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Disciplina	005.11
Soggetti	Numerical analysis Computer science - Mathematics Discrete mathematics Artificial intelligence Algorithms Operating systems (Computers) Artificial intelligence - Data processing Numerical Analysis Discrete Mathematics in Computer Science Artificial Intelligence Operating Systems Data Science
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Time-bounded Query Generator for Constraint Acquisition -- Propagating lex, Find and Replace with Dashed Strings -- Designing Fair, Efficient, and Interpretable Policies for Prioritizing Homeless Youth for Housing Resources -- An Efficient Relaxed Projection Method for Constrained Non-negative Matrix Factorization with Application to the Phase-Mapping Problem in Materials Science -- Dealing with Demand

Uncertainty in Service Network and Load Plan Design -- Energy-Aware Production Scheduling with Power-Saving Modes -- Episode Support: A Global Constraint for Mining Frequent Patterns in A Long Sequence of Events -- Off-line and on-line Optimization Under Uncertainty: A Case Study on Energy Management -- Reasoning on Sequences in Constraint-Based Local Search Frameworks -- Guiding Constraint Programming with Hot Starts for High School Timetabling -- Epiphytic Trees: Relational Consistency Applied to Global Optimization Problems -- Learning Heuristics for the TSP by Policy Gradient -- Three-Dimensional Matching Instances Are Rich in Stable Matchings -- From Backdoor Key to Backdoor Completeness: Improving a Known Measure of Hardness for the Satisfiable CSP -- Constrained-based Differential Privacy: Releasing Optimal Power Flow Benchmarks Privately -- Chasing First Queens by Integer Programming -- Accelerating Counting-Based Search -- Model Agnostic Solution of CSPs via Deep Learning: A Preliminary Study -- Boosting Efficiency for Computing the Pareto Frontier on Tree Structured Networks -- Bandits Help Simulated Annealing to Complete a Maximin Latin Hypercube Design -- A Dynamic Discretization Discovery Algorithm for the Minimum Duration Time-Dependent Shortest Path Problem -- Observations from Parallelising Three Maximum Common (Connected) Subgraph Algorithms -- Horizontally Elastic Not-First/Not-Last Filtering Algorithm for Cumulative Resource Constraint -- Soft-regular with a Prefix-size Violation Measure -- Constraint and Mathematical Programming for Integrated Port Container Terminal Operations -- Heuristic Variants for A* Search in 3D Flight Planning -- Juniper: An Open-Source Nonlinear Branch-and-Bound Solver in Julia -- Objective Landscapes for Constraint Programming -- An Update on the Comparison of MIP, CP and Hybrid Approaches for Mixed Resource Allocation and Scheduling -- Modeling and Solving the Senior Transportation Problem -- Solver Independent Rotating Workforce Scheduling -- Greedy Randomized Search for Scalable Compilation of Quantum Circuits -- A Comparison of Optimization Methods for Multi-Objective Constrained Bin Packing Problems -- A $O(n \log^2 n)$ Checker and $O(n^2 \log n)$ Filtering Algorithm for the Energetic Reasoning -- The Weighted Circuits LMax Constraint -- A Local Search Framework for Compiling Relaxed Decision Diagrams -- Symmetry Breaking Inequalities from the Schreier-Sims table -- Frequency-based Multi-agent Patrolling Model and Its Area Partitioning Solution Method for Balanced Workload -- Algorithms for Sparse k-Monotone Regression -- Revisiting the Self-Adaptive Large Neighbourhood Search -- A Warning Propagation-Based Linear-Time-and-Space Algorithm for the Minimum Vertex Cover Problem on Giant Graphs -- Symbolic Bucket Elimination for Piecewise Continuous Constrained Optimization -- Learning a Classification of Mixed-Integer Quadratic Programming Problems -- Fleet Scheduling in Underground Mines using Constraint Programming.

Sommario/riassunto

This book constitutes the proceedings of the 15th International Conference on Integration of Artificial Intelligence and Operations Research Techniques in Constraint Programming for Combinatorial Optimization Problems, CPAIOR 2018, held in Delft, The Netherlands, in June 2018. The 47 full papers presented together with 3 abstracts of invited talks and 3 abstracts of fast-track journal papers were carefully reviewed and selected from 111 submissions. The conference brings together interested researchers from constraint programming, artificial intelligence, and operations research to present new techniques or applications in the intersection of these fields and provides an opportunity for researchers in one area to learn about techniques in the others, and to show how the integration of techniques from different

fields can lead to interesting results on large and complex problems.
