

# 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://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](http://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](http://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](http://www.rstrail.nl))  
Thesis Title: *Improving Real-time Train Dispatching: Models, Algorithms and Applications*  
PhD Thesis downloadable from website [www.darenet.nl](http://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 Union - “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](http://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](http://www.miur.it)).
- ◇ (Post-Doctoral Researcher) Dutch project “Reliability of transport chains” ([www.transumo.nl](http://www.transumo.nl)).
- ◇ (PhD Researcher) Dutch project “Towards Reliable Mobility” ([www.citg.tudelft.nl](http://www.citg.tudelft.nl)).
- ◇ (PhD Researcher) Dutch project “Next Generation Infrastructures” ([www.nginfra.nl](http://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](http://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](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](http://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 Rail Transport Planning & Management*.**
- ◇ Associate Editor of *Journal of Advanced Transportation*.
- ◇ 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/](http://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/](http://ewh.ieee.org/tc/its/)) and citation in IEEE ITS Magazine, year 2009 ([www.mrt.uni-karlsruhe.de/itsmag/](http://www.mrt.uni-karlsruhe.de/itsmag/)).
- ◇ **First prize at INFORMS RAS Student Paper Competition 2007** ([www.informs-ras.org/](http://www.informs-ras.org/)), **Railroad Application Section of INFORMS**, and citation in OR/MS Today ([www.orms-today.com](http://www.orms-today.com)) and Railway Age Magazine ([www.railwayage.com](http://www.railwayage.com)).
- ◇ Award as “**Best Young ( $\leq 35$  years) Researcher**” at **RAILHANNOVER 2007**, organized by **International Association of Railway Operations Research** ([www.iaror.org](http://www.iaror.org)).

- ◇ Second prize at INFORMS RAS (PhD) Student Paper Competition 2006 ([www.informs-ras.org](http://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](http://www.rstrail.nl)).
  - ◇ Finalist for the “Best Paper” at RAILDELFT Seminar 2005 ([www.jror.nl/seminars](http://www.jror.nl/seminars)).
  - ◇ Finalist for the “Best Paper” at TRAIL Congress 2004 ([www.rstrail.nl](http://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](http://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](http://www.darenet.nl)
  - ◇ Paolo D’Urgolo performed a master thesis project on air traffic optimization obtaining the prize “AIRO 2010” ([www.airo.org](http://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](http://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](http://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](http://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](http://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](http://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 “**Second prize 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 [A]

[A120] J. Xin, Q. Yuan, A. D'Ariano, Y. Zhou (2024) Dynamic unbalanced task allocation of warehouse AGVs using integrated adaptive large neighborhood search and Kuhn-Munkres algorithm, **Computers & Industrial Engineering**, ISSN: 0360-8352, under second revision

- [A119] W. Pan, S.Q. Liu, M. Kumral, A. D'Ariano, M. Masoud, W.A. Khan, A.A. Abdullah Bakather (2024) Iron ore price forecast based on a multi-echelon tandem learning model, **Natural Resources Research**, ISSN: 1520-7439, TO APPEAR
- [A118] 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, <https://doi.org/10.1016/j.trc.2024.104644>
- [A117] 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
- [A116] 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
- [A115] 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, DOI: 10.1080/21681015.2024.2337029
- [A114] 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 second revision
- [A113] Z. Chen, A. D'Ariano, S. Li, M.L. Tessitore, L. Yang (2024) Robust dynamic train regulation in urban rail networks under disturbance uncertainties: An outer approximation based solution method, **Omega**, ISSN: 0305-0483, under second revision
- [A112] J. Guo, W. Wang, J. Guo, A. D'Ariano, T. Bosi, Z. Yongxiang (2024) An instance-based transfer learning model with attention mechanism for freight train travel time prediction in the China-Europe Railway Express, **Expert Systems with Applications**, ISSN: 0957-4174, <https://doi.org/10.1016/j.eswa.2024.123989>
- [A111] S.H. Chung, S.S. Yang, C.H. Chiu, M. Tse, A. Srivastava, A. D'Ariano, S.Q. Liu (2024) Logistics and Operations in Industry 5.0: Human-Machine Reconciles (Special Issue Editorial), **Transportation Research, Part E**, ISSN: 1366-5545, [www.sciencedirect.com/journal/transportation-research-part-e-logistics-and-transportation-review/about/call-for-papers#logistics-and-operations-in-industry-5-0-human-machine-reconciles-social-issue-f](http://www.sciencedirect.com/journal/transportation-research-part-e-logistics-and-transportation-review/about/call-for-papers#logistics-and-operations-in-industry-5-0-human-machine-reconciles-social-issue-f)
- [A110] P. Mo, Z. Cheng, Q. Cheng, T. Tang, A. D'Ariano (2024) Innovative Applications of Operations Research and Machine Learning in Traffic and Transportation Management (Special Issue Editorial), **Multimodal Transportation**, ISSN: 2772-5863, <https://www.sciencedirect.com/journal/multimodal-transportation/about/call-for-papers>
- [A109] J. Xin, F. Schulte, C. Wang, W. Li, A. D'Ariano (2024) Modeling, Learning, and Optimization for Smart Manufacturing Logistics: In Memory of Carlo Meloni (Special Issue Editorial), **Flexible Services and Manufacturing Journal**, ISSN: 1936-6582, <https://link.springer.com/journal/10696/updates/26015096>
- [A108] X. Zhou, A. D'Ariano, J. Yin, B. Lopes Dos Santos, G. Lulli, C. Cirillo (2024) Advanced Optimization, Learning and Control for Coordinated Multimodal Transportation towards a Flexible, Equitable and Sustainable Ecosystem (Special Issue Editorial), **Transportation Research, Part C**, ISSN: 0968-090X, [www.sciencedirect.com/journal/transportation-research-part-c-emerging-technologies/special-issue/10JT7K3BZ17](http://www.sciencedirect.com/journal/transportation-research-part-c-emerging-technologies/special-issue/10JT7K3BZ17)
- [A107] A. D'Ariano, G.H. de Almeida Correia, M. Samà (2024) Optimization and Data Science in Sustainable Public Transport and Logistics (Special Issue Editorial), **Transportation Research, Part E**, ISSN: 1366-5545,

[www.sciencedirect.com/journal/transportation-research-part-e-logistics-and-transportation-review/special-issue/1009R0SK21Z](http://www.sciencedirect.com/journal/transportation-research-part-e-logistics-and-transportation-review/special-issue/1009R0SK21Z)

- [A106] T. Bosi, F. Bigi, A. D'Ariano, F. Viti, J.D. Pineda-Jaramillo (2024) Optimal Management of Full Train Load Services in the Shunting Yard: A Comprehensive Study on Shunt-In Shunt-Out Policies, **Computers & Industrial Engineering**, ISSN: 0360-8352, DOI: 10.1016/j.cie.2023.109865
- [A105] S. Chai, J. Yin, A. D'Ariano, L. Yang, T. Tang (2024) A Model for Intercity Railway Schedule Optimization Incorporating Metrorail Transfers, **Transportation Research Record, Journal of the Transportation Research Board**, ISSN: 0361-1981, TO AP-PEAR
- [A104] Q. Zhang, S.Q. Liu, A. D'Ariano, S.H. Chung, M. Masoud, X. Li (2024) A bi-level programming methodology for decentralized mining supply chain network design, **Expert Systems with Applications**, ISSN: 0957-4174, <https://doi.org/10.1016/j.eswa.2024.123904>
- [A103] Z. Wang, S. Su, A. D'Ariano, T. Tang, T. Bosi, B. Su (2024) Optimizing Train-to-Train Rescue and Rescheduling in Metro Systems, **IEEE Transactions on Intelligent Transportation Systems**, ISSN: 1524-9050, DOI: 10.1109/TITS.2024.3394535
- [A102] B. Pascariu, M. Samà, P. Pellegrini, A. D'Ariano, J. Rodriguez, D. Pacciarelli (2024) Formulation of the train routing selection problem for different real-time traffic management objectives, **Journal of Rail Transport Planning & Management**, ISSN: 2210-9706, under second revision
- [A101] D. Lian, P. Mo, A. D'Ariano, Z. Gao, L. Yang (2024) Energy-saving time allocation strategy with uncertain dwell times in urban rail transit: Two-stage stochastic model and nested dynamic programming framework, **European Journal of Operational Research**, ISSN: 0377-2217, <https://doi.org/10.1016/j.ejor.2024.03.015>
- [A100] X. Wu, J. Xin, A. D'Ariano (2024) Distributed predictive motion planning of automated guided vehicles: Serial versus parallel schemes, **Engineering Optimization**, ISSN: 0305-215X, <https://doi.org/10.1080/0305215X.2024.2318342>
- [A99] C. Xiu, J. Pan, A. D'Ariano, S. Zhan, Q. Peng (2024) Passenger service-oriented timetable rescheduling for large-scale disruptions in a railway network: A heuristic-based alternating direction method of multiplier, **Omega**, ISSN: 0305-0483, <https://doi.org/10.1016/j.omega.2024.103040>
- [A98] S. Chai, J. Yin, A. D'Ariano, R. Liu, L. Yang, T. Tang (2024) A Branch-and-Cut Algorithm for Scheduling Train Platoons in Urban Rail Networks, **Transportation Research Part B**, ISSN: 0191-2615, <https://doi.org/10.1016/j.trb.2024.102891>
- [A97] L. Xu, P. Wu, C. Chu, A. D'Ariano (2024) Eco-friendly lane reservation-based automated truck transportation network design: An iterative two-stage algorithm, **International Journal of Production Research**, ISSN: 0020-7543, <https://doi.org/10.1080/00207543.2024.2335329>
- [A96] J.D. Pineda-Jaramillo, F. Bigi, T. Bosi, F. Viti, A. D'Ariano (2023) Short-term arrival delay time prediction in freight rail operations using data-driven models, **IEEE Access**, ISSN: 2169-3536, DOI:10.1109/ACCESS.2023.3275022
- [A95] P. Ying, X. Zeng, A. D'Ariano, D. Pacciarelli, H. Song, T. Shen (2023) Quadratically Constrained Linear Programming-based Energy-efficient driving for High-speed Train with Neutral Zone and Time Window, **Transportation Research Part C**, ISSN: 0968-090X, DOI:10.1016/j.trc.2023.104202
- [A94] F. Bigi, T. Bosi, J. Pineda-Jaramillo, F. Viti, A. D'Ariano (2023) Long-term fleet management for freight trains: assessing the impact of wagon maintenance through simulation of shunting policies, **Journal of Rail Transport Planning & Management**, ISSN: 2210-9706, DOI:10.1016/j.jrtpm.2023.100430

