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Nota di contenuto   Testing of Finite State Machines -- I. Testing of Finite State Machines -- 1 Homing and Synchronizing Sequences -- 2 State Identification -- 3 State Verification -- 4 Conformance Testing -- II. Testing of Labeled Transition Systems -- Testing of Labeled Transition Systems -- 5 Preorder Relations -- 6 Test Generation Algorithms Based on Preorder Relations -- 7 I/O-automata Based Testing -- 8 Test Derivation from Timed Automata -- 9 Testing Theory for Probabilistic Systems -- III. Model-Based Test Case Generation -- Model-Based Test Case Generation -- 10 Methodological Issues in Model-Based Testing -- 11 Evaluating Coverage Based Testing -- 12 Technology of Test-Case Generation -- 13 Real-Time and Hybrid Systems Testing -- IV. Tools and Case Studies -- Tools and Case Studies -- 14 Tools for Test Case Generation -- 15 Case Studies -- V. Standardized Test Notation and Execution Architecture -- Standardized Test Notation and Execution Architecture -- 16 TTCN-3 -- 17 UML 2.0 Testing Profile -- VI. Beyond Testing -- Beyond Testing -- 18 Run-Time Verification -- 19 Model

Checking -- VII. Appendices -- Appendices -- 20 Model-Based Testing – A Glossary -- 21 Finite State Machines -- 22 Labelled Transition Systems.

Sommario/riassunto	Testing is the primary hardware and software verification technique used by industry today. Usually, it is ad hoc, error prone, and very expensive. In recent years, however, many attempts have been made to develop more sophisticated formal testing methods. This coherent book provides an in-depth assessment of this emerging field, focusing on formal testing of reactive systems. This book is based on a seminar held in Dagstuhl Castle, Germany, in January 2004. It presents 19 carefully reviewed and revised lectures given at the seminar in a well-balanced way ensuring competent complementary coverage of all relevant aspects. An appendix provides a glossary for model-based testing and basics on finite state machines and on labelled transition systems. The lectures are presented in topical sections on testing of finite state machines, testing of labelled transition systems, model-based test case generation, tools and case studies, standardized test notation and execution architectures, and beyond testing.