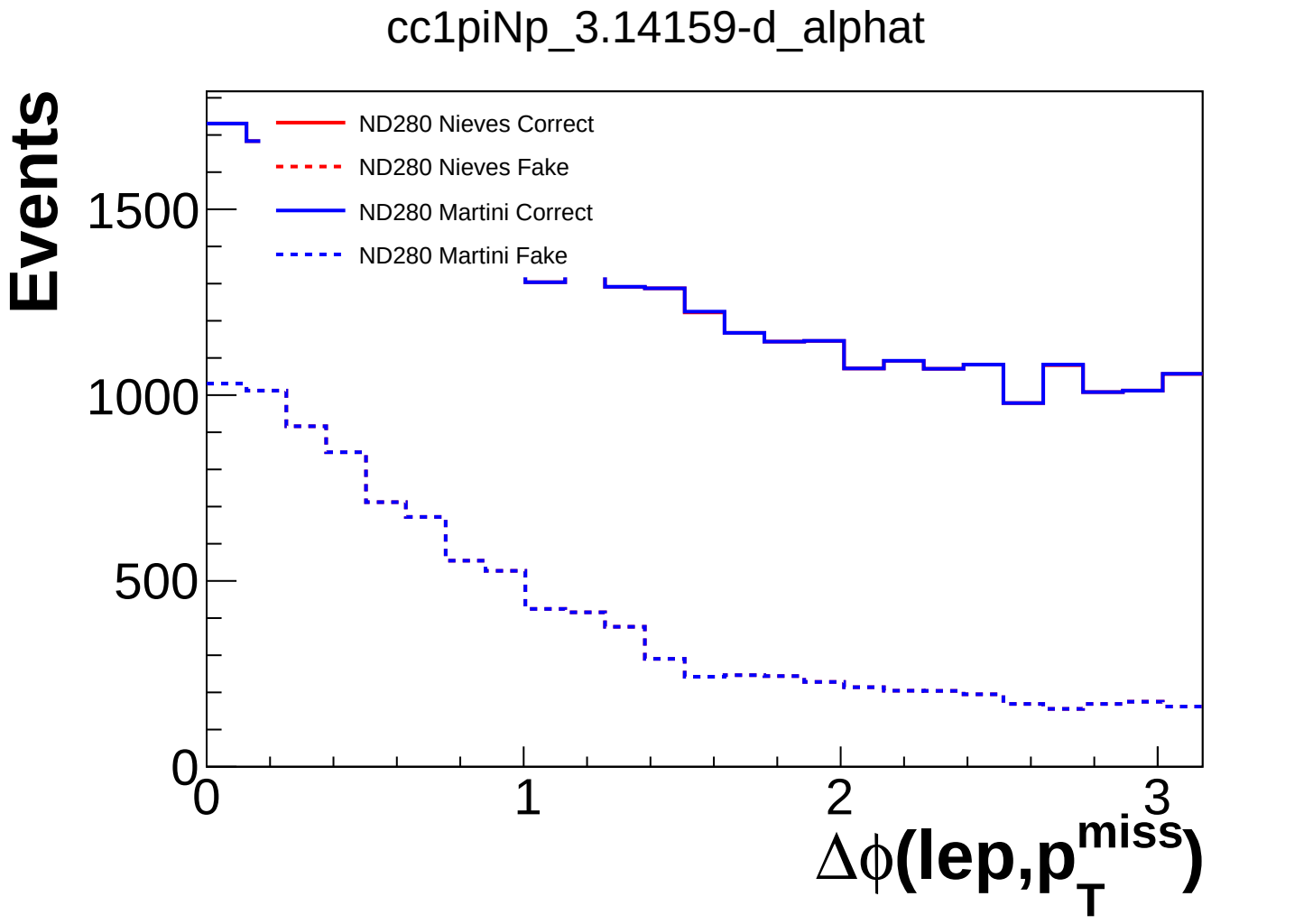
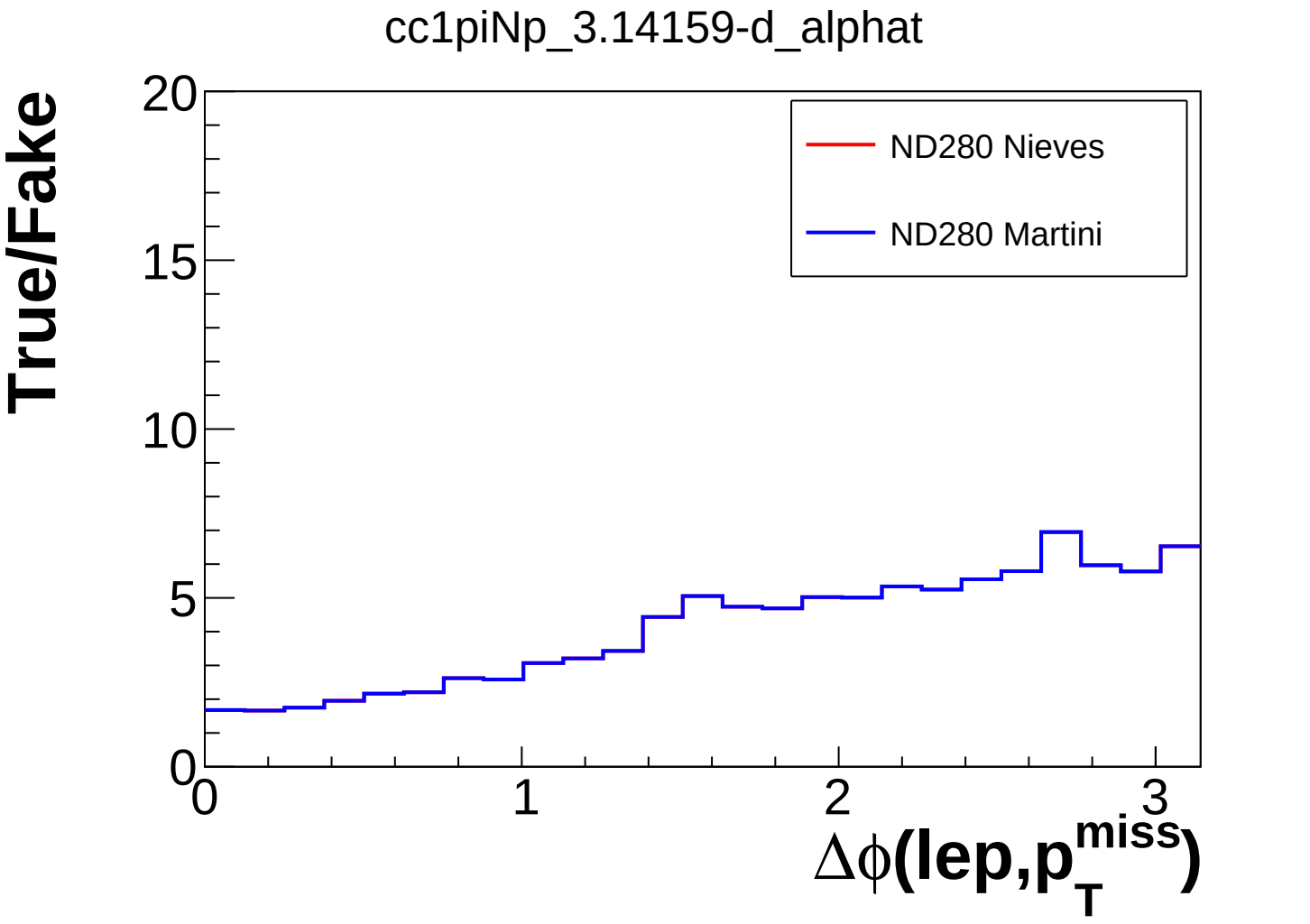
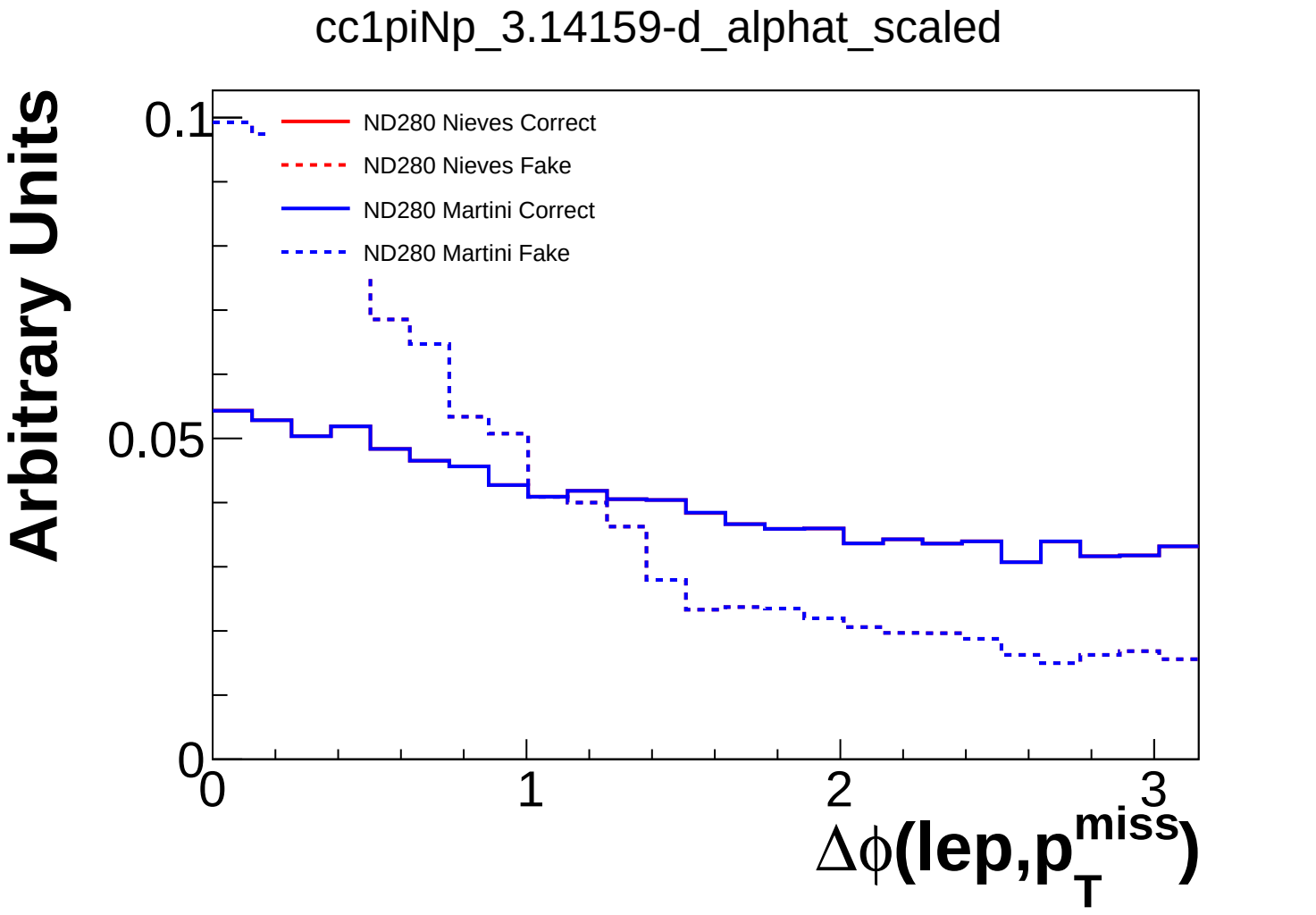
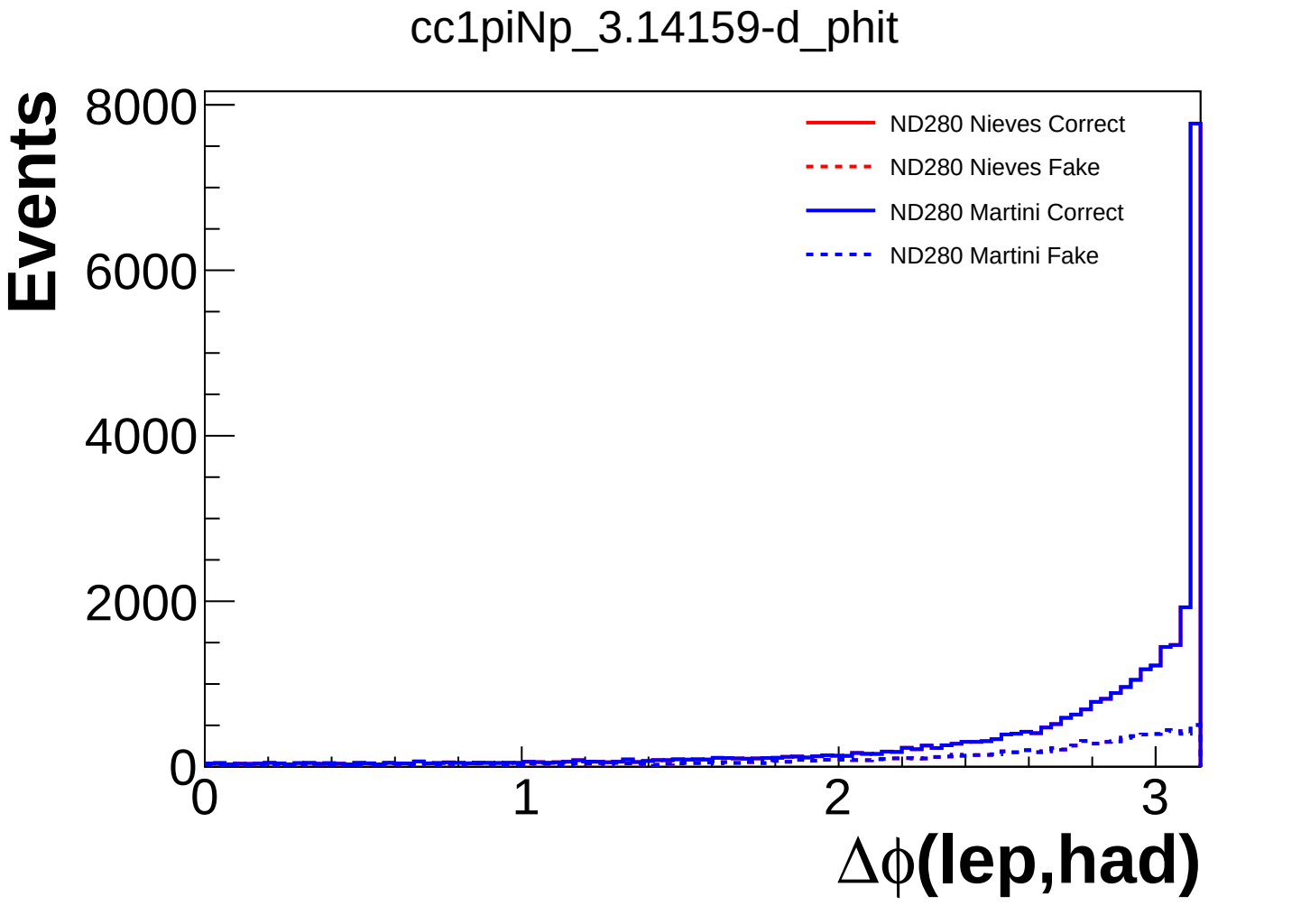
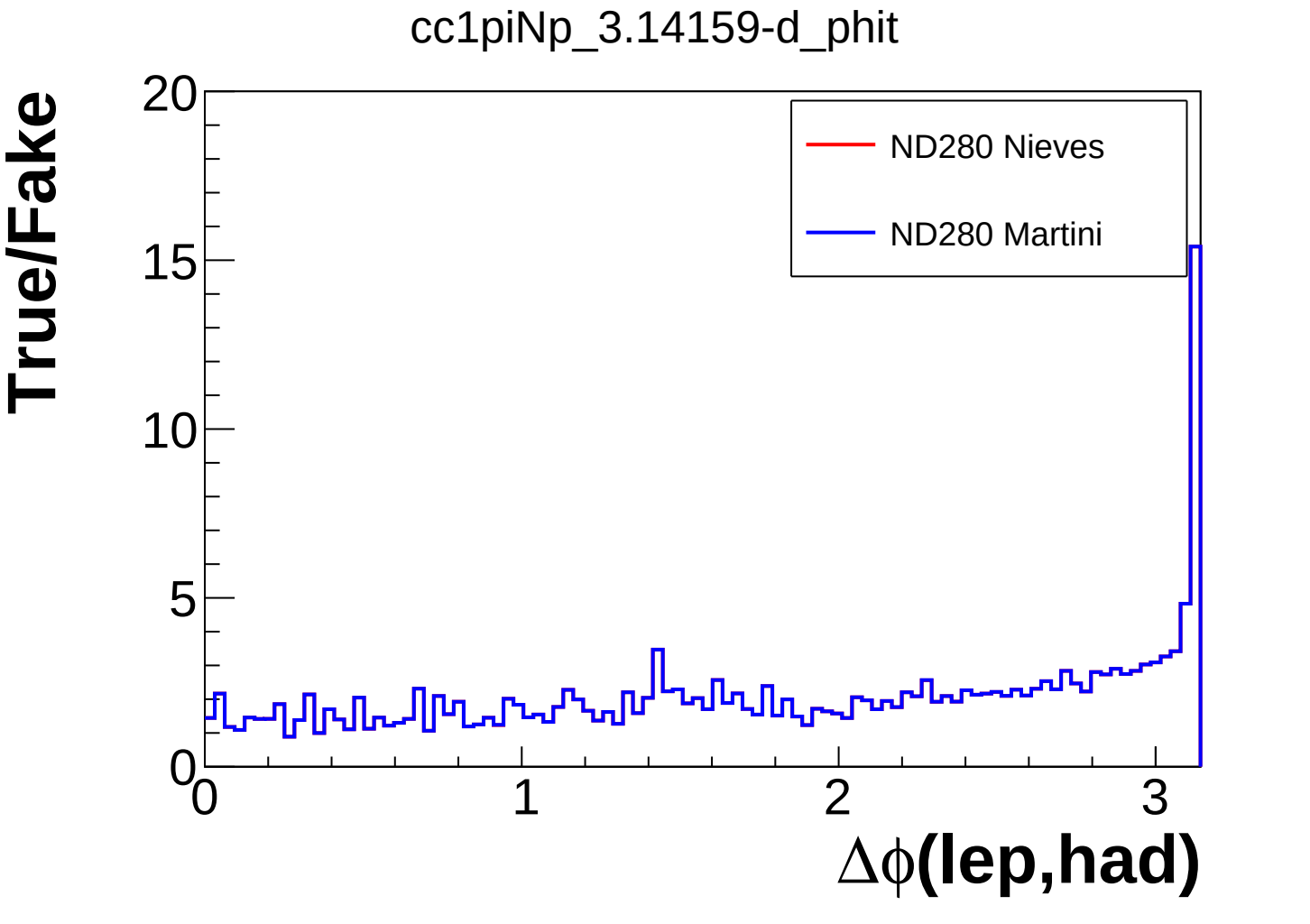
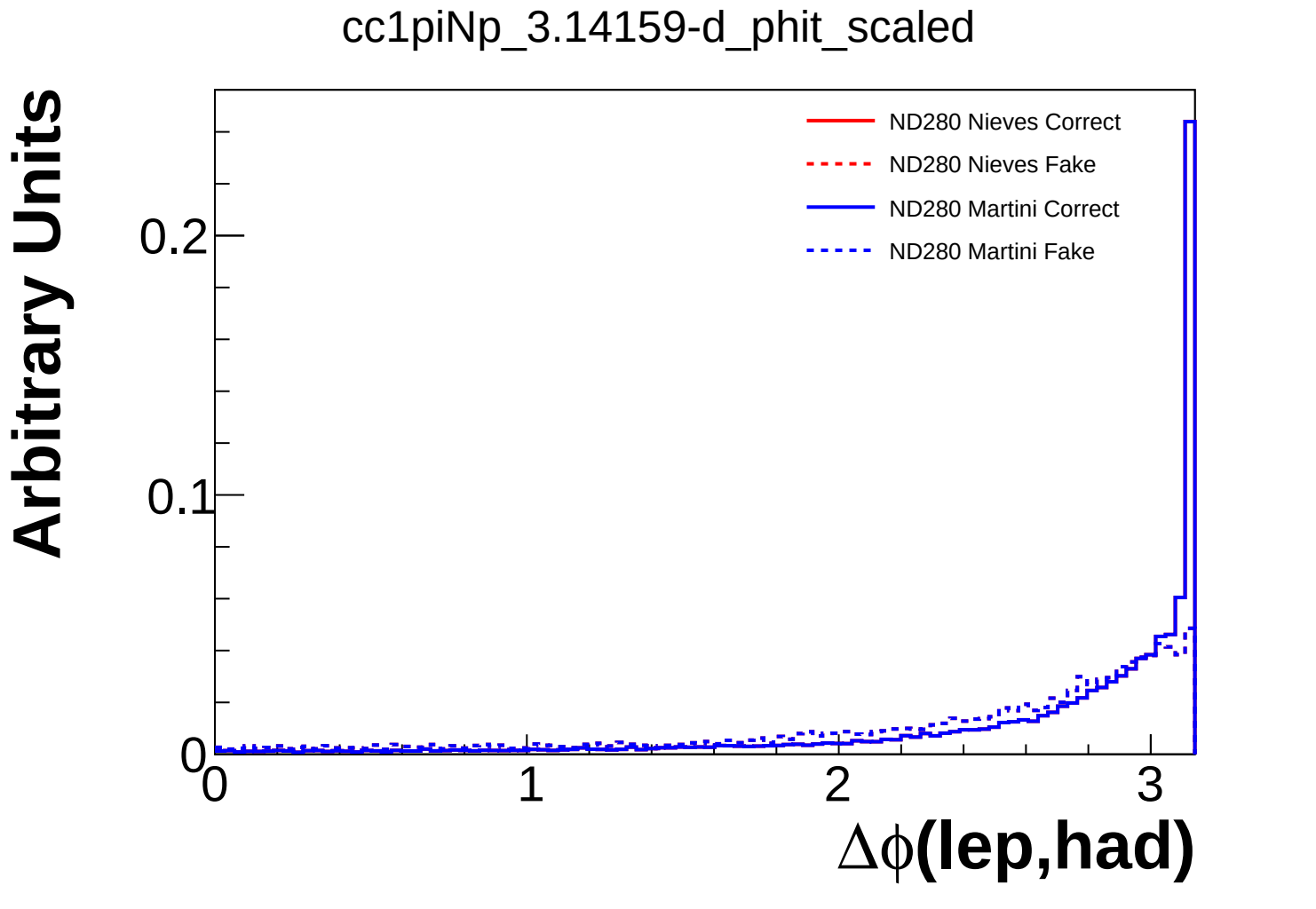

cc1piNp_3.14159-d_alphat
Events
ND280 Nieves Correct
ND280 Nieves Fake
ND280 Martini Correct
ND280 Martini Fake
1500
1000
500
0
0
1
2
3
Δϕ(lep,p_T^miss)

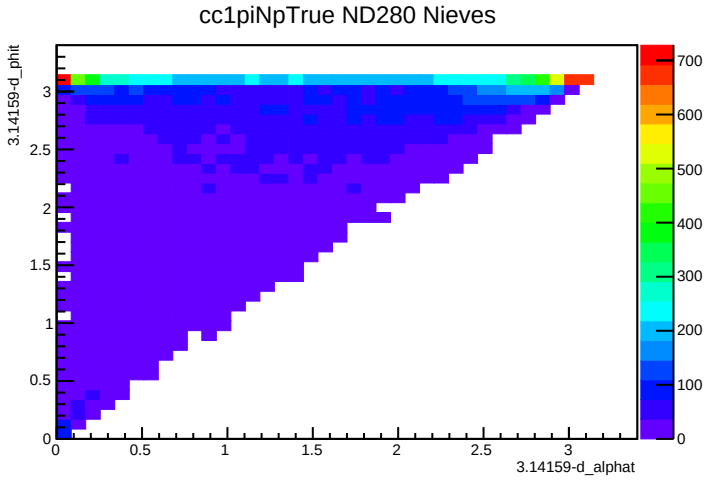

cc1piNp_3.14159-d_alphat
True/Fake
20
15
10
5
0
0
1
2
3
ND280 Nieves
ND280 Martini
Δϕ(lep,p_T^miss)

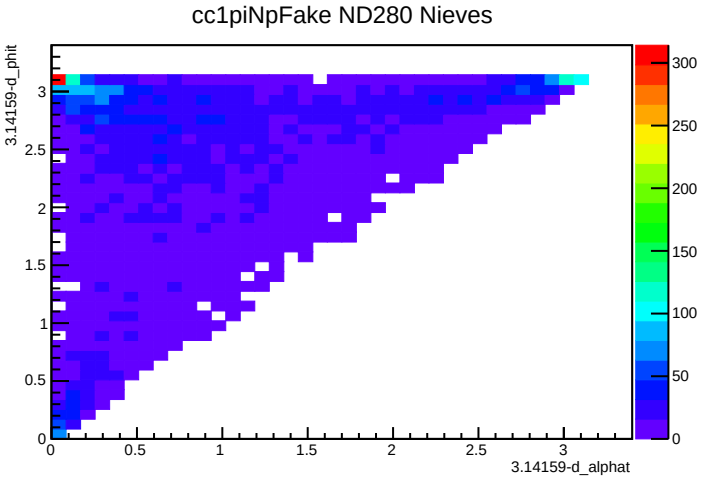

cc1piNp_3.14159-d_alphat_scaled
Arbitrary Units
0.1
0.05
0
0
1
2
3
ND280 Nieves Correct
ND280 Nieves Fake
ND280 Martini Correct
ND280 Martini Fake
Δϕ(lep,p_T^miss)

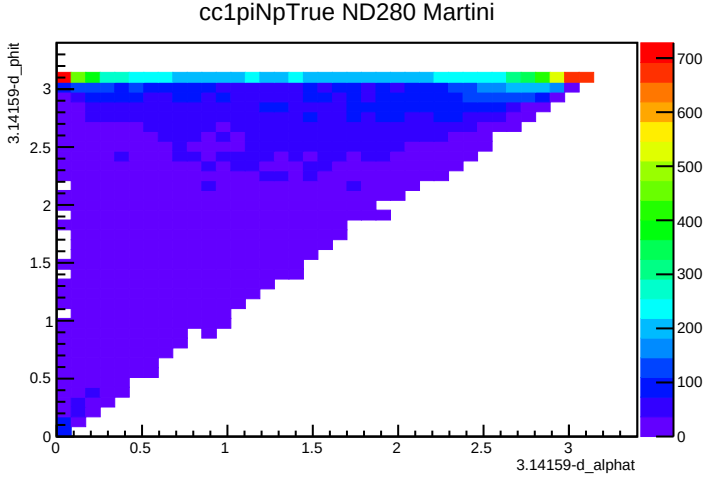

cc1piNp_3.14159-d_phit
Events
8000
6000
4000
2000
0
0
1
2
3
Δϕ(lep,had)
ND280 Nieves Correct
ND280 Nieves Fake
ND280 Martini Correct
ND280 Martini Fake

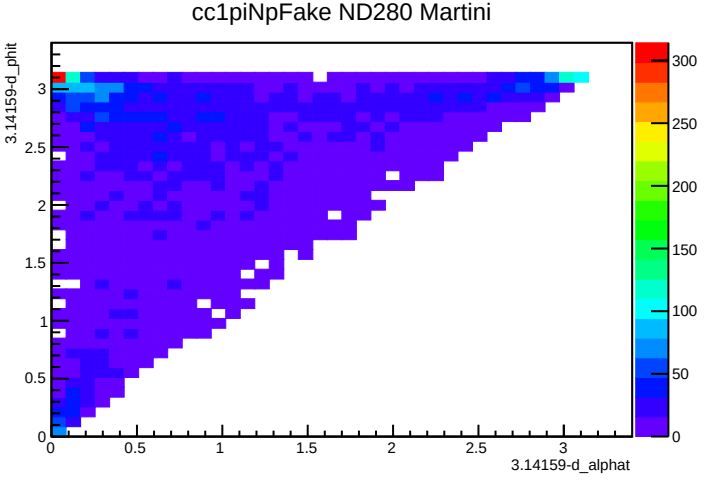

cc1piNp_3.14159-d_phit
True/Fake
20
15
10
5
0
0
1
2
3
Δϕ(lep,had)
ND280 Nieves
ND280 Martini

