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| Soggetti | Software engineering Algorithms Computer logic Computer programming Programming languages (Electronic computers) Computer system failures Software Engineering Algorithm Analysis and Problem Complexity Logics and Meanings of Programs Programming Techniques Programming Languages, Compilers, Interpreters System Performance and Evaluation |
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| Nota di contenuto | Building Dependable Concurrent Systems through Probabilistic Inference, Predictive Monitoring and Self-Adaptation -- Some Thoughts on Runtime Verification -- Why Tags Could be It -- First International Summer School on Runtime Verifications- Third International Competition on Runtime Verification -- Runtime Verification for HyperLTL -- Runtime Verification at Work: A Startup Perspective -- When RV Meets CEP -- Frama-C, a Collaborative Framework for C Code Verification -- Using Genetic Programming for Software Reliability -- Predicting Space Requirements for a Stream Monitor Specification |

Language -- A Stream-based Specification Language for Network Monitoring -- On the Complexity of Monitoring Orchids Signatures -- Input Attribution for Statistical Model Checking using Logistic Regression -- Quantitative Monitoring of STL with Edit Distance -- Extended Code Coverage for AspectJ-based Runtime Verification Tools -- Nfer - A Logic and Infrastructure for Inferring Event Stream Properties -- Accelerated Runtime Verification of LTL Specifications with Counting Semantics -- Non-Intrusive Runtime Monitoring Through Power Consumption: A Signals and System Analysis Approach to Reconstruct the Trace -- An Automata-based Approach to Evolving Privacy Policies for Social Networks -- TrackOS: A Security-Aware Real-Time Operating System: Leveraging DTrace for Runtime Verification -- Finite-Trace Linear Temporal Logic: Coinductive Completeness -- Wireless Protocol Validation Under Uncertainty -- Dynamic Determinacy Race Detection for Task Parallelism with Futures -- Runtime monitoring for concurrent systems -- Decision-Theoretic Monitoring of Cyber-Physical Systems -- Precision, Recall, and Sensitivity of Monitoring Partially Synchronous Distributed Systems -- Falsification of Conditional Safety Properties for Cyber-Physical Systems with Gaussian Process Regression -- Reactive Property Monitoring of Hybrid Systems with Aggregation -- Integration of Runtime Verification into Metamodeling for Simulation and Code Generation -- Applying Runtime Monitoring for Automotive Electronic Development -- A Monitoring Tool for a Branching-Time Logic -- SMEDL: Combining Synchronous and Asynchronous Monitoring -- Runtime Visualization and Verification in JIVE -- An Overview of MarQ -- Runtime Analysis with R2U2: A Tool Exhibition Report.

Sommario/riassunto

This book constitutes the refereed proceedings of the 16th International Conference on Runtime Verification, RV 2016, held in Madrid, Spain, in September 2016. The 18 revised full papers presented together with 4 short papers, 3 tool papers, 2 tool demonstration papers, and 5 tutorials, were carefully reviewed and selected from 72 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.
