

ISC 2018 Tutorials

The ISC tutorials are interactive courses focusing on key topics of high performance computing, networking, storage and data science. Renowned experts in their respective fields will give attendees a comprehensive introduction to the topic as well as providing a closer look at specific problems. Tutorials are encouraged to include a “hands-on” component to allow attendees to practice prepared materials.

The tutorials will be held on Sunday, June 24, 2018 and will be either half-day (9:00 am – 1:00 pm or 2:00 pm – 6:00 pm) or full-day (9:00 am – 6:00 pm).

Attendance will require a [Tutorial Pass](#).

Chair - Dr. Rosa M. Badia

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From all tutorials submitted to the conference, the **ISC 2018 Tutorials Committee**, which is headed by **Dr. Rosa Badia**, Barcelona Supercomputing Center, with **Dr. Sandra Wienke**, RWTH Aachen University, as Deputy Chair, has selected the following tutorials for presentation at ISC 2018:

Full-Day Tutorials (9:00 am – 6:00 pm)

- [Accelerating Applications with Massively Parallel Computing](#)
- [Advanced MPI](#)
- [Deep Learning Demystified](#)
- [Hands-on Practical Hybrid Parallel Application Performance Engineering](#)

Half-Day Morning Tutorials (9:00 am – 1:00 pm)

- [Mastering Tasking with OpenMP](#)
- [Introduction to Parallel I/O](#)
- [Getting Started with Containers on HPC through Singularity](#)
- [InfiniBand, Omni-Path, and High-speed Ethernet for Beginners](#)
- [Boosting Power Efficiency of HPC Applications with GEOPM](#)

Half-Day Afternoon Tutorials (2:00 pm – 6:00 pm)

- [Advanced OpenMP: Performance and 4.5 Features](#)
- [A practical approach to application performance tuning with the Roofline Model](#)
- [Better Scientific Software](#)
- [InfiniBand, Omni-Path, and High-Speed Ethernet: Advanced Features, Challenges in Designing](#)

[HEC Systems and Usage](#)

- [Using the SPEC HPG Benchmarks for Better Analysis and Evaluation of Current and Future HPC Systems](#)

Presentation Slides for Attendees

The ISC organizers will make the presentation slides available online a week after the event, provided as PDF files. ISC 2018 attendees will receive an e-mail with the access link. Tutorial presenters are kindly requested to provide a PDF version of their presentation slides to Ms. Iris Stöhr at program-support@isc-group.com by **Friday, June 29, 2018** at the latest.

ISC 2018 CALL FOR TUTORIALS

Please note that the call for Tutorials is now closed!

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Submitted tutorial proposals will be reviewed by the **ISC 2018 Tutorials Committee**, which is headed by **Dr. Rosa Badia**, Barcelona Supercomputing Center, with **Dr. Sandra Wienke**, RWTH Aachen University, as Deputy Chair.

Important Dates

Extended Submission Deadline	Closed
Notification of Acceptance	Wednesday, March 21, 2018
Tutorials	Sunday, June 24, 2018
Final Presentation Slides in PDF due	Friday, June 29, 2018

Tutorials Coverage

- Tutorials are intended to cover all areas of interest as listed in the **call for research papers**. Tutorials on topics related to emerging technologies are encouraged.
- We encourage tutorials of broad applicability over those that focus solely on the research in a limited domain or a particular group.
- Practical tutorials will be preferred to completely theoretical ones and we encourage organizers to

incorporate hands-on sessions where appropriate.

Submission & Review Process

Tutorial proposals need to be submitted via the ISC 2018 [submission site](#) by **Tuesday, February 20, 2018**. The following information needs to be provided in the online submission form:

- Title of the tutorial
- Tutorial author information
- Abstract (200 words maximum)
- Topic area according to the list in the **call for research papers**
- One to five keywords
- Detailed description of the tutorial content (2.5 pages maximum)
 - Overview and goals of the tutorial (takeaways for the audience)
 - Detailed outline of the tutorial
 - Description of the hands-on if applicable
 - URLs to sample slides and other material
- Resume or CV of each presenter, including a list of the recently taught courses or tutorials (2 pages maximum per presenter)
- Logistics
 - Length of the tutorial (half-day (3.5 hours) or full-day (7 hours))
 - Percentage of content split as beginner, intermediate, advanced
 - Requirements for attendees (e.g., laptop, remote server account)
 - Targeted audience
 - Estimated number of attendees
- Travel funding request, if applicable (see "Travel Support" section below)

NOTE: All documents need to be uploaded as a PDF; the title and abstract must also be entered on the submission form.

The Tutorials Committee will review and evaluate all submitted tutorial proposals based on their originality, significance, quality and clarity. Each proposal will be reviewed by at least four reviewers. The Tutorials Committee will select the tutorials with the objective of covering the largest variety of topics and allocate their time slots.

Terms & Conditions

- By submitting a tutorial proposal, you agree to organize and conduct the tutorial at ISC 2018 in Frankfurt, Germany.
- Tutorial presenters need to be registered ISC 2018 participants. The ISC organizers will grant a 100% discount on the tutorial pass to the tutorial presenters.
- Tutorial organizers are responsible for submitting the material to be given to attendees (slide sets, additional teaching material, software installation and usage guides for practical hands-on sessions, etc.) to the Tutorials Committee Chair. The tutorial organizers agree to release these materials to the tutorial attendees.
- The ISC organizers will provide meeting room facilities and basic technical equipment for the tutorials, including internet access. Hands-on tutorials must be prepared to rely on laptops brought by the participants.
- Generally, ISC does not cover travel, accommodation, registration fees and such costs besides given exceptions (see "Travel Support" and discount rules).

Travel Support

In general, ISC does not cover travel, accommodation, registration fees and other such costs but tutorial presenters from academia may receive travel support as follows:

Max. Travel Funding per Person	Germany	Europe	Others
Full-Day Tutorial	175 Euro	300 Euro	500 Euro
Half-Day Tutorial	150 Euro	250 Euro	400 Euro

Travel support will be granted to a maximum of two presenters from academia for half-day tutorials and four presenters from academia for full-day tutorials. Presenters holding two half-day tutorials are treated like presenters of full-day tutorials. All requests for travel funding need to be included in the tutorial proposal.

ISC 2018 Tutorials Committee

- **Rosa M. Badia**, Barcelona Supercomputing Center, Spain (Chair)
- **Sandra Wienke**, RWTH Aachen University, Germany (Deputy Chair)
- **Damian Alvarez Mallon**, Forschungszentrum Jülich, Germany
- **Pavan Balaji**, Argonne National Laboratory, USA
- **Alejandro Duran**, Intel, Spain
- **Fernanda S. Foertter**, Oak Ridge National Laboratory, USA
- **Dario Garcia**, Barcelona Supercomputing Center, Spain
- **Ganesh Gopalakrishnan**, University of Utah, USA
- **Gregory L. Lee**, Lawrence Livermore National Laboratory, USA
- **Christian Perez**, INRIA, France
- **Enrique Quintana**, Universidad Jaime I, Spain
- **William Sawyer**, Swiss National Supercomputing Centre, Switzerland
- **Martin Schulz**, TU Munich, Germany
- **Eric Stotzer**, Texas Instruments, USA
- **Domenico Talia**, Università della Calabria
- **Michèle Weiland**, EPCC – The University of Edinburgh, UK