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This is a summary of Los Alamos National Lab (LANL) participation at SC17.
In some cases only LANL staff are listed with their event - see SC17 program for a complete list of authors.

Papers

A comparative Study of SDN and Adaptive Routing on Dragonfly Networks

Thursday, November 16th, 11am-11:30am, Room 402-403-404

Peyman Faizian, Md Atiqul Mollah, Zhou Tong, Xin Yuan, [Michael Lang \(LANL\)](#)

Charliecloud: Unprivileged Containers for User-Defined Software Stacks in HPC

Wednesday, November 15th, 2pm-2:30pm, Room 405-406-407

[Reid Priedhorsky](#), [Tim Randles](#)

Control Replication: Compiling Implicit Parallelism to Efficient SPMD with Logical Regions

Thursday, November 14th 4pm-4:30pm, Room 402-403-404

Elliott Slaughter, Wonchan Lee, Sean Treichler, Wen Zhang, Michael Bauer, Alex Aiken, [Galen Shipman](#), [Patrick McCormick](#)

Experimental and Analytical Study of Xeon Phi Reliability

Wednesday, November 15th, 10:30am-11am, Room 405-406-407

Daniel Oliveira, Laercio Pilla, Israel Koren, Philippe Navaux, Paolo Rech, [Nathan DeBardeleben](#), [Sean Blanchard](#), [Heather Quinn](#)

Optimized Scatter/Gather Data Operations for Parallel Storage

2nd Joint International Workshop on Parallel Data Storage and Data Intensive Scalable Computing systems

[Latchesar Ionkov](#), Carlos Maltzhan, [Michael Lang](#)

NUMA Distance for Heterogeneous Memory

Workshop on Memory Centric Programming for HPC

[Sean Williams](#), [Latchesar Ionkov](#), [Michael Lang](#)

A Scalable Analytical Memory Model for CPU Performance Prediction

[Gopinath Chennupati](#), [Nandakishore Santhi](#), [Robert Bird](#), [Sunil Thulasidasan](#), [Stephan Eidenbenz](#)

Software-Defined Storage for Fast Trajectory Queries using a DeltaFS Indexed Mas-

Qing Zheng, George Amvrosiadis, Saurabh Kadekodi, Garth A. Gibson, Charles D. Cranor, [Bradley W. Settlemyer](#), [Gary Grider](#), [Fan Guo](#)

Open Ethernet Drive: Evolution of Energy-Efficient Storage Technology

The Fourth Workshop on the LLVM Compiler Infrastructure in HPC

[Hsing-bung Chen](#)

OpenMPIR — Implementing OpenMP Tasks with Tapir

Computational Approaches for Cancer Workshop

George Stelle, Stephen Olivier, William Moses, [Patrick McCormick](#)

Sparse Coding of Pathology Slides

The Eighth International Workshop on Data-Intensive Computing in the Clouds

Sanketh Moudgalya, [Will Fischer](#), Garrett Kenyon

Graph Partitioning using Quantum Annealing on the D-Wave System

2nd International Workshop on Post Moore's Era Supercomputing (PMES)

Hayato Ushijima-Mwesigwa, Christian F. A. Negre, Susan M. Mniszewski

Navigating a Maze using a Quantum Annealer

2nd International Workshop on Post Moore's Era Supercomputing (PMES)

Scott Pakin

Markov Chain Modeling for Anomaly Detection in High Performance Computing System Logs

Fourth Annual Workshop on HPC User Support Tools

Abida Haque, Alexandra DeLucia, Elisabeth Baseman

Cosmological Particle Data Compression in Practice

Max Zeyen, James Ahrens, Hans Hagen, Katrin Heitmann, Salman Habib

Workshops

Eighth Annual Workshop for the Energy Efficient HPC Working Group (EE HPC WG)

Sunday, November 12th, 9am-5:30pm, Room 704-706

Workshop Co-Organizer: Josip Loncaric

HPC Systems Professionals Workshop

Monday, November 13th, 9am-5:30pm, Room 603

Randy Herban, Isaax Traxler, Jenett Tillotson, William Scullin, David Clifton, Alex Younts, Paul Peltz

WOLFHPC: Workshop on Domain-Specific Languages and High-Level Frameworks for High-Performance Computing

