

Brief curriculum vitae of Andrea D'Ariano

Place of Birth: Rome, Italy
Date of Birth: 14/04/1979
Country of residence: Italy
Marital status: Married with Medical Doctor
Children: 2 son, and 1 daughter
Function: Full Professor
Università degli Studi "RomaTre"
Dipartimento di Ingegneria
Civile, Informatica e delle Tecnologie
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<http://www.researcherid.com/rid/M-5211-2015>
<http://orcid.org/0000-0002-7184-0459>
<https://www.scopus.com/authid/detail.uri?authorId=16425651000>
<https://scholar.google.it/citations?user=UjxEpXYAAAAAJ&hl=it>
<https://www.linkedin.com/in/andreadariano/>

- ACTUAL POSITION ◇ **Full Professor**
Founding Member of Engineering Department
Italian Scientific Sector: Operations Research - MAT/09, 01/A6
Dipartimento di Ingegneria, Università degli Studi "RomaTre" (www.ingegneria.uniroma3.it)
- ◇ **Italian Scientific Habilitations:**
Full Professor in Operations Research (Sector: 01/A6)
Full Professor in Transportation Science (Sector: 08/A3)
- SOME PAST POSITIONS ◇ **Three-year contract as "Post-doctoral Researcher"** founded by the Italian Ministry of Research and Education, Grant number RBIP06BZW8, project FIRB *Advanced tracking system in intermodal freight transportation*, from May 2008 till April 2011.
Department of Computer Science and Automation, Roma Tre University
- ◇ **Four-year contract as "Ph.D. Researcher"**
Scientific Director: Prof.Dr.-Ing. Ingo A. Hansen
Time Period: From May 2004 till April 2008
Faculty of Civil Engineering and Geosciences, Department of Transport and Planning,
Delft University of Technology (www.tudelft.nl)
- ◇ **Six-month contract as "Young Research Assistant"**
Scientific Director: Prof.Dr.-Ing. Ingo A. Hansen
Time Period: From November 2003 till April 2004
Department of Transport and Planning, Delft University of Technology
- EDUCATION ◇ **Title of Ph.D. Researcher**
Title achieved in April 2008 at Delft University of Technology
TRAIL: Netherlands Research School on Transport, Infrastructure and Logistics (www.rstrail.nl)
Thesis Title: *Improving Real-time Train Dispatching: Models, Algorithms and Applications*
PhD Thesis downloadable from website www.darenet.nl
- ◇ **Professional Italian Title of Engineer** achieved in 2004
- ◇ **Bachelor in Computer Science Engineering,**
Master in Automation and Management Engineering achieved in July 2003

- RECENT RESEARCH PROJECTS
- ◇ (Foreign Expert) Chinese project “Intelligent Scheduling Optimization of Logistic Robots for Flexible Manufacturing Systems”, financed by Henan Science and Technology Department, Henan Province, 2024-25.
 - ◇ (Project Member) PRIN 2022 PNRR project “Co-Opetitive Sustainable Mobility Optimization (COSMO)”, financed by Ministero dell’Università e della Ricerca, sponsored by the European Commission - “Next Generation EU”, 200k EURO, 2023-25.
 - ◇ (Visiting Professor) **“111 Project” (Program of Introducing Talents of Discipline to Chinese Universities)** at School of Economics and Management, Fuzhou University, funded by the Ministry of Education of the People’s Republic of China and State Administration of Foreign Experts Affairs. Max 1 Million CNY per year; allocated period 2023-27.
 - ◇ (Coordinator) Chinese project “Intelligent Railway Traffic Management in Multimodal Urban Mobility Systems” (contract No RCS2023K008), financed by State Key Laboratory of Rail Traffic Control and Safety, Beijing Jiaotong University, 2023-24.
 - ◇ (Advisory Board) Luxemburg project “ANTOINE: Anticipatory Train Optimization with Intelligent management”, FNR-BRIDGES funded project 390k EURO, 2021-23.
 - ◇ (External Expert) Swiss project “Digital Switzerland Strategy - SmartRail 4.0”, financed by SBB CFF FFS, with the aim to transfer railway optimization know-how towards industrialisation, 2017-20.
 - ◇ (External Expert) Swiss project “DADA: Dynamic data driven Approaches for stochastic Delay propagation Avoidance in railways” 1.3 MCHF. SNSF Eccellenza, 2019-24.
 - ◇ (Coordinator) Chinese project “Optimal closed-loop control of railway traffic in conventional and high speed networks” (contract No RCS2017K010), financed by State Key Laboratory of Rail Traffic Control and Safety, Beijing Jiaotong University, 2018-19.
 - ◇ (Researcher) Italian project “ShareLab - Sharing Economy in a Living Lab”, financed by Roma Tre University, 2018-19.
 - ◇ (External Expert) Luxemburg project “Electrified COoperative Bus System”, FNR-CORE project eCoBus C16/IS/11349329 (<https://ecobus.lu/>) 1M EURO, 2016-19.
 - ◇ (Researcher) Italian project “Development of heuristic algorithms for the optimization of urban public transport electrification subject to investment constraints”, financed by ENEA.
 - ◇ (Researcher) German project “Aircraft trajectory optimization and Airport Collaborative Decision Making” financed by German academic exchange service (DAAD), Funding Program Number 57130097.
 - ◇ (Researcher) Italian project “Models and algorithms for the optimization of aircraft take-off and landing operations at terminal control areas”, financed by Dipartimento di Ingegneria, Università degli Studi Roma Tre.
 - ◇ (External Expert) Dutch project “ShipDrive: A Novel Methodology for Integrated Modeling, Control, and Optimization of Hybrid Ship Systems”, financed by Dutch Technology Foundation STW project no. project 13276.
 - ◇ (Researcher) Chinese project “Dynamic railway traffic management with consideration of passenger behaviors” (contract No RCS2012K004), financed by State Key Laboratory of Rail Traffic Control and Safety, Beijing Jiaotong University.
 - ◇ (Researcher) Italian project “Analysis and development of real-time optimization algorithms for railway timetabling”, financed by Alstom Ferroviaria Bologna, with the aim to transfer railway optimization know-how towards industrialisation.
 - ◇ (Researcher) Italian project “GENESI - Rete integrata per il trasferimento di tecnologie e metodologie per la GENERazione di Sviluppo Industriale in sistemi di produzione”, co-financed by Ministero dello Sviluppo Economico (Bando RIDITT).

