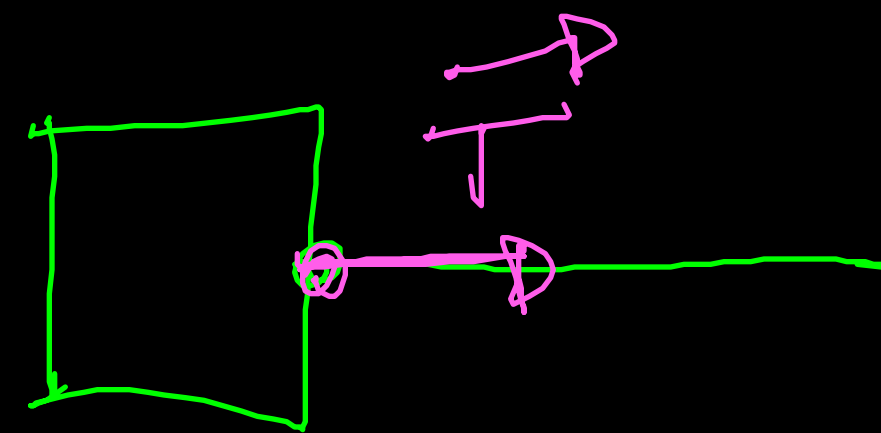
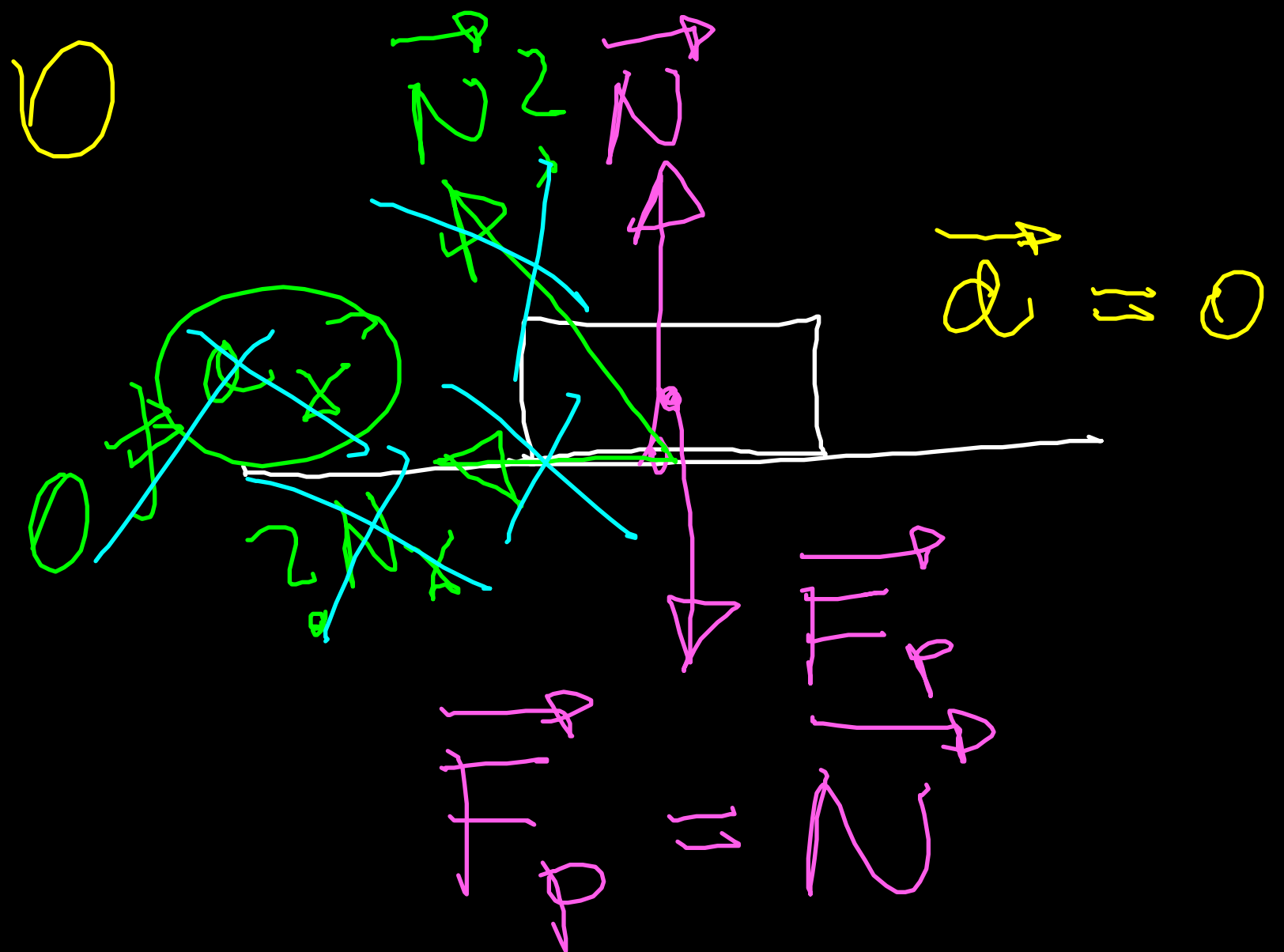


