

APR13-2013-020008

Abstract for an Invited Paper
for the APR13 Meeting of
the American Physical Society

Observations of tidal disruptions by black holes

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It was first proposed by theorists in the late 1970's that an inevitable consequence of a massive black hole lurking in the center of a galaxy is that stars will pass close enough to the black hole to be ripped apart by its extreme tidal forces and consumed. The resulting flare of radiation from the accretion of the stellar debris would then be a unique signpost for the presence of a dormant black hole in the center of a normal galaxy. It was not until over two decades later that the first convincing tidal disruption event candidates emerged in the X-rays by the ROSAT All-Sky Survey. Since then over a dozen total candidates have now been discovered from searches across the electromagnetic spectrum, including the X-rays, the ultraviolet, and the optical. In the last couple years, we have also witnessed a paradigm shift with the discovery of the onset of relativistic, jetted emission in a tidal disruption event. I will review the census of observational candidates to date, and discuss the exciting prospects for using large samples of tidal disruption events discovered with the next-generation of ground-based and space-based synoptic surveys to probe accretion physics, jet formation, and black hole demographics.