FACULTY

Andrea Roncoroni

Associate Professor, Department

Contact

Mail: roncoroni@essec.fr
Avenue Bernard Hirsch
BP 50105
95021 Cergy Pontoise cedex
FRANCE

Education

PhD. in Finance - Université Paris IX Dauphine - France

PhD. in Applied Mathematics - University of Trieste - Italy

M.S. in Mathematics - Courant Institute of Mathematical Sciences at the New York University - US

B.A. in Economics - Bocconi University - Italy

Biography

Positions

Jan 06-now Associate Professor of Finance, ESSEC Business School

Feb 07-Jul 07 Research Visiting Fellow, Banking and Finance Institute, Bocconi University, Milan

Sep 01-Dec 05 Assistant Professor of Finance, ESSEC Business School

Education

Jul 06 International Teachers Program, IMD Lausanne, Switzerland

Nov 02 Ph.D. in Finance, Université Paris IX - Dauphine, France
"Essays in Quantitative Finance: Modelling and Calibration in Interest Rate and Electricity Markets"
Trés honorable avec les félicitations du jury (Full marks and honours)

Jan 99 Ph.D. in Applied Mathematics, University of Trieste, Italy
"Stochastic Analysis in Financial Modelling, Derivative Valuation and Optimal Decision Strategies"
Full marks and honours

Sep 98 Master of Sciences in Mathematics, Courant Institute of Mathematical Sciences, NYU
"Entropy minimisation and Monte Carlo simulation"
Full A

Jul 95 Bachelor Degree in Economics at Bocconi University, Milan, Italy
"Stochastic Optimal Control and Application to a Model Arising in Financial Economic Policy"
110/110 summa cum laude (Full marks and honours)

Short CV

Andrea Roncoroni is Associate Professor of Finance at ESSEC Business School and Visiting Lecturer at Bocconi University (Milan). He holds PhD's in Applied Mathematics and Finance. His research interests cover Energy Finance, Financial Econometrics and Derivative Structuring. He consults for private companies (Gaz de France, Fideuram AM, EDISON Trading) and lectures for public institutions (University Paris Dauphine, Italian Stock Exchange, International Energy Agency, Italian Authority for Electricity and

Gas, Italian Power Exchange - GME). He regularly publishes on academic journals (J.of Business, J.of Banking and Finance, Intl.J.of Business) and financial book series. He is co-author of "Implementing Models in Quantitative Finance: Methods and Cases" (with G.Fusai), Springer-Verlag, 2007

Research Areas

Areas

A. Model Setting, Calibration and Simulation

B. Pricing and Hedging Derivative Securities

C. Risk Management

Sectors

A. Interest Rates
B. Energy Commodities
C. Mortgage Backed Securities

On-going Projects

A. Risk Management of Full-Requirement Deals on Gas and Electricity

B. Designing and Estimating Preference-Free Forward Price Curve Models on Commodities

C. Exact Pricing of Asian-Style Options

Publications

Academic Publications

Books

Implementing Models in Quantitative Finance: Methods and Cases. (with G. Fusai). (Berlin-Heidelberg-New York) : Springer-Verlag, 2008 (forthcoming)

Articles

"A General Model for Commodity Price Dynamics: Theory and Application to Energy Markets", With R. Id Brik. *(submitted)*

"Analytical Pricing of Discretely Monitored Asian-Style Options: Theory and Application to Commodity Markets", With G. Fusai, M. Marena. *Journal of Banking and Finance (forthcoming)*

"A Weak Version of the Notion of Absence of Arbitrage Opportunities with Application to the Term Structure of Interest Rates", With P. Guiotto.

(submitted)

"A New Measure of Cross-Sectional Risk and its Empirical Implications for Portfolio Risk Management", With S. Galluccio. *Journal of Banking and Finance*, Aug. 2006, Vol. 30, Issue 8, p. 2387-2408

"Understanding the Fine Structure of Electricity Prices", With H. Geman. *The Journal of Business*, May 2006, Vol. 79, Issue 3, p. 1225-1262

"Flexible-Rate Mortgages", With A. Moro. *International Journal of Business*, Mar. 2006, Vol. 11, Issue 2, p. 143-157

"Theory and Calibration of HJM with Shape Factors", With P. Guiotto. *Mathematical Finance (Bachelier 2000)*, Feb. 2002, p. 407-426

"Change of Numeraire for Affine Arbitrage Pricing Models Driven by Multifactor Marked Point Processes", *International Center for Economic Research*, Jul. 2001, Vol. 22, p. 1-35

Professional Publications

Articles

"Cross-Commodity Derivatives: Advanced Pricing and Hedging", *Lecture Notes, Marcus Evans, London*, May 2007

" Risk Management and Risk Measurement of Energy Portfolios", *Lecture Notes, EnergyForum, London*, Sept. 2006

"Simulation Modelling for Energy Portfolios", *Lecture Notes, EnergyForum, Rotterdam*, May 2005

"Models for Risk Management in the Energy Markets and the Italian 'Nuovo Mercato Elettrico'", *Lecture Notes, Italian Stock Exchange, Milan*, May 2004

"Securitization, Modeling and Risk Performance Measurement in Deregulated Electricity Markets", *Lecture Notes, Authority for Deregulation of the Italian Electricity Market, Milan*, Apr. 2004

"Derivative Securities for Risk Management in Deregulated Electricity Markets", *Lecture Notes, Italian Stock Exchange, Milan*, Oct. 2003

"Commodity Forward Prices: Dynamic Modelling and Calibration", *Technical Report, Gaz de France, Paris*, May 2003

"Continuous Time Stochastic Methods for Asset Allocation", *Technical Report, Fideuram Asset Management, Milan*, Oct. 2001

Working Papers

"The Dependence Structure of Commodity Price Dynamics: Methods and Applications" (with F. Benth). Oslo University, oct. 07.

