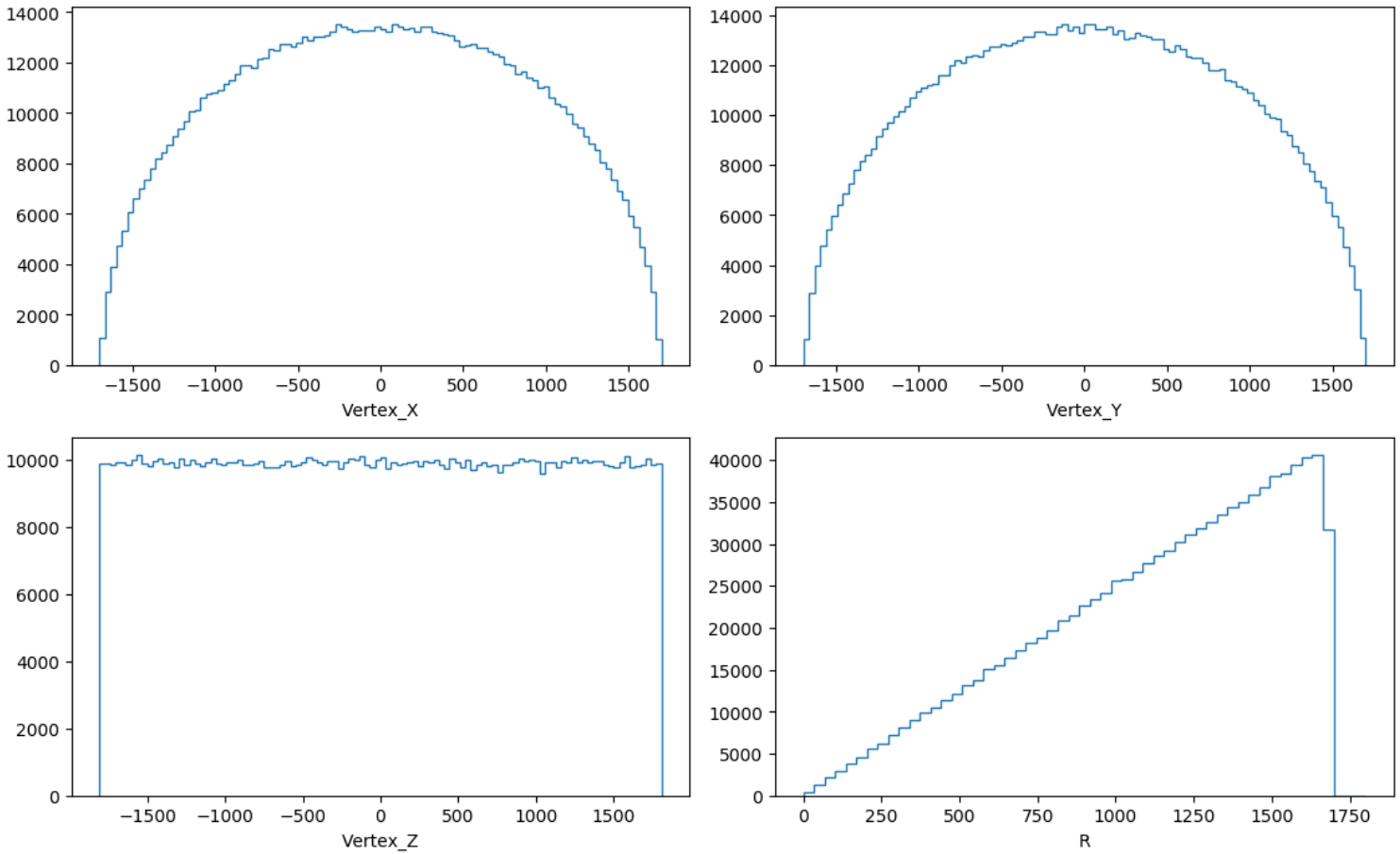
The Distributions of Sample Events in Training Datasets

