



PHYSICS AND ASTRONOMY SEMINAR

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“Andromeda's Dwarf Spheroidals and the Universal Mass Profile”

Abstract

As the faintest, least massive galaxies we are able to observe, dwarf spheroidal galaxies represent the fundamental galactic unit. Their study in the Milky Way has led to several interesting findings and is helping us to better understand the behaviour of dark matter on the smallest scales. In this talk, I will present work from the ongoing PAndAS spectroscopic follow up survey of Andromeda, focusing on our results for its dwarf galaxy population. I will show that by including the masses measured for these objects in our analysis of the mass profiles of all dwarf galaxies, we are able to demonstrate that the notion of a universal mass profile for these most minute of galaxies is false. I will also identify several interesting objects whose properties defy our expectations, and discuss what these mean for our understanding of the physics governing galactic evolution.

Tuesday, September 17, 2013

10:30 a.m.

Elliott Building

Room 160