Weekly Updates On nu e Meeting

Problem Solutions

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September 3th, 2013

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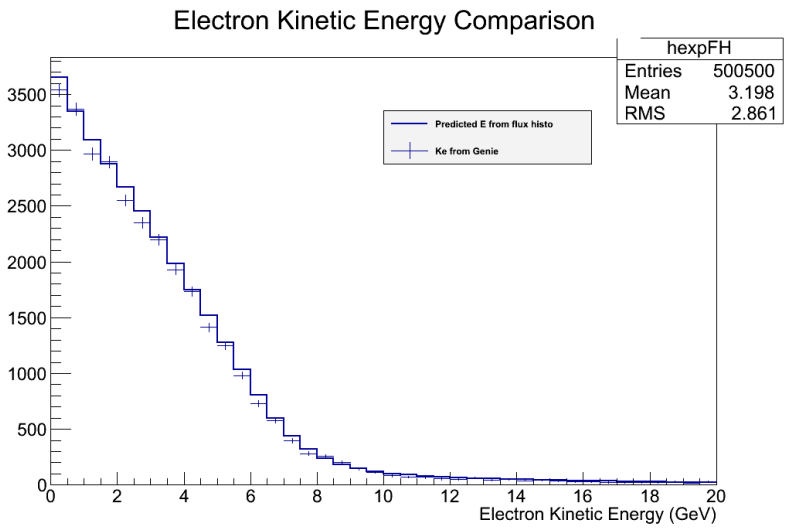
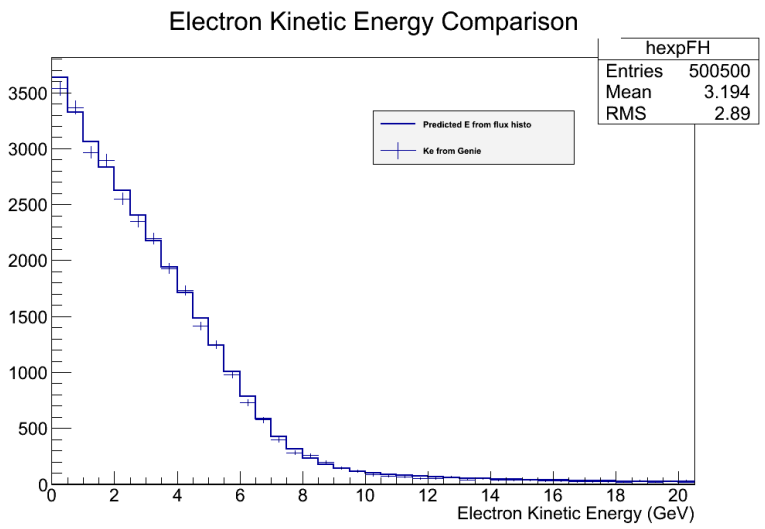
Electron Energy Spectrum Check With Different Nu Energy Cut

Genie & Prediction Full Range, weak mixing angle 0.2277(left) and 0.2315(right)



