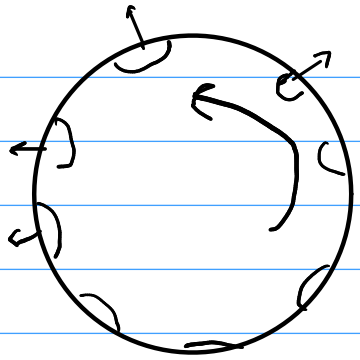
$\vec{g} = -g\hat{z}$

$\vec{B}$.

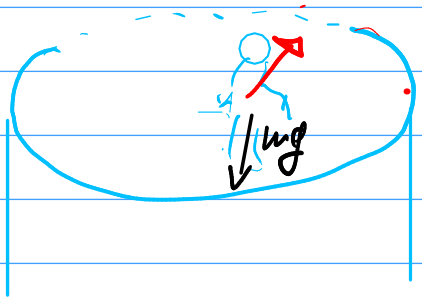
$\vec{E}$

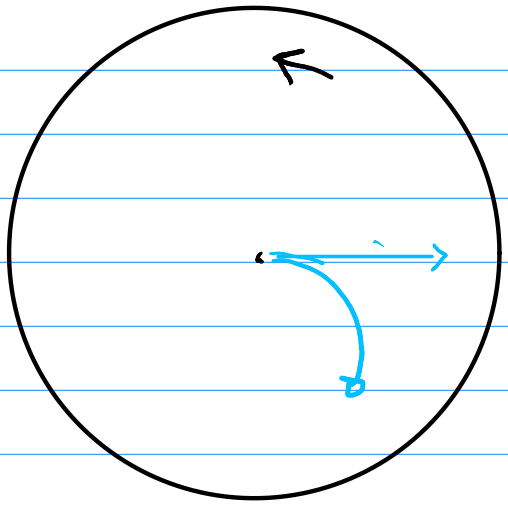
$$\vec{F} = m\vec{g} + q\vec{E} + q\vec{v} \wedge \vec{B}$$

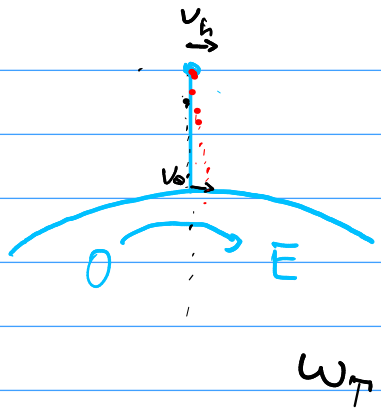


"ROTOR"

