

CURRICULUM VITAE

Fabio Trojani

PERSONAL DATA

Birth: August 29, 1965

Nationality: Swiss

Family: Married, 1 Child

Address: Faculty of Economics, University of Lugano, Via Buffi 13, CH-6900, Lugano

Tel: +41 58 666 4723

e-mail: Fabio.Trojani@usi.ch

Web Page: <http://www.people.lu.unisi.ch/trojanif/>

EDUCATION

1991: Lizenziat der Wirtschaftswissenschaften (direction Political Economics, special direction Econometrics), University of Zurich.

1997: Ph. D. in Econometrics/Finance, University of Zurich, "From Uncovered Interest Rate Parity Towards the Identification of the Dynamics of Exchange Rates Risk Premia". Thesis supervisors: Prof. H. Garbers, University of Zurich, Switzerland, and Prof. H. Geman, University Paris IX Dauphine and ESSEC, France.

EMPLOYMENT

1991-1997: Assistant in Econometrics, Institute for Empirical Research in Economics, University of Zurich,

1996: Assistant in Statistics/Mathematics, University of Lugano (USI), Switzerland.

1997-2000: Maître assistant in Statistics/Econometrics, USI.

2000-2004: Assistant professor in Statistics-Econometrics-Quantitative Finance, USI, Grant of the Swiss National Science Foundation.

2004-2008: Professor of Finance, Head of the Chair in Empirical Finance and Director of the Swiss Institute of Banking and Finance, University of St. Gallen, Switzerland.

2009-. Professor of Statistics, University of Lugano, Switzerland, and Research Fellow of the Swiss Finance Institute.

LANGUAGES

Italian, french, german, english.

GRANTS

2001: Asset Management of Hedge Funds Investing in Developed and Emerging Markets, KTI/CTI Grant, CHF 120'000 (project director).

2002-2003: Robust Strategies for Risk Management, Asset Pricing and Option Pricing. Grant of the Swiss National Science Foundation, CHF 240'000 (project director).

2003-2005: Robust Bootstrap Methods, Grant of the Swiss National Science Foundation, NCCR FINRISK, Subproject 10, CHF 170'000 (project co-director with O. Scaillet).

2004-2005: Ambiguity and Robustness in Yield Curve Modelling, NCCR FINRISK, Subproject 2, CHF 86'000 (project co-director with R. Gibson).

2004-2005: Learning and Robustness in Time Series Models. Grant of the Swiss National Science Foundation, CHF 175'000 (project director).

2005-2006: New Empirical Approaches in Asset Pricing, Grant of the Swiss National Science Foundation, CHF 282'414 (project co-requirer).

2005-2009: New Methods in Theoretical and Empirical Asset Pricing, NCCR FIN-RISK subproject, CHF 900'000 (project director).

2006-2009: PhD in Economics and Finance, SNF Pro*Docs Training Module: CHF 243'000 (project director).

2006-2009: New Methods in Moments Based Econometric Methods, SNF Pro*Docs Research Module: CHF 387'000 (project co-requirer).

2006-2008: Statistical learning from imperfect observations under prior ignorance, Grant of the Swiss National Science Foundation, CHF 126'000 (project co-requirer).

2009-2013: New Methods in Theoretical and Empirical Asset Pricing, NCCR FIN-RISK subproject, CHF 1'200'000 (project director).

HONOURS AND AWARDS

2003: German Finance Association best conference paper award for "Equilibrium Impact of Value-at-Risk", with M. Leippold and P. Vanini, German Finance Association Meeting, Mainz.

2005: Best Researcher Award of the Department of Economics, University of St. Gallen.

2006: Ranked 62th in the Handelsblatt Ranking of the top 100 researchers in Economics since 2002 (<http://www.handelsblatt.com/news/Default.aspx>). The ranking includes all researchers of Economics Departments of German speaking universities in Austria, Germany and Switzerland.

2007: Inquire Europe best paper award for "Correlation Risk and Optimal Portfolio Choice" (with A. Buraschi and P. Porchia).

2008: Inquire Europe Research Grant (10000 BP) for the project: "When There is No Place to Hide - Correlation Risk and the Cross-section of Hedge Fund Returns" (with A. Buraschi and R. Kosowski).

