

Abstract Submitted  
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**The surface generation and downward propagation of internal waves in nonlinear stratifications** SASAN GHAEMSAIDI, THOMAS PEACOCK, MIT, THIERRY DAUXOIS, SYLVAIN JOUBAUD, PHILIPPE ODIER, ENS Lyon — An important topic in physical oceanography is the generation of internal waves by surface forcing, and the subsequent propagation of these waves into the deep ocean, often through complex density stratifications. This scenario is of particular interest in the Arctic Ocean, where increased summer ice loss is leading to enhanced internal wave activity, which in turn impacts circulation via wave breaking and mixing. We present the results of a combined theoretical and laboratory experimental study of this scenario, seeking to identify key parameters that significantly influence the amplitude of the wave field transmitted to the deep ocean.

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