Mode 5 : **Efficiency : -nan (0 / 0)**

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

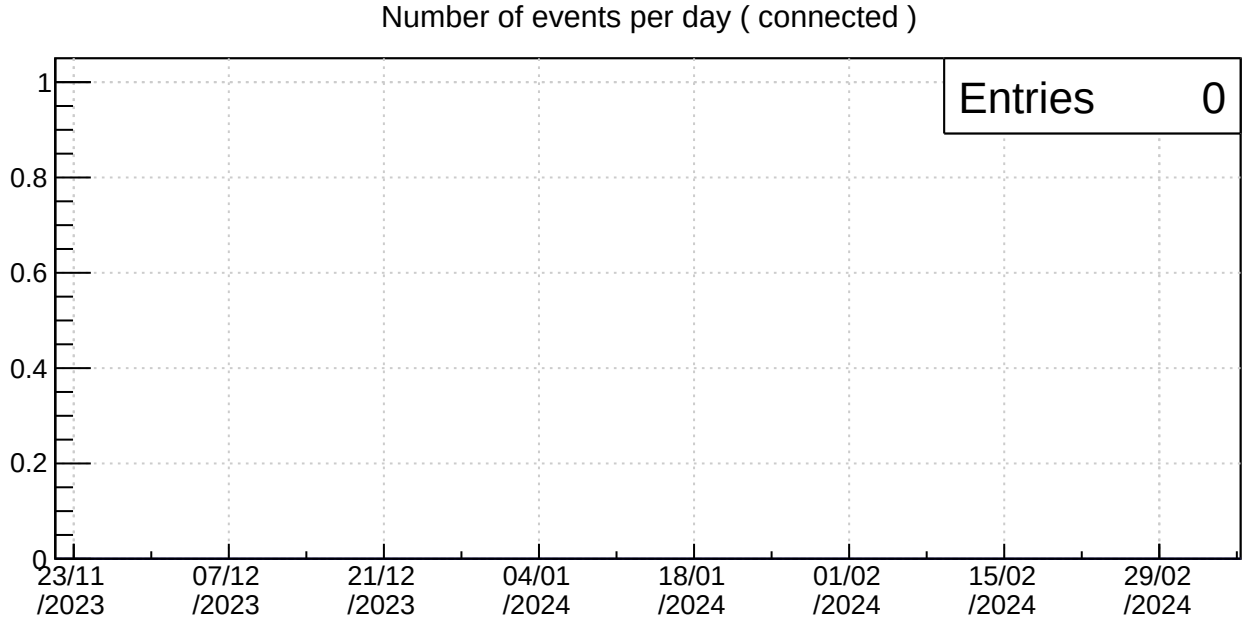
***Sand muon selection : track_type == 1 .**

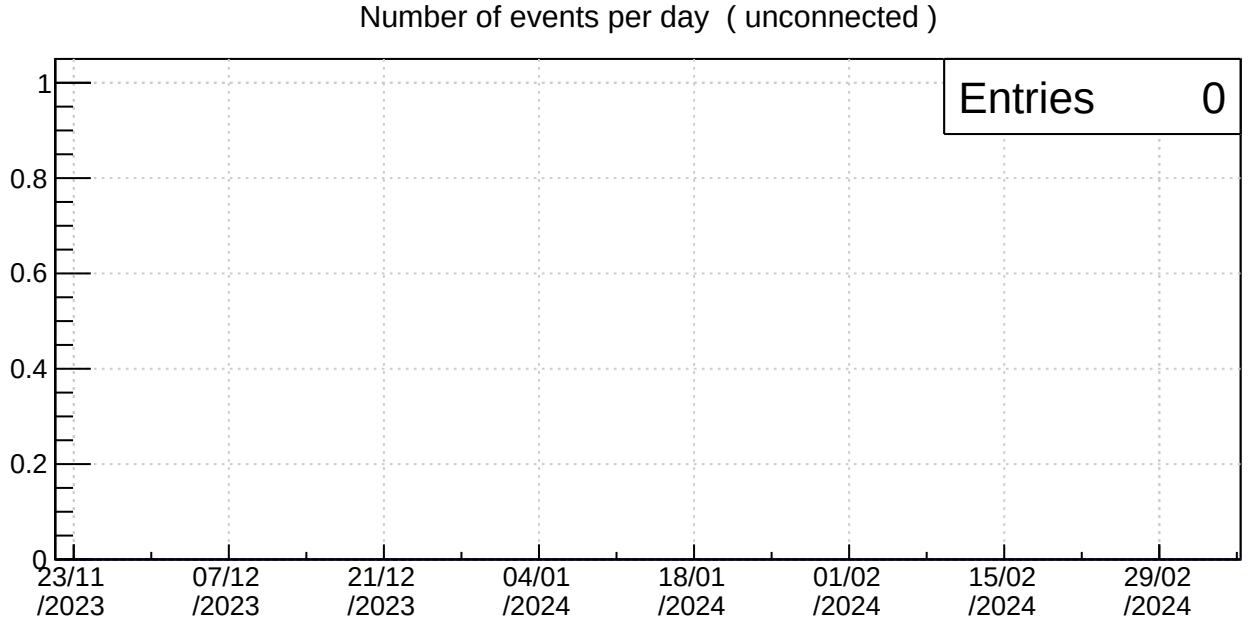
***Number of hit selection : 2 <= NoH <= 4 for both side .**

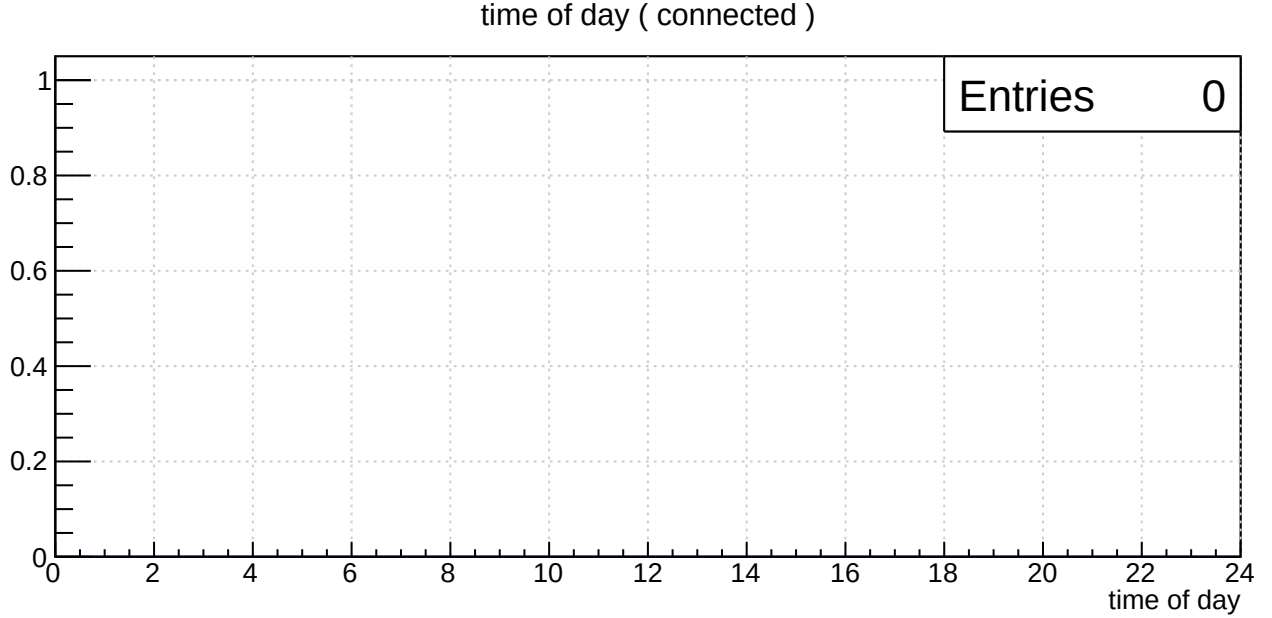
***Number of cluster selection : NoC <= 5 .**

