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Nota di contenuto Presenting Constraints -- On the Use of Automata for Deciding Linear

Arithmetic -- Comparative Concept Similarity over Minspaces:
Axiomatisation and Tableaux Calculus -- A Schemata Calculus for
Propositional Logic -- Tableaux and Model Checking for Memory
Logics -- Canonical Constructive Systems -- A Novel Architecture for
Situation Awareness Systems -- On the Proof Theory of Regular Fixed

Points -- Decidability for Priorean Linear Time Using a Fixed-Point Labelled Calculus -- A Tableau-Based System for Spatial Reasoning about Directional Relations -- Terminating Tableaux for the Basic Fragment of Simple Type Theory -- Modular Sequent Systems for Modal Logic -- Abduction and Consequence Generation in a Support System for the Design of Logical Multiple-Choice Questions -- Goal-Directed Invariant Synthesis for Model Checking Modulo Theories -- Taming Displayed Tense Logics Using Nested Sequents with Deep Inference --Sound Global State Caching for ALC with Inverse Roles -- A Tableau System for the Modal ?-Calculus -- Terminating Tableaux for Graded Hybrid Logic with Global Modalities and Role Hierarchies -- Prime Implicate Tries -- Proof Systems for a Gödel Modal Logic -- Generic Modal Cut Elimination Applied to Conditional Logics -- Proof Search and Counter-Model Construction for Bi-intuitionistic Propositional Logic with Labelled Sequents -- Automated Synthesis of Tableau Calculi -- Tableaux for Projection Computation and Knowledge Compilation.

Sommario/riassunto

This book constitutes the refereed proceedings of the 18th International Conference on Automated Reasoning with Analytic Tableaux and Related Methods, TABLEAUX 2009, held in Oslo, Norway, in July 2009. The 21 revised research papers presented together with 1 system description and 2 invited talks were carefully reviewed and selected from 44 submissions. The papers cover many topics in the wide range of applications of tableaux and related methods in areas such as hardware and software verfications, semantic technologies, and knowledge engineering.