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Collana	Lecture Notes in Computer Science, , 0302-9743 ; ; 3185
Disciplina	005.1
Soggetti	Computers Software engineering Programming languages (Electronic computers) Computer logic Special purpose computers Computer communication systems Theory of Computation Software Engineering Programming Languages, Compilers, Interpreters Logics and Meanings of Programs Special Purpose and Application-Based Systems Computer Communication Networks
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Nota di contenuto	Models and Languages -- Decision Problems for Timed Automata: A Survey -- Timed Petri Nets: Efficiency of Asynchronous Systems -- Timed Process Algebra (With a Focus on Explicit Termination and Relative-Timing) -- Expressiveness of Timed Events and Timed Languages -- Real Time and Stochastic Time -- On the Semantic Foundations of Standard UML 2.0 -- Tools and Applications -- A Tutorial on Uppaal -- The IF Toolset -- Embedded Software Analysis

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## Sommario/riassunto

A large class of computing systems can be specified and verified by abstracting away from the temporal aspects of their behavior. In real-time systems, instead, time issues become essential. Their correctness depends not only on which functions they can perform, but also on the action execution time. Due to their importance and design challenges, real-time systems have attracted the attention of a considerable number of computer scientists and engineers from various research areas. This volume collects a set of papers accompanying the lectures of the fourth edition of the International School on Formal Methods for the Design of Computer, Communication and Software Systems (SFM). The school addressed the use of formal methods in computer science as a prominent approach to the rigorous design of computer, communication and software systems. The main aim of the SFM series is to offer a good spectrum of current research in foundations as well as applications of formal methods, which can be of help for graduate students and young researchers who intend to approach the field. SFM-04:RT was devoted to real-time systems. It covered formal models and languages for the specification, modeling, analysis, and verification of the seti-critical systems, the expressiveness of such models and languages, as well as supporting tools and related applications in different domains.

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