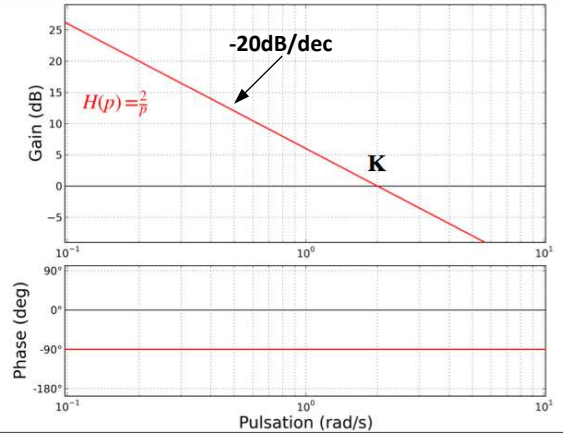
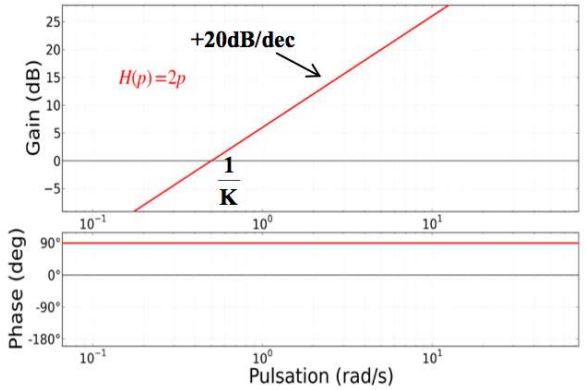
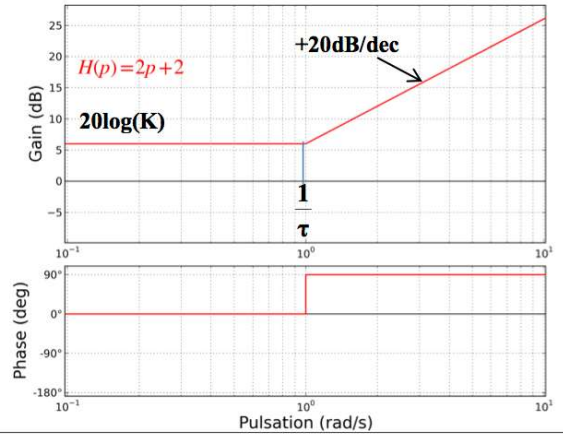
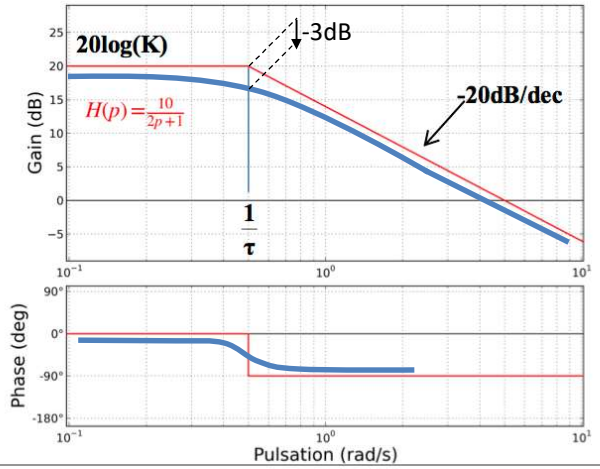
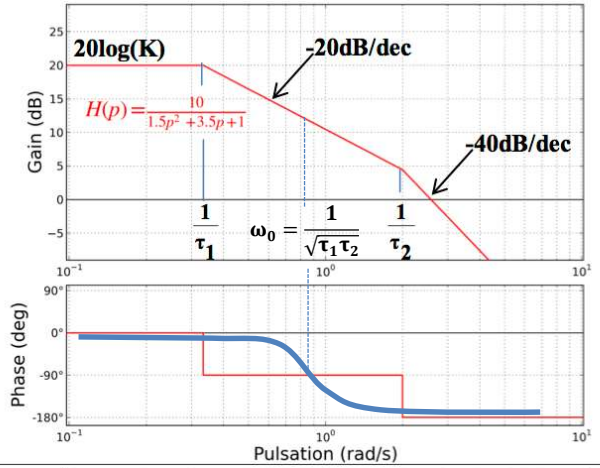
Réponse Harmonique - Synthèse

Fonction de transfert	Diagramme de bode
INTEGRATEUR $H(p)=\frac{K}{p}$	
DERIVATEUR PUR $H(p)=K.p$	
$H(p)=K(1+\tau p)$	

1°Ordre. $H(p)=\frac{K}{1+\tau p}$ $\varphi\left(\frac{1}{10\tau}\right)\simeq -6°$ $\varphi\left(\frac{10}{\tau}\right)\simeq -84°$	
2° Ordre Si $\xi > 1$ $H(p)=\frac{K}{(1+\tau_1 p).(1+\tau_2 p)}$	
Si $\xi \leq 1$: $H(p)=\frac{K}{1+\frac{2\xi}{\omega_0}p+\frac{1}{\omega_0^2}p^2}$ • $\frac{\sqrt{2}}{2} \leq \xi \leq 1$: pas de résonance • $0 < \xi < \frac{\sqrt{2}}{2}$: résonance Q : coef de surtension $Q=\frac{1}{2\xi.\sqrt{1-\xi^2}}$ et $\omega_r=\omega_0.\sqrt{1-2\xi^2}$