SAMUEL N. COHEN

Mathematical Institute, University of Oxford, Radcliffe Infirmary Quarter, Oxford, OX2 6GG, UK
samuel.cohen@maths.ox.ac.uk

EDUCATION

The University of Adelaide

- *Doctor of Philosophy (Ph.D.),* 2008-2010, Supervisors: R.J. Elliott and C.E.M. Pearce
  Title: *Problems in Backward Stochastic Differential Equations: with applications to nonlinear expectations and risk measures*
- *Bachelor of Mathematical Sciences (Hons. Statistics),* 2007
- *Bachelor of Finance,* 2006

The Hamilton & Alexandra College, Hamilton, Victoria, Class of 2002.

ACADEMIC POSITIONS

- Mathematical Institute, University of Oxford: Professor of Mathematics 2023–Present
- Mathematical Institute, University of Oxford: Associate Professor 2015–2023
- New College, University of Oxford: Senior Research Fellow 2015–Present
- Mathematical Institute, University of Oxford: Departmental Lecturer 2012–2015
- New College, University of Oxford: Non-stipendary lecturer 2014–Present
- Exeter College, University of Oxford: Lump Sum Lecturer 2011–2014
- St John's College, University of Oxford: Junior Research Fellow 2010–2012
- Mathematical Institute, University of Oxford: Module Lecturer 2010–2012
- University of Adelaide: Casual Tutor and Lecturer 2006–2010
- University of South Australia: Casual Lecturer and Course Coordinator 2009
- University of Adelaide: Casual Tutor 2003–2009
- Bradford College, University of Adelaide: Tutor 2006–2008

SECONDARY AND INVITED POSITIONS

- Alan Turing Institute, Fellow 2021–Present
- Alan Turing Institute, Theme Lead for ML in Finance 2018–Present
- Università degli Studi di Milano-Bicocca (Milan)
  and Università degli Studi dell'Insubria (Varese) October 2019
- University of Technology, Sydney: Nicola Bruti-Liberati Fellow December 2014
- Université du Maine: Professeur Invité April 2014
- Université de Rennes I: Professeur Invité July 2011
- Shandong University: Visiting researcher May 2010

SELECTED PUBLICATIONS

Books

- Cohen, S.N. and Elliott, R.J. *Stochastic Calculus and Applications (2nd Ed.)*, Birkhäuser, 2015
- Cohen, S.N., Gyöngy, I., dos Reis, G., Siska, D., Szpruch, L. (Eds), *Frontiers in Stochastic Analysis – BSDEs, SPDEs and their Applications*, Springer, 2019
- Cohen, S.N., Madan, D.B., Siu, T.K and Yang, H. (Eds) *Stochastic processes, filtering and control: A festschrift in honour of Robert J. Elliott*, World Scientific, 2012.

Papers Accepted/Published

- Cohen, S.N., Reisinger, C., and Wang, S., Arbitrage-free neural-SDE market models, *Applied Mathematical Finance*, to appear
- An, L., Cohen, S.N. and Ji, S. Reflected Backward Stochastic Difference Equations and Optimal Stopping Problems under g-expectation, *Electronic Journal of Probability*,28:1–24, 2023
- Cohen, S.N., Sabaté Vidales, M., Šiška, D., and Szpruch, Ł., Inefficiency of CFMs: hedging perspective and agent-based simulations, Proceedings of *Financial Cryptography and Data Security*, 2023