FORZE DI CONTATTO

• REAZIONE VINCOLARE

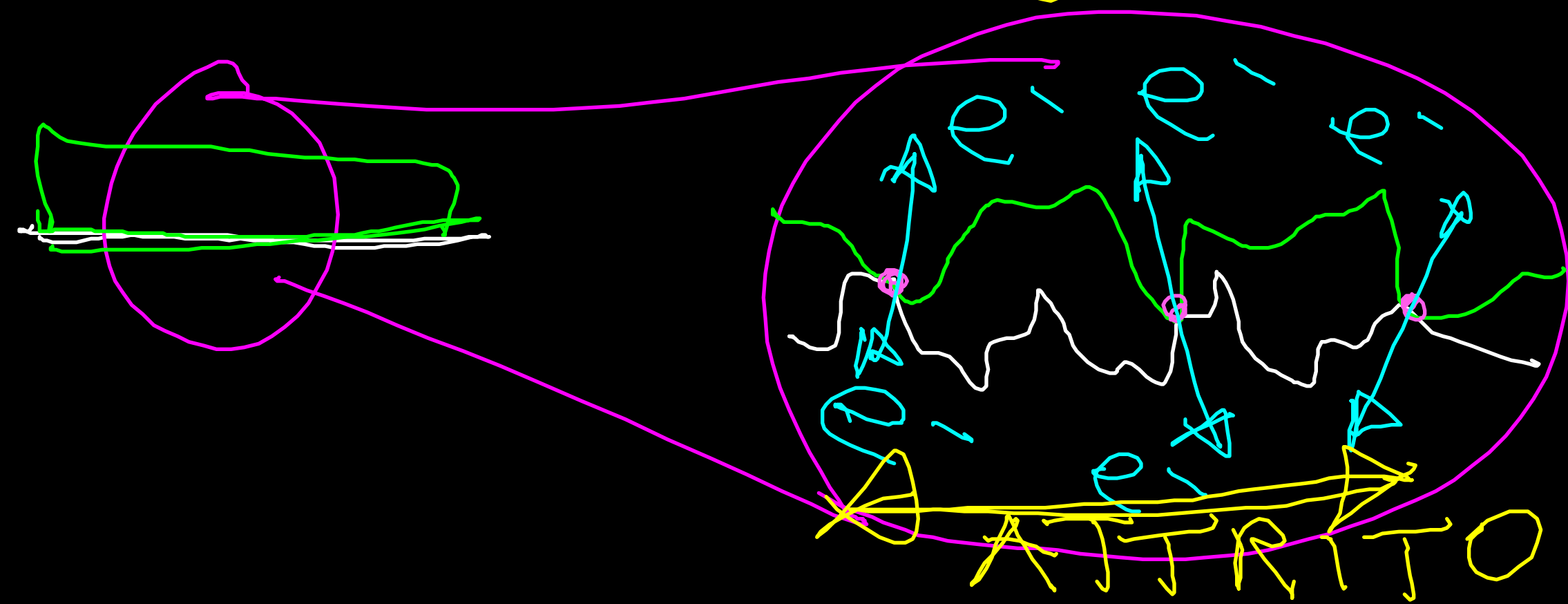
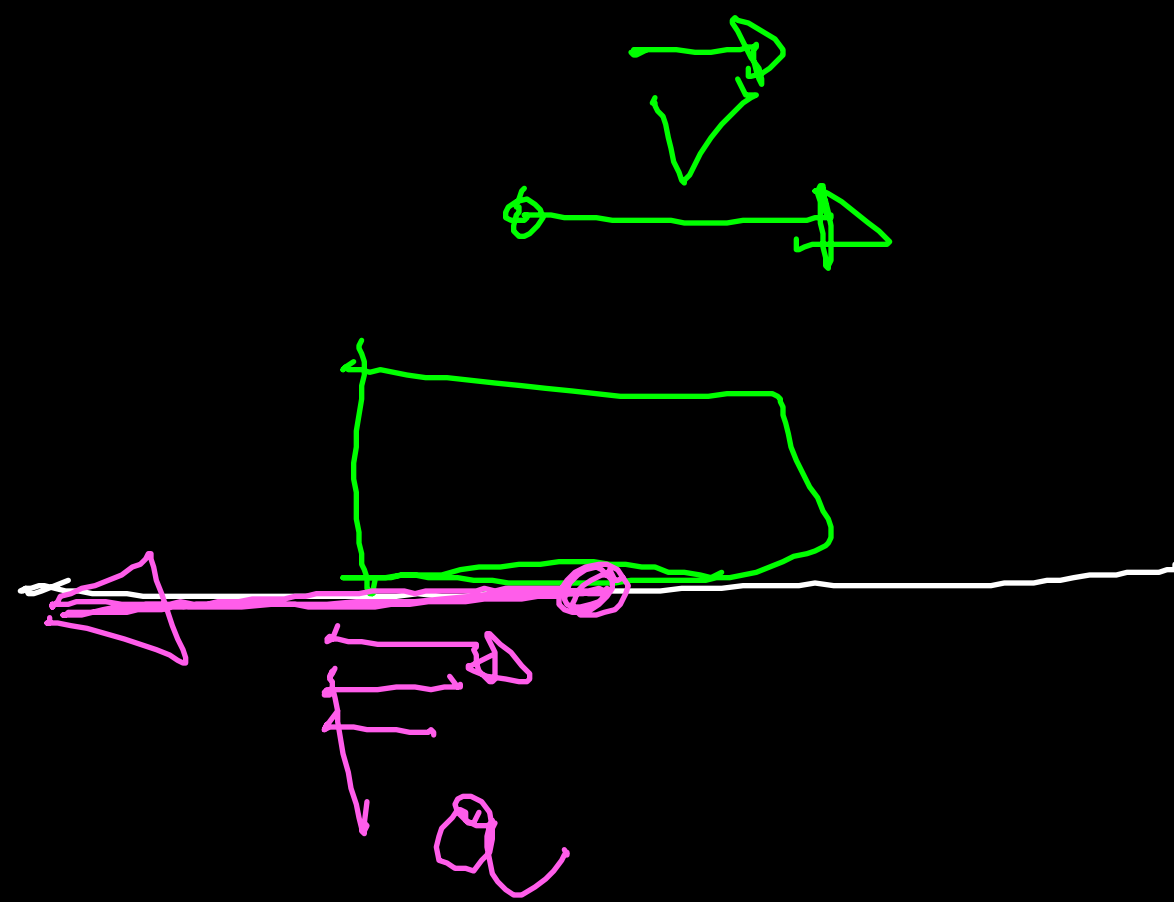
• TENSIONE

