

Roberto Roberti

Associate Professor

Dept. of Information Engineering
University of Padova
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Appointments

- 11/23-Today **Associate Professor**, University of Padova, Department of Information Engineering.
- 09/21-10/23 **Assistant Professor (RTD-B)**, University of Padova, Department of Information Engineering.
- 08/18-08/21 **Associate Professor**, Vrije Universiteit Amsterdam, School of Business and Economics, Department of Operations Analytics.
- 08/16-07/18 **Assistant Professor**, Vrije Universiteit Amsterdam, School of Business and Economics, Department of Information, Logistics and Innovation.
- 09/14-07/16 **Assistant Professor**, Technical University of Denmark, Department of Transport.
- 01/12-08/14 **Postdoctoral Researcher**, University of Bologna, Department of Electrical, Electronics and Information Engineering.

Education

- 2012 **PhD in Control System Engineering and Operational Research**, “Exact Algorithms for Different Classes of Vehicle Routing Problems”, University of Bologna.
- 2008 **Master in Computer Science**, University of Bologna, 110/110 cum laude.

Qualifications

- 2020 **National Academic Qualification as Full Professor in Operations Research (01/A6-MAT/09)**, Italian Ministry of Education, Universities and Research.
- 2017 **National Academic Qualification as Associate Professor in Operations Research (01/A6-MAT/09)**, Italian Ministry of Education, Universities and Research.
- 2016 **Diploma Basic Teaching Qualification (BKO) for Dutch Universities**, Vrije Universiteit Amsterdam.
- 2016 **Diploma in Education in University Teaching at DTU**, Technical University of Denmark.

Awards


- 2021 **Transportation Science Meritorious Service Awards**, Services as an Associate Editor.
- 2021 **Transportation Science Meritorious Service Awards**, Services as a Referee.
- 2020 **TSL Best Paper Award**, for the paper Paradiso et al. “An Exact Solution Framework for Multi-Trip Vehicle Routing Problems with Time Windows” *Operations Research* (2020).
- 2014 **Premio Lorenzo Brunetta**, for the Ph.D. thesis, Istituto Veneto di Scienze, Lettere e Arti.
- 2013 **VeRoLog Doctoral Dissertation Prize**, for the Ph.D. thesis, EURO working group on Vehicle Routing and Logistic optimization.



Selected Services

- 2022- **Member of the Giunta di Dipartimento**, Dept. of Information Engineering, University of Padova.
- 2022- **Member of the Department Communication Committee (ComCom)**, Dept. of Information Engineering, University of Padova.
- 2022- **Member of the Board of the PhD Program in Information Engineering**, Dept. of Information Engineering, University of Padova.

- 2022- **Communication Chair and Board Member**, VeRoLog, EURO Working Group on Vehicle Routing and Logistics Optimization.
- 2021- **Associate Editor**, *Transportation Science*, Logistics and Routing Area.
- 2024 **Stream Organizer**, *Vehicle Routing and Logistics Optimization*, 33th European Conference on Operational Research, Copenhagen.
- 2019 **Stream Organizer**, *Vehicle Routing and Logistics Optimization*, 30th European Conference on Operational Research, Dublin.
- 2018 **Stream Organizer**, *Vehicle Routing and Logistics Optimization*, 29th European Conference on Operational Research, Valencia.
- 2017 **Co-Organizer**, *VeRoLog Conference 2017*, 6th meeting of the EURO Working Group on Vehicle Routing and Logistics optimization, Amsterdam.
- 2010- **Reviewer**, *different journals*, among which INFORMS Journal on Computing, Manufacturing & Service Operations Management, Mathematical Programming, Mathematical Programming Computation, Operations Research, Transportation Science.

