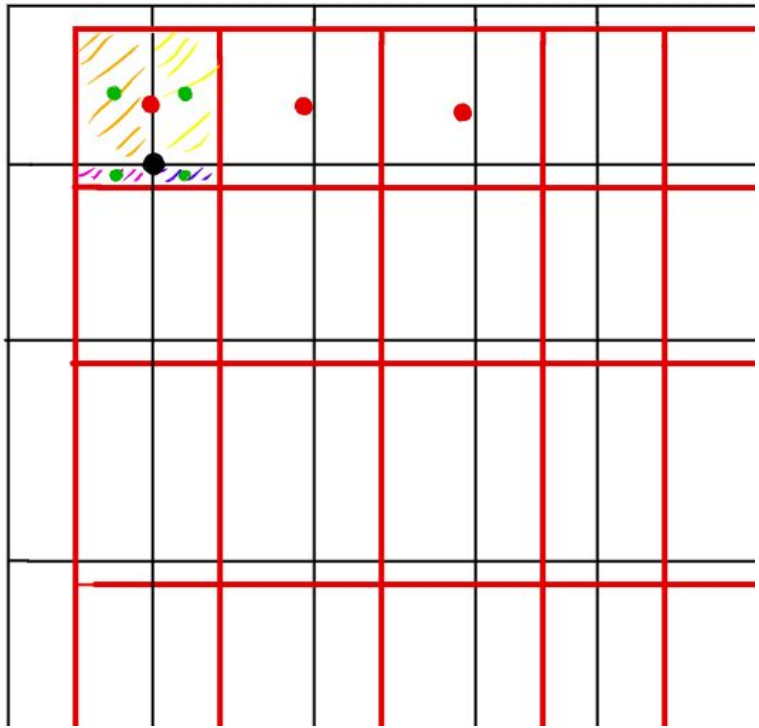
Shower Projections

Method



Black **regular grid** placed at the CoG of the shower in the red **irregular grid**

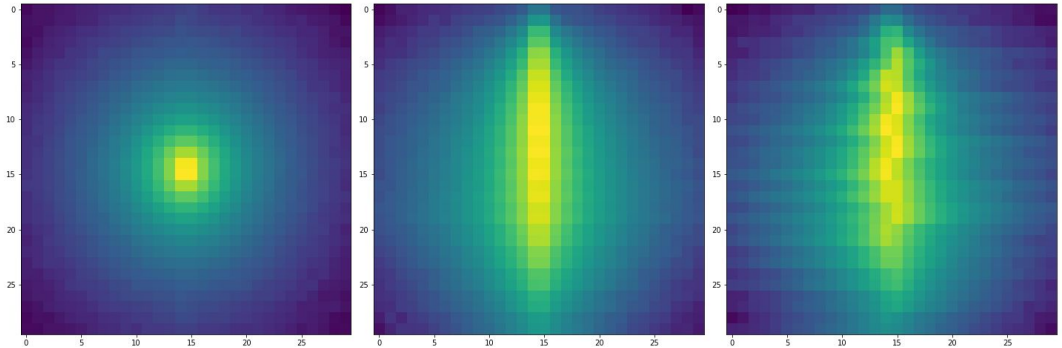
Nearest to the cell center of the **irregular grid** intersection of the **regular grid**, spits it into four rectangles

The energy from **irregular grid** splitted with respect to the relative area of rectangles

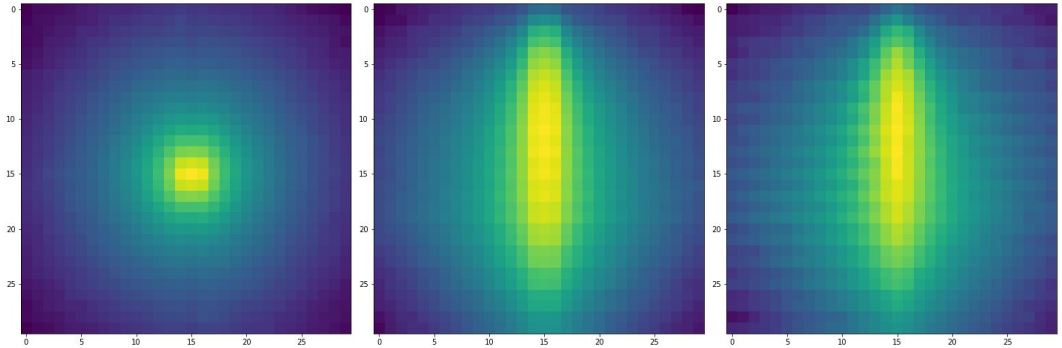
Regular grid filled with respect to the rectangles centers

