Curriculum Vitae et Studiorum
Daniele Marazzina

PERSONAL INFORMATION

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ORCID ID: orcid.org/0000-0001-6107-9822

Member of the Italian Association of Mathematics Applied to Economic and Social Sciences - AMASES
Member of the Italian Society for Chaos and Complexity - SICC
Member of the National Institute for Advanced Mathematics - Indam

CURRENT ACADEMIC POSITION

September 2023 - present. Full Professor of "Mathematical Methods of Economy and Actuarial and Financial Sciences" (Italian Scientific Disciplinary Sector STAT-04/A - GSD 13/STAT-04) at the Department of Mathematics, Politecnico di Milano.

PAST ACADEMIC POSITION

December 2017 - September 2023. Associate Professor of "Mathematical Methods of Economy and Actuarial and Financial Sciences" (Italian Scientific Disciplinary Sector SECS-S/06 - GSD 13/D4) at the Department of Mathematics, Politecnico di Milano.

December 2008 - December 2017. Assistant Professor of "Mathematical Methods of Economy and Actuarial and Financial Sciences" (Italian Scientific Disciplinary Sector SECS-S/06 - GSD 13/D4) at the Department of Mathematics, Politecnico di Milano.

December 2006 - December 2008. Postdoctoral fellow (Italian Disciplinary Sector SECS-S/06) at the SEMeQ (Economic Science and Quantitative Methods) Department of the Università degli Studi del Piemonte Orientale A. Avogadro, Novara (Italy). Supervisor: Prof. Gianluca Fusai.

November 1, 2003 - October 31, 2006. PhD student (with an Italian government scholarship) at the Department of Mathematics F.Casorati, Università degli Studi di Pavia (Italy).

EDUCATION

January 19, 2007. PhD in Mathematics and Statistics, Università degli Studi di Pavia. Title of the thesis: "Stability Properties of Discontinuous Galerkin Methods in Mixed Form" (Advisor: Prof. Ilaria Perugia).

September 20, 2007. Postgraduate "Diploma di Formazione Superiore Post-Laurea", Scuola Avanzata di Formazione Integrata (SAFI), Istituto Universitario di Studi Superiori IUSS, Pavia.

September 19, 2003. Graduated in Mathematics (Laurea in Matematica - 110/110 cum laude), Università degli Studi di Pavia. Title of the thesis: "Metodo Local Discontinuous Galerkin per Problemi Ellittici" (Advisor: Prof. Ilaria Perugia).

PARTECIPATION TO FINANCED PROJECTS

Securing Decentralized Finance and Remote Healthcare Systems - SHIELD (2024-2025). PNRR project PE7 Security and rights in the cyberspace (SERICS). Role: project participant. The SHIELD project aims to develop protective measures to safeguard users of DeFi systems from cyber fraud, as well as tools to prevent, detect, and respond to cyber threats targeting medical devices and patients' personal information.

Measuring, managing and hedging indirect climate-transition risk (2023-2025). 2022 PNRR PRIN. Role: project participant. This project aims at studying transition risk for firms and societies, focusing mainly on the indirect risks coming from the supply chain, i.e. from the interconnections among economic activities.

Caccia al Tesoro Finanziaria (Financial Education Gamification). Project financed by Innexta (2023). Role: project leader. Funding: 10 000 Euro to create an online event for secondary school students on financial education, exploiting gamification.

MUSA - Multilayered Urban Sustainability Action. PNRR Project (2022-2025). Role: project participant. MUSA aims to transform the metropolitan area of Milan into an ecosystem of innovation for urban regeneration, intervening in various fields, from the social to the technological one, to become a national and European model.

EMFI - Emergency Finance. Research project proposed by Politecnico di Milano, Cefriel, University of Stirling, financed by the Algorand Foundation (2021-2022). Role: project leader for Politecnico di Milano. Funding: 316 400 USD (62 200 USD to Politecnico di Milano) for research and development of a special purpose digital currency on the Algorand blockchain.

