Record Nr. UNISA996465688803316 Hybrid Systems: Computation and Control [[electronic resource]]: 8th **Titolo** International Workshop, HSCC 2005, Zurich, Switzerland, March 9-11, 2005, Proceedings / / edited by Manfred Morari, Lothar Thiele, Francesca Rossi Pubbl/distr/stampa Berlin, Heidelberg:,: Springer Berlin Heidelberg:,: Imprint: Springer, 2005 Edizione [1st ed. 2005.] 1 online resource (XII, 684 p.) Descrizione fisica Theoretical Computer Science and General Issues, , 2512-2029;; 3414 Collana Disciplina 004.0151 Soggetti Computer science Computers, Special purpose Microprocessors Computer architecture Software engineering Theory of Computation Special Purpose and Application-Based Systems **Processor Architectures** Software Engineering Computer Science Logic and Foundations of Programming 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 and index.

Nota di contenuto Invited Papers -- Coordinated Control for Highly Reconfigurable

Systems -- Operational Semantics of Hybrid Systems -- SOS Methods for Semi-algebraic Games and Optimization -- Regular Papers -- The Discrete Time Behavior of Lazy Linear Hybrid Automata -- Perturbed Timed Automata -- A Homology Theory for Hybrid Systems: Hybrid Homology -- Observability of Switched Linear Systems in Continuous Time -- Controller Synthesis on Non-uniform and Uncertain Discrete—Time Domains -- Qualitative Analysis and Verification of Hybrid Models of Genetic Regulatory Networks: Nutritional Stress Response in Escherichia coli -- Optimal Control of Discrete Hybrid Stochastic Automata -- Hybrid Decentralized Control of Large Scale Systems --

On the Stabilisation of Switching Electrical Power Converters --Bisimulation for General Stochastic Hybrid Systems -- Position and Force Control of Nonsmooth Lagrangian Dynamical Systems Without Friction -- Existence of Cascade Discrete-Continuous State Estimators for Systems on a Partial Order -- Refining Abstractions of Hybrid Systems Using Counterexample Fragments -- PHAVer: Algorithmic Verification of Hybrid Systems Past HyTech -- Direct Torque Control for Induction Motor Drives: A Model Predictive Control Approach Based on Feasibility -- Reachability of Uncertain Linear Systems Using Zonotopes -- Safety Verification of Controlled Advanced Life Support System Using Barrier Certificates -- Polynomial Stochastic Hybrid Systems -- Nonuniqueness in Reverse Time of Hybrid System Trajectories --Comparison of Four Procedures for the Identification of Hybrid Systems -- An Ontology-Based Approach to Heterogeneous Verification of Embedded Control Systems -- Mode-Automata Based Methodology for Scade -- Taylor Approximation for Hybrid Systems -- Infinity Norms as Lyapunov Functions for Model Predictive Control of Constrained PWA Systems -- Air-Traffic Control in Approach Sectors: Simulation Examples and Optimisation -- Identification of Deterministic Switched ARX Systems via Identification of Algebraic Varieties -- Learning Multimodal Control Programs -- A Toolbox of Hamilton-Jacobi Solvers for Analysis of Nondeterministic Continuous and Hybrid Systems -- On Transfinite Hybrid Automata -- Design of Optimal Autonomous Switching Circuits to Suppress Mechanical Vibration -- Interchange Formats for Hybrid Systems: Review and Proposal -- Primal-Dual Tests for Safety and Reachability -- Adjoint-Based Optimal Control of the Expected Exit Time for Stochastic Hybrid Systems -- Safety Verification of Hybrid Systems by Constraint Propagation Based Abstraction Refinement -- Generating Polynomial Invariants for Hybrid Systems --Modeling, Optimization and Computation for Software Verification --Bisimulation for Communicating Piecewise Deterministic Markov Processes (CPDPs) -- Sensor/Actuator Abstractions for Symbolic Embedded Control Design -- Modeling and Control of Networked Control Systems with Random Delays -- Controllability Implies Stabilizability for Discrete-Time Switched Linear Systems.