



8-10 October 2012, London

The new financial landscape and beyond: practical approaches to pricing, modelling, trading and risk management

Returning to London once again, Quant Europe is the must-attend event for the practical application of derivatives developments and quantitative risk management.

## The congress will bring you:

- · Answers to the most urgent questions facing the quantitative finance community today
- Deeper understanding of the latest research advances in quantitative modelling
- Unique insight into quantitative strategies adopted by leading financial institutions
- Invaluable opportunities to discuss the current issues you are facing

# Hear from pioneers in the advancement of quantitative finance including:



Jim Gatheral, Professor of Mathematics, BARUCH COLLEGE, CUNY



Dilip Madan, Professor of Finance, ROBERT H.SMITH SCHOOL OF BUSINESS, UNIVERSITY OF MARYLAND



, incisive*media* event

Vladimir Piterbarg, Managing Director and Global Head of Quantitative Analytics, BARCLAYS



Peter Carr, Managing Director, MORGAN STANLEY



Damiano Brigo, Professor of Financial Mathematics, IMPERIAL COLLEGE



Jean-Philippe Bouchaud, Founder and Chairman, CAPITAL FUND MANAGEMENT



### Pre-conference workshop 1: Modelling liquidity risk 8 October 2012

Rama Cont, Chair in Mathematical Finance, IMPERIAL COLLEGE, LONDON

#### 08.00 Registration and breakfast

	Market Liquidity and its avatars		
09.00	<ul> <li>Liquidity: the great absent in risk management?</li> <li>Measuring market liquidity</li> <li>Taking liquidity risk seriously: consequences for risk management</li> <li>Impact of liquidity on pricing</li> <li>Impact of liquidity on risk evaluation</li> <li>Impact of liquidity on risk management</li> </ul>		
10.30	Morning break		
	Measuring Liquidation value		
11.00	<ul> <li>What is liquidation value?</li> <li>Liquidation value vs. mark-to-market value</li> <li>Price impact and the 'optimal execution' of trades</li> <li>Why risk management should focus more on liquidation value rather than mark-to-market value</li> <li>Taking liquidity risk seriously: consequences for risk management</li> </ul>		
	Liquidation of complex portfolios: Close-out Risk PART ONE		
12.00	<ul> <li>Liquidating complex, multi-asset portfolios</li> </ul>		
12.30	Lunch		
	Liquidation of complex portfolios: Close-out Risk PART TWO		
13.30	<ul> <li>The concept of 'close-out risk'</li> <li>A quantitative framework for assessing close-out risk</li> <li>Hedging in illiquid markets</li> </ul>		
	Integrating liquidity and market risk PART ONE		
14.30	<ul> <li>How liquidity risk and market risk are intertwined, and what you can (and should) do about it</li> </ul>		
15.00	Afternoon break		
	Integrating liquidity and market risk PART TWO		
15.30	<ul> <li>How liquidity risk and market risk are intertwined, and what you can (and should) do about it</li> <li>Running for the exit: distressed selling and endogenous risk</li> <li>A quantitative framework for integrating liquidity and market risk</li> </ul>		

#### **Register now:**

T: +44 (0)870 240 8859 F: +44 (0)20 7504 3730 W: quantcongresseurope.com

#### Pre-conference workshop 2: Basel III and counterparty credit risk 8 October 2012

Frank Oertel, Department of Cross-Sectoral Risk Modelling, BAFIN

08.00	Registration and coffee			
	First-to-default bilateral counterparty credit risk			
09.00	<ul> <li>An introduction to bilateral counterparty credit risk (BCCR)</li> <li>Embedding of BCCR in the framework of a financial network</li> <li>Main building blocks of BCCR in an incomplete financial market and the role of information</li> <li>Vulnerable cash flows, ISDA's close-out rules and DVA</li> <li>First-to-default bilateral valuation adjustment (FTDBVA) as market price of BCCR</li> <li>The FTDBVA representation theorem of Brigo and Capponi</li> </ul>			
10.30	Morning break			
	First-to-default bilateral valuation adjustment - a top-down approach			
11.00	<ul> <li>Valuation of defaultable claims including bilateral counterparty credit risk: an actuarial point of view</li> <li>General mechanics of market prices of BCCR, accounting standards and the DVA paradox</li> <li>Market prices of BCCR and ISDA's close-out rules</li> <li>Can we embed systemic risk in BCCR and FTDBVA?</li> </ul>			
12.30	Lunch			
	The market price of counterparty credit risk and Basel III			
13.30	<ul> <li>Unilateral CVA in Basel III as a special case</li> <li>How does Basel III model unilateral CVA: assumptions and first generalisations</li> <li>Wrong-way risk and right-way risk</li> <li>The advanced CVA capital charge of Basel III</li> </ul>			
15.00	Afternoon break			
	Restructuring of counterparty credit risk and possible future ideas for research			
15.30	<ul> <li>Portable CVA versus ISDA's close-out rules</li> <li>Margin lending and central clearing through a central counterparty</li> <li>Securitisation of CVA?</li> <li>A first approach towards a generalisation of the advanced CVA capital charge of Basel III: multivariate dependence modelling, copula approaches and further research problems</li> </ul>			
17.00	End of workshop			

