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Titolo	Automated Deduction - CADE-21 : 21st International Conference on Automated Deduction, Bremen, Germany, July 17-20, 2007, Proceedings / / edited by Frank Pfenning
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Descrizione fisica	1 online resource (XII, 524 p.)
Collana	Lecture Notes in Artificial Intelligence, , 2945-9141 ; ; 4603
Disciplina	511.3
Soggetti	Artificial intelligence Machine theory Computer science Software engineering Artificial Intelligence Formal Languages and Automata Theory Computer Science Logic and Foundations of Programming Software Engineering
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.

Sommario/riassunto

A veritable one-stop-shop for anyone looking to get up to speed on
 what is going down in the field of automated deduction right now. This
 book contains the refereed proceedings of the 21st International
 Conference on Automated Deduction, CADE-21, held in Bremen,
 Germany, in July 2007. The 28 revised full papers and 6 system
 descriptions presented were selected from 64 submissions. All current
 aspects of automated deduction are addressed, ranging from
 theoretical and methodological issues to presentation and evaluation of
 theorem provers and logical reasoning systems.
