# HiDRa Simulation & Analysis Updates

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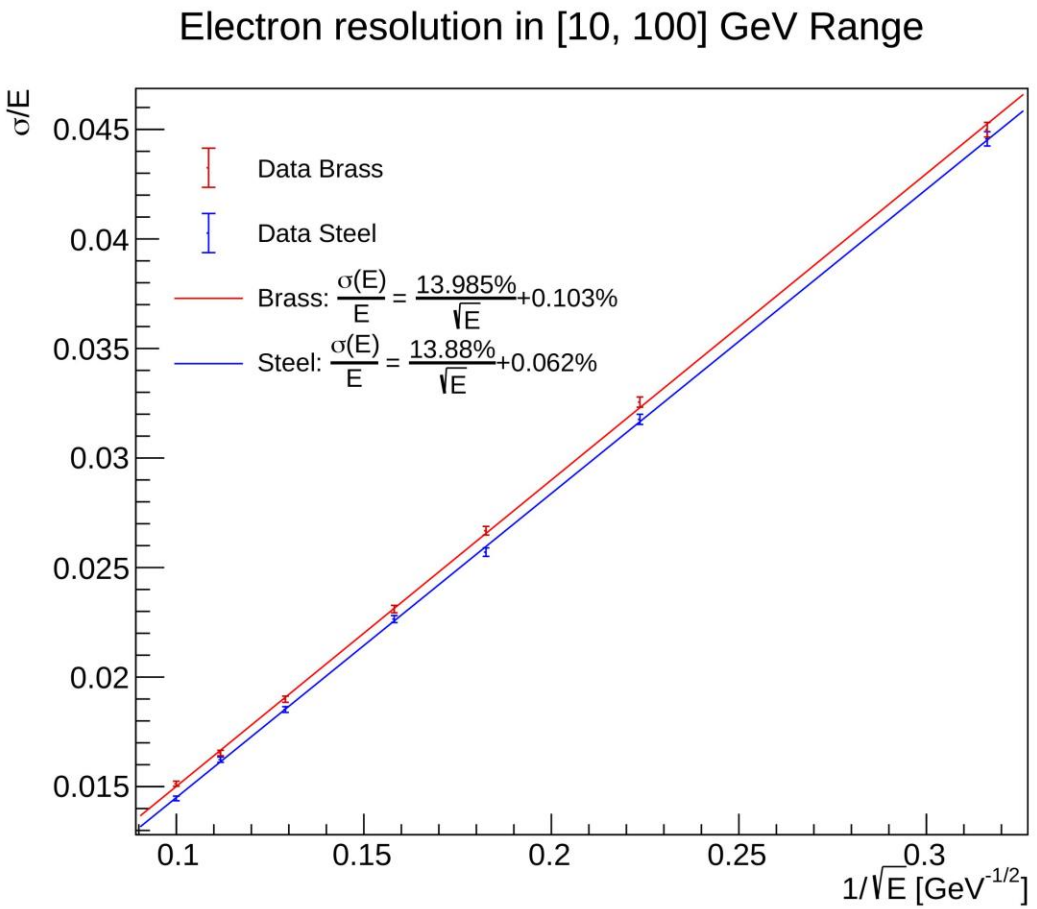
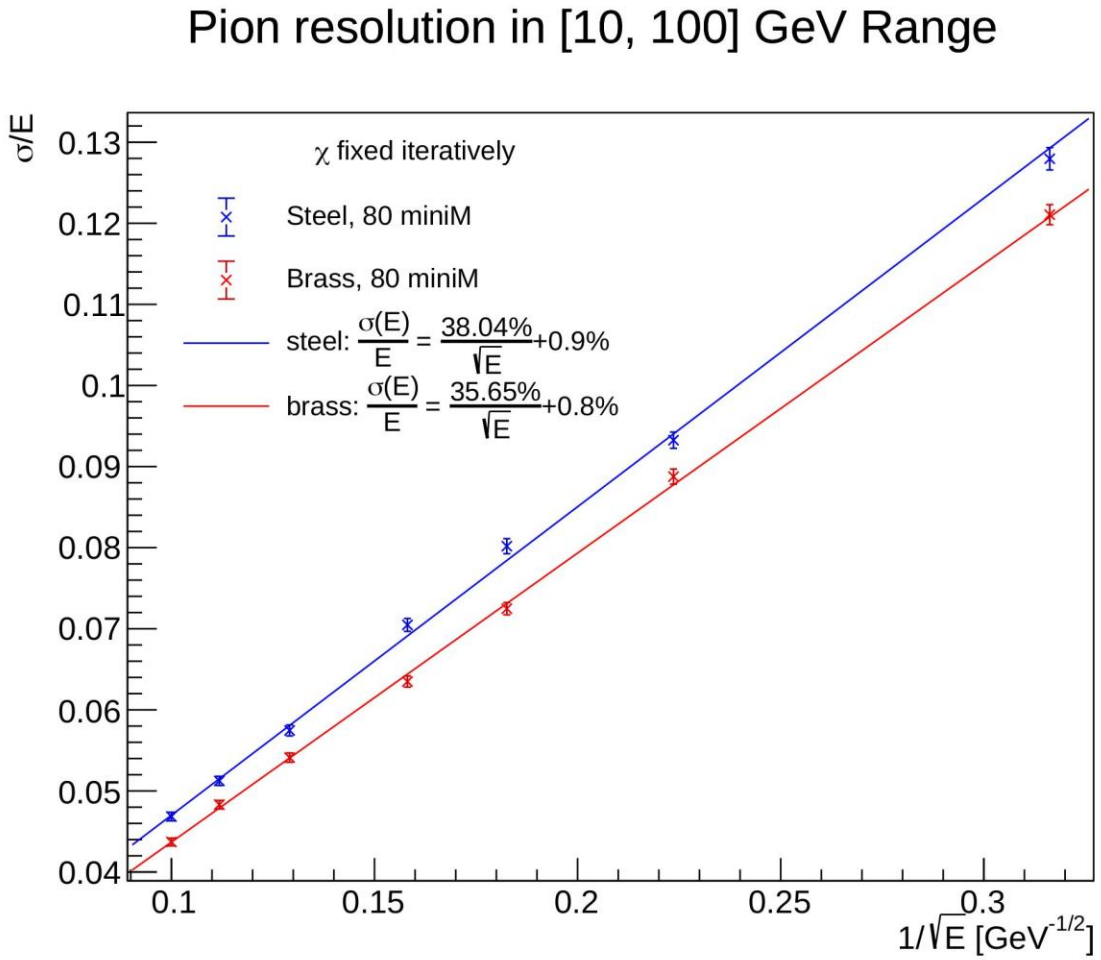
# Recap