2010: Inquire Europe Research Grant (10000 BP) for the project: When Uncertainty Blows in the Orchard: Comovement and Equilibrium Volatility Risk Premia (with A. Buraschi and A. Vedolin)

2010: Inquire Europe best paper award for "When There is No Place to Hide - Correlation Risk and the Cross-section of Hedge Fund Returns" (with A. Buraschi and R. Kosowski).

RESEARCH INTERESTS

Robust statistics, theory and computation of asymptotic expansions, asset pricing and portfolio theory, term structure modelling, option pricing, credit risk, time series econometrics, financial econometrics, matrix-valued processes and applications to finance.

REFEREE

Australian Economic Papers, Automatica, Annals of Operations Research, Annals of Statistics, Biometrika, Canadian Journal of Statistics, Computational Management Science, Economic Notes, Econometric Reviews, Econometric Theory, Finance Research Letters, Journal of Banking and Finance, Journal of Business and Economic Statistics, Journal of Econometrics, Journal of Finance, Journal of Financial Econometrics, Journal of Economic Dynamics and Control, Journal of International Money

and Finance, Journal of Nonparametric Statistics, Journal of the American Statistical Association, Management Science, Mathematical Finance, Metron International Journal of Statistics, Review of Finance, Review of Financial Studies, Swiss Journal of Economics and Statistics.

PHD STUDENTS

Loriano Mancini (2004, Assistant Professor, EPFL, Lausanne), Paolo Porchia (2004, Assistant Professor, Istituto de Empresa, Madrid), Andrea Vedolin (2009, Assistant Professor, London School of Economics) Davide la Vecchia (2006, Visiting Post Doc Researcher, Princeton University), Alberto Piatti (2006, Professor at Professional University of Southern Switzerland), Lorenzo Camponovo (2009, Visiting Post Doc Researcher, University of Yale), Anna Cieslak (Visiting PhD Student, Chicago University and Northwestern University), Peter Gruber, Ilaria Piatti, Alexandru Popescu, Pavol Povala, Johannes Wunsch (in progress).

ACADEMIC VISITOR

2001: Tilburg University, the Netherlands, October 21-26, December 2-6.

2002: Cass Business School, London, September 2-7, December 2-7. University of Insubria, Varese, Italy, September-November.

2003: University of Insubria, Varese, Italy, February-March.

2004: University of Insubria, Varese, Italy, April-June.

2005: University of Insubria, Varese, Italy, April-June.

2009: University Bocconi, Italy, October-November, and Collegio Carlo Alberto, Torino, Italy, November-December.

PUBLICATIONS IN ACADEMIC JOURNALS

[1] Robust Inference with GMM Estimators, Journal of Econometrics, 101, 37-69 (with E. Ronchetti).

[2] Short-Term Volatility Timing Reduces Downside Risk, International Journal of Finance, 13, Nr. 2, 1794-1825 (with G. Barone Adesi and P. Gagliardini).

[3] A Note on Robustness in Merton's Model of Intertemporal Consumption and Portfolio Choice, Journal of Economic Dynamics and Control, 26, 423-435 (with P. Vanini).

[4] Robust GMM Analysis of Models for the Short Rate Process, Journal of Empirical Finance, 10, 373-397 (with R. Dell'Aquila and E. Ronchetti).

[5] A Geometric Approach to Multiperiod Mean Variance Optimization of Assets and Liabilities, Journal of Economic Dynamics and Control, Volume 28, 1079-1113 (with M. Leippold and P. Vanini).

[6] Robustness and Ambiguity Aversion in General Equilibrium, Review of Finance, 279-324, (with P. Vanini).

[7] Robust Efficient Method of Moments, Journal of Econometrics, 128, 69-97 (with C. Ortelli).

[8] Optimal Conditionally Unbiased Bounded-Influence Inference in Dynamic Location and Scale Models, Journal of the American Statistical Association, 100, 628-641 (with L. Mancini and E. Ronchetti).

[9] Robust GMM Tests for Structural Breaks, Journal of Econometrics, 129, 1-2, 139-182 (with P. Gagliardini and G. Urga).

