

Session Index

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Conference Proceedings 1997*

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SESSION 1 - Architecture

Chair: Mateo Valero, Universitat Politecnica de Catalunya, Spain

A Study of the Efficiency of Shared Attraction Memories in Cluster-Based COMA Multiprocessors

Anders Landin and Mattias Karlgren, SICS, Sweden
<http://www.sics.se/~landin/pub/ipp97/>

An Evaluation of a Commercial CC-NUMA Architecture - the CONVEX Exemplar SPP1200

Radhika Thekkath, Amit Pal Singh, Jaswinder Pal Singh, Susan John, and John Hennessy, Stanford University

Coherent Block Data Transfer in the FLASH Multiprocessor

John Heinlein, Kourosh Gharachorloo, Robert P. Bosch, Jr., Mendel Rosenblum, and Anoop Gupta, Stanford University
<http://www-flash.stanford.edu:80/~heinlein/publications.html>

A Memory Efficient Array Architecture for Real-Time Motion Estimation

Vasily G. Moshnyaga and Keikichi Tamaru, Kyoto University, Japan
<http://www.tamaru.kuee.kyoto-u.ac.jp/~vasily/publications.html>

An Efficient Technique of Instruction Scheduling on a Superscalar-Based Multiprocessor

Rong-Yuh Hwang, National Taipei Institute of Technology, R.O.C.

Accuracy and Speed-Up of Parallel Trace-Driven Architectural Simulation

A-T. Nguyen, M. Michael, A. Nanda, K. Ekanadham, and P. Bose, IBM Thomas J. Watson Research Center

SESSION 2 - Networks I

Chair: Sartaj Sahni, University of Florida

Wide-Sense Nonblocking Clos Networks under Packing Strategy

Yuanyuan Yang and Jianchao Wang, University of Vermont

<http://www.emba.uvm.edu/~yang>

Gracefully Degradable Pipeline Networks

Robert Cypher and Ambrose K. Laing, Johns Hopkins University

<http://www.cs.jhu.edu/~cypher/>

Distributed Submesh Determination in Faulty Tori and Meshes

Hsing-Lung Chen and Shu-Hua Hu, National Taiwan Institute of Technology, R.O.C.

<http://dcs2.et.ntit.edu.tw/>

Modeling Communication Costs in Multiplexed Optical Switching Networks

C. Salisbury and R. Melhem, University of Pittsburgh

<http://www.cs.pitt.edu/~salisbur>

Characterization of Deadlocks in Interconnection Networks

Sugath Warnakulasuriya and Timothy Mark Pinkston, University of Southern California

k-ary n-trees: High Performance Networks for Massively Parallel Architectures

Fabrizio Petrini, Universita di Pisa, Italy

<http://www.di.unipi.it/~petrini/petrini.html>

SESSION 3 - Tools

Chair: Alok Choudhary, Northwestern University

An Architecture Workbench for Multicomputers

A.D. Pimentel and L.O. Hertzberger, University of Amsterdam, The Netherlands

<http://carol.fwi.uva.nl/~andy/mermaid/docs/workbench.ps.gz>

SuperWeb: Towards a Global Web-Based Parallel Computing Infrastructure

Alberto D. Alexandrov, Maximilian Ibel, Klaus E. Schauser, and Chris J. Scheiman, University

of California, Santa Barbara
<http://www.cs.ucsb.edu/~schauser/papers/97-ippes-superweb.ps>

S-Check: A Tool for Tuning Parallel Programs

Robert Snelick, National Institute of Standards and Technology
<http://www.scheck.nist.gov/scheck/publications.html>

Causality Filters: A Tool for the Online Visualization and Steering of Parallel and Distributed Programs

Eileen Kraemer, Washington University in St. Louis
<http://www.cs.wustl.edu/~eileen/pubs/ippes97-filters.ps.Z>

Interactive Visual Exploration of Distributed Computations

Delbert Hart, Eileen Kraemer, and Gruia-Catalin Roman, Washington University in St. Louis
<http://swarm.cs.wustl.edu/cgi-bin/reports.cgi>