- Cohen, S.N., Jiang, D., and Sirignano, J., Neural Q-learning for solving PDEs, *Journal of Machine Learning Research*, **24**(236):1–49, 2023
- Cohen, S.N., Reisinger, C. and Wang, S., Hedging option books using neural-SDE market models, *Applied Mathematical Finance*, **29**(5):366–401, 2022
- Jordon, J., Szpruch, L., Houssiau, F., Bottarelli, M., Cherubin, G., Maple, C., Cohen, S.N. and Weller, A., Synthetic data – what, why and how?, *Royal Society report*, 2022
- Cohen, S.N., Reisinger, C., and Wang, S., Estimating risks of option books using neural-SDE market models, *Journal of Computational Finance*, **26**(3):33-72, 2022
- Houssiau, F., Jordon, J., Mole, C., Rangel-Smith, C., Geddes, J., Elliott, A., Daniel, O., Cohen, S.N. and Szpruch, Ł., TAPAS: a Toolbox for Adversarial Privacy Auditing of Synthetic Data, *SyntheticData4ML Workshop, NeurIPS 2022* (awarded best paper prize)
- Cohen, S.N. and Treetanthiploet, T., Gittins' theorem under uncertainty, *Electronic Journal of Probability*, **27**:1–48, 2022
- Cao, H., Cohen S.N and Szpruch, L., Identifiability in inverse reinforcement learning, *Advances in Neural Information Processing Systems 34 (NeurIPS 2021)*
- Cohen, S.N., Snow, D. and Szpruch, L., Black-box model risk in finance, in *Machine Learning in Financial Markets: A Guide to Contemporary Practice*, Capponi, C. and Lehalle, C.-A. (Eds), Cambridge University Press, 2021
- Cohen, S.N., Reisinger, C., Wang, S. Detecting and repairing arbitrage in traded option prices, *Applied Mathematical Finance*, **27**(5):345–373, 2021
- Cohen, S.N. Uncertainty and filtering of hidden Markov models in discrete time, *Probability, Uncertainty and Quantitative Risk*, 2020, Article 4
- Allan, A.L. and Cohen, S.N. Pathwise stochastic control with applications to robust filtering, *Annals of Applied Probability*, **30**(5):2274–2310, 2020
- Cohen, S.N. and Tegner, M. European Option Pricing with Stochastic Volatility models under Parameter Uncertainty, pp123–167 in Cohen, S.N., Gyöngy, I., dos Reis, G., Siska, D., Szpruch, L. (Eds), *Frontiers in Stochastic Analysis–BSDEs, SPDEs and their Applications*, Springer, 2019
- Allan, A.L. and Cohen, S.N., Parameter uncertainty in the Kalman–Bucy filter, *SIAM Journal on Control and Optimization*, **57**(3): 1646–1671, 2019
- Cohen, S.N., Henckel, T., Menzies, G.D., Muhle-Karbe, J. and Zizzo, D.J. Switching cost models as hypothesis tests, *Economics Letters*, **175**:32–25, 2019
- Cohen, S.N. Data and uncertainty in extreme risks – a nonlinear expectations approach, in *Innovations in Insurance, Risk and Asset Management*, Eds. K Glau, D Linders, A Min, M Scherer, L Schneider, R Zagst, World Scientific, 2018
- Cohen, S.N., Elliott, R.J. and Siu, T.K. Malliavin calculus in a binomial framework, *Applied Stochastic Models in Business and Industry*, 2018; 1–8
- Cohen, S.N. and Fedyashov, V. Nash equilibria for nonzero-sum ergodic stochastic differential games, *Journal of Applied Probability* **54**(4):977–994, 2017
- Cohen, S.N. Data-driven nonlinear expectations for statistical uncertainty in decisions, *Electronic Journal of Statistics* **11**(1):1858–1889, 2017
- Allan, A.L. and Cohen, S.N. Ergodic backward stochastic difference equations, *Stochastics* **88**(8):1207–1239, 2016
- Elliott, R.J., Siu, T.K. and Cohen, S.N. Backward stochastic difference equations for dynamic convex risk measures on a binomial tree, *Journal of Applied Probability* **52**(3): 771–785, 2015
- Cohen, S.N., Ji, S. and Yang, S., A generalized Girsanov transformation of finite state stochastic processes in discrete time, *Statistics and Probability Letters* **84**: 33–39, 2014
- Cohen, S.N. and Hu, Y., Ergodic BSDEs driven by Markov chains. *SIAM Journal on Control and Optimization* **51**(5):4138–4168, 2013
- Cohen, S.N. Undiscounted Markov chain BSDEs to stopping times, *Journal of Applied Probability* **51**(1), 2014
- Cohen, S.N., Quasi-sure analysis, aggregation and dual representations of sublinear expectations in general spaces, *Electronic Journal of Probability* **17** Article 62, 2012