- [A93] S. Chai, J. Yin, A. D'Ariano, M. Samà, T. Tang (2023) Train Schedule Optimization for Commuter-Metro Networks, **Transportation Research Part C**, ISSN: 0968-090X, DOI:10.1016/j.trc.2023.104278
- [A92] J. Yin, F. Pu, L. Yang, A. D'Ariano, Z. Wang, Integrated Optimization of Rolling Stock Allocation and Timetabling for Rail Transit Networks: A Benders Decomposition Approach, **Transportation Research, Part B**, ISSN: 0191-2615, DOI:10.1016/j.trb.2023.102815
- [A91] H. Yu, Y. Wang, A. D'Ariano, A. Lai, Y. Huang (2023) Mixed integer linear programming based speed profile optimization for heavy haul trains, **Journal of Advanced Transportation**, ISSN: 2042-3195, DOI:10.1155/2023/6649871
- [A90] P. Mo, Y. Yao, A. D'Ariano, Z. Liu (2023) The vehicle routing problem with underground logistics: Formulation and algorithm, **Transportation Research, Part E**, ISSN: 1366-5545, DOI:10.1016/j.tre.2023.103286
- [A89] J. Xin, Z. Kang, A. D'Ariano, L. Yao (2023) Real-time order picking of a robotic put wall: A simulation-based metaheuristic optimization, **International Journal of Automation and Control**, ISSN:1740-7516, DOI: 10.1504/IJAAC.2024.10061126
- [A88] B. He, Y. Zhu, A. D'Ariano, K. Wen, L. Chen (2023) Dynamic Relational Graph Convolutional Network for Metro Passenger Flow Forecasting, **Operations Research Forum**, ISSN:2662-2556, DOI:10.1007/s43069-023-00266-9
- [A87] D. Wang, A. D'Ariano, J. Zhao, Q. Peng (2023) Joint rolling stock rotation planning and depot deadhead scheduling in complicated urban rail transit lines, **European Journal of Operational Research**, ISSN: 0377-2217, DOI:10.1016/j.ejor.2023.10.012
- [A86] B. Su, A. D'Ariano, S. Su, X. Wang, T. Tang (2023) Integrated train timetabling and rolling stock rescheduling for a disturbed metro system: A hybrid deep reinforcement learning and adaptive large neighborhood search approach, **Computers & Industrial Engineering**, ISSN: 0360-8352, DOI:10.1016/j.cie.2023.109742
- [A85] L. Yang, Y. Gao, A. D'Ariano, S. Xu (2023) Integrated optimization of train timetable and train unit circulation for a Y-type urban rail transit system with flexible train composition mode, **Omega**, ISSN: 0305-0483, DOI:10.1016/j.omega.2023.102968
- [A84] B. Zhang, Y. Zhang, A. D'Ariano, T. Bosi, G. Lu, Q. Peng (2023) Optimal platforming, routing and scheduling of trains and locomotives in a rail passenger station yard, **Transportation Research, Part C**, ISSN: 0968-090X, DOI:10.1016/j.trc.2023.104160
- [A83] M. Wang, J. Yin, A. D'Ariano, J. Zhang, L. Yang (2023) Synchronization of Train Timetables in an Urban Rail Network: A Bi-Objective Optimization Approach, **Transportation Research, Part E**, ISSN: 1366-5545, **174**, 103142
- [A82] J. Xin, X. Wu, A. D'Ariano, F. Zhang, R. Negenborn (2023) Model Predictive Path Planning of AGVs: Mixed Logical Dynamical Formulation and Distributed Coordination, **IEEE Transactions on Intelligent Transportation Systems**, ISSN: 1524-9050, DOI:10.1109/TITS.2023.3254147
- [A81] X. Wang, A. D'Ariano, S. Su, T. Tang (2023) Cooperative Train Control during the Power Shortage in Metro System: A Multi-Agent Reinforcement Learning Approach, **Transportation Research, Part B**, ISSN: 0191-2615, DOI:10.1016/j.trb.2023.02.015
- [A80] J. Xin, L. Wei, A. D'Ariano, F. Zhang, R. Negenborn (2023) Flexible time-space network formulation and hybrid metaheuristic for conflict-free and energy-efficient path planning of automated guided vehicles, **Journal of Cleaner Production**, ISSN: 0959-6526, DOI: 10.1016/j.jclepro.2023.136472
- [A79] D. Gui, M. Le, Z. Huang, J. Zhang, A. D'Ariano (2023) Optimal aircraft arrival scheduling with continuous descent operations in busy terminal maneuvering areas, **Journal of Air Transport Management**, **107**, 102344, ISSN: 0969-6997

- [A78] Q. Zhang, S.Q. Liu, A. D'Ariano (2023) Bi-objective bi-level optimization for integrating lane-level closure and reversal in redesigning transportation networks, **Operational Research**, ISSN: 1866-1505, DOI: 10.1007/s12351-023-00756-y
- [A77] J. Zhang, Y. Wang, Z. Zhang, D. Huisman, A. D'Ariano (2022) A Lagrangian Relaxation Approach Based on a Time-Space-State Network for Railway Crew Scheduling, **Computers & Industrial Engineering**, **172**, 108509, ISSN: 0360-8352
- [A76] S. Chai, J. Yin, A. D'Ariano, M. Samà, T. Tang (2022) Scheduling of Coupled Train Platoons for Metro Networks: A Passenger Demand Oriented Approach, **Transportation Research Record, Journal of the Transportation Research Board**, ISSN: 0361-1981, DOI: 10.1177/03611981221109175
- [A75] J. Xin, C. Meng, A. D'Ariano, F. Schulte, J. Peng, R.R. Negenborn (2022) Energy-efficient Routing of a Multi-Robot Station: A Flexible Time-Space Network Approach, **IEEE Transactions on Automation Science and Engineering**, ISSN: 1545-5955, DOI: 10.1109/TASE.2022.3192914
- [A74] P. Wu, L. Xu, A. D'Ariano, Y. Zhao, C. Chu (2022) Novel Formulations and Improved Differential Evolution Algorithm for Optimal Lane Reservation with Task Merging, **IEEE Transactions on Intelligent Transportation Systems**, ISSN: 1524-9050, DOI: 10.1109/TITS.2022.3175010
- [A73] J. Yin, L. Yang, A. D'Ariano, T. Tang, Z. Gao (2022) Integrated Backup Train Allocation and Timetable Rescheduling with Uncertain Time-Variant Passenger Demand Under Disruptive Events, **INFORMS Journal of Computing**, ISSN: 1091-9856, DOI: 10.1287/ijoc.2022.1233
- [A72] B. Pascariu, M. Samà, P. Pellegrini, A. D'Ariano, J. Rodriguez, D. Pacciarelli (2022) Effective train routing selection for real-time traffic management: improved model and ACO parallel computing, **Computers and Operations Research**, **145**, 105859, ISSN: 0305-0548, DOI: 10.1016/j.cor.2022.105859
- [A71] Z. Chen, S. Li, A. D'Ariano, L. Yang (2022) Real-time optimization for train regulation and stop-skipping adjustment strategy of urban rail transit lines, **Omega**, **110**, 102631, ISSN: 0305-0483
- [A70] Y. Gao, J. Xia, A. D'Ariano, L. Yang (2022) Weekly Rolling Stock Planning in Chinese High-Speed Rail Networks, **Transportation Research, Part B**, **158(1)**, 295–322, ISSN: 0191-2615
- [A69] M.L. Tessitore, M. Samà, A., D'Ariano, L., Hérouet, D., Pacciarelli (2022) A simulation-optimization framework for traffic disturbance recovery in metro systems, **Transportation Research, Part C**, **136**, 103525, ISSN: 0968-090X
- [A68] J. Xin, C. Meng, A. D'Ariano, D. Wang, R.R. Negenborn (2021) Mixed-integer non-linear programming for energy-efficient container handling: formulation and customized genetic algorithm, **IEEE Transactions on Intelligent Transportation Systems**, ISSN: 1524-9050, DOI: 10.1109/TITS.2021.3094815
- [A67] Y. Wang, K. Zhao, A. D'Ariano, R. Niu, S. Li, X. Luan (2021) Real-time integrated train rescheduling and rolling stock circulation planning for a metro line under disruptions, **Transportation Research, Part B**, **152**, 87–117, ISSN: 0191-2615
- [A66] T. Bosi, A. D'Ariano (2021) Linear programming model and on-line algorithm for customer-centric train calendar generation, **Journal of Advanced Transportation**, **4664010**, ISSN: 2042-3195
- [A65] D. Wang, A. D'Ariano, J. Zhao, Q. Zhong, Q. Peng (2022) Integrated rolling stock deadhead routing and timetabling in urban rail transit lines, **European Journal of Operational Research**, **298(2)**, 526–559, ISSN: 0377-2217

