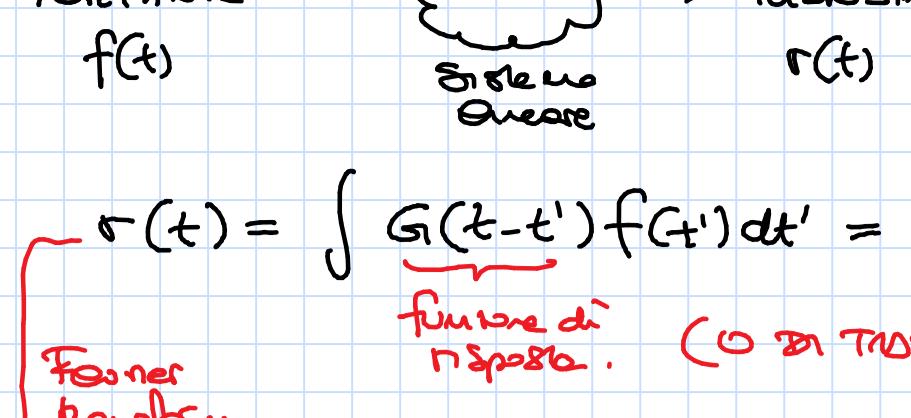


LEZIONE 250926

ଫୁଲମ୍ବା ଡି USB STA



Response

$$\hat{f}(\omega) = \hat{G}(\omega) \cdot \hat{f}(\omega)$$

What means $\hat{G}(\omega)$?

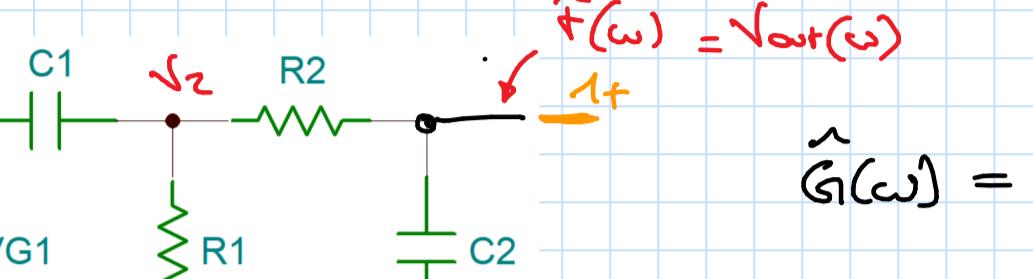
IR = IMPROVISIVE RESPONSE $f(t) = S(t)$

$S(t) \rightarrow \{S_t\} \sim G(t) \rightarrow \hat{G}(\omega)$

Cw = CONTINUOUS WAVE

$$e^{j\omega t}$$

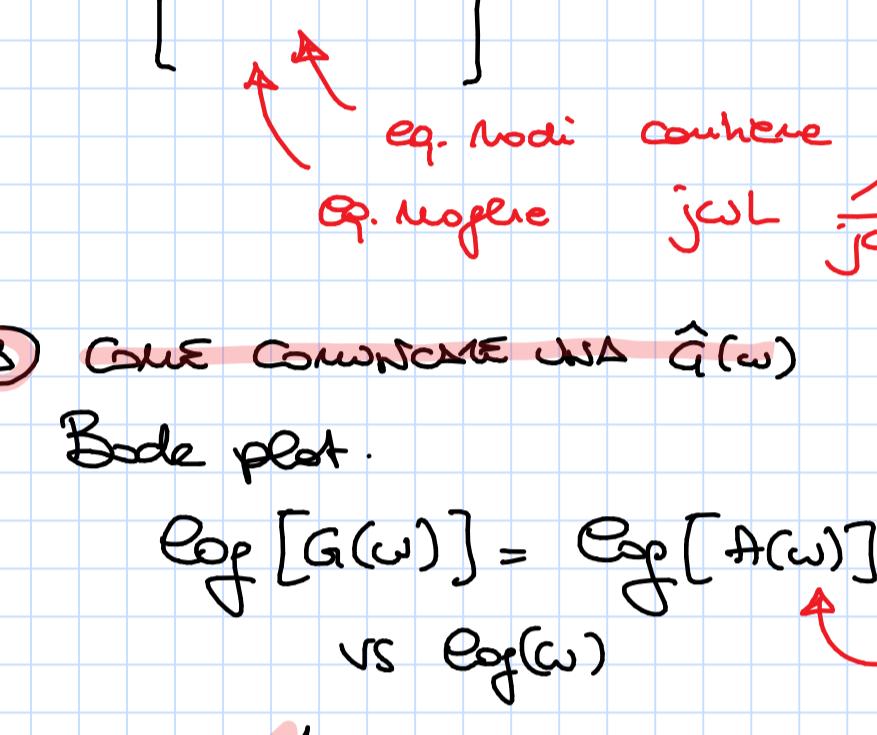
~~As specific SNR into:~~ Rehi elettriche poss



