

Curriculum Vitae of Francesco Corman, Ph.D.

PERSONAL INFORMATION

Name **PROF. DR. CORMAN FRANCESCO, PH.D**
Address Institute for Transport planning and Systems
Swiss Federal Institute of Technology ETH Zurich
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Stefano-Frascini-Platz 5
8093 Zürich
Switzerland
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Nationality **Italian, Belgian**
Gender **Male**

WORK EXPERIENCE

- Aug 2017 – current
• Name of employer **Professor of Transport Systems (AP-TT)**
Swiss Federal institute of Technology, ETH Zurich
• Main activities and research interests Analytics, optimization and control in transport systems, focusing on operations, public transport, logistics systems
- Sept 2016 – July 2017
• Name of employer **Senior Data Scientist**
IBM The Netherlands, Global Business Services
• Main activities and research interests Advanced analytics and Optimization approaches for production, logistics, customer service and maintenance problems, proving quickly added value to customers
- January 2013– Sept 2016
• Name of employer **Assistant Professor**
Transport Engineering & Logistics, Delft University of Technology, The Netherlands
• Main activities and research interests Acquired and managed 8 research projects, 100+ kEuro as principal investigator, 10+MEuro as co-applicant; International cooperation, 6 research grants; Dissemination of research results at 20+ conferences and workshops for academia and practitioners; 50+ scientific publications.
Managing 4 Researchers and PhDs, Coaching 20+applied projects per year, teaching four courses in two engineering master programs.
Research on Railways (planning, technologies, reliability, control, delays, maintenance, equity); Multimodal freight logistics, Mathematical Optimization.
- January 2013-Sept 2016
• Name of employer **Staff Member**
• Main activities The Dutch Research School in Transport, Infrastructure and Logistics – TRAIL
Research Program Management and Coordination; Railway transportation
- January 2013– Sept 2016
• Name of employer **Guest Professor**
• Main activities Center for industrial management, KU Leuven, Belgium
International cooperation, 1 research grant; Supervising a PhD, Teaching 1 course
- February 2011 – Dec 2012
• Name of employer **Post-Doctoral Researcher**
Center for industrial management, KU Leuven, Belgium

- Main activities and research interests
 - Acquired, contributed and managed 6 projects of 300+ kEuro
 - Designed master programs, 3 courses in railway, transit, supply chain:
 - Developed international collaborations; 10+ conferences, 20+ Scientific papers
 - Research on design, operations, control of railways & multimodal transport.

 - January 2007 – Dec 2010
 - Name of employer
 - Main activities and interests
 - Ph.D. Researcher**
 - Transport & Planning Dept, Delft University of Technology, The Netherlands
 - Optimization of railway traffic control, signaling technologies, capacity analysis, simulation, scheduling and planning. 20+ scientific papers

 - October 2006 – Dec 2006
 - Name of employer
 - Main activities
 - Researcher, Software Developer**
 - ROMA TRE University, Rome, Italy
 - Optimization of railway traffic control
- EDUCATION**
- January 2007 – Dec 2010
 - Doctoral Degree (Ph.D.).** Delft University of Technology
 - Dissertation Title: “Real-time Railway Traffic Management: Dispatching in complex, large and busy railway networks”.

 - October 2004 – Decr 2006
 - Notes
 - Master’s degree** in Management & Automation Engineering, Roma TRE University **cum Laude**. Dissertation Title: “Routing and scheduling trains in real-time”
 - Winner of 2006 AIRO award for best thesis in Operations Research field
 - Winner of 2006 Galluzzi Prize for best thesis in Engineering
 - Winner of 2006/2007 Accenture- best thesis prize in Management Engineering
- Principal subjects covered
 - Operations Research, Project Management, Control, Telecommunications

