Mikko S. Pakkanen

Curriculum Vitae

Postal Address: Department of Mathematics
Imperial College London
South Kensington Campus
London SW7 2AZ
United Kingdom

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Personal Data

Born in Joensuu, Finland in 1983. Finnish citizen.

Education

Doctor of Philosophy in Applied Mathematics, University of Helsinki, Nov 2006 – Dec 2010.

Master of Science in Mathematics, University of Helsinki, Sep 2002 – Nov 2006.

Academic Appointments

Imperial College London, Department of Mathematics — London, United Kingdom
Associate Professor in Data Science and Quantitative Finance — Jun 2025 – Present
Reader in Data Science and Quantitative Finance — Sep 2022 – May 2025
(on leave Sep 2022 – Jul 2023)

University of Waterloo, Dept. of Statistics and Actuarial Science — Waterloo, ON, Canada
Associate Professor (with tenure) — Sep 2022 – Jul 2023

Imperial College London, Department of Mathematics — London, United Kingdom
Senior Lecturer — Sep 2019 – Aug 2022
Lecturer in Mathematical Finance and Statistics — Nov 2014 – Aug 2019

Aarhus University, Dept. of Economics and Business and CREATES — Aarhus, Denmark
Postdoctoral Research Fellow — May 2012 – Oct 2014
Research Assistant — Feb 2012 – Apr 2012

Invited Research Visits

Technical University of Munich, Research Group of Financial and Actuarial Mathematics, Munich, Germany, May 2022 (1 week).

Visiting Fellow at Isaac Newton Institute for Mathematical Sciences, Cambridge, United Kingdom, Sep – Oct 2014 (5 weeks).

Université Paris-Dauphine, CEREMADE, Paris, France, Oct 2013 (1 week).

Saarland University, Department of Mathematics, Saarbrücken, Germany, Sep 2013 (1 month).

Heidelberg University, Institute of Applied Mathematics, Heidelberg, Germany, Sep – Oct 2012 (3 weeks).

Grants and Honours

Discovery Grant, Natural Sciences and Engineering Research Council of Canada (NSERC), Aug 2023 (not taken up due to return to the UK).

Faculty of Natural Sciences Prize for Excellence in Teaching, Imperial College London, Jun 2018.

Postdoctoral Fellowship, Academy of Finland, Sep 2012 – Oct 2014.

PhD Scholarship, Finnish Cultural Foundation, Jan 2008 – Dec 2010.

Research Interests

- Statistical modelling of high-frequency financial data and market microstructure
- Volatility modelling and forecasting
- Limit theorems and statistical inference for stochastic processes
- Machine learning in finance
- Stochastic modelling in epidemiology

Publications

(non-alphabetical order of authors is indicated by an asterisk)

Preprints

◇ R. de Witt and M. S. Pakkanen (2026): Diverse approaches to optimal execution schedule generation. Available as arXiv:2601.22113, 27 pages.

◇ G. Barrera, J. Lukkarinen and M. S. Pakkanen (2025): Wasserstein error estimates between telegraph processes and Brownian motion. Available as arXiv:2509.11871, 17 pages.

◇ P. Murray, R. Passeggeri, A. E. D. Veraart and M. S. Pakkanen* (2021): Feasible inference for stochastic volatility in Brownian semistationary processes. Available as arXiv:2007.06357, 21 pages.

Refereed Publications

34. L. Lucchese, M. S. Pakkanen and A. E. D. Veraart (2026): Estimation and inference for multivariate continuous-time autoregressive processes. *The Annals of Applied Probability* **36**(1), 703 – 743.

33. L. Lucchese, M. S. Pakkanen and A. E. D. Veraart (2025): Learning with expected signatures: Theory and applications. *Proceedings of the 42nd International Conference on Machine Learning (ICML 2025)*, Vancouver, BC, Canada, Jul 2025, pages 40995 – 41055.
☆ Selected for oral presentation — within top ∼1% of all submissions.

32. L. Lucchese, M. S. Pakkanen and A. E. D. Veraart (2024): The short-term predictability of returns in order book markets: A deep learning perspective. *International Journal of Forecasting* **40**(4), 1587 – 1621.

