1099-76-396   **Roberto Camassa*** (`camassa@amath.unc.edu`), The Department of Mathematics, Phillips Hall, CB#3250, UNC-CH, Chapel Hill, NC 27599-3250. *Some fundamental issues in internal wave dynamics.*

One of the simplest physical setups supporting internal wave motion is that of a stratified incompressible Euler fluid in a channel. This talk will discuss asymptotic models capable of describing large amplitude wave propagation in this environment, and in particular of predicting the occurrence of self-induced shear instability in the waves' dynamics for continuously stratified fluids. Some curious properties of the Euler setup revealed by the models will be presented. (Received February 11, 2014)