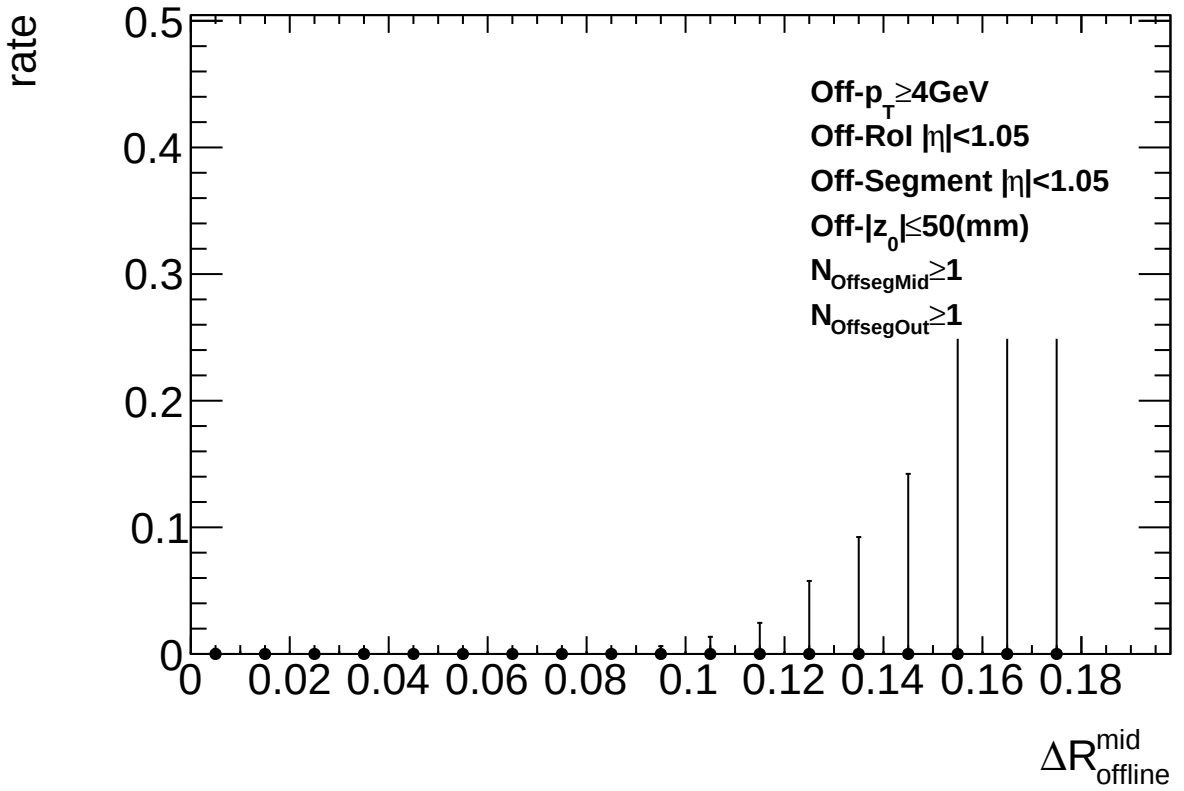
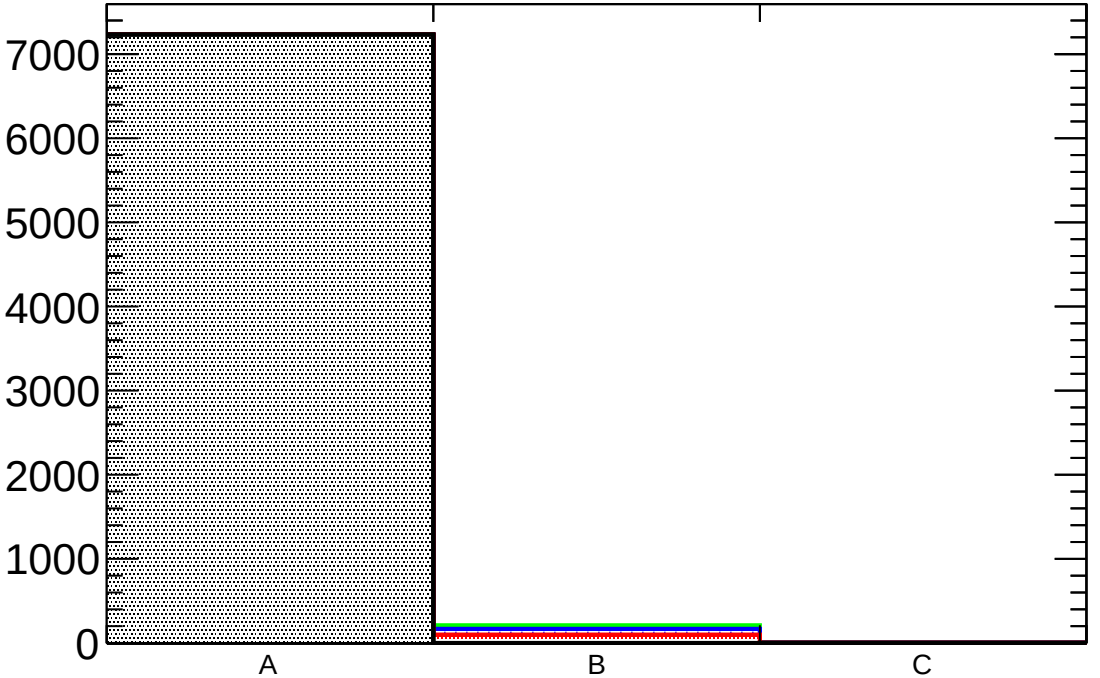
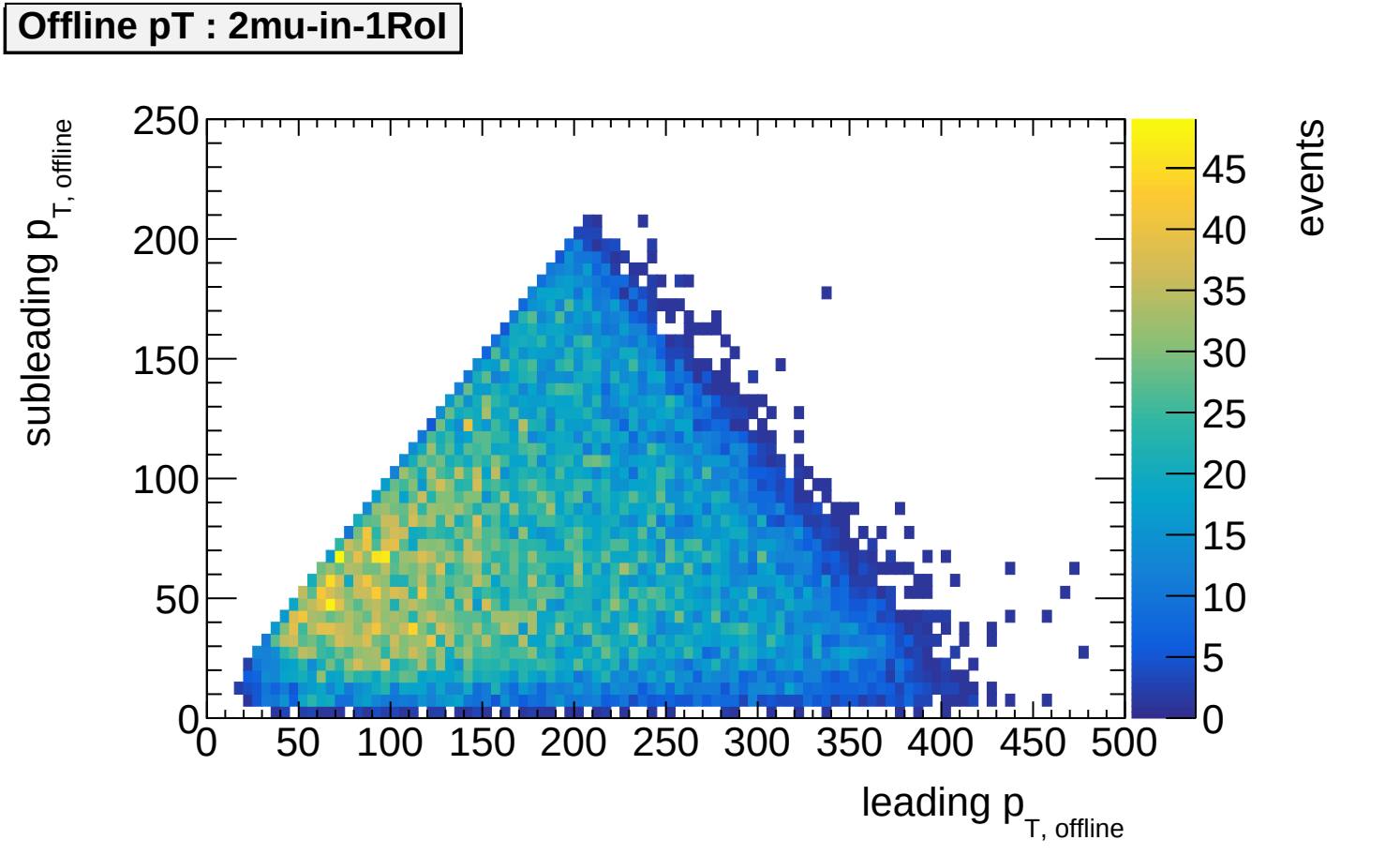
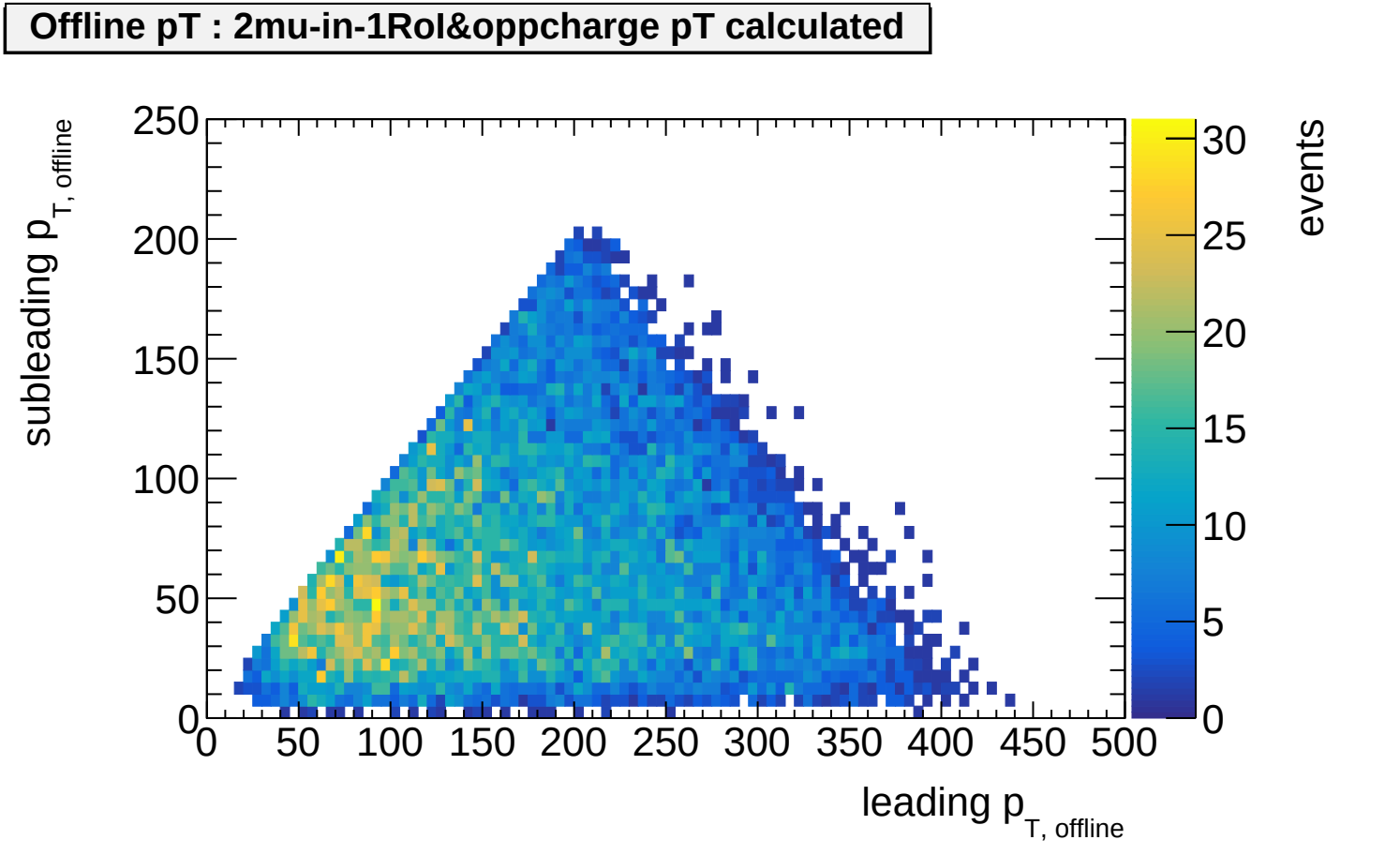
Rate of isMoreCandinRoI=true events !barrel event only!



