Qin Fang

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Academic Position

The University of Sydney, Business School, Sydney, Australia.
Lecturer (Assistant Professor) in Business Analytics, January, 2024 –

London School of Economics and Political Sciences, Department of Statistics, London, U.K.
Research Officer, May 2022 – December 2023

- Research project: "Statistical network analysis: model selection, differential privacy, and dynamic structures" funded by the EPSRC, under the direction of Prof. Qiwei Yao.

Education

London School of Economics and Political Sciences, Department of Statistics, London, U.K.
Ph.D., Statistics, January, 2019 – April, 2022

- Thesis: High-dimensional functional data/time series analysis: finite-sample theory, adaptive functional thresholding and prediction
- Advisor: Dr. Xinghao Qiao

London School of Economics and Political Science, Department of Statistics, London, U.K.
M.Sc., Statistics, September, 2016 – July, 2017

Central University of Finance and Economics, Department of Statistics, Beijing, China
B.Sc., Statistics, September, 2012 – July, 2016

Research Interests

Functional data analysis: high-dimensional functional data, partially observed functional data.
Complex time series analysis: functional time series, high-dimensional time series.
High-dimensional data analysis: simultaneous testing, covariance and graph estimation.
Network data analysis: dynamic networks, sparse network estimation.

Publications and Preprints

Chang, J., Fang, Q., Qiao, X. and Yao, Q. (2024). On the modelling and prediction of high-dimensional functional time series, *Journal of the American Statistical Association*, in press.

Fang, Q., Guo, S. and Qiao, X. (2024). Adaptive functional thresholding for sparse covariance function estimation in high dimensions, *Journal of the American Statistical Association*, **119**(546), 1473–1485.

Fang, Q., Guo, S. and Qiao, X. (2022). Finite sample theory for high-dimensional functional time series with applications. *Electronic Journal of Statistics*, **16**(1), 527-591.

Chang, J., Fang, Q., Kolaczyk, E. D., MacDonald, P. W. and Yao, Q. (2024). Autoregressive networks with dependent edges, Reject & Resubmit at *Journal of the Royal Statistical Society: Series B*.

Fang, Q., Jiang, Q. and Qiao, X. (2024). Large-scale multiple testing of cross-covariance functions with applications to functional network models, submitted to *Annals of Statistics*.

Fang, Q., Guo, S., Hong, Y. and Qiao, X. (2025). On robust empirical likelihood for nonparametric regression with application to regression discontinuity designs, submitted to *Journal of Econometrics*.

Working papers under preparation

Fang, Q., Qiao, X. and Wang, Z. (2025+). Learning Gaussian chain graph models for high-dimensional time series.

Fang, Q., Qiao, X. and Wang, X. (2025+). Functional dynamic tensor decomposition with application to modeling and forecasting multi-country yield curves.

Siminar Presentations

Invited talk at the Department of Statistics, Universidade Federal do Rio Grande do Sul, Brazil, November 2024.

Invited talk at the School of Economics, University of Sydney, Sydney, Australia, October 2024.

Invited talk at the Business School, Macquarie University, Sydney, Australia, March 2024.

Invited talk at the Discipline of Business Analytics, University of Sydney Business School, Sydney, Australia, February 2023.

Conference Presentations

Invited talk at the 18th International Conference on Computational and Methodological Statistics (CMStatistics 2024), London, U.K., December 2024.

Invited talk at the First Macau International Conference on Business Intelligence and Analytics, University of Macau, Macau, China, December 2024.

Invited talk at the 7th International Conference on Econometrics and Statistics (EcoSta 2024), Beijing Normal University, Beijing, China, July 2024.

Invited talk at the Tsinghua Sanya International Workshop on "Complex time series analysis: high-dimensionality, change-points, forecasting and causality", Sanya, China, Jan 2024.

Invited talk at the Network Stochastic Processes and Time Series (NeST) Away Day and Annual Meeting, York, U.K., Oct 2023.

Invited talk at the 23rd European Young Statisticians Meeting, Ljubljana, Slovenia, September 2023.

Invited talk at the Joint Statistical Meetings (JSM), Washington D.C., USA, August 2022.

Invited talk at the 2022 IMS Annual Meeting in Probability and Statistics, London, U.K., June 2022.

Invited talk at the 13th International Conference on Computational and Methodological Statistics (CMStatistics 2020), London, U.K., December 2020.

Invited talk at the PGMO Days 2019, Paris, France, December 2019.

Teaching Experience

The University of Sydney, Sydney, Australia.

- QBUS2820 Predictive Analytics — 2025S1, 2024S2
- QBUS6600 Data Analytics for Business Capstone — 2024S2

London School of Economics and Political Science, London, U.K.

- ST102 Elementary Statistical Theory — 2022/23, 2019/20
- ST107 Quantitative Methods (Statistics) — 2021/22, 2020/21
- ST309 Elementary Data Analytics — 2023/24, 2022/23, 2021/22, 2020/21

- ST311 Artificial Intelligence 2021/22
- ST443 Machine Learning and Data Mining 2021/22, 2020/21, 2019/20

LSE-PKU Summer School, Beijing, China

- Big Data: Data Analytics for Business and Beyond August 2019

PROFESSIONAL SERVICES

Paper reviewers for *Journal of the Royal Statistical Society: Series B, Journal of Machine Learning Research, Statistica Sinica, Journal of Computational and Graphical Statistic.*

Local organising committee for 2022 IMS Annual Meeting in Probability and Statistics

RESEARCH GRANTS

The University of Sydney Business School Emerging Scholar Research Grant 2024-2026

HONORS AND AWARDS

LSE Class Teacher Awards (Highly Commended) 2022/2023, 2020/2021, 2019/2020
LSE PhD Studentships 2019-2023
Winton Prize for academic excellence in MSc Statistics/MSc Statistics (Financial Statistics) 2017
First Prize in the LSE Statistics Practitioners Challenge 2017