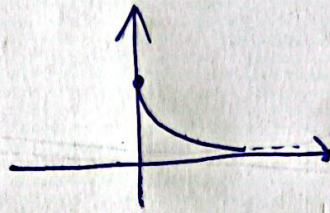


ES. 4

CONSIDERIAMO  $X(\omega) = \frac{A t_0}{1 + j\omega t_0}$  TRASFORMATA DEGLI  $t > 0$  DELLA

CUSPIDE DELL'ES. 3



$$\bullet V(\omega) = \frac{|X(\omega)|}{\pi} \quad \omega \geq 0$$

$$\rightarrow |X(\omega)| = \frac{|A t_0|}{|1 + j\omega t_0|} = \frac{A t_0}{\sqrt{1 + \omega^2 t_0^2}}$$

$\left. \begin{array}{l} \bullet t_0 \text{ SPORTE POSITIVO} \\ \bullet A \text{ SPORTE } > 0 \end{array} \right\} |z| = \sqrt{a^2 + b^2}$

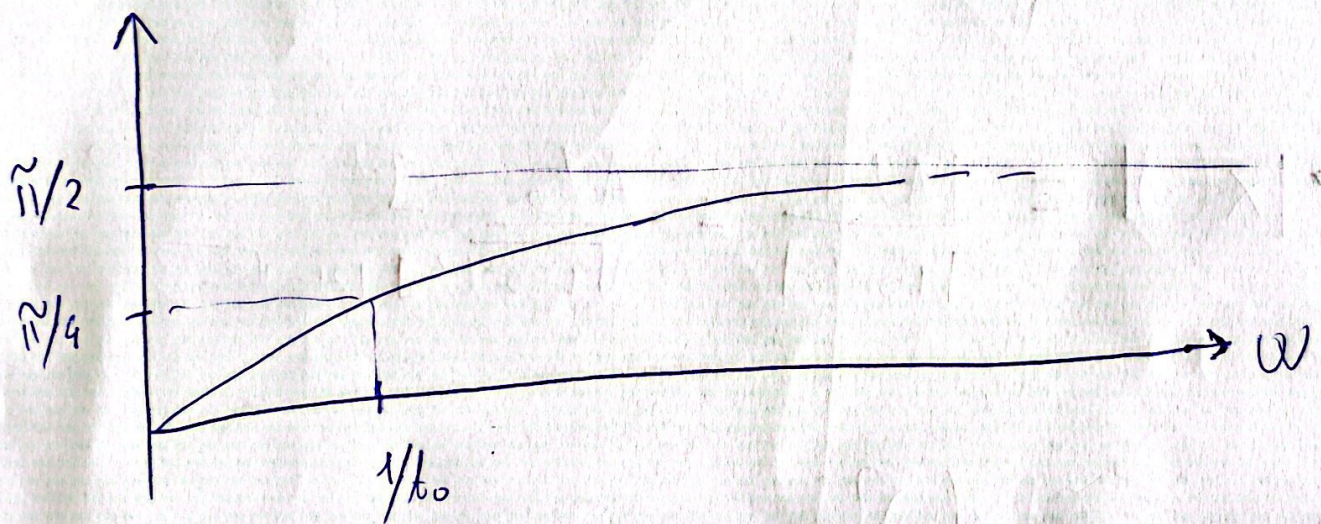
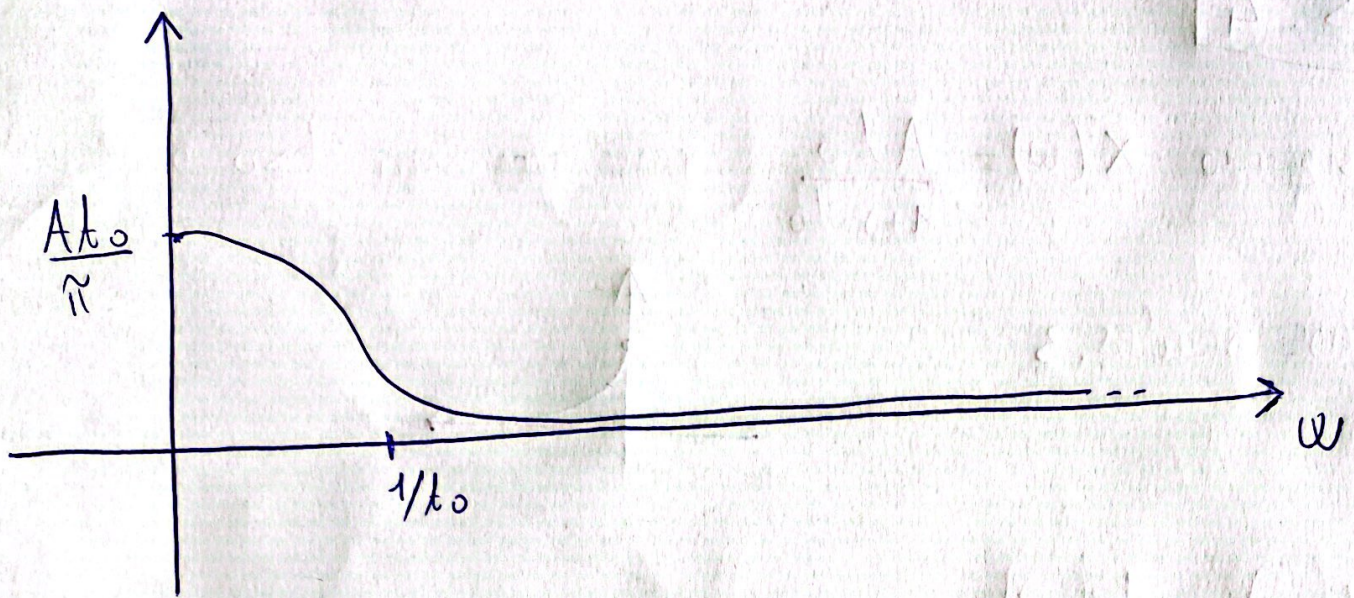
$$\bullet \varphi_m = -\arg\{X(\omega)\}$$

$$\rightarrow = -\arg\left\{\frac{A t_0}{1 + j\omega t_0}\right\} = \underbrace{-\arg\{A t_0\}}_{=0 \text{ PERCHÉ REALE}} + \arg\{1 + j\omega t_0\}$$

$$= \arg\{\arg(\omega t_0)\}$$

$$\left\{ \begin{array}{l} \vartheta = \arctan \frac{b}{a}, \quad a > 0 \\ \vartheta = \arctan \frac{b}{a} + \pi, \quad a < 0 \\ (a=1, b=\omega t_0) \end{array} \right.$$





$$\text{amplitude}(\omega\omega_0) = \frac{\tilde{\omega}}{2} \Leftrightarrow (\omega\omega_0) \rightarrow +\infty$$

$$\text{amplitude}(\omega\omega_0) = \frac{\tilde{\omega}}{4} \Leftrightarrow (\omega\omega_0) = 1$$