1. Record Nr. UNINA9910484284303321 Automated deduction - CADE-21: 21st International Conference on **Titolo** Automated Deduction, Bremen, Germany, July 17-20, 2007: proceedings / / Frank Pfenning Berlin, Germany;; New York, New York:,: Springer,, [2007] Pubbl/distr/stampa ©2007 **ISBN** 3-540-73595-X Edizione [1st ed. 2007.] Descrizione fisica 1 online resource (XII, 524 p.) Collana Lecture notes in computer science, , 0302-9743 ; ; 4603. Lecture notes in artificial intelligence Disciplina 511.3 Soggetti Automatic theorem proving Logic, Symbolic and mathematical Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Bibliographic Level Mode of Issuance: Monograph Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Session 1. Invited Talk: Colin Stirling -- Games, Automata and Matching -- Session 2. Higher-Order Logic -- Formalization of Continuous Probability Distributions -- Compilation as Rewriting in Higher Order Logic -- Barendregt's Variable Convention in Rule Inductions -- Automating Elementary Number-Theoretic Proofs Using Gröbner Bases -- Session 3. Description Logic -- Optimized Reasoning in Description Logics Using Hypertableaux -- Conservative Extensions in the Lightweight Description Logic -- An Incremental Technique for Automata-Based Decision Procedures -- Session 4. Intuitionistic Logic -- Bidirectional Decision Procedures for the Intuitionistic Propositional Modal Logic IS4 -- A Labelled System for IPL with Variable Splitting --Session 5. Invited Talk: Ashish Tiwari -- Logical Interpretation: Static Program Analysis Using Theorem Proving -- Session 6. Satisfiability Modulo Theories -- Solving Quantified Verification Conditions Using Satisfiability Modulo Theories -- Efficient E-Matching for SMT Solvers -- - Decision by Decomposition -- Towards Efficient Satisfiability Checking for Boolean Algebra with Presburger Arithmetic -- Session 7. Induction, Rewriting, and Polymorphism -- Improvements in Formula

Generalization -- On the Normalization and Unique Normalization Properties of Term Rewrite Systems -- Handling Polymorphism in

Automated Deduction -- Session 8. First-Order Logic -- Automated Reasoning in Kleene Algebra -- SRASS - A Semantic Relevance Axiom Selection System -- Labelled Clauses -- Automatic Decidability and Combinability Revisited -- Session 9. Invited Talk: K. Rustan M. Leino -- Designing Verification Conditions for Software -- Session 10. Model Checking and Verification -- Encodings of Bounded LTL Model Checking in Effectively Propositional Logic -- Combination Methods for Satisfiability and Model-Checking of Infinite-State Systems -- The KeY system 1.0 (Deduction Component) -- KeY-C: A Tool for Verification of C Programs -- The Bedwyr System for Model Checking over Syntactic Expressions -- System for Automated Deduction (SAD): A Tool for Proof Verification -- Session 11. Invited Talk: Peter Baumgartner -- Logical Engineering with Instance-Based Methods -- Session 12. Termination -- Predictive Labeling with Dependency Pairs Using SAT -- Dependency Pairs for Rewriting with Non-free Constructors -- Proving Termination by Bounded Increase -- Certified Size-Change Termination -- Session 13. Tableaux and First-Order Systems -- Encoding First Order Proofs in SAT -- Hyper Tableaux with Equality -- System Description: E-KRHyper -- System Description: Spass Version 3.0.