

# Yuxin Zhou

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[www.github.com/yz3062/](http://www.github.com/yz3062/)

EDUCATION **Columbia University**, New York, NY 2016 – 2022

Ph.D., Earth and Environmental Sciences  
Dissertation: Atlantic Meridional Overturning Circulation instabilities during the last glacial cycle. Advisor: Jerry F. McManus

**University of Southern California**, Los Angeles, CA 2012 – 2016

B.S., Geological Sciences, *Phi Beta Kappa*  
Minor in Computer Science

EXPERIENCE Postdoctoral Scholar, UC Santa Barbara. Advisor: Lorraine Lisiecki 2022-

AWARDS Cushman Foundation Johanna M. Resig Fellowship (\$30,000) 2021  
IODP Schlanger Fellowship (\$30,000) 2020  
Columbia University GSAS Dean's Fellowship 2016  
Woods Hole Oceanographic Institution Summer Student Fellowship 2015  
USC Dornsife Harry Miller Scholarship 2015  
USC Dornsife Syllas and Rose Marx Meyer Scholarship 2015  
USC Earth Sciences Richard O. Stone Scholarship 2012, 2014, 2015

PUBLICATIONS **Zhou, Y.** and McManus, J.F. (2023), Authigenic uranium deposition in the glacial North Atlantic - implications for oxygenation, carbon storage, and deep water mass geometry. *Quaternary Science Reviews*, 300, 107914. doi: 10.1016/j.quascirev.2022.107914  
**Zhou, Y.** and McManus, J.F. (2022), Extensive evidence for a Last Interglacial Laurentide Outburst (LILO) event. *Geology*, 50(8), 934-938. doi: 10.1130/G49956.1  
**Zhou, Y.**, McManus, J.F., Jacobel, A., Costa, K., Wang, S., and Alvarez Caraveo, B. (2021), Enhanced iceberg discharge in the western North Atlantic during all Heinrich events of the last glaciation. *Earth and Planetary Science Letters*, 564, 116910. doi: 10.1016/j.epsl.2021.116910  
Costa, K.M., Hayes, C.T., Anderson, R.F., Pavia, F.J., Bausch, A., Deng, F., Dutay, J.-C., Geibert, W., Heinze, C., Henderson, G., Hillaire-Marcel, C., Hoffmann, S., Jaccard, S.L., Jacobel, A.W., Kienast, S.S., Kipp, L., Lerner, P., Lippold, J., Lund, D., Marcantonio, F., McGee,