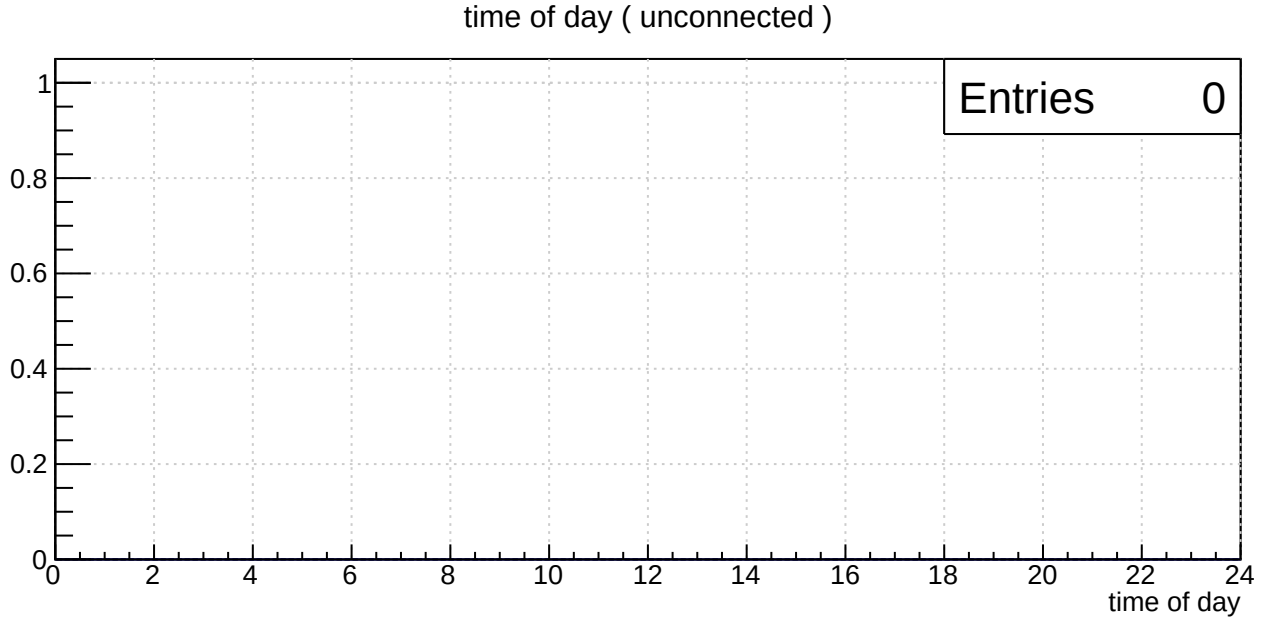
***Momentum selection : Muon momentum >= 500 .**

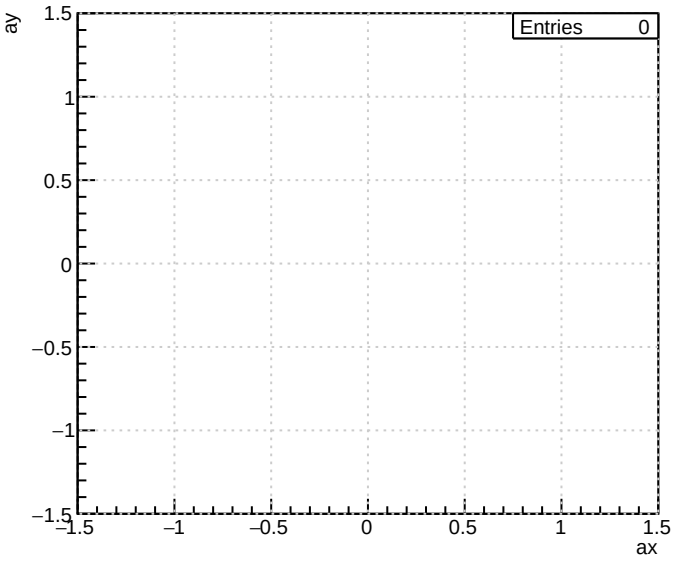
***Timing of event selection : half latter of the beam time .**

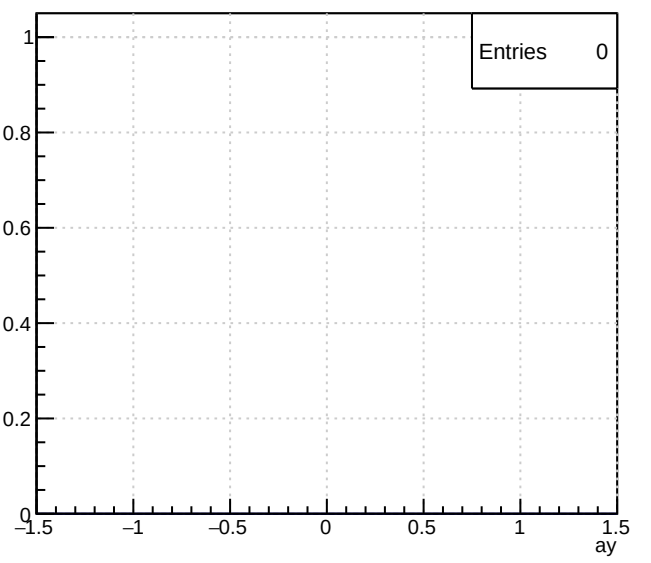

Number of events per day (connected)
Entries 0
1
0.8
0.6
0.4
0.2
0
23/11 /2023
07/12 /2023
21/12 /2023
04/01 /2024
18/01 /2024
01/02 /2024
15/02 /2024
29/02 /2024

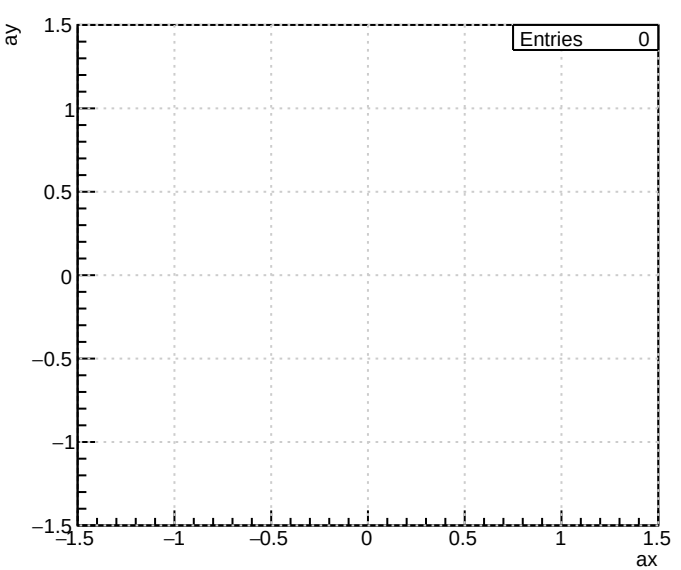

Number of events per day (unconnected)
Entries 0
1
0.8
0.6
0.4
0.2
0
23/11 /2023
07/12 /2023
21/12 /2023
04/01 /2024
18/01 /2024
01/02 /2024
15/02 /2024
29/02 /2024

