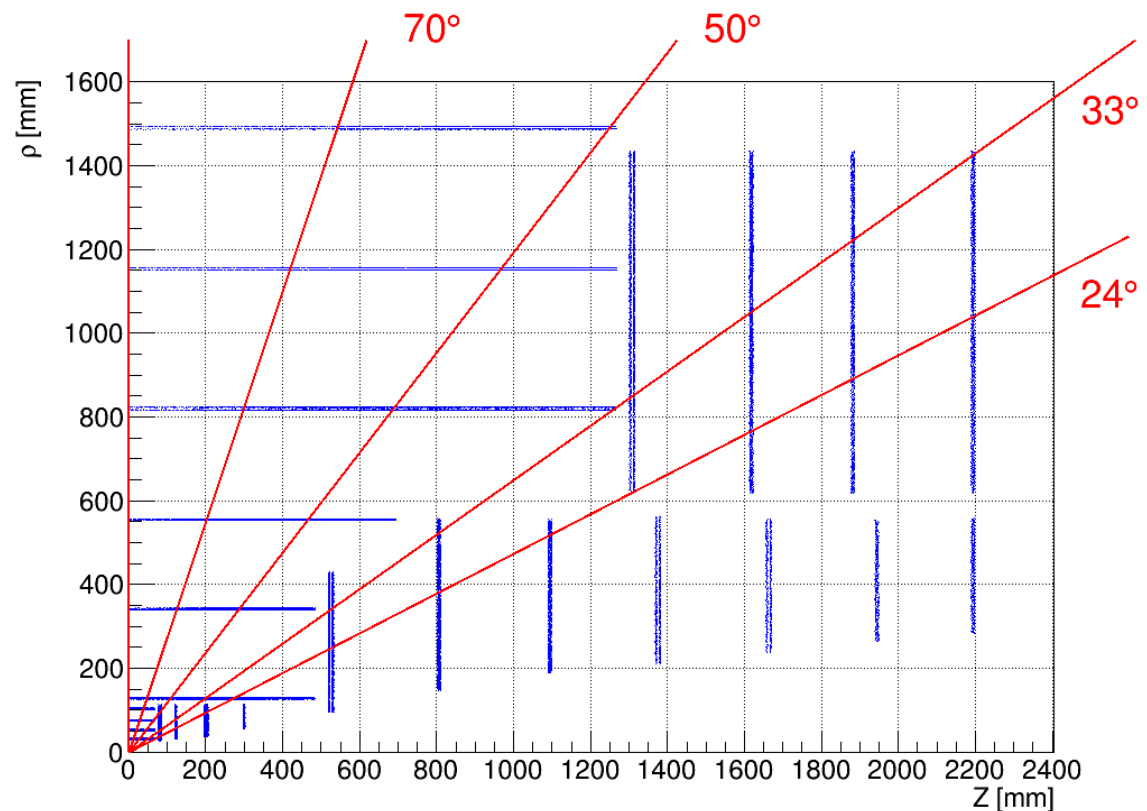


First look at the track parameters with BIB

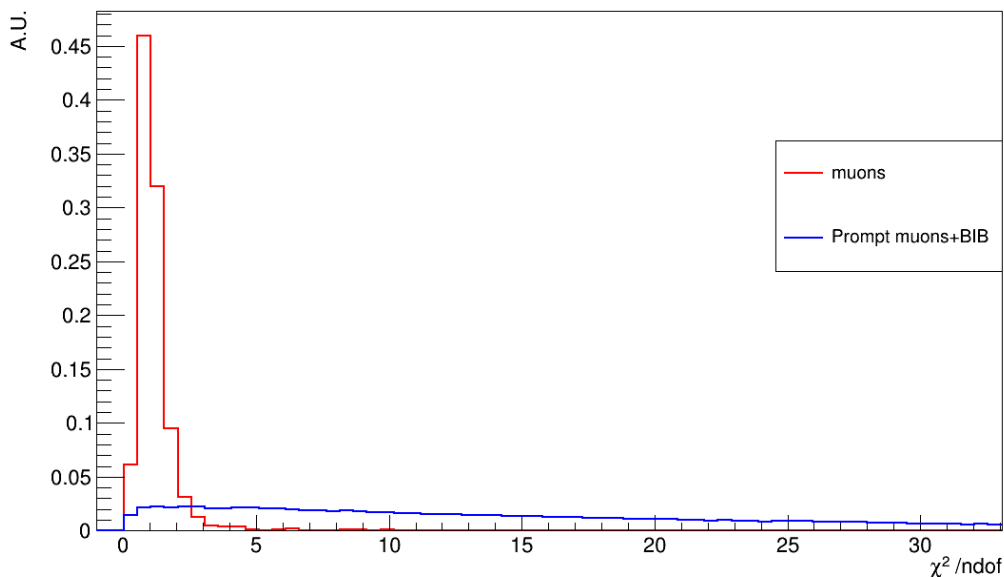
Study of tracking performance

- Sample of 1000 muons, with flat spectrum in:
 $0.1 < P_T < 10$ GeV,
 $8^\circ < \theta < 172^\circ$,
 $0^\circ < \Phi < 360^\circ$
- Muons + beam-induced background particles (BIB)
- Splitting of the detector in angular regions
- Presence of BIB:
 $24^\circ < \theta < 156^\circ$

