

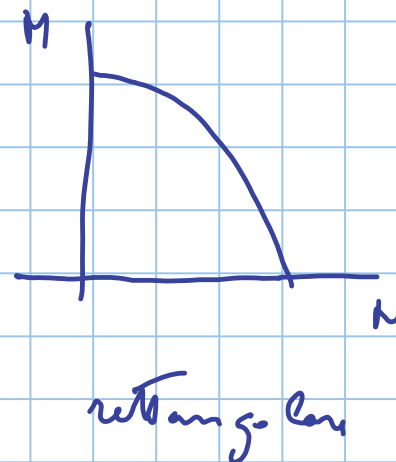
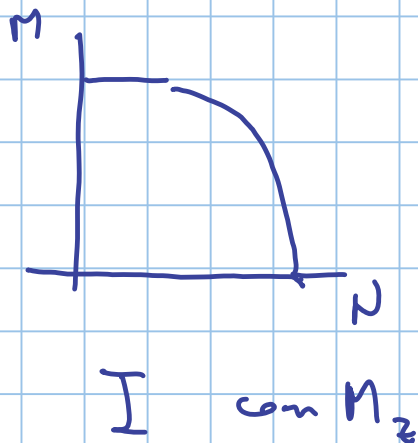
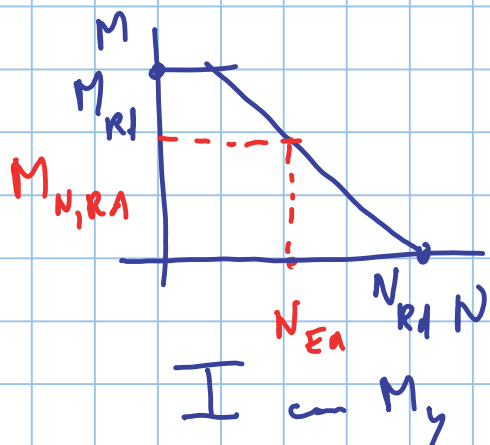
# TENSO FLESSIONE

## RETTA

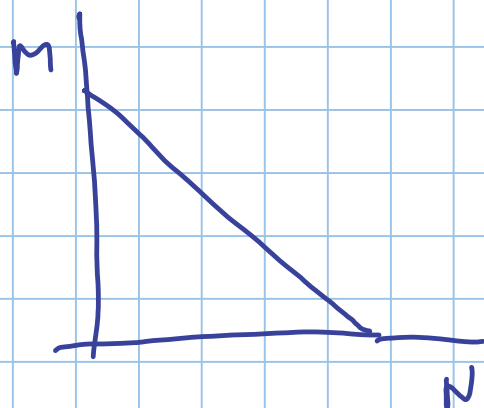
(a pure flessione per sezione)

Titolo nota

05/12/2017



I e II  
class



vale per III class

ma si può usare  
anche per I e II

# TENSO FLESSIONE DEVIATA

$$N, M_{Ed,y}, M_{Ed,z}$$

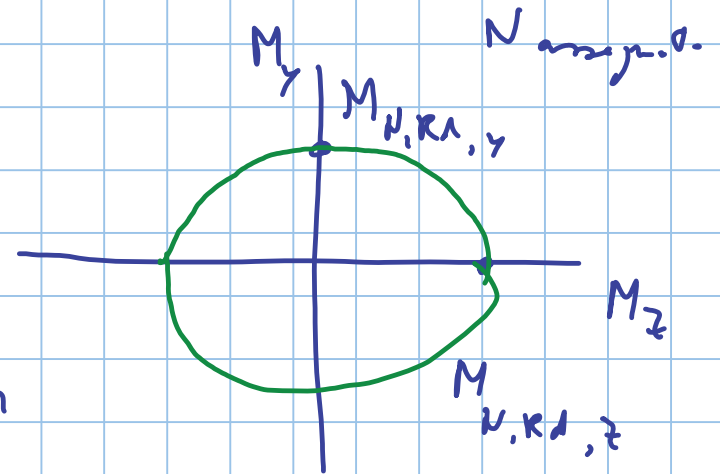
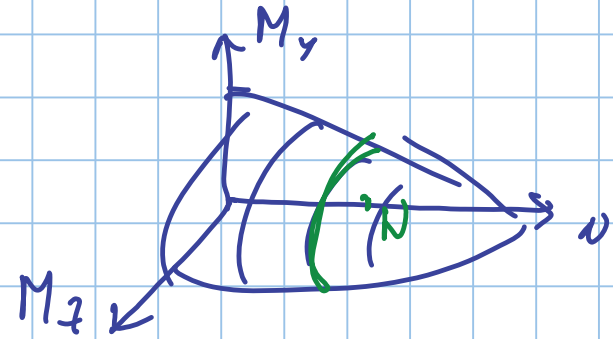
dominio a tenso-flessione rotazionale

