



# MSaaS 2018

*Modeling and Simulation as a Service*

**July 9-12, 2018**

**Bordeaux, France**

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## Aims and Scope

*Modeling & Simulation as a Service (MSaaS)* is gaining momentum as an effective approach to bringing the benefits of service-oriented architectures and cloud computing into the arena of modeling and simulation (M&S), so as to enhance interoperability, composability, reusability and reduce the cost of M&S efforts.

MSaaS is intended to be a means of delivering on-demand M&S applications, capabilities and resources, as well as the associated data. MSaaS is at its early stages and is being addressed and investigated by international efforts, such as the NATO Modelling & Simulation Group (NMSG), as a promising approach to provide the technical and organizational foundations for service-based M&S ecosystems.

The MSaaS SCSC track aims to bring together researchers and practitioners from academia, industry, defense and government to present innovative ideas, experiences, and challenges that address service-oriented and cloud-based issues in the field of M&S and vice versa.

The track organizers invite high-quality submissions describing relevant, original and unpublished theoretical and/or practical contributions related to (but not limited to) the topics illustrated below.

## Topics

### Theory and methodology

- MSaaS and service orientation
- MSaaS and cloud service model
- MSaaS-based parallel and distributed simulation

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- MSaaS reference architectures
- MSaaS-based modeling approaches (web-based modeling languages, metamodels, model transformations)
- Model-based approaches for MSaaS
- Verification, validation and accreditation
- Quality of Service (QoS) and Service Level Agreement (SLA) issues
- Data exchange and interoperability issues
- Privacy, security and ownership issues
- Synchronization and communication
- Resource management, load balancing and scheduling
- Sensor/IoT and multimedia data management
- Cost estimation models
- Service description and service discovery
- Ontologies for MSaaS
- MSaaS governance
- MSaaS standardization

## Tools and platforms

- MSaaS middleware
- Service repositories
- Service discovery, composition and orchestration
- MSaaS deployment
- MSaaS programming models
- Open source platforms
- Enterprise service bus
- Public/private cloud providers
- Virtualization and containerization
- IoT and mobile development

## Application domains and case studies

- Military and defense systems
- Manufacturing systems
- Business administration, finance and economy (business process management, enterprise resource planning, etc.)
- Governance and Government Policy Making
- Medicine and healthcare

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- Space
- Telecommunications
- Education
- Games and entertainment
- Emergency management and critical infrastructures
- Cyber physical systems
- Cyber security
- Business intelligence
- Energy management
- Systems engineering (systems of systems, ultra large scale systems)

## Submission Guidelines

Original, high-quality technical papers are solicited for review, possible presentation and subsequent publication in the conference proceedings. For further instructions, please refer to the Submission Instructions in the SCS Conference Proceedings Management System web site. Contributed papers are 12 pages long with single column format. For author guidelines on how to submit a paper go to: <http://scs.org/authorskit/>. They will be peer reviewed and – if accepted and presented at the conference - possibly submitted to the ACM and IEEE Digital Libraries. Papers must not have appeared before (or be pending) in a journal or conference with published proceedings, nor may they be under review or submitted to another forum during SummerSim'18 review process. At least one author of an accepted paper must register for the symposium and must present the paper at the symposium.

## Important Dates

**Full Paper submission:** March 2, 2018

**Author Notification:** May 4, 2018

**Submission of WIP papers:** May 11, 2018

**Notification of WIP papers:** May 18, 2018

**Camera-ready Paper:** May 25, 2018

## Contact

For questions, please contact the track chair, Andrea D'Ambrogio, [dambro@uniroma2.it](mailto:dambro@uniroma2.it) or [scs@scs.org](mailto:scs@scs.org) | (858) 277-3888