HiPerCH 6

All presentations will be in English.

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

You can book each module by itself.

**Registration:** Please register on our webpage. URL: [http://www.hpc-hessen.de/en/user-support/regular-events/hiperch-6/](http://www.hpc-hessen.de/en/user-support/regular-events/hiperch-6/)

**Attendance fee:** There is an attendance fee that depends on the different modules. This fee includes lunch and coffee breaks as well as the evening events.

Bachelor and Master students (certificate of study is necessary) receive a 50% discount. After your registration you will receive a bill for this workshop in early September. Please pay by September 15, 2016:

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 6, “your name”, “your university”

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

**Contact:**
Hessisches Kompetenzzentrum für Hochleistungsrechnen
Mornewegstraße 30
64293 Darmstadt
Email: veranstaltungen@hpc-hessen.de

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**HiPerCH 6**
High Performance Computing
Hessen

**Introduction to High Performance Computing**
September 27 - 30, 2016
Darmstadt

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**Location:**
HiPerCH 6
TU Darmstadt
Landwehrstraße 48A, 50
S4|10 Room 1 (Tuesday)
S4|22 Room 5 and 6 (Wednesday - Friday)
64293 Darmstadt

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**Directions to TU Darmstadt**

**Travel by public transport:**
At Darmstadt’s main train station (Darmstadt Hauptbahnhof) stop long-distance trains as well as regional and interurban trains, buses, and street cars. From the railway station take Bus “K” or „K 56“ to „Kasinostrasse“.

**Travel by car:**
Leave autobahn A5 (Frankfurt/M – Heidelberg, Basel), or A67 (Köln, Wiesbaden – Mannheim) at the exit “Darmstädtter Kreuz”, direction to “DA-Stadtmittte“, turn left at „Kasinostraße/B3“, and again left at „Landwehrstraße“.

Please note that parking costs 2,50 € per day; the vending machines accept only coins!
# Agenda

HiPerCH 6 includes four independent modules. Special attention should be paid to module 4, the „introduction to the TotalView debugger“: HKHLR organized a Hessian-wide license (funded by HMWK), which can be used free of charge from all Hessian universities.

## Tuesday, Sept. 27

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>10:30 - 18:15</td>
<td>**S4</td>
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## Module 1: Brainware for Science

(Talks, discussions, networking)

- **10:00 - 10:30** REGISTRATION & COFFEE
- **10:30 - 12:30**
  - The story continues: HKHLR - Hessian Competence Center for High Performance Computing (C. BISCHOF)
  - The Hessian Hardware infrastructure for HPC viewed from a German perspective (N.N.)
  - Application procedure for computing time (N.N.)

## Wednesday, Sept. 28

**Module 2: Software Tools for Unix/Linux Systems**

- **08:30 - 10:00**
  - Introduction to Unix
  - Shell, Bash Basics
  - Regular Expressions
  - Editor VIM

- **10:00 - 10:30** REGISTRATION & COFFEE

- **10:30 - 12:00**
  - Documentation, visualization
  - GIT

- **12:15 - 13:00** LUNCH

## Thursday, Sept. 29

**Module 3: OpenACC**

- **08:30 - 10:00**
  - Introduction to OpenACC
  - Program and compile new code with OpenACC

## Friday, Sept. 30

**Module 4: Introduction to the TotalView Debugger**

- **10:00 - 10:30** REGISTRATION & COFFEE

- **10:30 - 12:30**
  - The course gives an introduction to OpenACC. You can learn how to program and how to accelerate your code with OpenACC.

- **12:15 - 13:00** LUNCH

- **13:00 - 15:00**
  - Introduction to Unix
  - Shell, Bash Basics
  - Regular Expressions
  - Editor VIM

## Evening event of module 2 & 3

- **19:00 (WEDNESDAY)**