Qin Fang

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Academic Position

London School of Economics and Political Sciences, Department of Statistics, London, U.K.

Research Officer, May 2022 –

- 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

Fang, Q., Guo, S. and Qiao, X. (2023). Adaptive functional thresholding for sparse covariance function estimation in high dimensions, *Journal of the American Statistical Association*, accepted.

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

Chang, J., Fang, Q.[1], Qiao, X. and Yao, Q. (2023). On the modelling and prediction of high-dimensional functional time series, submitted to *Journal of the American Statistical Association*.

Working papers under preparation

Fang, Q., Jiang, Q. and Qiao, X. (2023). Large-scale multiple testing of cross-covariance functions with applications to functional network models, draft in progress.

Chang, J., Fang, Q., Kolaczyk, E.D. and Yao, Q. (2023). Autoregressive networks with dependent edges, draft in progress.

[1] The authors are alphabetically ordered.

Conference Presentations

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

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

Invited talk at 13th International Conference of the ERCIM WG on Computational and Methodological Statistics, London, U.K., December 2020.

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

Teaching Experience

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 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 Computational and Graphical Statistic.*

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

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