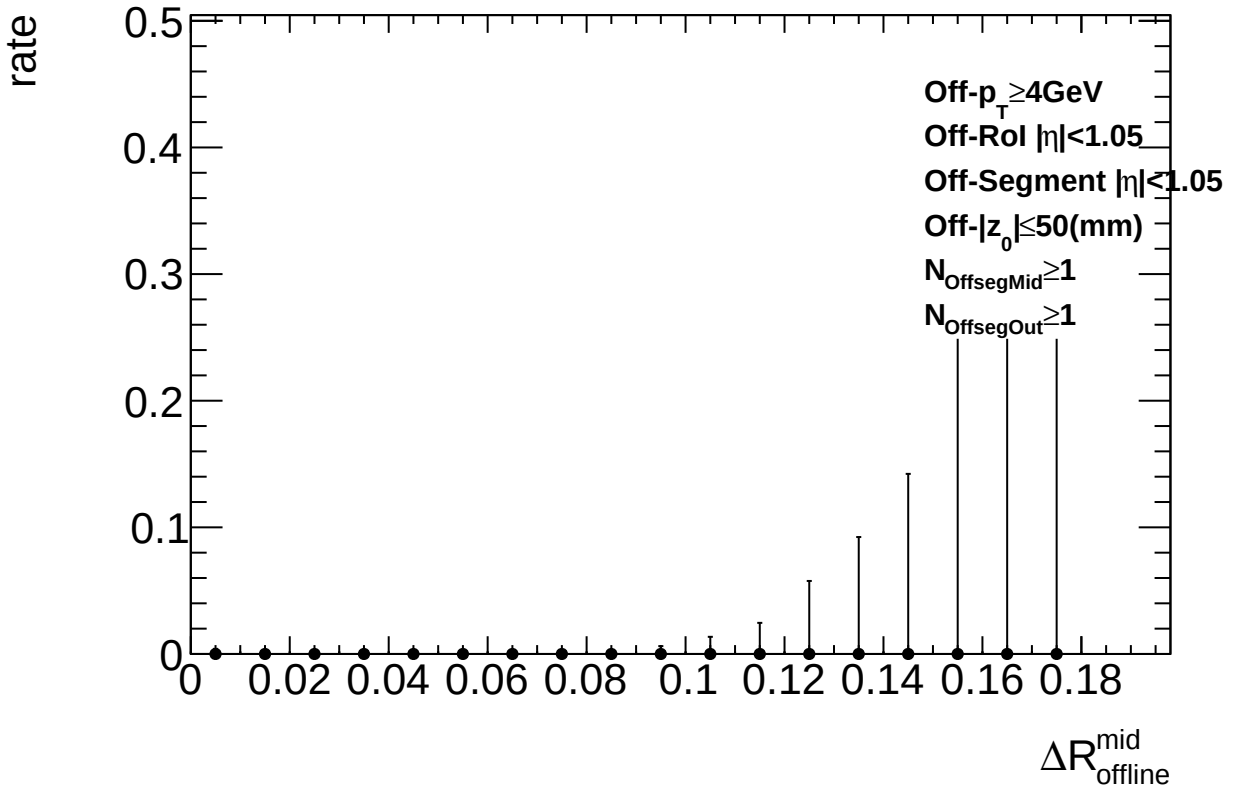
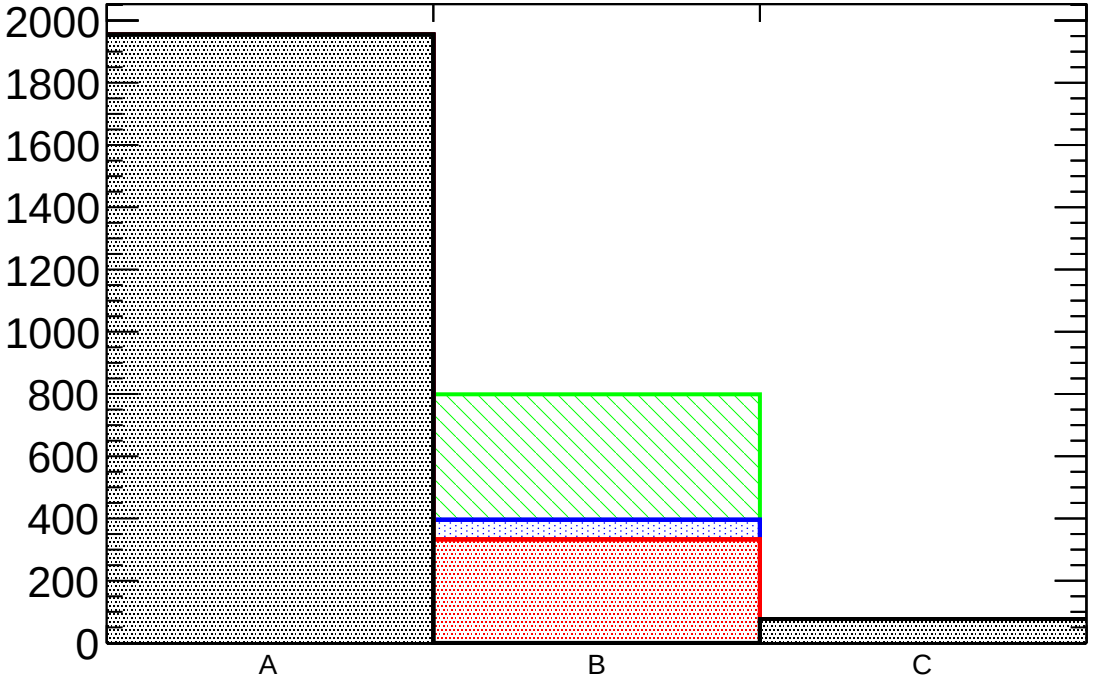
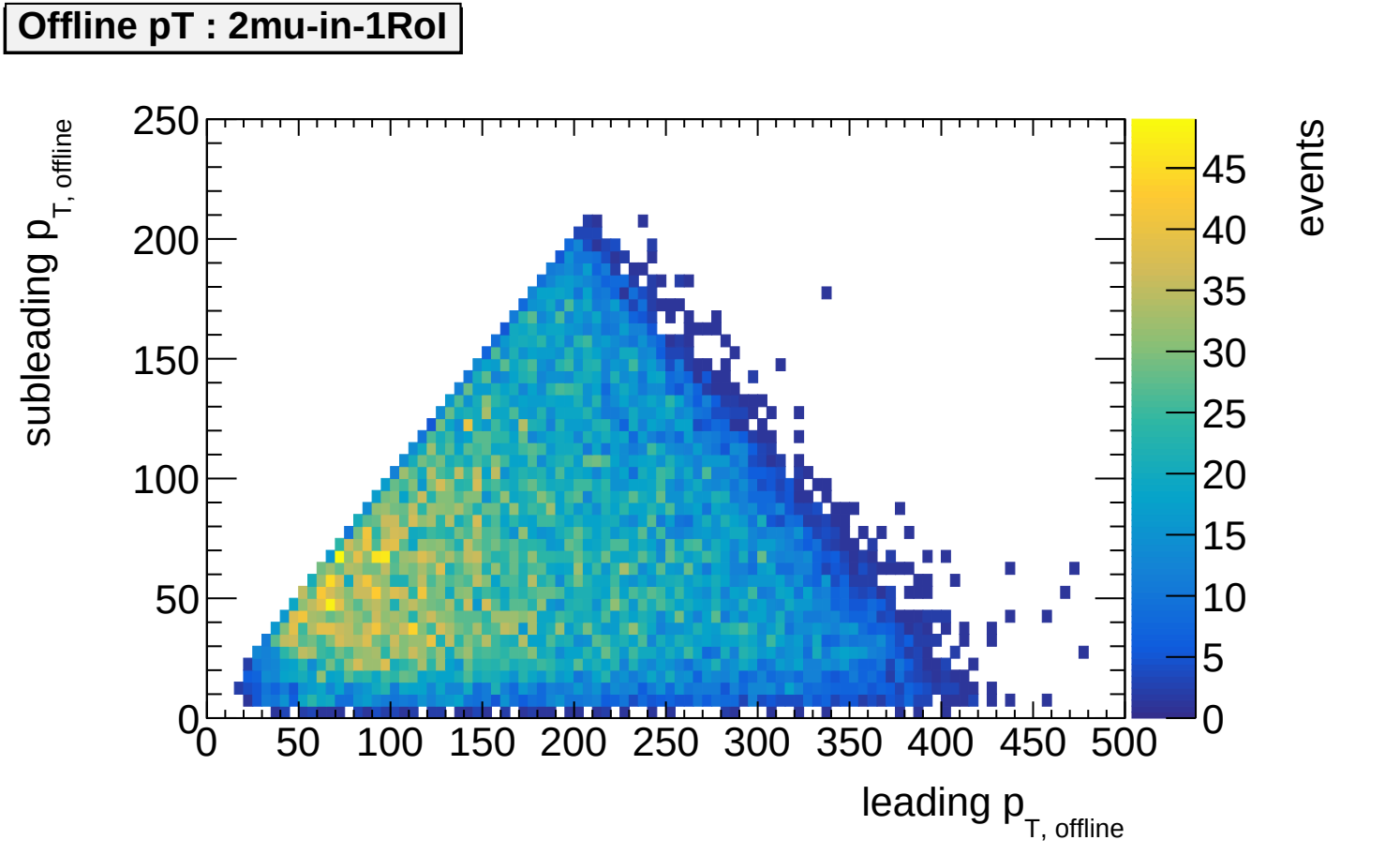
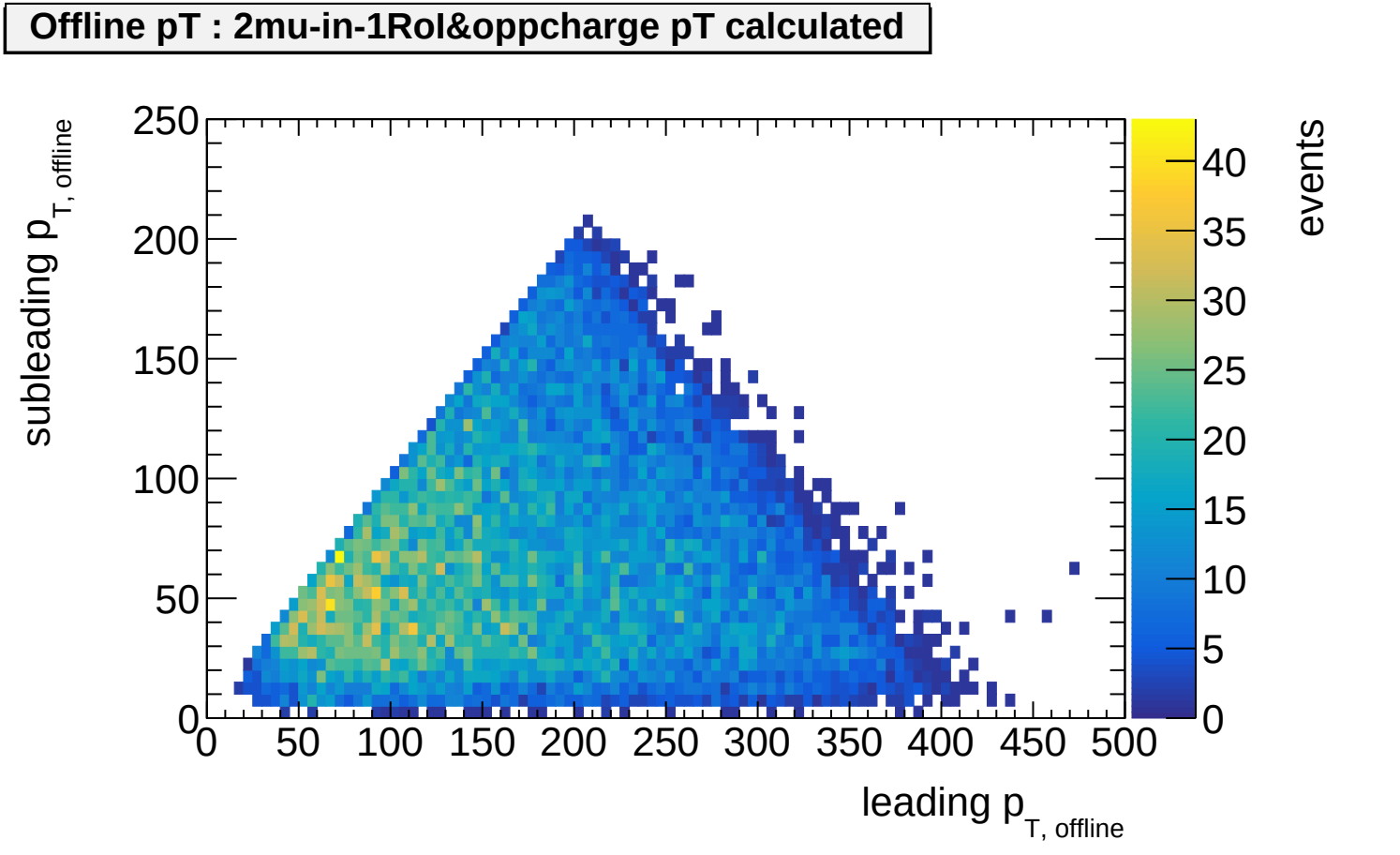
Rate of isMoreCandinRoI=true events !barrel event only!

