Paolo Guasoni

Dublin City University		Tel.	+353 1 700 8921 (office)
School of Mathematical Sciences			+353 83 401 5709 (mobile)
Glasnevin, Dublin 9		E-mail:	`paolo.guasoni@dcu.ie`
		Website:	http://www.guasoni.com

Employment

Stokes Chair of Financial Mathematics Dublin City University, School of Mathematical Sciences	2009 –
Adjunct Professor	2015 –
Associate Professor	2009 – 2014
Assistant Professor Boston University, Department of Mathematics and Statistics	2003 – 2009
Researcher University of Pisa, Department of Mathematics	2000 – 2003
Officer Bank of Italy, Research Department	1999 – 2000

Academic Training

Ph.D. in Mathematics	Scuola Normale Superiore, Pisa	2002
M.A. in Mathematics of Finance	Columbia University	1998
Diploma in Mathematics	Scuola Normale Superiore, Pisa	1997
Laurea (B.S.) in Mathematics	University of Pisa	1996

Grants

Stationary Financial Risks SFI PI Grant 16/IA/4443	2018 PI, 1,108,000 EUR
Valuation and Risk SFI Strategic Partnership 16/SPP/3347	2017 Co-PI, 125,000 EUR
Stochastic Models for Endowment and Retirement Planning NSF Grant DMS-1412529	2014 PI, 299,000 USD
Market Frictions in Mathematical Finance ERC Starting Grant 279582	2012 PI, 1,100,000 EUR
Flows and Fees NSF Grant DMS-1109047	2011 PI, 237,000 USD
International Reintegration Grant Marie Curie Actions FP7-PEOPLE-2009-RG 248896	2010 PI, 100,000 EUR
Strategic Research Cluster in Financial Mathematics SFI (Science Foundation Ireland) Grant 08/SRC/FMC1389	2009 Co-PI, 737,000 EUR
Risk, Ambiguity and the Long Run NSF Grant DMS-0807994	2008 PI, 250,000 USD
Large Deviations and Applications to Finance NSF Grant DMS-0532390	2005 PI, 193,000 USD

Prizes

AMASES Prize (Association for Mathematics in Social and Economic Sciences) Award for best single-author paper from a Ph.D. thesis.	2004
Bank of Italy *Giorgio Mortara* scholarship for graduate studies in Quantitative Finance.	1996

Administration and Organization

Lead Organizer of 10^{th} World Congress of the Bachelier Finance Society	2018
Chair of Master's Program in Financial Mathematics	2015-
Organizer of "Frontiers in Financial Mathematics" in Dublin	2013
Director, Edgeworth Center in Financial Mathematics	2010 – 2013
Associate Director, Mathematical Finance Program, Boston University	2006 – 2008
Centro di Ricerca Matematica "Ennio de Giorgi", Pisa	2002

Organizer of "Financial Markets: Mathematical, Statistical and Economic Analysis".

Working Papers (submitted)

High-Frequency Trading with Fractional Brownian Motion (with Yuliya Mishura, Miklos Rasonyi)

Sharing Profits in the Sharing Economy (with Gu Wang)

The Learning Premium (with Maxim Bichuch)

Asset Prices in Segmented and Integrated Markets (with Kwok-Chuen Wong)

Leveraged Funds: Robust Replication and Performance Evaluation (with Eberhard Mayerhofer)

Shortfall Aversion (with Gur Huberman and Dan Ren).

Consumption in Incomplete Markets (with Gu Wang).

Publications in peer-reviewed journals

Nonlinear Price Impact and Portfolio Choice (with Marko Weber).
Mathematical Finance, forthcoming.

Options Portfolio Selection (with Eberhard Mayerhofer)
Operations Research, forthcoming.

Trading Fractional Brownian Motion (with Zsolt Nika, Miklos Rasonyi)
SIAM Journal on Financial Mathematics, forthcoming.

Should Commodity Investors Follow Commodities' Prices? (with Antonella Tolomeo, Gu Wang).
SIAM Journal on Financial Mathematics, 10 (2019) no. 2 p. 466-490.

Consumption, Investment, and Healthcare with Aging (with Yu-Jui Huang).
Finance and Stochastics, 23 (2019) no. 2 p. 313-358.

Consumption and Investment with Interest Rate Risk (with Gu Wang).
Journal of Mathematical Analysis and Applications, 476 (2019) no. 1 p. 215-239.

