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Collana	Lecture Notes in Computer Science, , 0302-9743 ; ; 2179
Disciplina	502/.85
Soggetti	Computer hardware Computer programming Software engineering Algorithms Computer science—Mathematics Computational complexity Computer Hardware Programming Techniques Software Engineering Algorithm Analysis and Problem Complexity Mathematics of Computing Complexity
Lingua di pubblicazione	Inglese
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Livello bibliografico	Monografia
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Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Invited Papers -- Optimizing Two-Level Preconditionings for the Conjugate Gradient Method -- On the Parallelization of the Sparse Grid Approach for Data Mining -- Java Communications for Large-Scale Parallel Computing -- Continuous Path Brownian Trajectories for Diffusion Monte Carlo via First- and Last-Passage Distributions -- Multilevel Monte Carlo Methods -- Iterative Aggregation/Disaggregation Methods for Computing Some Characteristics of Markov Chains -- Time-Integration Algorithms for

the Computer Treatment of the Horizontal Advection in Air Pollution Models -- Robust Preconditioning Algorithms -- MIC(0) Preconditioning of Rotated Trilinear FEM Elliptic Systems -- Sobolev Space Preconditioning for Mixed Nonlinear Elliptic Boundary Value Problems -- On a Schur Complement Approach for Solving Two-Level Finite Element Systems -- Monte Carlo Methods -- On-Line State Estimation of Maneuvering Objects by Sequential Monte Carlo Algorithm -- On the Dyadic Diaphony of the Sobol' Sequences -- An Improved Monte Carlo Algorithm for Elastic Electron Backscattering from Surfaces -- Statistical Algorithms for Simulation of Electron Quantum Kinetics in Semiconductors - Part I -- A Quasi-Monte Carlo Method for Integration with Improved Convergence -- Solving Systems of Linear Algebraic Equations Using Quasirandom Numbers -- Monte Carlo Analysis of the Small-Signal Response of Charge Carriers -- Statistical Algorithms for Simulation of Electron Quantum Kinetics in Semiconductors - Part II -- Advanced Programming Environments for Scientific Computations -- IC2D: Interactive Control and Debugging of Distribution -- JaMake: A Java Compiler Environment -- Program Development Environment for OpenMP Programs on ccNUMA Architectures -- Global Computing Systems -- Java for Large-Scale Scientific Computations? -- Java for Scientific Computation: Prospects and Problems -- Large-Scale Computations in Air Pollution Modelling -- Object-Oriented Framework for Large Scale air Pollution Modeling -- Evaluation and Reliability of Meso-Scale Air Pollution Simulations -- The Mathematical Background of Operator Splitting and the Effect of Non-Commutativity -- Fine-Grid Resolution in Danish Eulerian Model and an Implementation on SGI Origin 2000 Computer -- Modelling Framework for Atmospheric Mercury over the Mediterranean Region: Model Development and Applications -- Iterative Load Balancing Schemes for Air Pollution Models -- Computational Aspects of Air Quality Modelling in Urban Regions Using an Optimal Resolution Approach (AURORA) -- Parallel Implementation of a Large-Scale 3-D Air Pollution Model -- Long-Term Estimates of Sulfur Deposition in the Region of Southeastern Europe -- Computationally Efficient Atmospheric Chemical Kinetic Modeling by Means of High Dimensional Model Representation (HDMR) -- Large-Scale Computations for Mechanical Engineering Problems -- Computer Simulation of the Air Flow and the Distribution of Combustion Generated Pollutants around Buildings -- On Multigrid Methods for the Compressible Navier-Stokes Equations -- Structural Optimization of Biomorphic Microcellular Ceramics by Homogenization Approach -- Multigrid - Adaptive Local Refinement Solver for Incompressible Flows -- Handling Systems from Non-linear Theory of Elasticity -- Numerical Modelling of the Flow in Magnetic Liquid Seals -- Dynamic Mesh Schemes for Fluid-Structure Interaction -- Numerical Methods for Incompressible Flow -- Boundary Integral Method for 3D Simulation of Foam Dynamics -- A Lagrange Multipliers/Fictitious Domain Approach for Particulate Flow -- Primal vs. Dual Variable Approach for Mixed-Hybrid Finite Element Approximation of the Potential Fluid Flow Problem in Porous Media -- Wave Evolution of Heated Falling Films. Numerical Analysis Using Finite-Difference Method -- Picard-Uzawa Schemes: Errors, Convergence and Stopping Criterion -- Contributed Papers -- Finite Element Method for Plates with Dynamic Loads -- MPI Parallel Implementation of a Fast Separable Solver -- A Comparison of Subspace Methods for Sylvester Equations -- Studying the Performance Nonlinear Systems Solvers Applied to the Random Vibration Test -- Parameter Identification in a Two-Dimensional Parabolic Equation Using an ADI Based Solver -- Numerical Simulation of a Model for Transport

