

Start Counter: HDGeant (Take 2)

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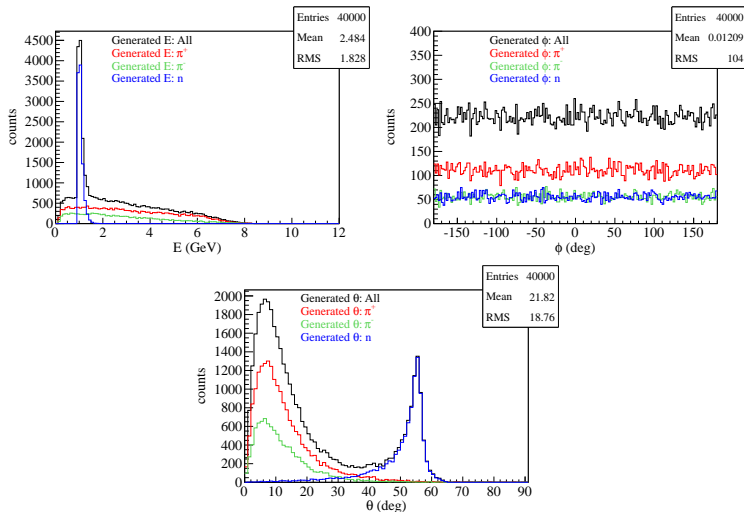
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November 17, 2011

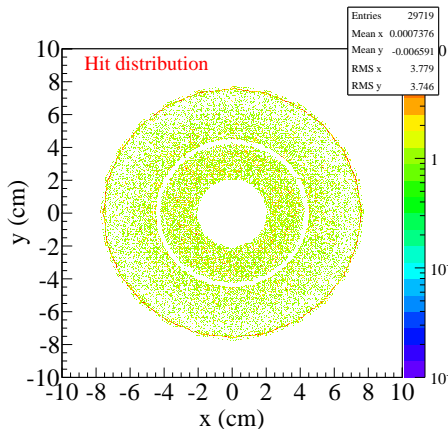
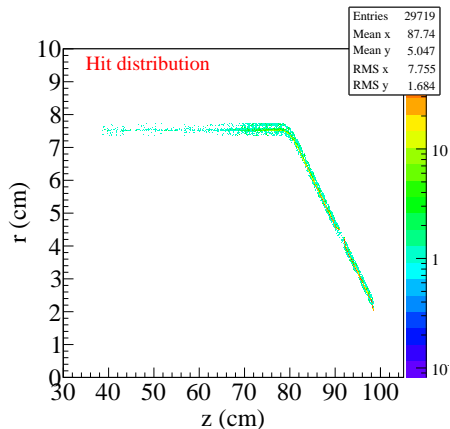


Generated Events

- Used **genr8** to generate 10000 events for the process: $\gamma p \rightarrow n\pi^+\pi^+\pi^-$
- Incident beam energy of 9.0 GeV at target position: (0, 0, 65) cm

