

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, 1 son, 1 daughter
Function: Assistant Professor
Università degli Studi "RomaTre"
Dipartimento di Ingegneria
Sezione di Informatica e Automazione
Laboratorio Aut.Or.I (room 1.06 ex-DIA)
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<http://orcid.org/0000-0002-7184-0459>

- ACTUAL POSITION
- ◇ **“Assistant 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 Professorship Qualification 2012**
Associate Professor in Operations Research
Qualification Period: from 20/12/2013 till 20/12/2019
- 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.
Dipartimento di Informatica e Automazione, Università degli Studi “RomaTre” (www.inf.uniroma3.it)
 - ◇ **Four-year contract as “Ph.D. Researcher”**
Scientific Director: Prof.Dr.-Ing. Ingo A. Hansen
Time Period: From May 2004 till April 2008
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*
Thesis downloadable from web site 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

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- SELECTION OF VISITS AND INTERNATIONAL COLLABORATIONS
- ◇ Prof. Ingo A. Hansen, Prof. Rob M.P. Goverde, Department of Transport and Planning, Delft University of Technology, The Netherlands.
 - ◇ Prof. Leo G. Kroon, Prof. Dennis Huisman, Dr. Twan Dollevoet, Rotterdam School of Management, Erasmus University Rotterdam, The Netherlands.
 - ◇ Prof. Ravindra K. Ahuja, Industrial and Systems Engineering, University of Florida, Gainesville, Florida, USA.
 - ◇ Prof. Lei Nie, Prof. Lingyun Meng, Dr. Jinchuan Zhang, School of Traffic and Transportation, Beijing Jiaotong University, China.
 - ◇ Prof. Johanna Törnquist Krasemann, School of Computing, Blekinge Institute of Technology, Sweden.
 - ◇ Prof. Ángel Marín Gracia, Department "Applied Mathematic y Estadística", Universidad Politécnica de Madrid, Spain.
 - ◇ Prof. Ekkehard Wendler, Institute of Transport Science, RWTH Aachen Univ., Germany.
 - ◇ Prof. Matthias Gerdts, Institut fuer Mathematik und Rechneranwendung, Fakultät fuer Luft- und Raumfahrttechnik, Universität der Bundeswehr Muenchen, Germany.
 - ◇ Prof. Jochen Trinckauf, Professor at Technische Universität Dresden, Germany.
 - ◇ Prof. Malachy Carey, Prof. Ronghui Liu, University of Leeds, UK.
 - ◇ Prof. Clive Roberts, University of Birmingham, UK.
 - ◇ Prof. B. Heydecker, Dr. Taku Fujiyama, University College London, UK.
 - ◇ Prof. Arne Løkketangen, Molde University College, Molde, Norway.
 - ◇ Prof. Dirk Cattrysse, Prof. P. Vansteenwegen, Department of Mechanical Engineering, Katholieke Universiteit Leuven, Belgium.
 - ◇ Prof. Francesco Viti, Dr. Marco Rinaldi, Faculty of Science, Technology and Communication, University of Luxembourg.
 - ◇ Prof. Alex Landex, Dr. Rune Larsen, Dep. of Transport, Technical University of Denmark.
 - ◇ Prof. Gabriel Lodweijks, Prof. Rudy R. Negenborn, Department of Maritime and Transport Technology, Delft University of Technology, The Netherlands.
 - ◇ Prof. Bart De Schutter, Delft Center for Systems and Control, Delft University of Technology, The Netherlands.
 - ◇ Prof. Yung-Cheng (Rex) Lai, Railway Technology Research Center, National Taiwan University, Taiwan.
 - ◇ Prof. Carlo Mannino, Applied Mathematics, SINTEF ICT, Norway.
 - ◇ Prof. Shi Qiang Liu, Southwest Jiaotong University, China.
 - ◇ Dr. Thomas Albrecht, "Friedrich List" Transport and Traffic Sciences Faculty, Dresden University of Technology, Germany.
 - ◇ Dr. Stefan Wegele, Institute for Traffic Safety and Automation Engineering, Technical University of Braunschweig, Germany.
 - ◇ Dr. Joaquin Rodriguez, Dr. P. Pellegrini, Institut National De Recherche Sur Les Transports Et Leur Sécurité, Lille, France.
 - ◇ Dr. Loïc Hérouët, IRISA (Institute for Research in IT and Random Systems), Rennes, France.
 - ◇ Dr. Milos Milenkovic, Transport and Traffic Engineering, University of Belgrade, Serbia.
 - ◇ Dr. Francesco Corman, ETH Zurich, Switzerland.
 - ◇ Dr. Jianbin Xin, Zhengzhou University, China.
 - ◇ Dr. Andy H.F. Chow, City University of Hong Kong, Hong Kong.
 - ◇ ...

