

# LAD Sim Update

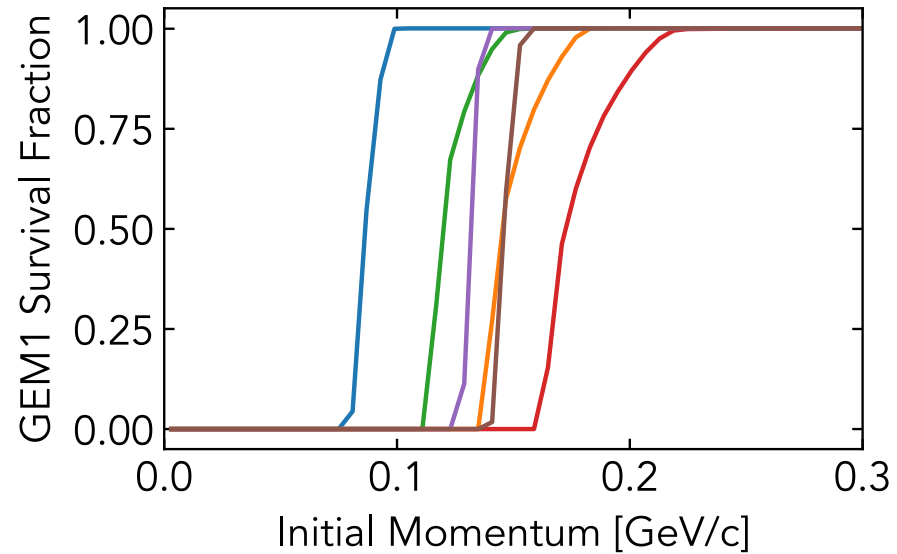
05/13/23

Lucas Ehinger

# Components

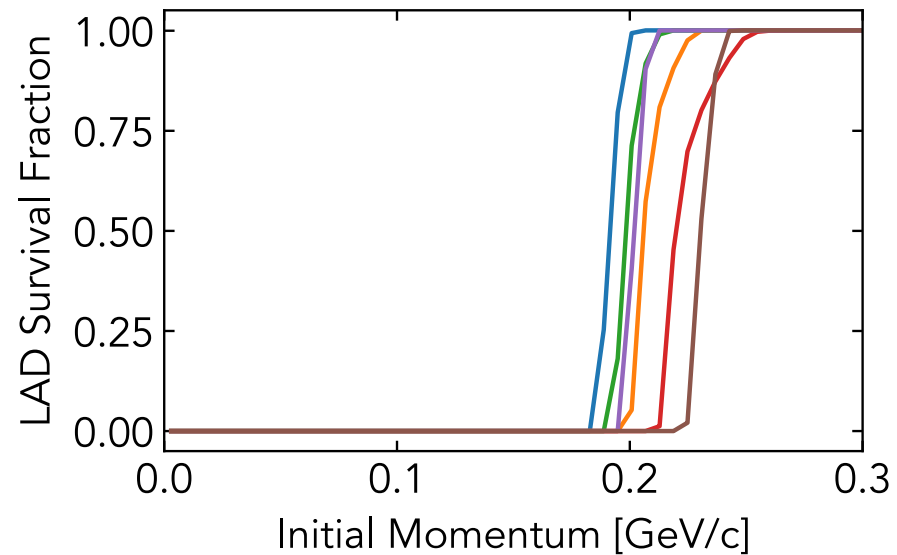
- Target Liquid (D)
- Target Cell (2/10mm Al)
- Target Chamber Exit Window (4mm Al)
- Poly
- GEM
- LAD
- Air (outside target chamber)

