MARIA OLYMPIA TSIANNI

Oxford, United Kingdom | mariatsianni31@gmail.com

EDUCATION

DPhil in Mathematics — University of Oxford, UK

- Oct 2022 – present | Heilbronn Doctoral Scholar
- Research areas: Applied Probability, Monte Carlo Simulations, Control and Optimisation
- Topic: Numerical analysis of irregular McKean–Vlasov SDEs and mean-field control problems
- Supervisor: Prof. Christoph Reisinger
- Research visit at Weierstrass Institute Berlin (May–July 2025) with Prof. Christian Bayer

MSc Mathematical & Computational Finance — University of Oxford, UK

- Sep 2021 – Jul 2022
- Modules include: Stochastic Calculus, C++, Statistics and Financial Data Analysis, Deep Learning
- Dissertation: Numerical analysis of a particle method for the calibrated local-stochastic volatility model (82%)

BSc Mathematics — University College London, UK

- Sep 2018 – Jul 2021 | First Class Honours (86.8%) | MAPS Dean's List award (top 5 %)
- Project: Market risk estimation of a multi-asset portfolio (R)

High School Education – State School, Paphos, Cyprus

- Sept 2015 – June 2018 | 19.89 out of 20
- Ranked 1st among all Greek & Cypriot applicants for BSc Mathematics at NKUA (2018 entry)

PUBLICATIONS & PREPRINTS

- "Convergence of the Euler–Maruyama particle scheme for a regularised McKean–Vlasov equation arising from the calibration of local-stochastic volatility models", Monte Carlo and Quasi-Monte Carlo Methods 2022, Springer (2024)
- "Numerical analysis of a particle system for the calibrated Heston-type LSV model", arXiv:2504.14343 (2025)
- "Convergence Rates of Time Discretization in Extended Mean Field Control", arXiv:2509.00904, (2025)

CONFERENCE TALKS

- 12th General AMaMeF Conference, University of Verona (Jul 2025)
- 12th Bachelier World Congress, Rio de Janeiro (Jul 2024)
- International Conference on Computational Finance, CWI, Amsterdam (Apr 2024)
- Oxford-ETH Workshop on Mathematical & Computational Finance, Oxford (Jun 2023)

TEACHING EXPERIENCE

- Stipendiary Lecturer, St Catherine's College Oxford — Probability, Multivariable Calculus, Statistics (2023-25)
- Tutor, MSc Mathematical & Computational Finance — Advanced numerical methods (2022)
- Teaching Assistant, MSc Mathematical & Computational Finance — Advanced Monte Carlo (2022)
- UCL Mathematics — Assessment quality reviewer (2021)

INDUSTRY EXPERIENCE

- Summer Intern, Deloitte Cyprus — Financial Advisory & IFRS 9 risk analysis (Jul 2020, 3 wks)
- Summer Intern, KPMG Cyprus — Audit team on large-cap client portfolio (Aug 2020, 3 wks)

AWARDS & SCHOLARSHIPS

- Heilbronn Doctoral Partnership Scholarship (full funding, 2022-26)
- Alan Tayler Scholarship, St Catherine's College (merit-based competitive award, 2023-25)
- A. G. Leventis Foundation Scholarship (merit-based international study grant, 2023-24, 2025-26)
- Cyprus State Foundation Scholarship — postgraduate & undergraduate study (2018-26)
- MAPS Dean's List award (top 5 %), University College London (2021)
- Ranked 1st among all Greek & Cypriot applicants for BSc Mathematics at NKUA (2018 entry)

MATHEMATICS COMPETITIONS:

- Gold medal, Mediterranean Youth Mathematical Championship (2017)
- Bronze medal, Junior Balkan Mathematical Olympiad (2015)
- Honourable mentions, International Mathematics Competition (2011, 2013, 2015)
- Eight National Mathematical Olympiad Medals, Cyprus – seven gold & one silver (2010 – 17)

LEADERSHIP & SERVICE

- Department Committee Member, Oxford Mathematics — represented 200 + postgraduates on strategic planning (2022-24)
- Consultative Committee for Graduates, Oxford Mathematics (2022-24)
- President, UCL Cypriot & Hellenic Society — secured £1.5 k sponsorship & grew membership 25 % (2019-20)
- Welfare Officer, UCL Cypriot & Hellenic Society (2018-19)

SKILLS

- Programming: Python (advanced, PyTorch, NumPy, pandas), C++, R, LaTeX
- Languages: Greek (native), English (fluent)
- Interests: Competitive tennis (University of Oxford & UCL teams), violin ABRSM Grade 8, ballet Royal Academy of Dance Grade 8