

Alempi varaus:

[kalvo 5]

$\vec{B} = \frac{\mu_0}{4\pi} \frac{q \vec{v} \times \hat{r}}{r^3}$, $B = \frac{\mu_0 q v}{4\pi r^2}$

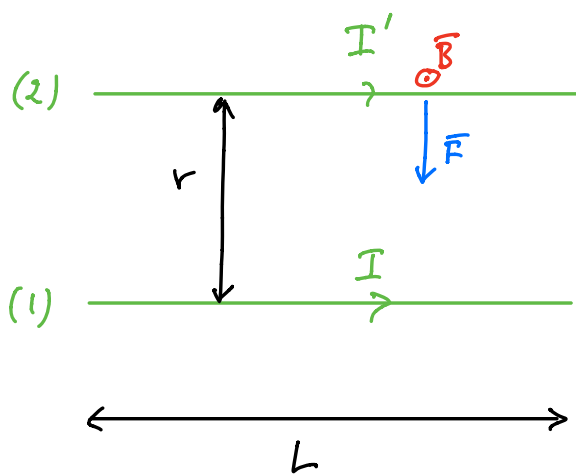
Ylempi varaus:

$\vec{F}_B = q \vec{v} \times \vec{B}$, $F_B = q v B = \frac{\mu_0 q^2 v^2}{4\pi r^2}$

$$F_E = \frac{q^2}{4\pi \epsilon_0 r^2} \quad (\text{hyökimenä voima})$$

$$\frac{F_E}{F_B} = \frac{1}{\epsilon_0 \mu_0 v^2} = \frac{c^2}{v^2} \gg 1$$

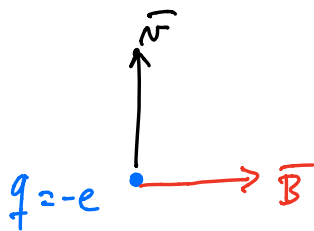
[kalvo 11]



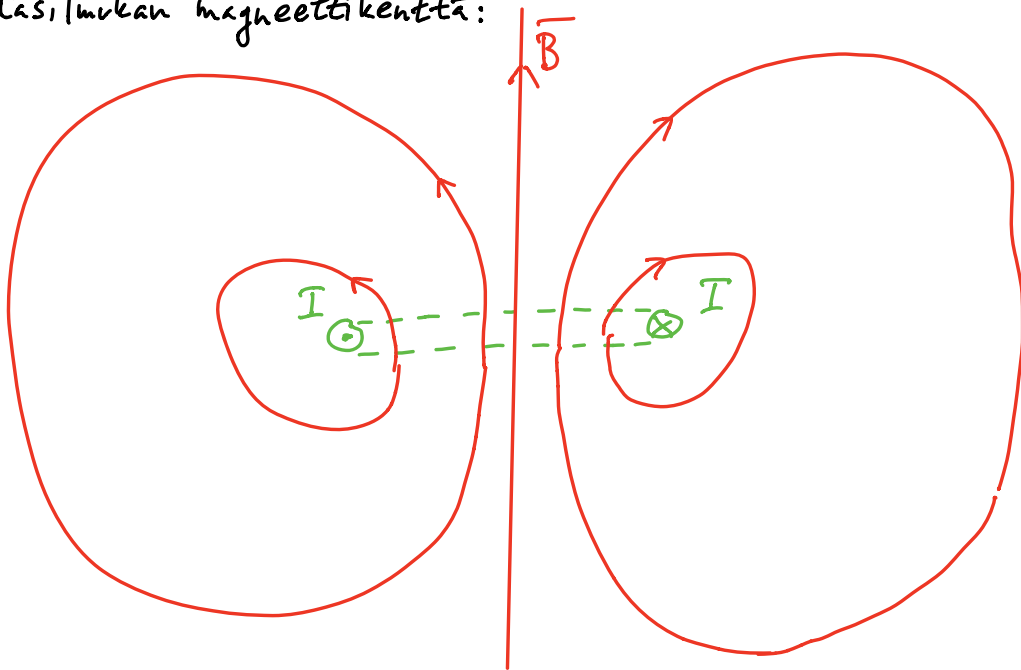
$$B = \frac{\mu_0 I}{2\pi r}$$

$$F = I' L B = \frac{\mu_0 I I' L}{2\pi r}$$

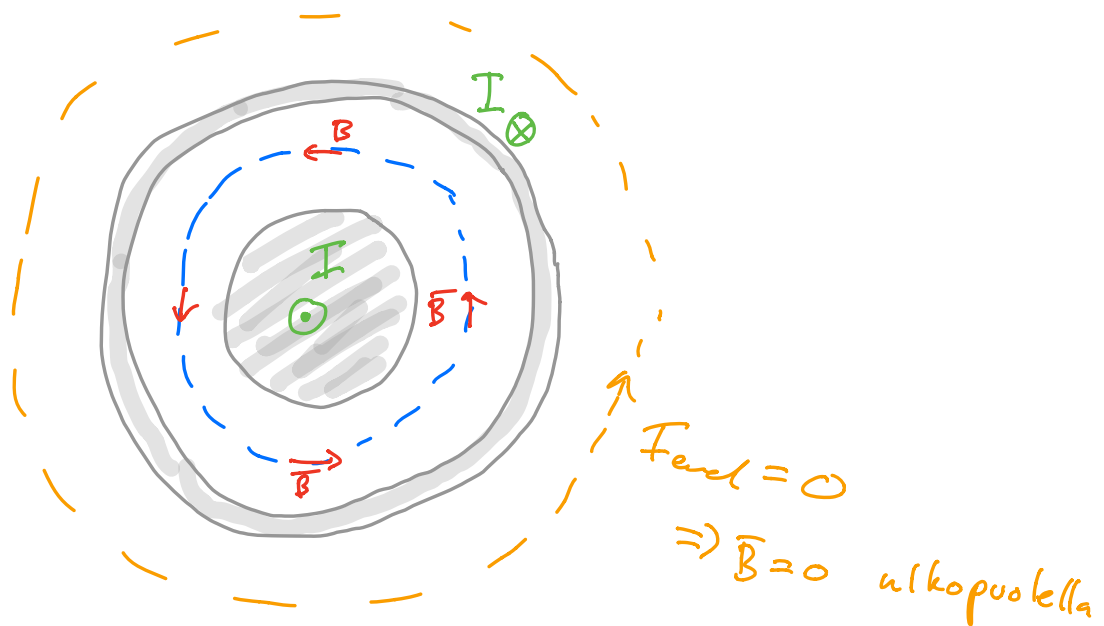
ET1, ylhäältä katsottu:



Virtasilmän magneettikenttä:



Koaksiaalikaapeli:



Ferromagnetismita liittyy:

