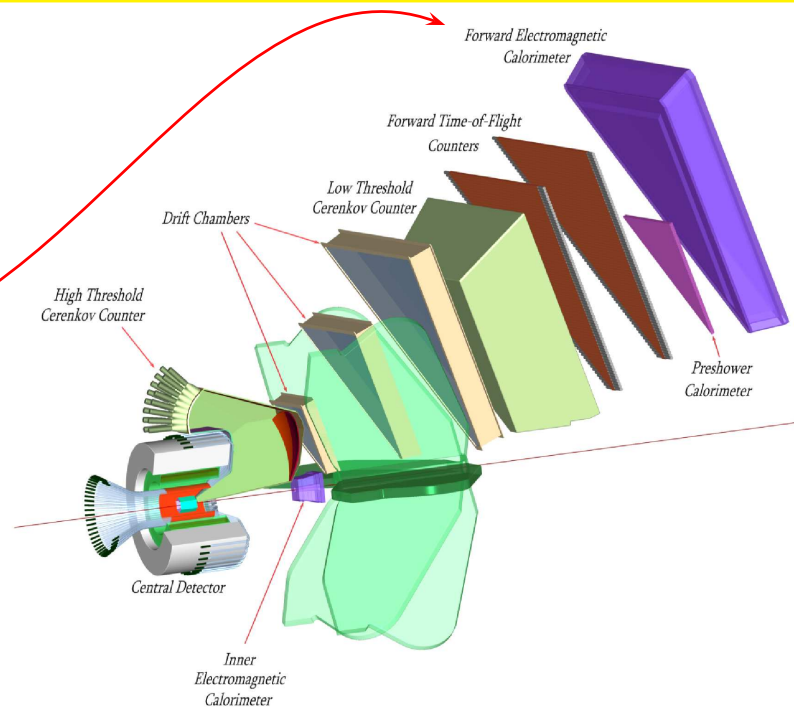


The CLAS12 Forward EC

PURPOSE

1. Measure energy and position of e^- s and reject π^- s.
2. Measure energy and position of γ s to reconstruct π^0 s and η s.
3. Detect neutrons.



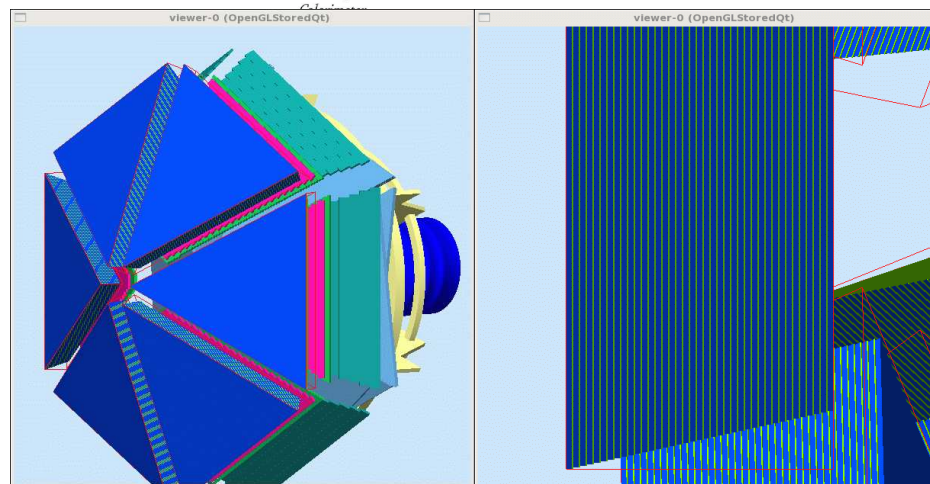
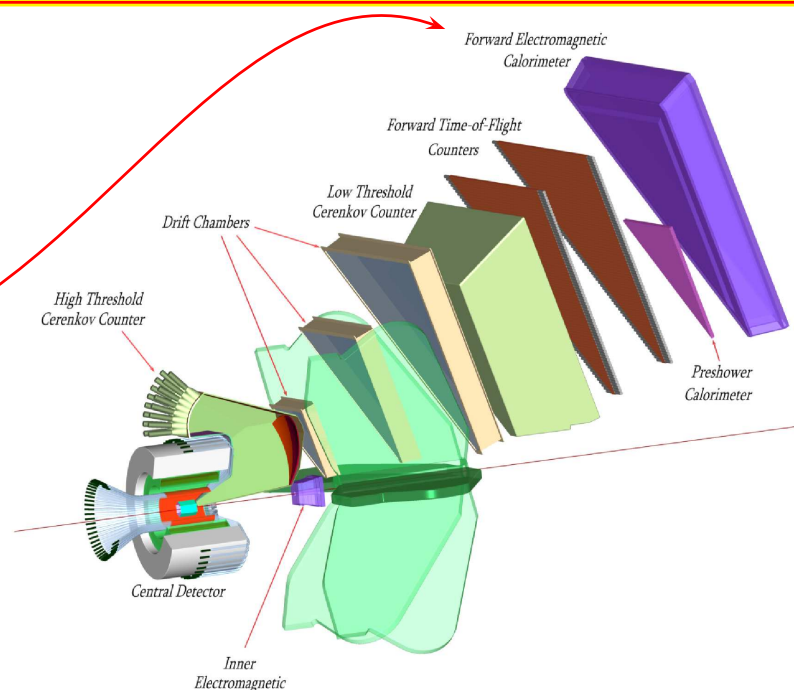
The CLAS12 Forward EC

PURPOSE

1. Measure energy and position of e^- s and reject π^- s.
2. Measure energy and position of γ s to reconstruct π^0 s and η s.
3. Detect neutrons.