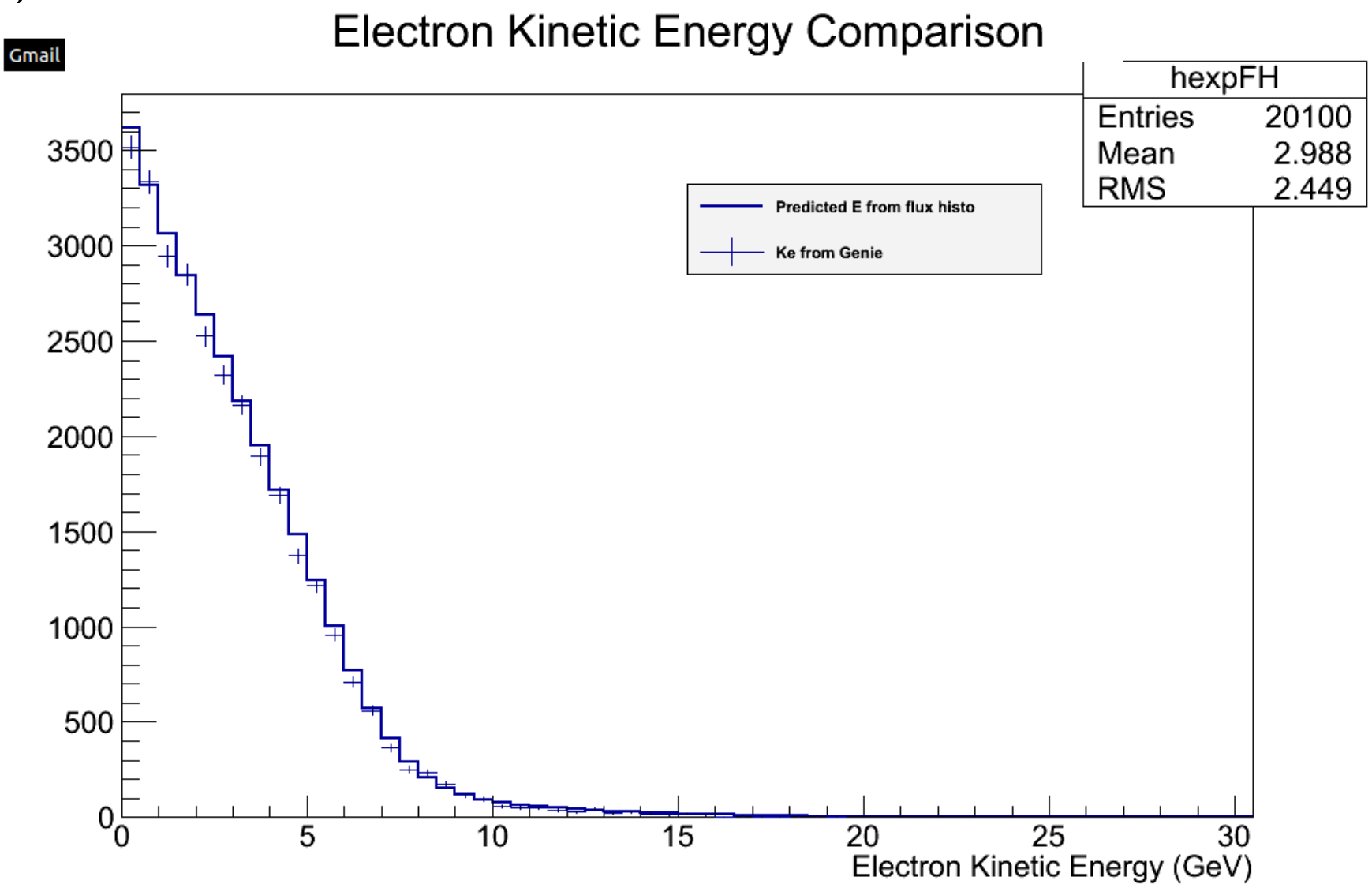


(0-30 GeV calculated) chi^2=1.927 (left); chi^2=1.505 (right)