$$(\omega) = \hat{\sqrt{m}}(\omega)$$

$$V_{out} = \frac{V_2}{R_2 + \frac{1}{j\omega C_2}} = \frac{1 + j\omega R_2}{1 + j\omega R_2 + \frac{1}{j\omega C_2}}$$

$$\text{MÄTRICE} \quad \xrightarrow{\quad} \quad \text{COMBIN} = \quad \xrightarrow{\quad} \quad \text{FORTRAN}$$



$$G(\omega) = \frac{A(\omega)B(\omega)}{C(\omega)}$$

ω ← RADICE
LEALE
→ del prendisuo
della TRASFORMATO
DI CHIACE

- 1,

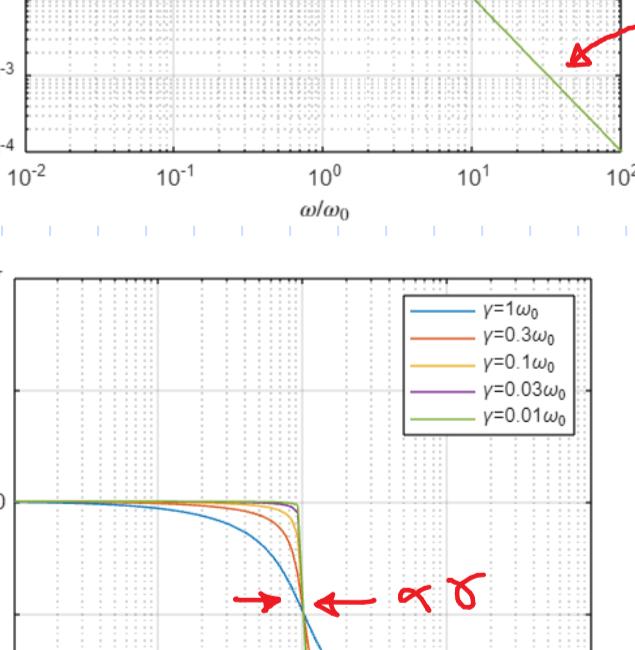
A Bode plot illustrating the frequency response of a low-pass filter. The x-axis represents frequency ω , and the y-axis represents magnitude $|G|$.

- Magnitude Plot:** The solid blue curve represents the magnitude $|G|$. It starts at 0^0 dB at $\omega = 0$ and decreases as ω increases. A dashed red line follows the curve initially. At $\omega \ll 1/\tau$, the magnitude is approximately $20 \log_{10} 1/\sqrt{2}$ dB, which is labeled as -3dB . As $\omega \gg 1/\tau$, the magnitude decreases linearly with a slope of -20dB/decade .
- Phase Plot:** The solid blue curve represents the phase angle, starting at 0^0 at $\omega = 0$ and decreasing to -90^0 at $\omega \gg 1/\tau$.
- Annotations:**
 - $\omega \ll 1/\tau$: The region where the magnitude is constant at 0^0 dB.
 - $|G| \sim 1$: The value of the magnitude at low frequencies.
 - "roll-off-off": A label indicating the transition from the flat region to the roll-off.
 - $\omega = 1/\tau$: The corner frequency where the magnitude begins to roll off.
 - $G = \frac{1}{1+i}$: The formula for the magnitude at low frequencies.
 - $20 \log_{10} 1/\sqrt{2}$: The magnitude at the -3 dB point.
 - $\omega \gg 1/\tau$: The region where the magnitude decreases linearly.

