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Collana	Programming and Software Engineering, , 2945-9168 ; ; 11023
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Soggetti	Software engineering Compilers (Computer programs) Artificial intelligence Computer simulation Machine theory Software Engineering Compilers and Interpreters Artificial Intelligence Computer Modelling Formal Languages and Automata Theory
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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.
