

number of events

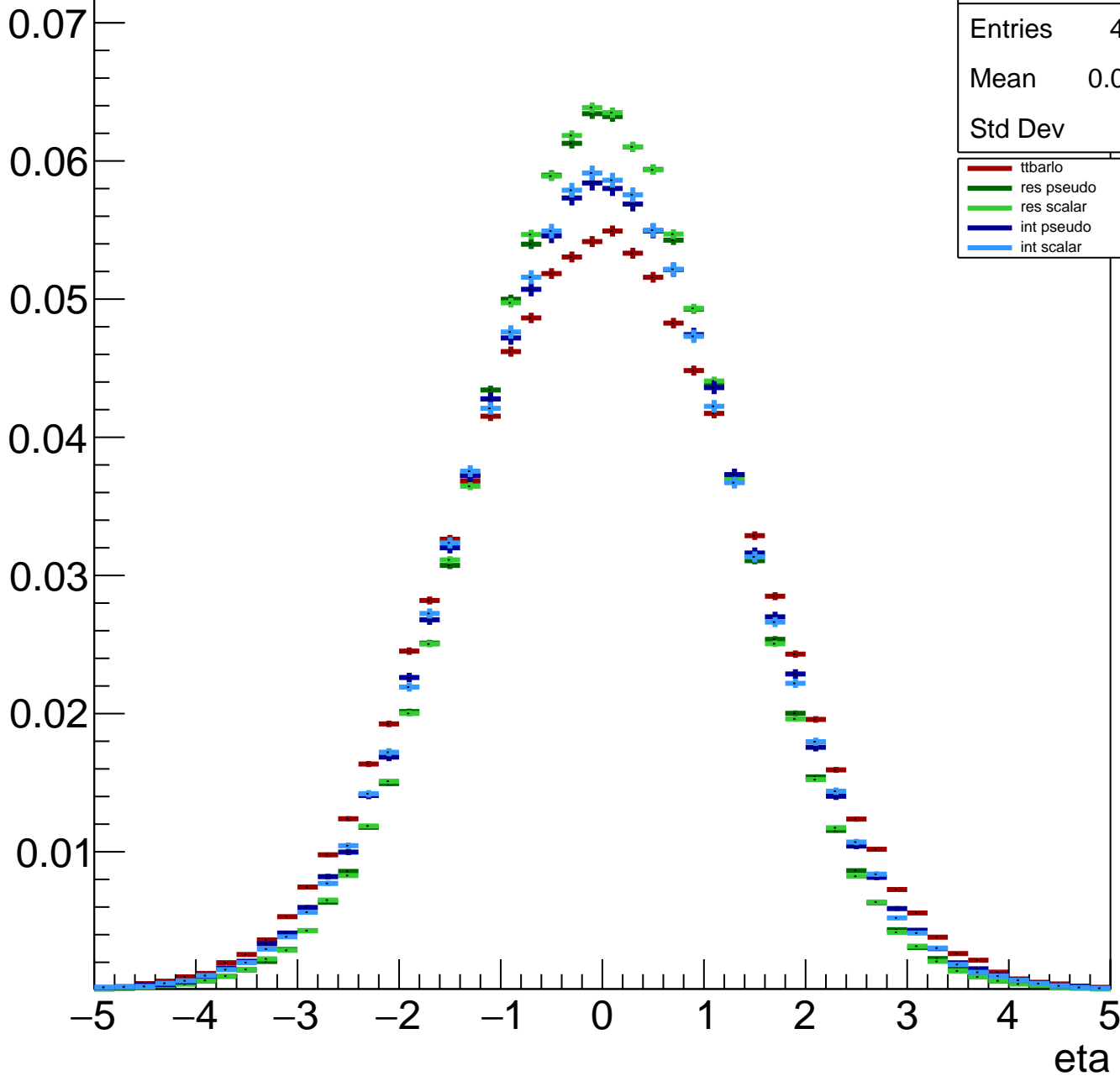
antibottom_eta_no_cut

Entries 444924

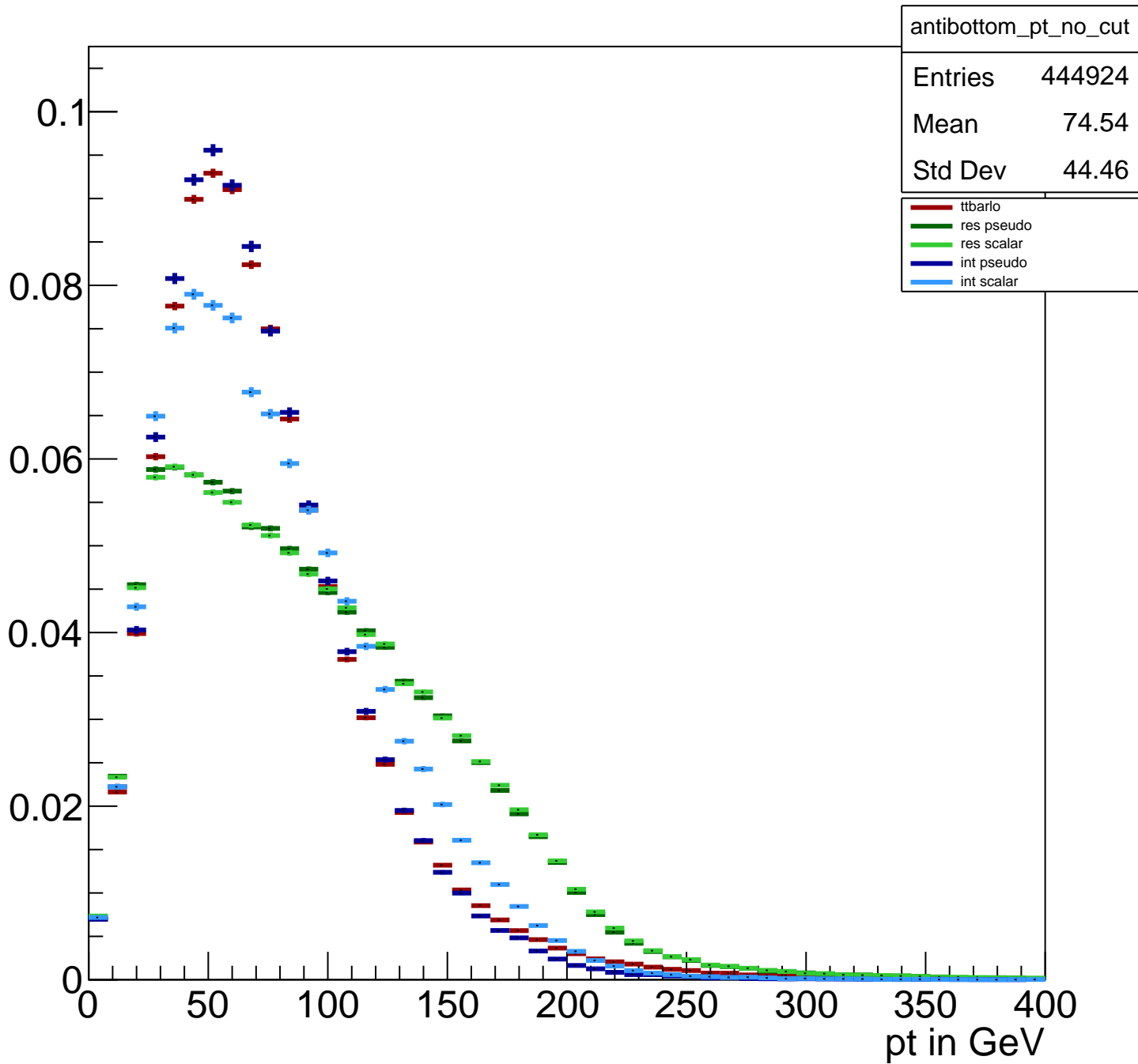
Mean 0.001236

Std Dev 1.437

ttbarlo
res pseudo
res scalar
int pseudo
int scalar

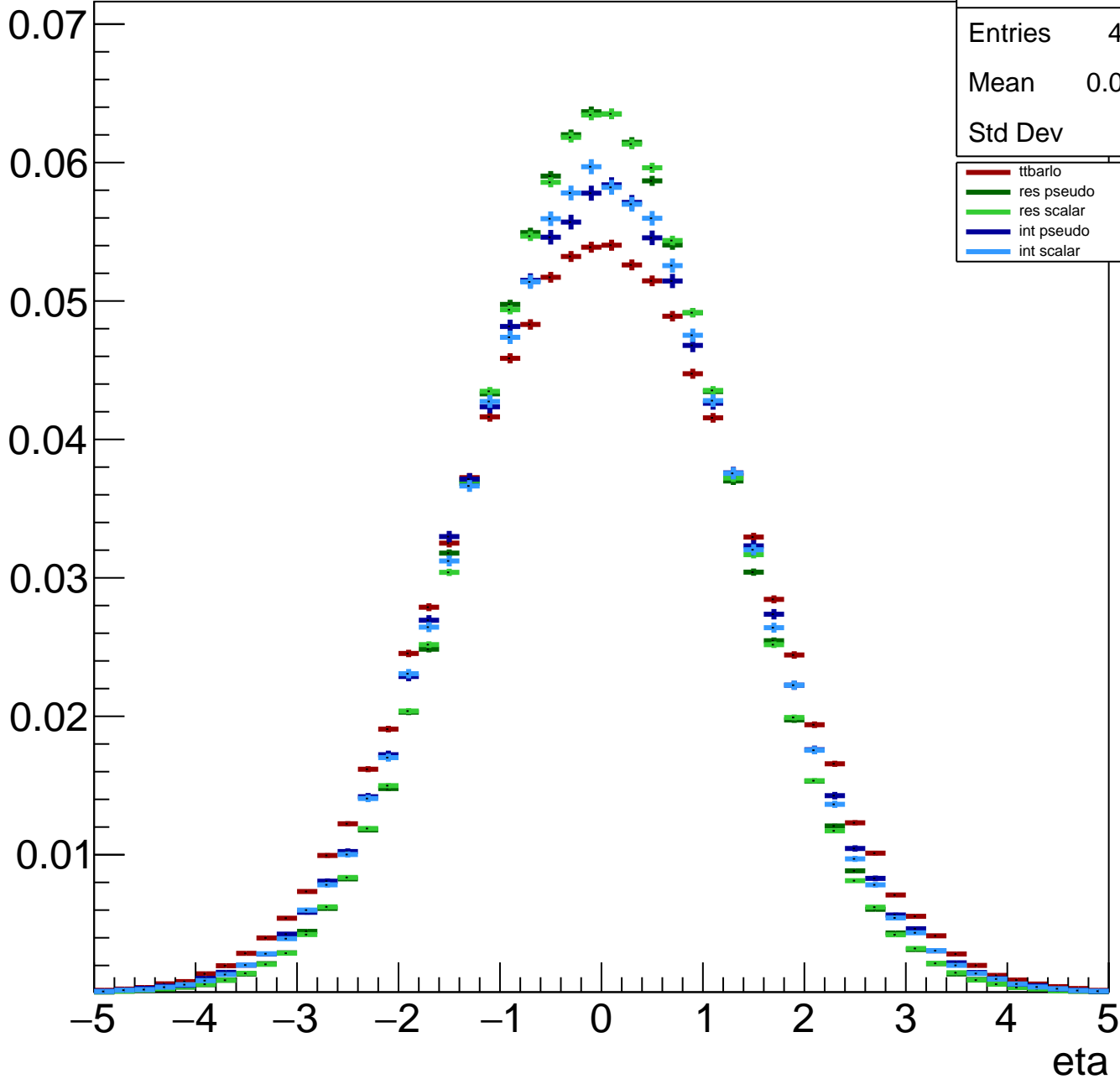


number of events



number of events

antilepton_eta_no_cut	
Entries	444924
Mean	0.003206
Std Dev	1.445
<div><div></div>ttbarlo</div> <div><div></div>res pseudo</div> <div><div></div>res scalar</div> <div><div></div>int pseudo</div> <div><div></div>int scalar</div>	



number of events

0.14

0.12

0.1

0.08

0.06

0.04

0.02

0

0 50 100 150 200 250 300 350 400

antilepton_pt_no_cut

Entries 444924

Mean 51.85

Std Dev 37.36

ttbarlo

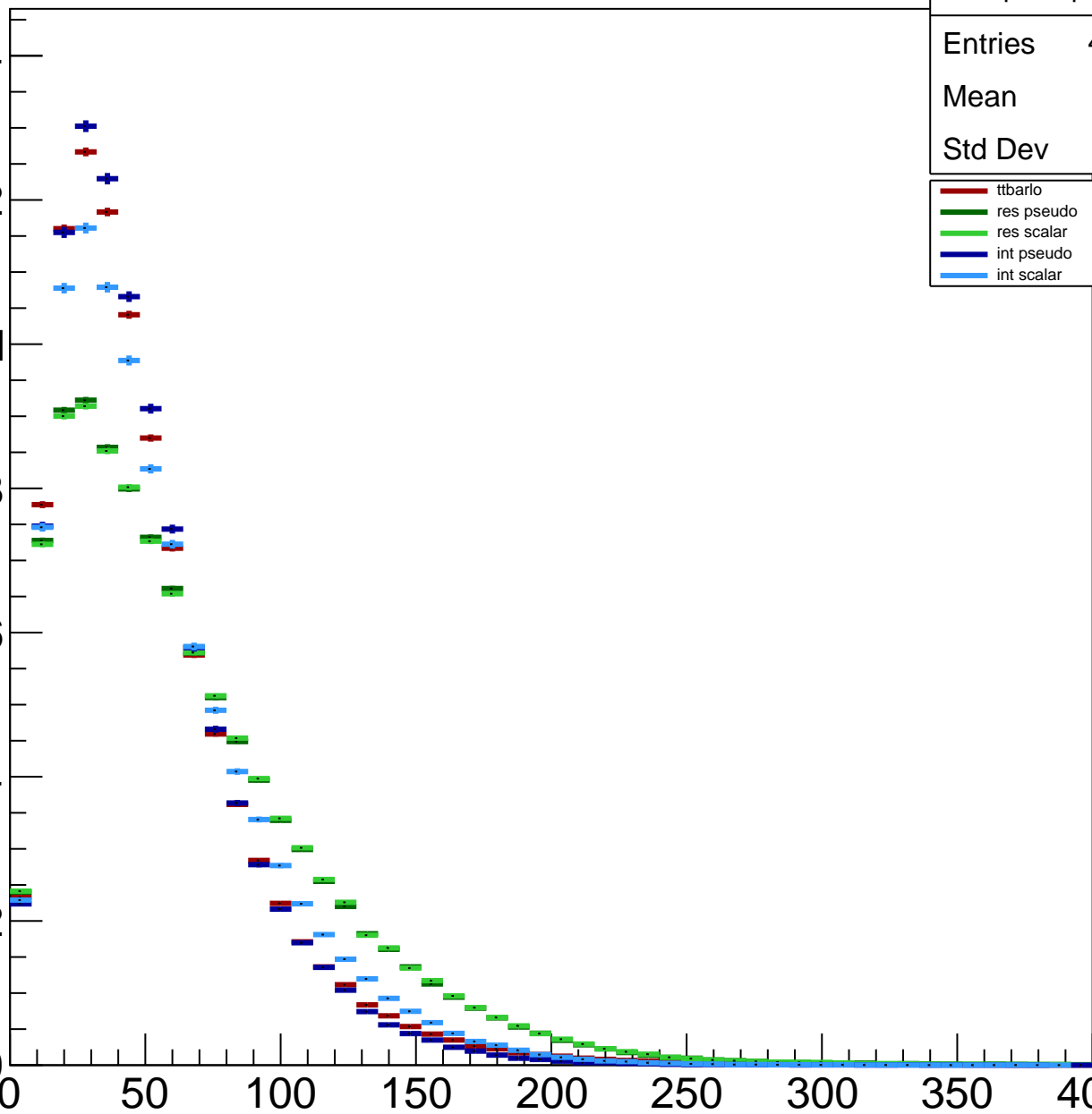
res pseudo

res scalar

int pseudo

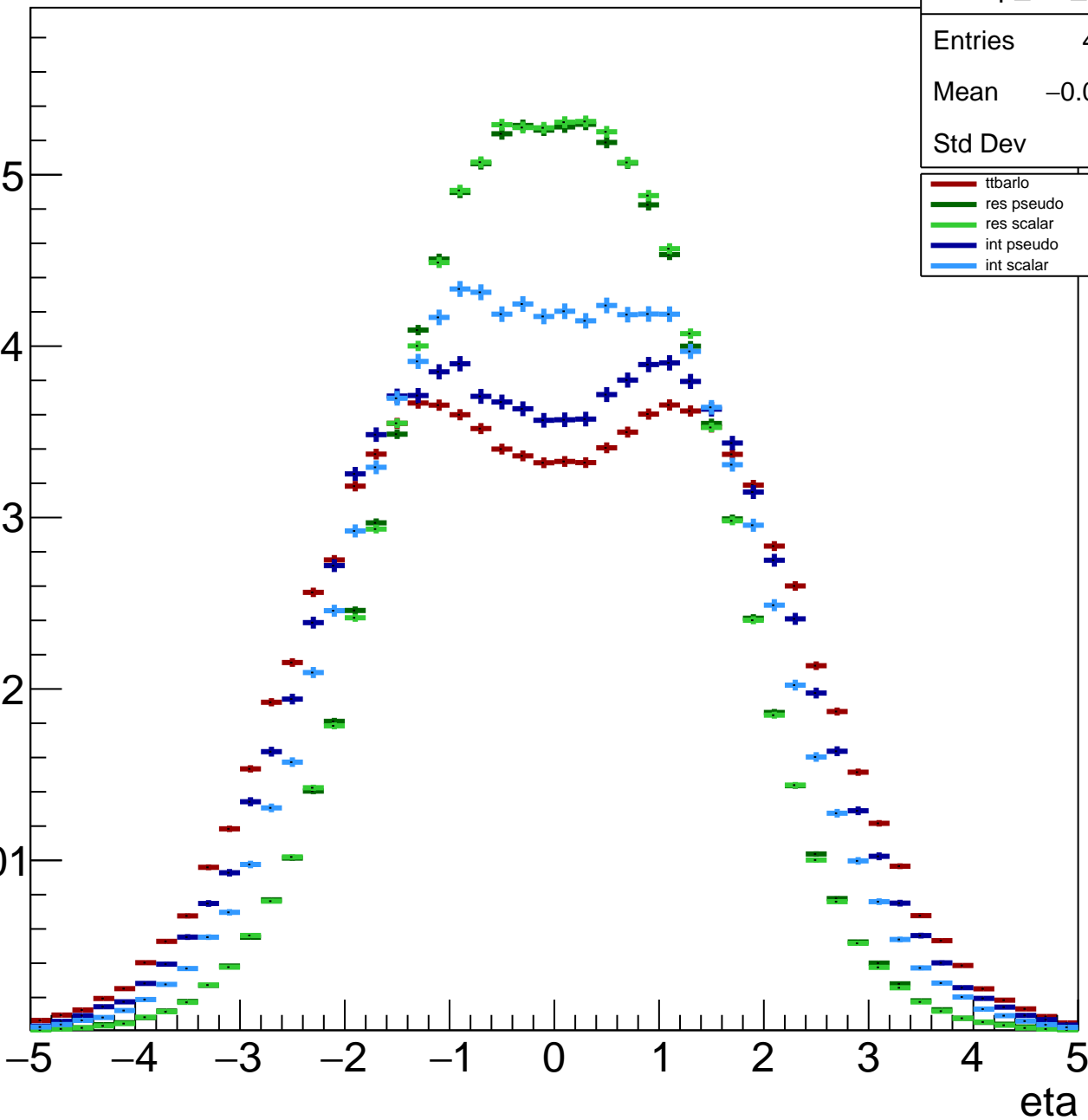
int scalar

pt in GeV



number of events

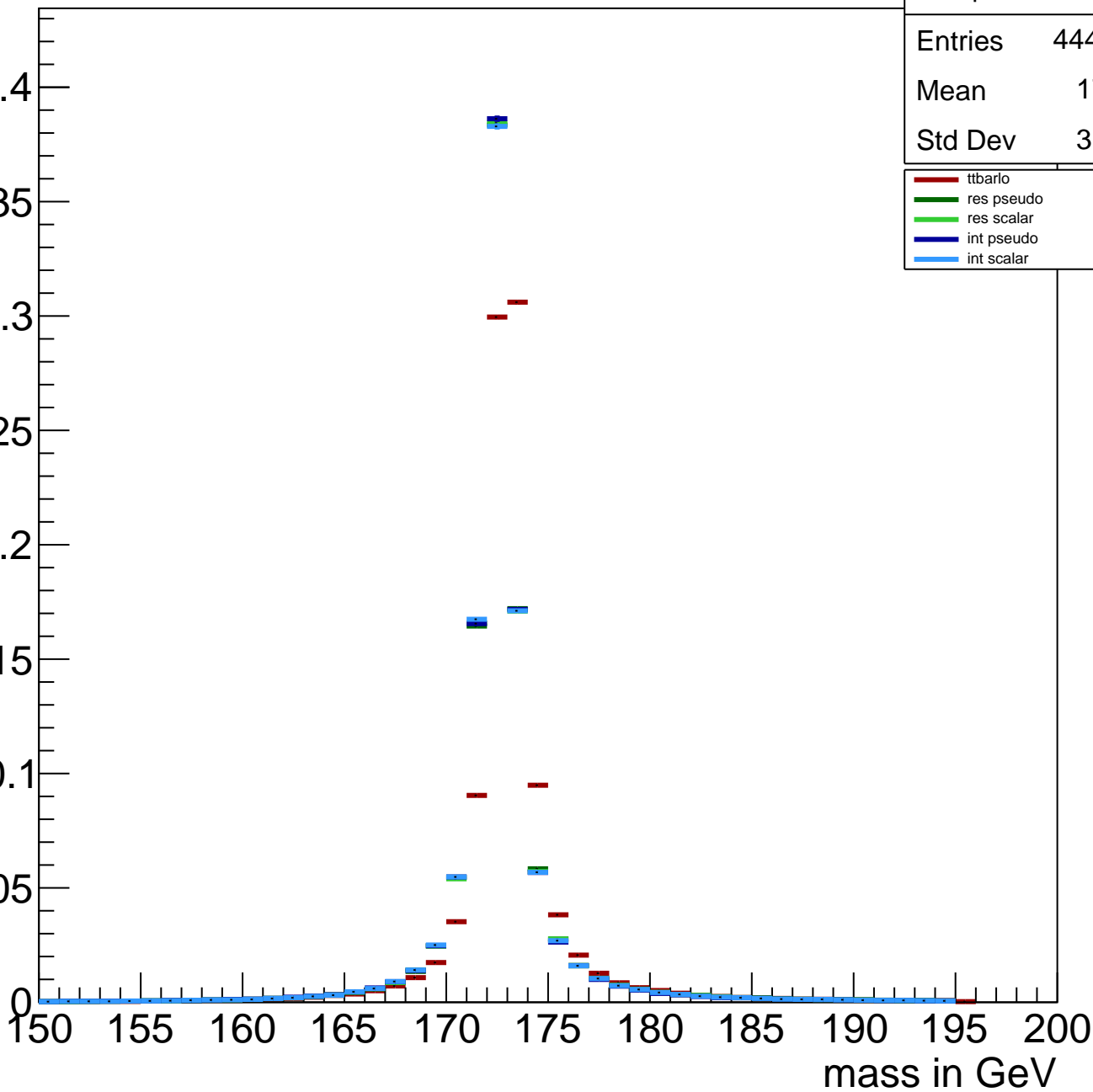
antitop_eta_no_cut	
Entries	444924
Mean	-0.001763
Std Dev	1.838
<div><div></div> ttbarlo</div> <div><div></div> res pseudo</div> <div><div></div> res scalar</div> <div><div></div> int pseudo</div> <div><div></div> int scalar</div>	

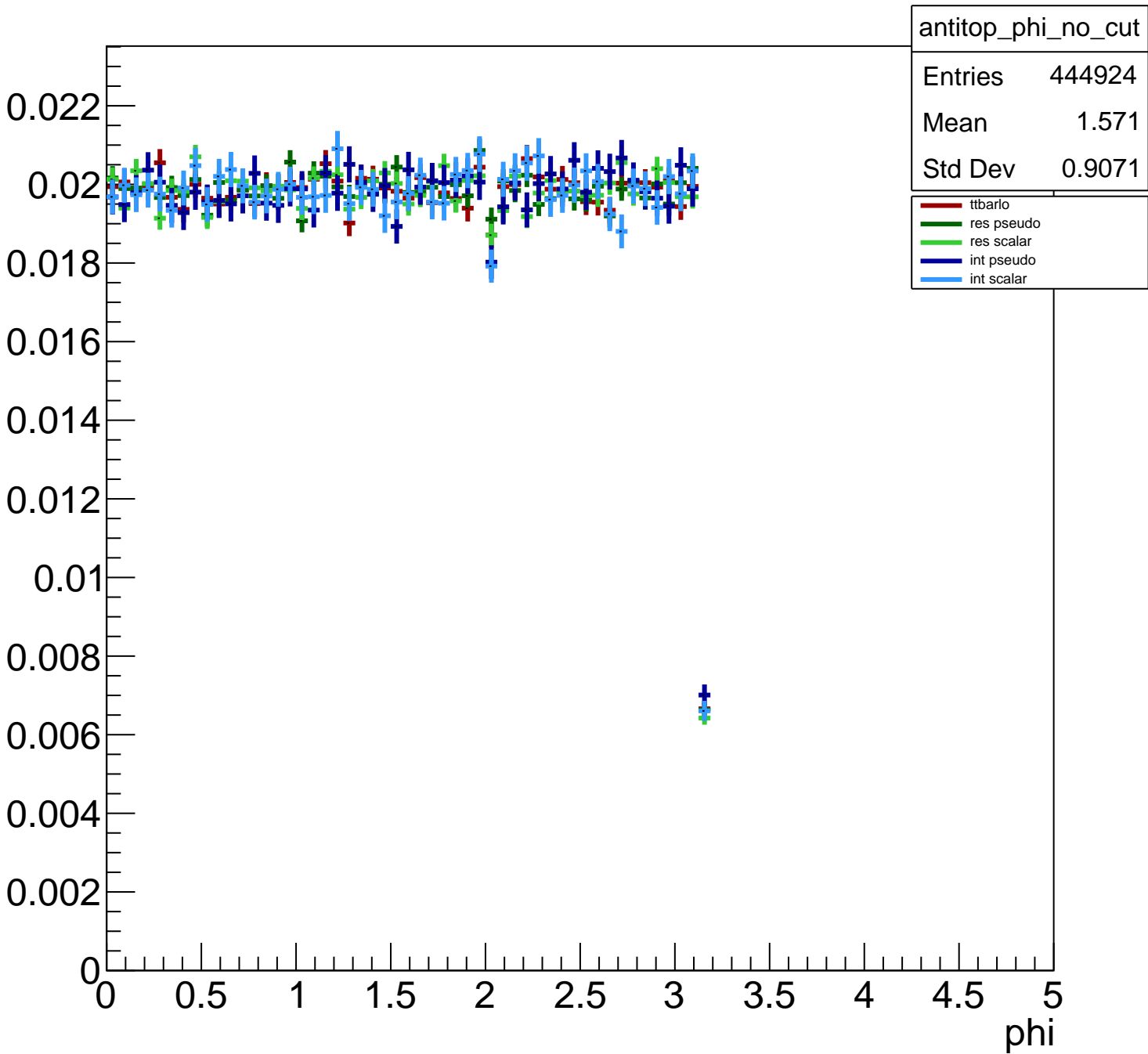


number of events

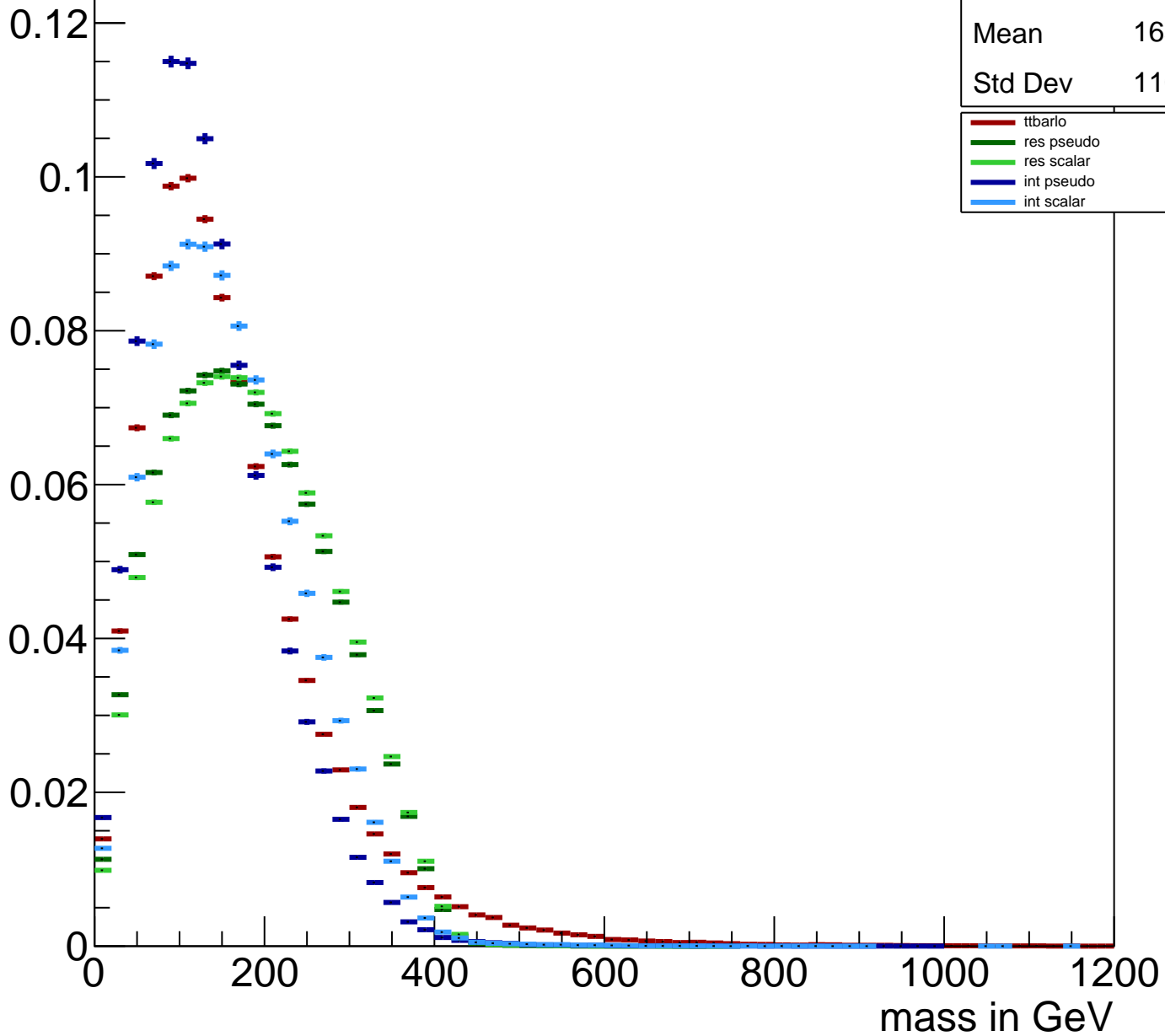
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0

antitop_mass_no_cut	
Entries	444924
Mean	173.2
Std Dev	3.189
<div><div></div> ttbarlo</div> <div><div></div> res pseudo</div> <div><div></div> res scalar</div> <div><div></div> int pseudo</div> <div><div></div> int scalar</div>	





number of events



number of events

0.07
0.06
0.05
0.04
0.03
0.02
0.01

-5 -4 -3 -2 -1 0 1 2 3 4 5

eta

bottom_eta_no_cut	
Entries	444924
Mean	0.001385
Std Dev	1.441
<div><div></div> ttbarlo</div> <div><div></div> res pseudo</div> <div><div></div> res scalar</div> <div><div></div> int pseudo</div> <div><div></div> int scalar</div>	

number of events

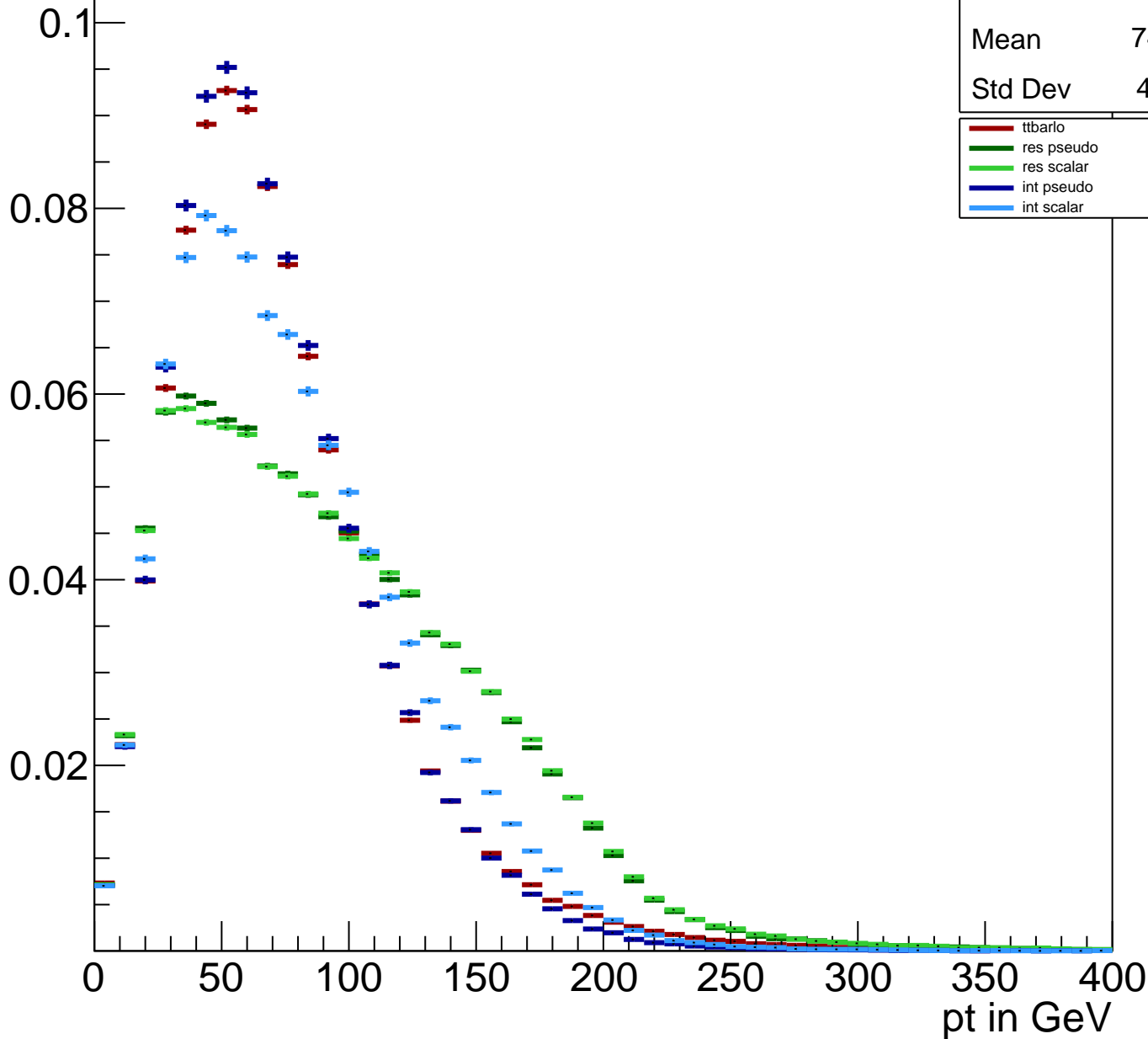
bottom_pt_no_cut

Entries 444924

Mean 74.63

Std Dev 44.61

ttbarlo
res pseudo
res scalar
int pseudo
int scalar



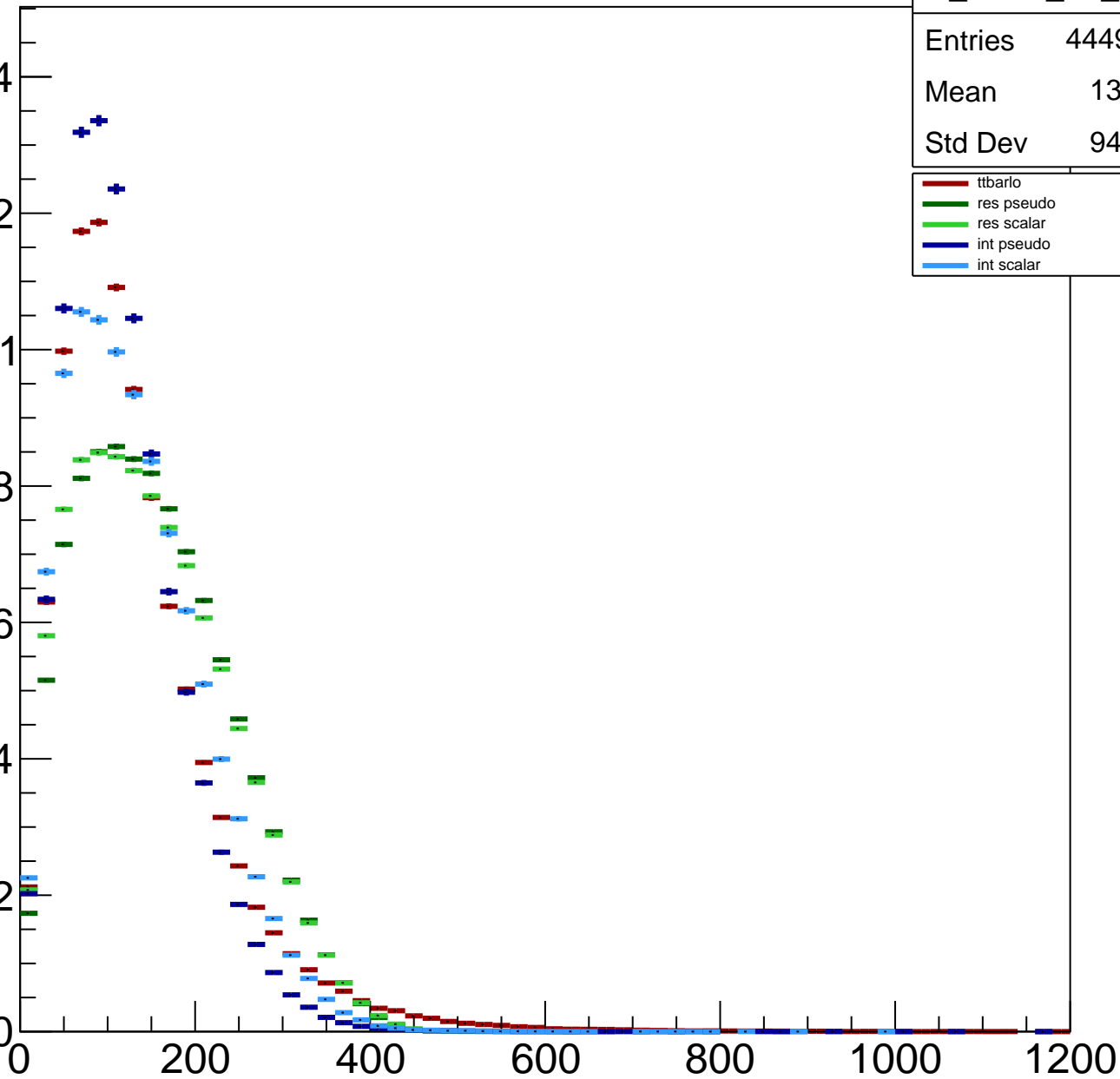
number of events

0.14
0.12
0.1
0.08
0.06
0.04
0.02
0

lb_mass_no_cut	
Entries	444924
Mean	135.9
Std Dev	94.66

ttbarlo
res pseudo
res scalar
int pseudo
int scalar

mass in GeV

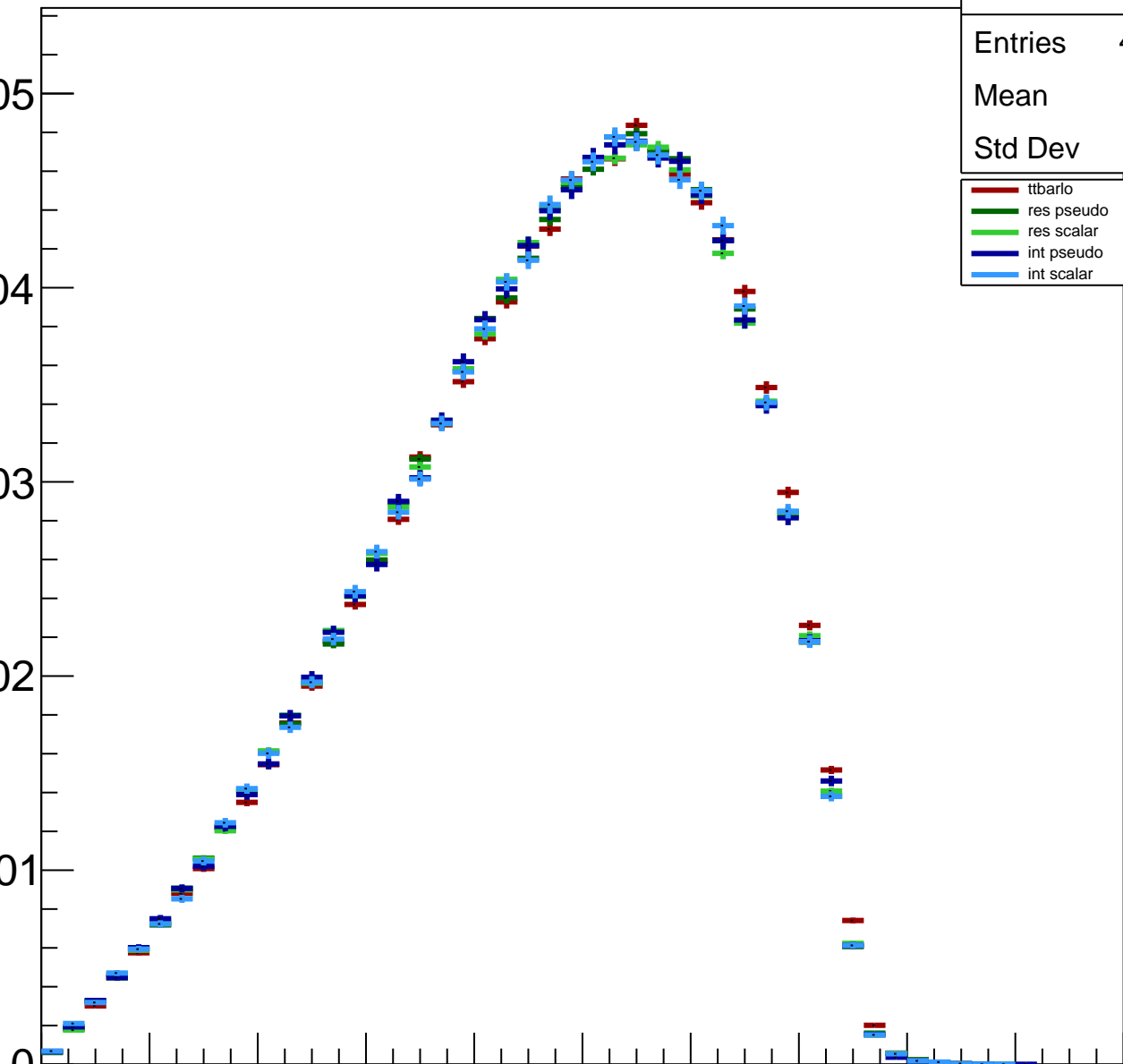


number of events

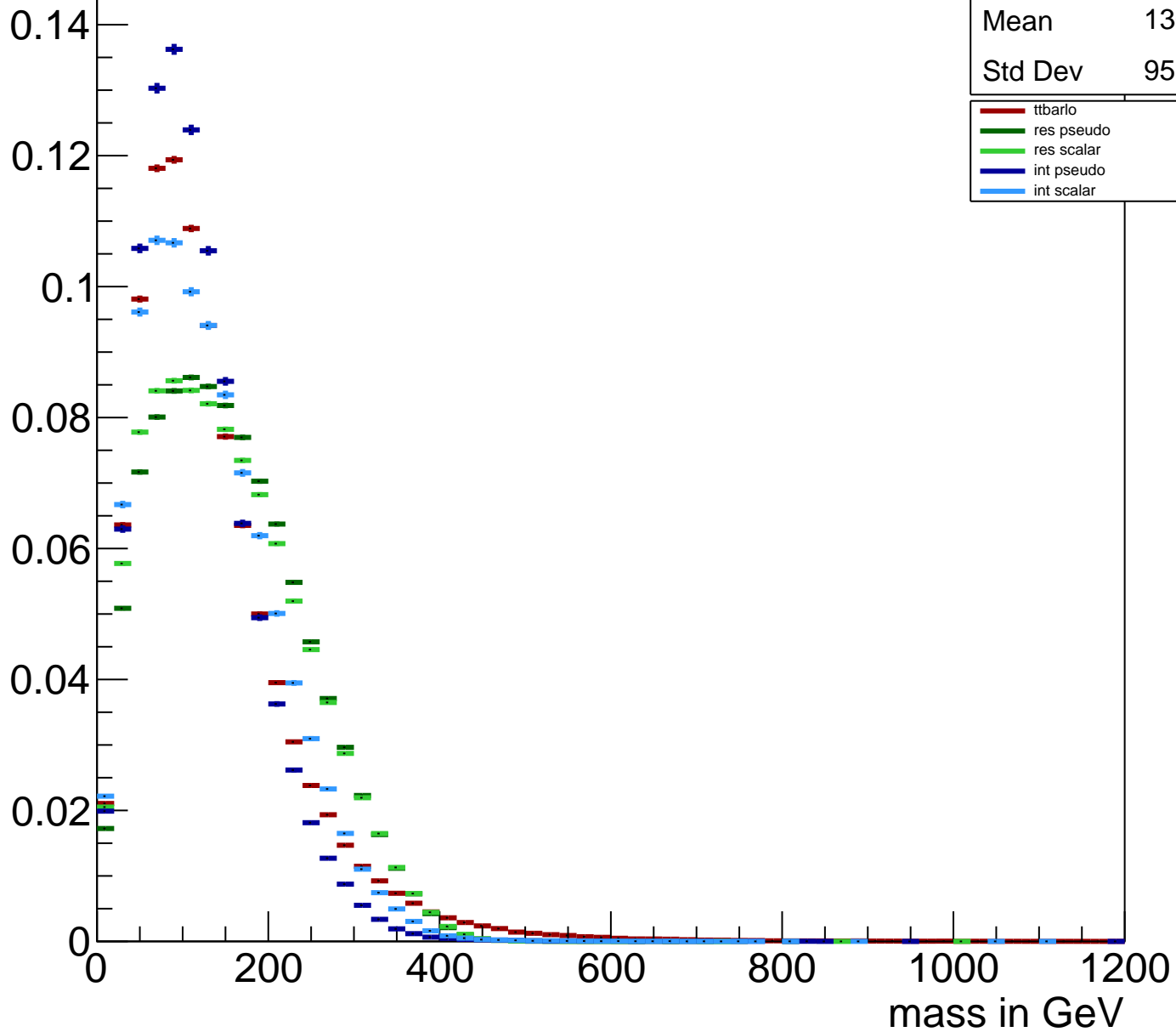
0.05
0.04
0.03
0.02
0.01
0

lbarb_mass_no_cut	
Entries	444924
Mean	93.86
Std Dev	32.08
<div><div></div> ttbarlo</div> <div><div></div> res pseudo</div> <div><div></div> res scalar</div> <div><div></div> int pseudo</div> <div><div></div> int scalar</div>	

0 20 40 60 80 100 120 140 160 180 200
mass in GeV



number of events

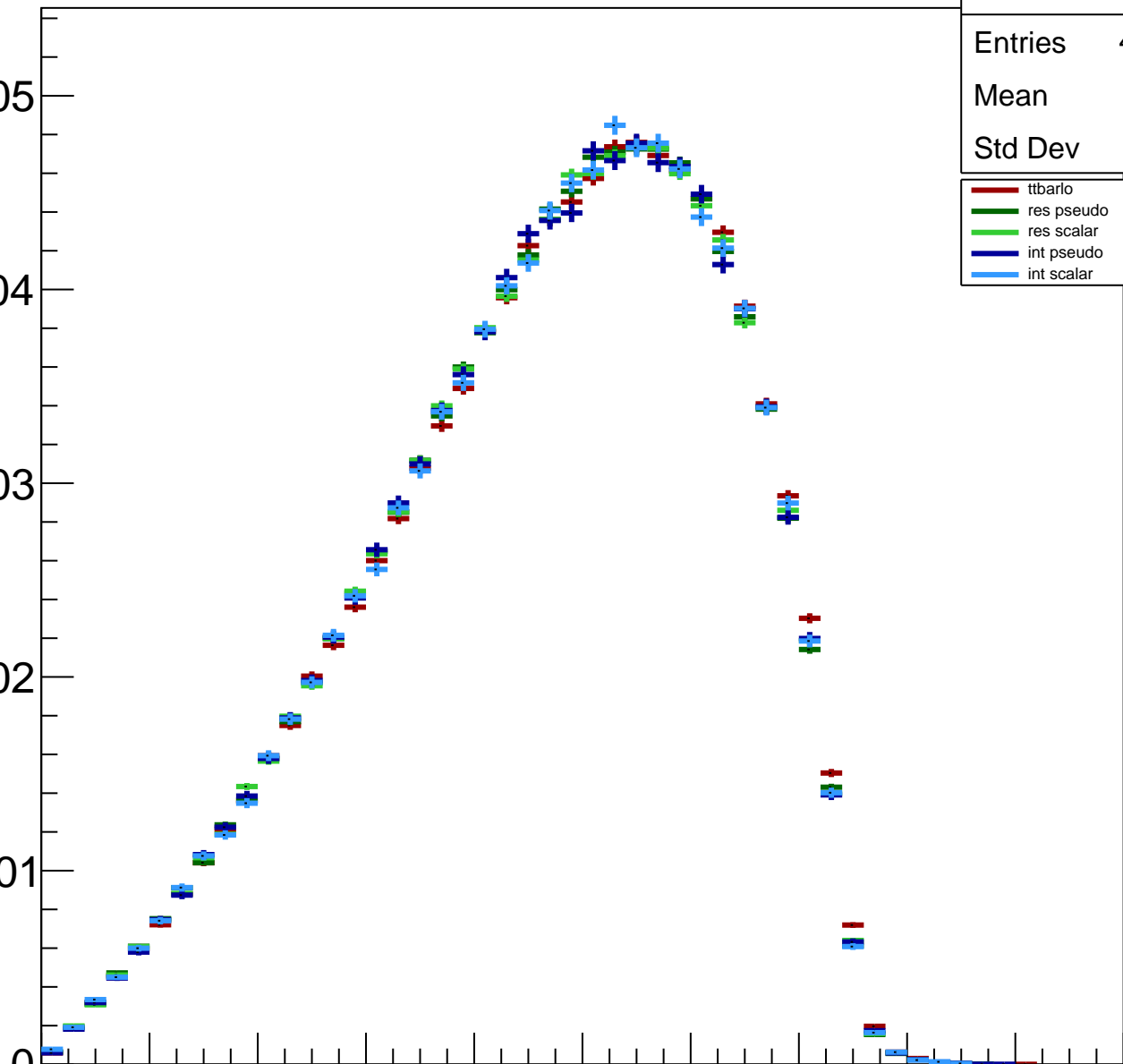


number of events

0.05
0.04
0.03
0.02
0.01
0

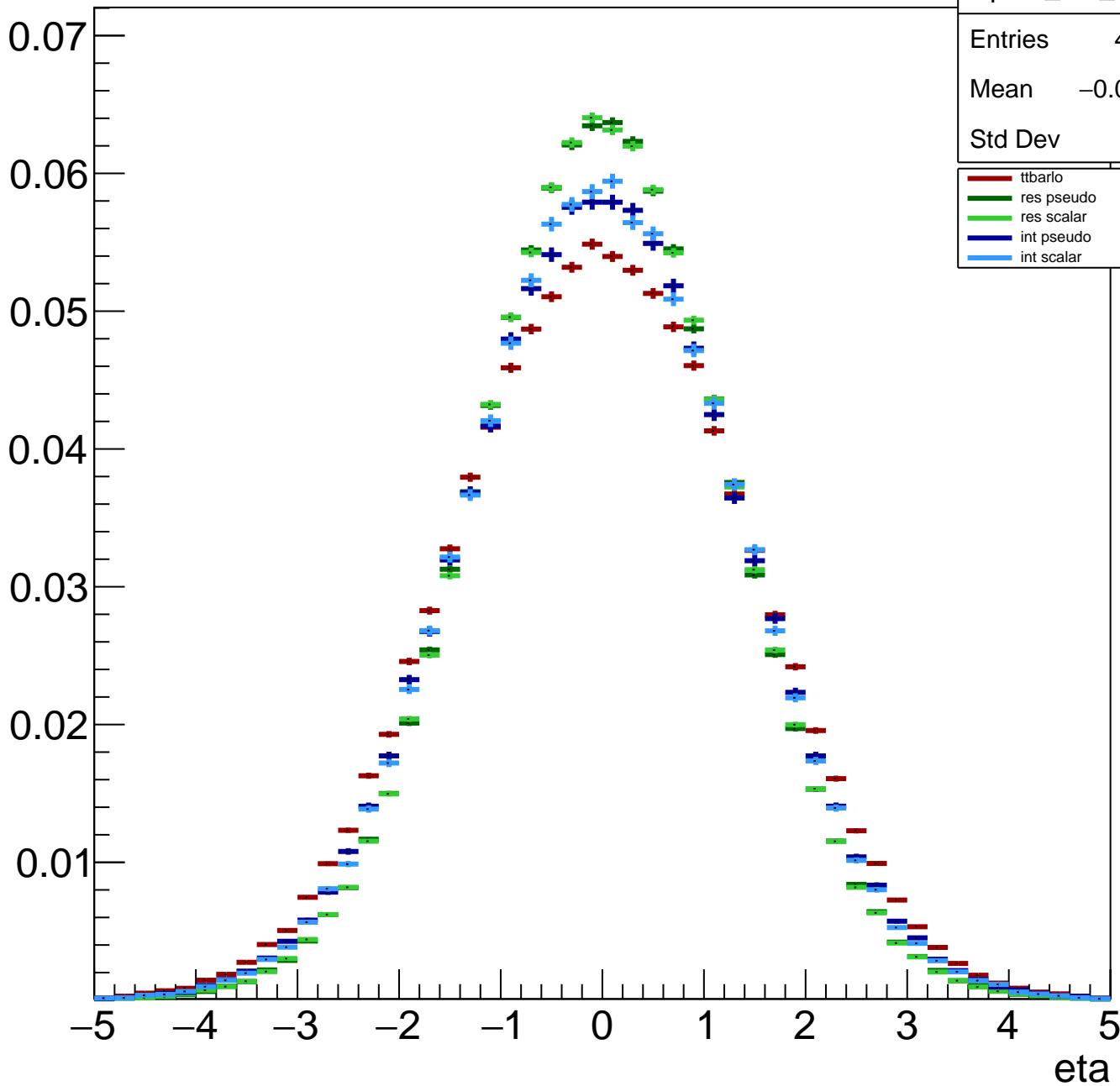
lbbbar_mass_no_cut	
Entries	444924
Mean	93.73
Std Dev	32.15
<div><div></div> ttbarlo</div> <div><div></div> res pseudo</div> <div><div></div> res scalar</div> <div><div></div> int pseudo</div> <div><div></div> int scalar</div>	

