Canadian Association of Physicists | Association canadienne des physiciens et physiciennes

Contribution ID: **1820** Type: **Invited Speaker / Conférencier invité**

Time-of-Flight Neutron Scattering From Exotic Quantum Ground States

Wednesday, 31 May 2017 08:50 (25 minutes)

The advent of new time-of-flight neutron spectrometers at both spallation-based and reactor-based neutron sources has fundamentally changed the nature of the information that can be obtained using inelastic neutron scattering. Measurements on single crystals can now map out comprehensive four-dimensional (three momenta and one energy dimensions) data sets of inelastic scattering from both spin and lattice degrees of freedom. I will discuss the evolution of neutron sources since the discovery of the neutron by Chadwick in 1932, and show how revolutionary recent progress has been. The power of new time-of-flight techniques will be illustrated , taking examples from my groups studies of frustrated quantum magnets and materials related to high temperature superconductors.

Primary author: Prof. GAULIN, Bruce (McMaster University)

Presenter: Prof. GAULIN, Bruce (McMaster University)

Session Classification: W1-1 Condensed Matter at Large Facilities (DCMMP) | Matière condensée aux grandes installations (DPMCM)

Track Classification: Condensed Matter and Materials Physics / Physique de la matière condensée et matériaux (DCMMP-DPMCM)