CURRICULUM VITAE
MASSIMO MARINACCI

Education

1989	Laurea in Economia Politica, Università Bocconi, Milano (Italy)
1996	PhD in Economics, Northwestern University, Evanston (Illinois, USA)

Current Position

2011-current	AXA-Bocconi Chair in Risk, Department of Decision Sciences, Università Bocconi
2009-current	Professor, Department of Decision Sciences, Università Bocconi

Previous Positions

2000-2009	Professor, Dipartimento di Statistica e Matematica Applicata, Università di Torino
1998-2000	Associate Professor, Dipartimento di Scienze Economiche, Università di Bologna
1996-1998	Assistant Professor, Department of Economics, University of Toronto

Other Academic Positions

2009-current	Fellow, IGIER research center, Università Bocconi
2013-2019	Chairman, Department of Decision Sciences, Università Bocconi
2006-2009	Fellow and Director of Allievi (Honors) Program, Collegio Carlo Alberto
2003-2009	Chairman, Dipartimento di Statistica e Matematica Applicata, Università di Torino
2003-2009	Visiting Professor, Department of Economics, Boston University

Main Grants

2015	Principal investigator, Advanced Grant (five years), European Research Council
2009	Principal investigator, Advanced Grant (five years), European Research Council
1997	Principal investigator, SSHRC Research Grant, Canada

Main Honors and Awards

2023	Invited speaker, 16th Annual Conference of the Thailand Econometric Society
2023	Invited speaker, 6th International Econometric Conference of Vietnam
2020	Simon Newcomb Lecture, Department of Economics, Johns Hopkins University (postponed due to the pandemic)
2019	Debreu Plenary Lecture, Annual Congress, Society for the Advancement of Economic Theory
2019	Keynote speaker, Advances in Decision Analysis Conference
2017	Plenary speaker, Annual Conference, European Association of Environmental and Resource Economists
2017	Keynote speaker, Worlds of Entanglement
2016	Plenary speaker, SMPS 2016 (Soft Methods in Probability and Statistics)
2015	Keynote speaker, Conference on Behavioral Aspects of Macroeconomics and Finance
2015	Invited speaker, ISIPTA 2015
2014	Schumpeter Plenary Lecture, Annual Congress, European Economic Association
2013	Fellow, Econometric Society
2011	Permanent chair, AXA Research Fund
2011	Plenary speaker, XIX Congress (quadrennial), Unione Matematica Italiana
2010	Invited speaker, World Congress (quinquennial), Econometric Society
2008	Invited speaker, Latin American Meeting, Econometric Society
2006	Plenary speaker, Foundations of Utility and Risk XII
1998	Polanyi Prize for outstanding young researcher, Canada
1990	de Finetti Prize for undergraduate dissertation, Accademia Nazionale dei Lincei

Invited Seminars Abroad

Boston University, British Columbia, California Institute of Technology, Chicago, Columbia, CORE, Cornell, Ecole Normale Superieure (Paris), Duke, Edinburgh, Essen, Essex, Hong Kong University of Science and Technology, Leicester, McGill, Michigan, New York University, North Carolina at Chapel Hill, Northwestern, Oxford, Paris School of Economics, Pennsylvania, Princeton, Rochester, Swiss Finance Institute (Lausanne, Lugano), Tinbergen Institute (Rotterdam), Toulouse, University College London, Université de Paris I, Université de Paris VI, University of California at Irvine, UCLA, University of Texas at Austin, Warwick, Western Ontario, Yale, Zurich.

Editorship

Associate Editor: *Econometrica* (2014-2020), *Economics and Philosophy*, *Games and Economic Behavior* (2005-2015), *Journal of Economic Theory* (2004-2020), *Journal of the European Economic Association* (2010-2014), *Management Science, Mathematics of Operations Research* (2005-2015), and *Theoretical Economics* (2005-2012).

