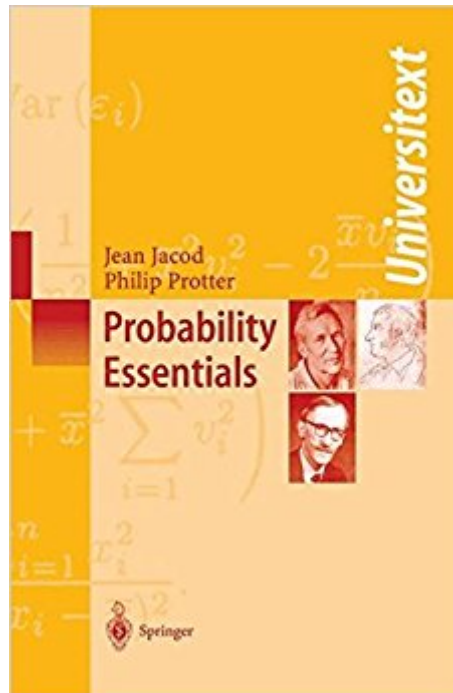**The book was found**

# Probability Essentials

## Synopsis

This introduction can be used, at the beginning graduate level, for a one-semester course on probability theory or for self-direction without benefit of a formal course; the measure theory needed is developed in the text. It will also be useful for students and teachers in related areas such as finance theory, electrical engineering, and operations research. The text covers the essentials in a directed and lean way with 28 short chapters, and assumes only an undergraduate background in mathematics. Readers are taken right up to a knowledge of the basics of Martingale Theory, and the interested student will be ready to continue with the study of more advanced topics, such as Brownian Motion and Ito Calculus, or Statistical Inference.

## Book Information

Series: Universitext

Paperback: 254 pages

Publisher: Springer; 2nd edition (August 5, 2004)

Language: English

ISBN-10: 3540438718

ISBN-13: 978-3540438717

Product Dimensions:  6.1 x 0.6 x 9.2 inches

Shipping Weight: 1.1 pounds (View shipping rates and policies)

Average Customer Review:    4.1 out of 5 stars     9 customer reviews

Best Sellers Rank: #212,649 in Books (See Top 100 in Books)   #54 inÃ Â Books > Science & Math > Evolution > Game Theory   #389 inÃ Â Books > Textbooks > Business & Finance > Finance #804 inÃ Â Books > Textbooks > Science & Mathematics > Mathematics > Statistics

## Customer Reviews

"(The book is) a lean and largely self-contained introduction to the modern theory of probability, aimed at advanced undergraduate or beginning graduate students. The 28 short chapters belie the book's genesis as polished lecture notes; the exposition is sleek and rigorous and each chapter ends with a supporting collection of mainly routine exercises. ... The authors make it clear what luggage is required for this exhilarating trek,... a good knowledge of advanced calculus, some linear algebra, and some "mathematical sophistication". With this understood, the itinerary is immaculately paced and planned with just the right balances of technical ascents and pauses to admire the scenery. Within the constraints of a slim volume, it is hard to imagine how the authors could have done a more effective or more attractive job." The Mathematical Gazette, Vol. 84, No 500, 2000

"The authors provide the shortest path through the twenty-eight chapter headings. The topics are treated in a mathematically and pedagogically digestible way. The writing is concise and crisp: the average chapter length is about eight pages. ... Numerous exercises add to the value of the text as a teaching tool. In conclusion, this is an excellent text for the intended audience."Short Book Reviews, Vol. 21, No. 2, 2001

As far as beginning graduate-level books on probability are concerned this is definitely one of the best. This looks like a set of lectures turned into a book.The competition in my mind would beFirst Look at Rigorous Probability TheoryÃ Â (more compact, perhaps a little dense)Probability & Measure Theory, Second EditionÃ Â (covers more ground and is very clear)A Course in Probability Theory, Revised Edition, Second Edition(very detailed explanations, but you should probably have followed a course on measure theory)Please dont dive into probability at this level, your intuition might not be ready for it.To do that I recommendAn Introduction to Probability Theory and Its Applications, Vol. 1 (Volume 1)Ã Â (if you have the time)There is alsoÃ Â Basic Probability Theory (Dover Books on Mathematics)Ã Â which is an excellent introduction stopping short of measure theory.

This is Springer's attempt at Cliff's Notes? As others have pointed out, it is essentially a set of summary notes, not a real book. At a price level just a little higher, you can get much better ones.

Very good. Awesome.

the statistics lecturer at my university recommended this book, and they choose to purchase it for my studies. The book holds a lot of information, and is definitely worthwhile for those who are interested in numbers. Formulas are well explained and properly documented through methodical examples.

