CLAUDIO TEBALDI

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Fellow IGIER, Baffi and IEP.
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2. 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.

3. Qualification

- January 2025 - July 2025 Visiting Scholar European Central Bank.
- June 2025 Visiting Scholar Department of Mathematics University of Copenaghen.
- January 2021 - present. Scientific Director of the Bocconi Fintech Lab.
- March 2015 - present. 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, Copenaghen (Denmark)

4. Books

1. "Self-Organized Business Networks", Cambridge University Press. Under review.

2. (with C. Favero) “Lectures on the Theory of Finance and Applications in R and ChatGPT ” World Scientific Publishing Co Singapore March 2025 ISBN 9789819811595.

5 Publications in Peer Reviewed Journals

1. (with A. Berardi) “Saving for Retirement in Europe: The Long-Term Risk-Return Tradeoff”, *Journal of Pension Economics and Finance* Volume 23, Issue 2, pp. 272 - 293 (2024).
2. (with A.Buraschi) “Financial Contagion in Network Economies and Asset Prices” *Management Science.* Volume 70, Issue 1, pp. 484–506 (2024).
3. (with Simone Cerreia-Vioglio, F. Ortu, and F. Severino) “Multivariate Wold Decompositions” *Decisions in Economics and Finance* Volume 46, pp. 45–96, (2023).
4. (with Di Giacinto, Marina, and Tai-Ho Wang.) “Optimal order execution under price impact: a hybrid model.” *Annals of Operations Research (2022)*
5. (with Carr, Peter). “Financial Interpretation of Feller’s Factorization.” *The Journal of Derivatives* 30, no. 2 (2022): pp. 49-63.
6. (with E. Castagnoli, G. Cattelan, F. Maccheroni, and R. Wang) “Star-shaped risk measures.” *Operations Research* Volume 70, no. 5 (2022): pp.2637-2654.
7. (with F. Trojani and P. Gruber) “The price of the Smile and Variance Risk Premia”, *Management Science* Volume 67, Issue 7, July 2021.
   Winner of the *Best Paper in Derivatives* of the Northern Finance Association meeting, Vancouver 2019.
8. “Self-Organized Criticality in economic fluctuations: the age of maturity ” *Frontiers in Physics* Volume 8, April 21st 2021.
9. (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.
10. (with F. Bandi, B. Perron, and A.Tamoni) “The Scale of Predictability”, *Journal of Econometrics* Volume 208, Issue 1, January 2019, Pages 120-140
11. (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.
12. (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.

13. (with E. Castagnoli, and G. Favero) "One-Penny Arbitrages, or: A Free Snack without a Free Lunch" *Journal of Applied Computer Science & Mathematics* (2011),

14. (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.

15. (with J. Da Fonseca, and M. Grasselli) "A Multi-factor Volatility Heston Model" *Quantitative Finance (2008)*; **8** (6), Taylor and Francis.

16. (with M. Grasselli): "Solvable Affine Term Structure Models" *Mathematical Finance (A)*(2008), **18** (1), 135–153, Blackwell.

17. (with J. Da Fonseca, and M. Grasselli) "Option pricing with Correlation Risk" *Review of Derivatives Research* (2007), **10** (2) May Springer.

18. (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.

19. "Hedging using simulation: a Least Squares approach " *Journal of Economic Dynamics and Control* (2005), **29**, 1287-1312, Elsevier.

20. (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.

21. "Pricing and Hedging a portfolio of derivative securities: a simulation approach", *Economic Notes* (2001), **30** (2), 257-279; Cambrian Printers, Aberystwyth, UK.

22. with (Mario De Menech, and Attilio L. Stella) "Multifractal Scaling in the Bak-Tang-Wiesenfeld Sandpile and Edge Events", *Phys. Rev. Lett. (A+)* **83**, 3952 (1999) Ridge, New York, USA.

23. (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);

24. (with G.Caldarelli, and A.L. Stella), "Evolution at the End of a Food Chain", *Phys. Rev. Lett.* (A+) **76**, 4983(1996).

