

09:00 AM - 11:00 AM
Optimization on Graphs II
Chair: Victor Hugo Vidigal Corrêa

- 09:00 AM Diego Maria Pinto – Optimal Network Design for Waste Management in Regional Districts: the PIPER Project
- 09:20 AM Cristina Requejo – A preliminary approach to the short-length time-slotted routing topologies problem
- 09:40 AM David Rey – MaaS network pricing with non-cooperative transportation service providers
- 10:00 AM Davide Donato Russo – Path planning for autonomous vehicles in smart warehouses
- 10:20 AM Victor Hugo Vidigal Corrêa – An Iterated Local Search Algorithm for a Multi-period Orienteering Problem Arising in Car Patrolling

11:30 AM - 01:00 PM
PRPI, Path and routing problems in industry
Chair: Marco Locatelli

- 11:30 AM Stefano Ardizzoni – Shortest path with acceleration constraints: Complexity and approximation algorithms
- 11:50 AM Francesco Gallesi – A Branch-and-Regret Algorithm for the Same-Day Delivery Problem
- 12:10 PM Tobia Marcucci – Shortest paths in graphs of convex sets, and their applications in control and robotics
- 12:30 PM Irene Saccani – Multi-agent Path Finding on Strongly Connected Digraphs

02:30 PM - 03:30 PM
Plenary Lecture
Chair: Fabio Tardella

- 02:30 PM Dick Den Hertog – Analytics for a Better World

03:40 PM - 05:00 PM
Optimization on Graphs III
Chair: Carla De Francesco

- 03:40 PM Roberto Zanotti – A matheuristic approach for a Vehicle Routing Problem with Parcel Lockers and Green Customers
- 04:00 PM Orlando Marco Belcore – C-Weibit discrete choice model: a path based approach
- 04:20 PM David Di Lorenzo – Ten years of Routist: vehicle routing lessons learned from practice
- 04:40 PM Carla De Francesco – Integer Linear Programming Formulations for the Fleet Quickest Routing Problem on Grids

05:30 PM - 07:00 PM
AIRO Meeting

09:00 AM - 11:00 AM

Continuous and Multiobjective optimization I

Chair: Sara Mattia

- 09:00 AM Andrea Cristofari – A decomposition method for lasso problems with zero-sum constraint
- 09:20 AM Terézia Fulová – A conic optimization approach for solving Procrustes problems with quadratic constraints
- 09:40 AM Rosario Messana – Enhancing online combinatorial optimization with linear profits using mathematical programming
- 10:00 AM Maria Chiara Nasso – Lipschitz global optimization using space-filling curves
- 10:20 AM Sara Mattia – Optimistic vs Pessimistic Policy in Bilevel Programming

11:30 AM - 01:00 PM

Applications: Sustainability, Health Care

Chair: Gabriele Zangara

- 11:30 AM Caterina Tamburini – CHP Systems Optimization in Presence of Time Binding Constraints
- 11:50 AM Tine Meersman – Multi-objective optimisation for constructing cyclic appointment schedules for elective and urgent patients
- 12:10 PM Andrea Mancuso – Optimization for surgery department management: an application to a hospital in Naples
- 12:30 PM Gabriele Zangara – A flexible job shop scheduling model for Sustainable Manufacturing

03:40 PM - 05:00 PM

Sustainability

Chair: Silvia Anna Cordieri

- 03:40 PM Ornella Pisacane – The Effect of Low Emission Zones on the Routing of Electric and Fossil-Fuel Vehicles
- 04:00 PM Matteo Pozzi – Integrated planning of multi-energy systems (PlaMES): a comprehensive modelling framework and decision support tool
- 04:20 PM Antonio Punzo – Transmission expansion planning for future European energy grid
- 04:40 PM Silvia Anna Cordieri – A decomposition approach for the Central Energy System planning

09:00 AM - 11:00 AM
Stochastic Optimization
Chair: Claudia Archetti

- 09:00 AM Javier Faulin – Multi-Stage Stochastic Optimization for a Biorefinery Supply Chain in Spain
- 09:20 AM Antonio Frangioni – Stochastic Dual Dynamic Programming and Lagrangian decomposition for seasonal storage valuation in SMS++
- 09:40 AM Maxime Grangereau – Robust Optimization for Smart Charging of Electrical Vehicles
- 10:00 AM Stefano Smriglio – Robust optimization models in call centers workforce management
- 10:20 AM Claudia Archetti – Reinforcement Learning Approaches for the Orienteering Problem with Stochastic and Dynamic Release Dates

