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Disciplina	519.4
Soggetti	Numerical analysis Computer science—Mathematics Artificial intelligence Algorithms Computer engineering Computer networks Discrete mathematics Numerical Analysis Mathematical Applications in Computer Science Artificial Intelligence Computer Engineering and Networks Discrete Mathematics in Computer Science
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Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Nota di contenuto	Adaptive and Multilevel Mixed Finite Element Methods -- Error Analysis of Randomized Time-Stepping Methods for Non-Autonomous Evolution Equations with Time-Irregular Coefficients -- New Stabilized Discretizations for Poroelasticity Equations -- A Class of Staggered Schemes for the Compressible Euler Equations -- An Effective Guided Fireworks Algorithm for Solving UCAV Path Planning Problem -- Cuckoo Search Algorithm for Parameter Identification of Fermentation Process Model -- Optimization of String Rewriting Operations for 3D

Fractal Generation with Genetic Algorithms -- Quantifying the Effectiveness of First-Hop Redundancy Protocols in IP Networks -- Derivation of a Coordinate System of Three Laser Triangulation Sensors in a Plane -- Optimisation Techniques in Wildfire Simulations. Test Case Kresna Fire August 2017 -- Subtraction of Two 2D Polygons with Some Matching Vertices -- InterCriteria Analysis of Different Variants of ACO Algorithm for Wireless Sensor Network Positioning -- Description of Dynamics of Ellipsoidal Estimates of Reachable Sets of Nonlinear Control Systems with Bilinear Uncertainty -- Evaluation of Serial and Parallel Shared-Memory Distance-1 Graph Coloring Algorithms -- Solving Function Approximation Problems Using the L2-Norm of the Log Ratio as a Metric -- Application of Parallel and Hybrid Metaheuristics for Graph Partitioning Problem -- Monte Carlo Approach for Modeling and Optimization of One-Dimensional Bimetallic Nanostructures -- Factors for Search Methods Scalability -- The Statistic Analysis of Conjunctive Adverbs Used in the First Bulgarian School Books in Mathematics (from the first half of XIX c.) -- Index Matrices as a Decision-Making Tool for Job Appointment -- An Intuitionistic Fuzzy Approach to the Hungarian Algorithm -- Spectral Collocation Solutions to a Class of Pseudo-Parabolic Equations. -- The Statistical Property in Finite Element Model of Elastic Contact Problems -- A Second Order Time Accurate SUSHI Method for the Time-Fractional Diffusion Equation -- A High Order Numerical Method for Solving Nonlinear Fractional Differential equation with Non-Uniform Meshes -- Identification of the Right-Hand Side of an Equation with a Fractional Power of an Elliptic Operator -- Definite Quadrature Formulae of Order Three Based on Compound Midpoint Rule -- Finite Difference Schemes and Classical Transcendental Functions -- Bounds for the Extreme Zeros of Laguerre Polynomials -- Discrete Fourier Analysis on Lattice Grids -- A Wigner Potential Decomposition in the Signed-particle Monte Carlo Approach -- Impact of the Trap Attributes on the Gate Leakage Mechanisms in a 2D MS-EMC Nanodevice Simulator -- Sensitivity Analysis of an Air Pollution Model by Using Quasi-Monte Carlo Algorithms for Multidimensional Numerical Integration -- Microscopic KMC Modeling of Oxide RRAMs -- Numerical Simulation of the Stiff System of Equations within the Spintronic Model -- Parallel SFF-SANS Study of Structure of Polydispersed Vesicular Systems -- Molecular Dynamic Modeling of Long-Range Effect in Metals eExposed to Nanoclusters -- Classification Studies in Various Areas of Science -- Mathematical Modeling: Interdisciplinary Similarity Studies -- Model-Based Stabilization of a Fermentation Process Using Output Feedback with Discrete Time Delay -- Some Convergence Results of a Multidimensional Finite Volume Scheme for a Semilinear Parabolic Equation with a Time Delay -- STARDEX and ETCCDI Climate Indices based on E-OBS and CARPATCLIM Part One: General Description -- STARDEX and ETCCDI Climate Indices based on E-OBS and CARPATCLIM Part Two: ClimData in Use -- Global Sensitivity Analysis for a Chronic Myelogenous Leukemia Model -- Numerical Analysis of a Pollution and Environment Interaction Model -- Computer Simulation of Heat Exchange through 3D Fabric Layer -- Statistically Significant Comparative Performance Testing of Julia and Fortran Languages in Case of Runge-Kutta Methods -- A Numerical Model For Random Fibre Networks -- Front Fixing Finite Difference Method for Pricing a Corporate Bond with Credit Rating Migration -- Positivity Preserving Numerical Method for Optimal Portfolio in a Power Utility Two-dimensional Regime-Switching Model -- Effect of Ionic Strength on the Electro-Dipping Force -- Accuracy of Different Machine Learning Type Methodologies for EEG classification by diagnosis --

Alternate Overlapping Schwarz Method for Singularly Perturbed Semilinear Convection-Diffusion Problems -- On the Calculation of Electromagnetic Fields in Closed Waveguides with Inhomogeneous Filling -- Analysis of Hierarchical Compression Parallel Solver for -- Application of WRF-CMAQ Model System for Analysis of Sulfur and Nitrogen Deposition over Bulgaria -- Digital Approximations for Pseudo-Differential Equations and Error Estimates -- Some Difference Algorithms for Nonlinear Klein-Gordon Equations.

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Sommario/riassunto

This book constitutes the thoroughly refereed post-conference proceedings of the 9th International Conference on Numerical Methods and Applications, NMA 2018, held in Borovets, Bulgaria, in August 2018. The 56 revised regular papers presented were carefully reviewed and selected from 61 submissions for inclusion in this book. The papers are organized in the following topical sections: numerical search and optimization; problem-driven numerical method: motivation and application, numerical methods for fractional diffusion problems; orthogonal polynomials and numerical quadratures; and Monte Carlo and Quasi-Monte Carlo methods. .

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