

AZIONI SULLA STRUTTURA

Titolo nota

06/11/2012

IN ASSENZA DI SISMA

$$\left. \begin{array}{l} \text{carichi verticali} \\ \text{(vento)} \end{array} \right\} \begin{array}{l} g_1 \quad q_1 \\ F_d \end{array} \left\{ \begin{array}{l} g_1 + q_1 + \psi_0 F_d \\ g_1 + \psi_0 q_1 + F_d \end{array} \right.$$

IN PRESENZA DI SISMA

$$\left. \begin{array}{l} \text{carichi verticali} \\ \text{sisma} \end{array} \right\} \begin{array}{l} g_k + \psi_2 q_k \\ F_{sisma} \end{array} \left\{ \begin{array}{l} g_k + \psi_2 q_k + F_{sisma} \end{array} \right.$$

nel punto

T.A.

stato di servizio

con servizio

$$g_H + g_K$$

$$g_H + \underset{\uparrow}{s} g_K + \text{SISMA}_{TA}$$

norme 1996

condotte

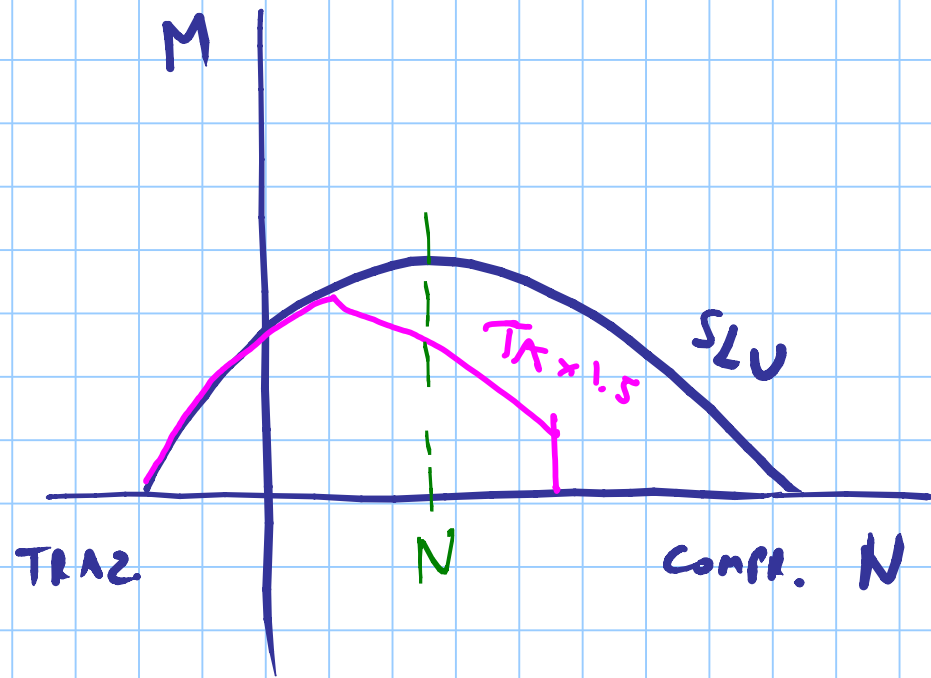
SLD

con servizio

$$g_d + s g_H + \text{SISMA}_{TA} \times 1.5$$

in zone sismiche

DOMINI MN



con SISMA

nel passato
TA

Carichi
verticali
 $J_k + S q_k$

\pm

sisma

dir x

separati

dir y

F applicati
al centro di massa

oggi

senza sisma

$g_1 + q_1$

con sisma

$g_k + \psi_2 q_k$

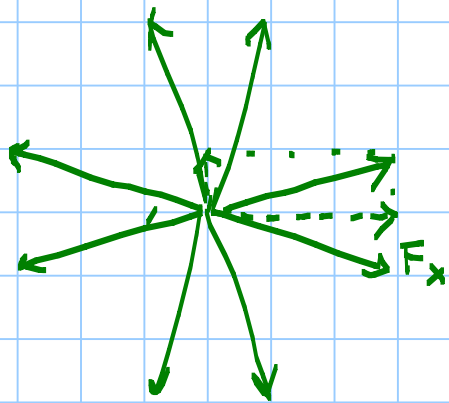
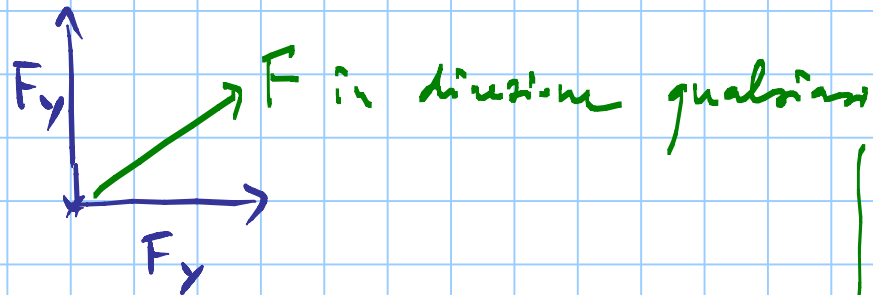
