



Fellowships in Geophysical Fluid Dynamics

at
Woods Hole Oceanographic Institution

June 16 to August 22, 2025

Since 1959 the GFD program has promoted an exchange of ideas among researchers in the many distinct fields that share a common interest in the nonlinear dynamics of fluid flows in oceanography, meteorology, geophysics, astrophysics, applied mathematics, engineering and physics. Each year, the program is organized around a ten-week course of study and research for a small group of competitively selected graduate-student fellows. The overall philosophy is to bring together researchers from a variety of backgrounds to provide a vigorous discussion of concepts that span different disciplines, and thereby to create an intense research experience. For the student fellows, the centerpiece of the program is a research project, pursued under the supervision of the staff. At the end of the program, each fellow presents a lecture and a written report for the GFD proceedings volume. Over its history, the GFD Program has produced numerous alumni, many of whom are prominent scientists at universities throughout the world. The interdisciplinary atmosphere of the Program is the ideal place for early career scientists to learn the habits of broad inquiry, of speaking to others with very different backgrounds and viewpoints, and of seeking answers in unfamiliar places.

The Program commences with two weeks of Principal Lectures focusing on a particular theme. For 2025, the theme is “**Instabilities and Bifurcations in GFD**”. The lecturers, **Joseph Pedlosky** (Woods Hole Oceanographic Institution) and **Laurette Tuckerman** (PMMH-CNRS, ESPCI, Sorbonne Université), will discuss instabilities and bifurcations of rotating and stratified flows. Topics will include fundamental theory and examples of bifurcations with symmetries, instabilities in models of the ocean and atmosphere, and nonlinear evolution that includes chaos and turbulence.

Up to ten competitive fellowships are available for graduate students. Successful applicants will receive stipends of \$8,430 and an allowance for travel expenses within the United States. Fellows are expected to participate full-time (40 hours per week) for the full ten weeks of the Program. The application deadline is **February 5, 2025**. Awards will be announced in March. We seek applicants from all areas of Geophysical Fluid Dynamics. Further information and application forms may be obtained at <https://gfd.whoi.edu> or by writing to: gfd@whoi.edu

*Prospective visitors should contact Pascale Garaud <pgaraud@soe.ucsc.edu>; or
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