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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Invited Lecture -- Back to the Complexity of Universal Programs -- Applications Track Long Papers -- A Constraint Programming Approach for Allocation and Scheduling on the CELL Broadband Engine -- Planning and Scheduling the Operation of a Very Large Oil Pipeline Network -- Search Strategies for Rectangle Packing -- Solving a Telecommunications Feature Subscription Configuration Problem -- Protein Structure Prediction with Large Neighborhood Constraint Programming Search -- An Application of Constraint Programming to Superblock Instruction Scheduling -- Research Track Long Papers -- Classes of Submodular Constraints Expressible by Graph Cuts -- Optimization of Simple Tabular Reduction for Table Constraints -- Universal Booleanization of Constraint Models -- Flow-Based Propagators for the SEQUENCE and Related Global Constraints -- Guiding Search in QCSP?+? with Back-Propagation -- A New Framework for Sharp and Efficient Resolution of NCSP with Manifolds of Solutions -- A Branch and Bound Algorithm for Numerical MAX-CSP -- A Geometric Constraint over k-Dimensional Objects and Shapes Subject to Business Rules -- Cost-Based Domain Filtering for Stochastic Constraint Programming -- Dichotomic Search Protocols for Constrained Optimization -- Length-Lex Bounds Consistency for Knapsack Constraints -- A Framework for Hybrid Tractability Results in Boolean Weighted Constraint Satisfaction Problems -- From High Girth

Graphs to Hard Instances -- Switching among Non-Weighting, Clause Weighting, and Variable Weighting in Local Search for SAT -- CPBPV: A Constraint-Programming Framework for Bounded Program Verification -- Exploiting Common Subexpressions in Numerical CSPs -- A Soft Constraint of Equality: Complexity and Approximability -- Structural Tractability of Propagated Constraints -- Connecting ABT with Arc Consistency -- Elicitation Strategies for Fuzzy Constraint Problems with Missing Preferences: Algorithms and Experimental Studies -- Reformulating Positive Table Constraints Using Functional Dependencies -- Relaxations for Compiled Over-Constrained Problems -- Approximate Compilation of Constraints into Multivalued Decision Diagrams -- Quantified Constraint Optimization -- Exploiting Decomposition in Constraint Optimization Problems -- A Coinduction Rule for Entailment of Recursively Defined Properties -- Maintaining Generalized Arc Consistency on Ad Hoc r-Ary Constraints -- Research Track Short Papers -- Perfect Constraints Are Tractable -- Efficiently Solving Problems Where the Solutions Form a Group -- Approximate Solution Sampling (and Counting) on AND/OR Spaces -- Model Restarts for Structural Symmetry Breaking -- An Elimination Algorithm for Functional Constraints -- Crossword Puzzles as a Constraint Problem -- Recent Hybrid Techniques for the Multi-Knapsack Problem -- Edge Matching Puzzles as Hard SAT/CSP Benchmarks -- Test Strategy Generation Using Quantified CSPs -- Perfect Derived Propagators -- Refined Bounds for Instance-Based Search Complexity of Counting and Other #P Problems -- Transforming Inconsistent Subformulas in MaxSAT Lower Bound Computation -- Semi-automatic Generation of CHR Solvers for Global Constraints -- Stochastic Local Search for the Optimal Winner Determination Problem in Combinatorial Auctions -- Revisiting the Upper Bounding Process in a Safe Branch and Bound Algorithm -- Computing All Optimal Solutions in Satisfiability Problems with Preferences -- On the Efficiency of Impact Based Heuristics -- Probabilistically Estimating Backbones and Variable Bias: Experimental Overview -- A New Empirical Study of Weak Backdoors -- Adding Search to Zinc -- Experimenting with Small Changes in Conflict-Driven Clause Learning Algorithms -- Search Space Reduction for Constraint Optimization Problems -- Engineering Stochastic Local Search for the Low Autocorrelation Binary Sequence Problem.

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### Sommario/riassunto

This book constitutes the refereed proceedings of the 14th International Conference on Principles and Practice of Constraint Programming, CP 2008, Sydney, Australia, September, 2008. The 27 revised full papers and 23 revised short papers presented together with 6 application papers and the abstracts of one invited lecture were carefully reviewed and selected from 120 submissions. All current issues of computing with constraints are addressed, ranging from methodological and foundational aspects - using algorithms, environments, languages, models and systems - to solving real-world problems in various application fields.

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