\pm

sisma

dir x

dir y

come $x - y$ spunti? N_0



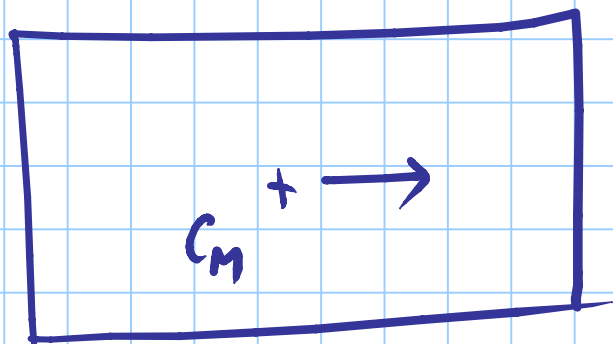
$$\pm F_x \pm 0.3 F_y$$

$$\pm 0.3 F_x \pm F_y$$

OPPURE

$$\pm \sqrt{M_{(F_x)}^2 + M_{(F_y)}^2}$$

NON FUNZIONA
PER PIÙ GRANDEZZE
CONTEMPORANEE

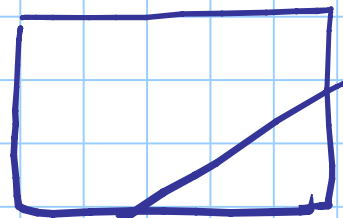


$$g_H + 0.3 g_L$$

$$\text{max} \rightarrow g_H + \underset{0.3}{0.5} g_L \quad e_a \neq \frac{g_H}{g_H + g_L} \quad \pm 0.3 L \quad \left| \begin{array}{c} l \\ l \end{array} \right.$$

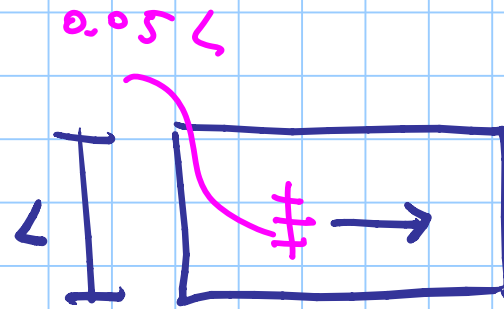
PRINCIPIO :

tenere conto delle possibili
variazioni di C_M C_M e_a



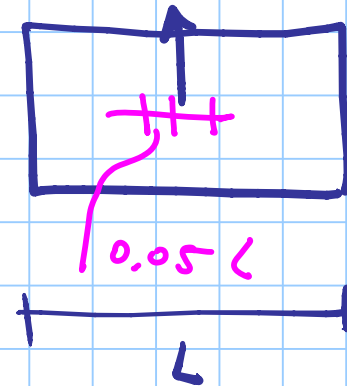
REGOLA APPLICATIVA:

$$e_a = 0.05 L$$



esaminando centri redotti (m.c.a.)

$$e_a = 0.02 \pm 0.03 L$$



TENERNE CONTO CON

a) analisi modale con C_m spartito (ma non di $0.05 L$)

b) coppie statiche pari a $F \cdot e_a$ \leftarrow PREFERISCO QUESTO

PASSAT

schemi base

1) q

2) F_x

3) F_y

combinazioni

4

$q + F_x$

$q - F_x$

$q + F_y$

$q - F_y$

OGGI

schemi base

1) q_{max} (no sisma)

2) q_{min} (con sisma)

3) F_x

4) F_y

5) $M = e_x F_x$

6) $M = e_y F_y$

combinazioni

1

32