Sunday, November 16

Workshops:
MTAGS 2014: 7th Workshop on Many-Task Computing on Clouds, Grids, and Supercomputers
TIME: 9AM – 5:30PM • ROOM: 295
ORGANIZERS: Ioan Raicu, **Justin Wozniak**, **Ian Foster**, **Yong Zhao**

PDSW 2014: 9th Parallel Data Storage Workshop
TIME: 9AM – 5:30PM • ROOM: 271/272
ORGANIZERS: Dean Hildebrand, Garth Gibson, **Rob Ross**, Joan Digney

UltraVis '14: The 9th Workshop on Ultrascale Visualization
TIME: 9AM – 5:30PM • ROOM: 294
ORGANIZERS: Kwan-Liu Ma, **Venkatram Vishwanath,** Hongfeng Yu

Second Workshop on Sustainable Software for Science: Practice and Experiences (WSSSPE 2)
TIME: 9AM – 5:30PM • ROOM: 275-76-77
ORGANIZERS: Gabrielle D. Allen, **Daniel S. Katz**, Karen Cranston, Neil Chue Hong, Manish Parashar, David Proctor, Matthew Turk, Colin C. Venters, Nancy Wilkins-Diehr

Workshop Papers:

Workshop Title: The 5th International Workshop on Performance Modeling, Benchmarking and Simulation of High Performance Computer Systems (PMBS14)
Paper: **Energy-Performance Tradeoffs in Multilevel Checkpoint Strategies**
TIME: 9:00AM – 5:30PM • *ROOM: 283-84-85*
PRESENTERS: **Prasanna Balaprakash, Leonardo Arturo Bautista Gomez,** Mohamed-Slim Bouguerra**, Stefan Wild, Franck Cappello, Paul Hovland**

Monday – Thursday, November 17-20
Booth:
Globus
Booth 3649

Monday, November 17

Tutorials:
Advanced MPI Programming
TIME: 8:30AM – 5PM • ROOM: 392
PRESENTERS: **Pavan Balaji,** William Gropp, Torsten Hoefler, **Rajeev Thakur**

Parallel I/O in Practice
TIME: 8:30AM – 5PM • ROOM: 386/387
PRESENTERS: **Robert Latham, Robert Ross,** Brent Welch, Katie Antypas

Enhanced Campus Bridging via a Campus Data Service Using Globus and the Science DMZ
TIME: 1:30PM – 5PM • ROOM: 394
PRESENTERS*:* **Steve Tuecke**, Vas Vasiliadis, **Raj Kettimuthu**

Workshop Papers:

Workshop Title: ExaMPI14: Exascale MPI 2014
Paper: **Towards INT_MAX.. and Beyond**
TIME: 9:00AM – 5:30PM • *ROOM: 286-87*
PRESENTERS: Jeff R. Hammond, Andreas Schafer, **Rob Latham**

Paper: **Simplifying the Recovery Model of User-Level Failure Mitigation**
TIME: 9:00AM – 5:30PM • *ROOM: 286-87*
PRESENTERS: **Wesley Bland**, **Kenneth Raffenetti, Pavan Balaji**

Workshop Title: 3rd Workshop on Extreme-Scale Programming Tools
Paper: **Case Studies in Dataflow Composition of Scalable High Performance Applications**
TIME: 2:40PM – 3:00PM • *ROOM: 297*
PRESENTERS: **Justin M. Wozniak,** Timothy G. Armstrong, **Daniel S. Katz, Michael Wilde, Ian T. Foster**

Workshop Title: HPTCDL: First Workshop for High Performance Technical Computing in Dynamic Languages
Paper: **Petascale Tcl with NAMD, VMD, and Swift/T**
TIME: 9:00AM – 5:30PM • *ROOM: 293*
PRESENTERS: James C. Phillips, John E. Stone, Kirby L. Vandivort, Timothy G. Armstrong, **Justin M. Wozniak, Michael Wilde**, Klaus Schulten

