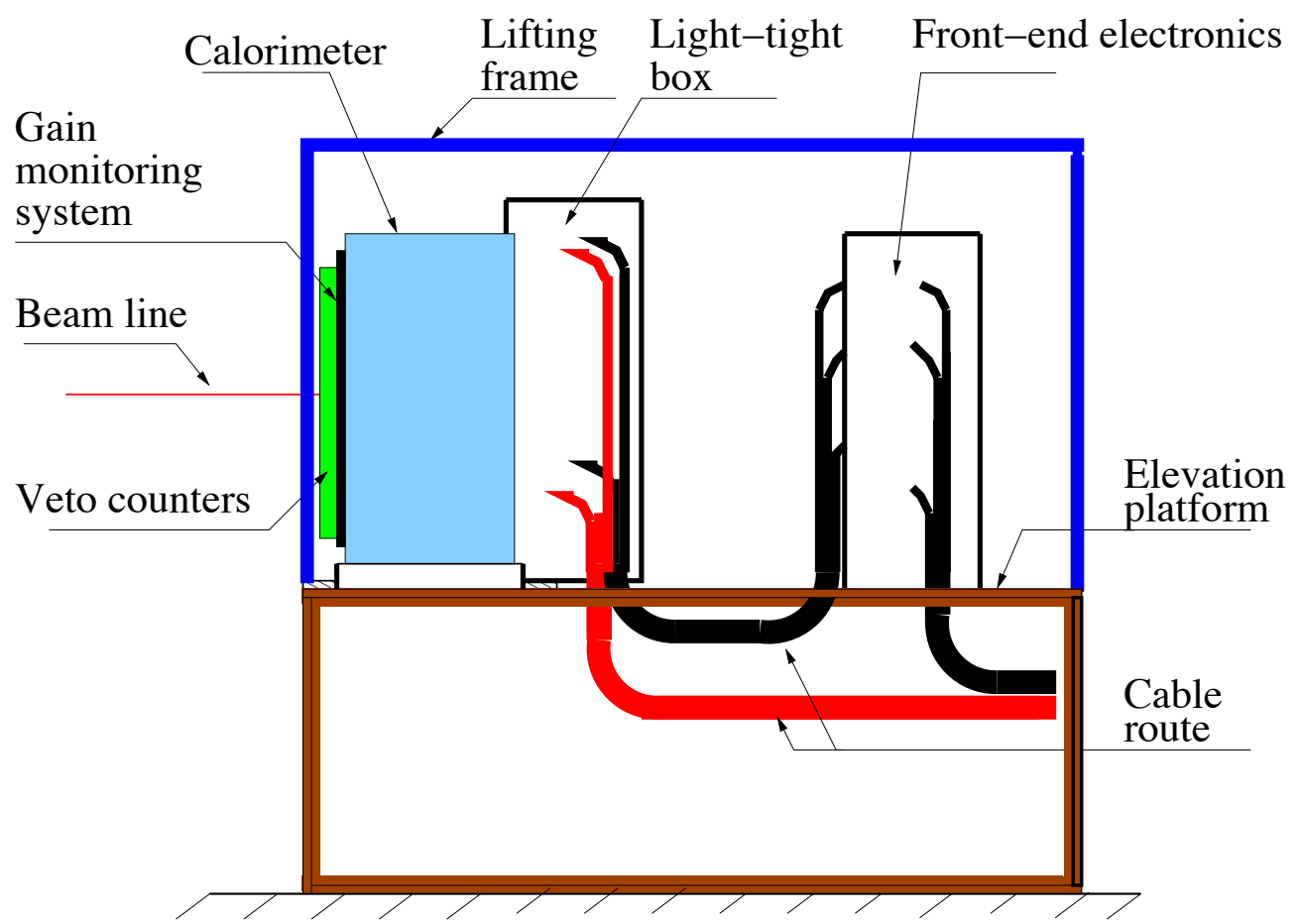
