



## Séminaire conjoint / Joint Seminar

Chaire HEC en planification des opérations dans la chaîne logistique et Chaire HEC en logistique et en transport /  
HEC Chair in Supply Chain Operations Planning and HEC Chair in Logistics and Transportation

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## MANAGING PERISHABILITY IN AN INVENTORY ROUTING PROBLEM

**Abstract:** This talk focuses on an inventory routing problem in which goods are perishable. In this problem, we consider an aging product with a fixed shelf-life and with inventory holding costs and sales revenues depending on the product age. Firstly, I will present and compare four mathematical formulations for the problem, which are solved using branch-and-cut algorithms. Secondly, I will describe a hybrid heuristic we developed to solve the problem, which is based on the combination of an iterated local search metaheuristic and two mathematical programming components. Finally, I will report the results of extensive computational experiments using instances from the literature and newly introduced instances.

**Bio:** Aldair Alvarez is a PhD student at the Department of Production Engineering at the Federal University of São Carlos in Brazil, under the supervision of Professors Pedro Munari and Reinaldo Morabito. His PhD research focuses on the study and development of solution methods for inventory routing problems. Aldair Alvarez is doing a PhD internship at CIRRELT, under the supervision of Professors Jean-François Cordeau and Raf Jans.

JEUDI / THURSDAY  
31 octobre 2019 /  
October 31st, 2019  
10h30

Salle / Room 5441  
Pavillon André-Aisenstadt  
Université de Montréal

Ouvert à tous / Open to all

Organisateur / Organizer  
Jean-François Cordeau