UNIVERSITÀ DELLA SVIZZERA ITALIANA

Università di Roma "Tor Vergata"

Università di Roma "La Sapienza"

International Summer School in "*Risk Measurement and Control*"

Rome, June 9-17, 2005

The 2005 International Summer School is jointly organised by the University of Lugano (Switzerland), the University of Rome "La Sapienza" (Italy) and the University of Rome "Tor Vergata", in cooperation with:

Charles University, Prague
Collegium Budapest, Budapest
ESSEC, Paris
Erasmus University, Rotterdam
ETH, Zürich
Finance-and-Physics, Rome
GME (IPEX – Italian Power Exchange), Rome
Hochschule fur Bankwirtschaft, Frankfurt
Imperial College, London
Journal of Banking and Finance
LSE, London
Norwegian University of Science and Technology, Trondheim
University of Bergamo, Bergamo
University of Milano Bicocca, Milan
University of Modena, Modena
University of Cyprus, Nicosia
University of Firenze, Florence
University of Lausanne, Lausanne
University of Roma "Tor Vergata", Rome
University of Wien, Wien
University of Zürich, Zürich
University Paris Dauphine, Paris

Organizing Committe

Prof. Rita Laura D'Ecclesia, University of Roma "La Sapienza"
Prof. Giovanni Barone Adesi, Università della Svizzera Italiana
Dr. Gabriele Susinno, University of Roma "Tor Vergata"
Dr. Randa Morgan, University of Roma "La Sapienza"

Istituto Svizzero di Roma

Via Ludovisi 48

The Summer School will be held on June 9-17, 2005 in Villa Maraini, the venue of the Swiss Institute in Rome. The aim of the School is to present selected topics on advanced quantitative approaches in the area of financial risk measurement and control. The event is directed toward an audience of skilled professionals and researchers with the aim to join both operational needs and risk management, with the latest advances in academic research. The first session of the School (June 9 – 11) is targeted to selected topics in Risk Measurement and Structured Finance; the second session (June 13- 14) covers Topics in Risk Management and Asset Allocation. The third session (June 15) focuses on Computational Finance while, Energy Risk Control and Optimisation Techniques are the subject of the fourth session (June 16-17). Contributed papers will be presented at the end of each session.

Papers presented at this event will be eligible for submission to a special issue of the **Journal of Banking and Finance.**

Deadlines

May 20th: Contributed papers submission;

May 30th: Handout of the lectures in PDF format to the following address, morgan_randa@yahoo.it**;**

June 2nd: On line Registration and Payments
http://www.finance-and-physics.org/SummerSchool

Any enquires should be addressed to:
morgan_randa@yahoo.it

Preliminary Program

June 9, 2005

08:15-9:15 **Registration**

09:15-9:30 **Welcome and Opening Remarks Prof. Rita L. D'Ecclesia, Dr. Dagmar Schmidt (Swiss Embassy) and Dr. Christoph Riedweg (Swiss Institue in Rome)**

1. Risk Management and Structured Finance

1.1 New Tools in Risk Management

Chair *Prof. Rita L. D'Ecclesia*, Università di Roma "La Sapienza"
09:30-11:00 **Imre Kondor,** Collegium Budapest, "*Noise Sensitivity of Risk Measures I*"
11:00-11:15 Coffee Break
11:15- 12:45 **Imre Kondor,** Collegium Budapest, "*Noise Sensitivity of Risk Measures I*"
13:00- 14:30 Lunch

1.2 Financial Instruments

Chair *Prof. Rama Cont*, Centre de Matématiques, Ecole Polytechnique
14:30-16:00 **Carlo Acerbi**, AbaxBank, *"New Tools in Risk Management"*
16:00-16:15 Tea Break
16:15-17:45 **Carlo Acerbi**, AbaxBank, *"New Tools in Financial Markets"*
Contributed Papers
17:45-18:10 **Vladimiro Ceci**, Cassa Depositi e Prestiti**,** *"Bond Portafolio Management"*
18:10-18:30 **Giacomo Scandolo**, Università di Firenze**,** *"Risk Measures and Capital Requirements for Processes"*

