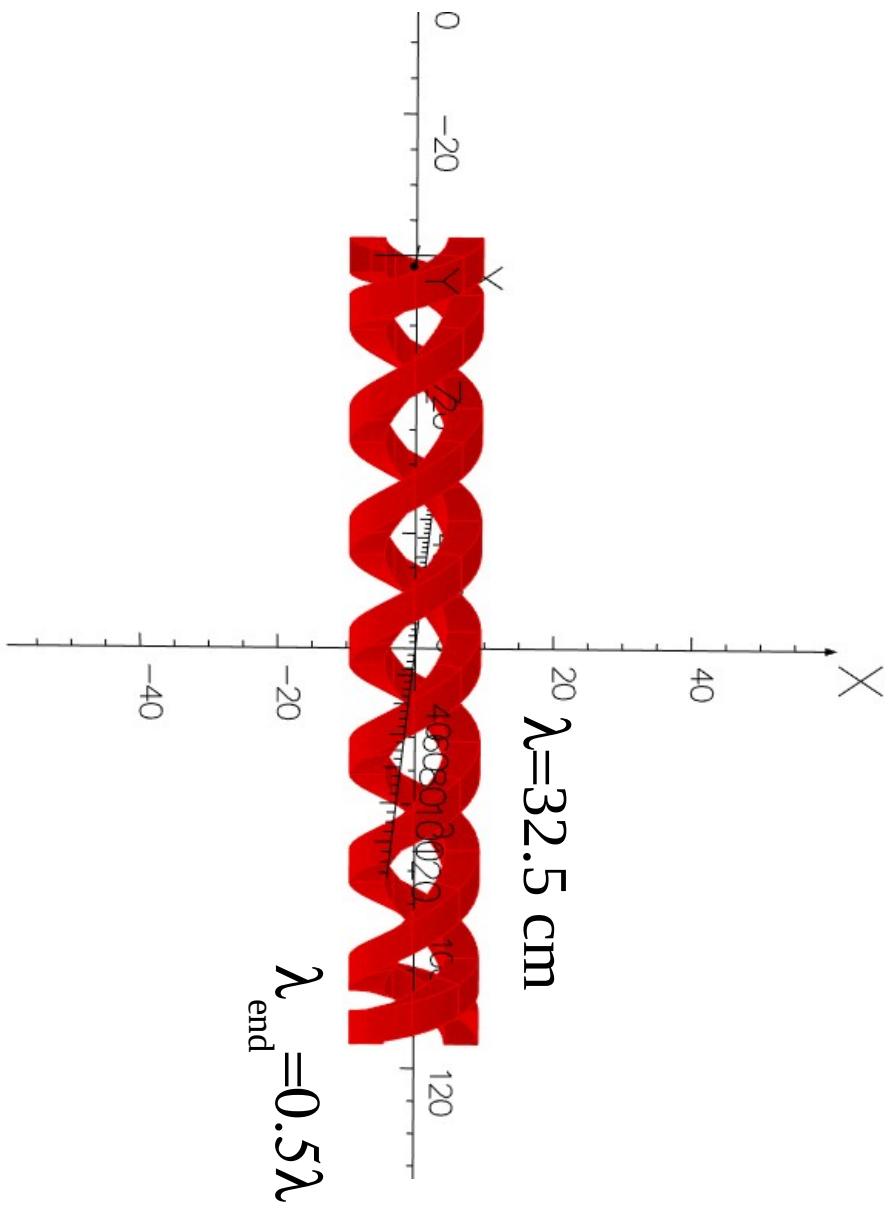
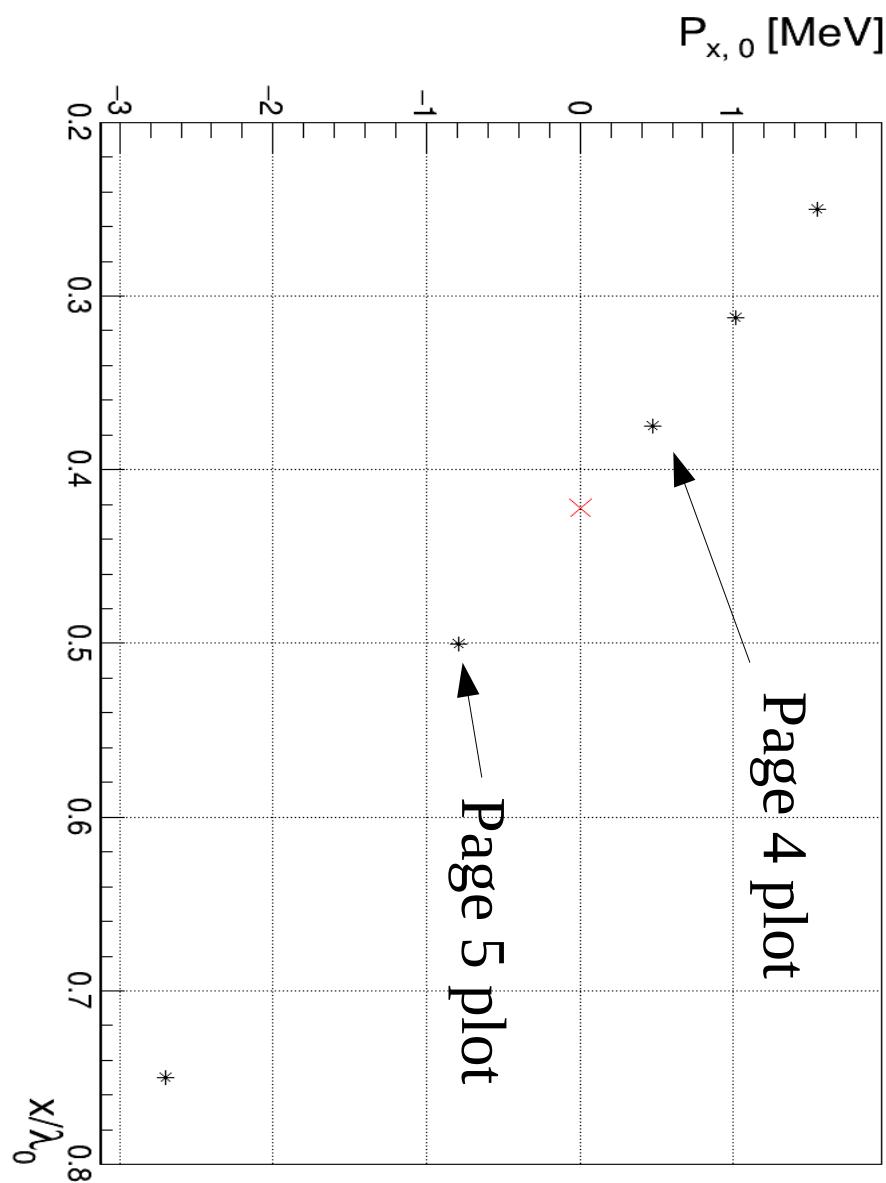


