

# Material Properties

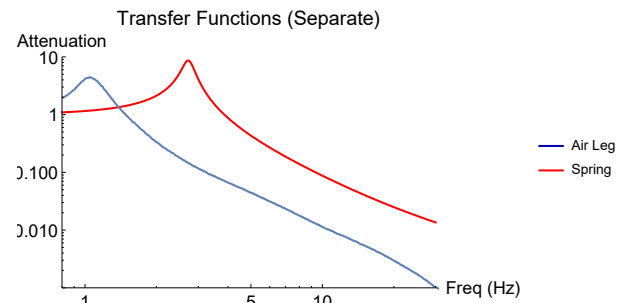
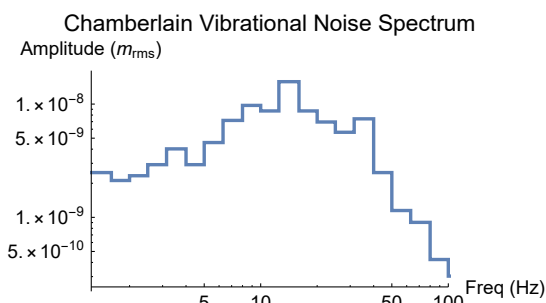
Setup

Applications

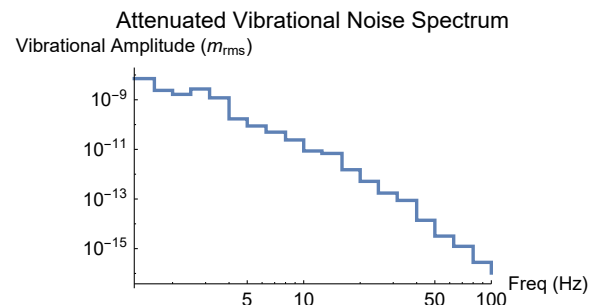
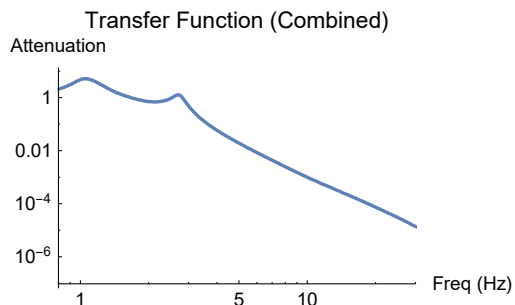
Spring Length

Spring (15 turns w/ damping)

```
In[72]:= plt7 = Magnify[outputTransferFunction[kS[0.9 * 10^-3, 1 * 10^-2, 15, 78 * 10^9], 1], 1.1]
```

