Zhenghao Zeng

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Research interests	Causal inference, nonparametric statistics, high-dimensional statistics

Education

Carnegie Mellon University	Pittsburgh, PA
Ph.D. in Statistics	08/2020 – Present
Advisor: Prof. Edward H. Kennedy	
Carnegie Mellon University	Pittsburgh, PA
M.S. in Statistics	08/2020 – 05/2021
University of Science and Technology of China	Hefei, Anhui
B.S. in Statistics	08/2016 – 06/2020

Honors and awards

Student Paper Award, Statistical Learning and Data Science Section, ASA	2024
ENAR Distinguished Student Paper Award (International Biometric Society ENAR Spring Meeting)	2023
Guo Moruo Scholarship (summa cum laude at USTC)	2019
National Scholarship of China (USTC)	2018

Publications

Zeng, Z., Arbour, D., Feller, A., Addanki, R., Rossi, R., Sinha, R., and Kennedy, E.H. (2024). Continuous Treatment Effects with Surrogate Outcomes. *International Conference on Machine Learning*, 2024.

Zeng, Z., Gu, Y., and Xu, G. (2023). A Tensor-EM Method for Large-Scale Latent Class Analysis with Binary Responses. *Psychometrika*, 88(2), 580-612.

He, Y., Meng, B., **Zeng, Z.** and Xu, G. (2021). On the phase transition of Wilks' phenomenon. *Biometrika*, 108(3), 741-748.

Preprints

Zeng, Z., Balakrishnan, S., Han, Y. and Kennedy, E. H. (2024). Causal Inference with High-dimensional Discrete Covariates. arXiv preprint arXiv:2405.00118.

Du, J. H., **Zeng, Z.**, Kennedy, E. H., Wasserman, L. and Roeder, K. (2024). Causal Inference for Genomic Data with Multiple Heterogeneous Outcomes. arXiv preprint arXiv:2404.09119.

Bonvini, M., **Zeng, Z.**, Yu, M., Kennedy, E. H., and Keele, L. (2023). Flexibly Estimating and Interpreting Heterogeneous Treatment Effects of Laparoscopic Surgery for Cholecystitis Patients. arXiv preprint arXiv:2311.04359.

Zeng, Z., Kennedy, E. H., Bodnar, L. M., and Naimi, A. I. (2023). Efficient generalization and transportation. arXiv preprint arXiv:2302.00092.

Levis, A. W., Bonvini, M., **Zeng, Z.**, Keele, L., and Kennedy, E. H. (2023). Covariate-assisted bounds on causal effects with instrumental variables. arXiv preprint arXiv:2301.12106.

Experience		
	Adobe Research	San Jose, CA
	Research Intern	05/2024 – 08/2024
	Mentors: David Arbour, Ishita Dasgupta, Atanu Sinha and Avi Feller (Berkeley)	
	Adobe Research	San Jose, CA
	Research Intern	05/2023 – 08/2023
	Mentors: David Arbour and Prof. Avi Feller (Berkeley)	
	Continuous treatment effects with surrogate outcomes.	
	University of Michigan, Ann Arbor	Ann Arbor, MI
	Research Assistant	06/2019 – 09/2019
	Mentor: Prof. Gongjun Xu	
	Large-scale latent class analysis and high-dimensional testing.	

Teaching		
	Teaching assistant, Carnegie Mellon University	08/2020–05/2022
	36-225 Introduction to Probability	
	36-401 Modern Regression	
	36-402 Advanced Methods for Data Analysis ($\times$2)	
	Teaching assistant, USTC	09/2019 – 05/2020
	Single-variable Calculus	
	Regression Analysis	

Talks		
	International Conference on Computational & Methodological Statistics (CMStatistics)	Virtual
	Continuous treatment effects with surrogate outcomes	12/2024
	Joint Statistical Meetings (JSM)	Portland, OR
	Causal inference with high-dimensional discrete covariates	08/2024
	American Causal Inference Conference (ACIC)	Seattle, WA
	Causal inference with high-dimensional discrete covariates	05/2024
	Causal Inference and Missing Data Group at Inria	Virtual
	Efficient generalization and transportation	02/2024

American Causal Inference Conference (ACIC)　　　　　Austin, TX

Causal inference with high-dimensional discrete covariates　　　05/2023

International Biometric Society ENAR Spring Meeting　　　Nashville, TN

Efficient generalization and transportation　　　　　　　03/2023

Academic Service **Reviewer**

American Journal of Epidemiology (1)

Biometrika (3)

Electronic Journal of Statistics (5)

Journal of American Statistical Association (2)

Organizer

CMU Causal Inference Reading Group (2024-)