



Contribution ID: 154

Type: **Poster Presentation**

X-ray Timing and Spectral Analysis of the Propeller Driven Pulsar-like White Dwarf AE Aquarii

Thursday, 14 July 2011 17:00 (2 hours)

The highly transient multi-wavelength system AE Aqr consists of a fast rotating highly magnetic WD, accreting mass from a K3-5 secondary companion. This magnetic CV has a characteristic orbital period of 9.88 h, and is in a propeller state. The turbulent interaction between the fast spinning WD magnetosphere and the accretion flow is believed to play a crucial role in the multi-wavelength emission in the system. We have analysed the system's X-ray lightcurves and spectra from data observed with Chandra and Swift-XRT, and the results of this study show that the X-ray characteristics are unique. In this paper, the results of the analysis will be discussed, with the view to propose suitable models for the X-ray emission mechanisms.

Level (Hons, MSc, PhD, other)?

PhD

Consider for a student award (Yes / No)?

Yes

**Would you like to
 submit a short paper
 for the Conference
 Proceedings (Yes / No)?**

Yes

Primary author: Mr ORURU, Bosco (University of the Free State)

Co-author: Prof. MEINTJES, Pieter Johannes (University of the Free State)

Presenter: Mr ORURU, Bosco (University of the Free State)

Session Classification: Poster2

Track Classification: Track D1 - Astrophysics