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Collana	Lecture Notes in Computer Science, , 1611-3349 ; ; 2494
Disciplina	511.3
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
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Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Using Finite State Technology in Natural Language Processing of Basque -- Cascade Decompositions are Bit-Vector Algorithms -- Submodule Construction and Supervisory Control: A Generalization -- Counting the Solutions of Presburger Equations without Enumerating Them -- Brzozowski's Derivatives Extended to Multiplicities -- Finite Automata for Compact Representation of Language Models in NLP -- Past Pushdown Timed Automata -- Scheduling Hard Sporadic Tasks by Means of Finite Automata and Generating Functions -- Bounded-Graph Construction for Noncanonical Discriminating-Reverse Parsers -- Finite-State Transducer Cascade to Extract Proper Names in Texts -- Is this Finite-State Transducer Sequentiable? -- Compilation Methods of Minimal Acyclic Finite-State Automata for Large Dictionaries -- Bit Parallelism - NFA Simulation -- Improving Raster Image Run-Length

Encoding Using Data Order -- Enhancements of Partitioning Techniques for Image Compression Using Weighted Finite Automata -- Extraction of  $\text{?}$ -Cycles from Finite-State Transducers -- On the Size of Deterministic Finite Automata -- Crystal Lattice Automata -- Minimal Adaptive Pattern-Matching Automata for Efficient Term Rewriting -- Adaptive Rule-Driven Devices - General Formulation and Case Study -- Typographical Nearest-Neighbor Search in a Finite-State Lexicon and Its Application to Spelling Correction -- On the Software Design of Cellular Automata Simulators for Ecological Modeling -- Random Number Generation with  $\text{?}$ -NFAs -- Supernondeterministic Finite Automata.

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#### Sommario/riassunto

This book constitutes the thoroughly refereed post-proceedings of the 6th International Conference on Implementation and Application of Automata, CIAA 2001, held in Pretoria, South Africa in July 2001. The 23 revised full papers presented together with an invited paper were carefully selected during two rounds of reviewing and revision. The topics addressed from theoretical as well as application-oriented viewpoints range from foundational and methodological issues to novel applications in object-oriented modeling, finite transducers in natural language processing, and non-deterministic finite-state models in communication protocols.

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