

JSCNews

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JSC Hosted 4th JLESC Workshop

From 2-4 December 2015, the 4th JLESC Workshop took place at the Gustav-Stresemann-Institut in Bonn-Bad Godesberg, organized this time by JSC. This event was the second meeting in 2015 of the Joint Laboratory on Extreme Scale Computing (JLESC) and the first one hosted by JSC. The Joint Laboratory brings together researchers from the Institut national de recherche en informatique et en automatique (Inria, France), the National Center for Supercomputing Applications (NCSA, USA), Argonne National Laboratory (ANL, USA), Barcelona Supercomputing Center (BSC, Spain), RIKEN AICS (Japan) and JSC.

With more than 100 scientists and students from the six JLESC partners, the meeting in Bad Godesberg covered a broad range of topics crucial for today's and tomorrow's supercomputing. Together with the other participants, scientists and PhD students from JSC and German partner universities caught up on cutting-edge research from the fields of resilience, I/O and programming models as well as numerical methods, applications, big data and performance tools. Besides the talks, the participants had time for fruitful discussions about their ongoing and future research during project meetings, open microphone sessions and a social event. In addition, PhD students and postdocs were able to attend the first JLESC "young scientist dinner" to exchange ideas in a less formal (and very well-received) setting.

Organized by Inria, the next JLESC workshop will take place in Lyon from 27-28 June 2016, continuing this successful series of internationally recognized and valued biannual meetings. This workshop will be followed by a two-day summer school on resilience. For more information on JLESC, the workshops and JSC's participation, visit <http://www.fz-juelich.de/ias/jsc/jlesc>.

(Contact: Dr. Robert Speck, r.speck@fz-juelich.de)

POP Improves HPC Applications

Developers of applications that require the use of high-performance computing (HPC) can now count on free advice from European experts to analyse the performance of their codes. The Performance Optimization and Productivity (POP) Centre of Excellence, funded by the European Commission under H2020, started operating at the end of 2015. The POP Centre of Excellence gathers together experts from BSC, JSC, HLRS, RWTH Aachen University, NAG and Ter@tec. The objective of POP is to provide performance measurement and analysis services to the industrial and academic HPC community, help them to better understand the performance behaviour of their codes and suggest improvements to increase their efficiency. Training and user education regarding application tuning is also provided. Further information can be found at <http://www.pop-coe.eu/>.

(Contact: Dr. Bernd Mohr, b.mohr@fz-juelich.de)

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Dr. Wei-Min Wang Awarded IUPAP Young Scientist Prize in Computational Physics

Late last year the Humboldt fellow Dr. Wei-Min Wang was awarded the 2015 Young Scientist Prize in Computational Physics of the International Union of Pure and Applied Physics (IUPAP), for "his significant achievements in computational plasma physics with applications to advanced schemes of inertial confined fusion and novel laser-plasma based particle accelerators and radiation sources". The IUPAP Young Scientist Prize in Computational Physics has been awarded annually since 2006 to a single prize-winner in recognition of original work of outstanding scientific quality. During his two-year stay at JSC, Dr. Wang proposed and numerically demonstrated advances in the contrasting topics of magnetically assisted fast ignition for laser fusion, as well as for a novel scheme to generate terahertz radiation. He will continue to pursue these topics following his recent return to the Chinese Academy of Sciences Institute of Physics in Beijing: we wish him every success in his future studies!

(Contact: Prof. Paul Gibbon, p.gibbon@fz-juelich.de)

PRACE "Summer of HPC" Award

Last summer, JSC participated as a training site in the PRACE "Summer of HPC". The programme offers summer placements for undergraduate and postgraduate students at HPC centres across Europe for two months. On 15 December 2015, the "Summer of HPC" award ceremony took place at the Barcelona Supercomputing Centre (BSC). The PRACE HPC Ambassador Award was presented to the participant who best embodied the outreach spirit of the programme, based on their blogging, media and social media presence, and future outreach plans. We congratulate our former summer student Albert Garcia on winning this award.

Albert was supervised by Andreas Beckmann at JSC. His project involved porting and generalizing compute-critical kernels of the fast multipole method (FMM) to GPUs. Besides the very high quality of the implementation, he also excelled in composing well-written blog posts that reached a huge audience on a variety of social media channels, and doubled the Summer of HPC YouTube views. His success originates in the unique and interesting presentation that was clear, concise and entertaining for the target audience.

The award also comes with a € 1500 voucher to attend a conference of his choice. Due to the high quality of the results, he had already applied and been accepted for a conference talk and poster at the GPU Technology Conference (GTC) in San José in April 2016.

(Contact: Dr. Ivo Kabadshow, i.kabadshow@fz-juelich.de)

Second NIC Excellence Project 2015

The NIC Peer Review Board honours outstanding simulation projects with the "NIC Excellence Project" award twice a year. We are pleased to announce that the current award goes to Prof. Alexander Lichtenstein (Institut für Theoretische Physik, Universität Hamburg) for his project "Continuous Time Quantum Monte Carlo for Materials". The project investigates the magnetic properties of crystalline solids. It is the second project that was honoured in 2015. The previous award went to Prof. Marcus Müller (Georg-August-Universität Göttingen) and his project "Structure and Dynamics of Polymer and Lipid Systems" in April. For more details, see <http://www.john-von-neumann-institut.de/nic/exzellenz-2015> (in German).

(Contact: Dr. Alexander Schnurpfeil, nic@fz-juelich.de)

New GCS Large-Scale Projects since November 2015

Twice a year, the Gauss Centre for Supercomputing (GCS) issues a call for large-scale projects on its petascale supercomputers, currently JUQUEEN (JSC), Hazel Hen (HLRS), and SuperMUC (LRZ). Projects are classified as large-scale if they require at least 35 million core hours. At its October meeting at JSC, the GCS Peer Review Board decided to award the status of a large-scale project to 19 projects from various fields of the simulation sciences, which is a new record. Two projects were granted a total of 330 million compute core hours on Hazel Hen. Eleven projects were granted a total of about 600 million compute core hours on JUQUEEN and seven projects were granted 360 million compute core hours on SuperMUC, including one large-scale project which obtained resources on both JUQUEEN and SuperMUC. For more details on these projects from the 14th call, see <http://www.gauss-centre.eu/large-scale>.

(Contact: Dr. Florian Janetzko, nic@fz-juelich.de)

Events

JUQUEEN Extreme Scaling Workshop 2016

Date: 1-3 February 2016, 09:00-17:00

Venue: Jülich Supercomputing Centre, Ausbildungsraum 1

Application: b.wylie@fz-juelich.de

NIC Symposium 2016

Date: 11-12 February 2016

Venue: Forschungszentrum Jülich, Auditorium

Info: <http://www.fz-juelich.de/ias/jsc/nic-symposium-2016>

Parallel I/O and Portable Data Formats

Instructors: JSC staff members

Date: 14-16 March 2016, 9:00-16:30

Venue: Jülich Supercomputing Centre, Ausbildungsraum 2

Registration: <http://www.fz-juelich.de/ias/jsc/events/parallelio>

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