

FABIO DEMARIA, PhD

Post-doctoral Researcher and Lecturer in Economic Statistics

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CURRENT POSITION

Post-doctoral Research Fellow [since 01/04/2024]

Department of Communication and Economics, UNIMORE.

Research project: “*Towards Circular Economy: A Business Model Innovation Perspective*”, project code: 2022STRXYZ [CUP E53D23006450006].

Academic discipline: Economic Statistics (SSD: SECS-S/03) – Supervisor: Prof. Paolo Di Toma.

Adjunct Lecturer Data Analysis for Management [since 01/02/2026]

6 ECTS – Academic discipline: Economic Statistics (SSD: SECS-S/03)

Master's Degree in Business Management and Consulting

Department of Economics Marco Biagi, UNIMORE.

Adjunct Lecturer Statistical Models – GLM [since 15/09/2025]

2 ECTS – Academic discipline: Statistics (SSD: SECS-S/01)

Bachelor's Degree in Data Analysis for Business and Finance

Department of Communication and Economics, UNIMORE.

Lecturer Research Methods for the Social Sciences [since 01/01/2025]

Ph.D. Program in Work, Development and Innovation

Marco Biagi Foundation, UNIMORE.

Teaching Tutor Information Systems and Analytical Methods for Human Resources [06/11/2025 – 30/04/2026]

Master's Degree in Labour Relations

Academic discipline: Economic Statistics (SSD: SECS-S/03)

Department of Economics Marco Biagi, UNIMORE.

Teaching Assistant: Statistical Learning and Prediction from Data [since 01/09/2023]

Master's Degree in International Management

Department of Economics Marco Biagi, UNIMORE.

Teaching Assistant: Data Management [since 01/09/2023]

Master's Degree in Economics, Public Policies and Sustainability

Department of Economics Marco Biagi, UNIMORE.

PREVIOUS POSITIONS

Adjunct Lecturer Statistical Learning and Prediction from Data [01/02/2024 – 31/05/2025]

6 ECTS – Academic discipline: Economic Statistics (SSD: SECS-S/01)

Master's Degree in Business Management and Consulting

Department of Economics Marco Biagi, UNIMORE.

Visiting PhD Student [15/02/2023 – 16/05/2023]
Department of Mathematics and Statistics, Cleveland State University – Cleveland (Ohio), United States.

Teaching Tutor Data Analysis [01/09/2022 – 31/05/2025]
Master's Degree in Labour Relations
Department of Economics Marco Biagi, UNIMORE.

Teaching Tutor Data Analysis [01/01/2021 – 31/05/2024]
Master's Degree in Labour Relations
Department of Economics Marco Biagi, UNIMORE.

Teaching Tutor Statistical Learning and Prediction from Data [01/01/2020 – 31/12/2023]
Master's Degree in International Management
Department of Economics Marco Biagi, UNIMORE.

RESEARCH INTERESTS

Statistical Learning, Multivariate Statistics, Classification and Dimensionality Reduction Methods, Markov-Switching Models.

EDUCATION

Ph.D. in Labour, Development and Innovation [2024]

Grade: Excellent.
Doctoral School in Engineering for Economics (e4e) – Marco Biagi Foundation, UNIMORE.
Dissertation: “*Modern statistical learning techniques for high-dimensional datasets: applications to diverse sustainability domains in organizations*” (Academic discipline: Economic Statistics).
Supervisor: Prof. Maddalena Cavicchioli.

Master's Degree in International Management [2019]

Honors: summa cum laude
Department of Economics Marco Biagi, UNIMORE.
Experimental thesis: “*Towards sustainable food consumption: a research about consumers' perception of imperfect food*”.

Erasmus period: Master's Degree in Economics and Management [09/2018 – 06/2019]
Czech University of Life Sciences – Prague, Czech Republic

Bachelor's Degree in Economics and International Marketing [2016]
Department of Economics Marco Biagi, UNIMORE.

TRAINING SCHOOLS

RECSM Summer School – Multilevel 2 [14/07 – 15/07/2022]
Universitat Pompeu Fabra, Barcelona, Spain.

