1. Record Nr. UNINA9910144122103321

| | |
|---|---|
| Titolo | Vector and parallel processing - VECPAR'98 : third International Conference Porto, Portugal, June 21-23, 1998 selected papers and invited talks / / Jose M. L. M. Palma, Jack Dongarra, Vicente Hernandez (Eds.) |
| Pubbl/distr/stampa | Berlin ; ; Heidelberg : , : Springer, , [1999]<br>Â©1999 |
| ISBN | 3-540-48516-3 |
| Edizione | [1st ed. 1999.] |
| Descrizione fisica | 1 online resource (XVI, 712 p.) |
| Collana | Lecture Notes in Computer Science ; ; 1573 |
| Disciplina | 004.35 |
| Soggetti | Parallel processing (Electronic computers) |
| 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 | 1: Eigenvalue Problems and Solution of Linear Systems -- to “Eigenvalue Problems and Solution of Linear Systems” -- Some Unusual Eigenvalue Problems -- Multi-sweep Algorithms for the Symmetric Eigenproblem -- A Unified Approach to Parallel Block-Jacobi Methods for the Symmetric Eigenvalue Problem -- Calculation of Lambda Modes of a Nuclear Reactor: A Parallel Implementation Using the Implicitly Restarted Arnoldi Method -- Parallel Jacobi-Davidson for Solving Generalized Eigenvalue Problems -- Parallel Preconditioned Solvers for Large Sparse Hermitian Eigenproblems -- Solving Eigenvalue Problems on Networks of Processors -- Solving Large-Scale Eigenvalue Problems on Vector Parallel Processors -- Direct Linear Solvers for Vector and Parallel Computers -- Parallel Preconditioners for Solving Nonsymmetric Linear Systems -- Synchronous and Asynchronous Parallel Algorithms with Overlap for Almost Linear Systems -- The Parallel Problems Server: A Client-Server Model for Interactive Large Scale Scientific Computation -- 2: Computational Fluid Dynamics, Structural Analysis and Mesh Partioning Techniques -- to “Computational Fluid Dynamics, Structural Analysis and Mesh Partioning Techniques” -- Parallel Domain-Decomposition Preconditioning for Computational Fluid Dynamics -- Influence of the Discretization Scheme on the Parallel Efficiency of a Code for the |

Modelling of a Utility Boiler -- Parallel 3D Airflow Simulation on Workstation Clusters -- Parallel Turbulence Simulation: Resolving the Inertial Subrange of the Kolmogorov Spectrum -- The Study of a Parallel Algorithm Using the Laminar Backward-Facing Step Flow as a Test Case -- A Low Cost Distributed System for FEM Parallel Structural Analysis -- Dynamic Load Balancing in Crashworthiness Simulation -- Some Concepts of the Software Package FEAST -- Multilevel Mesh Partitioning for Optimising Aspect Ratio -- 3: Computing in Education -- Parallel and Distributed Computing in Education (Invited Talk) -- 4: Computer Organisation, Programming and Benchmarking -- to “Computer Organisation, Programming and Benchmarking Introduction” -- Reconfigurable Systems: Past and Next 10 Years -- A Systolic Algorithm for the Factorisation of Matrices Arising in the Field of Hydrodynamics -- Automatic Detection of Parallel Program Performance Problems -- Behavioural Analysis Methodology Oriented to Configuration of Parallel, Real-Time and Embedded Systems -- Spatial Data Locality with Respect to Degree of Parallelism in Processor-and-Memory Hierarchies -- Partitioning Regular Domains on Modern Parallel Computers -- New Access Order to Reduce Inter-Vector Conflicts -- Registers Size Influence on Vector Architectures -- Limits of Instruction Level Parallelism with Data Value Speculation -- High Performance Cache Management for Parallel File Systems -- Using Synthetic Workloads for Parallel Task Scheduling Improvement Analysis -- Dynamic Routing Balancing in Parallel Computer Interconnection Networks -- Algorithm-Dependant Method to Determine the Optimal Number of Computers in Parallel Virtual Machines -- Low Cost Parallelizing: A Way to be Efficient -- A Performance Analysis of the SGI Origin2000 -- An ISA Comparison Between Superscalar and Vector Processors -- 5: Image, Analysis and Synthesis -- to “Image, Analysis and Synthesis” -- High Performance Computing for Image Synthesis -- Parallel Implementations of Morphological Connected Operators Based on Irregular Data Structures -- 6: Parallel Database Servers -- The Design of an ODMG Compatible Parallel Object Database Server -- 7: Nonlinear Problems -- to “Nonlinear Problems” -- A Parallel N-Body Integrator Using MPI -- A Parallelisation Strategy for Power Systems Composite Reliability Evaluation -- High Performance Computing of an Industrial Problem in Tribology -- Parallel Grid Manipulations in Earth Science Calculations -- Simulating Magnetised Plasma with the Versatile Advection Code -- Parallel Genetic Algorithms for Hypercube Machines.