Good

The opening chapters (1-6) provide a decent and readable introduction to key concepts in measure theory: sigma-algebras, (probability) measures, random variables, etc. However, the middle and later chapters are written like lecture notes --definition, theorem, proof; theorem proof; theorem, proof, corollary -- with little motivation or explanation of relevance to measure theoretic probability,

i.e. the lecturer would provide such motivations and explanations (unfortunately the book does not come with a lecturer). The chapters on martingales are thorough--but read like a reference rather than a text-- and the token chapter on the Radon-Nikodym theorem fails to capture its importance in measure theoretic probability. Overall, this book serves as a decent introduction, but I would recommend supplementing the material with corresponding material from e.g. Ash's Probability and Measure Theory or Billingsley's Probability and Measure.

This is an excellent and timely textbook on probability and martingale theory. There is an increasing need of thorough but concise treatise of probability theory for researchers and graduate students in Engineering, Economics, Statistics and Mathematical Biology. Very few textbook fill this need. Jacod and Protter succeeded in bringing together essential concepts and theorems in probability/martingale theory in a clear and lucid style and the book is completely self-contained: all necessary machinery from measure theory are explained and proved while providing a flavor of probabilistic way of thinking. Unlike Williams' "Probability with Martingales", all mathematical details are covered in the body of text. They present conditional expectation through Hilbert space approach and Radon-Nikodym theorem is proved at the end of the book using martingales. This is an indoctrinated way of showing how martingales are applied in other field of mathematics. Each chapter starts with pedagogical explanation of concept and summary of results. This helps reader grasp concepts and develop intuition. The topics, examples and exercises are carefully chosen and well organized. I found several but minor typos and discrepancy in the notation during the last five chapters. Yes, elegant proof is given for each theorem on martingales but rephrasing them may help make it clear where in the proof previous results are used and applied. Also, it would be a great idea to include introductory texts on stochastic calculus in the reference for the beginning students. Despite these minor suggestions, I recommend the book with enthusiasm. After reading this book, one can take their way immediately to stochastic calculus: Brownian motion and Ito calculus and their applications.

This book is my favorite to use as a basis for an introduction to probability theory course. ItÃƒÂ¢Ã â¬Ã â„¢s graduate-level material designed to give a rigorous basis for later probability based courses, and it succeeds admirably. The presentation is clear, detailed, and structured in a way that it is fairly easy to design a course around the bookÃƒÂ¢Ã â¬Ã â•one can make it a required textbook or just use it as a guide to form lecture notes. The same clear exposition and sufficient detail enables it to be used as a self-study guide, too, as long as one has a reasonably

rigorous background in mathematics.ItÃƒÂ¢Ã â¬Ã â„¢s a bit slim and lecture/lesson-oriented to be that great as a reference book, but itÃƒÂ¢Ã â¬Ã â„¢s great to build a course around, and not overly expensive for students. Highest recommendation.

Quantum Probability (Probability and Mathematical Statistics) Probability: 2 Manuscripts Ã¢â ¬â œ Probability with Permutations and Markov Models Modern Essentials Bundle 6th - Modern Essentials 6th Edition a Contemporary Guide to the Therapeutic Use of Essential Oils, An Introduction to Modern Essentials, and Modern Essentials Reference Card Probability Essentials Prepper Essentials: Prepper Essentials What Every Survivalist Needs To Know When Building The Ultimate SHTF Stockpile (Survival Handbook, DIY, Emergency ... Essentials Books, Emergency Prepared) Gambler's Wisdom beyond Probability Probability: Mastering Permutations and Combinations The Statistical Probability of Love at First Sight Probability and Statistics for Engineering and the Sciences Probability and Statistics for Engineers and Scientists The Mathematics of Options: Quantifying Derivative Price, Payoff, Probability, and Risk High-Frequency Trading and Probability Theory (East China Normal University Scientific Reports) Loss Models: From Data to Decisions (Wiley Series in Probability and Statistics) Schaum's Outline of Probability, Random Variables, and Random Processes, Second Edition (Schaum's Outline Series) MT4 High Probability Forex Trading Method (Forex, Forex Trading System, Forex Trading Strategy, Oil, Precious metals, Commodities, Stock Indices, Currency Trading Book 1) Naked Forex: High-Probability Techniques for Trading Without Indicators MT4 High Probability Forex Trading Method Math Puzzles Volume 1: Classic Riddles and Brain Teasers In Counting, Geometry, Probability, And Game Theory Introduction to Probability with Texas Hold Ã¢â ¬â„¢em Examples, Second Edition Probability: Mastering Permutations and Combinations (TONS OF EXAMPLES)