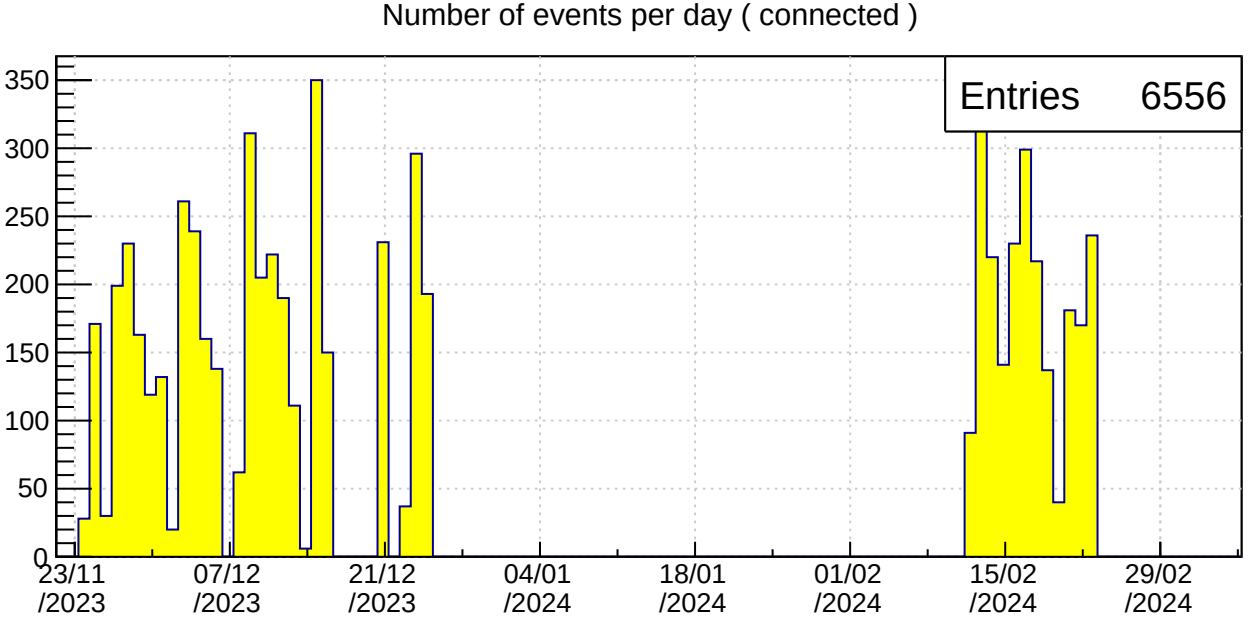
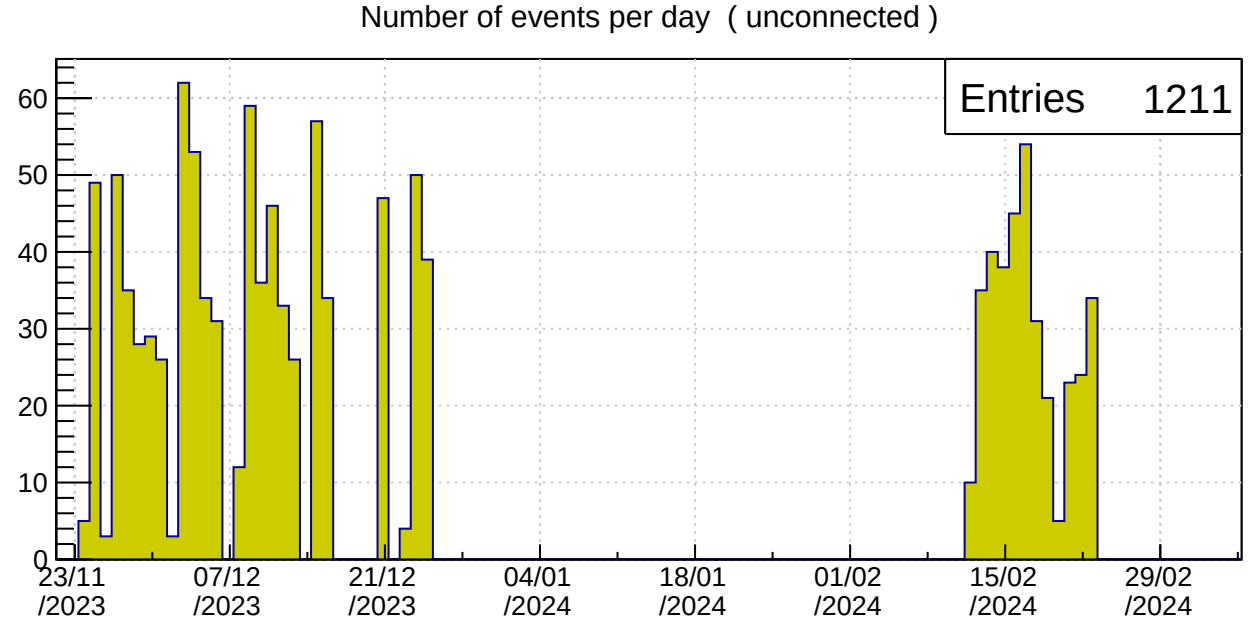
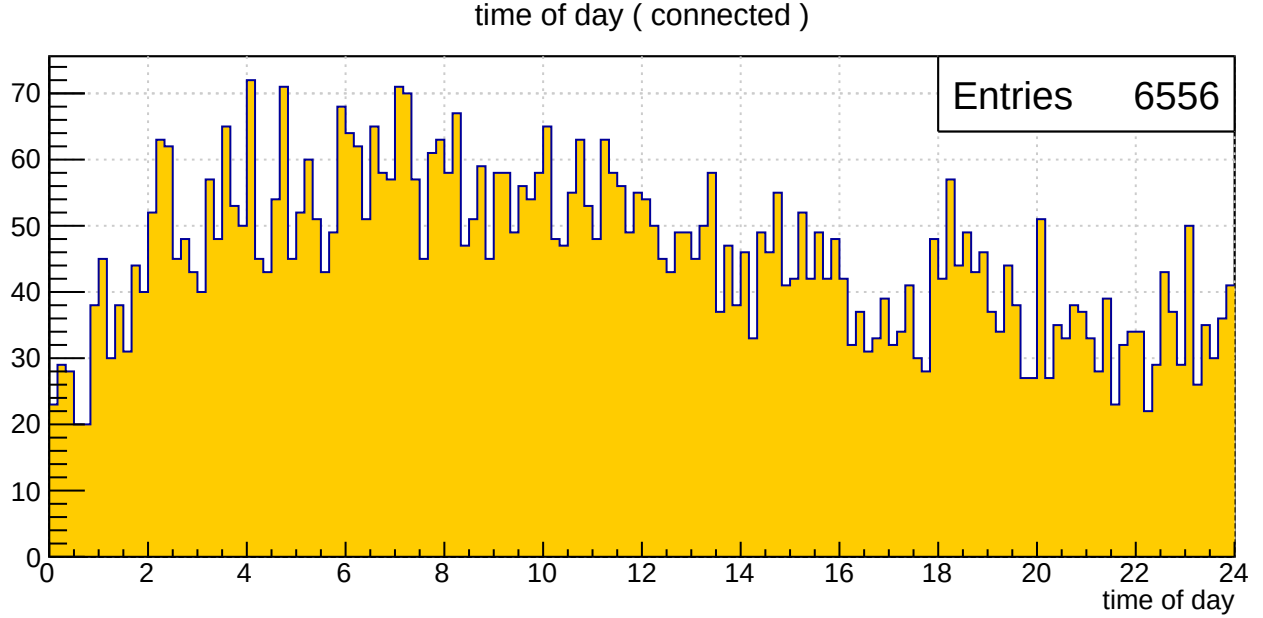
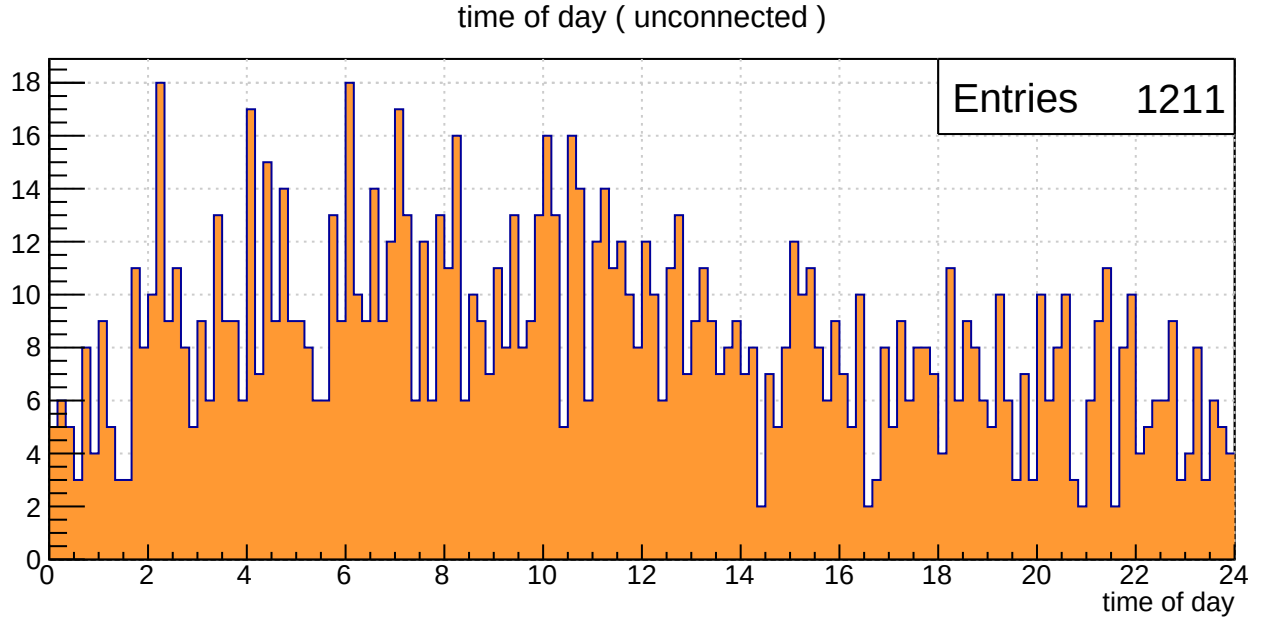
Mode 0 : **Efficiency : 0.8441 (6556 / 7767)**