June 10, 2005

1.3 Beyond Black and Scholes

Chair *Dr. Carlo Acerbi*, Abaxbank
09:15-10:45 **Marcello Minenna**, Consob, "*Beyond Black and Scholes* "
10:45-11:00 Coffee Break
11:00-12:30 **Marcello Minenna**, Consob, "*Parameters Estimation Stability*"
Contributed Paper
12:30-12:50 **Cecilia Mancini,** University of Firenze, " *Estimating and Testing Model with Levy Type Jumps and Stochastic Volatility"*

13:00- 14:30 Lunch

1.4 Model Risk and Calibration

Chair *Dr. Gabriele Susinno,* Finance-and-Physics and Università di Roma "Tor Vergata"
14:30-16:00 **Rama Cont**, Centre de Matématiques, Ecole Polytechnique, *"Designing Stable Algorithms for Model Calibration: Regularization of an Ill-Posed Inverse Problem"*
16:00-16:15 Tea Break
16:15-17:45 **Rama Cont**, Centre de Matématiques, Ecole Polytechnique, *"Stochastic Algorithms for Model Calibration"*
Contributed Papers
17:45-18:10 **Cheungh Ma**, University of Essex**,** *"Mean-Preserving-Spread Risk Adversion and the CAPM*"**.**

18:10-18:30 **Roy Cerqueti**, Università di Roma "La Sapienza", *"Speculative Bubbles in International Stock Markets: a Panel Cointegration Analysis"*

June 11, 2005

1.5 New Frontiers in Financial Engineering

Chair *Prof. Peter Laurence*, Università di Roma "La Sapienza"

09:15-10:45 **Ursula Theiler,** Risk Management, Munich "*Optimization Techniques for Portfolio Management"*

10:45-11:00 Coffee Break

11:00-12:45 **Rama Cont,** Centre de Matématiques, Ecole Polytechnique, *"Measuring Model Risk"*

(No session on Saturday Afternoon)

2. Topics in Risk Management and Asset Allocation

June 13, 2005

2.1. Credit Risk Models

Chair *Prof. Peter Laurence*, Università di Roma "La Sapienza"

09:15-10:45 **Damiano Brigo**, San Paolo IMI, *"Credit Default Swap Calibration and Hybrid Products Valuation with New Tractable First Passage Structural Models* I"

10:45-11:00 Coffee Break

11:00-12:30 **Damiano Brigo**, San Paolo IMI, *"Credit Default Swap Calibration and Hybrid Products Valuation with New Tractable First Passage Structural Models* II"

12:30-12:50 Contributed Paper **Martina Nardon**, University Ca' Foscari, *"First Passage and Excursion Time Models for Valuing Defaultable Bonds"*

13:00-14:30 Lunch

2.2. Derivatives Market and Default

Chair *Prof Claudio Albanese*, Imperial College

14:30-16:00 **Peter Laurence**, Università di Roma "La Sapienza", "*Static Model Free No Arbitrage Bounds for Basket Options"*

16:00-16:15 Tea Break

16:15-17:45 **Claudio Albanese**, Imperial College of London, *"Pricing Equity Default Swap Spreads*"

Contributed Papers

17:45-18:10 **Stefano Galluccio,** BnParibas,**"***Smile Modeling for Hybrid Derivatives: Stochastic Volatility and Beyond*"

18:10-18:30 **George Skiadopoulos,** University of Piraeus, **"***Implied Volatility Processes: Evidence from the Volatility Derivatives Market*"

June 14, 2005

2.3 Portfolio Risk

Chair *Prof. Rita L. D'Ecclesia*, Università di Roma "La Sapienza"

09:15-10:45 **Emanuela Rosazza Gianin,** University of Naples, "*From Static to Dynamic Risk Measures"*

10:45-11:00 Coffee Break

11:00-12:30 **Enrico De Giorgi**, Università della Svizzera Italiana and University of Zurich, "*Reward-Risk Portfolio Selection: from EUT to Behavioral Finance".*

12:30-12:50 Contributed Paper **Daniel Giamouridis,** University of Athens, *"Hedge Funds Portfolio Construction: A dynamic Approach"*
13:00-14:30 Lunch

