1. Record Nr. UNISA996198526903316

Titolo	Descriptional Complexity of Formal Systems [[electronic resource]] : 17th International Workshop, DCFS 2015, Waterloo, ON, Canada, June 25-27, 2015. Proceedings / / edited by Jeffrey Shallit, Alexander Okhotin
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2015
ISBN	3-319-19225-6
Edizione	[1st ed. 2015.]
Descrizione fisica	1 online resource (XII, 293 p. 48 illus.)
Collana	Theoretical Computer Science and General Issues, , 2512-2029 ; ; 9118
Disciplina	004.0151
Soggetti	Computer science Machine theory Algorithms Computer science—Mathematics Discrete mathematics Theory of Computation Formal Languages and Automata Theory Computer Science Logic and Foundations of Programming Discrete Mathematics in Computer Science
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 -- Regular Functions -- Unambiguity in Automata Theory -- Contributed Papers -- Partial Derivative Automaton for Regular Expressions with Shue -- Upper Bound on Syntactic Complexity of Suffix-Free Languages -- Nondeterministic Tree Width of Regular Languages -- Integer Complexity: Experimental and Analytical Results II -- Square on ideal, closed and free languages -- A Tentative Approach for the Wadge-Wagner Hierarchy of Regular Tree Languages of Index [0,2] -- Compressibility of finite languages by grammars -- On the Complexity and Decidability of Some Problems Involving Shue -- On the Computational Complexity of Problems Related to Distinguishability Sets -- Prefix-Free Subsets of Regular Languages and Descriptional Complexity -- Transducer Descriptions of DNA Code

Properties and Undecidability of Antimorphic Problems -- On Simulation Costs of Unary Limited Automata -- On some decision problems for stateless deterministic ordered restarting Automata -- Quantum queries on permutations -- Complement on Free and Ideal Languages -- Universal Disjunctive Concatenation and Star -- Quasi-Distances and Weighted Finite Automata -- The State Complexity of Permutations on Finite Languages Over Binary Alphabets -- Star-Complement-Star on Prefix-Free Languages -- Groups whose word problem is a Petri net language -- Regular realizability problems and context-free languages -- Generalization of the Double-Reversal Method of Finding a Canonical Residual Finite State Automaton -- Quantum State Complexity of Formal Languages.

Sommario/riassunto

This book constitutes the refereed proceedings of the 17th International Conference on Descriptional Complexity of Formal Systems, DCFS 2015, held in Waterloo, ON, Canada, in June 2015. The 23 full papers presented together with 2 invited talks were carefully reviewed and selected from 29 submissions. The subject of the workshop was descriptional complexity. Roughly speaking, this field is concerned with the size of objects in various mathematical models of computation, such as finite automata, pushdown automata, and Turing machines. Descriptional complexity serves as a theoretical representation of physical realizations, such as the engineering complexity of computer software and hardware. It also models similar complexity phenomena in other areas of computer science, including unconventional computing and bioinformatics.