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	Titolo	Analysis and Design for Positive Stochastic Jump Systems / / by Wenhai Qi, Guangdeng Zong
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	ISBN	981-19-5490-9
	Edizione	[1st ed. 2023.]
	Descrizione fisica	1 online resource (219 pages)
	Collana	Studies in Systems, Decision and Control, , 2198-4190 ; ; 450
	Disciplina	519.2
	Soggetti	Automatic control
		System theory
		Control theory
		Dynamics
		Nonlinear theories
		Control and Systems Theory
		Systems Theory, Control
		Applied Dynamical Systems
	Lingua di pubblicazione	Inglese
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	Nota di contenuto	Exponential stability and L1-gain analysis -- Stability and stabilization -- L1-gain and control synthesis -- Finite-time L1 control -- L1 control -- L control -- Robust finite-time stabilization -- Fault detection -- Stochastic stability and L1-gain analysis -- Positive L1 observer design -- Filter design -- Conclusions and future research direction.
	Sommario/riassunto	The book focuses on analysis and design for positive stochastic jump systems. By using multiple linear co-positive Lyapunov function method and linear programming technique, a basic theoretical framework is formed toward the issues of analysis and design for positive stochastic jump systems. This is achieved by providing an in-depth study on several major topics such as stability, time delay, finite-time control, observer design, filter design, and fault detection for positive stochastic jump systems. The comprehensive and systematic treatment of positive systems is one of the major features of the book, which is particularly suited for readers who are interested to learn non-

negative theory. By reading this book, the reader can obtain the most advanced analysis and design techniques for positive stochastic jump systems.