Computational project (Due Friday August 31st, 5pm)

Use a computer to model the sound of a slinky. Start with the solution to part (c) of the week 3 workshop. You will have to numerically integrate the equations for the x and y motion of the slinky and then think about how this converts into an acoustic wave. You can then compare this to the approximation in part (d).

Some things to consider

1) your initial wave has to be short enough to capture a wide range of audio frequencies, but not so wide that you alias the function when you do the numerical transform!

2) The sound of the slinky is likely to be a sum of the x and y excitations (unless you tap it very carefully!)

You'll need to submit the annotated code and the sound file that your code generates. (If you use Mathematica the sound is built in, so you don't need a separate file)