Occupancy in the Yoke Endcaps

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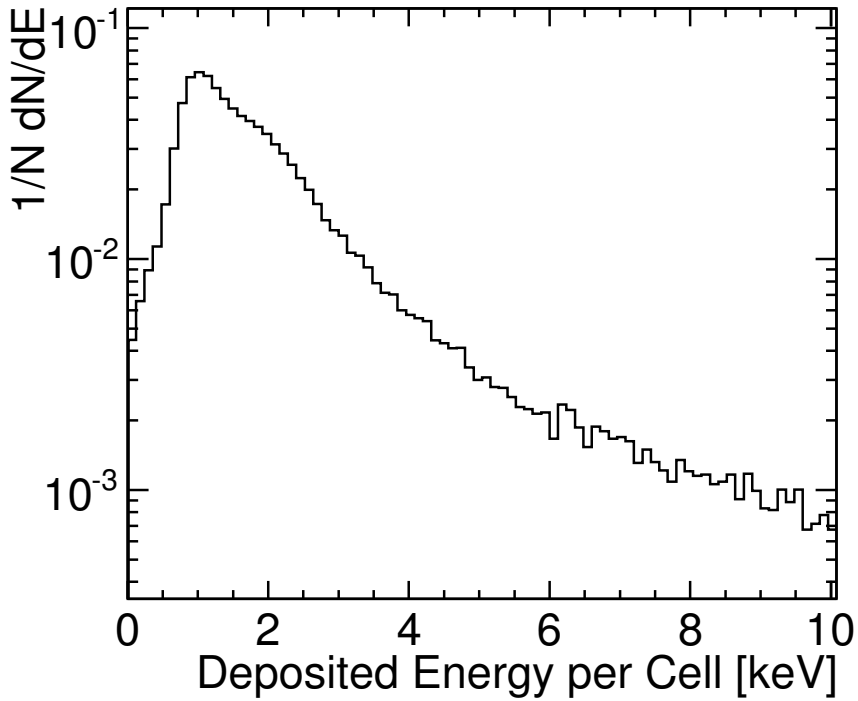
Yoke Sensors

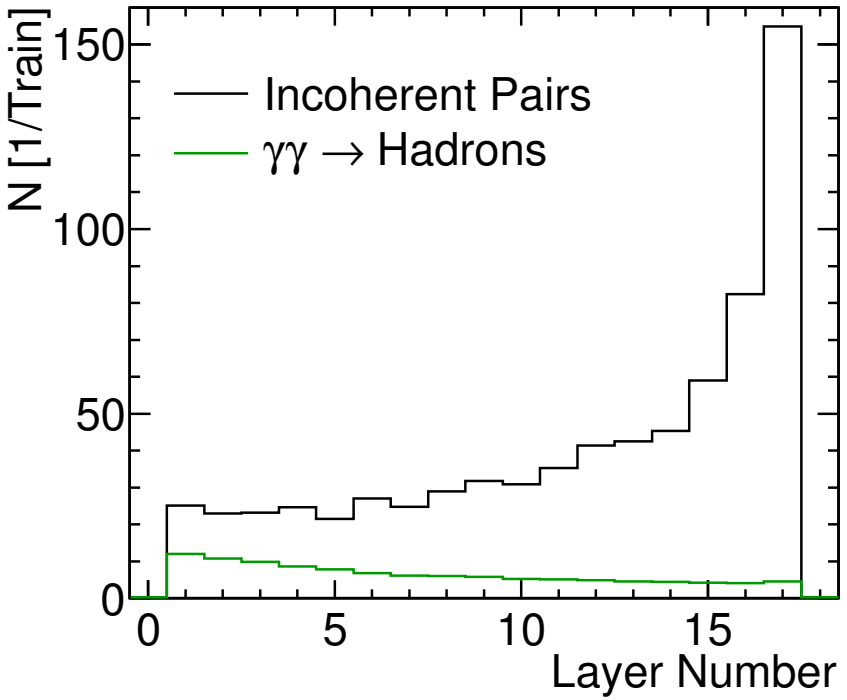
- In the current simulation the sensors in the yoke are RPCs
- Previously used same threshold as for scintillators (300keV)
- MIP in endcap is about 1 keV
- Now using 0.3 keV threshold



