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***PRÉSENTATION DE LÉONARD RYO MORIN  
DANS LE CADRE DE SON EXAMEN PRÉDOCTORAL- PARTIE ORALE***

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Conférencier : LÉONARD RYO MORIN, DIRO, UdeM  
Titre : DEVELOPING MULTI PERIOD STOCHASTIC FLOW INTERCEPTION RESOURCE ALLOCATION MODELS  
Date et heure : Le lundi 24 août 2015, à 10h  
Salle : 3195, Pavillon André-Aisenstadt

**Abstract**

In this thesis, we look at transportation demand for heavy trucks in and around the region of Montreal with a particular interest on reconstructing vehicle tours. This allows us to somewhat characterize the general behavior of truck drivers when making route choice decisions in an urban setting. Then, a problem that can be defined as a flow intercepting resource allocation problem is presented. The goal is to intercept the maximum traffic flow of heavy trucks across the road network of the province of Quebec by choosing where to locate infrastructure and where to allocate vehicle patrol hours. The issue with the initial mathematical programming model is that the demand is static, deterministic and does not take into account infrastructure locations and vehicle patrol presence. We will gradually improve the model by incorporating the antagonistic nature of some users trying to avoid inspection, taking into account multiple time periods with distinct demands, and transitioning to a stochastic model to provide a more robust resource allocation plan.

19 août 2015