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Confirmed speakers include:



Keynote address:

Peter Carr,
Managing Director, Global Head of
Market Modeling, MORGAN STANLEY



Christoph Burgard
Managing Director,
BARCLAYS CAPITAL



Keynote address:

Richard Goulding,
Group Chief Risk Officer,
STANDARD CHARTERED BANK



Stacy Williams
Head of Quantitative Strategy,
HSBC



Guest address:

Dilip Madan
Professor of Mathematical Finance,
Robert H. Smith School of Business
UNIVERSITY OF MARYLAND



Artur Sepp
Vice President,
Equity Derivatives Analyst,
BANK OF AMERICA MERRILL LYNCH

Pre-conference seminar 1: CVA Modelling: New features and developments

Led by Damiano Brigo, Gilbert Chair of Financial Mathematics, KING'S COLLEGE, LONDON

08.30	Registration and coffee
	Understanding CDS and Bonds
09.00	<ul style="list-style-type: none"> • Credit Default Swaps (CDS) • Corporate Bonds • CDS Big Bang
	Single name credit models
09.30	<ul style="list-style-type: none"> • Reduced form, hazard rate and Intensity; Deterministic intensity: piecewise, constant or linear • Calibration: CDS's with examples: Parmalat and Lehman • Hints at stochastic intensity modelling • Firm Value Models and CDS calibration
10.00	Morning break
	Multi name reduced form models and copulas
11.00	<ul style="list-style-type: none"> • Introduction to copulas • Gaussian copula • Other Copulas: t-Copula. One factor Gaussian Copula • Hints at use of Copulas for CDO's and problems • Dynamic Loss models: • Hint at GPL model for simultaneous • CDO tranche calibration across attachments and maturity
13.00	Lunch
	Counterparty risk CVA: Introduction
14.00	<ul style="list-style-type: none"> • Unilateral CVA and unilateral DVA • Default modelling • Exposures
	Bilateral CVA
14.30	<ul style="list-style-type: none"> • General formula for bilateral CVA • Impact of closeout conventions • Contagion • First to default risk
15.30	Afternoon break
	Arbitrage free CVA pricing across asset classes
16.00	<ul style="list-style-type: none"> • Impact of volatilities and correlations • Subtleties in Wrong way risk profiles • Counterparty risk CVA on Rates, Commodities, Credit and Equity • Interest Rate derivatives: CVA on interest rate swaps with netting • Commodities: CVA for oil swaps • Credit Derivatives: CVA on credit default swaps • Equity: CVA on Equity Return Swaps • Wrong way risk in all the above cases • Precise valuation vs. Basel deduced multipliers
17.00	Netting, collateral and re-hypotecation in CVA calculations
17.30	End of the seminar

Pre-conference seminar 2: Model risk and model validation

Led by Massimo Morini,
Coordinator of Model Research, BANCA IMI

08.30	Registration and coffee
	Model Risk and Validation - Foundations
09.00	<ul style="list-style-type: none"> • The price approach vs the value approach • Model risk and fair value accounting • The regulators: new indications for model validation • From theory to practice: a practical scheme for model risk management
10.30	Morning break
	Using different models for model validation
11.00	<ul style="list-style-type: none"> • Measure the range of reasonable prices to quantify model risk • Construct parametric families of models • Practical example on gap risk with structural vs reduced-form models
12.30	Lunch
	Stress-testing design and pitfalls to avoid
13.30	<ul style="list-style-type: none"> • Using market information to design stress-tests. Practical example on correlation skew • Using historical information to design stress-tests in illiquid markets. Practical example from credit: mapping for bespoke portfolios • Pitfalls in stress-testing. When the model breaks down. Practical example on copulas for liquidity risk, dynamic Var, wrong-way risk
15.00	Afternoon break
	Case Studies
15.30	<ul style="list-style-type: none"> • Understanding model evolution to prevent model losses. How the interest-rate consensus model broke down when the basis spreads exploded. Detecting when an assumption becomes invalid • Hedging. The limits of pricing models when applied to hedging. The validation of a real hedging strategy. Practical example: Local volatility models vs stochastic volatility models for equity options • Validating an approximation. Monitoring quantitatively the reliability of an approximation. Examples from interest rate modelling: swaption volatilities in the Libor market model and convexity adjustments • When the problem is the payoff. The dramatic consequences of payoff misunderstanding. Examples on index options and bilateral counterparty risk
17.00	End of the Seminar