Brief curriculum vitae of Andrea D'Ariano

- RESEARCH PROJECTS
- ◇ (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.
 - ◇ (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 “Analisi e sviluppo di algoritmi di ottimizzazione in tempo reale dell’orario ferroviario”, financed by Alstom Ferroviaria Bologna.
 - ◇ (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 “Sistema avanzato di tracciatura delle merci nei trasporti intermodali” 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
- ◇ Expert Group Coordinator/Rapporteur for the European Commission: STRIA Roadmap on Network and Traffic Management Systems.
 - ◇ Expert/Rapporteur for the European Commission [Candidature number: EX2006C125327], including: Trans-European Transport Network Executive Agency, Innovation and Networks Executive Agency, Research Executive Agency, Directorate-General for Research and Innovation, Directorate-General for Mobility and Transport, Shift2Rail Joint Undertaking, SESAR, INTERREG, Horizon 2020, FP7.

- ◇ Referee for the evaluation of Research Proposals, including: New Zealand Ministry of Business, Innovation & Employment; Swiss National Science Foundation (SNSF), Switzerland; 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.
- ◇ Reviewer for more than 70 international scientific journals, including: Interfaces; Transportation Science; Transportmetrica A: Transport Science; Transportation Research – Part A–B–C–E; European Journal of Operational Research; 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; 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.
- ◇ Coordinator of the special issue “Simulation and Optimization for Railway Operations Management” of Journal of Advanced Transportation.
- ◇ 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 Confer-

ences, 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
- ◇ Coordinator of the AIRO Chapter: Optimization in Public Transport and Shared Mobility (AIRO-OPTSM).
 - ◇ Member of the Editorial Advisory Board of Transportation Research Part E and Journal of Rail Transport Planning & Management by Elsevier
 - ◇ Editorial Board Member of Journal of Advanced Transportation by Wiley & Hindawi
 - ◇ 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 at Delft University of Technology.
 - ◇ TRAIL International Review Committee Member.
 - ◇ International Program Committee Member (named Associate Editor) for the International IEEE Conferences on Intelligent Transportation Systems 2010-2017 (continuously).
 - ◇ 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.
 - ◇ 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).
 - ◇ International Program Committee Member for the 6th International Conference on Operations Research and Enterprise Systems (ICORES 2017).
 - ◇ International Program Committee Member for the 20th World Congress of the International Federation of Automatic Control (IFAC 2017).
 - ◇ Member of the Scientific Committee of the 3rd-4th-5th International Conferences on Models and Technologies for Intelligent Transportation Systems 2013-2015-2017.
 - ◇ 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 (ECISO 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 (ODS 2017).
- ◇ Coordinator of the special session "Stochastic and Robust Optimization for Railway Operations Management" at the 2nd European Conference of Stochastic Optimization (ECISO 2017).
- ◇ International Program Committee Member for the 7th International Conference on Operations Research and Enterprise Systems (ICORES 2018).
- ◇ International Program Committee Member for the 15th IFAC Symposium on Control in Transportation Systems (CTS 2018).

PERSONAL
PRIZES AND
CITATIONS
ON INTERNA-
TIONAL
MAGAZINES

- ◇ 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 RAS (PhD) 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 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).

