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Collana	Programming and Software Engineering, , 2945-9168 ; ; 4454
Disciplina	005.14
Soggetti	Computer networks Electronic digital computers - Evaluation Software engineering Computer science Computers and civilization Computer Communication Networks System Performance and Evaluation Software Engineering Computer Science Logic and Foundations of Programming Computers and Society
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	Combining Static and Dynamic Reasoning for Bug Detection -- Testable Requirements and Specifications -- Proving Programs Incorrect Using a Sequent Calculus for Java Dynamic Logic -- Testing and Verifying Invariant Based Programs in the SOCOS Environment -- Testing and Proving Distributed Algorithms in Constructive Type Theory -- Automatic Testing from Formal Specifications -- Using Contracts and Boolean Queries to Improve the Quality of Automatic Test Generation -- Symbolic Execution Techniques for Refinement Testing -- Test-Sequence Generation with Hol-TestGen with an Application to Firewall Testing -- Generating Unit Tests from Formal Proofs -- Using Model Checking to Generate Fault Detecting Tests -- White-Box Testing by Combining Deduction-Based Specification Extraction and Black-Box

Testing.

Sommario/riassunto

This book constitutes the thoroughly refereed post-proceedings of the First International Conference on Test and Proofs, TAP 2007, held in Zurich, Switzerland in February 2007. The 12 revised full papers presented were carefully reviewed and selected for inclusion in the book. The papers are devoted to the convergence of software proofing and testing and feature current research work that combines ideas from both sides to foster software quality. Topics addressed are generation of test cases or oracles by theorem proving, constraint logic programming, model checking, or symbolic execution; program proving with the aid of testing techniques; automatic tools; case studies; formal frameworks; as well as verification techniques combining proofs and tests.
