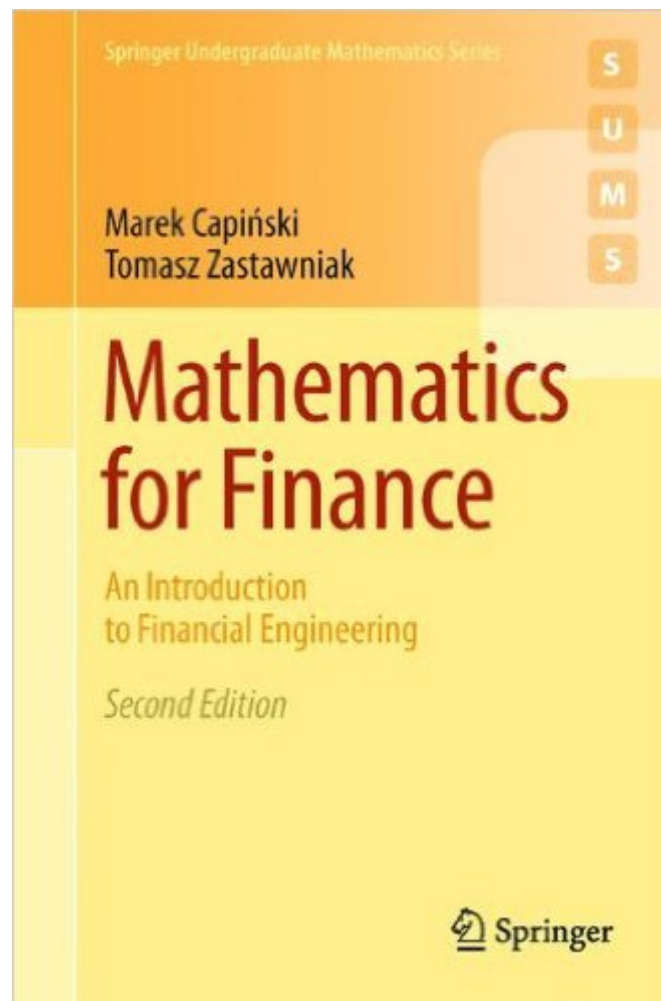# Mathematics For Finance: An Introduction To Financial Engineering (Springer Undergraduate Mathematics Series)

Synopsis

As with the first edition, Mathematics for Finance: An Introduction to Financial Engineering combines financial motivation with mathematical style. Assuming only basic knowledge of probability and calculus, it presents three major areas of mathematical finance, namely Option pricing based on the no-arbitrage principle in discrete and continuous time setting, Markowitz portfolio optimisation and Capital Asset Pricing Model, and basic stochastic interest rate models in discrete setting. From the reviews of the first edition: â •This text is an excellent introduction to Mathematical Finance. Armed with a knowledge of basic calculus and probability a student can use this book to learn about derivatives, interest rates and their term structure and portfolio management.â •(Zentralblatt MATH) â •Given these basic tools, it is surprising how high a level of sophistication the authors achieve, covering such topics as arbitrage-free valuation, binomial trees, and risk-neutral valuation.â • (www.riskbook.com) â •The reviewer can only congratulate the authors with successful completion of a difficult task of writing a useful textbook on a traditionally hard topic.â • (K. Borovkov, The Australian Mathematical Society Gazette, Vol. 31 (4), 2004)

Book Information

Series: Springer Undergraduate Mathematics Series

Paperback: 336 pages

Publisher: Springer; 2nd ed. 2011 edition (November 25, 2010)

Language: English

ISBN-10: 0857290819

ISBN-13: 978-0857290816

Product Dimensions: 6.1 x 0.8 x 9.2 inches

Shipping Weight: 1.4 pounds (View shipping rates and policies)

Average Customer Review: 4.0 out of 5 starsÂ Â See all reviewsÂ (15 customer reviews)

Best Sellers Rank: #371,719 in Books (See Top 100 in Books)   #97 inÂ Books > Science & Math > Evolution > Game Theory   #507 inÂ Books > Textbooks > Business & Finance > Finance   #2137 inÂ Books > Business & Money > Finance

Customer Reviews

I am a math finance student who will soon start a summer internship on Wall Street. I want to leave feedback for the best and worst books that I used in my studies so far.I read this book before starting my studies. With what I know now, I can say that the time was not well spent working through it. The mathematics topics are very dry and theoretical. The examples from finance are

mostly theoretical and some seemed cooked up and unrealistic. It is a book written by mathematics professors and is mostly a mathematics book (with watered down mathematics) where the finance applications are like second thoughts. It has little to do with what a practitioner would teach (as I saw in my classes) and does not teach things useful in the real world."The Concepts and Practice of Mathematical Finance" by Joshi is much better in this respect. And before starting studies, Stefanica "A Primer For The Mathematics Of Financial Engineering" is much more useful.

book has typos in every chapter, wrong answers in back, jumps from easy problem to super hard. Explanation is deficient. If you do not have a excellent professor whom explains the material, the book is not really useful. The topics are fascinating though.