- [10] Estimating and Predicting Multivariate Volatility Thresholds in Global Stock Markets, *Journal of Applied Econometrics*, 2006, 21, 345-369 (with F. Audrino).
- [11] Equilibrium Impact of Value-at-Risk Regulation, *Journal of Economic Dynamics and Control*, 2006, 30, 1277-1313 (with M. Leippold and P. Vanini).
- [12] Accurate Short Term Yield Curve Forecasting Using Functional Gradient Descent, *Journal of Financial Econometrics*, Fall 2007, 5, 591-623 (with F. Audrino).
- [13] Learning and Asset Prices under Ambiguous Information, *Review of Financial Studies*, 2008, 21, 2565-2597 (with M. Leippold and P. Vanini).
- [14] Asset Prices with Locally-Constrained-Entropy Recursive Multiple Priors Utility, *Journal of Economic Dynamics and Control*, November 2008, Volume 32, Issue 11, 3695-3717 (with A. Sbuelz).
- [15] Ambiguity Aversion and the Term Structure of Interest Rates, *Review of Financial Studies*, October 2009, 22, 4157 - 4188 (with P. Gagliardini P. Porchia).
- [16] Limits of Learning About a Categorical Latent Variable under Prior Near-Ignorance, *International Journal of Approximate Reasoning*, Volume 50, Issue 4, April 2009, 597-611 (with A. Piatti, M. Hutter and M. Zaffalon).
- [18] Multiperiod Mean-Variance Efficient Portfolios with Endogenous Liabilities, *Quantitative Finance*, October 2009, 1469-1488 (with M. Leippold and P. Vanini).
- [17] Correlation Risk and Optimal Portfolio Choice, *Journal of Finance*, Volume 65, Issue 1, February 2010, 393-420 (with B. Buraschi and P. Porchia).
- [19] Infinitesimal Robustness for Diffusions, *Journal of the American Statistical Association*, June 2010, 703-712 (with D. La Vecchia).
- [20] A General Multivariate Threshold GARCH Model with Dynamic Conditional Correlations, *Journal of Business and Economic Statistics*, forthcoming (with F. Audrino).
- [21] Robust Value at Risk Prediction, *Journal of Financial Econometrics*, forthcoming (with L. Mancini).

WORKING PAPERS

- [1] Robust Subsampling (with L. Camponovo and O. Scaillet), under revision for *Journal of Econometrics*.
- [2] Variance Covariance Orders and Median Preserving Spreads (with S. Malamud), under revision for *Management Science*.
- [3] Asset Pricing with Matrix Jump Diffusions (with M. Leippold), submitted.
- [4] Economic Uncertainty, Disagreement, and Credit Markets (with A. Buraschi and A. Vedolin), submitted.
- [5] When Uncertainty Blows in the Orchard: Comovement and Equilibrium Volatility Risk Premia (with A. Buraschi and A. Vedolin), submitted.
- [6] When There is No Place to Hide: Correlation Risk and the Cross-Section of Hedge Fund Returns (with A. Buraschi and R. Kosowski), submitted.
- [7] Robust Resampling Methods for Time Series (with L. Camponovo and O. Scaillet), submitted.
- [8] Taking Ambiguity to Reality: Robust Agents Cannot Trust the Data Too Much (with J. Wrampelmeyer and C. Wiehenkamp).
- [9] Robust Predictive Regression (with L. Camponovo and O. Scaillet).

[10] Three Make a Dynamic Smile - Unspanned Skewness and Interacting Volatility Components in Option Valuation (with P. Gruber and C. Tebaldi).

PUBLICATIONS IN REFEREED PRACTITIONERS JOURNALS

[1] A Note on the Three-Portfolios Matching Problem, *European Financial Management Journal*, 2003, Vol. 9, 1 March (with P. Vanini and L. Vignola).

REFEREED BOOK CHAPTERS

[1] A Review of Perturbative Approaches for Robust Optimal Portfolio Problems, 2002, "Computational Methods in Decision-Making, Economics and Finance", Kluwer Applied Optimization Series (with P. Vanini).

[2] Robust Efficient Method of Moments Estimation, 2004, in: "Theory and Applications of Recent Robust Methods", M. Hubert, G. Pison, A. Struyf and S. Van Aelst eds., Series: Statistics for Industry and Technology, Birkhauser, Basel, p. 271-282 (with C. Ortelli).

PROCEEDINGS

[1] Robust Statistical Analysis of Financial Models for the Short Term Rate, *Bulletin of the International Statistical Institute*, 2001, 53rd ISI Session Proceedings.

[2] Optimization of Assets and Liabilities, *Proceeding of the International Scientific School "Modelling and Analysis of Safety, Risk and Quality in Complex Systems"*, 2002, Saint-Petersburg, Russian Foundation of Fundamental Research (with M. Leipold and P. Vanini).

