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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 Mathemathical 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 fpr 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 and Reaction of Radionuclides.