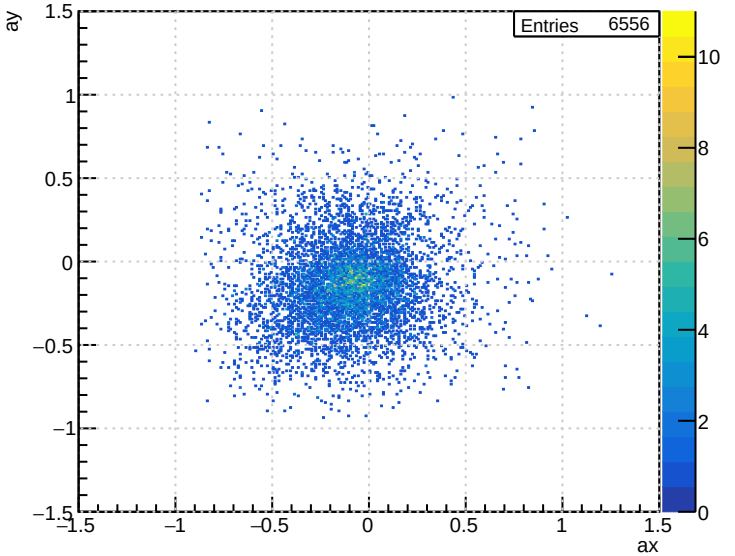
***Area selection : center of the NINJA detecter 30cm square .**

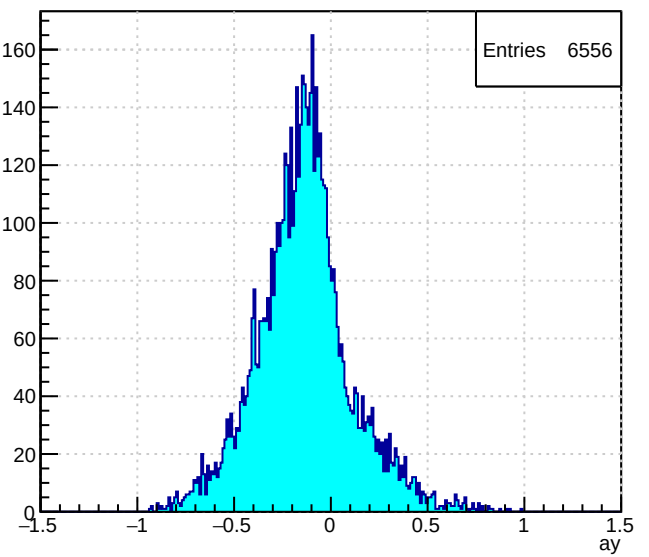

Number of events per day (connected)
Entries 6556
350
300
250
200
150
100
50
0
23/11 /2023
07/12 /2023
21/12 /2023
04/01 /2024
18/01 /2024
01/02 /2024
15/02 /2024
29/02 /2024

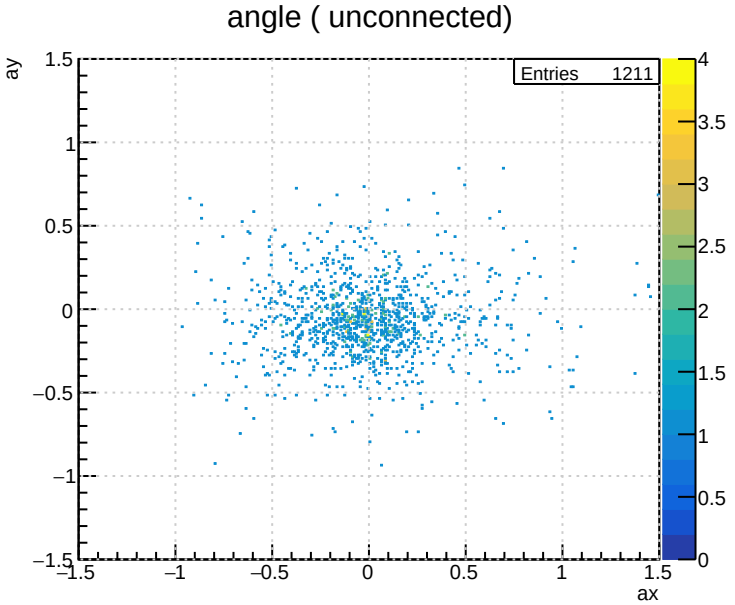

Number of events per day (unconnected)
Entries 1211
60
50
40
30
20
10
0
23/11 /2023
07/12 /2023
21/12 /2023
04/01 /2024
18/01 /2024
01/02 /2024
15/02 /2024
29/02 /2024

