

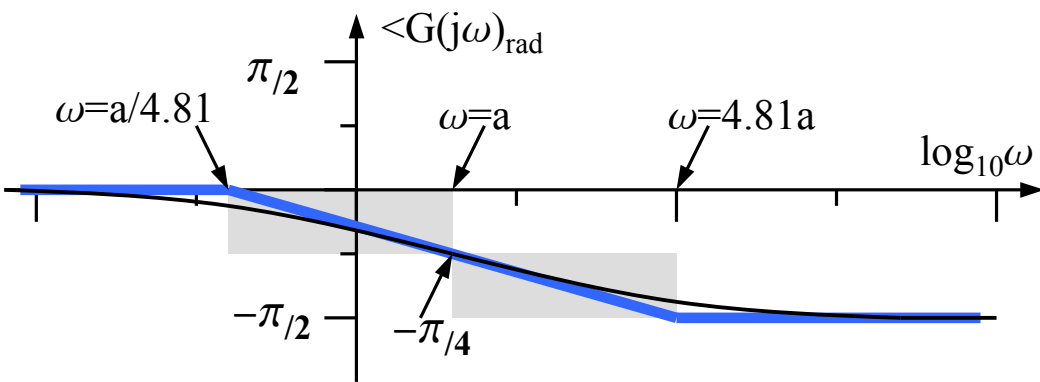
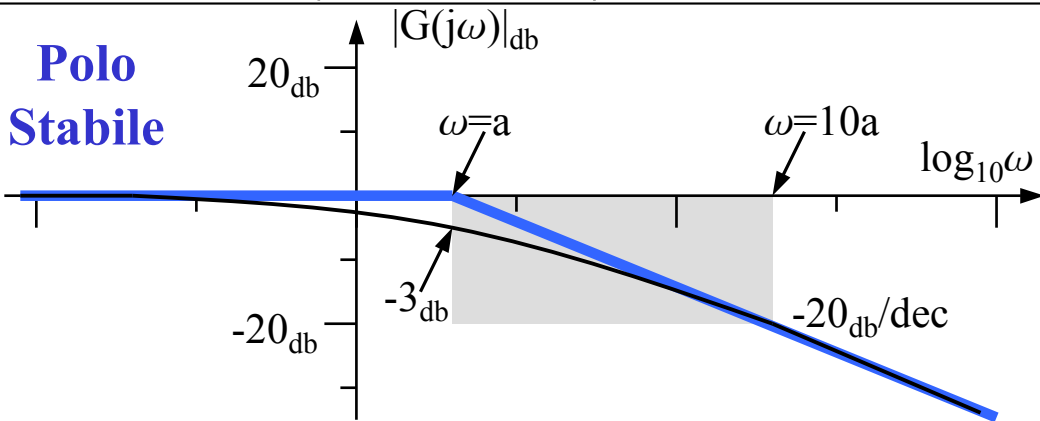
DIAGRAMMI DI BODE

Tabella Riassuntiva

Polo Semplice	$-20_{\text{db}}/\text{dec}$	$-\pi/2$	Polo Stabile
	$-20_{\text{db}}/\text{dec}$	$+\pi/2$	Polo INstabile
Zero Semplice	$+20_{\text{db}}/\text{dec}$	$-\pi/2$	Zero INstabile
	$+20_{\text{db}}/\text{dec}$	$+\pi/2$	Zero Stabile
Poli c.c.	$-40_{\text{db}}/\text{dec}$	$-\pi$	Poli c.c. Stabili
	$-40_{\text{db}}/\text{dec}$	$+\pi$	Poli c.c. INstabili
Zeri c.c.	$+40_{\text{db}}/\text{dec}$	$-\pi$	Zeri c.c. INstabili
	$+40_{\text{db}}/\text{dec}$	$+\pi$	Zeri c.c. Stabili

