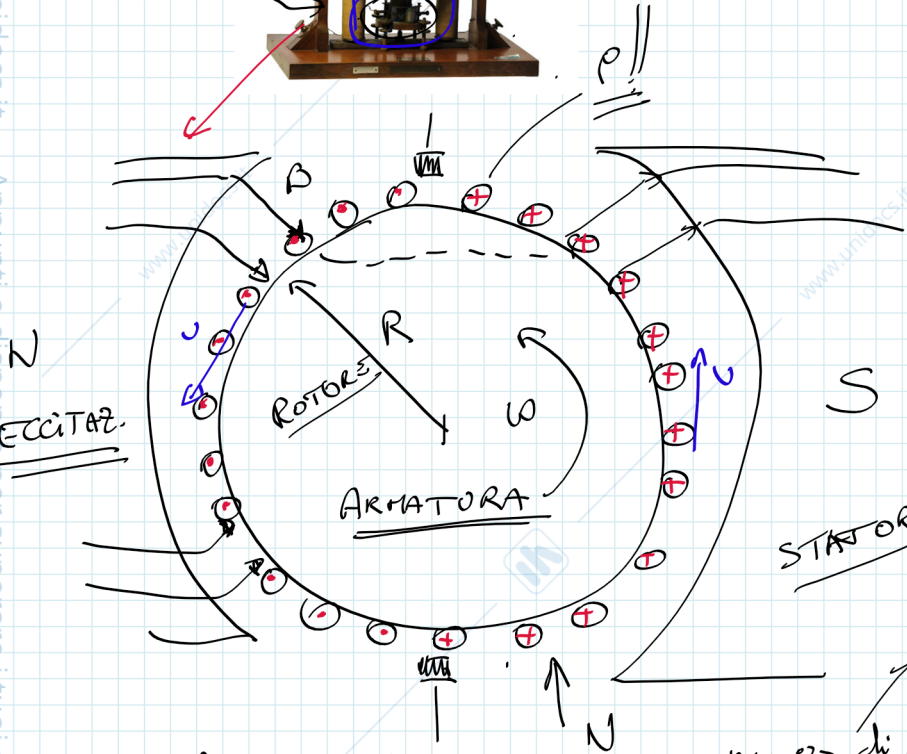
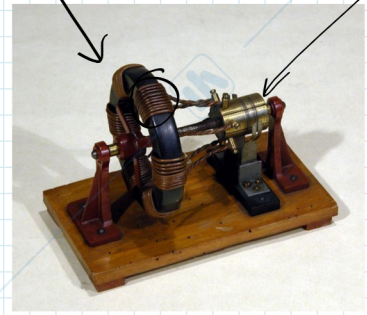
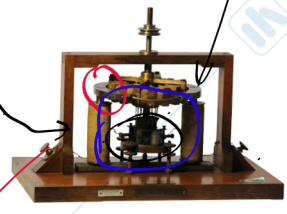
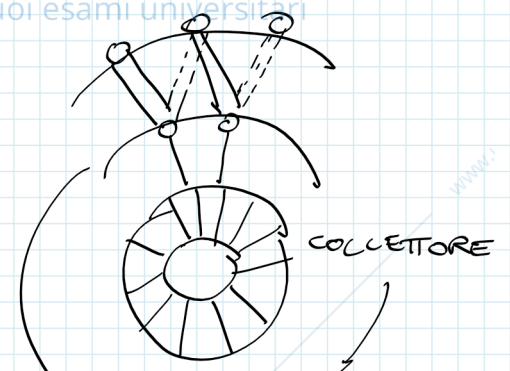
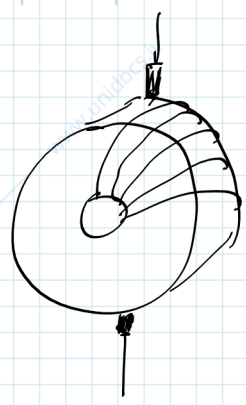
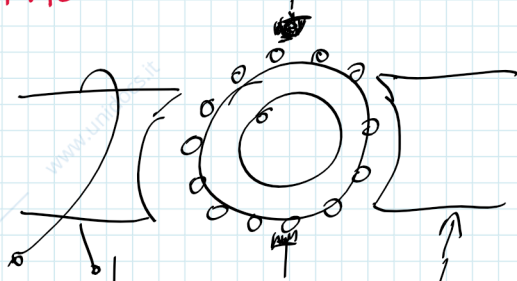
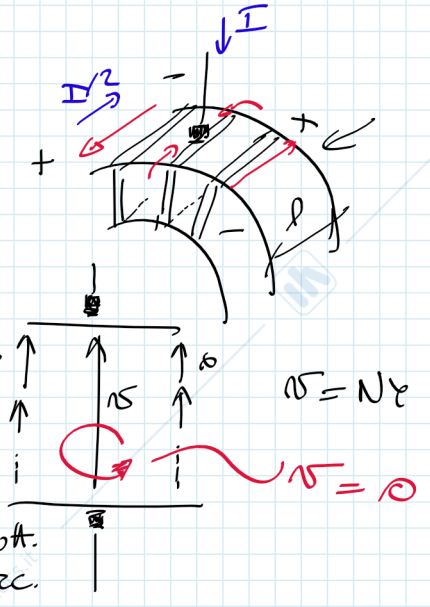


