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Poster

PHOTOMETRIC REVERBERATION MAPPING OF AGNs AT $0.1 < z < 0.8$

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We present the investigation of the characteristic sizes of the broad-line region (BLR) in active galactic nuclei (AGN) based on photometric reverberation mapping for the improvement of the correlation between BLR size and luminosity $L(\lambda)$ on the 5100 Å. We use a homogeneous sample of AGN at the redshifts cover $0.1 < z < 0.8$ located near the sky north pole that allows us to monitor the objects throughout the year. Regular observations are needed to obtain the data of light curves in the broad hydrogen line (Hα or Hβ) and the optical continuum near the line with the 250 Å-band filters. The time delay between two curves corresponds to the linear size of the BLR which is unresolved geometrically. The observations are carried out with the 1-meter Zeiss telescope of the Special Astrophysical Observatory of Russian Academy of Science (SAO RAS). In the given poster, the observational technique of the photometry with unstable atmosphere, the choice of the local standards in the fields and first results are presented.