Some numbers from extensive use of Global Reco

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12C_200new campaign
No. of processed events: 500000

GENFIT:

N good tracks: 472425   *See later for the definition of "Good"*

From Target: 20125 *(i.e. the reconstructed track matches with a track which in MC is recognized as a secondary produced in target)*

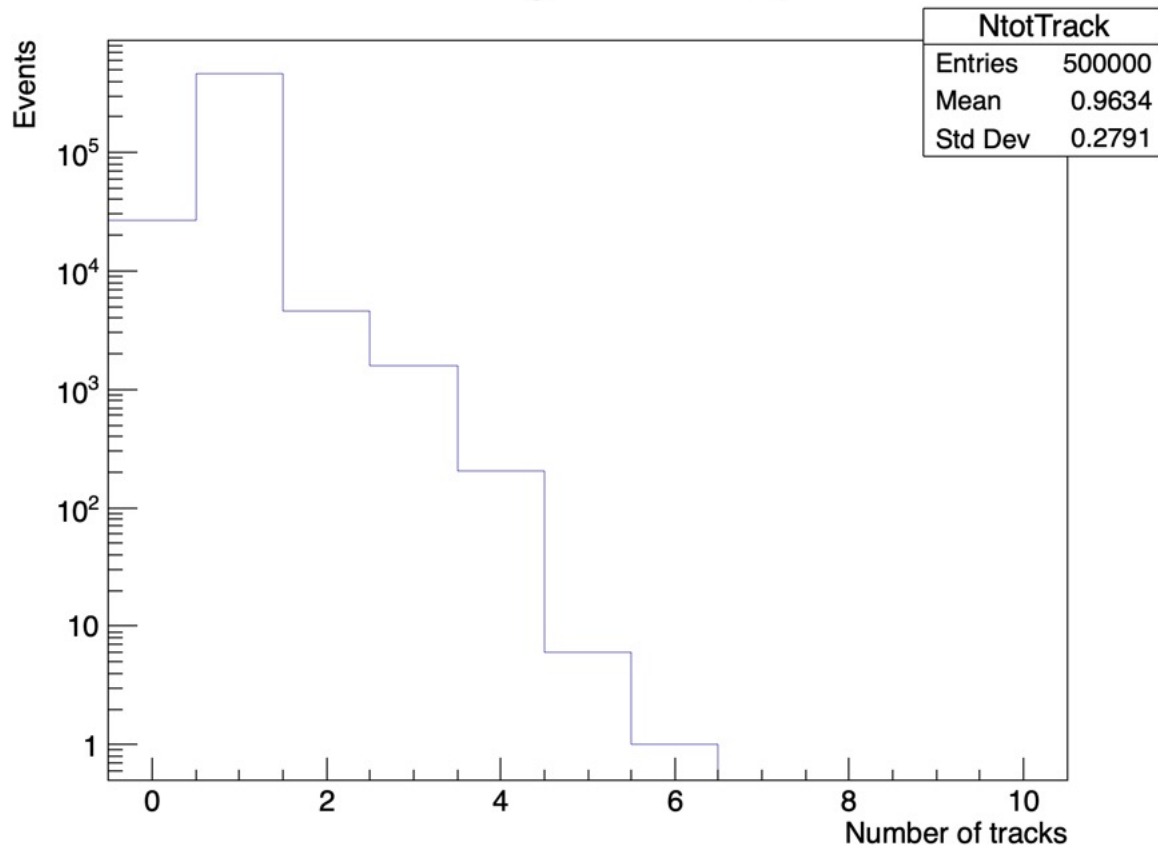TOE:

N good tracks: 487653

From Target: 23442

ALL THE FOLLOWING IS TO BE CONSIDERED AS VERY PRELIMINARY
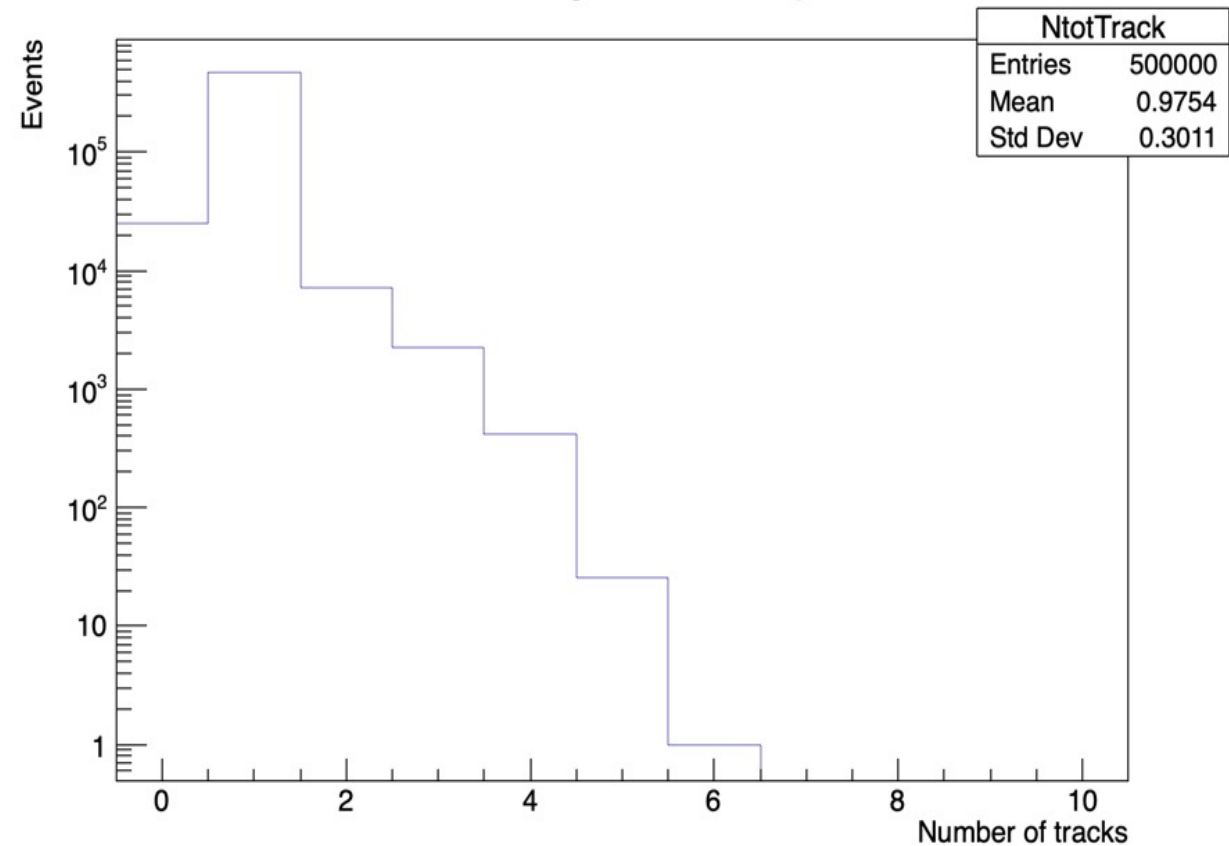
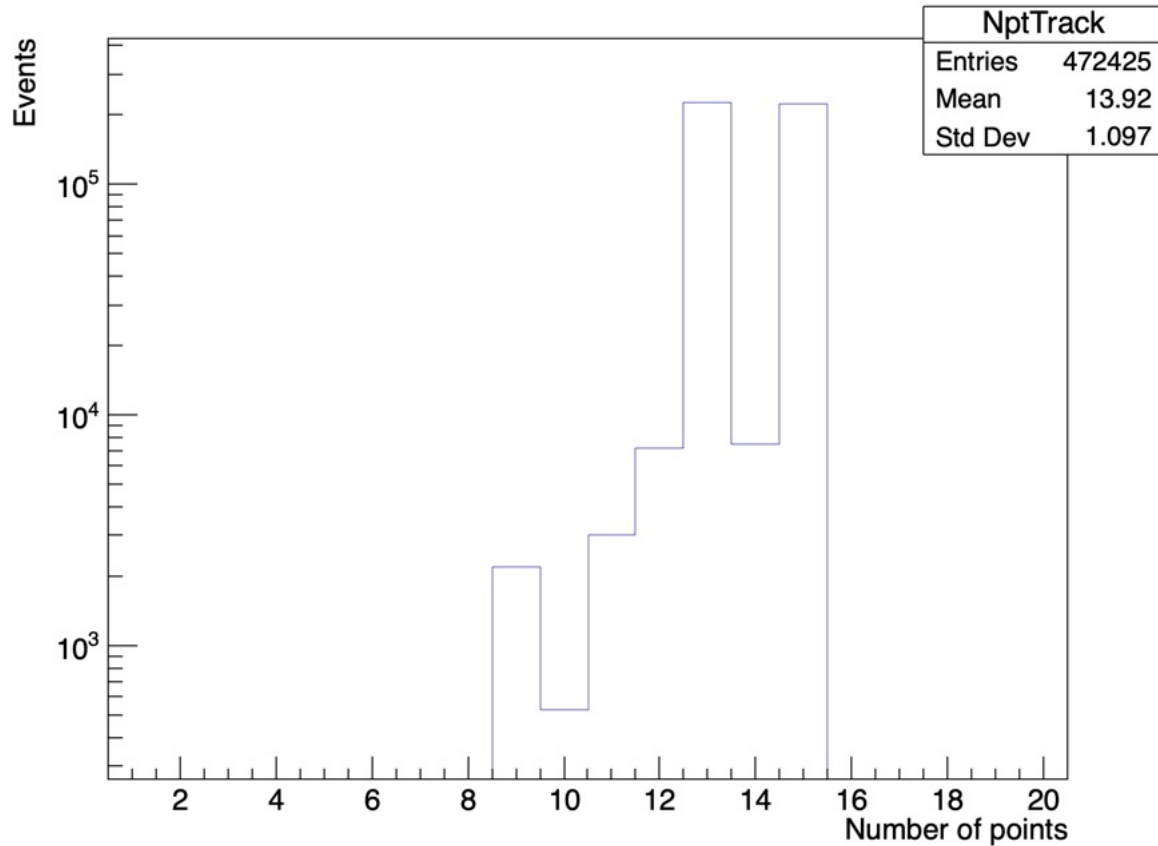# No. of reconstructed glb tracks/events