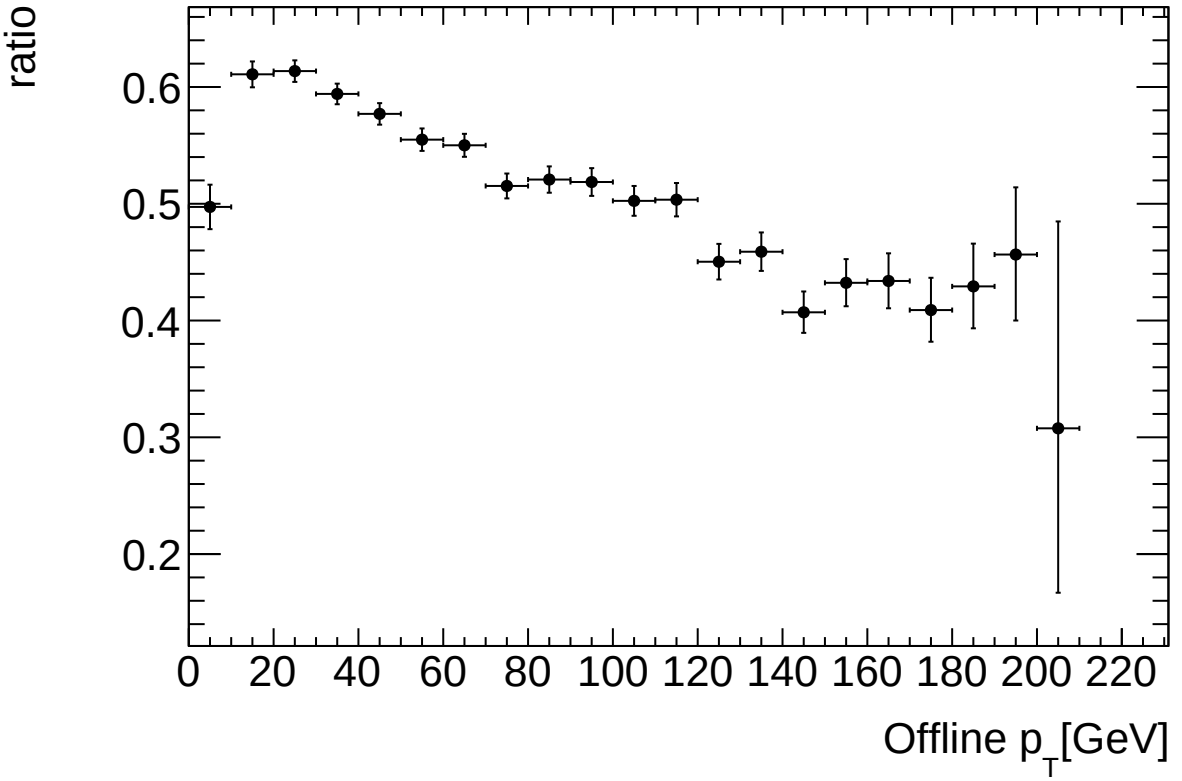
$N_{superpoint}$ condition when much lower p_T was calculated



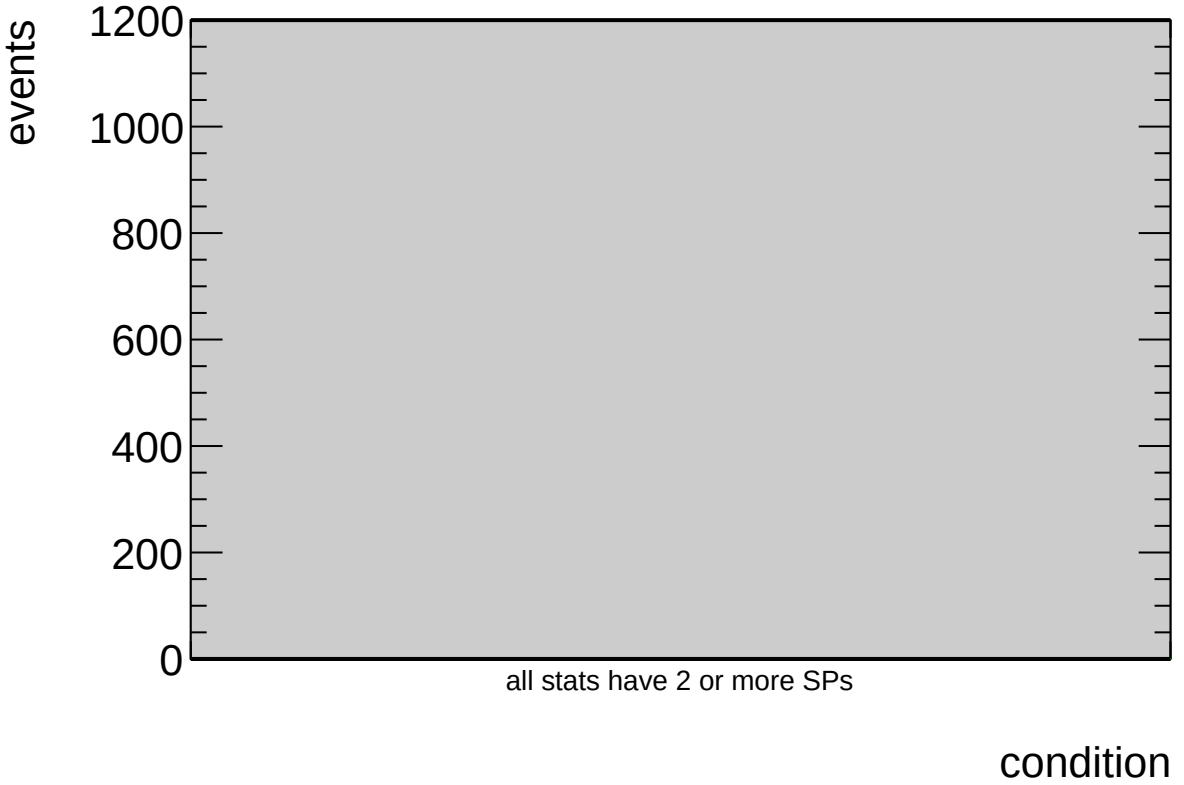

Offline pT : 2mu-in-1RoI
subleading p T, offline
leading p T, offline
events
0
50
100
150
200
250
300
350
400
450
500
5
10
15
20
25
30
35
40
45


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

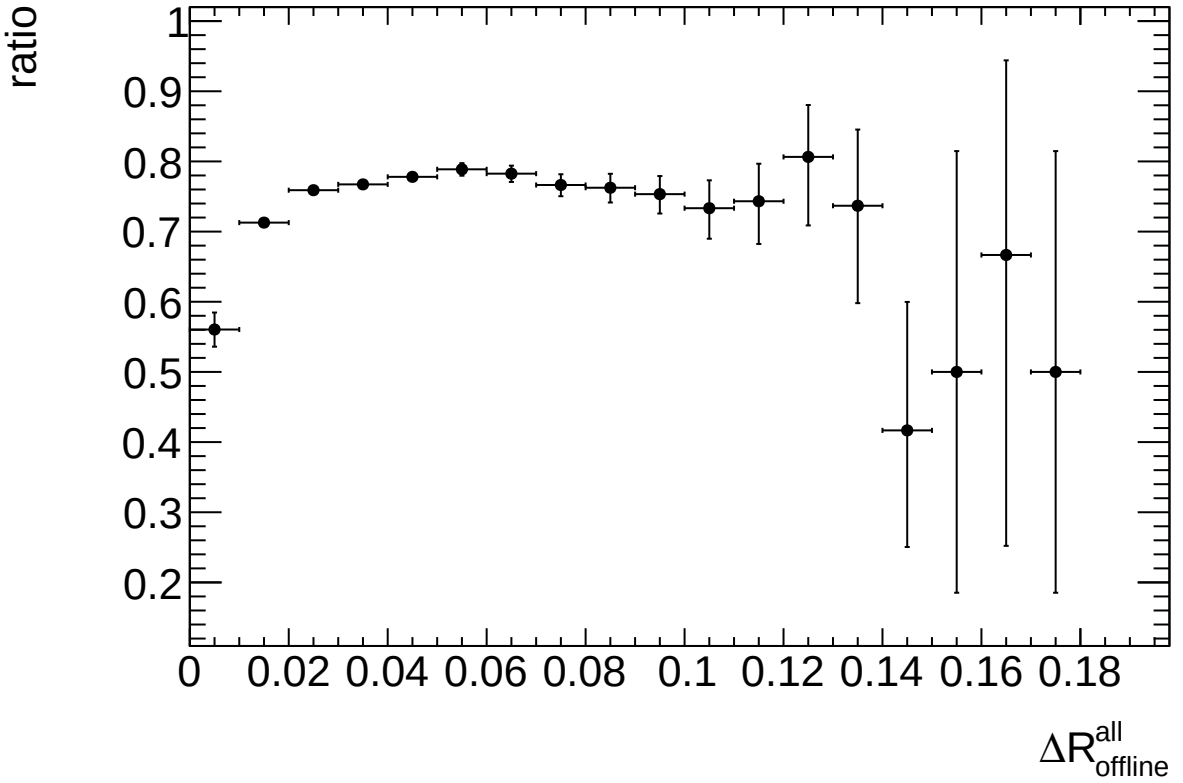
Ratio of N_{pT}=2 && opposite charge events



