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Altri autori (Persone)	CohenDavid
Disciplina	005.1/16
Soggetti	Software engineering Computer programming Compilers (Computer programs) Algorithms Machine theory Computer science Software Engineering Programming Techniques Compilers and Interpreters Formal Languages and Automata Theory Computer Science Logic and Foundations of Programming
Lingua di pubblicazione	Inglese
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Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Invited Talks -- SAT Modulo Theories: Getting the Best of SAT and Global Constraint Filtering -- Constraint-Directed Search in Computational Finance and Economics -- Constraints, Graphs, Algebra, Logic, and Complexity -- Distinguished Papers -- Testing Expressibility Is Hard -- Applying Constraint Programming to Identification and Assignment of Service Professionals -- Computing the Density of States of Boolean Formulas -- Research Track -- Towards Parallel Non Serial Dynamic Programming for Solving Hard

Weighted CSP -- Making Adaptive an Interval Constraint Propagation Algorithm Exploiting Monotonicity -- Improving the Performance of maxRPC -- Checking-Up on Branch-and-Check -- Spatial, Temporal, and Hybrid Decompositions for Large-Scale Vehicle Routing with Time Windows -- Decomposition of the NValue Constraint -- Propagating the Bin Packing Constraint Using Linear Programming -- Sweeping with Continuous Domains -- A New Hybrid Tractable Class of Soft Constraint Problems -- A Propagator for Maximum Weight String Alignment with Arbitrary Pairwise Dependencies -- Using Learnt Clauses in maxsat -- Domain Consistency with Forbidden Values -- Generating Special-Purpose Stateless Propagators for Arbitrary Constraints -- Including Ordinary Differential Equations Based Constraints in the Standard CP Framework -- Structural Tractability of Enumerating CSP Solutions -- Diversification and Intensification in Parallel SAT Solving -- A Systematic Approach to MDD-Based Constraint Programming -- A Complete Multi-valued SAT Solver -- Exact Cover via Satisfiability: An Empirical Study -- On the Complexity and Completeness of Static Constraints for Breaking Row and Column Symmetry -- Ensemble Classification for Constraint Solver Configuration -- On Testing Constraint Programs -- On the Containment of Forbidden Patterns Problems -- Improving the Floating Point Addition and Subtraction Constraints -- The Lattice Structure of Sets of Surjective Hyper-Operations -- Constraint Based Scheduling to Deal with Uncertain Durations and Self-Timed Execution -- Local Consistency and SAT-Solvers -- Heuristics for Planning with SAT -- Value-Ordering Heuristics: Search Performance vs. Solution Diversity -- A New Not-First/Not-Last Pruning Algorithm for Cumulative Resource Constraints -- A Generic Visualization Platform for CP -- Database Constraints and Homomorphism Dualities -- A Box-Consistency Contractor Based on Extremal Functions -- Exponential Propagation for Set Variables -- Applications Track -- An Empirical Study of Optimization for Maximizing Diffusion in Networks -- An Integrated Modelling, Debugging, and Visualisation Environment for G12 -- Global Constraints on Feature Models -- Constraint Programming for Mining n-ary Patterns -- An Integrated Business Rules and Constraints Approach to Data Centre Capacity Management -- Context-Sensitive Call Control Using Constraints and Rules -- Load Balancing and Almost Symmetries for RAMBO Quorum Hosting -- Testing Continuous Double Auctions with a Constraint-Based Oracle -- A Safe and Flexible CP-Based Approach for Velocity Tuning Problems -- Contingency Plans for Air Traffic Management.

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## Sommario/riassunto

The 16th annual International Conference on the Principles and Practice of Constraint Programming (CP 2010) was held in St. Andrews, Scotland, during September 6–10, 2010. We would like to thank our sponsors for their generous support of this event. This conference is concerned with all aspects of computing with constraints, including: theory, algorithms, applications, environments, languages, models and systems. We received a wide variety of submissions, each of which was reviewed by at least three referees. Referees were chosen for each submission by an initial bidding process where Program Committee members chose papers from their area of interest. The range of expertise represented by the large Program Committee meant that almost all submissions were reviewed by subject experts on the Program Committee, or by colleagues chosen by members of the Program Committee for their particular expertise. Papers were solicited either as long (15 page), or short (8 page) submissions. Short-paper submissions were refereed to exactly the same high standards as long-paper submissions but naturally were expected to

contain a smaller quantity of new material. Thus there is no distinction in these proceedings between short and long papers. I used the excellent EasyChair conference management system to support this process of reviewing, and for the collation and organization of these proceedings. Submissions were made either to the applications track or to the research track. There were 101 (23 short) research track submissions of which 36 (8 short) were accepted, which is a 36% (35% of short) acceptance rate. Application track submissions received special consideration and the acceptance rate was significantly higher than for the research track.

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