

Jiang Zhu

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RESEARCH INTERESTS

- ◇ Climate sensitivity and feedbacks
- ◇ Role of ocean circulation in climate change
- ◇ ENSO variability in the past and future
- ◇ Simulation and interpretation of geochemical tracers
- ◇ Global climate change and abrupt climate change

EDUCATION

- ◇ Ph.D., Atmospheric and Oceanic Sciences May 2017
University of Wisconsin-Madison, Madison, WI, USA
Advisor: *Prof. Zhengyu Liu*
- ◇ M.S. Atmospheric and Oceanic Sciences Jun 2011
Peking University, Beijing, China
Advisor: *Prof. Haijun Yang*
- ◇ B.S. Atmospheric Sciences Jun 2008
Peking University, Beijing, China

RESEARCH EXPERIENCE

- ◇ Project Scientist I, National Center for Atmospheric Research May 2020–present
Projects: Simulation of past and future climates using CESM
- ◇ Postdoctoral Research Fellow, University of Michigan June 2017–May 2020
Projects: Climate sensitivity and feedback processes of Earth's past and future; Simulation of water isotopes and implications for past climate; Paleoclimate data assimilation for the Paleocene–Eocene Thermal Maximum and the last deglaciation
- ◇ Graduate Research Assistant, University of Wisconsin-Madison Aug 2011–May 2017
Projects: Interpretation and modeling of water isotopes; ENSO variability in the past and future; Holocene temperature conundrum; Abrupt climate changes and the large-scale ocean circulation
- ◇ Visiting Scholar, National Center for Atmospheric Research Jan 2014–Jan 2015
Projects: Development and validation of the isotope-enabled Community Earth System Model

RESEARCH GRANTS

- ◇ 2020–2023 Constraining the Physics that Regulate Equilibrium Climate Sensitivity through Simulation of LGM and Eocene Paleoclimates. NSF P2C2, \$384,686 to University of Michigan (with Chris Poulsen at UMich).

