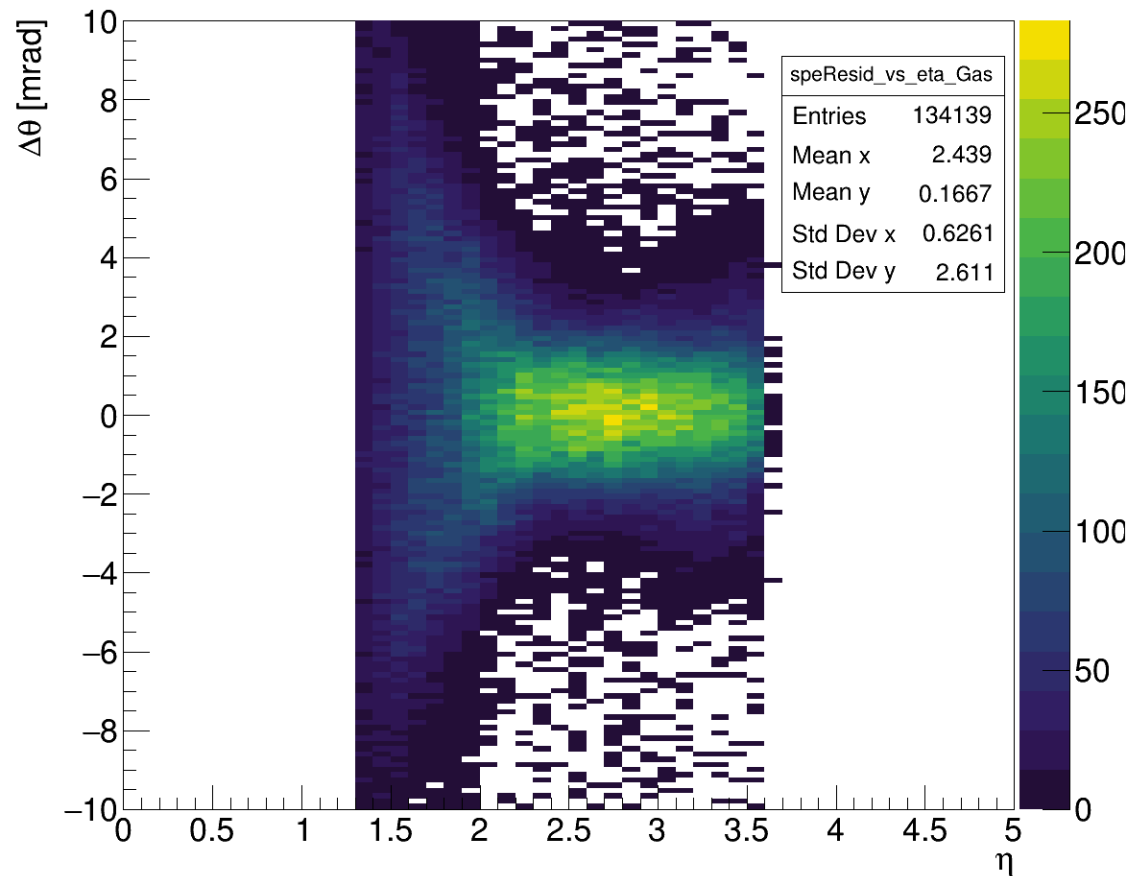


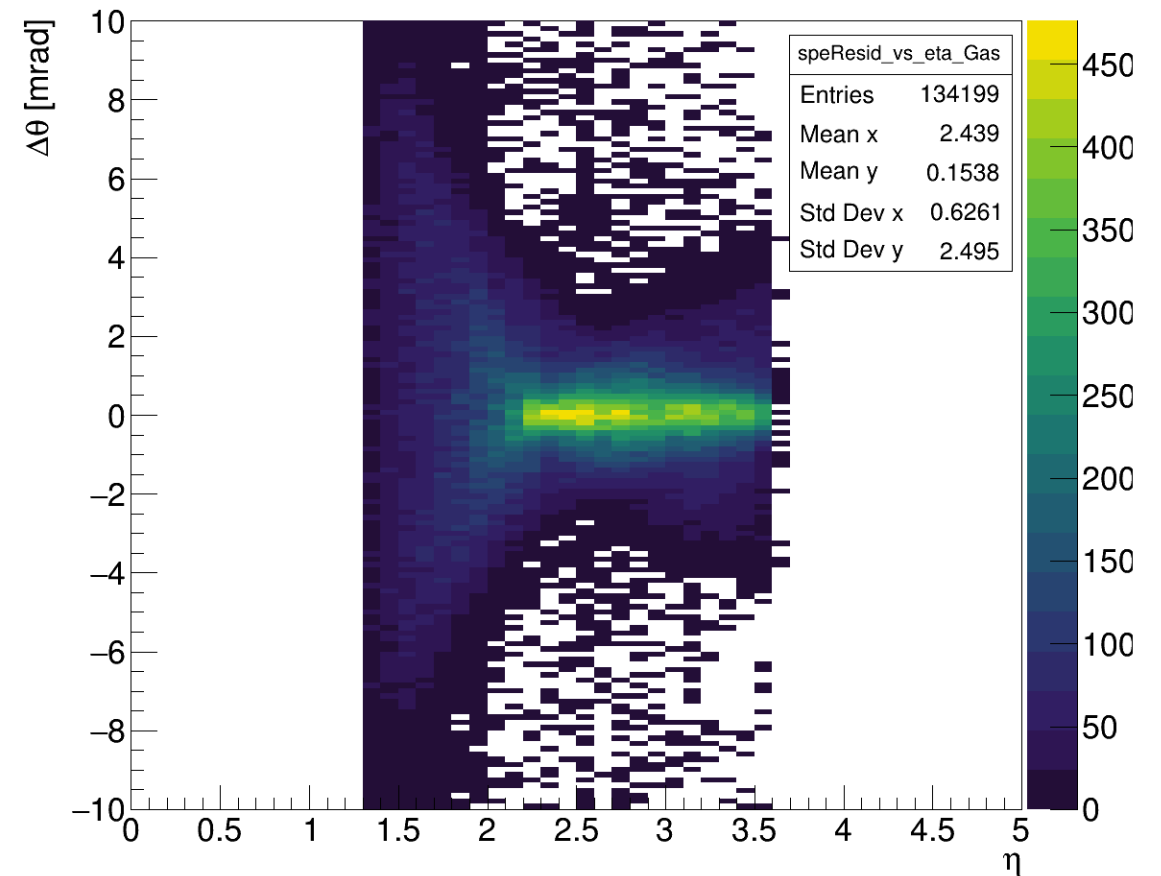
Effect of digitization

Pseudorapidity dependence

Reconstructed SPE Cherenkov Angle Residual vs. Pseudorapidity for Gas (Digitized)

