

Mohammad Naddaf - Realistic Numerical Approach to the Dynamics of BLR Clouds and Determination of BLR location in FRADO Model

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I will present my simulation results of the motion of the dusty clumps under the gravity of black hole and the effect of radiation pressure from a realistic extended accretion disk. I will show how this radiation accelerates the dusty clumps and forms dust-driven winds in AGN, and having included the change in dust opacity, i.e. dust sublimation, I discuss how and where it may lead to a failed outflow (Czerny et al. 2017). These simulation results for different parameters such as BlackHole mass, accretion rate, accretion efficiency, and dust species, can give us a 3-D picture of the matter distribution and its dynamics and location of BLR, from which one then can calculate the expected time delay distribution, and can obtain the shapes of emission lines.

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