

CLAUDIO TEBALDI

Associate Professor,
Department of Finance, Bocconi University.
Fellow IGIER and Baffi-CAREFIN Research Centers.
Via Roentgen 1 20132 Milano, Italy
claudio.tebaldi@unibocconi.it
+39-02-58363638
Italian Citizen
Born 1970

1. Scientific Education

- Fall 1997: *PhD, cum laude* International School for Advanced Studies, (SISSA Trieste), Statistical Mechanics.
- Spring 1999: *Master in Economics and Finance*, Venice International University, Venezia
- Fall 1995: *MPhil, cum laude* International School for Advanced Studies, (SISSA Trieste), Complex Systems.
- Summer 1994: *Laurea 110/110 cum laude* Padova University, degree in Physics.
Premio di Laurea "Italo Filosofo" Accademia di Scienze Lettere ed Arti 1994, Venezia.

2. Qualification

- December 2021 Scientific Director of the Bocconi Algorand Fintech Lab.
- March 2015- National Qualification Full Professorship Quantitative Methods for Economics, Finance and Insurance. (S.S.D. 13/D4, SECS/S-06).
- March 2011. Associate Professor Quantitative Methods for Economics, Finance and Insurance, Bocconi University. (S.S.D. 13/D4, SECS/S-06).
- Spring 2007. Assistant Professor Quantitative Methods for Economics, Finance and Insurance, Bocconi University. (S.S.D. 13/D4, SECS/S-06).
- Fall 2004 and Fall 2006 Visiting Scholar Anderson School of Business, UCLA.
- 2003-06 SAFE (Studies in Actuarial Finance and Economics) Fellow, Verona University.
- Fall 2000. Assistant Professor (Tenure May 2004), Verona University Quantitative Methods for Economics Insurance and Finance (S.S.D. 13/D4, SECS/S-06).
- 1999-2000 Post Doctoral position Verona University, Department of Quantitative Methods Faculty of Economics
- 1998 Visiting Scholar Marie Curie Fellowship Niels Bohr Institut, Copenhagen (Denmark)

3. Papers under review, available on the SSRN or in preparation

- "Network Effects on the Supply Chain of Credit" with L. Bottazzi and G. Gopalakrishna. in preparation. Presented at CSEF-IGIER Conference Anacapri 2022
- "Levered Returns and Capital Structure Imbalances", with F. Ippolito, R. Steri and A. Villa, under revision
- "Multivariate Wold Decompositions ", with Simone Cerreia-Vioglio, F. Ortu and F. Severino, 2017. Working Papers 606, IGIER (Innocenzo Gasparini Institute for Economic Research), Bocconi University. submitted
- "optimal order execution under price impact: a hybrid model" with M. Di Giacinto and T. H. Wang, R&R requested.
- "Financial Interpretation of Feller's Factorization", with P. Carr Conditionally accepted *Journal of Derivatives*.
- "Saving for Retirement in Europe: The Long-Term Risk-Return Tradeoff", with A. Berardi Conditionally accepted *Journal of Pension Economics and Finance*.
- "Asset Pricing Implications of Contagion Risk in Network Economies", with A. Buraschi. Conditionally accepted *Management Science*
- "Illiquid assets and Optimal Portfolio Choice", with E.S. Schwartz, NBER working paper series n.12633 October 2006. Awarded as Best Paper in Finance of the Swiss Econometrics and Finance Society meeting 2007, St. Gallen.

4. Publications in Peer Reviewed Journals

1. (with E. Castagnoli, G. Cattelan, F. Maccheroni and R. Wang) "Star-shaped Risk Measures" (2022) Forthcoming *Operations Research*.
2. (with F. Trojani and P. Gruber) "The price of the Smile and Variance Risk Premia", *Management Science* Vol. 67, No. 7, July 2021.
Winner of the *Best Paper in Derivatives* of the Northern Finance Association meeting, Vancouver 2019.
3. "Self-Organized Criticality in economic fluctuations: the age of maturity " *Frontiers in Physics* April 21st 2021.
4. (with F. Ortu, F. Severino, and A. Tamoni) "A persistence-based Wold-type decomposition for stationary time series" *Quantitative Economics* Volume 11, Issue 1, January 2020, Pages 203-230.
5. (with F. Bandi, B. Perron and A. Tamoni) "The Scale of Predictability", *Journal of Econometrics* Volume 208, Issue 1, January 2019, Pages 120-140
6. (with E. Bisetti, C. Favero and G. Nocera) "A Multivariate Model of Strategic Asset Allocation with Longevity Risk." *Journal of Financial and Quantitative Analysis*, **52** (5) October 2017. Cambridge University Press.

