

<<初等概率论 (第4版)>>

图书基本信息

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## 前言

In this edition two new chapters, 9 and 10, on mathematical finance are added. They are written by Dr. Farid AitSahlia, ancien dlve, who hastaught such a course and worked on the research staff of several industrial and financial institutions. The new text begins with a meticulous account of the uncommon vocabulary and syntax of the financial world; its manifold options and actions, with consequent expectations and variations, in the marketplace. These are then expounded in clear, precise mathematical terms and treated by the methods of probability developed in the earlier chapters. Numerous graded and motivated examples and exercises are supplied to illustrate the applicability of the fundamental concepts and techniques to concrete financial problems. For the reader whose main interest is in finance, only a portion of the first eight chapters is a "prerequisite" for the study of the last two chapters. Further specific references may be scanned from the topics listed in the Index, then pursued in more detail. I have taken this opportunity to fill a gap in Section 8.1 and to expand Appendix 3 to include a useful proposition on martingale stopped at an optional time. The latter notion plays a basic role in more advanced financial and other disciplines. However, the level of our compendium remains elementary, as befitting the title and scheme of this textbook. We have also included some up-to-date financial episodes to enliven, for the beginners, the stratified atmosphere of "strictly business". We are indebted to Ruth Williams, who read a draft of the new chapters with valuable suggestions for improvement; to Bernard Bru and Marc Barbut for information on the Pareto-L~vy laws originally designed for income distributions. It is hoped that a readable summary of this renowned work may be found in the new Appendix 4.

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### 内容概要

本书是一部介绍概率论及其应用的入门教程。

其原始版本面世已经有30余年，但仍然是本科一二年级的经典概率教程。

在第4版中增加了两章讲述应用和数学金融。

传承前面版本详细、严谨的风格，讲述了有价证券和期货理论的基本知识。

书中用最初等的方法讲述了概率测度、随机变量、分布以及期望等基本概念。

离散和连续的案例都有所涉及，在讲述后者的时候运用了微积分知识。

配以大量的典型例子重点讲述概率推理，集中介绍了组合问题、Poisson过程、随机漫步、遗传模型和Markov链。

每章末都附有习题及其解答。

目次：集合；概率；计数；随机变量；附录。

读者对象：数学专业的本科生以及广大概率论爱好者。

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