- ◇ (Researcher) Italian project “Optimization Models and algorithms for scheduling trains and for coordinating railway traffic circulation”, financed by Dipartimento di Informatica e Automazione, Università degli Studi Roma Tre.
- ◇ (External Expert) European COST Action TransITS TU1004: Modelling Public Transport Passenger Flows in the Era of ITS.
- ◇ (External Expert) European project “Optimal Networks for Train Integration Management across Europe (ONTIME)”, EU FP7, (<http://www.ontime-project.eu>).
- ◇ (External Expert) Dutch project “Model-predictive railway traffic management”, STW project no. 11025, (<http://www.stw.nl/Projecten/D/dwv/11025.htm>).
- ◇ (External Expert) Dutch project “Railway innovation and opportunities of ERTMS in the Netherlands”, Dutch Parliament, (www.tweedekamer.nl/kamerleden/commissies/tc-spoor).
- ◇ (Post-Doctoral Researcher) Italian project “Advanced goods tracking system in intermodal transport” del FIRB, Ministero dell’Università e della Ricerca, Grant number RBIP06BZW8 (www.miur.it).
- ◇ (Post-Doctoral Researcher) Dutch project “Reliability of transport chains” (www.transumo.nl).
- ◇ (PhD Researcher) Dutch project “Towards Reliable Mobility” (www.citg.tudelft.nl).
- ◇ (PhD Researcher) Dutch project “Next Generation Infrastructures” (www.nginfra.nl).
- ◇ (Young Research Assistant) European project “COMBINE2- enhanced COntrol center for fixed and Moving Block sIgNalling systEm 2”, European Commission, Grant number IST-2001-34705 (www.combine2.org).

- REVIEWER AND EVALUATOR
- ◇ Europes Rail Scientific Steering Group (reserve list): from October 2023
<https://rail-research.europa.eu/about-europes-rail/europes-rail-structure-of-governance/scientific-steering-group/>
 - ◇ Expert Group Coordinator/Rapporteur for the European Commission: **STRIA Roadmap on Network and Traffic Management Systems**.
https://research-and-innovation.ec.europa.eu/research-area/transport/stria_en
 - ◇ Expert/Rapporteur for the European Commission [Candidature number: EX2006C125327], including: Trans-European Transport Network Executive Agency, European Climate, Infrastructure and Environment Executive Agency, Innovation and Networks Executive Agency, Research Executive Agency, Directorate-General for Research and Innovation, European Innovation Council, Directorate-General for Mobility and Transport, Shift2Rail Joint Undertaking, Europes Rail Joint Undertaking, SESAR Joint Undertaking, INTERREG, Horizon Europe, Horizon 2020, FP7.
 - ◇ Referee for the evaluation of Research Proposals, including: Ministero dell’Università e della Ricerca (MUR), New Zealand Ministry of Business, Innovation & Employment; Swiss National Science Foundation (SNSF), Switzerland; French National Research Agency (ANR); The Croatian Agency for Science and Higher Education (AZVO); Technology Foundation STW: Dutch funding agency for academic research in the field of Applied Sciences; Erasmus Research Institute of Management (ERIM), Erasmus University Rotterdam, the Netherlands; Czech Science Foundation; Romanian National Council for Development and Innovation; Georgian National Science Foundation; Shota Rustaveli National Science Foundation.
 - ◇ President of the Reaccreditation Panel for Croatian Agency for Science and Higher Education (AZVO) of Faculty Transport and Traffic Sciences, University of Zagreb.
 - ◇ Reviewer for numerous international scientific journals, including: Interfaces; Transportation Science; Transportmetrica A: Transport Science; Transportation Research – Part A–B–C–E; EURO Journal on Transportation and Logistics; European Journal of Operational Research; INFORMS Journal of Computing; Operational Research: An International Journal; International Transactions in Operational Research; Asia-Pacific Journal of Operational Research; Discrete Applied Mathematics; Applied Mathematics and Computation; Applied Mathematical Modelling; Mathematical Problems in Engineering;

