

WEI ZHANG

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Education

- Aug. 2015 – present **Rosenstiel School of Marine & Atmospheric Science, University of Miami, USA**
Doctor of Philosophy in Meteorology and Physical Oceanography
Advisor: Dr. Ben Kirtman
- Sep. 2011 – Jul. 2015 **School of Geographic and Oceanographic Sciences, Nanjing University, CHN**
Bachelor of Science in Ocean Science (with honor)
Advisor: Dr. Shaoming Pan
Dissertation: *Reconstruction and Simulation of ¹³⁷Cs Atmospheric Fallout in China*

Publications

1. **Zhang, W.**, Kirtman, B.P. *Estimates of decadal climate predictability in the interactive ensemble NCAR climate model*. Geophysical Research Letters (in prep).
2. **Zhang, W.**, Pan, S.M., Cao, L.G., Cai, X., Zhang, K.X., Xu, Y.H., Xu, W., 2014. *Changes in extreme climate events in eastern China during 1960-2013: A case study of the Huaihe River Basin*. Quaternary International. DOI: 10.1016/j.quaint.2014.12.038.
3. Zhang, K.X., Pan, S.M., **Zhang, W.**, Xu, Y.H., Cao, L.G., Wang, Y., Zhao, Y.F., 2015. *Influence on climate change on reference evapotranspiration and aridity index and their temporal-spatial variations in the Yellow River Basin, China from 1961 to 2012*. Quaternary International. DOI: 10.1016/j.quaint.2014.12.037.
4. Wang, L.Z., Cao, L.G., Deng, X.J., Jia, P.H., **Zhang, W.**, Xu, X., Zhang K.X., Zhao Y.F., Yan B.J., Hu W., Chen Y.Y., 2014. *Changes in aridity index and reference evapotranspiration over the central and eastern Tibetan Plateau in China during 1960–2012*. Quaternary International, Volume 349, Pages 280-286. DOI: 10.1016/j.quaint.2014.07.030.
5. Zhang, K.X., Pan, S.M., Cao, L.G., Wang, Y., Zhao, Y.F., **Zhang, W.**, 2014. *Spatial distribution and temporal trends in precipitation extremes over the Hengduan Mountains region, China, from 1961 to 2012*. Quaternary International, Volume 349, Pages 346-356. DOI: 10.1016/j.quaint.2014.04.050.
6. **Zhang Wei**, Pan Shaoming, Zhang Kexin, Cao Ligu, Zhao Jie. *Study of the Cesium-137 Reference Inventory in the Mainland of China*. Acta Geographica Sinica, 2015, 70(9): 1477-. DOI: 10.11821/dlxb201509010.
7. Cao Ligu, Pan Shaoming, Jia Peihong, Zhuoma Lancao, Zhao Yifei, Zhang Kexin, **Zhang Wei**, 2014. *Temporal and Spatial Characteristics of the Extreme Drought and Wet Events Changes in Hexi Area from 1960 to 2009*. Journal of Natural Resources, Volume 29, Pages 480-489. DOI: 10.11849/zrzyxb.2014.03.01.
8. Xu Wei, Pan Shaoming, Jia Peihong, Yang Xu, Cao Ligu, **Zhang Wei**, Ruan Xiangdong, Guan Yongjing, 2015. *¹³⁷Cs Reference Inventory and its distribution in surface soil along the Fangchenggang coastal zone of Beibu Gulf*. Geographical Research, 2015, 34(4): 655-665. DOI: 10.11821/dlyj201504005.

Honors and Awards

- University of Miami Graduate School Fellowship*, awarded by University of Miami for outstanding Ph.D. student. 2015-present
- Outstanding Dissertation Award for Undergraduate Student*, awarded by Nanjing University for my undergraduate dissertation. Aug. 2015
- Honorary Title of Outstanding Undergraduate Student*, awarded by Nanjing University for my academic achievements during undergraduate years. June. 2015
- Special Recognition Award*, awarded by Nanjing University for innovative research report in the Undergraduate Students' Academic and Technological Work Competition & Exhibition. Oct. 2014
- National Fellowship*, awarded by Ministry of Education of the People's Republic of China for top students from disadvantaged socio-economic backgrounds. Sep. 2014
- Public Scholarship*, awarded by Nanjing University to students who show capacity for distinction in their study and academic research. Dec. 2013
- Advanced Individual of Social Work and Teamwork*, awarded by School of Geographic & Oceanographic Sciences, Nanjing University. Dec. 2013
- Excellent Leadership Award*, awarded by Nanjing University for my work as chairman of the Students' Management Committee of my department. Nov. 2012

