



The Interest Rate Conference: Modeling, Pricing, Discounting & Funding

London: 28th / 29th / 30th March 2012

WBS Training are pleased to announce that in London on 28th, 29th & 30th March 2012, the world's only two streamed Interest Rate Conference will be taking place.

Delegates will be able to hop around the two streams and attend our highly popular format of 1 hour 30 minute and 2 hour presentations.

All stream presentation times run concurrently with each other.

Early Bird Discounts: 15% Before 20th January 2012 / 10% Before 17th February 2012

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THE INTEREST RATE CONFERENCE PRESENTER LIST

Jesper Andreasen

(Global Head of Quantitative Research, Danske Bank)

Alexander Antonov

(Senior Quantitative Analyst, Numerix)

Marco Bianchetti

(Senior Quant & Risk Manager, Intesa SanPaolo Bank)

Antonio Castagna

Financial Modelling Consultant, Iason ltd)

Dorje C Brody

(Professor of Mathematics, Brunel University)

Christian Fries

(Head of Model Development, Group Risk Control, DZ Bank)

Marc Henrard

(Quantitative Research, OpenGamma)

Lane P. Hughston

(Visiting Professor, Department of Mathematics, University College London)

Guillaume Macey

(Head of Quantitative Research for Global Rates, HSBC)

Paul McCloud

(Head of Vanilla Interest Rate Quants, Nomura)

Vladimir Piterbarg

(Global Head Of Quantitative Analytics Group, Barclays Capital)

Rade Plavsic

(Executive Director, Fixed Income Trading, UBS)

Riccardo Rebonato

(Global Head of Rates and FX Analytics, PIMCO)

Igor Smirnov

(Head of Fixed Income Quantitative Research Europe, Banco Santander)

Sergei Traven

(Head of Rates Flow Quantitative Analytics, Barclays Capital)

Manlio Trovato

(Head of Rates & Inflation Quantitative Research, Lloyds Banking Group)

Peter Whitehead

(Director, Group Valuation Oversight, Deutsche Bank)

PRE-CONFERENCE WORKSHOP DAY

Wednesday 28th March

Discounting, Funding, Collateralization: From Solid Foundation and Intuition to Calibration of Models

by Christian Fries, Head of Model Development, Group Risk Control, DZ Bank

Part 1: From Solid Foundations and Intuitions to Models

- Discounting Revisited: Mark-to-Market versus Replication of Cash Flows
- Resolving the Own-Credit Paradox (making P&L when own credit rating worsens)
- Assumptions: Being a net funder and the P&L take out
- Collateralization and Funding: Cash Flows
- Valuation with Stochastic Funding (Funded Replication)
- Collateralization and Funding: Modelling:
- The Cross Currency Analogy
- The Risky Payoff (Default) Analogy
- Cross Currency and Defaultable LIBOR Market Model
- The LIBOR Market Model with Stochastic Funding
- Relation to DVA, CVA and the FVA: Valuation versus Valuation Adjustments
- Valuation of Unilateral Collateralized Products (Plain Vanillas become Complex)
- Sensitivities and Hedging in a Partially Collateralized Portfolio

Part 2: Building Forward and Discounting Curves, Calibration of Models

- Funded Replication (revisited)
- Calibration of Models:
- Discount Curves, Forward Curves and Convexity
- Bootstrapping Curves:
- OIS Discounting
- Funded Discounting
- Unilateral Collateralized
- Collateralization in Non-Trade Currency
- Funding in Non-Trade Currency
- Calibration to Volatilities
- Valuation and Sensitivities

Day schedule: 09:00 – 17:00
Break: 10:30 – 10:45
Lunch: 12:30 – 13:30
Break : 15:15 – 15:30

PRE-CONFERENCE WORKSHOP DAY

Wednesday 28th March

Interest Rate Modelling Workshop

Presented by:
Dorje Brody, Professor of Mathematics, Brunel University

Lane Hughston, Visiting Professor, Department of Mathematics, University College London

This workshop will present a comprehensive summary of the theory of interest rate modelling from a modern perspective. The treatment will be mathematically rigorous, but always with applications in mind; and a good deal of new material will be covered, presented in a way that will equip market practitioners with the techniques they need to get a clear view of the rapidly changing landscape of the world of rates.

- Survey and critical overview of vintage interest rate models and the theory of interest rate derivatives.
- HJM (Heath-Jarrow-Morton) framework and its applications.
- Pricing kernels, potentials, and Flesaker-Hughston models.
- HJM in a multiple-currency environment.
- Interest rates and inflation.
- Lévy models for interest rates, incorporating jumps, including both simple jump-diffusion models as well as infinite activity models such as those based on the VG process.
- Risk management and scenario analysis for interest rate and foreign exchange models including jump risk.

