

# Seminar Series 2013-2014

Southern Ontario Centre for Atmospheric Aerosol Research  
University of Toronto

## Step Away from the Road: Exposure to Ultrafine Particles in Toronto



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Ultrafine particles are defined as particulate matter with diameters less than 100nm. In urban areas, these nano-particles are emitted from combustion sources such as traffic or form naturally through a series of reactions between sulphuric acid, ammonia, and water. Once in the atmosphere, these tiny particles can evaporate, or be otherwise removed, resulting in steep concentration gradients across cities.

The **S**patial **C**haracterization of **U**ltrafine **P**articles in **T**oronto (SCULPT) Study is an on-going investigation focused on the spatial and temporal variation of traffic-related air pollutants. A total of 22 residential field sites were selected based on their proximity to traffic and other geographical features such as parks, Lake Ontario, commercial areas, rail lines, and industrial areas. Measurements were collected for 2 week periods over several months in the winter and summer of 2013. This talk will describe the factors that contributed to the presence of higher or lower ultrafine particle concentrations at selected sites and the resulting temporal and spatial patterns of ultrafine particles across Toronto.

**November 6, 2013, 3 - 4 pm**

**Wallberg Building, 200 College Street, Room 407**

