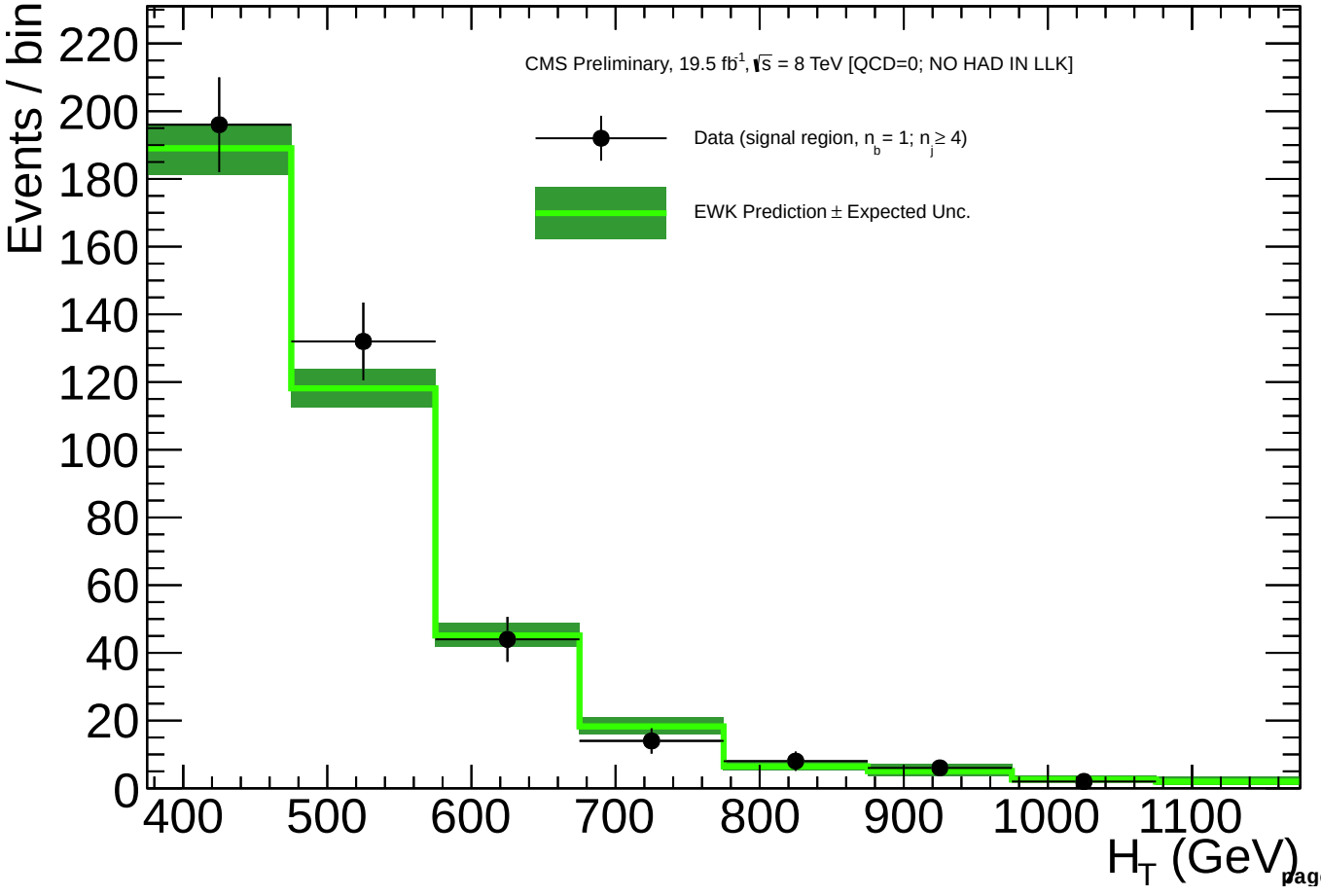
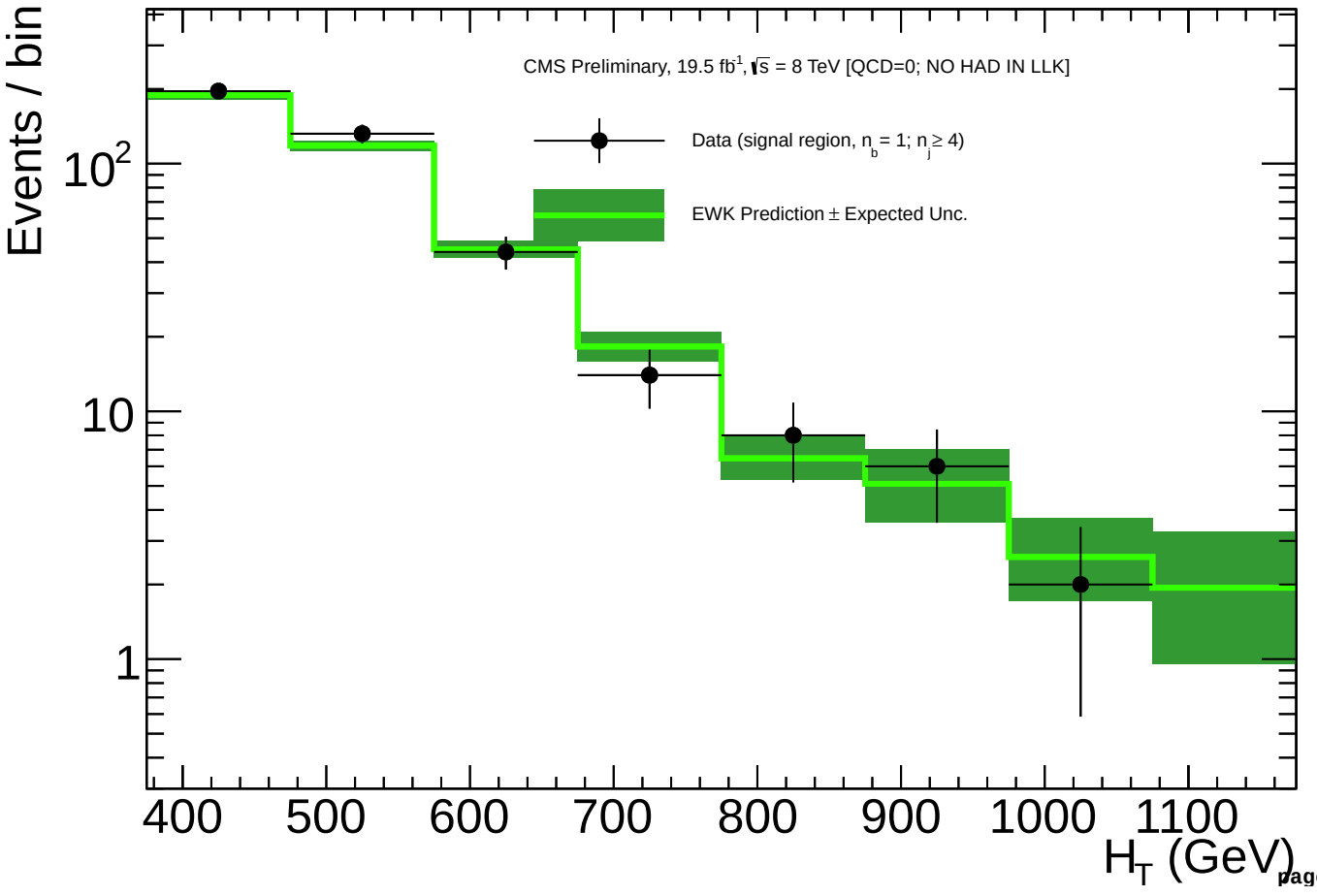