Reference Dependence and Market Participation (with Andrea Meireles-Rodrigues).
Mathematics of Operations Research, forthcoming.

Rebalancing Multiple Assets with Mutual Price Impact (with Marko Weber).
Journal of Optimization Theory and Applications, 179 (2018) no. 2 p. 618-653..

Who Should Sell Stocks? (with Johannes Muhle-Karbe and Ren Liu).
Mathematical Finance, 29 (2019) no. 2 p. 448-482.

The Limits of Leverage (with Eberhard Mayerhofer).
Mathematical Finance, 29 (2019) no. 1 p. 249-284.

Investing with Liquid and Illiquid Assets (with Maxim Bichuch).
Mathematical Finance, 28 (2018) no. 1 p. 119-152.

Dynamic Trading Volume (with Marko Weber).
Mathematical Finance, 27 (2017) no. 2 p. 313-349..

Hedge and Mutual Funds' Fees and the Separation of Private Investments (with Gu Wang).
Finance and Stochastics, 19 (2015) no. 3 p. 473-507.

Robust Portfolios and Weak Incentives in the Long Run (with Johannes Muhle-Karbe and Hao Xing).
Mathematical Finance, 27 (2017) no. 1 p. 3-37.

Fragility of arbitrage and bubbles in local martingale diffusion models (with Miklós Rásonyi).
Finance and Stochastics, 19 (2015) no. 2 p. 215-231.

Hedging, Arbitrage and Optimality with Superlinear Frictions (with Miklos Rasonyi).
Annals of Applied Probability, 25 (2015) no. 4 p. 2066-2095.

The Incentives of Hedge Fund Fees and High-Water Marks (with Jan Obłoj).
Mathematical Finance, 26 (2016) no. 2 p. 269-295.

Abstract, Classic, and Explicit Turnpikes (with Kostas Kardaras, Scott Robertson, and Hao Xing).
Finance and Stochastics, 18 (2014) no. 1 p. 75-114.

Long Horizons, High Risk-Aversion, and Endogenous Spreads (with Johannes Muhle-Karbe).
Mathematical Finance, 25 (2015) no. 4 p. 724-753.

Transaction Costs, Trading Volume, and the Liquidity Premium
(with Stefan Gerhold, Johannes Muhle-Karbe, and Walter Schachermayer).
Finance and Stochastics, 18 (2014) no. 1 p. 1-37.

Static Fund Separation of Long Term Investments (with Scott Robertson).
Mathematical Finance, 25 (2015) no. 4 p. 789-826.

The Fundamental Theorem of Asset Pricing with Transaction Costs
(with Emmanuel Lépinette and Miklós Rásonyi).
Finance and Stochastics, 16 (2012) no. 4 p. 741-777.

Portfolios and Risk Premia for the Long Run (with Scott Robertson).
Annals of Applied Probability, 22 (2012), no. 1, 239-284.

Performance Maximization of Actively Managed Funds (with Gur Huberman and Zhenyu Wang).
Journal of Financial Economics, 101 (2011), no. 3, 574-595.

Relaxed Utility Maximization in Complete Markets (with Sara Biagini).
Mathematical Finance, 21 (2011), no. 4, 703-722.

The Fundamental Theorem of Asset Pricing for Continuous Processes under Small Transaction Costs
(with Miklós Rásonyi and Walter Schachermayer).
Annals of Finance, 6 (2010), no. 2, 157-191

Consistent Price Systems and Face-Lifting Pricing under Transaction Costs
(with Miklós Rásonyi and Walter Schachermayer).
Annals of Applied Probability, 18 (2008), no. 2, 491-520

Optimal Importance Sampling with Explicit Formulas in Continuous Time (with Scott Robertson)
Finance and Stochastics, 12 (2008), no. 1, 1-19

No Arbitrage with Transaction Costs, with Fractional Brownian Motion and beyond.
Mathematical Finance, 16 (2006), no. 3, 569-582

Asymmetric Information in Fads Models
Finance and Stochastics, 10 (2006), no. 2, 159-177

Super-replication and Utility Maximization in Large Financial Markets
(with Marzia De Donno and Maurizio Pratelli)
Stochastic Processes and their Applications, 115 (2005), no. 12, 2006-2022

Necessary Conditions for the Existence of Utility Maximizing Strategies under Transaction Costs
(with Walter Schachermayer).
Statistics and Decisions, 22 (2004), no. 2, 153-170