# Proton stopping by Component



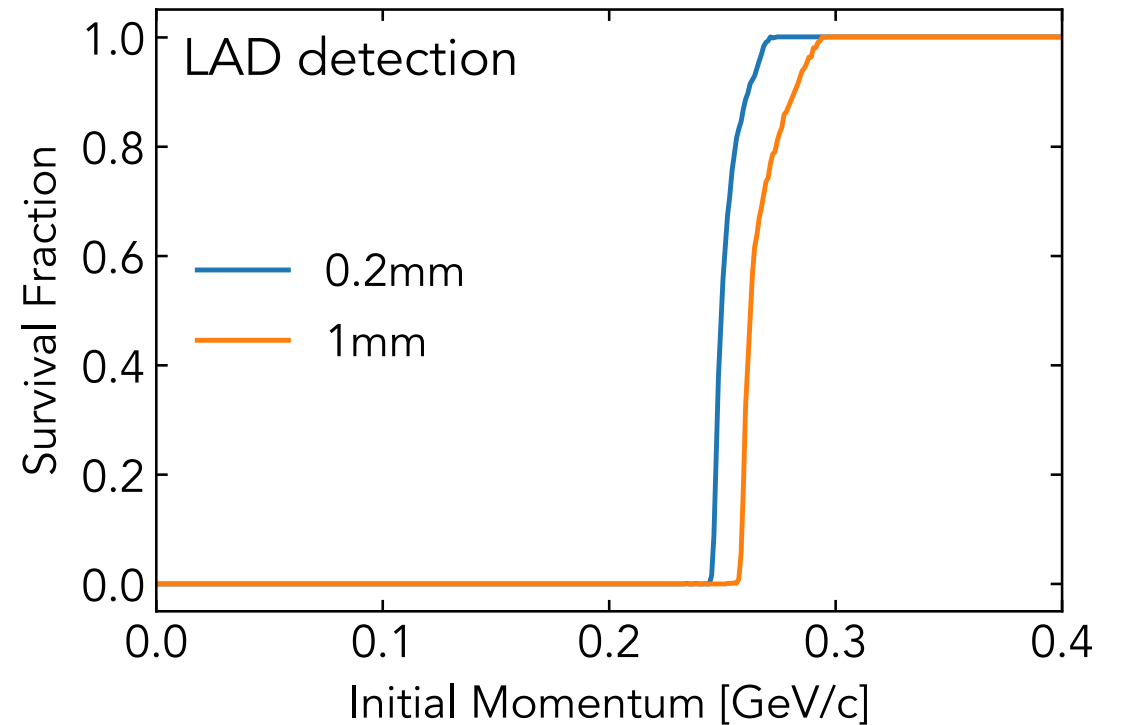
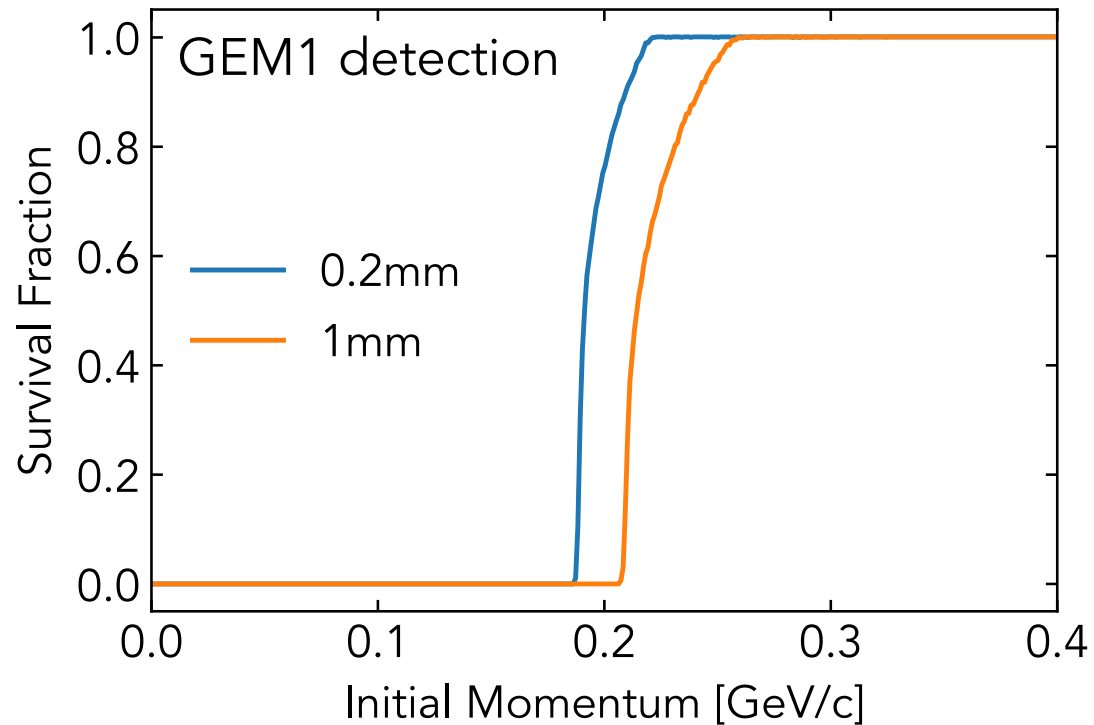
- Nothing
- Target\_Only
- TC\_Only\_0.2mm
- TC\_Only\_1mm
- ExitWindow\_Only
- GEM\_Only