Deposited energy per cell from 100 GeV muons

Endcap Hits

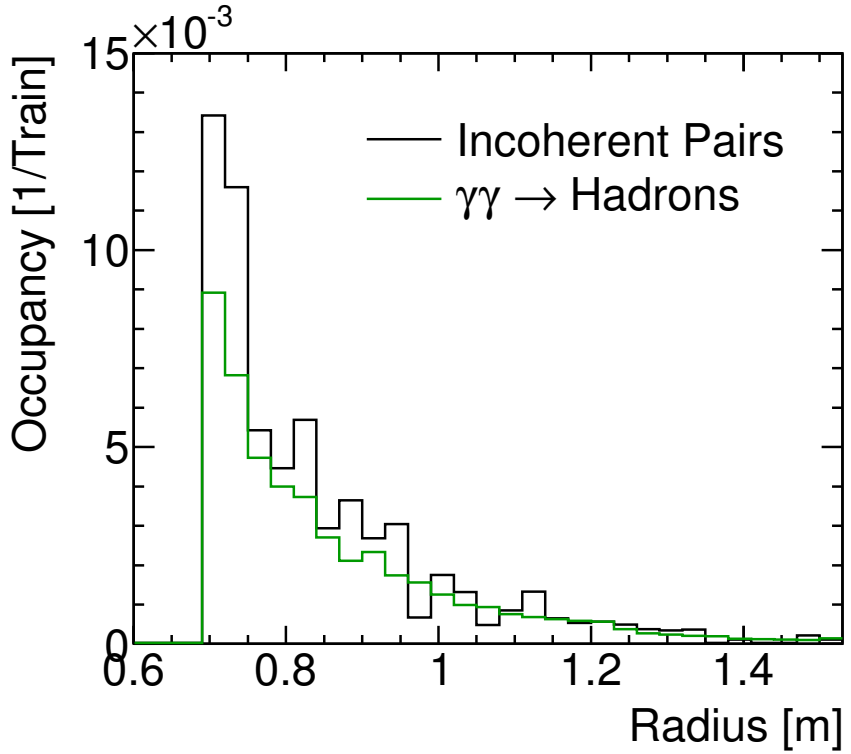
- For incoherent pairs, more hits in the latter layers
  - Particles scattering from beam-pipe into back of endcap
  - Would normally be shielded from mask, cavern wall, or accelerator tunnel wall, which are all not part of the simulation



Hits per layer in the yoke endcap

Occupancy

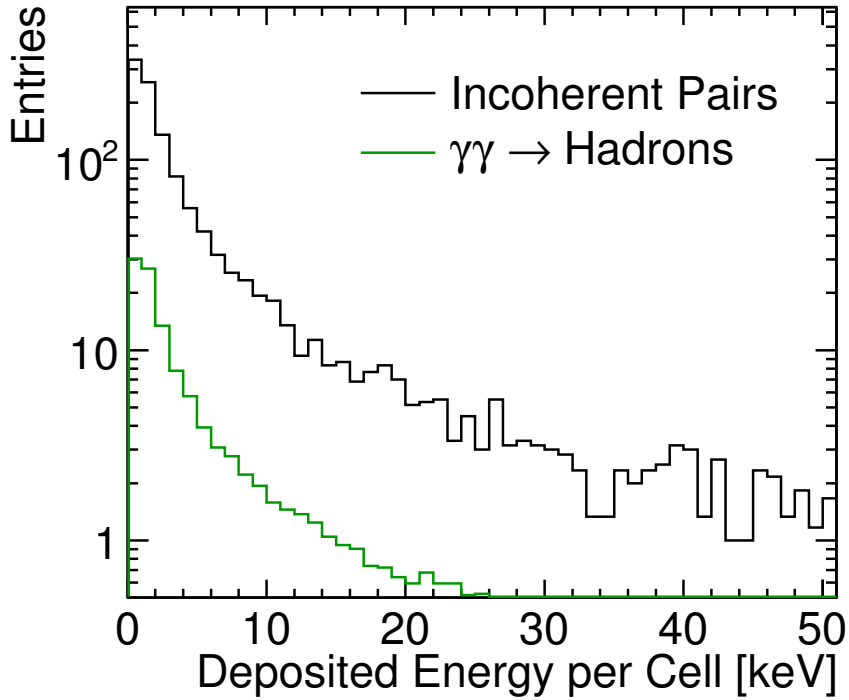
- Occupancy per pad below $2 \cdot 10^{-2}$
- Including safety factor: 10% at inner radius



