



## Séminaire conjoint / Joint Seminar

Chaire de logistique et de transport et Chaire de recherche du Canada en distributique/  
Chair in Logistics and Transportation and Canada Research Chair in Distribution Management



### Luigi Moccia

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## ELASTIC DEMAND AND RECENT ADVANCES IN TRANSIT TECHNOLOGY CHOICE

**Abstract:** This talk deals with optimization models of a transit line which can be used to strategically evaluate technology choices such as bus rapid transit, light rail transit, metro, or commuter rail. The main topic is the effect of demand elasticity on the technology choice under a range of objective functions having as two extrema the maximization of operator's profit and the maximization of social welfare. Analytic and numerical comparisons with some fixed demand models show that accounting for demand elasticity does not change the conclusions that can be derived by an equivalent fixed demand model. This invariance holds for a broad range of objective functions in the elastic case. The significant difference between the two objective function extrema lies in the proportions of captured demand. Recent improvements of fixed demand models will be discussed in the last part of the talk.

**Bio:** Luigi Moccia is a researcher at ICAR-CNR, Italy. His research interests are in decision support systems for multimodal logistics, urban transportation, and green logistics. He received his MSc degree summa cum laude in Management Engineering at the University of Calabria (1997), as well as his PhD in Operations Research (2004). Between 2002 and 2004 he was a visiting PhD student at the Centre de Recherche sur les Transports (CRT) in Montréal. In 2005 his PhD thesis won the Transportation Science and Logistics Dissertation Prize awarded by INFORMS.

MERCREDI / WEDNESDAY

29 août 2018 /  
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10h30

Salle / Room 5441  
Pavillon André-Aisenstadt  
Université de Montréal

Ouvert à tous / Open to all

Organisateur / Organizer  
Gilbert Laporte

