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# Multi wavelength Analysis of Dwarf Novae Eruptions

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Dwarf novae (DNe) are a subclass of Cataclysmic Variable Stars, which are a type of binary system that contain a white dwarf (WD) primary star and a main-sequence secondary star (typically a K- or an M-type star) where the secondary star transfers matter onto the WD via Roche-lobe overflow. These binary systems often have an accretion disk. DNe have outbursts, which are 2-6 magnitude increases in the brightness of the system that usually happen in regular intervals, which aren't necessarily periodic. These outbursts occur on a timescale of the order of days or even years. Occasionally, these sources will go into superoutburst, which are much brighter and last longer than regular outbursts. The standard model that explains this is known as the disk instability model. This involves a thermal-viscous instability that switches the accretion disk between the outburst (hot, ionised) and quiescent (cold, unionised) states. During these processes the non-thermal emission is believed to be caused by magnetic reconnection. The aim of this study is to use the optical light curves of these sources to obtain target of opportunity observations using the MeerKAT telescope when these sources are in outburst. The aim is to see if any radio flux can be detected from these sources, and to model their spectra using the Van der Laan model, which assumes that the flux observed in the spectrum is from a superposition of multiple expanding blobs.

**Author:** MCPHERSON, Keith

**Co-author:** Prof. MEINTJES, Petrus

**Presenter:** MCPHERSON, Keith

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