

ALGORITHMS OF INFORMATICS
vol. 1. Foundations, vol. 2. Applications

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The chapters of the first volume are divided into three parts. The chapters of Part 1 are connected with automata: *Automata and Formal Languages* (written by Zoltán Kása, Babeş-Bolyai University of Cluj-Napoca), *Compilers* (Zoltán Csörnyei, Eötvös Loránd University), *Compression and Decompression* (Ulrich Tamm, Chemnitz University of Technology Commitment), *Reliable Computations* (Péter Gács, Boston University).

The chapters of Part 2 have algebraic character: here are the chapters *Algebra* (written by Gábor Ivanyos, and Lajos Rónyai, Budapest University of Technology and Economics), *Computer Algebra* (Antal Járai, Attila Kovács, Eötvös Loránd University), further *Cryptology* and *Complexity Theory* (Jörg Rothe, Heinrich Heine University).

The chapters of the third part contain *Competitive Analysis* (Csanád Imreh, University of Szeged), *Game Theory* (Ferenc Szidarovszky, The University of Arizona), *Recurrences* (Zoltán Kása, Babeş-Bolyai University) and *Scientific Computations* (Aurél Galántai, András Jeney, University of Miskolc).

The second volume is also divided into three parts. The chapters of Part 4 are *Distributed Algorithms* (Burkhard Englert, California State University; Dariusz Kowalski, University of Liverpool; Grzegorz Malewicz, University of Alabama; Alexander Allister Shvartsman, University of Connecticut), *Parallel Computation* (Antal Iványi, Eötvös Loránd University; Claudia Leopold, University of Kassel), *Network Simulation* (Tibor Gyires, Illinois State University) and *Systolic Systems* (Eberhard Zehendner, Friedrich Schiller University).

The chapters of Part 5 are *Relational Databases* and *Query in Relational Databases* (János Demetrovics, Eötvös Loránd University; Attila Sali, Alfréd Rényi Institute of Mathematics), *Semistructured Data Bases* (Attila Kiss, Eötvös Loránd University) and *Memory Management* (Ádám Balog, Antal Iványi, Eötvös Loránd University).

The chapters of the third part of the second volume have close connections with biology: *Bioinformatics* (István Miklós, Eötvös Loránd University), *Human-Computer Interactions* (Ingo Althöfer, Stefan Schwarz, Friedrich Schiller University), and *Computer Graphics* (László Szirmay-Kalos, Budapest University of Technology and Economics).

The book contains verbal description, pseudocode and analysis of over 200 algorithms, and over 350 figures and 120 examples illustrating how the algorithms work. Each section ends with exercises and each chapter ends with problems. The book contains over 330 exercises and 70 problems.

The book has a web site: <http://elek.inf.elte.hu/EnglishBooks>, which can be used to obtain a list of known errors, report errors, or make suggestions. The website contains the maintained PDF version of the bibliography in which the names of the authors, journals and publishers are usually active links to the corresponding web sites.