Description: This book introduces the reader to the C++ programming language and how to use it to write applications in quantitative finance (QF) and related areas. No previous knowledge of C or C++ is required -- experience with VBA, Matlab or other programming language is sufficient. The book adopts an incremental approach; starting from basic principles then moving on to advanced complex techniques and then to real-life applications in financial engineering. There are five major parts in the book:
- C++ fundamentals and object-oriented thinking in QF
- Advanced object-oriented features such as inheritance and polymorphism
- Template programming and the Standard Template Library (STL)
- An introduction to GOF design patterns and their applications in QF Applications

The kinds of applications include binomial and trinomial methods, Monte Carlo simulation, advanced trees, partial differential equations and finite difference methods.

This book includes a companion website with all source code and many useful C++ classes that you can use in your own applications. Examples, test cases and applications are directly relevant to QF.


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