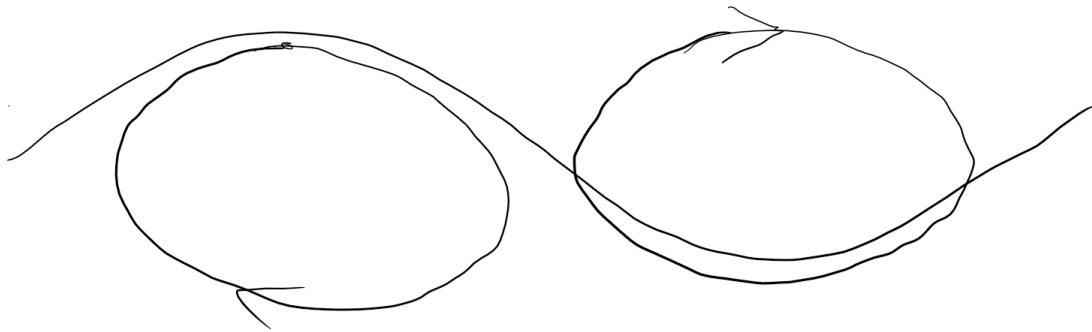


P426 Readings
Week 04

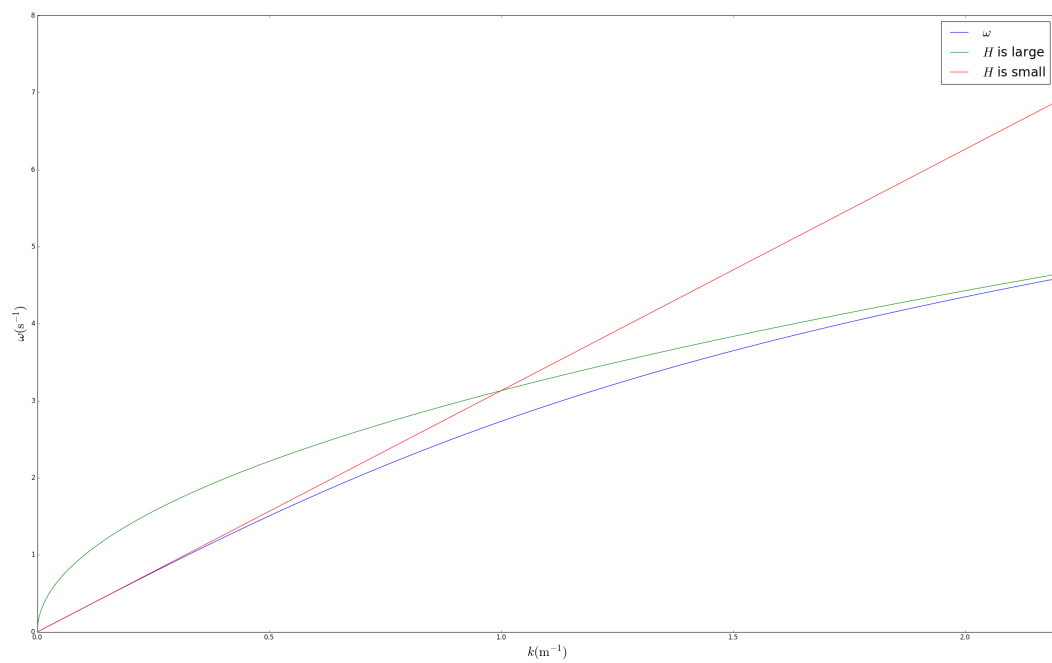
1.



One of the two orbits has fluid elements higher up than the fluid elements in the other orbit at any time (except when they are equal height). These fluid elements represent the crest of a wave, which move in the positive x -direction (to the right in the image) at the top of the orbit.

Wave crests can move in the negative x -direction (to the left in the image) if the orbitals are counter-clockwise in the image.

2.



For deep water, H is large so $\omega \propto \sqrt{k}$. In shallow water, H is small so $\omega \propto k$.

3.