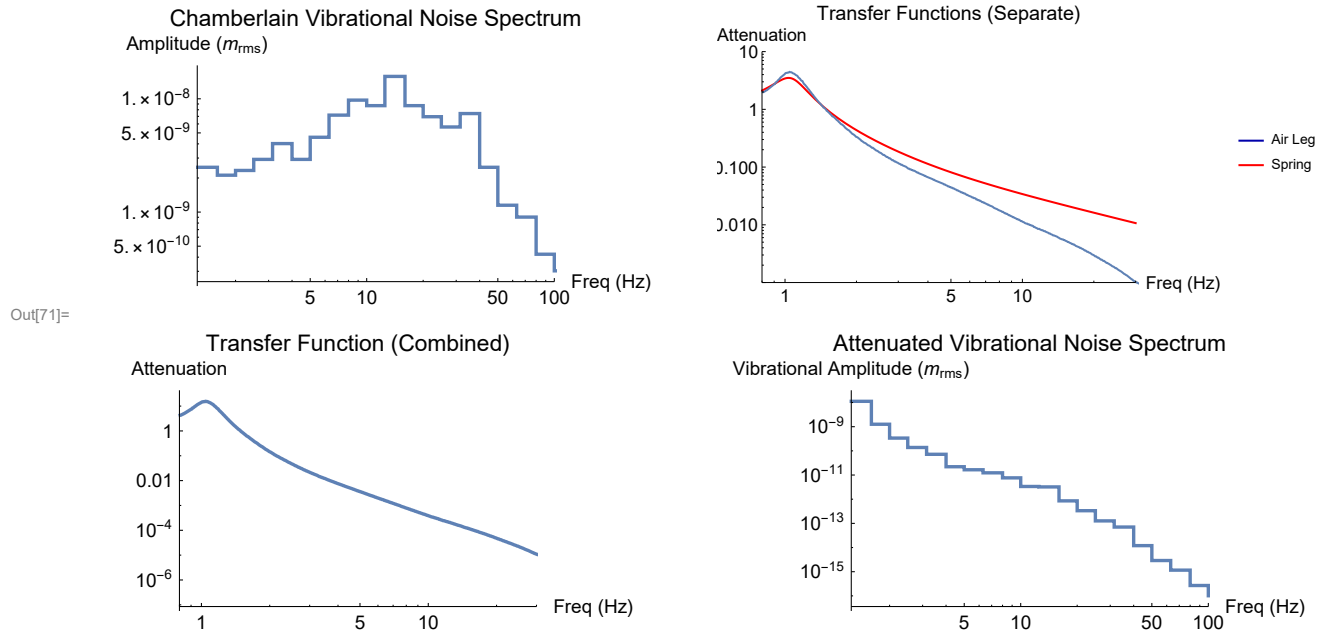


Out[72]=



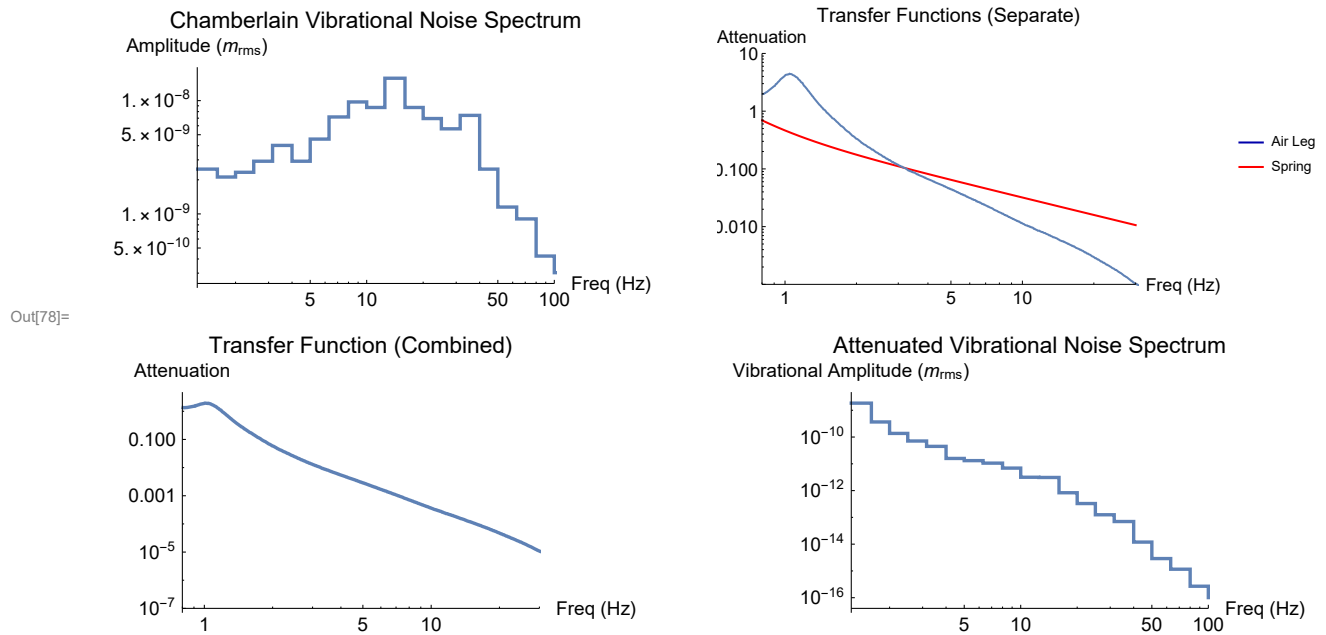
## Spring (100 turns w/ damping)

```
In[71]:= plt7 = Magnify[outputTransferFunction[kS[0.9 * 10-3, 1 * 10-2, 100, 78 * 109], 1], 1.1]
```



