

Wavelengths

$$\lambda_H = 100 \text{ m} \left(\frac{C_H}{1000 \text{ m/s}} \right) \left(\frac{10 \text{ Hz}}{f} \right)$$

300 to 6000 m/s

3 to 30 Hz

Damping Lengths

$$L_H = 1000 \text{ m} \left(\frac{C_H}{1000 \text{ m/s}} \right) \left(\frac{10 \text{ Hz}}{f} \right) \left(\frac{Q}{30} \right)$$

15 to 30

- Waves largely uncorrelated over 4 km distance
- Sources are local (on or near LIGO site)
 Wind, rain, cars, planes, people,
 oil pipelines, ...