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Descrizione fisica	1 online resource (VIII, 252 p. 29 illus.)
Collana	Lecture Notes in Control and Information Sciences, , 1610-7411 ; ; 471
Disciplina	003.85
Soggetti	Automatic control Multibody systems Vibration Mechanics, Applied Dynamics System theory Control theory Game theory Control and Systems Theory Multibody Systems and Mechanical Vibrations Dynamical Systems Systems Theory, Control Game Theory
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Persistence, periodicity and privacy for positive systems in epidemiology and elsewhere -- Control of anesthesia based on singularly perturbed model -- Interval observers for SIR epidemic models subject to uncertain seasonality -- Analysis of a reaction-diffusion epidemic model -- On Feedback Transformation and Integral Input-to-State Stability in Designing Robust Interval Observers for Control Systems -- Stability Analysis of Neutral Type Time-Delay Positive Systems -- Internally Positive Representations and Stability

Analysis of Linear Delay Systems with Multiple Time-Varying Delays --
On robust pseudo state estimation of fractional order systems --
Analysis of the positivity and stability of fractional discrete-time
nonlinear systems -- Continuous-time Compartmental Switched
Systems -- Improved controller design for positive systems and its
application to positive switched systems.

Sommario/riassunto

This book presents high-quality original contributions on positive systems, including topics such as: monotone dynamical systems in mathematical biology and game theory; mathematical developments for networked systems in biology, chemistry and the social sciences; linear and nonlinear positive operators; dynamical analysis, observation and control of positive distributed parameter systems; stochastic realization theory; biological systems with positive variables and positive controls; iterated function systems; nonnegative dynamic processes; and dimensioning problems for collaborative systems. The book comprises a selection of the best papers presented at the POSTA 2016, the 5th International Symposium on Positive Systems, which was held in Rome, Italy, in September 2016. This conference series represents a targeted response to the growing need for research that reports on and critically discusses a wide range of topics concerning the theory and applications of positive systems.