## QUANT congress europe

## PROGRAMME: DAY 1 9 October 2012, London

08.00	Registration and coffee			
09.00	Welcome address: Mauro Cesa, Technical Editor, RISK			
09.10	Arbitrage-free SVI volatility surfaces • Calibrate the widely-used SVI parameterization of the implied volatility surface • Guarantee the absence of static arbitrage • Demonstrate the high quality of typical SVI fits with a numerical example using recent SPX options data Jim Gatheral, Professor of Mathematics, BARUCH COLLEGE, CUNY			
09.50	Collateral, funding and discounting • Using collateralised assets as building blocks in a model without a risk-free rate • Multi-currency and choice collateral • Examples of the above Vladimir Piterbarg, Managing Director and Global Head of Quantitative Analytics, BARCLAYS AND RISK'S QUANT OF THE YEAR 2006, 2011			
10.30	Morning break and opportunity to network			
	STREAM 1 – Derivatives pricing	STREAM 2 – Portfolio management		
11.00	Chairman's opening remarks	Chairman's opening remarks		
11.10	A quadratic Gaussian year-on-year inflation model for vanillas and exotics Multi-factor quadratic Gaussian modelling framework for nominal and inflation rates Three factor stochastic volatilty-like parameterisation Calibration to year-on-year smile and numerical results Pricing ZC options, LPI swaps and callable inflation year-on-year swaps Manilo Trovato, Head of Rates Quantitative Research, Rates Trading, LLOYDS BANKING GROUP	Properties of the most diversified portfolio         ● Definition and theoretical properties of the Diversification Ratio (DR)         ● Definition and theoretical properties of the Most Diversified Portfolio (MDP)         ● Comparison of some quantitative portfolios         ● Empirical study         Yves Choueifaty, President, TOBAM		
11.50	Valuing with correlation smile • The meaning of correlation smile, and how to mark it • Good versus bad models • Why copulas are very bad (even if they price correlation correctly) Peter Austing, Quantitative Analytics Group, BARCLAYS	Technology of innovation <ul> <li>Financial weapons of mass destruction</li> <li>Bayesian lessons for pay-out structuring</li> <li>The origins of safety</li> <li>Information as the ultimate asset class</li> <li>Speaker to be confirmed, please check</li> <li>quantcongresseurope.com for updates</li> </ul>		
12.30	Lunch and opportunity to network			
13.30	CMS convexity with full volatility risk • Limitations of standard models for CMS pricing • Achieving consistency with full term structure of volatilities and correlations • Resolving the volatility and correlation risks of delayed payment • Incorporating the LIBOR-OIS basis Simon Cedervall, Quantitative Analyst, CITI BANK	Risk and portfolio management in the presence of stress         events - a Bayesian Net approach         Dealing with stress events in a rigorous but intuitive way         How to implement Bayesian Nets in practice         Combining statistical information and subjective views         Coherent asset allocation in the presence of stress events         Riccardo Rebonato, Head of Rates and FX Analytics, PIMCO		
14.10	Stochastic and local volatility models Pobust specification of volatility dynamics Beta stochastic volatility model Empirical estimation and implied calibration Illustrations Artur Sepp, Vice-President, BANK OF AMERICA MERRILL LYNCH	Call for papers Speaker to be confirmed Please submit your papers to emma-jayne.king@incisivemedia.com by September 3rd 2012 for consideration		
14.50	Afternoon break and opportunity to network			
15.20	A critique of functing and counterparty risk valuation: new challenges <ul> <li>A critique on the current approach to CVA, DVA and FVA modelling</li> <li>Re-hypothecation, closeout, netting, first to default, wrong-way risk</li> <li>Payoff risk and model risk</li> <li>Funding is not always DVA</li> <li>Problems with the self-financing condition</li> <li>Funding is not an additive adjustment</li> <li>Restructuring</li> <li>Damiano Brigo, Professor and co-head, Mathematical Finance Group, IMPERIAL COLLEGE</li> </ul>			
16.00	Implementing a high frequency trading strategy Micro analysing liquidity, volatility and impact Controlling costs - order positioning, entry and exit timing and sizing Holding periods - long, short and very short Directional forecasting for trends, reversions and inversions Measuring and modelling physical environment execution risks - market state, placement timing and external data latency The data torrent - dealing with quantity and noise Hans Christian Reinhardt, Head of Quantitative Trading Service Group, MORGAN STANLEY Priyanko Hazra, Quantitative Strategist, MORGAN STANLEY			
16.40	Model risk in funding and CVA models         Different choices for FVA and their effects on CVA and DVA         Misunderstandings in the relation between credit and funding         Regulations and Basel III effects         Oross - currency and the strange case of the risk - free rate         Massimo Morini, Head of Interest Rate and Credit Models, Coordinator of Model Research, BANCA IMI			
17.20	Chairman's closing remarks and end of day one			
17.30	Cocktail reception			

