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Soggetti	Computers Computer logic Software engineering Mathematical logic Electronics Microelectronics Special purpose computers Theory of Computation Logics and Meanings of Programs Software Engineering Mathematical Logic and Formal Languages Electronics and Microelectronics, Instrumentation Special Purpose and Application-Based Systems
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Nota di contenuto	Multipliers and dividers: Insights on arithmetic circuit verification (extended abstract) -- Global rebuilding of OBDDs avoiding memory requirement maxima -- Generating BDD models for process algebra terms -- Hardware verification using monadic second-order logic -- Verifying safety properties of a class of infinite-state distributed algorithms -- Model checking for infinite state systems using data abstraction, assumption-commitment style reasoning and theorem proving -- CAVEAT: technique and tool for computer aided verification

and transformation -- An integration of model checking with automated proof checking -- Automatic datapath abstraction in hardware systems -- Toupie=?-calculus+constraints -- Safety property verification of Esterel programs and applications to telecommunications software -- Methods for Mu-calculus model checking: A tutorial -- Efficient checking of behavioural relations and modal assertions using fixed-point inversion -- It usually works: The temporal logic of stochastic systems -- Local liveness for compositional modeling of fair reactive systems -- Trace theoretic verification of asynchronous circuits using unfoldings -- From duration calculus to linear hybrid automata -- Local model checking for real-time systems -- Algorithmic analysis of nonlinear hybrid systems -- On polynomial-size programs winning finite-state games -- The rabin index and chain automata, with applications to automata and games -- An automata-theoretic approach to fair realizability and synthesis -- Supervisory control of finite state machines -- Compositional and inductive semantic definitions in fixpoint, equational, constraint, closure-condition, rule-based and game-theoretic form -- Utilizing symmetry when model checking under fairness assumptions: An automata-theoretic approach -- Augmenting branching temporal logics with existential quantification over atomic propositions -- Modelling asynchrony with a synchronous model -- On the model checking problem for branching time logics and basic parallel processes -- Using formal verification/analysis methods on the critical path in system design: A case study -- Automated analysis of an audio control protocol -- Interactively verifying a simple real-time scheduler -- Verification of real-time systems by successive over and under approximation -- Efficient timing analysis of a class of Petri nets -- Verifying ?-regular properties for a subclass of linear hybrid systems.

Sommario/riassunto

This volume constitutes the proceedings of the 7th International Conference on Computer Aided Verification, CAV '95, held in Liège, Belgium in July 1995. The book contains the 31 refereed full research papers selected for presentation at CAV '95 as well as abstracts or full papers of the three invited presentations. Originally oriented towards finite-state concurrent systems, CAV now covers all styles of verification approaches and a variety of application areas. The papers included range from theoretical issues to concrete applications with a certain emphasis on verification tools and the algorithms and techniques needed for their implementations. Beyond finite-state systems, real-time systems and hybrid systems are an important part of the conference.