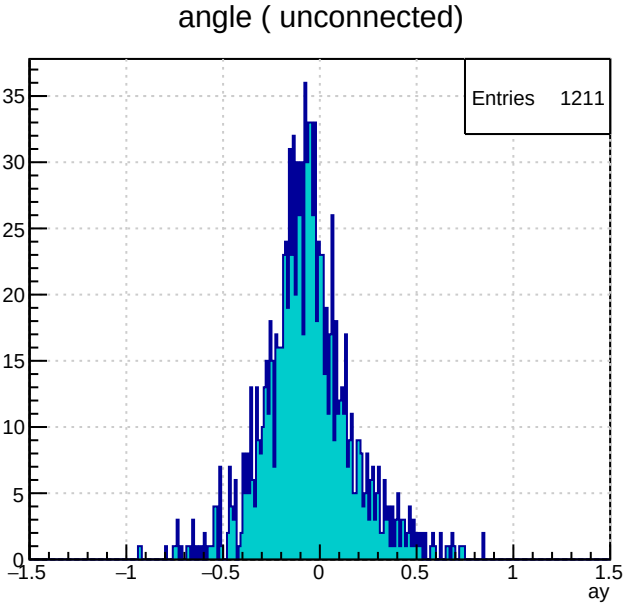

time of day (connected)
Entries 6556
time of day


time of day (unconnected)
Entries 1211
time of day

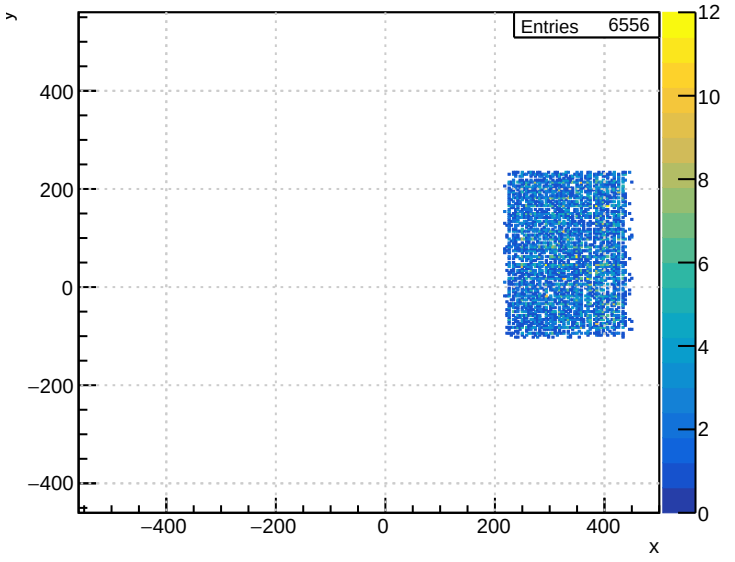

angle (connected)
Entries 6556
ay
ax


angle (connected)
Entries 6556
ay

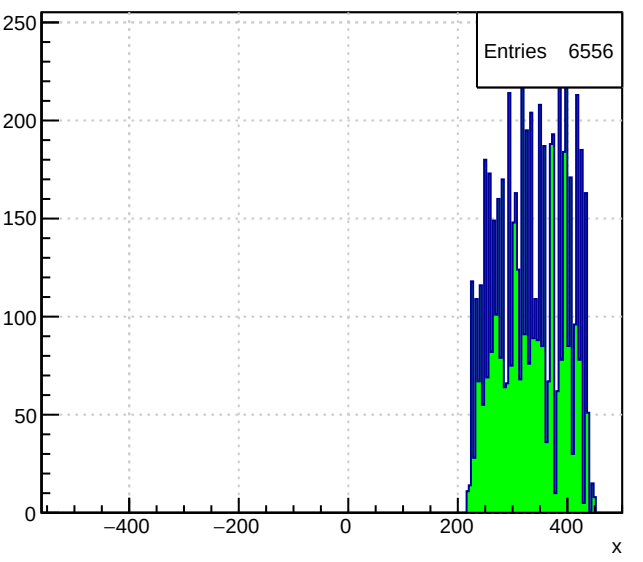

angle (unconnected)
Entries 1211
ay
ax


angle (unconnected)
Entries 1211
ay

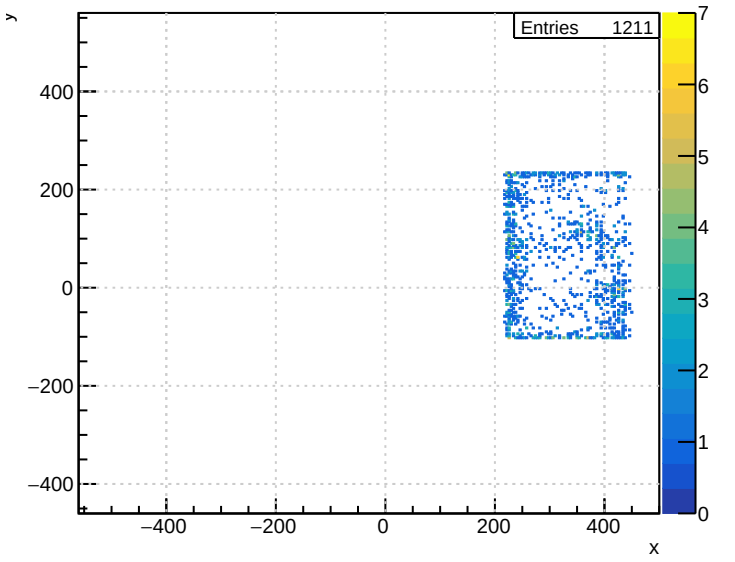
position (connected)



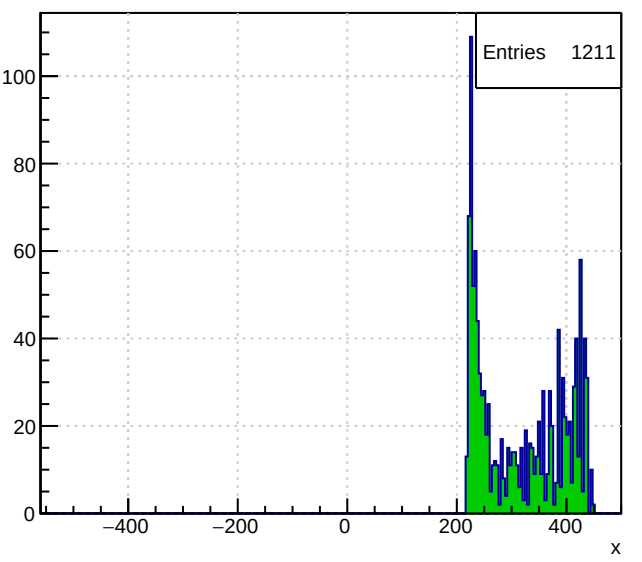
position (connected)

