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Progress report

COMPLEX LINE PROFILES OF AGN – GEOMETRY OF THE BROAD LINE REGION

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The Broad Emission Lines (BELs) in spectra of some Active Galactic Nuclei (AGN) can be very complex indicating a complex BLR geometry. According to the standard unification model one can expect an accretion disk around a supermassive black hole in all AGN. Therefore a disk geometry is expected in the BLR. However, a small fraction of BELs show double-peaked profiles which indicate disk geometry. Here, we discuss a two-component model, assuming an emission from the accretion disk and one additional emission from surrounding region. We compared the modeled BELs with observed ones (mostly broad Hα and Hβ profiles) finding that the model can well describe one-peaked and two-peaked observed profiles.