Titolo nota 09/10/2019

tensioni normali $\sigma$

tangenziali $\tau$

snervamento (acciaio) yielding $\sigma_y$

resistenza: simbolo $f$ resist. a snervamento $f_y$

valore caratteristico di resistenza: pedice $k$ $\rightarrow$ $f_{yk}$

calcestruzzo $f_{ck}$

# CARICHI

statici — dinamici

permanenti — variabili

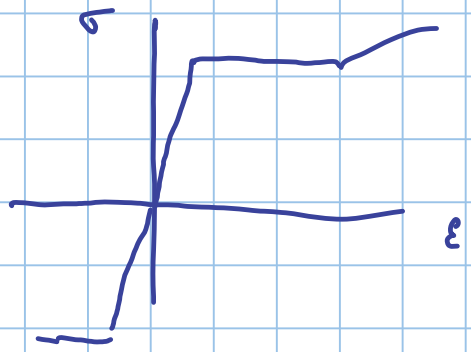
- $g$
  - strutturali
  - non strutturali (pavimento, intonaco) trascurati
  - definiti forfettariamente trascurati
- $q$
  - raro $q_k$ — frattile 95% dei massimi nella vita della struttura
  - frequente — quasi permanente — medio nel tempo
  - definiti compiutamente
  - definiti genericamente

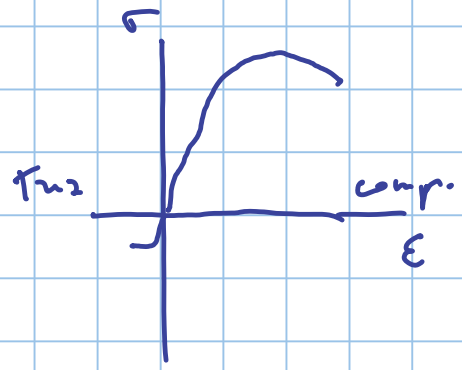
$g_k$ valore nominale

frattile 95%

# ANALISI STRUTTURALE E VERIFICHE

ACC



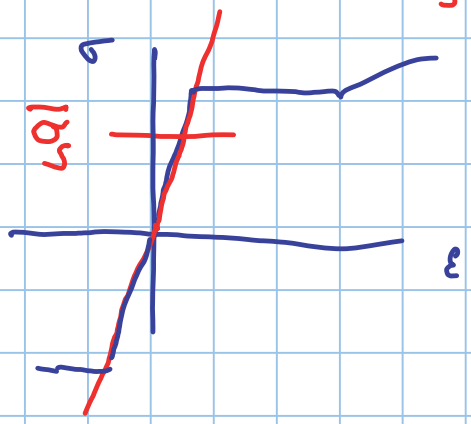

CLS

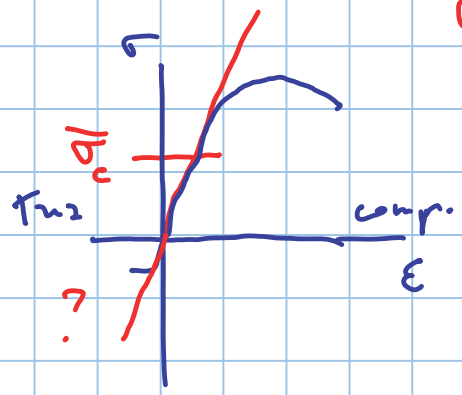
$\bar{\sigma}_s = \frac{f_{yk}}{\gamma}$

$\bar{\sigma}_c = \frac{f_{ck}}{\gamma}$

modello lineare

ACC




CLS

tensioni ammissibili

resist. a Trazione?