## QUANT congress europe

## PROGRAMME: DAY 2 10 October 2012, London

08.30	Breakfast and coffee			
09.00	Welcome address: Laurie Carver, Senior Staff Writer and I	Deputy Technical Editor, RISK		
09.10	Multidimensional systemic risk and the management of its associated trade-offs           • Measuring financial diversity           • Risk rated assets, VaR and capital countercyclicality           • Sector diversity and correlation response indices           Dilip Madan, Professor of Finance, ROBERT H. SMITH SCHOOL OF BUSINESS, UNIVERSITY OF MARYLAND			
09.50	EXPERT PANEL DISCUSSION: The future of the quant industry Have quant models failed or has the wider business model failed? In the future, will we all be in IT? Alex Lipton, Managing Director and Co-Head of the Global Quantitative Group, BANK OF AMERICA MERRILL LYNCH John Crosby, Visiting Professor, UNIVERSITY OF GLASGOW Jean-Philippe Bouchaud, Founder and Chairman, CAPITAL FUND MANAGEMENT Dilip Madan, Professor of Finance, ROBERT H. SMITH SCHOOL OF BUSINESS, UNIVERSITY OF MARYLAND Peter Carr, Managing Director, MORGAN STANLEY			
10.50	Morning break and opportunity to network			
	STREAM 3 – Quantitative risk management	STREAM 4 – Trading Strategies		
11.20	Chairman's opening remarks	Chairman's opening remarks		
11.30	Modelling commodities for counterparty risk • Stylised features of the commodity market • Potential modelling approaches • Primary model; spreads model; jumps model • Real world calibration; co-dependence • Model performance and extensions <b>Vinay Kotecha,</b> Head of Rates/Commodities, Risk Methodology and Analytics, BNP PARIBAS <b>Vladim: Chorniy,</b> Head of Risk Methodology and Analytics, BNP PARIBAS	Order flow and market impact • Market impact-crucial to understanding costs and capacity • Empirical data consistently shows that impact grows as the square-root of traded volume • Square-root impact law theory-proposed based on supply and demand and price diffusion • Consequences for execution optimisation and cost control? Jean-Philippe Bouchaud, Founder and Chairman, CAPITAL FUND MANAGEMENT		
12.10	Comprehensive framework for bilateral collateralized CVA and funding costs Trading under ISDA master agreement Re-hypothecation liquidity risk Collateral margining and close-out netting rules Funding risk and liquidity policies Bisk-neutral pricing of CVA including cost of funding Dherminder Kainth, Head of QuaRC, ROYAL BANK OF SCOTLAND	<ul> <li>Fixing a broken investment process</li> <li>Market dynamics changed substantially when Lehman collapsed and have not normalised</li> <li>This is causing continuing havoc for the investment process</li> <li>Here we look at how asset managers can adapt to cope with this new reality</li> <li>Stacy Williams, Head of Quantitative Strategy, HSBC</li> </ul>		
12.50	Lunch and opportunity to network			
14.00	Interrelation amongst liquidity, counterparty credit risk and funding Cash-flows fair values and discounting Critique of the Debit Value Adjustment (DVA) The DVA for derivative contracts Antonio Castagna, Lecturer, MILAN POLYTECHNIC; Partner, IASON LTD	Maximising profitability in FX and FX options trading • Trading strategies in the FX and FX options markets • Relating profits to market volatility and to economic indicators • The significance of the carry trade • The predictability of the profits John Crosby, Visiting Professor, Centre of Economic and Financial Studies, UNIVERSITY OF GLASGOW		
14.40	A generalised CVA with funding and collateral • A Partial Differential Equation (PDE) for a generalised CVA with funding and collateral • The DVA, FCA and balance sheet structure • Issuer debt structure impact Mats Kjaer, Vice President, Quantitative Analytics, BARCLAYS	Call for papers Speaker to be confirmed Please submit your papers to emma-jayne.king@incisivemedia.com by September 3rd 2012 for consideration.		
15.20	Afternoon break and opportunity to network			
15.50	Market risks in asset management companies Measuring market risks A sample of US asset management companies Cases for and against hedging. Tail risk dependence with banking revenues Bernd Scherer, CIO, FTC CAPITAL; Professor of Finance, El	DHEC BUSINESS SCHOOL		
16.30	A utility-free approach to the Ross Recovery theorem • Recovering real world probabilities from risk neutral ones • Avoiding utility restrictions • Application to interest rate derivatives • Simple examples and realistic examples Peter Carr, Managing Director, MORGAN STANLEY			
17.10	Chairman's closing remarks			
17.20	End of conference			
Spor		Ewa Rosol Tel: +44 (0) 20 7316 9681		