- [A64] Y. Wang, S. Zhu, A. D'Ariano, J. Yin, J. Miao, L. Meng (2021) Energy-efficient timetabling and rolling stock circulation planning based on automatic train operation levels for metro lines, **Transportation Research, Part C**, **129**, 103209, ISSN: 0968-090X
- [A63] L. Tang, A. D'Ariano, X. Xu, Y. Li, X. Ding (2021) Scheduling local and express trains in suburban transit lines: mixed-integer nonlinear programming and adaptive genetic algorithm, **Computers and Operations Research**, **135**, 105436, ISSN: 0305-0548
- [A62] P. Mo, A. D'Ariano, L. Yang, L.P. Veelenturf, Z. Gao (2021) An Exact Method for Integrated Optimization of Subway Lines Operation Strategy with Asymmetric Passenger Demand and Operating Costs, **Transportation Research, Part B**, **149**, 283–321, ISSN: 0191-2615
- [A61] X. Hong, L. Meng, F. Corman, A. D'Ariano, L.P. Veelenturf, S. Long (2021) Robust Capacitated Train Rescheduling with Passenger Reassignment under Stochastic Disruptions, **Transportation Research Record, Journal of the Transportation Research Board**, **2675(12)**, 214–232, ISSN: 0361-1981
- [A60] J. Xin, B. Yu, A. D'Ariano, H. Wang, M. Wang (2021) Time-dependent rural postman problem: time-space network formulation and genetic algorithm, **Operational Research**, ISSN: 1866-1505 (<https://doi.org/10.1007/s12351-021-00639-0>)
- [A59] J. Yin, A. D'Ariano, Y. Wang, L. Yang, T. Tang (2021) Timetable Coordination in a Rail Transit Network with Time-Dependent Passenger Demand, **European Journal of Operational Research**, **295(1)**, 183–202, ISSN: 0377-2217
- [A58] X. Hong, L. Meng, A. D'Ariano, L.P. Veelenturf, S. Long, F. Corman (2021) Integrated Optimization of Capacitated Train Rescheduling and Passenger Reassignment under Disruptions, **Transportation Research, Part C**, **125**, 103025, ISSN: 0968-090X
- [A57] B. Pascariu, N. Coviello, A. D'Ariano (2021) Railway freight node capacity evaluation: a timetable-saturation approach and its application to the Novara freight terminal, **Transportation Research Procedia**, **52**, 155–162, ISSN: 2352-1465
- [A56] E. Picarelli, M. Rinaldi, A. D'Ariano, F. Viti (2020), Model and Solution Methods for the Mixed-Fleet Multi-Terminal Bus Scheduling Problem, **Transportation Research Procedia**, **47**, 275–282, ISSN: 2352-1465
- [A55] D. Wang, J. Zhao, A. D'Ariano, Q. Peng (2021), Simultaneous Node and Link Districting in Transportation Networks: Model, Algorithms and Railway Application, **European Journal of Operational Research**, **292(1)**, 73–94, ISSN: 0377-2217
- [A54] M. Samà, A. D'Ariano, K. Palagachev, M. Gerdtts (2019), Integration methods for aircraft scheduling and trajectory optimization at a busy terminal manoeuvring area, **OR Spectrum**, **41(3)**, 641–681, ISSN: 0171-6468 ([doi.org/10.1007/s00291-019-00560-1](https://doi.org/10.1007/s00291-019-00560-1))
- [A53] P. Mo, L. Yang, A. D'Ariano, J. Yin, Y. Yao, Z. Gao (2020), Energy-efficient Train Scheduling and Rolling Stock Circulation Planning in a Metro Line: A Linear Programming Approach, **IEEE Transactions on Intelligent Transportation Systems**, **21(9)**, 3621–3633, ISSN: 1524-9050 ([doi.org/10.1109/TITS.2019.2930085](https://doi.org/10.1109/TITS.2019.2930085))
- [A52] Y. Zhang, A. D'Ariano, B. He, Q. Peng (2019), Microscopic optimization model and algorithm for integrating train timetabling and track maintenance task scheduling, **Transportation Research, Part B**, **127(1)** 237–278, ISSN: 0191-2615
- [A51] M. Rinaldi, E. Picarelli, A. D'Ariano, F. Viti (2020), Mixed-Fleet Single-Terminal Bus Scheduling Problem: Modelling, Solution Scheme and Potential Applications, **Omega**, **96**, 102070, ISSN: 0305-0483 ([doi.org/10.1016/j.omega.2019.05.006](https://doi.org/10.1016/j.omega.2019.05.006))
- [A50] M. Samà, A. D'Ariano, F. Corman, D. Pacciarelli (2018), Coordination of scheduling decisions in the management of airport airspace and taxiway operations, **Transportation Research, Part A**, **114(B)** 398–411, ISSN: 0965-8564

- [A49] Y. Wang, A. D'Ariano, J. Yin, L. Meng, T. Tang, B. Ning (2018) Passenger demand oriented train scheduling and rolling stock circulation planning for an urban rail transit line, **Transportation Research, Part B**, **118(1)** 193–227, ISSN: 0191-2615
- [A48] A. D'Ariano, F. Corman, T. Fujiyama, L. Meng, P. Pellegrini (2018) Simulation and Optimization for Railway Operations Management (Special Issue Editorial), **Journal of Advanced Transportation**, **489674**, ISSN: 2042-3195
- [A47] A. D'Ariano, L. Meng, G. Centulio, F. Corman (2019), Integrated stochastic optimization approaches for tactical scheduling of trains and railway infrastructure maintenance, **Computers & Industrial Engineering**, **127(1)** 1315–1335, ISSN: 0360-8352
- [A46] M. Samà, A. D'Ariano, F. Corman, D. Pacciarelli (2017), 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**, **105** 213–239, ISSN: 1366-5545
- [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
- [A25] G.L. Giacco, D. Carillo, A. D'Ariano, D. Pacciarelli (2014) Short-term rolling stock rostering and maintenance scheduling optimization (Ottimizzazione della circolazione del materiale rotabile e dei processi manutentivi nel breve periodo). **Ingegneria Ferroviaria**, **1** 39–52, C.I.F.I. – Collegio Ingegneri Ferroviari Italiani, ISSN: 0020-0956
- [A24] M. Samà, A. D'Ariano, D. Pacciarelli (2013) Rolling Horizon Approach for Aircraft Scheduling in the Terminal Control Area of Busy Airports. **Transportation Research, Part E**, **60(1)** 140–155, ISSN: 1366-5545
- [A23] R.M.P. Goverde, F. Corman, A. D'Ariano (2013) Railway line capacity consumption of different railway signalling systems under scheduled and disturbed conditions. **Journal of Rail Transport Planning & Management**, **3(3)** 78–94, ISSN: 2210-9706
- [A22] M. Samà, A. D'Ariano, D. Pacciarelli (2013) Rolling Horizon Approach for Aircraft Scheduling in the Terminal Control Area of Busy Airports. **Procedia Social and Behavioral Sciences**, **80** 531–552, ISSN: 1877-0428
- [A21] P. Kecman, F. Corman, A. D'Ariano, R.M.P. Goverde (2013) Rescheduling models for railway traffic management in large-scale networks. **Public Transport: Planning and Operations**, **5 (1–2)** 95–123, ISSN: 1866-749X
- [A20] A. D'Ariano, M. Pistelli, D. Pacciarelli (2012) Aircraft retiming and rerouting in vicinity of airports. **IET Intelligent Transport Systems Journal**, **6(4)** 433–443, ISSN: 1751-956X
- [A19] F. Corman and A. D'Ariano (2012) Assessment of advanced dispatching measures for recovering disrupted railway traffic situations. **Transportation Research Record, Journal of the Transportation Research Board**, **2289** 1–9, ISSN: 0361-1981
- [A18] D. Pacciarelli and A. D'Ariano (2012) Increasing the reliability of production schedules in a pharmaceutical packaging department. **Journal of Medical Systems**, **36(6)** 3407–3421, ISSN: 0148-5598



