ZHENKE WU, PHD

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2023 - present Associate Professor (with tenure), Department of Biostatistics, University of Michigan, USA

EDUCATION AND TRAINING

- 2016 Postdoctoral Fellow, Johns Hopkins Individualized Health Initiative, Baltimore, MD, US
- 2014 Ph.D. in Biostatistics, Johns Hopkins Bloomberg School of Public Health (JHSPH), Baltimore, MD, US
- 2009 B.Sc. in Mathematics. First Class Honors, Fudan University, Shanghai, China

SELECTED PUBLICATIONS "_": advisee; Citations: 3,050 (Google Scholar); h-index: 25; i-10 index: 44

- Li M, Stephenson BJK[†], Wu Z[†] (2025). Tree-Regularized Bayesian Latent Class Analysis for Improving Weakly Separated Dietary Pattern Subtyping in Small-Sized Subpopulations. (†: co-senior authors). ► Annals of Applied Statistics. Accepted. [arXiv][R package][shinyapp][CRAN]
- **Wu Z**, Li RZ, <u>Chen I</u>, <u>Li M</u> (2024). Tree-Informed Bayesian Multi-Source Domain Adaptation: Cross-population Probabilistic Cause-of-death Assignment using Verbal Autopsy. ▶ *Biostatsitics*. [Paper][*R package: doubletree*]
- <u>Li M</u>, Park DE, Aziz M, Liu CM, Price LB, **Wu Z** (2023). Integrating sample similarity information into latent class analysis: a tree-structured shrinkage approach. ► *Biometrics* 79(1):264-279. doi: 10.1111/biom.13580. PM-CID:PMC10642217. PMID:34658017.[Early View][bioRxiv]
- Wang J, Shi C, Wu Z (2023). A Robust Test for the Stationarity Assumption in Sequential Decision Making. ▶ 40th International Conference on Machine Learning (ICML).
- **Li** \underline{M}^{\sharp} , Shi C^{\sharp} , **Wu** \mathbf{Z}^{\dagger} , Fryzlewicz P^{\dagger} (2025). Testing stationarity and change point detection in reinforcement learning. ($^{\sharp}$: co-first authors; † : co-senior authors). ► *Annals of Statistics.*[*arXiv*][*Python code*]
- **Wu Z**, Casciola-Rosen L, Rosen A, Zeger SL (2020). A Bayesian approach to restricted latent class models for scientifically-structured clustering of multivariate binary outcomes. ▶ *Biometrics* 77(4): 1431-1444.
- NeCamp T, Sen S, Frank E, Walton M, Ionides E, Fang Y, Tewari A, Wu Z (2020). Assessing real-time moderation for developing adaptive mobile health interventions for medical interns: micro-randomized trial. ► *Journal of Medical Internet Research (JMIR)* 22(3): e15033. doi: 10.2196/15033.
- Wu Z, Deloria-Knoll M, and Zeger SL (2017). Nested partially-latent class models (npLCM) for dependent binary data; estimating disease etiology. ► *Biostatistics* 18(2): 200-213. PMID: 27549120. doi: 10.1093/biostatistics/kxw037. [Software paper][R package]

SELECTED SOFTWARE

baker: Bayesian Analysis Kit for Etiology Research [CRAN][Development version][downloads: ¿83,000]

doubletree: Nested latent class models with double-tree shrinkage [Github]

ddtlcm: Tree-regularized Latent Class Analysis to Overcome Weakly Separation [shinyapp][CRAN][Github]

SELECTED EDITORIAL SERVICE

Associate Editor Annals of Applied Statistics (2024-), Biostatistics (2024-), Journal of the Royal

Statistical Society, Series A: Statistics in Society (2025-)

Standing Statistical Reviewer New England Journal of Medicine, Artificial Intelligence (2024-)