Record Nr. UNINA9910483560603321 Implementation and Application of Automata: 12th International **Titolo** Conference, CIAA 2007, Prague, Czech Republic, July 16-18, 2007. Revised Selected Papers / / edited by Jan Holub, Jan Ždárek Berlin, Heidelberg:,: Springer Berlin Heidelberg:,: Imprint: Springer, Pubbl/distr/stampa **ISBN** 3-540-76336-8 Edizione [1st ed. 2007.] 1 online resource (XIII, 326 p.) Descrizione fisica Theoretical Computer Science and General Issues, , 2512-2029 ; ; 4783 Collana 006.31 Disciplina Soggetti Artificial intelligence Computer science Algorithms Machine theory Artificial Intelligence Theory of Computation Computer Science Logic and Foundations of Programming Formal Languages and Automata Theory 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 Talks -- Spiking Neural P Systems Used as Acceptors and Transducers -- Linear-Time Model Checking: Automata Theory in Practice -- OpenFst: A General and Efficient Weighted Finite-State Transducer Library -- Automata Applications in Chip-Design Software -- Contributed Talks -- Synchronizing Automata Preserving a Chain of Partial Orders -- Reducing Acyclic Cover Transducers -- On-the-Fly Stuttering in the Construction of Deterministic ?-Automata -- Average Value and Variance of Pattern Statistics in Rational Models -- Weighted Automata and Weighted Logics with Discounting -- Regulated Nondeterminism in Pushdown Automata -- Deterministic Caterpillar Expressions -- Backward and Forward Bisimulation Minimisation of Tree Automata -- An Implementation of Deterministic Tree Automata Minimization -- Accelerating Boyer Moore Searches on Binary Texts --On the Suffix Automaton with Mismatches -- On String Matching in

Chunked Texts -- Factor Automata of Automata and Applications --Subset Seed Automaton -- A Measure for the Degree of Nondeterminism of Context-Free Languages -- Efficient Computation of Throughput Values of Context-Free Languages -- Analyzing Ambiguity of Context-Free Grammars -- Efficient Enumeration of Regular Languages -- Multi-grain Relations -- Memory Reduction for Strategies in Infinite Games -- Syntax-Directed Translations and Quasi-alphabetic Tree Bimorphisms -- Finite State Automata Representing Two-Dimensional Subshifts -- Tiling Automaton: A Computational Model for Recognizable Two-Dimensional Languages --Poster Abstracts -- REGAL: A Library to Randomly and Exhaustively Generate Automata -- A Finite-State Super-Chunker -- The Constrained Longest Common Subsequence Problem for Degenerate Strings -- Finite Automata Accepting Star-Connected Languages --Efficiently Matching with Local Grammars Using Prefix Overlay Transducers -- Significant Subpatterns Matching -- A New Method for Compiling Parallel Replacement Rules.

## Sommario/riassunto

The 12th International Conference on Implementation and Application of - tomata CIAA 2007 washeld at the Czech Technical Universityin Prague, Czech Republic on July 16–18, 2007. These proceedings contain the papers that were presented at CIAA 2007, as well as the abstracts of the poster papers that were displayed during the conference. The proceedings also include the abstracts and extended abstracts offourinvitedlecturespresentedbyGheorghePau?n,MichaelRiley, Moshe Vardi, and Bruce W. Watson. The 23 regular papers and 7 poster papers were selected from 79 submitted papers covering various topics in the theory, implementation, and application of automataandrelatedstructures. Each submitted paper wasreviewedbyatleast threeProgramCommitteemembers, with the assistanceofreferees. The authors of the papers presented here come from the following countries: Canada, Czech Republic, Denmark, Finland, France, Germany, Greece, Israel, Italy, Poland, Romania, Russia, South Africa, Spain, Sweden, UK, and USA. We wish to thank all those who made this meeting possible: the authors for submitting papers, the Program Committee members and external referees (listed on pages VII and VIII) for their excellent work, and last but not least our four invited speakers. Finally, we wish to express our sincere appreciation to the sponsors and local organizers.