Yueyang Lu

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PROFESSIONAL APPOINTMENT

Postdoctoral Associate Mar 2026 - present
- Department of Earth, Atmospheric & Planetary Sciences, Massachusetts Institute of Technology

Postdoctoral Research Associate Jul 2024 - Mar 2026
- Center for Ocean-Atmospheric Prediction Studies (COAPS), Florida State University

Research Associate Jun 2024
- Rosenstiel School, University of Miami

EDUCATION

Ph.D. Meteorology & Physical Oceanography Aug 2018 – May 2024
- University of Miami Florida, USA
- Advisor: Prof. Igor Kamenkovich

B.S. Marine Science Aug 2014 – Jun 2018
- Ocean University of China Qingdao, China

PUBLICATIONS

PEER-REVIEWED

[4] **Y. Lu**, I. Kamenkovich, & P. Berloff. Can Eulerian Eddy Diffusivity be Inferred from Lagrangian Trajectories?, e2025MS005428. doi: 10.1029/2025MS005428. [PDF]

[3] **Lu, Y.** & I. Kamenkovich (2025). Mesoscale Eddy-Induced Sharpening of Oceanic Tracer Fronts. *J. Adv. Model. Earth Syst. 17*, e2024MS004693. doi: 10.1029/2024MS004693. [PDF]

[2] **Lu, Y.**, I. Kamenkovich, & P. Berloff (2022). Properties of the lateral mesoscale eddy-induced transport in a high-resolution ocean model: Beyond the flux-gradient relation. *J. Phys. Oceanogr., 52*(12). doi: 10.1175/JPO-D-22-0108.1. [PDF]

[1] Kamenkovich, I., P. Berloff, M. Haigh, L. Sun, & **Y. Lu** (2021). Complexity of mesoscale eddy diffusivity in the ocean. *Geophys. Res. Lett., 48*(5). doi: 10.1029/2020GL091719.

IN PREPARATION

[2] **Y. Lu**,, X. Xu, & E. Chassignet. What drives the temperature variability in the Gulf of Maine?

[1] **Y. Lu**,, X. Xu, & E. Chassignet. Sea Level Variability over the Northwest European Shelf across Different Timescales [preprint]

MEETINGS & WORKSHOPS

- "Sea Level Variability over the Northwest European Shelf on Different Timescales"
  Ocean Sciences Meeting, Glasgow, Scotland, Feb 2026 **Oral**
- "Can Eulerian Eddy Diffusivity be Inferred from Lagrangian Trajectories?"
  Ocean Sciences Meeting, Glasgow, Scotland, Feb 2026 **Oral**
- *ECCO (Estimating the Circulation and Climate of the Ocean) summer shool 2025*
  Pacific Grove, CA, May 19-30 2025
- "Role of Mesoscale Eddies in the Large-Scale Oceanic Tracer Front: Importance and Parameterization"
  Ocean Sciences Meeting, New Orleans, LA, Feb 2024 **eLightning**
- "Mesoscale eddy-induced sharpening of oceanic tracer fronts and its parameterization"
  CESM Ocean Model Working Group Meeting, Feb 2024 **Oral**
- "Modeling the Ocean Mesoscale Eddy Effects on Tracer Transport"
  AGU Fall Meeting, Chicago, IL, Dec 2022 **Poster**
- "Lateral Mesoscale Eddy-Induced Transport and the Flux-Gradient Relation in a High-Resolution Model"
  Ocean Sciences Meeting, Virtual, Mar 2022 **Oral**

TEACHING

- **Guest Instructor**, *Dynamical Oceanography* (graduate, taught by Erik van Sebille), Utrecht University Spring 2023

- **Teaching Assistant**, *Environmental Statistics* (undergraduate), University of Miami — Fall 2021
- **Teaching Assistant**, *Environmental Statistics* (undergraduate), University of Miami — Fall 2020

MENTORING & OUTREACH

Undergraduate Research Opportunity Program at Florida State University — 2024 – 2025

- Mentee: Anna Chumakov - ”Investigating U.S. East Coast Sea Level Change”

Qingdao International Ocean Science & Technology Exhibition, Qingdao, China — Jul 2016

- Volunteer, Logistics
  - Direct the storage, transportation and exhibition of oceanographic research instruments.

AWARDS

- Honorable Mention (Second Prize) in the MCM/ICM Contest — 2017
- First Prize in the Chinese Mathematical Competition (Non-Math Majors) — 2016
- First Tier Academic Scholarship, Ocean University of China — 2015, 2016

PROFESSIONAL SERVICES & LEADERSHIP

Journal Peer Reviewer

- *Journal of Geophysical Research: Oceans*, *Journal of Geophysical Research: Biogeosciences*, *Journal of Advances in Modeling Earth Systems*, *Ocean Modelling*

OTHERS

Skills: Fortran, MATLAB, Python, Unix Shell Scripting, LaTeX.