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Descrizione fisica	1 online resource (253 pages)
Altri autori (Persone)	RenShun-Yan WuHuai-Ning HuangTingwen
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Soggetti	Neural networks (Computer science) Dynamics
Lingua di pubblicazione	Inglese
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Livello bibliografico	Monografia
Sommario/riassunto	Highly comprehensive resource for studying neural networks, complex networks, synchronization, passivity, and associated applications Dynamical Behaviors of Multiweighted Complex Network Systems discusses the dynamical behaviors of various multiweighted complex dynamical networks, with detailed insight on synchronization for directed and undirected complex networks (CNs) with multiple state or delayed state couplings subject to recoverable attacks, along with passivity and synchronization for coupled neural networks with multi-weights (CNNMWs) by virtue of devised proportional-integral-derivative (PID) controllers. The book also investigates finite-time synchronization (FTS) and H-infinity synchronization for two types of coupled neural networks (CNNs) and focuses on finite-time passivity (FTP) and finite-time synchronization (FTS) for complex dynamical

networks with multiple state/derivative couplings based on the proportional-derivative (PD) control method. Final chapters consider finite-time output synchronization and H-infinity output synchronization problems, and multiple weighted coupled reaction-diffusion neural networks (CRDNNs) with and without coupling delays. Other topics covered in Dynamical Behaviors of Multiweighted Complex Network Systems include:

- * Criteria of FTP for complex dynamical networks with multiple state couplings (CDNMSCs), formulated by utilizing the PD controller
- * Finite-time passivity (FTP) concepts for the spatially and temporally systems with different dimensions of output and input
- * FTS and finite time H-infinity synchronization problems for CDNs with multiple state/derivative couplings by utilizing state feedback control approach and selecting suitable parameter adjustment schemes
- * Adaptive output synchronization and output synchronization of CDNs with multiple output or output derivative couplings, and other adaptive control schemes

Enabling readers to understand foundational concepts and grasp the latest research, Dynamical Behaviors of Multiweighted Complex Network Systems is essential for all who study neural networks, complex networks, synchronization, passivity, and their applications.
