



# HPC User Forum Agenda

## 73<sup>rd</sup> HPC User Forum

September 9 to 11, 2019 – Argonne National Laboratory

### Monday, September 9, 2019

- 12:00 PM Badging starts (at the Argonne Information Center)
- 5:00 PM Registration Starts (at the Guest House)
- 6:30 PM Welcome and Special Dinner Reception Event with Paul Kearns, Argonne Director, and the History of Argonne Talk by Laural Briggs (at the Guest House)

### Tuesday, September 10, 2019

- 7:15 AM Networking Breakfast (at the TCS Conference Center)
- 8:00 AM Welcome and HPC Market Update: Paul Muzio, Rupak Biswas, Earl Joseph and Steve Conway  
**Morning Session Chair: David Martin**
- 8:15 AM Welcome, Valerie Taylor, Director of Argonne's Mathematics and Computer Science Division
- 8:30 AM Welcome and Overview of HPC at Argonne National Laboratory, David Martin, ANL
- 8:45 AM AI for Science, Rick Stevens, ANL
- 9:30 AM The Cray Shasta Architecture, Steve Scott, Cray
- 10:00 AM Networking Break
- 10:30 AM CSCS (Swiss National Supercomputing Center) Update, Thomas Schulthess, CSCS
- 11:00 AM ECP Applications Development, Andrew Siegel, ANL
- 11:30 AM Vendor Technology Update: Intel
- 11:45 AM Vendor Technology Update: Dell EMC
- 12:00 PM Networking Lunch  
**Afternoon Session Chair: Paul Muzio**
- 1:00 PM The European Processor Initiative, Jean-Marc Denis, EPI
- 1:40 PM Update on Exascale Computing Project (ECP), Doug Kothe, Director, ECP
- 2:10 PM HPC and Data Down Under: The Pawsey Supercomputing Centre, Square Kilometre Array and HPC in Australia, Mark Stickells, The Pawsey Supercomputing Centre
- 2:40 PM Vendor Technology Update: HPE
- 2:55 PM Networking Break
- 3:15 PM (Un)Obscured By Clouds - Applying Cloud Techniques To High Performance Systems Integrations, Arno Kolster, Providentia Worldwide
- 3:45 PM Enabling Performance Portable Climate Simulations on Aurora, Nichols Romero, ANL
- 4:15 PM The Cancer Computer, Roy Chartier, Cancer Computer
- 4:45 PM Meeting Ends
- 5:30 PM Special Dinner Event and Tour at the Advanced Photon Source (Building 402, near the Guest House). Note: There are three tour times starting at 5:30 PM.



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### Wednesday, September 11

- 7:15 AM Networking Breakfast (at the TCS Conference Center)
- 8:00 AM Welcome: Paul Muzio, Rupak Biswas, Earl Joseph and Steve Conway
- Morning Session Chair: Rupak Biswas**
- 8:15 AM HPDA-AI Research Findings: Steve Conway, Hyperion Research
- 8:30 AM Research Using the Blue Waters Supercomputer, Brett Bode, NCSA
- 9:00 AM HPC in Industry, Brendan McGinty, NCSA
- 9:30 AM Using HPC for Engine Design Optimization, Pei Yuanjiang, Aramco Services
- 10:00 AM Networking Break
- 10:30 AM Innovative Technologies Panel Session, Earl Joseph, Hyperion Research (chair)
- Panel members: Altair, AMD, Cray, IBM, Panasas, Red Hat, Supermicro
- 11:30 AM Vendor Technology Update: AMD
- 11:45 AM Vendor Technology Update: AWS
- 12:00 PM Networking Lunch
- Afternoon Session Chair: Keith Gray**
- 1:00 PM HPC at BP, Keith Gray, BP
- 1:30 PM ANL Exascale Training Program, Ray Loy, ANL
- 2:00 PM How the Results of Summit and Sierra are Influencing Exascale, Al Geist, ORNL
- 2:30 PM Vendor Technical Update: IBM Quantum Computing
- 2:45 PM Vendor Technology Update: NEC
- 3:00 PM Cloud Computing Research Findings, Alex Norton, Hyperion Research
- 3:15 PM Networking Break
- 3:45 PM HPC Edge Computing in Urban Environments, Nicola Ferrier, ANL
- 4:15 PM Using Graphs for Unstructured Data, Keshav Pingali, TACC
- 4:45 PM Computational Evaluation of Commercial Cloud HPC with a Global Atmospheric Model, Daniel Arevalo, DeVine Consulting
- 5:15 PM Meeting Wrap-Up, Paul Muzio, Rupak Biswas, Earl Joseph and Steve Conway