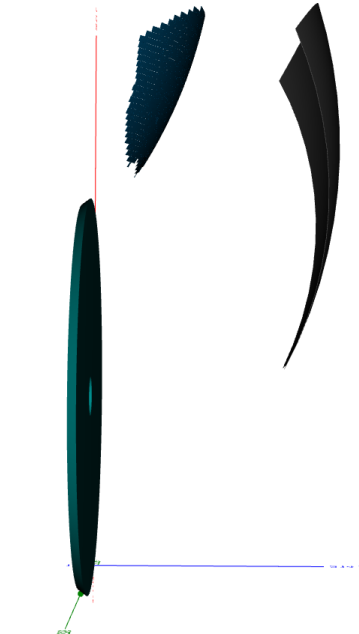
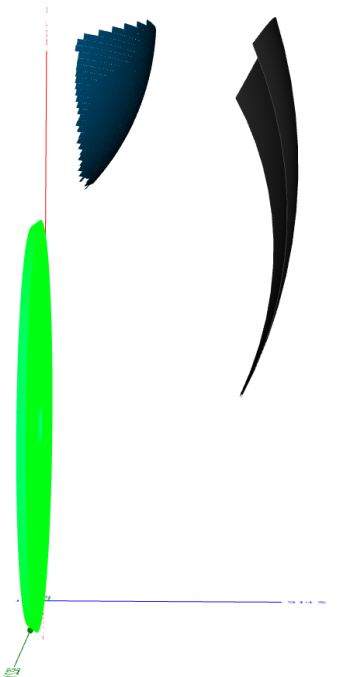
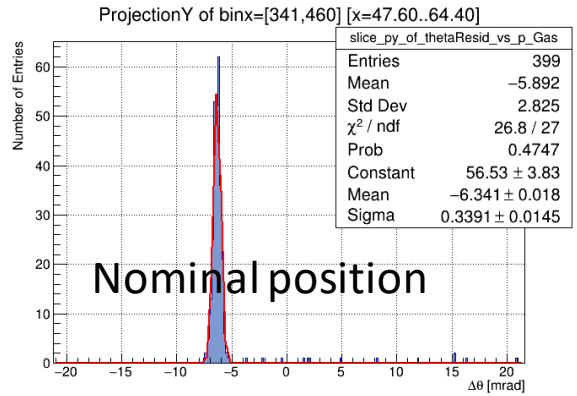
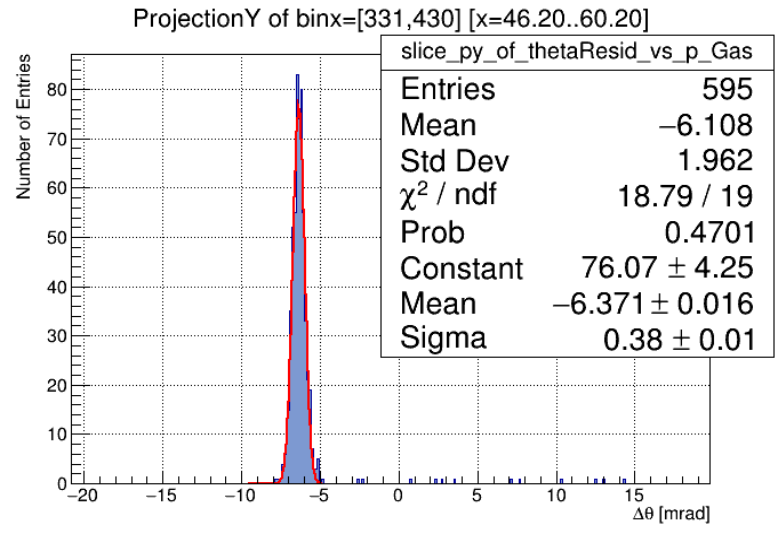


