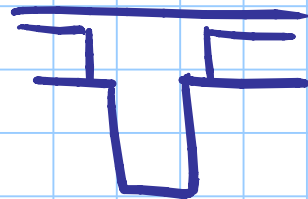


SOLAI

per cal. vert.

come in zona non sismica
con $G_A + 1_A$



++ ++

10 cm di fascia piena

fascia piena o semipiena
- per momento negativo
- per taglio

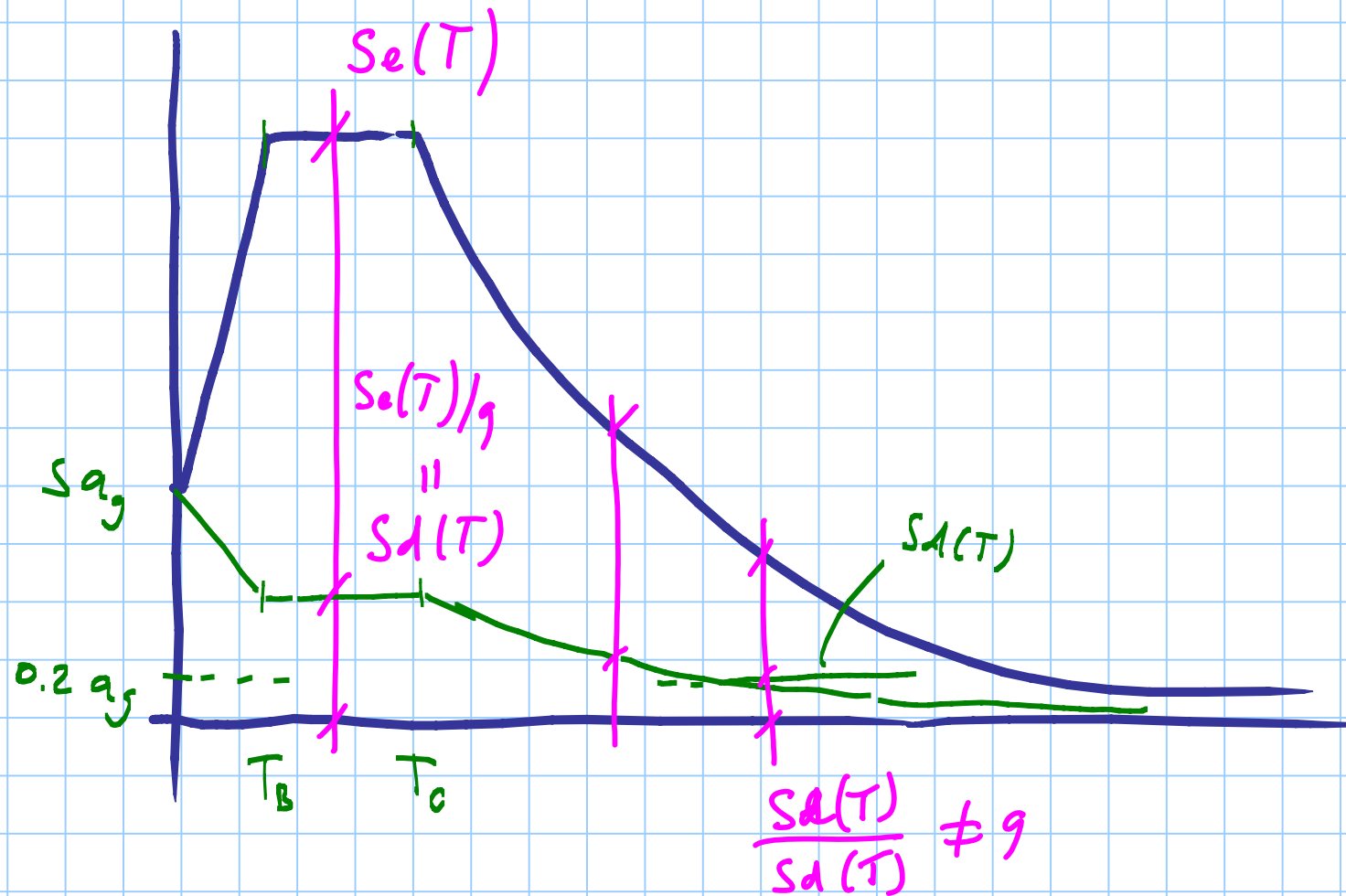
per sisma

VERIFICA IMPALCATO

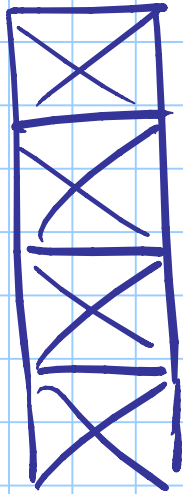
rete $\phi 8/25 \times 25$

attenzione dove ci'
sono punti

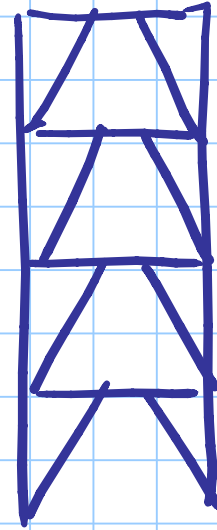
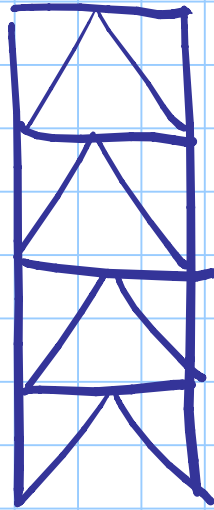
Spazi di risposta elastica e di progetto

