Sara Biagini

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NATIONAL HABILITATIONS

- Full professor in Mathematics for Economics and Finance Sector 13-D4 obtained in two competitions, 2013 and 2018 *valid till* 2027
- Associate professor in Analysis and Probability, Sector 01-A3 (bibliometric) obtained in 2013 *valid till* 2022

EMPLOYMENT Associate Professor LUISS G. Carli, Department of Economics and Finance	2015 –
Assistant Professor University of Pisa, Department of Statistics and Applied Mathematics	2008 - 2015
Visiting Professor Princeton University, ORFE Department (with offer of a tenure-track position)	Spring 2007
Assistant Professor University of Perugia, Department of Statistics and Applied Mathematics	2002 - 2008
Academic Training	
Ph.D. in Mathematics for Finance, highest honors. Scuola Normale Superiore, Pisa Laurea (B.S.) in Maths, highest honors. University of Pisa	2005 1999
Prizes and Awards	
MINERVA FOUNDATION LECTURES "Topics in portfolio optimization with general underlying assets" Instructor of a prestigious graduate course, on appointment by Y. Karatzas, Columbia Univ	2009
INDAM-SIMAI prize Award for the best Italian Ph.D. thesis in Applied Mathematics, years 2004-2006	2006
SERVICE TO THE PROFESSION Associate Editor for	
Mathematical Finance, Wiley: onlinelibrary.wiley.com/journal/14679965	
Review of Derivatives Research, Springer: www.springer.com/journal/11147	

Natural Sciences and Engineering Research Council of Canada (NSERC): reviewer for Mathematical Finance national projects.

MIUR (Italian Ministry of University): PRIN project reviewer.

Reporter of international Ph.D. theses and member of Ph.D. committees Recruiter for tenure-track positions in Italy and abroad.

ACADEMIC VISITS

Paris Dauphine Collaboration with prof René Aid, December 2018. Oslo Academy of Science, under Stochastics in Environmental and Financial Economics (SEFE) project May 2015- June 2015.
The London School of Economics Statistics Department, from 01/2015 to 03/2015 (three months).
Dublin City University Mathematics Dept, February 22-26 2011.
Collegio Carlo Alberto Visiting Research Fellow of the Collegio, two months, May-June 2009.
University of Michigan, Ann Arbor. Mathematics Dept, Apr 6-11 2009.
Columbia University, New York. Mathematics Dept, Jan 18- 28 2009.
Columbia University, New York. IEOR Dept, 26 Oct- 2 Nov 2007.
University of Texas at Austin. Visiting Research Fellow, Mathematics Dept, 3 weeks, October 2007.
Boston University. Visiting Research Fellow, Mathematics Dept, June-July 2007.
Princeton University. Visiting Professor, ORFE Dept, five months, Spring 2007.
Ecole Polytechnique de France. June 2006, under AMaMeF short visit grant no. 901.

Publications and preprints

- Robust portfolio choice with sticky wages (with Fausto Gozzi and Margherita Zanella). **Submitted**, 2021
- Optimal dynamic regulation of carbon emissions market (with René Aïd). **Submitted**, 2021 file: arXiv
- Convex Duality and Orlicz Spaces in Expected Utility Maximization (with Ales Cerny). *Mathematical Finance,* 30 (1) pp 85-127, 2020.
- Convex duality in stochastic optimization and mathematical finance II (with T. Pennanen and A-P Perkkiö).
 Journal of Convex Analysis, 25(2) pp 403-420, 2018.
- The robust Merton problem of an ambiguity averse investor (with M. Pinar). *Mathematics and Financial Economics* 11, 1-24, 2017.
- Robust Fundamental Theorem for Continuous Processes (with B. Bouchard, K. Kardaras, M. Nutz). Mathematical Finance, 27, 963-987, 2017.
- Dynamic quasi concave performance measures (with J. Bion Nadal). Journal of Mathematical Economics, 55, 143-153, 2014.
- The best Gain-Loss Ratio is a poor performance measure (with M. Pinar). *SIAM Journal of Financial Mathematics*, 4-1, 228-242, 2013.
- A note on investment opportunities when the credit line is infinite (with M. Sirbu). **Stochastics**, 84 (2-3), 157-169, 2012.

