

Yangxing Zheng

Updated November 2017

PERSONAL DETAILS

Present Appointment: Research Faculty I, Center for Ocean-Atmospheric Prediction Studies (COAPS), The Florida State University

Date of Birth: 21 May, 1974

Contact Details: 2000 Levy Avenue, Building A, Rm 294, Tallahassee, Florida 32306-2741, Phone: (850) 644-1159, E-mail: yzheng@fsu.edu

EDUCATION

2007 Ph.D., Atmospheric Sciences, Texas A&M University, College Station, Texas, Dissertation title: *Ocean Heat Transport in a Simple Ocean Data Assimilation (SODA): Structure, Mechanisms, and Impacts on Climate*. 151pp. (Supervisor: Benjamin S. Giese)

2003 M.S., Marine and Atmospheric Science, State University of New York at Stony Brook, New York

2000 M.S., Meteorology, Institute of Atmospheric Physics, Academia Sinica, Beijing, China

1997 B.S., Marine Meteorology, Ocean University of China, Qingdao, China

APPOINTMENTS

2013 – present Research Faculty I, Center for Ocean-Atmospheric Prediction Studies, The Florida State University, USA

2010 – 2013 Postdoctoral Research Associate, Center for Ocean-Atmospheric Prediction Studies, Florida State University, USA

2007 – 2010 Research Scientist I, National Oceanic and Atmospheric Administration/Cooperative Institute for Research in Environmental Sciences (NOAA/CIRES), University of Colorado at Boulder, Colorado, USA

PEER-REVIEWED PUBLICATIONS

- 11 articles published or in press in *Journal of Climate*, *Journal of Physical Oceanography*, *Journal of Geophysical Research-Atmospheres*, *Journal of Geophysical Research-Oceans*, *Monthly Weather Review*, *Journal of Applied Meteorology and Climatology* (see end of cv for details)

CONTRACTS AND GRANTS FUNDED

- 2018–2019: PI, Gulf of Mexico Research Initiative (GoMRI-RFP-VI) project: Modeling Modification of Surface Oil Transport by Air/Sea Interactions and Tropical Storms. Total award \$422,399
- 2011–2019: Co-PI, (PI: Mark Bourassa) NASA Ocean Vector Wind Science Team (OVWST) project: Scatterometer-Derived Stress and Ocean Modeling Studies. Total award \$3,372,871
- 2009–2011: PI, NSF AGS-0966844, Collaborative Research: VOCALS—Structure and Mechanisms of Coupled General Circulation Model’s Systematic Biases in the Southeast Pacific. Total award \$110,584 (completed)

CONTRACTS AND GRANTS PENDING

- 2018–2021: PI, NSF Climate & Large-Scale Dynamics research proposal: understanding summer tropical intraseasonal oscillation (ISO) impacts on the rainfall and soil moisture in India under different Indian summer monsoon regimes.
- 2018–2021: Co-PI, (PI: Mark Bourassa) NASA CYGNSS Completed Science Team research proposal: Controlling Mechanisms of Soil Moisture in India Estimated by Ocean Surface Winds and Cloud Cover.
- 2018–2022: Co-PI, (PI: Mark Bourassa) NASA OVWST research proposal: Ocean Vector Wind Science Team (OVWST) Scatterometer-Derived Stress and Ocean Modeling Studies.

PEER REVIEW

- Peer reviewer on 20+ articles submitted to *Journal of Climate*, *Journal of the Atmospheric Sciences*, *Climate Dynamics*, *Journal of Geophysical Research-Atmosphere*, *Journal of Geophysical Research-Oceans*, *Meteorology and Atmospheric Physics*, *Chinese Journal of Oceanology and Limnology*, *Advances in Atmospheric Sciences*, *Atmospheric Science Letters*

REVIEWER FOR GRANT APPLICATION

- Reviewer for a proposal to U.S. NSF Physical Oceanography Program (2012)

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

- Member, American Geophysical Union
- Member, American Meteorological Society

TEACHING

- Teaching Assistant, undergraduate course, Introduction to Atmospheric Physics, State University of New York at Stony Brook, 2001 – 2002.
- Teaching Assistant, undergraduate course, Introduction to Meteorology, State University of New York at Stony Brook, 2000 – 2001.

