Seok Young Hong

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EMPLOYMENT HISTORY

Assistant Professor of Economics & Data Science	**Nanyang Technological University**	2023 –
Associate Professor of Finance	**Lancaster University**	2020 – 2023
Assistant Professor of Finance	**University of Nottingham**	2018 – 2020

EDUCATION

University of Cambridge

PhD in Pure Mathematics and Mathematical Statistics — 2018

Thesis: Nonparametric Methods in Financial Time Series Analysis
Advisor: Professor Oliver Linton FBA
Honours: The Smith/Rayleigh-Knight Prize, Faculty of Mathematics

MASt. in Mathematical Statistics — 2012

Mathematical Tripos, Part III
Part III Essay: Analysis of a Large and Complex Dataset, a Copula approach

Imperial College London

BSc with First Class Honours in Mathematics with Statistics for Finance — 2011
& Associateship of the Royal College of Science (ARCS)

SELECTED RESEARCH PAPERS

- Jumps versus bursts: distinguishing sources of extreme risk in financial markets
  (with Xiaolu Zhao and Oliver Linton) — *R&R, Management Science* (2026)
- Unified Inference for Predictive Mean and Quantile regressions via Empirical Likelihood
  (with Zongwu Cai, Yifeng Chen, and Daniel Tsvetanov) — *R&R, Journal of Econometrics* (2026)
- Volatility Forecasting Factors
  (with Marco Cinquetti, Ingmar and Sandra Nolte) — *R&R, JBES* (2026)
- PINGS-X: Physics-Informed Normalized Gaussian Splatting with Axes Alignment
  (with Sun Jo, Je Hyeong Hong et al.; co-first author) — **Proceedings of the AAAI** (2026)
- Volatility estimation and forecasts based on price durations
  (with Ingmar Nolte, Stephen Taylor and Xiaolu Zhao) — **Journal of Financial Econometrics** (2023)

- Nonparametric Estimation of Infinite Order Regression and Its Applications to the Risk-Return Tradeoff
  (with Oliver Linton) **Journal of Econometrics** (2020)

- An Investigation into Multivariate Variance Ratio Statistics and their Application to Stock Market Predictability
  (with Hui Jun Zhang and Oliver Linton) **Journal of Financial Econometrics** (2017)

- Estimating the quadratic covariation matrix for asynchronously observed high frequency stock returns corrupted by additive measurement error (with Sujin Park and Oliver Linton) **Journal of Econometrics** (2016)

- Small deviations in L_2-norm for Gaussian dependent sequences
  (with Mikhail Lifshits and Alexander Nazarov) **Eleclectronic Communications in Probability** (2016)

- Fully Unsupervised Learning for Anomaly Detection with Noisy Training Data
  (with Je Hyeong Hong et al.) *Working Paper* (2026)

- Regular and reverse Midastar models: Threshold autoregression with mixed frequency data
  (with Kaiji Motegi and John Dennis) *Working Paper* (2026)

PROFESSIONAL EXPERIENCE

Referee Service: Journal of Econometrics, Econometric Theory, Journal of Time Series Analysis, Springer, Computational Statistics and Data Analysis, Oxford Bulletin of Economics and Statistics, European Journal of Finance, Quantitative Finance, Electronic Journal of Statistics, The Financial Review, The Association for the Advancement of Artificial Intelligence (AAAI)

Teaching: Nanyang Technological University

** Cumulative Average Teaching Evaluation: 4.74 / 5.00 (i.e., 94.84 / 100) 2024 – 2026

- Big Data in Economics and Finance (UG)
- Financial Econometrics (UG)
- Econometrics I (PhD)

Lancaster University 2020 – 2023

- Financial Markets (UG/PG)
- Introduction to Quantitative Methods (PG)
- Derivative Pricing (PG)
- Financial Stochastic Processes (PG)
- Econometric Topics in Accounting and Finance (PhD)

University of Nottingham 2019 – 2020

- Topics in Advanced Econometrics II (PhD)
- Research Methods for Risk Management (PG)
- Risk, Information & Insurance Tutorial (UG)
- Tutorial sessions for Corporate Finance (PG/UG)