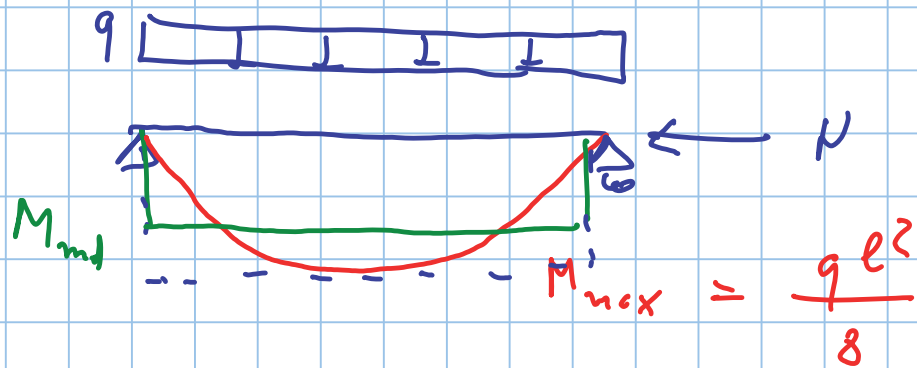
$$N \rightarrow M_{N,Rd,y}$$

$$N \rightarrow M_{N,Rd,z}$$

verifica

$$\left( \frac{M_{Ed,y}}{M_{N,Rd,y}} \right)^2 + \left( \frac{M_{Ed,z}}{M_{N,Rd,z}} \right)^{5n} \leq 1 \quad n = \frac{N_{Ed}}{N_{Rd}} \geq 0.2$$

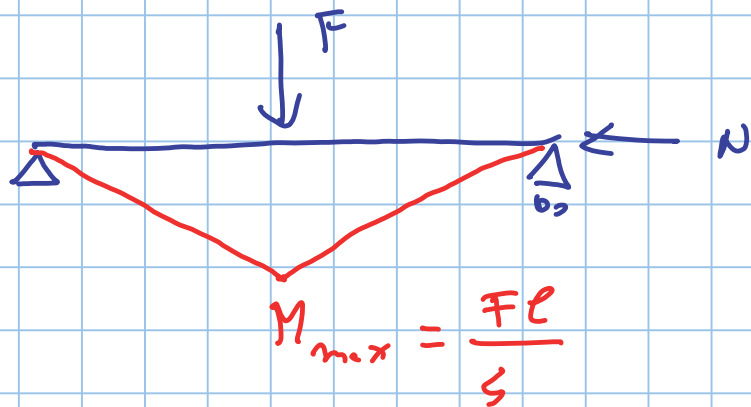




$$\frac{A_{\text{tr. par.}}}{A_{\text{rect}}} = \frac{2}{3}$$

$$M_{\text{med}} = \frac{2}{3} M_{\max}$$

$$\alpha_m = \frac{1.3 M_{\text{med}}}{M_{\max}} = 1.3 \times \frac{2}{3} = 0.867$$



$$M_{med} = 0.5 M_{max}$$

$$\alpha_m = \frac{0.5 M_{max}}{M_{max}} \cdot 1.3 = 0.65$$

ma deve prendere non meno di  $\alpha_m = 0.75$

$$\frac{N_{Ed}}{N_{b,Rd,y}} + \overset{\substack{\text{include } \alpha_m \\ \uparrow}}{K_{yy}} \frac{M_{Ed,y}}{M_{Rd,y}} \leq 1$$

