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	Nota di contenuto	Invited Paper -- Linear Temporal Logic - – From Infinite to Finite Horizon -- Automata Theory -- Determinization and Limit-determinization of Emerson-Lei automata -- Automatic discovery of fair paths in infinite-state transition systems -- Certifying DFA Bounds for Recognition and Separation -- Machine Learning for Formal Methods -- AALpy: An Active Automata Learning Library -- Learning Linear Temporal Properties from Noisy Data: A MaxSAT-based Approach -- Mining Interpretable Spatio-temporal Logic Properties for Spatially Distributed Systems -- Theorem Proving and Tools -- A Formal Semantics of the GraalVM Intermediate Representation -- A Verified Decision Procedure for Orders in Isabelle/HOL -- PJBDD: A BDD Library for Java and Multi-Threading -- Model Checking -- Live Synthesis -- Faster Pushdown Reachability Analysis with Applications in

Network Verification -- Verifying Verified Code -- Probabilistic Analysis -- Probabilistic causes in Markov Chains -- TEMPEST - Synthesis Tool for Reactive Systems and Shields in Probabilistic Environments -- AQUA: Automated Quantized Inference for Probabilistic Programs -- Software and Hardware Verification -- Proving SIFA Protection of Masked Redundant Circuits -- Verification by Gambling on Program Slices -- Runtime Enforcement of Hyperproperties -- System Synthesis and Approximation -- Compositional Synthesis of Modular Systems -- Event-B Refinement for Continuous Behaviours Approximation -- Incorporating Monitors in Reactive Synthesis without Paying the Price -- Verification of Machine Learning -- pyNever: a Framework for Learning and Verification of Neural Networks -- Property-Directed Verification and Robustness Certification of Recurrent Neural Networks.

Sommario/riassunto	This book constitutes the refereed proceedings of the 19th International Symposium on Automated Technology for Verification and Analysis, ATVA 2021, held in Gold Coast, Australia in October 2021. The symposium is dedicated to promoting research in theoretical and practical aspects of automated analysis, verification and synthesis by providing an international venue for the researchers to present new results. The 19 regular papers presented together with 4 tool papers and 1 invited paper were carefully reviewed and selected from 75 submissions. The papers are divided into the following topical sub-headings: Automata Theory; Machine learning for Formal Methods; Theorem Proving and Tools; Model Checking; Probabilistic Analysis; Software and Hardware Verification; System Synthesis and Approximation; and Verification of Machine Learning.