

PEARC21

A and Education
 L Applications and Software
 B BoF
 D Diversity
 P Panels
S Systems and System Software
 T Training
 R Tutorial
 W Workforce Development
 K Workshop

JULY 19 • MONDAY

8:00am – 11:00am	R	TUTORIAL: An Introduction to Advanced Features in MPI <i>Speakers: Amit Ruhela, Victor Eijkhout</i>	Pathable Platform
8:00am – 11:00am	R	TUTORIAL: Deploying Science Gateways with Apache Airavata <i>Speakers: Suresh Marru, Marlon Pierce, Eroma Abeysinghe, Marcus Christie, Dimuthu Wannipurage, Sudhakar Pamidighantam</i>	Pathable Platform
8:00am – 11:00am	R	TUTORIAL: Empowering Research Computing at Your Organization Through the Open Science Grid <i>Speakers: Christina Koch, Lauren Michael, Mats Rynge, Emelie Fuchs</i>	Pathable Platform
8:00am – 11:00am	R	TUTORIAL: Security Log Analysis: Real world hands on methods and techniques to detect attacks <i>Speakers: Mark Krenz, Ishan Abhinit</i>	Pathable Platform
8:00am – 11:00am	R	TUTORIAL: Visualize, Analyze, and Correlate Networking Activities for Parallel Programs on InfiniBand HPC Clusters using the OSU INAM Tool <i>Speakers: Dhableswar Panda, Hari Subramoni, Pouya Kousha</i>	Pathable Platform
8:00am – 11:00am	K	EXHIBITOR WORKSHOP: Dell - Win More Grants <i>Speakers: Kenton McHenry</i>	Pathable Platform
8:00am – 11:00am	K	EXHIBITOR WORKSHOP: Intel Parallel Studio XE has become Intel oneAPI Toolkits How and Why! <i>Speakers: James Reinders, Chris Allison</i>	Pathable Platform
8:00am – 11:00am	K	EXHIBITOR WORKSHOP: NVIDIA - Best Practices for Operating a GPU system <i>Speakers: Gianluca Castellani, Oded Green, Jeff Layton, Scott McMillian, Bradley Palmer, Kaleb Smith, Craig Tierney</i>	Pathable Platform
8:00am – 11:00am	K	WORKSHOP: ACM SIGHPC SYSPROS Symposium 2021 <i>Speakers: Matthew Cawood, John Blaas</i>	Pathable Platform
8:00am – 11:00am	K	WORKSHOP: Building a Strategic Plan for your Research Computing and Data Program <i>Speakers: Patrick Schmitz, Claire Mizumoto, Dana Brunson, Doug Jennewein, Scotty Strachan</i>	Pathable Platform
8:00am – 11:00am	K	WORKSHOP: Fifth Workshop on Trustworthy Scientific Cyberinfrastructure (TrustedCI@PEARC21) <i>Speakers: Jim Basney</i>	Pathable Platform
8:00am – 3:00pm	R	TUTORIAL: A Deep Dive into Constructing Containers for Scientific Computing and Gateways <i>Speakers: Eric Coulter, Peter Vaillancourt, Jeremy Fischer, Stephen Bird, Sanjana Sudarshan, Suresh Marru</i>	Pathable Platform
8:00am – 3:00pm	R	TUTORIAL: Build a quick, effective coding tutorial <i>Speakers: Christina Maimone, Colby Witherup Wood</i>	Pathable Platform
8:00am – 3:00pm	R	TUTORIAL: Lucata Pathfinder-S Tutorial: Next-generation Computationwith the	

Rogues Gallery

Pathable Platform

Speakers: Jeffrey Young, Semir Sarajlic, William Powell, Janice McMahon, Jason Riedy