GENFIT

TOE

Existence of 0: In principle we should have always at least 1 track (the primary). However there can be interactions along the path, and the reconstruction rejects the track candidate
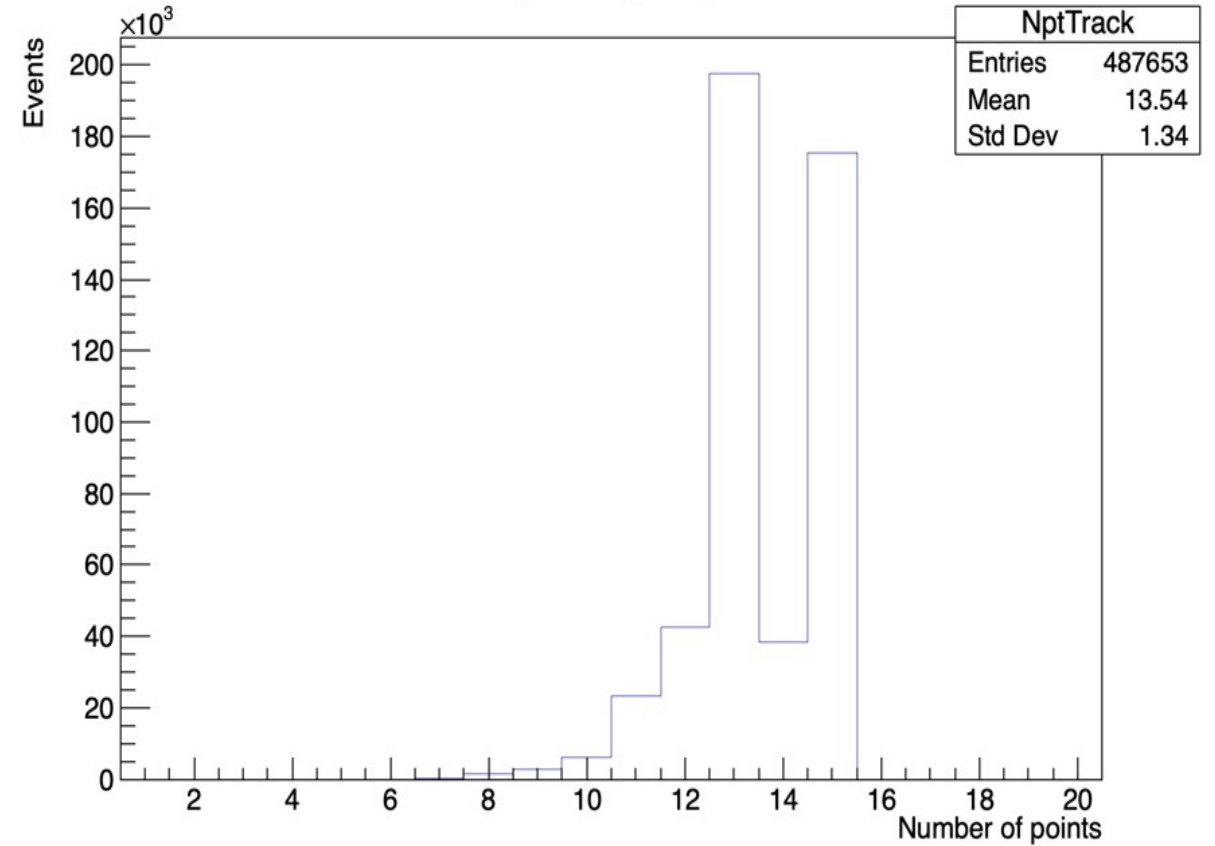
No. of points/track

GENFIT

TOE

Number of points per global track

NptTrack	
Entries	472425
Mean	13.92
Std Dev	1.097

Number of points per global track

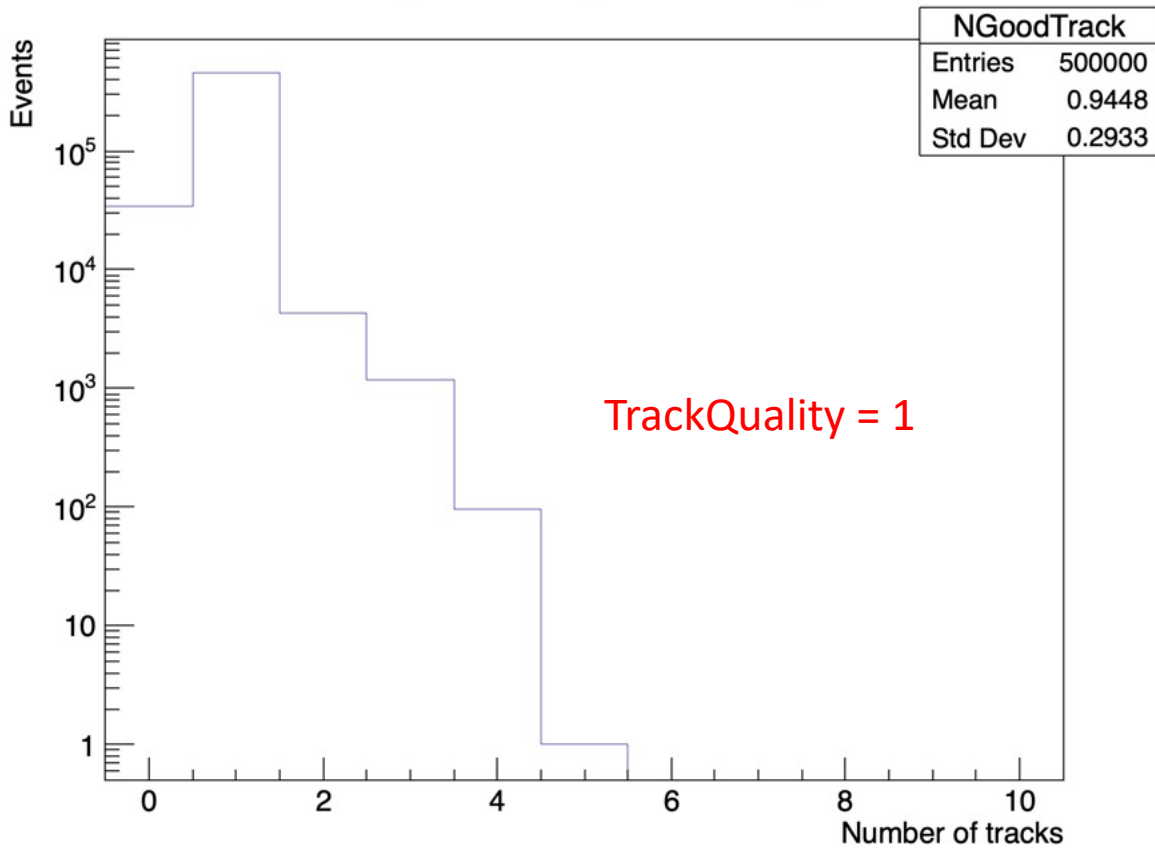| NptTrack	
Entries	487653
Mean	13.54
Std Dev	1.34

For Genfit: a threshold of at least 9 points has been asked

No. of "good" glb tracks/events

GENFIT

Number of good reco global tracks per event

NGoodTrack	
Entries	500000
Mean	0.9448
Std Dev	0.2933

TrackQuality = 1

TOE

Number of good reco global tracks per event

NGoodTrack	
Entries	500000
Mean	0.9753
Std Dev	0.3012

No nan from Fit P, Mass, Energy
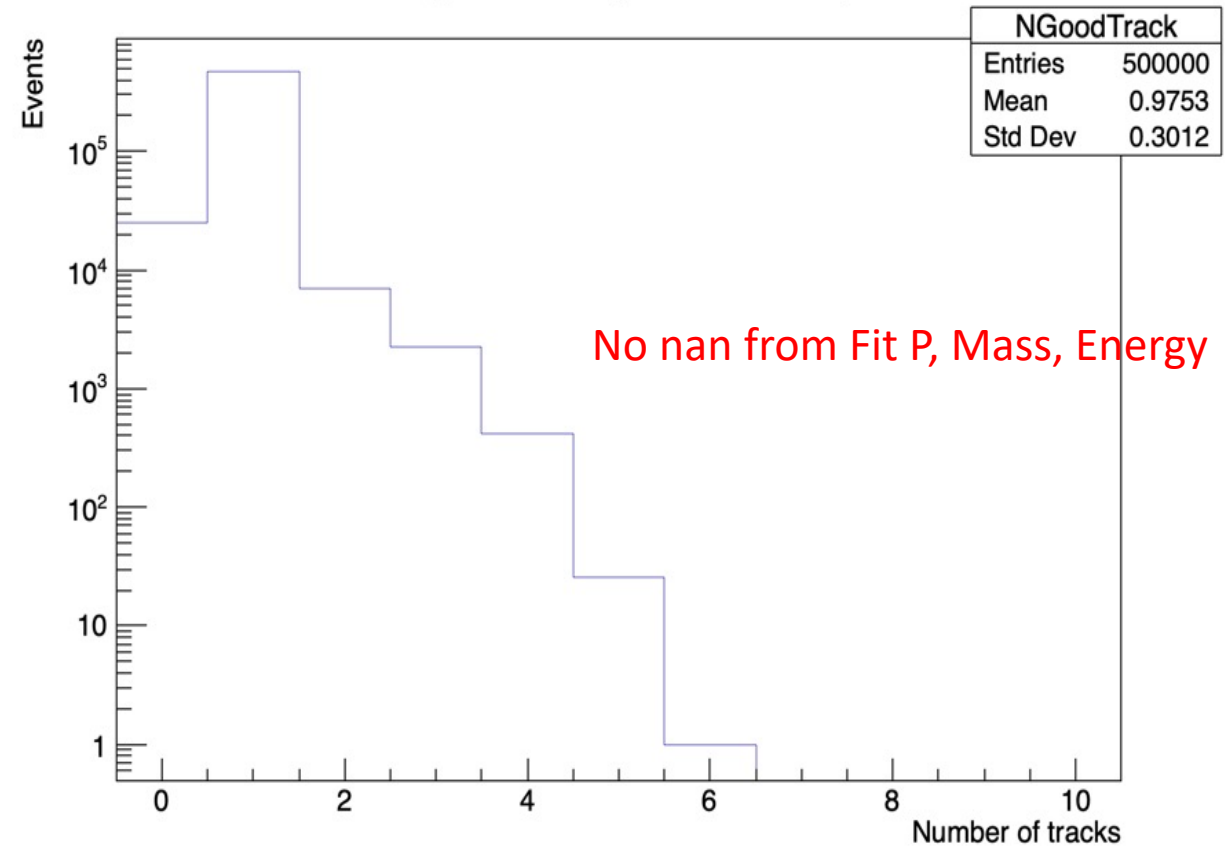
For TOE there is not an equivalent of GetTrackQuality()

