Record Nr. UNISA996465546903316 Automated Reasoning with Analytic Tableaux and Related Methods **Titolo** [[electronic resource]]: International Conference, TABLEAUX'97, Ponta-Mousson, France, May 13-16, 1997 Proceedings / / edited by Didier Galmiche Pubbl/distr/stampa Berlin, Heidelberg:,: Springer Berlin Heidelberg:,: Imprint: Springer, 1997 **ISBN** 3-540-69046-8 Edizione [1st ed. 1997.] Descrizione fisica 1 online resource (XII, 380 p.) Collana Lecture Notes in Artificial Intelligence;; 1227 Disciplina 006.3/33 Soggetti Architecture, Computer Artificial intelligence Mathematical logic Computer System Implementation Artificial Intelligence Mathematical Logic and Formal Languages Mathematical Logic and Foundations Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Bibliographic Level Mode of Issuance: Monograph Nota di contenuto MGTP: A model generation theorem prover — Its advanced features and applications — -- Three faces of natural deduction -- Tableaux for logic programming with strong negation -- Generalized tableau systems for intermediate propositional logics -- Lean induction principles for tableaux -- Tableaux for diagnosis applications -- Free variable tableaux for propositional modal logics -- A sequent calculus for skeptical Default Logic -- A fast saturation strategy for settheoretic tableaux -- Hintikka multiplicities in matrix decision methods for some propositional modal logics -- Automated natural deduction prover and experiments -- Non-elementary speed-ups in proof length

by different variants of classical analytic calculi -- Ordered tableaux: Extensions and applications -- Two loop detection mechanisms: A comparison -- Subgoal alternation in model elimination -- Projection: A unification procedure for tableaux in Conceptual Graphs -- On

quasitautologies -- Tableaux methods for access control in distributed systems -- Proving correctness of labeled transition systems by semantic tableaux -- Tableau methods for PA-processes -- A tableau proof system for a mazurkiewicz trace logic with fixpoints -- ileanTAP: An intuitionistic theorem prover -- Simplifying and generalizing formulae in tableaux. Pruning the search space and building models -- A framework for using knowledge in tableau proofs -- A sequent calculus for reasoning in four-valued Description Logics -- Tableaux for functional dependencies and independencies.

## Sommario/riassunto

This book constitutes the refereed proceedings of the International Conference on Analytic Tableaux and Related Methods, TABLEAUX'97, held in Pont-a-Mousson, France, in May 1997. The volume presents 22 revised full papers selected from a total of 49 submissions. Also included are two invited papers and two system descriptions. The volume covers the whole spectrum of tableaux-based theorem proving and its applications including theoretical foundations, methodological issues, implementation techniques, and system development. Besides classical logics, among the logics dealt with are modal, intuitionistic, many-valued, and temporal logic.