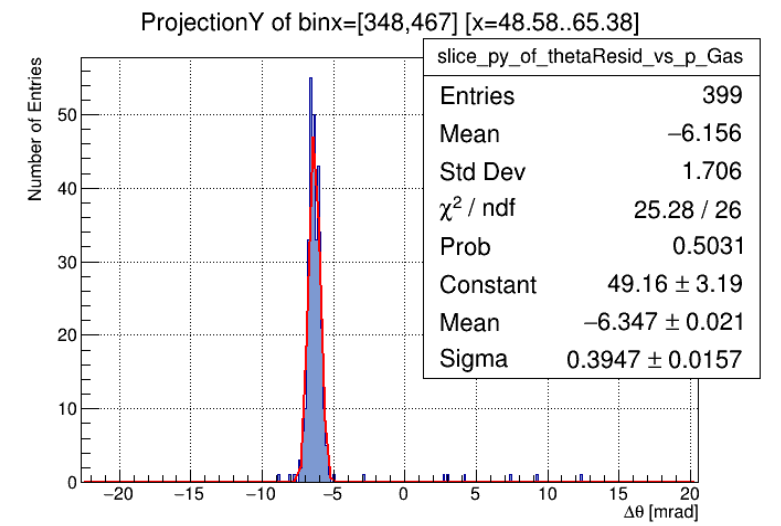
Effect on sensor parameterization



DRICH_mirror_center_x_sec0 = 114.749 cm
 DRICH_mirror_center_y_sec0 = 0.000 cm
 DRICH_mirror_center_z_sec0 = 94.485 cm
 DRICH_mirror_radius = 219.415 cm
 DRICH_sensor_sph_center_x_sec0 = 224.600 cm
 DRICH_sensor_sph_center_y_sec0 = 0.000 cm
 DRICH_sensor_sph_center_z_sec0 = 36.410 cm
 DRICH_sensor_sph_radius = 220.000 cm

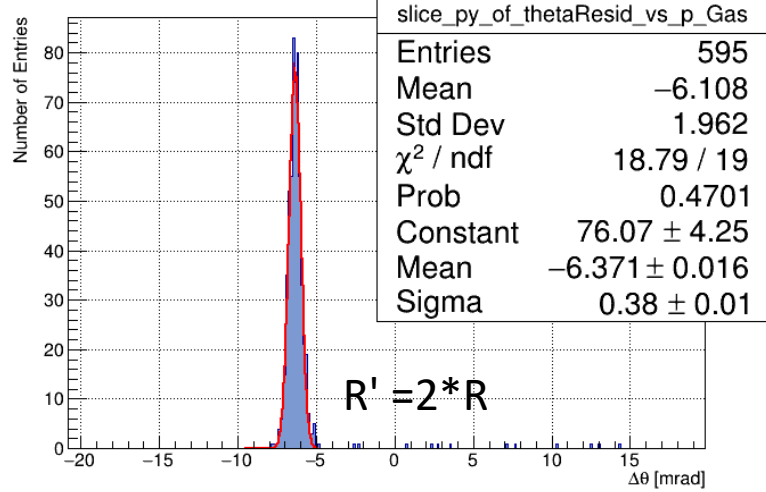


DRICH_mirror_center_x_sec0 = 114.582 cm
 DRICH_mirror_center_y_sec0 = 0.000 cm
 DRICH_mirror_center_z_sec0 = 93.894 cm
 DRICH_mirror_radius = 219.415 cm
 DRICH_sensor_sph_center_x_sec0 = 182.65 cm
 DRICH_sensor_sph_center_y_sec0 = 0.000 cm
 DRICH_sensor_sph_center_z_sec0 = 140.25 cm
 DRICH_sensor_sph_radius = 110.000 cm

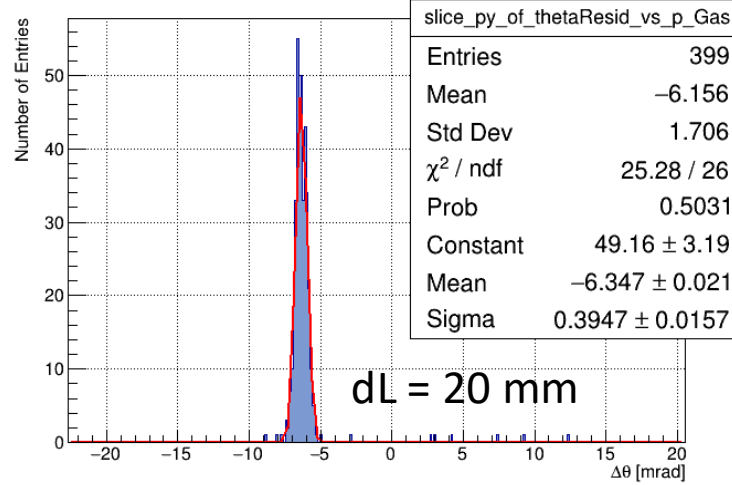


Sensitivity

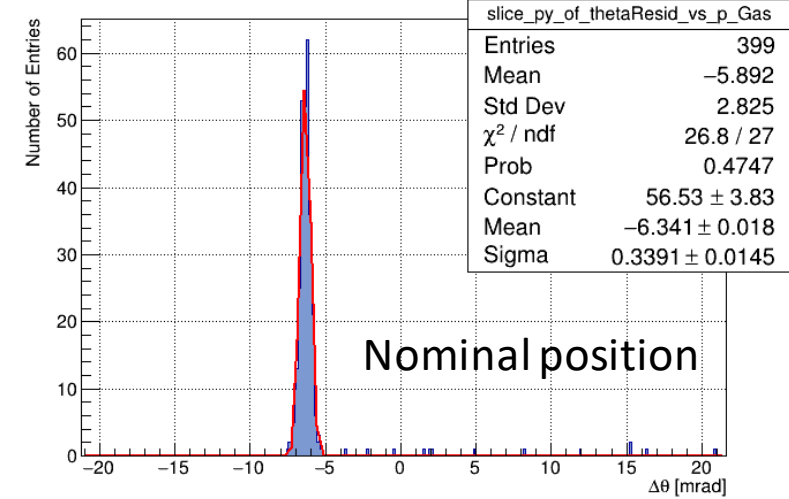
ProjectionY of binx=[331,430] [x=46.20..60.20]



