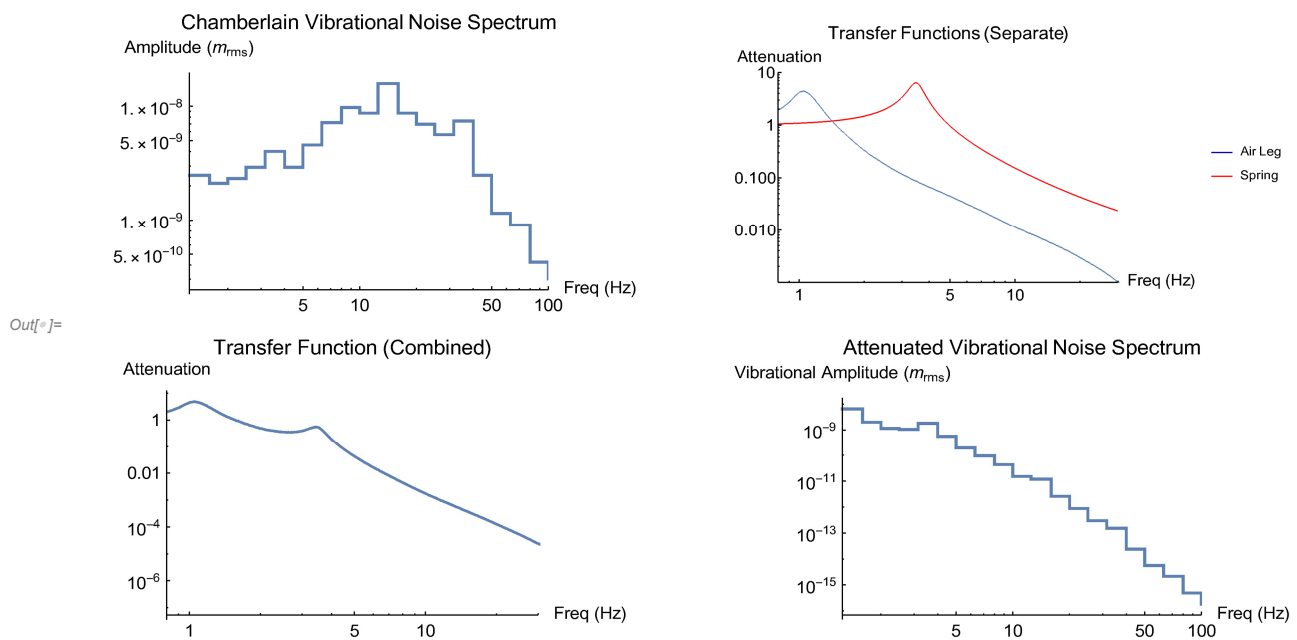


Vibrational Isolation - Damped Spring

Plots



Optimal Parameters

We know:

$$mg = k\Delta l \text{ \& \; } \omega_0 = \sqrt{k/m} \Rightarrow \omega_0 = \sqrt{\frac{g}{\Delta l}} \quad Q = \frac{1}{2\gamma}$$

Resonant Freq: $\omega_0 = 21.9911 \text{ rad/s}$

Damping: $\gamma = 1.75929$

Quality Factor: $Q = 0.284205$

Spring Stretched Length: $\Delta l = 2. \text{ cm}$