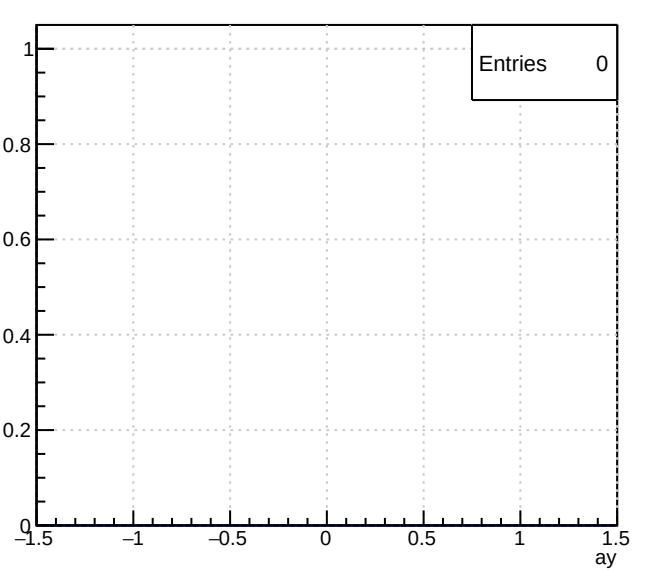

time of day (connected)
Entries 0
1
0.8
0.6
0.4
0.2
0
0 2 4 6 8 10 12 14 16 18 20 22 24
time of day


time of day (unconnected)
Entries 0
1
0.8
0.6
0.4
0.2
0
0 2 4 6 8 10 12 14 16 18 20 22 24
time of day

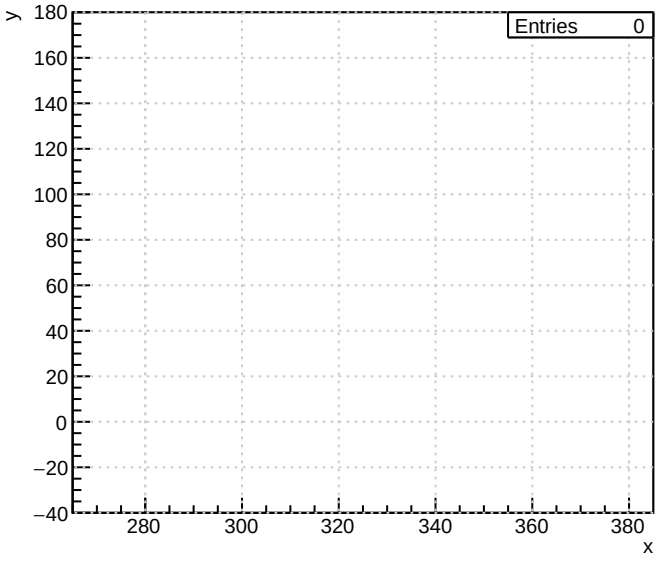

angle (connected)
Entries 0
ay
ax
1.5
1
0.5
0
−0.5
−1
−1.5
−1.5
−1
−0.5
0
0.5
1
1.5


angle (connected)
Entries 0
ay
1
0.8
0.6
0.4
0.2
0
−1.5
−1
−0.5
0
0.5
1
1.5

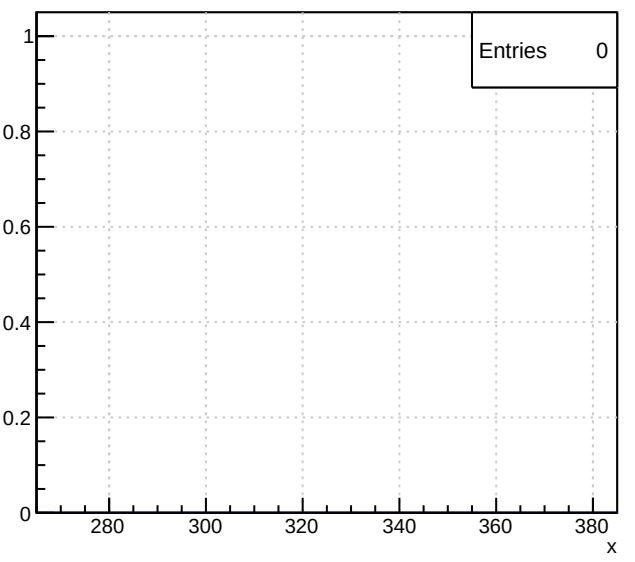

angle (unconnected)
Entries 0
ay
ax
1.5
1
0.5
0
−0.5
−1
−1.5
−1.5
−1
−0.5
0
0.5
1
1.5


angle (unconnected)
Entries 0
ay
1
0.8
0.6
0.4
0.2
0
−1.5
−1
−0.5
0
0.5
1
1.5

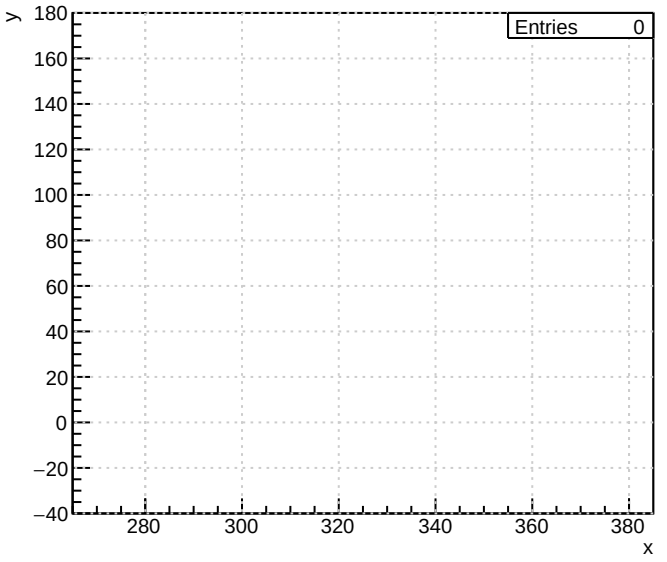
position (connected)