2.4. Operational Risk

Chair *Prof. Emanuela Rosazza Gianin*, Università di Napoli
14:30-16:00 **Santiago Carrillo**, MEF UAM,*"Operational Risk in Portfaolio Management I"*
16:00-16:15 Tea Break
16:15-17:30 **Santiago Carrillo**, MEF UAM,*" Operational Risk in Portfaolio Management II"*
Contributed Papers
17:30-17:50 **Mario Velella,** BNL, "*Operational Risk Management and value creationin bank*"
17:50-18:10 **Andrea Roncoroni,** ESSEC, "*A New Measure of Cross Sectional Risk*"
18:10-18:30 **Anna Chernobai,** University of California, "*Estimation of Operational Value-at-Risk with Minimum Collection Thresholds"*

3. Computational Finance

June 15, 2005

3.1. Computational Finance I

Chair *Dr. Alain Debuisscher, Moody's Investor Service*
09:15-10:45 **Roberto Baviera,** Abaxbank , "*Calibrating Bond Market Models"*
10:45-11:00 Coffee Break
11:00-12:30 **Marida Bertocchi,** Univerità di Bergamo, *"Simulation of Bond Securities"*
Contributed Paper
12:30-12:50 **Giovanni Puccetti,** University of Firenze, *"Bounds for Functions of Multivariate Risks"*
13:00-14.30 Lunch

3.2. Computational Finance II

Chair, *Prof. Silvana Stefani*, Università di Milano Bicocca.
14:30-16:00 **Roberto Renò,** Università di Siena, "*Calibrating Interest Rate Risk Models"*
16:00-16:15 Tea Break
16:15-17:45 **Marco Szegö**, **Alain Debuysscher**, Moody's Investor Service, "*Efficient Simulation Models in Finance"*
Contributed Papers
17:45-18:10 **Alvaro Cartea,** Birbeck College**,** "*Dynamic Hedging of Financial Instruments when the Underlying Follows a No Gaussian Process"*
18:10-18:30 **Gianluca Fusai,** University of Firenze, " *Pricing of Discretely Monitored Asian Options"*

20:30 Gala Dinner sponsored by the *Swiss Futures and Options Associaton*

4. ART: Energy Risk Management

June 16, 2005

4.1. Energy Risk I

Chair *Prof. Helyette Geman*, ESSEC and Univerity of Paris Dauphine
09:00-9:15 **Welcome and Opening Remarks Prof. Giorgio Szego, GME President**
09:15-10:45 **Carlo Mari**, Università di Chieti, *"Stochastic Models of Electricity Prices*"
10:45-11:00 Coffee Break
11:00-12:30 **Silvana Stefani**, University of Milano Bicocca, "*Optimal Strategies for a Small Electricity Producer"*

13:00-14:30 Lunch

4.2. Energy Risk II

Chair *Prof. Giovanni Barone Adesi,* Università della Svizzera Italiana

14:30-16:00 **Helyette Geman**, University of ESSEC and Paris Dauphine, *"Risk Managing a Multi Commodity Portfolio"*
16:00-16:15 Tea Break
16:15-17:45 **Giovanni Barone Adesi**, Università Svizzera Italiana, "*Electricity Derivatives*"
Contributed Papers
17:45-18:10 **Gabriel Spiridon,** University of Bucharest, " *Clean Technologies Promotion in the Balkans Using European RTD Projects"*
18:10-18:30 **Sergio Ortobelli,** University of Bergamo, " *Desirable Properties of an Ideal Risk Measure in Portfolio Theory"*

June 17, 2005

4.3. Energy Derivatives Pricing I

Chair *Prof. Giorgio Consigli*, Università di Bergamo and UBM

09:15-10:45 **Chris Harris,** RWE, London, "*Modeling Electricity Derivatives in a Physical Context I*"
10:30-10:45 Coffee Break
10:45-12:30 **Giovanni Barone Adesi**, Università Svizzera Italiana, "*Energy Commodity Market*"
Contributed Paper
12:30-12:50 **Nicos Koussis**, University of Nicosia, *"Investment and Financing Options with Capital Constraints"*
13:00-14:30 Lunch

4.4. Energy Derivatives Pricing II

Chair *Prof. Carlo Mari*, Università di Chieti

14:30-16:00 **Helyette Geman**, University of ESSEC and Paris Dauphine, *"Electricity Prices and Risk Management"*
16:00-16:15 Tea Break
16:15-17:45 **Chris Harris**, RWE, London "*Modeling Electricity Derivatives in a Physical Context II*"
Contributed paper
17:45-18.10 **Giorgio Consigli**, Università di Bergamo and UBM , *"Credit Risk Models "*
18.15 Concluding Remarks

REGISTRATION FEES

Registration Fees:
Registration Fees will include lunches, coffee breaks and conference materials.

