

Poster

SPECTROSCOPING MONITORING OF AGN AT ROZHEN OBSERVATORY

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We started a program to monitor spectroscopically selected Type I AGN. The objects are mostly bright and nearby but in the same time – rarely studied. Our goal is mostly twofold: First to study the emission line profile changes and secondly – to identify suitable for reverberation mapping campaigns objects. For the later objective, we conduct also a broadband photometric study to reveal the most variable objects. In this poster we present our first results.

Poster

PHOTOIONIZATION ESTIMATES OF BROAD LINE REGION SIZE IN HIGH REDSHIFT QUASARS

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We use a "photoionization method" to estimate the radius of the broad line region (r_{BLR}) for eight quasars at $z \sim 3$ using high S/N UV spectra obtained with VLT/FORS. The spectra enable us to analyze in detail the emission features in the rest-frame range 1300-2000 Å (C III]λ1909, Si III]λ1892, Al IIIλ1860, Si IIλ1814, C IVλ1549 and blended Si IVλ1397+O IV]λ1402). Our photoionization method uses the flux ratios Al IIIλ1860/Si III]λ1892, C IVλ1549/Al IIIλ1860, Si IVλ1397+O IV]λ1402/Si III]λ1892 and Si IVλ1397+O IV]λ1402/C IVλ1549 to compute the product of ionization parameter and hydrogen number density, and hence the r_{BLR} from the definition of the ionization parameter itself. We compare our results with previous estimates obtained from the r_{BLR} – luminosity correlation customarily employed to estimate black hole masses of high redshift quasars.