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Soggetti	Computer science Algorithms Machine theory Computer programming Compilers (Computer programs) Theory of Computation Formal Languages and Automata Theory Computer Science Logic and Foundations of Programming Programming Techniques Compilers and Interpreters
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Intro -- Preface -- Organization -- Abstracts of Invited Talks -- The Coding Lens in Explicit Constructions -- Online Packet Scheduling -- Parallel Algorithms for Model Checking -- Design and Validation of Cloud Storage Systems Using Formal Methods -- Contents -- Invited Talk -- Design and Validation of Cloud Storage Systems Using Formal Methods -- 1 Introduction -- 2 Applications -- 3 Formal Methods at Amazon -- References -- Algorithms and Complexity -- A Characterization of Horoidal Digraphs -- 1 Introduction -- 1.1 Plane -- 1.2 Round Sphere -- 1.3 Horizontal Torus -- 2 Preliminaries -- 3 Characterization -- 4 Source-In-Sink-Out Graph of Adigraph -- 5 Conclusion and Some Open Problems -- References -- Gomory Hu Tree

and Pendant Pairs of a Symmetric Submodular System -- 1 Introduction -- 2 Preliminaries -- 3 Obtaining Pendant Pairs from a Gomory Hu Tree -- 4 Gomory Hu Tree of the Contraction of a System -- 5 Conclusion -- References -- Inverse Multi-objective Shortest Path Problem Under the Bottleneck Type Weighted Hamming Distance -- 1 Introduction -- 2 Preliminaries -- 3 The IMSPP Under the BWHD -- 4 Inverse Multi-objective Minimum Spanning Tree Problem Under the BWHD -- 5 Conclusion -- References -- Locality-Based Relaxation: An Efficient Method for GPU-Based Computation of Shortest Paths -- 1 Introduction -- 2 Preliminaries -- 2.1 Synchronization Mechanisms in CUDA -- 2.2 Directed Graphs and SSSP -- 2.3 Basic Functions -- 2.4 Harish et al.'s Algorithm -- 3 Locality-Based Relaxation -- 3.1 Basic Idea -- 3.2 Algorithm -- 3.3 Data Set -- 3.4 Experimental Results -- 3.5 Locality-Based Relaxation -- 4 Discussion -- 5 Conclusions and Future Work -- References -- Logic, Semantics, and Programming Theory -- Exposing Latent Mutual Exclusion by Work Automata -- 1 Introduction -- 2 Work Automata -- 2.1 Syntax -- 2.2 Semantics -- 2.3 Weak Simulation. -- 2.4 Composition -- 2.5 Hiding -- 3 State Space Minimization -- 3.1 Gluing -- 3.2 Translation -- 3.3 Contraction -- 4 Related Work -- 5 Conclusion -- References -- A Decidable Subtyping Logic for Intersection and Union Types -- 1 Introduction -- 1.1 Contributions -- 1.2 Related Work -- 2 System -- 3 Realizers -- 4 Subtyping Algorithm -- 4.1 The Algorithm Lg -- 5 Conclusions -- References -- Container Combinatorics: Monads and Lax Monoidal Functors -- 1 Introduction -- 2 Containers, Directed Containers -- 2.1 Containers -- 2.2 Directed Containers -- 3 Containers Monads -- 4 Containers Lax Monoidal Functors -- 5 Further Specializations -- 6 Conclusion -- References -- Unification of Hypergraph -Terms -- 1 Introduction -- 2 Hypergraph -Terms -- 2.1 HyperLMNtal -- 2.2 Hypergraph -Terms -- 3 Unification -- 4 Examples of the Unification -- 5 Implementation -- 6 Related Work and Conclusion -- A Appendix -- A.1 Adequacy of Equivalence -- A.2 Correctness of Unification -- References -- Erratum to: Topics in Theoretical Computer Science -- Erratum to: M.R. Mousavi and J. Sgall (Eds.): Topics in Theoretical Computer Science, LNCS 10608 -- Erratum to: Topics in Theoretical Computer Science -- Erratum to: M.R. Mousavi and J. Sgall (Eds.): Topics in Theoretical Computer Science, LNCS 10608 -- Author Index.

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## Sommario/riassunto

This book constitutes the refereed proceedings of the Second IFIP WG 1.8 International Conference on Topics in Theoretical Computer Science, TTCS 2017, held in Tehran, Iran, in September 2017. The 8 papers presented in this volume were carefully reviewed and selected from 20 submissions. They were organized in topical sections named: algorithms and complexity; and logic, semantics, and programming theory.

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