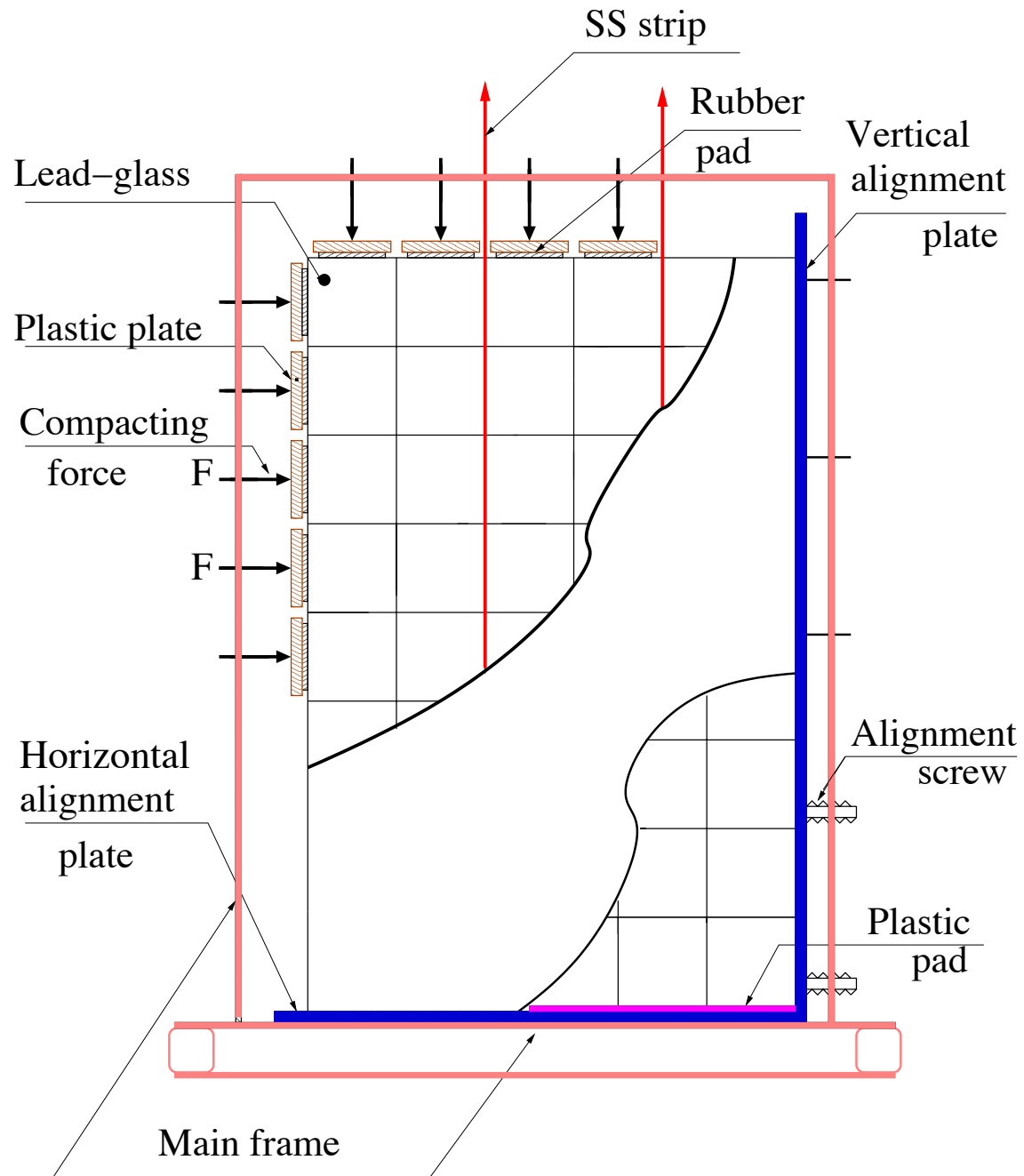