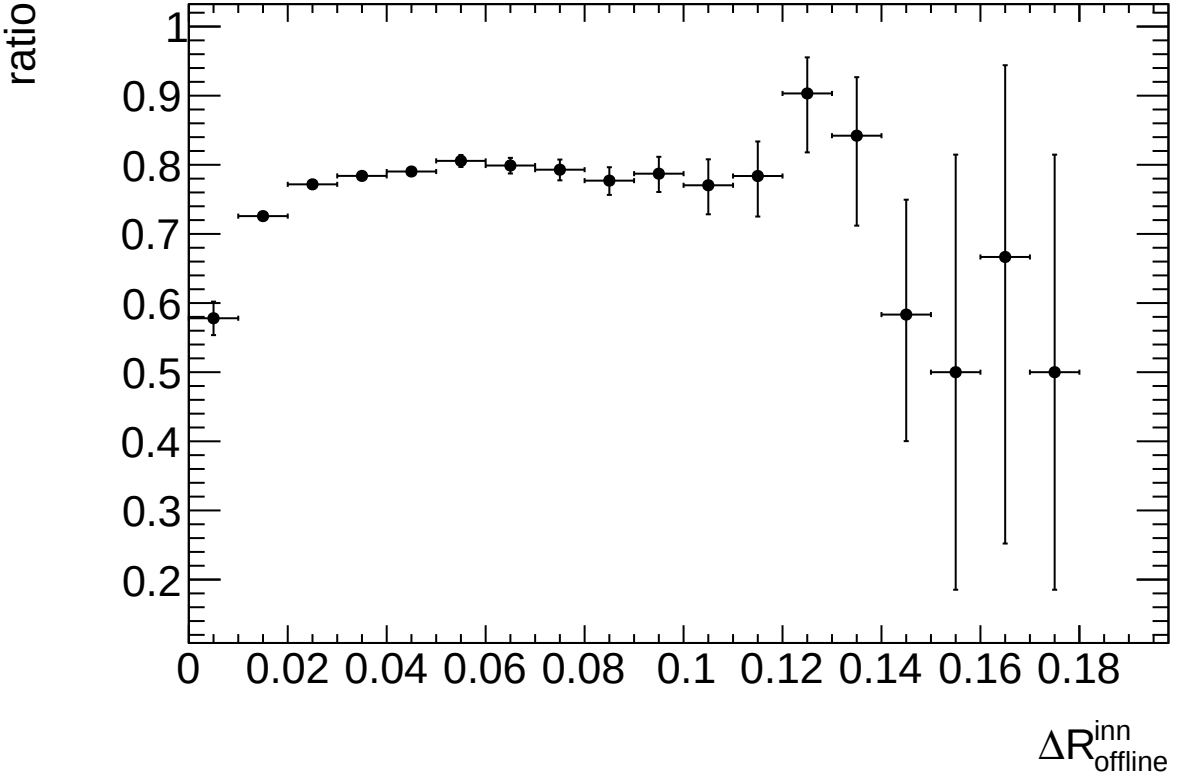
$N_{superpoint}$ condition when much lower p_T was calculated



