Leibniz-Rechenzentrum
der Bayerischen Akademie der Wissenschaften

PRACE

IT4Innovations
national 01$#&0
supercomputing
center @#01%101

PRACE PATC Course:
Intel MIC Programming Workshop &
Scientific Workshop: HPC for natural hazard assessment
and disaster mitigation, 26 - 30 June 2017, LRZ

GEFÖRDERT VOM

Bundesministerium
für Bildung
und Forschung

CzeBaCCA Project

- **Czech-Bavarian Competence Team for Supercomputing Applications (CzeBaCCA)**

- **BMBF funded project that started in Jan. 2016 to:**

  - **Foster Czech-German Collaboration in Simulation Supercomputing**
    - series of workshops
  - **Establish Well-Trained Supercomputing Communities**
    - joint training program
  - **Improve Simulation Software**
    - establish and disseminate role models and best practices of simulation software in supercomputing

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DLR Project Management Agency

CzeBaCCA Trainings and Workshops

- Intel MIC Programming Workshop, 3 – 4 February 2016, Ostrava, Czech Republic
- Scientific Workshop: SeisMIC - Seismic Simulation on Current and Future Supercomputers, 5 February 2016, Ostrava, Czech Republic
- PRACE PATC Course: Intel MIC Programming Workshop, 27 - 29 June 2016, Garching, Germany
- Scientific Workshop: High Performance Computing for Water Related Hazards, 29 June - 1 July 2016, Garching, Germany
- PRACE PATC Course: Intel MIC Programming Workshop, 7 – 8 February 2017, Ostrava, Czech Republic
- Scientific Workshop: High performance computing in atmosphere modelling and air related environmental hazards, 9 February 2017, Ostrava, Czech Republic
- PRACE PATC Course: Intel MIC Programming Workshop, 26 – 28 June 2017, Garching, Germany
- Scientific Workshop: HPC for natural hazard assessment and disaster mitigation, 28 - 30 June 2017, Garching, Germany

CzeBaCCA Trainings and Workshops

Agenda: Wednesday

- **Wednesday, June 28, 2017, 13:00-18:00, Hörsaal, H.E.009 (Lecture Hall)**
- **Plenum session with invited talks on MIC experience and best practice recommendations (joint session with the Scientific Workshop "HPC for natural hazard assessment and disaster mitigation"), public session**
- 13:00-13:30 Luigi Iapichino, IPCC@LRZ: "Performance Optimization of Smoothed Particle Hydrodynamics and Experiences on Many-Core Architectures"
- 13:30-14:00 Michael Bader/Carsten Uphoff, IPCC@TUM: "Extreme-scale Multi-physics Simulation of the 2004 Sumatra Earthquake"
- 14:00-14:30 Vit Vondrak/Branislav Jansik, IPCC@IT4I: "Development of Intel Xeon Phi Accelerated Algorithms and Applications at IT4I"
- 14:30-15:00 Michael Klemm, Intel: "Application Show Cases on Intel® Xeon Phi™ Processors"
- 15:00-15:30 Coffee Break
- 15:30-16:00 Jan Eitzinger, RRZE: "Evaluation of Intel Xeon Phi "Knights Landing": Initial impressions and benchmarking results"
- 16:00-16:30 Piotr Korcyl, University of Regensburg: "Lattice Quantum Chromodynamics on the MIC architectures"
- 16:30-17:00 Nils Moschüring, IPP: "The experience of the HLST on Europes biggest KNL cluster"
- 17:00-17:30 Andreas Marek, Max Planck Computing and Data Facility (MPCDF), "Porting the ELPA library to the KNL architecture"
- 17:30-18:00 Q&A, Wrap-up
- 19:00 Informal Dinner at Gasthof Neuwirt
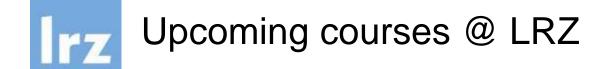
PRACE PATC Evaluation Form

Please fill out the course evaluation form
before leaving this room to help us and PRACE to increase the
quality of PATC trainings.

https://events.prace-ri.eu/event/609/evaluation/evaluate

http://tinyurl.com/yabw6zzw

You will get a USB memory stick + certificate for free :-)

Thank you!!

Upcoming courses @ LRZ

- **Scientific Workshop: HPC for natural hazard assessment and disaster mitigation**
  Wednesday, June 28, 2017 13:00 - Friday, June 30, 2017 around noon
- **Using R at LRZ**
  Thursday, July 4, 2017, 9:00-17:00
- **Workshop - HPC mit COMSOL Multiphysics am LRZ**
  Thursday, July 13, 2017, 9:30 - 16:00
- **Compact Course: Iterative Linear Solvers and Parallelization**
  Monday, September 4 - Friday, September 8, 2017, 08:30 (Mo) - 15:30 (Fr)
- **CLC training: NGC data analysis**
  Thursday, Sep 7, 2017 9:30 - 17:00
- **PRACE PATC Course: Advanced Fortran Topics**
  Monday, September 11 - Friday, September 15, 2017, 09:00 - 18:00
- **PRACE PATC Course: Node-Level Performance Engineering**
  Thursday, November 30 - Friday, December 1, 2017, 9:00 - 17:00
- **PRACE PATC Course: Introduction to hybrid programming in HPC**
  Thursday, January 18, 2018, 10:00 - 17:00

PATC Course Curriculum @ LRZ

- **Intel MIC Programming Workshop**
  3-days, 3 LRZ + 1 RRZE + 1 Intel lecturers + 8 invited speakers
  June 2017 & 2018
- **Advanced Fortran Topics**
  2 days, 2 LRZ lecturers, September 2017 & 2018
- **Node-Level Performance Engineering**
  2 days, 2 RRZE lecturers, December 2017 & 2018
- **Introduction to hybrid programming in HPC**
  1-day, 1 HLRS & 1 RRZE lecturers, January 2018
- **Advanced Topics in High Performance Computing**
  4-days, 3 LRZ + 2 RRZE lecturers, March 2018
- **VI-HPS Tuning Workshop**
  5-days, 15 lecturers, April 2016 & 2018
- **HPC Code Optimisation Workshop**
  1 day, 2 IPCC @ LRZ lecturers, May 2018

HPC Courses

- Information on further HPC courses:

  - **by LRZ:**
    http://www.lrz.de/services/compute/courses/
  - **by the Gauss Centre of Supercomputing (GCS):**
    http://www.gauss-centre.eu/training
  - **by the PRACE Advanced Training Centres (PATCs):**
    ttp://www.training.prace-ri.eu/
  - **by IT4Innovations:**
    http://prace.it4i.cz/kurzy-it4innovations/

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- **Adrian Jackson (EPCC)**

Thanks for joining the Intel MIC Programming Workshop!