- Cohen, S.N. and Szpruch, Ł., A limit order book model for latency arbitrage, *Mathematics and Financial Economics* **6**(3):211–227, 2012
- Cohen, S.N., Chaos representations for Marked Point Processes, *Communications on Stochastic Analysis* **6**(2), 263–279, 2012
- Cohen, S.N. and Szpruch, Ł., On Markovian solutions to Markov chain BSDEs, *Numerical Algebra, Control and Optimization* **2**(2):257–269, 2012
- Cohen, S.N. Representing filtration consistent nonlinear expectations as g-expectations in general probability spaces, *Stochastic Processes and Applications* **122**(4), 1601–1626, 2012
- Cohen, S.N. and Elliott, R.J. Existence, Uniqueness and Comparisons for BSDEs in General Spaces, *Annals of Probability*, **40**(5):2264-2297, 2012
- Cohen, S.N. and Elliott, R.J. Backward Stochastic Difference Equations and nearly-time-consistent nonlinear expectations, *SIAM Journal on Control and Optimization* **49**:125–139, 2011
- Pearce, C.E.M., Cohen, S.N. and Tuke, S.J. New Zealand palaeodemography: Pitfalls and possibilities, in *BIOMAT 2009: International Symposium on Mathematical and Computational Biology (Brasilia 1–6 August 2009)* Ed. R.P. Mondaini, World Scientific 2010, 194–212
- Cohen, S.N., Elliott, R.J. and Pearce, C.E.M. A general comparison theorem for Backward Stochastic Differential Equations, *Advances in Applied Probability*, **42**(3):878–898, 2010
- Cohen, S.N. Pricing and risk measurement with Backward Stochastic Differential Equations, invited contribution in *AustMS Gazette* **37**(3):168–169, 2010
- Cohen, S.N. and Elliott, R.J. A General Theory of Finite State Backward Stochastic Difference Equations, *Stochastic Processes and Applications*, **120**(4):442–466, 2010
- Cohen, S.N. and Elliott, R.J. Comparisons for Backward Stochastic Differential Equations on Markov Chains and related no-arbitrage conditions, *Annals of Applied Probability*, **20**(1):267–311, 2010
- Cohen, S.N. and Elliott, R.J. Backward Stochastic Differential Equations on Markov Chains, *Communications on Stochastic Analysis*, **2**(2):251–262, 2010
- Cohen, S.N. and Elliott, R.J. Comparison Theorems for Finite State Backward Stochastic Differential Equations, in *Contemporary Quantitative Finance, Essays in Honour of Eckhard Platen*, Eds. C. Chiarella, A. Novikov, Springer, 2010, 135–158
- Cohen, S.N. and Elliott, R.J. Backward Stochastic Difference Equations with Finite States, in *Stochastic Analysis with Financial Applications, Hong Kong 2009*, Eds. A. Kohatsu-Higa, N. Privault and S.-J. Sheu, Birkhäuser, 2010, 33–43

Papers Submitted or Unpublished (available on arXiv and/or SSRN)