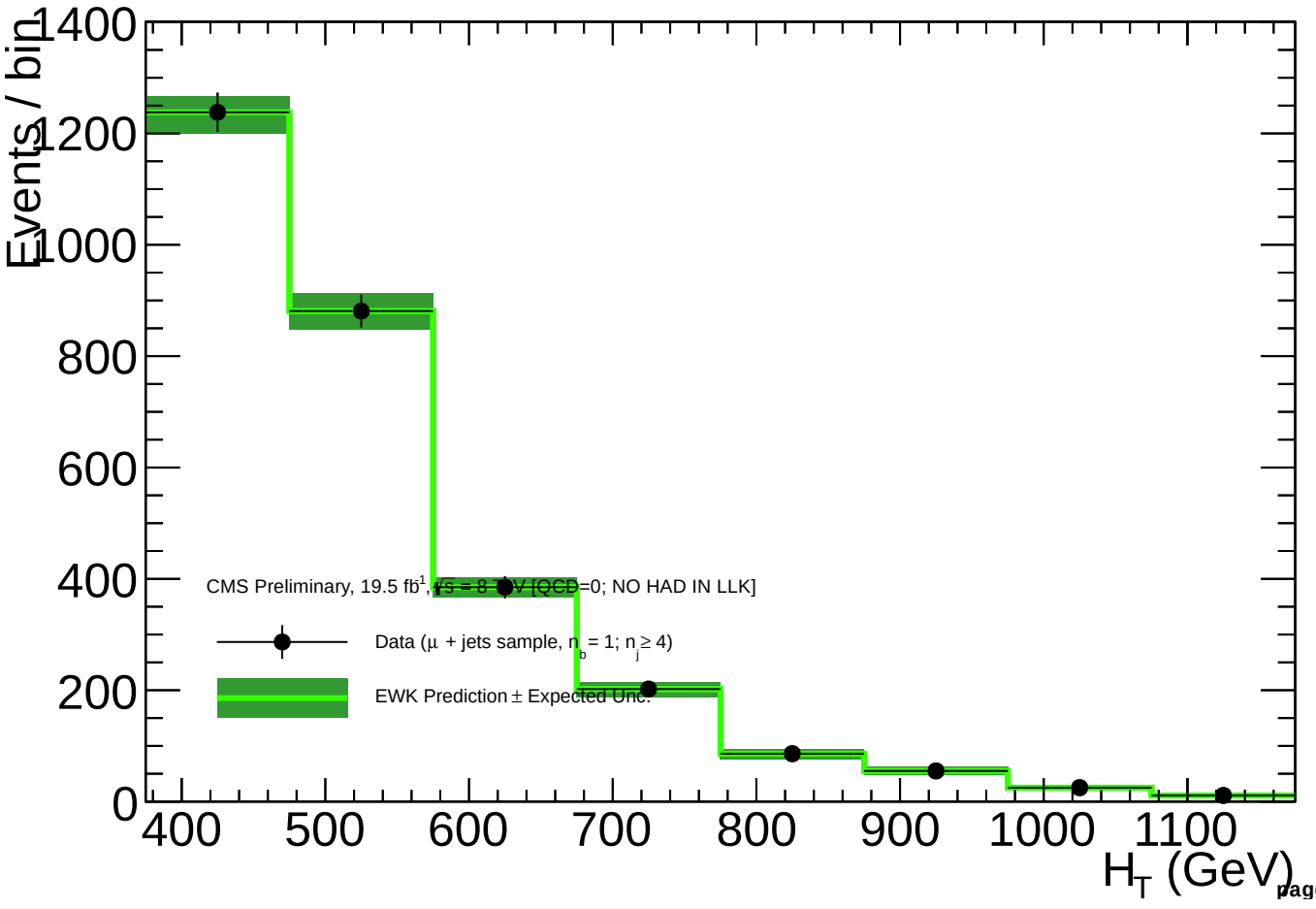
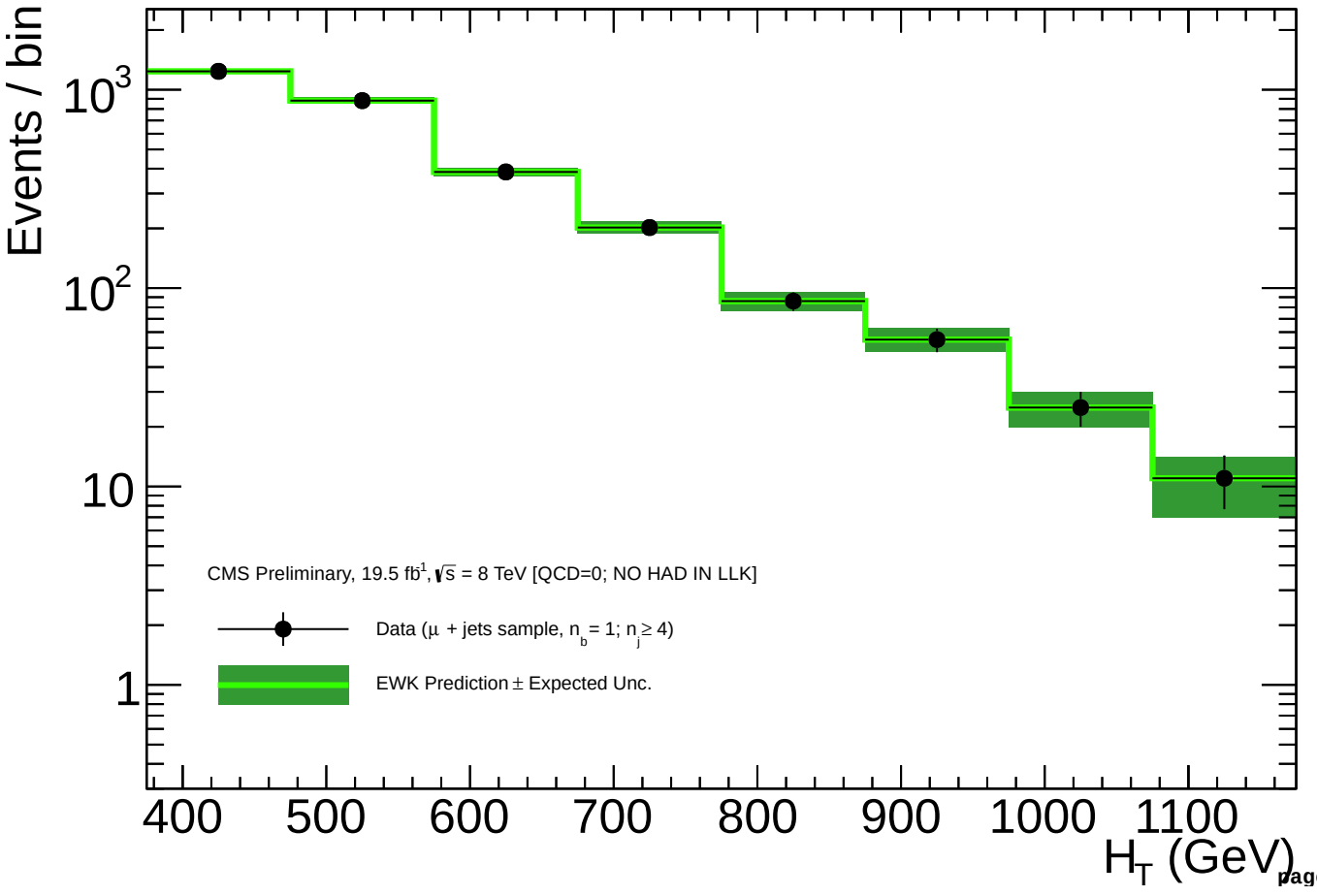
