

1. Record Nr.	UNINA9910484283903321
Titolo	Tools and Algorithms for the Construction and Analysis of Systems : 23rd International Conference, TACAS 2017, Held as Part of the European Joint Conferences on Theory and Practice of Software, ETAPS 2017, Uppsala, Sweden, April 22-29, 2017, Proceedings, Part I // edited by Axel Legay, Tiziana Margaria
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 2017
ISBN	3-662-54577-2
Edizione	[1st ed. 2017.]
Descrizione fisica	1 online resource (XXIV, 609 p. 152 illus.)
Collana	Theoretical Computer Science and General Issues, , 2512-2029 ; ; 10205
Disciplina	005.14
Soggetti	Computer science Algorithms Software engineering Compilers (Computer programs) Machine theory Computer Science Logic and Foundations of Programming Software Engineering Theory of Computation Compilers and Interpreters Formal Languages and Automata Theory
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Invited Talk -- Validation, Synthesis and Optimization for Cyber-Physical Systems -- Verification Techniques -- An Abstraction Technique For Parameterized Model Checking of Leader Election Protocols: Application to FTSP -- Combining String Abstract Domains for JavaScript Analysis: An Evaluation.-Invariant Checking of NRA Transition Systems via Incremental Reduction to LRA with EUF -- Bounded Quantifier Instantiation for Checking Inductive Invariants -- Proving Termination through Conditional Termination.-Efficient Certified Resolution Proof Checking -- Precise Widening Operators for

Proving Termination by Abstract Interpretation -- Automatic Verification of Finite Precision Implementations of Linear Controllers -- Learning -- Learning Symbolic Automata -- ML for ML: Learning Cost Semantics by Experiment -- A Novel Learning Algorithm for Büchi Automata based on Family of DFAs and Classification Trees -- Synthesis -- Hierarchical Network Formation Games -- Synthesis of Recursive ADT Transformers from Reusable Templates -- Counterexample-Guided Model Synthesis -- Interpolation-Based GR(1) Assumptions Refinement -- Connecting Program Synthesis and Reachability: Automatic Program Repair using Test-Input Generation -- Scaling Enumerative Program Synthesis via Divide and Conquer -- Towards Parallel Boolean Functional Synthesis -- Encodings of Bounded Synthesis -- Tools -- HQSpre - An Effective Preprocessor for QBF and DQBF -- RPP: Automatic Proof of Relational Properties by Self-Composition -- autoCode4: Structural Controller Synthesis -- Automata -- Lazy Automata Techniques for WS1S -- From LTL and limit-deterministic Büchi automata to deterministic parity automata -- Index appearance record for transforming Rabin automata into parity automata -- Minimization of Visibly Pushdown Automata Using Partial Max-SAT -- Concurrency and Bisimulation -- CSimpl: a Framework for the Verification of Concurrent Programs using Rely-Guarante -- Fair Termination for Parameterized Probabilistic Concurrent Systems.- Forward Bisimulations for Nondeterministic Symbolic Finite Automata -- Up-To Techniques for Weighted Systems -- Hybrid Systems -- Rigorous Simulation-Based Analysis of Linear Hybrid Systems -- HARE: A Hybrid Abstraction Refinement Engine for Verifying Non-Linear Hybrid Automata -- Counterexample-guided Refinement of Template Polyhedra. .

---

### Sommario/riassunto

The two-book set LNCS 10205 + 10206 constitutes the proceedings of the 23rd International Conference on Tools and Algorithms for the Construction and Analysis of Systems, TACAS 2017, which took place in Uppsala, Sweden in April 2017, held as Part of the European Joint Conferences on Theory and Practice of Software, ETAPS 2017. The 48 full papers, 4 tool demonstration papers, and 12 software competition papers presented in these volumes were carefully reviewed and selected from 181 submissions to TACAS and 32 submissions to the software competition. They were organized in topical sections named: verification techniques; learning; synthesis; automata; concurrency and bisimulation; hybrid systems; security; run-time verification and logic; quantitative systems; SAT and SMT; and SV COMP. .

---