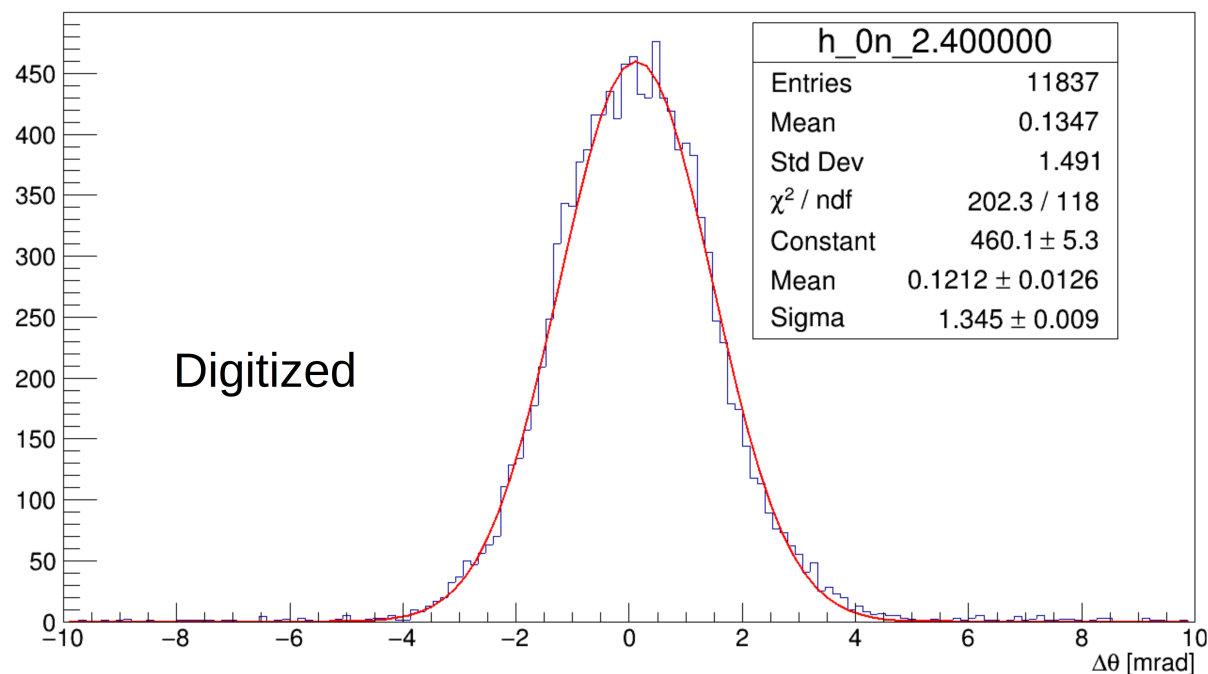


Reconstructed SPE Cherenkov Angle Residual vs. Pseudorapidity for Gas (MC coordinates)