# The status of the helical undulator field modeling



Initial  $P_{x,0}$  vs  $x/\lambda_0$  (Und. period change position)



$$\lambda = 3/8\lambda$$

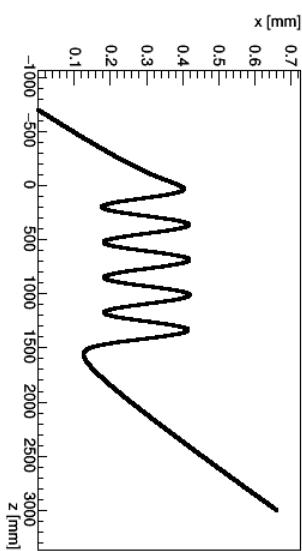
$$P_{x,0} = 0.47 \text{ MeV}$$

$$\lambda_0 = 32.5 \text{ cm}$$

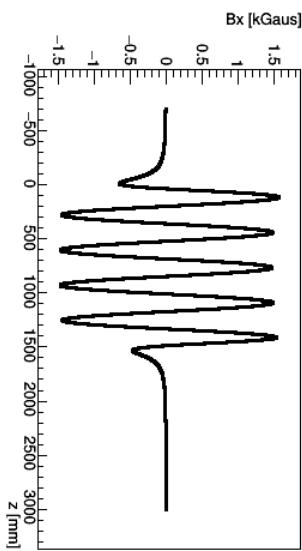
$$\lambda_{\text{end}} = 0.5 * \lambda$$

$$N = 4 \text{ turns}$$

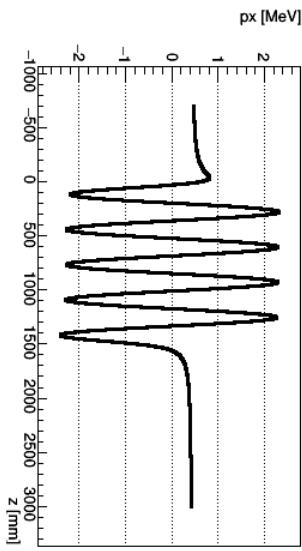
x vs z (rotation angle is 1.29 rad)



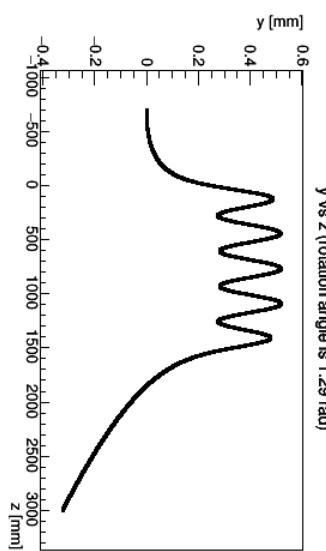
b<sub>x</sub> vs z (rotation angle is 1.29 rad)