0 20 40 60 80 100 120 140 160 180 200
mass in GeV



number of events

lepton_eta_no_cut	
Entries	444924
Mean	-0.005816
Std Dev	1.437
<div><div></div>ttbarlo</div> <div><div></div>res pseudo</div> <div><div></div>res scalar</div> <div><div></div>int pseudo</div> <div><div></div>int scalar</div>	

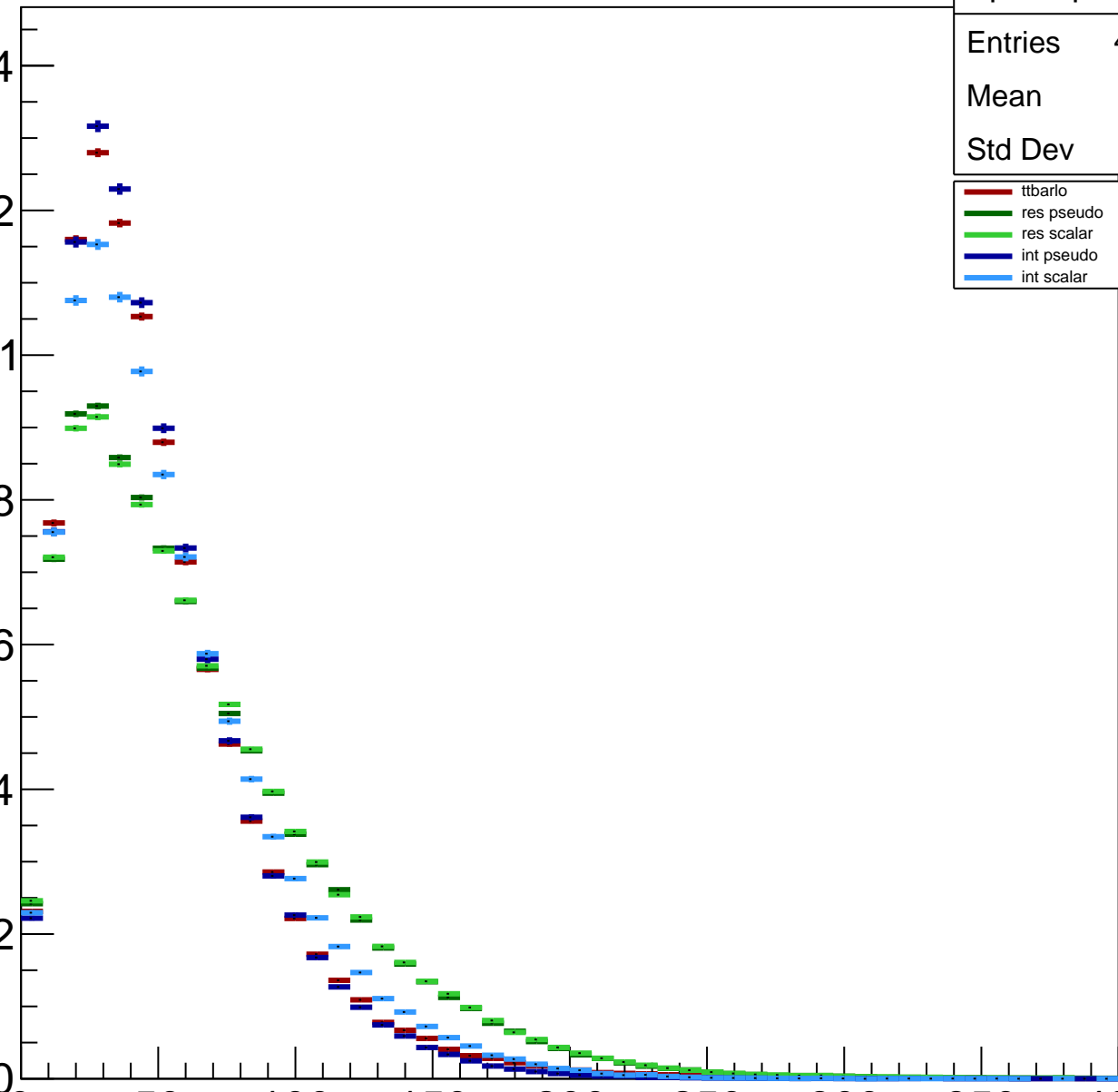


number of events

0.14
0.12
0.1
0.08
0.06
0.04
0.02
0

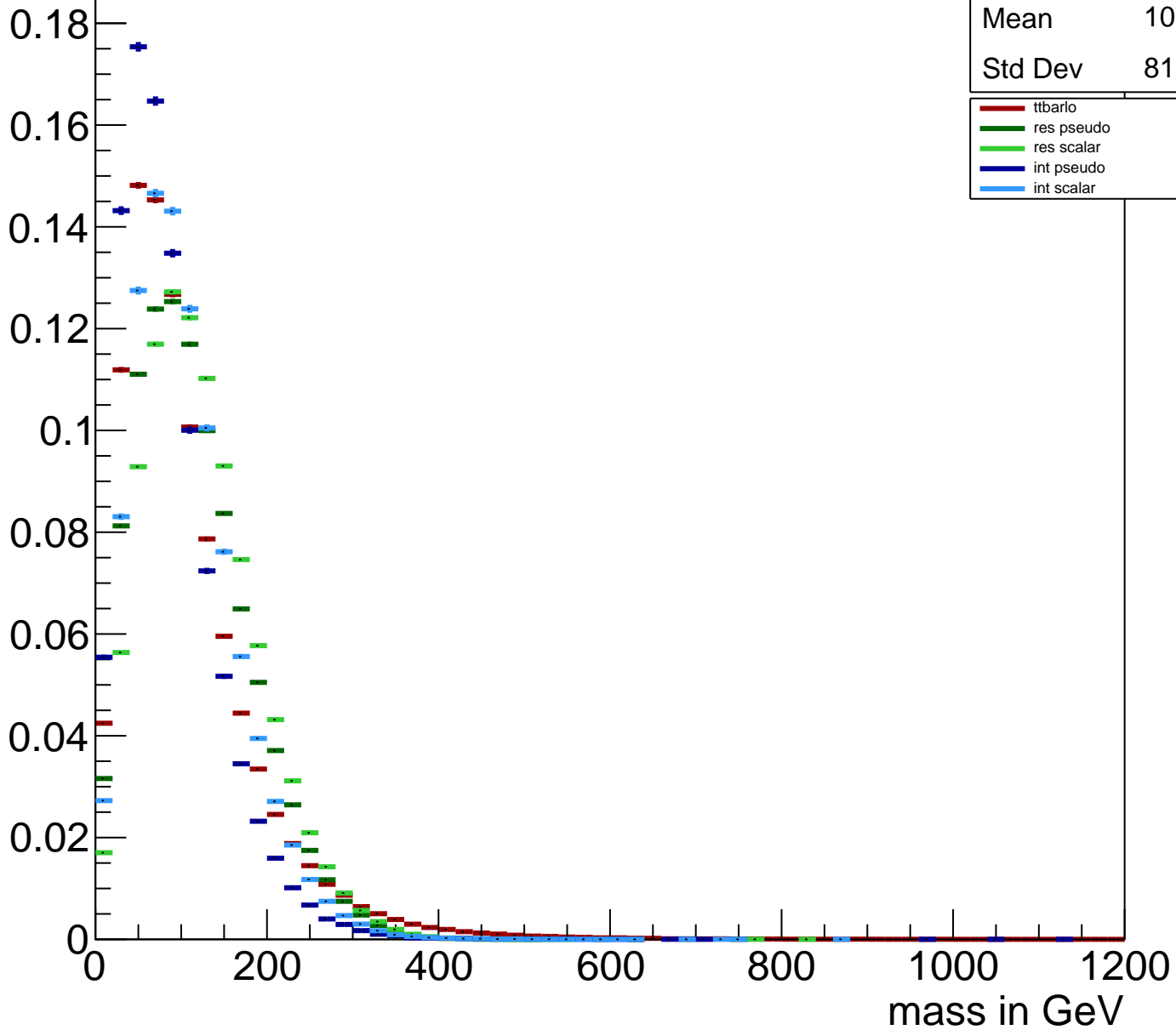
lepton_pt_no_cut	
Entries	444924
Mean	51.68
Std Dev	37.1

- ttbarlo
- res pseudo
- res scalar
- int pseudo
- int scalar

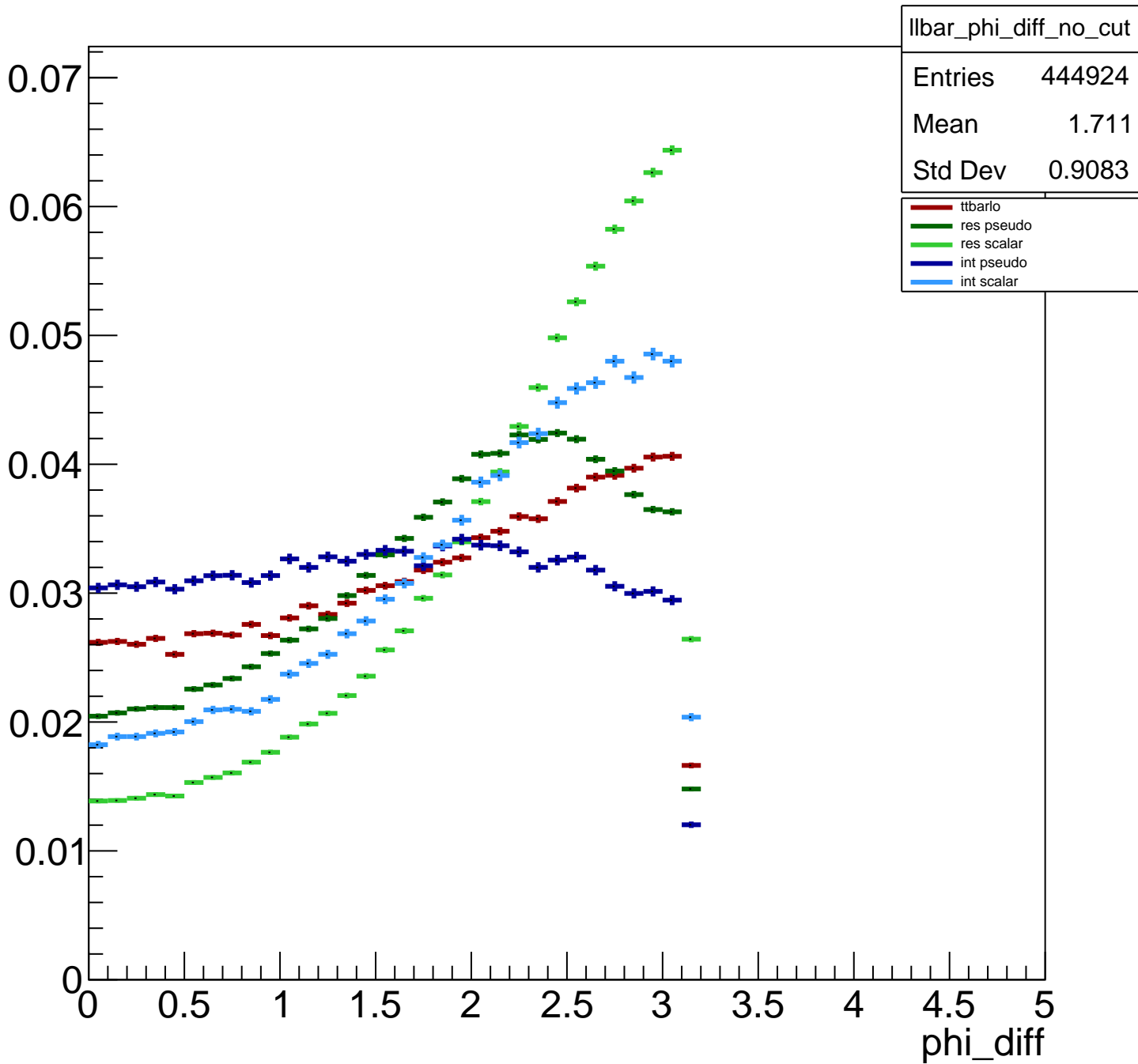


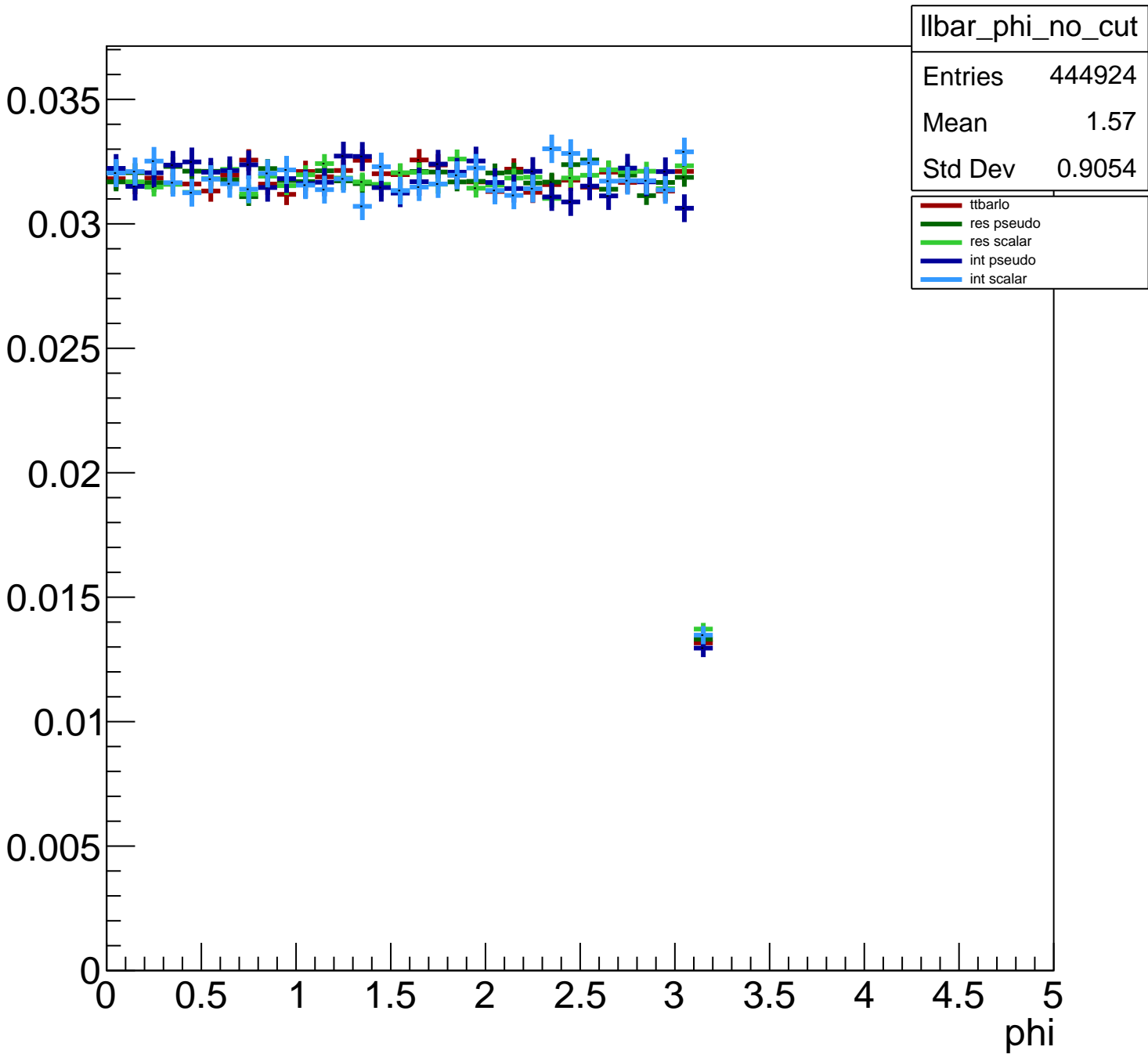
pt in GeV

number of events



number of events





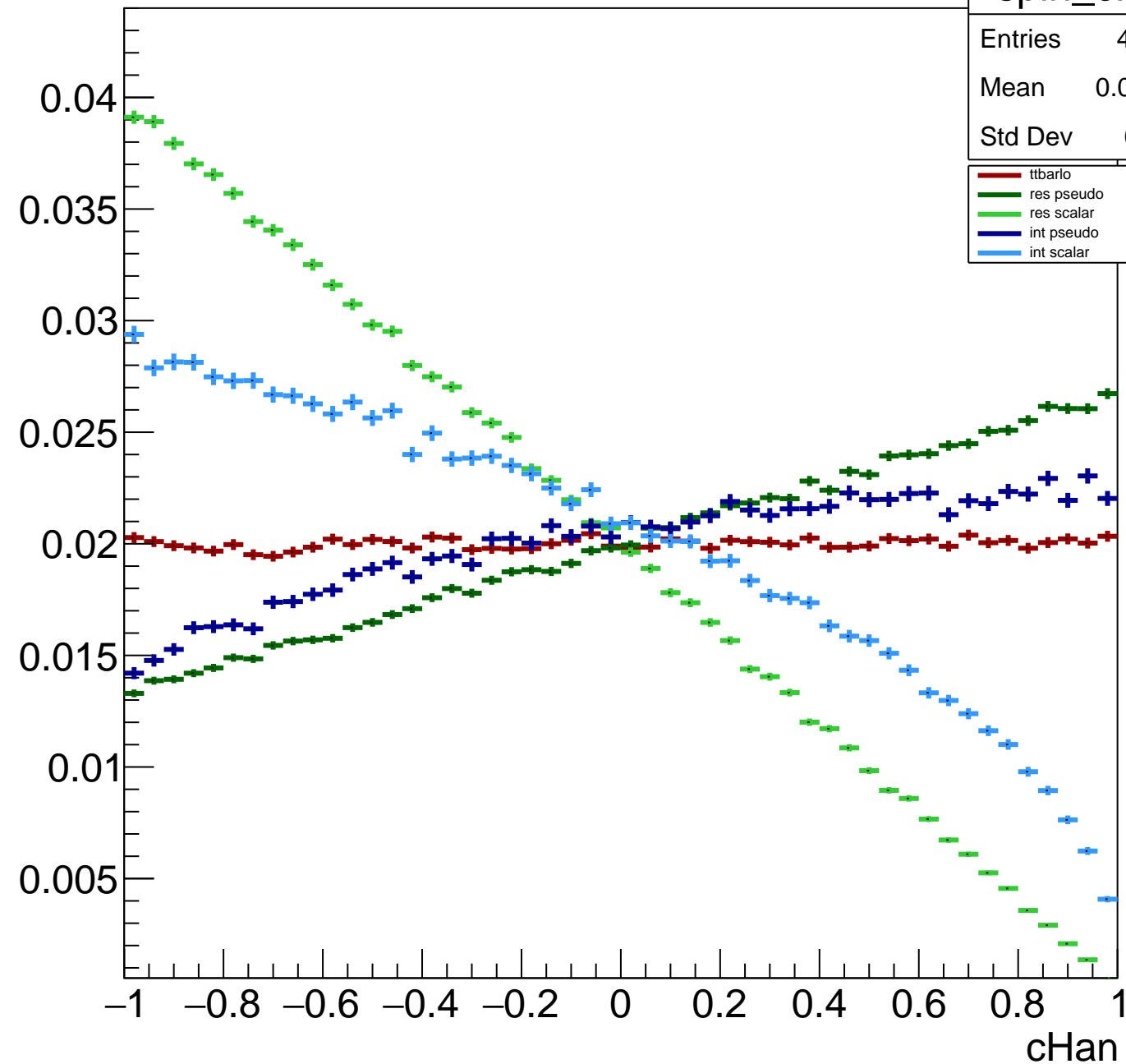
spin_cHan

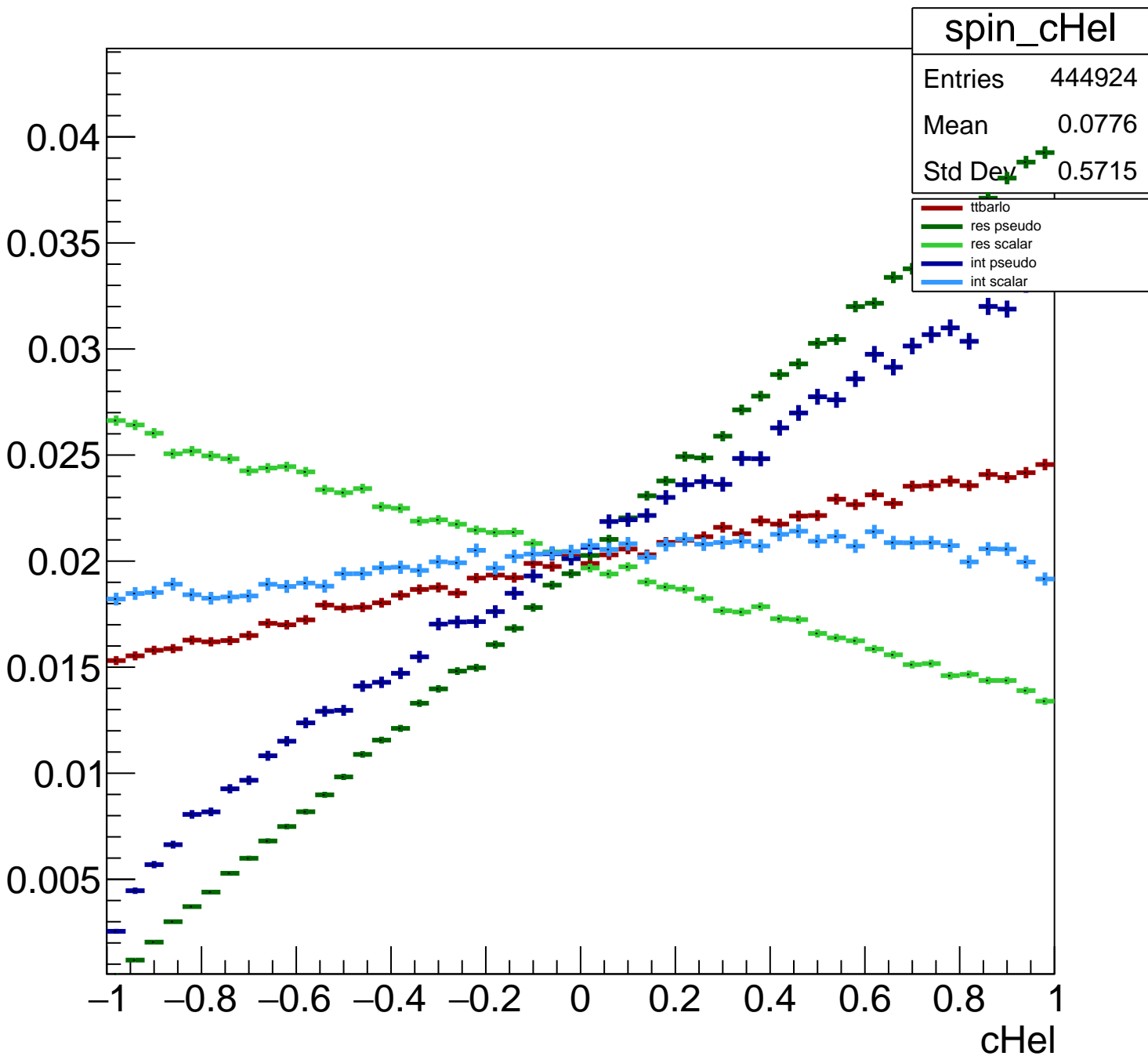
Entries 444924

Mean 0.002117

Std Dev 0.5775

— ttbarlo
— res pseudo
— res scalar
— int pseudo
— int scalar





number of events

0.07
0.06
0.05
0.04
0.03
0.02

-1 -0.8 -0.6 -0.4 -0.2 0 0.2 0.4 0.6 0.8 1
cLab

spin_cLab

Entries 444924

Mean 0.1107

Std Dev 0.6224

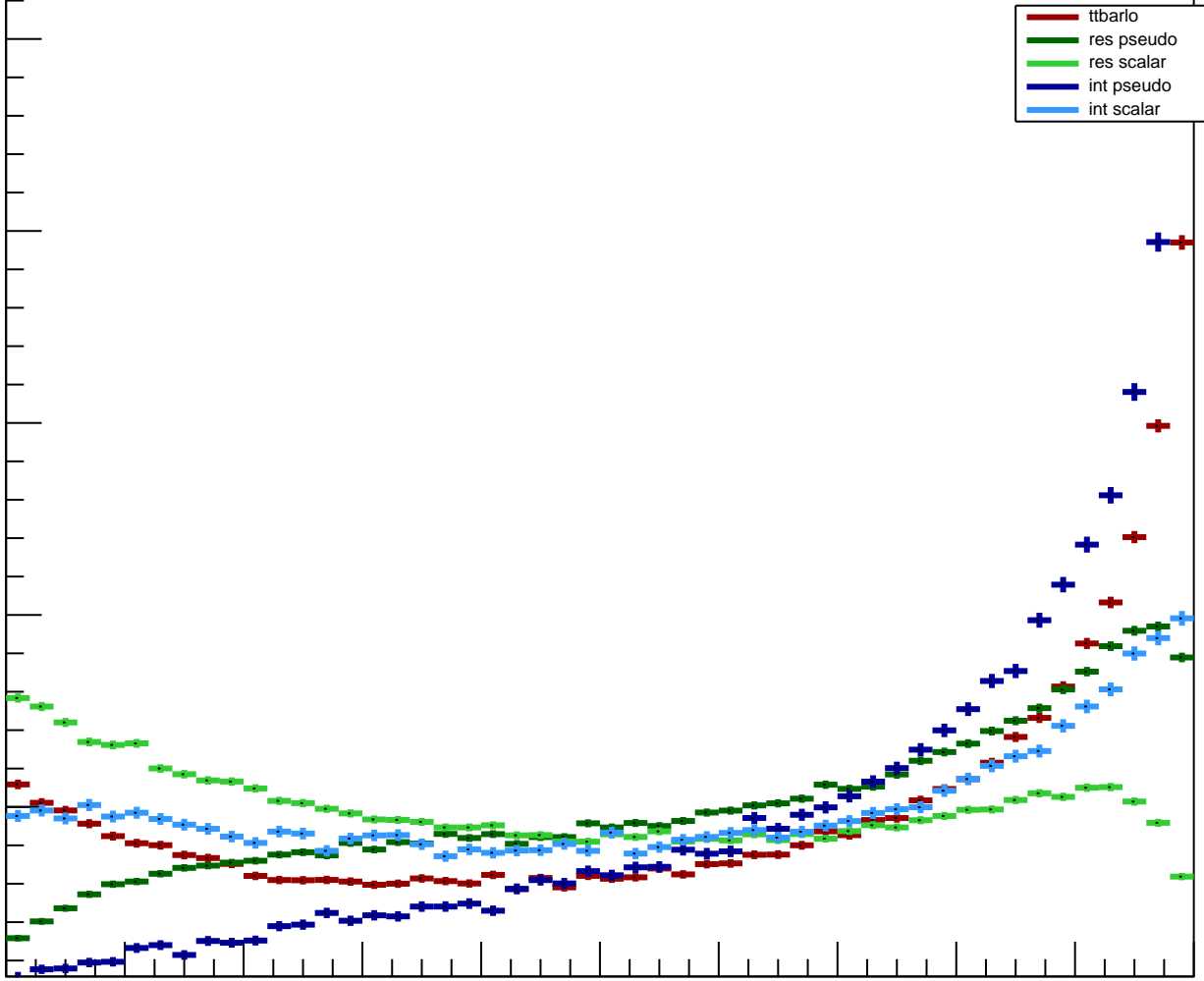
ttbarlo

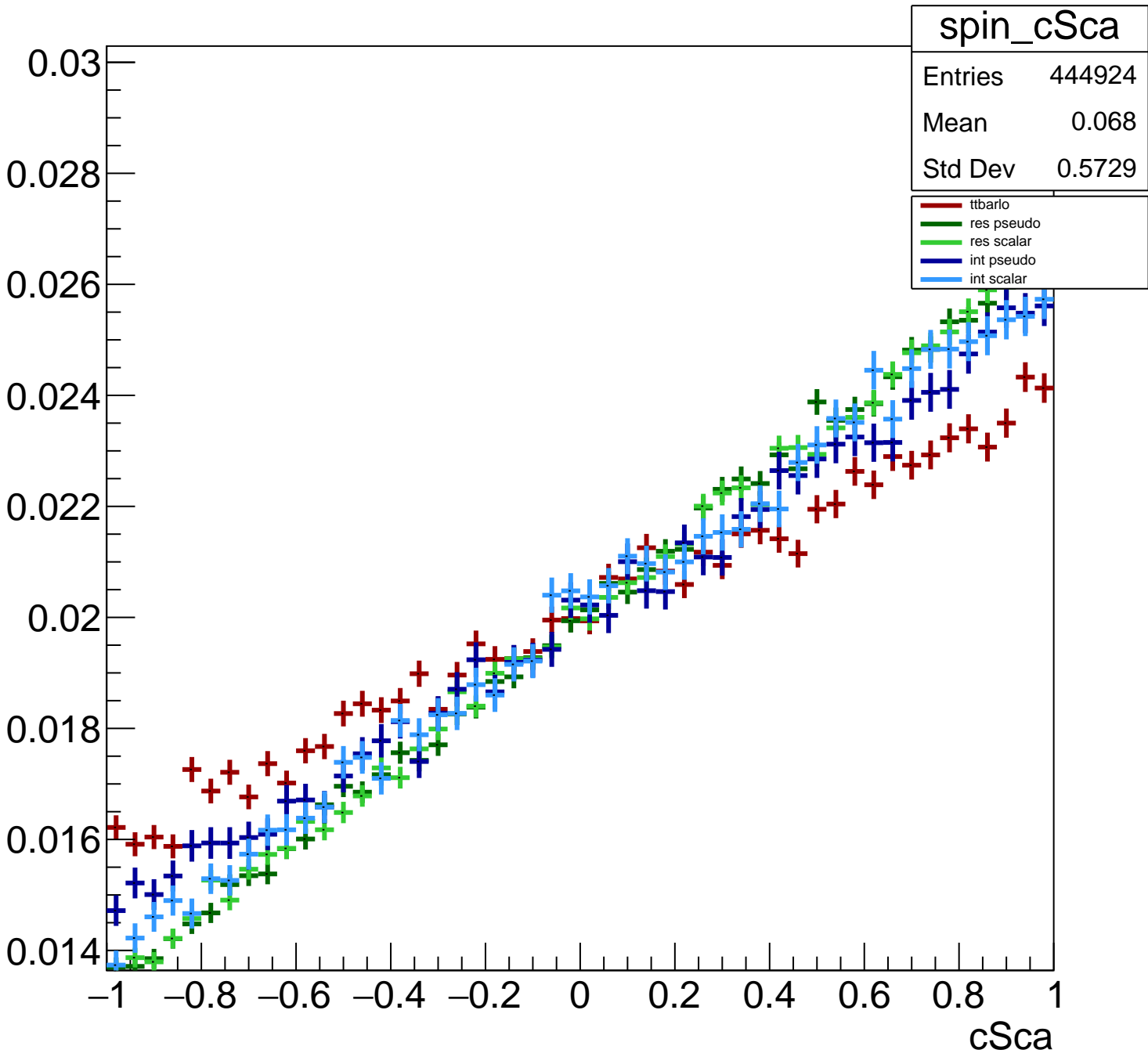
res pseudo

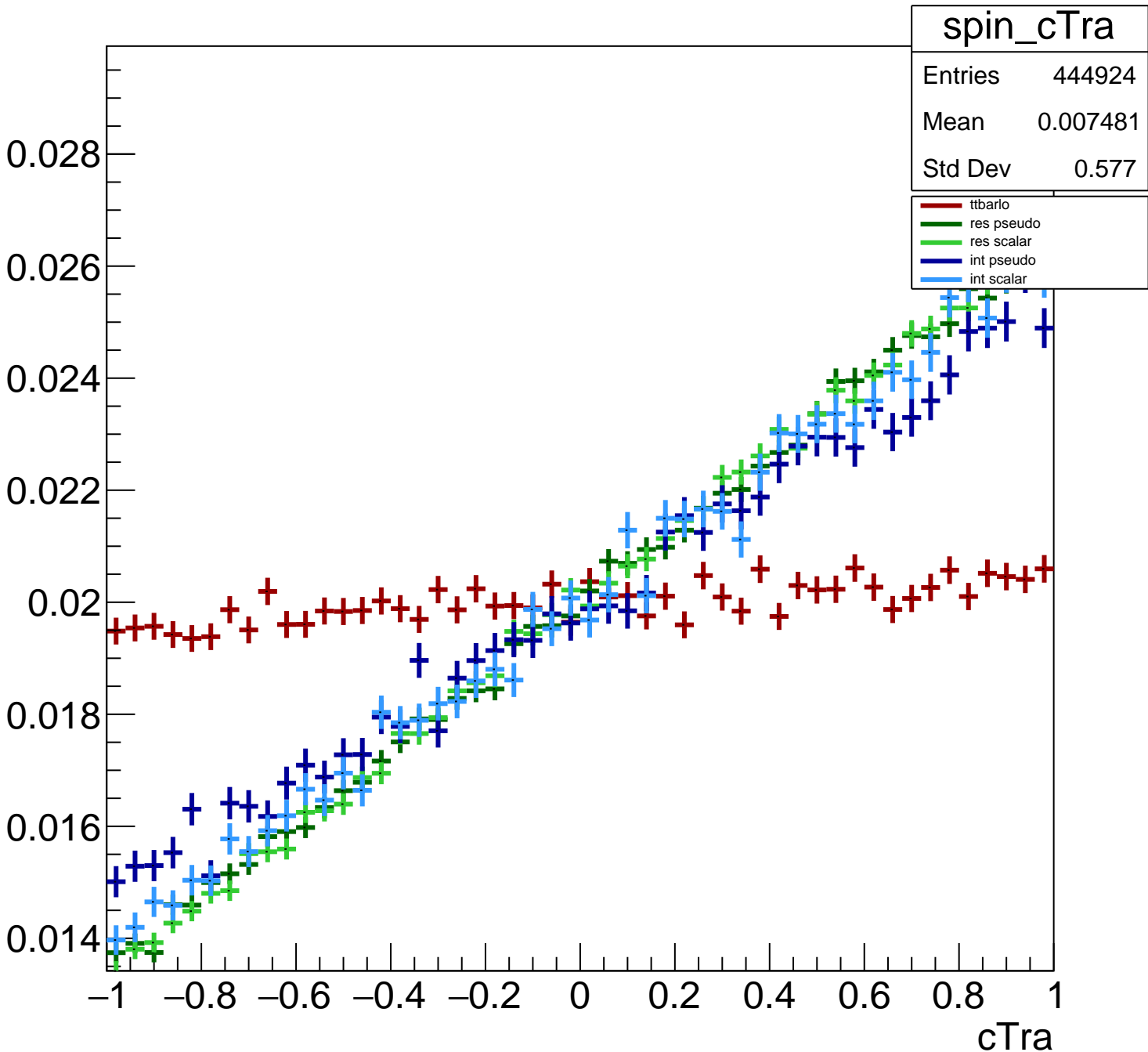
res scalar

int pseudo

int scalar

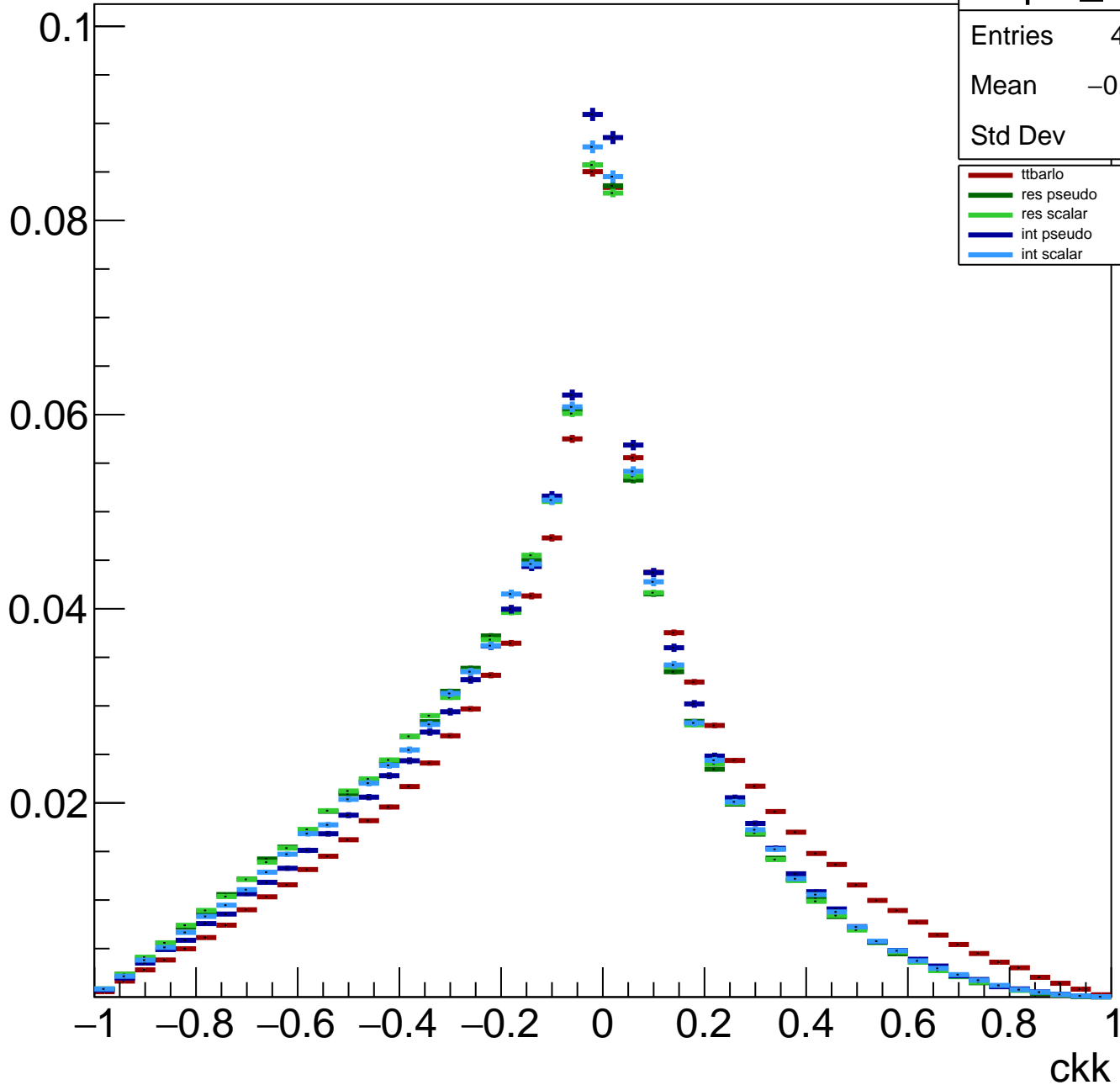






number of events

spin_ckk	
Entries	444924
Mean	-0.03774
Std Dev	0.3313
<div><div></div> ttbarlo</div> <div><div></div> res pseudo</div> <div><div></div> res scalar</div> <div><div></div> int pseudo</div> <div><div></div> int scalar</div>	



number of events

0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01

-1 -0.8 -0.6 -0.4 -0.2 0 0.2 0.4 0.6 0.8 1

cnn

spin_cnn

Entries 444924

Mean -0.03506

Std Dev 0.3305

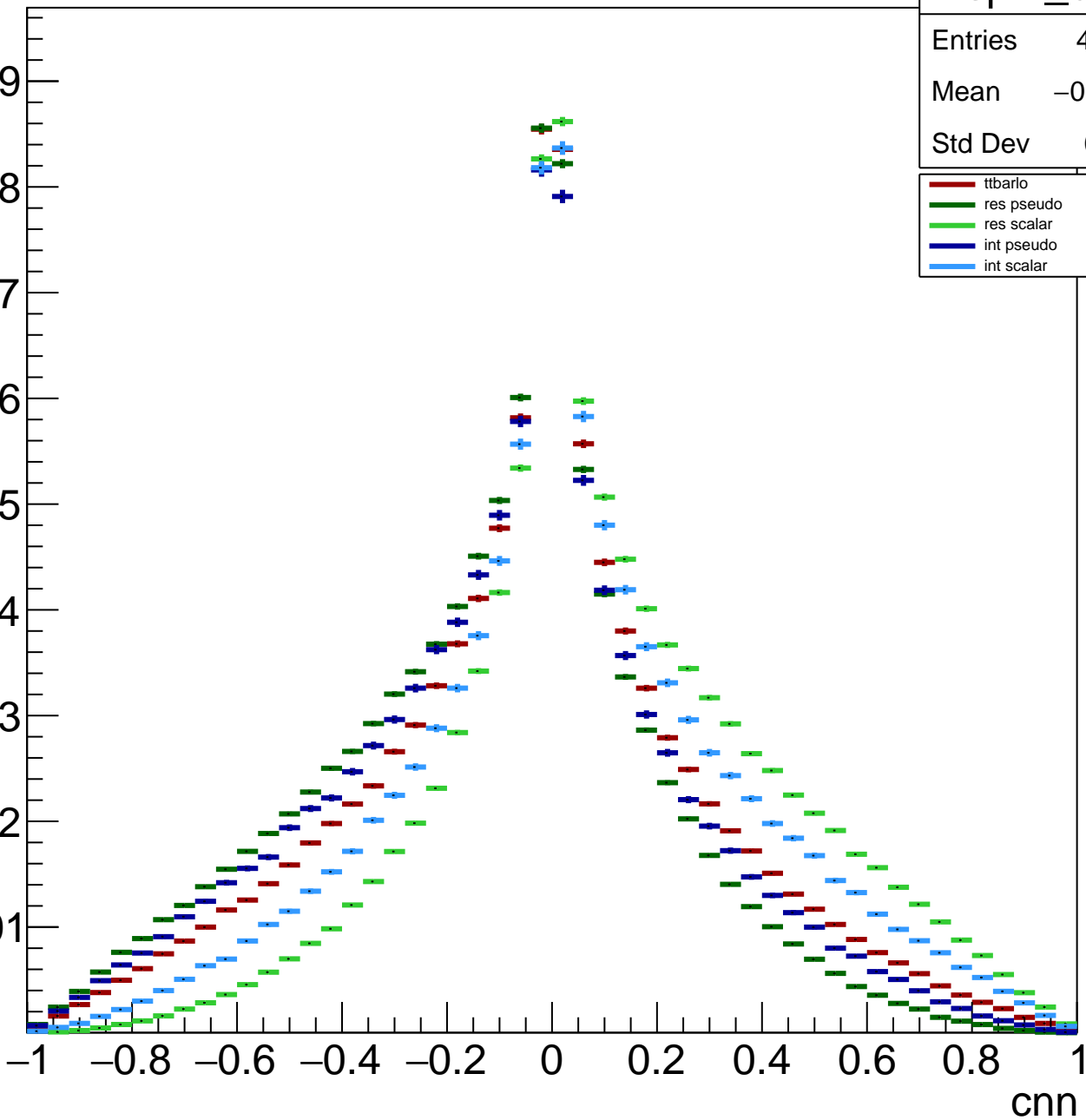
ttbarlo

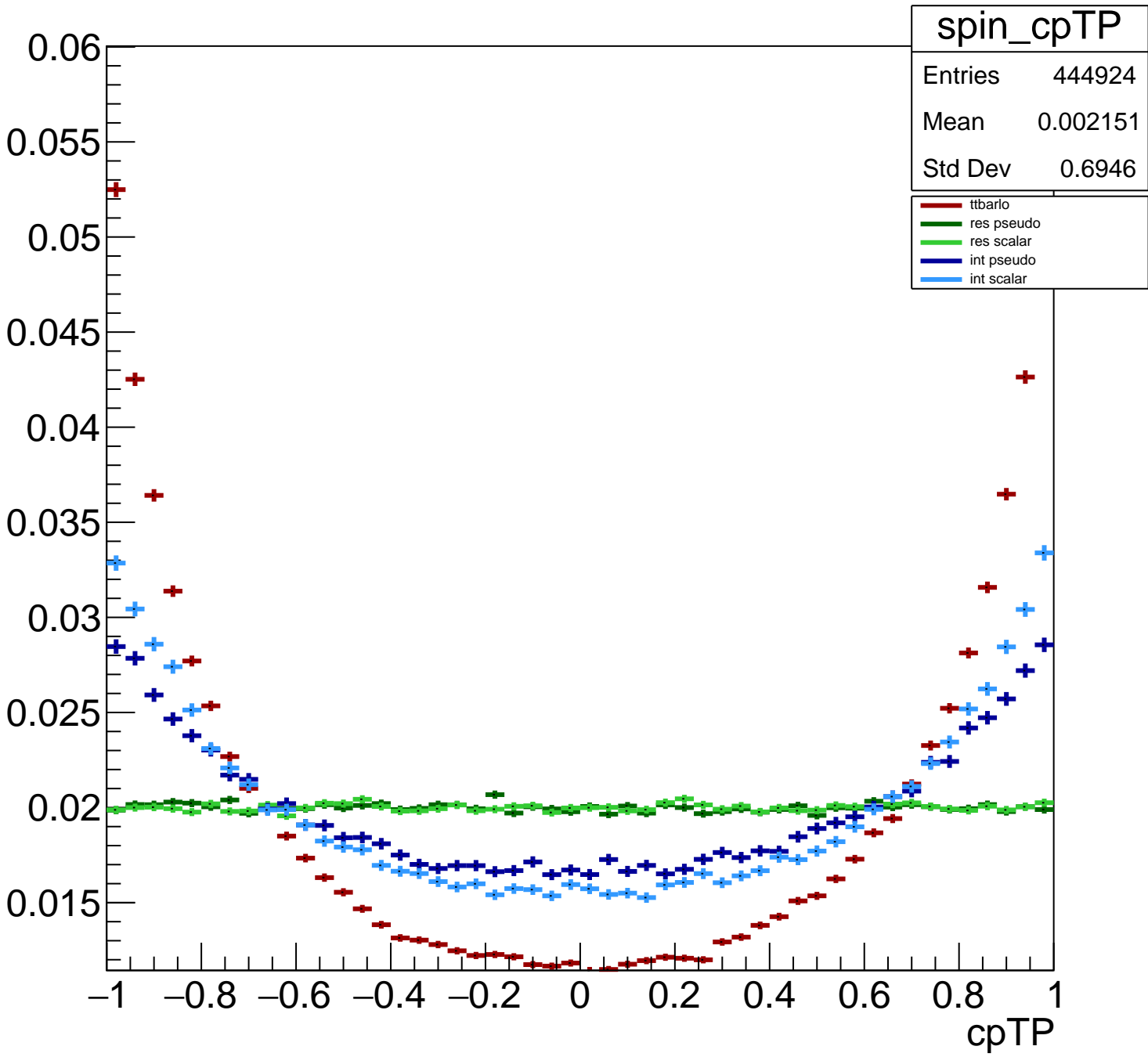
res pseudo

res scalar

int pseudo

int scalar





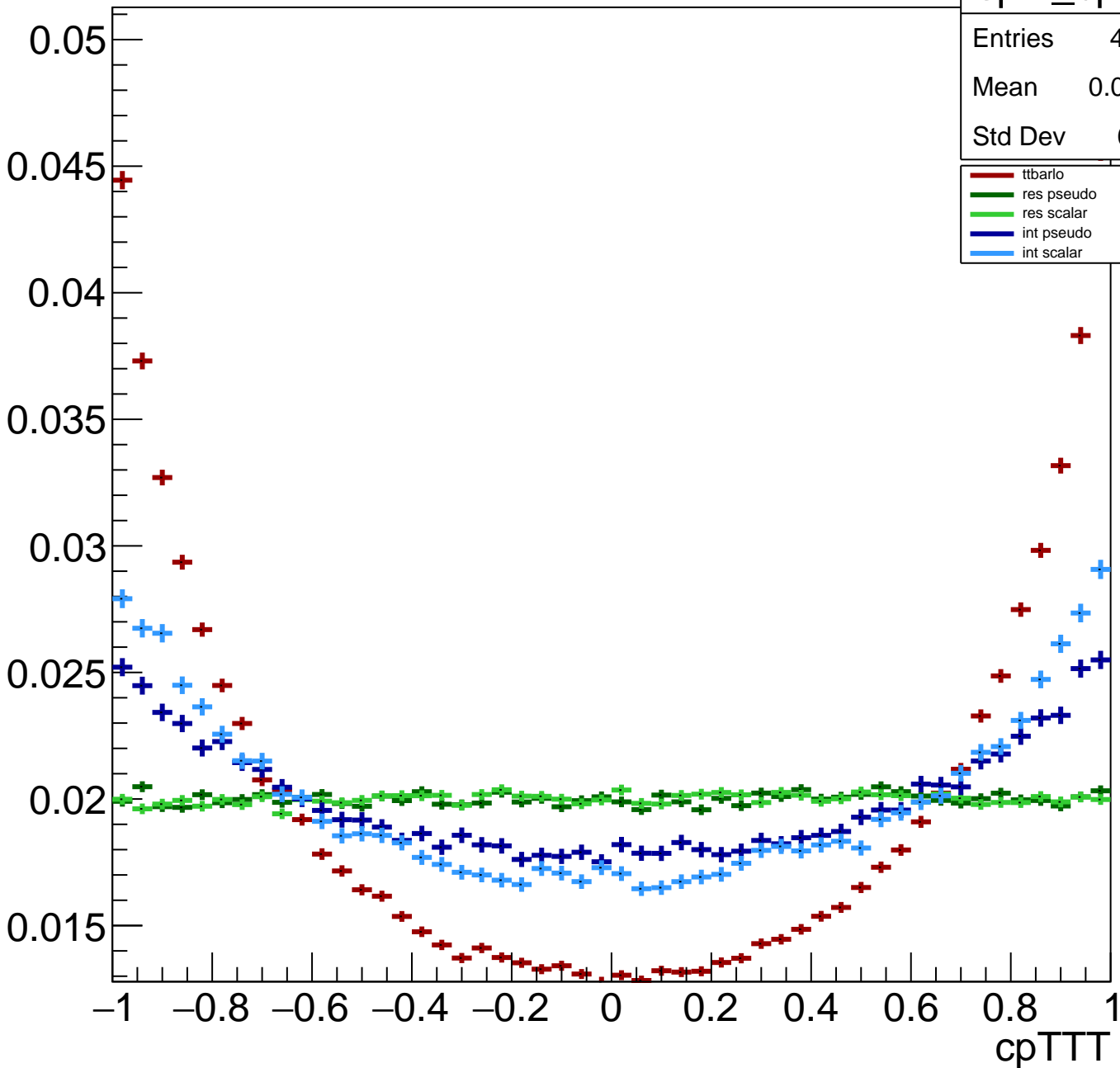
spin_cpTTT

Entries 444924

Mean 0.004273

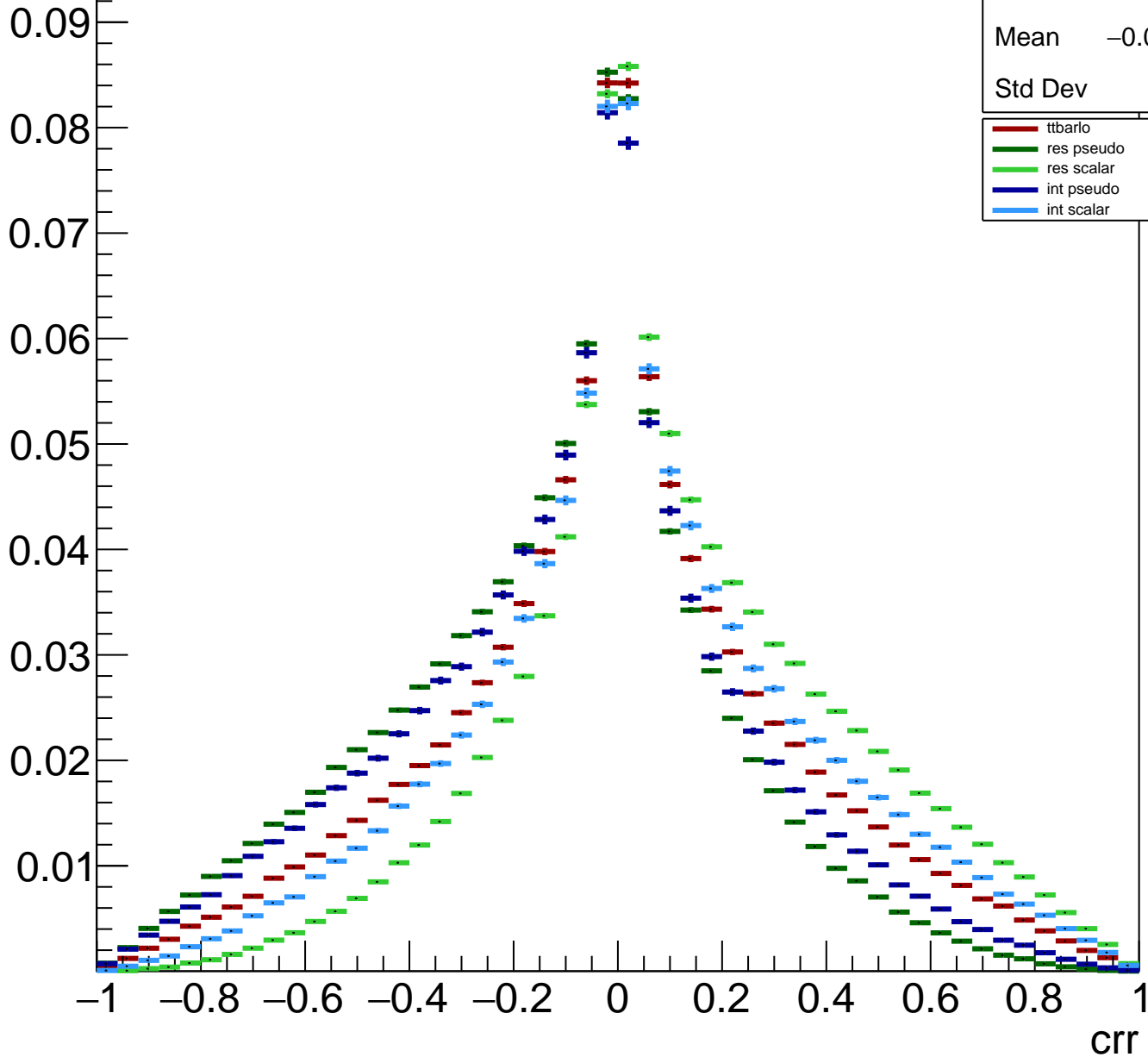
Std Dev 0.6732

ttbarlo
res pseudo
res scalar
int pseudo
int scalar



number of events

spin_crr	
Entries	444924
Mean	-0.004799
Std Dev	0.3336
<div><div></div>ttbarlo</div> <div><div></div>res pseudo</div> <div><div></div>res scalar</div> <div><div></div>int pseudo</div> <div><div></div>int scalar</div>	