 - October 2001 – Sept 2004
 - Principal subjects covered
 - Bachelor Degree** in Computer Science Engineering, Roma TRE University
 - Operations Research, Computer science, Control & Telecommunication System
- PROJECT COORDINATION, CONTRIBUTION AND MANAGEMENT (SELECTION)**
- On board Monitoring for Integrated Systems Understanding & Management Improvement in Railways.** 380 kCHF, 2018-2022, SBB ETH Mobility initiative, funding ETH foundation.
 - New generation of railway traffic management systems.** 280 kCHF, 2018-2022, SBB ETH Mobility initiative, funding ETH foundation.
 - Train rescheduling models for recovery phase of disruption management.** Funding: Chinese academy of science. recipient: Yihui Wang, 2018-2019
 - Energy-Efficient Autonomous Driving Trains.** Funding: NWO Rubicon scheme, Recipient Pengling Wang. 200 KEur, **2018-2020**
 - Trans ITS:** Public Transport Passenger Flows in the Era of ITS. Management Committee, Working Group. EU COST (TU1004). 530 kEuro. 2013-2015
 - ITT - Inter Terminal Transport:** Advanced transport solutions for container transport between multiple terminals. Funding: Port of Rotterdam 2013
 - ERTMS Capacity Study:** Capacity assessment of advanced signaling system on the Dutch Railway Network. Funding: Dutch Parliament, 120 kEuro, 2012
 - ONTIME:** Optimal Networks for Train Integration Management across Europe -. 19 practitioners & academic partners. Funding: EU-FP7 7.8 MEuro. 2013-2015
 - Passenger flows:** Dynamic train traffic control models with passenger choices. Funding: State Key Laboratory of Rail Traffic Control and Safety, Beijing.2013
 - ACM - Railway Market determination:** Competition and dominant positions in

railway passenger and freight market. Dutch competition authority. 60 kEuro.

Integrated train & traffic control: Models for energy efficient railway traffic control. State Key Laboratory of Rail Traffic Control and Safety, Beijing. 2015

National Data Warehouse: Assessing quality requirements for data collection on the road network of the Netherlands. Dutch Ministry of Transport, 2011

Adifo NV: Process optimization in the animal feed and food industry. Funding: IWT/KMO, 2011-2012

Punch Telematix / Trimble: Integrated solution for front end and back end truck navigation. Funding: IWT/O&O, 2011-2012

MobiRoute- Mobility and Routing: Multimodal Robust Routing Planner: KULeuven ICRI, U Gent; Be-Mobile, DUO. Funding: IWT/IBBT, 2011-2012

TRACS: Tracing Condition Status: modelling failures in railway transport infrastructures. Funding: TUDelft, Cohesion program. 50kEuro, 2016

iCAVE: integrated cooperative automated vehicle. Funding: STW, Perspectief scheme, 4MEuro, 2016

Complexity in Sychromodal Networks. Preparatory grant, NWO: CWI, TNO, port of Amsterdam

COMET-PS, Complexity in Sychromodal transport networks. NWO/TNO, CWI, TNO, Port of Amsterdam

ACADEMIC ACTIVITY (SELECTION)

General organizer and program chair for the 6th International Conference on Computational Logistics – ICCL 2015, Delft.

Program committee member for conferences:

ATMOS11: Algorithms for Transportation Modelling Optimization, 2011;

3rd MT-ITS and 4th MT-ITS: Modeling and Technology for ITS, 2013, 2015;

ICSNC: IEEE Conference on Networking, Sensing and Control, 2014;

TRISTAN 2016; TSL Workshop 2017, EWGT 2018, RTDM 2018, ICCL 2018;

RailNorrköping 2019

Session Organizer at EURO 2013, July 2013.

General coordinator and Chair for the Informs- Railway Application Section (RAS) Problem Solving Competition, 2015 and 2016.

Committee member, Reviewer and Evaluator, Transportation Science and Logistics (TSL) Best PhD Thesis award, Informs, 2015

Invited **plenary speaker:**

Strategic interactions in disruptions in public transport systems, UsLAR Seminar on integrated optimization 2018.

Integrated operations and maintenance scheduling, Smart Maintenance Days 2018

Strategic interactions in public transport networks, UNSW Sydney 2018.

Energy efficient train operations, University of South Australia, 2018.

Routing vehicles and passengers in public transport networks. Swiss OR Days 2018.

Routing & scheduling in transit networks. Transport summit, DTU Copenhagen 2018.

Strategic interactions in public transport networks, DTU ManCopenhagen 2018.

Control in public transport networks. UNI Luxembourg February 2018

Routing in transit networks. MIT Transit lab January 2018.

