# 2015 Winter Simulation Conference

**Charles M. Macal (General Chair)**
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# Hybrid Simulation Track
### Call for Papers

**Track Coordinators**
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The Winter Simulation Conference (WSC) is the premier international forum for disseminating recent advances in the field of dynamic systems modeling and simulation. In addition to a technical program of unsurpassed scope and quality, WSC provides the central meeting place for simulation practitioners, researchers and vendors. Research in modeling and simulation is propelled by fostering cross-fertilization between various disciplines. The 2015 edition of the Winter Simulation Conference (WSC2015) will feature **"Hybrid Simulation"** as a full track. Track description follows.

Simulation methods enable stakeholders to analyze and evaluate strategies for effective management of complex systems. It is therefore not surprising that an increasing number of studies have used techniques such as discrete-event simulation, Monte Carlo simulation, system dynamics, Markov chain Monte Carlo methods and agent-based simulation to make better and more informed decisions. However, such techniques have frequently been applied in isolation. The complexity of systems and their multi-faceted relationships may mean that the combined application of simulation methods, or hybrid simulation, will enable synergies across techniques and will provide greater insights to problem solving. The aim of this track is therefore to solicit papers that focus on combining techniques (e.g., discrete and continuous). In particular, the papers must demonstrate the need for hybrid simulation and how this approach could be used for modeling and simulating complex systems. The hybrid simulation studies may relate to application areas such as healthcare, manufacturing, supply chain and logistics, military, disaster response, environment and sustainability.

Topics include, but are not limited to, the following:
- Methodology, e.g., synthesis of existing literature, papers presenting the conceptualization of hybrid simulation through use of frameworks
- Papers focusing on technology, e.g., use of parallel and distributed simulation for facilitating hybrid simulation
- Case studies that have applied hybrid simulation in manufacturing, logistics and supply chain, healthcare, etc.
- Papers focusing on continuous simulation/systems dynamics that incorporate discrete elements

The track coordinators also encourage papers on the combined application of simulation methods with the wider modelling techniques that are frequently used in Operational Research (OR), for example, papers that have applied DES and game theory, ABS with metaheuristics, SD papers that have used soft Operational Research methods like

problem structuring, simulation papers that have delved into statistical techniques associated with data-mining and predictive analytics.

The track will be organised into specific themes, for example:
- Methodological aspects of Hybrid Simulation
- Modeling human behavior using Hybrid Simulation
- Hybrid Simulation for healthcare planning
- Hybrid Simulation for planning and scheduling
- Hybrid Simulation for sustainable operations management
- Combined application of Hybrid Simulation with wider OR techniques

## CONTRIBUTED PAPER DEADLINES

- **April 1, 2015**: Electronically submit contributed papers not previously published or presented. Each submission must be a 5- to 12-page paper, including an abstract of no more than 150 words. The page size in the proceedings is 8.5 by 11 inches (21 .6 cm by 27.9 cm). The overall length of the paper should be at least 5 proceedings pages. Papers should be at most 12 pages, except for introductory tutorials, advanced tutorials, and panel sessions, for which the limit is 15 pages. Submission implies that an author will attend WSC 2015 and present the paper, and all clearance required for publication of the paper will be obtained by July 16, 2015. Use of the authors' templates in one of the following formats is required: Microsoft Word or LaTeX. Submissions must be made through the WSC website, [www.wintersim.org](www.wintersim.org).

- **June 1, 2015**: Contributors will be notified whether their paper has been accepted.

- **July 15, 2015**: Authors electronically provide a final manuscript meeting all technical and format requirements to the Proceedings Editor.

## LOCATION

WSC 2015 will be held at the Hyatt Regency Huntington Beach Resort and Spa, Huntington Beach, California, USA. The hotel is one of Southern California's premier seaside resort destinations, located on the Pacific Highway. Popularly known as "Surf City," Huntington Beach offers over eight miles of pristine shoreline with direct access from the resort to Huntington Beach and many area attractions.

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