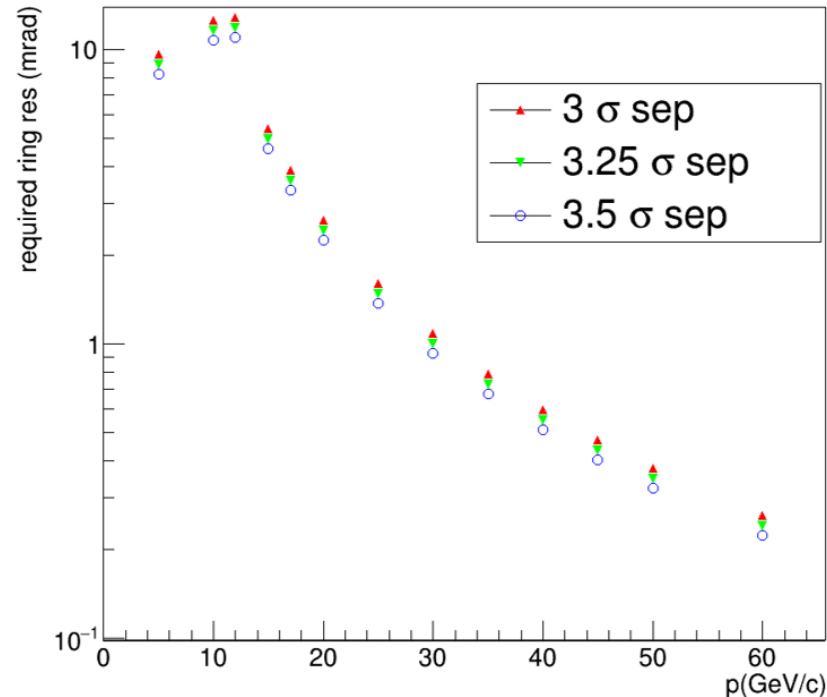
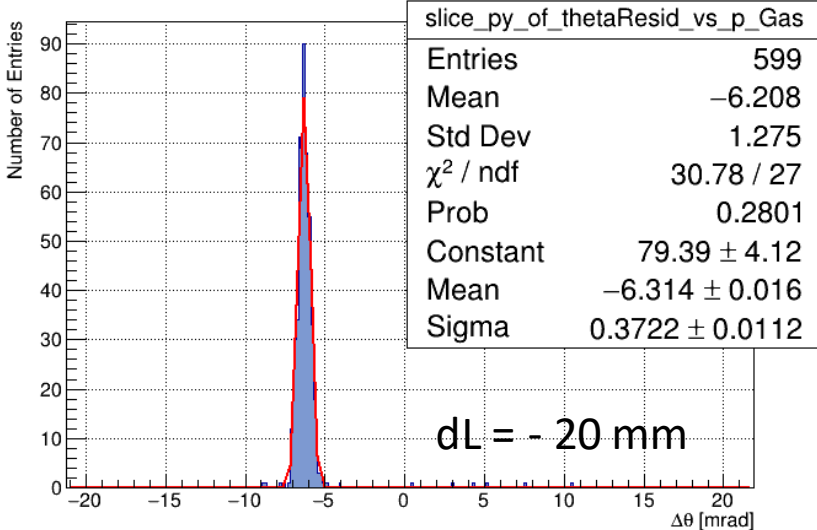
ProjectionY of binx=[348,467] [x=48.58..65.38]



ProjectionY of binx=[341,460] [x=47.60..64.40]

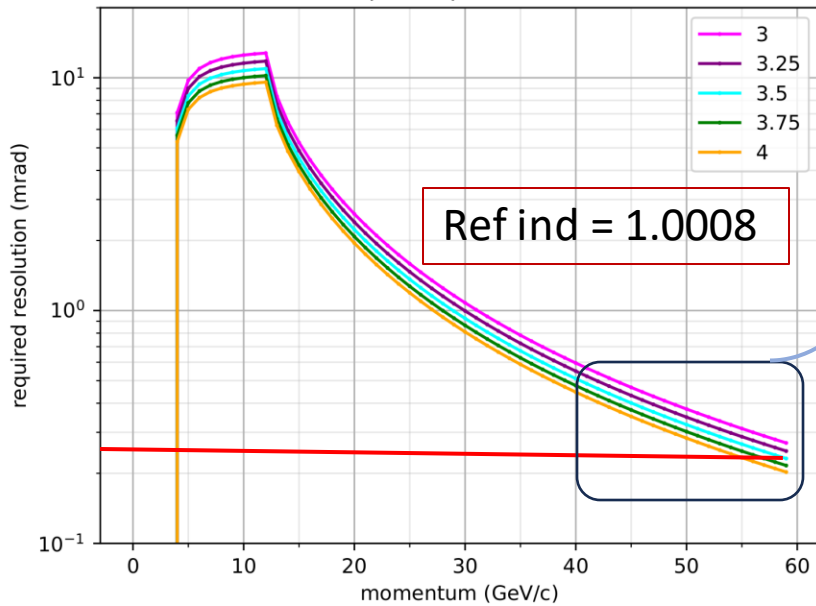


ProjectionY of binx=[320,439] [x=44.66..61.46]