Strategic Interactions in Microscopic Delay Management - 4th International Symposium on railway research, Beijing Jiaotong October 2017

Using Wheel impact Load Detectors for condition-based maintenance of railway wheels, 4th Int. Symposium on Railway Research -Beijing Jiaotong Oct 2017

Optimizing trains or passengers? Dagstuhl seminar Algorithmic Methods for Optimization in Public Transport, April 2016
 Railway traffic models, Dr. Xin, Zhengzhou University, March 2016
 Railway traffic models, Prof Meng Beijing Jiaotong University, March 2016
 Railway traffic models, Prof Anderson, Linköping University, February 2016
 Logistics control, Prof Gronalt, BOKU Universität, Vienna, 2015
 Railway traffic control, Prof Tomii, RTRI Japan, Aug 2015
 Passenger assignment in railway networks; COST, Paris May 2015
 Distributed control strategies for transport networks, iCore, Paris. May 2015
 Control in multi-stakeholders problems, rear-admiral Visser, Rotterdam 2014
 Equity in railway traffic control, Prof Vansteenwegen, KU Leuven Dec 2014

**SUPERVISION ,
LEADERSHIP, MANAGEMENT**

Guest Editor:

Journal of Rail Transport Planning and Management (Practical value of Railway Operations Research)
 Journal of Advanced Transportation (Simulation and Optimization for Railway Operations Management)
 Transportation Res E (Computational Logistics at Work),
 Transportation Res C (Integrated railway optimization model and algorithms)
 Public Transport: Planning and Operations (Modeling and technologies for ITS)
 Lecture Notes in Computer Science (proceedings of ICCL 2015 Conference)

Associate editor, journal of Urban Rail Transit (Springer)

Editorial Adv Board, Journal of Rail Transport Planning and Management (Elsevier)

Editorial Adv Board, Transportation Research, Part E (Elsevier)

Editorial Adv Board, International Journal of Railway Research (IUST)

National Representative for the Netherlands (MC), EU COST TUD1004 TransITS: Modelling Public Transport Passenger Flows in the Era of ITS.

Committee Member of the AR030 Railroad Operating Technologies, Transportation Research Board 2015-2021

Friend of Transportation Research Board Committees:

AR010 Intercity Passenger Rail

AT045 Intermodal Freight Transport

AT050 Intermodal Freight Terminal Design and Operation

Informa Member

Staff member and alumnus of The Netherlands Research School in Transport Infrastructure and Logistics –TRAIL

Member of the Transport Institute at Delft University of Technology, editor of the transport blog for the faculty of mechanical engineering

Initiator, organizer and manager of a research exchange program between TUDelft Transport Institute and **Beijing Jiaotong University**: supervision of two researchers from each side; obtained grants for two PhD students.

Founding Member and coordinator of the Chapter of The Italian Operation Research Society: Optimization in Public Transport and Shared Mobility (AIRO-OPTSM).

External Expert for InCube ETH Entrepreneur on mobility, 1st place, ETH–MIT challenge

**AWARDS, NOMINATIONS,
POSITIONS IN APPEAL**

(supervision) Benefits of a dynamic impact zone when dealing with train conflict, S. Van Thielen; **Winner of 2nd place for the best paper 2017, in the student paper competition organized by the Railway Application Section, INFORMS**

Anna Valicek Award, Winner, for the paper **Metaheuristics for efficient aircraft scheduling and re-routing at busy terminal control areas**, coauthored by Samà, D'Ariano, Pacciarelli, AGIFORS oct 2016

Best Paper award for **Stochastic prediction of train delays with dynamic Bayesian networks**, coauthored by Kecman, Peterson, Joborn, CASPT 2015

Nominated (top 5) for best paper award for **Train Delay and Passenger Travel Time Minimization in Real-Time Railway Traffic Management**, CASPT 2015

Grant for research, international mobility and international collaboration, State Key Laboratory of Railway Control and Safety, Beijing, China, 2015; and 2013

(supervision) Optimization and equity in railway transport systems, X. Luan, Winner of **2nd place for the best paper 2014, in the student paper competition organized by the Railway Application Section, INFORMS**

Grant for research, international mobility, funding **EU COST STSM**, University of Luxembourg, optimization in sensor location and ITS, 2014

The article **A tabu search algorithm for rerouting trains during rail operations**. Transp Res B is within the Top 3 articles for citations in that journal, in 2009-2013, top article in the railway domain

