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MARS vs. ROOT Representation of C Target

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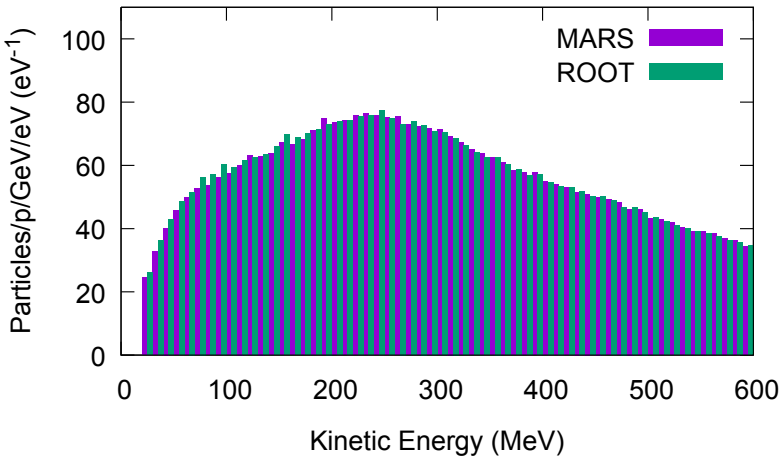
Review of Previous Talks

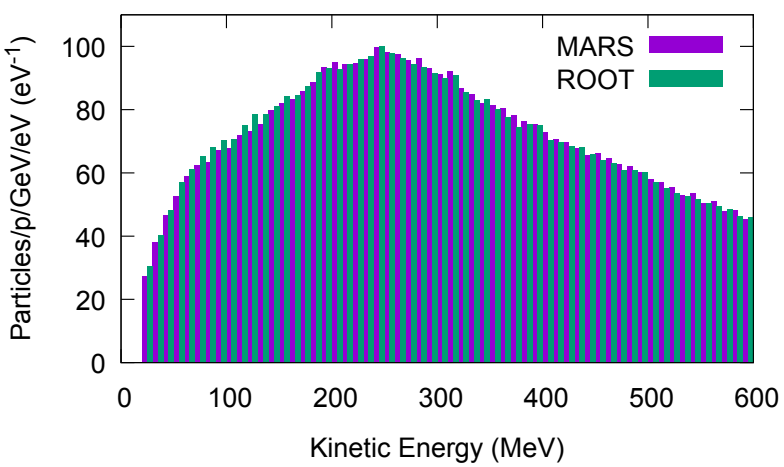
- X. Ding ran versions of the C target (tilt no dump) with expanded apertures
- MARS geometry was my trivially modified version of what X. Ding ran earlier
- Apertures now at 13 cm to 0.85 m, then 23 cm afterward; previously the transition was at 1.7 m.