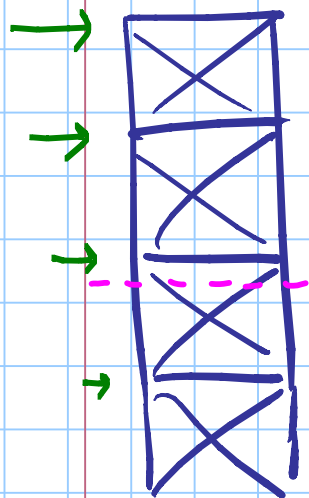


STRUCTURE



CON CONTRAVENTO





dimensionamento

stima T_1

ordinate spettrale e forze per an. statica

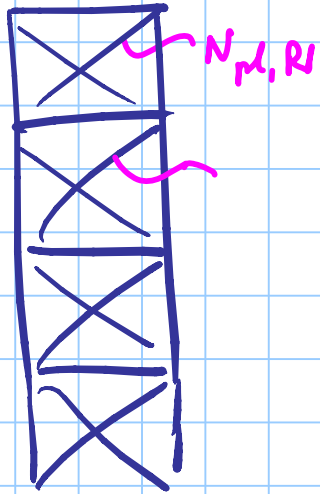
N diagonali per equilibrio

dimensione diagonali per N

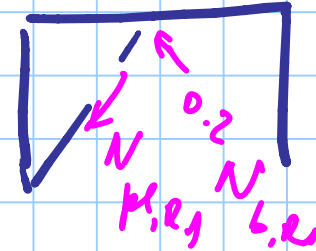
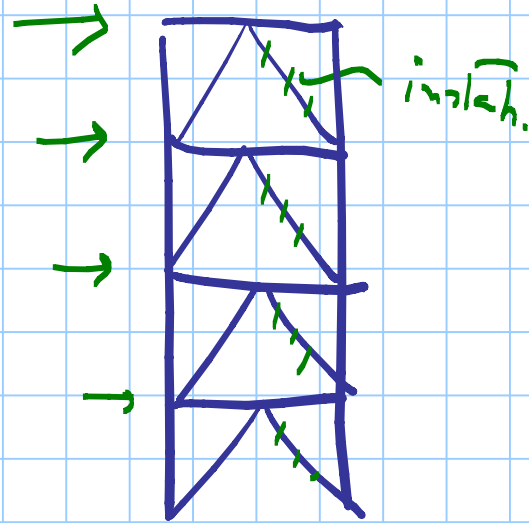
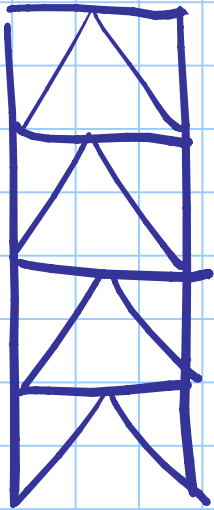
- cov. Ω_i $\Omega_{\max}/\Omega_{\min} < 1.25$

- $\bar{\lambda} \leq 2$; $\bar{\lambda} \geq 1.2$

dimensionare Travi e colonne con gen. resist.



