Applications

Please submit your application digitally before 31 March 2016, including:

- CV with photograph
- Certificates of bachelor's degree or equivalent, and a German or English transcript thereof
- School-leaving certificate with transcript
- Proof of student status (summer semester 2016)
- Level of knowledge in the above-mentioned disciplines
- Special interest in a particular field of work
- Motivation letter
- Detailed recommendation by at least one university lecturer

Please apply online at:

gsp.fz-juelich.de/application

Receipt of your application will be confirmed by e-mail. Candidates will be selected after the closing date. Notification of acceptance will be sent by 6 May 2016.

Supported by

cecam IBM

Dates

Closing date for applications:	31 March 2016
Start of the programme:	1 August 2016
Programming course:	2 - 12 August 2016
Colloquium	27 September,
	28 September 2016
End of the programme:	7 October 2016

Further Information

Closing Date 31 March 2016

Jülich Supercomputing Centre
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Forschungszentrum Jülich

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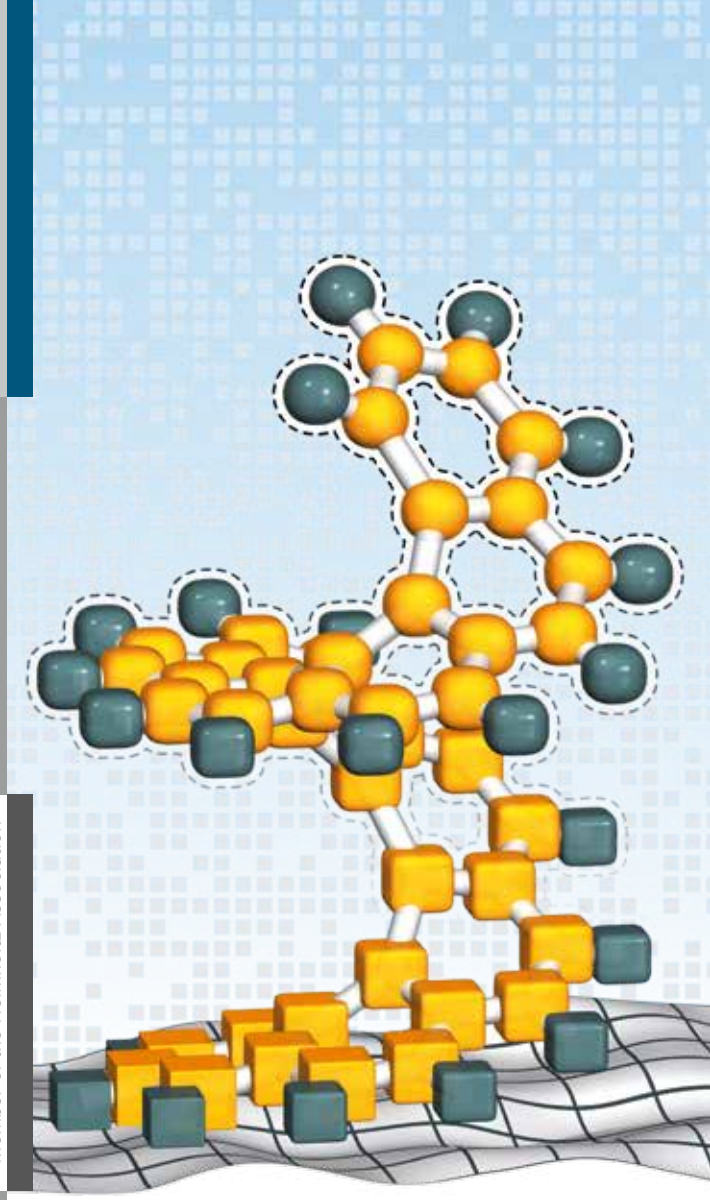
Member of the Helmholtz Association



Guest Student Programme 2016

Jülich Supercomputing Centre, 1 August - 7 October

JÜLICH FORSCHUNGSZENTRUM

Our Programme

In order to give students the opportunity to familiarize themselves with various aspects of scientific computing as early as possible, the Jülich Supercomputing Centre (JSC) is once again organizing a programme for guest students in the 2016 summer vacation. The programme is supported by CECAM - Centre Européen de Calcul Atomique et Moléculaire and IBM. It 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

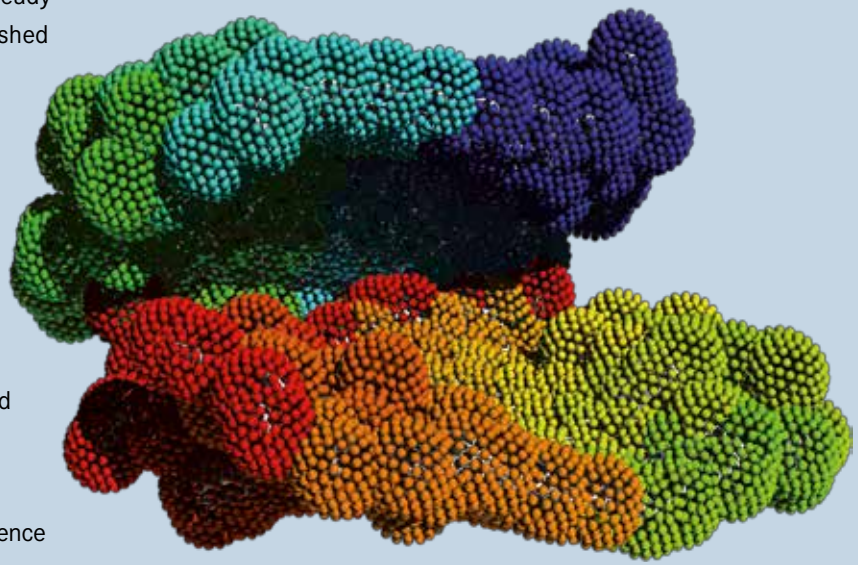
- Modelling and simulation in physics, chemistry and biophysics
- Techniques of parallel MD simulations
- Modelling, simulation and data analysis in neuroscience
- Parallel computational procedures in quantum chemistry and structural mechanics
- Performance evaluation of parallel algorithms in linear algebra
- Mathematical modelling, statistics and data mining

Computer Architectures, Distributed Computing

- Distributed computing, uniform and secure access to IT resources
- Cluster operating systems & network management
- High-speed data networks & data management

High-Performance Computing, Visualization

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



The programme will run for ten weeks from **1 August to 7 October 2016**. The students will be able to use the supercomputers at JSC, including the latest Blue Gene/Q installation JUQUEEN, which is one of the TOP 15 supercomputers in the world. They should naturally be familiar with computer-oriented areas of their subjects. In addition, they should also have practical computer experience including a good knowledge of programming with C, C++, Python or Fortran on Linux systems.

Programme Schedule

The programme starts with an introductory course concerning the techniques of parallel computing and use of the Jülich supercomputers. The course consists of lectures and practical exercises. Each student will then be assigned to a supervisor, who is a member of staff. The students work on a topic of the supervisor's active field of research. In a colloquium at the end of the programme, the students will give presentations on their work and discuss their results with other students and scientists. They will also prepare a final report on their work. Information on the topics and results of previous guest student programmes can be found on the website given below.

Compensation & Accommodation

The students will receive an expense allowance and are supposed to reside in Jülich for the entire duration of the programme. On request, Forschungszentrum Jülich will provide assistance in finding accommodation. Participants will be expected to fund their own travel and accomodation.