



# Probability Theory: An Analytic View

By Daniel W. Stroock

Download now

Read Online ➔

## Probability Theory: An Analytic View By Daniel W. Stroock

This second edition of Daniel W. Stroock's text is suitable for first-year graduate students with a good grasp of introductory, undergraduate probability theory and a sound grounding in analysis. It is intended to provide readers with an introduction to probability theory and the analytic ideas and tools on which the modern theory relies. It includes more than 750 exercises. Much of the content has undergone significant revision. In particular, the treatment of Levy processes has been rewritten, and a detailed account of Gaussian measures on a Banach space is given. The first part of the book deals with independent random variables, Central Limit phenomena, and the construction of Levy processes, including Brownian motion. Conditioning is developed and applied to discrete parameter martingales in Chapter 5, Chapter 6 contains the ergodic theorem and Burkholder's inequality, and continuous parameter martingales are discussed in Chapter 7. Chapter 8 is devoted to Gaussian measures on a Banach space, where they are treated from the abstract Wiener space perspective. The abstract theory of weak convergence is developed in Chapter 9, which ends with a proof of Donsker's Invariance Principle. The concluding two chapters contain applications of Brownian motion to the analysis of partial differential equations and potential theory.

 [Download Probability Theory: An Analytic View ...pdf](#)

 [Read Online Probability Theory: An Analytic View ...pdf](#)

# Probability Theory: An Analytic View

*By Daniel W. Stroock*

## **Probability Theory: An Analytic View By Daniel W. Stroock**

This second edition of Daniel W. Stroock's text is suitable for first-year graduate students with a good grasp of introductory, undergraduate probability theory and a sound grounding in analysis. It is intended to provide readers with an introduction to probability theory and the analytic ideas and tools on which the modern theory relies. It includes more than 750 exercises. Much of the content has undergone significant revision. In particular, the treatment of Levy processes has been rewritten, and a detailed account of Gaussian measures on a Banach space is given. The first part of the book deals with independent random variables, Central Limit phenomena, and the construction of Levy processes, including Brownian motion. Conditioning is developed and applied to discrete parameter martingales in Chapter 5, Chapter 6 contains the ergodic theorem and Burkholder's inequality, and continuous parameter martingales are discussed in Chapter 7. Chapter 8 is devoted to Gaussian measures on a Banach space, where they are treated from the abstract Wiener space perspective. The abstract theory of weak convergence is developed in Chapter 9, which ends with a proof of Donsker's Invariance Principle. The concluding two chapters contain applications of Brownian motion to the analysis of partial differential equations and potential theory.

## **Probability Theory: An Analytic View By Daniel W. Stroock Bibliography**

- Sales Rank: #2281814 in Books
- Published on: 2010-12-31
- Released on: 2011-03-10
- Original language: English
- Number of items: 1
- Dimensions: 9.96" h x 1.10" w x 8.46" l, 2.02 pounds
- Binding: Paperback
- 548 pages

 [Download Probability Theory: An Analytic View ...pdf](#)

 [Read Online Probability Theory: An Analytic View ...pdf](#)

## **Editorial Review**

### **Review**

"The first edition has already taken its place among the classics of probability theory, and this second edition deserves its own place on that shelf."

Ofer Zeitouni, Mathematical Reviews

"What distinguishes this book from the sea of textbooks on probability theory is the stress on analysis and its nontraditional structure. I am really pleased with the examples and exercises at the end of each paragraph, which are a valuable part of the book. This is an excellent, clearly written text that can be used in graduate and independent study."

Alexander Tzanov, Computing Reviews

### **About the Author**

Dr Daniel W. Stroock is the Simons Professor of Mathematics Emeritus at the Massachusetts Institute of Technology. He has published numerous articles and is the author of six books, most recently Partial Differential Equations for Probabilists (2008).

## **Users Review**

### **From reader reviews:**

#### **Patricia Watts:**

What do you think about book? It is just for students since they're still students or it for all people in the world, the actual best subject for that? Merely you can be answered for that query above. Every person has distinct personality and hobby per other. Don't to be forced someone or something that they don't want do that. You must know how great and also important the book Probability Theory: An Analytic View. All type of book would you see on many solutions. You can look for the internet sources or other social media.

#### **John Jones:**

This Probability Theory: An Analytic View book is simply not ordinary book, you have after that it the world is in your hands. The benefit you receive by reading this book will be information inside this guide incredible fresh, you will get facts which is getting deeper you actually read a lot of information you will get. This Probability Theory: An Analytic View without we know teach the one who reading through it become critical in considering and analyzing. Don't possibly be worry Probability Theory: An Analytic View can bring if you are and not make your tote space or bookshelves' become full because you can have it inside your lovely laptop even telephone. This Probability Theory: An Analytic View having very good arrangement in word along with layout, so you will not sense uninterested in reading.

#### **Nathaniel Cornelius:**

It is possible to spend your free time to read this book this reserve. This Probability Theory: An Analytic

View is simple bringing you can read it in the park, in the beach, train and also soon. If you did not have much space to bring the particular printed book, you can buy the actual e-book. It is make you simpler to read it. You can save the book in your smart phone. Therefore there are a lot of benefits that you will get when you buy this book.

**Jennifer Buster:**

Do you like reading a reserve? Confuse to looking for your favorite book? Or your book had been rare? Why so many concern for the book? But any kind of people feel that they enjoy regarding reading. Some people likes examining, not only science book but also novel and Probability Theory: An Analytic View or perhaps others sources were given knowledge for you. After you know how the truly great a book, you feel wish to read more and more. Science publication was created for teacher as well as students especially. Those textbooks are helping them to add their knowledge. In various other case, beside science e-book, any other book likes Probability Theory: An Analytic View to make your spare time considerably more colorful. Many types of book like here.

**Download and Read Online Probability Theory: An Analytic View  
By Daniel W. Stroock #OCWM4YI6JQA**

# **Read Probability Theory: An Analytic View By Daniel W. Stroock for online ebook**

Probability Theory: An Analytic View By Daniel W. Stroock Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read Probability Theory: An Analytic View By Daniel W. Stroock books to read online.

## **Online Probability Theory: An Analytic View By Daniel W. Stroock ebook PDF download**

### **Probability Theory: An Analytic View By Daniel W. Stroock Doc**

Probability Theory: An Analytic View By Daniel W. Stroock Mobipocket

Probability Theory: An Analytic View By Daniel W. Stroock EPub

OCWM4YI6JQA: Probability Theory: An Analytic View By Daniel W. Stroock