HiDRa prototype features established:

- Depth: 2500 mm
- Geometry: 80 modules
- Material: Steel

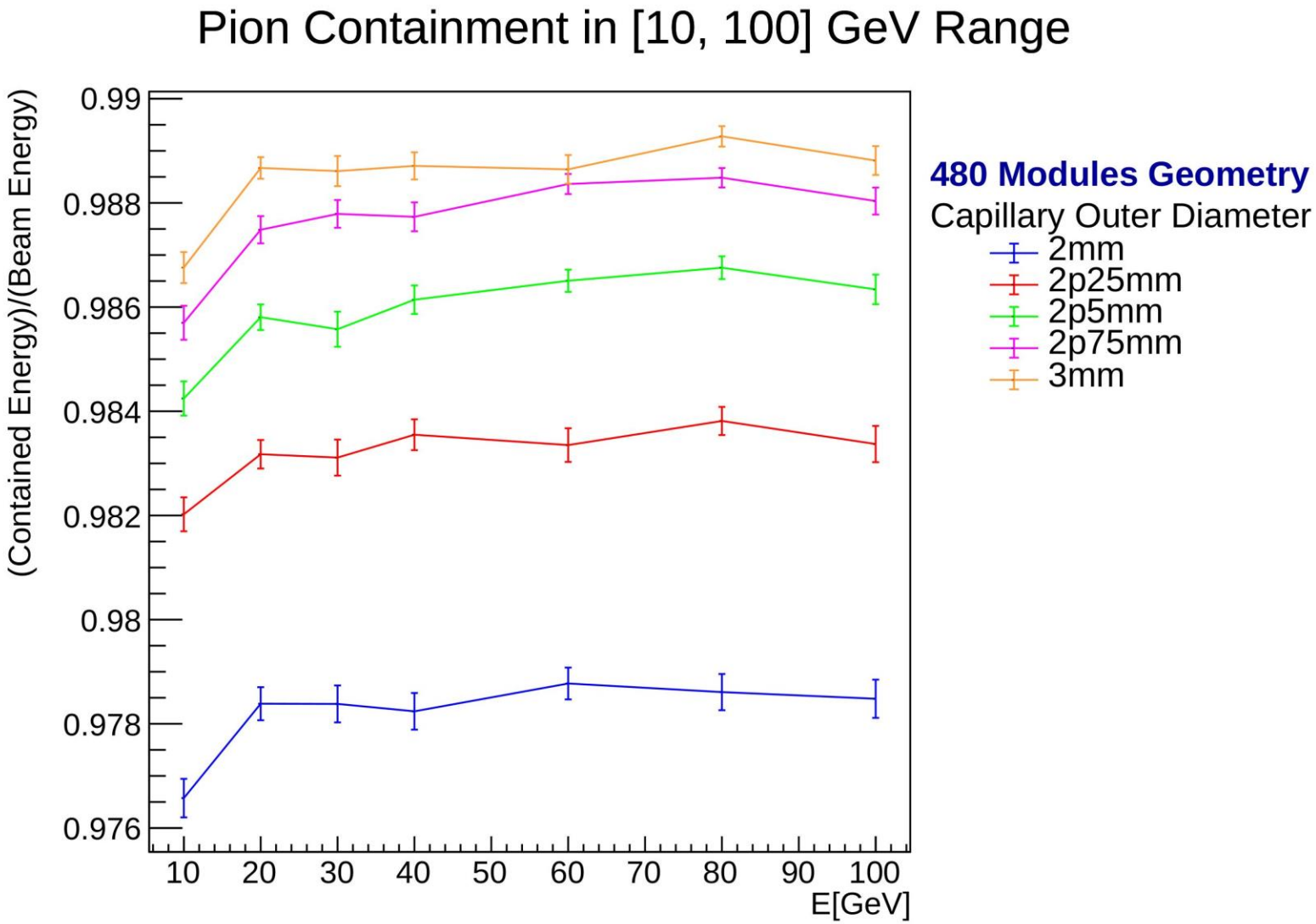


