Global alignment of the AFP

- cross-checks of the global alignment algorithm

beam position:
- from Beam-Based Alignment
- my cross-check: use values from Beam Position Monitors

given track without alignment

in-situ global alignment correction

$$x(r, s) = x_{\text{pre-align}} + x_{\text{tracker}} - x_{\text{beam}}(s) + x_{\text{RP}}(r, s) + \delta x_{\text{corr}}(s)$$
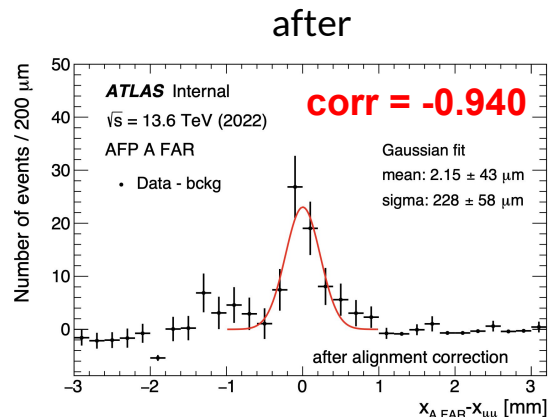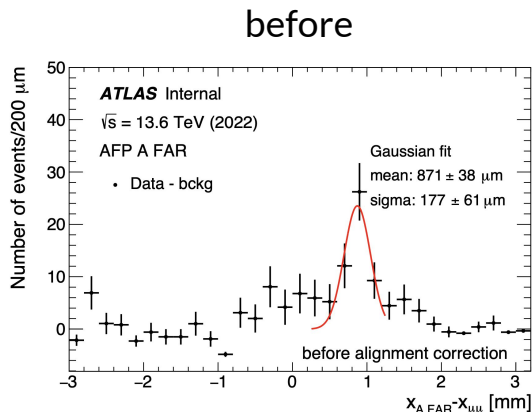
tracker position:
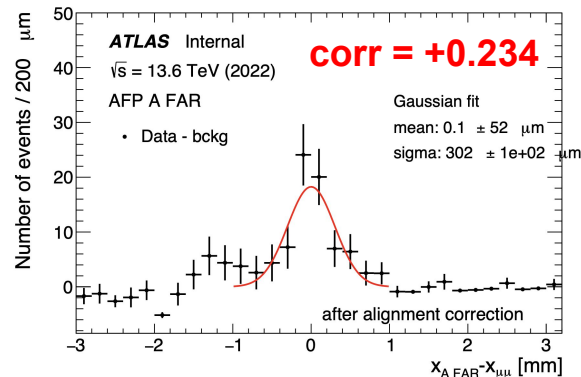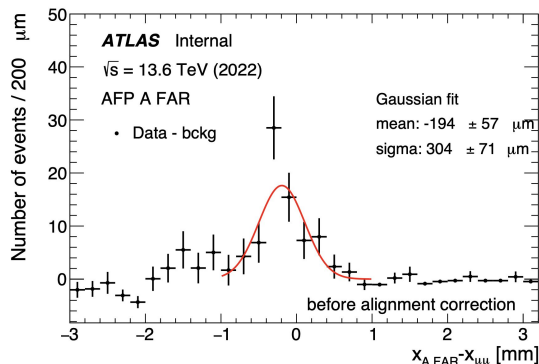**-0.5mm**

Roman Pot position

x - track position
r - run
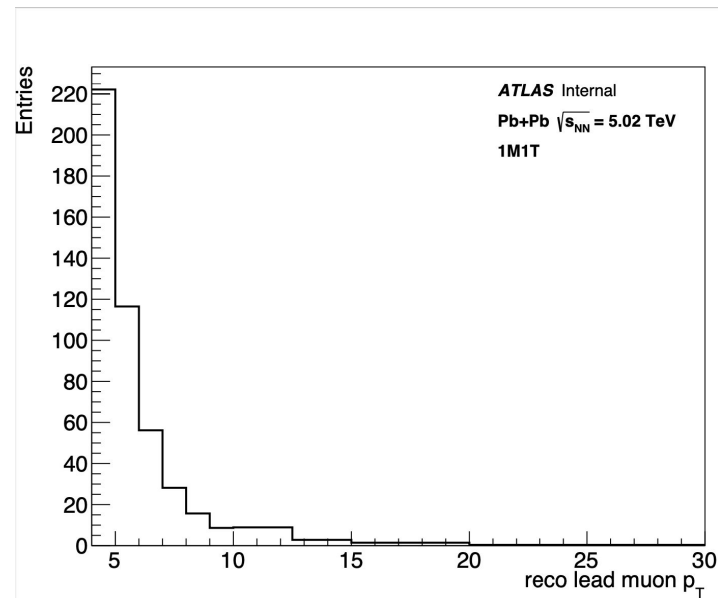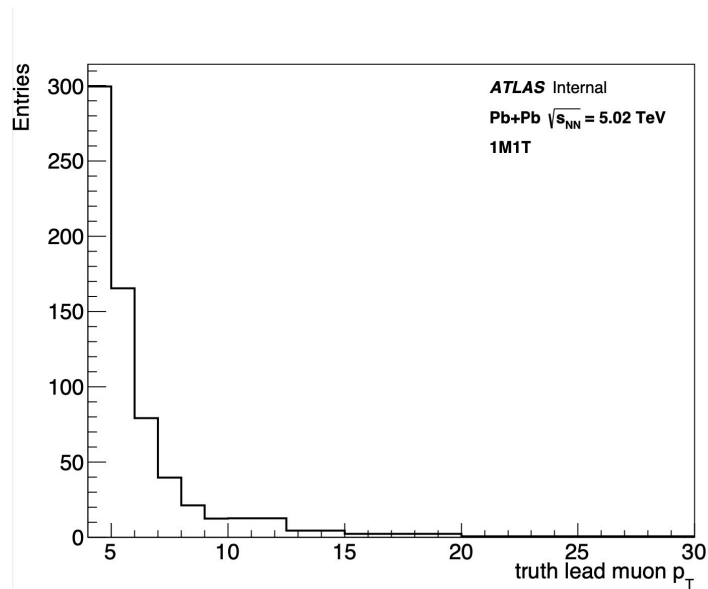s - station

Global alignment of the AFP

before

after

BBA:

BPM:

Tau g-2 analysis

- prepared input for unfolding
- tracks -> truth hadrons + truth muons + truth electrons

Tau g-2 analysis

- prepared input for unfolding
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