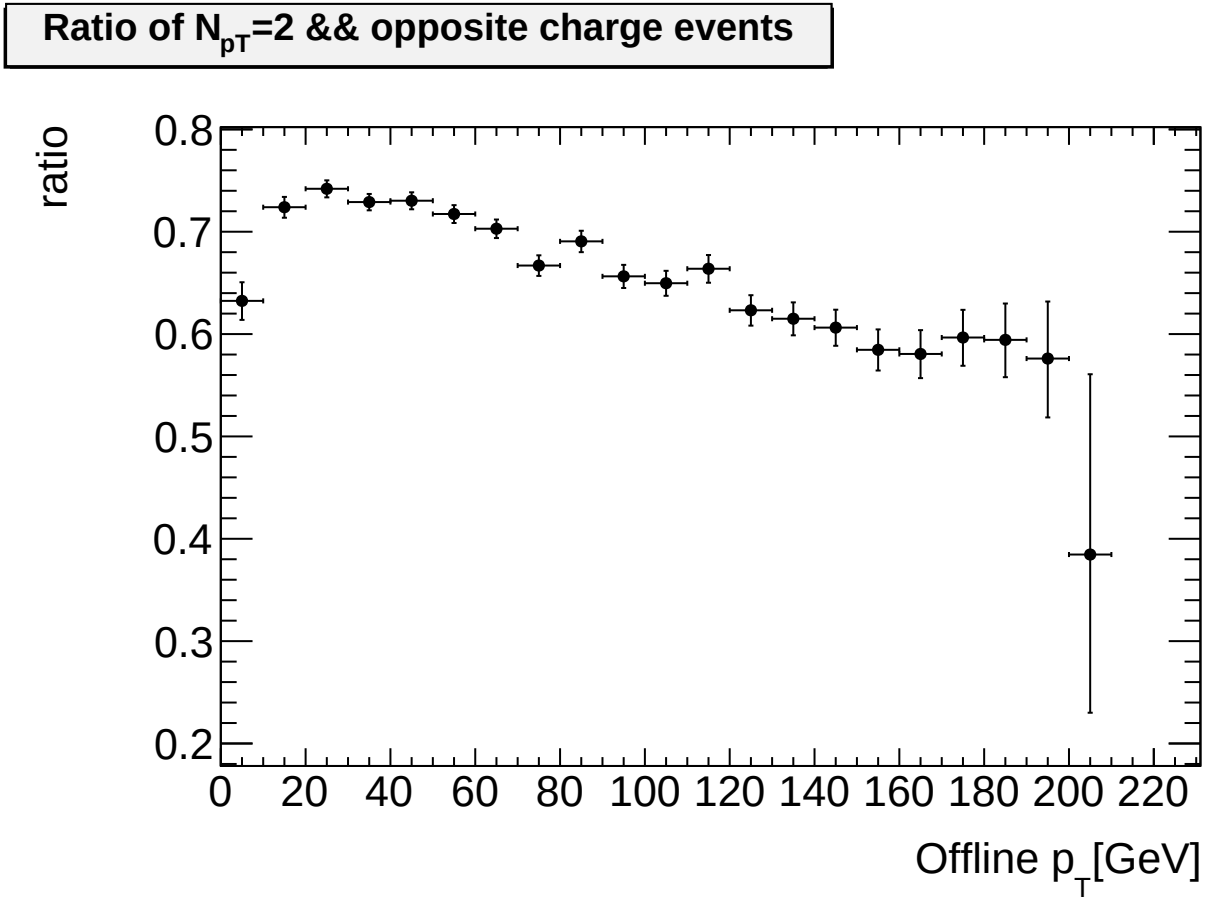


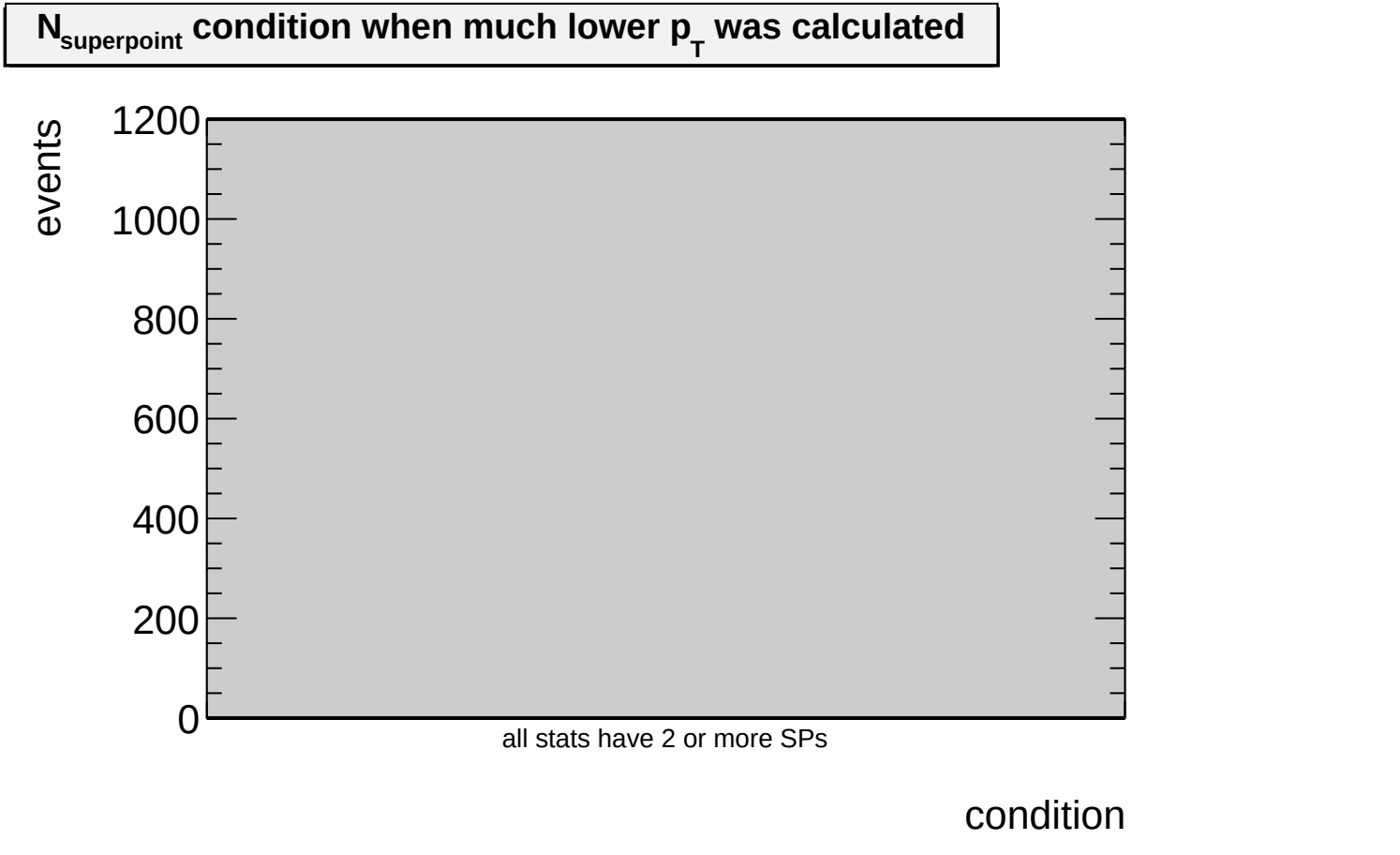
$N_{superpoint}$ condition when much lower p_T was calculated



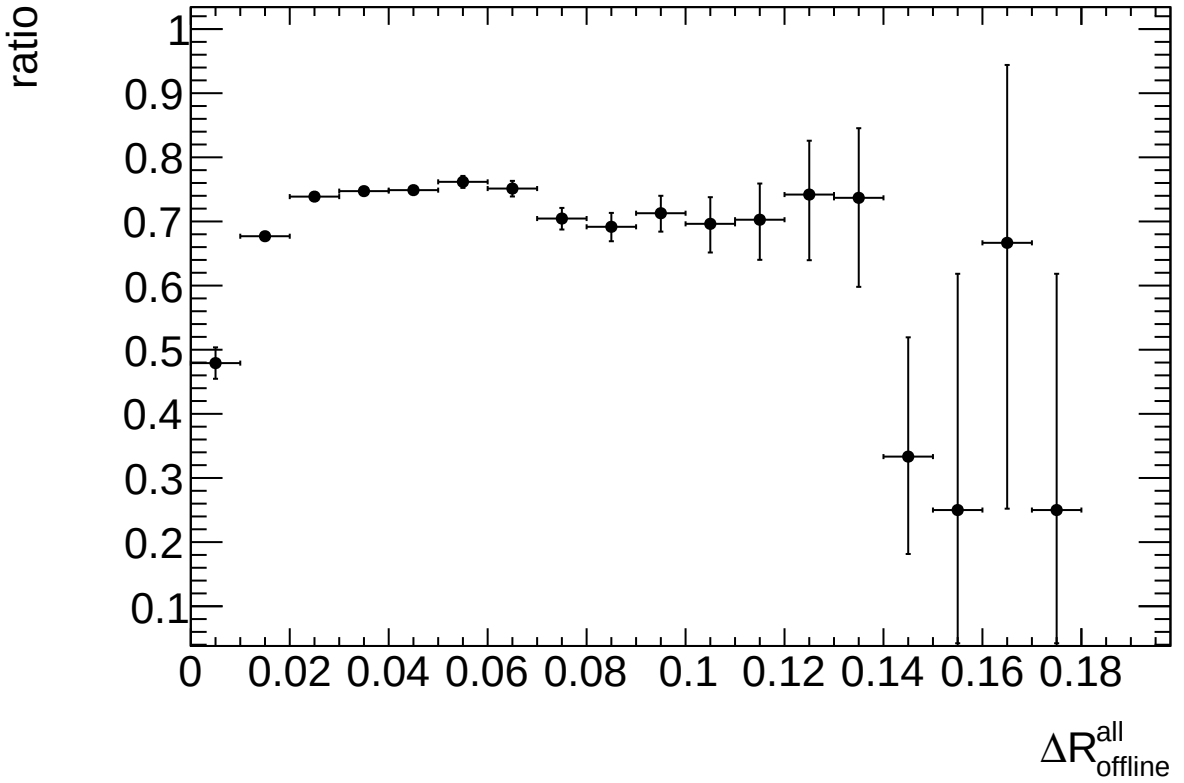

Offline pT : 2mu-in-1RoI
subleading p T, offline
leading p T, offline
events
0
50
100
150
200
250
300
350
400
450
500
5
10
15
20
25
30
35
40
45


