

International Workshop on Lot Sizing 2021 - Program

Day 1: Monday, August 30, 2021

8h - 9h30 Session 1: Integrated lot sizing problems

Heuristic for the 3-Level Integrated Lot-Sizing and Cutting Stock Problem and Extensions

Gislaine Mara Melega, Silvio Alexandre de Araujo, Raf Jans, Reinaldo Morabito

Novel formulations for demand fulfillment in an integrated procurement and lot-sizing problem

Caio Paziani Tomazella, Maristela Oliveira Santos, Douglas Alem, Raf Jans

A Multi-Plant Lot Sizing Problem Applied to an Aluminum Beverage Packaging Company

Carlos Eduardo de Moraes Ferreira, Antonio Augusto Chaves, Mariá Cristina Vasconcelos Nascimento

9h30 - 10h Break

10h - 11h Session 2: Exact approaches for lot sizing problems

A Benders decomposition approach to the lot-sizing and market selection problem

Wilco van den Heuvel, Semra Ağralı, Zeki Caner Taşkın

New valid inequalities for a multi-echelon multi-item lot-sizing problem with returns and lost sales

Franco Quezada, Céline Gicquel, Safia Kedad-Sidhoum

Day 2: Tuesday, August 31, 2021

8h - 9h30 Session 1: Stochastic lot sizing I

Tackling Uncertainty in Lot Sizing – Comparison of Different Disciplines

Viktor Bindewald, Fabian Dunke, Stefan Nickel

A Deep Reinforcement Learning approach for the Stochastic Inventory Problem

Henri Dehaybe, Daniele Catanzaro, Philippe Chevalier

Solving Multi-Echelon Inventory Management Problems with Deep Reinforcement Learning

Qihua Zhong, Yossiri Adulyasak, Martin Cousineau, Raf Jans

9h30 - 10h Break

10h - 11h Session 2: New algorithms for lot sizing problems

Solving profit-maximizing lot size problems with customer stockpiling and discrete prices

Erik Langelo, Lars Magnus Hvattum

New construction heuristics for capacitated lot-sizing problems

Daryna Dziuba, Christian Almeder

11h - 11h30 Meeting of the EURO working group on lot sizing

Meeting open for everyone to discuss the activities of the EURO Working Group on Lot Sizing

Day 3: Wednesday, September 1, 2021

8h - 9h30 Session 1: Stochastic lot sizing II

Managing Flexibility in Stochastic Multi-level Lot Sizing Problem with Service Level Constraints

Narges Sereshti, Yossiri Adulyasak, Raf Jans

Heuristic approximation of the Pareto-front in multi-objective stochastic lot sizing

Fabian Frieze, Stefan Helber

Distributionally robust optimization for the LSP with uncertain production yield

Paula Metzker Soares, Simon Thevenin, Yossiri Adulyasak, Alexandre Dolgui

9h30 - 10h Break

10h - 11h Session 2: Lot sizing and routing

A Branch-and-Cut Algorithm for the Inventory Routing Problem with Product Substitution

Özlem Mahmutoğulları, Hande Yaman

The Consistent Production Routing Problem

Aldair Alvarez, Jean-François Cordeau, Raf Jans