High Performance Computational Steering of Physical Simulations

Jeffrey Vetter and Karsten Schwan, E.T.S.I. Informatica, Spain
<http://www.cc.gatech.edu/people/home/vetter>

SESSION 4 - Scheduling

Chair: Allan Gottlieb, New York University

Fault-Tolerant Deadline-Monotonic Algorithm for Scheduling Hard-Real-Time Tasks

Alan A. Bertossi, Andrea Fusiello, and Luigi Mancini, Universita di Trento, Italy
<http://rtm.science.unitn.it/~fusiello/ippes97-121/ippes97.ps>

Performance Comparison of Processor Scheduling Strategies in a Distributed-Memory Multicomputer System

Yuet-Ning Chan, Sivarama P. Danadmudi, and Shikharesh Majumdar, Carleton University, Canada
http://www.scs.carleton.ca/scs/tech_reports/1997/list.html

Optimal Scheduling for UET-UCT Generalized n-Dimensional Grid Task Graphs

Theodore Andronikos, Nectarios Koziris, George Papakonstantinou, and Panayotis Tsanakas, National Technical University of Athens, Greece

A Comparison of General Approaches to Multiprocessor Scheduling

Jing-Chiou Liou and Michael A. Palis, AT&T Laboratories, Middletown

DFRN: A New Approach on Duplication Based Scheduling for Distributed Memory Multiprocessor Systems

Gyung-Leen Park, Behrooz Shirazi, and Jeff Marquis, The University of Texas at Arlington
http://zeus.uta.edu/~web_site

Dynamic Processor Scheduling with Client Resources for Fast Multi-resolution WWW

Image Browsing

Daniel Andresen, Tao Yang, David Watson, and Athanassios Poulakidas, University of California, Santa Barbara

<http://www.cs.ucsb.edu/~dandrese/papers/ipps97.ps>

SESSION 5 - Applications

Chair: Josep Diaz, Universitat Politecnica de Catalunya, Spain

Performance Analysis and Optimization on a Parallel Atmospheric General Circulation Model Code

John Z. Lou and John D. Farrara, Jet Propulsion Laboratory

<http://olympic.jpl.nasag.gov/PERSONNEL/lou/>

A Tool for On-Line Visualization and Interactive Steering of Parallel HPC Applications

Sabine Rathmayer and Michael Lenke, Technische Universitat Munchen, Germany

<http://www.bode.informatik.tu-muenchen.de/~maiers/>

Performance Prediction for Complex Parallel Applications

Jürgen Brehm and Patrick Worley, Institut für Rechnerstrukturen und Betriebssysteme, Germany

<http://www.irb.uni-hannover.de/~brehm/publications/publications.html>

Implementation and Results of Hypothesis Testing from the C³I Parallel Benchmark Suite

Brian VanVoorst, Luiz Pires, Rakesh Jha, and Mustafa Muhammad, Honeywell Technology Center

<http://www.se.rl.af.mil:8001>

Real-Time Parallel MPEG-2 Decoding in Software

Angelos Bilas, Jason Fritts, and Jaswinder Pal Singh, Princeton University

<http://www.cs.princeton.edu:80/~bilas/>

Parallel Inference on a Linguistic Knowledge Base

Sanda M. Harabagiu and Dan I. Moldovan, University of Southern California

<http://www-scf.usc.edu/~harabagi/>

SESSION 6 - Performance Evaluation

Chair: Jose D.P. Rolim, University of Geneva

Predicting Queue Times on Space-sharing Parallel Computers

Allen B. Downey, University of California, Berkeley

<http://www.sdsc.edu/~downey/predicting>

DPF: A Data Parallel Fortran Benchmark Suite

Yu Hu, Lennart Johnsson, Dimitris Kehagias, and Nadia Shalaby, Harvard University
<http://www.das.harvard.edu/cs/research/dpf/root.html>

Latency Tolerance: A Metric for Performance Analysis of Multithreaded Architectures

Shashank S. Nemawarkar and Guang R. Gao, McGill University, Canada
<http://www-acaps.cs.mcgill.ca/~shashank>