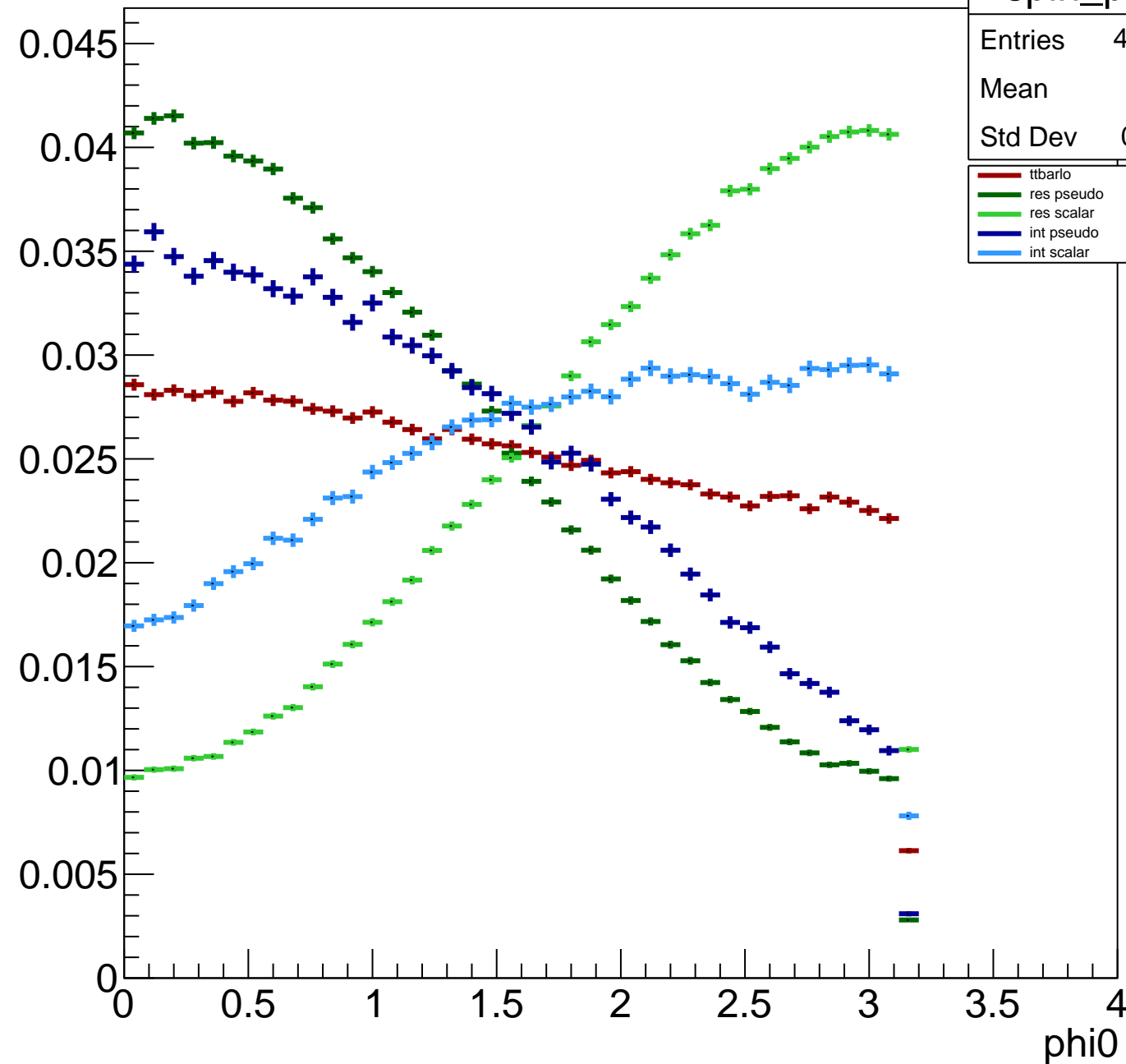
spin_phi0

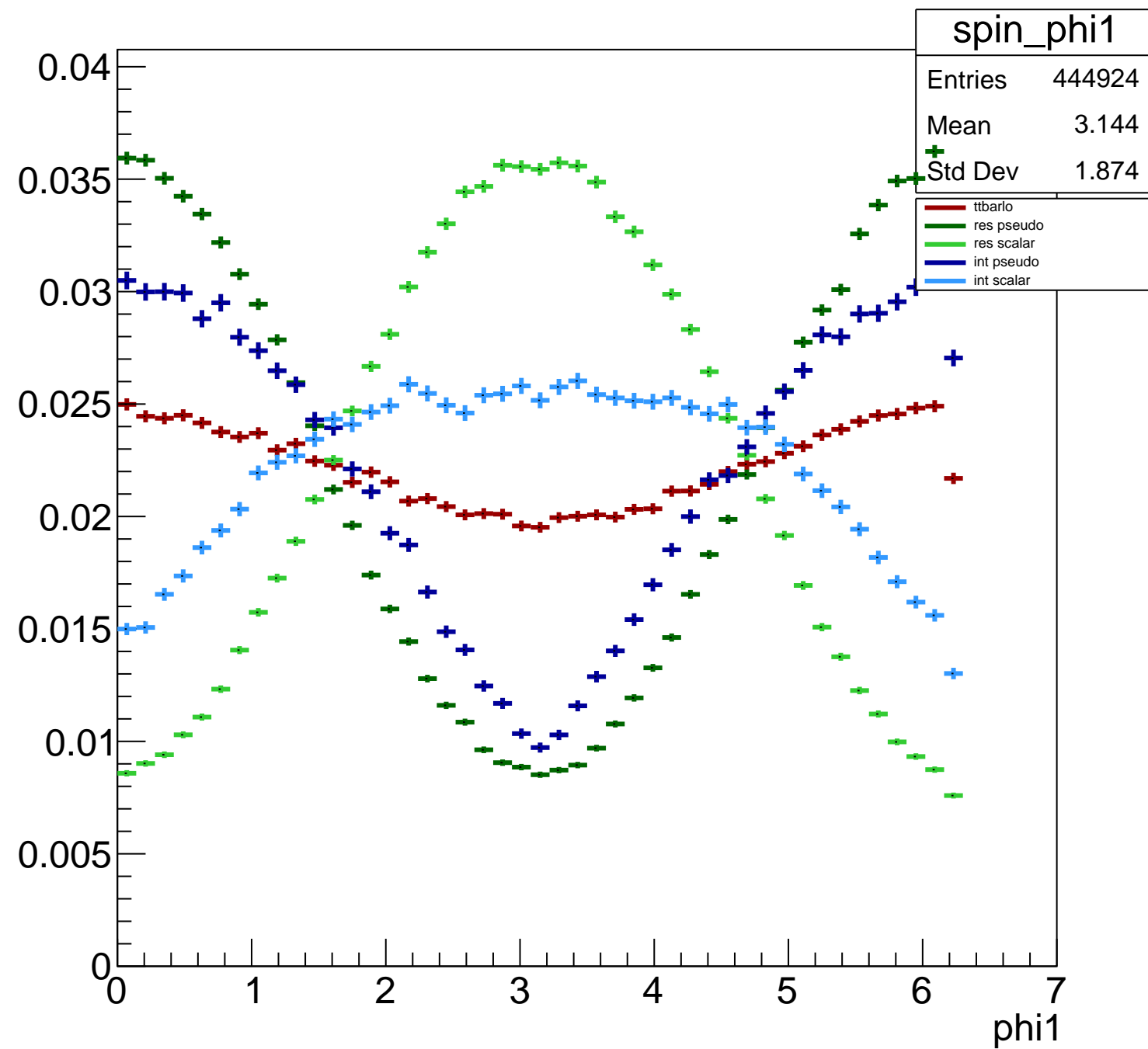
Entries 444924

Mean 1.5

Std Dev 0.9039

— ttbarlo
— res pseudo
— res scalar
— int pseudo
— int scalar





number of events

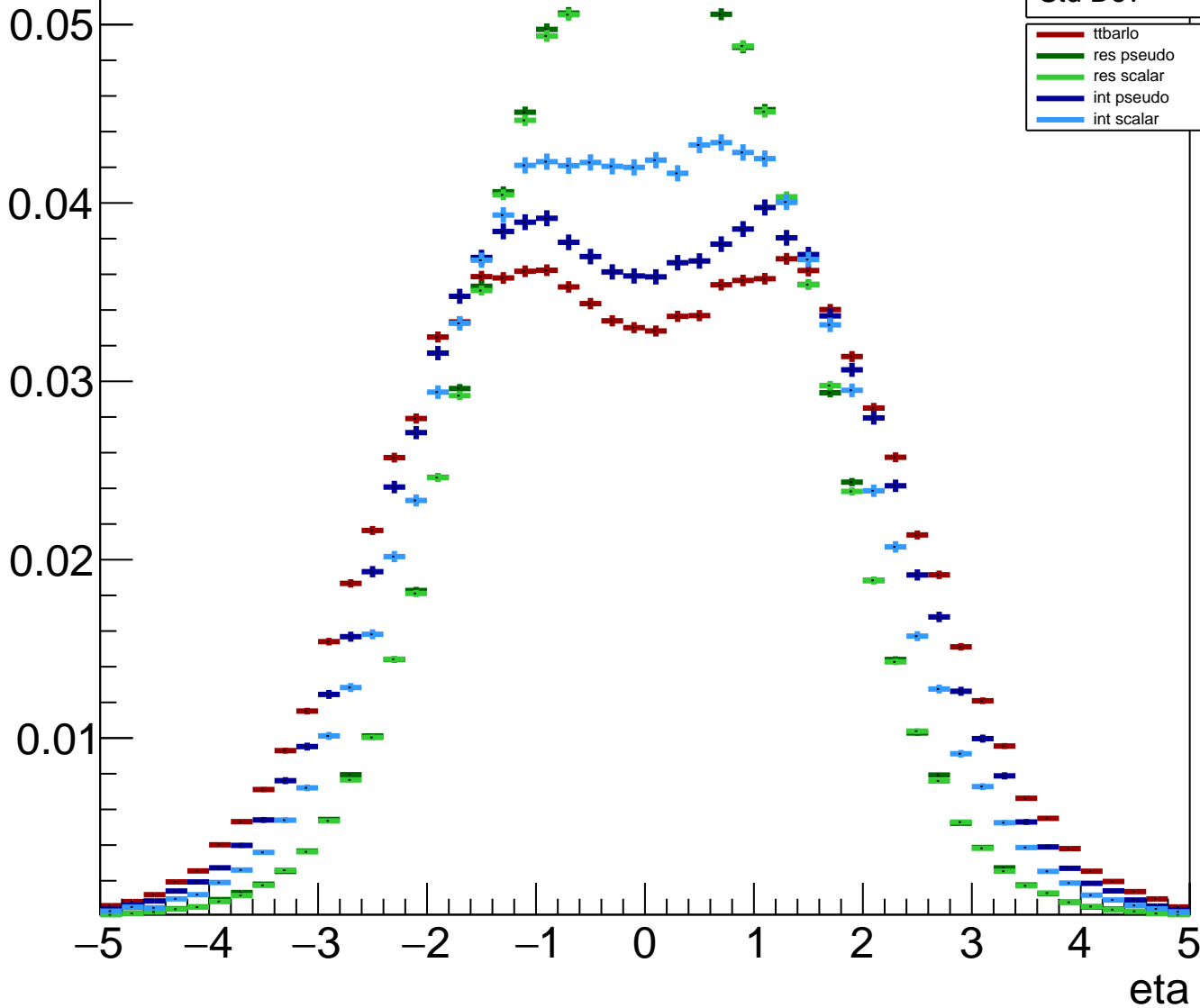
top_eta_no_cut

Entries 444924

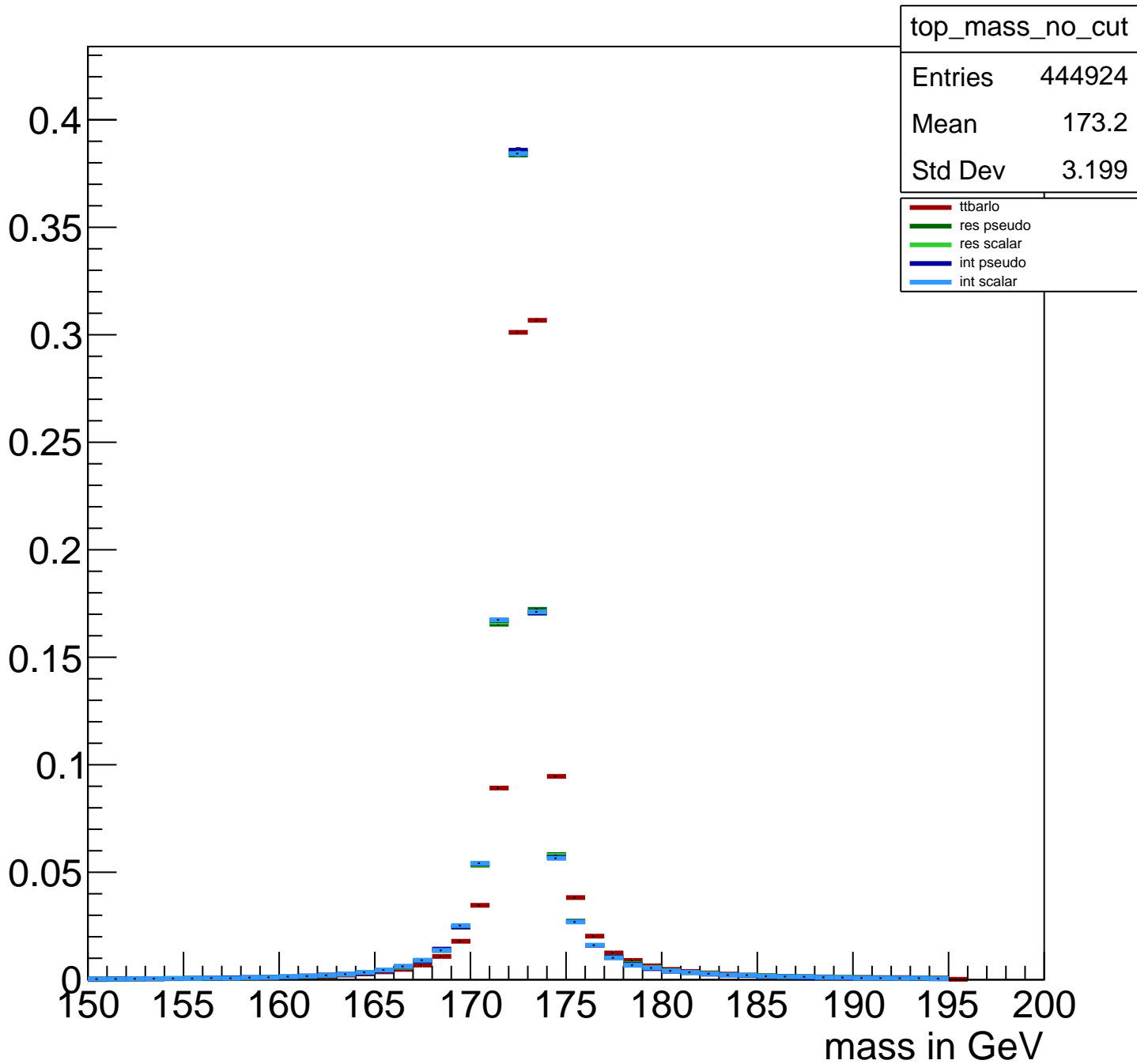
Mean 0.002475

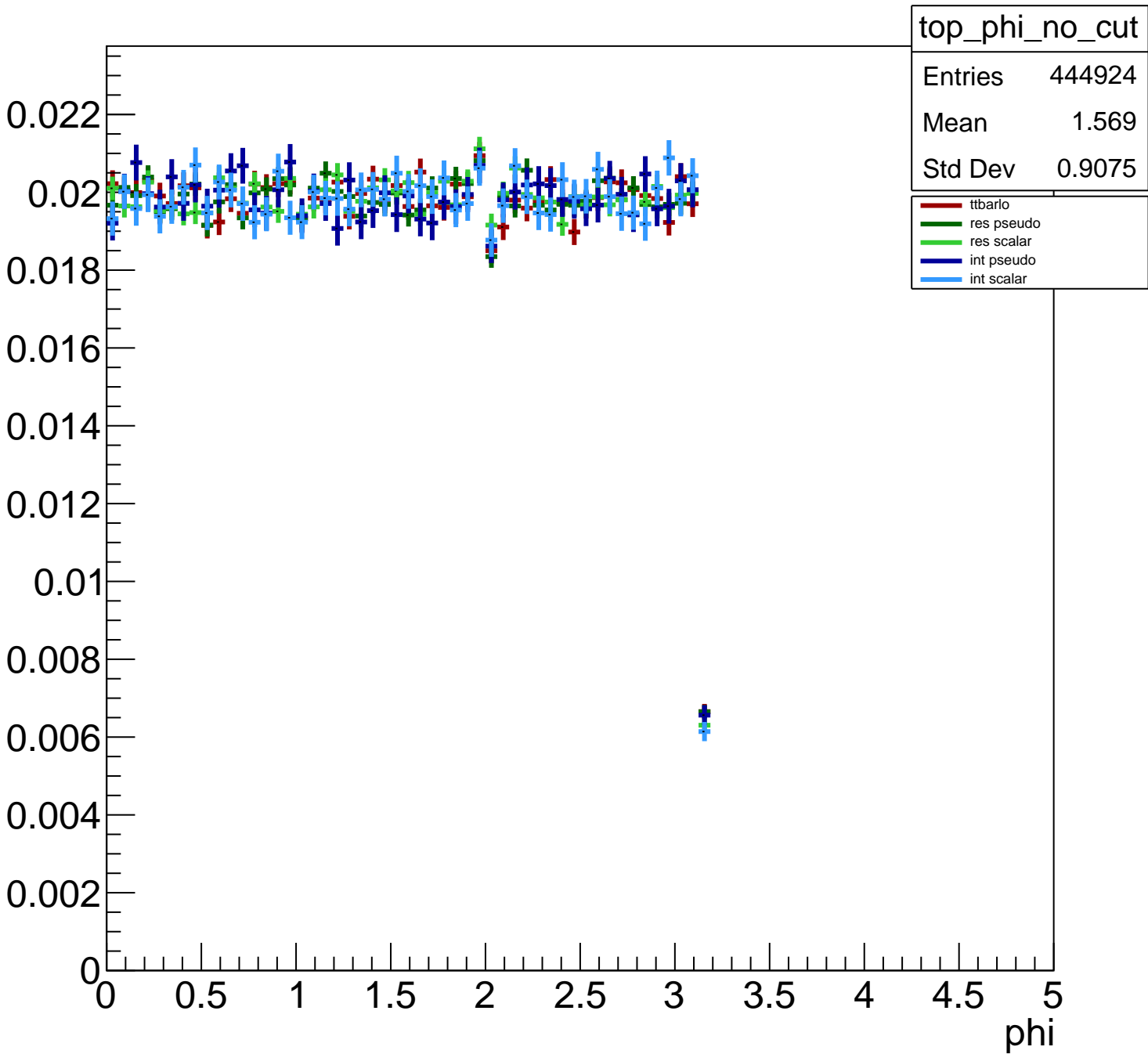
Std Dev 1.838

ttbarlo
res pseudo
res scalar
int pseudo
int scalar



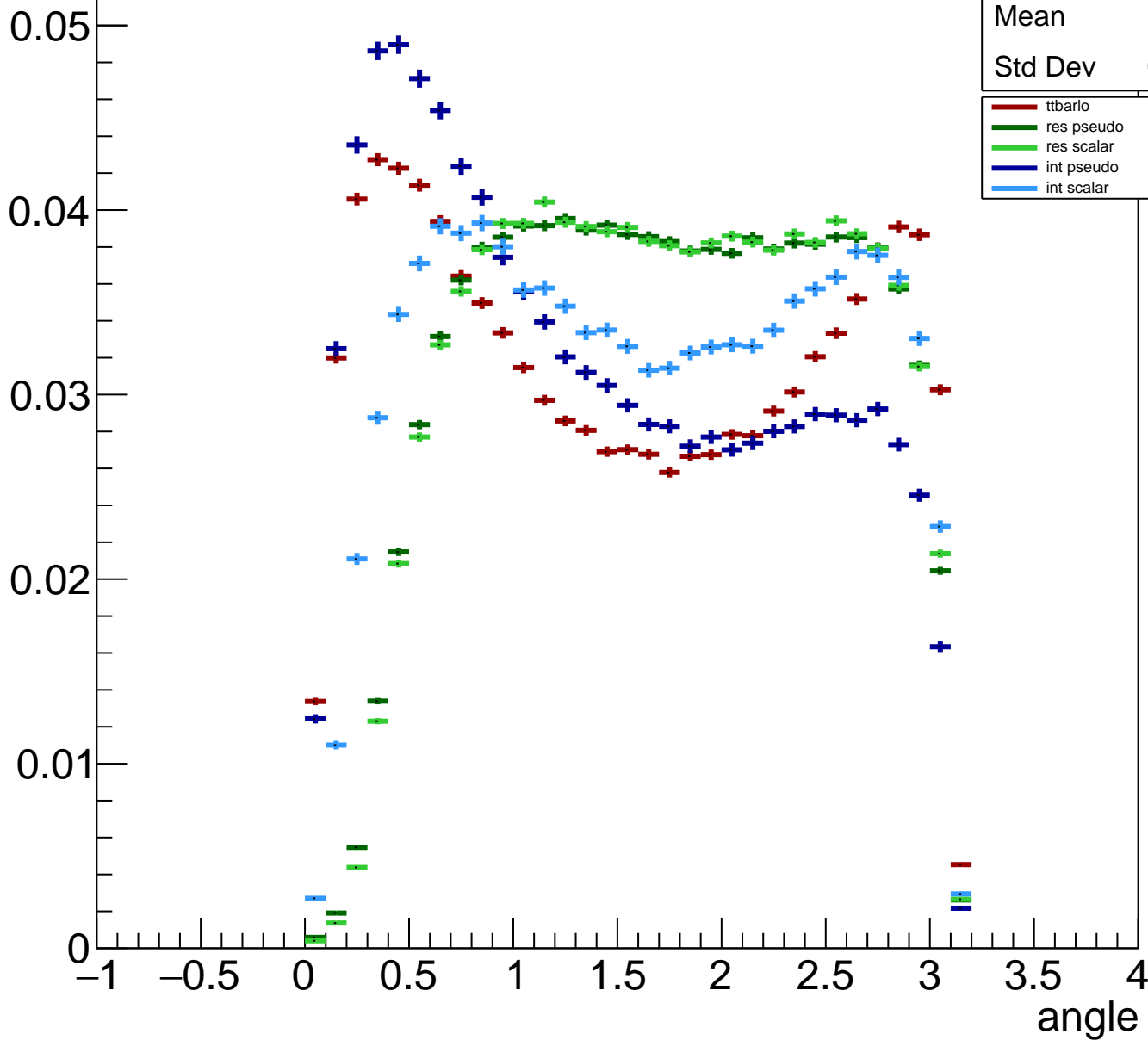
number of events

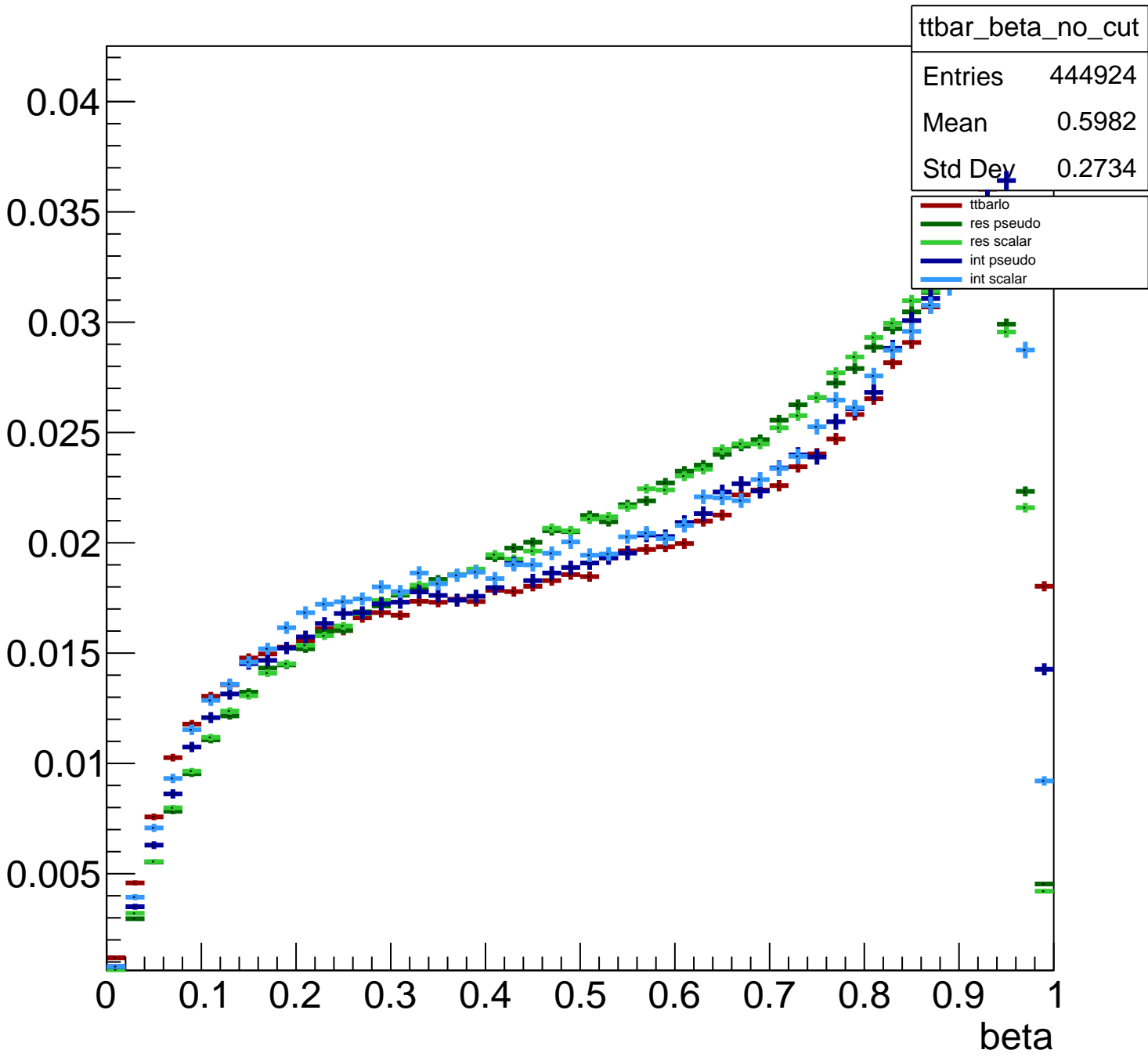


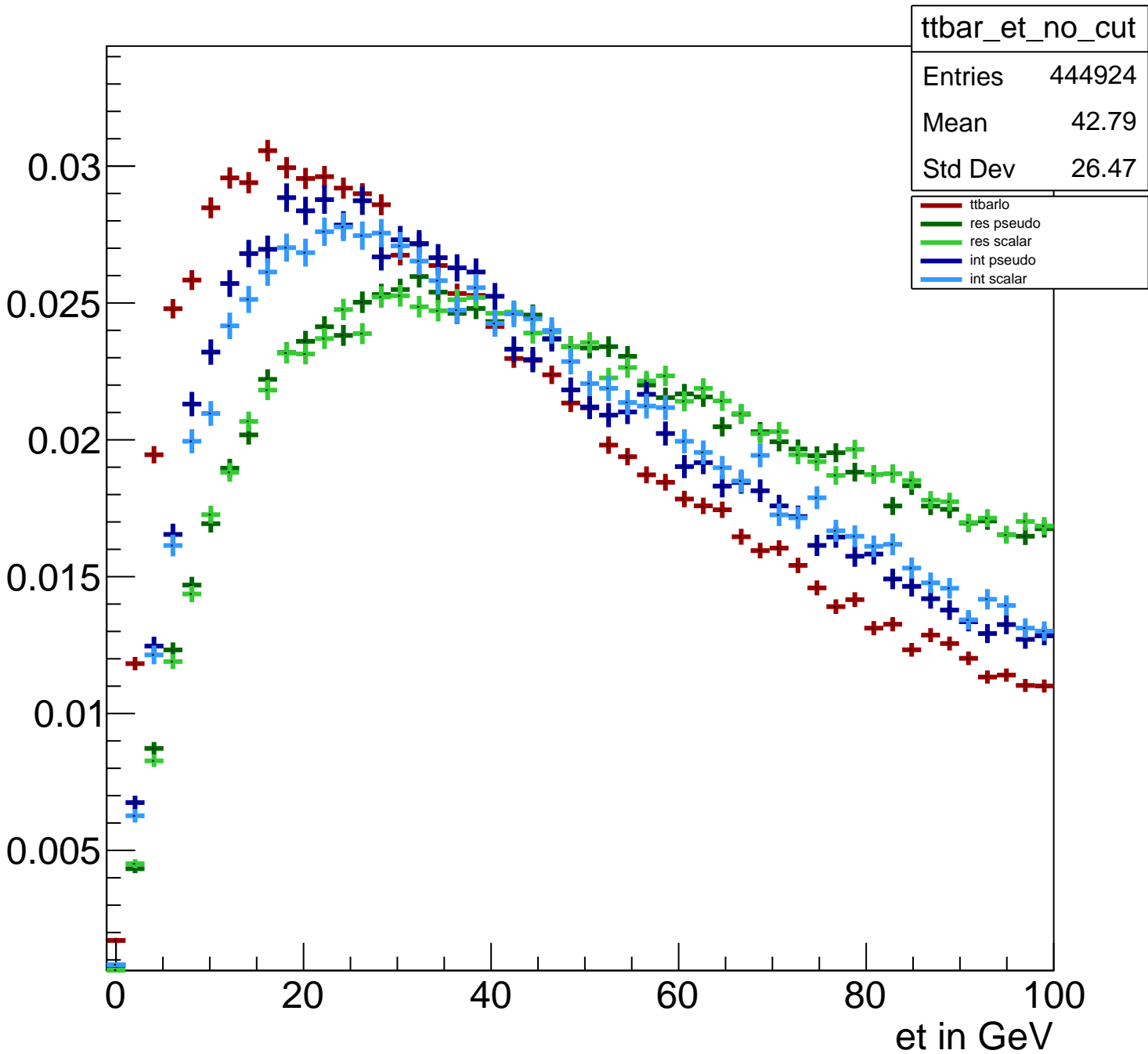


number of events

ttbar_angle_no_cut	
Entries	444924
Mean	1.545
Std Dev	0.9231
<div><div></div> ttbarlo</div> <div><div></div> res pseudo</div> <div><div></div> res scalar</div> <div><div></div> int pseudo</div> <div><div></div> int scalar</div>	

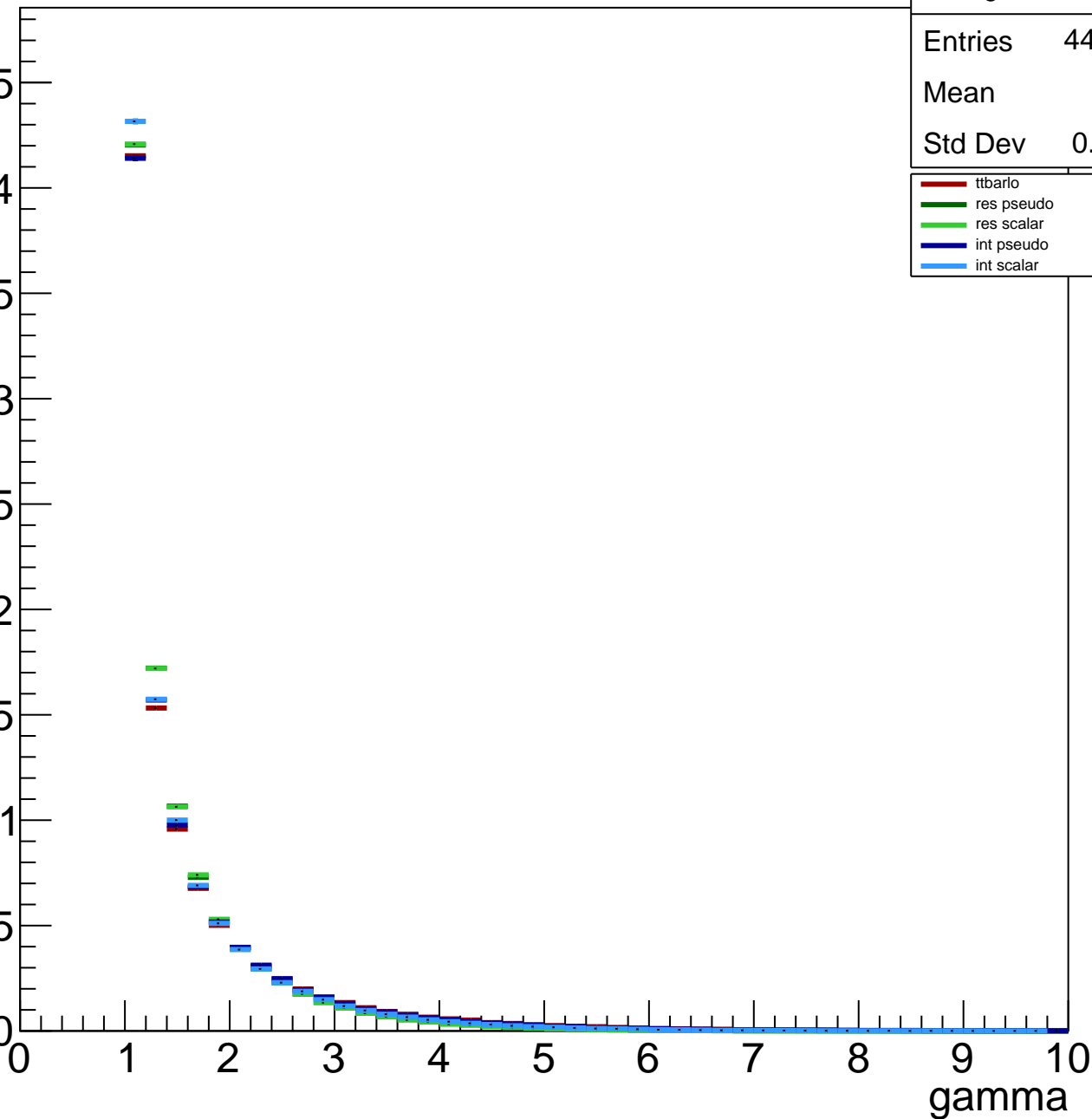






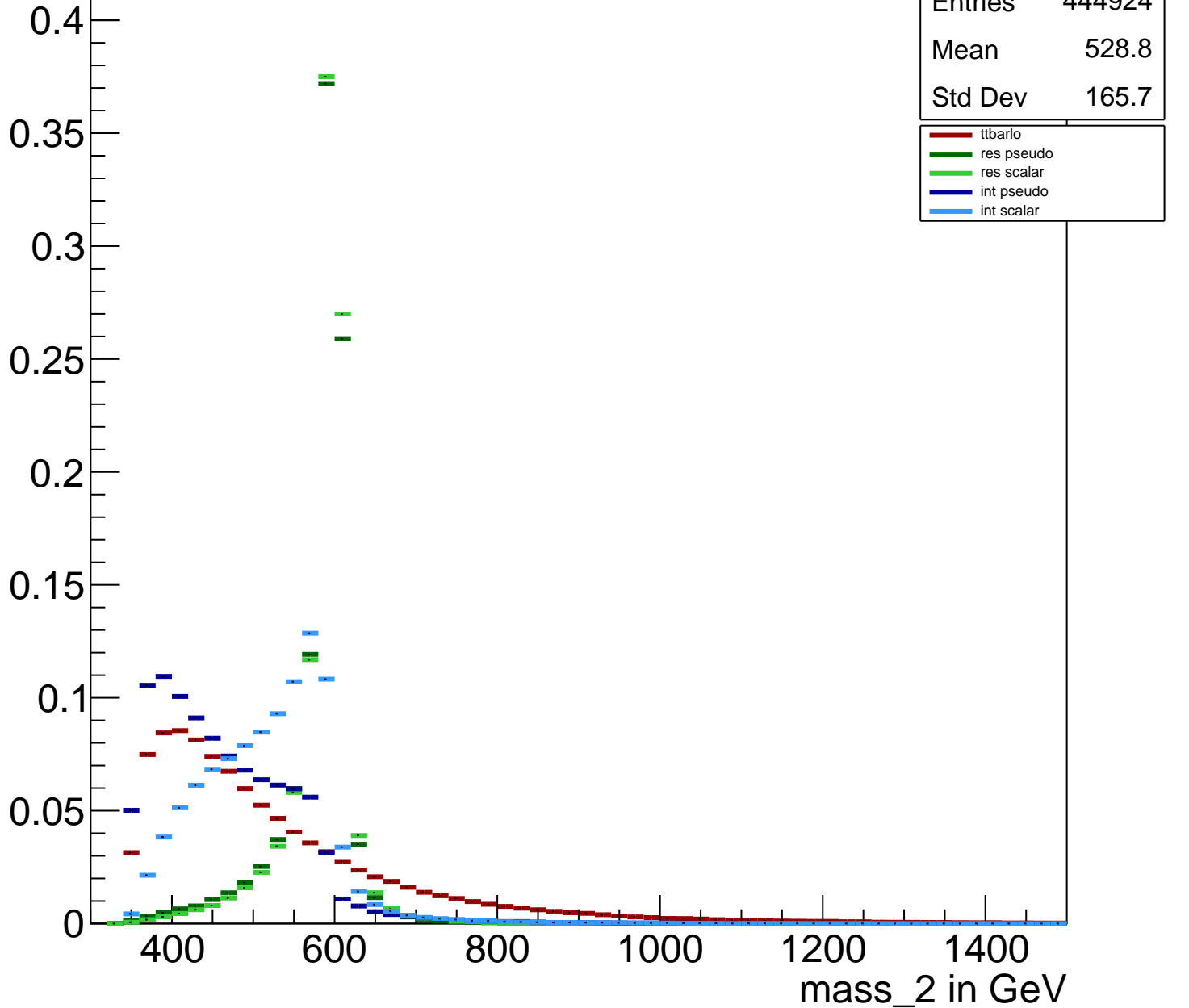
number of events

0.45
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0

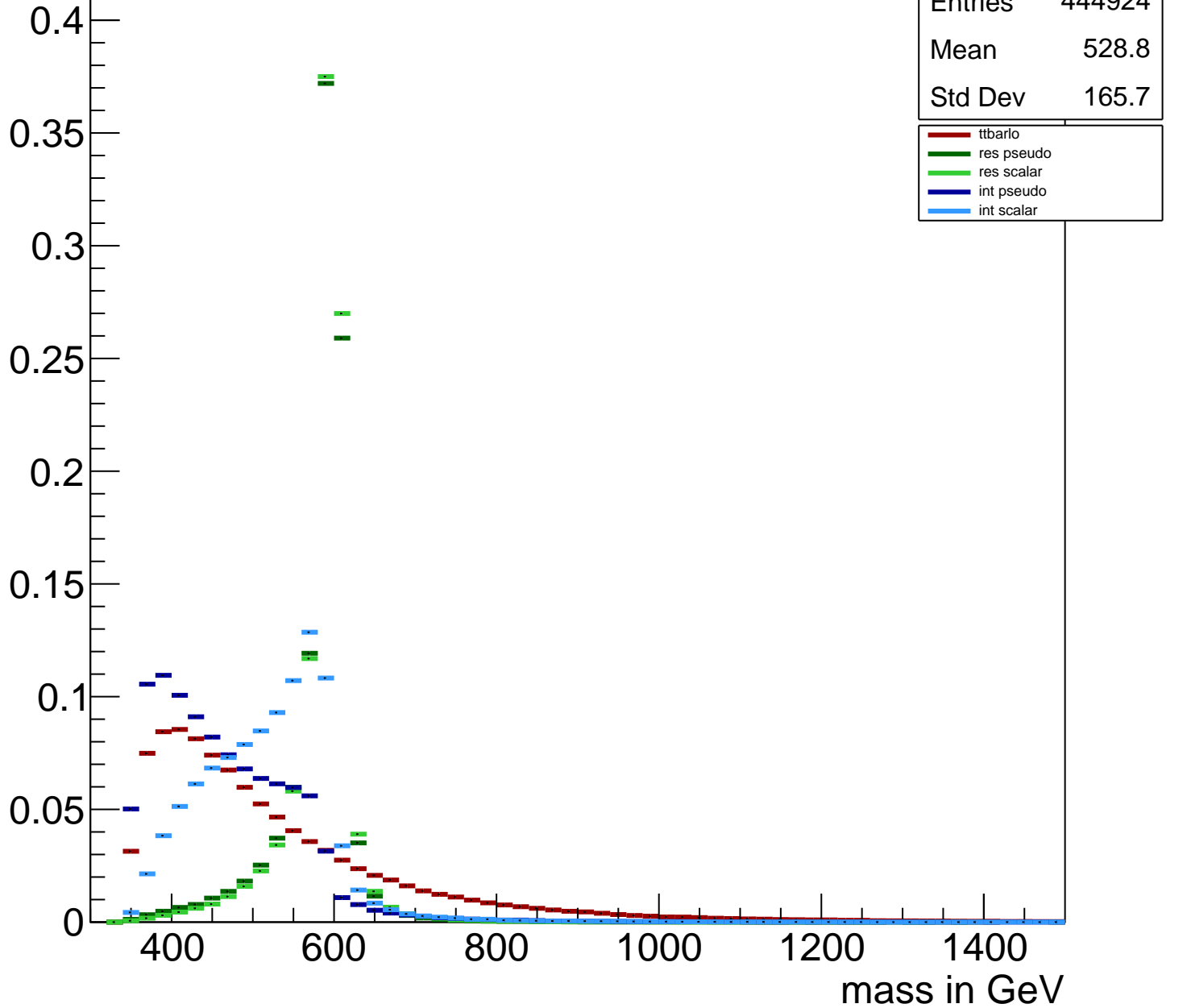


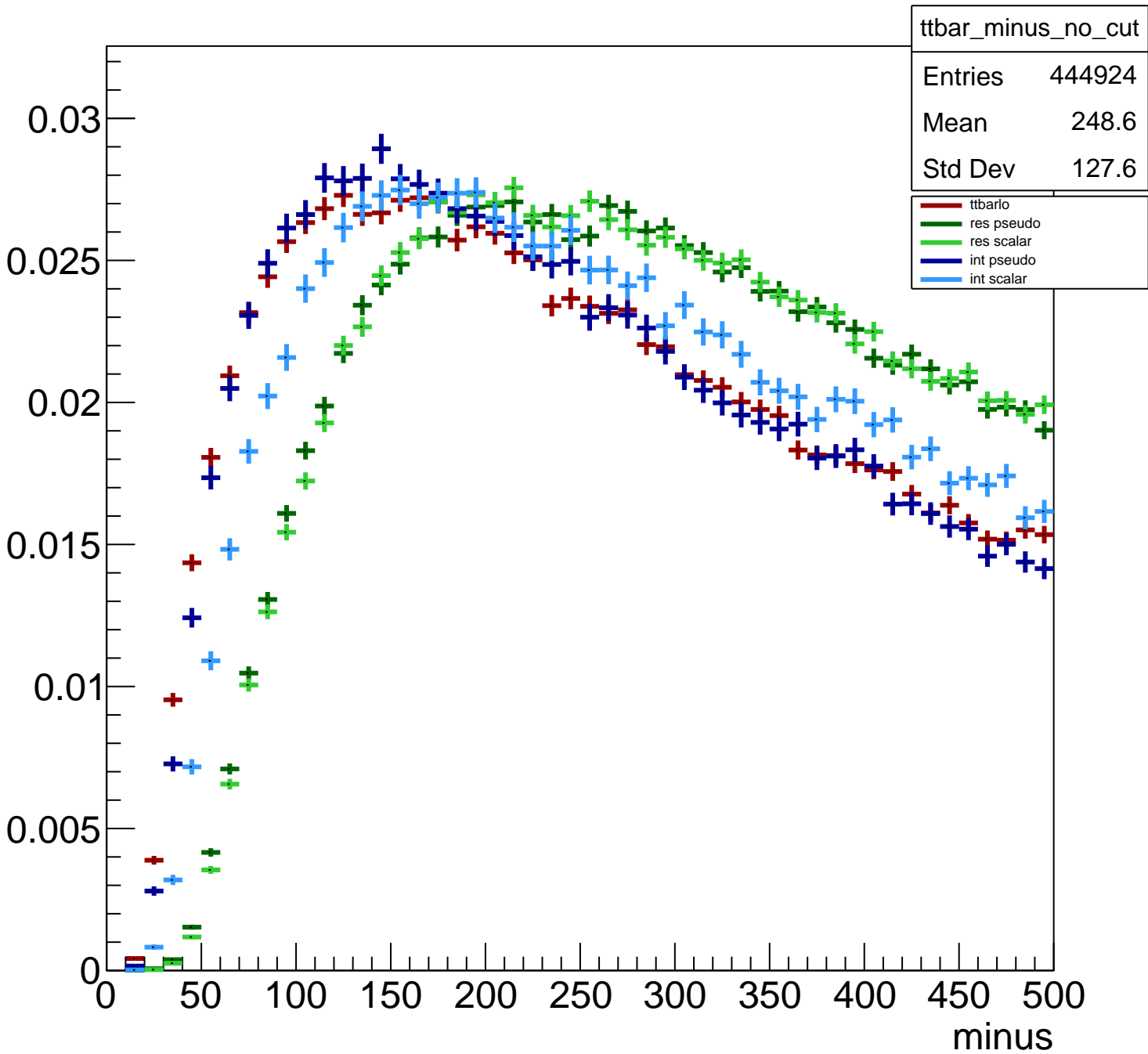
ttbar_gamma_no_cut	
Entries	444924
Mean	1.681
Std Dev	0.9854
<div><div></div>ttbarlo</div> <div><div></div>res pseudo</div> <div><div></div>res scalar</div> <div><div></div>int pseudo</div> <div><div></div>int scalar</div>	