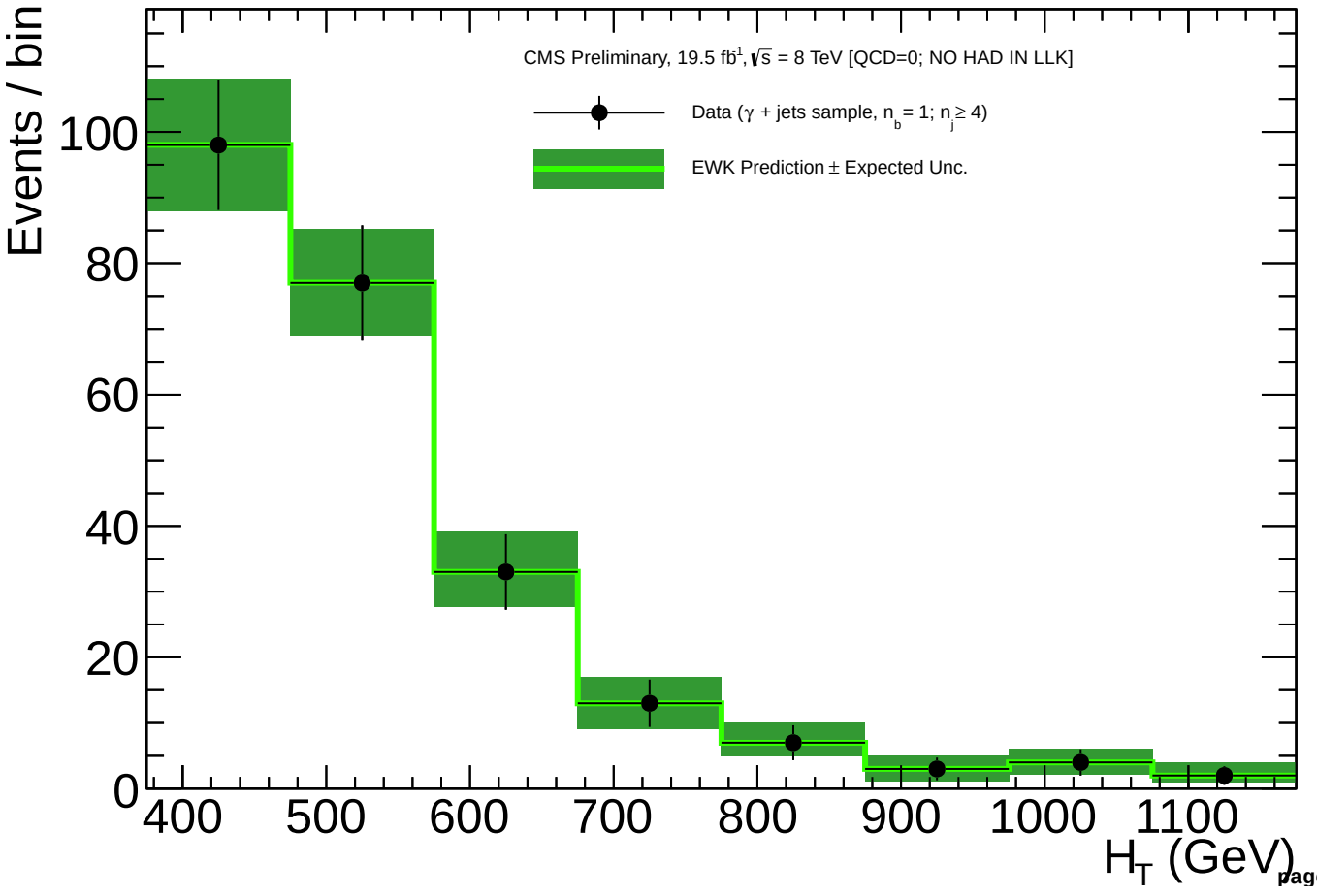
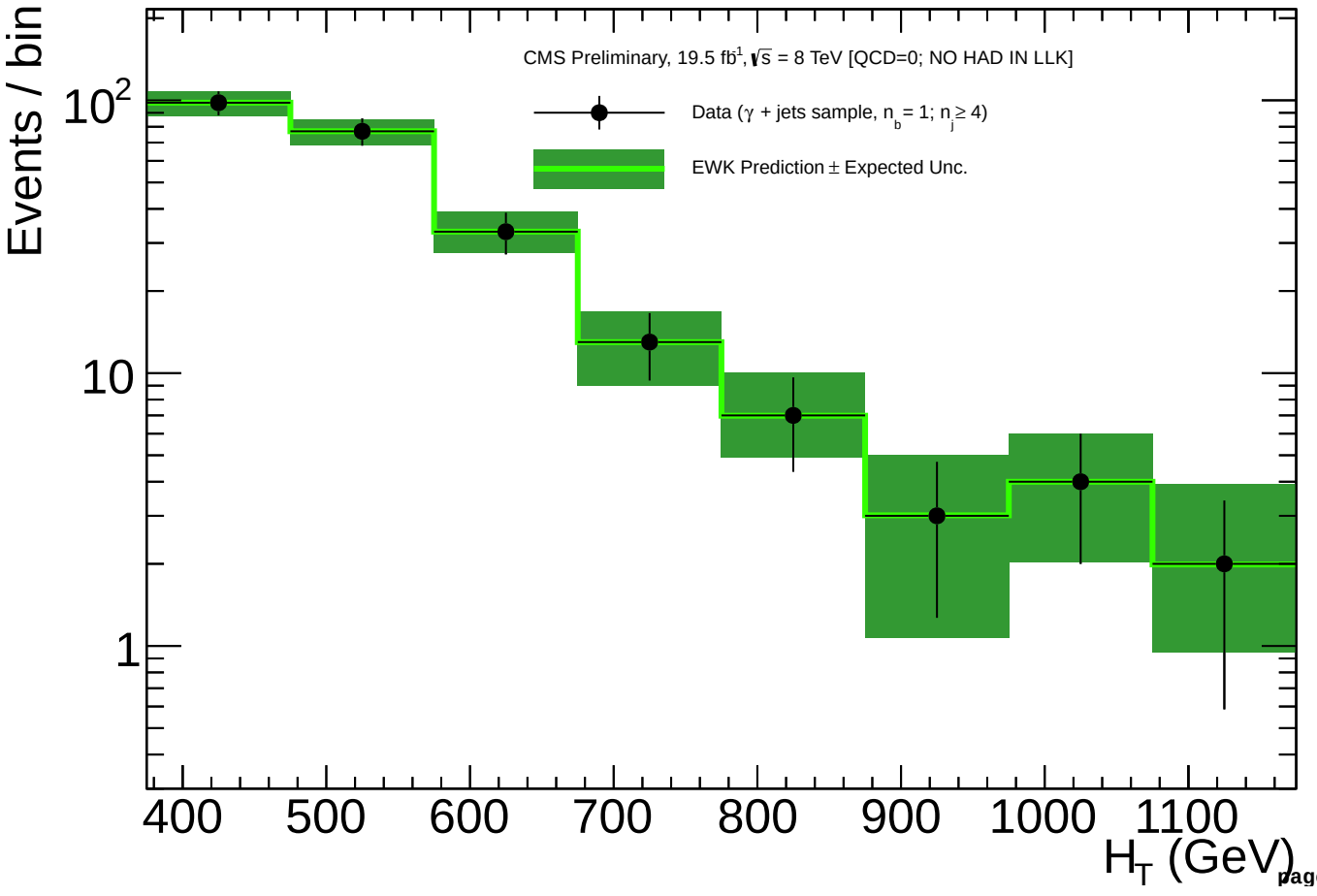

