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Nota di contenuto	Plenary Talks -- Neural Computations That Support Long Mixed Sequences of Knowledge Acquisition Tasks -- Constraints, Graphs, Algebra, Logic, and Complexity -- Distributed Systems and Their Environments -- Invited Special Session: Models of Computation -- Co-evolution and Information Signals in Biological Sequences -- The Extended Turing Model as Contextual Tool -- Strong Positive Reducibilities -- Invited Special Session: Algorithms and Complexity -- Fixed-Parameter Algorithms for Graph-Modeled Date Clustering -- On Spanners of Geometric Graphs -- Searching Trees: An Essay -- Approximability and Fixed-Parameter Tractability for the Exemplar Genomic Distance Problems -- Contributed Papers -- A Quadratic Kernel for 3-Set Packing -- Quantitative Aspects of Speed-Up and Gap

Phenomena -- Computing the Exact Distribution Function of the Stochastic Longest Path Length in a DAG -- On the Connection between Interval Size Functions and Path Counting -- On the Red/Blue Spanning Tree Problem -- Undecidability of Cost-Bounded Reachability in Priced Probabilistic Timed Automata -- A Computational Proof of Complexity of Some Restricted Counting Problems -- Block-Graph Width -- Minimum Vertex Ranking Spanning Tree Problem on Permutation Graphs -- On Parameterized Exponential Time Complexity -- Best-Order Streaming Model -- Behavioral and Logical Equivalence of Stochastic Kripke Models in General Measurable Spaces -- Influence of Tree Topology Restrictions on the Complexity of Haplotyping with Missing Data -- Improved Deterministic Algorithms for Weighted Matching and Packing Problems -- Parameterized Complexity of Coloring Problems: Treewidth versus Vertex Cover -- Discovering Almost Any Hidden Motif from Multiple Sequences in Polynomial Time with Low Sample Complexity and High Success Probability -- A Complete Characterisation of the Linear Clique-Width of Path Powers -- Preserving Privacy versus Data Retention -- Kolmogorov Complexity and Combinatorial Methods in Communication Complexity -- An Almost Totally Universal Tile Set -- Linear Kernel for Planar Connected Dominating Set -- A Simple Greedy Algorithm for the  $k$ -Disjoint Flow Problem -- Minimizing AND-EXOR Expressions for Multiple-Valued Two-Input Logic Functions -- Exact and Experimental Algorithms for a Huffman-Based Error Detecting Code -- Terminal Coalgebras for Measure-Polynomial Functors -- High Minimal Pairs in the Enumeration Degrees -- Searching a Circular Corridor with Two Flashlights -- On the Complexity of the Multiple Stack TSP,  $k$ STSP -- Linear Programming Based Approximation Algorithms for Feedback Set Problems in Bipartite Tournaments -- An Online Algorithm for Applying Reinforcement Learning to Handle Ambiguity in Spoken Dialogues -- A Fixed-Parameter Enumeration Algorithm for the Weighted FVS Problem -- On the Tractability of Maximal Strip Recovery -- Greedy Local Search and Vertex Cover in Sparse Random Graphs -- Embedding the Diamond Lattice in the c.e.  $\text{tt}$ -Degrees with Superhigh Atoms -- Feasibility of Motion Planning on Directed Graphs -- Polynomial-Time Algorithm for Sorting by Generalized Translocations -- The Two-Guard Polygon Walk Problem -- Approximation and Hardness Results for Label Cut and Related Problems -- An Observation on Non-Malleable Witness-Indistinguishability and Non-Malleable Zero-Knowledge.

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#### Sommario/riassunto

This book constitutes the refereed proceedings of the 6th International Conference on Theory and Applications of Models of Computation, TAMC 2009, held in Changsha, China in May 2009. The 39 full papers presented together with 7 invited papers as well as 3 plenary talks were selected from 86 submissions. The papers address the three main themes of the conference which were Computability, Complexity, and Algorithms. The conference aimed to bring together researchers with interests in theoretical computer science, algorithmic mathematics, and applications to the physical sciences.

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