Reconstructed ChargeZ

GENFIT
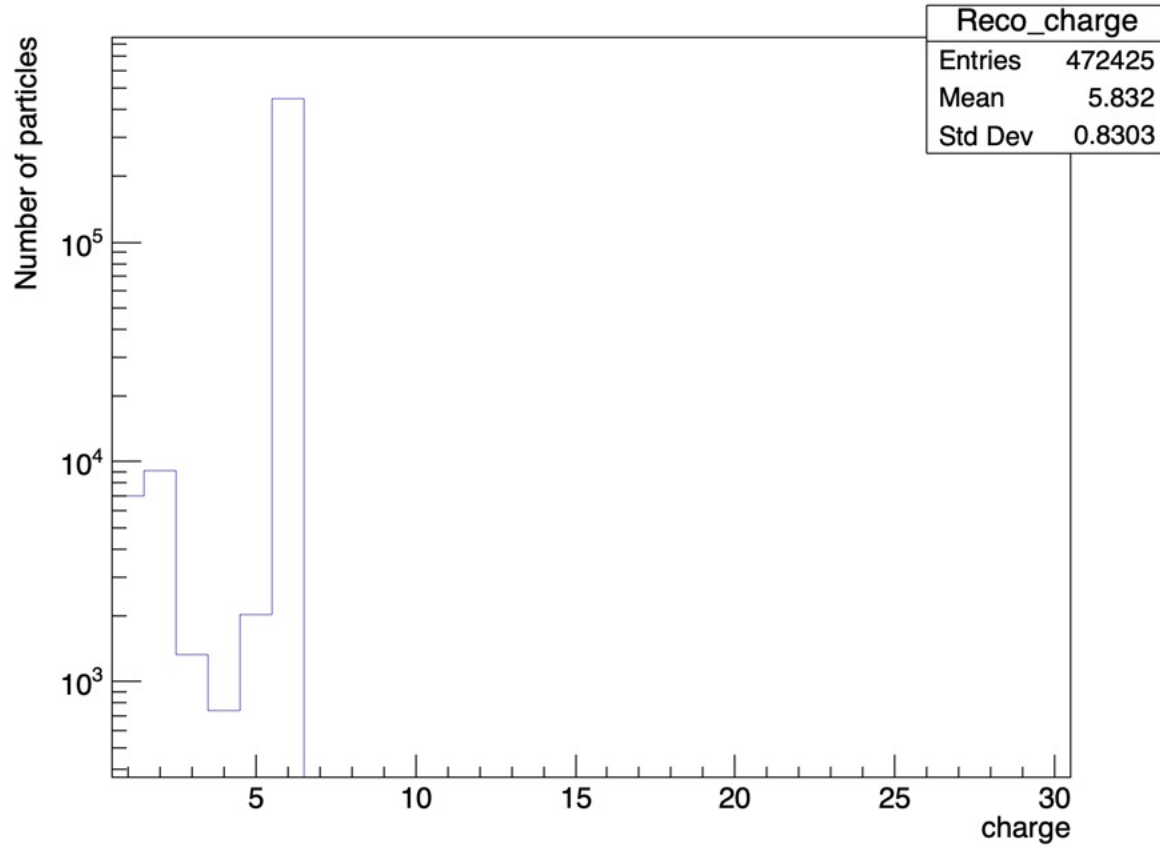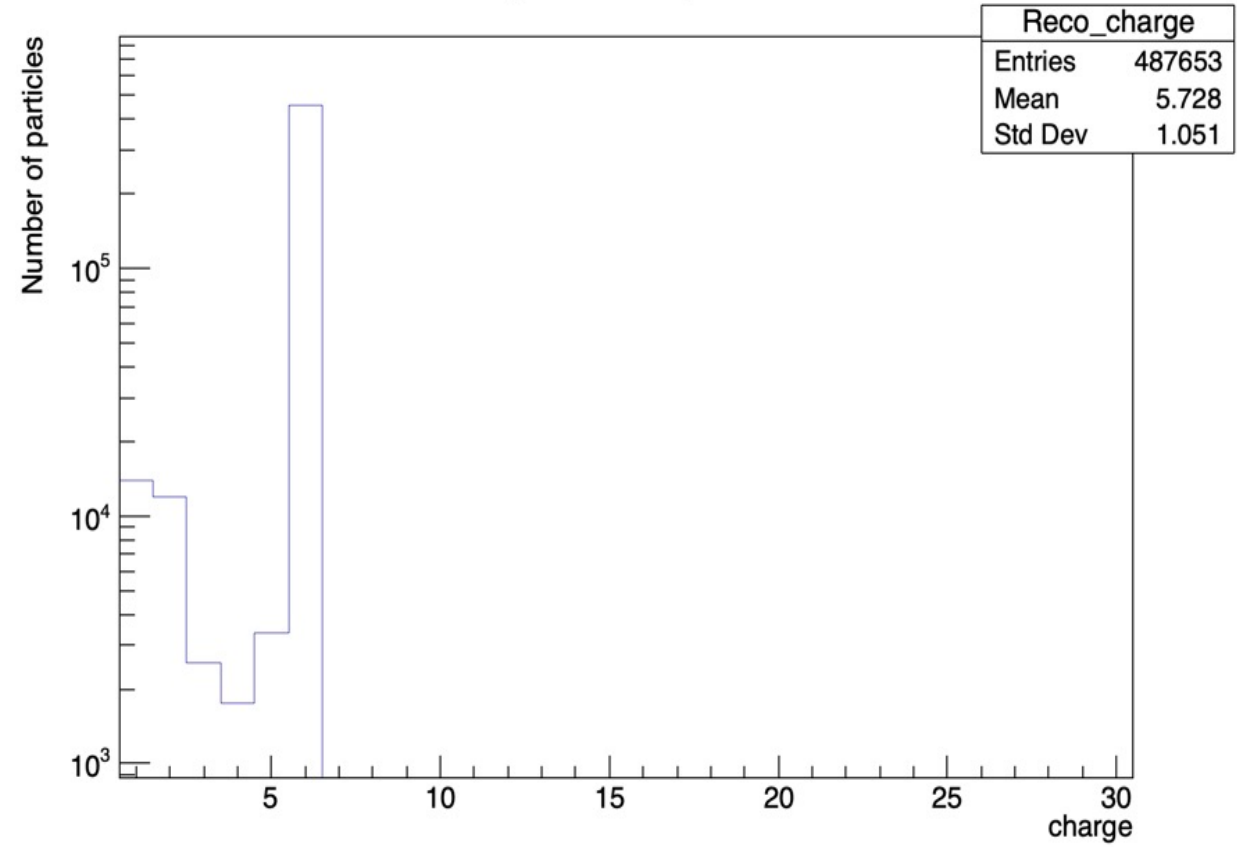
TOE
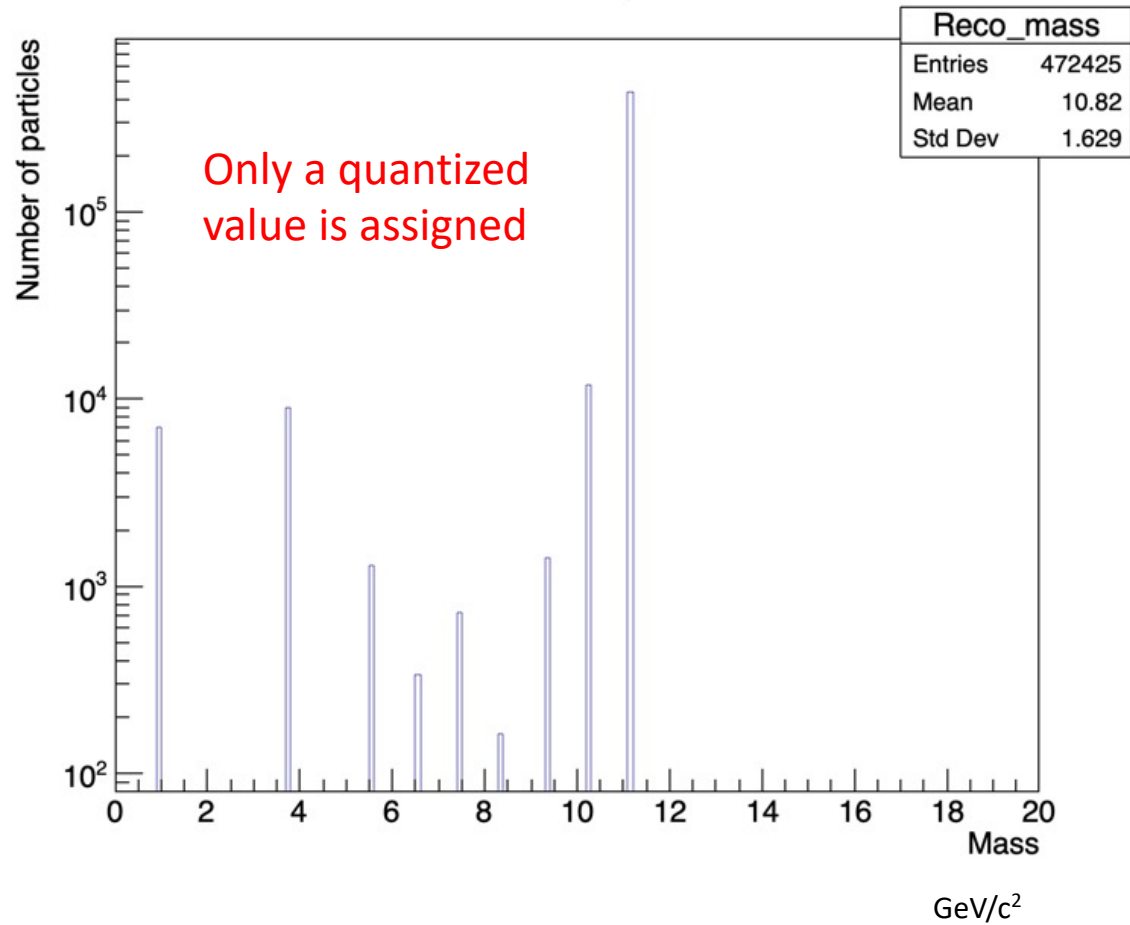
Reconstructed Mass