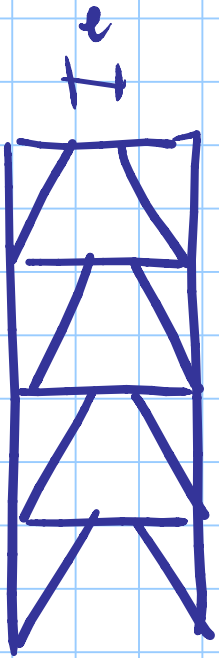
N, T_c : ottimo N_{col} molto rilevanti



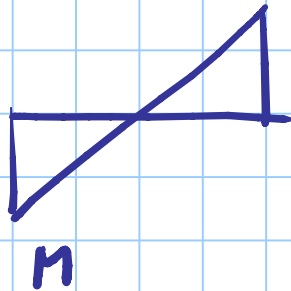
diag. inst.
l'anta instabilezza
e plasticazione

calcolare il M
nella Trave

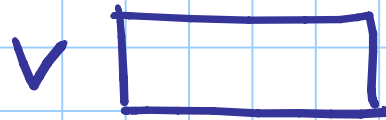
$$\text{resist. residua} = 0.2 N_{b,rd}$$



LINK soggetto a flessione e taglio.



$$V = \frac{2M}{e}$$



Teoria

$$V_{pl} < \frac{2 M_{pl}}{e}$$

ovvero

$$e < \frac{2 M_{pl}}{V_{pl}}$$

SI PLASTICIZZA A TAGLIO

$$V_{pl} > \frac{2 M_{pl}}{e}$$

$$e > \frac{2 M_{pl}}{V_{pl}}$$

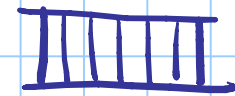
SI PLASTICIZZA A FLESSIONE

$$e < 1.6 \frac{M_M}{V_{pe}}$$

LINK CORTO

plasticizzazione

~ TAGLIO



$$1.6 \frac{M_M}{V_{pe}} < e < 3.0 \frac{M_M}{V_{pe}}$$

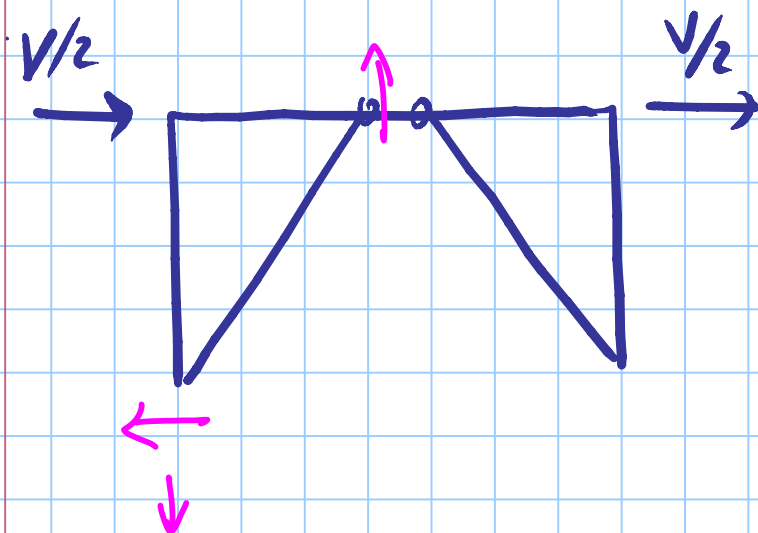
LINK INTERMEDIO

TAGLIO-FLESSIONE

$$e > 3.0 \frac{M_M}{V_{pe}}$$

LINK LUNGO