number of events



number of events





ttbar_p_no_cut

Entries	444924
Mean	240
Std Dev	132.6

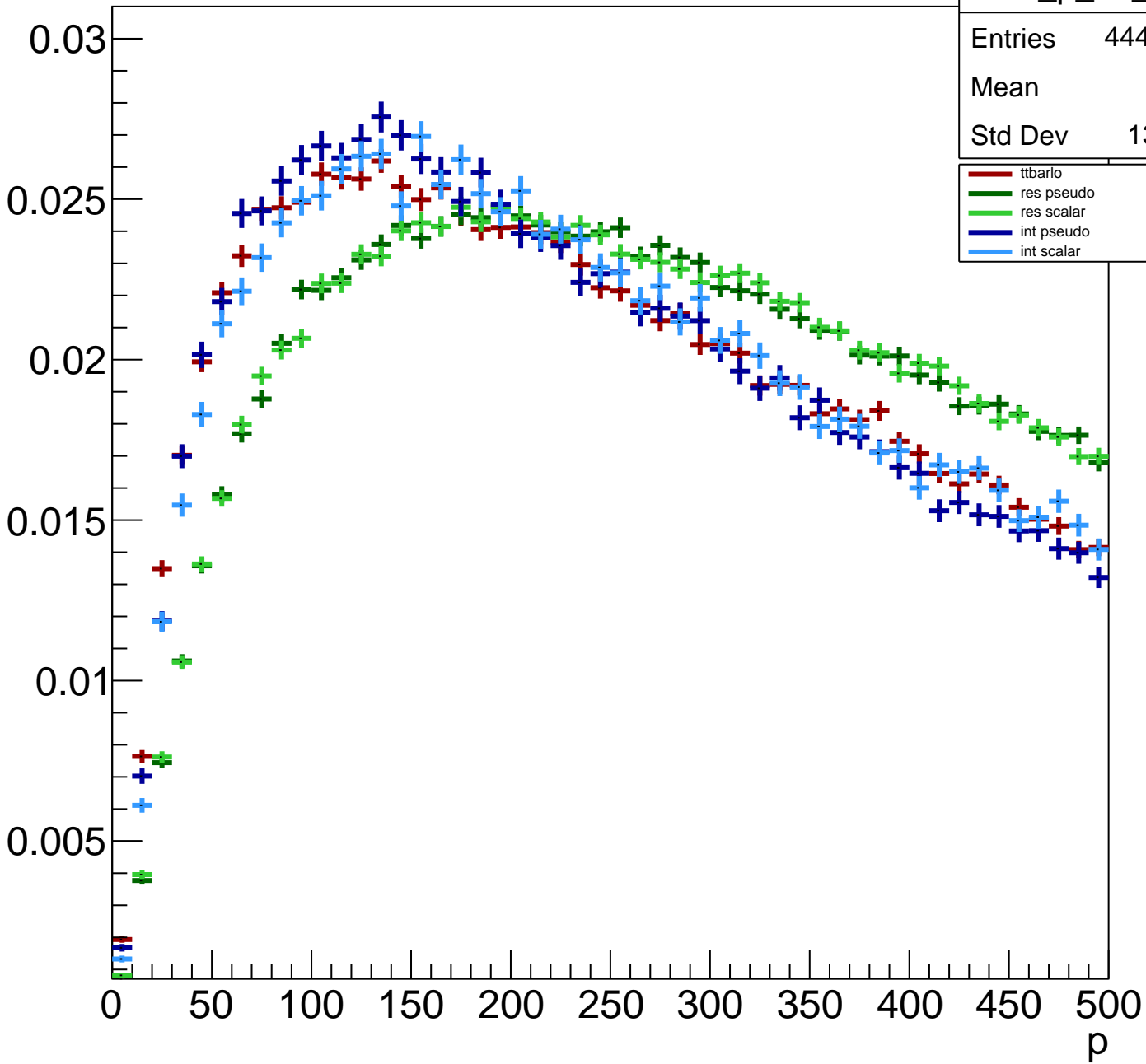
ttbarlo

res pseudo

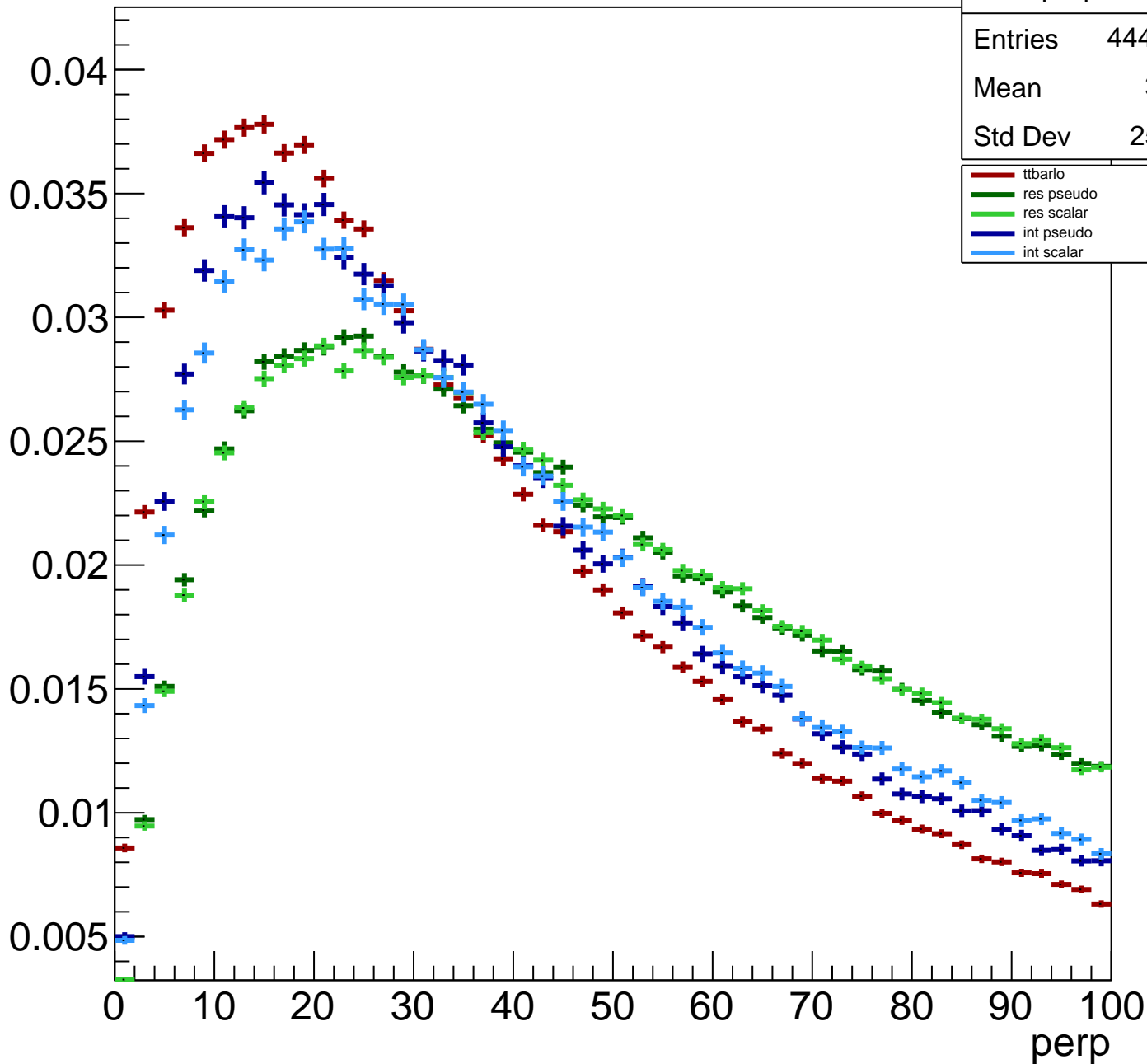
res scalar

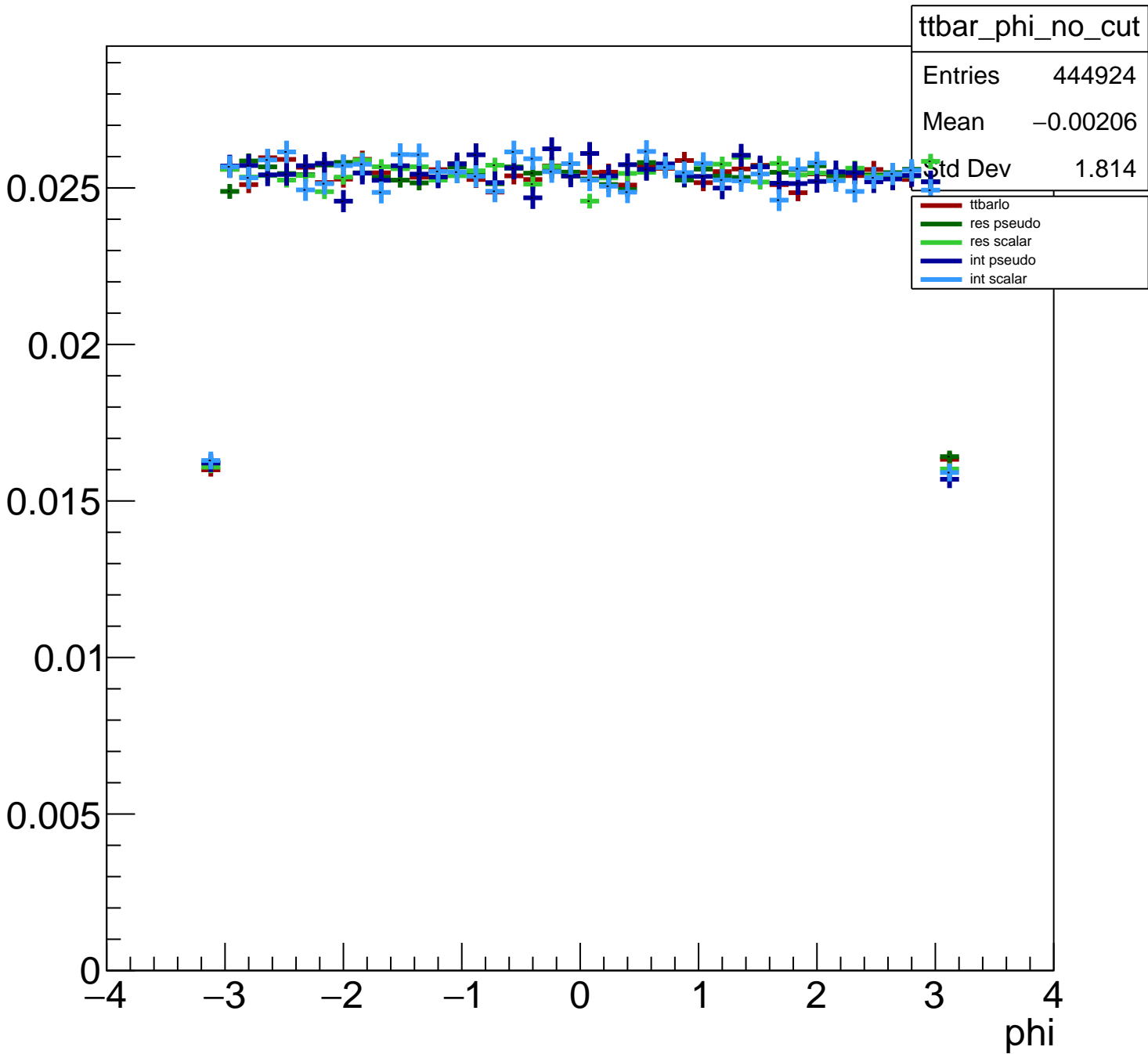
int pseudo

int scalar



ttbar_perp_no_cut	
Entries	444924
Mean	36.8
Std Dev	25.02
<div><div></div>ttbarlo</div> <div><div></div>res pseudo</div> <div><div></div>res scalar</div> <div><div></div>int pseudo</div> <div><div></div>int scalar</div>	

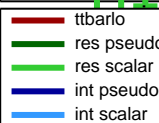




number of events

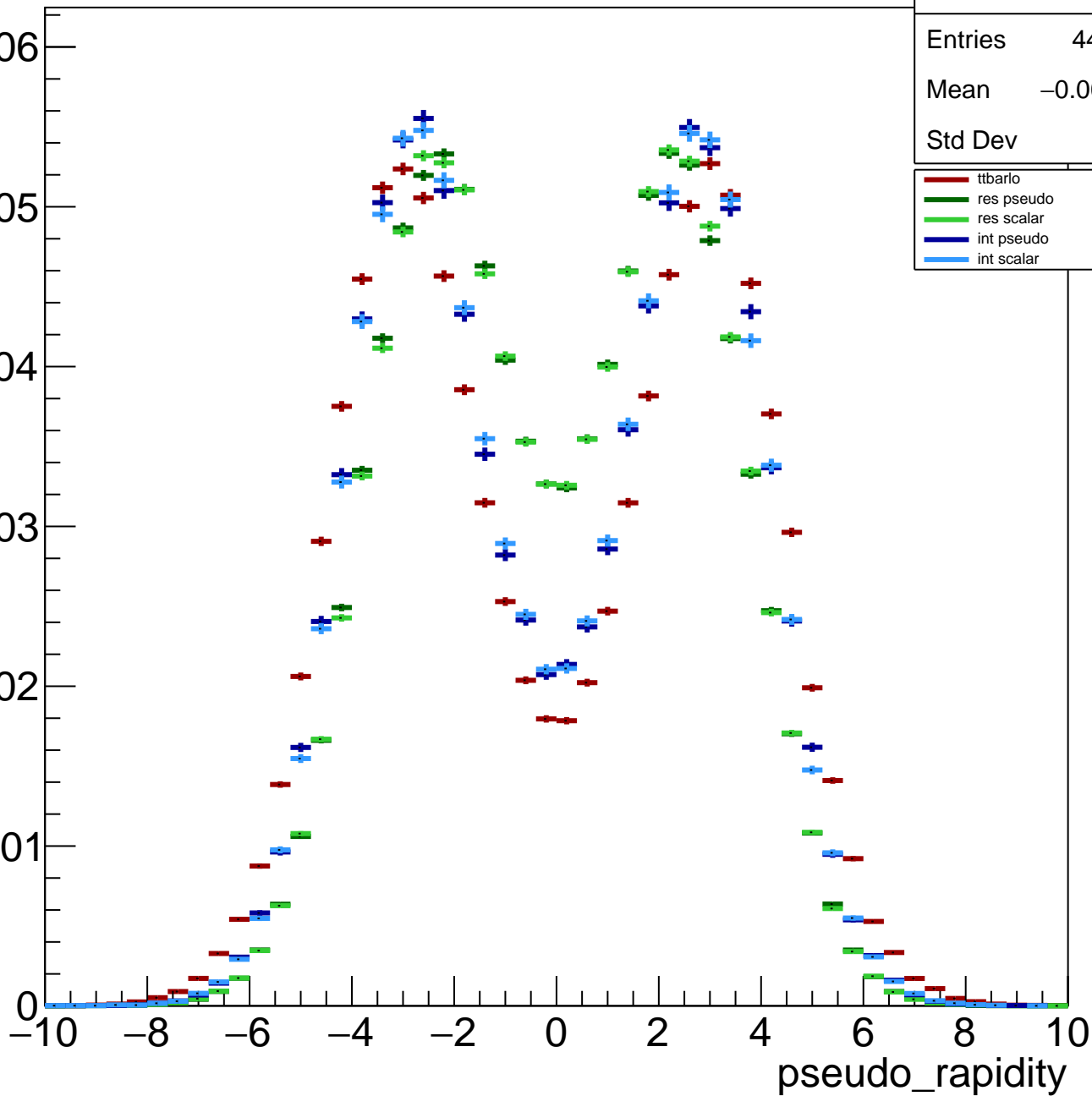
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0

ttbar_plus_no_cut	
Entries	444924
Mean	69.08
Std Dev	20.18
<div><div></div>ttbarlo</div>	
<div><div></div>res pseudo</div>	
<div><div></div>res scalar</div>	
<div><div></div>int pseudo</div>	
<div><div></div>int scalar</div>	



0 10 20 30 40 50 60 70 80 90 100
plus

number of events



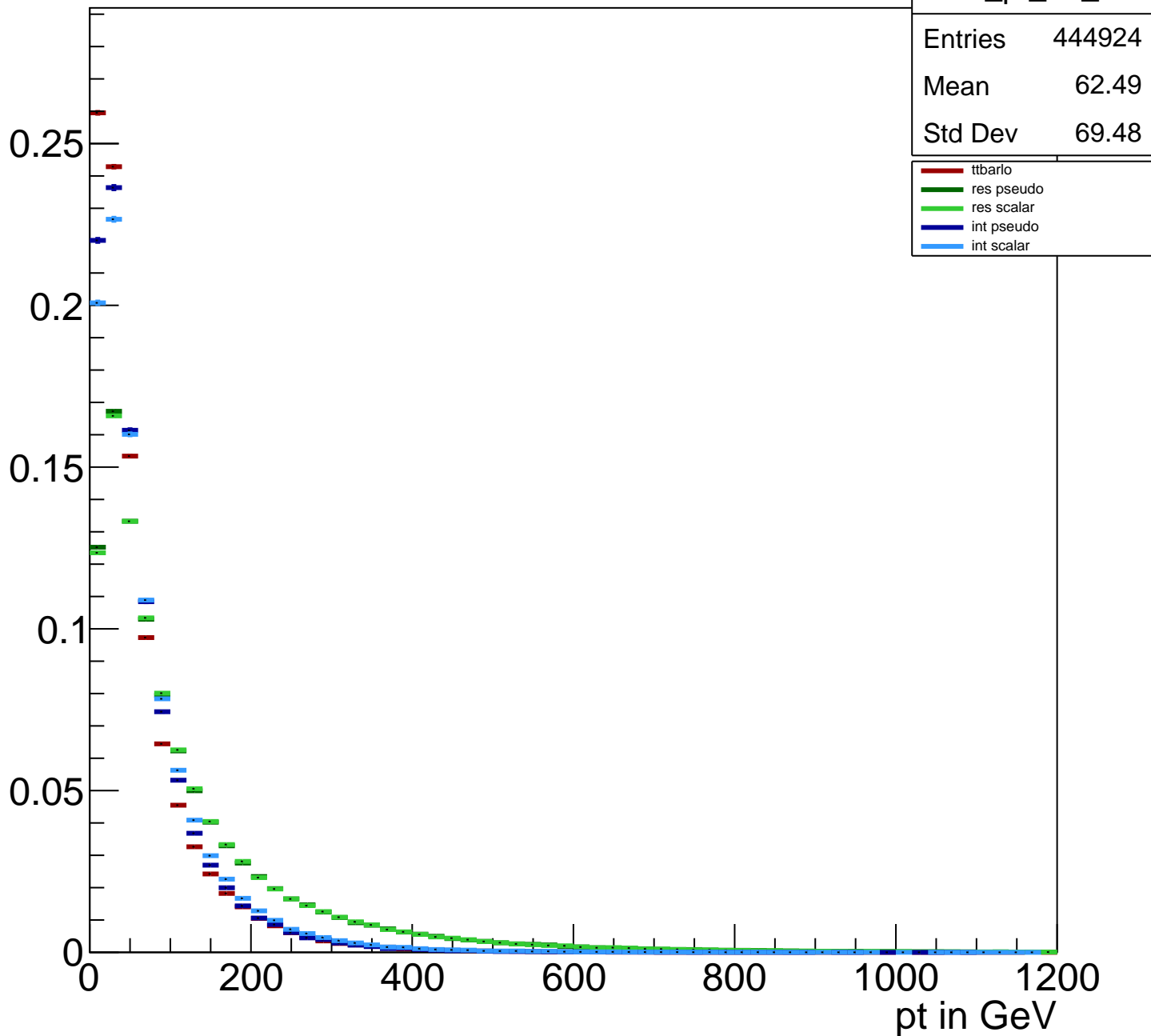
ttbar_pseudo_rapidity_no_cut

Entries 444924

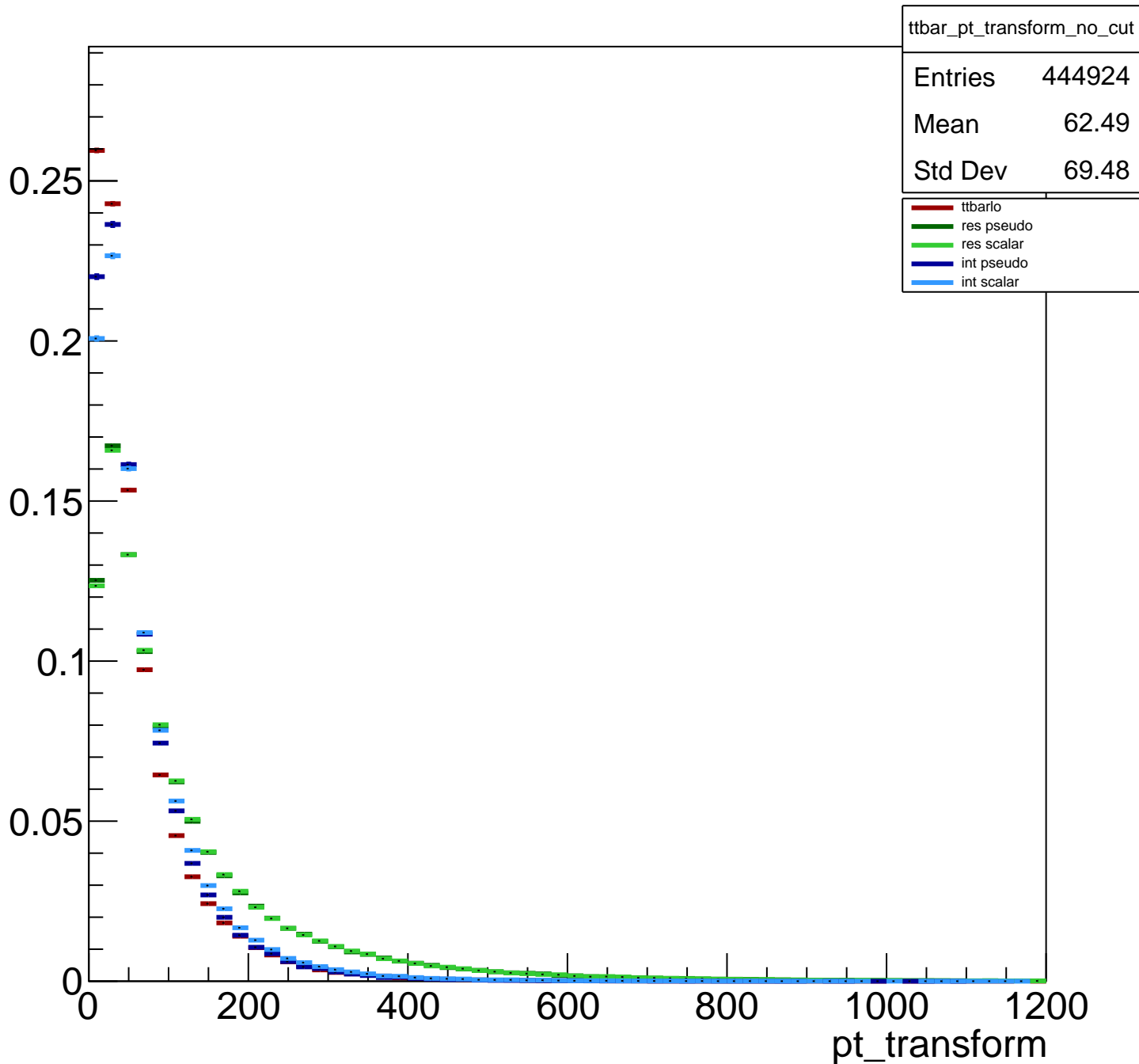
Mean -0.002281

Std Dev 3.327

number of events



number of events



number of events

0.07
0.06
0.05
0.04
0.03
0.02
0.01

-100 -80 -60 -40 -20 0 20 40 60 80 100

px in GeV

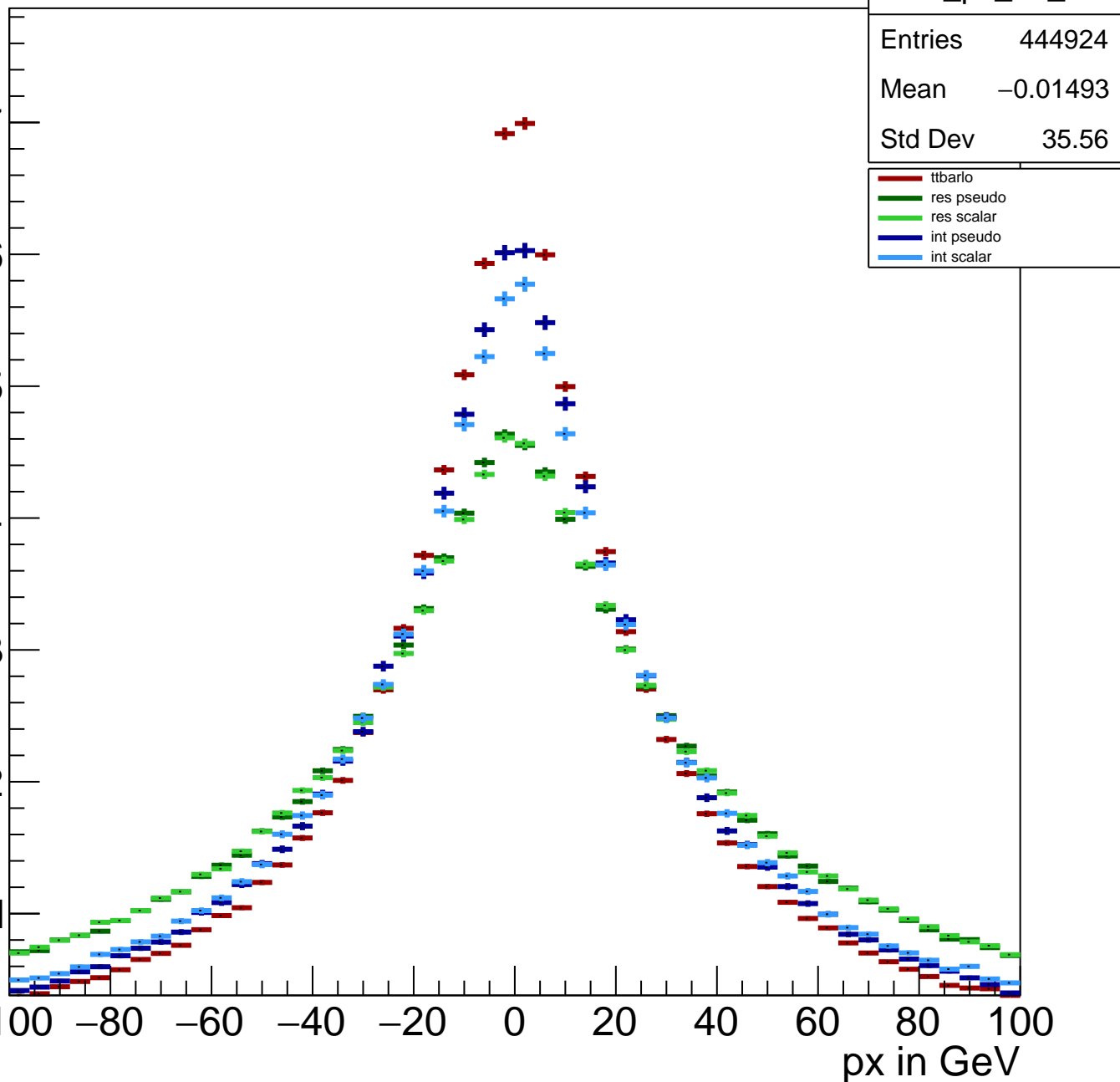
ttbar_px_no_cut

Entries 444924

Mean -0.01493

Std Dev 35.56

ttbarlo
res pseudo
res scalar
int pseudo
int scalar



number of events

0.07
0.06
0.05
0.04
0.03
0.02
0.01

-100 -80 -60 -40 -20 0 20 40 60 80 100

py in GeV

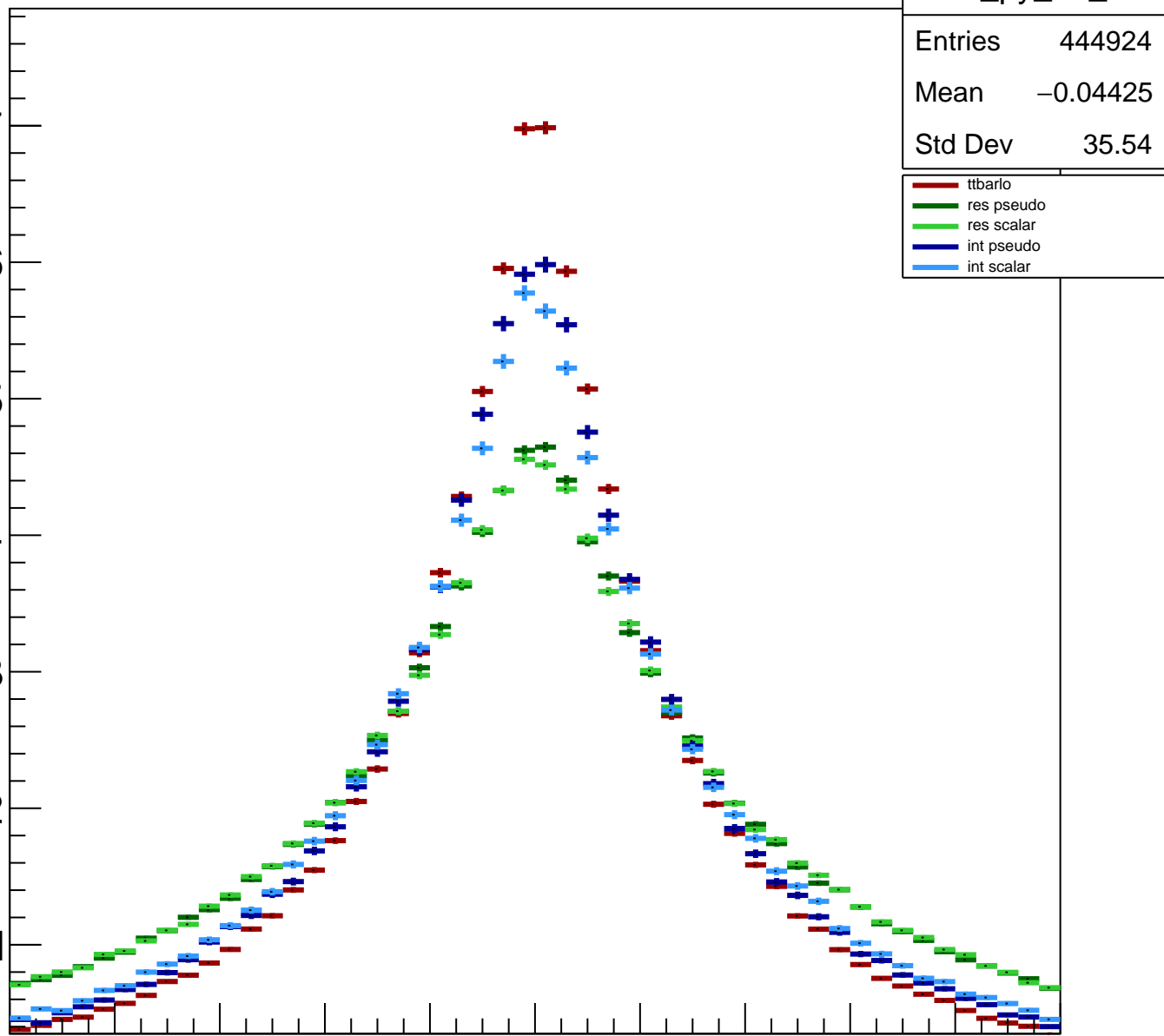
ttbar_py_no_cut

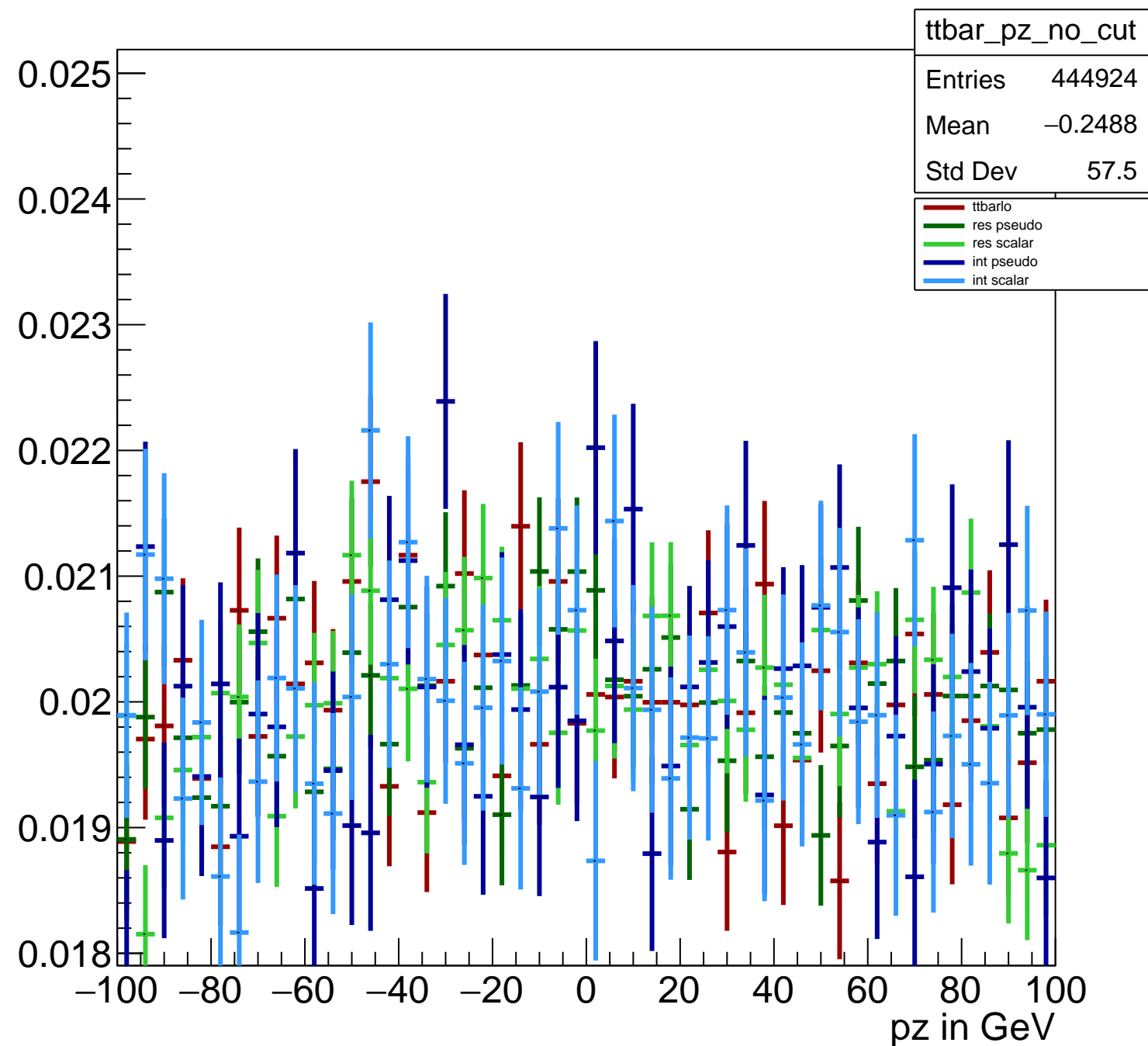
Entries 444924

Mean -0.04425

Std Dev 35.54

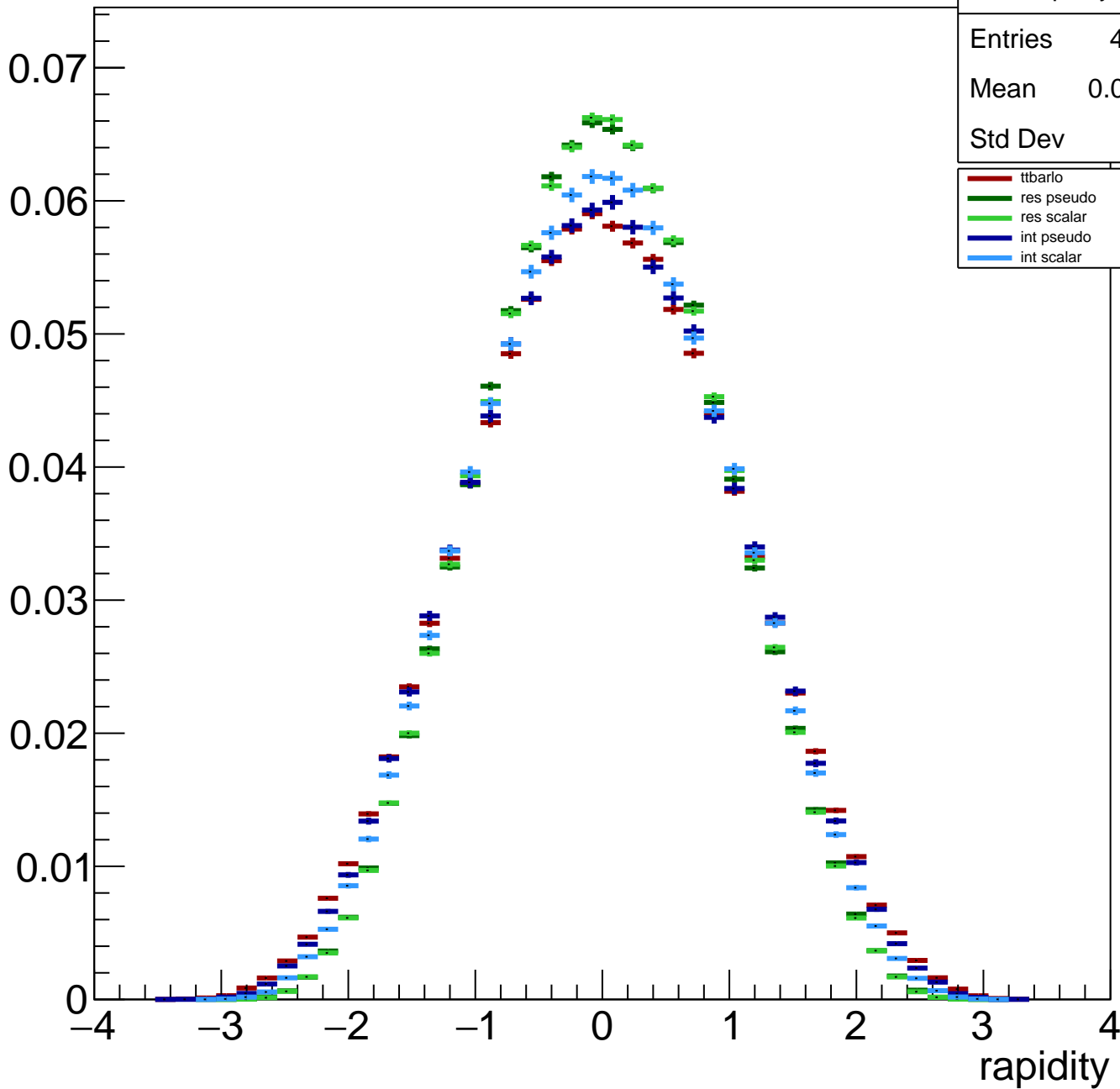
ttbarlo
res pseudo
res scalar
int pseudo
int scalar

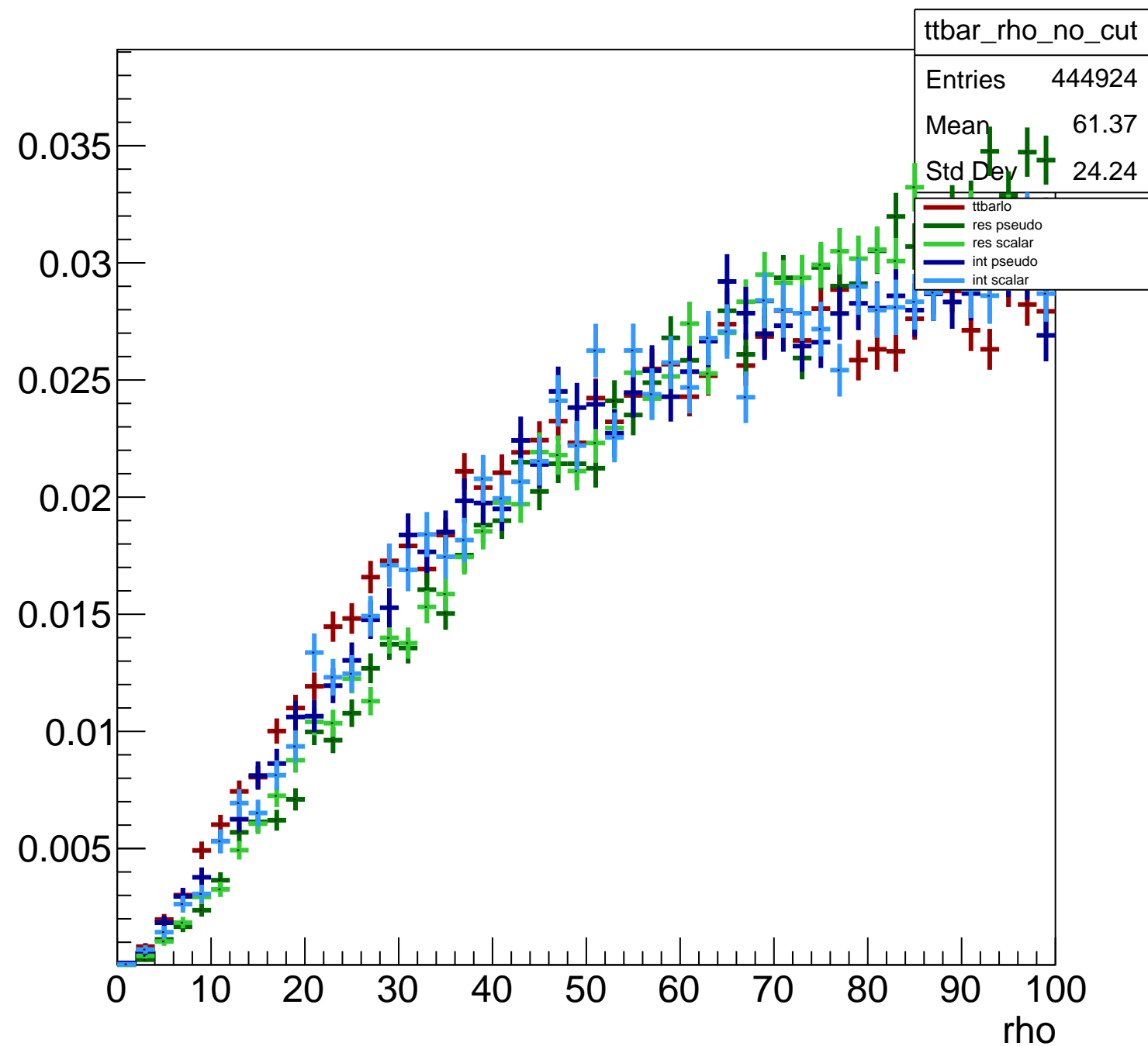




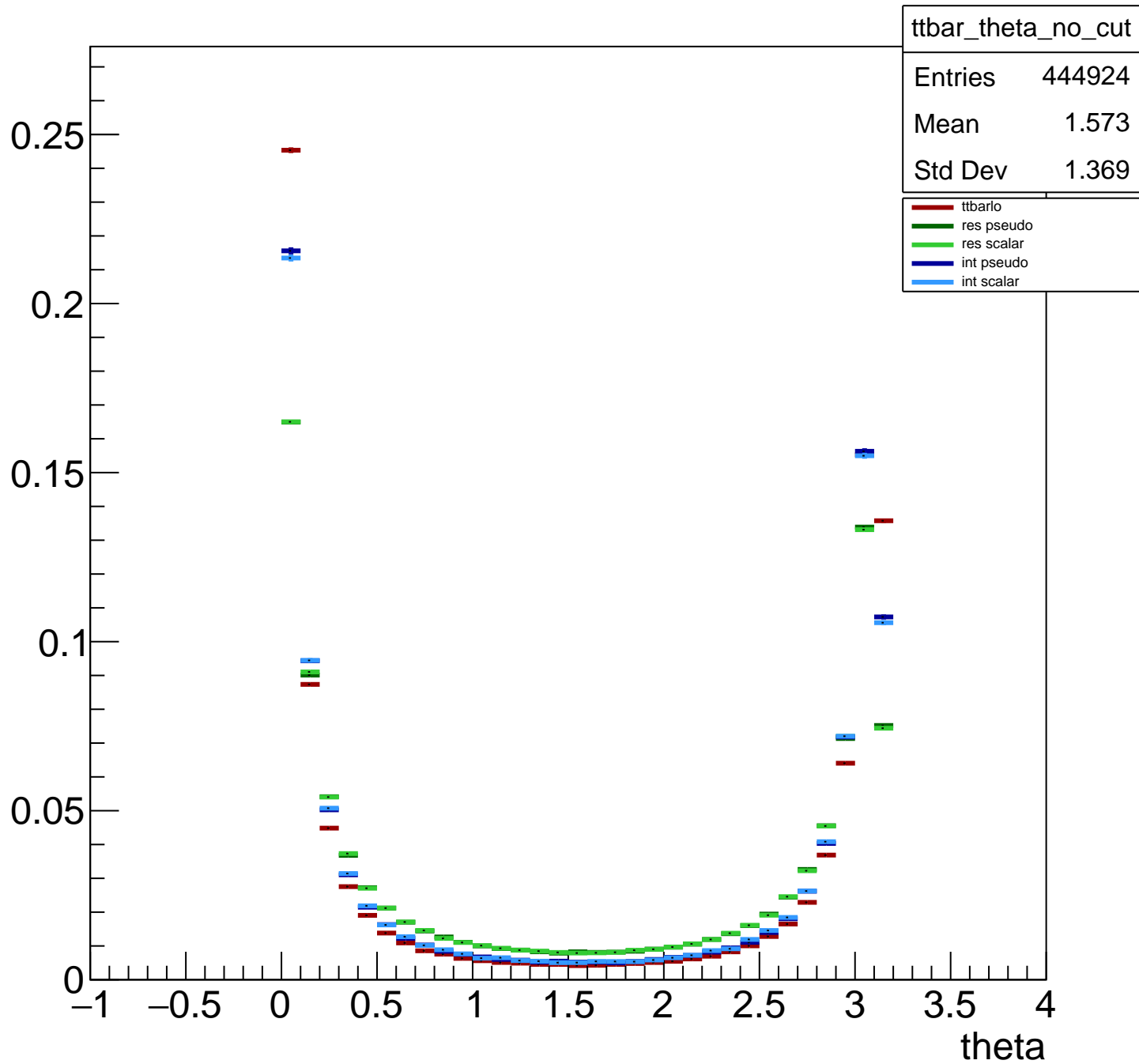
number of events

ttbar_rapidity_no_cut	
Entries	444924
Mean	0.000414
Std Dev	1.023
<div><div></div> ttbarlo</div> <div><div></div> res pseudo</div> <div><div></div> res scalar</div> <div><div></div> int pseudo</div> <div><div></div> int scalar</div>	

