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Recent developments in tidal disruption events theory

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A tidal disruption event happens when a star wanders too close to the massive black hole in the center of a galaxy and gets tidally disrupted. The collision and accretion of the stellar debris powers a bright, transient flare. Tidal disruption events provide a unique opportunity to probe quiescent massive black holes and stellar dynamics in centers of distant galaxies, as well as to study the physics of black hole accretion and ejection. In this talk, I will review our current theoretical understanding of tidal disruption events, and pose some outstanding questions when comparing theory to observations. I will also discuss the prospect of using tidal disruption events to probe the demographics of massive black holes in the coming years, as various surveys such as the Vera Rubin Observatory and Einstein Probe Telescope will allow us to obtain a large sample of such events.

Topic

活动星系核与超大质量黑洞

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