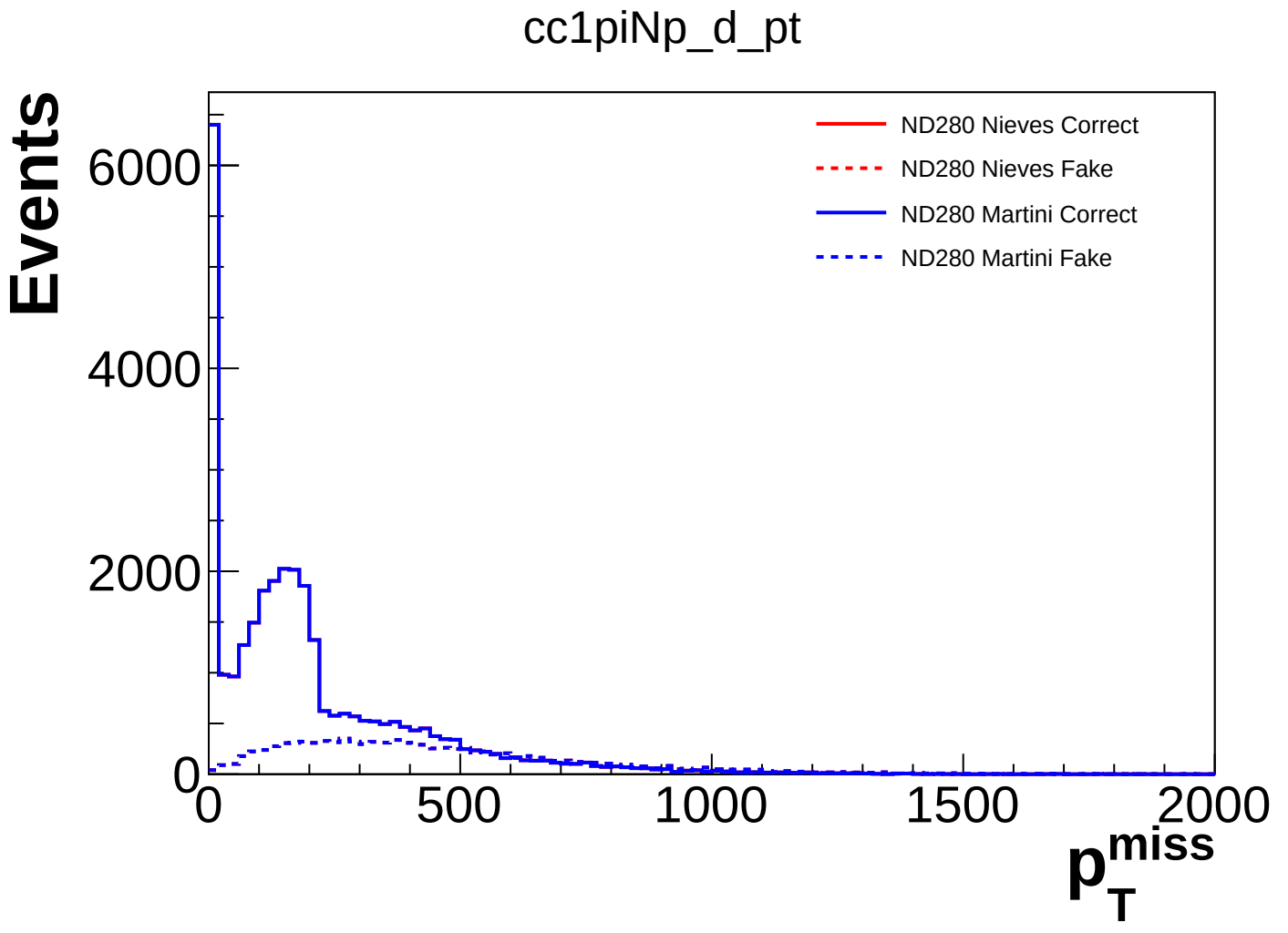

cc1piNp_3.14159-d_phit_scaled
ND280 Nieves Correct
ND280 Nieves Fake
ND280 Martini Correct
ND280 Martini Fake
Arbitrary Units
0.2
0.1
0
0
1
2
3
Δϕ(lep,had)

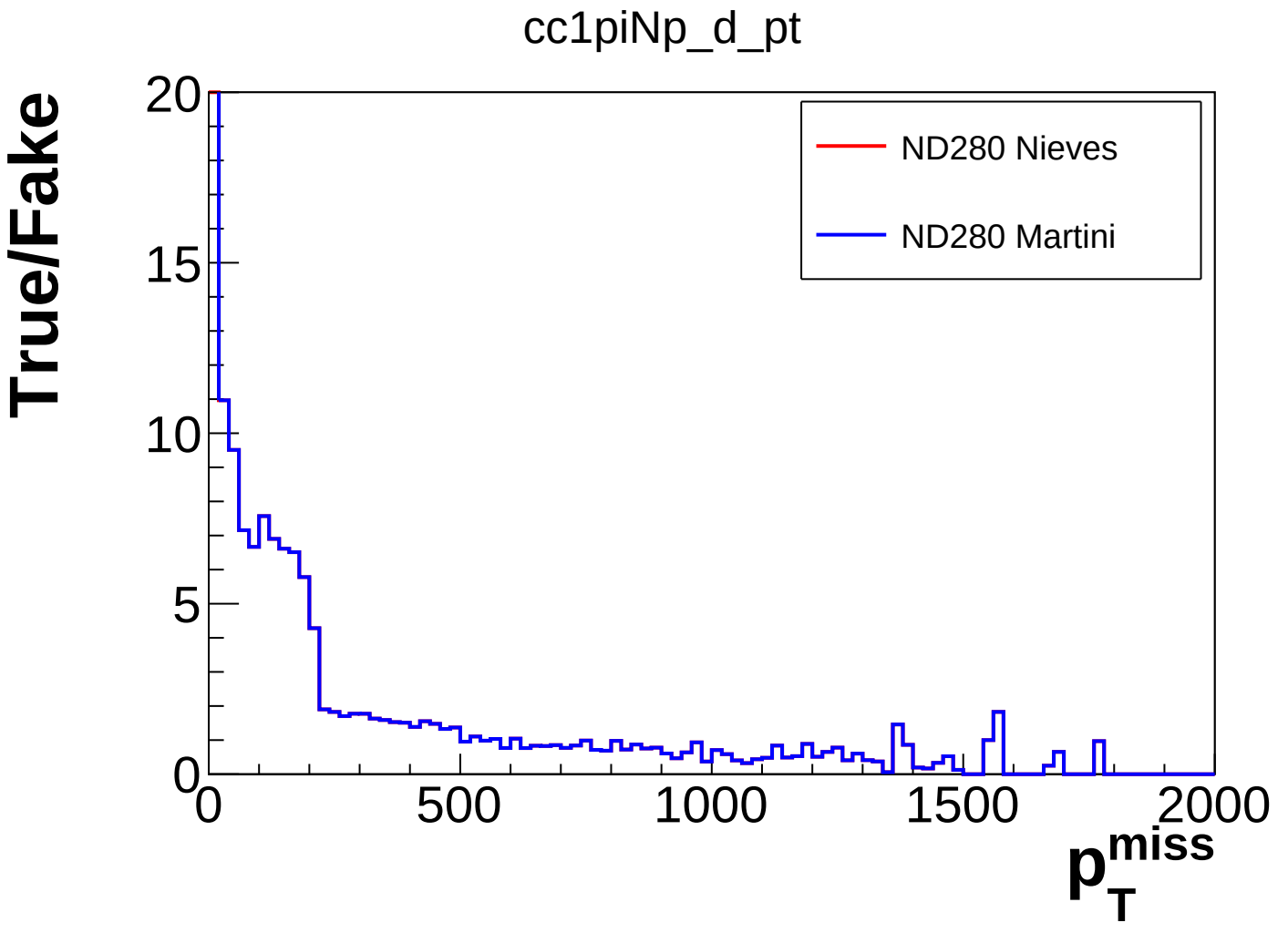

cc1piNpTrue ND280 Nieves
3.14159-d_phit
3.14159-d_alphat
0
0.5
1
1.5
2
2.5
3
0
100
200
300
400
500
600
700

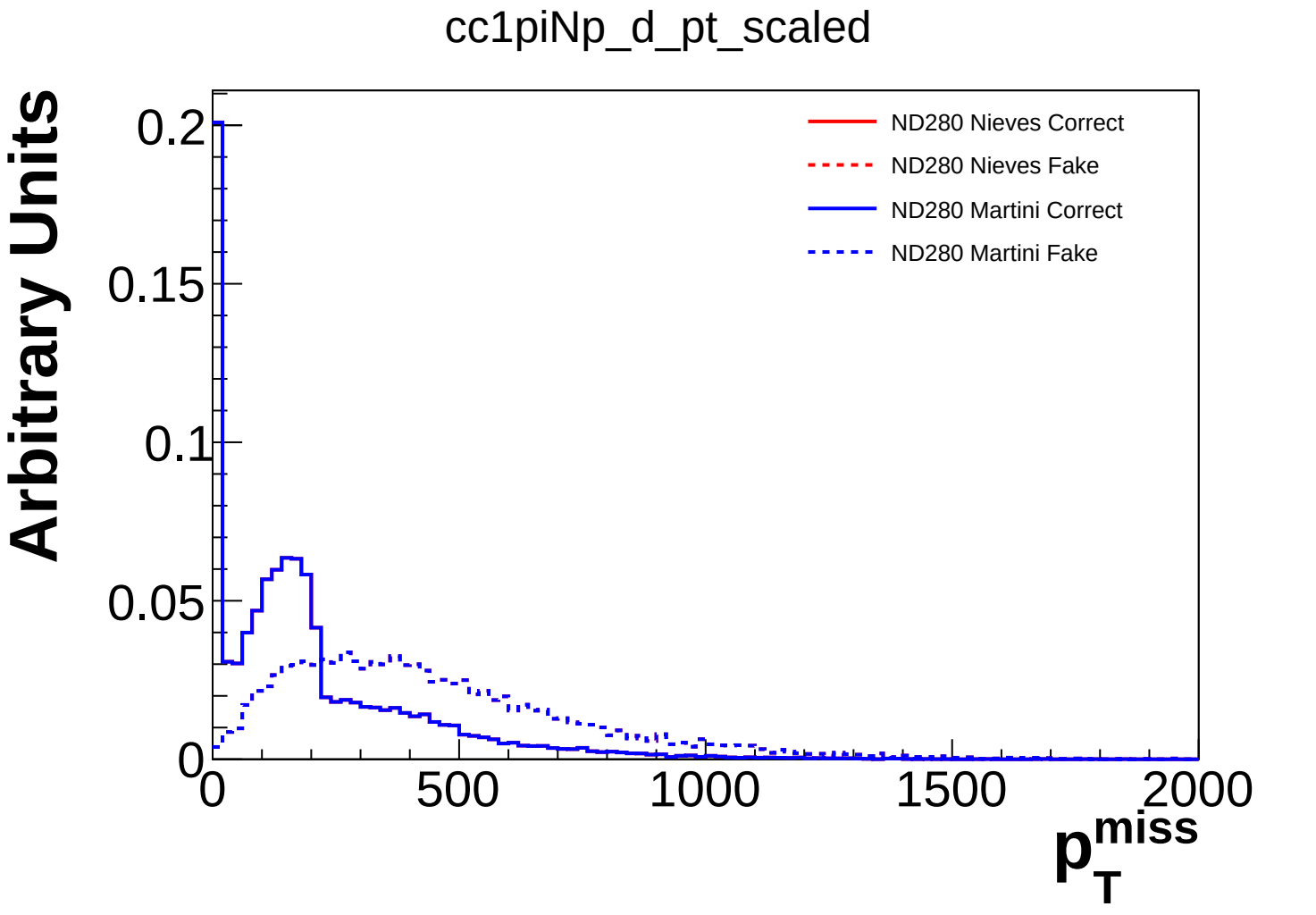

cc1piNpFake ND280 Nieves
3.14159-d_phit
3.14159-d_alphat
0
0.5
1
1.5
2
2.5
3
0
50
100
150
200
250
300

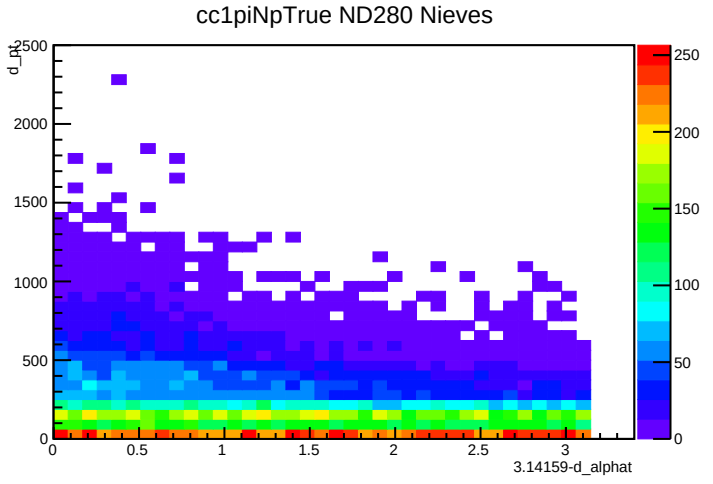

cc1piNpTrue ND280 Martini
3.14159-d_phit
3.14159-d_alphat
0
0.5
1
1.5
2
2.5
3
0
100
200
300
400
500
600
700

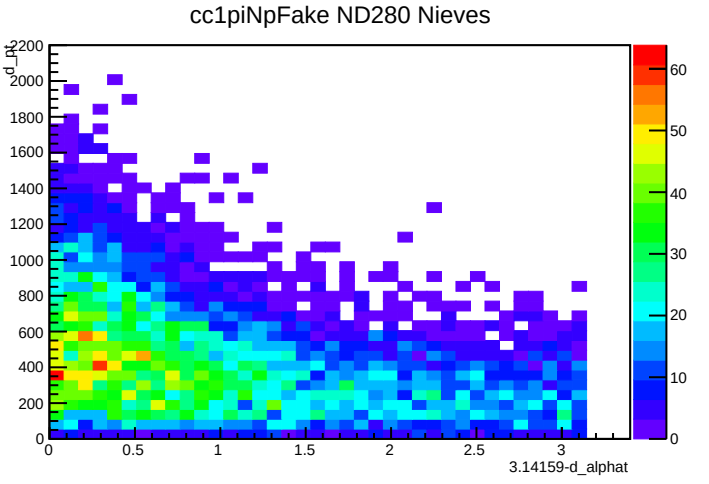

cc1piNpFake ND280 Martini
3.14159-d_phit
3.14159-d_alphat
0
0.5
1
1.5
2
2.5
3
0
50
100
150
200
250
300

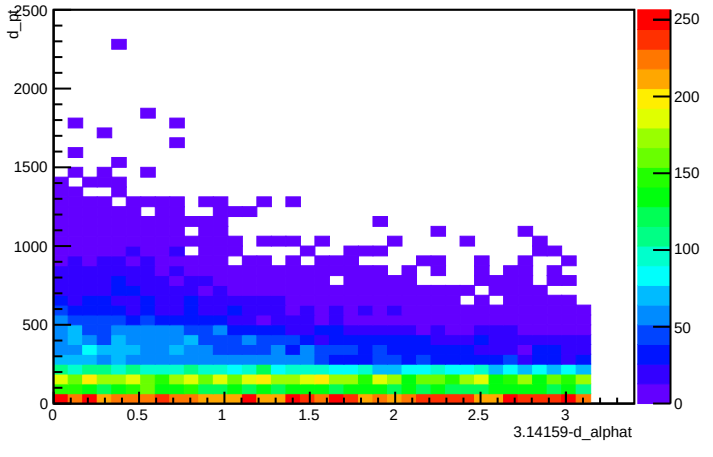

cc1piNp_d_pt
Events
6000
4000
2000
0
0
500
1000
1500
2000
p_T^{miss}
ND280 Nieves Correct
ND280 Nieves Fake
ND280 Martini Correct
ND280 Martini Fake

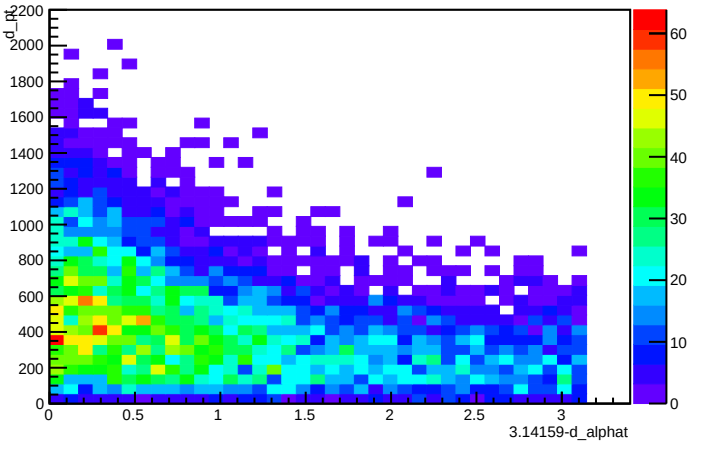

cc1piNp_d_pt
True/Fake
20
15
10
5
0
0
500
1000
1500
2000
p_T^{miss}
ND280 Nieves
ND280 Martini

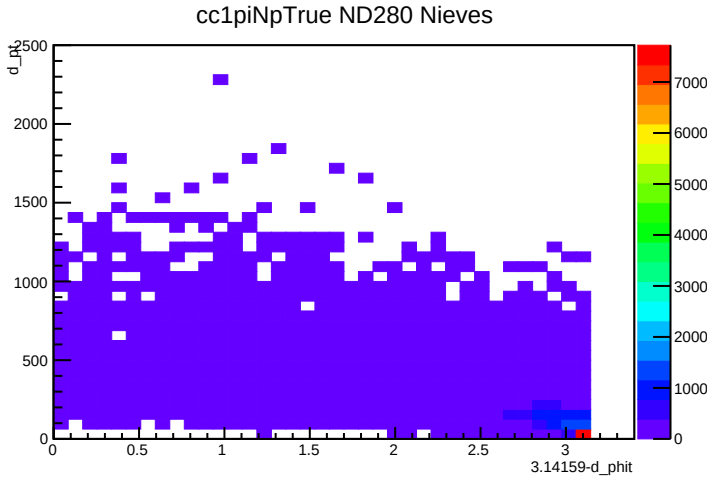

cc1piNp_d_pt_scaled
Arbitrary Units
0.2
0.15
0.1
0.05
0
0
500
1000
1500
2000
p_T^{miss}
ND280 Nieves Correct
ND280 Nieves Fake
ND280 Martini Correct
ND280 Martini Fake

