

Joseph W. Lockwood

CONTACT INFORMATION	Princeton University Department of Geoscience Princeton, NJ, USA	mail: jl115@princeton.edu website: www.josephwlockwood.com Research Gate Google Scholar
RESEARCH INTERESTS	Compound flood hazard, climate change, data science, deep learning, machine learning, sustainability and resilience, risk analysis, wind engineering, tropical cyclones, sea-level rise, precipitation extremes.	
EDUCATION	2025	Ph.D. in Geoscience, Princeton University Dissertation: <i>Compound flood hazard in a changing climate: hazard, resilience and adaptation</i>
	2023	Graduate Certificate in Machine Learning and Statistics, Princeton University
	2020	MSc in Atmospheric & Oceanic Physics, McGill University CA
	2018	BSc in Earth Science (Geophysics & Oceanography), University of Southampton, UK
PROFESSIONAL & RESEARCH EXPERIENCE	2022	Catastrophe Model Developer, Reask Australia (London Office)
	2019	Visiting Researcher, Geophysical Fluid Dynamics Laboratory, Princeton NJ
	2018	Visiting Student, Climate Physics, British Antarctic Survey, Cambridge UK
	2018	Visiting Student, Department of Earth Science, University of Oxford, UK.
JOURNAL ARTICLES	2022	Lockwood, J. W. , Lin, N., Oppenheimer, et al. Using Machine Learning to Predict Tropical Cyclone Storm Surge and to Assess Sensitivity to Storm Characteristics, (in prep.). <i>Journal of Geophysical Research: Atmosphere</i>
	2022	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 UPPER-LEVEL COURSEWORK	Machine Learning & Data Science: Mathematics for Numerical Computing and Machine Learning (Computer Sci) , Machine Learning and Pattern Recognition (Electronics & Computer Sci) , Deep Learning in Geophysical Fluid Dynamics , Modern Statistics , Fundamentals of Statistics	
	Engineering: High Frequency Markets: Models & Data Analysis (Financial Engineering) , Structural Engineering for Climate Change Adaptation , Wind Engineering and Structural Dynamics , Environmental and Engineering Geology , Petroleum Geology and Mineral Resources	
	Climate Science & Resilience: Climate Change Risk Analysis , Negative Emissions Technology , Hydrometeorology and Remote Sensing , Atmospheric and Oceanic Fluid Dynamics	

AWARDS AND
GRANTS

2020 – 2021	Fellowship in Natural Sciences and Engineering (2020/2021) Princeton University, Department of Geoscience	\$82,270
2018 – 2020	Stephen and Anastasia Mysak Research Fellowship McGill University	\$28,912 pa.
2018	Graduate Research Enhancement and Travel Award (2019) McGill University	\$1,500
2018	Graduate Excellence Award McGill University	\$900
2018	Top of Year Department BSc Graduating Student University of Southampton	\$900

PRESENTATIONS

Oral Presentation 35th Conference on Hurricanes and Tropical Meteorology, May 2022
 Oral Presentation Canadian Meteorological and Oceanographic Society, 2020.
 Oral Presentation Student Seminar Series McGill University, 2020.
 Oral Presentation Ocean Sciences, 2020.
 Oral Presentation International Union of Geodesy and Geophysics, 2019
 Oral Presentation Southern Ocean Carbon and Climate Observations and Modeling (SOCCOM) Annual Meeting, 2019

TEACHING

Princeton University, High Meadows Environmental Institute
ENV 200 The Environmental Nexus

McGill University, Department of Earth & Planetary Science
EPYS 185 Natural Disasters
EPYS 104 The Earth System

McGill University, Department of Atmospheric and Oceanic Science
ATOC 182 Introduction to Oceanic Science

COMPUTING

General Programming: *Python, Fortran*
 Statistical Languages: *R, Matlab*

PROFESSIONAL
MEMBERSHIPS

American Society of Civil Engineers, Membership
 The Institute of Marine Engineering, Science and Technology, Associate Member AMIMarEST

CITIZENSHIP

United Kingdom