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Descrizione fisica	1 online resource (XI, 381 p.)
Collana	Theoretical Computer Science and General Issues, , 2512-2029 ; ; 5403
Disciplina	005.11
Soggetti	Computer programming Software engineering Compilers (Computer programs) Computer science Programming Techniques Software Engineering Compilers and Interpreters Computer Science Logic and Foundations of Programming
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di contenuto	Invited Talks -- Model Checking: Progress and Problems -- Model Checking Concurrent Programs -- Thread-Modular Shape Analysis -- Invited Tutorials -- Advances in Program Termination and Liveness -- Verification of Security Protocols -- Submitted Papers -- Towards Automatic Stability Analysis for Rely-Guarantee Proofs -- Mostly-Functional Behavior in Java Programs -- The Higher-Order Aggregate Update Problem -- An Abort-Aware Model of Transactional Programming -- Model-Checking the Linux Virtual File System -- LTL Generalized Model Checking Revisited -- Monitoring the Full Range of ? -Regular Properties of Stochastic Systems -- Constraint-Based Invariant Inference over Predicate Abstraction -- Reducing Behavioural to Structural Properties of Programs with Procedures -- Query-Driven Program Testing -- Average-Price-per-Reward Games on Hybrid

Automata with Strong Resets -- Abstraction Refinement for Probabilistic Software -- Finding Concurrency-Related Bugs Using Random Isolation -- An Abstract Interpretation-Based Framework for Control Flow Reconstruction from Binaries -- SubPolyhedra: A (More) Scalable Approach to Infer Linear Inequalities -- Deciding Extensions of the Theories of Vectors and Bags -- A Posteriori Soundness for Non-deterministic Abstract Interpretations -- An Automata-Theoretic Dynamic Completeness Criterion for Bounded Model-Checking -- A Scalable Memory Model for Low-Level Code -- Synthesizing Switching Logic Using Constraint Solving -- Extending Symmetry Reduction by Exploiting System Architecture -- Shape-Value Abstraction for Verifying Linearizability -- Mixed Transition Systems Revisited -- Counterexample Generation for Discrete-Time Markov Chains Using Bounded Model Checking.

Sommario/riassunto

The book constitutes the refereed proceedings of the 10th International Conference on Verification, Model Checking, and Abstract Interpretation, VMCAI 2009, held in Savannah, GA, USA, in January 2009 - co-located with POPL 2009, the 36th Annual Symposium on Principles of Programming Languages. The 24 revised full papers presented together with 3 invited talks and 2 invited tutorials were carefully reviewed and selected from 72 submissions. The papers address all current issues from the communities of verification, model checking, and abstract interpretation, facilitating interaction, cross-fertilization, and advancement of hybrid methods that combine the three areas.
