

09:00 AM - 11:00 AM
Transportation I
Chair: Martina Fischetti

- 09:00 AM Maurizio Bruglieri – Optimizing a real-time carpooling service
09:20 AM Giusy Macrina – Bundles generation and pricing in crowdshipping
09:40 AM Amparo Mármol – A pick-up rule for sharing transportation costs in itinerant events
10:00 AM Siniša Vilke – Decision support system in urban traffic management
10:20 AM Martina Fischetti – How the European Union uses Operations Research for transport analyses

11:30 AM - 01:00 PM
Transportation II
Chair: Cristiano Cervellera

- 11:30 AM Francesca Vocaturo – Graph Partitioning in Public Transport
11:50 AM Maksim Lalić – Assisting Passengers on Rerouted Train Service Using Vehicle Sharing System
12:10 PM Gabriella Stecco – Scheduling and Routing of AGVs: solving industrial applications using Constraint Programming
12:30 PM Cristiano Cervellera – Receding-horizon dynamic optimization of port-city traffic interactions over shared urban infrastructure

02:30 PM - 03:30 PM
Plenary Lecture
Chair: Filippo Visintin

- 02:30 PM Maria Paola Scaparra – Leveraging OR to build more sustainable, resilient, and equitable communities in South-east Asia

03:40 PM - 05:00 PM
Transportation III
Chair: Jean-Paul M. Arnaout

- 03:40 PM Antonio Napoletano – Vehicle routing at work: a real-world implementation and case studies
04:00 PM Xuan Ren – The Truck and Drone Routing with Delivery and Optional Pickups
04:20 PM Jean-Paul M. Arnaout – A Preliminary Assessment of the Traffic Operations of Connected and/or Autonomous Vehicles

05:00 PM - 05:30 PM
Closing Session

09:00 AM - 11:00 AM

Continuous and Multiobjective optimization II

Chair: Annarita De Maio

- 09:00 AM Milica Jovanović-Vujatović – Econometrics analysis of multidimensional urban poverty determinants
- 09:20 AM Bo Peng – Conic formulation of QPCCs applied to truly sparse QPs
- 09:40 AM Emanuele Pizzari – Bilevel Formulations for Municipal Waste Management
- 10:00 AM Marco Premoli – Comparing digital and quantum annealing heuristics: the cardinality constrained quadratic knapsack case
- 10:20 AM Annarita De Maio – Optimization techniques for the risk mitigation in the hazardous material truck transportation

11:30 AM - 01:00 PM

Continuous and Multiobjective optimization III

Chair: Brilli Andrea

- 11:30 AM Serena Fugaro – Multi-Objective Covering Location Problems with advanced connectivity features and zonal requirements: Exact and Matheuristic approaches
- 11:50 AM Aly-Joy Ulusoy – Multi-objective design-for-control of water networks with global bounds
- 12:10 PM Andrea Brilli – An interior point method for nonlinear constrained derivative-free Optimization

03:40 PM - 05:00 PM

Applications of OR VI

Chair: Roberto Musmanno

- 03:40 PM Stanislav Fedorov – Machine Learning heuristic for Variable Cost and Size Bin Packing Problem with Stochastic Items
- 04:00 PM Mikele Gajda – Last-mile delivery with vans and autonomous robots: an analysis on the impact of the return policy
- 04:20 PM Roberto Musmanno – Selection of Cultural Sites via Optimization

09:00 AM - 11:00 AM
Applications of OR V
Chair: Roberto Roberti

- 09:00 AM Mirko Mucciarini – Demand Forecasting Methods: A Case Study in the Italian Processed Meat Industry
- 09:20 AM Roberto Ronco – A new efficient heuristic for the Automatic Scene Detection Problem
- 09:40 AM Maria Trnovska – A unified approach to data envelopment analysis models
- 10:00 AM Lionel Amodeo – Capacitated Disassembly Lot-Sizing Problem with Disposal Decisions for Multiple Product Types with Parts Commonality
- 10:20 AM Roberto Roberti – Anticipatory Time Window Assignment for Next-Day Service Routing

