Contribution ID: **11** Type: **Presentation**

Studying jet properties in nearby active galactic nuclei with multi-wavelength, multi-zone modeling

Tuesday, 27 January 2026 16:00 (19 minutes)

My work involves developing and applying a physically motivated multi-zone jet model to a variety of low luminosity active galactic nuclei, fitting their radio to X-ray spectral energy distributions to constrain and better understand micro/macro jet physics and particle acceleration, and how it might vary between sources. Building on this, a new analysis pipeline is being developed that couples the jet model directly to X-ray and gamma-ray instrument responses, enabling simultaneous fits to high energy counts spectra and broadband flux measurements, and further implementing bayesian analysis into MWL fitting. This model and pipeline will be utilized to study the VHE emission observed from jetted AGN in conjunction with other wavelengths, to better understand the radiative properties & conditions of jets themselves.

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