Computational Finance: An Introductory Course with R (Atlantis Studies in Computational Finance and Financial Engineering)

Argimiro Arratia

Computational Finance: An Introductory Course with R (Atlantis Studies in Computational Finance and Financial Engineering)

Argimiro Arratia

Computational Finance: An Introductory Course with R (Atlantis Studies in Computational Finance and Financial Engineering) Argimiro Arratia

The book covers a wide range of topics, yet essential, in Computational Finance (CF), understood as a mix of Finance, Computational Statistics, and Mathematics of Finance. In that regard it is unique in its kind, for it touches upon the basic principles of all three main components of CF, with hands-on examples for programming models in R. Thus, the first chapter gives an introduction to the Principles of Corporate Finance: the markets of stock and options, valuation and economic theory, framed within Computation and Information Theory (e.g. the famous Efficient Market Hypothesis is stated in terms of computational complexity, a new perspective). Chapters 2 and 3 give the necessary tools of Statistics for analyzing financial time series, it also goes in depth into the concepts of correlation, causality and clustering. Chapters 4 and 5 review the most important discrete and continuous models for financial time series. Each model is provided with an example program in R. Chapter 6 covers the essentials of Technical Analysis (TA) and Fundamental Analysis. This chapter is suitable for people outside academics and into the world of financial investments, as a primer in the methods of charting and analysis of value for stocks, as it is done in the financial industry. Moreover, a mathematical foundation to the seemly ad-hoc methods of TA is given, and this is new in a presentation of TA. Chapter 7 reviews the most important heuristics for optimization: simulated annealing, genetic programming, and ant colonies (swarm intelligence) which is material to feed the computer savvy readers. Chapter 8 gives the basic principles of portfolio management, through the mean-variance model, and optimization under different constraints which is a topic of current research in computation, due to its complexity. One important aspect of this chapter is that it teaches how to use the powerful tools for portfolio analysis from the RMetrics R-package. Chapter 9 is a natural continuation of chapter 8 into the new area of research of online portfolio selection. The basic model of the universal portfolio of Cover and approximate methods to compute are also described.

Download and Read Free Online Computational Finance: An Introductory Course with R (Atlantis Studies in Computational Finance and Financial Engineering) Argimiro Arratia

---

From reader reviews:

Peter White:

Hey guys, do you wants to finds a new book to read? May be the book with the concept Computational Finance: An Introductory Course with R (Atlantis Studies in Computational Finance and Financial Engineering) suitable to you? The particular book was written by famous writer in this era. The book untitled Computational Finance: An Introductory Course with R (Atlantis Studies in Computational Finance and Financial Engineering)is one of several books which everyone read now. This book was inspired a lot of people in the world. When you read this publication you will enter the new shape that you ever know ahead of. The author explained their thought in the simple way, so all of people can easily to comprehend the core of this publication. This book will give you a great deal of information about this world now. So that you can see the represented of the world in this particular book.

Kirk Fonseca:

Computational Finance: An Introductory Course with R (Atlantis Studies in Computational Finance and Financial Engineering) can be one of your nice books that are good idea. All of us recommend that straight away because this book has good vocabulary that may increase your knowledge in terminology, easy to understand, bit entertaining but delivering the information. The article author giving his/her effort to get every word into satisfaction arrangement in writing Computational Finance: An Introductory Course with R (Atlantis Studies in Computational Finance and Financial Engineering) yet doesn't forget the main level, giving the reader the hottest and based confirm resource info that maybe you can be one of it. This great information can drawn you into fresh stage of crucial considering.

Tonya Sewell:

Is it you who having spare time then spend it whole day by watching television programs or just laying on the bed? Do you need something new? This Computational Finance: An Introductory Course with R (Atlantis Studies in Computational Finance and Financial Engineering) can be the answer, oh how comes? A fresh book you know. You are so out of date, spending your time by reading in this completely new era is common not a geek activity. So what these ebooks have than the others?

Vincent Peck:

What is your hobby? Have you heard that question when you got learners? We believe that that query was given by teacher on their students. Many kinds of hobby, All people has different hobby. And you also know that little person including reading or as looking at become their hobby. You need to know that reading is very important along with book as to be the factor. Book is important thing to increase you knowledge, except your teacher or lecturer. You find good news or update with regards to something by book. Different categories of books that can you take to be your object. One of them is this Computational Finance: An Introductory Course with R (Atlantis Studies in Computational Finance and Financial Engineering).

Download and Read Online Computational Finance: An Introductory Course with R (Atlantis Studies in Computational Finance and Financial Engineering) Argimiro Arratia #L4VMDQ0CH9G

Read Computational Finance: An Introductory Course with R (Atlantis Studies in Computational Finance and Financial Engineering) by Argimiro Arratia for online ebook

Computational Finance: An Introductory Course with R (Atlantis Studies in Computational Finance and Financial Engineering) by Argimiro Arratia 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 Computational Finance: An Introductory Course with R (Atlantis Studies in Computational Finance and Financial Engineering) by Argimiro Arratia books to read online.

Online Computational Finance: An Introductory Course with R (Atlantis Studies in Computational Finance and Financial Engineering) by Argimiro Arratia ebook PDF download

Computational Finance: An Introductory Course with R (Atlantis Studies in Computational Finance and Financial Engineering) by Argimiro Arratia Doc

Computational Finance: An Introductory Course with R (Atlantis Studies in Computational Finance and Financial Engineering) by Argimiro Arratia Mobipocket

Computational Finance: An Introductory Course with R (Atlantis Studies in Computational Finance and Financial Engineering) by Argimiro Arratia EPub