COST Action FinAI - Fintech and Artificial Intelligence (CA19130, 2020-2023). Nominated "Action Management Committee Substitute" in Italy, from June 13, 2020, to November 2, 2021. Scientific Communication co-manager and Core Group member since March 2022. Member of the Virtual Mobility Grant evaluators group (www.fin-ai.eu/vmg) since April 2022. The COST Action will examine the impact of the fintech revolution from three different angles: transparency in fintech, decision support models "transparent" versus "black-box" in the financial sector, and transparency in the performance of investment products for clients.

GNCS - "Advanced numerical methods and machine learning techniques applied to finance" (2020-2021). Role: project leader. Funding: 3 200 Euro. The research group consisted of 8 researchers, from 4 different universities.

BigData Coins. Project financed by Officine Innovazione - Deloitte (2020). Role: project leader (with Professor P.Zunino). Funding: 20 000 Euro to study Decentralized Identity & Verifiable Claims on the Blockchain ecosystem

H2020 - "A FINancial supervision and TECHnology compliance training programme" - FIN-TECH (2019-2021). Role: project participant. Funding: 50 000 Euro for the training of Consob staff on fintech topics (big data, machine learning and blockchain).

Bank of Italy "Contributo liberale"- "IMPACT EDUFIN" (2020-2022). Role: project participant. Funding: 32 300 Euro to provide financial education activities in the Italian secondary schools and an impact analysis aimed at assessing their effectiveness.

Fondazione Cariplo - "EDUFIN@POLIMI" on financial education in the schools (2018-2020). Role: project participant. Funding: 85 000 Euro for the creation of material for financial education and its distribution in secondary schools in Milan.

Insurechain. Project financed by FUEL (2018). Role: project leader (with Professor F.Bruschi). Funding: 20 000 Euro to study the application of Smart Contracts on the insurance sector.

INSTITUTIONAL SERVICES AT POLITECNICO DI MILANO

From January 2025. Coordinator of the Degree in Mathematical Engineering (BSc and MSc).

From April 2020. Director of the master in "Finance, Insurance & New Technologies", Cefriel-Polimi.

From January 2019. Member of the Board of Directors of the "International master in fintech, finance and digital innovation"', MIP-Polimi.

From November 2017. Member of the PhD board, PhD in "Mathematical Models and Methods in Engineering".

From June 2009. Member of several evaluation committees for research and teaching fellows.

February 2025. Member of the evaluation committee for the PhD final exam in "Mathematical Models and Methods in Engineering".

From January 2019 to December 2024. Secretary of the Council of Mathematical Engineering (BSc and MSc).

From March 2016 to December 2024. In charge of the organization of the graduation committee in Mathematical Engineering (BSc and MSc).

June 2022. Member of the evaluation committee for an Assistant Professor (RtDA) position in "Mathematical Methods of Economy and Actuarial and Financial Sciences" (renewal).

February 2022. Member of the evaluation committee for the PhD final exam in "Mathematical Models and Methods in Engineering".

OTHER RECENT INSTITUTIONAL SERVICES

December 2024 - February 2025. ASN. Member of the National Scientific Habilitation (ASN) evaluation committees for "Mathematical Methods of Economy and Actuarial and Financial Sciences" (Italian Scientific Disciplinary Sector STAT-04/A - GSD 13/STAT-04).

January 2025. Università degli Studi di Napoli Parthenope. Member of two evaluation committees for an Associate Professor position in "Mathematical Methods of Economy and Actuarial and Financial Sciences".

December 2024. Università degli Studi di Parma. Member of the evaluation committee for an Associate Professor position in "Mathematical Methods of Economy and Actuarial and Financial Sciences".

December 2024. Università degli Studi di Palermo. Member of the evaluation committee for an Associate Professor position in "Mathematical Methods of Economy and Actuarial and Financial Sciences".

September 2024. Università del Piemonte Orientale. Member of the evaluation committee for a research fellow (Assegno di Ricerca).

August 2024. Università degli Studi di Udine. Member of the evaluation committee for an Associate Professor position in "Mathematical Methods of Economy and Actuarial and Financial Sciences".