Spectrum at 2 m

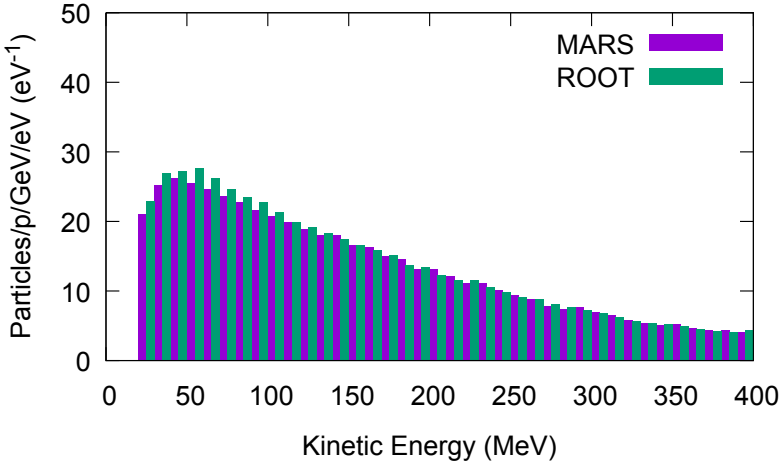
π^-



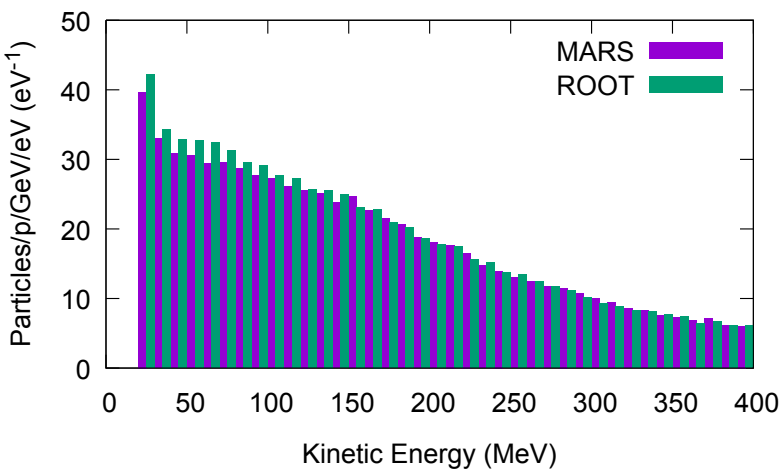
π^+



μ^-

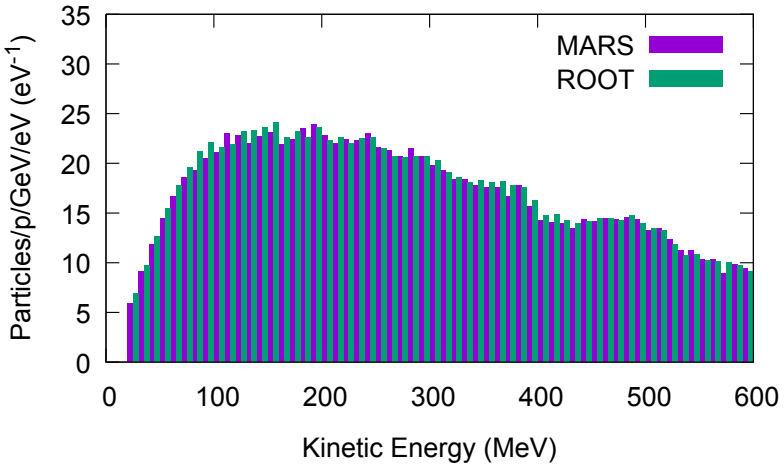


μ^+

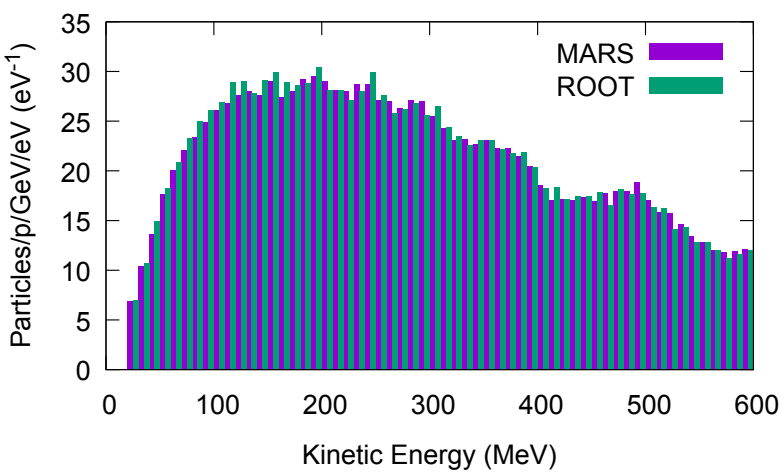


Spectrum at 10 m

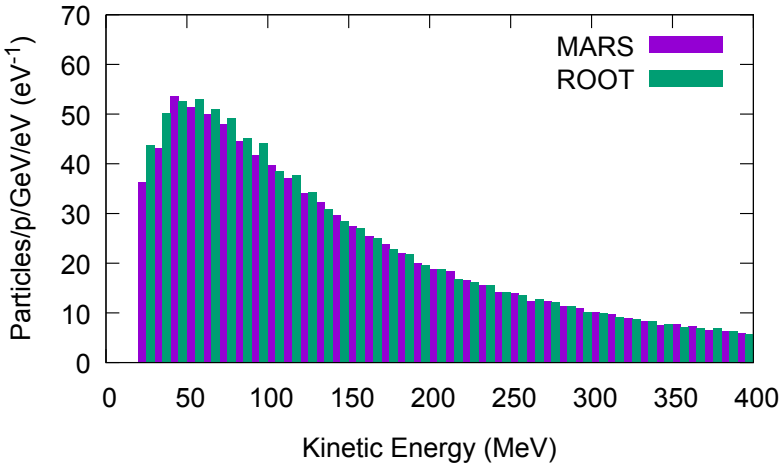
