ALLEGATO B

UNIVERSITÀ DEGLI STUDI DI MILANO

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Imma Valentina Curato
CURRICULUM VITAE

PERSONAL INFORMATION

SURNAME	**CURATO**
NAME	**IMMA VALENTINA**
DATE OF BIRTH	10/12/1984

Academic Position

since 10/2013 **Postdoctoral Researcher and Teaching Assistant (Akademische Mitarbeiterin)**,
Institute of Financial Mathematics, Ulm University.

Habilitation candidate in Mathematics.

Post-Doctoral Research Thesis: "Asymptotic theory of stochastic volatility models, moving averages and fields", Supervisor: Prof. Robert Stelzer.

Research Interest

Financial high-frequency econometrics

Fourier analysis and stochastic processes

Non-parametric and parametric statistics

Statistical inference for "Lévy-driven mixed moving average" processes

Statistical inference for mixed moving averages and Ambit fields

Education

01/2010–09/2013 **Ph.D in Mathematics for Economic Decisions**
Leonardo Fibonacci School, University of Pisa.
Topic of research: High-frequency financial econometrics.

Dissertation "Non parametric estimation of volatility of volatility and leverage using integral transforms", Supervisor: Prof. Maria Elvira Manci- no, Department of Economics and Management, University of Florence.

09/2006–07/2009 **MSc in Mathematics for Applications**
Faculty of Mathematics "Ulisse Dini", University of Florence, achieved with 110/110 magna cum laude.
Main fields: Fluid dynamics, Partial differential equations.

Master Thesis "Mathematical models for Plinian Eruption Columns", Supervisor: Prof. Fabio Rosso, University of Florence, Faculty of Mathematics.

09/2003–12/2006 **BSc in Mathematics**
Faculty of Mathematics "Ulisse Dini", University of Florence, achieved with 110/110.
Main fileds: Analysis, Fourier-Analysis, Mathematical Physics.

Bachelor Thesis "Sampling theorem and indetermination principles for the Fourier transform", Supervisor: Prof. Luigi Barletti, University of Florence, Faculty of Mathematics.

06/2003 **High School's Diploma**
Liceo Scientifico, Rossano Calabro, achieved with 100/100.

Research Stays Abroad

03/2019 Visiting Research (one week): visiting Prof. Paul Doukhan, University Cergy-Pontoise, France.

03/2017–04/2017 Visiting Research (one month): visiting Prof. Cecilia Mancini, Department of Economics and Management, University of Florence, Italy.

09/2015 Visiting Research (one week): visiting Prof. Mark Podolskij and Prof. Paolo Santucci de Magistris,CREATES, Aarhus,Denmark.

07/2012 Research stay abroad (one month): visiting Prof. Arnaud Gloter, Département de Mathématiques Université d'Evry Val d'Essone, France.

Publications

Published Papers:

“On the sample autocovariance of a Lévy driven moving ave- rage process when sampled at a renewal sequence”, with D-P. Brandes, Journal of Statistical Planning and Inference, Vol. 203 (2019), 20–38.

“Weak dependence and GMM estimation for supOU and mixed moving average processes”, with R.Stelzer, Electronic Journal of Statistics, Vol. 13. (2019), No. 1, 310–360.

“Estimation of the stochastic leverage effect using the Fourier transform method”, Stochastic Processes and their Applications (2018), https://doi.org/10.1016/j.spa.2018.09.001.

“Spot volatility estimation using the Laplace transform”, with M.E. Mancino und M.C. Recchioni, Econometrics and Statistics, Vol. 6 (2018), 22–43.

“High frequency volatility of volatility estimation free from spot volatility estimates”, with M.E. Mancino and S. Sanfelici, Quantitative Finance, Vol. 15 (2015), No. 8, 1331–1345.

“Measuring leverage effect in a high frequency trading framework”, with S. Sanfelici, The Handbook of High Frequency Tra- ding, G.N. Gregoriou Ed., Elsevier, Plattsburgh, NY, USA (2015), 425–446.

Submitted Papers:

“Freeze and bid-ask spread in the sovereign bond market”, mit P. Moutot und R. Guberovic, (2018) available on SSRN.

Work in Progress:

“Central limit theorems for random fields based on weak dependence properties with application to mixed moving average fields”, with B. Ströh and R. Stelzer.

“Designing a Fourier transform method to estimate the leverage effect in the presence of noise”, with S. Sanfelici.

“Preservation of strong mixing and weak dependence under renewal sampling”, with D-P. Brandes and R. Stelzer.

Attended Conferences, Seminars and Summer Schools

Invited Talks:

03/2019 3rd Non stationary days, Paris, France.

03/2017 Department of Economics and Management, Florence, Italy.

03/2017 Department of Economics, Verona, Italy.

10/2015 CREATES seminar, Aarhus, Denmark.

09/2015 7th General AMaMeF and Swissquote Conference, Lausanne, Switzerland.

06/2015 Finance and Stochastics Seminar, Imperial College, London, United Kingdom.

06/2014 Workshop Statistics Risk Modeling, Ulm University, Germany.

02/2014 Stochastic Analysis Seminar, Oxford-Man Institute, Oxford, United Kingdom.

Contributed Talks:

01/2019 XX Quantitative Finance Workshop, Zurich, Switzerland.

02/2018 13th German Probability and Statistics Days, Freiburg, Germany.

01/2018 XIX Quantitative Finance Workshop, Rome, Italy.

07/2017 41st A.M.A.S.E.S. convention, Cagliari, Italy.

07/2017 European Meeting of Statisticians, Helsinki, Finland.

07/2015 38th Conference on Stochastic Processes and their Applications, Oxford, United Kingdom.

