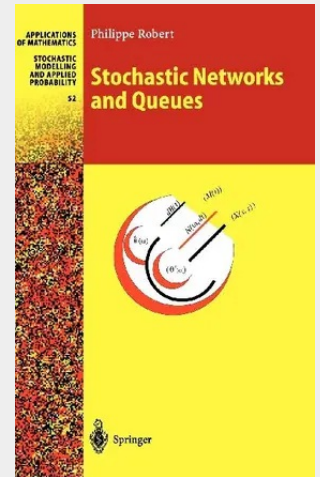


Stochastic Networks and Queues

Queues and stochastic networks are analyzed in this book with purely probabilistic methods. The purpose of these lectures is to show that general results from Markov processes, martingales or ergodic theory can be used directly to study the corresponding stochastic processes. Recent developments have shown that, instead of having ad-hoc methods, a better understanding of fundamental results on stochastic processes is crucial to study the complex behavior of stochastic networks.

In this book, various aspects of these stochastic models are investigated in depth in an elementary way: Existence of equilibrium, characterization of stationary regimes, transient behaviors (rare events, hitting times) and critical regimes, etc. A simple presentation of stationary point processes and Palm measures is given. Scaling methods and functional limit theorems are a major theme of this book. In particular, a complete chapter is devoted to fluid limits of Markov processes.

Queues and stochastic networks are analyzed in this book with purely probabilistic methods. The purpose of these lectures is to show that general results from Markov processes, martingales or ergodic theory can be used directly to study the corresponding stochastic processes. Recent developments have shown that, instead of having ad-hoc methods, a better understanding of fundamental results on stochastic processes is crucial to study the complex behavior of stochastic networks. In this book, various aspects of these stochastic models are investigated in depth in an elementary way: Existence of equilibrium, characterization of stationary regimes, transient behaviors (rare events, hitting times) and critical regimes, etc. A simple presentation of stationary point processes and Palm measures is given. Scaling methods and functional limit theorems are a major theme of this book. In particular, a complete chapter is devoted to fluid limits of Markov processes.



106,99 €

99,99 € (zzgl. MwSt.)

Lieferfrist: bis zu 10 Tage

Artikelnummer: 9783540006572

Medium: Buch

ISBN: 978-3-540-00657-2

Verlag: Springer

Erscheinungstermin: 23.06.2003

Sprache(n): Englisch

Auflage: Erscheinungsjahr 2003

Serie: Stochastic Modelling and Applied Probability

Produktform: Gebunden

Gewicht: 1700 g

Seiten: 399

Format (B x H): 160 x 241 mm