Optimal Investment with Transaction Costs and without Semimartingales
Annals of Applied Probability, 12 (2002), no. 4, 1227-1246 (Winner of AMASES Prize 2004)

Risk Minimization under Transaction Costs
Finance and Stochastics, 6 (2002) no. 1, 91-113

Mean-Variance Hedging with Stochastic Volatility Models
(with Francesca Biagini and Maurizio Pratelli)
Mathematical Finance, 10 (2000) no. 2, 109-123

Mean-Variance Hedging with Random Volatility Jumps (with Francesca Biagini)

Stochastic Analysis and Applications, 20 (2002) No. 3, 471-494

Some Problems of Shape Optimization Arising in Stationary Fluid Motion (with Luigi Berselli)
Advances in Mathematical Sciences and Applications, 14 (2004) no. 1, 279-293

Shape Optimization Problems over Classes of Convex Domains (with Giuseppe Buttazzo)
Journal of Convex Analysis, 4 (1997) no. 2, 343-351

Conference Proceedings

Liquidation with Nonlinear Float-Dependent Price Impact (with Ali Sanjari).
High Frequency, forthcoming.

Portfolio Choice with Transaction Costs: a User's Guide (with Johannes Muhle-Karbe).
Paris-Princeton Lectures on Mathematical Finance 2013.

Importance Sampling with Basket Options (with Scott Robertson) *Wilmott*, Nov/Dec 2007

No Free Lunch under Transaction Costs for Continuous Processes *Seminar on Stochastic Analysis, Random Fields and Applications V: Centro Stefano Franscini, Ascona, May 2005 (Progress in Probability). Birkäuser. ISBN: 3764384573.*

Excursions in the Martingale Hypothesis *Stochastic Processes and Applications to Mathematical Finance: Proceedings of the Ritsumeikan International Symposium. World Scientific (2004), ISBN: 9812387781.*

Estimating State Price Densities by Hermite Polynomials: Theory and Application to Italian Derivatives Market *Temi di Discussione del Servizio Studi, Banca d'Italia. No. 507 (2004).*

Advising

Ph.D.: Scott Robertson (2009, Carnegie Mellon), Gu Wang (2013, University of Michigan), Dan Ren (2013, University of Dayton), Marko Weber (2014, JP Morgan), Ali Sanjari (2015, Natixis), Luca Bernardinelli (2018), Huayuan Dong, Ran Li (current).

Postdoc: Hao Xing (2010, London School of Economics), Andreas Hula (2012, UCL).

Lecturers: Eberhard Mayerhofer (2016, University of Limerick), Yu-Jui Huang (2016, University of Colorado at Boulder), Andrea Meireles Rodrigues (2018, University of York), Kwok Chuen Wong (DCU).

M.Sc.: Chenbin Liu, Robert Fitzpatrick (2010), Aidan Hanway, Peter Bosschaart (2013), David Benn (2014), Mingfeng He (2015), Diego Sastre Garcia (2015), James Galligan, Niall McCabe, Robert McLoughlin (2016), Stephen Lalor (2017), Jwan Ali, Catherine O'Connor, Seamus Tierney (2018), Snow Bach (current).

Consulting

2017-2018: Federal Home Loan Mortgage Corporation (Freddie Mac).

Professional Activities

Associate Editor: *Finance and Stochastics* (2012-), *Mathematical Finance* (2014-), *SIAM Journal on Financial Mathematics* (2015-), *Applied Mathematical Finance* (2017-), *European Journal of Finance* (2013-), *SIAM Book Series in Financial Mathematics* (2013-). *Springer Finance Book Series* (2019-).

Editor of *Asset Pricing Models* section for the *Encyclopaedia of Quantitative Finance*.

Council Member of the Bachelier Society (2012-2015). Member of the EPSRC Associate College (2016-)

National Science Foundation: Panelist for Mathematical Finance (DMS) and BIGDATA (CISE-IIS). Reviewer for Probability, Statistics and Applied Mathematics, and CAREER awards.

Reviewer for Mathematical Reviews, Zentralblatt MATH, and Wiley Economics and Finance books.
Member of American Finance Association, Bachelier Finance Society, SIAM.

