VERIFICA

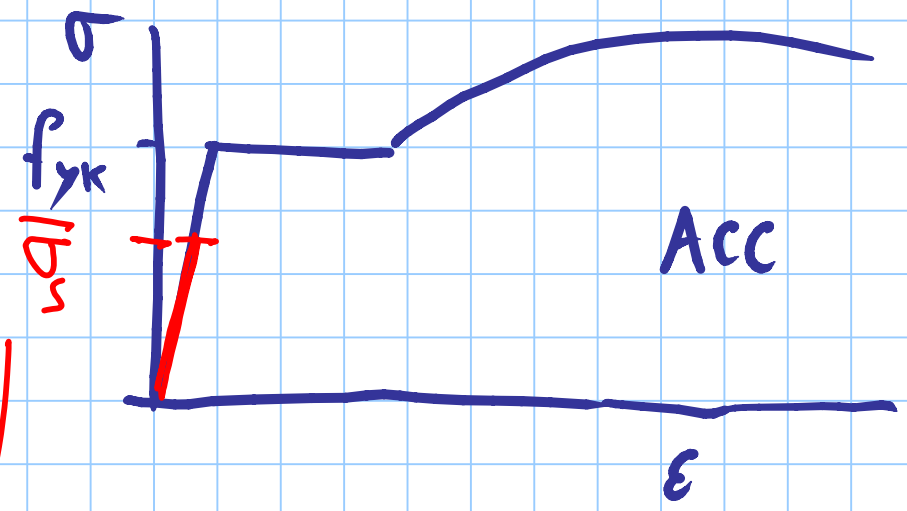
Titolo nota 18/10/2012

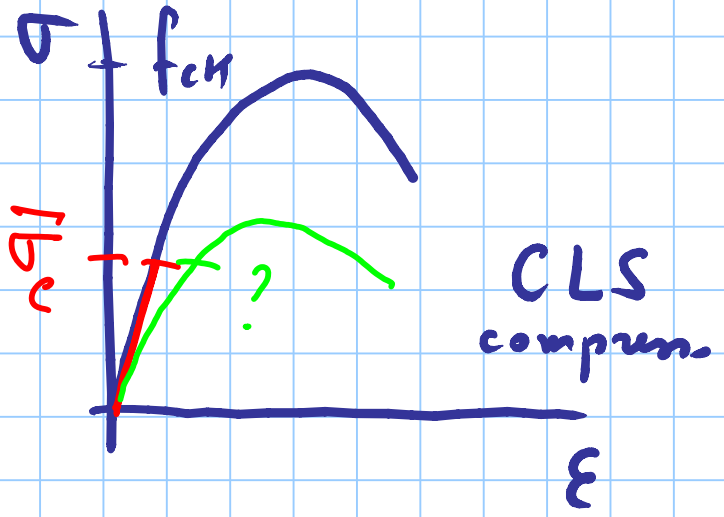
valori di riferimento (valori caratteristici)

- resistenze f_{yk} frattile 5%
- carichi g_k q_k frattile 95%

come garantire una adeguata sicurezza ?

1) coeff. sicurezza per ridurre le resistenze



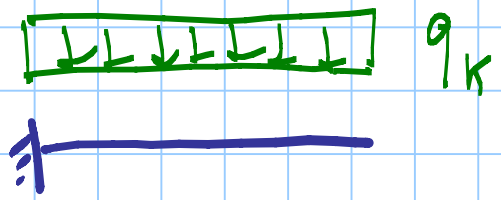


tensione ammissibile

CARICHI – valori caratteristici

RESISTENZE – $\bar{\sigma} = \frac{f}{\gamma}$ → coefficien.

