

Physical Oceanography Postdoc Opportunities in Submesoscale, Internal Waves, and Turbulence at Applied Physics Lab, University of Washington

Three postdoctoral researcher opportunities to participate in analysis and interpretation of turbulence, internal wave and submesoscale data sets are available at Applied Physics Lab, University of Washington. At least two years of funding is available for each of these three positions.

- (1) The first project is examining horizontal restratification of the surface mixed-layer. Data were collected at 3 sites in the North Pacific Subtropical Front during March 2017 using O(1 km) arrays of chi-augmented EM-APEX profiling floats collecting repeated profiles of temperature, salinity, horizontal velocity and temperature microstructure, larger-scale repeated shipboard towed ADCP surveys and an air-sea flux buoy. Each site was continuously sampled for roughly one week. Results of this project will ultimately improve modeling of air-sea fluxes in coupled climate models. Scientists include James Girton (girton@apl.washington.edu), John Mickett (mickett@uw.edu), Eric Kunze (kunze@nwra.com) and Tom Farrar (jfarrar@whoi.edu).
- (2) The second project will examine the horizontal wavenumber spectrum of water-mass tracers on isopycnals and conduct submesoscale shipboard CTD chain and ADCP surveys to determine controlling dynamics during July 2018. These measurements will also be used to test a recent spectral model for anisotropic stratified turbulence. Participating scientists include Ren-Chieh Lien (lien@apl.washington.edu or rcl@uw.edu) and Eric Kunze (kunze@nwra.com).
- (3) The third project is examining storm-forced inertial waves and turbulent mixing in forcing regions in western North Pacific collected by EM-APEX floats. Measurements were taken during the 2016 and 2017 fall and winter storm seasons. These measurements are aimed at quantifying the dissipation of near-inertial waves at the near-field. Participating scientists include Ren-Chieh Lien (lien@apl.washington.edu or rcl@uw.edu) and Eric Kunze (kunze@nwra.com).

Interested qualified candidates are encouraged to contact any of the relevant scientists with questions, CV's, published and submitted articles, and references.