

1. Record Nr.	UNISA996465727003316
Titolo	Machines, Languages, and Complexity [[electronic resource] ] : 5th International Meeting of Young Computer Scientists, Smolenice, Czechoslovakia, November 14-18, 1988. Selected Contributions / / edited by Jürgen Dassow, Jozef Kelemen
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 1989
ISBN	3-540-48203-2
Edizione	[1st ed. 1989.]
Descrizione fisica	1 online resource (VIII, 248 p.)
Collana	Lecture Notes in Computer Science, , 0302-9743 ; ; 381
Disciplina	621.39
Soggetti	Computer engineering Computers Mathematical logic Artificial intelligence Computer Engineering Computation by Abstract Devices Mathematical Logic and Formal Languages Artificial Intelligence
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di contenuto	Questions of decidability for context-free chain code picture languages -- Chomsky hierarchy and communication complexity -- Complexity theory and formal languages -- Rational cones and commutations -- A remark on some classifications of Indian parallel languages -- An extension of the Krohn-Rhodes decomposition of automata -- A survey of two-dimensional automata theory -- The simulation of two-dimensional one-marker automata by three-way turing machines -- Some properties of space-bounded synchronized alternating turing machines with only universal states -- The virtual floating grid file -- A partially persistent data structure for the set-union problem with backtracking -- A note on the computational complexity of bracketing and related problems -- Postorder hierarchy for path compressions and set union -- The convex hull problem on grids computational and

combinatorial aspects -- The riches of rectangles -- The limitations of partial evaluation -- Algorithmic learning from incomplete information: Principles and problems -- A cryptosystem based on propositional logic -- Tutorial: Cryptography and data security.

---

## Sommario/riassunto

The volume contains selected contributions from the scientific programme of the 5th International Meeting of Young Computer Scientists (IMYCS '88) held at Smolenice Castle (Czechoslovakia), November 14-18, 1988. It is divided into five chapters which approach the three crucial notions of contemporary theoretical computer science - machines, languages, and complexity - from different perspectives. The first chapter contains contributions dealing with problems of decidability, hierarchy, and complexity. Papers concerning different types and problems of automata theory form the second chapter. The contributions in the third chapter cover the large field of algorithmics from the study of program complexity to the domain of computational geometry. The two contributions of the fourth chapter are devoted to logic programming and inductive inference. The final chapter deals with problems of cryptography and contains the text of the IMYCS '88 tutorial on cryptography and data security delivered by A. Salomaa. The book will be a useful source for orientation in contemporary theoretical computer science and related fields such as software engineering and artificial intelligence for researchers and graduate students.

---