

<<利率模型>>

图书基本信息

书名：<<利率模型>>

13位ISBN编号：9787510052774

10位ISBN编号：7510052777

出版时间：2013-1

出版时间：Ren é Carmona、 Michael Tehranchi 世界图书出版公司 (2013-01出版)

版权说明：本站所提供下载的PDF图书仅提供预览和简介，请支持正版图书。

更多资源请访问：<http://www.tushu007.com>

<<利率模型>>

内容概要

数学/金融

<<利率模型>>

作者简介

作者:(美)卡莫纳

## 书籍目录

Part The Term Structure of Interest Rates Data and Instruments of the Term Structure of Interest Rates 1.1 Time Value of Money and Zero Coupon Bonds 1.1.1 Treasury Bills 1.1.2 Discount Factors and Interest Rates 1.2 Coupon Bearing Bonds 1.2.1 Treasury Notes and Treasury Bonds 1.2.2 The STRIPS Program 1.2.3 Clean Prices 1.3 Term Structure as Given by Curves 1.3.1 The Spot (Zero Coupon) Yield Curve 1.3.2 The Forward Rats Curve and Duration 1.3.3 Swap Rate Curves 1.4 Continuous Compounding and Market Conventions 1.4.1 Day Count Conventions 1.4.2 Compounding Conventions 1.4.3 Summary 1.5 Related Markets 1.5.1 Municipal Bonds 1.5.2 Indsx Linked Bonds 1.5.3 Corporate Bonds and Credit Markets 1.5.4 Tax Issues 1.5.5 Asset Backed Securities 1.6 Statistical Estimation of the Term Structure 1.6.1 Yield Curve Estimation 1.6.2 Parametric Estimation Procedures 1.6.3 Nonparametric Estimation Procedures 1.7 Principal Component Analysis 1.7.1 Principal Components of a Random Vector 1.7.2 Multivariate Data PCA 1.7.3 PCA of the Yield Curve 1.7.4 PCA of the Swap Rate Curve Notes & Complements Term Structure Factor Models 2.1 Factor Models for the Term Structure 2.2 Affine Models 2.3 Short Rate Models as One-Factor Models 2.3.1 Incompleteness and Pricing 2.3.2 Specific Models 2.3.3 A PDE for Numerical Purposes 2.3.4 Explicit Pricing Formulae 2.3.5 Rigid Term Structures for Calibration 2.4 Term Structure Dynamics 2.4.1 The Heath Jarrow-Morton Framework 2.4.2 Hedging Contingent Claims 2.4.3 A Shortcoming of the Finite-Rank Models 2.4.4 The Musiela Notation 2.4.5 Random Field Formulation 2.5 Appendices Notes & Complements Part Infinite Dimensional Stochastic Analysis Infinite Dimensional Integration Theory 3.1 Introduction 3.1.1 The Setting 3.1.2 Distributions of Gaussian Processes 3.2 Gaussian Measures in Banach Spaces and Examples 3.2.1 Integrability Properties 3.2.2 Isouormal Processes 3.3 Reproducing Kernel Hilbert Space 3.3.1 RKHS of Gaussian Processes 3.3.2 The RKHS of the Classical Wiener Measure 3.4 Topological Supports, Carriers, Equivalence and Singularity 3.4.1 Topological Supports of Gaussian Measures 3.4.2 Equivalence and Singularity of Gaussian Measures 3.5 Series Expansions 3.6 Cylindrical Measures 3.6.1 The Canonical (Gaussian) Cylindrical Measure of a Hilbert Space 3.6.2 Integration with Respect to a Cylindrical Measure 3.6.3 Characteristic Functions and Bochner's Theorem 3.6.4 Radonification of Cylindrical Measures 3.7 Appendices Notes & Complements Stochastic Analysis in Infinite Dimensions 4.1 Infinite Dimensional Wiener Processes 4.1.1 Revisiting some Known Two-Parameter Processes 4.1.2 Banach Space Valued Wiener Process 4.1.3 Sample Path Regularity 4.1.4 Absolute Continuity Issues 4.1.5 Series Expansions 4.2 Stochastic Integral and Itô Processes 4.2.1 The Case of  $E^*$ - and  $H^*$ -Valued Integrand 4.2.2 The Case of Operator Valued Integrand 4.2.3 Stochastic Convolutions 4.3 Martingale Representation Theorems 4.4 Girsanov's Theorem and Changes of Measures 4.5 Infinite Dimensional Ornstein Uhtenbeck Processes 4.5.1 Finite Dimensional OU Processes 4.5.2 Infinite Dimensional OU Processes 4.5.3 The SDE Approach in Infinite Dimensions 4.6 Stochastic Differential Equations Notes & Complements The Malliavin Calculus 5.1 The Malliavin Derivative 5.1.1 Various Notions of Differentiability 5.1.2 The Definition of the Malliavin Derivative 5.2 The Chain Rule 5.3 The Skorohod Integral 5.4 The Clark Ocone Formula 5.4.1 Sobolev and Logarithmic Sobolev Inequalities 5.5 Malliavin Derivatives and SDEs 5.5.1 Random Operators 5.5.2 A Useful Formula 5.6 Applications in Numerical Finance 5.6.1 Computation of the Delta 5.6.2 Computation of Conditional Expectations Notes & Complements Part Generalized Models for the Term Structure 6 General Models 6.1 Existence of a Bond Market 6.2 The HJM Evolution Equation 6.2.1 Function Spaces for Forward Curves 6.3 The Abstract HJM Model 6.3.1 Drift Condition and Absence of Arbitrage 6.3.2 Long Rates Never Fall 6.3.3 A Concrete Example 6.4 Geometry of the Term Structure Dynamics 6.4.1 The Consistency Problem 6.4.2 Finite Dimensional Realizations 6.5 Generalized Bond Portfolios 6.5.1 Models of the Discounted Bond Price Curve 6.5.2 Trading Strategies 6.5.3 Uniqueness of Hedging Strategies 6.5.4 Approximate Completeness of the Bond Market 6.5.5 Hedging Strategies for Lipschitz Claims Notes & Complements 7 Specific Models 7.1 Markovian HJM Models 7.1.1 Gaussian Markov Models 7.1.2 Assumptions on the State Space 7.1.3 Invariant Measures for Gauss-Markov HJM Models 7.1.4 Non-Uniqueness of the Invariant Measure 7.1.5 Asymptotic Behavior 7.1.6 The Short Rate is a Maximum