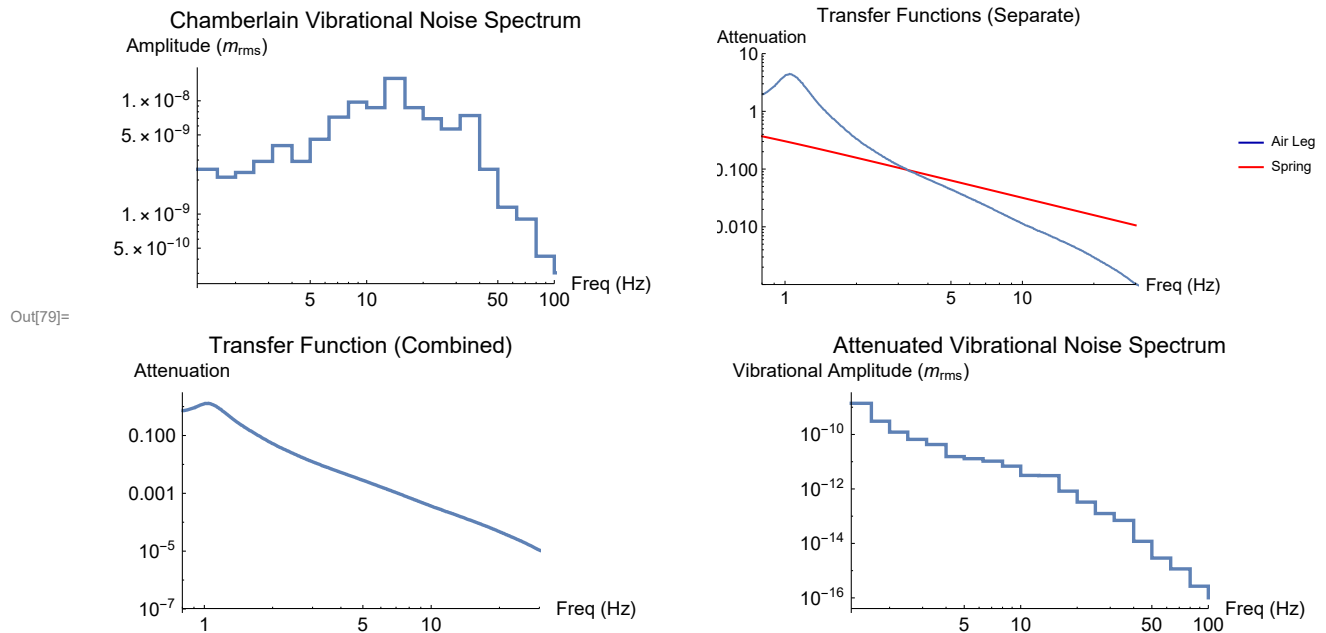
## Spring (500 turns w/ damping)

```
In[78]:= plt7 = Magnify[outputTransferFunction[kS[0.9 * 10-3, 1 * 10-2, 500, 78 * 109], 1], 1.1]
```



## Spring ( $\infty$ turns w/ damping)

```
In[79]:= plt7 = Magnify[outputTransferFunction[kS[0.9 * 10^-3, 1 * 10^-2, ∞, 78 * 10^9], 1], 1.1]
```



## Spring ( $\infty$ turns, no damping)

```
In[80]:= plt7 = Magnify[outputTransferFunction[kS[0.9 * 10^-3, 1 * 10^-2, ∞, 78 * 10^9], 0], 1.1]
```