Referee for: *Annali della Scuola Normale Superiore*, *Annals of Applied Probability*, *Annals of Finance*, *Applied Mathematical Finance*, *Decisions in Economics and Finance*, *Electronic Communications in Probability*, *Electronic Journal of Probability*, *European Journal of Finance*, *Finance and Stochastics*, *IEEE Transactions on Automatic Control*, *International J. of Theoretical and Applied Finance*, *Journal of Applied Probability*, *Journal of Banking and Finance*, *Journal of Computational Finance*, *Journal of Finance*, *Journal of Monetary Economics*, *Journal of Risk*, *Management Science*, *Mathematical Finance*, *Mathematics and Financial Economics*, *Mathematics of Operations Research*, *Math. Methods of Operations Research*, *Operations Research*, *Quantitative Finance*, *Review of Economics and Statistics*, *Review of Finance*, *Review of Financial Studies*, *SIAM J. of Control and Optimization*, *SIAM J. of Financial Mathematics*, *Statistics and Decisions*, *Statistics and Probability Letters*, *Stochastics*, *Stochastic Processes and Applications*, *Stochastic Systems.*

TEACHING

Dublin City University. Probability, Stochastic Finance, Fixed-Income Securities, Financial Data Analysis.

Boston University. *Graduate*: Stochastic Calculus, Statistical Analysis of Financial Data, Stochastic Methods of Mathematical Finance, Introduction to Mathematical Finance, Introduction to Probability Theory. *Undergraduate*: Elementary Probability, Calculus II, Introduction to Analysis II.

University of Pisa. Probability and Statistics, Calculus and Integration, Introductory Mathematics.

INVITED TALKS OR LECTURES

2019	Mathematical Finance Seminar	University of Oxford	December
	Mathematical Finance Seminar	Imperial College	October
	New Challenges in Energy Markets	Banff Intl Research Center	September
	Stochastics, Dynamical Systems, and Finance	Shanghai Jiao Tong University	September
	Mathematical Economics and Finance	University of Manchester	September
	Stochastic Control in Finance Workshop	National University of Singapore	July
	Tianfu Workshop on Financial Mathematics	SWUFE	July
	Financial Engineering Seminar	IAQF-Thalesians Seminar	May
	Stochastic Modeling in Finance and Insurance	Banach Center, Poland	February
	18th Winter School in Mathematical Finance	Universiteit van Amsterdam	January
2018	ECOMFIN Seminar	ESSEC Paris	December
	Mathematical Finance Workshop	University of Connecticut	October
	UMI-PMT Meeting	University of Wroclaw	September
	IMS FIPS Meeting in Financial Mathematics	King's College London	September
	Innovative Research in Mathematical Finance	University of Marseilles	September
	A Workshop in honor of Maurizio Pratelli	University of Pisa	June
	A Symposyum on Optimal Stopping	Rice University	June
	3rd Conference on Financial Mathematics	Bar-Ilan University	May
	MACSI Seminar	University of Limerick	April
	Mathematics Seminar	University College Cork	February
2017	Advances in Stoch. Analysis for Risk Modeling	University of Marseilles	November
	Applied Math. Techniques for Energy Markets	University of Leiden	September
	Seminar in Finance and insurance Mathematics	ETH Zürich	May
	Seminar in Stochastic Finance	University of Warwick	May
	Workshop on Stochastic Models and Control	University of Trier	March
	Seminar in Mathematical Finance	Carnegie Mellon University	February

