

# Esercizio 3.05

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

$$W_{xx} = W_{yy} = \frac{\pi}{32} l^3 (1 - \alpha^4)$$

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

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

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

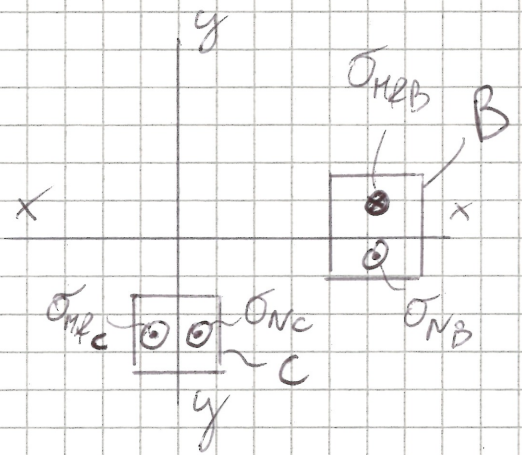
$$\sigma_{MfA} = -\frac{M_{f_{xx} A-A}}{W_{xx}}; \quad \sigma_{MfB} = \frac{-M_{f_{yy} A-A}}{W_{yy}}; \quad \sigma_{MfC} = +\frac{M_{f_{xx} A-A}}{W_{xx}}$$

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

$$\sigma_{NA} = \sigma_{NB} = \sigma_{NC} = + \frac{q \cdot \beta l}{A}$$

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

$$T_{MfA} = T_{MfB} = T_{MfC} = \emptyset$$



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

$$\sigma_{1-2C} = \begin{cases} \sigma_1 = \sigma_{MfC} + \sigma_{NC} \\ \sigma_2 = \emptyset \end{cases}$$