



Western University
Department of Physics and Astronomy

PHYSICS & ASTRONOMY COLLOQUIUM

Date: **Thursday, 13 December 2018**
Time: **1:30 p.m.**
Location: **Physics & Astronomy Seminar Room 100**

Dr. Styliani (Stella) Conostas

Department of Chemistry
Western University

***“Rayleigh limit of charged droplets: An old theory revisited.
What Lord Rayleigh did not predict?”***

ABSTRACT

The stability of conducting droplets initiated by the seminal works of Lord Rayleigh (1882) has been studied for over one and a half centuries. Rayleigh’s theory has found numerous applications in various fields such as “liquid-drop” model in nuclear stability, natural and man-made aerosols, charged polymers to mention but a few of the applications. The theory, though, awaited for a very long time to be tested by modeling of aqueous droplets with ions. Back in 2002 we presented the first simulations in this direction and since then the study of the stability of charged droplets has led us to intriguing findings that complete the Rayleigh theory. These findings will be presented using molecular and continuum modeling along with analytical theory.

HOST: L. Goncharova

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