

Department of Mathematics and Statistics Colloquium

*The Monster Roars! Co-Evolution of Galaxies  
and Black Holes*

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Abstract: Galaxies, just like the one we live in, the Milky Way, are collections of stars and gas. They often show huge amounts of energy coming from their central regions, and we believe this is caused by matter falling onto a super-massive black hole. Famous examples are powerful quasars, which are mostly seen at large look-back times. There is now increasing evidence that this same phenomenon may be happening at a low level in a large fraction of local galaxies. This lecture will present ground- and space-based observations that bear to our understanding of the central engine of these cosmic objects from large cosmological distances and from nearby, and discuss the implications for the formation and evolution of galaxies in universe.

**Monday, February 13 at 3:45 in Roop 103**

**refreshments at 3:30**