Main Publications

1. Capacities and Choquet Averages of Ultrafilters, with Simone Cerreia-Vioglio, Paolo Leonetti and Fabio Maccheroni, *Proceedings of the American Mathematical Society*, 152, 1139-1151, 2024.
2. The Beauty of Uncertainty: the Rise of Insurance Contracts and Markets in Medieval Europe, with Maristella Botticini and Pietro Buri, *Journal of the European Economic Association*, 21, 1-40, 2023.
3. Measuring Utility with Diffusion Models, with Renato Berlinghieri, Fabio Maccheroni, Ian Krajbich and Marco Pirazzini, *Science Advances*, 9, 2023.
4. Multinomial Logit Processes and Preference Discovery: Inside and Outside the Black Box, with Simone Cerreia-Vioglio, Fabio Maccheroni and Aldo Rustichini, *Review of Economic Studies*, 90, 1155-1194, 2023.
5. Experimental Cost of Information, with Tommaso Denti and Aldo Rustichini, *American Economic Review*, 112, 3106-3123, 2022.
6. On the Cardinal Utility Equivalence of Biseparable Preferences, with Fabio Maccheroni and Jingni Yan, *Theory and Decision*, 92, 689-701, 2022.
7. Law of Demand and Stochastic Choice, with Simone Cerreia-Vioglio, Fabio Maccheroni and Aldo Rustichini, *Theory and Decision*, 92, 513-529, 2022.
8. A Framework for the Analysis of Self-Confirming policies, with Pierpaolo Battigalli, Simone Cerreia-Vioglio, Fabio Maccheroni and Thomas Sargent, *Theory and Decision*, 92, 455-512, 2022.
9. On the Equality of Clarke and Greenberg-Pierskalla Differentials, with Simone Cerreia-Vioglio, Fabio Maccheroni and Lugi Montrucchio, *Journal of Convex Analysis*, 19, 2022.
10. Ambiguity Aversion and Wealth Effects, with Simone Cerreia-Vioglio and Fabio Maccheroni, *Journal of Economic Theory*, 199, 1-43, 2022.
11. Rational Policymaking during a Pandemic, with Loic Berger, Nicolas Berger, Valentina Bosetti, Itzhak Gilboa, Lars Peter Hansen, Christopher Jarvis and Richard D. Smith, *Proceedings of the National Academy of Sciences*, 118, 1-7, 2021.
12. Sources of Uncertainty and Subjective Prices, with Veronica Cappelli, Simone Cerreia-Vioglio, Fabio Maccheroni and Stefania Minardi, *Journal of the European Economic Association*, 19, 872-912, 2021.
13. A Canon of Probabilistic Rationality, with Simone Cerreia-Vioglio, Per Olov Lindberg, Fabio Maccheroni and Aldo Rustichini, *Journal of Economic Theory*, 196, 2021.
14. Axiomatic Tests for the Boltzmann distribution, with Simone Cerreia-Vioglio, Fabio Maccheroni and Aldo Rustichini, *Journal of Statistical Mechanics*, 2021.
15. A Behavioral Characterization of the Drift Diffusion Model and its Multi-Alternative Extension for Choice under Time Pressure, with Carlo Baldassi, Simone Cerreia-Vioglio, Fabio Maccheroni and Marco Pirazzini, *Management Science*, 66, 5075-5093, 2020.
16. Model Uncertainty in Climate Change Economics: A Review and Proposed Framework for Future Research, with Loic Berger, *Environmental and Resource Economics*, 77, 475-501, 2020.
17. A Note on Rational Inattention and Rate Distortion Theory, with Tommaso Denti and Luigi Montrucchio, *Decisions in Economics and Finance*, 43, 75-89, 2020.