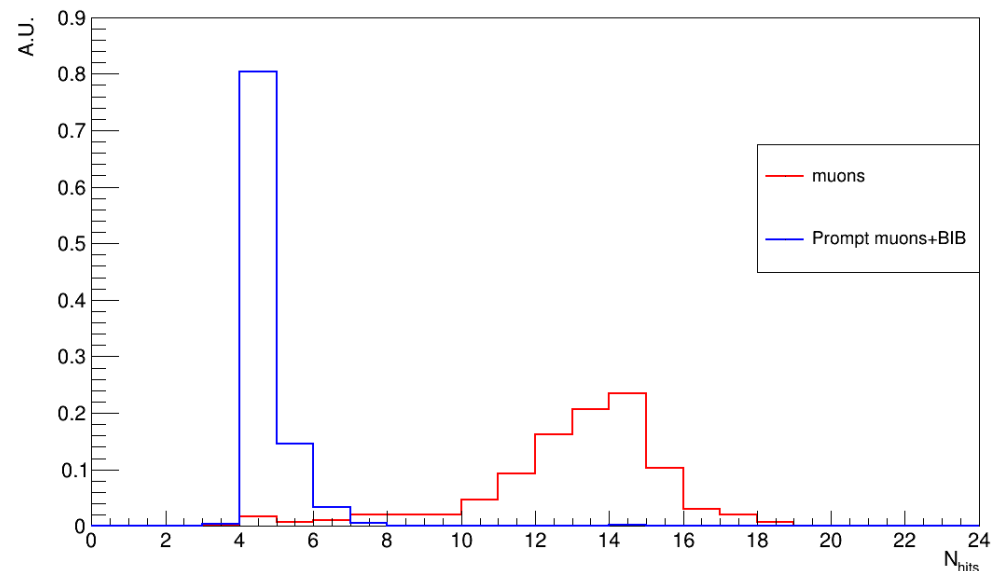


Study of tracking performance

Tracks reduced χ^2

