Yakun LIANG （梁亚坤）

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EDUCATION

Southern University of Science and Technology, Shenzhen, China   Sep 2020 — Jun 2024 (Expected)
Ph.D. Candidate in Mathematics, supervised by Prof. Xuejun JIANG
Department of Statistics and Data Science
Dissertation: Quantile Regression for Analyzing Correlated Data in Ultra-high Dimension

Harbin Institute of Technology, Shenzhen, China   Sep 2018 — Jun 2020
M.Sc. in Probability Theory and Mathematical Statistics
Department of Mathematics, master's program jointly offered by SUSTech and HIT
Dissertation: Quantile Regression of High-Dimensional Varying Coefficient Model Under Memory Constraint

Beijing University of Chemical Technology, Beijing, China   Sep 2014 — Jun 2018
B.Sc. in Financial Mathematics
Department of Mathematics
Dissertation: The Application of Bayesian Network in Personal Credit Evaluation

RESEARCH INTERESTS

Quantile Regression; Variable Selection; High-dimensional Statistical Analysis; Nonparametric Modeling

PAPERS

Publications

- **Liang, Y.**, Jiang, X., and Zhang, B. (2023). "Evaluating Risk-Adjusted Hospital Performance Using Large-Scale Data on Mortality Rates of Patients in Intensive Care Units: A Flexible Semi-Nonparametric Modeling Approach." *IEEE Journal of Translational Engineering in Health and Medicine*, 11, 232-246.

Submitted Papers

- Jiang X., **Liang Y.** and Wang H. (2023). "Screen Then Select: A Strategy for Correlated Predictors in High-Dimensional Quantile Regression." *Under review by Biometrics.*

Working Papers

- "Quantile-Adaptive Testing for High-Dimensional Linear Models" (*with Xuejun JIANG*)
- "Quantile Regression in High-Dimensional Varying Coefficient Models under Memory Constraint" (*with Xuejun JIANG*)

PROFESSIONAL ACTIVITIES

Project Experience

- Participation. *General Program of National Natural Science Foundation of China.*   Jan 2023 — present
  "Research on High-Dimensional Likelihood Inference Theory Under Non-Regularization."

- Participation. *Guangdong Natural Science Foundation - General Project.*   Jan 2023 — present
  "Research on Stable and Fast Algorithm for Feature Extraction in High-Dimensional Regression Models with Strong Correlation."

- Participation. *Shenzhen Fundamental Research Program.*   Oct 2021 — present
  "Research on Non-penalized Likelihood Inference of High-Dimensional Regression Models."

- Participation. *General Program of National Natural Science Foundation of China.*   Jan 2019 — Dec 2022
  "Likelihood Inference under High-Dimensional Parametric and Semi-parametric Models."

Presentations

- *Annual Conference of Guangdong Applied Statistics Association*, Zhaoqing, Guangdong. 2023
  Contributed talk in Zhaoqing University

Teaching Experience

- Tutor on *Advanced Statistics*   Fall 2020, Fall 2021
- Tutor on *Probability Theory and Mathematical Statistics*   Fall 2018, Spring 2020, Fall 2021
- Grader on *Statistical Linear Models*   Fall, 2021

Co-organizer or Volunteer of Conferences

- *Annual Conference of the Professional Committee on Multivariate Analysis Applications – Chinese Association for Applied Statistics*, Shenzhen, Guangdong   2023
- *Shenzhen International Conference on Frontiers of Statistics and Data Science*   2020, 2021, 2022
- *The Symposium on Statistics and Data Science*, Shenzhen, Guangdong   2022
- *Shenzhen International Conference on Biostatistics*   2021

Other Experience

- SUSTech *PhD Academic Scholarship*   2020 — 2024
- Members of the secretariat in *the Professional Committee on Multivariate Analysis Applications – Chinese Association for Applied Statistics*   2023
- SUSTech *Best Teaching Assistant Award*   2021
- Field Investigation, *Institute of Agricultural Economics and Development – Chinese Academy of Agricultural Sciences*, Weifang, Shandong   2017
- Meritorious Winner in *American Mathematical Contest in Modeling (MCM)*   2017
- First Prize in *Contemporary Undergraduate Mathematical Contest in Modeling (CUMCM)*, Beijing   2016

PROGRAMMING LANGUAGES

R, SAS, Python