Mo Jia

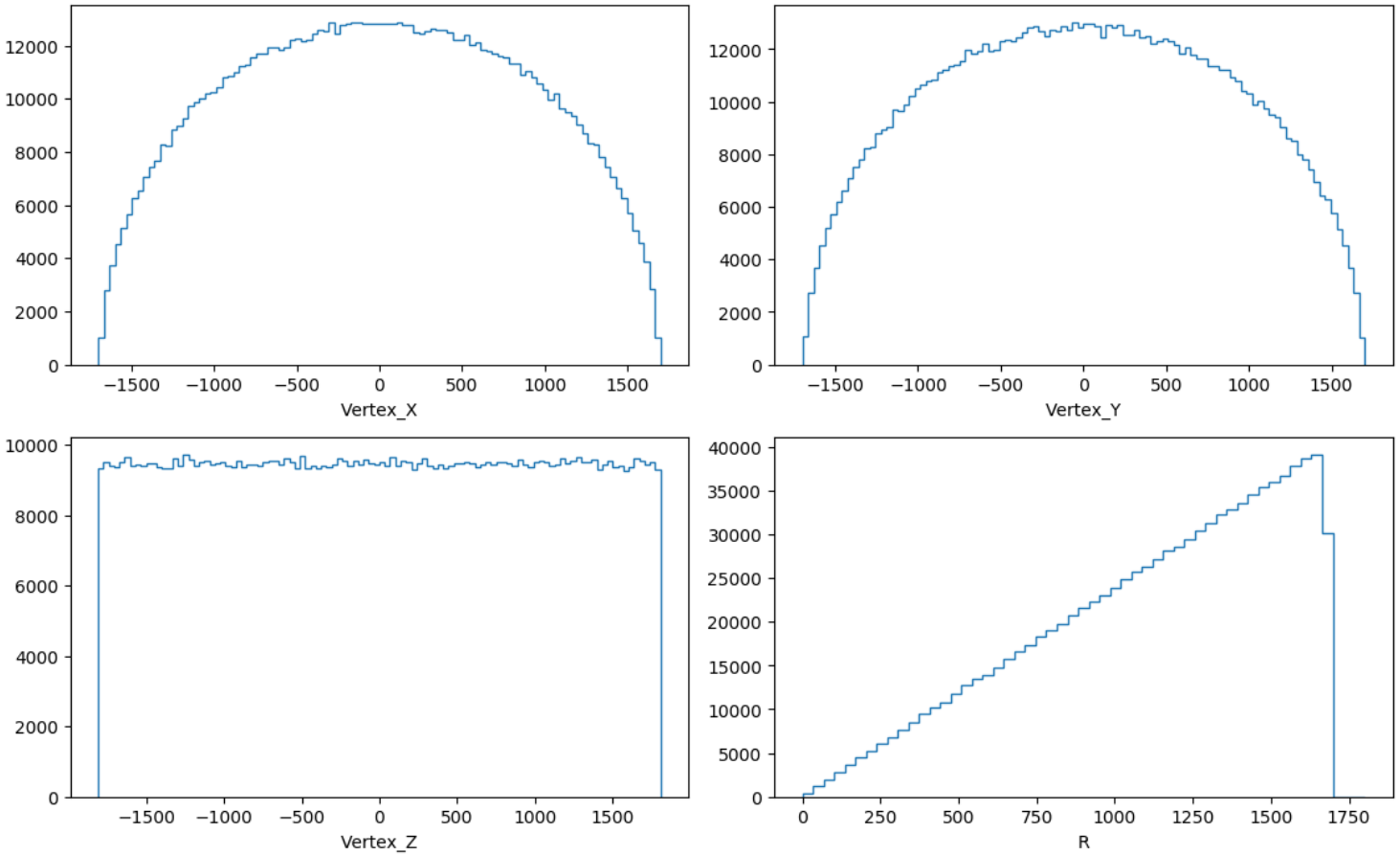
Vertex Distribution

- Mu-



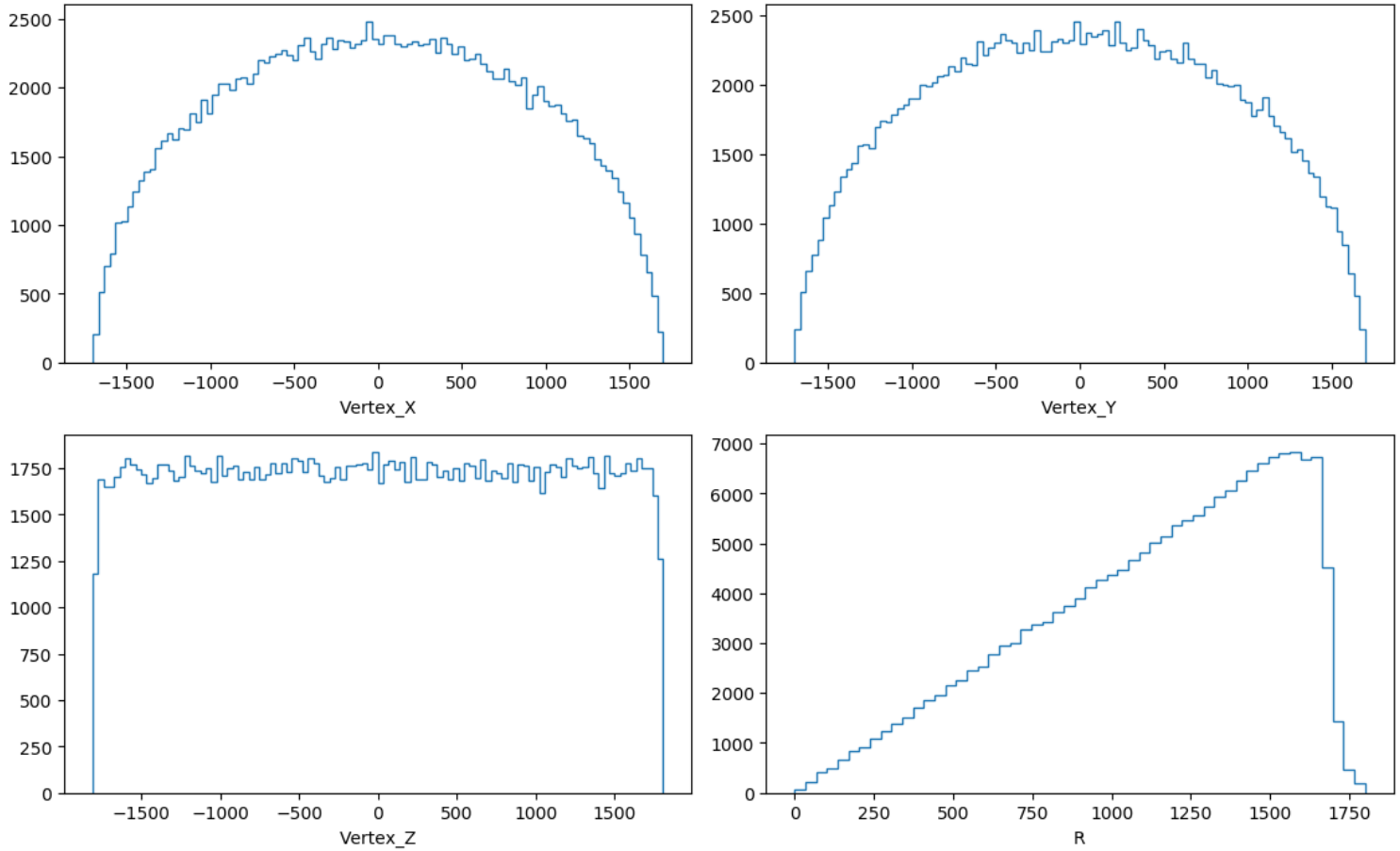
Vertex Distribution

- e-



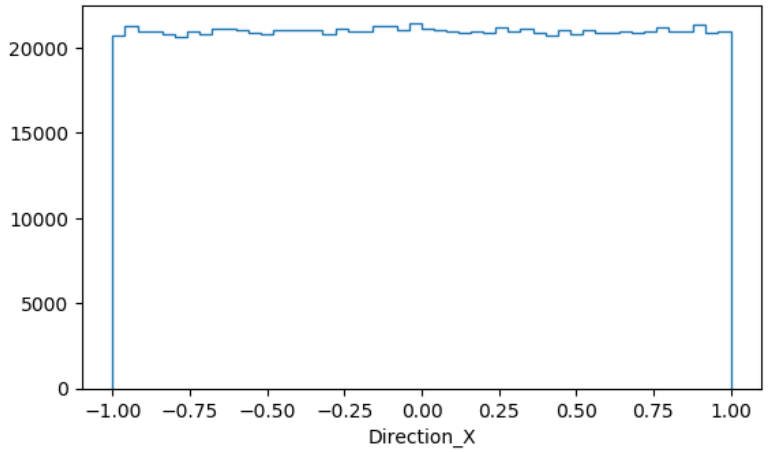
Vertex Distribution

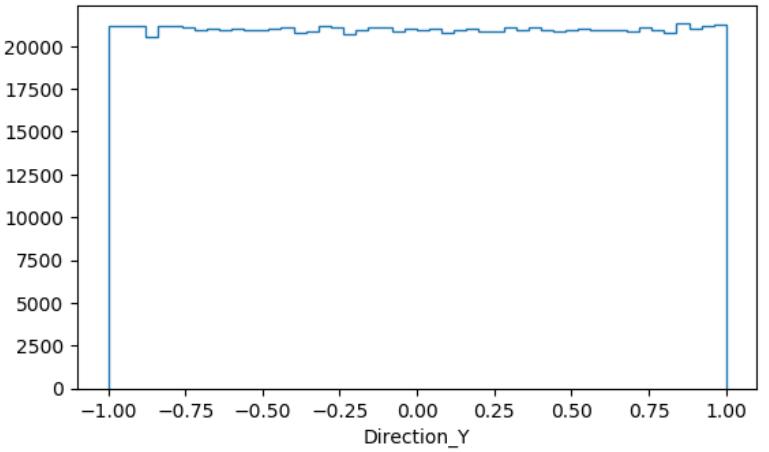
- gamma

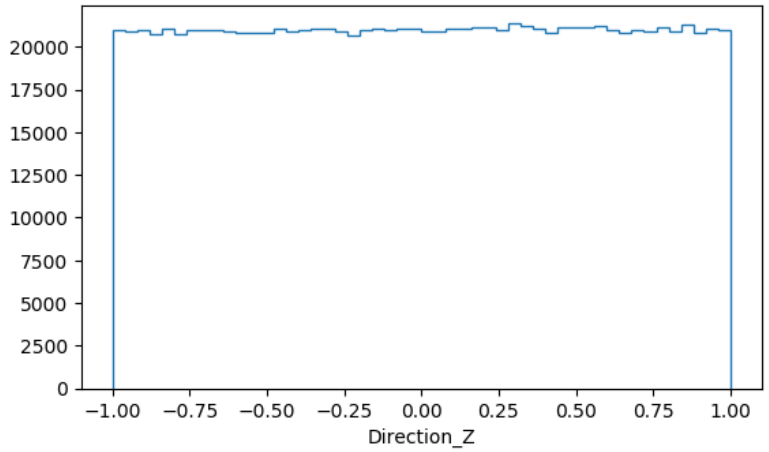