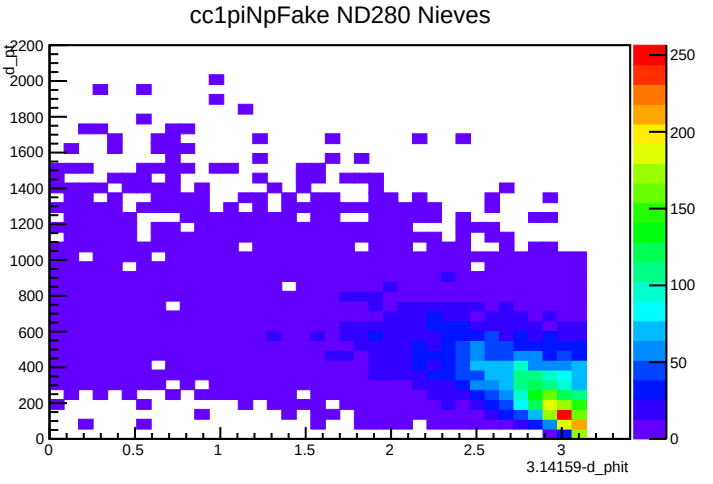

cc1piNpTrue ND280 Nieves
d_pt
3.14159-d_alphat

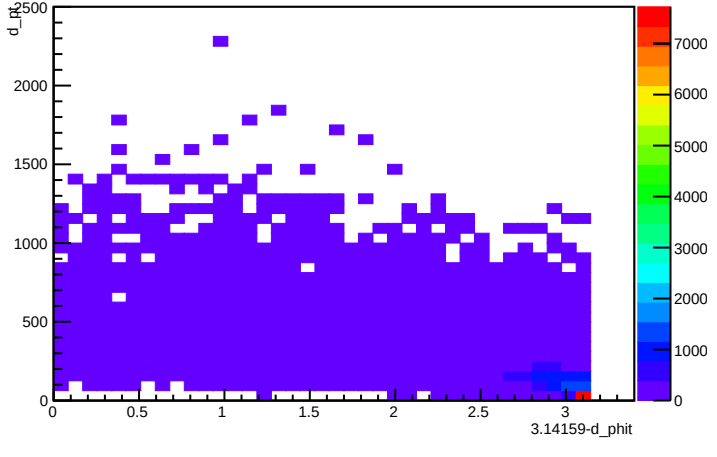

cc1piNpFake ND280 Nieves
d_pt
3.14159-d_alphat

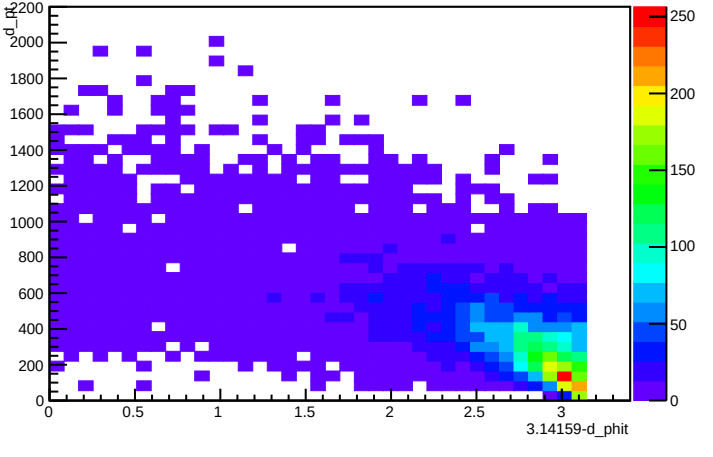

cc1piNpTrue ND280 Martini
d_pt
3.14159-d_alphat

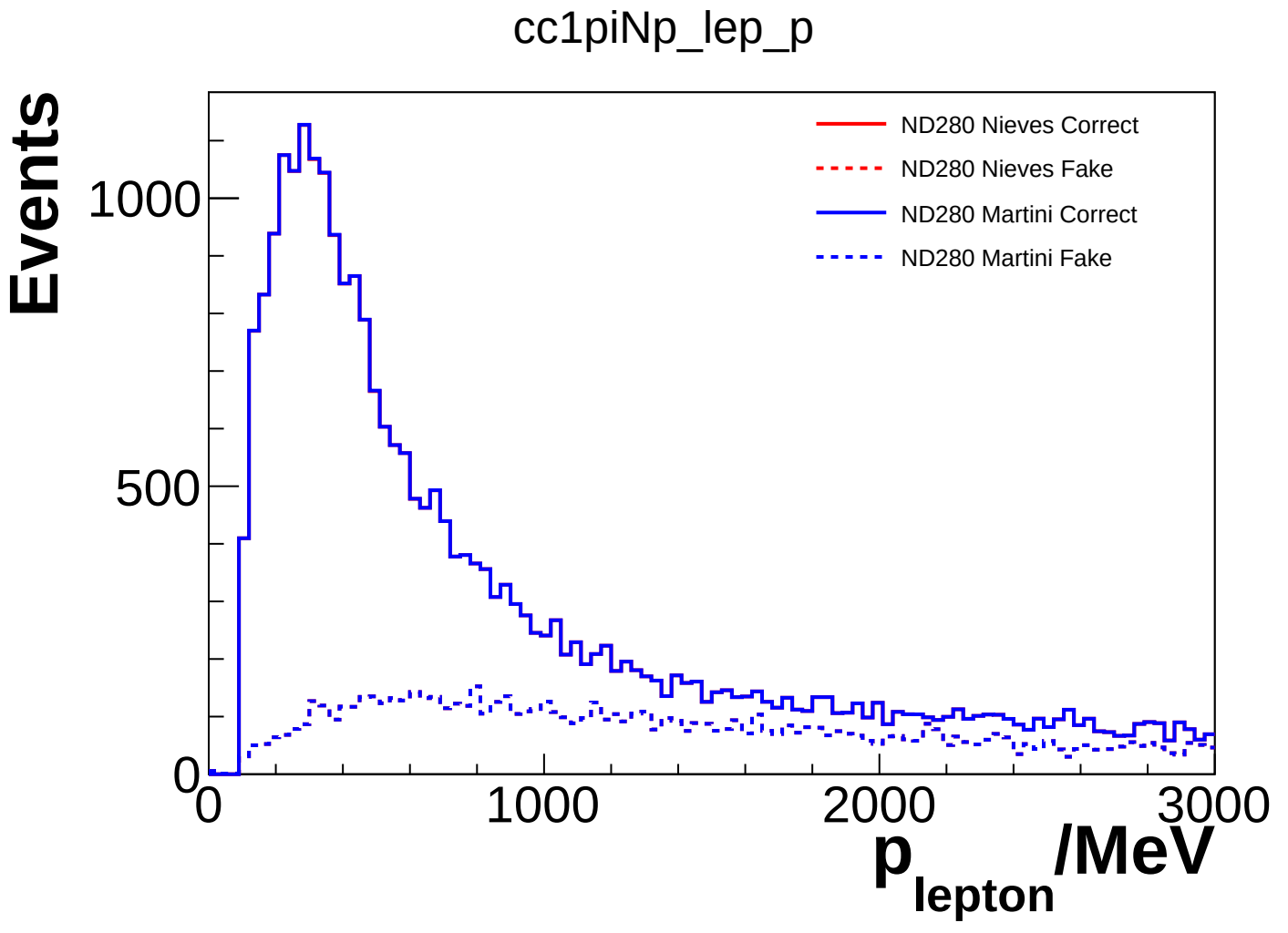

cc1piNpFake ND280 Martini
d_pt
3.14159-d_alphat

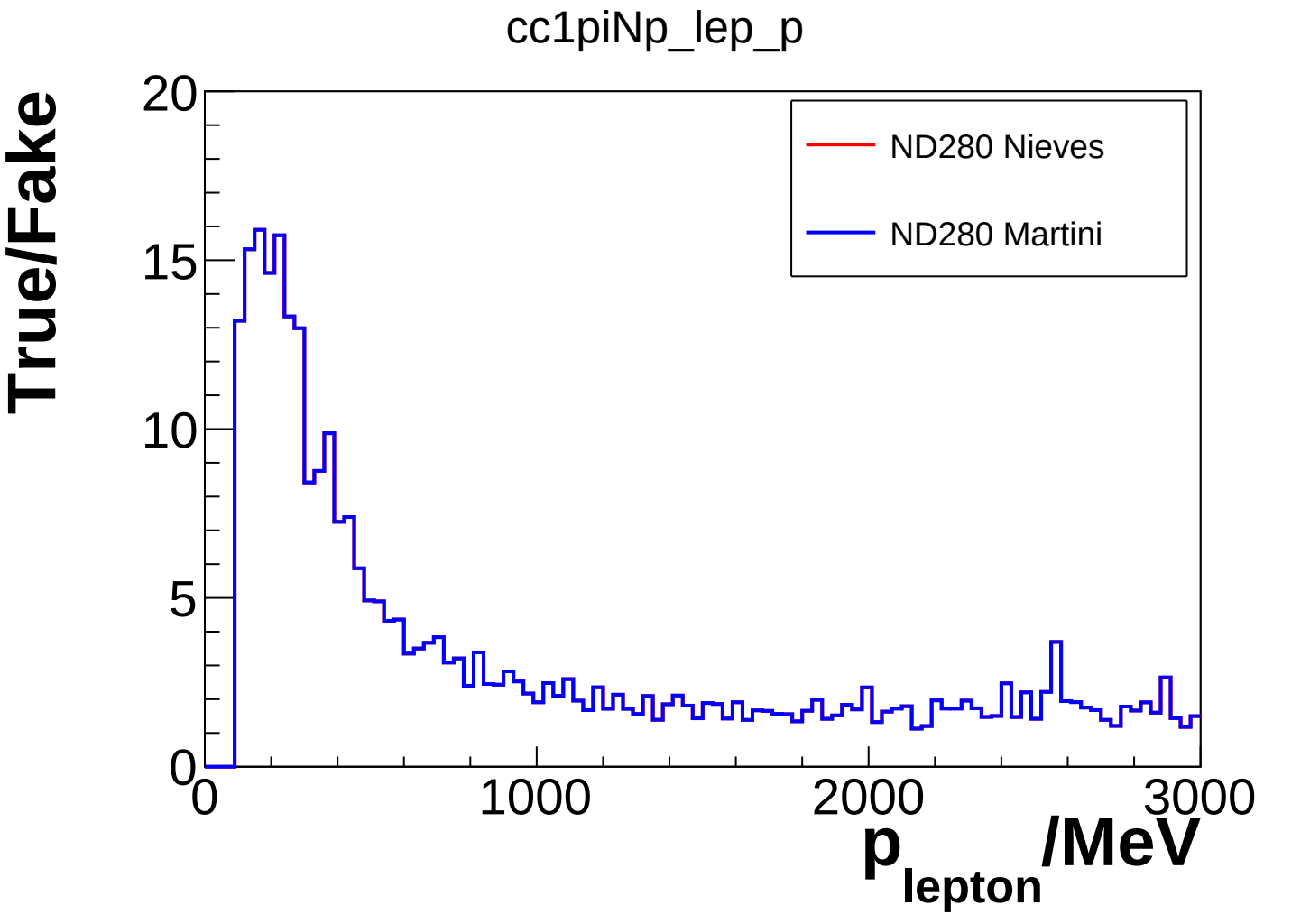

cc1piNpTrue ND280 Nieves
d_pt
3.14159-d_phit

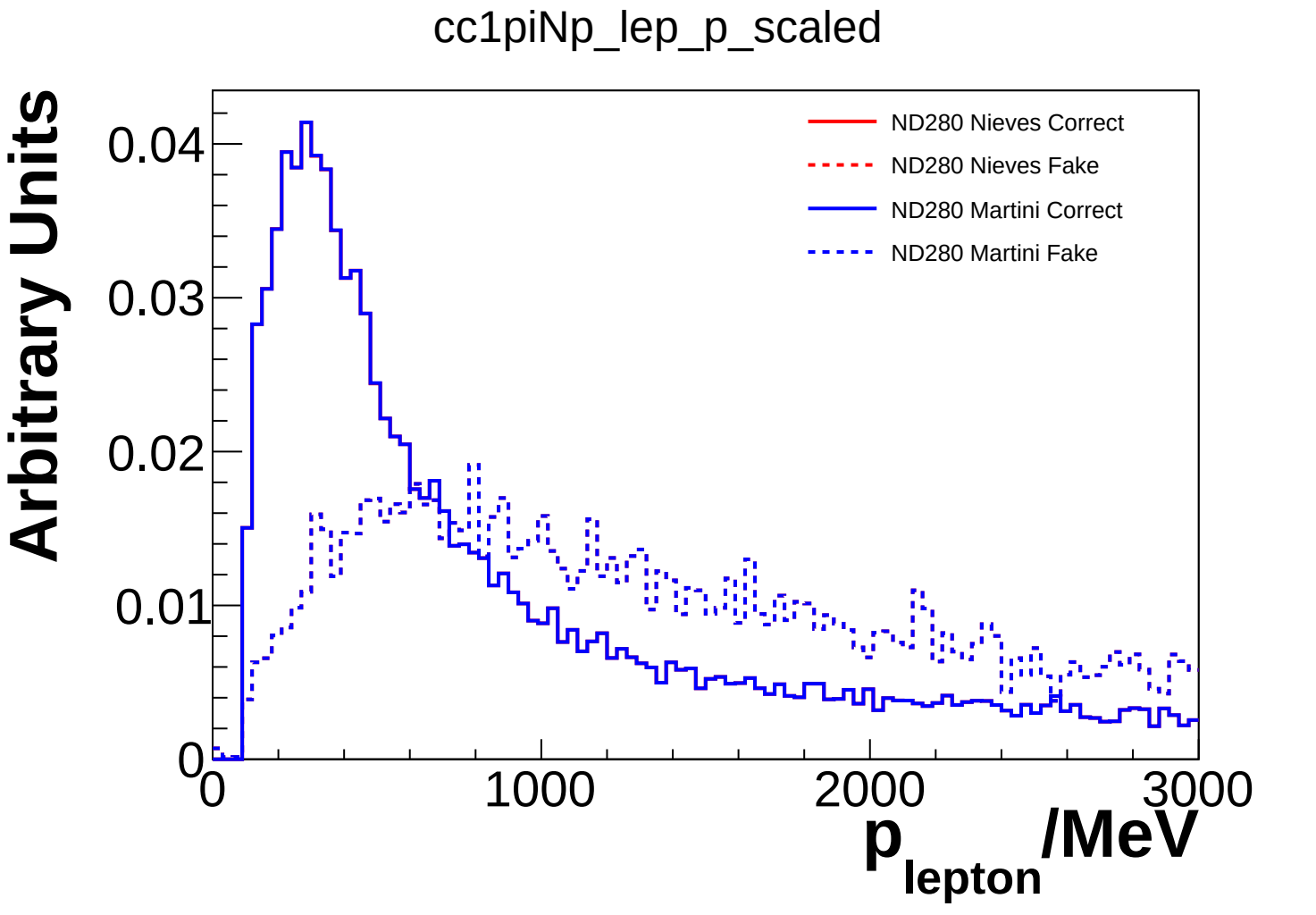

cc1piNpFake ND280 Nieves
d_pt
3.14159-d_phit

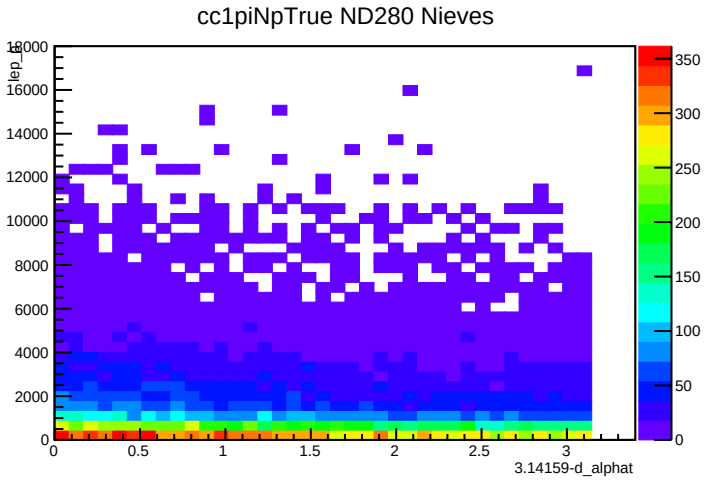

cc1piNpTrue ND280 Martini
d_pt
3.14159-d_phit

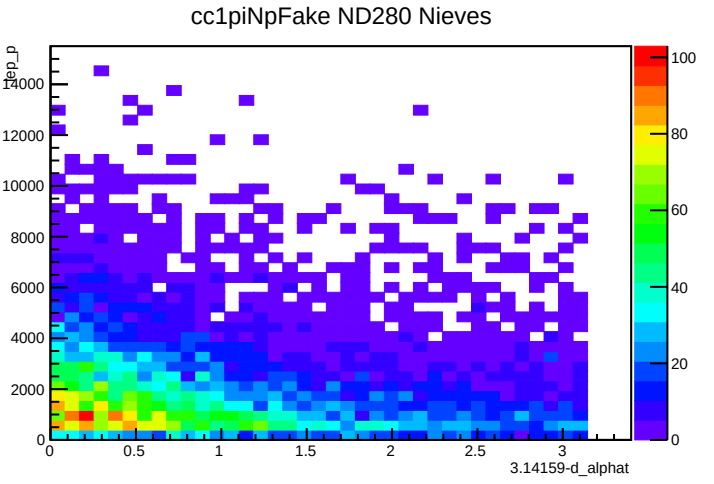

cc1piNpFake ND280 Martini
d_pt
3.14159-d_phit

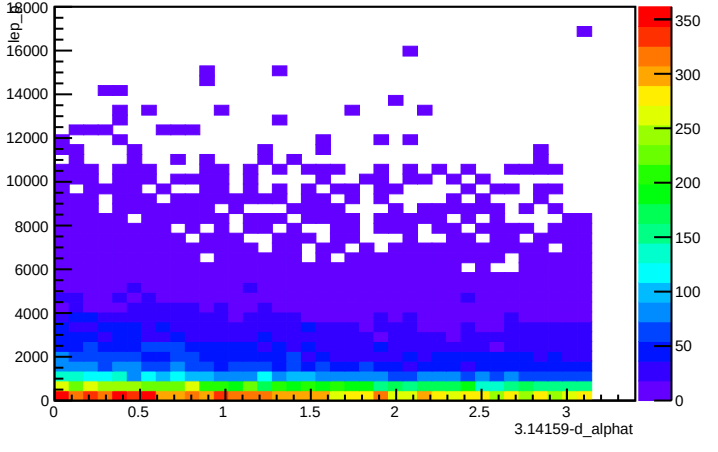

cc1piNp_lep_p
Events
1000
500
0
0
1000
2000
3000
p lepton /MeV
ND280 Nieves Correct
ND280 Nieves Fake
ND280 Martini Correct
ND280 Martini Fake

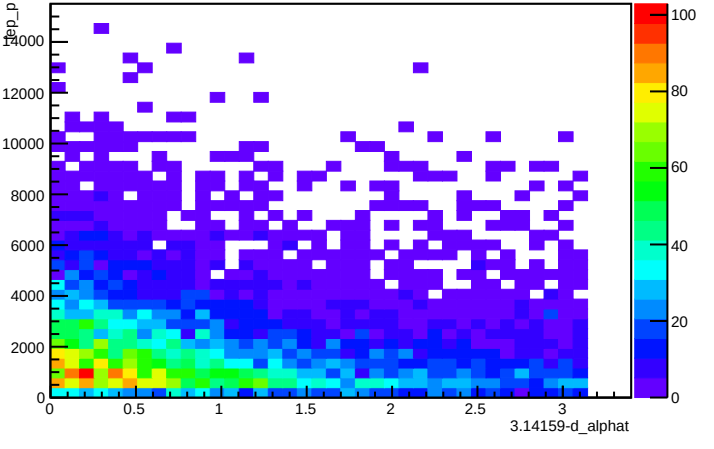

cc1piNp_lep_p
True/Fake
20
15
10
5
0
0
1000
2000
3000
ND280 Nieves
ND280 Martini
p lepton /MeV


cc1piNp_lep_p_scaled
Arbitrary Units
0.04
0.03
0.02
0.01
0
0
1000
2000
3000
p lepton /MeV
ND280 Nieves Correct
ND280 Nieves Fake
ND280 Martini Correct
ND280 Martini Fake