π^-



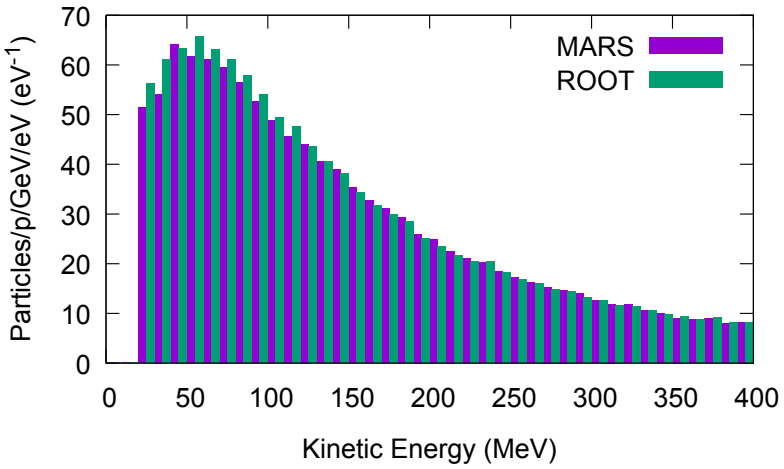
π^+



μ^-

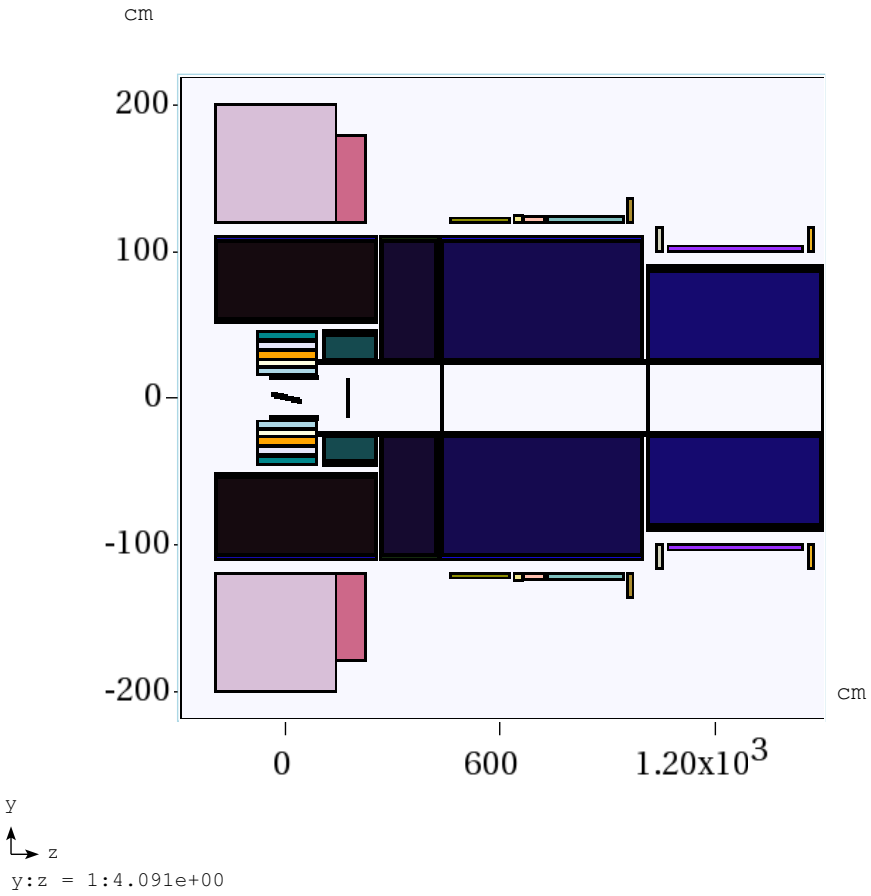


μ^+

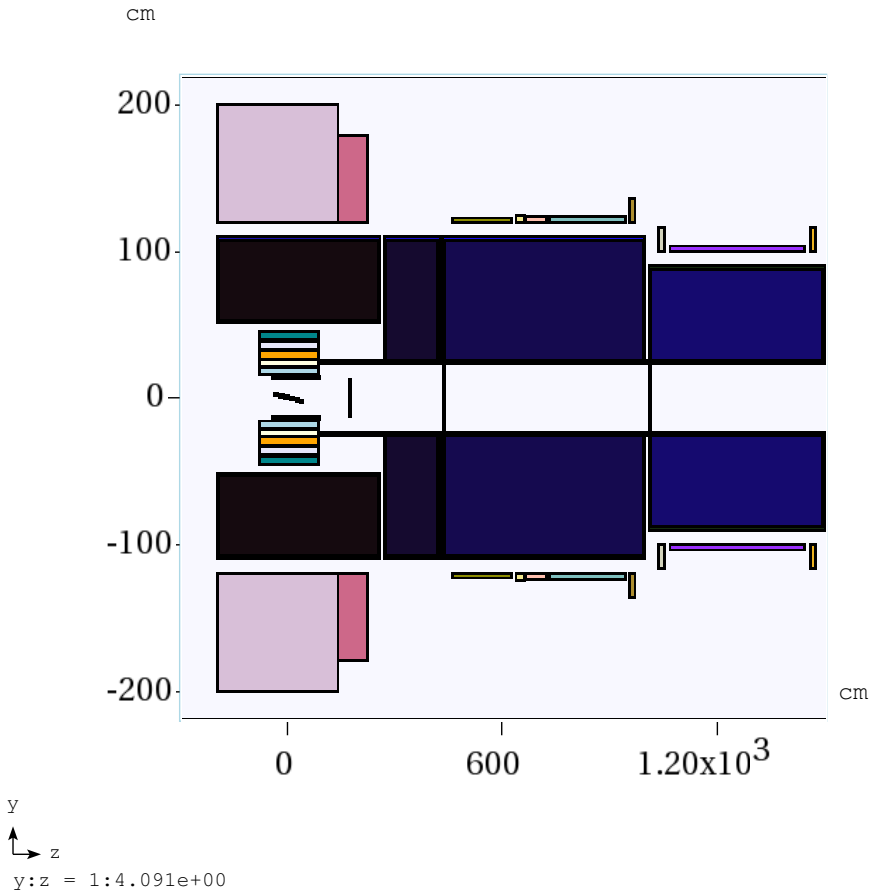


MARS vs. ROOT Geometry

MARS



ROOT



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Comments

- Slightly higher flux at low energy for the ROOT-based geometry
- Integral of flux below 120 MeV, difference is around 4%
- Cause is probably minor differences between the two geometries (beampipe/window materials, thicknesses, etc.)