31. C. Bellani, D. Brigo, M. S. Pakkanen and L. Sánchez-Betancourt (2023): Price impact without averaging. *Applied Mathematical Finance* **30**(4), 175 – 206.

30. M. S. Pakkanen, X. Miscouridou, M. J. Penn, C. Whittaker, T. Berah, S. Mishra, T. A. Mellan and S. Bhatt* (2023): Unifying incidence and prevalence under a time-varying general branching process. *Journal of Mathematical Biology* **87**, article no. 35, 34 pages.

29. M. J. Penn, D. J. Laydon, J. Penn, C. Whittaker, C. Morgenstern, O. Ratmann, S. Mishra, M. S. Pakkanen, C. A. Donnelly and S. Bhatt* (2023): Intrinsic randomness in epidemic modelling beyond statistical uncertainty. *Communications Physics* **6**, article no. 146, 9 pages.

28. A. E. Bolko, K. Christensen, M. S. Pakkanen and B. Veliyev (2023): A GMM approach to estimate the roughness of stochastic volatility. *Journal of Econometrics* **235**(2), 745 – 778.

27. B. Horvath, A. Muguruza Gonzalez and M. S. Pakkanen (2023): Harnessing quantitative finance by data-centric methods. In A. Capponi and C.-A. Lehalle (eds): *Machine Learning and Data Sciences for Financial Markets: A Guide to Contemporary Practices*, pages 265 – 292. Cambridge University Press, Cambridge.

26. Y. Li, M. S. Pakkanen and A. E. D. Veraart (2023): Limit theorems for the realised semicovariances of multivariate Brownian semistationary processes. *Stochastic Processes and their Applications* **155**, 202 – 231.

25. P. Murray, B. Wood, H. Buehler, M. Wiese and M. S. Pakkanen* (2022): Deep hedging: Continuous reinforcement learning for hedging of general portfolios across multiple risk aversions. *Proceedings of the 3rd ACM International Conference on AI in Finance (ICAIF'22)*, New York, NY, USA, Nov 2022, pages 361 – 368.

24. M. Bennedsen, A. Lunde and M. S. Pakkanen (2022): Decoupling the short- and long-term behavior of stochastic volatility. *Journal of Financial Econometrics* **20**(5), 961 – 1006.

23. S. Mishra, S. Flaxman, T. Berah, H. Zhu, M. Pakkanen and S. Bhatt* (2022): πVAE: A stochastic process prior for Bayesian deep learning with MCMC. *Statistics and Computing* **32**, article no. 96, 16 pages.

22. M. Morariu-Patrichi and M. S. Pakkanen (2022): State-dependent Hawkes processes and their application to limit order book modelling. *Quantitative Finance* **22**(3), 563 – 583.

21. H. Buehler, P. Murray, M. S. Pakkanen and B. Wood (2022): Deep hedging: Learning to remove the drift. *Risk* (March 2022), 6 pages. (Extended version: arXiv:2111.07844)
☆ Media coverage: *Podcast: Hans Buehler on the data science behind deep hedging* (Risk.net)

20. M. S. Pakkanen, R. Passeggeri, O. Sauri and A. E. D. Veraart (2021): Limit theorems for trawl processes. *Electronic Journal of Probability* **26**, article no. 116, 36 pages.

19. C. Heinrich, M. S. Pakkanen and A. E. D. Veraart (2019): Hybrid simulation scheme for volatility modulated moving average fields. *Mathematics and Computers in Simulation* **166**, 224 – 244.

18. M. Bennedsen, U. Hounyo, A. Lunde and M. S. Pakkanen (2019): The local fractional bootstrap. *Scandinavian Journal of Statistics* **46**(1), 329 – 359.

17. M. Morariu-Patrichi and M. S. Pakkanen (2018): Hybrid marked point processes: characterisation, existence and uniqueness. *Market Microstructure and Liquidity* **4**(3&4), 1950007, 55 pages.

16. A. Jacquier, M. S. Pakkanen and H. Stone (2018): Pathwise large deviations for the rough Bergomi model. *Journal of Applied Probability* **55**(4), 1078 – 1092. (Erratum: *Journal of Applied Probability* **58**(3), 849–850, with S. Gerhold and T. Wagenhofer.)