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INTEREST RATE CONFERENCE DAY 1

Thursday 29th March
SABR & LMM Modelling Stream

08:00 – 08:45
Registration

08:45 – 10:15
Caplet-Swaption Relative Pricing and Forward Volatilities in the LMM-SABR Model
by Riccardo Rebonato, PIMCO

- The role of time dependent volatility, correlation
- Can the Two Markets Be Reconciled?
- Explaining the Valuation Wedge
- Early Stopping Caplets as Super Replicators
- Swap Rate Volatilities in the Objective and Risk Neutral Measure
- Dealing with Excited States

10:15 – 10:35
Break

10:35 – 12:35
SABR – Expansions for the Masses
by Jesper Andreasen, Danske Bank

- Short maturity expansions and Varadhan's lemma for farmers.
- From zero to Sabr in 10 lines
- Sabr extensions: local volatility and skewed volatility process
- One-step finite difference implementation to eliminate arbitrages
- Exact fit to the market smile, smile extrapolation and smile dynamics

12:35 – 13:45
Lunch

13:45 – 14:30
Advanced SABR Analytics
by Alexander Antonov, Numerix

Authors: Alexander Antonov and Michael Spector

1. SABR Definition and preliminary facts
2. Review of existing analytical approximations: methods and drawbacks
3. Our contribution:
 - Exact formula for the zero correlation case in terms of a simple 2D integral of elementary functions
 - Accurate approximation for non-zero correlation case based on expansion map procedure
4. Analysis of the PDF, second moment and CMS convexity adjustments
5. Numerical results and conclusion

INTEREST RATE CONFERENCE DAY 1

Thursday 29th March
CSA/CVA/Collateral and Funding Stream

08:00 – 08:45
Registration

08:45 – 10:15
Funding Valuation Adjustment (FVA)
by Peter Whitehead, Deutsche Bank

- Interest rate modelling before and after the credit crisis
- Different Approaches to FVA
- Consistency between CVA and FVA
- What is Fair Value anyway?
- Accounting Implications
- Case Study: Interest Rate Swaps
- Challenges in Implementing an FVA Framework

10:15 – 10:35
Break

10:35 – 12:35
Funding, Collateral and Interest Rate Curves
by Igor Smirnov, Banco Santander

Collateralised Funding Under Symmetric Terms

- Margin interest as funding rate
- Relation to central clearers variation margin terms
- Switch options - multiple currencies, asset classes

Uncollateralised Funding

- Institutional funding costs
- Reality of derivative position funding
- Do we need the Risk Free Rate?

Beyond Curves

- Asymmetric CSA terms & valuation implications
- Custodians & Rehypothecation restrictions
- Substitution rights, optimisation approaches

Multi-Curve World

- Practical considerations in dealing with large curve systems
- Alternate approaches with corresponding pricing / risk implications

12:35 – 13:45
Lunch

13:45 – 15:15
Dynamic Hedging in a Multiple CSAs World
by Guillaume Macey, HSBC (To be confirmed)

- How pricing with CSA changes the interpretation of pricing models?
- What discount curve to choose when flows of the product and underlying of the product are related to

14:30 – 15:15

CMS Convexity with Full Volatility Risk
by Vladimir Piterbarg, Barclays Capital

- Limitations of current models for CMS. Implicit volatility risk aggregation
- New vanilla model with full projection of volatility risk into relevant buckets
- Incorporating stochastic Libor OIS basis

15:15 – 15:40

Break

15:40 – 17:10

The Quadratic Gaussian Libor Market Model
by Paul McCloud, Nomura

- Applications of quadratic Gaussian symmetry: conditional expectation and measure change.
- Interest rate and FX models with quadratic Gaussian numeraire.
- Specification of the quadratic Gaussian Libor market model.
- Calibration to swaption volatility smiles.
- Examples: forward volatility, CMS convexity, spread options.

17:10 – 18:00

Interest Rate Panel

Chair: Lane P. Hughston, Visiting Professor,
Department of Mathematics, University College London

Panelists:

- Jesper Andreasen: Global Head of Quantitative Research, Danske Bank
- Marco Bianchetti, Senior Quant & Risk Manager, Intesa Sanpaolo
- Antonio Castagna: Financial Modelling Consultant, Iason Ltd

Panel Topics:

IR Modeling Updates

- Update on multi-curve issues
- Negative rates: a reality? Cost of storage and security?
- Smile modeling update: SABR expansion problems with low rates and large volatilities
- Inclusion of funding costs and the role of the treasury departments
- Modeling of Govt rates?
- Any new products on the horizon? What relevant products are missing?
- Is the environment favourable to inflation derivatives?

18:00

Cocktail Reception

different CSAs?

