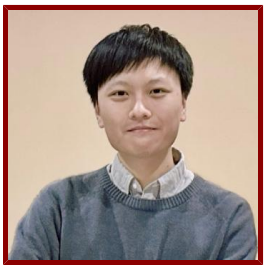
Stanford



# Xiaojian Zheng

Postdoctoral Scholar, Earth System Science

## Bio

### BIO

Dr. Xiaojian Zheng is a postdoctoral scholar in the Department of Earth System Science at Stanford University, working with Dr. Yuan Wang. His research targets aerosol–cloud–climate interactions, combining ground-based, airborne, and satellite observations with global and convection-permitting models, and leveraging machine learning throughout the analysis.

Xiaojian's current research directions span deep learning-based estimates of regime-dependent aerosol–cloud interactions, machine-learning emulation of aerosol microphysics inside Earth System models, and the circulation control of convection, heatwaves, and regional air quality.

### PROFESSIONAL EDUCATION

- Ph.D., University of Arizona , Atmospheric Sciences (2023)
- M.S., University of Arizona , Atmospheric Sciences (2019)
- B.S., Nanjing University of Information Science & Technology , Atmospheric Sciences (2017)

### STANFORD ADVISORS

- Yuan Wang, Postdoctoral Faculty Sponsor

### LINKS

- Google Scholar: https://scholar.google.com/citations?user=vCsPdnUAAAAJ&hl=en

## Publications

### PUBLICATIONS

- **Advancing the quantification of aerosol-cloud interactions with the CALIPSO-CloudSat-Aqua/MODIS record** *ATMOSPHERIC CHEMISTRY AND PHYSICS*
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- **Quantifying the Differences in Southern Ocean Clouds Observed by Radar and Lidar From Three Platforms** *GEOPHYSICAL RESEARCH LETTERS*
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- **Assessing Radiative Impacts of African Smoke Aerosols Over the Southeastern Atlantic Ocean** *EARTH AND SPACE SCIENCE*
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- **Assessment of CMIP5 and CMIP6 AMIP Simulated Clouds and Surface Shortwave Radiation Using ARM Observations over Different Climate Regions** *JOURNAL OF CLIMATE*
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- **What Are the Similarities and Differences in Marine Boundary Layer Cloud and Drizzle Microphysical Properties During the ACE-ENA and MARCUS Field Campaigns?** *JOURNAL OF GEOPHYSICAL RESEARCH-ATMOSPHERES*
  Marcovecchio, A. R., Xi, B., Zheng, X., Wu, P., Dong, X., Behrangi, A.
  2023; 128 (18)
- **Insights of warm-cloud biases in Community Atmospheric Model 5 and 6 from the single-columnmodeling framework and Aerosol and Cloud Experiments in the EasternNorth Atlantic (ACE-ENA) observations** *ATMOSPHERIC CHEMISTRY AND PHYSICS*
  Wang, Y., Zheng, X., Dong, X., Xi, B., Yung, Y. L.
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- **Aerosol Properties and Their Influences on Marine Boundary Layer Cloud Condensation Nuclei over the Southern Ocean** *ATMOSPHERE*
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- **A Climatology of Midlatitude Maritime Cloud Fraction and Radiative Effect Derived from the ARM ENA Ground-Based Observations** *JOURNAL OF CLIMATE*
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- **Aerosol-Cloud-Precipitation Interactions in a Closed-cell and Non-homogenous MBL Stratocumulus Cloud** *ADVANCES IN ATMOSPHERIC SCIENCES*
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- **Cloud phase and macrophysical properties over the Southern Ocean during the MARCUS field campaign** *ATMOSPHERIC MEASUREMENT TECHNIQUES*
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- **Maritime Aerosol and CCN Profiles Derived From Ship-Based Measurement Over Eastern North Pacific During MAGIC** *EARTH AND SPACE SCIENCE*
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- **Impacts of long-range transport of aerosols on marine-boundary-layer clouds in the eastern North Atlantic** *ATMOSPHERIC CHEMISTRY AND PHYSICS*
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- **Quantifying Long-Term Seasonal and Regional Impacts of North American Fire Activity on Continental Boundary Layer Aerosols and Cloud Condensation Nuclei** *EARTH AND SPACE SCIENCE*
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