Jinzhou Li

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Academic Appointments

National University of Singapore — Singapore
Tenure-track Assistant Professor (NUS Presidential Young Professorship) — August. 2025 - current

Stanford University — California, USA
Postdoctoral Researcher — April. 2023 - August. 2025
Advisor: Emmanuel Candès

Education

ETH Zürich — Zürich, Switzerland
Ph.D. in Statistics — Nov. 2018 - Nov. 2022
Advisors: Marloes Maathuis and Nicolai Meinshausen

ETH Zürich — Zürich, Switzerland
M.Sc. in Mathematics — Sep. 2016 - Sep. 2018

Nankai University — Tianjin, China
B.Sc. in Statistics — Sep. 2012 - Jun. 2016

Research interest

Causality, Selective Inference, Artificial Intelligence, Machine Learning, Statistical Genetics/Genomics.

Publications and Preprints

[1] X. Liu, J. Gu, Z. Chen, B. Chu, L. Liu, T. Morrison, R.R Butler III, J. Edelson, **J. Li**, F.M Longo, H. Tang, I. Ionita-laza, C. Sabatti, E. Candes, Z. He (2025+) Uncovering Heterogeneous Effects via Localized Feature Selection. bioRxiv preprint: 2025.06.03.657761v1.

[2] **J. Li** and J.J. Goeman (2025+). On the error control of invariant causal prediction. arXiv preprint: 2401.03834.

[3] **J. Li**, B. Chu, I. Scheller, J. Gagneur, and M. H. Maathuis (2025). Root cause discovery via permutations and Cholesky decomposition. arXiv preprint: 2410.12151. Journal of the Royal Statistical Society, Series B: Statistical Methodology. Accepted.

[4] **J. Li**, M.H. Maathuis, J.J. Goeman (2024). Simultaneous false discovery proportion bounds via knockoffs and closed testing. Journal of the Royal Statistical Society, Series B: Statistical Methodology, 86(4): 966-986.

[5] D. Deuber*, **J. Li***, S. Engelke, M.H. Maathuis (2023). Estimation and Inference of Extremal Quantile Treatment Effects for Heavy-Tailed Distributions. Journal of the American Statistical Association, 119(547): 2206-2216.

[6] J. Scire, J.S. Huisman, A. Grosu, D.C. Angst, Adrian Lison, **J. Li**, M.H. Maathuis, S. Bonhoeffer, T. Stadler. (2023). estimateR: An R package to estimate and monitor the effective reproductive number. BMC Bioinformatics, 24, 310.

[7] J.S. Huisman, J. Scire, D.C. Angst, **J. Li**, R.A. Neher, M.H. Maathuis, S. Bonhoeffer, T. Stadler. (2022). Estimation and worldwide monitoring of the effective reproductive number of SARS-CoV-2. eLife, 11:e71345.

[8] **J. Li**, M.H. Maathuis (2021). GGM knockoff filter: False discovery rate control for Gaussian graphical models. Journal of the Royal Statistical Society, Series B: Statistical Methodology, 83(3): 534-558.

$*$ = equal contribution

Talks

- Root cause discovery via permutations and Cholesky decomposition.
  The 19th International Joint Conference on CFE and CMStatistics, Birkbeck, University of London, UK. December 2025.
- Root cause discovery via permutations and Cholesky decomposition.
  IMS Young Mathematical Scientists Forum, National University of Singapore, Singapore. November 2025.
- Simultaneous false discovery proportion bounds via knockoffs and closed testing.
  The 13th International Conference on Multiple Comparison Procedures, Philadelphia, USA. August 2025.
- Root cause discovery via permutations and Cholesky decomposition.
  Statistics Seminar, Stanford, USA. July 2025.
- Root cause discovery via permutations and Cholesky decomposition.
  The Rising Stars in Data Science workshop, UC San Diego, USA. November 2024.
- Root cause discovery via permutations and Cholesky decomposition.
  Online Causal Inference Seminar, Online. November 2024.
- Root cause discovery via permutations and Cholesky decomposition.
  Stanford Causal Science Center Conference, Stanford, USA. October 2024.
- Simultaneous false discovery proportion bounds via knockoffs and closed testing.
  Joint Statistical Meetings, Portland, USA. August 2024.
- Simultaneous false discovery proportion bounds via knockoffs and closed testing.
  Biostatistics Seminar, UC Berkeley, USA. March 2024.
- Simultaneous false discovery proportion bounds via knockoffs and closed testing.
  IMS Young Mathematical Scientists Forum, National University of Singapore, Singapore. November 2023.
- GGM Knockoff Filter: FDR control for Gaussian graphical models.
  Joint Statistical Meetings, Toronto, Canada. August 2023.
- Simultaneous false discovery proportion bounds via knockoffs and closed testing.
  Joint Conference on Statistics and Data Science in China, Beijing, China. August 2023.
- Simultaneous false discovery proportion bounds via knockoffs and closed testing.
  International Seminar on Selective Inference, Online. January 2023.
- GGM Knockoff Filter: FDR control for Gaussian graphical models.
  The 12th International Conference on Multiple Comparison Procedures, Bremen, Germany. September 2022.

Teaching at NUS

ST5211X Sampling from Finite Populations — Fall 2025

Reviewing

- Journals: Annals of Statistics, Biometrika, Electronic Journal of Statistics, Journal of Computational and Graphical Statistics, Journal of the American Statistical Association, Journal of the Royal Statistical Society Series B (Statistical Methodology), Scandinavian Journal of Statistics, Stat.
- Conferences: Conference on Uncertainty in Artificial Intelligence (UAI) (2020, 2021, 2022, 2023), Conference on Artificial Intelligence and Statistics (AISTATS) (2020, 2021, 2022), Conference on Causal Learning and Reasoning (CLeaR) (2022, 2023, 2024, 2025), IEEE International Conference on Data Mining (ICDM) (2024)

Software

- RootCauseDiscovery: co-author, https://github.com/Jinzhou-Li/RootCauseDiscovery
  Julia and Python packages on root cause discovery.
- ICPsimultaneousBounds: author, https://github.com/Jinzhou-Li/ICPsimultaneousBounds
  R packages for obtaining simultaneous bounds for invariant causal prediction.
- KnockoffSimulFDP: author, https://github.com/Jinzhou-Li/KnockoffSimulFDP
  R package for obtaining simultaneous FDP bounds for knockoff-based methods.
- GGMKnockoffFilter-R: author, https://github.com/Jinzhou-Li/GGMKnockoffFilter-R
  R package for estimating Gaussian graphical models using knockoffs.
- extremal-qte-heavy-tailed: contributor, https://github.com/ddeuber/extremal-qte-heavy-tailed
  R package on the estimation and inference of the extremal quantile treatment effects.
- covid-19-Re: contributor, https://github.com/covid-19-Re
  R package on the estimation of the effective reproductive number of SARS-CoV-2.

Awards and Grant

- Rising Star in Data Science, UCSD, UChicago and Stanford, 2024
- SNSF postdoc mobility grant, 2023-2025