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- 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.
 - ◇ 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.
 - ◇ A selection of students that collaborated to the scientific research and are co-authors of publications: Giorgio Medeossi, Michele Scotto, Marco Pistelli, Gianluca Giacco, Pavle Kecman, Rune Larsen, Twan Dollevoet, Paolo D’Ariano, Federico Sabene, Alessandro Toli, Jianbin Xin, Konstantin D. Palagachev, Alessio D. Marra, Gabriele Centulio, Karim Kecir.
- GENERAL SCIENTIFIC INTERESTS
- ◇ Graph Optimization Theory
 - ◇ Combinatorial Optimization
 - ◇ Scheduling e Routing Problems
 - ◇ Multi-Objective Optimization
 - ◇ Game Theory
 - ◇ Centralized and Distributed Systems
 - ◇ Intelligent Transport Systems
 - ◇ Multi-Modal Transport Systems
 - ◇ Railway Engineering
 - ◇ Airspace Engineering
 - ◇ Marine/Maritime Engineering
- GENERAL APPLIED RESEARCH INTERESTS
- ◇ Railway Traffic Planning and Control (e.g. Dutch, Italian, UK, French, Danish, Norwegian, and Chinese railways)
 - ◇ Air Traffic Management (e.g. major Italian and Dutch airports)
 - ◇ 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)
- BRIEF OUTLINE OF RESEARCH CONTRIBUTIONS
- ◇ **Railway Traffic Optimization:** Development of innovative systems for operative decision making [A5, A9, A7, A34, A37, B4, B13, C1, C2, C11, C53, C55, C62], comparison of various decision support systems and traffic simulators [B6, C16, C18, C24], scheduling algorithms [A2, B4, C4], routing algorithms [A4, A8, A38, A40, A41, A45, B4, C10, C14, C59, C61, C63, C66, C68, C70], train speed control [A1, B1, B4, C3, C7], architectures for the traffic control in busy and complicated stations [A14, B8, C19, C22], distributed approaches for

the management and coordination of large networks [A10, A11, A17, A21, A29, B11, B12, C21, C35, C36, C38], disruption handling and emergency situations [A19, C25, C30, C31, C40], optimization of rolling stock planning [A27, A25, C33, C39, C54], analysis of timetable robustness to traffic disturbances [A26, A28, C34, C42], development of new railway plans by optimization methods [A30, A25, C43], capacity studies [A23, C45, C51].

- ◇ **Innovative Policies for Railway Traffic Management:** Detailed models for dynamic traffic management [B10, C8, C13, C47], flexible timetables [A3, C5, C12], green-wave strategy [A6, C9, C15], dynamic management of connected services [A16, C23, C27], cooperation techniques between traffic controllers and train companies [A13, A43, B3, B14, C6, C17, C29, C49, C56, C60, C69, C71].
- ◇ **Air Traffic Control:** Decision Support Systems for sequencing and routing of arriving and departing aircraft in busy airports: optimization models and frameworks [A15, A22, A24, A31, A36, A42, C37, C44, C46, C48, C50, C52, C64, C67], scheduling algorithms [A35, C26], routing algorithms [A20, A32, A44, C32, C41, C57], aircraft trajectory optimization [B15, B16, C65, C72], coordination of airport airspace and taxiway operations [A46].
- ◇ **Industrial Production Optimization Problems:** Evaluation of RFID technology use in production scheduling environments [A18, B9, C20].
- ◇ **Logistics Optimization Problems:** Application of RFID technology for the improvement of warehouse operations at an Italian courier express company [A12, C28]. Real-time container management in a complex maritime terminal container [A39, C58].

