



Symposium on Theory of Modeling and Simulation (TMS 2014)

April 13-16, 2014 | Tampa, FL, USA |

<http://www.tms-devs.org>



Preliminary Call for Papers

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IMPORTANT DATES

Abstract Submission: Set, 13, 2013

Paper Submission: Nov, 22, 2013

Notification: Jan, 10, 2013

Final Paper: Feb, 13, 2014

The purpose of this symposium is to provide a forum to discuss recent advancements in M&S theory. The main focus is on modeling, methodology, practice and software to cope with the challenges arising out of these, as well as lessons learned and challenges. The Symposium bridges different areas in the field of theory of M&S, including formal modeling, model-checking, graph transformation, modeling methodologies. Topics of interest include (but are not limited to):

• Theory

- DEVS, Petri-nets, Finite State Machines, Timed Automata, Process Algebras, Queuing Networks, etc.
- Hybrid system modeling and integration of formalisms
- Formal analysis and symbolic reasoning
- Model checking
- Behavior Abstraction and Model Reduction
- Graph and model transformations
- Activity paradigm: complex adaptive systems, tracking, awareness

• M&S Software

- M&S Software, including frameworks and libraries for DEVS, Petri Nets, Finite State Machines, Timed Automata, Process algebras, Queuing Networks, etc.
- Education aspects of Theory of M&S

• Methodology

- Parallel & distributed simulators and simulations
- Interoperability simulators (grid, cloud, web services, etc.)
- M&S engineering
- M&S-based development method
- M&S-based optimization
- M&S of gene regulatory networks
- M&S of spatially distributed systems

• Practice and Lessons Learned

- Military systems and infrastructures
- Real-time and embedded systems
- High performance computing
- Cloud and service-oriented computing
- Software-intensive/networked systems
- Transportation and traffic systems
- Ecological and environmental systems
- Systems-of-systems and ultra large scale systems
- M&S standards

Submission Procedures:

The conference committee accepts two types of papers submitted as a **PDF file** to the conference website (<http://www.softconf.com/scs/DEVS14/>) as listed below. The final version of all the papers must comply with the **SCS conference format**. All papers must be original and not submitted to other venues (please refer to plagiarism and self-plagiarism policies of **ACM** and **IEEE**); they will be peer reviewed with respect to their quality, originality and relevance.

1. **Full manuscript:** 8 pages in final conference format. In addition to publication in the conference proceedings, they will be considered for best paper award and for possible inclusion in a **Special Issue of the Simulation Journal (SCS)**. Full papers will be published both in hard copy and digital format.
2. **Short papers:** Papers with industrial focus, military or government applications and work-in-progress in short paper format. Short papers are up to 6 pages in final conference format.

At least one author of each paper accepted for presentation and publication must register and present the paper. Papers registered but not presented at conference time will be notified to SCS and not included in the **ACM Digital Library**.

DEVS PHD DISSERTATION AWARD

(Chairs: Bernard P. Zeigler, Claudia Frydman)

The Symposium will hold the 3rd DEVS M&S PhD Award, to recognize and reward the best PhD thesis related to the DEVS M&S formalism.

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