

# Lucas J. Gloege

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## EDUCATION

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2014 - 2020(expected)	Columbia University, Ph.D. Earth and Environmental Science	New York, NY
2014 - 2017	University of Wisconsin, M.S. Atmospheric and Oceanic Sciences Heinz Lettau Award for excellent thesis	Madison, WI
2012 - 2014	University of Minnesota, M.S. Water Resources Sciences	Duluth, MN
2007 - 2012	University of Minnesota, B.S. Mathematics, B.S. Physics	Duluth, MN

## PRESENTATIONS

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August 2019	AGU Chapman Conference - understanding carbon climate feedbacks, La Jolla, CA poster, "Large ensemble testbed to evaluate pCO <sub>2</sub> interpolation methods"
July 2019	Large Ensemble Workshop, Boulder, CO oral, "Large ensemble testbed to evaluate pCO <sub>2</sub> interpolation methods"
June 2019	New York Scientific Data Summit, New York, NY poster, "Can a neural network trained with a climate model inform the real-world?"
December 2018	AGU Fall meeting / CMIP6 Workshop, Washington, DC poster, "Large ensemble testbed to evaluate pCO <sub>2</sub> interpolation methods"
June 2018	Ocean, Carbon, and Biogeochemistry Summer Workshop, Woods Hole, Massachusetts poster, "Evaluating pCO <sub>2</sub> interpolation methods using large ensembles - preliminary results"
May 2018	Society for Freshwater Science meeting, Detroit, Michigan oral, "Potential impacts of tributary loads on coastal ecosystem services in Lake Michigan"
February 2018	Ocean Sciences Meeting 2018, Portland, Oregon oral, "Potential impacts of tributary loads on coastal ecosystem services in Lake Michigan"
August 2017	10th International Carbon Dioxide Conference, Interlaken, Switzerland poster, "Constraining the potential influence of the ocean biological pump on atmospheric pCO <sub>2</sub> "
May 2017	60th Annual International Association Great Lakes Research conference, Detroit, MI oral, "Fate of tributary loads to Lake Michigan"
April 2017	2017 Climate Change Symposium / Reid Bryson Poster Competition, Madison, WI poster, "Fate of tributary loads to Lake Michigan" Reid Bryson scholarship recipient
June 2016	1st Gordon Research Conference on Ocean Biogeochemistry, Hong Kong, China poster, "Parameterizing carbon export below the euphotic zone" Acknowledged for excellent student poster presentation
February 2016	Ocean Science Meeting 2016, New Orleans, LA poster, "A global evaluation of model parameterizations for carbon export and remineralization"
June 2013	56th Annual International Association Great Lakes Research conference, Purdue, IN oral, "Modeling near-inertial waves in Lake Superior"

## PUBLICATIONS

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7. Gloege, L., McKinley, G. A., Mooney, Landschützer, P., Lovenduski, N. S., Rodgers, K., Fay, A. R., Frölicher, T., Fyfe, J., Illyina, T., Jones, S., Rödenbeck, C., Schlunegger, S., and Takano, Y. (in prep.). Evaluating co2 flux interpolation methods across 100 climate states: reconciling the model and data-product mismatch in the southern ocean. *PNAS*
6. Gloege, L., McKinley, G. A., Mooney, R., Allan, J., Diebel, M., and McIntyre, P. (submitted). Lake hydrodynamics intensify the potential impact of watershed pollutants on coastal ecosystem services. *ERL*
5. McKinley, G. A., Fay, A. R., Gloege, L., and Lovenduski, N. S. (submitted). External forcing explains recent decadal variability of the ocean carbon sink. *AGU Advances*
4. Abell, J., Pullen, A., Lebo, Z., Kapp, P., Gloege, L., Metcalf, A., Nie, J., and Winckler, G. (in press 2019). A wind-albedo-wind feedback driven by landscape evolution. *Nature Communications*
3. Gloege, L., McKinley, G. A., Mouw, C. B., and Ciochetto, A. B. (2017). Global evaluation of particulate organic carbon flux parameterizations and implications for atmospheric pco2. *Global Biogeochem. Cycles*, 31(7):1192–1215
2. Mouw, C. B., Barnett, A., McKinley, G. A., Gloege, L., and Pilcher, D. (2016b). Phytoplankton size impact on export flux in the global ocean. *Global Biogeochemical Cycles*, 30(10):1542–1562
1. Mouw, C. B., Barnett, A., McKinley, G. A., Gloege, L., and Pilcher, D. (2016a). Global ocean particulate organic carbon flux merged with satellite parameters. *Earth System Science Data*, 8(2):531–541

## PROFESSIONAL DEVELOPMENT

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January 2018	2nd annual Data Science Bootcamp, Columbia University
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## TEACHING

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Spring 2018	Teaching assistant, Columbia University, Earth and Environmental Science Department
Spring 2016	Teaching assistant, University of Wisconsin, AOS department
2009 - 2014	Teaching assistant, University of Minnesota, Physics department

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