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Collana	Lecture Notes in Computer Science, , 0302-9743 ; ; 355
Disciplina	511.3
Soggetti	Mathematical logic Computer science—Mathematics Programming languages (Electronic computers) Algorithms Artificial intelligence Mathematical Logic and Foundations Mathematical Logic and Formal Languages Symbolic and Algebraic Manipulation Programming Languages, Compilers, Interpreters Algorithm Analysis and Problem Complexity Artificial Intelligence
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Formato	Materiale a stampa
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Nota di contenuto	Term rewriting and universal algebra in historical perspective -- Characterizations of unification type zero -- Proof normalization for resolution and paramodulation -- Complete sets of reductions modulo associativity, commutativity and identity -- Completion-time optimization of rewrite-time goal solving -- Computing ground reducibility and inductively complete positions -- Inductive proofs by specification transformations -- Narrowing and unification in functional programming —An evaluation mechanism for absolute set abstraction -- Simulation of Turing machines by a left-linear rewrite rule -- Higher-order unification with dependent function types -- An overview of LP, the Larch Prover -- Graph grammars, a new paradigm for

implementing visual languages -- Termination proofs and the length of derivations -- Abstract rewriting with concrete operators -- On how to move mountains 'associatively and commutatively' -- Generalized Gröbner bases: Theory and applications. A condensation -- A local termination property for term rewriting systems -- An equational logic sampler -- Modular aspects of properties of term rewriting systems related to normal forms -- Priority rewriting: Semantics, confluence, and conditionals -- Negation with logical variables in conditional rewriting -- Algebraic semantics and complexity of term rewriting systems -- Optimization by non-deterministic, lazy rewriting -- Combining matching algorithms: The regular case -- Restrictions of congruences generated by finite canonical string-rewriting systems -- Embedding with patterns and associated recursive path ordering -- Rewriting techniques for program synthesis -- Transforming strongly sequential rewrite systems with constructors for efficient parallel execution -- Efficient ground completion -- Extensions and comparison of simplification orderings -- Classes of equational programs that compile into efficient machine code -- Fair termination is decidable for ground systems -- Termination for the direct sum of left-linear term rewriting systems -- Conditional rewrite rule systems with built-in arithmetic and induction -- Consider only general superpositions in completion procedures -- Solving systems of linear diophantine equations and word equations -- SbReve2: A term rewriting laboratory with (AC)-unfailing completion -- THEOPOGLES — An efficient theorem prover based on rewrite-techniques -- Comtes — An experimental environment for the completion of term rewriting systems -- Asspegique: An integrated specification environment -- KBlab: An equational theorem prover for the Macintosh -- Fast Knuth-Bendix completion: Summary -- Compilation of ground term rewriting systems and applications (DEMO) -- An overview of Rewrite Rule Laboratory (RRL) -- InvX: An automatic function inverter -- A parallel implementation of rewriting and narrowing -- Morphocompletion for one-relation monoids.

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## Sommario/riassunto

Rewriting has always played an important role in symbolic manipulation and automated deduction systems. The theory of rewriting is an outgrowth of Combinatory Logic and the Lambda Calculus. Applications cover broad areas in automated reasoning, programming language design, semantics, and implementations, and symbolic and algebraic manipulation. The proceedings of the third International Conference on Rewriting Techniques and Applications contain 34 regular papers, covering many diverse aspects of rewriting (including equational logic, decidability questions, term rewriting, congruence-class rewriting, string rewriting, conditional rewriting, graph rewriting, functional and logic programming languages, lazy and parallel implementations, termination issues, compilation techniques, completion procedures, unification and matching algorithms, deductive and inductive theorem proving, Gröbner bases, and program synthesis). It also contains 12 descriptions of implemented equational reasoning systems. Anyone interested in the latest advances in this fast growing area should read this volume.

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