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Collana	Lecture Notes in Computer Science, , 0302-9743 ; ; 1443
Disciplina	005.1
Soggetti	Software engineering Computers Data structures (Computer science) Computer graphics Computer communication systems Artificial intelligence Software Engineering/Programming and Operating Systems Theory of Computation Data Structures Computer Graphics Computer Communication Networks Artificial Intelligence
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
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Nota di contenuto	Algorithmic verification of linear temporal logic specifications -- On existentially first-order definable languages and their relation to NP -- An algebraic approach to communication complexity -- Deciding global partial-order properties -- Simple linear-time algorithms for minimal fixed points -- Hardness results for dynamic problems by extensions of Fredman and Saks' chronogram method -- Simpler and faster dictionaries on the AC0 RAM -- Partial-congruence factorization of bisimilarity induced by open maps -- Reset nets between

decidability and undecidability -- Geometric algorithms for robotic manipulation -- Compact encodings of planar graphs via canonical orderings and multiple parentheses -- Reducing simple polygons to triangles - A proof for an improved conjecture - -- Difficult configurations — on the complexity of LTrL -- On the expressiveness of real and integer arithmetic automata -- Distributed matroid basis completion via elimination upcast and distributed correction of minimum-weight spanning trees -- Independent sets with domination constraints -- Robust asynchronous protocols are finite-state -- Deciding bisimulation-like equivalences with finite-state processes -- Do probabilistic algorithms outperform deterministic ones? -- A degree-decreasing Lemma for (MOD q, MOD p) circuits -- Improved pseudorandom generators for combinatorial rectangles -- Translation validation for synchronous languages -- An efficient and unified approach to the decidability of equivalence of propositional programs -- On branching programs with bounded uncertainty -- CONS-free programs with tree input -- Concatenable graph processes: Relating processes and derivation traces -- Axioms for contextual net processes -- Existential types: Logical relations and operational equivalence -- Optimal sampling strategies in quicksort -- A genuinely polynomial-time algorithm for sampling two-rowed contingency tables -- A modular approach to denotational semantics -- Generalised flowcharts and games -- Efficient minimization of numerical summation errors -- Efficient approximation algorithms for the subset-sums equality problem -- Structural recursive definitions in type theory -- A good class of tree automata. Application to inductive theorem proving -- Locally periodic infinite words and a chaotic behaviour -- Bridges for concatenation hierarchies -- Complete proof systems for observation congruences in finite-control λ -calculus -- Concurrent constraints in the fusion calculus -- On computing the entropy of cellular automata -- On the determinization of weighted finite automata -- Bulk-synchronous parallel multiplication of boolean matrices -- A complex example of a simplifying rewrite system -- On a duality between Kruskal and Dershowitz theorems -- A total AC-compatible reduction ordering on higher-order terms -- Model checking game properties of multi-agent systems -- Limited wavelength conversion in all-optical tree networks -- Computing mimicking networks -- Metric semantics for true concurrent real time -- The regular real-time languages -- Static and dynamic low-congested interval routing schemes -- Low-bandwidth routing and electrical power networks -- Constraint automata and the complexity of recursive subtype entailment -- Reasoning about the past with two-way automata -- A neuroidal architecture for cognitive computation -- Deterministic polylog approximation for minimum communication spanning trees -- A polynomial time approximation scheme for euclidean minimum cost k-connectivity -- Global/local subtyping and capability inference for a distributed λ -calculus -- Checking strong/Weak bisimulation equivalences and observation congruence for the λ -calculus -- Inversion of circulant matrices over Z_m -- Application of Lempel-Ziv encodings to the solution of word equations -- Explicit substitutions for constructive necessity -- The relevance of proof-irrelevance -- New horizons in quantum information processing -- Sequential iteration of interactive arguments and an efficient zero-knowledge argument for NP -- Image density is complete for non-interactive-SZK -- Randomness spaces -- Totality, definability and boolean circuits -- Quantum counting -- On the complexity of deriving score functions from examples for problems in molecular biology -- A hierarchy of equivalences for asynchronous calculi -- On asynchrony in name-

passing calculi -- Protection in programming-language translations --
Efficient simulations by queue machines -- Power of cooperation and
multihead finite systems -- A simple solution to type specialization --
Multi-stage programming: axiomatization and type safety.

Sommario/riassunto

This book constitutes the refereed proceedings of the 25th International Colloquium on Automata, Languages and Programming, ICALP'98, held in Aalborg, Denmark, in July 1998. The 70 revised full papers presented together with eight invited contributions were carefully selected from a total of 182 submissions. The book is divided in topical sections on complexity, verification, data structures, concurrency, computational geometry, automata and temporal logic, algorithms, infinite state systems, semantics, approximation, theorem proving, formal languages, pi-calculus, automata and BSP, rewriting, networking and routing, zero-knowledge, quantum computing, etc.
