

**Friday, August 5, 2016**

7:30 AM Continental Breakfast

**Numerical Algorithms and FASTMath Session**

8:30	Introduction to the session	TBD (one of the Track Leads)
8:35	FASTMath: An Overview of Numerical Algorithms and Software	Lori Diachin, LLNL
9:30	Communication-Avoiding Algorithms for Linear Algebra and Beyond	Jim Demmel, UC Berkeley
10:00	Break	
10:30	Algebraic Solvers in FASTMath	Barry Smith, ANL
11:00	PETSc Tutorial	Barry Smith, ANL
12:00 PM	Lunch and Hands-on Exercises	
1:00	HYPRE: High Performance Preconditioners	Rob Falgout, LLNL
1:30	SuperLU and STRUMPACK Sparse Direct Solver and Preconditioner	X. Sherry Li, LBNL
2:00	SUNDIALS: Suite of Nonlinear and Differential/Algebraic Equation Solvers	Daniel Reynolds, Southern Methodist University
2:30	Break	
3:00	FASTMath Unstructured Mesh Technologies	Vijay Mahadevan, ANL, Mark Shephard and Cameron Smith, RPI, and Glen Hansen, SNL
3:30	FASTMath Unstructured Mesh Technologies (Cont'd)	Vijay Mahadevan, ANL, Mark Shephard and Cameron Smith, RPI, and Glen Hansen, SNL
4:30	Panel: Portable Performance of Extreme-Scale Computing	FASTMath Team
5:30	Dinner Talk: TBD	TBD
6:30	Hands-on Exercises	Mark Miller, LLNL and the FASTMath Team
9:30	Wrap-up	

**Saturday, August 6, 2016**

7:30 AM Continental Breakfast

8:30	Block Structured AMR Libraries (plus a note on PETSc Interface)	Brian Van Straalen, LBNL
9:30	Panel: Challenges in Extreme-Scale Numerical Algorithms and Software	FASTMath Team
10:30	Break	
11:00	Hands-on Exercises	Mark Miller, LLNL and the FASTMath Team
12:00 PM	Lunch and Hands-on Exercises	
1:00	Argonne National Laboratory Tour	
6:00	Wrap-up	

**Sunday, August 7, 2016**

Day OFF

**Monday, August 8, 2016**

7:30 AM Continental Breakfast

8:30	Adaptive Linear Solvers and Eigensolvers	Jack Dongarra, University of Tennessee
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