MODELLO DEL MATERIALE : elastico lineare



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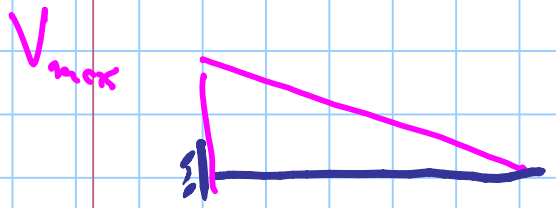
METODO DELLE TENSIONI AMMISSIBILI

$\Rightarrow \sigma$



$\Rightarrow \tau$

criterio di verifica

$\sigma_{id} = \sqrt{\sigma^2 + 3\tau^2}$

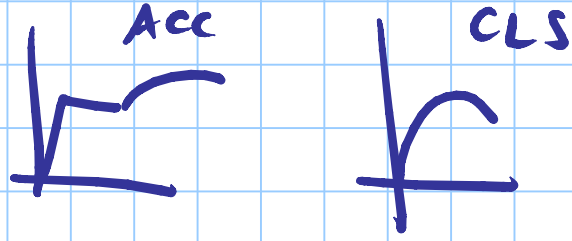
$\Rightarrow \sigma_{id} \leq \overline{\sigma_s}$?

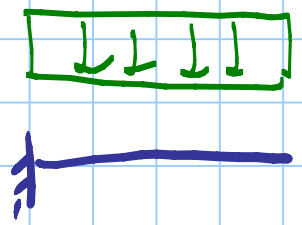
2) qual è il carico che porta la struttura al collas.?

