

1. Record Nr.	UNINA9910739423503321
Titolo	Tools and Algorithms for the Construction and Analysis of Systems : 19th International Conference, TACAS 2013, Held as Part of the European Joint Conferences on Theory and Practice of Software, ETAPS 2013, Rome, Italy, March 16-24, 2013, Proceedings // edited by Nir Piterman, Scott Smolka
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 2013
ISBN	3-642-36742-9
Edizione	[1st ed. 2013.]
Descrizione fisica	1 online resource (XXIV, 646 p. 137 illus.)
Collana	Theoretical Computer Science and General Issues, , 2512-2029 ; ; 7795
Disciplina	004.21
Soggetti	Computer science Software engineering Algorithms Compilers (Computer programs) Computer Science Logic and Foundations of Programming Software Engineering Compilers and Interpreters
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di contenuto	On-the-Fly Exact Computation of Bisimilarity Distances -- The Quest for Minimal Quotients for Probabilistic Automata -- LTL Model Checking of Interval Markov Chains -- Ramsey vs. Lexicographic Termination Proving -- Structural Counter Abstraction -- Extending Quantifier Elimination to Linear Inequalities on Bit-Vectors -- The MathSAT5 SMT Solver -- Formula Preprocessing in MUS Extraction -- Proof Tree Preserving Interpolation -- Asynchronous Multi-core Incremental SAT Solving -- Model-Checking Iterated Games -- PRISM-games: A Model Checker for Stochastic Multi-Player Games -- PIC2LNT: Model Transformation for Model Checking an Applied Pi-Calculus -- An Overview of the mCRL2 Toolset and Its Recent Advances -- Analysis of Boolean Programs -- Weighted Pushdown Systems with Indexed Weight Domains -- Underapproximation of Procedure Summaries for Integer

Programs -- Runtime Verification Based on Register Automata -- Unbounded Model-Checking with Interpolation for Regular Language Constraints -- eVolCheck: Incremental Upgrade Checker for C -- Intertwined Forward-Backward Reachability Analysis Using Interpolants -- An Integrated Specification and Verification Technique for Highly Concurrent Data Structures -- A Verification-Based Approach to Memory Fence Insertion in PSO Memory Systems -- Identifying Dynamic Data Structures by Learning Evolving Patterns in Memory -- Synthesis of Circular Compositional Program Proofs via Abduction -- As Soon as Probable: Optimal Scheduling under Stochastic Uncertainty -- Integer Parameter Synthesis for Timed Automata -- LTL Model-Checking for Malware Detection -- Policy Analysis for Self-administrated Role-Based Access Control -- Model Checking Agent Knowledge in Dynamic Access Control Policies -- Frontiers (Graphics and Quantum) Automatic Testing of Real-Time Graphics Systems -- Equivalence Checking of Quantum Protocols -- Encoding Monomorphic and Polymorphic Types -- Deriving Probability Density Functions from Probabilistic Functional Programs -- Tool Demonstrations Polyglot: Systematic Analysis for Multiple Statechart Formalisms -- Memorax, a Precise and Sound Tool for Automatic Fence Insertion under TSO -- BULL: A Library for Learning Algorithms of Boolean Functions -- AppGuard – Enforcing User Requirements on Android Apps -- Model Checking Database Applications -- Efficient Property Preservation Checking of Model Refinements -- Strength-Based Decomposition of the Property Büchi Automaton for Faster Model Checking -- Competition on Software Verification Second Competition on Software Verification (Summary of SV-COMP 2013) -- CPAchecker with Explicit-Value Analysis Based on CEGAR and Interpolation (Competition Contribution) -- CPAchecker with Sequential Combination of Explicit-State Analysis and Predicate Analysis (Competition Contribution) -- CSeq: A Sequentialization Tool for C (Competition Contribution) -- Handling Unbounded Loops with ESBMC 1.20 (Competition Contribution) -- LLBMC: Improved Bounded Model Checking of C Programs Using LLVM (Competition Contribution) -- Predator: A Tool for Verification of Low-Level List Manipulation (Competition Contribution) -- Symbiotic: Synergy of Instrumentation, Slicing, and Symbolic Execution (Competition Contribution) -- Threader: A Verifier for Multi-threaded Programs (Competition Contribution) -- UFO: Verification with Interpolants and Abstract Interpretation (Competition Contribution) -- Ultimate Automizer with SMTInterpol (Competition Contribution).

Sommario/riassunto

This book constitutes the proceedings of the 19th International Conference on Tools and Algorithms for the Construction and Analysis of Systems, TACAS 2013, held in Rome, Italy, in March 2013. The 42 papers presented in this volume were carefully reviewed and selected from 172 submissions. They are organized in topical sections named: Markov chains; termination; SAT/SMT; games and synthesis; process algebra; pushdown; runtime verification and model checking; concurrency; learning and abduction; timed automata; security and access control; frontiers (graphics and quantum); functional programs and types; tool demonstrations; explicit-state model checking; Büchi automata; and competition on software verification.