8:00am – 3:00pm	R	TUTORIAL: Managing HPC Software Complexity with Spack	Pathable Platform
		<i>Speakers: Gregory Becker, Robert Blake, Massimiliano Culpo, Tammy Dahlgren, Adam Stewart, Todd Gamblin</i>	
8:00am – 3:00pm	R	TUTORIAL: Open OnDemand, Open XDMoD, and ColdFront: an HPC center management toolset	Pathable Platform
		<i>Speakers: Dori Sajdak, Andrew Bruno, Eric Franz, Jeff Ohrstrom, Ryan Rathsam</i>	
8:00am – 3:00pm	R	TUTORIAL: Programming and Profiling Modern Multicore Processors	Pathable Platform
		<i>Speakers: Amit Ruhela, Lars Koesterke, John Cazes, Matthew Cawood</i>	
8:00am – 3:00pm	R	TUTORIAL: Python 201: Building Better Scientific Software in Python	Pathable Platform
		<i>Speakers: Geoffrey Lentner, Amiya Maji, Lev Gorenstein</i>	
12:00pm – 3:00pm	R	TUTORIAL: Boosting Performance of Machine Learning/Deep Learning and Dask Applications using the MVAPICH2-GDR Library	Pathable Platform
		<i>Speakers: Dhableswar Panda, Hari Subramoni, Arpan Jain, Aamir Shafi</i>	
12:00pm – 3:00pm	R	TUTORIAL: Deploying XSEDE Endpoints Using Globus Connect Server version 5	Pathable Platform
		<i>Speakers: Vas Vasiliadis, John-Paul Navarro, Lee Liming</i>	
12:00pm – 3:00pm	R	TUTORIAL: Engineering your Application for Peak Performance with TAU and MVAPICH2	Pathable Platform
		<i>Speakers: Hari Subramoni, Sameer Shende</i>	
12:00pm – 3:00pm	R	TUTORIAL: Interactive Scientific Computing on the Anvil Composable Platform	Pathable Platform
		<i>Speakers: Erik Gough, Eric Adams, Alan Chalker, Brian Werts, Sam Weekly, Stephen Kelley</i>	
12:00pm – 3:00pm	R	TUTORIAL: Modern Tools for Supercomputers	Pathable Platform
		<i>Speakers: Chun-Yaung Lu, Si Liu, Robert McLay, Kent Milfeld</i>	
12:00pm – 3:00pm	R	TUTORIAL: Securing Science Gateways with Custos Services	Pathable Platform
		<i>Speakers: Suresh Marru, Marlon Pierce, Eroma Abeysinghe, Jim Basney, Enis Afgan</i>	
12:00pm – 3:00pm	K	WORKSHOP: Fourth Workshop on Strategies for Enhancing HPC Education and Training (SEHET21)	Pathable Platform
		<i>Speakers: Dana Brunson, Nitin Sukhija, Scott Lathrop, Julia Mullen, Kate Cahill, Susan Mehringer</i>	
12:00pm – 3:00pm	K	WORKSHOP: Refining Your Research Computing Pitch	Pathable Platform
		<i>Speakers: Jane Combs, Richard Knepper</i>	
12:00pm – 3:00pm	K	WORKSHOP: What Does it Mean to be a Campus Champion?	Pathable Platform
		<i>Speakers: Dana Brunson, Shelley Knuth, Jay Alameda, Torey Battelle, Thomas Cheatham, Douglas Jennewein, Bj Lougee, Julie Ma, Timothy Middelkoop, Henry Neeman</i>	
12:00pm – 4:00pm	K	EXHIBITOR WORKSHOP: Optimize your Science & Simulations with AMD HPC Solutions	Pathable Platform
		<i>Speakers: Jason Hogan O'Neill, Brock Taylor, Mathieu Gontier, Derek Bouius, Michael Klemm, Katrina Gundal-Zaidi</i>	
12:00pm – 4:00pm	K	EXHIBITOR WORKSHOP: Google - Tropical Cyclone Intensity Estimation using a Deep Convolutional Neural Network	Pathable Platform
		<i>Speakers: Kenton McHenry</i>	

A and Education **L** Applications and Software **B** BoF **D** Diversity **P** Panels

S Systems and System Software **T** Training **R** Tutorial **W** Workforce Development **K** Workshop

