

Orientation effects on quasars SED: the torus IR emission

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We performed a spectroscopic analysis of a SDSS DR7 sample of >12000 quasars as a function of their orientation with respect to the line of sight, as indicated by the equivalent width (EW) of the [OIII] line. This confirmed the presence of orientation effects in both the narrow and the broad lines, thus providing information on the geometry and kinematics of the Narrow Line Region and the Broad Line Region.

We now use the EW[OIII] indicator to shed light on the geometry of the obscuring structure, the torus in the Unified Model. Through an analysis of the photometry available for the same sample, we study the Spectral Energy Distribution (SED) from the UV to the IR as a function of the EW[OIII]. From the IR bands of the SED we confirm that the torus must be clumpy and co-planar with the accretion disk and BLR, as predicted by many theoretical models in the literature.

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