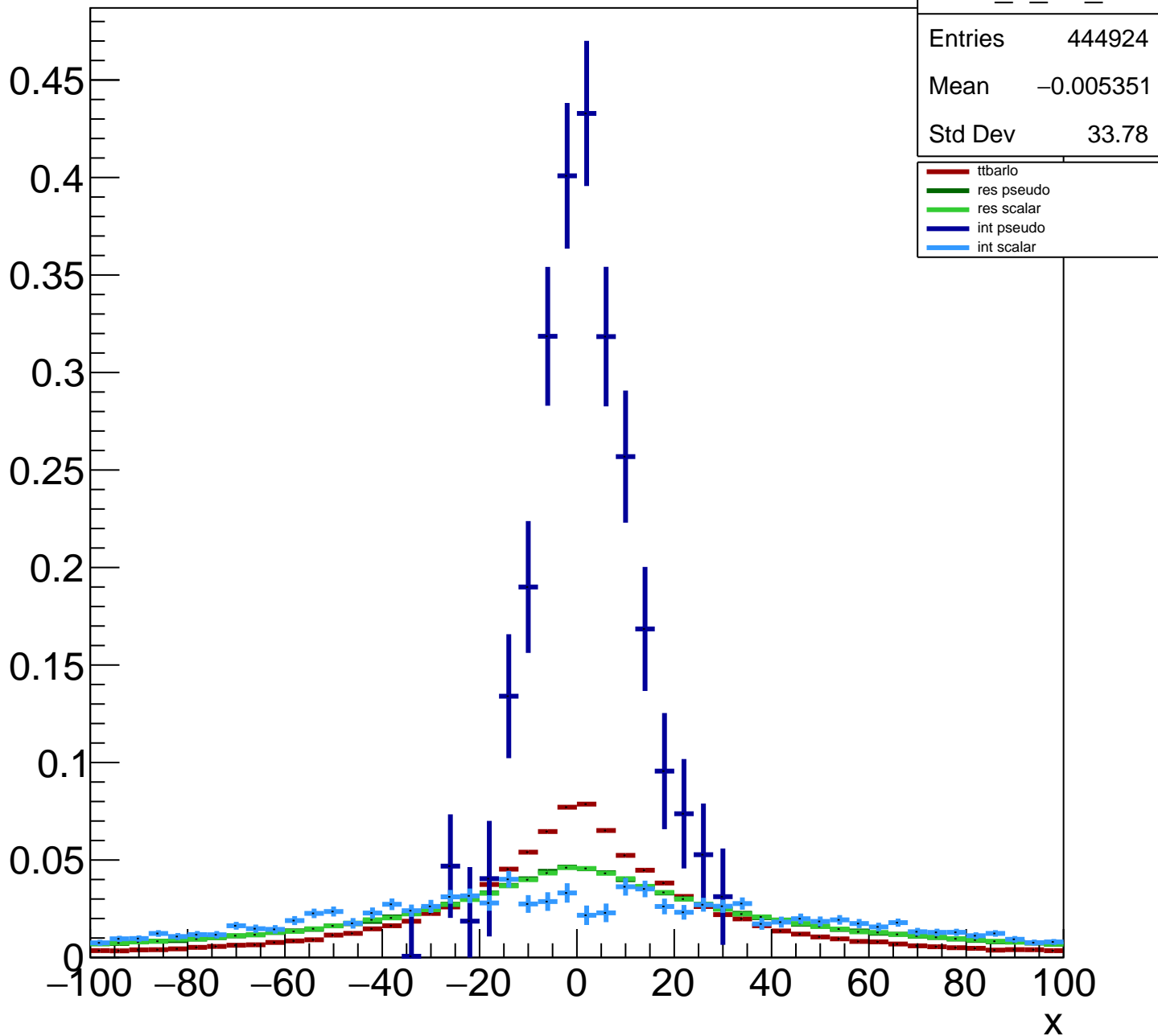




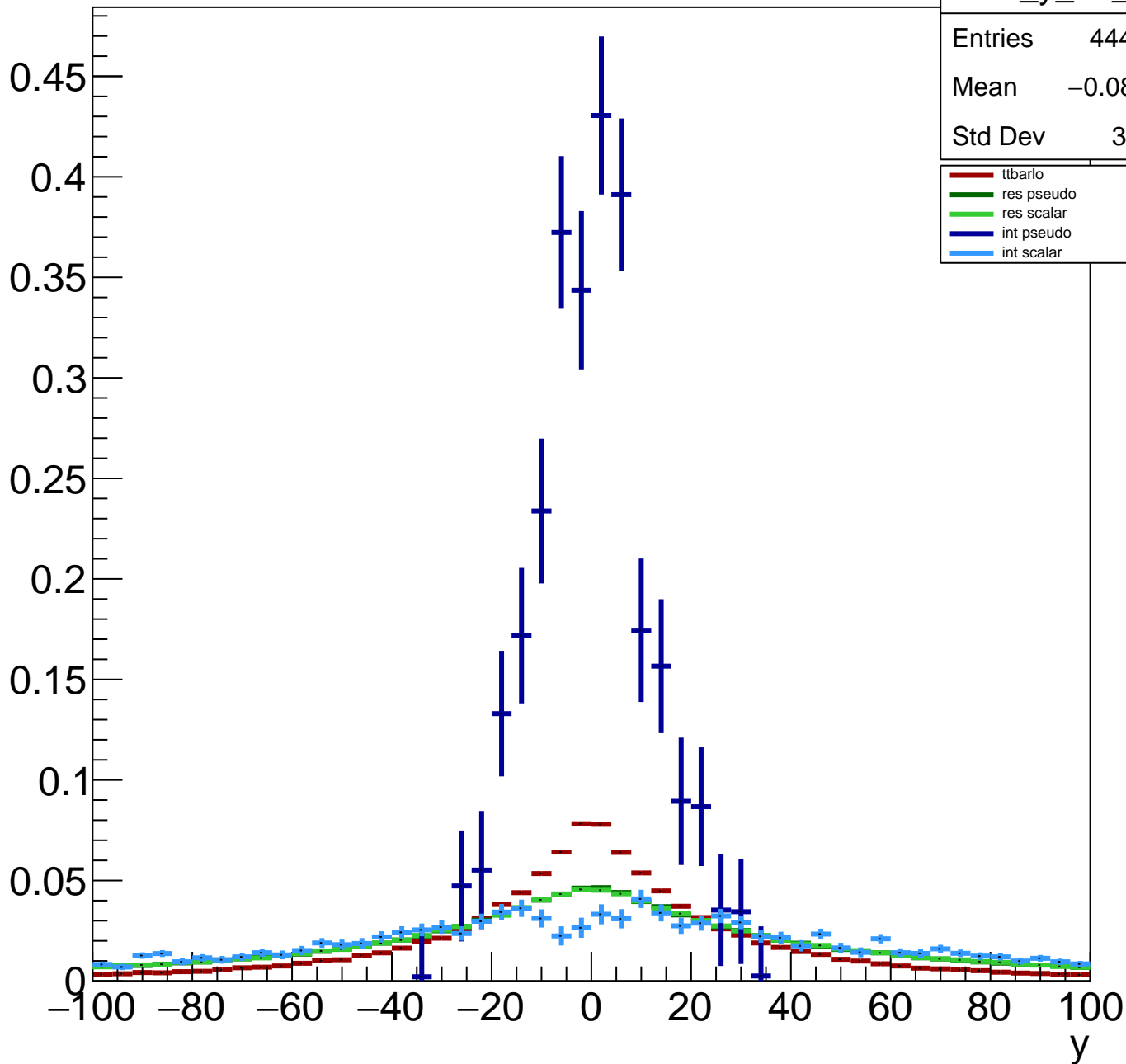
number of events



number of events



number of events



number of events

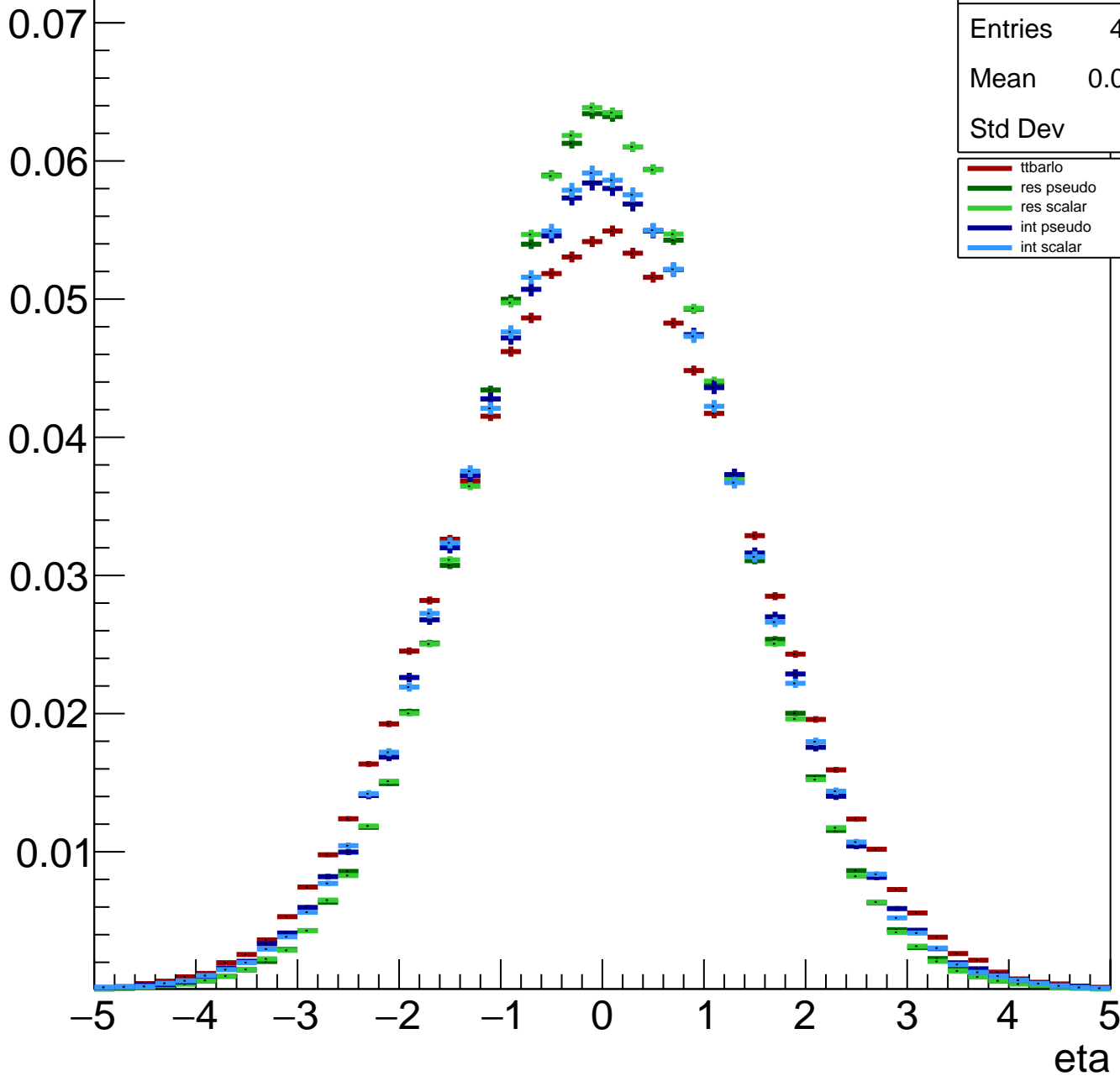
antibottom_eta_no_cut

Entries 444924

Mean 0.001236

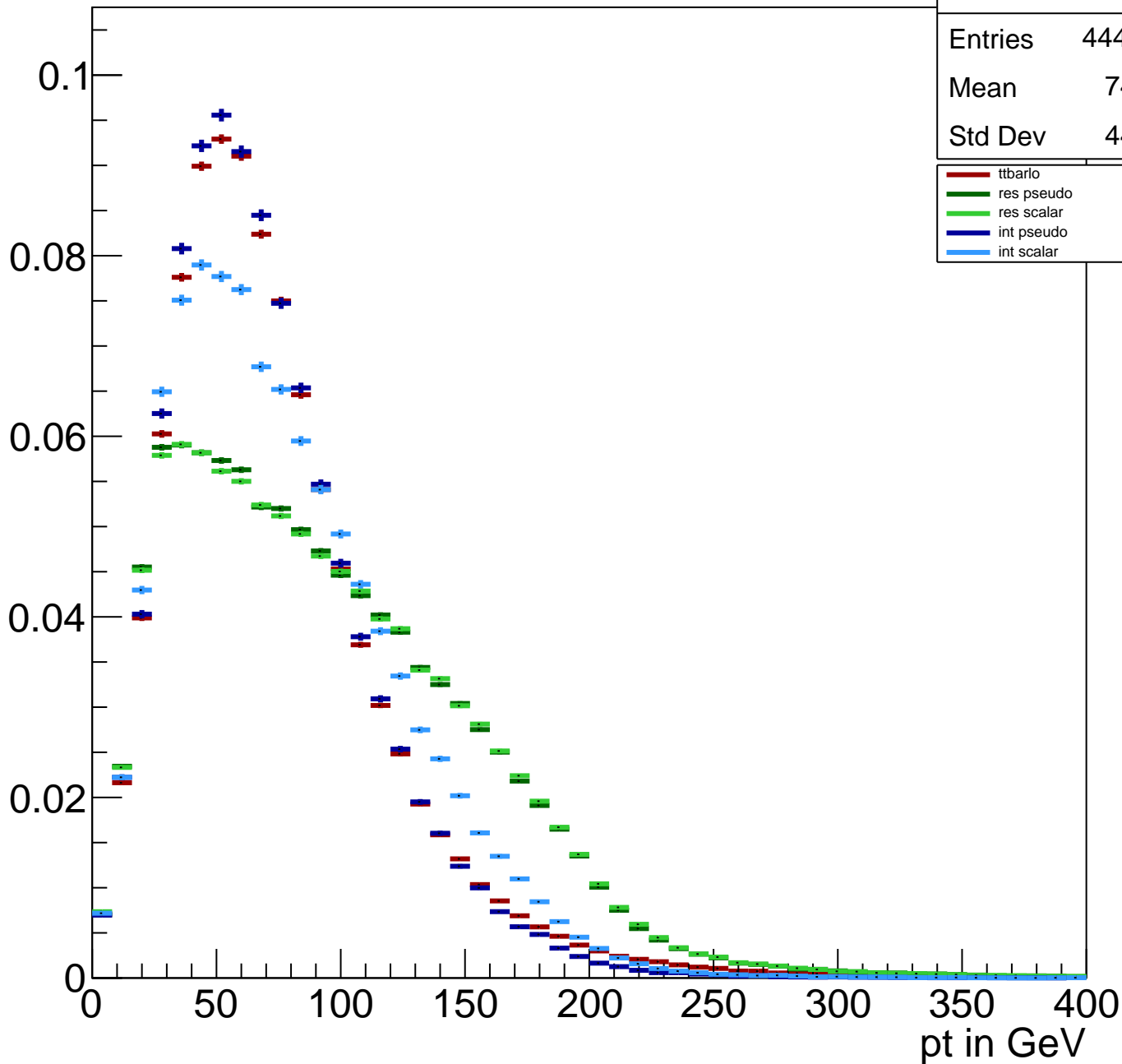
Std Dev 1.437

ttbarlo
res pseudo
res scalar
int pseudo
int scalar



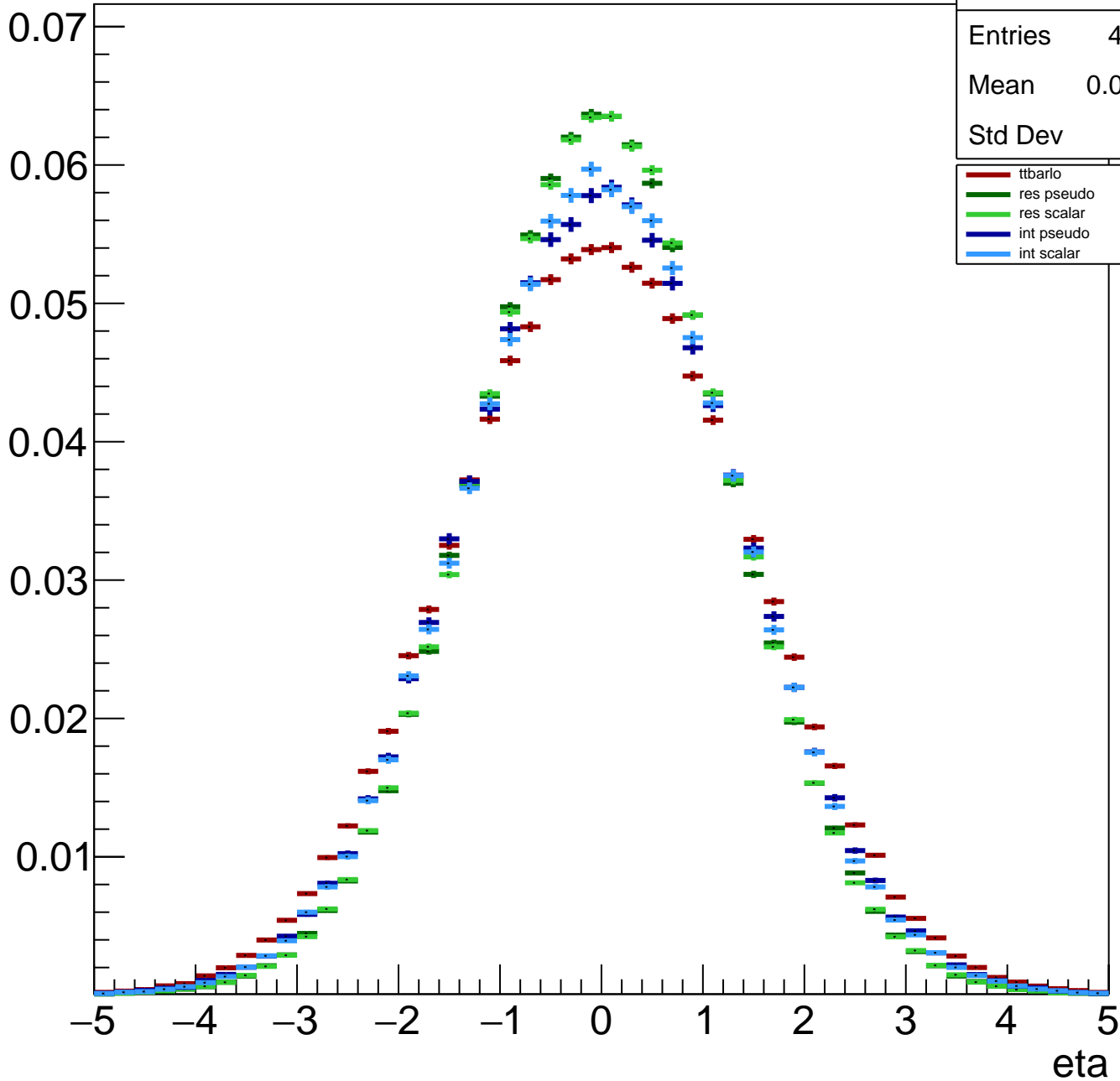
number of events

antibottom_pt_no_cut	
Entries	444924
Mean	74.54
Std Dev	44.46
<div><div></div> ttbarlo</div> <div><div></div> res pseudo</div> <div><div></div> res scalar</div> <div><div></div> int pseudo</div> <div><div></div> int scalar</div>	



number of events

antilepton_eta_no_cut	
Entries	444924
Mean	0.003206
Std Dev	1.445
<div><div></div>ttbarlo</div> <div><div></div>res pseudo</div> <div><div></div>res scalar</div> <div><div></div>int pseudo</div> <div><div></div>int scalar</div>	



number of events

0.14

0.12

0.1

0.08

0.06

0.04

0.02

0

0 50 100 150 200 250 300 350 400

antilepton_pt_no_cut

Entries 444924

Mean 51.85

Std Dev 37.36

ttbarlo

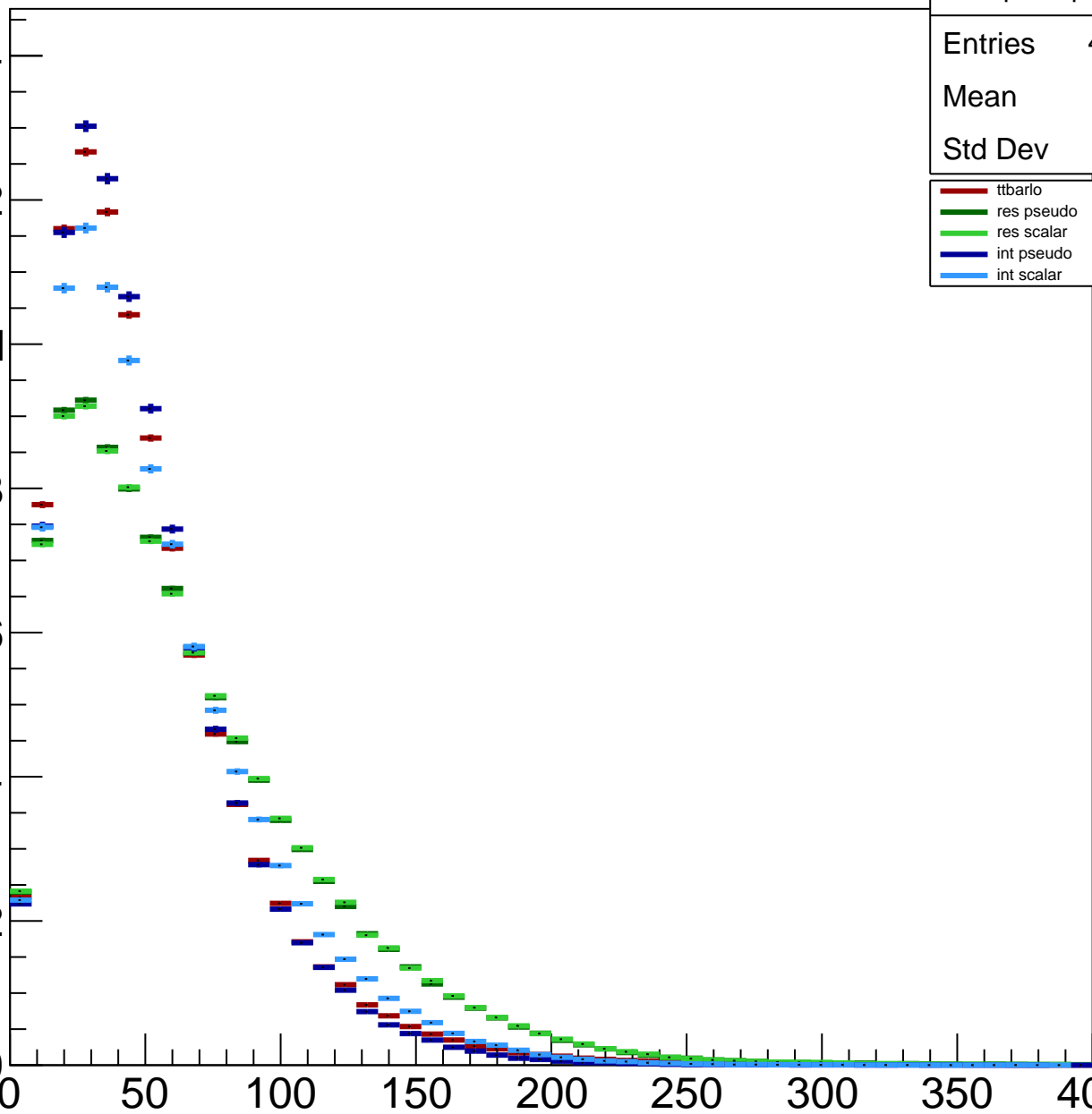
res pseudo

res scalar

int pseudo

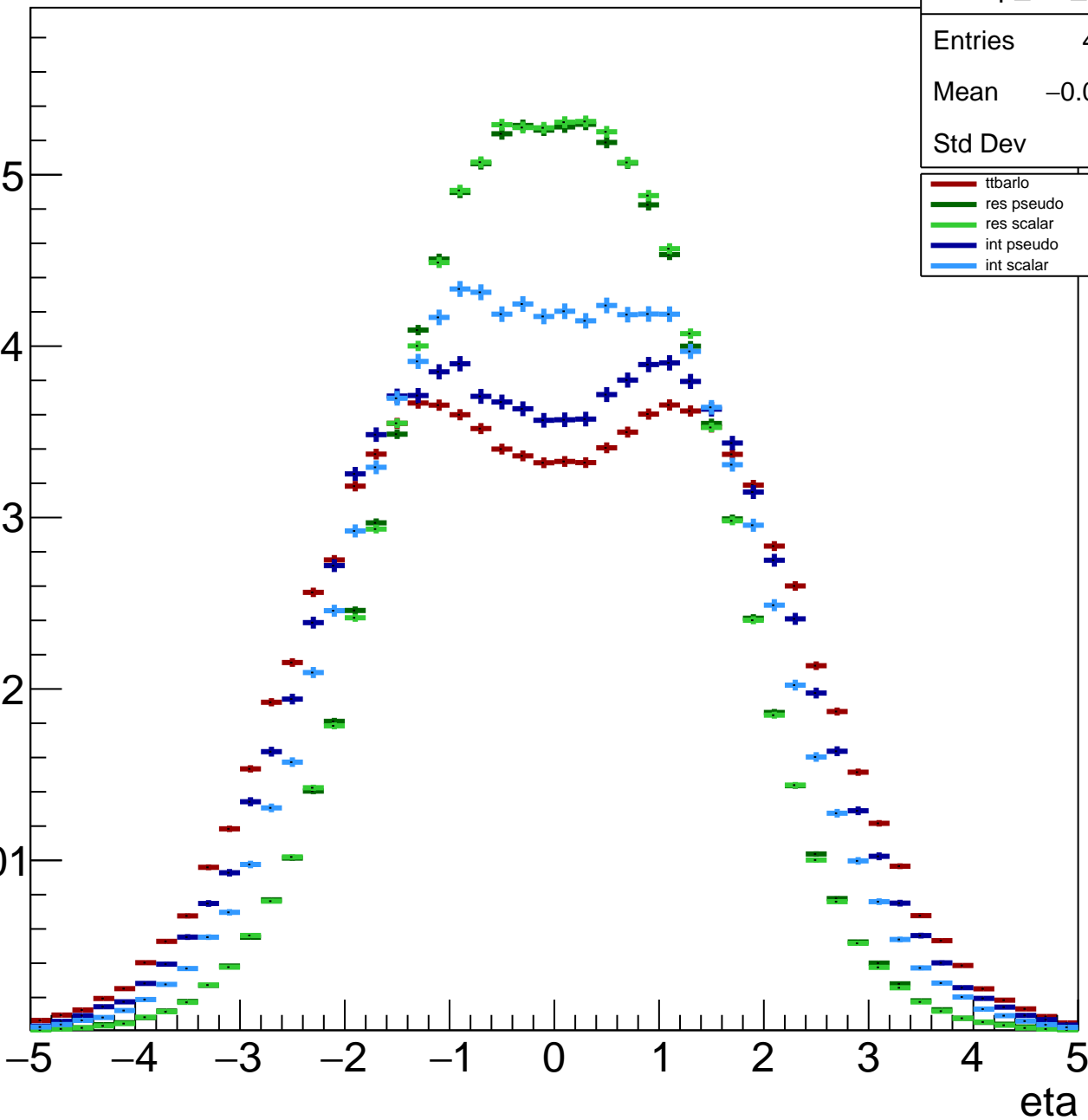
int scalar

pt in GeV



number of events

antitop_eta_no_cut	
Entries	444924
Mean	-0.001763
Std Dev	1.838
<div><div></div>ttbarlo</div> <div><div></div>res pseudo</div> <div><div></div>res scalar</div> <div><div></div>int pseudo</div> <div><div></div>int scalar</div>	

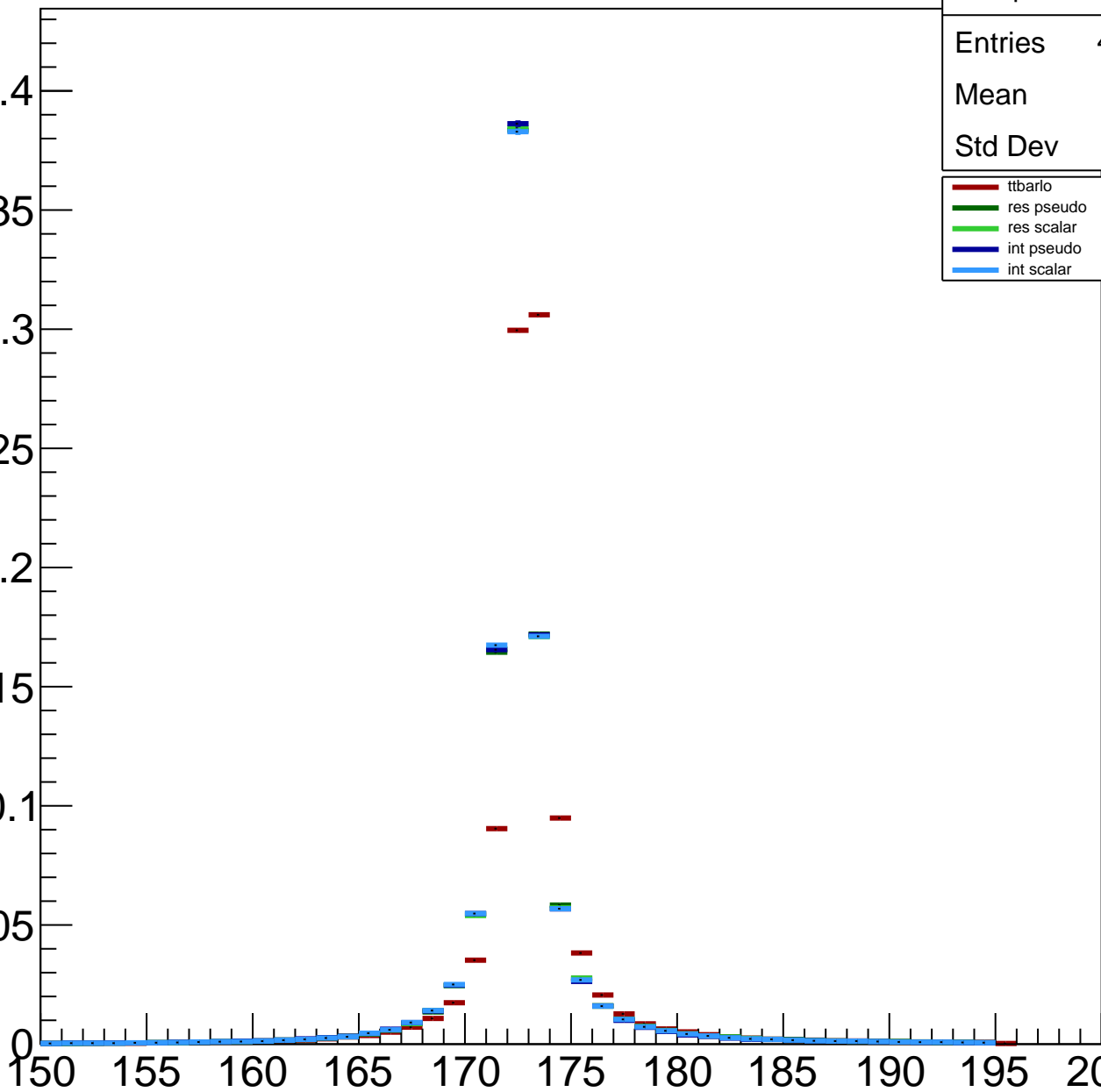


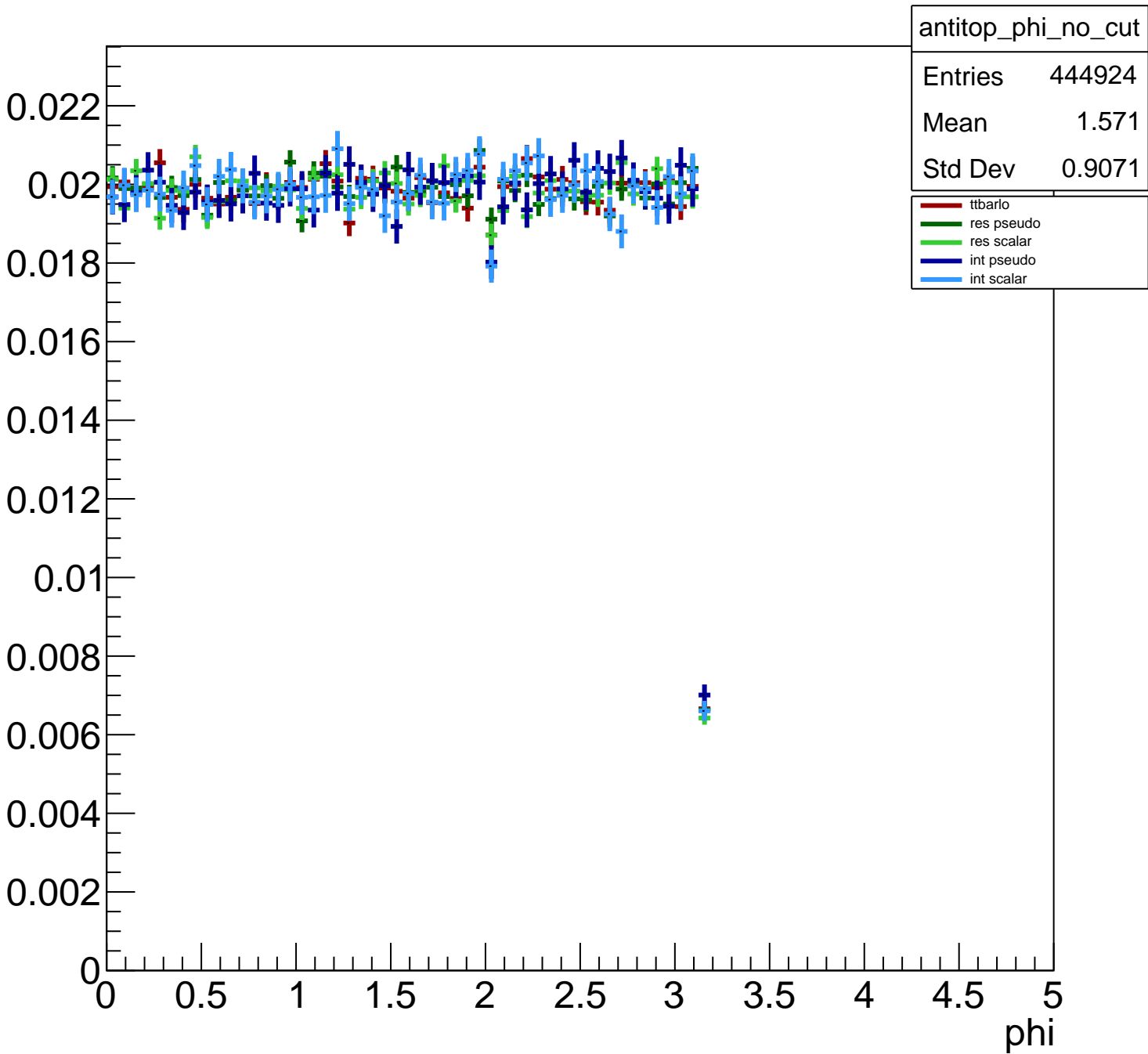
number of events

0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0

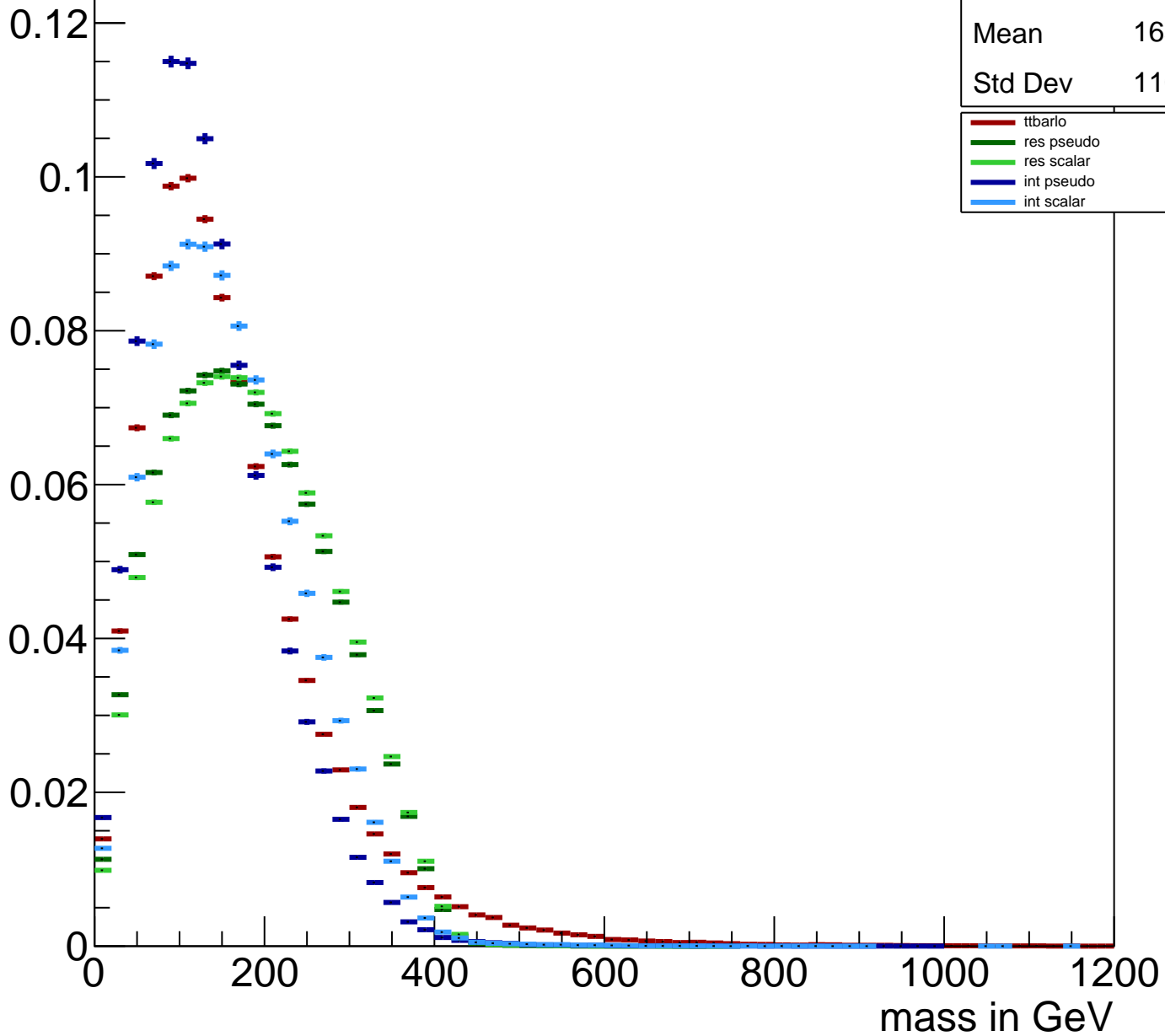
antitop_mass_no_cut	
Entries	444924
Mean	173.2
Std Dev	3.189
<div><div></div> ttbarlo</div> <div><div></div> res pseudo</div> <div><div></div> res scalar</div> <div><div></div> int pseudo</div> <div><div></div> int scalar</div>	

150 155 160 165 170 175 180 185 190 195 200
mass in GeV





number of events



number of events

0.07

0.06

0.05

0.04

0.03

0.02

0.01

-5 -4 -3 -2 -1 0 1 2 3 4 5

eta

bottom_eta_no_cut

Entries 444924

Mean 0.001385

Std Dev 1.441

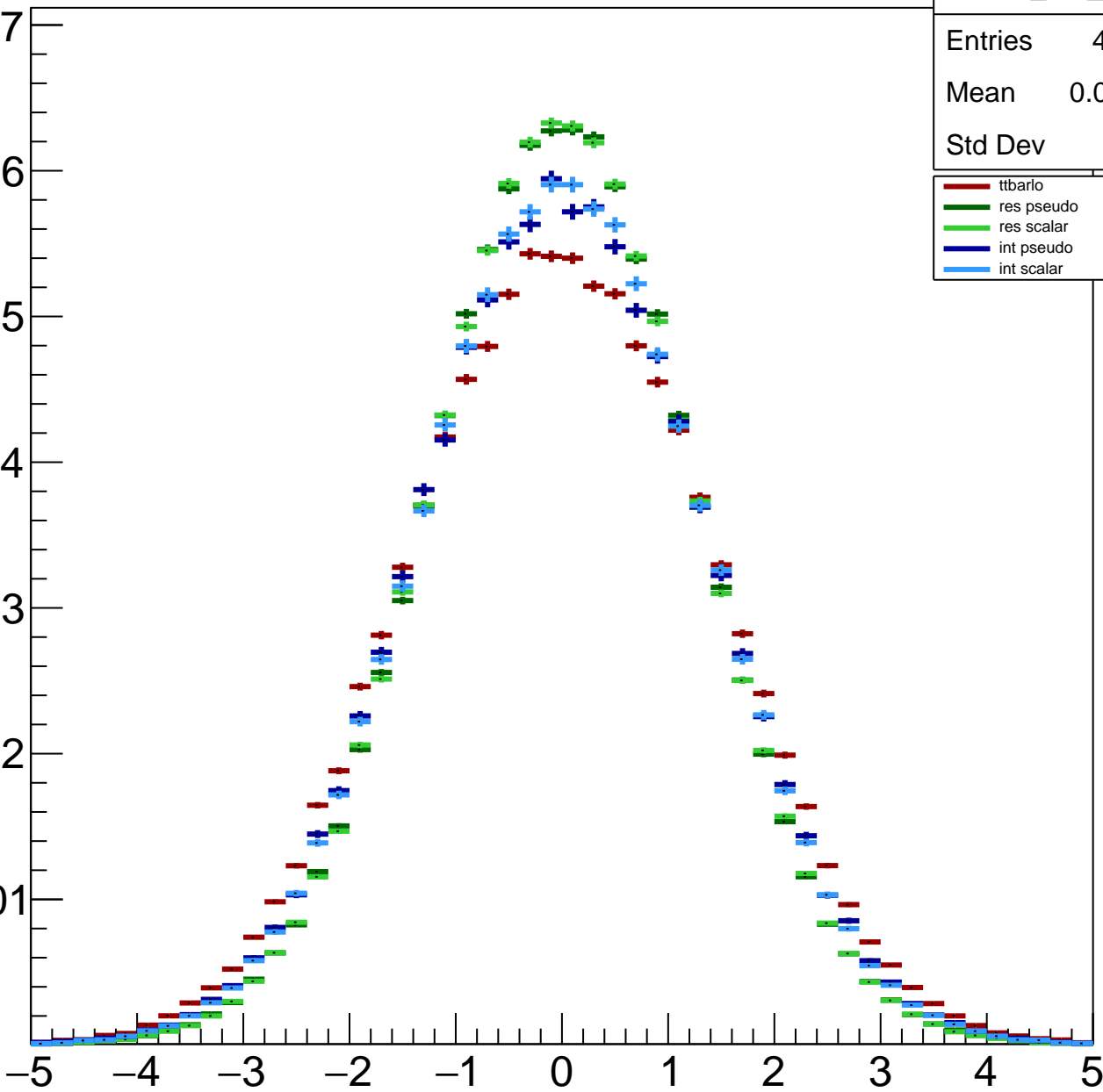
ttbarlo

res pseudo

res scalar

int pseudo

int scalar



number of events

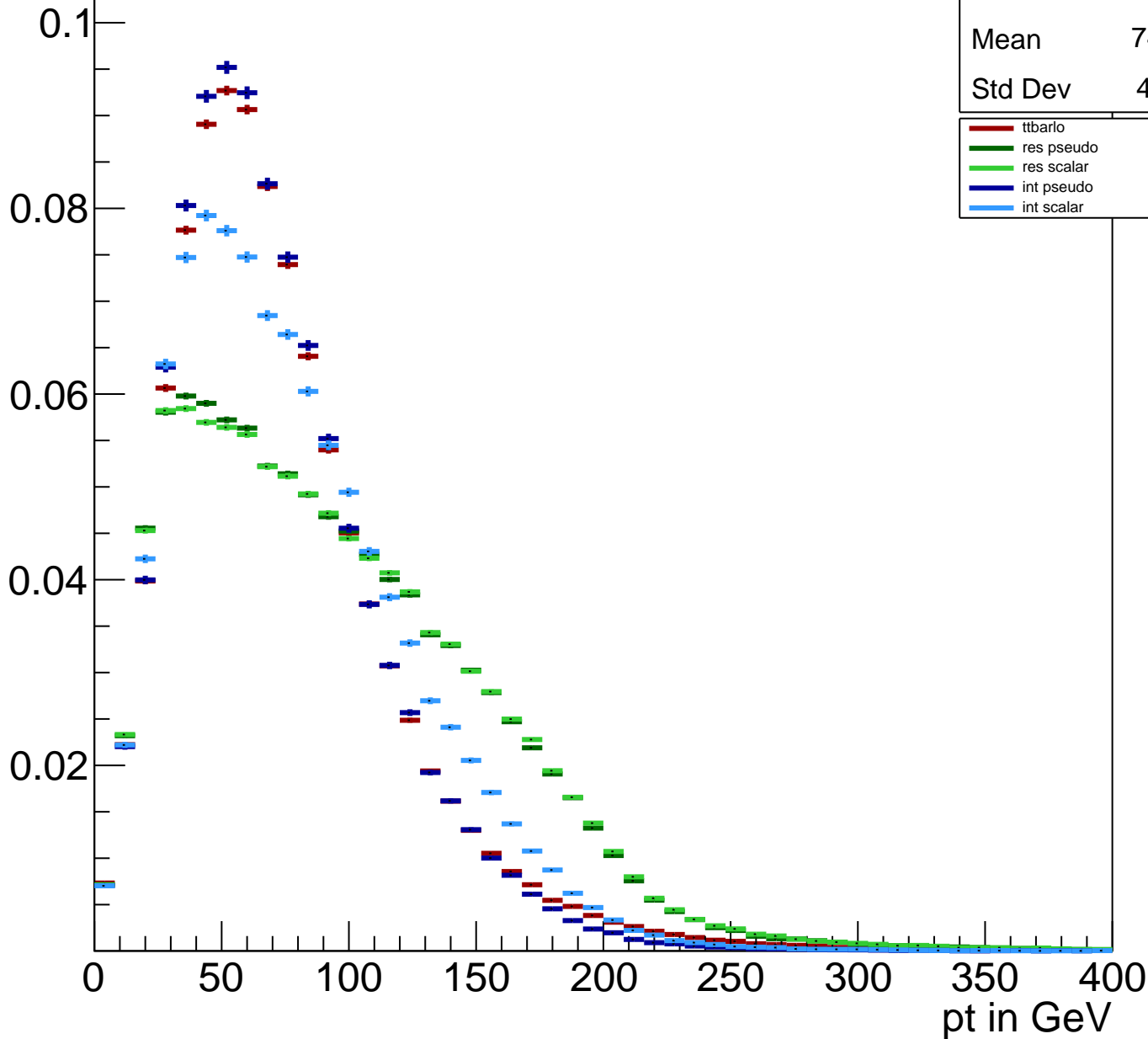
bottom_pt_no_cut

Entries 444924

Mean 74.63

Std Dev 44.61

ttbarlo
res pseudo
res scalar
int pseudo
int scalar



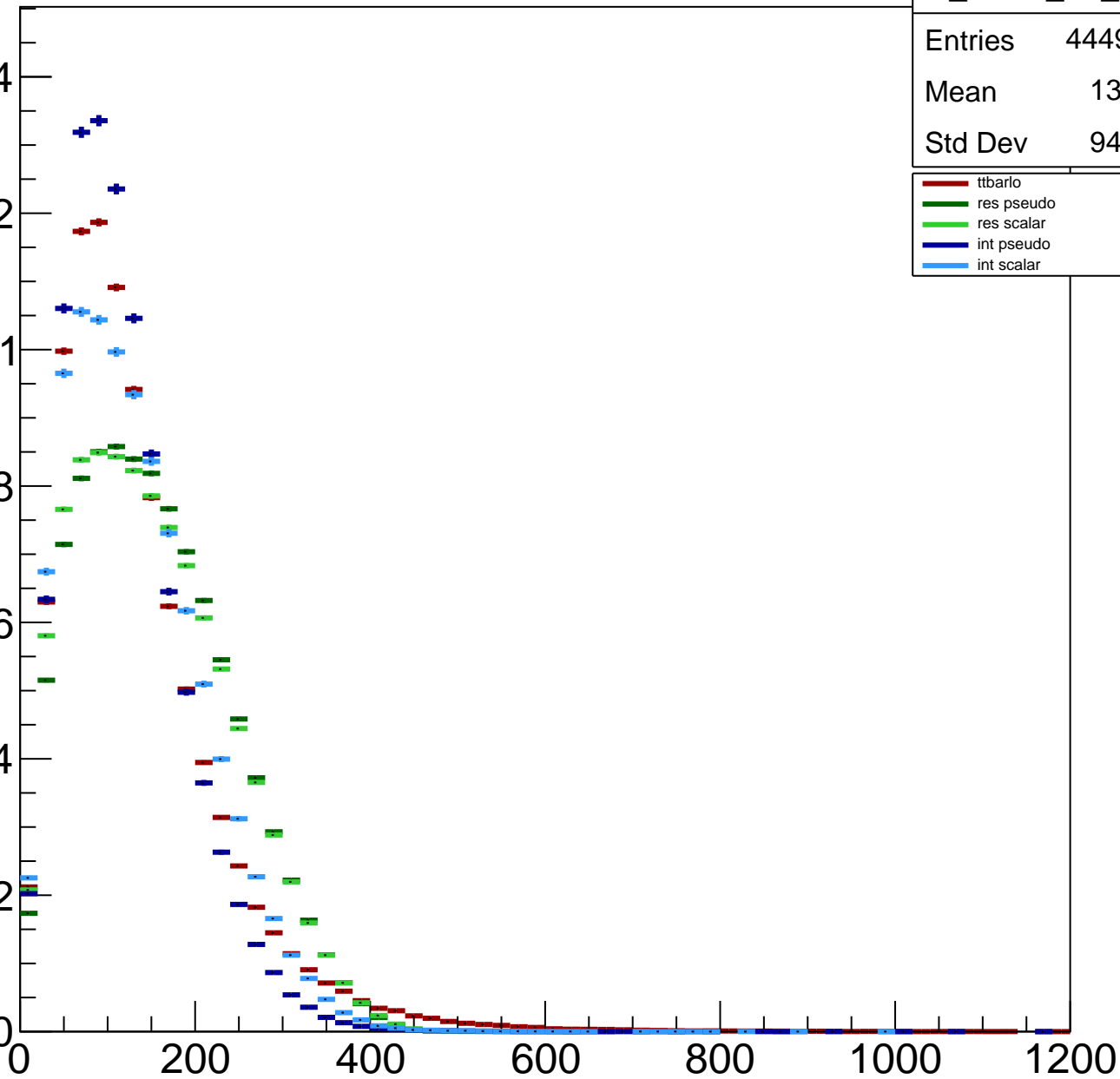
number of events

0.14
0.12
0.1
0.08
0.06
0.04
0.02
0

lb_mass_no_cut	
Entries	444924
Mean	135.9
Std Dev	94.66

ttbarlo
res pseudo
res scalar
int pseudo
int scalar

mass in GeV

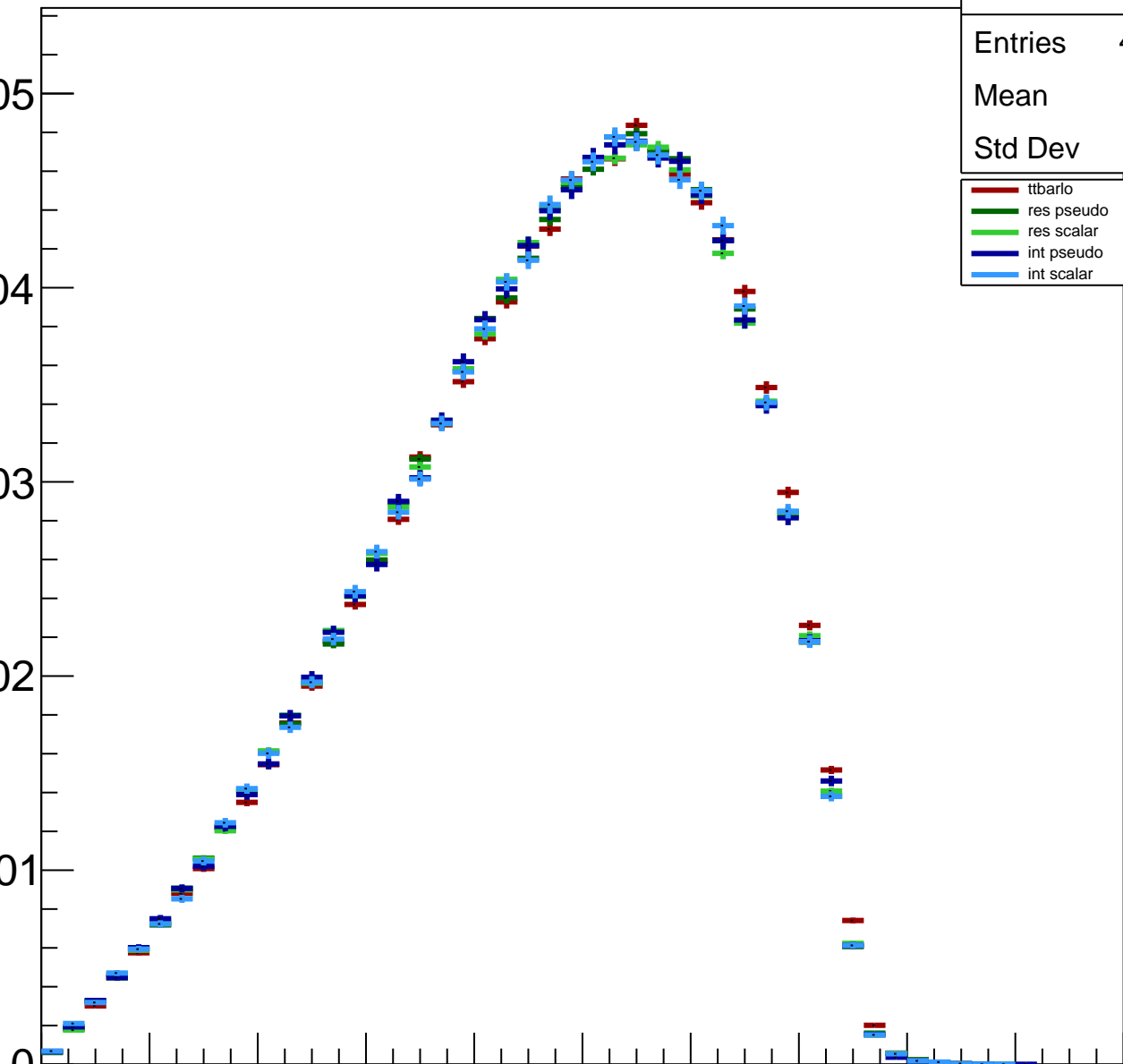


number of events

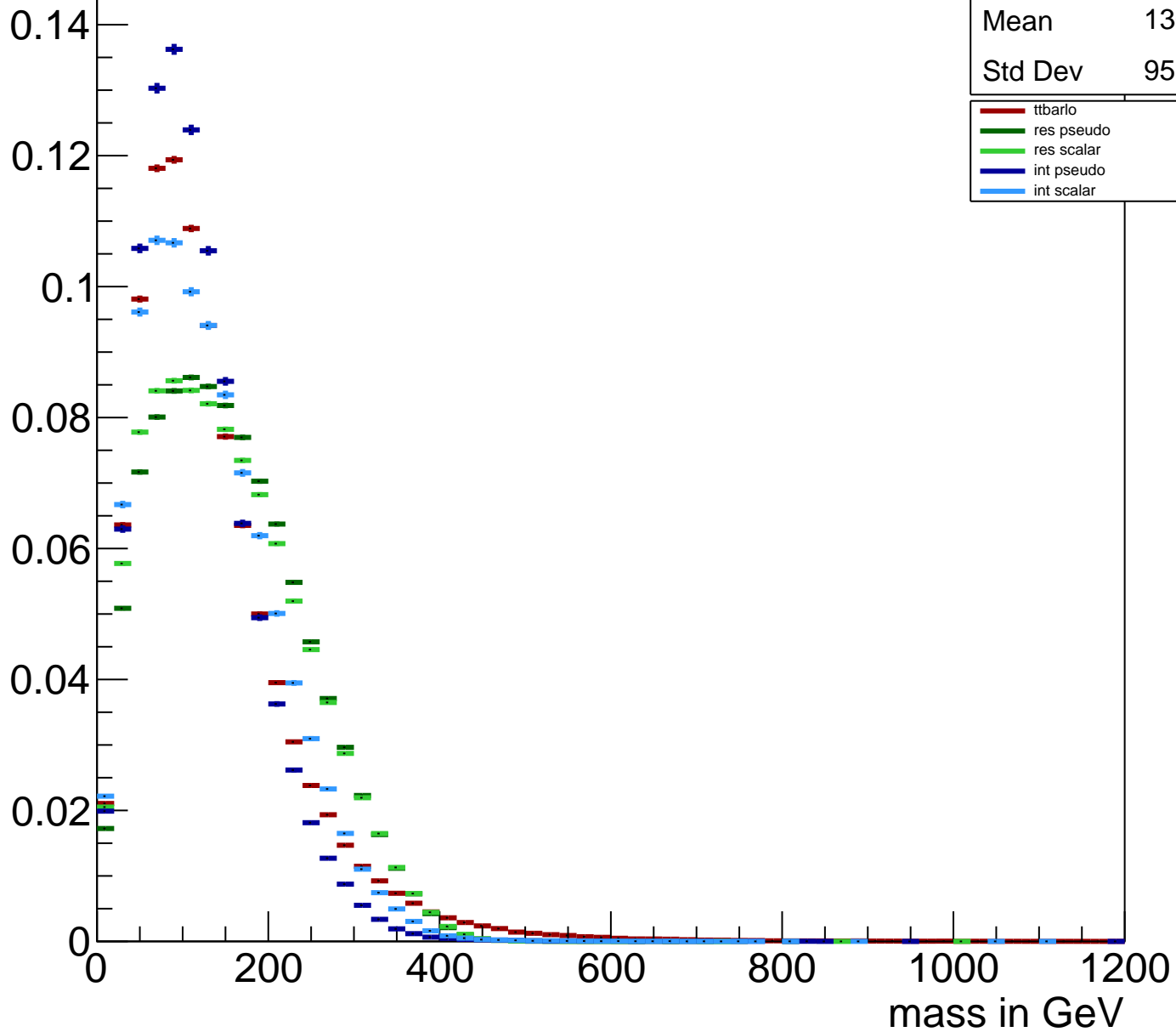
0.05
0.04
0.03
0.02
0.01
0

lbarb_mass_no_cut	
Entries	444924
Mean	93.86
Std Dev	32.08
<div><div></div> ttbarlo</div> <div><div></div> res pseudo</div> <div><div></div> res scalar</div> <div><div></div> int pseudo</div> <div><div></div> int scalar</div>	

