1. Record Nr. UNISA996465478303316

Titolo	Numerical Methods and Applications [[electronic resource]] : 5th International Conference, NMA 2002, Borovets, Bulgaria, August 20-24, 2002, Revised Papers / / edited by Ivan Dimov, Ivan Lirkov, Svetozar D. Margenov, Zahari Zlatev
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 2003
ISBN	3-540-36487-0
Edizione	[1st ed. 2003.]
Descrizione fisica	1 online resource (XII, 580 p.)
Collana	Lecture Notes in Computer Science, , 0302-9743 ; ; 2542
Disciplina	519.4
Soggetti	Probabilities Numerical analysis Algorithms Computer-aided engineering Computer mathematics Probability Theory and Stochastic Processes Numeric Computing Algorithm Analysis and Problem Complexity Computer-Aided Engineering (CAD, CAE) and Design Computational Science and Engineering Numerical Analysis
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	Invited Papers -- Forgivable Variational Crimes -- An Introduction to the Theory of Plausible and Paradoxical Reasoning -- Comparison of Ten Methods for the Solution of Large and Sparse Linear Algebraic Systems -- Variable-Coefficient Difference Schemes for Quasilinear Evolution Problems -- Additive Schemes for Systems of Time-Dependent Equations of Mathematical Physics -- Geometry of Polynomials and Numerical Analysis -- Monte Carlo and Quasi-Monte Carlo Methods -- Hybrid Monte Carlo Methods for Matrix Computation -- A New Efficient Algorithm for Generating the Scrambled Sobol' Sequence -- Generating and Testing the Modified Halton Sequences --

Parallel Importance Separation and Adaptive Monte Carlo Algorithms for Multiple Integrals -- Monte Carlo and Quasi-Monte Carlo Algorithms for the Barker-Ferry Equation with Low Complexity -- On Some Weight Monte Carlo Methods for Investigating the Asymptotical Behavior of Solution of the Transfer Equation -- A Monte Carlo Approach for Finding More than One Eigenpair -- A New Class of Grid-Free Monte Carlo Algorithms for Elliptic Boundary Value Problems -- Monte-Carlo Integration Using Cryptographically Secure Pseudo-random Generator -- Robust Iterative Solution Methods and Applications -- Galerkin and Control Volume Finite Element Methods for Large Scale Air Pollution Simulations: A Comparison -- Robust Preconditioners for Saddle Point Problems -- Solving Eigenproblems: From Arnoldi via Jacobi-Davidson to the Riccati Method -- On a Multigrid Adaptive Refinement Solver for Saturated Non-Newtonian Flow in Porous Media -- On a Multigrid Eigensolver for Linear Elasticity Problems -- On a Two-Level Parallel MIC(0) Preconditioning of Crouzeix-Raviart Non-conforming FEM Systems -- Control and Uncertain Systems -- Discrete Methods for Optimal Control Problems -- Numerical Schemes of Higher Order for a Class of Nonlinear Control Systems -- A Size Distribution Model Applied to Fish Farming -- A Stabilizing Feedback of an Uncertain Control System -- On the Stabilizability of Control Constrained Linear Systems -- An Interval Analysis Based Algorithm for Computing the Stability Margin of Uncertain Systems -- Evaluation of Crisis, Reversibility, Alert Management for Constrained Dynamical Systems Using Impulse Dynamical Systems -- Numerical Methods for Sensor Data Processing -- Digital Quadrature Demodulation of LFM Signals Obtained by Lowpass Filtering -- An Accelerated IMM JPDA Algorithm for Tracking Multiple Manoeuvring Targets in Clutter -- Tracking Algorithms Represented as Classes -- CFAR Processors in Pulse Jamming -- Statistical Classifier of Radar Returns -- Estimation of Markovian Jump Systems with Unknown Transition Probabilities through Bayesian Sampling -- A Comparison of Decision Making Criteria and Optimization Methods for Active Robotic Sensing -- Gaze-Contingent Multi-modality Displays of Multi-layered Geographical Maps -- About the Specifics of the IMM Algorithm Design -- Target Behaviour Tendency Estimation Using Fuzzy Logic -- Contributed Papers -- Two Approaches to the Finite Element Analysis of the Stiffened Plates -- On the Postprocessing Technique for Eigenvalue Problems -- The Kachanov Method for a Rigid-Plastic Rolling Problem -- Implementation of Bilinear Nonconforming Finite Elements in an Eulerian Air Pollution Model: Results Obtained by Using the Rotational Test -- Contour-Integral Representation of Single and Double Layer Potentials for Axisymmetric Problems -- Uniformly Convergent High-Order Schemes for a 2D Elliptic Reaction-Diffusion Problem with Anisotropic Coefficients -- Kantorovich Method for Solving the Multi-dimensional Eigenvalue and Scattering Problems of Schrödinger Equation -- A Unified Algorithm to Predict Both Compressible and Incompressible Flows -- Parameter Estimation in Size/Age Structured Population Models Using the Moving Finite Element Method -- Numerical Solution of Large Non-Hermitian Eigenvalue Problem Arising from Model of Vertical Cavity Surface Emitting Laser Array -- ACO Algorithm for MKP Using Various Heuristic Information -- Discretization Methods with Discrete Minimum and Maximum Property for Convection Dominated Transport in Porous Media -- Finite Difference Scheme for Filtration and Consolidation Problems -- An Algorithm for Parallel Implementations of an Eulerian Smog Model -- Generating Minimal Surfaces Subject to the Plateau Problems by Finite

Element Method -- Optimal Structural Design of Biomorphic Composite Materials -- A Generalized (Meshfree) Finite Difference Discretization for Elliptic Interface Problems -- Applications of Weighted Compact Scheme to Curvilinear System -- Immersed Interface Method for a Reaction-Diffusion Equation with a Moving Own Concentrated Source -- Effectiveness Evaluation of Parallel Execution of Some Mathematical Methods -- A Numerical Approach for a Hemivariational Inequality Concerning the Dynamic Interaction between Adjacent Elastic Bodies -- Parallel Performance of an MPI Solver for 3D Elasticity Problems -- Unconditionally Stable Explicit Difference Schemes for the Variable Coefficients Parabolic Differential Equation (IV) -- Flexible Two-Level Parallel Implementations of a Large Air Pollution Model -- High Accuracy Difference Schemes on Unstructured Triangle Grids -- The PCD Method.