



Internal tides and energy fluxes over Great Meteor Seamount

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In this talk results are presented from measurements and modelling work on internal tides. Internal-tide energy fluxes are determined halfway over the southern slope of Great Meteor Seamount (Canary Basin), using data from combined CTD/LADCP yoyoing, covering the whole water column. The strongest signal is semi-diurnal and is concentrated in the upper few hundred meters of the water column. An indeterminacy in energy flux profiles is discussed; it is argued that a commonly applied condition used to determine these profiles is in fact invalid over sloping bottoms. However, the vertically integrated flux can be established unambiguously; the observed results are compared with the outcome of a numerical internal-tide generation model. For the semi-diurnal internal tide, the vertically integrated flux found in the model corresponds well to the observed one. The observed diurnal signal appears to be largely of non-tidal origin.