

The TDE/EMEI/stellar distribution by considering the interaction of stellar objects with AGN disk

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Many stars and stellar compact objects exist in the nuclear region of galaxies. The stellar dynamics and related TDEs/EMRIs are strongly affected by the central SMBH activities (or appearance or disappearance of accretion disk). I will present the evolution of TDE rate considering the evolution from quiescent to active galaxies, which can roughly explain why the TDEs are preferred to be found in green Vally galaxies. I will also present the dynamic evolution of stars in the nuclear region of Milky Way by assuming Sgr A* may active a million years ago, which can well explain the spatial distribution of nuclear stars, the distribution of inclinations and eccentricities etc. The metallicity enrichments and EMRI GW background will also be discussed considering possible evolution of nuclear stars and stellar BHs.

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