



Call for papers

The 12th International Conference on Railway Operations Modelling and Analysis

RailSanya 2027

Sanya, China, April 12–15, 2027

1 About IAROR

The **International Association of Railway Operations Research (IAROR)** is a global scholarly and professional community dedicated to advancing research and practice in railway operations. Established in 2005, IAROR brings together more than 400 researchers, practitioners, and industry experts worldwide to foster close collaboration between academia and the railway sector. Drawing on interdisciplinary expertise from engineering, operations research, computer science, economics, mathematics, and related fields, the association promotes rigorous methodologies and innovative solutions to the complex challenges of modern railways, while supporting the development and dissemination of internationally recognized concepts, methods, and benchmarks. Through its conferences, working groups, and collaborative research initiatives, IAROR actively contributes to more efficient, resilient, and sustainable railway operations worldwide.

IAROR is a Network of Excellence in railway operations research and has organized the biennial **International Conference on Railway Operations Modelling and Analysis (ICROMA)** since 2005. Over the past two decades, the ICROMA conference series has been hosted by leading universities and research institutions across Europe and Asia, with previous editions held in Delft, Hannover, Zurich, Rome, Copenhagen, Tokyo, Lille, Norrköping, Beijing, Belgrade, and most recently Dresden, highlighting its strong academic tradition and growing global reach. Building on this long-standing series, the next edition, **RailSanya 2027**, will continue to serve as a premier international forum for advancing research and practice in railway operations.

2 Topics

RailSanya 2027 invites original contributions addressing theoretical, methodological, and applied aspects of railway operations modelling and analysis. Topics of interest include, but are not limited to, a wide range of issues in both passenger and freight railway transport, such as

- 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
- Train trajectory optimization and train control
- Driver Advisory Systems and Automatic Train Operation
- Passenger assignment
- Passenger flows in stations, on platforms, and dwell times
- Rail freight transport
- Rail yard operation and design
- Multimodal transport systems, interaction with air, urban, and micro-mobility
- Energy saving in railways
- Emerging railway technologies
- Rail governance and economics
- Railway simulation and digital twins
- Maglev train operations and management

3 Problem solving competition

For the first time, RailSanya 2027 will host a problem-solving competition (PSC), providing a platform for participants to tackle practical and theoretical challenges in railway operations. The competition aims to foster creativity, encourage interdisciplinary collaboration, and engage students and researchers in applying advanced modelling and analytical methods to real-world railway problems. Participants will have the opportunity to showcase their skills, learn from peers, and contribute to innovative solutions in the field.

Finalists will be invited to present their work in a special session during the conference. The final ranking will be determined based on presentation quality and evaluation by a jury panel, and will be officially announced during the conference dinner.

For more details, please visit the official conference website (www.railsanya.org), where the PSC announcement will be released in May 2026.

4 Paper Submission and Important Dates

RailSanya 2027 submission options include:

- Type A: Research Paper
- Type B: Industrial Paper
- Type C: Abstract (for Poster)

The authors of **research papers** (Type A) should submit a full paper of a maximum length of 15 pages in ICROMA format including figures and references. The authors of **industrial papers** (Type B) can submit a paper of at most 10 pages. The authors who choose to present in the **Poster** session shall submit an abstract (Type C, max 300 words).

The full research papers will be reviewed according to the standard scientific criteria: technical merit, originality, clarity and relevance. 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. For the Poster session, the author shall bring their poster to the conference venue. All the submissions should be original work. The paper template is available on the website: www.railsanya.org. Authors shall submit the manuscript or the abstract electronically using the aforementioned conference website.

Event	Date
Submission system opens	September 1, 2026
Paper submission deadline	October 31, 2026
Abstract (for poster session) submission deadline	October 31, 2026
Notification of acceptance and paper feedback to authors	December 18, 2026
Registration opens	December 18, 2026
Final Paper Submission Deadline	January 31, 2027
End of Early-Bird registration	February 15, 2027
Closure of online registration	March 31 2027
Mini-course day	April 12, 2027
Conference days	April 13-15, 2027

4 Conference Fees

The conference fees for RailSanya 2027 are as follows: Regular €600, reduced for Academics €450, reduced for Students €350, and late registration (after 15 February 2027) €750.

The Mini course €150, and late registration for the Mini course (after 15 February 2027) €200.

5 Best Papers and Awards

All accepted submissions will appear in the Book of Abstracts and the full papers will be available to conference participants, while authors are free to submit their paper elsewhere after the conference.

The Scientific Advisory Board will select the top 10 Best Papers and the IAROR Young Railway Operations Research Award of RailSanya 2027. The authors of the top 10 best research papers will be invited to submit their paper to a special issue of the Journal of Rail Transport Planning & Management. The Young Railway Operations 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 Railway Operations 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 conference. The process of selecting the best papers and awards is available at the IAROR website www.iaror.org.

6 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 and other interested participants on April 12, 2027. More details will be announced on the conference website.

7 Organizing Committee

RailSanya 2027 is organized jointly by the International Association of Railway Operations Research (IAROR), Beijing Jiaotong University, Southwest Jiaotong University, and Tongji University. The organizing committee consists of:

- Lingyun MENG, Beijing Jiaotong University (Conference Chair)
- Yuanjie TANG, Beijing Jiaotong University (Conference Program Chair)
- Xiaojie LUAN, Beijing Jiaotong University (Co-Program Chair)
- Gongyuan LU, Southwest Jiaotong University (Co-Program Chair)
- Pengling WANG, Tongji University (Co-Program Chair)
- Rob GOVERDE, Delft University of Technology (President of IAROR)
- Francesco CORMAN, ETH Zürich (Vice-President of IAROR)

The Scientific Advisory Committee is available at the RailSanya 2027 website (www.railsanya.org).

8 Venue and Contact Information

🏠 Venue: Haitang Bay Resort Sanya (<https://www.haitangbayresort.cn>)

📍 Address: Jianglin Road #9, Haitangwan, Haitangbay, Sanya, Hainan

✉ E-mail: railsanya2027@outlook.com

🌐 For more information, please visit the conference website at: www.railsanya.org