BOSTON UNIVERSITY

3:15 pm
Refreshments
CAS Room 500

3:30 pm
Seminar
CAS Room 502

Next Week

- *Mariska Kriek*
  University of California, Berkeley

- TBD

http://www.bu.edu/iar/seminars/current-seminars/

Uncovering the hidden growth of supermassive black holes

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Abstract:
Recent years have seen remarkable advances in our understanding of how supermassive black holes form and grow over cosmic time, and how energy released by active galactic nuclei (AGN) connects the growth of black holes to their host galaxies and large-scale structures. Still some important questions remain, including (1) What is the connection between AGN activity and star formation in galaxies? (2) What is the nature of the luminous AGN that are obscured by gas and dust? First, I will argue that black hole accretion may be closely tied to the rate of star formation, but due to rapid stochastic variability of AGN (on timescales longer than a human lifetime, but shorter than the timescales for star formation), these connections have been "hidden" from most observational probes. I will review some recent observational and theoretical studies that explore the AGN-star formation connection in the context of this variability. Second, I will highlight how new X-ray and infrared observatories such as NuSTAR and WISE have revolutionized our understanding of the "hidden" obscured quasars that represent a large fraction of the massive black hole growth in the Universe. Finally, I discuss the prospects of building a complete phenomenological model of AGN and galaxy evolution, and point toward exciting avenues for future progress.

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