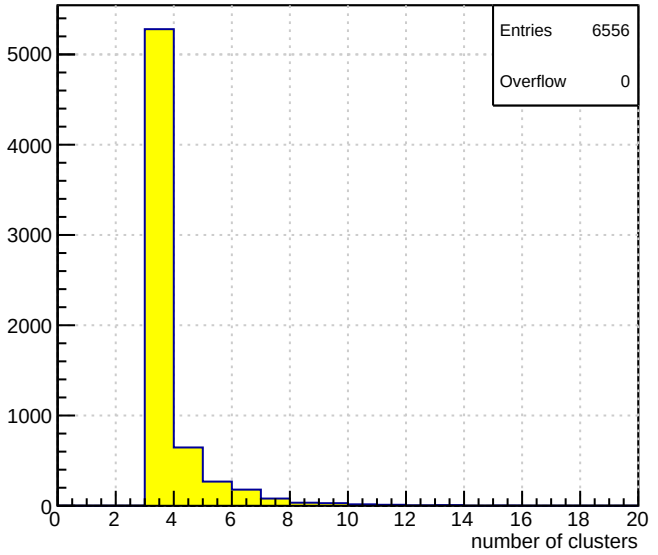


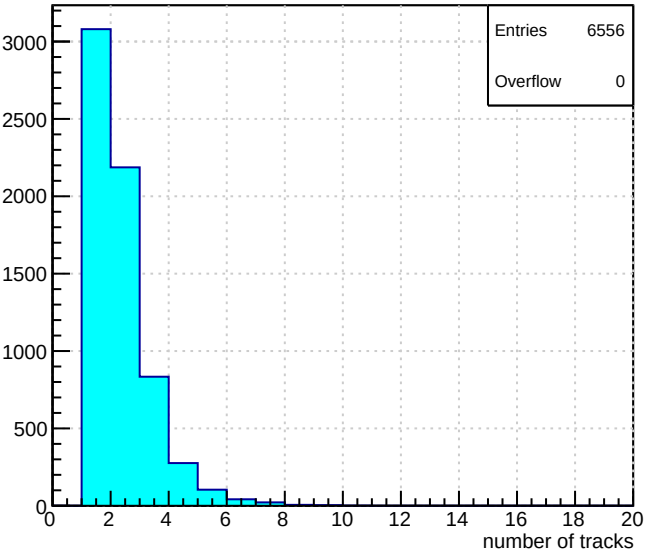
position (unconnected)

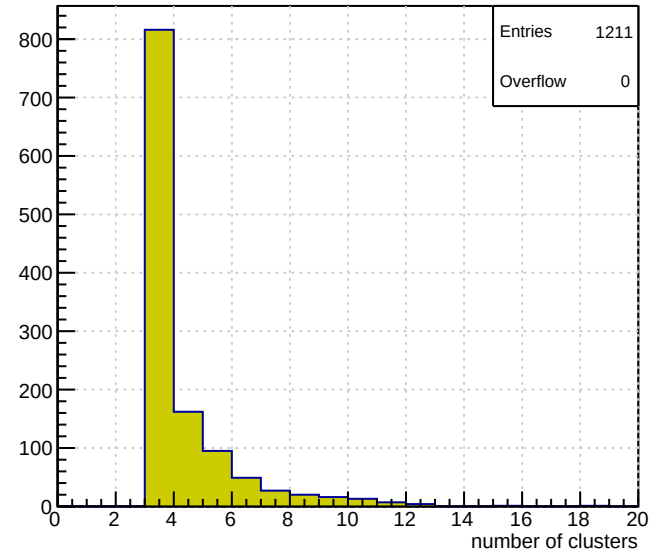


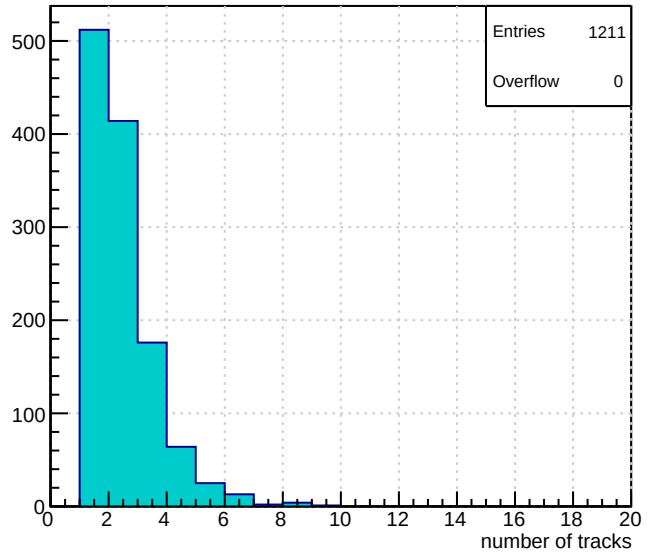
position (unconnected)

