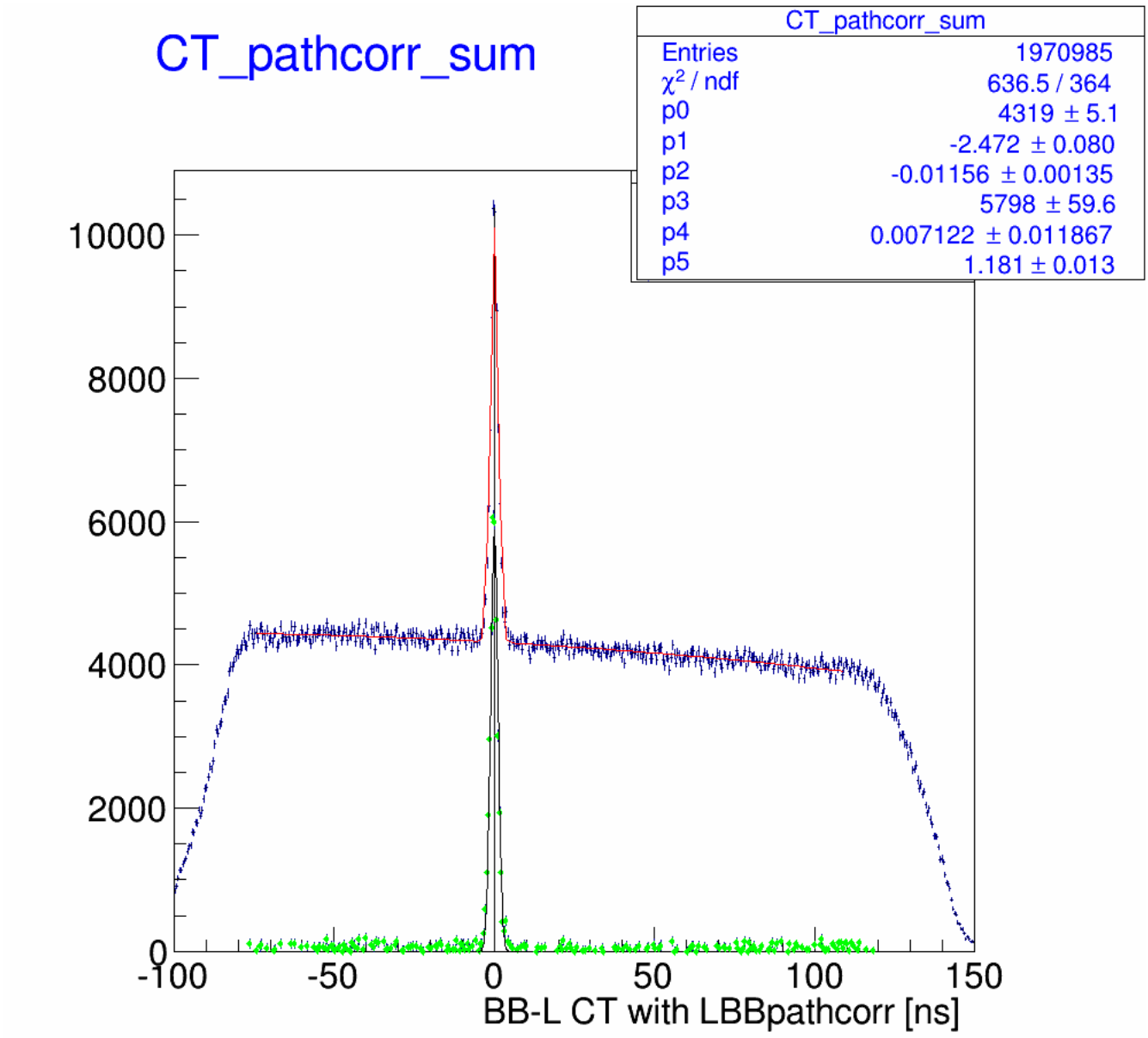
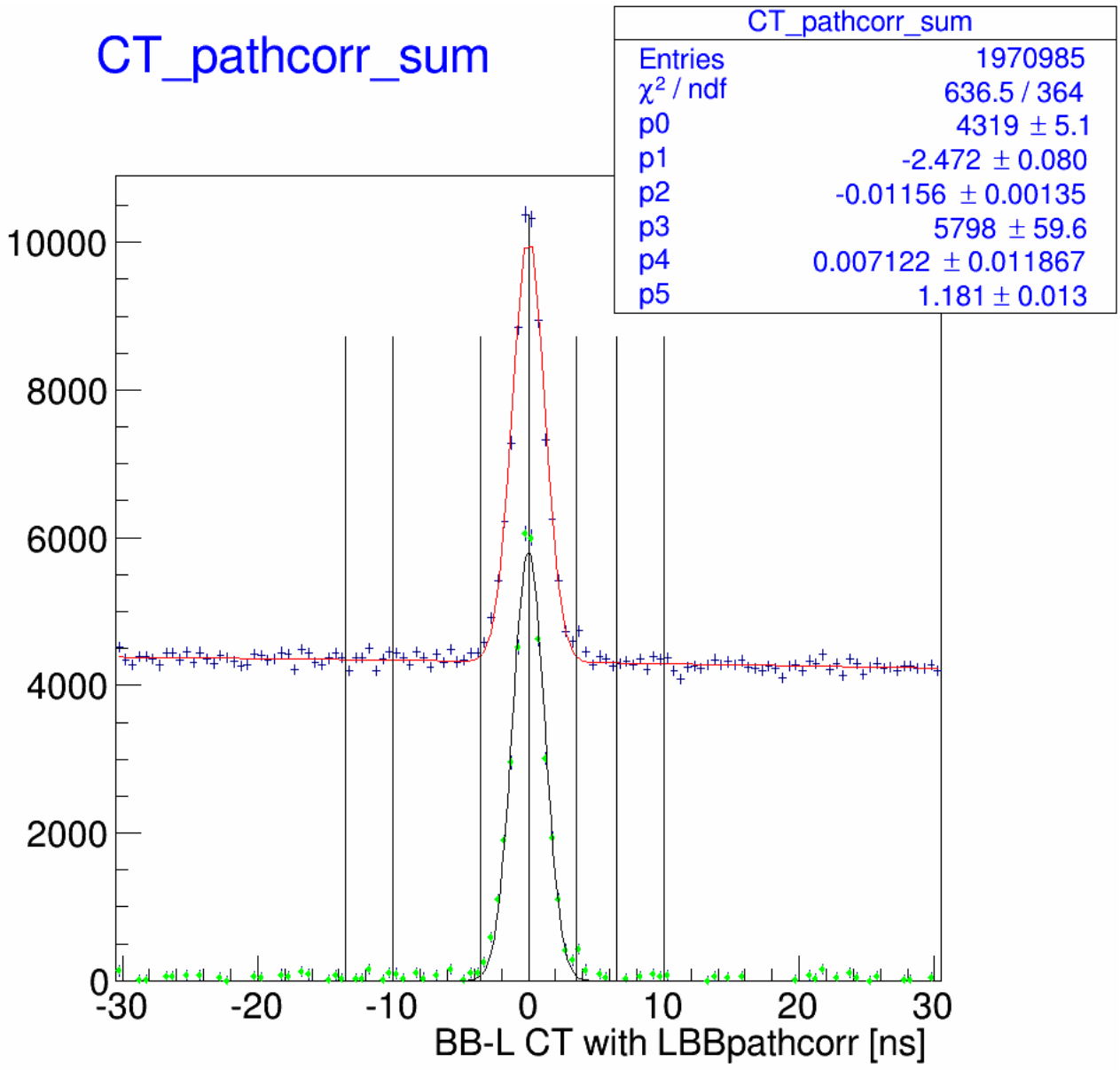
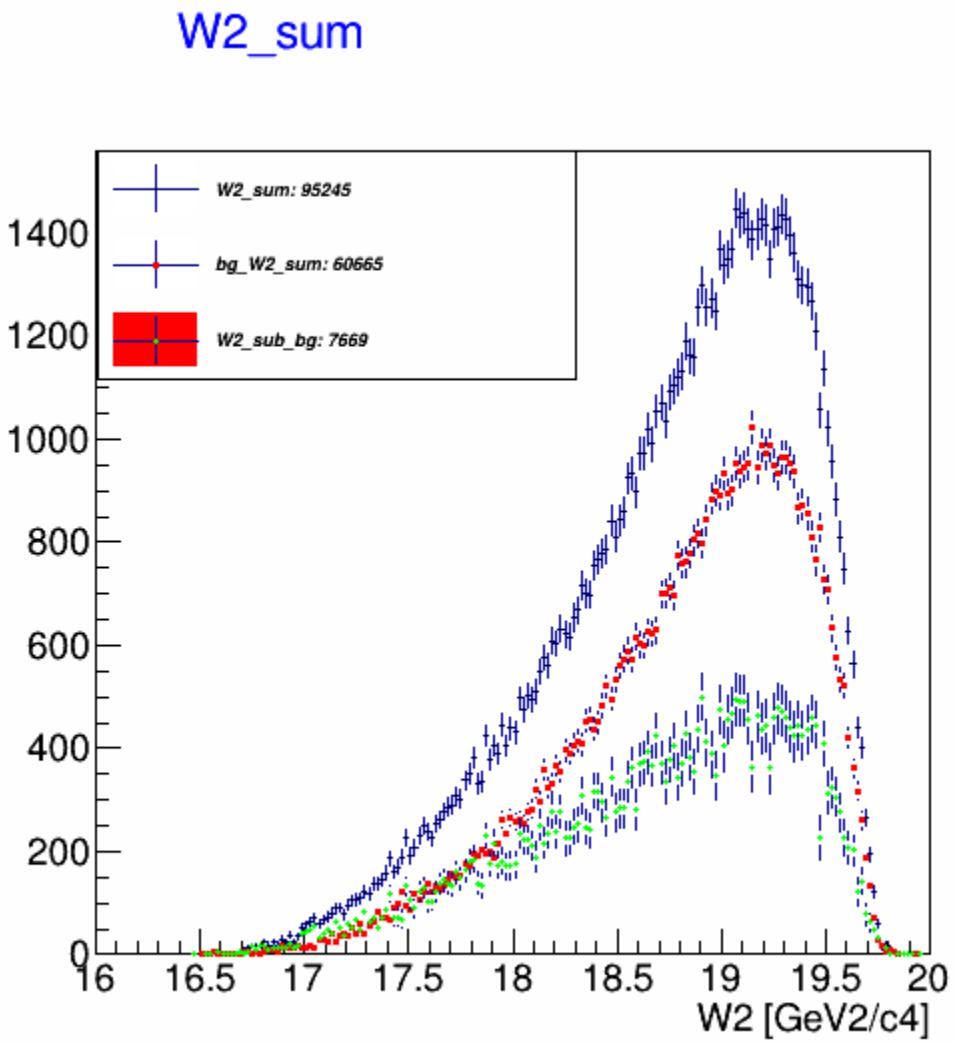


A1: proton CT pathcorr after correction. Sigma = 1.181 ns



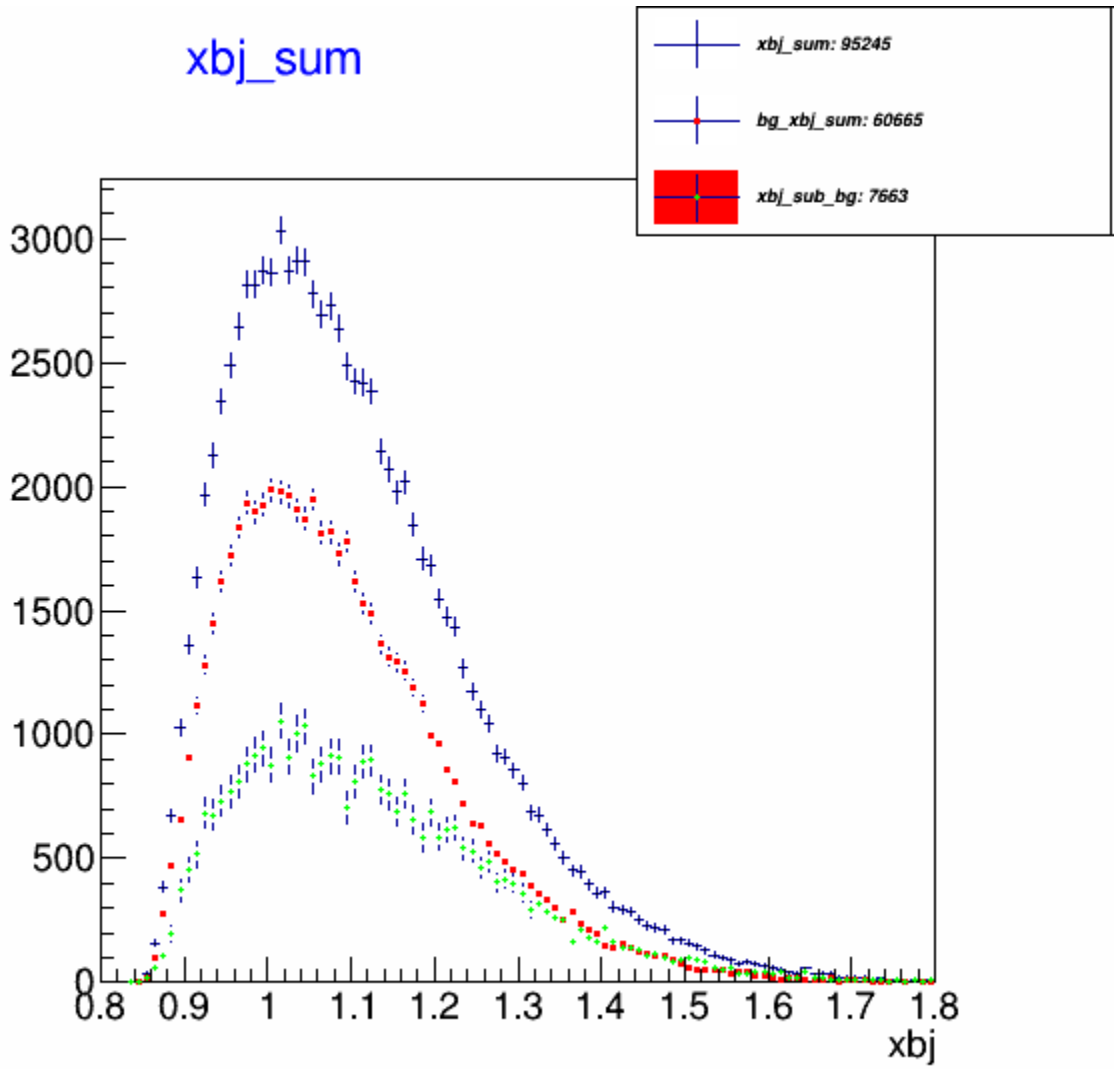
A2: proton CT pathcorr after correction. Sigma = 1.181 ns:
Making cut for proton within CT at +/-3.5 ns about 0
Making cut for background proton at -13.5 to -10 ns section and 6.5 to 10 ns.

Following are the parameter with Blue dot for proton within CT, Red sqare for background proton, and green diamond for the subtraction of the CT proton from background proton.

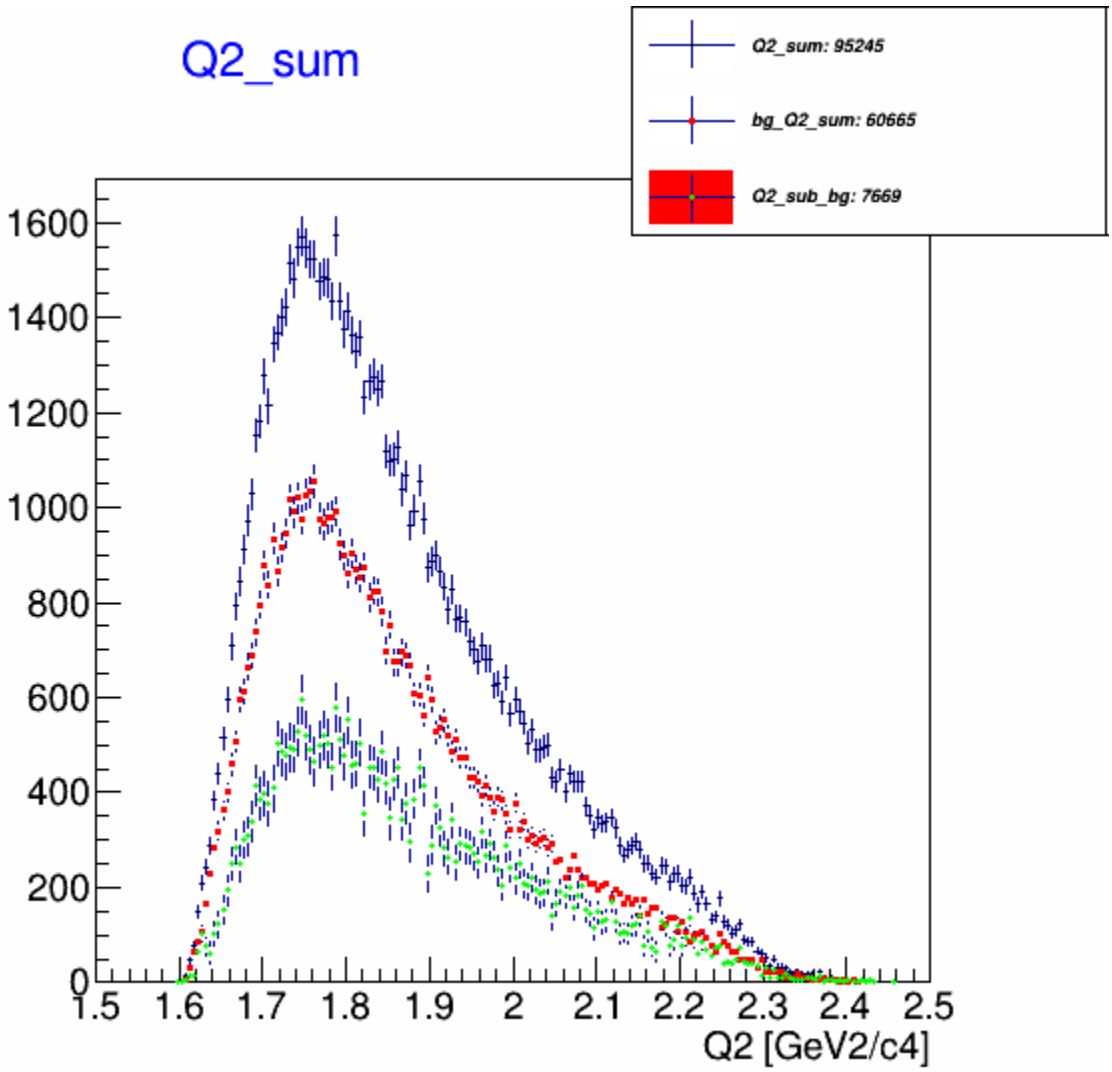


A3: W2 from (e,e')