- Admissible strategies in semimartingale portfolio selection (with A. Cerny). **SIAM Journal on Control and Optimization**, 49(1), 42-72, 2011.
- Relaxed Utility Maximization in Complete Markets (with P. Guasoni). Mathematical Finance, 21 no. 4 p. 703-722, 2011.
- Indifference price with general semimartingales (with M. Frittelli and M. Grasselli). *Mathematical Finance*, 21(3), pp. 423-446, 2011.
- A Unified Framework for Utility Maximization Problems: An Orlicz Spaces Approach (with M. Frittelli).
 The Annals of Applied Probability, 18/3, 929-966, 2008.
- The supermartingale property of the optimal wealth process for general semimartingales (with M. Frittelli).
 Finance and Stochastics, 11/2 253-266, 2007.
- Utility maximization in incomplete markets for unbounded processes (with M. Frittelli). *Finance and Stochastics*, *9*/4 493-517 (2005).
- On the super replication price of unbounded claims (with M. Frittelli). **The Annals of Applied Probability**, 14/4, 1970-1991 (2004).

CONFERENCE PROCEEDINGS AND BOOK CHAPTERS

- Expected utility maximization: the dual approach. Item, in: Encyclopedia of Quantitative Finance, Rama Cont editor. Wiley 2009.
- On the extension of the Namioka-Klee theorem and on the Fatou property for Risk Measures (with M. Frittelli). Optimality and risk: modern trends in mathematical finance. The Kabanov Festschrift. Editors: F. Delbaen, M. Rasonyi, Ch. Stricker. Springer 2009.
- An Orlicz Spaces Duality for Utility Maximization in Incomplete Markets. Seminar on Stochastic Analysis, Random Fields and Applications V: Centro Stefano Franscini, Ascona, May 2005 (Progress in Probability). Birker. ISBN: 3764384573.
- Model-free representation of pricing rules as conditional expectations.(with R. Cont). Stochastic processes and applications to mathematical finance. Proceedings of the 6th Ritsumeikan international symposium, pp 53-66. 2007 World Scientific, Singapore.

TEACHING, IN ITALY AND AT PRINCETON

LUISS G. Carli. Undergraduate level: Mathematical Finance, Mathematics II. Master level: Probability, Mathematical Finance, Mathematical Methods for the Enterprise University of Pisa. Undergraduate level: Mathematical Finance, Calculus for Economics. Master level: Financial Derivatives, Mathematical Methods for Financial Markets (2008-2015) Princeton University. Master level: Interest rate models, Spring 2007. University of Perugia. Master level: Mathematics for Risk Management; Advanced Calculus; Financial Mathematics. PhD level: Finance (with S. Herzel) (2002-08).

ADVISING: PHD STUDENTS & POST-DOCS 2021 - Maria Arduca, PhD from Milano Bicocca. 2015 Candia Riga, PhD from Scuola Normale Superiore. Co-advised with Rama Cont.

COLLABORATORS René Aïd - Paris Dauphine Jocelyne Bion Nadal - CNRS and Ecole Polytechnique de France Bruno Bouchard - Ceremade Paris-Dauphine Ales Cerny - Cass Business School Rama Cont - Oxford Marco Frittelli - Milano Statale Matheu Grasselli - Mc Master University, Toronto Paolo Guasoni - Boston University and Dublin College University Kostas Kardaras - The London School of Economics Marcel Nutz - Columbia University Teemu Pennanen - King's College London Ari-Pekka Perkio - TU Berlin Mustafa Pinar - Bilkent University, Ankara Mihai Sirbu - UT at Austin, Texas.

Gordan Zitkovic - UT at Austin, Texas