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Useful information

To register, please visit: FESS.afi.es

Registration fee: 750 €

Early-bird rate: 600 € (before May 1, 2012)

For special academic and student rates, please apply at FESS@afi.es

Financial Engineering Summer School

Madrid 2012, June 19 - 22

Analistas Financieros Internacionales and the **Centre de Recerca Matemàtica** present the fifth Financial Engineering Summer School, to be held this year at the **Bolsa de Madrid**. The school aims to bring together practitioners and academics working in the area of quantitative finance to learn about issues of current interest from some of the world's foremost experts. This year's programme will consist of four short courses, of 4 ½ hours each:

Participants

Jon Gregory is a partner at Solum Financial and specialises in counterparty risk and CVA related consulting and advisory projects. He has worked on many aspects of credit risk in his career, being previously with Barclays Capital, BNP Paribas and Citigroup. He is author of the book "Counterparty Credit Risk: The new challenge for global financial markets". Jon holds a PhD from Cambridge University.

Topics in Counterparty Credit Risk

In these lectures I will explain the emergence of counterparty credit risk as one of the key risks faced by financial markets. I will explain how banks are using credit value adjustments (CVA) to price and manage counterparty risk and the impact of regulation on CVA usage. Also considered will be related topics such as debt value adjustment (DVA), wrong way risk and funding (FVA). There will be a discussion of central counterparties (CCPs) and their impact on OTC derivatives markets in the future.

Paul Glasserman is the Jack R. Anderson Professor of Business at Columbia Business School. His research focuses on risk management and derivative securities. For the 2011-2012 academic year, he is on leave from Columbia and working at the Office of Financial Research in Washington, a new office created by the Dodd-Frank act to evaluate and monitor threats to financial stability.

Robust Risk Management

In these lectures, I will provide an overview of how precise notions of robustness can be used to incorporate model error into risk measurement. Applications will be developed for quantifying model risk in portfolio risk measurement, hedging, stress testing, and counterparty risk. I will also illustrate how tools from robust control can be used to manage a portfolio dynamically to guard against model risk and improve out-of-sample performance.

Enrico Biffis is Assistant Professor of Actuarial Finance at Imperial College Business School. His main research interests lie in the areas of insurance and risk management, with a focus on asset-liability management, valuation of insurance and pension liabilities, and optimal design of risk transfers for long term risks and catastrophe exposures. He has written extensively on market-consistent accounting standards for insurers, longevity risk management and securitization, and has been the recipient of several prizes and awards. Prior to joining Imperial College London in 2007, he held positions at Bocconi Milan, Association of British Insurers, and Cass Business School. Enrico holds degrees in Statistics (BSc & MSc), Actuarial Management (MSc), and Mathematics for Economic Decisions (PhD).

An introduction to the longevity risk market

In these lectures I will first provide an overview of the emerging market for longevity risk, reviewing recent developments in de-risking strategies for pension plans and the marketing of longevity-linked instruments. I will then cover more in detail pension buy-outs and pension buy-ins, both in regular and synthetic form, as well as bespoke longevity swaps. I will consider the main factors driving supply and demand, and show how they affect the design, pricing and take-up of different longevity risk solutions. In the last part of the course, I will use case studies to illustrate current issues ranging from marking-to-model and collateralization in longevity swaps to the design of longevity catastrophe bonds.

Jon Danielsson has a Ph.D. in the economics of financial markets and is a reader in finance at the London School of Economics. His research interests include financial stability, systemic risk, extreme market movements, market liquidity and financial crisis. He has published his research extensively in both academic journals and the mainstream media and has presented his work at a number of universities and institutions.

Systemic Risk: Theory and Policy

The course will start off considering the issue of systemic risk: its definition, estimation and problems in model implementation. Following that it will focus on the problem of endogenous risk and conclude with a look at problems in financial stability and the implementation of government policy

Organisers:

Paul MacManus, Analistas Financieros Internacionales.
Joan del Castillo, Centre de Recerca Matemàtica.

Advisory Committee:

Joaquim Bruna, Centre de Recerca Matemàtica.
José Luis Fernández, Analistas Financieros Internacionales.