7. (with F. Ortu and A. Tamoni) “Long Run Risk and the Persistence of Consumption Shocks ” *The Review of Financial Studies* (2013), **26** (11) 2876-2915. Oxford University Journals.
8. (with E. Castagnoli and G. Favero) “One-Penny Arbitrages, or: A Free Snack without a Free Lunch” *Journal of Applied Computer Science & Mathematics* (2011),
9. (with L. Perissinotto) “A Coherent State Transform Approach to Derivative Pricing” *International Journal of Theoretical and Applied Finance* (2009), **12** (2) 125-151 World Scientific.
10. (with J. Da Fonseca and M. Grasselli) “A Multi-factor Volatility Heston Model” *Quantitative Finance* (2008); **8** (6), Taylor and Francis.
11. (with M. Grasselli): “Solvable Affine Term Structure Models” *Mathematical Finance* (2008), **18** (1), 135–153, Blackwell.
12. (with J. Da Fonseca and M. Grasselli) “Option pricing with Correlation Risk” *Review of Derivatives Research* (2007), **10** (2) May Springer.
13. (with M. Grasselli) “On the relation between the Stochastic Jacobian and the Riccati ODE in Affine Term Structure Models” *Decisions in Economics and Finance* (2007), **30** (2), November, 95-108, Springer.
14. “Hedging using simulation: a Least Squares approach ” *Journal of Economic Dynamics and Control* (2005), **29**, 1287-1312, Elsevier.
15. (with M. Grasselli), “Bond price and Impulse-Response Function for the Balduzzi, Das, Foresi and Sundaram (1996) model”, *Economic Notes* (2004) **33**, 3, November, 359-374.
16. “Pricing and Hedging a portfolio of derivative securities: a simulation approach”, *Economic Notes* (2001), **30** (2), 257-279; Cambrian Printers, Aberystwyth, UK.
17. with (Mario De Menech, and Attilio L. Stella) “Multifractal Scaling in the Bak-Tang-Wiesenfeld Sandpile and Edge Events”, *Phys. Rev. Lett.* **83**, 3952 (1999) Ridge, New York, USA.
18. (with M.De Menech and A.L.Stella) “Rare events and breakdown of simple scaling in the Abelian Sandpile Model”, *Phys.Rev. E Rapid* (1998);
19. (with G.Caldarelli, A.L. Stella), “Evolution at the End of a Food Chain”, *Phys. Rev. Lett.* **76**, 4983(1996).
20. A.L.Stella, C.Tebaldi, G.Caldarelli “Self Organized Scaling at Surfaces”, *Phys. Rev. E* **52**, 72 (1995).

5. Publications in Monographs and non refereed journals

1. (with Di Virgilio, D., F. Ortu, F. Severino), “Optimal asset allocation with heterogeneous persistent shocks and myopic and intertemporal hedging demand. ” *In Behavioral Finance: The Coming of Age*, 57–108, 2019 World Scientific.

2. (with P. Veronesi) "Risk Neutral Pricing with Trees." *Handbook of Fixed-Income Securities*, First Edition. © 2016 John Wiley & Sons, Inc.
3. (with P. Veronesi) "Risk Neutral Pricing with Monte Carlo Simulation." *Handbook of Fixed-Income Securities*, First Edition. © 2016 John Wiley & Sons, Inc.
4. "Consumer protection and the design of the default option of a pan-European pension product ", with A. Berardi and F. Trojani. Foreword by J. Campbell. Published on the EFAMA website

6. In the news: editorial activities

- Il SoleVentiquattrore (5/5/2022) "La finanza innovativa è un realtà, ma servono credibilità e trasparenza"
- Numbers "Caos, mercati e buon umore" (19/10/2021) Lezione pubblica per gli studenti delle scuole superiori Organizzata da Univ. Bocconi.
- Repubblica Affari e Finanza: (9/4/2018) Intervista "Big Data e Fintech nell'Asset Management e nelle Assicurazioni" (Sibilla Di Palma).
- Il SoleVentiquattrore (19/3/2018) Intervista su la direttiva EU su Fintech (Chiara Bussi).
- ADNKronos: (31/11/2017) Intervista su Fintech e Banche Italiane.
- Repubblica Affari e Finanza: (15/5/2017) Intervista su Passive Investment Management ed ETF (a cura di Paola Jadeluca).
- Business Insider (16/3/2017): Commento su Fintech e prospettive occupazionali (a cura di C. Cervini).
- Corriere Innovazione -(2/12/2016) Estratti da Tavola Rotonda su FINTECH e Big Data.
- Via Sarfatti 25 (Settembre 2016): Cover Story su Fintech, contributo dal titolo "La sfida? Addomesticare gli Animal Spirits".
- Il Sole24Ore e Focus Risparmio: Contributo su RobotAdvisor e Fintech e Intervista (a cura di G. Petrucciani).
- CNBC Class Editori: Intervento a "Missione Risparmio" su "Scelte di investimento nel lungo periodo".
- Via Sarfatti 25: "Il futuro dell'innovazione finanziaria: come trasferire i benefici alle famiglie e alle imprese?".
- Le scelte di investimento delle casse previdenziali dei liberi professionisti con C. Di Palo CAREFIN research report.
- Milano Finanza Asset allocation di lungo periodo nei fondi pensione: i titoli illiquidi.
- Dossier Lombardia: "Mercati Finanziari: più riforme e coordinamento".
aurea "Italo Filosofo" Accademia di Scienze Lettere ed Arti 1994, Venezia.