0 20 40 60 80 100 120 140 160 180 200
mass in GeV



number of events

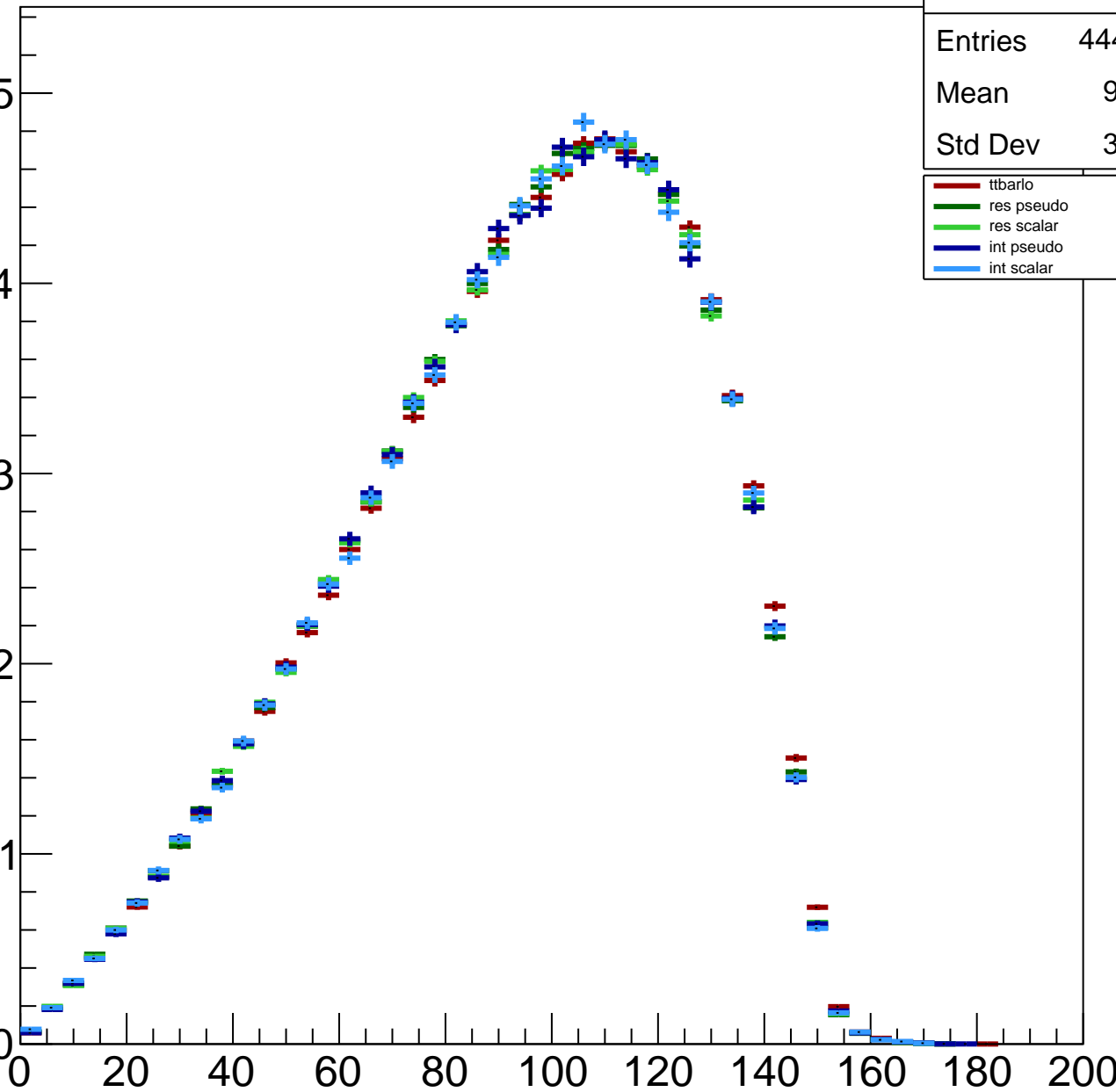


number of events

0.05
0.04
0.03
0.02
0.01
0

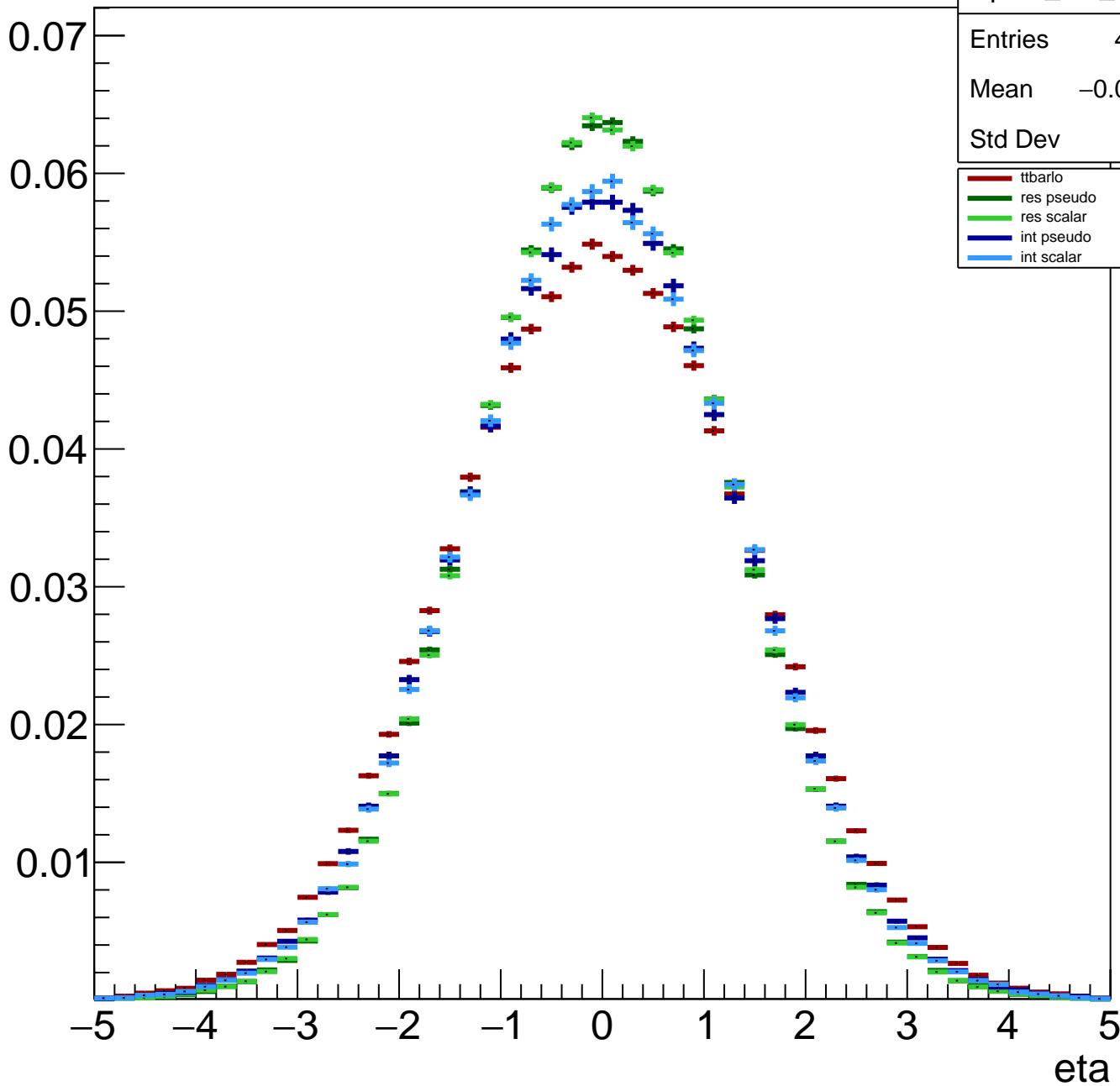
lbbbar_mass_no_cut	
Entries	444924
Mean	93.73
Std Dev	32.15
<div><div></div> ttbarlo</div> <div><div></div> res pseudo</div> <div><div></div> res scalar</div> <div><div></div> int pseudo</div> <div><div></div> int scalar</div>	

mass in GeV



number of events

lepton_eta_no_cut	
Entries	444924
Mean	-0.005816
Std Dev	1.437
<div><div></div> ttbarlo</div> <div><div></div> res pseudo</div> <div><div></div> res scalar</div> <div><div></div> int pseudo</div> <div><div></div> int scalar</div>	



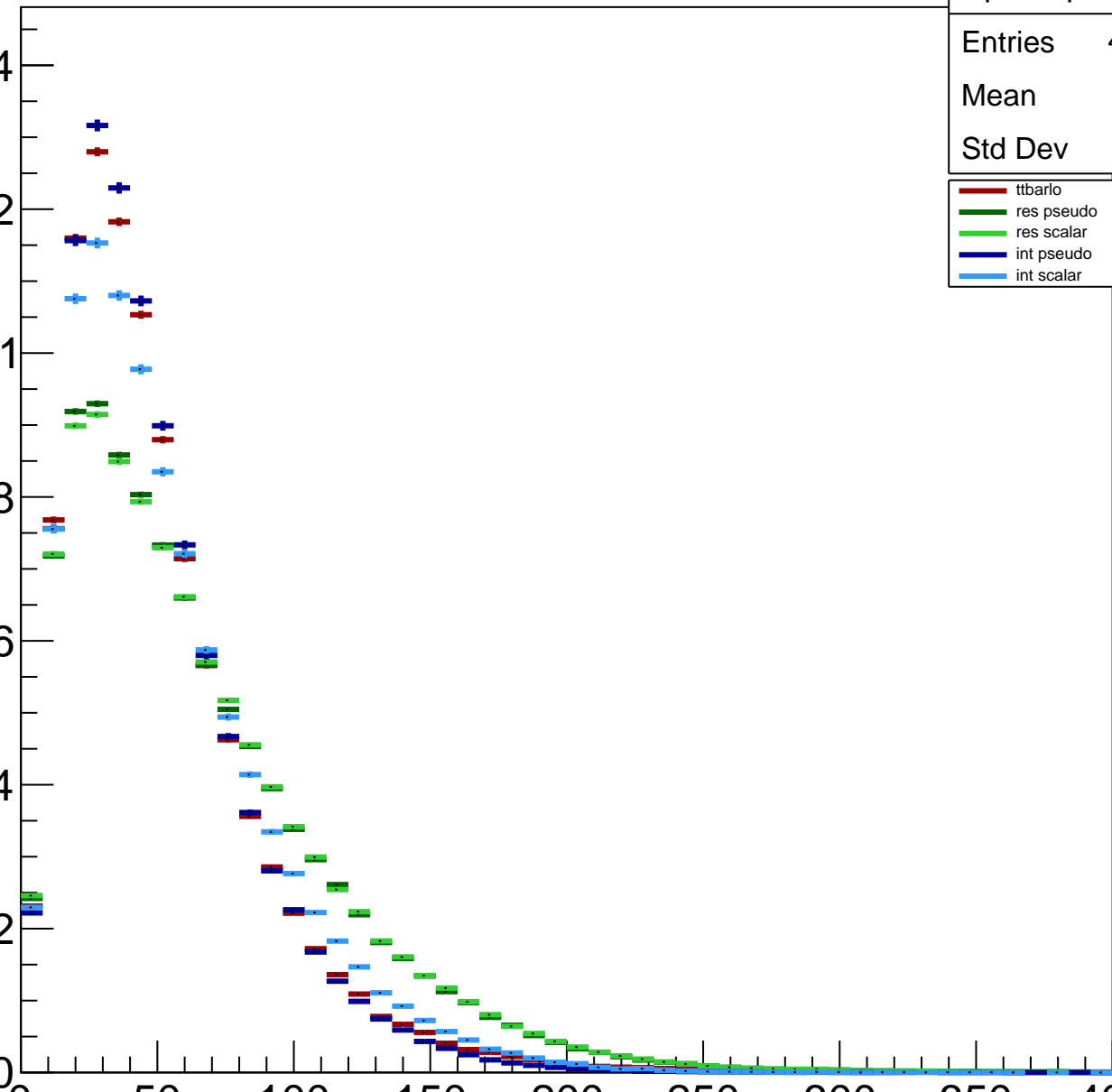
number of events

0.14
0.12
0.1
0.08
0.06
0.04
0.02
0

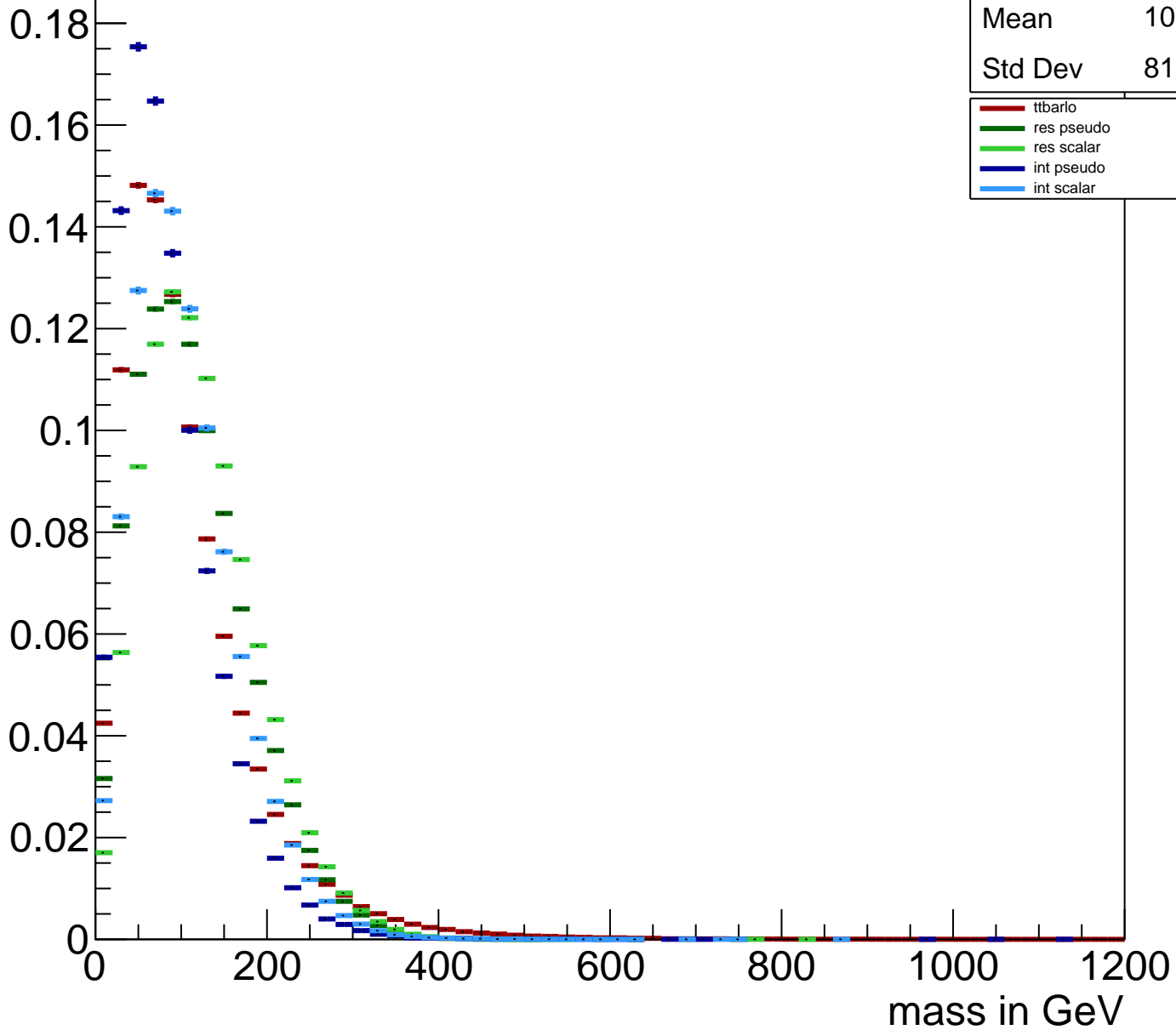
lepton_pt_no_cut	
Entries	444924
Mean	51.68
Std Dev	37.1

- ttbarlo
- res pseudo
- res scalar
- int pseudo
- int scalar

pt in GeV



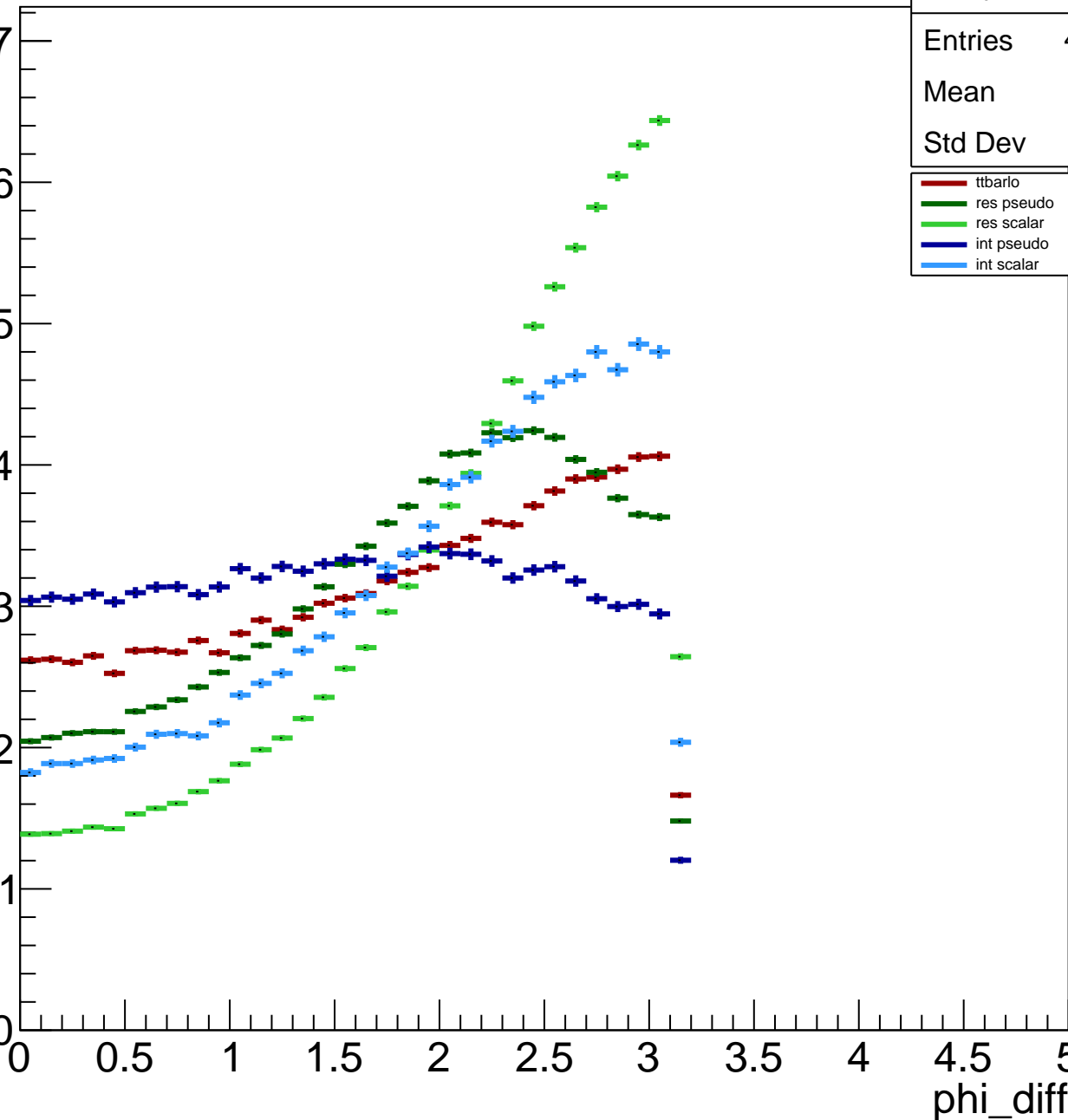
number of events

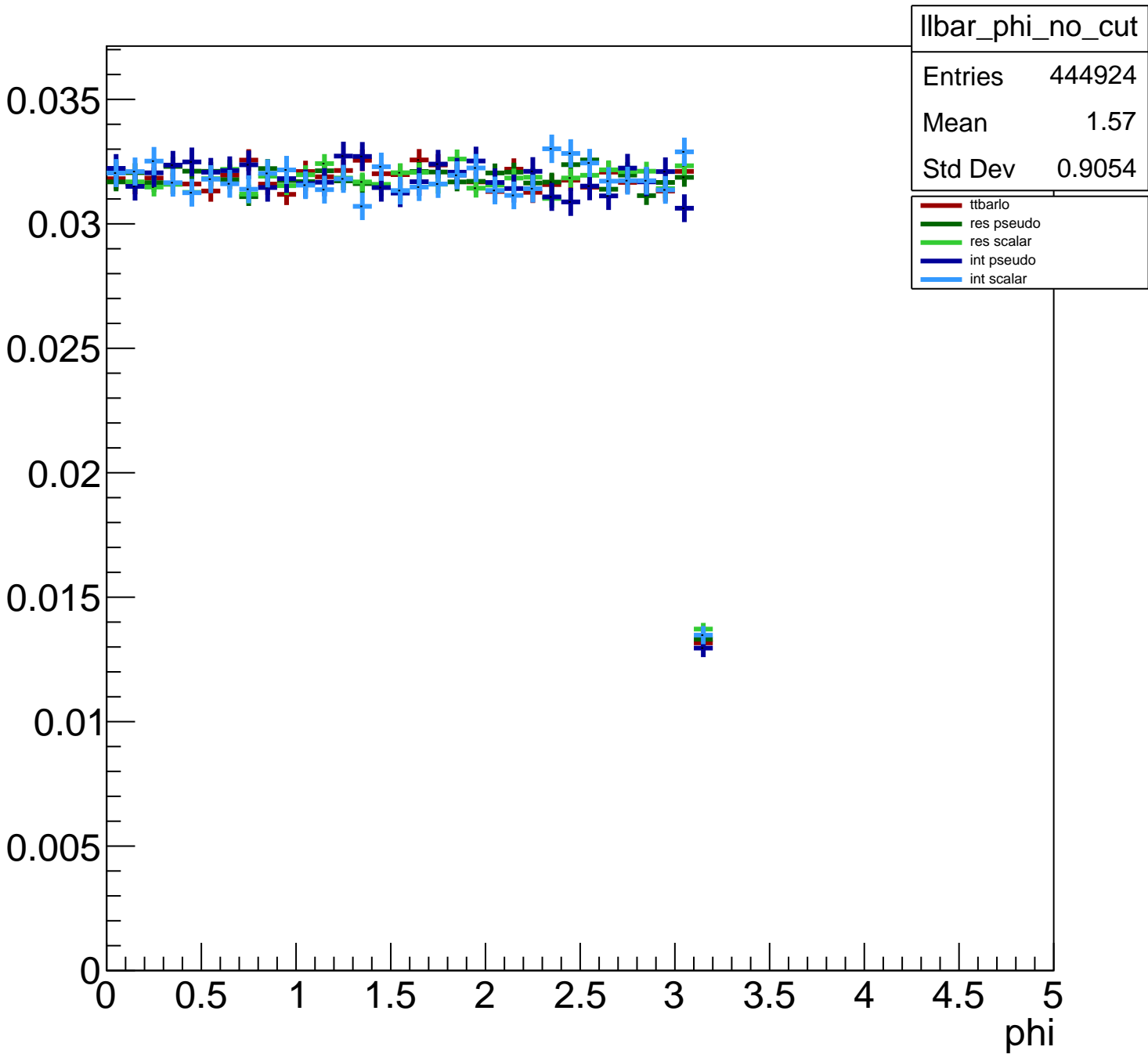


number of events

0.07
0.06
0.05
0.04
0.03
0.02
0.01
0

llbar_phi_diff_no_cut	
Entries	444924
Mean	1.711
Std Dev	0.9083
<div><div></div> ttbarlo</div> <div><div></div> res pseudo</div> <div><div></div> res scalar</div> <div><div></div> int pseudo</div> <div><div></div> int scalar</div>	





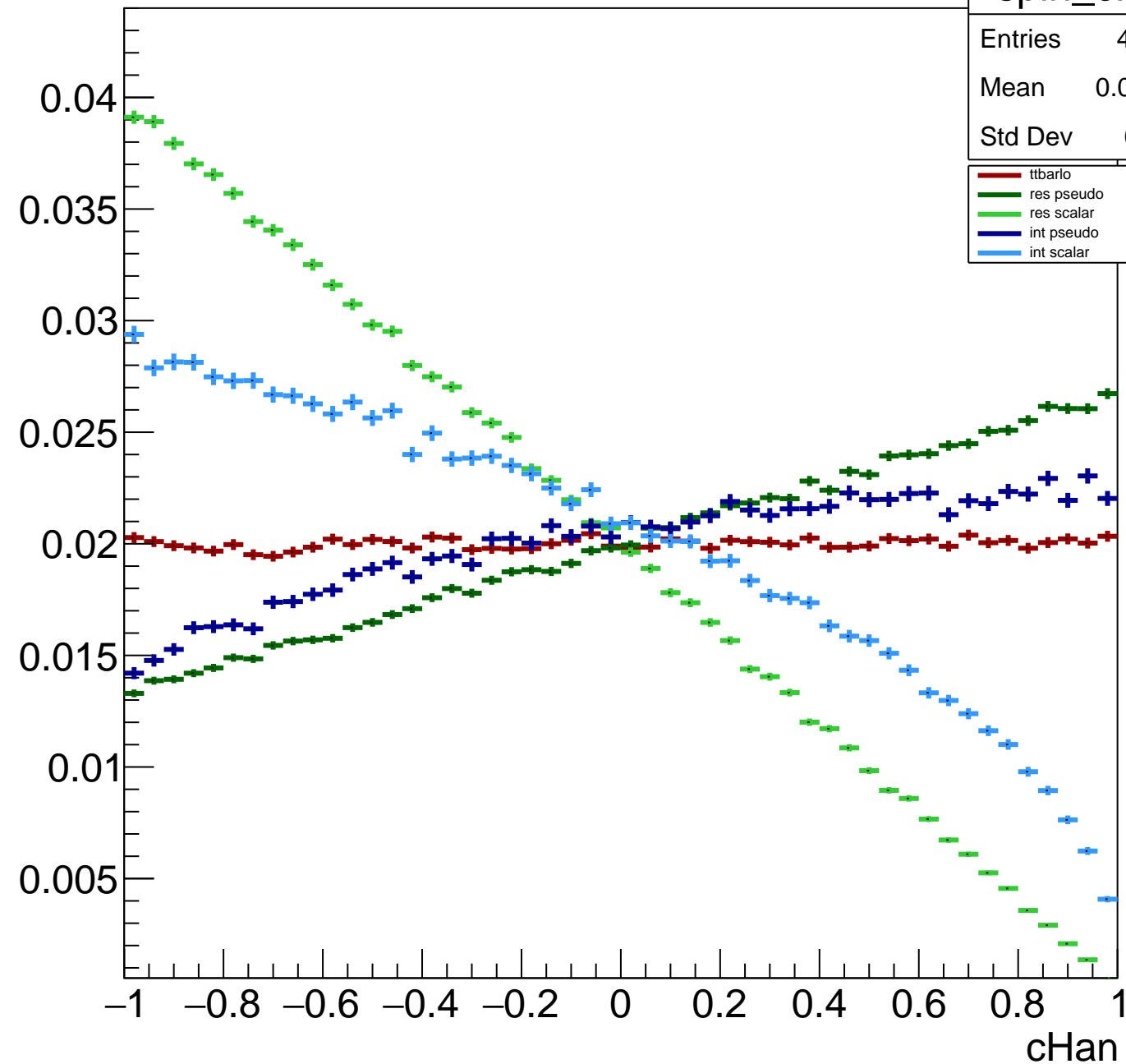
spin_cHan

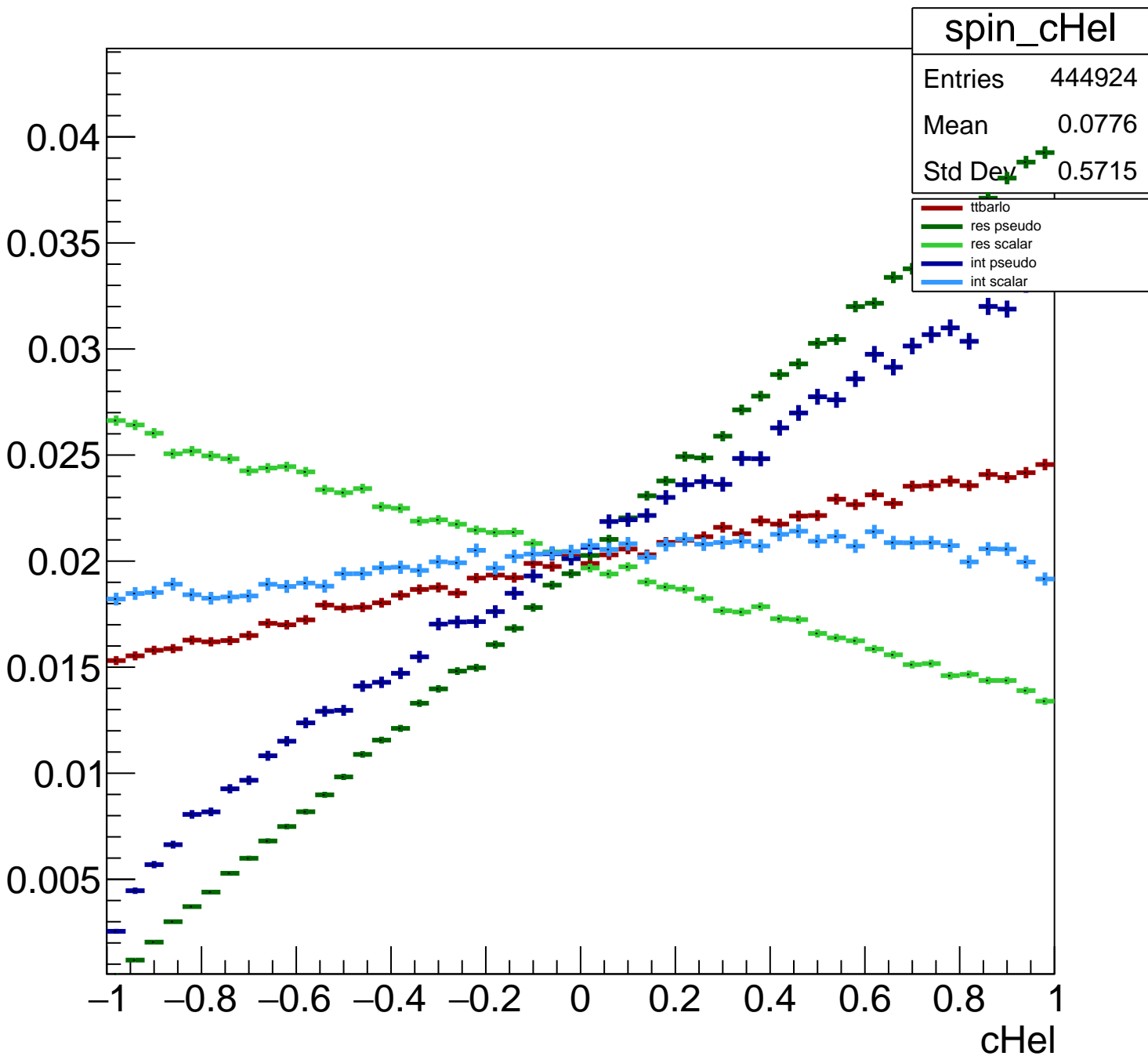
Entries 444924

Mean 0.002117

Std Dev 0.5775

— ttbarlo
— res pseudo
— res scalar
— int pseudo
— int scalar





number of events

0.07
0.06
0.05
0.04
0.03
0.02

-1 -0.8 -0.6 -0.4 -0.2 0 0.2 0.4 0.6 0.8 1

cLab

spin_cLab

Entries 444924

Mean 0.1107

Std Dev 0.6224

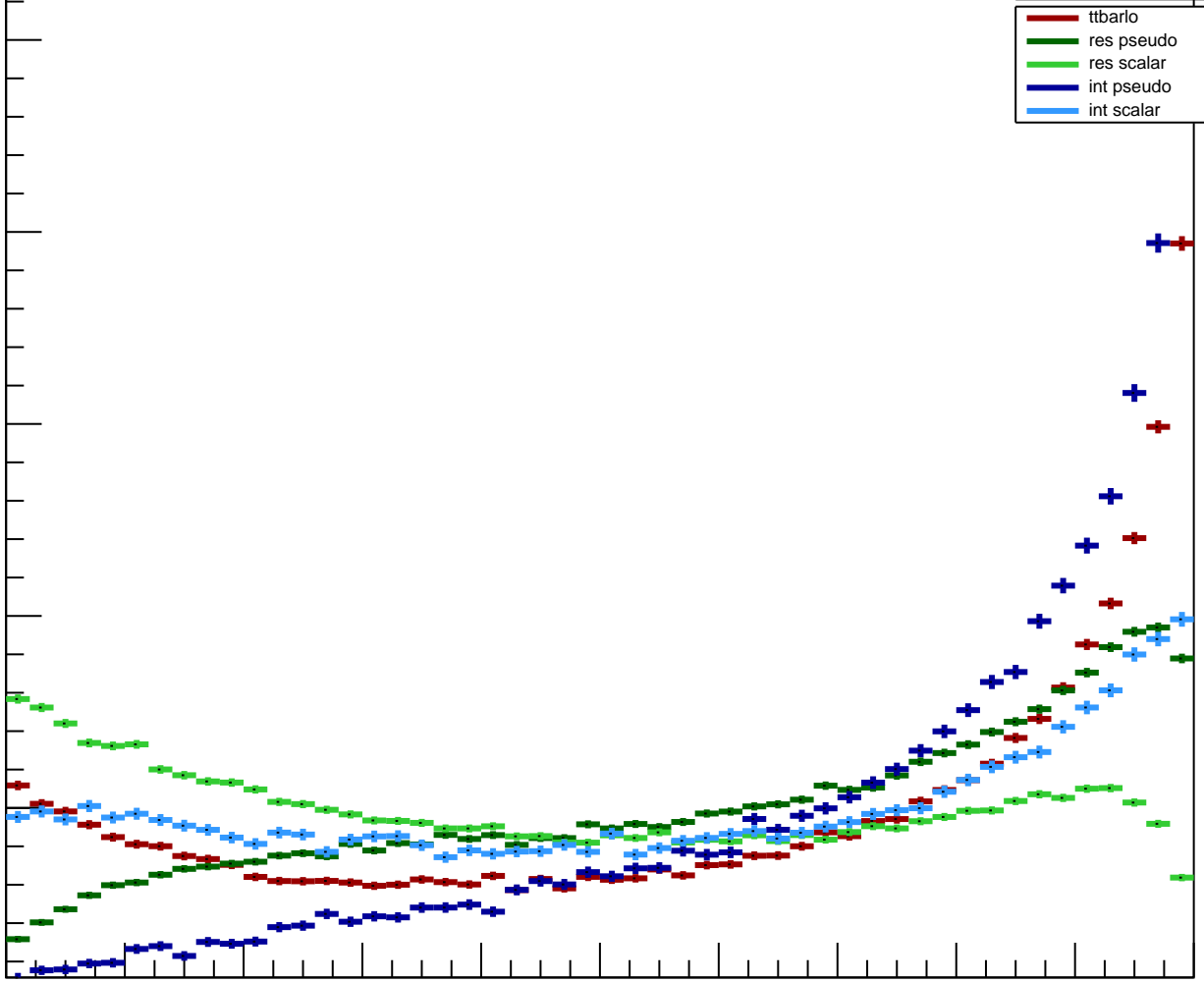
ttbarlo

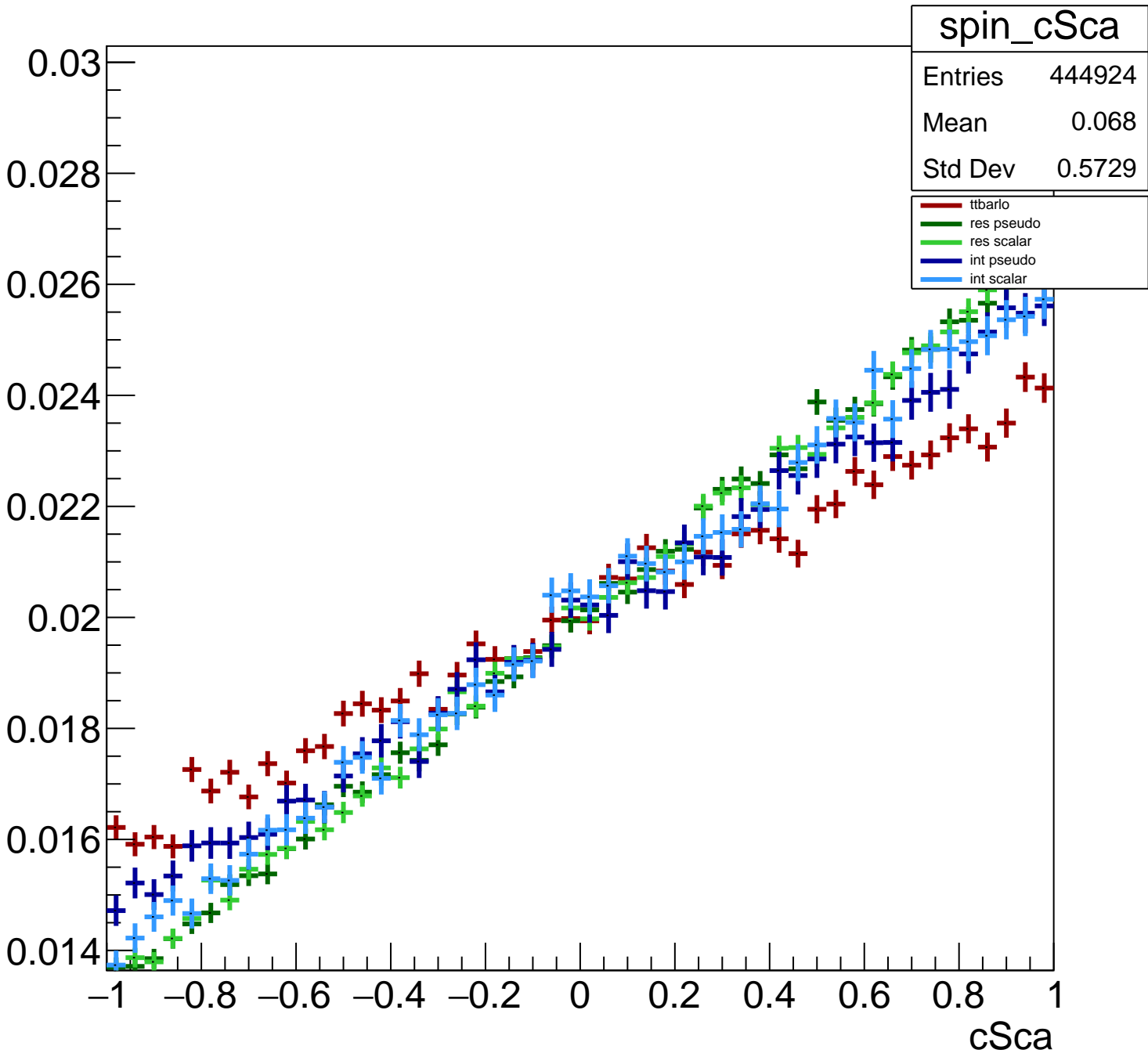
res pseudo

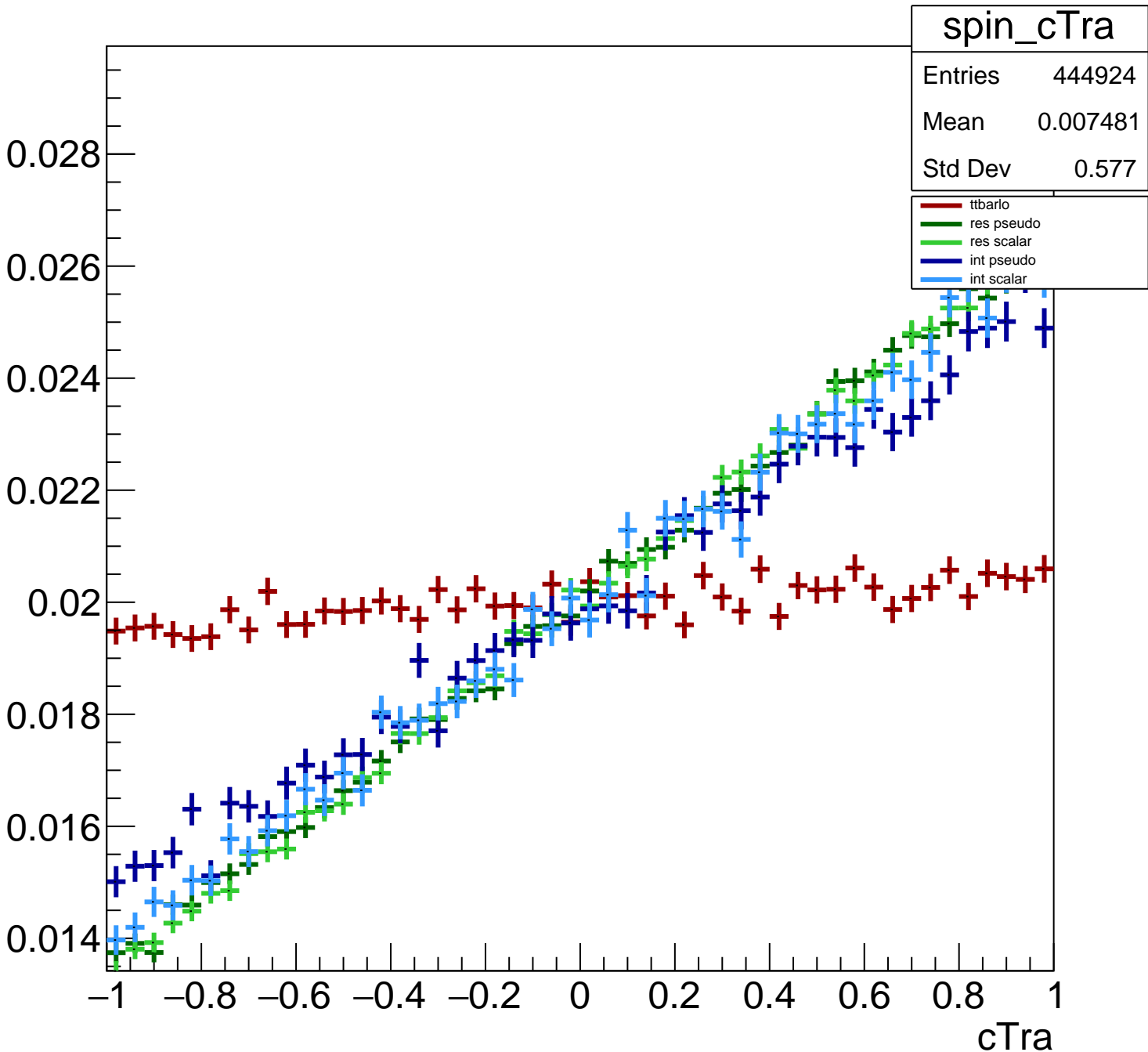
res scalar

int pseudo

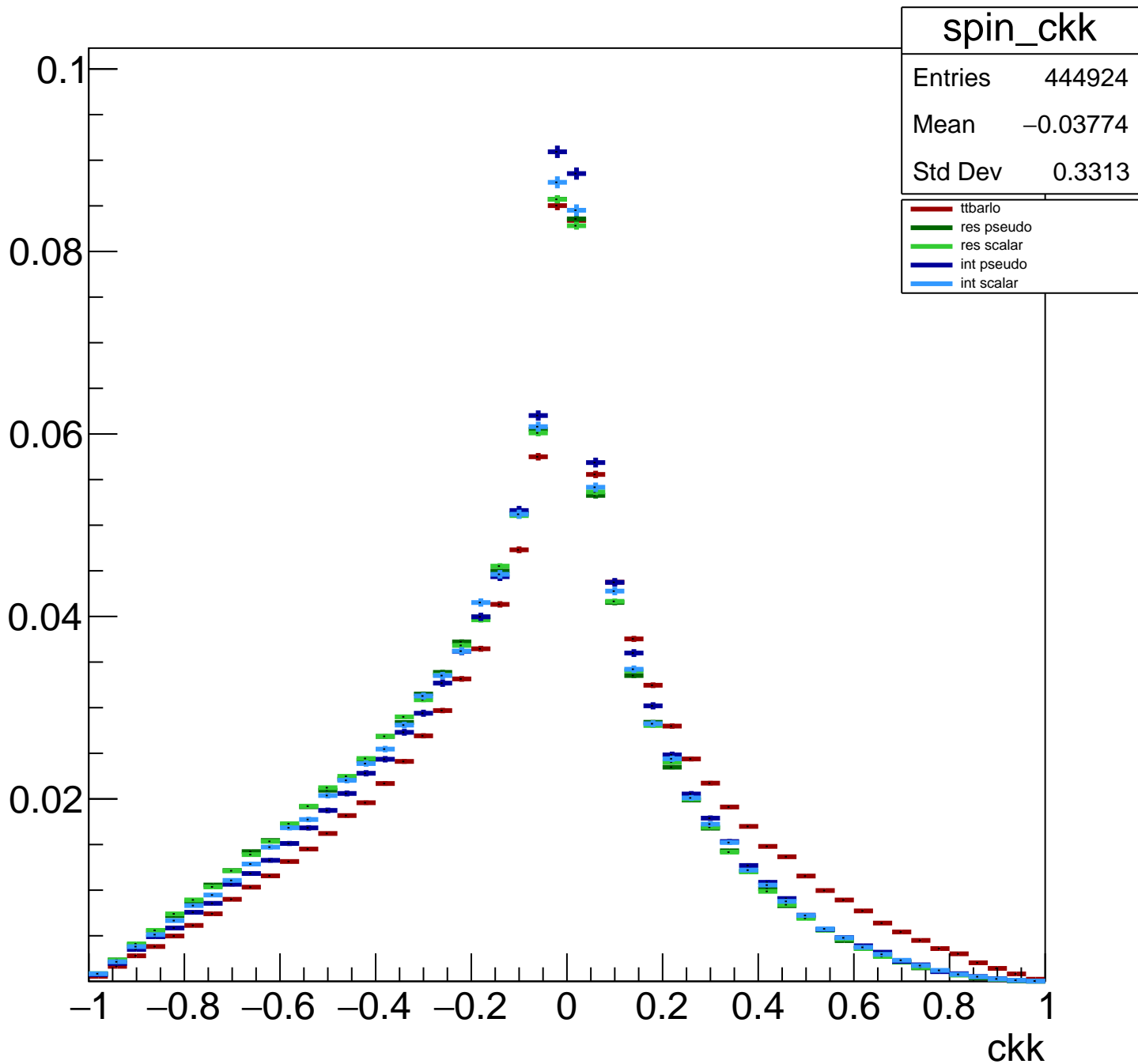
int scalar







number of events



number of events

0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01

-1 -0.8 -0.6 -0.4 -0.2 0 0.2 0.4 0.6 0.8 1

cnn

spin_cnn

Entries 444924

Mean -0.03506

Std Dev 0.3305

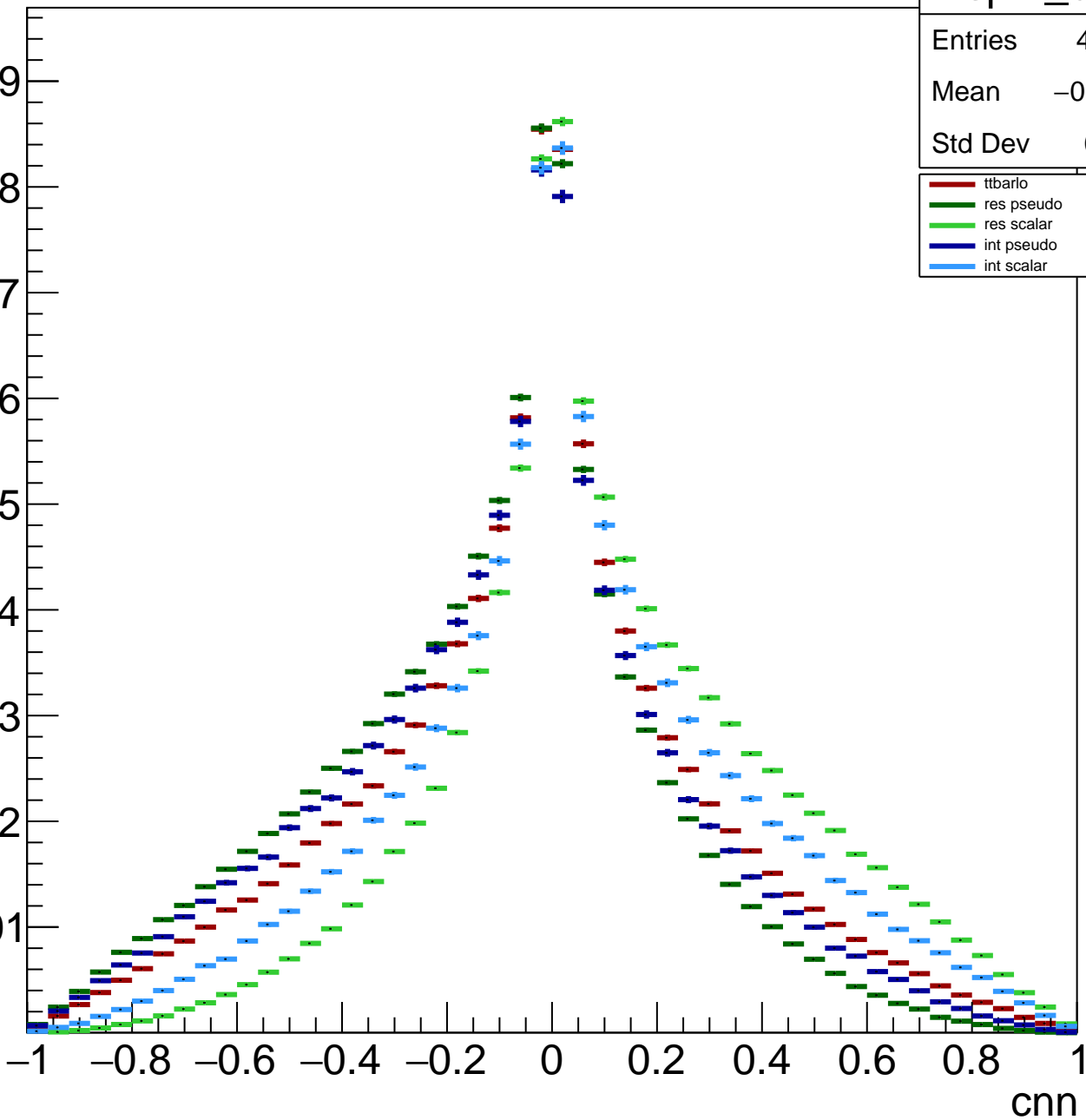
ttbarlo

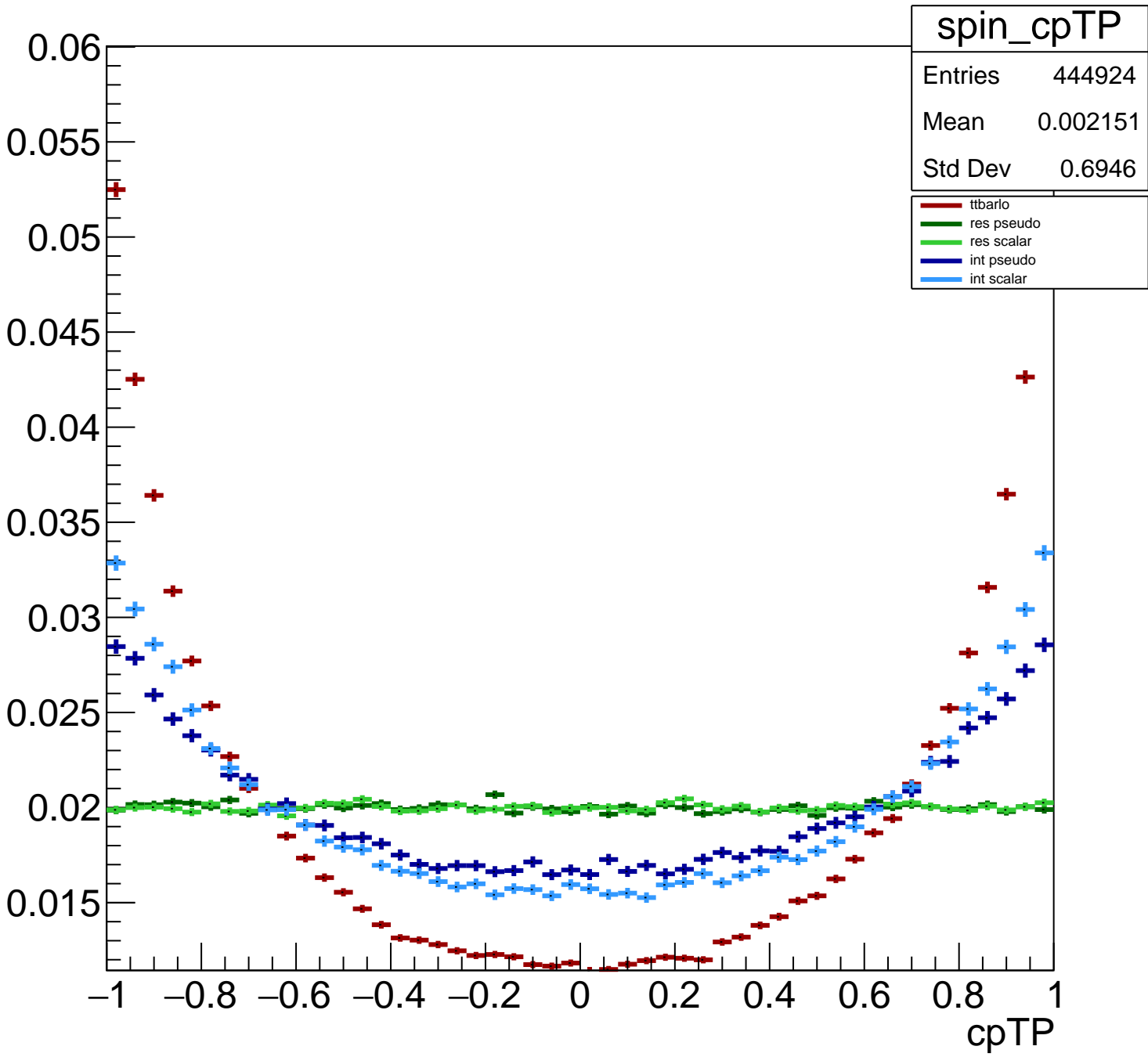
res pseudo

res scalar

int pseudo

int scalar





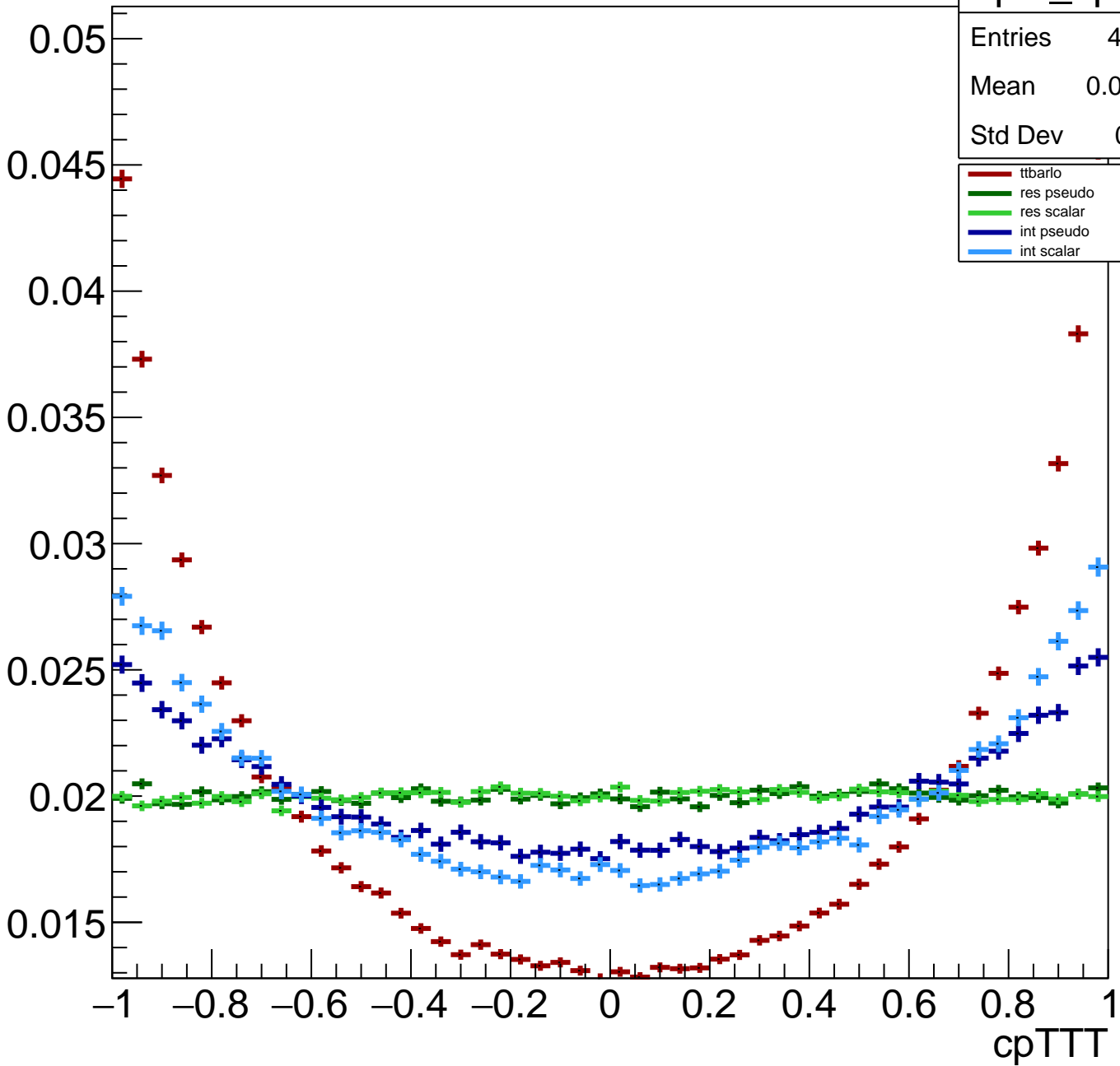
spin_cpTTT

Entries 444924

Mean 0.004273

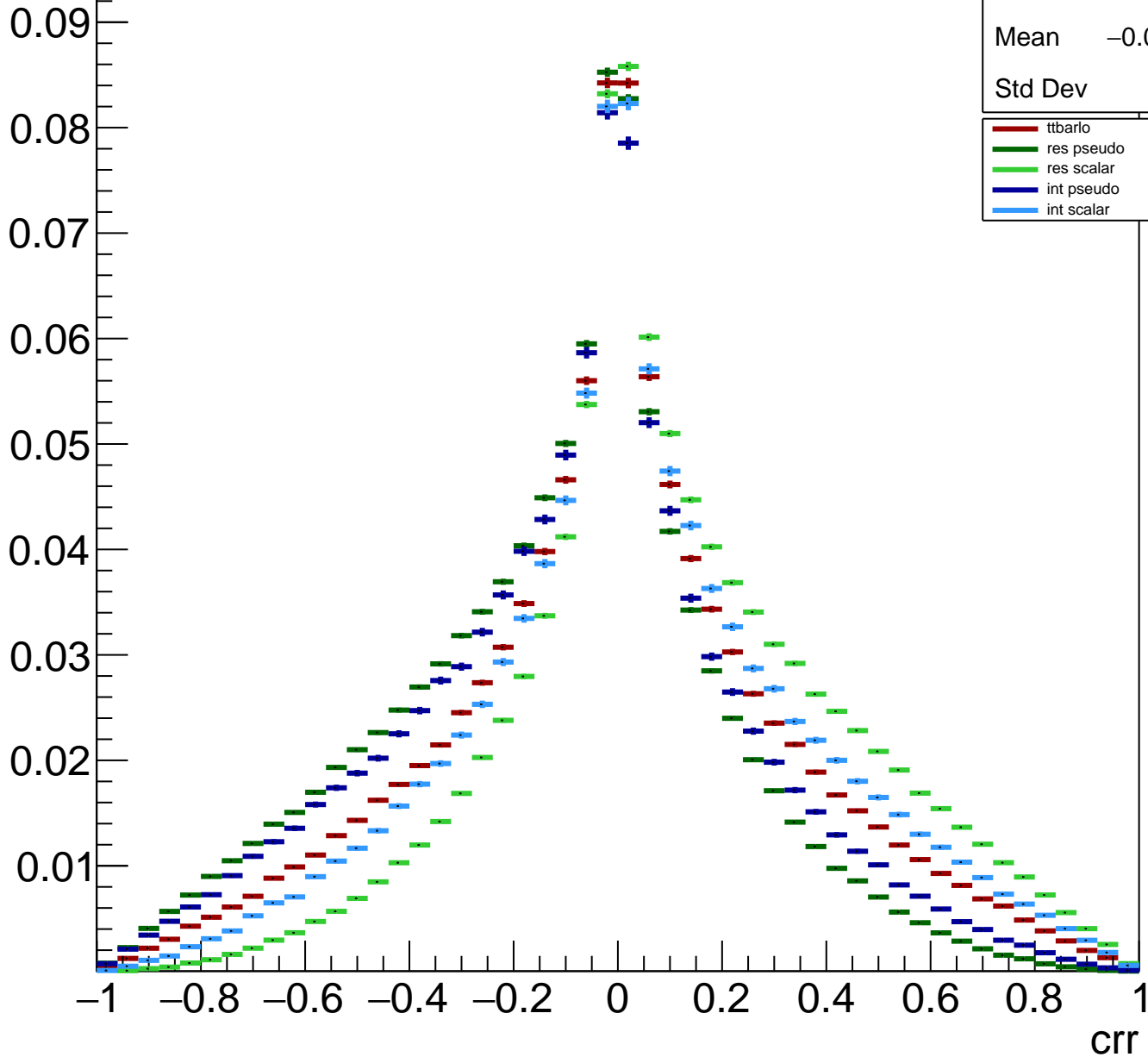
Std Dev 0.6732

ttbarlo
res pseudo
res scalar
int pseudo
int scalar



number of events

spin_crr	
Entries	444924
Mean	-0.004799
Std Dev	0.3336
<div><div></div>ttbarlo</div> <div><div></div>res pseudo</div> <div><div></div>res scalar</div> <div><div></div>int pseudo</div> <div><div></div>int scalar</div>	