08.00	Registration and coffee	
08.50	Welcome address	
09.00	KEYNOTE ADDRESS: Peter Carr , Managing Director, Global Head of Market Modelling, MORGAN STANLEY; Executive Director, Masters in Maths Finance Program, Courant Institute, NYU (Risk Awards 2003, Quant of the Year)	
09.40	PLENARY ADDRESS: Counterparty risk: New issues and challenges in CVA calculation <ul style="list-style-type: none"> ● Impact of closeout conventions ● Neglecting first to default risk? ● Impact of Collateral and Re-hypothecation ● Wrong way risk Damiano Brigo , Gilbert Chair of Financial Mathematics, KING'S COLLEGE, LONDON	
10.20	Morning break and an opportunity to network	
	STREAM ONE: Innovations in derivatives and market risk modelling	STREAM TWO: Credit and counterparty risk
10.50	Chairman's opening remarks	Chairman's opening remarks
11.00	Understanding and Managing Model Risk <ul style="list-style-type: none"> ● Identifying Model Risk: model uncertainty, consensus change, accountancy and regulators ● Practical examples: the pitfalls of common market models in Rates and Credit ● Quantifying model risk, benchmarking and computing provisions Massimo Morini , Coordinator of Model Research, BANCA IMI	Stochastic Price Dynamics Implied By the Limit Order Book <ul style="list-style-type: none"> ● Using the information in limit order book: Determining fat tails in financial data ● Collection of orders to imply volatility smiles ● Adopting a jump-diffusion process to explicitly infer and account for the volatility smile Dr Alex Langnau , Global Head of Quantitative Analytics, ALLIANZ INVESTMENT MANAGEMENT
11.40	Inflation-Linked Derivatives: supply/demand dynamics and pricing features in the post-crisis world <ul style="list-style-type: none"> ● Appropriate discount curves ● Asset swaps of linkers as the main source of inflation swap supply ● The rapid growth of the inflation option market ● Vol smile and skews and links to end user flows ● Natural hedges for vol exposure Dariusz Mirfendereski , Managing Director, Head of Inflation-Linked Trading Rates/Fixed Income, UBS	Interest rates after the credit crunch markets and models evolution <ul style="list-style-type: none"> ● The market across the credit crunch ● Classical versus modern market practices and modelling ● OIS discounting vs. CSA discounting ● Switching towards CSA discounting in practice Marco Bianchetti , Senior Quant & Risk Manager, INTESA SANPAOLO
12.20	**New Papers** Variance Swap Premium under Stochastic Volatility and Self-Exciting Jumps <ul style="list-style-type: none"> ● Variance Swap Premium: stochastic volatility or jump risks? ● Volatility surface dynamics under self exciting jump diffusion and stochastic vol ● Calibration of self exciting jump diffusion with stochastic vol to stock and option prices Ser-Huang Poon , Professor, MANCHESTER BUSINESS SCHOOL Asymptotics of implied volatility in affine stochastic volatility models <ul style="list-style-type: none"> ● Closed-form formulae for the large-maturity implied volatility smile in affine stochastic volatility models (with jumps) ● Generalised SVI-type formula for stochastic volatility models ● Asymptotic comparison of stochastic volatility models ● Tests of numerical accuracy ● Calibration methodology based on these asymptotic formulae Antoine Jacquier , Research Fellow, TU BERLIN	Managing and modelling liquidity risk in the credit markets <ul style="list-style-type: none"> ● Identifying the liquidity sensitivity of financial products ● Funding liquidity risk ● Accounting for correlations between credit, market and liquidity risk <i>Speaker to be confirmed, please visit quantcongresseurope.com for updates</i>
13.00	Lunch and an opportunity to network	
14.00	Valuing basket options on smile and correlation skew <ul style="list-style-type: none"> ● Multi-asset options must be priced consistent with asset smiles and correlation skew ● Choice of instrument to mark implied correlation smile is asset class specific. We consider equity and especially FX assets ● We provide a simple (semi-)analytic formula for pricing baskets consistent with all smiles ● Numerical results show good agreement with heavier models Peter Austing , Quantitative Analytics Group, BARCLAYS CAPITAL	Calibrate to the dynamics <ul style="list-style-type: none"> ● Robust calibration of multi-factor jumpy stochastic volatility models ● Capture the volatility term structure and smile dynamics ● Use multi-factor time-changed Lévy processes ● Calibrate to the time series of volatility surfaces ● Use scenario analysis techniques for model construction ● Adjust the derivatives prices to comply with the vanilla prices ● Assess quantitative trading strategies Péter Dobránszky , Head of Risk Model Validation, BNP PARIBAS