The article **Bi-objective conflict detection and resolution in railway traffic management**. Transp Res C is within the Top 7 articles for citations in Elsevier Transportation journals, in 2012-2013, top article in the railway domain

Interviewed for a NWO-STW VENI Grant proposal, the most prestigious personal funding scheme for young researchers in the Netherland, 2013

Nominated (top 6) for best paper award for **"Railway line capacity consumption of different railway signalling systems under scheduled and disturbed conditions"** 5th ISROR – RailCopenhagen, 2013

Nominated (top 5) for the best paper award for **"Stochastic shortest path with correlation effects"** at the Vervoer Logistieke Werkdagen, Venlo, 2012

Ranked winner, scholarship "Rita Levi Montalcini" Italian Research Council, 2017

Eligible candidate for an assistant professor in Intelligent Networks, Center for Industrial Management, KULeuven, 2012

Recipient of an assistant professorship (tenure track) in Transport and Logistics, Maritime and Transport Technology, TUDelft, 2012

Grant for Post-Doctoral research 3 years, awarded by the FWO –Research Foundation Flanders, 2012

Nominated (top 5) for the EDDA Award for the best PhD Thesis in operations research, the *Association of the European Operational Research Societies 2012*

Nominated (top5) for the best paper award for **"Dispatching trains during seriously disrupted traffic situations"**, 8th IEEE ICNSC Conference, 2011

Best Paper award for the work **"A tabu search algorithm for rerouting trains during rail operations"**, by the Railway Application Section, INFORMS, 2007

Best master's thesis in operations research, AIRO, Italian Association for Operations Research, 2007

Best master's thesis prize in management engineering, Accenture, 2006

Galluzzi Prize for best thesis in Engineering, University "Roma TRE", 2006

Teaching assistant fellowship, by University of Rome "Roma TRE, 2005

PHD STUDENTS

Daily Supervisor and Co-promotor (ETH Zurich) on:

Railway Traffic Management Systems, funding ETH: **LEUTWILER**

Strategic interactions in railway transport systems, funding ETH: **BÜCHEL**

Analytics in multimodal networks, funding ETH: **MARRA**
Multimodal transport disruption management, funding ETH+CSC: **LENG**

Daily Supervisor and Co-promotor (TUDelft) on:
Railway wheel defect and maintenance, funding Iranian Ministry of Science: **ALEMI**
Interfacing railways and terminals, funding Chinese Ministry of Science, **HU**
Non linear optimization models in railway systems, funding Chinese CSC, **LUAN**

Co-promotor (KULeuven) on
Railway Conflict Resolution, funding Infrabel: **AMEYE** and **VAN THIELEN**

Member of the Doctoral Examination Committee for projects on
Short turning in railway disruption management, **GHAEMI** (TUDelft)
Passenger demand in railway timetable rescheduling, **BINDER** (EPFL)
Robust Railway Timetabling, **DEWILDE** (KULeuven);
Decentralized traffic control, **RINALDI** (KULeuven)
Controllability of transport networks, **MAZUR** (Uni Luxembourg)
Algorithms for job shop rerouting, **SAMÀ** (Uni Roma Tre)

Management and supervision of project for **exchange PhD Students**:
Reliability in railway traffic, **KHARKEABADI** (Iranian Ministry of Railways), 2013
Optimization models for railway control, **SAMÀ** (Roma TRE), 2014
Reliability & Disruptions in High Speed railways, **XU** (Southwest Jiaotong), 2015
Multi scale train routing and timetabling, **LIAO** (Beijing Jiaotong), 2018
Capacity Estimation for High Speed Railways, **LI** (Tongji Shanghai), 2018
Integrated Rolling stock management, **HONG** (Beijing Jiaotong), 2018

MASTER STUDENTS SUPERVISION

ETH Zurich

Passenger interaction towards railway delays, K. Gysin, July 2018
Mikrosimulation von Shared Space auf Hauptverkehrsachsen, T. Schmid, Feb 2018
Willi studer preis for best student in RE&IS; nomination for VSS preis.
The role of alternative routes in pedestrian transport, A. Weber, Feb 2018
Passenger flows at train stations, A. Lunardi, March 2018