- Cohen, S.N., Knochenhauer, C., and Merkel, A. Optimal adaptive control with separable drift uncertainty
- Cohen, S.N., and Fausti, E., Hyperbolic contractivity and the Hilbert metric on probability measures
- Cohen, S.N., Sabate-Vidales, M, Szpruch, Ł, Gontier Delaunay, M., The Paradox of Adversarial Liquidation in Decentralised Lending
- Aminian, G., Cohen, S.N. and Szpruch, Ł., Mean-field analysis of generalization errors
- Jiang, D., Sirignano, J., and Cohen, S.N., Global Convergence of deep Galerkin and PINNs methods for solving partial differential equations
- Cohen, S.N. and Fausti, E., Exponential contractions and robustness for approximate Wonham filters
- Cartea, Á., Cohen, S.N., Graumans, R., Labyad, S., Sánchez-Betancourt, L., and van Veldhuijzen, L., Statistical predictions of trading strategies in electronic markets
- Houssiau, F., Cohen, S.N., Szpruch, Ł., Daniel, O., Lawrence, M.G., Mitra, R., Wilde, H. and Mole, C., A framework for auditable synthetic data generation
- Cohen, S.N., Liu, S., Malpass, W., Mantoan, G., Nesheim, L., de Paula, A., Scott, C., Small, E. and Yang, L., Nowcasting with signature methods
- Cartea, Á., Cohen, S.N., and Labyad, S., Gradient-based estimation of linear Hawkes processes with general kernels

- Cohen, S.N. and Treetanthiploet, T., Correlated Bandits for Dynamic Pricing via the ARC algorithm
- Cohen, S.N. and Treetanthiploet, T., Asymptotic Randomised Control with applications to bandits
- Cohen, S.N., Tegnér, M.N.A. and Wiesel, J., Bounding quantiles of Wasserstein distance between true and empirical measure
- Cohen, S.N. and Fedyashov, V. Ergodic BSDEs with jumps and time dependence
- Cohen, S.N. and Elliott, R.J. Filters and smoothers for self-exciting Markov modulated counting processes
- Cohen, S.N., A martingale representation theorem for a class of jump processes

Theses

- Problems in Backward Stochastic Differential Equations; with applications to nonlinear expectations and risk measures, PhD thesis, University of Adelaide, 2011
- Gains, claims and pains: Mathematical and Statistical Problems in Occupational Health and Safety, Honours thesis (Statistics), University of Adelaide, 2007

Code released

- SigNow – a repository for economic nowcasting using the signature method `https://github.com/datasciencecampus/SigNow_ONS_Turing`
- TAPAS – a Toolbox for Adversarial Privacy Auditing of Synthetic Data `https://github.com/alan-turing-institute/privacy-sdg-toolbox`
- ASLSD – a repository for estimating Hawkes processes using the ASLSD algorithm `https://github.com/saadlabyad/aslsd`
- neuralSDE-marketmodel – a repository implementing static-arbitrage-free neural SDE market models for option prices `https://github.com/vicaws/marketmodel`
- arbitragerepair – a repository for identifying and removing arbitrage in quoted option price surfaces `https://github.com/vicaws/arbitragerepair`

Mathematics-related work

- Cohen, S.N., Grovell, K.L., Liu, S., Kent, K., Malpass, W., Mantoan, G., Nesheim, L., de Paula, A., Reeves, A., Rowe, J., Scott, C., Small, E. and Yang, L., Technical Report: Nowcasting UK household income using the new "signature" method[1]
- Cohen, S.N., Grovell, K.L., Liu, S., Kent, K., Mantoan, G., Nesheim, L., de Paula, A., Malpass, W., Reeves, A., Rowe, J., Scott, C., Small, E. and Yang, L., Helping decision makers understand the economy quickly through new methods, ONS Data Science Campus Blog post[2]
- Cohen, S.N. The Lehman Collapse: What went wrong?, Areté, Issue 57, Winter 2018
- Cohen, S.N., The dynamic programming principle in *Math in Seventeen Syllables: A Folder of Mathematical Haiku*, Journal of Humanistic Mathematics, 8(1), 2018

RESEARCH SUPERVISION

Postdoctoral researchers:

- Gholamali Aminian (2022-)
- Lingyi Yang (2022-)
- Giulia Mantoan (2021-22)
- Haoyang Cao (2020-22)
- Derek Snow (2020-21)
- Martin Tegnér (2017)

Doctoral students:

- Current:
  - Zihan Guo (jointly supervised with Christoph Reisinger)
  - Yuze Jin (jointly supervised with Christoph Reisinger)
  - Deqing Jiang (jointly supervised with Justin Sirignano)