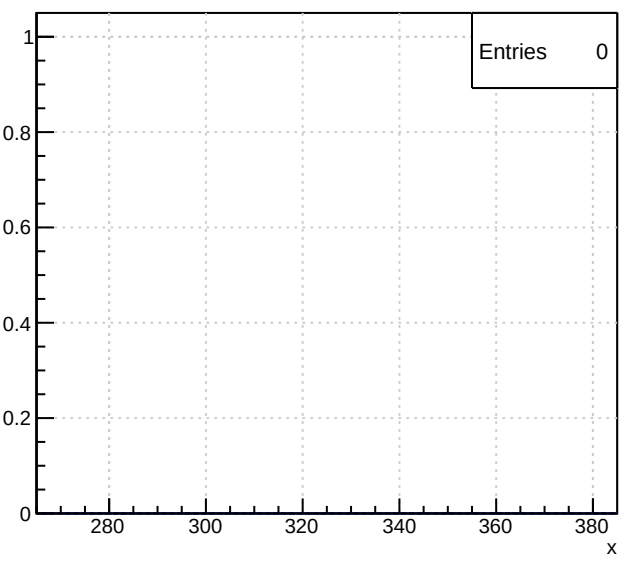
position (connected)

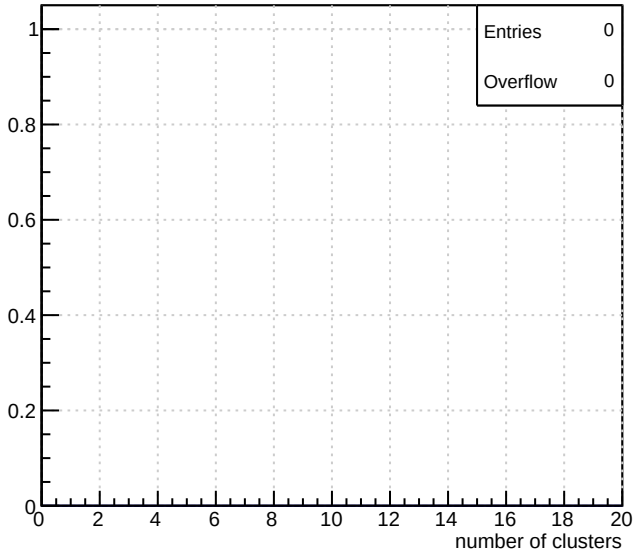


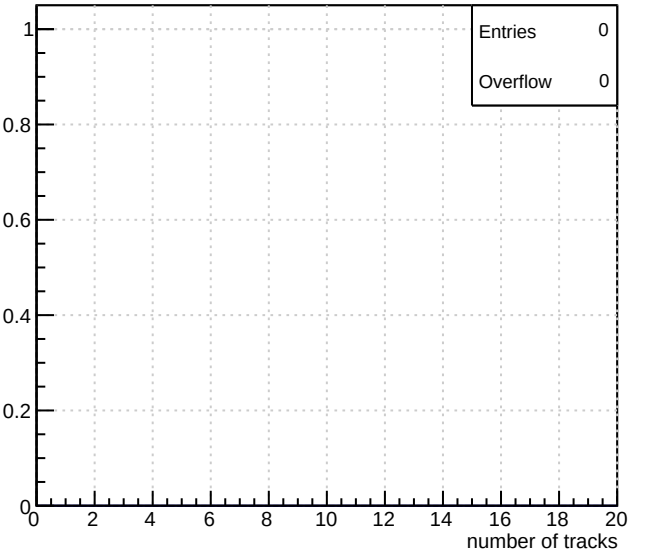
position (unconnected)

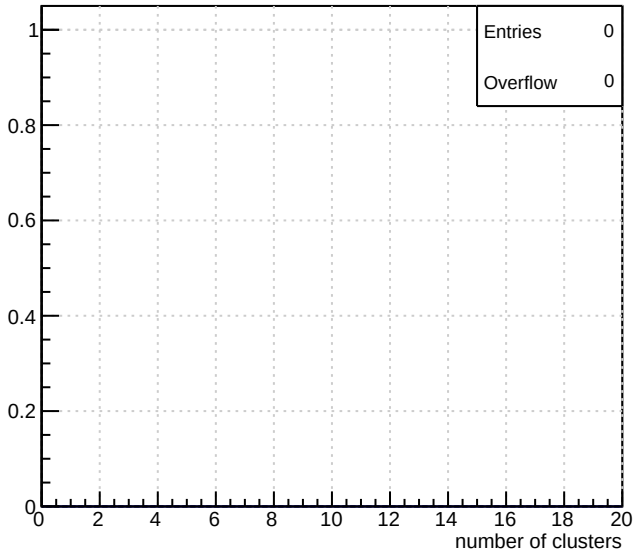


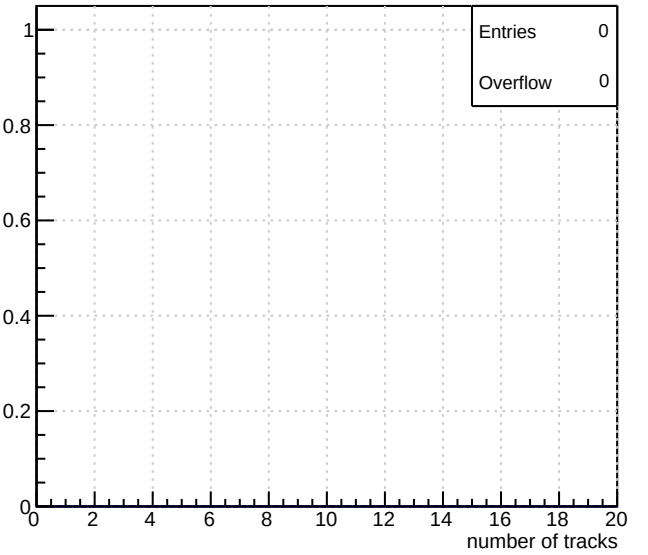
position (unconnected)



