

Curriculum Vitae

Wenyu Zhou

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Research Interests

Climate dynamics and change, Tropical meteorology, Moist convection

Employment

2019 - Present: Project Scientist, **Lawrence Berkeley National Laboratory**, USA

2015 - 2018: Postdoc, **Scripps Institution of Oceanography**, UC San Diego, USA

Education

2010 - 2015: PhD, Atmospheric and Oceanic Sciences, **Princeton University**, USA

2006 - 2010: BE, Hydraulic Engineering, **Tsinghua University**, China

Publications

[15] **Zhou, W** (2019), Contrasting ITCZ changes over recent decades and under global warming. Submitted.

[14] **Zhou, W.**, S-P Xie and D. Yang (2019), Enhanced equatorial warming causes deep-tropical contraction and subtropical monsoon shift. *Nature Climate Change*, Accepted.

[13] Amaya, D., Kosaka Y., **W. Zhou**, Y. Zhang, S-P Xie, and A. J. Miller (2019), The Pacific Meridional Mode pacemaker effect on historical ENSO. *Journal of Climate*, In Print.

[12] **Zhou, W.** and S-P Xie (2019), A spectral plume model for understanding tropical temperature profile and convective updraft velocities. *Journal of the Atmospheric Sciences*, In Print.

[11] **Zhou, W.**, M. Zhao and D. Yang (2019), Understand the direct effect of CO₂ increase on tropical circulation and TC activity: land surface warming versus direct radiative forcing. *Geophysical Research Letters*, 46 (12), 6859-6867.

[10] Zhu, X., D. Li, **W. Zhou**, G. Ni, Z. Cong, and T. Sun (2018), An idealized LES study of urban modification of moist convection. *Quarterly Journal of the Royal Meteorological Society*, 143 (709), 3228-3243.

- [9] **Zhou, W.** and S-P Xie (2018), A hierarchy of idealized monsoons in an intermediate GCM. *Journal of Climate*, 31 (22), 9021-9036.
- [8] Zhou Z-Q, S-P Xie, G-J Zhang, and **W. Zhou** (2018), Evaluating AMIP skill in simulating interannual variability over the Indo-Western Pacific. *Journal of Climate*, 31 (6), 2253-2265.
- [7] **Zhou, W.** and S-P Xie (2017), Intermodel spread of the double-ITCZ bias in coupled GCMs tied to land surface temperature in AMIP GCMs. *Geophysical Research Letters*, 44 (15), 7975-7984.
- [6] **Zhou, W.** and S-P Xie (2017), Intermodel spread around the Kuroshio-Oyashio extension region in coupled GCMs caused by meridional variation of the westerly jet from atmospheric GCMs. *Journal of Climate*, 30 (12), 4589-4599.
- [5] **Zhou, W.**, I. M. Held, and S. T. Garner (2017), Tropical cyclones in rotating radiative-convective equilibrium with coupled SST. *Journal of the Atmospheric Science*, 74 (3), 879-892.
- [4] **Zhou, W.**, S-P Xie, and Z-Q Zhou (2016), Slow preconditioning for the abrupt convective jump over the northwest Pacific during summer. *Journal of Climate*, 29 (22), 8103-8113.
- [3] Merlis, T. M., **W. Zhou**, I. M. Held, and M. Zhao (2016), Surface temperature dependence of tropical cyclone permitting simulations in a spherical model with uniform thermal forcing. *Geophysical Research Letters*, 43, 2859–2865.
- [2] **Zhou, W.** (2015), The impact of vertical shear on the sensitivity of tropical cyclogenesis to environmental rotation and thermodynamic state. *Journal of Advances in Modeling Earth Systems*, 7 (4), 1872-1884.
- [1] **Zhou, W.**, I. M. Held, and S. T. Garner (2014), Parameter study of tropical cyclones in rotating radiative–convective equilibrium with column physics and resolution of a 25-km GCM. *Journal of the Atmospheric Sciences*, 71, 1058–1069.

Oral Presentations

- 15 Annual Meeting of Asia Oceania Geosciences Society, 2018
- 21th Conference on Atmospheric and Oceanic Fluid Dynamics, Portland, 2017
- 20th Conference on Atmospheric and Oceanic Fluid Dynamics, Minneapolis, 2015
- 19th Conference on Atmospheric and Oceanic Fluid Dynamics, Newport, 2013
- 6th Northeast Tropical Conference, Rensselaerville, 2013

Selected Workshops

Risk Analysis for Extremes in the Earth System, LBNL, 2019

Annual Symposium of Berkeley Atmospheric Science Center, UC Berkeley, 2019

Joint US-Japan Workshop on Climate Change and Variability, SIO, 2016

Ocean-atmospheric dynamics in the changing climate workshop, SIO, 2015

Ice in the Climate System, Princeton University, 2014

Using Diverse Observations in Climate Modeling Research, Princeton University, 2013

Geostrophic turbulence Workshop for Theoretical Science, Princeton University, 2013

Summer school on atmospheric modeling, GFDL, 2012

Teaching

Assistant Lecturer, Ocean-Atmosphere Interaction and Climate,

Scripps Institution of Oceanography, **University of California, San Diego**, 2017

Service

Review: Proceedings of the National Academy of Sciences, Journal of the Atmospheric Sciences, Journal of Climate, Geophysical Research Letter, Climate Dynamics, Journal of Advances in Modeling Earth Systems, Global and Planetary Change

Co-Organizer: Workshop on Ocean-atmospheric dynamics in the changing climate, SIO, 2015