1ST CHANGES WORKSHOP
HIGH PERFORMANCE COMPUTING
"PERFORMANCE TOOLS, PERFORMANCE MODELLING, AND ALGORITHMS"

Monday, 3 Sep 2012 – Wednesday, 5 Sep 2012
Forschungszentrum Jülich, Germany

Programme (Version 2012-09-04)

Monday, 3 Sep 2012	
08.30	Pickup at hotel
09:00 – 09:30	*Registration/Coffee*
	Opening and 1st keynote presentation
09:30 – 11:00	Prof. Dr. Sebastian Schmidt, Member of the Board of Directors, Forschungszentrum Jülich Prof. Dr. Dr. Thomas Lippert, Head of Jülich Supercomputing Centre, Forschungszentrum Jülich Prof. Xiangyang Huang, Director of CNIC and CNNIC, CAS/CNIC Prof. Thom Dunning, Director, National Center for Supercomputing Applications
11:00 – 12:00	*1st Keynote, Chair: Prof. Thomas Lippert* Dr. Alessandro Curioni, IBM Zurich Research Extending the scalability of electronic structure calculations by algorithms re-engineering
12:00 – 13:30	*Lunch break (Casino) and group photo*
	1st session: Algorithms I; Chair: Prof. Thom Dunning
13:30 – 14:00	Dr. Jian Zhang, Supercomputing Center, CNIC, CAS Adaptive algorithm for saddle point problem of phasefield model
14:00 – 14:30	Prof. William Gropp, University of Illinois, NCSA Finding the Happy Medium: Tradeoffs in communication, algorithms, architectures and programming models
14:30 – 15:00	Dr. Jinrong Jiang, Supercomputing Center, CNIC, CAS A nesting algorithm used for improving the resolution of sand-dust forecasting model
15:00 – 15:30	*Coffee break*
	2nd session: Algorithms II; Chair: Prof. Zeyao Mo
cancelled	Prof. Lei Yang, IMP,CAS Multiscale simulations of transport processes
15:30 – 16:00	Prof. William M. Tang, Princeton University Extreme Scale Computational Algorithms Challenges in Fusion Energy Sciences
16:00 – 16:30	Prof. Matthias Bolten, Applied Computer Science Group, University of Wuppertal Multigrid methods for structured matrices on large scale supercomputers
16:30 – 17:00	Dr. William Kramer, Deputy Director of Blue Waters, NCSA Early Application Improvement Strategies and Experiences for Blue Waters
19:00 – 21:00	*Dinner (at Burg Obbendorf),* hosted by Prof. Dr. Achim Bachem, Chairman of the Board of Directors, Forschungszentrum Jülich

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Computer Network Information Centre

University of Illinois, Urbana Champaign
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Tuesday, 4 Sep 2012	
08.30	Pickup at hotel
	1st session: Algorithms III; Chair: Dr. Norbert Attig
cancelled	*2nd Keynote* Prof. Liang Gao, NAOC, CAS Recreate Universe with supercomputer
cancelled	Prof. Guowei Yang, IMech, CAS Massive Parallel Computing for CFD in Engineering Problems
09:15 – 10:15	Prof. Zeyao Mo, IAPCM, China Possible Stack for Programming Models for Scientific Computing
10:15 – 10:45	Dr. Ivo Kabadshow, Jülich Supercomputing Centre, Forschungszentrum Jülich The Single-Parameter Fast Multipole Method - A Coulomb solver for the masses
10:45 – 11:30	*Coffee break*
	2nd session: Performance Modelling and Tools I; Chair: Prof. Xuebin Chi
11:30 – 12:00	Dr. Torsten Hoefler, Assistant Professor of Computer Science, ETH Zürich and Performance Modeling and Simulation Lead, NCSA Performance Modeling for Parallel Software Development and Tuning
12:00 – 12:30	Prof. Michael Gerndt, Technical University Munich The Periscope Application Tuning Framework
12:30 – 13:00	Dr. Jin Zhong, CAS-CNIC Introduction of Supercomputing Center CNIC
13:00 – 14:00	*Lunch break (Soup and Sandwich)*
14:00 – 22:00	*Excursion to Monschau* *Dinner at Nideggen Castle*

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Wednesday, 5 Sep 2012	
08.30	Pickup at hotel
	1st session: Performance Modelling and Tools II ; Chair: NN
09:00 – 10:00	*3rd Keynote* Dr. Martin Schulz, Lawrence Livermore National Laboratory Providing More Intuitive Performance Analysis through Scalable Visualizations
10:00 – 10:30	Dr. Nick Wright, Lawrence Berkeley National Laboratory Performance measurement and modeling for the co-design of Exascale architectures
10:30 – 11:00	Prof. Wolfgang E. Nagel, Technical University Dresden Performance tools for system monitoring?
11:00 – 11:30	*Coffee break*
	2nd session: Performance Modelling and Tools III; Chair: NN
11:30 – 12:00	Dr. Zongyan Cao, Supercomputing Center, CNIC, CAS Large scale heterogeneous scientific computing in SCCAS: practice and prospects
12:00 – 12:30	Dr. Bernd Mohr, Jülich Supercomputing Centre, Forschungszentrum Jülich Scalable Performance Measurement and Analysis
12:30 – 13:30	*Lunch break (Casino)*
	3rd session: Performance Modelling and Tools IV; Chair: NN
13:30 – 14:00	Jay Alameda, National Center for Supercomputing Applications, NCSA Improving the Eclipse Parallel Tools Platform to Create an Effective Workbench for High Performance Computing
14:00 – 14:30	Wolfgang Frings, Jülich Supercomputing Centre, Forschungszentrum Jülich Scalable system monitoring with PTP
14:30 – 17:00	*Discussions about possible collaboration in small teams* *Coffee break in between*
17:00 – 18:00	Presentation of first collaboration ideas
18:00 – 18:20	Concluding remarks
19:00 – 21:00	*Dinner at Faculty Club, Forschungszentrum Jülich,* hosted by Prof. Dr. Sebastian Schmidt, Member of the Board of Directors, Forschungszentrum Jülich