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Descrizione fisica	1 online resource (X, 195 p. 70 illus., 43 illus. in color.)
Collana	Theoretical Computer Science and General Issues, , 2512-2029 ; ; 12864
Disciplina	005.14
Soggetti	Software engineering Machine theory Computer science Algorithms Computer simulation Computers, Special purpose Software Engineering Formal Languages and Automata Theory Computer Science Logic and Foundations of Programming Design and Analysis of Algorithms Computer Modelling Special Purpose and Application-Based Systems
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Invited Talks -- The marriage between safety and cybersecurity: still practicing -- A Hands-on Introduction to Spatial Model Checking using VoxLogicA -- Model Checking -- Accelerating the Computation of Dead and Concurrent Places using Reductions -- Spotlight Abstraction in Model Checking Real-Time Task Schedulability -- Verifying Pipeline Implementations in OpenMP -- Tool Papers -- C-SMC: A Hybrid Statistical Model Checking and Concrete Runtime Engine for Analyzing C Programs -- PatEC: Pattern-based Equivalence Checking -- Go2Pins: a framework for the LTL verification of Go programs -- Probabilistic

Model Checking of Randomized Java Code -- Case Studies -- A model-checked I2C specification.

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Sommario/riassunto

This book constitutes the refereed proceedings of the 27th International Symposium on Model Checking Software, SPIN 2021, held virtually in July 2021. The 3 full papers, 4 tool papers, and 1 case study presented together with 2 invited talks were carefully reviewed and selected from 20 submissions. Topics covered include formal verification techniques for automated analysis of software; formal analysis for modeling languages, such as UML/state charts; formal specification languages, temporal logic, design-by-contract; model checking, automated theorem proving, including SAT and SMT; verifying compilers; abstraction and symbolic execution techniques; and much more.

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