PRACE Course: Advanced Topics in High Performance Computing

LRZ | 18.-21.3.2019

Information

- Course site:
  LRZ Building, Boltzmannstr. 1, D-85748 Garching bei Muenchen, Kursraum 2, H.U.010

- Tutorials:
  Every day, interleaved with lectures

PRACE Courses

PRACE Training Courses

LRZ is part of the Gauss Centre for Supercomputing (GCS), which is one of the **ten PRACE Training Centres** that started in 2012-2017:

- Barcelona Supercomputing Center (Spain)
- CINECA Consorzio Interuniversitario (Italy)
- CSC – IT Center for Science Ltd (Finland)
- EPCC at the University of Edinburgh (UK)
- Gauss Centre for Supercomputing (Germany)
- Maison de la Simulation (France)
- GRNET – Greek Research and Technology Network (Greece)
- ICHEC – Irish Centre for High-End Computing (Ireland)
- IT4I – National Supercomputing Center VSB Technical University of Ostrava (Czech Republic)
- SURFsara (The Netherlands)

Mission: Serve as **European hubs and key drivers of advanced high-quality training** for researchers working in the computational sciences.

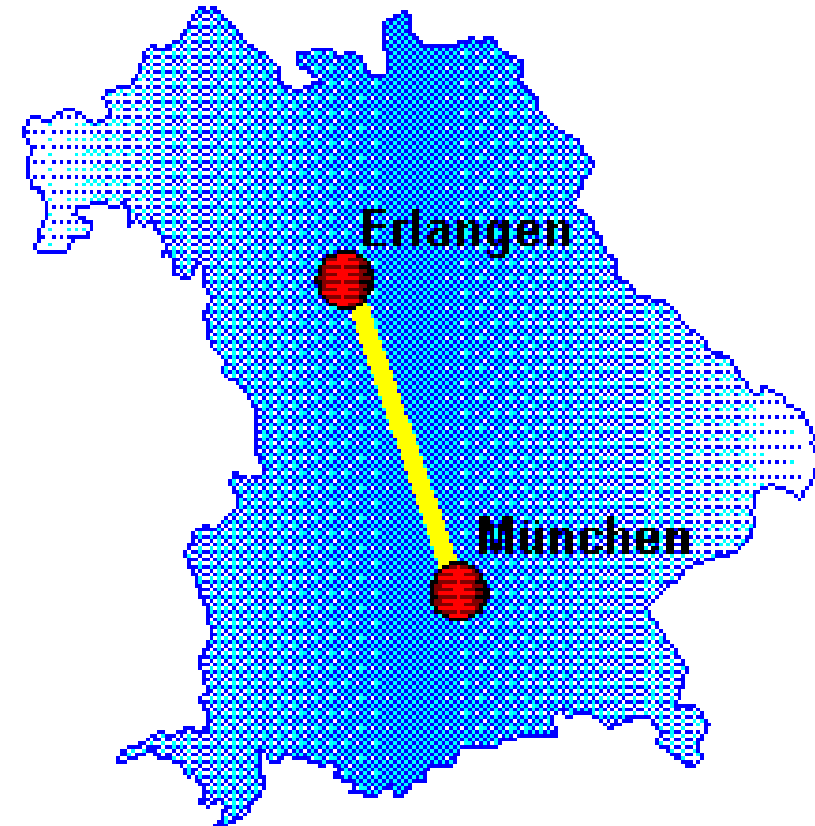**http://www.training.prace-ri.eu/**

Presenters

- Presenters:
  - Dr. Reinhold Bader, LRZ
  - Dr. Jan Eitzinger, RRZE
  - Dr. Georg Hager, RRZE
  - Dr. Sandra Mendez, LRZ
  - Dr. Andrey Semin, Intel
  - Dr. Volker Weinberg, LRZ

Erlangen

München

Tentative Schedule

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	Day A1	Day A2	Day A3	Day A4
9:00 – 9:30	Welcome & Intro IvyMUC (Weinberg)	Parallel I/O with MPI IO (Hager)	Scientific Data Libraries: HDF5 Scalable I/O library: SIONlib (Mendez)	PGAS programming with coarray Fortran and Unified Parallel C (Bader)
9:30 – 10:00	Processor-Specific Optimization (Eitzinger)			
10:00 – 10:30				
10:30 – 11:00				
11:00 – 11:30				
11:30 – 12:00				
12:00 – 12:30				
12:30 – 13:00	Lunch break	Lunch break	Lunch break	Lunch break
13:00 – 13:30				
13:30 – 14:00	Processor-Specific Optimization (Eitzinger)	Tuning I/O on LRZ's HPC systems I/O Profiling: Darshan tool (Mendez)	Public Lecture: Intel Xeon Scalable (Skylake) processor architecture (Hörsaal, Andrey Semin, Intel)	PGAS programming with coarray Fortran and Unified Parallel C (Bader)
14:00 – 14:30				
14:30 – 15:00				
15:00 – 15:30				
15:30 – 16:00			Guided SuperMUC Tour (Weinberg)	
16:00 – 16:30				
16:30 – 17:00				

Weinberg, 08/03/2019

Learning Management Platform

- Moodle" is a learning management platform at RRZE
  - Workshop page: https://goo.gl/c2wTi2

    https://moodle.rrze.uni-erlangen.de/course/view.php?id=111

- You can enter as a guest, but to participate in forums and enter polls you have to register:
  - Create an account, specify your email address.
  - This way we can also reach you even after the course.
- Exercises will be done on the LRZ IvyMUC cluster.

IvyMUC Cluster at LRZ

And now …

Enjoy the course!