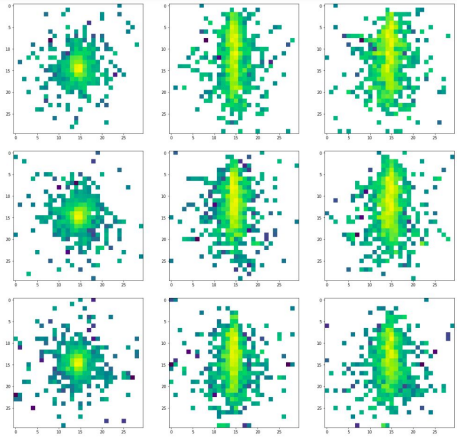
Shower Examples

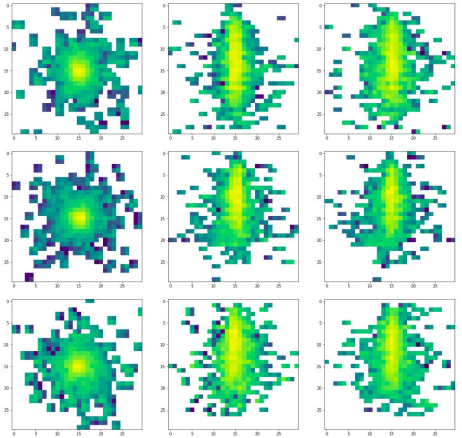
fixed regular grid



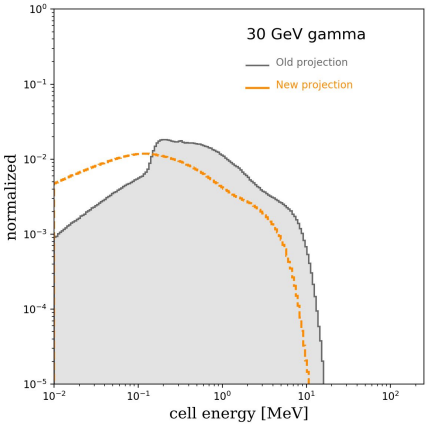
regular grid **placed at CoG**

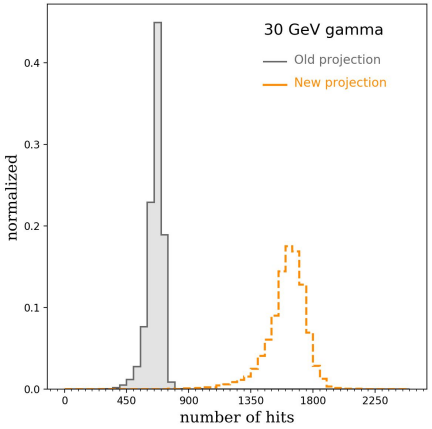


