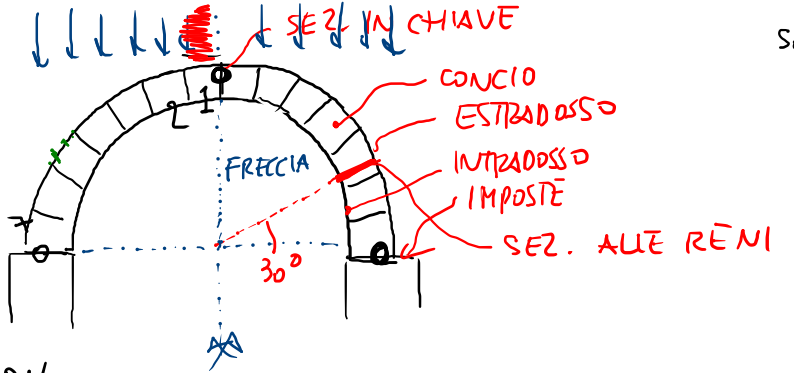
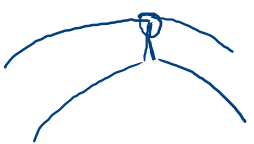
# STATICA DELL'ARCO A CONCI

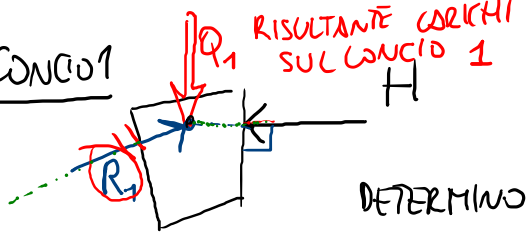



**GOAL**

VALUTARE LA SICUREZZA DELLA STRUTTURA



CONCIO 1



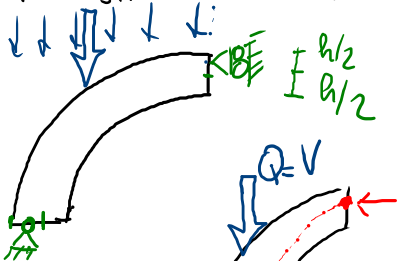


EQUILIBRIO DEI VETTORI $\underline{H}$ e $\underline{Q}_1$

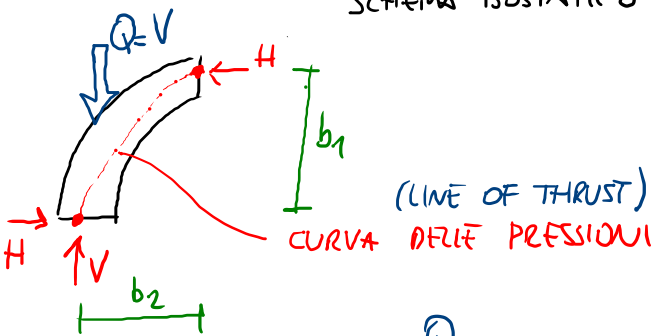
DETERMINO $R_1$ IMPONENDO LA CHIUSURA DEL TRIANGOLO DELLE FORZE

# ARCO CIRCOLARE A TUTTO SESTO

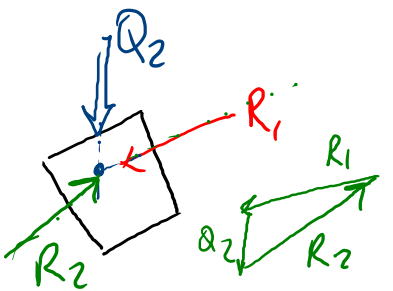
SOLLECITATO SIMMETRICAMENTE



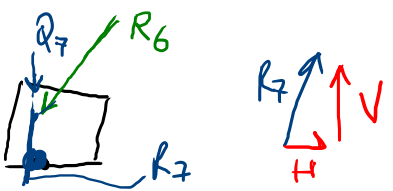

SCHEMA ISOSTATICO




CONCIO 2




CONCIO 7

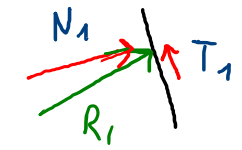



2/05/2023

LE $R_i$ NON SONO $\perp$ ALL' INTERFACCE DEI CONCI

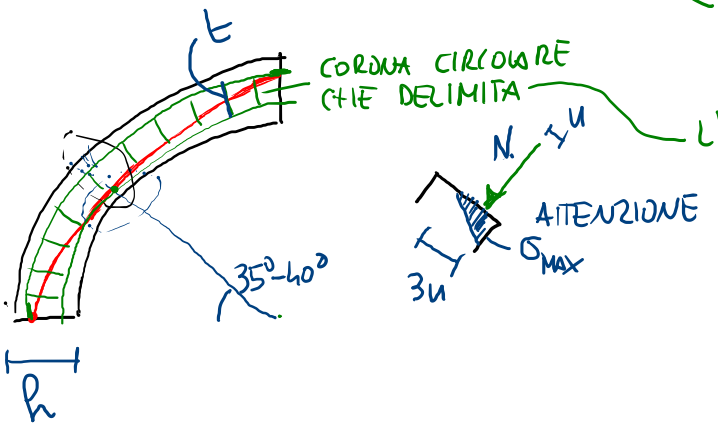
$\Rightarrow$ VERIFICA ALL'ATTRITO $T_i \leq \mu N_i$

↖ COEFF. D'ATTRITO ($\mu \simeq 0.7$)




$N_1 \perp$ INTERFACCIA

$T_1$ : FORZA TAGLIANTE

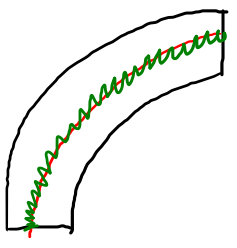



$\Rightarrow \frac{h}{t} \simeq 2$ PER STRUTTURE IN BUONO STATO.