MACCHINA IN CC.



$v = \omega R$

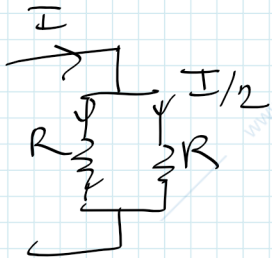
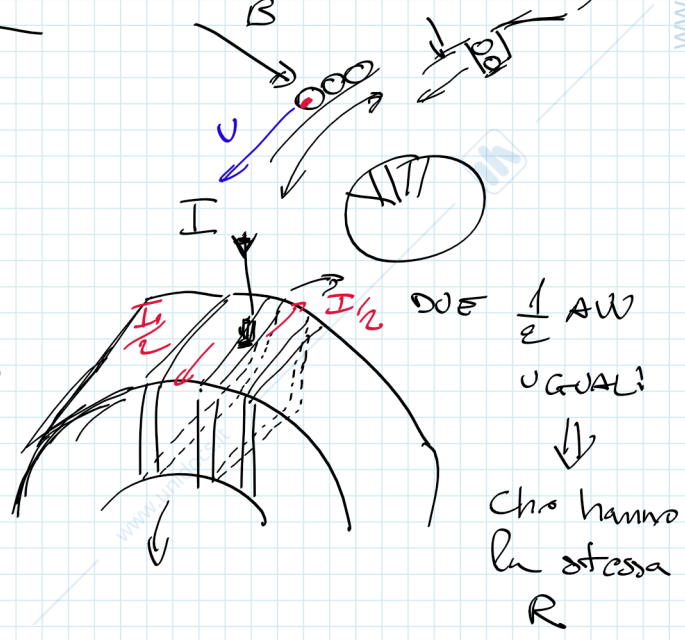
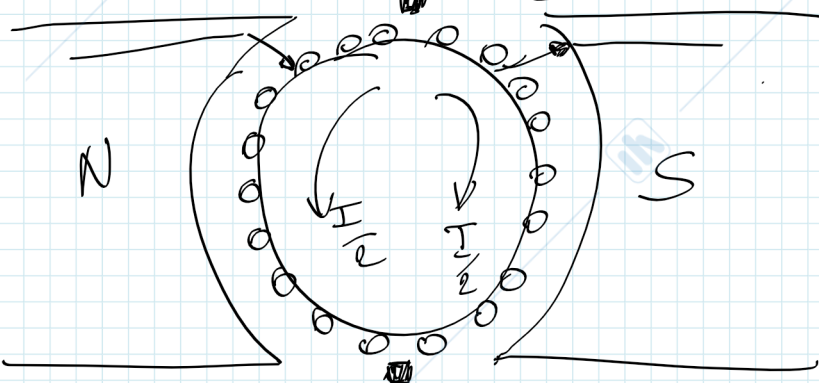