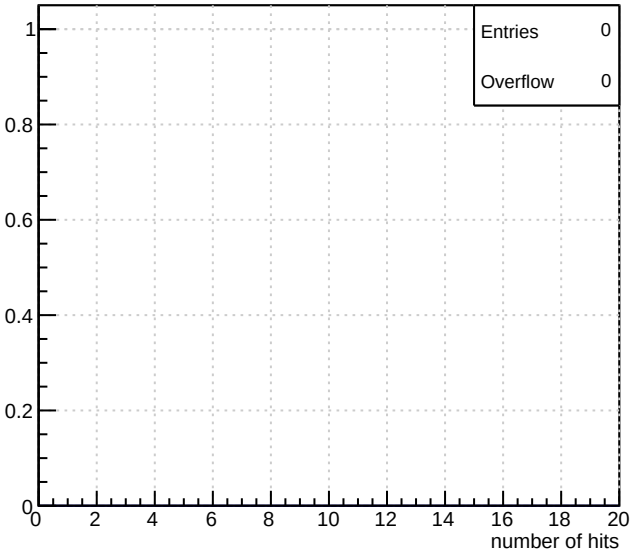

Number of Clusters (connected)
Entries 0
Overflow 0
number of clusters


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

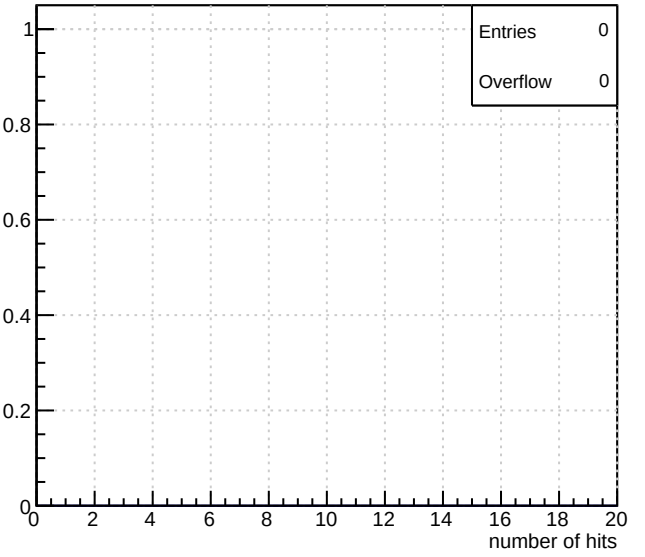

Number of Clusters (unconnected)
Entries 0
Overflow 0
number of clusters


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

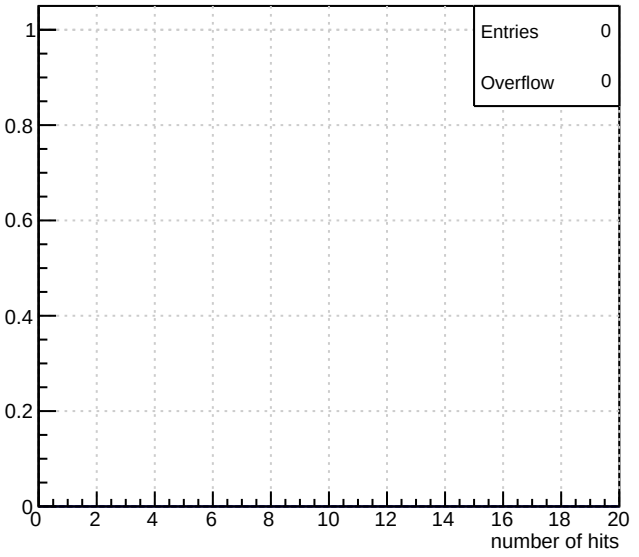
Number of Hits x-projection (connected)



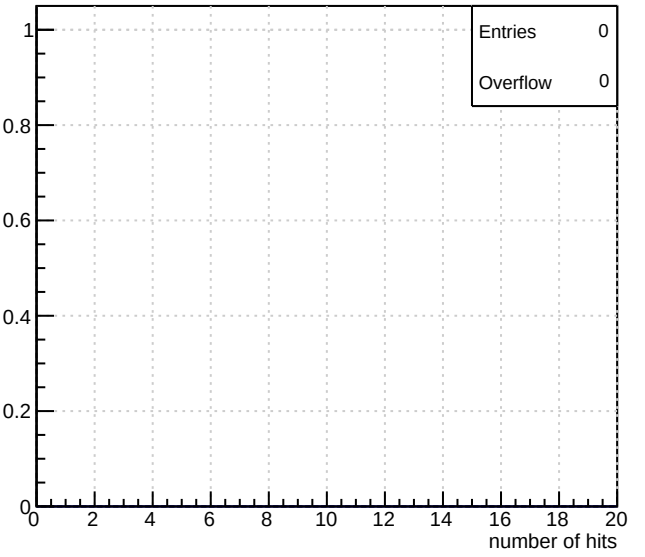
Number of Hits y-projection (connected)

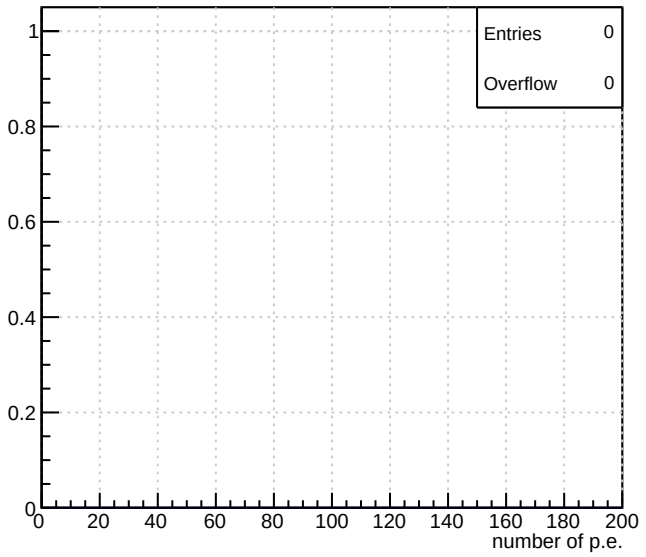


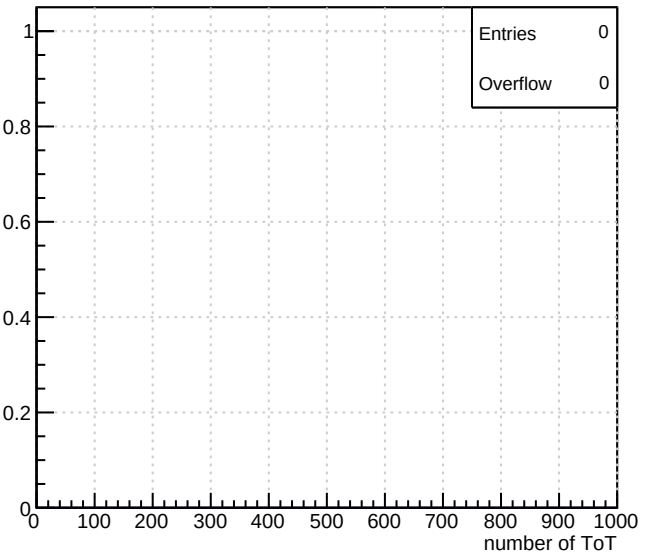
Number of Hits x-projection (unconnected)

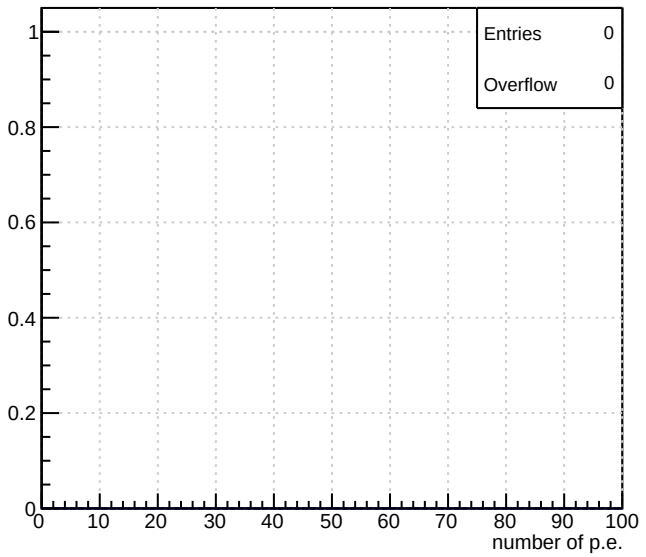


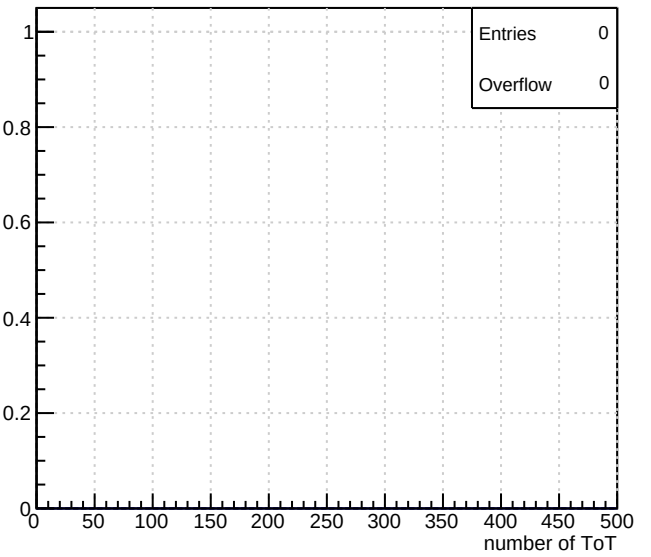
Number of Hits y-projection (unconnected)