CMS Preliminary, 19.5 fb-1, √s = 8 TeV [QCD=0; NO HAD IN LLK]
Data (signal region, nb = 1; nj ≥ 4)
EWK Prediction ± Expected Unc.
Events / bin
0
20
40
60
80
100
120
140
160
180
200
220
400
500
600
700
800
900
1000
1100
HT (GeV)


CMS Preliminary, 19.5 fb-1, √s = 8 TeV [QCD=0; NO HAD IN LLK]
Data (signal region, nb = 1; nj ≥ 4)
EWK Prediction ± Expected Unc.
Events / bin
10²
10
1
400
500
600
700
800
900
1000
1100
HT (GeV)

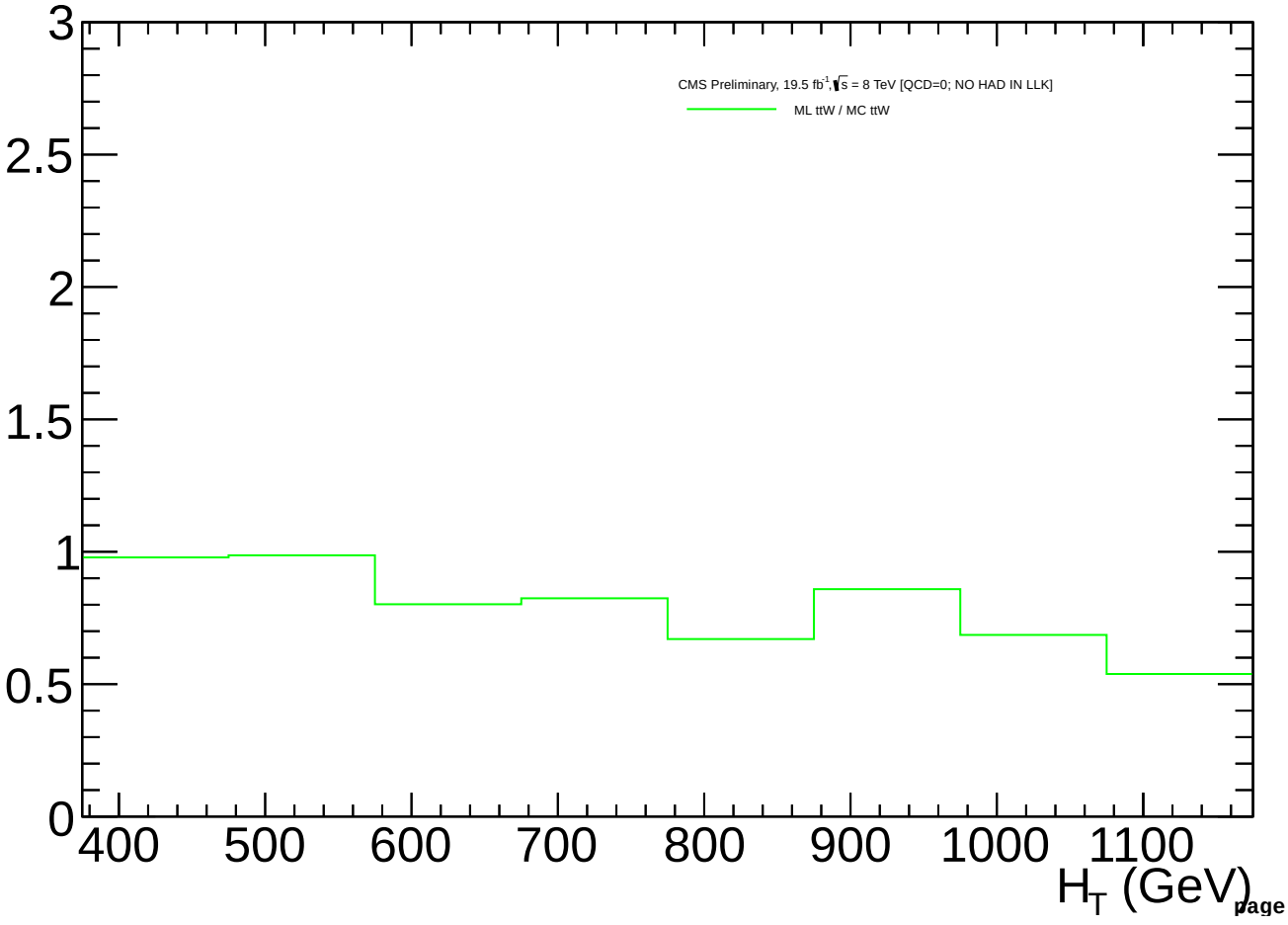

Events / bin
1400
1200
1000
800
600
400
200
0
400
500
600
700
800
900
1000
1100
H_T (GeV)
CMS Preliminary, 19.5 fb^{-1}, $\sqrt{s}$ = 8 TeV [QCD=0; NO HAD IN LLK]
Data (μ + jets sample, $n_b = 1$; $n_j \geq 4$)
EWK Prediction ± Expected Unc.


