

# Photometric reverberation mapping of Quasar HE0345+0056

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We have analyzed photometric and spectroscopic data of HE0345+0056 which is an AGN in our ongoing variability monitoring program. Our well defined parent quasar sample is drawn from the Hamburg/ESO survey and observed in several broad- (B,V,R) and narrow-band filters with the Thai Robotic telescope in Chile. Our aim is to use photometric reverberation mapping techniques to study the BLR of our AGNs. Data reduction was done using a python based pipeline we created using publicly available software to extract the photometry in order to create light curves used in our analysis. During our observation in 2014 we have found a change in HE0345+0056 magnitude of approximately 0.1 mag in broadband BVR over 40 days extending from late August to early October (MJD 56880-56920). A follow-up spectroscopy observation started at the same time at the Higashi-Hiroshima Observatory. Spectroscopic data of 8 epochs were obtained for analysis in order to confirm the photometric results

. Here we present the results of the photometric and spectroscopic analysis and also the results from our photometric reverberation mapping using NB filters.

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