TUDelft

Synchromodal network design and operations, A. Pouliasi, July 2016
Passenger-oriented transit control, A. Gavriilidou, Sept 2016
Container Storage Optimization at ECT, M. Vester, June 2016
Human factors in container transportation, port of Rotterdam, R de Jong, Sept 2016
Maintenance for offshore structures, TOTAL, R. Haans, March 2016
Dynamic multimodal freight assignment models, FloraHolland, Z. Chen, Dec 2015
Operations management, GE Healthcare V Knops, August 2015
Equity in Air traffic operations, M. Tripathy, August 2015
Public Transport with automated Vehicles, K Winter, August 2015 (cum laude)
Rail freight terminal design, EMO terminals, L. Van De Water, July 2015
Maintenance of tram systems, HTM The Hague, S. Kraijema, June 2015
Logistic distribution networks design, Heineken R. van Blijenburgh, March 2015
Capacity assessment for light rail, HTM The Hague, T. Jongerius, December 2014
Dynamic Railway Traffic management, NS, N. de Vries, May 2014
Inter Terminal Transport, port of Rotterdam, H. Schröer, February 2014
Inter Terminal Transport, port of Rotterdam, F. Nieuwkoop, October 2013

KULeuven

Flexible Railway Timetables, A. Clijsters, Sept. 2013
 Railway Simulation, S. Gijsenbergh; July 2013, **TML Thesis Prize 2013**
 Ridesharing models, P. Boyen, J. Broekhoven; July 2012

Roma Tre University (exchange)

Models for energy efficient railway traffic scheduling, A. Montalto April-July 2018
 Degradation trending and scheduling maintenance, G. Centulio, June-Sept 2016
 Passenger flow optimization in railways; A. Marra, June-August 2015
 Job shop rerouting heuristics, A. Toli, Sept-Dec 2014
 Job shop models for train rerouting, G. Zaninotto Oct-Dec 2013 **Operation Research Society (AIRO) Best master thesis award 2013**
 Passenger flows models in railways, F. Sabene, May-August 2013

Beijing Jiaotong University (Exchange)

High speed railway delays, Jingwen Guo, March 2015
 Optimization and equity in railway transport systems, X. Luan, March 2014; Winner of **2nd place for the best paper 2014, in the student paper competition organized by the Railway Application Section, INFORMS**

TEACHING ACTIVITY

- 2018- onwards **Deputy Director of studies, Master Course Spatial Development and Infrastructure Systems (RE&IS);** ETH Zurich.
- 2017- onwards **Course coordinator, lecturer,** Public Transport Design and Operations, Public Transport and Railways; Transport Systems; ETH Zurich.
- 2017 **University Teaching Qualification,** TUDelft, 2015.
- 2011-2013 **Guest lecturer, Beijing Jiaotong University** Railway Traffic management
- 2014-2016 **Member of the Permanent Education Committee (POC)** for Master in Traffic, Logistics and Intelligent Transportation System, KULeuven
- 2014-2016 **Coordinator** for the faculty of mechanical engineering: Interdisciplinary project, Transport, Infrastructure and Logistics Master, TUDelft
- 2013-2016 **Lecturer, Course coordinator:** Introduction to Transport Engineering and Logistics; Quantitative Methods for logistics (TUDelft)
- 2012- 2016 **Lecturer,** Teaching Assistant: Masterclass Transport Engineering & Logistics, Control of Intelligent Transport Infrastructure, Introduction to TIL; Bachelor End Project. Mechanical Engineering & Transport, Infrastructure and Logistics Master (TUDelft)
- 2014 **Guest Lecturer,** Intelligent Transportation System; Traffic Planning and Management; Transport and Mobility, University of Luxembourg
- 2011/12 - 2015/16 **Course coordinator, Guest Lecturer,** Teaching Assistant: Public Transport Model and Operations; Integrated Practicum on Logistic Organization of Public Transport; Supply Chain Engineering. Master in Traffic, Logistics and Intelligent Transportation System , KULeuven
- 2010 Teaching Assistant Verkeerskunde Basis, Master in Civil Engineering, KULeuven
- 2008-2010 Teaching assistant: Design and Control of Public Transport Systems; Railway Traffic Management, Master in Transport and Planning, Master in Transportation Infrastructure and Logistics, TUDelft