JULY 20 • TUESDAY

9:30am – 9:40am	L	Accelerating key bioinformatics tasks 100-fold by improving memory access <i>Speakers: Igor Sfiligoi, Rob Knight, Daniel McDonald</i>	Pathable Platform
9:30am – 9:40am	S	Best practice of IO workload management in containerized environments on supercomputers <i>Speakers: Lei Huang, Yinzhi Wang, Chun-Yaung Lu, Si Liu</i>	Pathable Platform
9:30am – 9:40am	W	An Evaluation of Cyberinfrastructure Facilitators Skills Training in the Virtual Residency Program <i>Speakers: Dana Brunson, Henry Neeman, Sandra Gesing, Lorna Rivera, Lizanne DeStefano, Hussein Al-Azzawi, Patrick Clemins, Dirk Colbry, Calvin Frye, Joshua Gyllinsky, Anna Klimaszewski-Patterson, Anchalee Phataraloaha, Todd Price, Mohammed Tanash, Daniel Voss</i>	Pathable Platform
9:30am – 11:00am	P	Research Software Engineer (RSE) Careers - State of the Profession, Opportunities, and Challenges in Academia <i>Speakers: Kenton McHenry, Sandra Gesing, Ian Cosden, Daniel S. Katz, Christina Maimone, Alan Sussman</i>	Pathable Platform
9:30am – 11:00am	P	Scientific Research Enabled by Cerebras CS-1 Systems <i>Speakers: Paola A. Buitrago, Sergiu Sanielevici, Natalia Vassilieva</i>	Pathable Platform
9:40am – 9:50am	L	Adaptive Plasma Physics Simulations: Dealing with Load Imbalance using Charm++ <i>Speakers: Diego Jiménez, Esteban Meneses, V.I. Vargas</i>	Pathable Platform
9:40am – 9:50am	S	Secure Research Infrastructure Using tiCrypt <i>Speakers: Erik Deumens, Thomas Samant, Eric Byrd, Samuel Porter, Axel Haenssen, Curtis W. Hillegas, Elizabeth Holtz, Irene Kopaliani</i>	Pathable Platform
9:40am – 9:50am	W	Research Liaisons: the next layer of Facilitation <i>Speakers: Deb McCaffrey, John Brussolo, Ryan Echlin, John Herlocher, Einor Jacobsen, Lovida Roach, Amy Yamasaki, Erin Dietrich, Dan St. Pierre</i>	Pathable Platform
9:50am – 10:00am	L	Tools and Guidelines for Job Bundling on Modern Supercomputers <i>Speakers: Si Liu, Victor Eijkhout, John Cazes</i>	Pathable Platform
9:50am – 10:00am	S	Research Computing on Campus - Application of a Production Function to the Value of Academic High-Performance Computing <i>Speakers: Stephen Lien Harrell, Preston Smith</i>	Pathable Platform
9:50am – 10:00am	W	Assessing the Landscape of Research Computing and Data Support <i>Speakers: Patrick Schmitz</i>	Pathable Platform
10:00am – 10:10am	L	Comparing the behavior of OpenMP Implementations with various Applications on two different Fujitsu A64FX platforms <i>Speakers: Benjamin Michalowicz, Eric Raut, Yan Kang, Tony Curtis, Barbara Chapman, Dossay Oryspayev</i>	Pathable Platform
10:00am – 10:10am	S	Jetstream2: Accelerating cloud computing via Jetstream <i>Speakers: Jeremy Fischer, Suresh Marru, Marlon Pierce, David Y. Hancock, John Michael Lowe, Winona Snapp-Childs, J. Eric Coulter, Matthew Vaughn, Brian Beck, Nirav Merchant, Gwen Jacobs, Edwin Skidmore</i>	Pathable Platform
10:00am – 10:10am	W	Broadening the Reach for Access to Advanced Cyberinfrastructure - Accelerating	

