**Western University**
**Department of Physics and Astronomy**

# PHYSICS & ASTRONOMY COLLOQUIUM

**Date:** **Thursday, 21st March 2019**

**Time:** **1:30 p.m.**

**Location:** **Physics & Astronomy Seminar Room 100**


## Dr. Brian McNamara

Department of Physics & Astronomy
University of Waterloo


## *"Molecular clouds and the origins of feedback in galaxies"*


**ABSTRACT**

Galaxies owe much of their structure and appearance to physical processes resulting from energetic feedback from supernovae, starburst winds, and massive black holes. In the largest galaxies, nuclear supermassive black holes are the dominant energy source. I will discuss recent progress in understanding how feedback from active galactic nuclei both sustains and regulates itself by heating the hot atmospheres surrounding galaxies and by inducing thermally-unstable, cooling gas that fuels star formation and the feedback engine itself.


**HOST:** M. Houde

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