

Summary of Resonance

- At resonance
 - Z is minimum ($=R$)
 - I_{\max} is maximum ($=V_{\text{gen,max}}/R$)
 - V_{gen} is in phase with I
 - $X_L = X_C$ $V_L(t) = -V_C(t)$
- At lower frequencies
 - $X_C > X_L$ V_{gen} lags I
- At higher frequencies
 - $X_C < X_L$ V_{gen} lead I