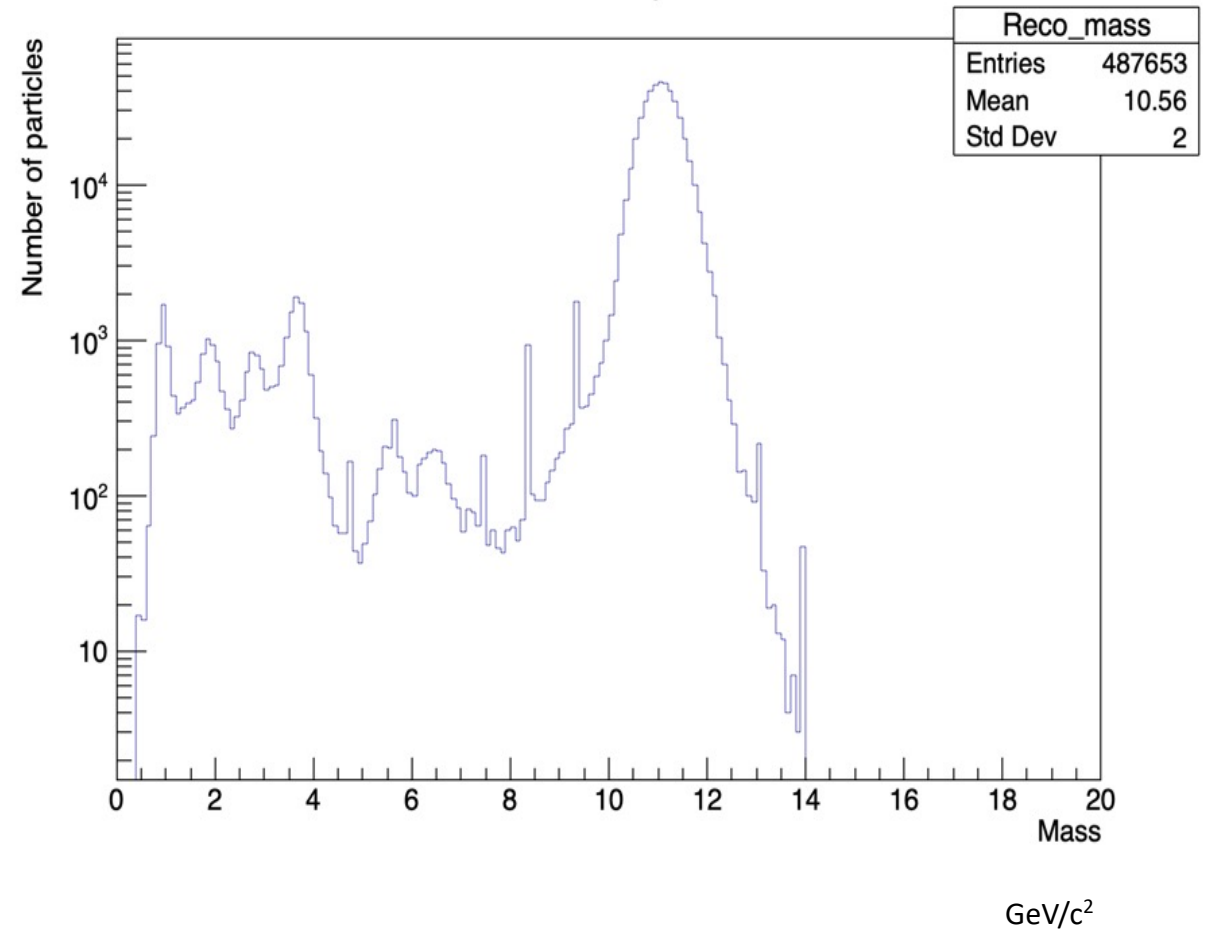
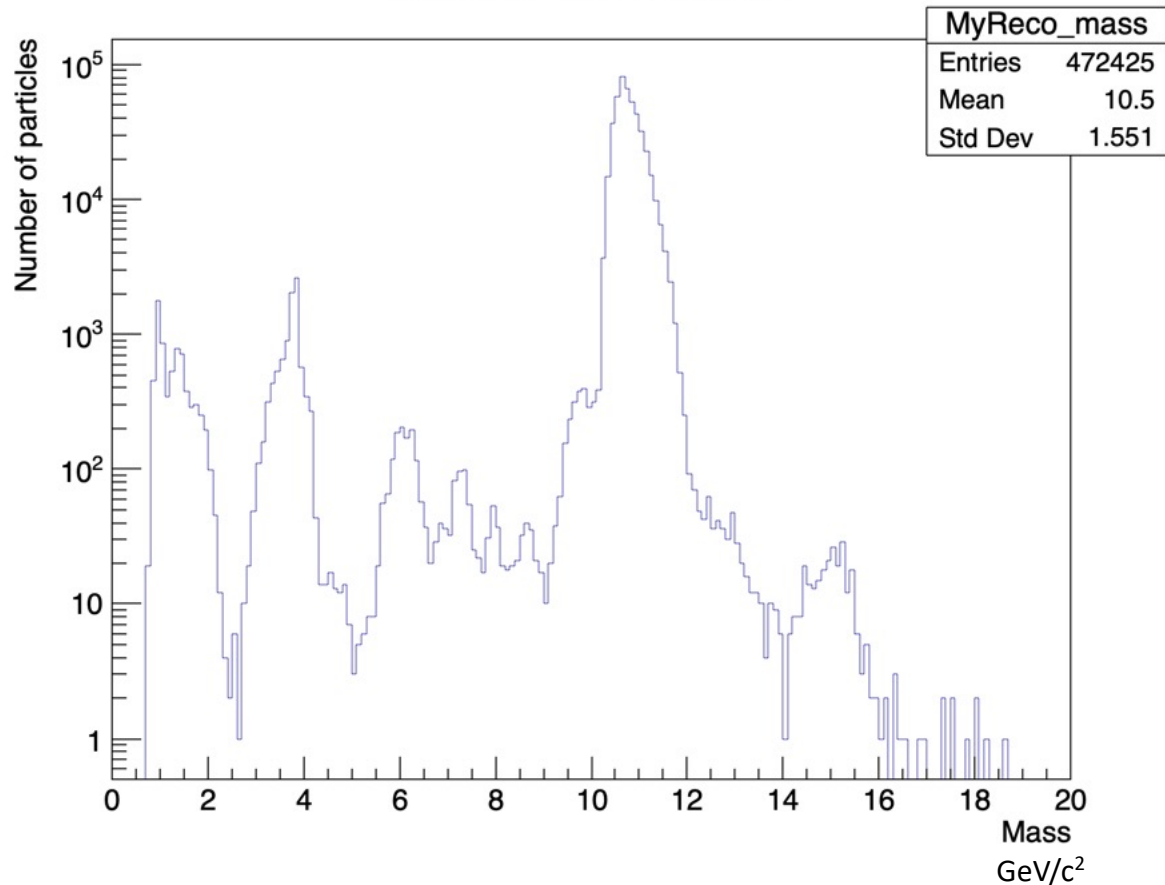Genfit tries to assign the isotope mass which best fits the reconstructed track