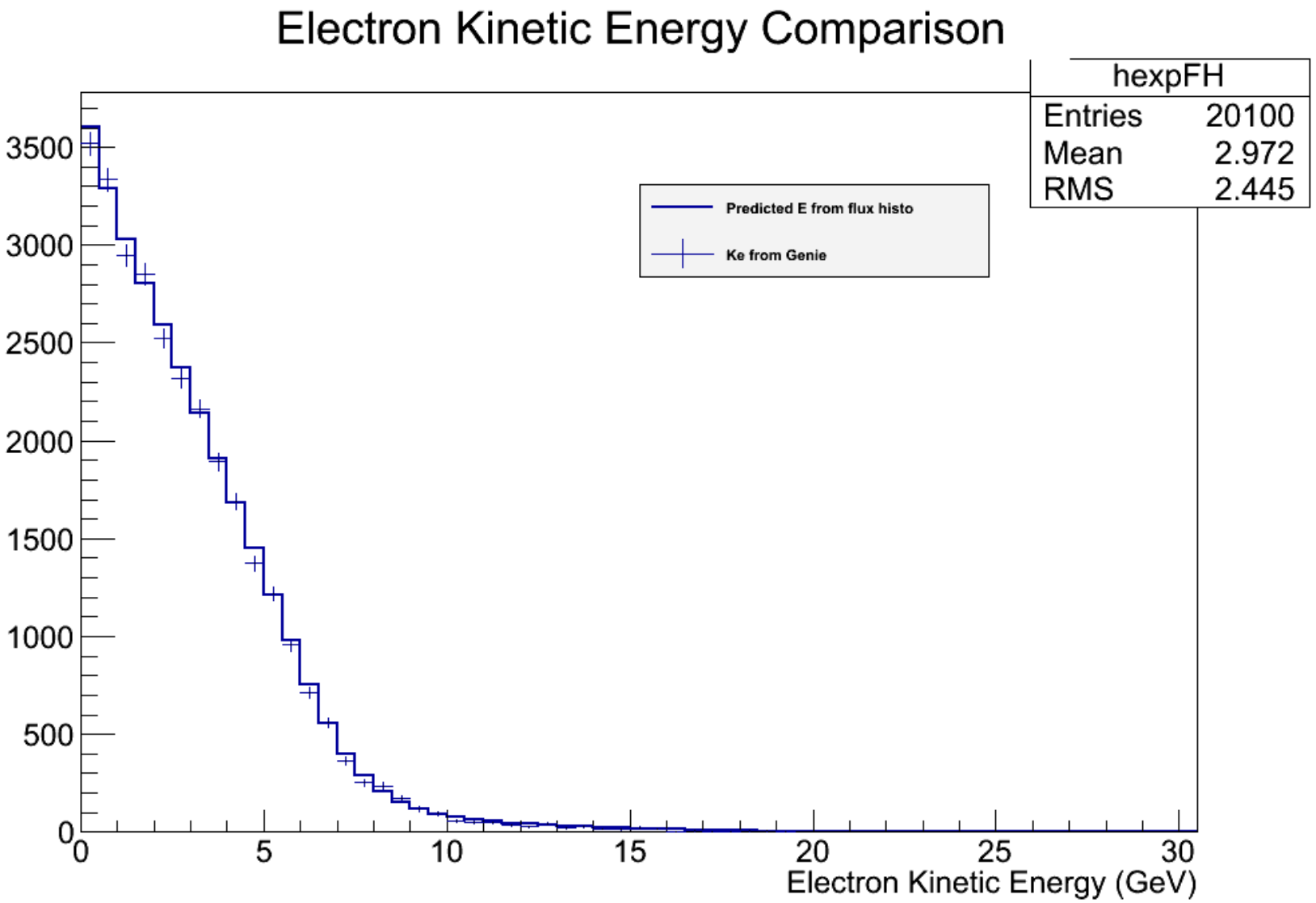
chi2 for cases	nu<20(GeV)	nu<25(GeV)	nu<30(GeV)
GeniewkMixAgl=0.2277	2.347(i)	2.165(ii)	2.505(iii)
wkMixAgl=0.2315	1.766(iv)	1.652(v)	2.117(vi)

