

Esercizio 3.05

$$A = \frac{\pi}{4} l^2 (1 - \alpha^2)$$

$$W_{xx} = W_{yy} = \frac{\pi}{64} l^4 (1 - \alpha^4)$$

$$W_p = \frac{\pi}{16} l^3 (1 - \alpha^4)$$

$$M_{xx_{A-A}} = (q \cdot \beta l) \cdot \left(l - \frac{\beta l}{2} \right)$$

$$M_{yy_{A-A}} = (q \cdot \beta l) \cdot (\lambda l)$$

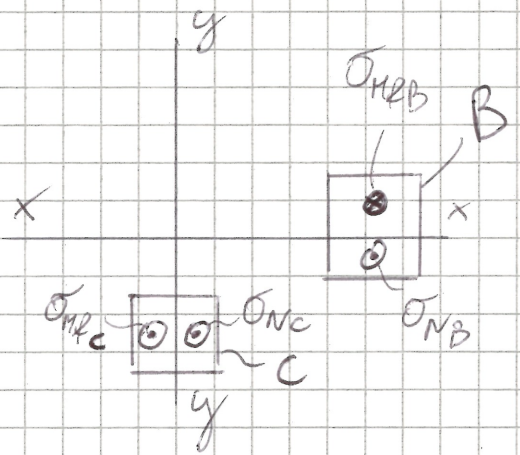
$$\sigma_{M_A} = -\frac{M_{xx_{A-A}}}{W_{xx}}; \quad \sigma_{M_B} = \frac{-M_{yy_{A-A}}}{W_{yy}}; \quad \sigma_{M_C} = +\frac{M_{xx_{A-A}}}{W_{xx}}$$

$$N_{A-A} = q \cdot \beta l$$

$$\sigma_{N_A} = \sigma_{N_B} = \sigma_{N_C} = + \frac{q \cdot \beta l}{A}$$

$$M_{A-A} = \emptyset$$

$$T_{M_A} = T_{M_B} = T_{M_C} = \emptyset$$



$$\sigma_{1-2_B} = \frac{(\sigma_{M_B} + \sigma_{N_B})}{2} \pm \sqrt{\left(\frac{\sigma_{M_B} + \sigma_{N_B}}{2} \right)^2} = \begin{cases} \sigma_1 = \sigma_{M_B} + \sigma_{N_B} \\ \sigma_2 = \emptyset \end{cases}$$

$$\sigma_{1-2_C} = \begin{cases} \sigma_1 = \sigma_{M_C} + \sigma_{N_C} \\ \sigma_2 = \emptyset \end{cases}$$