Reconstructed Mass

GENFIT

TOE
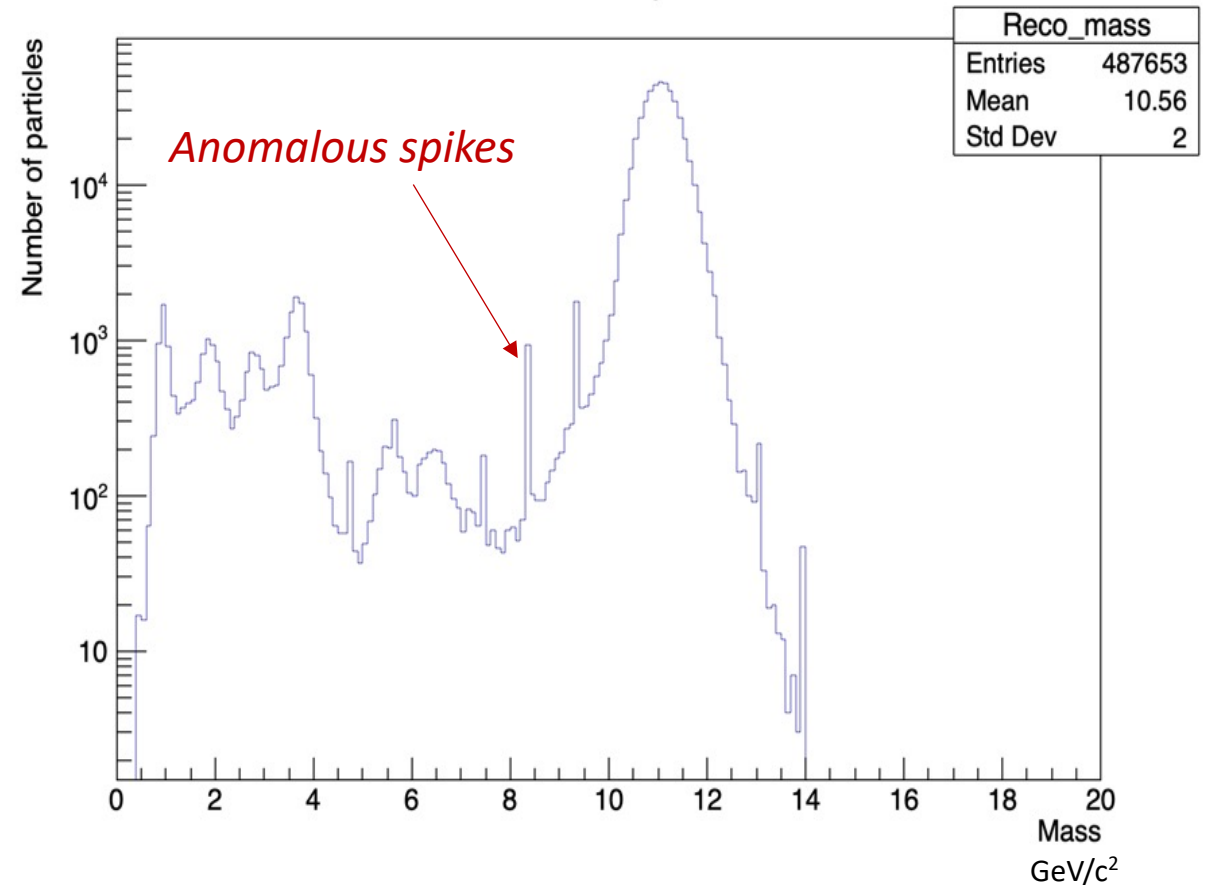
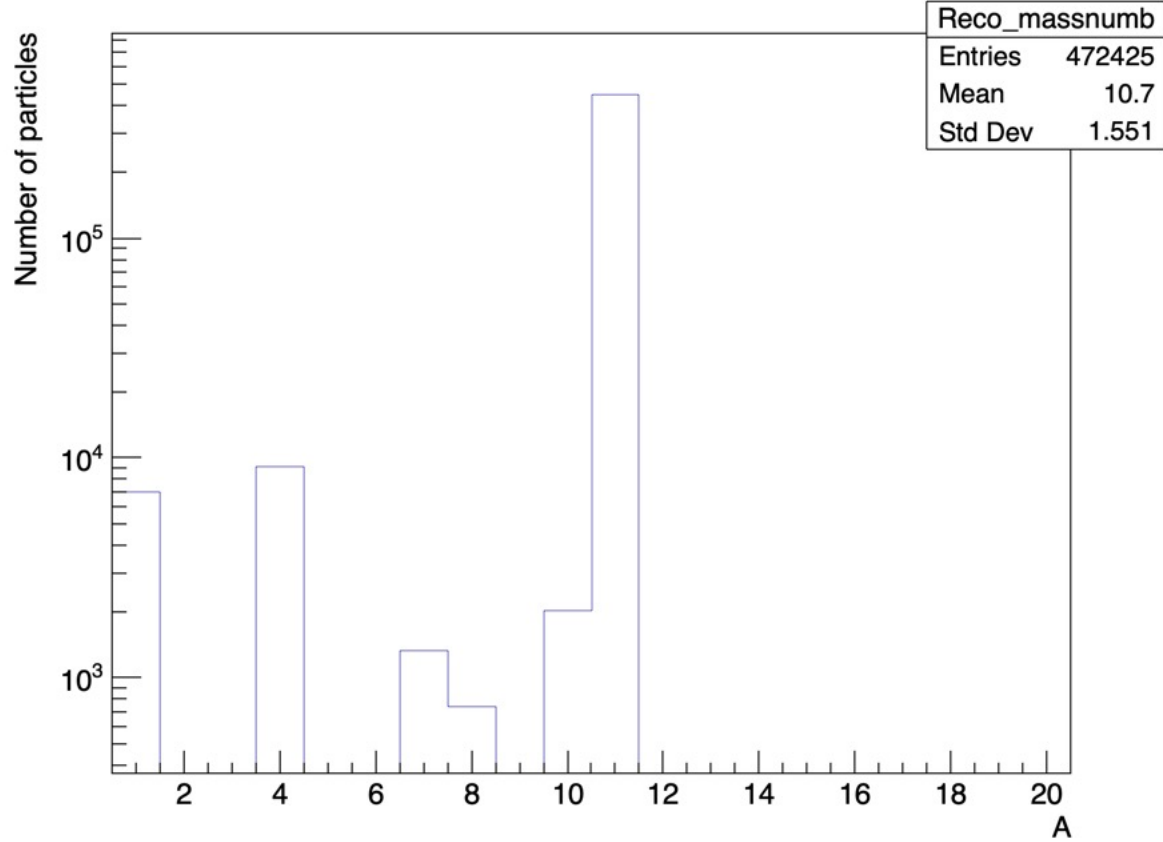My Mass evaluation in Genfit: I get it by combining P and Lorentz-gamma

