1. Record Nr. UNISA996495572003316

Titolo	Formal Methods and Software Engineering [[electronic resource]] : 23rd International Conference on Formal Engineering Methods, ICFEM 2022, Madrid, Spain, October 24–27, 2022, Proceedings / / edited by Adrian Riesco, Min Zhang
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2022
ISBN	3-031-17244-2
Edizione	[1st ed. 2022.]
Descrizione fisica	1 online resource (452 pages)
Collana	Lecture Notes in Computer Science, , 1611-3349 ; ; 13478
Disciplina	005.1
Soggetti	Computer science Computer programming Software engineering Compilers (Computer programs) Application software Natural language processing (Computer science) Theory of Computation Programming Techniques Software Engineering Compilers and Interpreters Computer and Information Systems Applications Natural Language Processing (NLP)
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Model checking quantum Markov chains -- Bridging Formal Methods and Machine Learning with Global Optimisation -- Canonical Narrowing for Variant-based Conditional Rewrite Theories -- Modular Analysis of Tree-Topology Models -- Non-linear optimization methods for learning regular distributions -- Separation of concerning things: a simpler basis for defining and programming with the C\C++ memory model -- Creusot: a Foundry for the Deductive Verification of Rust Programs -- Generation of a Reversible Semantics for Erlang in Maude

-- Program slicing techniques with support for unconditional jumps -- Formal verification of the inter-core synchronization of a multi-core RTOS kernel -- SMT-Based Model Checking of Industrial Simulink Models -- PFMC: A Parallel Symbolic Model Checker for Security Protocol Verification -- A Formal Methodology for Verifying Side-channel Vulnerabilities in Cache Architectures -- Refined Modularization for Bounded Model Checking through Precondition Generation -- TTT/ik: Learning Accurate Mealy Automata Efficiently with an Imprecise Symbol Filter -- A Proof System for Cyber-physical Systems with Shared-Variable Concurrency -- Theorem proving for Maude specifications using Lean -- On How to Not Prove Faulty Controllers Safe in Differential Dynamic Logic -- Declassification predicates for controlled information release -- Trace Refinement in B and Event-B -- Model Checking B Models via High-level Code Generation -- On Probabilistic Extension of The Interaction Theory -- Extracting Weighted Finite Automata from Recurrent Neural Networks for Natural Languages -- RoboCert: Property Specification in Robotics -- Formally Verified Animation for RoboChart using Interaction Trees -- Machine-checked executable semantics of Stateflow.

Sommario/riassunto

This book constitutes the proceedings of the 23rd International Conference on Formal Engineering Methods, ICFEM 2022, held in Madrid, Spain, in October 2022. The 16 full and 4 short papers presented together with 1 doctoral symposium paper in this volume were carefully reviewed and selected from 41 submissions. The papers cover for research in all areas related to formal engineering methods, such as verification and validation, software engineering, formal specification and modeling, software security, and software reliability.