

Quantifying sound

- ▶ Perceptual characteristics

- Loudness
- Pitch
- Timbre (tone color)

- ▶ Physical characteristics

- Intensity
- Frequency
- Time variation and harmonic spectrum

Frequency and pitch

- Pitch depends primarily (approximately) logarithmically on frequency
 - Pitch: Perceptual property
 - Frequency: Physical property
 - An expression of how frequently a periodic wave form or signal repeats itself at a given amplitude

$$f = \frac{1}{T}$$