[3] Limits of Learning from Imperfect Observations under Prior Ignorance: the Case of the Imprecise Dirichlet Model, in: Cozman, F. G., Nau, B., Seidenfeld, T. (Eds), *ISIPTA '05: Proceedings of the Fourth International Symposium on Imprecise Probabilities and Their Applications*, 2005 (with A. Piatti and M. Zaffalon).

BOOK REVIEWS

[1] *Statistics and Finance* (by D. Ruppert), Springer Texts in Statistics, 2004.

[2] *Semiparametric Regression for the Applied Econometrician* (by A. Yatchew), *Journal of the American Statistical Association*, 2006.

TEACHING

USI

Introduction to Probability Theory for Finance, 2005-2011 (graduate course, Master level and PhD level).

Quantitative Methods for Finance, 2001-2004. Statistics for Economists, 1997-2004 and 2010-2011. Portfolio Theory, 2003. Mathematics for Economists, 1997 (first-fourth year undergraduate courses).

University Bocconi

Continuos Time Finance, 2009-2010, graduate course, PhD level.

Collegio Carlo Alberto

Econometrics, 2009-2010, graduate course, Master level.

University of St. Gallen

Theory in Finance, Advanced Time Series Econometrics, Financial Econometrics, Advanced Financial Decision Making and Asset Pricing, 2005-2008 (graduate courses, PhD level).

PhD and Literature Seminars, 2005-2008 (advanced seminars, PhD level).

Asset Pricing, 2004-2008 (graduate course, Master level).

Introduction to Econometrics, 2005-2008 (third year undergraduate course).

University of Insubria

Asset Pricing, Introduction to Probability Theory and Stochastic Processes for Finance, 2002-2003 (third year undergraduate courses).

Continuous-Time Yield Curve Models, 2004. Asset Pricing, 2005 (graduate courses, Master level).

Cass Business School

Probability Theory and Stochastic Processes for Finance, 2002 (graduate course, PhD level).

Professional University of Southern Switzerland (SUPSI)

Portfolio Theory and Asset Pricing, 1997-2004. Derivative Securities, 2000. Statistics, 1998 (first-fourth year undergraduate courses).

University of Zurich

Mathematics and Stochastics for Econometricians, 1997 (second-fourth year undergraduate courses).

European Finance Training Program for Financial Analysts

Fixed Income Securities, Futures Contracts and International Economics, 1997 (courses for practitioners).

ORGANISATION OF SEMINARS AND WORKSHOPS

2001: European Courses in Advanced Statistics, "Bayesian Statistics and Financial Econometrics", USI, Lugano, October 8-12.

1998-2004: Doctoral finance seminar at USI.

2005-2006: Doctoral finance seminar at the University of St. Gallen.

2006: International Workshop "Risk Management: from Basel II to Basel III", Monte Verità, Ascona, Switzerland, February 26-March 3, 2006.

2007: Annual Meeting of the Swiss Society of Economics and Statistics, University of St. Gallen, Switzerland, March 22-23.

PROGRAM COMMITTEES

2003

International Symposium on Imprecise Probabilities and Their Applications, Lugano, Switzerland, July 14-17.

2006

International Workshop on Quantitative Finance, University of Perugia, Italy, January 26-27.

International Workshop on Grid Technology and Financial Modeling Simulation, Palermo, Italy, February 3-4.

European Finance Association Meeting, Zurich, Switzerland, August 23-26.

2007

International Workshop on Quantitative Finance, University of Venice, Italy, January 25-26.

Italian Congress of Econometrics and Empirical Economics, University of Bologna, Italy, January 25-26.

Chairman of the Program Committee of the Annual Meeting of the Swiss Society of Economics and Statistics, University of St. Gallen, Switzerland, March 22-23.

European Finance Association Meeting, Ljubljana, Slovenia, August 22-25.

2008

International Workshop on Quantitative Finance, University of Rome Tor Vergata, Italy, January 24-25.

2009

European Finance Association Meeting, Bergen, Norway, August 19-22.

2010

European Finance Association Meeting, Frankfurt, Germany, August 25-28.

INTERNAL SERVICE

2004-2006: Member of the PhD program committee, Department of Economics, University of St. Gallen.

2006-2008: Chairman of the PhD program committee, Department of Economics, University of St. Gallen.

PAPERS ACCEPTED AT CONFERENCES AND SEMINAR PRESENTATIONS

See the webpage: <http://www.people.lu.unisi.ch/trojanif/talks.htm>

REFERENCES

Available on request.