

1. Record Nr.	UNINA9910143634803321
Titolo	Hybrid systems : computation and control : Third International Workshop, HSCC 2000, Pittsburgh, PA, USA, March 23-25, 2000 : proceedings // Nancy A. Lynch, Bruce H. Krogh, (Eds.)
Pubbl/distr/stampa	Berlin, Germany ; ; New York, New York : , : Springer, , [2000] Â©2000
ISBN	3-540-46430-1
Edizione	[1st ed. 2000.]
Descrizione fisica	1 online resource (XII, 465 p.)
Collana	Lecture Notes in Computer Science, , 0302-9743 ; ; 1790
Disciplina	004.1/9
Soggetti	Hybrid computers Digital control systems
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.
Nota di contenuto	Invited Presentations -- Hybrid Models for Automotive Powertrain Systems: Revisiting a Vision -- Experiences in Designing and Using Formal Specification Languages for Embedded Control Software -- Model-Based Autonomous Systems for Robotic Space Exploration -- Models of Computation and Simulation of Hybrid Systems -- Selected Presentations -- Modular Specification of Hybrid Systems in Charon -- Approximate Reachability Analysis of Piecewise-Linear Dynamical Systems -- Maximal Safe Set Computation for Idle Speed Control of an Automotive Engine -- Optimization-Based Verification and Stability Characterization of Piecewise Affine and Hybrid Systems -- Invariant Sets and Control Synthesis for Switching Systems with Safety Specifications -- Verification of Hybrid Systems with Linear Differential Inclusions Using Ellipsoidal Approximations -- Theory of Optimal Control Using Bisimulations -- Behavior Based Robotics Using Hybrid Automata -- Hybrid Controllers for Hierarchically Decomposed Systems -- Beyond HyTech: Hybrid Systems Analysis Using Interval Numerical Methods -- Robust Undecidability of Timed and Hybrid Systems -- Towards a Theory of Stochastic Hybrid Systems -- Automatic Compilation of Concurrent Hybrid Factories from Product Assembly Specifications -- A Hybrid Feedback Regulator Approach to Control an Automotive Suspension System -- Ellipsoidal Techniques for

Reachability Analysis -- Uniform Reachability Algorithms -- On the Existence of Solutions to Controlled Hybrid Automata -- Nonlinear Stabilization by Hybrid Quantized Feedback -- Diagnosis of Quantised Systems by Means of Timed Discrete-Event Representations -- Existence and Stability of Limit Cycles in Switched Single Server Flow Networks Modelled as Hybrid Dynamical Systems -- Hybrid Systems Diagnosis -- Decidability and Complexity Results for Timed Automata and Semi-linear Hybrid Automata -- Level Set Methods for Computation in Hybrid Systems -- Towards Procedures for Systematically Deriving Hybrid Models of Complex Systems -- Computing Optimal Operation Schemes for Chemical Plants in Multi-batch Mode -- Hybrid Systems Verification by Location Elimination -- A Dynamic Bayesian Network Approach to Tracking Using Learned Switching Dynamic Models -- Stability of Hybrid Systems Using LMIs — A Gear-Box Application -- Invariance of Approximating Automata for Piecewise Linear Systems with Uncertainties -- Decidable Controller Synthesis for Classes of Linear Systems -- Towards a Geometric Theory of Hybrid Systems -- Controlled Invariance of Discrete Time Systems -- Dynamical Systems Revisited: Hybrid Systems with Zeno Executions.

2. Record Nr.	UNISALENTO991003265909707536
Autore	Yengui, Ihsen
Titolo	Constructive commutative algebra [e-book] : projective modules over polynomial rings and dynamical Gröbner bases / Ihsen Yengui
Pubbl/distr/stampa	Cham [Switzerland] : Springer, [2014]
ISBN	9783319194943
Descrizione fisica	1 online resource (vii, 271 pages)
Collana	Lecture Notes in Mathematics, 1617-9692 ; 2138
Classificazione	AMS 13-02 AMS 03F65 AMS 13C10 AMS 13D02 AMS 13P10 LC QA251.3.Y46
Disciplina	512.4
Soggetti	Commutative algebra Gröbner bases Polynomial rings
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa

Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references (pages 259-268) and index
Nota di contenuto	Projective modules over polynomial rings ; Dynamical Gröbner bases ; Syzygies in polynomial rings over valuation domains ; Exercises ; Detailed solutions to the exercises
Sommario/riassunto	<p>The main goal of this book is to find the constructive content hidden in abstract proofs of concrete theorems in Commutative Algebra, especially in well-known theorems concerning projective modules over polynomial rings (mainly the Quillen-Suslin theorem) and syzygies of multivariate polynomials with coefficients in a valuation ring. Simple and constructive proofs of some results in the theory of projective modules over polynomial rings are also given, and light is cast upon recent progress on the Hermite ring and Gröbner ring conjectures. New conjectures on unimodular completion arising from our constructive approach to the unimodular completion problem are presented.</p> <p>Constructive algebra can be understood as a first preprocessing step for computer algebra that leads to the discovery of general algorithms, even if they are sometimes not efficient. From a logical point of view, the dynamical evaluation gives a constructive substitute for two highly nonconstructive tools of abstract algebra: the Law of Excluded Middle and Zorn's Lemma. For instance, these tools are required in order to construct the complete prime factorization of an ideal in a Dedekind ring, whereas the dynamical method reveals the computational content of this construction. These lecture notes follow this dynamical philosophy</p>