Further Measurements of the New Dwarf Nova J2138+26

JARED ROVNY, University of Dallas, KYLE MEZIER, IRINA VOLOSHINA, RICHARD OLENIK, VLADIMIR METLOV — J2138+26 is a new WZ Sge-type dwarf nova, discovered by Dae-Am Yi et al. on May 7, 2010 (CBET 2273). The object is suggested to be similar to GW Lib, another WZ Sge star outbursting in 2007, in terms of a low inclination angle and apparent brightness. J2138+26 is a binary star system with a variable light output caused by precession of the accretion disk around the white dwarf in the cataclysmic variable system. J2138 enters certain periods of outburst when it is significantly brighter, and its regular light variations (from precession), called superhumps, have a changing period. Additional photometric observation of this system provides information about the changing amplitude and period of its superhumps and outbursts, which in turn helps to determine the system’s history and physical activity, as well as providing insight into cataclysmic variable systems and their behavior in general. The research in July 2010, done by the named authors and using a 0.6-m telescope from the Sternberg Astronomical Institute’s branch of the Crimean Observatory in Crimea, was focused on such photometric observation. Data and analysis of the superhump periods will be presented. The analysis of data taken by Dr. Voloshina and ourselves will be presented with a focus on the changing amplitude and period of J2138, and the physical significance of these results discussed.

Jared Rovny
University of Dallas

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