Esercizio 3.04.

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

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

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

$$J_p = \frac{\pi l^4 (1 - \alpha)}{32}$$

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

$$\sigma_{f_{A_{AA}}} = \emptyset \; ; \; \sigma_{f_{B_{A-A}}} = \frac{\beta l_q \cdot \lambda l}{W_{yy}} \; ; \; \sigma_{f_{C_{A-A}}} = 0$$

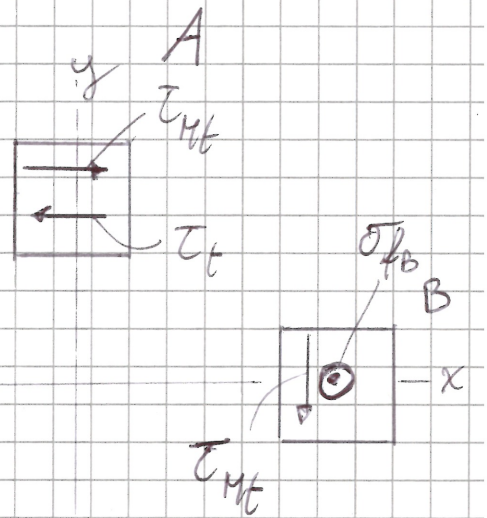
- $M_{t_{AA}} = (q \cdot \beta l) \cdot \left(l - \frac{\beta l}{2}\right)$

$$\tau_{Mt_{A_{AA}}} = \tau_{Mt_{B_{AA}}} = \tau_{Mt_{C_{AA}}} = \frac{M_{t_{AA}}}{W_p}$$

- $T_{AA} = q \cdot \beta l$

$$\tau_{T_{A_{A-A}}} = \tau_{T_{C_{A-A}}} = \frac{T_{AA}}{A} \cdot \frac{4}{3}\left(1 + \frac{1}{\frac{1}{\alpha} + \alpha}\right)$$

$$\tau_{T_{B_{AA}}} = \emptyset$$



$$\sigma_{1-2_A} = \frac{\sigma_{f_A}^{\emptyset}}{2} \pm \sqrt{\left(\frac{\sigma_{f_A}^{\emptyset}}{2}\right)^2 + \left(\tau_{Mt_A} - \tau_{T_A}\right)^2}$$

$$\sigma_{1-2_B} = \frac{\sigma_{f_B}}{2} \pm \sqrt{\left(\frac{\sigma_{f_B}}{2}\right)^2 + \left(\tau_{Mt_B}\right)^2}$$