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Tidal disruption events

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A hundred years ago, when Karl Schwarzschild wrote his famous metric, he didn't imagine that a monster, a black hole, is hidden within this metric and this monster can tidally disrupt and swallow a whole star. This question, how does a stellar tidal disruption by a black hole was addressed for the first time in the eighties and recently within the last decade we begun observing such events. The observations confirmed some of the basic ideas, but posed new puzzles. I examine the recent observations of Tidal Disruption Event (TDEs) candidates. I confront the theory with the observations and present a new model for these events. I discuss new puzzles that arise and their resolutions.

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