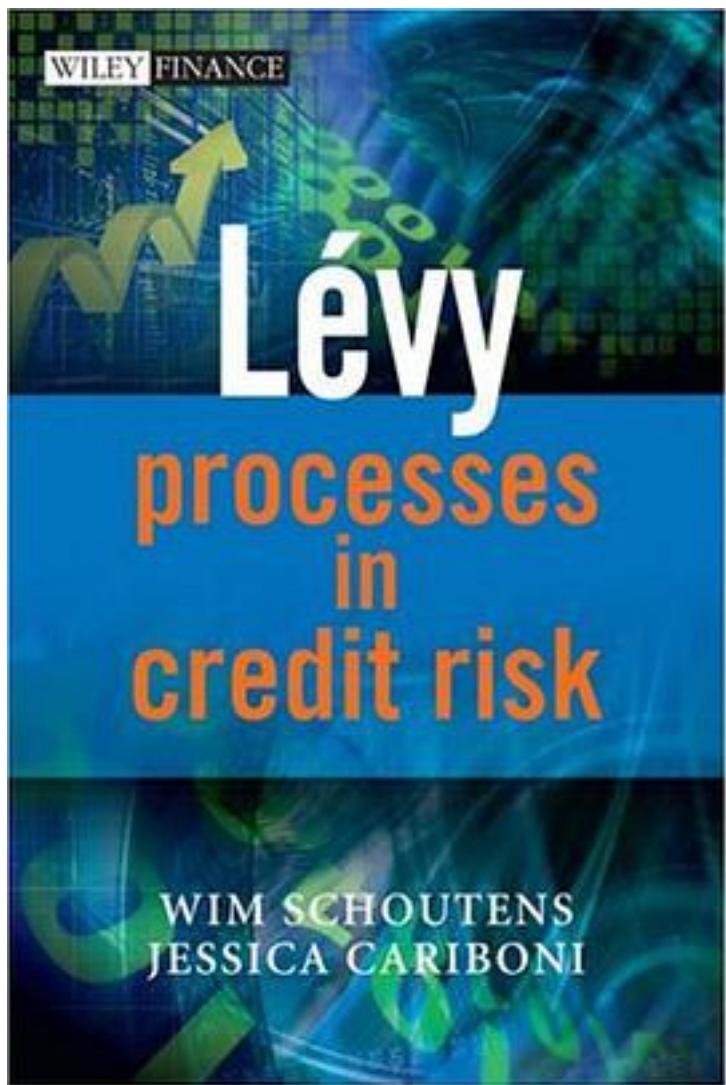


# Levy Processes in Credit Risk



[Levy Processes in Credit Risk 下载链接1](#)

著者:Wim Schoutens

出版者:Wiley

出版时间:2009-09-15

装帧:Hardcover

isbn:9780470743065

"Schoutens and Cariboni are two of a horrifyingly small number of authors who realize that something had to be done about credit modelling. Theirs won't be the final word on the subject but it's better than almost everything else that's been written." Paul Wilmott, [wilmott.com](http://wilmott.com) "The book casts great light on the intricacies of structured products valuation at a time when credit jumps play a key role in the understanding of credit events." Guido Bichisao, Head of Financial Engineering and Advisory Services, European Investment Bank. "Levy processes represent a quantum leap over the continuous processes that have previously been used in credit modeling." Peter Carr, Head of Quantitative Research, Bloomberg LP and Director of Master Program in Mathematical Finance, NYC. "I recommend with pleasure the expert exposition of what real expertise has attained in an undoubtedly difficult yet critical arena of the financial markets. When such insight, intuition and intellectual perseverance offer leadership, it is foolhardy to look the other way. The book is must learn for all professionals." Professor Dilip Madan, University of Maryland - Robert H. Smith School of Business

## 作者介绍:

Wim Schoutens (Leuven, Belgium) is a research professor in financial engineering in the Department of Mathematics at the Catholic University of Leuven, Belgium. He has extensive practical experience of model implementation and is well known for his consulting work in the banking industry. Wim is the author of *Levy Processes in Finance* and co-editor of *Exotic Option Pricing and Advanced Levy Models* both published by Wiley. He teaches at 7city Learning and London Financial Studies. He is Managing Editor of the International Journal of Theoretical and Applied Finance and Associate Editor of Mathematical Finance and Review of Derivatives Research. Jessica Cariboni (Ispra, Italy) has a PhD in applied statistics from the Catholic University of Leuven, Belgium. She was a junior quantitative analyst at Nextra Investment Management. She is currently a functionary of the European Commission and researcher at the European Commission DG-Joint Research Centre, Ispra, Italy. She is also co-author of the book *Global Sensitivity Analysis: The Primer* published by Wiley.

