



Contribution ID: 76

Type: **Poster**

The First Coherent Census of Optical Variability in X-Ray Binaries with Gemini

X-ray binaries (XRBs) are systems containing accreting black holes and neutron stars that launch relativistic jets. Recently, it has been shown that we can move beyond spectral and imaging studies and use time-domain observations to measure fundamental properties of the jets and accretion flow, and in turn, begin to address key open questions in compact object research. However, XRB timing studies in the optical regime currently lag behind those performed at other wavelengths. To remedy this, we launched the GOFAST-XRB (Gemini Optical FAST timing of X-Ray Binaries) Large Program, which uses Gemini's 'Alopeke and Zorro instruments to perform the first coherent census of XRB optical variability across different compact objects, timescales (sub-seconds to months), and accretion regimes. In this talk, I will present the first results of the GOFAST-XRB program, including observations of persistent systems (Cyg X-2 and Sco X-1), and recent outbursts of transient systems (Aql X-1 and 4U 1608-52).

Affiliation

University of Lethbridge

E-mail

efrenjames.elomina@uleth.ca

Authors: TETARENKO, Alex (University of Lethbridge); ELOMINA, Efren James (University of Lethbridge); GOFAST-XRB PROGRAM COLLABORATORS

Presenter: ELOMINA, Efren James (University of Lethbridge)

Track Classification: Poster