12/2014 8th International Conference on Computational and Financial Econometrics, Pisa, Italy.

03/2014 German Probability and Stochastic Days, Ulm, Germany.

01/2014 XV Quantitative Finance Workshop, Florence, Italy.

10/2013 5th Annual High Frequency Conference, Hoboken, New Jersey.

03/2013 The Fifth Florence-Ritsumeikan Workshop on Stochastic Process and Applications to Finance and Risk Management, Florence, Italy.

09/2012 XXXVI A.M.A.S.E.S. convention, Vieste, Italy.

Conference Posters:

06/2018 Conference on Non-Stationarity, Cergy-Pontoise, France.

04/2013 Dynstoch workshop 2013: Statistical methods for dynamical stochastic models, Copenhagen, Denmark.

06/2012 Dynstoch workshop 2012: Statistical methods for dynamical stochastic models, Paris, France.

Further Conference, seminars and workshops attended:

06/2019 Nordic Probabilistic AI School, Trondheim, Norway.

03/2016 Workshop on Extreme Value and Time Series Analysis, Karlsruhe, Germany.

03/2016 German Probability and Statistics days, Bochum, Germany.

11/2014 Workshop on Recent Advances in High-Frequency Statistics, Berlin, Germany.

10/2012 Ecole CEA-EDF Inria-Systemic Risk and Quantitative Risk Management Workshop, Rocquencourt, France.

03/2011 High Frequency Research Training Workshop, Harnack Haus, Berlin, Germany.

06/2010 Summer School in Econometrics for PhD Students, Bertinoro, Italy.

Overview of Teaching Experiences

Teaching at Ulm University:

04/2019–07/2019 Class Teacher of “Advanced Econometrics”.

04/2019–07/2019 Lecturer and Examiner of “Practical Financial Engineering”.

10/2018–03/2019 Lecturer and Examiner of “Statistical Learning”.

10/2018–03/2019 Lecturer and Examiner of “Introduction to Measure Theoretic Probability”.

04/2018–07/2018 Seminar “Statistical Learning in the Computer Age”.

04/2018–07/2018 Lecturer and Examiner of “Practical Financial Engineering”.

10/2017–03/2018 Lecturer of “Wima Praktikum II- Option Pricing with Matlab”.

10/2017–03/2018 Lecturer and Examiner “Introduction to Measure Theoretic Probability”.

04/2017–07/2017 Lecturer and Examiner of “Practical Financial Engineering”.

04/2017–07/2017 Class Teacher of “Advanced Econometrics”.

10/2016–03/2017 Lecturer of “Wima Praktikum II Option Pricing with Matlab”.

10/2016–03/2017 Lecturer and Examiner of “DAV supplement”.

10/2016–03/2017 Tutor of “Financial Mathematics I”.

04/2016–07/2016 Lecturer and Examiner of “Practical Financial Engineering”.

04/2016–07/2016 Seminar “GARCH models and financial applications”.

10/2015–03/2016 Lecturer and Examiner of “An Introduction to Measure Theoretic Probability”.

04/2015–07/2015 Class Teacher of “Multivariate Time Series”.

04/2015–07/2015 Seminar “Long Memory Processes and Financial Applications”.

10/2014–03/2015 Class Teacher of “An Introduction to Measure Theoretic Probability”.

10/2014–03/2015 Lecturer of “Wima Praktikum II Option Pricing with Matlab”.

04/2014–07/2014 Lecturer and Examiner of “Stochastic Optimization with Applications”.

10/2013–03/2014 Class Teacher of “Financial Mathematics I”.

10/2013–03/2014 Lecturer of “Introduction to Bloomberg Financial Information System”.

Teaching at University of Pisa

09/2012 Lecturer of “Mathematics at preliminary courses for first year students”.

09/2011 Lecturer of “Mathematics at preliminary courses for first year students”.

09/2010 Lecturer of “Mathematics at preliminary courses for first year students”.

Awards and Grants

03/2017–04/2017 Grant for visiting research (Finanziamento PIA, Piano di Internazionalizzazione dell’Ateneo, Universitá di Firenze).
Topic: Fourier estimator of the endogenous liquidity component in asset correlation.

10/2015–01/2016 Job position partially founded by DFG (Deutsche Forschungsgemeinschaft) grant.
Topic: “Statistics of Levy-driven models”.

10.2013 Award for PhD students for the “5th Annual High Frequency Conference”, Hoboken, New Jersey.

04.2013 Award for PhD students for the “Dynstoch Workshop 2013”, Copenhagen, Denmark.

06.2012 Award for PhD students for the “Dynstoch Workshop 2012”, Paris, France.

Referee Activities

“Quantitative Finance”, “Journal of Mathematical Analysis and Applications”, “Statistics”, “Journal of Econometrics”, “Stochastic Processes and their Applications”.

Member of Scientific Organizations

Association for mathematics applied to social and economic sciences (A.M.A.S.E.S.)

Organization of Scientific Events

Member of the organizing committee of the Workshop on Lévy processes and time series: in honour of Peter Brockwell and Ross Maller, Ulm University.

Administrative Activities

11/2017-05/2018 Member of the hiring committee for an associate professorship (W3 Stochastik), Ulm University.

since 09/2014 Trading Room Administrator, Ulm University

Consultant Activities

11/2013-03/2014 **External Consultant**,
European Central Bank, Frankfurt.

Project: Solution and simulation of functional operators arising in the context of macroeconomic models with cash and credit constraints.

Project Leader: Dr. Philippe Moutot, Principal Advisor in Directorate General Economics at European Central Bank.

Language Skills

Italian Mother tongue

English Fluent: C1 level

Deutsch Intermediate: B2 level

Date	25/07/2019	Place	Ulm