April-May 2024. Università Cattolica del Sacro Cuore, Milano. Member of two evaluation committees for two Full Professor positions in "Mathematical Methods of Economy and Actuarial and Financial Sciences".

September 2022. Università degli Studi di Verona. Member of the evaluation committee for an Assistant Professor (RtDA) position in "Mathematical Methods of Economy and Actuarial and Financial Sciences" (renewal).

April 2022. Università degli Studi di Trento. Member of the evaluation committee for the final exam for the PhD in Mathematics.

February 2022. University College London. Providing an evaluation of a candidate for promotion to Associate Professor (Teaching).

January 2022. Bayes Business School (London, UK). Member of the evaluation committee for the final exam of the PhD in Actuarial Science.

OTHER RECENT ACTIVITIES

- Member of the Organizing Committee of the Summer School "Data Science for Sustainable Finance and Economics", Berlin, September 9-13, 2024, funded by the Blended Intensive Programmes (BIP) Erasmus+ program.
- Guest Editor of the special issue "Fintech: A fusion of Finance, Technology and Methodologies" on Decisions in Economics and Finance (Springer).
- Lead Editor of the special issue "Finance, Technologies, and the Society" on Digital Finance (Springer) - appeared in Volume 6-1, March 2024.

- Member of the Scientific Committee of the Second International Fintech Research Conference, Università di Napoli Parthenope, November 2-3, 2023.
- Organizer of the Special Session "New Trends in Machine Learning for Economics and Finance", Amases 2023 Conference, Milano, September 20-22, 2023. In collaboration with Prof. S.Corsaro and Z.Marino, University of Napoli-Parthenope.
- Participant of the roundtable "Opportunities and risks for a decentralized future", Economics Department, University of Perugia, December 14, 2022.
- Participant of the roundtable "AI and FinTech in the eyes of Gen Z & Millennials" for the Data Journalism Lab - Doing Journalism with Data, Political Sciences Department, University Federico II, Naples, December 7, 2022.
- Member of the Scientific Committee of the International Fintech Research Conference - Finance, technology, methodologies, Politecnico di Milano, October 27-28, 2022.
- Member of the Scientific Committee of the Fintech Research Network: www.fintechlab.it/network
- Member of the Organizing Committee of the European Alternative Finance Research Conference 2022 "Fintech for the common good". Utrecht (Holland), October 5-7, 2022.
- Organizer of the Special Session "Investigating Crypto markets", Amases 2022 Conference, Palermo, 22-24 September 2022. In collaboration with Prof. G.Figà-Talamanca, University of Perugia (Italy).
- Member of the Programme Committee of the International Scientific Conference "Technology, Innovation and Stability: New Directions in Finance" (TINFIN). Zagreb (Croatia), May 5-6, 2022.

AWARDS AND RESEARCH GRANTS

Editorial Board Member of Digital Finance (Springer) since July 2022.

FFABR 2017 Research Grant from the 'Fondo per il finanziamento delle attività base di ricerca' (FFABR).

EJOR Editor's Choice Article. The article
G.Fusai, G.Germano, D.M. (2016) *Spitzer Identity, Wiener-Hopf Factorization and Pricing of Discretely Monitored Exotic Options* , European Journal of Operational Research, Vol. 251-1: 124-134
was designated as *Editor's Choice Article* for the period June 2016-May 2017.

Young Researcher Grant 2009, 2012, 2013, 2015 and 2016. Dipartimento di Matematica, Politecnico di Milano.

Research Grant 2011. Principal Project Investigator "Programma Giovani Ricercatori 2011" - Gruppo Nazionale di Calcolo Scientifico (GNCS). Subject of the research: Numerical Methods for Option Pricing and Optimal Consumption-Investment Analysis.

Research Grant 2009. Principal Project Investigator "Programma Giovani Ricercatori 2009" - Gruppo Nazionale di Calcolo Scientifico (GNCS). Subject of the research: Finite Element Methods in Option Pricing.

Research Grant 2008. Principal Project Investigator "Programma Giovani Ricercatori 2008" - Gruppo Nazionale di Calcolo Scientifico (GNCS). Subject of the research: Grid Computing Applications in Finance.

