CURRICULUM VITAE

Dr. Beatrice Acciaio

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Academic positions

08/2016–	Associate professor, Dept Statistics, the London School of Economics and Political Science
09/13–07/16	Assistant professor, Dept Statistics, the London School of Economics and Political Science
02/10–01/14	Project leader, Faculty of Mathematics, University of Vienna
10/09–08/16	Assistant professor, Dept Economics, Finance and Statistics, University of Perugia
02–09/2009	Post-Doc, Financial and Actuarial Mathematics, Vienna University of Technology
11/08–01/09	Post-Doc, Dept Economics, Finance and Statistics, University of Perugia
11/06–10/08	Post-Doc, Financial and Actuarial Mathematics, Vienna University of Technology
11/05–07/07	Post-Doc, Dept Economics, Finance and Statistics, University of Perugia

Education

2002–2006 Doctoral studies in "Mathematical and Statistical Methods for Economic and Social Research", University of Perugia. Thesis: "Two problems related to utility theory under unusual assumptions" (supervisor: Prof. W. Schachermayer), *excellent*.

1997–2002 Bachelor and Master in Mathematics, University of Perugia. Thesis: "Existence of ground states for non-linear elliptic equations" (advisor: Prof. P. Pucci), *summa cum laude*.

Qualifications

01/2014 Qualification as Associate Professor in Applied Mathematics (sect.13/D4), Italian Ministry of Education, University and Research

05/2013 Habilitation (Privatdozent) in Mathematics, University of Vienna

02/2013 Qualification as Professor in Applied Mathematics (sect.26), French Ministry of National Education, Higher Education and Research

Long visits

12/2016	Business School, Sydney University of Technology
09–12/2016	Department of Statistics and Applied Probability, University of California Santa Barbara
03–04/2015	Hausdorff Research Institute for Mathematics, Universität Bonn
06–07/2013	Institute of Mathematics, Humboldt Universität zu Berlin
02–05/2013	Department of Mathematics, University of Texas at Austin
02–06/2005	Université Paris Dauphine
05–06/2004	Université Paris Dauphine

Published and forthcoming papers

[19] "The space of outcomes of semi-static trading strategies need not be closed" (with M. Larsson and W. Schachermayer), *Finance & Stochastics* **21/3**, 741-751, 2017.

[18] "Semi-static completeness and robust pricing by informed investors" (with M. Larsson), *The Annals of Applied Probability* **27/4**, 2270-2304, 2017.

[17] "Characterization of non-negative max-continuous local martingales vanishing at infinity" (with I. Penner), *Electronic Communications in Probability* **21/1**, 1-10, 2016.

[16] "Arbitrage of the first kind and filtration enlargement in semimartingale models" (with C. Fontana and K. Kardaras), *Stochastic Processes and their Applications* **126/6**, 1761-1784, 2016.

[15] "On the minimization of area among chord-convex sets" (with A. Pratelli), in New trends in Shape Optimization, Springer, 1-17, 2015.

[14] "On the Lower Arbitrage Bound of American Contingent Claims" (with G. Svindland), *Mathematical Finance* **24/1**, 147-155, 2014.

[13] "Model-free versions of the Fundamental Theorem of Asset Pricing and the Super-Replication Theorem" (with M. Beiglböck, F. Penkner, W. Schachermayer), *Mathematical Finance*, **26/2**, 233-251, 2016.

[12] "A trajectorial interpretation of Doob's martingale inequalities" (with M. Beiglböck, F. Penkner, J. Temme, W. Schachermayer), *The Annals of Applied Probability* **23/4**, 1494-1505, 2013.

[11] "Are law-invariant risk functions concave on distributions?" (with G. Svindland), *Dependence Modeling* **1/3**, 54-64, 2013.

[10] "Optimal portfolio selection via conditional convex risk measures on L^p" (with V. Goldammer), *Decisions in Economics and Finance* **36/1**, 1-21, 2013.

[9] "Risk assessment for uncertain cash flows: Model ambiguity, discounting ambiguity, and the role of bubbles" (with H. Föllmer, I. Penner), *Finance & Stochastics* **16/4**, 669-709, 2012.