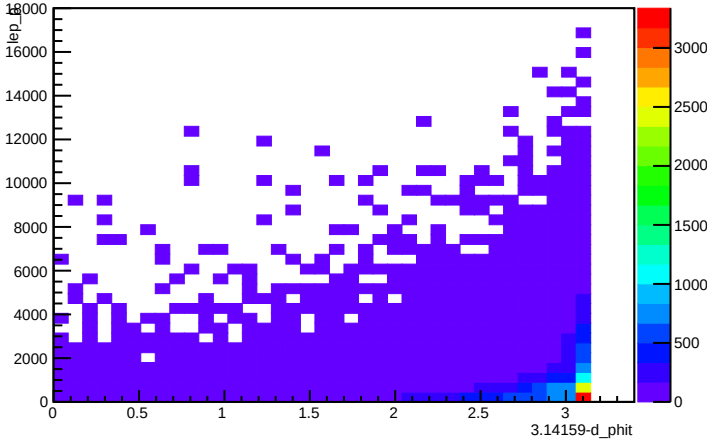

cc1piNpTrue ND280 Nieves
lep_p
3.14159-d_alphat


cc1piNpFake ND280 Nieves
lep_p
3.14159-d_alphat

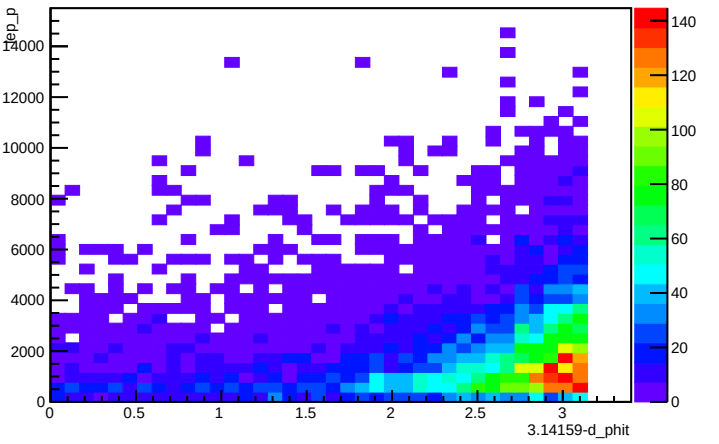

cc1piNpTrue ND280 Martini
lep_p
3.14159-d_alphat


cc1piNpFake ND280 Martini
lep_p
3.14159-d_alphat

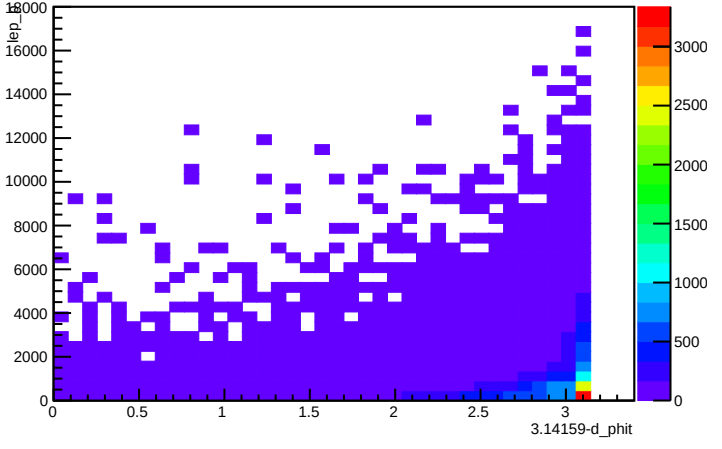
cc1piNpTrue ND280 Nieves



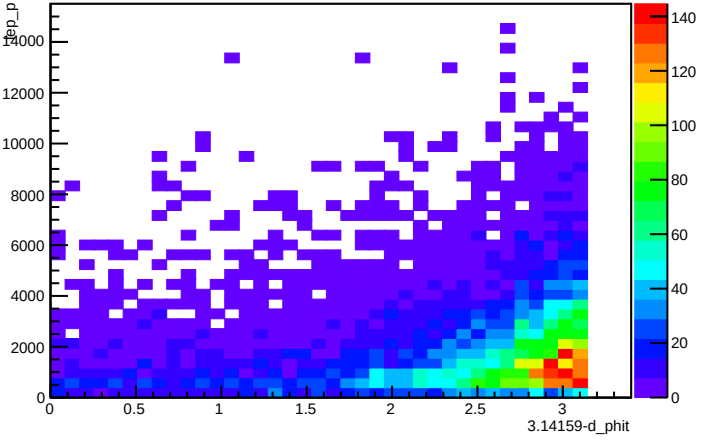
cc1piNpFake ND280 Nieves

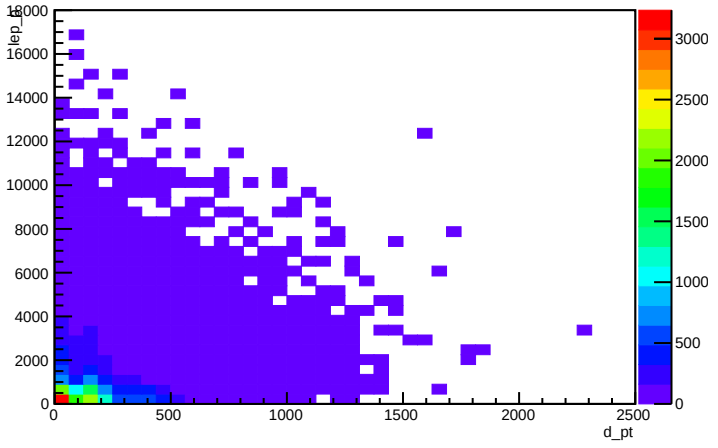


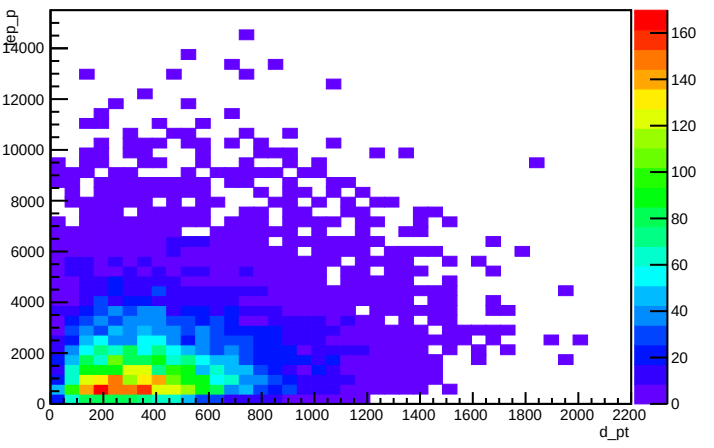
cc1piNpTrue ND280 Martini

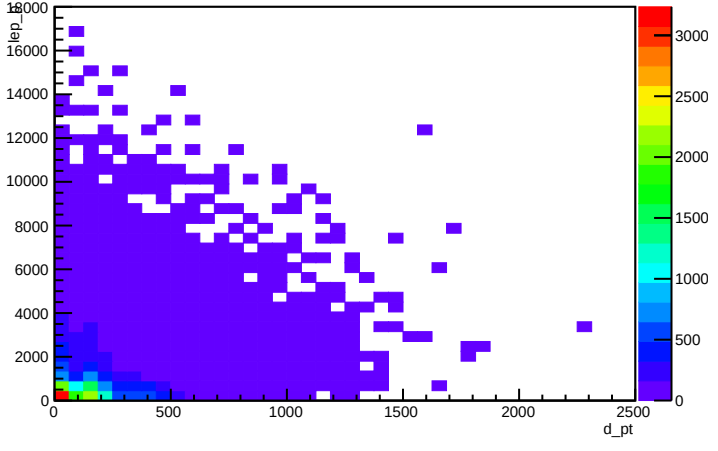


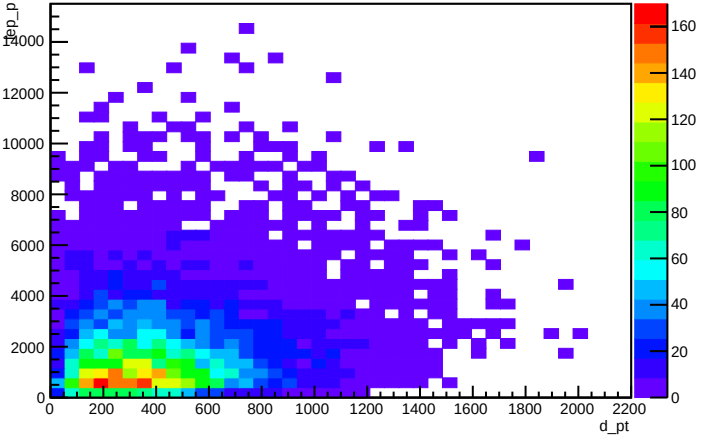
cc1piNpFake ND280 Martini

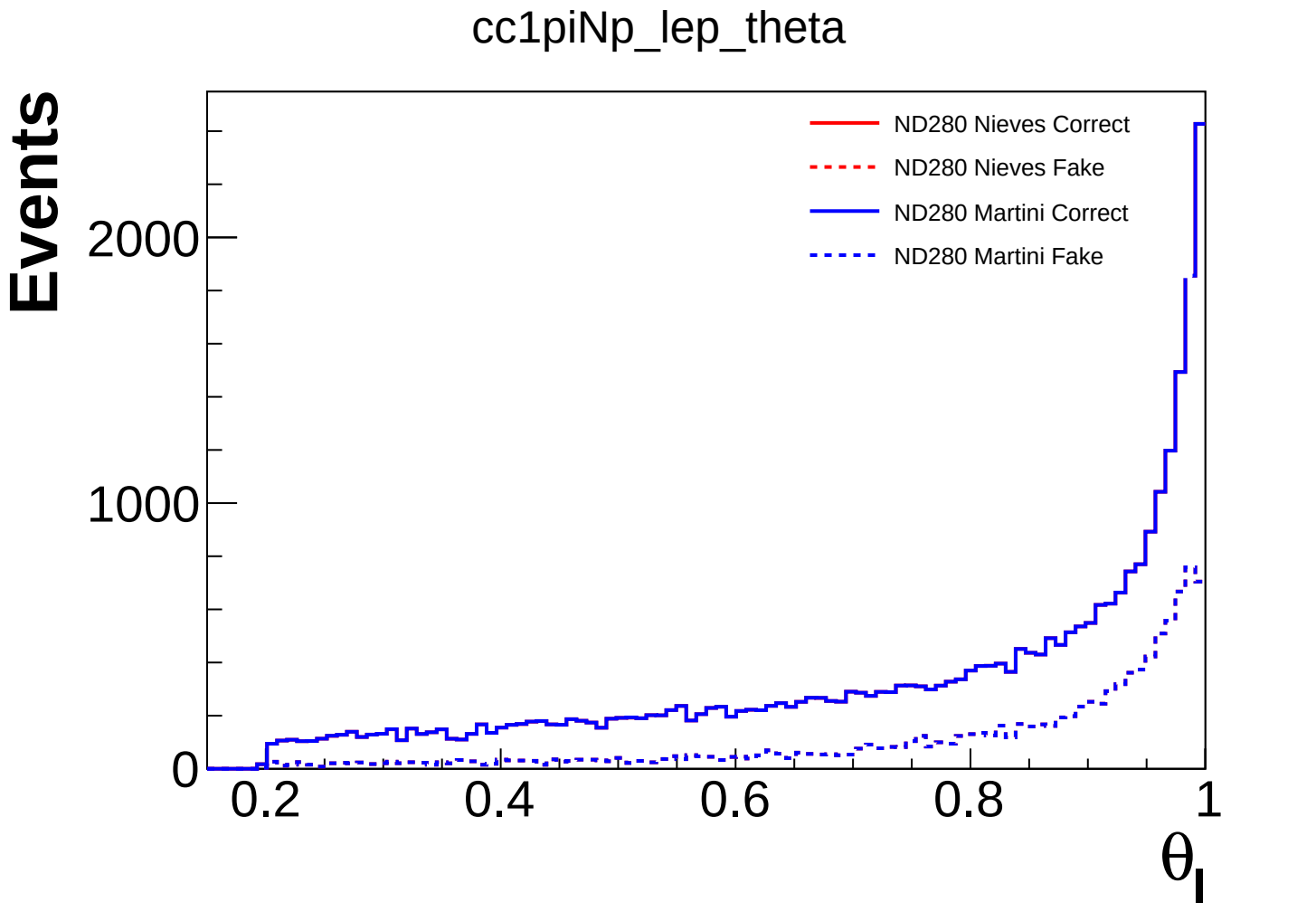


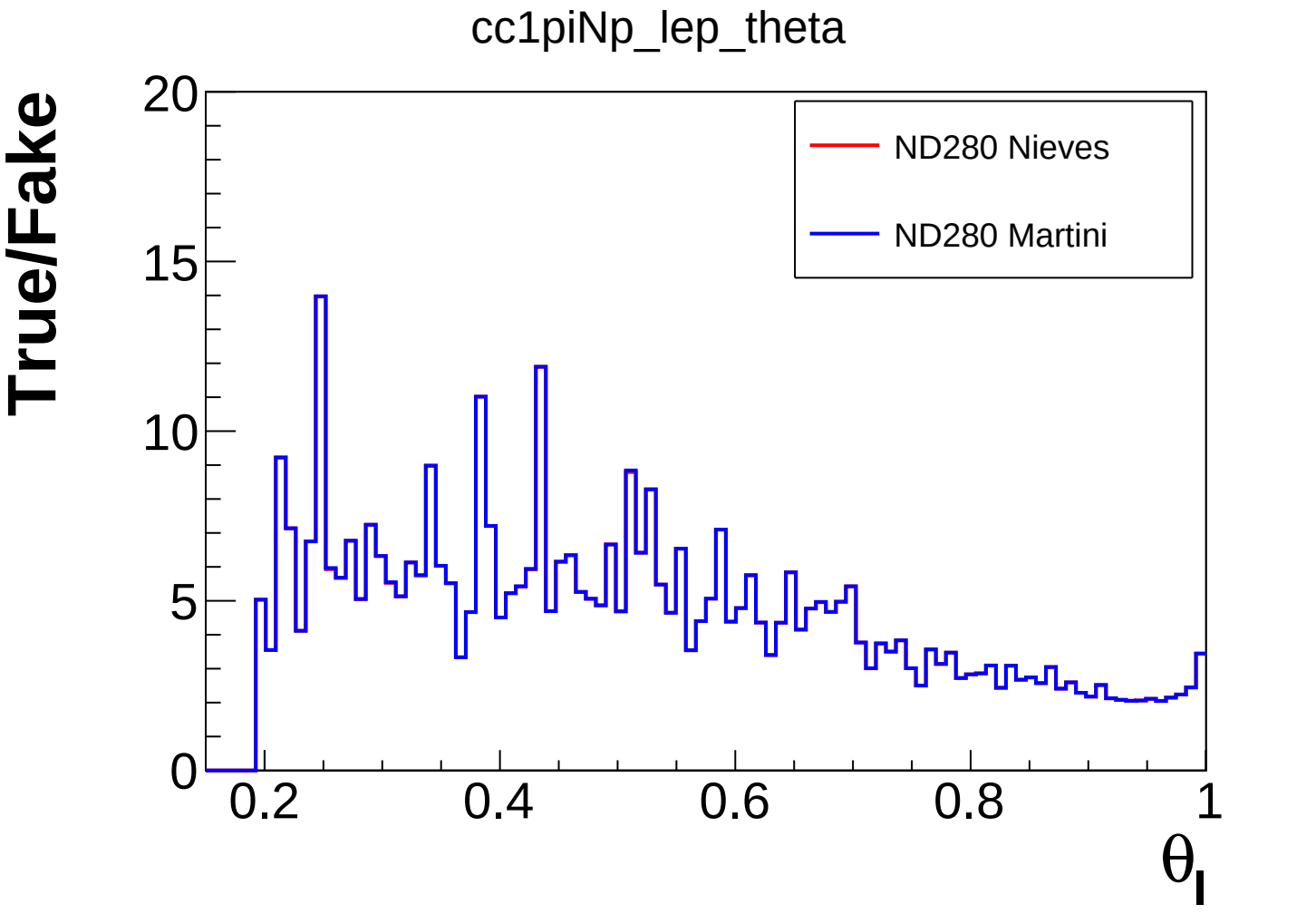

cc1piNpTrue ND280 Nieves
lep_p
d_pt

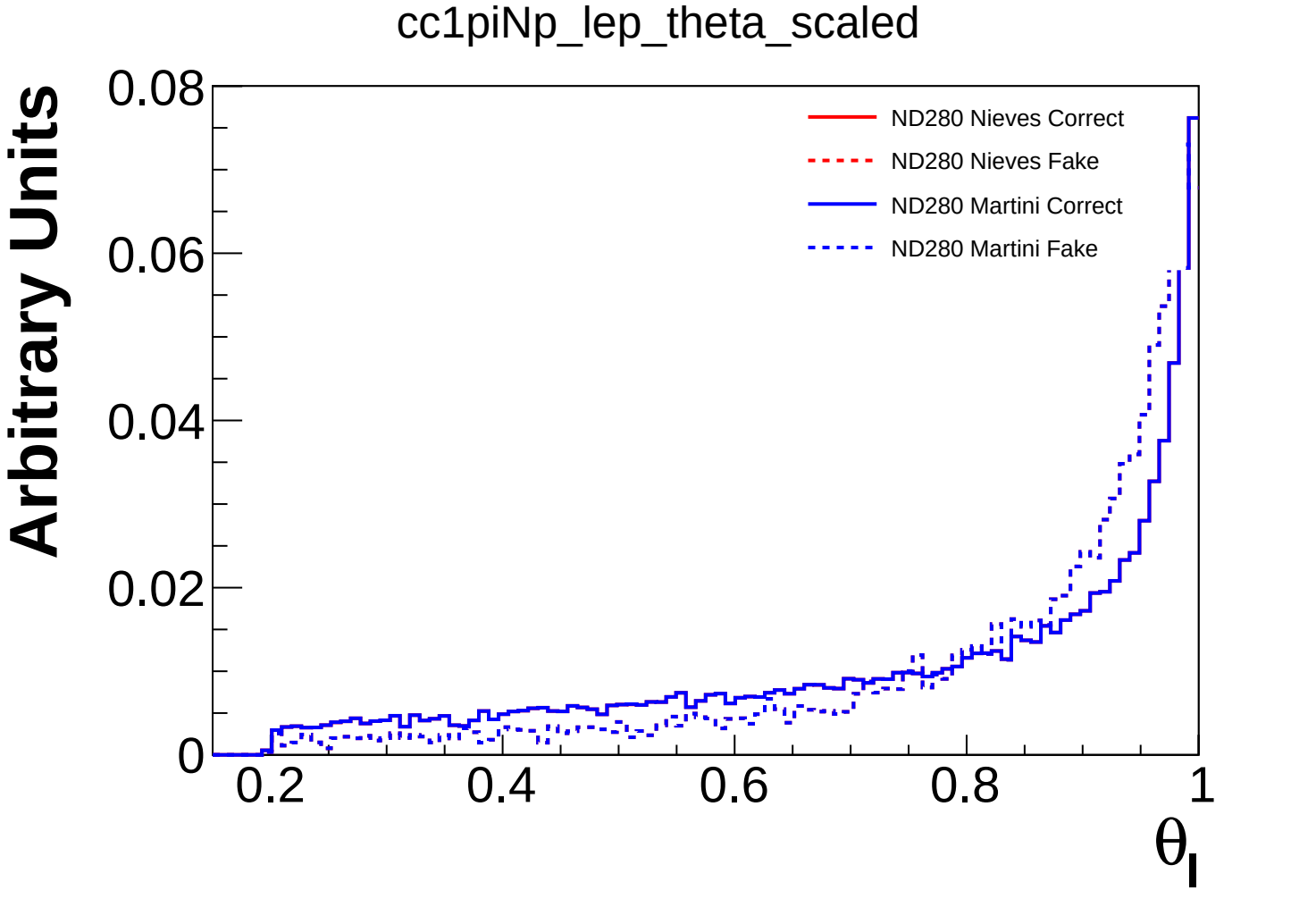

cc1piNpFake ND280 Nieves
lep_p
d_pt

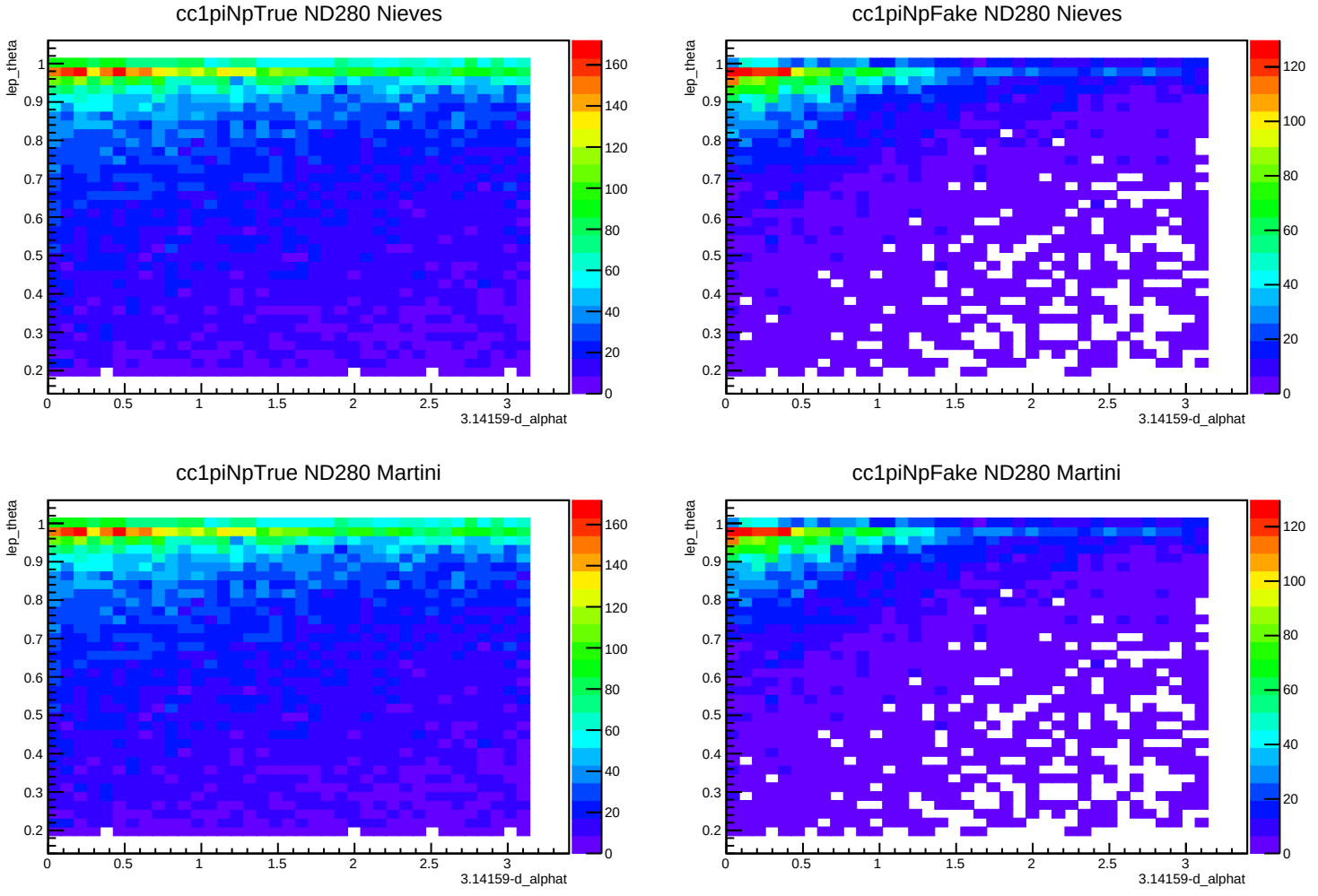

cc1piNpTrue ND280 Martini
lep_p
d_pt


cc1piNpFake ND280 Martini
lep_p
d_pt

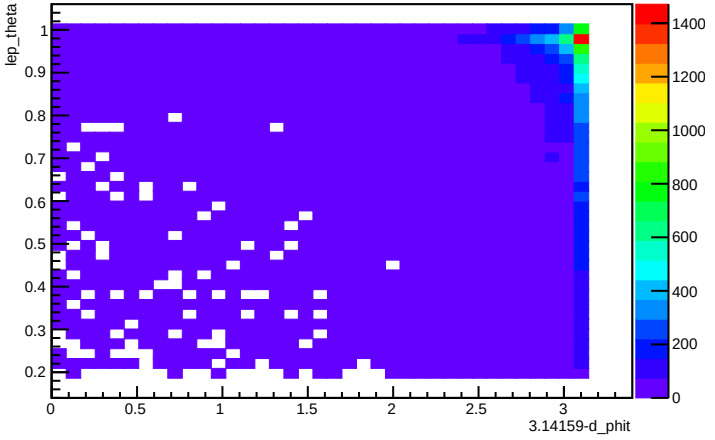

cc1piNp_lep_theta
Events
2000
1000
0
0.2
0.4
0.6
0.8
1
θl
ND280 Nieves Correct
ND280 Nieves Fake
ND280 Martini Correct
ND280 Martini Fake


cc1piNp_lep_theta
True/Fake
20
15
10
5
0
0.2
0.4
0.6
0.8
1
θ_l
ND280 Nieves
ND280 Martini

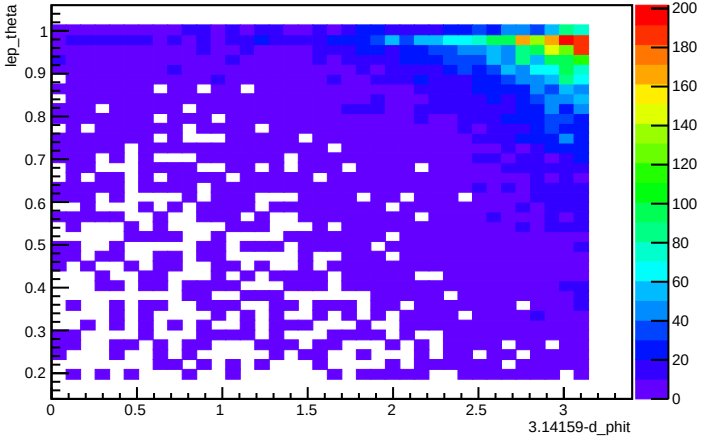

cc1piNp_lep_theta_scaled
Arbitrary Units
0.08
0.06
0.04
0.02
0
0.2
0.4
0.6
0.8
1
θl
ND280 Nieves Correct
ND280 Nieves Fake
ND280 Martini Correct
ND280 Martini Fake


cc1piNpTrue ND280 Nieves
cc1piNpFake ND280 Nieves
cc1piNpTrue ND280 Martini
cc1piNpFake ND280 Martini
lep_theta
3.14159-d_alphat

