



Updated on March 11, 2016

SCF2016 MAIN CONFERENCE PROGRAMME	
Day 1 Tuesday, 15 March 2016	
Breakthrough Theatre, Level 4, Matrix Building, Biopolis	
08:00 - 09:00	Registration & Welcome Coffee
09:00 - 09:05	Opening Remarks <i>Marek Michalewicz, A*STAR Computational Resource Centre, Singapore</i>
09:05 - 9:20	Welcome Address <i>Dr. Raj Thampuran, Managing Director, Agency for Science, Technology & Research (A*STAR), Singapore</i>
09:20 - 9:40	National Supercomputing Centre Singapore MOU Acknowledgement Ceremony <i>National Supercomputing Centre Singapore</i>
EXASCALE Chair: Marek Michalewicz	
09:40 - 10:25	Keynote Supercomputers and Superintelligence <i>Horst Simon, Lawrence Berkeley National Laboratory, USA</i>
10:25 - 10:45	Break
APPLICATIONS Chair: Chee Yeow Meng	
10:45 - 11:15	The Potential for Exascale to Transform Healthcare <i>Patricia Kovatch, Icahn School of Medicine, Mount Sinai Hospital, USA</i>
11:15 - 11:45	Petascale Simulations of Microfluidics at Cell Resolution <i>Diego Rossinelli, ETH Zurich, Switzerland</i>
11:45 - 12:05	An Urgent Computing Framework for Ensembles of Forecasts on HPC Infrastructure <i>Siew Hoon Leong & Dieter Kranzmueller, Leibniz Supercomputing Centre / Ludwig Maximilians University Munich, Germany</i>
12:05 - 12:25	Transient Climate Impacts for Scenarios of Aerosol Emissions from Asia: A Story of Coal vs. Gas <i>Benjamin Grandey & Haiwen Cheng, Singapore-MIT Alliance for Research and Technology, Singapore</i> <i>Chien Wang, Massachusetts Institute of Technology, USA</i>
12:25 - 13:25	Lunch

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APPLICATIONS & LANGUAGES | Chair: Wong Weng Fai

13:25 - 13:55 **Why Now Is The Best Time To Adopt Julia**
Alan Edelman, Massachusetts Institute of Technology, USA

EXASCALE STORAGE & FILE SYSTEMS | Chair: Wong Weng Fai

13:55 - 14:25 **Exascale I/O : Burst Buffer and Beyond**
Jean-Thomas Acquaviva, DataDirect Networks, France

14:25 - 14:45 **Zero Copy Architecture and File Systems Future**
Robert Mollard, Silicon Graphics, Australia

14:45 - 15:05 **Providing Low-overhead Data Consistency in Emerging Non-volatile Memory**
*Jun Yang, Data Storage Institute, A*STAR, Singapore*

15:05 - 15:25 **Exascale Storage Systems the Sirius Way**
Scott Klasky, Hasan Abbasi, Qing Gary Liu, Jong Choi, Norbert Podhorszki & Feiyi Wang, Oak Ridge National Laboratory, USA
Matthew Wolf, Georgia Institute of Technology, USA
Matthew Curry & Jay Lofstead, Sandia National Laboratory, USA
Mark Ainsworth, Brown University, USA
Tahsin Kurc, Stony Brook University, USA
Carlos Maltzahn, University of California, Santa Cruz, USA
Manish Parashar, Rutgers University, USA
C.S. Chang, Stephane Ethier & Michael Churchill, Princeton Plasma Physics Laboratory, USA

15:25 - 15:45 **Break**

VISUALISATION & APPLICATIONS | Chair: Marian Vajtersic

15:45 - 16:05 **Visualization Plugins using VTKm for In-Transit Visualization with ADIOS**
Dave Pugmire, Jeremy Meredith, Scott Klasky, Jong Choi & Norbert Podhorszki, Oak Ridge National Laboratory, USA
James Kress & Hank Childs, University of Oregon, USA

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APPLICATIONS | Chair: Marian Vajtersic

16:05 - 16:25	MateriApps – A Portal to Materials Science Simulation <i>Synge Todo, Ryo Igarashi, Shunsuke Kasamatsu, Takeko Kato, Naomi Kawashima, Yusuke Konishi, Hikaru Kouta, Kazuyoshi Yoshimi, University of Tokyo, Japan</i> <i>Tsutomu Kawatsu, Yokohama City University, Japan</i> <i>Haruhiko Matsuo & Kanako Yoshizawa, Research Organization for Information Science and Technology, Japan</i> <i>Masashi Noda, Institute for Molecular Science, Japan</i> <i>Shoichi Masaki & Shigehiro Tsuchida, Ageha, Inc., Japan</i> <i>Yayoi Terada, Tohoku University, Japan</i>
16:25 - 16:40	Super-scalable CFD Solver HiFUN on IISc Petascale Computing Platform <i>N. Balakrishnan, Indian Institute of Science, India</i>
16:40 - 16:55	Large Eddy Simulation of Gas Fluidized Beds <i>Jingrong Liang & Eldin Wee Chuan Lim, National University of Singapore, Singapore</i>
16:55 - 17:10	Computational Fluid Dynamics Study of Heat Transfer in Gas Fluidized Beds through Immersed Tubes <i>Zhongyuan Hau & Eldin Wee Chuan Lim, National University of Singapore, Singapore</i>
COUNTRY REPORTS Chair: David Kahaner	
17:10 - 17:25	Update on Indian National Supercomputing Mission <i>Rajat Moona, Centre for Development of Advanced Computing, India</i>
17:25 - 17:40	Japanese HPCI, High Performance Computer Infrastructure, Past, Present and Future, for Open Science and Open Innovation <i>Motoi Okuda, Research Organisation for Information Science & Technology, Japan</i>
17:40 - 17:55	40 Years of Supercomputers in China <i>Meng Guo, National Supercomputer Center in Jinan, China</i>
17:55 - 18:10	National Supercomputing Centre: the future of HPC in Singapore <i>Jon Lau, National Supercomputing Centre, Singapore</i>
END OF DAY 1	