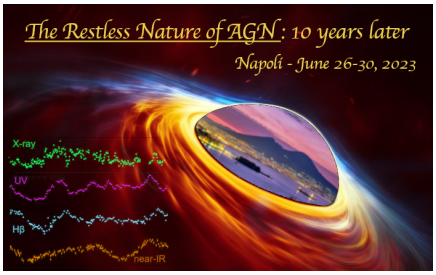

Contribution ID : **115** Type : **Poster**

Twisted (lensed) quasar light curves for continuum reverberation mapping

High-cadence and multi-band photometric monitoring facilities are important for measuring quasar accretion disk size with continuum reverberation mapping. The method measures signal propagation time from center to outer parts of the central engine, assuming time shifts in continuum light curves at different wavelengths. However, high-quality light curves show that light curves at different wavelengths are not only shifted, but also distorted due to a transfer function increasing with wavelength. We illustrate the impact on the delay measurements using JAVELIN, CREAM, and PyCS methods, with simulated light curves in the LSST ugrizy bands. We also propose a brute-force method for measuring disk size with microlensing multi-band light curves in lensed quasars.

Primary author(s) : Dr. CHAN, James (AMNH)

Presenter(s) : Dr. CHAN, James (AMNH)

Session Classification : Poster