\*All include air



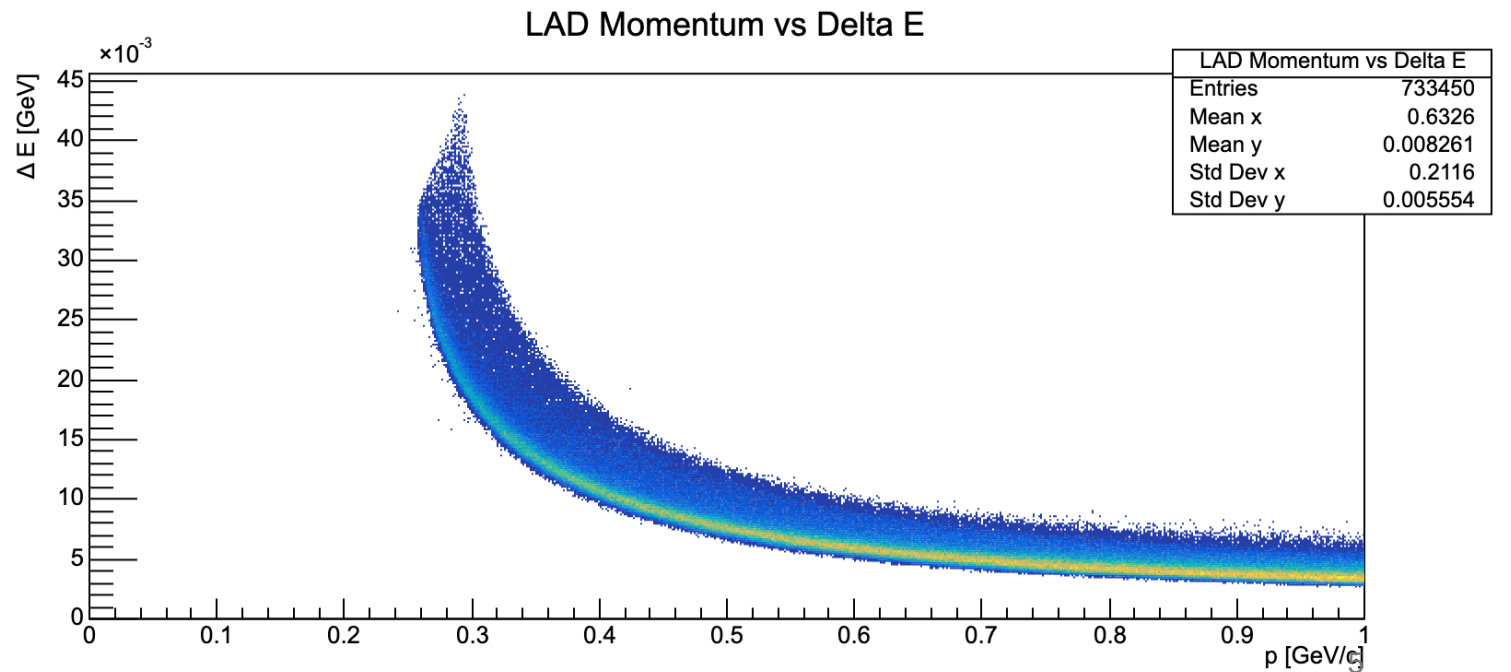
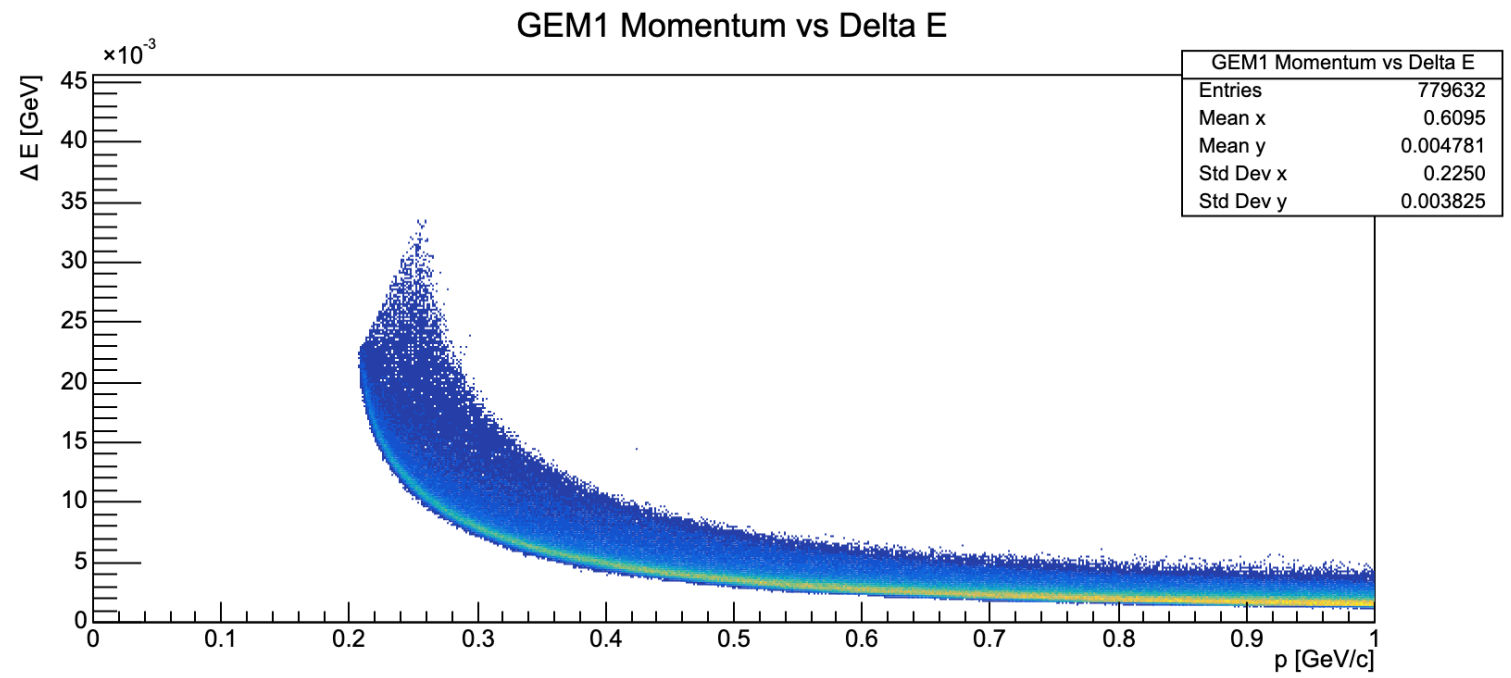
- Nothing
- Target\_Only
- TC\_Only\_0.2mm
- TC\_Only\_1mm
- ExitWindow\_Only
- GEM\_Only

