



# SIGSIM PADS

ACM SIGSIM Conference on Principles of Advanced Discrete Simulation (PADS)

## CALL FOR PAPERS

2019 ACM SIGSIM Conference on Principles of Advanced Discrete Simulation

June 3 - 5, 2019

Illinois Institute of Technology (IIT), Chicago

<http://www.acm-sigsim-pads.org>

### Important Deadlines

Regular/Short Paper  
Submission:  
**January 7, 2019**

Regular/Short Paper  
Notification of Acceptance:  
**March 8, 2019**

Regular/Short Paper Camera-  
Ready Version:  
**April 8, 2019**

Ph.D. Colloquium Submission:  
**March 15, 2019**

Ph.D. Colloquium Notification  
of Acceptance:  
**March 25, 2019**

Author Registration Deadline:  
**April 8, 2019**

Early Registration and Hotel  
Deadline:  
**May 6, 2019**

### Organizing Committee

General Chair:

**Kevin Jin**  
Illinois Institute of Technology

Program Chairs

**Jason Liu**  
Florida International University

**Laxmikant Kale**  
University of Illinois at Urbana-  
Champaign

The ACM SIGSIM Conference on Principles of Advanced Discrete Simulation (ACM SIGSIM-PADS) continues its reputation for high quality papers. SIGSIM-PADS is the flagship conference of ACM's Special Interest Group on Simulation and Modeling (SIGSIM). SIGSIM-PADS will comply with the ACM policy on Conflict of Interest.

The ACM SIGSIM-PADS conference focuses on cutting-edge research that lies at the intersection of Computer Science and Modeling and Simulation (M&S). High quality papers are solicited in all aspects of M&S, including (but not restricted to) the following areas:

- Advanced modeling techniques, including reuse of models, new modeling languages, agent-based M&S, and spatially explicit M&S.
- Algorithms and methods for parallel or distributed simulation, including synchronization, scheduling, memory management, load balancing, and scalability issues.
- New simulation algorithms and techniques including hybrid simulation approaches, adaptive algorithms, approximations, GPU, FPGA and hybrid architecture acceleration.
- Modeling and simulation for big data and big data analytics
- Simulation infrastructure and security issues for large scale distributed and/or cloud-based modeling and simulation
- Model and simulation persistence and recovery in the presence of hardware failures
- Integration of simulation with other IT systems, methods, and developments including simulation-based decision-making, visual analytics, intelligent support in M&S, and simulation in cloud computing environments.
- Mechanisms for efficient design of experiments, including dynamic verification and validation of models, and automatic simulation model generation and initialization.
- M&S applied to manage and/or optimize operational systems and methodological challenges arising from these applications including online simulation, symbiotic simulation, dynamic data driven application systems, real-time and embedded simulation, and emulation of real systems.
- Tools and techniques for interoperability and composability of simulations including emerging standards and service-oriented approaches.
- Case studies considering the application of new or advanced computational methods to applications of contemporary interest.

### Regular Papers:

Papers must be prepared by using an official ACM Proceedings Format template provided at <https://www.acm.org/publications/proceedings-template>. Papers must be written in English and should not exceed 12 pages. More details available at <http://www.acm-sigsim-pads.org/authorsInfo.htm#preparation>

### Short Papers:

The ACM SIGSIM PADS organizing committee is soliciting short papers to be presented at the conference. Short papers can be up to 4 pages long, and should describe interesting, novel research that is in an early stage of development or position papers of interest to the community. All short papers will be fully reviewed and will be published in the conference proceedings and included in the ACM Digital Library. At least one author is required to attend the conference and present their work in a time slot of 15 minutes.

### PhD Colloquium:

ACM SIGSIM PADS also invites students to take part in the PhD Colloquium and Poster Session at the 2019 ACM SIGSIM-PADS. Travel awards are available for students taking part. More details available at <http://www.acm-sigsim-pads.org/PhDColloquiumAwardCall.htm>

**AUTHORS TAKE NOTE:** The official publication date is the date the proceedings are made available in the ACM Digital Library. This date may be up to *two weeks prior* to the first day of your conference. The official publication date affects the deadline for any patent filings related to published work. (For those rare conferences whose proceedings are published in the ACM Digital Library *after* the conference is over, the official publication date remains the first day of the conference.) Presenters must attend the conference otherwise their paper will not appear in the ACM Digital Library.