
Monday, June 19, 2017

■ **Opening Session**

June 19, 2017, 08:30 am - 09:00 am

07:30 am - 08:30 am Welcome Coffee

Panorama 2+3, Forum

Welcome & Introduction

08:30 am - 08:35 am

Thomas Meuer, ISC Group

Martin Meuer, ISC Group

ISC 2017 Program

08:35 am - 08:45 am

Prof. Dr. Jack Dongarra, University of Tennessee & ORNL

Announcement of the Two Finalists of the Hans Meuer Award

08:45 am - 08:50 am

Dr. Pavan Balaji, ANL

GAUSS Award Announcement

08:50 am - 08:55 am

Prof. Dr. Wolf-Dieter Lukas, BMBF

Prof. Dr.-Ing. Dr. h.c. mult. Michael M. Resch, HLRS

ISC Fellowship Awards

08:55 am - 09:00 am

Martin Meuer, ISC Group

Thomas Meuer, ISC Group

■ **ISC 2017 Conference Keynote**

June 19, 2017, 09:00 am - 10:00 am

10:00 am - 10:30 am Coffee Break

Panorama 2+3, Forum

Network Science: From the Massive Online Networks to Cancer Genomics

Dr. Jennifer Tour Chayes, Microsoft Research New England & Microsoft Research New York City

■ **TOP500**

June 19, 2017, 10:30 am - 11:30 am

10:00 am - 10:30 am Coffee Break

11:30 am - 01:00 pm Lunch

Panorama 2+3, Forum

TOP500 & Green500 Awards

10:30 am - 10:40 am

Prof. Dr. Jack Dongarra, University of Tennessee & ORNL

Prof. Dr. Wu Feng, Virginia Tech

Martin Meuer, ISC Group

Dr. Erich Strohmaier, LBNL

Highlights of the 49th TOP500 List

10:40 am - 11:10 am

Dr. Erich Strohmaier, LBNL

Ten Years of Exascale - Are We There Yet?

