Record Nr. UNISA996466061703316 **Titolo** Automated Reasoning with Analytic Tableaux and Related Methods [[electronic resource]]: 22nd International Conference, TABLEAUX 2013, Nancy, France, September 16-19, 2013, Proceedings / / edited by Didier Galmiche, Dominique Larchey-Wendling Pubbl/distr/stampa Berlin, Heidelberg:,: Springer Berlin Heidelberg:,: Imprint: Springer, 2013 **ISBN** 3-642-40537-1 Edizione [1st ed. 2013.] Descrizione fisica 1 online resource (X, 289 p. 34 illus.) Collana Lecture Notes in Artificial Intelligence; ; 8123 Disciplina 004.015113 Soggetti Artificial intelligence Mathematical logic Computer programming Software engineering Computer science—Mathematics Computer logic Artificial Intelligence Mathematical Logic and Formal Languages **Programming Techniques** Software Engineering Discrete Mathematics in Computer Science Logics and Meanings of Programs Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Bibliographic Level Mode of Issuance: Monograph Nota di contenuto Invited Talks -- Witness Runs for Counter Machines (Abstract) -- On the Duality of Proofs and Countermodels in Labelled Sequent Calculi --A Brief Survey of Verified Decision Procedures for Equivalence of Regular Expressions -- Research Papers -- Dealing with Symmetries in Modal Tableaux -- Tableaux for Verification of Data-Centric Processes -- Bounded Proofs and Step Frames -- Compression of Propositional Resolution Proofs by Lowering Subproofs -- A Tableau System for Right

Propositional Neighborhood Logic over Finite Linear Orders: An

Implementation -- Hypersequent and Labelled Calculi for Intermediate Logics -- TATL: Implementation of ATL Tableau-Based Decision Procedure -- A Terminating Evaluation-Driven Variant of G3i -- Model Checking General Linear Temporal Logic -- Semantically Guided Evolution of SHI ABoxes -- Psyche: A Proof-Search Engine Based on Sequent Calculus with an LCF-Style Architecture -- Understanding Resolution Proofs through Herbrand's Theorem -- A Labelled Sequent Calculus for BBI: Proof Theory and Proof Search -- A Refined Tableau Calculus with Controlled Blocking for the Description Logic SHOI -- Prefixed Tableau Systems for Logic of Proofs and Provability -- Correspondence between Modal Hilbert Axioms and Sequent Rules with an Application to S5 -- Schemata of Formulæ in the Theory of Arrays -- TAFA - A Tool for Admissibility in Finite Algebras -- Formalizing Cut Elimination of Coalgebraic Logics in Coq -- Intelligent Tableau Algorithm for DL Reasoning.

## Sommario/riassunto

This book constitutes the refereed proceedings of the 22th International Conference on Automated Reasoning with Analytic Tableaux and Related Methods, TABLEAUX 2013, held in Nancy, France, in September 2013. The 20 revised research papers presented together with 4 system descriptions were carefully reviewed and selected from 38 submissions. The papers cover many topics as proof-theory in classical and non-classical logics, analytic tableaux for various logics, related techniques and concepts, e.g., model checking and BDDs, related methods (model elimination, sequent calculi, resolution, and connection method), new calculi and methods for theorem proving and verification in classical and non-classical logics, systems, tools, implementations and applications as well as automated deduction and formal methods applied to logic, mathematics, software development, protocol verification, and security.