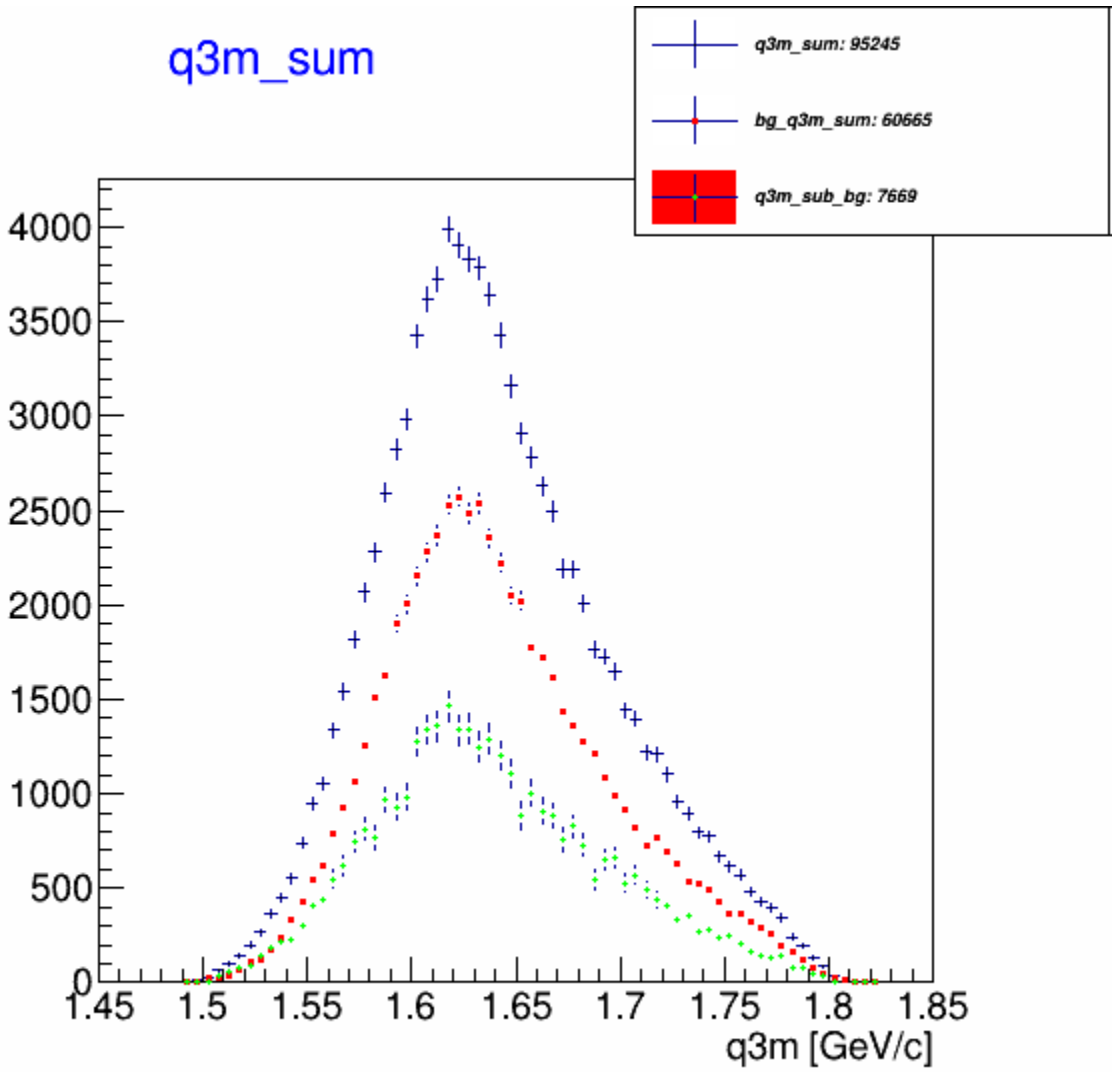
**** check what wrong with this W2 seems to be too high**


xbj_sum
xbj_sum: 95245
bg_xbj_sum: 60665
xbj_sub_bg: 7663
3000
2500
2000
1500
1000
500
0
0.8
0.9
1
1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
xbj

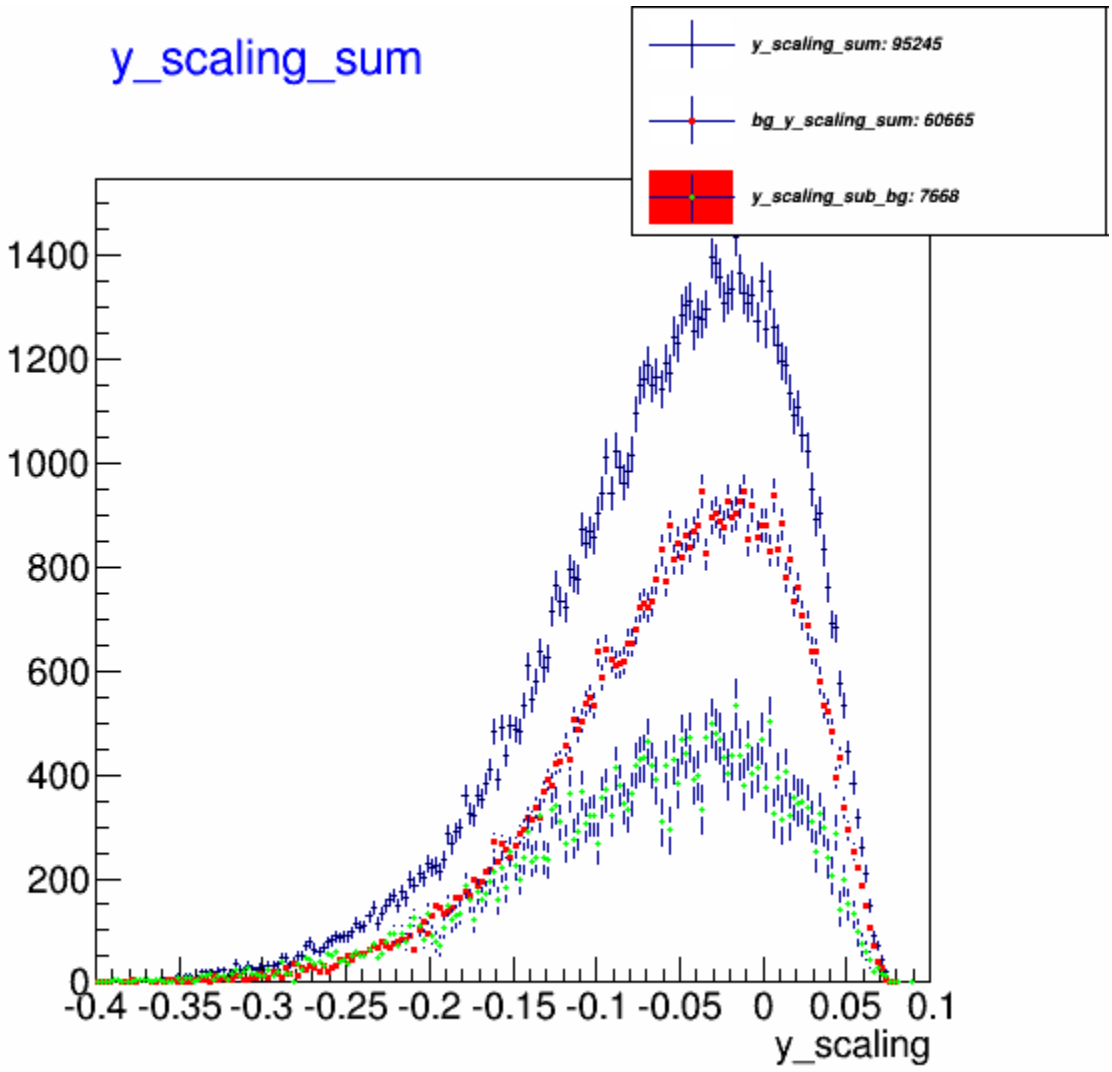
A4: xbj = Q2/(2Mp)


Q2_sum
Q2_sum: 95245
bg_Q2_sum: 60665
Q2_sub_bg: 7669
1600
1400
1200
1000
800
600
400
200
0
1.5
1.6
1.7
1.8
1.9
2
2.1
2.2
2.3
2.4
2.5
Q2 [GeV2/c4]

A5: Q2

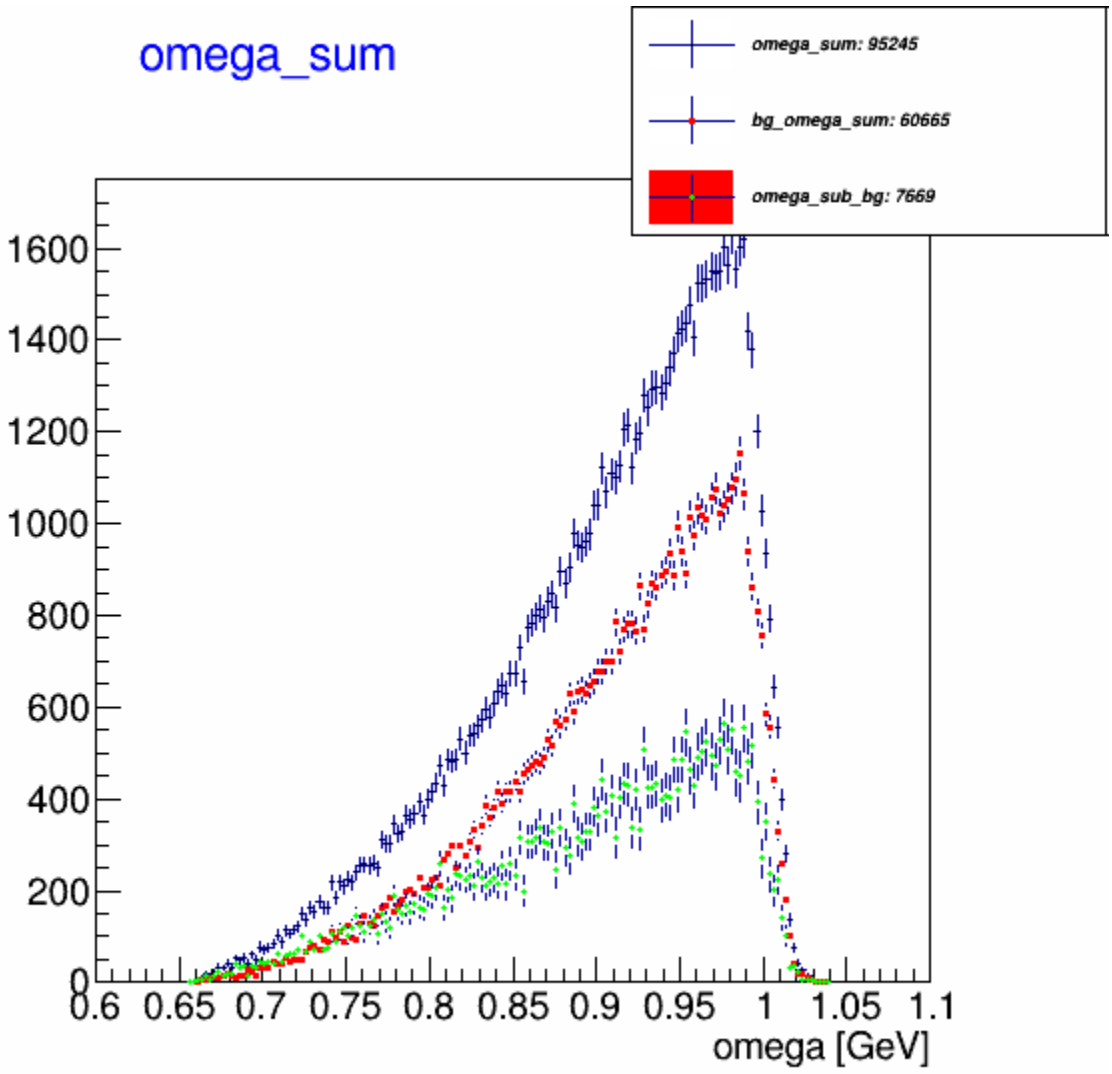

q3m_sum
q3m_sum: 95245
bg_q3m_sum: 60665
q3m_sub_bg: 7669
4000
3500
3000
2500
2000
1500
1000
500
0
1.45
1.5
1.55
1.6
1.65
1.7
1.75
1.8
1.85
q3m [GeV/c]

A6: |q|

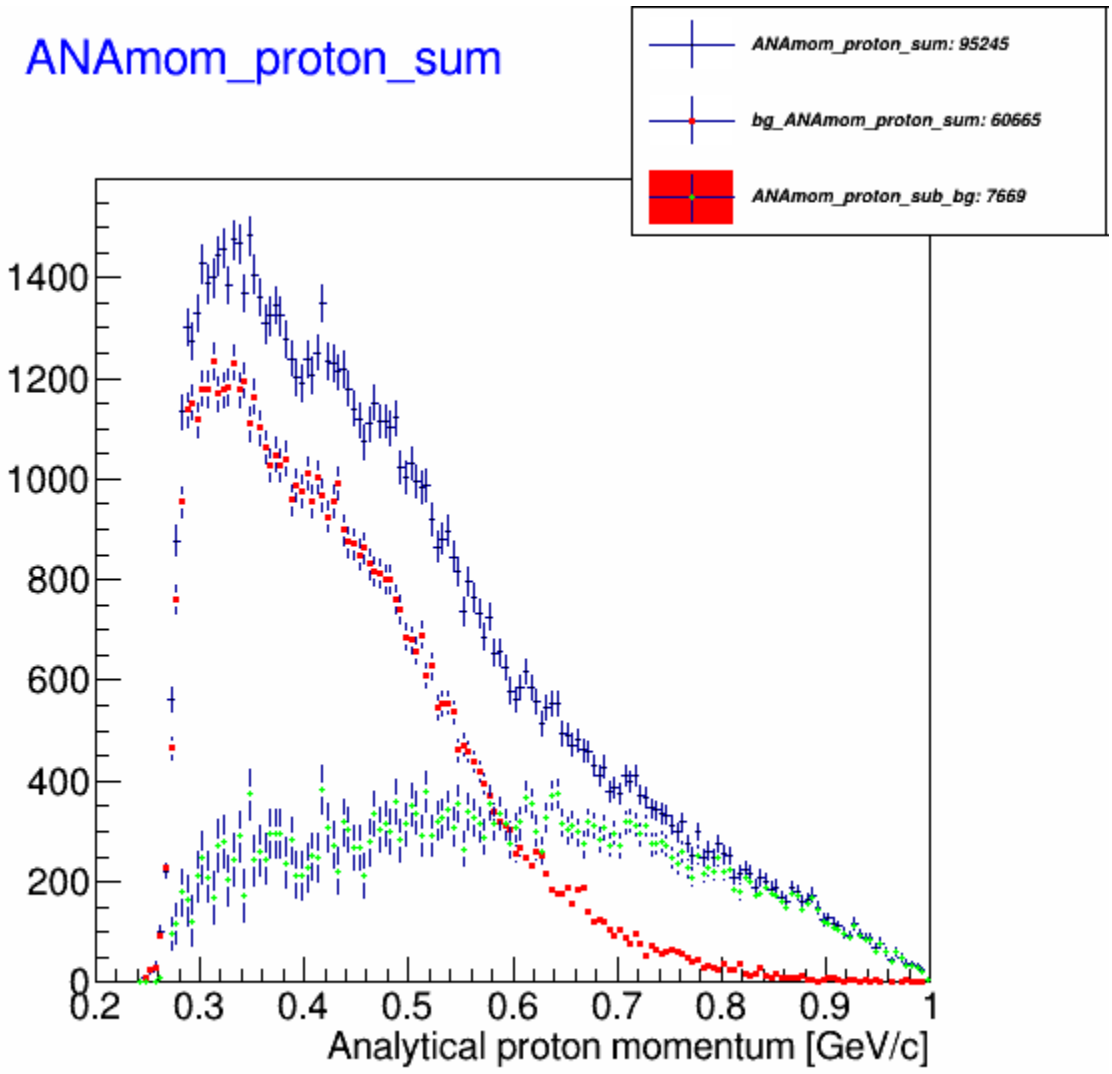


A7: y scaling =
((He4_mass+omega)*sqrt(lamda*lamda-He3_mass*He3_mass*W2)-lamda*q3m)/W2,

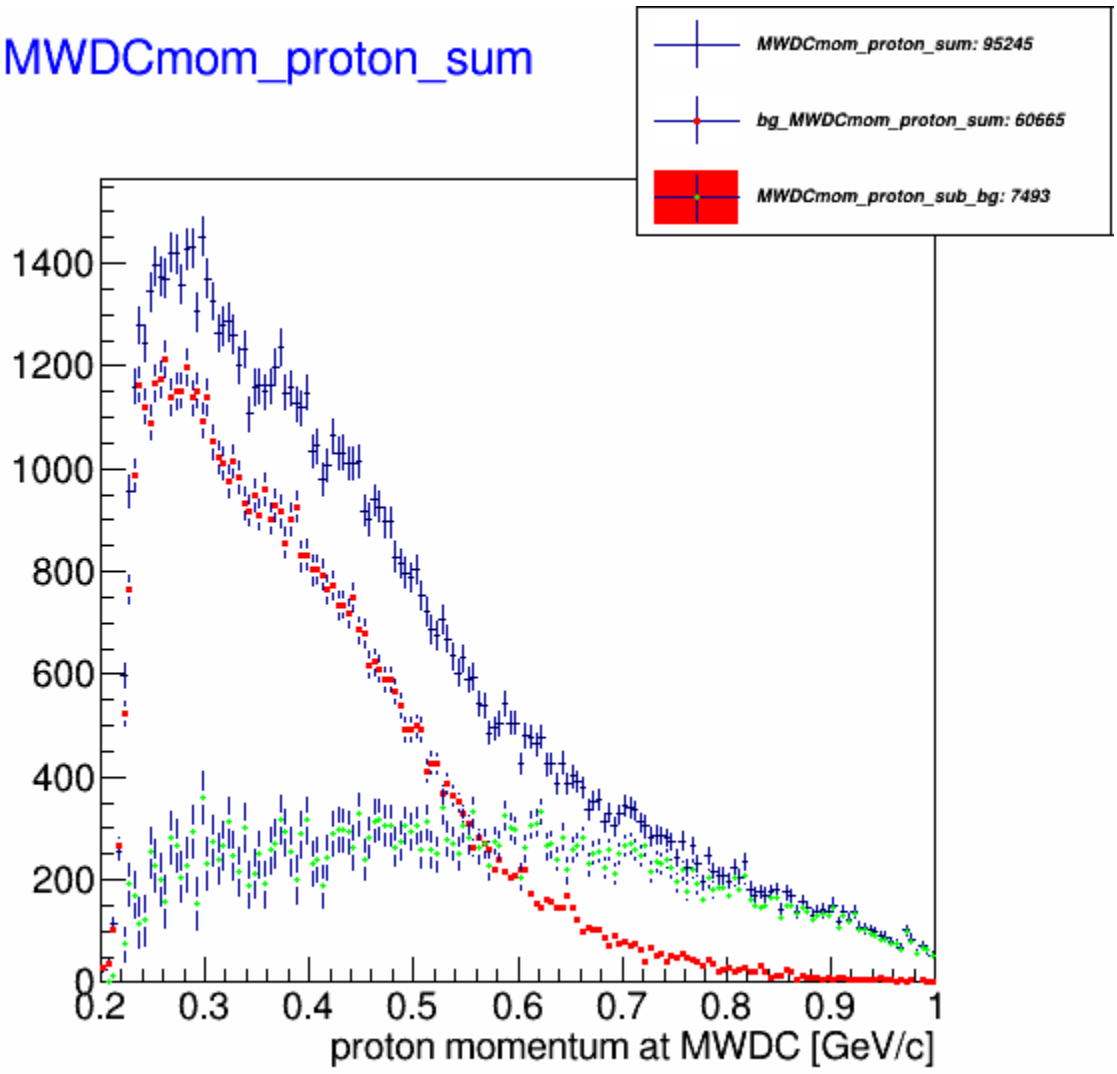
where
lamda = (He3_mass*He3_mass-proton_mass*proton_mass+W2)/2.;


omega_sum
omega_sum: 95245
bg_omega_sum: 60665
omega_sub_bg: 7669
1600
1400
1200
1000
800
600
400
200
0
0.6
0.65
0.7
0.75
0.8
0.85
0.9
0.95
1
1.05
1.1
omega [GeV]