15. R. McCrickerd and M. S. Pakkanen (2018): Turbocharging Monte Carlo pricing for the rough Bergomi model. *Quantitative Finance* **18**(11), 1877 – 1886.

14. M. Bennedsen, A. Lunde and M. S. Pakkanen (2017): Hybrid scheme for Brownian semistationary processes. *Finance and Stochastics* **21**(4), 931 – 965.
☆ Reprinted in C. Bayer, P. K. Friz, M. Fukasawa, J. Gatheral, A. Jacquier and M. Rosenbaum (eds): *Rough Volatility*, pages 127 – 155. SIAM, Philadelphia, PA (2023).

13. J. Lukkarinen and M. S. Pakkanen (2017): Arbitrage without borrowing or short selling? *Mathematics and Financial Economics* **11**(3), 263 – 274.

12. M. S. Pakkanen, T. Sottinen and A. Yazigi (2017): On the conditional small ball property of multivariate Lévy-driven moving average processes. *Stochastic Processes and their Applications* **127**(3), 749 – 782.

11. M. S. Pakkanen and A. Réveillac (2016): Functional limit theorems for generalized variations of the fractional Brownian sheet. *Bernoulli* **22**(3), 1671 – 1708.

10. C. Bender, M. S. Pakkanen and H. Sayit (2015): Sticky continuous processes have consistent price systems. *Journal of Applied Probability* **52**(2), 586 – 594.

9. O. E. Barndorff-Nielsen, M. S. Pakkanen and J. Schmiegel (2014): Assessing relative volatility/intermittency/energy dissipation. *Electronic Journal of Statistics* **8**(2), 1996 – 2021.

8. M. S. Pakkanen (2014): Limit theorems for power variations of ambit fields driven by white noise. *Stochastic Processes and their Applications* **124**(5), 1942 – 1973.

7. E. Bayraktar, M. S. Pakkanen and H. Sayit (2014): On the existence of consistent price systems. *Stochastic Analysis and Applications* **32**(1), 152 – 162.

6. J. M. Corcuera, E. Hedevang, M. S. Pakkanen and M. Podolskij (2013): Asymptotic theory for Brownian semi-stationary processes with application to turbulence. *Stochastic Processes and their Applications* **123**(7), 2552 – 2574.

5. J. Lukkarinen and M. S. Pakkanen (2013): On the positivity of Riemann–Stieltjes integrals. *Bulletin of the Australian Mathematical Society* **87**(3), 400 – 405. (Erratum: *Bulletin of the Australian Mathematical Society* **89**(3), 524.)

4. E. Lappi, M. S. Pakkanen and B. Åkesson (2012): An approximative method of simulating a duel. *Proceedings of the 2012 Winter Simulation Conference (WSC'12)*, Berlin, Germany, Dec 2012, pages 2230 – 2339.

3. M. S. Pakkanen (2011): Brownian semistationary processes and conditional full support. *International Journal of Theoretical and Applied Finance* **14**(4), 579 – 586.

2. M. S. Pakkanen (2010): Stochastic integrals and conditional full support. *Journal of Applied Probability* **47**(3), 650 – 667.

1. M. S. Pakkanen (2010): Microfoundations for diffusion price processes. *Mathematics and Financial Economics* **3**(2), 89 – 114.

Book Reviews

◇ M. S. Pakkanen (2018): Review of "Quantitative Trading: Algorithms, Analytics, Data, Models, Optimization" by X. Guo, T. L. Lai, H. Shek and S. P. Wong. *The American Statistician* **72**(1), 112 – 113.

Selected Presentations

Invited Mini-Courses

Machine Learning in Finance Workshop, QuantMinds International, London, United Kingdom, Nov 2024, Nov 2025 (joint with B. Horvath; delivered 3 hrs).

Crash Course in Deep Learning, Department of Mathematical Sciences, University of Liverpool, Liverpool, United Kingdom, Apr 2022 (10 hrs).

Harnessing Quantitative Finance by Deep Learning, The 14th European Summer School in Financial Mathematics, online, Aug 2021 (joint with B. Horvath; delivered 1.5 hrs).

