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Descrizione fisica	1 online resource (X, 552 p.)
Collana	Lecture Notes in Computer Science, , 0302-9743 ; ; 1427
Disciplina	005.1
Soggetti	Software engineering Computers Computer logic Logic, Symbolic and mathematical Logic design Software Engineering/Programming and Operating Systems Theory of Computation Logics and Meanings of Programs Software Engineering Mathematical Logic and Formal Languages Logic Design
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Bibliographic Level Mode of Issuance: Monograph
Nota di contenuto	Synchronous programming of reactive systems -- Ten years of partial order reduction -- An ACL2 proof of write invalidate cache coherence -- Transforming the theorem prover into a digital design tool: From concept car to off-road vehicle -- A role for theorem proving in multi-processor design -- A formal method experience at secure computing corporation -- Formal methods in an industrial environment -- On checking model checkers -- Finite-state analysis of security protocols -- Integrating proof-based and model-checking techniques for the formal verification of cryptographic protocols -- Verifying systems with infinite but regular state spaces -- Formal verification of out-of-order execution using incremental flushing -- Verification of an

implementation of Tomasulo's algorithm by compositional model checking -- Decomposing the proof of correctness of pipelined microprocessors -- Processor verification with precise exceptions and speculative execution -- Symmetry reductions in model checking -- Structural symmetry and model checking -- Using magnetic disk instead of main memory in the Mur ϕ verifier -- On-the-fly model checking of RCTL formulas -- From pre-historic to post-modern symbolic model checking -- Model checking LTL using net unfoldings -- Model checking for a first-order temporal logic using multiway decision graphs -- On the limitations of ordered representations of functions -- BDD based procedures for a theory of equality with uninterpreted functions -- Computing reachable control states of systems modeled with uninterpreted functions and infinite memory -- Multiple counters automata, safety analysis and presburger arithmetic -- A comparison of Presburger engines for EFSM reachability -- Generating finite-state abstractions of reactive systems using decision procedures -- On-the-fly analysis of systems with unbounded, lossy FIFO channels -- Computing abstractions of infinite state systems compositionally and automatically -- Normed simulations -- An experiment in parallelizing an application using formal methods -- Efficient symbolic detection of global properties in distributed systems -- A machine-checked proof of the optimality of a real-time scheduling policy -- A general approach to partial order reductions in symbolic verification -- Correctness of the concurrent approach to symbolic verification of interleaved models -- Verification of timed systems using POSETs -- Mechanising BAN Kerberos by the inductive method -- Protocol verification in Nuprl -- You assume, we guarantee: Methodology and case studies -- Verification of a parameterized bus arbitration protocol -- The 'test model-checking' approach to the verification of formal memory models of multiprocessors -- Design constraints in symbolic model checking -- Verification of floating-point adders -- Xeve, an Esterel verification environment -- InVeSt : A tool for the verification of invariants -- Verifying mobile processes in the HAL environment -- MONA 1.x: New techniques for WS1S and WS2S -- MOCHA: Modularity in model checking -- SCR: A toolset for specifying and analyzing software requirements -- A toolset for message sequence charts -- Real-time verification of Statemate designs -- Optikron: A tool suite for enhancing model-checking of real-time systems -- Kronos: A model-checking tool for real-time systems.

Sommario/riassunto

This book constitutes the refereed proceedings of the 10th International Conference on Computer Aided Verification, CAV'98, held in Vancouver, BC, Canada, in June/July 1998. The 33 revised full papers and 10 tool papers presented were carefully selected from a total of 117 submissions. Also included are 11 invited contributions. Among the topics covered are modeling and specification formalisms; verification techniques like state-space exploration, model checking, synthesis, and automated deduction; various verification techniques; applications and case studies, and verification in practice.