• ATTRITO



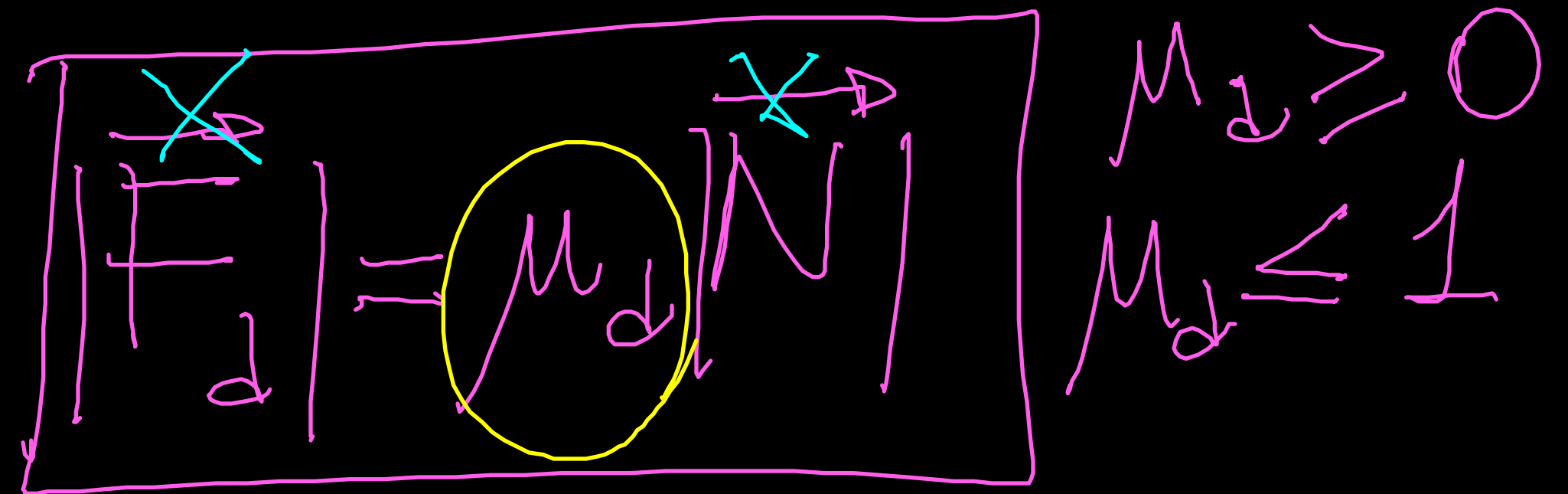
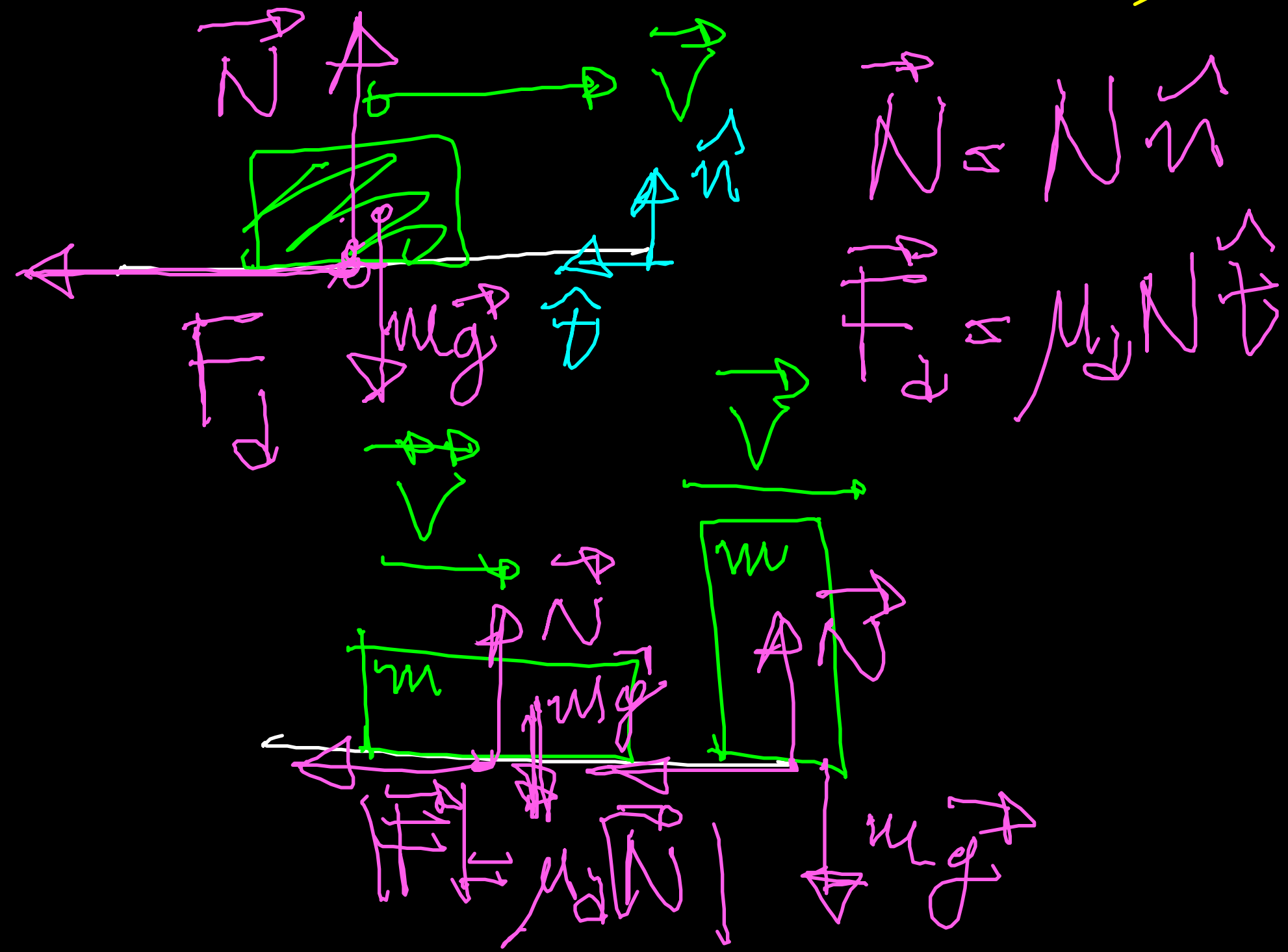
$$Q \sim 1 \text{ nm} = 10^{-10} \text{ m} = 1 \text{ \AA}$$