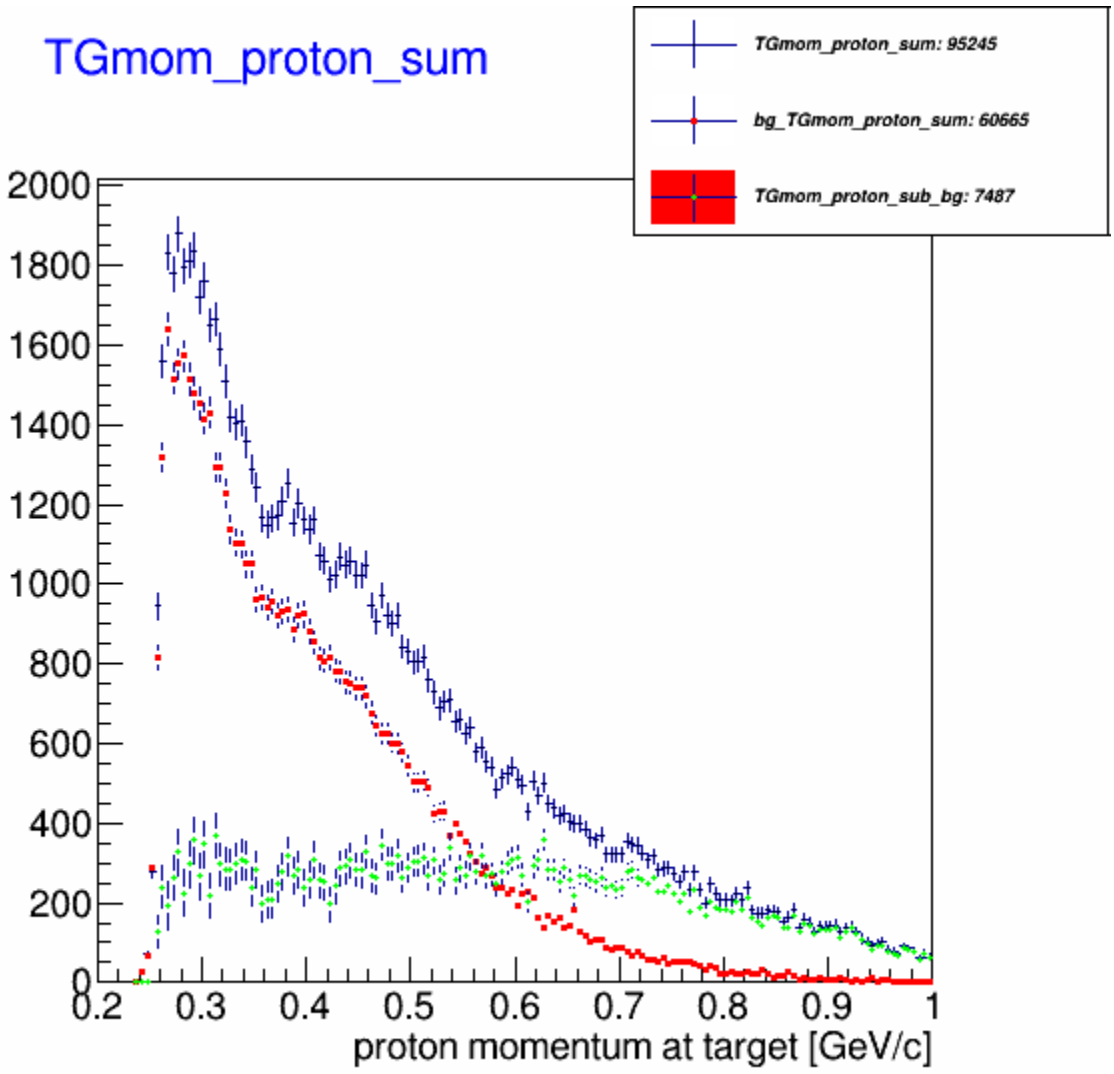
A8: omega = E – E'



