

JIAXIN QIU

PhD in Statistics

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EDUCATION

The University of Hong Kong

PhD in Statistics (Joint Program with SUSTech)

Supervisors: Prof. [Jianfeng \(Jeff\) Yao](#) (CUHK-SZ) & Prof. [Zeng Li](#) (SUSTech)


 Hong Kong, China

Sep. 2020 – Aug. 2024

Harbin Institute of Technology

M.Sc. in Statistics (Joint Program with SUSTech)


Supervisor: Prof. [Guo-Liang Tian](#)

 Harbin, China

Sep. 2018 – Jun. 2020

Southern University of Science and Technology

B.Sc. in Mathematics

 Shenzhen, China

Sep. 2014 – Jun. 2018

RESEARCH INTERESTS

- Random Matrix Theory
- High-dimensional Statistics

PUBLICATIONS/MANUSCRIPTS

Publications & Preprints

[*: corresponding author]

1. **Jiaxin Qiu**, Zeng Li*, Jianfeng Yao (2023). Asymptotic normality for eigenvalue statistics of a general sample covariance matrix when $p/n \rightarrow \infty$ and applications. *The Annals of Statistics*, 51(3): 1427-1451. DOI: [10.1214/23-AOS2300](https://doi.org/10.1214/23-AOS2300)
2. Zhanting Long, Zeng Li*, Ruitao Lin, **Jiaxin Qiu** (2023). On singular values of large dimensional lag- τ sample auto-correlation matrices. *Journal of Multivariate Analysis*, 197. DOI: [10.1016/j.jmva.2023.105205](https://doi.org/10.1016/j.jmva.2023.105205)
3. **Jiaxin Qiu**, Zeng Li*, Jianfeng Yao (2024). Robust estimation for number of factors in high dimensional factor modeling via Spearman correlation matrix. *Journal of the American Statistical Association* (Accepted). [arXiv:2309.00870](https://arxiv.org/abs/2309.00870).
4. Qianqian Jiang, **Jiaxin Qiu**, Zeng Li* (2024+). On eigenvalues of sample covariance matrices based on high-dimensional compositional data. *Submitted*. [arXiv:2312.14420](https://arxiv.org/abs/2312.14420).
5. **Jiaxin Qiu**, Zeng Li, Jianfeng Yao (2024+). On spiked eigenvalues of general sample covariance matrices under extreme aspect ratio. *Manuscript*.

PRESENTATIONS

- (Poster) “Robust estimation for number of factors in high dimensional factor modeling via Spearman correlation matrix”, [RMTA2023](#), Shenzhen, China, June 2023
- (Contributed talk) “Eigenvalue statistics in ultra-high dimensional sample covariance matrices”, [2024 IMS China Meeting](#), Yinchuan City, Ningxia, China, July 2024

TEACHING ASSISTANT

Courses at HKU

- (STAT6010/7610) Advanced Probability (2023, Course by Prof. Marius Hofert)
- (STAT2601) Probability and Statistics I (2 times TA in 2021 and 2024, Course by Dr. K.P., WAT)

Courses at SUSTech

- (STA5001) High Dimensional Statistics (2 times TA in 2022 & 2023, Course by Prof. Zeng Li)
- (MAT7102/MAT412) Selected Research Topics in Statistics (2020, Course by Prof. Qi-Man Shao)

- (MA308) Statistical Computation and Software
(2020, Course by Prof. Zeng Li)
- (MA103A) Linear Algebra A
(2 times TA in 2018 and 2019; Course by Prof. Jiagang Yang, Prof. Yimao Chen)

SKILLS

Programming: R, Julia, Python, MATLAB

Technologies: \LaTeX , Git