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Collana	Programming and Software Engineering, , 2945-9168 ; ; 8172
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Soggetti	Software engineering Computer programming Computer networks Computer science Compilers (Computer programs) Software Engineering Programming Techniques Computer Communication Networks Computer Science Logic and Foundations of Programming Compilers and Interpreters
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Nota di contenuto	Invited Papers.-Acceleration for Petri Nets -- Automated Verification and Strategy Synthesis for Probabilistic Systems -- SMT-Based Software Model Checking: Explicit Scheduler, Symbolic Threads -- Regular Papers.-Effective Translation of LTL to Deterministic Rabin Automata: Beyond the (F,G)-Fragment -- Improved Upper and Lower Bounds for B\u00fcuchi Disambiguation -- Time-Bounded Reachability for Monotonic Hybrid Automata: Complexity and Fixed Points -- An Automatic Technique for Checking the Simulation of Timed Systems -- Synthesis of Bounded Integer Parameters for Parametric Timed Reachability Games -- Kleene Algebras and Semimodules for Energy Problems -- Looking at Mean-Payoff and Total-Payoff through Windows -- Weighted Safety -- A Framework for Ranking Vacuity Results --

Synthesizing Masking Fault-Tolerant Systems from Deontic Specifications -- Verification of a Dynamic Management Protocol for Cloud Applications -- Compact Symbolic Execution -- Multi-threaded Explicit State Space Exploration with State Reconstruction -- Verification of Heap Manipulating Programs with Ordered Data by Extended Forest Automata -- Integrating Policy Iterations in Abstract Interpreters -- Interpolation Properties and SAT-Based Model Checking -- Analysis of Message Passing Programs Using SMT-Solvers -- An Expressive Framework for Verifying Deadlock Freedom -- Expected Termination Time in BPA Games -- Precise Cost Analysis via Local Reasoning -- Control Flow Refinement and Symbolic Computation of Average Case Bound -- Termination and Cost Analysis of Loops with Concurrent Interleavings -- Linear Ranking for Linear Lasso Programs -- Merge and Conquer: State Merging in Parametric Timed Automata -- An Automata-Theoretic Approach to Reasoning about Parameterized Systems and Specifications -- Pushdown Systems with Stack Manipulation -- Robustness Analysis of String Transducers -- Tool Papers -- Manipulating LTL Formulas Using Spot 1.0 -- Rabinizer 2: Small Deterministic Automata for LTL\GU -- LTL Model Checking with Neco.-Solving Parity Games on the GPU -- PyEcdar: Towards Open Source Implementation for Timed Systems -- CCMC: A Conditional CSL Model Checker for Continuous-Time Markov Chains -- NLTOOLBOX: A Library for Reachability Computation of Nonlinear Dynamical Systems -- CELL: A Compositional Verification Framework -- VCS: A Verifier for Component-Based Systems -- SmacC: A Retargetable Symbolic Execution Engine -- MoTraS: A Tool for Modal Transition Systems and Their Extensions -- Cunf: A Tool for Unfolding and Verifying Petri Nets with Read Arcs -- Short Papers -- SAT Based Verification of Network Data Planes -- A Theory for Control-Flow Graph Exploration -- The Quest for Precision: A Layered Approach for Data Race Detection in Static Analysis.

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#### Sommario/riassunto

This book constitutes the refereed proceedings of the 11th International Symposium on Automated Technology for Verification and Analysis, ATVA 2013, held at Hanoi, Vietnam, in October 2013. The 27 regular papers, 3 short papers and 12 tool papers presented together with 3 invited talks were carefully selected from 73 submissions. The papers are organized in topical sections on analysis and verification of hardware circuits, systems-on-chip and embedded systems, analysis of real-time, hybrid, priced/weighted and probabilistic systems, deductive, algorithmic, compositional, and abstraction/refinement techniques for analysis and verification, analytical techniques for safety, security, and dependability, testing and runtime analysis based on verification technology, analysis and verification of parallel and concurrent hardware/software systems, verification in industrial practice, and applications and case studies.

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