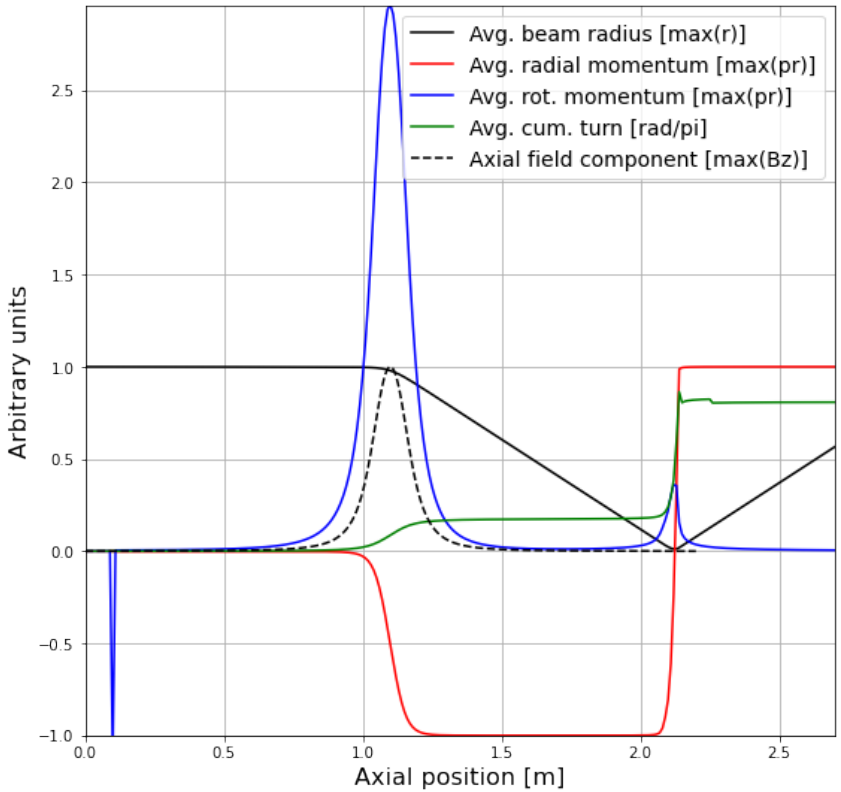
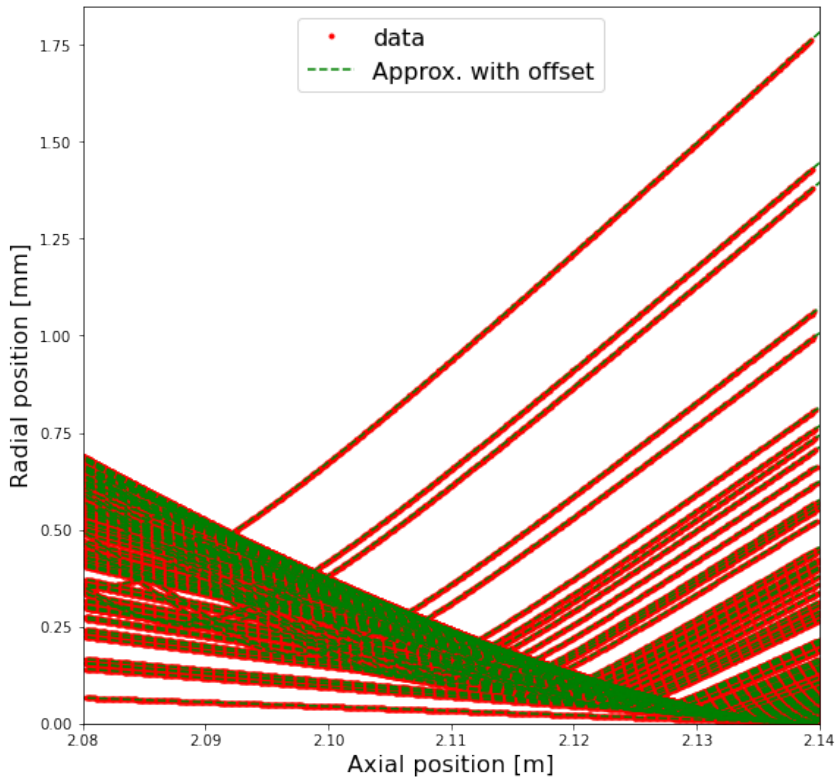
Edge cutoff





