

**ModSim 2015 – Day One, August 12, 2015**

7:30-8:00 a.m.	Registration and Welcome to ModSim
8:00-8:10 a.m.	Introduction to the 2015 ModSim Workshop – <b>Adolfy Hoisie</b>
8:10-8:25 a.m.	View from Washington D.C. – <b>William Harrod</b>
<b>Invited Talks – Power, Performance, and Reliability ModSim for Architectures (Session Moderator: Sudhakar Yalamanchili)</b>	
8:30-9:00 a.m.	Talk No. 1: <b>Subhasish Mitra</b> (Stanford University)
9:00-9:30 a.m.	Talk No. 2: <b>David Brooks</b> (Harvard University)
9:30-10:00 a.m.	Talk No. 3: <b>Bruce Jacob</b> (University of Maryland)
10:00-10:30 a.m.	<b>Panel Discussion</b>
10:30-10:40 a.m.	<i>Open Discussions</i>
<b>Position Paper Presentations (Session Introduction: Dolores Shaffer)</b>	
10:45-11:00 a.m.	Power-Performance Models for Runtime Reconfiguration and Power Capping – <b>Ananta Tiwari</b>
11:00-11:15 a.m.	Understanding Performance–Energy Tradeoffs: When Is Energy $\neq$ Time? – <b>Eric Anger</b>
11:15-11:30 a.m.	Modeling the Performance and Energy Impact of Dynamic Power Steering – <b>Darren Kerbyson</b>
<b>Lunch Break: 11:30 a.m. – 1:00 p.m.</b>	
1:00-2:30 p.m.	<b>Industry – Design Forward/Fast Forward Panel (Session Moderator: Noel Wheeler)</b> Featuring: Daniel Ernst (Cray), Joshua Fryman (Intel), Hillery Hunter (IBM), Alex Ramirez (NVIDIA), Steve Reinhardt (AMD)
<b>Position Paper Presentations (Session Introduction: Laura Carrington)</b>	
2:45-3:00 p.m.	CODES: Using Parallel Discrete-event Simulation to Model Performance and Reliability of Extreme-scale and Distributed Data-intensive Systems – <b>Misbah Mubarak</b>
3:00-3:15 p.m.	Exploring the Performance/Power/Resilience (PPR) Co-design Options for Throughput-oriented Architectures – <b>Xin Fu</b>
3:15-3:30 p.m.	Performance, Power, and Resilience Tradeoffs in Algorithmic Design – <b>Ian Karlin</b>
3:30-3:40 p.m.	<i>Open Discussions</i>
<b>Topical Discussions 3:45 – 4:45 p.m.</b>	
<b>Session 1A</b>	<b>Session 1B</b>
<b>Measurement and Benchmarking</b>	<b>Best Practices for Model Validation</b>
Moderated by: Dolores Shaffer (Science and Technology Associates) and Darren Kerbyson (Pacific Northwest National Laboratory)	Moderated by: Bruce Childers (University of Pittsburgh) and Noel Wheeler (U.S. Department of Defense)
<b>Poster Session and Reception: 4:45 – 6:00 p.m.</b>	
6:00 p.m.	<b>End Day One</b>

**ModSim 2015 – Day Two, August 13, 2015**

8:00-8:25 a.m.	Day One Recap and Day Two Agenda – <b>Adolfy Hoisie</b>
<b>Invited Talks – Foundations of ModSim (Session Moderator: Ankur Srivastava)</b>	
8:30-9:00 a.m.	Talk No. 1: <b>Shekhar Borkar (Intel)</b>
9:00-9:30 a.m.	Talk No. 2: <b>Massoud Pedram (University of Southern California)</b>
9:30-10:00 a.m.	Talk No. 3: <b>Avram Bar-Cohen (DARPA)</b>
10:00-10:30 a.m.	<b>Panel Discussion</b>
10:30-10:40 a.m.	<i>Open Discussions</i>
<b>Position Paper Presentations (Session Introduction: Jeffrey Vetter)</b>	
10:45-11:00 a.m.	Performance-Thermal-Reliability Co-design Simulation Framework for 3D-ICs – <b>Ankur Srivastava</b>
11:00-11:15 a.m.	Multiscale, Transient Thermal Simulation of Computing Systems – <b>Karthik Bodla</b>
11:15-11:30 a.m.	Chip-embedded Two-phase Cooling for Energy-efficient High Performance – <b>Pritish Parida</b>
<b>Lunch Break: 11:30 a.m. – 1:00 p.m.</b>	
1:00-2:30 p.m.	<b>Applications Panel (Session Moderator: Darren Kerbyson)</b> Featuring: Ewa Deelman (NSF), Thom Dunning (NSF), Ian Karlin (NNSA), Karol Kowalski (DOE-SC), David Richards (NNSA)
<b>Position Paper Presentations (Session Introduction: Bruce Childers)</b>	
2:45-3:00 p.m.	The Potential Impact of Silicon Photonics Networks for Graph Analytics – <b>Kevin Barker</b>
3:00-3:15 p.m.	Exploring the Interplay Between Energy Efficiency and Resilience for Future Exascale Systems – <b>Shuaiwen Leon Song</b>
3:15-3:30 p.m.	Combining Real-time Analysis with Simulation or Emulation – <b>Maya Gokhale</b>
<b>Topical Discussions 3:30– 4:30 p.m.</b>	
<b>Session 2A</b>	<b>Session 2B</b>
<b>Predictive Modeling of Algorithms</b>	<b>Integration of Thermal Models into Computer System Modeling</b>
Moderated by: Laura Carrington (San Diego Supercomputer Center) and Jeffrey Vetter (Oak Ridge National Laboratory/Georgia Institute of Technology)	Moderated by: Sudhakar Yalamanchili (Georgia Institute of Technology) and Ankur Srivastava (University of Maryland)
4:30-5:00 p.m.	<b>Day 1 and 2 Wrap-up: End Day Two</b>

**ModSim 2015 – Day Three, August 14, 2015**

8:00-8:10 a.m.	Day Three Agenda – <b>Adolfy Hoisie</b>
<b><i>Invited Talks – ModSim Tools (Session Moderator: Martin Schulz)</i></b>	
8:15-8:30 a.m.	Talk No. 1: <b>PALM Nathan Tallent (Pacific Northwest National Laboratory)</b>
8:30-8:45 a.m.	Talk No. 2: <b>ASPEN Jeffrey Vetter (Oak Ridge National Laboratory)</b>
8:45-9:00 a.m.	Talk No. 3: <b>Scott Pakin (Los Alamos National Laboratory)</b>
9:00-9:15 a.m.	Talk No. 4: <b>Bruce Childers (University of Pittsburgh)</b>
9:15-9:25 a.m.	<i>Open Discussions</i>
9:30-9:45 a.m.	Talk No. 5: <b>Simon Hammond (Sandia National Laboratories)</b>
9:45-10:00 a.m.	Talk No. 6: <b>Reliability Pradip Bose (IBM)</b>
10:00-10:15 a.m.	Talk No. 7: <b>Daniel Chavarria (Pacific Northwest National Laboratory)</b>
10:15-11:00 a.m.	<b>Panel Discussion</b>
11:00 a.m.-Noon	<b>Lessons Learned, Future Plans, Workshop Wrap-up</b>