# Change in Target Chamber Thickness



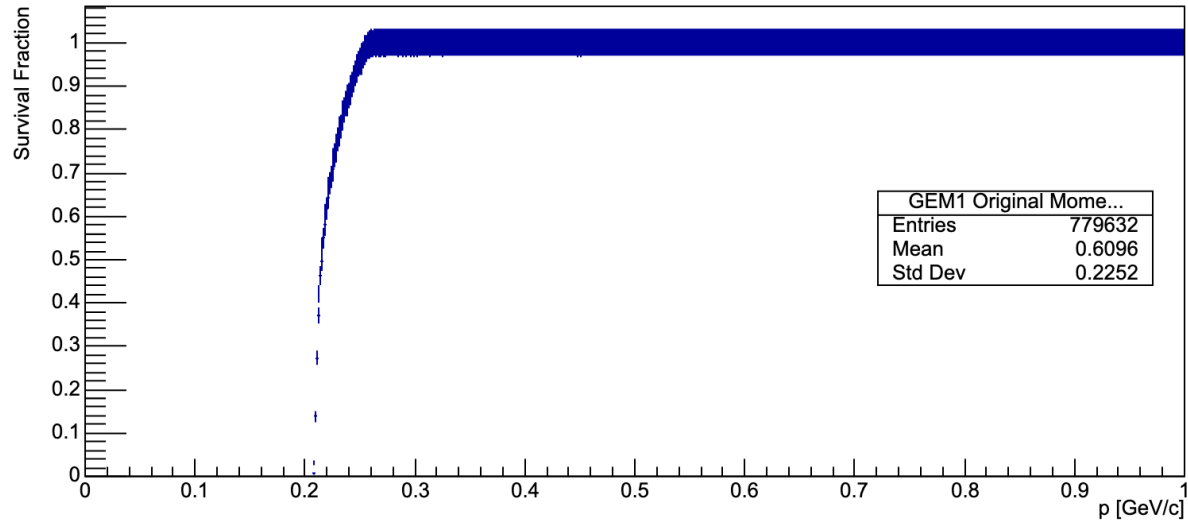
# Energy Loss

1mm target chamber

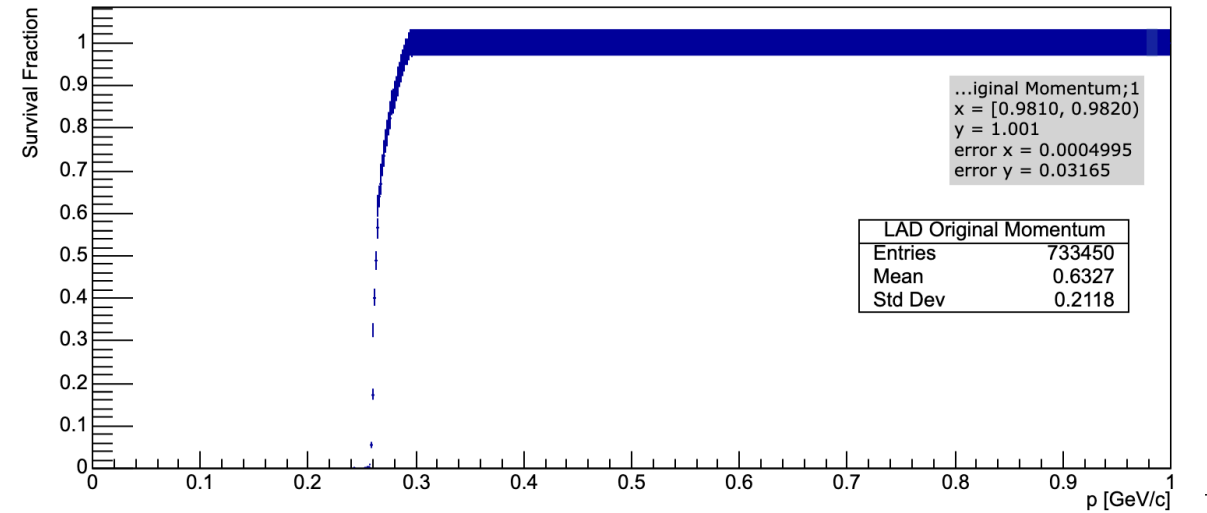