Events / bin
10^3
10^2
10
1
CMS Preliminary, 19.5 fb^{-1}, $\sqrt{s}$ = 8 TeV [QCD=0; NO HAD IN LLK]
Data (μ + jets sample, $n_b = 1$; $n_j \geq 4$)
EWK Prediction $\pm$ Expected Unc.
400
500
600
700
800
900
1000
1100
H_T (GeV)

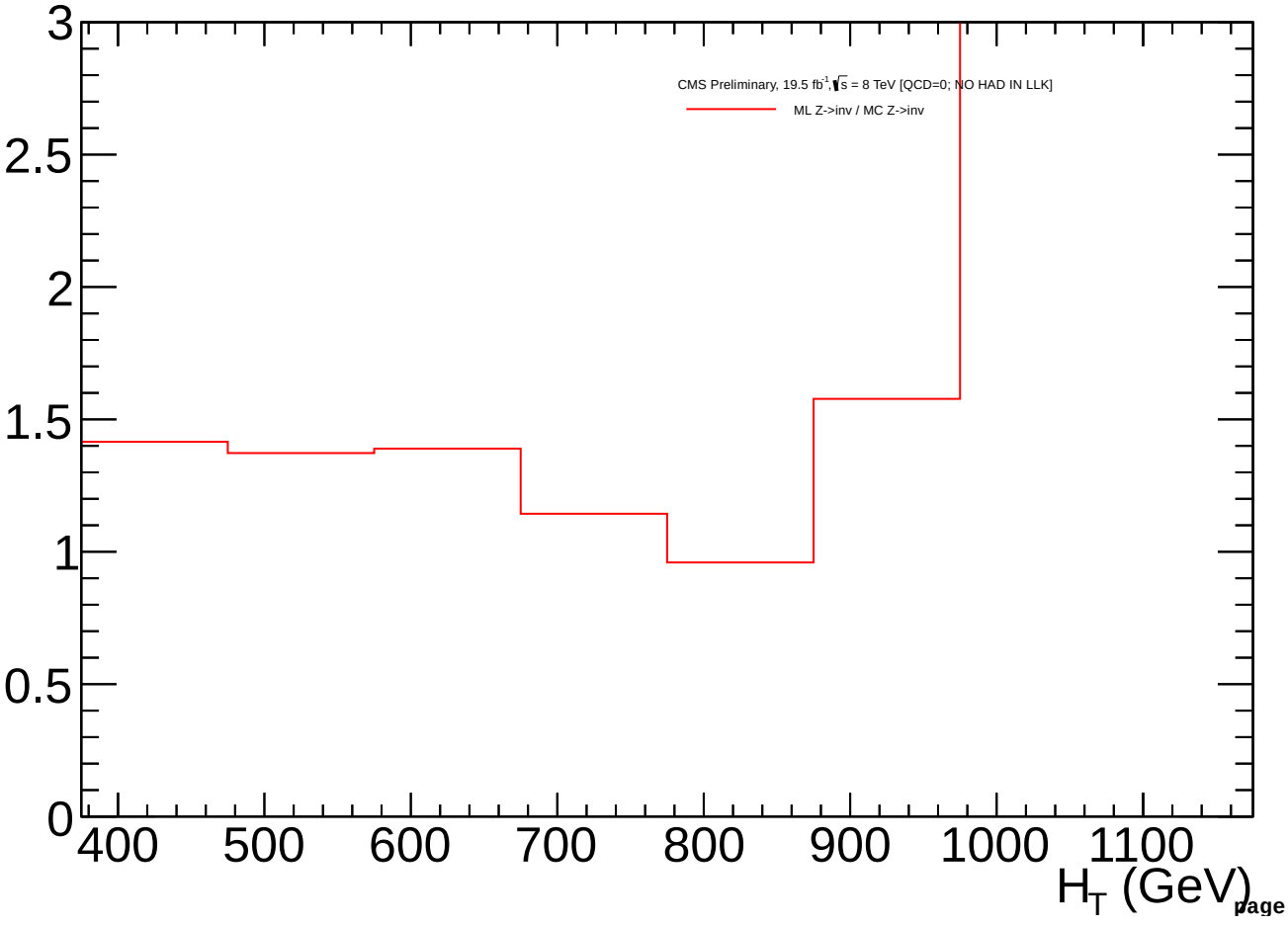

CMS Preliminary, 19.5 fb^{-1}, $\sqrt{s}$ = 8 TeV [QCD=0; NO HAD IN LLK]
Data (γ + jets sample, $n_b = 1$; $n_j \geq 4$)
EWK Prediction ± Expected Unc.
Events / bin
0
20
40
60
80
100
400
500
600
700
800
900
1000
1100
H_T (GeV)


CMS Preliminary, 19.5 fb-1, √s = 8 TeV [QCD=0; NO HAD IN LLK]
Data (γ + jets sample, nb = 1; nj ≥ 4)
EWK Prediction ± Expected Unc.
Events / bin
10²
10
1
400
500
600
700
800
900
1000
1100
HT (GeV)

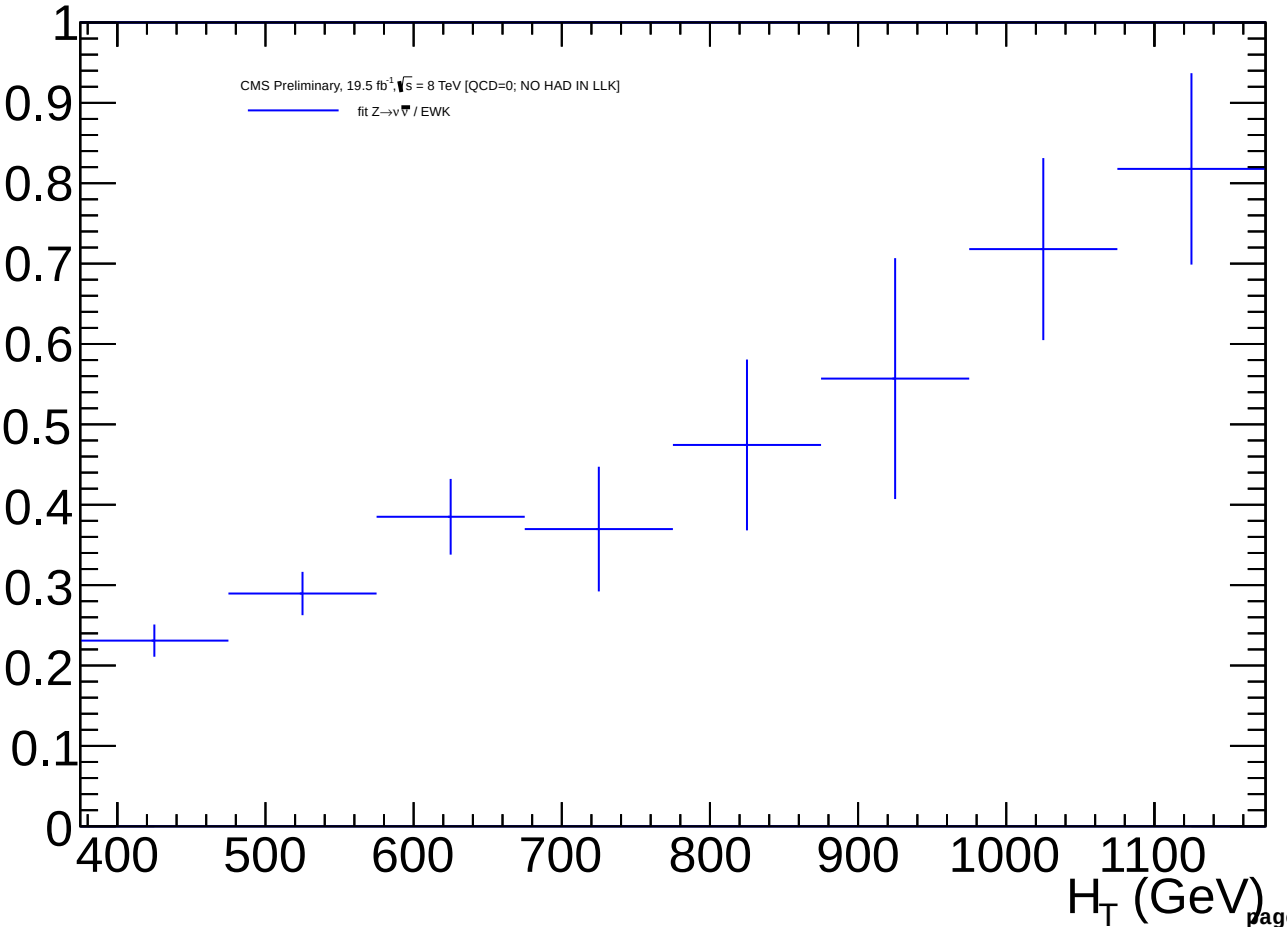
ttW scale factor (result of fit)