Offline pT : 2mu-in-1RoI&oppcharge pT calculated
subleading p T, offline
leading p T, offline
events
0
50
100
150
200
250
300
350
400
450
500
5
10
15
20
25
30
35
40

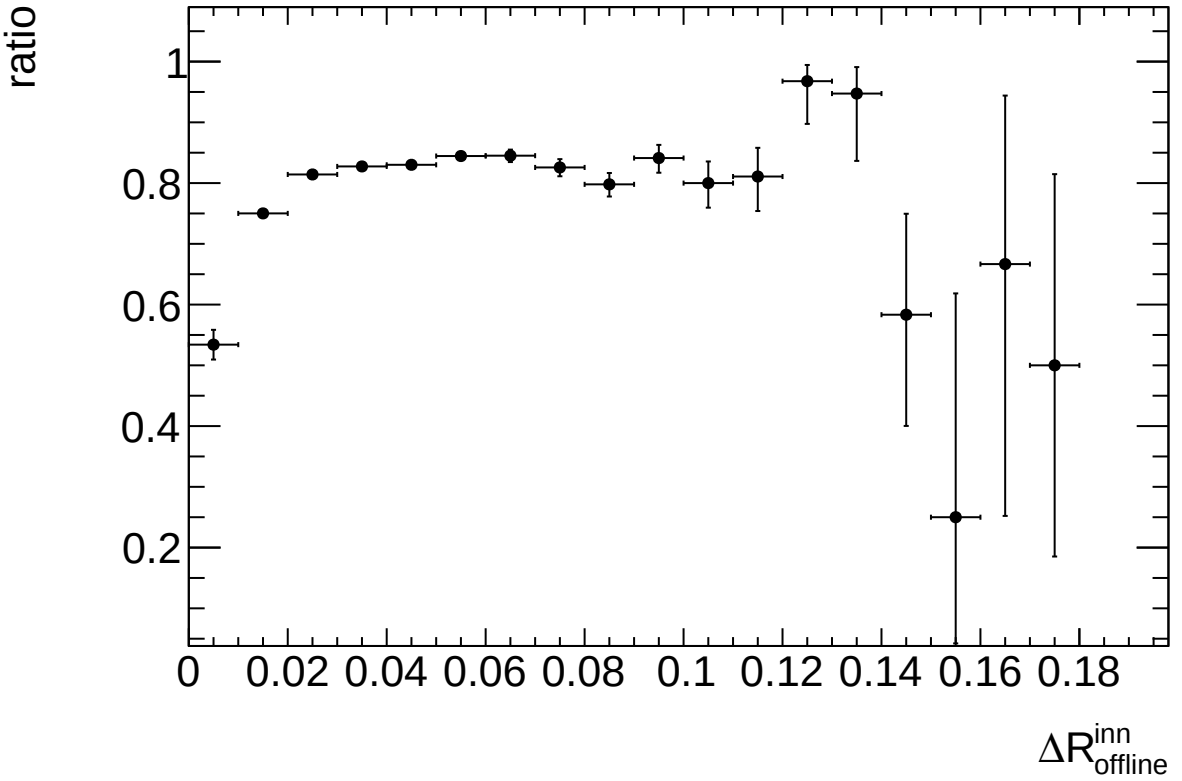

Ratio of N_{pT}=2 && opposite charge events
ratio
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0
20
40
60
80
100
120
140
160
180
200
220
Offline p_T[GeV]


$N_{superpoint}$ condition when much lower p_T was calculated
events
1200
1000
800
600
400
200
0
all stats have 2 or more SPs
condition