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14.40	How to complete the price information in complex products <ul style="list-style-type: none">• The price of a financial product as a mean of a risk-neutral probability distribution• Simple products: low dispersed, symmetrical probability distribution• Complex products: highly dispersed, skewed probability distributions• Loss of significance of the mean information• Recovering information with finite partitions of the probability distribution:• Losing or Gaining: the Trajectory by Trajectory Technique• Assessing the value of time and the consistency with markets conditions: the superimposition technique• Case Studies Marcello Minenna , Head of the Quantitative Analysis Unit at CONSOB	Calibrating capital charges <ul style="list-style-type: none">• Financial Stability, leverage and securitization• Systemic risk and Sovereign CDS• Fixed capital charges for fluctuating risks• Contingent capital and dynamic regulation Serge Goossens , Senior Quantitative Analyst, Financial Markets, DEXIA BANK BELGIUM
15.20	Afternoon break	
15.50	Parametric and non-parametric local volatility models <ul style="list-style-type: none">• Calibration of local stochastic volatility methods using PDE methods• Including jumps in model dynamics• Stochastic interest and dividend rates Artur Sepp , Vice-President, Equity Derivatives Analyst BANK OF AMERICA MERRILL LYNCH	Margin Lending and Securitization of Counterparty Credit Risk <ul style="list-style-type: none">• CVA and beyond• Global portfolio modelling• Cash waterfalls and cumulative loss distributions• Transferring CVA VaR risk and default risk• Margin lending structures• Securitization• Regulatory environment Claudio Albanese , Visiting Professor, KING'S COLLEGE LONDON and CEO, GLOBAL VALUATION LIMITED
16:30	Pricing coco bonds: the derivative approach <ul style="list-style-type: none">• Rule of thumb pricing from an equity to credit perspective• Pricing coco bonds: the derivatives approach• Dynamics and risk management of cocos• Structuring of cocos and determining the issue size to avoid death spiral effect Wim Schoutens , Financial Engineering Professor and Independent Consultant, CATHOLIC UNIVERSITY OF LEUVEN	CVA and Discounted DVA <ul style="list-style-type: none">• CVA/DVA pricing in interest-rate and credit derivatives• CSA agreements according to ISDA protocols• Sizing the impact of credit risk over OIS discounting by CVA/DVA calculations in a collateralized deal• Implications for collateral discounting for fully collateralized CDS Andrea Pallavicini , Head of Financial Models, MEDIOBANCA
17.10	Chairman's closing remarks	
17.20	CHAMPAGNE ROUNDTABLES A chance to discuss the latest issues of contingent capital, volatility, credit, inflation risk, regulation and liquidity with leading experts over a glass of Champagne Vladimir Piterbarg , Managing Director, BARCLAYS CAPITAL Dong Qu , Head of Quantitative Product Group, UNICREDIT Dilip Madan , Professor of Mathematical Finance, Robert H.Smith School of Business, UNIVERSITY OF MARYLAND John Crosby , Executive Director, Front-Office Derivatives Research, UBS	
18.00	Cocktail reception. End of day one	

