



# HPC User Forum Agenda

## 70th HPC User Forum

September 4-6, 2018 – Dearborn, Michigan

### Tuesday, September 4, 2018

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

### Wednesday, September 5, 2018

- 7:15am Networking Breakfast
- 8:15am Meeting Welcome and Announcements: Paul Muzio, Rupak Biswas, Earl Joseph and Steve Conway
- 8:30am HPC Market Update and Exascale Programs Around the World, Earl Joseph
- 8:45am Session: Leadership Computing Initiatives
  - EuroHPC and the European HPC Strategy, Leonardo Flores, European Commission
  - Exascale Computing Project Update, Doug Kothe, Oak Ridge National Laboratory
  - NSF Activities Related to Leadership-Class Computing, Irene Qualters
- 10:15am Break
- 10:45am Session: Leadership Computing Initiatives (continued)
  - ExaAM: Transforming Additive Manufacturing through Exascale Simulation, John Turner, Oak Ridge National Laboratory
  - The European Processor Initiative, Jean-Marc Denis
- 11:45am Dell EMC Vendor Update
- 12:00pm Networking Lunch
- 1:00pm Session: Leadership Computing Initiatives (continued)
  - NASA's Spaceborne Computer Program, Mark Fernandez, HPE
  - Suitability of Commercial Clouds for NASA's HPC Applications, Bob Hood
- 2:00pm HPE Vendor Update
- 2:15pm Gaining a Competitive Edge with HPC Cloud Computing, William Edsall, Dow Chemical Company
- 2:45pm Networking Break
- 3:15pm HPC Innovations: Short Presentations, Moderated by Earl Joseph
  - Altair, AMD, IBM, Penguin, Panasas, Rescale, Tachyum, and Univa
- 4:30pm Object Detection in Mobile Urban Complex Environments, Ruth Cheng, ERDC
- 5:00pm Networking Time
- 6:30pm Special Dinner Event at the Henry Ford Museum



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### Thursday, September 6, 2018

- 7:15am Networking Breakfast
- 8:15am Welcome: Paul Muzio, Rupak Biswas, Earl Joseph and Steve Conway: AI, ML, DL Transparency Issues, Steve Conway
- 8:30am Session: Automated Driving Systems, Automotive Engineering, Sensor Networks
- Bridging the Automated Vehicle Gap: Consumer Trust, Technology and Liability, Kristin Kolodge, J.D. Power and Associates and Tina Georgieva, Miller Canfield
  - Computer Vision for Autonomous Vehicles, Xiaoming Liu and Garrick Brazil, Michigan State University (45 minutes)
  - Navigation/Localization Performance of Autonomous Vehicles," Dorota Grejner-Brzezinska, Ohio State College of Engineering
- 10:15am Scalable AI Solutions and HPC Systems: Examples from the Wild, Bob Zak, Intel
- 10:30am Networking Break
- 11:00am Session: Automated Driving Systems, Automotive Engineering, Sensor Networks (continued)
- AI for Autonomous Driving Will Revolutionize the Transportation Industry, Bill Veenhuis and Norm Marks, NVIDIA
  - Nek5000 Engine Simulation with Exascale Scaling, Muhsin Ameen, Argonne National Laboratory
- 12:00pm Networking Lunch
- 1:00pm Session: Automated Driving Systems, Automotive Engineering, Sensor Networks (continued)
- Use of HPC for AI Applications at Ford Motor Company, Bryan Goodman
  - Data Science meets CFD: FieldView Analytics in Engineering, Steve Legensky, Intelligent Light
- 2:00pm Vendor Technology Update
- 2:15pm Market Trends in the HPC Arena, Dave Kepczynski, General Electric
- 2:45pm Networking Break
- 3:15pm Manufacturing Science and Engineering at Argonne, Santanu Chaudhuri
- 3:45pm Leadership Computing at Argonne National Laboratory, the Future Home of A21, the First US Exascale System, David Martin
- 4:15pm Use of HPC to Drive Development of Advanced, More Fuel-Efficient Engines, Ron Grover, General Motors
- 4:45pm Meeting Wrap-Up, Paul Muzio, Rupak Biswas, Earl Joseph and Steve Conway