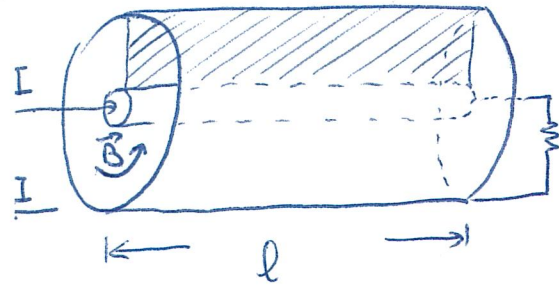
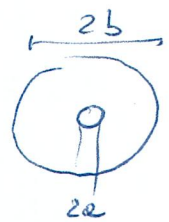


ESEMPIO

CAVO COASSIALE IN "BASSA" FREQUENZA
CON PERDITE TRASCURABILI



$$L = \frac{1}{I} \phi_s(B)$$

$$S = (b-e)l \quad dS = l dz$$

$$B = \frac{\mu_0 I}{2\pi z}$$

$$\phi(B) = \int_a^b B dS = \frac{\mu_0 I l}{2\pi} \int_a^b \frac{dz}{z} = \frac{\mu_0 I l}{2\pi} \ln(b/e)$$

$$L = \frac{\mu_0}{2\pi} \ln(b/e)$$

$$[L] = H/m$$

$$C = \frac{1}{l} \frac{Q}{V}$$

$$E = \frac{Q}{2\pi \epsilon_0 z} \frac{1}{l}$$

$$V = V(a) - V(b) = \int_a^b E dz = \frac{Q}{2\pi \epsilon_0 l} \int_a^b \frac{dz}{z} = \frac{1}{l} \frac{Q}{2\pi \epsilon_0 \epsilon_r} \ln(b/e)$$

$$C = \frac{2\pi \epsilon_0 \epsilon_r}{\ln(b/e)}$$

$$[C] = F/m$$

COSTANTI PRIMARIE

$$\tilde{Z}_s = j\omega L = j\omega \frac{\mu_0}{2\pi} \ln(b/e)$$

$$\tilde{Y}_p = j\omega C = j\omega \frac{2\pi \epsilon_0 \epsilon_r}{\ln(b/e)}$$

COSTANTI SECONDARIE

$$k_z^2 = \omega^2 LC = \mu_0 \epsilon_0 \epsilon_r \omega^2 \quad k_z = n \frac{\omega}{c} !!$$

$$Z_0 = \sqrt{\frac{L}{C}} = \frac{1}{2\pi} \sqrt{\frac{\mu_0}{\epsilon}} \ln(b/e) = \frac{377}{2\pi n} \ln(b/e)$$

$$Z_0 = 377 \Omega$$

?? CHE TIPO
E' ?