

ModSim 2016 – Day One, August 10, 2016	
7:30-8:00 a.m.	Registration and Welcome to ModSim
8:00-8:10 a.m.	Introduction to the 2016 ModSim Workshop – Adolfy Hoisie
8:10-8:25 a.m.	View from Washington D.C. – Rich Carlson
8:30-9:30 a.m.	Keynote Speaker – Tom Conte “Rebooting Computing and What It Means for Modeling and Simulation”
9:30-10:00 a.m.	<i>Open Discussions</i>
<i>Invited Talks – Integrated Measurement of Modeling and Simulation (Session Moderator: Adolfy Hoisie)</i>	
10:00-10:30 a.m.	Talk No. 1: Pritish Parida (IBM) – Chip-Embedded Pumped Two Phase Cooling for High Performance Computing
10:30-11:00 a.m.	Talk No. 2: Adolfy Hoisie (PNNL) – CENATE: Advanced Technology Evaluation Through Integration of ModSim with Measurement
11:00-11:15 a.m.	Panel Discussion
<i>Lunch Break: 11:15 a.m. – 12:15 p.m.</i>	
12:15-2:00 p.m.	Industry Panel (Session Moderator: Noel Wheeler) – Pritish Parida (IBM), Steve Reinhardt (AMD), Jim Kohn (Cray), Alejandro Rico (ARM), Steve Pawlowski (Micron)
<i>Position Paper Presentations (Session Introduction: Ankur Srivastava) Architecture</i>	
2:00-2:15 p.m.	FPGA-Pipelined Discrete-Event Simulations for Accelerated Behavioral Emulation of Extreme-Scale Systems – Carlo Pascoe
2:15-2:30 p.m.	Unified and Flexible Methodology for System Specification and Evaluation in Modeling and Simulation – Zhifeng Lin
2:30-2:45 p.m.	Power-Performance Modeling of Data Movement Operations on Next-Generation Systems with High-Bandwidth Memory – Dhabaleswar Panda
2:45-3:45 p.m.	<i>Topical Discussion – Integrated Measurement of Modeling and Simulation (Session Moderator: Adolfy Hoisie)</i>
3:45-4:00 p.m.	<i>Open Discussions</i>
<i>Position Paper Presentations (Session Introduction: Laura Carrington) Metrics</i>	
4:00-4:15 p.m.	The SLOWER Performance Model and its Queuing Simulation – Thomas Sterling
4:15-4:30 p.m.	Assessing the Impact of Execution Model Selection on Data Locality – Kevin Barker
4:30-4:45 p.m.	Composing, Reproducing, and Sharing Simulations – Bruce Childers
4:45 p.m.	End Day One

ModSim 2016 – Day Two, August 11, 2016	
8:00-8:25 a.m.	Day One Recap and Day Two Agenda – Adolfy Hoisie
<i>Invited Talks – Integrated Workflows (Session Moderator: Rich Carlson)</i>	
8:30-9:00 a.m.	Talk No. 1: Peter Nugent (Lawrence Berkeley National Laboratory) – ModSim Challenges for a Scientists Use of Workflows
9:00-9:30 a.m.	Talk No. 2: Tom Peterka (Argonne National Laboratory) – ModSim Challenges for <i>In Situ</i> Data Workflows
9:30-10:00 a.m.	Talk No. 3: Ewa Deelman (University of Southern California) – ModSim Challenges for Experimental/Observations Data Workflows
10:00-10:30 a.m.	Panel Discussion
10:30-10:45 a.m.	<i>Open Discussions</i>
<i>Position Paper Presentations (Session Introduction: Rich Carlson) Workflows</i>	
10:45-11:00 a.m.	X-Swap - Extreme-Scale Scientific Workflow Analysis and Prediction – Erich Strohmaier
11:00-11:15 a.m.	Integrating Prediction, Provenance and Optimization into Large-scale Workflows – Darren Kerbyson
11:15-11:30 a.m.	High-Performance Data Flows Using Analytical Models and Measurements – Nageswara Rao
<i>Lunch Break: 11:30 a.m. – 1:00 p.m.</i>	
1:00-2:00 p.m.	Applications Panel (Session Moderator: Laura Carrington) – Ian Karlin (LLNL), Dave Richards (LLNL), Ian Foster (ANL), Almadena Chtchelkanova (NSF)
<i>Position Paper Presentations (Session Introduction: Darren Kerbyson) General ModSim Methodology – Applications</i>	
2:00-2:15 p.m.	Modeling Performance of Graph Programs on GPUs in a Compiler – Sreepathi Pai
2:15-2:30 p.m.	AMR Performance Modeling – ModSim Methods and Tools – Cy Chan (presented by David Donofrio)
2:30-2:45 p.m.	Modeling Fault Propagation in HPC Applications – Roberto Gioiosa
2:45-3:00 p.m.	<i>Open Discussions</i>
3:00-4:00 p.m.	<i>Topical Discussion: Integrated Workflows (Session Moderator: Rich Carlson)</i>
4:00-5:30 p.m.	<i>Poster Session and Reception</i>
5:30 p.m.	End Day Two

ModSim 2016 – Day Three, August 12, 2016	
8:00-8:25 a.m.	Day Two Recap and Day Three Agenda – Adolfy Hoisie
<i>Invited Talks – Advanced Architectures (Session Moderator: Noel Wheeler)</i>	
8:30-9:00 a.m.	Talk No. 1: Satoshi Matsuoka (Tokyo Institute of Technology) – The inevitable end of Moore’s Law will cause disruptive changes from FLOPS to BYTES
9:00-9:30 a.m.	Talk No. 2: Rich Murphy (Micron) – Simulation of Advanced Memory Architectures, an Industry Perspective
9:30-10:00 a.m.	Talk No. 3: Steve Reinhardt (AMD) – The Interaction of Architecture and Simulation
10:00-10:30 a.m.	Panel Discussion
10:30-10:40 a.m.	<i>Open Discussions</i>
<i>Position Paper Presentations (Session Introduction: Ankur Srivastava) General ModSim Methodologies – Methods</i>	
10:40-10:55 a.m.	Toward Integrated Multi-Resolution HPC Modeling for Rapid Performance Prediction – Jason Liu
10:55-11:10 p.m.	Lightweight, Actionable Analytical Tools Based on Statistical Learning for Efficient System Operations – Devesh Tiwari
11:10-11:25 p.m.	Towards Integrated Performance and Power Modeling – Nathan Tallent
11:25-12:25 p.m.	<i>Topical Discussion: Advanced Architectures (Session Moderator: Noel Wheeler)</i>
12:25-12:45 p.m.	Lessons Learned, Future Plans, Workshop Wrap-up