



Monday, February 3, 2020

8:00 – 8:30 AM	Break Legends Pre-function Area
8:30 – 9:45 AM	NDA Session PathForward Update – HPE Discovery Center
9:45 – 10:00 AM	Break Legends Pre-function Area
10:00 – 11:15 AM	NDA Session PathForward Update – IBM Legends Ballroom
11:15 – 11:30 AM	Break Legends Pre-function Area
11:30 AM – 12:45 PM	NDA Session PathForward Update – NVIDIA Discovery Center
12:45 – 1:30 PM	Working Lunch Legends Ballroom ECP Welcome, ECP Leadership
1:30 – 1:45 PM	Break Legends Pre-function Area
1:45 – 3:00 PM	NDA Session PathForward Update – Intel Legends Ballroom
3:00 – 3:15 PM	Break Legends Pre-function Area
3:15 – 4:30 PM	NDA Session PathForward Update – Cray Legends Ballroom
4:30 – 4:45 PM	Break Legends Pre-function Area
4:45 – 6:00 PM	NDA Session PathForward Update – AMD Legends Ballroom
6:00 – 6:15 PM	Break Legends Pre-function Area
6:15 – 7:30 PM	Working Dinner Legends Ballroom Plenary – AI for Science by Rick Stevens , Argonne National Laboratory / The University of Chicago

Tuesday, February 4, 2020

7:30 – 8:30 AM	Working Breakfast Legends Ballroom Focus Area Updates: Hardware & Integration BSSw Fellows Announcement	
8:30 – 9:00 AM	Keynote Address Legends Ballroom by Dr. Chris Fall , Director, DOE Office of Science	
9:00 – 9:30 AM	State of the ECP Legends Ballroom by Doug Kothe (ORNL), Lori Diachin (LLNL), Terri Quinn (LLNL), Mike Heroux (SNL), Andrew Siegel (ANL), Kathlyn Boudwin (ORNL)	
9:30 – 10:00 AM	Break Legends Pre-function Area	
10:00 – 10:30 AM	Poster Session (Part I: Exploration) Discovery B Application Development / Hardware & Integration / Facilities / Industry	
10:30 AM – 12:00 PM	Tutorials – Track 1 90 min AD <ul style="list-style-type: none"> Integrating PaRSEC-Enabled Libraries in Scientific Applications Champions VII ST <ul style="list-style-type: none"> Introduction to the Capabilities and Use of the SUNDIALS Suite of Nonlinear and Differential/Algebraic Equation Solvers Champions VI Performance Evaluation Using the TAU Performance System Discovery A SLATE and MAGMA Linear Algebra & FFT Libraries Tutorial Founders I Umpire: Managing Heterogeneous Memory Resources Champions V 	BoFs/Breakouts/Panels – Track 1 90 min AD <ul style="list-style-type: none"> AMReX and AMReX-Based Application Founders IV ST <ul style="list-style-type: none"> Intelligent Distributed Data Movement for Exascale Computing Champions III MPI BoF Champions I & II HI <ul style="list-style-type: none"> Collaboration Opportunities with the BSSw Fellows Founders II Cultivating Software Sustainability and Productivity through BSSw.io Founders III OpenMP Roadmap for Accelerators Across DOE Pre-Exascale/Exascale Machines Legends Ballroom
12:00 – 1:30 PM	Working Lunch Legends Ballroom Plenary – EQSIM: Transforming Earthquake Hazard and Risk Assessment Through Exascale Simulations by Dr. David McCallen , Lawrence Berkeley National Laboratory	
1:30 – 2:30 PM	Poster Session (Part II: Discussion) Discovery B Application Development / Hardware & Integration / Facilities / Industry	