# Initial vs final momentum

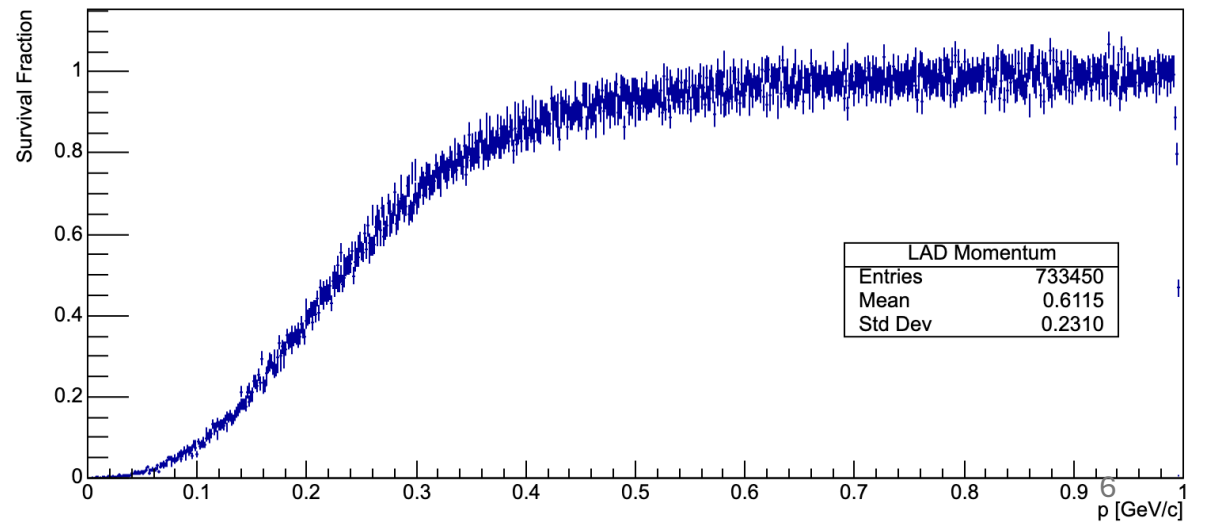
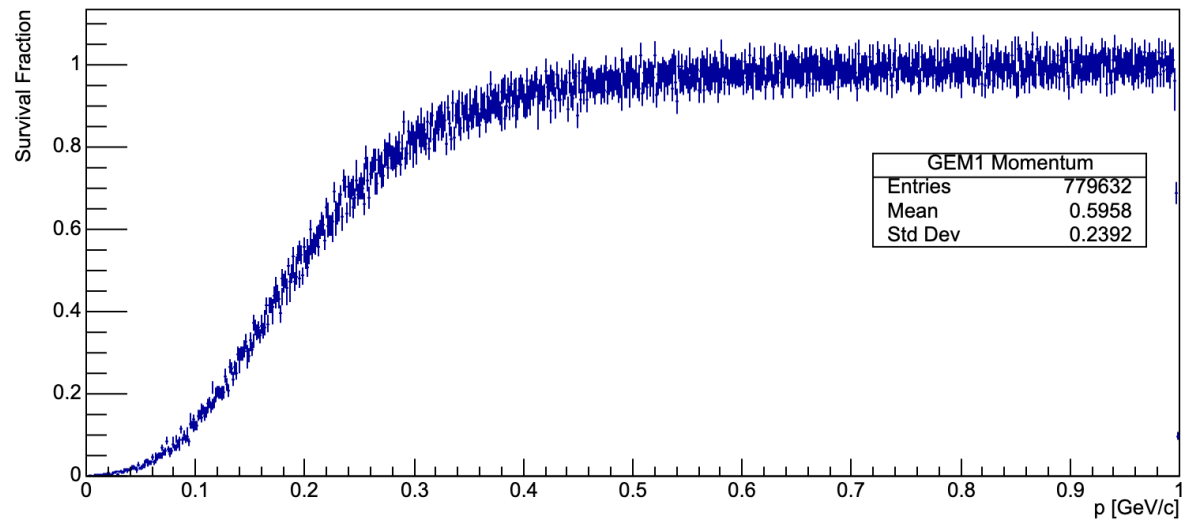
GEM1 Original Momentum



