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ROBUST UNCAPACITATED HUB LOCATION

Abstract: A common shortfall in applying optimization methods in practice is the lack of or inaccuracy in data needed for the model. In response to this, the OR community has developed new approaches that incorporate this data uncertainty into the model and provide solutions that are optimal in a risk neutral (stochastic optimization) and worst case scenario (robust optimization). In this talk we present a robust optimization approach to the well-known uncapacitated hub location problem with multiple assignments in which the level of conservatism can be controlled by means of a budget of uncertainty. Three scenarios of parameter uncertainty are assumed. These are: uncertain demand quantities, transportation costs and both simultaneously. We study the characteristics of the solutions and compare them with those obtained from a commensurable stochastic model.

Note: Carlos Zetina is a doctoral student at the department of Mechanical and Industrial Engineering of Concordia University. He is supervised by both professors Jean-François Cordeau and Ivan Contreras.

JEUDI / THURSDAY

3 décembre 2015 /
December 3rd, 2015
10h30

Salle / Room 5441
Pavillon André-Aisenstadt
Université de Montréal

Ouvert à tous / Open to all

Organisateur / Organizer
Jean-François Cordeau