Contribution ID: **557** Type: **Poster**

The observation CV system V2301 Oph by using ULTRASPEC

Tuesday 22 May 2018 15:45 (15 minutes)

In this research, we aim to study an AM Her-type cataclysmic variable (CV) system, V2301 Oph. This eclipsing system has an orbital period of 1.8hrs and it is known to have a white dwarf with the weakest magnetic field ever detected in AM Her systems. The observations of V2301 Oph were obtained with the 2.4-meter reflecting telescope with an alt-azimuth drive system at the Thai National Observatory. The photometric data were collected in g', r', and KG5 filters using the ULTRASPEC instrument and the data are then analyzed using the ULTRACAM pipeline. In the current work, we will present the light curves obtained from 2014-2018 where we focused on the primary eclipses of this system. Our goal is to verify the existence of circumbinary planets through accurate analysis of the ingress and the egress of the white dwarf during the eclipse. Our preliminary result show there is an increasing trend in the O-C diagram of V2301 Oph, which indicates that some processes are causing an increase of the orbital period. However, longer monitoring is required to confirm this finding.

Author: Ms NUCHVANICHAKUL, Pornisara (Department of Physics and Materials Science, Chiang Mai University)

Co-authors: Dr IRAWATI, Puji (National Astronomical Research Institute of Thailand (NARIT), Chiang Mai, Thailand); Dr WANNAWICHIAN, Suwicha (Department of Physics and Materials Science, Chiang Mai University)

Presenter: Ms NUCHVANICHAKUL, Pornisara (Department of Physics and Materials Science, Chiang Mai University)

Session Classification: A07: Astronomy I (Poster)

Track Classification: Astronomy, Astrophysics, and Cosmology