



**Department of Physics and Astronomy  
Presents**

# Black Holes vs Galaxies



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**Thursday March 2<sup>nd</sup>, 2017**  
**1:40 pm, Room C640, U Hall**

**Lecture Abstract:**

Supermassive black holes seem likely to supply energy to their galactic scale environments which can modulate the process of star formation and determine the shape of the galaxy luminosity function. In addition, supermassive black holes seem to supply energy to the hot X-ray emitting Intracluster Medium (ICM) of clusters of galaxies. The black hole replenishes energy lost from the gas due to radiation and influences the properties of the ICM as well as those of the centrally located massive Brightest Cluster Galaxy. I discuss the role of supermassive black holes in galaxy formation and evolution and in the intracluster medium of clusters of galaxies. I present multi-wavelength observations (Chandra, Hubble Space Telescope, ALMA, VLA) of the interaction of extended radio sources (produced by the central black holes) with their environments.

**EVERYONE IS WELCOME**