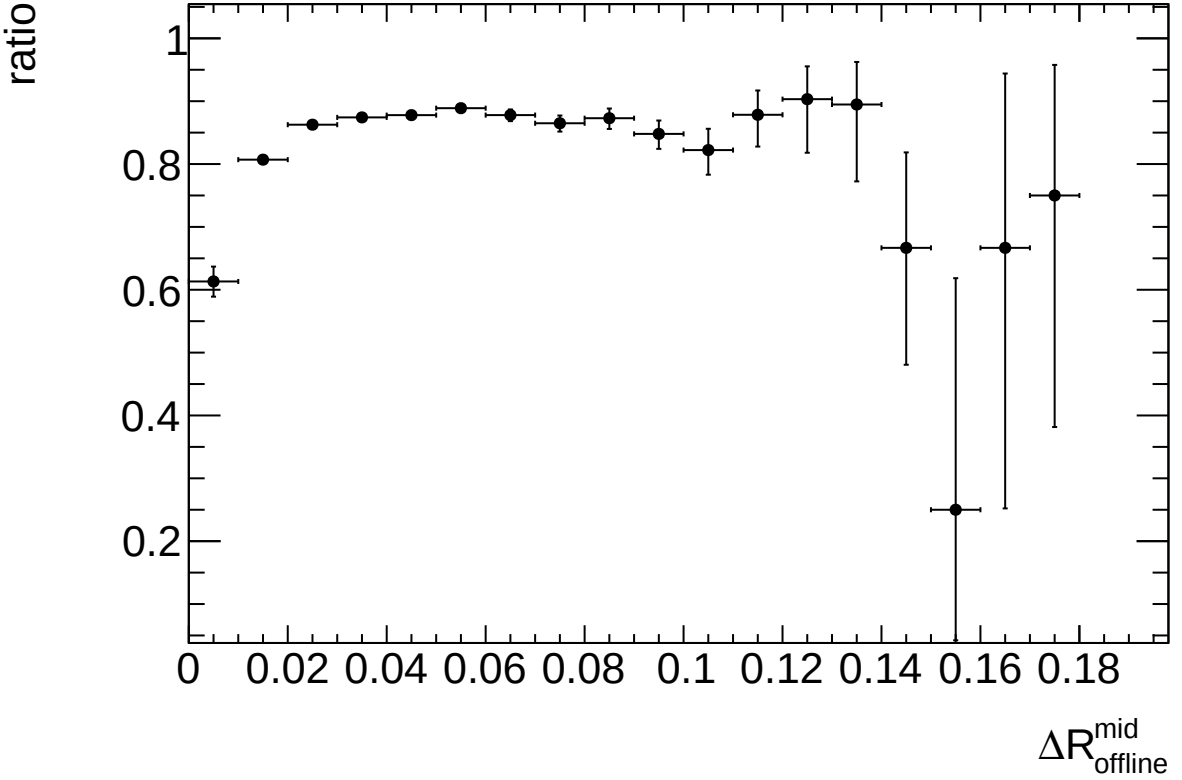
Ratio of N_{spall}=2 events

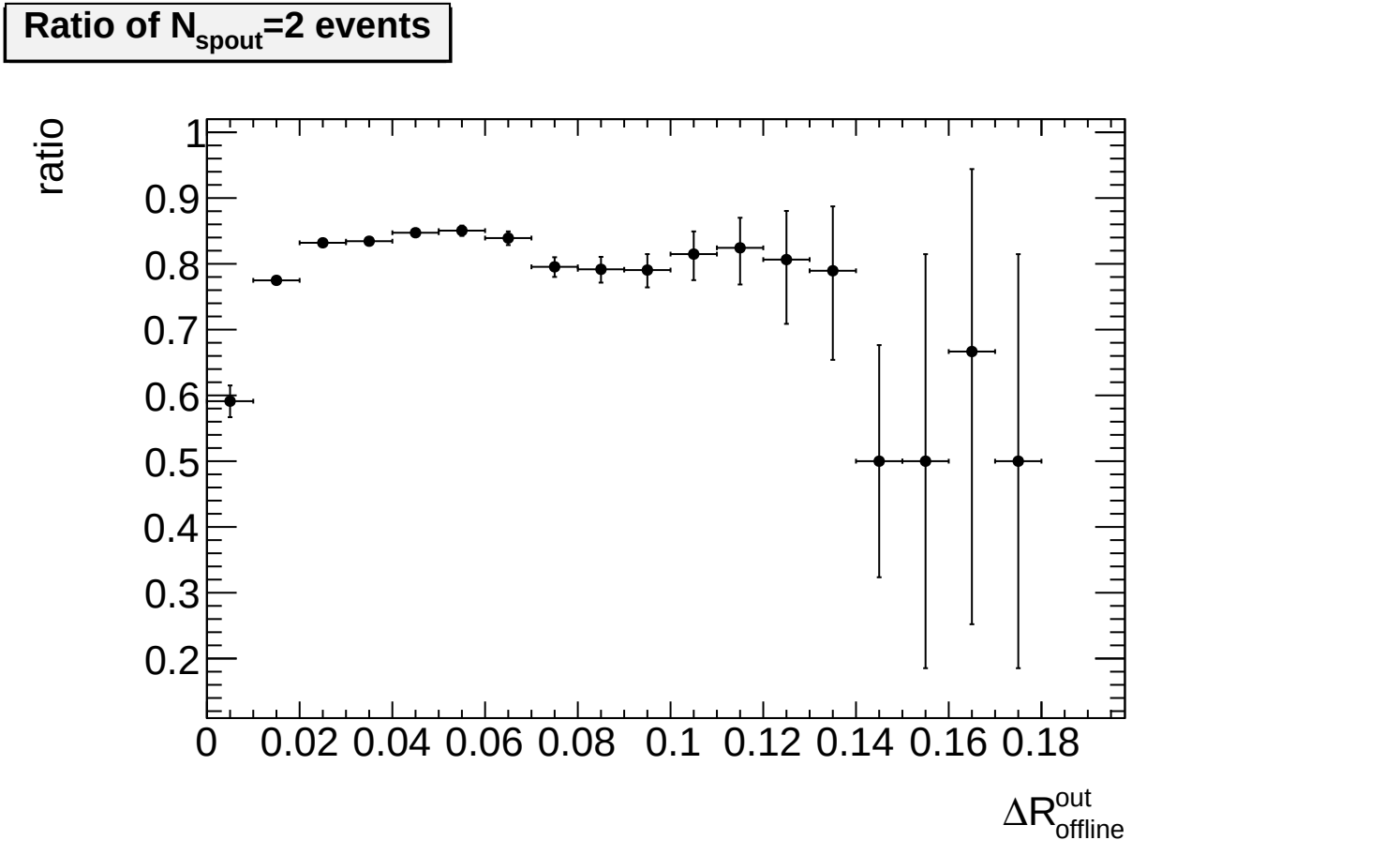


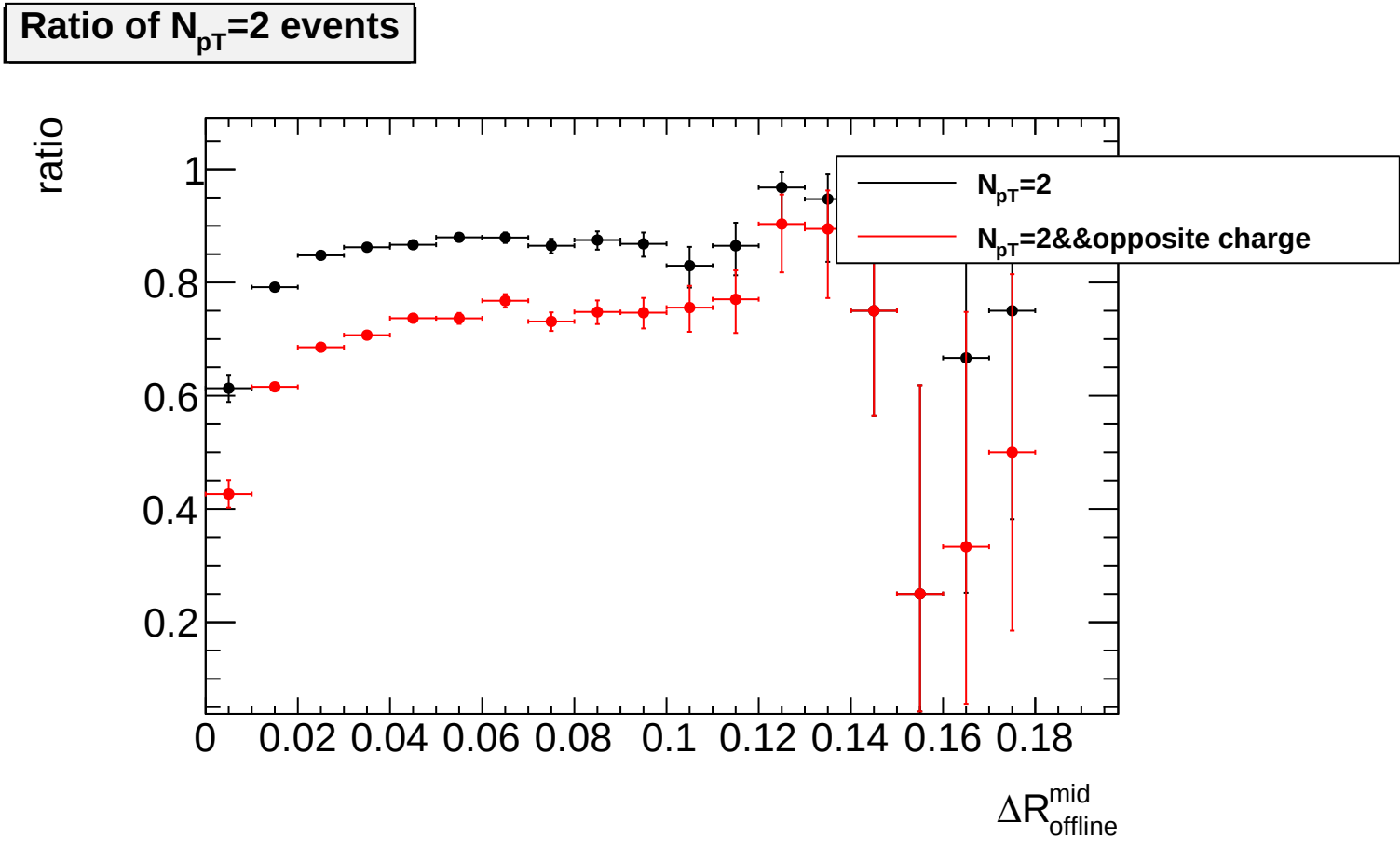
Ratio of N_{spinn}=2 events

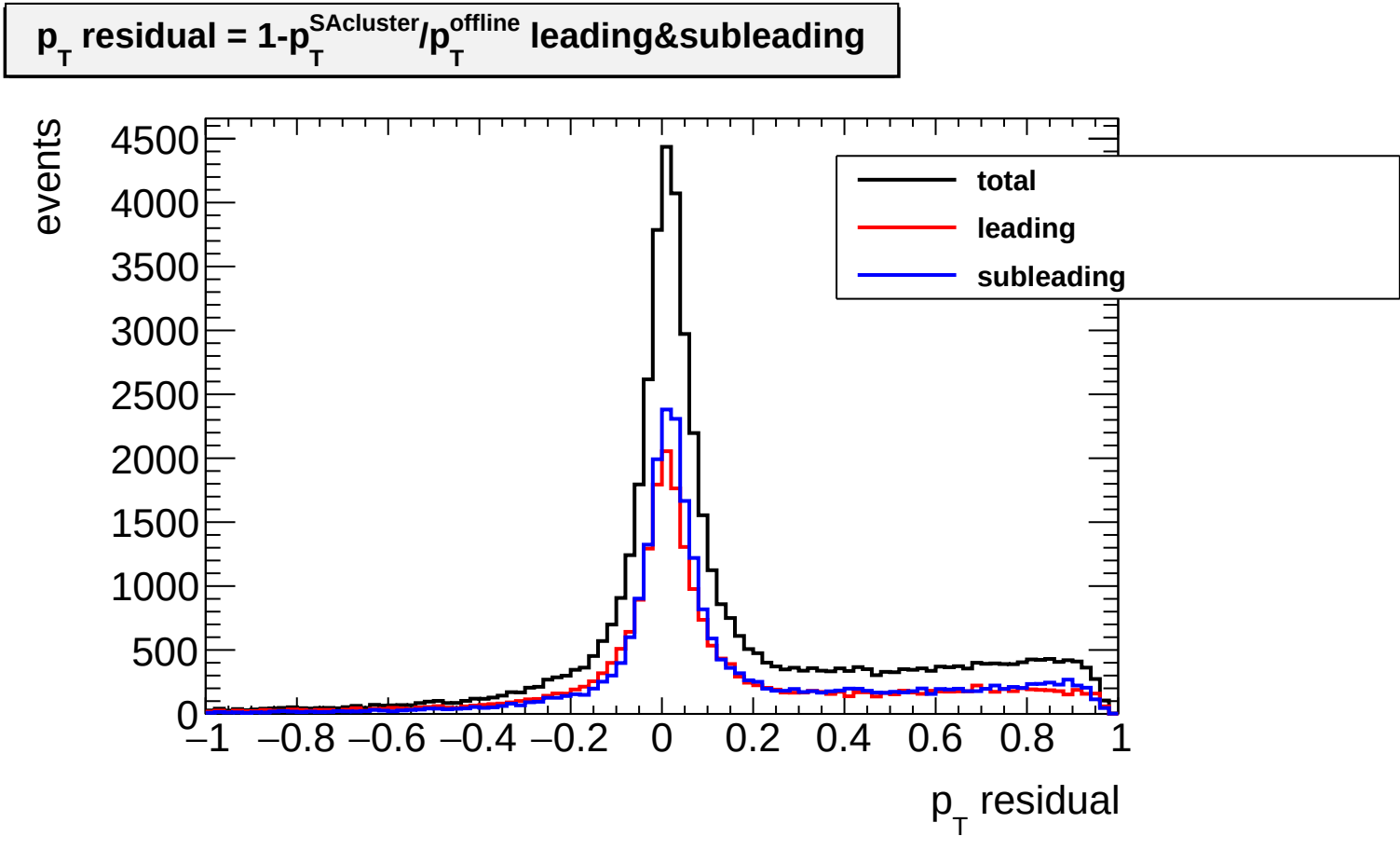


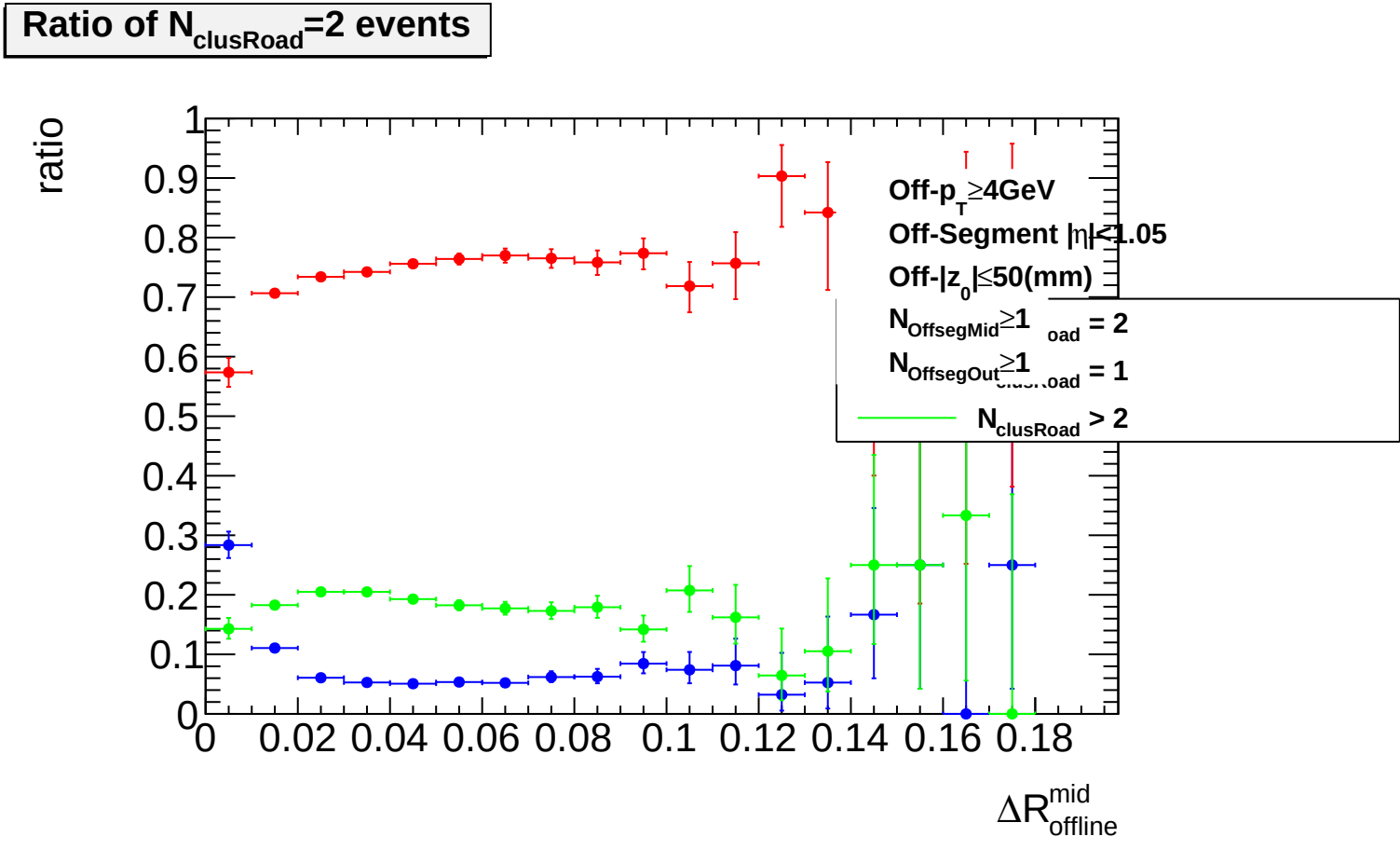
Ratio of N_{spmid}=2 events

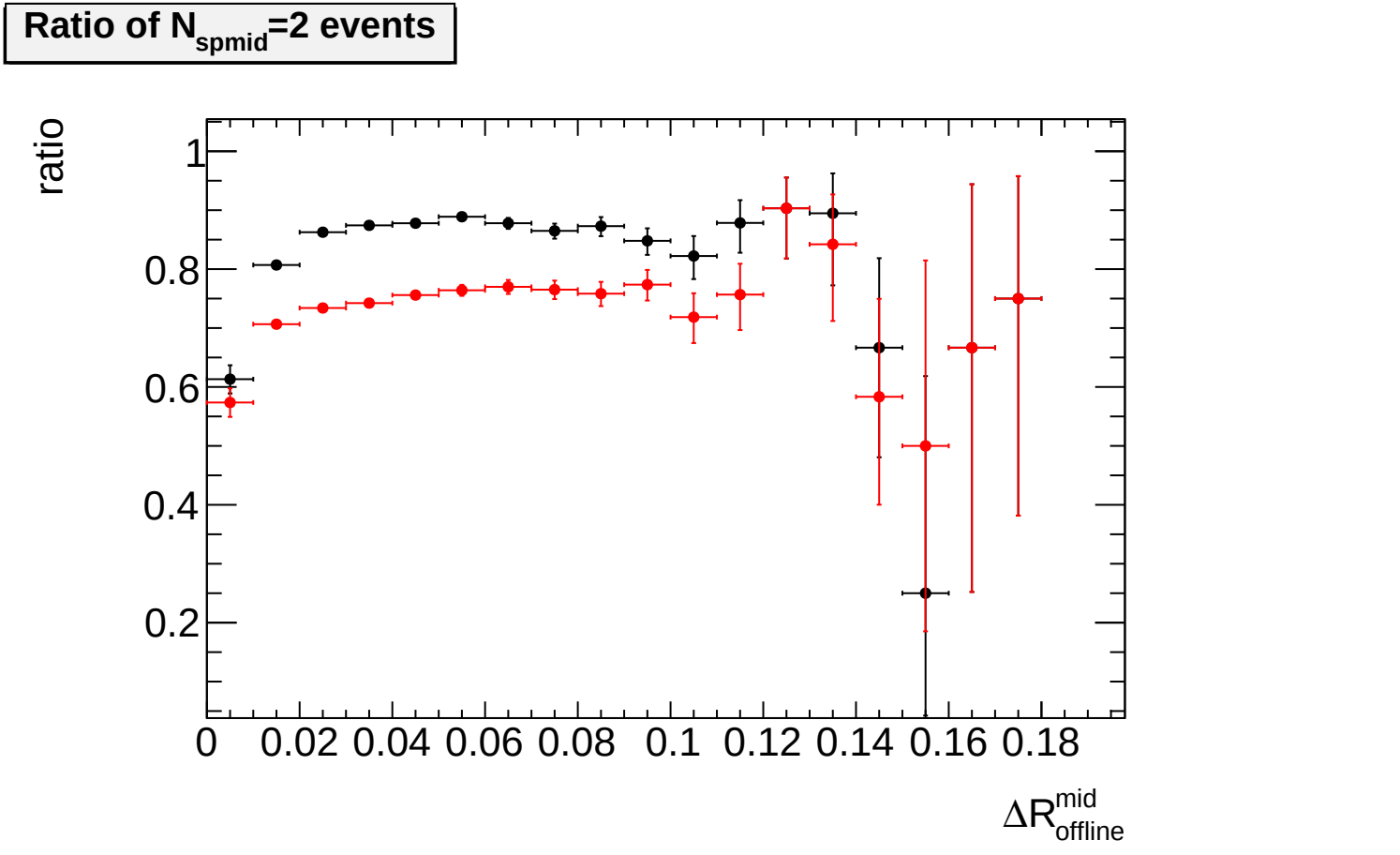


