

PDSEC-15 Advance Program

Friday, May 29, 2015
Hyderabad International Convention Centre, Hyderabad, INDIA

08:30 - 08:35 am	Welcome and Opening Remarks Chair: Peter Strazdins
08:35 - 09:30	Keynote talk Domain-Specific Approaches in Scientific Computing Naoya Maruyama
09:30 - 10:00	Session 1: Best Paper Chair: Peter Strazdins Energy Consumption Reduction with DVFS for Message Passing Iterative Applications on Heterogeneous Architectures Jean-claude Charr; Raphael Couturier*; Ahmed Fanfakh; Arnaud Giersch
10:00 - 10:30	Tea Break
10:30 - 12:00	Session 2: Performance Chair: Takeshi Fukaya Quantifying the Effects of Contention on Parallel File Systems Steven A. Wright* and Stephen A. Jarvis Highly Scalable Algorithms for the Sparse Grid Combination Technique Peter E Strazdins*; Md Mohsin Ali; Brendan Harding Predicting Optimal Power Allocation for CPU and DRAM Domains Ananta N Tiwari*; Martin Schulz; Laura Carrington
12:00 - 13:00	Lunch break
13:00 - 15:00	Session 3: Linear Algebra Chair: Steven Wright Performance evaluation of the EigenExa eigensolver on Oakleaf-FX: tridiagonalization versus pentadiagonalization Takeshi Fukaya*; Toshiyuki Imamura A Resilient Framework for Iterative Linear Algebra Applications in X10 Sara S Hamouda*; Josh Milthorpe; Peter E Strazdins; Vijay Saraswat

	<p>Combining backward and forward recovery to cope with silent errors in iterative solvers Massimiliano Fasi; Yves Robert; Bora Uçar*</p> <p>TSIRM: A Two-Stage Iteration with least-squares Residual Minimization algorithm to solve large sparse linear systems Raphael Couturier*; Lilia Ziane Khodja; Christophe Guyeux</p>
15:00 - 15:30	Tea Break
15:30 - 17:00	<p>Session 4: GPUs and Manycore Chair: Raphael Couturier</p> <p>Modeling Cooperative Threads to Project GPU Performance for Adaptive Parallelism Jiayuan Meng; Thomas Uram; Vitali Morozov*; Venkatram Vishwanath; Kalyan Kumaran</p> <p>GPU Accelerated Molecular Dynamics with Method of Heterogeneous Load Balancing Takuro Udagawa*; Masakazu Sekijima</p> <p>Parallel Methods for Optimizing High Order Constellations on GPUs Paolo Spallaccini*; Farbod Kayhan; Stefano Chinnici; Guido Montorsi</p>
17:00 - 17.05	<p>Closing Remarks Chair: Raphael Couturier</p>