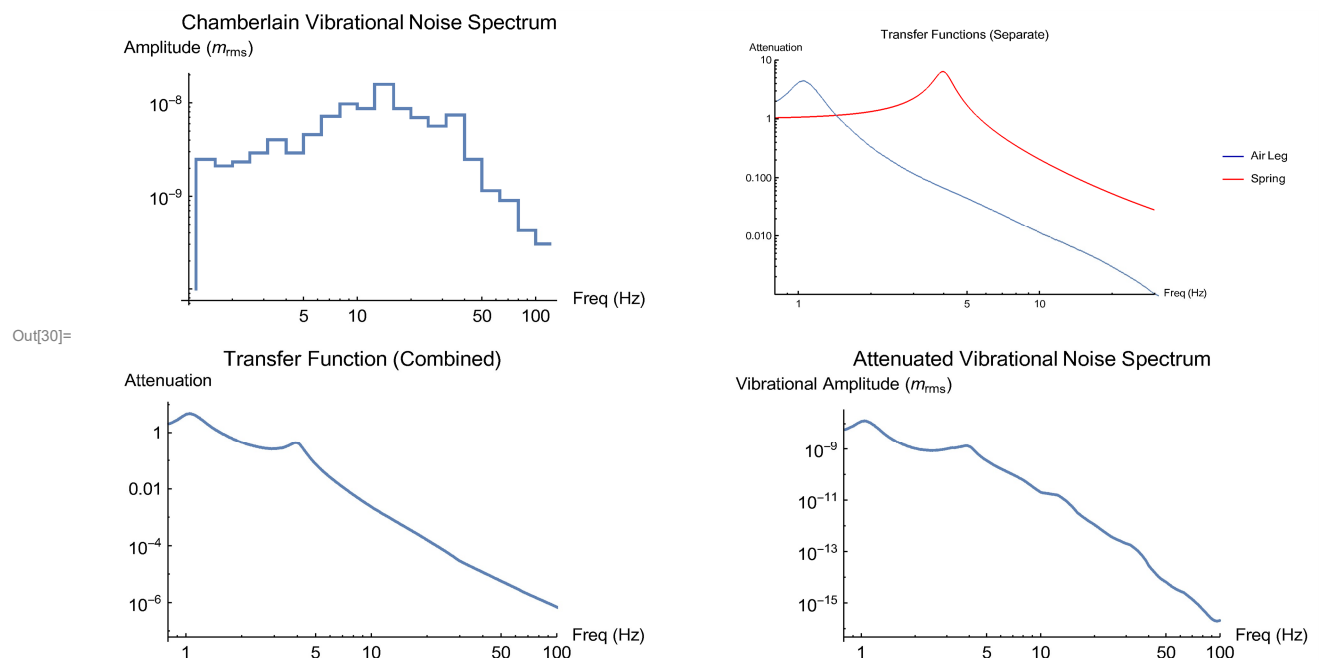


Vibrational Isolation - Damped Spring

Plots

```
In[30]:= GraphicsGrid[
  {{pltnoise, Magnify[plttrans, 0.6]}, {plttransmult, pltnoise2}}, ImageSize -> Full]
```



Optimal Parameters

We know:

$$mg = k \Delta l \quad \& \quad \omega_0 = \sqrt{k/m} \Rightarrow \omega_0 = \sqrt{\frac{g}{\Delta l}}$$

Resonant Freq: $\omega_0 = 25.1327 \text{ rad/s}$

Damping: $\gamma = 2.01062$

Spring Stretched Length: $\Delta l = 1.6 \text{ cm}$