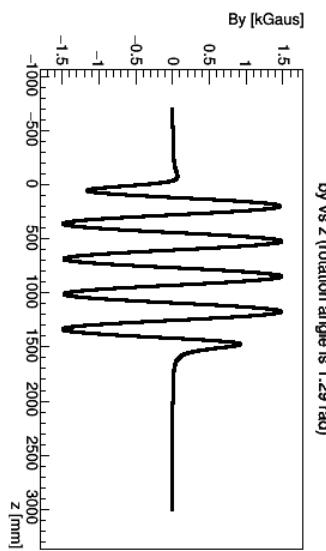
p<sub>x</sub> vs z (rotation angle is 1.29 rad)



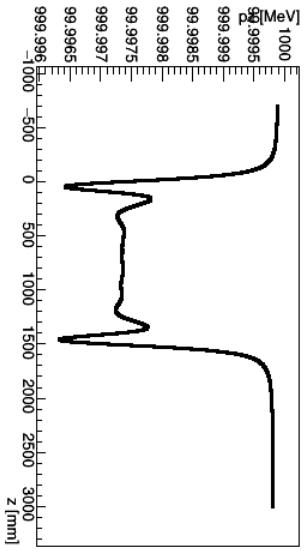
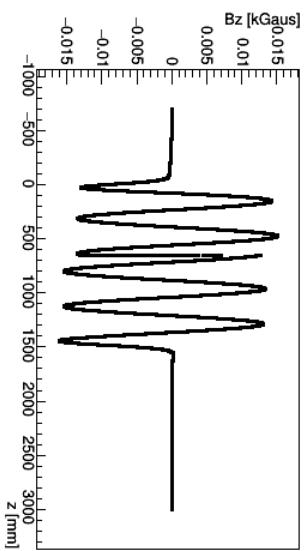
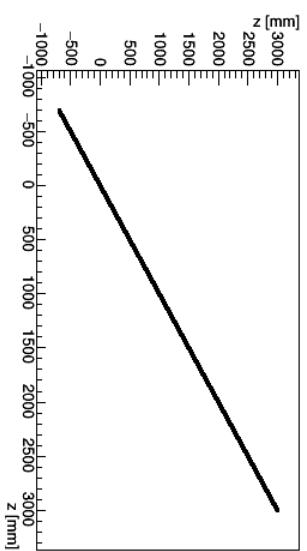
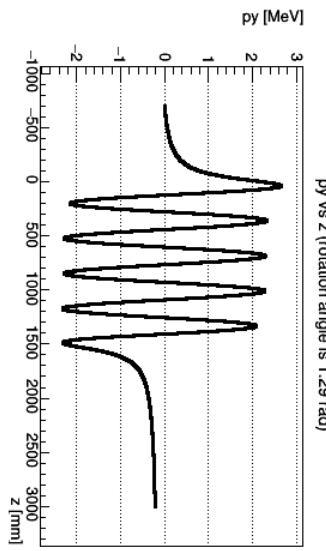
y vs z (rotation angle is 1.29 rad)



b<sub>y</sub> vs z (rotation angle is 1.29 rad)



p<sub>y</sub> vs z (rotation angle is 1.29 rad)