- Hedging with derivatives having different CSA currencies
- Impact of dynamic hedging on prices

15:15 – 15:40

Break

15:40 – 17:10

Pricing IR Derivatives in the Multiple Discount Curves-Environment
by Rade Plavsic, UBS

Funding curves - needs, setup, developments
OIS vs FX market
CSA and cheapest to deliver

- risks and management
- collateral management

Collateral quality in discounting

- funded vs collateralised positions
- haircut vs discounting

Blended discount curves

- building
- risk calculation, segregation, aggregation

CSA optionality

- concept, pricing, market observability and hedging

17:10 – 18:00

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18:00

Cocktail Reception

INTEREST RATE CONFERENCE DAY 2

Friday 30th March
Modelling & Model Calibration Stream

08:45 – 10:15

Smile Calibration

by Julien Guyon, Société Générale
(To be confirmed)

Title & bullets to be confirmed

10:15 – 10:30

Break

10:30 – 12:30

An Interbank Risk HJM Term Structure Model: After the Paper a Defaultable HJM Term Structure Model (joint work with Zorana Grbac and Hai Nam Nguyen, Evry University)
by Stéphane Crépey, University of Evry

Multiple Curves Issues on post-2007-09 crisis interest rate markets

Defaultable HJM setup

- Risk-free forward rates
- Forward spreads
- Conditions for the absence of arbitrage
- Non-negativity of the forward rate and the forward credit

Lévy-Vasicek specification
Pricing of basic instruments

- FRAs, IRS and basis swaps
- Caplets and swaptions

Numerics

12:30 – 13:30

Lunch

13:30 – 15:00

Adjoint Algorithmic Differentiation: Calibration and Implicit Function Theorem
by Marc Henrard, OpenGamma

- Algorithmic differentiation
- Calibration in finance as an implicit function
- Greeks with recalibration
- Differentiation of the full pricing process.
- Interest rate pricing with calibration
- Examples of efficient implementation

15:00 – 15:15

Break

INTEREST RATE CONFERENCE DAY 2

Friday 30th March
Derivatives Pricing, Hedging and Funding Stream

08:45 – 10:15

The Impact of Funding in Derivatives Pricing and Risk Management
by Manlio Trovato, Lloyds Banking Group

- Approaches to incorporate collateralised funding in existing pricing models
- Incorporating CSA funding details in yield curve building
- Collateralised funding for single currency and multi-currency products
- Collateralised dynamics accounted at portfolio level
- Approaches to risk management of funding costs: Basis risks and collateralised funding risk management
- Options for measuring and managing uncollateralised funding costs

10:15 – 10:30

Break

10:30 – 12:30

Derivatives Pricing and Funding With and Without Collateral
by Marco Bianchetti, Intesa Sanpaolo

- Interest rates after the credit crunch: risky Libor and risk free rates.
- Credit Support Annex (CSA): main features, practical issues, and the new ISDA standard CSA
- Pricing collateralized derivatives: OIS discounting and classical vs modern formulas.
- Pricing uncollateralized derivatives: how to include counterparty and funding risk under the forthcoming IFRS13
- Practical issues of moving financial institutions to CSA-discounting

12:30 – 13:30

Lunch

13:30 – 15:00

Pricing and Hedging Linear Derivatives with Arbitrage-Free Set of Interest Rate Curves
by Sergei Traven, Barclays Capital

- How to arrive at a decision with regards to which methodology to employ
- Curve generation: Practical and computational challenges
- Managing interest rate and funding risks in the multi-curve Environment

15:00 – 15:15

Break

15:15 – 16:30

Effective Rate Surface Calibration, Pricing and Risk

by Ove Scavenius, Danske Bank

- Fast calibration using effective caching and auto-differentiation
- How to make smooth basis and include ois discounting, steps, turns, jumps etc
- Construction a corresponding effective flexible risk machinery

End of Conference

15:15 – 16:30

Pricing Swaps Including Funding Costs
by Antonio Castagna, Iason Ltd

- The Basic Set-Up
- Funding Spread Modelling
- Strategy 1: Funding All Cash-Flows at Inception
- Strategy 2: Funding Negative cash-flows when They Occur
- Measuring Unexpected Funding Costs with Spread Options
- Measuring Unexpected Funding Costs with a Confidence Level
- A Practical Example

End of Conference

Conference Fee Structure

	Early Bird Discount: 15% Before 20th January	Early Bird Discount: 10% Before 17th February	Regular Event Fee
<input type="checkbox"/> Conference + Workshop (£300 Discount):	£2213.15 + UK VAT	£2308.10 + UK VAT	£2498.00 + UK VAT
<input type="checkbox"/> Conference Only:	£1614.15 + UK VAT	£1709.10 + UK VAT	£1899.00 + UK VAT
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Date:
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To register, please fax the completed booking form to:

+44 (0)1273 201 360

Flight details:

All delegates flying into London on the morning of the event are reminded that they should arrive 30 minutes before the workshop starts for registration. The hotels West End location is approximately 1 hour from all 3 main London airports, Heathrow, Gatwick and City. Returning flights should equally allow for the events finishing time.

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Prior to the two week deadline, cancellations are subject to a fee of 25% of the overall course cost.

Discount Structure:

The discount is available on any day permutation, and can be combined across delegates within the same company (only at the time of booking and not retrospectively).

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Tel: +44 (0)1273 201 352
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Contact:

<http://www.wbstraining.com>
sales@wbstraining.com