## Astrophysics Seminar Monday, October 2, 2017

## **Peter Maksym**

Harvard-Smithsonian Center for Astrophysics

## Observational Clues of Black Hole Accretion from the Tidal Disruption of Stars



When a star passes close enough to a massive

black hole, the tidal forces across the star may exceed its self-gravity, causing a tidal disruption event (TDE). The debris of the disrupted star accretes rapidly onto the black hole, generating a luminous flare which may rival quasars in brightness for months or years. Although TDEs represent a promising method to investigate the population of (normally) quiescent massive black holes in the era of large synoptic surveys, an observationally-based understanding of TDE physics is necessary to interpret large datasets which are fundamentally photometric. I will discuss findings from observations of long-term monitoring of bright, nearby TDEs, which can act as direct probes of black hole accretion from super-Eddington rates to quiescence in a normally quiescent environment.

3:30pm in CAS 502. Refreshments served at 3:15pm in CAS 500.





Next Week
Tuesday, October 10
Svetlana Jorstad
BU