

PID detector alignment

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Processed data and event selection

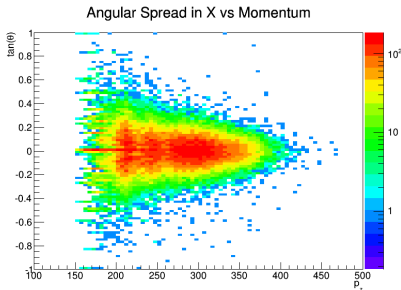
Run 7236

- Reference 300 MeV/c pion beam, no DS
- 1770 spills, 37914 triggers

Event selection

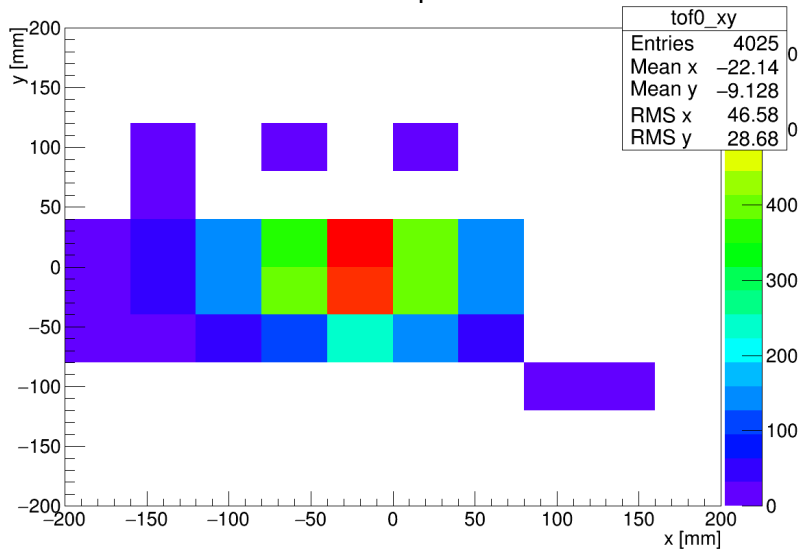
- A trace in the EMR are kept (HasPrimary)
- Single space point in all the TOF stations
- Track assumed straight beyond TOF2 (backwards), as the emittance growth is too significant in KL