11:30 AM - 01:00 PM
Variational Inequalities and equilibrium problems
Chair: Ricardo Almeida

- 11:30 AM M. Angeles Caraballo – Environmental damage reduction: when countries face conflicting objectives
- 11:50 AM Valerio Dose – Active Network and Price of Anarchy in Multi-Commodity Routing Games with Variable Demands
- 12:10 PM Marcello Sanguineti – Detection of the Origin of Movement: Graph-Theoretical Model and Data Processing
- 12:30 PM Ricardo Almeida – Optimization conditions for functionals dealing with variable order fractional derivatives and with dependence on an arbitrary function

03:40 PM - 05:00 PM
Stochastics, Equilibria, Applications
Chair: Rosario Scatamacchia

- 03:40 PM Emel Savku – A constrained nonzero-sum game application: Bancassurance
- 04:00 PM Milan Hladík – Complexity Issues in Interval Linear Programming
- 04:20 PM Nikola Obrenović – The Crop Plant Scheduling Problem
- 04:40 PM Rosario Scatamacchia – ZERO Regrets Algorithm: Optimizing over Pure Nash Equilibria via Integer Programming

09:00 AM - 11:00 AM
Discrete Optimization I
Chair: Alessandro Agnetis

- 09:00 AM Jocelin Cailloux – Tabu search for industrial job clustering and scheduling problem
- 09:20 AM Simona Mancini – Combined fleet sizing, facility location, and vehicle scheduling for electric public transport
- 09:40 AM Adriano Masone – Exact and heuristic approaches for a parallel machine scheduling problem with maintenance activities
- 10:00 AM Lorenzo Moreschini – A New Kernel Search approach for the Knapsack Problem with Forfeits
- 10:20 AM Alessandro Agnetis – New results for sequencing two classes of jobs on a two-machine flow shop with a no-idle constraint

11:30 AM - 01:00 PM
Discrete Optimization II
Chair: Alice Raffaele

- 11:30 AM Elena Renner – On the solution of optimal timing problems for single machine rescheduling problems with new jobs arrival
- 11:50 AM Tommaso Schettini – A Heuristic Algorithm for the Capacitated Demand-Driven Metro Timetabling Problem
- 12:10 PM Domenico Serra – New Approaches for the kidney exchange problem
- 12:30 PM Alice Raffaele – On Vertex Enumeration and Hypergraph Dualization: relevance in combinatorial optimization and a new decomposition approach

03:40 PM - 05:00 PM
Discrete Optimization III
Chair: Alessio Sortino

- 03:40 PM Yasmine Alaouchiche – Throughput evaluation of large series-parallel production lines: a fast and efficient approach
- 04:00 PM Carmine Sorgente – Cluster Deletion Problem
- 04:20 PM Mauro Gaggero – A MILP Formulation and a Metaheuristic Approach for the Scheduling of Drone Landings and Payload Changes on an Automatic Platform
- 04:40 PM Alessio Sortino – Scheduling Airport Personnel by Exact Optimization Models

09:00 AM - 11:00 AM

NOML, Nonlinear Optimization and Machine Learning II

Chair: Matteo Lapucci

- 09:00 AM Antonio M. Sudoso – Global Optimization for Cardinality-constrained Minimum Sum-of-Squares Clustering via Semidefinite Programming
- 09:20 AM Federica Porta – Proximal stochastic gradient methods with variable learning rate and dynamical variance reduction
- 09:40 AM Manlio Gaudio – On the stepsize choice in subgradient methods.
- 10:00 AM Matteo Lapucci – Inexact Penalty Decomposition in General Settings

11:30 AM - 01:00 PM

NOML, Nonlinear Optimization and Machine Learning III

Chair: Marco Sciandrone

- 11:30 AM Cecilia Salvatore – Model Extraction based on Counterfactual Explanations
- 11:50 AM Enrico Civitelli – A Robust Initialization of Residual Blocks for Effective ResNet Training without Batch Normalization
- 12:10 PM Sara Venturini – Semi-supervised learning in multilayer hypergraphs
- 12:30 PM Leonardo Galli – Robustness and Generalization in Training Deep Neural Networks

03:40 PM - 05:00 PM

OML, Optimization for machine learning I

Chair: Cesare Molinari

- 03:40 PM Enis Chenchene – Distributed extension of the Douglas-Rachford method with applications.
- 04:00 PM Jonathan Chirinos Rodriguez – Learning Resolvent Operators
- 04:20 PM Emanuele Naldi – Graph extension of the Douglas-Rachford method with minimal lifting