Invited Panel Discussions

Blending Data Science and Business Needs, Digital & Data Symposium, Standard Chartered Bank, online, Oct 2021.

Invited Talks at Conferences and Workshops

Joint CoRE–DG Chair Workshop on Stochastic Processes, Estimation and Hedging, Aarhus, Denmark, May 2025.

ETH–Hong Kong–Imperial Mathematical Finance Workshop, London, United Kingdom, Jun 2024.

Ole E. Barndorff-Nielsen Memorial Conference, Aarhus, Denmark, May 2024.

Stochastic Sauna 2023, University of Helsinki, Helsinki, Finland, Dec 2023.

QuantMinds International, London, United Kingdom, Nov 2023.

Mini-symposium on Efficient Inference for Large and High-Frequency Data, 10th International Congress on Industrial and Applied Mathematics (ICIAM 2023), online, Aug 2023.

Volatility Conference 2023, Singapore Management University, Singapore, Jun 2023.

The Modeling of Markets with Complex and Rough Regimes, Centre Cournot, online, Aug 2022.

Aarhus/SMU Conference on Volatility, online, May 2022.

LMU Spring Workshop in Stochastics and Finance, Ludwig Maximilian University of Munich, Munich, Germany, May 2022.

Mini-symposium on Machine Learning Applications in Computational Finance, SIAM Conference on Financial Mathematics and Engineering (FM21), online, Jun 2021.

Market Microstructure: The CFM–Imperial Workshop, HSBC, London, United Kingdom, Dec 2019.

CFM–Imperial Day, Capital Fund Management, Paris, France, Oct 2019.

Fourth Conference on Ambit Fields and Related Topics, Sandbjerg, Denmark, Aug 2019.

The 2nd CUHK–Imperial Workshop on Quantitative Finance, The Chinese University of Hong Kong, Sha Tin, Hong Kong SAR, China, May 2019.

QuantMinds International, Vienna, Austria, May 2019.

The 12th International Conference on Computational and Financial Econometrics, Pisa, Italy, Dec 2018.

Third Conference on Ambit Fields and Related Topics, Aarhus, Denmark, Aug 2018.

The 9th International Workshop on Applied Probability, Budapest, Hungary, Jun 2018.

QuantMinds International, Lisbon, Portugal, May 2018.

Jim Gatheral's 60th Birthday Conference, Courant Institute of Mathematical Sciences, NYU, New York, NY, USA, Oct 2017.

Second Conference on Ambit Fields and Related Topics, Aarhus, Denmark, Aug 2017.

Recent Developments in Numerical Methods with Applications in Statistics and Finance, Mannheim, Germany, Jun 2017.

Fractional Brownian Motion and Rough Models, Barcelona GSE Summer Forum, Barcelona, Spain, Jun 2017.

Advances in Financial Mathematics, Paris, France, Jan 2017.

Rough Volatility Meeting, London, United Kingdom, Oct 2016.

Conference on Ambit Fields and Related Topics, Aarhus, Denmark, Aug 2016.

At the Frontiers of Quantitative Finance, ICMS, Edinburgh, United Kingdom, Jun 2016.

London–Paris Bachelier Workshop on Mathematical Finance 2015, London, United Kingdom, Sep 2015.

Aarhus Conference on Probability, Statistics and Their Applications, Aarhus, Denmark, Jun 2015.

The 4th Finnish-Estonian Mathematical Colloquium & Finnish Mathematical Days 2014, Helsinki, Finland, Jan 2014.

AHOI Workshop for Ambit Stochastics and Applications, London, United Kingdom, Mar 2013.

CREATES Annual Meeting, Sandbjerg, Denmark, Aug 2012.

Workshop on Ambit Processes, Non-Semimartingales and Applications, Sandbjerg, Denmark, Jan 2010.

Finnish Mathematical Days 2010, Jyväskylä, Finland, Jan 2010.

Seminars

Bank of America Quant Seminar, London, United Kingdom, Mar 2025.

NordicMathCovid Research Meeting, online, Apr 2024.

Finance and Stochastics Seminar, Imperial College London, London, United Kingdom, May 2023.

