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Sommario/riassunto

This book provides several efficient Kalman filters (linear or nonlinear) under information theoretic criteria. They achieve excellent performance in complicated non-Gaussian noises with low computation complexity and have great practical application potential. The book combines all these perspectives and results in a single resource for students and practitioners in relevant application fields. Each chapter starts with a brief review of fundamentals, presents the material focused on the most important properties and evaluates comparatively the models discussing free parameters and their effect on the results. Proofs are provided at the end of each chapter. The book is geared to senior undergraduates with a basic understanding of linear algebra, signal processing and statistics, as well as graduate students or practitioners with experience in Kalman filtering. Provides Kalman filters under information theoretic criteria to achieve excellent performance in a range of applications; Presents each chapter with a brief review of fundamentals and then focuses on the topic's most important properties; Geared to students' understanding of linear algebra, signal processing, and statistics.