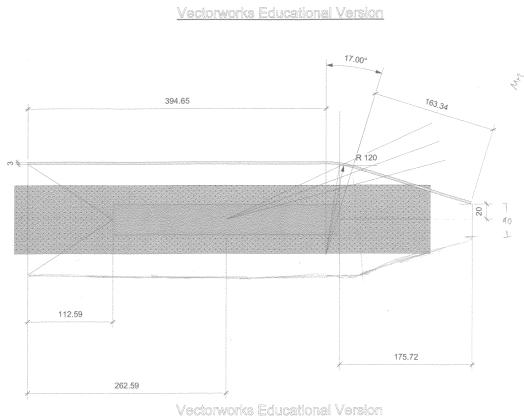


Hit Distributions



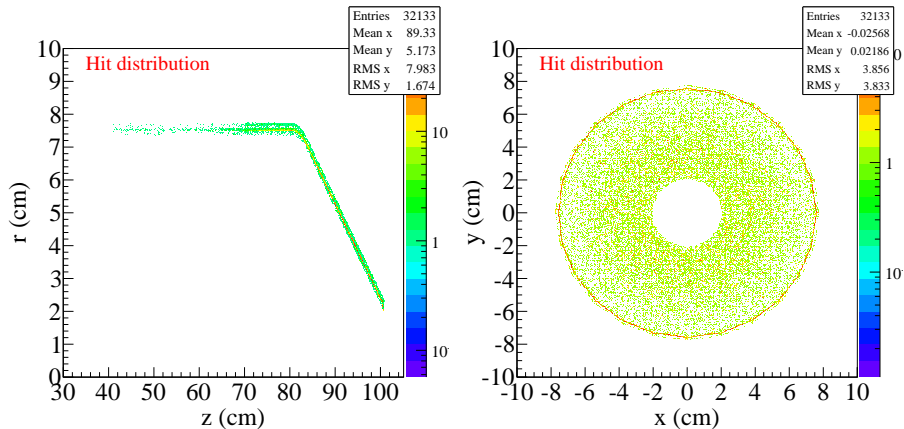
Start Counter Hit distributions in HDGeant
There is a hole at around $z = 90$ cm. Why?

Target Geometry Overlap



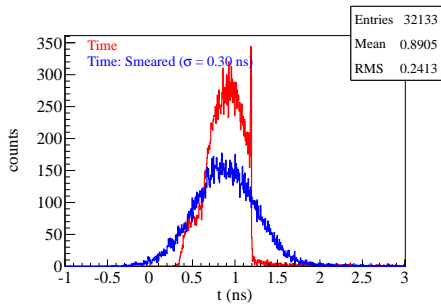
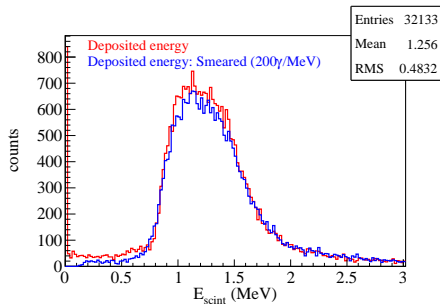
Old geometry/target rohacell overlaps with scintillator.
In HDDS, Target is centered at 50.0 cm and SC is centered at 38.75 cm.

Hit Distribution After Shift



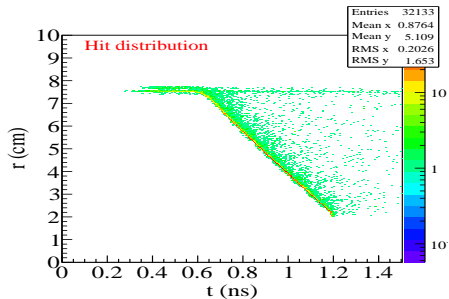
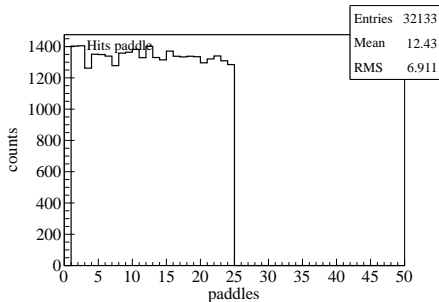
Start Counter Hit distributions in HDGeant
After shift in HDGeant from 38.75 cm to 41.0 cm

Simulated “Truth” Events

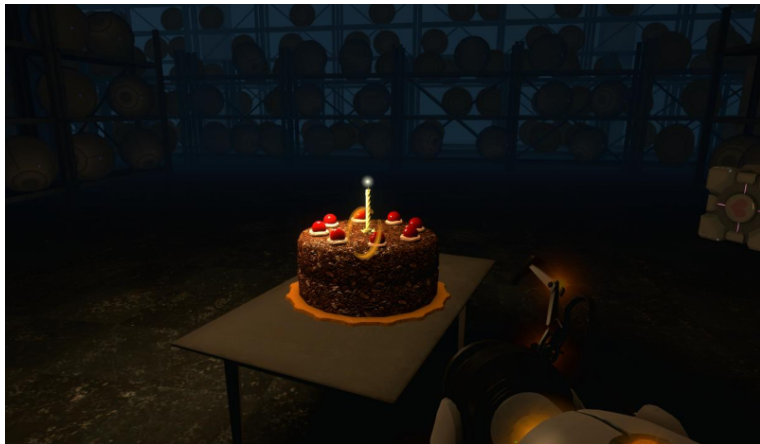


Deposited energy in scintillator and time
No attenuation included

Paddle Occupancy and Time Distribution



The End



“The cake is a lie.” - *Portal*