<p>2:30 – 3:30 PM</p>	<p>Tutorials – Track 2 180 min</p> <p>AD</p> <ul style="list-style-type: none"> CANDLE Hands-on Tutorial Champions VII <p>ST</p> <ul style="list-style-type: none"> Application-Driven Fault-Tolerance for High Performance Distributed Computing Founders II In Situ Visualization and Analysis with Ascent Founders III Managing Power Efficiency of HPC Applications with Variorum and GEOPM Champions VI <p>HI</p> <ul style="list-style-type: none"> Better Scientific Software Tutorial Founders IV ECP Continuous Integration Startup Tutorial Champions V 	<p>BoFs/Breakouts/Panels – Track 2 60 min</p> <p>ST</p> <ul style="list-style-type: none"> Container Utilization at DOE Compute Facilities Champions III I/O Performance Addicts Champions I & II The Scope and Role of DevOps in HPC Founders I <p>HI</p> <ul style="list-style-type: none"> App Integration at the Facilities: Lessons Learned so Far Discovery A Slingshot BoF (NDA Session) Legends Ballroom
<p>3:30 – 4:00 PM</p>	<p>Poster Session (Part III: Collaboration) Discovery B Application Development / Hardware & Integration / Facilities / Industry</p> <p style="text-align: right;">Break Legends Pre-function Area</p>	
<p>4:00 – 6:30 PM</p>	<p>Tutorials – Track 2 (Continued)</p>	<p>BoFs/Breakouts/Panels – Track 3 90 min</p> <p>AD</p> <ul style="list-style-type: none"> CEED: High-Order Methods, Applications, and Performance for Exascale Founders I <p>ST</p> <ul style="list-style-type: none"> Kokkos Ecosystem for Performance Portability: Updates and Plans Discovery A Lossy Data Reduction/Compression for ECP Applications Champions I & II Understanding Performance with Exa-PAPI Champions III <p>HI</p> <ul style="list-style-type: none"> Early Experience of Application Developers with OpenMP Offloading at ALCF, NERSC, and OLCF Legends Ballroom <p>BoFs/Breakouts/Panels – Track 4 60 min</p> <p>HI</p> <ul style="list-style-type: none"> Intel Developer Feedback Session Legends Ballroom

Wednesday, February 5, 2020

7:30 – 8:30 AM	Working Breakfast Legends Ballroom Focus Area Updates: Software Technology	
8:30 – 9:45 AM	Focus Area Meetings (ECP Staff Only) Application Development Founders Ballroom • Software Technology Legends Ballroom	
9:45 – 10:00 AM	Break Legends Pre-function Area	
10:00 – 10:30 AM	Poster Session (Part I: Exploration) Discovery B Software Technology	
10:30 AM – 12:00 PM	Tutorials – Track 1 90 min AD <ul style="list-style-type: none"> ExaGraph: Graph and Combinatorial Methods for Enabling Exascale Applications Founders I ST <ul style="list-style-type: none"> Accelerating Your Application I/O with UnifyFS Champions VII Getting It Right with Open MPI - Best Practices for Deployment and Tuning of Open MPI Founders II Using HPCToolkit to Measure and Analyze the Performance of GPU-Accelerated Applications Discovery A 	BoFs/Breakouts/Panels – Track 1 90 min <ul style="list-style-type: none"> ECP 201: Lessons Learned in Preparing Software Technology and Applications for Exascale Systems Champions V AD <ul style="list-style-type: none"> Advances in Science and Engineering Enabled by ECP Applications (Part I) Founders IV Best Practices for Using Proxy Apps as Benchmarks Champions III ST <ul style="list-style-type: none"> Speed Dating for ECP: 1-on-1 Conversations between AD Teams and Math Library Developers Champions I & II HI <ul style="list-style-type: none"> ECP Software Curation through Deployment Champions VI Perlmutter - a Waypoint for ECP Teams Founders III SYCL Programming Model for Aurora Legends Ballroom
12:00 – 1:30 PM	Working Lunch Legends Ballroom Plenary – Industry Imperative for Exascale	
1:30 – 2:30 PM	Poster Session (Part II: Discussion) Discovery B Software Technology	



<p>2:30 – 4:00 PM</p>	<p>Tutorials – Track 2 180 min</p> <p>AD</p> <ul style="list-style-type: none"> ExaLearn Tutorial: Co-Design Center for Exascale Machine Learning Technologies Founders IV <p>ST</p> <ul style="list-style-type: none"> A Tutorial Introduction to RAJA Performance Portability Abstractions Founders III Container Computing for HPC and Scientific Workloads Champions I & II Exascale I/O with ADIOS: Online Processing, in Situ Visualization and High-Performance Storage I/O Champions VII OpenMP 4.5 and 5.0 Tutorial (Offload) Discovery A Performance Tuning with the Roofline Model on GPUs and CPUs Champions V 	<p>Tutorials – Track 3 90 min</p> <p>HI</p> <ul style="list-style-type: none"> Hands-on with Progress Tracking Cards: A Lightweight Method for Improving Your Software Practices Founders I 	<p>BoFs/Breakouts/Panels – Track 2 60 min</p> <p>ST</p> <ul style="list-style-type: none"> Spack Roundtable Founders II <p>HI</p> <ul style="list-style-type: none"> ECP Continuous Integration Update Champions III Hardware Evaluation for Understanding Network Requirements from Facilities and Software Teams Champions VI Overview of the Argonne Aurora Exascale System Legends Ballroom
<p>4:00 – 4:30 PM</p>	<p>Poster Session (Part III: Collaboration) Discovery B Software Technology</p>		<p>Break Legends Pre-function Area</p>
<p>4:30 – 6:00 PM</p>	<p>Tutorials – Track 2 (Continued)</p>		<p>BoFs/Breakouts/Panels – Track 3 60 min</p> <p>HI</p> <ul style="list-style-type: none"> Aurora – Argonne's Exascale System (NDA Session) Legends Ballroom ECP and Experimental Science Founders I ECP SW Deployment Project Team Breakout Champions VI OLCF ECP Application Engagement Founders II System Software - Evaluation and Future for Pre-Exascale and Exascale Systems Champions III



