

# WAVERLY (LINQING) WEI

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CONTACT INFORMATION      Email: [waverly@marshall.usc.edu](mailto:waverly@marshall.usc.edu)  
Personal Website

ACADEMIC APPOINTMENTS      **Assistant Professor, Department of Data Sciences and Operations**      June 2024 –  
University of Southern California

**Postdoctoral Researcher**      2023 to 2024  
University of California, Berkeley

EDUCATION      **Ph.D. in Biostatistics**      2019 to 2023  
University of California, Berkeley

**M.A. in Biostatistics**      2017 to 2019  
University of California, Berkeley

**B.S. in Computer Science, Biochemistry**      2013 to 2017  
University of California, Los Angeles

RESEARCH INTERESTS      Adaptive Experiments; Causal Inference; Precision Medicine

PUBLICATIONS AND PREPRINTS      **Wei, W.**, Ma, X. and Wang, J. (2024). Adaptive Experiments Toward Learning Treatment Effect Heterogeneity. *Preprint*. (This manuscript received ICSA Applied Statistics Symposium 2023 Student Paper Award)

*Statistical Methodology*

Ruan, X., Wang, J., Wang, Y. and **Wei, W.** (2024). Electronic Medical Records Assisted Digital Clinical Trial Design. Forthcoming at [International Conference on Artificial Intelligence and Statistics \(AISTATS\)](#).

**Wei, W.**, Ma, X. and Wang, J. (2023). Fair Adaptive Experiments. *Advances in Neural Information Processing Systems (NeurIPS)* 36.

**Wei, W.**, Petersen, M., van der Laan, M., Zheng, Z., Wu, C. and Wang, J. (2022). Efficient Targeted Learning of Heterogeneous Treatment Effects for Multiple Subgroups. *Biometrics* 79(3): 1934-1946. (This manuscript received ASA Nonparametric Statistics Section 2022 Student Paper Award).

Guo, X.\*\* , **Wei, W.\*\***, Liu, M., Cai, T., Wu, C. and Wang, J. (2022). Assessing the Most Vulnerable Subgroup to Type II Diabetes Associated with Statin Usage: Evidence from Electronic Health Record Data. *Journal of American Statistical Association* 118(543): 1488-1499.

**Wei, W.\*\***, Zhou, Y.\*\* , Zheng, Z. and Wang, J. (2022). Inference on the Best Policies with Many Covariates. *Journal of Econometrics* 239(2): 105460.

Guo, X., **Wei, W.**, Wu, C. and Wang, J. (2021). Sharp Inference on Selected Subgroups in Observational Studies. *Preprint*.

(Co-first authors in alphabetical order \*\*)

*Statistical Collaboration*

Phillips, R.V.\*\* , **Wei, L.\*\***, Cardenas, A., Hubbard, A.E., McHale, C.M., Vermeulen, R., Wei, H., Smith, M.T., Zhang, L., Lan, Q. and Rothman, N. (2022). Epigenome-Wide Association Studies of Occupational Exposure to Benzene and Formaldehyde. *Epigenetics*: 1-19.

Fahey, C.A.\*\* , **Wei, L.\*\***, Njau, P.F., Shabani, S., Kwilasa, S., Maokola, W., Packel, L., Zheng, Z., Wang, J. and McCoy, S. (2022). Machine Learning with Routine Electronic Medical Record Data to Identify People at High Risk of Disengagement from HIV Care in Tanzania. *PLOS Global Public Health* 2(9): e0000720.

Boeck, M.A., **Wei, W.**, Robles, A.J., Nwabuo, A.I., Plevin, R.E., Juillard, C.J., Bibbins-Domingo, K., Hubbard, A.E. and Dicker, R.A. (2021). The Structural Violence Trap: Disparities in Homicide, Chronic Disease Death, and Social Factors Across San Francisco Neighborhoods. *Journal of the American College of Surgeons* 234(1): 32-46.

Zhao, Y., **Wei, L.**, Tagmount, A., Loguinov, A., Sobh, A., Hubbard, A.E., McHale, C.M., Chang, C.J., Vulpe, C.D. and Zhang, L. (2021). Applying Genome-wide CRISPR to Identify Known and Novel Genes and Pathways that Modulate Formaldehyde Toxicity. *Chemosphere* 269: 128701.

