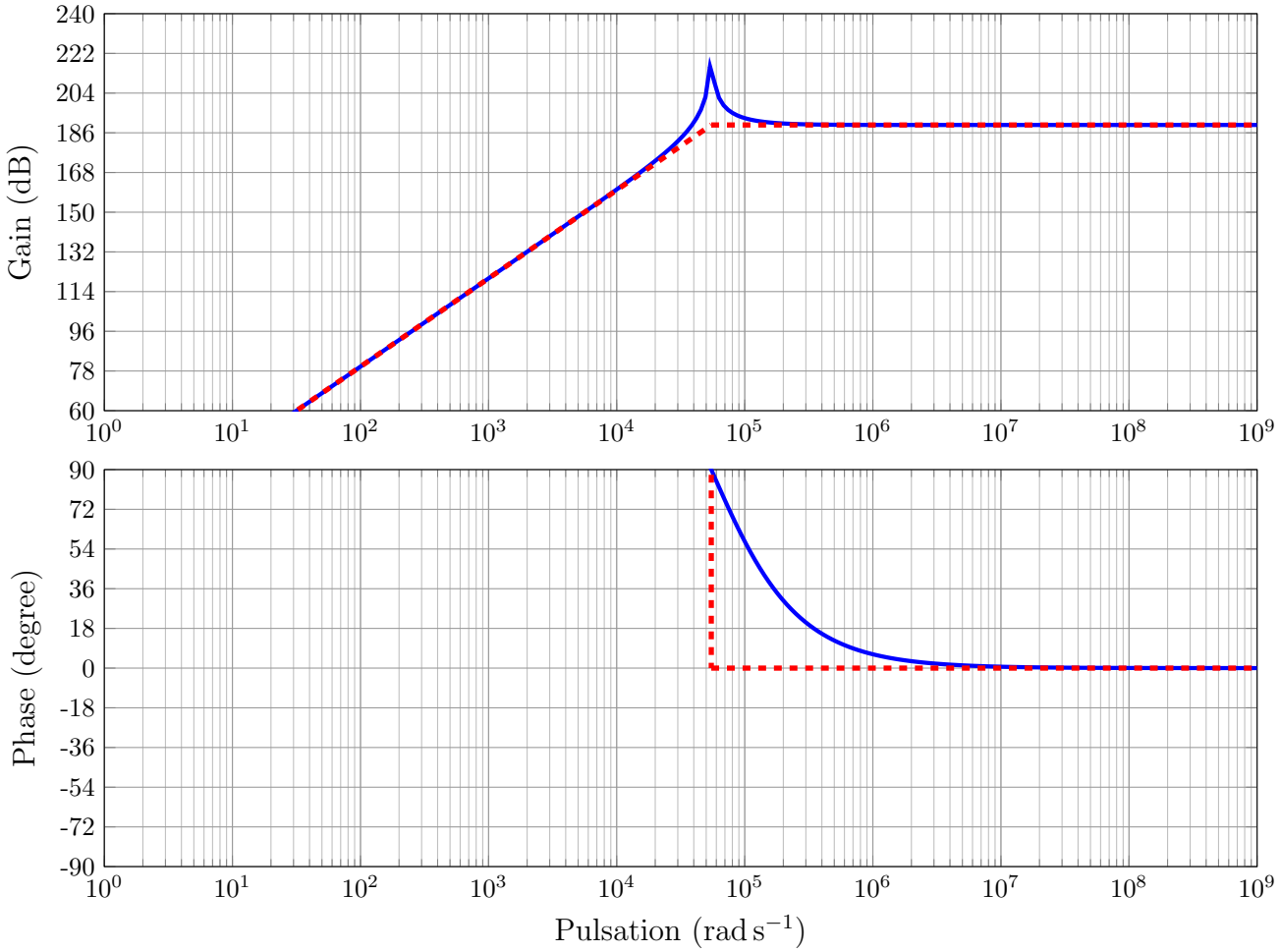
$$\boldsymbol{H(p) = \frac{p^2}{0.3 \cdot 10^{-9} p^2 + 1}}$$



Fonctions réelles du gain et du déphasage

$$G(\omega) = |H(j\omega)| = \frac{2999999999\left(-\omega^2\right)}{1 - \frac{3333333333333333\omega^2}{1000000000000000000000000}}$$

$$G_{dB}(\omega) = 189 + 40\log\omega - 20\log\left(1 + \left(\frac{\omega}{\omega_1}\right)^2\right)$$

$$\phi(\omega) = \arg H(j\omega) = 180 - 2\arctan\left(\frac{\omega}{\omega_1}\right)$$

Quelques valeurs particulières calculées

ω (rad s^{-1})	Gain (dB)	Phase (°)
1.00000	0.00000	-180.00000
7.94328	36.00000	-180.00000
63.09573	72.00001	-180.00000
501.18723	108.00073	-180.00000
3981.07171	144.04601	-180.00000
31622.77660	183.52183	-180.00000
54772.25575	**404.60715**	**-360.00000**
251188.64315	189.96555	-360.00000
1995262.31497	189.54897	-360.00000
15848931.92461	189.54253	-360.00000
125892541.17942	189.54243	-360.00000
1000000000.00000	189.54243	-360.00000