# Pion Containment

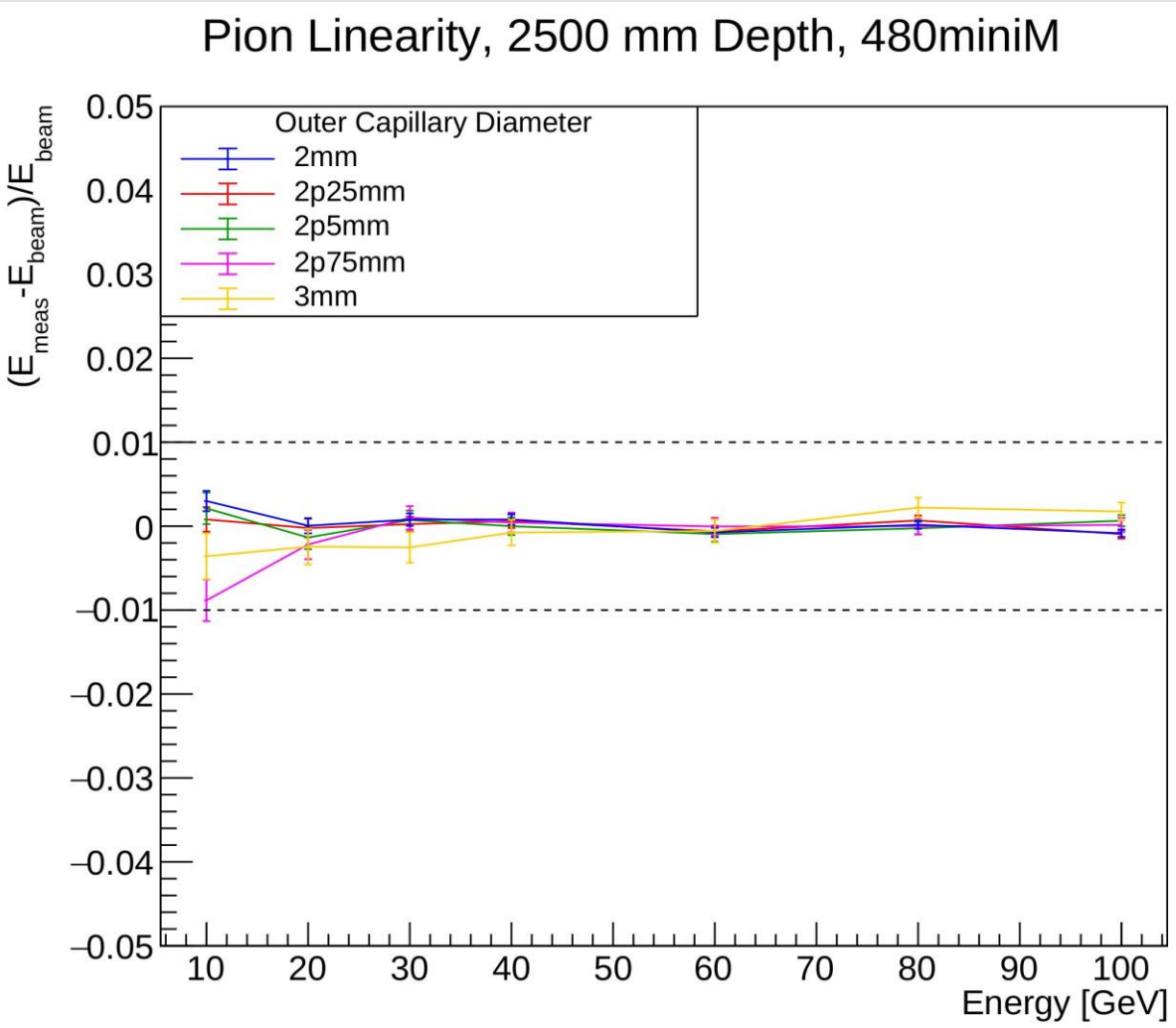
Tried to improve the containment for pions by scanning through increasing capillary outer radii:

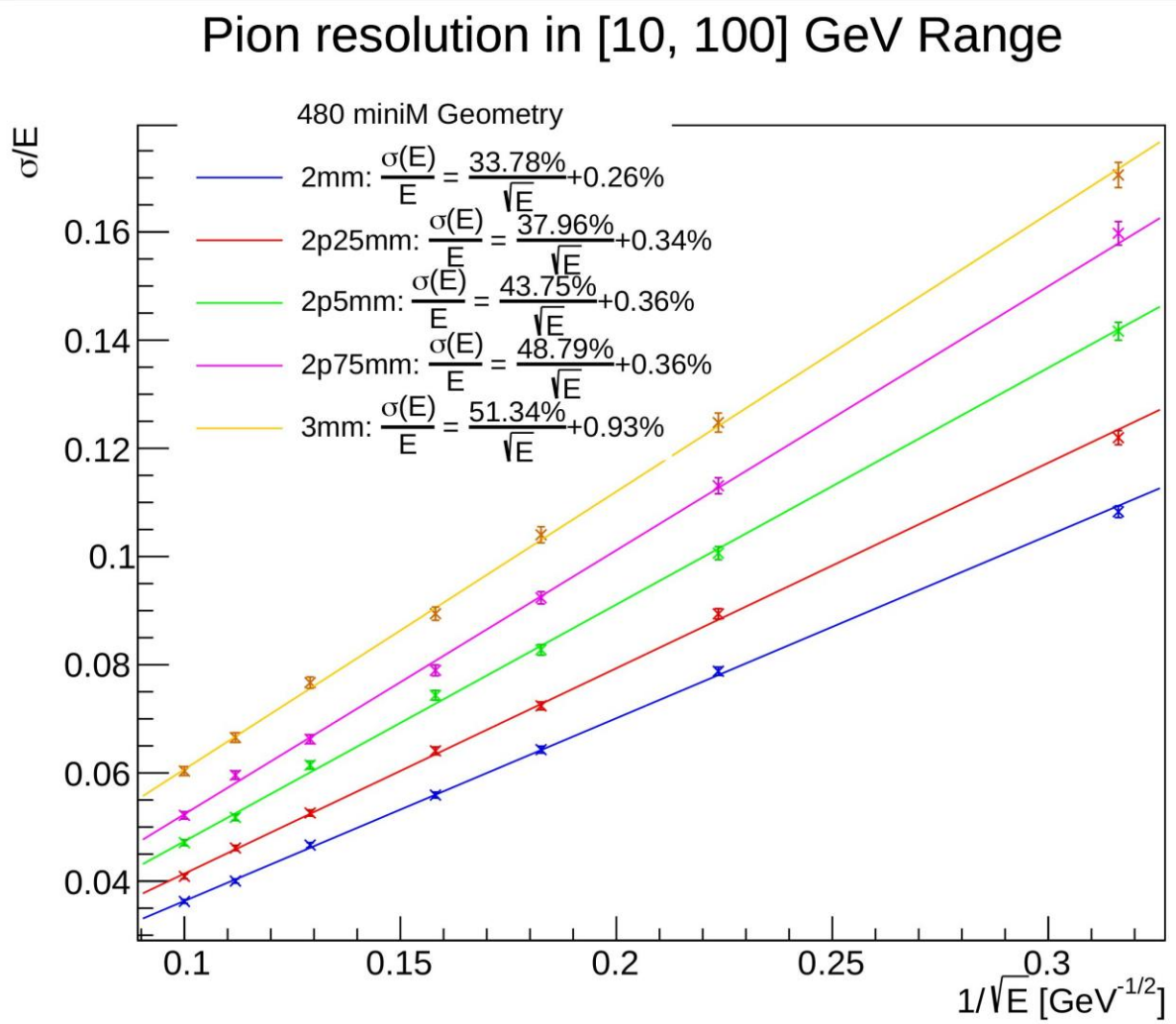
- Global containment increases
- Sampling fraction decreases