Direction Distribution

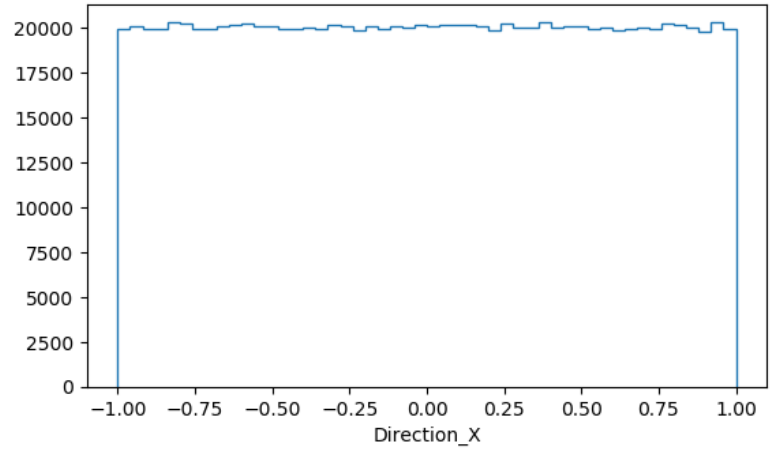
- Mu-

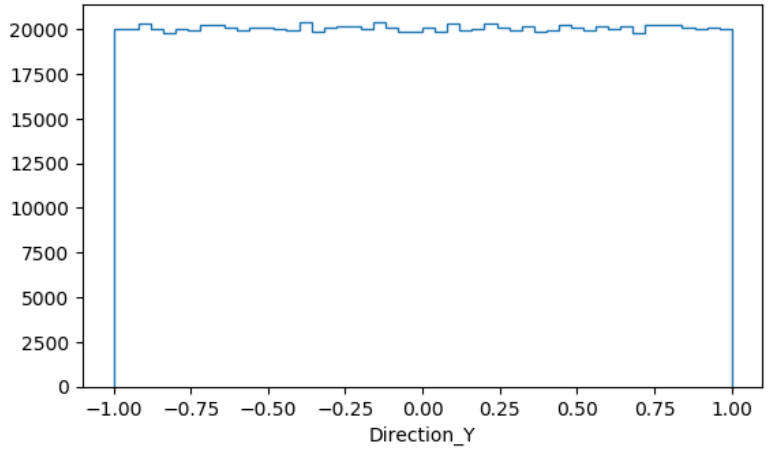


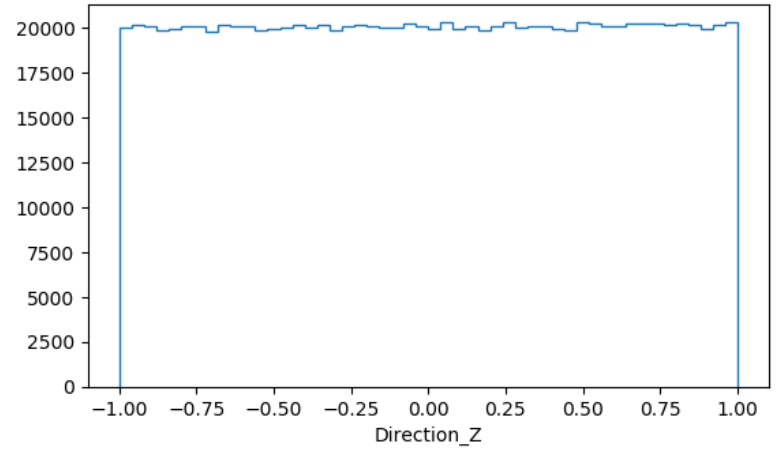




- e-

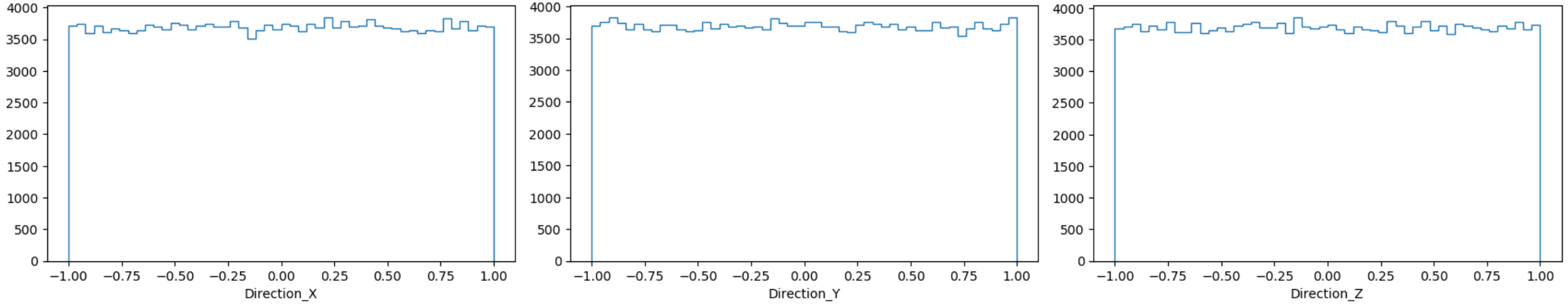




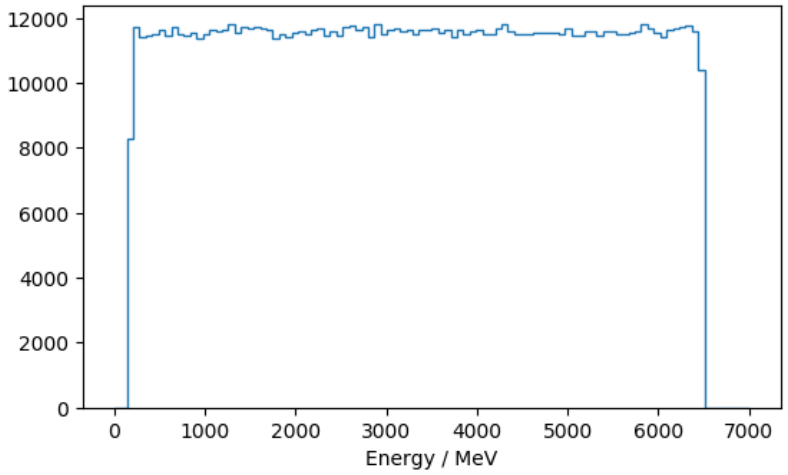


Direction Distribution