Best Thesis Prize 2004. Winner of the prize "Proff. Silvio Cinquini and Maria Cinquini Cibrario" for the best thesis (ex aequo) in Mathematics of the years 2001-2002 and 2002-2003.

RECENT CONFERENCE TALKS

April 20-22, 2023. Quantitative Finance Workshop 2023, Gaeta, Italy. "Counting jumps: an analysis of different waiting time distributions".

September 22-24, 2022 AMASES Conference 2022, Palermo, Italy. "A deep dive into crypto-markets: we cannot compare oranges with apples".

July 3-6, 2022 32^{nd} European Conference on Operational Research (EURO 2022), Espoo, Finland. "A machine learning model for lapse prediction in life insurance contracts".

October 15, 2021 Scottland Fintech Festival, Webconference. "Emfi - Emergency Finance"

September 1, 2021 SIMAI 2020-2021 Conference, Parma, Italia. "Machine Learning model in the Insurance sector"

March 12, 2021. 1st International Conference on Economics and FinTech, Athens, Greece, Webconference. "A Machine Learning model for lapse prediction in life insurance contracts".

December 18, 2020. Machine Learning for Finance, Ca' Foscari Venice Webconference. "A Machine Learning model for lapse prediction in life insurance contracts".

January 29-31, 2020. XXI Workshop on Quantitative Finance, Napoli, Italy. "On the Design of Sovereign Bond-Backed Securities".

RECENT SEMINARS

March 31, 2023 "Dynamic adoption of CBDC in a stochastic game". Bayes Business School, City University, London.

April 8, 2022 "Efficiency of Cryptocurrencies". Cost Action WG1 Meetings (webinar).

December 1, 2021 "An investigation on Volatility Adjustment". UCL Seminar of the Financial Computing and Analytics Group (webinar).

November 11, 2021 "Cryptocurrencies and Stablecoins: a high frequency analysis". Cost Action WG1 Seminars (webinar).

October 14, 2021 "Fintech - from blockchain to machine learning". Webinar for the Starting Finance students' association.

June 23, 2021 "Crypto Markets" - Consob-Polimi Criptocurrency and Digital Asset (webinar).

June 14, 2021 "A Machine Learning Model for Lapse Prediction in Life Insurance Contracts" - Lake of Como School "From Network to Neural Network" (webinar).

May 14, 21, 28, 2021 "Blockchain and Cryptocurrencies"- Università degli Studi di Novara (webinar).

May 7, 2021 "Blockchain and Cryptocurrencies"- Università degli Studi di Bologna (webinar).

March 26, 2020 "Spitzer identity, Wiener-Hopf factorization and pricing of exotic options". Banca IMI Quant Day, Milano (webinar).

TEACHING ACTIVITIES IN PHD COURSES

- 2024-2025: Optimal Stochastic Control Methods in Mathematical Finance (code 062956). Politecnico di Milano, PhD in Mathematical Models and Methods in Engineering (Lecturer, in collaboration with F.Confortola, G.Guatteri - Politecnico di Milano).
- 2018-2019: Machine Learning in Finance (code 053492). Politecnico di Milano, PhD in Mathematical Models and Methods in Engineering (Lecturer, in collaboration with R. Baviera, M. Restelli, E. Rroji - Politecnico di Milano).
- 2016-2017: Option Pricing: from Monte Carlo methods to Quantization (code 050245). Politecnico di Milano, PhD in Mathematical Models and Methods in Engineering (Lecturer, in collaboration with G. Callegaro, L. Fiorin - University of Padova).

- 2014-2015: Advanced Topics in Financial Engineering (code 097202). Politecnico di Milano, PhD in Mathematical Models and Methods in Engineering (Course Director. Lecturers: Prof. F.Hubalek, A.Gnoatto).
- 2013-2014, 2014-2015: Computational Finance (code 095832). Politecnico di Milano, PhD in Mathematical Models and Methods in Engineering (Lecturer)

OTHER TEACHING ACTIVITIES

Politecnico di Milano.