[8] "Dynamic Risk measures" (with I. Penner), Advanced Mathematical Methods for Finance, G. Di Nunno and B. Øksendal (eds.) Springer-Verlag Berlin Heidelberg, 1-34, 2011.

[7] "Modelling the default risk in large credit portfolios" (with S. Herzel), *International Journal of Risk Assessment and Management* **14/6**, 479-503, 2010.

[6] "Short Note on Inf-Convolution Preserving the Fatou Property", *Annals of Finance* **5**, 281–287, 2009.

[5] "Optimal risk sharing with different reference probabilities" (with G. Svindland), *Insurance: Mathematics and Economics* **44**, 426–433, 2009.

[4] "Optimal risk sharing with non-monotone monetary functionals", *Finance & Stochastics*, **11/2**, 267–289, 2007.

[3] "Forecasting corporate default probabilities with Survival Models in Affine Setting", (with P. Bordi, E. Stanghellini), SIS Proceed., 2007 Intermediate Conference on Risk and Prediction.

[2] "Absolutely continuous optimal martingale measures", *Statistics & Decisions* **23**, 81–100, 2005.

[1] "Existence of radial solutions for quasi-linear elliptic equations with singular nonlinearities" (with P. Pucci), *Advanced Nonlinear Studies* **3**, 513–541, 2003.

Preprints

[3] "Generalized McKean-Vlasov (Mean Field) Control: a stochastic maximum principle and a transport perspective" (with J. Backhoff-Veraguas and R. Carmona), arXiv:1802.05754.

[2] "Model-independent pricing with insider information: a Skorokhod embedding approach" (with A. Cox and M. Huesmann), arXiv:1610.09124.

[1] "Causal optimal transport and its links to enlargement of filtrations and continuous-time stochastic optimization" (with J. Backhoff-Veraguas and A. Zalashko), arXiv:1611.02610.

Theses

[3] "Robust Pricing, Hedging and Risk Management". Habilitation thesis (Habilitationsschrift), University of Vienna, 2013.

[2] "Two problems related to utility theory under unusual assumptions". PhD thesis, University of Perugia, 2006.

[1] "Esistenza di stati fondamentali per problemi ellittici quasi-lineari". Master thesis, University of Perugia, 2002.

Grants and awards

2009-2013	Wiener Wissenschafts-, Forschungs- und Technologiefonds, "Mathematics and ..." Call 2009 for *High Potentials*. Project (4 years): "Mathematics of Financial Risk Measurement and Stochastic Dependence" (partners: Prof. W. Schachermayer and Prof. U. Schmock and Bank Austria).
02/2009	European Science Foundation - "Advanced Mathematical Methods for Finance" Project (6 months): "Dynamic Measurement of Multiperiod Risk".
07/2007	Doctoral Studies Award by the Italian Association of Mathematics Applied to Economic and Social Sciences.
11/2006	European Science Foundation - "Advanced Mathematical Methods for Finance". Project (6 months): "Optimal sharing of pooled risk among an aggregate of economic agents".
2002-2005	Fellowship for PhD, University of Perugia.

Conference Organisation

"LMS Conference on Mathematical Modeling in Finance", 31/08-02/09/2017, Imperial College London

"Risk and Stochastics Conference", 21-22/04/2016, LSE

"Workshop on Optimal Transport and Stochastics", 09-12/03/2015, HIM, University of Bonn

"6th Summer School in Financial Mathematics", 26-30/08/2013, University of Vienna

Invited talks and seminars (past and forthcoming)

03-07/09/2018	Conference in honour of Yuri Kabanov, CIRM, Luminy, France
18-21/06/2018	"9th International workshop on applied probability (IWAP 2018)", Eörvös Loránd University Congress Center, Budapest, Hungary
04-08/06/2018	"METE - Mathematics and Economics: Trends and Explorations", a conference in honour of M. Soner, ETH Zurich, Switzerland (plenary speaker)
04-07/06/2018	"Annual Meeting of the Canadian Applied and Industrial Mathematics Society", University of Toronto, Canada (plenary speaker)
13-18/05/2018	BIRS-CMO workshop on "Stochastic Analysis and its Applications", Casa Matematica Oaxaca (CMO), Mexico
03/05/2018	Seminar, University of Oxford, UK
02/04/2018	Seminar, Carnegie Mellon University, Pittsburgh, US
19-22/03/2018	"Second workshop on stochastic analysis applied to economics, finance and insurance", Center for Mathematical Modelling, Universidad de Chile, Santiago, Chile

