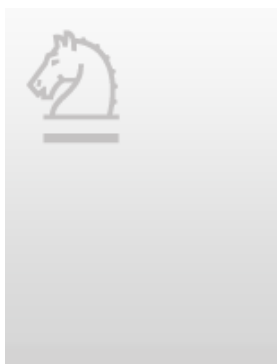


[Home](#)
[Subjects](#)
[My Springer](#)
[Services](#)
[Springer Shop](#)
[About us](#)

Theoretical Computer Science

[Home](#) > [Computer Science](#) > [Theoretical Computer Science](#)
[SUBDISCIPLINES](#)
[JOURNALS](#)
[BOOKS](#)
[SERIES](#)
[TEXTBOOKS](#)
[REFERENCE WORKS](#)


Computing with New Resources

Essays Dedicated to Jozef Gruska on the Occasion of His 80 Birthday

Series: Lecture Notes in Computer Science, Vol. 8808

Subseries: Theoretical Computer Science and General Issues

Calude, Cristian S., **Freivalds**, Rusins, **Kazuo**, Iwama (Eds.)

2014, XXV, 460 p.

Available Formats:

eBook

Softcover

(gross) price for Czech Republic

approx. 68,48 €

ISBN 978-3-319-13349-2

free shipping for individuals worldwide

Due: January 14, 2015

The final prices may differ from the prices shown due to specifics of VAT rules

add to marked items

Like Tweet 

ABOUT THIS BOOK

Features high-quality, selected papers, and essays

Honors Jozef Gruska, the founder of theoretical computer science in Czechoslovakia

State of the art contents

Professor Jozef Gruska is a well known computer scientist for his many and broad results. He was the father of theoretical computer science research in Czechoslovakia and among the first Slovak programmers in the early 1960s. Jozef Gruska introduced the descriptive complexity of grammars, automata, and languages, and is one of the pioneers of parallel (systolic) automata. His other main research interests include parallel systems and automata, as well as quantum information processing, transmission, and cryptography. He is co-founder of four regular series of conferences in informatics and

two in quantum information processing and the Founding Chair (1989-96) of the IFIP Specialist Group on Foundations of Computer Science.

Content Level » Research

Keywords » cellular automata - circuit complexity - computational complexity - concurrency - finite automata - formal languages and automata theory - history of computing - logic - quantum complexity theory - quantum computing - quantum technologies - systolic automata - theoretical computer science - theory of computation

Related subjects » Theoretical Computer Science

TABLE OF CONTENTS

Counting With Probabilistic and Ultrametric Finite Automata.- Systolic Automata and P Systems.- Soliton Automata with Multiple Waves.- On Power Series over a Graded Monoid.- Advances on Random Sequence Generation by Uniform Cellular Automata.- On the Determinization Blowup for Finite Automata Recognizing Equal-Length Languages.- Aspects of Reversibility for Classical Automata.- A Weakly Universal Cellular Automaton in the Pentagrid with Five States.- Minimum and non-Minimum Time Solutions to the Firing Squad Synchronization Problem.- Time-Optimum Smaller-State Synchronizers for Cellular Automata.- Computing Boolean Functions via Quantum Hashing.- Complexity of Promise Problems on Classical and Quantum Automata.- Quantum Complexity of Boolean Matrix Multiplication and Related Problems.- Quantum Distributed Computing Applied to Grover's Search Algorithm.- Maximally Entangled State in Pseudo-Telepathy Games.- Quantum Finite Automata: A Modern Introduction.- Physical Aspects of Oracles for Randomness and Hadamard's Conjecture.- From Quantum Query Complexity to State Complexity.- Small Universal Devices.- A Technique to Obtain Hardness Results for Randomized Online Algorithms.- Integral Difference Ratio Functions on Integers.- Conditional Lindenmayer Systems with Conditions Defined by Bounded Resources.- Symmetries and Dualities in Name-Passing Process Calculi.- Learning from Positive Data and Negative Counterexamples.- One-Sided Random Context Grammars.- How Can We Construct Reversible Machines out of Reversible Logic Element with Memory?.- On Evolutionary Approximation of Logic Circuits.- A Distributed Computing Model for Dataflow, Controlflow, and Workflow in Fractionated Cyber-Physical Systems.- On the Limit of Some Algorithmic Approach to Circuit Lower Bounds.- P Systems with Anti-Matter.- A Robust Universal Flying Amorphous Computer.- Minimal Reaction Systems Defining Subset Functions.- Grand Challenges of Informatics.- Konrad Zuse's Relationship to Informatics.

SERVICES FOR THIS BOOK

[Reserve an Online Book Review Copy](#)

[Download Product Flyer](#)

NEW BOOK ALERT

Get alerted on new Springer publications in the subject area of [Computation by Abstract Devices](#).

Your E-Mail Address

SUBMIT

RECOMMENDED BOOKS

Brain-Inspired