# Calorimeter Trigger considerations

Bogdan Wojtsekhowski

May 16, 2012





**Signal cables**

**HV cables**

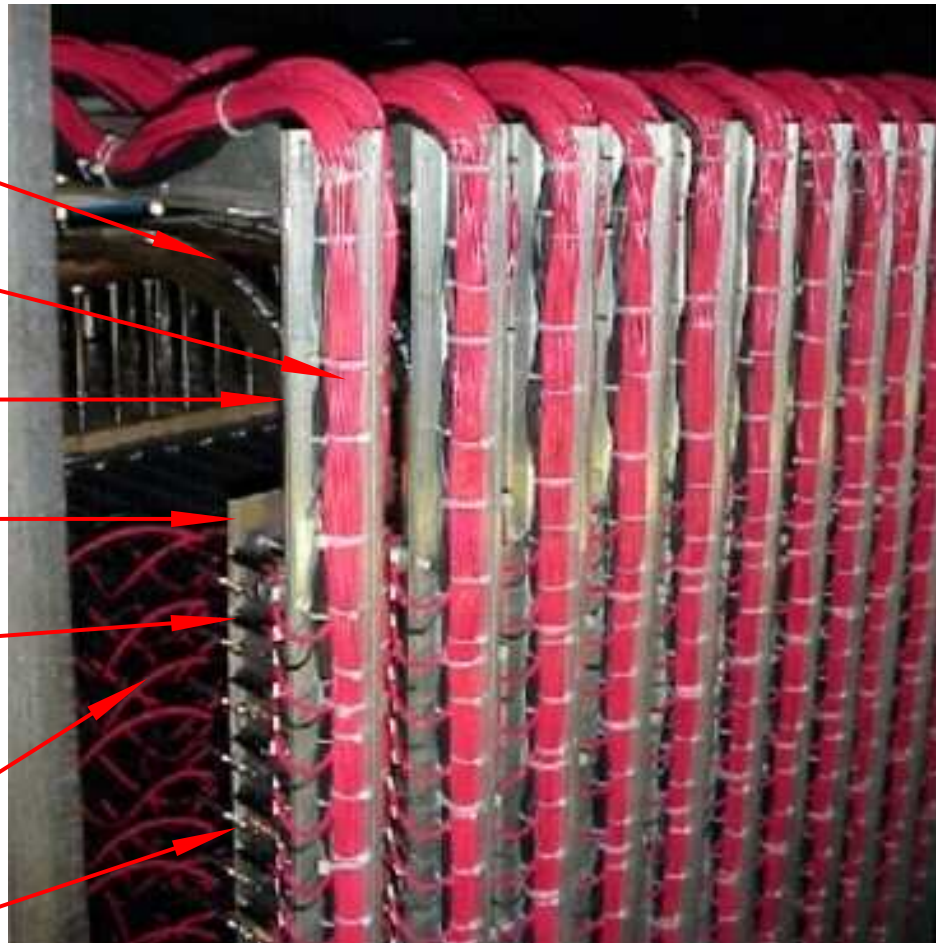
**AI T-channel**

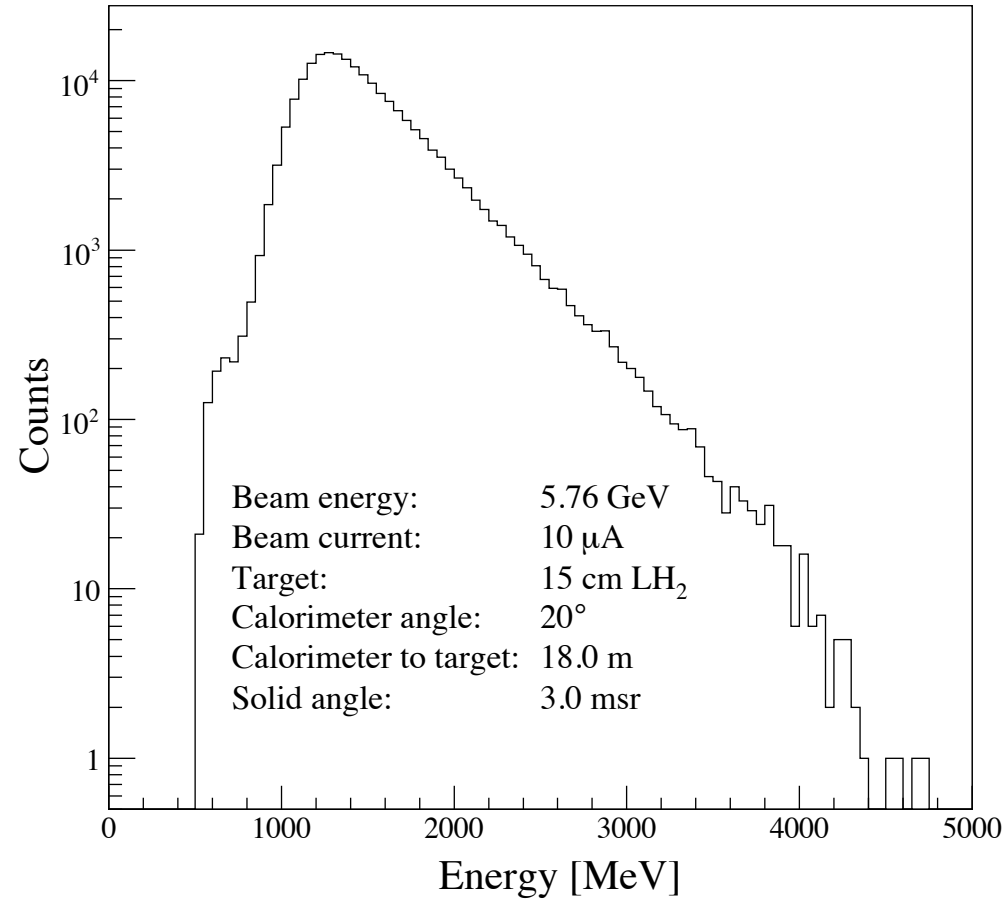
