

<<Basic stochastic pro>>

图书基本信息

书名：<<Basic stochastic processes基础随机过程>>

13位ISBN编号：9783540761754

10位ISBN编号：3540761756

出版时间：2000-9

出版时间：Springer Verlag

作者：Zdzislaw Brzezniak, Tomasz Zastawniak

页数：225

版权说明：本站所提供下载的PDF图书仅提供预览和简介，请支持正版图书。

更多资源请访问：<http://www.tushu007.com>

## &lt;&lt;Basic stochastic pro&gt;&gt;

## 内容概要

This book is a final year undergraduate text on stochastic processes , a tool used widely by statisticians and researchers working in the mathematics of finance.

The book will give a detailed treatment of conditional expectation and probability , a topic which in principle belongs to probability theory , but is essential as a tool for stochastic processes.

Although the book is a final year text , the author has chosen to use exercises as the main means of explanation for the various topics , and the book will have a strong self-study element.

The author has concentrated on the major topics within stochastic analysis : Stochastic Processes , Markov Chains , Spectral Theory , Renewal Theory , Martingales and Itô's Stochastic Processes.

Provides a detailed treatment of conditional expectation & probability , a topic which is essential as a tool for stochastic processes.

Presented as a final year undergraduate text on stochastic processes , a tool used widely by statisticians & researchers working in the mathematics of finance.

Softcover.

DLC : Stochastic processes.

This book is a final year undergraduate text on stochastic processes , a tool used widely by statisticians and researchers working , for example , in the mathematics of finance.

The book will give a detailed treatment of conditional expectation and probability , a topic which is essential as a tool for stochastic processes.

Although the book is a final year text , the authors have chosen to use exercises as the main means of explanation for the various topics , hence the course has a strong self-study element.

The authors have concentrated on major topics within stochastic analysis : martingales in discrete time and their convergence , Markov chains , stochastic processes in continuous time , with emphasis on the Poisson process and Brownian motion , as well as Ito stochastic calculus including stochastic differential equations.

## &lt;&lt;Basic stochastic pro&gt;&gt;

## 书籍目录

1.Review of Probability 1.1 Events and Probability 1.2 Random Variables 1.3 Conditional Probability and Independence 1.4 Solutions  
 2.Conditional Expectation 2.1 Conditioning on an Event 2.2 Conditioning on a Discrete Random Variable 2.3 Conditioning on an Arbitrary Random Variable 2.4 Conditioning on a  $\sigma$ -Field 2.5 General Properties 2.6 Various Exercises on Conditional Expectation 2.7 Solutions  
 3.Martingales in Discrete Time 3.1 Sequences of Random Variables 3.2 Filtrations 3.3 Martingales 3.4 Games of Chance 3.5 Stopping Times 3.6 Optional Stopping Theorem 3.7 Solutions  
 4.Martingale Inequalities and Convergence 4.1 Doob's Martingale Inequalities 4.2 Doob's Martingale Convergence Theorem 4.3 Uniform Integrability and  $L^1$  Convergence of Martingales 4.4 Solutions  
 5.Markov Chains 5.1 First Examples and Definitions 5.2 Classification of States 5.3 Long-Time Behaviour of Markov Chains : General Case 5.4 Long-Time Behaviour of Markov Chains with Finite State Space 5.5 Solutions  
 6.Stochastic Processes in Continuous Time 6.1 General Notions 6.2 Poisson Process 6.2.1 Exponential Distribution and Lack of Memory 6.2.2 Construction of the Poisson Process 6.2.3 Poisson Process Starts from Scratch at Time  $t$  6.2.4 Various Exercises on the Poisson Process 6.3 Brownian Motion 6.3.1 Definition and Basic Properties 6.3.2 Increments of Brownian Motion 6.3.3 Sample Paths 6.3.4 Doob's Maximal  $L^2$  Inequality for Brownian Motion 6.3.5 Various Exercises on Brownian Motion 6.4 Solutions  
 7.Ito Stochastic Calculus 7.1 Itô Stochastic Integral : Definition 7.2 Examples 7.3 Properties of the Stochastic Integral 7.4 Stochastic Differential and Itô Formula 7.5 Stochastic Differential Equations 7.6 Solutions  
 Index

<<Basic stochastic pro>>

版权说明

本站所提供下载的PDF图书仅提供预览和简介, 请支持正版图书。

更多资源请访问:<http://www.tushu007.com>