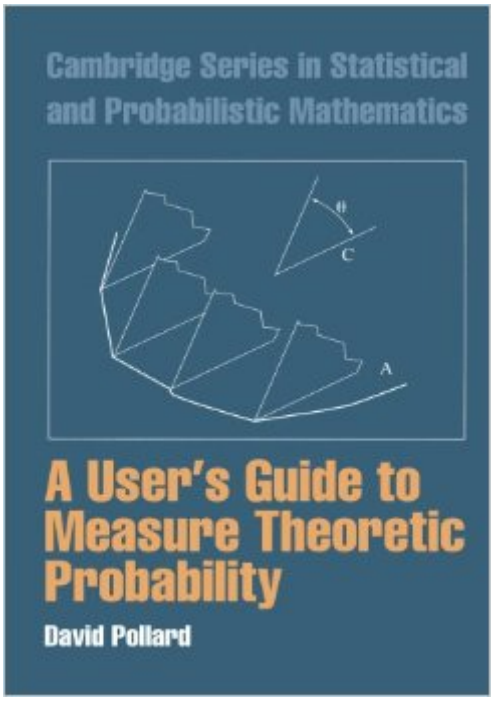
A User's Guide To Measure Theoretic Probability (Cambridge Series In Statistical And Probabilistic Mathematics)



Synopsis

This book grew from a one-semester course offered for many years to a mixed audience of graduate and undergraduate students who have not had the luxury of taking a course in measure theory. The core of the book covers the basic topics of independence, conditioning, martingales, convergence in distribution, and Fourier transforms. In addition there are numerous sections treating topics traditionally thought of as more advanced, such as coupling and the KMT strong approximation, option pricing via the equivalent martingale measure, and the isoperimetric inequality for Gaussian processes. The book is not just a presentation of mathematical theory, but is also a discussion of why that theory takes its current form. It will be a secure starting point for anyone who needs to invoke rigorous probabilistic arguments and understand what they mean.

Book Information

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Customer Reviews

First off I must say we haven’t had a publication in measure theory or abstract probability for decades which integrates as much specialty knowledge and wide range of application as Pollard’s 2002 "A User’s Guide to Measure Theoretic Probability" that is able to prove it! Previous to this work, all these unneccesary distinctions and misunderstandings have been made (and are still being made) between the discrete and the continuous in mathematics, and physics as well. Im not going to spoil the suprises on how it’s done but will simply point out that this work should soon be prerequisite reading for all graduates moving on towards pure mathematics and general-unified field

theoretic applications. Once we can get a concrete understanding of this work we may soon no longer teach nor practice probability theory and mathematics as separated theories nor as separated fields!A User's Guide to Measure Theoretic Probability is a quality book, as are all the books in the Cambridge Series in Statistical and Probabilistic Mathematics (see Wavelet Methods for Time Series Analysis, the Determination and Tracking of Frequency, Bayesian Methods). Illustrations are included in the book as well. You can have a look at the book in PDF format on Pollard's website[...]Topical contents of interest for this book include:Reveals that independence of random variables by means of distribution functions can be done metricaly using product measures instead of factorizing joint densities and assuming independence as transformational smoothness. In other words you can actually do the math smoothly instead of generalizing it as such.The discrete and the continuous no longer have to be taught at the graduate level as though they were differential.

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