Omega; Networks and Spatial Economics; Journal of Scheduling; Journal of Heuristics; Journal of Global Optimization; 4OR – A Quarterly Journal of Operations Research; Journal of the Operational Research Society; Annals of Operations Research; Information Sciences; Control Engineering Practice; Annual Reviews in Control; Computational and Mathematical Organization Theory; Research in Transportation Economics; Computer-Aided Civil and Infrastructure Engineering; Journal of Intelligent Manufacturing; Public Transport: Planning and Operations; Engineering Optimization; Computers & Industrial Engineering; Computers & Chemical Engineering; Integrated Computer-Aided Engineering; Journal of Systems Science and Systems Engineering; Engineering Applications of Artificial Intelligence; Neural Computing and Applications; Journal of Advanced Transportation; Journal of Intelligent Transportation Systems: Technology, Planning, and Operations; Chinese Journal of Aeronautics; Journal of Transportation Engineering, Part A: Systems; Journal of Aerospace Technology and Management; Journal of Air Transport Management; IET Intelligent Transportation Systems; IEEE Transactions on Intelligent Transportation Systems; IEEE Transactions on Vehicular Technology; IEEE Transactions on Automation Science and Engineering; IEEE Transactions on Industrial Informatics; IEEE Transactions on Systems, Man, and Cybernetics – Part B; Journal of Systemics, Cybernetics, and Informatics; Expert Systems with Applications; Journal of Medical Systems; Sensors; Journal of Artificial Intelligence & Data Mining; IEEE Magazine on ITS; PROMET - Traffic & Transportation; Transport Policy; Journal of Traffic and Transportation Engineering; International Journal of Production Research; Production Planning & Control; Journal of Cleaner Production; European Journal of Industrial Engineering; Simulation Modelling Practice and Theory; Biotechnology & Bioengineering; Scientia Iranica Journal; Journal of Applied Mechanical Engineering; Journal of Rail Transport Planning & Management; Journal of Air Transportation; International Journal of Computer Mathematics; Lecture Notes in Computer Science; Journal of Modern Computer Networks; Journal of Modern Transportation; PLOS ONE; Electronics and Telecommunications Research Institute Journal; Int. J. of Information Technology and Decision Making.

◇ Reviewer of Book Proposals for Elsevier.

◇ Reviewer for several international events, including:

International Symposia on Transportation and Traffic Theory (ISTTT), International Conferences on Optimization and Decision Science, TRAIL Congresses, IFAC Symposia on Information Control Problem in Manufacturing, IFAC World Congress, IFAC Workshop on Distributed Estimation and Control in Networked Systems (NecSys), IFAC Symposium on Control in Transportation Systems, IFAC Symposium on Dynamics and Control of Process Systems, IFAC Conference on Manufacturing Modelling, Management and Control, IFAC Conference on Foundations of Systems Biology in Engineering, International Conferences on Industrial Engineering and Operations Management (IEOM), IIE Annual Conferences, IEEE Conferences on Intelligent Transportation Systems, International Conferences on Information Technology Interfaces, IEEE Forums on Integrated and Sustainable Transportation Systems, European Control Conferences, Meetings of European Working Group on Transportation (EWGT), Meetings of Transportation Research Board of U.S.A. National Academies (TRB), World Conferences on Transportation Research (WCTR), International Multi-Conferences on Complexity, Informatics and Cybernetics, Americas Conference on Information Systems, International Conferences on Models and Technologies for Intelligent Transportation Systems (MT-ITS), Workshops on Algorithmic Approaches for Transportation Modelling, Optimization and Systems (ATMOS), International Conferences of Chinese Transportation Professionals.