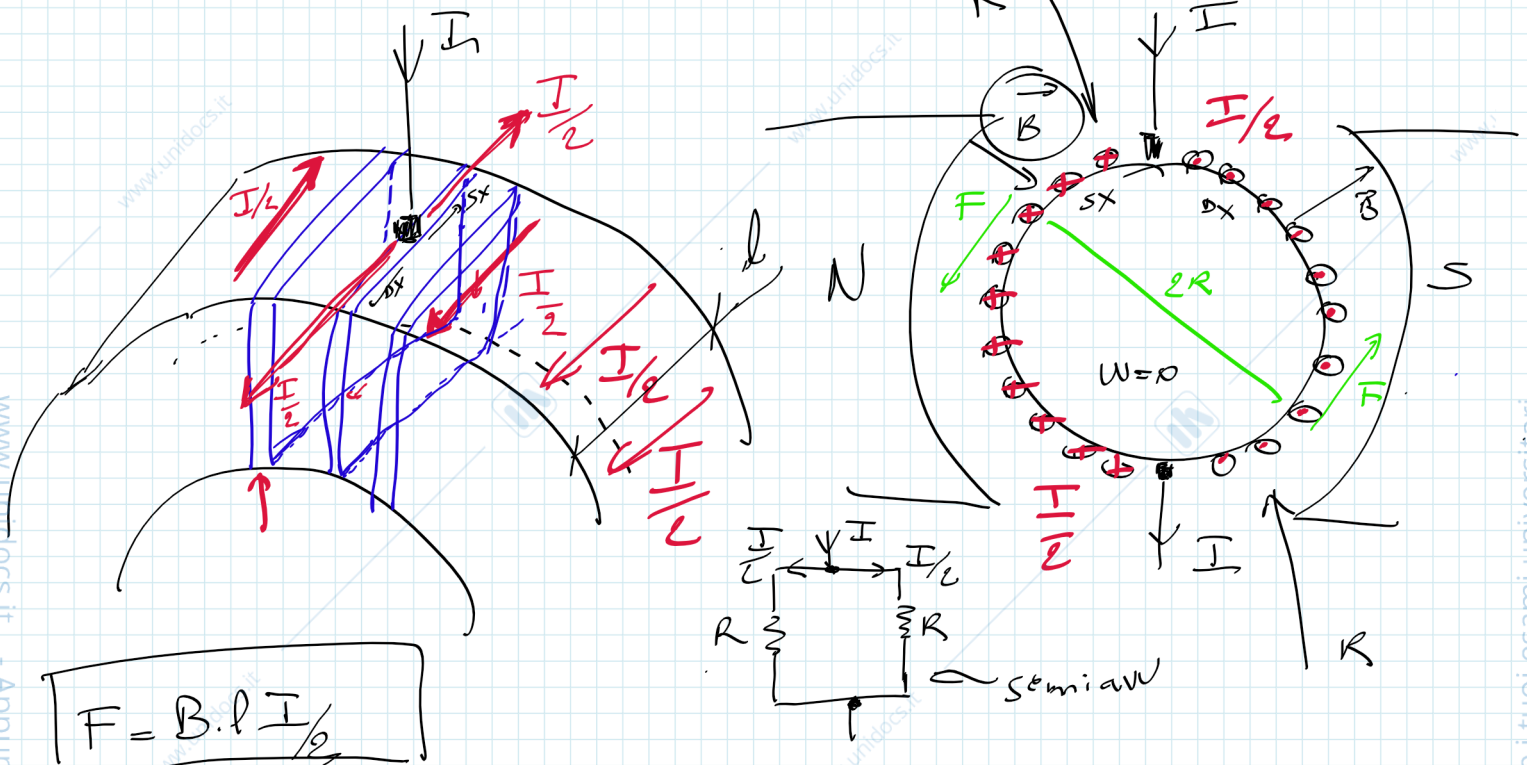
numero di condott. su una semicirc.

