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   Nota di contenuto   A theorem prover for a computational logic -- A complete semantic back chaining proof system -- Parallelizing the closure computation in automated deduction -- Partheo: A high-performance parallel theorem prover -- Substitution-based compilation of extended rules in deductive databases -- Automatic theorem proving in paraconsistent logics: Theory and implementation -- Case-free programs: An abstraction of definite horn programs -- Generalized well-founded semantics for logic programs -- Tactical theorem proving in program verification -- Extensions to the rippling-out tactic for guiding inductive proofs -- Guiding induction proofs -- Term rewriting induction -- A resolution principle for clauses with constraints -- Str+ve: The Str+ve-based subset prover -- Ritt-Wu's decomposition algorithm and geometry theorem proving -- Encoding a dependent-type ?-calculus in a logic programming language -- Investigations into proof-search in a system of first-order dependent function types -- Equality of terms containing associative-commutative functions and commutative binding operators is isomorphism complete -- An improved general E-unification method -- Some results on equational unification -- Unification in a combination of equational theories: an

efficient algorithm -- SLIM: An automated reasoner for equivalences, applied to set theory -- An examination of the prolog technology theorem-prover -- Presenting intuitive deductions via symmetric simplification -- Toward mechanical methods for streamlining proofs -- Ordered rewriting and confluence -- Complete sets of reductions with constraints -- Rewrite systems for varieties of semigroups -- Improving associative path orderings -- Perspectives on automated deduction -- On restrictions of ordered paramodulation with simplification -- Simultaneous paramodulation -- Hyper resolution and equality axioms without function substitutions -- Automatic acquisition of search guiding heuristics -- Automated reasoning contributes to mathematics and logic -- A mechanically assisted constructive proof in category theory -- Dynamic logic as a uniform framework for theorem proving in intensional logic -- A tableaux-based theorem prover for a decidable subset of default logic -- Computing prime implicants -- Minimizing the number of clauses by renaming -- Higher order E-unification -- Programming by example and proving by example using higher-order unification -- Retrieving library identifiers via equational matching of types -- Unification in monoidal theories -- A science of reasoning: Extended abstract -- The TPS theorem proving system -- Schemata -- Cylindric algebra equation solver -- The OYSTER-CLAM system -- A high-performance parallel theorem prover -- The romulus proof checker -- IMPS : An interactive mathematical proof system -- UNICOM: A refined completion based inductive theorem prover -- The theorem prover of the program verifier Tatzelwurm -- RCL: A lisp verification system -- Orme an implementation of completion procedures as sets of transitions rules -- Otter 2.0 -- Dissolver: A dissolution-based theorem prover -- TRIP: An implementation of clausal rewriting -- OSCAR -- Expert thinker: An adaptation of F-Prolog to microcomputers -- A prolog technology theorem prover -- A general clause theorem prover -- Liss — The logic inference search system -- ACE: The abstract clause engine -- Tutorial on high-performance automated theorem proving -- Tutorial on reasoning and representation with concept languages -- Tutorial on ?Prolog -- Tutorial on equational unification -- Tutorial on compilation techniques for logics -- Tutorial on high-performance theorem provers: Efficient implementation and parallelisation -- Tutorial on rewrite-based theorem proving -- Tutorial on program-synthetic deduction -- Tutorial on computing models of propositional logics.

Sommario/riassunto	This volume contains the papers presented at the 10th International Conference on Automated Deduction (CADE-10). CADE is the major forum at which research on all aspects of automated deduction is presented. Although automated deduction research is also presented at more general artificial intelligence conferences, the CADE conferences have no peer in the concentration and quality of their contributions to this topic. The papers included range from theory to implementation and experimentation, from propositional to higher-order calculi and nonclassical logics; they refine and use a wealth of methods including resolution, paramodulation, rewriting, completion, unification and induction; and they work with a variety of applications including program verification, logic programming, deductive databases, and theorem proving in many domains. The volume also contains abstracts of 20 implementations of automated deduction systems. The authors of about half the papers are from the United States, many are from Western Europe, and many too are from the rest of the world. The proceedings of the 5th, 6th, 7th, 8th and 9th CADE conferences are published as Volumes 87, 138, 170, 230, 310 in the series Lecture Notes in Computer Science.