

Zhenwu Xu

0086 15521242747 | xuzhenwu@igsnr.ac.cn
11A Datun, Chaoyang, Beijing, China 100101

EDUCATION

Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences

2020-2024 Ph.D. *Physical Geography*

School of Geography and Planning, Sun Yat-Sen University

2017-2019 M.E. *Hydraulic Engineering*

2013-2017 B.E. *Physical Geography and Resources & Environment*

WORK EXPERIENCES

Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences

2024-present Postdoctoral researcher

Institute of Hydraulic Engineering and Water Resources Management, Technische Universität Wien

2023-2024 Visiting student

RESEARCH INTERESTS

Global Change Ecohydrology

- **Hydrological responses and resilience to disturbances (e.g., droughts, wildfires, deforestation)**
- **Process-based modeling for evapotranspiration, streamflow, and vegetation-water interactions**
- **Satellite–field data integration for global and regional assessment**

PUBLICATIONS

First author / corresponding author paper:

- **Xu, Z.**, Zhang, Y., Kong, D., Ma, N., & Zhang, X. (2026). Extended global terrestrial evapotranspiration and gross primary production dataset from 1982 to near present. ***Earth System Science Data***, 1–41. [accepted]
- **Xu, Z.**, Zhang, Y., Blöschl, G., & Piao, S. (2023). Mega forest fires intensify flood magnitudes in southeast Australia. ***Geophysical Research Letters***, 50, e2023GL103812.
- **Xu, Z.**, Zhang, Y., Zhang, X., Ma, N., Tian, J., Kong, D., & Post, D. (2022). Bushfire-induced water balance changes detected by a modified paired catchment method. ***Water Resources Research***, 58(11), e2021WR031013.
- **Xu, Z.**, Sun, L., Tang, G., Chen, X., Niu, X., Li, Y., & Yu, Y. (2022). Do model results vary under different routing algorithms based on a distributed ecohydrological model? ***Journal of Hydrometeorology***, 23(12), 1913–1928.
- **Xu, Z.**, Tang, G., Jiang, T., Chen, X., Chen, T., & Niu, X. (2021). An automatic partition-based parallel algorithm for grid-based distributed hydrological models. ***Environmental Modelling & Software***, 144, 105142.

Collaboration paper (selected):

- Shao, X., Zhang, Y., Ma, N., Zhang, X., Tian, J., Xu, Z., & Liu, C. (2024). Drought-induced ecosystem

resistance and recovery observed at 118 flux tower stations across the globe. *Agricultural and Forest Meteorology*, 356, 110170.

- Lin, J., Bryan, B. A., Zhou, X., Lin, P., Do, H. X., et al. (2023). Making China's water data accessible, usable and shareable. *Nature Water*, 1, 328–335.
- Wang, L., Zhang, Y., Ma, N., Song, P., Tian, J., Zhang, X., & Xu, Z. (2023). Diverse responses of canopy conductance to heatwaves. *Agricultural and Forest Meteorology*, 335.
- Luan, J., Miao, P., Tian, X., Li, X., Ma, N., Xu, Z., et al. (2022). Separating the impact of check dams on runoff from climate and vegetation changes. *Journal of Hydrology*, 614, 128565.
- Chen, T., Tang, G., Yuan, Y., Guo, H., Xu, Z., Jiang, G., & Chen, X. (2020). Unraveling the relative impacts of climate change and human activities on grassland productivity in Central Asia over last three decades. *Science of The Total Environment*, 743, 140649.
- Tang, G., Li, S., Yang, M., Xu, Z., Liu, Y., & Gu, H. (2019). Streamflow response to snow regime shift associated with climate variability in four mountain watersheds in the US Great Basin. *Journal of Hydrology*, 573, 255–266.

REVIEW ACTIVITIES

ORCID records:

- | | |
|---|---|
| • <i>Science Advances</i> | 1 |
| • <i>Water Resources Research</i> | 2 |
| • <i>Journal of Hydrology</i> | 6 |
| • <i>Agricultural Water Management</i> | 1 |
| • <i>Environmental Modelling & Software</i> | 2 |

GRANTS & AWARDS

Grants:

2024 China Postdoctoral Science Foundation

Fellowship Program (Grant No. GZC20250236)

General Program (Grant No.2025M770359)

Awards:

2023 Outstanding Student of the University of Chinese Academy of Sciences (UCAS)

CONFERENCES

Session convener:

2026 May General Assembly 2026 of the European Geosciences Union (EGU), Austria

“Ecohydrological responses to droughts in a changing environment” (1st convener)

2025 Nov. 26th International Congress on Modelling and Simulation (MODSIM), Australia

“Understanding hydrological extremes: trends, drivers and impacts” (3rd convener)

Presentations:

2026 May General Assembly 2026 of the European Geosciences Union (EGU), Austria

2025 Nov. 26th International Congress on Modelling and Simulation (MODSIM), Australia

2024 Apr. General Assembly 2024 of the European Geosciences Union (EGU), Austria

2023 Jul. 25th International Congress on Modelling and Simulation (MODSIM), Australia
 2021 Dec. 24th International Congress on Modelling and Simulation (MODSIM), Australia
 2018 Nov. 1st Symposium of Space Earth Science, Sanya, China

TEACHING EXPERIENCES

2025 Fall	UCAS	Modern Hydrology	Teaching Assistant
2024 Fall	UCAS	Modern Hydrology	Teaching Assistant
2018 Fall	SYSU	Terrestrial Ecosystem Ecology	Teaching Assistant
2018 Spring	SYSU	C++ programming	Teaching Assistant

TECHNICAL SKILLS

- **Model** **PML-V2 (Diagnostic ET and GPP model)**
CHESS (Distributed ecohydrological model)
 HBV, GR4J, Xinanjiang, etc. (Lumped hydrological models)
- **Coding** R C++ Fortran Linux JavaScript (Google Earth Engine)
- **Language** English Chinese (Mandarin, Cantonese, Hokkien, Hakka)