$e = B \cdot l \cdot v = B \cdot l \cdot \omega R$

$\mathcal{E} = \omega = \underbrace{N B l R}_{k} \omega = k \omega$

B è fissata dai poli esterni (ECCITAZIONE)





$$F = B \cdot l \cdot \frac{I}{2}$$

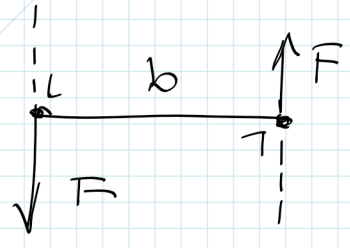
$$T = B l \frac{I}{2} \cdot 2R \Rightarrow T_{tot} = NT = \underbrace{NBR}_{K} I \Rightarrow T = KI$$

$$\begin{cases} E = KW \\ T = KI \end{cases}$$

$$K(B) = \underbrace{NBR}_{\text{GEOM}} \cdot B$$

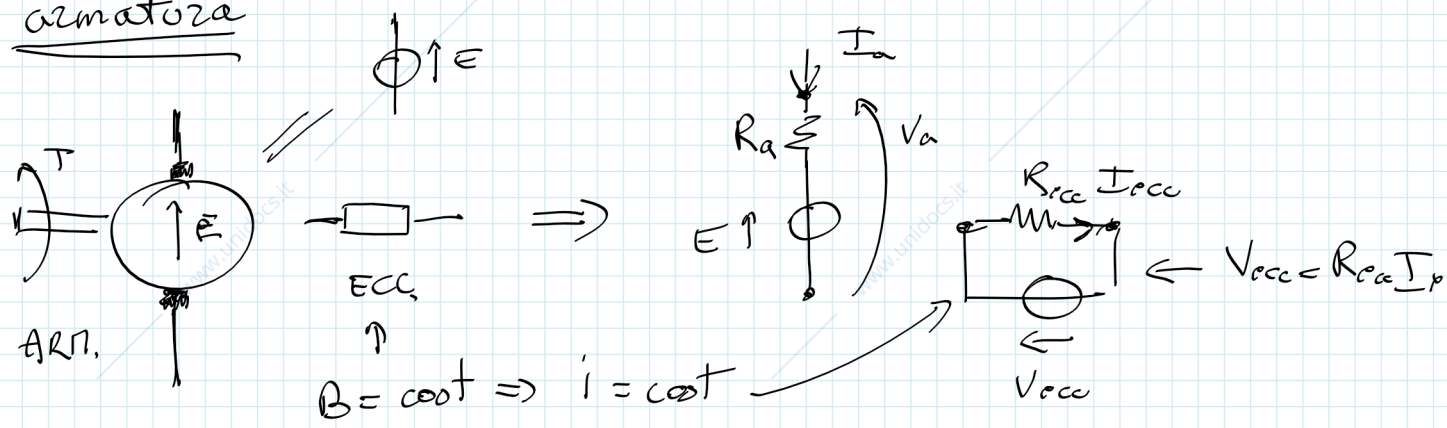
$$T = \text{coppia} = F \cdot \text{braccio} = 2R$$

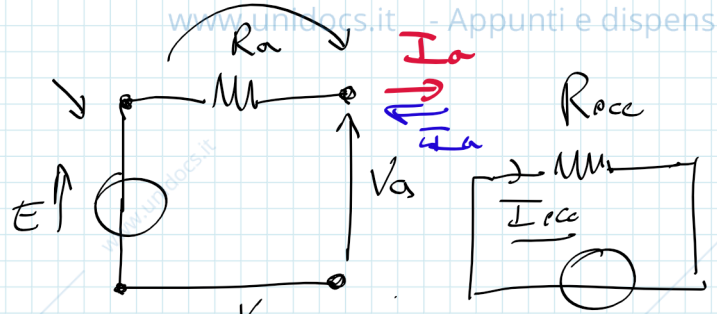
E = tensione allo spazzolo
 T = coppia totale.