To enquire, please contact:

Tel: +44 (0) 20 7316 9681 Email: ewa.rosol@incisivemedia.com

#### **Register now:**

T: +44 (0)870 240 8859 F: +44 (0)20 7504 3730 W: quantcongresseurope.com



#### **Testimonials**

'Great way to learn new ideas, a window to quantitative risk in Europe.'

'High level and good diversity of talks. Good mixture of academia and practitioners.'

'Great insight into hot topics provided by key deliverers giving inspiration for future work.'

'Gives good overview about the current developments in quantitative finance.'

'A very useful combination of mathematical theory and views on their current practical uses.'

'Great event with world class quantitative specialists.'

'Cutting-edge on quantitative modelling for pricing and risk management.'

## Venue & Accommodation:

Sofitel London St James 6 Waterloo Place London SW1Y 4AN UK To find the best hotel rates, please visit the event website at quantcongresseurope.com and click on the 'Accommodation' tab to use our interactive tool.

Tel: +44 (0)20 7747 2200 Fax: +44 (0)20 7747 2210 Email: H3144@sofitel.com



# Addressing crucial issues and answering the most urgent and current questions facing the quantitative finance community today

- Tailor-make your conference experience through 4 interchangeable streams
- Discover a platform of innovative research, cutting-edge practical applications and invaluable insights
- Understand the potential direction that financial markets could take
- Hear in-depth analysis from world-class speakers
- Get up-to-speed with the latest derivatives and pricing modelling

- 4 streams include Derivatives Pricing; Trading Strategies; Quantitative Risk Management and Portfolio Management
- A vital and important meeting for the quantitative community
- Includes two keynote sessions, two guest addresses, two panel discussions, multiple plenaries and 16 stream sessions over 2 days

## **Call for papers**

To promote the very latest in innovation and research, **Quant Europe** offers the financial community a great opportunity to submit its latest research.

The Advisory Board and editorial team of *Risk* magazine are currently reviewing entries submitted following our 'call for papers'. The top papers selected by the board will be presented at **Quant Europe**.

Deadline for entry: **3rd September 2012**. Visit **quantcongresseurope.com** for details.

## **BOOK NOW**

#### **Register now:**

T: +44 (0)870 240 8859 F: +44 (0)20 7504 3730 W: quantcongresseurope.com

### **Register online**

#### **Book online with ease!**

# Visit quantcongresseurope.com and register in 5 easy steps.

Your registration fee includes:

- Morning refreshments
- Lunch
- Afternoon refreshments
- Congress/workshop materials

We look forward to welcoming you to the event.