- Lecturer. FINTECH. MSc (Laurea Magistrale) in Mathematical Engineering. Academic Year: from 2020-2021 ongoing.
- Lecturer. COMPUTATIONAL FINANCE. MSc (Laurea Magistrale) in Mathematical Engineering. Academic Years: from 2011-2012 ongoing.
- Lecturer. FONDAMENTI DI MATEMATICA E DI STATISTICA PER L'ECONOMICA - "Fondamenti di Matematica" module, Bachelor in Urbanistica. Academic Years: from 2023-2024 ongoing.
- Lecturer. FONDAMENTI DI MATEMATICA E STATISTICA, Bachelor in Urbanistica. Academic Years: from 2019-2020 to 2022-2023.
- Lecturer. MATHEMATICAL FINANCE II. MSc (Laurea Magistrale) in Mathematical Engineering. Academic Year: 2018-2019.
- Lecturer. MATHEMATICAL MODELS AND METHODS FOR FINANCIAL AND INSURANCE MARKETS. MSc (Laurea Magistrale) in Mathematical Engineering. Academic Year: 2017-2018.
- Lecturer. MATHEMATICAL MODELS AND METHODS FOR FINANCIAL AND INSURANCE MARKETS - "Insurance" module. MSc (Laurea Magistrale) in Mathematical Engineering. Main Lecturer and Course Director: Prof. E.Barucci. Academic Year: 2016-2017.
- Lecturer. MATHEMATICAL MODELS AND METHODS FOR FINANCIAL AND INSURANCE MARKETS - "Energy Markets" module. MSc (Laurea Magistrale) in Mathematical Engineering. Main Lecturer and Course Director: Prof. E.Barucci. Academic Years: 2015-2016.

MIP - Politecnico di Milano

- Lecturer. BIG DATA AND ARTIFICIAL INTELLIGENCE IN FINANCE, International Master in Fintech, Finance and Digital Innovation. Academic Years: from 2019-2020 ongoing.
- Lecturer. PEER TO PEER PLATFORMS AND CRYPTOCURRENCIES, International Master in Fintech, Finance and Digital Innovation. Academic Years; from 2019-2020 ongoing.
- Lecturer. ASSET ALLOCATION. MSc/Percorso Executive in Quantitative Finance. Academic Years: from 2017-2018 ongoing.
- Lecturer. NUMERICAL METHODS FOR OPTION PRICING. MSc/Percorso Executive in Quantitative Finance. Academic Years: from 2010-2011 ongoing.
- Lecturer. BUSINESS ANALYTICS AND QUANTITATIVE FINANCE, TOPWIN Corporate Master in Fintech. Academic Years 2021-2022 and 2022-2023.
- Lecturer. NUMERICAL METHODS AND PROGRAMMING TOOLS FOR FINANCE. MSc/Percorso Executive in Quantitative Finance. Academic Years: from 2010-2011 to 2020-2021.
- Lecturer. STOCHASTIC METHODS IN FINANCE. "Percorso Executive in Energia e Finanza". Academic Year 2014-2015.
- Lecturer. FINANCIAL VALUATION. "Percorso Executive in Energia e Finanza". Academic Year 2014-2015.
- Lecturer. MODEL IMPLEMENTATION.n"Percorso Executive in Energia e Finanza". Academic Years: from 2008-2009 to 2013-2014.

Cefriel - Politecnico di Milano

- Lecturer. FUNDAMENTALS OF FINANCE - ASSET ALLOCATION, Master in Finance, Insurance and New Technologies. Academic Year 2022-2023.
- Lecturer. RISK MANAGEMENT IN FINANCE AND INSURANCE, Master in Finance, Insurance and New Technologies. Academic Year 2020-2021.
- Lecturer. FUNDAMENTALS OF FINANCE, Master in Finance, Insurance and New Technologies. Academic Year 2020-2021.
- Lecturer. FUNDAMENTALS OF MATHEMATICS - MONTE CARLO SIMULATION, Master in Finance, Insurance and New Technologies. Academic Year 2019-2020.