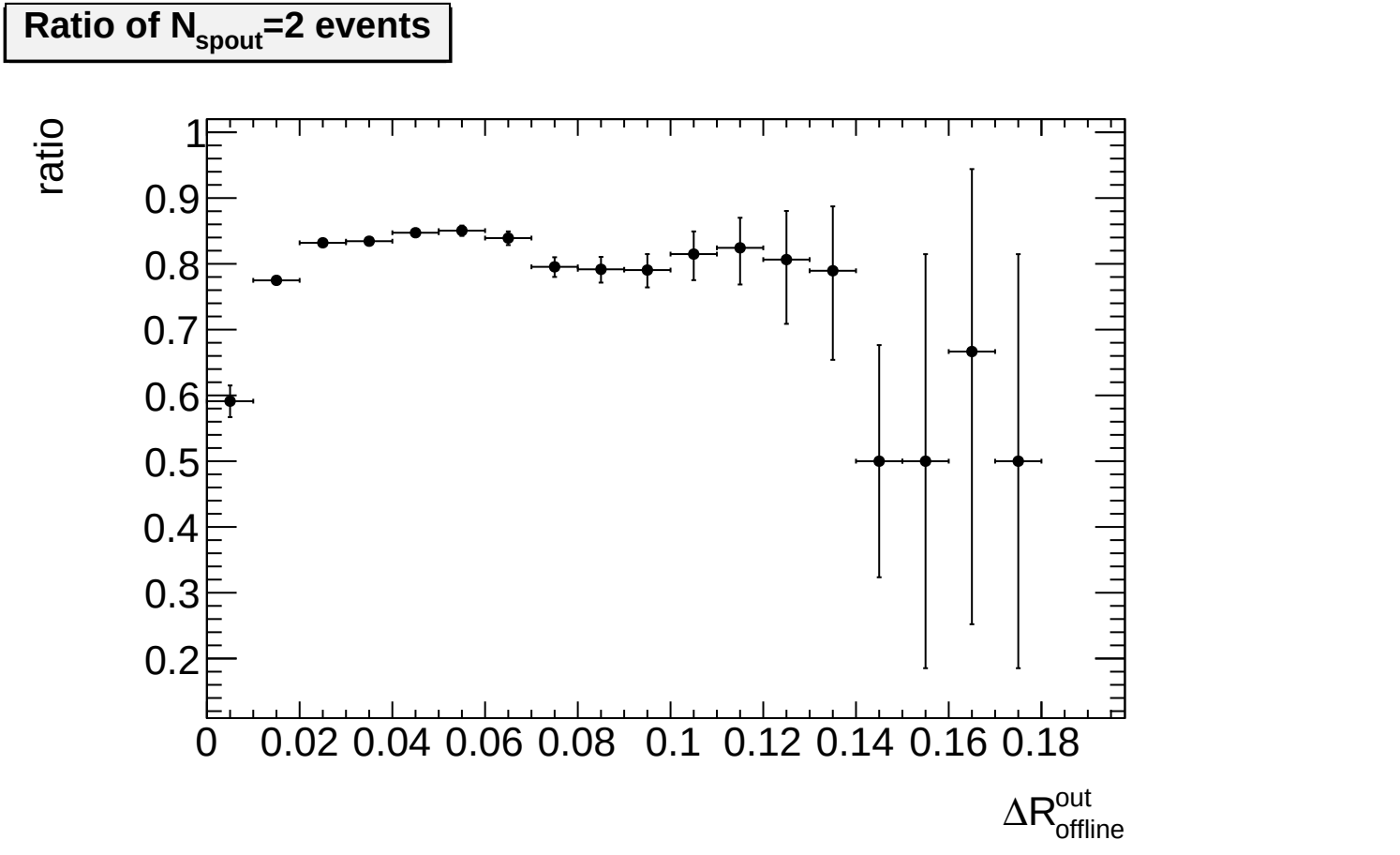

Ratio of N_spout=2 events
ratio
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0
0.02
0.04
0.06
0.08
0.1
0.12
0.14
0.16
0.18
ΔR^out_offline

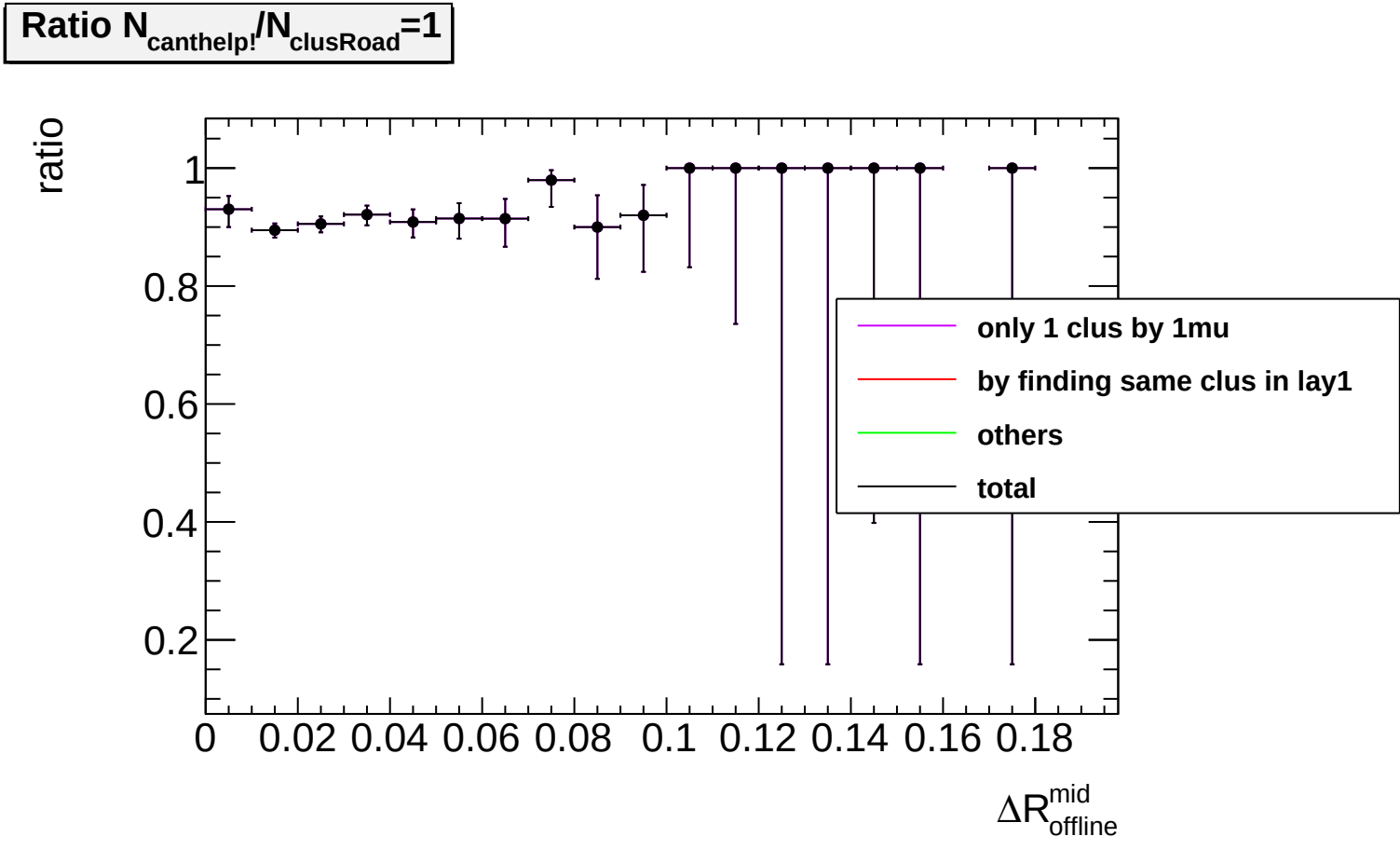

Ratio of N_pT=2 events
ratio
1
0.8
0.6
0.4
0.2
0
0.02
0.04
0.06
0.08
0.1
0.12
0.14
0.16
0.18
ΔR^mid_offline
N_pT=2
N_pT=2&&opposite charge