"Switching Regime in the Panel Data Set-Up and Application to Deregulated Electricity Markets" (with A. Bucca). Essec Research Center, DR-20 oct. 07.

"Pricing Illiquid Energy Contracts using a Risk-Adjusted Return on Capital Measure" (with S. Fiorenzani, F. Saita). Bocconi University, 1 oct. 07.

"Model Misspecification for General Processes: Theory and Practice" (with G. Di Graziano, S. Galluccio). BNP Paribas - London, juin 07.

"Regulation, Liquidity and Completeness: Do Reserve Requirements Matter for Money Market Efficiency? The Case of EONIA" ESSEC, 1 sept. 05.

"Shape Factors and Cross-Sectional Risk" (with S. Galluccio). Essec Research Center, DR-1 juil. 05.

"Energy Swing Options with Load Penalty" (with V. Zuccolo). Bocconi University, mars 05.

" The S Option - an Alternative to the Surrender Option in Mortgage Backed Securities" CEREG - University Paris Dauphine, oct. 00.

Other Publications

Teaching

Teaching at ESSEC

6. Futures and Options
MBA program (2006-current)

5. Introduction to Financial Markets (in French)
MBA program (2002, current)

4. Mathematical Methods for Finance (in French)
MBA program (2001-2006)

3. Financial Markets and Financial Institutions
MBA program (2001, current)

2. International Finance
MS Finance and Insurance (2004)

1. From Standard to Exotic Options (with H. Geman),
MBA program (2003)

Other Teaching Activities

6. Modelling and Pricing in Energy Markets
Master in Quantitative Finance (2003 - current)
Bocconi University, Milan

5. Numerical Methods for Pricing Derivatives
Master in Quantitative Finance (2001- current)
Bocconi University, Milan

4. Dynamical Theories of Interest Rates and Derivative Pricing,
DEA 104 Finance (2001- 2006)
Université Paris Dauphine, Paris

3. Interest Rate Theory
DESS 203 Financial Markets (2003 - 2004)
Université Paris Dauphine

2. Arbitrage Pricing Theory (with H. Geman),
DESS 223 Financial Markets (2001)
Université Paris Dauphine

1. Discrete Time Portfolio Selection
DEA 104 Finance (1999)
Université Paris Dauphine

Other Activities

Awards and Distinctions

SSRN's Top Ten download list for Theory: Pricing (Topic) - October 2007 - http://papers.ssrn.com/sol3/topten/topTenResults.cfm?groupingId=208225&netorjrnl=jrnl

Best Paper Award (Infinite Dimensional HJM Model for the Term Structure of Interest Rates"), AMASES Annual Conference, Italy

Scientific Activities

Editorial Board Membership

Journal of Energy Markets, Incisive Media (RISK Publications) (Associate Editor)

Conference Presentations

22. Energy Risk Trading and Derivatives Conference, Risk, London, October 2007

21. Modelling and Measuring Energy Risk in the Nordpool Market, Energyforum, Oslo, September 2007

20. Risk Management in the Electricity Market, Italian Power Exchange and IEFE, Rome, June 2007

19. Risk Measurement and Control, International Summer School, Rome, June 2007

18. Modelling and Measuring Energy Commodity Risk 2006, London, November 2006

17. 19th International Symposium on Mathematical Programming, Rio de Janeiro, July 2006

16. European Financial Management Association, Annual Meeting, Madrid, June 2006

15. Risk Measurement and Control, International Summer School, Rome, June 2006

14. VI Conferencia Intl. de Finanzas, University of Santiago de Chile, May 2006

13. The 16th EC^2 Conference: Econometrics of Financial and Insurance Risk, Istanbul, December 2005.

12.The 32nd European Finance Association Meeting, Moscow, August 2005

11.IFOR Conference, Honolulu, July 2005

10. Risk Measurement and Control, International Summer School, Rome, June 2005

9. Modelling and Measuring Energy Risk, Erasmus University, Rotterdam, May 2005

8. Bachelier 3rd World Congress, Chicago, July 2004

7.European Financial Management Association, Annual Meeting, Helsinki, June 2003

6. International Conference in Quantitative Finance, Sydney, December 2002

5. Conference AMASES in Quantitative Methods in Economics and Finance, Verona, September 2002

4. International Conference in Quantitative Finance, Sydney, December 2001

3. Seminar in Finance, Imperial Collège, London, June 2001

2. Conference in Mathematical Finance, Carnegie Mellon University, Pittsburgh, August 2000

1. Seminar in Probability, Université Paris XIII, Paris, February 2000

Affiliations and Academic Responsibilities

Visiting Fellow, Bocconi University, Milan

Referee for:

- Management Science
- Quantitative Finance
- Applied Mathematical Finance
- Energy Economics
- The Energy Journal
- Energy and Power Risk
- Revue Finance
- Banque et Marchés
- Journal of Banking and Finance
- Automata
- International Journal of Forecasting
- Journal of Business and Economic Statistics

- Journal of Financial Stability

Professional Experience

Research Visiting, Oslo University

In-house Training Courses

Private Consultancy