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Collana	Theoretical Computer Science and General Issues, , 2512-2029 ; ; 4783
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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
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Livello bibliografico	Monografia
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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 $\tilde{?}$ -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 Automata CIAA 2007 was held at the Czech Technical University in 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 of four invited lectures presented by Gheorghe Păun, Michael Riley, 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 automata and related structures. Each submitted paper was reviewed by at least three Program Committee members, with the assistance of referees. 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.