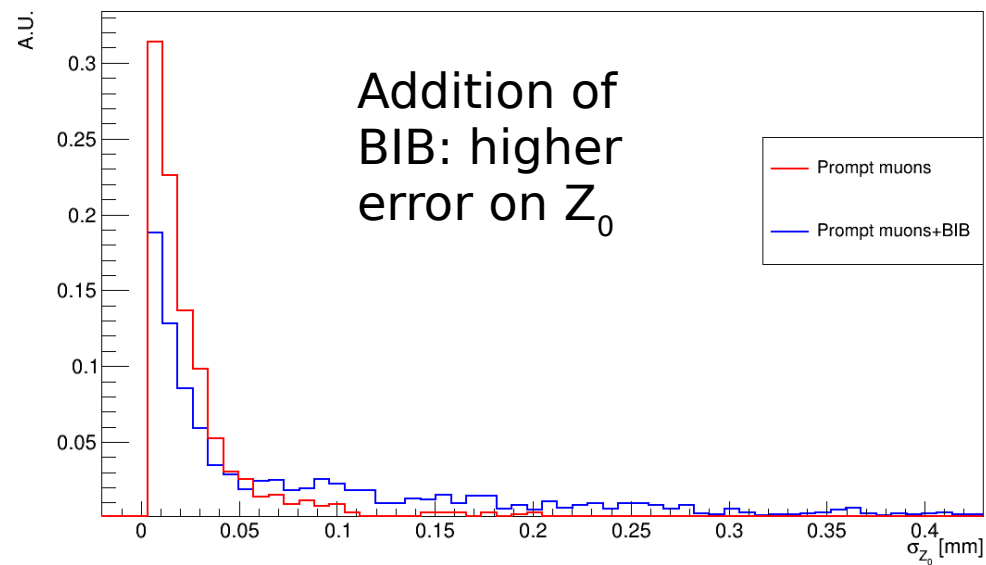
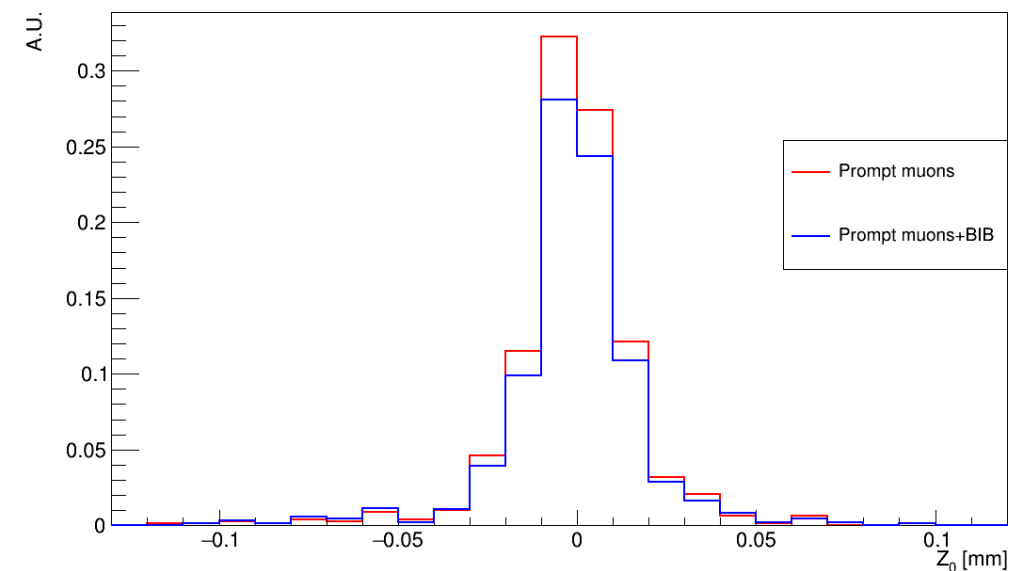
