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Titolo	Optimization Methods and Applications : In Honor of Ivan V. Sergienko's 80th Birthday // edited by Sergiy Butenko, Panos M. Pardalos, Volodymyr Shylo
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Descrizione fisica	1 online resource (637 pages) : illustrations, tables
Collana	Springer Optimization and Its Applications, , 1931-6836 ; ; 130
Disciplina	519.6
Soggetti	Mathematical optimization Mathematical models Mathematics Optimization Mathematical Modeling and Industrial Mathematics Applications of Mathematics
Lingua di pubblicazione	Inglese
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Nota di bibliografia	Includes bibliographical references at the end of each chapters.
Nota di contenuto	Assessment of Exporting Economies Influence on the Global Food Network(F. Aleskerov, Z. Sergeeva,S. Shvydun) -- Symmetry in DNA. Methods of Pattern Recognition Based on Hidden Markov Models (B.O. Biletskyy, A. M. Gupal) -- Local and Variable Neighborhood Searches for Solving the Capacitated Clustering Problem (J. Brimberg, N. Mladenovic, R. Todosijevic, D. Urosevic) -- On Solving an Optimization Problem with Interval Coefficients (A. Bryla). -Lexicographic Search of Optimal Solutions of Boolean Programming Problems (S. V. Chupov) -- A Model for Optimal Reinforcement of Error- and Attack-Resilient Clusters in Networks under Uncertainty (H. Dashti, P. A. Krokhmal). - Operations Research Techniques in Wildfire Fuel Management (C. P. Gillen, D. Matsypura, O.A. Prokopyev). -Evolutionary Multimodal Optimization (M.M. Glybovets, N.M. Gulayeva) -- Linear Assignment Problems in Combinatorial Optimization (B. Goldengorin,D. Krushinsky) -- The Maximum Edge Weight Clique Problem: Formulations and Solution Approaches (S. Hosseinian, D. B.M.M. Fontes, S. Butenko, M.

Buongiorno Nardelli, M. Fornari, S. Curtarolo) -- Formalization and Classification of Combinatorial Optimization Problems (L. Hulianytskyi, I. Riasna) -- Very Large-Scale Neighborhood Search for the Multidimensional Assignment Problem (A. R. Kammerdiner, C. F. Vaughan) -- Large Deviations for the Method of Empirical Means in Stochastic Optimization Problems with Continuous Time Observations (P. S. Knopov, E. J. Kasitskaya) -- Fast Simulation of Highly Reliable Networks with Varying Random External Load (N. Kuznetsov, O. Khomyak) -- Evaluation of Steady-State Probabilities of Queueing System with Infinitely Many Servers for Different Input Flow Models (I. Kuznetsov, A. Shumska) -- The Complexity of Approximation Reoptimization Algorithms for Discrete Optimization (V. A. Mikhailyuk) -- B&B Solution Technique for Multicriteria Stochastic Optimization Problems (V. I. Norkin). -Electricity Market Structure and Pricing Analyses (P.M. Pardalos, A. Singh, W. Wang). -Fuzzy Models in the Tasks of Pattern Recognition (O. I. Provotar). -Parallel Multi-Start Non-Dominated Sorting Particle Swarm Optimization Algorithms for the Minimization of the Route-Based Fuel Consumption of Multiobjective Vehicle Routing Problems (I. Psychas, M. Marinaki, Y. Marinakis, A. Migdalas) -- Conditions of Pareto Optimization Problems Solvability. Stable and Unstable Solvability (T. I. Sergienko) -- Data Transfer Optimization in the Information Efficient Sensory, Local-Regional and Microsatellite Wireless Networks (B. M. Shevchuk, V. K. Zadiraka, S.V. Fraier) -- Algorithm Portfolios and Teams in Parallel Optimization (V. P. Shylo, O.V. Shylo). -Shor's r-Algorithms: Theory and Practice (P. I. Stetsyuk). -Placement Problems for Irregular Objects: Mathematical Modeling, Optimization and Applications (Y. Stoyan, A. Pankratov, T. Romanova) -- On Non-integer Submodular Set Cover Problem (W. Wu, G. Tong, D. Du). - Convex Extensions in Combinatorial Optimization and their Applications (S. Yakovlev) -- Method of Artificial Control and the 3D Navier-Stokes System (M. Z. Zgurovsky, P. O. Kasyanov) -- A New Approach to the Optimization of Composition and Processing Parameters for Alloy Development (G. Zrazhevsky, A. Golodnikov, S. Uryasev, A. Zrazhevsky).

Sommario/riassunto

Researchers and practitioners in computer science, optimization, operations research and mathematics will find this book useful as it illustrates optimization models and solution methods in discrete, non-differentiable, stochastic, and nonlinear optimization. Contributions from experts in optimization are showcased in this book showcase a broad range of applications and topics detailed in this volume, including pattern and image recognition, computer vision, robust network design, and process control in nonlinear distributed systems. This book is dedicated to the 80th birthday of Ivan V. Sergienko, who is a member of the National Academy of Sciences (NAS) of Ukraine and the director of the V.M. Glushkov Institute of Cybernetics. His work has had a significant impact on several theoretical and applied aspects of discrete optimization, computational mathematics, systems analysis and mathematical modeling. .
