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Descrizione fisica	1 online resource (X, 374 p.)
Collana	Lecture Notes in Computer Science, , 0302-9743 ; ; 2529
Disciplina	004.01/51
Soggetti	Computer communication systems Software engineering Operating systems (Computers) Computer logic Computer Communication Networks Software Engineering/Programming and Operating Systems Software Engineering Operating Systems Logics and Meanings of Programs
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	Encoding PAMR into (Timed) EFMSMs -- Submodule Construction for Specifications with Input Assumptions and Output Guarantees -- Congruent Weak Conformance, a Partial Order among Processes -- Symmetric Symbolic Safety-Analysis of Concurrent Software with Pointer Data Structures -- A Nested Depth First Search Algorithm for Model Checking with Symmetry Reduction -- Protocol Techniques for Testing Radiotherapy Accelerators -- System Test Synthesis from UML Models of Distributed Software -- Formal Test Purposes and the Validity of Test Cases -- Use of Logic to Describe Enhanced Communications Services -- A Formal Venture into Reliable Multicast Territory -- Modelling SIP Services Using Cress -- Verifying Reliable Data Transmission over UMTS Radio Interface with High Level Petri Nets

-- Verifying Randomized Byzantine Agreement\_ -- Automatic SAT-Compilation of Protocol Insecurity Problems via Reduction to Planning -- Visual Specifications for Modular Reasoning about Asynchronous Systems -- Bounded Model Checking for Timed Systems -- C Wolf - A Toolset for Extracting Models from C Programs -- NTIF: A General Symbolic Model for Communicating Sequential Processes with Data -- Building Tools for LOTOS Symbolic Semantics in Maude -- From States to Transitions: Improving Translation of LTL Formulae to Büchi Automata -- A Compositional Sweep-Line State Space Exploration Method -- On Combining the Persistent Sets Method with the Covering Steps Graph Method -- Innovative Verification Techniques Used in the Implementation of a Third-Generation 1.1GHz 64b Microprocessor -- Mechanical Translation of I/O Automaton Specifications into First-Order Logic -- Verification of Event-Based Synchronization of SpecC Description Using Difference Decision Diagrams -- A Distributed Partial Order Reduction Algorithm.

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Sommario/riassunto

The IFIP TC6 WG 6.1 Joint International Conference on Formal Techniques for Networked and Distributed Systems, FORTE 2002, was held this year at Rice University, Houston, Texas, on November 11–14. This annual conference provides a forum for researchers and practitioners from universities and industry to meet and advance technologies in areas of specification, testing, and verification of distributed systems and communication protocols. The main topics are:

- FDT-based system and protocol engineering.
- Semantical foundations.
- Extensions of FDTs.
- Formal approaches to concurrent/distributed object-oriented systems.
- Real-time and probability aspects.
- Performance modeling and analysis.
- Quality of service modeling and analysis.
- Verification and validation.
- Relations between informal and formal specification.
- FDT-based protocol implementation.
- Software tools and support environments.
- FDT application to distributed systems.
- Protocol testing, including conformance testing, interoperability testing, and performance testing.
- Test generation, selection, and coverage.
- Practical experience and case studies.
- Corporate strategic and financial consequences of using formal methods.

A total of 61 papers were submitted to FORTE 2002, and reviewed by members of the program committee and additional reviewers. The program committee selected 22 regular papers, two tool papers, and two posters for presentation at the conference. The program also included three tutorials and five invited talks.

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