18. Rational Preference and Rationalizable Choice, with Simone Cerreia-Vioglio, Alfio Giarlotta, Salvatore Greco, and Fabio Maccheroni, *Economic Theory*, 69, 61-105, 2020.
19. Unique Tarski Fixed Points, with Luigi Montrucchio, *Mathematics of Operations Research*, 44, 1174-1191, 2019.
20. A Characterization of Probabilities with Full Support in Metric Spaces and its Implications for Laplace Method, with Simone Cerreia-Vioglio and Fabio Maccheroni, *Journal of Optimization Theory and Applications*, 181, 470-478, 2019.
21. Learning and Self-Confirming Long-Run Biases, with Pierpaolo Battigalli, Alejandro Francetich and Giacomo Lanzani, *Journal of Economic Theory*, 183, 740-785, 2019.
22. Ambiguity Attitudes and Self-Confirming Equilibrium in Sequential Games, with Pierpaolo Battigalli, Emiliano Catonini and Giacomo Lanzani, *Games and Economic Behavior*, 115, 1-29, 2019.
23. Orthogonal Decompositions in Hilbert A-Modules, with Simone Cerreia-Vioglio and Fabio Maccheroni, *Journal of Mathematical Analysis and Applications*, 470, 846-875, 2019.
24. Learning from Ambiguous and Misspecified Models, with Filippo Massari, *Journal of Mathematical Economics*, 84, 144-149, 2019.
25. Weak Time-Derivatives and No-Arbitrage Pricing, with Federico Severino, *Finance and Stochastics*, 22, 1007-1036, 2018.
26. Commutativity, Comonotonicity, and Choquet Integration of Self-Adjoint Operators, with Simone Cerreia-Vioglio, Fabio Maccheroni, and Luigi Montrucchio, *Reviews in Mathematical Physics*, 30, 10, 1850016, 2018.
27. Risk Analysis and Decision Theory: A Bridge, with Emanuele Borgonovo, Veronica Cappelli and Fabio Maccheroni, *European Journal of Operational Research*, 264, 280-293, 2018.
28. Stochastic Dominance without the Independence Axiom, with Simone Cerreia-Vioglio and Fabio Maccheroni, *Management Science*, 63, 1097-1109, 2017.
29. Hilbert A-Modules, with Simone Cerreia-Vioglio and Fabio Maccheroni, *Journal of Mathematical Analysis and Applications*, 446, 970-1017, 2017.
30. Mixed Extensions of Decision Problems under Uncertainty, with Pierpaolo Battigalli, Simone Cerreia-Vioglio, and Fabio Maccheroni, *Economic Theory*, 63, 827-866, 2017.
31. Ambiguity Aversion and Model Misspecification: An Economic Perspective, with Lars Peter Hansen, *Statistical Science*, 31, 511-515, 2016.
32. Analysis of Information Feedback and Selfconfirming Equilibrium, with Pierpaolo Battigalli, Simone Cerreia-Vioglio, and Fabio Maccheroni, *Journal of Mathematical Economics*, 66, 40-51, 2016.
33. Conditional Lp-spaces and the Duality of Modules over f-algebras, with Simone Cerreia-Vioglio, Michael Kupper, Fabio Maccheroni, and Nicolas Vogelpoth, *Journal of Mathematical Analysis and Applications*, 444, 1045-1070, 2016.
34. Ergodic Theorems for Lower Probabilities, with Simone Cerreia-Vioglio and Fabio Maccheroni, *Proceedings of the American Mathematical Society*, 144, 3381-3396, 2016.
35. A Note on Comparative Ambiguity Aversion and Justifiability, with Pierpaolo Battigalli, Simone Cerreia-Vioglio, and Fabio Maccheroni, *Econometrica*, 84, 1903-1916, 2016.
36. Model Uncertainty, *Journal of the European Economic Association*, 13, 998-1076, 2015.
37. Choquet Integration on Riesz Spaces and Dual Comonotonicity, with Simone Cerreia-Vioglio, Fabio Maccheroni, and Luigi Montrucchio, *Transactions of the American Mathematical Society*, 367, 8521-8542, 2015.
38. The Structure of Variational Preferences, with Fabio Maccheroni, Massimo Marinacci, and Aldo Rustichini, *Journal of Mathematical Economics*, 57, 12-19, 2105.
39. Put-Call Parity and Market Frictions, with Simone Cerreia-Vioglio and Fabio Maccheroni, *Journal of Economic Theory*, 157, 730-762, 2015.
40. Selfconfirming Equilibrium and Model Uncertainty, with Pierpaolo Battigalli, Simone Cerreia-Vioglio, and Fabio Maccheroni, *American Economic Review*, 105, 646-677, 2015.
41. Pride and Diversity in Social Economics, with Fabio Maccheroni and Aldo Rustichini, *American Economic Journal: Microeconomics*, 6, 237-271, 2014.

