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Descrizione fisica	1 online resource (XVI, 512 p.)
Collana	Theoretical Computer Science and General Issues, , 2512-2029 ; ; 3920
Disciplina	005.1
Soggetti	Software engineering Computer science Computer networks Algorithms Software Engineering Computer Science Logic and Foundations of Programming Computer Communication Networks
Lingua di pubblicazione	Inglese
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Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Invited Contributions -- Weighted Pushdown Systems and Trust- Management Systems -- Parametrization and Slicing -- Automatic Verification of Parameterized Data Structures -- Parameterized Verification of ?-Calculus Systems -- Easy Parameterized Verification of Biphase Mark and 8N1 Protocols -- Evaluating the Effectiveness of Slicing for Model Reduction of Concurrent Object-Oriented Programs -- Symbolic Techniques -- New Metrics for Static Variable Ordering in Decision Diagrams -- Widening ROBDDs with Prime Implicants -- Efficient Guided Symbolic Reachability Using Reachability Expressions -- Satisfiability -- SDSAT: Tight Integration of Small Domain Encoding and Lazy Approaches in a Separation Logic Solver -- SAT-Based Software Certification -- Expressiveness + Automation + Soundness: Towards Combining SMT Solvers and Interactive Proof Assistants --

Exploration of the Capabilities of Constraint Programming for Software Verification -- Abstraction -- Counterexample-Guided Abstraction Refinement for the Analysis of Graph Transformation Systems -- Why Waste a Perfectly Good Abstraction? -- Efficient Abstraction Refinement in Interpolation-Based Unbounded Model Checking -- Approximating Predicate Images for Bit-Vector Logic -- Model Checking Algorithms -- Finitary Winning in ω -Regular Games -- Efficient Model Checking for LTL with Partial Order Snapshots -- A Local Shape Analysis Based on Separation Logic -- Program Verification -- Compositional Model Extraction for Higher-Order Concurrent Programs -- A Region Graph Based Approach to Termination Proofs -- Verifying Concurrent Message-Passing C Programs with Recursive Calls -- Automata-Based Verification of Programs with Tree Updates -- Runtime Diagnostics -- An Experimental Comparison of the Effectiveness of Control Flow Based Testing Approaches on Seeded Faults -- Exploiting Traces in Program Analysis -- Quantitative Techniques -- Model-Checking Markov Chains in the Presence of Uncertainties -- Safety Metric Temporal Logic Is Fully Decidable -- Simulation-Based Graph Similarity -- Tool Demonstrations -- PRISM: A Tool for Automatic Verification of Probabilistic Systems -- DISTRIBUTOR and BCG_MERGE: Tools for Distributed Explicit State Space Generation -- mcmas: A Model Checker for Multi-agent Systems -- MSCan – A Tool for Analyzing MSC Specifications -- Refinement -- A Practical and Complete Approach to Predicate Refinement -- Counterexample Driven Refinement for Abstract Interpretation -- Abstraction Refinement with Craig Interpolation and Symbolic Pushdown Systems.

Sommario/riassunto

ETAPS 2006 was the ninth 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 comprised 7 conferences (CC, ESOP, FASE, FOSSACS, TACAS), 18 satellite workshops (AC- CAT, AVIS, CMCS, COCV, DCC, EAAI, FESCA, FRCSS, GT-VMT, LDTA, MBT, QAPL, SC, SLAP, SPIN, TERMGRAPH, WITS and WRLA), two tutorials, and seven invited lectures (not including those that were specific to the satellite events). We received over 550 submissions to the 7 conferences this year, giving an overall acceptance rate of 23%, with acceptance rates below 30% for each conference. Congratulations to all the authors who made it to the final programme! I hope that most of the other authors still found a way of participating in this exciting event and I hope you will continue submitting. 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 the 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.
