

2010 Guest Student Programme on Scientific Computing in Germany (funded)

<http://www.fz-juelich.de/jsc/gsp/announcement>

Where: Juelich Supercomputing Centre (JSC), Forschungszentrum Juelich

When: 2 August to 8 October 2010

In order to give students the opportunity to familiarize themselves with various aspects of scientific computing as early as possible, the Juelich Supercomputing Centre (JSC) is once again organizing a programme for guest students in the 2010 summer vacation. The programme targets students of science and engineering, informatics and mathematics who have already completed their first degree but have not yet finished their master's course.

The students will work together with scientists from JSC on topics of current interest in research and development. Depending on their previous experience and interests, they will be involved in various fields of work, for example:

Computational Science, Applied Mathematics

- Modelling and simulation in physics, chemistry and biophysics
- Techniques of parallel molecular dynamics simulation
- Efficient methods for long-range interactions
- Parallel computational procedures in quantum chemistry and structural mechanics
- Performance evaluation of parallel algorithms in linear algebra
- Mathematical modelling and statistics, data mining

High-Performance Computing, Visualisation

- Performance analysis and optimization of parallel programs
- Programming of hierarchical parallel computer systems
- Distributed applications, interactive control and visualisation
- Virtual reality techniques for visualising scientific data

Computer Architectures, Grid Computing

- Grid computing, uniform and secure access to IT resources
- Cluster operating systems
- Interconnection networks in clusters
- Data management
- High-speed data networks
- Network management

The programme will run for ten weeks from 2 August to 8 October 2010. The students will be able to use the supercomputers at JSC, including JUGENE – currently the fastest computer in Europe. They should naturally be familiar with computer-oriented areas of their subjects. In addition, they should also have practical computer experience including at least a good knowledge of programming with C, C++ or Fortran on Unix systems.

Applications should be made in writing by *30 April 2010*. They should include:

- CV with photograph
- Certificates of bachelor's degree or equivalent
- School-leaving certificate
- Proof of student status (summer semester 2010)
- Level of knowledge in the above-mentioned disciplines

- Special interest in a particular field of work and motivation letter
- Detailed recommendation by a university lecturer

Please send your application in German or English to:

Prof. Dr. Dr. Thomas Lippert
Jülich Supercomputing Centre
Institute for Advanced Simulation
Forschungszentrum Jülich
52425 Jülich (Germany)

Receipt of your application will be confirmed by e-mail. Candidates will be selected after the closing date for applications on 30 April 2010.

Dates

Closing date for applications: 30 April 2010 Start of the programme: 2 August 2010
Programming course 3-6 August 2010 Colloquium 27-28 September 2010
End of the programme 8 October 2010

More information: <http://www.fz-juelich.de/jsc/gsp>
Deadline: 30 April 2010

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