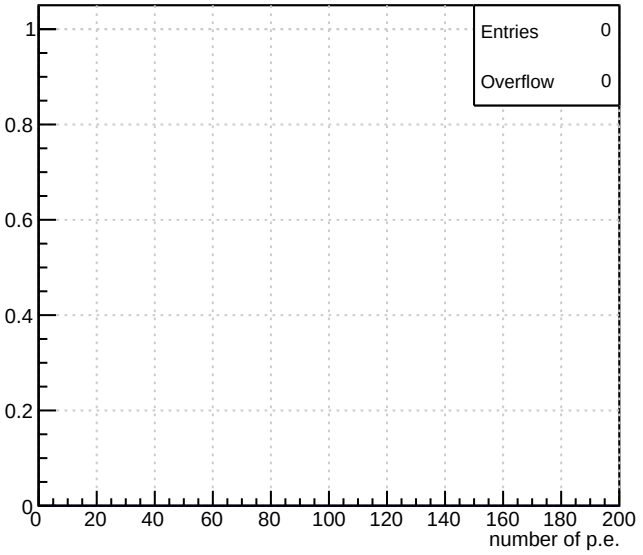


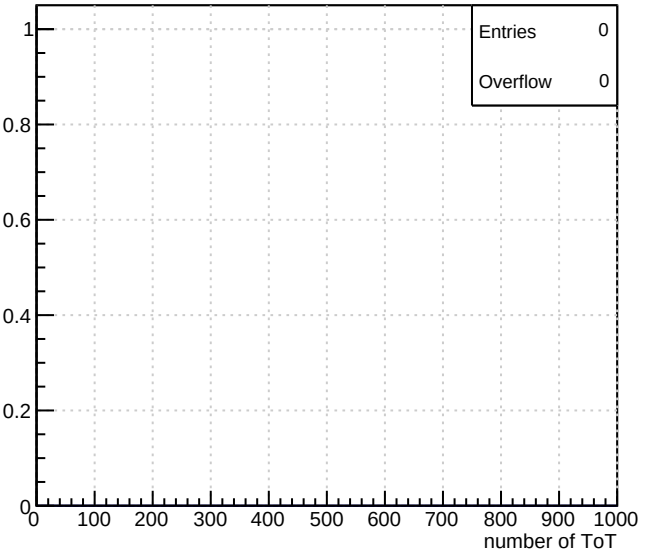

Sum of p.e. (ADC trigger) (connected)
Entries 0
Overflow 0
number of p.e.

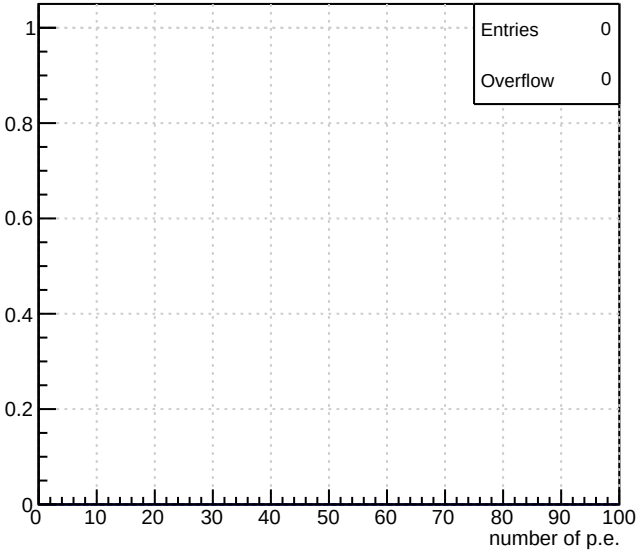

Sum of Time over Threshold (TDC trigger) (connected)
Entries 0
Overflow 0
number of ToT

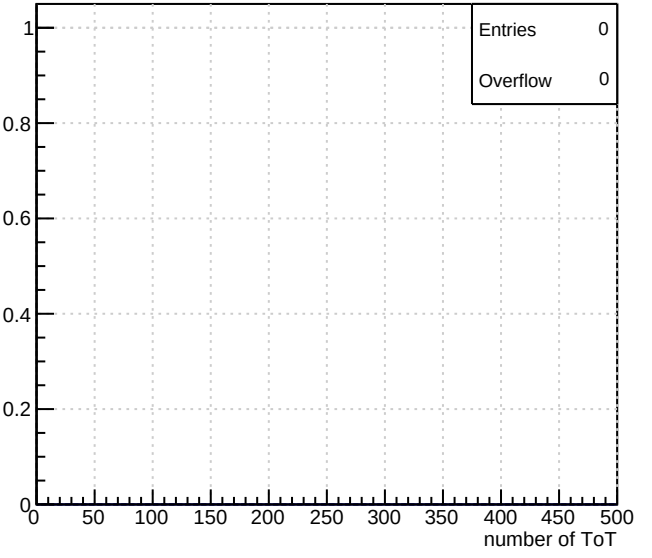

Mean of p.e. (ADC trigger) (connected)
Entries 0
Overflow 0
number of p.e.

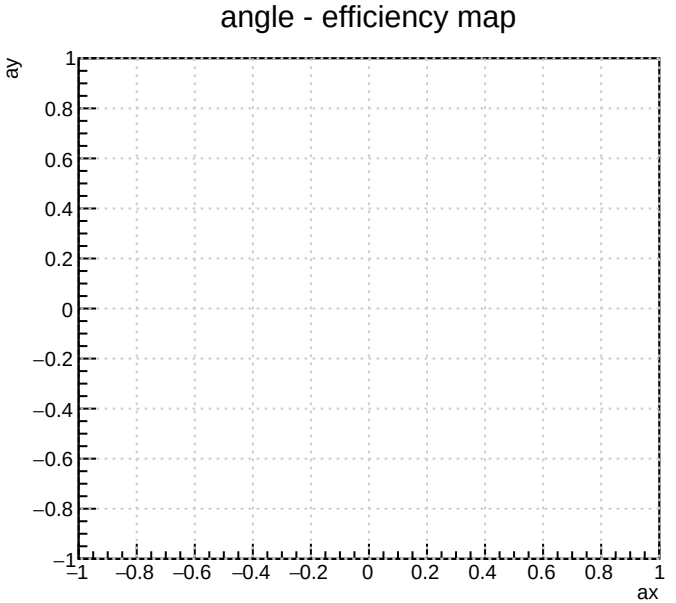

Mean of Time over Threshold (TDC trigger) (connected)
Entries 0
Overflow 0
number of ToT

