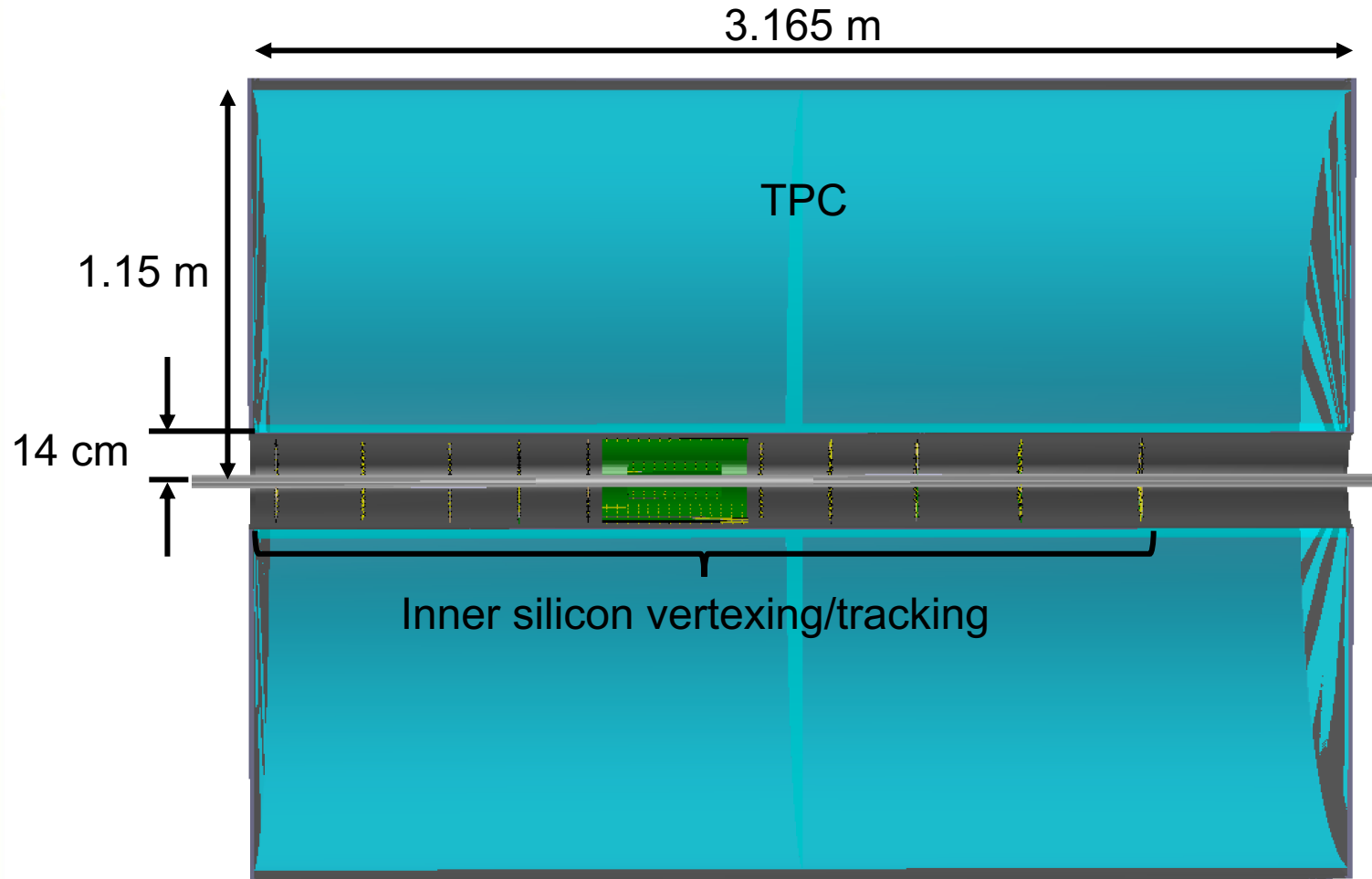


Detector 2 Tracking Simulation in ELCRoot

Cheuk-Ping Wong

10-21-2024

Blank Slide (No Logo)

