Título:

Autor:

Editorial:

Tema:

Precio: $1087.50

Año: 2012

Edición: 1ª

ISBN: 9781461404866

Sinopsis

This book offers an analytical rather than measure-theoretical approach to the derivation of the partial differential equations of nonlinear filtering theory. The basis for this approach is the discrete numerical scheme used in Monte-Carlo simulations of stochastic differential equations and Wiener's associated path integral representation of the transition probability density. Furthermore, it presents analytical methods for constructing asymptotic approximations to their solution and for synthesizing asymptotically optimal filters. It also offers a new approach to the phase tracking problem, based on optimizing the mean time to loss of lock. The book is based on lecture notes from a one-semester special topics course on stochastic processes and their applications that the author taught many times to graduate students of mathematics, applied mathematics, physics, chemistry, computer science, electrical engineering, and other disciplines. The book contains exercises and worked-out examples aimed at illustrating the methods of mathematical modeling and performance analysis of phase trackers.