



Western University
Department of Physics and Astronomy

PHYSICS & ASTRONOMY COLLOQUIUM

Date: **Thursday, 12th October 2017**
Time: **1:30 p.m.**
Location: **Physics & Astronomy Seminar Room 100**

Dr. Stephen Julian

Department of Physics
University of Toronto

"New quantum phases of matter"

ABSTRACT

Recent years have seen the discovery of a bewildering variety of new quantum mechanical states of condensed matter: triplon condensates, chiral superconductors and spin liquids, electron nematics, antiferroquadrupolar condensates, topological insulators and metals, etc., not to mention a veritable zoo of new (non-chiral) superconductors. I will discuss some of these new states, focussing on the role of so-called quantum critical points (zero-temperature phase transitions), and the use of high pressure measurements, in the discovery and elucidation of these new phases and of the strange high-temperature states from which they condense.

COFFEE + light snacks will be available in the Atrium, 2nd floor, at 1:15 p.m.