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Nota di contenuto	-- Formal Verification of Physical Layer Security Protocols for Next-Generation Communication Networks. -- Automata-Based Steering of Large Language Models for Diverse Structured Generation. -- LLM-SYM: Integrating Symbolic Methods and Large Language Models for Automated Theorem Proving. -- Modeling and Analysis of Cyber-Physical Systems in the Hybrid pi-Calculus Using Extended Sequence Diagrams. -- Neural-Symbolic System Control Adjustment Based on Runtime Verification. -- Formalizing Requirements into Dafny Specifications with LLMs. -- Detecting Vector Container Errors in C++

Programs via Abstract Interpretation. -- BCCIC3:Batch Clause Construction Enhanced Generalization in IC3. -- MetaLogic: Robustness Evaluation of Text-to-Image Models Using Logically Equivalent Prompts. -- Formal Construction of Threat Detections from Attack Trees. -- A Test-Driven Approach for Refining Use Case Specifications of Software Requirements with LLMs. -- ZK-ProVer: Proving Programming Verification in Non-Interactive Zero-Knowledge Proofs. -- Synthesizing Loops from Linear Ranking Functions. -- Modeling and Verifying Concurrent Reactive Systems Using Separation Logic. -- Formal Modeling and Verification of Blockchain Consensus Protocols: A Case Study on ChainMaker. -- A Unified Method to Efficiently Verify Opacity of Discrete-Timed Automata. -- Quantitative Verification for Temporal Properties of Massive Linear Systems. -- Avoiding Larger Conflict Regions in CDCL-Style Methods for Solving SMT-NRA. -- Formal Modeling of Reinforcement Learning Systems with SMT. -- Formal modelling of fault tolerant robotic missions. -- Towards High-Level SMT Program Modeling: Bounded Integers, Simplified Structs, and Metaprogramming.

Sommario/riassunto

This volume LNCS 16229 constitutes the refereed proceedings of 26th International Conference on Formal Methods and Software Engineering, ICFEM 2025, in Hangzhou, China, during November 10–13, 2025. The 20 full papers presented were carefully reviewed and selected from 47 submissions. The conference focuses on wide range of research areas, covering both theoretical foundations and practical applications of formal engineering methods.