- 2005 Teaching assistant, Lab teacher: Automatic Control 1, Automation Network and Systems (Bachelor degree in Informatics Engineering), Roma Tre University

PERSONAL SKILLS

MOTHER TONGUE

Italian, Near-Native in French

English

Reading	Writing	Verbal
Excellent	Excellent	Excellent

Dutch

Reading	Writing	Verbal
Proficient	Fair	Good

Spanish

Reading	Writing	Verbal
Good	Fair	Fair

German

Reading	Writing	Verbal
Fair	Fair	Fair

SOCIAL AND ORGANIZATIONAL SKILLS

Good relation and communication skills acquired in several months of team working
 Capability to manage and organize activities, people, resources, acquired by periods of responsibility in work management and organization;
 active participation in PhD Society Leuven; YoungDelft
 Mentor and coach within PhD Startup and TUDelft Graduate school

TECHNICAL SKILLS AND COMPETENCES

Excellent knowledge of Java, C++/C, C#, simulations, parallel computing, Matlab, PHP, Python, Linux, SPSS Modeler, R, MS Windows, Office suite

ARTISTIC SKILLS AND COMPETENCES

Sport: Trekking/Hiking, Cycling
 Hobbies: Photography, Graphic arts

PUBLICATION LIST

PHD THESIS

F. Corman (2010). **Real-time Railway Traffic Management: Dispatching in complex, large and busy railway networks**. PhD Thesis, TRAIL Thesis Series 2010/14. Defended on 10/12/2010. Promoter: Prof.Dr.-Ing I.A. Hansen, Transport and Planning Department, Delft University of Technology.

BIBLIOMETRICS

ISI web of science: h-index 13; 588 citations
Scopus: h-index: 20; 1077 citations
Google scholar: h-index 24; 1885 citations
(11.06.2018)
100+ scientific articles in 10 year research.
Currently about 360 citations/year in Google scholar

The journal article A tabu search algorithm for rerouting trains during rail operation is one of the hottest journal articles in Transportation Research Part B (top 25 for amount of searches) and one of the top 3 articles in Transportation Research Part B for amount of citations, 2009-2013, First one for domain of railways.

PUBLICATIONS IN JOURNALS OR BOOKS WITH IMPACT FACTOR

1. Corman, F. Kecman P. (2018) Stochastic prediction of train delays in real-time using Bayesian networks. Transportation Research, Part C, 95, 599-615
Impact Factor : 4.334
2. Luan X, Wang, Y, De Schutter B, Meng L, Lodewijks G, Corman F (2018) Integration of Real-time Traffic Management and Train Control for Rail Networks. Part I: optimization problems and solution approaches Transportation Research, Part B, 115: 41-71.
Impact Factor 4.822
3. Luan X, Wang, Y, De Schutter B Meng L, Lodewijks G, Corman F (2018) Integration of Real-time Traffic Management and Train Control for Rail Networks. Part II: Extensions towards energy efficient train operations Transportation Research, Part B, 115: 72-94
Impact Factor 4.822
4. D'Ariano, A., Corman F., Fujiyama T., Meng L., Pellegrini P. (2018) Simulation and Optimization for Railway Operations Management, editorial, Journal of Advanced Transportation <https://doi.org/10.1155/2018/4896748>.
Impact Factor 1.012
5. A. Alemi, Corman, F. Lodewijks, G. (2018) Reconstruction of railway wheel defect signal from wheel-rail contact signals measured by multiple wayside sensors. Journal of Rail and Rapid Transit 231(8), 961-981. DOI: 10.1177/0954409716656218
Impact Factor:0.857
6. De Martinis V, Corman F (2018) Data-driven perspectives for energy efficient railway operations: current practices and future opportunities. Transportation Research, Part C, 95, 679-697
Impact Factor 4.334
7. Van Thielen S., Corman F., Vansteenwegen P. (2018) Integrating offline calculations in a dynamic approach for real-time railway management. Transportation Research, Part B. 111, 39–59 doi: 10.1016/j.trb.2018.03.003
Impact Factor: 4.822
8. Hu, Q, Corman F., Wiegmanns B, Lodewijks G (2018) A tabu search algorithm to solve the integrated planning container on an inter terminal network connected with a hinterland rail network. Transportation Research C 91, pp 15-36 <https://doi.org/10.1016/j.trc.2018.03.019>
Impact Factor: 4.334
9. De Martinis V, Toletti A, Corman F Weidmann U.A., Nash, A (2018) Feedforward tactical optimization for energy efficient operation of freight trains: the Swiss case. Transportation Research Record <http://journals.sagepub.com/doi/abs/10.1177/0361198118776508>
Impact Factor 0.522
10. Luan, X. De Schutter B, Corman F, Lodewijks G (2018) Integrating Dynamic Signalling Commands Under Fixed-Block Signalling Systems Into Train Dispatching Optimization Models. Transportation Research Record
Impact Factor 0.522

