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Soggetti	Architecture, Computer
	Microprocessors
	Computer programming
	Computer communication systems
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	Special purpose computers
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Nota di contenuto	EDS: A parallel computer system for advanced information processing -- A decompositional approach to the design of efficient parallel programs -- Space-efficient parallel merging -- On embedding interconnection networks into rings of processors -- Asynchronous mobile processes and graph rewriting -- PTAH Introduction to a new parallel architecture for highly numeric processing -- The Topsy project: a position paper -- Optimal algorithms for dissemination of information in generalized communication modes -- Efficient parallel algorithms on interval graphs -- SYMPATIX: a SIMD computer

performing the low and intermediate levels of image processing -- 1-Dimensional parallel FFT benchmark on SUPRENUM -- On designing fault-tolerant extensions with optimal fanout for complete bipartite networks -- Application-specific deadlock free wormhole routing on multicomputers -- Scalability problems in multiprocessors with private caches -- Promises and issues in optical computing -- A model to design reusable parallel software components -- Extensibility and reuse of object-oriented synchronization components -- Using parallelism and pipeline for the optimisation of join queries -- Performance evaluation of parallel transaction processing in shared nothing database systems -- Explicit expression of multidimensional data parallelism -- Programming massively parallel architectures with sequential object oriented languages -- A new program transformation to minimise communication in distributed memory architectures -- Distributed termination enforcement -- Verification of systolic architecture designs -- Reduction operators in Alpha -- An operational semantics for a parallel functional language with continuations -- A concurrent and distributed extension of scheme -- New techniques for Cycle Shrinking -- Loop restructuring techniques for thrashing problem -- Characterizing the paralation model using dynamic assignment -- An implementation of static functional process networks -- Translating concurrent programs into VLSI chips -- Message-brokers and communicating prolog processes -- Extensions to a parallel prolog system to support real-time applications -- Declarative programming for conventional MIMD multiprocessors -- Minimizing loop storage allocation for an argument-fetching dataflow architecture model -- Performance of Muse on the BBN Butterfly TC2000 -- And-or parallelism in full Prolog with paged Binding Arrays -- Improving the efficiency of virtual channels with time-dependent selection functions -- Using Opportunistic combining networks to reduce contention in multicomputers -- Mixed-mode multicomputers with load adaptability -- Architecture of parallel management kernel for PIE64 -- Concurrent data structures for hypercube machine -- Repeated matrix squaring for the parallel solution of linear systems -- Performance evaluation of cache memories in tightly coupled multiprocessor systems -- An evaluation of set-associativity in two-level caches for shared memory multiprocessors -- Reliable communication in VPL -- Paragon specifications: Structure, analysis and implementation -- Stanford DASH multiprocessor: The hardware and software approach -- Dynamic action scheduling in a parallel database system -- A compositional approach for the design of a parallel query processing language -- Back and forth bisimulations on prime event structures -- Dynamic concurrent processes -- Exegesis of DBC/1012 and P-90 - industrial supercomputer database machines -- Exploiting parallelism in primitive operations on bulk data types -- Comparative semantics of ? Log -- A framework for parallel composition of protocols -- A case study: Parallel program development for a recursive numerical algorithm -- A distributed protocol for channel-based communication with choice -- A refinement of communicating processes -- Distributing finite transition systems extended abstract -- Coping with the process proliferation problem in concurrent object-based language implementations -- Correctness of flat data parallel algorithms: an axiomatic approach and examples -- Generating memory-efficient imperative data structures from systolic programs -- Geometric transforms on parallel architecture -- Implementing cut in a distributed data driven OR-parallel prolog environment -- Optical interconnects for parallel systems: Demonstration of an optical link with multiple-quantum-well opto-electronic arrays -- Parallel task assignment by

graph partitioning -- Parallelizing recursive logic programs through decomposition -- Performance analysis of the network of the GFLOPS parallel architecture -- Prelude: A system for portable parallel software -- Routing in Hypercycles. Deadlock free and backtracking strategies -- Serialisation as a paradigm for the engineering of parallel programs -- SIMCDL: Simulating parallel programming in a sequential environment -- XFSM: A formal model of communicating state machines for implementation specifications -- XPRAM model and programming interface.

Sommario/riassunto	The 1992 Parallel Architectures and Languages Europe conference continues the tradition - of a wide and representative international meeting of specialists from academia and industry in theory, design, and application of parallel computer systems - set by the previous PARLE conferences held in Eindhoven in 1987, 1989, and 1991. This volume contains the 52 regular and 25 poster papers that were selected from 187 submitted papers for presentation and publication. In addition, five invited lectures areincluded. The regular papers are organized into sections on: implementation of parallel programs, graph theory, architecture, optimal algorithms, graph theory and performance, parallel software components, data base optimization and modeling, data parallelism, formal methods, systolic approach, functional programming, fine grain parallelism, Prolog, data flow systems, network efficiency, parallel algorithms, cache systems, implementation of parallel languages, parallel scheduling in data base systems, semantic models, parallel data base machines, and language semantics.