COMMITTEE MEMBER AND EDITOR ◇ Coordinator of the AIRO Chapter: Optimization in Public Transport and Shared Mobility: www.airo.org/index.php/it/attivita/sezioni-tematiche/airo-optimization-in-public-transport
◇ Coordinator of the special issue “Simulation and Optimization for Railway Operations Management” of Journal of Advanced Transportation by Wiley & Hindawi.

- ◇ Guest Editor of the special issue “Advanced Optimization, Learning and Control for Coordinated Multimodal Transportation towards a Flexible, Equitable and Sustainable Ecosystem” of *Transportation Research Part C* by Elsevier.
- ◇ Guest Editor of the special issue “Optimization and Data Science in Sustainable Public Transport and Logistics” of *Transportation Research Part E* by Elsevier.
- ◇ Guest Editor of the special issue “Call for Papers for Special Issue on Modeling, Learning, and Optimization for Smart Manufacturing Logistics: In Memory of Carlo Meloni” of *Flexible Services and Manufacturing Journal* by Springer.
- ◇ Guest Editor of the special issue “Innovative Applications of Operations Research and Machine Learning in Traffic and Transportation Management” of *Multimodal Transportation* by Elsevier.
- ◇ Guest Editor of the special issue “Logistics and Operations in Industry 5.0: Human-Machine Reconciles” of *Transportation Research Part E* by Elsevier.
- ◇ Promotor of the special issue “Smart Coordination for Logistics Operational Control in Manufacturing under the Evolution Trend of Digital Economy” of *IEEE TRANSACTIONS ON AUTOMATION SCIENCE AND ENGINEERING*.
- ◇ Deputy Editor-in-Chief (until December 2022) of *IET Intelligent Transport Systems* by IET Digital Library.
- ◇ **Associate Editor of *Transportation Research Part E: Logistics and Transportation Review*.**
- ◇ **Associate Editor of *Transportation Research Part C: Emerging Technologies*.**
- ◇ **Member of the Editorial Board *Editors of Transportation Research Part B: Methodological*.**
- ◇ Associate Editor of *Journal of Advanced Transportation*.
- ◇ Associate Editor of *Journal of Rail Transport Planning & Management* by Elsevier.
- ◇ Member of the Editorial Board of *Journal of Intelligent Transportation Systems: Technology, Planning, and Operations* by Taylor & Francis.
- ◇ Member of Editorial Board *Member of High-Speed Railway* by Elsevier.
- ◇ Member of Rail Group (Railroad Operating Technologies Committee) of *Transportation Research Board (TRB)*, Washington, D.C.
- ◇ Member of Aviation Group (Aviation Economics and Forecasting Committee) of *Transportation Research Board (TRB)*, Washington, D.C.
- ◇ Member of Doctoral Committees, including Delft University of Technology, University of Luxembourg, ETH Zurich, UCL, Lund University.
- ◇ Member of Recruitment Board Committees, including Roma Tre University, University of Luxembourg, KTH Royal Institute of Technology.
- ◇ Member of 2019 Scientific Committee for *INFORMS Rail Applications Section (RAS)* “Student Research Paper Award”.
- ◇ Chair of 2022 Scientific Committee for *INFORMS Rail Applications Section (RAS)* “Student Research Paper Award” (24 submitted manuscripts).
- ◇ TRAIL International Review Committee Member.
- ◇ International Program Committee Member (named Associate Editor) for the *International IEEE Conferences on Intelligent Transportation Systems 2010-2024*.
- ◇ Organizer of Special Sessions at Several OR Conferences, including ODS AIRO, EURO, INFORMS, IEEE ITSC.
- ◇ Coordinator of special sessions for air and rail research streams at the *2nd International Conference on Models and Technologies for Intelligent Transportation Systems 2011*.

