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Echo Mapping of Active Galactic Nuclei

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Echo mapping of Active Galactic Nuclei (AGNs) measures the time lag between the variable optical continuum from the accretion disk and spectral line emission from the photoionized gas in order to determine the size of the emitting region and subsequently measure the mass of the supermassive black hole from the resulting lag. Currently there is a dearth of galaxies with measured lags in the region about a redshift of z ~ 0.3. What this project aims to achieve is to measure the lags of galaxies around z ~ 0.3 using observations from South African Large Telescope and Las Cumbres Observatory. Cross-correlation is a method used to measure the time lag between the continuum and line-emission. In this talk, we discuss our implementation of the cross-correlation based on the interpolation cross-correlation function method and its application to real data.

Apply to be
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PhD

Main supervisor (name and email)
and his / her institution

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Would you like to
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No

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