ROTTURA

applicare coeff. sicurezza al carico

tener conto della non linearità



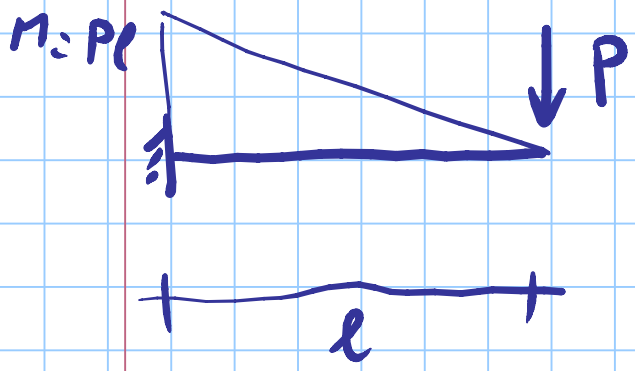


portata a rottura del schema

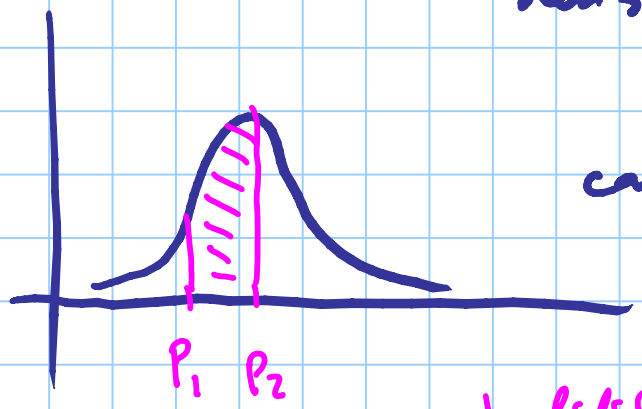
RESISTENZE - valori caratteristici