**Patch panel**

**HV connector**

**HV&Sig. cables  
from HV divider**

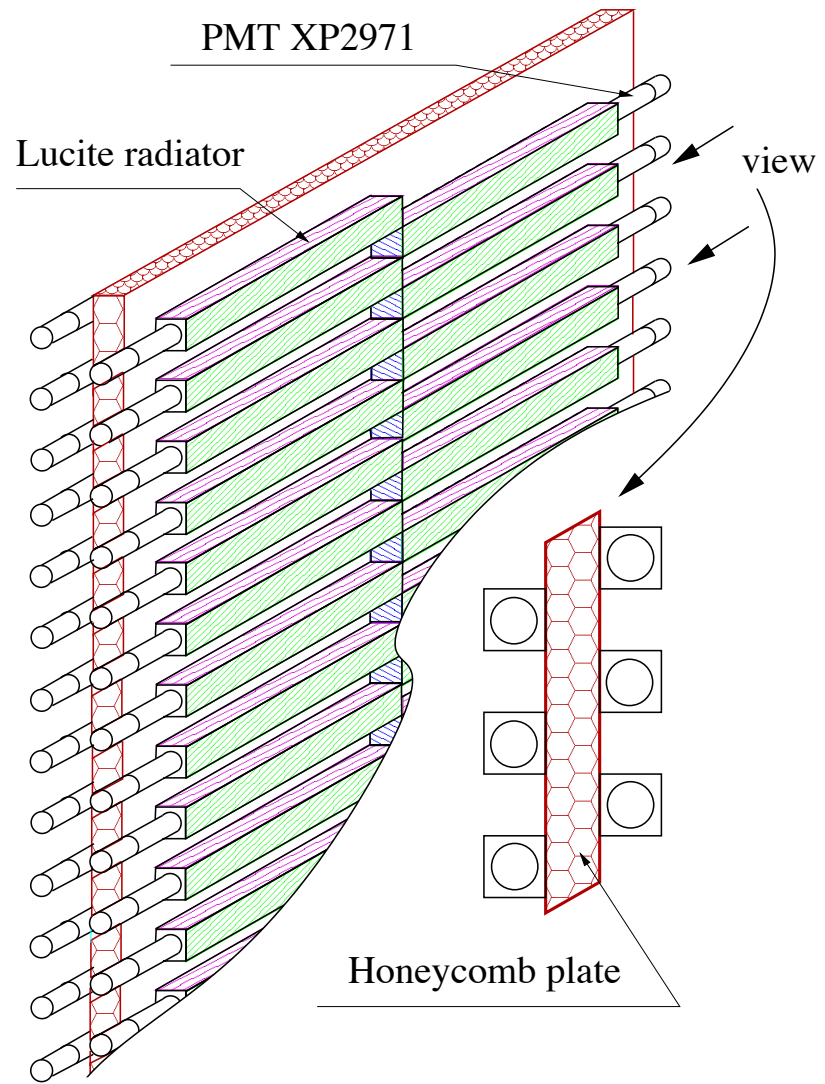
**Lemo connector**



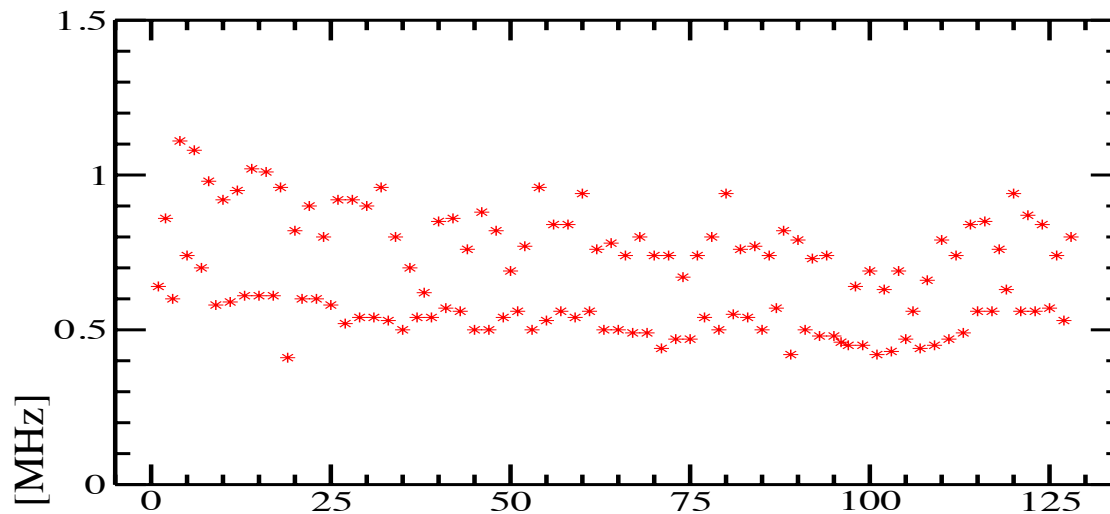


$$f = A \times \exp(-B \times E_{thr}/E_{max}), \quad (1)$$