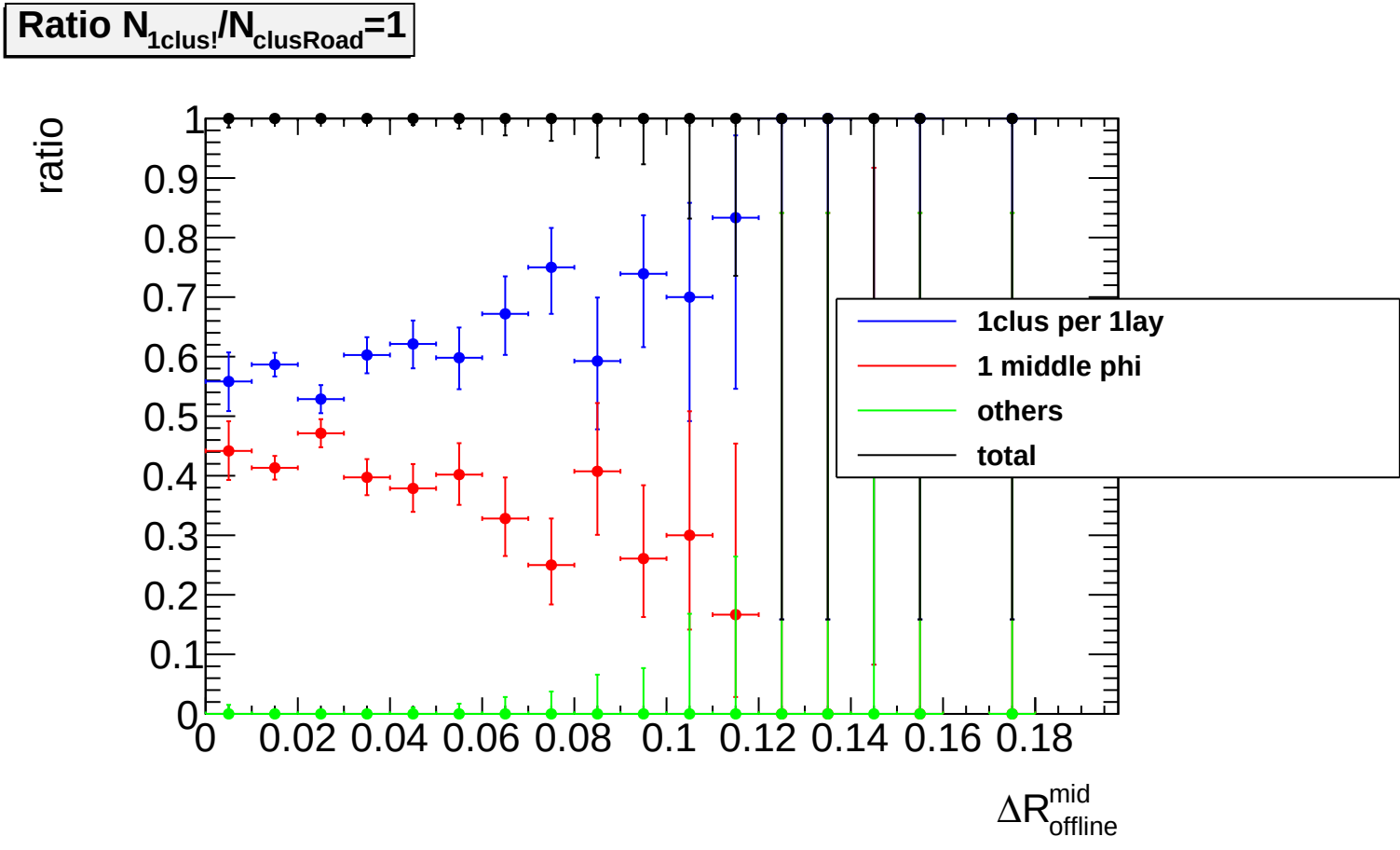

p_T residual = 1-$p_T^{SAcluster}/p_T^{offline}$ leading&subleading
events
4500
4000
3500
3000
2500
2000
1500
1000
500
0
−1
−0.8
−0.6
−0.4
−0.2
0
0.2
0.4
0.6
0.8
1
p_T residual
total
leading
subleading

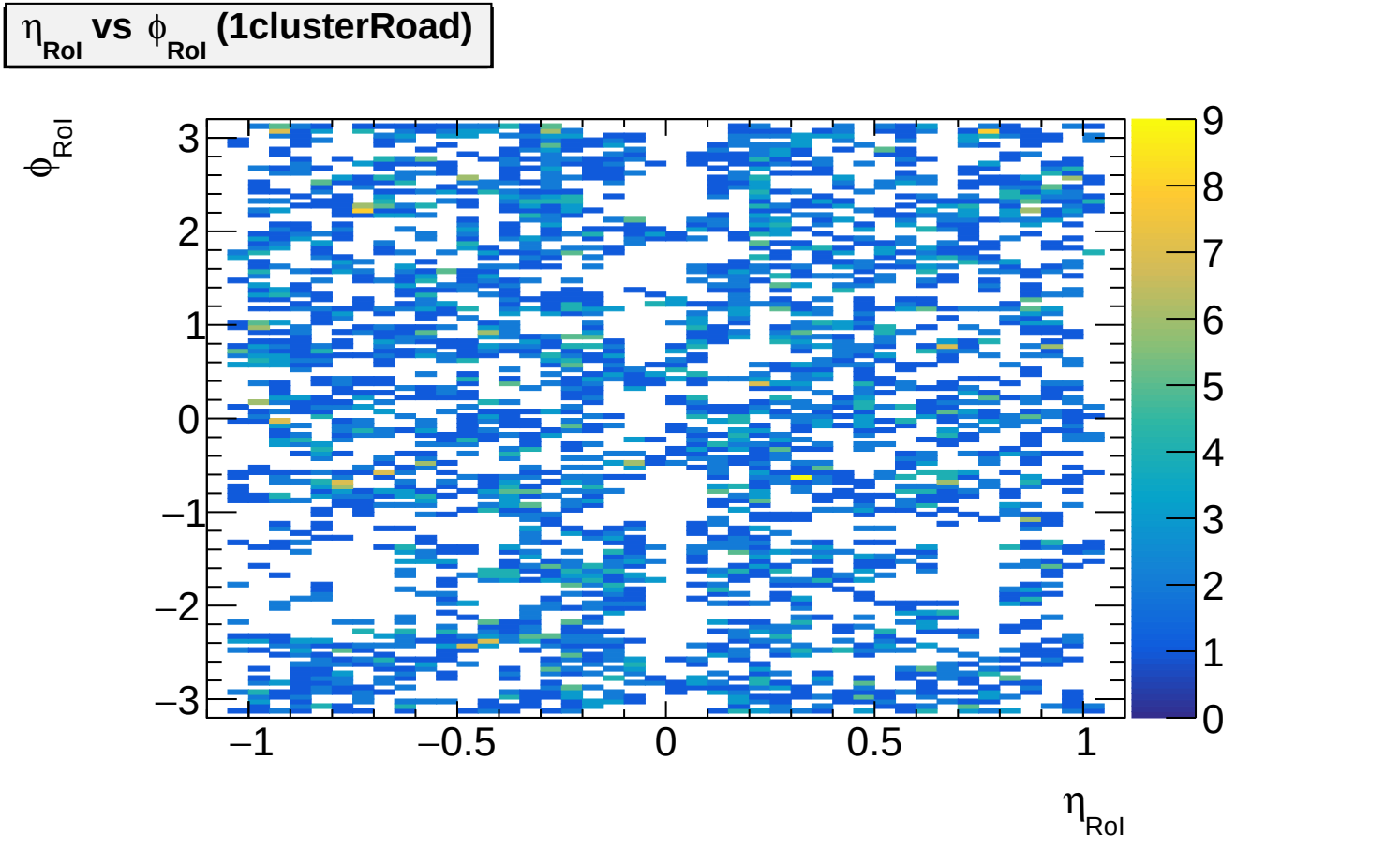

Ratio of N_clusRoad=2 events
ratio
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
0
0.02
0.04
0.06
0.08
0.1
0.12
0.14
0.16
0.18
ΔR^mid_offline
Off-p_T≥4GeV
Off-Segment |η|<1.05
Off-|z_0|≤50(mm)
N_OffsegMid≥1
oad = 2
N_OffsegOut≥1
oad = 1
N_clusRoad > 2


Ratio of N_spmid=2 events
ratio
1
0.8
0.6
0.4
0.2
0
0.02
0.04
0.06
0.08
0.1
0.12
0.14
0.16
0.18
ΔR^mid_offline

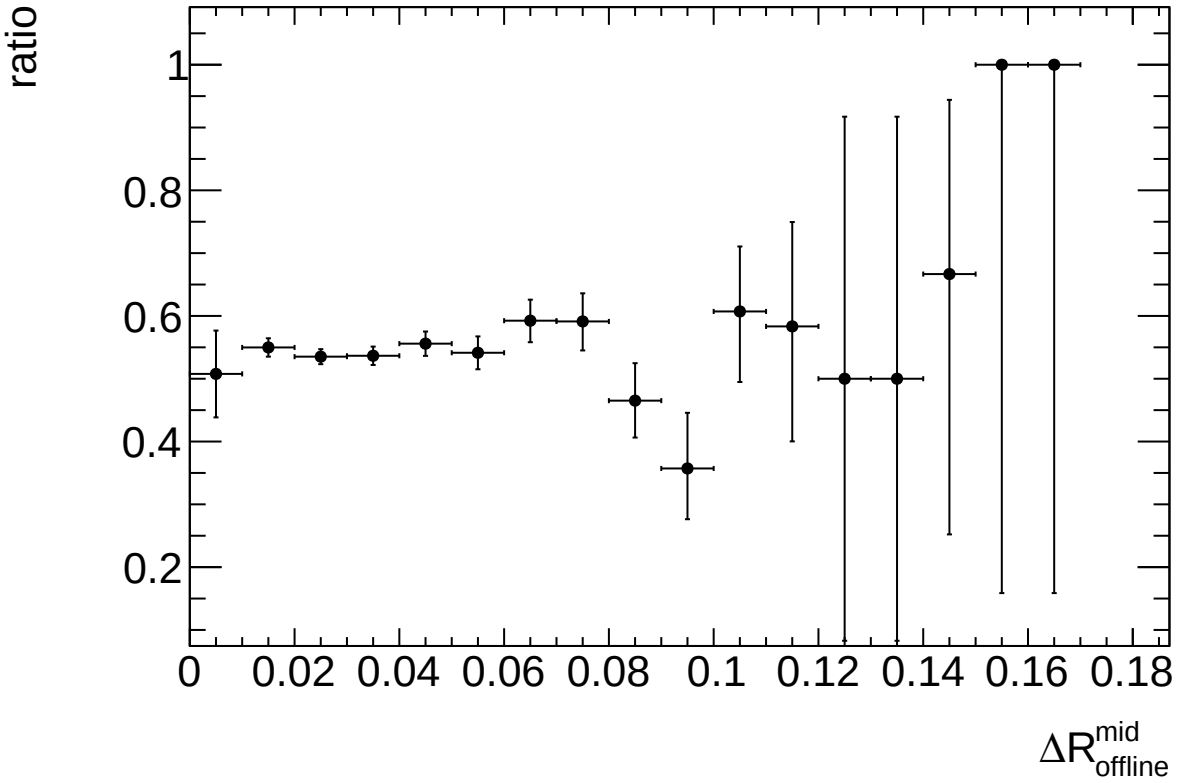

Ratio of N_spout=2 events
ratio
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0
0.02
0.04
0.06
0.08
0.1
0.12
0.14
0.16
0.18
ΔR^out_offline

