1.	Record Nr.	UNISA996465639603316
	Titolo	Formal Techniques, Modelling and Analysis of Timed and Fault-Tolerant Systems [[electronic resource]] : Joint International Conferences on Formal Modeling and Analysis of Timed Systems, FORMATS 2004 and Formal Techniques in Real Time and Fault-Tolerant Systems, FTRTFT 2004, Grenoble, France, September 22-24, 2004, Proceedings / / edited by Yassine Lakhnech, Sergio Yovine
	Pubbl/distr/stampa	Berlin, Heidelberg : , : Springer Berlin Heidelberg : , : Imprint : Springer, , 2004
	ISBN	3-540-30206-9
	Edizione	[1st ed. 2004.]
	Descrizione fisica	1 online resource (X, 402 p.)
	Collana	Lecture Notes in Computer Science, , 0302-9743 ; ; 3253
	Disciplina	003/.3
	Soggetti	Computers Computer logic Programming languages (Electronic computers) Microprocessors Special purpose computers Software engineering Theory of Computation Logics and Meanings of Programs Programming Languages, Compilers, Interpreters Processor Architectures Special Purpose and Application-Based Systems Software Engineering
	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 at the end of each chapters and index.
	Nota di contenuto	Invited Papers -- From Software to Hardware and Back -- Of Elections and Electrons -- Regular Papers -- Formal Verification of an Avionics Sensor Voter Using SCADE -- Mixed Delay and Threshold Voters in Critical Real-Time Systems -- Towards a Methodological Approach to Specification and Analysis of Dependable Automation Systems -- On Two-Sided Approximate Model-Checking: Problem Formulation and

Solution via Finite Topologies -- On Timed Automata with Input-Determined Guards -- Decomposing Verification of Timed I/O Automata -- Symbolic Model Checking for Simply-Timed Systems -- Robustness and Implementability of Timed Automata -- Real-Time Testing with Timed Automata Testers and Coverage Criteria -- Monitoring Temporal Properties of Continuous Signals -- A Unified Fault-Tolerance Protocol -- Automating the Addition of Fail-Safe Fault-Tolerance: Beyond Fusion-Closed Specifications -- Modeling and Verification of a Fault-Tolerant Real-Time Startup Protocol Using Calendar Automata -- Static Fault-Tolerant Real-Time Scheduling with "Pseudo-topological" Orders -- The Influence of Durational Actions on Time Equivalences -- Bounded Model Checking for Region Automata -- Some Progress in Satisfiability Checking for Difference Logic -- Model-Checking for Weighted Timed Automata -- Symbolic Model Checking for Probabilistic Timed Automata -- Structured Modeling of Concurrent Stochastic Hybrid Systems -- Computing Schedules for Multithreaded Real-Time Programs Using Geometry -- Forward Reachability Analysis of Timed Petri Nets -- Lazy Approximation for Dense Real-Time Systems -- Learning of Event-Recording Automata.

| Sommario/riassunto | This volume contains the proceedings of the joint conference on Formal M- elling and Analysis of Timed Systems (FORMATS) and Formal Techniques in Real-Time and Fault Tolerant Systems (FTRTFT), held in Grenoble,France,on September 22–24,2004. The conference united two previously independently - ganized conferences FORMATS and FTRTFT. FORMATS 2003 was organized asasatelliteworkshopofCONCUR2003andwasrelatedtothreeindependently started workshop series: MTCS (held as a satellite event of CONCUR 2000 and CONCUR 2002), RT-TOOLS (held as a satellite event of CONCUR 2001 and FLoC 2002) and TPTS (held at ETAPS 2002). FTRTFT is a symposium that was held seven times before: in Warwick 1988, Nijmegen 1992, Lu ¨beck 1994, Uppsala 1996, Lyngby 1998, Pune 2000 and Oldenburg 2002. The proceedings of these symposia were published as volumes 331, 571, 863, 1135, 1486, 1926, and 2469 in the LNCS series by Springer. Thisjointconferenceis dedicatedtotheadvancementofthetheoryandpr- ticeofthe modelling, designandanalysisofreal-timeandfault-tolerantsystems. Indeed, computersystemsarebecomingincreasinglywidespreadinreal-timeand safety-critical applications such as embedded systems. Such systems are char- terized by the crucial need to manage their complexity in order to produce reliable designs and implementations. The importance of timing aspects, p- formance and fault-tolerance is continuously growing. Formal techniques o?er a foundation for systematic design of complex systems. They have bene?cial - plications throughout the engineering process, from the capture of requirements through speci? cation, design, coding and compilation, down to the hardware that embeds the system into its environment. |