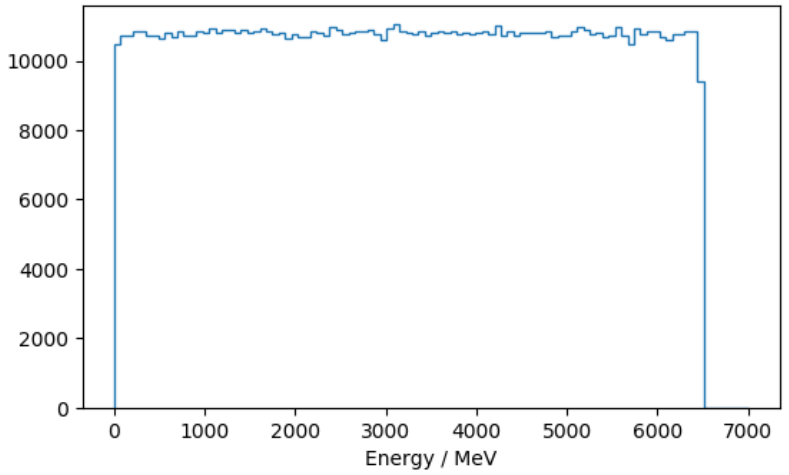
- gamma



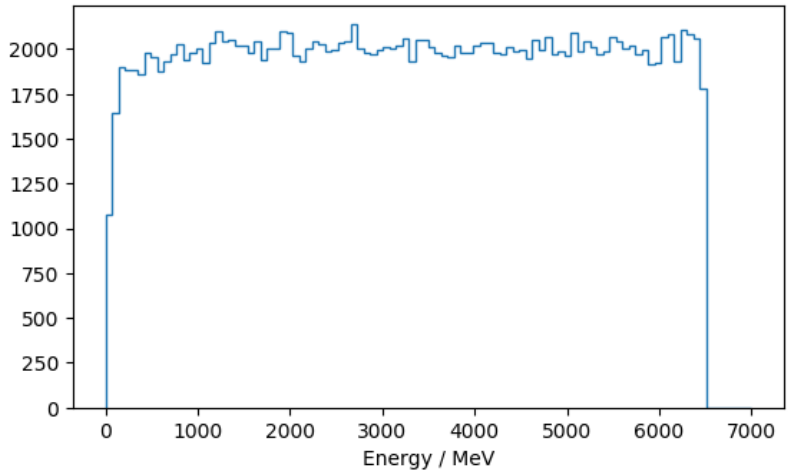
Energy Distribution



- Mu-



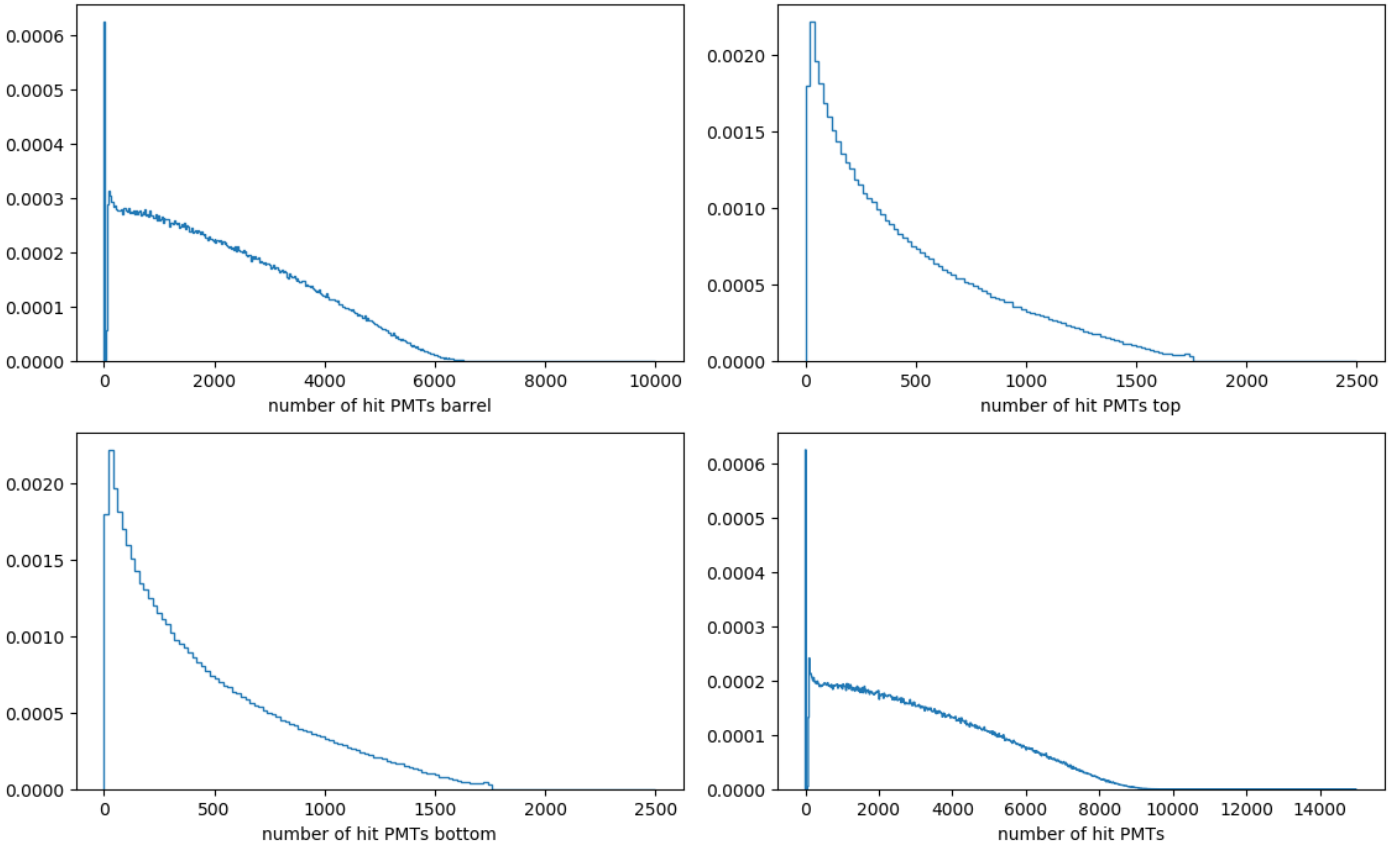
- e-



- gamma

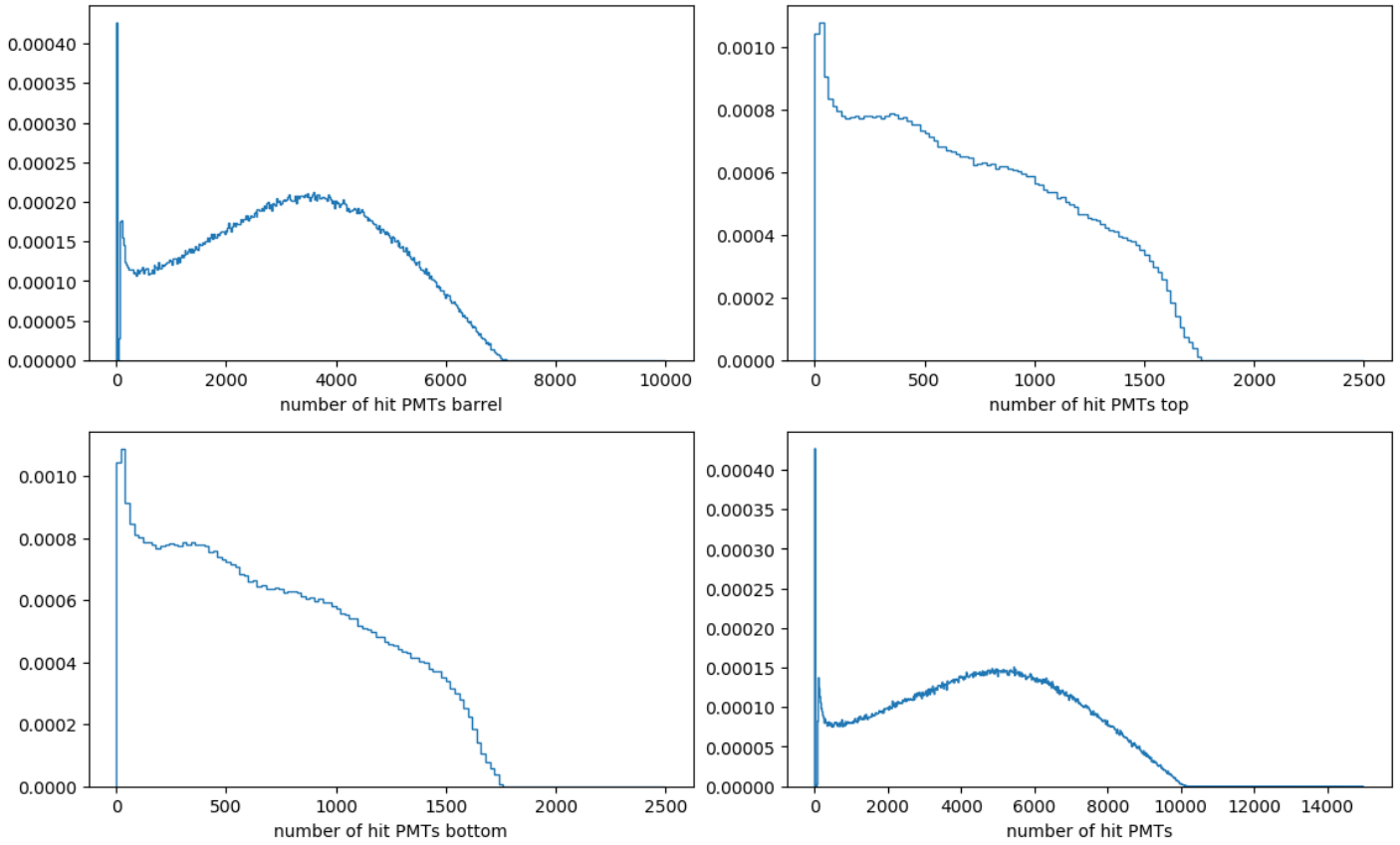
Hit PMT Numbers Distribution

- Requirement: charge on a PMT > 0
