

The restless nature of AGN: 10 years later



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AGN Continuum Reverberation Mapping

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Reverberation mapping (RM) is a powerful tool to explore the unresolved central region of active galactic nucleus (AGN), e.g., accretion disk. Determining the structure of accretion disks in AGN is fundamental to understanding the growth of supermassive black holes, confirming the standard thin disk theory, and examining the X-ray reprocessing variability model. However, recent continuum RM suggests that the observed accretion disk size is around three times larger than prediction. In this talk, I will introduce our recent continuum RM results of bright AGNs in ZTF and the well-known dwarf galaxy NGC 4395. We found that the continuum lag is dominated by the diffuse continuum emission, which may account for the disk-size discrepancy. In addition, we will introduce a new method to measure the reverberation black hole mass via continuum RM.

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