PUBLICATIONS-PEER REVIEWED

1. **Zheng, Y.**, M. M. Ali, M. A. Bourassa, 2016: Contribution of Monthly and Regional Rainfall to the Strength of Indian Summer Monsoon. *Monthly Weather Review*, **14**, 3037–3055. doi:10.1175/MWR-D-15-0318.1
2. **Zheng, Y.**, M. A. Bourassa, M. M. Ali, and T. N. Krishnamurti, 2016: Distinctive Features of Rainfall over the Indian Homogeneous Rainfall Regions Between Strong and Weak Indian Summer Monsoons. *Journal of Geophysical Research-Atmospheres*, **121**, 5631–5647, doi:10.1002/2016JD025135
3. **Zheng, Y.**, R. Zhang, and M. A. Bourassa, 2014: Impact of East Asian Winter and Australian Summer Monsoons on the Enhanced Surface Westerly over the Western Tropical Pacific Ocean Preceding the El Niño Onset, *Journal of Climate*, Vol. **27**, No. 5, 1928–1944, doi: 10.1175/JCLI-D-13-00369.1
4. **Zheng, Y.**, M.A. Bourassa, and P. Hughes, 2013: Influences of Sea Surface Temperature Gradients and Roughness Changes on the Motion of Surface Oil: A Simple Idealized Study. *Journal of Applied Meteorology and Climatology*, Vol. **52**, No. 7, 1561–1575. doi: 10.1175/JAMC-D-12-0211.1
5. **Zheng, Y.**, J.-L. Lin, and T. Shinoda, 2012: The Equatorial Pacific Cold Tongue Simulated by IPCC AR4 Coupled GCMs: Upper Ocean Heat Budget and Feedback

Analysis. *Journal of Geophysical Research-Oceans*, **117**, C05024, doi:
10.1029/2011JC007746

6. **Zheng, Y.**, T. Shinoda, J. L., Lin, and G. N., Kiladis, 2011: Sea Surface Temperature Biases under the Stratus Cloud Deck in the Southeast Pacific Ocean in the 19 IPCC AR4 Coupled GCMs. *Journal of Climate*, Vol. **24**, No. 15, 4139–4164, doi:
10.1175/2011JCLI4172.1

7. **Zheng, Y.**, T. Shinoda, G. N. Kiladis, J. L. Lin, E. J. Metzger, H. E. Hurlburt, and B. S. Giese, 2010: Upper Ocean processes Under the Stratus Cloud Deck in the Southeast Pacific Ocean. *Journal of Physical Oceanography*, **40**, 103–120, doi:
10.1175/2009JPO4213.1

8. Lin, J. L., T. Qian, T. Shinoda, W. Han, P. Roundy, and **Y. Zheng**, 2010: Intraseasonal Variation of Winter Precipitation over the Western United States Simulated by 14 IPCC AR4 Coupled GCMs. *Journal of Climate*, Vol. **23**, No. 11, 3094–3119, doi:
10.1175/2009JCLI2991.1

9. **Zheng, Y.**, and B. S. Giese, 2009: Ocean Heat Transport in Simple Ocean Data Assimilation: Structure and Mechanisms. *Journal of Geophysical Research-Oceans*, **114**, C11009, doi: 10.1029/2008JC005910.

10. Lin, J. L., T. Shinoda, B. Liebmann, T. Qian, W. Han, P. Roundy, J. Zhou, and **Y. Zheng**, 2009: Intraseasonal Variability Associated with Summer Precipitation over South America Simulated by 14 IPCC AR4 Coupled GCMs. *Monthly Weather Review*, **137**, 2931–2954. Doi: 10.1175/2009MWR2777.1

11. **Zheng, Y.**, D. E. Waliser, W. F. Stern and C. Jones, 2004: The Role of Coupled Sea Surface Temperatures in the Simulation of the Tropical Intraseasonal Oscillation. *Journal of Climate*, Vol. **17**, No. 21, 4109–4134, doi: 10.1175/JCLI3202.1

PRESENTATIONS AT MEETINGS AND WORKSHOP

1. **Zheng, Y.**, M. A. Bourassa, and M. M. Ali, 2017: Distinctive Features of Surface Winds over Indian Ocean Between Strong and Weak Summer Monsoons: Implications with Respect to Regional Rainfall Change in India. AGU Fall Meeting, New Orleans, Louisiana, December 11–15, 2017.