JOURNAL
ARTICLES
LISTED IN
SCOPUS
AND ISI
DATABASES
[A]

[A46] M. Samà, A. D'Ariano, F. Corman, D. Pacciarelli, Coordination of scheduling decisions in the management of airport airspace and taxiway operations, **Transportation Research Procedia**, **23(1)** 246–262, ISSN: 2352-1465

[A45] M. Samà, P. Pellegrini, A. D'Ariano, J. Rodriguez, D. Pacciarelli (2017) On the tactical and operational train routing selection problem, **Transportation Research, Part C**, **76(1)** 1–15, ISSN: 0968-090X

[A44] M. Samà, A. D'Ariano, F. Corman, D. Pacciarelli (2017) Metaheuristics for efficient aircraft scheduling and re-routing at busy terminal control areas, **Transportation Research, Part C**, **80 (1)** 485–511, ISSN: 0968-090X

[A43] F. Corman, A. D'Ariano, A.D. Marra, D. Pacciarelli, M. Samà (2017) Integrating Train Scheduling and Delay Management in Real-time Railway Traffic Control, **Transportation Research, Part E**, IN PRESS, ISSN: 1366-5545, DOI: 10.1016/j.tre.2016.04.007

[A42] M. Samà, A. D'Ariano, P. D'Ariano, D. Pacciarelli (2017) Scheduling models for optimal aircraft traffic control at busy airports: tardiness, priorities, equity and violations considerations, **Omega**, **67(1)** 81–98, ISSN: 0305-0483

[A41] M. Samà, A. D'Ariano, F. Corman, D. Pacciarelli (2017) A variable neighborhood search for fast train scheduling and routing during disturbed railway traffic situations, **Computers and Operations Research**, **78(1)** 480–499, ISSN: 0305-0548

[A40] M. Samà, P. Pellegrini, A. D'Ariano, J. Rodriguez, D. Pacciarelli (2016) Ant colony optimization for the real-time train routing selection problem, **Transportation Research, Part B**, **85(1)** 89–108, ISSN: 0191-2615

[A39] F. Corman, J. Xin, R.R. Negenborn, A. D'Ariano, M. Samà, A. Toli, G. Lodewijks (2016) Optimal scheduling and routing of free-range AGVs at large scale automated container terminals, **Periodica Polytechnica Transportation Engineering**, **44(3)** 145–154, ISSN: 1587-3811

[A38] M. Samà, P. Pellegrini, A. D'Ariano, J. Rodriguez, D. Pacciarelli (2015) A Routing Filter for the Real-Time Railway Traffic Management problem based on Ant Colony Optimization, **Transportation Research Procedia**, **10** 534–543, ISSN: 2352-1465