Università degli Studi del Piemonte Orientale, Novara.

- Lecturer. Elective Course "Blockchain, Bitcoins & Smart Contracts". Academic Years: 2018-2019, from 2020-2021 to 2022-2023, 2024-2025.

Bocconi University, Milano.

- Lecturer. NUMERICAL METHODS FOR PRICING DERIVATIVES. MSc in Quantitative Finance and Risk Management (MAFINRISK). Academic Years: from 2008-2009 to 2019-2020.
- Lecturer. ADVANCED DERIVATIVES. BSc (Laurea Magistrale) in Economics. Main Lecturer and Course Director: Prof. C.Tebaldi. Academic Years: from 2010-2011 to 2017-2018.

PhD SUPERVISING

2024-ongoing. Yizheng Zhang, Doctoral Programme in "Mathematical Models and Methods in Engineering", Politecnico di Milano.

July 15, 2021. Guodong Ding, *Optimal Consumption-Portfolio-Leisure Policy in Retirement-Bankruptcy Time Problem with Power Utility Function*, Doctoral Programme in "Mathematical Models and Methods in Engineering", Politecnico di Milano.

February 9, 2017. Gaetano La Bua, *Three Essays in Mathematical Finance*, Doctoral Programme in "Mathematical Models and Methods in Engineering", Politecnico di Milano.

BACHELOR/MSc THESIS SUPERVISING

Supervisor of more than 150 MSc degree theses in Mathematical Engineering, and more than 130 final exams for the bachelor in Mathematical Engineering, Politecnico di Milano.

REFEREEING ACTIVITY

Annals of Actuarial Science; Annals of Operations Research; Applied Economics; Applied Economics Letters; Applied Mathematical Finance; Applied Mathematics and Computation; Applied Mathematics Letters; ASTIN Bulletin; Central European Journal of Operational Research; Communications in Nonlinear Science and Numerical Simulation; Computational and Applied Mathematics; Computers & Mathematics with Application; Decisions in Economics and Finance; European Actuarial Journal; European Journal of Operational Research; Finance Research Letters; Financial Innovation; Frontiers in Applied Mathematics and Statistics; Frontiers in Artificial Intelligence; IMA Journal of Management Mathematics; INFORMS Journal on Computing; Insurance: Mathematics and Economics; International Journal of Computer Mathematics; International Journal of Control; International Journal of Financial Studies; International Review of Economics and Finance; International Transactions in Operational Research; Japan Journal of Industrial and Applied Mathematics; Journal of Computational and Applied Mathematics; Journal of Computational Science; Journal of Economic Dynamics and Control; Journal of Difference Equations and Applications; Journal of Futures Market; Journal of Inequalities and Applications; Journal of International Money and Finance; Journal of International Financial Markets, Institutions & Money; Journal of Optimization Theory and Applications; Management Science; Mathematical Finance; Mathematics and Computers in Simulation; Mathematical Methods in the Applied Sciences; Mathematical Modelling and Analysis; Operations Research; Operation Research Letters; Optimization Letter; Quantitative Finance; Physica A; Review of Derivatives Research; Risks; Scandinavian Actuarial Journal; Scientific Reports; Socio-Economic Planning Sciences; Statistics; The European Journal of Finance.

Reviewer of two book projects for Springer.