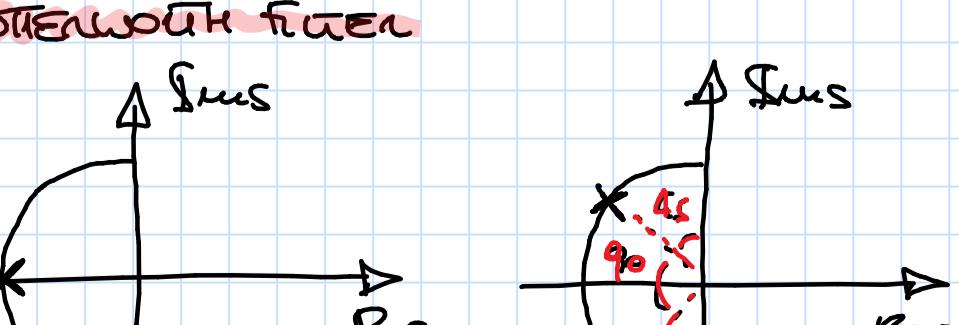
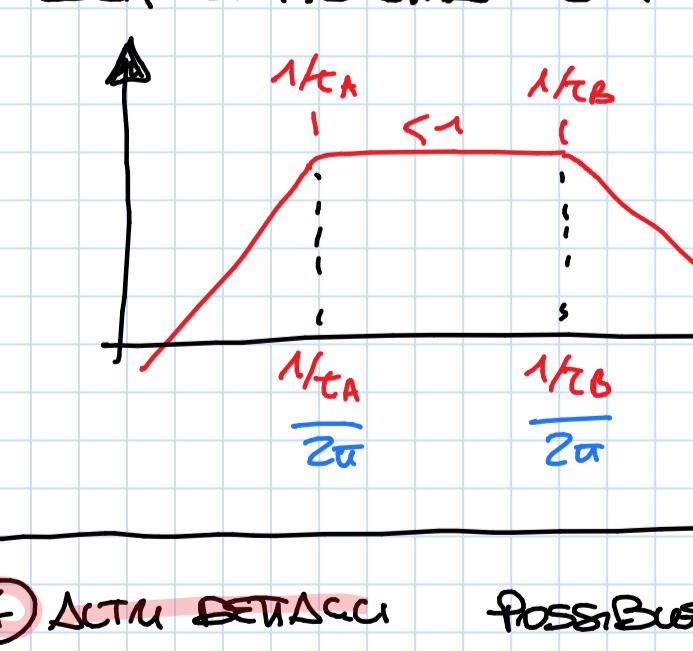
$$\frac{1}{c^2 - c_+^2}$$

A hand-drawn diagram on lined paper. At the top left, the letters 'Co' and 'M' are written above a horizontal line. Below this line, the letter 'm' is written next to a short vertical line. A thick horizontal line extends from the right end of the 'm' line downwards and to the right, ending at a point labeled 'r' with an arrow. To the right of this point, there is a red squiggle and a red bracket underneath it.

$$= \frac{C_{\text{ext}}}{\delta}$$



A horizontal black line is plotted on a grid of light blue squares. The line is perfectly straight and extends across the width of the grid.



The diagram illustrates three cases of the label 'res' placed on a vertical line. In each case, a curved arrow points from the label to a specific point on the line. The first case shows a single label 'res' above a single curved arrow. The second case shows a label 'res' above two curved arrows, one pointing up and one pointing down. The third case shows a label 'res' above three curved arrows, one pointing up and two pointing down.