2. **Zheng, Y.**, M. A. Bourassa, and M. M. Ali, 2017: Distinctive Features of Surface Winds over Indian Ocean Between Strong and Weak Summer Monsoons: Implications with Respect to Regional Rainfall Change in India. International Tropical Meteorology Symposium (IMTROMET), Ahmedabad, India, November 7–10, 2017.
3. **Zheng, Y.**, M. A. Bourassa, and M. M. Ali, 2017: Distinctive Features of Daily Surface Winds over Indian Ocean Between Strong and Weak Summer Monsoons. The International Ocean Vector Wind Science Team (IOVWST) Meeting, San Diego, California, Florida, May 2–4, 2017.
4. **Zheng, Y.**, M. A. Bourassa, M. M. Ali, and T. N. Krishnamurti, 2016: Distinctive Features of Daily Rainfall over the Indian Homogeneous Rainfall Regions Between Strong and Weak Summer Monsoons. Center for Ocean-Atmospheric Prediction Studies (COAPS), Florida State University, Tallahassee, Florida, May 2, 2016.
5. **Zheng, Y.**, M. M. Ali, and M. A. Bourassa, 2015: Contribution of Monthly and Regional Rainfall to the Strength of Indian Summer Monsoon. A13A-0282, 2015 AGU Fall Meeting, San Francisco, California, Dec 14–19, 2015.
6. **Zheng, Y.**, M. M. Ali, and M. A. Bourassa, 2015: Which is better to track a strong or weak Indian summer monsoon rainfall: monthly rainfall or regional JJAS rainfall? Center for Ocean-Atmospheric Prediction Studies (COAPS), Florida State University, Tallahassee, Florida, November 2, 2015.
7. **Zheng, Y.**, M. M. Ali, and M. A. Bourassa, 2015: Contribution of Monthly and Regional Rainfall to the Strength of Indian Summer Monsoon. The International Ocean Vector Wind Science Team (IOVWST) Meeting, Portland, Oregon, May 19–21, 2015.
8. **Zheng, Y.**, R. Zhang, and M. A. Bourassa, 2014: Impact of East Winter Asian and Australian Summer Monsoons on the Enhanced Surface Westerly over the Western Tropical Pacific Ocean Preceding the El Niño Onset, 2014 AGU Fall Meeting, San Francisco, CA, December 14–19, 2014.
9. **Zheng, Y.**, R. Zhang, and M. A. Bourassa, 2014: Impact of East Winter Asian and Australian Summer Monsoons on the Enhanced Surface Westerly over the Western Tropical Pacific Ocean Preceding the El Niño Onset, The International Ocean Vector Wind Science Team (IOVWST) Meeting, Brest, France, June 2–4, 2014.

10. Bourassa, M. A., **Y. Zheng**, and P. J. Hughes, 2014: Influences of Sea Surface Temperature Gradients and Surface Roughness Changes on the Motion of Surface Oil: A Simple Idealized Study. 31st Conference on Hurricanes and Tropical Meteorology, April, San Diego, California.
11. Bourassa, M. A., S. Daneshgar-Asl, M. Clark, **Y. Zheng**, and P. J. Hughes, 2014: Effects of Oceanographic, Wind and Wave Forcing on Surface Oil. WAMOST Mid-Term Meeting, January, Mobile, Alabama.
12. **Zheng, Y.**, R. Zhang, and M. A. Bourassa, 2014: Impact of East Winter Asian and Australian Summer Monsoons on the Enhanced Surface Westerly over the Western Tropical Pacific Ocean Preceding the El Niño Onset, COAPS Seminar, Florida State University, Tallahassee, January 13, 2014.
13. **Zheng, Y.**, M.A. Bourassa, P. Hughes, 2013: Impacts of sea surface temperature gradients and roughness changes on the motion of surface oil: A simple idealized study. 2013 International Ocean Vector Winds Science Team Meeting, Oral presentation in session Surface Fluxes, Kailua-Kona, Hawaii, May 6–8, 2013.
14. **Zheng, Y.**, M.A. Bourassa, P. Hughes, 2013: Influences of sea surface temperature gradients and roughness changes on the motion of surface oil in a simple idealized study. Deep-C Consortium “All Hands” Synthesis & Planning Workshop, Tallahassee, Florida, February 27–28, 2013.
15. **Zheng, Y.**, M.A. Bourassa, P. Hughes, 2012: Influences of sea surface temperature gradients and roughness changes on the motion of surface oil: A simple idealized study. Deep-C Consortium “All Hands” Meeting, Tallahassee, Florida, August 21–22, 2012.
16. **Zheng, Y.**, M.A. Bourassa, P. Hughes, 2012: Influences of sea surface temperature gradient and roughness changes due to a slick on the motion of surface oil: A simple idealized study. The International Ocean Vector Wind Science Team (IOVWST) Meeting, Utrecht, Netherlands, June 12–14, 2012.
17. **Zheng, Y.**, M.A. Bourassa, P. Hughes, 2012: Influences of sea surface temperature gradient and roughness changes due to a slick on the motion of surface oil: A simple idealized study. Poster Session 048: Ocean Surface Boundary Layer, AGU Ocean Sciences Meeting, Salt Lake City, Utah, February 20–24, 2012.