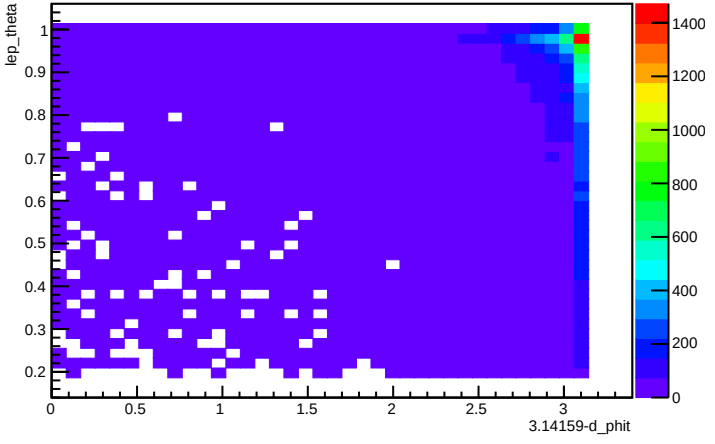
cc1piNpTrue ND280 Nieves



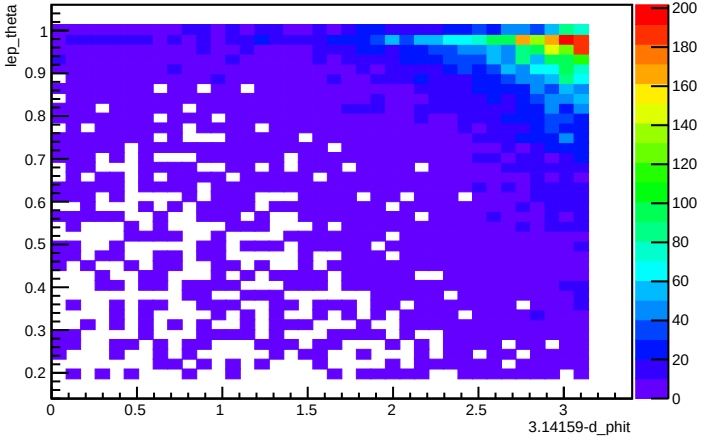
cc1piNpFake ND280 Nieves

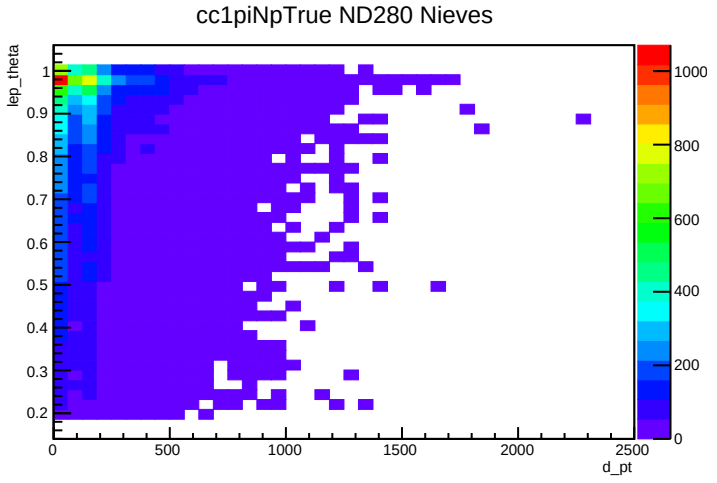


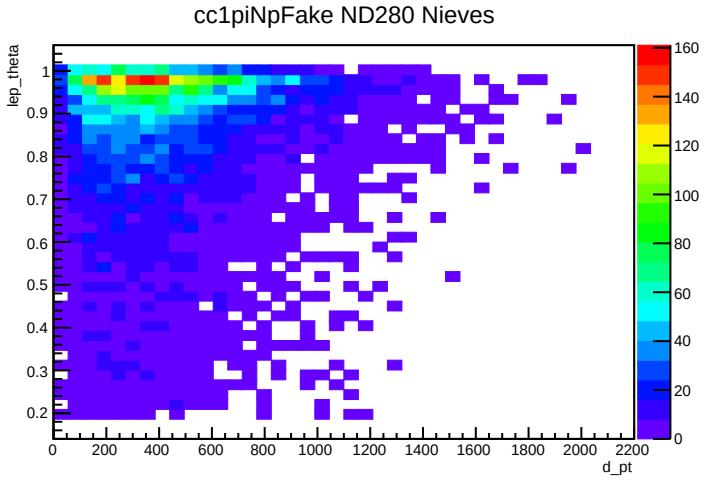
cc1piNpTrue ND280 Martini

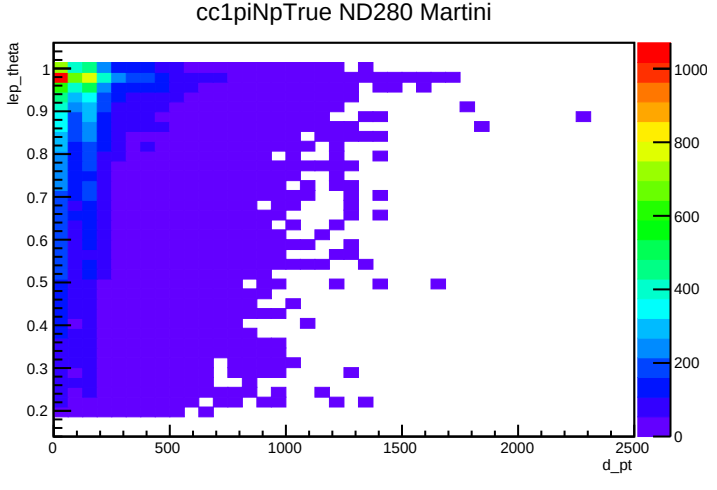


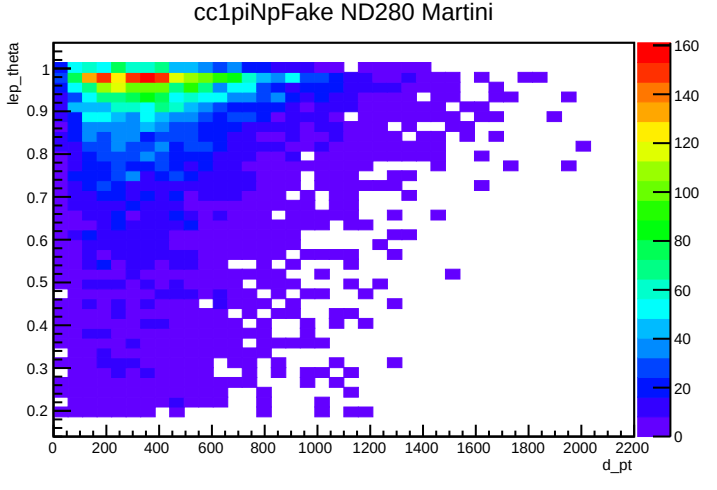
cc1piNpFake ND280 Martini

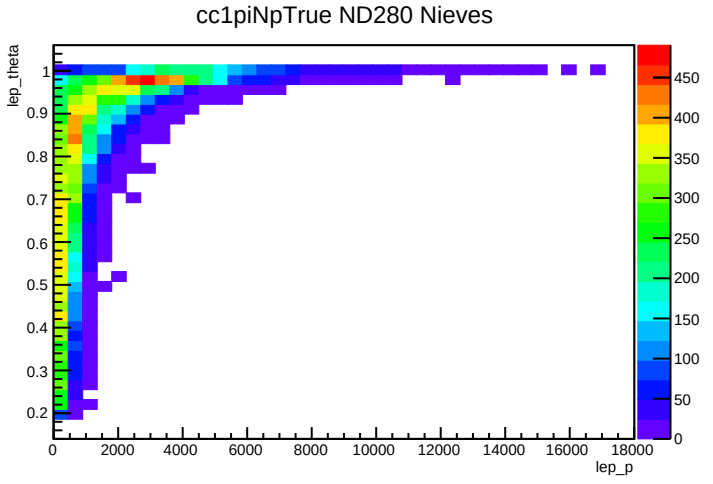


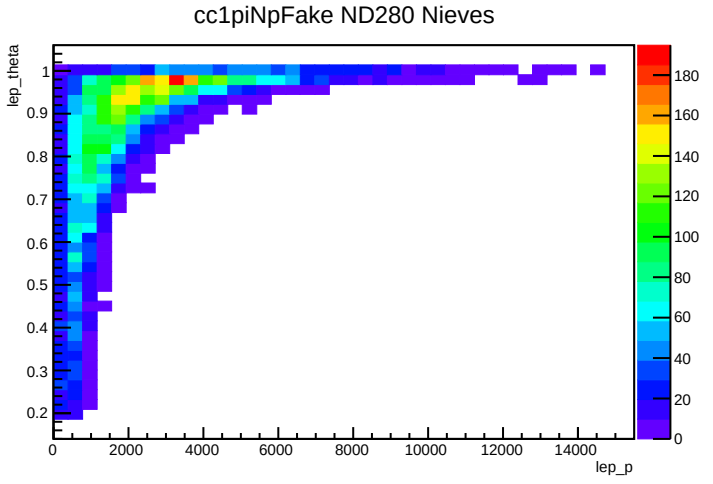

cc1piNpTrue ND280 Nieves
lep_theta
d_pt

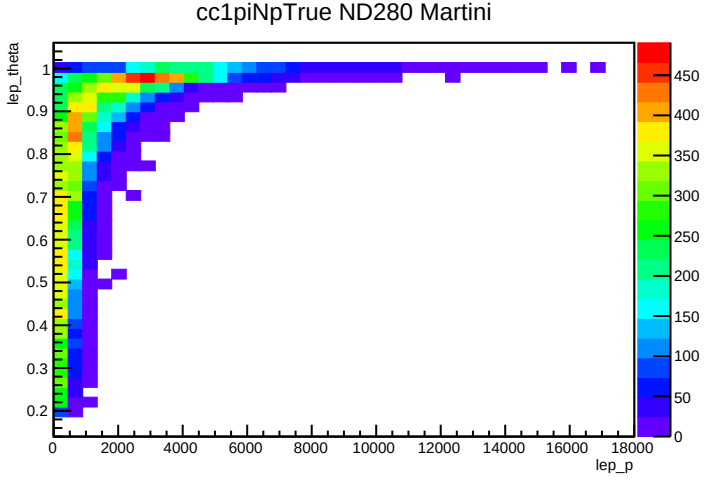

cc1piNpFake ND280 Nieves
lep_theta
d_pt

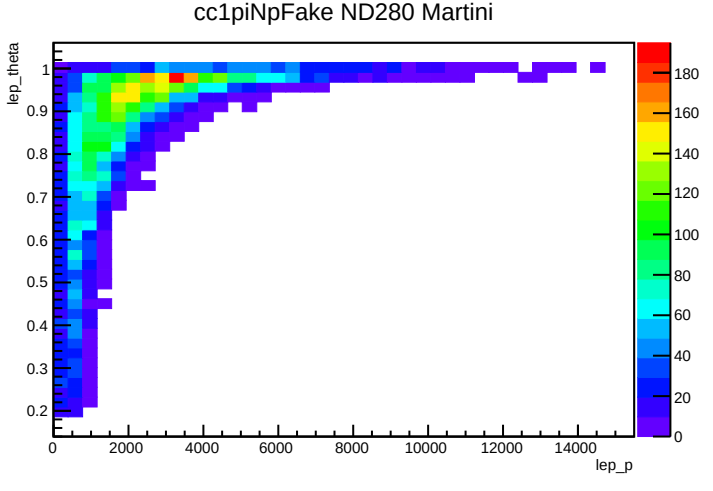

cc1piNpTrue ND280 Martini
lep_theta
d_pt

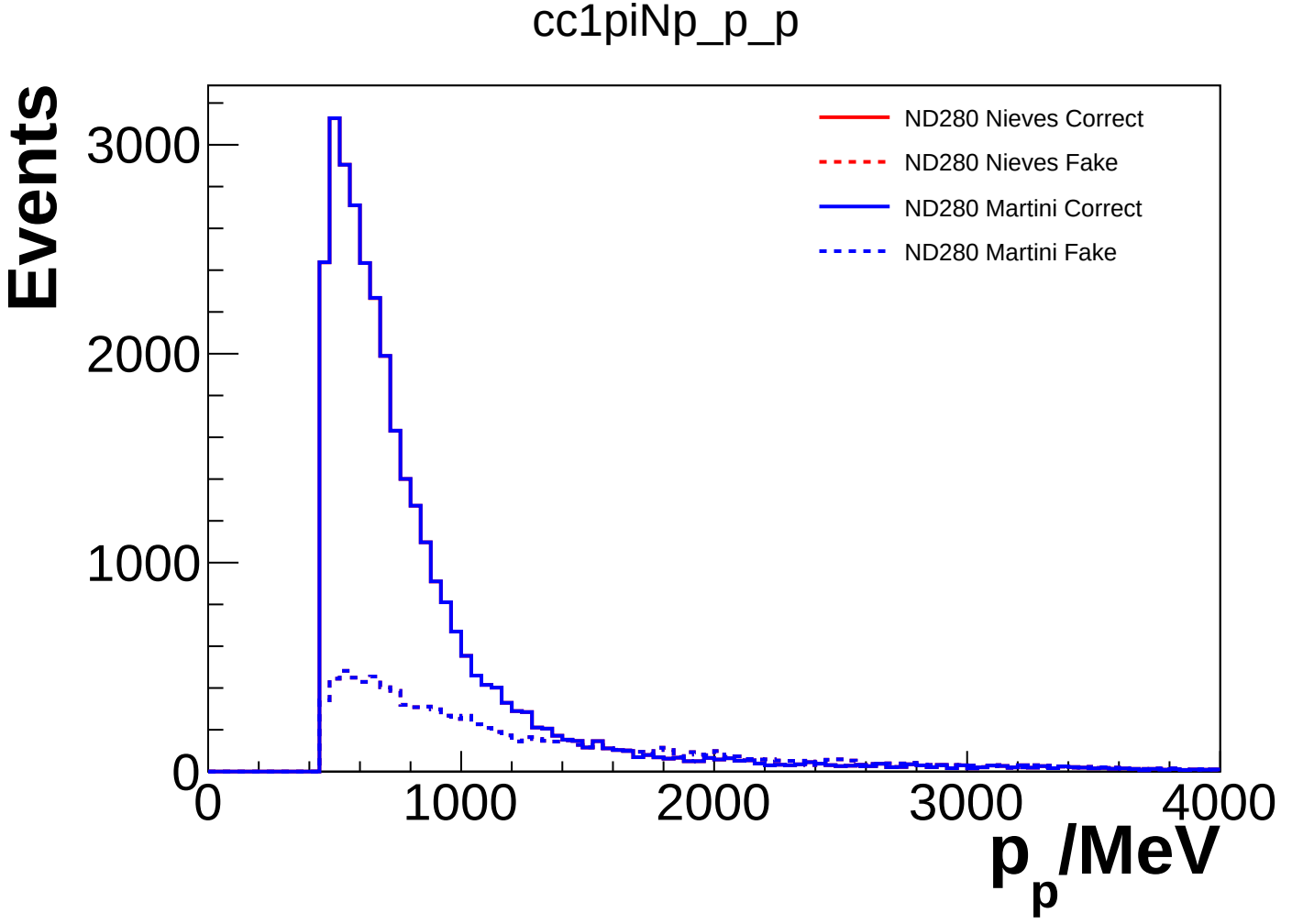

cc1piNpFake ND280 Martini
lep_theta
d_pt

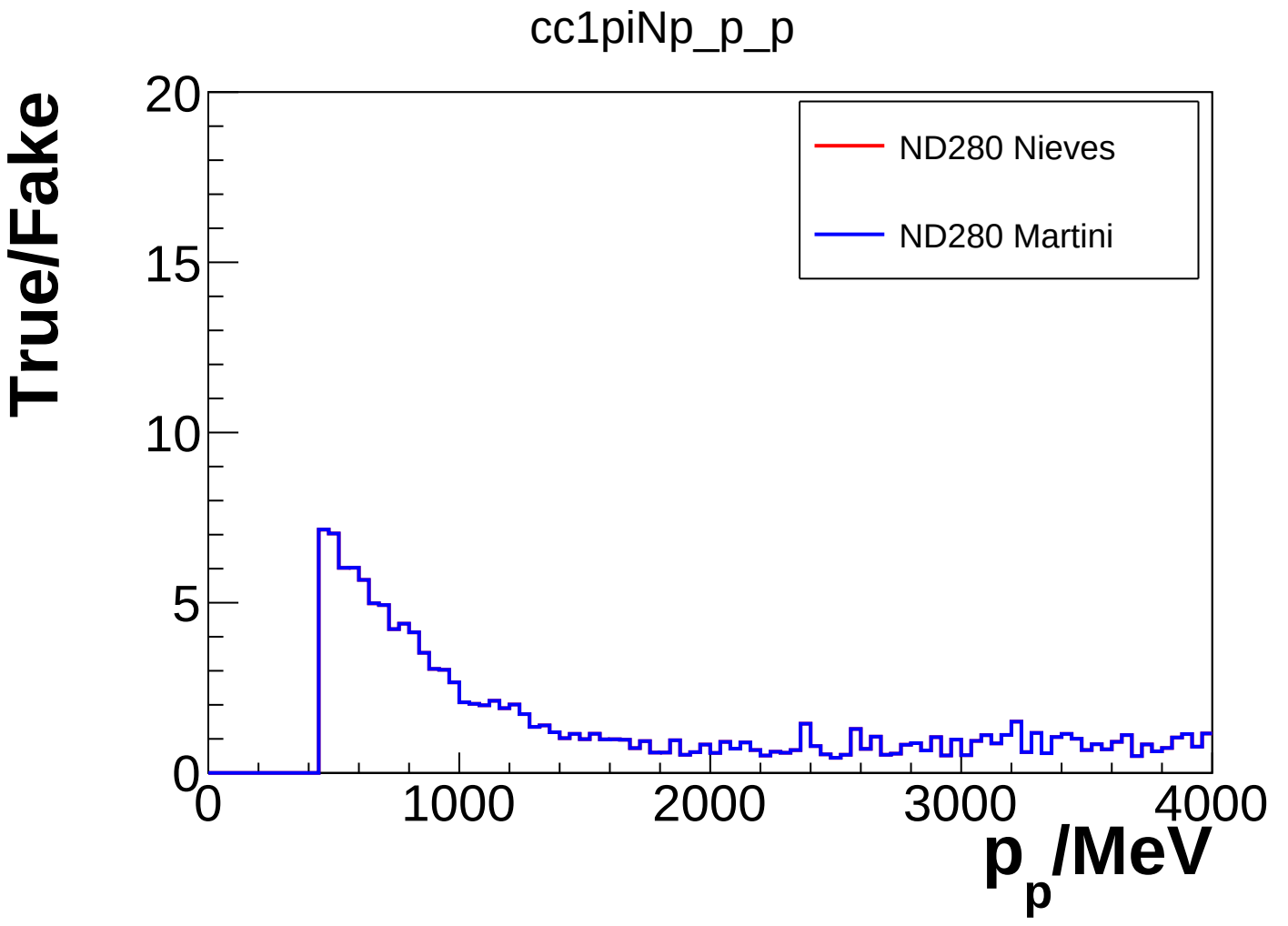

cc1piNpTrue ND280 Nieves
lep_theta
lep_p

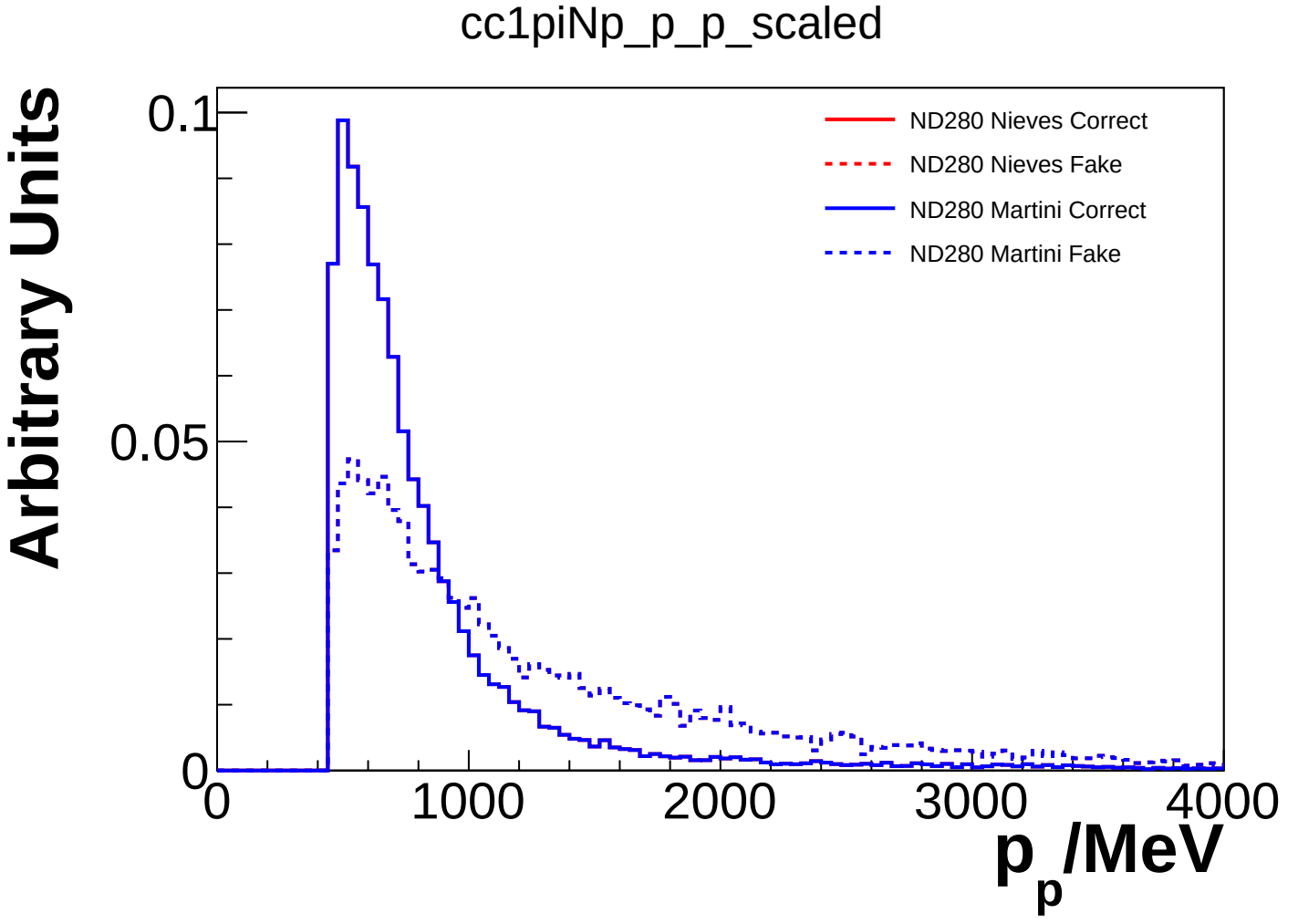

cc1piNpFake ND280 Nieves
lep_theta
lep_p

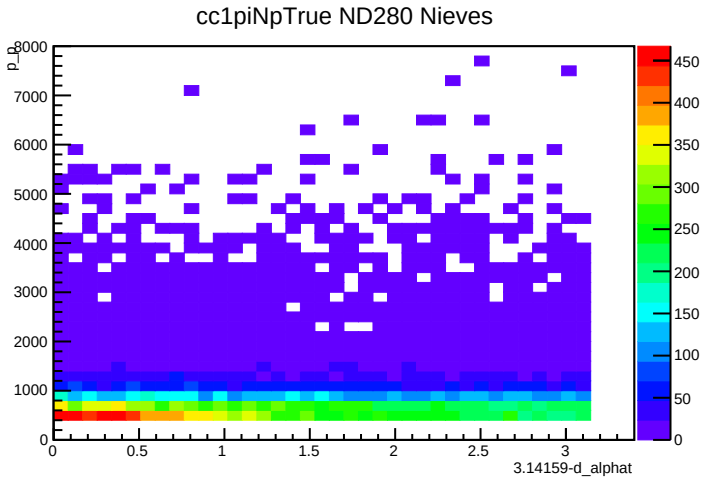

cc1piNpTrue ND280 Martini
lep_theta
lep_p

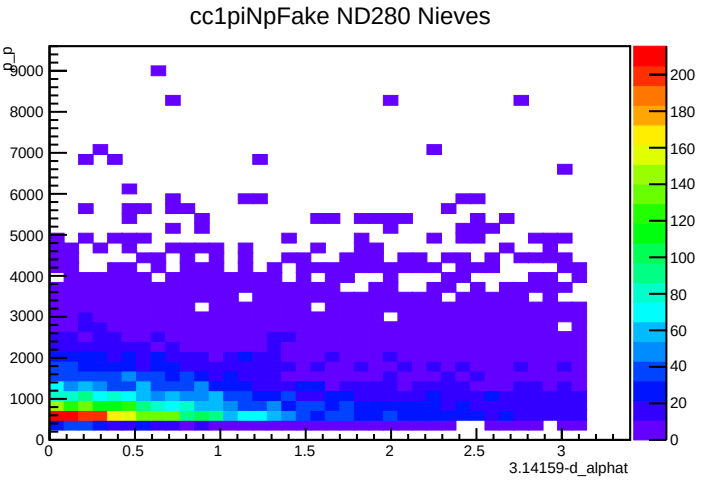

cc1piNpFake ND280 Martini
lep_theta
lep_p

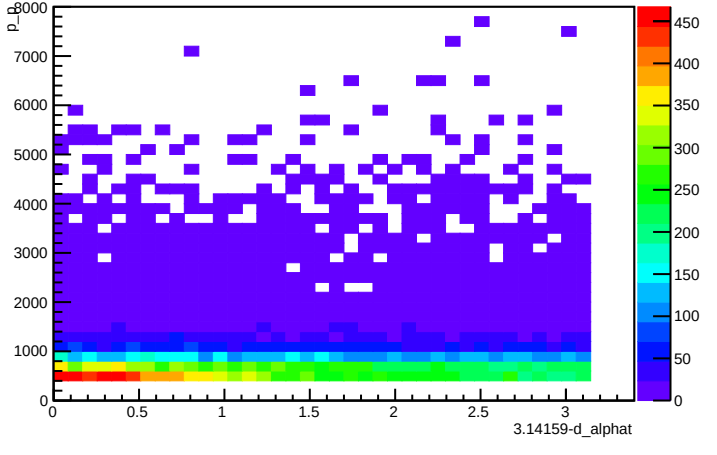

cc1piNp_p_p
Events
3000
2000
1000
0
0
1000
2000
3000
4000
p_p /MeV
ND280 Nieves Correct
ND280 Nieves Fake
ND280 Martini Correct
ND280 Martini Fake

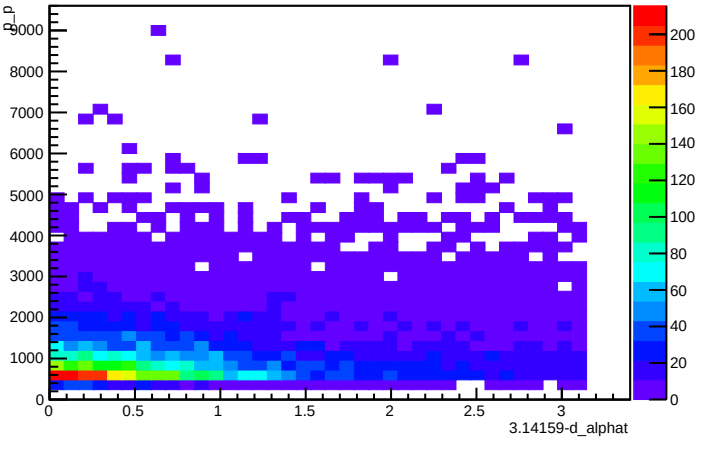

cc1piNp_p_p
True/Fake
20
15
10
5
0
0
1000
2000
3000
4000
p_p /MeV
ND280 Nieves
ND280 Martini

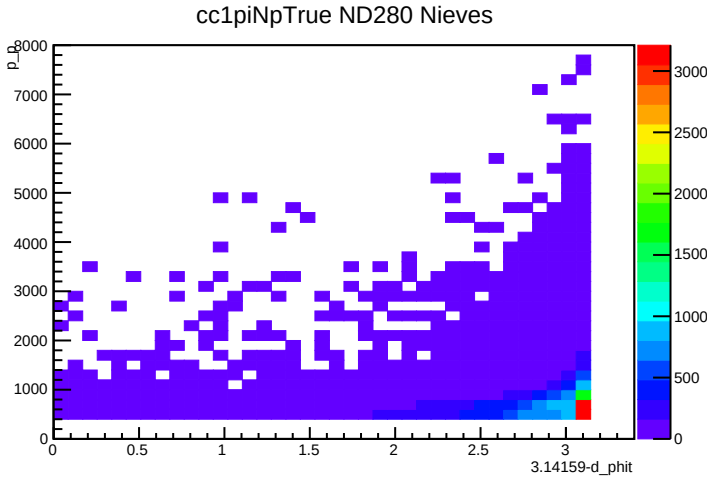

cc1piNp_p_p_scaled
Arbitrary Units
0.1
0.05
0
0
1000
2000
3000
4000
p_p /MeV
ND280 Nieves Correct
ND280 Nieves Fake
ND280 Martini Correct
ND280 Martini Fake

