



HPC | NETWORKING | STORAGE

JUNE 24-28, 2018 | FRANKFURT, GERMANY

**TUTORIALS: JUNE 24** 

**CONFERENCE: JUNE 25-27** 

**EXHIBITION: JUNE 25-27** 

**WORKSHOPS: JUNE 28** 











#### JOIN EVERYONE AND EVERYTHING RELATED TO HPC

Be among the 3,500 members of the HPC research and commercial sectors at the largest HPC community forum in Europe to exchange ideas that will shape the industry and the community.

The 2018 Program Chair Horst Simon and the program committee have selected a string of compelling HPC and AI-related topics to spark exciting discussions among the attendees.



"It is an honor to serve as the ISC 2018 Program Chair, and I will strive to further strengthen the technical program, broaden the community reach, and assure a welcoming and inclusive conference for a diverse group of participants."

#### HORST SIMON, LAWRENCE BERKELEY NATIONAL LABORATORY

Simon is the Deputy Laboratory Director and Chief Research Officer of Berkeley Lab and also an internationally recognized expert in the development of parallel computational methods for the solution of scientific problems of scale.

General Co-Chairs | Martin Meuer and Thomas Meuer, ISC Group, Germany
Program Chair | Horst Simon, Lawrence Berkeley National Laboratory, USA
Research Papers Chair | David Keyes, King Abdullah University of Science and Technology, Saudi Arabia
Research Posters Chair | Matthias Mueller, RWTH Aachen University, Germany
Project Posters Chair | Julian Kunkel, Deutsches Klimarechenzentrum, Germany
PhD Forum Chair | Gerhard Wellein, Friedrich-Alexander University Erlangen-Nuremberg, Germany
Industrial Day Chair | Marie-Christine Sawley, Intel Datacenter Group, France
Machine Learning Day Chair | Janis Keuper, Fraunhofer ITWM, Germany
HPC in Asia Program Chair | Yutong Lu, National University of Defense Technology, China
BoF Chair | Georg Hager, Friedrich-Alexander University Erlangen-Nuremberg, Germany
Tutorials Chair | Rosa Badia, The Barcelona Supercomputing Center, Spain
Workshops Chair | John Shalf, Lawrence Berkeley National Laboratory, USA
Proceedings Chair | Rio Yokota, Tokyo Institute of Technology, Japan

#### **ISC 2018 KEYNOTES**

#### CONFERENCE KEYNOTE | MONDAY, JUNE 25

Tackling tomorrow's computing challenges today at CERN



Maria Girone is the CTO of CERN openlab since 2016. Before that, Girone was the Computing Coordinator for the Compact Muon Solenoid (CMS) Experiment at CERN, where she managed 70 computing centers on five continents and more than 100 FTE of effort yearly to archive, simulate, process and serve petabytes of data.

MARIA GIRONE, CERN OPENLAB

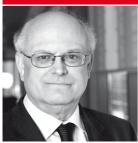
## SECOND-DAY KEYNOTE | TUESDAY, JUNE 26 Empowering flexible and scalable high performance architectures with embedded photonics



Keren Bergman is the Charles Batchelor Professor of Electrical Engineering at Columbia University where she also serves as the Scientific Director of the Columbia Nano Initiative. Bergman leads the Lightwave Research Laboratory encompassing multiple cross-disciplinary programs at the intersection of computing and photonics.

KEREN BERGMAN, COLUMBIA UNIVERSITY

# FINAL KEYNOTE | WEDNESDAY, JUNE 27 HPC achievements and impact – 2018



Thomas Sterling holds the position of Professor of Electrical Engineering at Indiana University and is the Director of the Center for Research in Extreme Scale Technologies (CREST). He is engaged in applied research in fields associated with parallel computing system structures, semantics, and operation in industry, government labs, and academia since 1984.

THOMAS STERLING, INDIANA UNIVERSITY

#### PROGRAM FOCUS

Once again, the conference will cover a multitude of intriguing topics that are critical to the development of the high performance computing field. This year the program team has selected 11 topics, which will be addressed in a series of thought-provoking sessions.

#### HERE ARE OUR TOPICS FOR 2018:

- Beyond Moore's Law
- Exascale Systems
- Climate Change
- Big Data Analytics
- Cosmology and HPC
- HPC in Medicine
- Future Applications for Quantum Computers
- What's New with Cloud Computing for HPC?
- Future Challenges for Programming Models and Languages
- The Rise of Containerized HPC
- Artificial Intelligence on HPC Platforms

#### **EXHIBITION**

Nearly every organization that serves HPC users has a presence at ISC High Performance. Participation at the event is considered a litmus test for vendors, universities, and research organizations with a serious interest in the community.

The ISC exhibition features approximately 150 organizations, and having them all available on the same exhibition floor presents a unique opportunity for users to survey the HPC landscape. Vendors can take this opportunity to display their wares, while research institutions can use this venue to report on their latest work.

#### WHO ATTENDS ISC

As a major HPC event, the ISC exhibition attracts the top players in the industry with a stake in high performance computing. This includes universities, national laboratories, automotive firms, defense agencies and their contractors, aeronautical firms, gas & oil companies, financial institutions, pharmaceutical companies, cloud service providers, and manufacturers.

44.4%	39.2%	12.4%	3.8%
Academia	Industry	Students	Media

SOURCE: ISC 2017 ATTENDEE REGISTRATION DATA

#### ATTENDEE COMMENTS

"It's a must for my professional existence."

Marek Michalewicz, University of Warsaw

"Most of the important exhibitors are here, with less congestion than other comparable HPC events. Quality of the academic program is growing rapidly. Ease of navigation and quality of service is superb."

David Keyes, KAUST

"Terrific forum for us to exhibit our latest technology. There is no other high profile joint conference for both HPC users and technology vendors to meet and collaborate." Perry G. Hayes, Super Micro Computer, Inc.



#### WHO EXHIBITS AT ISC

Exhibitors come from 26 countries and every facet of the HPC community, including providers of applications, cloud services, cluster management tools, consulting, data center equipment, data management & analytics, data storage, deep learning, file systems, memory technologies, networks/interconnects, processors, research, software development tools and libraries, systems and servers and visualization.

#### TOP REASONS TO EXHIBIT

#### HIGHLIGHT YOUR VALUE

In the crowded field of HPC solution providers, ISC offers one of the best opportunities to distinguish yourself from the rest of the crowd.

#### REACH YOUR AUDIENCE

ISC attracts over 3,500 HPC users, buyers and influencers seeking first-hand information on the latest supercomputing developments, products and solutions.

#### PROMOTE YOUR BRAND

Sponsorships Sales: Ms. Anna Schachoff

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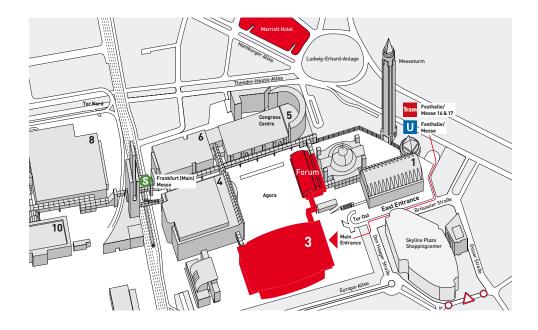
+ 49 621 180 686 13 or 🖊 josiah.tabor@isc-group.com

#### FRANKFURT - THE CONFERENCE DESTINATION

- World's third-largest exhibition facility
- Major transportation hub for Europe
- Huge range of hotels and restaurants
- A truly international city



## **LOCATION MAP**



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