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2008 IPDPS TCPP PhD Forum Selected Poster Presentations Thursday, April 17, 2008

- Automatic Topology-Aware Task Mapping for Parallel Applications Running on Large Parallel Machines, Abhinav Bhatele, Department of Computer Science, University of Illinois at Urbana-Champaign, Urbana, IL, USA Advisor: Laxmikant V Kale
- *Self-Healing in Reconfigurable Networks*, Amitabh Trehan, Department of Computer Science, University of New Mexico, Albuquerque, NM, USA Advisor: Jared Saia
- On Compiling Data-driven Sensor Network Macroprograms, Animesh Pathak, Ming Hsieh Department of Electrical Engineering, University of Southern California, USA, Advisor: Viktor K. Prasanna
- Dynamic Voltage Scaling in High Performance Computing Environments, Barry Rountree, Department of Computer Science, University of Georgia, GA, USA, Advisor: David Lowenthal
- *Co-termination scheduling; virtual organizations in service-oriented systems*, Chen Yu, School of Engineering & Computer Science, University of Central Florida, Orlando, FL, USA, **Advisor:** Dan C. Marinescu
- *Exploiting Distributed Software Transactional Memory*, Christos Kotselidis, School of Computer Science, The University of Manchester, UK, Advisor: Chris Kirkham
- A Fuzzy Real Option Model for Pricing Grid Compute Resources, David Allenotor, Department of Computer Science, University of Manitoba, Canada, Advisor: Ruppa K. Thulasiram
- Assisting users with planning and scheduling jobs on the grid, Enis Afgan, Department of Computer and Information Sciences, University of Alabama at Birmingham (UAB), USA, Advisor: Purushotham Bangalore
- *Examining the feasibility of Reconfigurable Models for Molecular Dynamic Simulation*, Eunjung Cho, Dept. of Computer Science, Georgia State University, Atlanta, GA, USA, Advisor: Anu Bourgeois
- An Oblivious Approach to Parallel Algorithms, Francesco Silvestri , Department of Information Engineering, University of Padova, Italy, Advisor: Andrea Pietracaprina
- A Data-Locality Aware Mapping and Scheduling Framework for Data-Intensive Computing, Gaurav Khanna, Dept. of Computer Science and Engineering, The Ohio State University, Columbus, OH, USA, Advisor: P. Sadayappan
- *High Performance Parallel and Distributed Genomic Sequence Search*, Heshan Lin, North Carolina State University, NC, USA, **Advisor:** Xiaosong Ma
- Scheduling Algorithms for Energy Minimization, Jaeyeon Kang, Department of Computer and Information Science and Engineering, University of Florida, USA, Advisor: Sanjay Ranka
- *Performance Prediction of Large Scale Parallel Programs with SIM-MPI*, Jidong Zhai, HPC Institute, Department of Computer Science and Technology, Tsinghua University, Beijing, China, **Advisor:** Wenguang Chen
- Robust and Effective Resource Management in Distributed Desktop Grids, Jik-Soo Kim, UMIACS and Department of Computer Science, University of Maryland, College Park, MD, USA, Advisor: Alan Sussman
- *Efficiently solving large-scale graph problems on high-performance computing systems*, Kamesh Madduri, College of Computing, Georgia Institute of Technology, GA, USA, **Advisor:** David Bader
- Designing Efficient Resource Sharing Substrate for Current and Next-Generation Data-Centers, Karthikeyan Vaidyanathan, Dept. of Computer Science and Engineering, The Ohio State University, Columbus, OH, USA, Advisor: D. K. Panda

- *Switch Scheduling and Reconfiguration for Interconnection Networks*, Krishnendu Roy, Department of Electrical and Computer Engineering, Louisiana State University, Baton Rouge, LA, USA, **Advisors:** Ramachandran Vaidyanathan and Jerry L. Trahan
- *Virtualization Aspects of High Performance Computing*, Lamia Youseff, Department of Computer Science, University of California, Santa Barbara, USA, **Advisor:** Rich Wolski
- *Heuristics for Scheduling Stochastic DAG*, Louis-Claude Canon, LORIA, Nancy University, France, Advisor: Emmanuel Jeannot
- *Run-time Reconfigurable Multiprocessors*, Madhura Purnaprajna, Heinz Nixdorf Institute, University of Paderborn, Germany, **Advisor:** Mario Porrmann
- *Towards a Decentralized Architecture for Optimization*, Marco Biazzini, University of Trento Italy, **Advisor:** Alberto Montresor
- *Towards the Applicability of Wireless Sensor Networks*, Mo Li, Hong Kong University of Science and Technology, **Advisor:** Yunhao Liu
- *Effective Compile-time Optimizations for Emerging Multi-core Architectures*, Muthu Manikandan Baskaran, Dept. of Computer Science and Engineering, The Ohio State University, Columbus, OH, USA, **Advisor:** P. Sadayappan
- Programming Sensor-based, Dynamic Data-driven Scientific Applications, Nanyan Jiang, Department of Electrical and Computer Engineering. Rutgers University, Piscataway NJ, USA, Advisor: Manish Parashar
- *Rethinking I/O in High-Performance Computing Environments*, Nawab Ali, Dept. of Computer Science and Engineering, The Ohio State University, Columbus, OH, USA, **Advisor:** P. Sadayappan
- *Scaling Multimedia Streaming Using P2P Networks*, Purvi Shah, Department of Computer Science, University of Houston, USA, **Advisor:** Jehan-François Pâris
- Data Layout Optimization Techniques for Modern and Emerging Architectures, Qingda Lu, Dept. of Computer Science and Engineering, The Ohio State University, Columbus, OH, USA, Advisor: P. Sadayappan
- *ParaM: High Productivity Parallel Data Intensive Computing in Matlab*, Rajkiran Panuganti, Dept. of Computer Science and Engineering, The Ohio State University, Columbus, OH, USA, Advisor: P. Sadayappan
- *Towards the Development of a Decentralized Market Information System*, René Brunner, Computer Architecture Department, Polytechnic University of Catalonia, Spain, Advisor: Felix Freitag
- *Collective I/O Techniques for Chip Multiprocessor Cluster*, Rosa Filgueira, Computer Science Dpt., Universidad Carlos III de Madrid, SPAIN, **Advisor:** Jesús Carretero
- *Massively Parallel Sequence Alignment for the Bioinformatics Domain*, Shannon Steinfadt, Department of Computer Science, Kent State University, Kent, OH, USA, **Advisor:** Johnnie W. Baker
- *Networks: Complexity & Scalability*, Stephan Kubisch, University of Rostock, Institute of Applied Microelectronics and Computer Engineering, Germany, **Advisor:** Dirk Timmermann
- Design and Implementation of a Scalable Multiple Associative SIMD Model to Support the Concurrent Executions of Data Parallel Branches, Wittaya Chantamas, Department of Computer Science, Kent State University, Kent, OH, USA, Advisor: Johnnie W. Baker
- On the Prediction of Calcium-binding Sites in Proteins, Xue Wang, Department of Computer Science, Georgia State University, Atlanta, GA, USA, Advisor: GuanTao Chen
- Optimizing Network Performance of Computing Workflow in Distributed Heterogeneous Environments, Yi Gu, Dept of Computer Science, University of Memphis, Memphis, TN, USA, Advisor: Qishi Wu