Architecture and Performance of the Hitachi SR2201 Massively Parallel Processor System

Hiroaki Fujii, Yoshiko Yasuda, Hideya Akashi, Yasuhiro Inagami, Makoto Koga, Osamu Ishihara, Masamori Kashiya, Hideo Wada, and Tsutomu Sumimoto, Hitachi, Ltd., Japan

Experience with Fine-Grain Communication in EM-X Multiprocessor for Parallel Sparse Matrix Computation

Mitsuhsa Sato, Yuetsu Kodama, Hirofumi Sakane, Hayato Yamana, Shuichi Sakai, and Yoshinori Yamaguchi, Tsukuba Research Center, Japan
<http://www.rwcp.or.jp/lab/mpperf/papers/ipps97.ps.gz>

A Customizable Simulator for Workstation Networks

Mustafa Uysal, Anurag Acharya, Robert Bennett, and Joel Saltz, University of Maryland
<http://www.cs.umd.edu/users/uysal/pub/ipps97.html>

SESSION 7 - Synchronization and Threads

Chair: Kai Li, Princeton University

Empirical Evaluation of Distributed Mutual Exclusion Algorithms

Shiwa S. Fu, Nian-Feng Tzeng, and Zhiyuan Li, University of Southwestern Louisiana
<http://www.usl.edu/~ssf/ipps97.ps>

External Adjustment of Runtime Parameters in Time Warp Synchronized Parallel Simulators

Radharamanan Radhakrishnan, Lantz Moore, and Philip A. Wilsey, University of Cincinnati
<http://www.ececs.uc.edu/~paw/>

Relative Performance of Preemption-Safe Locking and Non-Blocking Synchronization on Multiprogrammed Shared Memory Multiprocessors

Maged M. Michael and Michael L. Scott, University of Rochester
<http://www.cs.rochester.edu/u/michael>

A Reliable Hardware Barrier Synchronization Scheme

Rajeev Sivaram, Craig B. Stunkel, and Dhableswar K. Panda, IBM T.J. Watson Research Center

<http://www.cis.ohio-state.edu/~panda/paper.html>

Analysis of Several Scheduling Algorithms under the Nano-Threads Programming Model

Xavier Martorell, Jesus Labarta, Nacho Navarro, and Eduard Ayguade, Universitat Politecnica de Catalunya (UPC), Spain

<http://www.ac.upc.es/~xavim/Home.html>

Comparing Gang Scheduling with Dynamic Space Sharing on Symmetric Multiprocessors Using Automatic Self-Allocating Threads (ASAT)

Charles Severance and Richard Enbody, Michigan State University

SESSION 8 - Algorithms I

Chair: Sanguthevar Rajasekaran, University of Florida

A Randomized Sorting Algorithm on the BSP model

Alexandros V. Gerbessiotis and Constantinos J. Siniolakis, Oxford University, United Kingdom

<http://www.comlab.ox.ac.uk/oucl/users/alex.gerbessiotis/ipps97.ps.gz>

Work-Time Optimal k-merge Algorithms on the PRAM

Tatsuya Hayashi, Koji Nakano, and Stephan Olariu, Nagoya Institute of Technology, Japan

<http://maple.elcom.nitech.ac.jp/~nakano>

Optimizing Parallel Bitonic Sort

Mihai F. Ionescu and Klaus E. Schauer, University of California, Santa Barbara

<http://www.cs.ucsb.edu/~mionescu/PERSONAL/PAPERS/Bitonic-97-ipps.ps>

A Fast Scalable Universal Matrix Multiplication Algorithm on Distributed-Memory Concurrent Computers

Jaeyoung Choi, Soongsil University, Korea

<http://comp.soongsil.ac.kr/~jchoi.html>

Matrix Transpose on Meshes: Theory and Practice

Michael Kaufmann, Ulrich Meyer, and Jop Sibeyn, Max-Planck-Institut für Informatik, Germany