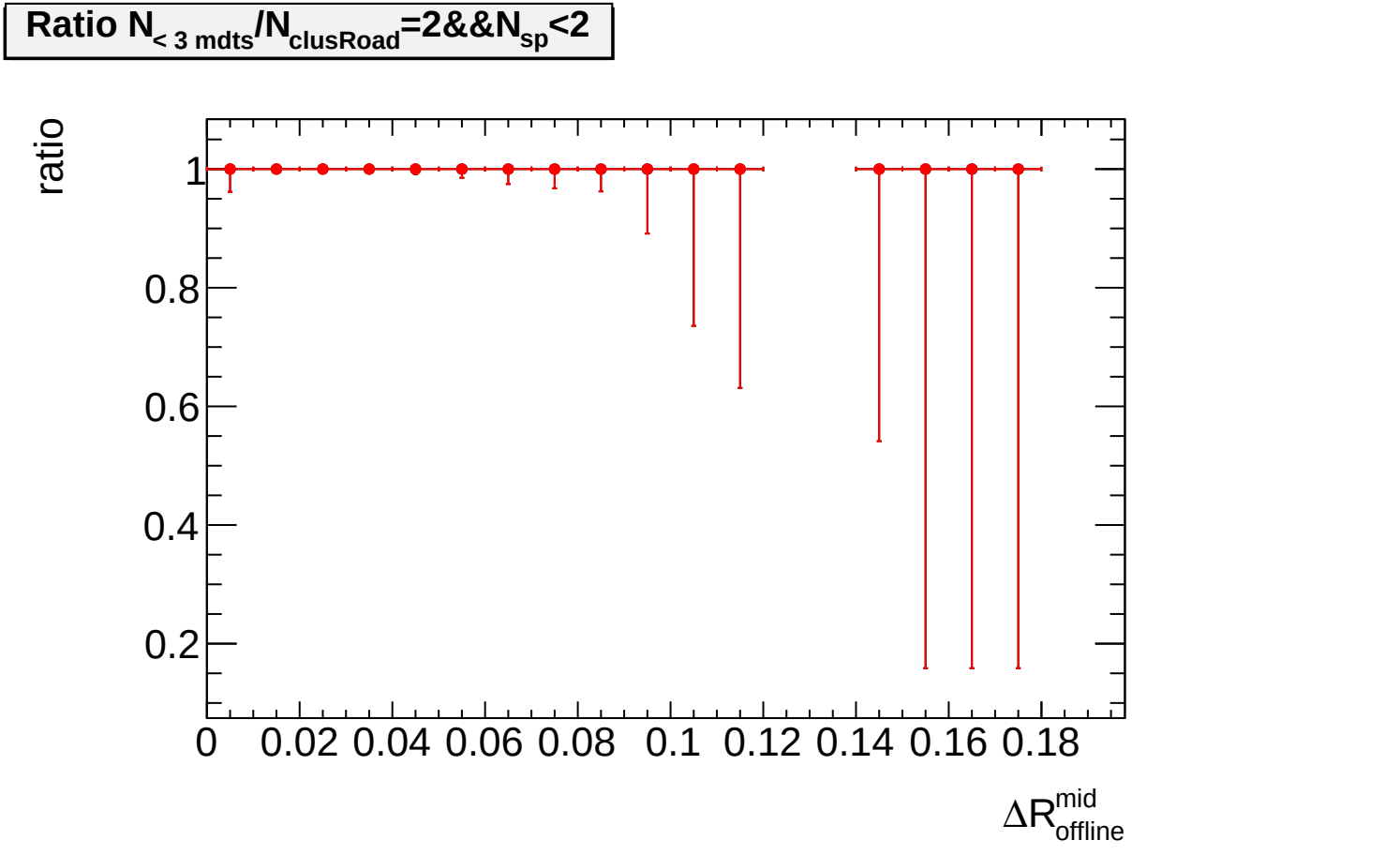

Ratio N canthelp!/N clusRoad=1
ratio
1
0.8
0.6
0.4
0.2
0
0.02
0.04
0.06
0.08
0.1
0.12
0.14
0.16
0.18
only 1 clus by 1mu
by finding same clus in lay1
others
total
ΔR mid offline


Ratio N1clus!/NclusRoad=1
ratio
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
0
0.02
0.04
0.06
0.08
0.1
0.12
0.14
0.16
0.18
ΔRmid offline
1clus per 1lay
1 middle phi
others
total

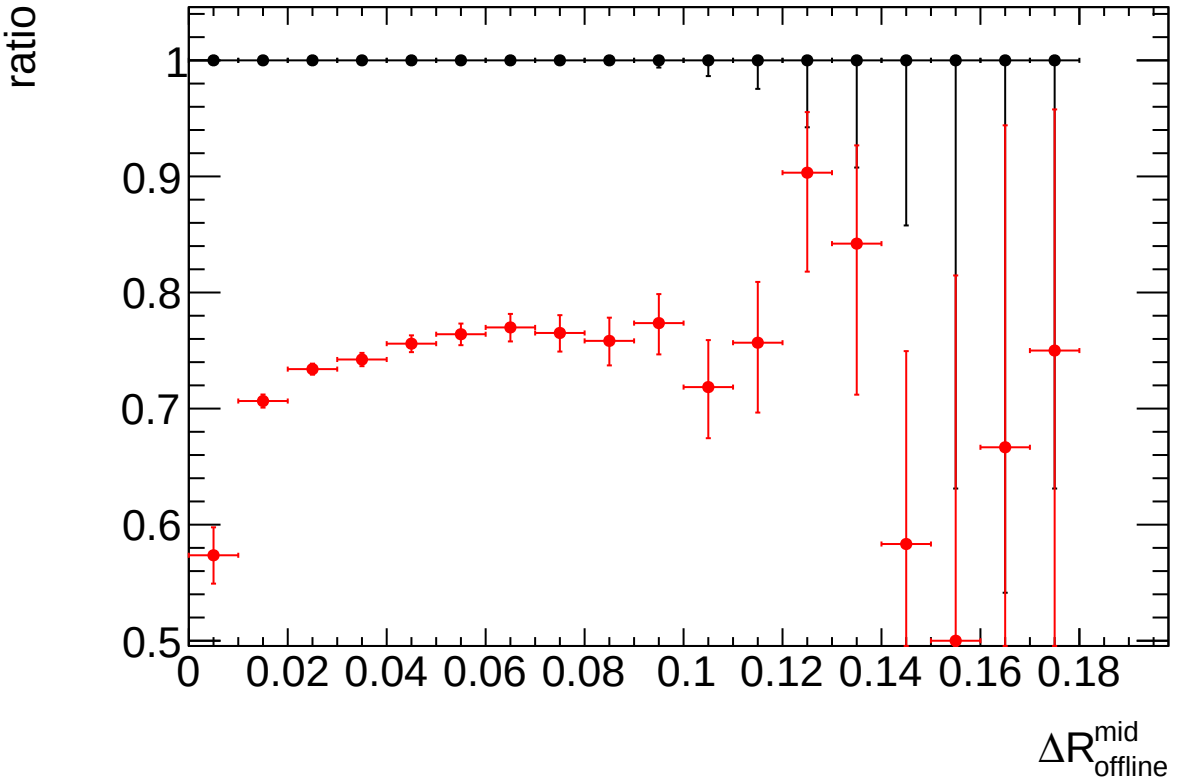

η_{RoI} vs ϕ_{RoI} (1clusterRoad)
ϕ_{RoI}
3
2
1
0
−1
−2
−3
−1
−0.5
0
0.5
1
η_{RoI}
9
8
7
6
5
4
3
2
1
0

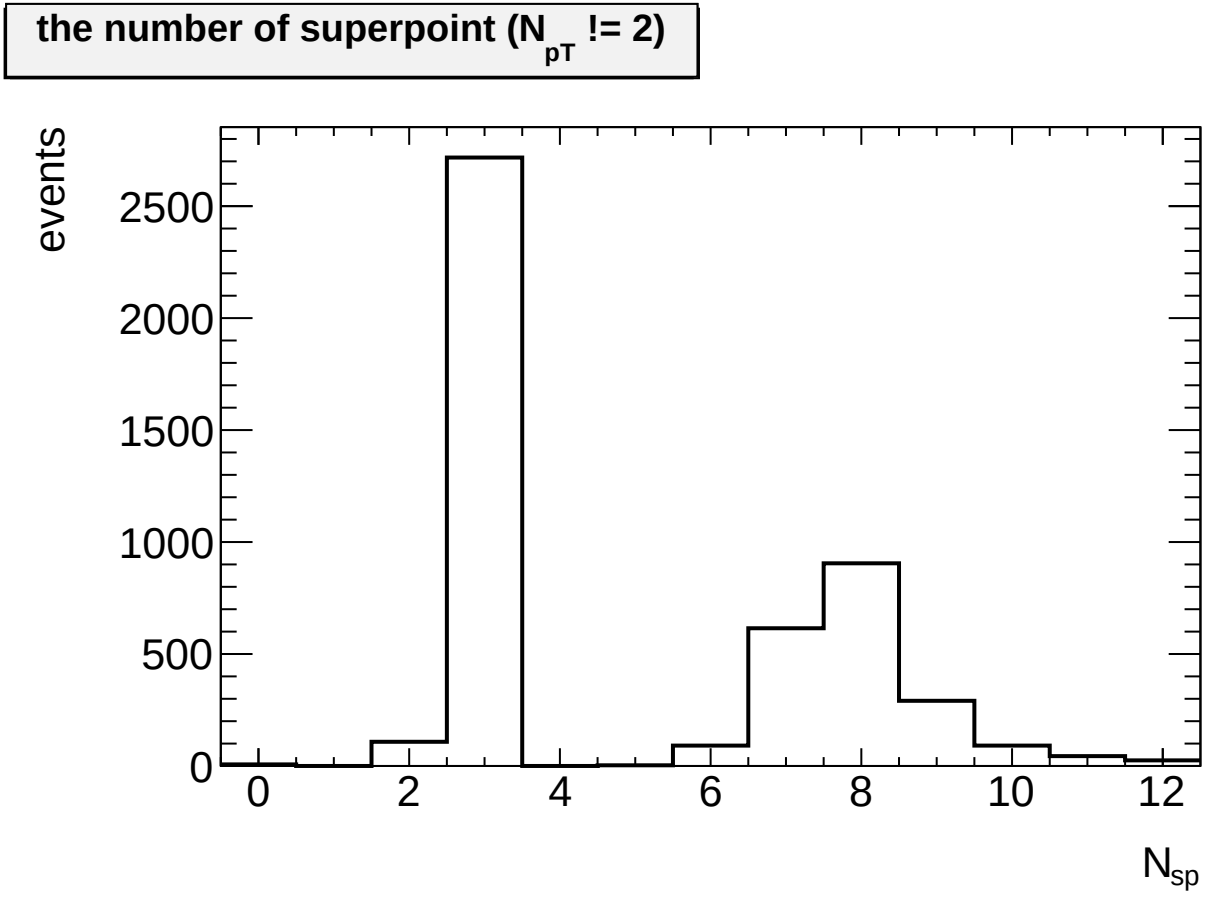
Ratio $N_{3clus\ in\ 2layers}/N_{clusRoad}>2$