(i),(ii),...,(vi) respect to the same index in the table for different cases

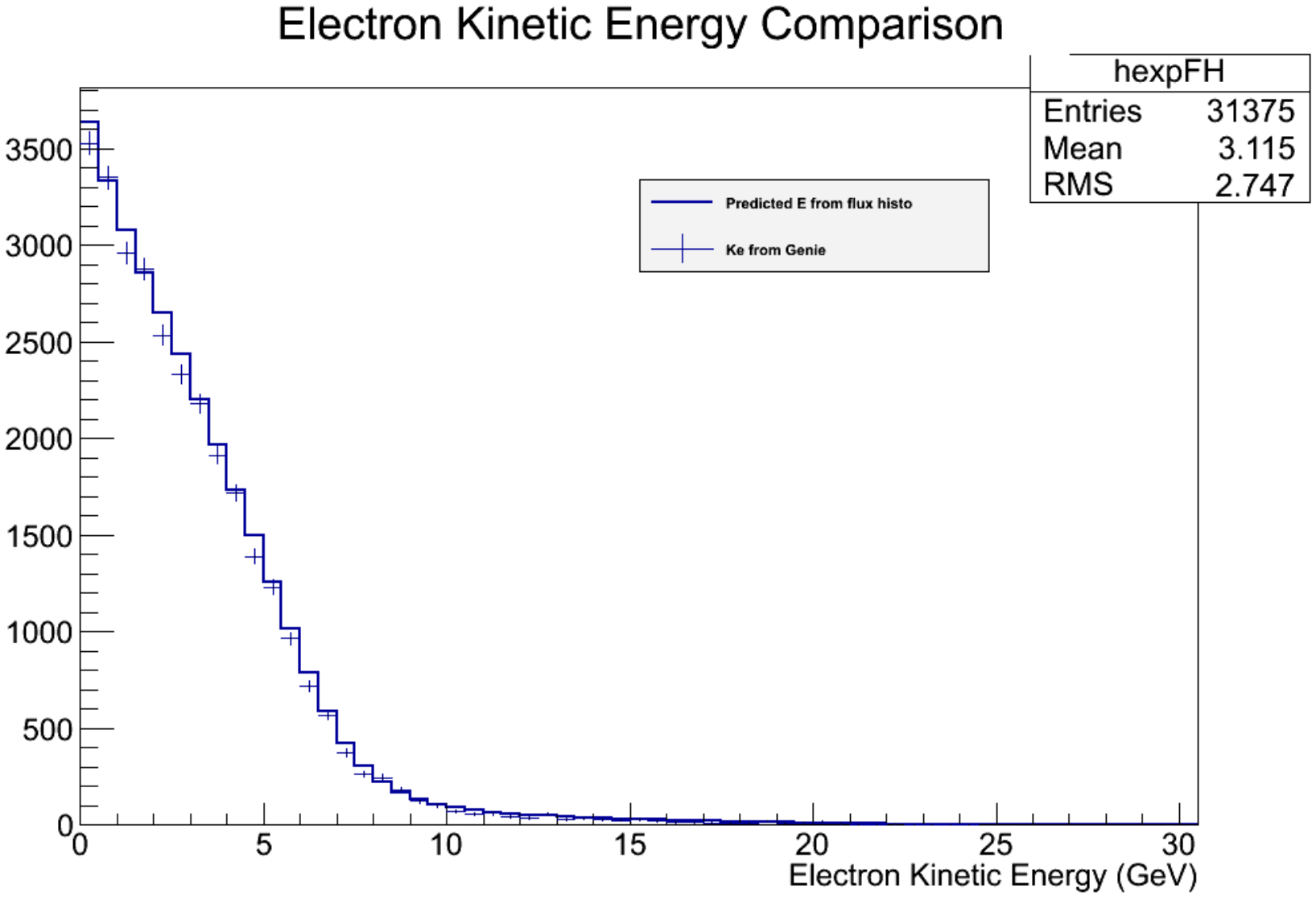
(i)