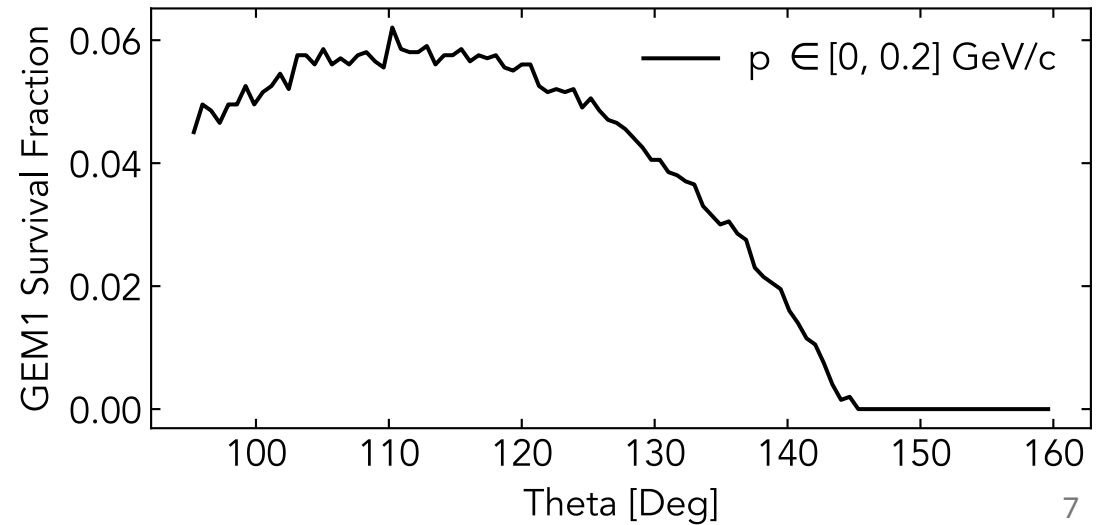
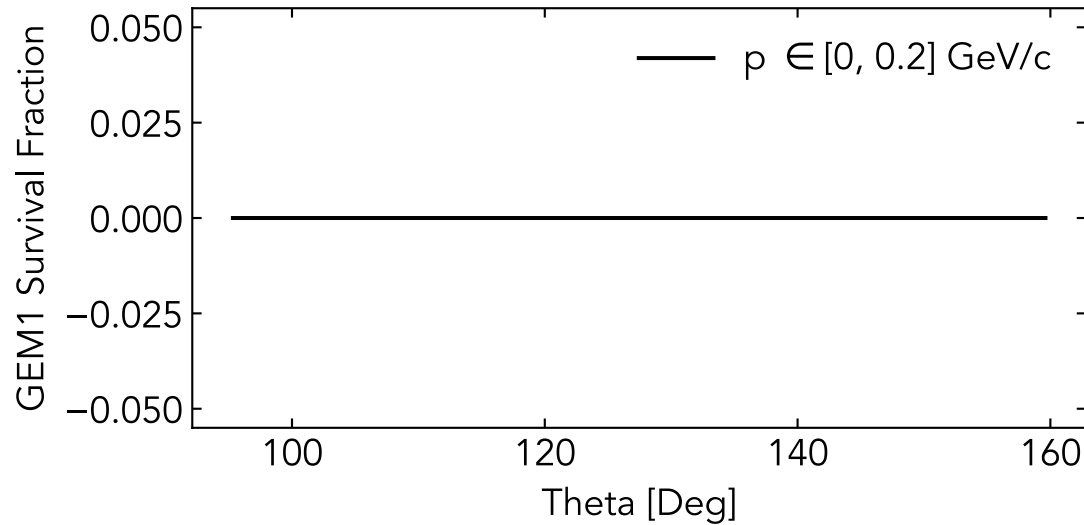
