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| Disciplina | 005.2 |
| Soggetti | Computers Architecture, Computer Computer programming Microprocessors Arithmetic and logic units, Computer Theory of Computation Computer System Implementation Computation by Abstract Devices Programming Techniques Processor Architectures Arithmetic and Logic Structures |
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| Livello bibliografico | Monografia |
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| Nota di contenuto | Regular versus irregular problems and algorithms -- Algorithmic skeletons for adaptive multigrid methods -- Run-time techniques for parallelizing sparse matrix problems -- Fast execution of irregularly structured programs with low communication frequency on the hypercube -- Run-time parallelization of irregular DOACROSS loops -- Instruction scheduling and global register allocation for SIMD multiprocessors -- General bounds for the assignment of irregular dependency graphs -- A new scheme for dynamic processor assignment for irregular problems -- An efficient mean field annealing formulation for mapping unstructured domains to hypercubes -- |

Partitioning & mapping of unstructured meshes to parallel machine topologies -- Integrating software pipelining and graph scheduling for iterative scientific computations -- Approximation algorithms for time constrained scheduling -- On the scope of applicability of the ETF algorithm -- Optimal mapping of neighbourhood-constrained systems -- Parallel processing in DNA analysis -- Solving computational fluid dynamics problems on unstructured grids with distributed parallel processing -- Parallel decomposition of unstructured FEM-meshes -- Massively parallel approximation of irregular triangular meshes with G1 parametric surfaces -- Distributed symbolic computation with DTS -- A parallel processing paradigm for irregular applications -- Load balancing strategies for a parallel system of particles -- A reconfigurable parallel algorithm for sparse Cholesky factorization -- Adapted wavelet analysis on moderate parallel distributed memory MIMD architectures -- A new parallel approach to the constrained two-dimensional cutting stock problem -- Using the ProSet-Linda prototyping language for investigating MIMD algorithms for model matching in 3-D computer vision -- Parallel search for combinatorial optimization: Genetic algorithms, simulated annealing, tabu search and GRASP -- Better algorithms for parallel backtracking -- Parallel game tree search on SIMD machines -- Asynchronous parallel branch and bound and anomalies -- Fast priority queues for parallel branch-and-bound -- A parallel formulation for general branch-and-bound algorithms.

Sommario/riassunto

This book presents the proceedings of the Second International Workshop on Parallel Algorithms for Irregularly Structured Problems, IRREGULAR '95, held in Lyon, France in September 1995. This workshop series addresses issues related to deriving efficient parallel solutions to irregularly structured problems and aims at fostering cooperation between practitioners and theoreticians in the field. Besides three invited papers, 20 full papers and eight short contributions are presented, all selected during a highly competitive refereeing process; the volume is organized in sections on programming methods and compiling techniques, mapping and scheduling, applications, and optimization.