- [A17] F. Corman, A. D'Ariano, D. Pacciarelli and M. Pranzo (2012) Optimal inter-area coordination of train rescheduling decisions. **Transportation Research, Part E**, **48(1)** 71–88, ISSN: 1366-5545
- [A16] F. Corman, A. D'Ariano, D. Pacciarelli and M. Pranzo (2012), Bi-objective conflict detection and resolution in railway traffic management. **Transportation Research, Part C**, **20(1)** 79–94, ISSN: 0968-090X
- [A15] M. Samà, A. D'Ariano, D. Pacciarelli (2012) Optimal aircraft traffic flow management at a terminal control area during disturbances. **Procedia Social and Behavioral Sciences**, **54** 460–469, ISSN: 1877-0428
- [A14] F. Corman, A. D'Ariano, M. Pranzo and I.A. Hansen (2011) Effectiveness of dynamic reordering and rerouting of trains in a complicated and densely occupied station area. **Transportation Planning and Technology**, **34(4)** 341–362, ISSN: 0308-1060
- [A13] F. Corman, A. D'Ariano, I.A. Hansen and D. Pacciarelli (2011) Optimal multi-class rescheduling of railway traffic. **Journal of Rail Transport Planning & Management**, **1(1)** 14–24, ISSN: 2210-9706
- [A12] D. Pacciarelli, A. D'Ariano and M. Scotto (2011) Applying RFID in warehouse operations of an Italian courier express company. **NETNOMICS**, **12(3)** 209–222, Springer, ISSN: 1385-9587
- [A11] F. Corman, A. D'Ariano, D. Pacciarelli and M. Pranzo (2011) Optimal inter-area coordination of train rescheduling decisions. **Journal of Transportation and Traffic Theory, Procedia Social and Behavioral Sciences**, **17** 58–81, ISSN: 1877-0428
- [A10] F. Corman, A. D'Ariano, D. Pacciarelli and M. Pranzo (2010) Centralized versus distributed systems to reschedule trains in two dispatching areas. **Public Transport: Planning and Operations**, **2(3)** 219–247, ISSN: 1866-749X
- [A9] A. D'Ariano (2010) Improving real-time train dispatching performance: Optimization models and algorithms for re-timing, re-ordering and local re-routing. **4OR: A Quarterly Journal of Operations Research**, **8(4)** 429–432, ISSN: 1619-4500
- [A8] F. Corman, A. D'Ariano, D. Pacciarelli and M. Pranzo (2010) A tabu search algorithm for rerouting trains during rail operations. **Transportation Research, Part B**, **44(1)** 175–192, ISSN: 0191-2615
- [A7] A. D'Ariano (2009) Innovative decision support system for railway traffic control. **IEEE Intelligent Transportation Systems Magazine**, **1(4)** 8–16, ISSN: 1939-1390
- [A6] F. Corman, A. D'Ariano, D. Pacciarelli and M. Pranzo (2009) Evaluation of green wave policy in real-time railway traffic management. **Transportation Research, Part C**, **17(6)** 607–616, ISSN: 0968-090X
- [A5] A. D'Ariano and M. Pranzo (2009) An advanced real-time train dispatching system for minimizing the propagation of delays in a dispatching area under severe disturbances. **Networks and Spatial Economics**, **9(1)** 63–84, ISSN: 1566-113X
- [A4] A. D'Ariano, F. Corman, D. Pacciarelli and M. Pranzo (2008) Reordering and local rerouting strategies to manage train traffic in real-time. **Transportation Science**, **42(4)** 405–419, ISSN: 0041-1655
- [A3] A. D'Ariano, D. Pacciarelli and M. Pranzo (2008) Assessment of flexible timetables in real-time traffic management of a railway bottleneck. **Transportation Research, Part C**, **16(2)** 232–245, ISSN: 0968-090X
- [A2] A. D'Ariano, D. Pacciarelli and M. Pranzo (2007) A branch and bound algorithm for scheduling trains in a railway network. **European Journal of Operational Research**, **183(2)** 643–657, ISSN: 0377-2217
- [A1] A. D'Ariano, M. Pranzo and I.A. Hansen (2007) Conflict resolution and train speed co-ordination for solving real-time timetable perturbations. **IEEE Transactions on Intelligent Transportation Systems**, **8(2)** 208–222, ISSN: 1524-9050

BOOKS,  
BOOK  
CHAPTERS  
AND OTHER  
JOURNALS  
[B]

- [B17] B. Pascariu, M. Samà, P. Pellegrini, A. D’Ariano, D. Pacciarelli, J. Rodriguez, Performance evaluation of a parallel ant colony optimization for the real-time train routing selection problem in large instances, **Lecture Notes in Computer Science**, **13222** 46–61, Springer Verlag, Heidelberg, 2022.
- [B16] A. Dreves, M. Gerdts, M. Samà, A. D’Ariano, Free Flight Trajectory Optimization and Aircraft Scheduling, **Lecture Notes in Mobility**, Springer Verlag, Heidelberg, 2019.
- [B15] M. Samà, K. Palagachev, A. D’Ariano, M. Gerdts, D. Pacciarelli, Terminal Control Area Aircraft Scheduling and Trajectory Optimization Approaches, **ITM Web of Conferences**, 2017, DOI: <https://doi.org/10.1051/itmconf/20171400008>
- [B14] F. Corman, D. Pacciarelli, A. D’Ariano, M. Samà, Railway Traffic Rescheduling Taking into Account Minimization of Passengers Discomfort, In: F. Corman, S. Voss and R.R. Negenborn (Eds.), **Computational Logistics, Lecture Notes in Computer Science 9335** 602–616, Springer - Verlag Berlin Heidelberg, 2015.
- [B13] A. D’Ariano, F. Corman, D. Pacciarelli, Rescheduling, In: I.A. Hansen and J. Pahl (Eds.), **Railway Timetabling & Operations**, Chapter 13, 253–273, Eurailpress, Hamburg, 2014 (Invited Contribution).
- [B12] F. Corman, A. D’Ariano, D. Pacciarelli, M. Pranzo, A bilevel rescheduling framework for optimal inter-area train coordination, Algorithmic Approaches for Transportation Modelling, Optimization, and Systems, **OPEN ACCESS SERIES IN INFORMATICS**, **20** 15–26, Dagstuhl Publishing, 2011.
- [B11] F. Corman, A. D’Ariano and I.A. Hansen, Disruption handling in large railway networks, In: B. Ning, C.A. Brebbia, N. Tomii (Eds.), **WIT Transactions on The Built Environment 114** 629–640, WIT Press, 2010.
- [B10] F. Corman, A. D’Ariano, D. Pacciarelli and M. Pranzo, Railway dynamic traffic management in complex and densely used networks, In: R.R. Negenborn, Z. Lukszo and H. Hellendoorn (Eds.), **Intelligent Infrastructures, Intelligent Systems, Control and Automation: Science and Engineering 42** 377–404, Springer, 2010 (Invited Contribution).
- [B9] D. Pacciarelli and A. D’Ariano, Assessing the value of RFID in pharmaceutical production scheduling, In: N. Bakhtadze and A. Dolgui (Eds.), **Information Control Problems in Manufacturing**, **13(1)** 1101–1106, Elsevier Ltd, 2009.
- [B8] F. Corman, Rob M. P. Goverde and A. D’Ariano, Rescheduling dense train traffic over complex station interlocking areas, In: R.K. Ahuja, R. Moehring and C. Zaroliagis (Eds.), **Robust and Online Large-Scale Optimization, Lecture Notes in Computer Science 5868** 369–386, Springer - Verlag Berlin Heidelberg, 2009.
- [B6-B7] S. Wegele, F. Corman and A. D’Ariano, Comparing the effectiveness of two real-time train rescheduling systems in case of perturbed traffic conditions, In: J. Allan, E. Arias, C.A. Brebbia, C.J. Goodman, A.F. Rumsey, G. Sciutto and N. Tomii (Eds.), **WIT Transactions on The Built Environment 103** 535–544, WIT Press, 2008. Republished in the book of selected papers: **Timetable Planning & Information Quality**, **1** 189–198, WIT Press, 2010 (Invited Contribution).
- [B4-B5] A. D’Ariano, Improving Real-Time Train Dispatching: Models, Algorithms and Applications, **TRAIL Thesis Series T2008/6** 1–240, TRAIL Research School, 2008, Delft, The Netherlands. Republished in the book series: **NGInfra PhD thesis Series on Infrastructures 18**, 1–240, Next Generation Infrastructures, 2008.
- [B3] A. D’Ariano and R. Hemelrijk, Designing a multi-agent system for cooperative train dispatching, In: A. Dolgui, G. Morel and C. Pereira (Eds.), **Information Control Problems in Manufacturing 12(3)** 367–372, Elsevier Ltd, 2006.
- [B1-B2] A. D’Ariano and T. Albrecht, Running time re-optimization during real-time timetable perturbations, In: J. Allan, C.A. Brebbia, A.F. Rumsey, G. Sciutto, S. Sone and C.J. Goodman (Eds.), **WIT Transactions on The Built Environment 88** 531–540, WIT Press,

2006. Republished in the book of selected papers: **Timetable Planning & Information Quality**, 1 147–156, WIT Press, 2010 (Invited Contribution).

CONFERENCE  
PROCEEDINGS  
WITH PEER  
REVIEW  
PROCESS [C]

[C109] J. Shi, Z. Chen, J. Yin, A. D’Ariano, Integrated Optimization of ESD Allocation and Train Speed Control in Urban Rail Transit Systems, The 43rd Chinese Control Conference (CCC 2024), 28-31 July, 2024, Kunming, China.

