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Disciplina	005.1
Soggetti	Software engineering Programming languages (Electronic computers) Computer logic Software Engineering/Programming and Operating Systems Software Engineering Programming Languages, Compilers, Interpreters Logics and Meanings of Programs
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Nota di bibliografia	Includes bibliographical references at the end of each chapters and index.
Nota di contenuto	Invited Paper -- Physical Programming: Beyond Mere Logic -- Metamodelling -- Metamodelling and Conformance Checking with PVS -- The Metamodelling Language Calculus: Foundation Semantics for UML -- Distributed Components -- Compositional Checking of Communication among Observers -- Combining Independent Specifications -- Proving Deadlock Freedom in Component-Based Programming -- UML -- A Real-Time Execution Semantics for UML Activity Diagrams -- A CSP View on UML-RT Structure Diagrams -- Strengthening UML Collaboration Diagrams by State Transformations -- Specification of Mixed Systems in Korrigan with the Support of a UML-Inspired Graphical Notation -- On Use Cases and Their Relationships in the Unified Modelling Language -- On the Importance of Inter-scenario Relationships in Hierarchical State Machine Design --

Towards a Rigorous Semantics of UML Supporting Its Multiview Approach -- Towards Development of Secure Systems Using UMLsec -- Testing -- Grammar Testing -- Debugging via Run-Time Type Checking -- Library-Based Design and Consistency Checking of System-Level Industrial Test Cases -- Demonstration of an Automated Integrated Testing Environment for CTI Systems -- Formal Methods -- Semantics of Architectural Specifications in Casl -- Extending Development Graphs with Hiding -- A Logic for the Java Modeling Language JML -- A Hoare Calculus for Verifying Java Realizations of OCL-Constrained Design Models -- Case Studies -- A Formal Object-Oriented Analysis for Software Reliability: Design for Verification -- Specification and Analysis of the AER/NCA Active Network Protocol Suite in Real-Time Maude.

Sommario/riassunto

ETAPS 2001 is the fourth instance of the European Joint Conferences on Theory and Practice of Software. ETAPS is an annual federated conference that was established in 1998 by combining a number of existing and new conferences. This year it comprises five conferences (FOSSACS, FASE, ESOP, CC, TACAS), ten satellite workshops (CMCS, ETI Day, JOSES, LDTA, MMAABS, PFM, ReMiS, UNIGRA, WADT, WTUML), seven invited lectures, a debate, and ten tutorials. The events that comprise ETAPS address various aspects of the system development process, including specification, design, implementation, analysis and improvement. The languages, methodologies and tools which support these activities are all well within its scope. Different blends of theory and practice are represented, with an inclination towards theory with a practical motivation on one hand and soundly-based practice on the other. Many of the issues involved in software design apply to systems in general, including hardware systems, and the emphasis on software is not intended to be exclusive.
