

1. Record Nr.	UNISA996466268603316
Titolo	Integration of AI and OR Techniques in Constraint Programming for Combinatorial Optimization Problems [[electronic resource] ] : 6th International Conference, CPAIOR 2009 Pittsburgh, PA, USA, May 27-31, 2009 Proceedings // edited by Willem-Jan van Hoeve, John N. Hooker
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 2009
ISBN	3-642-01929-3
Edizione	[1st ed. 2009.]
Descrizione fisica	1 online resource (XI, 332 p.)
Collana	Theoretical Computer Science and General Issues, , 2512-2029 ; ; 5547
Disciplina	518
Soggetti	Numerical analysis Computer science—Mathematics Discrete mathematics Algorithms Artificial intelligence Operations research Numerical Analysis Discrete Mathematics in Computer Science Artificial Intelligence Operations Research and Decision Theory Discrete Mathematics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	International conference proceedings.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Invited Talks -- Machine Learning Framework for Classification in Medicine and Biology -- G12 - Towards the Separation of Problem Modelling and Problem Solving -- Regular Papers -- Six Ways of Integrating Symmetries within Non-overlapping Constraints -- Throughput Constraint for Synchronous Data Flow Graphs -- A Shortest Path-Based Approach to the Multileaf Collimator Sequencing Problem -- Backdoors to Combinatorial Optimization: Feasibility and Optimality -- Solution Enumeration for Projected Boolean Search Problems -- k-Clustering Minimum Biclique Completion via a Hybrid CP and SDP

Approach -- Optimal Interdiction of Unreactive Markovian Evaders -- Using Model Counting to Find Optimal Distinguishing Tests -- Reformulating Global Grammar Constraints -- IBM ILOG CP Optimizer for Detailed Scheduling Illustrated on Three Problems -- Open Constraints in a Boundable World -- Sequencing and Counting with the multicost-regular Constraint -- Bandwidth-Limited Optimal Deployment of Eventually-Serializable Data Services -- Tightening the Linear Relaxation of a Mixed Integer Nonlinear Program Using Constraint Programming -- The Polytope of Context-Free Grammar Constraints -- Determining the Number of Games Needed to Guarantee an NHL Playoff Spot -- Scalable Load Balancing in Nurse to Patient Assignment Problems -- Learning How to Propagate Using Random Probing -- DFS\* and the Traveling Tournament Problem -- Max Energy Filtering Algorithm for Discrete Cumulative Resources -- Extended Abstracts -- Hybrid Branching -- Constraint Programming and Mixed Integer Linear Programming for Rescheduling Trains under Disrupted Operations -- Constraint Models for Sequential Planning -- A Fast Algorithm to Solve the Frequency Assignment Problem -- A Hybrid LS/CP Approach to Solve the Weekly Log-Truck Scheduling Problem -- Modelling Search Strategies in Rules2CP -- CP-INSIDE: Embedding Constraint-Based Decision Engines in Business Applications -- An Integrated Genetic Algorithm and Integer Programming Approach to the Network Design Problem with Relays -- A Benders' Approach to a Transportation Network Design Problem -- Progress on the Progressive Party Problem.

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#### Sommario/riassunto

This book constitutes the refereed proceedings of the 6th International Conference on Integration of AI and OR Techniques in Constraint Programming for Combinatorial Optimization Problems, CPAIOR 2009, held in Pittsburgh, PA, USA, in May 2009. The 20 revised full papers and 10 extended abstracts presented together with 2 invited talks were carefully reviewed and selected from 65 submissions. The papers describe current research in the fields of constraint programming, artificial intelligence, and operations research and present new techniques or new applications in combinatorial optimization, thus exploring ways of solving large-scale, practical optimization problems through integration and hybridization of the fields' different techniques.

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