

Research Description:

The Naval Research Laboratory (NRL) Marine Meteorology Division (MMD) is seeking applicants for a postdoc opportunity in subseasonal oceanic wind and wave prediction beginning in October 2023.

This project will focus on evaluating and improving the skill of subseasonal oceanic surface wind and ocean wave predictions in the Navy Earth System Prediction Capability (ESPC), a coupled global ensemble prediction system developed by NRL.

Postdocs working on this project will have the opportunity to work on:

- 1) Determining the observed relationship between oceanic surface winds and ocean wave properties and large-scale modes of variability (*e.g.*, Madden Julian Oscillation and Arctic Oscillation) and the ability of Navy ESPC to simulate these multi-scale relationships.
- 2) Quantifying the spatial-temporal variability of the extended-range prediction skill of ocean wave properties in Navy ESPC using various observational datasets (satellites, buoys, reanalyses) and developing forecast bias reduction methods. Determining the predictability of extreme events will be a particular focus.

The ideal candidate will have experience in one of the following areas: Earth system modeling, atmosphere-ocean interaction, subseasonal prediction, or ocean waves. In addition, experience with Python, data analysis, statistics, numerical modeling, and high-performance computing is also desired.

Lab Location:

Naval Research Laboratory Marine Meteorology Division
Monterey, CA

Advisor:

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