GEOMETRY

1. Updated and streamlined Minehart geometry.
2. 39 scintillator layers arranged in 3 views.
3. Two stacks (inner (15 layers) and outer (24 layers)).
4. See CLAS-NOTE 2011-019 for details.



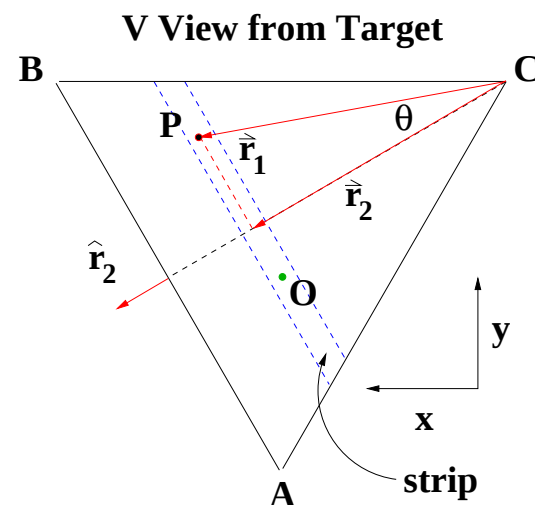
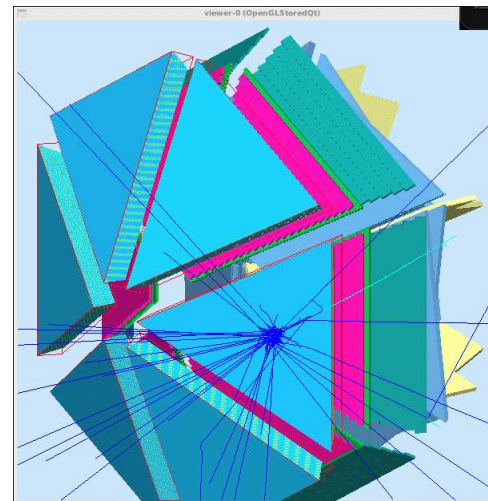
The CLAS12 Forward EC

HIT PROCESSING

1. ProcessHit

- (a) Calculate average hit position and time, E_{total} .
- (b) digitization - stochastic simulation of ADC, simple conversion for TDC.

2. ProcessID $\rightarrow$ Generate strip number.



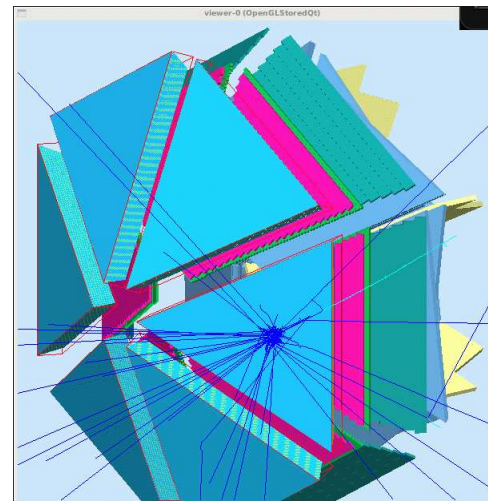
The CLAS12 Forward EC

HIT PROCESSING

1. ProcessHit

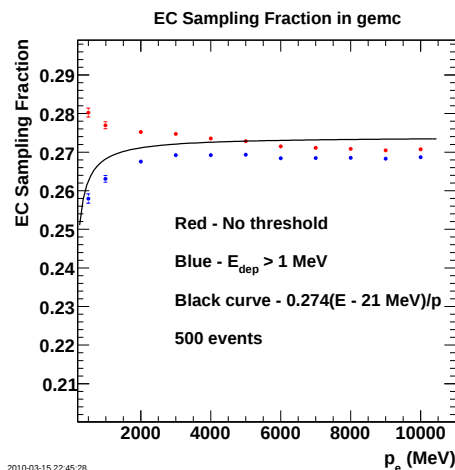
- (a) Calculate average hit position and time, E_{total} .
- (b) digitization - stochastic simulation of ADC, simple conversion for TDC.

2. ProcessID $\rightarrow$ Generate strip number.

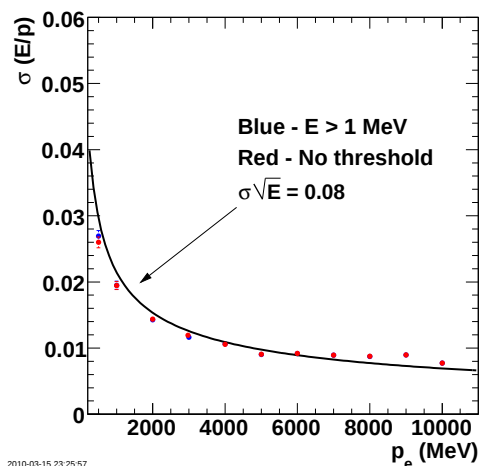


gemc RESULTS

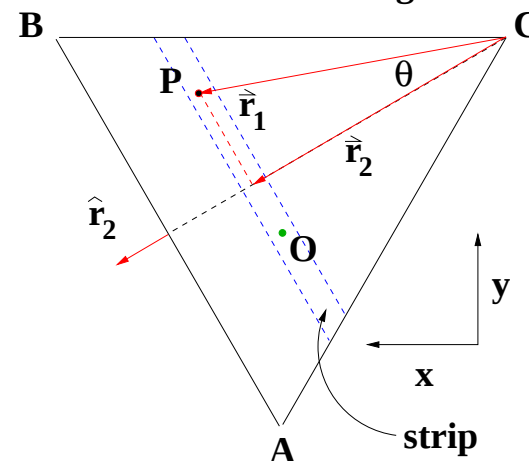
Sampling Fraction



Resolution



V View from Target



Agrees with GSIM at 5-15% level.