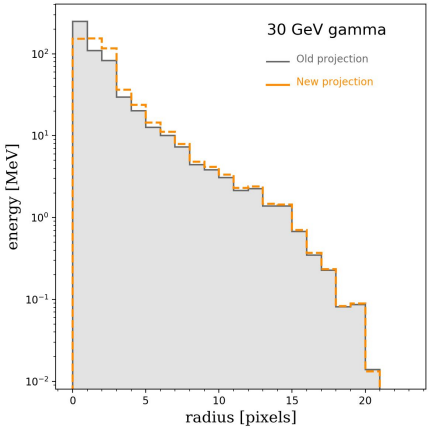


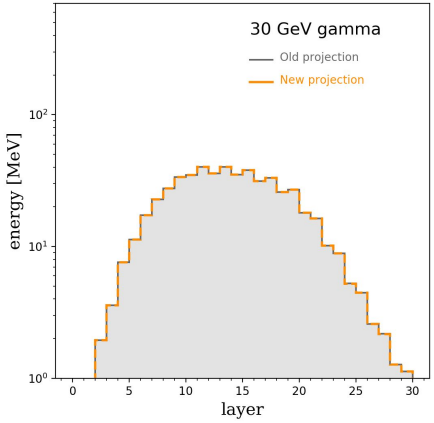


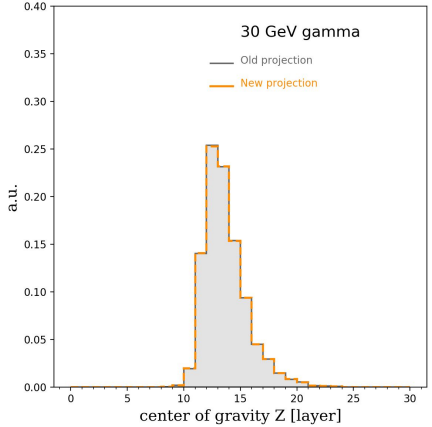
Distributions Check

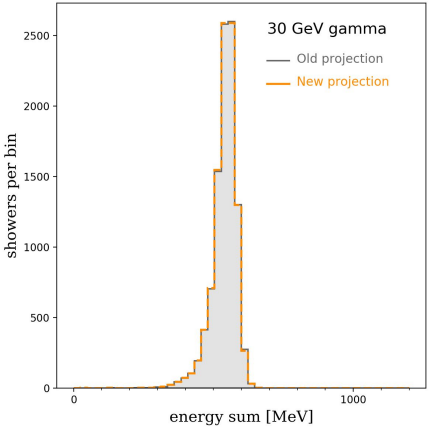