[1] `https://datasciencecampus.ons.gov.uk/projects/technical-report-nowcasting-uk-household-income-using-the-new-signature-method/`

[2] `https://datasciencecampus.ons.gov.uk/helping-decision-makers-understand-the-economy-quickly-through-new-methods/`

  - Alexander Merkel (TU Berlin, jointly supervised with Christoph Knochenhauer)
  - Eliana Fausti
  - Saad Labyad (jointly supervised with Álvaro Cartea)
- Lingyi Yang, Thesis title: *Optimising arrival management in air traffic control* (jointly supervised with Jaroslav Fowkes, defended 2022)
- Victor Sheng Wang, Thesis title: *Arbitrage-free neural-SDE market models of traded options* (jointly supervised with Christoph Reisinger, defended 2022)
- Tanut Treetanthiploet, Thesis title: *Stochastic control approach to the multi-armed bandit problems* (defended 2021)
- Andrew Allan, Thesis title: *Parameter uncertainty in stochastic filtering* (defended 2019)
- Victor Fedyashov, Thesis title: *Topics in ergodic control and backward stochastic differential equations* (defended 2017)

MSc in Mathematical and Computational Finance, Oxford ($\sim$ 30 students since 2011)

EDITING

Associate editor for the journals Stochastics; Numerical Algebra, Control and Optimization; Journal of Stochastic Analysis and Applications; and Communications on Stochastic Analysis.

TEACHING

- Oxford MSc in Mathematical and Computational finance
  - Financial Derivatives I, 2012–2015
  - Introduction to Statistics and R, 2014–1017
  - Statistics and Financial Data Analysis, 2014–2017
  - Exotic Derivatives, 2014–2016
- Oxford MSc in Mathematical Finance (part-time)
  - Probability and Discrete Martingales 2017–2018
  - Statistics, 2014–2018
  - Simple Exotic Options, 2014
  - Introduction to Python, 2018
  - Martingales and Stochastic Differential Equations 2013–2018
  - Risk measures, 2010–2018
- Oxford Undergraduate Mathematics
  - B8.3 Mathematical Models of Financial Derivatives, 2020–2022
  - B8.2 Continuous Martingales and Stochastic Calculus, 2019–2022
  - College tutor for various courses at New College (2014–) and Exeter College (2011–2014).
- Course on mathematical writing for Oxford doctoral students, 2019–2020
- Oxford Part B Structured Project supervision, 2012–2014
- Introduction to Stochastics for Oxford INFOMM CDT, 2018
- Adelaide University
  - Lecturer, Statistical Practice I, 2008
  - Lecturer, Financial Modelling III, 2010
  - Tutor for Statistical Practice I, Business Data Analysis I, Statistical Practice II, Mathematical Economics II, Economic and Financial Data Analysis II, Financial Modelling III, Applied Econometrics III, 2006–2010
- University of South Australia
  - Lecturer and course coordinator, Theory of Interest I, 2009

PRIZES & AWARDS

- Best paper prize at NeurIPS 2022 Workshop SyntheticData4ML (2022)
- Oxford MPLS divisional teaching award (2019)
- Nicola Bruti-Liberati Fellowship and Lecture (2014)
- Adelaide Doctoral Research Medal (2012)
- Adelaide Postgraduate Alumni University Medal (2011)

- B.H. Neumann Prize, Australian Mathematical Society (2009)
- T.M. Cherry Prize, ANZIAM (2009)
- Adelaide Mathematics Head of School's Award for Lecturing Excellence in
  - "Financial Modelling: Theory and Techniques" (2010)
  - "Financial Modelling III" (2008)
  - "Statistical Practice I" (2008)
- Adelaide University Honours Medal (2007)
- Adelaide Honours Priority Scholarship (2007)
- Sir Ronald Fisher Memorial Scholarship (Statistics) (2006)
- David Murray Memorial Scholarship in Mathematical Sciences (2006)
- J.R. Wilton Prize (2005)
- E.A. Cornish Memorial Prize (2004)

