Record Nr. UNINA9910484365303321 Autore Yan Liping Titolo Multisensor fusion estimation theory and application / / Liping Yan, Lu Jiang and Yuanging Xia Pubbl/distr/stampa Gateway East, Singapore: ,: Springer, , [2021] ©2021 **ISBN** 981-15-9426-0 Edizione [1st ed. 2021.] Descrizione fisica 1 online resource (XVII, 227 p. 59 illus., 46 illus. in color.) Disciplina 621.3 Signal processing Soggetti Automatic control Electrical engineering Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Nota di contenuto Introduction to Optimal Fusion Estimation and Kalman Filtering: Preliminaries -- Kalman Filtering of Discrete Dynamic Systems --Optimal Kalman filtering Fusion for Linear Dynamic Systems with Cross-Correlated Sensor Noises -- Distributed Data Fusion for Multirate Sensor Networks -- Optimal Estimation for Multirate Systems with Unreliable Measurements and Correlated Noise -- Fusion Estimation for Asynchronous Multirate Multisensor Systems with Unreliable Measurements and Coupled Noises -- Multi-sensor Distributed Fusion Estimation for Systems with Network Delays. Uncertainties and Correlated Noises -- Event-triggered Centralized Fusion Estimation for Dynamic Systems with Correlated Noises --Event-triggered Distributed Fusion Estimation for WSN Systems --Event-triggered Sequential Fusion Estimation for Dynamic Systems with Correlated Noises -- Distributed Fusion Estimation for Multisensor Systems with Heavy-tailed Noises -- Sequential Fusion Estimation for Multisensor Systems with Heavy-tailed Noises. This book focuses on the basic theory and methods of multisensor data Sommario/riassunto fusion state estimation and its application. It consists of four parts with

12 chapters. In Part I, the basic framework and methods of multisensor

optimal estimation and the basic concepts of Kalman filtering are

briefly and systematically introduced. In Part II, the data fusion state estimation algorithms under networked environment are introduced. Part III consists of three chapters, in which the fusion estimation algorithms under event-triggered mechanisms are introduced. Part IV consists of two chapters, in which fusion estimation for systems with non-Gaussian but heavy-tailed noises are introduced. The book is primarily intended for researchers and engineers in the field of data fusion and state estimation. It also benefits for both graduate and undergraduate students who are interested in target tracking, navigation, networked control, etc.