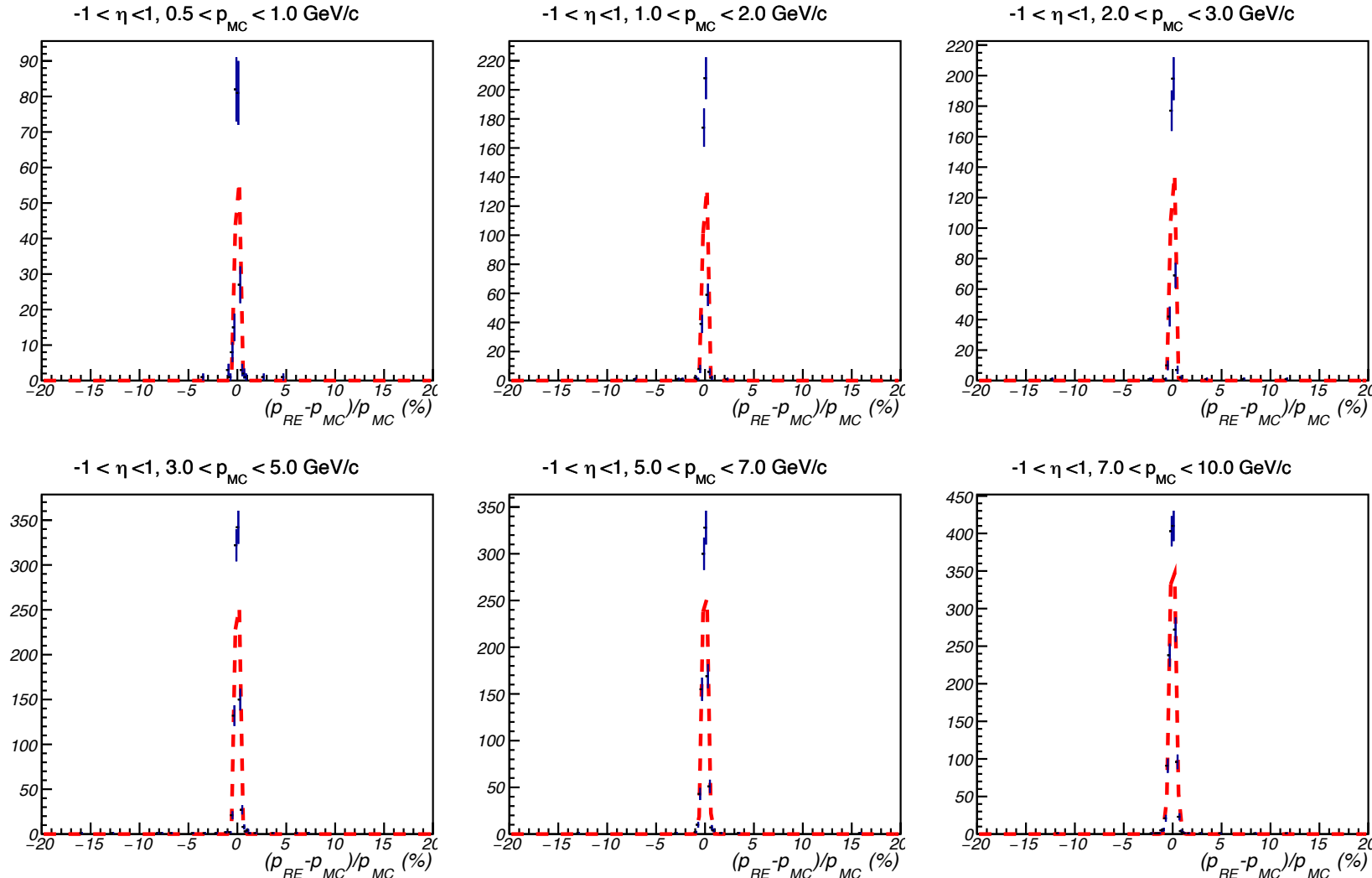


TPC

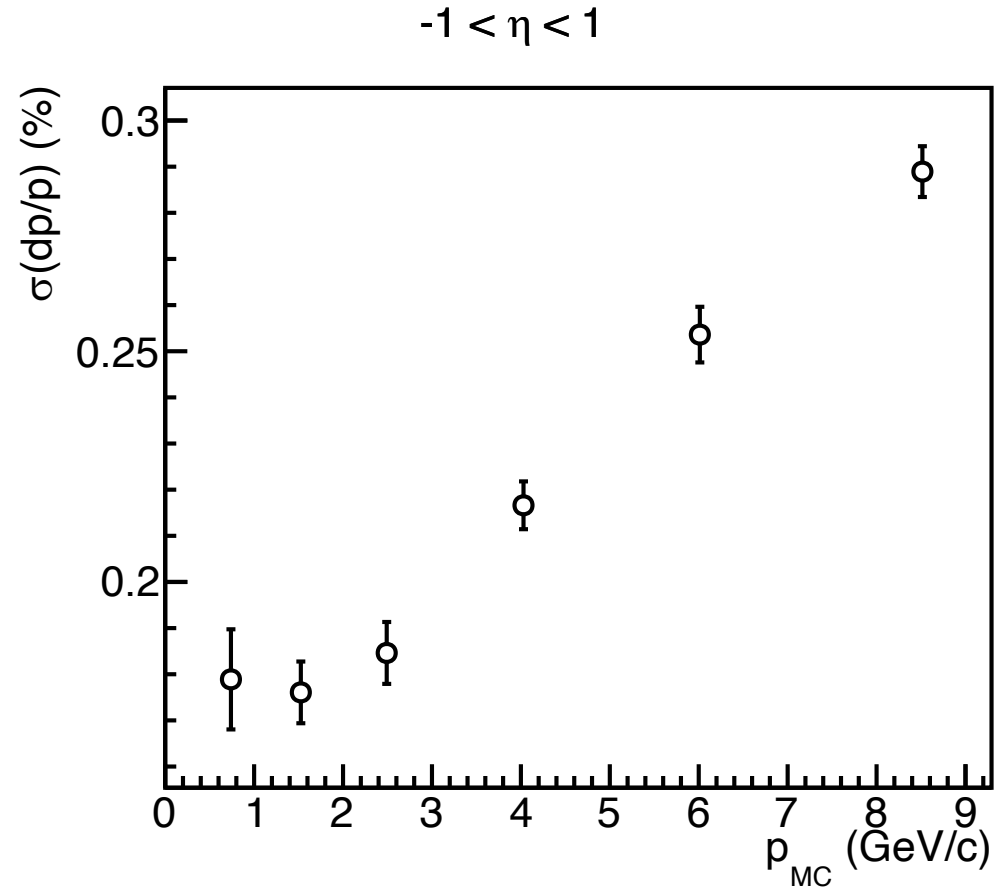
- Gas: $\text{ArCF}_4\text{iC}_4\text{H}_{10}$
- Field cage
 - carbon fiber
inner cage $t=2.62\text{mm}$
outer cage $t=9.28\text{mm}$
 - Kapton $t=150\mu\text{m}$
 - Aluminum $t=50\mu\text{m}$
- Central membrane: Kapton $t=100\mu\text{m}$
- Endcaps: Aluminum $t=13.4\text{mm}$
($X/X_0=15\%$)

dp/p Distributions in Central Rapidity

Suppress secondary particles



Momentum Resolution in Central Rapidity



To-do List

- Run condor jobs
- p_T resolution, efficiency plots
- Include secondary particles in tracking
- Integrate PIDs and calorimeters