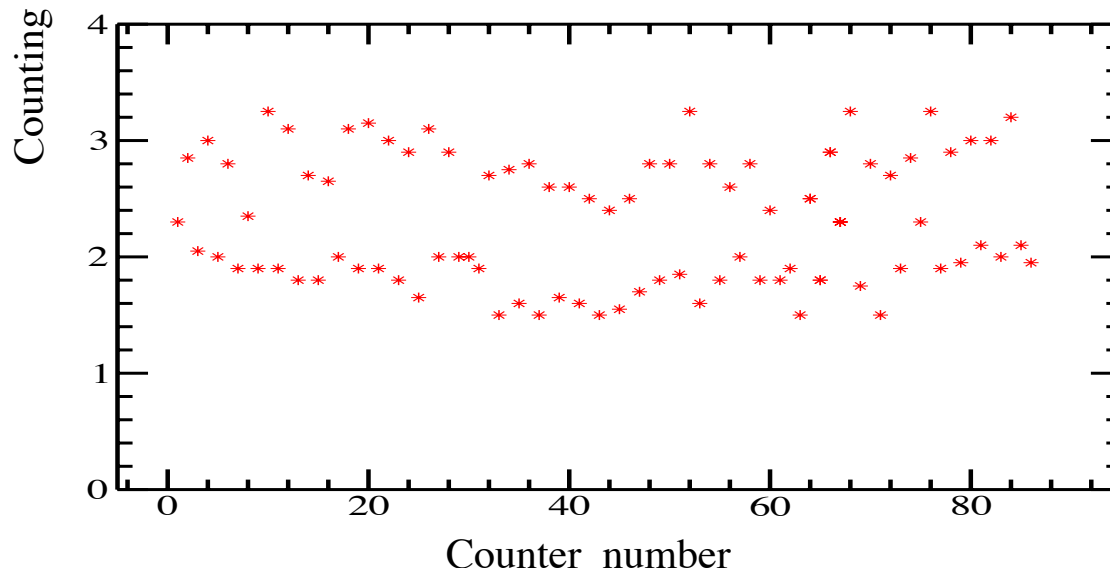
where  $E_{max}$  is the maximum energy of an elastically scattered electron for a given scattering angle,  $A$  an angle-dependent constant, and  $B$  a universal constant  $\approx 9 \pm 1$ .

