

Seminar Series 2015 - 2016

Southern Ontario Centre for Atmospheric Aerosol Research
University of Toronto

Investigating the Role of Transportation Models in Epidemiologic Studies of Traffic Related Air Pollution and Health Effects

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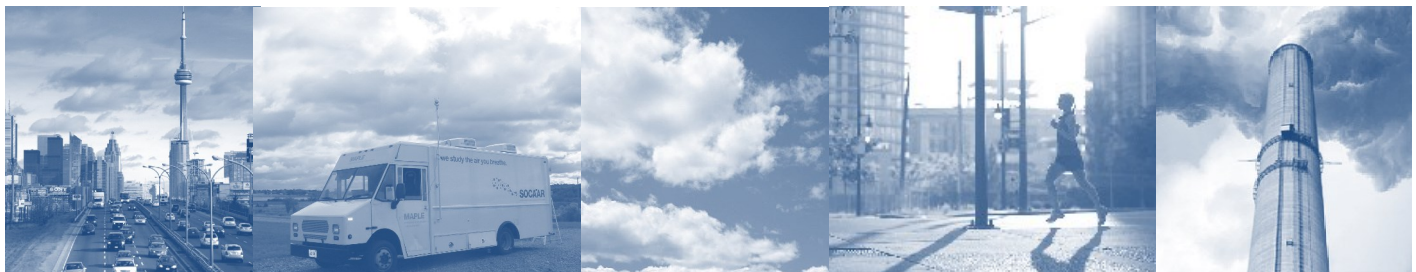
Civil Engineering
University of Toronto



From land-use regression to dispersion modeling, this talk explores the development of air pollution exposure surfaces for the City Montreal with a particular emphasis on the role of transportation and emission models in assigning a measure of exposure to traffic-related air pollution. We start by comparing the distribution of the spatial estimates of NO₂ derived from a transportation/emissions model, a land-use regression model, and a dispersion model. We investigate the reasons behind the agreement and disagreement between these measures in the context of the land-use and built environment of Montreal. We then compare estimates of health risk using these different exposure estimates relying on two case-control studies of breast and prostate cancer. We ask the question: Under which conditions could transportation models replace expensive monitoring techniques and computationally intensive atmospheric dispersion modelling?

September 30, 2015, 3 – 4 PM

Wallberg Building, 200 College Street, Room 407



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