PUBLICATIONS

- [*submitted*] **Zhu, J.**, Otto-Bliesner, B., Brady, E., Poulsen, C.J., Shaw, J.K., Kay, J.E. LGM paleoclimate constraints inform cloud parameterizations and equilibrium climate sensitivity in CESM2. *Journal of Advances in Modeling Earth Systems*. doi:10.1002/essoar.10507790.1
- [*submitted*] Zhang, Y., ... **Zhu, J.**, et al. Early Eocene ocean meridional overturning circulation: the roles of atmospheric forcing and strait geometry. *Earth and Planetary Science Letters*.
- [*submitted*] Inglis, G.N., Toney, J. L., **Zhu, J.**, et al. Enhanced terrestrial carbon export from East Antarctica during the early Eocene. *Paleoceanography and Paleoclimatology*.
- [*in revision*] Thompson, A. J., **Zhu, J.**, Poulsen, C. J., Tierney, J. E., Skinner, C. B., Holocene thermal maximum driven by Northern Hemisphere vegetation change, *Science Advances*
- [*in revision*] Niezgodzki, I., ... **Zhu, J.** et al. Simulation of Arctic sea ice within the DeepMIP Eocene ensemble: thresholds, seasonality and factors controlling sea ice development, *Global and Planetary Change*
- [*in revision*] Kumar, D. M., Tierney, J. E., Tripti Bhattacharya, **Zhu, J.**, McCarty, L., Murray J. W. Climatic drivers of deglacial SST variability in the eastern Pacific. *Paleoceanography and Paleoclimatology*.
- [*in revision*] Jepson, G., Carrapa, B., Gillespie, J., Feng, R., Decelles, P., Kapp, P., Tabor, C., **Zhu, J.** Climate as the great equalizer of continental-scale erosion. *Geophysical Research Letters*.
- [*in revision*] Osman, M. B., Tierney, J. E., **Zhu, J.**, Tardif, R., Hakim, G. J., King, J., & Poulsen, C. J. Globally resolved surface temperatures since the Last Glacial Maximum. *Nature*. doi:10.31223/X5S31Z
41. Buizert, C., Fudge, T. J., Roberts, W. H. G., Steig, E. J., Sherriff-Tadano, S., Ritz, C., Lefebvre, E., Edwards, J., Kawamura, K., Oyabu, I., Motoyama, H., Kahle, E. C., Jones, T. R., Abe-Ouchi, A., Obase, T., Martin, C., Corr, H., Severinghaus, J. P., Beaudette, R., Epifanio, J. A., Brook, E. J., Martin, K., Chappellaz, J., Aoki, S., Nakazawa, T., Sowers, T. A., Alley, R. B., Ahn, J., Sigl, M., Severi, M., Dunbar, N. W., Svensson, A., Fegyveresi, J. M., He, C., Liu, Z., **Zhu, J.**, Otto-Bliesner, B. L., Lipenkov, V. Y., Kageyama, M., and Schwander, J. (2021). Antarctic surface temperature and elevation during the Last Glacial Maximum. *Science*, 372, 1097-1101. doi:10.1126/science.abd2897
40. Kageyama, M., Harrison, S. P., Kapsch, M.-L., Löfverström, M., Lora, J. M., Mikolajewicz, U., ... **Zhu, J.** (2021). The PMIP4-CMIP6 Last Glacial Maximum experiments: preliminary results and comparison with the PMIP3-CMIP5 simulations. *Clim. Past*, 17(3), 1065–1089. doi:10.5194/cp-17-1065-2021
39. Harrington, T. S., **Zhu, J.**, Skinner, C. B. (2021). Terrestrial Sources of Summer Arctic Moisture and the Implication for Arctic Temperature Patterns. *npj Climate and Atmospheric Science*, 4(1), 25. doi:10.1038/s41612-021-00181-y
38. He, C., Liu, Z., Otto-Bliesner, B. L., Brady, E. C., Zhu, C., Tomas, R., Clark, P. U., **Zhu, J.**, ... Bao, Y. (2021). Hydroclimate footprint of pan-Asian monsoon water isotope during the last deglaciation. *Science Advances*, 7(4), eabe2611. doi:10.1126/sciadv.abe2611
37. **Zhu, J.**, Otto-Bliesner, B., Brady, E., Poulsen, C.J., Tierney, J.E., Lofverstrom, M., DiNezio, P. (2021). Assessment of equilibrium climate sensitivity of the Community Earth System Model version 2 through simulation of the Last Glacial Maximum. *Geophysical Research Letters*, 48, e2020GL091220. doi:10.1029/2020GL091220 (*news release*)
36. **Zhu, J.**, & Poulsen, C. J. (2021). Last Glacial Maximum (LGM) climate forcing and ocean dynamical feedback and their implications for estimating climate sensitivity. *Clim. Past*, 17(1), 253–267. doi:10.5194/cp-17-253-2021