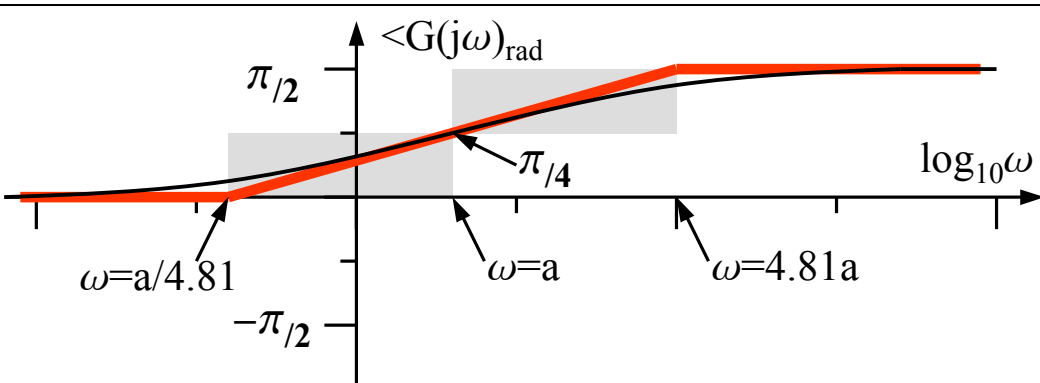
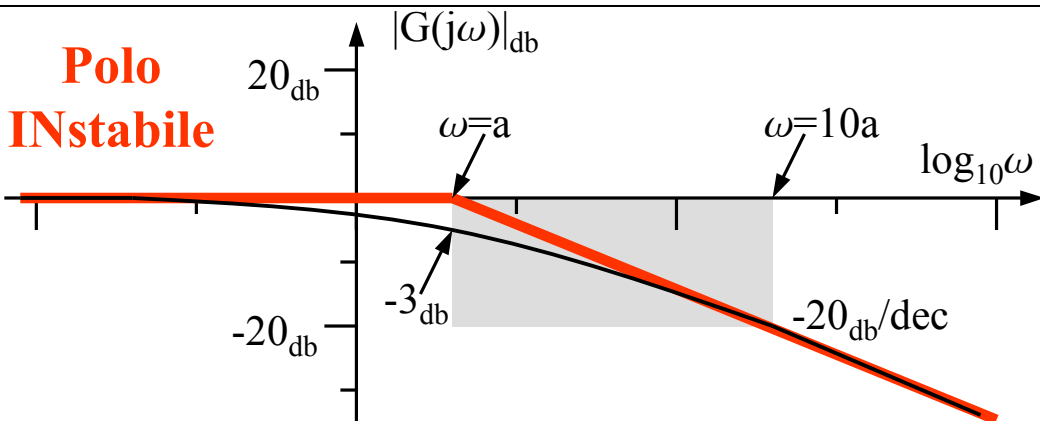
$$G(s) = \frac{1}{1 + \tau s} = \frac{a}{s + a} \quad a = \frac{1}{\tau} > 0$$

**Polo
Stabile**



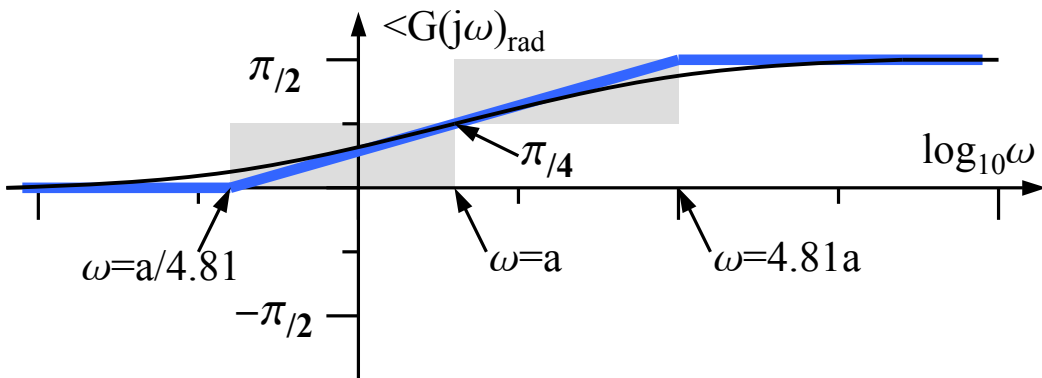
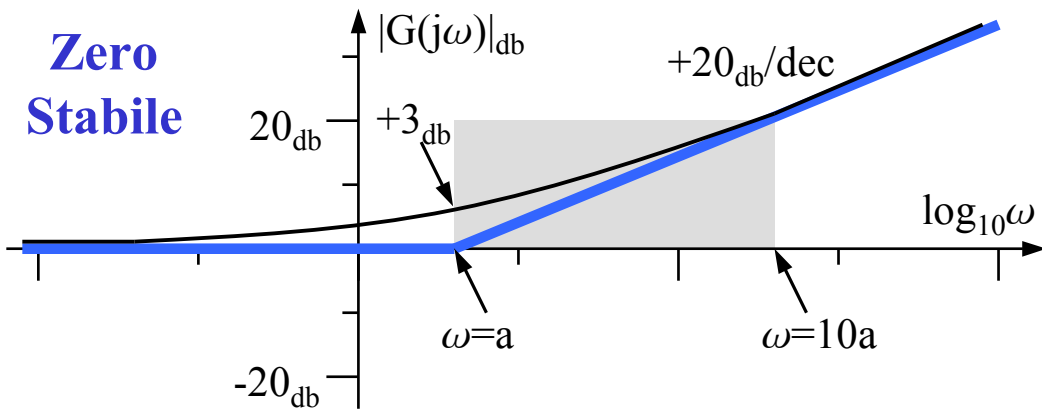
$$G(s) = \frac{1}{1 - \tau s} = \frac{-a}{s - a} \quad a = \frac{1}{\tau} > 0$$

