

Curriculum Vitae: Dr Xin Zhou

Associate Professor of Atmospheric Sciences, Chengdu University of Information Technology

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Date of birth: 13th January 1990

Scientific Career

- **July 2018 - Now.** Lecturer (2018), and now Associate Professor (2021), School of Atmospheric Sciences, Chengdu University of Information Technology.

Education

- June 2018. Awarded PhD in Atmospheric Sciences at Institute of Atmospheric Physics, University of Chinese Academy of Sciences, China
- June 2013, BA Natural Sciences, School of Atmospheric Sciences, Nanjing University, China

Prizes and Fellowships

- 2013. University of Chinese Academy of Sciences 1st class honours
- 2014 Postgraduate Chinese Global Change Forum 1st Prize
- 2018 Chu Kochen Forum Excellent Paper Award
- 2021-2023 China Scholarship Council (CSC) Advanced Overseas Research Fellowship
- 2021-2023 University of Leeds Visiting Research Fellow

Research Students

I currently supervise (or co-supervise) 8 MS students, including Haoran Zhou (3rd year), Jie Jin (3rd year), Yiming Wang (2nd year), Yu Pen (2nd year), Yuhao Zeng (1st year), Yuyao Zhou (1st year), Zhihong Li (1st year), and Xinyue Zhong (1st year).

Research Funding

Since 2018 I have received over ¥1.5M funding for research from bodies including NSFC, MOST, NSFSP.

- PI on 3 National Natural Science Foundation of China (NSFC) research grants. Co-I on a further 4.
- PI on 1 Natural Science Foundation of Sichuan Province (NSFSP) grant. Co-I on a further 1.
- Co-I on 1 Ministry of Science and Technology of the People's Republic of China (MOST) grant

Awards & Accolades

- Invited speaker, European Geosciences Union (EGU) 2024 General Assembly, “Impact of Hunga Tonga-Hunga Ha’apai water vapour on polar vortex dehydration and ozone depletion: Antarctic 2023 and Arctic 2024” (Abstract EGU24-8370), Vienna, Austria
- Best Oral Presentation in Session 2A of UK Earth Observation (UKEO) 2023, “Decreasing tropical stratospheric water vapour entry in the past four decades linked with Indo-Pacific Warm Pool Warming”, Leicester, UK
- Outstanding Oral presentation Award, 2018 Academic Symposium on Atmospheric Sciences in Universities Across the Taiwan Strait (Zhu Kezhen Forum), “The impacts of Indo-Pacific Warm Pool on the stratosphere”, Chengdu, China

Selected Publications

- Xin Zhou**, Quanliang Chen, Wuhu Feng, Saffron Heddell, Sandip Dhomse, Graham Mann, Hugh Pumphrey, Luis Millán, Michelle Santee, and Martyn P. Chipperfield, Residence time of Hunga stratospheric water vapour perturbation quantified at 9 years. *Commun Earth Environ*, 2026, <https://doi.org/10.1038/s43247-026-03216-5>
- Xin Zhou**, Sandip S. Dhomse, Wuhu Feng, Graham Mann, Saffron Heddell, Hugh Pumphrey, Brian J. Kerridge, Barry Latter, Richard Siddans, Lucy Ventress, Richard Querel, Penny Smale, Elizabeth Asher, Emrys G. Hall, Slimane Bekki, and Martyn P. Chipperfield, Antarctic vortex dehydration in 2023 as a substantial removal pathway for Hunga Tonga-Hunga Ha’apai water vapor, *Geophysical Research Letters*, 2024, <https://doi.org/10.1029/2023GL107630>
- Xin Zhou**, Graham W. Mann, Wuhu Feng, Sandip S. Dhomse, Martyn P. Chipperfield, The influence of internal climate variability on stratospheric water vapor increases after large-magnitude explosive tropical volcanic eruptions. *Geophysical Research Letters*, 2023, <https://doi.org/10.1029/2023GL103076>
- Xin Zhou**, Quanliang Chen, Yang Li, Yong Zhao, Yuqi Lin, Yangjie Jiang, Impacts of the Indo-Pacific warm pool on lower stratospheric water vapor: Seasonality and hemispheric contrasts, *Journal of Geophysical Research*, 2021, doi: 10.1029/2020JD034363
- Xin Zhou**, Quanliang Chen, Zhenglin Wang, Mian Xu, Sen Zhao, Zhigang Cheng, Fan Feng, Longer duration of the weak stratospheric vortex during extreme El Niño events linked to spring Eurasian coldness, *Journal of Geophysical Research*, 2020, 123, 3071-3086, doi:10.1175/JCLI-D-17-0575.1
- Xin Zhou**, Quanliang Chen, Fei Xie, Jianping Li, Minggang Li, Ruiqiang Ding, Yanjie Li, Xin Xia, Zhigang Cheng, Nonlinear response of Northern Hemisphere stratospheric polar vortex to the Indo Pacific warm pool (IPWP) Nino, *Scientific Reports*, 2019, 9:13719
- Xin Zhou**, Jianping Li, Fei Xie, Quanliang Chen, Ruiqiang Ding, Wenxia Zhang, Yang Li, Does extreme El Niño have a different effect on the stratosphere in boreal winter than its moderate counterpart?, *Journal of Geophysical Research*, 2018, 123: 3071-3086
- Xin Zhou**, Jianping Li, Fei Xie, Ruiqiang Ding, Yanjie Li, Sen Zhao, Jiankai Zhang, Yang Li, The effects of the Indo-Pacific Warm Pool on the stratosphere, *Climate Dynamics*, 2017, doi:10.1007/s00382-017-3584-2

Ph.D. Dissertation

Zhou, Xin (2018) The effects of the Indo-Pacific Warm Pool on the stratosphere, the potential mechanisms and comparison with ENSO