Hassan Mason

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Education

New York University, Courant Institute of Mathematical Sciences 2020 – Present
PhD Candidate - Atmosphere Ocean Science and Mathematics

University of North Carolina — Wilmington 2017 – 2020
BA Mathematics
BS Physics

Publications

2. **Mason, H**. & Smith K.S. (2025). Beaufort Gyre isopycnal structure generates significant halocline eddy transport. Submitted to *Journal of Geophysical Research: Oceans*. 10.22541/essoar.173724500.00548969/v1

1. Wagner T.J.W., Eisenman I., & **Mason H**. (2021). How sea ice motion influences sea ice extent. *Geophysical Research Letters*. 10.1029/2021GL093069

Presentations

5. Beaufort Gyre Isopycnal Structure Generates Significant Halocline Eddy Transport under Sea Ice
   Oral - AGU Annual Meeting 2024

4. An Exploration of Submesoscale Eddies and Sea Ice Interactions and their Implications
   Poster - AGU Fall Meeting 2022

3. How Do Mesoscale Eddies Influence Vertical Heat Transport in the Arctic Ocean?
   Poster - AMS Collective Madison Meeting 2022

2. How do Mesoscale Eddy - Sea Ice Interactions Influence Heat Transport?
   Poster - GRC Ocean Mixing 2022

1. How Sea Ice Motion Changes Can Drive Antarctic Sea Ice Expansion in an Idealized Global Model
   Poster - AGU Fall Meeting 2019

Teaching Activities

4. NYU Undergraduate Linear Algebra Spring 2025
   TA & Recitation Leader

3. NYU Undergraduate Calculus I Fall 2024
   TA & Recitation Leader

2. NYU Undergraduate Math Modeling Fall 2023
   TA & Recitation Leader

1. NYU Undergraduate Math Modeling Spring 2023
   TA & Recitation Leader

Technical Skills

Programming Languages: Python, Fortran, MATLAB, C++
Modeling: MITgcm, FEniCSx, general finite difference/volume/element methods
Other tools: MPI, OpenMP, git