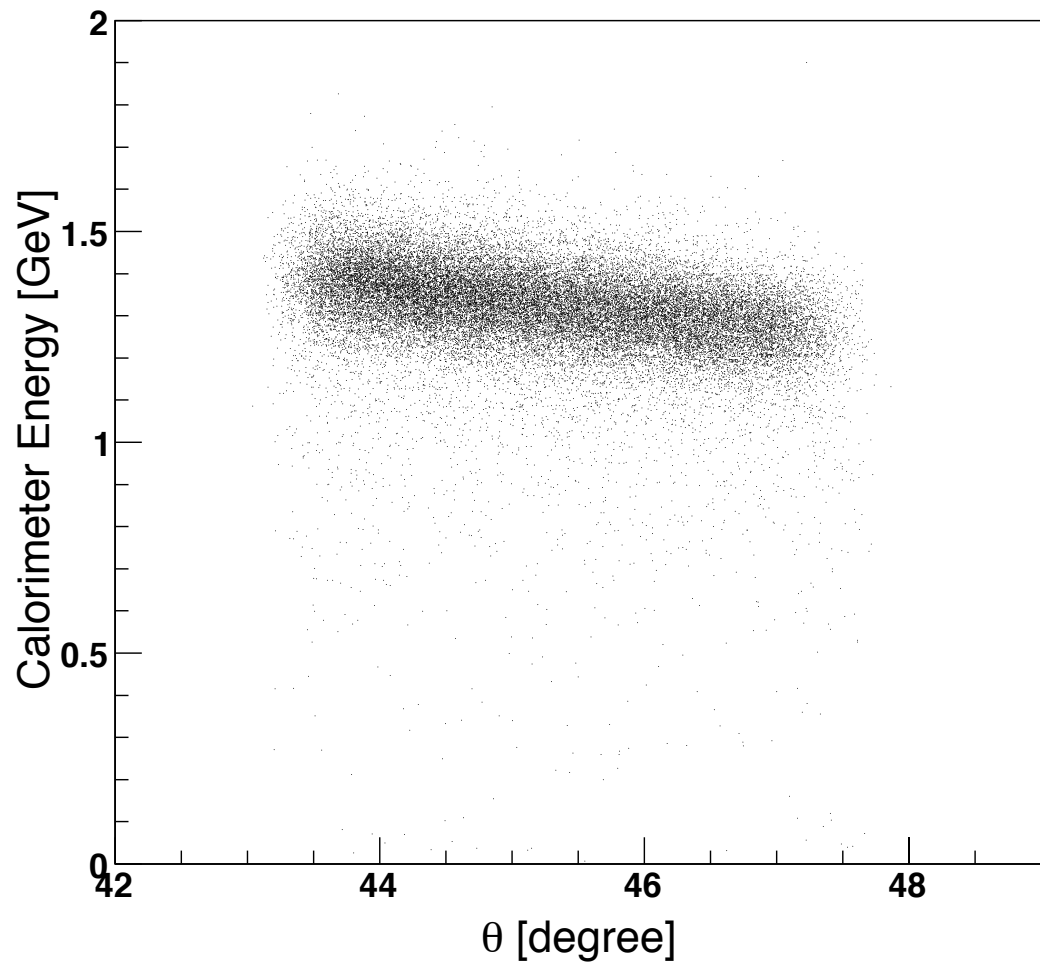


Horizontal Veto Detector

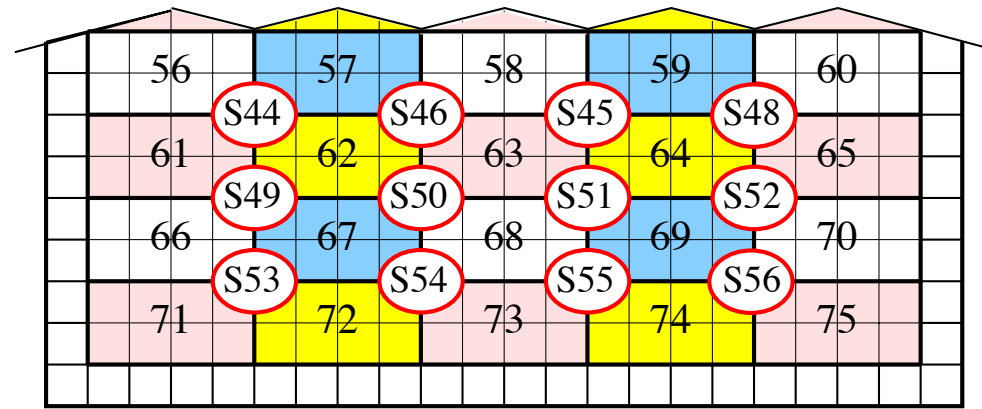
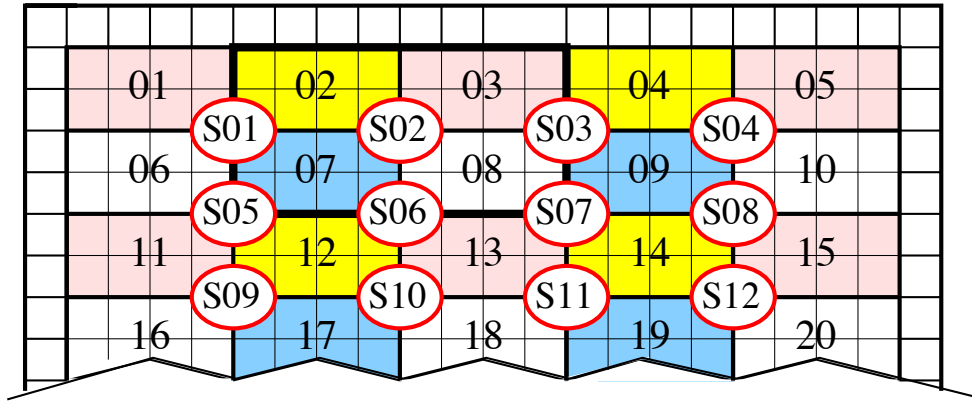


