



Physics Colloquium



Thursday, March 31st at 3:30 pm in SC 234

Dr. Anil Chandra Seth

Department of Physics and Astronomy

The University of Utah

Black holes in low mass galaxies

Supermassive black holes are ubiquitous in massive galaxies, but it remains unclear how many sub-Milky Way mass galaxies host black holes. The demographics of black holes in lower mass galaxies provide the only currently observable test of how supermassive black holes form in the early universe. I will discuss my work to find and measure the mass of black holes in lower mass galaxies, highlighting the detection of a supermassive black hole that makes up 15% of the mass of an ultra-compact dwarf galaxy (UCD). This UCD is the least massive and smallest object known to host a supermassive ($>10^6 M_{\text{Sun}}$) black hole. I will present evidence that black holes like this may represent a significant fraction of all the supermassive black holes in the local universe.

Refreshments 3:00-3:20 pm in SC 103