Research and Education

Pathable Platform

Speakers: Forough Ghahramani, John Hicks, Barr von Oehsen

10:10am – 10:20am	L	kEDM: A Performance-portable Implementation of Empirical Dynamic Modeling using Kokkos	Pathable Platform
		<i>Speakers: Keichi Takahashi, Wassapon Watanakeesuntorn, Kohei Ichikawa, Joseph Park, Ryousei Takano, Jason Haga, Gerald M. Pao, George Sugihara</i>	
10:10am – 10:20am	S	Building Tapis v3 Streams API Support for Real-Time Streaming Data Event-Driven Workflows	Pathable Platform
		<i>Speakers: Smruti Padhy, Anagha Jamthe, Sean B. Cleveland, Jack A. Smith, Joe Stubbs, Christian Garcia, Michael Packard, Steve Terry, Julia Looney, Richard Cardone, Maytal Dahan, Gwen A. Jacobs</i>	
10:10am – 10:20am	W	Comprehensive Evaluation of XSEDE's Scientific Impact using Semantic Scholar Data	Pathable Platform
		<i>Speakers: Gregor von Laszewski, Fugang Wang</i>	
10:20am – 10:30am	L	Building Detection with Deep Learning	Pathable Platform
		<i>Speakers: Matthew Kusz, Justin Peters, Laura Huber, Jefferson Davis, Scott Michael</i>	
10:20am – 10:30am	S	Reimagining Account and Allocation Management for Advanced Research Computing	Pathable Platform
		<i>Speakers: Tabitha Samuel, Adam Howard</i>	
10:20am – 10:30am	W	The Connect.Cyberinfrastructure Portal - Creating Opportunities for Collaboration and Cohesion in the Research Computing Ecosystem	Pathable Platform
		<i>Speakers: Dana Brunson, Shelley Knuth, Torey Battelle, Thomas Cheatham, Douglas Jennewein, Julie Ma, Timothy Middelkoop, Eric Brown, John Goodhue, James Griffioen, Kaylea Nelson, Andrew Sherman, Scott Valcourt, Dhruva Chakravorty, Christopher Simmons, Sarah Akbar, Ermal Toto, Bj Lougee, Julia Sheats</i>	
11:15am – 12:15pm	B	Assessing and communicating cyberinfrastructure readiness at EPSCoR and under-resourced institutions	Pathable Platform
		<i>Speakers: Patrick Schmitz, Dana Brunson, Scotty Strachan, Venice Bayrd, Gwen Jacobs, Pips Veazey</i>	
11:15am – 12:15pm	B	Open OnDemand User Group Meeting	Pathable Platform
		<i>Speakers: Alan Chalker, David Hudak, Robert DeLeon, Robert Settlage</i>	
11:15am – 12:15pm	B	OpenHPC Community BoF	Pathable Platform
		<i>Speakers: Karl Schulz, Christopher Simmons, Nirmala Sundarara, David Brayford, Derek Simmel</i>	
11:15am – 12:15pm	B	Use Cases for ColdFront Resource Allocation Management System	Pathable Platform
		<i>Speakers: Dori Sajdak, Andrew Bruno, James Hong, Bd Kim, Robert Settlage, Raminder Singh</i>	

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S Systems and System Software **T** Training **R** Tutorial **W** Workforce Development **K** Workshop

JULY 21 • WEDNESDAY

9:20am – 9:30am	L	Practice Guideline for Heavy I/O Workloads with Lustre File Systems on TACC Supercomputers	Pathable Platform
		<i>Speakers: Amit Ruhela, Si Liu, Lei Huang, Hang Liu, Virginia Trueheart, Susan Lindsey, Quan Yuan</i>	
9:20am – 9:30am	S	Analysis of a ThunderX2 System Using Top-Down and Purchasing Power Parity Methods	Pathable Platform
		<i>Speakers: Yectli Huerta, David Lilja</i>	
9:20am – 9:30am	S	Ensemble Prediction of Job Resources to Improve System Performance for Slurm-Based HPC Systems	Pathable Platform
		<i>Speakers: Mohammed Tanash, Huichen Yang, Daniel Andresen, William Hsu</i>	
9:20am – 10:50am	P	Campus Research Computing Consortium (CaRCC) Town Hall	Pathable Platform
		<i>Speakers: Lauren Michael, Claire Mizumoto, Dana Brunson, Thomas Cheatham, Ruth Marinshaw, Patrick Schmitz, Scott Yockel</i>	
9:20am – 10:50am	P	Cloud Facilitation in Research Computing and Data	Pathable Platform
		<i>Speakers: Dana Brunson, Timothy Middelkoop, Allissa Dillman, Alper Kinaci, Ananya Ravipati, Chris Lalande, Rob Fatland, John Mulligan</i>	
9:20am – 10:50am	P	PEARC21 Panel on Student Competitions	Pathable Platform
		<i>Speakers: Elizabeth Leake</i>	
9:30am – 9:40am	L	A Heterogeneous MPI+PPL Task Scheduling Approach for Asynchronous Many-Task Runtime Systems	Pathable Platform
		<i>Speakers: John Holmen, Martin Berzins, Damodar Sahasrabudhe</i>	
9:30am – 9:40am	S	Real-World, Self-Hosted Kubernetes Experience	Pathable Platform
		<i>Speakers: Joe Stubbs, Michael Packard, Justin Drake, Christian Garcia</i>	
9:30am – 9:40am	S	Using Single Sign-On Authentication with Multiple Open OnDemand Accounts: A Solution for HPC Hosted Courses	Pathable Platform
		<i>Speakers: Ping Luo, Benjamin Evans, Tyler Trafford, Jay Kubeck, Thomas Langford, Kaylea Nelson, Andrew Sherman</i>	
9:40am – 9:50am	L	Integrity Protection for Research Artifacts using Open Science Chain's Command Line Utility	Pathable Platform
		<i>Speakers: Manu Shantharam, Subhashini Sivagnanam, Scott Sakai, Kai Lin</i>	
9:40am – 9:50am	S	Common Resource Descriptions for Interoperable Gateway Cyberinfrastructure	Pathable Platform
		<i>Speakers: Suresh Marru, Eric Franz, Dimuthu Wannipurage, Sudhakar Pamidighantam, John-Paul Navarro, Joe Stubbs, Daniel Mejia, Steve Black, Claire Stirm, Maytal Dahan, Marlon Pierce, Michael Zentner</i>	
9:40am – 9:50am	S	System Integration of Neocortex, a Unique, Scalable AI Platform	Pathable Platform
		<i>Speakers: Paola A. Buitrago, Nicholas A. Nystrom, Julian A. Uran</i>	
9:50am – 10:00am	L	Experiences in building a user portal for Expanse supercomputer	Pathable Platform
		<i>Speakers: Subhashini Sivagnanam, Michael Norman, Shawn Strande, Mahidhar Tatineni, Martin Kandes, Scott Sakai, Dmitry Mishin, Mary Thomas, Christopher Irving</i>	
9:50am – 10:00am	S	Managing Cloud networking costs for data-intensive applications by provisioning dedicated network links	Pathable Platform