7. Major Research Grants

2022 P.N.R.R. Innovation Ecosystem MUSA Spoke 4: Sustainable Finance.

2020 P.R.I.N 2017 Unità Locale Bocconi.

“Hi-Di NET: Econometric Analysis of High Dimensional Models with Network Structures in Macroeconomics and Finance”

2018 SDA Bocconi-EFAMA Responsabile Progetto di Ricerca

“Consumer protection and the design of the default option of a pan-European pension product”.

Research commissioned to SDA Bocconi School of Management by the European Fund and Asset Management Association (EFAMA). External advisor J. Campbell.

Paper available on the EFAMA website.

2016 IGIER-IntesaSanPaolo Responsabile del progetto di Ricerca

“Fintech and Big Data analysis of Corporate Credit Risk Management”

E’ in corso di redazione il paper: “Network Effects on the Supply Chain of Credit” with L. Bottazzi, G. Gopalakrishna, C. Tebaldi.

8. Invited Talks and Lectures

- June 2022 Hong Kong World Bachelier Finance Congress, Session in Memory of Peter Carr;
- June 2022 New York University, Tandon School, Conference in Memory of Peter Carr
- February 2020 New York University, Tandon School, Financial Engineering BQE Lecture Series;
- January 2020 Invited Speaker: LTI Asset Pricing Conference, Collegio Carlo Alberto Torino;
- September 2019 Invited Speaker: Workshop on Interdisciplinary Physics Department of Physics, University of Padova;
- Spring 2019 Invited Speaker: Bundesbank - ECB (European Central Bank) Spring Conference, Frankfurt;

Before 2018: Dublin City University, Frankfurt Goethe University, New York University Courant Institute of Mathematical Sciences (Invited Speaker Conference in Honor of J. Gatheral); Fintech Journey Politecnico di Milano; Amundi Chair in Asset Management, Paris Dauphine; Statistical modeling, Invited Speaker Conference on financial data analysis and applications, Accademia Veneta di Scienze Lettere ed Arti, Venice; Collegio Carlo Alberto, Università di Torino; Goethe Universitat Frankfurt, The Applied Probability Society Conference, Royal Institute of Technology (KTH), Stockholm; Università di Roma II Tor Vergata, Department of Economics; Università di Roma II Tor Vergata, Department of Mathematics; Ludwig Maximilian University, Munich; Plenary session "Spectral methods in Finance" Leicester University; Technische Universitat Wien; Natixis Paris; Credit Suisse Quantitative

Modelling Group GMAG London; Università Padova Dipartimento di Matematica; Ascona, Monte Verità Conference on Risk Management; Università L.Bocconi; Politecnico di Milano; Università di Torino; Università di Firenze DIMADEFAS; Università della Svizzera Italiana di Lugano; Investment Bank San Paolo IMI; MontePaschi Finance;

Invited teaching activity in other international Universities

- Statistical (Mechanical) Methods for Quantitative Finance - Corso per gli Allievi Scuola Superiore Galileiana Padova,
- Financial Risk Management - Master in Economics and Finance, University of Navarra.
- Derivatives and Portfolio management- Collegio Carlo Alberto, Università di Torino.

Contributed talks in International meetings and Invited Discussions

CSEF-IGIER meeting Anacapri 2022, European Finance Association meeting Lisbon 2019, Western Finance Association Meeting 2019 Huntington Beach, European Econometric Society meeting 2018 Köln, NBER-NSF meeting 2017 Northwestern University Evanston Illinois, EFA Congress Mannheim 2017, EFA Congress Oslo 2016, XVII Workshop in Quantitative Finance Scuola Normale Superiore, Pisa 2016; EFA Meeting Wien 2015, Wien; Econometric Society World Congress, Montreal 2015; NETSPAR International Pension Workshop, Amsterdam 2015; European Finance Association Meeting, Lugano 2014; American Finance Association Meeting, Chicago 2012; Central Bank of Finland Workshop on Frequency Methods in Macroeconomics and Finance Helsinki 2011; European Finance Association Meeting Stockholm 2011; European Finance Association Meeting, Frankfurt 2010; VI World Bachelier Congress, Toronto 2010; V World Bachelier Congress, London 2008; Computational Methods in Economics and Finance, Paris 2008; Western Finance Association Meeting, Big Sky Montana 2007; Swiss Society of Economics and Statistics, Finance and Financial Econometrics, St. Gallen 2007; IV World Congress of the Bachelier Society Tokyo 2006; Quantitative Finance UTS Sydney 2004; Insurance Mathematics and Economics IME Roma 2004; MC²QMC INRIA (Computational Methods) Juan les Pins Francia 2004; III World Congress of the Bachelier Society Chicago 2004; II World Congress of the Bachelier Society Crete 2002; Computational Economics Aix en Provence 2002; Quantitative Finance UTS Sydney 2002; Real Options Conference Cambridge 2001;

