Transfer function:

$$H(s)=\frac{(s-s_{z_1})(s+s_{z_2})}{(s-s_{p_1})(s-s_{p_2})}=\frac{s^2+\omega_o^2}{s^2+2\omega_o\cos(\theta)s+\omega_o^2}$$

Frequency response:

$$H(\omega)=H(s)\Big|_{s=j\omega}=\frac{\omega_o^2-\omega^2}{\omega_o^2-\omega^2+j2\omega_o\omega\cos(\theta)}$$

$$=\frac{1}{1+j\left(\frac{2\omega_o\omega\cos(\theta)}{\omega_o^2-\omega^2}\right)}$$

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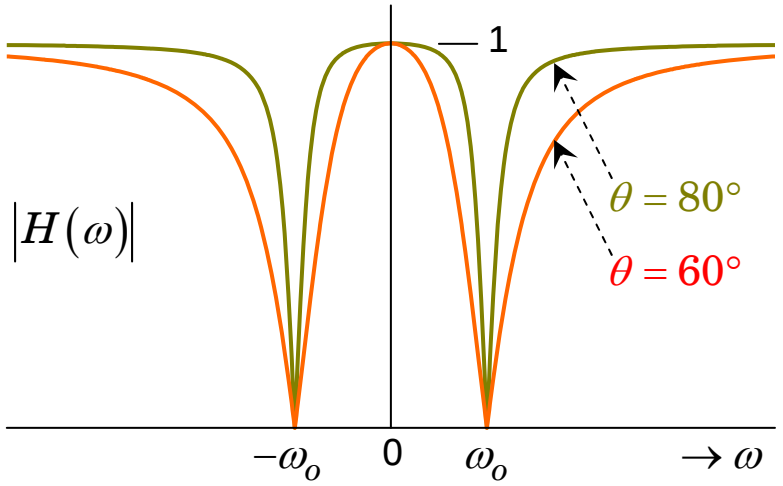
Magnitude response:

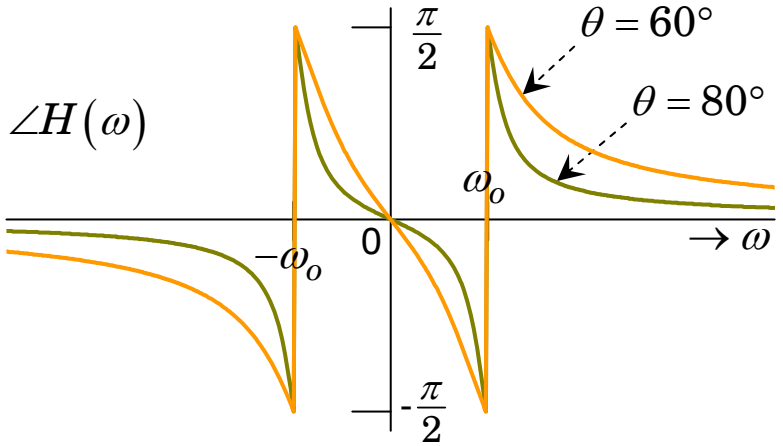
$$|H(\omega)|=\frac{|\omega_o^2-\omega^2|}{\left[(\omega_o^2-\omega^2)^2+4\omega_o^2\omega^2\cos^2(\theta)\right]^{0.5}}$$

Phase response:

$$\angle H(\omega)=-\tan^{-1}\left(\frac{2\omega_o\omega\cos(\theta)}{\omega_o^2-\omega^2}\right)$$



Magnitude Response $|H(\omega)|$



Phase Response $\angle H(\omega)$