

# FYI: Gravitational Wave Detection

General relativity predicts that when massive objects accelerate, they produce time-dependent gravitational fields – gravitational waves – that propagate as “warpings” of spacetime at the speed of light. (similar to EM radiation from accelerated charge)

The effect is very tiny: E.g., estimated  $\Delta L/L$  of  $\sim 10^{-21}$  for in-spiraling binary neutron stars. How to detect this???