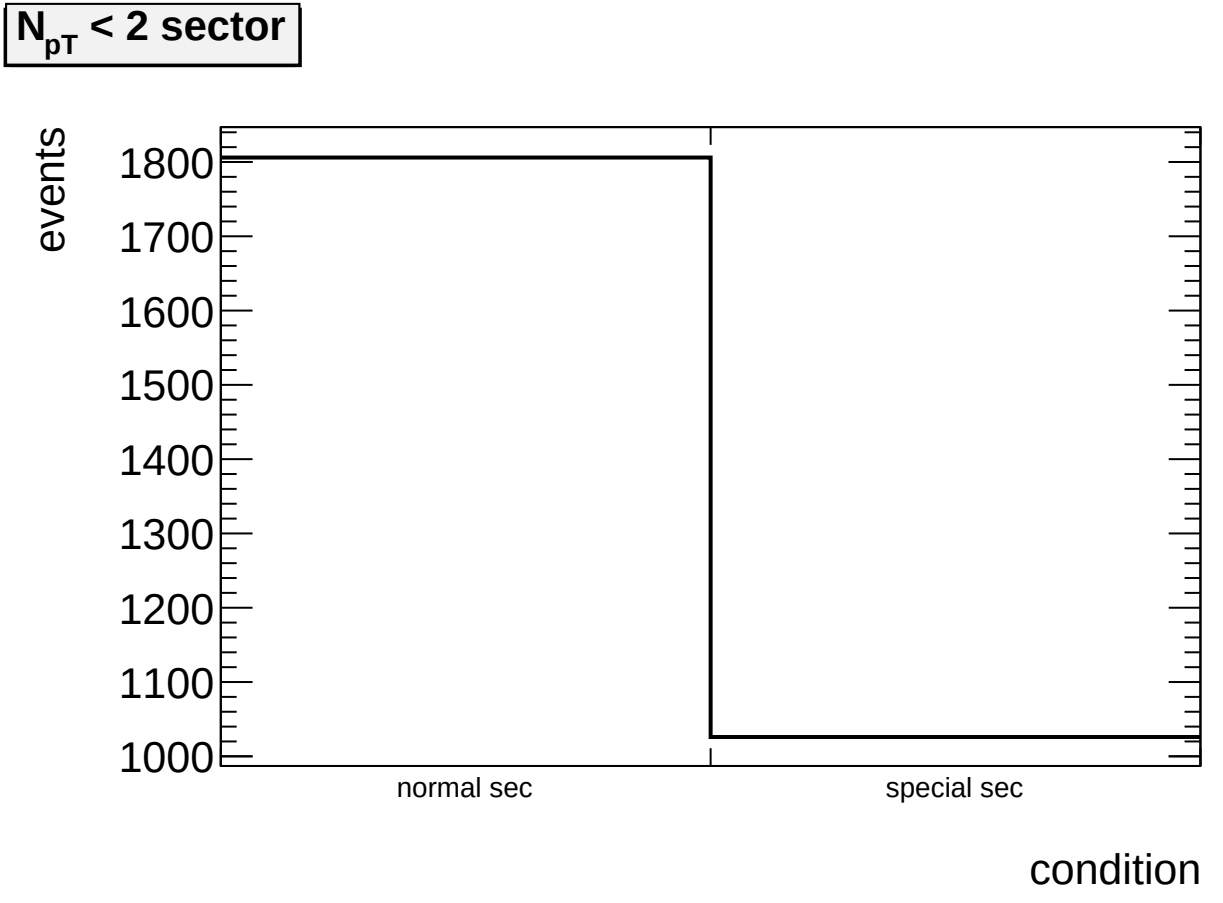


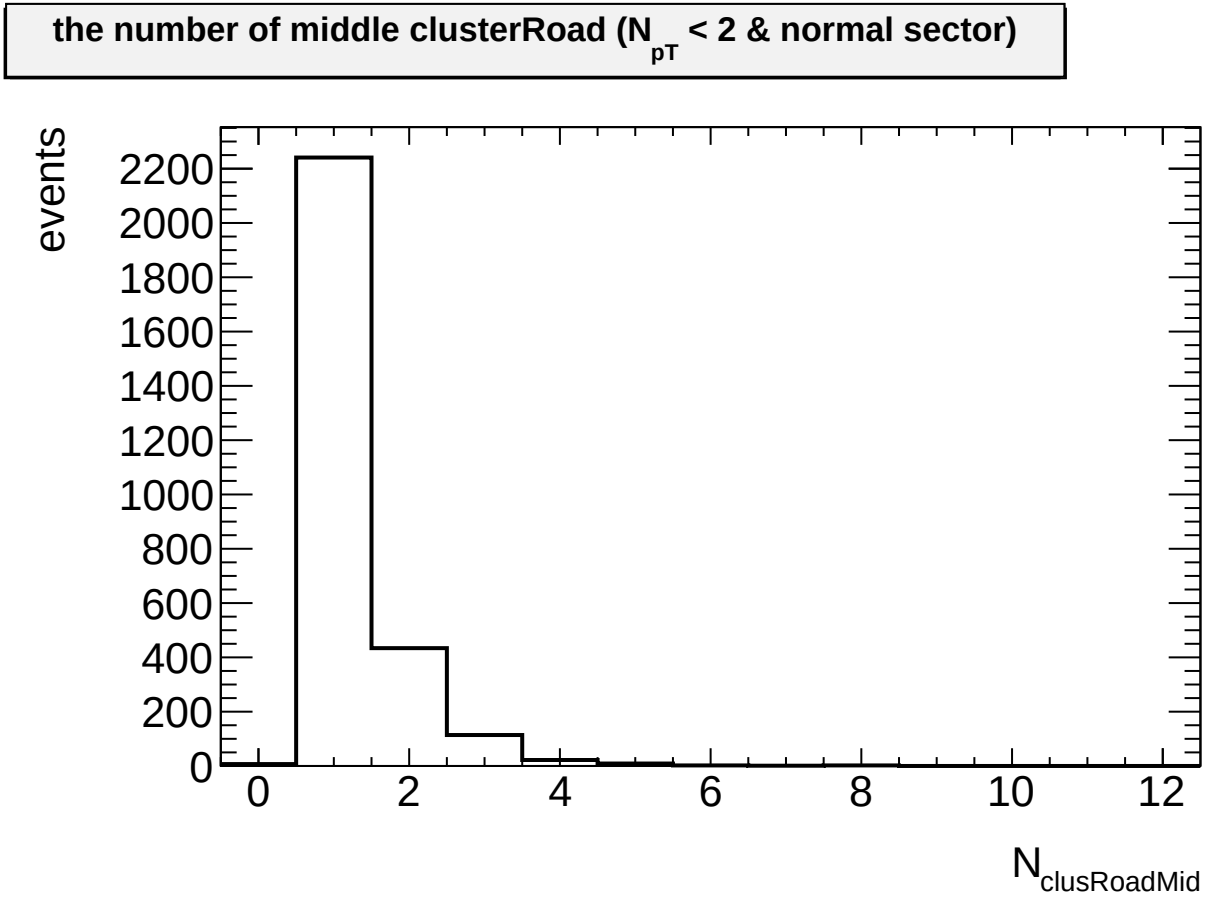

Ratio N< 3 mdts/NclusRoad=2&&Nsp<2
ratio
1
0.8
0.6
0.4
0.2
0
0.02
0.04
0.06
0.08
0.1
0.12
0.14
0.16
0.18
ΔRmid offline

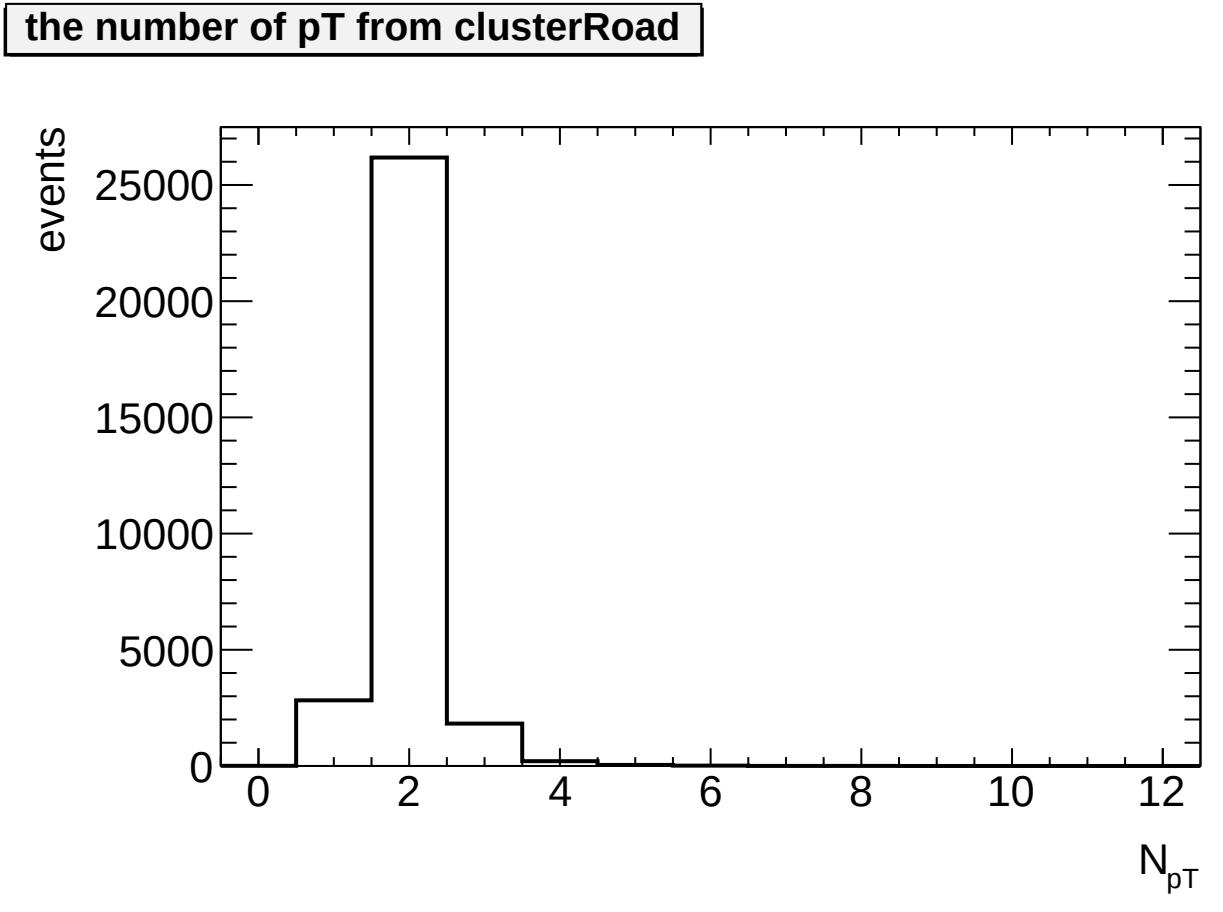
Ratio of 2muon in 1RoI tower events




the number of superpoint (N_{pT} != 2)
events
2500
2000
1500
1000
500
0
0
2
4
6
8
10
12
N_{sp}


N_{pT} < 2 sector
events
1800
1700
1600
1500
1400
1300
1200
1100
1000
normal sec
special sec
condition


the number of middle clusterRoad (N_{pT} < 2 & normal sector)
events
2200
2000
1800
1600
1400
1200
1000
800
600
400
200
0
0
2
4
6
8
10
12
$N_{clusRoadMid}$


the number of pT from clusterRoad
events
25000
20000
15000
10000
5000
0
0
2
4
6
8
10
12
N_pT