

# Curriculum Vitae Patrick Gagliardini

Full Professor of Econometrics, Università della Svizzera Italiana (Lugano, Switzerland).  
Personal Website: [www.people.usi.ch/gagliarp/](http://www.people.usi.ch/gagliarp/)

## PROFESSIONAL EXPERIENCE

2015-present: Dean, Faculty of Economics, Università della Svizzera Italiana  
2012-present: Full Professor of Econometrics, Università della Svizzera Italiana  
2010-2012: Associate Professor, Università della Svizzera Italiana  
2006-2010: Assistant Professor (tenure-track), Università della Svizzera Italiana  
2004-2006: Assistant Professor (Nachwuchsdozent), University of St. Gallen (Switzerland)  
2003-2004: Visiting Fellow, CREST (Paris), Laboratoire de Finance-Assurance

## EDUCATION

1999-2003: PhD in Economics (summa cum laude), Università della Svizzera Italiana (USI, Lugano).  
Co-advisors: Pietro Balestra (USI) and Christian Gourieroux (CREST, Paris)  
1999: Swiss Program for Beginning Doctoral Students in Economics, Study Center Gerzensee, Bern  
1993-1998: Degree in Physics, Swiss Federal Institute of Technology, Zurich

## AWARDS AND FELLOWSHIPS

2017- : Fellow of the Society for Financial Econometrics (SoFiE)  
2012- : Guest Professor, University of St. Gallen (Switzerland)  
2008-2012: Junior Chair Professor of the Swiss Finance Institute  
2005: Best Researcher Award for Assistant Professors, Department of Economics, University of St. Gallen  
2003: Swiss National Science Foundation (SNSF) Fellowship for Perspective Researchers  
1993: Prize for the best High School diploma at the Scuola Cantonale di Commercio, Bellinzona (Switzerland). Prize of the Rotary Club for the best diploma

## RESEARCH INTERESTS

Econometric Theory, Financial Econometrics, Large Panel Factor Models, Systematic Risk Analysis, Big Data Econometrics, Generalized method of Moments (GMM), Asset Pricing

## FUNDING ID

Research grants from the Swiss National Science Foundation (SNSF) as co-principal investigator:

- “Pro\*doc: New Methods for Moment Based Econometric Models”, 2007-2011, CHF 380,000, Co-PI with E. Ronchetti (Uni Geneva) and F. Trojani (USI)
- “Mathematical Modeling of Credit and Equity Risk Beyond Homogeneity and Stationarity Assumptions”, 2012-2015, CHF 280,000, co-PI with I. Horenko (USI) and W. Sawyer (CSCS)
- “New Econometric Methods for Big Data”, 2015-2018, CHF 360,000, PI
- “Towards the HPC-Inference of Causality Networks from Multiscale Economical Data”, PASC exploratory project, 2015-2017, CHF 220,000, co-PI with I. Horenko (USI) and W. Sawyer (CSCS)

Participation at national and international research and training networks:

- “Term Structures and Cross-sections of Risk Premia”, a project of the Swiss Finance Institute (SFI)
- “New Methods in Theoretical and Empirical Asset Pricing”, a project in the Swiss National Competence Centre for Finance Research, Financial Valuation and Risk Management (NCCR FINRISK)
- “Microstructure of Financial Markets in Europe”, involving CORE, Aarhus, Carlos III Madrid, Konstanz, Oxford, Tilburg, and Paris (CREST)

## **REFeree AND EDITORIAL SERVICE**

*Associate Editor of:* Econometrics Journal, Journal of Financial Econometrics, Stat research (2014-2017)

*Referee for:* Econometrica, Journal of Political Economy, Journal of Econometrics, Econometric Theory, Review of Economic Studies, Journal of the American Statistical Association, Journal of Applied Econometrics, Journal of Finance, Review of Financial Studies, Journal of Financial Economics, Journal of Financial Econometrics, Quantitative Finance, Computational Statistics and Data Analysis, International Journal of Forecasting, Journal of Probability and Statistics, Journal of the Korean Statistical Society, US National Science Foundation (NSF), Economic and Social Research Council (ESRC)