<<利率模型>>

on Average 7.2 SPDEs and Term Structure Models 7.2.1 The Deformation Process 7.2.2 A Model of the Deformation Process 7.2.3 Analysis of the SPDE 7.2.4 Regularity of the Solutions 7.3 Market Models 7.3.1 The Forward Measure 7.3.2 LIBOR Rates Revisited Notes & ComplementsReferencesNotation IndexAuthor IndexSubject Index

## &lt;&lt;利率模型&gt;&gt;

## 编辑推荐

卡莫纳编著的《利率模型》内容介绍：The main goal of the book is to present, in a self-contained manner, the empirical facts needed to understand the sophisticated mathematical models developed by the financial mathematics community over the last decade. So after a very elementary introduction to the mechanics of the bond market, and a thorough statistical analysis of the data available to any curious spectator without any special inside track information, we gradually introduce the mathematical tools needed to analyze the stochastic models most widely used in the industry. Our point of view has been strongly influenced by recent works of Cont and his collaborators and the Ph.D. of Filipovid. They merge the original proposal of Musiela inviting us to rewrite the HJM model as a stochastic partial differential equation, together with Bjork's proposal to recast the HJM model in the framework of stochastic differential equations in a Baoach space.

<<利率模型>>

版权说明

本站所提供下载的PDF图书仅提供预览和简介，请支持正版图书。

更多资源请访问:<http://www.tushu007.com>