

# RTSOPS 2010: 1<sup>st</sup> International Real-Time Scheduling Open Problems Seminar

Brussels, Belgium, July 6th, 2010

Co-located with ECRTS 2010

**Seminar:** The 1st International Real-Time Scheduling Open Problems Seminar (RTSOPS 2010) provides a venue for the exchange of ideas and the discussion of interesting unsolved problems in real-time scheduling. The format of the seminar positively encourages interaction between participants and provides ample time for relaxed discussions. The goal of the seminar is to promote a spirit of co-operation and collaboration within the real-time scheduling community.

RTSOPS 2010 is organized around presentation and collaboration sessions. Each presentation session provides the opportunity to hear about a number of important unsolved problems in real-time scheduling, highlighted via brief presentations. The following collaboration session gives participants the opportunity to interact in small groups, exchange ideas with the presenters, explore how the problems might be solved, and take the first steps towards a solution. It is expected that the solutions to the problems posed at RTSOPS will lead to some of the most important breakthroughs and advances in real-time scheduling theory over the next few years.

**Scope:** Real-time scheduling theory has provided a foundation for understanding and solving resource allocation and scheduling problems in systems that have real-time constraints. New fundamental results are needed to address recent advances and trends in real-time systems design. RTSOPS 2010 encompasses all aspects of real-time scheduling.

**Submissions:** RTSOPS 2010 invites extended abstracts of open problems in areas such as, but not limited to:

- Scheduling and Schedulability Analysis (single processor, multiprocessor, network etc.)
- Approximation Techniques (resource augmentation, competitive analysis, etc.)
- Complexity of Real-Time Scheduling Problems
- Impossibility Results
- Resource Sharing
- Algorithmic Mechanism Design for Real-Time Systems
- Compositional Analysis / Hierarchical Scheduling
- Parallelism in Real-Time Systems

**Submission Details:** Extended abstracts for RTSOPS 2010 must be written in English, and not exceed two pages in length in single column, 10pt format, including relevant references. The main purpose of the abstract should be to provide a clear description of the problem. Abstracts may be submitted describing well-known but as yet unsolved problems. However, all abstracts should contain some element of original work that has not been

published before, for example, a new problem, a new way of looking at an existing problem, new intuition or ideas on how a problem might be solved, possible frameworks for solutions, overviews of special cases that may be useful in solving a problem etc.

Abstract submissions should be made electronically, in PDF format only via the Submission Page for RTSOPS 2010. <https://www.softconf.com/b/rtsops2010/cgi-bin/scmd.cgi?scmd=basicSubmit>

By submitting an extended abstract, the authors agree and confirm that: neither this extended abstract nor a version close to it is under submission or will be submitted elsewhere before notification by RTSOPS 2010, and if accepted, at least one author will register for the RTSOPS 2010 seminar by the special registration deadline set in the notification of acceptance, and present the open problem at the seminar in person. Please note that extended abstracts that do not describe real-time scheduling problems will not be accepted. Submissions will be refereed for quality and relevance. Submissions exceeding the page limit may be rejected without review.

Authors of accepted abstracts are expected to give a brief presentation of their open problem, and be prepared to work on the problem with other participants during the collaboration sessions. Instructions for preparing final copy and presentations will be given when the abstract is accepted. The seminar will also include a number of invited presentations on open problems. RTSOPS 2010 will publish proceedings as a seminar booklet.

## Seminar co-chairs

Robert Davis University of York, UK  
Nathan Fisher Wayne State University, USA

## Steering Committee

Björn Andersson Polytechnic Institute of Porto, Portugal  
Marko Bertogna Scuola Superiore S. Anna, Pisa, Italy  
Sanjoy Baruah The University of North Carolina, USA  
Liliana Cucu-Grosjean INRIA, France

## Important Dates:

Submission deadline: **30th April 2010 (no extensions)**  
Notification of acceptance: 14<sup>th</sup> May 2010  
RTSOPS Seminar: 6<sup>th</sup> July 2010  
ECRTS Conference: 7<sup>th</sup>-9<sup>th</sup> July 2010