## **INVITED SEMINARS AND LECTURES (past ten years)**

- 2008: Queen Mary University (London), Cass Business School (London), Leuven University (Leuven), Mannheim University, CEMMAP Workshop on Unobservable Factor Models (London),
- 2009: Invited talk at the workshop on “Inverse Problems in Statistics and Econometrics”, University of Toulouse
- 2010: HEC Geneva, Einaudi Institute for Economics and Finance (Rome), invited talk at the Financial Econometrics Conference, University of Toulouse
- 2011: Imperial College (London), CREST (Paris), CORE (Louvain), CEMFI (Madrid)
- 2012: Leuven University, Rotterdam University, University of Luxembourg, ESSEC Business School (Cergy-Pontoise)
- 2013: ICMA Center, University of Reading
- 2014: Harvard University, Teacher of the SoFiE summer school on “The Econometrics of Option Pricing”, UCL (London)
- 2015: ULB (Bruxelles), Teacher of the SoFiE summer school on “The Econometrics of Option Pricing”, Tinbergen Institute (Amsterdam)
- 2016: EPFL (Lausanne), University of Geneva, University of Bern
- 2017: CREST (Paris), University of Surrey, invited speaker at the Conference on Stochastic Dynamical Models in Mathematical Finance, Econometrics and Actuarial Science at EPFL (Lausanne), keynote speaker at the Econometric Study Group Bristol

## **CONFERENCE ORGANIZATION**

- October 2013, Society for Financial Econometrics (SoFiE) Conference on “Large-Scale Factor Models in Finance”, Lugano (program co-chair)
- June 2015, SNSF International Exploratory Workshop “Pietro Balestra” on Recent Developments in Panel Data Econometrics
- June 2018, 11.th SoFiE Annual Meeting, Lugano (local co-organizer)

## **PARTICIPATION AT PROGRAM COMMITTEES**

- SoFiE Annual Conference: Oxford (2012), Singapore (2013), Toronto (2014), Aarhus (2015), Hong Kong (2016), New York (2017), Lugano (2018)
- Econometric Society European Meeting (ESEM): Malaga (2012), Gothenburg (2013), Toulouse (2014), Montreal (2015), Geneva (2016)
- Conference on New Tools for Financial Regulation, Paris, 2012
- Workshop on Large Portfolio, Concentration and Granularity, Paris, 2010
- Credit Conference, Venice, 2010

## **PHD STUDENT SUPERVISION**

- Ilaria Finzi, “Occupational Gender Segregation and Gender Wage Gap in Switzerland“, 2007, Università Professionale della Svizzera Italiana

- Diego Ronchetti, "Semiparametric Estimation of American Option Prices", 2011, Assistant professor at Groeningen University
- Elisa Ossola, "Econometric Analysis of Time-Varying Risk Premium in Large Cross-Sectional Equity Datasets", 2013, Researcher at the EU Joint Research Center (Ispra, Italy)
- Mirco Rubin, "Three Essays on Nonlinear Factor Models", 2016, Assistant professor at University of Bristol
- Costanza Naguib, "Relative Wage Mobility: A New Semi-parametric Estimation Method" (thesis defense on March 2018)
- Hao Ma, "Three Essays on Large Factor Models for Equity Returns" (second-year doctoral student)

## TEACHING EXPERIENCE

Introduction to Econometrics (bachelor), Financial Econometrics (master), Econometrics (PhD), Time Series Analysis (PhD)

Specialized graduate and postgraduate courses: Nonlinear Dependence (ENSAE-CREST, Paris, 2003), Time Series Methods in Financial Econometrics (Uni St. Gallen, 2005-), Large Portfolios, Concentration and Granularity Theory (CREST, Paris, 2010), Advanced Econometrics (Uni Lausanne, 2013), From Financial Ratios to Credit Scores, Ratings and Regulatory Capital Requirements (University of Reading, 2014-)

## PEER-REVIEW ARTICLES

- [25] "Identification by Laplace Transforms in Nonlinear Panel or Time Series Models with Unobserved Stochastic Dynamic Effects", 2018, forthcoming in *Journal of Econometrics*, with C. Gouriéroux
- [24] "On a Scalable Nonparametric Denoising of Time Series Signals", 2017, forthcoming in *Communications in Applied Mathematics and Computational Science*, with L. Pospisil, I. Horenko and W. Sawyer
- [23] "Indirect Inference Estimation of Mixed Frequency Stochastic Volatility State Space Models using MIDAS Regressions and ARCH Models", 2017, *Journal of Financial Econometrics*, 15, 509-560, with E. Ghysels and M. Rubin
- [22] "A Specification Test for Nonparametric Instrumental Variable Regression", 2017, *Annals of Economics and Statistics*, 128, 151-202, with O. Scaillet
- [21] "Double Instrumental Variable Estimation of Interaction Models with Big Data", 2017, *Journal of Econometrics*, 201, 176-197, with C. Gouriéroux
- [20] "Spread Term Structure and Default Correlation", 2016, *Annals of Economics and Statistics*, 123/124, 175-223, with C. Gouriéroux
- [19] "Time-varying Risk Premium in Large Cross-sectional Equity Datasets", 2016, *Econometrica*, 84, 985-1046, with E. Ossola and O. Scaillet
- [18] "Efficiency in Large Dynamic Panel Models with Common Factors", 2014, *Econometric Theory*, 30, 961-1020, with C. Gouriéroux
- [17] "Correlated Risks vs Contagion in Stochastic Transition Models", 2013, *Journal of Economic Dynamics and Control*, 37, 2241-2269, with C. Gouriéroux
- [16] "Semi-parametric Estimation of American Option Prices", *Journal of Econometrics*, 173, 57-82, 2013, with D. Ronchetti
- [15] "Granularity Adjustment for Risk Measures: Systematic vs Unsystematic Risks", 2013, *Journal of Approximate Reasoning*, 54, 717-747, with C. Gouriéroux