35. Du, X., Hendy, I., Hinnov, L., Brown, E., **Zhu, J.**, Poulsen, C. J. (2021). High-resolution interannual precipitation reconstruction of Southern California: Implications for Holocene ENSO evolution. *Earth Planet. Sci. Lett.*, 554, 116670. doi:10.1016/j.epsl.2020.116670
34. Lunt, D. J., Bragg, F., Chan, W. L., Hutchinson, D. K., Ladant, J. B., Niezgodzki, I., Steinig, S., Zhang, Z., **Zhu, J.**, Abe-Ouchi, A., de Boer, A. M., Coxall, H. K., Donnadiou, Y., Knorr, G., Langebroek, P. M., Lohmann, G., Poulsen, C. J., Sepulchre, P., Tierney, J., Valdes, P. J., Dunkley Jones, T., Hollis, C. J., Huber, M., & Otto-Bliesner, B. L. (2021). DeepMIP: model intercomparison of early Eocene climatic optimum (EECO) large-scale climate features and comparison with proxy data. *Clim. Past*, 17(1), 203–227. doi:10.5194/cp-17-203-2021
33. Windler G., Tierney J., **Zhu, J.**, & Poulsen, C. J. (2020). Unravelling glacial hydroclimate in the Indo-Pacific Warm Pool: perspectives from water isotopes. *Paleoceanography and Paleoclimatology*, 35(12), e2020PA003985. doi:10.1029/2020PA003985.
32. **Zhu, J.**, & Poulsen, C. J. (2020). On the temperature dependence of equilibrium climate sensitivity and cloud feedback in the Community Atmosphere Models. *Geophysical Research Letters*, 47(18), e2020GL089143. doi:10.1029/2020GL089143
31. Tierney, J. E., Poulsen, C. J., Montañez, I. P., Bhattacharya, T., Feng, R., Ford, H. L., Hönisch, B., Inglis, G. N., Petersen, S. V., Sahoo, N., Tabor, C. R., Thirumalai, K., **Zhu, J.**, Burls, N. J., Foster, G. L., Goddérís, Y., Huber, B. T., Ivany, L. C., Kirtland Turner, S., ... Zhang, Y. G. (2020). Past climates inform our future. *Science*, 370(6517), eaay3701. doi:10.1126/science.aay3701 (*news release*)
30. Tierney J., **Zhu, J.**, King, J., Malevich, S. B., Hakim, G. J., & Poulsen, C. J. (2020). Glacial cooling and climate sensitivity revisited. *Nature*, 584(7822), 569–573. doi:10.1038/s41586-020-2617-x (*news release*)
29. Wang, Y., Hendy, I., **Zhu, J.** (2020) Expansion of the Southern California oxygen minimum zone during the early- to mid-Holocene due to reduced ventilation of the Northeast Pacific. *Quaternary Science Reviews*. 238, 106326. doi:10.1016/j.quascirev.2020.106326
28. Liu, Y., Wu, Y., Lin, Z., Zhang, Y., **Zhu, J.**, & Yi, C. (2020). Simulated Impact of the Tibetan Glacier Expansion on the Eurasian Climate and Glacial Surface Mass Balance during the Last Glacial Maximum. *Journal of Climate*. 33(15), 6491–6509. doi:10.1175/JCLI-D-19-0763.1
27. He, C., Liu, Z., **Zhu, J.**, Zhang, J., Gu, S., Otto-Bliesner, B. L., ... Sun, J. (2020). North Atlantic subsurface temperature response controlled by effective freshwater input in “Heinrich” events. *Earth and Planetary Science Letters*. 539, 116247. doi:10.1016/j.epsl.2020.116247
26. **Zhu, J.**, Poulsen, C. J., Otto-Bliesner, B. L. (2020) High climate sensitivity in CMIP6 model not supported by paleoclimate. *Nature Climate Change*. 10, 378–379. doi:10.1038/s41558-020-0764-6 (*news release*)
25. **Zhu, J.**, Poulsen, C. J., Otto-Bliesner, B. L., Liu, Z., Brady, E. C., & Noone, D. C. (2020). Simulation of early Eocene water isotopes using an Earth system model and its implication for past climate reconstruction. *Earth and Planetary Science Letters*, 537, 116114. doi:10.1016/j.epsl.2020.116164
24. **Zhu, J.**, & Poulsen, C. J. (2019) Quantifying the cloud particle-size feedback in an Earth system model. *Geophysical Research Letters*, 46, 10910–10917. doi:10.1029/2019GL083829
23. **Zhu, J.**, Poulsen, C. J., & Tierney, J. E. (2019). Simulation of Eocene extreme warmth and high climate sensitivity through cloud feedbacks. *Science Advances*, 5(9), eaax1874. doi:10.1126/sciadv.aax1874 (*news release*)

