Reading and HW #6 PHY360 Fall 2016 Due FRI 10/28/2016

Reading

Please read Chapter 5 (emphasis on many coupled oscillators) and chapter 6 of the textbook (A.P. French, "Vibrations and Waves").

Problem #1
Normal Modes 3 DOF

Problem 5-14 in French: Characterization of normal modes in system with 3 degrees of freedom (similar to quick sketch done with 3 masses demo in 10/16 lecture!)

Problem #2
String Theory!

Problem 6-1 in French: Normal modes of a continuous string, harmonic damping.

Problem #3
String Theory!

Problem 6-2 in French: Normal modes of a continuous string...compare to the discretuum!

Problem #4
LASERS

Problem 6-10 in French: Normal modes of electromagnetic waves in a cavity

Problem #5
Energy in Continuous Systems

Problem 6-11 in French: Energy in oscillating string - partitioning of energy into normal modes!