- D., McManus, J.F., Mekik, F., Middleton, J.L., Missiaen, L., Not, C., Pichat, S., Robinson, L.F., Rowland, G.H., Roy-Barman, M., Tagliabue, A., Torfstein, A., Winckler, G. and **Zhou, Y.** (2020),  $^{230}\text{Th}$  Normalization: New Insights on an Essential Tool for Quantifying Sedimentary Fluxes in the Modern and Quaternary Ocean. *Paleoceanography and Paleoclimatology*, 35: e2019PA003820. doi:10.1029/2019PA003820
- Khider, D. , Emile-Geay, J. , McKay, N. P., Gil, Y. , Garijo, D. , Ratnakar, V. , Alonso-Garcia, M. , Bertrand, S. , Bothe, O. , Brewer, P. , Bunn, A. , Chevalier, M. , Comas-Bru, L. , Csank, A. , Dassié, E. , DeLong, K. , Felis, T. , Francus, P. , Frappier, A. , Gray, W. , Goring, S. , Jonkers, L. , Kahle, M. , Kaufman, D. , Kehrwald, N. M., Martrat, B. , McGregor, H. , Richey, J. , Schmittner, A. , Scroxton, N. , Sutherland, E. , Thirumalai, K. , Allen, K. , Arnaud, F. , Axford, Y. , Barrows, T. , Bazin, L. , Pilaar Birch, S. E., Bradley, E. , Bregy, J. , Capron, E. , Cartapanis, O. , Chiang, H. , Cobb, K. M., Debret, M. , Dommain, R. , Du, J. , Dyez, K. , Emerick, S. , Erb, M. P., Falster, G. , Finsinger, W. , Fortier, D. , Gauthier, N. , George, S. , Grimm, E. , Hertzberg, J. , Hibbert, F. , Hillman, A. , Hobbs, W. , Huber, M. , Hughes, A. L., Jaccard, S. , Ruan, J. , Kienast, M. , Konecky, B. , Le Roux, G. , Lyubchich, V. , Novello, V. F., Olaka, L. , Partin, J. W., Pearce, C. , Phipps, S. J., Pignol, C. , Piotrowska, N. , Poli, M. , Prokopenko, A. , Schwanck, F. , Stepanek, C. , Swann, G. E., Telford, R. , Thomas, E. , Thomas, Z. , Truebe, S. , von, Gunten, L. , Waite, A. , Weitzel, N. , Wilhelm, B. , Williams, J. , Winstrup, M. , Zhao, N. and **Zhou, Y.** (2019), PaCTS 1.0: A Crowdsourced Reporting Standard for Paleoclimate Data. *Paleoceanography and Paleoclimatology*, 34, 1570-1596. doi:10.1029/2019PA003632
- Jacobel, A.W., Anderson, R.F., Winckler, G., Costa, K.M., Gottschalk, J., Middleton, J.L., Pavia, F.J., Shoenfelt, E.M. and **Zhou, Y.** (2018), No evidence for equatorial Pacific dust fertilisation, *Nature Geoscience*, 12, 154-155. doi:10.1038/s41561-019-0304-z
- Emile-Geay, J., Cobb, K.M., Carre, M., Braconnot, P., Leloup, J., **Zhou, Y.**, Harrison, S.P., Correge, T., McGregor, H.V., Collins, M., Driscoll, R., Elliot, M., Schneider, B. and Tudhope, A. (2016), Links between tropical Pacific seasonal, interannual and orbital variability during the Holocene, *Nature Geoscience*, 9, 168. doi: 10.1038/ngeo2608
- Dee, S., Noone, D., Buening, N., Emile-Geay, J. and **Zhou, Y.** (2015), SPEEDY-IER: A fast atmospheric GCM with water isotope physics, *Journal of Geophysical Research - Atmospheres*, 120, 73–91. doi: 10.1002/2014JD022194
- Zhou, Y.** and McManus, J.F. Heinrich event freshwater fluxes in the North Atlantic quantified with a sedimentary geochemical compilation. In prep.

- CONFERENCES **Zhou, Y.**, Lisiecki, L.E., Rand, D., Hobart, B., Lee, T., Gebbie, G., and Lawrence, C.E. Revisiting Pleistocene benthic  $\delta^{18}\text{O}$  stacks with BIGMACS. *2022 AGU Fall Meeting*
- Zhou, Y.** and McManus, J.F. Authigenic uranium deposition in the glacial North Atlantic - implications for oxygenation, carbon storage, and deep water mass geometry. *2022 Comer Climate Conference*
- Jorgensen, E.M., **Zhou, Y.**, and McManus, J.F. Contextualizing North Atlantic Sediment within Heinrich Events. *2021 AGU Fall Meeting*
- Paul, A., **Zhou, Y.** and McManus, J.F. Climatic and Oceanographic Conditions in the Mid-Atlantic through the Penultimate Interglacial Period. *2021 AGU Fall Meeting*
- Zhou, Y.** and McManus, J.F. Glacial carbon storage and water mass geometry in the North Atlantic. *2021 AGU Fall Meeting*
- Zhou, Y.** and McManus, J.F. Extensive evidence for the Last Interglacial analog of the 8.2 ka event. *2021 Comer Climate Conference*
- Middleton, J.L., Winckler, G., Schaefer, J., Pavia, F., Anderson, R.F., Schwartz, S., **Zhou, Y.**, and Kinsley, C. Global patterns in oceanographic influences on  $^{10}\text{Be}$  deposition rates to the seafloor. *2021 Goldschmidt*
- Zhou, Y.** and McManus, J.F. A new method of estimating freshwater fluxes during millennial events of the last glaciation. *2020 Comer Climate Conference*
- Zhou, Y.** and McManus, J.F. Heinrich Events 3 and 6 as Events of Increased Ice-Rafted Deposition. *2019 Goldschmidt*
- McManus, J.F., Costa, K.M., **Zhou, Y.**, Cohall, M., and Hoffmann, S.S. Reconstructions of changes in deep ocean circulation and climate through the last large glacial-interglacial cycle in the North Atlantic region. *2019 AGU Fall Meeting*
- McManus, J.F., Costa, K.M., Ng, H.C., **Zhou, Y.**, Hoffmann, S.S., Major, C.O., Robinson, L.F., and Keigwin, L.D. Time-series Transects of Deglacial Circulation Changes in the Deep North Atlantic Ocean. *2018 AGU Fall Meeting*
- Zhou, Y.**, Oppo, D., Gebbie, G., and Thornalley, D. Magnitude of the Suess Effect in North Atlantic - a Study of Foraminifera and Transient Tracer Simulations. *2016 AGU Ocean Sciences Meeting*
- Zhou, Y.**, Paterson, S., Pablo, A.H., Cao, W. and Ratschbacher, B. An Isostatic Mass Balance Model of Continental Arcs and Its Application to Paleozoic-Mesozoic Argentinean Cordilleran Orogenic Systems. *2016 GSA Cordilleran Section meeting*