22. Brady, E. C., Stevenson, S., Bailey, D., Liu, Z., Noone, D., Nusbaumer, J., . . . **Zhu, J.** (2019). The connected isotopic water cycle in the Community Earth System Model version 1. *Journal of Advances in Modeling Earth Systems*, 11, 2547–2566. doi:10.1029/2019MS001663
21. Thompson, A. J., Skinner, C. B., Poulsen, C. J., & **Zhu, J.** Modulation of mid-Holocene African rainfall by dust aerosol direct and indirect effects. *Geophysical Research Letters*, 46(7), 3917–3826. doi:10.1029/2018GL081225
20. Thibodeau, B., Not, C., **Zhu, J.**, Schmittner, A., Noone, D., Tabor, C., ...Liu, Z. (2018). Last century warming over the Canadian Atlantic shelves linked to weak Atlantic Meridional Overturning Circulation. *Geophysical Research Letters*, 45(22), 12–376. doi:10.1029/2018GL080083
19. Lu, Z., Liu, Z., **Zhu, J.**, & Cobb, K. M. (2018). A Review of Paleo El Niño-Southern Oscillation. *Atmosphere*, 9(4), 130. doi:10.3390/atmos9040130
18. Liu, Y., Zhang, M., Liu, Z., Xia, Y., Huang, Y., Peng, Y., & **Zhu, J.** (2018). A Possible Role of Dust in Resolving the Holocene Temperature Conundrum. *Scientific Reports*, 8(1), 4434. doi:10.1038/s41598-018-22841-5
17. Tabor, C. R., Otto-Bliesner, B. L., Brady, E. C., Nusbaumer, J., **Zhu, J.**, Erb, M. P., ...Noone, D. (2018). Interpreting Precession-Driven $\delta^{18}\text{O}$ Variability in the South Asian Monsoon Region. *Journal of Geophysical Research: Atmospheres*, 123(11), 5927–5946. doi:10.1029/2018JD028424
16. **Zhu, J.**, Liu, Z., Brady, E. C., Otto-Bliesner, B. L., Marcott, S. A., Zhang, J., ...Noone, D. (2017). Investigating the direct meltwater effect in terrestrial oxygen-isotope paleoclimate records using an isotope-enabled Earth system model. *Geophysical Research Letters*, 44(24), 12501–12510. doi:10.1002/2017GL076253
15. **Zhu, J.**, Liu, Z., Brady, E., Otto-Bliesner, B., Zhang, J., Noone, D., ...Tabor, C. (2017). Reduced ENSO variability at the LGM revealed by an isotope-enabled Earth system model. *Geophysical Research Letters*, 44(13), 6984–6992. doi:10.1002/2017GL073406
14. Liu, W., Xie, S.-P., Liu, Z., & **Zhu, J.** (2017). Overlooked possibility of a collapsed Atlantic Meridional Overturning Circulation in warming climate. *Science Advances*, 3(1), e1601666. doi:10.1126/sciadv.1601666 (*news release*)
13. Lu, Z., Liu, Z., & **Zhu, J.** (2016). Abrupt intensification of ENSO forced by deglacial ice-sheet retreat in CCSM3. *Climate Dynamics*, 46(5–6), 1877–1891. doi:10.1007/s00382-015-2681-3
12. Guan, J., Liu, Z., Wen, X., Brady, E., Noone, D., **Zhu, J.**, & Han, J. (2016). Understanding the temporal slope of the temperature-water isotope relation during the deglaciation using isoCAM3: The slope equation. *Journal of Geophysical Research: Atmospheres*, 121, 10,342–10,354. doi:10.1002/2016JD024955
11. Wen, X., Liu, Z., Wang, S., Cheng, J., & **Zhu, J.** (2016). Correlation and anti-correlation of the East Asian summer and winter monsoons during the last 21,000 years. *Nature Communications*, 7, 11999. doi:10.1038/ncomms11999
10. **Zhu, J.**, Liu, Z., Zhang, J., & Liu, W. (2015). AMOC response to global warming: dependence on the background climate and response timescale. *Climate Dynamics*, 44(11), 3449–3468. doi:10.1007/s00382-014-2165-x
9. Liu, W., Lu, J., Leung, L. R., Xie, S. P., Liu, Z., & **Zhu, J.** (2015). The de-correlation of westerly winds and westerly-wind stress over the Southern Ocean during the Last Glacial Maximum. *Climate Dynamics*, 45(11–12), 3157–3168. doi:10.1007/s00382-015-2530-4

