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<<随机分析基础>>

图书基本信息

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前言

Ten years ago 1 would not have dared to write a book like this：a non-rigorous treatment of a mathematician theorys admit that 1 would have been ashamed， and I am afraid that most of my colleagues in mathematics still think Like this. However， my experience with students and practitioners convinced me that there is a strong demand for popular mathematics. I started writing this book as lecture notes in 1992 when I prepared a course on stochastic calculus for the students of the Commerce Faculty at Victoria University Wellington （New Zealand ）.Since I had failed in giving tutorials on portfolio theory and investment analysis. I Was expected to teach something I knew better.At that time.staft members of economics and mathematicsdepartments already discussed the use of the Black and Scholes option pricingformula；courses on stochastic finance were 0fiered at leading institutions suchas ETH Zfirich.Columbia and Stanford；and there Was a general agreementthat not only students and staft members of economics and mathematics de-partments、but also practitioners in financiai institutions should know moreabout this new topic. Soon I realized that there Was not very much literature which could beused for teaching stochastic caiculus at a rather elementary level.I aln fullyaware of the fact that a combination of “ elementary ” and “ stochastic calculus ” is a contradiction iU itself Stochastic calculus requires advanced mathematicaitechniques；this theory cannot be fullv understood if one does not know aboutthe basics of measure theory， functional analysis and the theory of stochasticprocesses However.I strongly believe that an interested person who knowsabout elementary probability theory and who can handle the rules of inte-gration and difierentiation is able to understand the main ideas of stochasticcalculus.This is supported by my experience which I gained in courses foreconomics statistics and mathematics students at VUW Wellington and theDepartment of Mathematics in Groningen.I got the same impression as alecturer of crash courses on stochastic calculus at the Summer SchOOl.

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内容概要

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