



- RAY ASTRONOMY 2019

Current Challenges and New Frontiers in the Next Decade

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Monitoring a variable ULX in the Circinus Galaxy

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We present the results of an ongoing monitoring campaign of Circinus ULX5 using the Neil Gehrels *Swift* Observatory. The source shows significant variability, with clear high and low states, accompanied by variability in its spectral parameters. We discuss the physical mechanisms that may be responsible for the observed variability, including superorbital modulation due to a warped accretion disk and the “propeller effect” in which accretion is choked by the magnetic field of the accreting compact object. Further, we consider the implications of the observed variability in regards to the nature of the compact accretor, comparing our observations to those of known black hole and neutron star X-ray binaries.

Topic

Compact and diffuse sources in galaxies and in the Galactic Center

Affiliation

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