

Dr. Paige E. Martin

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RESEARCH INTERESTS

- Understanding the ocean's role in climate variability and air-sea coupling
- Using/developing open-source software to analyze and visualize climate model data
- Helping improve computational literacy among scientists, particularly in West Africa

EDUCATION

University of Michigan, Department of Physics, Ann Arbor, MI, USA

Ph.D., Aug. 2019, **M.S.**, Dec. 2017

Advisor: Prof. Brian Arbic (Dept. of Earth and Environmental Science)

Thesis: Diagnosing Energy Transfer in an Idealized Ocean-Atmosphere Model: A Frequency-Domain Approach

Humboldt Universität, Physics Department, Berlin/**Potsdam Institute for Climate Impact Research**, Germany

Sep. 2011 – Aug. 2012

Advisor: Prof. Dr. Dr. h.c. Jürgen Kurths

Research focus: Climate network analysis to study the spatiotemporal evolution of rainfall in the Indian monsoon

Harvard University, Cambridge, MA, USA

A.B. with cum laude honors in Physics, minor in French, May 2011

Université Pierre et Marie Curie, Paris, France, Sep. 2009 – Jan. 2010, through Hamilton College Junior Year in France

RESEARCH POSITIONS

Postdoctoral Research Scientist, Lamont-Doherty Earth Observatory, Columbia University, NY, Sep. 2020 – present
USA (also affiliated with Australian National University, Canberra, Australia)

Advisor: Prof. Ryan Abernathey, Lamont-Doherty Earth Observatory

I work at the intersection of climate science and data science, using and promoting open-source tools to analyze climate model data with the goal to better understand the physical mechanisms driving the components of our climate system.

Research Assistant, University of Michigan, Earth and Environmental Sciences Department, Jun. 2019 – Jul. 2020
Ann Arbor, MI

Graduate Student Research Assistant, University of Michigan, Earth and Environmental May 2013 – May 2019
Sciences Department, Ann Arbor, MI

FELLOWSHIPS

National Science Foundation Graduate Research Fellowship (NSF GRFP) 2013 - 2018

Graduate Opportunities Worldwide, part of the NSF GRFP, awarded for research at the Feb. – Jun. 2017
Australian National University, Canberra, Australia

Fellow at the Geophysical Fluid Dynamics Program, Woods Hole Oceanographic Jun – Aug. 2014
Institute, MA

DAAD Study/Research Graduate Scholarship in Germany, Potsdam Institute for Climate 2011-2012
Impact Research, Humboldt University-Berlin

PUBLICATIONS

- Martin, P. E.**, Arbic, B. K., & Hogg, A. M. (2021). Drivers of Atmospheric and Oceanic Surface Temperature Variance: A Frequency Domain Approach, *Journal of Climate*, 34(10), 3975-3990. <https://doi.org/10.1175/JCLI-D-20-0557.1>
- Nyadjro, E.S., Arbic, B.K., Buckingham, C.E., **Martin, P.E. et al.** (2021) Enhancing Satellite Oceanography-Driven Research in West Africa: a Case Study of Capacity Development in an Underserved Region. *Remote Sens Earth Syst Sci.* <https://doi.org/10.1007/s41976-021-00051-4>
- Martin, P. E.**, Arbic, B. K., McC. Hogg, A., Kiss, A. E., Munroe, J. R., & Blundell, J. R. (2020). Frequency-Domain Analysis of the Energy Budget in an Idealized Coupled Ocean–Atmosphere Model, *Journal of Climate*, 33(2), 707-726. <https://doi.org/10.1175/JCLI-D-19-0118.1>
- Stolbova, V., **Martin, P.**, Bookhagen, B., Marwan, N., and Kurths, J. (2014). Topology and seasonal evolution of the network of extreme precipitation over the Indian subcontinent and Sri Lanka, *Nonlin. Processes Geophys.*, 21, 901–917, <https://doi.org/10.5194/npg-21-901-2014>
- Martin, P.**, 2014: A Study of Heat Transport and the Runaway Greenhouse Effect using an Idealized Model, *Proceedings of the 2014 Summer Program in Geophysical Fluid Dynamics*, Woods Hole, MA, Woods Hole Oceanographic Institute

SERVICE

Elected Student/Early Career Council Member of the American Geophysical Union (AGU)	Jan. 2019 – present
Co-organizer of Pangeo Oceania, a regional branch of Pangeo (https://pangeo.io)	Jun. 2021 - present
Co-organizer of the Student Conference at the 2016 AGU Fall Meeting	Dec. 2016
Member of the AGU On-Demand Advisory Group for the 2016 AGU Fall Meeting	July – Sep. 2016
Student Member of the AGU Ocean Sciences Executive Committee	Feb. 2014 – Feb. 2016
Student Organizer for the 2016 Ocean Sciences Meeting	2014 – 2016
Journal reviewer: <i>Journal of Climate</i> , <i>Journal of Geophysical Research: Oceans</i>	
Conference session convener:	
2022 Ocean Sciences Meeting: “Open Ocean Science”	
2021 AGU Fall Meeting: “Open Science in Action”	
2021 Dask Distributed Summit: “Pangeo Workshop”	
<i>Affiliations:</i> American Geophysical Union, The Oceanography Society	

OUTREACH

Co-organizer and lead computing instructor of the Coastal Ocean and Environment Summer School in Ghana (https://coessing.org)	2018-present
Co-organizer and mentor at Ocean Hack Week (https://oceanhackweek.github.io)	Jun. – Aug. 2021
Scientific advisor for non-profit Plastic Punch, Accra, Ghana (https://plasticpunchngo.org)	Aug. 2019 – present

AWARDS AND HONORS

Outstanding Student Presentation Award, AGU Fall Meeting	2018
Invited participant at Physical Oceanography Dissertation Symposium (PODS), Kona, Hawaii	2018
Best talk, Student Conference, Research School of Earth Sciences, Australian National University	2017
Certificate of Achievement for “The Helping Hand: This is someone who has gone out of their way to help you or others,” Rackham Graduate School, University of Michigan	2017