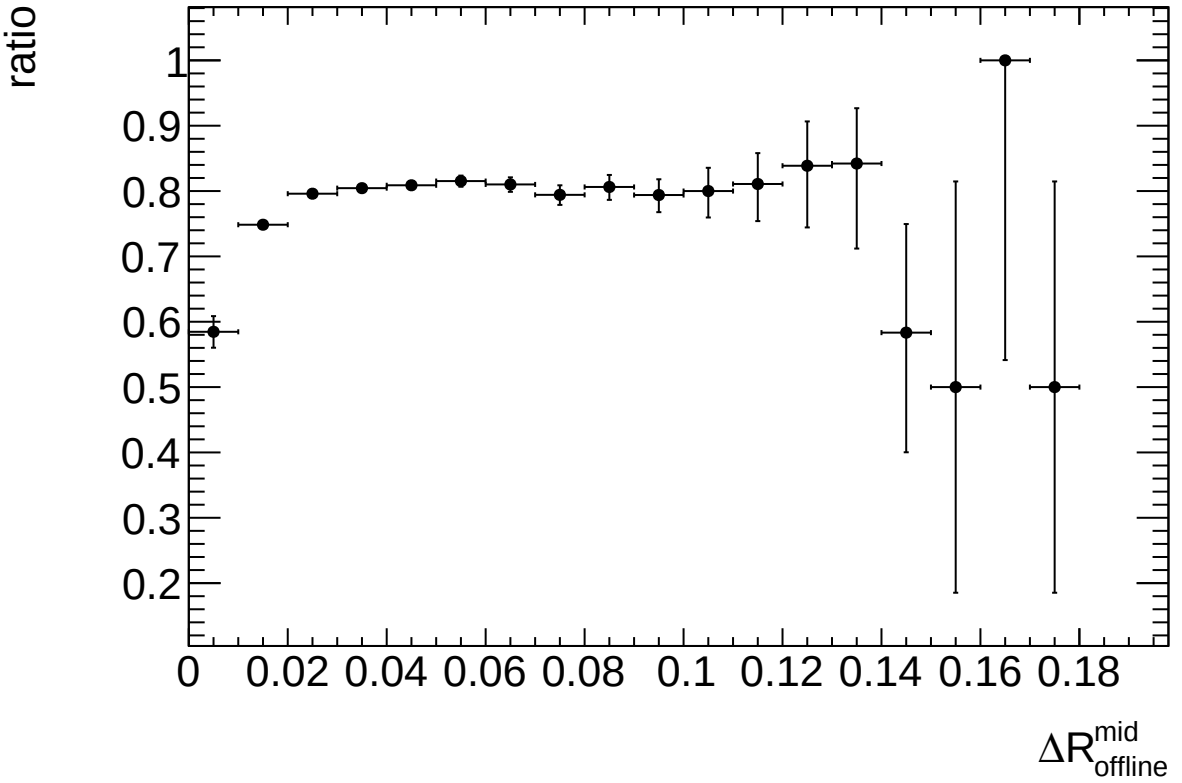
Ratio of N_{spall}=2 events

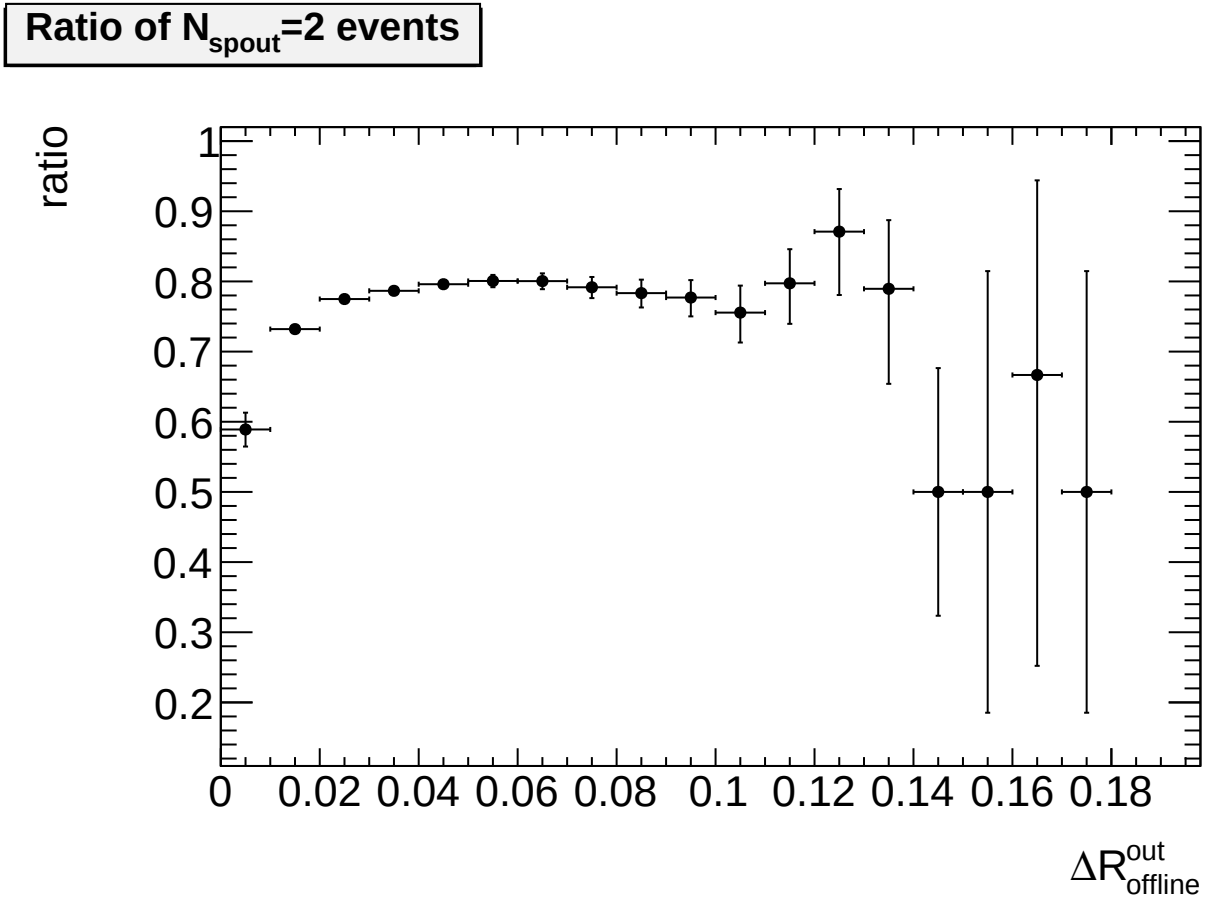


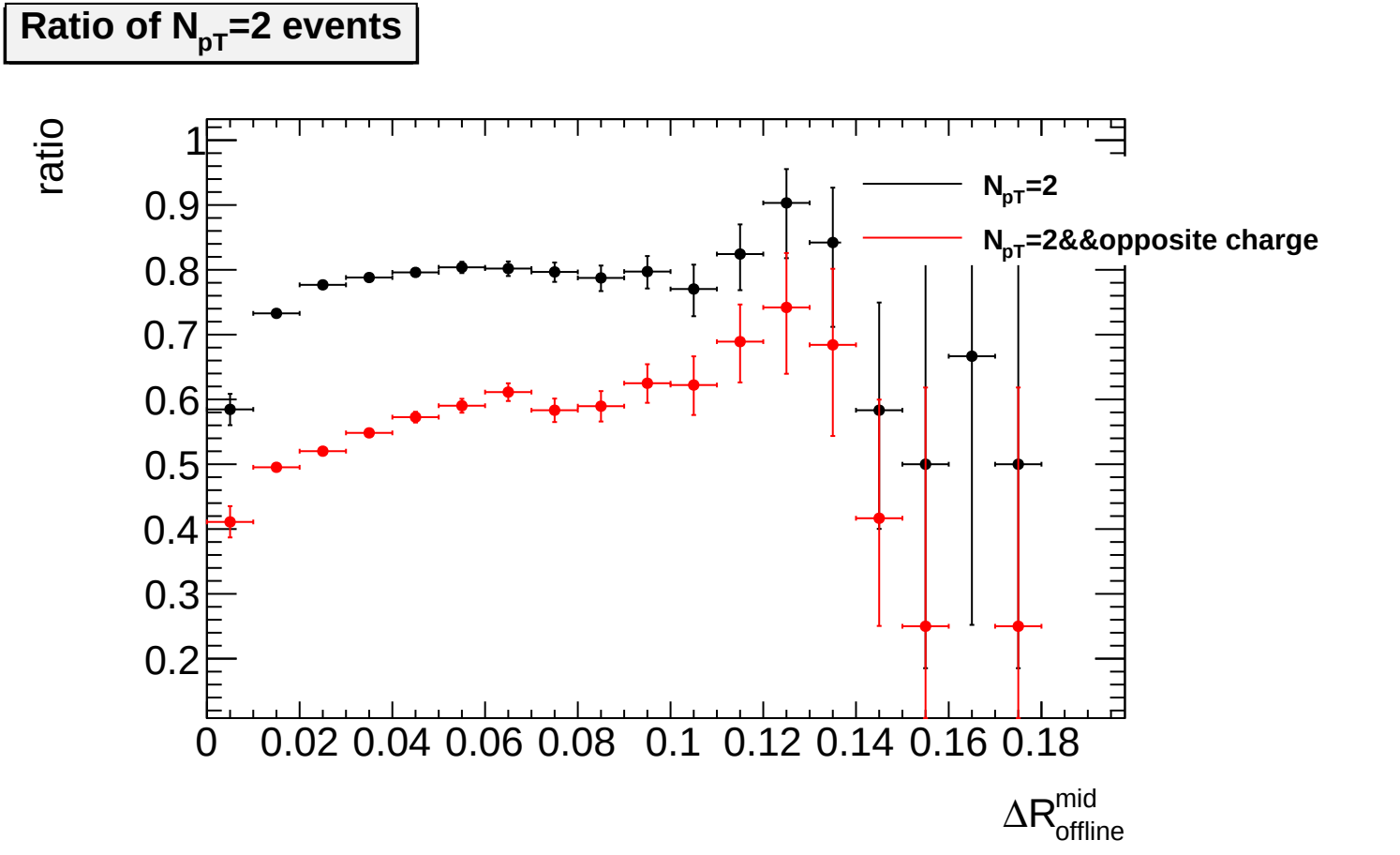
Ratio of N_{spinn}=2 events

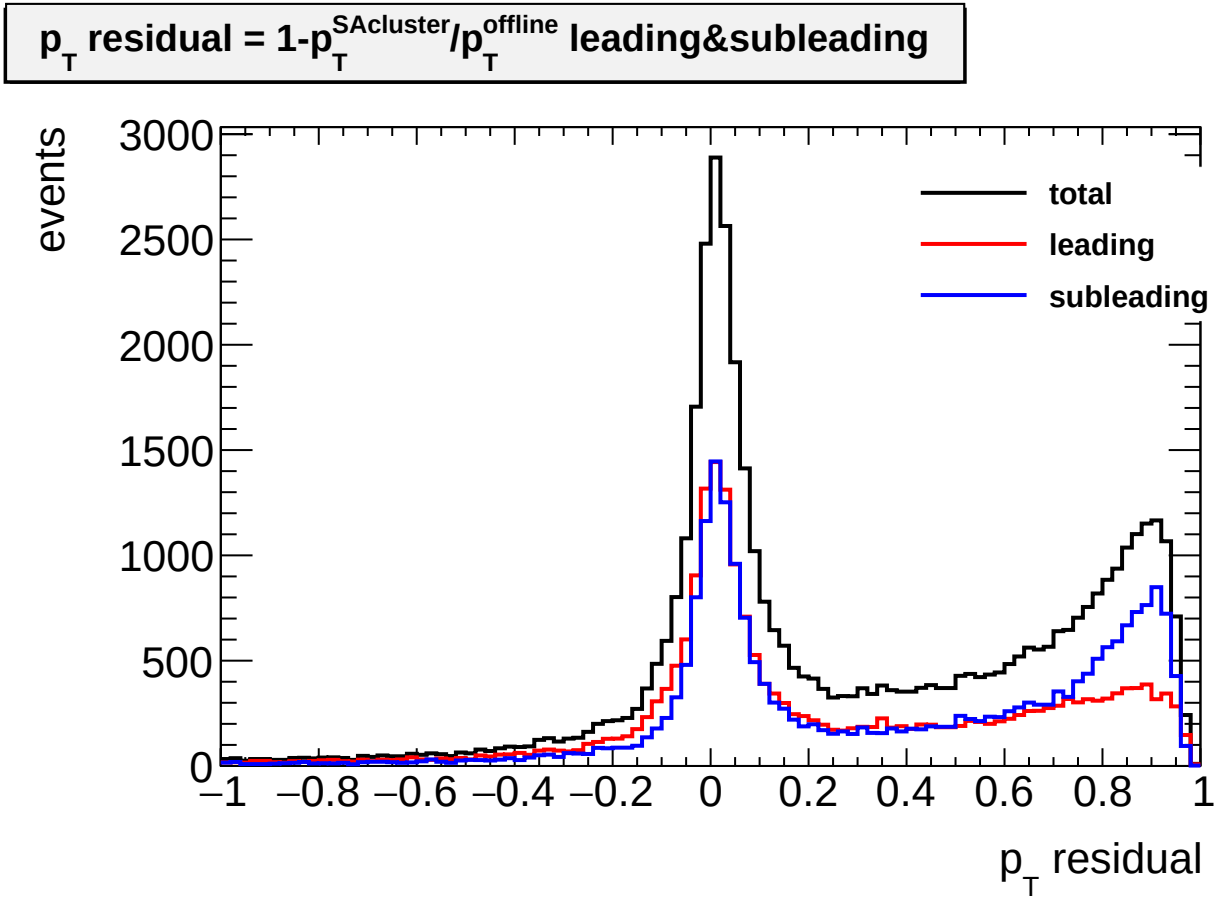


Ratio of N_{spmid}=2 events

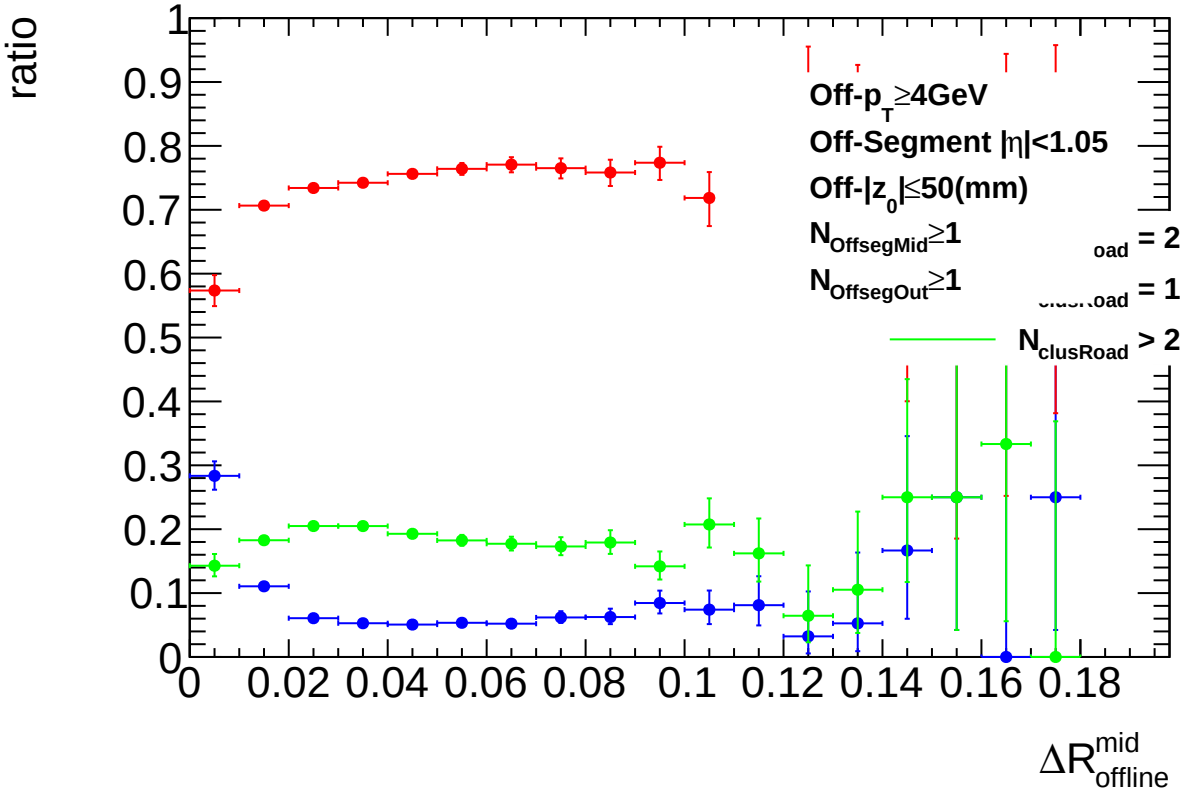


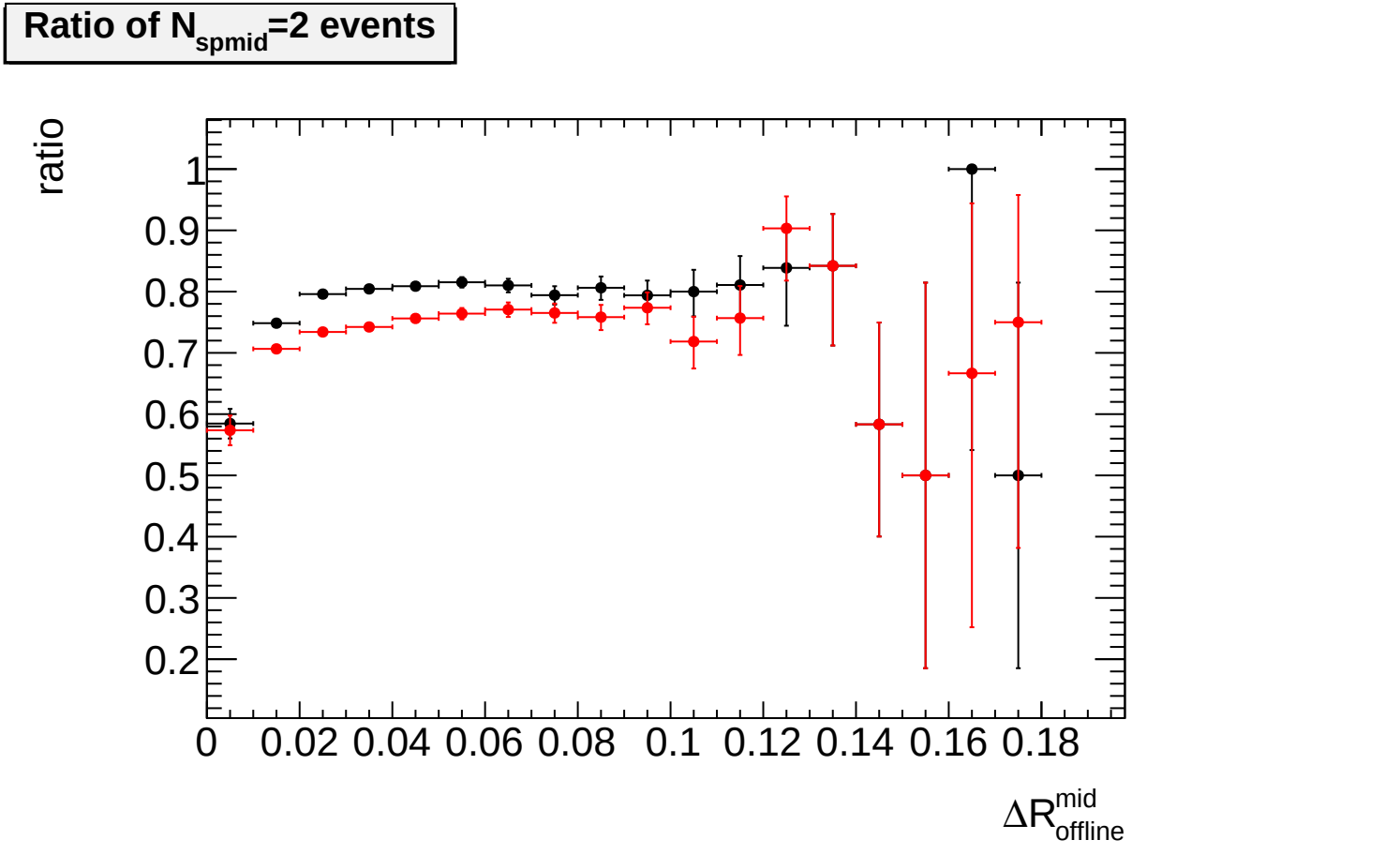

Ratio of N_spout=2 events
ratio
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0
0.02
0.04
0.06
0.08
0.1
0.12
0.14
0.16
0.18
ΔR^out_offline

