



## IPDPS 2016 PhD Forum

### Research Projects Selected for Poster Presentation

1	<i>Dynamic Scheduling for Configurable, Heterogeneous Embedded Systems</i> Mohamad Hammam Alsafrjalani (University of Florida, USA)
2	<i>Approximately Opaque Multi-version Permissive Transactional Memory</i> Basem Assiri and Costas Busch (Louisiana State University, USA)
3	<i>Archer: Effectively Spotting Data Races in Large OpenMP Applications</i> Simone Atzeni, Ganesh Gopalakrishnan and Zvonimir Rakamaric (University of Utah, USA)
4	<i>Rapid Cache Sharing Prediction for Out-of-Order Cores</i> German Ceballos and David Black-Schaffer (Uppsala University, Sweden)
5	<i>GPU-ABFT: Optimizing Algorithm-Based Fault Tolerance for Heterogeneous Systems with GPUs</i> Jieyang Chen and Zizhong Chen (University of California, Riverside, USA)
6	<i>High Network utilization load balancing scheme for datacenters</i> Yang Chen (Temple University, USA)
7	<i>A QoS-aware Data Recovery Strategy for Data Fault-tolerant Storage Systems</i> Shuo-Han Chen and Wei-Kuan Shih (National Tsing Hua University, Taiwan)
8	<i>Balancing Scalar and Vector Execution on GPU Architectures</i> Zhongliang Chen and David Kaeli (Northeastern University, USA)
9	<i>Adaptive cache bypassing through locality analysis for GPGPU workloads</i> Kyoshin Choo (University of Mississippi, USA); Byunghyun Jang (University of Mississippi, USA)
10	<i>A Relaxed Synchronization Approach for Solving Parallel Quadratic Programming Problems with Guaranteed Convergence</i> Kooktae Lee, Raktim Bhattacharya, Jyotikrishna Dass, V N S Prithvi Sakuru and Rabi Mahapatra (Texas A&M University, USA)
11	<i>Heterogeneous Performance Portability through Simplified OpenCL and Machine Learning-Based Auto-Tuning</i> Thomas L Falch and Anne C. Elster (Norwegian University of Science and Technology, Norway)
12	<i>High Performance Computing Aspects of Analyzing Risky Decision Making</i> Vinay B Gavirangaswamy and Ajay Gupta (Western Michigan University, USA)
13	<i>Load Models and Load Balancing for Short-range Molecular Dynamics</i> Steffen Hirschmann and Dirk Pflüger (University of Stuttgart, Germany); Colin W. Glass (HLRS, Germany)
14	<i>Automatic Detection of Parallel Patterns in the Algorithm Structure of Sequential Programs</i> Zia Ul Huda (TU Darmstadt & Laboratory for Parallel Programming, Germany); Ali Jannesari and Felix Wolf (TU Darmstadt, Germany)
15	<i>Parallel Algorithms and Techniques for Enabling Fast and Efficient Analyses of Large-scale High Throughput Sequencing Datasets</i> Nagakishore Jammula (Georgia Institute of Technology, USA)
16	<i>Architecture-aware Optimization of High-throughput Biological Data Processing</i> Hanyu Jiang and Narayan Ganesan (Stevens Institute of Technology, USA)
17	<i>Coarse Grained Reconfigurable General Purpose Hardware Accelerators</i> Lukas Jung and Christian Hochberger (Technische Universität Darmstadt, Germany)
18	<i>Dynamic workload distribution scheme in Heterogeneous Computing Systems: Power Vs Performance</i> Vanishree K (Amrita School of Engineering, Amrita Vishwa Vidyapeetham Bengaluru Campus, India)

19	<i>Asynchronous Stochastic Gradient Descent for Decentralized Seismic Tomography</i> Goutham Kamath (Georgia State University, USA); Edmond Chow (Georgia Institute of Technology, USA); Wen-Zhan Song (Georgia State University, USA)
20	<i>Scheduling of Linear Algebra kernels on Heterogeneous Resources</i> Suraj Kumar (University of Bordeaux & INRIA Bordeaux, France)
21	<i>Modified FOCC Protocol That Satisfies Opacity And Starvation Freedom</i> Sweta Kumari and Sathya Peri (Indian Institute of Technology Hyderabad, India)
22	<i>Minimum Set of Viewpoints for Maximum Coverage Over Large Scale Digital Terrain Data on Hybrid Computer Clusters</i> Chenggang Lai (University of Arkansas, USA)
23	<i>Square Partitioning for Parallel Matrix product Computation</i> Thomas Lambert (University of Bordeaux, France); Olivier Beaumont (Inria, France); Lionel Eyraud-Dubois (INRIA Bordeaux Sud-Ouest & University of Bordeaux, France)
24	<i>GoblinCore-64: An Open, Scalable System Architecture for Data Intensive Computing</i> John Leidel and Yong Chen (Texas Tech University, USA)
25	<i>Designing High Performance MPI and PGAS with Modern Networking Technologies on Heterogeneous HPC Clusters</i> Mingzhe Li (The Ohio State University, USA)
26	<i>HPC Solutions for the Mass-Spectra Search Problem in Proteomics</i> Majdi Maabreh and Ajay Gupta (Western Michigan University, USA)
27	<i>Distributed Optical Mutual Exclusion with Applications in On-Chip Communication and Control</i> Ahmed Mansour and R Vaidyanathan (Louisiana State University, USA)
28	<i>Demystifying Tail Behavior in Distributed Systems</i> Shachee Mishra, Nima Honarmand and Anshul Gandhi (State University of New York at Stony Brook, USA)
29	<i>Green Big Data Processing in Large-scale Clouds</i> Tien-Dat Phan (IRISA/Inria Rennes, France); Shadi Ibrahim (INRIA Rennes, France); Luc Bougé (IRISA/ENS Rennes, France); Gabriel Antoniu (INRIA Rennes, France)
30	<i>Model Repair</i> Mohammad Roohitavaf (Michigan State University, USA)
31	<i>Leveraging Performance of Geometric Multigrid with Parameter Autotuning</i> Tharindu Rusira and Mary Hall (University of Utah, USA)
32	<i>Achieving greater Concurrency using Object Based Software Transaction Memory Systems</i> Archit Somani (Indian Institute of Technology, India); Sathya Peri (Indian Institute of Technology Hyderabad, India)
33	<i>Impact of Structural Properties on Graph Algorithm Performance</i> Merijn Verstraaten, Ana Lucia Varbanescu and Cees de Laat (University of Amsterdam, The Netherlands)
34	<i>Designing and Modeling High-Performance MapReduce and DAG Execution Framework on Modern HPC Systems</i> Md. Wasi-ur-Rahman and Dhableswar Panda (The Ohio State University, USA)
35	<i>Resource management for Distributed Data Processing Frameworks</i> Luna Xu and Ali R. Butt (Virginia Tech, USA)
36	<i>Molecular Dynamics Analysis: Using a Spark approach on HPC</i> Ioannis Paraskevatos and Shantenu Jha (Rutgers University, USA)
37	<i>Multi-threaded Graph Coloring Algorithm for Shared Memory Architecture</i> Nandini Singhal and Sathya Peri (Indian Institute of Technology Hyderabad, India); Subrahmanyam Kalyanasundaram (IIT Hyderabad, India)