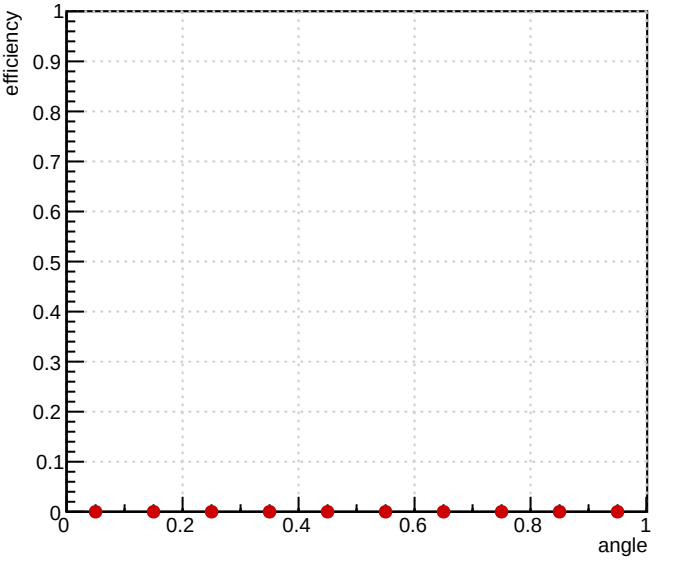

Sum of p.e. (ADC trigger) (unconnected)
Entries 0
Overflow 0
number of p.e.

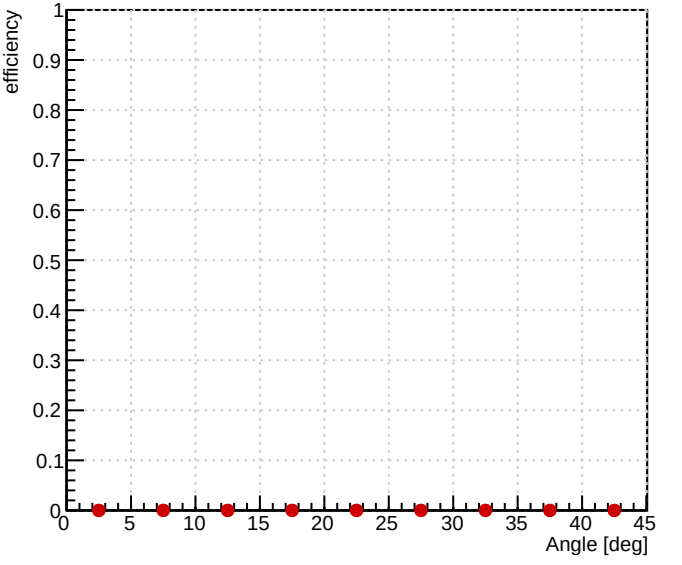

Sum of Time over Theshold (TDC trigger) (unconnected)
Entries 0
Overflow 0
number of ToT

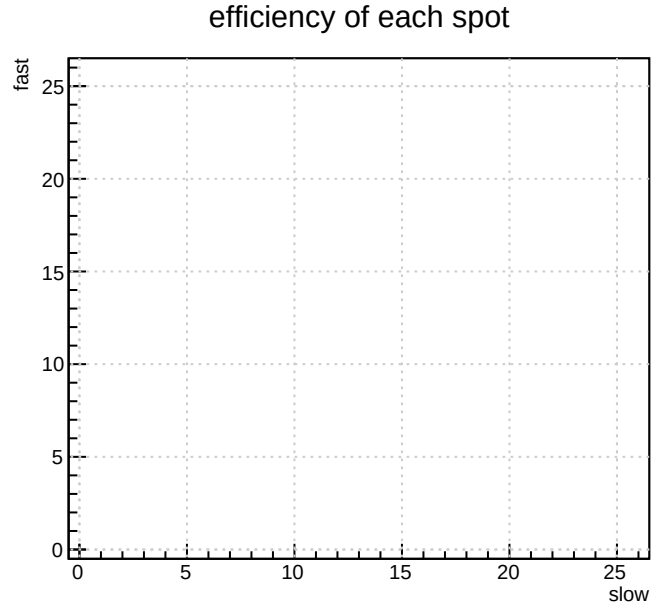

Mean of p.e. (ADC trigger) (unconnected)
Entries 0
Overflow 0
number of p.e.

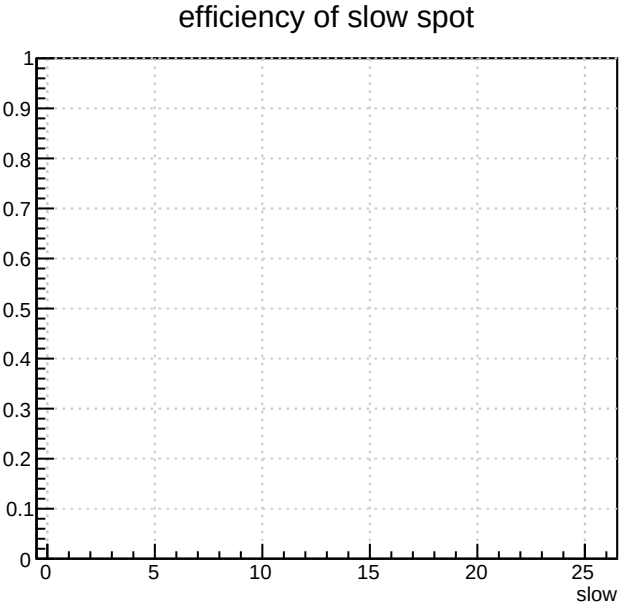

Mean of Time over Theshold (TDC trigger) (unconnected)
Entries 0
Overflow 0
number of ToT

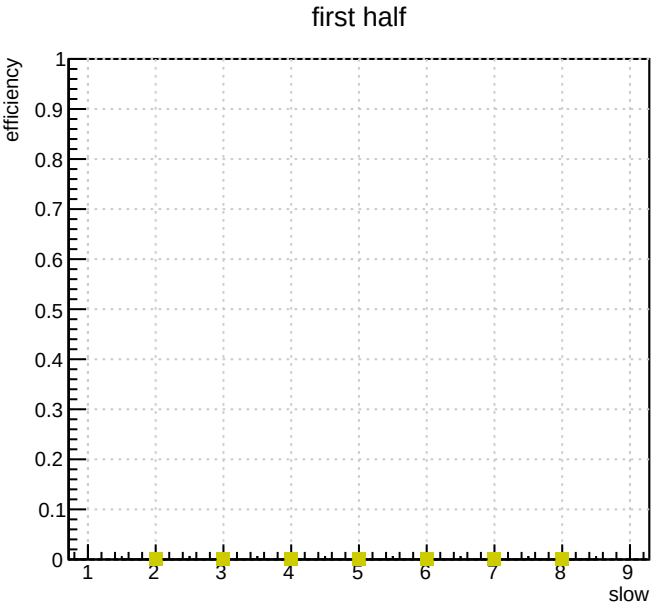

angle - efficiency map
ay
ax
1
0.8
0.6
0.4
0.2
0
−0.2
−0.4
−0.6
−0.8
−1
−1
−0.8
−0.6
−0.4
−0.2
0
0.2
0.4
0.6
0.8
1