$$K_{yy} = \alpha_m \left[ \uparrow \right]$$

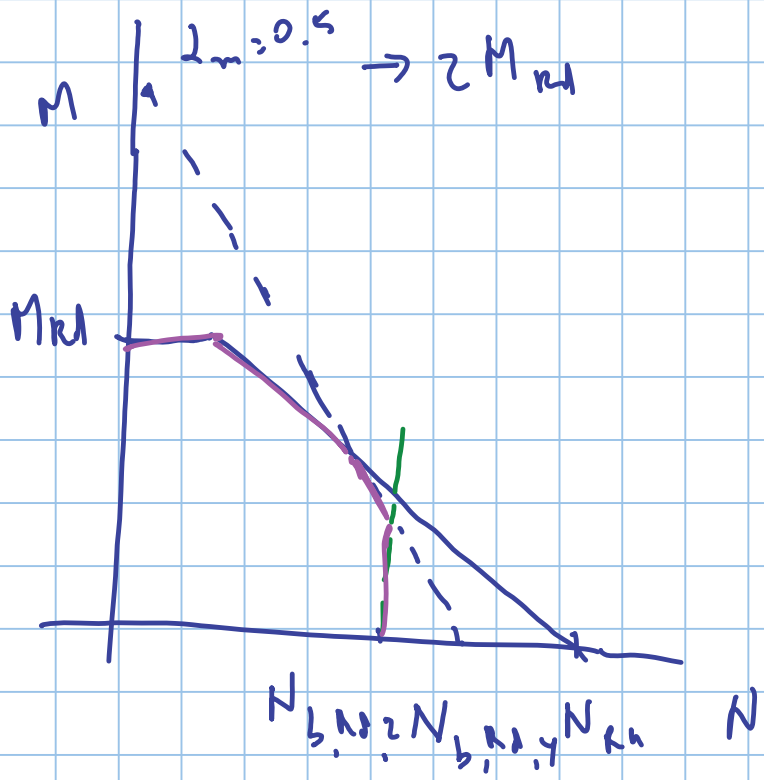
$$\left( \frac{N_{Ed}}{N_{b,Rd,z}} \right) \leq 1$$

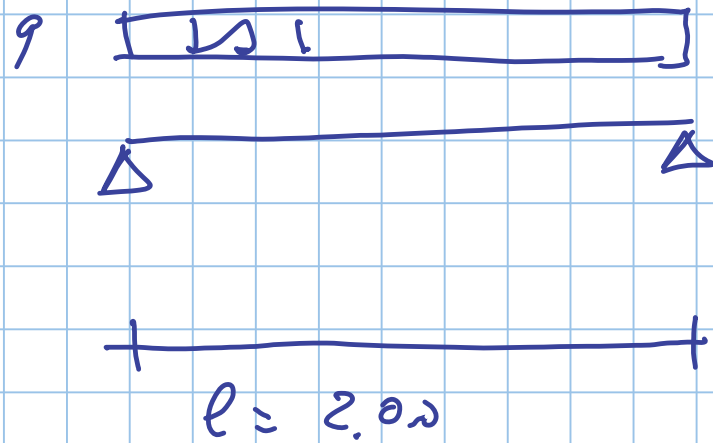
andamento  
non esattamente  
lineare

$$\propto N=0 \rightarrow 1$$

$$N=0 \rightarrow \alpha_m \frac{M_{Ed,y}}{M_{Rd,y}} \leq 1$$

$$M_{Ed,y} \leq \frac{M_{Rd,y}}{\alpha_m}$$





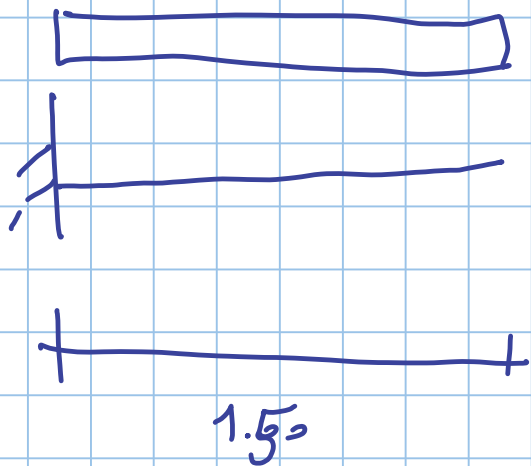
$$M = \frac{q l^2}{8} = 25 \text{ kNm}$$

$$q = \frac{25 \times 8}{2^2} = 50 \text{ kN/m}$$

$$V = \frac{q l}{2} = \frac{50 \times 2.00}{2} = 50 \text{ kN}$$

$$V = 50 \text{ kN} < \frac{0.5 V_{Rd}}{2} = \frac{109.3}{2} \text{ kN}$$

membran uloženie



$$M = \frac{q l^2}{2} = 25 \text{ kNm}$$

$$q = \frac{2 \times 25}{1.5^2} = 22.2 \text{ kN/m}$$

$$V = q l = 22.2 \times 1.50 = 33.3 \text{ kN}$$