1. Record Nr. UNISA996465781903316

Titolo	Integration of AI and OR Techniques in Constraint Programming [[electronic resource]] : 13th International Conference, CPAIOR 2016, Banff, AB, Canada, May 29 - June 1, 2016, Proceedings / / edited by Claude-Guy Quimper
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2016
ISBN	3-319-33954-0
Edizione	[1st ed. 2016.]
Descrizione fisica	1 online resource (XIX, 421 p. 123 illus.)
Collana	Theoretical Computer Science and General Issues, , 2512-2029 ; ; 9676
Disciplina	005.116
Soggetti	Numerical analysis Computer science—Mathematics Discrete mathematics Algorithms Artificial intelligence Operations research Management science Numerical Analysis Mathematical Applications in Computer Science Discrete Mathematics in Computer Science Artificial Intelligence Operations Research, Management Science
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	On CNF Encodings for Decision Diagrams -- Time-Series Constraints: Improvements and Application in CP and MIP Contexts -- Finding a Collection of MUSes Incrementally -- Decompositions Based on Decision Diagrams -- Logic-Based Decomposition Methods for the Travelling Purchaser Problem -- Lagrangian Decomposition via Subproblem Search -- Non-linear Optimization of Business Models in the Electricity Market -- Weighted Spanning Tree Constraint with Explanations -- Forward-Checking ltering for Nested Cardinality

Constraints: Application to an Energy Cost Aware Production Planning Problem for Tissue Manufacturing -- Cyclic Routing of Unmanned Aerial Vehicles -- Parallelizing Constraint Programming with Learning -- Parallel Composition of Scheduling Solvers -- Rail Capacity Planning With Constraint Programming -- Scheduling Home Hospice Care with Logic-Based Benders Decomposition -- A Global Constraint for Mining Sequential Patterns with GAP Constraint -- A Reservoir Balancing Constraint with Applications to Bike-Sharing -- Optimization Models for a Real-World Snow Plow Routing Problem -- The TASKINTERSECTION Constraint -- A Stochastic Continuous Optimization Backend for MiniZinc with Applications to Geometrical Placement Problems -- Constructions and In-place Operations for MDDs Based Constraints -- Balancing Nursing Workload by Constraint Programming -- Designing Spacecraft Command Loops Using Two-Dimension Vehicle Routing -- Constraint Programming Approach for Spatial Packaging Problem -- Detecting Semantic Groups in MIP Models -- Revisiting Two-Sided Stability Constraints -- Optimal Flood Mitigation over Flood Propagation Approximations -- A Bit-Vector Solver with Word Level Propagation -- A New Solver for the Minimum Weighted Vertex Cover Problem -- Optimal Upgrading Schemes for Eective Shortest Paths in Networks.

Sommario/riassunto

This book constitutes the proceedings of the 13th International Conference on Integration of Artificial Intelligence and Operations Research Techniques in Constraint Programming for Combinatorial Optimization Problems, CPAIOR 2016, held in Banff, Canada, in May/June 2016. The 21 full papers presented together with 8 short papers were carefully reviewed and selected from 51 submissions. The conference brings together interested researchers from constraint programming, artificial intelligence, and operations research to present new techniques or applications in combinatorial optimization 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.