MACCHINA IN CC. AD ECC SEPARATA

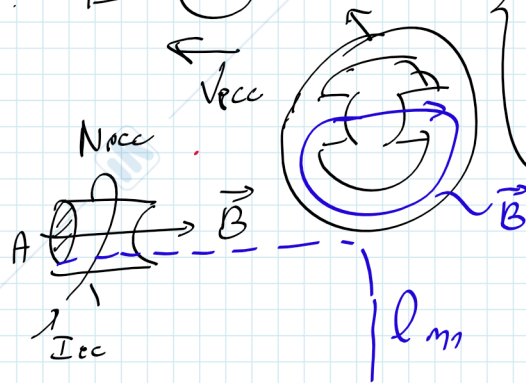
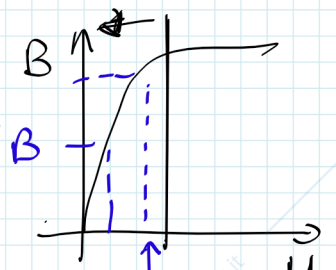
Il campo \$B\$ viene generato in maniera indipendente dall'alim dell'armatura





$I = \text{generatore}$
 $I = \text{motore}$

$K = N R l \cdot B$



$V_a = E + R_a I_a$
 $V_{cc} = R_{cc} I_{cc}$
 $E = K(I_{cc}) \omega$
 $T = K(I_{cc}) I_a$

MOTORS

$H = \frac{N I_{cc}}{l_{magn}}$

$K = K^* I_{cc}$ in zona lineare
 $K^* = \frac{N R l N_{cc} \omega}{l_{magn}}$

$B = \mu H$

q. geometriche

Si ricava da misure con filo $I_{cc} \Rightarrow$ misura la tensione a vuoto (coincide con E)

Ricavo K^*

$E = K \omega = K^* I_{cc} \cdot \omega$
 $E = K^* V_{cc} \cdot \omega = K(V_{cc}) \omega$

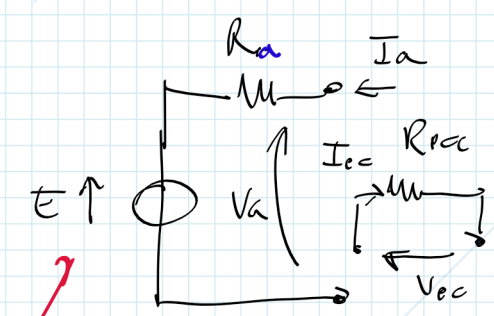
$I_{cc} = \frac{V_{cc}}{R_{cc}}$ $K_L^* = \frac{K^*}{R_{cc}}$

$K^* \Rightarrow$ a vuoto gira a ω_0 o genera E_0 con I_{cc}

$I_{cc} K^* = \frac{E_0}{\omega_0}$

$K^* = \frac{E_0}{\omega_0 \cdot I_{cc}}$

$K_L^* = \frac{E_0}{\omega_0 V_{cc}}$

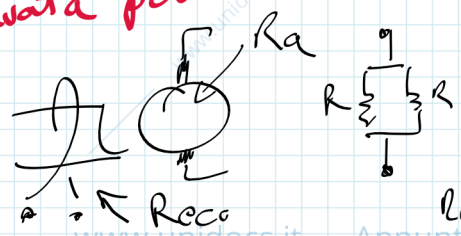


mi genera B

di solito quando si scrive

$E = K \omega$ $K \begin{cases} K^* \\ K_L^* \end{cases}$

ricavata prima



$V_a = E + R_a I_a$
 $V_{cc} = R_{cc} I_{cc}$
 $E = K(V_{cc}) \omega$
 $T = K(V_{cc}) I_a$

$K(V_{cc}) = K^* V_{cc}$

Si considera lineare