# Please note your place is not guaranteed until your payment has been received.

If you require an invoice please inform us stating whether you need an original or a fax copy. We accept company cheques, credit cards and bank transfers. Please allow a minimum of seven working days for a bank transfer to reach us and phone or fax us when it has been sent. Please state the event name and delegate name to which it relates.

#### Register by post

Complete the booking form overleaf and post to Conference Administration:

Rest of World: Incisive Financial Publishing Ltd Haymarket House, 28-29 Haymarket, London, SW1Y 4RX, UK T: +44 (0)870 240 8859 F: +44 (0)20 7504 3730 E: conforders@incisivemedia.com

USA/Canada: Incisive RWG Inc, 55 Broad Street, 22nd Floor, New York, NY 10004 USA

T: (00 1) 646 736 1888 F: (00 1) 646 390 6612 E: conforders@incisivemedia.com

In order that we process your registration with maximum efficiency, we request that a copy of this booking form accompanies your payment.

### **Registration enquiries:**

Customer Services, UK T: +44 (0) 870 240 8859 E: conforders@incisivemedia.com Marketing and media partnership enquiries:

Saffa Khan T: +44 (0) 207 484 9910 E: saffa.khan@incisivemedia.com



# **Book Now**

#### Fax to: +44 (0)20 7504 3730 Email to: conforders@incisivemedia.com

	Early Bird 1, book by 31 July	Early bird 2, book by 7 September	Standard rate	Subscriber rate
Conference + workshop* 8-10 October	£2299 + VAT	£2499 + VAT	£2699 + VAT	£2199* + VAT
Conference 9-10 October	£1599 + VAT	£1799 + VAT	£1899 + VAT	£1499* + VAT
Workshop* 8 October	£899 + VAT	£949 + VAT	£999 + VAT	£799* + VAT

#### \* Please select which pre-congress workshop you will be attending:

Pre-congress workshop 1 (Modelling liquidity risk) \* Subscribers discount: applies to current, paying subscribers to Risk. Please quote your subscriber number here .

#### **Registration Details**

Please complete your details below in block capitals

Title	First Name		Last name	
Job title/position		Department		
Company				
Address				
Post/zip code			Country	
Telephone		Fax	Email	

Payment Details				
I enclose a cheque payable to Incisive Financial Publishing Ltd.				
Please debit my Amex Visa Mastercard Maestro	4097/12			
Valid from date				
ACCOUNT ADDRESS IF DIFFERENT FROM ABOVE				
SIGNATURE DATE				

#### Incisive Financial Publishing Ltd. VAT No: GB 756978165. For companies in EU member states only:

#### Please write your VAT/TVA/BTW/IVA/ MCMS/MWST/FPA number here

Warning: Quant Europe is a registered trademark, and the titles, contents and style of this brochure are the copyright of Incisive Media. We will act on any infringement of our rights anywhere in the world. © Incisive Media. Cancellation/Substitution: A refund (less 10% administration fee) will be made if notice of cancellation is received in writing three weeks before the conference. Regrettably, no refunds will be available for cancellations received less than three weeks before the event start date. If you do received less than infee weeks before the event start date. If you do not attend the event or notify us of your intention to cancel, the full fee will still be payable. A substitute delegate is welcome but the organiser MUST be notified in advance of the conference to avoid incurring a charge. Substitutions may NOT be made at the conference.

Disclaimer: The programme may change due to unforeseen circumstances, and Incisive Media reserves the right to alter the venue and/or speakers. Incisive Media accepts no responsibility for any loss or damage to property belonging to, nor for any personal injury incurred by, attendees at our conferences, whether within the conference venue or otherwise.

Data Protection: By registering for Quant Europe Incisive Media\* will send you further information relating to this event. In addition we will send you information about our other relevant products and services which we believe will be of interest to you. If you do not wish to receive other relevant information from Incisive Media via a particular medium please tick the following relevant boxes: mail □; phone □; fax □; email □.

Incisive Media will also allow carefully selected third parties to contact you about their products and services. If you do not wish to receive information from third parties via any of the following media please tick the relevant boxes: mail  $\square$ ; phone  $\square$ . Please tick if you are happy to receive relevant information from carefully selected third parties by email  $\square$  and fax  $\square$ .