



Resonance

R is independent of **f**

X_L increases with **f**

$$X_L = 2\pi fL$$

X_C decreases with **f**

$$X_C = 1/(2\pi fC)$$

Z: **X_L** and **X_C** subtract

$$Z = \sqrt{R^2 + (X_L - X_C)^2}$$

Resonance: X_L = X_C

$$f_0 = \frac{1}{2\pi\sqrt{LC}}$$