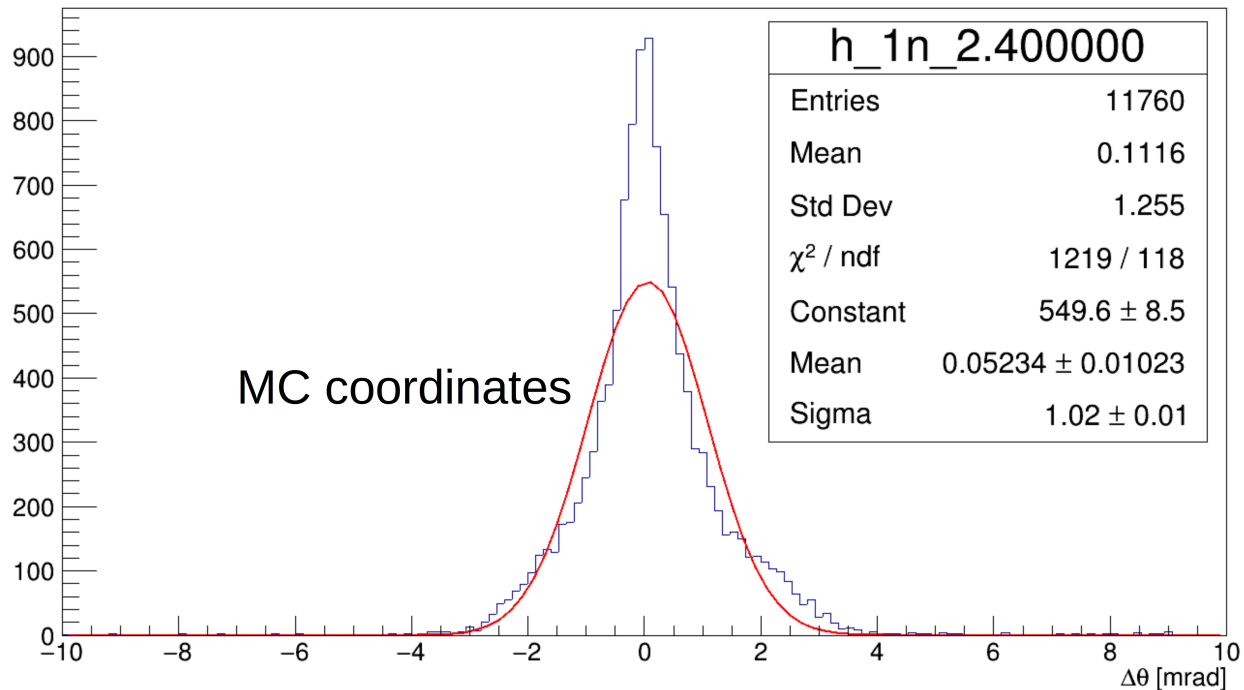


Slice example

Reconstructed SPE Cherenkov Angle Residual vs. Pseudorapidity for Gas



