

Transient Phenomena and Physical Processes Around Supermassive Black Holes

Contribution ID: 44

Type: **Contribution talk**

X-ray reflection from slim accretion disks

Thursday, 17 October 2024 17:05 (15 minutes)

With newer and more precise observations of super-Eddington systems, it has become increasingly important to model the spectral emissions from slim accretion disks. However, X-ray reflection from such sources has not been thoroughly explored. REFLUX is a newly developed relativistic disk reflection model specifically tailored for super-Eddington systems. The model incorporates a slim disk geometry, where the disk thickness varies with radius and accretion rate. This geometry alters the reflection spectrum, which could be seen from its effect on Fe K emission line profiles. REFLUX is designed to work within XSPEC, making it suitable for fitting relativistic reflection features from sources expected to have slim disk geometry, such as super-Eddington X-ray binaries, tidal disruption events, and active galactic nuclei.

Primary author: SHASHANK, Swarnim (Fudan University)

Presenter: SHASHANK, Swarnim (Fudan University)

Session Classification: Session