目录: Preface. Acknowledgements. PART I: INTRODUCTION. 1 An Introduction to Credit Risk. 1.1 Credit Risk. 1.1.1 Historical and Risk-Neutral Probabilities. 1.1.2 Bond Prices and Default Probability. 1.2 Credit Risk Modelling. 1.3 Credit Derivatives. 1.4 Modelling Assumptions. 1.4.1 Probability Space and Filtrations. 1.4.2 The Risk-Free Asset. 2 An Introduction to Levy Processes. 2.1 Brownian Motion. 2.2 Levy Processes. 2.3 Examples of Levy Processes. 2.3.1 Poisson Process. 2.3.2 Compound Poisson Process. 2.3.3 The Gamma Process. 2.3.4 Inverse Gaussian Process. 2.3.5 The CMY Process. 2.3.6 The Variance Gamma Process. 2.4 Ornstein-Uhlenbeck Processes. 2.4.1 The Gamma-OU Process. 2.4.2 The Inverse Gaussian-OU Process. PART II: SINGLE-NAME MODELLING. 3 Single-Name Credit Derivatives. 3.1 Credit Default Swaps. 3.1.1 Credit Default Swaps Pricing. 3.1.2 Calibration Assumptions. 3.2 Credit Default Swap Forwards. 3.2.1 Credit Default Swap Forward Pricing. 3.3 Constant Maturity Credit Default Swaps. 3.3.1 Constant Maturity Credit Default Swaps Pricing. 3.4 Options on CDS. 4 Firm-Value Levy Models. 4.1 The Merton Model. 4.2 The Black-Cox Model with Constant Barrier. 4.3 The Levy First-Passage Model. 4.4 The Variance Gamma Model. 4.4.1 Sensitivity to the Parameters. 4.4.2 Calibration on CDS Term Structure Curve. 4.5 One-Sided Levy Default Model. 4.5.1 Wiener-Hopf Factorization and Default Probabilities. 4.5.2 Illustration of the Pricing of Credit Default Swaps. 4.6 Dynamic Spread Generator. 4.6.1 Generating Spread Paths. 4.6.2 Pricing of Options on CDSs. 4.6.3 Black's Formulas and Implied Volatility. Appendix: Solution of the PDIE. 5 Intensity Levy Models. 5.1 Intensity Models for Credit Risk. 5.1.1 Jarrow-Turnbull Model. 5.1.2 Cox Models. 5.2 The Intensity-OU

Model. 5.3 Calibration of the Model on CDS Term Structures. PART III: MULTIVARIATE MODELLING. 6 Multivariate Credit Products. 6.1 CDOs. 6.2 Credit Indices. 7 Collateralized Debt Obligations. 7.1 Introduction. 7.2 The Gaussian One-Factor Model. 7.3 Generic One-Factor Levy Model. 7.4 Examples of Levy Models. 7.5 Levy Base Correlation. 7.5.1 The Concept of Base Correlation. 7.5.2 Pricing Non-Standard Tranches. 7.5.3 Correlation Mapping for Bespoke CDOs. 7.6 Delta-Hedging CDO tranches. 7.6.1 Hedging with the CDS Index. 7.6.2 Delta-Hedging with a Single-Name CDS. 7.6.3 Mezz-Equity hedging. 8 Multivariate Index Modelling. 8.1 Black's Model. 8.2 VG Credit Spread Model. 8.3 Pricing Swaptions using FFT. 8.4 Multivariate VG Model. PART IV: EXOTIC STRUCTURED CREDIT RISK PRODUCTS. 9 Credit CPPIs and CPDOs. 9.1 Introduction. 9.2 CPPIs. 9.3 Gap Risk. 9.4 CPDOs. 10 Asset-Backed Securities. 10.1 Introduction. 10.2 Default Models. 10.2.1 Generalized Logistic Default Model. 10.2.2 Levy Portfolio Default Model. 10.2.3 Normal One-Factor Default Model. 10.2.4 Generic One-Factor Levy Default Model. 10.3 Prepayment Models. 10.3.1 Constant Prepayment Model. 10.3.2 Levy Portfolio Prepayment Model. 10.3.3 Normal One-Factor Prepayment Model. 10.4 Numerical Results. Bibliography. Index.

• • • • • (收起)

[Levy Processes in Credit Risk](#) [下载链接1](#)

## 标签

金融工程

Finance

## 评论

好久以前亚马逊打折买的，现在一层灰，再翻一翻没感觉了。

[Levy Processes in Credit Risk](#) [下载链接1](#)

## 书评

[Levy Processes in Credit Risk 下载链接1](#)