11:30 AM - 01:00 PM
Supply Chains and Inventory I
Chair: Giuseppe Stecca

- 11:30 AM Matteo Cosmi – Mathematical programming models for managing the profitability-sustainability trade-off in complex chemical value chains
- 11:50 AM Giorgio Romanin Jacur – Generalized Model of a Production System with Fixed Supplies and Deliveries
- 12:10 PM Giuseppe Stecca – A model and a solution approach for optimal green investment in a two stage supply chain
- 12:30 PM EP Mezzatio – Design forward and reverse closed-loop supply chain to improve economic and environmental performances

03:40 PM - 05:00 PM
Supply Chains and Inventory II
Chair: Tatiana Grimard

- 03:40 PM Saba Siadati – A Two-echelon Time-dependent Green Location-Routing Problem
- 04:00 PM Tatiana Grimard – Supply chain design and cost allocation in a collaborative three-echelon supply network: A literature review

09:00 AM - 11:00 AM
Applications: Health Care
Chair: Valentina Bonomi

- 09:00 AM Roberto Baretto – A branch-and-price-and-cut algorithm for operating room scheduling under human resource constraints
- 09:20 AM Mirko Cavecchia – A Facility Location Problem to support Helicopter Emergency Medical Services
- 09:40 AM Alessandro Gobbi – Nurse Routing Problem with Incompatible Services and Mini-mum Demand: An ALNS+Kernel Search solution approach
- 10:00 AM Valentina Bonomi – A Two-Stage Stochastic approach for the Integrated Multi-Period Combinatorial Auction and Nurse Routing Problem

11:30 AM - 01:00 PM
Best AIROYoung Dissertation 2022
Chair: Alice Raffaele

- 11:30 AM Anna Livia Croella – Real-time Train Scheduling: Reactive and Proactive Algorithms for Safe and Reliable Railway Networks
- 11:50 AM Daniel Faccini – Models and Approximations for Optimization Problems under Uncertainty with Applications to Support Vector Machine and Revenue Management
- 12:10 PM Serena Fugaro – Optimizing and Reoptimizing: Tackling Static and Dynamic Combinatorial Problems
- 12:30 PM Matteo Lapucci – Theory and Algorithms for Sparsity Constrained Optimization Problems

03:40 PM - 05:00 PM
Discrete Optimization IV
Chair: Federico Della Croce

- 03:40 PM Martina Cerulli – The collapsed k-core problem
- 04:00 PM Federico Della Croce – Operating rooms scheduling with a shared resource: a red-blue knapsack modeling approach

09:00 AM - 11:00 AM

OML, Optimization for machine learning II

Chair: Vassilis Apidopoulos

- 09:00 AM Lionel Tondji – Faster Randomized Block Sparse Kaczmarz by Averaging
- 09:20 AM Cheik Traoré – Asynchronous parallel block-coordinate forward-backward algorithm
- 09:40 AM Cristian Vega – Iterative regularization for convex regularizers with activation onto a priori information
- 10:00 AM Mouna Gharbi – GPU-based Implementations of MM Algorithms. Application to Spectroscopy Signal Restoration
- 10:20 AM Vassilis Apidopoulos – Iterative regularization in classification via hinge loss diagonal methods

11:30 AM - 01:00 PM

MLO4EMD, Machine learning-based optimization for extreme metamaterials design

Chair: Giorgio Gnecco

- 11:30 AM Amir Darabi – Designing a broadband GRIN lens through a deep learning based data-driven method
- 11:50 AM Danilo Macciò – Voronoi recursive binary trees for the optimization of nonlinear functionals
- 12:10 PM Giorgio Gnecco – On dispersion curve coloring

03:40 PM - 05:00 PM

Machine Learning II

Chair: Luca Bravi

- 03:40 PM Federico D’Onofrio – Maximum Margin Optimal Classification Trees
- 04:00 PM Luca Bravi – GPS data mining to infer fleet operations for personalised product upselling