- ◇ International Program Committee Member for the 2015 IEEE International Conference on Vehicular Electronics and Safety (IEEE VES 2015).
- ◇ International Program Committee Member for the 14th IFAC Symposium on Control in Transportation Systems (CTS 2016).
- ◇ Member of the Scientific Review Committee of TRISTAN 2016, 2019, 2022, 2025.
- ◇ Member of Technical Program Committee of The International Conference on Computer Engineering and Information System (CEIS 2016).
- ◇ Member of Technical Program Committee of The International Conference on Economic Development and Management Engineering (EDME 2016).
- ◇ Member of Technical Program Committee of The 2017 International Conference on Economics, Management Engineering and Marketing (EMEM 2017).
- ◇ Member of the Scientific Committee of Euro Working Group on Transportation (EWGT 2017-2020).
- ◇ International Program Committee Member for International Conferences on Operations Research and Enterprise Systems (ICORES 2017-2021-2023-2024).
- ◇ International Program Committee Member for the 20th-21st-22nd World Congress of the International Federation of Automatic Control (IFAC 2017-2020-2023).
- ◇ Member of the Scientific Committee of the 3rd-4th-5th-6th-7th-8th International Conferences on Models and Technologies for Intelligent Transportation Systems 2013-2015-2017-2019-2021-2023.
- ◇ International Program Committee Member (named Associate Editor) for the 2017 IEEE International Conference on Vehicular Electronics and Safety (IEEE ICVES 2017).
- ◇ Member of Technical Program Committee of The 2017 International Conference on Applied Mathematics, Modelling and Statistics Application (AMMSA 2017).
- ◇ Member of Technical Program Committee of The Sixth International Conference on Intelligent Systems and Applications (INTELLI 2017).
- ◇ Member of Technical Program Committee of The Seventh International Conference on Mobile Services, Resources, and Users (MOBILITY 2017).
- ◇ Member of Technical Program Committee of the International Workshop on Intelligent & Sustainable Urban Transportation (ISUT'2017).
- ◇ Member of the Organizing Committee of the European Conference of Stochastic Optimization 2017 (ECSO 2017).
- ◇ Coordinator of the special session "Optimization in public transport management" at the 5th International Conference on Models and Technologies for Intelligent Transportation Systems 2017 (MT-ITS 2017).
- ◇ Coordinator of the special session "Railway Optimization" at the International Conference on Optimization and Decision Science 2017 (AIRO ODS 2017).
- ◇ Coordinator of the special session "Stochastic and Robust Optimization for Railway Operations Management" at the 2nd European Conference of Stochastic Optimization (ECSO 2017).
- ◇ Coordinator of the Round-Table on "Operations Research in the Railway Industry" at EURO/ALIO International Conference 2018 on Applied Combinatorial Optimization.
- ◇ International Program Committee Member for the 15th-16th IFAC Symposium on Control in Transportation Systems (CTS 2018-2021).
- ◇ Member of Technical Program Committee of The Seventh International Conference on Intelligent Systems and Applications (INTELLI 2018).

- ◇ Member of Technical Program Committee of 2018 IEOM Paris Conference in Industrial Engineering and Operations Management (IEOM 2018).
- ◇ Member of Technical Program Committee of The 8th International Conference on Industrial Engineering and Systems Management (IESM 2019).
- ◇ Member of Technical Program Committee of The 8th-9th-10th International Conferences on Railway Operations Modelling & Analysis (ICROMA 2019-2021-2023).
- ◇ Coordinator of the special session “Optimization in Public Transport and Shared Mobility” at the 30th European Conference on Operational Research (EURO 2019).
- ◇ Member of Technical Program Committee of The 2020 Forum on Integrated and Sustainable Transportation Systems (Forum-ISTS 2020).
- ◇ Member of Program Committee of the International Conference on Optimization and Decision Science 2022-2024, organized by AIRO, the Italian Operations Research Society.
- ◇ Member of Steering Committee of The 3rd IEEE International Conference on Automation in Manufacturing, Transportation and Logistics (iCaMaL 2023).
- ◇ Coordinator of Railway Optimization Workshops (ROW) 2019-2020-2021-2022-2023-2024.
- ◇ Member of Organizing Committee of AI4RAILS 2023-2024: The 4th-5th International Workshop on “Artificial Intelligence for RAILwayS”.
- ◇ Member of Scientific Committee of “Conference in Emerging Technologies in Transportation Systems (TRC-30): the 30th Anniversary of Transportation Research: Part C journal”.
- ◇ Member of Scientific Committee of “11th International Conference on Traffic and Transportation Studies (ICTTS 2024)”.
- ◇ Member of Scientific Committee of “15th International Conference on Swarm Intelligence (ICSI 2024)”.