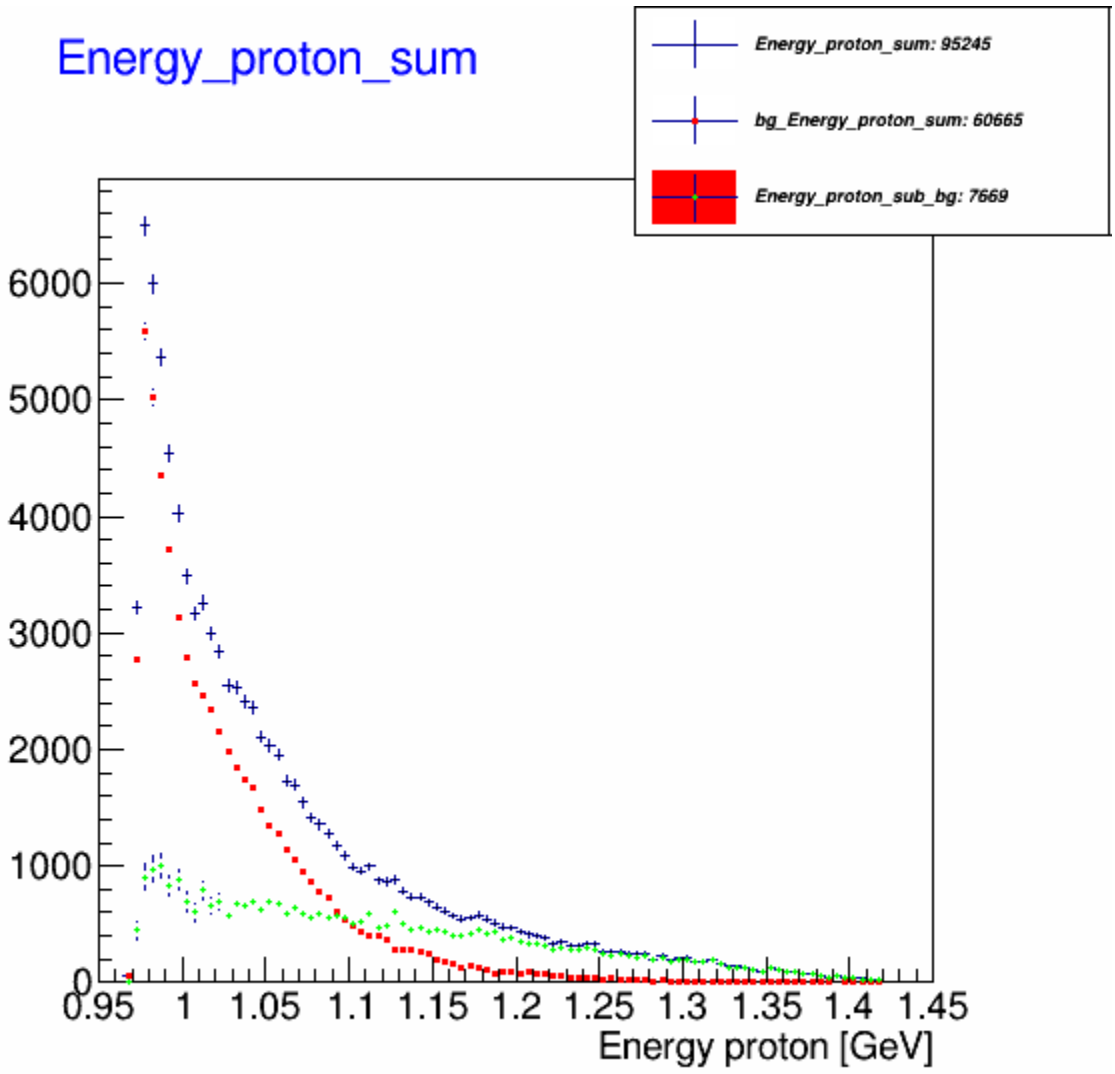
A9: Analytical momentum at MWDC



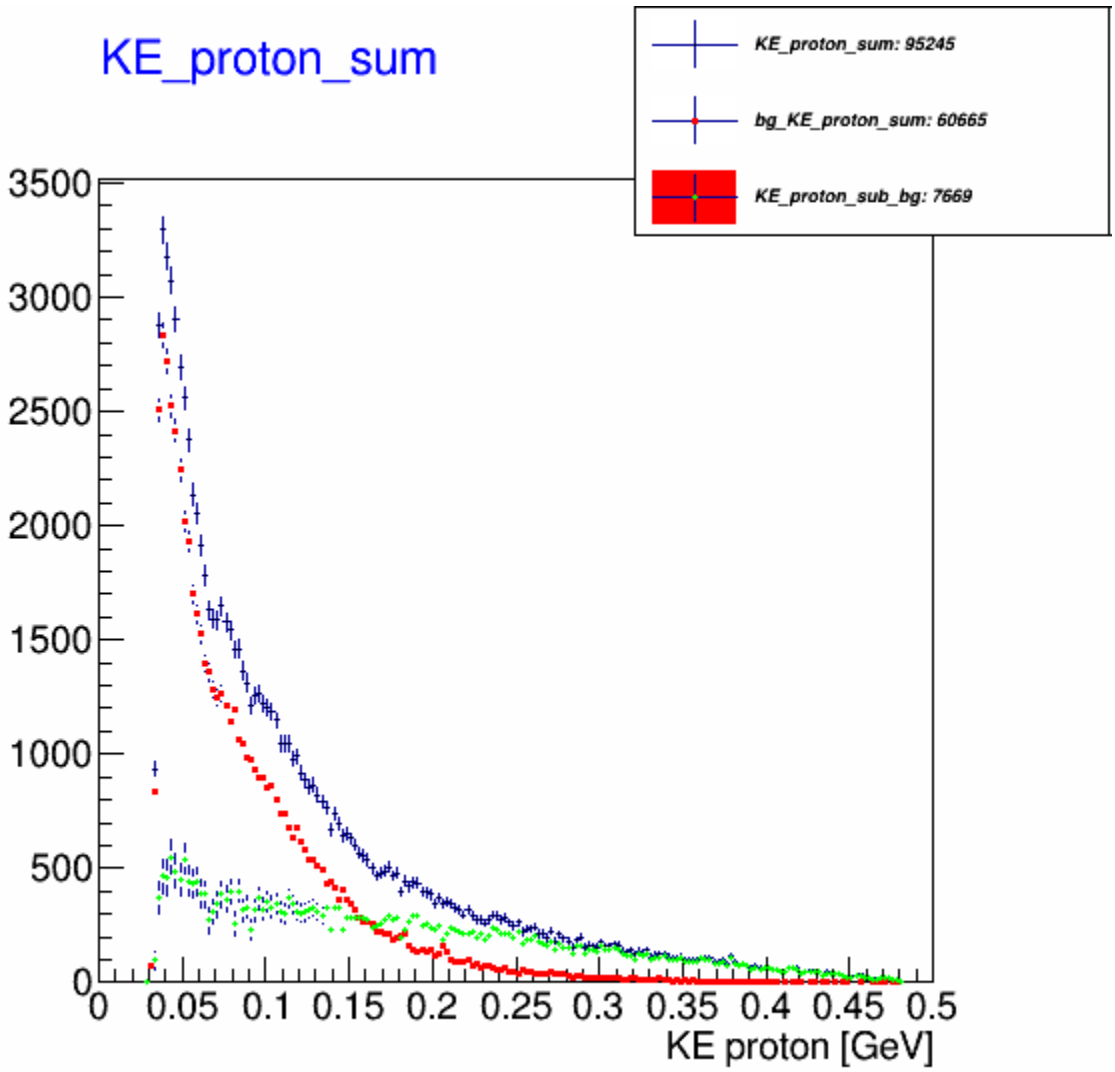
A10: proton momentum correction at MWDC



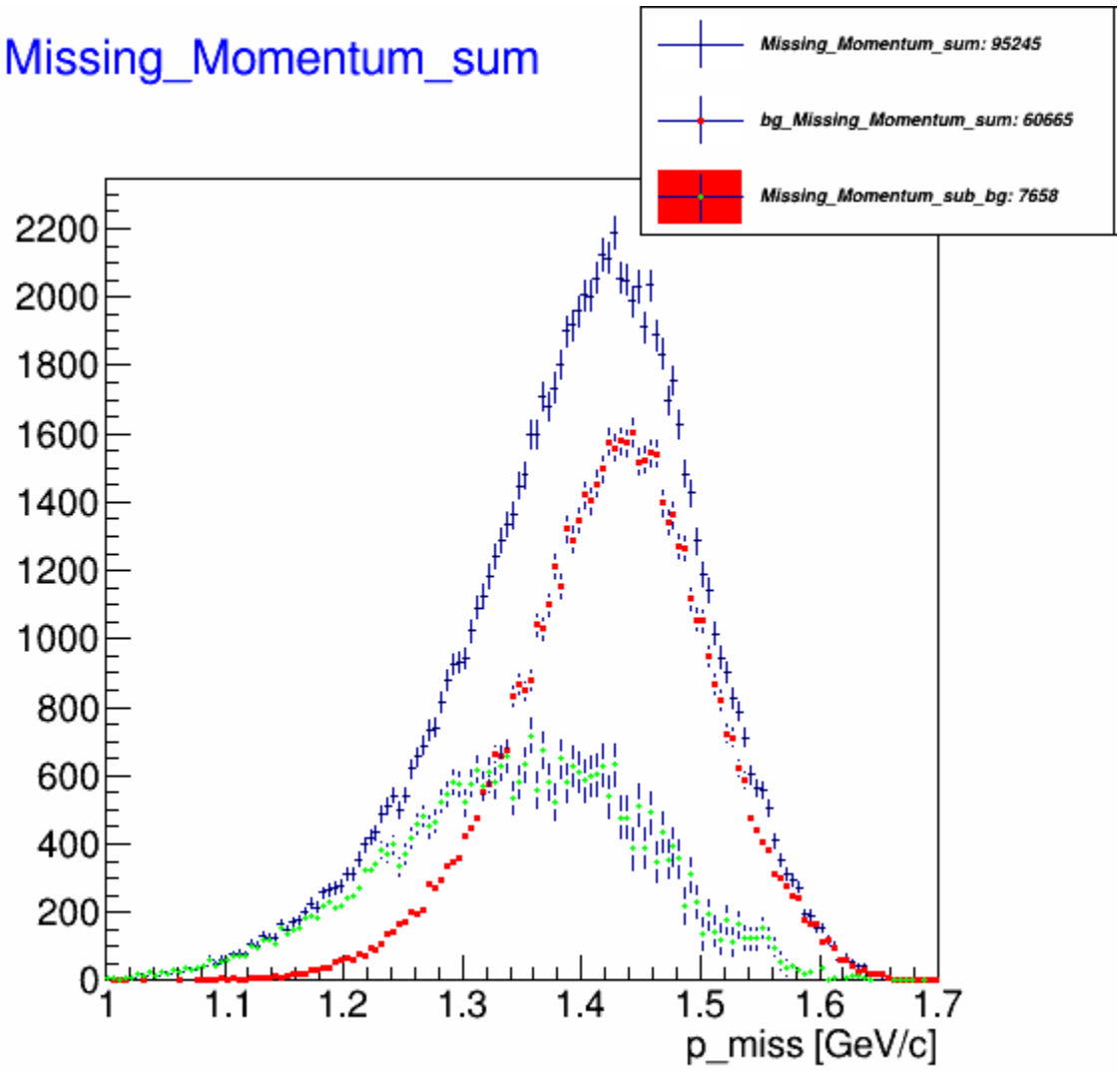
A11: proton momentum at target



A12: proton Energy = sqrt(M2+p**2)**

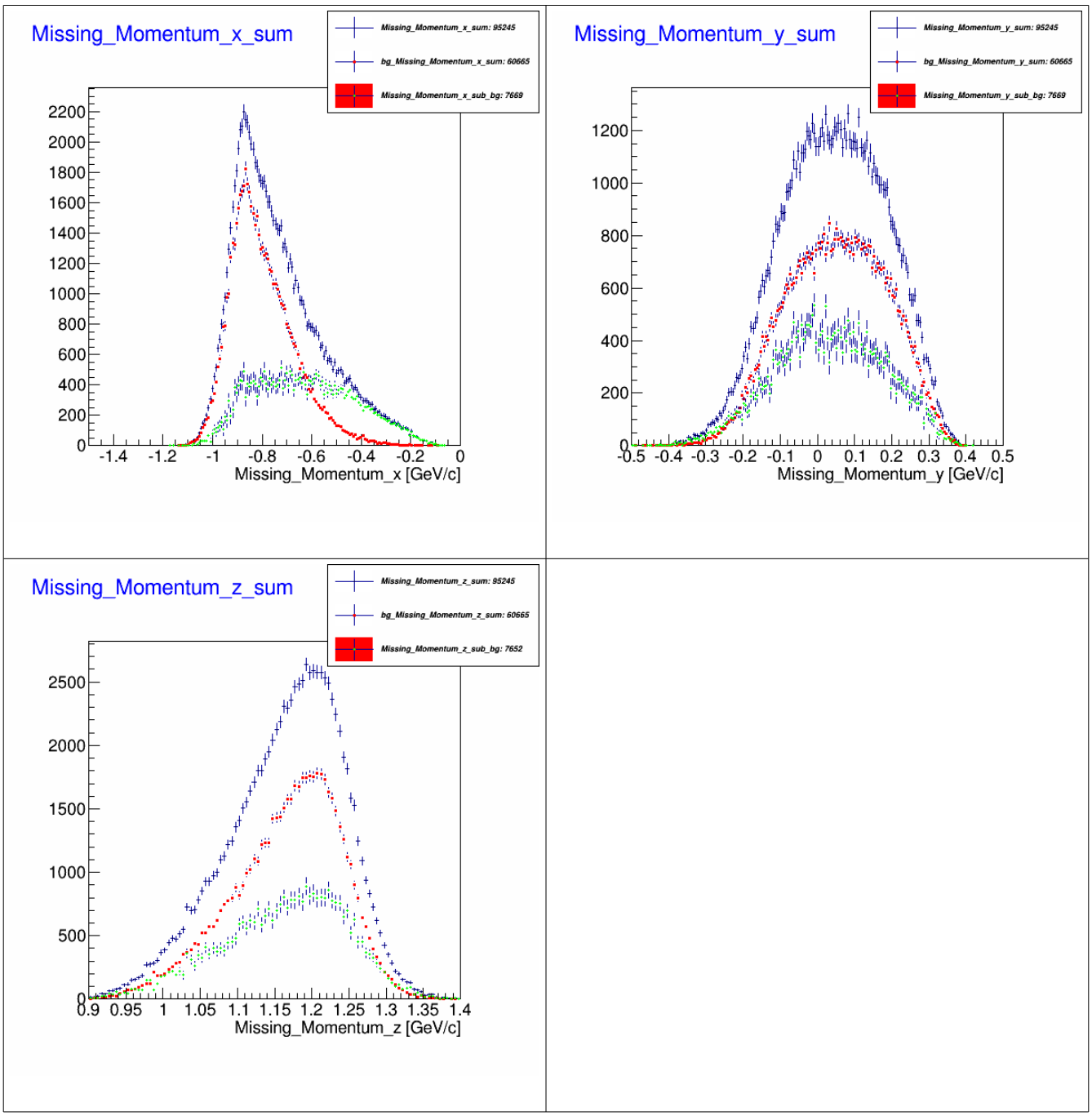


A13: proton Kinetic Energy: E - m_p

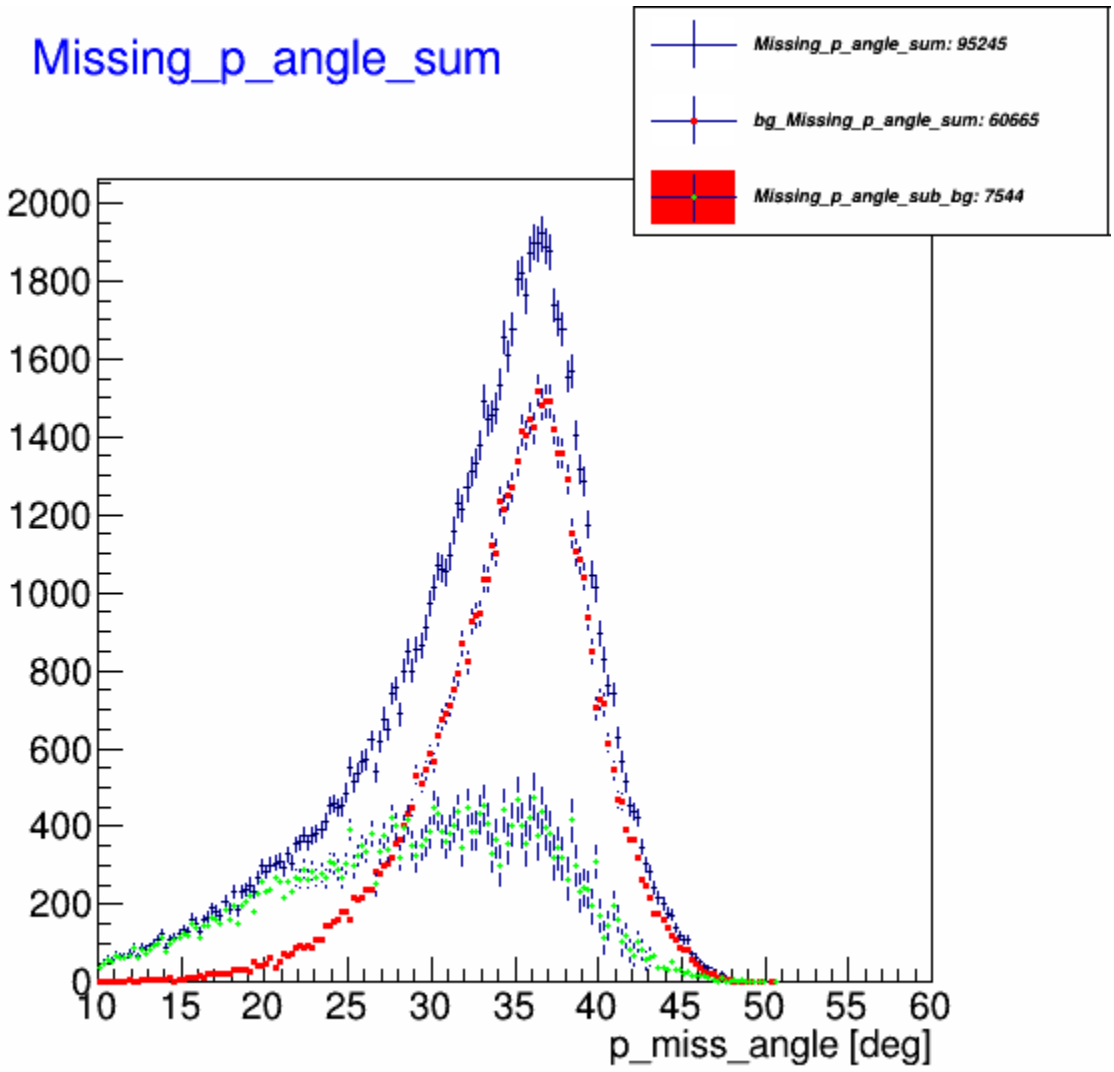


A14: Missing Momentum = sqrt(\sum[(q_i-p_i)2])**

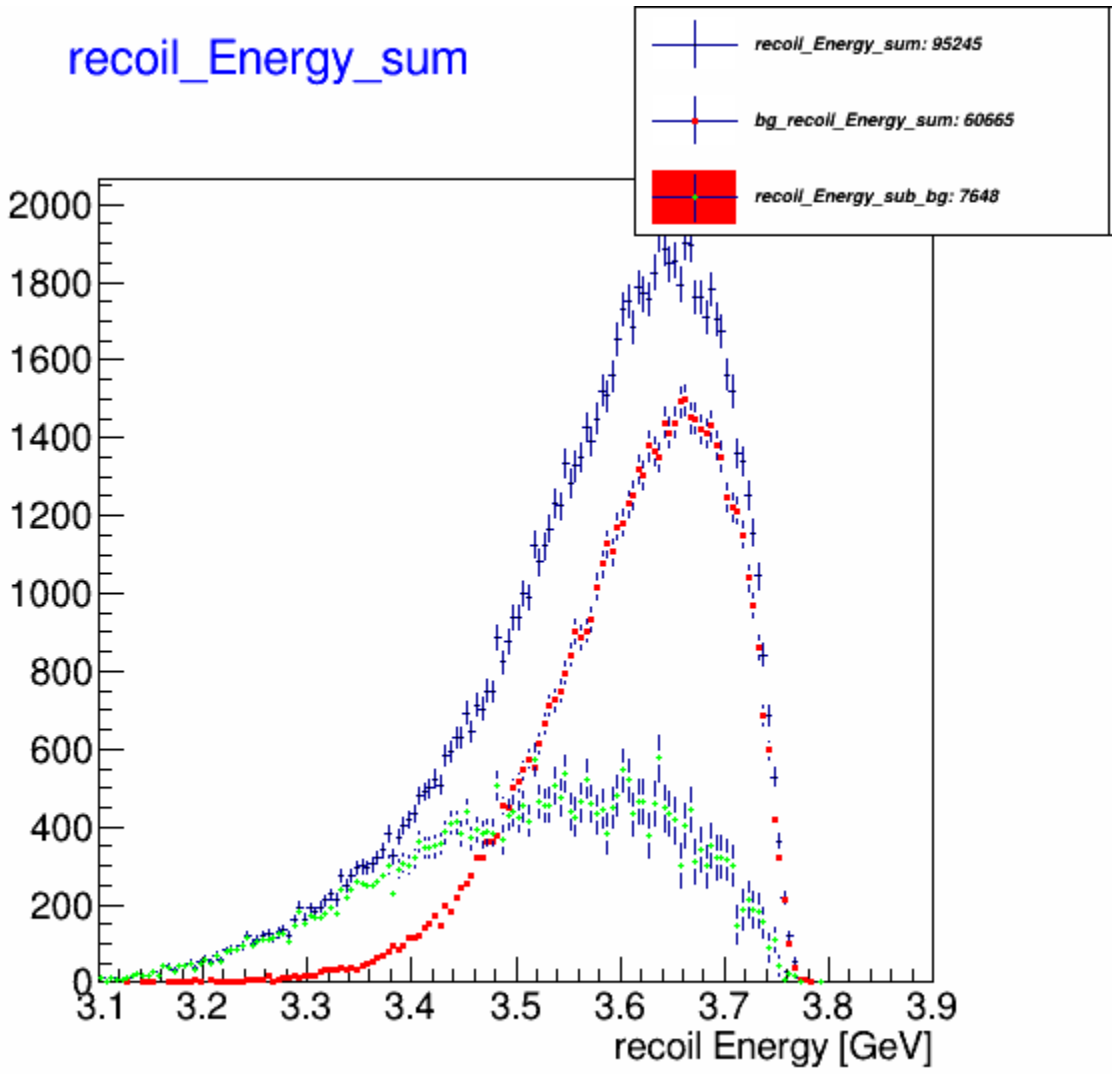
****checking to compare whether Igor has RHRS momentum distribution to compare to this plots.**



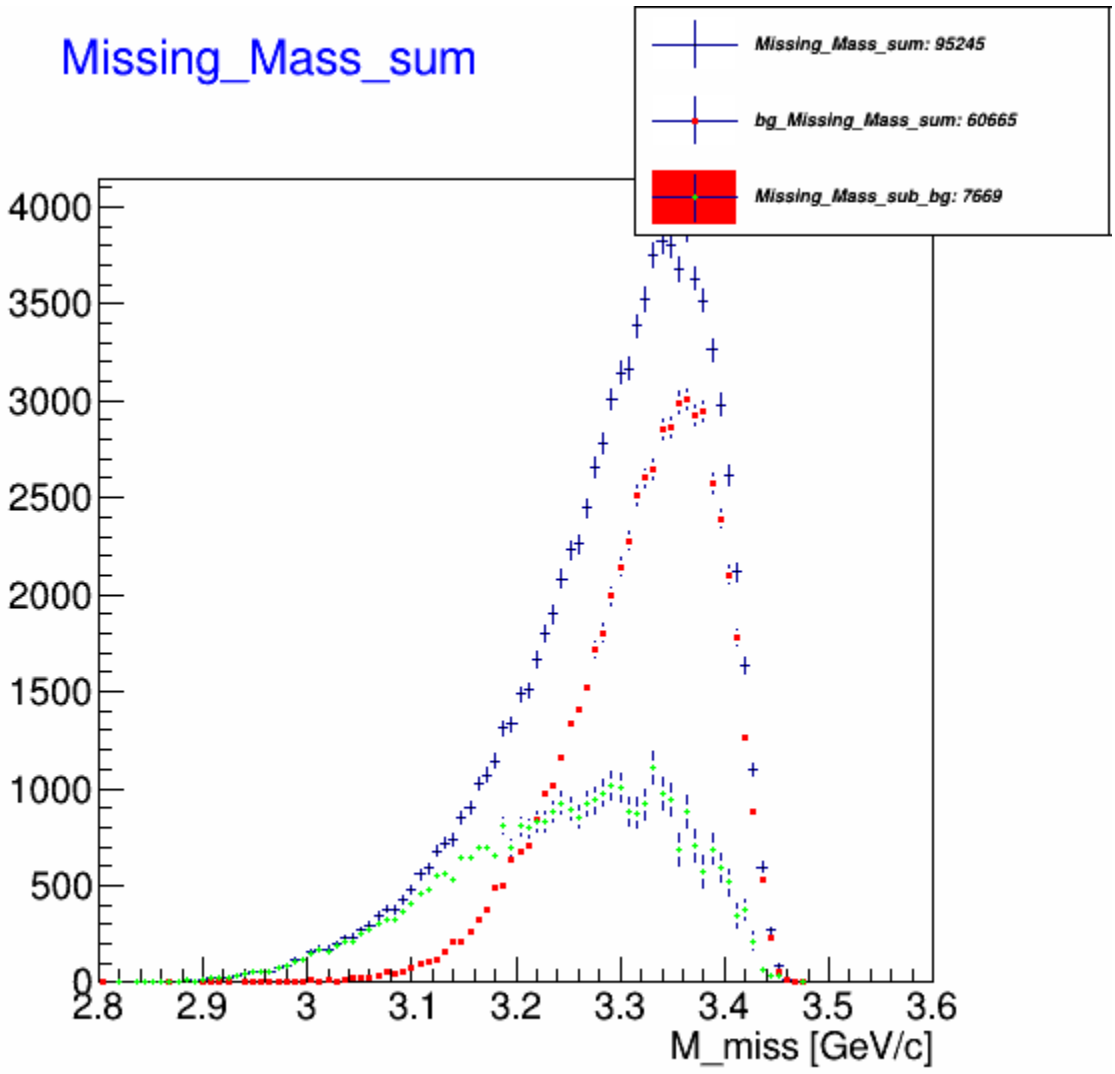
A15: Missing momentum x,y,z



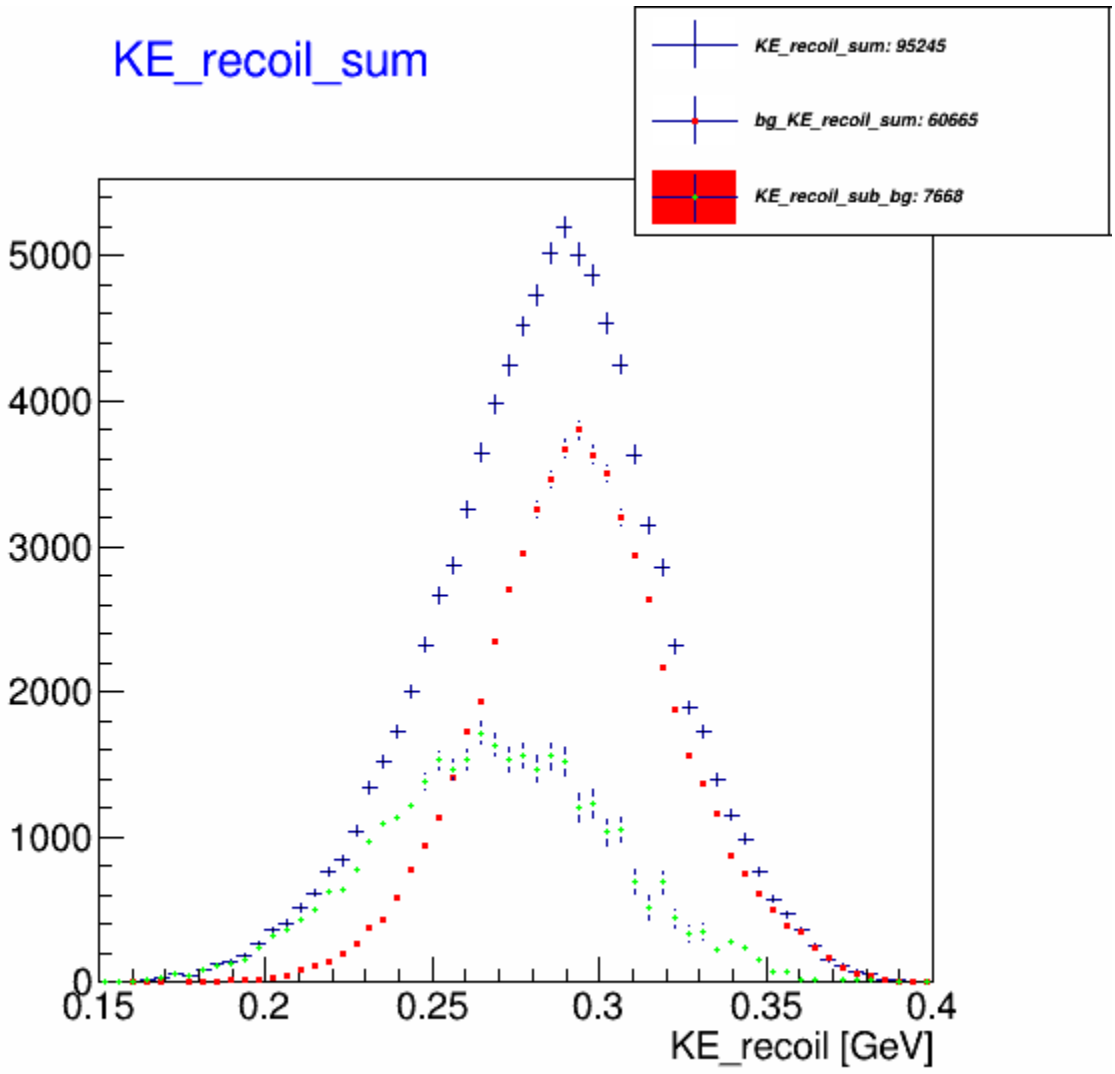
A16: Missing momentum angle



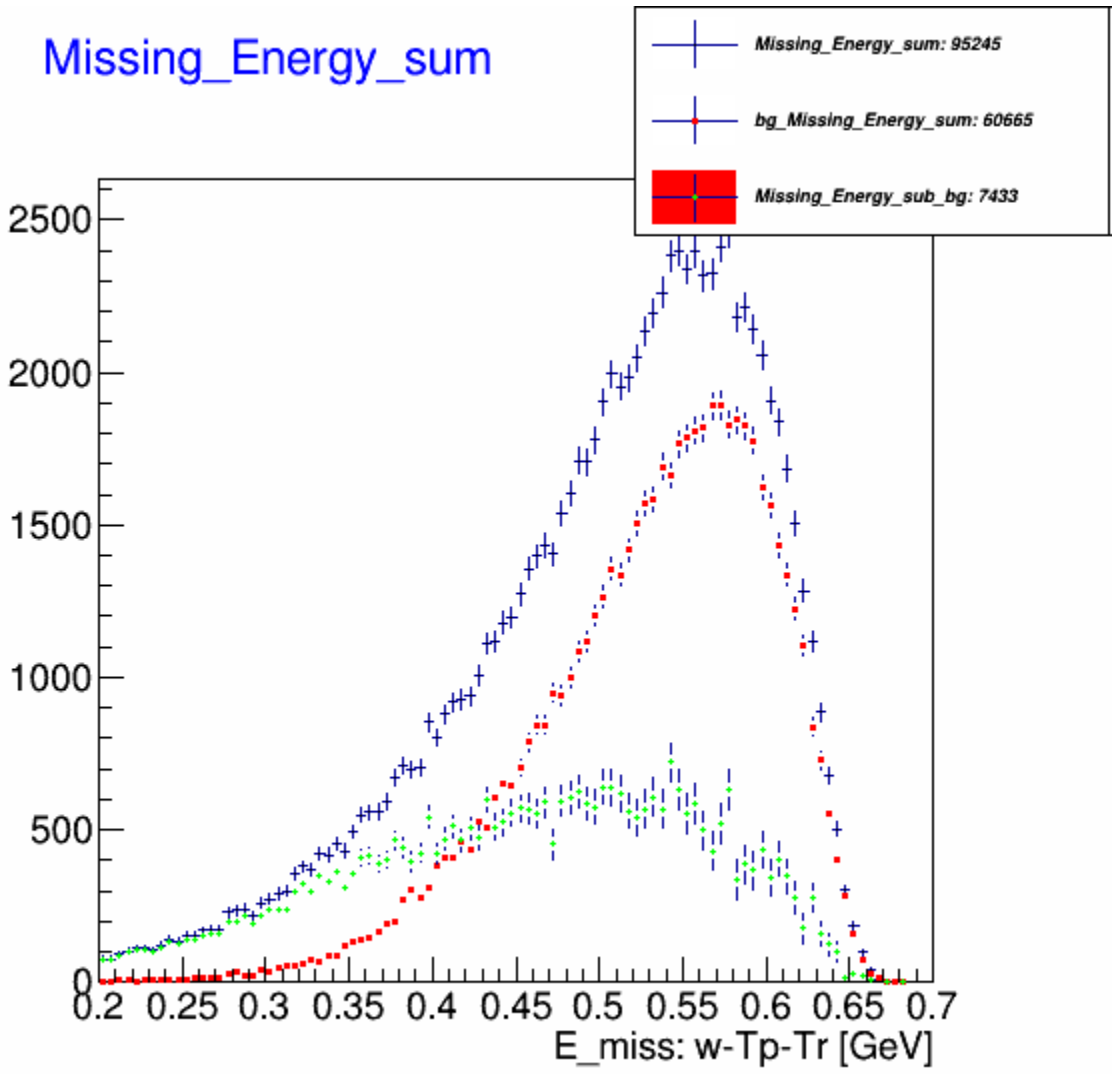
A17: recoil Energy: (M_he4) + (omega) - (proton energy)



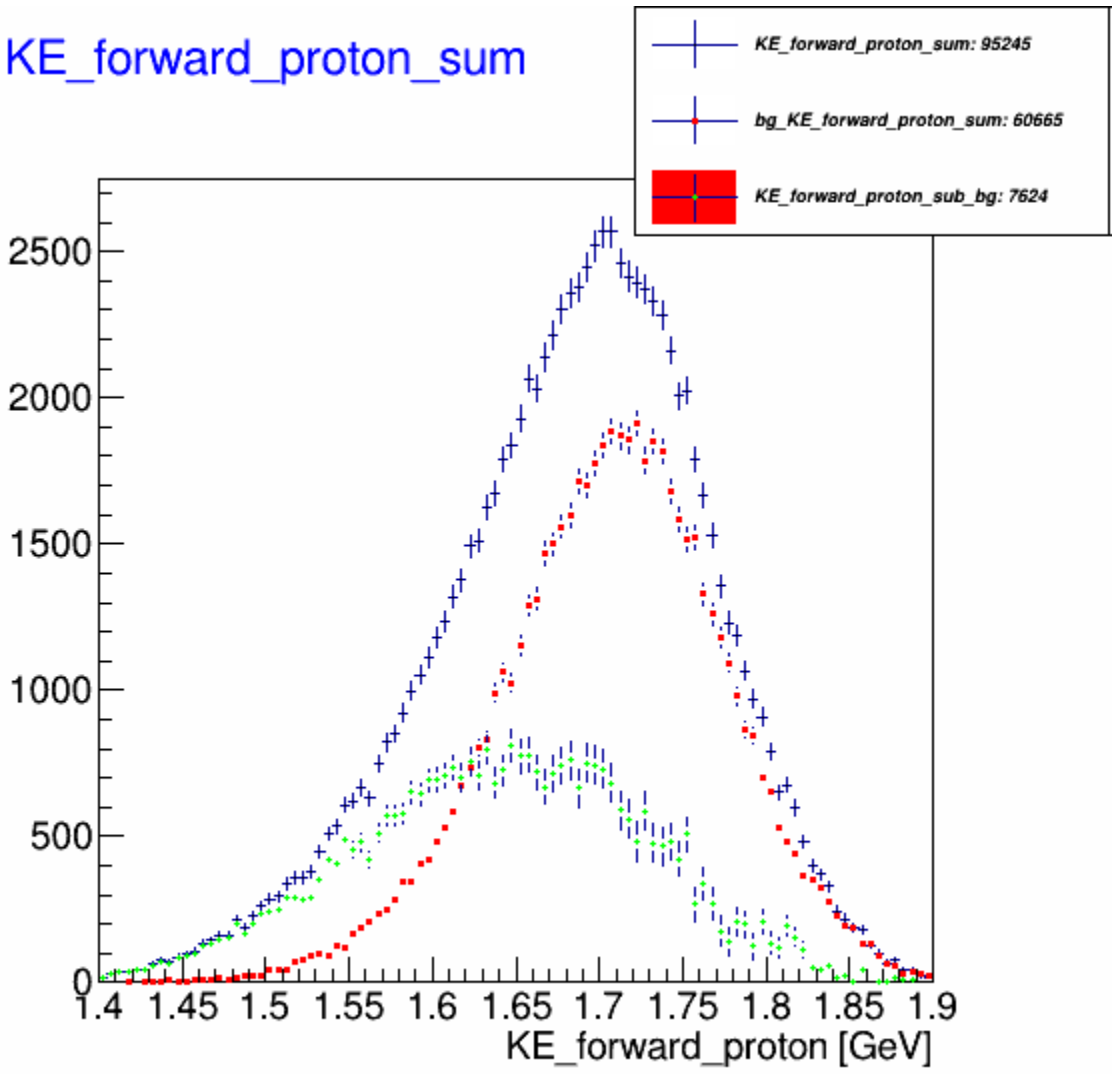
A18: Missing Mass: sqrt(E_recoil2-p_miss**2)**



A19: KE_recoil = (E_recoil) – (M_miss)