<http://www.mpi-sb.mpg.de/~jopsi>

Coarse Grained Parallel Next Element Search

Albert Chan, Frank Dehne, and Andrew Rau-Chaplin, Carlton University, Canada

<http://www.scs.carleton.ca/~dehne/>

SESSION 9 - Routing

Chair: Gianfranco Bilardi, Universita di Padova and University of Illinois at Chicago

Optimal Wormhole Routing in the (n,d)-Torus

Stefan Bock, Friedhelm Meyer auf der Heide, and Christian Scheideler, University of Paderborn, Germany

<http://www.uni-paderborn.de/cs/fmadh.html>

Adaptive Fault-Tolerant Wormhole Routing Algorithms for Hypercube and Mesh Interconnection Networks

Jau-Der Shih, National Pintung Teachers College, R.O.C.

A Hybrid Interconnection Network for Integrated Communication Services

Yi-long Chen and Jyh-Charn Liu, Texas A&M University

Deadlock-free Fault-tolerant Routing in the Multi-dimensional Crossbar Network and its Implementation for the Hitachi SR2201

Yoshiko Yasuda, Hiroaki Fujii, Hideya Akashi, Yasuhiro Inagami, Teruo Tanaka, Junji Nakagoshi, Hideo Wada, and Tsutomu Sumimoto, Hitachi, Ltd., Japan

An Accurate Model for the Performance Analysis of Deterministic Wormhole Routing

B. Ciciani, M. Colajanni, and C. Paolucci, Universita di Roma "La Sapienza", Italy

SESSION 10 - I/O and Message Passing

Chair: Anthony Skjellum, Mississippi State University

Design and Evaluation of a Data Storage and Retrieval Strategies in a Distributed Memory Continuous Media Server

Chutimet Srinilta, Divyesh Jadav, and Alok Choudhary, Syracuse University

<http://www.ece.nwu.edu/~csrinilt>

MTIO A Multi-Threaded Parallel I/O System

Sachin More, Alok Choudhary, Ian Foster, and Ming Q. Xu, Northwestern University

<http://www.ece.nwu.edu/~ssmore/ipp97.ps>

Low Latency MPI for Meiko CS/2 and ATM Clusters

Chris R. Jones, Ambuj K. Singh, and Divyakant Agrawal, University of California, Santa Barbara

<http://www.cs.ucsb.edu/~agrawal>

Reducing Waiting Costs in User-Level Communication

Stefans N. Damianakis, Yuqun Chen, and Edward W. Felten, Princeton University

<http://www.cs.princeton.edu/shrimp/papers/spin-block.ps>

Design and Implementation of Virtual Memory-Mapped Communication on Myrinet

Cezary Dubnicki, Angelos Bilas, Kai Li, and Jim F. Philbin, NEC Research Institute

<http://www.cs.princeton.edu/~dubnicki/papers/sblmyri.ps>

SESSION 11 - Algorithms II

Chair: Tao Yang, University of California at Santa Barbara

Designing Efficient Distributed Algorithms Using Sampling Techniques

Sanguthevar Rajasekaran and David S.L. Wei, University of Florida

Fast Parallel Computation of the Polynomial Shift

Eugene V. Zima, Moscow State University, Russia

<http://www.cs.msu.su/~zima>

A Parallel Algorithm for Weighted Distance Transforms

Akihiro Fujiwara, Michiko Inoue, Toshimitsu Masuzawa, and Hideo Fujiwara, Nara Institute of Science and Technology (NAIST), Japan

<http://rocana.aist-nara.ac.jp/~tora/>

Parallel Solutions of Indexed Recurrence Equations

Yosi Ben-Asher and Gady Haber, Haifa University, Israel

Joining Forces in Solving Large-Scale Quadratic Assignment Problems in Parallel

Adrian Brünger, Ambros Marzetta, Jens Clausen, and Michael Perregaard, Swiss Federal Institute of Technology, Switzerland

http://www.jn.inf.ethz.ch/ambros/ipps97_qap_zram.ps.gz

SESSION 12 - Runtime

Chair: Hans Zima, University of Vienna

Optimization Schemas for Parallel Implementation of Nondeterministic Languages and Systems

