BOSTON UNIVERSITY

Astrophysics Seminar
Monday April 25, 2016

Testing Our Understanding of Accretion Physics near Compact Objects: Lessons Learned from the Brief But Violent Outburst of V404 Cygni During 2015 June-July

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Abstract:

During the brief few weeks when an X-ray binary system is in outburst, the mass accretion rate onto the accretor can change by as much as 5 or 6 orders of magnitude. This leads to dramatic changes in the accretion flow, manifested as changes in the spectral and timing properties of the observed emission spanning from radio to gamma-rays. After lying dormant for ~26 years, the black hole X-ray binary system V404 Cygni went through an epoch of extremely violent activity during 2015 June-July. In this talk I will discuss results of multiwavelength observations obtained during this outburst, specially the V-, R-, and I-band observations obtained using Wheaton College Observatory's 12" telescope. In conjunction with contemporaneous data obtained at other wavelengths, I will discuss how these observations may hint at an extremely energetic jet outflow which dominates the observed broadband emission.

3:15 pm
Refreshments
CAS Room 500

3:30 pm
Seminar
CAS Room 502

Next Week

- *There are no more seminars for the Spring Semester.*
- *Good luck on finals and see you next fall!*

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