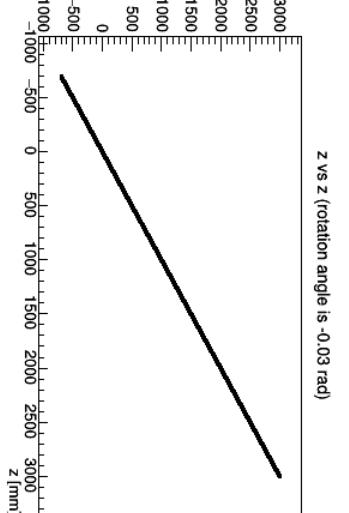
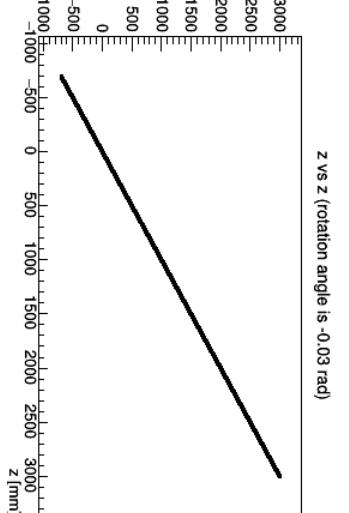
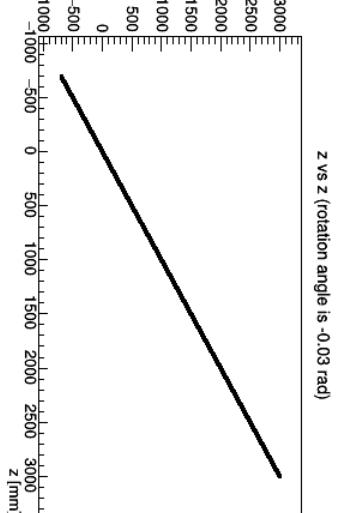
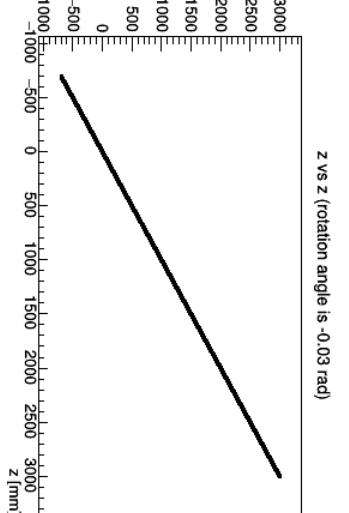
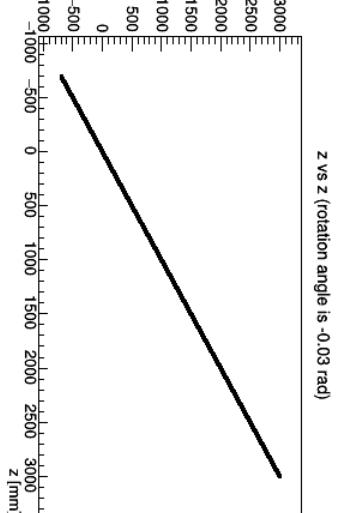
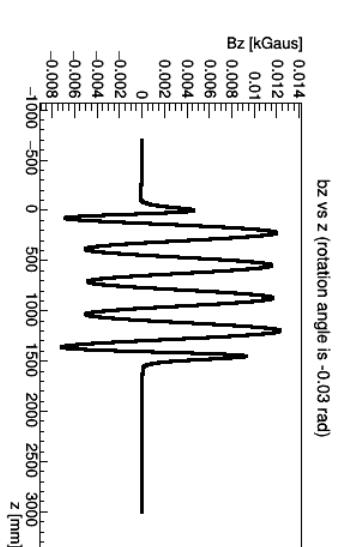
