

Attenuation double window

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Data

- ^{55}Fe source positioned in the centre of the drift region of GIN
- Collimator with slit parallel to GEM plane employed (short brass with copper tape source far)

GIN relevant parameters:

1 pixel = 50 μm

Distance source to gas ~ 9 cm

Spread in z of source at 1.5 cm from field cage 1 cm (σ)

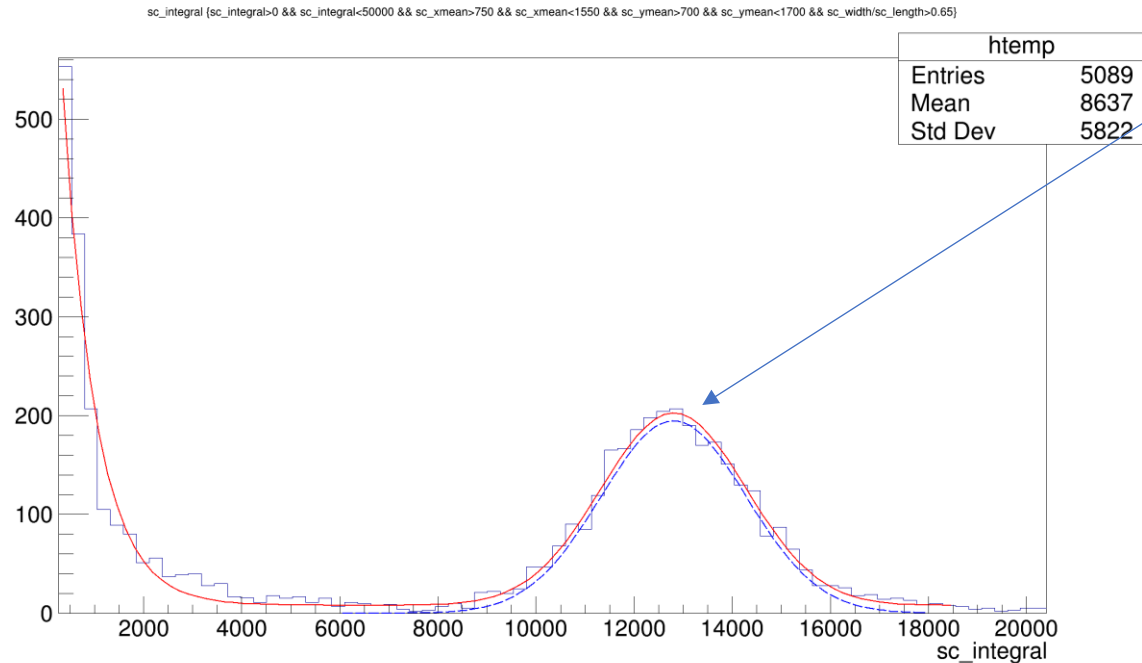
Drift 1 kV/cm

VGEM 440 V

- Runs taken with regular setup: one window of 100-170 μm of PET (?) like LIME
- Runs taken positioning a second layer of same thickness on top of the already existing window

Selection

- Some hotspots are present (removed)
- Due to the width of the second window only the core part of the image is considered ($750 < sc_xmean < 1550$)
- Expo+gauss fit of energy spectrum



Only 13000 of integral with respect to 26000-30000 with older field cages

Issues with field cage very likely

Con la sorgente vicina la copertura è praticamente totale sempre

Con la sorgente più lontana meno copertura

Absorption

- Integral of the fitted gaussian used to count ^{55}Fe events
- Ratio of counts of two windows datasets represents absorption

2 windows $R_{2w} = 3030 \pm 60$

1 window $R_w = 4060 \pm 60$

Ratio $A = 0.75 \pm 0.02$

- A second window seems to reduce the ^{55}Fe spots to 75%