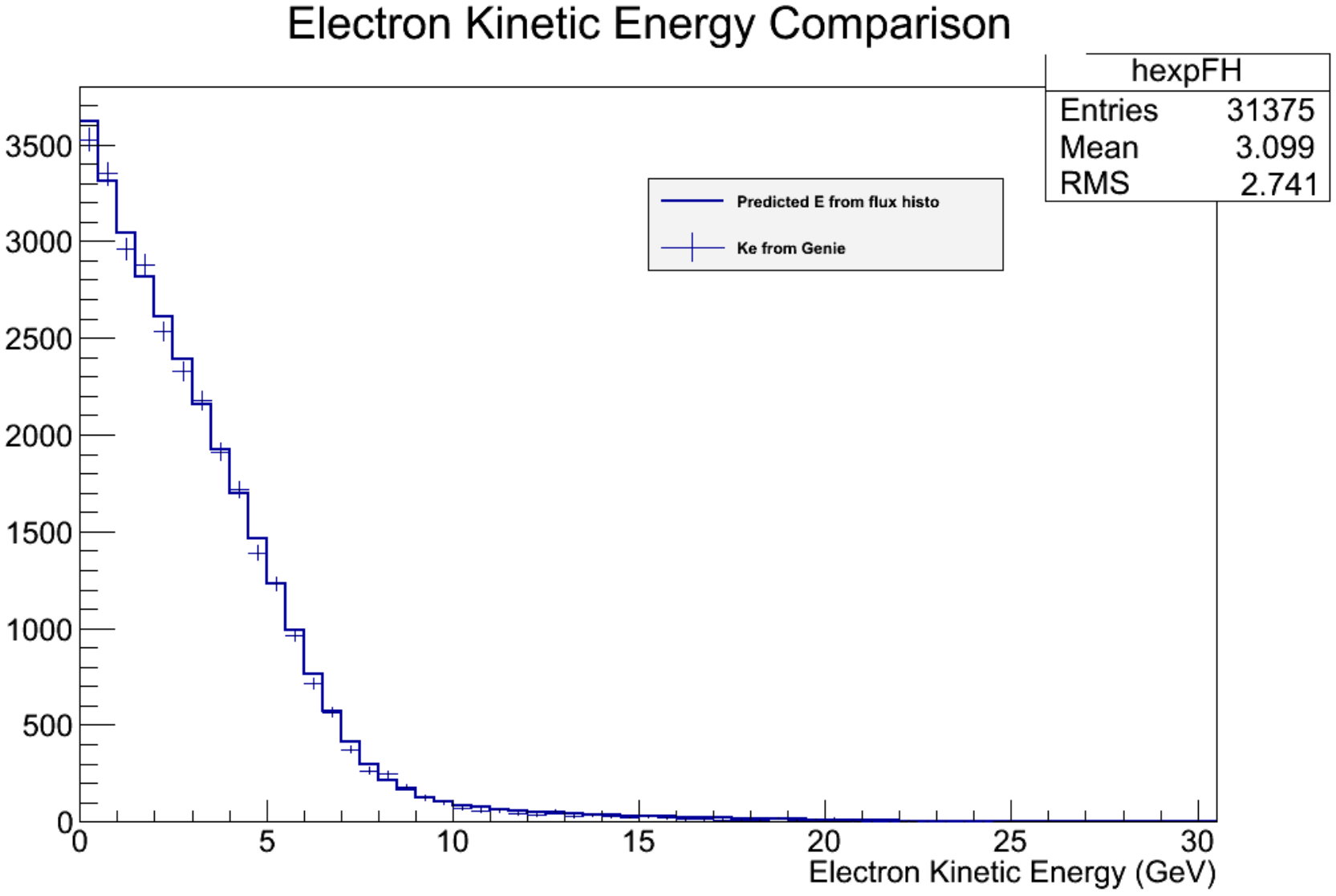
(ii)


Electron Kinetic Energy Comparison
hexpFH
Entries 20100
Mean 2.972
RMS 2.445
Predicted E from flux histo
Ke from Genie
3500
3000
2500
2000
1500
1000
500
0
0
5
10
15
20
25
30
Electron Kinetic Energy (GeV)