8. **Zhu, J.**, Liu, Z., Zhang, X., Eisenman, I., & Liu, W. (2014). Linear weakening of the AMOC in response to receding glacial ice sheets in CCSM3. *Geophysical Research Letters*, 41(17), 6252–6258. doi:10.1002/2014GL060891
7. Liu, Z., **Zhu, J.**, Rosenthal, Y., Zhang, X., Otto-Bliesner, B. L., Timmermann, A., ...Timm, O. E. (2014). The Holocene temperature conundrum. *Proceedings of the National Academy of Sciences*, 111(34), E3501–E3505. doi:10.1073/pnas.1407229111 (*news release*)
6. Nace, T. E., Baker, P. A., Dwyer, G. S., Silva, C. G., Rigsby, C. A., Burns, S. J., ... **Zhu, J.** (2014). The role of North Brazil Current transport in the paleoclimate of the Brazilian Nordeste margin and paleoceanography of the western tropical Atlantic during the late Quaternary. *Palaeogeography, Palaeoclimatology, Palaeoecology*, 415, 3–13. doi:10.1016/j.palaeo.2014.05.030
5. Huang, B., **Zhu, J.**, & Yang, H. (2014). Mechanisms of Atlantic Meridional Overturning Circulation (AMOC) variability in a coupled ocean-atmosphere GCM. *Advances in Atmospheric Sciences*, 31(2), 241–251. doi:10.1007/s00376-013-3021-3
4. Liu, Z., Carlson, a. E., He, F., Brady, E. C., Otto-Bliesner, B. L., Briegleb, B. P., ...**Zhu, J.** (2012). Younger Dryas cooling and the Greenland climate response to CO₂. *Proceedings of the National Academy of Sciences*, 109(28), 11101–11104. doi:10.1073/pnas.1202183109 (*news release*)
3. **Zhu, J.**, & Yang, H. (2012). Response of the Atlantic Thermohaline Circulation to Changes of Atmospheric Green House Gases. *Acta Scientiarum Naturalium Universitatis Pekinensis*, 48(2), 231–238. (*in Chinese with English abstract*)
2. Yang, H., & **Zhu, J.** (2011). Equilibrium thermal response timescale of global oceans. *Geophysical Research Letters*, 38(14), L14711. doi:10.1029/2011GL048076
1. Qian, W., **Zhu, J.**, Wang, Y., & Fu, J. (2009). Regional relationship between the Jiang-Huai Meiyu and the equatorial surface-subsurface temperature anomalies. *Chinese Science Bulletin*, 54(1), 113–119. doi:10.1007/s11434-008-0410-6

INVITED PRESENTATIONS

- ◇ **Invited Speaker.** *ECS and Cloud Feedback Symposium.* Virtual: Informing cloud parameterizations in CESM2 through simulation of the Last Glacial Maximum. July 2021.
- ◇ **Invited Panelist and Speaker.** *The National Academies of Sciences, Engineering, and Medicine: Identifying New Community-Driven Science Themes for NSF's Support of Paleoclimate Research: A Workshop.* June 2021.
- ◇ **Invited Speaker.** *Deep-time Extreme Climates and Biodiversity Changes Forum.* Nanjing, China: Implications of palaeoclimate modelling for future climate change. March 2021.
- ◇ **Invited Speaker.** *CESM Atmosphere Working Group Meeting.* Boulder, CO: Assessment of equilibrium climate sensitivity of CESM2 through simulation of the Last Glacial Maximum. February 2021.
- ◇ **Invited Speaker.** *Brown University, DEEPS Colloquia.* Providence, RI : Constraining equilibrium climate sensitivity through simulation of past extreme climates. October 2020.
- ◇ **Invited Speaker.** *University of California, Davis, Atmospheric Science Seminar.* Davis, CA: Constraining equilibrium climate sensitivity through Simulation of Past Extreme Climates. October 2020.

- ◇ **Invited Speaker.** *AGU Fall Meeting 2019.* San Francisco, CA: Constraining equilibrium climate sensitivity through simulation of Eocene extreme warmth. December 2019.

