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Altri autori (Persone)	BiereArmin GomesCarla
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Nota di contenuto	Invited Talks -- From Propositional Satisfiability to Satisfiability Modulo Theories -- CSPs: Adding Structure to SAT -- Session 1. Proofs and Cores -- Complexity of Semialgebraic Proofs with Restricted Degree of Falsity -- Categorisation of Clauses in Conjunctive Normal Forms: Minimally Unsatisfiable Sub-clause-sets and the Lean Kernel -- A Scalable Algorithm for Minimal Unsatisfiable Core Extraction -- Minimum Witnesses for Unsatisfiable 2CNFs -- Preliminary Report on Input Cover Number as a Metric for Propositional Resolution Proofs -- Extended Resolution Proofs for Symbolic SAT Solving with

Quantification -- Session 2. Heuristics and Algorithms -- Encoding CNFs to Empower Component Analysis -- Satisfiability Checking of Non-clausal Formulas Using General Matings -- Determinization of Resolution by an Algorithm Operating on Complete Assignments -- A Complete Random Jump Strategy with Guiding Paths -- Session 3. Applications -- Applications of SAT Solvers to Cryptanalysis of Hash Functions -- Functional Treewidth: Bounding Complexity in the Presence of Functional Dependencies -- Encoding the Satisfiability of Modal and Description Logics into SAT: The Case Study of K(m)/ -- SAT in Bioinformatics: Making the Case with Haplotype Inference -- Session 4. SMT -- Lemma Learning in SMT on Linear Constraints -- On SAT Modulo Theories and Optimization Problems -- Fast and Flexible Difference Constraint Propagation for DPLL(T) -- A Progressive Simplifier for Satisfiability Modulo Theories -- Session 5. Structure -- Dependency Quantified Horn Formulas: Models and Complexity -- On Linear CNF Formulas -- A Dichotomy Theorem for Typed Constraint Satisfaction Problems -- Session 6. MAX-SAT -- A Complete Calculus for Max-SAT -- On Solving the Partial MAX-SAT Problem -- MAX-SAT for Formulas with Constant ClauseDensity Can Be Solved Faster Than in Time -- Average-Case Analysis for the MAX-2SAT Problem -- Session 7. Local Search and Survey Propagation -- Local Search for Unsatisfiability -- Efficiency of Local Search -- Implementing Survey Propagation on Graphics Processing Units -- Characterizing Propagation Methods for Boolean Satisfiability -- Session 8. QBF -- Minimal False Quantified Boolean Formulas -- Binary Clause Reasoning in QBF -- Solving Quantified Boolean Formulas with Circuit Observability Don’t Cares -- QBF Modeling: Exploiting Player Symmetry for Simplicity and Efficiency -- Session 9. Counting and Concurrency -- Solving #SAT Using Vertex Covers -- Counting Models in Integer Domains -- sharpSAT – Counting Models with Advanced Component Caching and Implicit BCP -- A Distribution Method for Solving SAT in Grids.

Sommario/riassunto

This book constitutes the refereed proceedings of the 9th International Conference on Theory and Applications of Satisfiability Testing, SAT 2006. The book presents 26 revised full papers together with 11 revised short papers and 2 invited talks. Coverage extends to all current research issues in propositional and quantified Boolean formula satisfiability testing. The papers are organized in topical sections on proofs and cores, heuristics and algorithms, and more.