# Pion Resolution

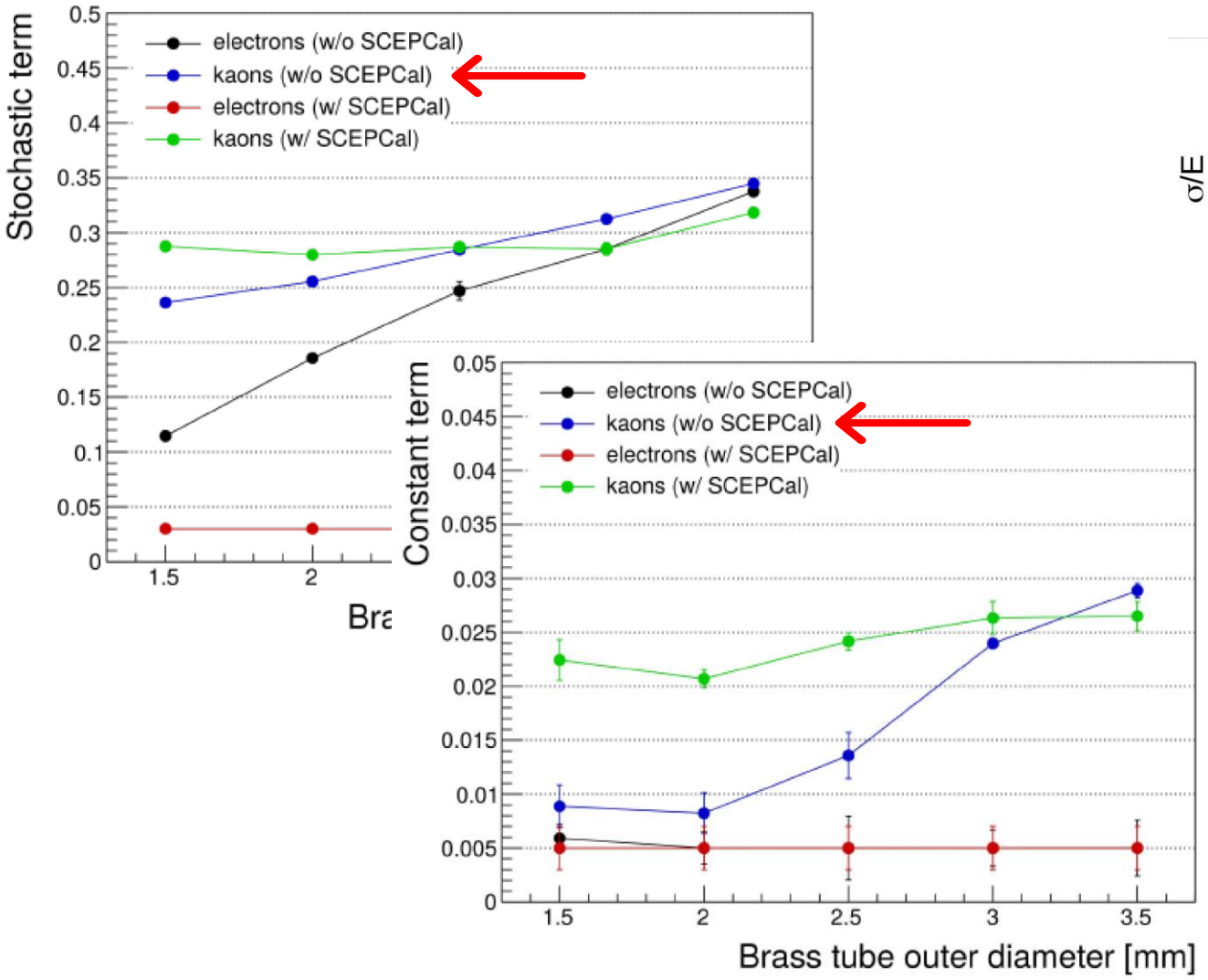
For each diameter set extract $\chi$ value that optimizes linearity through an iterative procedure (see previous presentation)

