



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

## **PHYSICS & ASTRONOMY COLLOQUIUM**

**Date: WEDNESDAY, 6<sup>th</sup> December 2017**  
**Time: 1:30 p.m.**  
**Location: Physics & Astronomy Seminar Room 100**

### **Dr. Sophie Godin-Beekmann**

Director of Research  
Centre National de la Recherche Scientifique (CNRS), France

### ***“The depletion of the ozone layer and its interaction with climate change”***

#### **ABSTRACT**

Ozone is an essential component of the Earth’s atmosphere. It shields living organisms at the Earth’s surface from dangerous solar ultraviolet radiation. The depletion of the ozone layer has been the first environmental issue to raise international concerns on impacts of human activities on the global Earth atmosphere. This depletion was found to be due to increased emissions by the chemical industry of halogenated compounds, which could reach the stratosphere and perturb the chemical equilibrium of ozone. The Montreal Protocol signed in 1987 regulates these ozone depleting substances (ODS). Hailed as an as an example of exceptional international cooperation, this Protocol establishes legally binding controls for developed and developing nations on the production and consumption of ODS. Thanks to the enforcement of the Montreal Protocol and its amendments, the abundance of ODS in the atmosphere is now decreasing and the ozone layer is slowly recovering. This talk will present the main features of stratospheric ozone depletion and assess its two-way interaction with climate change.

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