



# EUROYoung 2025 Program

Wednesday, October 15

Registration

12:20 – 12:40

Opening

12:40 – 13:10

Session: Uncertain Optimization

13:10 – 14:50

Session Chair: Antonio Diglio

13:10 – 13:30

**Federica Donnini**

*On K-adaptability for two-stage stochastic programs*

13:30 – 13:50

**Hossein Babazadeh**

*Power Swaps: A Coordination Mechanism for Operation of Jointly Owned Hydropower Reservoirs*

13:50 – 14:10

**Simon Stevens**

*A Branch-and-Cut Approach for Decision-Dependent Robust Optimization Problems*

14:10 – 14:30

**Xuan Truong Dinh**

*Enhancing Multi-Period, Multi-Commodity, Multi-Modal Network Flow Optimization in the Mekong Delta*

Coffee Break

14:30 – 15:00

Plenary

15:00 – 16:00

Session Chair: Marta Baldomero Naranjo

15:00 – 16:00

**Martin Schmidt**

*A Gentle and Incomplete Introduction to Bilevel Optimization*

Short Break

16:00 – 16:10

Session: Location

16:10 – 17:30

Session Chair: Thomas Byrne

16:10 – 16:30

**Isabel Wiemer**

*Enhancing Fairness in Emergency Medical Service: Single- and Bi-Objective Model Formulations*

- 16:30 – 16:50**     **Felix Rauh**  
*Dynamic Programming and Block-Cut Tree Decompositions for a Maximum Covering Location-Network Design Problem*
- 16:50 – 17:10**     **Ricardo Gázquez**  
*Incorporation of Regional Preferences in Facility Location: Insights into Efficiency and Satisfaction Trade-offs*
- 17:10 – 17:30**     **Thomas Byrne**  
*Conditional Facility Location Problems with Continuous Demand and a Rapid Transit Line*

**Session: Routing**

17:30 – 18:30

*Session Chair: Eduardo Pípicelli*

- 17:30 – 17:50**     **Julien Darlay**  
*Computing dual bounds of set-based models using column elimination in Hexaly*
- 17:50 – 18:10**     **Chiara Maragò**  
*Optimizing Cruise Ship Itineraries: A Sustainable Perspective*
- 18:10 – 18:30**     **Vid Tomljenovic**  
*Solving a Multi-Depot Multi-Vehicle Inventory Routing Problem using Column Generation and Branch-and-Price*

**Social Dinner**

19:30 – 21:30

*Pizzeria Diego Vitagliano*

## Thursday, October 16

### Session: Machine Learning I

08:30 – 09:30

Session Chair: Sebastian Merten

- 08:30 – 08:50**     **Daan Otto**  
*Coherent Local Explanations for Mathematical Optimization*
- 08:50 – 09:10**     **Marica Magagnini**  
*Multiple Disperse (generalized) Linear Models*
- 09:10 – 09:30**     **Sebastian Merten**  
*Interpretable Surrogates for Optimization*

### Session: Machine Learning II

09:30 – 10:30

Session Chair: Paula Segura Martínez

- 09:30 – 09:50**     **Lorenzo Saccucci**  
*The Potential of Large Language Models in Solving Optimization Problems: An Empirical Study*
- 09:50 – 10:10**     **Ilaria Ciocci**  
*Margin Optimal Regression Trees*
- 10:10 – 10:30**     **Paula Segura Martínez**  
*New mathematical optimization models for clusters interpretability*

### Coffee Break

10:30 – 11:00

### Plenary

11:00 – 12:00

Session Chair: Andrea Mancuso

- 11:00 – 12:00**     **Maria Grazia Speranza**  
*Optimization in transportation and logistics*

### Short Break

12:00 – 12:10

### Session: Bilevel Optimization

12:10 – 13:30

Session Chair: Francisco Temprano García

- 12:10 – 12:30**     **Alberto Torrejon**  
*The Measure of Everything, a flexible modeling framework for combinatorial problems*
- 12:30 – 12:50**     **Riccardo Tomassini**  
*Equilibrium selection in oligopolistic market*
- 12:50 – 13:10**     **Martina Gherardi**  
*A bilevel revenue adequate generation expansion problem with hybrid complementarity condition*
- 13:10 – 13:30**     **Francisco Temprano García**  
*A fresh view on the Security Games Problem*

