

**Science Applications for Exascale Computing - Exploring New Avenues towards Scalability and Fault-Tolerance - 6 Sep 2015-9 Sep 2015, Physikzentrum Bad Honnef, Germany.**  
**Daily Programme: Sunday 06 September 2015**

**Session: Registration**

**Time and Place: (17:00-21:00)**

**Break: Buffet / dinner - informal get together**

**Time and Place: (6 Sep 2015-6 Sep 2015)**

**Science Applications for Exascale Computing - Exploring New Avenues towards Scalability and Fault-Tolerance - 6 Sep 2015-9 Sep 2015, Physikzentrum Bad Honnef, Germany.**  
**Daily Programme: Monday 07 September 2015**

**Break: Breakfast**

**Time and Place: (7 Sep 2015-7 Sep 2015)**

**Contribution: Welcome address**

**Time and Place: (7 Sep 2015-7 Sep 2015)**

**Contribution: Quo vadis, HPC?**

**Time and Place: (7 Sep 2015-7 Sep 2015)**

**Presenters: : Alexander Reinefeld; Thomas Lippert; Volker Lindenstruth**

**Break: Discussion**

**Time and Place: (7 Sep 2015-7 Sep 2015)**

**Break: Coffee break**

**Time and Place: (7 Sep 2015-7 Sep 2015)**

**Contribution: Taming heterogeneity by segregation - the DEEP view on exascale**

**Time and Place: (7 Sep 2015-7 Sep 2015)**

**Presenter: : Norbert Eicker**

**Break: Discussion**

**Time and Place: (7 Sep 2015-7 Sep 2015)**

**Break: Conference Photo**

**Time and Place: In front of the lecture hall(7 Sep 2015-7 Sep 2015)**

**Break: Lunch**

**Time and Place: (7 Sep 2015-7 Sep 2015)**

**Contribution: Milliwatts and PetaFLOPS**

**Time and Place: (7 Sep 2015-7 Sep 2015)**

**Presenter: : Michael Klemm**

**Break: Discussion**

**Time and Place: (7 Sep 2015-7 Sep 2015)**

**Contribution: Remote memory access programming at extreme scale**

**Time and Place: (7 Sep 2015-7 Sep 2015)**

**Presenter: : Thorsten Höfler**

**Break: Discussion**

**Time and Place: (7 Sep 2015-7 Sep 2015)**

**Break: Coffee break**

**Time and Place: (7 Sep 2015-7 Sep 2015)**

**Contribution: Ultrarelativistic molecular dynamics on GPU - the little bang in the laboratory**

**Time and Place: (7 Sep 2015-7 Sep 2015)**

**Presenter: : Hannah Petersen**

**Break: Discussion**

**Time and Place: (7 Sep 2015-7 Sep 2015)**

**Contribution: Online data reconstruction in high-energy physics experiments on many-core computer architectures**

**Time and Place: (7 Sep 2015-7 Sep 2015)**

**Presenter: : Ivan Kisel**

**Break: Discussion**

**Time and Place: (7 Sep 2015-7 Sep 2015)**

**Break: Heraeus Dinner**

**Time and Place: (7 Sep 2015-7 Sep 2015)**

**Science Applications for Exascale Computing - Exploring New Avenues towards Scalability and Fault-Tolerance - 6 Sep 2015-9 Sep 2015, Physikzentrum Bad Honnef, Germany.**  
**Daily Programme: Tuesday 08 September 2015**

**Break: Breakfast**

**Time and Place: (8 Sep 2015-8 Sep 2015)**

**Contribution: In-silico science and technology: from atoms to cognitive computing**

**Time and Place: (8 Sep 2015-8 Sep 2015)**

**Presenter: : Alessandro Curioni**

**Break: Discussion**

**Time and Place: (8 Sep 2015-8 Sep 2015)**

**Contribution: Exploring exascale avenues for lattice QCD**

**Time and Place: (8 Sep 2015-8 Sep 2015)**

**Presenter: : Dirk Pleiter**

**Break: Discussion**

**Time and Place: (8 Sep 2015-8 Sep 2015)**

**Break: Coffee break**

**Time and Place: (8 Sep 2015-8 Sep 2015)**

**Contribution: Simulation of light propagation through photonic materials and brain tissue on the IBM BlueGene/Q**

**Time and Place: (8 Sep 2015-8 Sep 2015)**

**Presenter: : Kristel Michielsens**

**Break: Discussion**

**Time and Place: (8 Sep 2015-8 Sep 2015)**

**Break: Lunch**

**Time and Place: (8 Sep 2015-8 Sep 2015)**

**Contribution: Big data in astronomy 2020+**

**Time and Place: (8 Sep 2015-8 Sep 2015)**

**Presenter: : Matthias Steinmetz**

**Break: Discussion**

**Time and Place: (8 Sep 2015-8 Sep 2015)**

**Contribution: 3D radiative transfer simulations of stellar & planetary atmospheres**

**Time and Place: (8 Sep 2015-8 Sep 2015)**

**Presenter: : Peter Hauschildt**

**Break: Discussion**

**Time and Place: (8 Sep 2015-8 Sep 2015)**

**Break: Coffee break**

**Time and Place: (8 Sep 2015-8 Sep 2015)**

**Contribution: Astrophysical GPU supercomputing, star clusters and black holes**

**Time and Place: (8 Sep 2015-8 Sep 2015)**

**Presenter: : Rainer Spurzem**

**Break: Discussion**

**Time and Place: (8 Sep 2015-8 Sep 2015)**

**Session: Poster session**

**Time and Place: (17:45-19:00)**

**Break: Dinner**

**Time and Place: (8 Sep 2015-8 Sep 2015)**

**Science Applications for Exascale Computing - Exploring New Avenues towards Scalability and Fault-Tolerance - 6 Sep 2015-9 Sep 2015, Physikzentrum Bad Honnef, Germany.**  
**Daily Programme: Wednesday 09 September 2015**

**Break: Breakfast**

**Time and Place: (9 Sep 2015-9 Sep 2015)**

**Contribution: Scalability of atmospheric turbulence simulations on next generation hybrid computer architectures - challenges and perspectives**

**Time and Place: (9 Sep 2015-9 Sep 2015)**

**Presenter: : Siegfried Raasch**

**Break: Discussion**

**Time and Place: (9 Sep 2015-9 Sep 2015)**

**Contribution: Simulation of brain-scale neuronal networks at cellular and synaptic resolution**

**Time and Place: (9 Sep 2015-9 Sep 2015)**

**Presenter: : Markus Diesmann**

**Break: Discussion**

**Time and Place: (9 Sep 2015-9 Sep 2015)**

**Break: Coffee break**

**Time and Place: (9 Sep 2015-9 Sep 2015)**

**Contribution: Directive-based parallel programming at scale**

**Time and Place: (9 Sep 2015-9 Sep 2015)**

**Presenter: : Barbara Chapman**

**Break: Discussion**

**Time and Place: (9 Sep 2015-9 Sep 2015)**

**Contribution: Wrap-up / end of seminar**

**Time and Place: (9 Sep 2015-9 Sep 2015)**

**Break: Lunch**

**Time and Place: (9 Sep 2015-9 Sep 2015)**