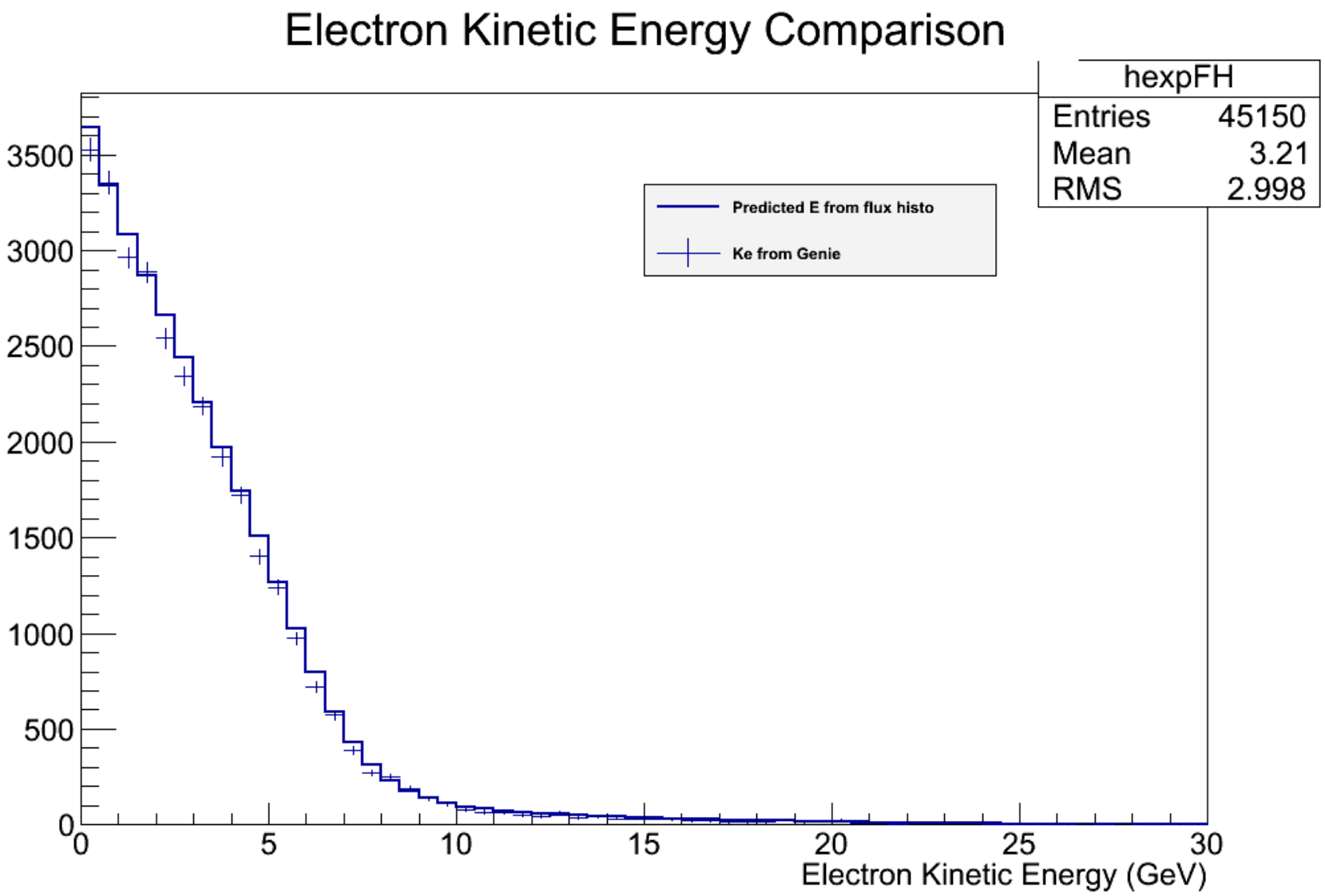
(iii)


Electron Kinetic Energy Comparison
hexpFH
Entries 31375
Mean 3.115
RMS 2.747
Predicted E from flux histo
Ke from Genie
3500
3000
2500
2000
1500
1000
500
0
0
5
10
15
20
25
30
Electron Kinetic Energy (GeV)