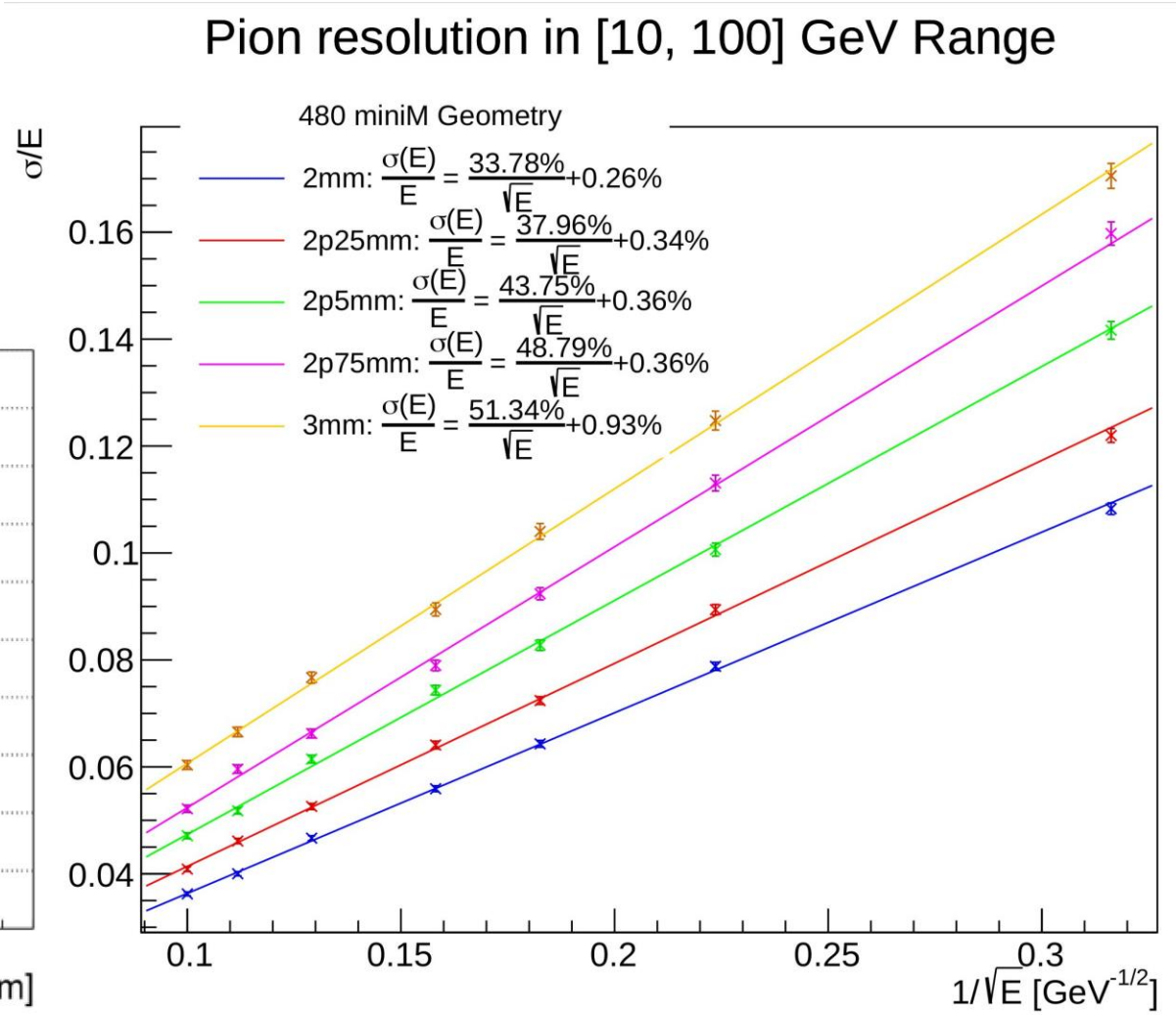


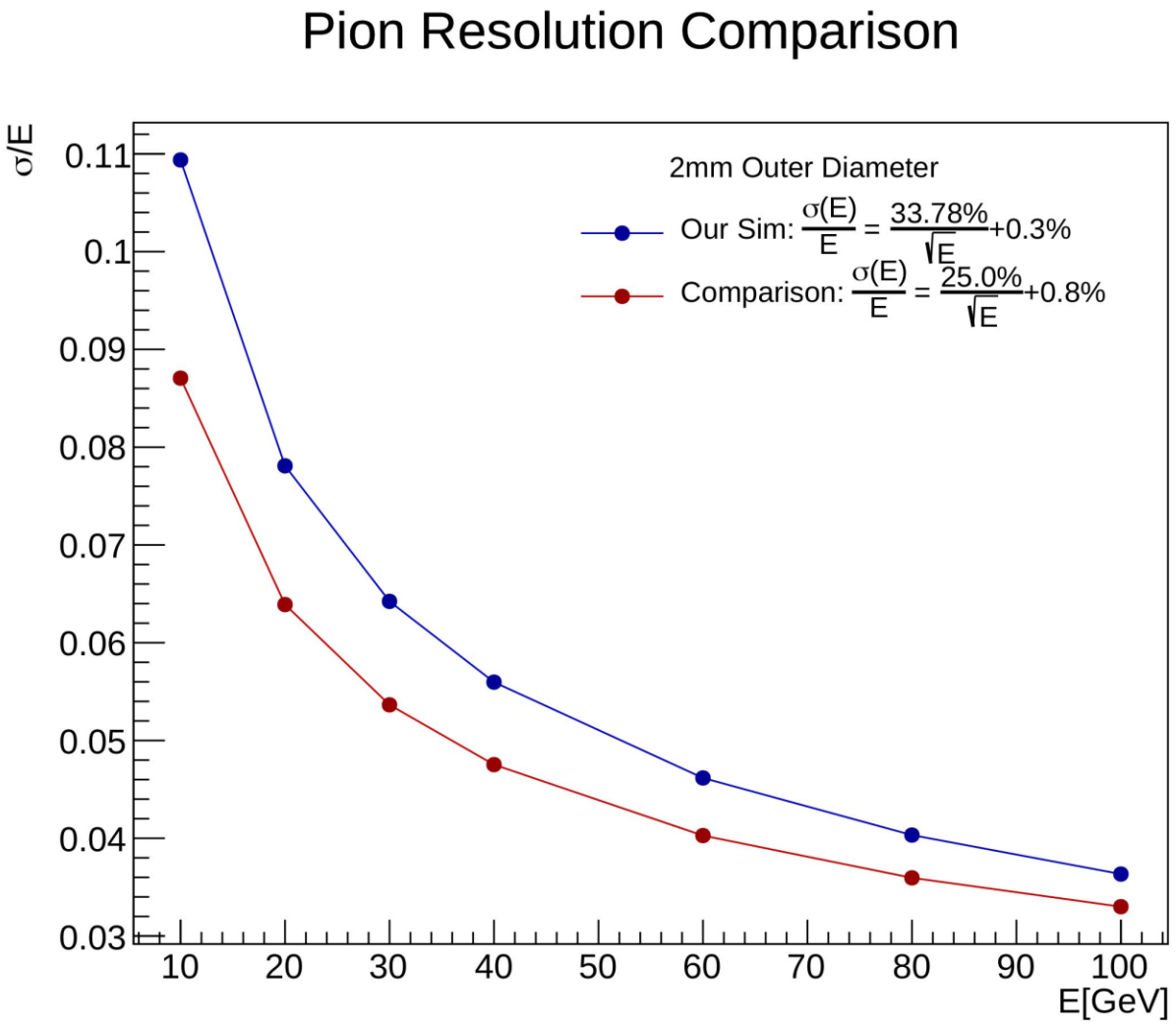
# Pion Resolution

Results from Marco Lucchini (INFN & UniMib)



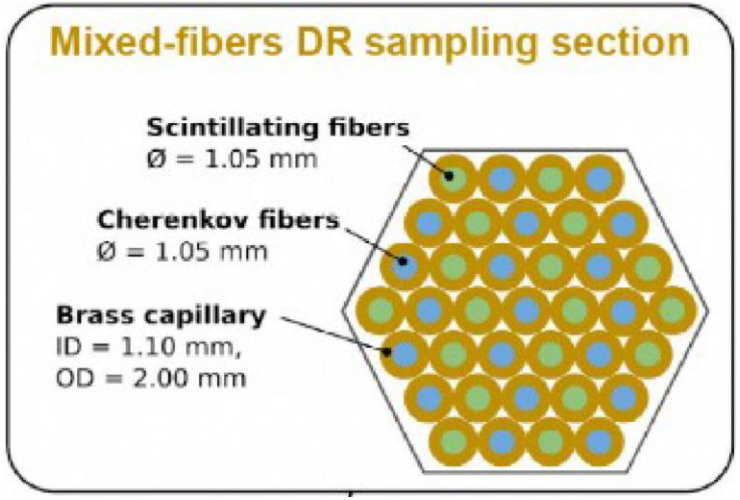



# Pion Resolution




Differences:

- Kaons / Pions
- Brass / Steel
- Fiber disposition
- Sim setup: beam and prototype geometry




Next steps:
Check if the different results can be explained through the different setup or if error are present somewhere