42. Niveloids and Their Extensions: Risk Measures on Small Domains, with Simone Cerreia-Vioglio, Fabio Maccheroni, and Aldo Rustichini, *Journal of Mathematical Analysis and Applications*, 413, 343-360, 2014.
43. Alpha as Ambiguity: Robust Mean-Variance Portfolio Analysis, with Fabio Maccheroni and Doriana Ruffino, *Econometrica*, 81, 1075-1113, 2013.
44. Classical Subjective Expected Utility, with Simone Cerreia-Vioglio, Fabio Maccheroni, and Luigi Montrucchio, *Proceedings of the National Academy of Sciences*, 110, 6754-6759, 2013.
45. Ambiguity and Robust Statistics, with Simone Cerreia-Vioglio, Fabio Maccheroni, and Luigi Montrucchio, *Journal of Economic Theory*, 148, 974-1049, 2013.
46. Social Decision Theory: Choosing within and between Groups, with Fabio Maccheroni and Aldo Rustichini, *Review of Economic Studies*, 79, 1591-1636, 2012.
47. On the Computation of Optimal Monotone Mean-Variance Portfolios via Truncated Quadratic Utility, with Ales Cerny, Fabio Maccheroni, and Aldo Rustichini, *Journal of Mathematical Economics*, 48, 386-395, 2012.
48. Probabilistic Sophistication, Second Order Stochastic Dominance, and Uncertainty Aversion, with Simone Cerreia-Vioglio, Fabio Maccheroni, and Luigi Montrucchio, *Journal of Mathematical Economics*, 48, 271-283, 2012.
49. On the Smooth Ambiguity Model: A Reply, with Peter Klibanoff and Sujoy Mukerji, *Econometrica*, 80, 1303-1321, 2012.
50. Signed Integral Representations of Comonotonic Additive Functionals, with Simone Cerreia-Vioglio, Fabio Maccheroni, and Luigi Montrucchio, *Journal of Mathematical Analysis and Applications*, 385, 895-912, 2012.
51. Finitely Well-Positioned Sets, with Luigi Montrucchio, *Journal of Convex Analysis*, 19, 249-279, 2012.
52. Definitions of Ambiguous Events and the Smooth Ambiguity Model, with Peter Klibanoff and Sujoy Mukerji, *Economic Theory*, 48, 399-424, 2011.
53. Rational Preferences under Ambiguity, with Simone Cerreia-Vioglio, Paolo Ghirardato, Fabio Maccheroni, and Marciano Siniscalchi, *Economic Theory*, 48, 341-375, 2011.
54. Risk Measures: Rationality and Diversification, with Simone Cerreia-Vioglio, Fabio Maccheroni, and Luigi Montrucchio, *Mathematical Finance*, 21, 743-774, 2011.
55. Uncertainty Averse Preferences, with Simone Cerreia-Vioglio, Fabio Maccheroni, and Luigi Montrucchio *Journal of Economic Theory*, 146, 1275-1330, 2011.
56. Complete Monotone Quasiconcave Duality, with Simone Cerreia-Vioglio, Fabio Maccheroni, and Luigi Montrucchio, *Mathematics of Operations Research*, 36, 321-339, 2011.
57. Necessary and Sufficient Conditions for Optima in Reflexive Spaces, with Luigi Montrucchio, *SIAM Journal on Optimization*, 21, 174-192, 2011.
58. Unique Solutions for Stochastic Recursive Utilities, with Luigi Montrucchio, *Journal of Economic Theory*, 145, 1776-1804, 2010.
59. Objective and Subjective Rationality in a Multiple Prior Model, with Itzhak Gilboa, Fabio Maccheroni, and David Schmeidler, *Econometrica*, 78, 755-770, 2010.
60. Recursive Smooth Ambiguity Preferences, with Peter Klibanoff and Sujoy Mukerji, *Journal of Economic Theory*, 144, 930-976, 2009.
61. Portfolio Selection with Monotone Mean-Variance Preferences, with Fabio Maccheroni, Aldo Rustichini, and Marco Taboga, *Mathematical Finance*, 19, 487-521, 2009.
62. On Concavity and Supermodularity, with Luigi Montrucchio, *Journal of Mathematical Analysis and Applications*, 344, 642-654, 2008.
63. Coarse Contingencies and Ambiguity, with Larry Epstein and Kyoungwon Seo, *Theoretical Economics*, 2, 355-394, 2007.
64. Mutual Absolute Continuity of Multiple Priors, with Larry Epstein, *Journal of Economic Theory*, 137, 716-720, 2007.
65. Ambiguity Aversion, Robustness, and the Variational Representation of Preferences, with Fabio Maccheroni and Aldo Rustichini, *Econometrica*, 74, 1447-1498, 2006.
66. Cores of Non-Atomic Market Games, with Massimiliano Amarante, Fabio Maccheroni, and Luigi