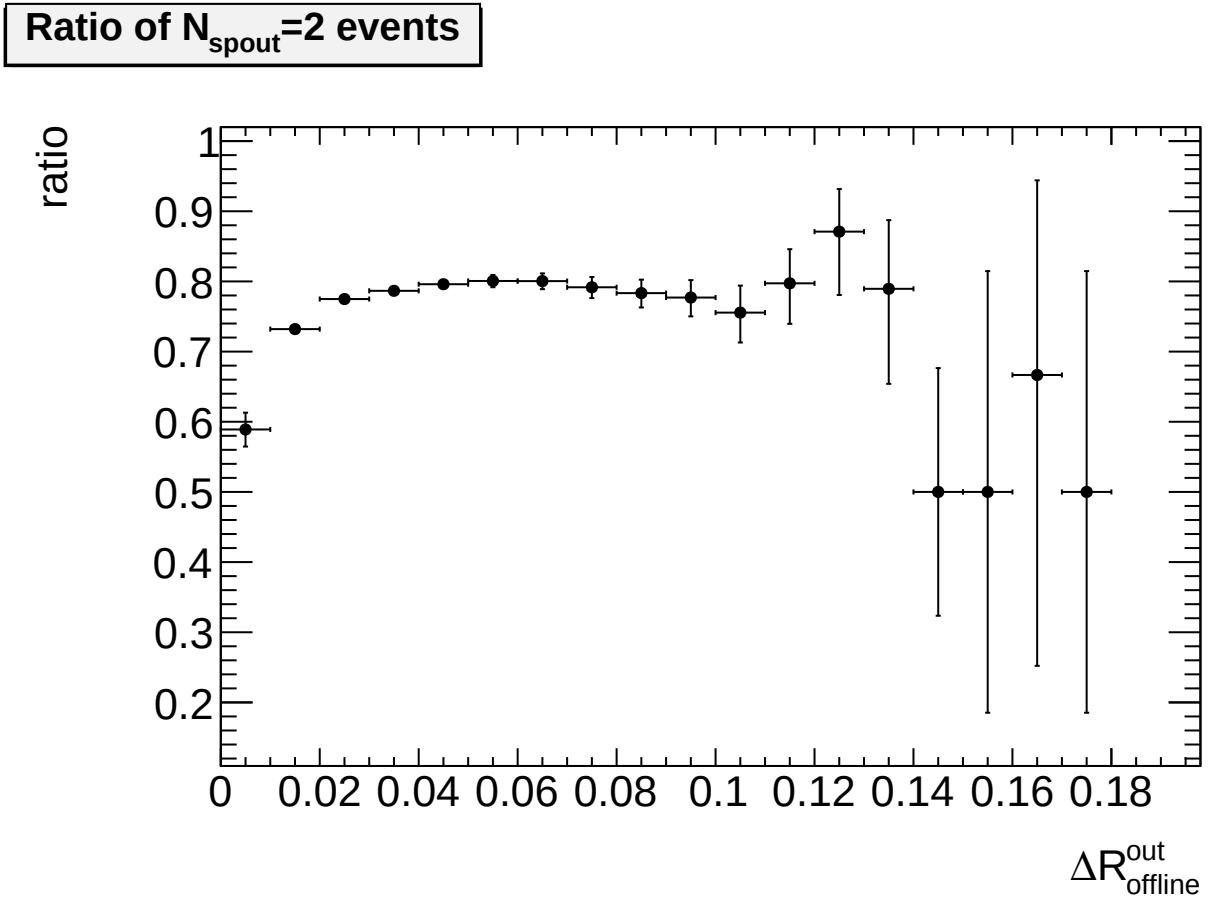

Ratio of N_{pT}=2 events
ratio
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0
0.02
0.04
0.06
0.08
0.1
0.12
0.14
0.16
0.18
$\Delta R^{mid}_{offline}$
N_{pT}=2
N_{pT}=2&&opposite charge

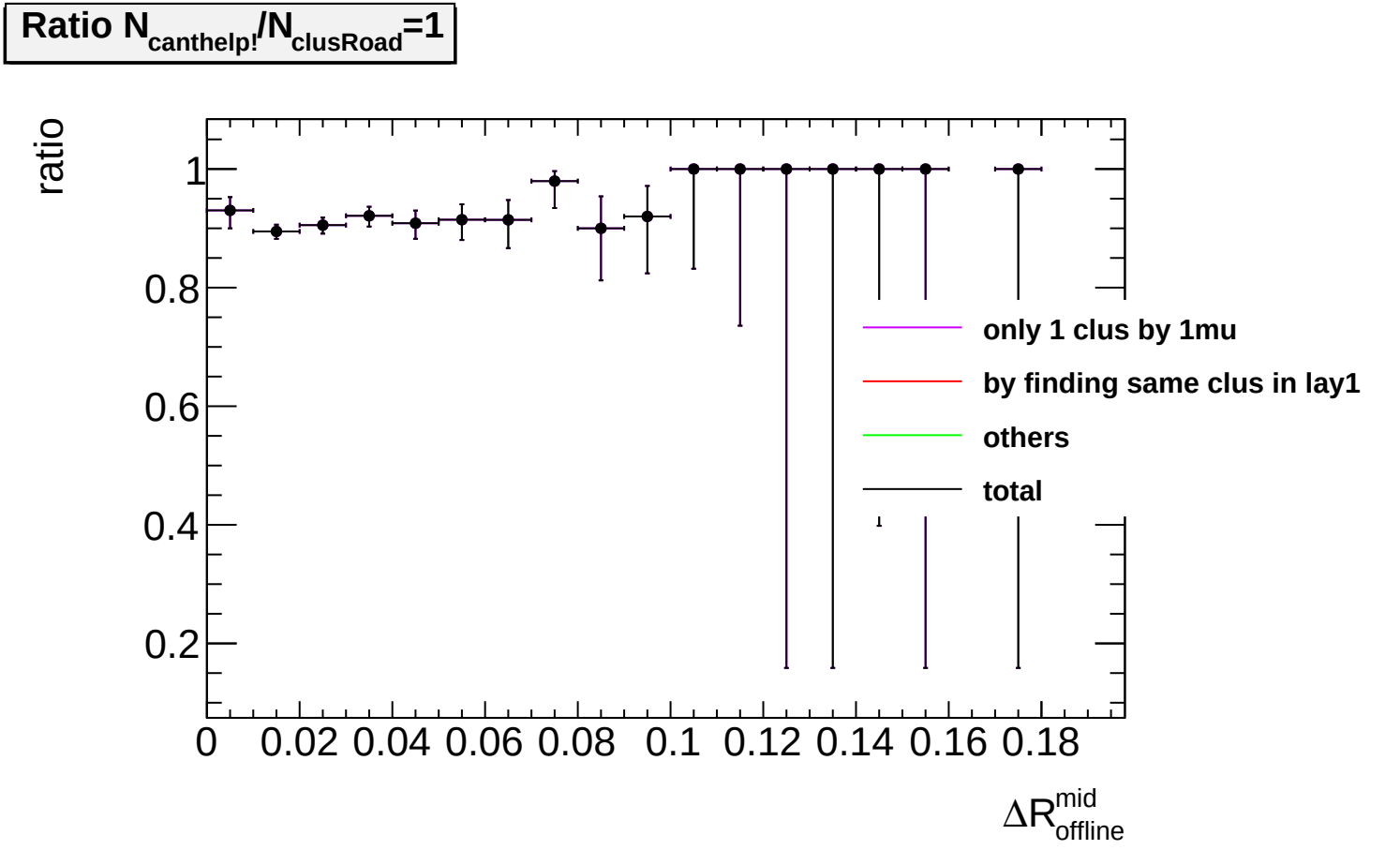

p_T residual = 1-$p_T^{SAcluster}/p_T^{offline}$ leading&subleading
events
3000
2500
2000
1500
1000
500
0
−1
−0.8
−0.6
−0.4
−0.2
0
0.2
0.4
0.6
0.8
1
p_T residual
total
leading
subleading