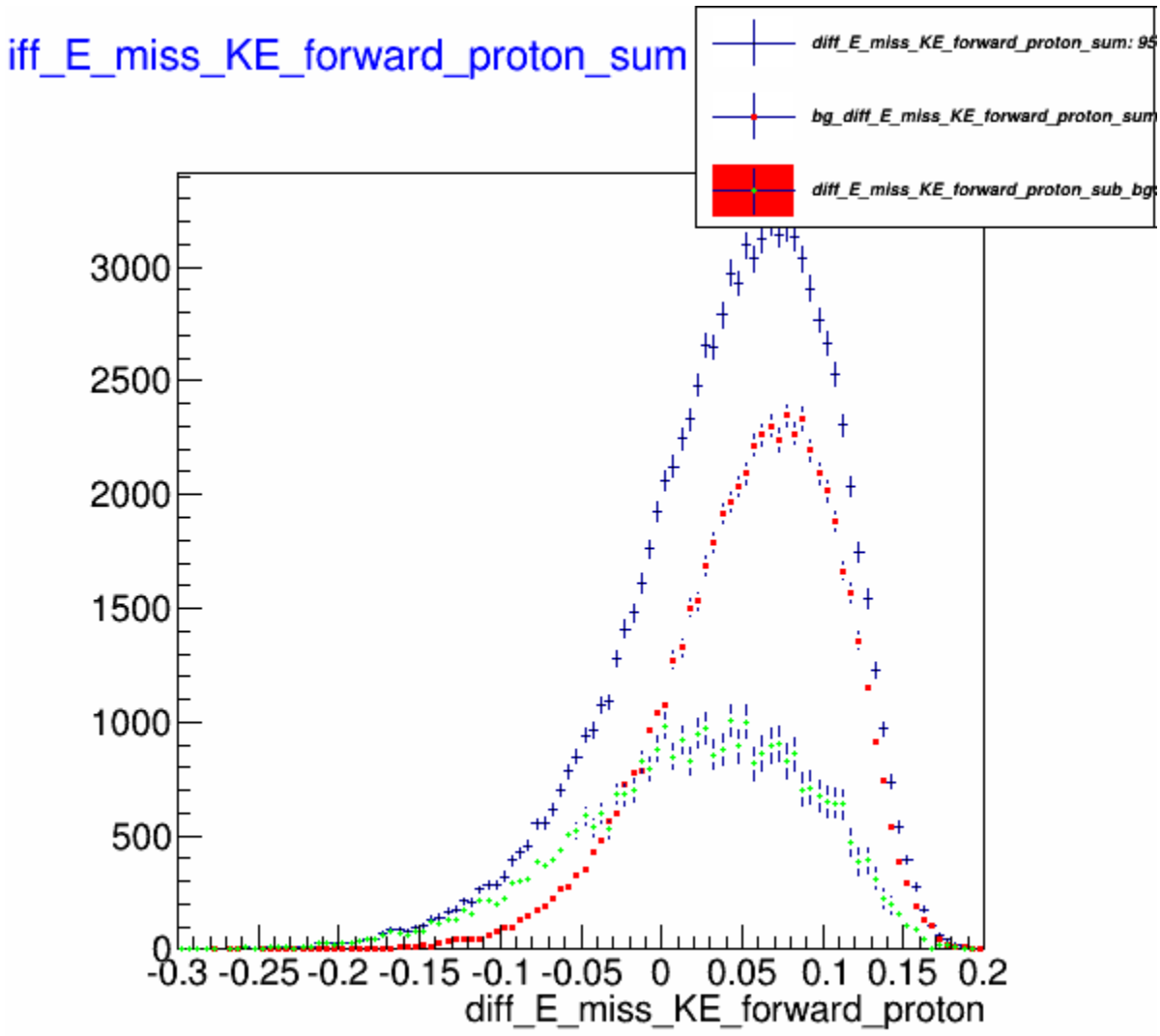


A20: Missing Energy: (omega)-(KE_proton)-(KE_recoil)

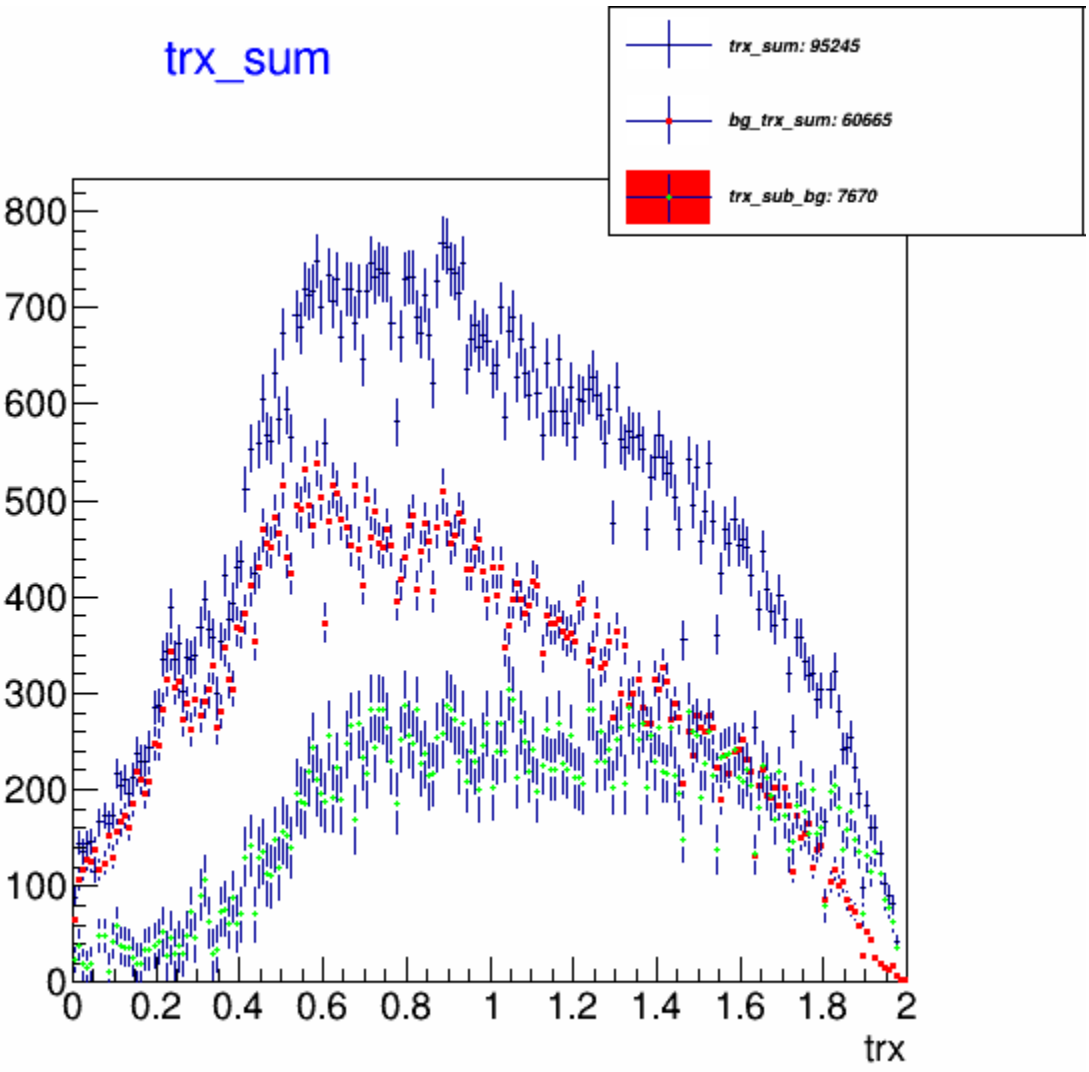


A21: Assuming all p_miss is for the forward proton: the KE_forward proton is as shown.

E_forward =sqrt(M2+p_miss**2) the KE_forward = E_forward - M**



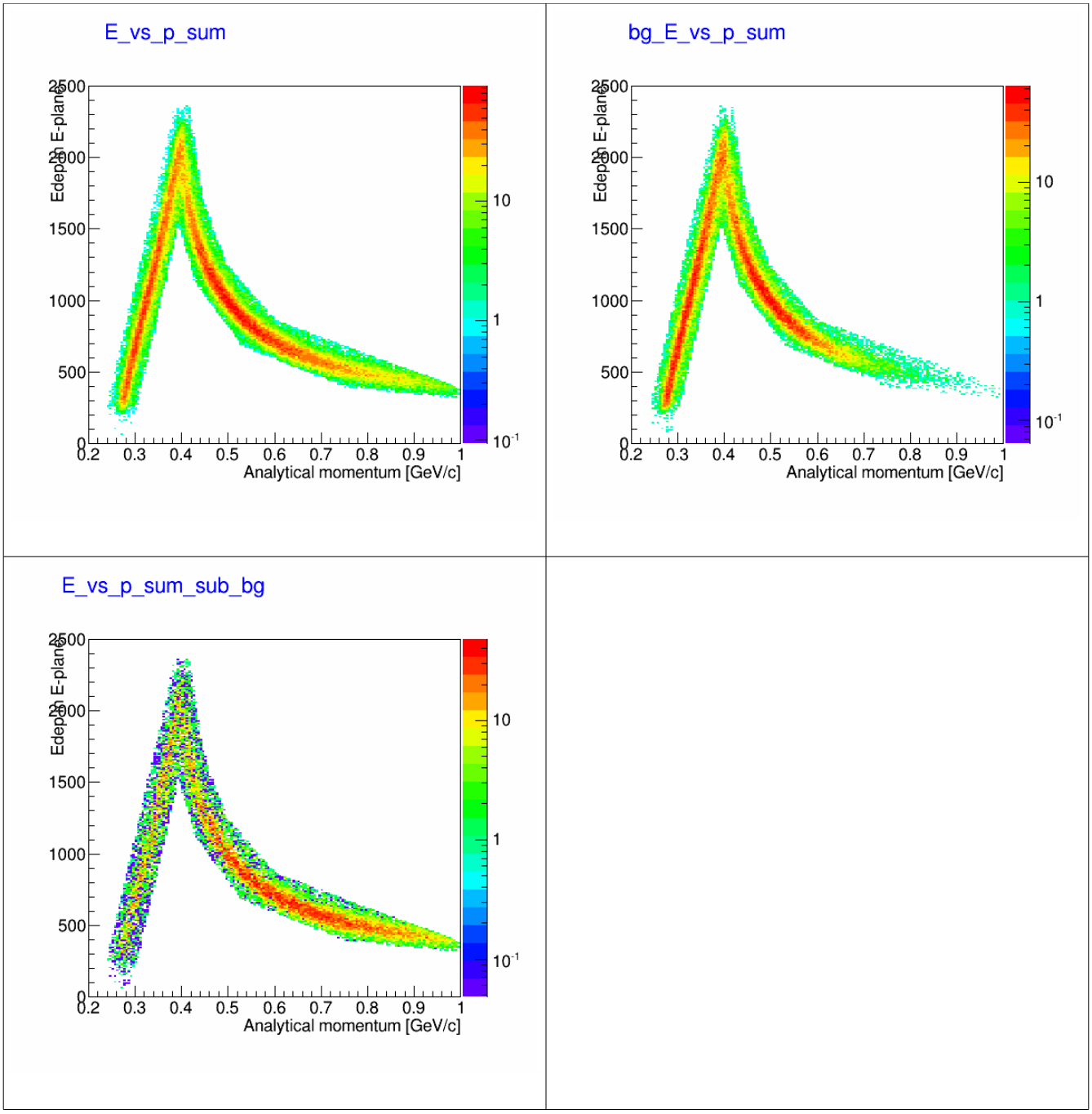
A22: diff_E_miss_KE_forward_proton = E_miss – KE_forward_proton + KE_recoil
= omega -KE_proton -KE_forward_proton
= E_miss assuming all p_miss go to forward proton.**



A23: track x location on E_plane

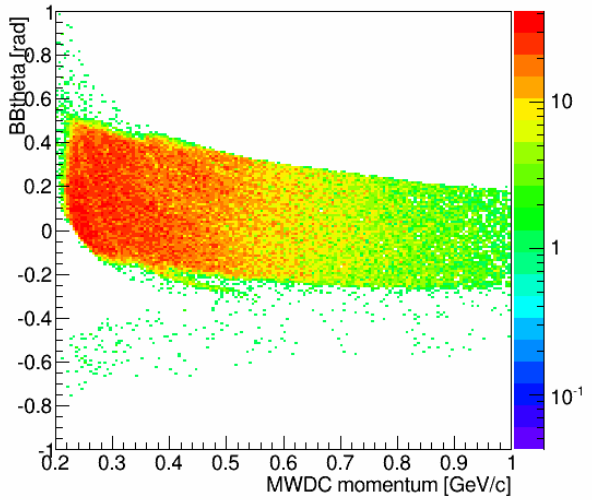
**** check the dip of the background around 0.7 and peak ar about 0.3-0.4**

2D figures for variation of pairing to check possible cuts.

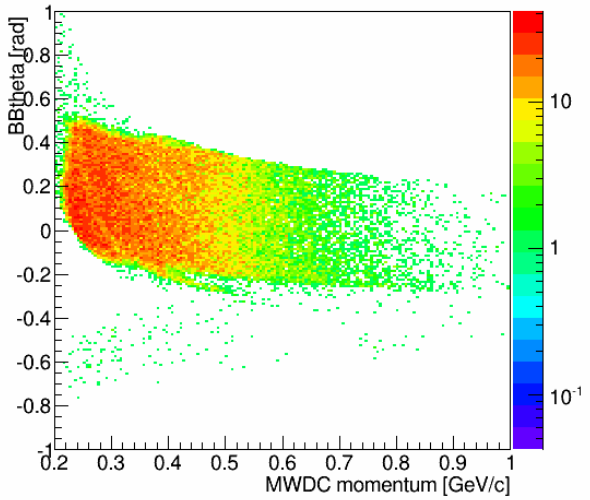


A24: E vs p

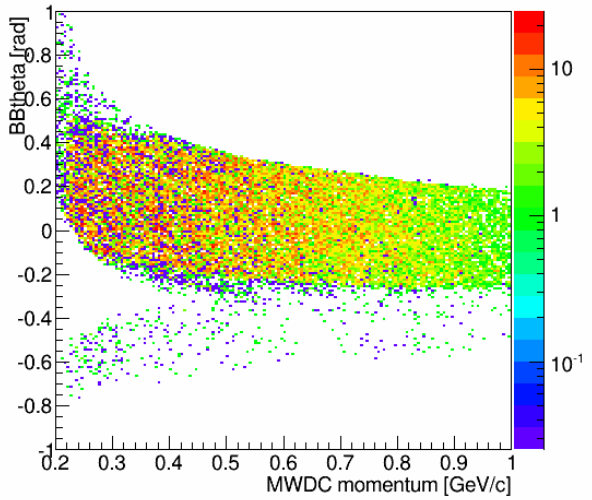
MWDCmom_vs_BBtheta_sum



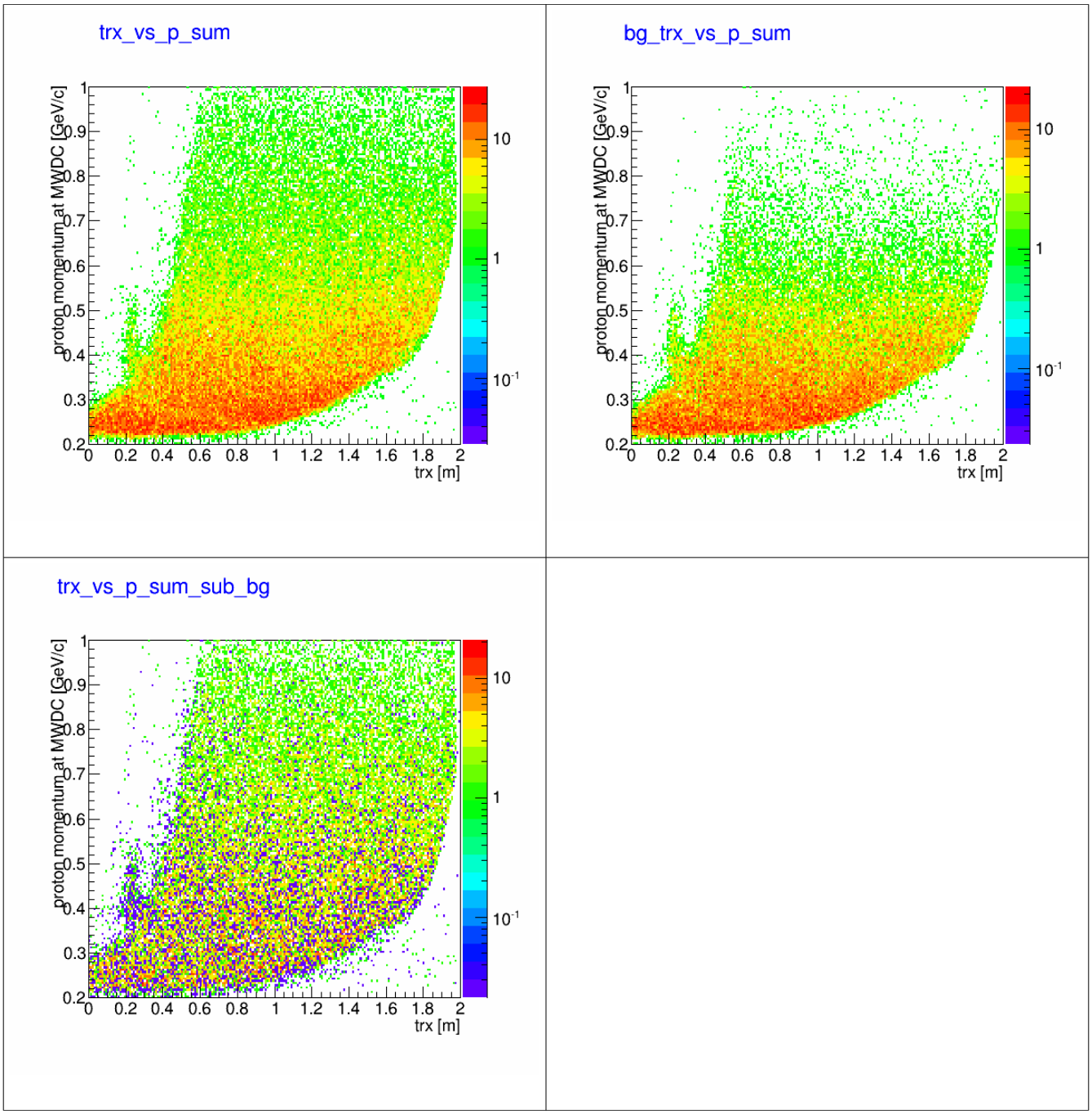
g_MWDCmom_vs_BBtheta_sum



MWDCmom_vs_BBtheta_sum_sub_bg

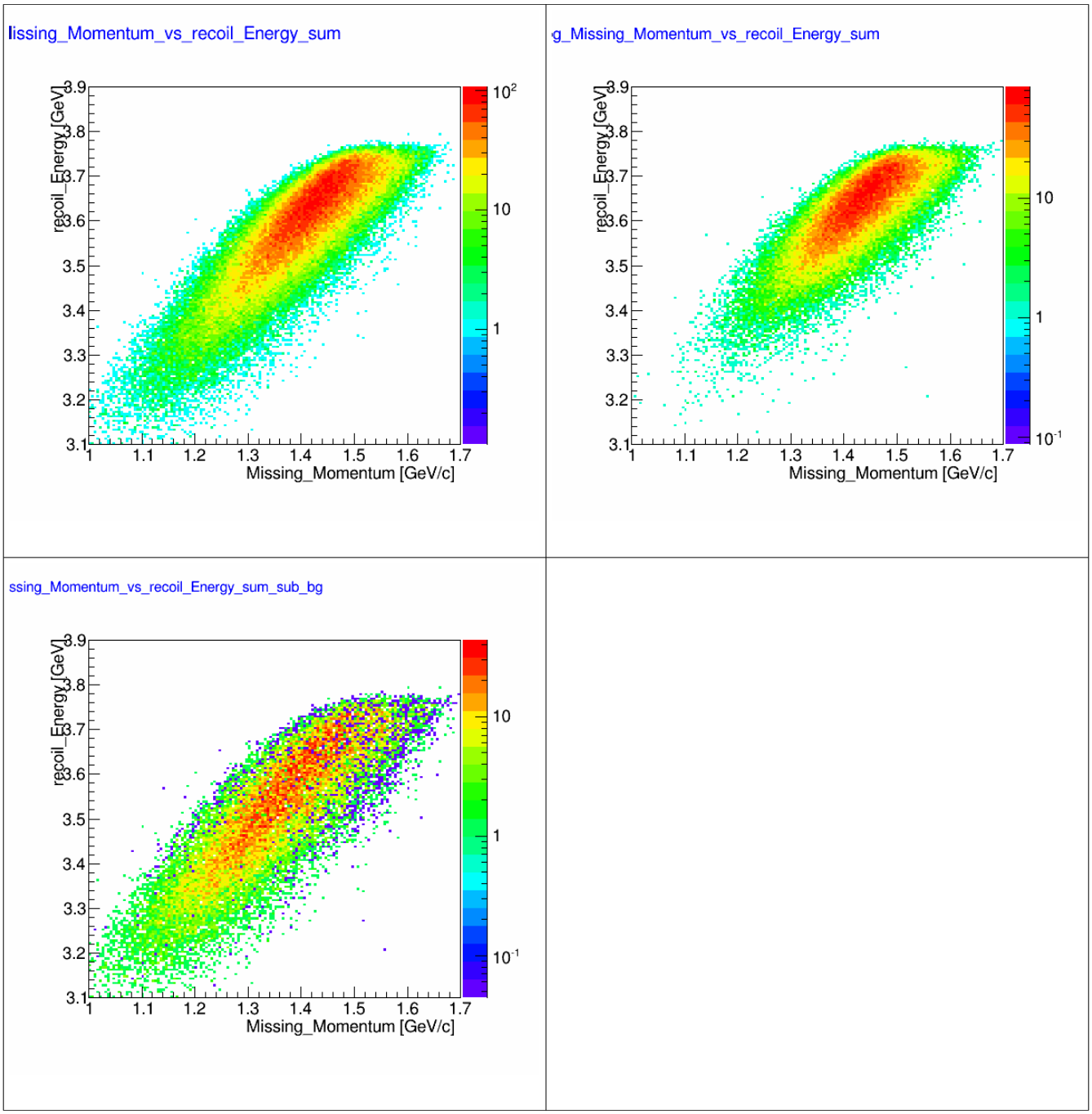


A25: MWDC momentum vs tg_theta to check the polarity
**** this need to be implement because it seem to have effect in the next page.**