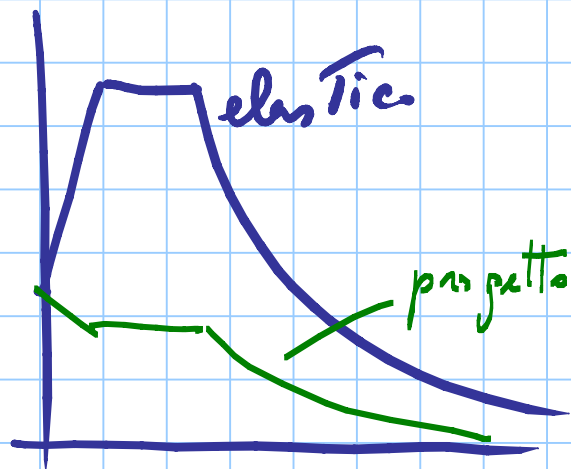
~ FLESSIONE



dimensionare link
per solleciti

dimensionare Trave, colonne,
diagonali con gen. resist

APPROCCIO TRADIZIONALE



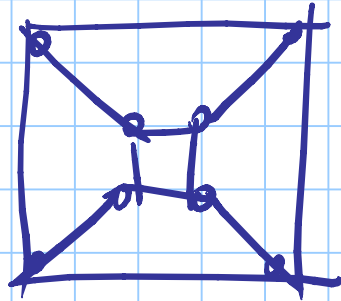
calcol con q



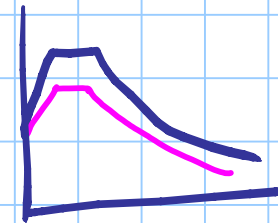
danneggiamento = dissipazione
di energia

che fare?

- concentrare il danno in elementi sostituibili e ben dissipativi.



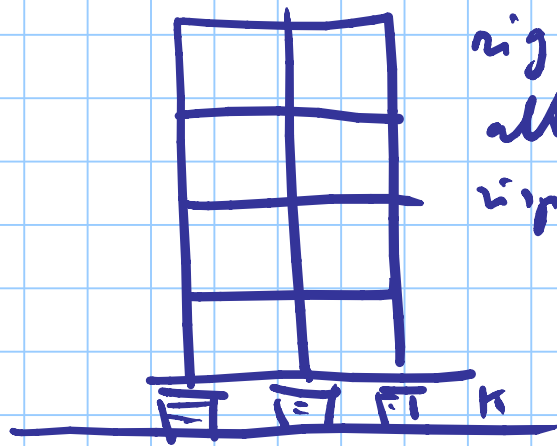
- aumentare lo smorzamento



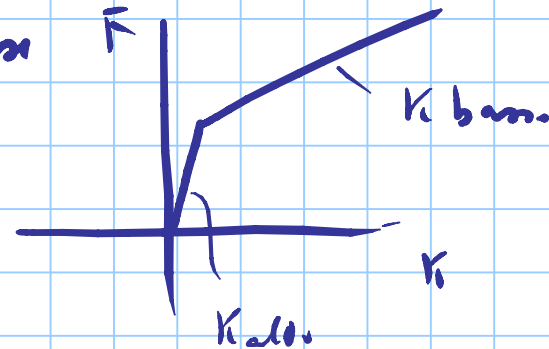
- variare il periodo



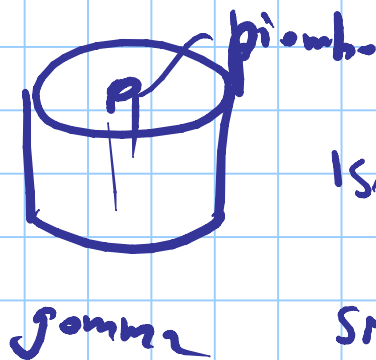
- cambiare le proprietà dinamiche durante il sisma



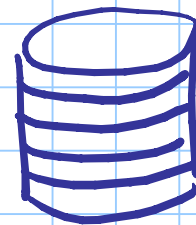
rigidezza della struttura
alta
rispetto al sistema
alla base



ISOLAMENTO ALLA BASE

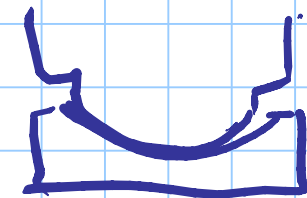


ISOLAMENTO
+
SMORZAMENTO



HDRB

acciaio
+ gomma



FRICTION
PENDULUM