Montrucchio, *International Journal of Game Theory*, 34, 399-424, 2006.

67. Dynamic Variational Preferences, with Fabio Maccheroni and Aldo Rustichini, *Journal of Economic Theory*, 128, 4-44, 2006.
68. A Smooth Model of Decision Making Under Ambiguity, with Peter Klibanoff and Sujoy Mukerji, *Econometrica*, 73, 1849-1892, 2005.
69. Ultramodular Functions, with Luigi Montrucchio, *Mathematics of Operations Reseach*, 30, 311-332, 2005.
70. Stable Cores of Large Games, with Luigi Montrucchio, *International Journal of Game Theory*, 33, 189-213, 2005.
71. A Strong Law of Large Numbers for Capacities, with Fabio Maccheroni, *Annals of Probability*, 33, 1171-1178, 2005.
72. Monotone Continuous Multiple Priors, with Alain Chateauneuf, Fabio Maccheroni, and Jean-Marc Tallon, *Economic Theory*, 26, 973-982, 2005.
73. Certainty Independence and the Separation of Utility and Beliefs, with Paolo Ghirardato and Fabio Maccheroni, *Journal of Economic Theory*, 120, 129-136, 2005.
74. Differentiating ambiguity and ambiguity attitude, with Paolo Ghirardato and Fabio Maccheroni, *Journal of Economic Theory*, 118, 133-173, 2004.
75. Random Sets and their Distributions, with Adriana Castaldo and Fabio Maccheroni, *Sankhya (Series A)*, 66, 409-427, 2004.
76. Choquet Insurance Pricing: a Caveat, with Erio Castagnoli and Fabio Maccheroni, *Mathematical Finance*, 14, 481-485, 2004.
77. A Characterization of the Core of Convex Games through Gateaux Derivatives, with Luigi Montrucchio, *Journal of Economic Theory*, 116, 229-248, 2004.
78. A Subjective Spin on Roulette Wheels, with Paolo Ghirardato, Fabio Maccheroni, and Marciano Siniscalchi, *Econometrica*, 71, 1897-1908, 2003.
79. Subcalculus for Set Functions and Cores of TU Games, with Luigi Montrucchio, *Journal of Mathematical Economics*, 39, 1-25, 2003.
80. How to Cut a Pizza Fairly: Fair Division with Decreasing Marginal Evaluations, with Fabio Maccheroni, *Social Choice and Welfare*, 20, 457-465, 2003.
81. Probabilistic Sophistication and Multiple Priors, *Econometrica*, 70, 755-764, 2002.
82. Ambiguity Made Precise: a Comparative Foundation and Some Implications, with Paolo Ghirardato, *Journal of Economic Theory*, 102, 251-289, 2002.
83. Risk, Ambiguity, and the Separation of Utility and Beliefs, with Paolo Ghirardato, *Mathematics of Operations Research*, 26, 864-890, 2002.
84. Insurance Premia Compatible with the Market, with Erio Castagnoli and Fabio Maccheroni, *Insurance: Mathematics and Economics* 31, 267-284, 2002.