Workshop Title: HPTCDL: First Workshop for High Performance Technical Computing in Dynamic Languages
Paper: **Parallel Algebraic Modeling for Stochastic Optimization**
TIME: 9:00AM – 5:30PM • *ROOM: 293*
PRESENTERS: Joey Huchette, Miles Lubin, and **Cosmin Petra**

Tuesday, November 18

Test of Time Award:
TIME: 1:30PM – 2:15PM • ROOM: 386-87
SESSION CHAIR**: Rusty Lusk**

Panels:
Changing Operating Systems Is Harder Than Changing Programming Languages
TIME: 1:30PM – 3:00PM • ROOM: 383-84-85
PRESENTERS: Arthur B. Maccabe, **Marc Snir, Pete Beckman,** Patrick Bridges, Ron Brightwell, Orran Krieger, John Kubiatowicz, Satoshi Matsuoka, Hank Hoffmann

Papers:
pTatin3d: High-Performance Methods for Long-Term Lithospheric Dynamics
TIME: 2:30PM – 3:00PM • ROOM: 391-92
PRESENTERS: Dave May, **Jed Brown,** Laetitia Le Pourhiet

Compiler Techniques for Massively Scalable Implicit Task Parallelism
TIME: 4:00PM – 4:30PM • ROOM: 393-94-95
PRESENTERS: Timothy G. Armstrong, **Justin M. Wozniak, Michael Wilde, Ian T. Foster**

BOFs:
Experimental Infrastructures for Open Cloud Research
TIME: 12:15PM – 1:15PM • ROOM: 388-89-90
PRESENTERS*:* **Kate Keahey**, Dan Stanzione, Warren Smith

Operating System and Run-time for Exascale
TIME: 12:15PM – 1:15PM • ROOM: 391-92
PRESENTERS*:* **Marc Snir,** Arthur Maccabe, John Kubiatowicz

MPICH: A High-Performance Open-Source MPI Implementation
TIME: 5:30PM – 7:00PM • ROOM: 386-87
PRESENTERS*:* **Ken Raffenetti, Pavan Balaji, Rajeev Thakur**

Posters:

Using Global View Resilience (GVR) to Add Resilience to Exascale Applications
TIME: 5:15PM – 7:00PM • New Orleans Theater Lobby
PRESENTERS*:* Hajime Fujita, Nan Dun, Aiman Fang, Zachary A. Rubenstein, Ziming Zheng, **Kamil Iskra,** Jeff Hammond, Anshu Dubey, **Pavan Balaji, Andrew A. Chien**
Best Poster Finalist

Large-Scale Parallel Visualization of Particle Datasets Using Point Sprites
TIME: 5:15PM – 7:00PM • New Orleans Theater Lobby
PRESENTERS*:* Silvio Rizzi, **Mark Hereld,** Joseph Insley**,** Michael E. Papka**,** Thomas Uram**, Venkatram Vishwanath**

Bandwidth-Aware Resource Management for Extreme-Scale Systems
TIME: 5:15PM – 7:00PM • New Orleans Theater Lobby
PRESENTERS*:* Zhou Zhou, Xu Yang, Zhiling Lan, Paul Rich, **Wei Tang,** Vitali Morozov, Narayan Desai

Toward Effective Detection of Silent Data Corruptions for HPC Applications
TIME: 5:15PM – 7:00PM • New Orleans Theater Lobby
PRESENTERS*:* **Sheng Di**, Eduardo Berrocal, **Leonardo Bautista-Gomez, Katherine Heisey, Rinku Gupta, Franck Cappello**

A Cloud-based Interactive Data Infrastructure for Sensor Networks
TIME: 5:15PM – 7:00PM • New Orleans Theater Lobby
PRESENTERS: Tonglin Li, **Kate Keahey, Rajesh Sankaran, Pete Beckman**, Ioan Raicu

Wednesday, November 19

Papers:
Nonblocking Epochs in MPI One-Sided Communication
TIME: 10:30AM – 11:00AM • ROOM: 393-94-95
PRESENTERS: **Judicael A. Zounmevo,** Xin Zhao, **Pavan Balaji,** William Gropp, Ahmad Afsahi
Best Paper Finalist