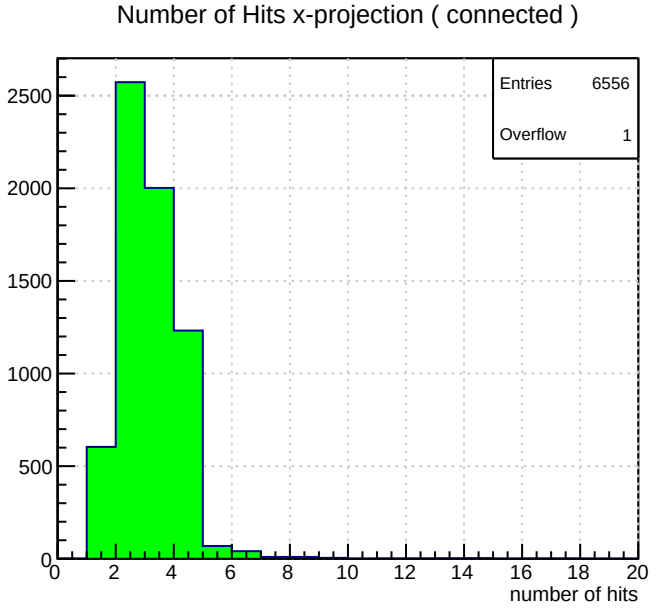


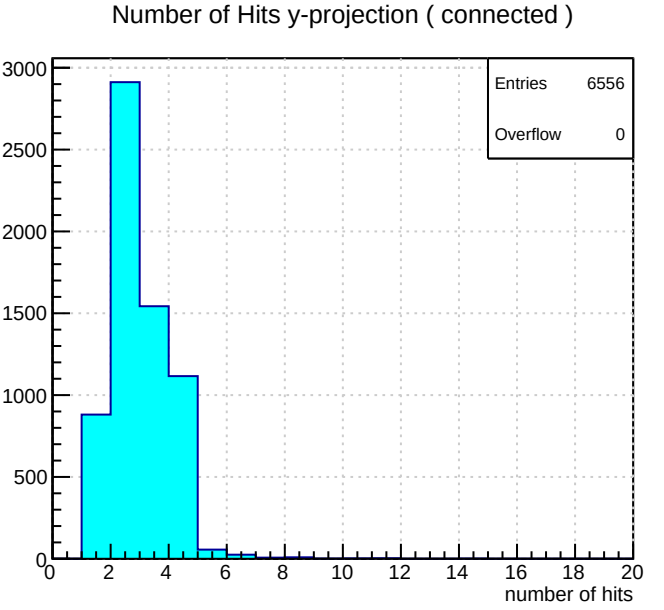

Number of Clusters (connected)
Entries 6556
Overflow 0
number of clusters

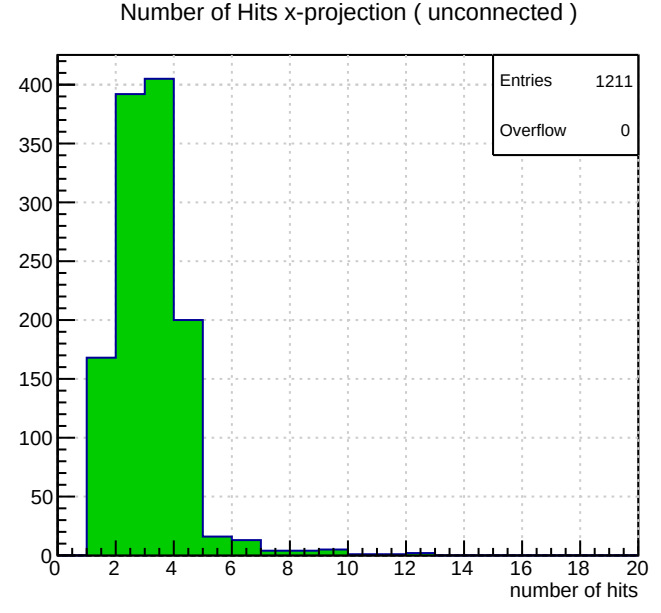

Number of BabyMIND tracks (connected)
Entries 6556
Overflow 0
number of tracks

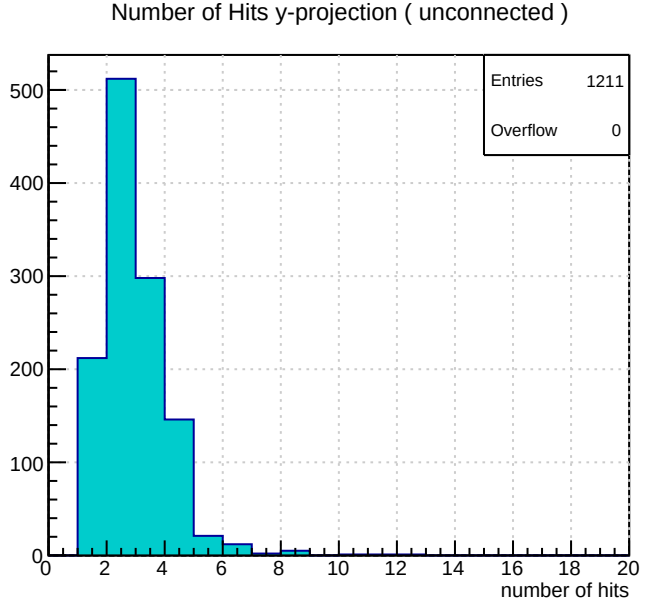

Number of Clusters (unconnected)
Entries 1211
Overflow 0
number of clusters

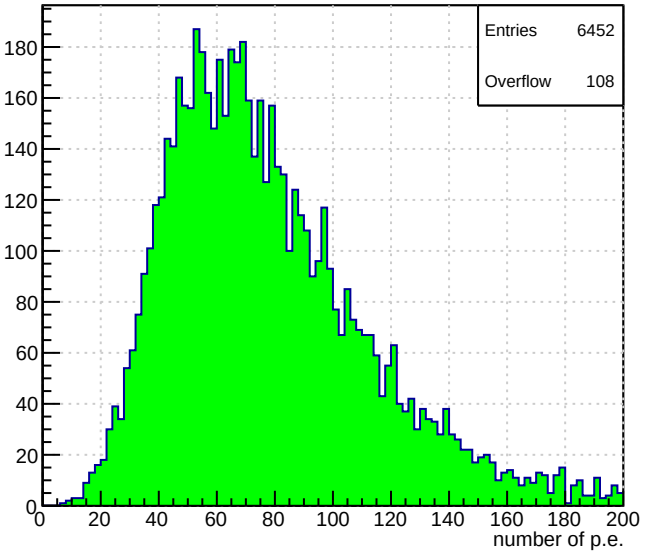

Number of BabyMIND tracks (unconnected)
Entries 1211
Overflow 0
number of tracks

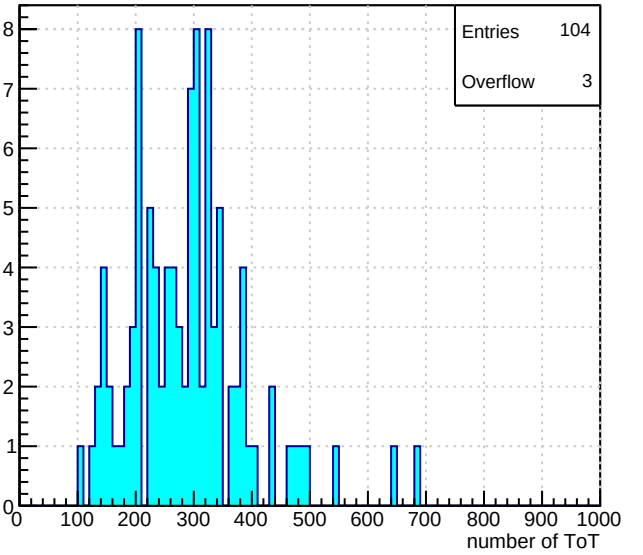

Number of Hits x-projection (connected)
Entries 6556
Overflow 1
number of hits

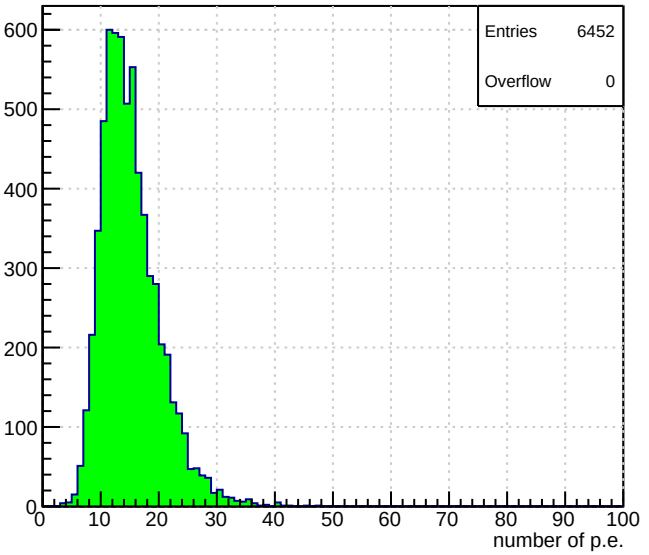

