

1. Record Nr.	UNISA996465291503316
Titolo	Parallel Algorithms for Irregularly Structured Problems [[electronic resource]] : Third International Workshop, IRREGULAR '96, Santa Barbara, CA, USA, August 19 - 21, 1996. Proceedings // edited by Alfonso Ferreira, Jose Rolim, Yousef Saad, Tao Yang
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 1996
ISBN	3-540-68808-0
Edizione	[1st ed. 1996.]
Descrizione fisica	1 online resource (X, 366 p.)
Collana	Lecture Notes in Computer Science, , 0302-9743 ; ; 1117
Disciplina	005.2
Soggetti	Computers Architecture, Computer Computer programming Microprocessors Operating systems (Computers) Theory of Computation Computer System Implementation Computation by Abstract Devices Programming Techniques Processor Architectures Operating Systems
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di contenuto	Allocating independent tasks to parallel processors: An experimental study -- Parallel implementation of an adaptive scheme for 3D unstructured grids on the SP2 -- Solution of large, sparse, irregular systems on a massively parallel computer -- Parallel implementation of a sparse approximate inverse preconditioner -- Decomposing irregularly sparse matrices for parallel matrix-vector multiplication -- Dynamic spectral partitioning -- Fast distributed genetic algorithms for partitioning uniform grids -- Toward efficient unstructured multigrid preprocessing (extended abstract) -- Domain decomposition for particle methods on the sphere -- Coordination of distributed/parallel

multiple-grid domain decomposition -- Systems support for irregular parallel applications -- Distributed object oriented data structures and algorithms for VLSI CAD -- Parallel progressive radiosity with adaptive meshing -- Lineal feature extraction by parallel stick growing -- A simple parallel algorithm for the single-source shortest path problem on planar digraphs -- A regular VLSI array for an irregular algorithm -- Digital librarires and spatial information processing -- Flexible communication mechanisms for dynamic structured applications -- Multi-Message Multicasting -- Synchronization as a strategy for designing efficient parallel algorithms -- Supporting dynamic data and processor repartitioning for irregular applications -- Simple quantitative experiments with a sparse compiler -- Using algorithmic skeletons with dynamic data structures -- An interface design for general parallel branch-and-bound algorithms -- Support for irregular computation in high performance Fortran -- Efficient dynamic embedding of arbitrary binary trees into hypercubes -- Practical dynamic load balancing for irregular problems -- The module allocation problem: An average case analysis -- Dynamically adapting the degree of parallelism with reflexive programs -- On the complexity of the generalized block distribution -- Adaptive load balancing of irregular applications a case study: IDA* applied to the 15-puzzle problem -- Manufacturing progressive addition lenses using distributed parallel processing -- The parallel complexity of randomized fractals.

Sommario/riassunto

This book constitutes the refereed proceedings of the Third International Workshop on Parallel Algorithms for Irregularly Structured Problems, IRREGULAR '96, held in Santa Barbara, California, in August 1996. The volume presents 28 revised full papers selected from 51 submissions; also included are one full invited paper by Torben Hagerup and abstracts of four other invited talks. The papers are organized in topical sections on sparse matrix problems, partitioning and domain composition, irregular applications, communication and synchronization, systems support, and mapping and load balancing.