Reconstructed A

GENFIT

TOE

Reconstructed A

GENFIT

Mass number of reco particles

MyReco_massnumb	
Entries	472425
Mean	11.24
Std Dev	1.715

My A evaluation in Genfit

TOE

Mass number of reco particles

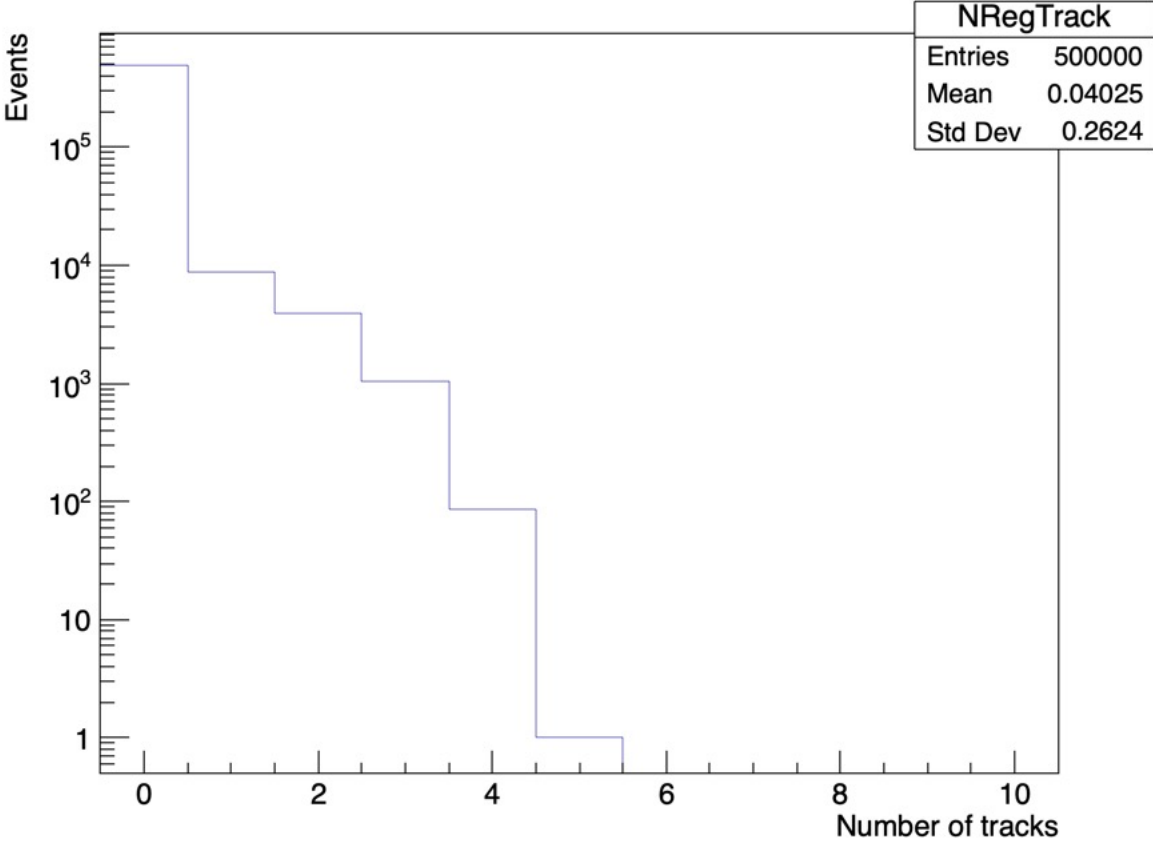| ToeReco_massnumb	
Entries	487653
Mean	11.35
Std Dev	2.164
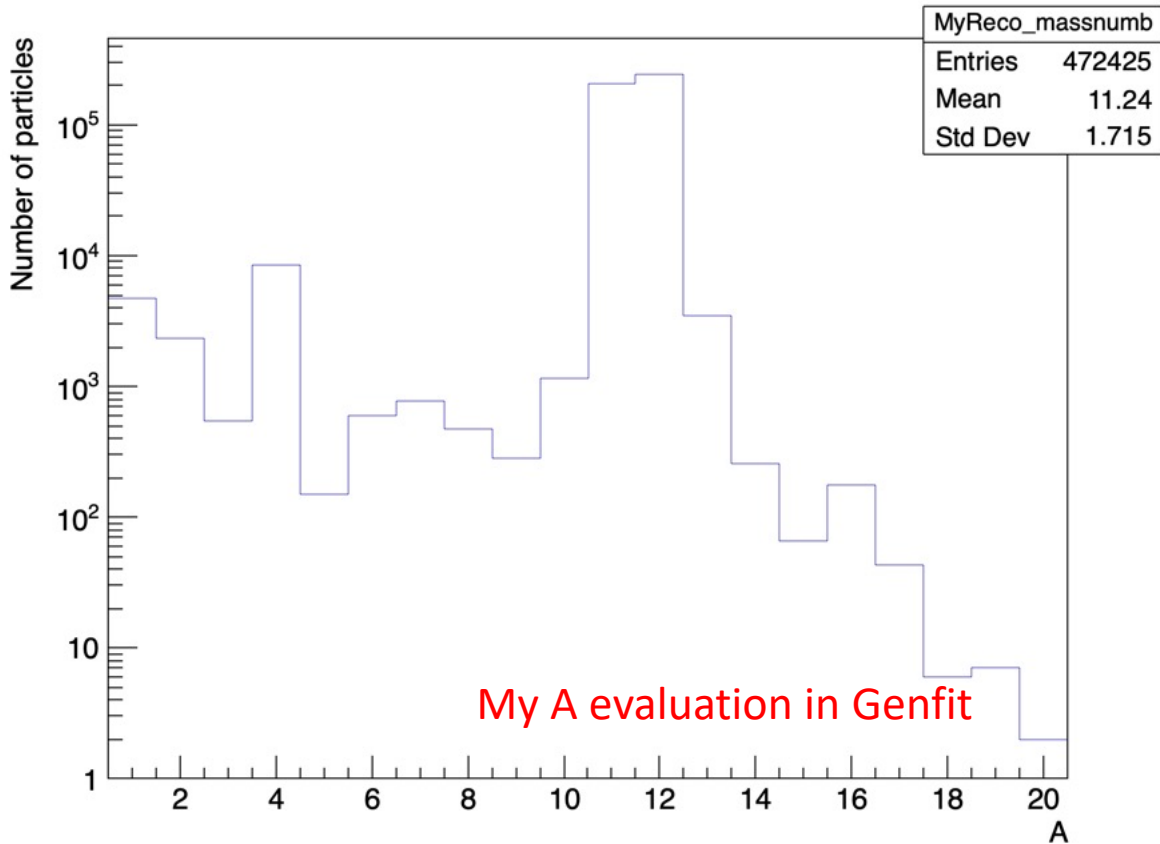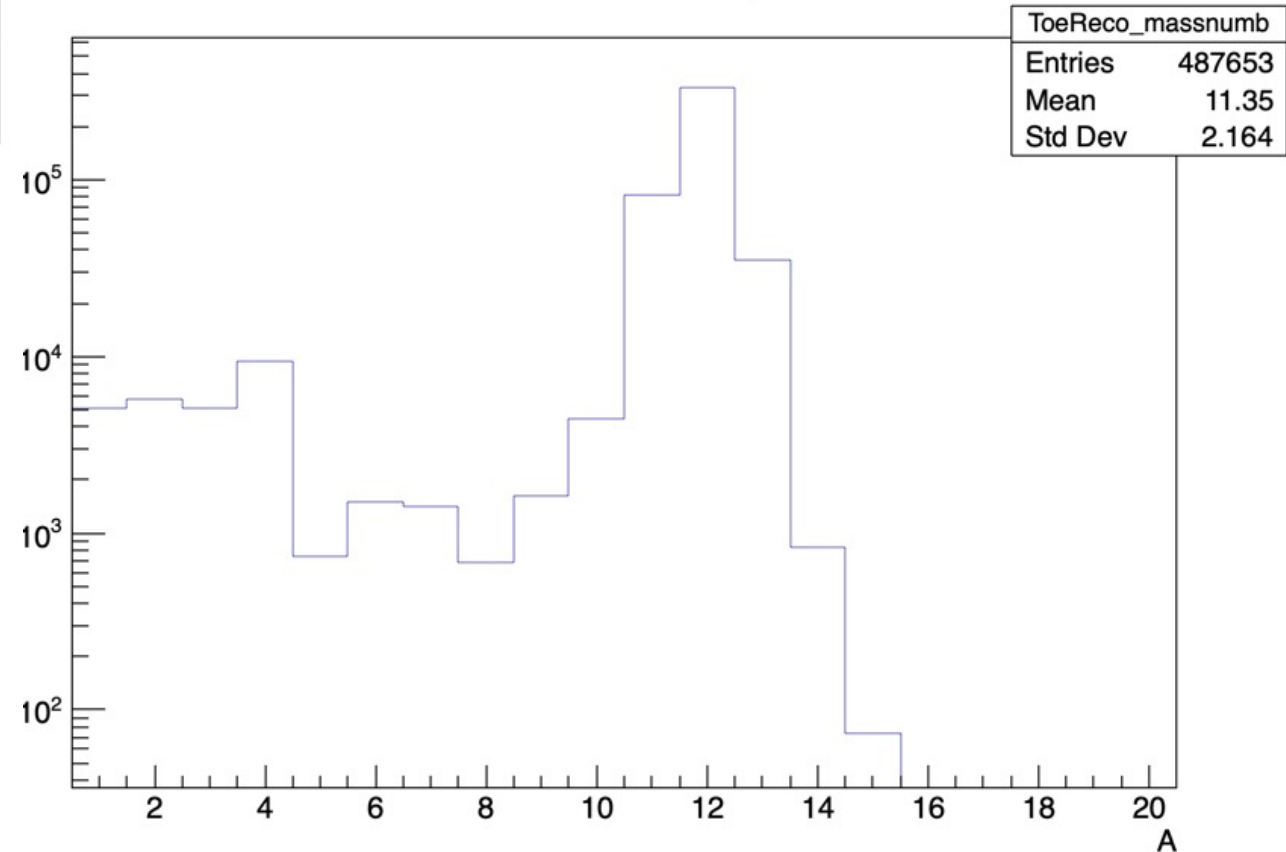
After my mass evalutation I take the closest A, given the reconstructed Z

After matching with MC track: Number of "True" tracks (either real primaries or secondary coming from target)
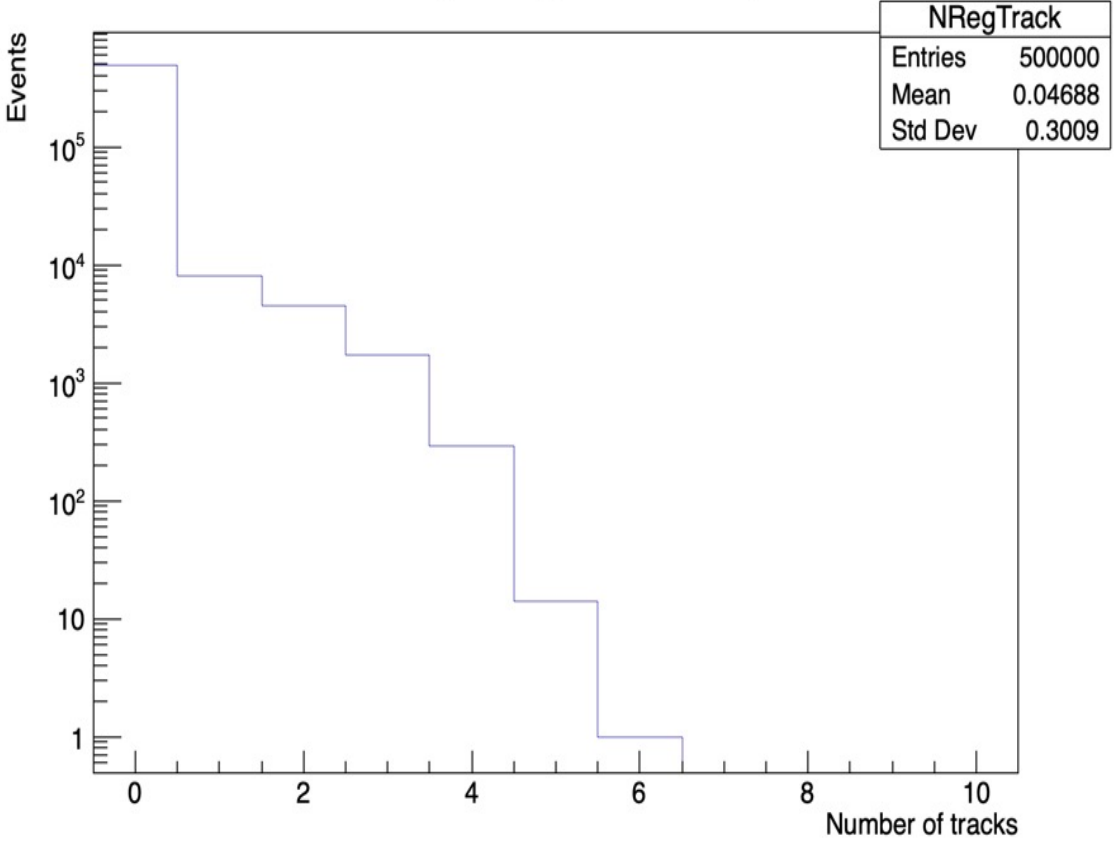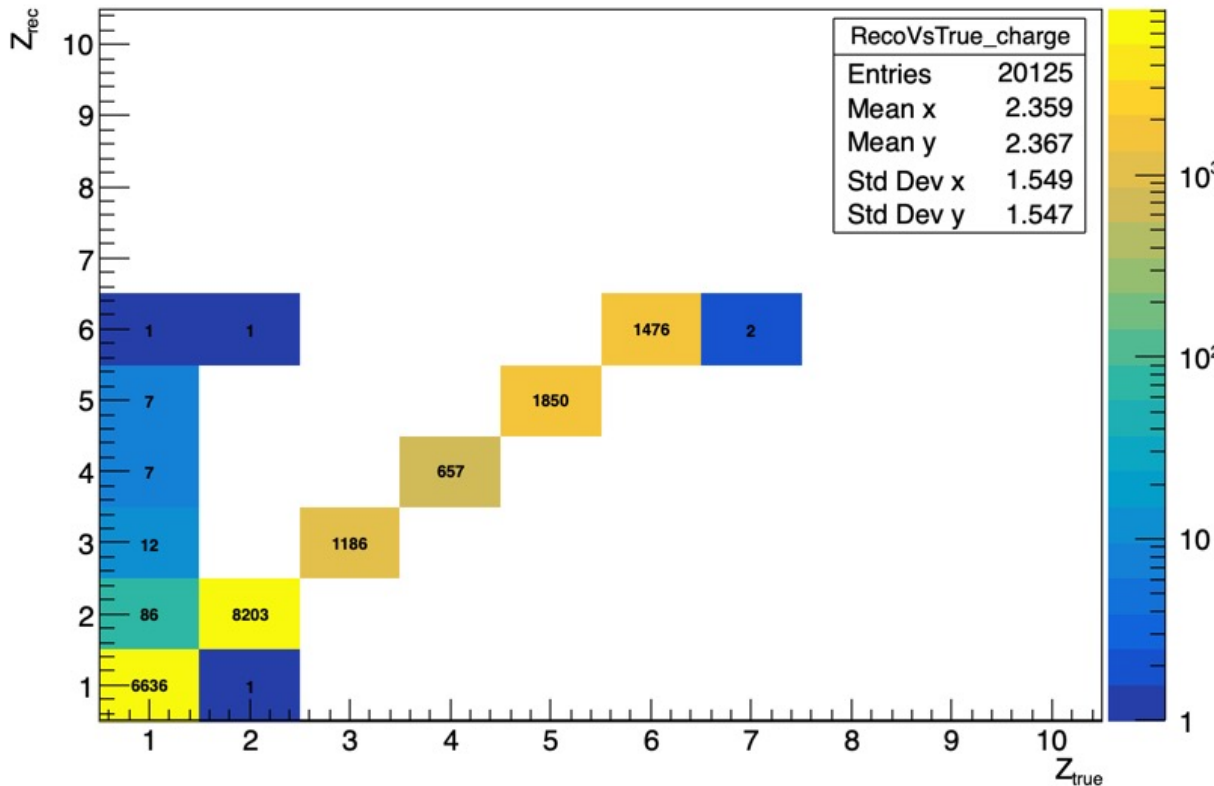
GENFIT