RECSM Summer School – Introduction to R [27/06 – 28/06/2022]
Universitat Pompeu Fabra, Barcelona, Spain.

RECSM Summer School – Introduction to Python [27/06 – 28/06/2022]
Universitat Pompeu Fabra, Barcelona, Spain.

RECSM Winter School – Structural Equation Modelling [16/02 – 18/02/2022]
Universitat Pompeu Fabra, Barcelona, Spain.

EPCR Winter School – Multilevel Modelling [07/02 – 11/02/2022]
KU Leuven, Leuven, Belgium.

RESEARCH PROJECTS

FAR Research Grant (€12,500): “*Platform-Enabled Multistakeholder Governance for Public-Services Innovation: Evidence on the interplay between digital and human actors*” – Coordinator: Prof. Ulpiana Kocollari. Department of Economics Marco Biagi, UNIMORE. [27/05/2025 – 26/11/2026]

FAR Research Grant (€2,000): “*Happiness Metrics: An Integrated Framework for Measuring Employee and Stakeholder Wellbeing*” – Coordinator: Prof. Alessandro Tampieri. Department of Economics Marco Biagi, UNIMORE. [27/05/2025 – 26/11/2026]

PRIN PNRR “*Towards Circular Economy: A Business Model Innovation Perspective*”, project code: 2022STRZY (CUP E53D23006450006) – Coordinator: Prof. Paolo Di Toma. Department of Communication and Economics, UNIMORE. [01/04/2024 –]

FAR Research Grant (€60,000): “*Work datafication and behavioral visibility in the digital workplace*” – Coordinator: Prof. Tommaso Fabbri. Department of Economics Marco Biagi, UNIMORE. [01/12/2021 – 01/06/2023]

API PON REDiRECT - *REDuce REuse Ceramic Tiles* - Experimentation of eco-efficient technologies, resources, and processes for the development of circular architecture ceramic materials. (Prog. n. F/160016/04/X41 CUP: B92C21001400005 COR:6145238). [01/01/2021 – 01/06/2023]

PUBLICATIONS

Articles in peer-reviewed journals

Demaria, F., and Cavicchioli, M. (2025). *Employees' well-being, work-related factors, and digitalization: a decision-tree approach for imbalanced data*. **Annals of Operations Research**. doi: 10.1007/s10479-025-06702-9

Demaria, F., and Cavicchioli, M. (2025). *Financial sustainability in the luxury industry across the Covid-19 pandemic: lessons from hierarchical methods*. **Quality & Quantity**, 59, 5149–5177. doi: 10.1007/s11135-025-02202-x

Kocollari, U., Demaria, F., and Cavicchioli, M. (2025). *Time after time: exploring the role of CSR on employees' long-lasting working relationships in Italy*. **Small Business Economics**, 65, 995–1021. doi: 10.1007/s11187-025-01019-0

Cavicchioli, M., Demaria, F., Nannetti, F., Scapolan, A.C., and Fabbri, T. (2025). *Employees' attitudes and work-related stress in the digital workplace: an empirical investigation*. **Frontiers in Psychology**, 16:1546832. doi: 10.3389/fpsyg.2025.1546832

Kocollari U., Cavicchioli M. and Demaria F. (2024). *The 5 E(lements) of employee-centric CSR and their stimulus on Happiness At Work: an empirical investigation*. **Corporate Social Responsibility and Environmental Management**, 31(3), 1959-1976. doi: 10.1002/csr.2667

Vacchi, M., Siligardi, C., Demaria, F., Cedillo-González, E., González-Sánchez, R., and Settembre-Blundo, D. (2021). *Technological Sustainability or Sustainable Technology? A Multidimensional Vision of Sustainability in Manufacturing*. **Sustainability**, 13(17), 9942. doi: 10.3390/su13179942

Books and book chapters

Cavicchioli, M., Demaria, F., Franco Villoria, M., Frederic, P., Montagna, S., and Morlini, I. (2025). Gimme (uni)MORE data: workbook to the data challenge. [ISBN: 9788889427071]