**Polo
INstabile**



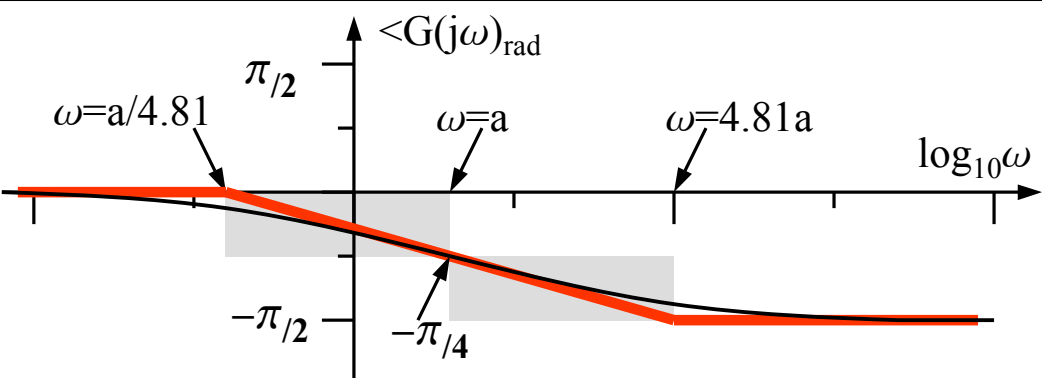
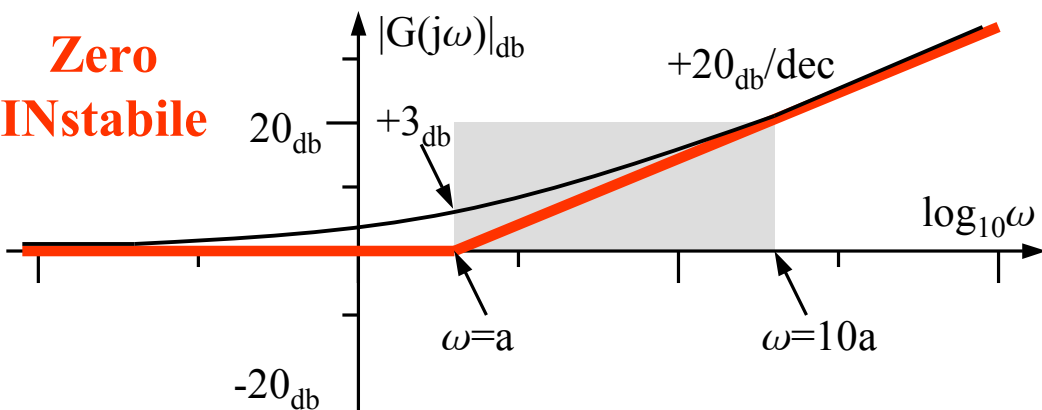
$$G(s) = (1 + \tau s) = \frac{s + a}{a} \quad a = \frac{1}{\tau} > 0$$