Bozack, A.K., Boileau, P., **Wei, L.**, Hubbard, A.E., Sillé, F.C.M., Ferreccio, C., Acevedo, J., Hou, L., Ilievski, V., Steinmaus, C.M., Smith, M.T., Navas-Acien, A., Gamble, M.V. and Cardenas, A. (2021). Exposure to Arsenic at Different Life-stages and DNA Methylation Meta-analysis in Buccal Cells and Leukocytes. *Environmental Health* 20(1): 1-18.

Weiss, A.S., Orosz, I., Salamon, N., Moy, S., **Wei, L.**, Van't Klooster, M.A., Knight, R.T., Harper, R.M., Bragin, A., Fried, I., Engel Jr., J. and Staba, R.J. (2016). Ripples on Spikes Show Increased Phase-amplitude Coupling in Mesial Temporal Lobe Epilepsy Seizure-onset Zones. *Epilepsia* 57(11): 1916-1930.

(Co-first authors in alphabetical order \*\*. Some publications are under the name Wei, Linqing)

AWARDS	Student Paper Award, ICSA Applied Statistics Symposium	2023
	Best Presentation and Best Student Paper Awards, Nonparametric Statistics Section, American Statistics Association	2022
	Student Poster Award, Workshop on “Modern Statistical and Machine Learning Methods for Big Data”, University of Michigan Ann Arbor	2022
	Student Travel Award, San Francisco Chapter, American Statistics Association	2019
	Conference Travel Award, Graduate Division, University of California, Berkeley	2019
FUNDING SUPPORT	<i>Co-Investigator</i> , Harnessing Data Science to Promote Equity in Injury and Surgery for Africa; NIH 3U54TW012087-03S1; 9/15/2021-6/30/2026	
INDUSTRY EXPERIENCE	<i>Data Scientist Intern</i> , Google, Mountain view, California	2020
	<i>AI Resident Intern</i> , Google X, Mountain view, California	2021
PRESENTATIONS	Joint Statistical Meetings, Toronto, Canada	2023
	American Causal Inference Conference, Austin, Texas	2023
<i>Talks</i>	Causal Inference Seminar, Department of Statistics, University of California, Berkeley	2022
	Joint Statistical Meetings, Washington D.C.	2022
	Women in Computational Science, Stanford University	2022
	Joint Statistical Meetings, Virtual Conference	2021
	The Western North America Region of The International Biometric Society Meetings	2021
	Causal Inference Seminar, Department of Statistics, University of California, Berkeley	2020
	Google Payments Data Science Team, Google, Mountain View, California	2020
	Student Travel Award Talks, SFASA Chapter, San Francisco, California	2019
<i>Posters</i>	Conference on Neural Information Processing Systems, New Orleans, Louisiana	2023
	Workshop on “Modern Statistical and Machine Learning Methods for Big Data,” Ann Arbor, Michigan	2022
	American Causal Inference Conference, Berkeley, California	2022
	Workshop on “Statistics in the Big Data Era,” Simons Institute, Berkeley, California	2022
	Joint Statistical Meetings, Denver, Colorado	2019
SOFTWARE	<b>iTMLE</b> An R package that implements an iterative targeted maximum likelihood estimation method for learning treatment effect heterogeneity.	
	<b>debiased.subgroup</b> An R package that implements bootstrap-assisted desparsified Lasso and bootstrap-assisted Repeated Sampling Splitting estimators on selected subgroup’s treatment effect estimation.	
SERVICE	<i>Organizer and Chair</i> , Invited Session at the Joint Statistical Meeting, Portland, Oregon	2024
	<i>Chair</i> , Speed Session at the Joint Statistical Meeting, Toronto, Canada	2023
	<i>Graduate Student Mentor</i> , Peer Mentorship Program, Division of Biostatistics, University of California, Berkeley	2020 to 2022

*Committee Member*, Diversity, Equity, Inclusion, and Belongings Student Committee, 2020  
Division of Biostatistics, University of California, Berkeley  
*Undergraduate Student Mentor*, Summer Research Mentorship, 2019  
Division of Biostatistics, University of California, Berkeley

TEACHING      Lab instructor for Machine Learning and Biostatistics in Healthcare      2022  
Lab instructor for Computational Statistics with Applications in Biology and Medicine      2020