TRENT UNIVERSITY
PHYSICS & CHEMISTRY SEMINAR PROGRAM

WEDNESDAY, FEBRUARY 24, 2016

Dr. Graeme Luke

Department of Physics and Astronomy
McMaster University

Exotic Probes and Extreme Conditions

Reveal New States of Quantum Matter

ABSTRACT

One of the most important themes in contemporary condensed matter physics is that of emergence, whereby novel phenomena "emerge" from the collective behavior of the constituent parts of a system. Examples of such phenomena include superconductivity in all of its myriad forms and both the integer and fractional quantum Hall effects. Recently, theorists have predicted that the magnetic excitations in a class of materials (referred to as spin ice) correspond to de-confined magnetic monopoles. I will discuss experimental searches for these monopoles as well as some of our other recent work in identifying novel magnetic states and excitations.

SCIENCE COMPLEX ROOM 115

11:00 AM

All Welcome!

Check us out on the web
http://www.trentu.ca/physics/TrentUniversityPhysicsandAstronomy.php