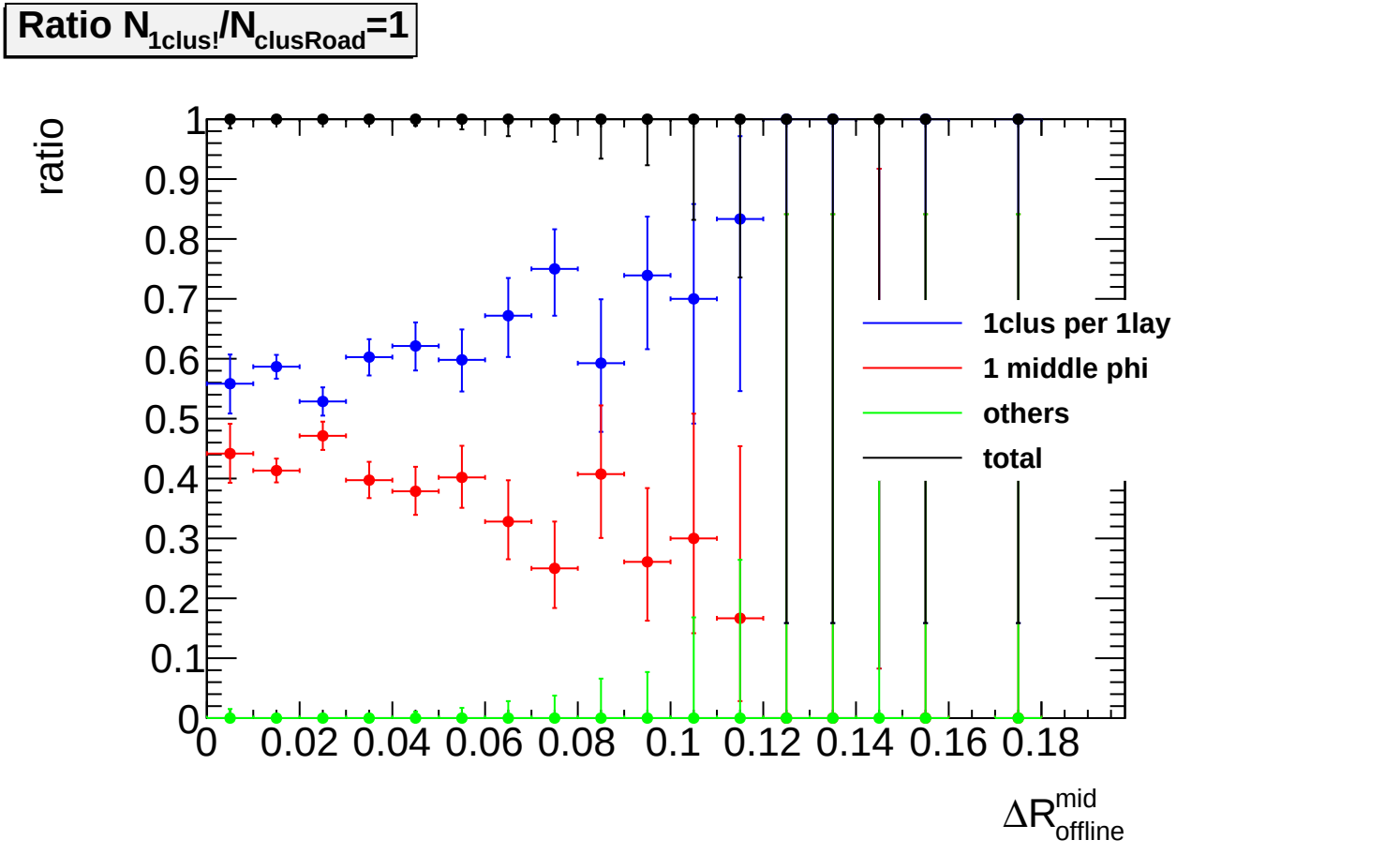
Ratio of $N_{clusRoad}$=2 events

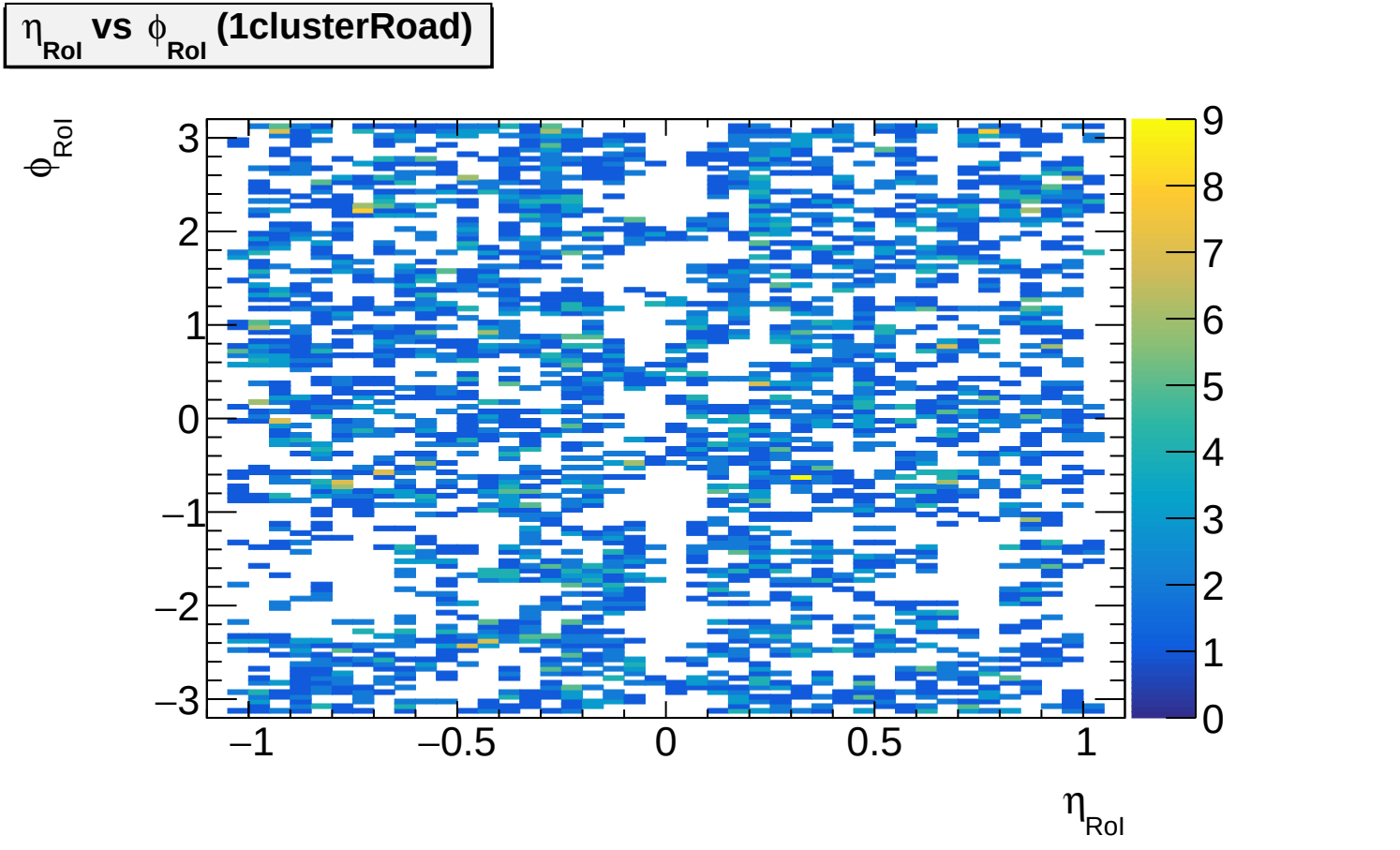


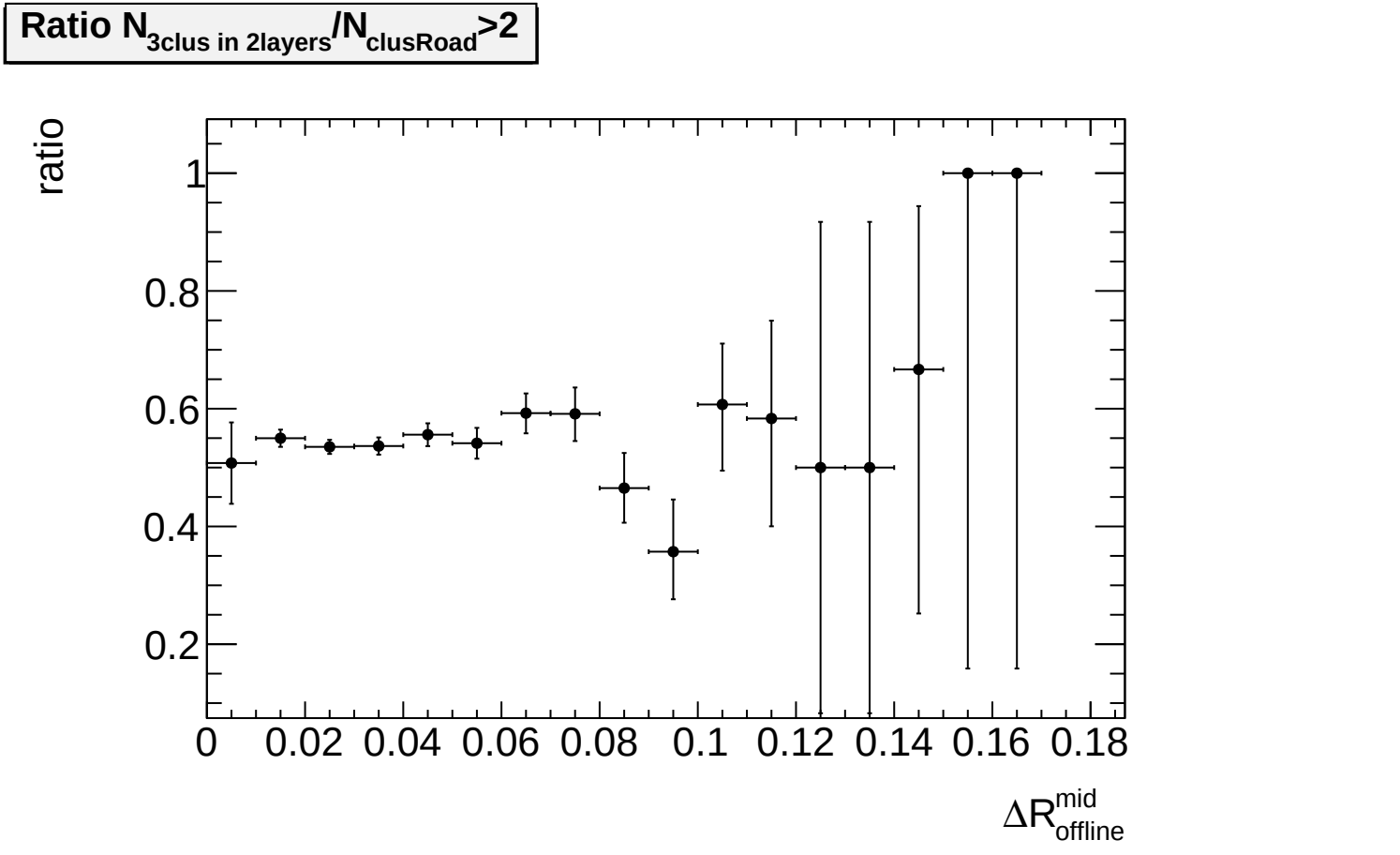

Ratio of N_spmid=2 events
ratio
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0
0.02
0.04
0.06
0.08
0.1
0.12
0.14
0.16
0.18
ΔR^mid_offline