$$\sim 500 \text{ nm}$$



ATTRITO

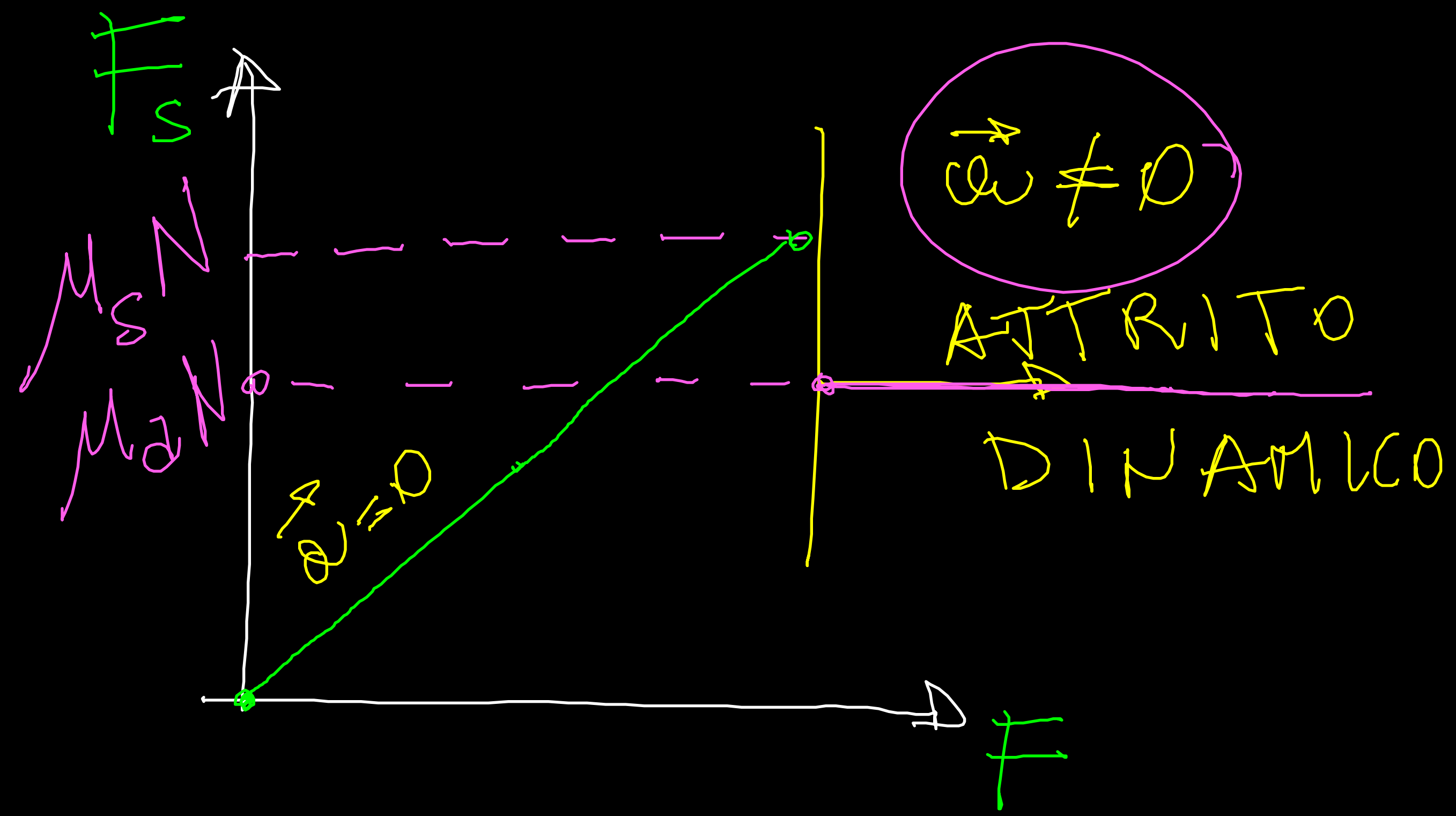
