



**AIRO**

ASSOCIAZIONE ITALIANA DI RICERCA OPERATIVA  
OPTIMIZATION AND DECISION SCIENCE

**AIRO**

**YOUNG**

## AIROYoung Dissertation Award 2023

The AIROYoung board

Hotel Continental Terme – Ischia, September 07, 2023  
International Conference on Optimization and Decision Science 2023

A **Ph.D. thesis award** organized by AIROYoung to select the best doctoral thesis in operations research, defended at any Italian university between July 1, 2022 and June 30, 2023

# The first edition of AYDA at ODS 2022



**The four finalists of AYDA 2022:**  
from the left, Daniel Faccini, Matteo Lapucci,  
Anna Livia Croella, and Serena Fugaro (winner).

# Main topics of this second edition

- Combinatorial optimization
- Game theory
- Logistics
- Knapsack
- Machine learning
- Networks
- Nonlinear optimization
- Optimization under uncertainty
- Polyhedral combinatorics
- Railway transportation
- Routing

# A few numbers

- **10 applications**
- **25 referees** (all external to the previous and current AIROYoung boards)
- **4 finalists**
- **1 winner**, to be announced during the closing session of ODS 2023
- **Prize: 250 €**

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<b>Pertinence (max 15)</b>	14.33
<b>Scientific contribution (max 35)</b>	28.33
<b>Impact on related fields (max 25)</b>	21.00
<b>Quality of publications (max 15)</b>	11.56
<b>Writing quality (max 10)</b>	08.83
<b>Average score (max 100)</b>	<b>84.06</b>

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- **Round 3 (4 referees)**: 3 points to be assigned to get the final ranking

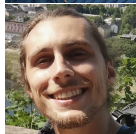
# Finalists



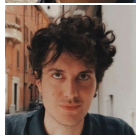
- **Georgia Fargetta**, *Variational inequality and metaheuristic approaches to model and investigate the agents' strategies*



- **Riccardo Giusti**, *Optimization-based integration platform for Synchromodal Logistics*



- **Henri Lefebvre**, *Adjustable robust optimization with nonlinear recourses*



- **Alberto Locatelli**, *Optimization methods for knapsack and tool switching problems*

And the winner is...

# Riccardo Giusti, "Optimization-based integration platform for Synchronodal Logistics"



Pertinence (max 15)	13	14
Scientific contribution (max 35)	28	32
Impact on related fields (max 25)	25	25
Quality of publications (max 15)	11	15
Writing quality (max 10)	10	9
<b>Total score (max 100)</b>	<b>87</b>	<b>95</b>

$$\text{Average score} = 91 + 3 = 94$$

**Round 3:** *"The thesis presents extremely interesting results. The presentation was clear and effective in highlighting the contributions of the Ph.D. thesis, both in terms of the methodology and the applications."*