Paul Edwin Curtis

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EDUCATION Yale University

2021 - 2026

Doctor of Philosophy (Ph.D.), Atmosphere, Ocean, Climate Dynamics.

Advanced to candidacy in May 2023. Major Advisor: Prof. Alexey V. Fedorov.

Thesis: Interactions between the Atlantic Meridional Overturning Circulation (AMOC) and the Arctic in a Warming Climate: from Satellite-Based Observations to Model Experiments. (provisional title)

Imperial College London

2017 - 2021

Master of Science (MSci.), Physics.

Concentration: Atmospheric physics, Magnetohydrodynamics, Theoretical Physics.

RESEARCH EXPERIENCE

Geophysical Fluid Dynamics Fellow

2024

Woods Hole Oceanographic Institution.

Graduate Research & Teaching Assistant

2021 - 2026

Department of Earth and Planetary Sciences, Yale University.

Undergraduate Researcher (UROP)

2019

Department of Physics, Imperial College London.

Fellowships & Awards

WHOI Geophysical Fluid Dynamics (GFD) Graduate Fellowship.	2024
NASA Future Investigators (FINESST) Graduate Fellowship.	2023 - 2026
Graduate Research Fellowship, Yale University.	2021 - 2023
Ludlam Prize for Excellence in Atmospheric Physics, ICL.	2021
EPSRC Undergraduate Summer Research Grant, ICL.	2019
Low Income Bursary, ICL.	2017 - 2021

JOURNAL PUBLICATIONS

- 4. Curtis, P. E., & Fedorov, A. V. (2024), Spontaneous Generation of Dansgaard-Oeschger Events under Global Cooling Without Continental Ice Sheets. Manuscript under evaluation at *Science Advances*.
- 3. Curtis, P. E., & Fedorov, A. V. (2024), Collapse and Slow Recovery of the Atlantic Meridional Overturning Circulation (AMOC) Under Abrupt Greenhouse Gas Forcing. Climate Dynamics, https://doi.org/10.1007/s00382-024-07185-3.
- 2. Curtis, P. E., & Fedorov, A. V. (2024), Spontaneous Activation of the Pacific Meridional Overturning Circulation (PMOC) in Long-Term Ocean Response to Greenhouse Forcing. *Journal of Climate*, **37**(5), 1551-1565. https://doi.org/10.1175/JCLI-D-23-0393.1
- 1. Curtis, P. E., Ceppi, P., & Zappa, G. (2020), Role of the Mean State for the Southern Hemispheric Jet Stream Response to $\rm CO_2$ Forcing in CMIP6 Models. *Environmental Research Letters*, 15, 064011. https://doi.org/10.1088/1748-9326/ab8331

Non-Refereed Publications

Paul Curtis, Where Next for Wind? (2018) Energy Journal - LSE, Imperial, UCL & ESCP Energy Societies, Issue 4, p.10-11 http://energyjournal.co.uk/4th_edition

Additional Training & Workshops	4 th Summer School on "Theory, Mechanisms and Hierarchical Modeling of Climate Dynamics: Atlantic Variability and Tropical Basin Interactions at Interannual to Multi-Decadal Time Scales". International Centre for Theoretical Physics, Trieste, Italy.	2023
	Royal Society Scientific Meeting: "Atlantic Overturning: New Observations and Challenges". The Royal Society, London, UK.	2022
	$\label{eq:continuity} \mbox{UNIQ+ Graduate Access Programme } (\emph{virtual}), \mbox{University of Oxford, UK}.$	2020
	Corpus Christi College physics masterclass, University of Cambridge, UK.	2016
Conferences -	AGU Ocean Sciences Meeting, New Orleans, LA.	Feb 2024
Talks	Nansen Legacy Symposium, Tromsø, Norway.	Nov 2023
	EGU General Assembly, Vienna, Austria. (online)	Apr 2023
	AGU Fall Meeting, Chicago, IL.	Dec 2022
Conferences -	AGU Fall Meeting, San Francisco, CA.	Dec 2023
Posters	ICTP Summer School, Trieste, Italy.	Aug 2023
	WHOI Workshop on the Changing Beaufort Gyre, Woods Hole, MA.	Mar 2023
	AMS 23^{rd} Conference on AOFD, Breckenridge, CO.	Jun 2022
	US CLIVAR AMOC Scientific Meeting, Woods Hole, MA. (online)	Apr 2022
Teaching &	Teaching Fellowships	
Mentorship	Physical Oceanography, Yale College (EPS335).	Fall 2023
	Physical Oceanography, Yale College (EPS335).	Fall 2022
	Dynamic Earth, Yale College (EPS110).	Fall 2021
	Mentoring (with Prof. Alexey V. Fedorov)	
	Theo Schiminovich, senior thesis.	2024-2025
	Theo Schimmovich, senior thesis.	2024-2023
SERVICE	Yale EPS colloquium student representative (AOCD division).	2024
	Yale EPS Earth System Modelling faculty search student volunteer.	2024
	Yale EPS AOCD faculty search student volunteer.	2023
	Yale EPS IDEA 1^{st} generation & international student committee member.	
	Take El 5 ibEN 1 generation & international student committee member.	2022
Skills	Utilities:	
	Matlab, python, R, command line (Linux), LATEX.	
	Climate Model and Reanalysis Data:	
	CESM, CMIP5&6, ERA5.	

In-situ Data Sets:

Ice Tethered Profilers (WHOI), Beaufort Gyre Moorings (BGOS/WHOI), Magnetospheric Multiscale Mission (NASA).

Relevant

Yale University:

Coursework

Geophysical Fluid Dynamics; Physical Oceanography; Climate Dynamics; Energy, Mass, and Momentum Processes; Classical Statistical Thermodynamics; The Science of Complex Systems; Applied Numerical Methods for Differential Equations; Time Series Analysis for Geophysics.

Imperial College London:

Atmospheric Physics; Environmental Physics; Advanced Hydrodynamics; Space Physics; Fluid Mechanics; Advanced Classical Physics; Thermodynamics and Statistical Physics; Mechanics; Quantum Field Theory; General Relativity.