

Joseph W. Lockwood

CONTACT INFORMATION	Princeton University USA Mail: jl115@princeton.edu	Research Gate ; Google Scholar Website: www.josephwlockwood.com
INTERESTS	Flood hazard, climate change, data science, deep learning, machine learning, sustainability and resilience, risk analysis and negative emissions technology.	
PROFESSIONAL & RESEARCH EXPERIENCE	Jan-May 2023	Climate & Sustainability Global Insurance Intern Project: "Incorporating sustainability into insurance underwriting decisions". Economics & Global Cooperation Team Environmental Defense Fund, USA
	2022 – 2023	Catastrophe Risk Model Developer (Intern, Junior) Reask, UK
	2021 – 2023	Ford Research Fellow Centre for Research on Energy Princeton University, USA.
EDUCATION	2024	PhD in Geoscience, Princeton University, USA
	2020	MSc in Applied Physics (Atmospheric & Oceanic), McGill University CA
	2018	BSc in Earth Science (Geophysics & Oceanography), University of Southampton UK
	2024	Graduate Certificate in Statistics and Machine Learning, Princeton University, USA
	2023	Graduate Certificate in Science, Technology & Policy, Princeton University, USA
SCIENTIFIC PUBLICATIONS	2022	Lockwood, J. W. , Lin, N., Oppenheimer, M., and Yao, C. (2022). Using Neural Networks to Predict Hurricane Storm Surge Hazard. <i>Journal of Geophysical Research: Atmospheres</i> 127 (e2022JD037617) doi:10.1007/s10584-021-03288-6 [pdf]
		Lockwood, J. W. , Oppenheimer, M., Lin, N., Kopp E. R., Vecchi, G. & Gori, A. (2022). Correlation between future sea-level rise and tropical cyclone activity in CMIP6 models <i>Earth's Future</i> . 170 (30) doi:10.1007/s10584-021-03288-6 [pdf]
	2021	Lockwood, J. W. , Dufour, C. O., Griffies, S. M., Winton, M. On the role of the Antarctic Slope Front on the occurrence of the Weddell Sea polynya under climate change <i>Journal of Climate</i> . 1-56 (30) doi:10.1007/s10584-021-03288-6 [pdf]
SELECT UPPERLEVEL COURSEWORK	Machine Learning & Data Science: COS Mathematics for Numerical Computing and Machine Learning APC Numerical Algorithms for Scientific Computing GEO Data, Models and Uncertainty APC Software Engineering for Scientific Computing STAT Fundamentals of Machine Learning AOS Deep Learning in Geophysical Fluid Dynamics COS Modern Statistics OPRS Fundamentals of Statistics	
	Climate Science & Resilience: SPI Climate Change Risk Analysis ENG Negative Emission Technology	

SPI Climate Change, Floodplains, and Adaptation Design
GEO Hydrometeorology and Remote Sensing
GEO Synoptic Meteorology 1/11
GEO Atmospheric and Oceanic Fluid Dynamics
GEO Environmental and Engineering Geology
GEO Petroleum Geology and Mineral Resources

TEACHING ASSISTANTSHIPS	School of Public and International Policy, Princeton University <i>SPIA 350 Environmental Policy and Science</i>		
	High Meadows Environmental Institute, Princeton University <i>ENV 200 The Environmental Nexus</i>		
	Department of Earth & Planetary Science, McGill University <i>EPYS 185 Natural Disasters</i> <i>EPYS 104 The Earth System</i>		
	Department of Atmospheric and Oceanic Science, McGill University <i>ATOC 182 Introduction to Oceanic Science</i>		
COMPUTING	General Programming: <i>Python (Good), Fortran (Basic)</i> Statistical Languages: <i>R (Basic), Matlab (Good)</i>		
PROFESSIONAL MEMBERSHIPS	American Society of Civil Engineers, Membership The Institute of Marine Engineering, Science and Technology, Associate Member AMIMarEST		
CITIZENSHIP	<i>United Kingdom</i>		
AWARDS			
	2022 – 2024	Ford Fellow, HMEI-STEP Graduate Fellowship School of Public and International Affairs, Princeton University	<i>\$50,000 pa.</i>
	2020	Fellowship in Natural Sciences and Engineering Princeton University	<i>\$82,270</i>
	2018 – 2020	Stephen and Anastasia Mysak Research Fellowship McGill University	<i>\$28,912 pa.</i>
	2018	Graduate Research Enhancement and Travel Award (2019) McGill University	<i>\$1,500</i>
	2018	Graduate Excellence Award McGill University	<i>\$900</i>
	2018	Top of Year Department BSc Graduating Student University of Southampton	
SUMMER SCHOOLS			
	2023	Climate Change AI Summer School, Mila, Montreal Canada	
	2022	NASA Jet Propulsion Laboratory's Center for Climate Sciences and Space Studies, Los Angeles, USA <i>"Using Satellite Observations to Advance Climate Models"</i> .	
	2022	Training School on Compound Events, Como, Italy <i>"Training School on Dynamical Modelling of Compound Events"</i> .	

PRESENTATIONS

- 2022 Conference on Hurricanes and Tropical Meteorology 35th, American Meteorological Society, New Orleans USA
- 2020 Canadian Meteorological and Oceanographic Society, Alberta CA
Student Seminar Series McGill University
Ocean Sciences Meeting, San Diego, USA
- 2019 International Union of Geodesy and Geophysics, Montreal CA
Southern Ocean Carbon and Climate Observations and Modeling (SOCCOM) Annual Meeting

Last updated: December 18, 2022