11:10 am - 11:30 am

Prof. Dr. Satoshi Matsuoka, Tokyo Institute of Technology

Vendor Showdown 01

June 19, 2017, 01:00 pm - 03:00 pm

11:30 am - 01:00 pm Lunch

03:00 pm - 04:00 pm Coffee Break

Panorama 1, Forum

Addison Snell, Intersect360 Research

Dr. Rupak Biswas, NASA Ames Research Center

Introduction

01:00 pm - 01:05 pm

Dr. Rupak Biswas, NASA Ames Research Center

Addison Snell, Intersect360 Research

Intel

01:05 pm - 01:15 pm

Trish Damkroger, Intel

Hewlett Packard Enterprise

01:15 pm - 01:25 pm

Mike Vildibill, HPE

NVIDIA

01:25 pm - 01:35 pm

Marc Hamilton, NVIDIA

Amazon Web Services

01:35 pm - 01:45 pm

Brendan Bouffler, AWS

Huawei

01:45 pm - 01:55 pm

Francis Lam, Huawei

IBM

01:55 pm - 02:05 pm

Sumit Gupta, IBM

Samsung Semiconductor Europe

02:05 pm - 02:15 pm

Thomas Arenz, Samsung

Cavium

02:15 pm - 02:25 pm

Gopal Hegde, Cavium

ExaScaler/PEZY Computing

02:25 pm - 02:35 pm

Motoaki Saito, ExaScaler/PEZY Computing

NEC Deutschland

02:35 pm - 02:45 pm

Dr. Shintaro Momose, NEC Japan

Fujitsu

02:45 pm - 02:55 pm

Toshiyuki Shimizu, Fujitsu

Voting Results & Awarding

02:55 pm - 03:00 pm

Dr. Rupak Biswas, NASA Ames Research Center

Addison Snell, Intersect360 Research

Vendor Showdown 02**June 19, 2017, 01:00 pm - 03:00 pm**

11:30 am - 01:00 pm Lunch

03:00 pm - 04:00 pm Coffee Break

Panorama 2, Forum**Dan Olds, GCG****Prof. Dr. Mark Parsons, EPCC**

Introduction

01:00 pm - 01:05 pm

Dan Olds, GCG

Prof. Dr. Mark Parsons, EPCC

Supermicro

01:05 pm - 01:15 pm

Dr. Martin Galle, Supermicro

Bull

01:15 pm - 01:25 pm

Eric Eppe, Atos

Cray

01:25 pm - 01:35 pm

Dr. Steve Scott, Cray

Lenovo

01:35 pm - 01:45 pm

Scott Tease, Lenovo

Dell EMC

01:45 pm - 01:55 pm

Ed Turkel, Dell

Seagate

01:55 pm - 02:05 pm

Dr. Torben Kling-Petersen, Seagate

Mellanox

02:05 pm - 02:15 pm

Gilad Shainer, Mellanox

Quantum

02:15 pm - 02:25 pm

Molly Presley, Quantum

DDN Storage

02:25 pm - 02:35 pm

Dr. James Coomer, DDN Storage

HGST, a Western Digital Brand

02:35 pm - 02:45 pm

Manfred Berger, HGST, a Western Digital Brand

NetApp

02:45 pm - 02:55 pm

Stan Skelton, Net App

Voting Results & Awarding

02:55 pm - 03:00 pm

Dan Olds, GCG

Prof. Dr. Mark Parsons, EPCC

■ **PhD Forum**

June 19, 2017, 01:00 pm - 03:00 pm

11:30 am - 01:00 pm Lunch

03:00 pm - 04:00 pm Coffee Break

Panorama 3, Forum

Welcome & Introduction

01:00 pm - 01:05 pm

Prof. Dr. Bill Gropp, University of Illinois at Urbana-Champaign

Prof. Dr. Gerhard Wellein, RRZE & University of Erlangen-Nuremberg

(PhD01) Resource Contention Aware Scheduling of Multiprocessor Tasks on Heterogeneous Platforms

01:05 pm - 01:09 pm

Robert Dietze, TU Chemnitz

(PhD02) Integrated Co-Design of an Exascale Earth Mantle Modeling Framework

01:09 pm - 01:13 pm

Daniel Drzisga, TU München

(PhD03) CRAFT: A Library for Checkpoint/Restart & Automatic Fault Tolerance

01:13 pm - 01:17 pm

Faisal Shahzad, University of Erlangen-Nuremberg

(PhD04) Using Simulations of an Accretion Disk Surrounding a Supermassive Black Hole as a Benchmark for New Numerical Codes in Astrophysics

01:17 pm - 01:21 pm

Fabian Klein, University of Heidelberg

(PhD05) Massively Parallel Evolutionary Placement of Genetic Sequences

01:21 pm - 01:25 pm

Pierre Barbera, HITS

(PhD06) Towards Energy-Efficient Data Reduction Through High-Level I/O Interfaces

01:25 pm - 01:29 pm

Yevhen Alforov, DKRZ

(PhD07) Asynchronous Runtime for AMR Applications on Exascale Systems

01:29 pm - 01:33 pm

Muhammed Nufail Farooqi, Koç University

(PhD08) Improving Energy Efficiency through Vectorization

01:33 pm - 01:37 pm

Thomas Jakobs, TU Chemnitz

(PhD09) Analysis & Modeling of the Energy Consumption of DVFS Processors for Parallel Scientific Computing

01:37 pm - 01:41 pm

Matthias Stachowski, University of Bayreuth

(PhD10) Enhancing Performance of Graphics Processing Units through Better Scheduling of Concurrent Kernels

01:41 pm - 01:45 pm

Kazem Shekofteh, Ferdowsi University of Mashhad

(PhD11) A Novel Heuristic for Data Distribution in Massively Parallel Phylogenetic Inference Using Site Repeats

01:45 pm - 01:49 pm

Benoit Morel, HITS

(PhD12) Optical Simulation of Nanostructures in Thin-Film Solar Cells

01:49 pm - 01:53 pm

Julian Hornich, University of Erlangen-Nuremberg

(PhD13) Performance Engineering by Means of Automated Performance Modeling

01:53 pm - 01:57 pm

Julian Hammer, University of Erlangen-Nuremberg

PhD Forum Poster Session

01:57 pm - 02:50 pm

ISC 2017 PhD Forum Award Ceremony

02:50 pm - 03:00 pm

 **BoF 01**

June 19, 2017, 01:00 pm - 02:00 pm

11:30 am - 01:00 pm Lunch

Kontrast, Hall 3.0

Dr. Michael A. Lysaght, ICHEC

Dr. David E. Martin, ANL

Dr. Simon J. Pennycook, Intel

Dr. Thomas Steinke, ZIB

 **BoF 02**

June 19, 2017, 02:00 pm - 03:00 pm

03:00 pm - 04:00 pm Coffee Break

Kontrast, Hall 3.0

Dr. Pete Beckman, ANL

Nicolás Erdödy, Open Parallel

Dr. Mario Nemirovsky, BCS

François Bodin, IRISA

 **Project Posters**

June 19, 2017, 03:00 pm - 08:30 pm

03:00 pm - 04:00 pm Coffee Break

Booth #L-212, Hall 3.0

 **Exhibition**

June 19, 2017, 03:00 pm - 08:30 pm

03:00 pm - 04:00 pm Coffee Break

Exhibition Hall, Hall 3.0

Exhibitor Forum 01

June 19, 2017, 03:30 pm - 06:10 pm

03:00 pm - 04:00 pm Coffee Break

Booth #M-210, Hall 3.0

Bright Computing: Bare Metal (or Virtual) HPC Clusters on Demand

03:30 pm - 03:50 pm

Martijn de Vries, Bright Computing

Piotr Wachowicz, Bright Computing

OpenHPC: From Start to Linux

03:50 pm - 04:10 pm

Dr. Karl W. Schulz, Intel

Fraunhofer Institut SCAI: Fraunhofer SCAIs LAMA Goes Machine Learning

04:10 pm - 04:30 pm

Dr. Thomas Soddemann, Fraunhofer Institut SCAI

SUSE: Transforming Businesses with SUSE HPC

04:30 pm - 04:50 pm

Jay Kruemcke, SUSE

Jeff Reser, SUSE

Red Hat: High Performance Cache Coherent Interconnects

04:50 pm - 05:10 pm

Jon Masters, Red Hat

transtec: Tflops Against Infant Genetic Diseases

05:10 pm - 05:30 pm

Cyril Baudillon, transtec

AMD: AMD's Open Approach to Heterogeneous Compute for HPC & Deep Learning with the Radeon Instinct Initiative