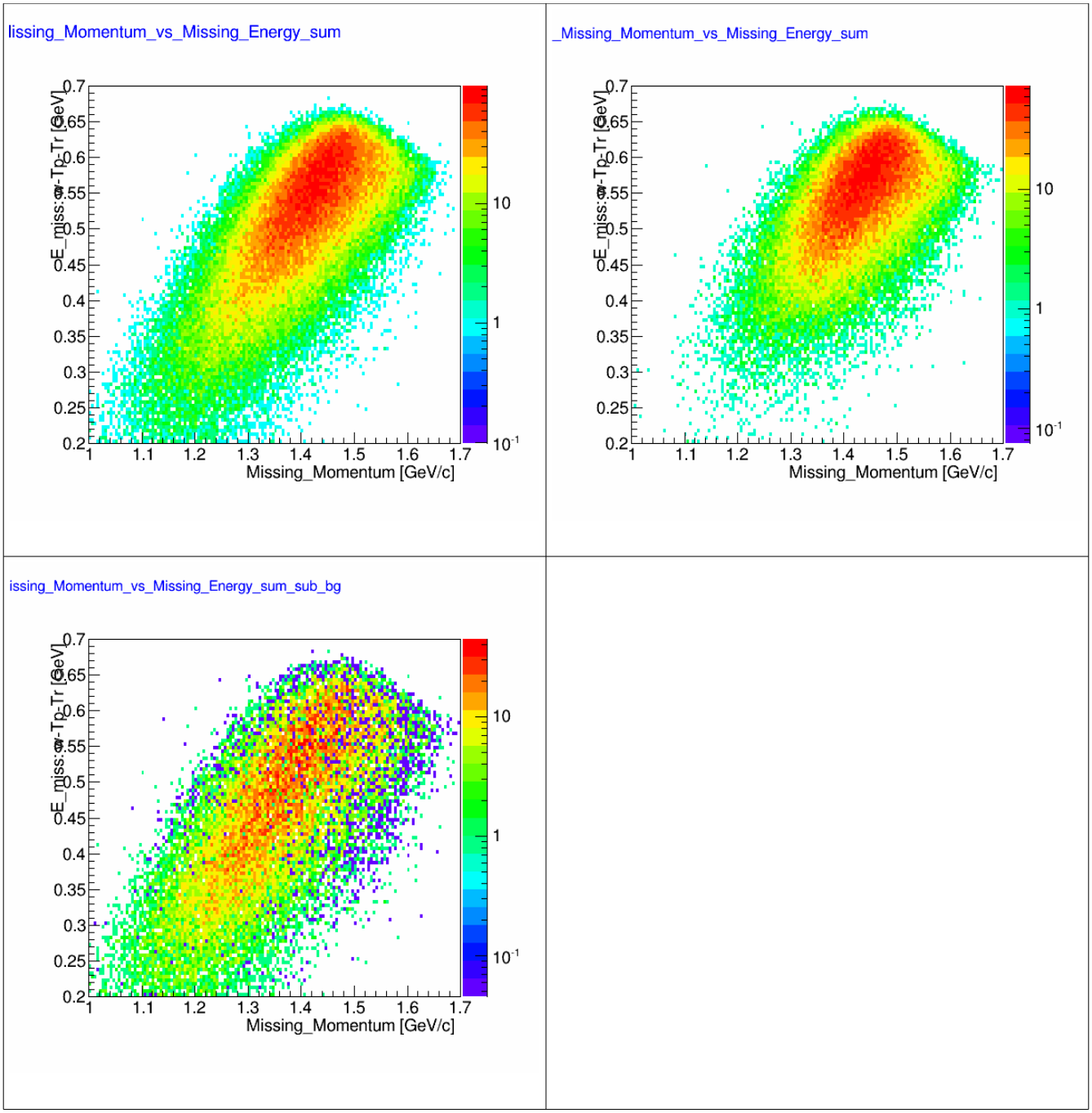


A26: trx vs MWDC mometum

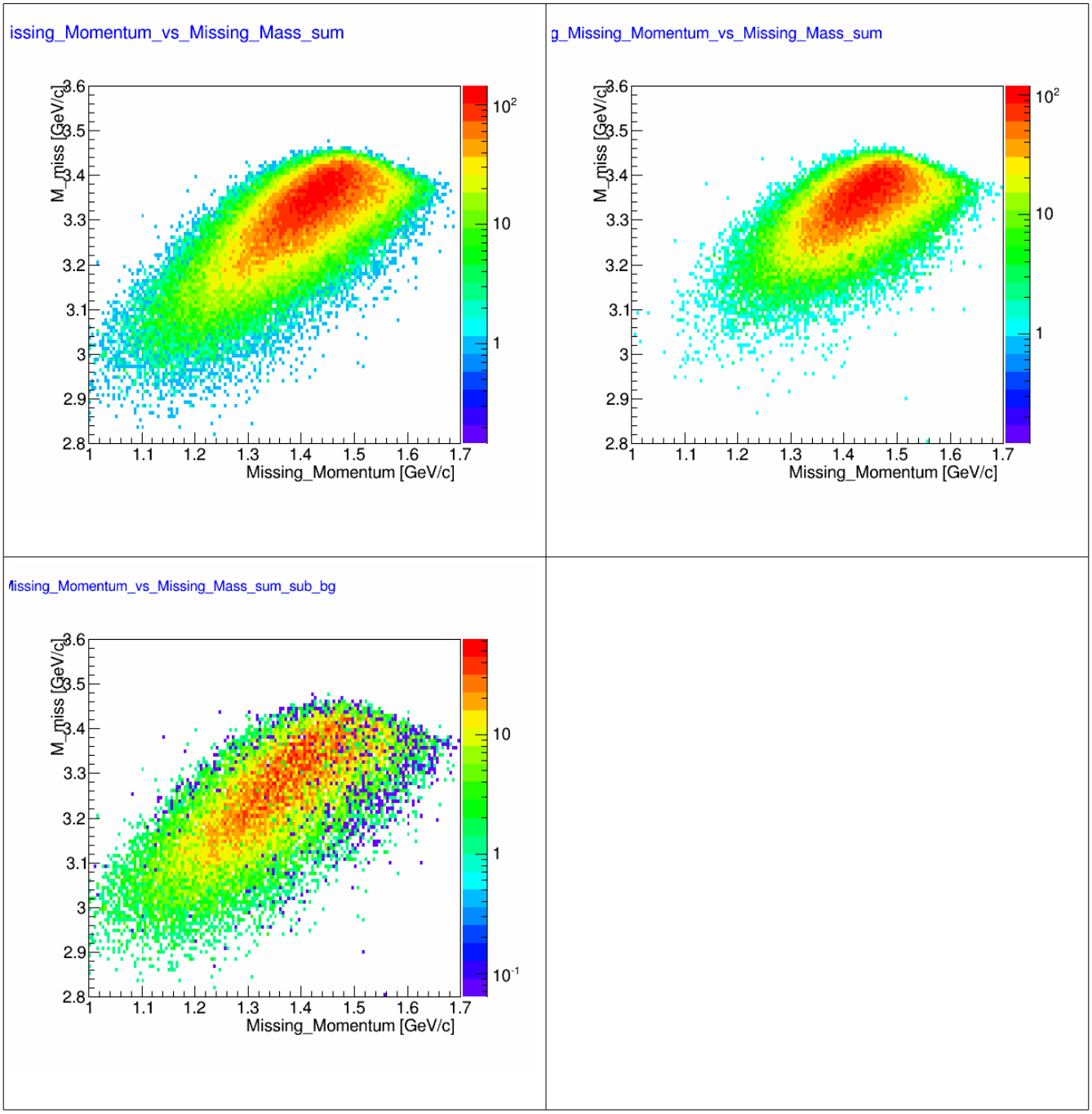
****problem at trx = 0.2 maybe the bar problem.**



