“New probes of quasar winds: Multi-year variability, redshifted troughs, and hard X-ray spectroscopy of Broad Absorption Line quasars”

ABSTRACT

Winds are key parts of quasar nuclear environments, assisting mass accretion and perhaps providing feedback into typical massive galaxies. They are most directly observed via prominent absorption in the UV (e.g., Broad Absorption Lines: BALs) and X-ray bands. I will discuss results coming from three new probes of quasar winds: (1) multi-year variability surveys that can now systematically investigate large samples (hundreds-to-thousands of objects), (2) rare redshifted BAL troughs, which may arise from high-velocity inflow or rotationally dominated outflows, (3) hard X-ray spectroscopy with NuSTAR and Chandra, which suggests that a significant fraction of BAL quasars are intrinsically X-ray weak. I will end by describing some key unresolved questions and future prospects.

Refreshments will be available.