



May 16-19, 2023, Montréal, Canada

Tuesday, May 16

18:00 Welcome cocktail and dinner (Hyatt Place Montréal-Downtown hotel)

Wednesday, May 17

8:40 Opening session

Session 1

- 8:45 **ML-based heuristic branch-and-price for the aircrew pairing problem**
Pierre Pereira, Emeric Courtade, Daniel Aloise, [Frédéric Quesnel](#), François Soumis, Yassine Yaakoubi
- 9:10 **The sharpest bin-packing column**
[Fabio Furini](#), Stefano Coniglio, Fabio D'Andreagiovanni
- 9:35 **A branch-price-and-cut algorithm for the joint order batching and picker routing problem with scattered storage**
[Katrin Heßler](#), Stefan Irnich
- 10:00 **Strengthened route-based formulations and a branch-cut-and-price algorithm for split delivery vehicle routing problems**
[Pedro Munari](#), Isaac Balster, Teobaldo Bulhões, Artur Alves Pessoa, Ruslan Sadykov

10:25 Coffee break

Session 2

- 10:55 **A scalable exact algorithm for minimum disturbance rerouting to optimize bandwidth usage**
[Brigitte Jaumard](#), David Coudert, Huy Duong
- 11:20 **The electric vehicle routing and overnight charging scheduling problem on a multigraph**
[Daniel Yamin](#), Guy Desaulniers, Jorge E. Mendoza
- 11:45 **Branch-and-price: Good to know**
[Jacques Desrosiers](#), [Marco Lübbecke](#), Guy Desaulniers, Jean-Bertrand Gauthier

12:10 Lunch

Session 3

- 13:45 **Local center cutting plane framework**
[Issmail El Hallaoui](#), Mohamed El Fassi
- 14:10 **A partial duty formulation for a crew scheduling problem**
Twan Dollevoet, [Remy Spliet](#)
- 14:35 **Dantzig-Wolfe: from data-driven decomposition to parallel resolution**
[Alberto Ceselli](#), Saverio Basso
- 15:00 **Graph master and local area routes for efficient column generation for the capacitated vehicle routing problem with time windows**
Udayan Mandal, Amelia Regan, Louis-Martin Rousseau, [Julian Yarkony](#)

15:25 Coffee break

Session 4

- 15:55** **Resource-window reduction by reduced costs in path-based formulations for routing and scheduling problems**
[Stefan Irnich](#), Nicola Bianchessi, Timo Gschwind
- 16:20** **SMS++: a system for structured optimization, with applications**
[Antonio Frangioni](#), Rafael Durbano Lobato, Wim van Ackooij
- 16:45** **Exact methods for hierarchical clustering**
[Rick Willemsen](#), Carlo Cavicchia, Wilco van den Heuvel, Michel van de Velden

Thursday, May 18

Session 5

- 8:45** **The complexity of pricing in the two-stage vehicle routing problem**
[Ricardo Fukasawa](#), Joshua Gunter, Matheus Ota
- 9:10** **A branch-and-price method for the pickup and delivery problem with truck driver scheduling**
[Magnus Stålhane](#), Ole Johannes Lindseth, Simen Sørum
- 9:35** **Revisiting column generation based matheuristic for learning classification trees**
[Krunal Patel](#), Guy Desaulniers, Andrea Lodi
- 10:00** **On solving the minmax multiple traveling salesman problem by column generation**
[Nicola Bianchessi](#), Christian Tilk, Stefan Irnich
- 10:25** **Coffee break**

Session 6

- 10:55** **Incorporating holding costs in continuous-time service network design: New model, relaxation, and exact algorithm**
[Roberto Baldacci](#), Shengnan Shu, Zhou Xu
- 11:20** **Branch-price-and-cut-based solution of order batching problems**
Julia Wahlen, [Timo Gschwind](#)
- 11:45** **Coluna.jl: an open-source platform to implement your creative algorithmic strategies based on Dantzig-Wolfe and Benders decomposition approaches**
Guillaume Marques, Vitor Nesello, Artur Pessoa, Ruslan Sadykov, [François Vanderbeck](#)
- 12:10** **Lunch**
- 14:00 - 18:30** **Social activities**
- 19:00 - 22:00** **Workshop dinner**

Friday, May 19

Session 7

- 8:45** **Branch-and-Cut-and-Price for Multi-Agent Pickup and Delivery**
[Edward Lam](#), Peter Stuckey, Daniel Harabor
- 9:10** **A bidirectional labeling algorithm for solving the vehicle routing problem with drones**
Jeanette Schmidt, [Christian Tilk](#), Stefan Irnich
- 9:35** **Constraint aggregation and integral simplex for set partitioning problems**
[François Soumis](#), Alpha-Saliou Barry, Issmail El Hallaoui, Frédéric Quesnel
- 10:00** **A combinatorial flow-based formulation for temporal bin packing problems**
John Martinovic, Nico Strasdat, [José Valério de Carvalho](#), Fabio Furini
- 10:25** **Coffee break**

Session 8

- 10:55** **The first column generation algorithms**
[Eduardo Uchoa](#), Ruslan Sadykov
- 11:20** **A branch-price-and-cut algorithm for the multi-commodity two-echelon vehicle routing problem with time windows**
[Tayeb Mhamedi](#), Marilène Cherkesly, Guy Desaulniers
- 11:45** **Integer programming column generation: Accelerating branch-and-price for set covering, packing, and partitioning problems**
Stephen J. Maher, [Elina Rönnberg](#)
- 12:10** **Lunch**

Session 9

- 13:45** **A route relaxation based on the spatial aggregation of nodes for the generalized vehicle routing problem**
François Lamothe, [Claudio Contardo](#), Matthieu Gruson, Rafael Martinelli
- 14:10** **Online optimization of a dial-and-ride problem with the integral primal simplex**
[Antoine Legrain](#), Elahe Amiri, Issmail El Hallaoui
- 14:35** **Dynamic railway crew planning with fairness over time**
[Bart van Rossum](#), Twan Dollevoet, Dennis Huisman
- 15:00** **Learning dual inequalities for column generation**
Louis Popovic, [Guy Desaulniers](#), Quentin Cappart
- 15:25** **Coffee break**