



Western University
Department of Physics and Astronomy

PHYSICS & ASTRONOMY COLLOQUIUM

Date: **Thursday, 5 September 2019**
Time: **1:30 p.m.**
Location: **Physics & Astronomy Seminar Room 100**

Dr. Peter G. Brown

Department of Physics and Astronomy
Western University

“The airburst hazard from small asteroid impacts: What we have learned from Chelyabinsk”

ABSTRACT

On Feb 15, 2013 a 20m asteroid impacted just south of the city of Chelyabinsk, Russia releasing half a megaton of energy. The damage caused by the impact (window breakage, light structural damage) was a surprise—models of the time predicted that ground damage from impacts should only occur for much larger objects. In the half dozen years since Chelyabinsk, study of this unique airburst has led to improved models of impact effects from small NEOs and a re-assessment of the risk posed by small, decameter-sized impactors. In this talk I will summarize key lessons gleaned from the Chelyabinsk airburst and what we have learned about the small NEO population and the associated impact hazard at Earth.

HOST: R. J. Sica

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