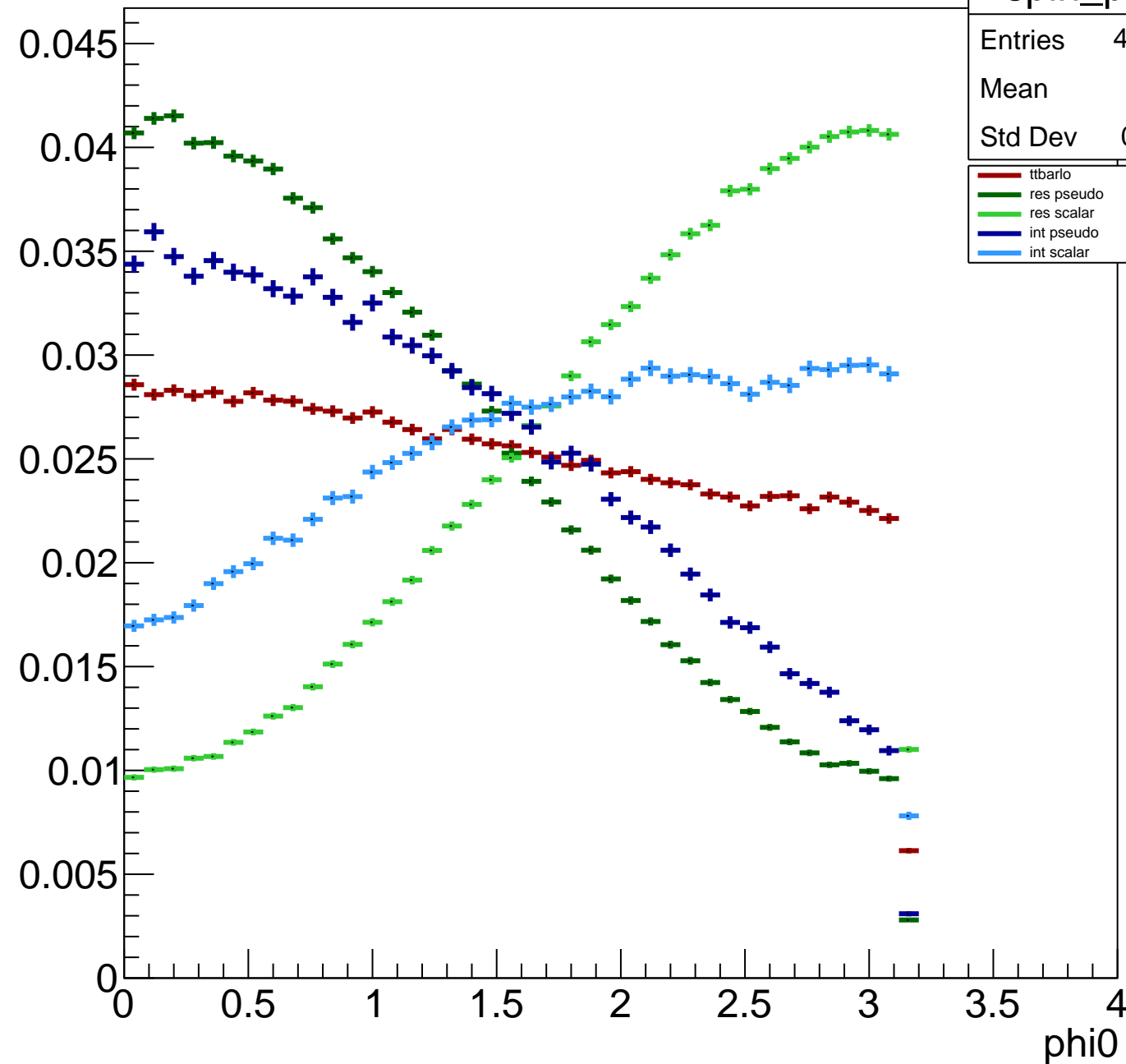
spin_phi0

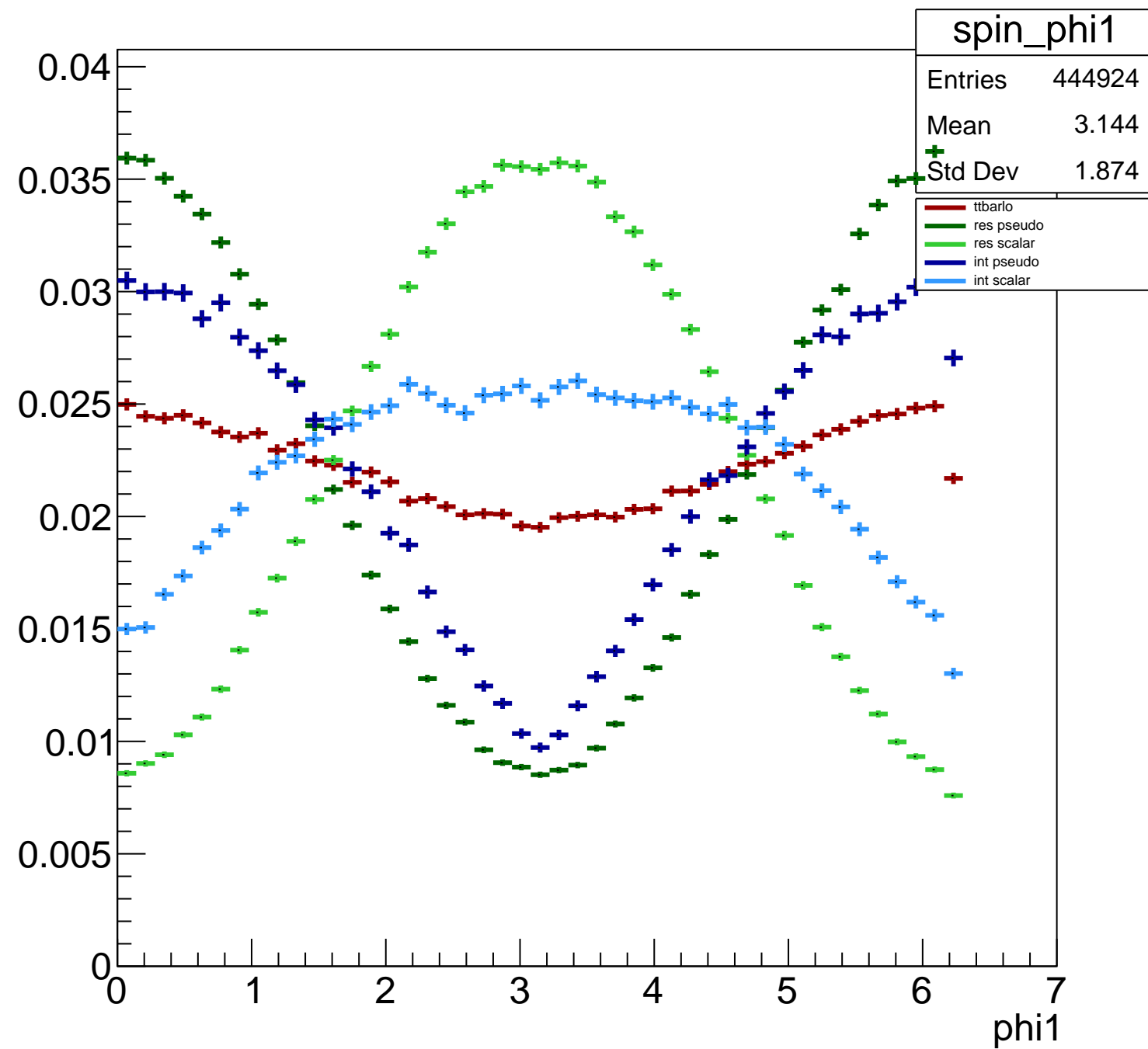
Entries 444924

Mean 1.5

Std Dev 0.9039

— ttbarlo
— res pseudo
— res scalar
— int pseudo
— int scalar





number of events

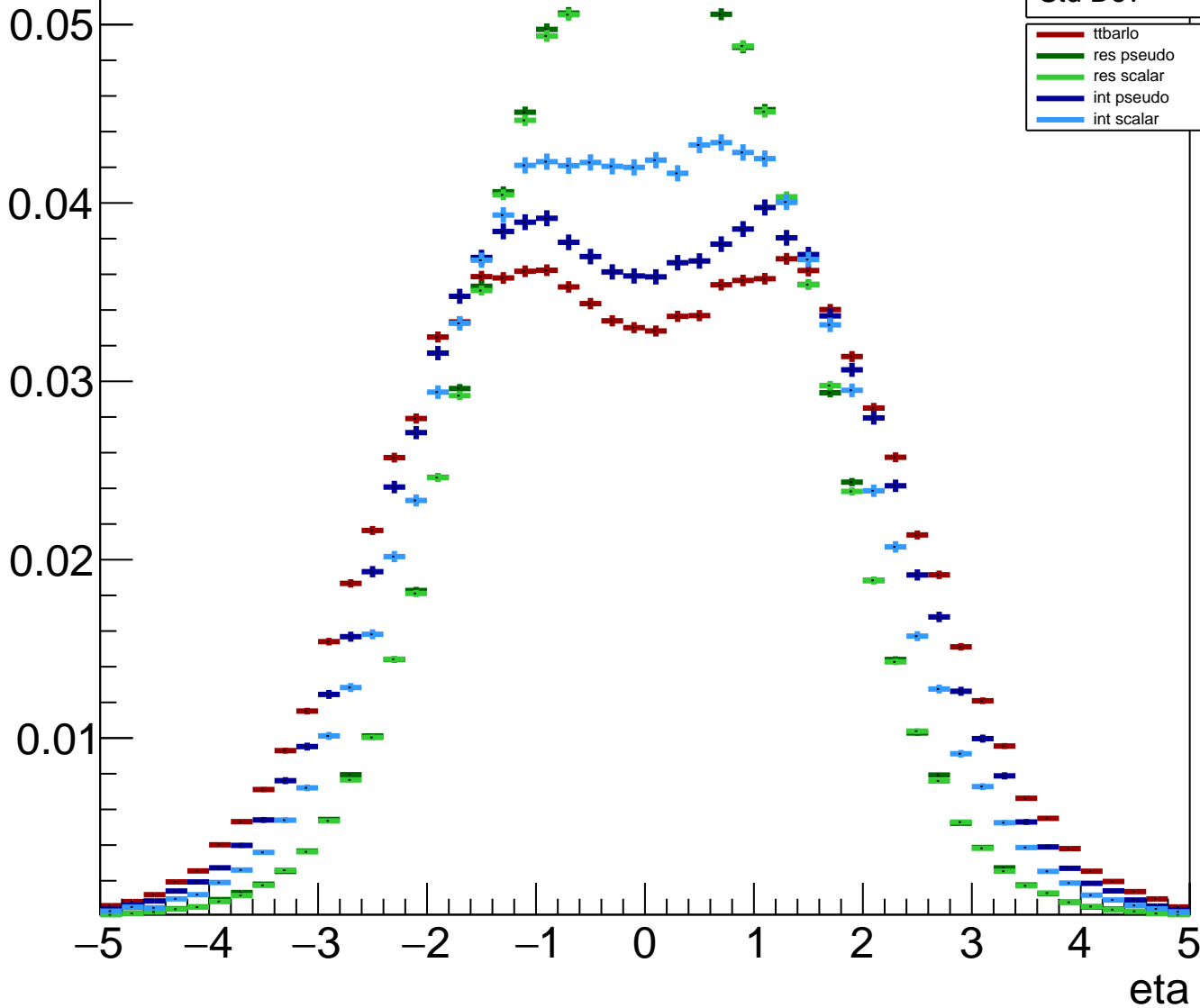
top_eta_no_cut

Entries 444924

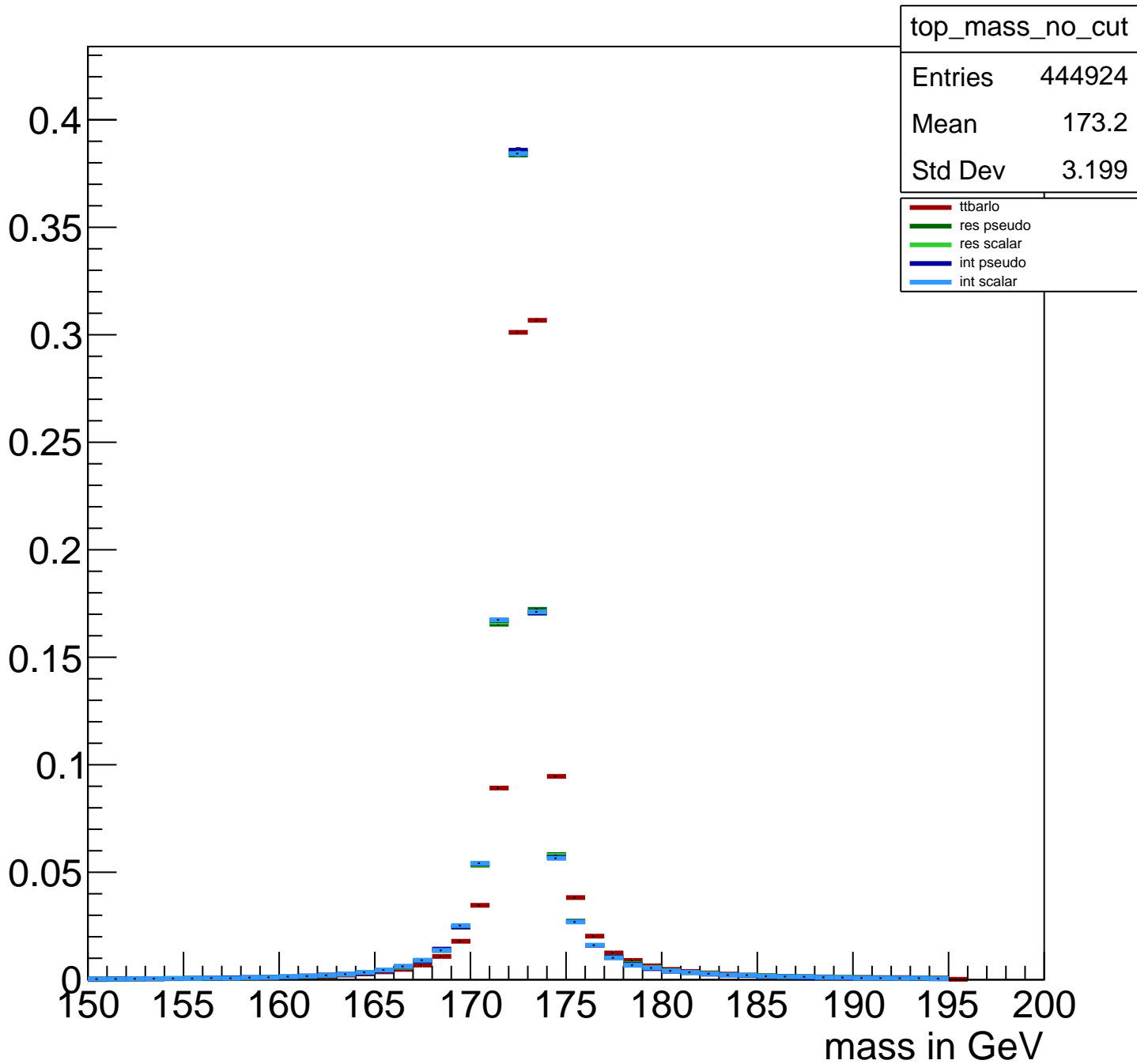
Mean 0.002475

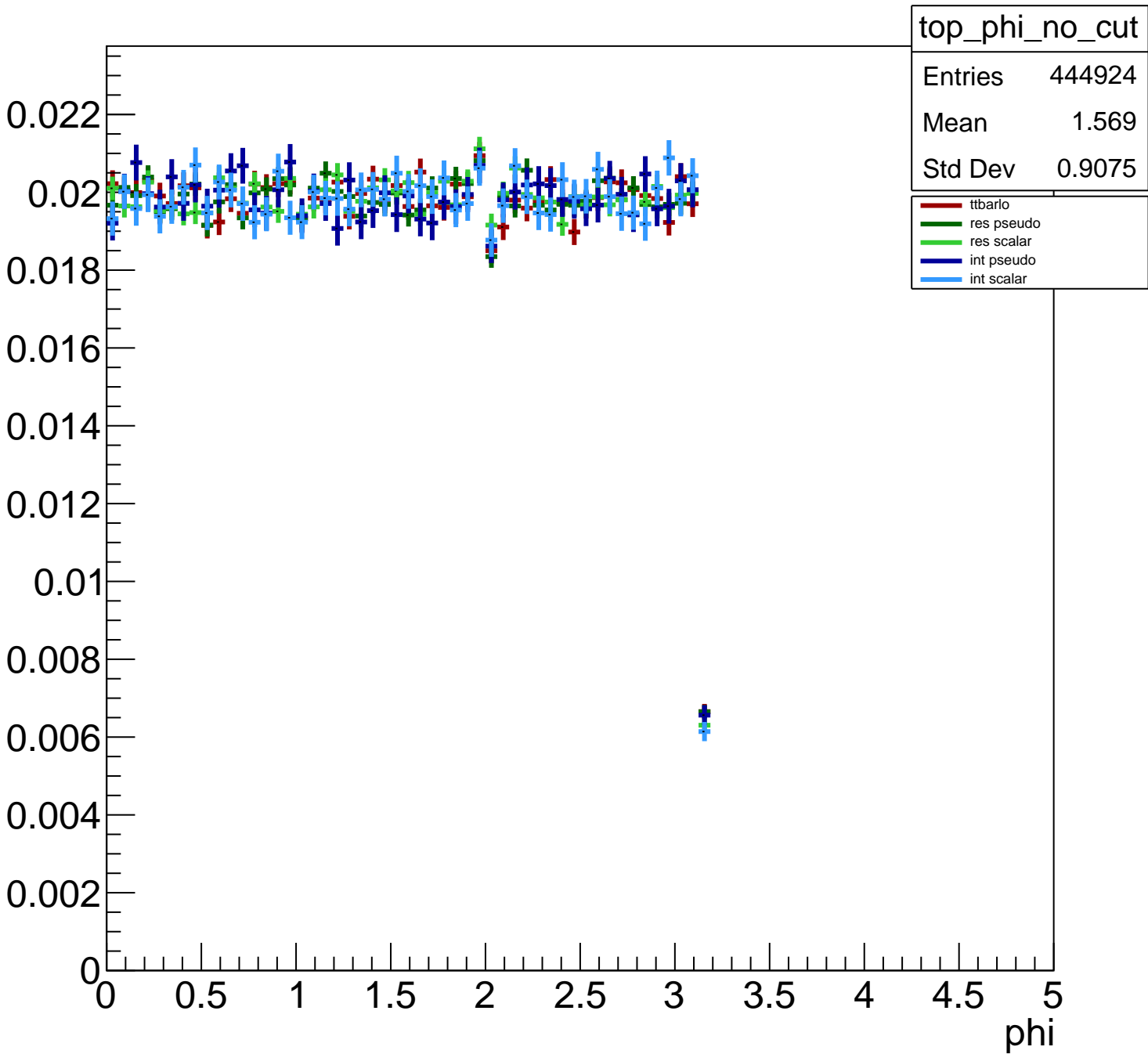
Std Dev 1.838

ttbarlo
res pseudo
res scalar
int pseudo
int scalar



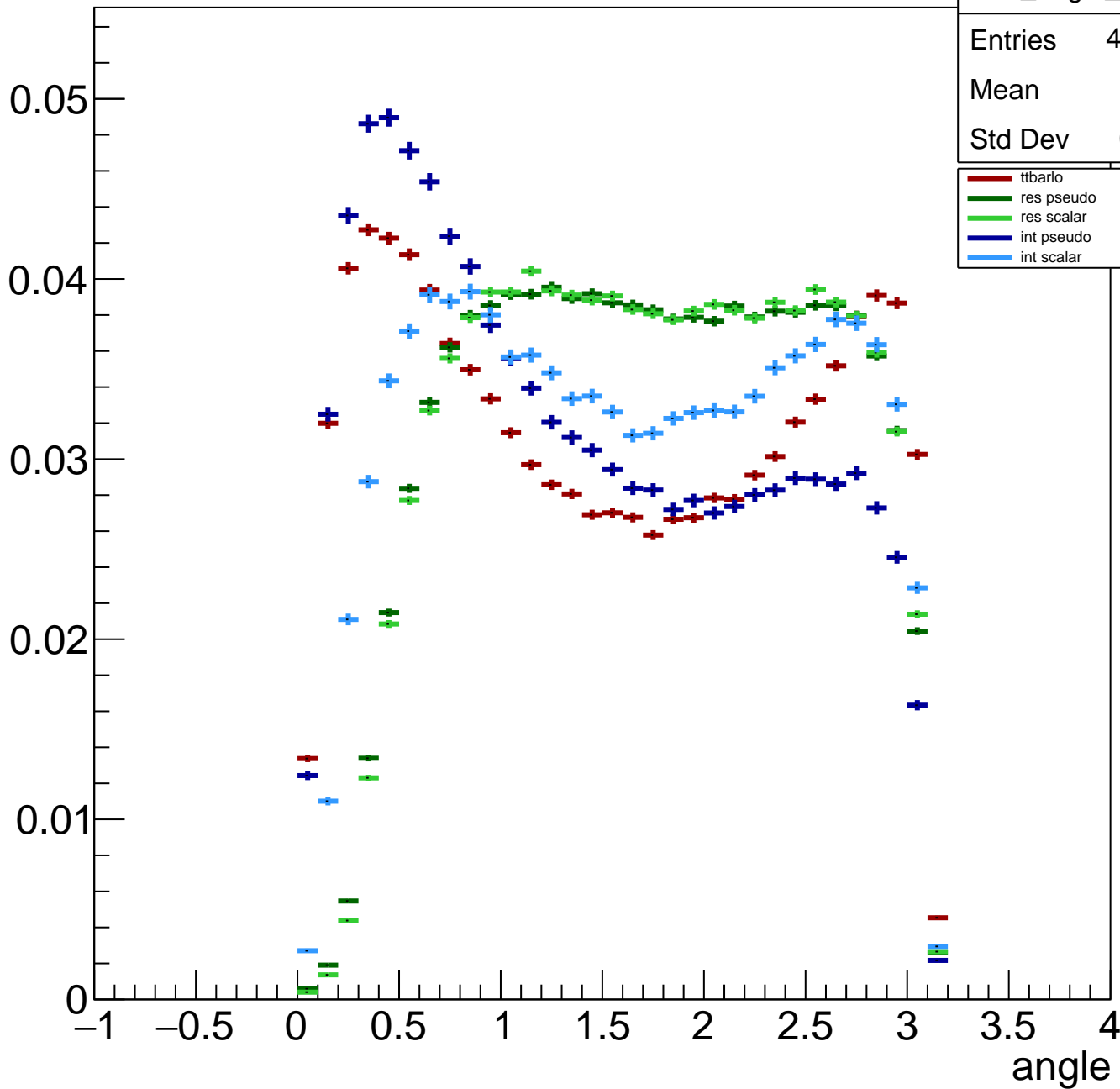
number of events

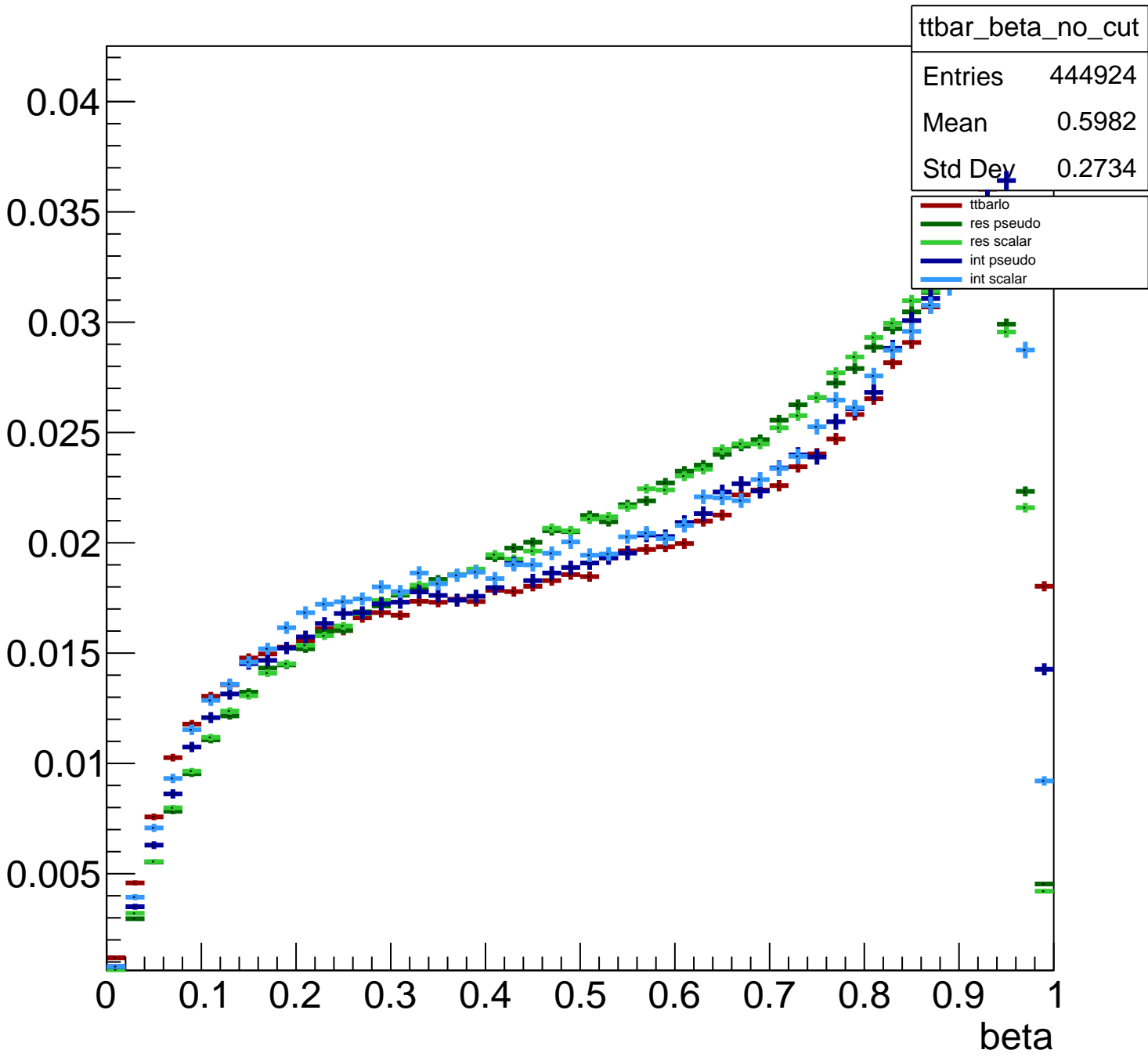


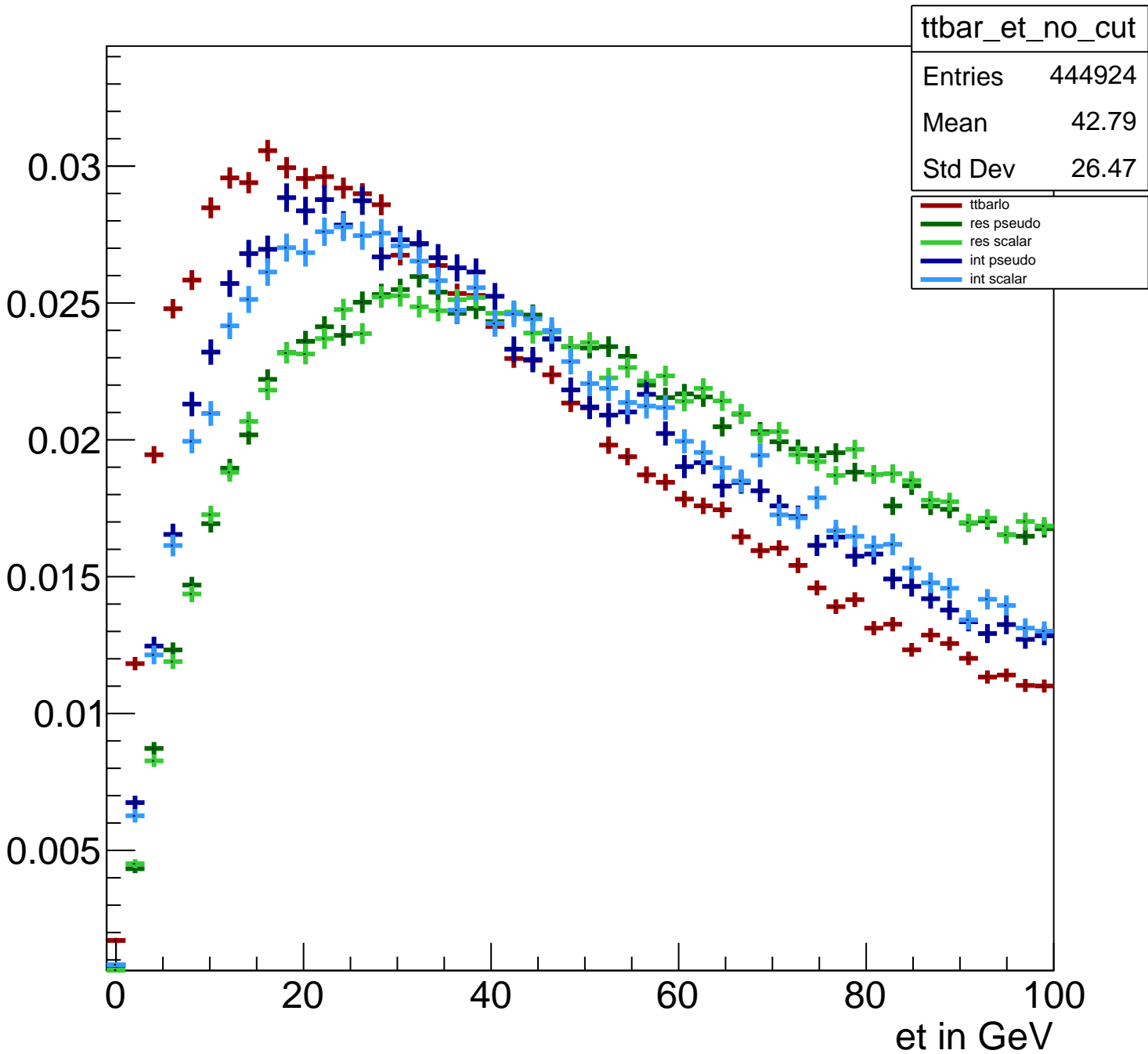


number of events

ttbar_angle_no_cut	
Entries	444924
Mean	1.545
Std Dev	0.9231
<div><div></div> ttbarlo</div> <div><div></div> res pseudo</div> <div><div></div> res scalar</div> <div><div></div> int pseudo</div> <div><div></div> int scalar</div>	

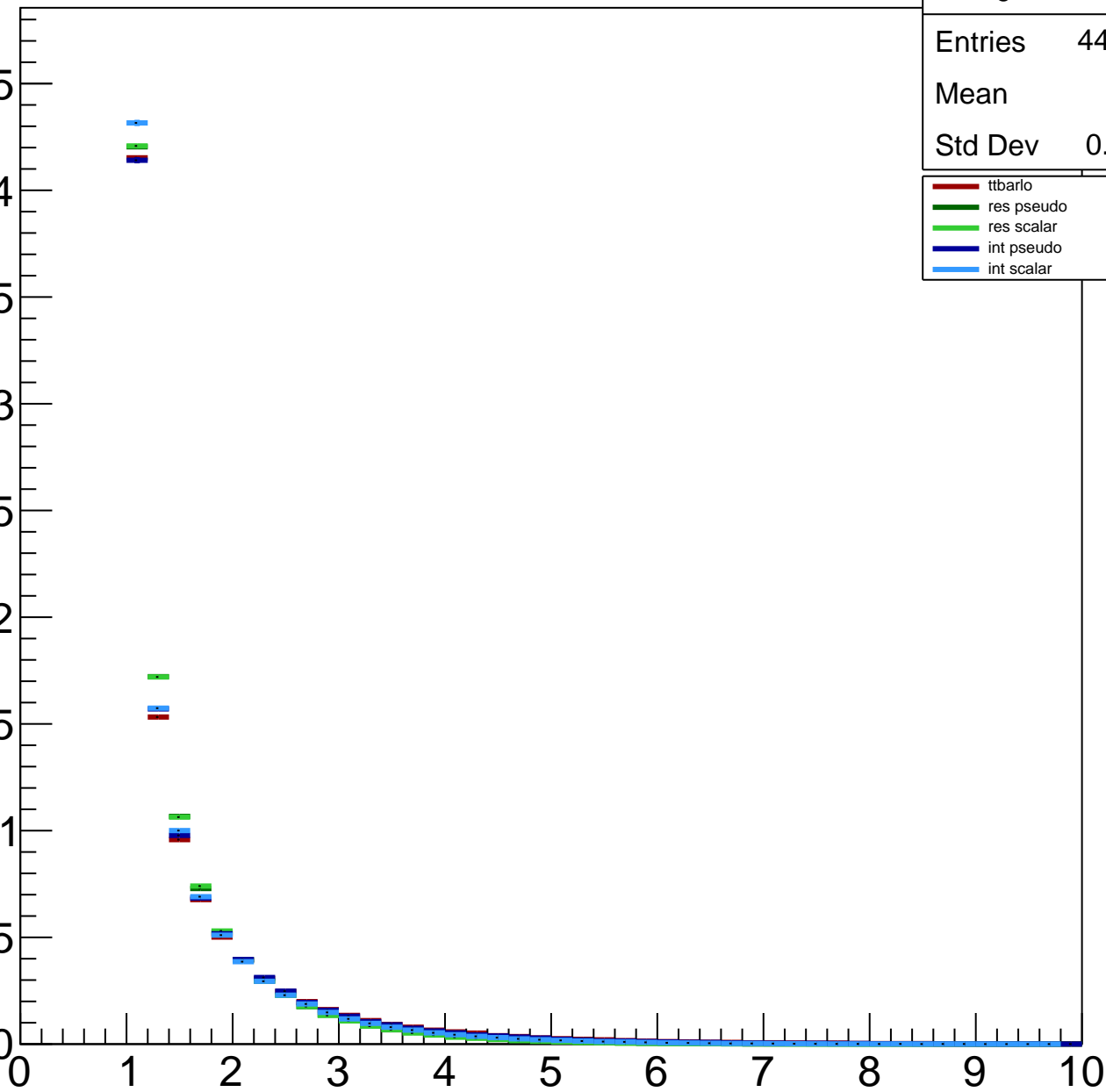






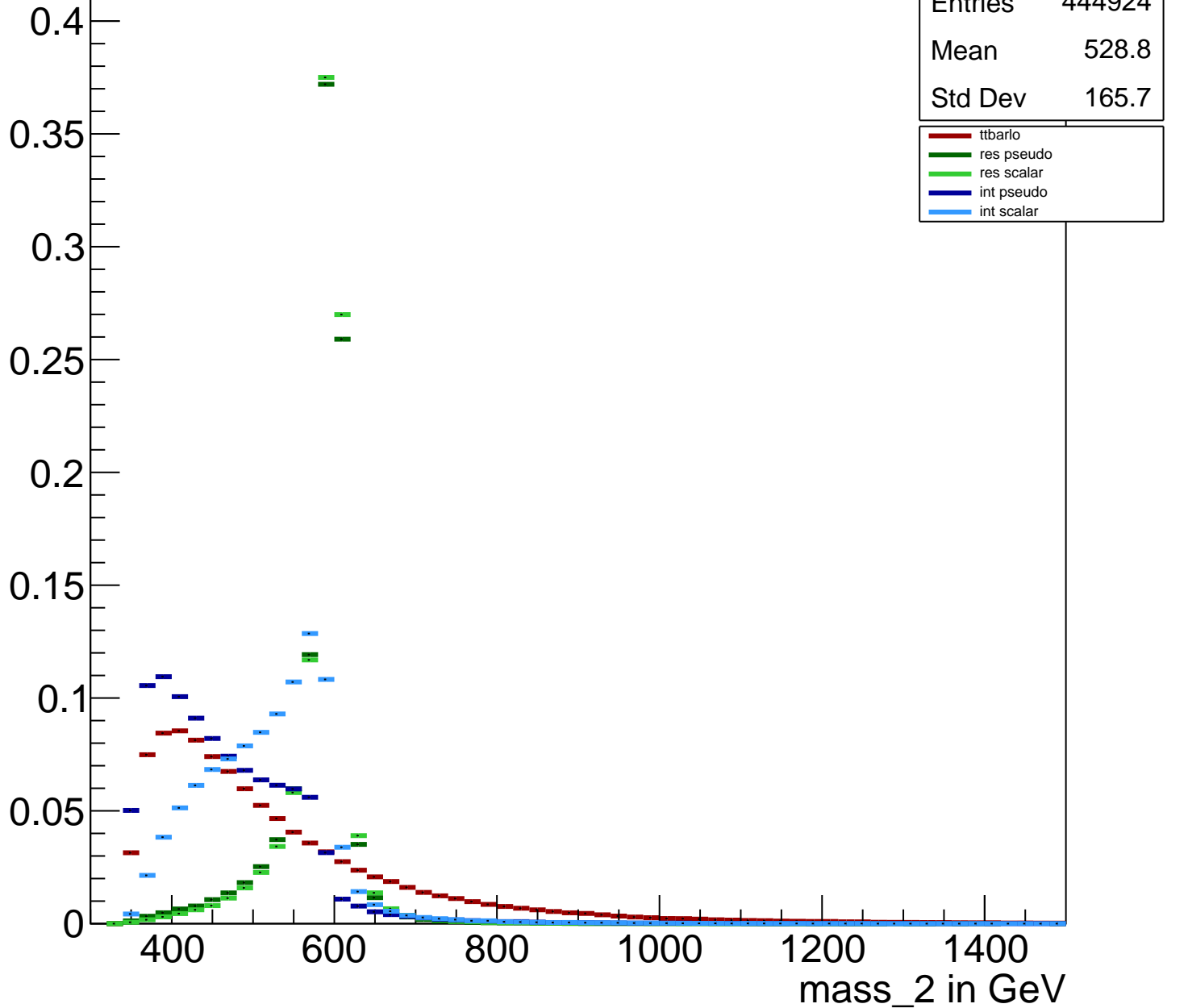
number of events

0.45
0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0



ttbar_gamma_no_cut	
Entries	444924
Mean	1.681
Std Dev	0.9854
<div><div></div>ttbarlo</div> <div><div></div>res pseudo</div> <div><div></div>res scalar</div> <div><div></div>int pseudo</div> <div><div></div>int scalar</div>	

number of events

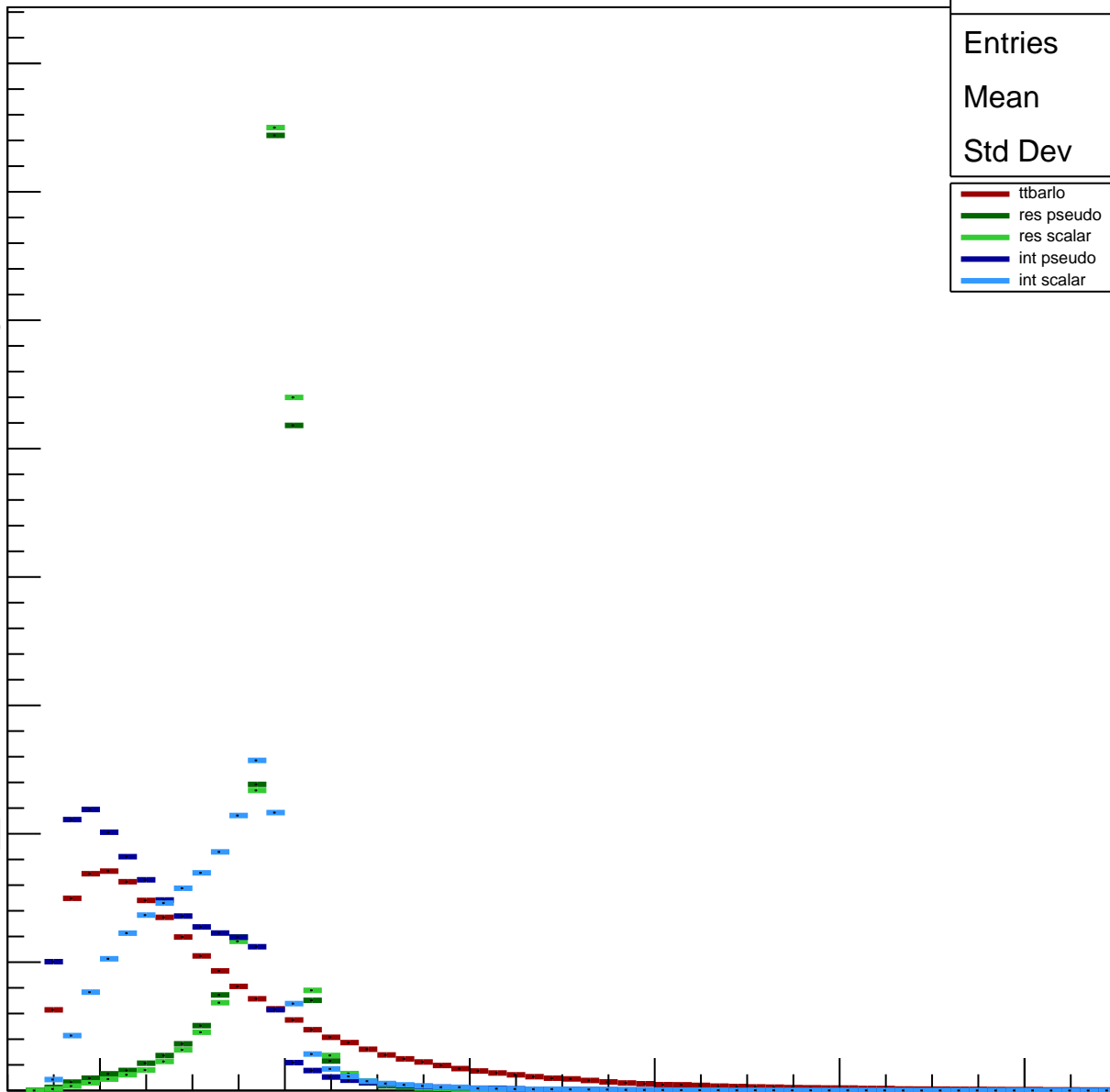


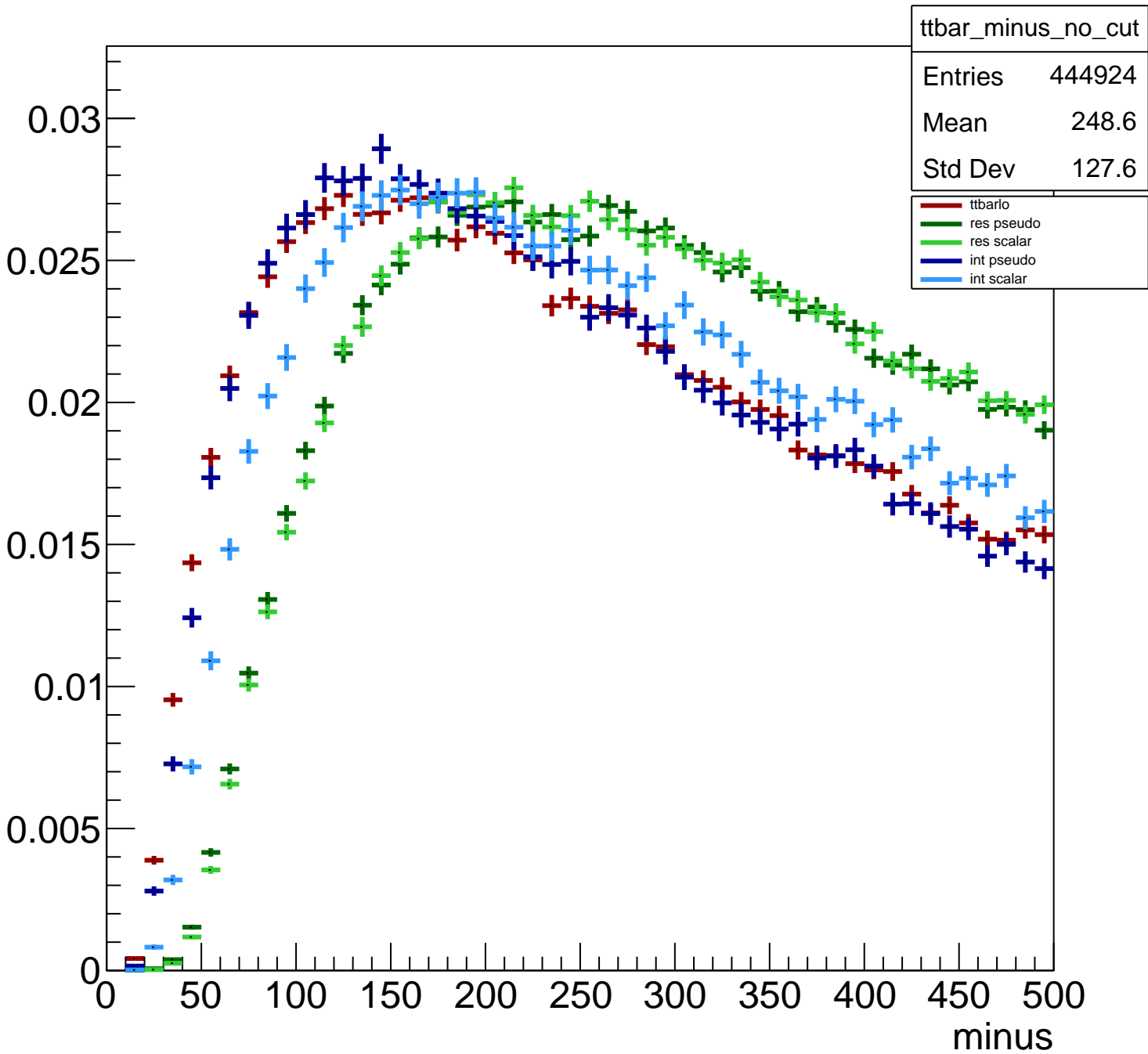
number of events

0.4
0.35
0.3
0.25
0.2
0.15
0.1
0.05
0

ttbar_mass_no_cut	
Entries	444924
Mean	528.8
Std Dev	165.7
<div><div></div> ttbarlo</div> <div><div></div> res pseudo</div> <div><div></div> res scalar</div> <div><div></div> int pseudo</div> <div><div></div> int scalar</div>	