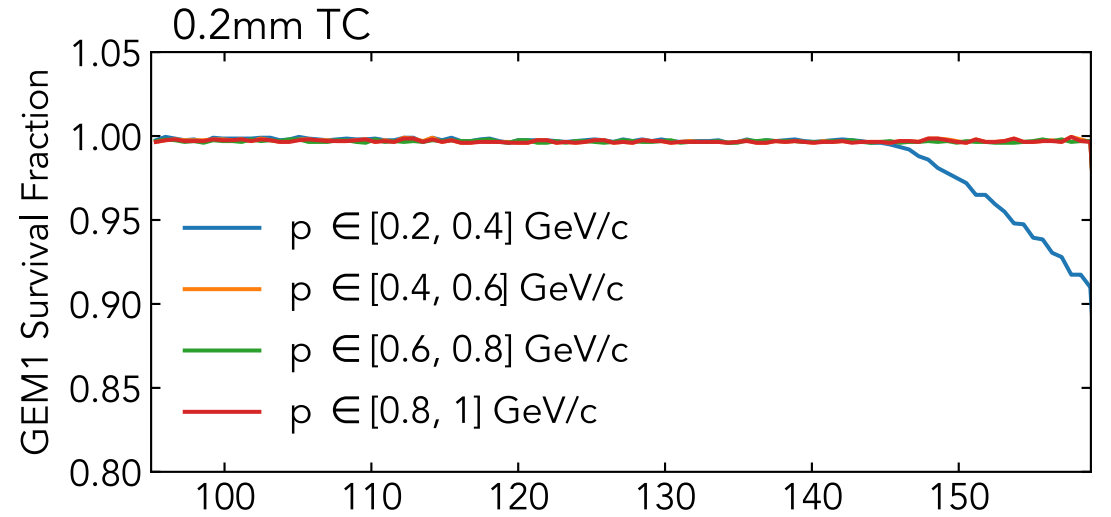
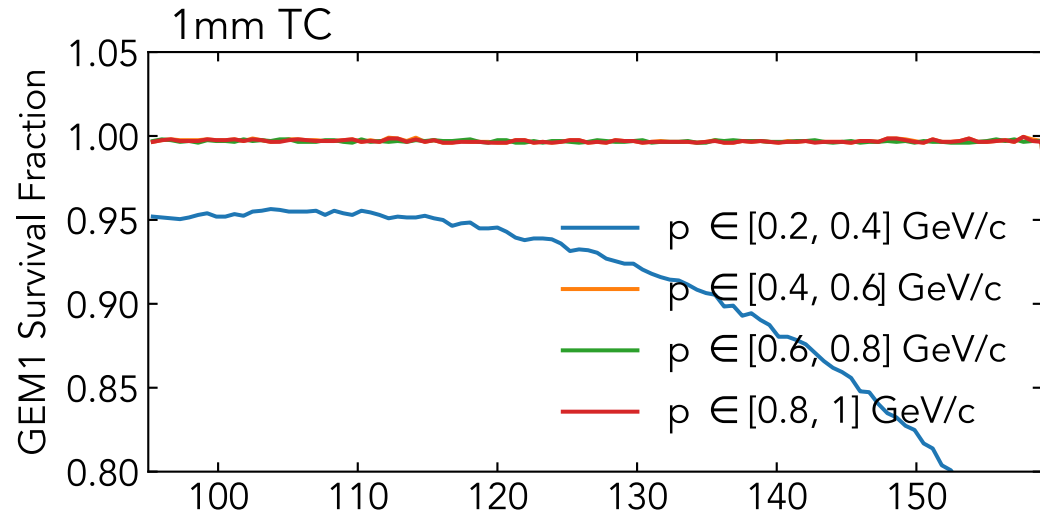
LAD Original Momentum