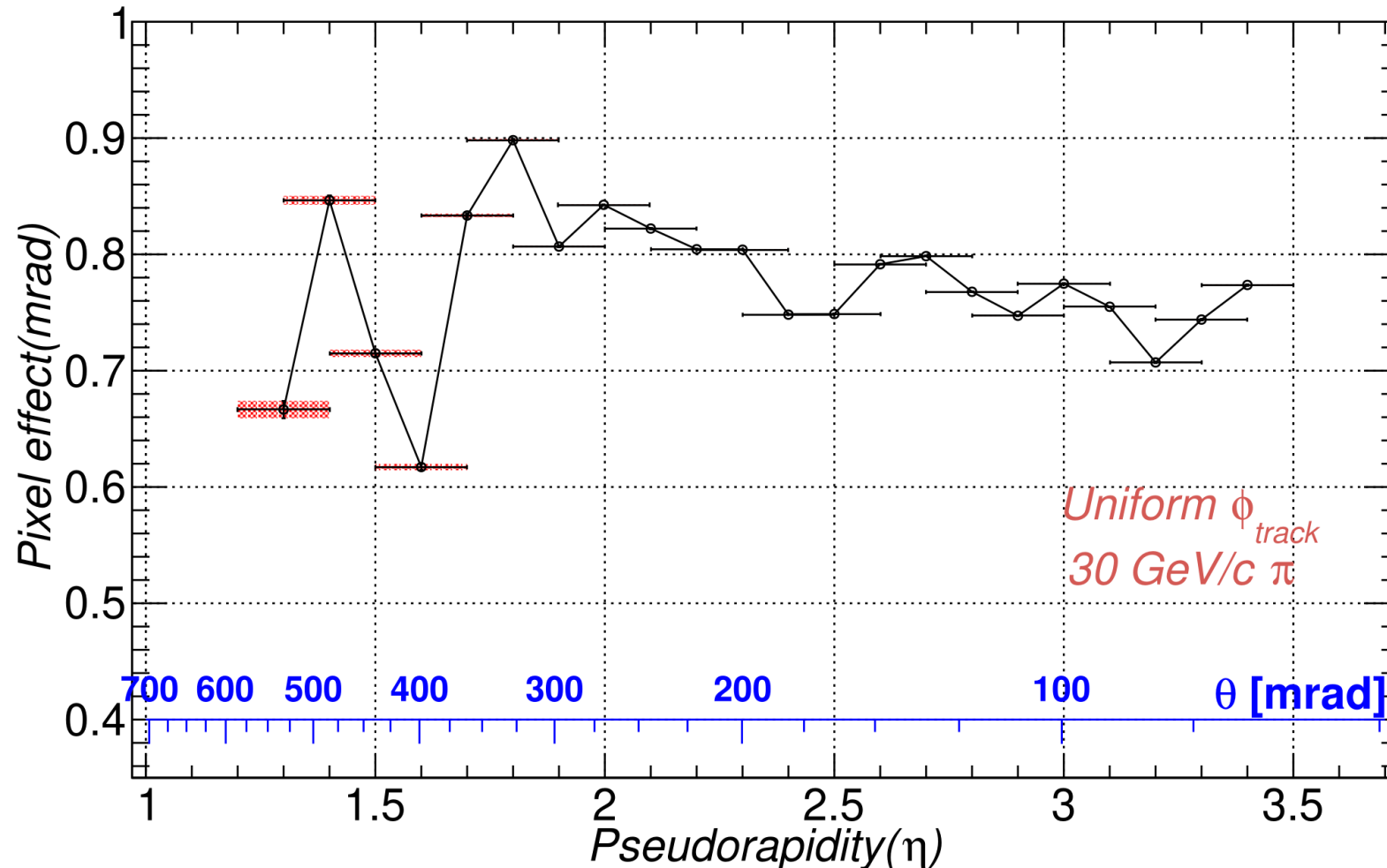
Reconstructed SPE Cherenkov Angle Residual vs. Pseudorapidity for Gas