- [14] “Nonparametric Instrumental Variable Estimation of Quantile Structural Effects”, *Econometrica*, 80(4), 1533-1562, 2012, with O. Scaillet
- [13] “Tikhonov Regularisation for Nonparametric Instrumental Variable Estimators”, *Journal of Econometrics*, 167(1), 61-75, 2012, with O. Scaillet
- [12] “Microinformation, Nonlinear Filtering and Granularity”, *Journal of Financial Econometrics*, 10(1), 1-53, 2012, with C. Gouriéroux and A. Monfort
- [11] “Efficient Derivative Pricing by the Extended Method of Moments”, *Econometrica*, 79(4), 1181-1232, 2011, with C. Gouriéroux and E. Renault
- [10] “Approximate Derivative Pricing for Large Classes of Homogeneous Assets with Systematic Risk”, *Journal of Financial Econometrics*, 9, 237-280, 2011, with C. Gouriéroux
- [9] “Ambiguity Aversion and the Term Structure of Interest Rates”, *Review of Financial Studies*, 22(10), 4157-4188, 2009, with P. Porchia and F. Trojani
- [8] “Duration Time Series Models with Proportional Hazard”, *Journal of Time Series Analysis*, 29 (1), 74-124, 2007, with C. Gouriéroux
- [7] “An Efficient Nonparametric Estimator for Models with Non-linear Dependence”, *Journal of Econometrics*, 137 (1), 189-229, 2007, with C. Gouriéroux
- [6] “Stochastic Migration Models with Application to Corporate Risk”, *Journal of Financial Econometrics*, 3 (2), 188-226, 2005, with C. Gouriéroux
- [5] “Robust Tests for Structural Breaks”, *Journal of Econometrics*, 129, 139-182, 2005, with F. Trojani and G. Urga
- [4] “Migration Correlation: Definition and Efficient Estimation”, *Journal of Banking and Finance*, 29, 865-894, 2005, with C. Gouriéroux
- [3] “Testing Asset Pricing models with Coskewness”, *Journal of Business and Economic Statistics*, 22, 474-485, 2004, with G. Barone Adesi and G. Urga
- [2] “Volatility Timing Reduces Downside Risk”, *International Journal of Finance*, 13, 1794-1825, 2001, with G. Barone Adesi and F. Trojani
- [1] “Generalization of the Luttinger Theorem for Fermionic Ladder Systems”, *Phys. Rev. B*, 58, 9603-6, 1998, with S. Haas and T. M. Rice

## MONOGRAPHS

- [26] *Granularity Theory with Applications to Finance and Insurance*, 2014, Cambridge University Press, Themes in Modern Econometrics, with C. Gouriéroux

## WORKING PAPERS

- [27] “Is Industrial Production Still the Dominant Factor for the US Economy”, 2014, with E. Andreou, E. Ghysels and M. Rubin (revise and resubmit decision)
- [28] “A Diagnostic Criterion for Approximate Factor Structures”, 2014, with E. Ossola and O. Scaillet (submitted)
- [29] “Survival of Hedge Funds: Frailty vs Contagion”, 2011, with S. Darolles and C. Gouriéroux

- [30] “Positional Portfolio Management”, 2013, with C. Gouriéroux and M. Rubin (revise and resubmit decision)
- [31] “Comparing Asset Pricing Models with the Conditional Hansen Jagannathan Distance”, 2013, with D. Ronchetti
- [32] “Estimation and Simulation of Wishart Stochastic Volatility Model”, 2014, with C. Gouriéroux