1. Record Nr. UNINA9910502662903321

Autore	Jiang Zhong-Ping
Titolo	Trends in Nonlinear and Adaptive Control : A Tribute to Laurent Praly for His 65th Birthday
Pubbl/distr/stampa	Cham : , : Springer International Publishing AG, , 2021 ©2022
ISBN	3-030-74628-3
Descrizione fisica	1 online resource (290 pages)
Collana	Lecture Notes in Control and Information Sciences Ser. ; ; v.488
Altri autori (Persone)	PrieurChristophe AstolfiAlessandro
Soggetti	Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Intro -- Preface -- Contents -- 1 Almost Feedback Linearization via Dynamic Extension: a Paradigm for Robust Semiglobal Stabilization of Nonlinear MIMO Systems -- 1.1 Foreword -- 1.2 Invertibility and Feedback Linearization -- 1.3 Normal Forms of Uniformly Invertible Nonlinear Systems -- 1.3.1 Normal Forms -- 1.3.2 Strongly Minimum-Phase Systems -- 1.4 Robust (Semiglobal) Stabilization via Almost Feedback Linearization -- 1.4.1 Standing Assumptions -- 1.4.2 The Nominal Linearizing Feedback -- 1.4.3 Robust Feedback Design -- 1.5 Application to the Problem of Output Regulation -- 1.6 An Illustrative Example -- References -- 2 Continuous-Time Implementation of Reset Control Systems -- 2.1 Introduction -- 2.2 Objective and Primary Assumption -- 2.3 Continuous-Time Implementation and Main Result -- 2.4 Examples and Simulations -- 2.4.1 Example 2.1 Revisited -- 2.4.2 A Clegg Integrator Controlling a Single Integrator System -- 2.4.3 A Bank of Clegg Integrators Controlling a Strictly Passive System -- 2.4.4 A Bank of Stable FOREs Controlling a Detectable Passive System -- 2.5 Conclusion -- References -- 3 On the Role of Well-Posedness in Homotopy Methods for the Stability Analysis of Nonlinear Feedback Systems -- 3.1 Introduction -- 3.2 Signal Spaces -- 3.2.1 Examples of Signal Spaces -- 3.2.2 Composite Signals -- 3.3 Systems, Controllability, and Causality -- 3.3.1 Controllability -- 3.3.2 Input/Output Systems, Causality, and Hemicontinuity -- 3.4 Stability