CIRRELT

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

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Determining the order of neighborhood operators in a Variable Neighborhood Search: A study on the Swap-body Vehicle Routing Problem

Abstract: In a Variable Neighborhood Search (VNS) decisions must be made about the number of neighborhood operators and what sequence should be applied. With the aim of determining a sequence for the Swap-Body Vehicle Routing Problem (SB-VRP), we propose an experimental setting to test and analyze the order of neighborhood operators in a VNS. The findings of the experiments show that the order matters. Without further adaption of the algorithm, and by only modifying the sequences of operators, best known solutions can be improved with a maximal improvement of 2.25% and an average improvement of 0.70%. These results are promising and recommend to spend some time on finding an encouraging sequence which enhances the solution quality. Experiments on benchmark instances are conducted and compared for the SB-VRP.

Bio: Dr. Sandra Huber is a postdoctoral researcher at the Logistics-Management Department of Helmut-Schmidt University in Hamburg, Germany. She is presently doing a postdoctoral internship under the supervision of Professor Jean-François Cordeau.

Mercredi / Wednesday

19 octobre 2016 / October 19th, 2016
10h30

Salle / Room 5441
Pavillon André-Aisenstadt
Université de Montréal

Ouvert à tous / Open to all

Organisateur / Organizer
Jean-François Cordeau

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