



## **Variability of internal tides in a three-dimensional, baroclinic, finite element model of the shelf-edge.**

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The shelf-edge region to the west of Scotland, including the two seamounts on the deep water side of the shelf-break, has been studied with a three-dimensional unstructured grid model. The spatial variability of the semidiurnal internal tide, together with its higher harmonics, and associated turbulence energy and mixing in the region were investigated, before extending the study to include the effects of idealised wind forcing on the flow. Both upwelling-favourable and downwelling-favourable cases were considered for a range of wind strengths. The importance of these issues in the validation of baroclinic tidal models will be discussed.