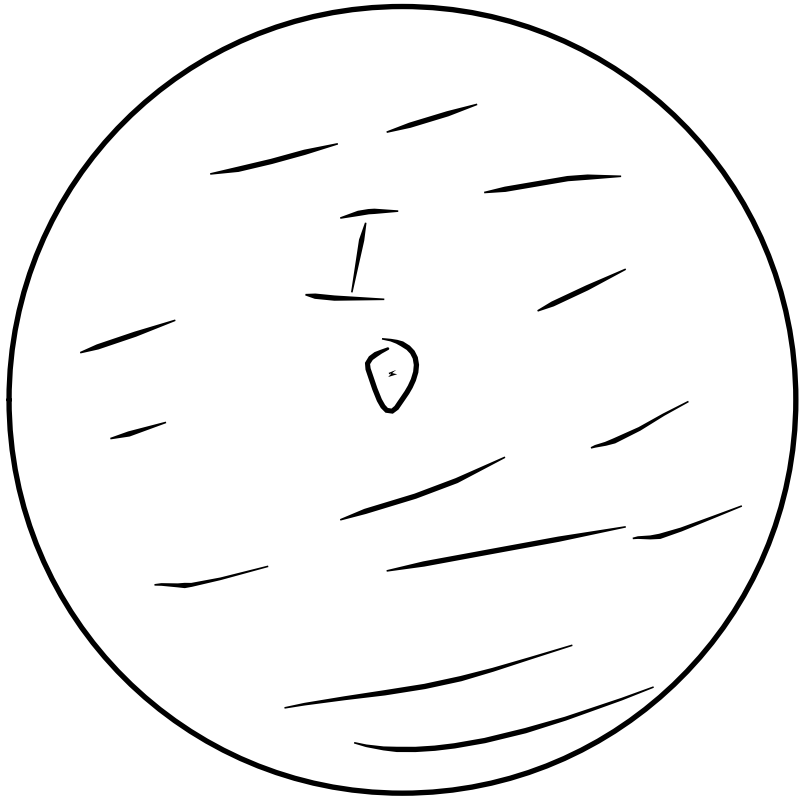

$$j = r j_0$$

$$2\pi r B = \mu_0 I'$$

$$I' = \int_0^S j\,dS = \int_0^r j_0 r\, 2\pi r\, dr =$$

$$= \frac{2}{3}\pi j_0 r^3$$

$$I = \frac{2\pi}{3} j_0 R^3$$

$$j_0 = \frac{3I}{2\pi R^3}$$

$$B = \frac{j_0 \mu_0 r^2}{3}$$

$$B = \frac{I \mu_0 r^2}{2\pi R^3}$$

dla $r \leq R$

dla $r \geq R$

$$2\pi r B = I \mu_0$$

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