GEM1 Momentum

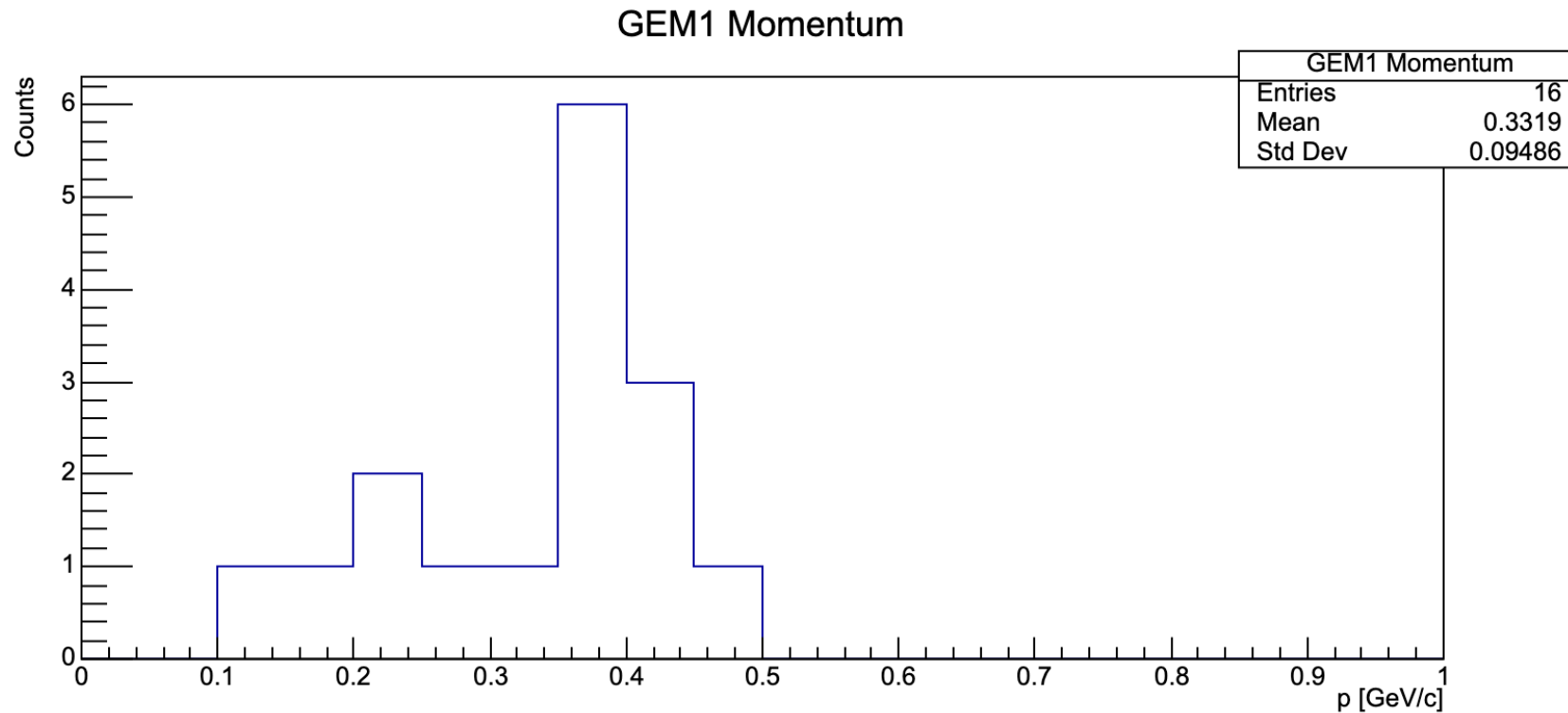


# Angular Distribution



# Background protons

- 11GeV electron beam
- $10^8$  electrons





# Signal protons

- Modify BAND GCF Generator
  - Results next week