Vertical Veto Detector

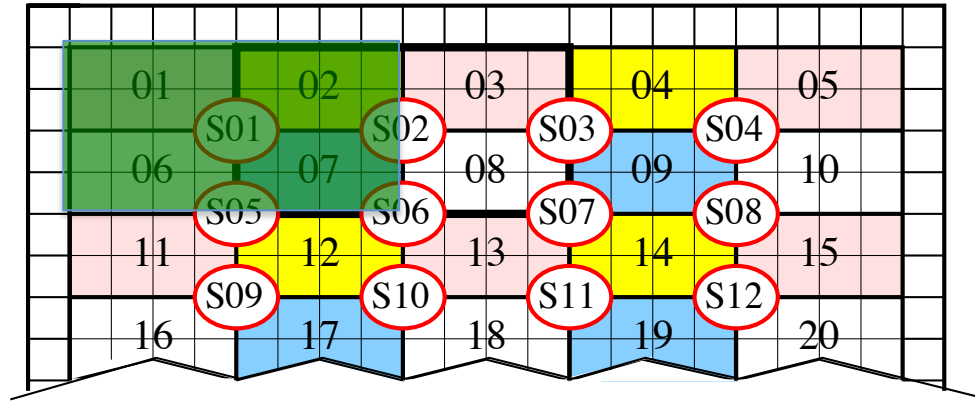




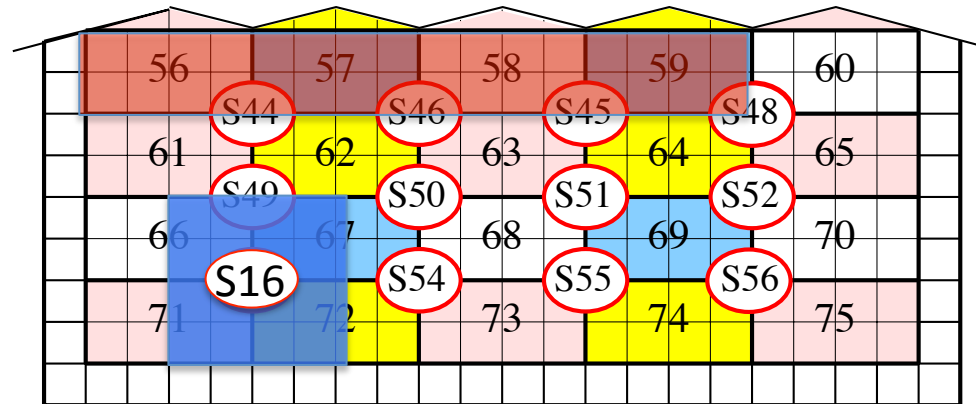




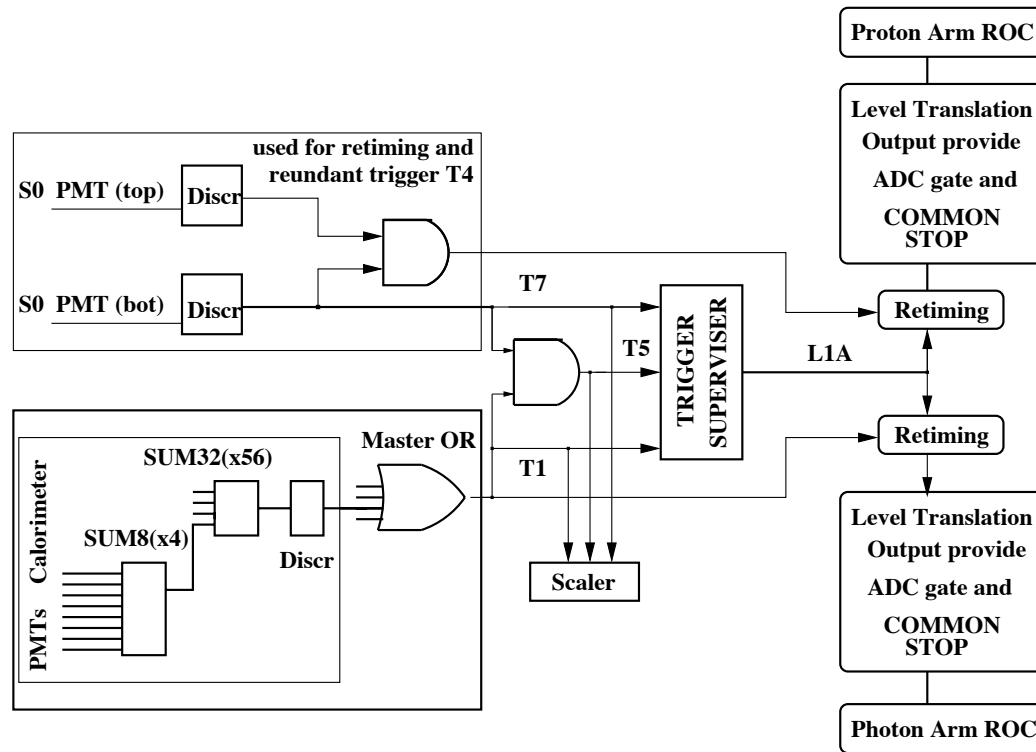
RCS: 2x4



GEP-3: 1x8



GEP-5: 2x2

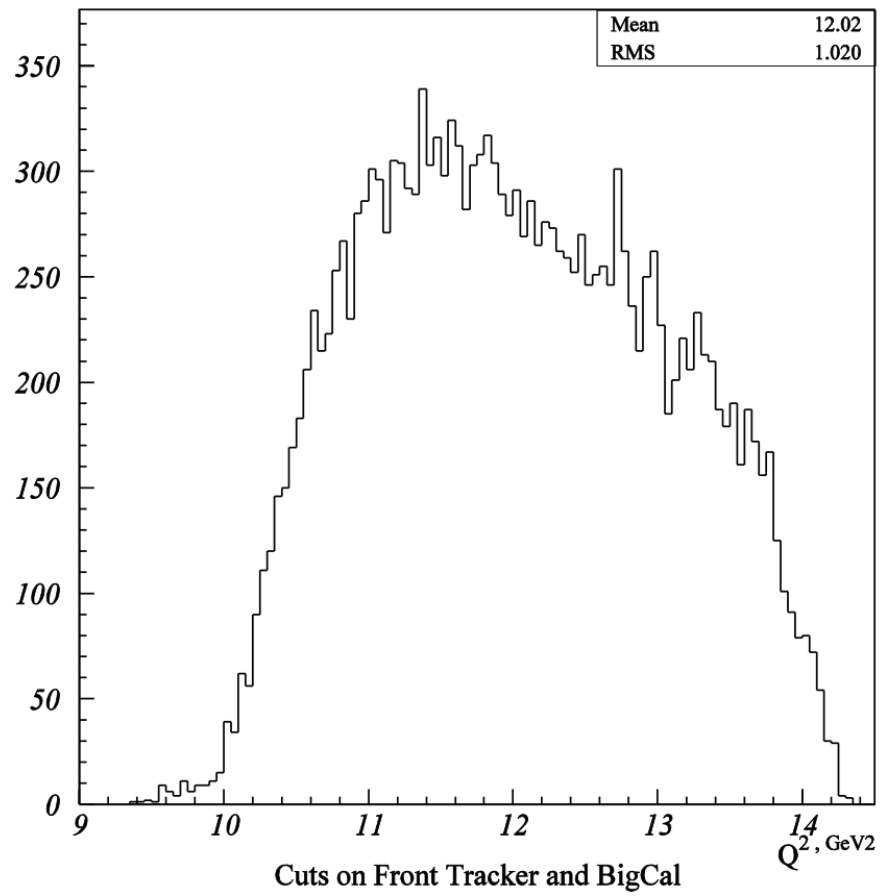


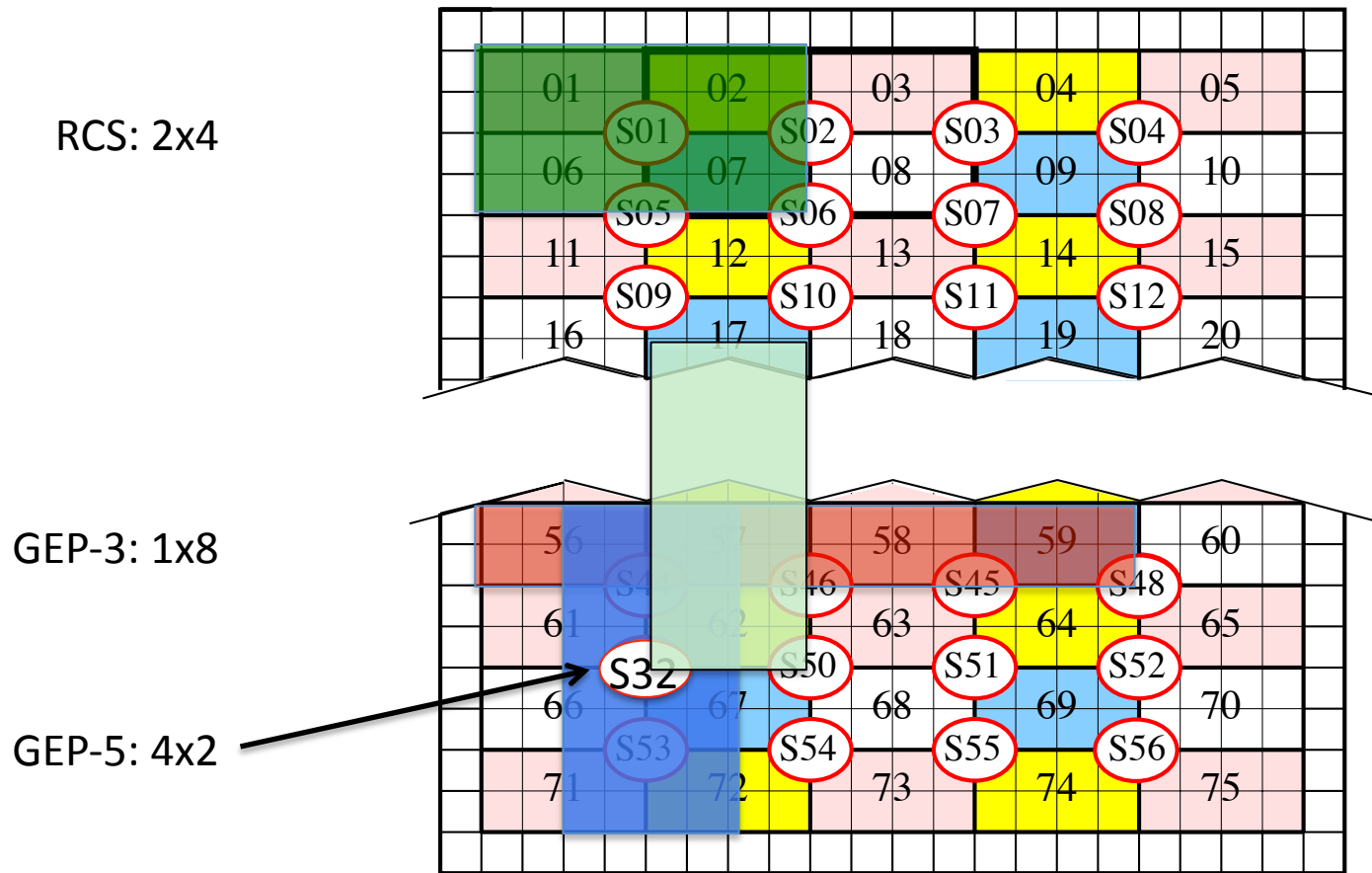
Number of the different modules:

- a)  $SP(\text{rimary}) = NB(\text{locks})/8$
- b)  $S32 = SP/4 \times 4 = SP$
- c)  $Discr = S32$

Number of the different modules:

- a)  $SP(\text{rimary}) = NB(\text{locks})/4$
- b)  $S16 = SP/4 \times 4 = SP$
- c)  $Discr = S16$





- Max vertical angle  $\sim \frac{1}{4} \Rightarrow 30 \text{ cm} / 4 < 8 \text{ cm} \Rightarrow$  spread of the signal over TWO blocks
- Variation of the electron energy with horizontal position –  $\pm 0.75 \text{ GeV} / 5.0 \text{ GeV} \Rightarrow$  for width of 25 blocks, 4x2 option will provide 8 groups – Good!