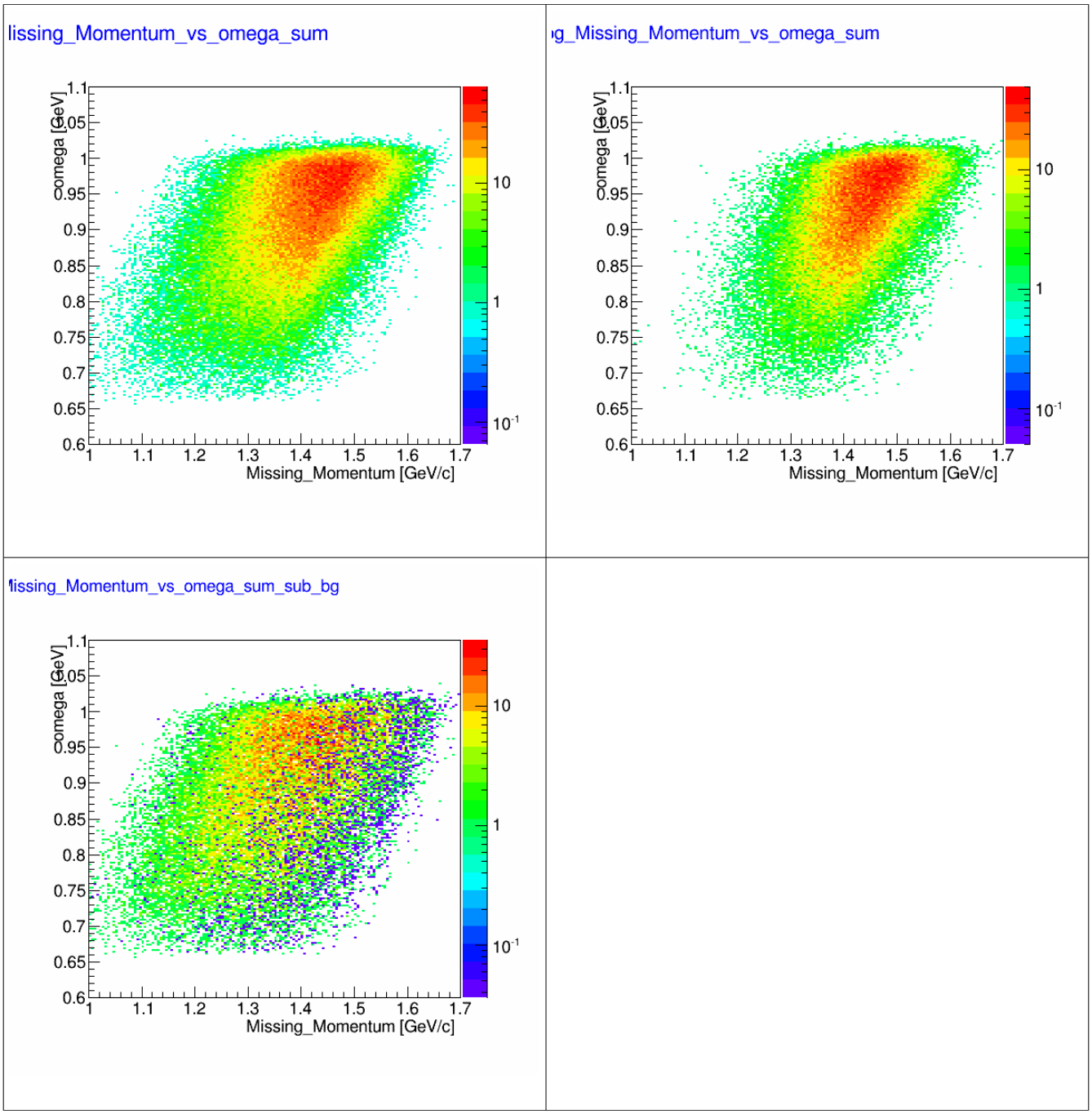
A27: Missing momentum vs recoil Energy



A28: Missing momentum vs Missing E

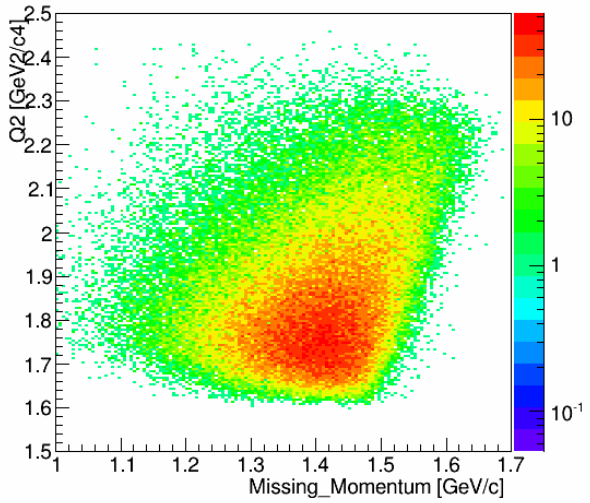


A29: Missing momentum vs Missing Mass

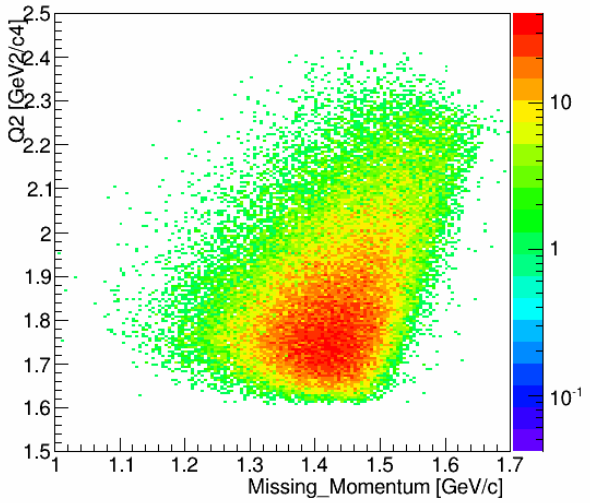


A30: P_miss With Omega

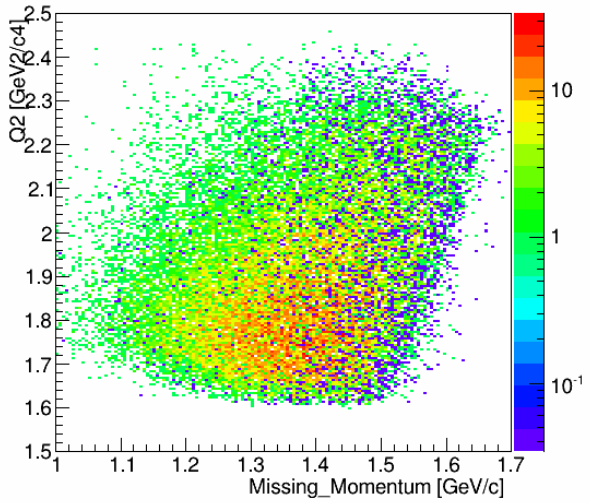
Missing_Momentum_vs_Q2_sum



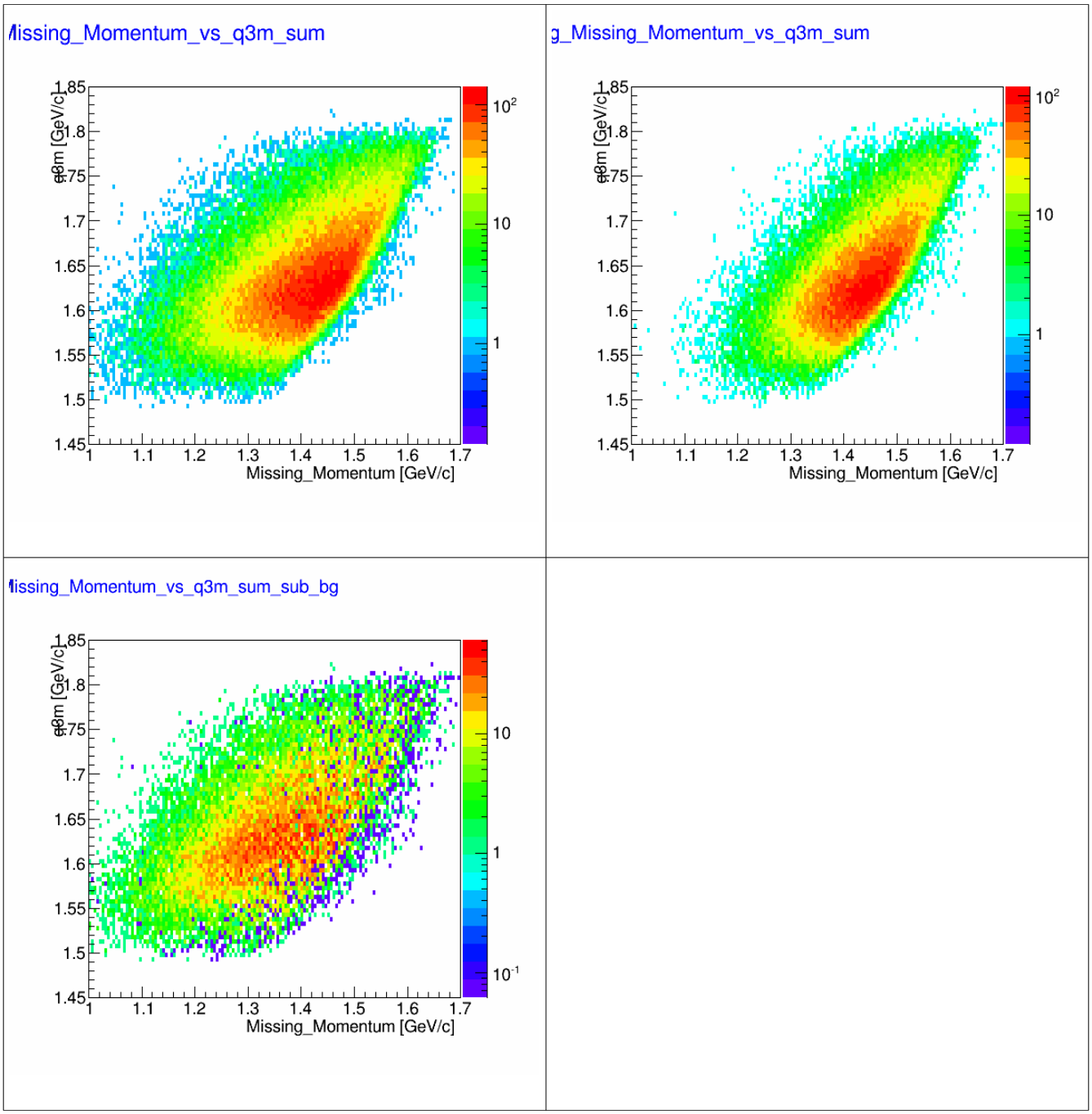
g_Missing_Momentum_vs_Q2_sum



lissing_Momentum_vs_Q2_sum_sub_bg

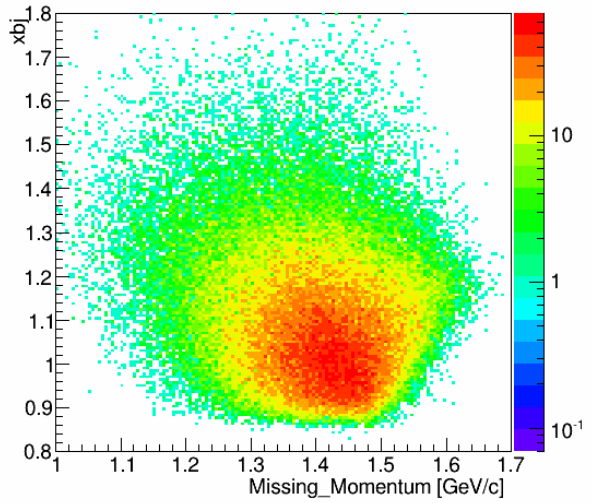


A31: P_miss with Q2

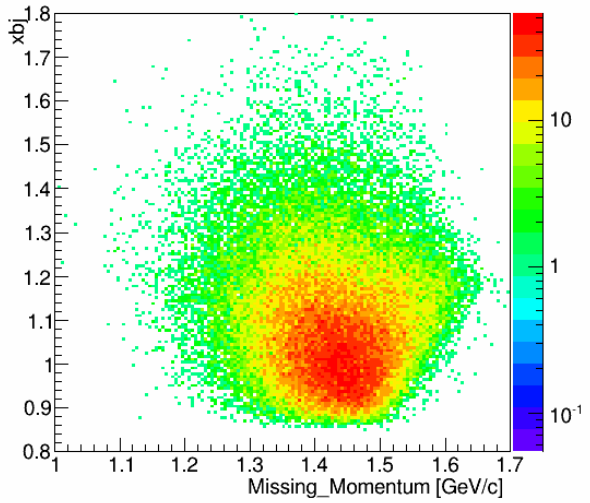


A32: p_miss with |q|

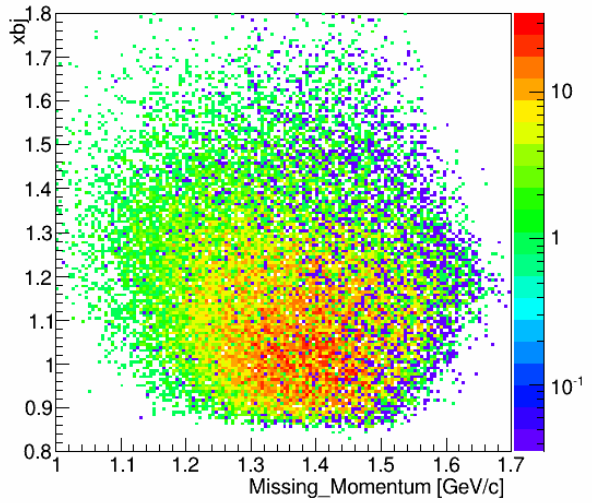
Missing_Momentum_vs_xbj_sum



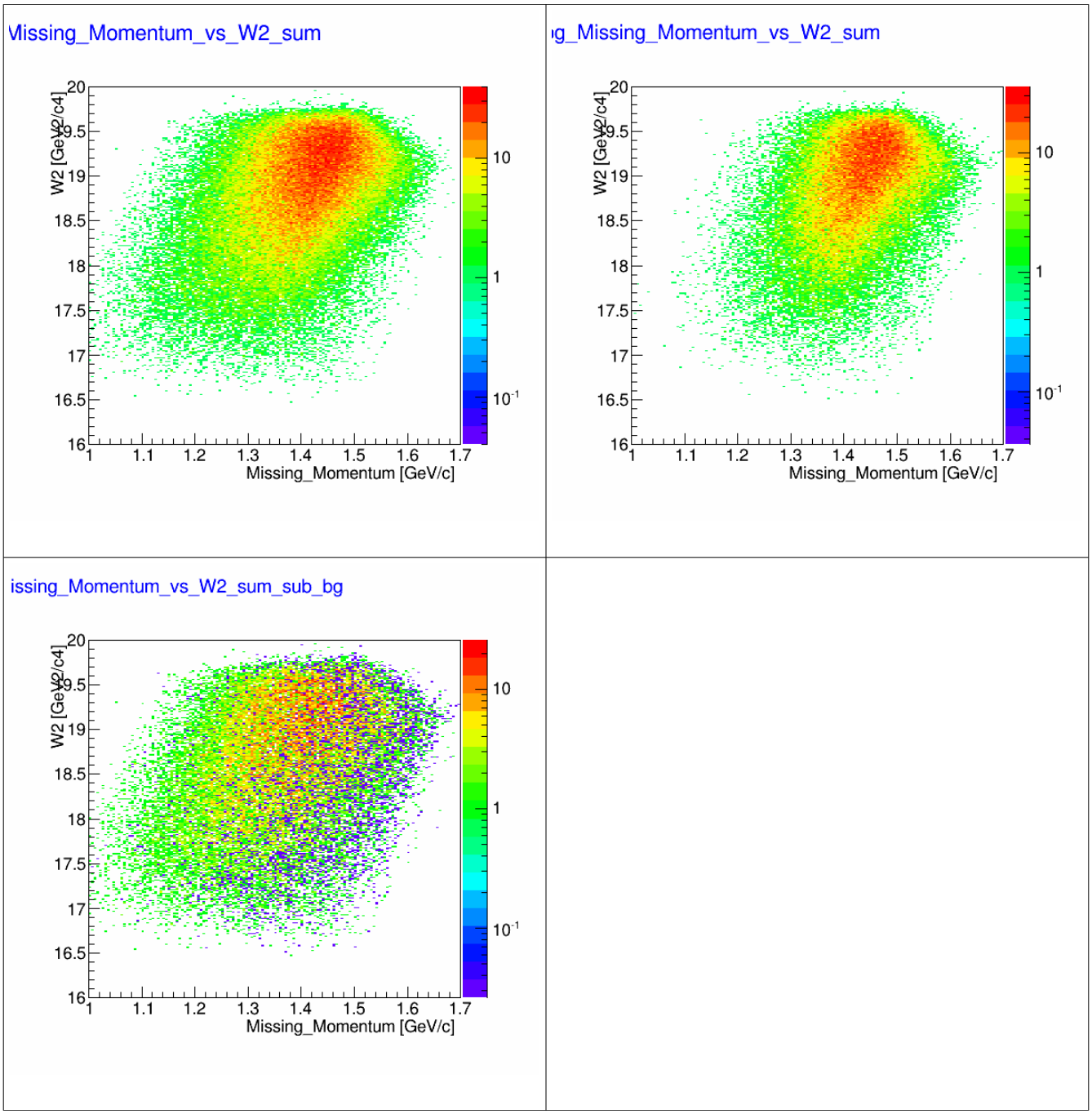
g_Missing_Momentum_vs_xbj_sum



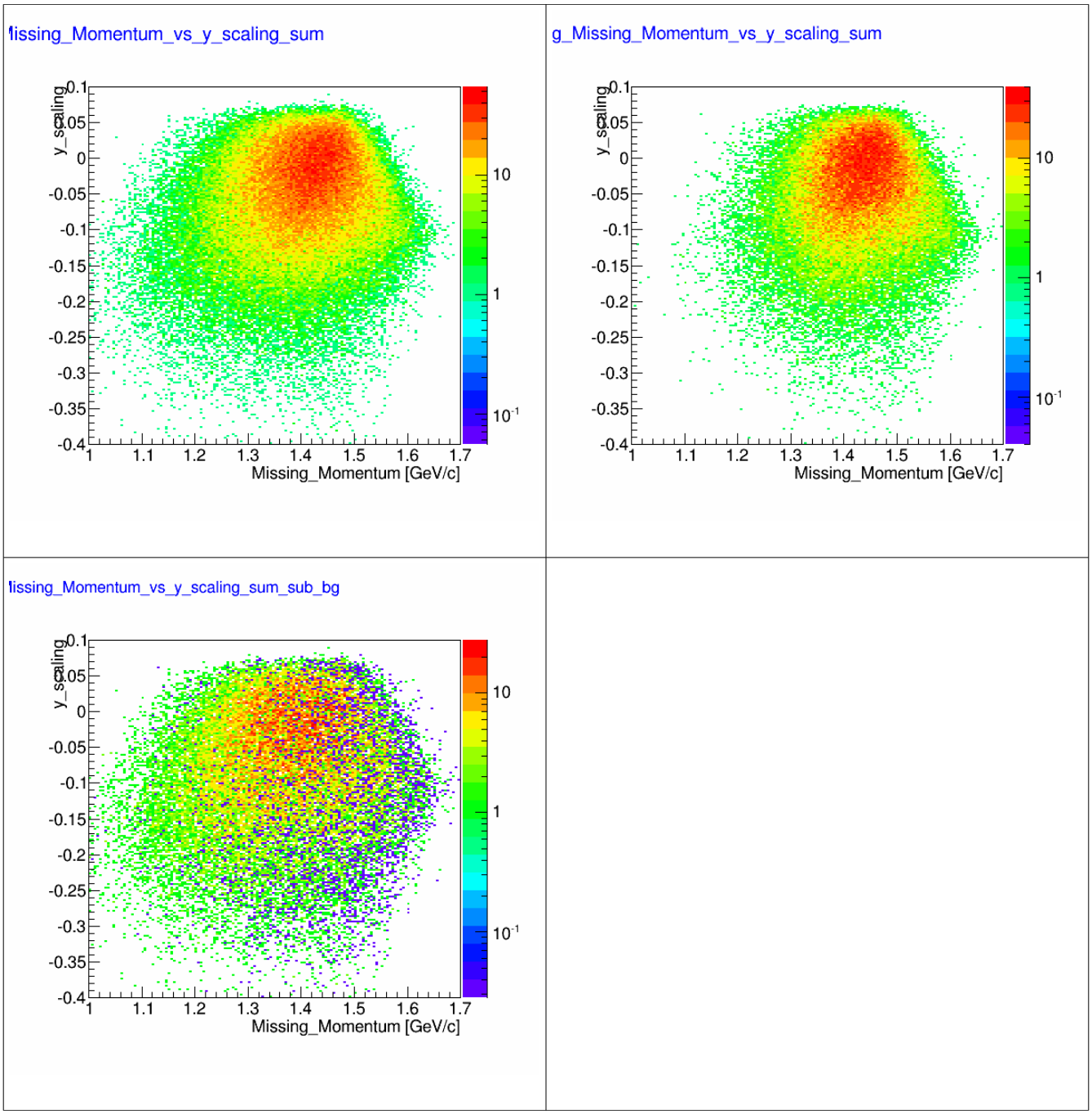
lissing_Momentum_vs_xbj_sum_sub_bg



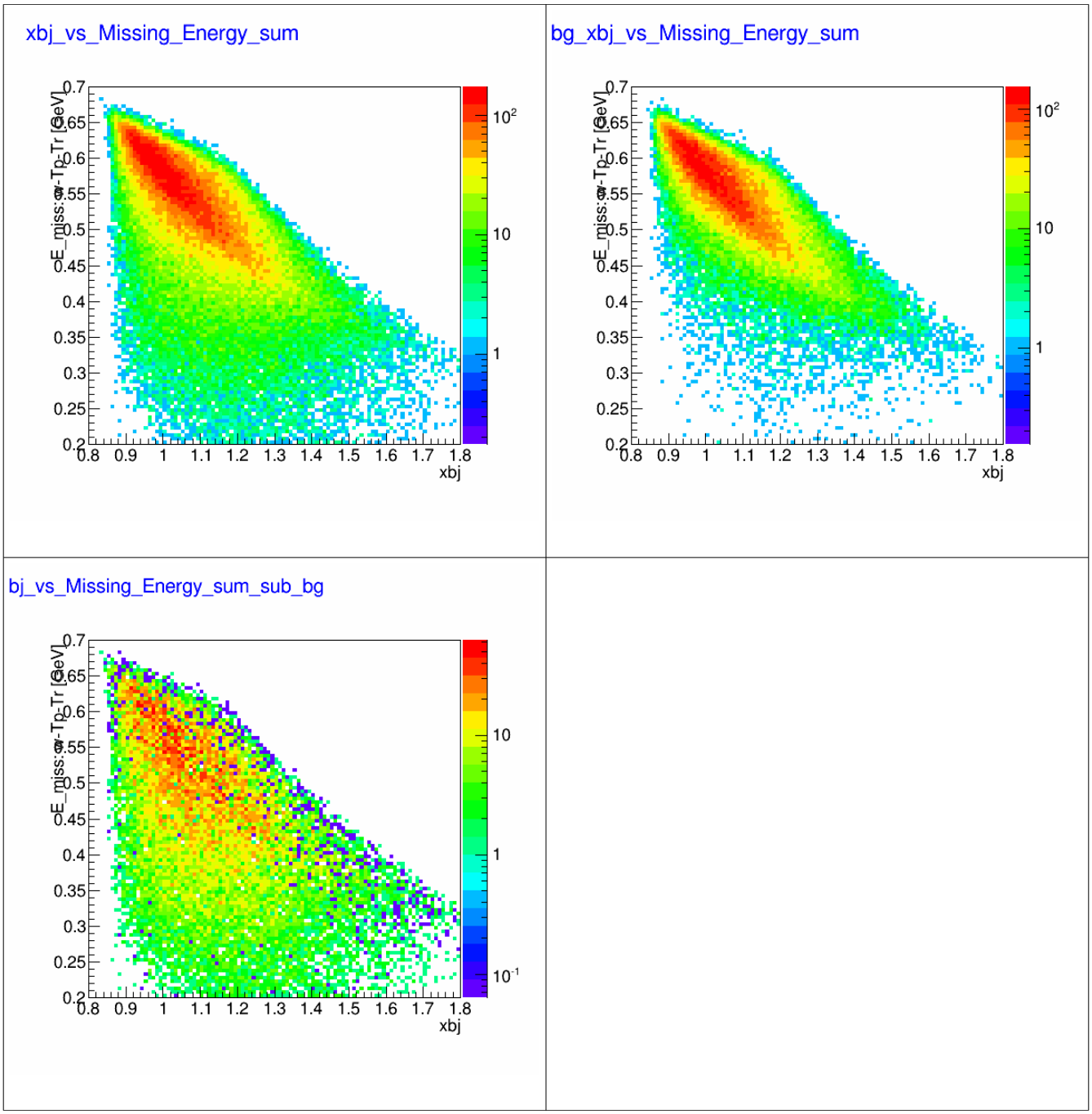