Kocollari, U., Montanari, S., and Demaria, F. (2024). *Hybrid Models for Hybrid Projects: The Development of Accountability Tools and Processes in Crowdfunding Campaigns*. In **Non-Profit Organisations**, Volume II: Economy, Industries and Context. Palgrave Macmillan. [ISBN: 9783031625299]

Cavicchioli, M., Demaria, F., Franco Villoria, M., Frederic, P., Martini, M. C., Montagna, S., and Morlini, I. (2024). *Statistics: from process datafication to prediction*. [ISBN: 9788889427057]

Cavicchioli, M., Demaria, F., Franco Villoria, M., Frederic, P., and Morlini, I. (2023). *Statistics: the science that models data. An introduction to different data types*. [ISBN: 9788889427040]

Conference proceedings

Demaria, F., Bertacchini, F., Kocollari, U., and Cavicchioli, M. (2025). *Measuring supply chain sustainability: a structured multilevel framework*. In: Bocuzzo, G., Bovo, E., Manisera, M., Salmaso, L. (eds), Book of Short Papers IES 2025 – Innovation & Society: Statistics and Data Science for Evaluation and Quality. Cleup s.c. [ISBN: 9788854958494]

Demaria, F., Cavicchioli, M., Kocollari, U., and Bertacchini, F. (2025). *Hidden Patterns of Corporate Reputation in Sustainable Supply Chains: A Switching Perspective*. In: di Bella, E., Gioia, V., Lagazio, C., Zaccarin S. (eds), **Statistics for Innovation II**. SIS 2025. Italian Statistical Society Series on Advances in Statistics. Springer. doi: 10.1007/978-3-031-96303-2 [ISBN: 9783031963025]

Demaria, F., Cavicchioli, M., Fabbri, T., Papana Dagiasis, A., and Scapolan, A.C. (2025). *A non-parametric approach to employee performance in digital workplaces*. In: Castellano, R., De Luca, G., Bruno, E. (eds), Book of Short Papers 3rd Italian Conference on Economic Statistics (ICES 2025). [ISBN: 9791280655523]

Demaria, F., and Cavicchioli, M. (2024). *Digitalization, work-related risk factors and well-being: importance and interactions from tree-based methods*. In: Pollice, A., Mariani, P. (eds) **Methodological and Applied Statistics and Demography III**. SIS 2024. Italian Statistical Society Series on Advances in Statistics. Springer. doi: 10.1007/978-3-031-64431-3_94 [ISBN: 9783031644306]

Demaria, F., and Cavicchioli, M. (2024). *Navigating uncertainty: unveiling the key levers of financial sustainability as a resilience strategy in the luxury industry*. In: Fabrizi E., Giambona F.A., Marini C., Marletta A., Rocca A. (eds), Book of Short Papers 2nd Italian Conference on Economic Statistics (ICES 2024). [ISBN: 9788847629509]

Kocollari, U., Cavicchioli, M., and Demaria, F. (2023). *Staying or leaving? A nonlinear framework to explore the role of employee well-being on retention*. In: Chelli, F.M., Ciommi, M., Ingrassia, S., Mariani F., Recchioni, M.C. (eds), Book of Short Papers SIS 2023, Pearson. [ISBN: 9788891935618]

Demaria, F., and Cavicchioli, M. (2023). *Navigating the post-pandemic era: financial sustainability as a key recovery strategy for luxury brands*. EURAM 2023 Conference Proceedings. [ISBN: 9782960219555]

Kocollari, U., Cavicchioli, M., and Demaria, F. (2022). *Measuring happiness at work with categorical Principal Component Analysis*. In: Balzanella, A., Bini, M., Cavicchia, C., Verde, R. (eds), Book of Short Papers SIS 2022, Pearson. [ISBN: 9788891932310]

Working papers

Cavicchioli, M., Demaria, F., and Nigri, A. (2025). *Hidden Markov Switching Models with Skew-Normal innovations: structure and empirical applications*.

