UNIVERSITY OF MARYLAND

Postdoctoral Associate: Tracing the physics of submesoscale entrainment and subduction

Position Summary:
The University of Maryland Department of Atmospheric and Oceanic Science is seeking a postdoctoral researcher to study entrainment and subduction between the ocean surface boundary layer and interior. The postdoc will develop theory and run Large-Eddy-Simulations (LES) to determine how tracer exchanges are modified by the interaction between submesoscales, Langmuir circulations, and turbulence. A background in physical oceanography is required, with preference given to candidates with strong experience in ocean dynamics and numerical modeling. The position will be located at the University of Maryland, College Park, working with Dr. Jacob Wenegrat, with significant opportunities for close collaboration with Dr. Baylor Fox-Kemper (Brown), Dr. Jay Brett (JHU-APL), and other project team members.

Minimum Qualifications:
- PhD in physical oceanography, fluid dynamics, or other related subject by start date
- Experience with ocean dynamics and numerical modeling
- Excellent written and oral communication skills
- Proficiency in Python, Matlab, or other data analysis software
- Ability to pursue research both independently and as part of a collaborative team

Preferred Qualifications:
- Experience with LES
- Proficiency with high-performance computing
- Prior research focus on submesoscale dynamics, turbulence, or surface waves is a plus

Duties and Responsibilities:
- Develop new tracer-inversion methods for use in LES
- Develop the understanding of submesoscale-Langmuir-turbulence interactions
- Run and analyze LES of the ocean surface boundary layer
- Publish in peer-reviewed journals and present work at national and international conferences and seminars

Timeline and application:
This is a 3-year postdoctoral position (subject to satisfactory ongoing performance and the continued availability of funding), with potential opportunity for extension. The position can begin immediately, and preferably no later than February 2023.

To apply please submit a brief cover letter (explaining interest and relevant qualifications), CV (including list of publications), and contact information for 3 references directly by email to Jacob Wenegrat (wenegrat@umd.edu). Only references for shortlisted candidates will be contacted. **Review of applications will begin immediately**, and the position will remain open until filled.

The UMD Ocean Dynamics group is committed to creating an inclusive and equitable group environment, and to working towards increasing diversity in oceanography. More information, including a group expectations document, is available online: http://wenegrat.github.io/.

Questions about the position may be directed to Jacob Wenegrat (wenegrat@umd.edu).