CARICO $q_u < \frac{q_u}{\gamma}$

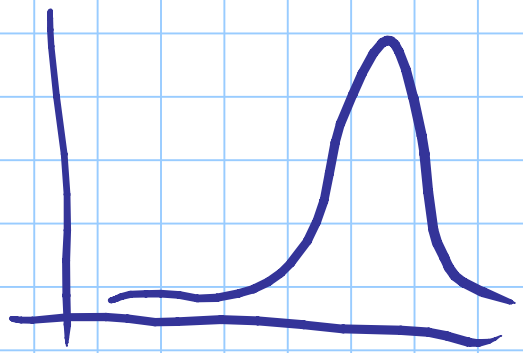
CALCOLO A ROTTURA



densité de probabilité de cause P

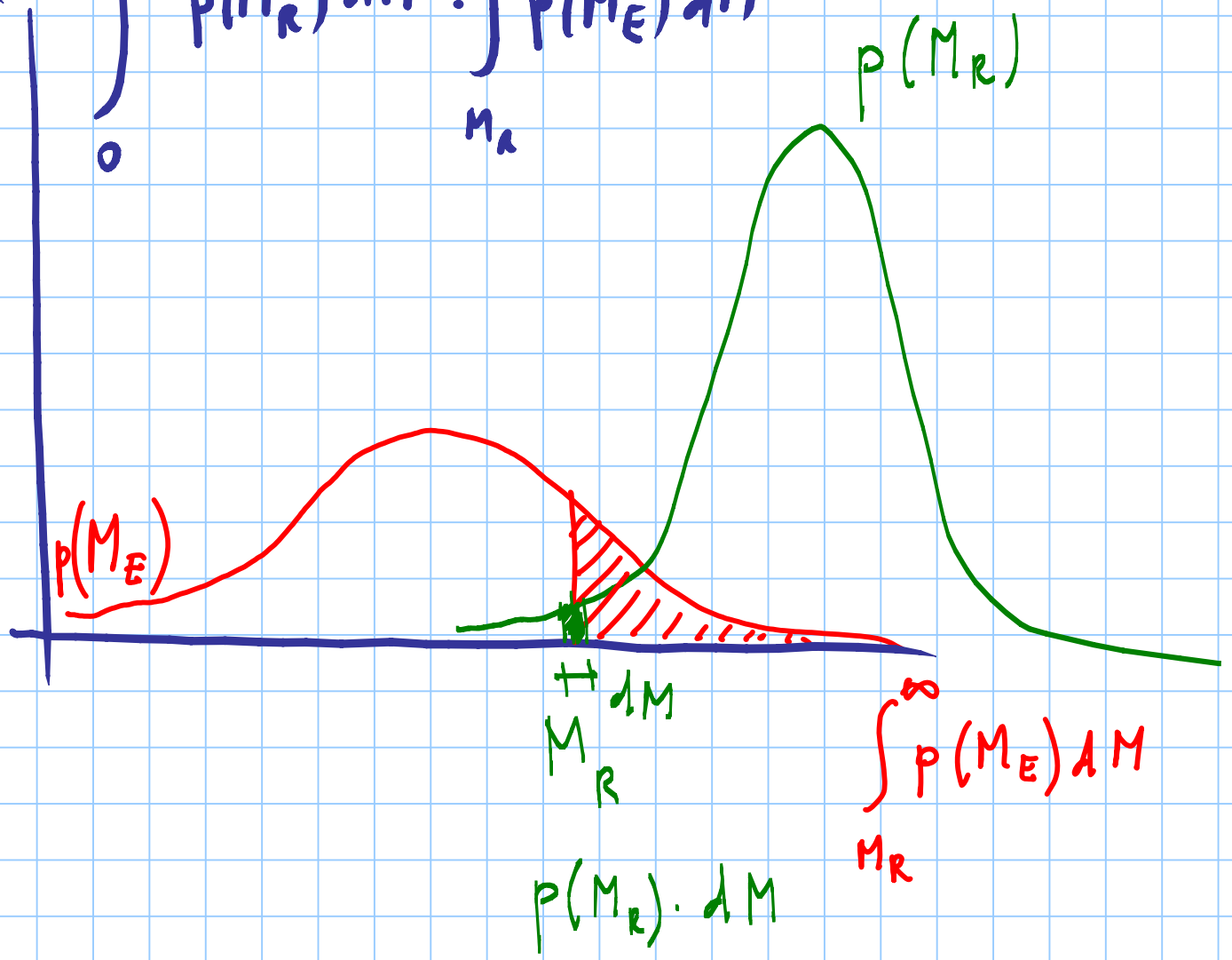


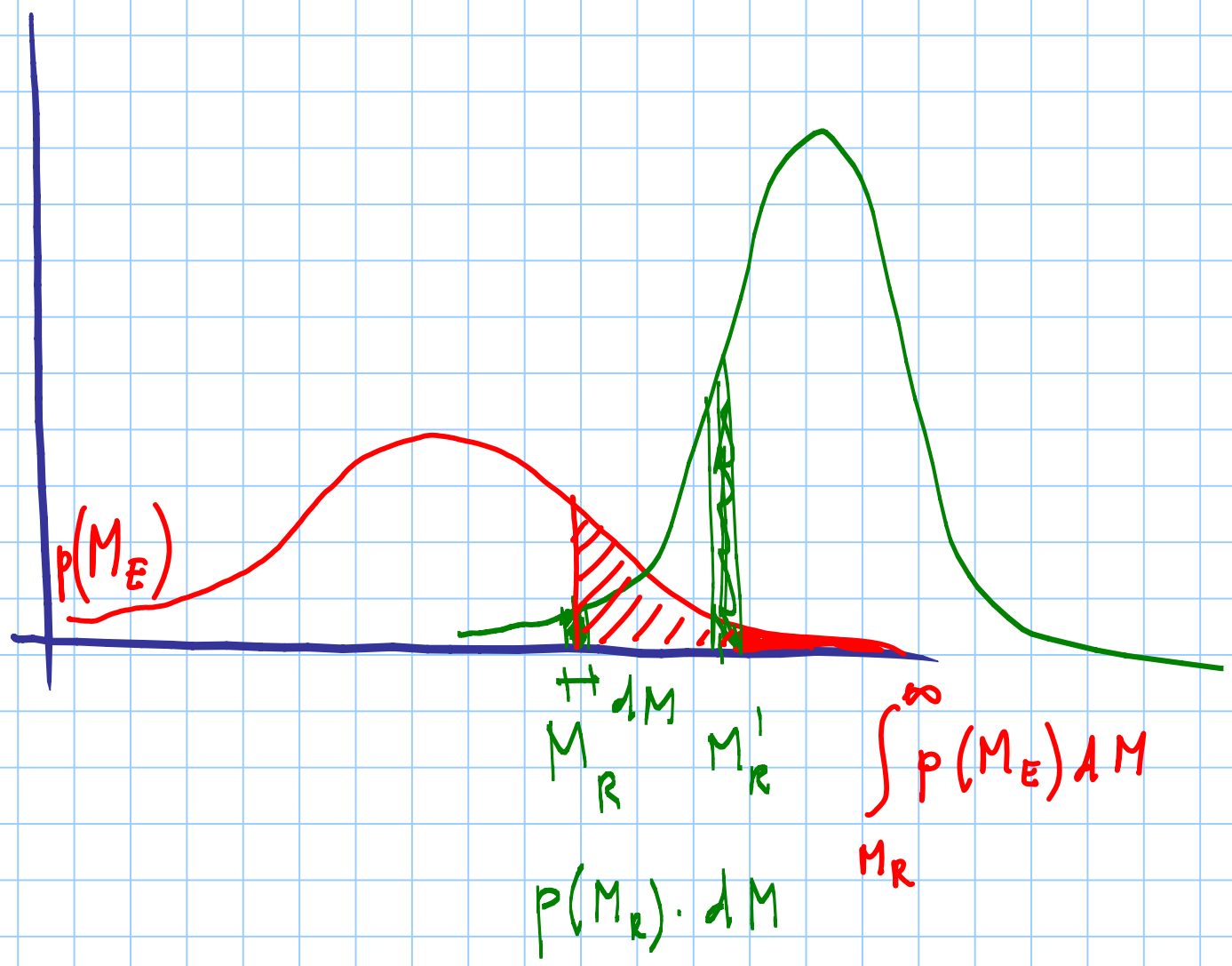
probabilité de avoir $P_1 \leq P \leq P_2$

