



RTNS

Real-Time Networks and Systems



June 2020, Paris, France

General Chair

Liliana Cucu-Grosjean
INRIA, Paris-Rocquencourt
France

PC co-Chairs

Jean-Luc Scharbarg
Université de Toulouse
France

Sebastian Altmeyer
University of Augsburg
Germany

What is new

The RTNS Steering Committee has decided to make some changes in the conference organization.

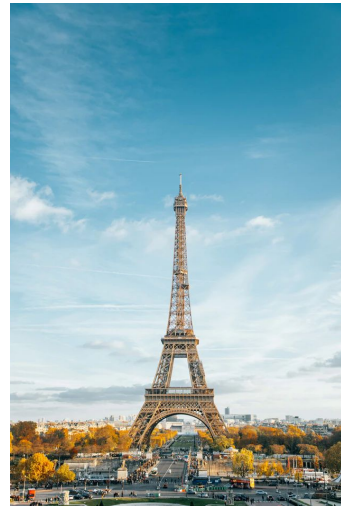
- RTNS is moving from Autumn to Spring. As an intermediate step, **RTNS 2020 will take place in June 2020 with a submission deadline of 18th December 2019.**
- An extra meeting between PC co-chairs and meta-reviewers is added to the review process to improve fairness.
- Transparency rules and evaluation criteria will be available online.
- Going back to the root of the conference, RTNS particularly welcomes first papers presenting early stage research with promising results.
- RTNS 2020 will have the option of artifact evaluation for the accepted papers.

The Steering committee would like to emphasize that RTNS is a **friendly** and **inclusive conference** with a great sense of community that presents excellent opportunities for discussion and collaboration.

Scope of the conference

Original unpublished papers on all aspects of real-time systems and networks are welcome. RTNS covers a wide-spectrum of topics in real-time and embedded systems, including, but not limited to:

- **Real-time applications design and evaluation:** automotive, avionics, space, railways, telecommunications, process control, multimedia.
- **Real-time aspects of emerging smart systems:** cyber-physical systems and emerging applications, real-time big data, real-time edge/fog and cloud computing, smart grid.
- **Real-time system design and analysis:** real-time tasks modeling, task/message scheduling, evaluation, mixed-criticality systems, Worst-Case Execution Time (WCET) analysis, quality of service, security.
- **Software technologies for real-time systems:** model-driven engineering, programming languages, compilers, WCET-aware compilation and parallelization strategies, middleware, Real-time Operating Systems (RTOS), virtualization, hypervisors.
- **Formal specification and verification:** application of formal models, such as model checking, satisfiability modulo theories or constraint programming, to solve real-time problems.
- **Real-time distributed systems:** fault tolerance, time synchronization, task/messages allocation, adaptability and reconfiguration, publisher/subscriber protocols, distributed real-time database
- **Real-time networks:** Networks on Chip (NoC), wired and wireless sensor and actuator networks, Time-Sensitive Networks (TSN), industrial IoT, SDN, 5G, end-to-end latency analysis.
- **Hardware support for real-time systems:** hardware/software co-design, power/temperature-aware techniques, design of predictable hardware, multi-core and many-core platforms, hardware accelerators, cache related issues, interconnect and memory.



Important Dates

Submission deadline
December 18th 2019 (FIRM)

Notification
March 9th, 2020

Conference
Early June, 2020
(dates to be confirmed)

rtns2020.inria.fr

Submission of papers

The papers are limited to 10 two-column pages (not including references) in ACM conference format. The proceedings will be published by the ACM ICPS (approval pending). A selection of the best papers will receive recognition as outstanding papers, and will be highlighted as such in the proceedings. Authors of outstanding papers will be invited to submit an extended version of their work to a **special issue** of the Springer Real-Time Systems journal. Best papers and best student papers awards will be presented at the conference, along with an award for the best presentation. Note that submissions are eligible for the best student paper award provided that the first author is a student as of the submission deadline.