

Internal wave modeling at global scales

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Recent efforts to simulate internal waves in a “complicated” ocean are presented. Extending previous efforts by the author to investigate internal tide generation and evolution in an otherwise quiescent ocean, the present simulations contain all the components of a modern eddy-permitting general circulation model. Wave “spectra” are dominated by discrete peaks at the near-inertial, diurnal, and semidiurnal frequency. The picture that emerges is of an ocean dominated by stable, low-mode internal waves that fill much of the world ocean, with sinks far-removed from sources.

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