- Mu-



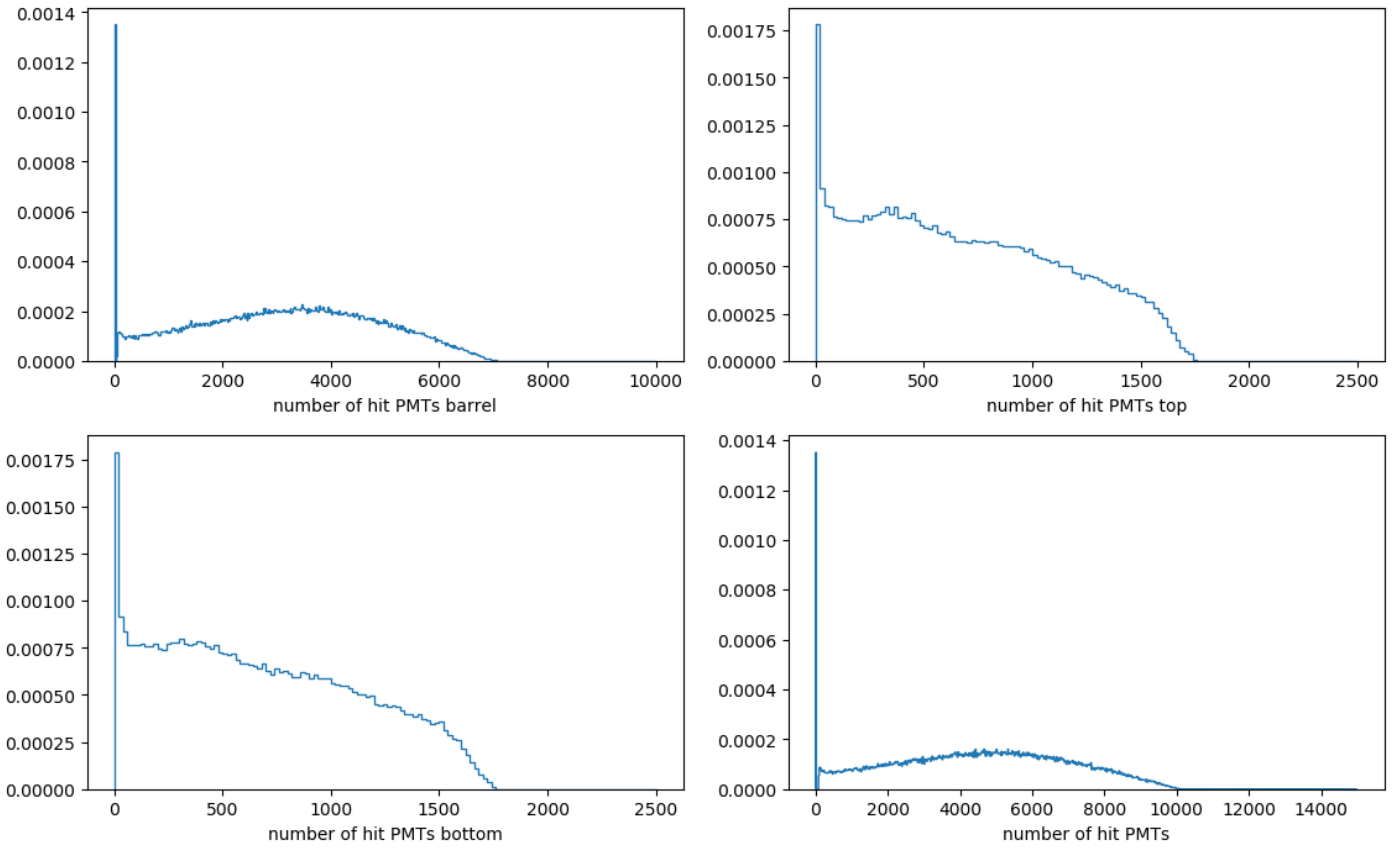
Hit PMT Numbers Distribution

- e-



Hit PMT Numbers Distribution

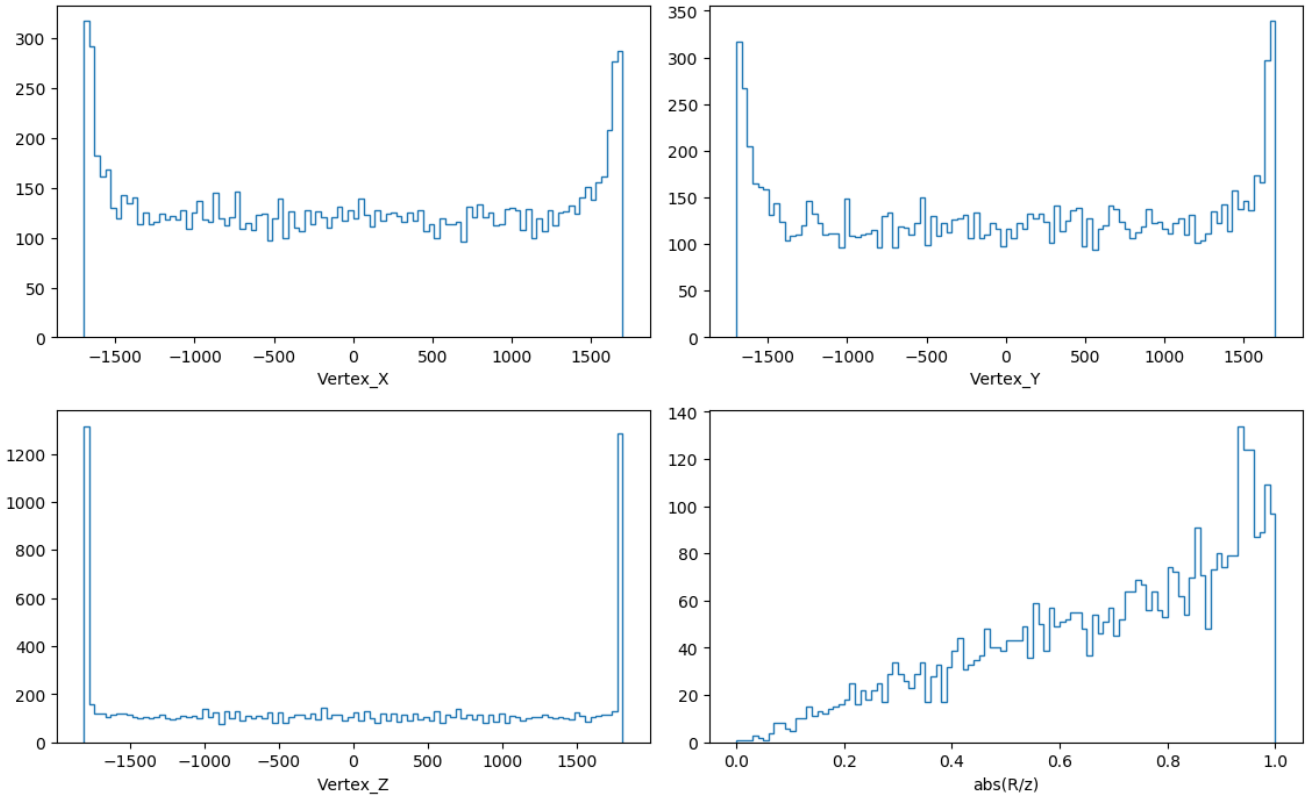
- gamma

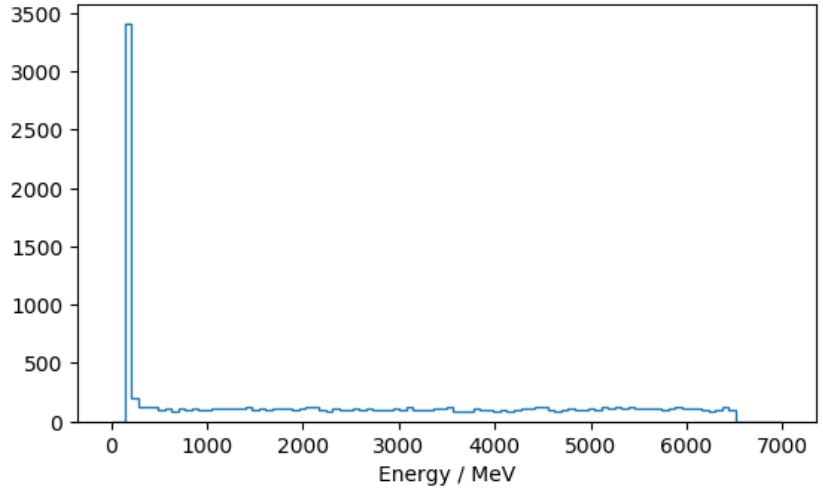


Dataset	# of total events	# of null events	Null events ratio
gamma	184,567	4987	0.027
