### HiPerCH 3

All presentations will be in English.

On March 23-24, 2015 the upcoming workshop of HPC-Hessen (Hessisches Kompetenzzentrum für Hochleistungsrechnen) will take place in Giessen. It is the third workshop about High Performance Computing Hessen (HiPerCH).

This workshop is addressed to all scientists that use high performance computing in Hessen. The goal of this event is to advance competence of users on high performance computing.

**Registration:** Please register on our webpage. **The number of places is limited** (30 places). URL: http://www.hpc-hessen.de/en/hpc-hessen/worshops-and-events/

Attendance fee: 40,00 Euro.

This includes lunch and coffee breaks as well as the evening event.

Bachelor and Master students pay 20,00 Euro. After your registration you will receive a bill for this workshop. Please pay by March 10, 2015:

Sparkasse Darmstadt

(BLZ: 508 501 50; Kto.-Nr. 704 300) IBAN: DE 36 5085 0150 0000 7043 00,

BIC: HELADEF1DAS

Reason for payment: SC 582 00346, HiPerCH 3, "your name", "your university"

For further information, please visit our webpage: URL: http://www.hpc-hessen.de

#### Contact:

Hessisches Kompetenzzentrum für Hochleistungsrechnen Mornewegstraße 30 64293 Darmstadt

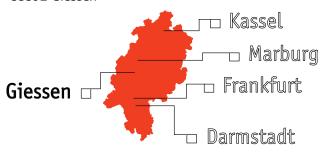
Email: veranstaltungen@hpc-hessen.de





#### Location:

Justus-Liebig-University Giessen
Seminarraum B202
Interdisziplinäres Forschungszentrum (IFZ)
Heinrich-Buff-Ring 26
35392 Giessen



# HiPerCH 3

**High Performance Computing Hessen** 

**Introduction to High Performance Computing** 

March 23-24, 2015 Giessen

## **Agenda**

This course is targeted at Hessian students and scientists with interest in programming modern HPC hardware.

#### TOPICS:

- Introduction to computer architecture for software developers
- Basics of performance engineering
- Single core performance issues: principles and optimization techniques
- Initial steps in shared memory parallel programming with OpenMP
- Performance limiting issues on multicore compute nodes
- Optional: Introduction to the roofline performance model

#### METHOD:

The Workshop consists of lectures supplemented with hands-on sessions.

#### PREREQUISITES:

Participants must have basic knowledge with UNIX/Linux (login with secure shell, shell commands, basic programming, vi or emacs editors) and in programming with Fortran or C. For the tutorials all participants are kindly asked to use their own laptop (WLAN).

#### INSTRUCTOR:

Dr.-Ing. Jan Treibig Erlangen Regional Computing Center (RRZE)

#### TIMETABLE:

**MONDAY, MARCH 23, 2015** 

10:00 A.M. - 10:30 A.M. REGISTRATION 10:30 A.M. - 5:00 P.M. COURSE

7:00 p.m. EVENING EVENT

TUESDAY, MARCH 24, 2015 09:00 A.M. - 4:00 P.M.

1:00 p.m. COURSE



#### **Directions to HiPerCH 3**

Justus-Liebig-Universität Giessen

Interdisziplinäres Forschungszentrum (IFZ)

#### TRAVEL BY PUBLIC TRANSPORT.

- from Giessen Main Station to IFZ you need about 20 minutes by foot, about 5 minutes plus 5 Euro by taxi.
- Starting at the square / bus terminal in front of the railway station, you cross rail tracks via a pedestrian bridge, then follow "Friedrichstrasse" until you reach "Wartweg" (you will cross "Frankfurter Strasse"), then follow "Wartweg" for approx. 1 km until you reach turn-off to "Heinrich-Buff-Ring". Turn left, after 100m you are at the back entrance of IFZ.

#### TRAVEL BY CAR:

- coming from A5 exit "Fernwald",
- turn to Giessen on B457, at Giessen
- turn left to continue on A485 until next exit "Schiffenberger Tal, Universität",
- turn to Giessen, then
- turn left behind supermarket "Toom Markt" (opposite McDonalds) into Sandkauterweg,
- turn right into Erdkauterweg, after 300 m
- · turn left, cross the rail tracks, and
- turn left into the second road on the left side (Ohlebergsweg),
- follow Ohlebergsweg untils it ends, then
- turn right into Leihgesterner Weg.
- turn left after 100m into parking area.
- Starting from the entry of the parking area you follow the brick road until the main entrance of IFZ (painted red).

December 16, 2014