University of Cambridge 2013 – 2017

- Supervisions for Mathematics and Statistics for Economists
  (UG 2nd year; St John's, Queens', Newnham Colleges and Hughes Hall)

Professional Service:

- MSc Dissertation Advisor × 20, University of Nottingham (2019 – 2020)
- PhD Confirmation Panel Chair, Lancaster University Management School (2020)
- External Examiner for the PhD *viva voce*, Royal Holloway, University of London (2020)
- Director of the *MSc in Quantitative Finance*, Lancaster University (2021 – 2023)
- External Examiner for the PhD *viva voce*, Oxford University (2022)
- MSc Dissertation/project Advisor × 16, SPMS, NTU (2023 –)
- Coordinator for the BSc in Economics and Data Science Programme, NTU (2023 –)

Talks & Presentations (2018 –):

2018-2021

- University of Cambridge (Big Data in Financial Markets Conference)
- The Alan Turing Institute, London (Theory and Algorithms for Data Science Seminar)
- Queen Mary University of London (School of Economics and Finance)
- Lancaster University, United Kingdom (Management School)
- University of Exeter, United Kingdom (Business School)
- Sungkyunkwan University, Korea (KEA Collaborative Symposium in Economics)
- The National Institute for Mathematical Sciences, Korea;
- University of East Anglia, United Kingdom (Norwich Business School)
- University of Surrey, United Kingdom (School of Economics)
- King's College London (Computational and Financial Econometrics conference)
- Yonsei University, Korea (International Conference on Econometrics and Statistics)

2022

- The Chinese University of Hong Kong (AMES 2022; online)
- Lancaster University Management School (Workshop on Volatility, Bursts and Jumps)
- University of Queensland (AMES 2022; online)
- King's College London, United Kingdom (IAAE Conference)
- Hanyang University, Korea (Spatial-AI Lab)
- University of Tokyo, Japan (AMES 2022; online)
- Royal Holloway University of London (School of Economics)
- University of Cambridge, United Kingdom (Judge Business School)

2023

- Nanyang Technological University, Singapore (SSS, SPMS)
- Singapore Management University (SETA 2023)
- Waseda University, Japan (International Conference on Econometrics and Statistics)
- Nanyang Technological University, Singapore (AMES 2023)
- Thammasat University, Thailand (CU-NTU-TU Trilateral Workshop in Economics)

2024

- Chinese University of Hong Kong (Department of Economics)
- Kobe University, Japan (ICTSE Conference in honor of Professor Shigeyuki Hamori)
- Lancaster University, United Kingdom (FFMC Conference 2024)
- Hanyang University, Korea (Symposium on Economics and Finance in the Asia-Pacific)

2025

- Chiang Mai University, Thailand (International Conference of the Thailand Econometric Society)
- University of Cambridge (Conference in Honour of Prof. Oliver Linton and Prof. Yoon-Jae Whang)
- Chung-Ang University, Korea (Dpartment of Economics)
- National University of Singapore (Dpartment of Economics)
- Waseda University, Japan (International Conference on Econometrics and Statistics)
- The Econometric Society World Congress 2025, Seoul, Korea
- University of Illinois Urbana-Champaign, USA (Midwest Econometrics Group Conference 2025)
- Nanyang Technological University, Singapore (Workshop on Econometrics & Data Science)
- Sogang University, Korea (College of Economics)

2026 (including scheduled)

- University of Oxford, United Kingdom (Financial Econometrics Workshop 2026)
- University of Oxford, the Oxford-Man Institute of Quantitative Finance, United Kingdom
- University of Oxford, Department of Economics, United Kingdom
- University of Nottingham Business School, United Kingdom
- Ryukoku University, Kyoto, Japan (International Conference on Econometrics and Statistics)
- Asian Quantitative Finance Conference (AQFC 2026), Pohang, Korea
- University of Hong Kong (The Econometric Society Asia Meeting 2026)
- Singapore Management University, School of Economics, Singapore
- University of Tokyo, Tokyo, Japan (SETA 2026)
- University of Illinois Urbana-Champaign, Department of Economics, USA
- University of Kansas, Department of Economics, USA
- American University in Cairo, Egypt (The Econometric Society African Meeting 2026)