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Rates of Stellar Tidal Disruption MICHAEL KESDEN, University of Texas at Dallas, NICHOLAS STONE, Hebrew University, EUGENE VASILIEV, University of Cambridge, ELENA ROSSI, Leiden University, HAGAI PERETS, Technion, PAU AMARO-SEOANE, Institut de Ci'encies de lEspai — Tidal disruption events occur rarely in any individual galaxy. Over the last decade, however, time-domain surveys have begun to accumulate statistical samples of these flares. What dynamical processes are responsible for feeding stars to supermassive black holes? At what rate are stars tidally disrupted in realistic galactic nuclei? What may we learn about supermassive black holes and broader astrophysical questions by estimating tidal disruption event rates from observational samples of flares? We address these questions in an upcoming review which summarizes current theoretical knowledge about rates of stellar tidal disruption, and compares theoretical predictions to the current state of observations.

Michael Kesden University of Texas at Dallas

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