[C108] H. Li, J. Yin, T. Tang, A. D’Ariano, Energy-Efficient Operation of Train Platoons in Urban Rail Transit Systems: An MIP Approach, The 43rd Chinese Control Conference (CCC 2024), 28-31 July, 2024, Kunming, China.

[C107] F. Bigi, T. Bosi, A. D’Ariano, F. Viti, Towards Safer Freight Rail Shunting: Integrating MILP and ML Classification Models in a Risk Management Framework, AI4RAILS workshop: the 5th International Workshop on Artificial Intelligence for RAILwayS, International Conference on Optimization and Decision Science ODS 2024, 8-12 September, 2024, Sardinia, Italy.

[C106] X. Wang, J. Yin, F. Pu, A. D’Ariano, T. Tang, A GAN-based Deep Learning Model for the Object Detection of Autonomous High-Speed Trains, 2023 China Automation Congress (CAC 2023), 17-19 November 2023, Chongqing, China

[C105] Z. Liu, J. Yin, A. D’Ariano, T. Tang, Vulnerability Assessment and Optimization of Urban Rail Systems Against Extreme Perturbations: An MIP-based Approach, The 2023 IEEE Intelligent Transportation Systems Society Conference (ITSC 2023), 24-28 September, 2023, Bilbao, Spain

[C104] F. Bigi, T. Bosi, J.D. Pineda-Jaramillo, F. Viti, A. D’Ariano, Addressing the impact of maintenance in shunting operations through shunt-in policies for freight trains operations, Proceedings of the 102th Transportation Research Board Annual Meeting (TRB 2023), (pp. 1–15), Washington DC, USA.

[C103] S. Chai, J. Yin, A. D’Ariano, L. Yang, T. Tang, Incorporating Multimodal Coordination into Train Scheduling Optimization in Urban Railway Transportation Systems, Proceedings of the 102th Transportation Research Board Annual Meeting (TRB 2023), (pp. 1–15), Washington DC, USA.

[C102] B. He, F. Shen, Y. Zhu, A. D’Ariano, L. Chen, Train delays prediction via transformer based deep learning model, RailBelgrade 2023, 10th International Conference on Railway Operations Modelling and Analysis (ICROMA)

[C101] P. Ying, X. Zeng, A. D’Ariano, D. Pacciarelli, H. Song, Energy-efficient high-speed train driving considering neutral zone under disturbance, RailBelgrade 2023, 10th International Conference on Railway Operations Modelling and Analysis (ICROMA)

[C100] S. Zhu, Y. Wang, S. Lu, A. D’Ariano, Lagrangian relaxation based speed profile optimization for multiple trains under virtual coupling with operational state transition, RailBelgrade 2023, 10th International Conference on Railway Operations Modelling and Analysis (ICROMA)

[C99] T. Bosi, F. Bigi, A. D’Ariano, F. Viti, The Shunt-In Shunt-Out Problem in Rail Freight Transport: an Event-Based Simulation Framework for Sustainable Rolling Stock Management, RailBelgrade 2023, 10th International Conference on Railway Operations Modelling and Analysis (ICROMA)

[C98] F. Bigi, T. Bosi, F. Viti, A. D’Ariano, Assessing the Impact of Maintenance Constraints for the Rolling Stock Problem in Freight Operations, The 8th International IEEE Conference on Models and Technologies for Intelligent Transportation Systems (MT-ITS 2023)

[C97] Y. Zhang, J. Yin, A. D’Ariano, Y. Wang, A Bi-Level Approach for the Metro Train Scheduling Problem Considering Passenger Behaviors, IEEE International Intelligent Transportation Systems Conference (ITSC 2022), (pp. 1–6), October 8-12, 2022, Macau, China.

- [C96] B. Pascariu, M. Samà, P. Pellegrini, A. D'Ariano, D. Pacciarelli, J. Rodriguez, Generalization of the train routing selection problem for real-time traffic management, Triennial Symposium on Transportation Analysis (TRISTAN), June 19-25, 2022, Mauritius Island
- [C95] F. Bigi, T. Bosi, J.-D. Pineda-Jaramillo, F. Viti, A. D'Ariano, The Wagon Assignment Policy problem: Policy Comparison on the Wagon Fleet optimization, 10th symposium of the European Association for Research in Transportation (hEART), 1-3 June 2022, Leuven, Belgium.
- [C94] B. Pascariu, M. Samà, P. Pellegrini, A. D'Ariano, D. Pacciarelli, J. Rodriguez, Performance evaluation of a parallel ant colony optimization for the real-time train routing selection problem in large instances, European Conference on Evolutionary Computation in Combinatorial Optimisation (EvoCOP), 20-22 April 2022, Seville, Spain.
- [C93] S. Chai, J. Yin, A. D'Ariano, M. Samà, T. Tang, Scheduling of Virtual Coupled Train Platoon for Metro Networks: A Passenger Demand Oriented Approach, Proceedings of the 100th Transportation Research Board Annual Meeting (TRB 2021), (pp. 1–15), Washington DC, USA.
- [C92] B. Pascariu, M. Samà, P. Pellegrini, A. D'Ariano, An improved approach for train routing selection in complex rail networks, The 9th International Conference on Railway Operations Modelling and Analysis (RailBeijing 2021), (pp. 1–20), November 3-7, 2021, Beijing, China.
- [C91] M.L. Tessitore, M. Samà, A. D'Ariano, D. Pacciarelli, Assessment of Disturbance Recovery Strategies in a Busy Metro System, The 9th International Conference on Railway Operations Modelling and Analysis (RailBeijing 2021), (pp. 1–20), November 3-7, 2021, Beijing, China.
- [C90] B. He, X. Wang, A. D'Ariano, Y. Zhang, An integrated optimization approach for timetabling and infrastructure maintenance scheduling during night periods at microscopic level, The 9th International Conference on Railway Operations Modelling and Analysis (RailBeijing 2021), (pp. 1–20), November 3-7, 2021, Beijing, China.
- [C89] M. Wang, J. Yin, S. Su, X. Chen, A. D'Ariano, Y. Wang, T. Tang, A Bi-Objective Optimization Model for Coordinated Train Timetabling in Rail Transit Networks, IEEE International Intelligent Transportation Systems Conference (ITSC 2021), (pp. 1–6), September 19-22, 2021, Indianapolis, IN, United States.
- [C88] B. Pascariu, M. Samà, P. Pellegrini, A. D'Ariano, D. Pacciarelli, J. Rodriguez, Train routing selection problem: Ant colony optimization versus integer linear programming, 16th IFAC Symposium on Control in Transportation Systems (CTS 2021), (pp. 1–6), June 8-10, 2021, Lille, France.
- [C87] T. Bosi, A. D'Ariano, L. Amorosi, G.L. Giacco, A Fast and Effective Greedy Heuristic for On-line Train Calendars Generation, 7th International IEEE Conference on Models and Technologies for Intelligent Transportation Systems (MT-ITS 2021), (pp. 1–6), 16–18 June 2021, Heraklion, Crete, Greece.
- [C86] M. Masoud, E. Kozan, S.Q. Liu, M. Elhenawy, P. Corry, R. Burdett, A. D'Ariano, A Real-World Transport Scheduler Applied To Australian Sugarcane Industry, 23rd IEEE Intelligent Transportation Systems Conference (IEEE ITSC 2020), (pp. 1–6), 20–23 September 2020, Rhodes, Greece.
- [C85] X. Hong, L. Meng, P. Zhang, F. Zhao, A. D'Ariano, L.P. Veelenturf, F. Corman, Timetable Rescheduling with Reassignment of Rolling Stock and Passengers under Disruptions, 23rd IEEE Intelligent Transportation Systems Conference (IEEE ITSC 2020), (pp. 1–6), 20–23 September 2020, Rhodes, Greece.
- [C84] B. He, P. Chen, A. D'Ariano, L. Chen, H. Zhang, G. Lu, A microscopic agent-based simulation for dispatching rail movements in a busy passenger station, 23rd IEEE Intelligent Transportation Systems Conference (IEEE ITSC 2020), (pp. 1–6), 20–23 September 2020, Rhodes, Greece.

