



Western University
Department of Physics and Astronomy

PHYSICS & ASTRONOMY COLLOQUIUM

Date: **Thursday, 27th April 2017**
Time: **1:30 p.m.**
Location: **Physics & Astronomy Seminar Room 100**

Dr. Sami Dib

Universidad de Atacama, Copiapo
and Starplan, Copenhagen

“Assessing and understanding variations in the outcome of star formation”

ABSTRACT

Star formation is a multi-physics and multi-scale process whose outcome is likely to depend on the physical conditions prevailing in different galactic environments. Assessing the existence of such a dependence requires the use of large observational datasets while understanding its origin requires the development of theoretical models that can take into account the diverse physical conditions found across star forming regions in the Milky Way and in nearby galaxies.

I will discuss how several processes such as turbulent fragmentation, feedback from massive stars, and large scale gas+star instabilities can help explain the observed scatter in the star formation scaling relations in galactic disks. I will also discuss some of the observed cluster-to-cluster variations of the stellar initial mass function in our galaxy and in the Andromeda galaxy.

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