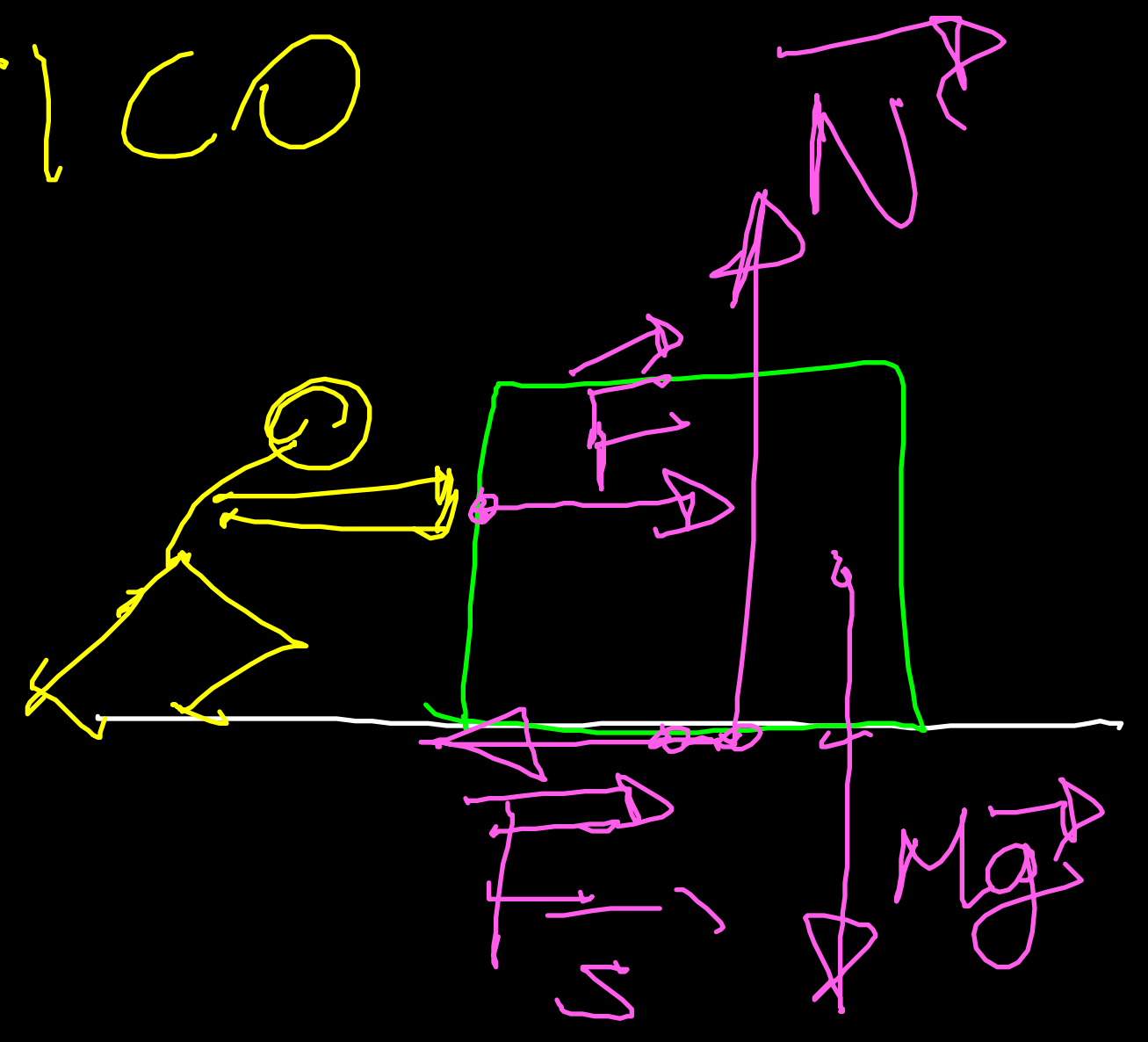
• DINAMICO (CINETICO)



