

Weekly CEA FM Seminar: Spring 2015



JOHNS HOPKINS

Center for Environmental
& Applied Fluid Mechanics

Date: **Friday, April 24, 2015**

Time: 11:00 AM

Location: Gilman Hall # 132

Speaker: **Prof. Harry Swinney** (University of Texas at Austin)

Title: ***"Internal Gravity Wave Dynamics in the Oceans"***

Abstract

Internal gravity waves occur in density-stratified fluids such as the oceans, atmosphere, and protoplanetary disks. In the oceans the internal waves produced by tidal flow over bottom topography can travel thousands of kilometers, affecting ocean mixing and currents, and ultimately impacting the climate. About one-half of the ocean's energy is contained in the internal waves, but an accurate estimate of internal wave energy is difficult because of wave interference and complex ocean topography. This talk presents results from laboratory experiments, numerical simulations, and ocean observations that yield insight into internal wave dynamics and should lead to improved estimates of the total internal wave power generated by tidal flow over ocean topography.