PERSONAL
PRIZES AND
MAGAZINE
CITATIONS

- ◇ **IEOM Outstanding Professor Award** at the 5th European Conference on Industrial Engineering and Operations Management “IEOM 2022” (<http://ieomsociety.org/rome2022/>).
- ◇ Selected as one of the top papers at the 9th International Conference on Railway Operations Modelling and Analysis “Rail Beijing 2021” (<http://www.iaror.org/>).
- ◇ Selected as one of the top papers at the 21st IEEE International Conference on Intelligent Transportation Systems, IEEE ITSC 2018 (<https://www.ieee-itsc2018.org/>).
- ◇ Selected as one of the top papers at the 13th International Conference on Advanced Systems for Public Transport, CASPT 2015 (www.caspt.org/).
- ◇ Selected as one of the top papers at the 4th Internat. Conference on Models and Technology for Intelligent Transportation Systems, MT-ITS 2015 (<http://mt-its2015.bme.hu/>).
- ◇ Selected as one of the top papers at the 6th International Conference on Railway Operations Modelling and Analysis “Rail Tokyo 2015” (<http://www.iaror.org/>).
- ◇ Selected as one of the top papers at the 5th International Seminar on Railway Operations Modelling and Analysis “Rail Copenhagen 2013” (<http://www.iaror.org/>).
- ◇ Finalist for the “Best Paper Award” at IEEE International Conference on Networking, Sensing and Control 2011 (<http://sinfras.com/conferences/icnsc2011/>).
- ◇ **IEEE Intelligent Transportation Systems Society Dissertation Prize** (ewh.ieee.org/tc/its/) and citation in IEEE ITS Magazine, year 2009 (www.mrt.uni-karlsruhe.de/itsmag/).
- ◇ **First prize at INFORMS RAS Student Paper Competition 2007** (www.informs-ras.org/), **Railroad Application Section of INFORMS**, and citation in OR/MS Today (www.orms-today.com) and Railway Age Magazine (www.railwayage.com).
- ◇ Award as “**Best Young (≤ 35 years) Researcher**” at **RAILHANNOVER 2007**, organized by **International Association of Railway Operations Research** (www.iaror.org).

- ◇ Second prize at INFORMS RAS (PhD) Student Paper Competition 2006 (www.informs-ras.org), Railroad Application Section of INFORMS.
 - ◇ Finalist for the “Best Scientific Paper Competition” at TRAIL Congress 2006, only paper nominated from the sections focused on railway operations research (www.rstrail.nl).
 - ◇ Finalist for the “Best Paper” at RAILDELFT Seminar 2005 (www.jror.nl/seminars).
 - ◇ Finalist for the “Best Paper” at TRAIL Congress 2004 (www.rstrail.nl).
- BEST
MASTER
AND PHD
STUDENTS
- ◇ Francesco Corman performed a master thesis project on railway traffic optimization obtaining the prize “Galluzzi” 2006 for the best master thesis in Engineering and the prize “AIRO 2007” (www.airo.org) for the best master thesis in Operations Research. Francesco also performed a PhD project on the optimization and coordination of railway traffic obtaining the nomination in the “**2012 EURO Doctoral Dissertation Award**” (EDDA) Competition. PhD Thesis downloadable from web site www.darenet.nl
 - ◇ Paolo D’Urgolo performed a master thesis project on air traffic optimization obtaining the prize “AIRO 2010” (www.airo.org) for the best master thesis in Operations Research.
 - ◇ Giacomo Zaninotto performed a master thesis project on the optimization of public transport management obtaining the prize “AIRO 2013” (www.airo.org) for the best master thesis in Operations Research.
 - ◇ Marcella Samà performed a PhD project on the development of optimization models and algorithms for rail/air traffic management obtaining the First Prize “**Anna Valicek 2016**” organized by Airline Group of the International Federation of Operational Research Societies (AGIFORS) (<http://www.agifors.org/>) and the acknowledgment of the INFORMS Aviation Application Section. She also got the “**Lorenzo Brunetta 2018**” Prize as the Best PhD Thesis in the period 2015-2017 on topics related to Operations Research. PhD Thesis available here: <http://phd.dia.uniroma3.it/2016-xxvii-xxviii-ciclo-ph-d-thesis/>
 - ◇ Pengli Mo performed a PhD project on the integrated optimization of subway operations, with consideration of asymmetric passenger demands, operating costs, energy-efficient train scheduling and rolling stock circulation planning. He obtained the “**First prize at INFORMS RAS (PhD) Student Paper Competition 2020**”, Railroad Application Section of INFORMS, (connect.informs.org/railway-applications).
 - ◇ Bianca Pascariu is performing a PhD project on models and algorithm for solving the train routing selection problem and the real-time problem of scheduling and routing trains in a conventional rail network. She obtained the “**First prize at INFORMS RAS (PhD) Student Paper Competition 2021**”, Railroad Application Section of INFORMS, (connect.informs.org/railway-applications).
 - ◇ Dian Wang is performing a PhD project on integrated rolling stock deadhead routing and timetabling in urban rail transit lines. He obtained the “**Third prize at INFORMS RAS (PhD) Student Paper Competition 2021**” (connect.informs.org/railway-applications), Railroad Application Section of INFORMS. He has also obtained the “**Second prize at INFORMS RAS (PhD) Student Paper Competition 2022**”
 - ◇ Tommaso Bosi, in collaboration with my former master student Federico Bigi, performed a research project on optimization models and algorithms to minimize emissions and costs associated with shunting yard operations while maintaining an acceptable level of service; reaching “**The 5th place at TRA Visions Young Researcher Competition 2022**”.
 - ◇ Simin Chai is performing a PhD project on the development of advanced algorithms for scheduling train platoons in urban rail networks. He obtained the “**First prize at INFORMS RAS (PhD) Student Paper Competition 2023**”, Railroad Application Section of INFORMS, (connect.informs.org/railway-applications).
 - ◇ Tommaso Bosi, in collaboration with my former master student Elisa Fattori, performed a research project on optimization models and advanced algorithms for large-scale mixed-

fleet multi-terminal electric bus scheduling; reaching “**The top 3 at TRA Visions Young Researcher Competition 2024**”.

