



# Symposium on Theory of Modeling and Simulation (TMS/DEVS 2015)



April 12-15, 2015 | Alexandria, VA, USA

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

## Preliminary Call for Papers

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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.
  - Formalism Integration
  - Modular Formalisms for Hybrid Systems
  - 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
  - Education aspects of Theory of M&S
- **Methodology**
  - Parallel & distributed simulations
  - Interoperability of simulators (grid, cloud, web services, etc.)
  - M&S-based development methods
  - M&S-based optimization
  - M&S of gene regulatory networks
  - M&S of spatially distributed systems
- **Practice and Lessons Learned**
  - Real-time and embedded systems
  - High performance computing
  - Cloud and service-oriented computing
  - Transportation and traffic systems
  - Ecological and environmental systems
  - Systems-of-systems and ultra large scale systems
  - M&S standards

### IMPORTANT DATES

**Abstract Submission:** Sep. 13, 2014

**Notification:** Dec. 6, 2014

**Paper Submission:** Oct. 25, 2014

**Camera-ready version :** Jan. 6, 2015

### Submission Procedures:

The conference committee accepts two types of papers submitted as a PDF file to the conference website (<http://www.softconf.com/scs/DEVS15/>) 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:** Contributed papers are 8 pages long.

2. **Short papers:** Short papers are 5-6 pages long.

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 not be included in the **ACM Digital Library**.

### DEVS PHD DISSERTATION AWARD

*(Chairs: Bernard P. Zeigler, Claudia Frydman)*

The Symposium will hold the 4th DEVS M&S PhD Award, to recognize and reward the best PhD thesis related to the DEVS M&S formalism.

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