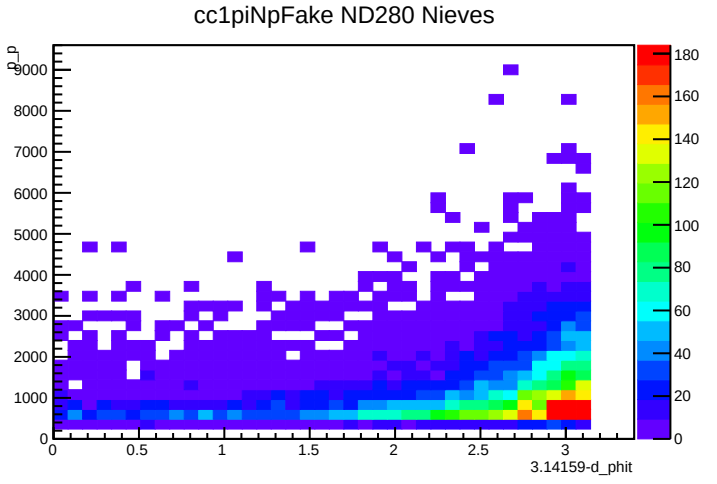

cc1piNpTrue ND280 Nieves
p_p
3.14159-d_alphat

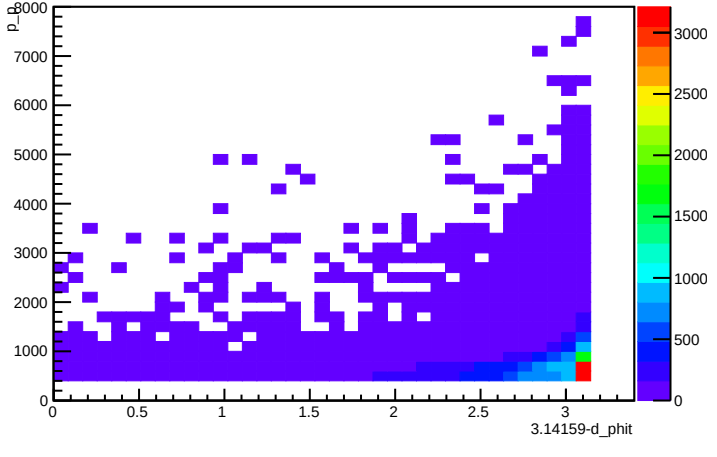

cc1piNpFake ND280 Nieves
p_p
3.14159-d_alphat

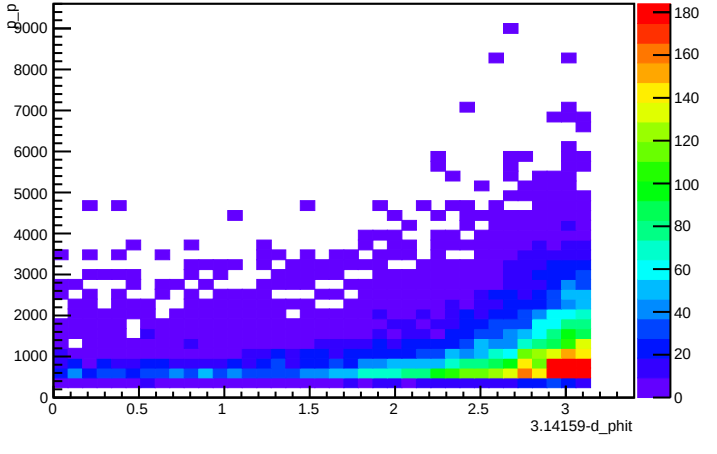

cc1piNpTrue ND280 Martini
p_p
3.14159-d_alphat

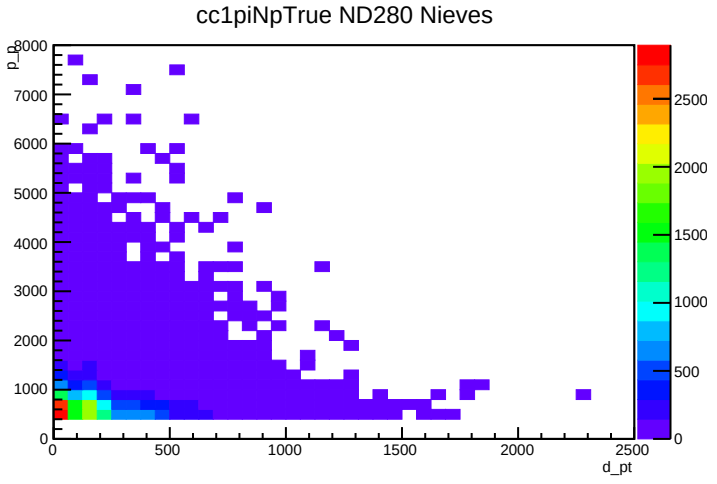

cc1piNpFake ND280 Martini
p_p
3.14159-d_alphat

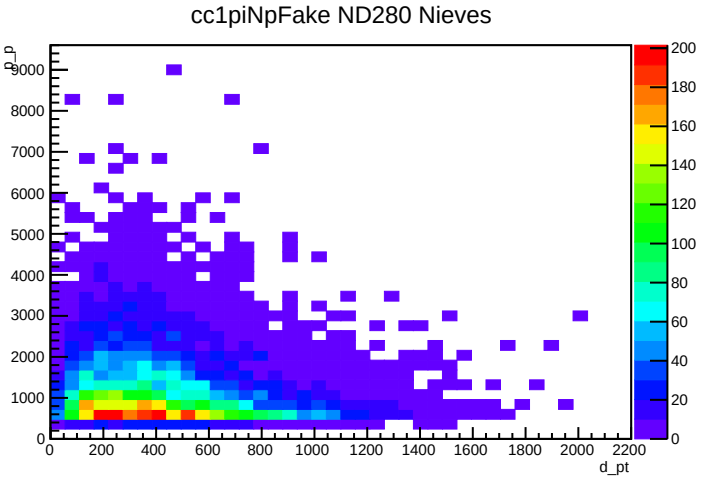

cc1piNpTrue ND280 Nieves
p_p
3.14159-d_phit

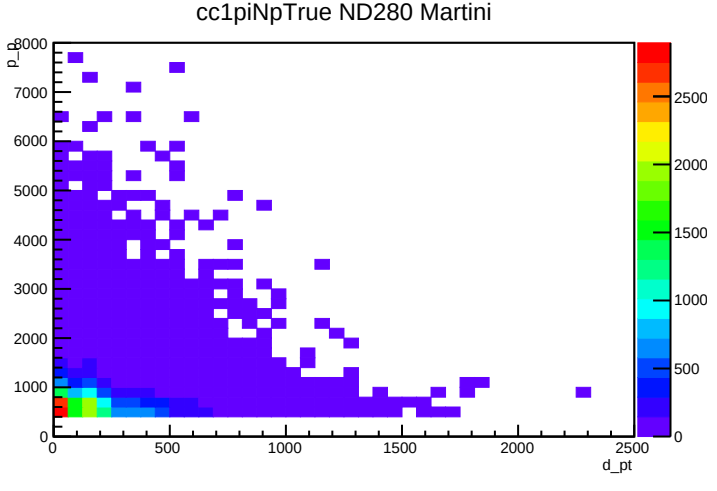

cc1piNpFake ND280 Nieves
p_p
3.14159-d_phit

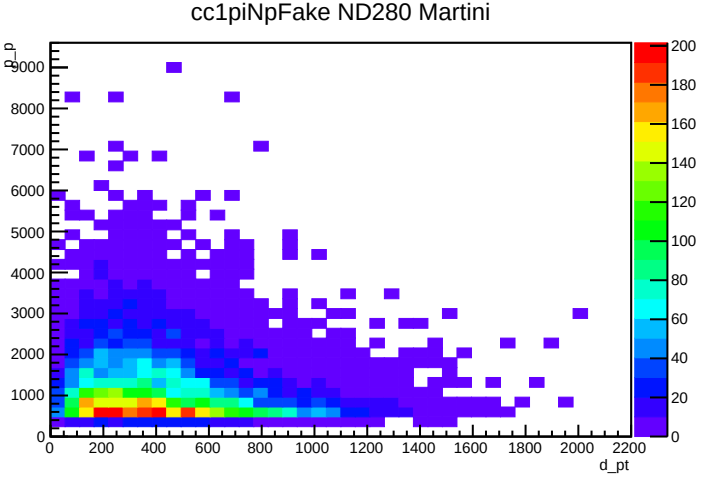

cc1piNpTrue ND280 Martini
p_p
3.14159-d_phit

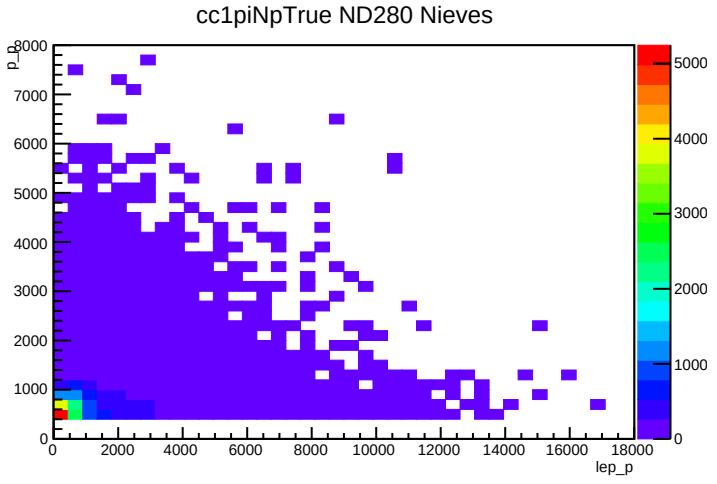

cc1piNpFake ND280 Martini
p_p
3.14159-d_phit

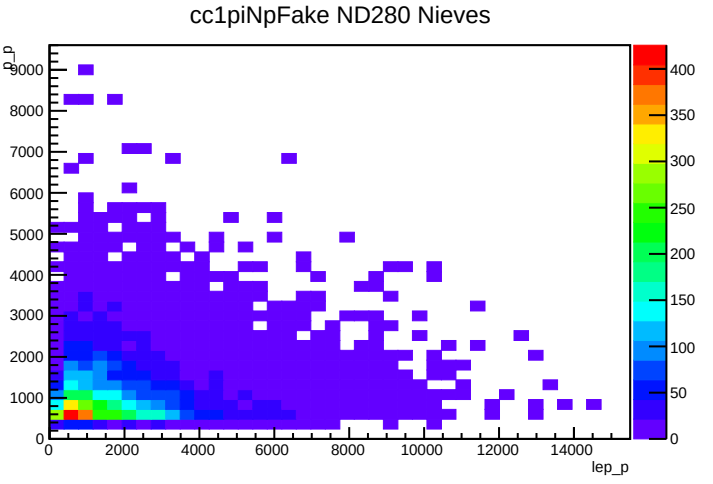

cc1piNpTrue ND280 Nieves
p_p
d_pt

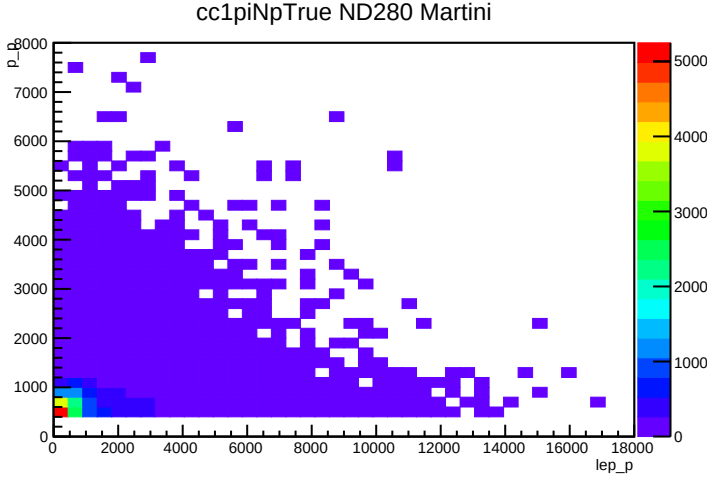

cc1piNpFake ND280 Nieves
p_p
d_pt

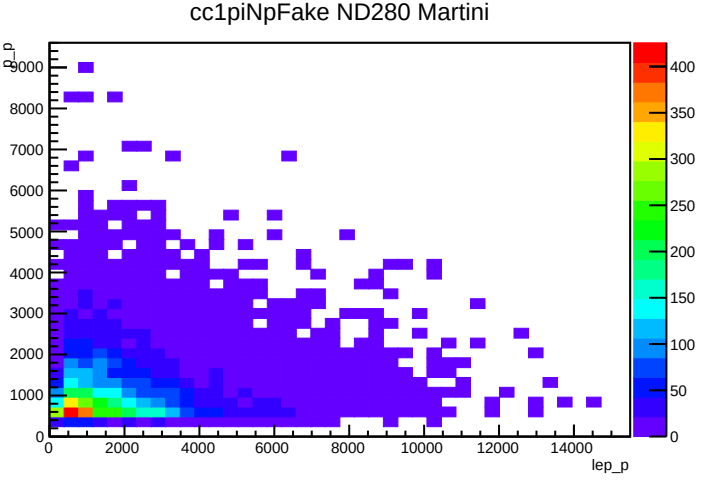

cc1piNpTrue ND280 Martini
p_p
d_pt

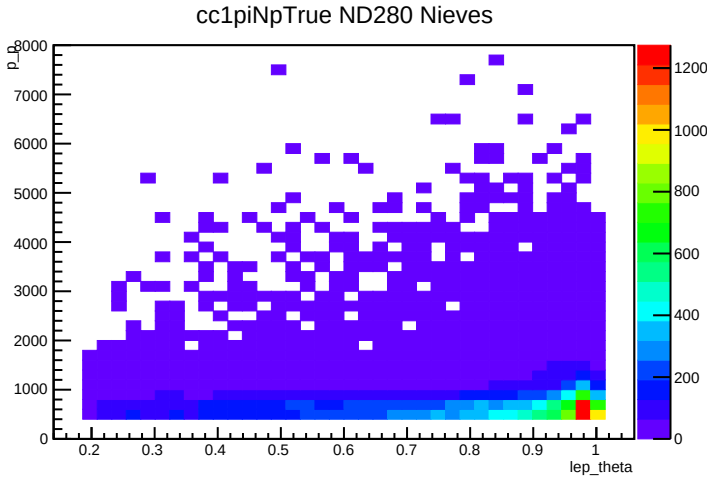

cc1piNpFake ND280 Martini
p_p
d_pt

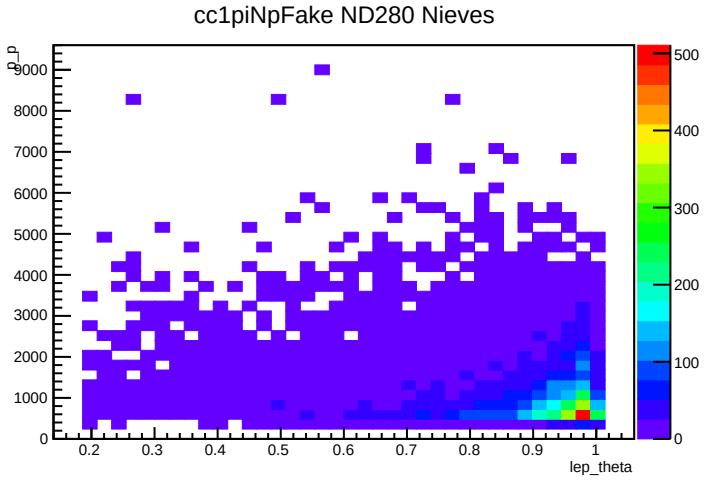

cc1piNpTrue ND280 Nieves
p_p
lep_p

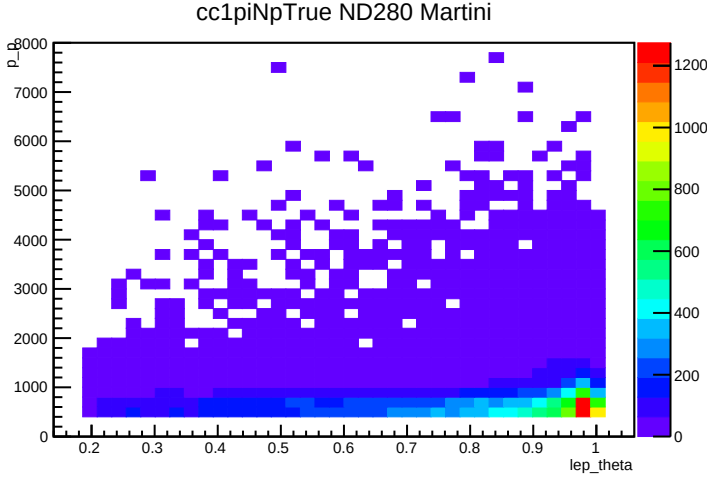

cc1piNpFake ND280 Nieves
p_p
lep_p

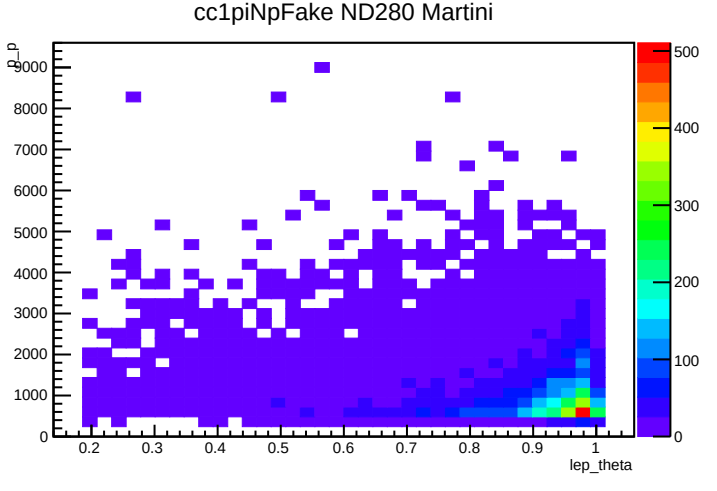

cc1piNpTrue ND280 Martini
p_p
lep_p

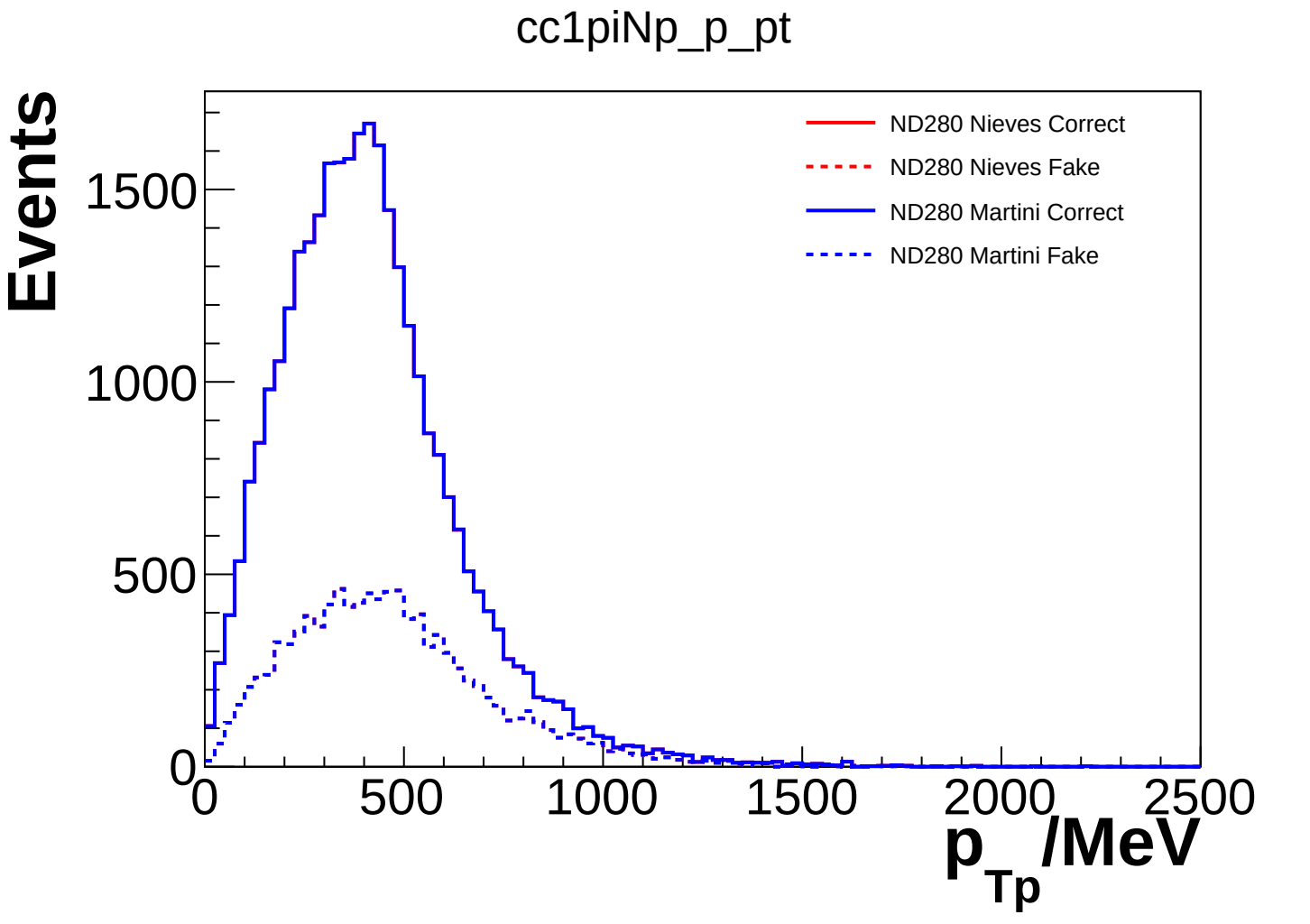

cc1piNpFake ND280 Martini
p_p
lep_p

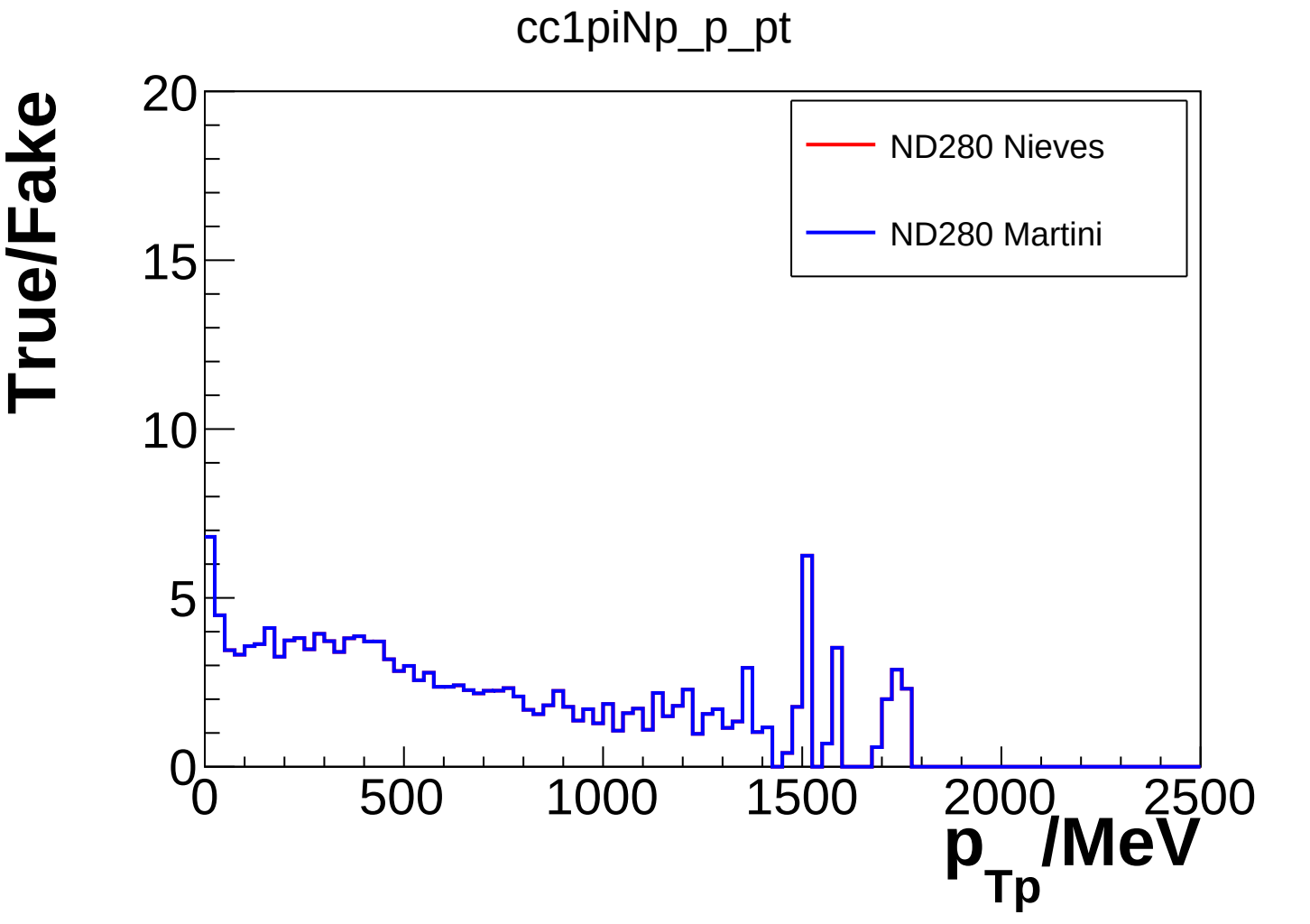

cc1piNpTrue ND280 Nieves
p_p
lep_theta

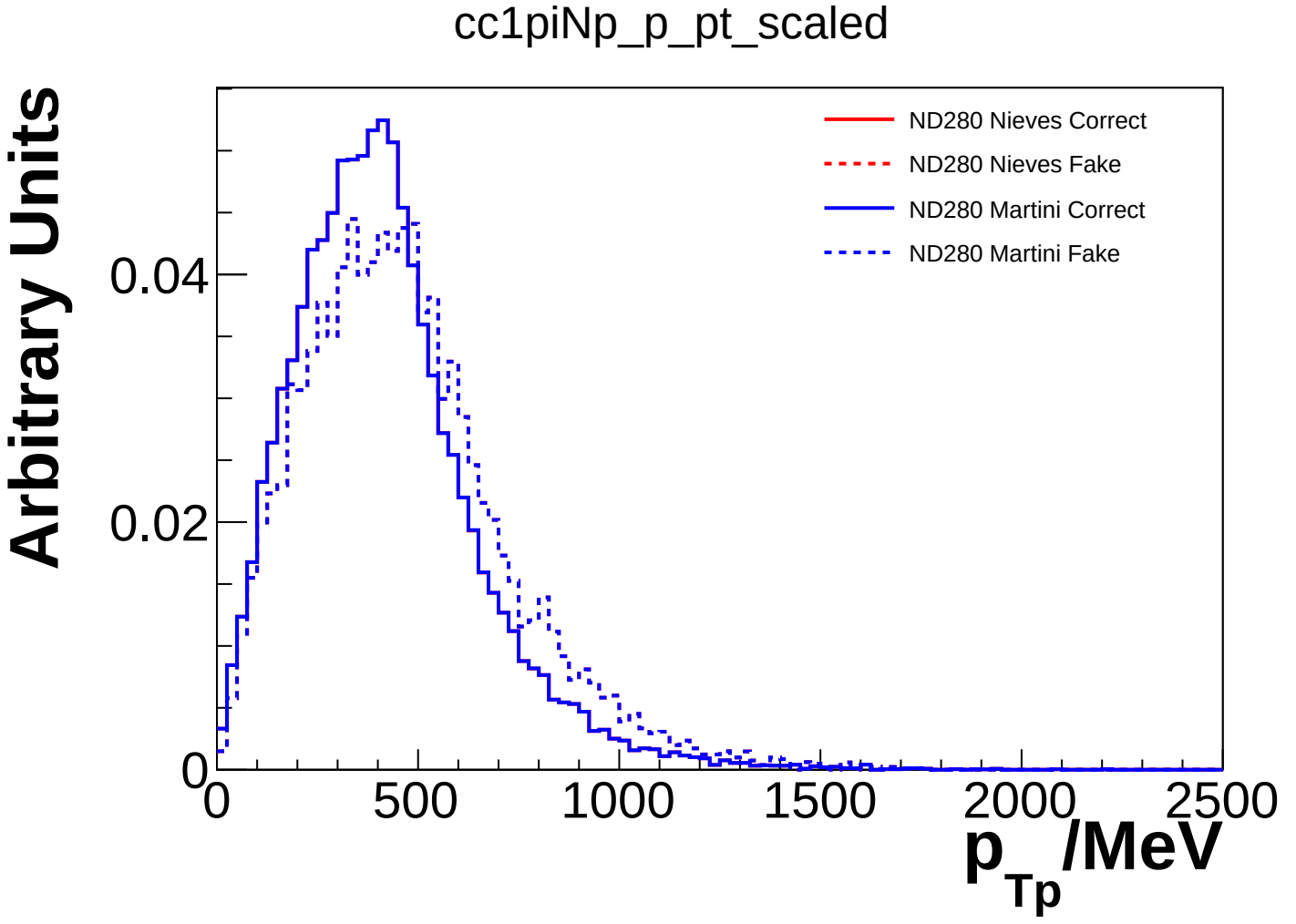

cc1piNpFake ND280 Nieves
p_p
lep_theta

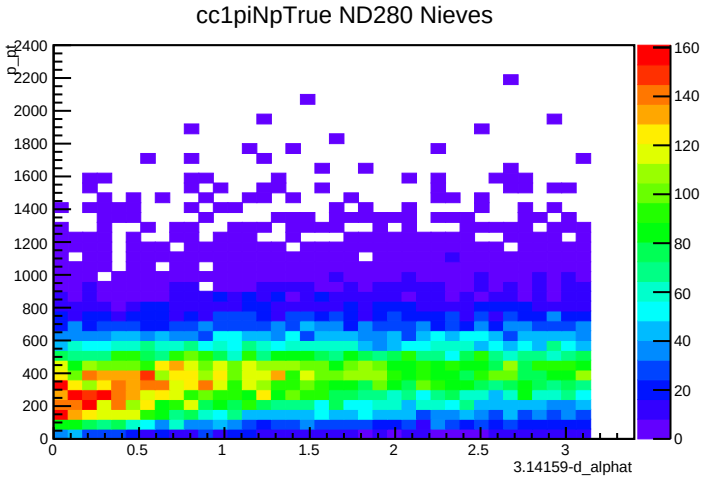

cc1piNpTrue ND280 Martini
p_p
lep_theta

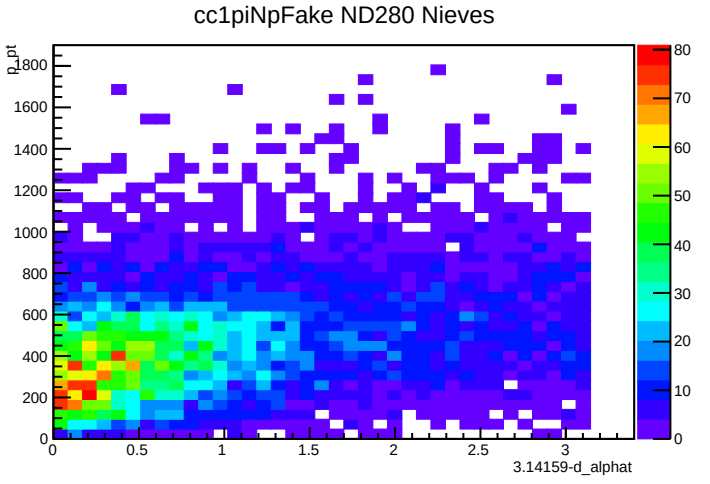

cc1piNpFake ND280 Martini
p_p
lep_theta

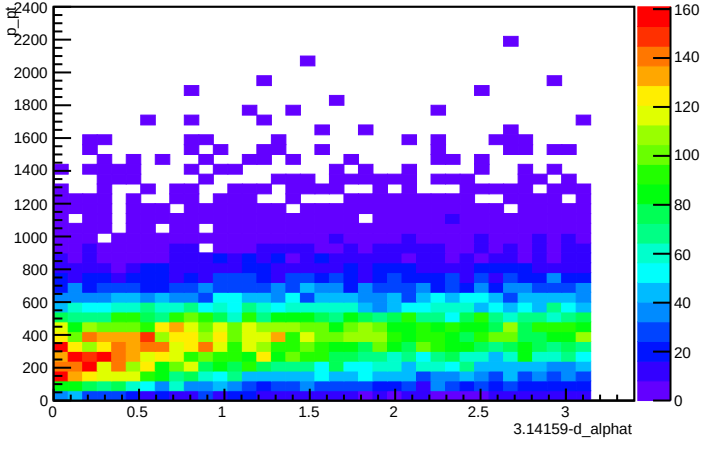

cc1piNp_p_pt
Events
1500
1000
500
0
0
500
1000
1500
2000
2500
p_{Tp}/MeV
ND280 Nieves Correct
ND280 Nieves Fake
ND280 Martini Correct
ND280 Martini Fake

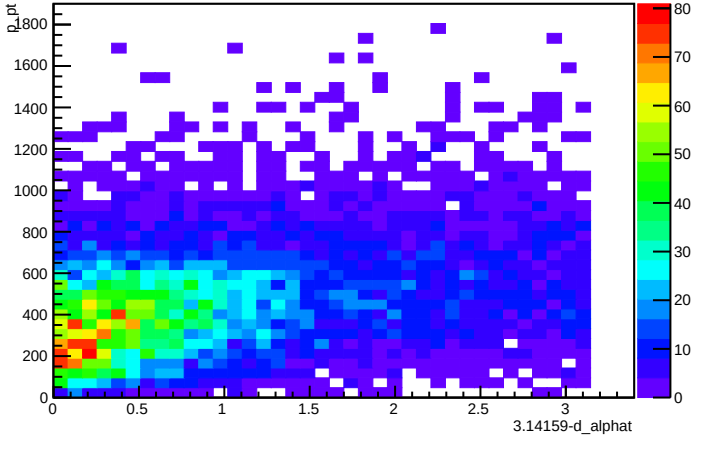

cc1piNp_p_pt
True/Fake
20
15
10
5
0
0
500
1000
1500
2000
2500
p_{Tp}/MeV
ND280 Nieves
ND280 Martini

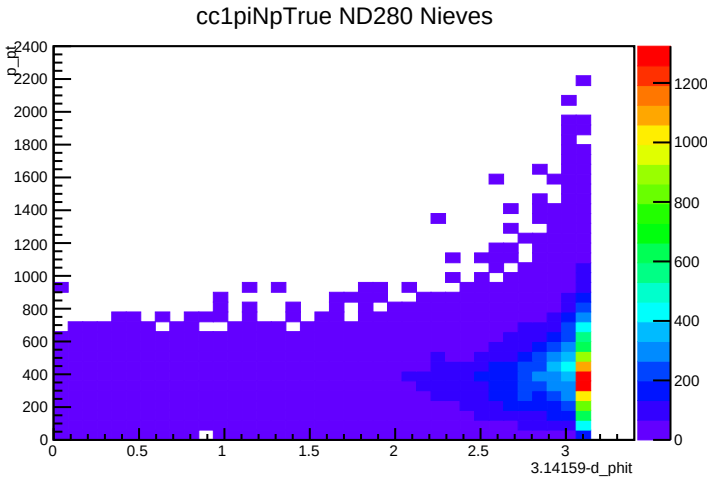

cc1piNp_p_pt_scaled
Arbitrary Units
0.04
0.02
0
0
500
1000
1500
2000
2500
p_Tp /MeV
ND280 Nieves Correct
ND280 Nieves Fake
ND280 Martini Correct
ND280 Martini Fake

