

Di Tian, PhD

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a. Education and Training

Postdoc, Princeton University, Princeton, NJ, Hydroclimatology, 2014-2016

Ph.D., University of Florida, Gainesville, FL, Ag & Bio Engineering (Hydrologic Sciences), 2014

M.S., China University of Geosciences, Beijing, Land Resources Management, 2010

B.S., China University of Geosciences, Beijing, Land Resources Management (Geodesy), 2005

b. Research and Professional Experience

8/2022-, Associate Professor, Department of Crop, Soil, and Environmental Sciences and Earth System Science Program, Auburn University, Auburn, AL

8/2016-8/2022, Assistant Professor, Department of Crop, Soil, and Environmental Sciences and Earth System Science Program, Auburn University, Auburn, AL

9/2014-8/2016, Postdoctoral Research Associate, Department of Civil and Environmental Engineering, Princeton University, Princeton, NJ

8/2010-8/2014, Graduate Research Assistant, Department of Agricultural and Biological Engineering, University of Florida, Gainesville, FL

c. Recent Publications in Refereed Journals (*indicate students/postdocs advised by Tian)

- Takhellambam, B.S., Srivastava, P., Lamba, J., Zhao, W., Kumar, H., **Tian, D.**, and Molinari, R.. 2023. Artificial neural network-empowered projected future rainfall intensity-duration-frequency curves under Changing climate. *Atmospheric Research*, p.107122.
- *Schillerberg, T., **D. Tian**. 2023. Changes in crop failures and their predictions with agroclimatic conditions: Analysis based on earth observations and machine learning over global croplands. *Agricultural and Forest Meteorology*, 340, p.109620.
- *Wang, F, **D. Tian**, and M. Carroll. 2023. Customized Deep Learning for Precipitation Bias Correction and Downscaling. *Geoscientific Model Development*, 16, 535–556.
- Singh, T. B., P. Srivastava, J. Lamba, R. McGehee, H. Kumar, and **D. Tian**. 2023. Projected Mid-Century Rainfall Erosivity Under Climate Change Over the Southeastern United States. *Science of the Total Environment*, p. 161119.
- *Medina, H., **D. Tian**. 2023. Synergistic contributions of climate and management intensifications to maize yield trends from 1961 to 2017. *Environmental Research Letters*, 18, 024020.
- Zhen, X., W. Huo, and **D. Tian**, Q. Zhang, A. Sanz-Saez, C. Chen, W. D. Batchelor. 2023. County level calibration strategy to evaluate peanut irrigation water use under different climate change scenarios. *European Journal of Agronomy*, 143, p.126693.
- *Lesinger, K., **D. Tian**. 2022. Trends, Variability, and Drivers of Flash Droughts in the Contiguous United States. *Water Resources Research*, 58, e2022WR032186.
- *Wang, F, **D. Tian**. 2022. On deep learning-based bias correction and downscaling of multiple climate models simulations. *Climate Dynamics*, pp.1-18.
- Singh, T. B., P. Srivastava, J. Lamba, R. McGehee, H. Kumar, and **D. Tian**. 2022. Temporal disaggregation of hourly projected precipitation over the Southeast United States. *Scientific Data*, 9(1), pp.1-14.

- Domeisen, D., and 39 Co-authors including *H. Medina and **D. Tian**. 2022. Advances in the subseasonal prediction of extreme events: Relevant case studies across the globe. *Bulletin of the American Meteorological Society*, 103(6), E1473-E1501.
- Ponpetch, K., B. Erko, T. Bekana, T. Kebede, **D. Tian**, Y. Yang, and S. Liang. 2021. Environmental Drivers and Potential Distribution of Schistosoma mansoni Endemic Areas in Ethiopia. *Microorganisms*, 9(10), p.2144.
- *Wang, F., **D. Tian**, L. Lowe, L. Kalin, and J. Lehrter. 2021. Deep learning for daily precipitation and temperature downscaling. *Water Resources Research*, 57, e2020WR029308
- *Li, Yanzhong, **D. Tian**, and H. Medina. 2021. Multi-model Subseasonal Precipitation Forecasts over the Contiguous United States: Skill Assessment and Postprocessing. *Journal of Hydrometeorology*, 22(10), pp.2581-2600.
- *Asadi, P., and **D. Tian**. 2021. Estimating leaf wetness duration with machine learning and climate reanalysis data. *Agricultural and Forest Meteorology*, 307, p.108548.
- *Li, Yizhuo, **D. Tian**, G. Feng, W. Yang, L. Feng. 2021. Climate change and cover crop effects on water use efficiency of a corn-soybean rotation system. *Agricultural Water Management*, 255, p.107042
- Saminathan, S., H. Medina, S. Mitra, and **D. Tian**. 2021. Improving short to medium range GEFS precipitation forecast in India. *Journal of Hydrology*, p.126431
- ***Tian, D.**, X. He, P. Srivastava, and L. Kalin. 2021. A hybrid framework for forecasting monthly reservoir inflow based on machine learning techniques with dynamic climate forecasts, satellite-based data, and climate phenomenon information. *Stochastic Environmental Research and Risk Assessment*, pp.1-23.
- *Medina, H., **D. Tian**, and A. Abebe. 2021. On optimizing a MODIS-based framework for in-season corn yield forecast. *International Journal of Applied Earth Observation and Geoinformatics*, 95, p.102258.
- *Lesinger, K., **D. Tian**, C. Leisner, A. Sanz-Saez. 2020. Impact of Climate Change on Storage Conditions for Major Agricultural Commodities across the Contiguous United States. *Climatic Change*, pp. 1-19.
- *Schillerberg, T., **D. Tian**. 2020. Changes of crop failure risks in the United States associated with large-scale climate oscillations in the Atlantic and Pacific Oceans. *Environmental Research Letters*, 15(6), p.064035.
- *Medina, H., **D. Tian**. 2020. Comparison of probabilistic post-processing approaches for improving numerical weather prediction-based daily and weekly reference evapotranspiration forecasts. *Hydrology and Earth System Sciences*, 24(2).
- He, X., L. Estes, M. Konar, **D. Tian**, D. Anghileri, K. Baylis, T. Evans, J. Sheffield. 2019. Integrated approaches to understanding and reducing drought impact on food security across scales. *Current Opinion in Environmental Sustainability*, 40, pp. 43-54.

d. Other activities

1. Topic Editor, Geoscientific Model Development, 2023-present
2. Topic Editor, Earth System Science Data, 2023-present
3. CAREER Award, National Science Foundation, 2022
4. Panel and ad-hoc reviewer for NASA grants, 2019-present
5. Panel and ad-hoc reviewer for NSF grants, 2018-present
6. Panel and ad-hoc reviewer for USDA/NIFA AFRI grants, 2017-present
7. Presidential Award of Interdisciplinary Research, Auburn University, 2018.
8. PI and Co-PI for NSF, NOAA, NASA, USDA/NIFA, and other grants (>\$8M) since 2017