Adventures in Stochastic Processes

By Sidney I. Resnick

Birkhäuser Sep 1992, 1992. Buch. Book Condition: Neu. 234x156x mm. Neuware - Stochastic processes are necessary ingredients for building models of a wide variety of phenomena exhibiting time varying randomness. In a lively and imaginative presentation, studded with examples, exercises, and applications, and supported by inclusion of computational procedures, the author has created a textbook that provides easy access to this fundamental topic for many students of applied sciences at many levels. With its carefully modularized discussion and crystal clear differentiation between rigorous proof and plausibility argument, it is accessible to beginners but flexible enough to serve as well those who come to the course with strong backgrounds. The prerequisite background for reading the book is a graduate level pre-measure theoretic probability course. No knowledge of measure theory is presumed and advanced notions of conditioning are scrupulously avoided until the later chapters of the book. The tools of applied probability---discrete spaces, Markov chains, renewal theory, point processes, branching processes, random walks, Brownian motion---are presented to the reader in illuminating discussion. Applications include such topics as queuing, storage, risk analysis, genetics, inventory, choice, economics, sociology, and other. Because of the conviction that analysts who build models should know how to build...

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