Efficient I/O and Storage of Adaptive Resolution Data
TIME: 11:30AM – 12:00PM • ROOM: 391-92
PRESENTERS: Sidharth Kumar, John Edwards, Peer-Timo Bremer, Aaron Knoll, Cameron Christensen, **Venkatram Vishwanath, Philip Carns,** John A. Schmidt, Valerio Pascucci

MC-Checker: Detecting Memory Consistency Errors in MPI One-Sided Applications
TIME: 10:30AM – 11:00AM • ROOM: 393-94-95
PRESENTERS: Zhezhe Chen, James Dinan, Zhen Tang, **Pavan Balaji**, Hua Zhong, Jun Wei, Tao Huang, Feng Qin

Omnisc'IO: A Grammar-Based Approach to Spatial and Temporal I/O Patterns Prediction
TIME: 3:30PM – 4:00PM • ROOM: 391-92
PRESENTERS: Matthieu Dorier, Shadi Ibrahim, Gabriel Antoniu, **Rob Ross**

Two-Choice Randomized Dynamic I/PO Scheduler for Object Storage Systems
TIME: 3:30PM – 4:00PM • ROOM: 391-92
PRESENTERS: Dong Dai, Yong Chen, **Dries Kimpe**, **Rob Ross**

BOFs:
Experiences in Delivering a Campus Data Service Using Globus
TIME: 5:30PM – 7:00PM • ROOM: 298-99
PRESENTERS*:* **Ian Foster,** Steve Tuecke, Rachana Ananthakrishnan

Demonstration:
100 Gbps Disk-to-Disk WAN transfer
PRESENTERS: **Raj Kettimuthu**, in partnership with DataDirect Networks

Thursday, November 20

Papers:

Optimization of Multi-Level Checkpoint Model with Uncertain Execution Scales
TIME: 2:30PM – 3:00PM • ROOM: 393-94-95
PRESENTERS*: **Sheng Di, Leonardo Bautista-Gomez, Franck Cappello**

High-Performance Computation of Distributed-Memory Parallel 3D Voronoi and Delaunay Tesselation
TIME: 3:30PM – 4:00PM • ROOM: 391-92
PRESENTERS*: **Tom Peterka, Dmitriy Morozov, Carolyn Phillips**

Scalable Computation of Stream Surfaces on Large-Scale Vector Fields
TIME: 4:00PM – 4:30PM • ROOM: 391-92
PRESENTERS*: Kewei Lu, Han-Wei Shen, **Tom Peterka**

BOFs:
Analyzing Parallel I/O
TIME: 5:30PM – 7:00PM • ROOM: 298-99
PRESENTERS: Julian Kunkel, **Philip Carns**, Alvaro Aguilera

Friday, November 21

Panels:
Return of HPC Survivor: Outwit, Outlast, Outcompute
TIME: 8:30AM – 10:00AM • ROOM: 383-84-85
PRESENTERS*: Cherri M. Pancake, Mike Bernhardt, Keith Gray, **Pete Beckman**, John West, Dona Crawford, Phil Bourne

Workshops:
DataCloud 2014: 5th International Workshop on Data-Intensive Computing in the Clouds
TIME: 8:30AM – 12:00PM • ROOM: 292
ORGANIZERS*: Yong Zhao, Ziming Zheng, **Wei Tang**

Workshop Papers:

Workshop Title: DataCloud 2014: 5th International Workshop on Data-Intensive Computing in the Clouds
Paper: **Skyport – Container-Based Execution Environment Management for Multi-Cloud Scientific Workflows**
TIME: 8:30AM – 12:00PM • ROOM: 292
PRESENTERS: Wolfgang Gerlach, **Wei Tang,** Kevin Keegan, Travis Harrison, **Andreas Wilke,** Jared Bischof, Mark D'Souza, Scott Devoid, Daniel Murphy-Olson, **Narayan Desai**, **Folker Meyer**