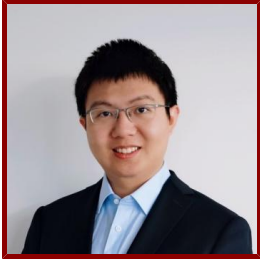


# Stanford

---



## Xiao Wu

Postdoctoral Scholar, Statistics

### Bio

---

#### BIO

Xiao Wu is a Data Science Fellow at Stanford Data Science, where he works with Professor Trevor Hastie in the Department of Statistics. His research interests lie in developing statistical and causal inference methods to address methodological needs in climate and health research. The key goal of his research is to provide scientific evidence on the health impacts of environmental factors in an age of rapidly changing climate.

Before coming to Stanford, he completed his Ph.D. training in the Department of Biostatistics at Harvard University, where he was advised by Dr. Francesca Dominici and Dr. Danielle Braun. His dissertation focuses on developing robust and interpretable causal inference methods to handle error-prone, continuous, and time-series exposures. He is also working on collaborative projects to design Bayesian clinical trials, meta-analyses, and real-world evidence studies.

#### PROFESSIONAL EDUCATION

- Ph.D., Harvard University , Biostatistics (2021)
- M.S., Harvard T.H. Chan School of Public Health , Biostatistics (2017)
- B.S., Peking University , Mathematics (2015)
- LL.B., Peking University , Laws (2015)

#### STANFORD ADVISORS

- Trevor Hastie, Postdoctoral Faculty Sponsor

#### LINKS

- <https://xiaowu.io/>: <https://xiaowu.io/>

### Publications

---

#### PUBLICATIONS

- **Air pollution and the pandemic: Long-term PM2.5 exposure and disease severity in COVID-19 patients.** *Respirology (Carlton, Vic.)*  
Mendy, A., Wu, X., Keller, J. L., Fassler, C. S., Apewokin, S., Mersha, T. B., Xie, C., Pinney, S. M.  
2021
- **Heat warnings, mortality, and hospital admissions among older adults in the United States.** *Environment international*  
Weinberger, K. R., Wu, X., Sun, S., Spangler, K. R., Nori-Sarma, A., Schwartz, J., Requia, W., Sabath, B. M., Braun, D., Zanobetti, A., Dominici, F., Wellenius, G. A.  
2021; 157: 106834
- **County-level exposures to greenness and associations with COVID-19 incidence and mortality in the United States** *ENVIRONMENTAL RESEARCH*  
Klompaker, J. O., Hart, J. E., Holland, I., Sabath, M., Wu, X., Laden, F., Dominici, F., James, P.

---

2021; 199: 111331

- **Long-term exposure to fine particulate matter and hospitalization in COVID-19 patients** *RESPIRATORY MEDICINE*  
Mendy, A., Wu, X., Keller, J. L., Fassler, C. S., Apewokin, S., Mersha, T. B., Xie, C., Pinney, S. M.  
2021; 178: 106313
- **Air pollution and cardiovascular disease hospitalization - Are associations modified by greenness, temperature and humidity?** *Environment international*  
Klompaker, J. O., Hart, J. E., James, P., Sabath, M. B., Wu, X., Zanobetti, A., Dominici, F., Laden, F.  
2021; 156: 106715
- **Long-term effects of PM<sub>2.5</sub> on neurological disorders in the American Medicare population: a longitudinal cohort study** *LANCET PLANETARY HEALTH*  
Shi, L., Wu, X., Yazdi, M., Braun, D., Abu Awad, Y., Wei, Y., Liu, P., Di, Q., Wang, Y., Schwartz, J., Dominici, F., Kioumourtzoglou, M., Zanobetti, et al  
2020; 4 (12): E557-E565
- **Air pollution and COVID-19 mortality in the United States: Strengths and limitations of an ecological regression analysis** *SCIENCE ADVANCES*  
Wu, X., Nethery, R. C., Sabath, M. B., Braun, D., Dominici, F.  
2020; 6 (45)
- **Causal Effects of Air Pollution on Mortality Rate in Massachusetts** *AMERICAN JOURNAL OF EPIDEMIOLOGY*  
Wei, Y., Wang, Y., Wu, X., Di, Q., Shi, L., Koutrakis, P., Zanobetti, A., Dominici, F., Schwartz, J. D.  
2020; 189 (11): 1316-1323
- **Evaluating the impact of long-term exposure to fine particulate matter on mortality among the elderly** *SCIENCE ADVANCES*  
Wu, X., Braun, D., Schwartz, J., Kioumourtzoglou, M. A., Dominici, F.  
2020; 6 (29): eaba5692
- **Propensity score analysis for time-dependent exposure** *ANNALS OF TRANSLATIONAL MEDICINE*  
Zhang, Z., Li, X., Wu, X., Qiu, H., Shi, H., AME Big-Data Clinical Trial Collab  
2020; 8 (5): 246
- **Optimizing interim analysis timing for Bayesian adaptive commensurate designs** *STATISTICS IN MEDICINE*  
Wu, X., Xu, Y., Carlin, B. P.  
2020; 39 (4): 424-437
- **CAUSAL INFERENCE IN THE CONTEXT OF AN ERROR PRONE EXPOSURE: AIR POLLUTION AND MORTALITY** *ANNALS OF APPLIED STATISTICS*  
Wu, X., Braun, D., Kioumourtzoglou, M., Choirat, C., Di, Q., Dominici, F.  
2019; 13 (1): 520-547
- **Cross-sectional design with a short-term follow up for prognostic imaging biomarkers** *Computational Statistics & Data Analysis*  
Won, J., Wu, X., Li, S. H., Lu, Y.  
2017