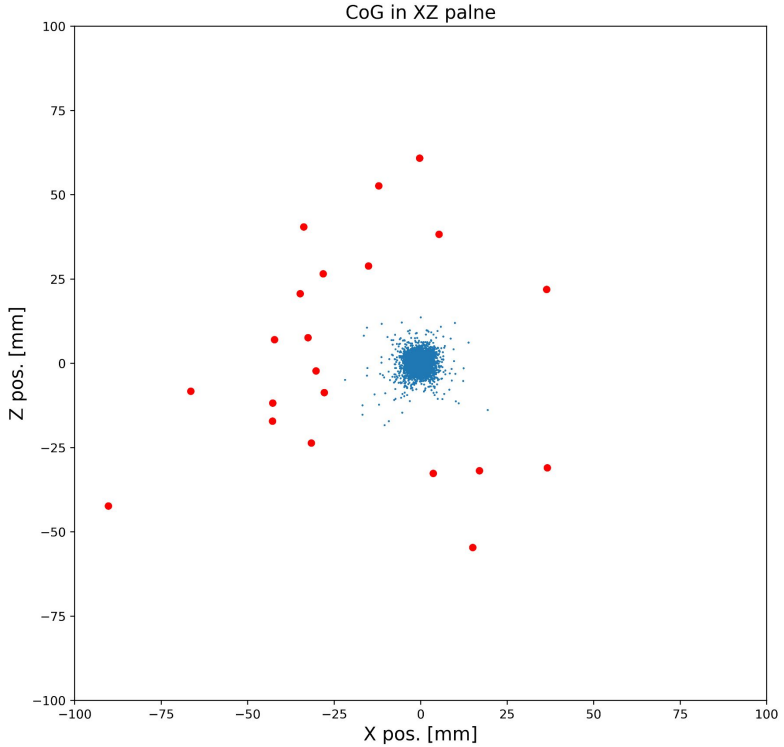


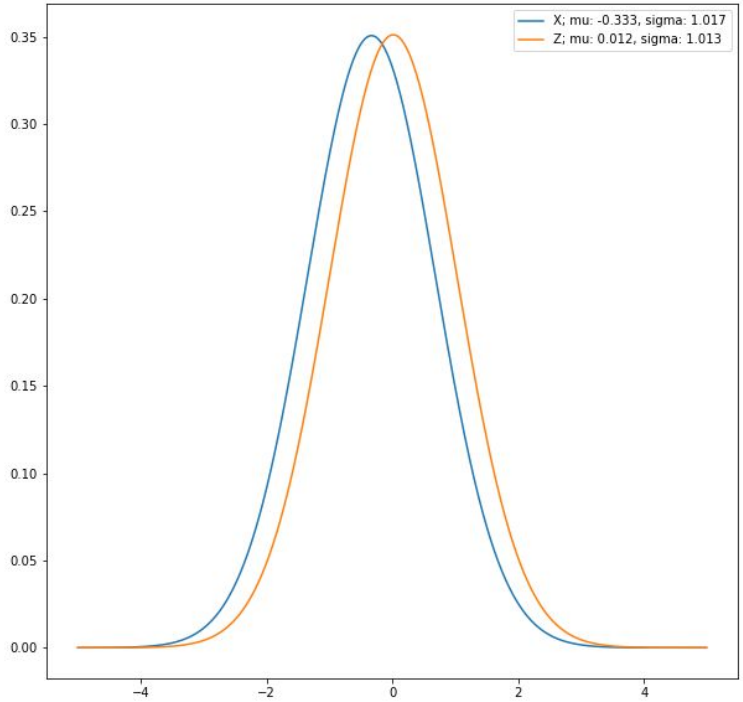




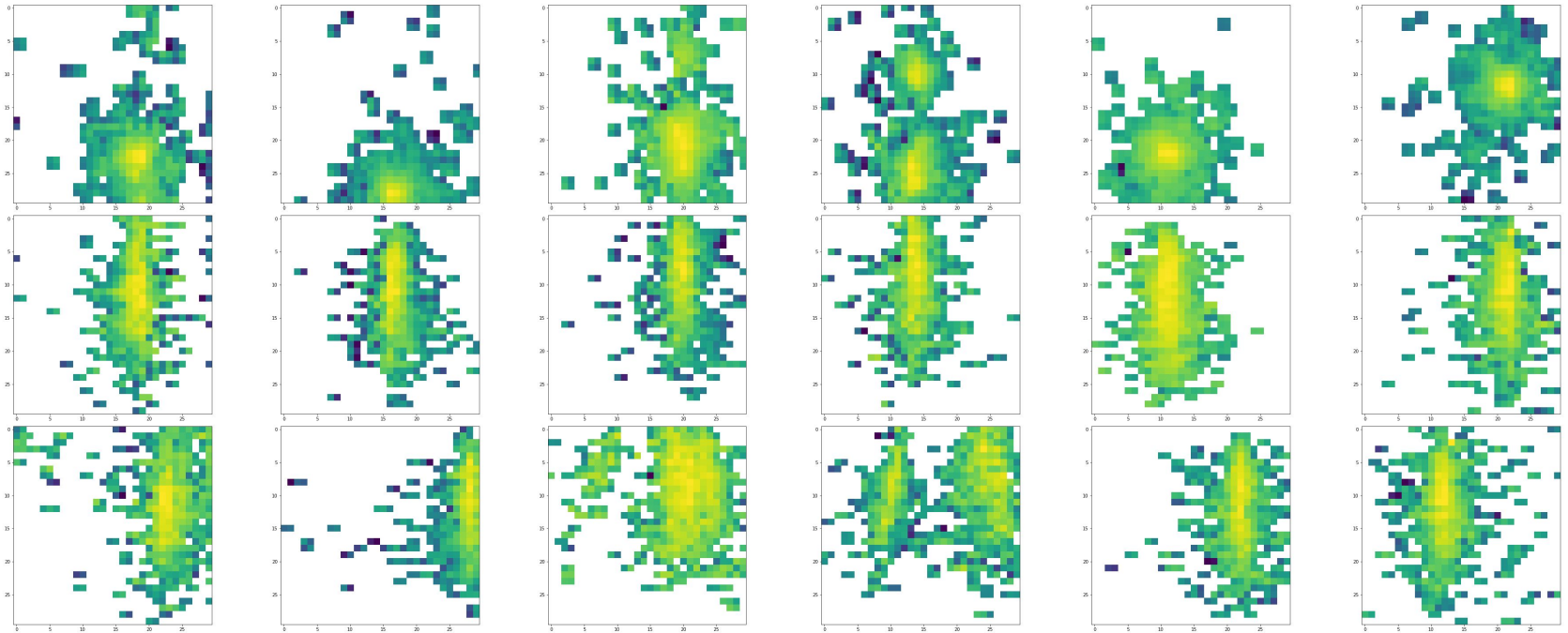


Outliers

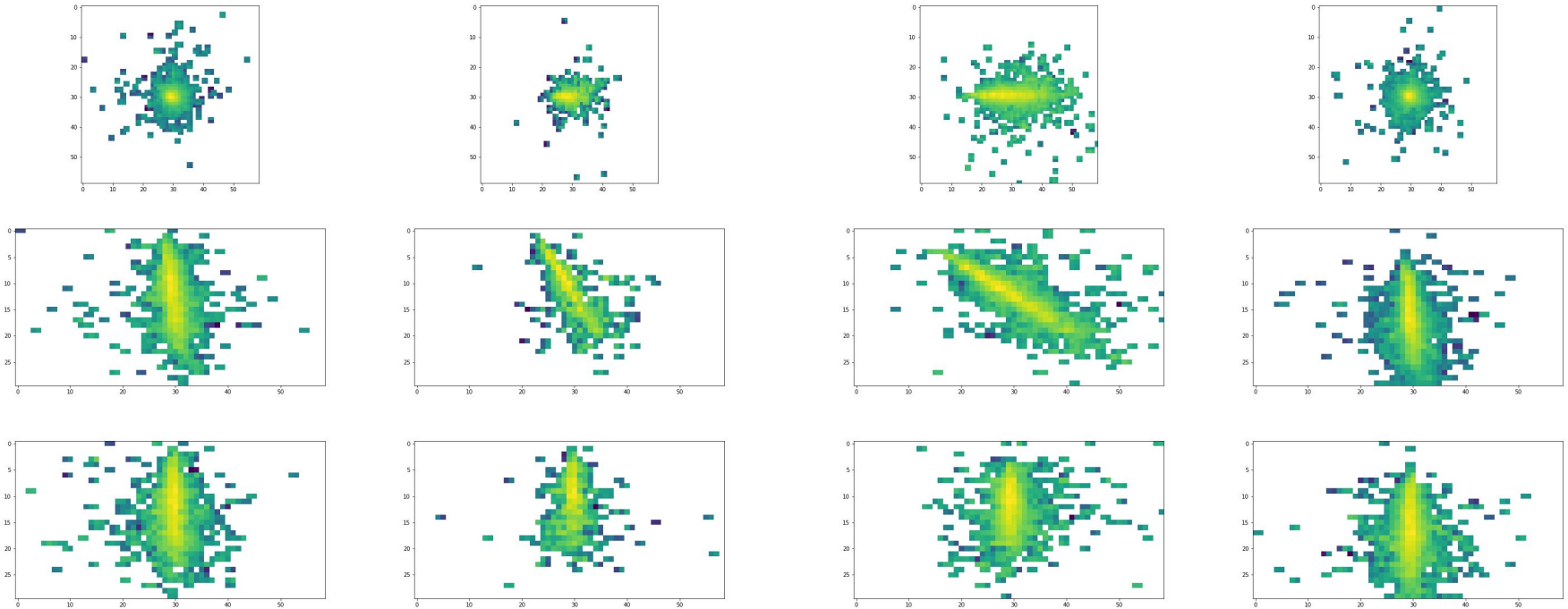

CoG in XZ palne
Z pos. [mm]
X pos. [mm]
100
75
50
25
0
−25
−50
−75
−100
−100
−75
−50
−25
0
25
50
75
100


X; mu: -0.333, sigma: 1.017
Z; mu: 0.012, sigma: 1.013
0.35
0.30
0.25
0.20
0.15
0.10
0.05
0.00
−4
−2
0
2
4

Outliers



Angular Showers



Angular Showers