

Jiaqi Tong

135 College St., Suite 200, New Haven, CT 06510

Email : jiaqi.tong@yale.edu

EDUCATION

- **Yale School of Public Health** New Haven, CT
• *PhD in Biostatistics* Sep 2023 - (expected) May 2028
- **Yale School of Public Health** New Haven, CT
• *Master of Science in Biostatistics* Sep 2021 - May 2023
- **University of Liverpool** Liverpool, UK
• *Bachelor of Science in Mathematics with Honors* Sep 2018 - June 2020

RESEARCH INTERESTS

- **Statistical methodology:** Causal inference, econometrics, policy learning, treatment effect heterogeneity, mediation, principal stratification, instrumental variables, semiparametric and nonparametric methods, machine learning
- **Applications:** Clinical trials, precision medicine, sample size

SUBMITTED MANUSCRIPTS

- **J. Tong**, Y. Zhao, B. Mukherjee, & F. Li. (2026). Nonparametric heterogeneous causal mediation with orthogonal machine learning. <https://arxiv.org/abs/2609.08097>.
- **J. Tong** & F. Li. (2026). Orthogonal double residual learning for optimal individualized treatment rules. <https://arxiv.org/abs/2608.24085>.
- H. Wang, J. Liu, D. B. Cameron, **J. Tong**, D. Spiegelman, D. Meeker, & F. Li. (2026). Optimal sample size calculation in cost-effectiveness longitudinal cluster randomized trials. <https://arxiv.org/abs/2603.19051>.
- **J. Tong**, C. Cheng, & F. Li. (2026). Causal mediation in cluster-randomized trials with multiple mediators: spillover-aware decomposition, identification, and semiparametric efficient inference. <https://arxiv.org/abs/2604.10710>.
- **J. Tong** & F. Li. (2026). Doubly cross-fit debiased machine learning of heterogeneous treatment effects under principal stratification. <https://arxiv.org/abs/2606.29076>.
- **J. Tong** & F. Li. (2026). On the permutation equivariance principle for causal estimands. <https://arxiv.org/abs/2510.11863>. *Major revision at Statistica Sinica*.

PUBLICATION

- **J. Tong**, F. Li, & G. Tong. (2025). Addressing cluster-level treatment effect heterogeneity in sample size determination for hierarchical 2×2 factorial designs. *Biometrical Journal*.
- **J. Tong**, B. C. Kahan, M. O. Harhay, & F. Li. (2025). Semiparametric principal stratification analysis beyond monotonicity. *Statistica Sinica*.
- **J. Tong**, C. Cheng, G. Tong, M. O. Harhay, & F. Li. (2025). Doubly robust estimation and sensitivity analysis with outcomes truncated by death in multi-arm clinical trials. *Statistics in Medicine*.
- F. Li, **J. Tong**, X. Fang, C. Cheng, B. C. Kahan, & B. Wang. (2025). Model-robust standardization in cluster-randomized trials. *Statistics in Medicine*.
- B. Wang, M. O. Harhay, **J. Tong**, D. S. Small, T. P. Morris, & F. Li. (2024). On the mixed-model analysis of covariance in cluster-randomized trials. *Statistical Science*.
- G. Tong, **J. Tong**, Y. Jiang, D. Esserman, M. O. Harhay, & J. L. Warren. (2024). Hierarchical Bayesian modeling of heterogeneous outcome variance in cluster randomized trials. *Clinical Trials*, 17407745231222018.
- **J. Tong**, F. Li, M. O. Harhay, & G. Tong. (2023). Accounting for expected attrition in the planning of cluster randomized trials for assessing treatment effect heterogeneity. *BMC Medical Research Methodology*, 23(1), 85.
- G. Tong, **J. Tong**, & F. Li. (2024). Designing multicenter individually randomized group treatment trials. *Biometrical Journal*, 66(1), 2200307.

PRESENTATIONS

- **39th New England Statistics Symposium** Storrs, CT
Causal mediation in cluster-randomized trials with multiple mediators May 2026
- **2026 Eastern North American Region** Indianapolis, IN
Causal mediation in cluster-randomized trials with multiple mediators March 2026
- **2025 American Causal Inference Conference (Poster)** Detroit, MI
Semiparametric principal stratification analysis beyond monotonicity May 2025

RESEARCH EXPERIENCE

- **Center for Methods in Implementation and Prevention Science** New Haven, CT
Supervised by Dr. Fan Li August 2023 - Current
- **Yale School of Public Health, Graduate Research Assistant** New Haven, CT
Supervised by Dr. Fan Li and Dr. Guangyu Tong Jan 2022 - August 2023

R PACKAGES

- PSor, MRStdCRT, odr1ITR

TEACHING EXPERIENCE

- Teaching Fellow, Nonparametric Statistical Methods and Their Applications (BIS 646), Yale School of Public Health, Spring 2025
- Teaching Fellow, Statistical Methods for Causal Inference (BIS 537), Yale School of Public Health, Fall 2023

PROFESSIONAL AFFLICTIONS

- Eastern North American Region (ENAR), 2024-current
- Society for Causal Inference (SCI), 2025-current

HONORS AND AWARDS

- Yale-Mayo Clinic CERSI Scholars Award, 2024-2025
- New England Statistics Symposium Student Research Award, 2026

PEER REVIEW ACTIVITIES

AJE Advances: Research in Epidemiology (3), Annals of Applied Statistics (2), Biometrics (1), Biostatistics (1), BMC Medical Research Methodology (5), BMC Medicine (2), Statistical Methods in Medical Research (3), Journal of the American Statistical Association (1), PLOS One (3)