TOE

Reconstructed Vs True ChargeZ

Only for MC matched tracks recognized as secondary fragments originated in target

GENFIT
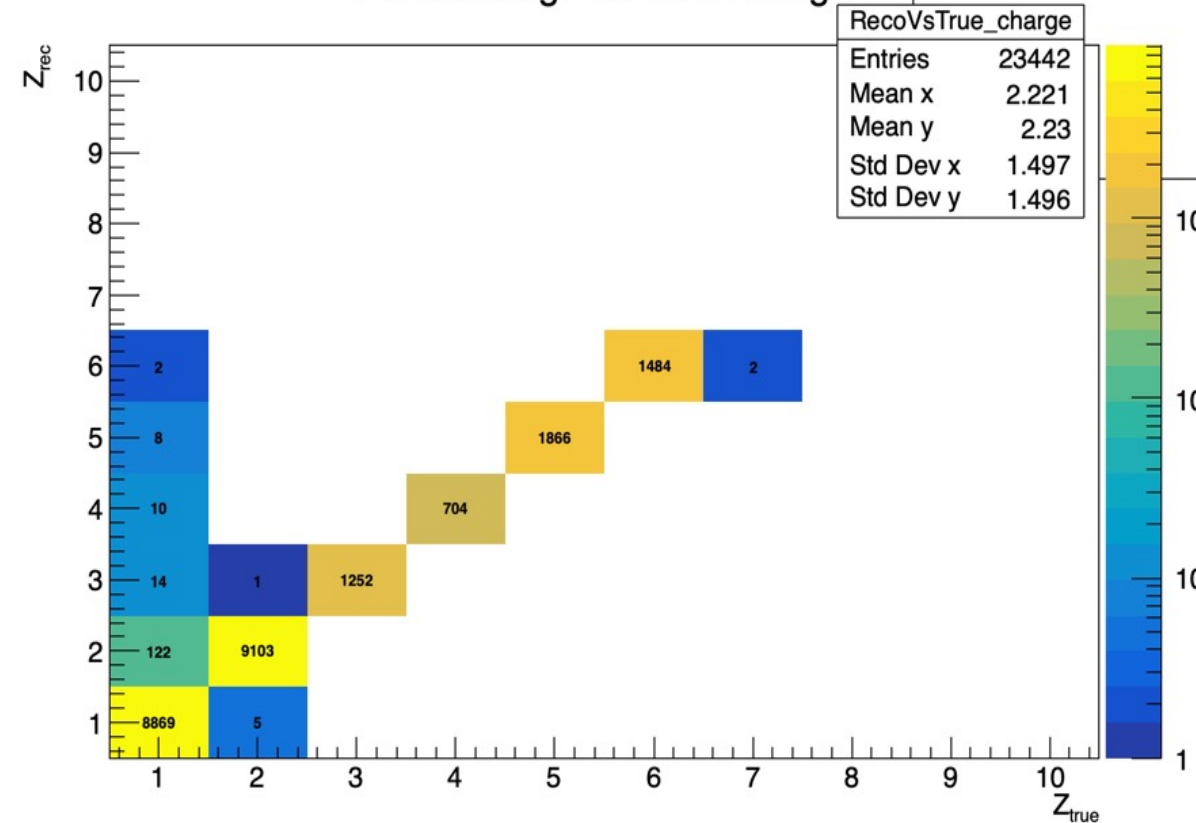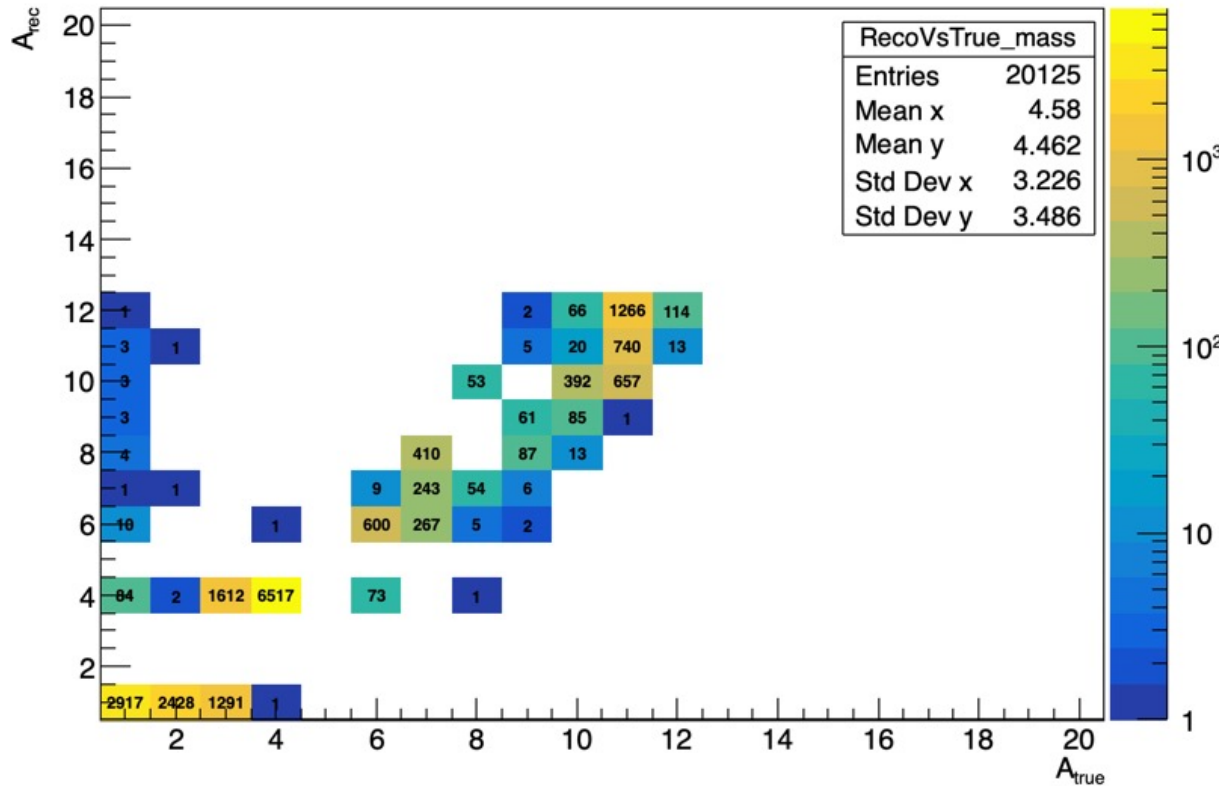
TOE

Reconstructed Vs True A

Only for MC matched tracks recognized as secondary fragments originated in target