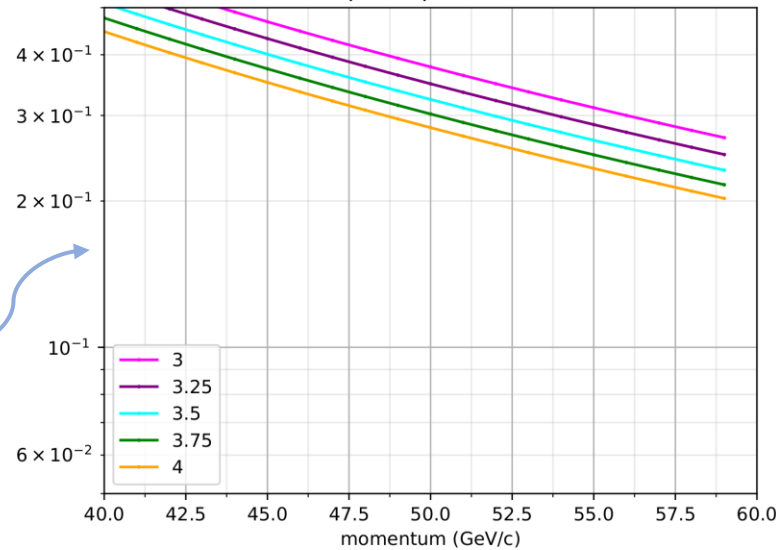


50 GeV req. 0.3-0.4 mrad
in ideal situation. Maybe in
tension in real life. These
movements are compatible
for 40 GeV/c limit.

pi/K separation



pi/K separation



4 sigma sep. above 50 GeV/c requires **better** than 0.3 mrad effective ring resolution!!

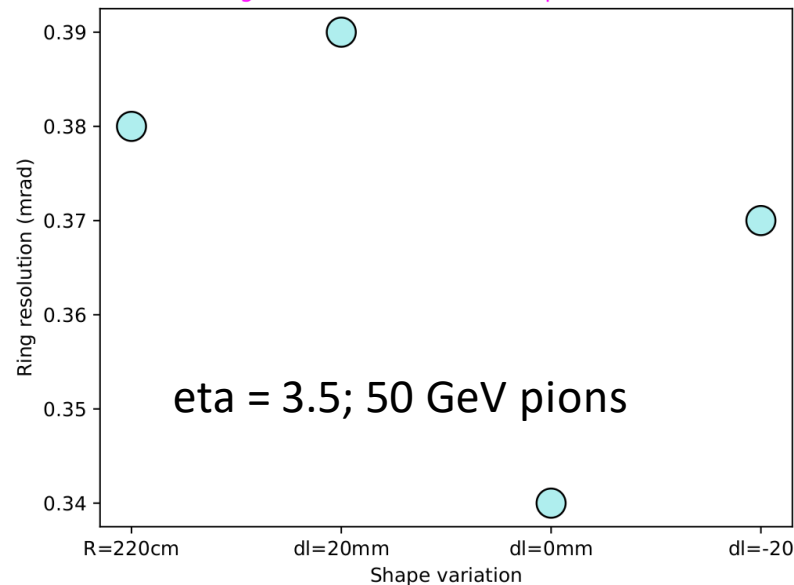
--> At 55 GeV/c it is 0.25 mrad!!

