



HPC User Forum Agenda

69th HPC User Forum

April 16-18, 2018 -- Tucson, Arizona

Monday, April 16, 2018

- 5:00pm Registration Starts
6:30pm Welcome and Special Dinner Reception Event

Tuesday, April 17, 2018

- 7:15am Networking Breakfast
8:15am Meeting Welcome and Announcements: Paul Muzio, Rupak Biswas, Earl Joseph and Steve Conway
8:25am HPC Market Update, Earl Joseph and Steve Conway:
 - Updated HPC Market Forecast
 - The AI Transparency Issue
8:45am Addressing Key Science Challenges with Adversarial Neural Networks, Wahid Bhimji, NERSC
9:15am Session: HPC and the Environment. Chair: Paul Muzio, HPC User Forum Steering Committee
 - HPC Use for Earthquake Research, Christine Goulet, Southern California Earthquake Center
 - Exploiting Exascale Platforms for Regional-Scale Earthquake Hazard and Risk Assessment, David McCallen, Lawrence Berkeley National Laboratory
10:15am Break
10:30am HPC and the Environment (continued)
 - The Use of HPC to Model the California Wildfires, Ilkay Altintas, San Diego Supercomputer Center
 - Using ORNL Titan to Develop 50,000 Years of Flood Risk Scenarios for the National Flood Insurance Program, Dag Lohmann, KatRisk
11:30am HPE Vendor Technology Update, Jimmy Daley
12:00pm Networking Lunch
1:00pm End User Site Update: University of Bristol, Simon Burbidge
1:25pm HPC and Precision Medicine - A New Framework for Alzheimer's and Parkinson's, Joseph Lombardo, NSCEE at UNLV
1:50pm HPC and the Environment (continued)
 - Weather Prediction Using the K Computer and Himwari-B Satellite, Miyoshi Takemasa, RIKEN
 - The Galactos Project: Using HPC To Run One of Cosmology's Hardest Challenges, Deborah Bard, NERSC
2:40pm Intel Technology Update
2:50pm Improving Scientific Research with HPC, Chris Reidy
3:15pm Networking Break
3:45pm Session: Technical Updates on Processors (15-minute updates)
 - AMD, Jay Owen
 - ARM, ARMv8, Srinath Vadlamani
 - IBM, Power 9 plus Open CAPI, Jeff Stuecheli
 - Intel, Mark Kachmarek
 - NVIDIA, Dale Southard
5:00pm Networking Break
6:30pm Special Dinner Event and Speaker: "The Threat of Asteroids and What We Are Doing About It", by Dr. Donovan Mathias, acting deputy chief of NASA's NAS Division



HPC User Forum Agenda

69th HPC User Forum

April 16-18, 2018 -- Tucson, Arizona

Wednesday, April 18, 2018

- 7:15am Networking Breakfast
- 8:00am Welcome: Paul Muzio, Rupak Biswas, Earl Joseph and Steve Conway
AI, ML, DL Transparency Issues, Steve Conway
- 8:10am HPC in Ontario, Canada: Chris Loken, Compute Ontario
- 8:35am Session: Quantum Computing. Chair: Rupak Biswas
- John Martinis, Google
 - T.R. Govindan, NASA
 - Jim Held, Intel
- 10:00am Networking Break
- 10:15am Session: Quantum Computing (continued)
- Jay Gambetta, IBM
 - Steve Reinhardt, Dwave
- 11:15am Innovative Technologies Panel: Short 4-minute presentations of HPC-enabled innovations
- Sumit Puri, Liquid Inc.
 - Ian Campbell, OnScale
 - Sid Mair, Penguin Computing
 - Curtis Anderson, Panasas
 - Strangeworks
 - Cray
 - IBM
- 12:00pm Dell EMC Technology Update
- 12:15pm Networking Lunch
- 1:00pm Understanding AI for HPC and HPC for AI: Lessons, Gaps and Challenges, Rangan Sukumar, Cray
- 1:15pm Session: Quantum Computing (continued)
- Matthias Troyer, Microsoft
 - Blake Johnson, Rigetti Computing
 - Carl Williams, NIST
 - Xiaobo Zhu, Division of Quantum Physics and Quantum Information at China's University of Science and Technology
 - Chris Monroe, IonQ
- 3:15pm Networking Break
- 3:45pm Panel Discussion: HPC and Quantum Computing. Moderator: Bob Sorensen
- 4:45pm HPC Innovation Excellence Winner: HPC Simulations of the Impact of Drug-induced Arrhythmias in Living Hearts, Wolfgang Gentzsch, UberCloud
- 5:15pm Meeting Wrap-Up, Paul Muzio, Rupak Biswas, Earl Joseph and Steve Conway