

HPC'17

High Performance Computing Symposium
www.fit.vutbr.cz/events/HPC2017/

Spring Simulation Multi-conference 2017

APRIL 23 - 26, 2017
Virginia Beach, VA

Organizing Committee

General Chair: **Lukas Polok**, ipolok@fit.vutbr.cz
General Co-Chair: **Masha Sosonkina**, msosonki@odu.edu
Program Chair: **William Thacker**, thackerw@winthrop.edu
Program Vice-Chair: **Josef Weinbub**,
weinbub@iue.tuwien.ac.at

Steering Committee

Jack Dongarra, University of Tennessee & Oak Ridge National
Laboratory, USA
Fang "Cherry" Liu, Georgia Institute of Technology, USA

The 2017 Spring Simulation Multi-Conference will feature the 25th High Performance Computing Symposium, devoted to the impact of high performance computing and communications on computer simulations.

Advances in multicore and many-core architectures, networking, high end computers, large data stores, and middleware capabilities are ushering in a new era of high performance parallel and distributed simulations. Along with these new capabilities come new challenges in computing and system modeling. The goal of HPC 2017 is to encourage innovation in high performance computing and communication technologies and to promote synergistic advances in modeling methodologies and simulation. It will promote the exchange of ideas and information between universities, industry, supercomputing centers, and national laboratories about new developments in system modeling, high performance computing and communication, scientific computing as well as simulation.

Topics of interest include, but are not limited, to the following:

- High performance computing issues in Big Data analytics
- High performance / large scale application case studies
- GPU for general purpose computations (GPGPU)
- Accelerator and co-processor computing
- Multicore and many-core computing
- Exascale challenges
- Cloud, distributed, and grid computing
- Hybrid parallel or distributed algorithms
- Large scale visualization and data management
- Parallel algorithms and architectures
- High performance software tools and techniques
- Resilience at the simulation level
- Component technologies for high performance computing

CALL FOR PAPERS



Special Session on Hardware-Software Co-Design for HPC (Co-HPC)

The purpose of this special session is to bring together researchers investigating the interrelationships between applications, systems software, and hardware, including methodologies and tools for hardware-software co-design for HPC. We also seek submissions that demonstrate collaboration between domain scientists, applied mathematicians, computer scientists, and hardware architects.

Topics of interest include, but are not limited, to the following:

- Use of simulation and emulation techniques for co-design
- Power-aware applications
- Co-optimization for multiple objectives (such as performance, power, resilience)
- Evaluation of new processor and memory technologies for scientific applications
- Mapping of algorithms and applications to heterogeneous systems

Submission Guidelines

Contributed papers are maximum of 12 pages long, with a minimum of 6 pages, with single column format. If accepted and presented at the conference papers will be submitted to the ACM Digital Library. 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 SpringSim'17 review process. It is also possible to submit to the Work in Progress (WIP) or Posters tracks; more details will be announced on the website (<http://www.scs.org/springsim>). A submission may be rejected for paper presentation, but it may be suggested for submission and presentation as a work in progress or poster. At least one author must register and present the paper/WIP/poster at the symposium. All submissions will be peer reviewed and feedback will be provided.

Please use the paper template provided in the conference website. The use of the template will facilitate the prompt proceedings compilation and submission to the ACM Digital Library.

Important Dates

Workshop Proposal: September 30, 2016

Abstract Submission: October 15, 2016

Abstract Feedback: October 30, 2016

Full paper Submission: December 15, 2016

Notification of Acceptance: January 31, 2017

Camera-ready Paper: February 20, 2017