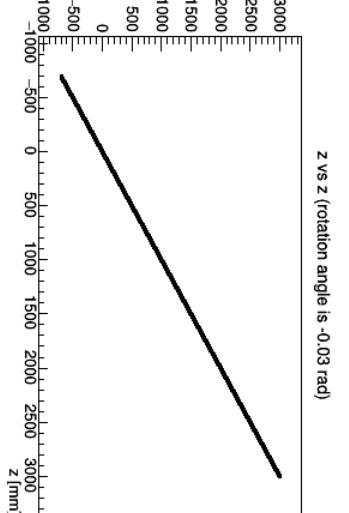
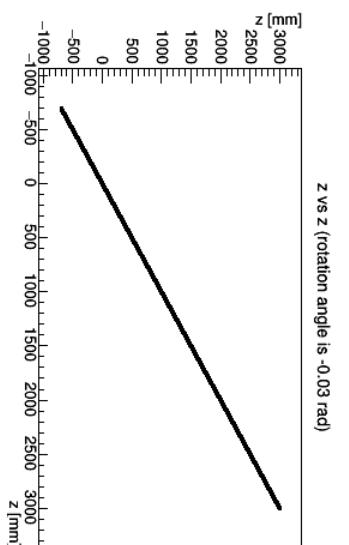
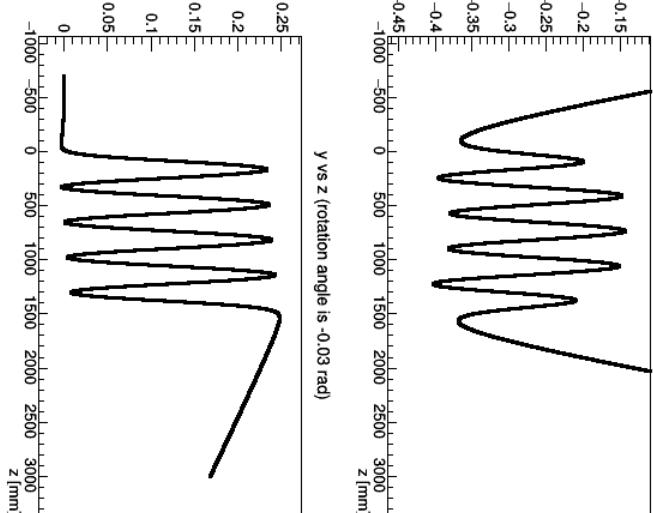
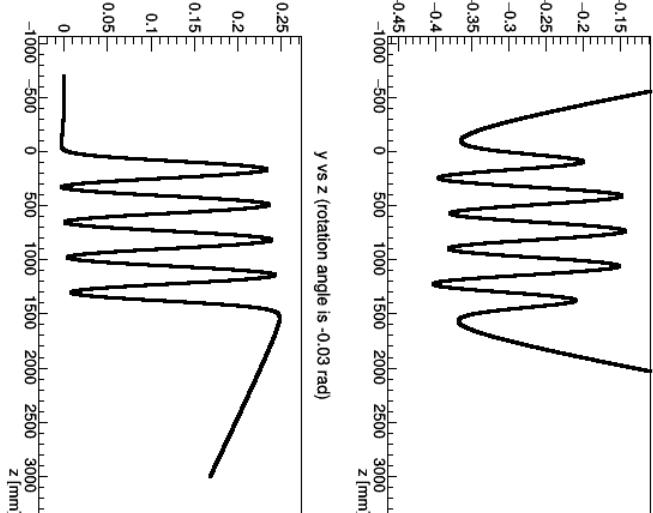
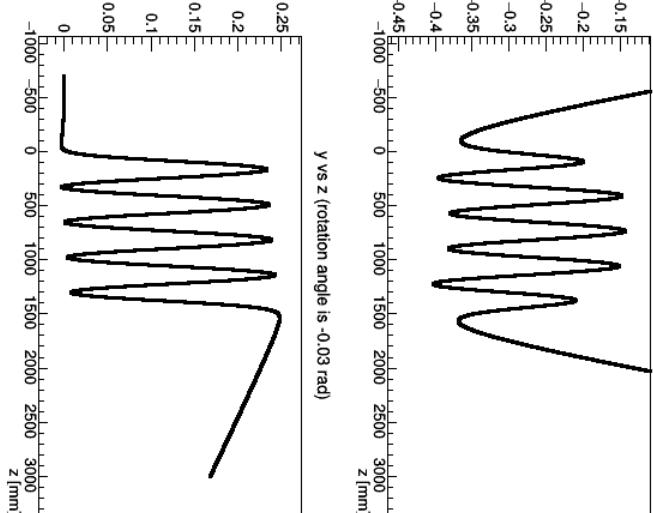
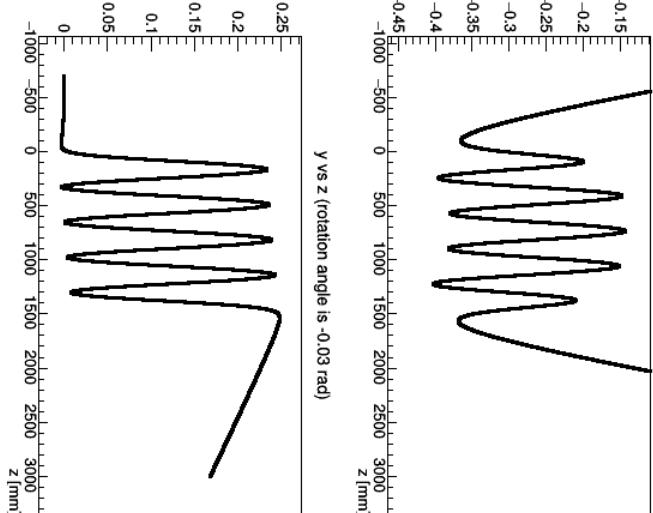