e-	1,003,200	8554	0.0085
mu-	1,049,415	13118	0.0125

Distributions of events without any hits

- Mu-

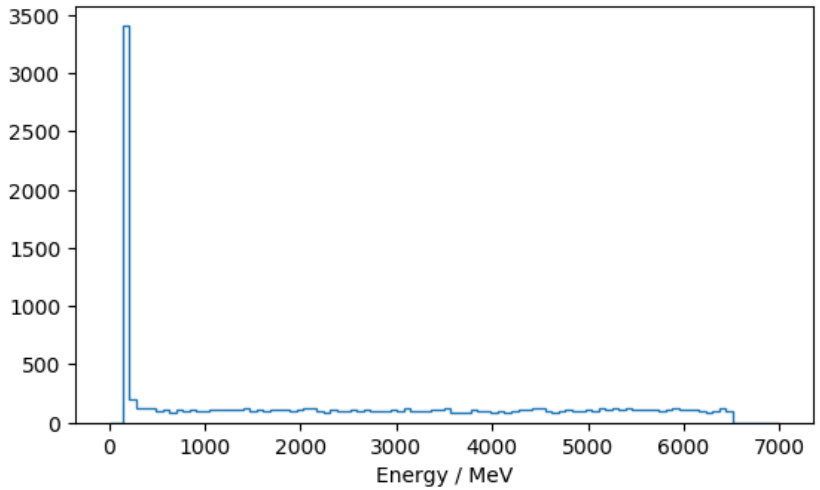


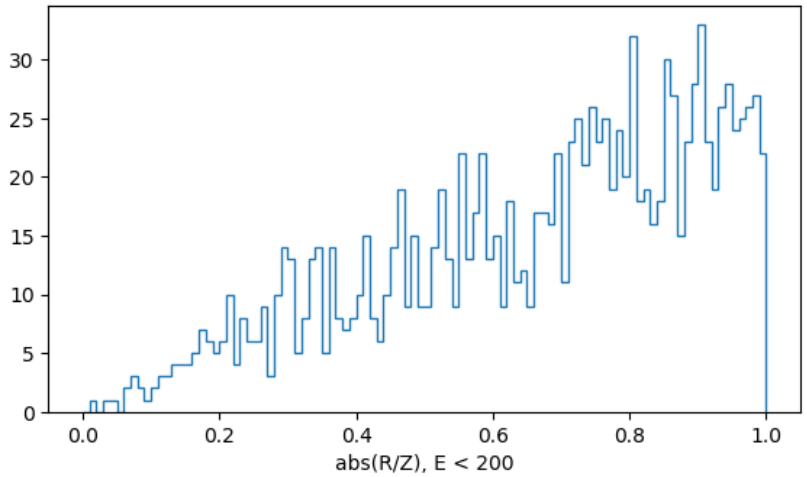


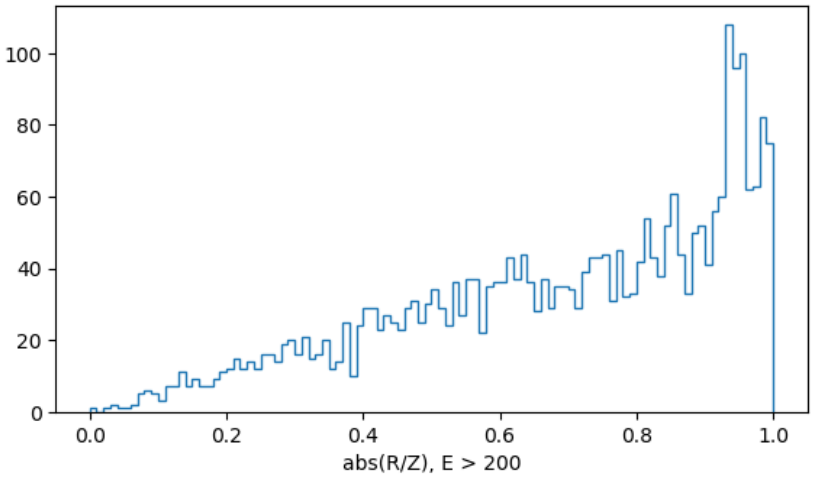
- Events near to the wall
- Events with low energy

