

Short talk

THE BROAD H α AND H β EMISSION LINE SHAPES IN AN AGN SAMPLE

E. Bon, L. Č. Popović, N. Gavrilović

Astronomical Observatory, Volgina 7, 11160 Belgrade, Serbia

In order to conclude about the kinematics in the Broad Line Region (BLR) we investigate broad H α and H β emission line shapes in a sample of active galactic nuclei (AGN) taken from SDSS database. We measured full widths at 10%, 20% and 30% of the intensity maximum. After these widths are normalized to the full width of half maximum they are compared for the H β and H α lines. We found that there is a good correlation between normalized widths at 10%, 20% and 30% in the sample for both, H α and H β emission line.

This correlation cannot be explained assuming only standard line profiles (Gaussian, Lorentz and Voigt), and it represents the fact that geometry of the BLR significantly affects the line profiles in AGN.