Publications

 0000-0002-2987-1593

	ID	URL	Citations	h-Index
Google Scholar			3120	22
Scopus	57201544749		1764	20

* as of April 20, 2024

- 2024 M. Leitner, A. Lodi, R. Roberti, C. Sole. An Exact Method for (Constrained) Assortment Optimization Problems with Product Costs. *INFORMS Journal on Computing*, 36(2):479-494
- L. Amorosi, M. Fischetti, R. Paradiso, R. Roberti. Optimization Models for the Installation Planning of Offshore Wind Farms. *European Journal of Operational Research*, 315(3):1182-1196
- Y. Zhao, D. Cattaruzza, N. Kang, R. Roberti. Synchronized Deliveries with a Bike and a Self-Driving Robot. *Transportation Science*, 58(1):219-239
- 2023 Y. Yang, C. Yan, Y. Cao, R. Roberti. Robust Drone-Truck Delivery. *European Journal of Operational Research*, 309(3):1145-1160
- 2022 A. Chiussi, C. Orlis, R. Roberti, W. Dullaert. ATM Cash Replenishment under Varying Population Coverage Requirements. *Journal of the Operational Research Society*, 73(4):869-887
- 2021 R. Roberti, M. Ruthmair. Exact Methods for the Traveling Salesman Problem with Drone. *Transportation Science*, 55(2):315-335
- S. Cavani, M. Iori, R. Roberti. Exact Methods for the Traveling Salesman Problem with Multiple Drones. *Transportation Research Part C: Emerging Technologies*, 130:103280
- 2020 R. Paradiso, R. Roberti, D. Laganá, W. Dullaert. An Exact Solution Framework for Multi-Trip Vehicle Routing Problems with Time Windows. *Operations Research*, 68(1):180-198
- E. Glize, R. Roberti, N. Jozefowicz, S. Ulrich Ngueveu. Exact Methods for Bi-Objective and Mono-Objective Multi-Vehicle Covering Tour Problems. *European Journal of Operational Research*, 283(3):812-824
- C. Orlis, N. Bianchessi, R. Roberti, W. Dullaert. The Team Orienteering Problem with Overlaps: an Application in Cash Logistics. *Transportation Science*, 54(2):470-487
- 2019 D. Goeke, R. Roberti, M. Schneider. Exact and Heuristic Solution of the Consistent Vehicle-Routing Problem. *Transportation Science*, 53(4):1023-1042
- 2018 A. Mingozzi, R. Roberti. An Exact Algorithm for the Fixed Charge Transportation Problem based on Matching Source and Sink Patterns. *Transportation Science*, 52(2):229-238

- J. Paiva Fonseca, E. van der Hurk, R. Roberti, A. Larsen. A Matheuristic for Transfer Synchronization through Integrated Timetabling and Vehicle Scheduling. *Transportation Research Part B: Methodological*, 109:128-149
- R. Roberti, D. Pacino. A Decomposition Method for Finding Optimal Stowage Plans. *Transportation Science*, 52(6):1444-1462
- 2017 R. Li, R. Roberti. Optimal Scheduling of Railway Track Possessions in Large-Scale Projects with Multiple Construction-Works. *Journal of Construction Engineering & Management*, 143(6)
- 2016 R. Goverde, N. Bešinović, A. Binder, V. Cacchiani, E. Quaglietta, R. Roberti, P. Toth. A Three-Level Framework for Performance-Based Railway Timetabling. *Transportation Research Part C: Emerging Technologies*, 67:62-83
- R. Roberti, M. Wen. The Electric Traveling Salesman Problem with Time Windows. *Transportation Research Part E: Logistics and Transportation Review*, 89:32-52
- N. Bešinović, R. Goverde, E. Quaglietta, R. Roberti. An Integrated Micro-Macro Approach to Robust Timetabling. *Transportation Research Part B: Methodological*, 87:14-32
- 2015 R. Roberti, E. Bartolini, and A. Mingozzi. The Fixed Charge Transportation Problem: An Exact Algorithm Based on a New Integer Programming Formulation. *Management Science*, 61(6):1275-1291
- A. Bettinelli, V. Cacchiani, R. Roberti, and P. Toth. An Overview of Curriculum-Based Course Timetabling. *TOP*, 23(2):313-349
- 2014 R. Roberti and A. Mingozzi. Dynamic ng-Path Relaxation for the Delivery Man Problem. *Transportation Science*, 48(3):413-424
- E. Buson, R. Roberti, and P. Toth. A Reduced-Cost Iterated Local Search Heuristic for the Fixed Charge Transportation Problem. *Operations Research*, 62(5):1095-1106
- 2013 V. Cacchiani, A. Caprara, R. Roberti and P. Toth. A New Lower Bound for the Curriculum-based Course Timetabling. *Computers & Operations Research*, 40(10):2466-2477
- A. Mingozzi, R. Roberti and P. Toth. An Exact Algorithm for the Multi-Trip Vehicle Routing Problem. *INFORMS Journal on Computing*, 25(2):193-207
- R. Baldacci, A. Mingozzi, R. Roberti and R. Wolfler Calvo. An Exact Algorithm for the Two-Echelon Capacitated Vehicle Routing Problem. *Operations Research*, 61(2):298-314
- 2012 R. Baldacci, A. Mingozzi and R. Roberti. New State-Space Relaxations for Solving the Traveling Salesman Problem with Time Windows. *INFORMS Journal on Computing*, 24(3):356-371
- R. Baldacci, A. Mingozzi and R. Roberti. Recent Exact Algorithms for the Vehicle Routing Problem under Capacity and Time Window Constraints. *European Journal of Operational Research*, 218(1):1-6
- R. Roberti and P. Toth. Models and Algorithms for the Traveling Salesman Problem: an Experimental Comparison. *EURO Journal on Transportation and Logistics*, 1(1-2):113-133
- 2011 R. Baldacci, A. Mingozzi and R. Roberti. New Route Relaxation and Pricing Strategies for the Vehicle Routing Problem. *Operations Research* 59(5):1269-1283
- 2010 R. Baldacci, E. Bartolini, A. Mingozzi and R. Roberti. An Exact Solution Framework for a Broad Class of Vehicle Routing Problems. *Computational Management Science* 7(3):229-268