25. A.L.Stella, C.Tebaldi, and G.Caldarelli "Self Organized Scaling at Surfaces", *Phys. Rev.* E 52, 72 (1995).

6. Publications in Monographs

1. (with Di Virgilio, D., F. Ortu, and 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. "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. Report for EFAMA, the European Financial Asset Managers Association.

3. (with P. Veronesi) “Risk Neutral Pricing with Trees.” *Handbook of Fixed-Income Securities*, First Edition. © 2016 John Wiley & Sons, Inc.
4. (with P. Veronesi) “Risk Neutral Pricing with Monte Carlo Simulation.” *Handbook of Fixed-Income Securities*, First Edition. © 2016 John Wiley & Sons, Inc.

7. Preprints

- “Green coins” with M. Croce, N. Guinez, T. Nguyen, and C. Tebaldi. Available on SSRN.
- “Supply Chain Uncertainty: Pricing, Growth & Blockchains ” with S. Boldrini, M. Croce, T. Nguyen, and D. Parfenov. Available on SSRN.
- “Supply Chain Finance and Firm Capital Structure ” with L. Bottazzi and G.Gopalakrishna. Available on SSRN.
- “Mind the Gap: The Market Price of Financial Flexibility”, with F. Ippolito, R. Steri and A. Villa R&R requested. Available on SSRN.
- “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.

8. In the news: editorial activities.

- Chapter 4 of Institute for Economic Policy Report. “Rules that empower: turning EU digital regulation into a catalyst for innovation” Title: “A new model of digital development for European Business Networks”.
- Repubblica Inserto Affari&Finanza (3/12/2024) editorial ”Trump, le criptovalute e il capitalismo retail”
- Via Sarfatti 25 (Issue 2/2023) What’s Next for AI in Finance ”Not just Investment Advice”.
- Il SoleVentiquattrore (13/09/2022) (con G. Meruzzi) editorial on ”Piattaforme digitali decentrate per far arrivare capitali ai distretti”.
- Il SoleVentiquattrore (5/5/2022) editorial on ”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.

9. Major Research Grants

2023 P.R.I.N 2020 (200K) Responsabile Unità Locale Bocconi "Liquidity and Systemic Risks in Centralized and Decentralized Markets"

2022 P.N.R.R. (850K) Innovation Ecosystem MUSA Spoke 4: Sustainable Finance Responsabile WP Fintech and Tech4Fin.

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 (60K) 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"

Il paper: "Network Effects on the Supply Chain of Credit" with L. Bottazzi, G. Gopalakrishna, C. Tebaldi utilizza il dataset costruito.

10. Invited Talks and Lectures

- April 1 2025 (scheduled) European Central Bank Presentation of Visionary Project on Applications of Smart Contracts for the Digital Euro

- February 2025 University of Florence Invited Seminar

- August 2024 Keynote Speaker of the Asian Quantitative Finance Conference National Taipei University of Technology Taipei Taiwan.

- July 22024 University of Copenaghen Department of Mathematics, Seminar Series in Financial Mathematics and Actuarial Science

- May 2024 Climate Finance 2024: New Contributions in Climate Finance and the hydrogen economy. Invited Presentation "Green Fintech for Brown Networks "

- March 2024 University of Palermo Econphysics Seminar Series

- April 2023 Clare College, Cambridge (UK) Quantitative Finance Conference in honor of M. Dempster founder of the journal.

- January 2023 Barcelona; World Meeting of Algorand Centers of Excellence;

- October 2022 Invited Speaker: 5-th LTI Asset Pricing Conference, Collegio Carlo Alberto Torino;

- June 2022 Hong Kong World Bachelier Finance Congress, Invited 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: 4-th 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 Maximillian 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 - Allievi Scuola Superiore Galileiana Padova.
- Financial Risk Management - Master in Economics and Finance, University of Navarra. (Visiting position renewed on a yearly basis).
- Derivatives and Portfolio management- Collegio Carlo Alberto, Università di Torino (renewed on a yearly basis).

