 21 May 2015 08:00 (15 minutes)

Cataclysmic Variables (CVs) are close binaries consisting of an accreting white dwarf and a low-mass main sequence companion. We have initiated in searching new CVs using their outburst properties with the primary aim to identify short-period systems which are rare but are great of importance to understand close binary evolution. Here, we present time-resolved photometry of new CVs in superoutburst discovery by Catalina Real-Time Transient Survey (CRTS). The observations have been carried out at 2.4 m Thai National Telescope, Doi Inthanon, and 0.6 m PROMPT8 telescope, located at Cerro Tololo Observatory, Chile. Superhump structure found in their light curves suggested that these CVs are short- period systems with the orbital period below the 2-3 h period gap. Furthermore, we will discuss recent status of CRTS CVs sample compared to the previously known CVs discovered by various means.

Summary

Primary author: Ms ARJYOTHA, Sirinapa (Program of Physics, Faculty of Science and Technology, Chiang Rai Rajabhat University, Chiangrai, Thailand 57100)

Co-author: Dr AUNGWEROWJIT, Amornrat (Department of Physics, Faculty of Science, Naresuan University, Phitsanulok 65000, Thailand)

Presenter: Ms ARJYOTHA, Sirinapa (Program of Physics, Faculty of Science and Technology, Chiang Rai Rajabhat University, Chiangrai, Thailand 57100)

Session Classification: Astronomy, Astrophysics and Cosmology (Sponsored by NARIT)

Track Classification: Astronomy, Astrophysics, and Cosmology