Teaching

Coordinator and Lecturer at University of Padova

2022-today *Algebra Lineare e Geometria*, Bachelor Program in *Ingegneria Biomedica*

2022-today *Optimization Methods for ICT*, Master Program in *ICT for Internet and Multimedia*

Coordinator and Lecturer at Vrije Universiteit Amsterdam

2016-2017 *Operations Analysis*, Minor in *Business Analytics*

- 2017-2020 *Procurement and Supply Management*, Bachelor Programs in *Business Administration* and *International Business Administration*
- 2018-2021 *Supply Chain Lab*, Master Program in *Transport and Supply Chain Management*
- 2018-2021 *Coordinator Master Theses*, Master Program in *Transport and Supply Chain Management*
- Lecturer at [Technical University of Denmark](#)
- 2014-2015 *Vehicle Routing and Distribution Planning*, MSc Eng in *Transport and Logistics*
- 2015 *Advanced Planning and Optimisation of Public Transport*, MSc Eng in *Transport and Logistics*
- 2016 *Optimisation in Public Transport*, MSc Eng in *Transport and Logistics*
- Teaching Assistant at [University of Bologna](#)
- 2010-2011 *Ottimizzazione Combinatoria*, Laurea Magistrale in *Ingegneria e Scienze Informatiche*
- 2011-2014 *Ricerca Operativa*, Laurea Triennale in *Ingegneria e Scienze Informatiche*
- 2011-2013 *Algoritmi di Ottimizzazione*, Laurea Magistrale in *Ingegneria Informatica*
- 2013 *Metodi e Algoritmi per il Problem Solving*, Laurea Magistrale in *Ingegneria e Scienze Informatiche*
- 2013-2014 *Resources Optimization*, Laurea Magistrale in *Ingegneria Gestionale*

Grants

- 2023-2025 PI of *REWIND - Revise and Enhance: Win-win INsights for home Delivery services*, awarded by Ministero dell'Università e della Ricerca (MIUR) (€ 187.370)
- 2015-2017 Co-PI of *DynaStow - Dynamic Programming based Stowage Planning*, awarded by Danish Maritime Foundation (1.211.000 DKK)

Languages

- Italian Mother tongue
- English Advanced - Certificate of Advanced English (CAE) - Level C1