

Stanford



Minghao Qiu

Postdoctoral Scholar, Earth System Science

Bio

BIO

I am a postdoctoral scholar at Stanford University, working with Marshall Burke as a part of the ECHO (Environmental Change and Human Outcomes) Lab. My research interest is in environmental and energy policies with a global focus on issues involving air pollution, climate change and energy systems. I use causal inference, machine learning, and atmospheric chemistry modeling to study the sustainability challenges at the intersection of energy, pollution and climate using real-world data.

I received my PhD degree from MIT's Institute for Data, Systems, and Society on September 2021, advised by Noelle Selin. I also worked closely with my committee members: Valerie Karplus, Cory Zigler and Colette Heald. I received bachelor degrees in environmental sciences and economics from Peking University in Beijing.

HONORS AND AWARDS

- Outstanding Student Presentation Awards (OSPA), American Geophysical Union Fall Meeting (2021)
- Fellow, Martin Family Society of Fellows for Sustainability (2020)
- Young Scientists Summer Program, IIASA (2019)

STANFORD ADVISORS

- Marshall Burke, Postdoctoral Faculty Sponsor

LINKS

- Personal site: <https://mhqiu.github.io/>

Publications

PUBLICATIONS

- **Impacts of wind power on air quality, premature mortality, and exposure disparities in the United States.** *Science advances*
Qiu, M., Zigler, C. M., Selin, N. E.
2022; 8 (48): eabn8762
- **Daily Local-Level Estimates of Ambient Wildfire Smoke PM_{2.5} for the Contiguous US.** *Environmental science & technology*
Childs, M. L., Li, J., Wen, J., Heft-Neal, S., Driscoll, A., Wang, S., Gould, C. F., Qiu, M., Burney, J., Burke, M.
2022
- **Statistical and machine learning methods for evaluating trends in air quality under changing meteorological conditions** *ATMOSPHERIC CHEMISTRY AND PHYSICS*
Qiu, M., Zigler, C., Selin, N. E.
2022; 22 (16): 10551-10566

- **Using snapshot measurements to identify high-emitting vehicles** *ENVIRONMENTAL RESEARCH LETTERS*
Qiu, M., Borken-Kleefeld, J.
2022; 17 (4)
- **Improving Evaluation of Energy Policies with Multiple Goals: Comparing Ex Ante and Ex Post Approaches** *ENVIRONMENTAL SCIENCE & TECHNOLOGY*
Qiu, M., Weng, Y., Cao, J., Selin, N. E., Karplus, V. J.
2020; 54 (24): 15584-15593
- **The contribution of the Beijing, Tianjin and Hebei region's iron and steel industry to local air pollution in winter** *ENVIRONMENTAL POLLUTION*
Yang, H., Tao, W., Liu, Y., Qiu, M., Liu, J., Jiang, K., Yi, K., Xiao, Y., Tao, S.
2019; 245: 1095-1106