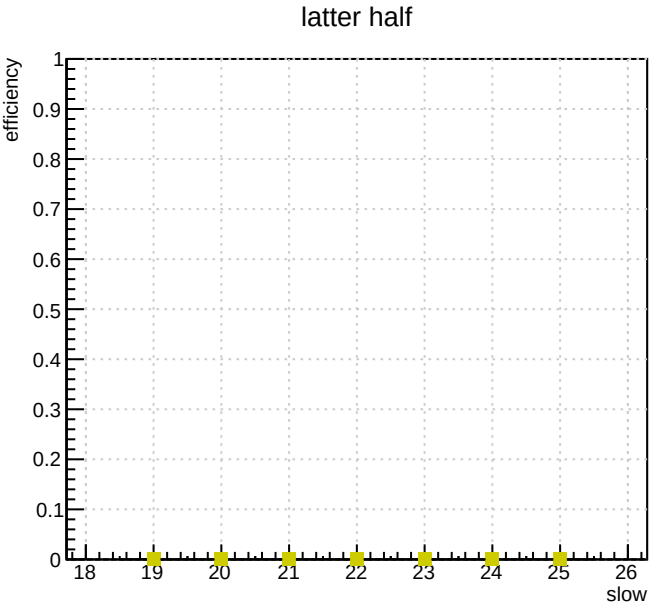

efficiency
angle
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
0
0.2
0.4
0.6
0.8
1

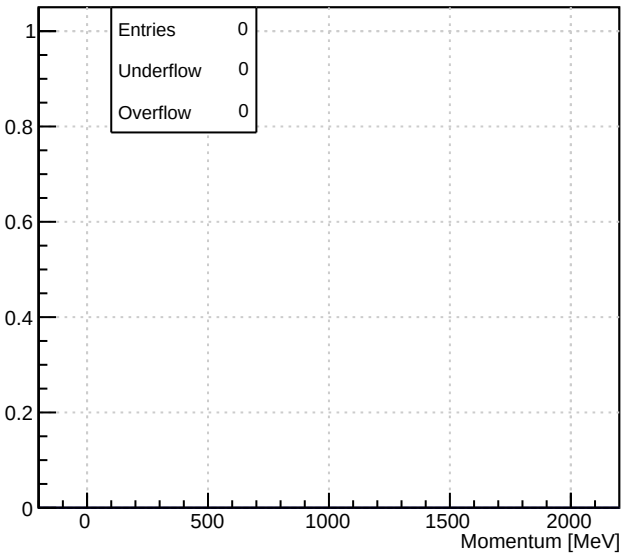

efficiency
Angle [deg]
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
0
5
10
15
20
25
30
35
40
45

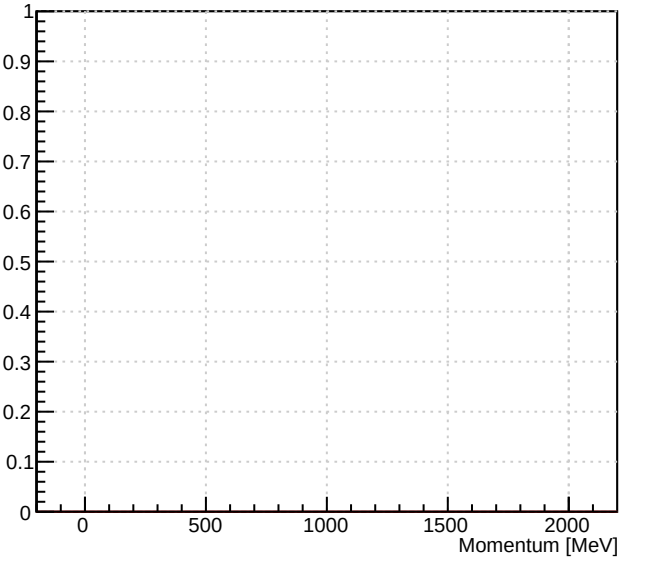

efficiency of each spot
fast
slow
0
5
10
15
20
25

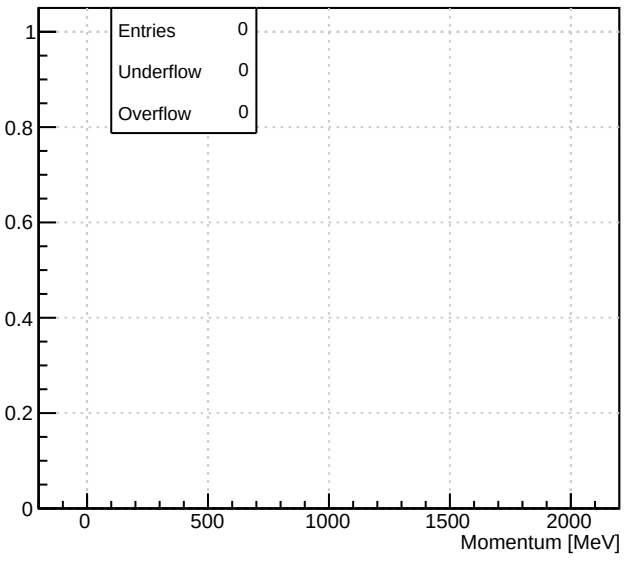

efficiency of slow spot
slow
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
0
5
10
15
20
25

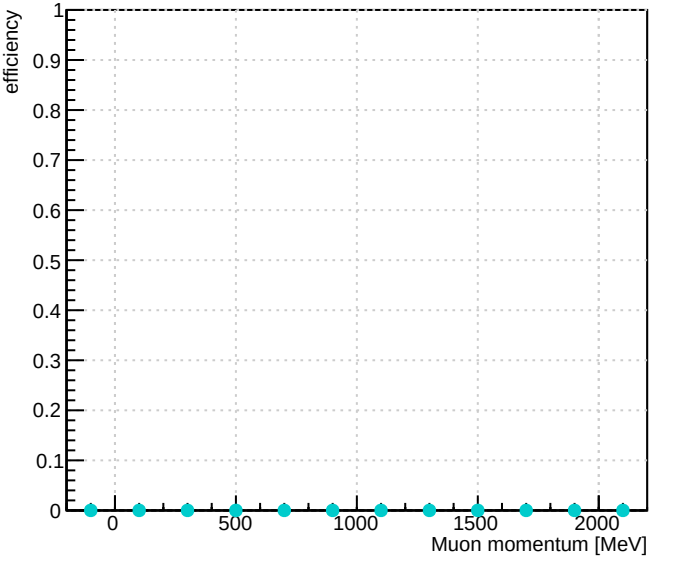

first half
efficiency
slow
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
1
2
3
4
5
6
7
8
9


latter half
efficiency
slow
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
0.9
1
18
19
20
21
22
23
24
25
26


Muon momentum (connected events)
Entries 0
Underflow 0
Overflow 0
0
0.2
0.4
0.6
0.8
1
0
500
1000
1500
2000
Momentum [MeV]


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


Muon momentum (inefficiency events)
Entries 0
Underflow 0
Overflow 0
0
0.2
0.4
0.6
0.8
1
0
500
1000
1500
2000
Momentum [MeV]


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