11. Samà, M. D'Ariano, A., Corman, F., Pacciarelli D (2018) Coordination of scheduling decisions in the management of airport airspace and taxiway operations *Transportation Research, Part A* doi.org/10.1016/j tra.2018.01.028 114.Part B: 398-411
Impact Factor 3.489
12. Corman F, Quaglietta E., Goverde, R.M.P. (2018). Automated real-time railway traffic control: An experimental analysis of reliability, resilience and robustness. *Transportation Planning and Technology* 41(4), pp. 421-447doi:10.1080/03081060.2018.1453916
Impact factor: 0.512
13. Meng, L., Corman, F., Zhou X., Tang, T., (2018) Editorial Integrated optimization models and algorithms in rail planning and control. *Transportation Research, Part C* 88, pp 87-90
Impact Factor 4.334
14. Centulio G, Meng L. D'Ariano A, Corman F (2018) Integrated stochastic optimization approaches for tactical scheduling of trains and railway infrastructure maintenance. *Computers & Industrial Engineering* https://doi.org/10.1016/j.cie.2017.12.010.
Impact Factor: 2.859
15. Negenborn, Corman (2017). Editorial: Computational logistics at work. *Transportation Research, Part E* 105 pp 149-151 10.1016/j.tre.2017.07.002
Impact factor: 3.791
16. Samà M., D'Ariano A., Corman F., Pacciarelli D., (2017). Metaheuristics for efficient aircraft scheduling and re-routing at busy terminal control areas. *Transportation Research Part C* 80 pp 485-511 10.1016/j.trc.2016.08.012.
Impact factor: 4.334
17. Xu, P. Corman, F., Peng, Q. Luan, X. (2017) A train rescheduling model integrating speed management for disruption management of high-speed traffic under a quasi-moving block system. *Transportation Research, Part B*. 104, pp 638-666 doi 10.1016/j.trb.2017.05.008
Impact Factor 4.822
18. Xu, P. Corman, F., Peng, Q. Luan, X. (2017) Timetable Rescheduling Approach and Transition Phases for High-Speed Railway Traffic During Disruptions. *Transportation Research Record* 2607 pp 82-92 10.3141/2607-11
Impact Factor 0.544
19. Kraijema S. Corman F. Godjevac M. Lodewijks G. (2017) Optimizing preventive maintenance policy: a data-driven application for a light rail braking system. *Proceedings of the Institution of Mechanical Engineers, Part O: Journal of Risk and Reliability*. 231 (5), pp 534-545 doi 10.1177/1748006X17712662
Impact Factor: 1.084
20. Shakibayi, M, Sheikholeslami, A., Corman, F., Shafahi, Y. (2017) An integrated rescheduling model for minimizing train delays in the case of line blockage. *Operations Research – An International Journal*. doi 10.1007/s12351-017-0316-7
Impact Factor: 0.600
21. Luan, X., Miao, J., Meng, L., Corman, F., Lodewijks, G. (2017) Integrated Optimization on Train Scheduling and Preventive Maintenance Time Slots Planning. *Transportation Research Part C* 80 pp 329-359 10.1016/j.trc.2017.04.010
Impact Factor: 4.334
22. X. Luan, L. Meng, F. Corman (2017) Non-discriminatory train dispatching in a rail transport market with multiple competing and collaborative train operating companies, *Transportation Research, Part C* 80 pp148-174 doi 10.1016/j.trc.2017.04.011
Impact Factor: 4.334
23. Shakibayi M., Sheikholeslami, A., Corman F. (2017) A simulation based optimization approach to train rescheduling problem. *Scientia Iranica*, doi: 10.24200/sci.2017.4186
Impact Factor: 1.025
24. Corman, F., D'Ariano A., Marra, A., Pacciarelli D., Samà, M. (2016) Integrating Train Scheduling and Delay Management in Real-time Railway Traffic. *Transportation Research Part E*, 105, pp 213-239 doi:10.1016/j.tre.2016.04.007
Impact factor: 3.791
25. Samà M., D'Ariano A., Corman, F. Pacciarelli.,D (2017) A variable neighbourhood search for fast train scheduling and routing during disturbed railway traffic situations. *Computers and Operation Research* 78 (C) pp 480-499, doi:10.1016/j.cor.2016.02.008
Impact Factor: 2.454. 3 Citations in ISI