Solution:

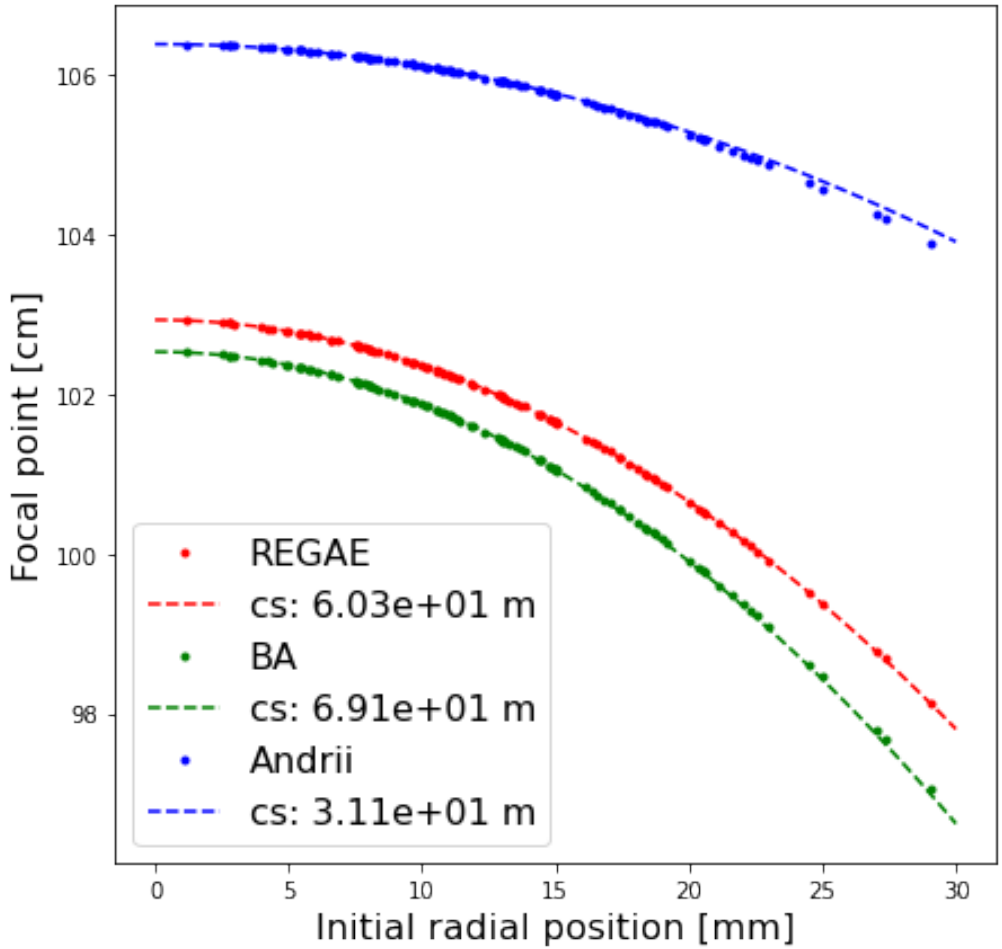
$$B_z^{cutoff} = B_z - \min(B_z)$$

Scaling

$$\frac{1}{f} = \frac{e^2}{4p_z^2} \cdot F_2^N,$$

$$k_N = \frac{B_N}{B} \propto \sqrt{\frac{F_2^N}{F_2}}, = \frac{2p_z(E_N)}{e\sqrt{f_N F_2}}$$

Δf expansion



Fit: $f(r) = f_0 - \Delta f(r)$

$$\Delta f = c_2 \cdot r^2 + c_4 \cdot r^4 + ...;$$

$c_s := c_2 \cdot f^2$ Approximation for small r

Off-axis focusing