28th IEEE International Parallel & Distributed Processing Symposium
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IPDPS 2014 PhD Forum
Research Projects Selected for Poster Presentation

1	**Optimal resources allocation for distributed and connected Clouds** Thibaud Ecarot (Institut Mines Telecom, Telecom SudParis, France); Djamal Zeghlache (Institut Mines-Telecom, Telecom SudParis, France); Cedric Brandily (Thales Group, France)
2	**Providing A Cache Mechanism for the Hadoop Infrastructure** Xiao Yu (Georgia Institute of Technology, USA)
3	**Enabling Scalable Data Analysis of Computational Structural Biology Datasets on Distributed Memory Systems supported by the MapReduce Paradigm** Boyu Zhang (University of Delaware, USA)
4	**Optimizing Energy Efficiency for Distributed Dense Matrix Factorizations via Utilizing Algorithmic Characteristics** Li Tan (University of California, Riverside, USA); Zizhong Chen (UC Riverside, USA)
5	**FT-ScaLAPACK: On-line Algorithm-Based Fault Tolerance for ScaLAPACK LU, QR, and Cholesky Factorization Subroutines** Panruo Wu (University of California, Riverside, USA); Zizhong Chen (UC Riverside, USA)
6	**Towards High Performance and Efficiency of Distributed Heterogeneous Systems** Sam Skalicky (Rochester Institute of Technology, USA)
7	**Intelligent Network Framework for Hadoop System** Jiadong Wu (Georgia Institute of Technology, USA)
8	**Dynamic Programming using Pipeline Parallelism** Jesmin Jahan Tithi (Stony Brook University, USA)
9	**High Performance Unified Communication Runtime (UCR) for HPC and Big Data Middleware** Jithin Jose (The Ohio State University, USA); Dhabaleswar Panda (The Ohio State University, USA)
10	**Point Distribution Tensor Computation on Heterogeneous Systems** Ivan Grasso (University of Innsbruck, Austria)
11	**Improved Time Bounds for Linearizable Implementations of Abstract Data Types** Edward Talmage (Texas A&M University, USA); Jennifer Welch (Texas A&M University, USA)
12	**Towards a Framework for Building Maneuverable Applications** William C Moody (Clemson University, USA); Amy Apon (Clemson, USA)
13	**Analysis of Energy and Power Consumption by Remote Data Transfers and Synchronizing Constructs in PGAS models** Siddhartha Jana (University of Houston, USA); Barbara Chapman (University of Houston, USA)
14	**Cross-layer Analysis of Energy Implications in the Processor/Memory Hierarchy** Aditya Deshpande (Information Sciences Institute, University of Southern California, USA); Jeffrey Draper (University of Southern California/ Information Sciences Institute, USA)
15	**Towards Application-Aware Networking to Accelerate Big Data Analysis** Marcelo Neves (PUCRS, Brazil); César A. F. De Rose (PUCRS, Brazil)
16	**From Petascale to the Pocket: Adaptively Scaling Parallel Programs for Mobile SoCs** Adam Fidel (Texas A&M University, USA); Nancy Amato (Texas A&M University, USA); Lawrence Rauchwerger (Texas A&M University, USA)

17	**Online Mechanisms for Resource Management in Clouds**
	Lena Mashayekhy (Wayne State University, USA)
18	**Collaborative Testing of Software Components in Distributed Environments**
	Teng Long (Department of Computer Science, University of Maryland, USA)
19	**High Performance Computing on Heterogeneous Many-core Platforms**
	Jie Shen (Delft University of Technology, The Netherlands); Ana Lucia Varbanescu (University of Amsterdam, The Netherlands); Henk J. Sips (Delft University of Technology, The Netherlands)
20	**MapReduce on a Chord Distributed Hash Table**
	Andrew B Rosen (Georgia State University, USA); Anu Bourgeois (GSU, USA)
21	**Towards Green-Consistency management of Big Data in Distributed Cloud Storage**
	Álvaro García-Recuero (INRIA Rennes - Bretagne Atlantique, France)
22	**A Performance Autotuning Framework on Hybrid Computer Clusters**
	Chenggang Lai (University of Arkansas, USA); Miaoqing Huang (University of Arkansas, USA)
23	**High-Performance Algorithms for Hydrodynamic Brownian Dynamics Simulations**
	Xing Liu (Georgia Institute of Technology, USA); Edmond Chow (Georgia Institute of Technology, USA)
24	**Dynamic Resource Provisioning and Workload Management in Sustainable Datacenters**
	Dazhao Cheng (University of Colorado at Colorado Springs, USA)
25	**A New Parallel Iterative Method for Incomplete LU Factorizations**
	Aftab Patel (Georgia Institute of Technology, USA); Edmond Chow (Georgia Institute of Technology, USA)
26	**Application exploration with FPGA based emulation exploiting dynamic and partial reconfiguration**
	Fynn Schwiegelshohn (Ruhr-University of Bochum, Germany); Michael Hübner (Ruhr-University of Bochum (RUB), Germany)
27	**Power Constrained Re-balancing for Parallel Applications**
	Neha Gholkar (North Carolina State University, USA); Frank Mueller (NCSU, USA)
28	**Approaches to Improve Scalability and Energy Utilization in a Distributed Storage System**
	Cengiz Karakoyunlu (University of Connecticut, USA); John A Chandy (University of Connecticut, USA)
29	**A Runtime System for High-Performance Clusters with Heterogeneous Computing Devices**
	Ashwin Aji (Virginia Tech, USA); Wu-chun Feng (Virginia Tech, USA)
30	**Towards Building Dependable Cloud Computing System with Autonomic Failure Identification and Diagnosis Mechanisms**
	Qiang Guan (University of North Texas, USA); Song Fu (University of North Texas, USA); Nathan DeBardeleben (Los Alamos National Laboratory, USA); Sean Blanchard (Los Alamos National Laboratory, USA)
31	**Optimizing Bandwidth Allocation in Flex-Grid Optical Networks with Application to Scheduling**
	Ariella Voloshin (Technion, Israel)
32	**On Tolerating Soft-errors in Transactional Systems using Active Replication**
	Mohamed Mohamedin (Virginia Tech, USA); Roberto Palmieri (Virginia Tech, USA); Binoy Ravindran (Virginia Tech, USA)

