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Collana	Theoretical Computer Science and General Issues, , 2512-2029 ; ; 4510
Disciplina	658.53
Soggetti	Artificial intelligence Numerical analysis Computer science - Mathematics Discrete mathematics Algorithms Operations research Artificial Intelligence Numerical Analysis Discrete Mathematics in Computer Science Operations Research and Decision Theory Discrete Mathematics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Minimum Cardinality Matrix Decomposition into Consecutive-Ones Matrices: CP and IP Approaches -- Connections in Networks: Hardness of Feasibility Versus Optimality -- Modeling the Regular Constraint with Integer Programming -- Hybrid Local Search for Constrained Financial Portfolio Selection Problems -- The "Not-Too-Heavy Spanning Tree" Constraint -- Eliminating Redundant Clauses in SAT Instances -- Cost-Bounded Binary Decision Diagrams for 0-1 Programming -- YIELDS: A

Yet Improved Limited Discrepancy Search for CSPs -- A Global Constraint for Total Weighted Completion Time -- Computing Tight Time Windows for RCPSPWET with the Primal-Dual Method -- Necessary Condition for Path Partitioning Constraints -- A Constraint Programming Approach to the Hospitals / Residents Problem -- Best-First AND/OR Search for 0/1 Integer Programming -- A Position-Based Propagator for the Open-Shop Problem -- Directional Interchangeability for Enhancing CSP Solving -- A Continuous Multi-resources cumulative Constraint with Positive-Negative Resource Consumption-Production -- Replenishment Planning for Stochastic Inventory Systems with Shortage Cost -- Preprocessing Expression-Based Constraint Satisfaction Problems for Stochastic Local Search -- The Deviation Constraint -- The Linear Programming Polytope of Binary Constraint Problems with Bounded Tree-Width -- On Boolean Functions Encodable as a Single Linear Pseudo-Boolean Constraint -- Solving a Stochastic Queueing Control Problem with Constraint Programming -- Constrained Clustering Via Concavity Cuts -- Bender's Cuts Guided Large Neighborhood Search for the Traveling Umpire Problem -- A Large Neighborhood Search Heuristic for Graph Coloring -- Generalizations of the Global Cardinality Constraint for Hierarchical Resources -- A Column Generation Based Destructive Lower Bound for Resource Constrained Project Scheduling Problems.

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#### Sommario/riassunto

This book constitutes the refereed proceedings of the 4th International Conference on Integration of AI and OR Techniques in Constraint Programming for Combinatorial Optimization Problems, CPAIOR 2007, held in Brussels, Belgium in May 2007. The 27 revised full papers presented were carefully reviewed and selected from 80 submissions. Methodological and foundational issues from AI, OR, and algorithmics are presented as well as applications to the solution of combinatorial optimization problems in various fields via constraint programming.

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