8. Scientific and Organizing Committee Membership

- September 2022 Member of the Scientific Committee of the C.R.E.D.I.T. conference on Long Run Risks, Venice.
- September 2022 Organizer of the Algorand Bocconi Fintech Lab Kick-off event
- August 2021 Member of the Organizing Committee EFA meeting Bocconi Milano.
- February - May 2019 Fellow Long Term Investing Center, Collegio Carlo Alberto

- 2015-18 Scientific Advisor of the Startup on Sustainable Growth GlobalAI New York: <https://www.globalai.co/>
- Member of the organizing committee of the European Finance Association meeting 2021 Bocconi University Milano.
- Member of the paper selection committee of the European Finance Association meeting 2014-21.
- Chair of the paper selection committee International Workshop on High-Performance and Distributed Computing for Business Analytics Bologna 2014-Genova 2017.

9. Editorial Membership

- 2019 - Managing Editor of the Taylor & Francis journal: Quantitative Finance.
- Ad hoc reviewer:
Econometrica; Journal of Finance; Review of Economic Studies; Review of Financial Studies; Management Science; Review of Finance; Journal of Economic Theory; Mathematical Finance; Risk; Journal of Banking and Finance; SIAM journal of Financial Mathematics; Mathematical Methods of Operations Research; Mathematics of Financial Economics; Insurance Mathematics and Economics; International Journal of Central Banking; Journal of Mathematical Economics; Quantitative Finance; Journal of Applied Econometrics; Journal of Economic Dynamics and Control; Journal of Computational Finance; Review of Derivatives Research; Decisions in Economics and Finance; International Journal of Theoretical and Applied Finance; International Journal of Control; European Journal of Operations Research; Applied Mathematical Letters; Energy Markets; Economic Notes; Physica A; European Journal of Physics: Complex Systems;

10. Main Teaching activities

- Scuola Galileiana di Studi Superiori (Universita' degli Studi di Padova): Statistical (Mechanical) methods for Finance.
- Master in Finance Insurance and Risk Management (Universita' degli Studi di Torino): Derivatives
- SDA Bocconi Executive Master in Finance:
16 hours Risk Management (a.y. 2018-19 IC: 8.21/10 ID: 0.875/1)
- Master in Finance:
96 hours Theory of Finance (a.y. 2018-19 Mean IC: 7.74/10 ID: 0.785/1)
24 hours Advanced Derivatives (a.y. 2018-19 IC: 8.50/10 ID: 0.818/1)
34 Thesis Supervisions March 2017-March 2020.
- PhD Level: Past students and their initial job placement: Kai Wang (Central University of Finance and Economics, Beijing), A. Novokreshnova (Bruxelles Univ.), M. Nozari (Yale Univ.), Gaetano La Bua (J.P. Morgan Chase), A. Tamoni (London School of Economics), Wei Wei Yin (Beijing Commerce School). Occasional external valuation member for PhD candidates in Statistical Mechanics Padova University and PhD in Financial Economics, Collegio Carlo Alberto, Torino

11. General Comments on Teaching activities at Bocconi

- In elective courses students are required to complete an assignment to improve their problem solving abilities.

- All the courses host invited Professionals from major international institutions like e.g. UBS, BlackRock, Deutsche Bank, Pictet, Barra-RiskMetrics, and invited Leading Researchers like e.g. P. Veronesi Booth School of Business, T.H. Wang Baruch College.

12. Institutional activities at Bocconi

- 2021 Member of the Organizing Committee of the European Finance Association Meeting Milano 2021.
- 2020- Member of the PhD in Finance Faculty Council (Collegio dei Docenti)
- 2019 Bocconi Delegate for the National Scientific Committee for the Extension of the National Research Plan 2021-2026 Area: High Performance Computing and Big Data Analysis.
- Department of Finance Teaching Activities Supervision Committee Membership 2016-2019.
- Member of the committee formulating the proposal for the institution of Bachelor in Economics Management and Computer Science, BEMACS.
- Department of Finance Seminars Organizer a.y. 2016-17.

Milano 20-07-2022

Claudio Tebaldi