18. **Zheng, Y.**, M.A. Bourassa, P. Hughes, 2011: Effects of air surface temperature gradient and roughness changes due to a slick on the motion of surface oil: A simple idealized study. Center for Ocean-Atmospheric Prediction Studies (COAPS), Florida State University, Tallahassee, Florida, December 5, 2011.
19. **Zheng, Y.**, T. Shinoda, G. N. Kiladis, J.-L. Lin, 2011: SST Biases under the Stratus Cloud Deck in the Southeast Pacific Ocean in 19 IPCC AR4 CGCMs., Center for Ocean-Atmospheric Prediction Studies (COAPS), Florida State University, Tallahassee, Florida, January 10, 2011.
20. **Zheng, Y.**, T. Shinoda, G. N. Kiladis, J.-L. Lin, 2010: Sea Surface Temperature Biases under the Stratus Cloud Deck in the Southeast Pacific Ocean in 19 IPCC AR4 Coupled GCMs. Poster Session A51A-0048: Ocean-Cloud-Land-Atmosphere Interactions in the Southeastern Pacific, AGU 2010 Fall Meeting, San Francisco, California, December 13–17, 2010.
21. **Zheng, Y.**, T. Shinoda, G. N. Kiladis, J.-L. Lin, E. J. Metzger, H. E. Hurlburt, and B. S. Giese, 2010: Upper Ocean Processes under Stratus Cloud Deck in the Southeast Pacific Ocean. Invited talk, Naval Research Laboratory-Stennis Space Center, August 18 2010.
22. **Zheng, Y.**, T. Shinoda, G. N. Kiladis, J.-L. Lin, 2010: Sea Surface Temperature Biases under the Stratus Cloud Deck in the Southeast Pacific Ocean in 19 IPCC AR4 Coupled GCMs. Oral Session Air-sea Interaction III, Session 14A.7, AMS 29th Conference on Hurricanes and Tropical Meteorology, Tucson, Arizona, May 9–14, 2010.
23. **Zheng, Y.**, T. Shinoda, G. N. Kiladis, J.-L. Lin, E. J. Metzger, H. E. Hurlburt, and B. S. Giese, 2009: Upper Ocean Processes under Stratus Cloud Deck in the Southeast Pacific Ocean. Poster Session A13J-0445, AGU 2009 Fall Meeting. San Francisco, California, December 2009.
24. **Zheng, Y.**, T. Shinoda, J. Lin, and G. N. Kiladis, 2008: Upper Ocean Processes under Stratus Cloud Deck in the Southeast Pacific Ocean. 2008 Boulder Laboratories Postdoctoral Poster Symposium, Boulder, 18 June 2008.

25. **Zheng, Y.**, B. S. Giese, 2006: Changes in Ocean Heat Transport and Heat Content in SODA-POP for the Period 1958-2001. Oral Session OS42A-02, AGU 2006 Fall Meeting. San Francisco, California, December 2006.

26. **Zheng, Y.**, B. S. Giese, and J. A. Carton, 2006: World Ocean Heat Transport in SODA-POP. Poster Session OS26D-04, AGU 2006 Ocean Sciences Meeting. Honolulu, Hawaii, 20–24, February 2006.

27. Giese, B. S., **Y. Zheng**, J. Carton, 2006: Salinity and Temperature Forcing of Atlantic Meridional Overturning in SODA-POP. Oral Session OS44C-05. Honolulu, Hawaii, 20 – 24, February 2006.

28. **Zheng, Y.**, and B. S. Giese, 2004: Ocean Heat Transport in SODA. Texas A&M University, March 2004.

DISSERTATION

Zheng, Yangxing, 2007: *Ocean Heat Transport in a Simple Ocean Data Assimilation (SODA): Structure, Mechanisms, and Impacts on Climate*. Ph.D. Dissertation. The Texas A&M University, College Station, Texas, USA, 151 pages.