GENERAL
SCIENTIFIC
INTERESTS

- ◇ Graph Optimization Theory
- ◇ Combinatorial Optimization
- ◇ Linear Algebra and Geometry
- ◇ Linear Programming
- ◇ Exact, Heuristic, and Metaheuristic Methods
- ◇ Scheduling and Routing Problems
- ◇ Network Optimization
- ◇ Multi-Objective Optimization
- ◇ Stochastic Optimization
- ◇ Game Theory
- ◇ Centralized and Distributed Systems
- ◇ Intelligent Transport Systems
- ◇ Multi-Modal Transport Systems
- ◇ Road Engineering
- ◇ Railway Engineering
- ◇ Airspace Engineering
- ◇ Marine/Maritime Engineering
- ◇ Industrial Engineering
- ◇ Transportation and Logistics
- ◇ Management Science, Decision Science
- ◇ Automation Science
- ◇ Computer Science
- ◇ Artificial Intelligence, Machine Learning

GENERAL
APPLIED
RESEARCH
INTERESTS

- ◇ Public Services
- ◇ Emerging Technologies
- ◇ Optimization of Public Transport and Shared Mobility
- ◇ Railway Traffic Planning and Control (e.g. Dutch, Italian, UK, French, Danish, Norwegian, Swiss, and Chinese railways)
- ◇ Air Traffic Management (e.g. major Italian and Dutch airports, Chinese airports)
- ◇ Bus Scheduling (e.g. Italy, Luxemburg, China)
- ◇ Supply Chain and Logistics Management (e.g. courier express, container management)
- ◇ Industrial Production (e.g. Italian pharmaceutical industry)
- ◇ Radio Frequency IDentification (RFID)
- ◇ European Railway Traffic Management System (ERTMS)
- ◇ Single European Sky ATM Research (SESAR)

JOURNAL
ARTICLES
LISTED IN
SCOPUS
AND ISI
DATABASES
[A]

[A120] P. Mo, Y. Yao, P. Li, Y. Wang, Z. Liu, A. D'Ariano (2024) Synergising Urban Freight Transportation in Passenger-oriented Transit Corridors: An Efficient Mixed-Integer Linear Programming Approach, **Transportation Research, Part C**, ISSN: 0968-090X, under revision

- [A119] E. Wang, Y. Yin, P. Mo, A. D'Ariano, L. Yang, Z. Gao (2024) Real-time Train Rescheduling Optimization with Combined Cross-line Strategies for Urban Rail Network, **Transportation Research, Part C**, ISSN: 0968-090X, under revision
- [A118] J. Yin, L. Yang, Z. Liang, A. D'Ariano, Z. Gao (2024) Real-Time Rolling Stock and Timetable Rescheduling in Urban Rail Transit Systems, **INFORMS Journal of Computing**, ISSN: 1091-9856, under second revision
- [A117] B. Zhang, J. Zhao, A. D'Ariano, Y. Zhang, F. Tao, Q. Peng (2024) An iterative method for integrated hump sequencing, train makeup, and classification track assignment in railway shunting yard, **Transportation Research, Part B**, ISSN: 0191-2615, under second revision
- [A116] J. Xin, S. Li, Y. Zhou, A. D'Ariano (2024) Dynamic task allocation of hybrid flow shop for machines in parallel with different speeds based on an MLD prediction model, **Journal of Industrial and Production Engineering**, ISSN: 2168-1015, under minor revision
- [A115] Y. Yao, P. Li, P. Mo, C. Zheng, A. D'Ariano, A. Appolloni (2024) Bi-objective optimization of timetable and rolling stock schedule for an urban rail passenger and freight line, **Computers & Industrial Engineering**, ISSN: 0360-8352, under revision
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TEACHING:

- UNIVERSITÀ DEGLI STUDI ROMA TRE
- ◇ Bachelor Degree in Computer Science Engineering:
Professor for the course “Geometry and Combinatorics” [MAT-09] since a.y. 2017/2018.
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 - ◇ Bachelor Degree in Computer Science Engineering:
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 - ◇ Master Degree in Automation and Management Engineering:
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 - ◇ Support to the written and/or oral evaluation of students for the exams: Operations Research, Combinatorial Optimization, Optimization of Public Services, Logistics Optimization, Scheduling of Production Systems, Industrial Automation, Models and methods for Simulation, Models of Production Systems, Simulation of Industrial and Logistic Processes.
 - ◇ Supervisor and evaluator of Bachelor and Master students.
 - ◇ Member of Teaching Commissions for the evaluation of Bachelor and Master students.
 - ◇ Member of the Engineering Department Council, Board of Studies in Computer Science and Automation, Doctoral School in Computer Science and Automation.