2016	Seminar in Applied Mathematics	Johns Hopkins University	October
	Seminar in Probability	Scuola Normale Superiore	October
	9^{th} World Congress Bachelier Finance Society	New York	July
	Stochastic Analysis in Finance and Insurance	University of Michigan	June
	Seminar in Economics	Collegio Carlo Alberto	May
	Finance Seminar	University of Piraeus	May
	Seminar in Financial Mathematics	University of Texas at Austin	April
	Seminar in Financial Mathematics	University of Paris 6	March
2015	Quantitative Methods in Finance	UTS Sydney	December
	London Mathematical Finance Seminar	London School of Economics	October
	7th AMaMeF and Swissquote Conference	EPFL Lausanne	September
	George Boole 200 Conference	University College Cork	August
	Mathematical Finance and Partial Diff. Eq.	Rutgers University	April
	Financial Mathematics Seminar	Princeton University	February
	Quantitative Finance Seminar	Fields Institute	January
2014	Advances in Stoch. Analysis for Risk Modeling	University of Marseilles	September
	New Directions in Fin. Math. and Math. Econ.	Banff Intl Research Center	July
	Quant USA (New York)	Incisive Media	July
	Arbitrage and Portfolio Optimization	Banff Intl Research Center	May
	Stochastic Analysis in Finance and Insurance	MFO Oberwolfach	May
	Quant Europe (London)	Incisive Media	April
2013	Mathematical Finance and Partial Diff. Eq.	Rutgers University	November
	Seminar in Financial Mathematics	University of Michigan	October
	Mathematical Finance Seminar	Worcester Polytechnic Institute	September
	Lectures in Mathematical Finance	Scuola Normale Superiore, Pisa	May
	Risk and Stochastics Conference 2013	London School of Economics	May
	Financial Mathematics Seminar	King's College, London	May
	Stochastic Analysis and Finance Seminar	Humboldt University, Berlin	January
	De Finetti Risk Seminar	Bocconi University, Milan	January
2012	New Developments in Portfolio Choice	SIAM Annual Meeting	July
	Mathematics Summer School 2012	CoLab, UT Austin Portugal	July
	Probability, Control, and Finance	Columbia University	June
	Mathematical Finance Seminar	Imperial College	March
2011	AMASES Annual Meeting	University of Pisa	September
	Workshop on Financial Markets with Frictions	ICIAM, Vancouver	July
	Stochastic Analysis in Finance and Insurance	University of Michigan	May
	Seventh Seminar on Stochastic Analysis	Centro Stefano Franscini	May
	Stochastic Analysis in Finance and Insurance	MFO Oberwolfach, Germany	January
2010	OR Financial Engineering Seminar	Princeton University	September
	Analysis, Stochastics, and Applications	University of Vienna	July
	Seminar on Hedge Funds	UK Financial Services Authority	April
	Finance Seminar	EPFL Lausanne	March
	Seminar on Risk and Stochastics	London School of Economics	February
	Foundations of Mathematical Finance	Fields Institute	January

2009	North British Probability Seminar	University of Edimburgh	November
	Quantitative Finance Seminar	SUNY Stony Brook	November
	33^{rd} Conference on Stochastic Processes	TU Berlin	July
	15^{th} INFORMS Applied Probability Society	Cornell University	July
	Mathematical Finance Seminar	University of Oxford	June
	Séminaire Bachelier	Paris	May
	Financial Mathematics Seminar	UC Santa Barbara	May
	Non-Semimartingales in Mathematical Finance	TU Helsinki	May
	Financial Mathematics Seminar	Rutgers University	April
2008	2^{nd} SIAM Conference Financial Mathematics	Rutgers University	November
	2^{nd} Western Conference Mathematical Finance	University of Texas at Austin	October
	Financial Mathematics Seminar	University of Michigan	October
	Conference on Stochastic Processes	Università di Torino, Italy	July
	Sixth Seminar on Stochastic Analysis	Centro Stefano Franscini, Ascona	May
	Conference on Monte Carlo Methods	Brown University	April
	Mathematical Finance Workshop	Hitotsubashi University, Tokyo	March
	Stochastic Analysis in Finance and Insurance	MFO Oberwolfach, Germany	February
	Special Session on Portfolio Risk	AMS Meeting, San Diego	January
2007	4^{th} CCCP Mathematical Finance Workshop	Princeton University	November
	Financial Engineering Seminar	Cornell University	October
	Financial Mathematics Seminar	UT Austin	March
	Finance Seminar	Columbia Business School	February

Séminaire Bachelier	CREST Paris	March	2006
OR Financial Engineering Seminar	Princeton University	December	2005
Workshop on Optimization in Finance	Univ. Coimbra, Portugal	July	2005
5^{th} Seminar in Stochastic Analysis	Centro Stefano Franscini, Ascona	June	2005
Workshop on Stochastic Analysis	Univ. Jyväskylä, Finland	May	2005
Invito alla Finanza Matematica	Univ. Roma II, Italy	June	2004
Probability Seminar	Columbia University	October	2003
Finance Seminar	Imperial College, London	May	2003
Symposium on Stochastic Processes	Ritsumeikan University, Japan	March	2003
Financial and Actuarial Mathematics Seminar	TU Vienna	June	2002
Variational Problems with Global Constraints	Universitè de Paris VI	April	2001
Seminar in Financial Mathematics	ETH Zurich	January	2000