1. Record Nr. UNINA9910483617003321

Titolo	Formal Methods for Components and Objects : 5th International Symposium, FMCO 2006, Amsterdam, Netherlands, November 7-10,2006, Revised Lectures / / edited by Frank S. de Boer, Marcello M. Bonsangue, Susanne Graf, Willem-Paul de Roever
Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 2007
ISBN	3-540-74792-3
Edizione	[1st ed. 2007.]
Descrizione fisica	1 online resource (VIII, 300 p.)
Collana	Programming and Software Engineering, , 2945-9168 ; ; 4709
Disciplina	004.0151
Soggetti	Software engineering Compilers (Computer programs) Computer science Operating systems (Computers) Software Engineering Compilers and Interpreters Computer Science Logic and Foundations of Programming Operating Systems
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	Testing -- Model-Based Testing of Environmental Conformance of Components -- Exhaustive Testing of Exception Handlers with Enforcer -- Model-Based Test Selection for Infinite-State Reactive Systems -- Program Verification -- Verifying Object-Oriented Programs with KeY: A Tutorial -- Rebeca: Theory, Applications, and Tools -- Learning Meets Verification -- Trust and Security -- JACK — A Tool for Validation of Security and Behaviour of Java Applications -- Towards a Formal Framework for Computational Trust -- Models of Computation -- On Recursion, Replication and Scope Mechanisms in Process Calculi -- Bounded Session Types for Object Oriented Languages -- Distributed Programming -- Reflecting on Aspect-Oriented Programming, Metaprogramming, and Adaptive Distributed Monitoring -- Links: Web Programming Without Tiers.

Sommario/riassunto

Formal methods have been applied successfully to the verification of medium-sized programs in protocol and hardware design. However, their application to the development of large systems requires more emphasis on specification, modelling and validation techniques supporting the concepts of reusability and modifiability, and their implementation in new extensions of existing programming languages. This book presents 12 revised lectures given by top-researchers at the 5th International Symposium on Formal Methods for Components and Objects, FMCO 2006, held in Amsterdam, Netherlands, in November 2006. The book provides a unique combination of ideas on software engineering and formal methods that reflect the current interest in the application or development of formal methods for large scale software systems such as component-based systems and object systems. The papers are organized in topical sections on component and service oriented computing, system design, tools, algebraic methods, model checking, assertional methods, and quantitative analysis.