

Supplementary Material C. Wave characteristics and parameter variation

Here we present how the wave properties vary for the different studies presented in §§4.1-4.4, in particular as the pycnocline thickness δ is varied. The incident wave amplitude a , wavelength λ and wave speed c_x are presented in figure S2. Black markers are used for the varying δ study (§4.1), a yellow to red color map for the varying energy study (§4.2) in figure S2(a-c), and a green to blue colormap for the varying $\Delta\rho$ study (§4.3) in figure S2(d-e). The changes in the topographic slope do not impact the values considered here.

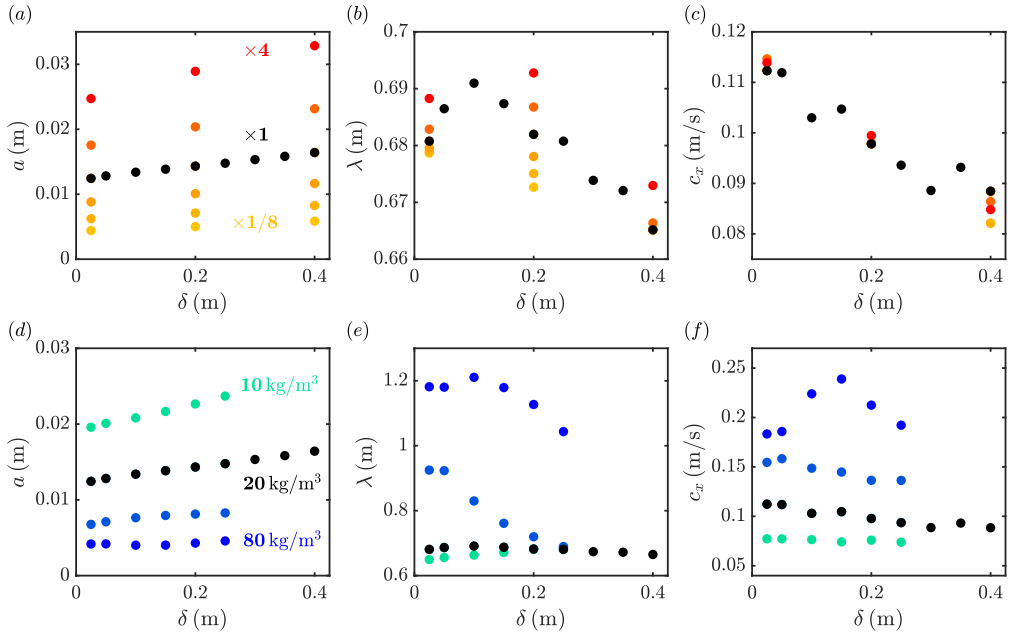


Figure S2: Amplitude a , wavelength λ and propagation speed c_x of the incident wave, as a function of δ , for (a-c) variable $E_k/E_{k,0}$, energy grows from yellow to red, (d-f) variable $\Delta\rho$, density change grows from green to blue. Black markers represent the pycnocline thickness variation study, with $E_k/E_{k,0} = 1$ and $\Delta\rho = 20$ kg/m³.