

1. Record Nr.	UNINA9910349275903321
Titolo	Static Analysis : 26th International Symposium, SAS 2019, Porto, Portugal, October 8–11, 2019, Proceedings // edited by Bor-Yuh Evan Chang
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2019
ISBN	3-030-32304-8
Edizione	[1st ed. 2019.]
Descrizione fisica	1 online resource (XIV, 481 p. 2137 illus., 374 illus. in color.)
Collana	Programming and Software Engineering ; ; 11822
Disciplina	005.1
Soggetti	Computer logic Software engineering Programming languages (Electronic computers) Mathematical logic Logics and Meanings of Programs Software Engineering Programming Languages, Compilers, Interpreters Mathematical Logic and Formal Languages
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Nota di contenuto	Rethinking Static Analysis by Combining Discrete and Continuous Reasoning -- Static Analysis of Data Science Software -- Fast and Precise Handling of Positive Weight Cycles for Field-sensitive Pointer Analysis -- Per-Dereference Verification of Temporal Heap Safety via Adaptive Context-Sensitive Analysis -- Syntactic and Semantic Soundness of Structural Dataflow Analysis -- Abstract Interpretation of Indexed Grammars -- Language Inclusion Algorithms as Complete Abstract Interpretations -- On the Monniaux Problem in Abstract Interpretation -- Revisiting Polyhedral Analysis for Hybrid Systems -- An efficient parametric linear programming solver and application to polyhedral projection -- Analysis of Software Patches using Numerical Abstract Interpretation -- Verifying Numerical Programs via Iterative Abstract Testing -- Robustness Verification of Support Vector Machines -- Analyzing Deep Neural Networks with Symbolic Propagation:

Towards Higher Precision and Faster Verification -- Sorcar: Property-Driven Algorithms for Learning Conjunctive Invariants -- Direct Manipulation for Imperative Programs -- Responsibility Analysis by Abstract Interpretation -- Temporal Verification of Programs via First-Order Fixpoint Logic -- A Temporal Logic for Higher-Order Functional Programs -- Multiphase-Linear Ranking Functions and their Relation to Recurrent Sets.

Sommario/riassunto

This book constitutes the refereed proceedings of the 26th International Symposium on Static Analysis, SAS 2019, held in Porto, Portugal, in October 2019. The 20 regular papers presented in this book were carefully reviewed and selected from 50 submissions. The papers are grouped in topical sections on pointers and dataflow; languages and decidability; numerical; trends: assuring machine learning; synthesis and security; and temporal properties and termination.