I bought this book soon after it came out in 2004. This book is fairly easy to read and gives understandable definitions and introductions to such concepts as short selling. This authors build up to probabilistic concepts that ultimately find expression in the Black-Sholes equation--which evidently helped glean for its inventors the 1997 Nobel Prize in economics. Actually, I lost much of my interest in this book soon after I realized that it offered no insight on how to assess the risk of individual securities. This book shows you how to assess the risk of a portfolio, but only if you already know the risk of each security in that portfolio. I gather that this problem sunk the world economy in 2008!The mathematical level of this book corresponds to that of an undergraduate who has had a course in probability as well as differential, integral, and multivariable calculus--including a passing acquaintance with differential equations. Certainly any junior-level mathematics, physical sciences, or engineering major would have the mathematics background appropriate for this course. It is also likely a high school student who had aced a year-long calculus course, as well as a math methods course that included probability as a topic, would be able to understand this book.

Well, I think this book explains well the math applied to finance (in the general theory) for feasible analysis of bonds and stock. I guess the title is clear, but for some reason I expected to learn more on the financial side and its applications. I am not sure if the examples in the book reflect real-life situations, subjective probabilities are nothing but an artifact that creates trading transactions...

An undergraduate text.Financial derivatives are the products traded by the financial industry, banks and trading companies; a contract whose payoff depends on the behavior of a benchmark; financial instruments whose value is derived from a number of underlying variables. Examples: futures,

options, and swaps ; or other tradable assets, e.g., stocks or commodities; or such non-tradable items such as the temperature (weather derivatives), the unemployment rate, or any kind of (economic) index. Since the industry has undergone a recent explosive growth, so have the number of variety of books covering the subject. As well as programs in financial engineering at universities around the world.The book by Capinski & Zastawniak is aimed at undergraduate courses at the crossroad of theory and applications, and it should be useful more widely for readers wanting a mathematical introduction.Covered are mathematical tools, arbitrage, assets (from risk-free to risky derivatives), financial valuation, financial models, asset pricing, interest rates.On the math side: Black-Scholes, Ito's lemma, and a systematic presentation of stochastic differential equations; discrete and continuous time models. Monte Carlo simulation.There are other similar books are out there, roughly the same level, and roughly the same emphasis; for example by Willmott-Howison-Dewynne, and by Baz & Chacko.I believe they all serve a very useful purpose. Review by Palle Jorgensen, July 2011.

Shipping takes too long, but the price is a good bargin. Plus, I am not in a hurry since this is the textbook for my course in the next semster. The book is printed with high quality.

Good for intermediate level of finance, as it equipped with exercises and examples.

Not worth the money, cheap printing and the content is to well explained.

Download to continue reading...

Mathematics for Finance: An Introduction to Financial Engineering (Springer Undergraduate Mathematics Series) An Introduction to Laplace Transforms and Fourier Series (Springer Undergraduate Mathematics Series) A First Course in Discrete Mathematics (Springer Undergraduate Mathematics Series) Introduction to Stochastic Programming (Springer Series in Operations Research and Financial Engineering) Mathematica®: A Problem-Centered Approach (Springer Undergraduate Mathematics Series) Vector Calculus (Springer Undergraduate Mathematics Series) Hyperbolic Geometry (Springer Undergraduate Mathematics Series) Ordinary Differential Equations: Analysis, Qualitative Theory and Control (Springer Undergraduate Mathematics Series) Engineering Economics and Finance for Transportation Infrastructure (Springer Tracts on Transportation and Traffic) Calculus with Vectors (Springer Undergraduate Texts in Mathematics and Technology) Modeling Structured Finance Cash Flows with MicrosoftÂ Excel: A Step-by-Step Guide (Wiley Finance) Lectures on BSDEs, Stochastic Control,

and Stochastic Differential Games with Financial Applications (SIAM Series on Financial Mathematics) Face Image Analysis by Unsupervised Learning (The Kluwer International Series in Engineering and Computer Science, Volume 612) (The Springer International Series in Engineering and Computer Science) Beyond Greed and Fear: Understanding Behavioral Finance and the Psychology of Investing (Financial Management Association Survey and Synthesis) Consumer Financial Services (Financial Services Series) Discrete Mathematics: Elementary and Beyond (Undergraduate Texts in Mathematics) Mathematics and Its History (Undergraduate Texts in Mathematics) Conics and Cubics: A Concrete Introduction to Algebraic Curves (Undergraduate Texts in Mathematics) Ideals, Varieties, and Algorithms: An Introduction to Computational Algebraic Geometry and Commutative Algebra (Undergraduate Texts in Mathematics) Introduction to Partial Differential Equations (Undergraduate Texts in Mathematics)

[Dmca](#)