Séminaire Bachelier, Institut Henri Poincaré, Paris, France, Apr 2022.

Stochastic Finance at Warwick, University of Warwick, online, Mar 2022.

Department of Statistics and Actuarial Science, University of Waterloo, online, Jan 2022.

Department of Mathematical Sciences, University of Copenhagen, online, Apr 2021.

Department of Mathematics and Statistics, University of Ottawa, Ottawa, ON, Canada, Jun 2019.

Goldman Sachs, London, United Kingdom, Jan 2019.

QuantPORT, Jefferies, London, United Kingdom, Nov 2018.

Financial Engineering Workshop, Cass Business School, London, United Kingdom, Oct 2018.

London Mathematical Finance Seminar, London, United Kingdom, Oct 2016.

Séminaire de Probabilités, IMT/Université Paul Sabatier, Toulouse, France, Dec 2015.

Groupe de Travail: Finance mathématique, probabilités numériques et statistique des processus, LPMA/Université Paris Diderot, Paris, France, Nov 2015.

Finance and Stochastics Seminar, Imperial College London, London, United Kingdom, May 2014.

Oberseminar zur Stochastik, Saarland University, Saarbrücken, Germany, Sep 2013.

Statistics Seminar, Heidelberg University, Heidelberg, Germany, Oct 2012.

Contributed Talks at Conferences and Workshops

Frontiers in High-Frequency Financial Econometrics, Pisa, Italy, Sep 2018.

Financial Econometrics Conference: Market Microstructure, Limit Order Books and Derivatives Markets, Lancaster, United Kingdom, Sep 2018.

Imperial–ETH Workshop on Mathematical Finance 2018, Zurich, Switzerland, Apr 2018.

WPI Mini-Workshop on Random Fields in Energy and Weather Finance, Vienna, Austria, Apr 2014.

OMI–SoFiE Financial Econometrics Summer School, Oxford, United Kingdom, Jul 2012.

The 73rd Annual Meeting of the Institute of Mathematical Statistics, Gothenburg, Sweden, Aug 2010.

The 33rd Conference on Stochastic Processes and Their Applications, Berlin, Germany, Jul 2009.

Non-Semimartingale Techniques in Mathematical Finance, Espoo, Finland, May 2009.

Workshop on Mathematical Finance for Young Researchers, Berlin, Germany, Oct 2008.

Teaching

Experience as Instructor (shared instructorship is indicated by an asterisk)

Financial Market Volatility (MSc in Economics and Management, Aarhus University, Spring 2013*, Spring 2014*).

Quantitative Risk Management (MSc in Mathematics and Finance, Imperial College London, Autumn 2014*, Autumn 2015, Autumn 2016, Autumn 2017, Autumn 2018, Autumn 2019).

Pricing and Hedging in Financial Markets (MSc in Statistics, Imperial College London, Spring 2015, Spring 2016, Spring 2017, Spring 2018).

Financial Econometrics (MSc in Statistics, Imperial College London, Spring 2016, Spring 2017, Spring 2018).

Introduction to Statistical Finance (MSc in Statistics, Imperial College London, Spring 2019, Spring 2020).

Advanced Statistical Finance (MSc in Statistics, Imperial College London, Spring 2019, Spring 2020, Spring 2024, Spring 2025).

Deep Learning (MSc in Mathematics and Finance, Imperial College London, Autumn 2019, Autumn 2020, Autumn 2021).

Market Microstructure (MSc in Mathematics and Finance, Imperial College London, Spring 2022).

Mathematics of Financial Markets (4th-year undergraduate, University of Waterloo, Winter 2023).

Financial Mathematics II (Master of Actuarial Science, University of Waterloo, Winter 2023).

Unsupervised Learning (MSc in Machine Learning and Data Science, Imperial College London, Autumn 2023, Summer 2024, Summer 2025).

Machine Learning in Finance (PhD, EPSRC Centre for Doctoral Training in Statistics and Machine Learning, Imperial College London/University of Oxford, Autumn 2024*).

Experience as Teaching Assistant

Mathematical Finance (MSc in Applied Mathematics, University of Helsinki, Autumn 2007).

Stochastic Analysis (MSc in Applied Mathematics, University of Helsinki, Spring 2008).