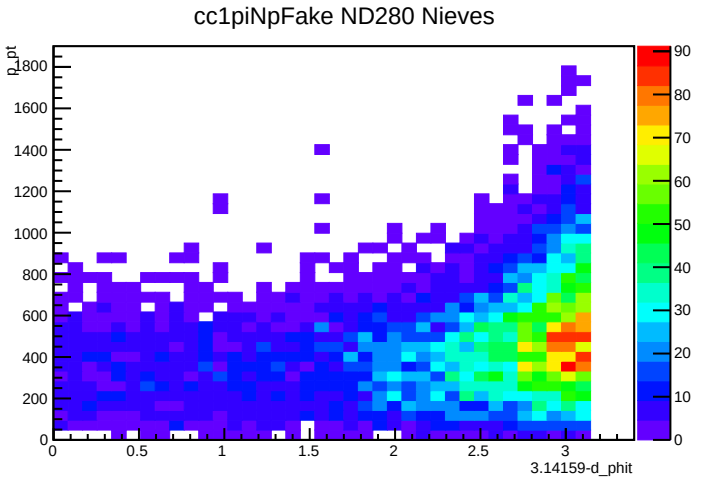

cc1piNpTrue ND280 Nieves
p_pt
3.14159-d_alphat

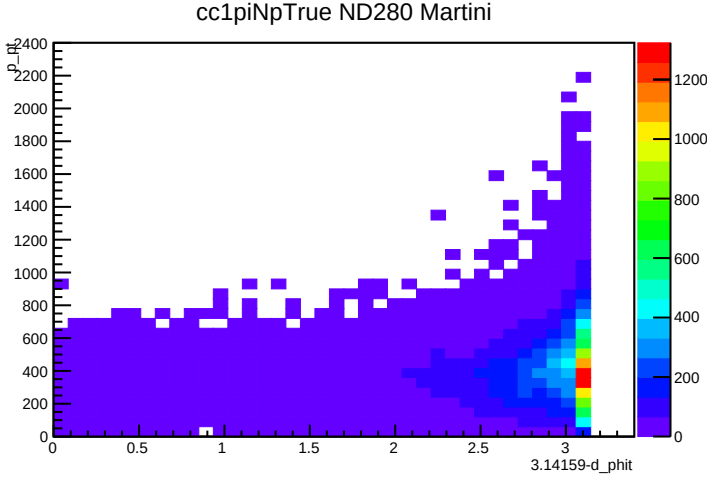

cc1piNpFake ND280 Nieves
p_pt
3.14159-d_alphat

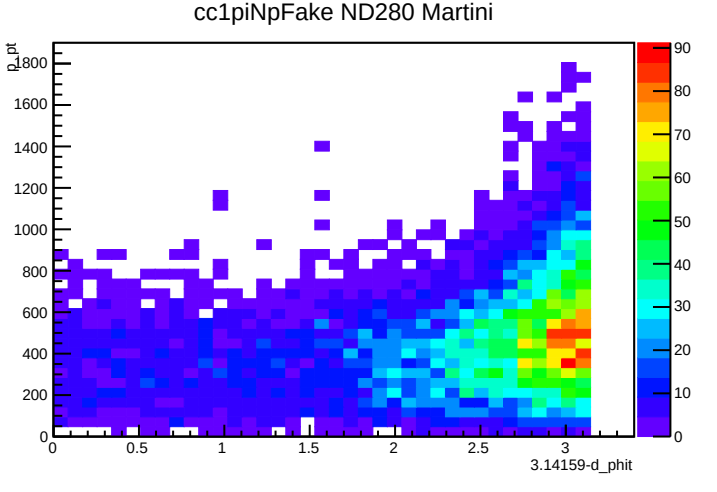

cc1piNpTrue ND280 Martini
p_pt
3.14159-d_alphat

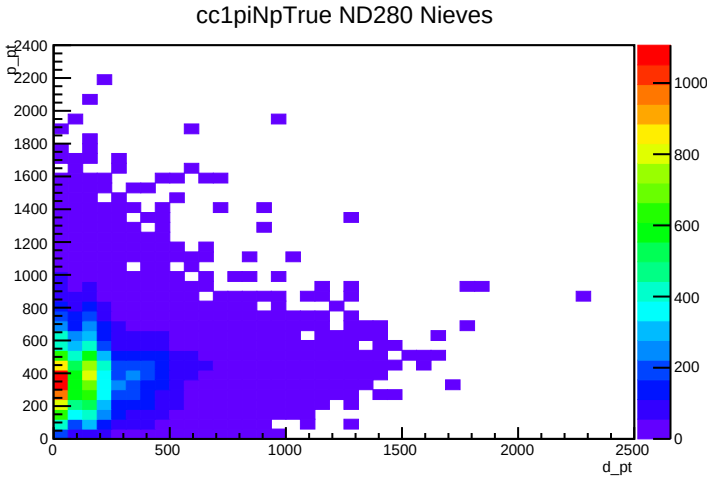

cc1piNpFake ND280 Martini
p_pt
3.14159-d_alphat

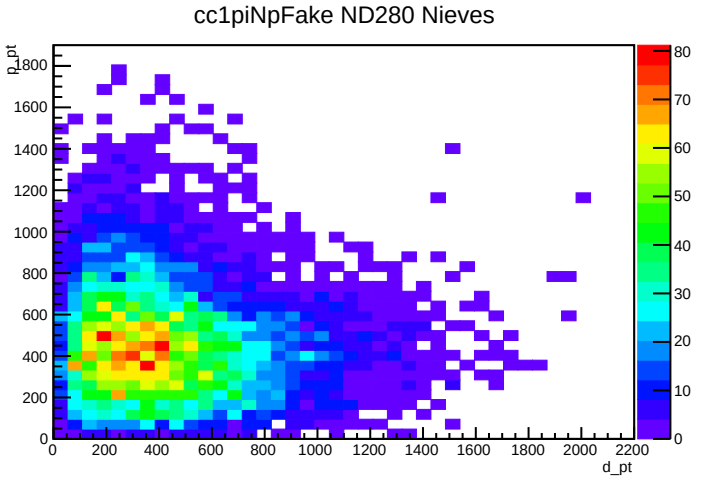

cc1piNpTrue ND280 Nieves
p_pt
3.14159-d_phit

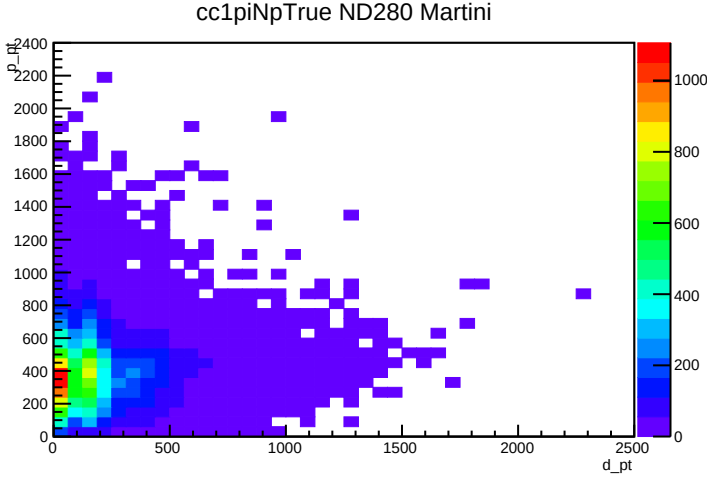

cc1piNpFake ND280 Nieves
p_pt
3.14159-d_phit

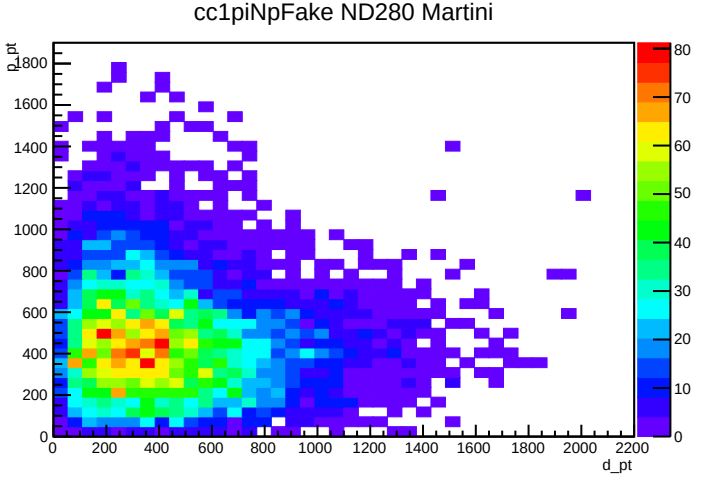

cc1piNpTrue ND280 Martini
p_pt
3.14159-d_phit

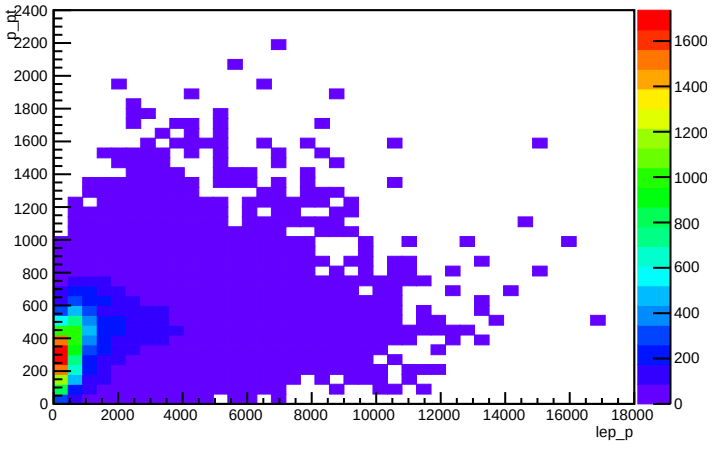

cc1piNpFake ND280 Martini
p_pt
3.14159-d_phit

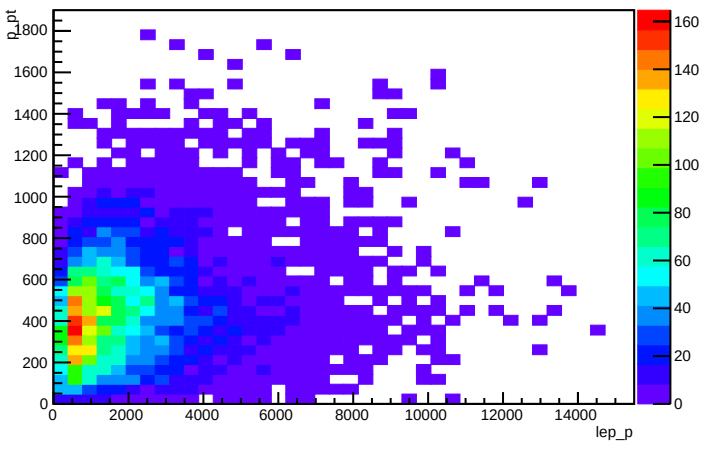

cc1piNpTrue ND280 Nieves
p_pt
d_pt

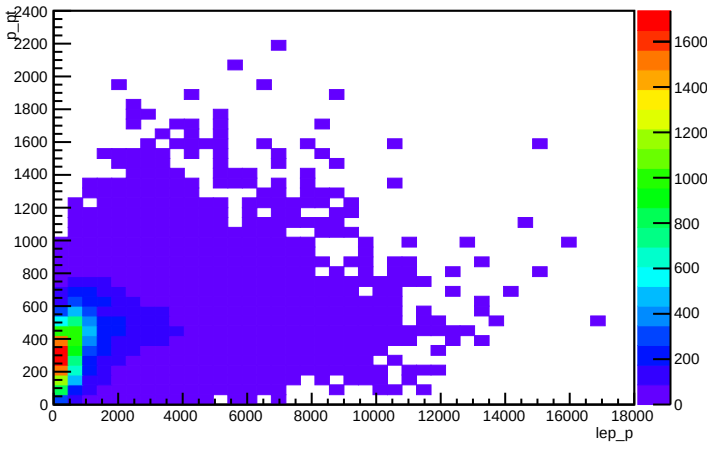

cc1piNpFake ND280 Nieves
p_pt
d_pt

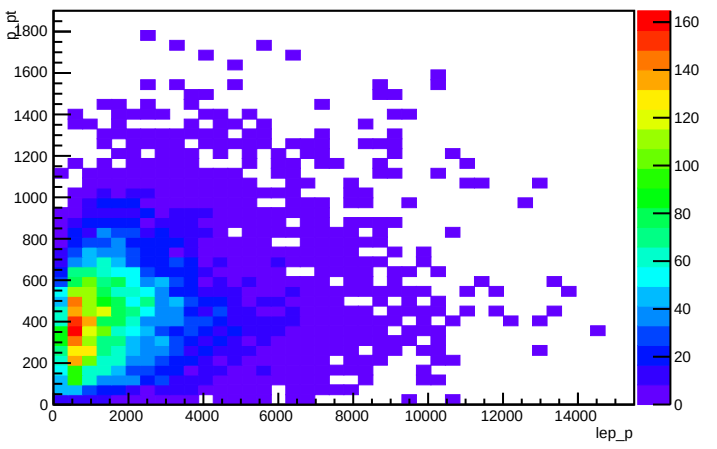

cc1piNpTrue ND280 Martini
p_pt
d_pt

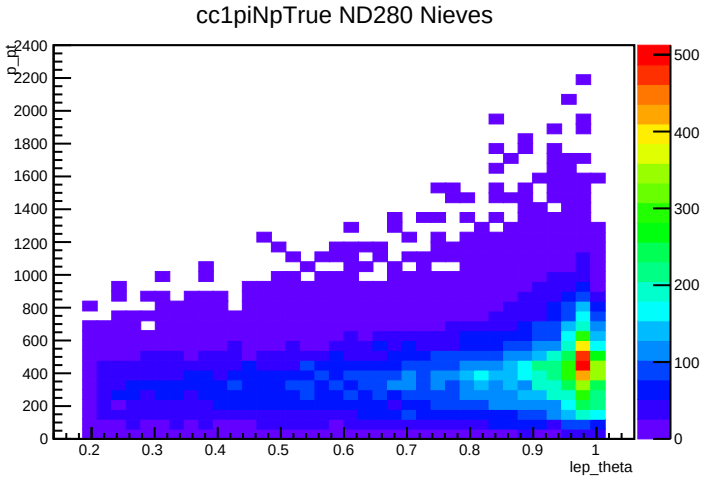

cc1piNpFake ND280 Martini
p_pt
d_pt

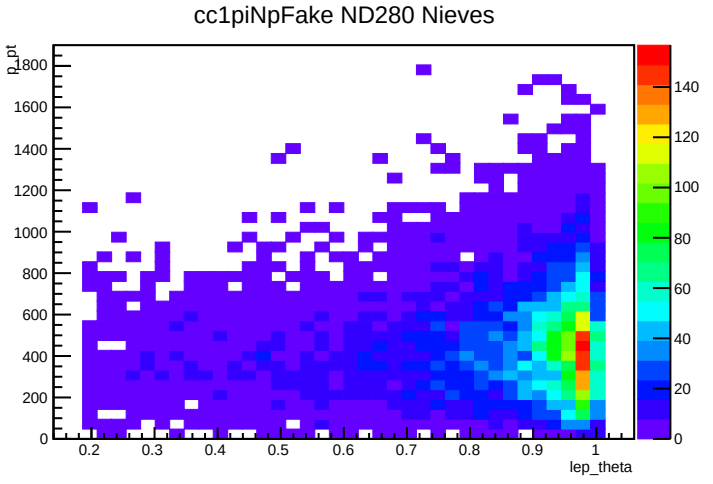

cc1piNpTrue ND280 Nieves
p_pt
lep_p

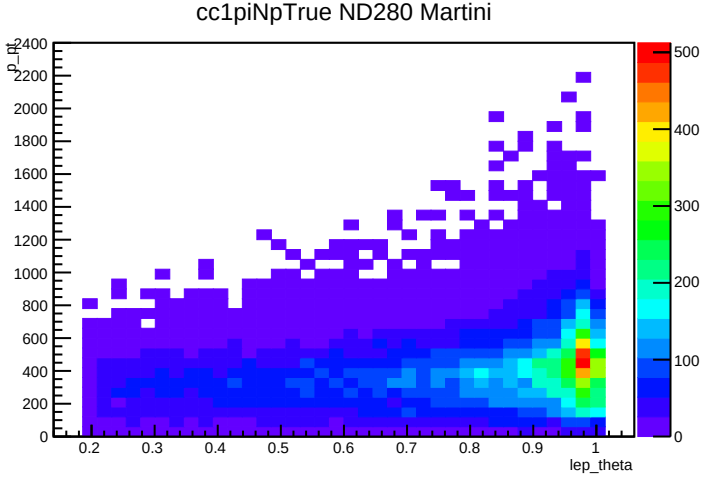

cc1piNpFake ND280 Nieves
p_pt
lep_p

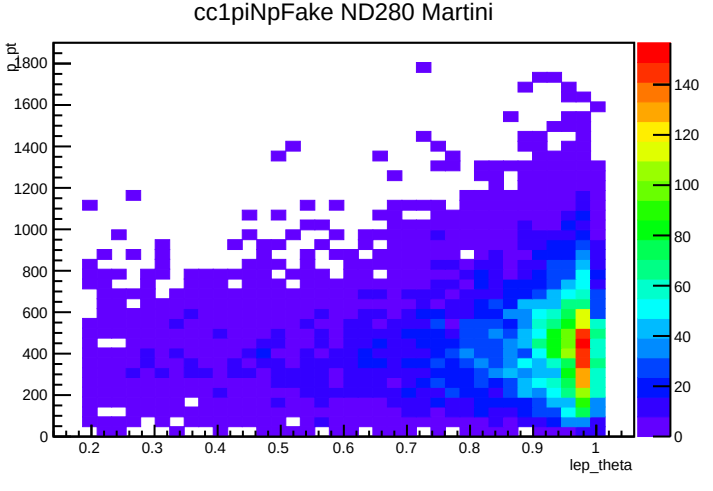

cc1piNpTrue ND280 Martini
p_pt
lep_p


cc1piNpFake ND280 Martini
p_pt
lep_p

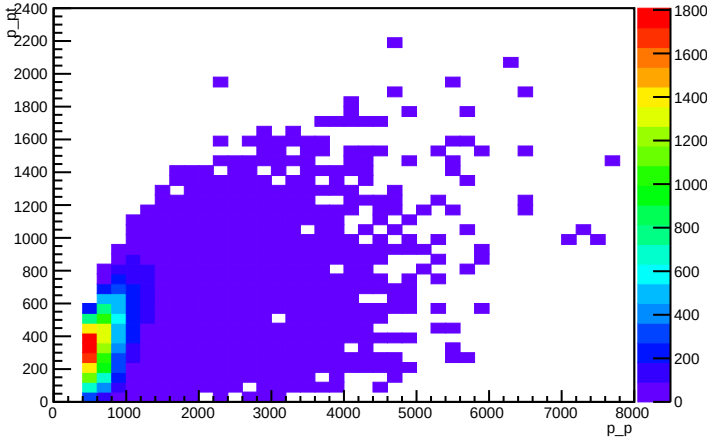

cc1piNpTrue ND280 Nieves
p_pt
lep_theta


cc1piNpFake ND280 Nieves
p_pt
lep_theta

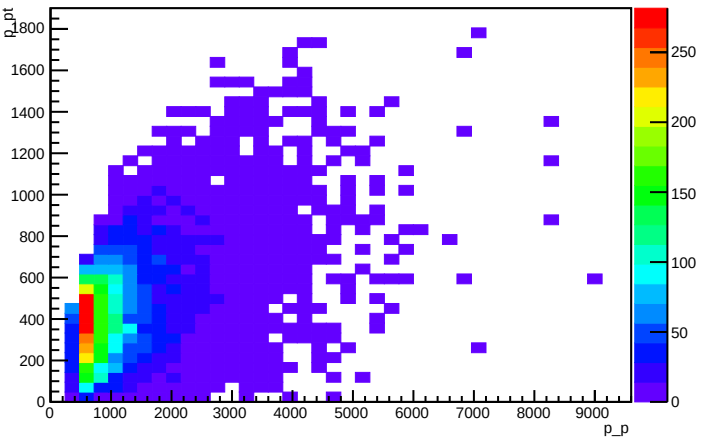

cc1piNpTrue ND280 Martini
p_pt
lep_theta


cc1piNpFake ND280 Martini
p_pt
lep_theta

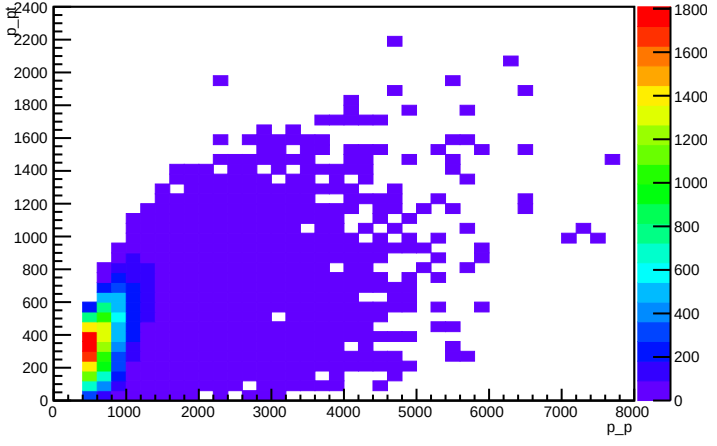
cc1piNpTrue ND280 Nieves



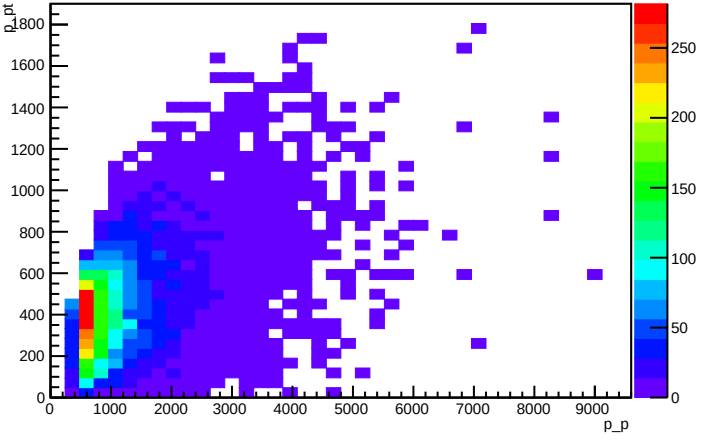
cc1piNpFake ND280 Nieves

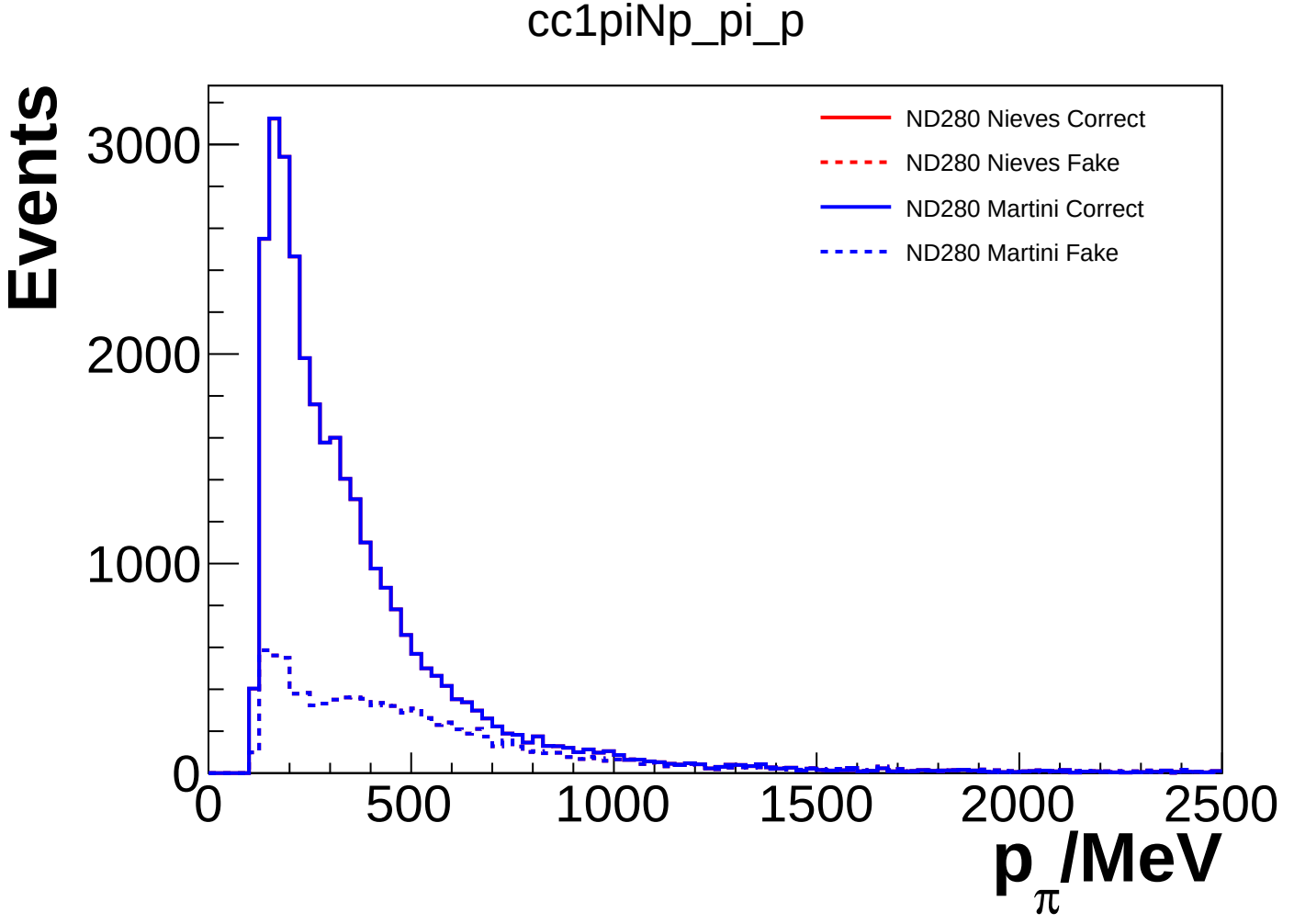


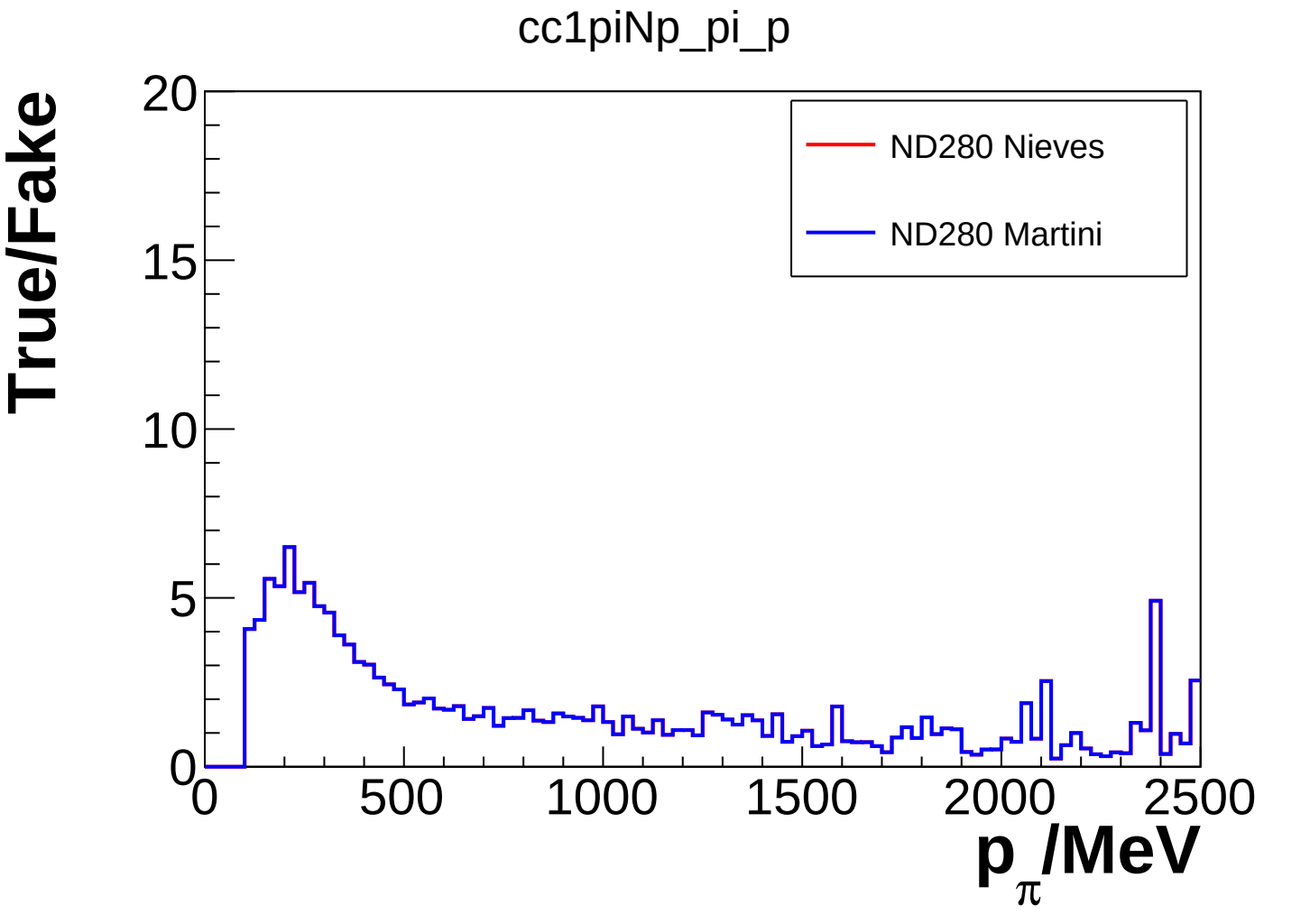
cc1piNpTrue ND280 Martini

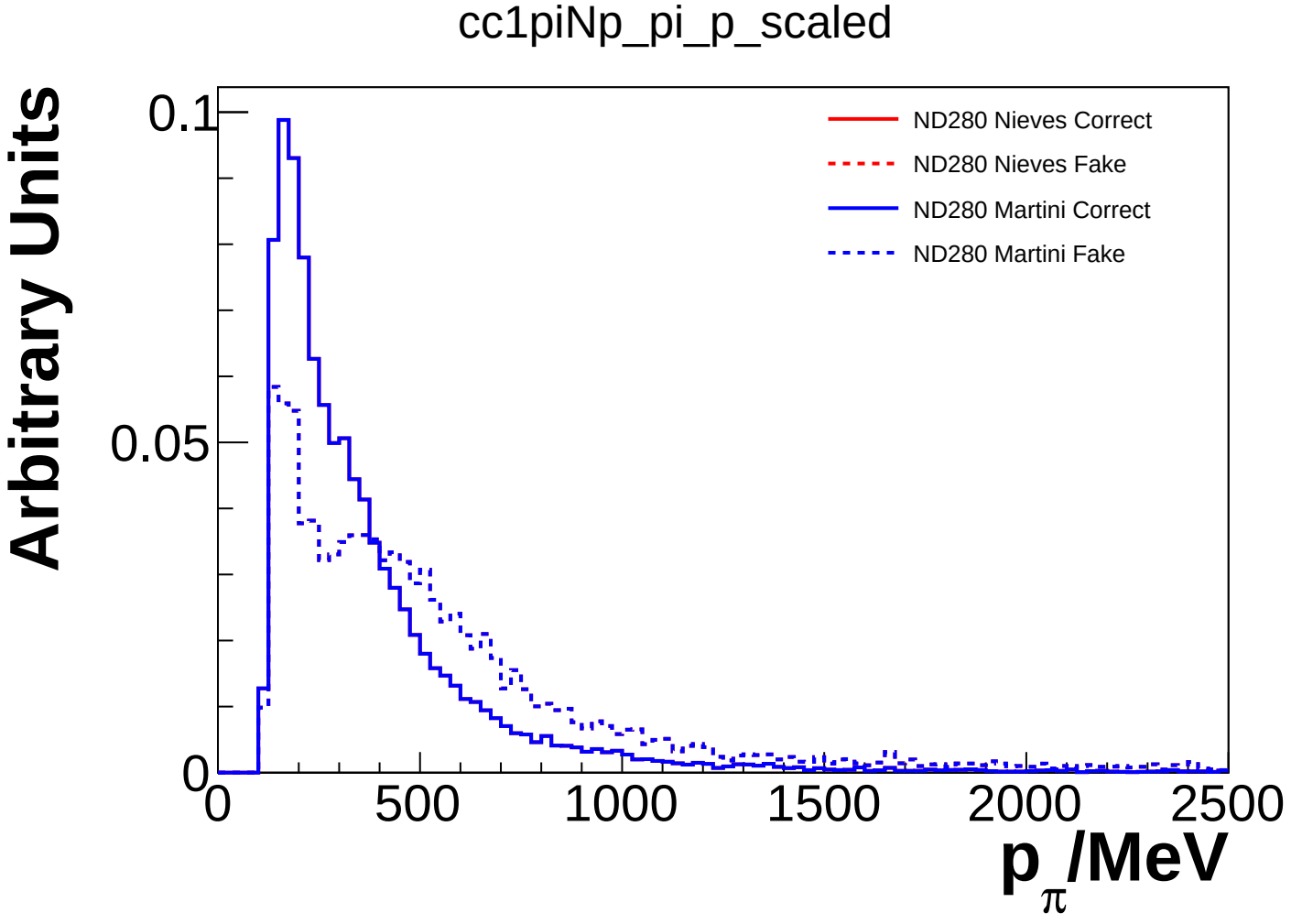


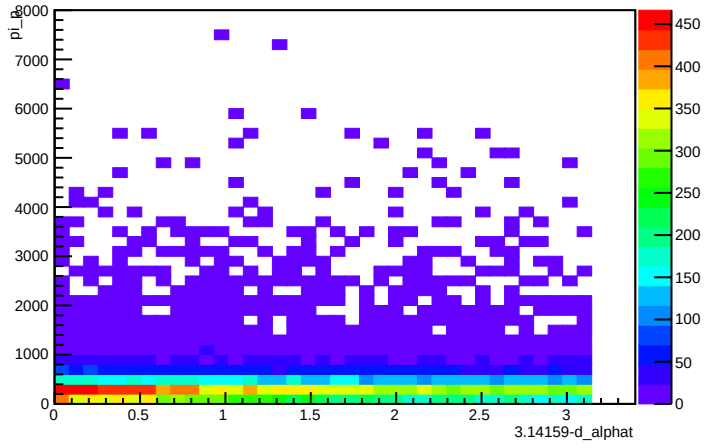
cc1piNpFake ND280 Martini

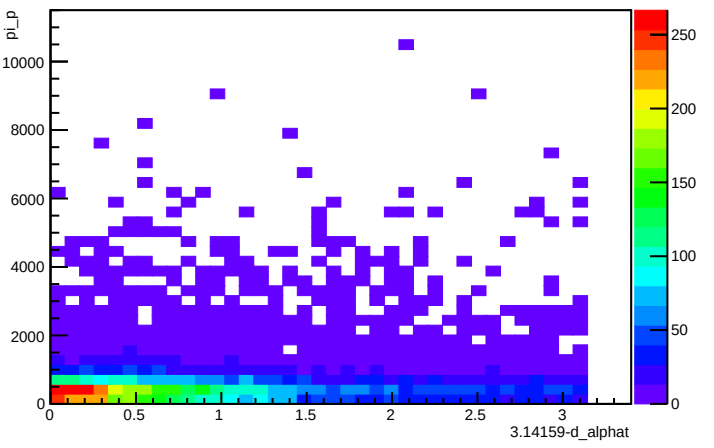


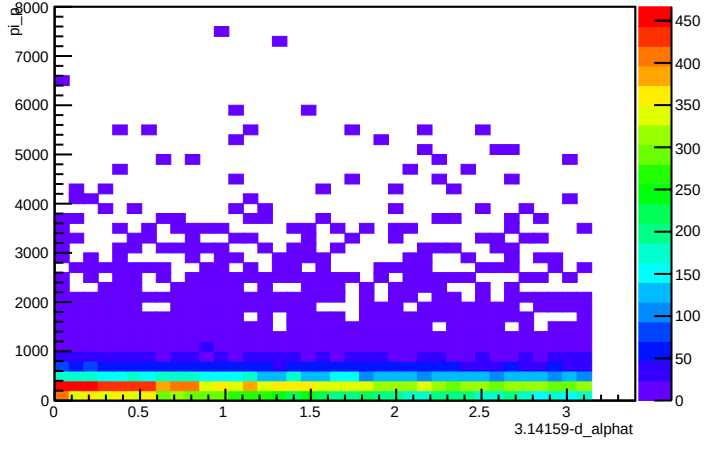

cc1piNp_pi_p
Events
3000
2000
1000
0
0
500
1000
1500
2000
2500
p_π /MeV
ND280 Nieves Correct
ND280 Nieves Fake
ND280 Martini Correct
ND280 Martini Fake