$\mu_d =$ COEFFICIENTE DI ATTRITO

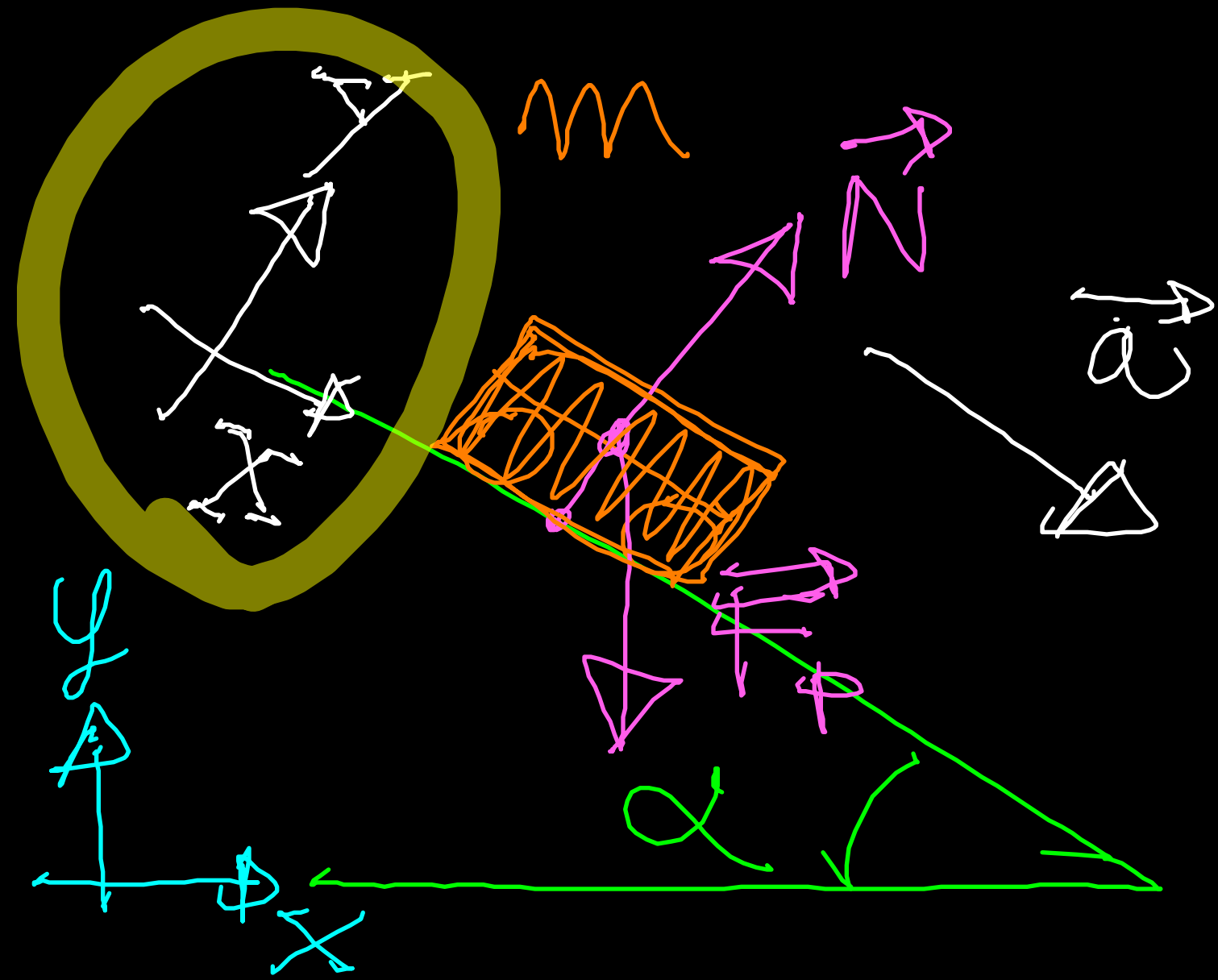
ATTRITO

• STATICO

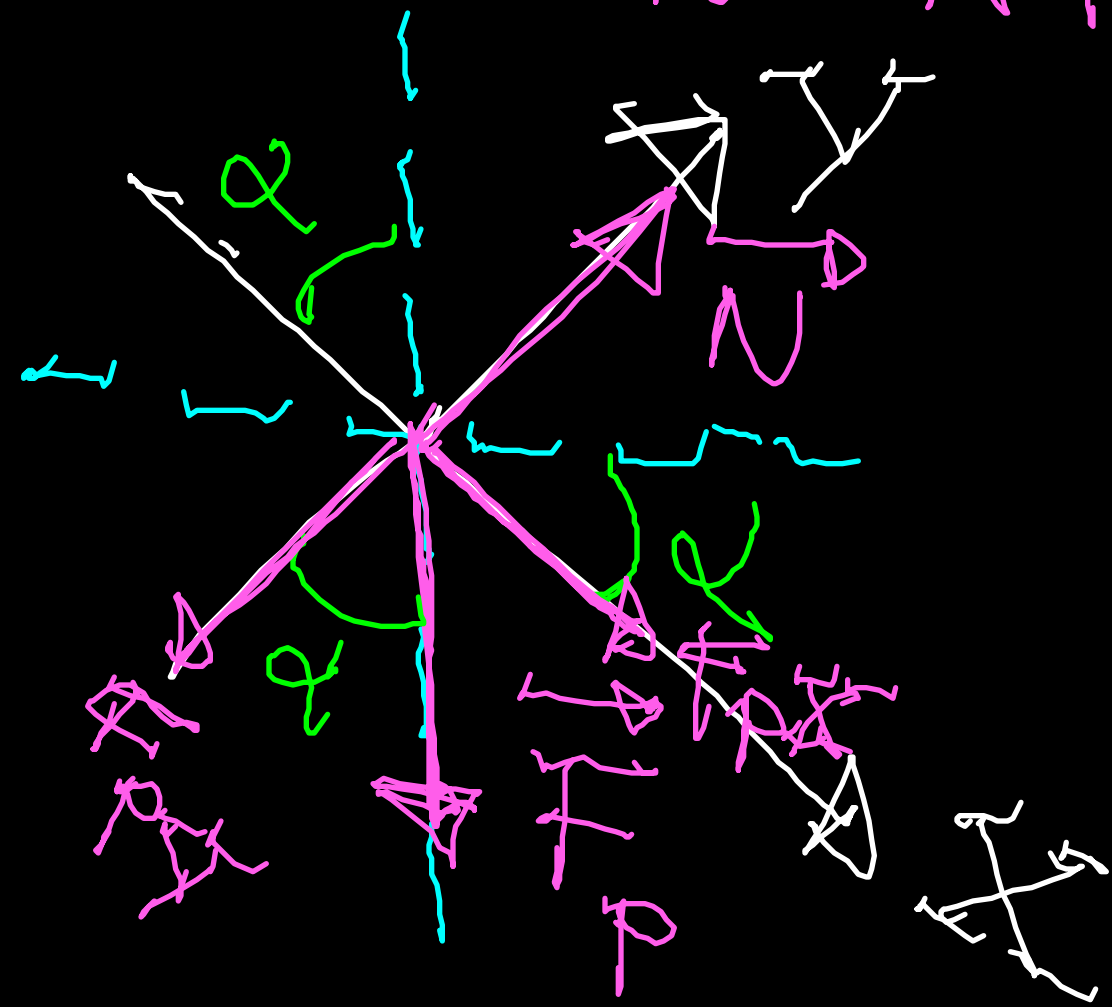


COEFF. DI
ATTRITO STATICO

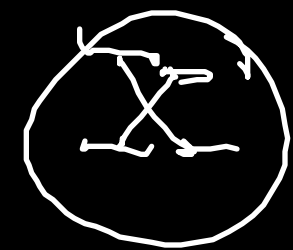
ESEMPLI



NO ATTRITO