$$\theta_{\max} = \tan^{-1} \sqrt{2d/D} \sim 4^\circ$$

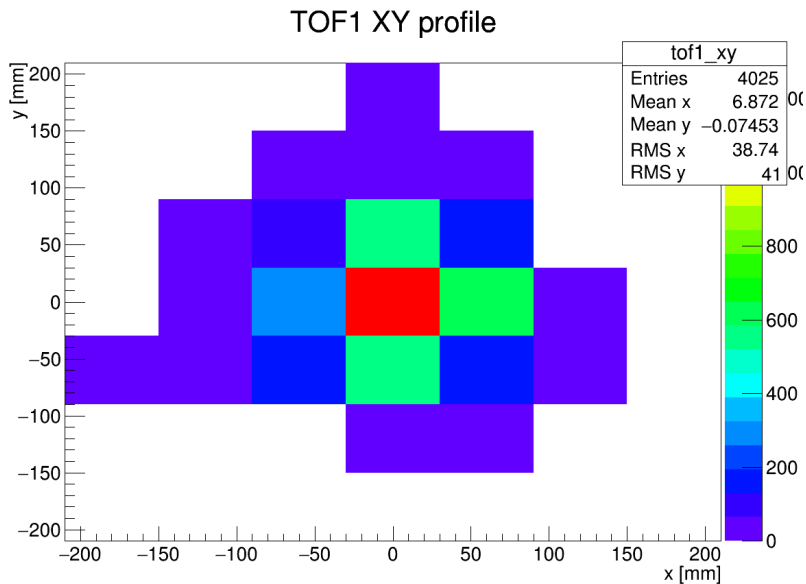


TOF0 beam profile

TOF0 XY profile

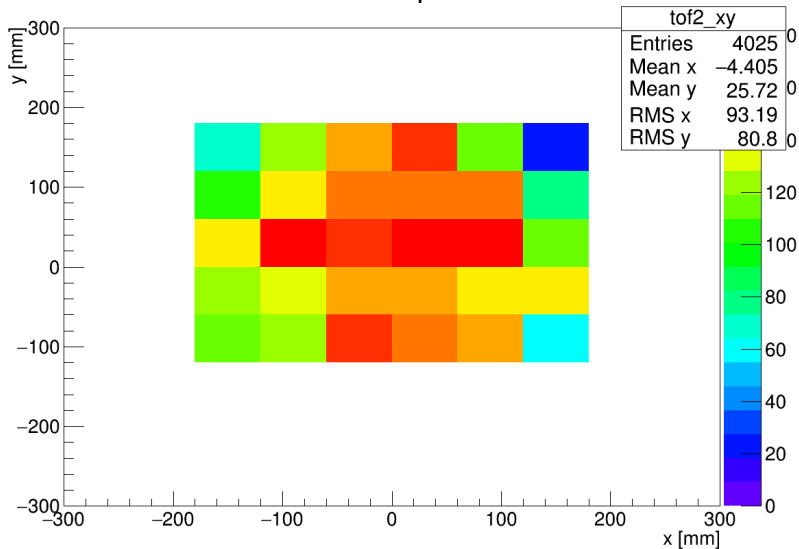


TOF1 beam profile

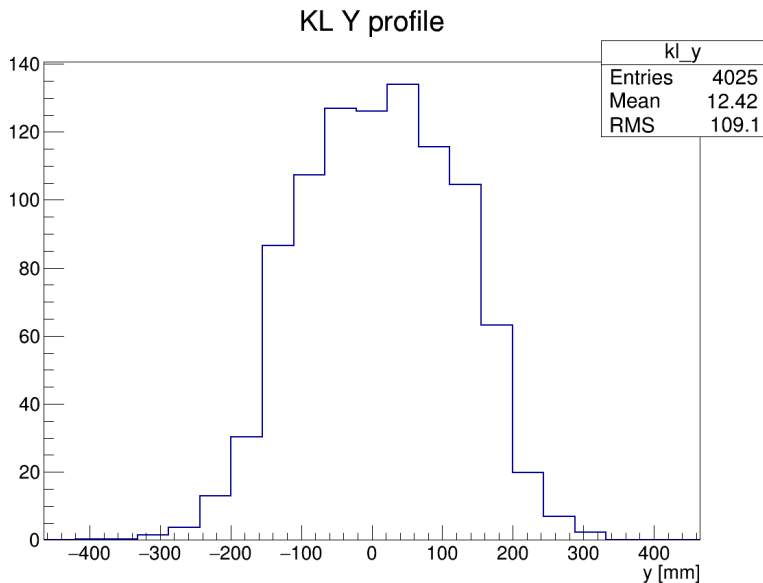


TOF2 beam profile

TOF2 XY profile

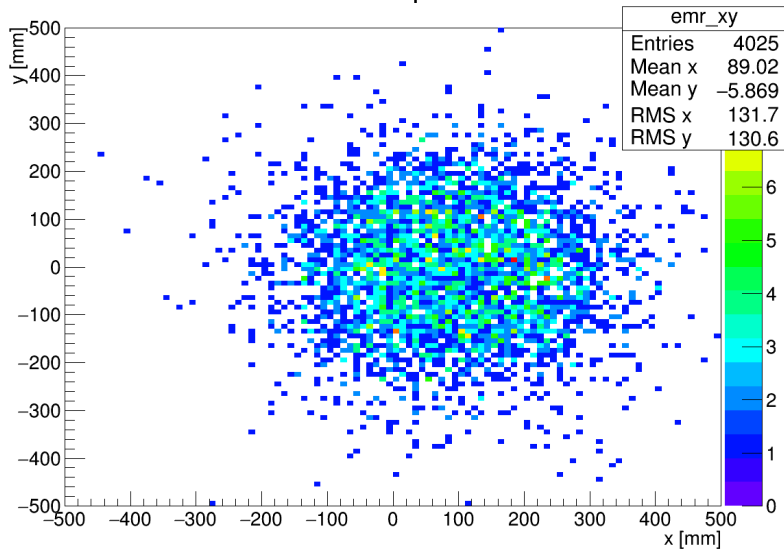