Given the distributions are very different; I preferred to stick to the RMS of the distribution.

Evolution with pseudorapidity

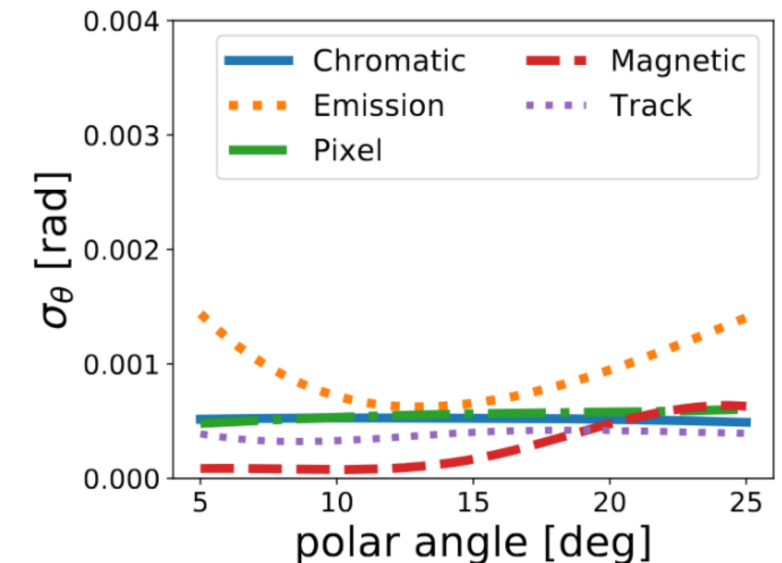
Effect of Pixelization for Single photon residual RMS



