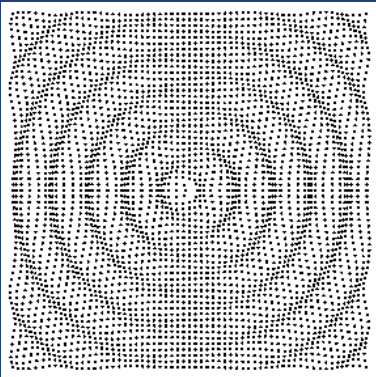


Signal-Wise: we get the signal right

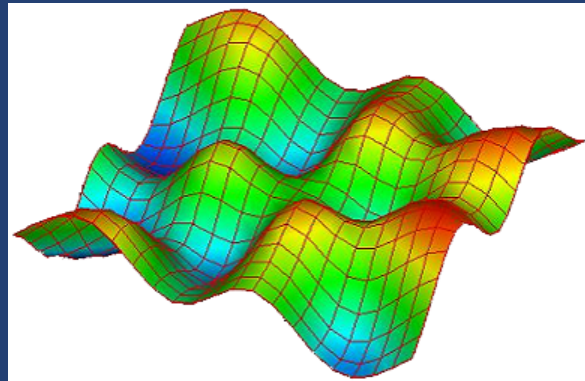
Sound Viewer

Sound and Vibration

Sound: One wave in the air, namely, compression and rarefaction wave.



Vibration: An infinite number of waves traveling inside a vibrating structure, each having a unique speed that may change with the frequency.



Misconception No. 1

Sound is generated by vibration. So, reducing structural vibrations reduces sound radiation.

Truth is:

1. Although sound is generated by vibrations, not all vibrations can produce sound.
2. In fact, only a small portion of structural vibrations can actually produce sound.

Misconception No. 2

Modal analysis reveals the natural modes and natural frequencies, which are directly related to the peaks of SPL spectrum.

Truth is:

1. Modal analysis has nothing to do with sound radiation.
2. Modal analysis can shed insight on structural vibrations, but not sound radiation.