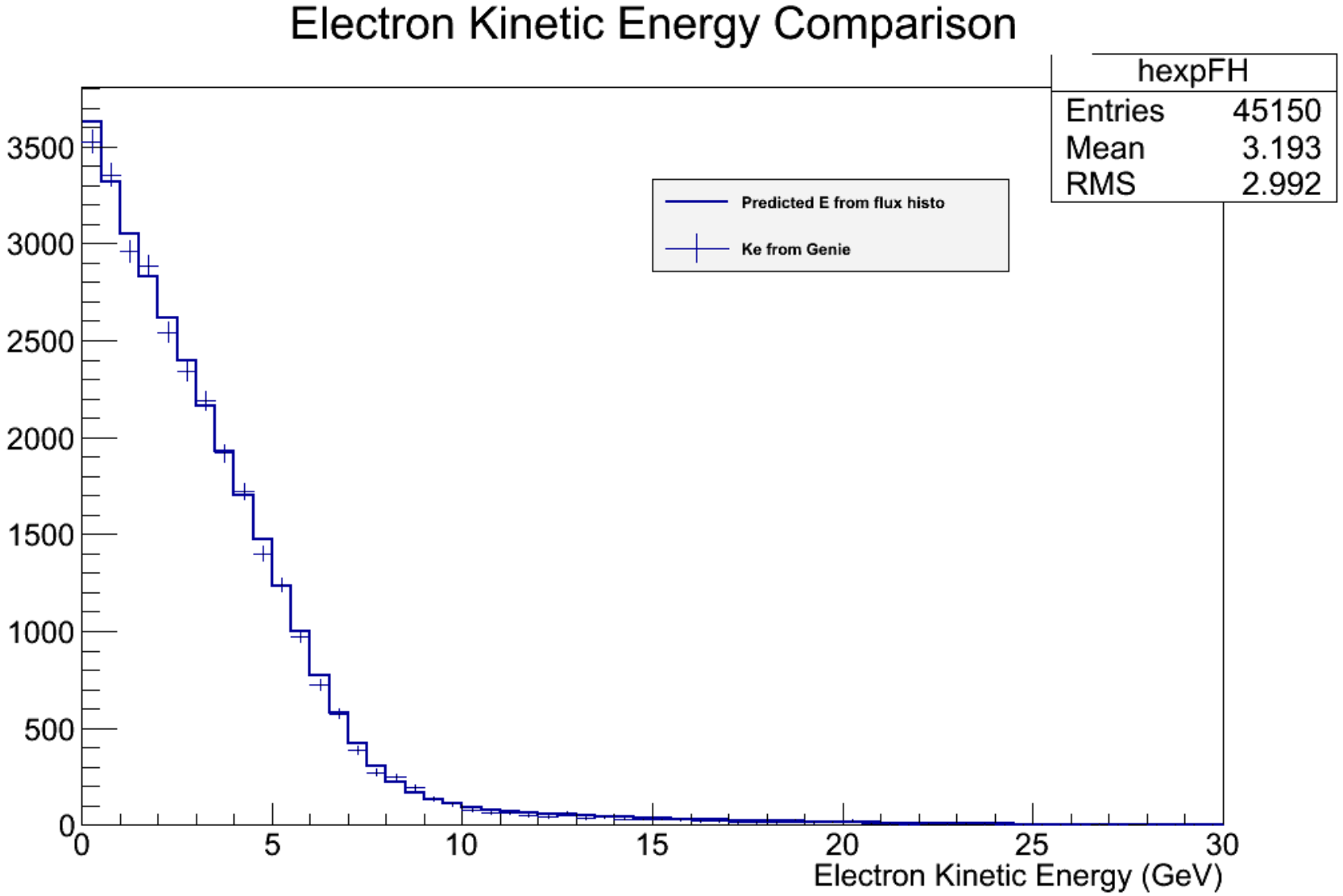
(iv)


Electron Kinetic Energy Comparison
hexpFH
Entries 31375
Mean 3.099
RMS 2.741
Predicted E from flux histo
Ke from Genie
3500
3000
2500
2000
1500
1000
500
0
0
5
10
15
20
25
30
Electron Kinetic Energy (GeV)

(v)


Electron Kinetic Energy Comparison
hexpFH
Entries 45150
Mean 3.21
RMS 2.998
Predicted E from flux histo
Ke from Genie
3500
3000
2500
2000
1500
1000
500
0
0
5
10
15
20
25
30
Electron Kinetic Energy (GeV)

(vi)


Electron Kinetic Energy Comparison
hexpFH
Entries 45150
Mean 3.193
RMS 2.992
Predicted E from flux histo
Ke from Genie
3500
3000
2500
2000
1500
1000
500
0
0
5
10
15
20
25
30
Electron Kinetic Energy (GeV)