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	Collana	Programming and Software Engineering ; ; 8174
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	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
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	Livello bibliografico	Monografia
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	Nota di contenuto	Invited Papers -- Executing Specifications using Synthesis and Constraint Solving -- Runtime Verification with Data -- Programming Without Borders -- Regular Papers -- Informative Types and Effects for Hybrid Migration Control -- Monitoring of Temporal First-order Properties with Aggregations -- From propositional to first-order monitoring -- Right-Universality of Visibly Pushdown Automata -- Distributed Finite-State Runtime Monitoring with Aggregated Events -- Synthesising Correct Concurrent Runtime Monitors (Extended Abstract) -- Practical interruptible conversations: Distributed dynamic

verification with session types and Python -- Runtime Verification with Particle Filtering -- An Optimized Memory Monitoring for Runtime Assertion Checking of C Programs -- Impartiality and Anticipation for Monitoring of Visibly Context-free Properties -- Accelerating Data Race Detection Utilizing On-chip Data-parallel Cores -- Efficient Model to Query and Visualize the System States Extracted from Trace Data -- Repair Abstractions for More Efficient Data Structure Repair -- To Run What No One Has Run Before: Executing an Intermediate Verification Language -- Optimizing Nop-shadows Typestate Analysis by Filtering Interferential Configurations -- A Causality Analysis Framework for Component-based Real-time Systems -- Reducing Monitoring Overhead by Integrating Event- and Time-triggered Techniques -- Short Papers -- A Scala DSL for Rete-based Runtime Verification -- A Late Treatment of C Precondition in Dynamic Symbolic Execution Testing Tools -- Towards a generic non-intrusive fault detection framework -- A Witnessing Compiler: A Proof of Concept -- Runtime Monitoring of Temporal Logic Properties in a Platform Game -- Tool Papers -- SMock | A Test Platform for Monitoring Tools -- SPY: Local Verification of Global Protocols -- Tutorials -- Instrumenting Android and Java Applications as Easy as abc -- On Signal Temporal Logic -- Runtime Verification and Refutation for Biological Systems -- A Lesson on Runtime Assertion Checking with Frama-C -- With Real-time Performance Analysis and Monitoring to Timing Predictable Use of Multi-core Architectures -- Dynamic Analysis and Debugging of Binary Code for Security Applications.

Sommario/riassunto	This book constitutes the refereed proceedings of the 4th International Conference on Runtime Verification, RV 2013, held in Rennes, France, in September 2013. The 24 revised full papers presented together with 3 invited papers, 2 tool papers, and 6 tutorials were carefully reviewed and selected from 58 submissions. The papers address a wide range of specification languages and formalisms for traces; specification mining; program instrumentation; monitor construction techniques; logging, recording, and replay; fault detection, localization, recovery, and repair; program steering and adaptation; as well as metrics and statistical information gathering; combination of static and dynamic analyses and program execution visualization.