## TRENT UNIVERSITY PHYSICS & CHEMISTRY SEMINAR PROGRAM

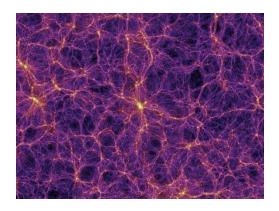
WEDNESDAY, JANUARY 25, 2017

## Dr. Kristine Spekkens Department of Physics Royal Military College

## Cold Dark Matter and the Interstellar Medium of Nearby Dwarf Galaxies

**ABSTRACT** 

The properties of nearby dwarf galaxies provide important insight into how galaxies form and evolve within the now-standard cold dark matter cosmology. In this talk, I will discuss the cosmological implications of some recent studies of the interstellar medium in a particular type of dwarf galaxy orbiting the Milky Way called a dwarf spheroidal. First, I'll present results from a deep search for radio synchrotron emission from these systems in order to constrain the properties of the particle dark matter that may make up their halos. I will then describe how our recent observations of the atomic gas content of the dwarf spheroidals, obtained during the course of our particle dark matter search, may elucidate key dynamical properties of both the Milky Way and the dwarfs themselves. (image credit: Springel et al. 2005)



**SCIENCE COMPLEX ROOM 115** 

11:00 AM

All Welcome!

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