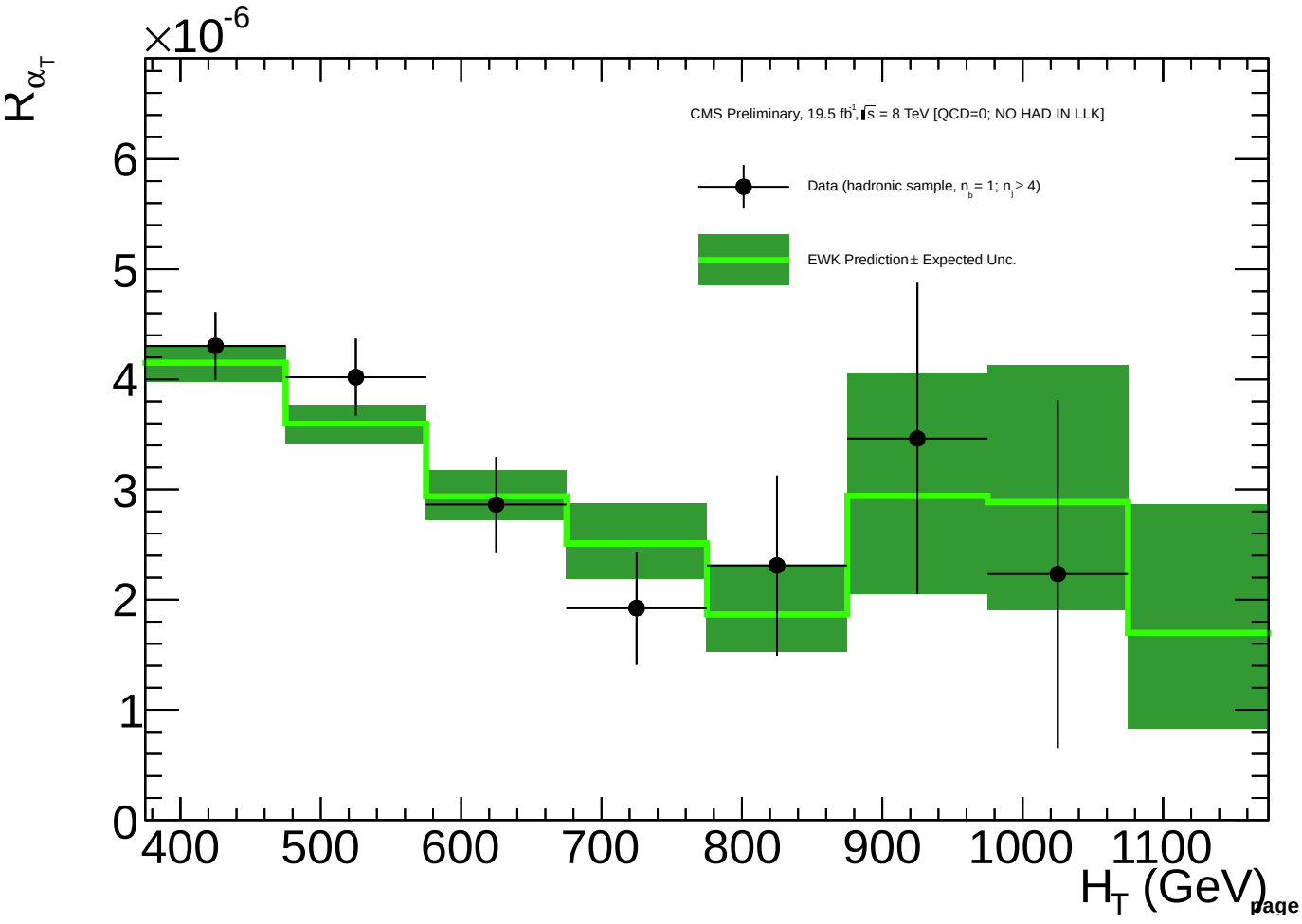


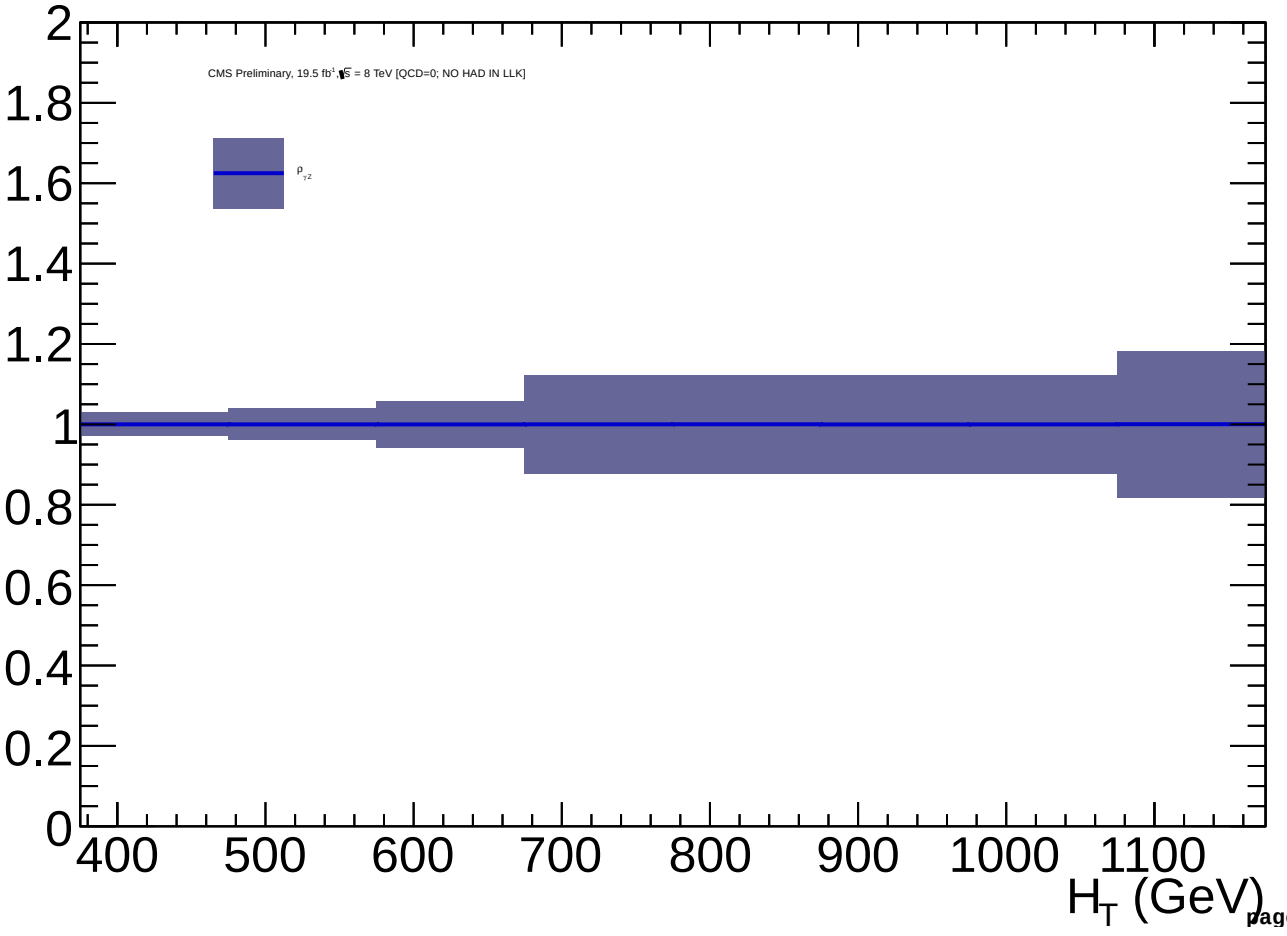
Zinv scale factor (result of fit)