Distributions of events without any hits

- Mu-

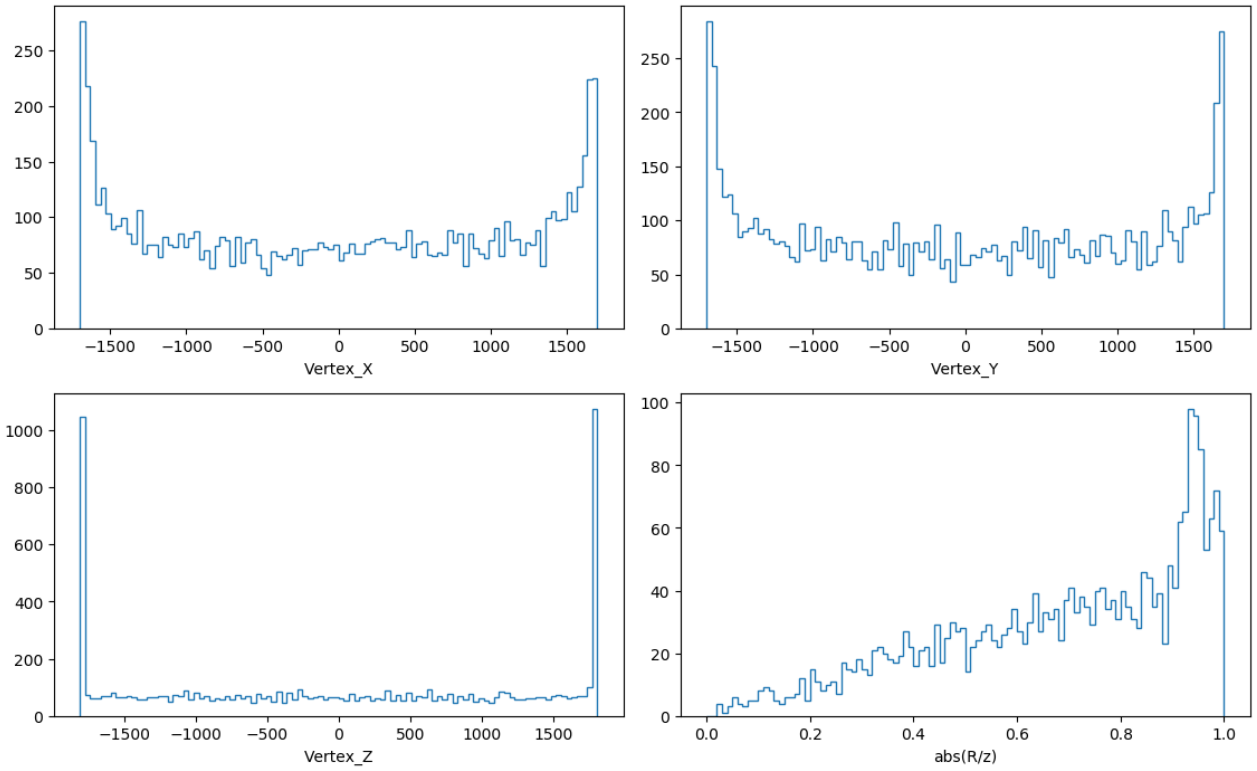


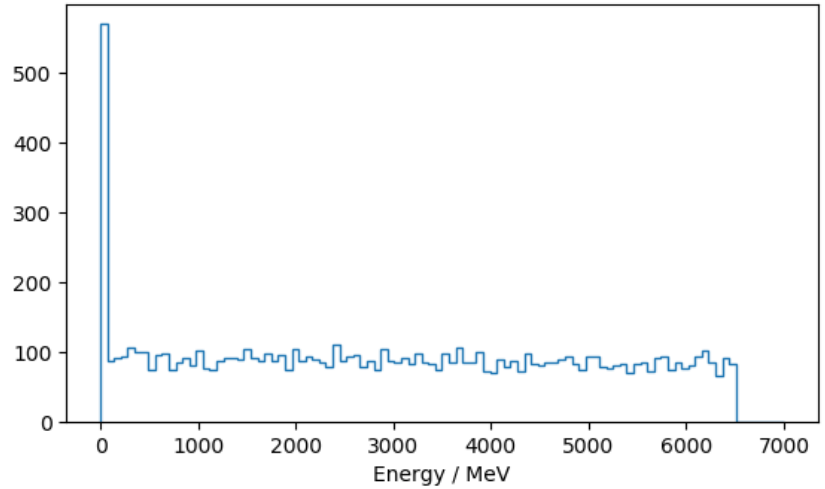




Distributions of events without any hits

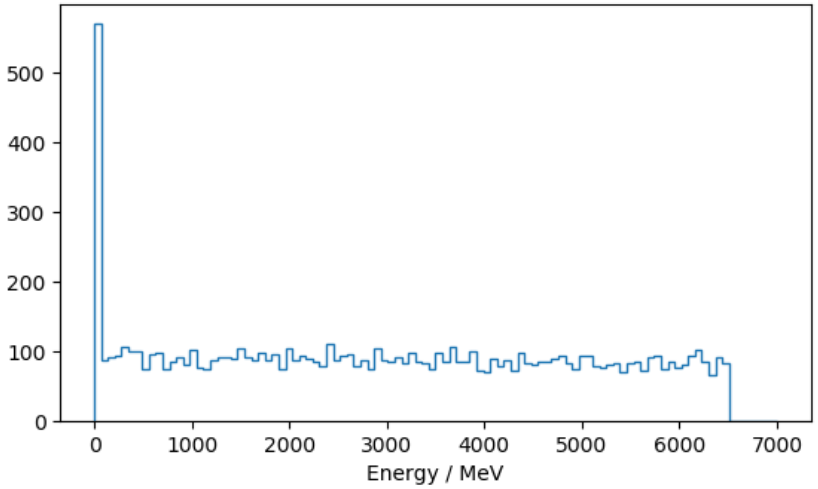
- e-

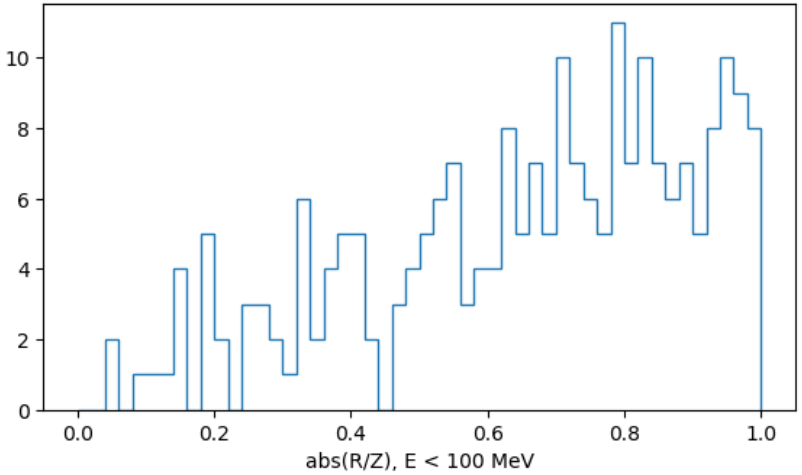


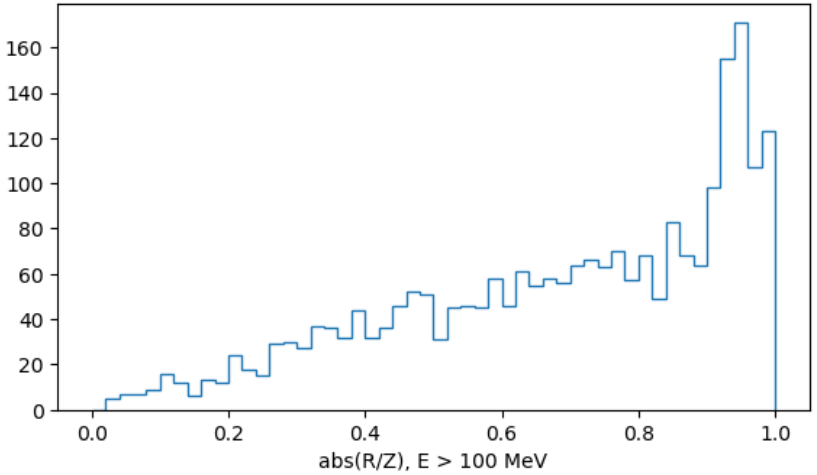


Distributions of events without any hits

- e-

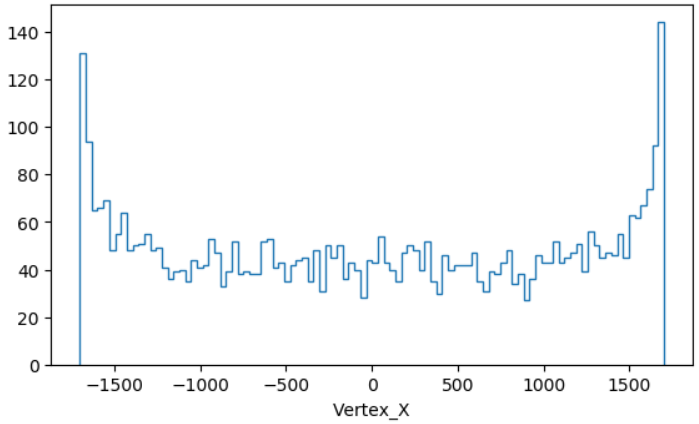


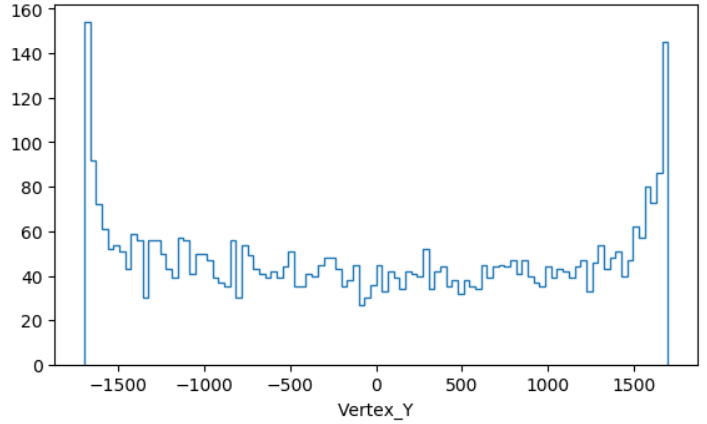


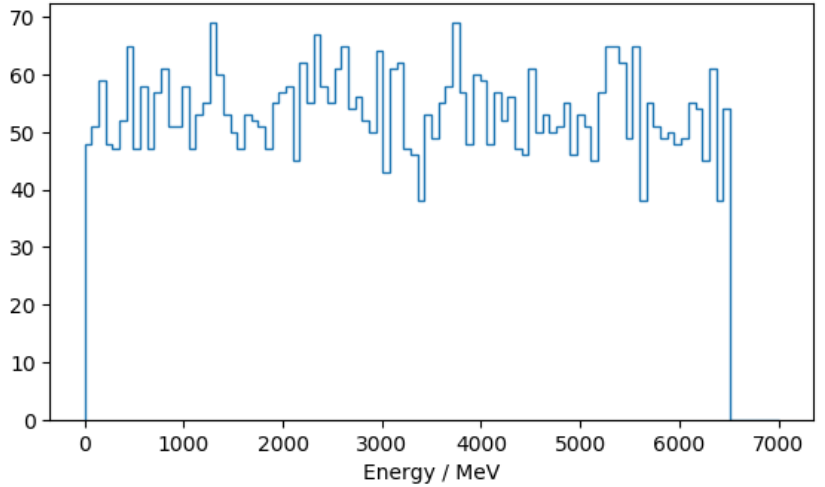


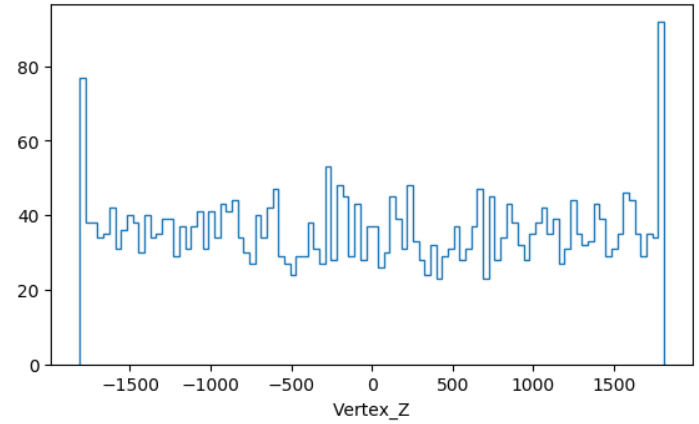
