



International Conference  
Reliability, Safety and Security of Railway Systems:  
Modelling, Analysis, Verification and Certification

June 28-30, 2016

Espace du Centenaire, Maison de la RATP  
Paris, France

Call for Papers

The railway industry is facing increasing pressure to improve system safety, to reduce production cost and time to market, to lower carbon emissions and running costs, and to increase system capacity. Railway systems are now being integrated into larger multi-mode transport networks. Such systems require an even higher degree of automation – at all levels of operation. These trends dramatically increase the complexity of railway applications and pose new challenges in developing novel methods for modelling, analysis, verification and validation to ensure their reliability, safety and security, as well as in supporting new mechanisms and procedures to help argue that development processes are meeting the required standards.

This conference will contribute to a range of key objectives. First, there is a pressing demand to bring together researchers and developers working on railway system reliability, security and safety to discuss how all these requirements can be met in an integrated way. It is also vital to ensure that advances in research (from both academia and industry) are driven by the real needs of the railway industry, and are both usable and scalable; this is essential for their effective industrial deployment. A final key goal is the development of advanced methods and tools that can ensure that systems meet the requirements imposed by standards and, additionally, assist in building the supporting arguments.

Development of the complex railway systems of the future requires integrated environments and methods that support different abstraction levels and multiple views, encompassing systems architecture, safety analysis, security analysis, verification methods and tools.

The RSSR 2016 conference aims to bring together researchers and engineers interested in building critical railway applications and systems. This will be a working conference in which research advances will be discussed and evaluated by both researchers and engineers, focusing on their potential to be deployed in industrial settings.

<http://conferences.ncl.ac.uk/rssrail/>

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### Topics of particular interest for RSSR include:

Safety in development processes and safety management  
Combined approaches to safety and security  
System and software safety analysis  
Formal modelling and verification techniques  
System reliability  
Validation according to the standards  
Safety and security argumentation  
Fault and intrusion modelling and analysis  
Evaluation of system capacity, energy consumption, cost and their interplay  
Tool and model integration, tool chains  
Domain-specific languages and modelling frameworks  
Model reuse for reliability, safety and security

### Submissions are encouraged in three categories:

Research papers  
Industrial experience reports  
PhD student papers

Research papers must be no more than 16 pages in length; industrial experience reports and PhD student papers no more than 10 pages. All submissions must be formatted in the Springer LNCS format (see [www.springer.com/computer/lncs?SGWID=0-164-6-793341-0](http://www.springer.com/computer/lncs?SGWID=0-164-6-793341-0)).

The conference submission site is <https://easychair.org/conferences/?conf=rssr2016>.

The conference proceedings will be published by Springer in the LNCS series.

Important dates:

- February 22, 2016 - notification
- March 23, 2016 - submission of camera-ready papers
- June 28-30, 2016 - conference

### Conference Chairs:

Thierry Lecomte, ClearSy, France  
Ralf Pinger, Siemens Rail Automation, Germany  
Alexander Romanovsky, Newcastle University, UK

### PC members:

Mark Behrens, DLR, Germany  
David Bonvoisin, RATP, France  
Simon Collart-Dutilleul, IFFSTAR, France  
Alessandro Fantechi, Uni of Firenze, Italy  
Wan Fokkink, Vrije Uni, Netherlands  
Michael Jastram, Formal Mind, Germany  
Kelly, Uni of York, UK  
Michael Leuschel, Dusseldorf Uni, Germany  
Jean Marc Mota, Thales R&T, France  
Yiannis Papadopoulos, Hull Uni, UK  
Peter Popov, City Uni, UK  
Joris Rehm, ClearSy, France  
Kenji Taguchi, AIST, Japan  
Reiner Schmid, Siemens CT Munich, Germany  
Walter Schon, Uni of Technology Compiegne, France

Andrea Bondavalli, Uni of Firenze, Italy  
Stephane Callet, SNCF, France  
Veronique Delebarre, SafeRiver, France  
Francesco Flammini, Ansaldo STS, Italy  
Stefania Gnesi, ISTI, Italy  
Alexei Iliasov, Newcastle Uni, UK  
Tim Hironobu Kuruma, Hitachi, Japan  
Kirsten Winter, Uni of Queensland, Aust  
Odd Nordland, SINTEF, Norway  
Andras Pataricza, BUTE Uni, Hungary  
Etienne Prun, ClearSy, France  
Aryldo Russo, CERTIFER, France  
Ina Schaefer, TU Braunschweig, Germany  
Laurent Voisin, Systereel, France

### Conference Enquiries:

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