

1. Record Nr.	UNINA9910483638603321
Titolo	Runtime Verification : 6th International Conference, RV 2015, Vienna, Austria, September 22-25, 2015. Proceedings // edited by Ezio Bartocci, Rupak Majumdar
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2015
ISBN	3-319-23820-5
Edizione	[1st ed. 2015.]
Descrizione fisica	1 online resource (XIX, 432 p. 133 illus.)
Collana	Programming and Software Engineering ; ; 9333
Disciplina	001.642
Soggetti	Software engineering Algorithms Computer logic Computer programming Programming languages (Electronic computers) Mathematical logic Software Engineering Algorithm Analysis and Problem Complexity Logics and Meanings of Programs Programming Techniques Programming Languages, Compilers, Interpreters Mathematical Logic and Formal Languages
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di contenuto	Invited Papers -- Towards a Verified Artificial Pancreas: Challenges and Solutions for Runtime Verification -- Twenty Years of Dynamic Software Model Checking -- Explaining Heisenbugs -- Regular Papers -- Qualitative and Quantitative Monitoring of Spatio-Temporal Properties -- Runtime Adaptation for Actor Systems -- Robust Online Monitoring of Signal Temporal Logic -- On Verifying The Hennessy-Milner Logic with Recursion at Runtime -- Assuring the Guardians -- A Case Study on Runtime Monitoring of an Autonomous Research Vehicle (ARV) System -- Monitoring Electronic Exams -- Monitoring Real Android

Malware -- Time-triggered Runtime Verification of Component-Based Multi-core Systems -- Monitoring for a decidable fragment of MTL-R Runtime Verification Through Forward Chaining -- Collision Avoidance for Mobile Robots with Limited Sensing and Limited Information about the Environment -- From First-Order Temporal Logic to Parametric Trace Slicing -- R2U2: Monitoring and Diagnosis of Security Threats for Unmanned Aerial Systems -- A Hybrid Approach to Causality Analysis -- Short Papers -- Statistical Model Checking of Distributed Adaptive Real-Time Software -- Probabilistic Model Checking at Runtime for the Provisioning of Cloud Resources -- Runtime Verification for Hybrid Analysis Tools -- Suggesting Edits to Explain Failing Traces -- Tool Papers -- StaRVOORs - A Tool for Combined Static and Runtime Verification of Java -- TIPEX: a tool chain for Timed Property Enforcement during eXecution -- Tutorial Papers -- Machine Learning Methods in Statistical Model Checking and System Design -- Tutorial -- RV-Android: Efficient Parametric Android Runtime Verification, a Brief Tutorial -- LearnLib Tutorial - An Open Source Java Library for Active Automata Learning -- Monitoring and Measuring Hybrid Behaviors - A Tutorial -- Software Competitions -- Second International Competition on Runtime Verification CRV 2015 -- Rigorous Examination of Reactive Systems: The RERS challenge 2015.

Sommario/riassunto

This book constitutes the refereed proceedings of the 6th International Conference on Runtime Verification, RV 2015, held in Vienna, Austria in September 2015. The 15 revised full papers presented together with 4 short papers, 2 tool papers, 4 tutorials, 3 invited talks, and 2 software competition papers were carefully reviewed and selected from 45 submissions. The discussion of the conference centers around two main aspects. The first is to understand whether the runtime verification techniques can practically complement the traditional methods proving programs correct before their execution, such as model checking and theorem proving. The second concerns with formal methods and how their application can improve traditional ad-hoc monitoring techniques used in performance monitoring, hardware design emulation and simulation, etc.
