

Abstract Submitted
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Mixing by internal waves impinging on a slope VAMSI KRISHNA CHALAMALLA, SUTANU SARKAR, University of California San Diego — Direct and large eddy simulations are performed to study the mixing that occurs when internal waves interact with critical and near-critical sloping bottom. Different horizontal wave lengths up to $\mathcal{O} \sim 1$ km are considered at a moderate value of Froude number. The pathway from the input wave energy to the irreversible mixing of density field is explored. Diagnostics such as turbulent kinetic energy and density variance budget are used to obtain the phasing of turbulence and associated mixing. Energy transfer to higher harmonics and subharmonics is also quantified.

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