- [C83] B. Pascariu, N. Coviello, A. D'Ariano, Railway node capacity evaluation: a timetable-saturation approach and its application to the Novara freight terminal, 23rd EURO Working Group on Transportation (EWGT 2020), (pp. 1–8), 16–18 September 2020, Paphos, Cyprus.
- [C82] J. Xin, B. Yu, A. D'Ariano, A time-space network model for optimal routing of a sanitation vehicle, Chinese Automation Congress 2019 (CAC 2019), (pp. 1–15), 22–24 November 2019, Hangzhou, China.
- [C81] X. Hong, L. Meng, F. Corman, A. D'Ariano, L.P. Veelenturf, S. Long, Robust Capacitated Train Rescheduling with Passenger Reassignment under Stochastic Disruptions, Proceedings of the 99th Transportation Research Board Annual Meeting (TRB 2020), (pp. 1–15), Washington DC, USA.
- [C80] Jiateng Yin, Andrea D'Ariano, Yihui Wang, Jing Xun, Shuai Su, Tao Tang, Mixed-Integer Linear Programming Models for Coordinated Train Timetabling with Dynamic Demand, Proceedings of the 22nd IEEE International Conference on Intelligent Transportation Systems, 27-30 October 2019, Auckland, New Zealand.
- [C79] Shi Qiang Liu, Andrea D'Ariano, Erhan Kozan, Mahmoud Masoud, Sai-Ho Chung, A classification and literature survey on aviation management, Proceedings of the 8th International Conference on Industrial Engineering and Systems Management (IESM 2019), 25-27 September 2019, Shanghai, China.
- [C78] E. Picarelli, M. Rinaldi, A. D'Ariano, F. Viti, Model and Solution Methods for the Mixed-Fleet Multi-Terminal Bus Scheduling Problem, Proceedings of the 22nd Euro Working Group on Transportation Meeting (EWGT 2019), 18-20 September 2019, Barcelona, Spain.
- [C77] M. Rinaldi, E. Picarelli, G. Laskaris, A. D'Ariano, F. Viti, Mixed hybrid and electric bus dynamic fleet management in urban networks: a model predictive control approach, Proceedings of the 6th International Conference on Models and Technologies for Intelligent Transportation Systems, 5-7 June 2019, Kraków, Poland.
- [C76] X. Hong, L. Meng, F. Corman, A. D'Ariano, L.P. Veelenturf, S. Long, Robust Capacitated Train Rescheduling with Passenger Reassignment, Proceedings of the 8th International Conference on Railway Operations Modelling & Analysis (RailNorrköping), 17-20 June 2019, Norrköping, Sweden.
- [C75] Y. Chang, R. Niu, Y. Wang, X. Luan, A. D'Ariano, M. Samà, Train Rescheduling for an Urban Rail Transit Line under Disruptions, Proceedings of the 8th International Conference on Railway Operations Modelling & Analysis (RailNorrköping), 17-20 June 2019, Norrköping, Sweden.
- [C74] M. Samà, A. D'Ariano, D. Pacciarelli, P. Pellegrini, J. Rodriguez, Applications of train routing selection methods for real-time railway traffic management, Proceedings of the 21st IEEE International Conference on Intelligent Transportation Systems, 3-7 November 2018, Maui, Hawaii, USA.
- [C73] M. Rinaldi, F. Parisi, G. Laskaris, A. D'Ariano, F. Viti, Optimal dispatching of electric and hybrid buses subject to scheduling and charging constraints, Proceedings of the 21st IEEE International Conference on Intelligent Transportation Systems, 3-7 November 2018, Maui, Hawaii, USA.
- [C72] M. Samà, A. D'Ariano, D. Pacciarelli, K. Palagachev, M. Gerdtts, Optimal Aircraft Scheduling and Flight Trajectory in Terminal Control Areas, Proceedings of the 5th International Conference on Models and Technologies for Intelligent Transportation Systems, MT-ITS 2017, (pp. 1–6), 26–28 June 2017, Naples, Italy.
- [C71] A. D'Ariano, D. Pacciarelli, M. Samà, F. Corman, Microscopic Delay Management: Minimizing Train Delays and Passenger Travel Times during Real-Time Railway Traffic Management, Proceedings of the 5th International Conference on Models and Technologies for Intelligent Transportation Systems, MT-ITS 2017, (pp. 1–6), 26–28 June 2017, Naples, Italy.

- [C70] M. Samà, P. Pellegrini, A. D'Ariano, J. Rodriguez, D. Pacciarelli, Ant Colony Optimization for train routing selection: operational vs tactical application, Proceedings of the 5th International Conference on Models and Technologies for Intelligent Transportation Systems, MT-ITS 2017, (pp. 1–6), 26–28 June 2017, Naples, Italy.
- [C69] F. Corman, A. D'Ariano, M. Samà, D. Pacciarelli, Strategic interactions in passenger-oriented railway traffic control, 17th Swiss Transport Research Conference (STRC) 2017, 17–19 May 2017, Monte Verità, Switzerland.
- [C68] M. Samà, A. D'Ariano, D. Pacciarelli, F. Corman, Real-time near-optimal train scheduling and routing in complex railway networks, First Triennial Conference of INFORMS Transportation and Logistics Society, (pp. 1–6), 26–29 July 2017, Chicago, Illinois, USA.
- [C67] M. Samà, A. D'Ariano, F. Corman, D. Pacciarelli, Coordination of scheduling decisions in the management of airport airspace and taxiway operations, Proceedings (Lectern Presentation) of the 22nd International Symposium on Transportation & Traffic Theory (ISTTT), (pp. 1–19), 24–26 July 2017, Chicago, Illinois, USA.
- [C66] M. Samà, P. Pellegrini, A. D'Ariano, J. Rodriguez, D. Pacciarelli, The potential of the routing selection problem in real-time railway traffic management, Proceedings of the 7th International Conference on Railway Operations Modelling and Analysis (ICROMA), (pp. 1–18), 4–7 April 2017, Lille, France.
- [C65] M. Samà, K. Palagachev, A. D'Ariano, M. Gerdt, D. Pacciarelli, Terminal Control Area Aircraft Scheduling and Trajectory Optimization Approaches, Proceedings of the 12th International Conference on APplied mathematical programming and MODelling (APMOD 2016), (pp. 1–8), 8–10 June 2016, Brno, Czech Republic.
- [C64] M. Samà, A. D'Ariano, P. D'Ariano, D. Pacciarelli, Scheduling models for optimal aircraft traffic control at busy airports: tardiness, priorities, equity and violations considerations, Proceedings of the 20th Air Transport Research Society (ATRS) World Conference, 23–26 June 2016, Rhodes, Greece.
- [C63] M. Samà, A. D'Ariano, F. Corman, D. Pacciarelli, Lower and upper bound algorithms for the real-time train scheduling and routing problem in a railway network, Proceedings of the 14th IFAC Symposium on Control in Transportation Systems, CTS 2016, 18 - 20 May, 2016, Istanbul, Turkey.
- [C62] A. D'Ariano, D. Nucci, D. Pacciarelli, M. Rosti, Intelligent Real-Time Traffic Management System for Complex and Busy Railway Networks, Proceedings of the 11th World Congress on Railway Research (pp. 1–6), WCRR 2016, 29 May - 2 June 2016, Milano, Italia.
- [C61] M. Samà, A. D'Ariano, A. Toli, D. Pacciarelli, F. Corman, Metaheuristics for real-time near-optimal train scheduling and routing, Proceedings of the 18th International IEEE Conference on Intelligent Transportation Systems (IEEE ITSC 2015), (pp. 1–6), 15-18 September 2015, Las Palmas de Gran Canaria, Canary Islands, Spain.
- [C60] F. Corman, D. Pacciarelli, A. D'Ariano, M. Samà, Rescheduling Railway Traffic Taking into Account Minimization of Passengers Discomfort, Proceedings of the 6th International Conference on Computational Logistics (ICCL 2015), (pp. 1–15), 23-25 September 2015, Delft, The Netherlands.
- [C59] M. Samà, P. Pellegrini, A. D'Ariano, J. Rodriguez, D. Pacciarelli, A Routing Filter for the Real-Time Railway Traffic Management problem based on Ant Colony Optimization, Proceedings of the 18th meeting of the Euro Working Group on Transportation (EWGT 2015), 14–16 July 2015, Delft, The Netherlands.
- [C58] F. Corman, J. Xin, A. Toli, R.R. Negenborn, A. D'Ariano, M. Samà, G. Lodweijks, Optimizing hybrid operations at large-scale automated container terminals, Proceedings of the 4th International Conference on Models and Technologies for Intelligent Transportation Systems, MT-ITS 2015, 3–5 June 2015, Budapest, Hungary.