Speakers: Igor Sfiligoi, Michael Hare, David Schultz, Frank Würthwein, Benedikt Riedel, Tom Hutton, Steve Barnett, Vladimir Brik

9:50am – 10:00am	S	Skyway: A Seamless Solution for Bursting Workloads from On-Premises HPC Clusters to Commercial Clouds	Pathable Platform
		<i>Speakers: Yuxing Peng, Jonathan Skone, Callista Christ, Hakizumwami Runesha</i>	
10:00am – 10:10am	L	A Vision for Science Gateways: Bridging the Gap and Broadening the Outreach	Pathable Platform
		<i>Speakers: Sandra Gesing, Steven Brandt, Shannon Bradley, Mark Potkewitz, Kerk Kee, Noreen Whyse, Mark Perri, Sean Cleveland, Jack Smith, Annelie Rugg</i>	
10:00am – 10:10am	S	Doing more with less: Growth, improvements, and management of NMSU's computing capabilities	Pathable Platform
		<i>Speakers: Strahinja Trecakov, Nicholas Von Wolff</i>	
10:00am – 10:10am	S	Ookami: Deployment and Initial Experiences	Pathable Platform
		<i>Speakers: Benjamin Michalowicz, Eric Raut, Yan Kang, Tony Curtis, Andrew Burford, Alan Calder, David Carlson, Barbara Chapman, Firat Coskun, Catherine Feldman, Robert Harrison, Eva Siegmann, Daniel Wood, Robert DeLeon, Mathew Jones, Nikolay Simakov, Dossay Oryspayev, Joseph White</i>	
10:10am – 10:20am	L	The LROSE Science Gateway: One-Stop Shop for Weather Data, Analysis, and Expert Advice	Pathable Platform
		<i>Speakers: Brenda Javornik, Jennifer C. DeHart, Hector Santiago III</i>	
10:10am – 10:20am	S	BenchTool: a framework for the automation and standardization of HPC performance benchmarking	Pathable Platform
		<i>Speakers: Matthew Cawood, Stephen Lien Harrell, Todd Evans</i>	
10:10am – 10:20am	S	INAM: Cross-stack Profiling and Analysis of Communication in MPI-based Applications	Pathable Platform
		<i>Speakers: Dhableswar Panda, Hari Subramoni, Pouya Kousha, Arpan Jain, Aamir Shafi, Kamal Raj Sankarapandian Dayala Ganesh Ram, Mansa Kedia, Trey Dockendorf, Heechang Na, Karen Tomko</i>	
10:20am – 10:30am	L	Defining Performance of Scientific Application Workloads on the AMD Milan Platform	Pathable Platform
		<i>Speakers: Geoffrey Lentner, Amiya Maji, Sam Weekly, Tsai-Wei Wu, Stephen Lien Harrell, Alex Younts, Zoey Mertes, Preston Smith, Xiao Zhu</i>	
10:20am – 10:30am	S	Simulation vs Actual Walltime Correction in a Real Production Resource-Constrained HPC	Pathable Platform
		<i>Speakers: Jessi Christa Rubio, Aira Villapando</i>	
11:00am – 12:00pm	B	Marketing and Promotion of Scientific Software for Sustainability Purposes	Pathable Platform
		<i>Speakers: Alan Chalker, Enis Afgan, Claire Stirm, Michael Zentner, Sandra Gesing, Vas Vasiliadis</i>	
11:00am – 12:00pm	B	Quantifying the Research Computing and Data Professional Community for Attracting, Retaining, and Diversifying RCD Professionals	Pathable Platform
		<i>Speakers: Christina Maimone, Scott Yockel, Amy Neeser, Ashley Stauffer, Timothy Middelkoop, Kimberly Grash</i>	
11:00am – 12:00pm	B	Science Gateways and HPCs: Next Generation Access	Pathable Platform
		<i>Speakers: Suresh Marru, Marlon Pierce, Sudhakar Pamidighantam, Jim Basney, Maytal Dahan, Joe Stubbs, Mark Krenz</i>	
11:00am – 12:00pm	B	Towards Inclusive Terminology in Advanced Research Computing	Pathable Platform
		<i>Speakers: Susan Mehringer, Jay Alameda, Sergiu Sanielevici, Linda Akli, Katharine Cahill, Stephen Deems, John Holly, Boswell Hutson, Susan Lindsey, Deb Nigra, Robert Panoff, Robert Whitten</i>	

