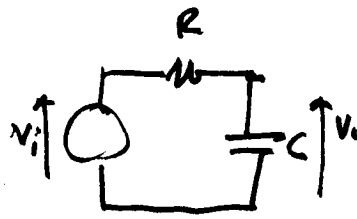


Riprendiamo da' letta: RC e CR.



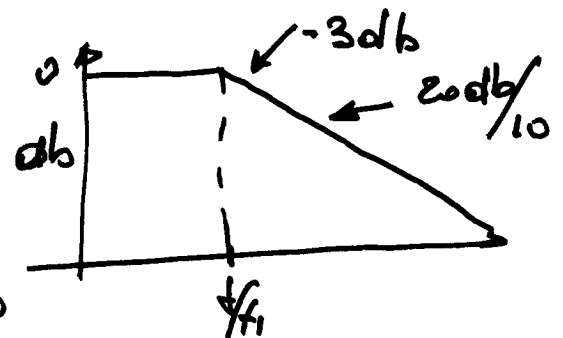
$$\left| \frac{v_u}{v_i} \right|_{\text{in db}} = 20 \lg \left[\frac{1}{1 + \left(\frac{f}{f_1} \right)^2} \right]^{\frac{1}{2}} =$$

$$= 10 \lg \frac{1}{1 + \left(\frac{f}{f_1} \right)^2} = -10 \lg \left[1 + \left(\frac{f}{f_1} \right)^2 \right]$$

1) Se f/f_1 piccolo $\left| \frac{v_u}{v_i} \right| = 10 \lg 1 = 0$

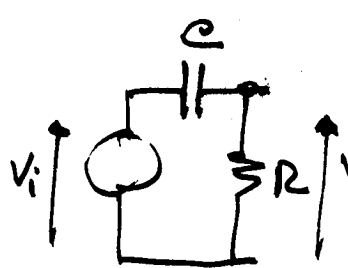
2) Se $f/f_1 = 1 = 10 \lg \frac{1}{2} = -10 \lg 2 = -3 \text{ db}$

3) Se $f/f_1 \gg 1 = 10 \lg \frac{1}{\left(\frac{f}{f_1} \right)^2} = -20 \lg \frac{f}{f_1}$



↳ Polo:

- diagramma ad un polo
- diagramma di Bode



$$\left| \frac{v_u}{v_i} \right| = \frac{1}{\sqrt{1 + \left(\frac{f}{f_1} \right)^2}} \quad \left| \frac{v_u}{v_i} \right|_{\text{db}} = 20 \lg \left[\frac{1}{1 + \left(\frac{f}{f_1} \right)^2} \right]^{\frac{1}{2}} =$$

$$= -10 \lg \left[1 + \left(\frac{f}{f_1} \right)^2 \right]$$

1) Se $f \ll f_1 = -20 \lg \frac{f}{f_1}$

2) Se $f = f_1 = -10 \lg 2 = -3 \text{ db}$

3) Se $f \gg f_1 = -10 \lg 1 = 0$

