



HPC User Forum Agenda

37th HPC User Forum -- September 13 to 15, 2010 -- Seattle, Washington
"Using HPC to Drive Economic and Scientific Competitiveness"

Monday, September 13, 2010

- 4:30pm Registration starts
- 6:45pm Special dinner event, with 10 minute vendor updates (Adaptive, Altair, Appro, Bright, HP, IBM, Mellanox, Panasas, Qlogic)

Tuesday, September 14, 2010

- 7:15am Networking Breakfast
- 8:15am Welcome and HPC Market Update, Steve Finn, Sharan Kalwani and Earl Joseph
Morning Session Chair: Paul Buerger, Avetec
- 8:30am Exascale and Near Exascale Plans, Issues and Directions
Moderator: Paul Buerger
 - US, EU and China Directions
 - DOE Nuclear Modeling And Simulation Hub (CASL), John Turner, ORNL
 - John Gustafson, Intel Labs
 - EESI, The European Exascale Software Initiative, Andy Jones, NAG
- 10:15am Break
- 10:45am HPC In Aerospace
Moderator: Doug Ball, Boeing
 - Multi-Physics Simulation Software Development for the Defense Acquisition Engineering Workforce, Robert Meakin, HPCMO
 - Use of FUN3D (an unstructured grid flow solver), Eric Nielsen, NASA Langley Research Center
 - Using HPC to Develop UAVs, Clayton Triggs, Swift Engineering
 - Rupak Biswas, NASA Ames Research Center
- 12:10pm Networking Lunch
- 1:00pm Application Scalability and High Productivity Computing
Moderators: Paul Muzio and Vince Scarafino
 - Nick Wright, Lawrence Berkeley National Laboratory
 - Paul Muzio, City University of New York
 - John Turner, ORNL
 - Automotive, Vince Scarafino
 - NASA
- 2:30pm Invited Vendor Technology Updates -- Intel and Brocade
- 3:00pm Break
- 3:30pm Updates on Industry Outreach Programs, Merle Giles, NCSA, and Suzy Tichenor, ORNL
- 3:50pm Gordon: NSF flash-based system for data-intensive science, Mahidhar Tatineni, SDSC
- 4:20pm IDC EU Research Results
- 5:00pm Networking Break and Time for 1-on-1 Meetings
- 6:00pm Buses leave for dinner (a short ride)
- 6:30pm Reception and Special Dinner Event Sponsored by Intel, at the Seattle Aquarium



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Wednesday, September 15, 2010

7:15am Networking Breakfast

8:00am Welcome, Earl Joseph and Steve Finn

8:15am Data Intensive Computing

Moderator: Paul Muzio

- Graph algorithms for irregular, unstructured data, John Feo, PNNL
- IBM's InfoSphere Streams
- Data-intensive computing at SNL, Andy Wilson
- graph500 and data intensive HPC, Richard Murphy, Sandia National Laboratory
- Large-scale knowledge discovery, Steve Reinhardt, Microsoft
- Advanced business analytics using HPC, Phil Morris, Platform Computing
- Richard Altmaier, Intel

10:45am Break

11:15am User Site Update: HPC Clouds & Addressing the Missing Middle, Charlie Nietubicz, ARL

11:45am Invited Vendor Technology Update: Microsoft

12:00pm Networking Lunch

1:00pm Clearing up Clouds in HPC

Panel Theme: Business and Technical Models in HPC Cloud Computing

Moderator: Sharan Kalwani

- Tom Coull, Penguin Computing
- Jeff Broughton, Magellan Cloud @ Lawrence Berkeley National Labs
- Bob Graybill, Nimbis Services Inc.
- Sajjad Hussain, Wipro
- Deepak Singh, Amazon Cloud Services
- Christian Tanasescu, SGI
- Josh Simons, VMware
- Ryan Waite, Microsoft
- Richard Kaufmann, HP

2:45pm Invited Vendor Technology Update: Oracle

3:00pm Break

3:15pm Technical Directions, Issues and Success Stories with Alternative Processors,
Heterogeneous Multi-Cores and GPGPU Computing in HPC

Moderator: Steve Finn

- Rob Farber, Pacific Northwest National Laboratory
- Song Park, Army Research Laboratory
- Nash Palaniswamy, Intel
- Dave Wallace, Cray
- Stan Posey, Nvidia
- Gao Guang, ET International

- HP, Ed Turkel
- Don Newell, AMD
- IBM

5:00pm Meeting Wrap-Up, Steve Finn, Sharan Kalwani and Earl Joseph