Number of Hits y-projection (connected)
Entries 6556
Overflow 0
number of hits

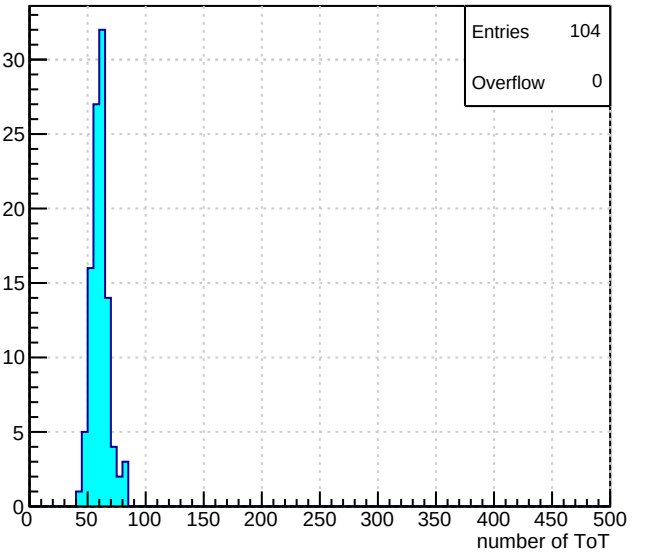

Number of Hits x-projection (unconnected)
Entries 1211
Overflow 0
number of hits

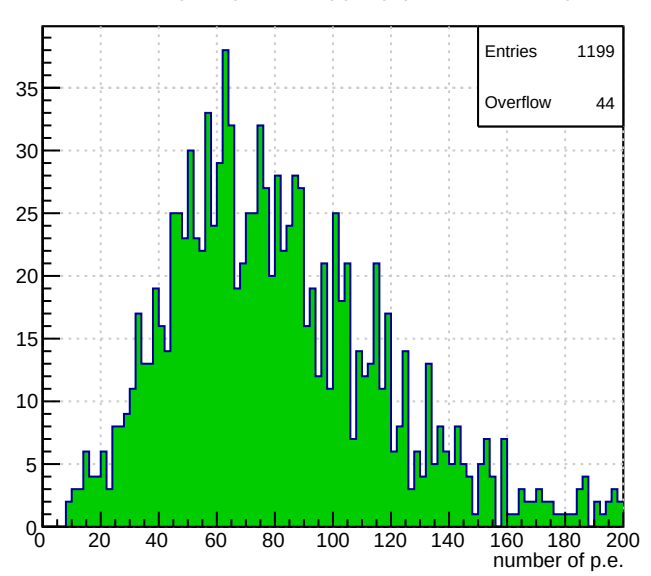

Number of Hits y-projection (unconnected)
Entries 1211
Overflow 0
number of hits

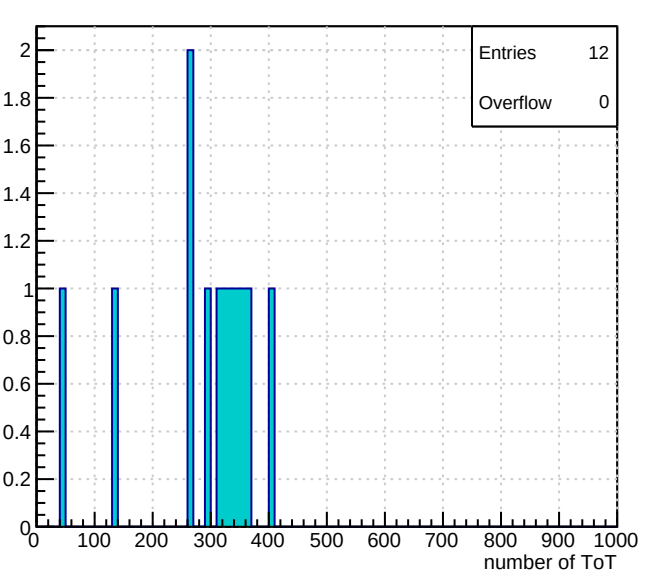

Sum of p.e. (ADC trigger) (connected)
Entries 6452
Overflow 108
number of p.e.

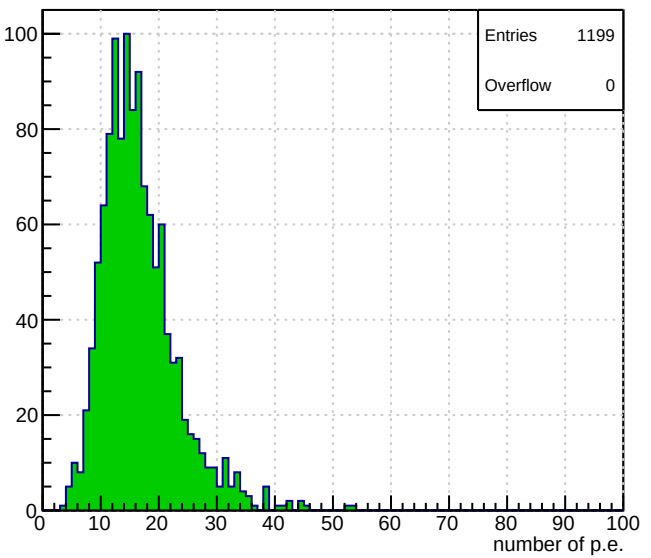

Sum of Time over Threshold (TDC trigger) (connected)
Entries 104
Overflow 3
number of ToT

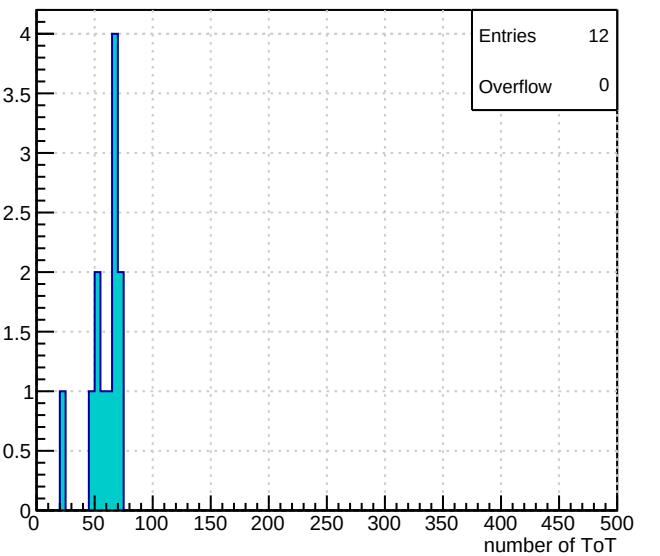

Mean of p.e. (ADC trigger) (connected)
Entries 6452
Overflow 0
number of p.e.