33	**Runtime Support for Dynamic Online Data Management and Insight Discovery in Large Scale Coupled Simulation Workflow** Tong Jin (Rutgers, The State University of New Jersey, USA)
34	**Towards Efficient Parallel I/O Middleware at Extreme Scale** Yin Lu (Texas Tech University, USA); Yong Chen (Texas Tech University, USA); Yu Zhuang (Texas Tech University, USA)
35	**Decomposition-based Many-field Packet Classification on Multi-core Processors** Yun Qu (University of Southern California, USA); Viktor K. Prasanna (University of Southern California, USA)
36	**Dyna: A Probabilistic Optimization Framework for Hosting Workflow-as-a-Service in IaaS Clouds** Amelie Chi Zhou (Nanyang Technological University, Singapore); Bingsheng He (Nanyang Technological University, Singapore)
37	**Efficient Execution of Parallel Eureka-Style Computations using Cooperative Tasks** Shams Imam (Rice University, USA); Vivek Sarkar (Rice University, USA)
38	**Energy-Efficient Architecture for Permutation on Streaming Data** Ren Chen (University of Southern California, USA); Viktor K. Prasanna (University of Southern California, USA)
39	**Power-efficient Multiple Producer-Consumer** Ramy Medhat (University of Waterloo, Canada)
40	**Load Balancing and Task Mapping for Exascale Systems** Mehmet Deveci (The Ohio State University, USA); Umit V. Catalyurek (The Ohio State University, USA)
41	**Metrics, Models and Methodologies for Energy-Proportional Computing** Balaji Subramaniam (Virginia Tech, USA); Wu-chun Feng (Virginia Tech, USA)
42	**Elastic and High-Performance Graph Processing at Scale** Yong Guo (TU Delft, The Netherlands); Alexandru Iosup (Delft University of Technology, The Netherlands); Dick Epema (Delft University of Technology, The Netherlands)
43	**Enabling Realtime Pro-Active Analytics On Time Evolving Graphs** Charith D Wickramaarachchi (University of Southern California, USA); Viktor K. Prasanna (University of Southern California, USA)
44	**An Optimizing Compiler for Finite Element Assembly** Fabio Luporini (Imperial College London, United Kingdom)
45	**Automatic usage of Extruded Meshes in Firedrake and PyOP2** Gheorghe-teodor Bercea (Imperial College London, United Kingdom)
46	**Smart Data Filtering for In Situ Visualization for HPC Systems** Lokman Rahmani (ENS Cachan/Rennes, France); Gabriel Antoniu (INRIA Rennes - Bretagne Atlantique, France); Luc Bougé (IRISA/ENS Rennes, France)
47	**Constraint-Driven Adaptive Scheduling for Dynamic Dataflows on Elastic Clouds** Alok Gautam Kumbhare (University of Southern California, USA); Viktor K. Prasanna (University of Southern California, USA); Yogesh Simmhan (University of Southern California, USA)
48	**Automatic Transformation and Analysis Tool for Improving Legacy MPI Applications** Hadia Ahmed (University of Alabama at Birmingham, USA); Peter Pirkelbauer (University of Alabama at Birmingham, USA); Anthony Skjellum (University of Alabama at Birmingham, USA)

49	**Initial Design and Evaluation of Burst Buffer System on Top of Lustre** Teng Wang (Auburn University, USA); Weikuan Yu (Auburn University, USA)
50	**Parallel Algorithms for Two-stage Stochastic Integer Optimization** Akhil Langer (University of Illinois at Urbana-Champaign, USA); Udatta Palekar (University of Illinois at Urbana-Champaign, USA); Laxmikant V. Kale (University of Illinois at Urbana-Champaign, USA)
51	**Runtime Adaptation for Autonomic Heterogeneous Computing** Tom Scogland (Virginia Tech, USA); Wu-chun Feng (Virginia Tech, USA)

As of 12 March 2014
(For corrections, contact PhD Forum co-chairs)