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| Descrizione fisica      | 1 online resource (XIX, 432 p. 147 illus.)  |
| Collana                 | Programming and Software Engineering ; ; 10548  |
| Disciplina              | 004   |
| Soggetti                | Software engineering<br>Programming languages (Electronic computers)<br>Computer programming<br>Computer security<br>Computer system failures<br>Software Engineering<br>Programming Languages, Compilers, Interpreters<br>Programming Techniques<br>Systems and Data Security<br>System Performance and Evaluation   |
| Lingua di pubblicazione | Inglese   |
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| Livello bibliografico   | Monografia  |
| Nota di contenuto       | Stream Runtime Monitoring on UAS -- Probabilistic Black-Box Reachability Checking -- Combining Symbolic Runtime Enforcers for Cyber-Physical Systems -- Almost Event-Rate Independent Monitoring of Metric Dynamic Logic -- Annotation Guided Collection of Context-Sensitive Parallel Execution Profiles -- Signal Clustering using Temporal Logics -- Space Efficient Breadth-First and Level Traversals of Consistent Global States of Parallel Programs -- Witnessing Network Transformations -- Combining Model Checking and Runtime Verification for Safe Robotics -- Monitoring Hyperproperties -- TeLEx: Passive STL Learning Using Only Positive Examples -- From Model Checking to Runtime Verification and Back Verifying Policy Enforcers -- Hierarchical Non-Intrusive In-Situ Requirements Monitoring for |

Embedded Systems -- Monitoring Partially Synchronous Distributed Systems using SMT Solvers -- Runtime Detection of Temporal Memory Errors -- Control Dependencies in Interpretive Systems -- Monitoring Time Intervals.

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Sommario/riassunto

This book constitutes the refereed proceedings of the 17th International Conference on Runtime Verification, RV 2017, held in Seattle, WA, USA, in September 2017. The 18 revised full papers presented together with 3 invited presentations, 4 short papers, 5 tool papers, and 3 tutorials, were carefully reviewed and selected from 58 submissions. The RV conference is concerned with all aspects of monitoring and analysis of hardware, software and more general system executions. Runtime verification techniques are lightweight techniques to assess correctness, reliability, and robustness; these techniques are significantly more powerful and versatile than conventional testing, and more practical than exhaustive formal verification.

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