



# Fellowships in Geophysical Fluid Dynamics at Woods Hole Oceanographic Institution

*June 15 to August 21, 2009*

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 young 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 by Roger Grimshaw and Harvey Segur. The topic of these lectures will be **Nonlinear Waves**. Nonlinear waves impact almost every branch of geophysical fluid dynamics, ranging from centimeter-scale gravity-capillary waves on the ocean surface to planetary waves in the atmosphere. The theory of nonlinear waves is a bedrock of classical applied mathematics, yet many of the recent advances and novel applications in this area have their roots in geophysical fluid dynamics. Lectures by staff and visitors will follow daily on a wide range of GFD topics.

Up to ten competitive fellowships are available for graduate students. Successful applicants will receive stipends of \$5,100 and an allowance for travel expenses within the United States. A small number of unpaid fellowships may also be available for strongly qualified students who can support themselves financially. Fellows are expected to be in residence for the full ten weeks of the program. The application deadline is February 15, 2009. Awards will be announced by April 1, 2009. We seek applicants from all areas of Geophysical Fluid Dynamics, and particularly encourage applications from women and members of underrepresented groups. Further information and application forms may be obtained at <http://gfd.who.edu>, or by writing to:

**The GFD Fellowship Committee**  
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