# Jiaxin QIU

PhD Candidate in Statistics

⊕ Homepage | ✉ jxqiu77@gmail.com, qiujx@connect.hku.hk | ⌂ GitHub | 🎓 Google Scholar

## 🎓 EDUCATION

**The University of Hong Kong** ⚲ Hong Kong, China
*PhD Candidate in Statistics (Joint Program with SUSTech)* *Sep. 2020 – Jun. 2024 (Expected)*
*Supervisors: Prof. Jianfeng (Jeff) Yao (CUHK-SZ) & Prof. Zeng Li (SUSTech)*

**Harbin Institute of Technology** ⚲ Harbin, China
*M.Sc. in Statistics (Joint Program with SUSTech)* *Sep. 2018 – Jun. 2020*
*Supervisor: Prof. Guo-Liang Tian*

**Southern University of Science and Technology** ⚲ Shenzhen, China
*B.Sc. in Mathematics* *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 $p/n \to \infty$ and applications. *The Annals of Statistics*, 51(3): 1427-1451. DOI: 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

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.

4. Qianqian Jiang, **Jiaxin Qiu**, Zeng Li* (2023+). On eigenvalues of sample covariance matrices based on high-dimensional compositional data. *Submitted*.

**Working Papers**

1. **Jiaxin Qiu**, Zeng Li, Jianfeng Yao (2023+). 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

## 🏆 AWARDS & HONORS

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|---|---|
| **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 |

# 🏛 Teaching Assistant

**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:** LaTeX, Git