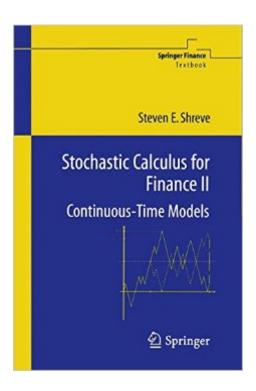
# The book was found

# Stochastic Calculus For Finance II: Continuous-Time Models (Springer Finance)





# Synopsis

"A wonderful display of the use of mathematical probability to derive a large set of results from a small set of assumptions. In summary, this is a well-written text that treats the key classical models of finance through an applied probability approach....It should serve as an excellent introduction for anyone studying the mathematics of the classical theory of finance." --SIAM

### **Book Information**

Series: Springer Finance

Paperback: 550 pages

Publisher: Springer (October 4, 2013)

Language: English

ISBN-10: 144192311X

ISBN-13: 978-1441923110

Product Dimensions: 6.1 x 1.3 x 9.2 inches

Shipping Weight: 2.2 pounds (View shipping rates and policies)

Average Customer Review: 4.0 out of 5 stars Â See all reviews (55 customer reviews)

Best Sellers Rank: #218,813 in Books (See Top 100 in Books) #13 in Books > Science & Math >

Mathematics > Applied > Stochastic Modeling #42 in Books > Business & Money > Economics >

Public Finance #48 in Books > Science & Math > Evolution > Game Theory

## **Customer Reviews**

Think of this as a thank-you letter to Shreve for helping to teach me applied quantitative finance. This is a truly wonderful book and a great place to start learning the subject, regardless of your previous exposure to the subject or mathematical maturity, and has plentiful opportunities in the exercises to practice important results. The first three and part of the fourth chapter serve as the mathematical preparation for the book. Shreve reviews basic concepts from probability, introducing just enough measure-theoretic concepts to understand the motivation behind the concepts of a filtration and its relation to conditional expectation, martingales, and later in a brief chapter on American options, stopping times. Since the book's main emphasis is on the application of the Ito-Doeblin calculus in solving SDE generated by Brownian motion, Chapter 2 covers the necessary elements of conditional expectation for risk-neutral pricing. Chapter 3 covers Brownian motion, although not rigorously - he gives just enough properties of the canonical continuous stochastic process to know how to identify it and to understand its crucial properties. This chapter is important for the first part of Chapter 4, which uses the properties of Brownian motion to develop the notion of

quadratic variation and its role in the calculation of the Ito Integral. After developing the Ito integral and demonstrating its key properties, such as the martingale property and the Ito isometry, Shreve has enough math to start developing the Black-Scholes-Merton framework for actual finance.

Although I work in a major global bank at a senior level I don't use stochastic calculus in my job. My maths and physics background goes back to the 1970s when stochastic calculus was not part of undergraduate studies. Indeed, one usually did stochastic theory at postgraduate level. I have memories of reading Halmos for measure theory, Feller for probability theory, Wiener and others. None of this was easy. Suffice it to say that there were a lot of abstract building blocks one had to erect first before one could actually do anything useful. Stochastic calculus is not easy. It is less intuitive than ordinary calculus. The vast majority of textbooks launch into a wall of definitions that seem divorced from the motivation for them. I am always suspicious of authors who do that. It's fine if you are writing for a very specialised audience but I am with Richard Feynman who reckoned that if you can't provide a simple explanation you don't really understand what is going on. In that context read his PhD thesis - it is most readable and understandable. What Shreve has done - and this is a significant achievement in my view - is to present something that is rigorous enough (and we all know that in this and other areas of mathematics one can go on and on with minute points of detail all in the name of rigour) yet grounds the concepts in something that is understandable. The simple pedagogical fact of life with this type of material is that there is a large overhead in getting to a particular point and Shreve had done a very good job in getting readers to a good standard without destroying their will to go on!

### Download to continue reading...

Stochastic Calculus for Finance II: Continuous-Time Models (Springer Finance) Environment
Learning for Indoor Mobile Robots: A Stochastic State Estimation Approach to Simultaneous
Localization and Map Building (Springer Tracts in Advanced Robotics) Essentials of Stochastic
Processes (Springer Texts in Statistics) Level Crossing Methods in Stochastic Models (International
Series in Operations Research & Management Science) Corporate Finance: Corporate Finance
Guide To Understanding Corporate Finance With Strategies For Business Owners For Utilizing
Corporate Finance Including ... Finance Business, Theory And Practice) Single Variable Calculus:
Early Transcendentals Plus MyMathLab with Pearson eText -- Access Card Package (2nd Edition)
(Briggs/Cochran/Gillett Calculus 2e) Regression Modeling Strategies: With Applications to Linear
Models, Logistic Regression, and Survival Analysis (Springer Series in Statistics) Statistical
Mechanics, Kinetic Theory and Stochastic Process Stochastic Oscillator Trading Indicator -

Determine Market Extremes (Trend Following Mentor) Applied Probability and Stochastic Processes Monte Carlo Methods in Financial Engineering (Stochastic Modelling and Applied Probability) (v. 53) Case Studies in Certified Quantitative Risk Management (CQRM): Applying Monte Carlo Risk Simulation, Strategic Real Options, Stochastic Forecasting, ... Business Intelligence, and Decision Modeling Art Models 7: Dynamic Figures for the Visual Arts (Art Models series) Art Models Ultra: Becca (Art Models series) Art Models 6: The Female Figure in Shadow and Light (Art Models series) Cut and Make Space Shuttles: 8 Full-Color Models that Fly (Models & Toys) Art Models 8: Practical Poses for the Working Artist (Art Models series) Sexy Seductive Lingerie & Boudoir Poses 1000 Positions Photographs: Fashion Models, Pin-Ups, Fashion Photographers, Figure Model, Artists & Art Models The Changing Face of Church: Emerging Models of Parish Leadership (Emerging Models of Pastoral Leadership) Time Series Analysis: With Applications in R (Springer Texts in Statistics)

**Dmca**