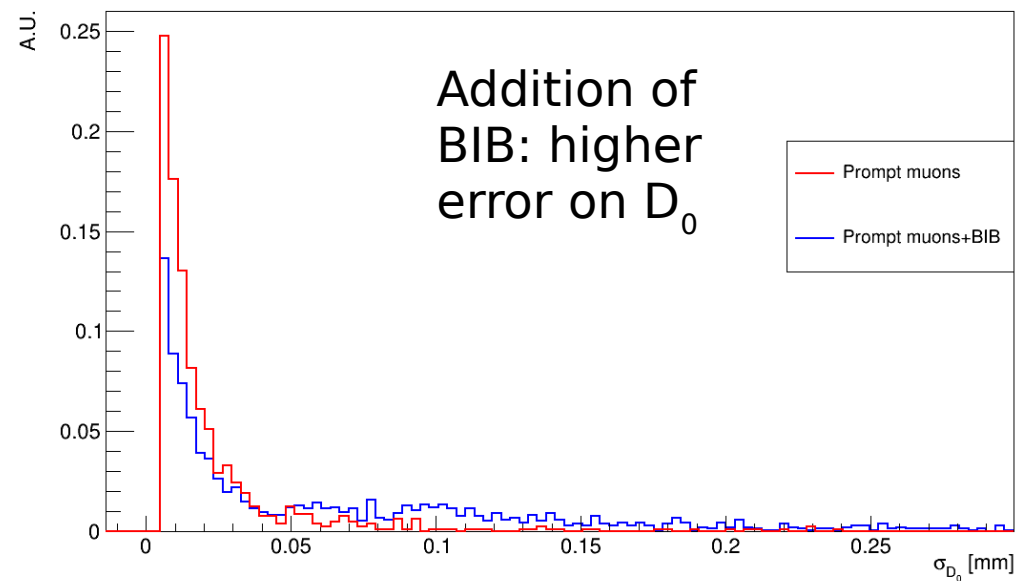
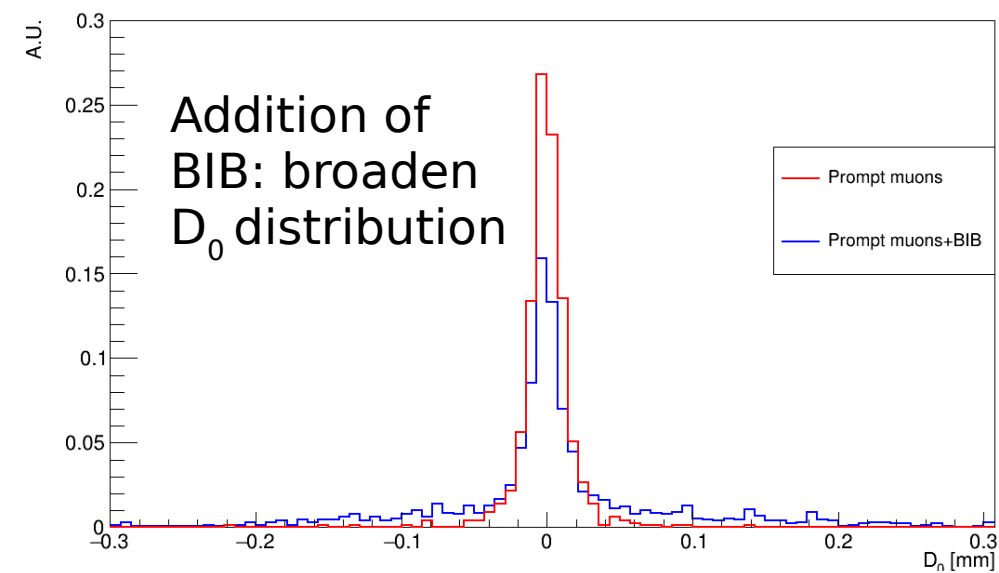