Gopal Gupta and Enrico Pontelli, New Mexico State University

http://www.cs.nmsu.edu/lldap/prj_lp/opt.html

Logic Channels: A Coordination Approach to Distributed Programming

M. Díaz, B. Rubio, and J.M. Troya, Universidad de Malaga, Spain

<http://www.lcc.uma.es/personal/diaz/diaz.html>

Time-Stamping Algorithms for Parallelization of Loops at Run-Time

Chengzhong Xu and Vipin Chaudhary, Wayne State University
<http://www.pdcl.eng.wayne.edu>

Interoperability of Data Parallel Runtime Libraries

Guy Edjlali, Alan Sussman, and Joel Saltz, University of Maryland
<http://www.cs.umd.edu/projects/hpsl.html>

Platform-Independent Runtime Optimizations Using OpenThreads

Matthew Haines and Koen Langendoen, University of Wyoming

SESSION 13 - Shared Memory

Chair: James Philbin, NEC Research Institute

Aurora: Scoped Behavior for Per-Context Optimized Distributed Data Sharing

Paul Lu, University of Toronto, Canada
<http://www.cs.utoronto.ca/~paullu>

Evaluating the Performance of Software Distributed Shared Memory as a Target for Parallelizing Compilers

Alan L. Cox, Sandhya Dwarkadas, Honghui Lu, and Willy Zwaenepoel, Rice University
<http://www.cs.rice.edu/CS/Systems/papers/jpps97.ps>

View Caching: Efficient Software Shared Memory for Dynamic Computations

Vijay Karamcheti and Andrew A. Chien, University of Illinois at Urbana-Champaign
<http://www-csag.cs.uiuc.edu/papers/view-caching.ps>

Enhancing Software DSM for Compiler-Parallelized Applications

Pete Keleher and Chau-Wen Tseng, University of Maryland
<http://www.cs.umd.edu/~tseng/>

Relative Performance of Hardware and Software-Only Directory Protocols Under Latency Tolerating and Reducing Techniques

Håkan Grahn and Per Stenström, Chalmers University of Technology, Sweden
<http://www.ide.hk-r.se/~nesse/>

SESSION 14 - Algorithms III

Chair: Uzi Vishkin, University of Maryland and Tel Aviv University

O(log log N) Time Algorithms for Hamiltonian-Suffix and Min-Max-Pair Heap Operations on Hypercube Multicomputers

Sajal K. Das and M. Cristina Pinotti, University of North Texas

A Parallel Tabu Search Algorithm for the 0-1 Multidimensional Knapsack Problem

Smail Niar and Arnaud Freville, Université de Valenciennes, France

<http://www.univ-valenciennes.fr/limav>

Lower Bounds on Systolic Gossip

Michele Flammini and Stéphane Pérennès, University of L'Aquila, Italy

Parallel Simulated Annealing: An Adaptive Approach

Jonas Knopman and Júlio S. Aude, Federal University of Rio de Janeiro - NCE, Brazil

Parallel Global Routing Algorithms for Standard Cells

Zhaoyun Xing, John Chandy, and Prithviraj Banerjee, University of Illinois at Urbana-Champaign

<http://www.ece.nwu.edu/~banerjee/>

SESSION 15 - Compilers I

Chair: Emilio Zapata, University of Malaga, Spain

On Privatization of Variables for Data-Parallel Execution

Manish Gupta, IBM T.J. Watson Research Center

<http://www.research.ibm.com/people/g/gupta>

Semantics and Implementation of a Generalized forall Statement for Parallel Languages

P.F.G. Dechering, L.C. Breebaart, F. Kuijman, C. van Reeuwijk and H.J. Sips, Delft University of Technology, The Netherlands

<http://www.cp.tn.tudelft.nl/paul/>

A BSP Approach to the Scheduling of Tightly-Nested Loops

Radu Calinescu, Oxford University Computing Laboratory, England

<http://www.comlab.ox.ac.uk/oucl/users/radu.calinescu/ipps97-paper.ps.gz>

A Formal Model of Software Pipelining Loops with Conditions

Dragan Milicev and Zoran Jovanovic, University of Belgrade, Yugoslavia

<http://ubbg.etf.bg.ac.yu/~emiliced>

Data Access Reorganizations in Compiling Out-of-Core Data Parallel Programs on Distributed Memory Machines