GENFIT   TOE

Reconstructed Vs True A

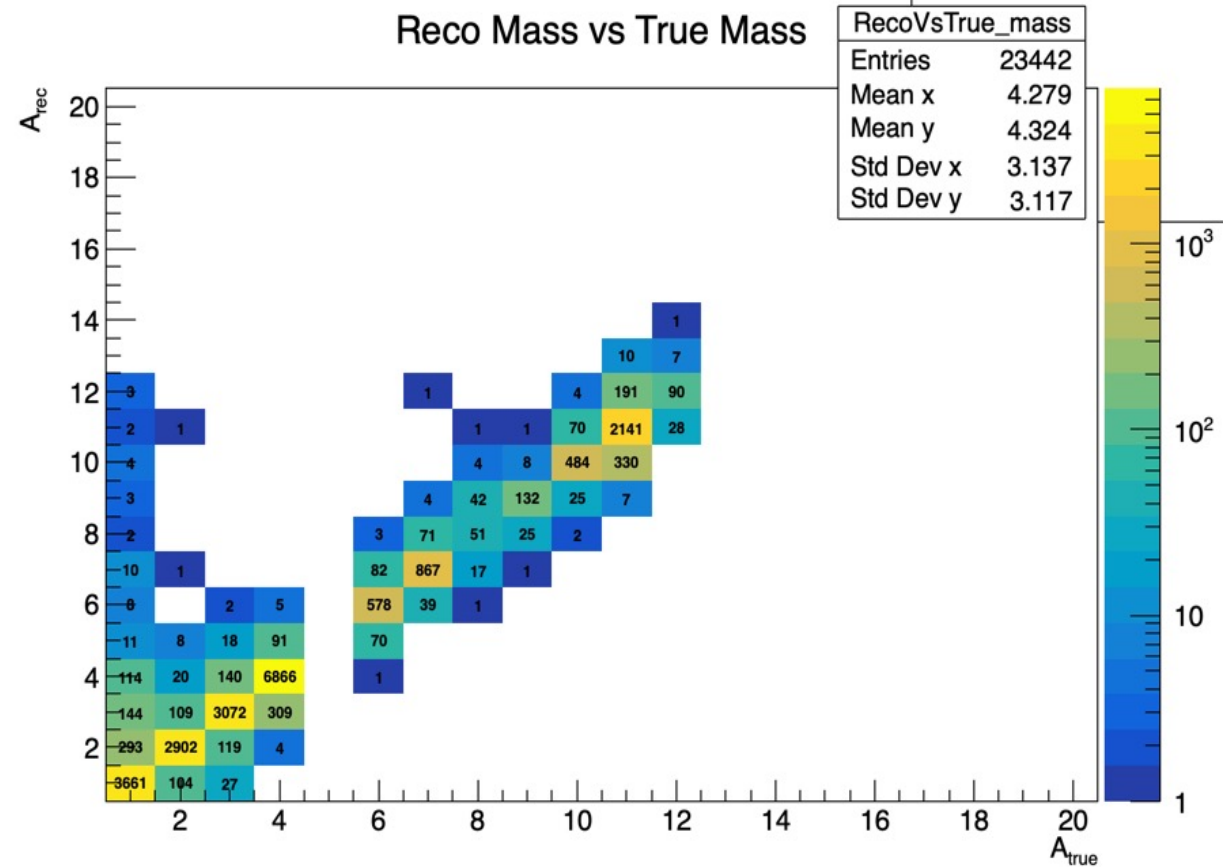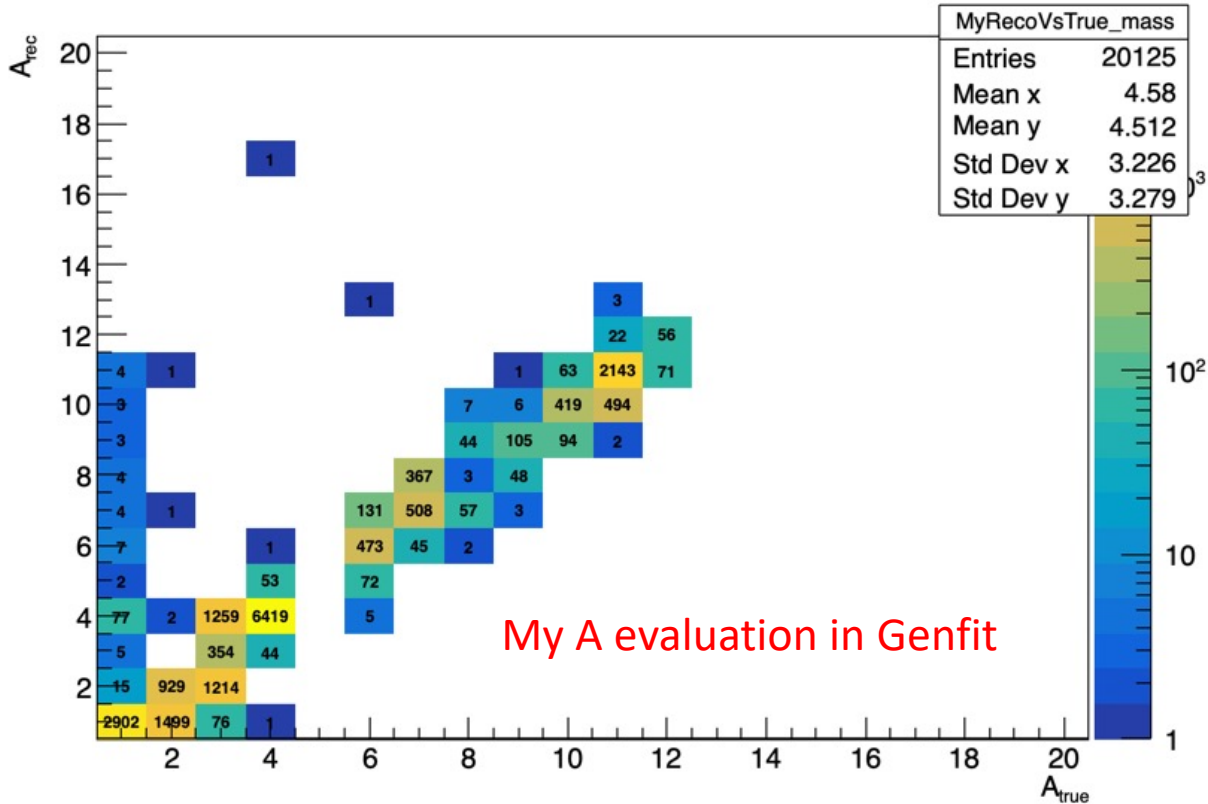*Only for MC matched tracks recognized as secondary fragments originated in target*

GENFIT

TOE
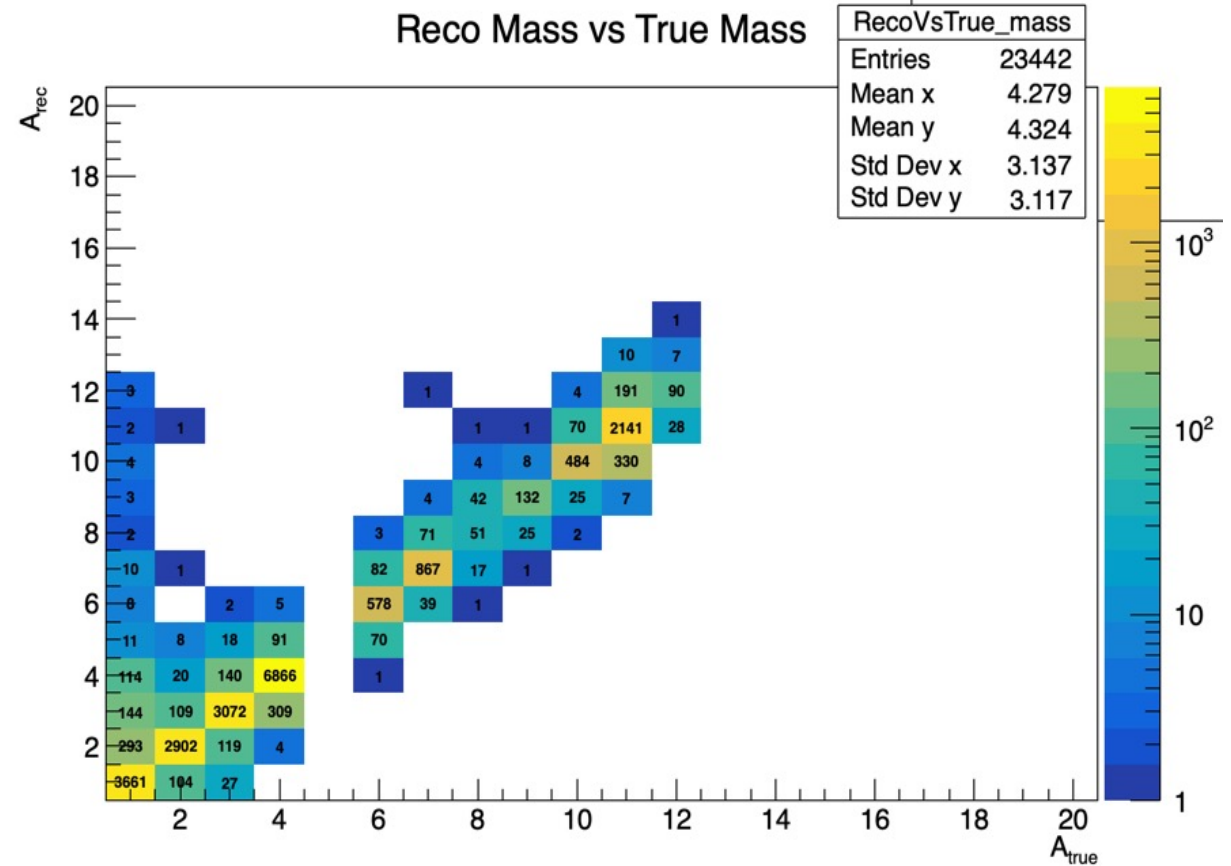
About the matching with MC tracks:

Performed by inquiring which MC track originated the TW point belonging to the reconstructed global track

GENFIT:

N good tracks: 472425

From Target: 20125; from VTX: 90; from MSD: 1; from CAL: 2

Apparently the TW point sometimes is not a good one

TOE:

N good tracks: 487653   ?   ?

From Target: 23442; from VTX: 327; from MSD: 3268; from CAL: 6