Total number of hits

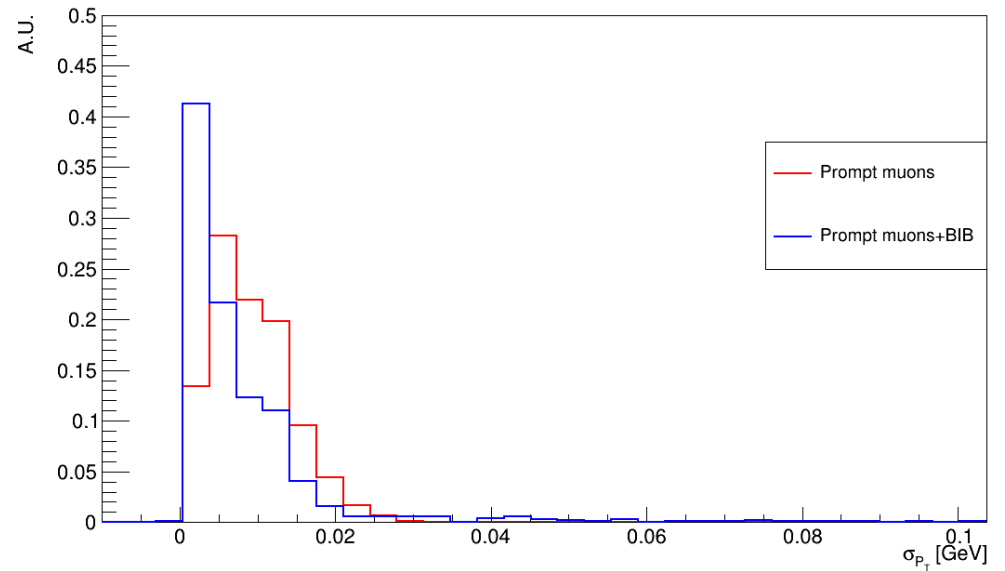
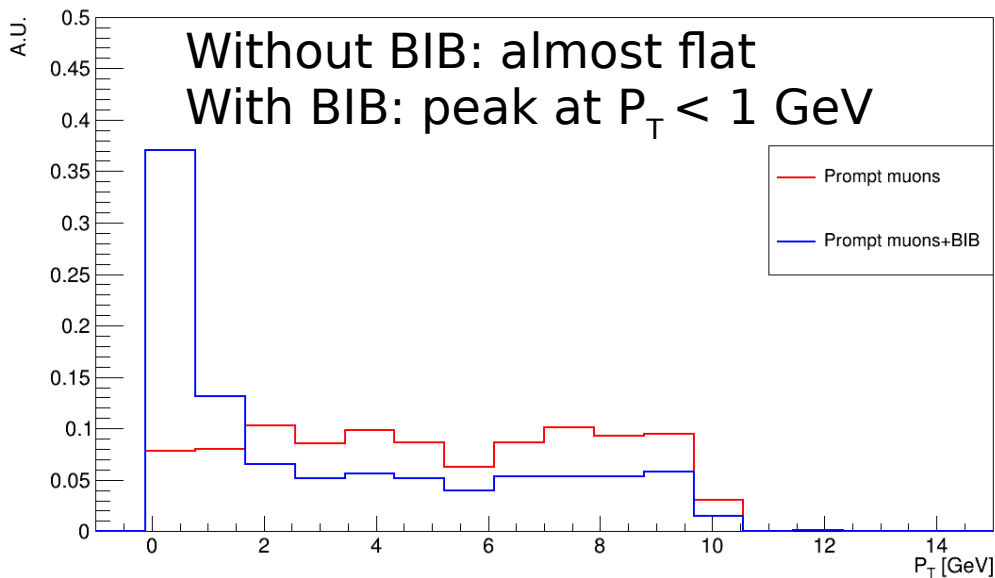