NO

$g_k$ $q_k$

METODO DELLE TENSIONI AMMISSIBILI

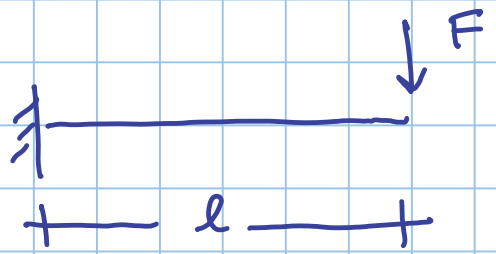
# CALCOLO A ROTTURA

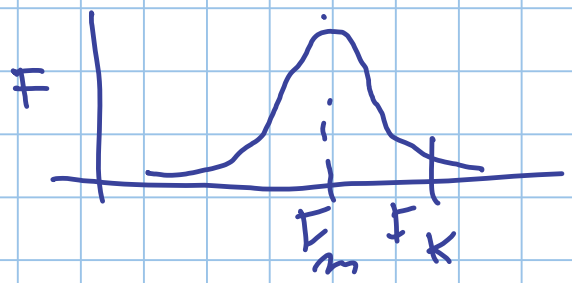
data le resistenze dei materiali ($f_{yk}$, $f_{ck}$)

calcolare il valore del carico che porta a collasso

applicare coeff. sicurezza al carico $\dfrac{Q_k}{\gamma}$

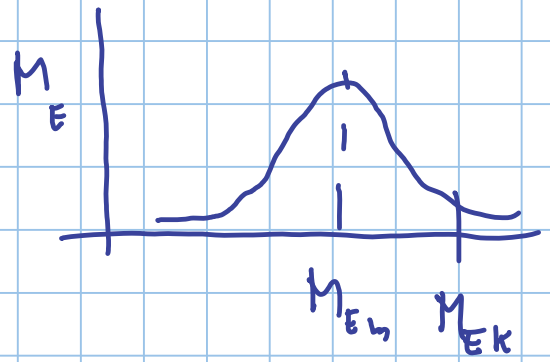
## METODO SEMIPROBABILISTICO AGLI STATI LIMITE




$$M_E = F\,l$$

momento flettente sollecitante

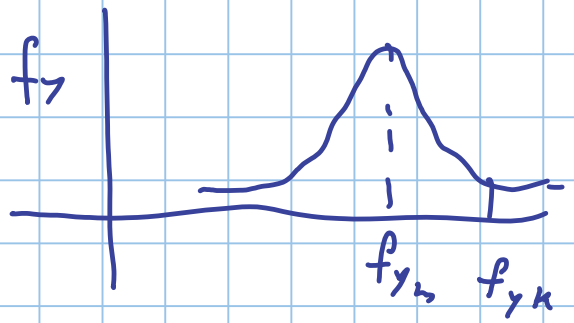



$I$ $f_y$

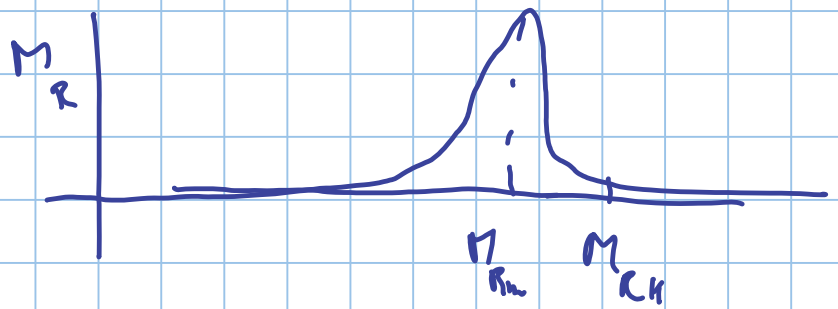
$$\sigma = \frac{M}{I}\,y$$

$$\sigma_{max} = \frac{M}{W}$$

$$W = \frac{I}{y_{max}}$$




$$M_R = f_y\,W$$



CARICO $\quad g_d = \gamma_g \, g_k \qquad \gamma_g > 1$

RESISTENZA $\quad f_d = \dfrac{f_k}{\gamma_m} \qquad \gamma_m > 1$

con legame costitutivo non lineare