### Lunch Break

13:30 – 14:30

**Plenary**

14:30 – 15:30

*Session Chair: Adriano Masone*

**14:30 – 15:30**

**Dolores Romero Morales**

*Local Explainability in Machine Learning: A collective framework*

**City Tour**

17:30 – 19:30

*Meeting point: Castel dell'Ovo*

**Social Dinner**

20:30 – 22:30

*La Bersagliera*

## Friday, October 17

### Session: Advanced Optimization Techniques for Complex Systems

08:30 – 09:30

Session Chair: Bárbara Rodrigues

- 08:30 – 08:50**     **Farzaneh Safari**  
*Inverse Cauchy problem in the framework of an RBF-based meshless technique and trigonometric basis functions*
- 08:50 – 09:10**     **Ties Schaliĳ**  
*Structure-Aware Heuristic Improvement via Policy Iteration*
- 09:10 – 09:30**     **Bárbara Rodrigues**  
*Combined Scenario Reduction and Discretization for Time Series Data*

### Session: Industrial Applications I

09:30 – 10:30

Session Chair: Christian Truden

- 09:30 – 09:50**     **Çiya Aydoĝan**  
*Tail Assignment Problem with Hour-to-Cycle Ratio Constraints: A Branch and Price Algorithm*
- 09:50 – 10:10**     **Vittoria Crotti**  
*OR and ML techniques supporting security service companies*
- 10:10 – 10:30**     **Christian Truden**  
*Service Network Design with Fleet and Emissions Management at Scale*

### Coffee Break

10:30 – 11:00

### Plenary

11:00 – 12:00

Session Chair: Alan Osorio Mora

- 11:00 – 12:00**     **Maurizio Boccia**  
*Exact and ML-guided Matheuristic approaches for a Truck-and-Drone delivery problem*

### Short Break

12:00 – 12:10

### Session: Game Theory and Combinatorial Optimization

12:10 – 13:30

Session Chair: Carmine Sorgente

- 12:10 – 12:30**     **Alejandro Bernárdez Ferradás**  
*Dirichlet Values for Balanced Games*
- 12:30 – 12:50**     **Mariagrazia Cairo**  
*Bi-Objective Minimum Spanning Tree Problem: a comparison between a distributed and a parallel approach*
- 12:50 – 13:10**     **Alberto Boggio Tomasaz**  
*On the Construction of Resilient Samples for Binary Interdiction*
- 13:10 – 13:30**     **Carmine Sorgente**  
*Branch-and-cut algorithms for colorful components problems*

<b>Lunch Break</b>		13:30 – 14:30
<b>Panel Session</b>		14:30 – 15:30
		<i>Session Chair: Laura Davila Pena</i>
<b>14:30 – 15:30</b>	<b>Panel</b> <i>Challenges and Decisions that Shape Academic Careers in Operational Research</i>	
<b>Session: Industrial Applications II</b>		15:30 – 16:30
		<i>Session Chair: Matteo Cosmi</i>
<b>15:30 – 15:50</b>	<b>Sayeh Fooladi Mahani</b> <i>Optimizing electric carsharing systems for sustainable mobility and grid load management</i>	
<b>15:50 – 16:10</b>	<b>Paula Terán Viadero</b> <i>Exact and Heuristic Approaches for the 2D Cutting Stock Problem with variable-sized stock</i>	
<b>16:10 – 16:30</b>	<b>Nandan Kumar Singh</b> <i>Optimal Investment in Resiliency in Presence of Spot Market Demand: A Generalized Distribution Approach</i>	
<b>16:30 – 16:50</b>	<b>Matteo Cosmi</b> <i>The profitability-sustainability trade-off in complex chemical value chains under product-specific carbon footprint constraints</i>	
<b>Coffee Break</b>		16:50 – 17:20
<b>Session: Scheduling Problems</b>		17:20 – 19:00
		<i>Session Chair: Martina Doneda</i>
<b>17:20 – 17:40</b>	<b>Alex Barrales-Araneda</b> <i>A Heuristic Algorithm for Sequential Timetabling and Electric Vehicle Scheduling in Public Transport</i>	
<b>17:40 – 18:00</b>	<b>Roberto Maria Rosati</b> <i>Multi-Neighborhood Search for the AGV Scheduling Problem with Battery Constraints</i>	
<b>18:00 – 18:20</b>	<b>Miguel Chastre</b> <i>Joint Optimization for the Scheduled Joint Replenishment Problem</i>	
<b>18:20 – 18:40</b>	<b>Martina Doneda</b> <i>A data-driven tool for operating rooms advance scheduling</i>	
<b>Closing</b>		18:40 – 19:00
<b>Farewell Cocktail</b> <i>Hotel Nuvò</i>		20:00 – 22:00