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Disciplina 005.1

Soggetti Software engineering

Data structures (Computer science)

Information theory

Natural language processing (Computer science)

Computer programming Computer science

Software Engineering

Data Structures and Information Theory Natural Language Processing (NLP)

Programming Techniques
Theory of Computation

Lingua di pubblicazione Inglese

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Nota di contenuto FASE Contributions -- On Benchmarking for Concurrent Runtime

Verification -- Certified Abstract Cost Analysis -- Bootstrapping
Automated Testing for RESTful Web Services -- A Decision Tree Lifted
Domain for Analyzing Program Families with Numerical Features -Finding a Universal Execution Strategy for Model Transformation
Networks -- CoVEGI: Cooperative Veri cation via Externally Generated
Invariants -- Engineering Secure Self-Adaptive Systems with Bayesian

Games -- An Abstract Contract Theory for Programs with Procedures

-- Paracosm: A Test Framework for Autonomous Driving Simulations -- Compositional Analysis of Probabilistic Timed Graph Transformation Systems -- Efficient Bounded Model Checking of Heap-Manipulating Programs using Tight Field Bounds -- Effects of Program Representation on Pointer Analyses - An Empirical Study -- Keeping Pace with the History of Evolving Runtime Models -- SpecTest: Specification-Based Compiler Testing -- PASTA: An Efficient Proactive Adaptation Approach Based on Statistical Model Checking for Self-Adaptive Systems -- Understanding Local Robustness of Deep Neural Networks under Natural Variations -- Test-Comp Contributions -- Status Report on Software Testing: Test-Comp 2021 -- CoVeriTest with Adaptive Time Scheduling (Competition Contribution) -- FuSeBMC: A White-Box Fuzzer for Finding Security Vulnerabilities in C Programs (Competition Contribution) -- Symbiotic 8: Parallel and Targeted Test Generation (Competition Contribution).

Sommario/riassunto

This open access book constitutes the proceedings of the 24th International Conference on Fundamental Approaches to Software Engineering, FASE 2021, which took place during March 27–April 1, 2021, and was held as part of the Joint Conferences on Theory and Practice of Software, ETAPS 2021. The conference was planned to take place in Luxembourg but changed to an online format due to the COVID-19 pandemic. The 16 full papers presented in this volume were carefully reviewed and selected from 52 submissions. The book also contains 4 Test-Comp contributions.