

Shimming: Maximizing the Homogeneity of the Field

- Resonant frequency is proportional to magnetic field.

The peak's position in the spectrum (right to left) is its resonant frequency.

- NMR looks at a very narrow range of frequencies:

^1H Spectrum: 299.998 to 300.002 MHz

- One NMR peak is very narrow: about 1 Hz

So we want much less than 1 Hz in 300 MHz (3.33 ppb) variation in magnetic field strength throughout the sample.