OTHER SELECTED PRESENTATIONS

- ◇ **Zhu, J.,** Otto-Bliesner, B., Brady, E., Poulsen, C.J., “An LGM-calibrated CESM2(CAM6) for paleoclimate studies”. CESM Workshop - Paleoclimate Working Group. June 2021. Boulder, USA. (*ORAL*)
- ◇ **Zhu, J.,** Otto-Bliesner, B., Brady, E., Poulsen, C.J., “Inform cloud parameterizations in CESM2 through simulation of the Last Glacial Maximum”. CESM Workshop - Atmosphere Modeling Working Group. June 2021. Boulder, USA. (*ORAL*)
- ◇ **Zhu, J.,** Otto-Bliesner, B., Brady, E., Poulsen, C.J., Tierney, J.E., Lofverstrom, M., DiNezio, P., “Update on the simulation of the Last Glacial Maximum using CESM2”. CESM Paleoclimate Working Group Meeting. February 2021. Boulder, USA. (*ORAL*)
- ◇ **Zhu, J.,** Otto-Bliesner, B., Brady, E., Poulsen, C.J., Tierney, J.E., Lofverstrom, M., DiNezio, P., “Assessing equilibrium climate sensitivity of the Community Earth System Model version 2 through simulation of the Last Glacial Maximum”. AGU Fall Meeting. Dec. 2020. San Francisco, USA. (*ORAL*)
- ◇ **Zhu, J.,** C. Poulsen, “LGM climate forcing and ocean dynamical feedback and their implications for estimating climate sensitivity”. Paleoclimate Modelling Intercomparison Project PMIP2020. October 2020. Nanjing, China. (*ORAL*)
- ◇ **Zhu, J.,** C. Poulsen, “Can we directly estimate ECS using reconstructions of the LGM?”. CESM Workshop. June 2020. Boulder, USA. (*ORAL*)
- ◇ **Zhu, J.,** C. Poulsen, B. Otto-Bliesner, and J. Tierney, “Constraining equilibrium climate sensitivity through simulation of past warm and cold climates”. CESM Paleoclimate Working Group Meeting. February 2020. Boulder, USA. (*ORAL*)
- ◇ **Zhu, J.** and C. Poulsen, “On the temperature dependence of equilibrium climate sensitivity and cloud feedback”. AGU Fall Meeting. Dec. 2019. San Francisco, USA. (*POSTER*)
- ◇ **Zhu, J.,** C. Poulsen, J. Tierney, and P. DiNezio, “Investigating the Holocene ENSO variability through isotope-enabled modeling and model-data comparisons”. Water Isotopes and Climate Workshop. October 2019. Boulder, USA. (*ORAL*)
- ◇ **Zhu, J.** and C. Poulsen, “Modeling water isotopes during the PETM and the implications for global temperature and hydrological changes”. Terrestrial and Coastal Climates of the Paleocene Eocene Thermal Maximum. September 2019. Santa Cruz, USA. (*ORAL*)
- ◇ **Zhu, J.** and C. Poulsen, “Constraining future warming from past climates”. Aspen Global Change Institute workshop on ‘The Future of Past Climate’. May 2019. Aspen, USA. (*ORAL*)
- ◇ **Zhu, J.,** C. Poulsen, and J. Tierney, “Simulation of Eocene extreme warmth and high climate sensitivity through cloud feedbacks”. CESM Paleoclimate Working Group Meeting. February 2019. Boulder, USA. (*ORAL*)
- ◇ **Zhu, J.,** C. Poulsen, and J. Tierney, “Simulating Eocene extreme warmth and high climate sensitivity through low-cloud feedbacks”. AGU Fall Meeting. Dec. 2018. Washington, D.C., USA. (*ORAL*)
- ◇ **Zhu, J.,** C. Poulsen, Z. Liu, E. Brady, B. Otto-Bliesner, and D. Noone, “Modeling the oxygen isotope in the early Eocene hothouse climate using an isotope-enabled Earth system model”. Goldschmidt Conference.

August 2018. Boston, USA. (*POSTER*)

