

# Samira Amiriyan

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## Education

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| <b>PhD</b>   | Mathematical Sciences, <a href="#">University of Liverpool</a> , Liverpool, UK                                                                                                                                                                                                                                                                                                  | 2023 – Now  |
|              | <ul style="list-style-type: none"> <li>Primary Supervisor: <a href="#">Dr. Ehsan Azmoodeh</a></li> <li>Secondary supervisor: <a href="#">Dr. Youness Boutaib</a></li> </ul>                                                                                                                                                                                                     |             |
| <b>M.Sc.</b> | Mathematical Finance, <a href="#">Amirkabir University of Technology (Tehran Polytechnic)</a> , Tehran, Iran                                                                                                                                                                                                                                                                    | 2018 – 2020 |
|              | <ul style="list-style-type: none"> <li>Primary Supervisor: <a href="#">Dr. Erfan Salavati</a></li> <li>Secondary supervisor: <a href="#">Dr. Omid Naghshine Arjmand</a></li> <li>M.Sc. Thesis: “Fractional Stochastic Volatility Models and Applications in Pricing”</li> <li>Ranked 2nd among M.Sc. students in Mathematical Finance major</li> <li>GPA: 3.86 / 4.0</li> </ul> |             |
| <b>B.Sc.</b> | Applied Mathematics, <a href="#">Amirkabir University of Technology (Tehran Polytechnic)</a> , Tehran, Iran                                                                                                                                                                                                                                                                     | 2014 – 2018 |
|              | <ul style="list-style-type: none"> <li>28 credits in Industrial Engineering</li> <li>Among the top 10% of students</li> <li>GPA: 3.64 / 4.0</li> </ul>                                                                                                                                                                                                                          |             |

## Publications

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| • 'Option Pricing in The Fractional Stochastic Volatility Models using Malliavin calculus', <b>Samira Amiriyan</b> , <a href="#">Paper Presentation of The 52nd Annual Iranian Mathematics Conference</a> , <a href="#">📄</a>              | Sep 2021 |
| • 'Fractional Stochastic Volatility Models and Applications in Pricing', <b>Samira Amiriyan</b> , <a href="#">Paper Presentation of The 6th FINACT-IRAN National Conference on Financial and Actuarial Mathematics</a> , <a href="#">📄</a> | Feb 2020 |

## Teaching Experience

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| • University of Liverpool, Liverpool, UK<br>Teaching Assistant, Department of Mathematical Sciences                                           |                      |
| – Statistics and Probability I, Dr. Alena Haddley                                                                                             | Sep 2025 - Jan 2026  |
| – Applied Probability, Dr. Ehsan Azmoodeh                                                                                                     | Sep 2025 - Jan 2026  |
| – Supervisor of undergraduate students (M391), Dr Youness Boutaib                                                                             | Jun 2025 - July 2025 |
| – Statistics and Probability I, Dr. Alena Haddley                                                                                             | Sep 2024 - Jan 2025  |
| – Applied Probability, Dr. Ehsan Azmoodeh                                                                                                     | Sep 2024 - Jan 2025  |
| – Supervisor of undergraduate students (M391), Dr Youness Boutaib                                                                             | Jun 2024 - July 2024 |
| – Statistics and Probability I, Dr. Alena Haddley                                                                                             | Sep 2023 - Jan 2024  |
| – Applied Probability, Dr. Ehsan Azmoodeh                                                                                                     | Sep 2023 - Jan 2024  |
| • Amirkabir University of Technology (Tehran Polytechnic), Tehran, Iran<br>Teaching Assistant, Department of Mathematics and Computer Science |                      |

## Conferences & Presentations

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- 'COMPUTING THE IMPLIED VOLATILITY THROUGH NEURAL NETWORKS WITH ASYMPTOTIC REGIMES', **Samira Amiriyan** and Youness Boutaib, [Poster Presentation of 5th Barcelona Summer School of Stochastic Analysis and Quantitative Finance](#), [🔗](#) July 2025
- 'Learning Price Function Under No Arbitrage', **Samira Amiriyan**, [Poster Presentation of 7th Berlin Workshop on Mathematical Finance for Young Researchers](#), [🔗](#) Sep 2024
- 'Pricing European Options in Fractional Stochastic Volatility Models', **Samira Amiriyan**, [Poster Presentation of The 12th Seminar on Probability and Random Processes](#). [🔗](#) Sep 2019

## Work Experience

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- **Residential Advisor**, [University of Liverpool](#) [🔗](#) Jun 2024 - Present
  - Provide pastoral and first-response support and guidance to over 100 residents in university accommodation
  - Respond to emergencies and mediate interpersonal conflicts in line with university policy
  - Plan and deliver events to promote student wellbeing, inclusion, and community engagement
- **Chief Financial Officer** at [Rahyab Behineh Consulting Engineers Co.](#) [🔗](#) Jun 2020 - Jul 2021
- **Stock Trader** (Personal Trader) at [Tehran Stock Exchange Market](#) [🔗](#) Mar 2020 - Dec 2021

## Honors & Awards

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- 3.5 years Postgraduate Research Studentship (full-time rate) for a Ph.D. in Mathematics, School of Physical Sciences (Dept of Mathematics), [University of Liverpool](#) [🔗](#), Liverpool, UK 2023
- Ranked 2nd among M.Sc. students of Mathematical Finance Major at [Amirkabir University of Technology \(Tehran Polytechnic\)](#) [🔗](#), Tehran, Iran 2020
- Among the top 10% of B.Sc. students of Applied Mathematics Major at [Amirkabir University of Technology \(Tehran Polytechnic\)](#) [🔗](#), Tehran, Iran 2018
- Full tuition scholarship for an M.Sc. (funded by the Iranian government) in Mathematics at [Amirkabir University of Technology \(Tehran Polytechnic\)](#) [🔗](#), Tehran, Iran 2018
- Full tuition scholarship (funded by the Iranian government) for a B.Sc. in Mathematics at [Amirkabir University of Technology \(Tehran Polytechnic\)](#) [🔗](#), Tehran, Iran 2014

## Fields of Interests

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- Mathematical Finance
- Quantitative Finance
- Machine Learning Applications in Quantitative Finance
- Asian Options and Exotic Derivatives
- Implied Volatility Surface Modeling

## Software Skills

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Python | C Programming | GAMS | LaTeX | Maple

## Activities

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- Mental Health Aware, MHFA England Sep 2025
- RLSS UK Qualifications Level 3 Award in Emergency First Aid at Work, Royal Life Saving Society UK 2024 - 2027
- Participated in [Family Network Workshop](#), University of York Dec 2024
- Introduction to Supporting Student Learning, also known as Stage 1 of Foundations of Teaching in Higher Education, University of Liverpool Oct 2023 - Jan 2024
- Participated in [Family Network Workshop](#), University of Liverpool Dec 2023
- In charge of Moasharan Cultural and Social Magazine, AmirKabir University of Technology 2018 - 2019
- Secretary of the Coordination Council of The Extracurricular Student Club Arts and Culture, Amirkabir University of Technology 2018 - 2019
- Writer at Moasharan Cultural and Social Magazine, AmirKabir University of Technology 2017 - 2019
- Elected Head member and speaker of the Students Music Club of The Extracurricular office, Amirkabir University of Technology 2017 - 2018
- Chief Financial Officer of the Students Music Club of The Extracurricular office, Amirkabir University of Technology 2016 - 2017
- Playing Piano 2007-Present

## Languages

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Farsi Native  
English Upper-Intermediate (IELTS: 7)  
Arabic Basic knowledge