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Collana	Programming and Software Engineering ; ; 11023
Disciplina	004.0151
Soggetti	Software engineering Programming languages (Electronic computers) Artificial intelligence Computer simulation Mathematical logic Software Engineering Programming Languages, Compilers, Interpreters Artificial Intelligence Simulation and Modeling Mathematical Logic and Formal Languages
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Dynamic Symbolic Execution for Software Analysis -- Integrating Formal Methods for Modeling and Simulation of Swarm Robotics -- Program Correctness Under Weak Memory Consistency -- On the Industrial Uptake of Formal Methods in the Railway Domain: A Survey with Stakeholders -- Reasoning About JML: Differences Between KeY and OpenJML -- Design and Verification of Restart-robust Industrial Control Software -- Efficiently Characterizing the Undefined Requests of a Rule-Based System -- Study of Integrating Random and Symbolic Testing for Object-Oriented Software -- Making Linearizability Compositional for Partially Ordered Executions -- Security Protocol Analysis in Context: Computing Minimal Executions Using SMT and CPSA -- A Precise Pictorial Language for Array Invariants -- Robotics

and Integrated Formal Methods: Necessity Meets Opportunity -- Formal Modeling of Software Defined Networking -- Resource-Aware Virtually Timed Ambients -- Stateful Behavioral Types for Active Objects -- Probabilistic Verification of Timing Constraints in Automotive Systems Using UPPAAL-SMC -- Facilitating the Implementation of Distributed Systems with Heterogeneous Interactions -- State-of-the-Art Model Checking for B and Event-B Using ProB and LTSmin -- Towards A Formal Notion of Impact Metric for Cyber-physical Attacks -- Task Planning with OMT: An Application to Production Logistics -- Branching Temporal Logic of Calls and Returns for Pushdown Systems -- Repair and Generation of Formal Models Using Synthesis -- Mode-aware Concolic Testing for PLC Software -- Formalisation of SysML/KAOS Goal Assignments with B System Component Decompositions -- Analysing AWN-specifications Using mCRL2.

Sommario/riassunto

This book constitutes the refereed proceedings of the 14th International Conference on Integrated Formal Methods, IFM 2018, held in Maynooth, Ireland, in September 2018. The 17 full papers and 5 short papers presented together with 3 invited talks were carefully reviewed and selected from 60 submissions. The conference covers a broad spectrum of topics: from language design, to verification and analysis techniques, to supporting tools and their integration into software engineering practice.
