WEDNESDAY
MAY 3

9:00 AM – 10:00 AM
KEYNOTE ADDRESS

Compiler Architecture for High Performance Problem-Solving

Ken Kennedy, Rice University

(Break 10:00 - 10:30)

10:30 AM – 12:30 PM
SESSION 7
Best Papers
Chair: Francine Berman
University of California at San Diego

Scalable Parallel Matrix Multiplication on Distributed Memory Parallel Computers
Keqin Li, State University of New York

Speed vs. Accuracy in Simulation for I/O-Intensive Applications
Hyeonsang Eom and Jeffrey K. Hollingsworth, University of Maryland

A Parallel Implementation of A Fast Multipole Based 3-D Capacitance Extraction Program on Distributed Memory Multicomputers
Yanhong Yuan and Prith Banerjee, Northwestern University

Efficient Integration of Compiler-directed Cache Coherence and Data Prefetching
Hock-Beng Lim, University of Illinois, Pen-Chung Yew, University of Minnesota

(Lunch 12:30 - 1:30)

1:30 PM – 3:30 PM
SESSION 8
Network Routing
Chair: Pete Keleher
University of Maryland

Optimal On Demand Packet Scheduling in Single-Hop Multichannel Communication Systems
Maurizio A. Bonuccelli and Susanna Pelagatti, Università di Pisa, Italy

Optimal Broadcasting in All-Port Meshes of Trees with Distance-Insensitive Routing
Petr Salinger and Pavel Tvrdík, Czech Technical University, Czech Republic

Distributed Models and Algorithms for Survivability in Network Routing
Fred S. Annexstein and Kenneth A. Berman, University of Cincinnati

Gray Codes for Torus and Edge Disjoint Hamiltonian Cycles
Myung M. Bae, IBM, Bella Bose, Oregon State University

Power-Aware Distributed Routing in Wireless Networks
Ivan Stojmenovic and Xu Lin, Ottawa, Canada

Exploiting Hierarchy in Parallel Computer Networks to Optimize Collective Operation Performance
Nicholas T. Karonis, Bronis R. de Supinkski, Ian Foster, William Gropp, Ewing Lusk, John Bresnahan

1:30 PM – 3:30 PM
SESSION 9
Data Sets and Visualization
Chair: Satoshi Matsuoka
Tokyo Institute of Technology / JST

PaDDMAS: Parallel and Distributed Data Mining Application Suite
Omer Rana, David Walker, Maozhen Li, Steven Lynden, and Mike Ward, University of Wales Cardiff, UK

VisOK : A Flexible Visualization System for Distributed Java Object Application
Dong-Woo Lee and R.S Ramakrishna, K-JIST, Republic of Korea

Bounded-Response-Time Self-Stabilizing OPS5 Production Systems
Albert M.K. Cheng, Rice University, Seiya Fujii, University of Houston

Optimizing Retrieval and Processing of Multi-Dimensional Scientific Datasets
Chialin Chang, Tahsin Kurc, and Alan Sussman, University of Maryland, Joel Saltz, Johns Hopkins Medical Institutions & University of Maryland

Using Available Remote Memory Dynamically for Parallel Data Mining Application on ATM-Connected PC Cluster
Masato Oguchi, The University of Tokyo & Aachen University of Technology, Masaru Kitsuregawa, The University of Tokyo, Japan

Image Layer Decomposition for Distributed Rendering on NOWs
Thu D. Nguyen, Rutgers University, John Zahorjan, University of Washington, Seattle

WEDNESDAY
MAY 3

1:30 PM – 3:30 PM
SESSION 10
Scheduling II
Chair: H.J. Siegel
Purdue University

CPU-Memory-based Load Sharing on Heterogeneous Distributed Systems
Xiaodong Zhang, Li Xiao, and Yanxia Qu, College of William and Mary

Buffered Coscheduling: A New Methodology for Multitasking Parallel Jobs on Distributed Systems
Fabrizio Petrini, Los Alamos National Laboratory, Wu-chun Feng, Purdue University

A Task Duplication Based Scheduling Algorithm for Heterogeneous Systems
Samantha Ranaweera and Dharma P. Agrawal, University of Cincinnati

S3MP: A Task Duplication Based Scalable Scheduling Algorithm for Symmetric Multiprocessors
Oh-Han Kang, Andong National University, Korea, Dharma P. Agrawal, University of Cincinnati

Job Scheduling that Minimizes Network Contention Due to Both Communication and I/O
Jens Mache, Lewis & Clark College, Virginia Lo, University of Oregon, Sharad Garg, Intel Corp.

Self-Stabilizing Mutual Exclusion Using Unfair Distributed Scheduler
Ajoy K. Datta, University of Nevada Las Vegas, Maria Gradinariu and Sébastien Tixeuil, Université de Paris Sud, France

(Break 3:30 – 4:00)

3:30 PM - 6:00 PM

PANEL 2
The Ten Hottest Topics in Parallel and Distributed Computing For the Next Millennium

What will be the fundamental issues and ideas that will define parallel and distributed computing during the next Millennium? In this panel, a group of distinguished researchers will make the case for "their" candidates. You decide whether you agree, or stand up and make the case for the ideas that you think are important! The panelists include noted and opinionated experts in parallel computing, distributed computing, and applications, so the discussion is guaranteed to be lively and informative.

PANEL ORGANIZER & CHAIR
Ian Foster, Argonne National Laboratory & University of Chicago

PANELISTS
David Culler, University of California Berkeley
Deborah Estrin, University of Southern California
Harvey Newman, California Institute of Technology
Rick Stevens, Argonne National Laboratory & University of Chicago