MENGYU LI

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Google Scholar: https://scholar.google.com/citations?user=hPWnWK0AAAAJ&hl=en

APPOINTMENTS

Department of Statistics and Data Science, Tsinghua University (THU), Beijing, China

- Postdoctoral Fellow   Aug. 2025–present
- Advisor: Prof. Jun S. Liu

EDUCATION

Institute of Statistics and Big Data, Renmin University of China (RUC), Beijing, China

- Ph.D. in Statistics   Sep. 2020–Jun. 2025
- Supervisor: Dr. Cheng Meng

Department of Statistics, The Chinese University of Hong Kong (CUHK), Hong Kong, China

- Exchange Student   Nov. 2023–May 2024
- Advisor: Prof. Xiaodan Fan

School of Statistics, Beijing Normal University (BNU), Beijing, China

- Bachelor in Statistics   Sep. 2016–Jun. 2020

RESEARCH INTERESTS

Optimal transport; Statistical computing; Statistical machine learning; AI for healthcare

PUBLICATIONS

1. Xiaxue Ouyang, Hao Zheng, Haoxian Liang, Jingyi Zhang, Yixuan Qiu, Cheng Meng, **Mengyu Li**[*] (2026). "Sparsification techniques for large-scale optimal transport problems." Wiley Interdisciplinary Reviews: Computational Statistics. 18(1), e70056.

2. **Mengyu Li**, Cheng Meng, Xiaodan Fan (2026). "Iterative optimal transport for multimodal image registration." Pattern Recognition. In press.

3. Dunyao Xue, **Mengyu Li**[*], Cheng Meng, Jingyi Zhang (2026). "Core-elements subsampling for alternating least squares." Journal of Computational and Graphical Statistics. In press.

4. Tao Wang, **Mengyu Li**[†], Geduo Zeng, Cheng Meng, Qiong Zhang (2025). "Gaussian herding across pens: An optimal transport perspective on global Gaussian reduction for 3DGS." NeurIPS 2025. Spotlight (Top 3%).

5. **Mengyu Li**, Bencong Zhu, Cheng Meng, Xiaodan Fan (2025). "Double optimal transport for differential gene regulatory network inference with unpaired samples." Bioinformatics. 41(8), btaf352.

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[*] Corresponding author; [†] Joint first author; [‡] Alphabetical order

6. Junlie Huang, Xinlai Kang, Qiannan Huang, **Mengyu Li**, Cheng Meng (2025). "Efficient approximation of leverage scores in two-dimensional autoregressive models with application to image anomaly detection." Journal of Computational and Graphical Statistics. In press.

7. Yukuan Hu, **Mengyu Li**‡, Xin Liu, Cheng Meng (2025). "Sampling-based methods for multi-block optimization problems over transport polytopes." Mathematics of Computation. 94(353), 1281–1322.

8. **Mengyu Li**, Jun Yu, Tao Li, Cheng Meng (2024). "Core-elements for large-scale least squares estimation." Statistics and Computing, 34(6), 1–16.
   Student Paper Award in JSM2022, Sections on Statistical Computing and Graphics

9. **Mengyu Li**, Jingyi Zhang, Cheng Meng (2024). "Nonparametric additive models for billion observations." Journal of Computational and Graphical Statistics, 33(4), 1397–1412.

10. Xinlai Kang, **Mengyu Li**, Xuqiang Chen, Fangyu Li, Cheng Meng (2023). "A Hausdorff regression paradigm for interval privacy." IEEE Signal Processing Letters, 31, 146–150.

11. **Mengyu Li**, Jun Yu, Tao Li, Cheng Meng (2023). "Importance sparsification for Sinkhorn algorithm." Journal of Machine Learning Research, 24(247), 1–44.
    Student Paper Award in JSM2023, Statistics in Imaging Section

12. **Mengyu Li**, Jun Yu, Hongteng Xu, Cheng Meng (2023). "Efficient approximation of Gromov-Wasserstein distance using importance sparsification." Journal of Computational and Graphical Statistics, 32(4), 1512–1523.

13. **Mengyu Li**, Junlong Zhao (2022). "Communication-efficient distributed linear discriminant analysis for binary classification." Statistica Sinica, 32, 1343–1361.

FUNDING & AWARDS

Funding

- China Postdoctoral Science Foundation (¥80,000)   2025–2027

- Shuimu Tsinghua Scholar Program   2025–2027

- Young Elite Scientists Sponsorship Program - Doctoral Student Special Program (¥40,000), China Association for Science and Technology   2024–2025

- Outstanding Innovative Talents Cultivation Funded Program (¥70,000), RUC   2021–2024

- Joint Ph.D. Program (¥50,000), RUC   2023–2024

Awards

- **Wu Yuzhang Scholarship**, RUC   2025
  RUC's highest honor for students; 10 winners (among which 4 Ph.D. students) per year

- **Outstanding Poster Award** in the 22nd Annual Meeting of China Society for Industrial and Applied Mathematics (CSIAM 2024)   2024

- **Student Paper Award** in Joint Statistical Meetings (JSM), Statistics in Imaging Section, American Statistical Association (ASA)   2023
  5 winners per year; first winner trained in Chinese Mainland

- **Student Paper Award** in JSM, Sections on Statistical Computing and Graphics, ASA   2022
  4 winners per year; first winner trained in Chinese Mainland

- Beijing Municipal Outstanding Graduate   2025

- National Scholarship, Ministry of Education of the P.R. China   2023

- Jingdong Special Scholarship, RUC   2023
  20 winners per year

ACADEMIC EXPERIENCE

Research Assistant

- Department of Statistics, CUHK   Nov. 2023–May 2024
  Developed novel algorithms for multi-modal image registration and gene regulatory network reconstruction based on optimal transport theory.

Teaching Assistant

- Data Mining, RUC   Spring 2021, 2024
  My duties included lecturing exercise lessons, homework preparation and grading, etc.

Talks & Poster Presentations

- The 3rd Joint Conference on Statistics and Data Science in China, Hangzhou, China   Jul. 2025

- 2025 ICSA China Conference, Zhuhai, China   Jun. 2025

- RUC Mathematics Time, Renmin University of China, Beijing, China   Apr. 2025

- School of Mathematics and Statistics, Beijing Institute of Technology, Beijing, China   Mar. 2025

- PKU Applied Math Lunch Seminar, Peking University, Beijing, China   Dec. 2024

- The 8th CSIAM Student Forum in CSIAM 2024, Nanjing, China   Oct. 2024

- Student Academic Seminar for the 87th Anniversary of RUC, Beijing, China   Oct. 2024

- Capital Statistics and Data Science High-Level Forum, Beijing, China   Jul. 2023

Referee for Journals

- Journal of Machine Learning Research

- Journal of Computational and Graphical Statistics

- Communications in Statistics - Simulation and Computation

- SIAM Journal on Imaging Sciences

- Bioinformatics Advances

PROFESSIONAL SKILLS

Programming

- Python, R, MATLAB, C++, Linux shell

Language

- Chinese Mandarin, English