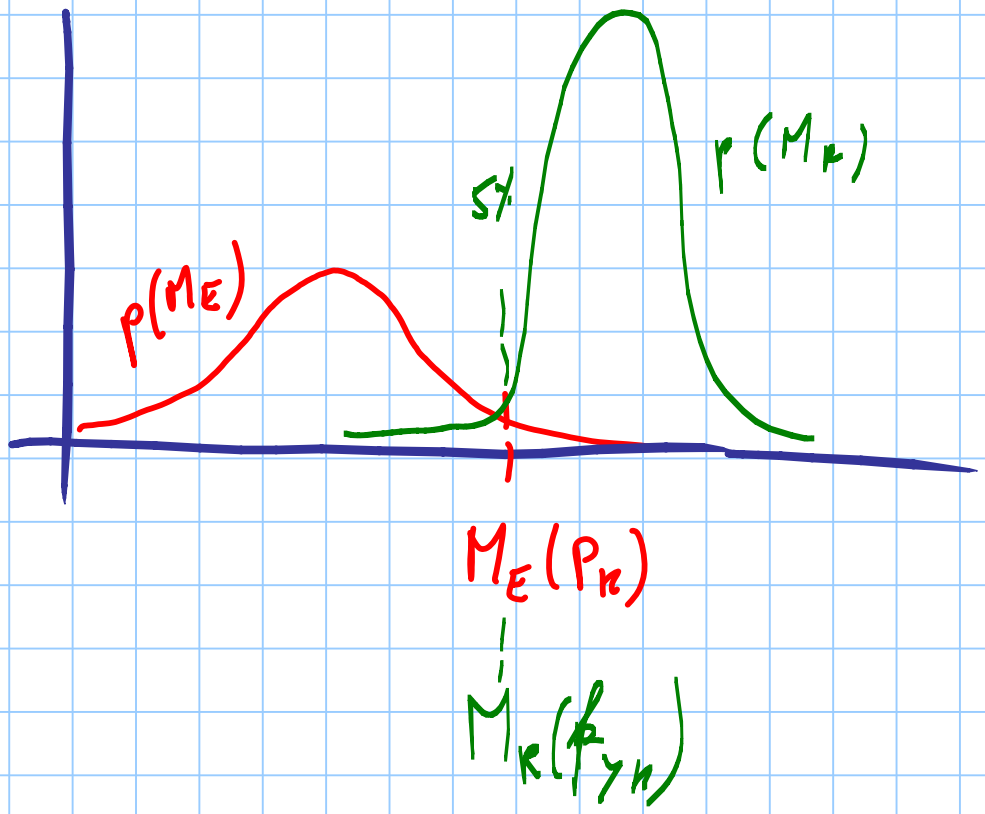


I $M = f_y W_{pl}$

$$P_c = \int_0^{\infty} p(M_R)\,dM \cdot \int_{M_R}^{\infty} p(M_E)\,dM$$



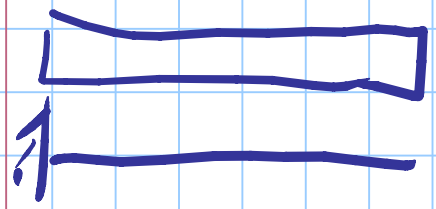

p(M_E)
dM
M_R
M_R'
∫_{M_R}^{∞} p(M_E) dM
p(M_R) · dM



probabilità di
allarm.
2.55 %

NON ACCETTABILE

per RIDURRE il rischio usare coeff. sicurezza
per carichi e resistenze



$q_k \cdot \gamma_q$ I $\frac{f_{yk}}{\gamma_M}$

COEFFICIENTI DI SICUREZZA PARZIALI