

# Jiaxin QIU

PhD Candidate in Statistics

 [Homepage](#) |  [jxqiu77@gmail.com](mailto:jxqiu77@gmail.com), [qiujx@connect.hku.hk](mailto:qiujx@connect.hku.hk) |  [GitHub](#) |  [Google Scholar](#)

## EDUCATION

### The University of Hong Kong

PhD Candidate in Statistics (Joint Program with SUSTech)

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


 Hong Kong, China

Sep. 2020 – Jun. 2024 (Expected)

### Harbin Institute of Technology

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

Supervisors: 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- $\tau$  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 (2023+). Robust estimation for number of factors in high dimensional factor modeling via Spearman correlation matrix. *Submitted*. [arXiv:2309.00870](https://arxiv.org/abs/2309.00870).

### Working Papers

1. **Jiaxin Qiu**, Zeng Li, Jianfeng Yao (2023+). On spiked eigenvalues of general sample covariance matrices under extreme aspect ratio. *Manuscript*.
2. Qianqian Jiang, **Jiaxin Qiu**, Zeng Li (2023+). On eigenvalues of sample covariance matrices based on high-dimensional compositional data. *Manuscript*.

## PRESENTATIONS

- (Poster) “Robust estimation for number of factors in high dimensional factor modeling via Spearman correlation matrix”, [RMTA2023](#), Shenzhen, China, June 2023

## AWARDS & HONORS

China Undergraduate Mathematical Contest in Modeling: the 3rd Prize	2017
The Chinese Mathematics Competitions (CMC): the 2nd Prize	2017
Excellent Freshman Scholarship the 1st Prize (5%)	Nov. 2014
University Scholarship	2014–2017
Excellent Student Scholarship (20%)	Oct. 2017
Excellent Undergraduate Thesis (10%)	Jun. 2018

### Courses at HKU

- (STAT6010/7610) Advanced Probability  
(2023, Course by Prof. Marius Hofert)
- (STAT2601) Probability and Statistics I  
(2021, 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:**  $\text{\LaTeX}$ , Git