- [A37] M. Samà, C. Meloni, A. D'Ariano, F. Corman (2015) A multi-criteria decision support methodology for real-time train scheduling. **Journal of Rail Transport Planning & Management**, **5(3)** 146–162, ISSN: 2210-9706
- [A36] M. Samà, A. D'Ariano, P. D'Ariano, D. Pacciarelli (2015) Air Traffic Optimization Models for Aircraft Delay and Travel Time Minimization in Terminal Control Areas. **Public Transport: Planning and Operations**, **7(3)** 321–337, ISSN: 1866-749X
- [A35] A. D'Ariano, D. Pacciarelli, M. Pistelli and M. Pranzo (2015) Real-time scheduling of aircraft arrivals and departures in a terminal maneuvering area. **Networks**, **65(3)** 212–227, ISSN: 0028-3045
- [A34] A. D'Ariano, M. Samà, P. D'Ariano, D. Pacciarelli (2014) Evaluating the applicability of advanced techniques for practical real-time train scheduling. **Transportation Research Procedia**, **3** 279–288, ISSN: 2352-1465
- [A33] G.L. Giacco, D. Carillo, A. D'Ariano, D. Pacciarelli, A.G. Marín (2014) Short-term rail rolling stock rostering and maintenance scheduling. **Transportation Research Procedia**, **3** 651–659, ISSN: 2352-1465
- [A32] M. Samà, A. D'Ariano, P. D'Ariano, D. Pacciarelli (2014) Optimal aircraft scheduling and routing at a terminal control area during disturbances. **Transportation Research, Part C**, **47(1)** 61–85, ISSN: 0968-090X
- [A31] M. Samà, A. D'Ariano, P. D'Ariano, D. Pacciarelli (2014) Comparing Centralized and Rolling Horizon Approaches for Optimal Aircraft Traffic Control in Terminal Areas. **Transportation Research Record, Journal of the Transportation Research Board**, **2449** 45–52, ISSN: 0361-1981
- [A30] T. Dollevoet, F. Corman, A. D'Ariano, D. Huisman (2014) An iterative optimization framework for delay management and train scheduling. **Flexible Services and Manufacturing Journal**, **26(4)** 490–515, ISSN: 1936-6582
- [A29] F. Corman, A. D'Ariano, D. Pacciarelli and M. Pranzo (2014) Dispatching and coordination in multi-area railway traffic management. **Computers and Operations Research**, **44(1)** 146–160, ISSN: 0305-0548
- [A28] R. Larsen, M. Pranzo, A. D'Ariano, F. Corman, D. Pacciarelli (2014) Susceptibility of Optimal Train Schedules to Stochastic Disturbances of Process Times. **Flexible Services and Manufacturing Journal**, **26(4)** 466–489, ISSN: 1936-6582
- [A27] G.L. Giacco, A. D'Ariano, D. Pacciarelli (2014) Rolling stock rostering optimization under maintenance constraints. **Journal of Intelligent Transport Systems: Technology, Planning, and Operations**, **18(1)** 95–105, ISSN: 1547-2450
- [A26] F. Corman, A. D'Ariano, I.A. Hansen (2014) Evaluating disturbance robustness of railway schedules. **Journal of Intelligent Transport Systems: Technology, Planning, and Operations**, **18(1)** 106–120, ISSN: 1547-2450
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- [D33] M. Samà, A. D'Ariano, D. Pacciarelli, Rolling Horizon Approach for Aircraft Scheduling in the Terminal Control Area of Busy Airports, AIRO 2012, 4-7 September 2012, Vietri sul Mare, Italia.
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- [D18] M. Pranzo, D. Pacciarelli, A. D'Ariano and F. Corman, ROMA dispatching support tool: Railway Optimization by Means of Alternative graphs, RFI (Rete Ferroviaria Italiana www.rfi.it), organized by Ing. D. Moretti, 13 October 2008, Roma, Italia.
- [D17] A. D'Ariano, F. Corman, D. Pacciarelli and M. Pranzo, Evaluation of green wave policy in real-time railway traffic management, INFORMS Annual Meeting 2008, 12-15 October 2008, Washington DC, USA.
- [D16] A. D'Ariano, Improving real-time train dispatching: Models, algorithms and applications, Innovative Scheduling (www.innovativescheduling.com), organized by Prof. R.K. Ahuja, 9-10 October 2008, Gainesville, Florida, USA.
- [D15] D. Pacciarelli, F. Corman, A. D'Ariano and M. Pranzo, A tabu search algorithm for real-time railway traffic optimization, XXXIX Annual Conference of the Italian Operations Research Society, AIRO 2008, 8-10 September 2008, Ischia, Italy.
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- [D13] A. D'Ariano, Real-time dispatching and network schedules, 1st International Summer Course on Railway Timetable Optimisation, Delft University of Technology, organized by Prof. I.A. Hansen, 14-18 July 2008, Delft, The Netherlands.
- [D12] F. Corman, S. Wegele and A. D'Ariano, Comparing the effectiveness of two real-time train rescheduling systems in case of perturbed traffic conditions, Railway Workshop (Transport Research Centre Delft), organized by Prof. I.A. Hansen, 17-18 June 2008, Delft, The Netherlands.
- [D11] A. D'Ariano, Improving real-time train dispatching: Models, algorithms and applications, DIA Workshop (Dipartimento di Informatica e Automazione, Roma Tre University), organized by Prof. F. Nicolò, 16-17 June 2008, Roma, Italia.
- [D10] A. D'Ariano, Improving real-time train dispatching: Models, algorithms and applications, NS Seminar (OR Group di Prof. L. Kroon at the Dutch Railways www.ns.nl), 10 January 2008, Utrecht, The Netherlands.
- [D9] F. Corman, A. D'Ariano, D. Pacciarelli and M. Pranzo, A tabu search algorithm for rerouting trains during rail operations, INFORMS Annual Meeting 2007, 4-7 November 2007, Seattle, Washington, USA. Presentazione disponibile sul sito www.informs-ras.org.