PUBLICATIONS

Journal Articles*

1. L.Ballotta, G.Fusai, D.M. (2024) *Counting jumps: does the counting process count?*, Quantitative Finance, Vol. 24(11):1621-1640.*
2. G.Ding, D.M. (2024) *Effect of labour income on the optimal bankruptcy problem*, Annals of Operations Research, Vol. 336:773-795.*
3. G.Ding, D.M. (2024) *Bankruptcy and retirement: a comparison in an optimal stopping times ordered framework*, Computational and Applied Mathematics, Vol. 43: 53.
4. E.Barucci, D.M., E.Rroji (2023) *An investigation of the Volatility Adjustment*, Decisions in Economics and Finance, Online first.*
5. A.Del Vitto, D.M., D.Stocco (2023) *ESG ratings explainability through machine learning techniques*, Annals of Operations Research, Online first.*
6. E.Barucci, G.Giuffra Moncayo, D.M. (2023) *Market impact and efficiency in cryptoassets market*, Digital Finance, Vol. 5: 519–562.
7. C.Ceriotti, M.Della Torre, F.Grassetti, D.M. (2023) *Should I have closed? A multiplex network approach for the short-term economic effect of Covid-19 containment measures in the EU*, Socio-Economic Planning Sciences, Vol. 90: 101734.*
8. T.Agasisti, E.Barucci, M.Cannistrà, D.M., M.Soncin (2023) *Online or on-campus? Analysing the effects of financial education on student knowledge gain*, Evaluation and Program Planning, Vol. 98: 102273.
9. E.Barucci, M.Brachetta, D.M. (2023) *Debt redemption fund and fiscal incentives*, Communications in Nonlinear Science & Numerical Simulation, Vol. 119: 107094.*
10. E.Barucci, M.Brachetta, D.M. (2023) *On the feasibility of a debt redemption fund*, Economic Modelling, Vol. 119: 106141.*
11. E.Barucci, E.Biffis, D.M. (2023), *Health Insurance, Portfolio Choice, and Retirement Incentives*, European Journal of Operational Research, Vol. 307(2): 910-921.*
12. E.Barucci, G.Giuffra Moncayo, D.M. (2022), *Cryptocurrencies and stablecoins: a high-frequency analysis*, Digital Finance, Vol. 4: 217–239.
13. G.Ding, D.M. (2022) *The impact of liquidity constraints and cashflows on the optimal retirement problem*, Finance Research Letters, Vol. 49: 103159.
14. G.La Bua, D.M. (2022) *A new class of multidimensional Wishart-based hybrid models*, Decisions in Economics and Finance, Vol. 45: 209–239.*
15. T.Agasisti, M.Cannistrà, M.Soncin, D. M. (2022) *Financial Education during COVID-19 - Assessing the effectiveness of an online programme in a high school*, Applied Economics, Vol. 54(35): 4006-4029.
16. E.Barucci, D.Brigo, M.Francischello, D.M. (2022) *On the design of sovereign bond-backed securities*, International Journal of Financial Engineering, Vol. 9(1): 2150033.
17. M.Azzone, E.Barucci, G.Giuffra Moncayo, D.M. (2022), *A machine learning model for lapse prediction in life insurance contracts*, Expert Systems with Applications, Vol. 191: 116261-01–116261-13.
18. G.La Bua, D.M. (2021) *On the Application of Wishart Process to the Pricing of Equity Derivatives: the Multi-asset Case*, Computational Management Science, Vol. 18(2): 149–176.*

*The asterisk indicates publications in Class A - ANVUR (Italian National Agency for the Evaluation of the University and Research Systems) journals for sector 13/D4

19. E.Barucci, D.M., E.Mastrogiacomo, (2021) *Optimal Investment Strategies with a Minimum Performance Constraint*, Annals of Operations Research, Vol. 299: 215–239.*

20. E.Barucci, T.Colozza, D.M., E.Rroji (2020) *The Determinants of Lapse Rates in the Italian Life Insurance Market*, European Actuarial Journal, Vol.10: 149-–178.

21. C.E.Phelan, D.M., G.Germano (2020) *Pricing Methods for α-quantile and Perpetual Early Exercise Options based on Spitzer Identities*, Quantitative Finance, Vol. 20(6): 899–918.*

22. G.La Bua, D.M. (2019) *Calibration and Advanced Simulation Schemes for the Wishart Stochastic Volatility Model*, Quantitative Finance, Vol.19(6):997-1016.*

23. S.Corsaro, I.Kyriakou, D.M., Z.Marino (2019) *A General Framework for Pricing Asian Options under Stochastic Volatility on Parallel Architectures*, European Journal of Operational Research, Vol. 272(3):1082-1095.*