**Zero
Stabile**

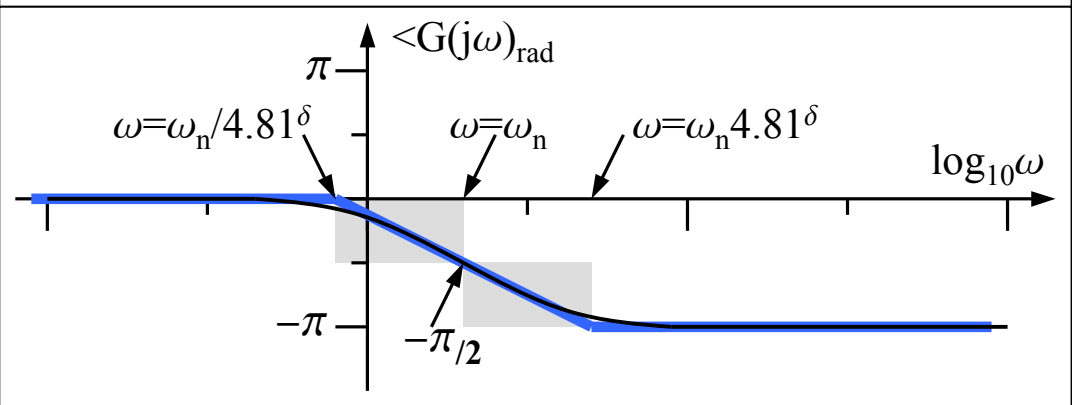
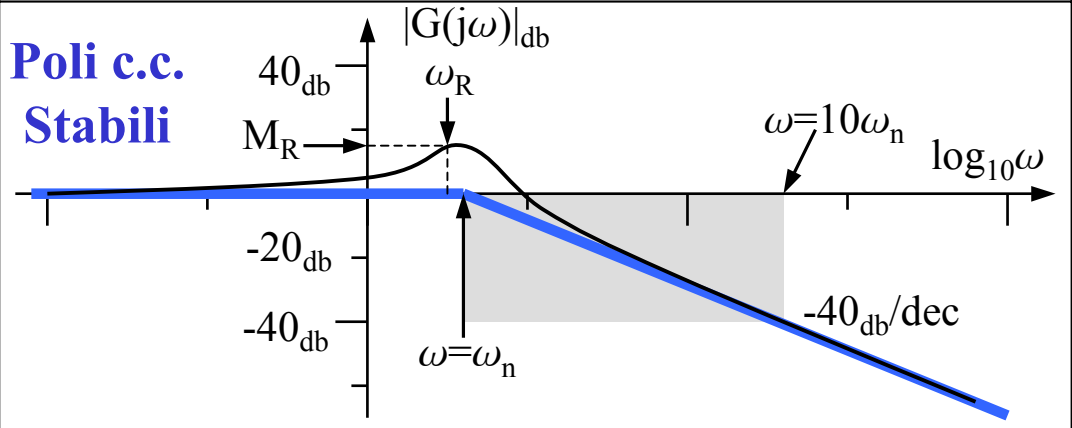


$$G(s) = (1 - \tau s) = \frac{a - s}{a} \quad a = \frac{1}{\tau} > 0$$

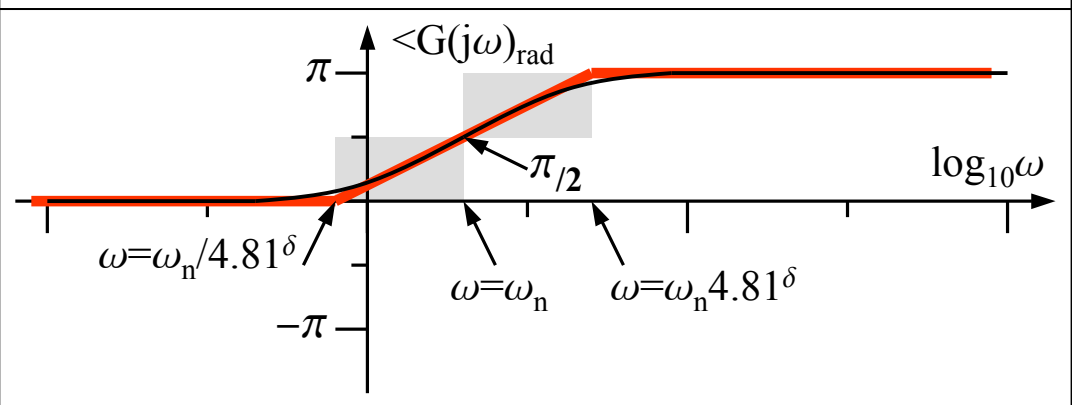
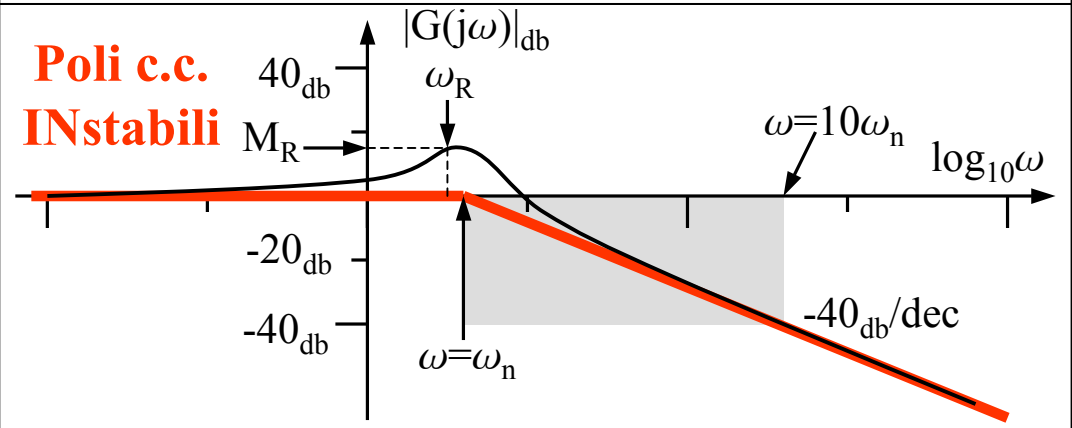
**Zero
INstabile**