GRANTS & RESEARCH FUNDING

- Obtained industrial funding for a doctoral student from CBOE (£200k over four years)
- Principal Investigator, AFM–Turing Partnership (£200k from Alan Turing Institute, 2022–2023)
- Principal Investigator, ONS–Turing Partnership (£2.7M ONS–Alan Turing Institute joint funding, 2021–2023)
- Co-Investigator, FAIR Prosperity Partnership (£13.15M EPSRC and partners, 2021–2026)
- Public Engagement with Research Leardership Grant (£5k internal Oxford)
- EPSRC Summer Student funding (Samuel Howard, 2021)
- Host of Martin Tegnér as postdoctoral researcher (250k SEK from the Dr. Tech. Marcus Wallenberg foundation, 100k SEK from Foundation for Scientific Research and Education in Mathematics (Sweden))

RECENT CONFERENCES & PRESENTATIONS

- 7th International Conference Mathematics in Finance, South Africa, July 2023
- NITheCS Colloquium, Stellenbosch University, July 2023
- Machine Learning in Quantitative Finance, Oxford June 2023
- SIAM Financial Mathematics and Engineering Conference, June 2023
- Berlin Probability Colloquium, TU Berlin, May 2023
- Conference in Mathematics of Random Systems, Edinburgh, April 2023
- Quantitative Risk Management Seminar, University of Vienna, April 2023
- Research Seminar, WU Vienna, April 2023
- Second Workshop on Machine learning for PDEs, Imperial College London, April 2023
- Mathematical Finance Seminar, Columbia University, February 2023
- Finance Seminar, Questrom School of Business, Boston University, February 2023
- Quantitative Finance Seminar, Stevens Institute of Technology Seminar, January 2023
- Seminar, ORFE, Princeton University, January 2023
- North British Probability Seminar, Edinburgh, October 2022
- Panellist, Cboe RMC, Reykjavik, October 2022
- Oxford–Princeton mathematical finance meeting, October 2022
- IMA conference on the mathematics of Big Data, September 2022
- ML for PDE workshop, LSE, September 2022
- SIAM annual meeting, Pittsburgh, July 2022
- IMSI conference on acceptability indices, Chicago, May 2022
- World Online Seminar on Machine Learning in Finance, April 2022
- Seminar, ETH Zürich, March 2022
- Seminar, Illinois Institute of Technology (online), March 2022
- Online Financial Engineering Workshop @ Bayes Business School (online), March 2022
- Berlin Probability Colloquium (online), February 2022
- Deepmind Paris Tech seminar, November 2021
- Mean-field reinforcement learning (online), October 2021

- 7th Annual Bloomberg–Columbia Machine Learning in Finance Workshop (online), September 2021
- Advances in Stochastic Analysis for handling Risks in Finance and Insurance, Luminy, September 2021
- Seminar, KTH Stockholm (online), November 2021
- Fields Institute Quantitative Finance Seminar (online), October 2021
- Seminar, University of Stellenbosch, (online), October 2021
- SIAM Conference on Financial Mathematics and Engineering, (online) June 2021
- Model Uncertainty and Risk Measures, Natixis, Paris, January 2020
- Seminar, University of Insubria (Varese), September 2019
- Seminar, Università degli Studi di Milano Bicocca, September 2019
- Seminar, TU Berlin, May 2019
- Séminaire Bachelier, Institut Henri Poincaré, Paris, January 2019
- Quantitative Methods in Finance, Sydney, December 2018
- 62nd Annual Meeting of the Australian Mathematical Society, Adelaide, December 2018
- Stochastic Analysis and Mathematical Finance Seminar, Illinois Institute of Technology, November 2018
- Seminar on Insurance Mathematics and Stochastic Finance, ETH Zürich, October 2018
- BSDEs, Information and McKean-Vlasov Equations, University of Leeds, UK, September 2018
- 10th World Congress of the Bachelier Finance Society, Dublin, July 2018
- Workshop on Stochastic Analysis and Applications, Universidade Estadual de Campinas, Brazil, July 2018
- Seminar, University of Namibia, June 2018
- Robust Finance, FRIAS, Albert-Ludwigs-Universität Freiburg, May 2018
- Sampling Alogrithms for Data Analytics, Turing Institute, November 2017
- Stochastic Finance research seminar, University of Warwick, November 2017
- Probability seminar, University of Sheffield, October 2017
- 6th Conference on Mathematics in Finance, South Africa, August 2017
- LMS-EPSRC Durham Symposium "Stochastic Analysis", Durham University, July 2017
- Robust Methods in Probability and Finance, ICERM, Brown University, USA, June 2017
- Innovations in Insurance, Risk- and Asset Management, TU Munich, Germany, May 2017
- Oxford-Princeton mathematical finance meeting, May 2017
- Stochastic Analysis and Stochastic Finance Seminar, TU Berlin, May 2017
- Seminar, Université Paris VII, France, February 2017
- Seminar, University of Michigan, Ann Arbor; USA, January 2017
- New Directions in Ergodic Stochastic Control and its Applications, Kings College London, January 2017