05:30 pm - 05:50 pm

JC Baratault, AMD

PGI: Performance Portability with OpenACC & PGI Compilers

05:50 pm - 06:10 pm

Doug Miles, PGI

Hyperion Research (IDC) Annual Market Update Meeting

June 19, 2017, 04:00 pm - 05:00 pm

03:00 pm - 04:00 pm Coffee Break

Panorama 1, Forum

Kevin Monroe, Hyperion Research

Dr. Earl Joseph II, Hyperion Research

Bob Sorensen, Hyperion Research

■ **Exascale Concepts for Programming Models**

June 19, 2017, 04:00 pm - 05:00 pm

03:00 pm - 04:00 pm Coffee Break

Panorama 2, Forum

ExaGASPI

04:00 pm - 04:20 pm

Mirko Rahn, Fraunhofer ITWM

MPI+X for Exascale

04:20 pm - 04:40 pm

Prof. Dr. Bill Gropp, University of Illinois at Urbana-Champaign

OpenMP - Taking Good Care of the Node in Exascale?

04:40 pm - 05:00 pm

Dr. Christian Terboven, RWTH Aachen University

■ **Research Papers 01 (Award Session)**

June 19, 2017, 04:00 pm - 06:00 pm

03:00 pm - 04:00 pm Coffee Break

Panorama 3, Forum

Introduction

04:00 pm - 04:05 pm

Dr. Pavan Balaji, ANL

Prof. Dr. Jack Dongarra, University of Tennessee & ORNL

Hans Meuer Award Finalist 1: An Overview of MPI Characteristics of Exascale Proxy Applications

04:05 pm - 04:45 pm

Benjamin Klenk, University of Heidelberg

Hans Meuer Award Finalist 2: Designing Dynamic & Adaptive MPI Point-to-Point Communication Protocols for Efficient Overlap of Computation & Communication

04:45 pm - 05:25 pm

Prof. Dr. Dhabaleswar K. Panda, Ohio State University

Dr. Hari Subramoni, Ohio State University

Gauss Award Ceremony

05:25 pm - 05:30 pm

Prof. Dr.-Ing. Dr. h.c. mult. Michael M. Resch, HLRS

Gauss Award Winning Paper: Diagnosing Performance Variations in HPC Applications Using Machine Learning

05:30 pm - 06:00 pm

Emre Ates, Boston University

Ozan Tuncer, Boston University

BoF 03

June 19, 2017, 04:00 pm - 05:00 pm

03:00 pm - 04:00 pm Coffee Break

Kontrast, Hall 3.0

Gerald Lotto, Mellanox

Gilad Shainer, Mellanox

Richard Graham, Mellanox

Scott Atchley, ORNL

Turbulence & Combustion

June 19, 2017, 05:00 pm - 06:00 pm

Panorama 1, Forum

HPC in Applied & Fundamental Combustion Research

05:00 pm - 05:30 pm

Prof. Dr.-Ing. Andreas Kempf, University Duisburg-Essen

Performance of a Compressible Flow Solver on a System with Multi-GPU Nodes

05:30 pm - 06:00 pm

Richard Pichler, University of Melbourne

Panel: 65 Years of Compiler Development

June 19, 2017, 05:00 pm - 06:00 pm

Panorama 2, Forum

Dr. Georg Hager, RRZE

Prof. Dr. Gerhard Wellein, RRZE & University of Erlangen-Nuremberg

Dr. Jan Eitzinger, RRZE

Prof. Louis-Noel Pouchet, Ohio State University

Prof. Dr. Paul Kelly, Imperial College London

Dr.-Ing. Harald Köstler, University of Erlangen-Nuremberg

Prof. Michael Wolfe, NVIDIA/PGI

Prof. Dr. Sebastian Hack, Universität des Saarlandes

BoF 04

June 19, 2017, 05:00 pm - 06:00 pm

Kontrast, Hall 3.0

Dr. Happy Sithole, CSIR

Nicolás Erdödy, Open Parallel

Prof. Dr. John Goodacre, University of Manchester

Intel HPC Special

June 19, 2017, 06:00 pm - 06:45 pm

Panorama 2, Forum

Accelerating Discovery with AI

Dr. Rajeeb Hazra, Intel

ISC Welcome Party

June 19, 2017, 06:30 pm - 08:30 pm

Exhibition Hall, Hall 3.0