$$G(s) = \frac{\omega_n^2}{s^2 + 2\delta\omega_n s + \omega_n^2} \quad \omega_n > 0 \quad \delta \in [0, 1[$$

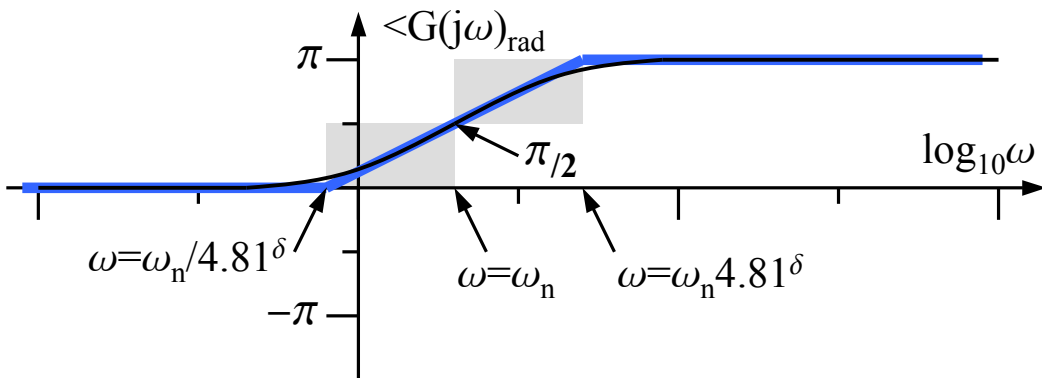
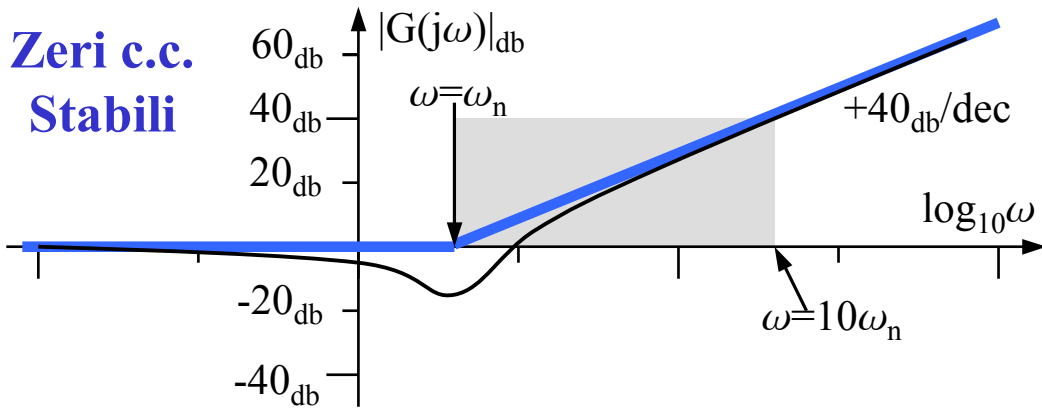


$$G(s) = \frac{\omega_n^2}{s^2 - 2\delta\omega_n s + \omega_n^2} \quad \omega_n > 0 \quad \delta \in [0, 1[$$



$$G(s) = \frac{s^2 + 2\delta\omega_n s + \omega_n^2}{\omega_n^2} \quad \omega_n > 0 \quad \delta \in [0, 1[$$

**Zeri c.c.
Stabili**



$$G(s) = \frac{s^2 - 2\delta\omega_n s + \omega_n^2}{\omega_n^2} \quad \omega_n > 0 \quad \delta \in [0, 1[$$

**Zeri c.c.
INstabili**