Friday, November 17th, 8:30am-12pm, Room 405

Program Committee: Patrick McCormick

LLVM-HPC2017: Fourth Workshop on the LLVM Compiler Infrastructure in HPC

Monday, November 13th, 9am-5:30pm, Room 710

Program Committee: Patrick McCormick

Tutorials

How To Analyze the Performance of Parallel Codes 101

Monday, November 13th, 8:30am-5pm, Room 402

Martin Schulz, James Galarowicz, Donald Maghrak, David Montoya, Jennifer Green

Large Scale Visualization with ParaView

Sunday, November 12th, 8:30am-5pm

Kenneth Moreland, W. Alan Scott, David E. DeMarle, Joe Insley, John Patchett, Jon Woodring

Kokkos: Enabling Manycore Performance Portability for C++ Applications and Domain Specific Libraries/Languages

Monday, November 13th, 1:30pm - 5pm, Room 406

H. Carter Edwards, Christian Trott, Fernanda Foertter, Geoff Womeldorff

HPC Impact Showcase

Gaining Insights into the Properties of Materials Using Atomistic Simulations on Large-Scale HPC Platforms

Wednesday, November 15th, 11am-11:30am, Room 503-504

Danny Perez

Birds of a Feather

Containers in HPC

Tuesday, November 14th, 5:15pm-7pm

Richard Canon, Jeffrey Sica, Gregory Kurtzer, Andrew Younge, Abdulrahman Azab, Reid Priedhorsky, Tim Randles

OpenSHMEM in the Era of Exascale

Wednesday, November 15th, 5:15-7pm, Room 501-502

Barbara Chapman, Tony Curtis, Oscar Hernandez, Vivek Sarkar, Sameer Shende, Pavel Shamis, Manjunath Venkata, Steve Poole, Jeff Kuehn

OpenStack For HPC: Best Practices for Optimizing Software-defined Infrastructure

Wednesday, November 15th, 5:15pm-7pm, Room 507

Blair Bethwaite, Stig Telfer, Martial Michel, Mike Lowe, Robert Budden, Benjamin Lynch, Timothy Randles

State of the Practice: Energy and Power Aware Job Scheduling and Resource Management (EPA-JSRM)

Wednesday, November 15th, 12:15pm-1:15pm, Room 501-502

Josip Loncaric, David Montoya

Total Cost of Ownership and HPC System Procurement

Tuesday, November 14th, 12:15pm-1:15pm, Room 605

Gert Svensson, Eric Boyer, James Rogers, James Laros, Natalie Bates, Steve Martin, Jason Hick

Usability, Scalability, and Productivity on Many-Core Processors: Intel Xeon Phi

Tuesday, November 14th, 5:15pm-7pm, Room 603

Douglas Doerfler, Estela Suarez, Hai Ah Nam

Fabric APIs - libfabric User Perspective and C++ Standardization

Tuesday, November 14th, 5:15pm-7pm, Room 603

Jeffrey Squyres, Sean Hefty, Chris Taylor, Howard Pritchard

Posters

Characterization and Comparison of Application Resilience for Serial and Parallel Codes

Kai Wu, Qiang Guan, Nathan DeBardleben, Dong Li

Incorporating Proactive Data Rescue into ZFS Disk Recovery for Enhanced Storage Reliability

Zhi Qiao, Song Fu, Hsing-bung Chen, Michael Lang

PetaVision Neural Simulation Toolbox on Intel KNLs

Boram Yoon, Pete Schultz, Garrett Kenyon

PORTAGE - A Flexible Conservative Remapping Framework for Modern HPC Architectures

Crossman P., Dilts G.A., Erramilli R.S., Ferenbaugh C.R., Garimella R.V., Herring A.M., Kikinon E., Malone C.M., Ray N., Rogers M.L.

Miscellaneous Events

Dinner with Interesting People

Wednesday, November 15th, 6pm, Four Seasons Ballroom

Candace Culhane

SC17 Awards Lunch

Thursday, November 16th, 12pm, Mile High Room

Candace Culhane, SIGHPC Emerging Woman Leader Award committee chair



SC17 Planning Committee

Hai Ah Nam, Registration/Store/Merchandise Chair

Christine Sweeney, Mentor-Protégé Program Lead

Jennifer Green, Student Volunteers Committee Member

Charles Garrett, Student Cluster Competition Reproducibility Chair

Hai Ah Nam and Carola Ellinger, Student Cluster Competition Reproducibility Committee Members

Scott Pakin, Technical Papers Committee Member, Architectures & Networks

Christine Sweeney, Posters Committee Member

Candice Culhane, Steering Committee Member and Secretary



Ryan Braithwaite, Edge Team Co-Chair

Parks Fields and Dave Modl, Edge Network Team Members

Julie Locke, Fiber Team Member

