

Di Chen

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EDUCATION

Ph.D., Atmospheric Science 2019

University at Albany, SUNY

Advisor: Prof. Aiguo Dai

Dissertation: *Precipitation Characteristics and Their Dependence on Data Resolution and Model Physics*

B.S., Atmospheric Science 2014

Ocean University of China

Thesis: *Current and Future Changes of The North Atlantic Oscillation in ECHAM6*

EMPLOYMENT

Postdoctoral Scholar 2019-present

University of California, Los Angeles

- Focus on understanding the statistics of extreme rainfall. Investigated precursors for regional extreme rainfall using Bayesian inference
- Utilize statistical tools to analyze large amount of spatio-temporal data. Developed metrics and evaluated the performance of global climate models
- Write journal articles and communicate scientific results to stakeholders

Graduate Research Assistant 2014-2019

University at Albany, SUNY

- Investigated precipitation characteristics by analyzing satellite data. Explained their resolution-dependence using joint probability theory
- Designed and conducted global climate models experiments to understand factors that influence the simulated precipitation
- Drew insights from large amount of CMIP5 model data, made recommendation on ways to improve the simulated precipitation

Graduate Teaching Assistant 2015-2017

University at Albany, SUNY

HONORS & AWARDS

- Travel grant** for CMIP6 Hackathon 2019
National Center for Atmospheric Research, Boulder, CO.
- Outstanding Student Paper Award** 2016
American Geophysical Union (AGU) Fall Meeting, San Francisco, CA
- Outstanding B.S. Thesis** 2014
Ocean University of China

PUBLICATIONS

✧ *Published*

- Chen, D.**, and A. Dai, 2018: Dependence of estimated precipitation frequency and intensity on data resolution, *Climate Dynamics*, **50**, 3625–3647. <https://doi.org/10.1007/s00382-017-3830-7>.
- Chen, D.**, and A. Dai, 2019: Precipitation characteristics in the Community Atmosphere Model and their dependence on model physics and resolution, *Journal of Advances in Modeling Earth Systems*, 11. <https://doi.org/10.1029/2018MS001536>.

✧ *To be submitted*

- Chen, D.**, A. Dai, and A. Hall, 2020: The convective-to-total precipitation ratio and the “drizzling” bias, *Journal of Geophysical Research, -Atmospheres*.
- Chen, D.**, et al., 2020: California wet season precipitation and the “West Coast” mode, *Journal of Geophysical Research, -Atmospheres*.

PRESENTATIONS

✧ *Invited*

- Chen, D.**, 2019: Precipitation Characteristics and Their Dependence on Data Resolution and Model Physics. GFDL/Princeton University, Princeton, NJ.
- Chen, D.**, 2019: Precipitation Characteristics and Their Dependence on Data Resolution and Model Physics. Lawrence Berkeley National Laboratory, Berkeley, CA.

✧ *Conferences*

- Chen, D.**, and A. Dai, 2018: Precipitation Characteristics in the Community Atmosphere Model and their Dependence on Model Physics and Resolution. Poster, *2018 Fall Meeting, AGU*, Washington, D.C.

Chen, D., and A. Dai, 2016: Estimates of Global Precipitation Frequency and Intensity and their Dependence on Data Resolution. Lightning talk & Poster, *2016 Fall Meeting, AGU*, San Francisco, CA.

PROFESSIONAL SERVICE

Reviewer for *Journal of Climate*, *Journal of Geophysical Research-Atmospheres*, *International Journal of Climatology*, *Quarterly Journal of the Royal Meteorological Society*

LEADERSHIP & VOLUNTEER

University at Albany Earth Day Planning Committee

Member 2019

Department of Atmospheric and Environmental Sciences Climate Group Steering Committee

Member 2017

TECHNICAL SKILLS

Operating Systems

Familiar with Windows, UNIX

Programming & Scripting Languages

Proficient in NCL, Python, Fortran,
Unix Shell Scripting, GrADS

Datasets

Familiar with TRMM, CMORPH, GPM,
GPCP, CPC, NCEP Stage IV, CMIP5 Archive

Models

Familiar with NCAR CESM1
Some experience with WRF-ARW