# Master Class

24-25<sup>th</sup> January 2008

The Ada Lovelace Room The Institute of Physics 76 Portland Place, London, UK

### Mark Joshi: Implementing the LIBOR Market Model

### Book Before November 17<sup>th</sup> 2007 for a 15% Discount

In this two-day course, a leading international expert will examine the practical issues that arise when using the LIBOR market model to price exotic interest rate derivatives. The focus throughout will be on how to develop an implementation that achieves rapid pricing and sensitivity computation, and stably calibrating to the market whilst being able to cope with path-dependence, discontinuous pay-offs and early exercise features.

Day 1	<ul> <li>Why market models and theoretical underpinnings.</li> <li>Achieving a speedy Monte Carlo implementation: drift computation, drift approximation, accelerating convergence</li> </ul>
	<ul> <li>Calibration: time homogeneity, stable simultaneous calibration to caplets and swaptions</li> <li>Introducing skew to the LMM.</li> </ul>
Day 2	<ul> <li>Pricing products with early exercise features, obtaining lower bounds.</li> <li>Upper bounds for callable products.</li> <li>New methodologies for Greek computation including partial proxy simulation.</li> <li>Introducing smile via stochastic volatility.</li> </ul>

**Mark Joshi** obtained a B.A. in mathematics (top of year) from the University of Oxford in 1990, and a Ph.D. in pure mathematics from the Massachusetts Institute of Technology in 1994. He was an Assistant Lecturer in the department of pure mathematics and mathematical statistics at Cambridge University from 1994 to 1999. Following which he worked for the Royal Bank of Scotland from 1999 to 2005 as a quantitative analyst at a variety of levels, finishing as the Head of Quantitative Research for Group Risk Management. He joined Melbourne University in November 2005 as an Associate Professor.



Mark's book "The Concepts and Practice of Mathematical Finance," CUP 2003 has become a standard introductory text in the area, and his other book "C++ Design Patterns and Derivatives Pricing," CUP 2004, has also proved popular. He has published twenty pure mathematics papers, as well as writing over twenty papers on financial mathematics, many of which deal with the practical aspects of implementing market models.

Further Information	Registration
<b>Dates:</b> 2 Days – 24 - 25 <sup>th</sup> January 2008	Please Return Application form to:
<b>Venue:</b> Ada Lovelace Room, Institute of Physics, London, UK <b>Cost:</b> £2500 inc. VAT	<b>Jacob Bettany,</b> 4 Cambridge Road, Bristol, BS7 8PR, UK

### **Limited Places Available**

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## Mark Joshi: Implementing the LIBOR Market Model Registration Form

Title:
First Name:
Last Name:
E-mail address:
Participant's First Name (If different from above):
Participant's Last Name (If different from above):
Participant's E-mail address (If different from above):
Position:
Telephone:
Company:
Tax Registration No:
VAT Identification No:
Department:
Address:
Town:
State:
Postal Code:
Country:
How did you hear about us?
Comment or any other requirement

#### Cancellation

If a person which has registered for this course is unable to attend for whatever reasons, a substitute representative may be appointed to participate in advance. Cancellation will be accepted only in written form no later than twenty calendar days prior date of the course while a cancellation fee in the amount of 10% of the price or block price will be charged. Cancellation of the participation within a period of less than twenty calendar days prior to the date of the course is not possible for the technical and the organisational reasons. MoneyScience reserve the right at all times to cancel participation or cancel the entire seminar for whatever unspecified reasons, including possible force majeur. In this case, the price will be refunded in full to the applying participant.

Please Return Application to LIBOR Market Models, MoneyScience, 4 Cambridge Road, Bristol, BS7 8PR, UK

# Master Class

#### **Terms and Conditions:**

MoneyScience Masterclasses provide English-language seminars, training and practical workshops delivered by expert, qualified tutors. Our objective is to provide industry professionals with advanced financial know-how and up-to-date analytical methods and skills.

#### **Tuition Language**

MoneyScience Masterclasses are held in English as are all relevant manuals, training software etc. In order to benefit from participation, a good working knowledge of English, including common financial phrases and related terminology, is required.

#### Registration

Clients who decided to participate, should submit their registration by mail to us in advance. Subject to availability, the participant will then receive a confirmation of participation. The number of participants is strictly limited to preserve an effective and focused learning environment.

#### **Seminar Prices**

The quoted seminar prices are per person and include all the course material, lunches and refreshments, The price does not include hotel accommodation. Quoted prices are inclusive of VAT.

#### Discounts

Bulk discounts are offered when submitting an application for the participation of more than one person. A 10 % discount is offered when at least two participants from one company register for a seminar or one participant registers at once for two or more seminars.

#### **Invoicing and Payment**

An invoice for the seminar price will be sent to the participants on receipt of their Registration Form and should be paid within days. Full payment of the invoice must be made before the start of the course as a precondition of participation.

#### **Terms of Cancellation**

If for whatever reasons a registered participant is unable to attend, a substitute delegate may be appointed to participate instead. For cancellations received 20 days or more before the beginning of the seminar, a 10 % cancellation fee of the full price will be invoiced i.e. 90 % of the price is refunded. For cancellations received less than 20 days prior to the beginning of the seminar, the full price is payable i.e. no refund will be provided. All cancellations must be in writing. MoneyScience reserves the right to cancel the individual participation or cancel the entire seminar or part of it for whatever unspecified reasons, including possible force majeure. In this case, the price paid will be refunded in full or in part, accordingly.

Further Enquiries: Jacob Bettany Manaing Director MoneyScience Ltd.

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