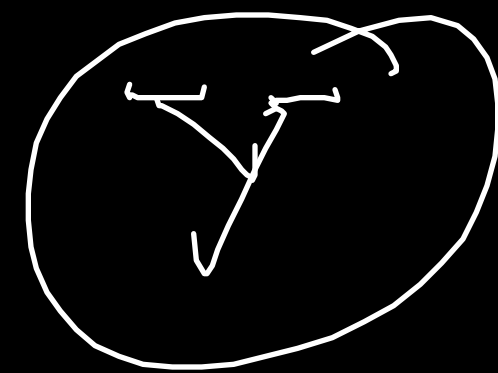


$$\vec{F}_R = m \vec{a}$$



$$F_{px} =$$

$$mg \sin \alpha = m a_x$$

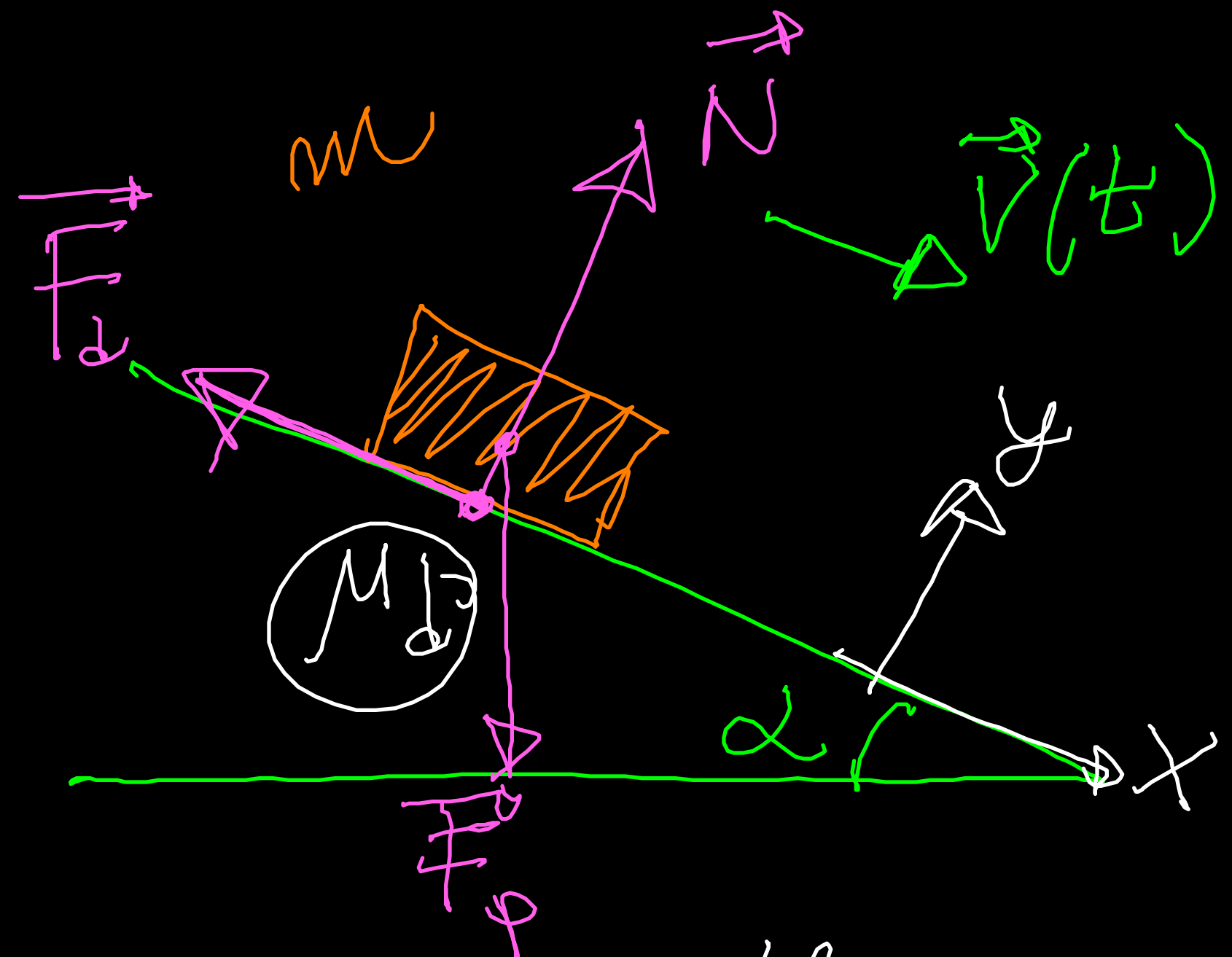


$$N + F_{py} = m a_y$$

$$N - mg \cos \alpha = 0$$

$$N = mg \cos \alpha$$

$$a_x = g \sin \alpha \leq g$$



(X) $-M_d N + m g \sin \alpha = m a$

(X) $N - m g \cos \alpha = 0$

$N = m g \cos \alpha$

~~$-M_d m g \cos \alpha + m g \sin \alpha = m a$~~

$a = g(\sin \alpha - \mu_d \cos \alpha) \leq g$

