Quantitative Finance: An Object-Oriented Approach in C++ (Chapman and Hall/CRC Financial Mathematics Series)

Erik Schlogl
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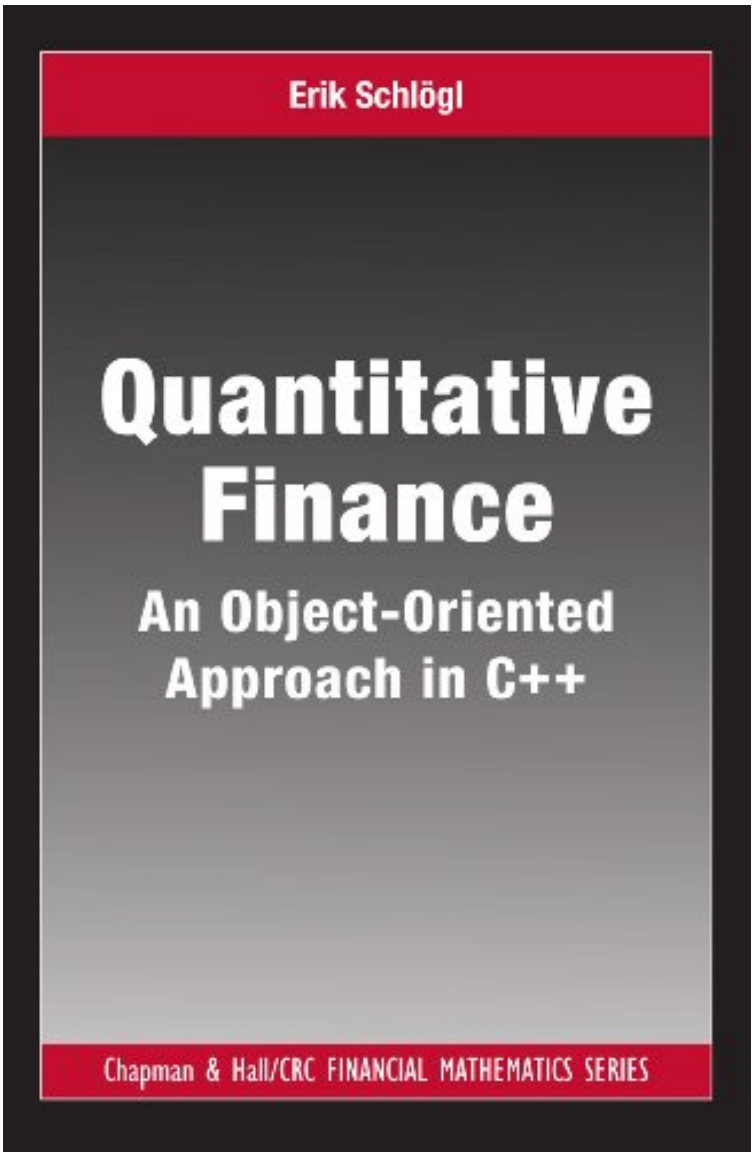

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real quant. A good book, up to date. Heavily using three libraries : boost, blitz++ and CLAPACK which are useful in numerical.7 of 8 people found the following review helpful. MBinaryBy KinderchocolateProfessor Schlogl is a well known academic expert in quantitative finance pricing. In this book, Schlogl presents a new approach to modelling in C++. This is not a book for learning C++, you should be quite confident in the language. This book covers the BS option pricing, HJM, Monte-Carlo and Finite-Difference Methods, therefore the content is quite rich. The material is very interesting and most likely present you some new challenge even if you've worked in the field for many years. Don't believe me? Do you know what a MBinary is? The book has extensive coverage for this new framework. It's truly amazing because one can use the same code to price basically everything from a simple vanilla to any exotic option. Please google the paper "The Quintessential Option Pricing Formula" by Max Skipper if you want to know more.