$\frac{h}{t} \to 1$

VICINI AL COLLASSO

$\frac{h}{t} \gg 2$

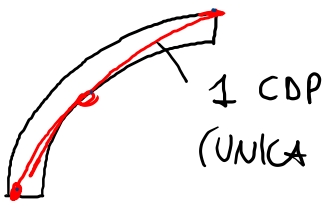


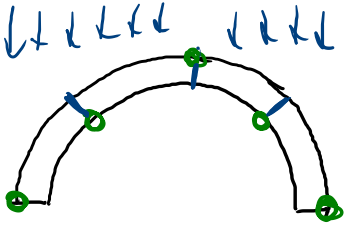
STRUTTURA SOVRADIMENSIONATA

TEOREMA DI SICUREZZA DI HEYMAN

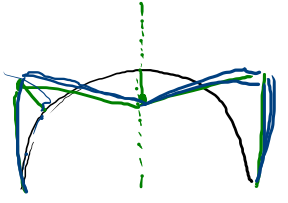
Per evitare qualsiasi sforto di trazione nell'arco, la C.D.P. deve rimanere sempre all'interno della sezione.

TEOREMA: L'arco è in equilibrio se almeno una C.D.P. in EQUILIBRIO con i carichi esterni rimane sempre all'interno dello spessore dell'arco.

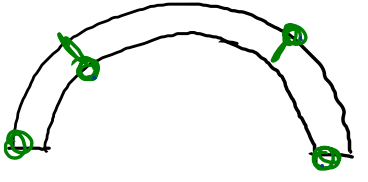


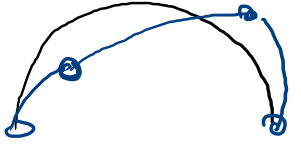



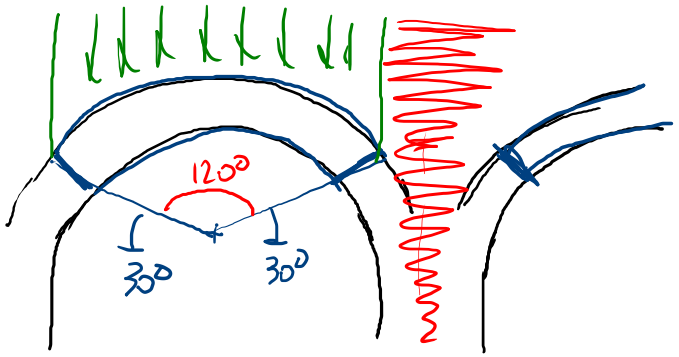
5 CERNIERE: MECCANISMO DI COLLASSO SIMMETRICO

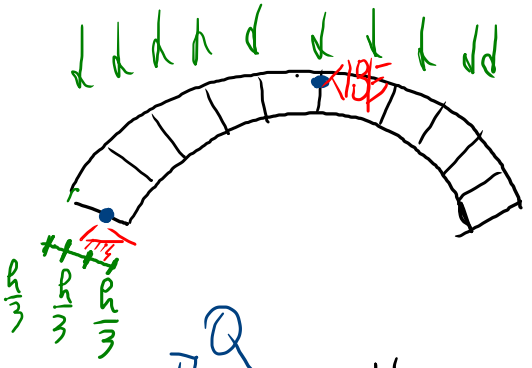


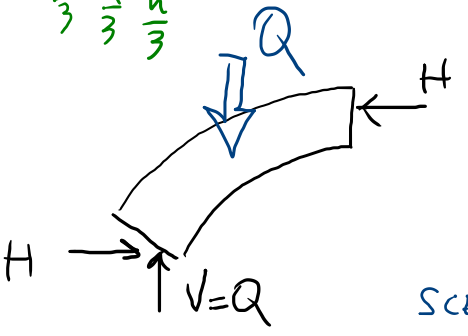
SE NON C'È SIMMETRIA SONO SUFFICIENTI 4 CERNIERE PER AVERE UN MECCANISMO

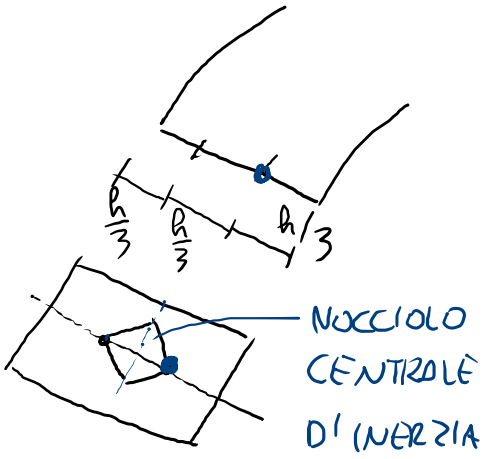







SCELTA DI PASSAGGIO DELLA C.D.P. ALLE RENI IN CORRISP. DEL TERZO MEDIO:

MÈRY (1840) (METODO DI MÈRY)