A and Education **L** Applications and Software **B** BoF **D** Diversity **P** Panels

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JULY 22 • THURSDAY

8:00am – 8:10am	L	Anomaly Detection in Scientific Workflows using End-to-End Execution Gantt Charts and Convolutional Neural Networks <i>Speakers: Patrycja Krawczuk, George Papadimitriou, Shubham Nagarkar, Mariam Kiran, Ewa Deelman, Anirban Mandal</i>	Pathable Platform
8:00am – 8:10am	S	Securing CHEESEHub: A Cloud-based, Containerized Cybersecurity Education Platform <i>Speakers: Mike Lambert, Rajesh Kalyanam, Rob Kooper, Baijian Yang</i>	Pathable Platform
8:00am – 9:30am	P	Diversity in the student pipeline and professional staff: challenges, success stories, and resources <i>Speakers: Tabitha Samuel, Craig Stewart, Gwen Jacobs, Paul Rad, Marisa Brazil, Jeaime H Powell, Gabriella Arellano</i>	Pathable Platform
8:00am – 9:30am	P	The NSF Computing Ecosystem: Category 1 and 2 Resources for Accelerating Research for the Community. <i>Speakers: Shawn Strande, Paola A. Buitrago, Amit Majumdar, Sergiu Sanielevici, Shawn Brown, David Hancock, X. Carol Song, Robert Harrison, William Gropp</i>	Pathable Platform
8:10am – 8:20am	L	Collecting and analyzing smartphone sensor data for health <i>Speakers: Justin Drake, Karl Schulz, Radek Bukowski, Kelly Gaither</i>	Pathable Platform
8:10am – 8:20am	S	ColdFront: Resource Allocation Management System <i>Speakers: Andrew Bruno, Dori Sajdak</i>	Pathable Platform
8:20am – 8:30am	L	RESIF 3.0: Toward a Flexible & Automated Management of User Software Environment on HPC facility <i>Speakers: Sebastien Varrette, Emmanuel Kieffer, Frederic Pinel, Ezhilmathi Krishnasamy, Sarah Peter, Xavier Besseron, Hyacinthe Cartiaux</i>	Pathable Platform
8:20am – 8:30am	S	CloudBank: Managed Services to Simplify Cloud Access for Computer Science Research and Education <i>Speakers: Michael Norman, Shawn Strande, Vince Kellen, Shava Smallen, Brian DeMeulle, Ed Lazowska, Naomi Alterman, Rob Fatland, Sarah Stone, Amanda Tan, Katherine Yelick, Eric Van Dusen, James Mitchell</i>	Pathable Platform
8:30am – 8:40am	L	Research Cloud Bazaar <i>Speakers: Michael Lau, Stuti Trivedi, Zhenhua He, Tri Pham, Dhruva Chakravorty, Lisa Perez</i>	Pathable Platform
8:30am – 8:40am	S	Expansive: Computing without Boundaries <i>Speakers: Manu Shantharam, Shawn Strande, Mahidhar Tatineni, Dmitry Mishin, Haisong Cai, Wayne Pfeiffer, Christopher Irving, Amit Majumdar, Robert Sinkovits, Mike Norman, Nicole Wolter, Trevor Cooper, Ilkay Altintas, Marty Kandes, Ismael Perez, Mary Thomas, Subhashini Sivagnanam, Thomas Hutton</i>	Pathable Platform
8:40am – 8:50am	L	Investigating the Genomic Distribution of Phylogenetic Signal with CloudForest <i>Speakers: Reid Wagner, Benjamin S. Troups, Zhifeng Deng, Thomas McGowan, Kyle A. Gallivan, Jeremy M. Brown, James C. Wilgenbusch</i>	Pathable Platform
8:40am – 8:50am	S	Results from a second longitudinal survey of academic research computing and data center usage: expenditures, utilization patterns, and approaches to return on investment	Pathable Platform

