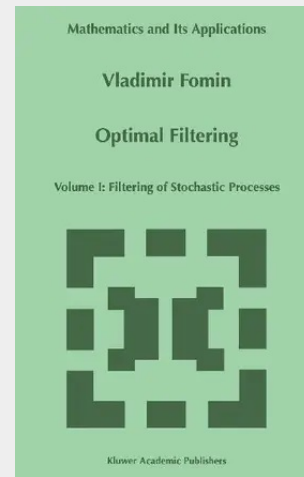


Optimal Filtering

Volume I: Filtering of Stochastic Processes

This book is devoted to an investigation of some important problems of modern filtering theory concerned with systems of 'any nature being able to perceive, store and process an information and apply it for control and regulation'. (The above quotation is taken from the preface to [27]). Despite the fact that filtering theory is largely worked out (and its major issues such as the Wiener-Kolmogorov theory of optimal filtering of stationary processes and Kalman-Bucy recursive filtering theory have become classical) a development of the theory is far from complete. A great deal of recent activity in this area is observed, researchers are trying consistently to generalize famous results, extend them to more broad classes of processes, realize and justify more simple procedures for processing measurement data in order to obtain more efficient filtering algorithms. As to nonlinear filtering, it remains much as fragmentary. Here much progress has been made by R. L. Stratonovich and his successors in the area of filtering of Markov processes. In this volume an effort is made to advance in certain of these issues. The monograph has evolved over many years, coming of age by stages. First it was an impressive job of gathering together the bulk of the important contributions to estimation theory, an understanding and modernization of some of its results and methods, with the intention of applying them to recursive filtering problems.

This book is devoted to an investigation of some important problems of modern filtering theory concerned with systems of 'any nature being able to perceive, store and process an information and apply it for control and regulation'. (The above quotation is taken from the preface to [27]). Despite the fact that filtering theory is largely worked out (and its major issues such as the Wiener-Kolmogorov theory of optimal filtering of stationary processes and Kalman-Bucy recursive filtering theory have become classical) a development of the theory is far from complete. A great deal of recent activity in this area is observed, researchers are trying consistently to generalize famous results, extend them to more broad classes of processes, realize and justify more simple procedures for processing measurement data in order to obtain more efficient filtering algorithms. As to nonlinear filtering, it remains much as fragmentary. Here much progress has been made by R. L. Stratonovich and his successors in the area of filtering of Markov processes. In this volume an effort is made to advance in certain of these issues. The monograph has evolved over many years, coming of age by stages. First it was an impressive job of gathering together the bulk of the important contributions to estimation theory, an understanding and modernization of some of its results and methods, with the intention of applying them to recursive filtering problems.



106,99 €

99,99 € (zzgl. MwSt.)

Lieferfrist: bis zu 10 Tage

Artikelnummer: 9780792352860

Medium: Buch

ISBN: 978-0-7923-5286-0

Verlag: Springer

Erscheinungstermin: 30.11.1998

Sprache(n): Englisch

Auflage: 1999

Serie: Mathematics and Its Applications

Produktform: Gebunden

Gewicht: 1610 g

Seiten: 378

Format (B x H): 160 x 241 mm