Statistical Inference (2nd-year undergraduate, University of Helsinki, Autumn 2008 – Spring 2009).

Advanced Statistical Inference (MSc in Statistics, University of Helsinki, Autumn 2009).

Teaching Qualifications

Pedagogical Training Course for Assistant Professors and Post Docs ("adjunktpædagogikum") at Aarhus University, Aug 2012 – Jan 2013.

Fellow of the Higher Education Academy (UK), since Oct 2017.

Supervision, Mentoring and Examining

Postdoctoral Research Associates

Peter Sozou (Department of Mathematics, Imperial College London), Sep 2019 – Sep 2020.

Postgraduate Research Students

Maxime Morariu-Patrichi (MRes + PhD, Imperial College London), Oct 2014 – Oct 2018.
PhD thesis: *High-frequency financial data modelling with hybrid marked point processes*
Viva voce: 28 Nov 2018
☆ *Doris Chen Merit Award* (Dept. of Mathematics, Imperial College London, Jul 2018)

Henry Stone (MRes + PhD, Imperial College London, joint with Antoine Jacquier), Oct 2015 – Oct 2019.

PhD thesis: *Rough volatility models: Small-time asymptotics and calibration*
Viva voce: 17 Dec 2019

Ryan McCrickerd (MRes + PhD, Imperial College London, joint with Martin Rasmussen), Oct 2016 – Mar 2021.

PhD thesis: *On spatially irregular ordinary differential equations and a pathwise volatility modelling framework*
Viva voce: 11 May 2021

Théophile Griveau-Billion (PhD, Imperial College London, supervised by Ben Calderhead until Sep 2019), Oct 2019 – Oct 2020.

PhD thesis: *Discovering the hidden structure of financial markets through Bayesian modelling*
Viva voce: 28 Jan 2021

Douglas Machado Vieira (PhD, Imperial College London, joint with Rama Cont), Nov 2018 – Sep 2020.

PhD thesis: *Options and market making*
Viva voce: 11 Nov 2020

Phillip Murray (PhD, Imperial College London, joint with Almut Veraart), Oct 2019 – Apr 2023.

PhD thesis: *Machine learning algorithms for pricing and hedging of derivatives*
Viva voce: 17 Jul 2023

Tresnia Berah (PhD, Imperial College London, joint with Riccardo Passeggeri), Oct 2020 – Dec 2024.

PhD thesis: *Studies in branching processes: Mathematical modelling of structured populations and epidemics*
Viva voce: 12 Feb 2025

Lorenzo Lucchese (PhD, Imperial College London, joint with Almut Veraart), Oct 2021 – Dec 2024.

PhD thesis: *Advances in stochastic processes with machine learning applications*
Viva voce: 13 Feb 2025
☆ *Doris Chen Merit Award* (Dept. of Mathematics, Imperial College London, Oct 2024)

Yuan Li (PhD student, Imperial College London, joint with Almut Veraart), Oct 2020 – Present.

William Ogier (PhD student, Imperial College London, joint with Axel Gandy), Oct 2025 – Present.

Mahek Srivastava (MRes student, Imperial College London), Oct 2025 – Present.

Visiting Research Students

Claudio Heinrich (PhD, Aarhus University, visiting Imperial, joint with Almut Veraart), Spring 2017.

Anine Eg Bolko (PhD, Aarhus University, visiting Imperial), Spring – Summer 2019.

Taught Postgraduate and Undergraduate Students

Supervised 2 BSc (M3R), 21 MSci (M4R), 1 MEng and 64 MSc thesis projects (of which 25 joint with external partners and 4 co-supervised with colleagues) at Imperial College London, Nov 2014 – Present.

Supervised 1 MMath research paper at the University of Waterloo, Summer 2023.

