

MATTEO BUTTARAZZI

Curriculum Vitae

GENERAL INFORMATION

Nationality: Italian
Email: matteo.buttarazzi@unito.it
ORCID: 0009-0009-0961-8281
Based in Turin

ACCADEMIC EXPERIENCE

- Jul 2025 – Ongoing **POSTDOCTORAL RESEARCHER**
UNIVERSITY OF TURIN
Supervisor: Tiziano De Angelis
- Jul 2024 – Jun 2025 **POSTDOCTORAL RESEARCHER**
LA SAPIENZA UNIVERSITY OF ROME
Supervisor: Claudia Ceci
Funded by PRIN 2022 - Stochastic control and games and the role of information

NON ACCADEMIC EXPERIENCE

- 2020 – 2021 Credit Analyst at United Credit SA, Rome (Italy)

EDUCATION

- 2021 – 2025 **PHD (DOCTOR EUROPAEUS) IN MODELS FOR ECONOMICS AND FINANCE**
LA SAPIENZA UNIVERSITY OF ROME
Curriculum: Mathematics for Economic-Financial Applications
Grade: Cum Laude
Thesis: *Optimal Annuitization under Piecewise Deterministic Mortality Force*
Supervisors: Tiziano De Angelis and Gabriele Stabile
- 2017 – 2020 **MSc IN FINANCE**
LUISS GUIDO CARLI UNIVERSITY
Grade: 110 cum Laude
Thesis: *Transizione energetica ottimale (Optimal energy transition)*
Supervisor: Fausto Gozzi
- 2014 – 2017 **BSc IN FINANCE**
TOR VERGATA UNIVERSITY OF ROME
Thesis: *Fate il vostro gioco, perdere è matematico (Place your bets, losing is mathematical)*
Supervisor: Maura Mezzetti

ACCADEMIC VISITS

- Jun 2024 – Jul 2024 VISITING SCHOLAR - UNIVERSITY OF TURIN AND COLLEGIO CARLO ALBERTO
Local supervisors: Tiziano De Angelis
Funded by "de Castro" Statistics Initiative
- Sept 2023 – Feb 2024 VISITING SCHOLAR - UNIVERSITÄT BIELEFELD
Local supervisors: Giorgio Ferrari
Funded by 50% increase in PhD Scholarship and International Mobility Grant for PhD Students (D.R. n. 2592/2023)

RESEARCH INTERESTS

Optimal Stopping and Stochastic Optimal Control; Insurance and Mathematical Finance; Partial Information and Filtering.

PUBLICATIONS

CONFERENCE PROCEEDINGS

- [BS24] M. Buttarazzi and G. Stabile, “The market value of optimal annuitization and bequest motives,” in *Mathematical and Statistical Methods for Actuarial Sciences and Finance*, Springer, 2024, pp. 67–73. DOI: [10.1007/978-3-031-64273-9_12](https://doi.org/10.1007/978-3-031-64273-9_12)

JOURNAL ARTICLES

- [BC25] M. Buttarazzi and C. Ceci, *Filtering in a hazard rate change-point model and financial applications*. *Arxiv Preprint*: [2505.13185](https://arxiv.org/abs/2505.13185)
- [BDS25] M. Buttarazzi, T. De Angelis and G. Stabile, *Optimal Annuitization with stochastic mortality: Piecewise Deterministic Mortality Force*. *Arxiv Preprint*: [2509.13091](https://arxiv.org/abs/2509.13091)

PHD THESIS

- [But25] M. Buttarazzi, *Optimal annuitization time under piecewise deterministic mortality force*. PhD Thesis, Sapienza University of Rome, March 2025.
Available at: <https://iris.uniroma1.it/handle/11573/1737175>

WORK IN PROGRESS

- [BDSX] M. Buttarazzi, T. De Angelis and G. Stabile, *Optimal Annuitization under Partially Observable Mortality: A Quickest Detection Approach*.
- [ButX] M. Buttarazzi, *The Impact of a Health Shock on the Optimal Annuitization Time*.
- [BCFX] M. Buttarazzi, C. Ceci and G. Ferrari, *Control of a reflected Brownian motion with drift with Knightian uncertainty on the drift*.

CONFERENCES

- Jun 2025 Contributed talk – Presentation of [BDS25]
12th General AMaMeF Conference, Verona (Italy).
- Jun 2025 **Invited Talk** – Presentation of [BC25]
sTOchastic control PRIN Workshop on Stochastic Control, Turin (Italy).
- May 2025 Contributed talk – Presentation of [But25]
Perspectives on Actuarial Risks in Talks of Young Researchers (PARTY), Liverpool (UK).
- May 2025 Contributed talk – Presentation of [But25]
Second International Conference on Control and Optimization (CONTROPT), Bari (Italy).
- Apr 2025 Contributed talk – Presentation of [But25]
XXVI Workshop on Quantitative Finance, Palermo (Italy).
- Sept 2024 **Invited Talk** – Presentation of [BDS25]
XLVIII annual conference of the Italian Association for Mathematics Applied to Social and Economic Sciences (AMASES), Ischia (Italy).
- Jun 2024 **Invited talk** – Presentation of [BDS25]
4th Italian Meeting on Probability and Mathematical Statistics, Rome (Italy).