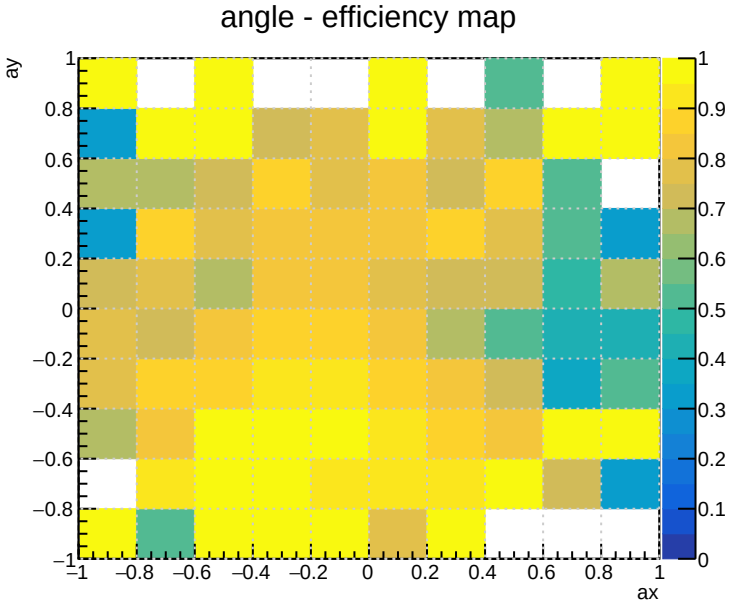

Mean of Time over Threshold (TDC trigger) (connected)
Entries 104
Overflow 0
number of ToT

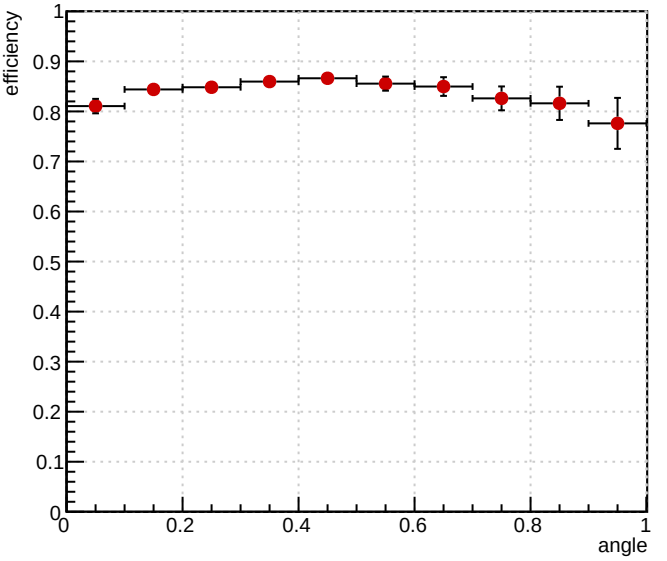

Sum of p.e. (ADC trigger) (unconnected)
Entries 1199
Overflow 44
number of p.e.

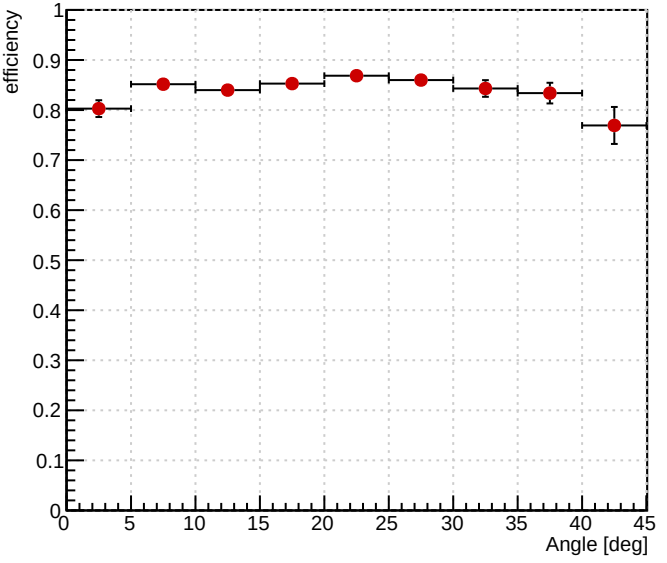

Sum of Time over Theshold (TDC trigger) (unconnected)
Entries 12
Overflow 0
number of ToT

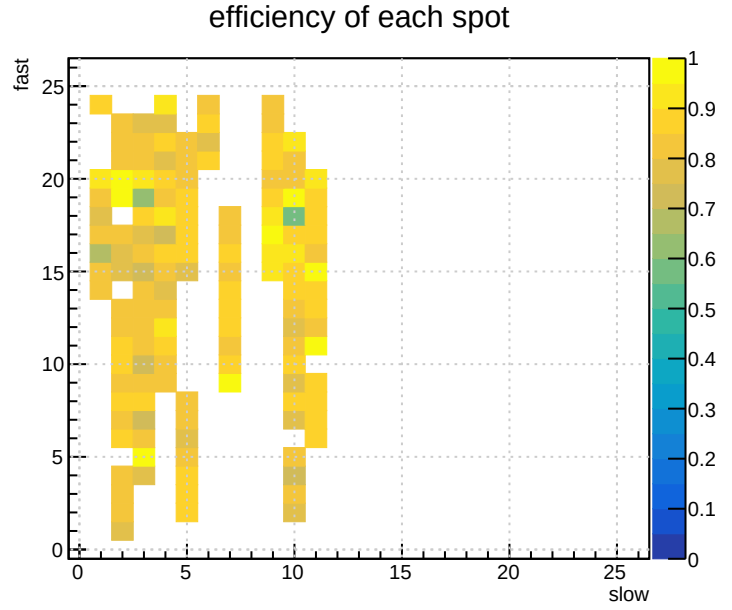

Mean of p.e. (ADC trigger) (unconnected)
Entries 1199
Overflow 0
number of p.e.


Mean of Time over Theshold (TDC trigger) (unconnected)
Entries 12
Overflow 0
number of ToT

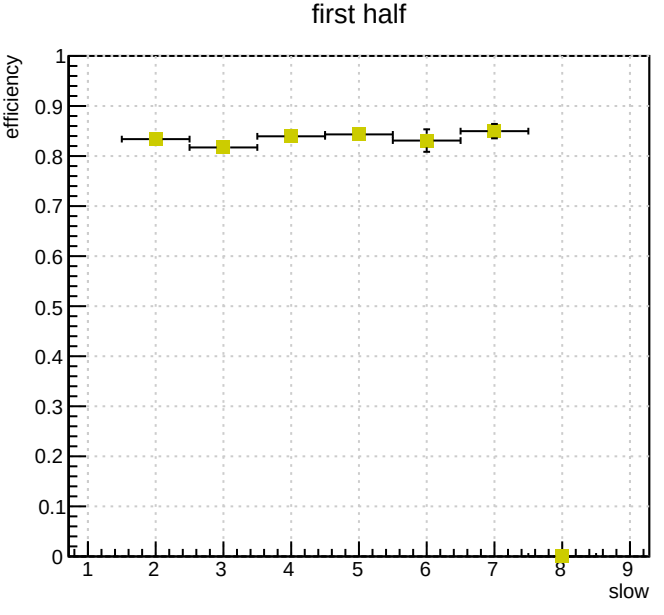

angle - efficiency map
ay
ax
1
0.8
0.6
0.4
0.2
0
−0.2
−0.4
−0.6
−0.8
−1
0.9
0.7
0.5
0.3
0.1