A33: P_miss with xbj



A34: P_miss vs W2

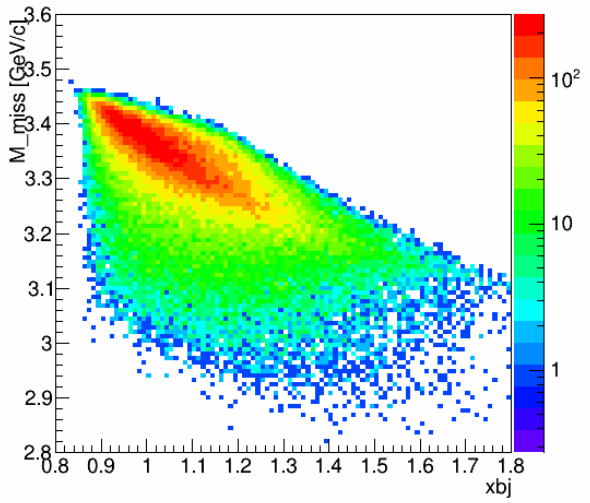


A35: P_miss vs y-scaling

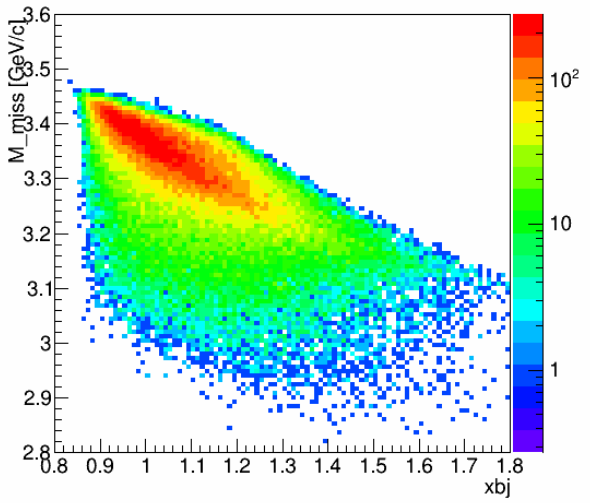


A36: x vs E_miss

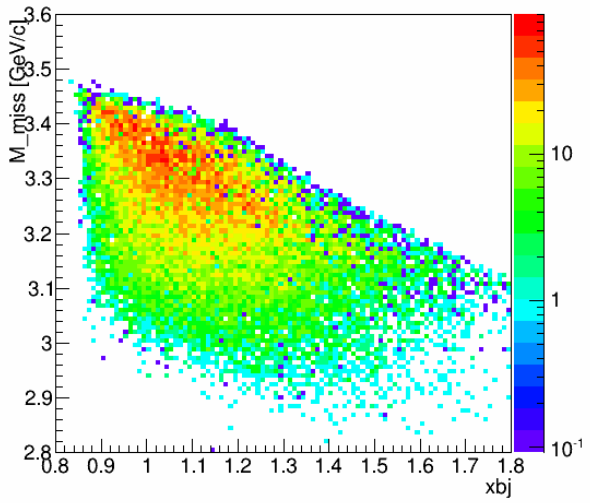
xbj_vs_Missing_Mass_sum



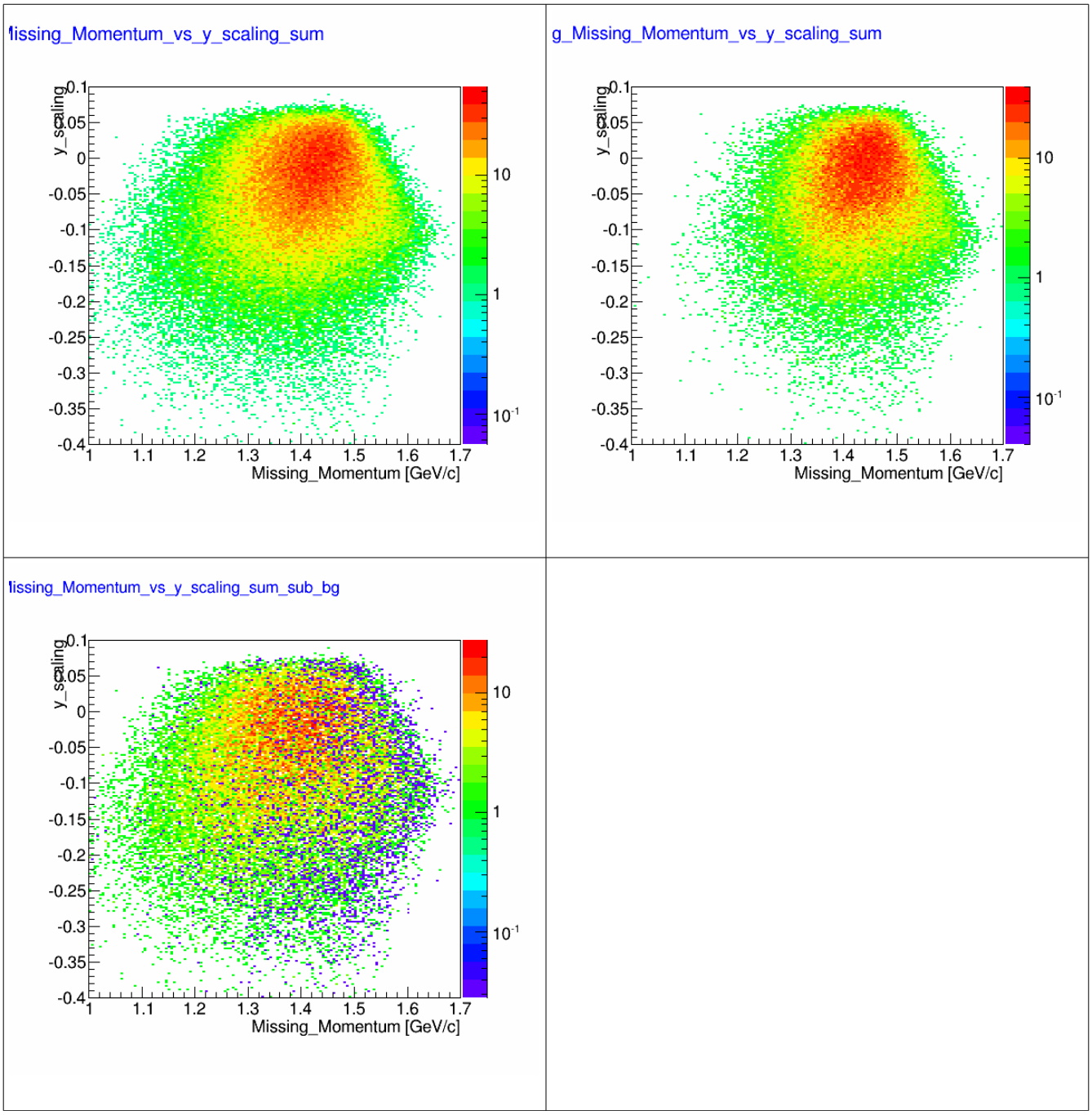
xbj_vs_Missing_Mass_sum



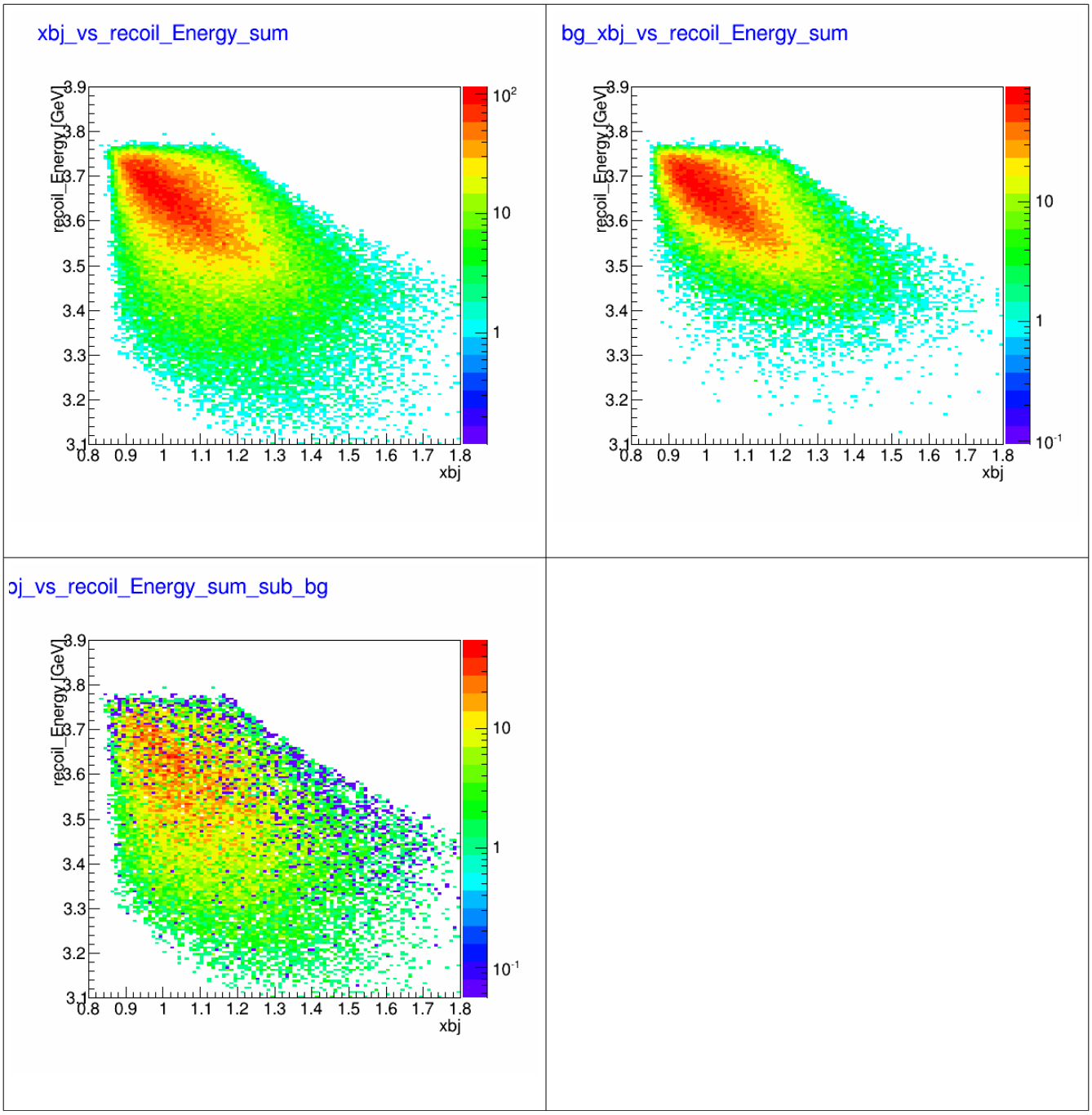
bj_vs_Missing_Mass_sum_sub_bg



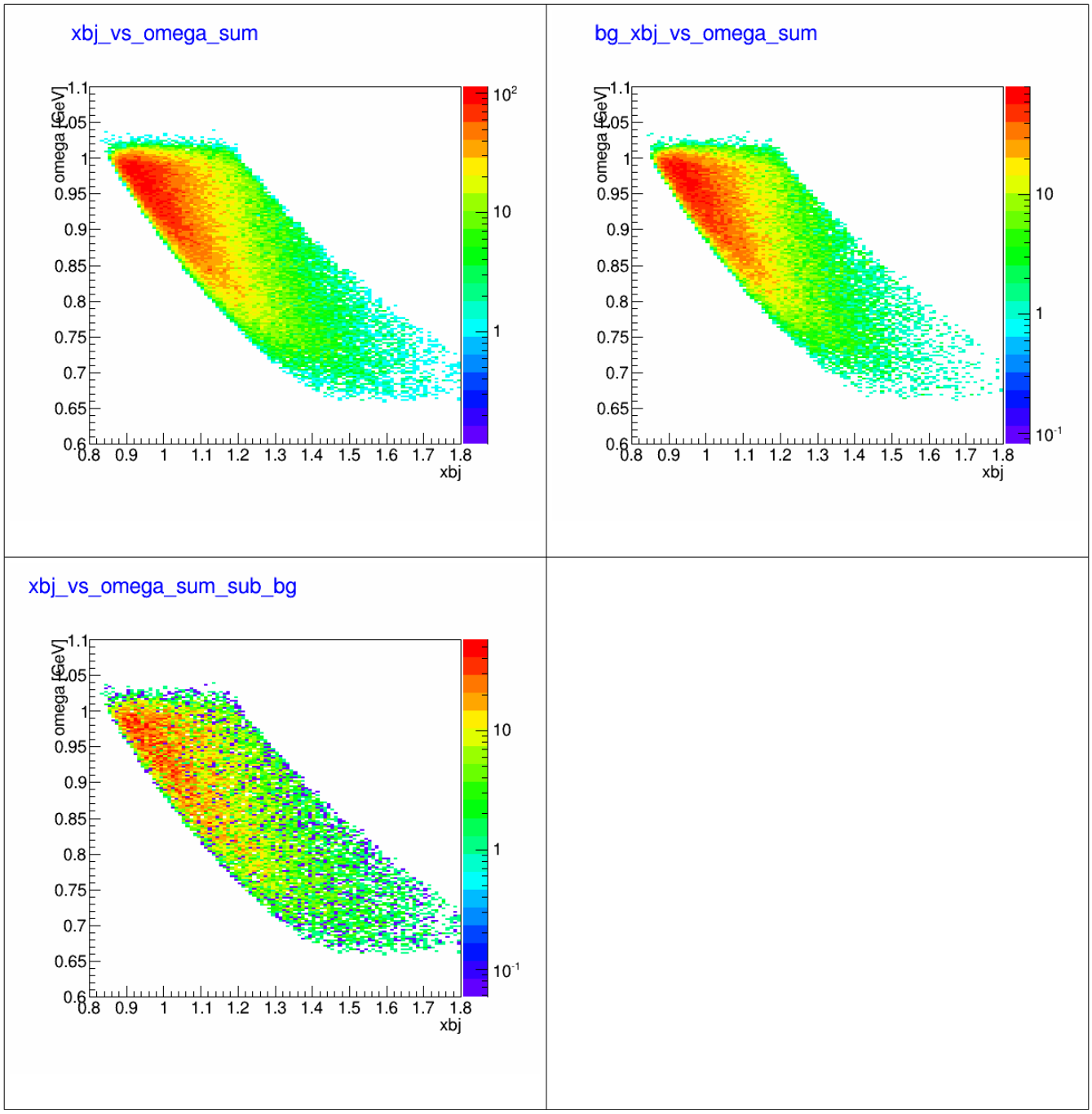
A37 x vs missing_mass



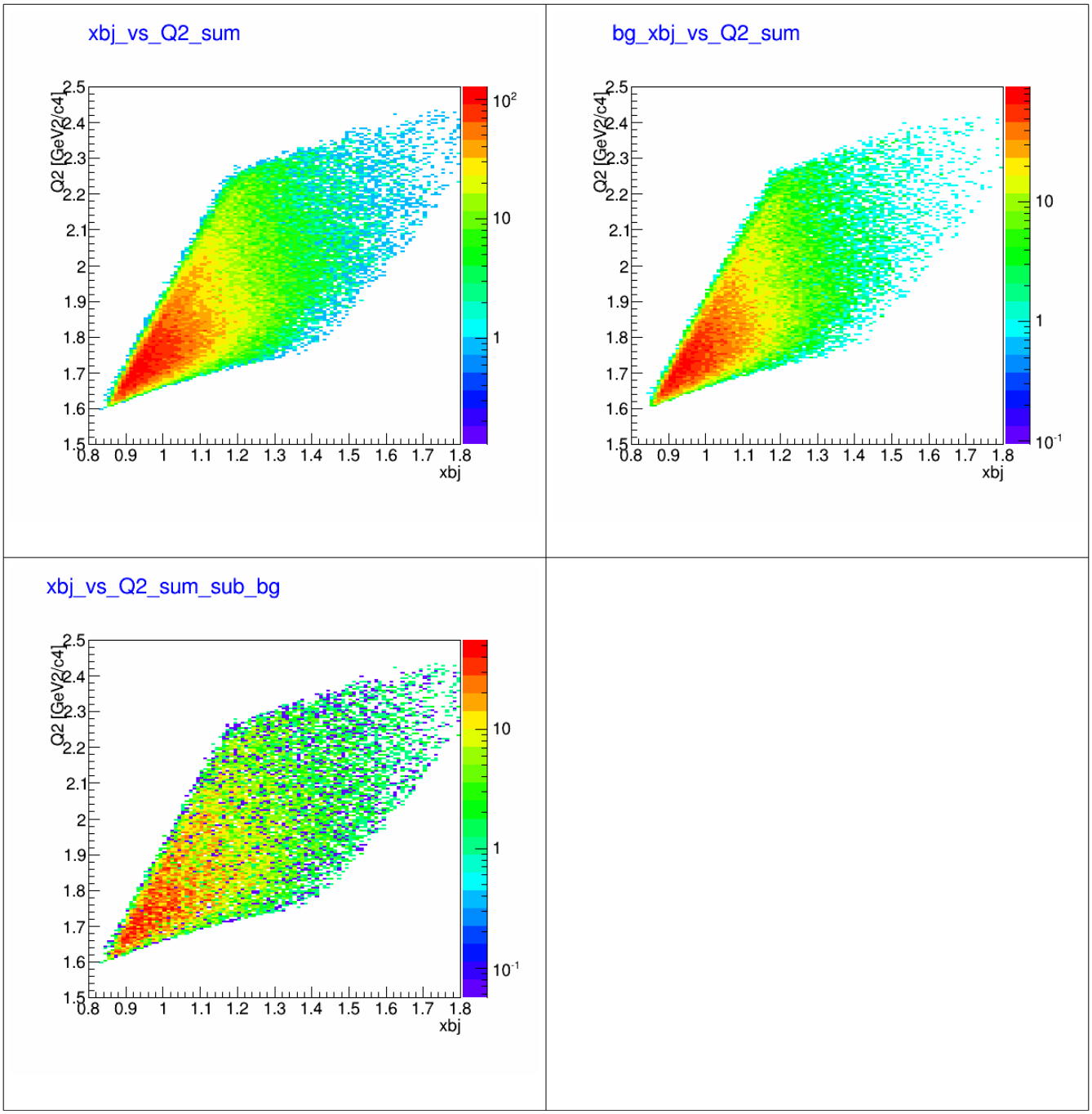
A38: Missing momentum vs y scaling



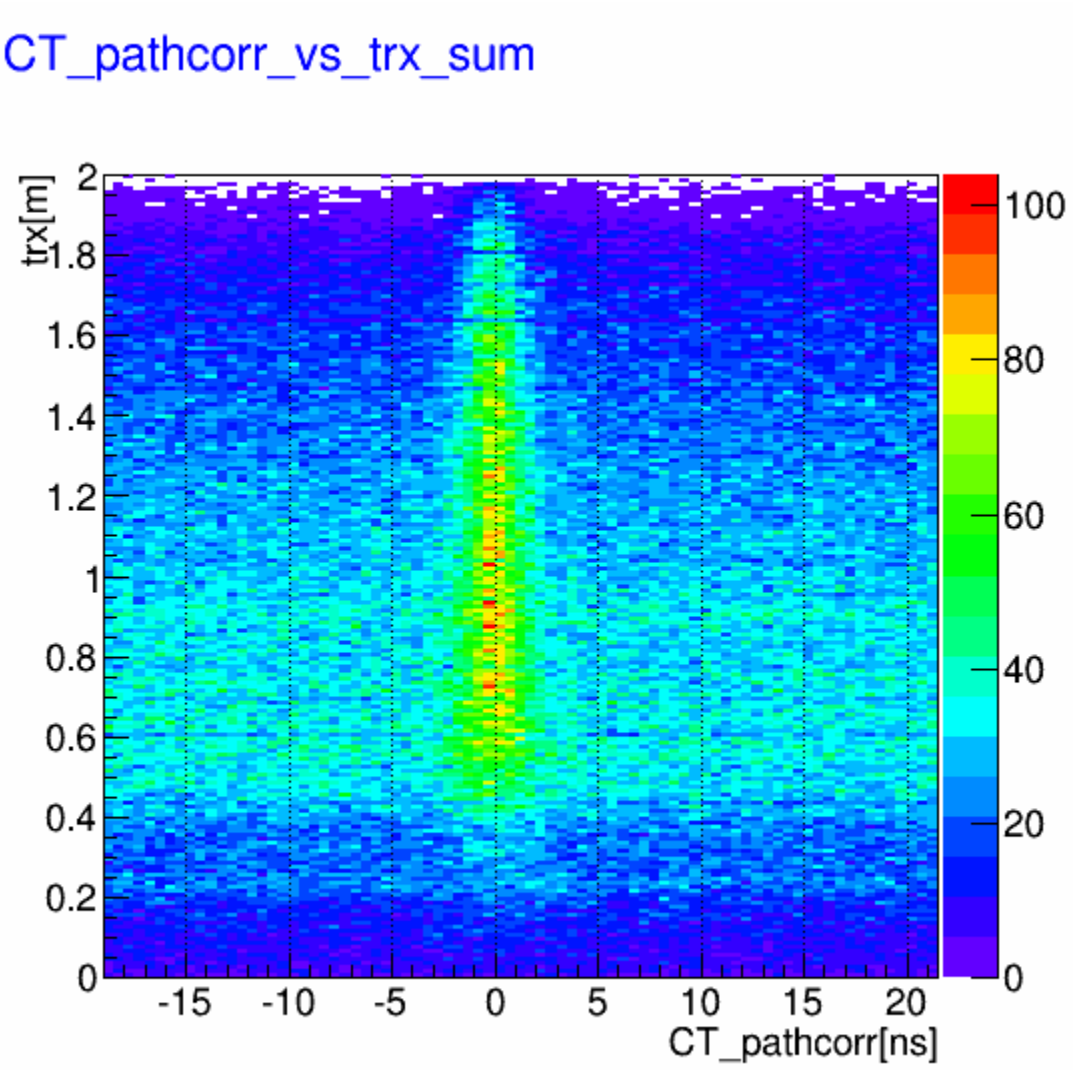
A39: xbj vs Recoil Energy



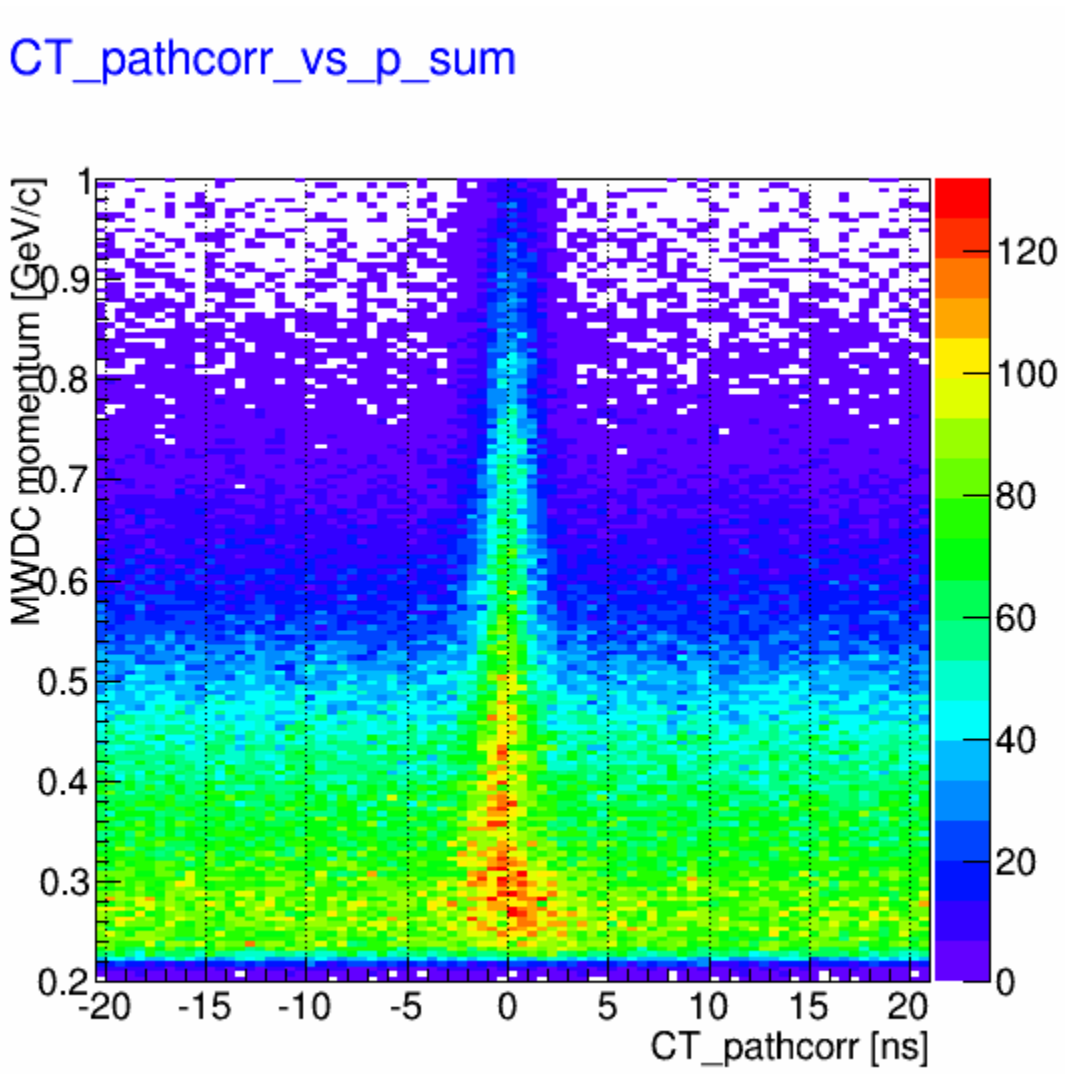
A40: xbj vs omega


xbj_vs_Q2_sum
Q2 [GeV2/c4]
xbj
bg_xbj_vs_Q2_sum
Q2 [GeV2/c4]
xbj
xbj_vs_Q2_sum_sub_bg
Q2 [GeV2/c4]
xbj

A41: xbj vs Q2



A42: Ctpathcorr vs Ebar location



A43: CT pathcorr vs momentum at MWDC