22-24/01/2018	"17th Winter school on Mathematical Finance", special invited lecture, Congrescentrum De Werelt, Lunteren, Netherlands
18-21/12/2017	"Verona Paris Stochastic Modeling conference", University of Verona, Italy
28/11/2017	Seminar, Questrom School of Business, Boston University, US
13-17/11/2017	Workshop on "Advances in Stochastic Analysis for Risk Modeling", CIRM, Luminy, France
19/10/2017	Mathematical Finance Seminar, University of Vienna, Austria
27-29/09/2017	"I Gran Sasso Workshop in Mathematical Finance", Gran Sasso Science Institute, L'Aquila, Italy
4-8/09/2017	"Stochastic control, ambiguity and games" workshop and research week, University of Leeds, UK
3-7/07/2017	"Workshop on BSDEs and SPDEs", University of Edinburgh, UK
19-23/06/2017	Workshop "Robust Methods in Probability & Finance", ICERM, Brown University, Providence, US
19-22/06/2017	"First Italian Meeting on Probability and Mathematical Statistics", Universitá and Politecnico di Torino, Italy
8-9/06/2017	"Convex Stochastic Optimization Workshop", King's College London, UK
31/05-02/06/2017	Thera Stochastics - A Mathematics Conference in Honor of Ioannis Karatzas, Santorini, Greece
26-28/04/2017	Workshop "Young Researchers in Robust Mathematical Finance", ETH Zurich, Switzerland (keynote speaker)
09-14/04/2017	BANFF International Research Station Workshop on "Generated Jacobian Equations: from Geometric Optics to Economics", Canada
29/03/2017	Financial Mathematics seminar, Princeton University, US
20-21/03/2017	"Pricing-Hedging Duality" workshop, ETH Zurich, Switzerland
26/02-04/03/2017	Oberwolfach Workshop on "Mathematics of Quantitative Finance", Germany
10-13/01/2017	Conference "Advances in Financial Mathematics", Ecole Polytechnique, Ecole des Ponts and Université Pierre and Marie Curie, France
12/12/2016	Workshop on "Quantitative Methods in Finance: Beyond the Classical Paradigm", Sydney University of Technology, Australia
17-19/11/2016	SIAM Conference on Financial Mathematics and Engineering (FM16), Austin, TX, US (plenary speaker)
24/10/2016	Mathematical Finance Colloquium, University of Southern California, US
17/10/2016	Financial Mathematics and Actuarial Research Seminar, University of California Santa Barbara, US
5/10/2016	Financial and Actuarial Mathematics Seminar, University of Michigan, US
15/09/2016	Mathematical Finance Seminar, Columbia University, NY, US
12-14/09/2016	Vienna Congress on Mathematical Finance, Vienna University of Technology, Austria
8-9/09/2016	Workshop on "Enlargements of Filtrations and Financial Applications", University of Zurich, Switzerland
22-27/05/2016	BIRS-CMO workshop on "Stochastic Analysis and Mathematical Finance - A Fruitful Partnership", Casa Matematica Oaxaca (CMO), Mexico
12/05/2016	Probability Seminar, Universities of Paris VI and Paris VII, France

