



High Impact Large-Scale Analytics

AGENDA

Tuesday, October 30, 2018

General Session location: Capitol Ballroom

Time	Title	Speaker
7:00 – 8:00 am	Breakfast and Registration (Capitol ABC)	
8:00 – 8:30 am	Welcome	John Feo, PNNL
	George Cotter Award for Vision and Leadership in the Field of Data Analytics	Candy Culhane, LANL
8:30 – 9:15 am	Keynote: Machine Learning to Predict Cancer Drug Response: Problems in Model Transfer and Uncertainty Quantification	Rick Stevens, ANL
Session 1: Applications 1		Tyler Simon, Moderator
9:15 – 10:00 am	Petabyte-Scale Cyber Security Analytics to Discover and Investigate Targeted Attacks	Alejandro Borgia, Symantec
10:00 – 10:15 am	Break (Capitol ABC Foyer)	
10:15 – 11:00 am	Detecting Lateral Movement with a Compute-Intense Graph Kernel	Steve Reinhardt D-Wave Systems
11:00 – 11:45 am	Geospatial Cloud Analytics	Dolores Shaffer, Science & Technology Associates
11:45 – 12:30 pm	Panel Discussion	
12:30 – 1:45 pm	Lunch (Capital ABC)	
Session 2: Software Enablers		Ron Oldfield, Moderator
1:45 – 2:30 pm	High-Performance Portable Data Analytics Software Using Kokkos	Michael Wolf, SNL
2:30 – 3:15 pm	How I Learned to Stop Worrying about BGL and Learned to Love the C++(11) Standard Library	Andrew Lumsdaine, PNNL
3:15 – 3:30 pm	Break (Capitol ABC Foyer)	
3:30 – 4:15 pm	ENSIGN Advanced Tensor Decompositions to Find Explanations	Richard Lethin, Reservoir Labs
4:15 – 5:00 pm	Panel Discussion	
6:00 – 7:30 pm	Dinner (Capital ABC) The Ultimate Baseball Road Trip and Algorithm	Michael Mountain, Catalyte
7:30 – 9:00 pm	Reception (Senate AB)	

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Wednesday, October 31, 2018

General Session location: Capitol Ballroom

Time	Title	Speaker
7:00 – 8:30 am	Breakfast (Capitol ABC) Registration (Capitol ABC Foyer)	
8:30 – 9:15 am	Keynote: Engineering Automated Analytics Systems	Robert Bonneau, DoD
Session 3: Applications 2		David Haglin, Moderator
9:15 – 10:00 am	Back to Basics: Applying Classic Methods to the Design of Machine Learning Hardware	Doug Wightman, Groq
10:00 – 10:15 am	Break (Capitol ABC Foyer)	
10:15 – 11:00 am	Developing Tractable Adaptive Data Collection and Archiving Plans for Large-scale Cyber Networks	Georgiy Levchuk, Aptima
11:00 – 11:45 am	Quantifying Topological Uncertainty in Fractured Systems Using Graph Theory and Machine Learning	Gowri Srinivasan, LANL
11:45 – 12:30 pm	Panel Discussion	
12:30 – 6:00 pm	Free time: Lunch and Dinner (on your own)	
6:00 – 7:30 pm	Random Access (Capitol Ballroom) Sign-up sheet will be at registration table. Talks are limited to 10 minutes.	John Feo, Moderator
7:30 – 9:00 pm	Reception/Poster Session (Senate A/B) HPC Job Outcome Prediction: System Log Feature Extraction and Importance Optimizations for Sparse Matrix-Vector Multiply on a Migratory Thread Architecture Distributed Memory Graph Algorithms: Case Studies with Community Detection and Weighted Matching Fast Linear Algebra-Based Triangle Analytics with Kokkos Kernels	Students: Alexandra DeLucia, Los Alamos National Lab Thomas Rolinger, University of Maryland Sayan Ghosh, Washington State University at Pullman Abdurrahman Yasar Georgia Tech

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AGENDA

Thursday, November 1, 2018
General Session location: Capitol Ballroom

Time	Title	Speaker
7:00 – 8:30 am	Breakfast (Capitol ABC)	
8:30 – 9:15 am	Keynote: The Rise of Learning Machines	Rich Friedrich, DoD
Session 4: Hardware Enablers		Candy Culhane, Moderator
9:15 – 10:00 am	Future Memory Architectures for Large-Scale Analytics	Anton Korzh, Micron
10:00 – 10:15 am	Break (Capitol ABC Foyer)	
10:15 – 11:00 am	DGX-2 Graph Analysis Performance for High-Consequence Analytics	Brad Rees, NVIDIA Joe Eaton, NVIDIA
11:00 – 11:45 pm	Modern Software Approaches for Operationalizing the Application of Machine Learning/AI	Leonard Walstad, Pivotal
11:45 – 12:30 pm	Panel Discussion	
12:30 – 1:45 pm	Lunch (Capitol ABC)	
Session 5: Methods and Environments		Jim Ang, Moderator
1:45 – 2:30 pm	Toward Socio-Cultural Machine Learning	Mark Riedl, GA Tech
2:30 – 3:15 pm	Evolving Better AI's by Leveraging Leadership Class Supercomputing	Travis Johnston, ORNL
3:15 – 3:30 pm	Break (Capitol ABC Foyer)	
3:30 – 4:15 pm	Classification Without Representation: Interactive Machine Learning at Scale with CHISSL	Dustin Arendt, PNNL
4:15 – 5:00 pm	Panel Discussion	
5:00 – 5:15 pm	Closing Remarks and Adjourn	
5:15 – 7:00 pm	Reception (Senate A/B)	