Call for Papers

RailNorrköping2019

Planning, Simulation and Optimisation Approaches
8th International Conference on Railway Operations Modelling and Analysis
Norrköping, Sweden, June 17th – 20th, 2019

www.railnorrkoping2019.org

AIMS OF IAROR

IAROR was founded in 2005 and has currently more than 220 members. IAROR combines the expertise of academic and professional railway research with the aim of enhancing the quality of service for railway passengers and customers, improving the effectiveness and efficiency of capacity management, timetabling, traffic management and ensuring the safety of railway operations. IAROR stimulates innovative theoretical approaches, high-tech concepts, new technological developments and dynamic decision support systems that contribute to a higher flexibility, performance and punctuality of trains operating on single or dedicated lines and in heterogeneous networks. IAROR contributes to the development of new international standards for railway capacity and traffic management by integration of the state-of-the-art from different scientific disciplines as engineering, mathematics, physics, economics and computer science. IAROR aims at becoming the Network of Excellence in the field of railway operations research and an acknowledged advisor to governments, railway infrastructure managers, train operating companies and the industrial suppliers with regard to the development and evaluation of research programs, innovation strategies, directives and norms for railway operations.

SCIENTIFIC ISSUES AND RAILWAY INDUSTRY PLATFORM

RailNorrköping2019 is the 8th International Conference on Railway Operations Modelling and Analysis (ICROMA). It will promote interdisciplinary discussions in the railway planning and operations research area by combining the expertise of academics and professionals. *RailNorrköping2019* will give researchers, consultants, and industrial practitioners the opportunity to meet, present their latest research, exchange know-how, and discuss current developments and applications.

RailNorrköping2019 solicits contributions dealing with any aspect of railway planning and operation. Typical, but not exclusive, topics of interest are:

- o   Land use, mobility and line planning.
- o   Transport economic modelling for railways.
- o   Capacity and robustness in saturated networks.
- o   Optimal network timetabling and maintenance schedules.

- o   Crew and vehicle scheduling.
- o   Passenger flows in stations, on platform, and dwell time distribution.
- o   Impact of signalling and safety systems on capacity and punctuality.
- o   Validation of stochastic analytical and simulation models.
- o   Timetable stability, punctuality, temporal and spatial distributions of timetable margins.
- o   Impact of train priorities, dispatching rules and dedicated lines on network capacity.
- o   Scheduling and routing of passenger and freight trains.
- o   Real-time rescheduling, disturbance and disruption management.
- o   Energy-efficient driving and driver advisory systems.
- o   Prediction of route conflicts, arrival and departure times.
- o   Impact of climate change on future railway operation.
- o   Governance, benchmark analysis and performance evaluation.
- o   Connections between railway and other transport modes.

ABSTRACT AND PAPER SUBMISSION

Prospective participants need first to specify the type of submission:

- o   *Type A: Research paper.*
- o   *Type B: Professional paper*.

For both types of paper, an extended abstract must be submitted emphasizing the innovativeness of the theoretical research paper (Type A) and/or the relevance of the professional paper (Type B), respectively. The extended abstract should contain a maximum of 2,000 words and a minimum of 750 words including a list of up to 10 key references and explain briefly the objective, problem, method and findings. It has to be uploaded on the website of the 8th ICROMA.

The extended Abstracts will be reviewed based on the following criteria: (1) theoretical and/or practical importance, (2) state-of-the art and technology, and (3) clarity of description.

The authors of the accepted extended abstracts of research papers (Type A) will be invited to submit a draft full paper of a maximum length of 20 pages in ICROMA format including figures and references, while the authors of professional papers (Type B) should submit a full professional paper of 10 pages at the maximum. The full research papers will be reviewed according to the standard scientific criteria: originality, consistency, relevance and English writing proficiency. The review of the full professional papers will retain the former criteria except scientific originality.

PUBLICATION

The Proceedings of the 8th ICROMA will contain all the accepted revised full research papers (Type A) and the full professional papers (type B) and will be published on the web by Linköping University Electronic Press. The revised short abstracts of the accepted full research papers (Type A) and of the full professional papers (Type B) will be included in the Book of Abstracts. The best papers selected by the Organization and Scientific Advisory Committee members will be announced and published in a special issue of the Journal of Rail Transport Planning & Management.

KEYNOTES AND SHORT COURSE

Leading railway scientists from different disciplines and directors from the railway industry will give a keynote speech. A short course on railway operations will be offered optionally to young researchers on June 20th, 2019, preliminary with the title "Big data in railway operations". More details will be announced in due time.

ORGANIZATION COMMITTEE

- o Norio Tomii, Chiba Institute of Technology (President of IAROR)
- o Ingo A. Hansen, Delft University of Technology (Vice-President of IAROR)
- o Anders Peterson, Linköping University (Conference Chair)
- o Markus Bohlin, Royal Institute of Technology (Program Chair)
- o Martin Joborn, Linköping University (Conference organization Chair)
- o Emma Solinen, Trafikverket (Industrial Representative)
- o Johan Högdahl, Royal Institute of Technology (Program co-chair)

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- o Alex Wardrop, TTG Transportation Technology
- o Thomas White, Transit Safety Management

IMPORTANT DATES

- o ~~Oct 15th, 2018~~ **Submission of abstract**
  Extended until Sunday Oct 21st, 2018.
- o Nov 23rd, 2018 Notification of accepted abstract
- o Jan 28th, 2019 **Submission of full paper**
- o Mar 25th, 2019 Notification of accepted full paper
- o April 1st, 2019 *Registration opens*
- o April 15th, 2019 **Final paper submission**
- o April 28th, 2019 *Early-bird registration closes*
- o May 31st, 2019 *Online registration closes*
- o June 17th – 20th, 2019 **Conference**
  - ▪ June 17th – 19th, 2019 Conference sessions
  - ▪ June 20th, 2019 Short course

YOUNG RAILWAY OPERATIONS RESEARCH AWARD

Excellent papers on innovative research carried out and presented by participants not older than 35 years are eligible for the *Young Railway Operations Research Award* sponsored by the Board of IAROR. The Award is worth € 2,500. The winner will be announced at the end of the conference.