26. A. Alemi, Corman, F. Lodewijks, G. (2015) Condition monitoring approaches to the detection of railway wheel defects. *Journal of Rail and Rapid Transit*, 231(8), pp. 961 – 981
Impact Factor:0.857
Editor's choice for September 2017
27. Xin, J., Negenborn, R.R., Corman, F., Lodewijks, G. (2015) Control of interacting machines in automated container terminals using a sequential planning approach for collision avoidance. *Transportation Research Part C* 60, 377–396
Impact factor: 4.334, 5 Citations in ISI
28. Corman F, Viti F, Negenborn R.R (2015) Equilibrium models in multi-modal container transport systems, *Journal of Flexible Services and Manufacturing* 29(1), pp 125-153. doi: 10.1007/s10696-015-9224-4
Impact Factor: 1.872
29. Corman F., Quaglietta, E. (2015). Closing the loop in railway traffic control: framework design and impacts on operations. *Transportation Research C*. 54, pp 15-39
doi: 10.1016/j.trc.2015.01.014
Impact factor: 4.334. 7 Citations in ISI
30. Corman F., Meng, L., (2015) A Review of Online Dynamic Models and Algorithms for Railway Traffic Control. *IEEE Transactions on ITS*, 16 (3) pp 1274 - 1284
doi: 10.1109/TITS.2014.2358392
Impact factor: 3.064 6 Citation in ISI
31. Viti F., Rinaldi M., Corman F., Tampère, C. (2014) Assessing partial observability in network sensor location problems. *Transportation Research, Part B* 70, pp 65-89
doi: 10.1016/j.trb.2014.08.002
Impact factor: 4.822. 19 Citations in ISI
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ABSTRACTS OF SELECTED PRESENTATIONS

1. Corman, F. Luan X, De Martinis V (2018) Model-based and data-driven approaches for railway traffic management and energy efficient operations. AIRO Optimization and Decision Sciences Conference Taormina, Italy
2. M. Zimmermann, V. Dertimanis, E. Chatzi, F. Corman (2018) Estimation track condition based on axle box accelerations of revenue trains. 4th International Conference on Railway Technology: Research, Development and Maintenance
3. Van Thielen, S, Corman F., Vansteenwegen P. (2018) Effects of introducing a control delay in real-time railway traffic management EURO 2018 Valencia.
4. Van Thielen, S. Corman, F. Vansteenwegen P (2017) Benefits of a dynamic impact zone when dealing with train conflict, INFORMS Annual Meeting
second place winner at RAS student paper competition 2017, Houston, USA
5. Toletti A, De Martinis V, Corman F, Weidmann U (2017), Boosting the Resource Conflict Graph approach to train rescheduling with column-and-row generation, AIRO / Optimization

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6. Corman F, (2016) Optimizing trains or passengers? Dagstuhl seminar Algorithmic Methods for Optimization in Public Transport, Dagstuhl, Germany
7. Van Thielen S., Corman F., Vansteenwegen P (2016), A new heuristic for real-time train rescheduling and local rerouting . EURO 2016 Poznan.
8. M. Samà, A. D'Ariano, D. Pacciarelli, F. Corman (2015) Real-time near-optimal train scheduling and routing in complex railway networks AIRO 2015. Pisa
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Project evaluator METRANS transportation Center University Southern California, Swiss National Science Foundation – SNSF, COST proposal evaluator EU-H2020, Czech Science Foundation, DFG German science foundation; ANR-Agence nationale de la recherche; NWO Dutch Science Foundation.

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