



I the undersigned asks to participate in the public selection, for qualifications and examinations, for the awarding of a type B fellowship at **Dipartimento di Economia, Management e Metodi Quantitativi**

Scientist- in - charge: **Professor Lorenzo Mercuri**

**Andrea Perchiazzo**

## CURRICULUM VITAE

### PERSONAL INFORMATION

Surname	Perchiazzo
Name	Andrea

### PRESENT OCCUPATION

Appointment	Structure
PhD in Financial Mathematics and Actuarial Science. Expected defence at the beginning 2024. Supervisors: Carole Bernard and Steven Vanduffel.	Vrije Universiteit Brussel. Brussels, Belgium.

### EDUCATION AND TRAINING

Degree	Course of studies	University/Structure	Year of achievement
Other: DataCamp courses organized in collaboration with Vrije Universiteit Brussel	Some selected courses attended: Credit Risk Modeling in R, GARCH Models in R, Life Insurance Products Valuation in R, and Quant. Risk Management in R	DataCamp platform	2022
Post lauream courses	Summer School SMI (Scuola Matematica Interuniversitaria). Courses attended: Mathematical Statistics and Numerical Analysis	Department of Mathematics of the University of Perugia	2021
Other: Vrije Universiteit Brussel course	Academic English for PhD	Vrije Universiteit Brussel	2021
Other: DataCamp courses organized in collaboration with Vrije Universiteit Brussel	Some selected courses attended: R Programmer Track and Parallel Computing in R	DataCamp platform	2021



Master's degree	MSc in Banking and Finance with curriculum in trading and risk management with 110 cum laude/110	Università Cattolica del Sacro Cuore	2018
Other: Summer Programme	Courses attended: Analysis and Management of Financial Risk and Principles of Accounting	London School of Economics and Political Science	2017

## FOREIGN LANGUAGES

Languages	Level of knowledge
English	Fluent
Spanish	Good

## RESEARCH ACTIVITY

Currently my research activities cover the investigation of multivariate portfolio choices problems and Hawkes processes. In the former, the research activity is focused on the construction of a methodology for obtaining optimal portfolios for a general multivariate law-invariant objective function through numerical approaches. At the same time, derivations of closed-form expressions for optimal portfolios are investigated for some multivariate objective functions (e.g., sum of quantile-based risk measures). Regarding the other research activity, the study is focused on the Hawkes process in which the intensity follows a Continuous Time Autoregressive Moving Average process (e.g., analysis of the statistical properties and implementation of simulation and estimation) and possible real-world applications (e.g., green bond markets).

### Working papers:

- Bernard, C., Perchiazzo, A., & Vanduffel, S., "Multivariate Portfolio Choice via Quantiles". Presented at the AMASES 2022 conference, Belgian Financial Research Forum 2023, and the 26th International Congress on Insurance: Mathematics and Economics (IME).
- Mercuri, L., Perchiazzo, A., & Rroji, E., "Investigating Short-Term Dynamics in Green Bond Markets". arXiv: <https://arxiv.org/abs/2308.12179>. Submitted
- Mercuri, L., Perchiazzo, A., & Rroji, E., "A Hawkes model with CARMA(p,q) intensity". arXiv: <https://arxiv.org/abs/2208.02659>. Submitted

## CONGRESSES AND SEMINARS

Date	Title	Place
09/2023	AMASES 2023 Conference. Organizer with Lorenzo Mercuri of special session "Stochastic Models, Numerical Methods and Other Aspects in Finance and in Insurance"	Milan, Italy
07/2023	The 26th International Congress on Insurance: Mathematics and Economics (IME)	Edinburgh, United Kingdom
04/2023	Belgian Financial Research Forum 2023	Brussels, Belgium
02/2023	Actuarial and Financial Mathematics Conference	Brussels, Belgium
09/2022	AMASES 2022 Conference	Palermo, Italy
07/2022	The 25th International Congress on Insurance: Mathematics and Economics (IME)	Online
04/2022	10th International MAF2022 Conference	Salerno, Italy



03/2022	Quantitative Finance Workshop 2022 (QFW2022)	Rome, Italy
07/2021	31st European Conference on Operational Research (Invited)	Online
06/2021	10th General AMaMeF Conference	Online
05/2020	UCL Financial Computing and Analytics (seminar, invited)	Online
04/2020	Online International Conference in Actuarial science, data science and finance (OICA Conference)	Online
01/2018	Quantitative Finance Workshop 2018 (QFW2018).	Rome, Italy

## PUBLICATIONS

Articles in reviews
Bernard, C., Perchiazzo, A., & Vanduffel, S. (2022). <i>Implied value-at-risk and model-free simulation</i> . <i>Annals of Operations Research</i> , 1-19. DOI: 10.1007/s10479-022-05048-w
Mercuri, L., Perchiazzo, A., & Rroji, E. (2021). <i>Finite Mixture Approximation of CARMA (p, q) Models</i> . <i>SIAM Journal on Financial Mathematics</i> , 12(4), 1416-1458. DOI: 10.1137/20M1363248

Conference proceedings
Mercuri, L., Perchiazzo, A., & Rroji, E. (2021). <i>Pricing of Futures with a CARMA (p, q) Model Driven by a Time Changed Brownian Motion</i> . In <i>Mathematical and Statistical Methods for Actuarial Sciences and Finance: eMAF2020</i> (pp. 343-348). Springer International Publishing. DOI: 10.1007/978-3-030-78965-7_50

## OTHER INFORMATION

Academic Visits: Grenoble Ecole de Management (GEM), Department of Accounting, Law and Finance. Grenoble, France. Years: 2021, 2022, and 2023.
Teaching experience: <ul style="list-style-type: none"><li>• Università degli Studi di Milano: Teaching Assistant of Numerical Methods for Finance and Portfolio Optimization, 10 hours (2023); Lecturer of Crash Course in Mathematics, 40 hours (2018 and 2019)</li><li>• Politecnico di Milano: Teaching Assistant of Econometrics, 28 hours (2020)</li><li>• Università Cattolica del Sacro Cuore: Teaching Assistant of Econometrics, 40 hours (2018 and 2019)</li></ul>
Professional Employment: <ul style="list-style-type: none"><li>• Risk Analyst at Intesa Sanpaolo S.p.A.: Intesa Sanpaolo S.p.A. (2019) and Deloitte Consulting S.r.l. (2019 - 2020)</li><li>• Market Operations Analyst at Borsa Italiana S.p.A. (2017 - 2018)</li></ul>
Membership: <ul style="list-style-type: none"><li>• Member of the AMASES (Association of Applied Math for Social and Economics Science) association (2023/01 - Present)</li></ul>

Declarations given in the present curriculum must be considered released according to art. 46 and 47 of DPR n. 445/2000.

The present curriculum does not contain confidential and legal information according to art. 4, paragraph 1, points d) and e) of D.Lgs. 30.06.2003 n. 196.

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Place and date: MILANO, 01/11/2023.