04-07/04/2016	Vienna WPI Workshop on "Pathwise methods, Functional Calculus and applications in Mathematical Finance", WPI, Vienna, Austria
19-23/10/2015	International Conference on Stochastic Analysis and Applications, Hammamet, Tunisia
16-18/09/2015	Workshop on "Mathematical Finance beyond classical models", ETH Zurich, Switzerland
7-10/09/2015	7th General AMaMeF and Swissquote Conference, EPFL Lausanne, Switzerland (plenary speaker)
10-14/08/2015	8th International Congress on Industrial and Applied Mathematics, Beijing, China
18-22/05/2015	Mathematics and Financial Economics Workshop, ZIF, University of Bielefeld, Germany
21/01/2015	Workshop on "Mathematical Finance", University of Milan, Italy
28-29/11/2014	Workshop on "Stochastic and Quantitative Finance", Imperial College London, UK
20/10/2014	Probability Seminar, University of Bath, UK
8-12/09/2014	Workshop on "Stochastic analysis for risk modeling", CIRM, Luminy, France
17-20/06/2014	Paris Labex Louis Bachelier - SIAM-SMAI Conference on Financial Mathematics: Advanced Modeling and Numerical Methods, University Paris VII, Paris, France
11-16/05/2014	BANFF International Research Station, Canada. Workshop on "Mathematical Finance: Arbitrage and Portfolio Optimization", Canada
08/05/2014	Probability, Stochastic Modelling and Financial Mathematics Seminar, University of Leeds, UK
24-25/04/2014	Risk and Stochastics Conference 2014, LSE, London, UK
16/04/2014	Berliner Kolloquium Wahrscheinlichkeitstheorie - Stochastische Analysis, WIAS Institute, Berlin, Germany
14/03/2014	Stochastic Finance Seminar, University of Warwick, UK
17/07/2013	Workshop Stochastics and Real World Models 2013, University of Bielefeld, Germany
04/07/2013	Stochastic Analysis and Stochastic Finance Seminar, Humboldt Universität zu Berlin, Germany
29/05/2013	Habilitationsvortrag, University of Vienna, Austria
19/04/2013	Mathematical Finance Seminar, University of Texas at Austin, TX
09/01/2013	Probability Seminar, University of Strasbourg, France
25/10/2012	Mathematics Seminar, University of Erlangen, Germany
12/07/2012	Mathematical Finance Seminar, University of Pisa, Italy
29/05/2012	Operations Research and Financial Engineering Seminar, Princeton University, US
20-25/05/2012	BANFF International Research Station Workshop on "Optimal Transportation and Differential Geometry", Canada
27/01/2012	Bachelier Seminar Paris, IHP Paris, France
26/01/2012	Mathematical Finance Seminar, Université d'Evry Val Dessonne, France
15–22/01/2012	Bachelier Colloquium on Stochastic Calculus and Finance, Metabief, France
23/11/2011	Mathematical Colloquium, University of Oldenburg, Germany
14/10/2011	PRisMa 2011: One-Day Workshop on "Portfolio Risk Management", Vienna University of Technology, Austria
10/10/2011	Mathematical Finance Seminar, University of Vienna, Austria
15/07/2011	Kolloquium Versicherungs- und Finanzmathematik, Leibniz Universität Hannover, Germany

11/05/2011	DeFinetti Seminar, University of Milano Bicocca, Italy
19/04/2011	Mathematics Seminar, University of Pavia, Italy
22–29/03/2010	Mini-course on Risk Measures, University of Vienna, Austria
05/03/2010	Bachelier Seminar Paris, IHP Paris, France
28/09/2009	PRisMa 2009: One-Day Workshop on "Portfolio Risk Management", Vienna University of Technology, Austria
9/07/2009	Oberseminar Finanz- und Versicherungsmathematik, Munich University of Technology, Germany
23/04/2009	Berlin Seminar on Stochastic Analysis and Mathematical Finance, Humboldt Universität zu Berlin, Germany
01/09/2005	Mathematical Finance Seminar, Vienna University of Technology, Austria
19/07/2005	Mathematical Finance Seminar, University of Perugia, Italy

