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Altri autori (Persone)	BartheGilles <1967-> HermenegildoManuel
Disciplina	005.1
Soggetti	Software engineering Compilers (Computer programs) Computer programming Computer science Algorithms Software Engineering Compilers and Interpreters Programming Techniques Computer Science Logic and Foundations of Programming
Lingua di pubblicazione	Inglese
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Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Invited Talks -- Analysis of Systems with Stochastic Process Creation -- Verifying Concurrent Programs with Chalice -- Static Timing Analysis for Hard Real-Time Systems -- Invited Tutorials -- Abstract Interpretation-Based Protection -- Advances in Probabilistic Model Checking -- Building a Calculus of Data Structures -- Regular Papers -- Temporal Reasoning for Procedural Programs -- Improved Model Checking of Hierarchical Systems -- Path-Oriented Reachability Verification of a Class of Nonlinear Hybrid Automata Using Convex Programming -- Complexity Bounds for the Verification of Real-Time

Software -- An Abstract Domain to Discover Interval Linear Equalities
-- Interpolant Strength -- Checking Bounded Reachability in
Asynchronous Systems by Symbolic Event Tracing -- Invariant and Type
Inference for Matrices -- Deriving Invariants by Algorithmic Learning,
Decision Procedures, and Predicate Abstraction -- Automatic
Abstraction for Congruences -- Shape Analysis of Low-Level C with
Overlapping Structures -- Abstract Threads -- Shape Analysis with
Reference Set Relations -- Shape Analysis in the Absence of Pointers
and Structure -- An Analysis of Permutations in Arrays -- Regular
Linear Temporal Logic with Past -- Model-Checking In-Lined Reference
Monitors -- Considerate Reasoning and the Composite Design Pattern
-- RGSep Action Inference -- Best Probabilistic Transformers --
Collections, Cardinalities, and Relations.

Sommario/riassunto

This book constitutes the refereed proceedings of the 11th International Conference on Verification, Model Checking, and Abstract Interpretation, VMCAI 2010, held in Madrid, Spain, in January 2010. The 21 papers included in this volume were carefully reviewed and selected from 57 submissions. In addition 3 invited talks and 3 invited tutorials are presented. Topics covered by VMCAI include program verification, program certification, model checking, debugging techniques, abstract interpretation, abstract domains, static analysis, type systems, deductive methods, and optimization.
