



# PHYSICS AND ASTRONOMY SEMINAR

## Dr. Nicholas McConnell

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### “Hunting for the Largest Black Holes”

#### Abstract

In both the distant universe and our cosmic backyard, we find evidence for black holes as large as  $\sim 10$  billion solar masses, dwarfing the more commonplace million-solar-mass black holes like the one at our Galactic Center. In the present epoch these extreme black holes reside in the most luminous elliptical galaxies. Yet there are still too few direct measurements of black hole mass to robustly explore trends with their host galaxies' structure or environment, or uphold a coherent model of black hole growth, star formation, and galaxy assembly via mergers. I will introduce new efforts to survey the present-day black hole mass function, with emphasis on stellar dynamics in the centers of the universe's most massive galaxies.

Thursday, September 29, 2016

11:30 a.m.

MacLaurin Building

Room D107