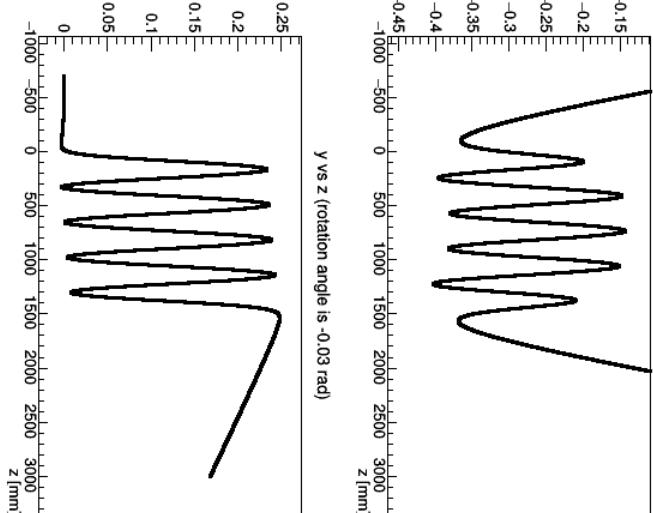
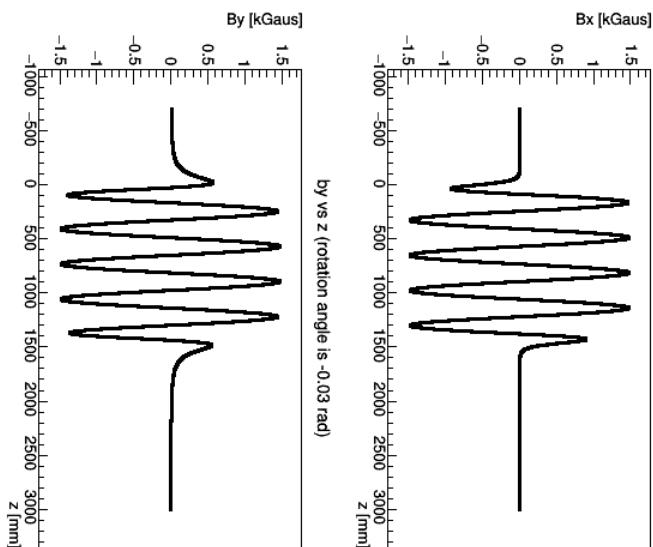
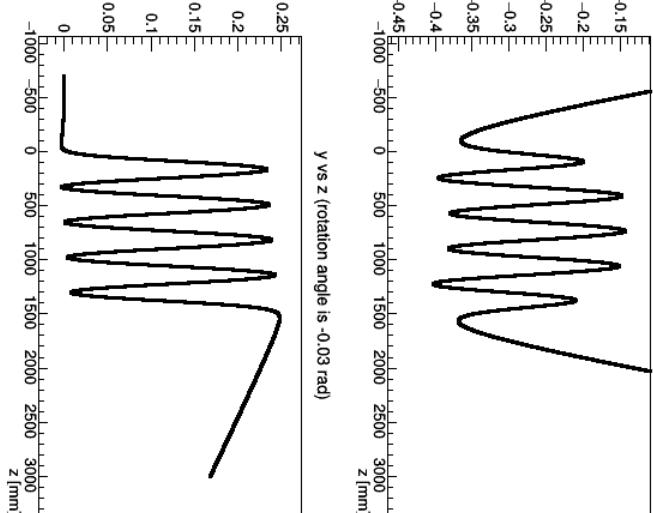
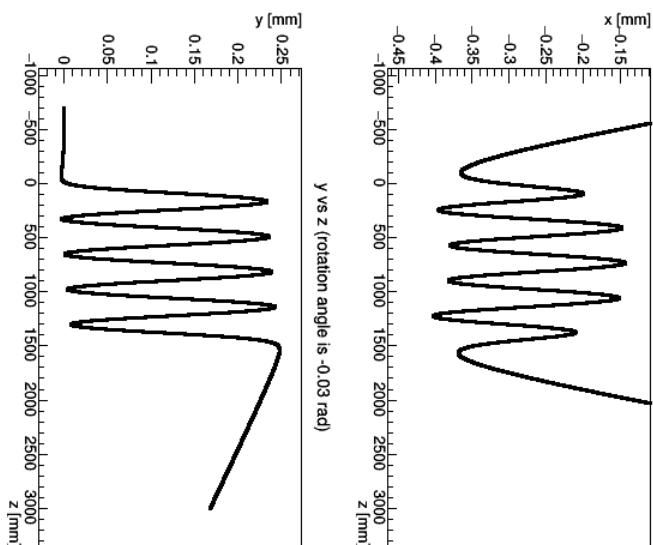
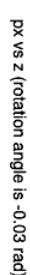
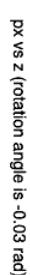
$$\lambda = 4/8\lambda$$