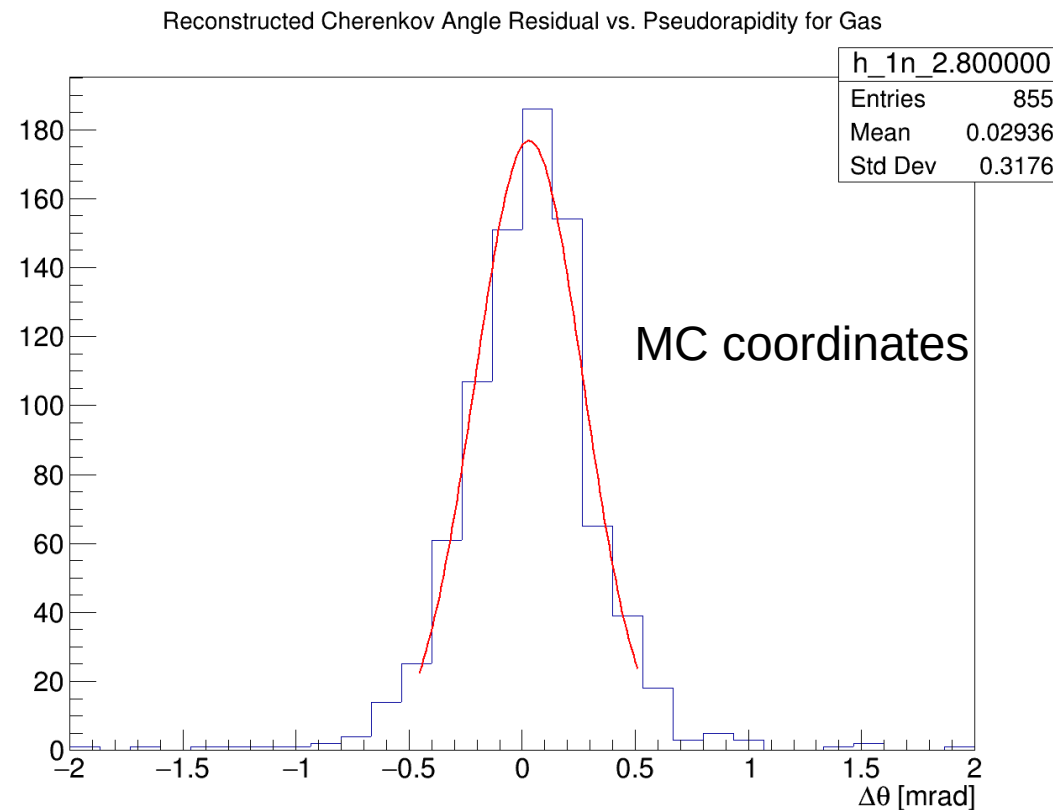
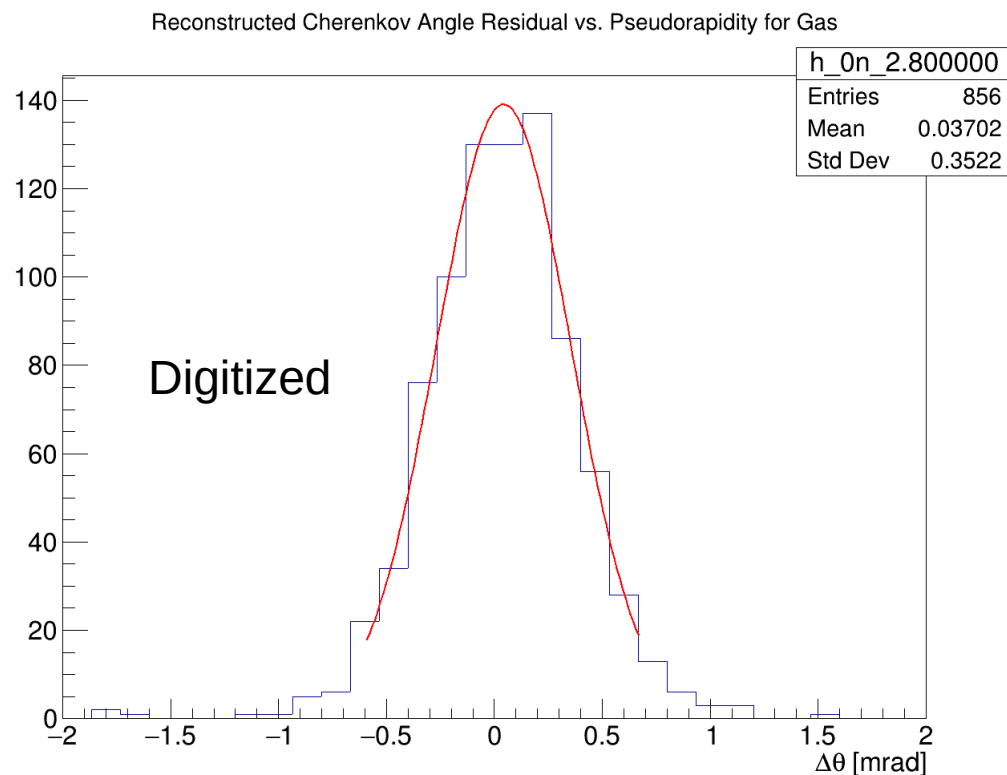
The effect seems to be larger than the Chromatic contribution (c.f. Luisa's study on Chromatic effect:

https://indico.bnl.gov/event/25662/contributions/99706/attachments/58720/100839/cromatic_aberration.pdf).

The Chromatic contribution was about 0.2 mrad between $\eta = 2.5-3.0$.



Ring resolution



Similar shape and reasonably Gaussian.
Sigma is extracted within ± 1.6 RMS.

Evolution with Pseudorapidity

Effect of digitization to ring resolution