85. Cores of Large Differentiable TU Games, with Larry Epstein, *Journal of Economic Theory* 100, 235-273, 2001.
86. Range Convexity and Ambiguity Averse Preferences, with Paolo Ghirardato, *Economic Theory* 17, 599-617, 2001.
87. Ambiguous Games, *Games and Economic Behavior* 31, 191-219, 2000.
88. A Uniqueness Theorem for Convex-Ranged Probabilities, *Decisions in Economics and Finance*, 23, 121-132, 2000.
89. The Impossibility of Compromise: Some Uniqueness Properties of Expected Utility Preferences, with Paolo Ghirardato, *Economic Theory* 16, 245-258, 2000.
90. Limit Laws for Non-Additive Probabilities, and Their Frequentist Interpretation, *Journal of Economic Theory* 84, 145-195, 1999.
91. Upper Probabilities and Additivity, *Sankhya (Series A)* 61, 358-361, 1999.
92. An Axiomatic Approach to Complete Patience and Time Invariance," *Journal of Economic Theory* 83, 105-144, 1998.
93. Additivity with Multiple Priors, with Paolo Ghirardato and Peter Klibanoff, *Journal of Mathematical Economics* 30, 405-420, 1998.
94. Finitely Additive and Epsilon Nash Equilibria, *International Journal of Game Theory* 26, 315-333,

1997.

95. Local Radon-Nikodym Derivatives of Set Functions, with John Harding, Nhu T. Nguyen and Tonghiu Wang, *International Journal of Uncertainty, Fuzziness, and Knowledge-Based Systems*, 5, 379-394, 1997.
96. Decomposition and Representation of Coalitional Games, *Mathematics of Operations Research* 21, 1000-1015, 1996.

Surveys and other Publications

1. “Ambiguity and the Bayesian Paradigm,” with Itzhak Gilboa, in D. Acemoglu, M. Arellano, and E. Dekel, *Advances in Economics and Econometrics: Theory and Applications, Tenth World Congress of the Econometric Society*, Cambridge University Press, 2013.
2. “Revealed Ambiguity and its Consequences: Updating,” with Paolo Ghirardato and Fabio Maccheroni, in M. Abdellaoui and J. D. Hey, *Advances in Decision Making under Risk and Uncertainty*, Springer, 2008.
3. “Introduction to the Mathematics of Ambiguity,” with Luigi Montrucchio, in I. Gilboa, *Uncertainty in Economic Theory: a Collection of Essays in Honor of David Schmeidler's 65th Birthday*, Routledge, 2004.
4. “Learning from Ambiguous Urns,” *Statistical Papers* (special issue on Choquet integral and applications) (2002), 43, 143-151.
5. “A Heine-Borel Theorem for ba,” with Fabio Maccheroni, *RISEC* (special issue on the SET conference) (2001), 48, 353-362.
6. “Vitali's Early Contribution to Non-Additive Integration,” *Rivista di Matematica per le Scienze Economiche e Sociali* (1997), 20, 153-158.