

1. Record Nr.	UNINA9910349272103321
Titolo	Automated Technology for Verification and Analysis : 17th International Symposium, ATVA 2019, Taipei, Taiwan, October 28–31, 2019, Proceedings / edited by Yu-Fang Chen, Chih-Hong Cheng, Javier Esparza
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2019
ISBN	3-030-31784-6
Edizione	[1st ed. 2019.]
Descrizione fisica	1 online resource (xi, 552 pages) : illustrations
Collana	Programming and Software Engineering, , 2945-9168 ; ; 11781
Disciplina	004.015113 006.333
Soggetti	Software engineering Compilers (Computer programs) Computer science Machine theory Artificial intelligence Algorithms Software Engineering Compilers and Interpreters Computer Science Logic and Foundations of Programming Formal Languages and Automata Theory Artificial Intelligence
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	A Note on Game Theory and Verification -- Lazy Abstraction-Based Controller Synthesis -- Truth Assignments as Conditional Autarkies -- Can We Trust Autonomous Systems? Boundaries and Risks -- Teaching Stratego to Play Ball : Optimal Synthesis for Continuous Space MDPs -- Using Symmetry Transformations in Equivariant Dynamical Systems for their Safety Verification -- Parametric Timed Model Checking for Guaranteeing Timed Opacity -- Adaptive Online First-Order Monitoring -- Multi-Head Monitoring of Metric Temporal Logic -- An Efficient

Algorithm for Computing Causal Trace Sets in Causality Checking --
Conditional Testing: O -the-Shelf Combination of Test-Case
Generators -- Enhancing Symbolic Execution of Heap-based Programs
with Separation Logic for Test Input Generation -- BUBEN: Automated
Library Abstractions Enabling Scalable Bug Detection for Large
Programs with I/O and Complex Environment -- KLUZZER: Whitebox
Fuzzing on top of LLVM -- Automatic Generation of Moment-Based
Invariants for Prob-Solvable Loops -- Chain Free String Constraints --
Synthesizing Efficient Low-Precision Kernels -- New Optimizations and
Heuristics for Determinization of Büchi Automata -- Approximate
Automata for Omega-regular Languages -- DEQ : Equivalence Checker
for Deterministic Register Automata -- LTL3TELA: Small Deterministic
or Nondeterministic Automata from LTL -- Efficient Trace Encodings of
Bounded Synthesis for Asynchronous Distributed Systems -- Reactive
Synthesis of Graphical User Interface Glue Code -- Semantic Labelling
and Learning for Parity Game Solving in LTL Synthesis -- Program
Repair for Hyperproperties -- Generic Emptiness Check for Fun and
Profit -- Deciding Fast Termination for Probabilistic VASS with
Nondeterminism -- Are Parametric Markov Chains Monotonic --
Efficient Information-Flow Verification under Speculative Execution --
Model Checking Data Flows in Concurrent Network Updates.-
Performance Evaluation of NDN Data Plane Using Statistical Model
Checking.

Sommario/riassunto

This book constitutes the refereed proceedings of the 17th International Symposium on Automated Technology for Verification and Analysis, ATVA 2019, held in Taipei, Taiwan in October 2019. The 24 regular papers presented together with 3 tool papers were carefully reviewed and selected from 65 submissions. The symposium is dedicated to the promotion of research on theoretical and practical aspects of automated analysis, verification and synthesis by providing a forum for interaction between the regional and the international research communities and industry in the field. The papers focus on cyber-physical systems; runtime techniques; testing; automata; synthesis; stochastic systems and model checking.
