

1. Record Nr.	UNISA996691679903316
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Titolo	Software Engineering and Formal Methods : 23rd International Conference, SEFM 2025, Toledo, Spain, November 10–14, 2025, Proceedings // edited by Domenico Bianculli, Elena Gómez-Martínez
Pubbl/distr/stampa	Cham : , : Springer Nature Switzerland : , : Imprint : Springer, , 2026
ISBN	3-032-10444-0
Edizione	[1st ed. 2026.]
Descrizione fisica	1 online resource (475 pages)
Collana	Lecture Notes in Computer Science, , 1611-3349 ; ; 16192
Disciplina	005.1
Soggetti	Software engineering Logic programming Data structures (Computer science) Information theory Microprogramming Computer systems Computer programming Software Engineering Logic in AI Data Structures and Information Theory Control Structures and Microprogramming Computer System Implementation Programming Techniques
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Invited Paper -- Securely Optimized (Ethereum) Smart Contracts using Formal Methods -- Security and Resilience -- Attack Resilience Hyperproperties: Formal Security Analysis of (Automotive) Network Architectures under Active Compromise -- Reachability Analysis of Upper-Stack Manipulating Binary Code -- Resilience of Systems under Maximum Component Deviations -- Formal Specification and Verification 1 -- Axiomatisation of Solidity Memory and Storage -- ProbTest: Unit Testing for Probabilistic Programs -- Observable Semantics for Characterising Consistency Between Heterogeneous

Models -- Formal Specification and Verification 2 -- Certificates and Witnesses for Multi-objective -regular Queries in Markov Decision Processes -- On the Generation of Invalid Objects for Inferring More Precise Class Invariants -- A Rodin Plugin for Generating Proof Obligations for Invariant Preservation for ASTDs -- Software Quality -- Detecting Memory Errors in Rust Programs Including Unsafe Foreign Code -- Are Users More Willing to Use Formally Verified Password Managers? - Can Large Language Models Help Students Prove Software Correctness? An Experimental Study with Dafny -- Artificial Intelligence and Formal Methods -- On the Comparison of Learned Classifiers -- Exploring Unknown Environments with UPPAAL STRATEGO: Safe Reinforcement Learning for Navigation and Pump Localization -- Specification-Guided Repair of Arithmetic Errors in Dafny Programs using LLMs.

Sommario/riassunto

This volume constitutes the proceedings of 23rd International Conference on Software Engineering and Formal Methods, SEFM 2025, held in Toledo, Spain, on November 10–14, 2025. The 13 full papers and 2 short papers included in this book were carefully reviewed and selected from 39 submissions. The proceedings also include 1 invited short paper. They were organized in topical sections as follows: security and resilience; formal specification and verification; software quality; and artificial intelligence and formal methods.