Quantitative Finance: An Object-Oriented Approach in C++ provides readers with a foundation in the key methods and models of quantitative finance. Keeping the material as self-contained as possible, the author introduces computational finance with a focus on practical implementation in C++. Through an approach based on C++ classes and templates, the text highlights the basic principles common to various methods and models while the algorithmic implementation guides readers to a more thorough, hands-on understanding. By moving beyond a purely theoretical treatment to the actual implementation of the models using C++, readers greatly enhance their career opportunities in the field.The book also helps readers implement models in a trading or research environment. It presents recipes and extensible code building blocks for some of the most widespread methods in risk management and option pricing.Web ResourceThe authorrsquo;s website provides fully functional C++ code, including additional C++ source files and examples. Although the code is used to illustrate concepts (not as a finished software product), it nevertheless compiles, runs, and deals with full, rather than toy, problems. The website also includes a suite of practical exercises for each chapter covering a range of difficulty levels and problem complexity.

"hellip; a comprehensive, dual-perspective introduction to quantitative finance methods. By providing implementation details alongside theory, Schlouml;gl ensures that one is never overemphasized at the expense of the other. All of the code described is reusable and reliant on only a small number of external libraries, meaning that this book is an invaluable resource to students and professionals in the field alike."?Computing s, March 2015 "I recommend Erik Schloglrsquo;s new book to all those interested in model implementation. From quasi-random sequences to HJM to the Excel interface, with full C++ code, there is something here for everyone."?Jim Gatheral, Presidential Professor, Baruch College, CUNY "If 25 years ago I had started in finance using C instead of Visual Basic, perhaps now I might be approximating Prof. Schloglrsquo;s balanced and professional C++ framework for pricing financial derivatives. From interacting with quants writing production code I have learnt that several yearsrsquo; experience with C++ can be dangerous as the possibility of writing incomprehensible (to others) abstract code becomes attractive. In this respect Prof. Schlogl strikes just the right balance between using the full power of C++ to encapsulate, concentrate, and abstract code, while remaining comprehensible. His book thoroughly outlines a framework, including procedures and libraries, for constructing the various building blocks of pricing systems for financial derivatives. Users implementing his sort of framework can be confident their code will be understood, and that it can be maintained and revised without dating. It is one of the dozen or so books that ought to be on every financial quantrsquo;s bookshelf; if only I had had it earlier!" ?Alan Brace, Senior Quantitative Analyst in Market Risk, National Australia Bank, and Adjunct Professor, Quantitative Finance Research Centre, University Technology of Sydney "While some view quantitative finance as just another playground for beautiful mathematical theories, it is ultimately a very practical discipline where onersquo;s success is more often than not measured by the quality, speed, and accuracy of computer code written to solve real-world problems. Quantitative Finance: An Object-Oriented Approach in C++ embraces this pragmatic view wholeheartedly to great success. The three core competencies of a successful quant: firm grasp of theory, strong command of numerical methods, and software design and development skills are taught in parallel, inseparable in the book as they are in the real world. A fantastic resource for students looking to become quants, the book sets a standard on how practically relevant quantitative finance should be taught. Those already in the field will also no doubt learn a thing or two on how to represent common financial constructs as logical and reusable software components."?Vladimir V. Piterbarg, Head of Quantitative Analytics, Barclays "Students and practitioners of quantitative analysis have long wanted a detailed exposition of computational finance that includes implementation details and quality C++ code. Their desires are no longer unrequited?this book contains a clear and careful discussion of many of the key derivatives pricing models together with object-oriented C++ code. Substantial discussion of the design choices made is also included. I believe that this book is destined to be part of every financial engineerrsquo;s toolkit."?Professor Mark Joshi, University of MelbourneAbout the AuthorErik Schlouml;gl currently is Professor and Director of the Quantitative Finance Research Centre at the University of Technology, Sydney (UTS), Australia. Erik received his doctorate in Economics from the University of Bonn, Germany, for work on term structure models and the pricing of fixed income derivatives and has gained broad-based experience in computational financial engineering. He has

consulted for financial institutions and software developers in Europe, Australia and in the US. His research interests cover a broad area of quantitative finance, in particular model calibration, interest rate term structure modelling, credit risk and the integration of multiple sources of risk. He has published articles in a number of international journals, including Finance Stochastics, Quantitative Finance, Risk and the Journal of Economic Dynamics and Control. In addition to UTS, he held positions at the University of New South Wales, Australia, and the University of Bonn, Germany.