- Mar 2024 Contributed talk – Presentation of [\[BS24\]](#)
XIV MEMOTEF Research Days, Rome (Italy).
- Feb 2024 Contributed talk – Presentation of [\[BS24\]](#)
Actuarial and Financial Mathematics Conference (AFMATH), Brussels (Belgium).
- Jun 2023 Contributed talk – Presentation of [\[BS24\]](#)
XIII MEMOTEF Research Days, Rome (Italy).

OTHER ATTENDED CONFERENCES

- Dec 2023 Workshop Young Researchers in Stochastic Control and Games, Bielefeld (Germany).
18th BiGSEM Doctoral Workshop on Economics and Management, Bielefeld (Germany).
- Apr 2023 XXIV Workshop on Quantitative Finance, Gaeta (Italy).
New professional and scientific perspectives in pensions and actuarial sciences, Rome (Italy).

TEACHING

LECTURER

- AY 2025/2026 **Pre-course of Mathematics - 40H** and 60+ Students.
BSc in Economics and Finance, **La Sapienza University of Rome**

TEACHING ASSISTANCE

- AY 2025/2026 **Stochastic Calculus and Mathematical Finance** (Prof. A. Milazzo) - **20H**
MSc in Quantitative Finance and Insurance, **University of Turin**
- AY 2025/2026 **Probability for Finance** (Prof. T. De Angelis) - **20H**
MSc in Quantitative Finance and Insurance, **University of Turin**
- AY 2024/2025 **Mathematics** (Prof. C. Ceci and M. G. Bruno) - **40H** and 200+ Students.
BSc in Economics and Finance, **La Sapienza University of Rome**
- AY 2024/2025 **Mathematics** (Prof. M. Scarpitti, B. Vantaggi and G. Stabile) - **40H** and 200+ Students.
BSc in Economics, **La Sapienza University of Rome**
- AY 2023/2024 **Mathematics** (Remedial course) - **40H** and 100+ Students.
BSc in Economics, **La Sapienza University of Rome**
- AY 2022/2023 **Mathematics** (Prof. A. Palestini) - **40H** and 200+ Students.
BSc in Economics, **La Sapienza University of Rome**

FUNDINGS

RESEARCH GRANTS AND SCHOLARSHIPS

- 2024 **La Sapienza University of Rome – Academic Research Grant**
Financed amount: 3000 euro (Co-I)
Title: On the role of bequest motives in the annuitization decision
Grant number: RP124190EA4DDA9F
- 2024 **La Sapienza University of Rome – Academic Starting Research Grant**
Financed amount: 2500 euro (PI)
Title: Optimal annuitization under piecewise deterministic mortality force
Grant number: AR2241906EB2D3B9

2023 **La Sapienza University of Rome – Academic Research Grant**

Financed amount: 9050 euro (Co-I)

Title: Ambiguity: its role in asset pricing and insurance

Grant number: RM123188F744909D

2023 **La Sapienza University of Rome – International Mobility Grant for PhD Students**

Financed amount: 2100 euro

Bando: D.R. n. 1505/2023

2022 **La Sapienza University of Rome – Academic Research Grant**

Financed amount: 3000 euro (Co-I)

Title: L'opzione di riscatto nelle polizze rivalutabili: l'impatto delle penalità sulle scelte dei sottoscrittori

Grant number: RP12218167E24F87

2021 – 2024 **La Sapienza University of Rome – PhD Scholarship**

CONFERENCE GRANTS AND SUPPORT

2024 FWO–WOG Grant of 400 euro and 100% registration fee waiver

@ Actuarial and Financial Mathematics Conference (AFMATH)

2024 Approx. 70% registration fee waiver

@ 4th Italian Meeting on Probability and Mathematical Statistics

INTERNATIONAL AND NATIONAL RESEARCH GROUPS

2024 Member of the research project: European Union - Next Generation EU - **Project PRIN 2022** (Grant code BEMMLZ).

Stochastic control and games and the role of information.

SUMMER SCHOOLS

2023 **32nd Jyväskylä Summer School**, Jyväskylän Yliopisto.

Lecture by Goran Peskir.

2023 **Risk and uncertainty in economics, insurance and finance**, Bielefeld.

Lectures by Fernando Alvarez, Daniel Bauer and Tommaso Denti.

2022 **Summer School SMI**, Perugia.

Lectures by Loredana Lanzani, and Nicola Arcozzi.

MEMBERSHIPS

2024 - ongoing Association for Mathematics Applied to Social and Economic Sciences (**AMASES**).