$$\vec{F}_{As} = \mu_s \vec{F}_N$$

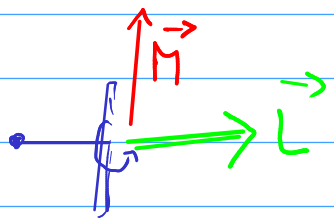






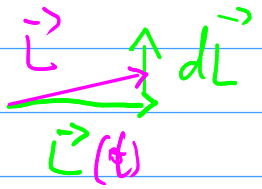
$v_0 = \omega \cdot R_T$

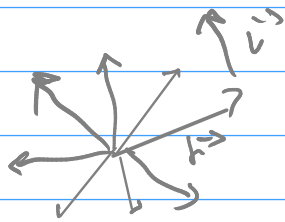
$v_h = \omega (R_T + h)$



$\vec{L}(t+dt)$

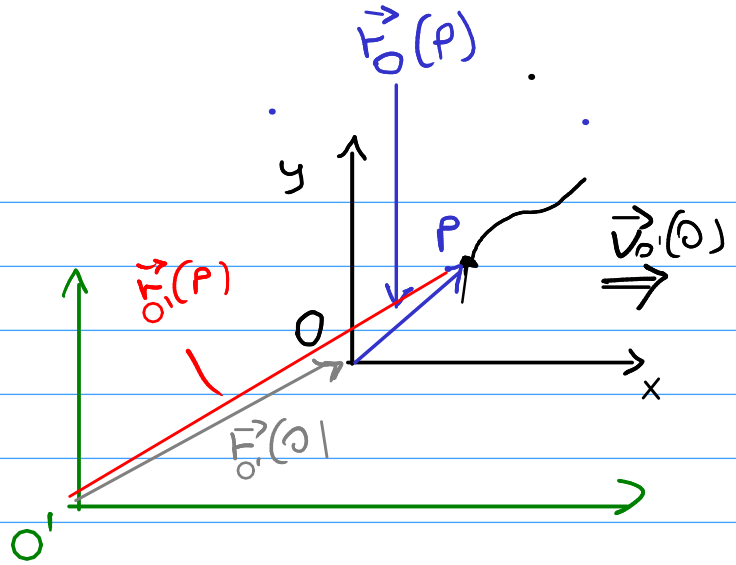
$d\vec{L} = \vec{M}\, dt$





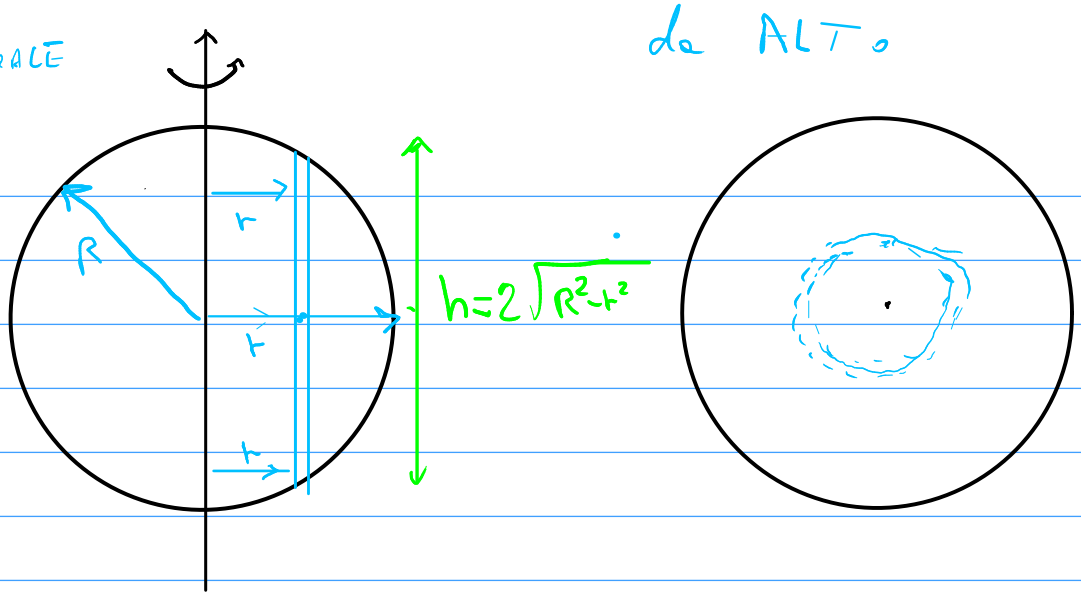
$\vec{v} \perp \vec{r}$

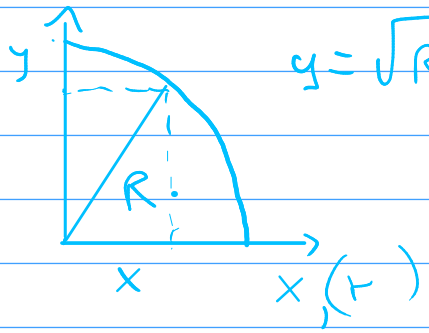
$\vec{e} \perp \vec{v}$


$\vec{r}_O(P)$
y
P
$\vec{v}_{O'}(O)$
$\vec{r}_{O'}(P)$
O
x
$\vec{r}_{O'}(O)$
O'

LATERALE

da ALTO





$$y = \sqrt{R^2 - x^2}$$

$$dI = dm \cdot r^2 = \rho\, dV \cdot r^2$$

$$= \rho (2\pi r) h\, dr\, r^2$$

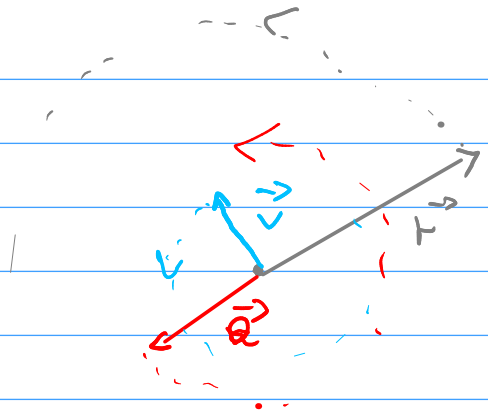
$$= \rho (2\pi r)\left(2\sqrt{R^2 - r^2}\right) dr\, r^2$$

$$= 4\pi \rho\, r^3 \sqrt{R^2 - r^2}\, dr$$

$$I = \int_0^R dI = 4\pi\rho \int_0^R r^3 \sqrt{R^2 - r^2}\, dr$$

$$= 4\pi\rho \frac{2}{15} R^5$$

$$= \underbrace{\frac{4}{3}\pi R^3}_{V} \cdot \rho \frac{2}{5} R^2 = \frac{2}{5} M R^2$$



$|\vec{v}| \propto \omega$

$|\vec{a}| \propto \omega^2$