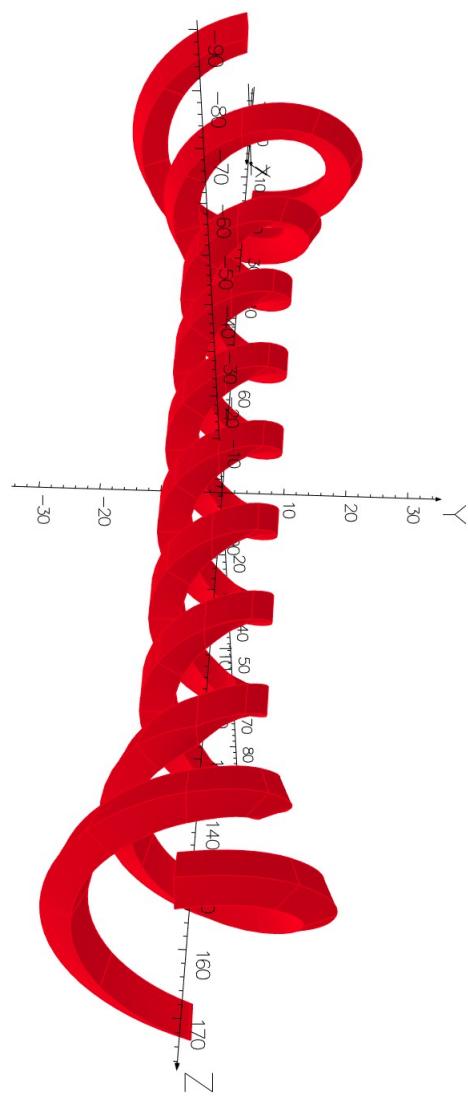
$$P_{x,0} = -0.78 \text{ MeV}$$

$$\lambda_0 = 32.5 \text{ cm}$$

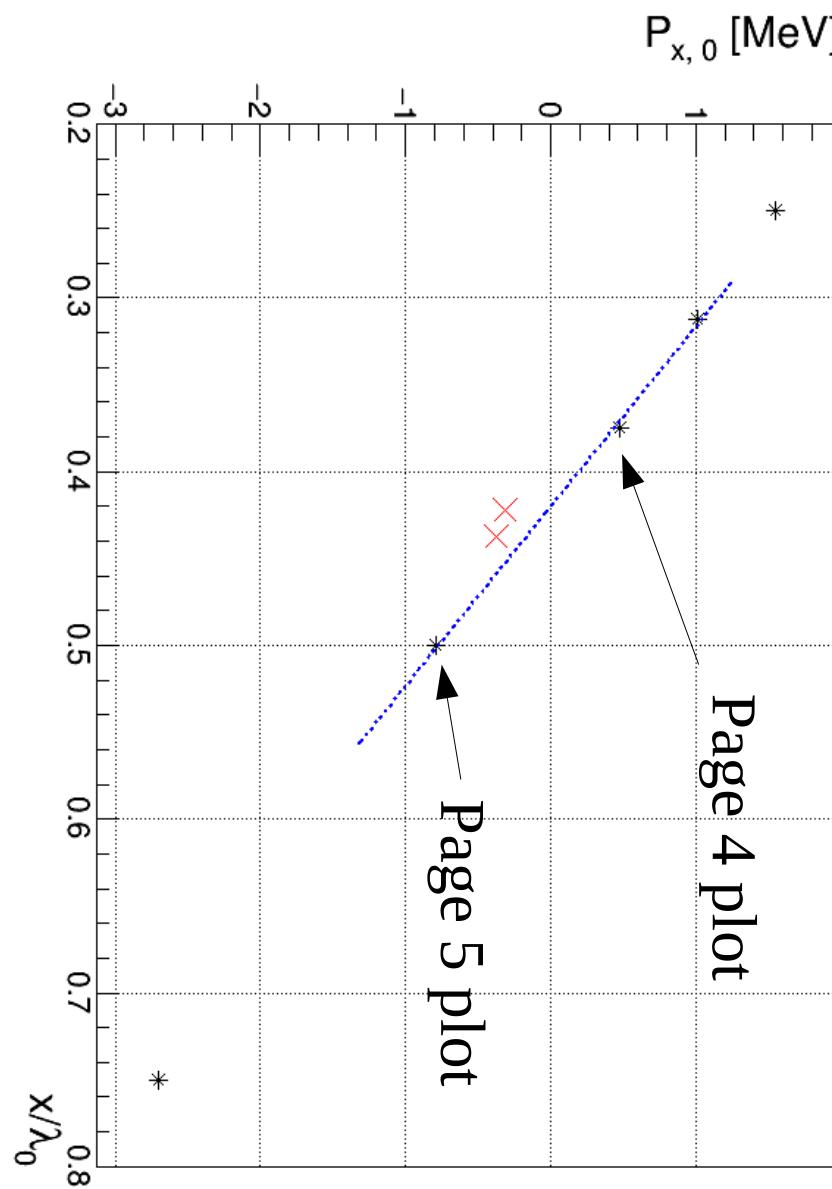
$$\lambda_{\text{end}} = 0.5\lambda$$

N = 4 turns





Initial  $P_{x,0}$  vs  $x/\lambda_0$  (Und. period change position)



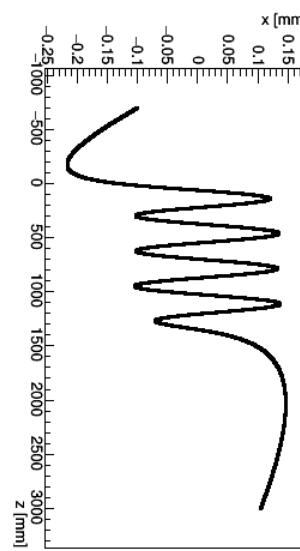
The slide is added after the group meeting (on Aug-28)

$$\lambda = 27/64\lambda$$

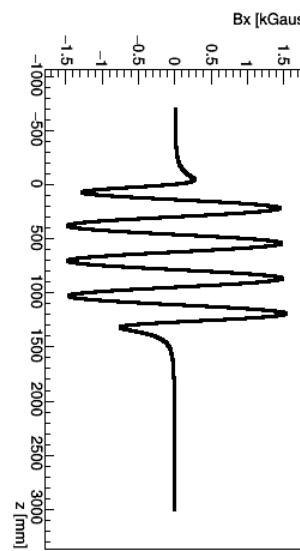
$$P_{x,0} = -0.31 \text{ MeV}$$

$$\begin{aligned}\lambda_0 &= 32.5 \text{ cm} \\ \lambda_{\text{end}} &= 0.5 * \lambda \\ N &= 4 \text{ turns}\end{aligned}$$

