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PROFESSIONAL PREPARATION

Nanjing Institute of Meteorology (Nanjing, China)	Meteorology	B.S. 1980 – 1984
Melbourne University (Melbourne, Australia)	Meteorology	M.S. 1986 – 1989
Macquarie University (Sydney, Australia)	Atmospheric Sciences	Ph.D. 1989 – 1992

APPOINTMENTS

2011–	John A. and Katherine G. Jackson Chair in Earth System Science
2011–	Founding Director, Center for Integrated Earth System Science, UT-Austin
2008–	Professor (with tenure), University of Texas at Austin
2005–2008	Associate Professor (with tenure), University of Texas at Austin
2001–2005	Assistant Professor, University of Texas at Austin
1993–2001	Postdoc to Research Associate Professor, University of Arizona
1992–1993	Research Associate, Macquarie University, Sydney, Australia

COURSES TAUGHT

LIVING WITH A PLANET
EARTH, WIND AND FIRE
PHYSICAL CLIMATOLOGY
CLIMATE: PAST, PRESENT AND FUTURE
HYDROCLIMATOLOGY
LAND–ATMOSPHERE INTERACTION DYNAMICS

SELECTED PUBLICATIONS (STUDENTS UNDERLINED, * DENOTES POSTDOCS; 200+ ARTICLES: RESEARCHERID B-4916-2011 AND ORCID 0000-0003-3030-0330)

- Chao, L. J., K. Zhang, Z.-L. Yang, J. F. Wang, P. R. Lin, J.J. Liang, Z. J. Li, and Z. Gu, 2021: Improving flood simulation capability of the WRF-Hydro-RAPID model using a multi-source precipitation merging method, *Journal of Hydrology*, **592**, 125814, <https://doi.org/10.1016/j.jhydrol.2020.125814>.
- Halubok, M. and Z.-L. Yang, 2020: Estimating crop and grass primary productivity over the United States using satellite solar-induced chlorophyll fluorescence, precipitation and soil moisture data, *Remote Sensing*, **12**, 3434; doi:10.3390/rs12203434.
- Kim, K. Y., W.-Y. Wu, E. Kutanoglu, J. Hasenbein, and Z.-L. Yang, 2021: Hurricane scenario generation for uncertainty modeling of coastal and inland flooding, *Frontiers in Climate*, **3**, <https://doi.org/10.3389/fclim.2021.610680>.
- Li, L. C., Z.-L. Yang, A. M. Matheny, H. Zheng, S. C. Swenson, D. M. Lawrence, M. Barlage, B.Y. Yan, N. G. McDowell, and L. R. Leung, 2021: Representation of plant hydraulics in the Noah-MP land surface model: Model development and multi-scale evaluation, *Journal of Advances in Modeling Earth Systems*, <https://doi.org/10.1029/2020MS002214>.
- Lin, P. R., Z.-L. Yang, J. F. Wei, R. E. Dickinson, Y. F. Zhang, and L. Zhao*, 2020: Assimilating multi-satellite snow data in ungauged Eurasia improves the simulation accuracy of Asian monsoon seasonal anomalies, *Environmental Research Letters*, <https://doi.org/10.1088/1748-9326/ab80ef>.
- Ling, X. L., C. B. Fu, W. D. Guo and Z.-L. Yang, 2019: Assimilation of remotely sensed LAI into CLM4CN using DART, *Journal of Advances in Modeling Earth Systems*, **11** (8), 2768–2786.
- Lv, M. Z.*, Z. F. Xu, Z.-L. Yang, H. Lu, and M. X. Lv, 2021: A comprehensive review of specific yield in land surface and groundwater studies, *Journal of Advances in Modeling Earth Systems*, **13** (2), e2020MS002270, <https://doi.org/10.1029/2020MS002270>.
- Lv, M. Z.*, Z.-L. Yang, Z. F. Xu, L. Dan, M. X. Lv, and H. Zheng, 2021: A soil moisture-dependent model to simulate water table depth and proportions of surface and subsurface runoff and its