Research Experiences

Aug. 2015 – present Research Assistant at University of Miami

Project: Predicting the coming decades – NSF (USA)

Work: Seek to understand how ocean eddies influence the climate in the coming decades, using very high resolution state-of-the-art climate models to examine climate predictability. Focus on estimating decadal climate predictability using both statistical methods and models with a purpose of improving decadal climate prediction.

Dec. 2011 – Jul. 2015 Research Assistant at Chinese-Canadian Collaborative Isotope Laboratory

Project: Study of Sources and Migration of Isotope Cesium and Plutonium in Beibu Gulf, the South China Sea - Funded by the National Natural Science Foundation of China

Work: Assisted with ground sampling in the coast zone of Beibu Gulf and laboratory analysis of soil samples.

Project: Reconstruction of Atmospheric fallout of Cesium-137 in China - Student Innovation Project

Work: Built a Cs-137 Reference Inventory Dataset, then modified previous models to reconstruct and simulate spatial distributions of Cesium-137 Reference Inventory in China.

Mar. 2014 – Sep. 2014 Research Intern at Lianyungang Scientific Research Center

Project: Construction and Development Model of Lianyungang Harbor, China - Funded by Lianyungang Municipal Port Management, China

Work: Conducted an interdisciplinary study of coastal zone environment and econometrics, culminated a research report *Analysis of Lianyungang Port Development strategy and Integration of Port-City System*.

Dec. 2012 – Jul. 2014 Research Assistant at Institute of Ocean Sciences, Nanjing University

Project: Climate, Climate modeling & Climate Extremes in China - Student Innovation Project

Work: Analyzed climate variations in China from intra-seasonal, decadal or longer, demonstrating dominant climate mechanisms, emphasizing the roles of oceanic and atmospheric circulations.

Academic Seminars

AMS Annual Meeting in Austin. Jan. 7-11, 2018
AGU Fall Meeting 2016 in San Francisco. Dec. 12-16, 2016
Panelist in IPCC MIAMI conference: "The Gathering Threat of Climate Change and Its Implications for Water Security and Sea Level Rise". Nov. 13, 2015
Panelist in an academic seminar: International Symposium on Planetary Sciences, held at the Shanghai Astronomical Observatory, Chinese Academy of Sciences, Shanghai, China. Jul. 1-4, 2013
Panelist in an academic conference: *Environmental Impact Assessment of Hainan International Tourism Island Pilot Zone*, held by Hainan International Tourism Island Pilot Zone Management Committee, Hainan, China. Jan. 26, 2013

Teaching Experience & Leadership

Teaching Assistant

Atmospheric Dynamics, undergraduate course, instructor: Dr. Ben Kirtman, U. Miami. Spring 2017
Cloud Physics, Radiation, and Remote Sensing, undergraduate course, instructor: Dr. Paquita Zuidema, U. Miami. Fall 2017

Tutoring

Applied Mathematics, School of Geographic and Oceanographic Sciences, Nanjing University. 2014-2015

Leadership

Student seminar committee, U. Miami. 2016-2017
Core member of a Summer Program - Small Island & Huge Ocean, Popularization of the Law of Sea. Jun. 2014
Summer research group leader to investigate the development of Nanjing University technology transfer and academic/government cooperation, reporting our work in several local news media outlets. Jul. 5-15, 2013

Professional Activities

American Geophysical Union, Member
American Meteorological Society, Member

Technical Strengths

Coding: Python, C, UNIX shell scripting
Software Packages and Data Visualization: NCL, CDO, Matlab, ArcGIS
Operating Systems: Linux/UNIX, Windows, MAC OS
Numerical Models: NCAR CCSM4, CESM