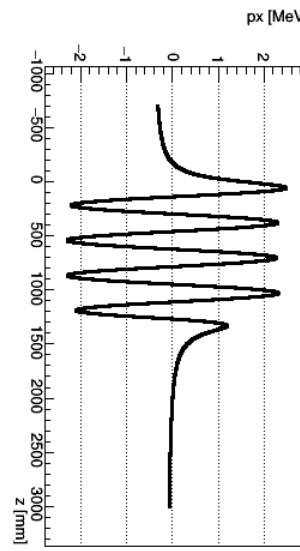
x vs z (rotation angle is -0.79 rad)



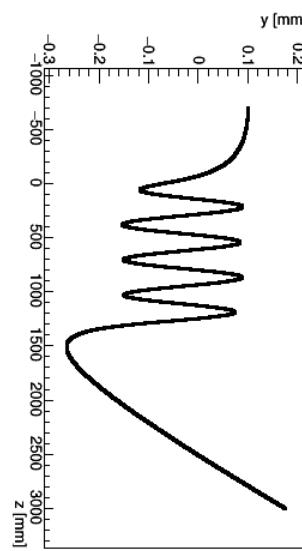
b<sub>x</sub> vs z (rotation angle is -0.79 rad)



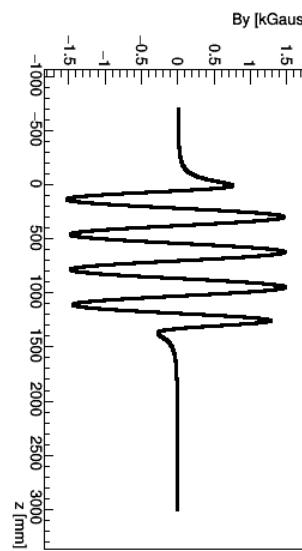
p<sub>x</sub> vs z (rotation angle is -0.79 rad)



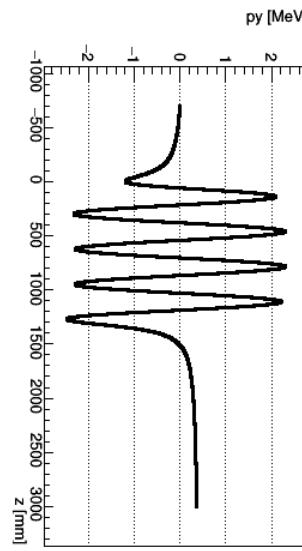
y vs z (rotation angle is -0.79 rad)



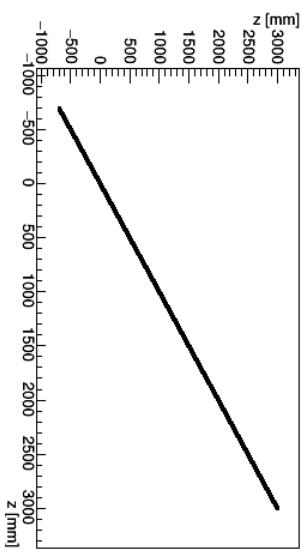
b<sub>y</sub> vs z (rotation angle is -0.79 rad)



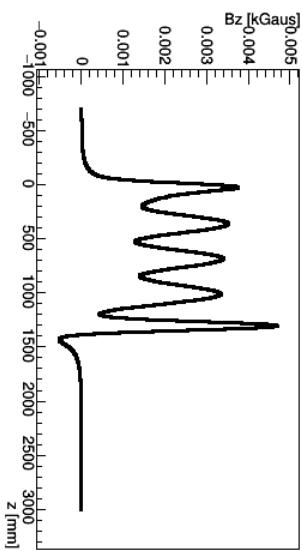
p<sub>y</sub> vs z (rotation angle is -0.79 rad)



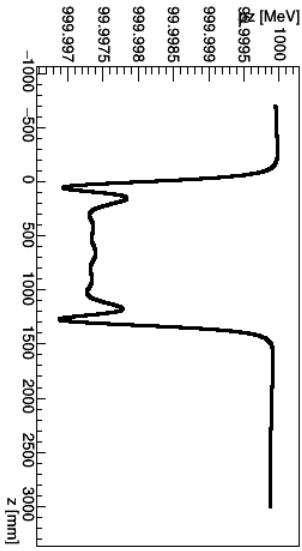
z vs z (rotation angle is -0.79 rad)



b<sub>z</sub> vs z (rotation angle is -0.79 rad)



p<sub>z</sub> vs z (rotation angle is -0.79 rad)



The slide is added after the group meeting (on Aug-28)