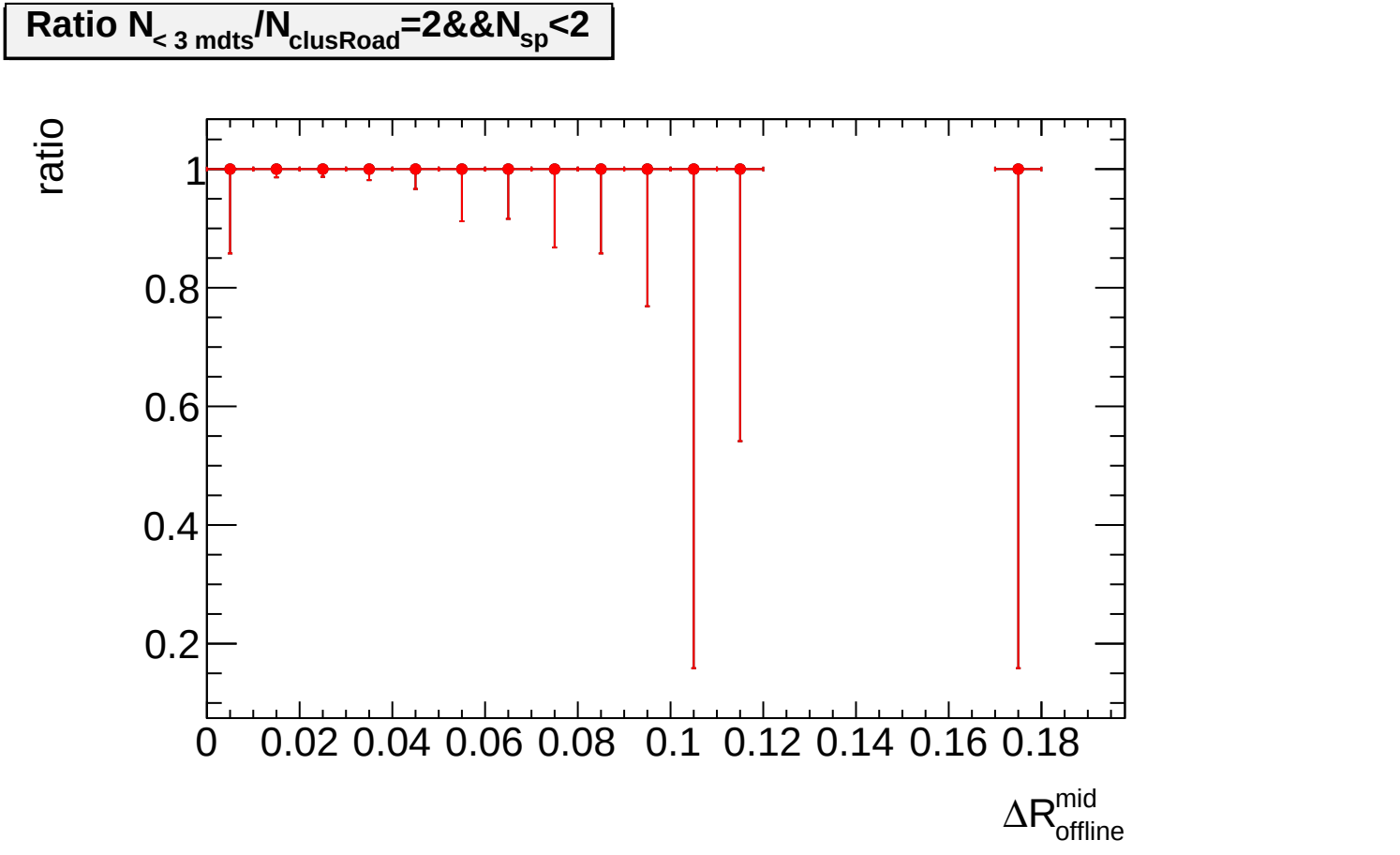

Ratio of N_spout=2 events
ratio
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0
0.02
0.04
0.06
0.08
0.1
0.12
0.14
0.16
0.18
ΔR^out_offline

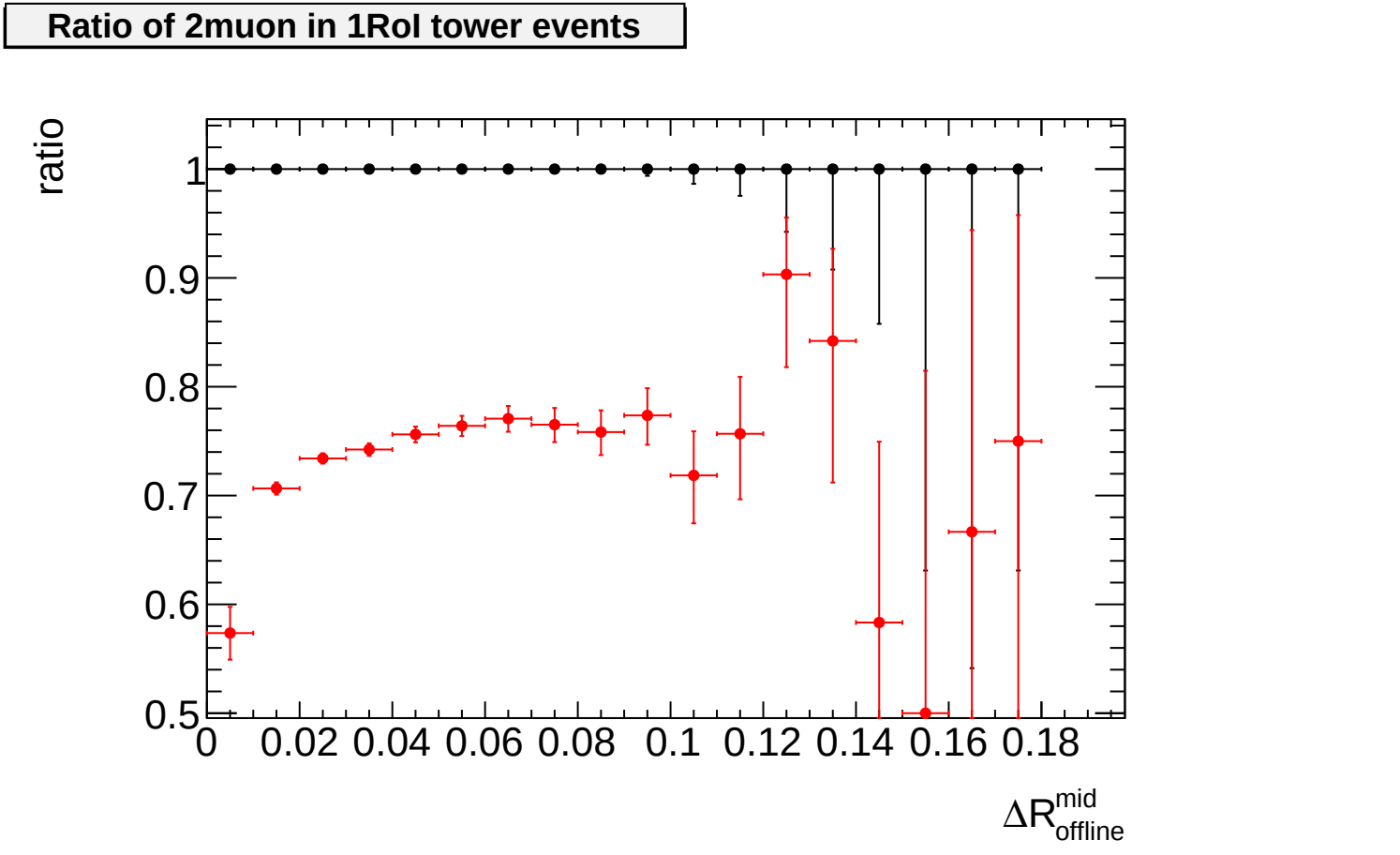

Ratio N canthelp!/N clusRoad=1
ratio
1
0.8
0.6
0.4
0.2
0
0.02
0.04
0.06
0.08
0.1
0.12
0.14
0.16
0.18
only 1 clus by 1mu
by finding same clus in lay1
others
total
ΔR mid offline

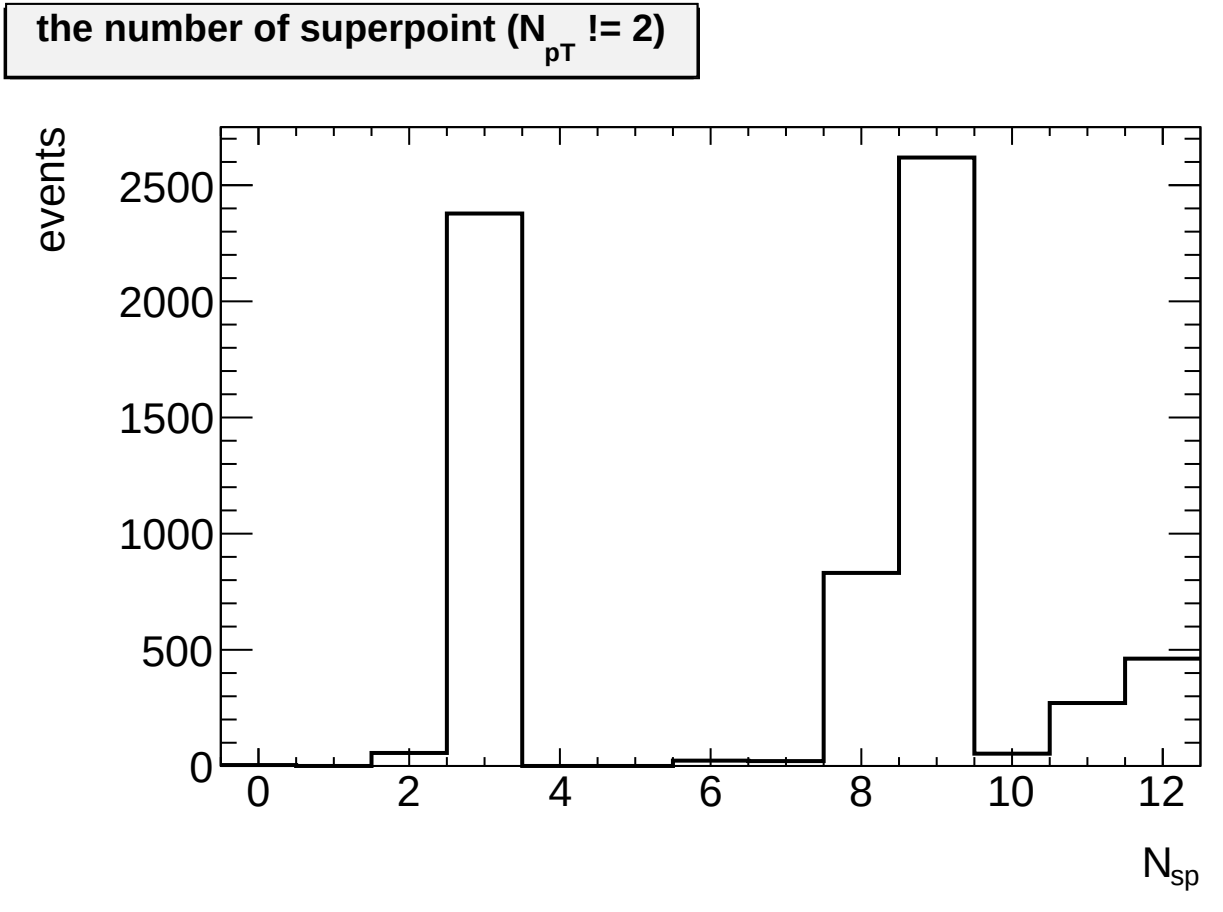

Ratio N1clus!/NclusRoad=1
ratio
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
0
0.02
0.04
0.06
0.08
0.1
0.12
0.14
0.16
0.18
1clus per 1lay
1 middle phi
others
total
ΔRmid offline