M. Kandemir, R. Bordawekar, and A. Choudhary, Syracuse University
<http://web.ece.nyu.edu/~choudhar>

SESSION 16 - Networks II

Chair: Timothy Pinkston, University of Southern California

Hybrid Time Synchronization Implemented Through Special Ring Array for Mesh or Torus

Yuzhong Sun, Zhiwei Xu, and Mingfa Zhu, National Research Center for Intelligent Computers, P.R.C.

Deadlock- and Livelock-Free Routing Protocols for Wave Switching

José Duato, Pedro López, and Sudhakar Yalamanchili, Georgia Institute of Technology
<http://www.gap.upv.es/english/pubbyname.html>

Architecture-Dependent Tuning of the Parameterized Communication Model for Optimal Multicasting

Natawut Nupairoj, Lionel M. Ni, Ju-Young L. Park, and Hyeong-Ah Choi, Michigan State University
<http://www.cps.msu.edu/~ni>

Crossbar Analysis for Optimal Deadlock Recovery Router Architecture

Yungho Choi and Timothy Mark Pinkston, University of Southern California
<http://www.usc.edu/dept/ceng/pinkston/SMART.html>

Performance Analysis of Minimal Adaptive Wormhole Routing with Time-Dependent Deadlock Recovery

Fabrizio Petrini and Marco Vanneschi, Università di Pisa, Italy
<http://www.di.unipi.it/~petrini/petrini.html>

SESSION 17 - Algorithms IV

Chair: Sajal Das, University of North Texas

A 2-D Parallel Convex Hull Algorithm with Optimal Communication Phases

Jieliang Zhou, Xiaotie Deng, and Patrick Dymond, York University, Canada
<http://www.cs.yorku.ca/patrick/papers/zdd>

An Efficient Parallel Strategy for Computing K-terminal Reliability and Finding Most Vital Edge in 2-trees and Partial 2-trees

Chin-Wen Ho, Sun-Yuan Hsieh, and Gen-Huey Chen, Institute of Information Science, R.O.C.

An Efficient Parallel Algorithm for Solving the Knapsack Problem on the Hypercube

A. Goldman and D. Trystram, LMC-IMAG, France

d-Dimensional Range Search on Multicomputers

Afonso Ferreira, Claire Kenyon, Andrew Rau-Chaplin, and Stephane Ubéda, LIP ENS-Lyon, France

Control Schemes in a Generalized Utility for Parallel Branch-and-Bound Algorithms

Yuji Shinano, Kenichi Harada, and Ryuichi Hirabayashi, Science University of Tokyo, Japan
<http://hiraws1.ms.kagu.sut.ac.jp/~shinano/index.html>

SESSION 18 - Compilers II

Chair: Prith Banerjee, Northwestern University

Alias Analysis for Fortran90 Array Slices

K. Gopinath and R. Seshadri, Indian Institute of Science, India
<http://drona.csa.iisc.ernet.in/~gopi/conf/aliasipps97.ps>

A Compile-Time Partitioning Strategy for Non-Rectangular Loop Nests

Rizos Sakellariou, University of Manchester, United Kingdom
<http://www.cs.man.ac.uk/cnc/staff/rizos/ipps97.ps>

The Sparse Cyclic Distribution against its Dense Counterparts

Gerardo Bandera, Manuel Ujaldon, Maria A. Trenas, and Emilio L. Zapata, University of Malaga, Spain
<http://www.ac.uma.es/research/reports/1997.html>

A Compiler-Directed Cache Coherence Scheme Using Data Prefetching

Hock-Beng Lim and Pen-Chung Yew, University of Illinois at Urbana-Champaign
<http://www.cs.umn.edu/Research/Agassiz/Paper/lim.ipps97.ps.Z>

