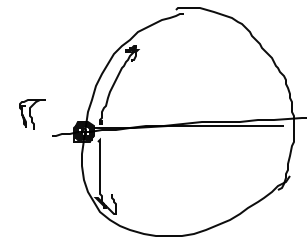
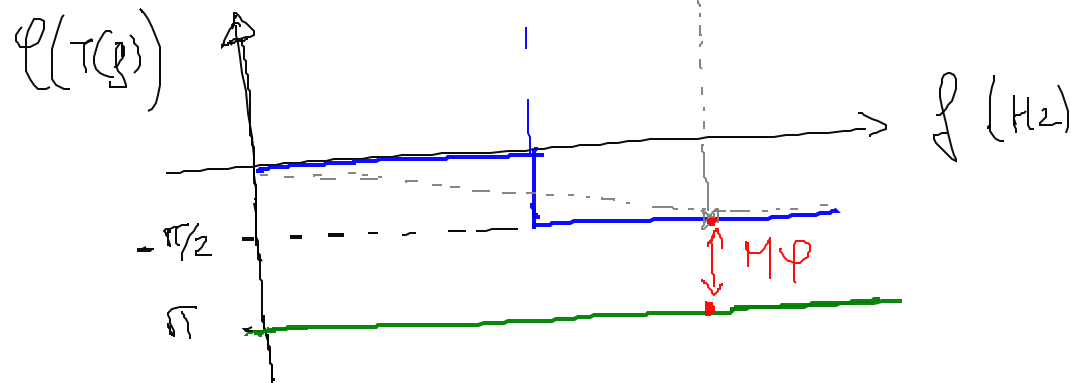
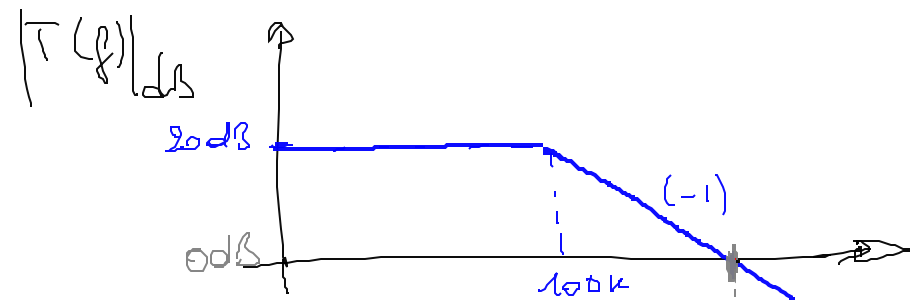


Gain de Bode

$$T(f) = A(f) \cdot H \Rightarrow |T(f)| = \frac{100 \cdot 0,1}{\sqrt{1+jf/f_c}} = \frac{10}{1+jf/f_c}$$



système instable qd $T(f) = -1$ $\begin{cases} |T(f)| = 1 \rightarrow 0 \text{ dB} \\ \varphi(\tau) = \pi \end{cases}$

qd $|T(f)|_{\text{dB}} = 0 \text{ dB}$ alors $\varphi(T(f)) = -\pi/2$ au max

Σ stable si $n\varphi = \pi(-\varphi(T(f))) > \pi/4$

1) après le dessin $n\varphi \simeq \pi/2 \Rightarrow$ donc Σ stable