Agenda for the NGS Workshop at IPDPS2006

Tuesday, April 25, 2006

Session 1: 8:00am-10:00am

Introduction – Frederica Darema

Techniques and Tools for Dynamic Optimization
Jason D. Hiser, Naveen Kumar, Min Zhao, Shukang Zhou, Bruce R. Childers, Jack W. Davidson, Mary Lou Soffa

Program Phase Detection and Exploitation
Chen Ding, Sandhya Dwarkadas, Michael C. Huang, Kai Shen, John B. Carter

An Overview of the ECO Project
Jaqueline Chame, Chun Chen, Pedro Diniz, Mary Hall, Yoon-Ju Lee, Robert Lucas

Dynamic Program Phase Detection in Distributed Shared-Memory Multiprocessors
Engin Ipek, Jose F. Martýnez, Bronis R. de Supinski, Sally A. McK McKee, Martin Schulz

Session 2: 10:30am-12:10pm

Hierarchically Tiled Arrays for Parallelism and Locality
Jia Guo, Ganesh Bikshandi, Daniel Hoeflinger, Gheorghe Almasi, Basilio Fraguela, Marýa Jesus Garzaran, David Padua, Christoph von Praun

Hierarchical Multithreading: Programming Model and System Software
Guang R. Gao, Thomas Sterling, Rick Stevens, Mark Hereld, Weirong Zhu

Recent Advances in Checkpoint/Recovery Systems
Greg Bronevetsky, Rohit Fernandes, Daniel Marques, Keshav Pingali and Paul Stodghill

Dynamic Aspects for Runtime Fault Determination and Recovery
Jeremy Manson, Jan Vitek, Suresh Jagannathan

Session 3: 1:30am-3:10pm

An Extensible Global Address Space Framework with Decoupled Task and Data Abstractions
Sriram Krishnamoorthy, Umit Catalyurek, Jarek Nieplocha, Atanas Rountev, P. Sadayappan

Toward Reliable and Efficient Message Passing Software Through Formal Analysis
Ganesh Gopalakrishnan , Robert M. Kirby

Compiler-Assisted Software Verification Using Plug-Ins

Sean Callanan, Radu Grosu, Xiaowan Huang, Scott A. Smolka, Erez Zadok

An Overview of the Jahob Analysis System Project Goals and Current Status
Viktor Kuncak , Martin Rinard

Session 4: 3:30am-5:00pm

Verification of Software via Integration of Design and Implementation
Andrew S. Miner, Samik Basu

Unification of Verification and Validation Methods for Software Systems: Progress Report and Initial Case Study Formulation
James C. Browne, Calvin Lin, Kevin Kane, Yoonsik Cheon, Patricia Teller

Vision for Liquid Architecture
Roger D. Chamberlain, Ron K. Cytron, Jason E. Fritts, and John W. Lockwood

Statistical Sampling of Microarchitecture Simulation
Thomas F. Wenisch, Roland E. Wunderlich, Babak Falsafi, James C. Hoe

Session 5: 5:00am-6:00pm
Panel Discussion

Wednesday, April 26, 2006

Session 6: 10:30am-12:00pm

Designing Next Generation Data-Centers with Advanced Communication Protocols and Systems Services
P. Balaji, K. Vaidyanathan, S. Narravula, H. -W. Jin, D. K. Panda

I/O Conscious Algorithm Design and Systems Support for Data Analysis on Emerging Architectures
G. Buehrer, A. Ghoting, Xi Zhang, S. Tatikonda, S. Parthasarathy, T. Kurc, and J. Saltz

Virtual Playgrounds: Managing Virtual Resources in the Grid
K. Keahey, J. Chase, I. Foster

The GHS Grid Scheduling System: Implementation and Performance Comparison
Ming Wu, Xian-He Sun

Session 7: 1:30pm-3:00pm

Memory Optimizations for Tuned Scientific Applications: An Evaluation of Performance-Power Characteristics
Konrad Malkowski, Ingyu Lee, Padma Raghavan, Mary Jane Irwin

An Automated Approach to Improve Communication-Computation Overlap in Clusters
Lewis Fishgold, Anthony Danalis, Lori Pollock, Martin Swany

Decentralized Runtime Analysis of Multithreaded Applications
Koushik Sen, Abhay Vardhan, Gul Agha, Grigore Rosu

Session 8: 3:30pm-5:00pm

Aligning Traces for Performance Evaluation
Todd Mytkowicz, Amer Diwan, Matthias Hauswirth, Peter F. Sweeney

Model-driven Generative Techniques for Scalable Performability Analysis of Distributed Systems
Arundhati Kogekar, Dimple Kaul, Aniruddha Gokhale, Paul Vandal, Upsorn Praphamontripong, Swapna Gokhale, Jing Zhang, Yuehua Lin, Jeff Gray

Engineering Reliability into Hybrid Systems via Rich Design Models: Recent Results and Current Directions
Somo Banerjee, Leslie Cheung, Leana Golubchik, Nenad Medvidovic, Roshanak Roshandel, Gaurav Sukhatme

Session 9: 5:00am-6:00pm
Panel Discussion

Adjournment: 6:00pm