Brief curriculum vitae of Andrea D'Ariano

- DELFT UNIVERSITY OF TECHNOLOGY
- ◇ Author of various lectures during the period 2004–2008 for the Master course “Railway Traffic Management” (Reference code: CT 5803). Invited by Prof. I.A. Hansen.
 - ◇ Lectures at the “1st Summer Course on Railway Timetable Optimisation” organized by Prof. I.A. Hansen in 2008.
 - ◇ Assistance in the organization and divulgation of International Seminars and Workshops jointly organized by TU Delft and IAROR in 2004–2014.
- KATHOLIEKE UNIVERSITEIT LEUVEN
- ◇ Author of various lectures in the academic year 2011/2012 for Master courses “Logistical organisation of public transportation” and “Distribution Logistics” of “Master of Science in Engineering: Traffic, Logistics and Intelligent Transport Systems” (Reference codes: H08I6A, H00N3A). Invited by Prof. D. Cattrysse.
 - ◇ Lectures on “scheduling problems with finite capacity” at the doctoral school, March 2012.
- UNIVERSITE DU LUXEMBOURG
- ◇ Erasmus+ Staff Mobility Program in the academic year 2015/2016 and invited lecturer in the academic year 2017/2018 for the Master in Logistics and Supply Chain Management organized in partnership with the “Massachusetts Institute of Technology Center for Transportation & Logistics (MIT CTL)”: Various lectures of Operations Research and applications in transportation and logistics. Invited by Prof. Francesco Viti.
- UNIVERSITY COLLEGE LONDON
- ◇ Erasmus+ Staff Mobility Program in the academic years 2016/2017 and 2018/2019. “Cities partnerships Programme” in the academic year 2018/2019: Various lectures of Operations Research and applications for Master students and Young Researchers/Practitioners. Invited by Prof. Taku Fujiyama. <http://www.ucl.ac.uk/railway-research/JSSCourse>
- UNIVERSITÀ DEGLI STUDI DI NAPOLI FEDERICO II
- ◇ FS Mobility Academy in the academic year 2018/2019: Various lectures on “Optimization Methods for Train Rescheduling” for Master students and Young Researchers/Practitioners. Invited by Prof. Vincenzo Punzo and Luca D’Acierno. Autumn and Winter 2018-2019.
- BEIJING JIAOTONG UNIVERSITY
- ◇ Golden School in the academic year 2018/2019: Various lectures on “Railway Traffic Optimization: Literature, Models, Solution Methods, and Applications” for Master and PhD students. Invited by Prof. Lingyun Meng and Lixing Yang. October-early November 2019.
- FUZHOU UNIVERSITY
- ◇ “111 Professor” in the academic year 2022/2023: Various lectures on “Job Shop Scheduling: Literature, Models, Solution Methods, and Applications” for Master and PhD students. Invited by Prof. Shi-Qiang (Samuel) Liu and Debiao Li. March-November 2023.
- SOUTHWEST JIAOTONG UNIVERSITY
- ◇ Summer School in the academic year 2022/2023: Various lectures on “Railway Traffic Optimization: Literature, Models, Solution Methods, and Applications” for Master and PhD students. Invited by Prof. Bisheng He and Qiyuan Peng. July 2023.
- CITATIONS AND SOME FEATURES:
- Google Scholar: total number of citations = 7283; h-index = 44**
- Scopus: total number of citations = 4678; h-index = 39**
- Excellent (highest) mark in the Italian VQR - ANVUR: [A4], [A16], [A17], [A24], [A29], [A40], [A41], [A42], [A43], [A47], [A49], [A52]**
- Some awarded papers: [A1, A7] by IEEE ITSS, [A4, A8, A62, A65, A72] by INFORMS RAS, [A5] by IAROR, [A44] by AGIFORS, [C10] by TRAIL**
- Andrea D’Ariano is listed in the 2023 ranking of the top 2% of the world’s best scientists, compiled by Stanford University, DOI:10.17632/btchxktyw.6**
- LAST UPDATE: **1 March 2024**