

modo TEM del cavo coassiale

$$\Phi^{\circ} = \frac{\ln(r_e/r)}{\ln(r_e/r_i)}$$

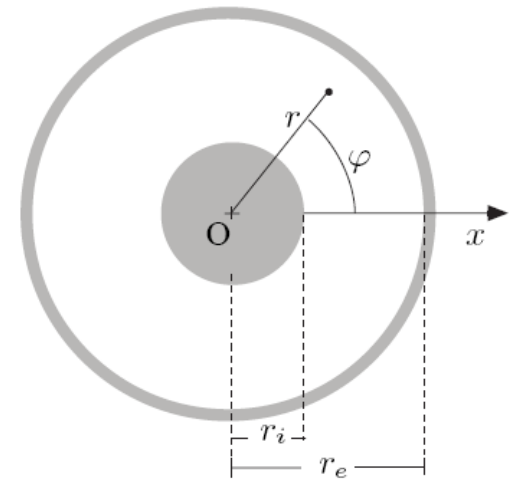
$$\vec{e}^{\circ} = \frac{1}{r \ln(r_e/r_i)} \vec{u}_r$$

$$\vec{h}^{\circ} = \frac{Z_c}{\eta} \vec{u}_z \times \vec{e}^{\circ} = \frac{1}{2\pi r} \vec{u}_{\varphi}$$

$$Z_c = \frac{\eta}{2\pi} \ln(r_e/r_i)$$

$$\vec{E}^{\circ}(r, \varphi, z) = \vec{e}^{\circ}(r, \varphi) V(z)$$

$$\vec{H}^{\circ}(r, \varphi, z) = \vec{h}^{\circ}(r, \varphi) I(z)$$



il primo modo superiore è il TE_{11} : $\lambda_{11}'' \approx \pi (r_i + r_e)$