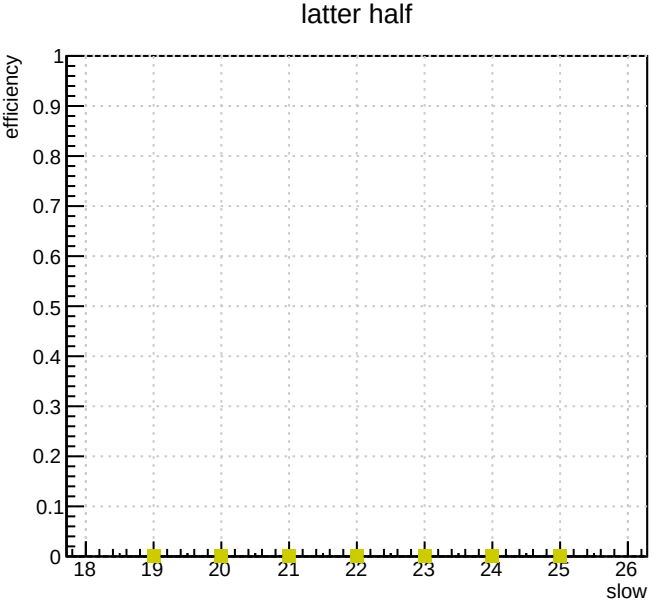

efficiency
angle
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1

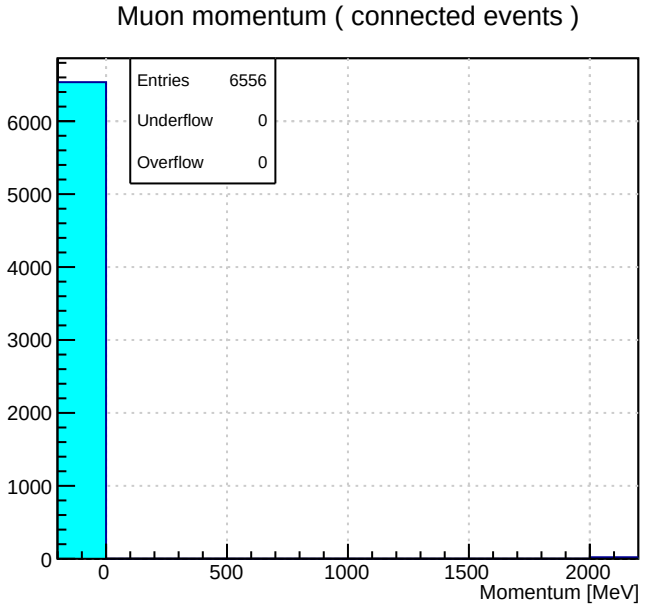

efficiency
Angle [deg]
0
5
10
15
20
25
30
35
40
45
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1

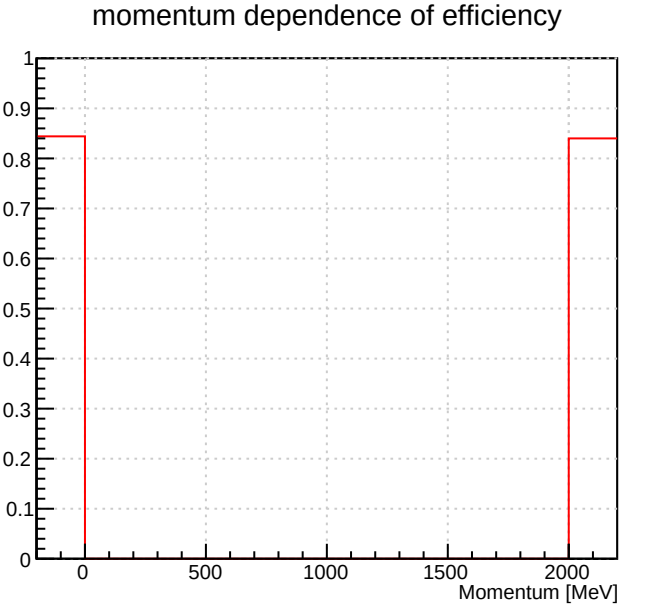

efficiency of each spot
fast
slow
0
5
10
15
20
25
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1

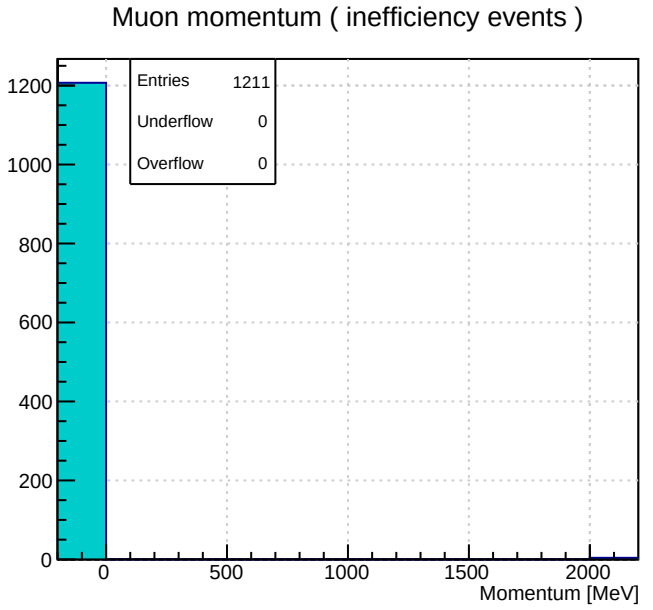
efficiency of slow spot
slow
0
5
10
15
20
25
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1

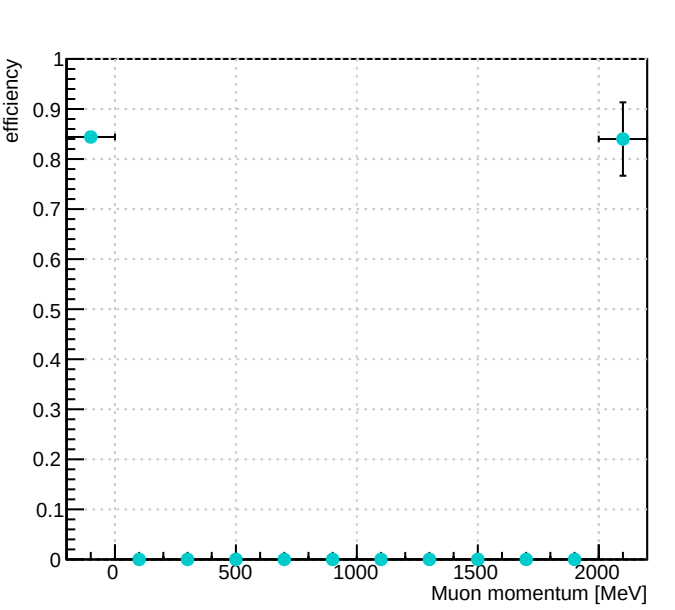

first half
efficiency
slow
1
2
3
4
5
6
7
8
9
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1


latter half
efficiency
slow
18
19
20
21
22
23
24
25
26
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1


Muon momentum (connected events)
Entries 6556
Underflow 0
Overflow 0
6000
5000
4000
3000
2000
1000
0
0
500
1000
1500
2000
Momentum [MeV]


momentum dependence of efficiency
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
0
500
1000
1500
2000
Momentum [MeV]


Muon momentum (inefficiency events)
Entries 1211
Underflow 0
Overflow 0
1200
1000
800
600
400
200
0
0
500
1000
1500
2000
Momentum [MeV]


efficiency
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
0
500
1000
1500
2000
Muon momentum [MeV]