- [C57] M. Samà, A. D'Ariano, A. Toli, D. Pacciarelli, F. Corman, A variable neighborhood search for optimal scheduling and routing of take-off and landing aircraft, Proceedings of the 4th International Conference on Models and Technologies for Intelligent Transportation Systems, MT-ITS 2015, 3–5 June 2015, Budapest, Hungary.
- [C56] F. Corman, A. D'Ariano, D. Pacciarelli, F. Sabene, M. Samà, Train Delay and Passenger Travel Time Minimization in Real-Time Railway Traffic Management, Proceedings of the 13th International Conference on Advanced Systems for Public Transport, CASPT 2015, 19–23 July 2015, Rotterdam, The Netherlands.
- [C55] M. Samà, C. Meloni, A. D'Ariano, F. Corman, A multi-criteria decision support system for real-time train rescheduling, Proceedings of the 6th International Conference on Railway Operations Modelling and Analysis (RailTokyo2015), (pp. 1–20), March 23–26, 2015, Chiba Institute of Technology, Tokyo, Japan.
- [C54] G.L. Giacco, D. Carillo, A. D'Ariano, D. Pacciarelli, A.G. Marín, Short-term rail rolling stock rostering and maintenance scheduling, Proceedings of the 17th meeting of the Euro Working Group on Transportation (EWGT 2014), (pp. 1–9), 2–4 July 2014, Seville, Spain.
- [C53] A. D'Ariano, M. Samà, P. D'Ariano, D. Pacciarelli, Evaluating the applicability of advanced techniques for practical real-time train scheduling, Proceedings of the 17th meeting of the Euro Working Group on Transportation (EWGT 2014), (pp. 1–9), 2–4 July 2014, Seville, Spain.
- [C52] M. Samà, A. D'Ariano, P. D'Ariano, D. Pacciarelli, Detailed scheduling models for optimal aircraft traffic control at busy airports, Proceedings of the 1st International Conference on Engineering and Applied Sciences Optimization (OPTI 2014), (pp. 1–14), 4–6 June 2014, Kos, Greece.
- [C51] R.M.P. Goverde, F. Corman, A. D'Ariano, Investigation on the capacity consumption at Dutch railways for various signalling technologies and traffic conditions, Proceedings of the 93th Transportation Research Board Annual Meeting (TRB 2014), (pp. 1–15), Washington DC, USA.
- [C50] M. Samà, P. D'Ariano, A. D'Ariano, D. Pacciarelli, Comparing Centralized and Rolling Horizon Approaches for Optimal Aircraft Traffic Control in Terminal Areas, Proceedings of the 93th Transportation Research Board Annual Meeting (TRB 2014), (pp. 1–15), Washington DC, USA.
- [C49] F. Corman, F. Sabene, D. Pacciarelli, M. Samà, A. D'Ariano, Railway Traffic Control with minimization of passengers' discomfort, Proceedings of the 3rd International Conference on Models and Technologies for Intelligent Transportation Systems, MT-ITS 2013, (pp. 1–10), 2–4 December 2013, Dresden, Germany.
- [C48] M. Samà, P. D'Ariano, A. D'Ariano, D. Pacciarelli, Air Traffic Optimization Models for Aircraft Delay and Travel Time Minimization in Terminal Control Areas, Proceedings of the 3rd International Conference on Models and Technologies for Intelligent Transportation Systems, MT-ITS 2013, (pp. 1–10), 2–4 December 2013, Dresden, Germany.
- [C47] G. Zaninotto, A. D'Ariano, D. Pacciarelli, Marco Pranzo, Intelligent decision support for scheduling and rerouting trains on an Italian railway line, Proceedings of the 16th International IEEE Conference on Intelligent Transportation Systems 2013, IEEE ITSC 2013, (pp. 1–6), 6–9 October 2013, The Hague, The Netherlands.
- [C46] M. Samà, A. D'Ariano, D. Pacciarelli, Rolling Horizon Approach for Aircraft Scheduling in the Terminal Control Area of Busy Airports, Proceedings of the 20th International Symposium on Transportation and Traffic Theory (ISTTT), (pp. 1–20), 17–19 July, 2013, Noordwijk, The Netherlands.
- [C45] R.M.P. Goverde, F. Corman, A. D'Ariano, Railway line capacity consumption of different railway signalling systems under scheduled and disturbed conditions, Proceedings of the

5th International Seminar on Railway Operations Modelling and Analysis 2013, RailCopenhagen2013, (pp. 1–20), Technical University of Denmark, 13–15 May 2013, Copenhagen, Denmark.

[C44] M. Samà, A. D'Ariano, D. Pacciarelli, Optimal aircraft traffic flow management at a terminal control area during disturbances, Proceedings of the 15th meeting of the Euro Working Group on Transportation (EWGT), (pp. 1–10), 10–12 September, 2012, Paris, France.

[C43] F. Corman, A. D'Ariano, T. Dollevoet, D. Huisman, A bi-level optimization framework for delay management and train scheduling, Proceedings of the 10th International Conference on APplied mathematical programming and MODelling (APMOD 2012), (pp. 1–6), 28–30 March 2012, Paderborn, Germany.

[C42] R. Larsen, M. Pranzo, A. D'Ariano, F. Corman, D. Pacciarelli, Robustness of Optimal Train Schedules to Stochastic Disturbances of Process Times, Proceedings of the 10th International Conference on APplied mathematical programming and MODelling (APMOD 2012), (pp. 1–6), 28–30 March 2012, Paderborn, Germany.

[C41] A. D'Ariano, M. Pistelli, D. Pacciarelli, Effectiveness of optimal aircraft rerouting strategies for the management of disturbed traffic conditions, Proceedings of the 91st Transportation Research Board Annual Meeting 2012, TRB 2012, Paper #12–0428, (pp. 1–15), 22–26 January 2012, Washington DC, USA.

[C40] F. Corman and A. D'Ariano, Assessment of advanced dispatching measures for recovering disrupted railway traffic situations, Proceedings of the 91st Transportation Research Board Annual Meeting 2012, TRB 2012, Paper #12–0362, (pp. 1–15), 22–26 January 2012, Washington DC, USA.

[C39] G.L. Giacco, A. D'Ariano, D. Pacciarelli, Mixed-integer linear-programming formulations for a railway rolling stock circulation problem, Proceedings of the 12th International Conference on Advanced Systems for Public Transport, CASPT 2012, (pp. 1–20), 23–27 July 2012, Santiago, Chile.

[C38] P. Kecman, F. Corman, A. D'Ariano and R.M.P. Goverde, Rescheduling models for network-wide railway traffic management, Proceedings of the 12th International Conference on Advanced Systems for Public Transport, CASPT 2012, (pp. 1–20), 23–27 July 2012, Santiago, Chile.

[C37] M. Pistelli, A. D'Ariano, D. Pacciarelli, Optimization models and algorithms for air traffic control in the airspace of busy airports, Proceedings of the 51st Airline Group of the International Federation of Operational Research Societies Annual Symposium, AGIFORS 2011, vol. 1, p. 558–583, ISBN: 978-161839446-0.

[C36] F. Corman, A. D'Ariano, D. Pacciarelli and M. Pranzo, A bilevel rescheduling framework for optimal inter-area train coordination, Proceedings of the 11th Workshop on Algorithmic Approaches for Transportation Modelling, Optimization, and Systems, ATMOS 2011, (pp. 1–12), 8 September 2011, Saarbrücken, Germany.

[C35] F. Corman, A. D'Ariano, D. Pacciarelli and M. Pranzo, Optimal inter-area coordination of train rescheduling decisions, Proceedings of the 19th International Symposium on Transportation and Traffic Theory, ISTTT 2011, (pp. 1–24), 18–20 July 2011, Berkeley, California, U.S.A.

[C34] F. Corman, A. D'Ariano, I.A. Hansen, Evaluating disturbance robustness of railway dispatching measures, Proceedings of the 2nd International Conference on Models and Technologies for Intelligent Transportation Systems, MT-ITS 2011, (pp. 1–5), 22–24 June 2011, Leuven, Belgium.

[C33] G.L. Giacco, A. D'Ariano, D. Pacciarelli, Rolling stock rostering optimization under maintenance constraints, Proceedings of the 2nd International Conference on Models and Technologies for Intelligent Transportation Systems, MT-ITS 2011, (pp. 1–5), 22–24 June 2011, Leuven, Belgium.



- [C32] A. D'Ariano, M. Pistelli, D. Pacciarelli, Aircraft retiming and rerouting in vicinity of airports, Proceedings of the 2nd International Conference on Models and Technologies for Intelligent Transportation Systems, MT-ITS 2011, (pp. 1–5), 22-24 June 2011, Leuven, Belgium.
- [C31] F. Corman, A. D'Ariano, I.A. Hansen, Intelligent Network Traffic Management in Emergency Situations, Proceedings of the 9th World Congress on Railway Research (pp. 1–8), WCRR 2011, 22-26 May 2011, Lille, France.
- [C30] F. Corman, A. D'Ariano, I.A. Hansen, D. Pacciarelli and M. Pranzo, Dispatching trains during seriously disrupted traffic situations, Proceedings of the 8th IEEE International Conference on Networking, Sensing and Control, IEEE ICNSC 2011, (pp. 1–6), 11-13 April 2011, Delft, The Netherlands.
- [C29] F. Corman, A. D'Ariano, I.A. Hansen and D. Pacciarelli, Optimal multi-class rescheduling of railway traffic, Proceedings of the 4th International Seminar on Railway Operations Modelling and Analysis 2011, RailRome2011, (pp. 1–20), Università degli Studi di Roma “La Sapienza”, 16-18 February 2011, Roma, Italia.
- [C28] D. Pacciarelli, A. D'Ariano and M. Scotto, Optimal location of RFID antennas in a courier express warehouse, Proceedings of the 2nd International Conference on Industrial Engineering and Operations Management 2011, IEOM 2011, (pp. 1–6), 22-24 January 2011, Kuala Lumpur, Malaysia.
- [C27] F. Corman, A. D'Ariano, D. Pacciarelli and M. Pranzo, Bi-objective conflict detection and resolution: Minimizing train delays and maximizing passenger connections, In: L.H. Immers (Ed.), Proceedings of the 11th TRAIL Congress 2010 (pp. 1–5), DUP Science, 23-24 November 2010, Rotterdam, The Netherlands.
- [C26] A. D'Ariano, P. D'Urgolo, D. Pacciarelli and M. Pranzo, Optimal sequencing of aircrafts take-off and landing at a busy airport, Proceedings of the 13th International IEEE Conference on Intelligent Transportation Systems 2010, IEEE ITSC 2010, (pp. 1–6), 19-22 September 2010, Madeira Island, Portugal.
- [C25] F. Corman, A. D'Ariano and I.A. Hansen, Disruption handling in large railway networks, Proceedings of the 12th International Conference on Computer System Design and Operation in the Railway and other Transit Systems, In: B. Ning, C.A. Brebbia, N. Tomii (Eds.), Computers in Railways XII, (pp. 1–12), 31 Agosto - 2 September 2010, Beijing, China.
- [C24] F. Corman, A. D'Ariano, G. Longo and G. Medeossi, Robustness and delay reduction of advanced train dispatching solutions under disturbances, Proceedings of the 12th World Conference on Transport Research, WCTR 2010, (pp. 1–12), 11-15 July 2010, Lisbon, Portugal.
- [C23] F. Corman, A. D'Ariano, D. Pacciarelli and M. Pranzo, Bi-objective conflict detection and resolution in railway traffic management, Proceedings of the 7th Triennial Symposium on Transportation Analysis, TRISTAN VII, (pp. 1–4), 20-25 June 2010, Tromsø, Norway.
- [C22] F. Corman, A. D'Ariano, D. Pacciarelli and M. Pranzo, Centralized versus distributed approaches to railway traffic control, Proceedings of the 11th International Conference on Advanced Systems for Public Transport, CASPT 2009, (pp. 1–31), 20-22 July 2009, Hong Kong.
- [C21] F. Corman, A. D'Ariano, D. Pacciarelli and M. Pranzo, Optimization and coordination in real-time railway traffic management, Proceedings of the 1st International Conference on Models and Technologies for Intelligent Transportation Systems, MT-ITS 2009, (pp. 1–4), 22-23 June 2009, Rome, Italy.
- [C20] D. Pacciarelli and A. D'Ariano, Assessing the value of RFID in pharmaceutical production scheduling, Proceedings of the 13th IFAC Symposium on Information Control Problems in Manufacturing (pp. 1–6), INCOM 2009, 3-5 June 2009, Moscow, Russia.

