Call for Papers
Special Issue on Data-driven and Large-scale Distributed Simulations
Journal of Simulation

Modeling and simulation is required in many areas of science and engineering,. These simulation systems often require huge computing resources and the data sets required by the simulation may also be geographically distributed. Furthermore, the development of such complex simulation applications usually requires collaborative effort from researchers with different domain knowledge and expertise, possibly at different locations. The last decade has witnessed an explosion of interest and innovation in the field of data-driven and large scale distributed simulations. To address challenges in this area, the scope of this special issue includes, but is not limited to:

- Paradigms, methodology and software architectures for data-driven, large-scale or real-time simulation
- Languages and tools, development environments, data interfaces, network protocols and model repositories for data-driven, large-scale or real-time simulation
- Advanced modeling techniques for data-driven, large-scale or real-time simulation
- Performance evaluation of data-driven, large-scale or real-time simulation
- Simulation studies at a large-scale (e.g. global supply-chain simulation, epidemic simulation, city-wide traffic simulation, and simulation of large health-care systems)
- Issues regarding data management and distribution, interoperability and composability, and multi-resolution modeling in large-scale distributed simulations
- Pervasive and ubiquitous computing architectures and systems for data-driven or real-time simulations
- System support for large-scale distributed simulations (e.g. service-oriented framework for distributed simulation, cloud-based large-scale distributed simulation)

*** Important Dates ***

Paper submission deadline: Dec 1, 2015

*** Submission ***

Papers must be unpublished and must not be submitted for publication elsewhere. Authors of selected papers from the 19th IEEE/ACM International Symposium on Distributed Simulation and Real-time Applications (DS-RT 2015) will be invited to submit extended versions of their papers to this special issue.

*** Guest Editor of the Special Issue ***

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