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## PRACE Early Access Projects Granted

Since 1 August 2010, the Partnership for Advanced Computing in Europe (PRACE) has been providing supercomputer resources on the highest level (Tier-0) to European researchers. As Jülich is a member of the Gauss Centre for Supercomputing (GCS) and is involved in shaping PRACE, as well as hosting the only European Tier-0 supercomputer currently available, it is dedicating a 35% share of the IBM Blue Gene/P system JUGENE to PRACE.

Proposals for the first PRACE projects on JUGENE were solicited in an early access call released by PRACE on 10 May 2010 with the deadline 10 June 2010. Emphasis was put on projects that could start immediately with little or no preparation and that would be able to achieve significant scientific results within an initial grant period of four months. The comparative international peer reviewing process was headed by Prof. Richard Kenway, EPCC. After scientific evaluation and prioritization, ten out of the 65 proposals were accepted in this very competitive process: five from Germany, two from the UK, and one each from Italy, the Netherlands and Portugal. These projects, two each from the fields of Astrophysics, Engineering and Energy, and from Fundamental Physics, and one each from the fields of Chemistry and Materials, Earth and Environmental Sciences, and from Mathematics and Computer Science, were awarded a total of about 320 million compute core hours. More details on these projects can be found at the PRACE homepage, *http://www.prace-project.eu/hpc-access/page-11/*.

From now on, PRACE calls for Tier-0 computing time grants will be issued twice every year, the project starting dates being 1 May and 1 November of the year with the respective submission deadlines about 3 months earlier.
(Contact: Dr. Walter Nadler, ext. 2324)

## New Work File System on JUGENE

In order to double the performance of the file system, the work file system $WORK on JUGENE will be replaced by a new one. Because of the huge amount of data and the enormous number of files that have to be transferred during this process, this complex task will be carried out in several steps. Besides the tasks that have to be done by JSC, we kindly ask our JUGENE users for their support as their active help will be needed. The migration phase will start on 13 September 2010 with some initial preparations. From 29 September, JUGENE users are asked to transfer their data to the new file system by 2 November 2010. For details, please read *http://www.fz-juelich.de/jsc/news/jugenework*.
(Contact: Supercomputer Helpdesk, ext. 2828)

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## Kick-off for PRACE-1IP

On 30 - 31 August 2010, PRACE-1IP, the first implementation phase project for the PRACE research infrastructure, held its kick-off meeting at LRZ in Garching. The European Commission is providing € 20 million of funding for the PRACE-1IP project over the next two years. The project, coordinated by JSC, supports and accelerates the implementation of the pan-European High-End Computing Research Infrastructure created and operated by PRACE, the Partnership for Advanced Computing in Europe. The chair of the GCS board, Prof. Heinz-Gerd Hegering, gave a warm welcome to the 121 participants from all 20 PRACE countries. At the meeting, the work plan for the next months was discussed. This also provided the opportunity to establish personal contacts especially with the colleagues from the six new partner countries – Cyprus, Serbia, Turkey, Ireland, Bulgaria and the Czech Republic – that have joined PRACE since the initiative started in 2007.
(Contact: Dr. Thomas Eickermann, ext. 6596)

## EU Exascale Project TEXT Launched

The EU FP7-funded project "Towards EXascale applicaTions" (TEXT) started on 1 June 2010. For two years, nine partners from France, Germany, Greece, Spain, Switzerland and the UK aim to demonstrate the benefits of the hybrid MPI/SMPSs programming model on a rich set of real-world applications. SMPSs, developed by the Barcelona Supercomputing Center, is a new task-based programming model which can be seen as an extension to the latest OpenMP 3.0 standard. By taking data dependencies into account, the SMPSs runtime can schedule the tasks more efficiently, which results in a more scalable execution of the application program. This also reduces the burden on the application programmer making this new programming model easier to use.

JSC is involved in two aspects of the project: it will investigate how SMPSs allow the scalability of the plasma physics applications PEPC and PSC to be increased, and it will enhance its well-known performance analysis toolset Scalasca to support measurement and analysis of hybrid MPI/SMPSs. The project website can be found at:
*http://www.project-text.eu/*.
(Contact: Dr. Bernd Mohr, ext. 3218)

## First MATSEs Complete their Training

At the end of August 2010, the first final examination in the new MATSE vocational training programme (mathematical technical software developer) was held at Forschungszentrum Jülich. This training course was established in 2007 and replaced the former MaTA programme (mathematical technical assistant). All 30 MATSE trainees passed their exams successfully. Ten of them managed to get the overall grade of 1, i.e. "very good". An outstanding result was achieved by Carsten Karbach (JSC): he scored the maximum number of points in all four parts of the examination.

All MATSE trainees from Forschungszentrum Jülich are, at the same time, enrolled in the bachelor's course in Scientific Programming at Aachen University of Applied Science (FH Aachen). By mid September 2010, three quarters of the students will have additionally graduated with a bachelor's degree, thus finishing their course in the prescribed time.
(Contact: Prof. Paul Jansen, ext. 6430)

## New MATSE and Bachelor's Course Started

On 1 September 2010, 29 new students started the bachelor's course in Scientific Programming at Aachen University of Applied Science (FH Aachen) in combination with a training course as a mathematical technical software developer (MATSE) at Forschungszentrum Jülich. About half of the time in the MATSE qualification is devoted to practical training. 21 of the 29 students will receive practical training in various institutes at Forschungszentrum Jülich while eight students are with external partners (five industrial companies, the Max Planck Institute of Iron Research and FH Aachen). Both the vocational training and academic studies are designed to take three years. The curriculum and further information can be found at:
*http://www.fz-juelich.de/jsc/matse*
(Contact: Prof. Paul Jansen, ext. 6430)

## Events

**GPU Programming**
Speakers: Dr. J. Meinke, J. Kreutz, W. Homberg, JSC;
Dr. D. Becker, S. Rinke, GRS
Date: 4 - 6 October 2010, 9:00 - 16:30
Venue: Ausbildungsraum 1, Jülich Supercomputing Centre
Registration: *W.Homberg@fz-juelich.de*, ext. 2424

**Jülich-Chernogolovka Seminar**
Topic: Protein Folding
Date: Wednesday, 6 October 2010, 14:00
Venue: Hörsaal, Jülich Supercomputing Centre

**UNICORE 6 – uniform access to the supercomputer systems**
Speaker: Michael Rambadt, JSC
Date: Tuesday, 26 October 2010, 9:00 - 12:00
Venue: Ausbildungsraum 2, Jülich Supercomputing Centre
Registration: *M.Rambadt@fz-juelich.de*, ext. 4340

If you would like to receive regular information on our events, please send an e-mail to *jsc-events-join@fz-juelich.de*.

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