



Advanced Quantitative Finance with C++

• Comprehensive implementation of mathematical models in C++ using
• Class-based design patterns

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Advanced Quantitative Finance With C

Aaron De la Rosa

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book will introduce you to the key mathematical models used to price financial derivatives as well as the implementation of main numerical models used to solve them In particular equity currency interest rates and credit derivatives are discussed In the first part of the book the main mathematical models used in the world of financial derivatives are discussed Next the numerical methods used to solve the mathematical models are presented Finally both the mathematical models and the numerical methods are used to solve some concrete problems in equity forex interest rate and credit derivatives The models used include the Black Scholes and Garman Kohlhagen models the LIBOR market model structural and intensity credit models The numerical methods described are Monte Carlo simulation for single and multiple assets Binomial Trees and Finite Difference Methods You will find implementation of concrete problems including European Call Equity Basket Currency European Call FX Barrier Option Interest Rate Swap Bankruptcy and Credit Default Swap in C What you will learn from this book Solve complex pricing problems in financial derivatives using a structured approach with the Bento Box template Explore some key numerical methods including binomial trees finite differences and Monte Carlo simulation Develop your understanding of equity forex interest rate and credit derivatives through concrete examples Implement simple and complex derivative instruments in C Discover the most important mathematical models used in quantitative finance today to price derivative instruments Effectively Incorporate object oriented programming OOP principles into the code Approach The book takes the reader through a fast but structured crash course in quantitative finance from theory to practice

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Research in Engineering and Management of Advanced Manufacturing Systems Vladimir Modrak,Pavol Semančo,Michal Balog,2014-12-24 Selected peer reviewed papers from the 4th International Conference on Management of Manufacturing Systems MMS 2014 October 1 3 2014 High Tatras Slovakia *Equity Management: The Art and Science of Modern Quantitative Investing, Second Edition* Bruce I. Jacobs,Kenneth N. Levy,2016-10-28 The classic guide to quantitative investing expanded and updated for today s increasingly complex markets From Bruce Jacobs and Ken Levy two pioneers of quantitative equity management the go to guide to stock selection has been substantially updated to help you build portfolios in today s transformed investing landscape A powerful combination of in depth research and expert insights gained from decades of experience Equity Management Second Edition includes 24 new peer reviewed articles that help leveraged long short investors and leverage averse investors navigate today s complex and unpredictable markets Retaining all the content that made an instant classic of the first edition including the authors innovative approach to disentangling the many factors that influence stock returns unifying the investment process and integrating long and short portfolio positions this new edition addresses critical issues Among them What s the best leverage level for long short and leveraged long only portfolios Which behavioral characteristics explain the recent financial meltdown and previous crises What is smart beta and

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