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Soggetti	Computer science Software engineering Compilers (Computer programs) Machine theory Algorithms Theory of Computation Software Engineering Computer Science Logic and Foundations of Programming Compilers and Interpreters Formal Languages and Automata Theory
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Nota di contenuto	Invited Papers -- The Multicore Revolution -- Streaming Algorithms for Selection and Approximate Sorting -- Adventures in Bidirectional Programming -- Program Analysis Using Weighted Pushdown Systems -- The Complexity of Zero Knowledge -- Contributed Papers -- The Priority k-Median Problem -- “Rent-or-Buy” Scheduling and Cost Coloring Problems -- Order Scheduling Models: Hardness and Algorithms -- On Simulatability Soundness and Mapping Soundness of Symbolic Cryptography -- Key Substitution in the Symbolic Analysis of Cryptographic Protocols -- Symbolic Bisimulation for the Applied Pi Calculus -- Non-mitotic Sets -- Reductions to Graph Isomorphism -- Strong Reductions and Isomorphism of Complete Sets -- Probabilistic

and Topological Semantics for Timed Automata -- A Theory for Game Theories -- An Incremental Bisimulation Algorithm -- Logspace Algorithms for Computing Shortest and Longest Paths in Series-Parallel Graphs -- Communication Lower Bounds Via the Chromatic Number -- The Deduction Theorem for Strong Propositional Proof Systems -- Satisfiability of Algebraic Circuits over Sets of Natural Numbers -- Post Embedding Problem Is Not Primitive Recursive, with Applications to Channel Systems -- Synthesis of Safe Message-Passing Systems -- Automata and Logics for Timed Message Sequence Charts -- Propositional Dynamic Logic for Message-Passing Systems -- Better Algorithms and Bounds for Directed Maximum Leaf Problems -- Faster Algorithms for All-Pairs Small Stretch Distances in Weighted Graphs -- Covering Graphs with Few Complete Bipartite Subgraphs -- Safely Composing Security Protocols -- Computationally Sound Typing for Non-interference: The Case of Deterministic Encryption -- Bounding Messages for Free in Security Protocols -- Triangulations of Line Segment Sets in the Plane -- Reconstructing Convex Polygons and Polyhedra from Edge and Face Counts in Orthogonal Projections -- Finding a Rectilinear Shortest Path in R 2 Using Corridor Based Staircase Structures -- Compressed Dynamic Tries with Applications to LZ-Compression in Sublinear Time and Space -- Stochastic Müller Games are PSPACE-Complete -- Solving Parity Games in Big Steps -- Efficient and Expressive Tree Filters -- Markov Decision Processes with Multiple Long-Run Average Objectives -- A Formal Investigation of Diff3 -- Probabilistic Analysis of the Degree Bounded Minimum Spanning Tree Problem -- Undirected Graphs of Entanglement 2 -- Acceleration in Convex Data-Flow Analysis -- Model Checking Almost All Paths Can Be Less Expensive Than Checking All Paths -- Closures and Modules Within Linear Logic Concurrent Constraint Programming.

Sommario/riassunto

This book constitutes the refereed proceedings of the 27th International Conference on the Foundations of Software Technology and Theoretical Computer Science, FSTTCS 2007, held in New Delhi, India, in December 2007. The 40 revised full papers presented together with 5 invited papers were carefully reviewed and selected from 135 submissions. The papers provide original research results in fundamental aspects of computer science as well as reports from the frontline of software technology and theoretical computer science. A broad variety of current topics from the theory of computing are addressed, ranging from software science, programming theory, systems design and analysis, formal methods, mathematical logic, mathematical foundations, discrete mathematics, combinatorial mathematics, complexity theory, and automata theory to theoretical computer science in general.