Postdoctoral position on Internal Wave Dissipation in High-Resolution Ocean Models, University of Michigan

Applicants are sought for a postdoctoral position at the University of Michigan. The position is part of the National Science Foundation (NSF) project “Collaborative Research: Probing internal gravity wave dynamics and dissipation using global observations and numerical simulations” (OCE 2319142) and funding is available for up to three years. The successful applicant will examine the internal wave dissipation in global high-resolution ocean model simulations conducted at NASA Jet Propulsion Laboratory. Global high-resolution internal tide and internal gravity wave simulations have reached the point where the vertical profiles of internal wave dissipation resemble the dissipation in observations. This postdoctoral position offers the opportunity to make credible maps of internal wave dissipation on a global scale from model simulations. This will be an important step forward in ocean modeling, because internal wave dissipation impacts the overturning circulation, the distribution of carbon and other biogeochemical elements, and more. The project provides opportunities to collaborate with project scientists at the University of Southern Mississippi, NASA Jet Propulsion Laboratory (JPL), and Woods Hole Oceanographic Institution. Furthermore, the NSF project is connected to other NSF, ONR, and NASA-funded internal wave projects working under the umbrella of the National Oceanographic Partnership Program (NOPP) on Global Internal Waves (https://nopp-giw.ucsd.edu/). The postdoc will be encouraged to travel to NOPP meetings and other meetings to present project results and network with other scientists. Residence in Ann Arbor, Michigan, is preferred, but remote residence near our collaborating institutions in Stennis Space Center, MS, Pasadena, CA, and Woods Hole, MA, or elsewhere will be considered especially for strong applications.

The successful applicant should have a PhD in physical oceanography or a related field, and strong skills in physics, math, and computing. Applicants should send a letter of interest, curriculum vitae, including a list of publications and presentations, and contact information for three references to Dr. Brian Arbic (arbic@umich.edu). Applications will be considered until the position is filled, with a preferred start date in early 2024.

The University of Michigan offers competitive salary and benefits packages for postdoctoral scientists. My lab is committed to recruiting and retaining a diverse workforce and we encourage all employees to incorporate their diverse backgrounds, skills, and life experiences into their work. The University of Michigan is an equal opportunity/affirmative action employer.