Extensible Message Passing Application Development and Debugging with Python

David M. Beazley and Peter S. Lomdahl, University of Utah
<http://www.cs.utah.edu/~beazley/publications.html>

SESSION 19 - Architecture Theory

Chair: Ali Hurson, Pennsylvania State University

Parallel 'Go with the Winners' Algorithms in the LogP Model

Marcus Peinado and Thomas Lengauer, German National Research Center for Information

Technology (GMD), Germany
<http://cartan.gmd.de/compchem/mp/ipps97.ps>

A Comparison of Parallel Approaches for Algebraic Factorization in Logic Synthesis

Sumit Roy and Prithviraj Banerjee, Northwestern University
<http://www.ece.nwu.edu/~banerjee/>

Conflict-Free Access to Multiple Single-Ported Register Files

Silvia M. Mueller and Uzi Vishkin, University of Saarland, Germany
<http://www-wjp.cs.uni-sb.de/~smueller/spv.html>

On the Dynamic Initialization of Parallel Computers

Stephan Olariu, Ivan Stojmenovic, and Albert Y. Zomaya, Waterloo University, Canada

SESSION 20 - Data Structures

Chair: Afonso Ferreira, CNRS, LIP - ENS Lyon, France

The Impact of Timing on Linearizability in Counting Networks

Marios Mavronicolas, Marina Papriantafidou, and Philippos Tsigas, Max-Planck-Institut für Informatik, Germany
<http://www.mpi-sb.mpg.de/~tsigas/papers/count.ps.Z>

A Parallel Priority Data Structure with Applications

Gerth Stølting Brodal, Jesper Larsson Träff, and Christos D. Zaroliagis, University of Aarhus, Denmark
<http://www.mpi-sb.mpg.de/~zaro>

Multiple Templates Access of Trees in Parallel Memory Systems

Vincenzo Auletta, Amelia De Vivo, and Vittorio Scarano, Università di Salerno, Italy
<http://www.unisa.it/auletta.dir/PUB/PAPERS/templates.ps>

Maintaining Spatial Data Sets in Distributed-Memory Machines

Susanne E. Hambrusch and Ashfaq A. Khokhar, Purdue University
<http://www.cs.purdue.edu/people/she>

Geometric Data Structures on a Reconfigurable Mesh, with Applications

Amitava Datta, University of New England, Australia
<http://turing.une.edu.au/~datta>

SESSION 21 - Networks III

Chair: Helmar Burkhart, University of Basel, Switzerland

Efficient Sorting and Routing on Reconfigurable Meshes Using Restricted Bus Length

Manfred Kunde and Kay Gurtzig, Technical University of Ilmenau, Germany

Oblivious Routing Algorithms on the Mesh of Buses

Kazuo Iwama and Eiji Miyano, Kyushu University, Japan

<http://hakozaiki.csce.kyushu-u.ac.jp/~iwama>

Nearly Optimal One-to-Many Parallel Routing in Star Networks

Jianer Chen and Chi-Chang Chen, Texas A&M University

Broadcasting and Multicasting in Cut-through Routed Networks

Johanne Cohen, Pierre Fraigniaud, Jean-Claude Konig, and André Raspaud, Ecole Normale Supérieure de Lyon, France

http://www.ens-lyon.fr/LIP/groupes/crac/list_member.us.html

Cyclic Networks: A Family of Versatile Fixed-Degree Interconnection Architectures

Chi-Hsiang Yeh and Behrooz Parhami, University of California, Santa Barbara

<http://www.engineering.ucsb.edu/~yeh>

Industrial Track - Invited Vendor Presentations

Co-Chairs: John K. Antonio, Helmar Burkhart

SPAX: A New Parallel Processing System for Commercial Application

Woo-Jong Hahn, Kee-Wook Rim, and Soo-Won Kim

Scalability of SCI Workstation Clusters: A Preliminary Study

K. Omang and B. Parady

Maximum Delivery Time and Hot Spots in ServerNet™ Topologies

D.R. Avresky, V. Shurbanov, R. Horst, W. Watson, L. Young, and D. Jewett