Occupancy averaged over the first five layers

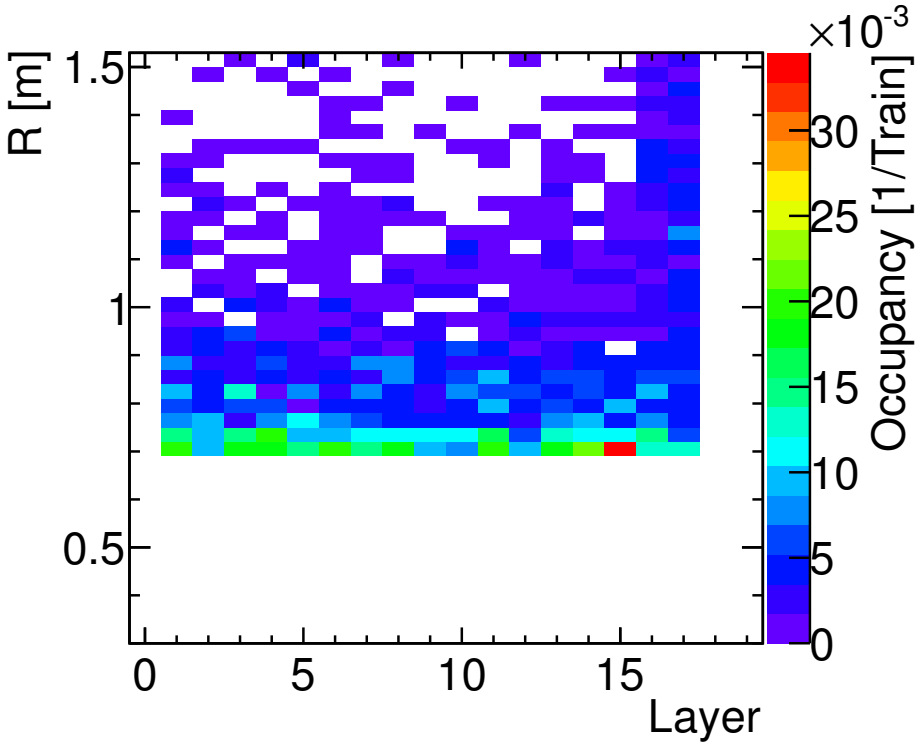
Backup Slides

Energy Deposits from Background

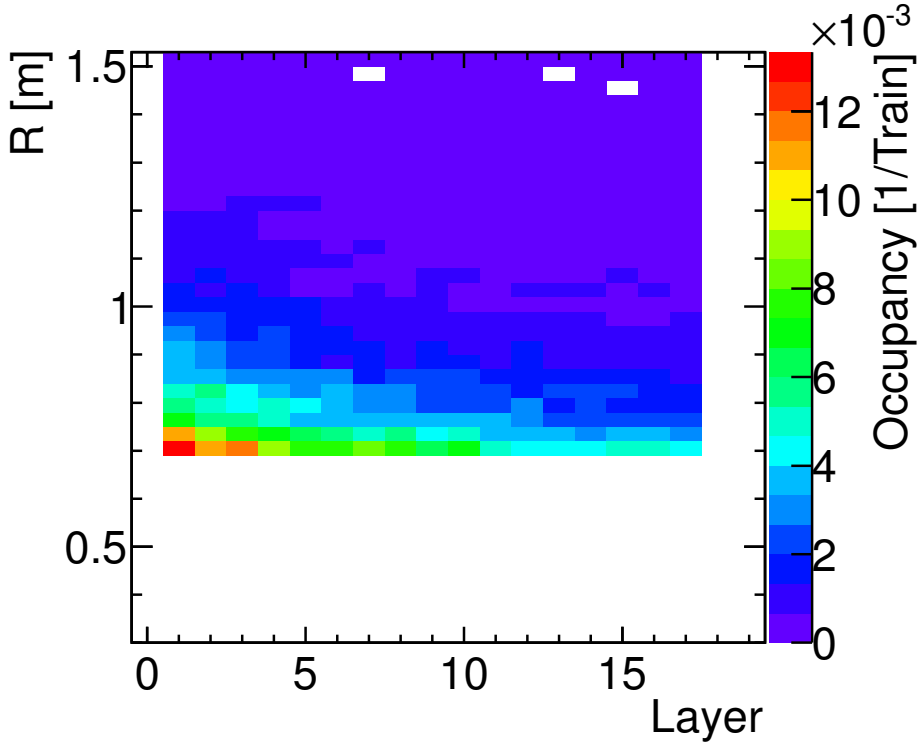


Deposited energy per cell from background sources

Occupancies in all Layers



Occupancy for incoherent pairs



Occupancy for $\gamma\gamma \rightarrow$ Hadrons