Contributed talks

15-18/12/2015	Quantitative Methods in Finance Conference (QMF) 2015, Sydney.
17-20/12/2014	Quantitative Methods in Finance Conference (QMF) 2014, Sydney.
4-7/06/2013	Frontiers in Financial Mathematics 2013, Institute of Bankers, Dublin.
19-24/06/2011	35th Conference on Stochastic Processes and their Applications, Instituto de Matemáticas of the Universidad Nacional Autónoma de México of Oaxaca.
12–16/07/2010	Conference on Analysis, Stochastics, and Applications, Vienna Univerity.
22-26/06/2010	VI World Congress of the Bachelier Finance Society in Toronto, Canada.
18-19/03/2010	Conference on Robust Techniques in Quantitative Finance, University of Oxford.
4-10/05/2009	IV Conference on Advances Mathematical Methods in Finance, Aalesund, Norway.
5-6/02/2009	AFMathConf 2009: Interplay between Finance and Insurance, Royal Flemish Academy of Belgium for Science and the Arts, Bruxelles.
12-14/06/2008	International Risk Management Conference, University of Florence.
24-25/01/2008	IX Workshop on "Quantitative Finance", University of Rome Tor Vergata.
17-22/09/2007	Workshop and Mid-Term Conference on Advanced Mathematical Methods for Finance, Vienna University of Technology.
06-08/06/2007	Intermediate Congress of the Italian Statistical Society 2007, "Risk and Prediction", University of Venice.
11-13/10/2006	Conference MAF 2006, "Mathematical and Statistical Methods for Insurance and Finance", University of Salerno.

Supervisions

- Junchao Jia, PhD student, LSE, ongoing.
- Despoina Makariou, PhD student, LSE, ongoing.
- Junyi Zhang, PhD student, LSE, ongoing.
- Diego Zabaljaurellis, PhD student, LSE, ongoing.
- Jose Manuel Pedraza Ramirez, PhD student, LSE, ongoing.
- Anastasiia Zalashko, PhD student, University of Vienna. Completed 2017.
- Stefan Förstel, Master student, University of Erlangen. Completed 2014.
- Friedrich Penkner, PhD student, University of Vienna. Completed 2013.

Research interests

Robust finance and model uncertainty; pricing, hedging and portfolio optimisation; enlargement of filtrations; theory of stochastic processes and their application in finance and insurance; optimal mass transportation; stochastic games, risk measures and optimal risk sharing.

Editorial work

I am Associate Editor for *Finance and Stochastics*, *SIAM Journal on Financial Mathematics (SIFIN)*, *Mathematical Finance*, *Electronic Journal of Probability* and *Electronic Communications in Probability*, and I am part of the Editorial Board of *Dependence Modeling*. Moreover, I serve as a referee for the following journals: SIAM Journal on Control and Optimisation, Mathematics and Financial Economics, Stochastic Processes and their Applications, Insurance: Mathematics and Economics, International Journal of Theoretical and Applied Finance, Proceeding of the AMS, Statistics and Risk Modeling, Statistics and Decisions, Statistics and Probability Letters, Mathematics of Operations Research.

Teaching experience

2017–18 *Advanced Probability Theory* (seminars), MSc in Quantitative Methods for Risk Management, LSE.

2013–18 *Stochastics for Derivatives Modelling* (lectures and seminars), MSc in Risk and Stochastics, LSE.

2013–18 *Recent Developments in Finance and Insurance* (lectures and seminars), MSc in Risk and Stochastics, LSE.

2014–16 *Stochastic Processes* (seminars), BSc in Actuarial Science, LSE.

2014/15 *Actuarial Investigations: Financial* (seminars), BSc in Actuarial Science, LSE.

2013/14 *Statistical Inference* (seminars), MSc in Statistics, LSE.

2011–13 *Financial Evaluation of Debt and Investments* (lectures and seminars), MSc in Economics, University of Perugia.

2010/11 *Mathematics* (tutorials), undergraduate studies in Economics, University of Perugia.

2009/10 *Financial Mathematics* (lectures and tutorials), MSc in Economics and Management of Tourism, University of Perugia.

2008/09 *Probability and Mathematical Methods for Risk Management* (lectures and tutorials), MSc in Finance, University of Perugia.

2008/09 *Stochastic Integration Theory* (students seminars), doctoral studies in Financial and Actuarial Mathematics, Vienna University of Technology.

2007/08 *Stochastic Integration Theory* (lectures), doctoral studies in Financial and Actuarial Mathematics, Vienna University of Technology.

2004–06 *Statistics* (tutorials), undergraduate studies in Economics, University of Perugia.

Language skills

Italian (native), English (fluent), French (fluent), German (intermediate)