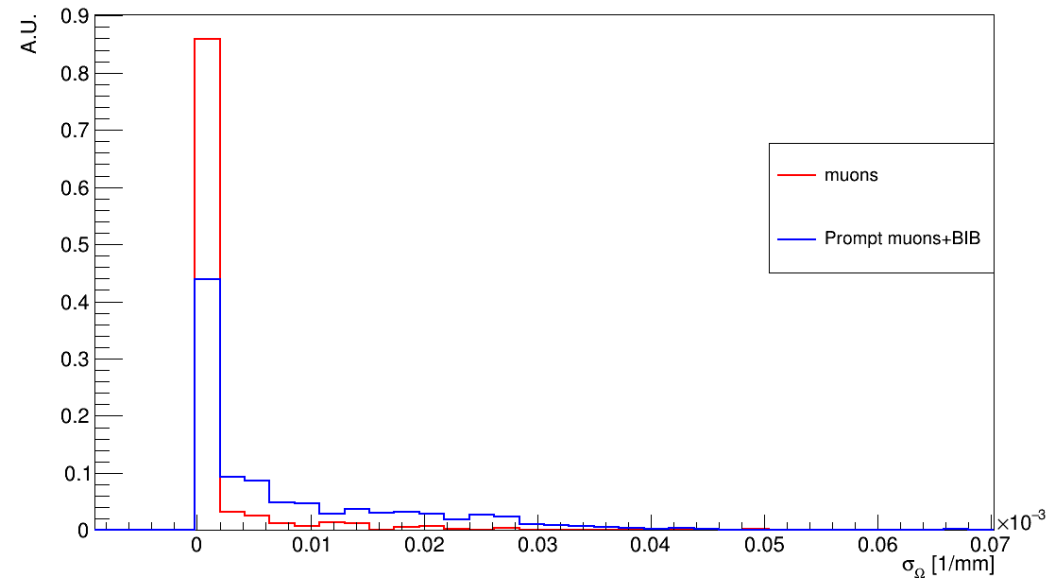
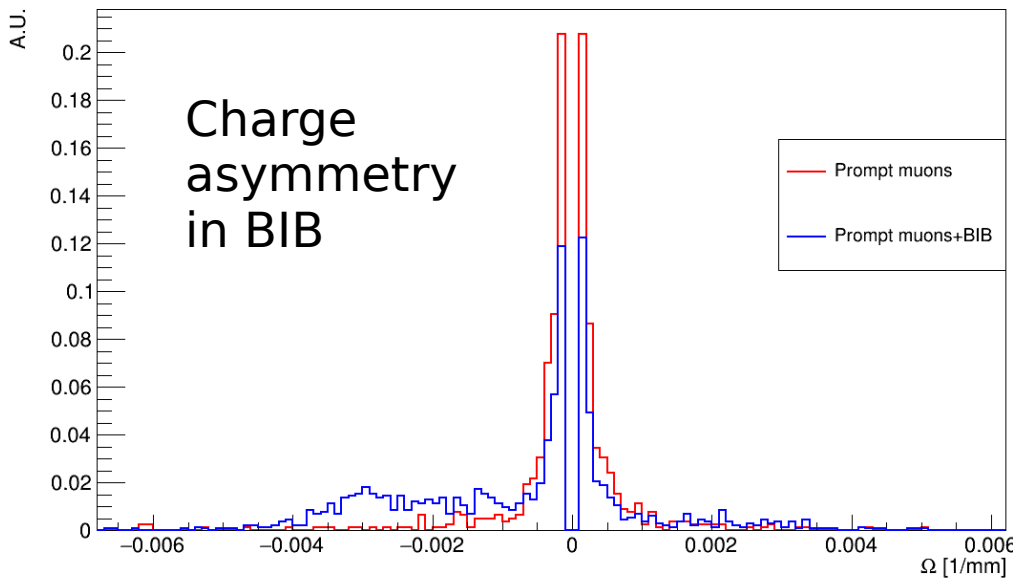


