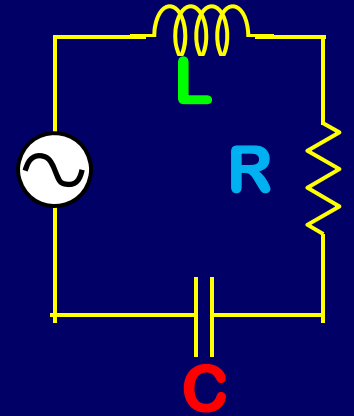


# Physics 102: Lecture 13

## AC Circuit Phasors



- $I = I_{\max} \sin(2\pi ft)$
- $V_R = I_{\max} R \sin(2\pi ft)$ 
  - $V_R$  in phase with  $I$
- $V_C = I_{\max} X_C \sin(2\pi ft - \pi/2)$ 
  - $V_C$  lags  $I$
- $V_L = I_{\max} X_L \sin(2\pi ft + \pi/2)$ 
  - $V_L$  leads  $I$