Contributed talks in International meetings and Invited Discussions

Insurance Mathematics and Economics Congress 2023 Edinburgh, Scotland, CSEF-IGIER meeting Anacapri 2022, European Finance Association meeting Lisbon 2019, Western Finance Association Meeting 2019 Huntington Beach, European Econometric Society meeting 2018 Kőln, 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 an 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; MC$\hat{2}$QMC 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;

11. Scientific and Organizing Committee Membership

- March 2025 - Organizer of the Workshop on Decentralized Finance, Investment and Tokenization
- 2014 - present. Member of the paper selection committee of the European Finance Association meeting.
- January 2025 Member of the Scientific Committee. International Fintech Research Conference.

- May 2024 MUSA Spoke 4. Conference on La decentralizzazione delle attività d'impresa: aspetti tecnologici, giuridici e finanziari. Chair of the Organizing Committee
- September 2023 (scheduled) Co-organizer (with D. Niepelt) of the first joint CEPR-Bocconi Conference on The Future of Payments and Digital Assets.
- 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 Organizing Committee EFA meeting Bocconi Milano.
- February - May 2019 Fellow Long Term Investing Center, Collegio Carlo Alberto
- Chair of the paper selection committee International Workshop on High-Performance and Distributed Computing for Business Analytics Bologna 2014-Genova 2017.

12. Editorial Membership

- 2023 - Editor-in-chief (with J. Gatheral) of the Taylor & Francis journal: Quantitative Finance.
- 2019 - 2023 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; Review of Economic and Statistics; 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;

13. Main Teaching activities

- SDA Bocconi Open Courses

  Fintech for Executives. October 2024 Course Director

  Artificial Intelligence and Data Science for Executives. May 2024 Course Instructor

- SDA Bocconi Executive Master in Finance:

  16 hours Risk Management (last available a.y. 21/22 ID 0.841/1)

- Master in Finance:
  96 hours Theory of Finance (last available, 3-classes a.y. 22/23 ID:7.37 - 7.52 -6.65)

  24 hours Advanced Derivatives (a.y. 22/23 ID: 0.822/1)

- PhD Level: Currently co-supervising scientific activities of 4 students (A. Andolfatto, N. Guinetz, R. F. Fuertes, D. Parfenov)

- PhD Level: Past students and their initial job placement: Kai Wang (Central University of Finance and Economics, Bejing), A. Novokreshnova (Bruxelles Univ.), M. Nozari (Yale Univ.), Gaetano La Bua (J.P. Morgan Chase), A. Tamoni (London School of Economics), Wei Wei Yin (Bejing Commerce School). Occasional external valuation member for PhD candidates in Statistical Mechanics Padova University and PhD in Financial Economics, Collegio Carlo Alberto, Torino

14. General Comments on Teaching activities at Bocconi

- a.y. 2020-21 Theory of Finance. Progetto innovativo della didattica 'An introduction to asset management with R coding language'

- a.y. 2020- 21 Theory of Finance. Il corso ha adottato una modalitÃ Blended Teaching

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

- Track record of students graduated under my supervision with excellent academic and professional placement can be documented upon request

15. Institutional activities at Bocconi

- 2020 - present. Member of the PhD in Finance Faculty Council (Collegio dei Docenti) (member of the PhD committee of 4 students)

- 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.

16. Other non-academic activities
Policy - Advisory Activities

- 2021-present Coordination of the fintech literacy initiative @ Fintech Lab, at the url: `http://wiki.fintechlab.unibocconi.eu`. Dissemination material on fintech produced by 20+ students funded by the Fintech Lab internship program.

- 2022 Banca d'Italia sede di Milano, 21 Ottobre. Relatore invitato al convegno Banca d'Italia ANSPC "Le cripto attività: un terreno di nuove opportunità e sfide".

- 2022 Banca d'Italia sede di Milano, 22 Settembre. Relatore invitato incontro tecnico "Integrazione della DLT con le infrastrutture di mercato".

- 2021 Frankfurt, European Insurers and Occupational Pension Authority Member of a committee advising the President on second level regulation of Pan-European Pension Product.

- 2019 Roma, Ministero dell'universitÃ e della Ricerca Scientica. 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.

- 2015-18 New York Scientific Advisor of the Startup on Sustainable Growth GlobalAI New York: https://www.globalai.co/

Milano March 2025

Claudio Tebaldi