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Collana	Programming and Software Engineering ; ; 8172
Disciplina	004.015113
Soggetti	Software engineering Computer programming Computer communication systems Computer logic Programming languages (Electronic computers) Software Engineering Programming Techniques Computer Communication Networks Logics and Meanings of Programs Programming Languages, Compilers, Interpreters Software Engineering/Programming and Operating Systems
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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 Buchi 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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