Speakers: Alan Chalker, Sharon Broude Geva, Curt Hillegas, Donald Petravick, Craig Stewart, Alan Sill

8:50am – 9:00am	L	Powering Plasma Confinement Simulations: from Classic to Photorealistic Visualizations	Pathable Platform
		<i>Speakers: Diego Jiménez, Luis Campos-Duarte, Esteban Meneses, Ricardo Solano-Piedra, Esteban Pérez, Ernesto Rivera-Alvarado, V.I. Vargas</i>	
8:50am – 9:00am	S	A Scalable Cloud-based Architecture to Deploy JupyterHub for Computational Social Science Research	Pathable Platform
		<i>Speakers: Da Li, Runchao Jiang, Robert Pyke</i>	
9:00am – 9:10am	L	DELTA-Topology: A Science Gateway for Experimental and Computational Chemical Data Analysis using Topological Models	Pathable Platform
		<i>Speakers: Eric Coulter, Sudhakar Pamidighantam, Marcus Christie, Aurora Clark</i>	
9:00am – 9:10am	S	Bridges-2: A Platform for Rapidly-Evolving and Data Intensive Research	Pathable Platform
		<i>Speakers: Shawn T. Brown, Paola Buitrago, Edward Hanna, Sergiu Sanielevici, Nicholas A. Nystrom, Robin Scibek</i>	
9:10am – 9:20am	S	Identifying Research Collaboration Challenges for the Development of a Federated Infrastructure Response	Pathable Platform
		<i>Speakers: Maureen Dougherty, James Barr von Oehsen, Michael Zink</i>	
9:20am – 9:30am	S	Experiences Migrating the Agave Platform to A Kubernetes Native System on the Jetstream Cloud	Pathable Platform
		<i>Speakers: Steven Brandt, Rion Dooley, Karen Liang, Eric Tanner</i>	
9:45am – 10:45am	B	Science DMZ Experiences: Sharing Considerations and Approaches on Deploying and Maintaining a Science DMZ	Pathable Platform
		<i>Speakers: David Wheeler, Richard Angeletti, Kathy Benninger, Thomas Hutton, Scott Sakai, Michael Lambert</i>	
9:45am – 10:45am	B	SOLAR Consortium: Accelerated Ray Tracing for Scientific Simulations	Pathable Platform
		<i>Speakers: Paul Navratil, Estelle Dirand, Christiaan Gribble, Pascal Grosset</i>	
9:45am – 10:45am	B	Tapis User Meeting	Pathable Platform
		<i>Speakers: Anagha Jamthe, Joe Stubbs, Julia Looney, Richard Cardone, Steve Black, Sean Cleveland, Joseph Meiring</i>	
9:45am – 10:45am	B	The Connect.Cyberinfrastructure Portal (formerly known as the Cyberteam Portal): A Shared, yet Independent, Platform for Community Collaboration - Year 1 Update	Pathable Platform
		<i>Speakers: Dana Brunson, Shelley Knuth, Torey Battelle, Thomas Cheatham, Douglas Jennewein, Bj Lougee, Julie Ma, Timothy Middelkoop, John Goodhue, James Griffioen, Kaylea Nelson, Andrew Sherman, Dhruva Chakravorty, Christopher Simmons, Bhushan Chitre, Adrian Del Maestro, Anthony Elam, Vikram Gazula, Bruce Segee, Scott Valcourt, Ralph Zottola</i>	