- ◇ **Zhu, J.**, C. Poulsen, “Simulating the Eocene hothouse climate using the water isotope-enabled Community Earth System Model (CESM1.2)”. DeepMIP Conference. July 2018. Bristol, UK. (*ORAL*)
- ◇ **Zhu, J.**, Z. Liu, E. Brady, B. Otto-Bliesner, S. Marcott, J. Zhang, X. Wang, J. Nusbaumer, T. Wong, A. Jahn, and D. Noone, “Investigating the direct meltwater effect in terrestrial oxygen-isotope records using an isotope-enabled Earth system model”. CESM Paleoclimate Working Group Meeting. March 2018. Austin, USA. (*ORAL*)
- ◇ **Zhu, J.**, Z. Liu, E. Brady, B. Otto-Bliesner, S. Marcott, J. Zhang, X. Wang, J. Nusbaumer, T. Wong, A. Jahn, and D. Noone, “Investigating the direct meltwater effect in terrestrial oxygen-isotope records using an isotope-enabled Earth system model”. AGU Fall Meeting. Dec. 2017. New Orleans, USA. (*ORAL*)
- ◇ **Zhu, J.**, Z. Liu, B. Otto-Bliesner, E. Brady, D. Noone, J. Zhang, R. Tomas, A. Jahn, J. Nusbaumer, and T. Wong. “Reduced ENSO Variability at the LGM Revealed by an Isotope-enabled Earth System Model”. CESM PaleoClimate Working Group Meeting. March 2017. Boulder, USA. (*ORAL*)
- ◇ **Zhu, J.**, Z. Liu, B. Otto-Bliesner, E. Brady, D. Noone, J. Zhang, R. Tomas, A. Jahn, J. Nusbaumer, and T. Wong. “Reduced ENSO Variability at the LGM Revealed by an Isotope-enabled Earth System Model”. AGU Fall Meeting. Dec. 2016. San Francisco, USA. (*ORAL*)
- ◇ **Zhu, J.**, Z. Liu, B. Otto-Bliesner, E. Brady, D. Noone, J. Zhang, R. Tomas, A. Jahn, J. Nusbaumer, and T. Wong. “Reduced ENSO Variability at the LGM Revealed by an Isotope-enabled Earth System Model”. CLIVAR Open Science Conference. Sep. 2016. Qingdao, China. (*ORAL*)
- ◇ **Zhu, J.**, Z. Liu, X. Zhang, I. Eisenman, and W. Liu. “Linear Weakening of the AMOC in Response to Lowering Ice-sheet Topography in CCSM3”. High-Resolution Proxies of Paleoclimate Workshop. May 2015. Madison, USA. (*POSTER*)
- ◇ **Zhu, J.**, Z. Liu, J. Zhang, and W. Liu. “AMOC response to global warming: dependence on the background climate and response timescale”. Annual CESM Workshop. Jun. 2014. Breckenridge, USA. (*POSTER*)
- ◇ **Zhu, J.**, Z. Liu, X. Zhang, I. Eisenman, and W. Liu. “Transient weakening of the AMOC to a receding glacial ice sheet in CCSM3 and its physical mechanisms”. Annual CESM Workshop. Jun. 2014. Breckenridge, USA. (*ORAL*)

HONORS/AWARDS

- ◇ Student Travel Grant, 2016 AGU Fall Meeting Dec. 2016
- ◇ Graduate Student Travel Award, AOS, UW-Madison Oct. 2016
- ◇ International Travel Grant, CLIVAR Open Science Conference Sep. 2016
- ◇ Honorable Mention, AOSS Community Poster Reception, UW-Madison Apr. 2015
- ◇ Reid Bryson Graduate Scholarship, CCR, UW-Madison Mar. 2015
- ◇ Merit student, Peking University Dec. 2009
- ◇ Outstanding Freshman Scholarship, Peking University Sep. 2004

TEACHING EXPERIENCE

- ◇ Lecturer of *2021 CESM Tutorial: Water Isotope Modeling with CESM*, National Center for Atmospheric Research Aug. 2021
- ◇ Certificate in *Postdoctoral Short Course on College Teaching in Science and Engineering*, University of Michigan Jan. 2019 – Apr. 2019
- ◇ Teaching Assistant of *Introduction of Atmospheric Science*, School of Physics, Peking University Sep. 2009 – Jan. 2010
- ◇ Teaching Assistant of *Descriptive Physical Oceanography*, School of Physics, Peking University Sep. 2008 – Jan. 2009

PROFESSIONAL SERVICES

- ◇ **Peer Review for:** Nature, Nature Climate Change, Nature Geoscience, Science Advances, Nature Communications, Scientific Data, Geophysical Research Letters, Earth and Planetary Science Letters. Journal of Advances in Modeling Earth Systems, Journal of Geophysical Research–Oceans, Journal of Geophysical Research–Atmospheres, Journal of Climate, Climate Dynamics, Earth System Dynamics, Quaternary Science Reviews, Climate of the Past, Paleoceanography and Paleoclimatology, Journal of Quaternary Science, Atmosphere, Climate, Water, Sustainability
- ◇ **Proposal Review for:** National Science Foundation
- ◇ **Convener of:** 2021 AGU Fall Meeting Session PP002: A high-temporal-resolution view of deep-time greenhouse climates; 2018 Goldschmidt Conference Session 08a: Understanding Past and Present Climate with Water Isotopes

PROFESSIONAL AFFILIATIONS

American Geophysical Union

updated August 2021