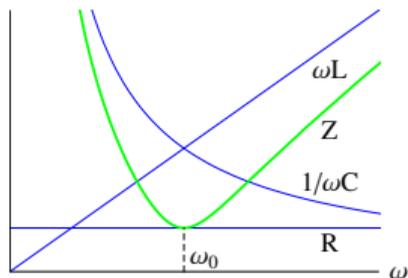


RLC Series Resonance (1)



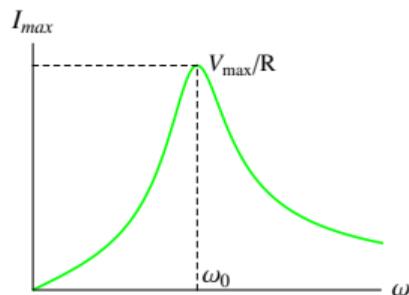
impedance

$$Z = \sqrt{R^2 + \left(\omega L - \frac{1}{\omega C}\right)^2}$$



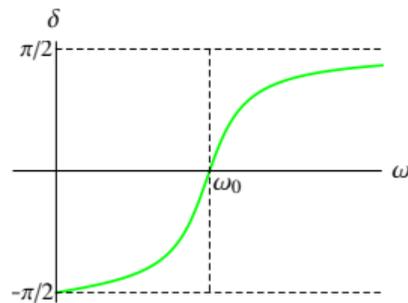
current

$$I_{max} = \frac{V_{max}}{\sqrt{R^2 + \left(\omega L - \frac{1}{\omega C}\right)^2}}$$



phase angle

$$\delta = \frac{\omega L - 1/\omega C}{R}$$



resonance angular frequency:

$$\omega_0 = \frac{1}{\sqrt{LC}}$$