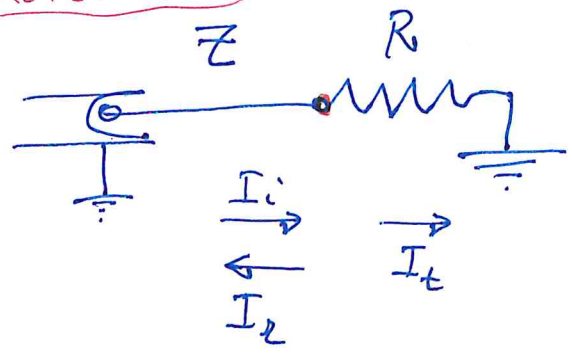


(WAVE) REFLECTION

$$\left\{ \begin{aligned} V_i &= Z I_i \\ V_r &= -Z I_r \\ V_t &= R I_t \end{aligned} \right.$$



$$\rho = \frac{V_r}{V_i}$$

coefficiente di riflessione

$$\left\{ \begin{aligned} V_t &= V_i + V_r \\ I_t &= I_i + I_r \end{aligned} \right.$$

← condizioni di continuità nel nodo

~~$V_t = I_i$~~

$$\rho = \frac{-Z I_r}{Z I_i} = -\frac{I_r}{I_i}$$

quindi

$$\left\{ \begin{aligned} V_t &= V_i (1 + \rho) \\ I_t &= I_i (1 - \rho) \end{aligned} \right. \Rightarrow R = \frac{V_t}{I_t} = \frac{V_i}{I_i} \left( \frac{1 + \rho}{1 - \rho} \right) = Z \frac{1 + \rho}{1 - \rho}$$

e quindi

$$\rho = \frac{R - Z}{R + Z}$$

$R > Z \Rightarrow \rho > 0 \Rightarrow$  potenza riflessa  $> V_i$