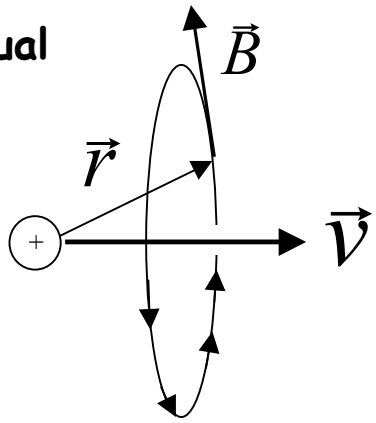
Llei de Biot-Savart

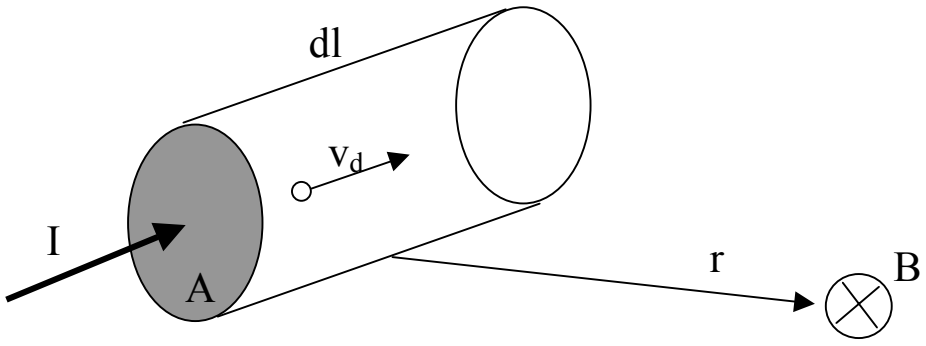
1. Camp creat per una càrrega puntual

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



$\mu_0 = 4\pi\cdot10^{-7}$ **Wb/A·m** **permeabilitat del buit**
1 Wb = 1 T·m^2

2. Camp creat per un element de corrent:



$$d\vec{B} = (nAv_d dt)\frac{\mu_0}{4\pi}\frac{q}{r^2}\vec{v}\times\frac{\vec{r}}{r} = \frac{\mu_0}{4\pi}\frac{I}{r^2}d\vec{l}\times\frac{\vec{r}}{r}$$

$$\vec{B} = \frac{\mu_0 I}{4\pi}\int\frac{d\vec{l}\times\vec{r}}{r^3}$$