mass in GeV





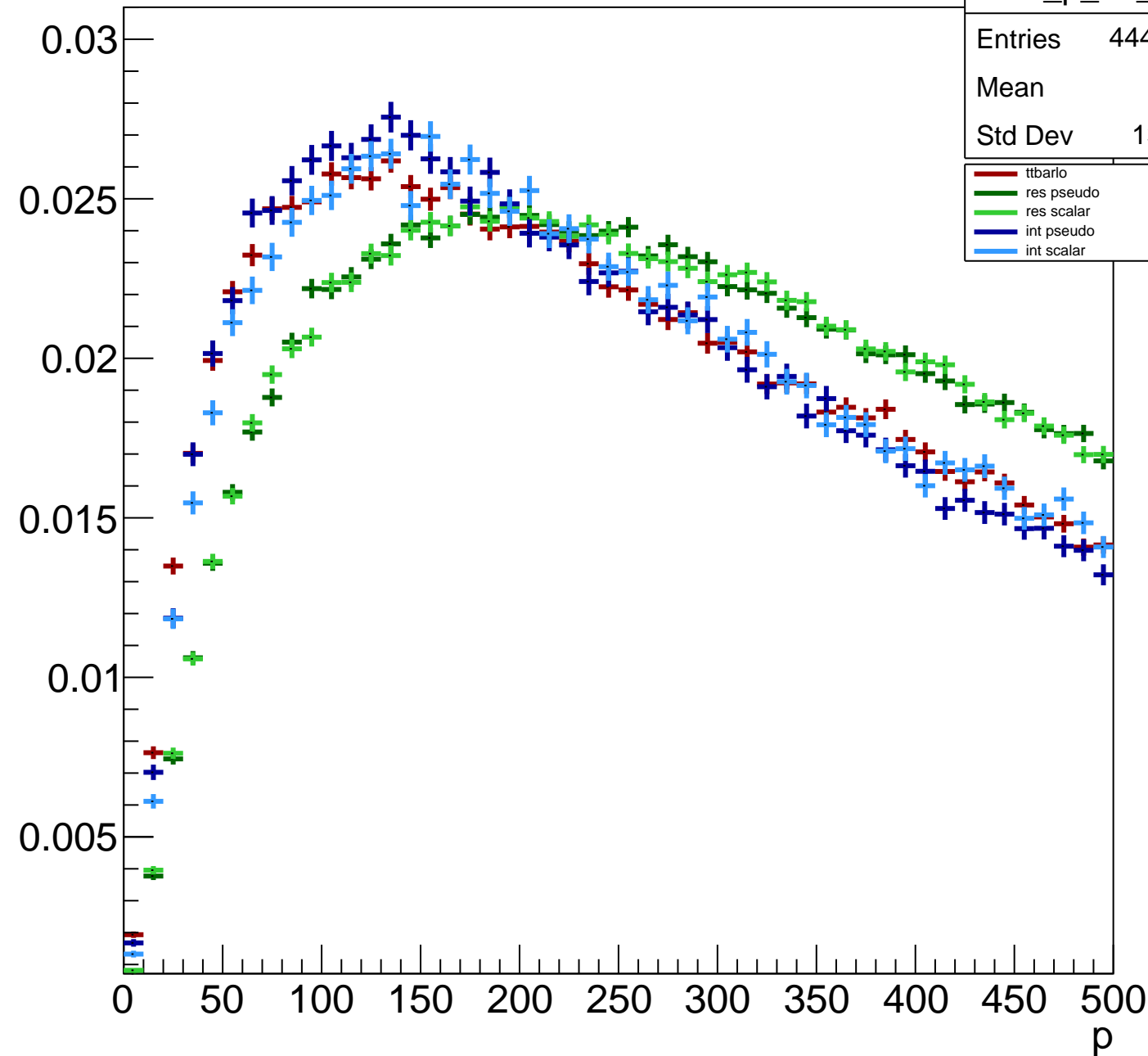
ttbar_p_no_cut

Entries 444924

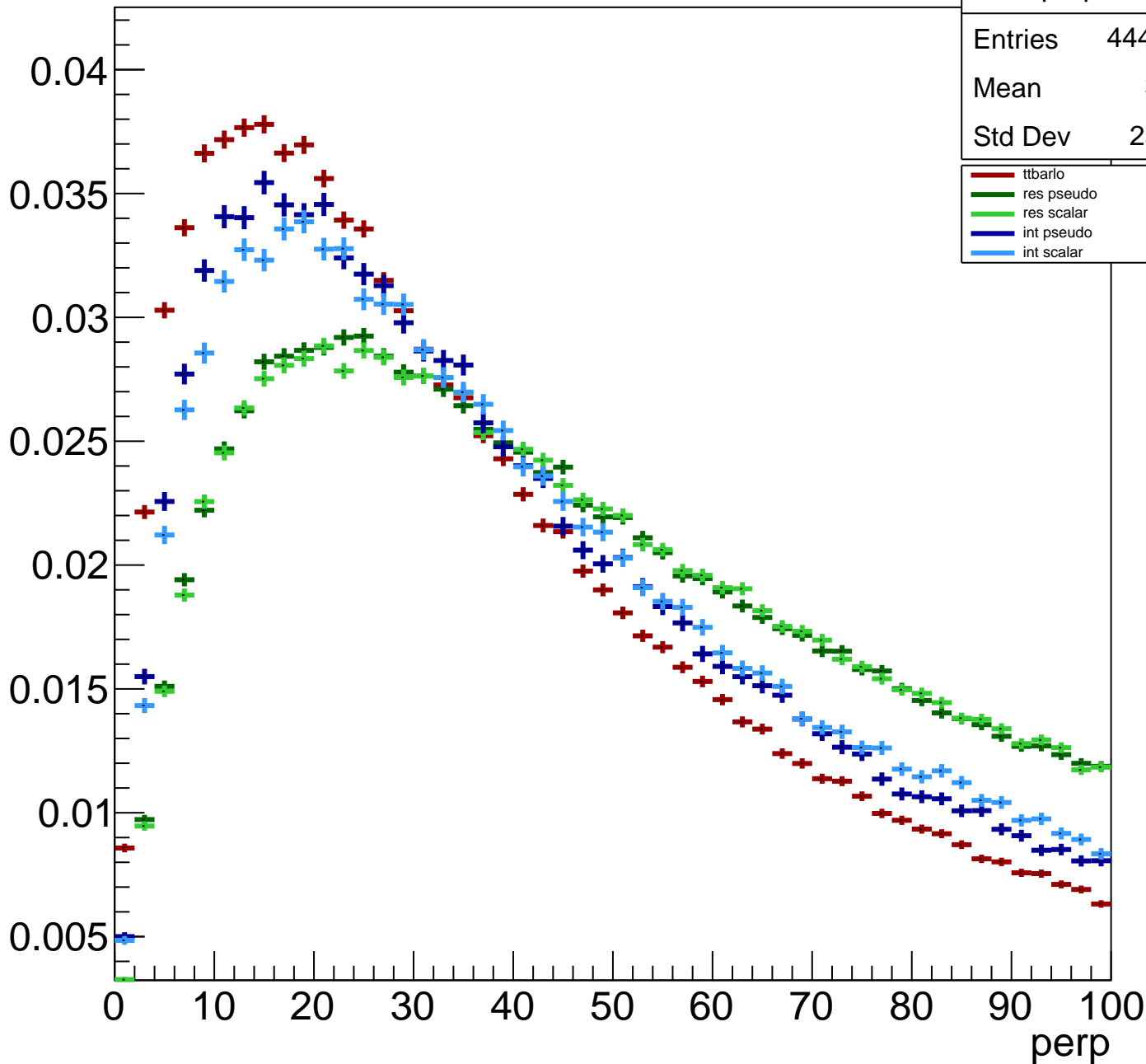
Mean 240

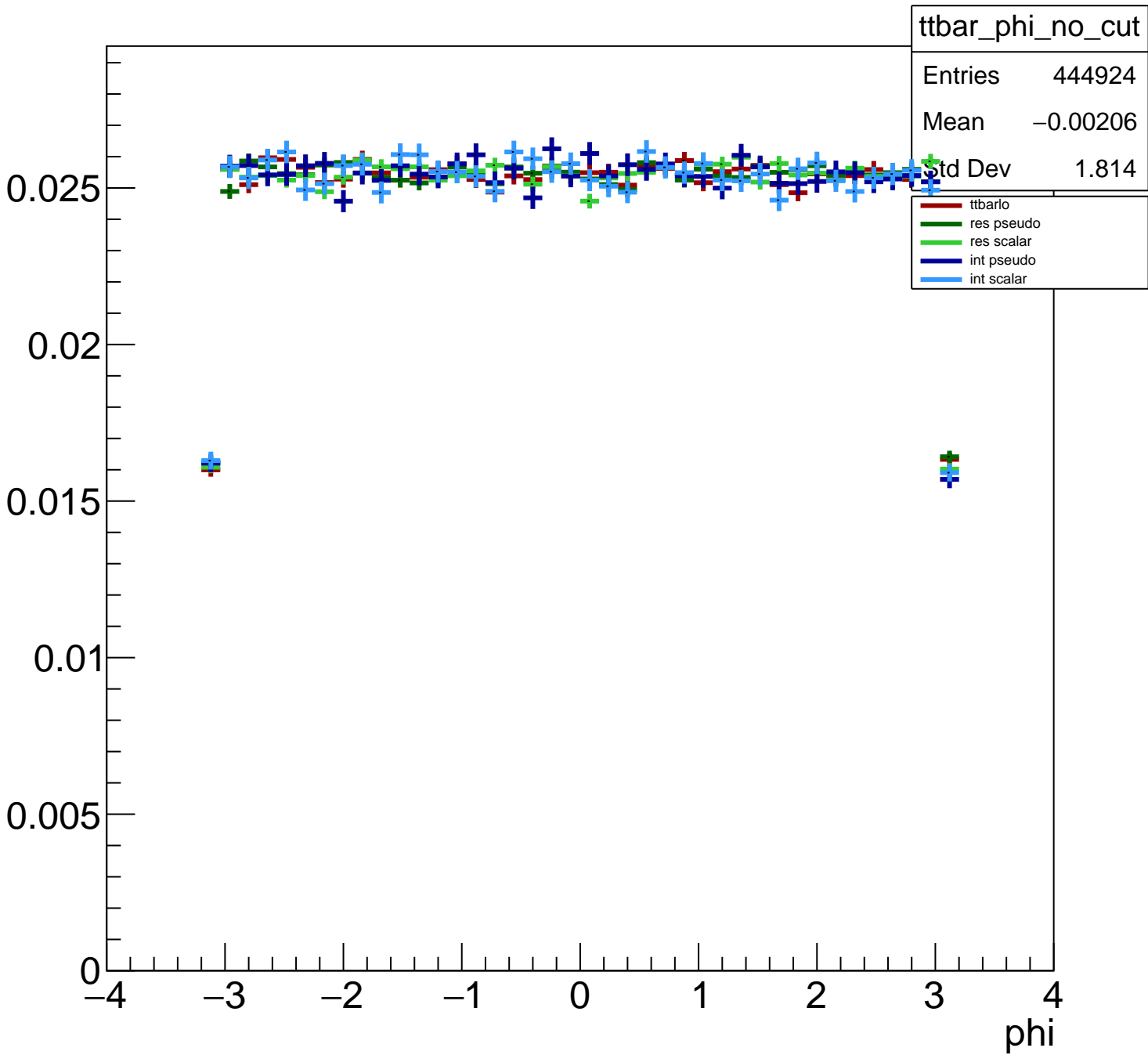
Std Dev 132.6

ttbarlo
res pseudo
res scalar
int pseudo
int scalar



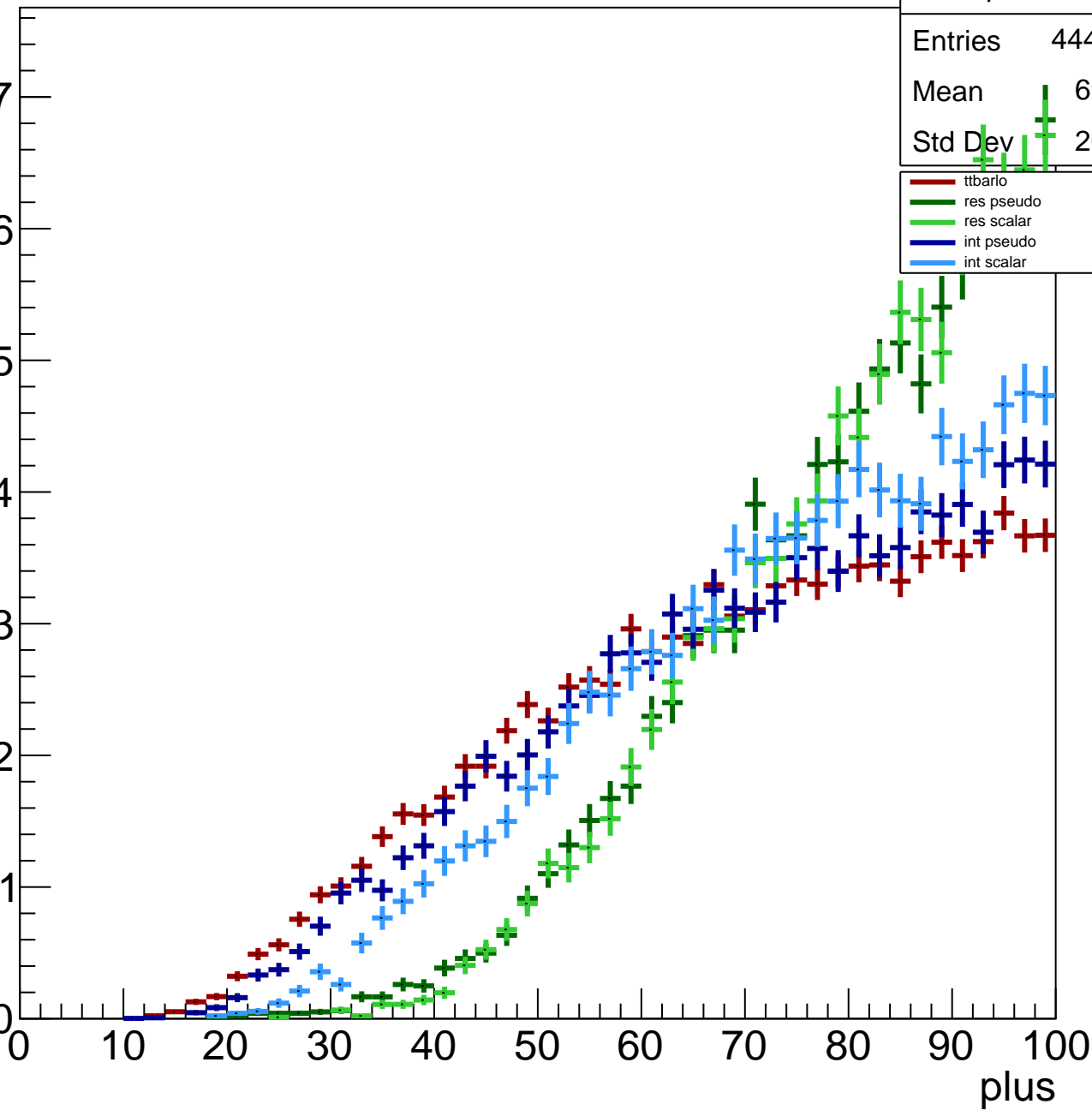
ttbar_perp_no_cut	
Entries	444924
Mean	36.8
Std Dev	25.02
<div><div></div> ttbarlo</div> <div><div></div> res pseudo</div> <div><div></div> res scalar</div> <div><div></div> int pseudo</div> <div><div></div> int scalar</div>	





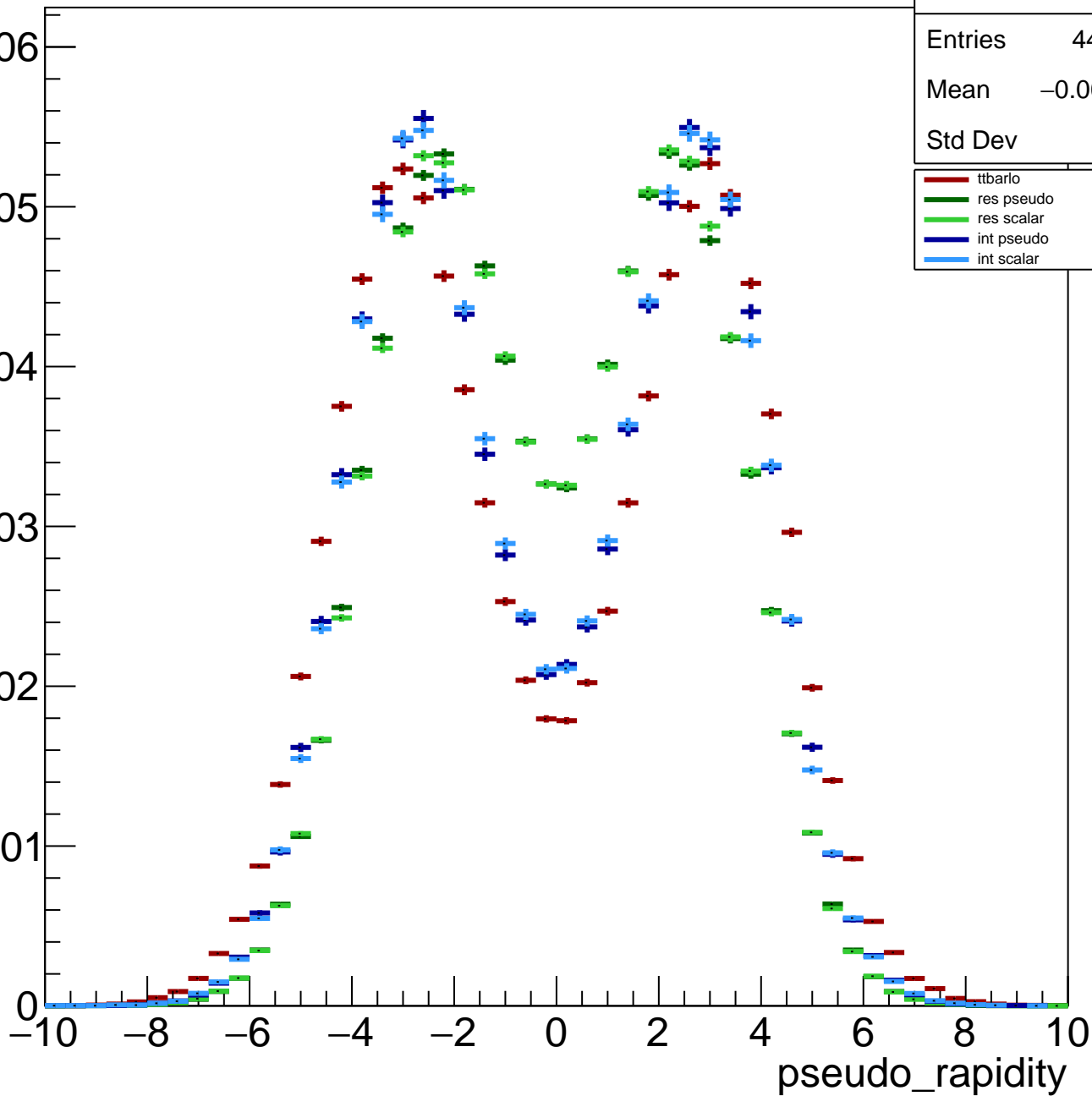
number of events

0.07
0.06
0.05
0.04
0.03
0.02
0.01
0



ttbar_plus_no_cut	
Entries	444924
Mean	69.08
Std Dev	20.18

number of events



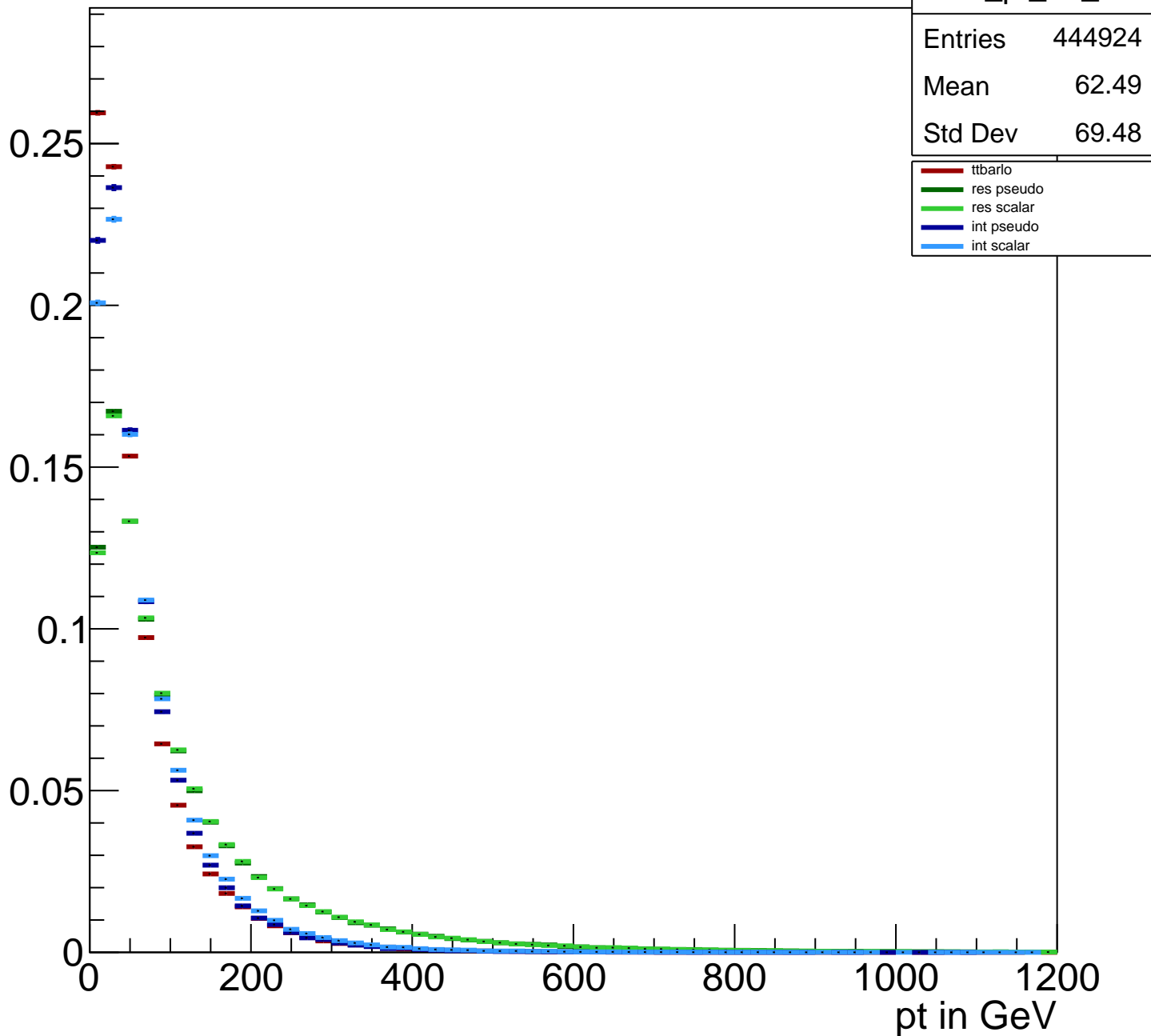
ttbar_pseudo_rapidity_no_cut

Entries 444924

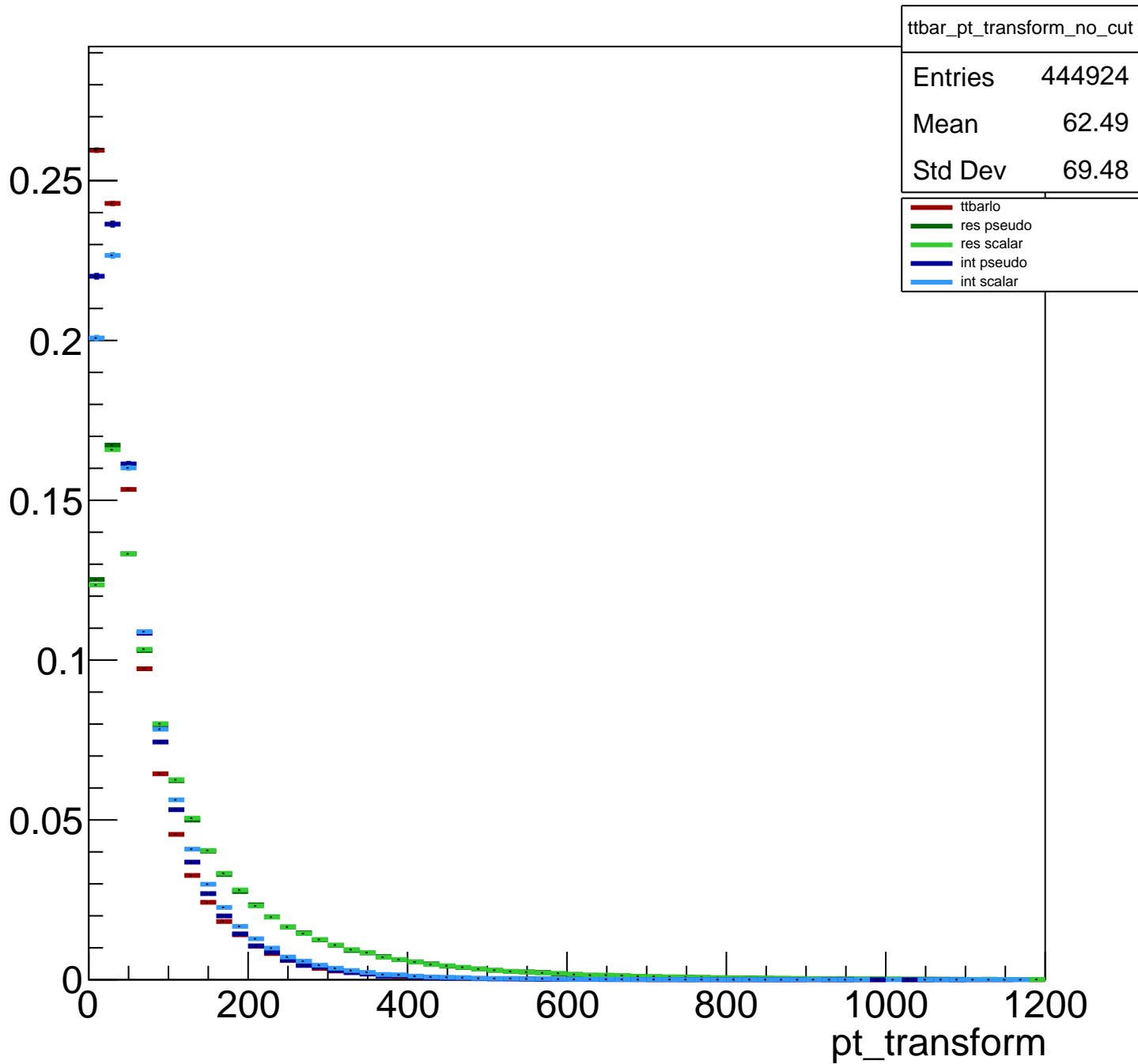
Mean -0.002281

Std Dev 3.327

number of events



number of events



number of events

0.07

0.06

0.05

0.04

0.03

0.02

0.01

-100 -80 -60 -40 -20 0 20 40 60 80 100

px in GeV

ttbar_px_no_cut

Entries 444924

Mean -0.01493

Std Dev 35.56

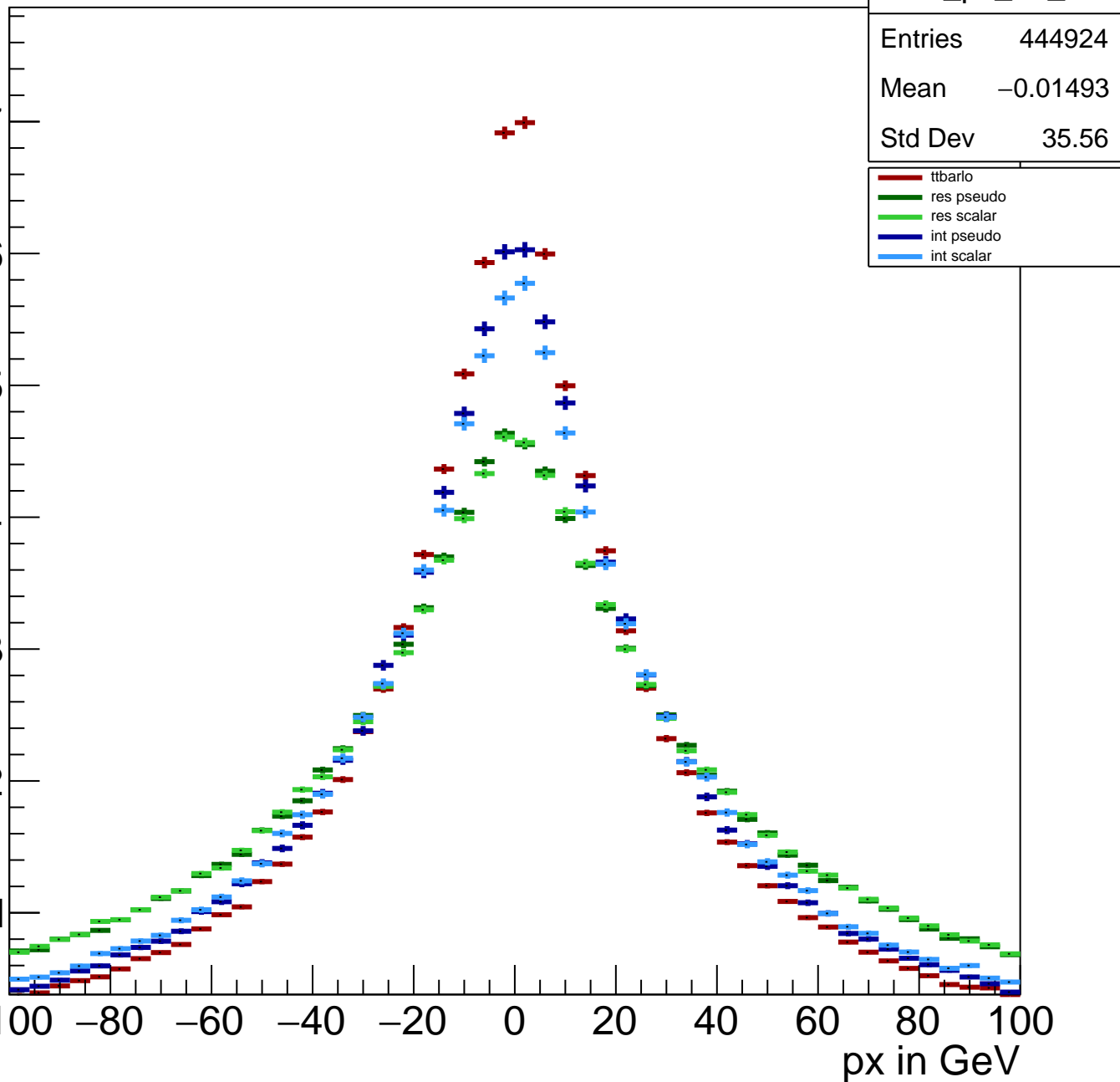
ttbarlo

res pseudo

res scalar

int pseudo

int scalar



number of events

0.07
0.06
0.05
0.04
0.03
0.02
0.01

-100 -80 -60 -40 -20 0 20 40 60 80 100

py in GeV

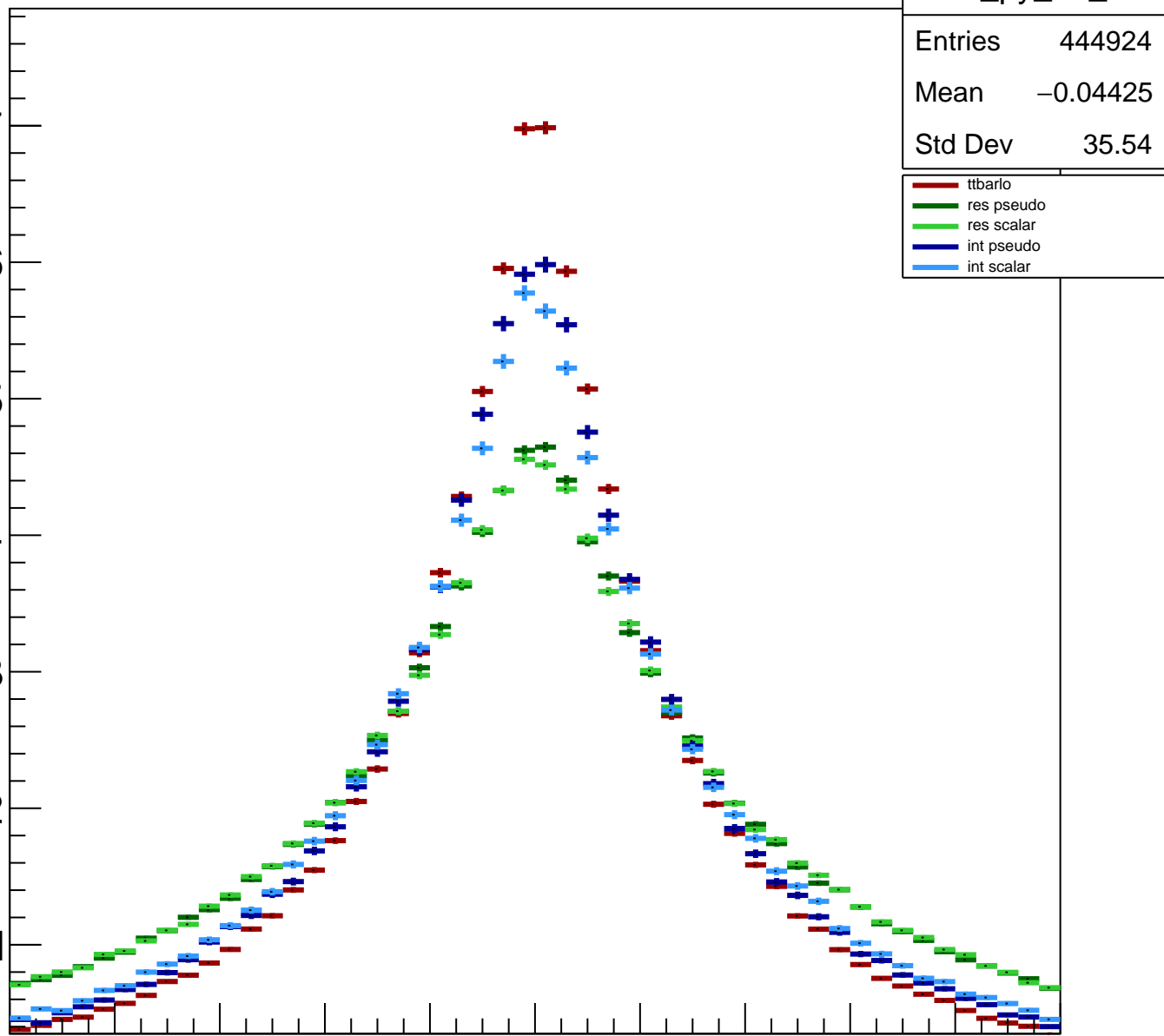
ttbar_py_no_cut

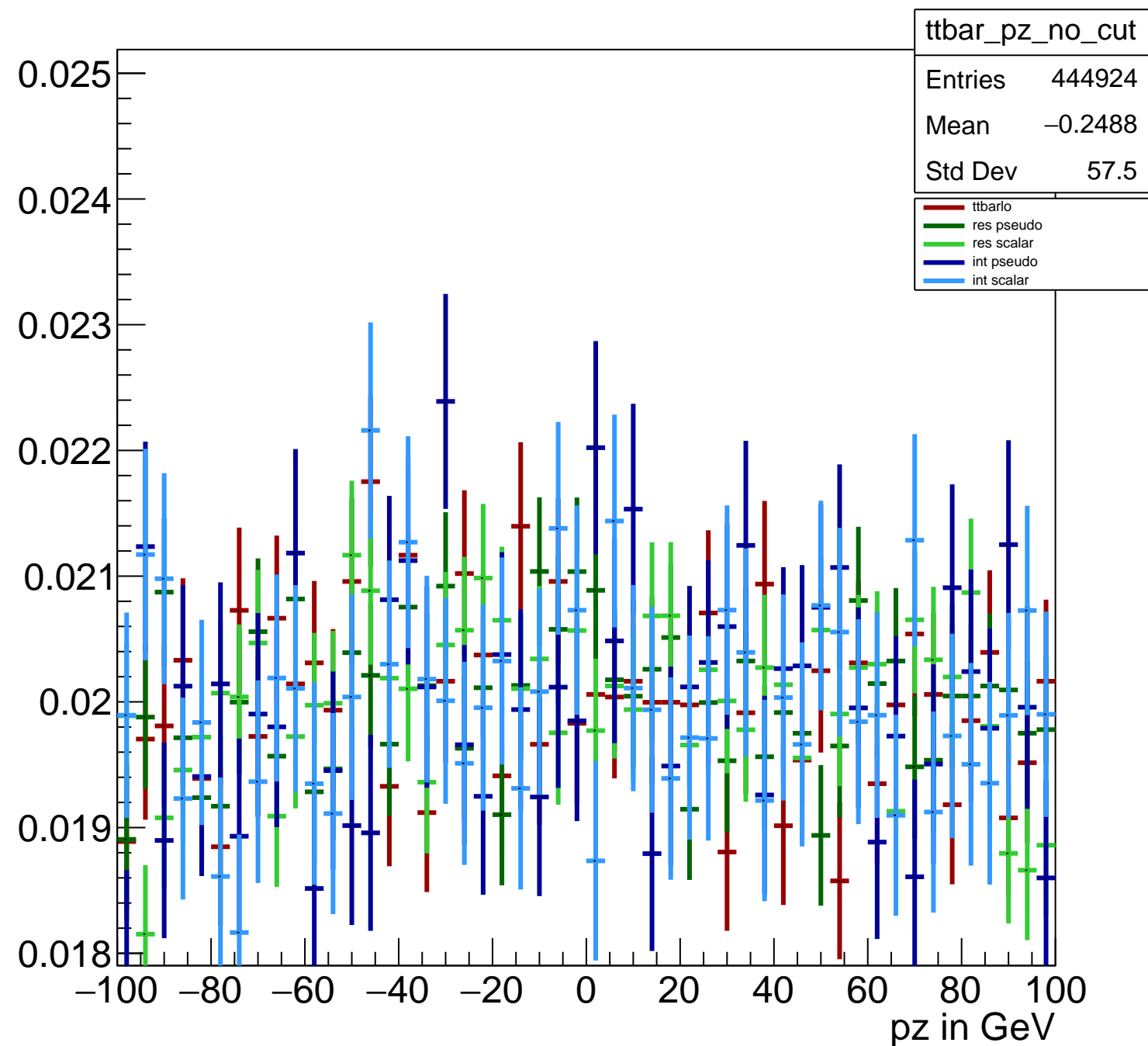
Entries 444924

Mean -0.04425

Std Dev 35.54

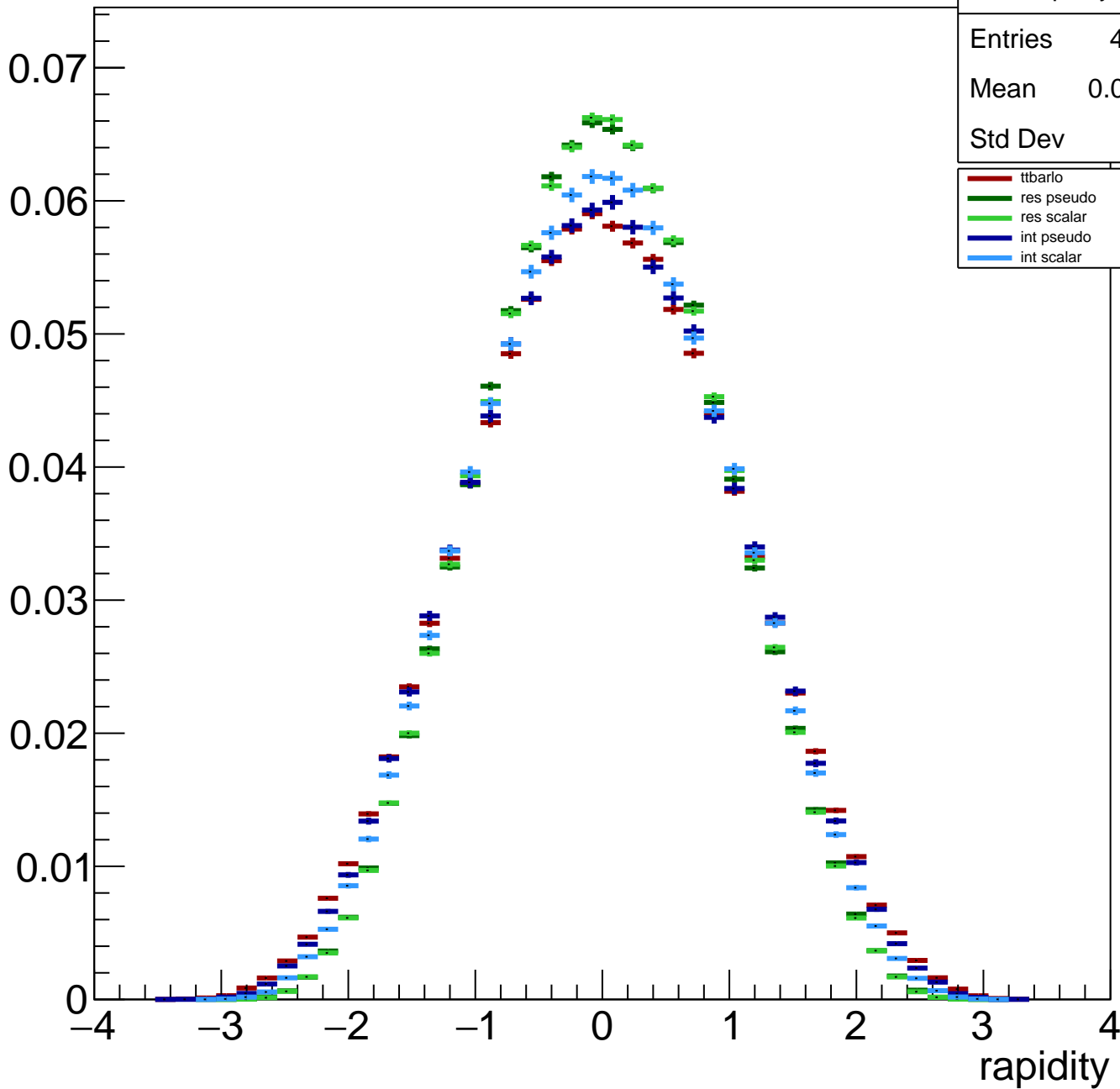
ttbarlo
res pseudo
res scalar
int pseudo
int scalar

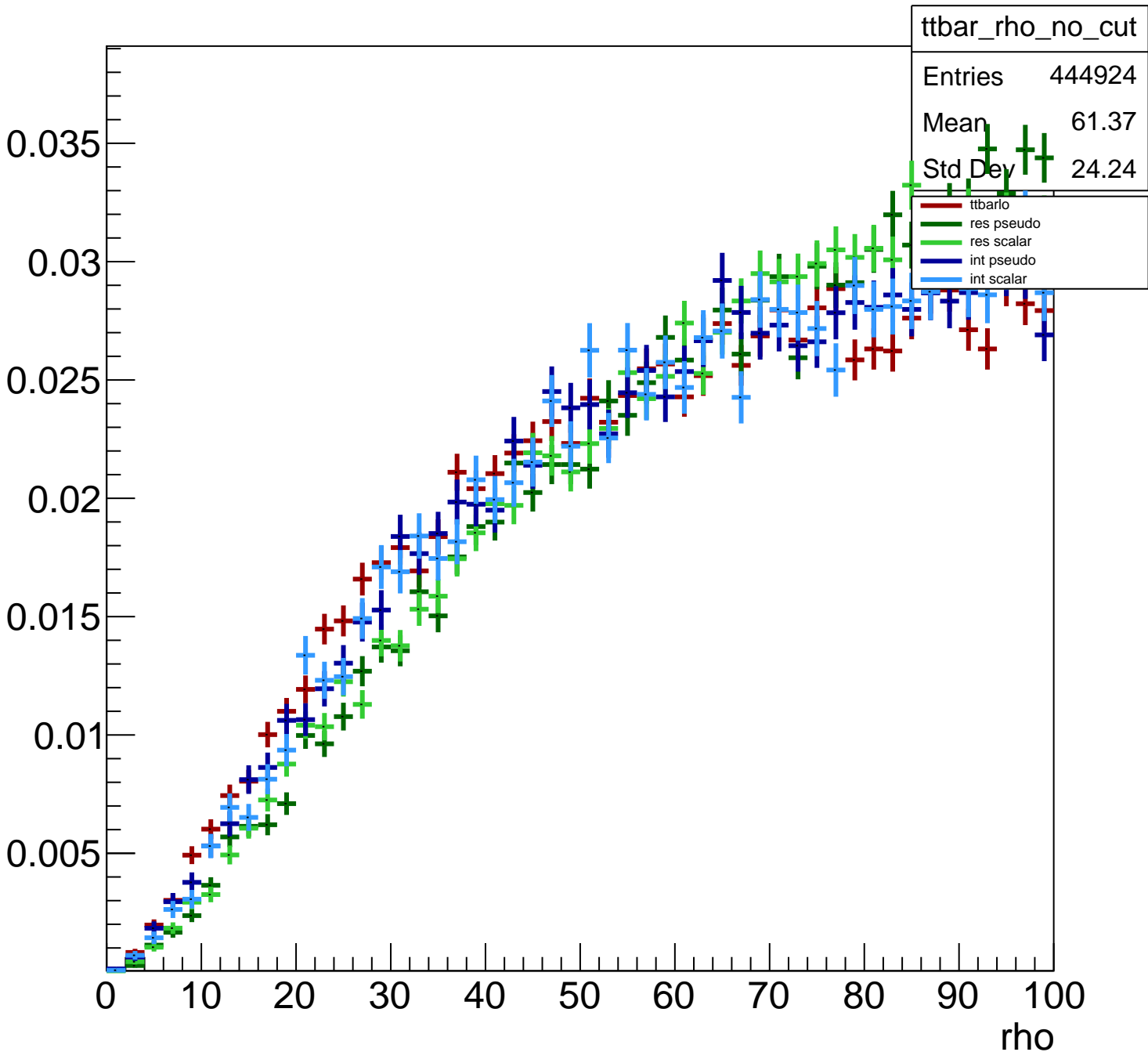




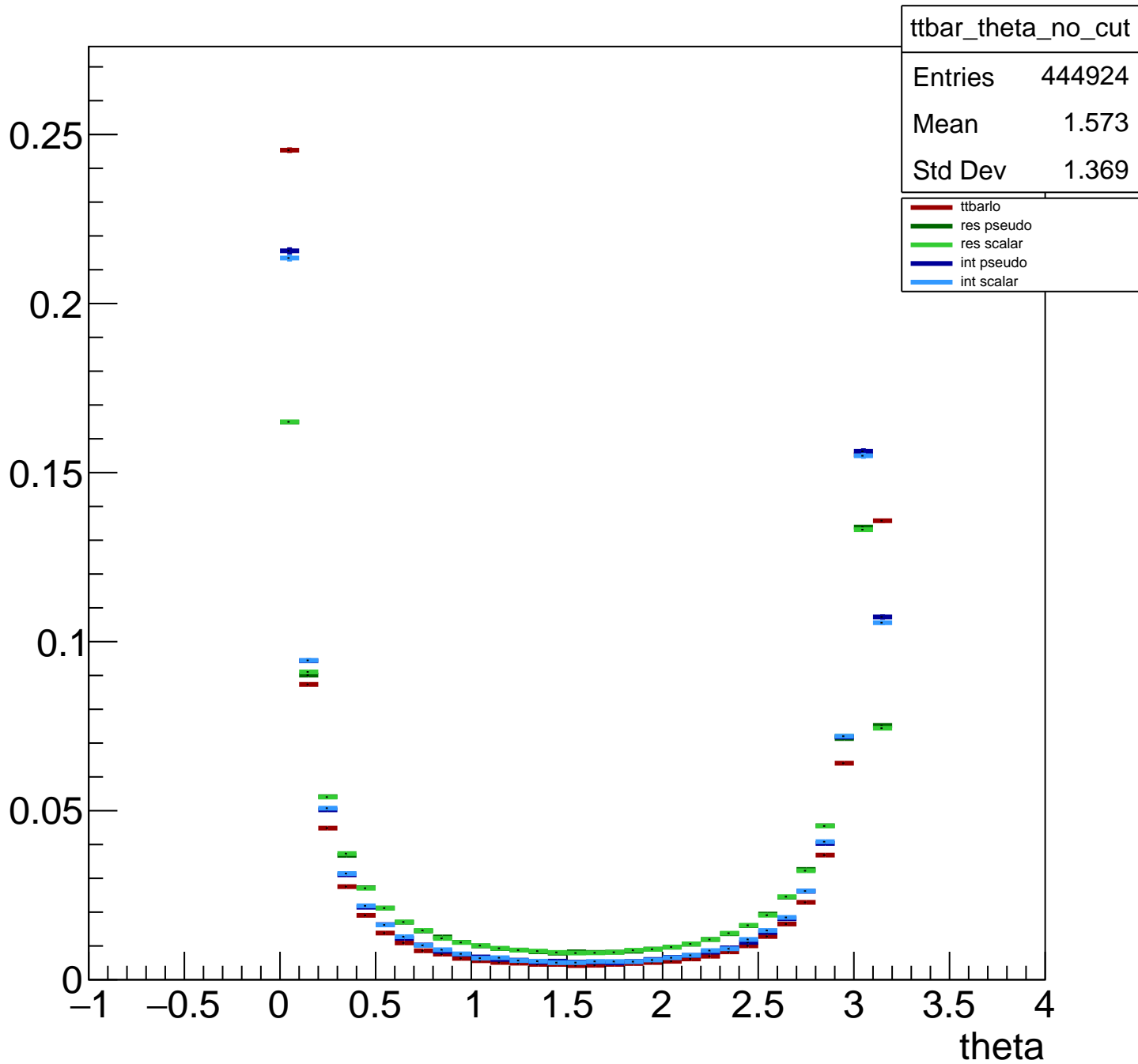
number of events

ttbar_rapidity_no_cut	
Entries	444924
Mean	0.000414
Std Dev	1.023
<div><div></div> ttbarlo</div> <div><div></div> res pseudo</div> <div><div></div> res scalar</div> <div><div></div> int pseudo</div> <div><div></div> int scalar</div>	

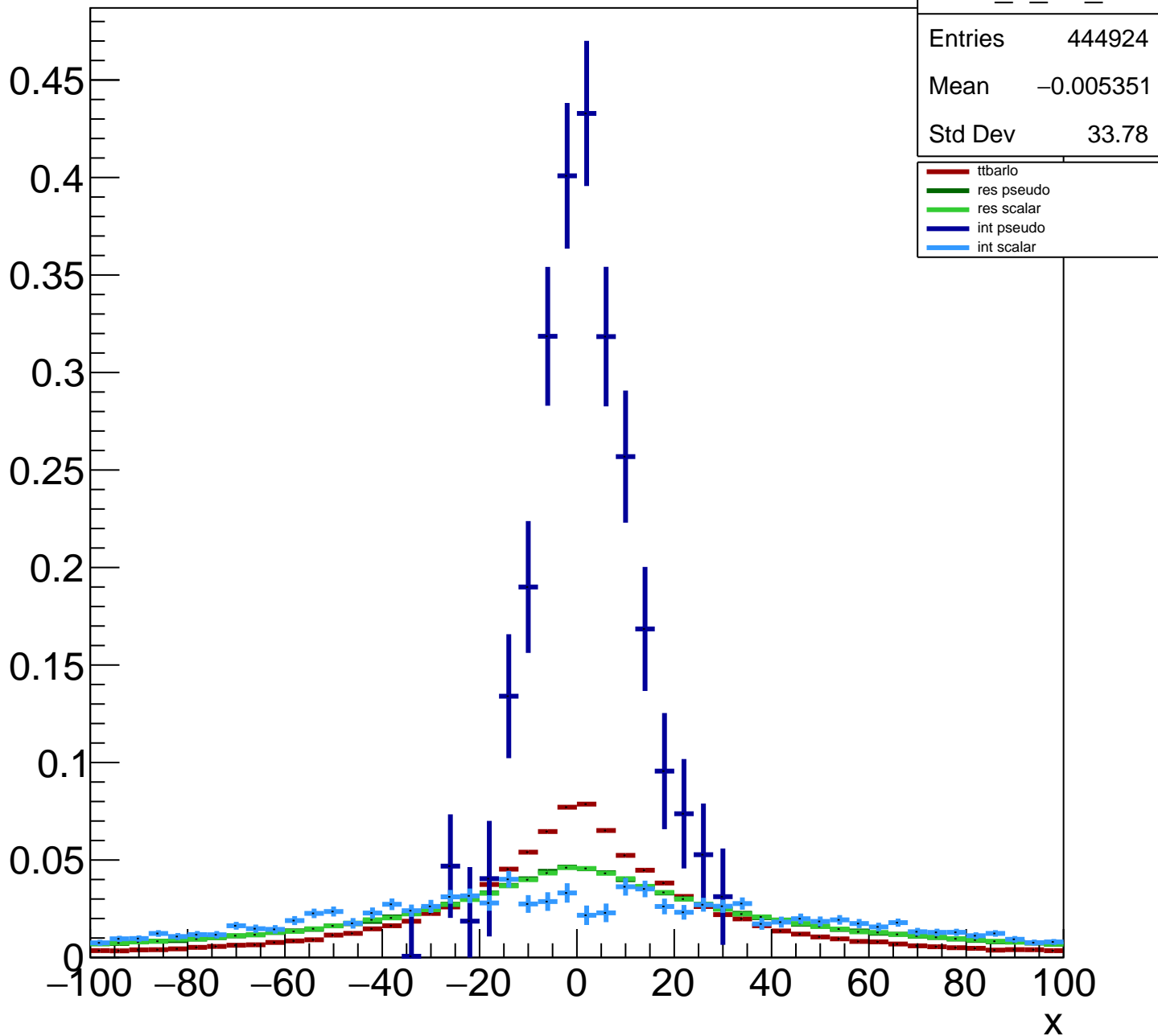




number of events



number of events



number of events