KL beam profile



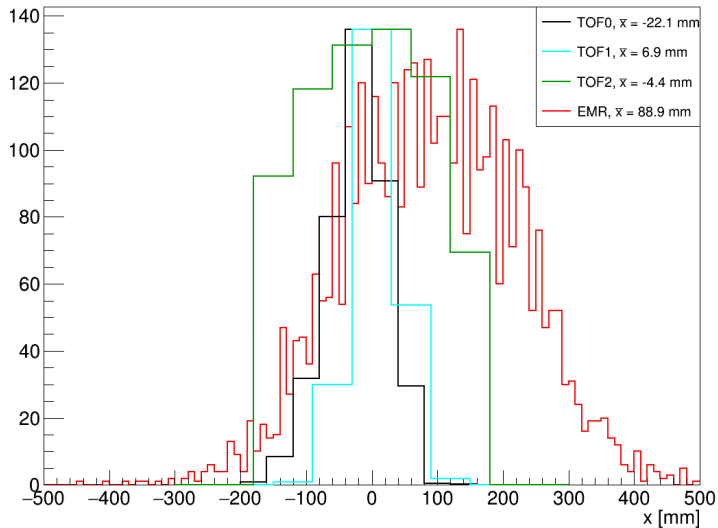
EMR beam profile

EMR XY profile



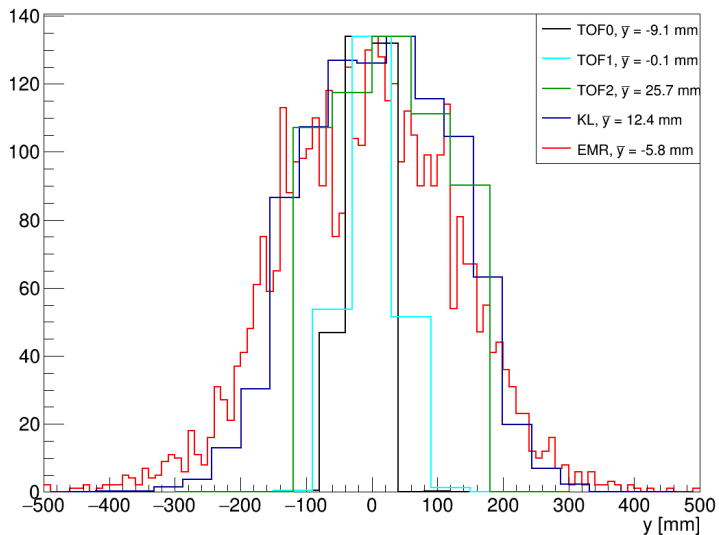
Combined X profile

X profile

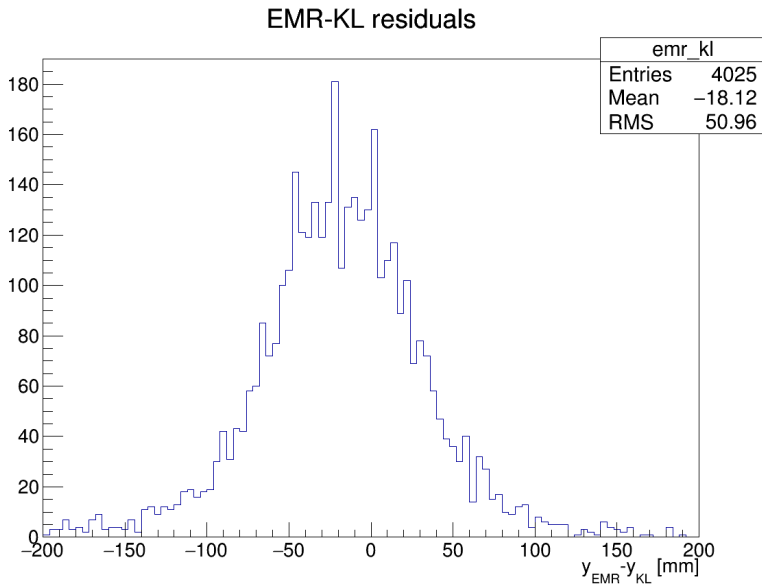


Combined Y profile

Y profile



EMR-KL residuals



EMR-TOF2 residuals

EMR-TOF2 residuals

