

Contribution ID: 53

Type: Talk

High sensitivity radio observations of neutron star X-ray binary jets: variability, spectra, and polarization

Neutron star X-ray binary jets are observed to be less luminous than those of black holes, and are also less observed and thus less understood. Modern radio facilities are sensitive enough to investigate these neutron star jets in detail and begin to look at their properties as has been done for black hole jets. I will present an archival radio data project that compares rapid variability properties of black hole versus neutron star jets, as well as compact versus discrete jet types. I will also present new radio data of Eddington accretion neutron star X-ray binary jets that provide spectral information, and for the first time detect linear radio polarization in neutron star X-ray binaries that can also be compared to X-ray polarization information, investigating both neutron star and Eddington jet parameter space and laying the foundation for more complex investigations of neutron star jets in the future.

Contribution

Oral talk

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Session Classification: Jets (Observation, theory and modelling)

Track Classification: Talk