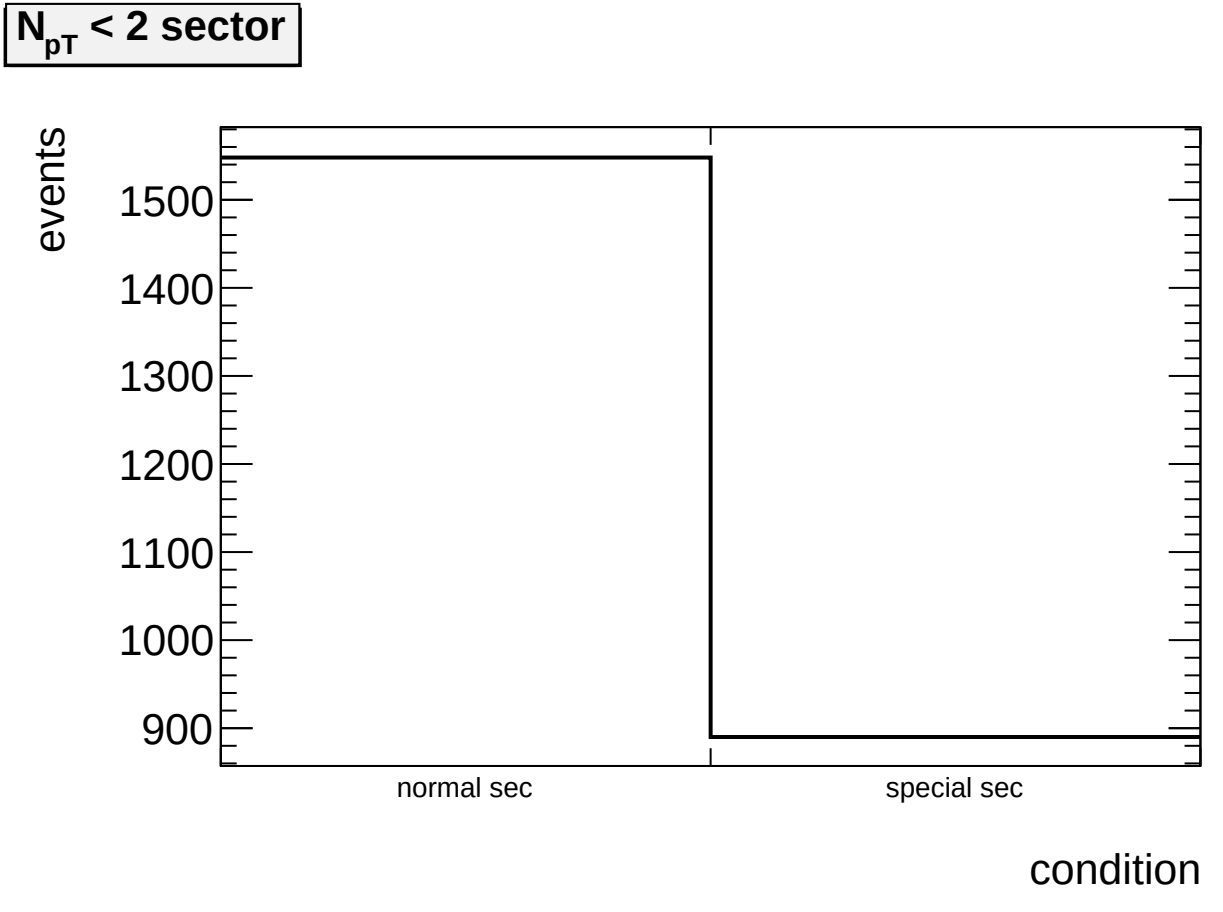

η_{RoI} vs ϕ_{RoI} (1clusterRoad)
ϕ_{RoI}
3
2
1
0
−1
−2
−3
−1
−0.5
0
0.5
1
η_{RoI}
9
8
7
6
5
4
3
2
1
0

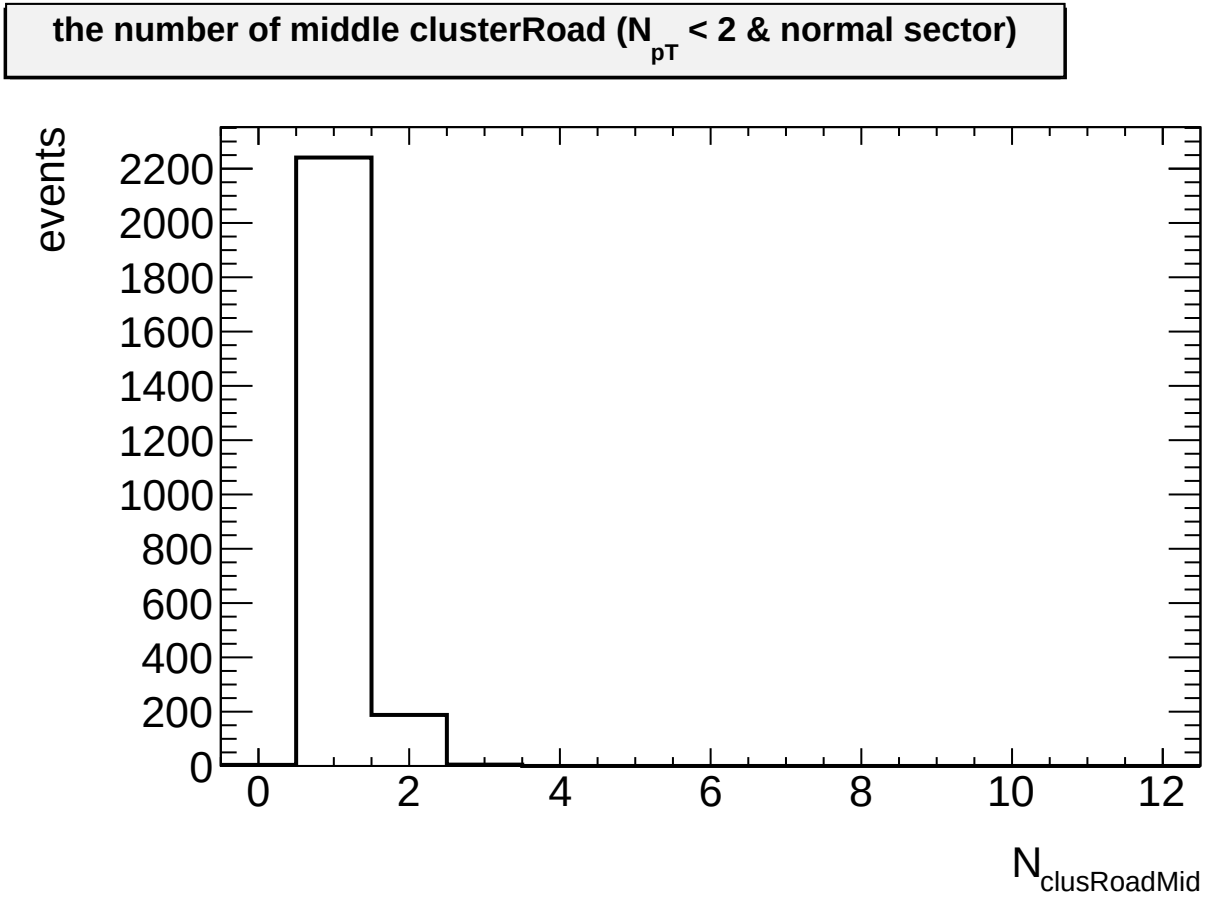

Ratio $N_{3clus\ in\ 2layers}/N_{clusRoad}>2$
ratio
1
0.8
0.6
0.4
0.2
0
0.02
0.04
0.06
0.08
0.1
0.12
0.14
0.16
0.18
$\Delta R^{mid}_{offline}$

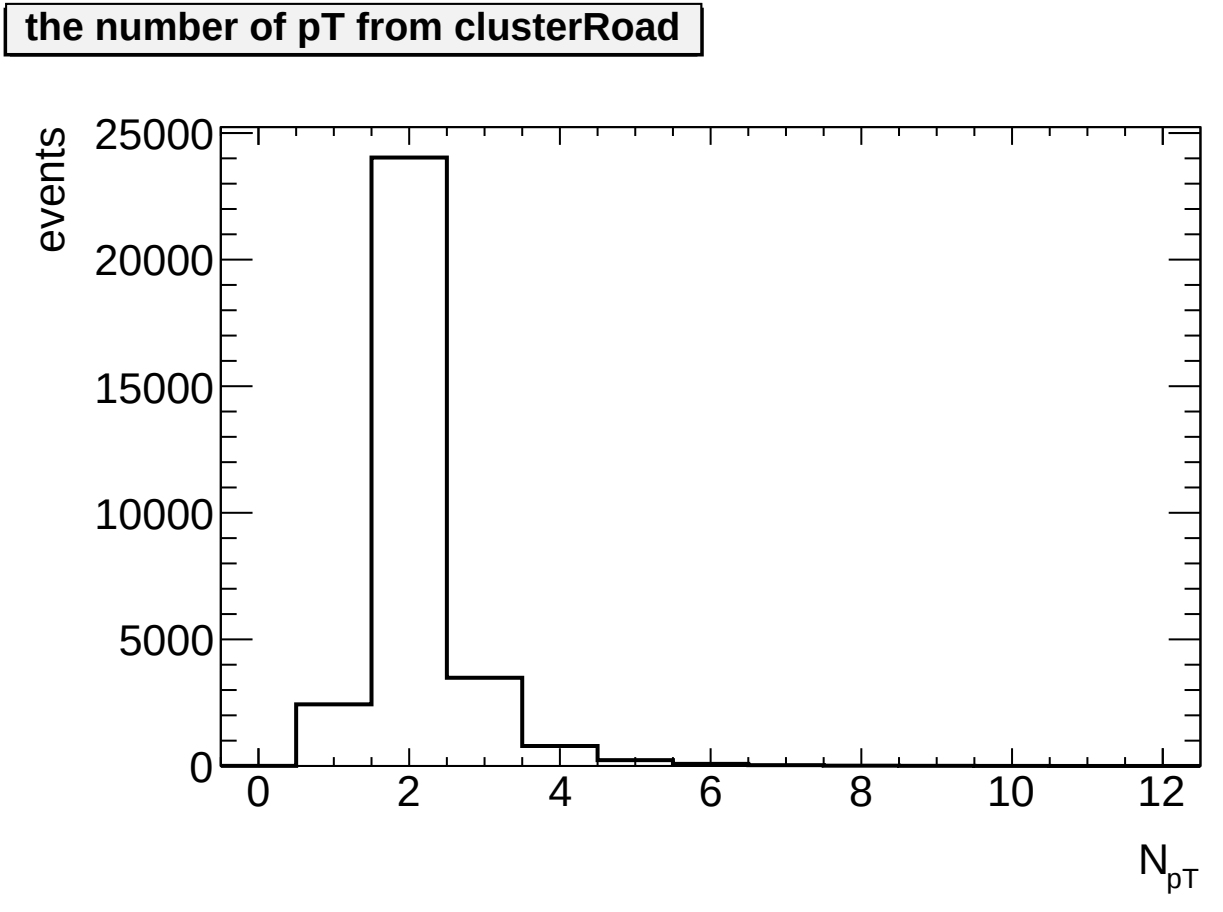

Ratio $N_{< 3\ mdts}/N_{clusRoad}=2\&\&N_{sp}<2$
ratio
1
0.8
0.6
0.4
0.2
0
0.02
0.04
0.06
0.08
0.1
0.12
0.14
0.16
0.18
$\Delta R^{mid}_{offline}$


Ratio of 2muon in 1RoI tower events
ratio
1
0.9
0.8
0.7
0.6
0.5
0
0.02
0.04
0.06
0.08
0.1
0.12
0.14
0.16
0.18
$\Delta R^{mid}_{offline}$


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
1500
1400
1300
1200
1100
1000
900
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