

## Xian Wu

ASP Postdoctoral Fellow

Climate and Global Dynamics Division

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### Education

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Ph.D. Climate Dynamics

The University of Texas at Austin

2015 – 2020

Dissertation: “*Duration of El Niño and La Niña Events: Mechanisms and Multi-year Predictability*”. Advisor: Yuko Okumura

B.S. Atmospheric Sciences (Climatology Direction)

Nanjing University of Information Science and Technology

2011 – 2015

Thesis: “*Interannual variations of winter precipitation over southern China and its linkage to El Niño-Southern Oscillation*”

### Research Interests

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Large-scale ocean-atmosphere interaction

Climate variability and change

Climate modeling and predictability

### Appointments

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Advanced Study Program Postdoctoral Fellow, National Center for Atmospheric Research, Sept 2020–present

### Publications

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Published:

1. Okumura, Y. M., T. Sun, and X. Wu, 2017: Asymmetric Modulation of El Niño and La Niña and the Linkage to Tropical Pacific Decadal Variability. *J. Climate*, **30**, 4705–4733, <https://doi.org/10.1175/JCLI-D-16-0680.1>.
2. Wu, X., Y. M. Okumura, and P. N. DiNezio, 2019: What Controls the Duration of El Niño and La Niña Events? *J. Climate*, **32**, 5941–5965, <https://doi.org/10.1175/JCLI-D-18-0681.1>

Under review or in preparation:

3. Wu, X., Y. M. Okumura, and P. N. DiNezio, 2020: Predictability of El Niño Duration Based on

the Onset Timing. *J. Climate*. In revision.

4. **Wu, X.**, Y. M. Okumura, and P. N. DiNezio, 2020: Two-year Dynamical Predictions of ENSO Event Duration during 1954–2015. *J. Climate*. Submitted.
5. Authorship order to be decided. Tropical Hydroclimate Change during Heinrich Stadial 1: An Integrative Proxy-Model Synthesis. In prep.

## **Fellowships and Awards**

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NCAR Advanced Study Program Postdoctoral Fellowship	2020
UT Austin, Institute for Geophysics Graduate Fellowship	Spring 2020
Outstanding Student Presentation Award, American Geophysical Union Fall Meeting	2019
UT Austin, Institute for Geophysics Entry Fellowship	2015 – 2016
Excellent Honor Graduate Award, NUIST	2015
Third Prize of China Undergraduate Mathematical Contest in Modeling	2013
First-Class Scholarship, NUIST	2011 – 2015

## **Selected Presentations**

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10. **Wu, X.**, Y. M. Okumura, C. Deser and P. N. DiNezio. Two-year Predictions of ENSO event duration during 1954-2015. CESM Workshop 2020, Boulder, CO, June 2020 (Talk).
9. **Wu, X.**, Y. M. Okumura, and P. N. DiNezio. Duration of El Niño and La Niña event: mechanisms and multi-year predictability, Water, Climate, and Environmental Seminar Series, Austin, TX, Mar 2020 (Talk).
8. **Wu, X.**, Y. M. Okumura, and P. N. DiNezio. Two-year Predictions of ENSO event duration during 1954-2015. American Geophysical Union Fall Meeting, San Francisco, CA, Dec 2019 (Poster).
7. **Wu, X.**, Y. M. Okumura, and P. N. DiNezio. Predictability of El Niño duration based on the onset timing. American Geophysical Union Fall Meeting, San Francisco, CA, Dec 2019 (Talk).
6. **Wu, X.**, Y. M. Okumura, and P. N. DiNezio. Predictability of El Niño duration based on the onset timing. UT Austin Institute for Geophysics Seminar Series, Austin, TX, Dec 2019 (Talk).
5. **Wu, X.**, Y. M. Okumura, and P. N. DiNezio. What controls the duration of El Niño and La Niña events? Water, Climate, and Environmental Seminar Series, Austin, TX, Oct 2019 (Talk).
4. **Wu, X.**, Y. M. Okumura, and P. N. DiNezio. Predictability of El Niño duration in a coupled general circulation model. American Meteorological Society 99th Annual Meeting, Phoenix, AZ. Jan 2019 (Talk), [Link to Recorded Presentation](#).

3. **Wu, X.**, Y. M. Okumura, and P. N. DiNezio. What controls the duration of El Niño and La Niña events? American Meteorological Society 98th Annual Meeting, Austin, TX. Jan 2018 (Talk), [Link to Recorded Presentation](#).
2. Lawman, A. E., T. Sun, T. M. Shanahan, P. N. DiNezio, K. Gomez; N. Piatrunia, C. Sun, **X. Wu**, M. Kageyama, U. Merkel, B. L. Otto-Bliesner, A. Abe-Ouchi, G. Lohmann, J. S. Singarayer. Tropical Hydroclimate Change during Heinrich Stadial 1: An Integrative Proxy-Model Synthesis. American Geophysical Union Fall Meeting, New Orleans, CA, Dec 2017 (Poster)
1. **Wu, X.**, Y. M. Okumura, and P. N. DiNezio. Impact of Interbasin Teleconnections on the on the Duration of El Niño and La Niña. American Geophysical Union Fall Meeting, San Francisco, CA, Dec 2016 (Poster)

## Teaching Experience

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Graduate Teaching Assistant, *GEO 302 Earth, Wind, and Fire* Spring 2018

## Summer Schools

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Artificial Intelligence for Earth System Science Summer School, Boulder, CO	June 2020
Advanced Climate Dynamics Courses Summer School (Dynamics of the Seasonal Cycle), Rondvassbu, Norway	Sept 2017
Community Earth System Model Tutorial, NCAR, Boulder, CO	Aug 2016
Visiting Student, College of Global Change and Earth System Science, Beijing Normal University, China	Jul 2014

## Community Service

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Reviews for *Journal of Climate*, *Climate Dynamics*, *Journal of Geophysical Research Atmospheres*, *Journal of Physical Oceanography*, *International Journal of Climatology*, *Advances in Climate Change Research*, *Science Bulletin*

## Outreach

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Event Supervisor, UT Austin Science Olympiad Tournaments (Meteorology Test)	2018–2019
K-12 STEM Outreach, Ford Elementary, Georgetown, Texas	Jan 2019
Co-organize outreach activities on the 2014 World Meteorological Day, inform the public on air pollution facts and actions to reduce air pollution, Nanjing, China	Mar 2014

## **Computer Skills and Numerical Modeling**

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<i>Programming Languages</i>	FORTRAN, NCAR Command Language, Python, Shell Script
<i>Numerical Modeling</i>	Community Earth System Modeling
<i>System</i>	Windows, Mac OS, Unix/Linux

## **Professional Memberships**

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American Meteorological Society  
American Geophysical Union