International Association of Railway Operations Research (IAROR)

Call for Papers

10th International Conference on Railway Operations Modelling and Analysis

(RailBelgrade 2023) Belgrade, Serbia, April 25th - 28th, 2023

1. AIMS OF IAROR

IAROR was founded in 2005 and has currently more than 400 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 lines, nodes 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 is a Network of Excellence in the field of railway operations research. IAROR has organized the International Conference on Railway Operations Modelling and Analysis (ICROMA) every two years since 2005. The previous nine conferences were held at Delft University of Technology, the Netherlands; Leibniz University Hannover, Germany; ETH Zürich, Switzerland; University of Rome, Italy; Technical University of Denmark, Denmark; Chiba Institute of Technology, Japan; IFSTTAR, France; Linköping University, Sweden; and Beijing Jiaotong University, China. The 10th international conference RailBelgrade 2023 will be held at University of Belgrade, Serbia.

2. TOPICS

RailBelgrade 2023 solicits contributions dealing with any aspect of railway operations modelling and analysis. Typical, but not exclusive, topics of interest are:
- Railway alignment and network design
- Line planning
- Timetabling (scheduling and routing)
- Rolling stock and crew scheduling
- Railway maintenance planning and scheduling
- Railway traffic management and rescheduling
- Disruption management and contingency planning
- Train delay prediction and conflict detection
- Railway capacity assessment of nodes, lines and networks
- Railway performance: punctuality, stability, robustness, resilience
- Railway safety analysis and risk assessment
- Railway signalling and control systems

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- Train trajectory optimization and train control
- Driver Advisory Systems and Automatic Train Operation
- Digital Automated Train Operation
- Passenger flows in stations, on platforms, and dwell times
- Passenger assignment
- Rail freight transport
- Rail yard operation and design
- Multimodal transport systems
- Energy saving in railways
- Emerging railway technologies
- Rail governance and economics
- Decision support systems
- Railway simulation and digital twins

3. PAPER SUBMISSION AND IMPORTANT DATES
RailBelgrade 2023 submission options include:
- Type A: Research paper
- Type B: Industrial paper

The authors of research papers (Type A) should submit a full paper of a maximum length of 20 pages in ICROMA format including figures and references, while the authors of industrial papers (Type B) can submit a paper of at most 10 pages. The full research papers will be reviewed according to the standard scientific criteria: originality, consistency, relevance, and technical writing proficiency. The review of the industrial papers will retain the former criteria except scientific originality. The purpose of an industrial paper is to showcase innovations and applications of research and development in the railway industry. The main author of an industrial paper is not affiliated with an academic institute. All the manuscripts should be original works. Authors are requested to use the paper template available on the website: **railbelgrade2023.sf.bg.ac.rs**, and submit the full manuscript electronically using the link **https://easychair.org/conferences/?conf=railbelgrade2023**.

Submission system open: September 1st, 2022
Deadline of paper submission: November 20th, 2022
Extended deadline of paper submission: November 30th, 2022
Notification of acceptance and review results: February 1st, 2023
Registration opens: February 1st, 2023
Submission of final papers: February 24th, 2023
Last day for early-bird registration: March 15th, 2023
Closure of online registration: April 7th, 2023
Conference: April 25th - 28th, 2023

4. PUBLICATION AND AWARDS
All accepted submissions will appear in the Book of Abstracts and the full papers will be available to conference participants in unpublished proceedings. It allows authors to submit their paper for publishing in other conference or journal elsewhere without copyright infringement or make it available online after the conference. Only papers exclusively submitted to RailBelgrade 2023 are eligible as candidates for the Best Papers

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and the Young Research Award. The authors of the top 10 best research papers selected by the Scientific Advisory Committee will be invited to submit their paper to a special issue of the Journal of Rail Transport Planning & Management. The Young Research Award will be awarded to outstanding young researchers who present their excellent research paper on innovative research at the conference. To apply for the Young Research Award, you must be the first author and not older than 35 years on the first day of the conference. The winners will be announced at the closing session of the conference. The process for selecting the best papers and awards is available at the IAROR website www.iaror.org.

5. KEYNOTES AND MINI COURSE
Leading railway scientists from different disciplines and professionals from the railway industry will deliver keynote speeches. A mini course on railway transport will be offered optionally to young researchers on April 25th, 2023. More details will be announced in due course.

6. ORGANIZER
RailBelgrade 2023 is organized jointly by the International Association of Railway Operations Research (IAROR) and University of Belgrade - Faculty of Transport and Traffic Engineering (UB-FTTE).

7. ORGANIZING COMMITTEE
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Chao Wen, Southwest Jiaotong University (China)
Thomas White, Transit Safety Management (USA)

9. VENUE AND CONTACT INFORMATION

Hoping that the COVID-19 pandemic is nearing the end, RailBelgrade 2023 is planned to be held on-site. However, if it would still be required, we are ready to provide the hybrid conference model with remote online participation. RailBelgrade 2023 aims at maximizing the quality of experience caring about health and safety for its participants.

Venue: **University of Belgrade – Faculty of Transport and Traffic Engineering**
Address: **Vojvode Stepe 305, Belgrade 11000, Serbia**
E-mail: **railbelgrade2023@sf.bg.ac.rs**
Phone: **+381 11 30 96 207**

For more information, please visit the conference website at:
railbelgrade2023.sf.bg.ac.rs

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