Record Nr. UNISA996465430503316 Frontiers of Combining Systems [[electronic resource]]: 9th **Titolo** International Symposium, FroCoS 2013, Nancy, France, September 18-20, 2013, Proceedings / / edited by Pascal Fontaine, Christophe Ringeissen, Renate Schmidt Pubbl/distr/stampa Berlin, Heidelberg:,: Springer Berlin Heidelberg:,: Imprint: Springer, 2013 **ISBN** 3-642-40885-0 Edizione [1st ed. 2013.] Descrizione fisica 1 online resource (XII, 359 p. 35 illus.) Collana Lecture Notes in Artificial Intelligence;; 8152 Disciplina 006.3 Soggetti Artificial intelligence Mathematical logic Computer logic Software engineering Algorithms Computer programming Artificial Intelligence Mathematical Logic and Formal Languages Logics and Meanings of Programs Software Engineering Algorithm Analysis and Problem Complexity **Programming Techniques** Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Bibliographic Level Mode of Issuance: Monograph Nota di contenuto Invited Talk 1 -- MetiTarski's Menagerie of Cooperating Systems --Inductive Theorem Proving -- Combining Superposition and Induction: A Practical Realization -- Arrays and Memory Access Optimization --Definability of Accelerated Relations in a Theory of Arrays and Its Applications -- Verification of Composed Array-Based Systems with Applications to Security-Aware Workflows -- Presburger Arithmetic in Memory Access Optimization for Data-Parallel Languages --

Approximation and Forgetting -- Roughening the EL Envelope --

Uniform Interpolation of ALC-Ontologies Using Fixpoints -- Abduction in Logic Programming as Second-Order Quantifier Elimination --Invited Talk 2 -- Witness Runs for Counter Machines -- Temporal and Description Logic Techniques -- Decidability and Complexity via Mosaics of the Temporal Logic of the Lexicographic Products of Unbounded Dense Linear Orders -- Temporal Query Answering in the Description Logic DL-Lite -- Verification of Golog Programs over Description Logic Actions -- Invited Talk 3 -- Specification and Verification of Linear Dynamical Systems: Advances and Challenges --Theorem Proving with Theories and Sorts -- Obtaining Finite Local Theory Axiomatizations via Saturation -- Non-cyclic Sorts for First-Order Satisfiability -- Detection of First Order Axiomatic Theories --Mechanizing the Metatheory of Sledgehammer -- Invited Talk 4 --From Resolution and DPLL to Solving Arithmetic Constraints -- Modal Logic and Description Logic -- Tableaux for Relation-Changing Modal Logics -- Computing Minimal Models Modulo Subset-Simulation for Modal Logics -- Hybrid Unification in the Description Logic EL --Rewriting -- Disproving Confluence of Term Rewriting Systems by Interpretation and Ordering -- On Forward Closure and the Finite Variant Property -- Term Rewriting with Logical Constraints.

## Sommario/riassunto

This book constitutes the refereed proceedings of the 9th International Symposium on Frontiers of Combining Systems, FroCoS 2013, held in Nancy, France, in September 2013. The 20 revised full papers presented together with 4 invited papers were carefully reviewed and selected from 33 submissions. FroCoS'13 seeks to offer a common forum for research in the general area of combination, modularization and integration of systems, with emphasis on logic-based ones, and of their practical use. Typical topics of interest include following subjects: combinations of logics such as combined predicate, temporal, modal or epistemic logics, combinations and modularity in ontologies, combination of decision, procedures, of satisfiability, procedures and of constraint solving techniques, combinations and modularity in term rewriting, integration of equational and other theories into deductive systems, combination of deduction systems and computer algebra, integration of data structures into constraint logic programming and deduction, and modularizing programs and specifications.