Emile-Geay, J., Cobb, K.M., Carre M., Braconnot, P., Leloup J, **Zhou, Y.**,  
Harrison, S.P., Corregge, T., McGregor, H.V., Collins, M., Driscoll, R.  
Holocene constraints on simulated tropical Pacific climate. *2015 AGU  
Fall Meeting*

INVITED SEMINARS	2022 NCAR paleoclimate working group meeting	2022
	International Quaternary Webinar, University of Massachusetts	2022
	Climate-geochemistry departmental seminar, Max Planck Institute for Chemistry	2021
SEAGOING EXPERIENCE	<i>R/V Roger Revelle</i> , UNOLS Coring PI training	Aug. 22–Sept. 1, 2022
	<i>R/V Tioga</i> , plankton towing and grab coring training	Jul. 17, 2015
PROFESSIONAL SERVICES	Chair, LDEO graduate student committee	2019 – 20
	Volunteer, LDEO Wally Broecker Symposium	2019
	Orientation co-chair, LDEO graduate student committee	2018 – 19
	Member, LDEO committee on professional conduct	2018 – 2022
	Co-organizer, LDEO geochemistry seminar committee	2017 – 19
	Co-organizer, LDEO first year colloquium	2017
	President, USC Sigma Gamma Epsilon	2015 – 2016
	Secretary, —	2014
	Member: Phi Beta Kappa	2016 –
	Member: American Geophysical Union	2015 –
TEACHING AND OUTREACH	Manuscript reviewer for <i>Geo-Marine Letters</i> , <i>Earth and Planetary Science Letters</i> , <i>Climate of the Past</i> , <i>Marine Geology</i> , and <i>Quaternary Research</i>	
	Facilitator, UCSB Family Ultimate Science Exploration	2022
	Teacher, Columbia University Girls Who Code	2018 – 2022
	Teacher, Columbia University COVID Volunteer Tutor Corps	2020
	Foundational Track completion, Teaching Development Program, the Center for Teaching and Learning at Columbia University	2020
	Volunteer, Columbia University Girls Science Day	2018 – 2019
	Volunteer, Lamont Open House	2016 – 2019
	Oceanography Teacher, Lenicia B. Weemes Elementary School, Joint Education Program	2012

REU mentor of Alyson Churchill (Colby College; 2018), Annemarie Pillsbury (Dutchess Community College; 2018), Miah Cohall (Manhattan College; 2019), Cassandra Bartels (Barnard College; 2019), Ellen May Jorgensen (Syracuse University; 2021), Herman Garcia (The City College of New York; 2021), Ariana Paul (Barnard College; 2021)

PROGRAMMING C++ (proficient), Java (proficient), Fortran (competent), Python (expert),  
LANGUAGES Matlab (expert), R (competent), Javascript (proficient), Git (expert)