



VISTA DALL'ALTO

LE FORZE VINCOLARI APPLICATE IN A NON FANNO LAVORO

$$W_{\text{TOT}} = W(\vec{F}) = \int_{\textcircled{1}}^{\textcircled{2}} \vec{F} \cdot d\vec{\ell} = \int_{\textcircled{1}}^{\textcircled{2}} F_y dy = F (y_B(\textcircled{2}) - y_B(\textcircled{1})) =$$

$$= F D \sin \varphi$$

$$\Delta K = K_{\text{FIN}} = \frac{1}{2} \frac{1}{3} m D^2 \omega^2 = \frac{1}{6} m D^2 \omega^2$$

$$W_{\text{TOT}} = \Delta K \quad \omega = \sqrt{\frac{6 F \sin \varphi}{m D}}$$