Record Nr. UNISA996465850303316 Implementation and Application of Automata [[electronic resource]]: **Titolo** 14th International Conference, CIAA 2009, Sydney, Australia, July 14-17, 2009, Proceedings / / edited by Sebastian Maneth Berlin, Heidelberg:,: Springer Berlin Heidelberg:,: Imprint: Springer, Pubbl/distr/stampa 2009 **ISBN** 1-282-29795-3 9786612297953 3-642-02979-5 [1st ed. 2009.] Edizione Descrizione fisica 1 online resource (XI, 263 p.) Theoretical Computer Science and General Issues, , 2512-2029 ; ; 5642 Collana Disciplina 005.11 Soggetti Computer programming Computer science Algorithms Machine theory Electronic digital computers—Evaluation **Programming Techniques** Theory of Computation Computer Science Logic and Foundations of Programming Formal Languages and Automata Theory System Performance and Evaluation Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Note generali Bibliographic Level Mode of Issuance: Monograph Nota di bibliografia Includes bibliographical references and index. Nota di contenuto Invited Lectures -- Implementation and Application of Automata in String Processing -- Applications of Automata in XML Processing --Program Analysis through Finite Tree Automata -- Technical Contributions -- An nlogn Algorithm for Hyper-minimizing States in a (Minimized) Deterministic Automaton -- On Extremal Cases of Hopcroft's Algorithm -- Compact Normal Form for Regular Languages as Xor Automata -- Cellular Automata with Sparse Communication -- A Cellular Automaton Model for Car Traffic with a Slow-to-Stop Rule --

On Parallel Implementations of Deterministic Finite Automata -- FAdo

and GUItar -- A Testing Framework for Finite-State Morphology -- A Table Compression Method for Extended Aho-Corasick Automaton --Compact Representation for Answer Sets of n-ary Regular Queries --Recognition of a Spanning Tree of Directed Acyclic Graphs by Tree Automata -- Random Generation of Deterministic Tree (Walking) Automata -- Hedge Pattern Partial Derivative -- TAGED Approximations for Temporal Properties Model-Checking -- Verifying Parallel Programs with Dynamic Communication Structures -- Fixpoint Guided Abstraction Refinement for Alternating Automata -- Automata-Based Termination Proofs -- Implementation of State Elimination Using Heuristics -- Short Regular Expressions from Finite Automata: Empirical Results -- Small Extended Expressions for Acyclic Automata -- Quantum Queries on Permutations with a Promise -- Time-Optimal Winning Strategies for Poset Games -- Amount of Nonconstructivity in Finite Automata -- Short Papers and Poster Abstracts -- Multiflex: A Multilingual Finite-State Tool for Multi-Word Units -- Efficient Parsing Using Filtered-Popping Recursive Transition Networks -- Forest FIRE: A Taxonomy-based Toolkit of Tree Automata and Regular Tree Algorithms -- Formally Synthesising a Protocol Converter: A Case Study -- Compiler Generator Based on Restarting Automata -- Are Statecharts Finite Automata?.

Sommario/riassunto

This book constitutes the thoroughly refereed papers of the 14th International Conference on Implementation and Application of Automata, CIAA 2009, held in Sydney, Austrialia, in July 2009. The 23 revised full papers together with 6 short papers were carefully selected from 42 submissions. The papers cover various topics in the theory, implementation, and applications of automata and related structures.