

Studies in Complexity and Cryptography

This book presents a collection of 36 pieces of scientific work in the areas of complexity theory and foundations of cryptography: 20 research contributions, 13 survey articles, and 3 programmatic and reflective viewpoint statements. These so far formally unpublished pieces were written by Oded Goldreich, some in collaboration with other scientists.

The articles included in this book essentially reflect the topical scope of the scientific career of Oded Goldreich now spanning three decades. In particular the topics dealt with include average-case complexity, complexity of approximation, derandomization, expander graphs, hashing functions, locally testable codes, machines that take advice, NP-completeness, one-way functions, probabilistically checkable proofs, proofs of knowledge, property testing, pseudorandomness, randomness extractors, sampling, trapdoor permutations, zero-knowledge, and non-iterative zero-knowledge.

All in all, this potpourri of studies in complexity and cryptography constitutes a most valuable contribution to the field of theoretical computer science centered around the personal achievements and views of one of its outstanding representatives.

Goldreich et al.



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Studies in Complexity and Cryptography

State-of-the-Art
Survey

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Studies in Complexity and Cryptography

Miscellanea on the Interplay
between Randomness and Computation



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LNCS Editorial, Tiergartenstr. 17, 69121 Heidelberg, Germany

E-mail: lncs@springer.com

ISSN 0302-9743

ISBN 978-3-642-22669-4



9 783642 226694

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Computer Science

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