Examination Committees

Pierre Blaque-Florentin (PhD, Imperial, Oct 2016), Sergey Badikov (PhD, Imperial, Oct 2017), Fangwei Shi (PhD, Imperial, Feb 2018), Hao Liu (PhD, Imperial, May 2018), Nicola Pede (PhD, Imperial, May 2018), Dmitry Otryakhin (PhD, Aarhus, Sep 2019), Hong Liu (MPhil, King's College

London, Dec 2019), Federico Graceffa (PhD, Imperial, Oct 2021), Lifan Xuan (PhD, Imperial, Nov 2021), Georgios Sofronis (PhD, Lancaster, Nov 2022). Giacomo Giorgio (PhD, Rome Tor Vergata, Jul 2024), Peter Korsbakke Christensen (PhD, Aarhus, Dec 2024), Anders Norlyk (PhD, Aarhus, May 2025), Kristof Wiedermann (Dr. techn., TU Wien, May 2025).

Other

Team Mentor, The 6th Financial Mathematics Team Challenge, University of Cape Town, Cape Town, South Africa, 25 Jun – 4 Jul 2019.

Other Professional Activities

Leadership and Management

Co-Director, *EPSRC Centre for Doctoral Training in Financial Computing & Analytics*, Jul 2018 – Aug 2022.

Co-Director, *MSc in Mathematics and Finance* at Imperial College London, Aug 2018 – Sep 2020.

Leader and Founder, *Imperial Network of Excellence in Probabilistic Methods and Modelling* at Imperial College London, Jul 2017 – Jul 2019.

Current Administrative Roles

Digital Learning Champion, Department of Mathematics, Imperial College London, Jan 2024 – Present.

Statistics Undergraduate Exams Editor, Department of Mathematics, Imperial College London, Oct 2023 – Present.

Conference, Workshop and Seminar Organisation

Co-Organiser, *Workshop on Finance, Insurance, Probability and Statistics (FIPS 2018)*, London, 10 – 11 Sep 2018.

Co-Organiser, *Conference on Mathematical Modelling in Finance*, London, 30 Aug – 2 Sep 2017.

Co-Organiser, *International Workshop on Spatio-Temporal Statistics*, London, 18 – 20 Apr 2016.

Co-Organiser, *AHOI Workshop on Tempo-Spatial Stochastic Processes and Stochastic Volatility*, London, 23 – 24 Feb 2015.

Co-Organiser, *Finance and Stochastics Seminar* at Imperial College London, Autumn 2014 – Spring 2018.

Co-Organiser, *Actuarial Science and Financial Mathematics Seminar* at the University of Waterloo, Nov 2022 – Jun 2023.

Refereeing

Referee: *The Annals of Applied Probability*, *The Annals of Applied Statistics*, *The Annals of Statistics*, *Applied Mathematical Finance*, *Bernoulli*, *Biometrika*, *Decisions in Economics and Finance*, *Electronic Communications in Probability*, *Finance and Stochastics*, *International Journal of Theoretical and Applied Finance*, *Journal of Applied Statistics*, *Journal of Business & Economic Statistics*, *Journal of Economic Dynamics and Control*, *Journal of Financial Econometrics*, *Journal of Futures Markets*, *Journal of Statistical Mechanics: Theory and Experiment*, *Journal of the Royal Statistical Society: Series A*, *Market Microstructure and Liquidity*, *Mathematical Finance*, *Mathematics and Computers in Simulation*, *Probability and Mathematical Statistics*, *Probability Theory and Related Fields*, *Quantitative Finance*, *Risk*, *SIAM Journal on Financial Mathematics*, *Stochastic Analysis and Applications*, *Stochastic Models*, *Stochastic Processes and their Applications*, *Studies in Nonlinear Dynamics & Econometrics*, *Teoriya Veroyatnostei i ee Primeneniya*; *CRC Press*, *Oxford University Press (book proposals)*.

Programme Committee Member: *3rd ACM International Conference on AI in Finance (ICAIF'22)*.

Grant Proposal Reviewer: *EPSRC (UK)*, *NSERC (Canada)*.

Reviewer for *Zentralblatt MATH*, 2011 – 2016.

Non-Academic Experience

Ad hoc consultancy on quantitative finance and algorithmic trading, Spring – Summer 2020.

Military service in the Finnish Defence Forces, including 5 months of work on operations research at the Defence Forces' Technical Research Centre, PVTT, Jan 2011 – Jan 2012.

Internships at Pellervo Economic Research Institute, Helsinki, Finland, Summer 2004 and Summer 2005.