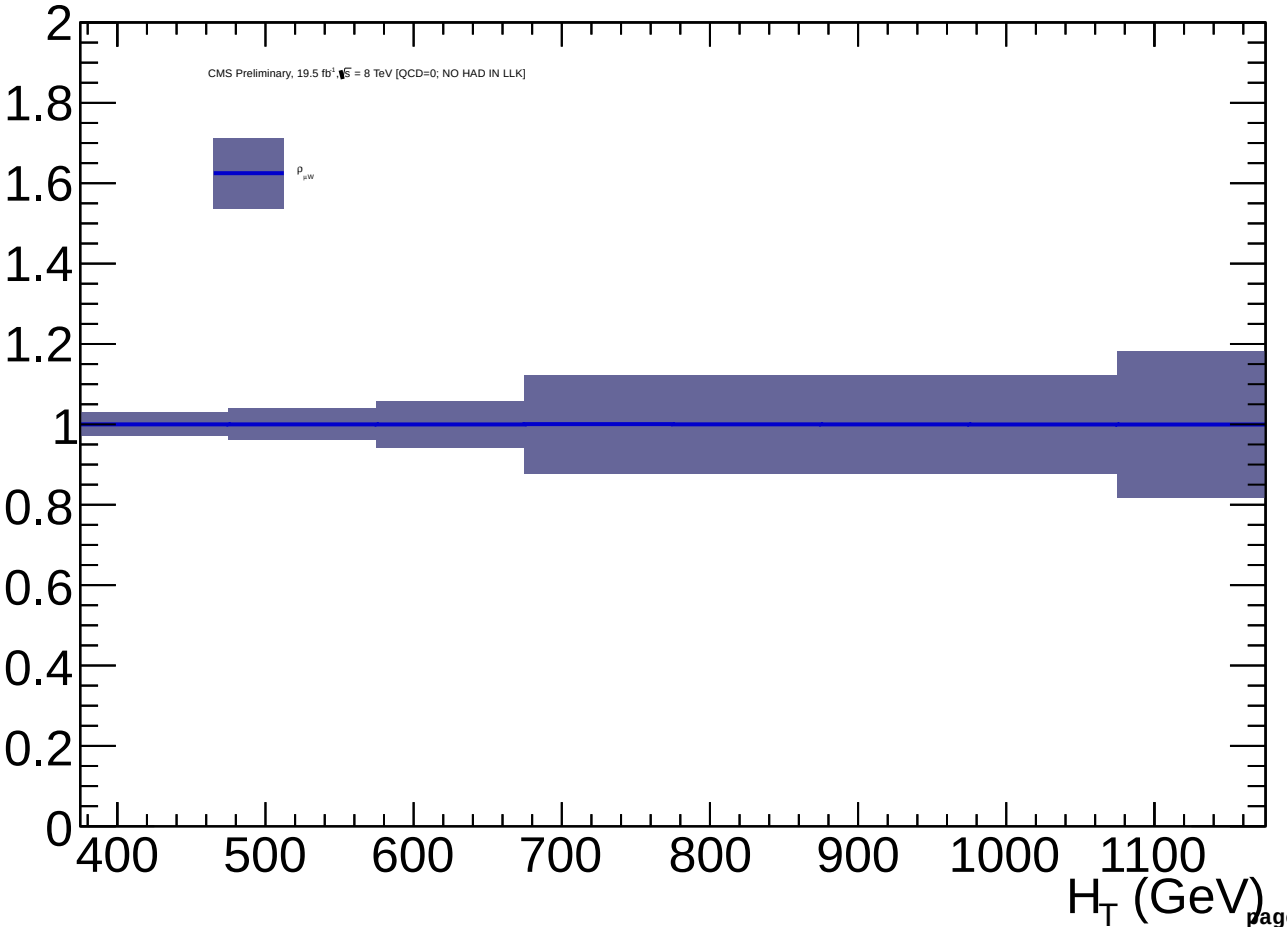


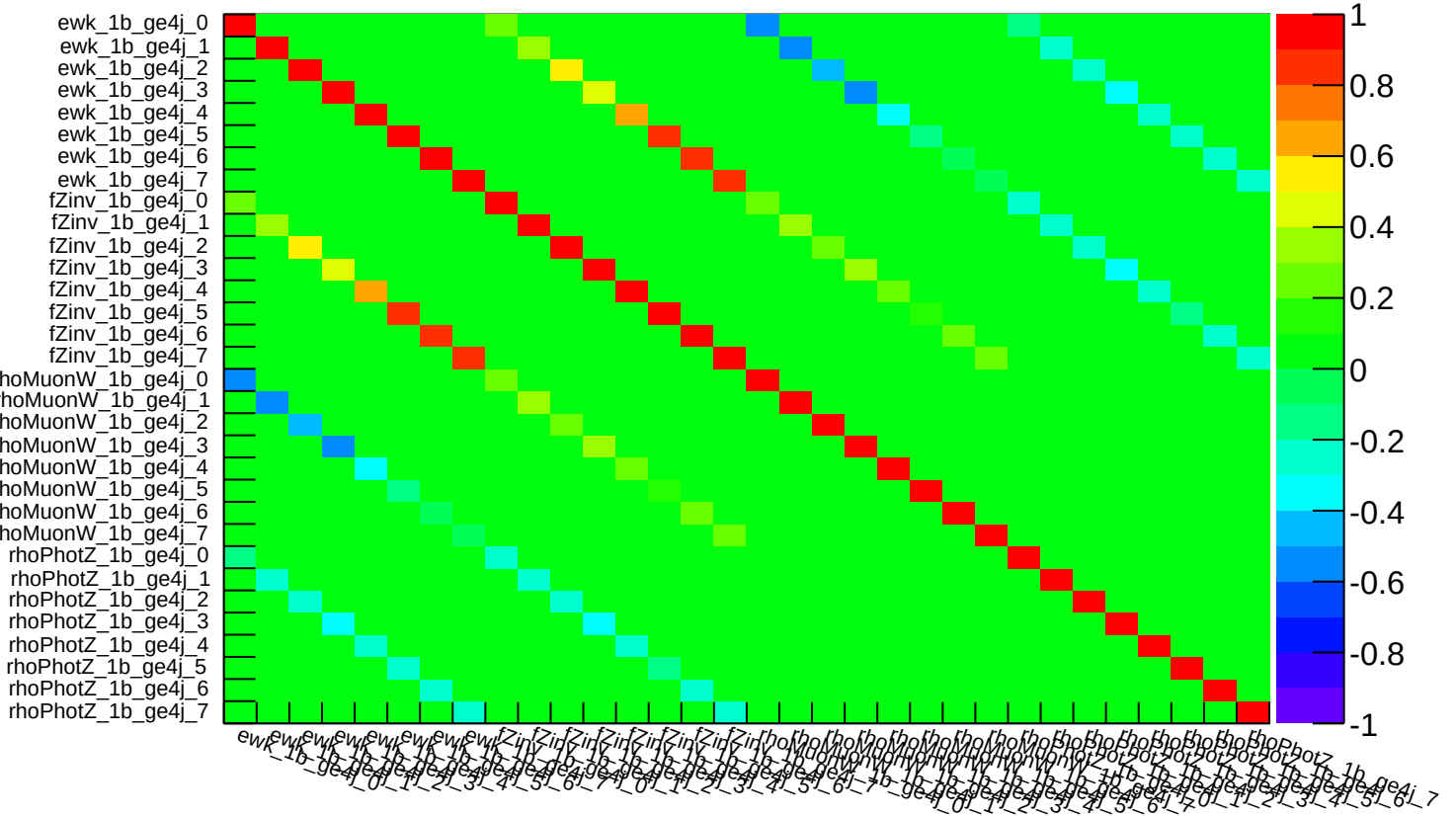
fraction of EWK background which is Zinv (result of fit)