Distributions of events without any hits

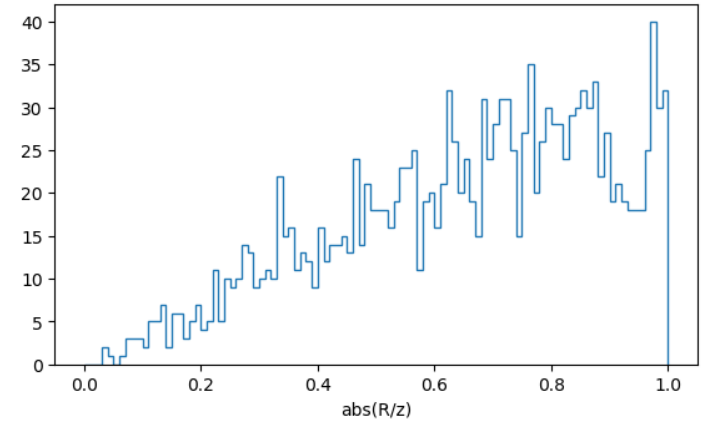
- gamma





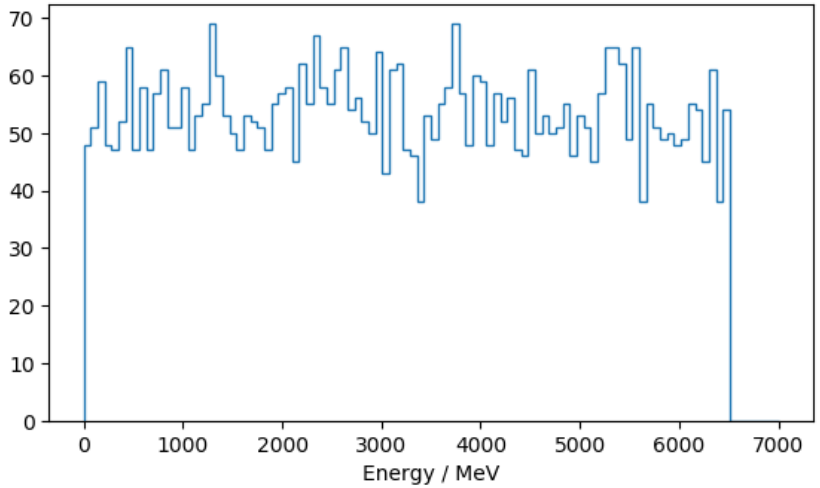


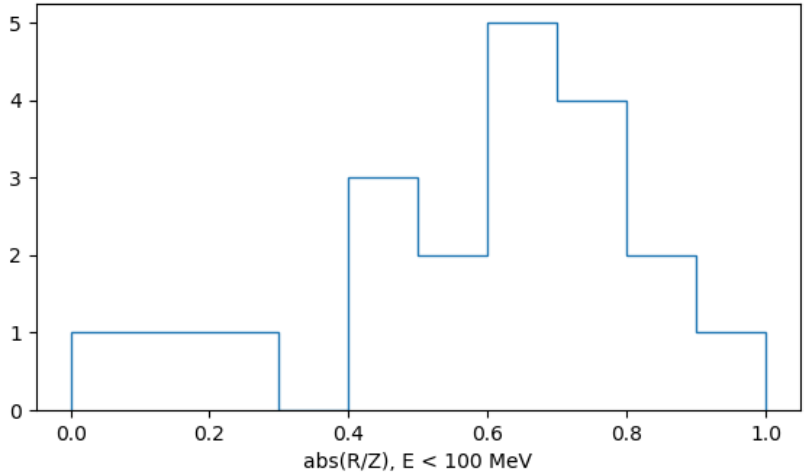


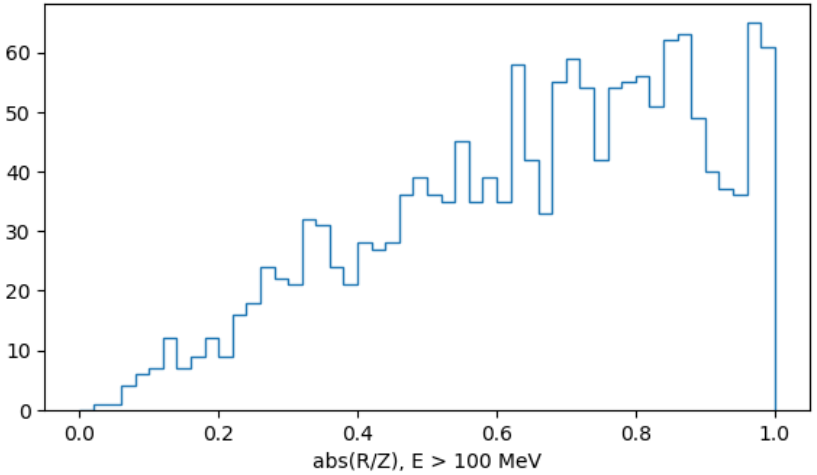


Distributions of events without any hits

- e-







Modification to the Dataset

- Maybe remove those events without any hit out of the dataset?
  - A new dataset of gamma events has been prepared
  - Training with that dataset still goes on, so far no explosion has appeared