Outreach talks

- Speaker for *PTI Maths Subject Leadership Days* (Cheshire and London), July 2023
- Speaker for *Bach, the Universe, and Everything* concert series with the Orchestra of the Age of Enlightenment, March 2022

ADMINISTRATION AND SERVICE

- Program Director, SIAM activity group on Financial Mathematics and Engineering (2022-23)
- Alan Turing Institute, Theme lead for Machine Learning in Finance (2019-)
- External doctoral examiner for
  - Salah Choutri, KTH Stockholm, 2019
  - Viet Dang, London School of Economics, 2020
  - Natan T'Joens, University of Ghent, 2022
  - Alexander Lobbe, University of Oslo, 2022
  - Osian Jones, University of Warwick, 2023
- Internal doctoral examiner (University of Oxford) for

  - Peter Spoida, 2014
  - Zhaoxu Hou, 2016
  - James Newbury, 2016
  - Wei Pan, 2021
  - Yufei Zhang, 2021
  - Leandro Sánchez-Betancourt, 2021
  - James Morrill, 2022
  - Jing Ye, 2022
  - Huining Yang, 2022
- External Examiner (2021–), MSc in Mathematical Finance, University College London
- Chair of Examiners (2015–17), Examiner (2012–2014) and supervisory committee, MSc in Mathematical Finance (Oxford)
- Examiner (2018–2020, 2023–), Chair of Examinders (2020–2021), Chair of Admissions (2015–18), Admissions Panel (2012-2014) MSc in Mathematical and Computational Finance and MSc in Mathematical Finance (Oxford)
- Co-organizer of *Fridays@4* (career and wellbeing seminar for graduate students and early career researchers), Mathematical Institute, Oxford, (2017–2021)
- Public Engagement with Research Champion for the Mathematical Insitute, Oxford (2019–2022)
- Co-organizer of Mathematical Sciences for Refugees and Asylum and Sanctuary Seekers sessions – with Ian Griffiths, Pete Grindrod and David Levy, joint with Universities of Sanctuary and CARA (Council for At-Risk Academics), (2021–)

Conference and Workshop Organization

- SIAM Financial Maths and Engineering conference, 2023
- SIAM Financial Maths and Engineering online seminar series 2022–23
- London–Oxford–Warwick workshop series, 2021–22
- Keynes–Knight uncertainty meeting, Turing Institute, 2021
- International Workshop on BSDEs, SPDEs and their applications, Edinburgh 2017
- '8th Oxford–Princeton Workshop on Financial Mathematics and Stochastic Analysis', Conference Organizer (with Greg Gyurko), March 2014
- 'BSDEs, Numerics and Finance', Conference Organizer (with Gechun Liang and Arnaud Lionnet), July 2012
- Inaugural SA Postgraduate Mathematics Symposium (with Giang Nguyen, 2009)