

FIGURE 1. An animated version of figure 3 of the main text, showing a cross-section along the line $y = 0$ of the surface perturbation η (thin line) for the initial top-hat profile of figure 2. As in figure 3, the bold line gives the steady adjusted solution η_S . There is no Kelvin wave in the evolution and the Poincaré waves have amplitudes, wavelengths and non-dimensional periods of order a . The average surface displacement over the interval $0 \leq t \leq 10$ is graphically indistinguishable from η_S .

FIGURE 2. An animated version of figure 5 of the main text, showing cross-sections along the lines $y = 0$ (upper) and $x = 0$ (lower) of the surface perturbation η (thin line) for the $n = 1$ profile of figure 4. As in figure 5, the bold line gives the steady adjusted solution η_S . The dashed line gives the sum of the steady solution and the single Kelvin wave mode, with period of order 2π and confined to within a distance of order the Rossby radius of the boundary. The Poincaré waves have amplitudes, wavelengths and non-dimensional periods of order a .