1. **Record Nr.** UNINA9910483264203321

Titolo	Formal Methods: Foundations and Applications : 12th Brazilian Symposium on Formal Methods, SBMF 2009 Gramado, Brazil, August 19-21, 2009 Revised Selected Papers / / edited by Marcel Vinícius Medeiros Oliveira, Jim Woodcock
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 2009
ISBN	3-642-10452-5
Edizione	[1st ed. 2009.]
Descrizione fisica	1 online resource (X, 351 p.)
Collana	Programming and Software Engineering, , 2945-9168 ; ; 5902
Classificazione	DAT 310f DAT 325f SS 4800
Altri autori (Persone)	OliveiraMarcel Vinicius Medeiros WoodcockJim
Disciplina	004
Soggetti	Software engineering Compilers (Computer programs) Computer science Computer programming Software Engineering Compilers and Interpreters Theory of Computation Computer Science Logic and Foundations of Programming Programming Techniques
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Speeding Up Simulation of SystemC Using Model Checking -- Partial Behaviour Modelling: Foundations for Incremental and Iterative Model-Based Software Engineering -- Satisfiability Modulo Theories: An Appetizer -- Interruption Testing of Reactive Systems -- Test Case Generation of Embedded Real-Time Systems with Interruptions for FreeRTOS -- Concurrent Models of Flash Memory Device Behaviour -- Corecursive Algebras: A Study of General Structured Corecursion -- Formalizing FreeRTOS: First Steps -- A Mechanized Strategy for Safe

Abstraction of CSP Specifications -- Applying Event and Machine Decomposition to a Flash-Based Filestore in Event-B -- An Integrated Formal Methods Tool-Chain and Its Application to Verifying a File System Model -- Towards Safe Design of Synchronous Bus Protocols in Event-B -- Mechanising Data-Types for Kernel Design in Z -- A Complete Set of Object Modeling Laws for Alloy -- Undecidability Results for Distributed Probabilistic Systems -- Formalisation and Analysis of Objects as CSP Processes -- Concolic Testing of the Multi-sector Read Operation for Flash Memory File System -- Low-Level Code Verification Based on CSP Models -- Formal Modelling of a Microcontroller Instruction Set in B -- Defining Behaviours by Quasi-finality -- Verifying Compiled File System Code -- Reasoning about General Quantum Programs over Mixed States -- A Simple and General Theoretical Account for Abstract Types.

| Sommario/riassunto | This book constitutes the thoroughly refereed post-conference proceedings of the 12th Brazilian Symposium on Formal Methods, SBMF 2009, held in Gramado, Brazil, in August 2009 -- co-located with SAST 2009, the Brazilian Workshop on Systematic and Automated Software Testing. The 20 revised full papers presented together with 3 invited papers were carefully selected from numerous submissions during two rounds of reviewing and improvement. The papers are devoted to the dissemination of the development and use of formal methods for the design and verification of computational systems. The symposium provided an opportunity for researchers with a broad range of interests in formal methods for developing computing systems and software to discuss recent developments in this field. |