4-sigma corresponds to alpha -> $3.15 \cdot 10^{-5}$

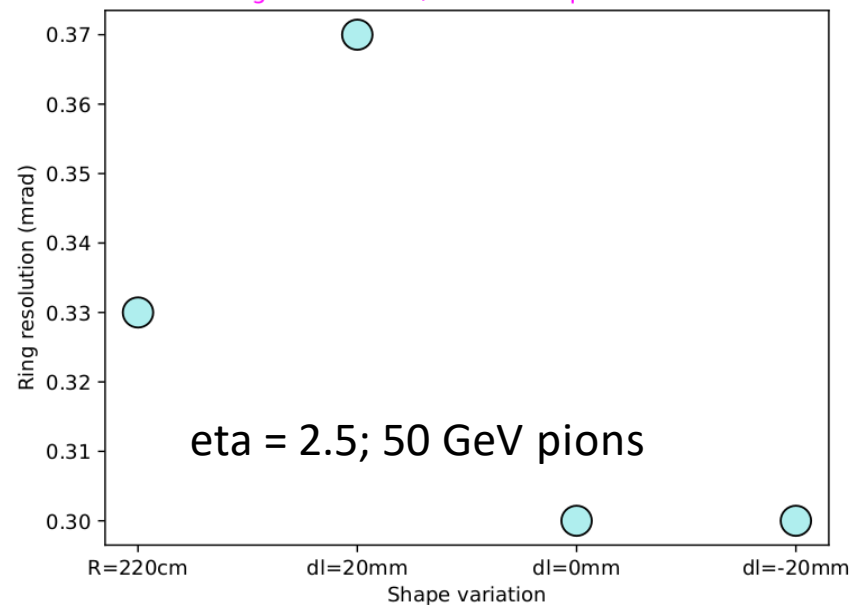
3-sigma 1.5/1000

3.5-sigma < 1/1000

ring resolution w/ sensor shape variation

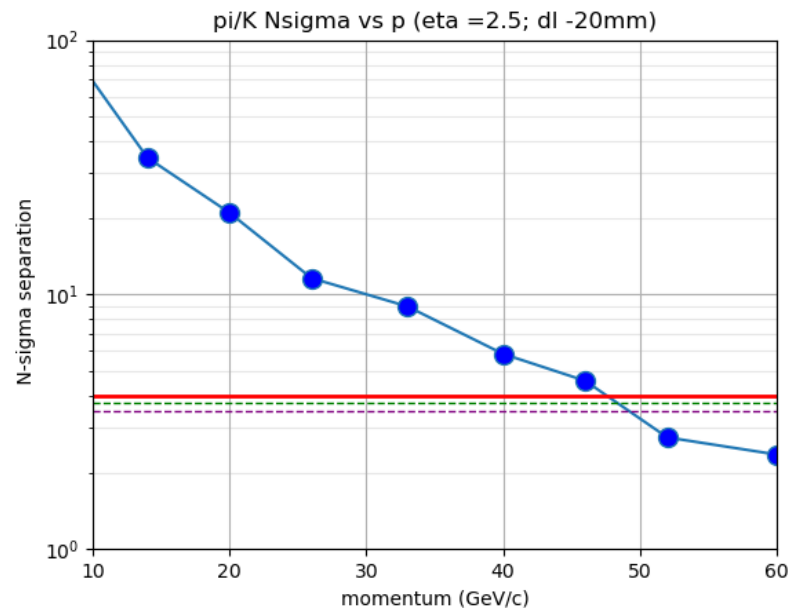
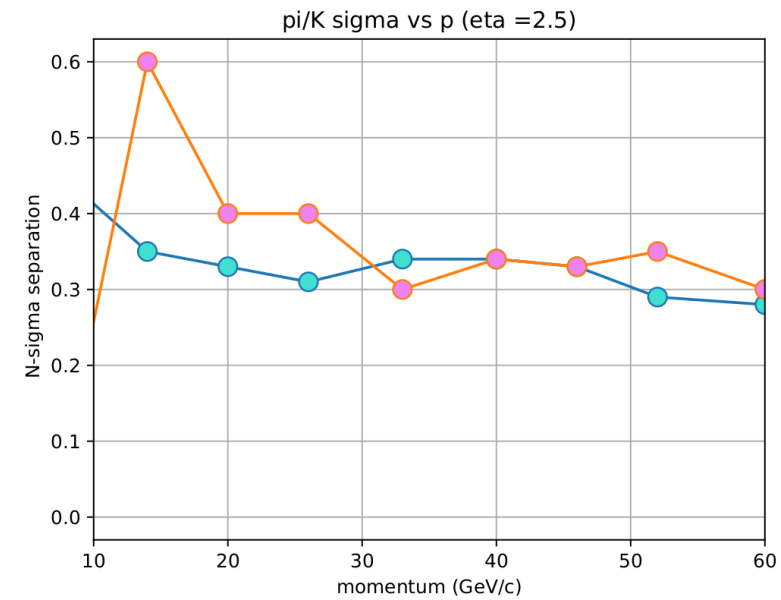
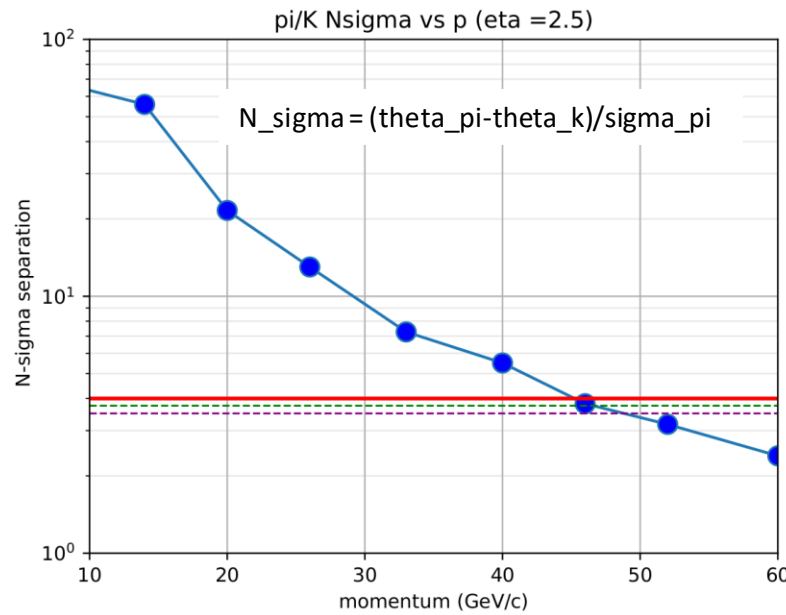
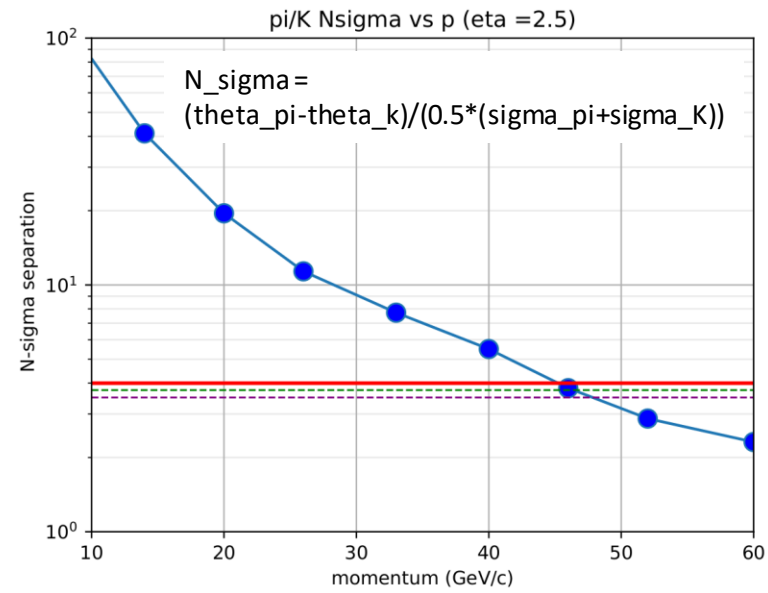


ring resolution w/ sensor shape variation



Our configuration is not compatible to 4-sigma ($n \sim 1.0008$). Although for eta 2.5 it is compatible for 3.75 sigma separation and for eta 3.5 it is capable of 3.5 sigma sep.

SINGLE PARTICLE SHOT AT SINGLE PHI!! --> pion res.



Our current geometry is not providing effective ring resolution of 3.5 sigma separation!

Possible cause of fluctuations :

- > Low statistics!
- > Unstable reconstruction
- > Some physical effects!

