

# Update on tracker studies with MUSIC detector

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## Good point by Federico

- At least **3 layers** are needed in first **~ 5 cm of VXD barrel** to properly reconstruct disappearing tracks (fundamental for Higgsino searches)
- In MUSIC, removing DL, only 2 layers in first ~ 5 cm of VXD barrel
- Proposal: add a layer between 1st and 2nd layers
  - Guarantee BSM searches
  - Avoid seeding in 1st layer (to facilitate BIB reconstruction)

# Layout comparison

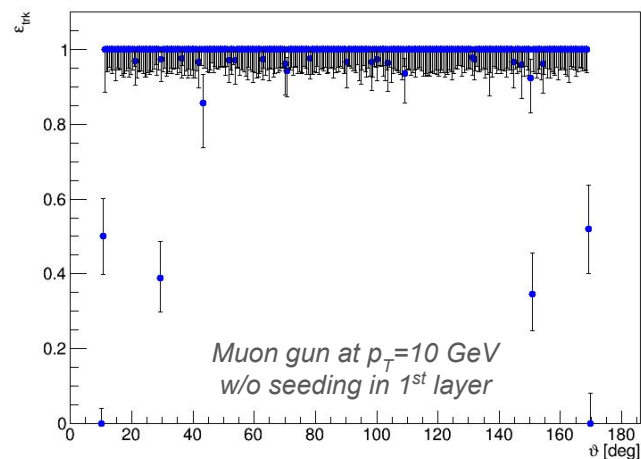
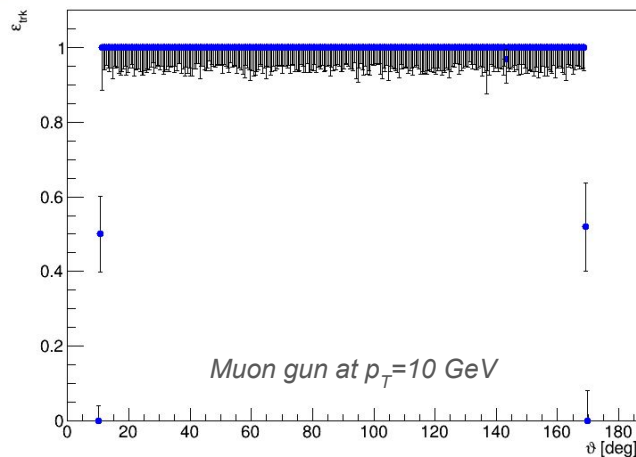
MUSIC\_v1



MUSIC\_v1.0.1



- First checks with signal show good results



## Conclusions

- The pipeline to change geometry and adapt ACTS is now clear
  - Also with the new release
- Now, studying this “new” geometry also with BIB