

Parallel Programming Workshops 2008

Parallele Programmierung mit MPI, OpenMP und PETSc	Dresden	11. – 14. Feb. 08
Iterative Gleichungssystemlöser und Parallelisierung	Stuttgart	25. – 29. Feb. 08
Einführung in die Numerische Strömungsmechanik	Kassel	3. – 7. März 08
NEC SX-8 Nutzung und Programmierung	Stuttgart	27. – 28. März 08
2 nd HLRS Parallel Tools Workshop	Stuttgart	7. – 9. Juli 08
Parallele Programmierung mit MPI, OpenMP und PETSc (in Englisch)	Manno (CH)	12. – 14. Aug. 08
Iterative Gleichungssystemlöser und Parallelisierung	Garching	15. – 19. Sep. 08
Einführung in die Numerische Strömungsmechanik	Stuttgart	22. – 26. Sep. 08
Parallele Programmierung mit MPI, (in Englisch)	Stuttgart	6. – 7. Okt. 08
Shared Memory Parallelisierung mit OpenMP (in Englisch)	Stuttgart	8. Okt. 08
Paralleles Programmieren für Fortgeschritten (in Englisch)	Stuttgart	9. – 10. Okt. 08
Parallele Programmierung mit MPI, OpenMP und PETSc	Jülich	26. – 28. Nov. 08

Programmiersprachen-Kurse 2008

C++ für wissenschaftliches Rechnen	Stuttgart	10. – 20. März 08
Fortran für wissenschaftl. Rechnen	Stuttgart	31.3. – 4. Apr. 08
Fortran für wissenschaftl. Rechnen	Stuttgart	27. – 31. Okt. 08

Fees:

The participation in the compact course is free for members of German universities and research institutes. For participants from industrial enterprises the fee is 150€ and has to be paid **cash only** at the beginning of the course at the registration desk.

Content Level / Beginners and Advanced Part:

Monday and Tuesday is the beginners part for parallelization with MPI, and Wednesday for shared memory parallelization with OpenMP. Thursday and Friday is dedicated to advanced topics in parallel programming. One can register for all parts (5 days), or only for some days, e.g., beginners or advanced part.

Place and Date:

The compact course begins on Monday, October 6, 2008, at 9.00 o'clock, and ends on Friday, October 10, 2008, at 16.30 o'clock. The registration takes place on Monday, October 6, from 8.30 o'clock to 9.00 o'clock before the seminar room of the HLRS, University of Stuttgart, Allmandring 30.

Organization:

Dr. Rolf Rabenseifner (HLRS Stuttgart)

Contact:

Dr. R. Rabenseifner
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Fax: (07 11) 685 – 658 32
Email: rabenseifner@hlrs.de

Further Information:

http://www.hlrs.de/news-events/events/2008/parallel_prog_fall2008

Subject to change



**Invitation
to the compact course on**

**MPI and OpenMP for
beginners and advanced
topics in parallel
programming**

October 6-10, 2008

in Stuttgart

Rolf Rabenseifner
Höchstleistungsrechenzentrum
Universität Stuttgart
Nobelstr. 19
D-70550 Stuttgart

MPI and OpenMP for beginners and advanced topics in high performance computing

Adressed audience:

The compact course is meant for graduate students in engineering sciences, physics, computer science, mathematics as well as scientists at application orientated research institutes.

Goals of the course:

The focus is on programming models MPI and OpenMP, domain decomposition, parallelization with PETSc, and optimization. Hands-on sessions (in C and Fortran) will allow users to immediately test and understand the basic constructs of the Message Passing Interface (MPI) and the shared memory directives of OpenMP. Course language is ENGLISH (if required). This workshop provides scientific training in Computational Science, and in addition, the scientific exchange of the participants among themselves.

Topics:

The compact course is constructed practice-orientedly and divided into lectures and exercises. In the context of the course the possibility is given to the participants to convert teaching contents into computer programs.

The course addresses the following topics:

- Message Passing Interface (MPI 1.2 and MPI-2)
- Domain Decomposition
- Load Balancing
- Shared Memory Parallelization with OpenMP
- Intel Thread Checker
- Advanced MPI+OpenMP Programming
- Intel Compilers with Cluster OpenMP
- Introduction to PETSc
- Tools (Debugging, Profiling)
- Hybrid Parallelization (MPI+OpenMP)
- Parallelization of explicit and implicit solvers
- Parallel MPI-I/O, and Parallel Numerics

The detailed, course-accompanying documents are contained in the participation fee.

Speakers:

- ◆ Dr. R. Rabenseifner (HLRS, Stuttgart)
- ◆ K. Benkert (HLRS, Stuttgart)
- ◆ B. Krammer (HLRS, Stuttgart)
- ◆ U. Küster (HLRS, Stuttgart)
- ◆ R. Keller (HLRS, Stuttgart)
- ◆ U. Wössner (HLRS, Stuttgart)

Organization and Registration:

The compact course is organized by the High Performance Computing Center Stuttgart (HLRS). The registration can be done by the enclosed form or online at

http://www.hlrs.de/news-events/events/2008/parallel_prog_fall2008

Deadline for registration is **Sep. 7, 2008**.

Due to the course-accompanying computer exercises the number of participants is limited. Admission is given according to the temporal order of the registrations.

Registration to compact course

MPI and OpenMP for beginners and advanced topics in parallel programming

**October 6-10, 2008
in Stuttgart**

Name:

First Name:

Title:

Institution:

Street + House nr.:

Postal Code + City:

Telephone:

Telefax:

Email:

Place, Date

Signature

If possible, please register via Online-registration (there under course 2008-G):
http://java2.hlrs.de/ParProgWS_Registration/