- [C19] F. Corman, A. D'Ariano, M. Pranzo and I.A. Hansen, Reordering and rerouting trains in complicated and densely occupied station areas, Proceedings of the 3rd International Seminar on Railway Operations Modelling and Analysis 2009 (pp. 1–20), RailZurich2009, ETH Zurich, 11-13 February 2009, Zurich, Switzerland.
- [C18] A. D'Ariano, F. Corman and I.A. Hansen, Evaluating the performance of an advanced train dispatching support system, Proceedings of the 1st International IEEE Conference on Infrastructure Systems: Building Networks for a Brighter Future (pp. 1–6), 10-12 November 2008, Rotterdam, The Netherlands.
- [C17] F. Corman and A. D'Ariano, Existing and future approaches on railway traffic control from an agent-based perspective, In: H.J. van Zuylen (Ed.), Proceedings of the 10th TRAIL Congress 2008 (pp. 1–15), DUP Science, 14-15 October 2008, Rotterdam, The Netherlands.
- [C16] S. Wegele, F. Corman and A. D'Ariano, Comparing the effectiveness of two real-time train rescheduling systems in case of perturbed traffic conditions, In: J. Allan, E. Arias, C.A. Brebbia, C.J. Goodman, A.F. Rumsey, G. Sciutto and N. Tomii (Eds.), Proceedings of the 11th International Conference on Computer System Design and Operation in the Railway and Other Transit Systems (pp. 535–544), Computers in Railways XI, 15-17 September 2008, Toledo, Spain.
- [C15] F. Corman, A. D'Ariano, D. Pacciarelli and M. Pranzo, Evaluation of green wave policy in real-time railway traffic management, Proceedings of the 10th International Conference on Applications of Advanced Technologies in Transportation (pp. 1–15), AATT 2008, 27-31 May 2008, Athens, Greece.
- [C14] A. D'Ariano, F. Corman and I.A. Hansen, Railway traffic optimization by advanced scheduling and rerouting algorithms, Proceedings of the 8th World Congress on Railway Research (pp. 1–9), WCRR 2008, 18-22 May 2008, Seoul, Korea.
- [C13] A. D'Ariano, D. Pacciarelli, M. Pranzo and R. Hemelrijk, Testing the performance of railway dynamic traffic management, Proceedings of the 11th World Conference on Transport Research (pp. 1–12), WCTR 2007, 24-28 June 2007, Berkeley, USA.
- [C12] A. D'Ariano, D. Pacciarelli and M. Pranzo, Effects of flexible timetables in real-time scheduling of rail operations, Preprints of the 6th Triennial Symposium on Transportation Analysis (pp. 1–7), TRISTAN 2007, 10-15 June 2007, Phuket Island, Thailand.
- [C11] A. D'Ariano and M. Pranzo, An advanced real-time train dispatching system for minimizing the propagation of delays in a dispatching area under severe disturbances, Proceedings of the 2nd International Seminar on Railway Operations Modelling and Analysis 2007 (pp. 1–20), RailHannover2007, University of Hannover, 28-30 March 2007, Hannover, Germany.
- [C10] A. D'Ariano, F. Corman, D. Pacciarelli and M. Pranzo, Real-time train conflict detection and resolution: Global sequencing and local rerouting, In: H.J. van Zuylen (Ed.), Proceedings of the 9th TRAIL Congress and Knowledge Market 2006, TRAIL in Motion, Selected Papers, P2006, (pp. 77–92), DUP Science, 21 Novembre 2006, Rotterdam, The Netherlands.
- [C9] A. D'Ariano, D. Pacciarelli and M. Pranzo, Conflict resolution strategies in real-time railway traffic management, Proceedings of the 11th Jubilee meeting of the EURO working group on Transportation (pp. 677–681), EWGT 2006, 27–29 September 2006, Bari, Italy.
- [C8] A. D'Ariano, I.A. Hansen, R. Hemelrijk, Railway dynamic traffic management: Application of a train rescheduling system reducing delays, In: H.J. van Zuylen, F. Middelham (Eds.), Proceedings of the 11th IFAC Symposium on Control in Transportation Systems (pp. 1–6), 29–31 August 2006, Delft, The Netherlands.
- [C7] A. D'Ariano and T. Albrecht, Running time re-optimization during real-time timetable perturbations, In: J. Allan, C.A. Brebbia, A.F. Rumsey, G. Sciutto, S. Sone and C.J. Goodman (Eds.), Proceedings of the 10th International Conference on Computer System

Design and Operation in the Railway and Other Transit Systems (pp. 531–540), Computers in Railways X, 10-12 July 2006, Prague, Czech Republic.

[C6] A. D'Ariano and R. Hemelrijk, Designing a multi-agent system for cooperative train dispatching, In: A. Dolgui, G. Morel and C. Pereira (Eds.), Proceedings of the 12th IFAC Symposium on Information Control Problems in Manufacturing, Operational Research Volume (pp. 369–374), 17-19 May 2006, Saint Etienne, France.

[C5] A. D'Ariano, D. Pacciarelli and M. Pranzo, Flexible timetables for real-time train rescheduling, In: W.H.K. Lam and J. Yan (Eds.), Proceedings of the 10th International Conference of Hong Kong Society for Transportation Studies (pp. 540–549), HKSTS 2005, Hong Kong Polytechnic University, 10 December 2005, Hong Kong.

[C4] M. Pranzo, A. D'Ariano and D. Pacciarelli, The effectiveness of static implications in real-time railway traffic management, In: A. Jaskiewicz, M. Kaczmarek, J. Zak and M. Kubiak (Eds.), Advanced OR and AI Methods in Transportation: Proceedings of the 10th Jubilee meeting of the EURO working group on Transportation (pp. 298–303), EWGT 2005, Publishing House of Poznan University of Technology, 13-16 September 2005, Poland.

[C3] A. D'Ariano and M. Pranzo, Conflict resolution and train speed co-ordination for solving timetable perturbations, In: I.A. Hansen, F.M. Dekking, R.M.P. Goverde, B. Heidegott and L.E. Meester (Eds.), Proceedings of the 1st International Seminar on Railway Operations Modelling and Analysis (pp. 1–21), RailDelft2005, Delft University of Technology, 8-10 June 2005, Delft, The Netherlands. Presentazione disponibile sul sito [www.jror.nl](http://www.jror.nl).

[C2] R.M.P. Goverde and A. D'Ariano, Railway traffic monitoring and real-time rescheduling, Proceedings of the Bijdragen Verkeerskundige Werkdagen 2005 (pp. 1–8), CROW 2005, 1-2 June 2005, Hilversum, The Netherlands.

[C1] A. D'Ariano and M. Pranzo, A real-time train dispatching system based on block signalling theory, In: P.H.L. Bovy (Ed.), Proceedings of the 8th TRAIL Congress 2004, A world of transport, infrastructure and logistics, Selected Papers, P2004/1, (pp. 129–152), DUP Science, 23 November 2004, Rotterdam, The Netherlands.

#### 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.  
<https://ingegneria.el.uniroma3.it/>
  - ◇ Bachelor Degree in Computer Science Engineering:  
Professor for the course “Operations Research” [MAT-09] since a.y. 2010/2011.  
<https://ingegneria.el.uniroma3.it/>
  - ◇ Master Degree in Automation and Management Engineering:  
Professor for the course “Optimization of Public Services” [MAT-09] since a.y. 2012/2013.  
<https://ingegneria.el.uniroma3.it/>
  - ◇ Master Degree in Automation and Management Engineering:  
Professor for the course “Logistics Optimization” [MAT-09] since a.y. 2010/2011.  
<https://ingegneria.el.uniroma3.it/>
  - ◇ 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 = 7478; h-index = 45**

**Scopus: total number of citations = 4841; h-index = 40**

**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:

**20 May 2024**