κ_{α_T}
$\times 10^{-6}$
CMS Preliminary, 19.5 fb^{-1}, $\sqrt{s}$ = 8 TeV [QCD=0; NO HAD IN LLK]
Data (hadronic sample, n_b = 1; $n_j \geq$ 4)
EWK Prediction ± Expected Unc.
0
1
2
3
4
5
6
400
500
600
700
800
900
1000
1100
H_T (GeV)


CMS Preliminary, 19.5 fb-1, √s = 8 TeV [QCD=0; NO HAD IN LLK]
ρT,Z
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
400
500
600
700
800
900
1000
1100
HT (GeV)


CMS Preliminary, 19.5 fb-1, √s = 8 TeV [QCD=0; NO HAD IN LLK]
ρμw
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
400
500
600
700
800
900
1000
1100
HT (GeV)

```
          par name:   value   +/-  error   [  min   -   max  ]
-------------------------------------------------------------------
      ewk_1b_ge4j_0:  1.89e+02 +/- 7.5e+00  [0.0e+00 - 2.0e+03]
    fZinv_1b_ge4j_0:  2.31e-01 +/- 2.0e-02  [0.0e+00 - 1.0e+00]
      ewk_1b_ge4j_1:  1.18e+02 +/- 6.0e+00  [0.0e+00 - 1.3e+03]
    fZinv_1b_ge4j_1:  2.90e-01 +/- 2.7e-02  [0.0e+00 - 1.0e+00]
      ewk_1b_ge4j_2:  4.51e+01 +/- 3.8e+00  [0.0e+00 - 4.4e+02]
    fZinv_1b_ge4j_2:  3.85e-01 +/- 4.7e-02  [0.0e+00 - 1.0e+00]
      ewk_1b_ge4j_3:  1.83e+01 +/- 2.6e+00  [0.0e+00 - 1.4e+02]
    fZinv_1b_ge4j_3:  3.70e-01 +/- 7.8e-02  [0.0e+00 - 1.0e+00]
      ewk_1b_ge4j_4:  6.47e+00 +/- 1.3e+00  [0.0e+00 - 8.0e+01]
    fZinv_1b_ge4j_4:  4.74e-01 +/- 1.1e-01  [0.0e+00 - 1.0e+00]
      ewk_1b_ge4j_5:  5.10e+00 +/- 1.7e+00  [0.0e+00 - 6.0e+01]
    fZinv_1b_ge4j_5:  5.57e-01 +/- 1.5e-01  [0.0e+00 - 1.0e+00]
      ewk_1b_ge4j_6:  2.58e+00 +/- 9.7e-01  [0.0e+00 - 2.0e+01]
    fZinv_1b_ge4j_6:  7.18e-01 +/- 1.1e-01  [0.0e+00 - 1.0e+00]
      ewk_1b_ge4j_7:  1.94e+00 +/- 1.2e+00  [0.0e+00 - 1.0e+01]
    fZinv_1b_ge4j_7:  8.18e-01 +/- 1.2e-01  [0.0e+00 - 1.0e+00]
 rhoPhotZ_1b_ge4j_0:  1.00e+00 +/- 3.0e-02  [0.0e+00 - 3.0e+00]
 rhoPhotZ_1b_ge4j_1:  1.00e+00 +/- 3.9e-02  [0.0e+00 - 3.0e+00]
 rhoPhotZ_1b_ge4j_2:  1.00e+00 +/- 5.8e-02  [0.0e+00 - 3.0e+00]
 rhoPhotZ_1b_ge4j_3:  1.00e+00 +/- 1.2e-01  [0.0e+00 - 3.0e+00]
 rhoPhotZ_1b_ge4j_4:  1.00e+00 +/- 1.2e-01  [0.0e+00 - 3.0e+00]
 rhoPhotZ_1b_ge4j_5:  1.00e+00 +/- 1.2e-01  [0.0e+00 - 3.0e+00]
 rhoPhotZ_1b_ge4j_6:  1.00e+00 +/- 1.2e-01  [0.0e+00 - 3.0e+00]
 rhoPhotZ_1b_ge4j_7:  1.00e+00 +/- 1.8e-01  [0.0e+00 - 3.0e+00]
 rhoMuonW_1b_ge4j_0:  1.00e+00 +/- 3.0e-02  [0.0e+00 - 3.0e+00]
 rhoMuonW_1b_ge4j_1:  1.00e+00 +/- 3.9e-02  [0.0e+00 - 3.0e+00]
 rhoMuonW_1b_ge4j_2:  1.00e+00 +/- 5.8e-02  [0.0e+00 - 3.0e+00]
 rhoMuonW_1b_ge4j_3:  1.00e+00 +/- 1.2e-01  [0.0e+00 - 3.0e+00]
 rhoMuonW_1b_ge4j_4:  1.00e+00 +/- 1.2e-01  [0.0e+00 - 3.0e+00]
 rhoMuonW_1b_ge4j_5:  1.00e+00 +/- 1.2e-01  [0.0e+00 - 3.0e+00]
 rhoMuonW_1b_ge4j_6:  1.00e+00 +/- 1.2e-01  [0.0e+00 - 3.0e+00]
 rhoMuonW_1b_ge4j_7:  1.00e+00 +/- 1.8e-01  [0.0e+00 - 3.0e+00]
```

correlation_matrix