Requirements on tracks: $N_{\text{hits}} > 6$ and $\chi^2 / \text{ndof} < 5$

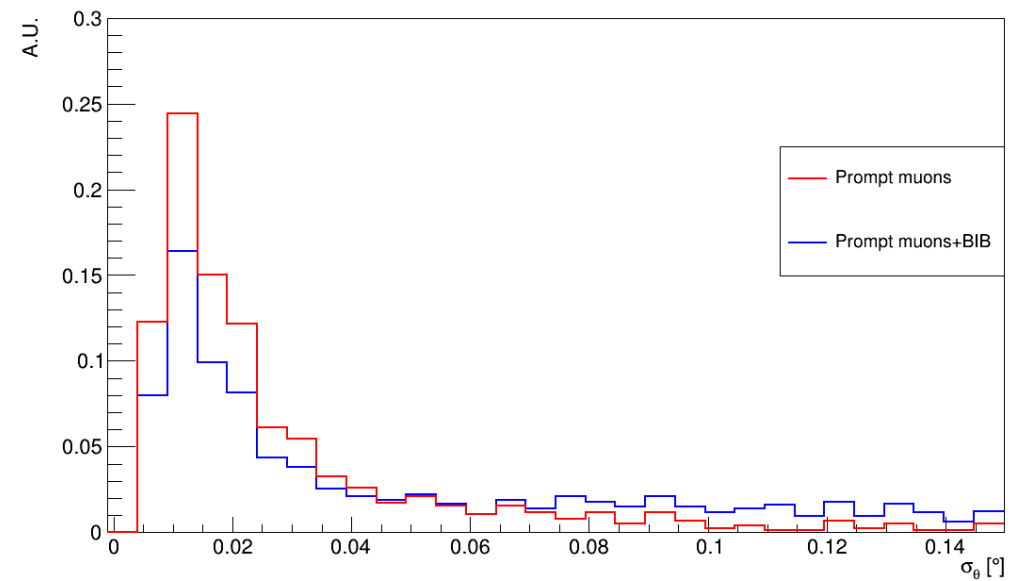
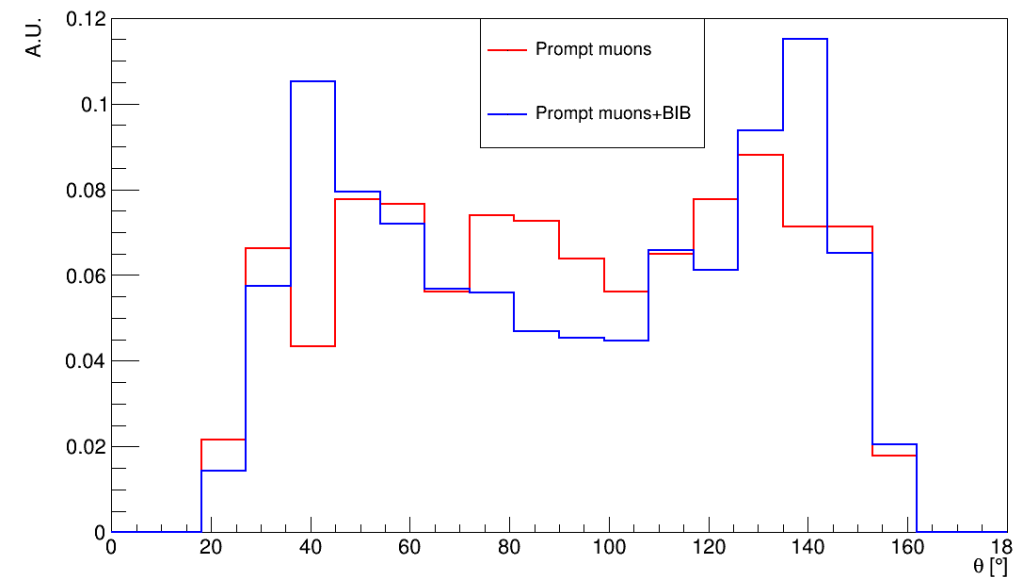
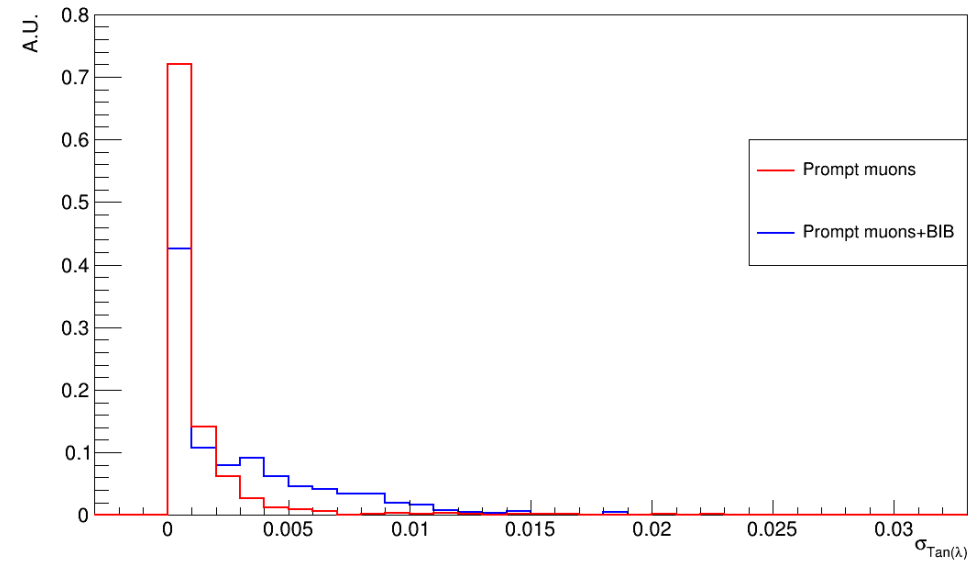
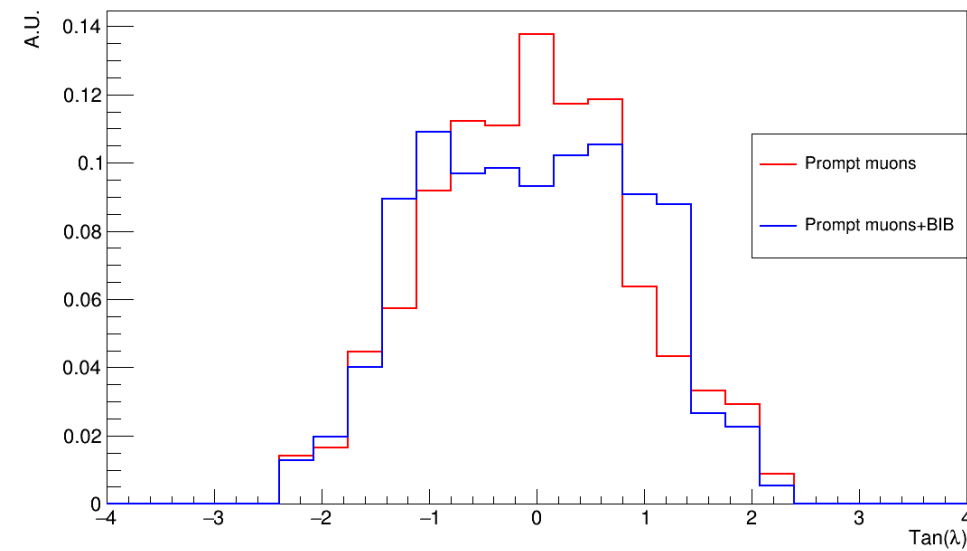
Track parameters: D_0 and Z_0



Track parameters: Ω and P_T



Track parameters: $\tan(\lambda)$ and θ



Conclusions

- For $P_T > 1$ GeV it is possible to reject most of BIB tracks. Further cuts can be tested: P_T , errors, N_{hits} per layer,...
- For $P_T < 1$ GeV dedicated studies have to be done.
- Same studies to be done with hadron gun.



Tracking efficiency and P_T resolution