Demaria, F. (2025). *On feature selection in double-imbalanced data settings: a Random Forest approach*. doi: 10.48550/arXiv.2506.10929

Demaria, F., Bertacchini, F., Kocollari, U., and Cavicchioli, M. (2025). *Measuring supply chain sustainability: a structured multilevel framework*.

Demaria, F., Cavicchioli, M., Kocollari, U., and Bertacchini F. (2025). *Shaping supply chain sustainability-based reputation: multidimensional configurations through Markov switching decision trees*.

Demaria, F., Papana Dagasis, A., Cavicchioli, M., Fabbri, T. (2025). *Behind the screen: a comprehensive framework for digital work metrics and data integration*.

CONFERENCES AND SEMINARS

DEMB Seminars. “*Planting FLAGs Along the Supply Chain: A Multi-Tier Decomposition Approach to Governing Sustainability Through Visibility*”. Department of Economics Marco Biagi, UNIMORE. [28/10/2025]

1st Joint International Conference of The Journal of International Accounting, Auditing & Taxation and The Journal of Management and Governance. University of Cagliari (Cagliari). [26/09 – 27/09/2025]

IES2025 – Innovation & Society: Statistics and Data Science for Evaluation and Quality. University of Padova (Bressanone, BZ). [25/06 – 27/06/2025]

SIS2025 – Statistics for Innovation. University of Genoa (Genoa). [16/06 – 18/06/2025]

ICES2025 – 3rd Italian Conference on Economic Statistics. University of Naples Parthenope (Naples). [13/02 – 14/02/2025]

DEMB Seminars. “*Advances in Tree-Based Methods for Social Sciences: Insights from Organizational Data*”. Department of Economics Marco Biagi, UNIMORE. [04/02/2025]

18th International Joint Conference on Computational and Financial Econometrics and Computational and Methodological Statistics. King's College London (London, UK). [14/12 – 16/12/2024]

SIS2024 – 52nd Scientific Meeting of the Italian Statistical Society. University of Bari Aldo Moro (Bari). [17/06 – 20/06/2024]

Sustainable Development Festival – “*Happiness at Work: How to measure it*”. Casa del Volontariato Foundation (Carpi). [22/05/2024]

ICES2024 – 2nd Italian Conference on Economic Statistics. University of Florence (Florence). [07/02 – 08/02/2024]

- EcoMod 2023 – International Conference on Economic Modeling and Data Science. Czech University of Life Sciences (Prague, CZ). [03/07 – 05/07/2023]
- SIS2023 – Statistical Learning, Sustainability and Impact Evaluation. Marche Polytechnic University (Ancona). [21/06 – 23/06/2023]
- EURAM23 – Annual Conference. Trinity College Dublin (Dublin, IE). [14/06 – 16/06/2023]
- BoMoPaV – Economics Meeting. University of Bologna (Rimini). [01/07/2022]
- SIS2022 – 51st Scientific Meeting of the Italian Statistical Society. University of Campania L. Vanvitelli (Caserta). [22/06 – 24/06/2022]
- FMB PhD Seminars. Marco Biagi Foundation (Modena). [24/03/2022]

PUBLIC ENGAGEMENT PROJECTS

- “*Gimme (uni)MORE data: accept the data challenge*” (participant). UNIMORE University Public Engagement Project. [10/2024 – 02/2025]
- “*Statistics for All 2.0: Our World in Data*” (participant). UNIMORE University Public Engagement Project. [11/2022 – 04/2023]
- “*Statistics for All 3.0: From Process Datafication to Prediction*” (participant). UNIMORE University Public Engagement Project. [10/2023 – 02/2024]

AWARDS AND HONORS

- Winner (1st place) – Ph.D. Scholarship, Doctoral Program in Work, Development and Innovation, Doctoral School ‘Engineering for Economics (e4e)’. [13/08/2020]
- Recipient of Merit Award for Academic Excellence – Department of Economics Marco Biagi, UNIMORE. [01/06/2021]

AFFILIATIONS AND OTHER ROLES

- Junior Member of the Italian Statistical Society (SIS). [since 06/2023]
- Representative of the Doctoral School E4E – Marco Biagi Foundation, UNIMORE. [10/2021 – 12/2023]