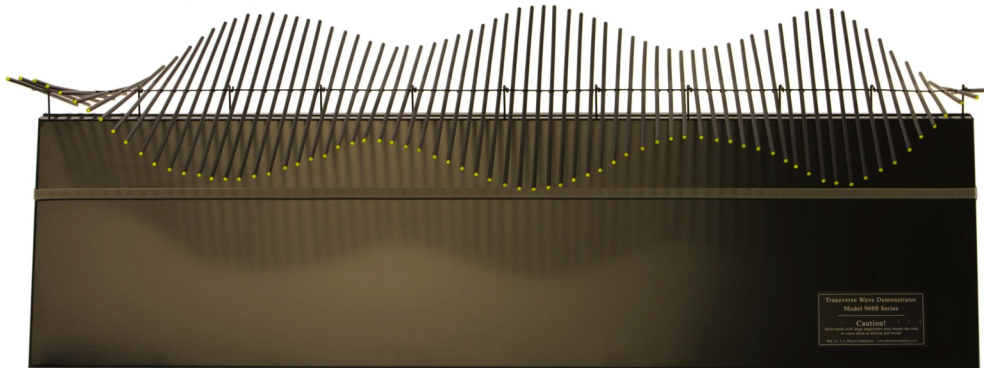

Torsion Pendula — Theory

March 18, 2025

We are going to do three notebooks on torsion pendula, and by the time we are done with the third it will become obvious that we are finally seeing waves.

Torsion Pendulum, Coupled Torsion Pendula, and Torsion Waves

Many physics departments own an apparatus like this:



Our goal is to set up the theory so that we can simulate in Mathematica what this thing does in real life. Note that it has 72 rods. We will progress from 1 rod, to 2 rods, and then do 72 rods.