

JSCNews

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Large Experiment on Crowd Dynamics Conducted

As part of the BaSiGo project, the division "Civil Security and Traffic" at JSC, in cooperation with the Institute for Media Research of the University of Siegen, the Department of Computer Simulation for Fire Safety and Pedestrian Traffic of the University of Wuppertal and other partners, conducted large-scale experiments on the dynamics of crowds. The experiments with a total of 2000 participants ran from 19 to 22 June in a hall at the exhibition site Messe Düsseldorf, who provided access to their facility free of charge.

The scientists conducted experiments on a variety of topics. From investigating basic geometries such as corridors and crossings, to tests on which decisions humans make when evacuating a room, given the choice of several different escape routes. The Institute for Media Research focused on the question whether the behaviour of the crowd can be influenced by signs, in order to affect the steering and route choice of pedestrians. Details on the recording techniques and first insights gained by the experiments will be described in a special issue of JSC News in October.

The experiments received widespread media coverage, with reports in the Tageschau television news and other national and regional media. Photos can be found at <http://www.fz-juelich.de/basigo-photos>.

(Contact: Prof. Armin Seyfried,
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Conference Euro-Par 2013

Euro-Par is an annual series of international conferences dedicated to the promotion and advancement of all aspects of parallel and distributed computing. It covers a wide spectrum of topics from algorithms and theory to software technology and hardware-related issues, with application areas ranging from scientific to mobile and cloud computing.

Euro-Par 2013 is the 19th conference in the Euro-Par series, and will take place in Aachen, Germany, from 26 to 30 August 2013. The conference is jointly organized by the German Research School for Simulation Sciences, Forschungszentrum Jülich, and RWTH Aachen University in the framework of the Jülich Aachen Research Alliance (JARA).

Euro-Par 2013 is very pleased to announce three invited speakers with an international reputation, who will discuss important developments in very interesting areas of parallel and distributed computing: Alok Choudhary (Northwestern University, USA), Arndt Bode (Leibniz Supercomputing Centre, Garching, Germany), and Timothy G. Mattson (Intel Corp., USA). As part of Euro-Par 2013, three tutorials and 13 workshops will also be held prior to the main conference on 24 and 25 August. For more information on the conference, see <http://www.europar2013.org> (Contact: Dr. Bernd Mohr,
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CECAM Tutorials at JSC in September

Since 2010, Forschungszentrum Jülich has been an integral part of the node structure of the Centre Européen de Calcul Atomique et Moléculaire, which consists of the central organization in Lausanne and now 18 nodes in Europe and Israel. Since that time, Jülich has organized workshops, tutorials and programmes of visits on a regular basis. In September 2013, two tutorials will be offered at JSC.

The first one, on Fast Methods for Long-Range Interactions in Complex Particle Systems, from 9 to 13 September, focuses on providing an overview of algorithms and methods for treating long-range interactions in computer simulations of particle systems. During this school, the scalable library ScaFaCoS, which is the product of a BMBF-funded Germany-wide network project, will be used to give examples, and participants are encouraged to bring their own simulation codes in order to include the ScaFaCoS functionality. For details, see <http://www.fz-juelich.de/fcs-2013>.

The second school on Multiscale Modelling Methods for Applications in Materials Science, from 16 to 20 September, is co-organized by KIT Karlsruhe and Forschungszentrum Jülich and focuses on a topic which is rapidly evolving. Courses will be given on research including a range of mutually coupled methodologies to overcome limitations induced by various length and time scales in the physical problem. The tutorial is closely related to the FP7-funded project MMM@HPC and will introduce different methods, ranging from ab initio to coarse grain techniques, and will provide insight into modern workflow design and simulation tools during the hands-on sessions. Further details can be found at <http://www.cecama.org/workshop-871.html>.

Both tutorials are still open for applications.

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Morris Riedel Appointed Adjunct Associated Professor at University of Iceland

In 2004, Morris Riedel started work at JSC in the research fields of computational steering and real-time data visualization within large distributed computing and data infrastructures. His activities since then have ranged from standardization and interoperability of data processing and management services up to application enabling activities of large geographically dispersed scientific communities.

As of May 2013, Morris Riedel has been appointed Adjunct Associated Professor in high productivity processing of big data at the School of Engineering and Natural Sciences of the University of Iceland in Reykjavik, retaining his position as a scientist at JSC. The cooperation includes lectures and supervising joint PhD students in topics related to efficient data processing and effective data management,

including smart data analytics as well as applied machine learning and data mining approaches. In his new position, Prof. Riedel will strengthen this link by means of joint research projects and the development of solutions for scientific applications that face processing and management challenges of extremely large quantities of data.

JSC wishes Morris all the best in his new position!

Best Paper Award at ICS 2013 Conference

The paper "Massively Parallel Loading" by Wolfgang Frings, Dong H. Ahn, Matthew LeGendre, Todd Gamblin, Bronis R. de Supinski, and Felix Wolf won the Best Paper Award of the International Conference on Supercomputing (ICS), which took place in Eugene, Oregon from 10 to 14 June. ICS is a premier international forum for the presentation of research results in high-performance computing systems. The paper addresses the problem of dynamic loading on massively parallel systems, which can – if carried out in an uncoordinated manner – lead to file system access storms that manifest themselves much like a denial-of-service attack, seriously degrading performance and scalability. The proposed solution, a collaborative effort by scientists from the Jülich Supercomputing Centre, Lawrence Livermore National Laboratory, and the German Research School for Simulation Sciences, efficiently coordinates the associated parallel file system operations with a scalable network of cache server processes.

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New Container Accommodation for JSC

JSC is bursting at the seams. In recent years, staff numbers have been steadily growing thanks to successful third-party and Helmholtz portfolio funding grants. In June, a landmark was reached when JSC welcomed its 200th employee. The offices in both JSC buildings are overcrowded, housing not only Jülich staff but also employees of hardware companies, e.g. those involved with the various Exascale Labs. Temporary relief is in sight, however: additional office space will be available from August when a two-storey container unit offering 70 workplaces is erected between the JSC building 16.3 and the Seecasino car park.

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Events

CECAM Tutorial "Fast Methods for Long-Range Interactions in Complex Particle Systems"

Date: 9-13 September 2013

Venue: Jülich Supercomputing Centre, Rotunda

Info: <http://www.fz-juelich.de/fcs-2013>

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