24. L.Ballotta, G.Fusai, D.M. (2019) *Integrated Structural Approach to Credit Value Adjustment*, European Journal of Operational Research, Vol. 272(3):1143-1157.*

25. C.E.Phelan, D.M., G.Fusai, G.Germano (2019) *Hilbert Transform, Spectral Filters and Option Pricing*, Annals of Operations Research, Vol. 282(1–2):273–298.*

26. E.Barucci, G.La Bua, D.M. (2018) *On Relative Performance, Remuneration and Risk Taking of Asset Managers*, Annals of Finance, Vol. 14(4):517-545.*

27. C.E.Phelan, D.M., G.Fusai, G.Germano (2018) *Fluctuation identities with continuous monitoring and their application to price barrier options*, European Journal of Operational Research, Vol. 271:210-223.*

28. E.Barucci, D.M. (2016) *Asset Management, High Water Mark and Flow of Funds*, Operations Research Letters, Vol. 44-5:607-611.*

29. S.Baccarin, D.M. (2016) *Passive Portfolio Management over a Finite Horizon with a Target Liquidation Value under Transaction Costs and Solvency Constraints*, IMA Journal of Management Mathematics, Vol. 27-4: 471-504.*

30. G.Fusai, G.Germano, D.M. (2016) *Spitzer Identity, Wiener-Hopf Factorization and Pricing of Discretely Monitored Exotic Options*, European Journal of Operational Research, Vol. 251-1: 124-134.*

31. R.Cerqueti, D.M., M.Ventura (2016) *Optimal Investment in Research and Development Under Uncertainty*, Journal of Optimization Theory and Applications, Vol. 168-1: 296-309.*

32. E.Barucci, D.M. (2015) *Risk Seeking, Non Convex Remuneration and Regime Switching*, International Journal of Theoretical and Applied Finance, Vol. 18-2: 1550009.1-25.

33. S.Corsaro, D.M., Z.Marino (2015), *A Parallel Wavelet-based Pricing Procedure for Asian Options*, Quantitative Finance, Vol. 15-1: 101-113.*

34. A.Cosso, D.M., C.Sgarra (2015) *American Option Valuation in a Stochastic Volatility Model with Transaction Costs*, Stochastics, Vol. 87-3: 518-536.

35. S.Baccarin, D. Marazzina (2014) *Optimal Impulse Control of a Portfolio with a Fixed Transaction Cost*, Central European Journal of Operations Research, vol. 22-2: 355-372.

36. D.Sesana, D.M., G.Fusai (2014) *Pricing Exotic Derivatives Exploiting Structure*, European Journal of Operational Research, Vol. 236: 369-381.*

37. E.Barucci, D.M. (2012) *Optimal Investment, Stochastic Labor Income and Retirement*, Applied Mathematics and Computation, Vol. 218-9: 5588-5604.*

38. G.Fusai, D.M., M.Marena, M.Ng (2012) *Z-Transform and Preconditioning Techniques for Option Pricing*, Quantitative Finance, Vol. 12-9: 1381-1394.*

39. D.M., O.Reichmann, Ch.Schwab (2012) *hp-DGFEM for Kolmogorov-Fokker-Planck Equations of Multivariate Lévy Processes*, M^3AS: Mathematical Models and Methods in Applied Sciences, Vol. 22-1: 1150005.1-37.

40. G.Fusai, D.M., M.Marena (2011) *Pricing Discretely Monitored Asian Options by Maturity Randomization*, SIAM Journal on Financial Mathematics, Vol. 2: 383-403.*

41. G.Fusai, D.M., M.Marena (2010) *Option Pricing, Maturity Randomization and Distributed Computing*, Parallel Computing - Special Issue *Parallel and Distributed Computing in Finance*, Vol. 36-7: 403-414.*

42. D.M. (2008) *Stability Properties of Discontinuous Galerkin Methods for Two-Dimensional Elliptic Problems*, IMA Journal of Numerical Analysis, Vol. 28-3: 552-579.*

Technical Reports

43. E.Barucci, D.M., A.Nassigh (2025) *Sovereign Debt Default and Climate Risk*, ArXiv:2501.11552.

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