1. Record Nr. UNISA996466136003316

Titolo	Parallel computer routing and communication : second international workshop, PCRCW '97, Atlanta, Georgia, USA, June 26-27, 1997 : proceedings / / Sudhakar Yalamanchili, Jose Duato, editors
Pubbl/distr/stampa	Berlin ; ; Heidelberg : , : Springer Verlag, , [1998] Â©1998
ISBN	3-540-69352-1
Edizione	[1st ed. 1998.]
Descrizione fisica	1 online resource (XII, 309 p.)
Collana	Lecture Notes in Computer Science ; ; Volume 1417
Disciplina	004.35
Soggetti	Parallel processing (Electronic computers) Computer networks
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Keynote Address -- Approaches to Quality of Service in High-Performance Networks -- Routing I -- Integrated Multi-class Routing -- Congestion Control in the Wormhole-Routed Torus With Clustering and Delayed Deflection -- Multicasting in Irregular Networks with Cut-Through Switches using Tree-Based Multidestination Worms* -- Poster Session -- CCSIMD: a Concurrent Communication and Computation Framework for SIMD Machines -- Arctic Switch Fabric -- Router and Network Architectures I -- STREAMER: Hardware Support for Smoothed Transmission of Stored Video over ATM -- Preliminary Evaluation of a Hybrid Deterministic/Adaptive Router -- HiPER-P: An Efficient, High-Performance Router for Multicomputer Interconnection Networks -- Router and Network Architectures II (Invited Presentations) -- ServerNet™ II -- Embedded Systems Standards -- Challenges in the Design of Contemporary Routers -- Panel Session -- Panel Session -- Messaging Layer Support -- Evaluation of Communication Mechanisms in Invalidate-based Shared Memory Multiprocessors -- How Can We Design Better Networks for DSM Systems? -- Integration of U-Net into Windows/NT -- Routing II -- Distance-Based Flow Control in Wormhole Networks -- On the Use of Virtual Channels in Networks of Workstations with Irregular Topology -- Multicasting on Switch-based Irregular Networks using Multi-drop Path-based Multidestination

Worms -- Power/Performance Trade-offs for Direct Networks -- Router and Network Architectures III -- ChaosLAN: Design and Implementation of a Gigabit LAN Using Chaotic Routing -- Does Time-Division Multiplexing Close the Gap Between Memory and Optical Communication Speeds? -- Deadlock Issues -- Modeling Message Blocking and Deadlock in Interconnection Networks -- On the Reduction of Deadlock Frequency by Limiting Message Injection in Wormhole Networks.

Sommario/riassunto

This workshop was a continuation of the PCRCW ’94 workshop that focused on issues in parallel communication and routing in support of parallel processing. The workshop series provides a forum for researchers and designers to exchange ideas with respect to challenges and issues in supporting communication for high-performance parallel computing. Within the last few years we have seen the scope of interconnection network technology expand beyond traditional multiprocessor systems to include high-availability clusters and the emerging class of system area networks. New application domains are creating new requirements for interconnection network services, e.g., real-time video, on-line data mining, etc. The emergence of quality-of-service guarantees within these domains challenges existing approaches to interconnection network design. In the recent past we have seen the emphasis on low-latency software layers, the application of multicomputer interconnection technology to distributed shared-memory multiprocessors and LAN interconnects, and the shift toward the use of commodity clusters and standard components. There is a continuing evolution toward powerful and inexpensive network interfaces, and low-cost, high-speed routers and switches from commercial vendors. The goal is to address the above issues in the context of networks of workstations, multicomputers, distributed shared-memory multiprocessors, and traditional tightly-coupled multiprocessor interconnects. The PCRCW ’97 workshop presented 20 regular papers and two short papers covering a range of topics dealing with modern interconnection networks. It was hosted by the Georgia Institute of Technology and sponsored by the Atlanta Chapter of the IEEE Computer Society.