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08.20	Registration and coffee	
08.50	Welcome address	
09.00	PLENARY ADDRESS: Dilip Madan , Professor of Mathematical Finance, Robert H. Smith School of Business, UNIVERSITY OF MARYLAND (Risk Awards 2008, Quant of the Year)	
09.40	GUEST ADDRESS: Consistent valuations with bilateral counterparty risk and funding Mats Kjaer , Vice President, Quantitative Analytics, BARCLAYS CAPITAL	
10.00	PANEL DISCUSSION: Untangling CVA funding charges <ul style="list-style-type: none"> How to account for funding charges and minimize the cost of funding? Who picks up the tab? CVA, DVA, funding benefits and funding costs, what is the relationship between them? Collateral funding: Choosing the currency, evaluating the impact on risk Dr. Christoph Burgard , Managing Director, BARCLAYS CAPITAL Tony Webb , Director, Analytics, FINCAD	
10.50	Morning break and an opportunity to network	
	STREAM THREE: High frequency trading: the next frontier	STREAM FOUR: Quantitative insight into portfolio risk management
11.20	Implementing a High Frequency Trading strategy that works <ul style="list-style-type: none"> 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 Mark Holt , Head of Systematic Implementation, BLUECREST CAPITAL	Serving two masters: Pension funds are expected to deliver real retirement benefits but regulation is nominal? <ul style="list-style-type: none"> Quantifying real targets under nominal constraints Asset allocation is part of the solution ... but risk budgets must be adjusted as well The role of ALM modelling Michael Preisel , Chief Quantitative Officer, Quantitative Research, ATP
12.00	Risk management for HFT <ul style="list-style-type: none"> Managing asymmetric liquidity Metrics of adverse information leakage Mitigating risks <i>Speaker to be confirmed, please visit quantcongresseurope.com for updates</i>	Anatomy of incremental risk charge models – examining modelling alternatives and identifying relevant parameters for practical implementation <ul style="list-style-type: none"> Regulatory Requirements and Quantitative Results A discussion of modelling alternatives Relevant Model Parameters in IRC models Outlook Martin, Marcus R.W. Professor for Financial Mathematics and Stochastics, UNIVERSITY OF APPLIED SCIENCES DARMSTADT (Germany)
12.40	Lunch and an opportunity to network	
13.40	PRESENTATION: Stochastic Local Volatility Jesper Fredborg Andersen , Universal Head of Quantitative Research, DANSKE BANK (Risk Awards 2001, Quant of the Year)	
14.20	KEYNOTE ADDRESS: Richard Goulding , Group Chief Risk Officer, STANDARD CHARTERED BANK	
15.00	Afternoon break and an opportunity to network	
15.30	Neural networks for systematic trading <ul style="list-style-type: none"> Background and motivation Comparison to various linear models Differentiating architectures and topologies Estimation, training and evaluation Relative performance of assorted networks Implementation recommendations Kevin Warner , Portfolio Manager, TOWER RESEARCH CAPITAL	Understanding the profound consequences of cross-asset correlations <ul style="list-style-type: none"> Cross-asset correlations have dramatically increased since the crisis The persistence of these correlations is indicative of a single dominant factor driving markets Using principal component analysis (PCA), this factor can be identified, tracked and understood The consequences for asset allocation are profound as many assets no longer trade on their own fundamentals In this talk we look at the phenomenon and the options available to asset managers Stacy Williams , Head of Quantitative Strategy, HSBC

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16.10	Modelling for High Frequency algorithmic Trading <ul style="list-style-type: none">● Importance of market microstructure● Short-term liquidity modelling● Quantitative modelling of information events Robert Almgren , Visiting Scholar and Adjunct professor in Financial Mathematics Courant Institute of Mathematical Sciences, NEW YORK UNIVERSITY	Combined limitations on modelling by real world measure and risk management requirements <ul style="list-style-type: none">● Method limitations: AMC● Conditionality on Default● Stochastic Processes● Sub-optimality Vladimir Chorniy , Head of Risk Methodology and Analytics, Group Risk Management, BNP PARIBAS Sebastian Venus , Risk Methodology and Analytics, Group Risk Management, BNP PARIBAS
16.50	Chairman's closing remarks	
17.00	End of conference	

Who should attend:

Professors of Economics/Finance

Heads of Credit Derivatives Trading/Research

Heads of Quantitative Research/Analytics

Heads of Commodity Derivatives/Research

Heads of Structured Products and Structured Finance

Quantitative Analysts/Researchers

Risk Analysts

Traders

Portfolio Strategists

You should attend

Quantitative Modellers

Heads of Product Development

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Heads of Asset Allocation

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Great event, I will be back next year for sure!
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- Gain insight into the latest developments in High Frequency and Systematic trading
- Gain new insights into local volatility models
- Discover how are banks tackling the issues of CVA funding

If you are in or preparing for a leading role and require more specialist knowledge, you should consider attending one of our [pre-congress seminars](#) this year focusing on model validation and CVA

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This session has been designed to provide you with a platform where you can ask questions and have your say on the most topical issues affecting the quant community. Led by quant industry experts, each roundtable will run simultaneously throughout the whole session.

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