- validation at the basin scale, *Journal of Geophysical Research: Atmospheres*, **126** (4), e2020JD033661, <https://doi.org/10.1029/2020JD033661>.
- Niu, G.-Y.*, **Z.-L. Yang**, K. E. Mitchell, F. Chen, M. B. Ek, M. Barlage, A. Kumar, K. Manning, D. Niyogi, E. Rosero*, M. Tewari, and Y.-L. Xia, 2011: The community Noah land surface model with multiparameterization options (Noah-MP): 1. Model description and evaluation with local-scale measurements, *J. Geophys. Res.*, **116**, D12109, doi:10.1029/2010JD015139.
- Qing, Y. M., S. Wang, B. C. Ancell, and **Z.-L. Yang**, 2022: Accelerating flash droughts induced by the joint influence of soil moisture depletion and atmospheric aridity, *Nature Communications*, **13**, 1139, <https://doi.org/10.1038/s41467-022-28752-4>.
- Wang, L. and **Z.-L. Yang**, 2020: Changes of Land-use under Anthropogenic Influences, *Oxford Research Encyclopedia of Environmental Science*, doi: 10.1093/acrefore/9780199389414.013.37.
- Wang, S., B. Ancell, **Z.-L. Yang**, Q. Y. Duan, and E. N. Anagnostou, 2022: Editorial to the Special Issue «Hydroclimatic Extremes and Impacts in a Changing Environment: Observations, Mechanisms, and Projections», *Journal of Hydrology*, **608**, 127615.
- Wu, W.-Y., M. H. Lo, Y. Wada, J. S. Famiglietti, J. T. Reager, P. J. F. Yeh, A. Ducarne, and **Z.-L. Yang**, 2020: Divergent effects of climate change on future groundwater availability in key mid-latitude aquifers, *Nature Communications*, **11** (1), 3710, DOI: 10.1038/s41467-020-17581-y.
- Wu, W.-Y., **Z.-L. Yang**, and M. Barlage, 2021: The impact of Noah-MP physical parameterizations on modeling water availability during droughts in the Texas Gulf region, *Journal of Hydrometeorology*, **22**, <https://doi.org/10.1175/JHM-D-20-0189.1> (A)
- Yang, Z.-L.**, 2015: Foreword to the special issue: regional earth system modeling, *Climatic Change*, **129** (3–4), 365–368, doi: 10.1007/s10584-015-1365-7.
- Yang, Z.-L.**, L. Zhao*, Y. J. He, and B. Wang, 2020: Perspectives for Tibetan Plateau Data Assimilation, *National Science Review*, <https://doi.org/10.1093/nsr/nwaa014>.
- Yang, Z.-L.**, G.-Y. Niu*, K. E. Mitchell, F. Chen, M. B. Ek, M. Barlage, L. Longuevergne, K. Manning, D. Niyogi, M. Tewari, and Y.-L. Xia, 2011: The community Noah land surface model with multiparameterization options (Noah-MP): 2. Evaluation over global river basins, *J. Geophys. Res.*, **116**, D12110, doi:10.1029/2010JD015140.
- Zeng, Z. Z., D. S. Wang, L. Wang, J. Wu, A. D. Ziegler, M. F. Liu, P. Ciais, T. D. Searchinger, **Z.-L. Yang**, et al., 2020: Deforestation-induced warming over tropical mountain regions regulated by elevation, *Nature Geoscience*, **14**, 23–29 <https://doi.org/10.1038/s41561-020-00666-0>.
- Zhao, L.* and **Z.-L. Yang**, 2018: Multi-sensor land data assimilation: Toward a robust global soil moisture and snow estimation, *Remote Sensing of Environment*, **216**, 13–27.
- Zheng, H.,* **Z.-L. Yang**, et al., 2019: On the sensitivity of the precipitation partitioning into evapotranspiration and runoff in land surface parameterizations, *Water Resources Research*, **55**, <https://doi.org/10.1029/2017WR022236>.
- Zheng, H., **Z.-L. Yang**, P. Lin, W.-Y. Wu, L. Li, Z. Xu, J. F. Wei, L. Zhao, Q. Y. Bian, and S. Wang, 2020: Falsification-oriented signature-based evaluation for guiding the development of land surface models and the enhancement of observations, *Journal of Advances in Modeling Earth Systems*, **12** (12), e2020MS002132. <https://doi.org/10.1029/2020MS002132>.

SYNERGISTIC ACTIVITIES

- Editor-in-Chief, Water and Climate Section in *Water*, 2021–present; Associate Editor, *Journal of Geophysical Research–Atmospheres*, 2019–present; Editor, *Journal of Meteorological Research*, 2014–present; Editor, *Advances in Atmospheric Sciences*, 2020–present
- Austin Water Climate Technical Advisory Group, January 2021–August 2021
- Co-Chair of the NCAR Community Climate System Model Land Working Group, 2008–2013
- Chair/organizer of numerous sessions at the AGU and AMS meetings and other professional meetings
- CHAP Panel Member, NCAR's Computational and Information Systems Laboratory (CISL) HPC Allocation Panel, reviewing dozens of proposals twice a year from 2016–2018.