Thursday, February 6, 2020

7:30 – 8:30 AM	Working Breakfast Legends Ballroom Focus Area Updates: Application Development				
8:30 – 10:00 AM	Tutorials – Track 1 330 min ST <ul style="list-style-type: none"> Customizing Data Services for Fun and Profit Champions VI Flux: Using Next-Generation Resource Management and Scheduling Infrastructure for Exascale Workflows Founders III Managing HPC Software Complexity with Spack Founders IV 	Tutorials – Track 2 180 min AD <ul style="list-style-type: none"> Co-Design Center for Particle Applications (CoPA) Summary Founders I ST <ul style="list-style-type: none"> Achieving High Performance I/O with HDF5 Founders II HI <ul style="list-style-type: none"> Frontier Tutorial Legends Ballroom 	Tutorials – Track 3 60 min HI <ul style="list-style-type: none"> Memory Movement Orchestration and Topology-Aware Placement with AML Champions I & II 	BoFs/Breakouts/Panels – Track 1 90 min AD <ul style="list-style-type: none"> Advances in Science and Engineering Enabled by ECP Applications (Part II) Champions V ST <ul style="list-style-type: none"> SUNDIALS Plans and Uses Champions VII HI <ul style="list-style-type: none"> DAOS (Distributed Asynchronous Object Storage) for Applications Discovery A 	BoFs/Breakouts/Panels – Track 2 60 min HI <ul style="list-style-type: none"> Tools and Techniques for Application Performance Characterization Champions III
10:00 – 10:30 AM	Break Legends Pre-function Area				
10:30 AM – 12:00 PM	Tutorials – Track 1 (Continued)	Tutorials – Track 2 (Continued)	Tutorials – Track 4 90 min ST <ul style="list-style-type: none"> STRUMPACK / SuperLU: Fast Parallel Direct Linear Solvers and Preconditioners Champions VII HI <ul style="list-style-type: none"> CODAR Hands-on Tutorial Champions I & II 	BoFs/Breakouts/Panels – Track 3 90 min AD <ul style="list-style-type: none"> Overview of the National Security Applications Champions III ST <ul style="list-style-type: none"> Management of Complex, Heterogeneous, and Hierarchical Memory Resources Champions V Multiprecision Focus Effort in the ECP Math Library Ecosystem Discovery A 	



<p>12:00 – 1:30 PM</p>	<p>Working Lunch Legends Ballroom Plenary – ASCAC Transition of Exascale Computing Project Report by Prof. Roscoe Giles, Boston University</p>		
<p>1:30 – 3:00 PM</p>	<p>Tutorials – Track 1 (Continued)</p>	<p>Tutorials – Track 5 150 min</p> <p>ST</p> <ul style="list-style-type: none"> Developing Engaged and Productive Virtual Teams Champions I UPC++: A PGAS/RPC Library for Asynchronous Exascale Communication in C++ Founders II <p>HI</p> <ul style="list-style-type: none"> Analyzing ECP Proxy Apps with the Profiling Tool Score-P Champions VII Modern CMake Tutorial Champions II 	<p>BoFs/Breakouts/Panels – Track 4 90 min</p> <p>ST</p> <ul style="list-style-type: none"> The Compiler Will Help You! The LLVM Compiler Infrastructure in ECP Legends Ballroom <p>HI</p> <ul style="list-style-type: none"> ECP Center and Application Monitoring – Working Group Founders I Performance Portability at the Intersection of the Exascale Computing Project and the DOE Centers of Excellence Champions V Preparing Applications for Aurora Champions III
<p>3:00 – 3:30 PM</p>	<p>Break Legends Pre-function Area</p>		
<p>3:30 – 4:30 PM</p>	<p>Tutorials – Track 1 (Continued)</p>	<p>Tutorials – Track 5 (Continued)</p>	<p>BoFs/Breakouts/Panels – Track 5 45 min</p> <p>AD</p> <ul style="list-style-type: none"> CMakePP: Automating and Simplifying CMake Build Systems Founders I <p>ST</p> <ul style="list-style-type: none"> Checkpointing at Exascale: Software Integration, Use Cases, Challenges Champions III <p>HI</p> <ul style="list-style-type: none"> Persistent Memory in the Exascale Memory/Storage Continuum Champions V
<p>4:30 – 5:00 PM</p>	<p>Adjourn Formal Meeting Legends Ballroom Closing Comments from ECP Director and L2 Leads</p>		