Session 1 costs 600 € + V.A.T.
Session 2 costs 500 € + V.A.T.
Session 3 costs 300 € + V.A.T.
Session 4 costs 500 € + V.A.T.

Packages:
The entire Summer School costs 1500 € + V.A.T.
A package of Session 2 and Session 3 costs € 600 + V.A.T.
A package of Session 1 and Session 2 or Session 4 costs € 800 + V.A.T.

A package of Sessions 1, 2, and 3 costs € 1000 + V.A.T.
A package of Session 2 and sessions 4 costs € 900 + V.A.T.

Additional Conditions:
75% Discount for PhD students: **the entire school will cost €500.**
50% Discount for academics.
50% Discount is applied to participants from the new ten EU member States.
For participants belonging to Eastern European Countries outside the EU the participation is free.

List of Speakers

- **Carlo Acerbi,** *AbaxBank.*

His research interests are: Coherent Measure of Risk, Risk management, Credit Risk.

- ***Claudio Albanese****, Imperial College of London.*

His research interests are: Pricing Equity Default Swap, Transformations of Markov Processes, Credit Barrier Models.

- ***Giovanni Baroni Adesi,*** *Università Svizzera Italiana.*

His research interests are: Options and Derivatives Pricing, Risk Management, Energy Risk.

- ***Roberto Baviera,*** *Abaxbank.*

His research interests are: Portfolio modelling and model calibrations.

- ***Marida Bertocchi,*** *Università di Bergamo*

Her research interests are: optimization modelling and financial instruments pricing.

- ***Damiano Brigo****, San Paolo IMI.*

His research interests are: Credit Derivatives Modelling, Basket Option, Volatility Smile Modelling.

- ***Santiago Carrello,*** *UAM, Madrid*

His interest are Statistics and Operational reasarch.

- ***Rama Cont****, Centre de Mathématiques Appliquées, Ecole Polytechnique.*

His research interests are: stochastic modelling of financial time series, Lévy processes and applications, stochastic partial differential equations and applications.

- ***Alain Debuysscher,*** *Moody's Investor Services.*

His research interests are: Credit risk modelling and calibration

- ***Enrico De Giorgi****, Università della Svizzera Italiana and University of Zurich..*

His research interests are: Credit Risk Modelling, Risk Management, Evolutionary Finance.

- ***Helyette Geman****, ESSEC and Paris Dauphine*

Her research interests are: Derivatives and Options Pricing, Energy Risk, Weather Derivatives, Stochastic Volatility for Lévy Processes.

- ***Chris Harris****, RWEnpower, London*

His research interests are: Modeling Electricity Derivatives in a Physical Context and pricing electricity contracts.

- ***Imre Kondor,*** *Collegium Budapest - Institute for Advanced Study*

His research interests are: The theory of portfolios, regulatory ssues, systemic risk.

- ***Peter Laurence****, University of Rome "La Sapienza".*

His research interests are: Derivatives Pricing , Credit Risk and in particular, portfolio credit risk.

- ***Carlo Mari,*** *University of Chieti*

His reaserch interest are: Electricity derivatives pricing , credit risk analysis,

- ***Marcello Minenna****, Consob.*

His research interests are: Insider Trading, Disgorgement, Market Abuse, Optimum Portfolio Management.

- ***Roberto Renò,*** *University of Siena.*

His research interests are: Credit Risk, High Frequency data, Volatility Measures.

- ***Emanuaela Rosazza Gianin****, Università di Napoli*

Her research interests are: Measures of Risk, Pricing in Incomplete Markets.

- ***Silvana Stefani,*** *Università di Milano, Bicocca*

Her research interests are: Electricity index and hedging strategies, Speculative strategies in mean reverting markets.

- ***Marco Szego,*** *Moody's Investor Services***.**

His research interests are: Credit risk modelling and calibration.

- ***Ursula Theirler,*** *Risk Training, German*

Her research interests are: Bank wide risk management and performance measurement,Credit risk management.