

Bin Liu (刘彬)

Department of Statistics and Data Science
School of Management, Fudan University
Shanghai, 200433 CHINA
Tel: 86-13162533982
Email: bin_liu@fudan.edu.cn



EMPLOYMENT

- 2022/12-present, Associate Professor, School of Management, Fudan University
- 2020/07-2022/12, Assistant Professor, School of Management, Fudan University
- 2019/07-2020/07, Postdoctor, Department of Statistics, The Chinese University of HongKong

EDUCATION

- 2022/06, Ph.D. in Probability and Mathematical Statistics, School of Management, Fudan University
- 2017/09-2028/09, Visiting Scholar, the University of North Carolina at Chapel Hill
- 2013/06, B.A. in Statistics, Shandong University

RESEARCH INTERESTS

High dimensional inference
Change point analysis
Data-adaptive test
Gaussian graphical models
Gaussian approximations and Bootstrap
Statistical machine learning

ACCEPTED MANUSCRIPT FOR PUBLICATION (# PHD STUDENT, * Corresponding Author)

- [1] **Bin Liu**; Xinsheng Zhang; Yufeng Liu*; Simultaneous change point detection and identification for high dimensional linear models, **Statistica Sinica**, 2024, 22: 1-62.
- [2] Xianru Wang; **Bin Liu***; Xinsheng Zhang; Yufeng Liu; Efficient change point detection for high dimensional generalized linear models, **The Canadian Journal of Statistics**, 2023, 51(2): 569-629.
- [3] Xianru Wang; **Bin Liu***; Xinsheng Zhang; A computationally efficient and flexible algorithm for high dimensional mean and covariance matrix change point models, **Journal of the Korean Statistical Society**, 2022, 51: 1216-1246.
- [4] **Bin Liu**; Xinsheng Zhang; Yufeng Liu*; High dimensional change point inference: Recent developments and extensions, **Journal of Multivariate Analysis**, 2022, 188: 1-20.
- [5] **Bin Liu**; Xinsheng Zhang; Yufeng Liu*; Simultaneous change point inference and structure recovery for high dimensional Gaussian Graphical Models, **Journal of Machine Learning Research**, 2021, 22: 1-62.

- [6] **Bin Liu**; Cheng Zhou; Xinsheng Zhang; Yufeng Liu*; A unified data-adaptive framework for high dimensional change point detection, **Journal of the Royal Statistical Society Series B- Statistical Methodology**, 2020, 82(4): 933-963.
- [7] **Bin Liu**; Cheng Zhou*; Xinsheng Zhang; A tail adaptive approach for change point detection, **Journal of Multivariate Analysis**, 2019, 169: 33-48.
- [8] Mingjuan Zhang; Cheng Zhou; Yong He; **Bin Liu**; Data-adaptive test for high-dimensional multivariate analysis of variance problem, **Australian & New Zealand Journal of Statistics**, 2018, 60: 447-470.
- [9] Yong He; Xinsheng Zhang; Jiadong Ji; **Bin Liu***; Joint estimation of multiple high-dimensional Gaussian copula graphical models, **Australian & New Zealand Journal of Statistics**, 2017, 59: 289-310.

MANUSCRIPT UNDER REVISION (# PHD STUDENT, * Corresponding Author)

- [1] Xianru Wang; **Bin Liu***; Xinsheng Zhang; Yufeng Liu; Efficient multiple change point detection and localization for high-dimensional quantile regression with heteroscedasticity, **Journal of the American Statistical Association**, 2024+, **Acceptable after Minor Revisions**.
- [2] **Bin Liu**; Zhengling Qi; Xinsheng Zhang; Yufeng Liu*; Change point detection for high dimensional linear models: a general tail-adaptive approach, *Statistica Sinica*, 2024+, **Under Major Revision**.
- [3] Zhi Yang#, Liwen Zhang, **Bin Liu***; Robust multiple change point detection for high dimensiona linear models. **The Canadian Journal of Statistics** , 2024+, **Under Minor Revision**.
- [4] Haixu Ma, Zhuoyu Shi, Minjeong Kim, **Bin Liu**, Patrick J. Smith, Yufeng Liu, Guorong Wu; Disentangling Sex-Dependent Effects of APOE on Diverse Trajectories of Cognitive Decline in Alzheimer's Disease, **NeuroImage**, 2024+, **Under Major Revision**.

TEACHING EXPERIENCE

- **Statistical Computing**, Fall 2020, Fall 2021, Fall 2022, Fall 2023
- **Statistical SoftWare**, Spring 2021, Spring 2022, Spring 2023
- **Data Mining and Machine Learning**, Spring 2021, Fall 2021, Fall 2022, Fall 2023
- **Principles and Applications of Machine Learning**, Fall 2023

AWARDS AND HONORS

- 2023/10, **Second Prize** for *The 16th Shanghai Philosophy and Social Science Excellent Achievement Award*
- 2018/11, **First Prize** for *Conference Presentation at the Second Shanghai Municipal Forum for Doctoral Students in Statistics*

ACADAMIC SERVICE

Reviewer for *JASA*, *JRSSB*, *American Statistician*, *JMVA*, *Computational Statistics*, *CSDA*, *NeuroComputing*.

RESEARCH PROJECTS

- 2024.01—2028.12, **Member**, *Statistical Inference of Multi-source Heterogeneous Data based on Information Fusion and Migration*, National Natural Science Foundation of China
- 2022.01—2024.12, **Principal Investigator**, *Some Studies on Point Inference for High-Dimensional Regression Parameters*, National Natural Science Foundation of China
- 2021.11—2022.06, **Principal Investigator**, *Research on Commodity Price Forecasting Model*, Shandong Zhuochuang Information Co. LTD
- 2020.01—2023.12, **Member**, *Some Statistical Inference Problem for High-dimensional Big Data*, National Natural Science Foundation of China
- 2018.01—2021.12, **Member**, *Statistical Inference and Applications on Differential Models in the Big Data Era*, National Natural Science Foundation of China

CONFERENCE PRESENTATIONS

- Invited talk in Mathematical Forum on Financial Statistics and Big Data Analysis (Nanjing), November 2023
- Invited talk in *The First Conference on Machine Learning and Statistics* (Shanghai), August 2023
- Invited talk in *The 9th International Form on Statistics* (Beijing), July 2023
- Invited speaker in *ICSA 2023 China Conference* (Chengdu), July 2023
- Invited talk in *The 12th National Conference on Probability and Statistics* (Qingdao), April 2023
- Invited talk in *Zhongtai Securities Institute for Financial Studies*, October 2020 (virtual)
- Invited talk in *School of Economics, Xiamen University*, April 2020 (virtua)