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| Collana | Lecture Notes in Computer Science, , 1611-3349 ; ; 14759 |
| Altri autori (Persone) | GargantiniAngelo LeuschelMichael RiccobeneElvinia ScandurraPatrizia |
| Disciplina | 005.131 |
| Soggetti | Machine theory Computer engineering Computer networks Application software Logic programming Compilers (Computer programs) Formal Languages and Automata Theory Computer Engineering and Networks Computer and Information Systems Applications Logic in AI Compilers and Interpreters |
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| Nota di contenuto | 1 Invited Talk -- Formal Methods and Tools Applied in the Railway Domain -- 2 Research Papers -- Formal Modeling and Analysis of Apache Kafka in Alloy 6 -- Event-B Development of Modelling Human Intervention Request in Self- Driving Vehicle Systems -- Alloy Goes Fuzzy -- Transpilation of Petri-nets into B: Shallow and Deep Embeddings -- A Lean Reflective Abstract State Machine Definition -- Loose Observation in Event-B -- Modal Extensions of the Logic of |

Abstract State Machines -- An Analysis of the Impact of Field-Value Instance Navigation in Alloy's Model Finding -- From Concept to Code: Unveiling a Tool for Translating Abstract State Machines into Java Code -- 3 Short Research Papers -- An Event-B Formal Model for Access Control and Resource Management of Serverless Apps -- Property Ownership Formal Modelling Using Event-B and iUML-B -- A Modeling and Verification Framework for Ethereum Smart Contracts -- Semantics Formalisation – From Event-B Contexts to Theories -- Using Symbolic Execution to Transform Turbo Abstract State Machines into Basic Abstract State Machines -- Multi-model Animation with Jeb -- Meta-Programming Event-B: Advancing Tool Support and Language Extensions -- Event-B as DSL in Isabelle and HOL -- ThoR: An Alloy5-based DSL for Interactive Theorem Proving in Coq -- Verifying HyperLTL properties in Event-B -- Small Step Incremental Verification of Compilers -- Designing Exception Handling using Event-B -- 4 Case Study -- The Mechanical Lung Ventilator Case Study -- Real-Time CCSL: Application to the Mechanical Lung Ventilator -- An Event-B Model of a Mechanical Lung Ventilator -- Modelling the Mechanical Lung Ventilation System using TASTD -- Modelling and Analysing a Mechanical Lung Ventilator in mCRL2 -- FRETting and Formal Modelling: A Mechanical Lung Ventilator -- 5 Doctoral Symposium -- From Event-B to Lambdapi -- Proof Construction and Checking on Evolving Abstract State Machines .

Sommario/riassunto

This book constitutes the refereed proceedings of the 10th International Conference on Rigorous State-Based Methods, ABZ 2024, held in Bergamo, Italy, during June 25–28, 2024. The 29 papers included in this volume were carefully reviewed and selected from 47 submissions. They were organized in topical sections as follows: research papers; short research papers; case study; doctoral symposium.