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[D5] A. D'Ariano, F. Corman, D. Pacciarelli and M. Pranzo, Modelling reordering and local rerouting strategies to solve train conflicts during rail operations, INFORMS Annual Meeting 2006, 5-8 November 2006, Pittsburgh, Pennsylvania, USA. Presentazione disponibile sul sito www.informs-ras.org.

[D4] A. D'Ariano, F. Corman, D. Pacciarelli and M. Pranzo, Modelling reordering and local rerouting strategies to solve train conflicts during rail operations, ProRail Seminar (Innovation and Strategy Department, organized by Ir. R. Hemelrijk www.prorail.nl), 1 November 2006, Utrecht, The Netherlands.

[D3] M. Pranzo, A. D'Ariano and D. Pacciarelli, A branch and bound algorithm for scheduling trains in a railway network, XXXVII Annual Conference of the Italian Operations Research Society, AIRO 2006, 12-15 September 2006, Cesena, Italy.

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[D1] A. D'Ariano, Improving train dispatching performance: Models, algorithms and applications, Workshop on "Reliability of Travel Times" at TRAIL Research School, organized by Prof. H. van Zuylen, 13 February 2006, Delft, The Netherlands.

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[E1] A. D'Ariano, D. Pacciarelli, M. Pranzo, Benefits of flexible timetables in real time scheduling of rail operations, Dipartimento di Informatica e Automazione RT-DIA-83-2003, pp. 1-25, December 2003, Roma Tre University.

TEACHING: \diamond Bachelor Degree in Computer Science Engineering:
UNIVERSITÀ Professor for the course "Geometry and Combinatorics" [MAT-09] since a.y. 2017/2018.
DEGLI STUDI <http://moodle3.ing.uniroma3.it/moodle/> (under construction)
ROMA TRE \diamond Bachelor Degree in Computer Science Engineering:
Professor for the course "Operations Research" [MAT-09] since a.y. 2010/2011.
Lectures on Graph Optimization Theory.
<http://moodle3.ing.uniroma3.it/moodle/>

Brief curriculum vitae of Andrea D'Ariano

- ◇ Master Degree in Automation and Management Engineering:
Professor for the course “Optimization of Public Services” [MAT-09] since a.y. 2012/2013.
<http://moodle3.ing.uniroma3.it/moodle/>
 - ◇ Master Degree in Automation and Management Engineering:
Professor for the course “Logistics Optimization” [MAT-09] since a.y. 2010/2011.
Lectures on Job Shop Scheduling and Applications.
<http://moodle3.ing.uniroma3.it/moodle/>
 - ◇ 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 Scientific 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.
- 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: Various lectures of Operations Research and applications for Bachelor, Master and PhD students.
Invited by Prof. Francesco Viti.
- UNIVERSITY COLLEGE LONDON
- ◇ Erasmus+ Staff Mobility Program in the academic year 2016/2017: Various lectures of Operations Research and applications for Master and PhD students.
Invited by Dr. Taku Fujiyama.
<http://www.ucl.ac.uk/railway-research/JSSCourse>
- BEIJING JIAOTONG UNIVERSITY
- ◇ To be scheduled in the academic year 2018/2019: Various lectures on “Railway Traffic Optimization” for Master and PhD students.
Invited by Prof. Lingyun Meng and Prof. Lixing Yang.
- CITATIONS
- Google Scholar: total number of citations = 2706; h-index = 28**
- Scopus: total number of citations = 1446+108* = 1554; h-index = 22+1'=23**
(* these citations are “extracted from references list in Scopus documents”)
' In particular, the PhD Thesis has more than 50 citations.)
- [A2] is the most cited article on Scopus (after 1995) and ISI regarding “train scheduling” (excluding surveys)**
- [A8] is the most cited article on Scopus (after 1995) and ISI regarding “train routing” (excluding surveys)**

Brief curriculum vitae of Andrea D'Ariano

ISI Web of Knowledge: total number of citations = 922; h-index = 16

Scopus: h-index in the last ten years = 22

LAST
UPDATE

15 September 2017