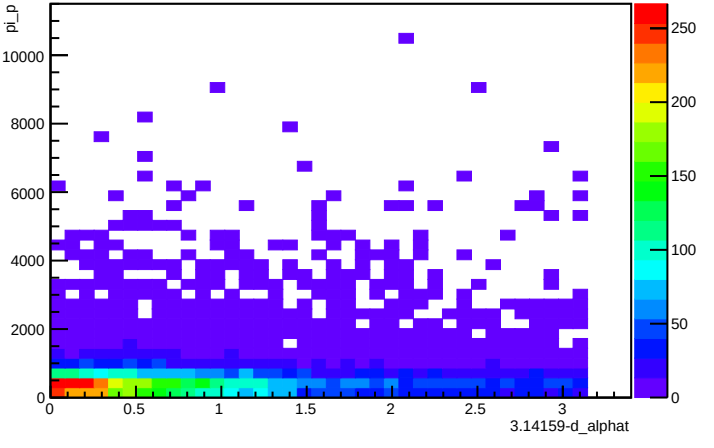

cc1piNp_pi_p
True/Fake
20
15
10
5
0
0
500
1000
1500
2000
2500
p_π/MeV
ND280 Nieves
ND280 Martini

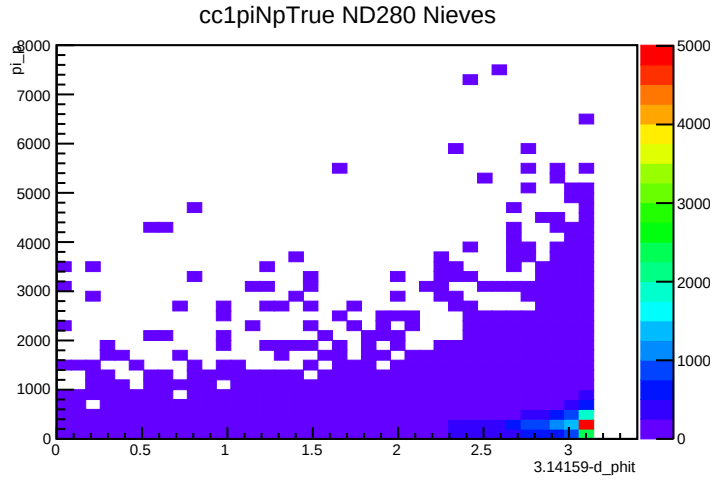

cc1piNp_pi_p_scaled
Arbitrary Units
0.1
0.05
0
0
500
1000
1500
2000
2500
p_π /MeV
ND280 Nieves Correct
ND280 Nieves Fake
ND280 Martini Correct
ND280 Martini Fake

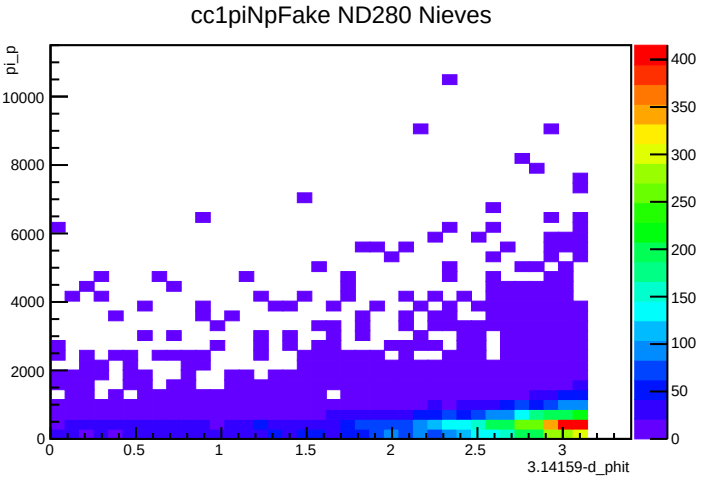

cc1piNpTrue ND280 Nieves
pi_p
3.14159-d_alphat

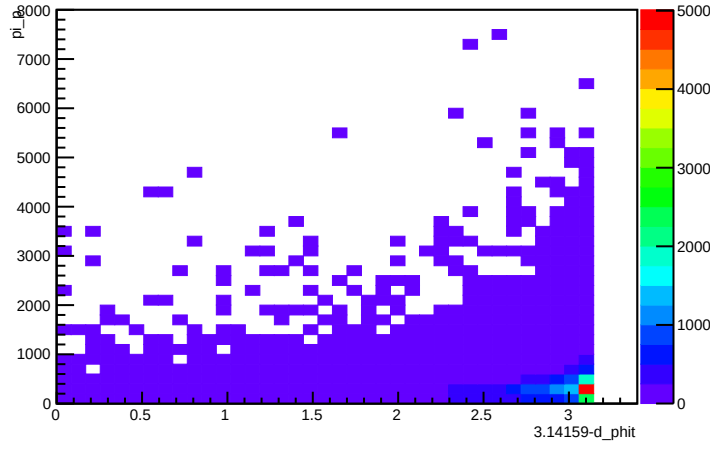

cc1piNpFake ND280 Nieves
pi_p
3.14159-d_alphat

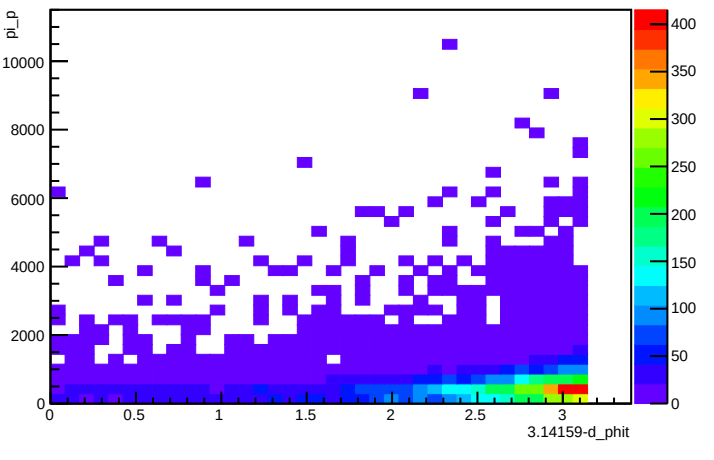

cc1piNpTrue ND280 Martini
pi_p
3.14159-d_alphat

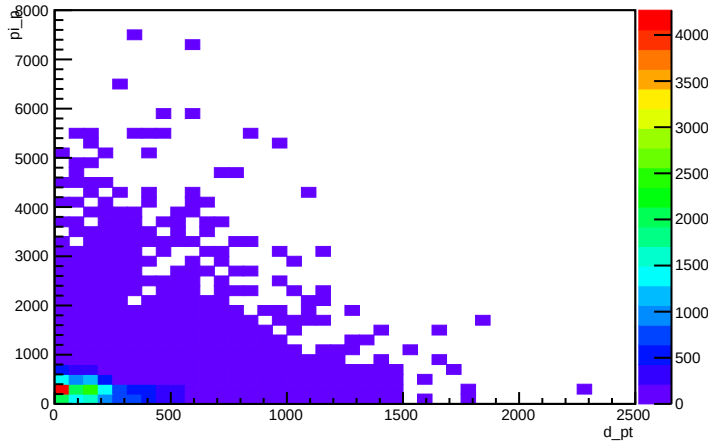

cc1piNpFake ND280 Martini
pi_p
3.14159-d_alphat

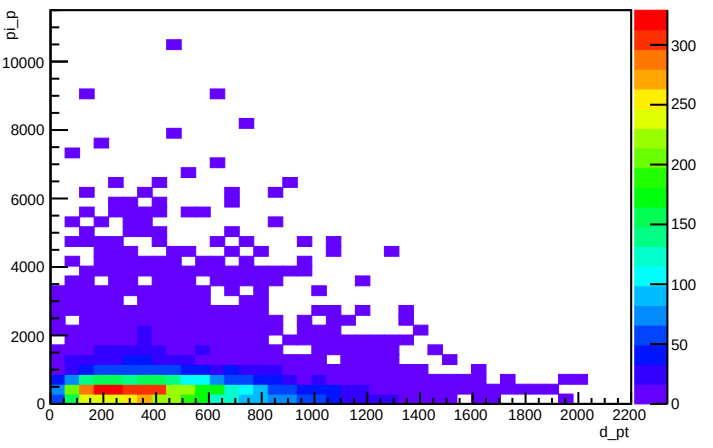

cc1piNpTrue ND280 Nieves
pi_p
3.14159-d_phit

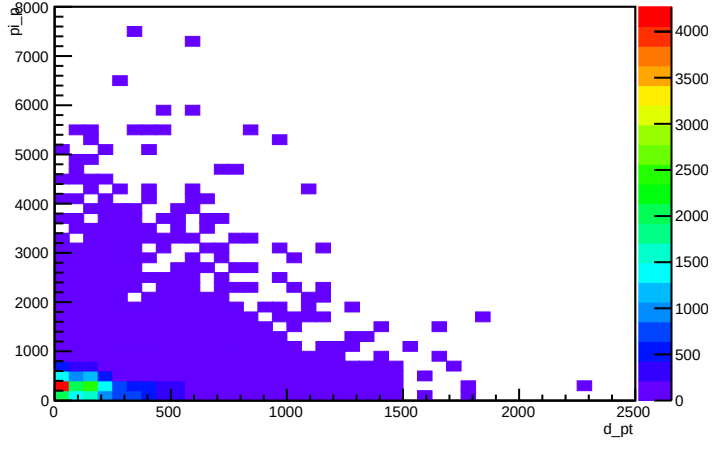

cc1piNpFake ND280 Nieves
pi_p
3.14159-d_phit

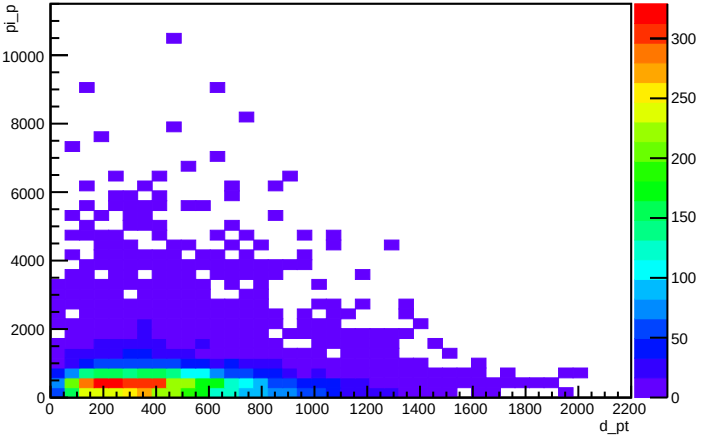

cc1piNpTrue ND280 Martini
pi_p
3.14159-d_phit

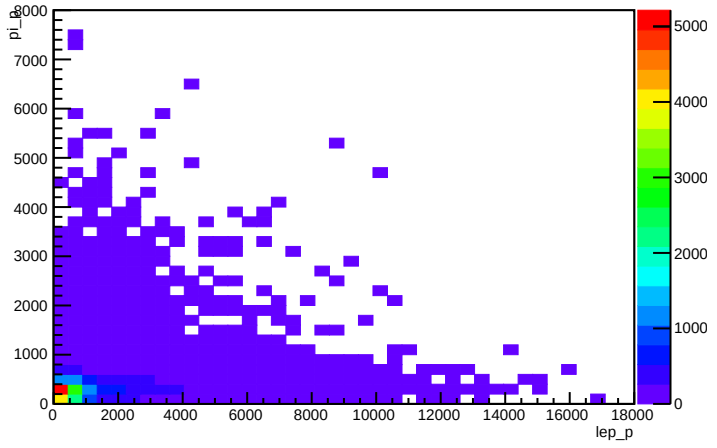

cc1piNpFake ND280 Martini
pi_p
3.14159-d_phit

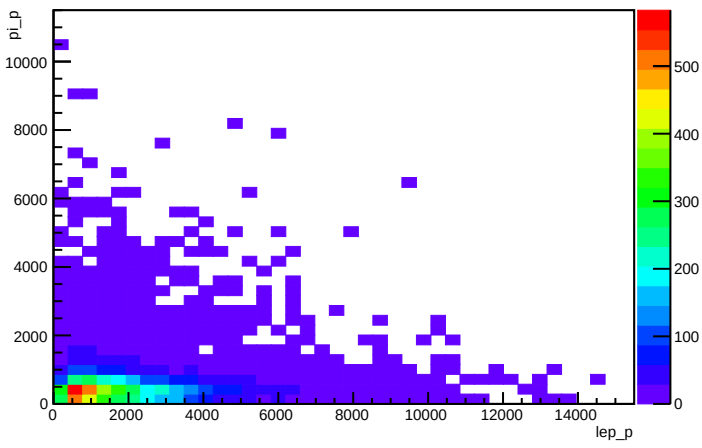

cc1piNpTrue ND280 Nieves
pi_p
d_pt

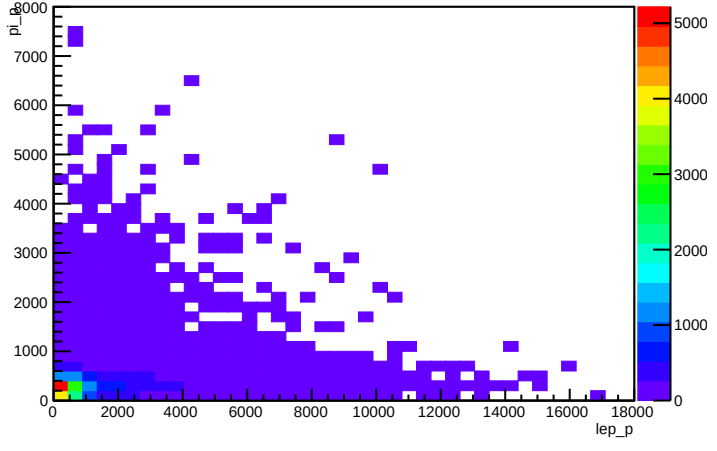

cc1piNpFake ND280 Nieves
pi_p
d_pt

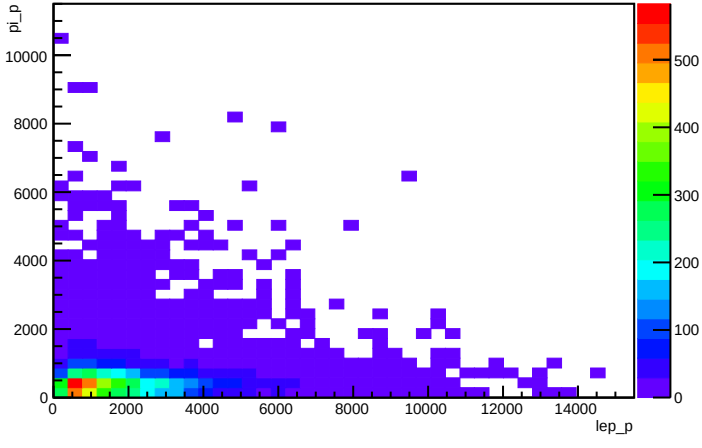

cc1piNpTrue ND280 Martini
pi_p
d_pt

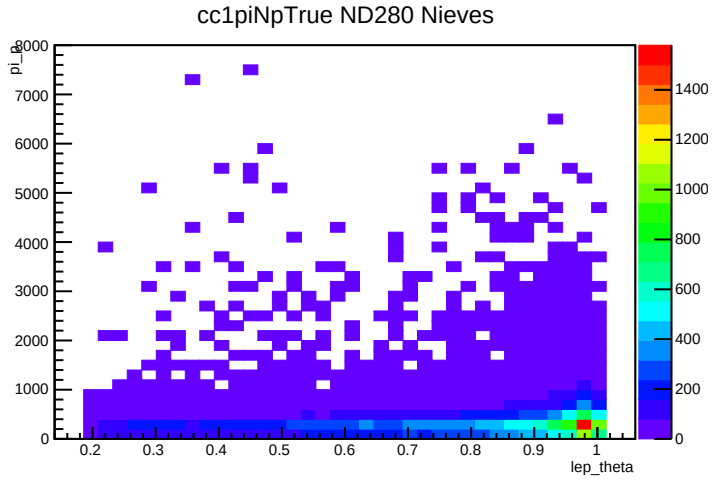

cc1piNpFake ND280 Martini
pi_p
d_pt

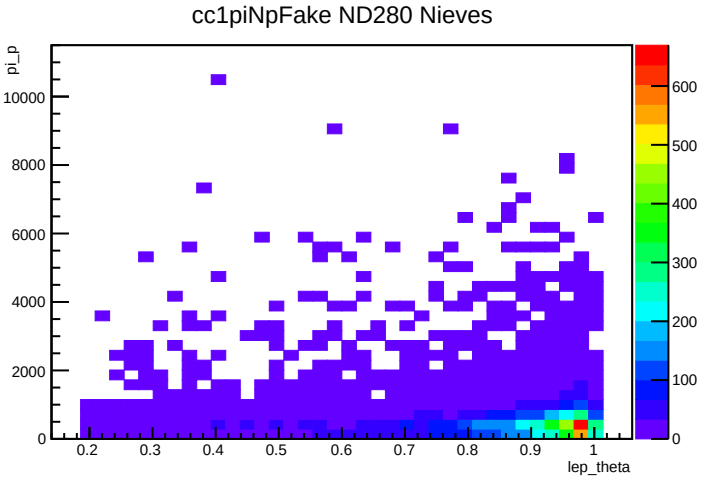

cc1piNpTrue ND280 Nieves
pi_p
lep_p

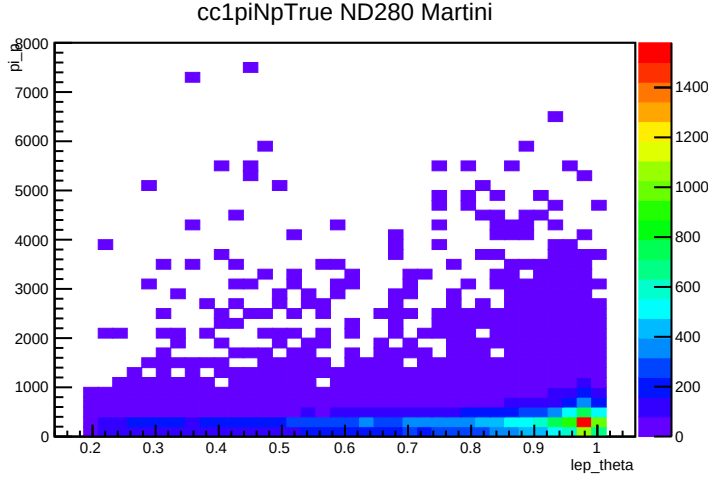

cc1piNpFake ND280 Nieves
pi_p
lep_p

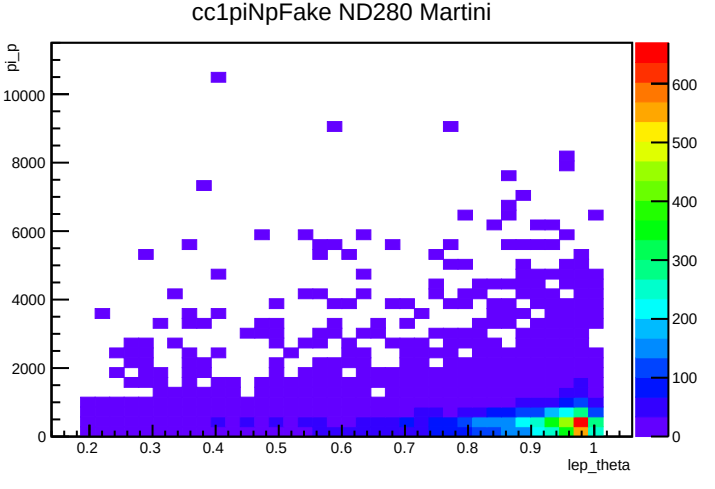

cc1piNpTrue ND280 Martini
pi_p
lep_p

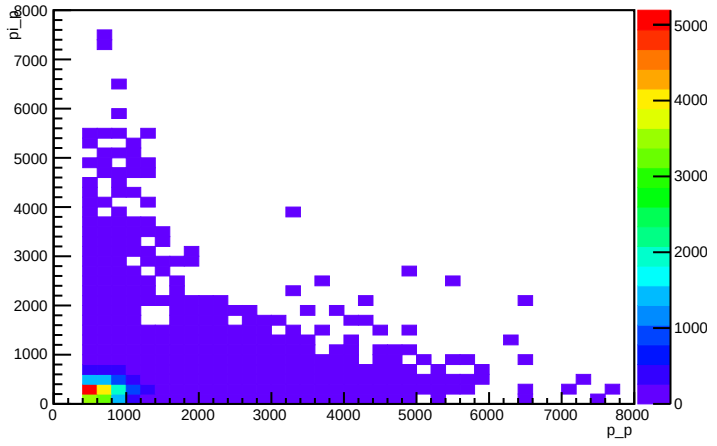

cc1piNpFake ND280 Martini
pi_p
lep_p

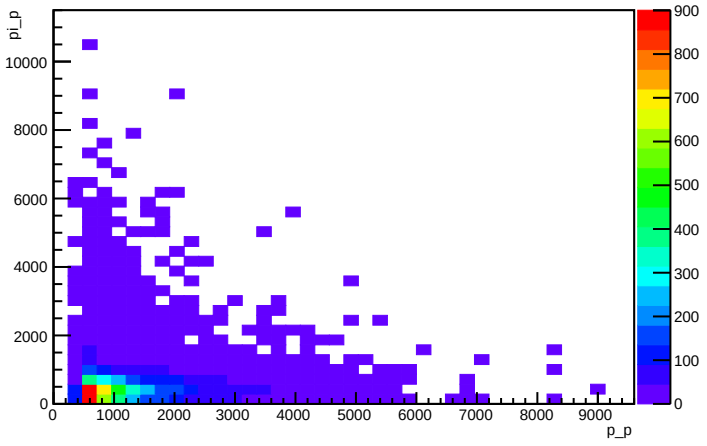

cc1piNpTrue ND280 Nieves
pi_p
lep_theta

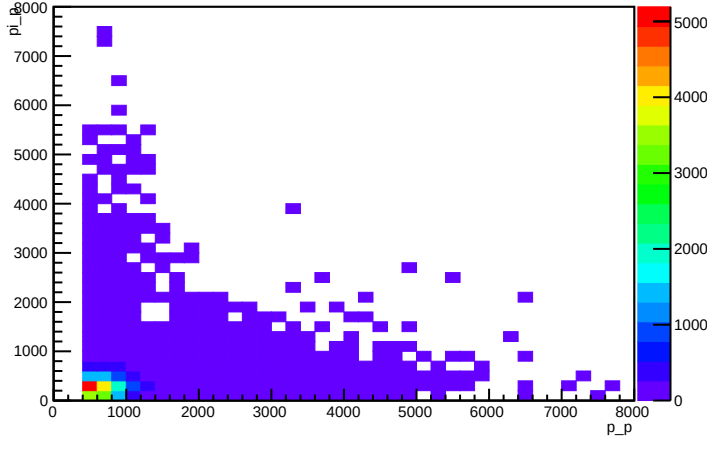

cc1piNpFake ND280 Nieves
pi_p
lep_theta

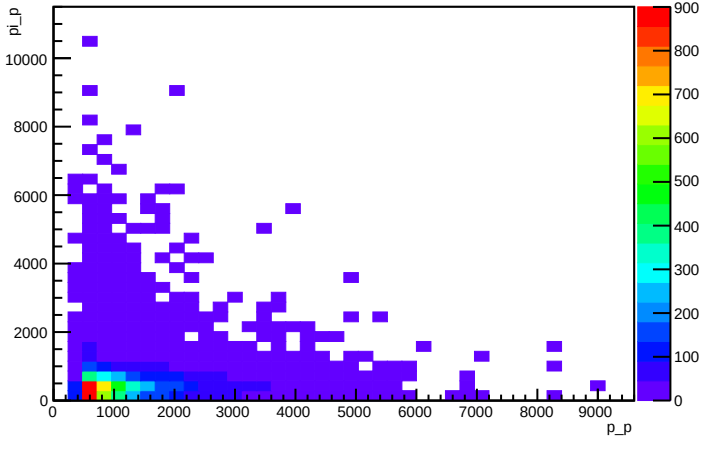

cc1piNpTrue ND280 Martini
pi_p
lep_theta

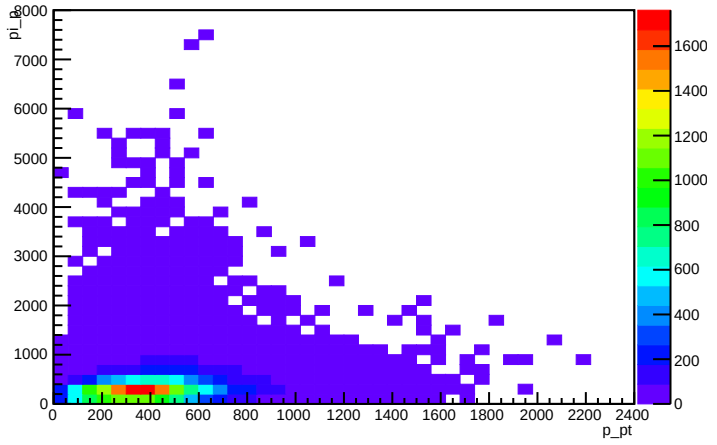

cc1piNpFake ND280 Martini
pi_p
lep_theta

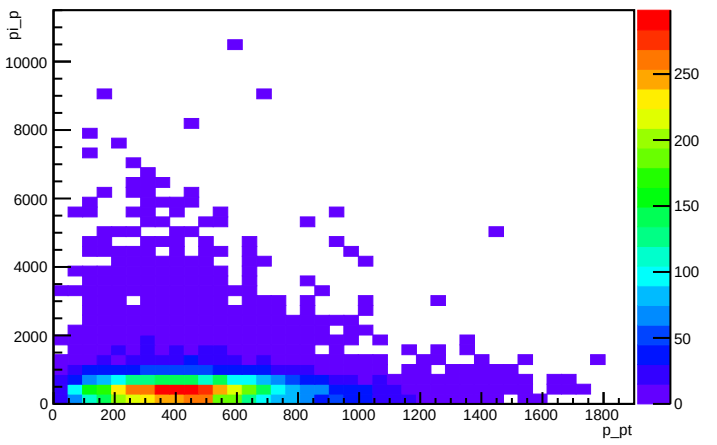

cc1piNpTrue ND280 Nieves
pi_p
p_p

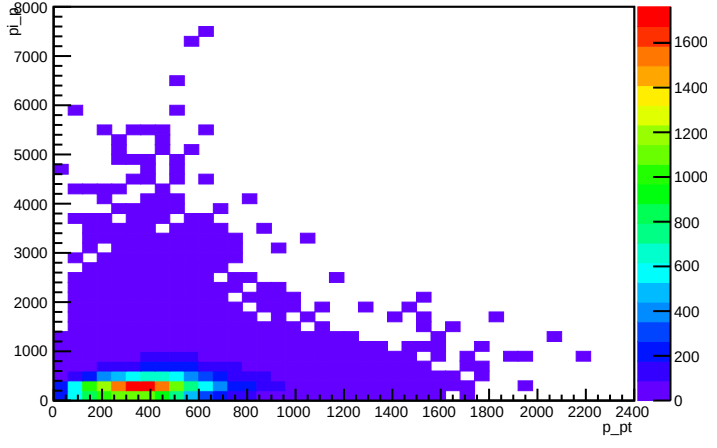

cc1piNpFake ND280 Nieves
pi_p
p_p

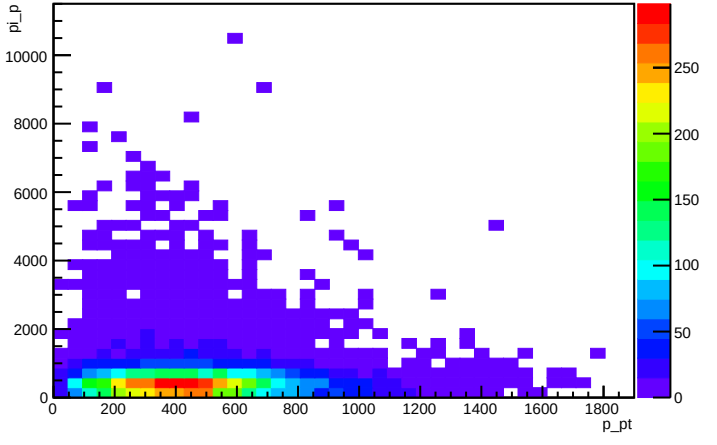

cc1piNpTrue ND280 Martini
pi_p
p_p

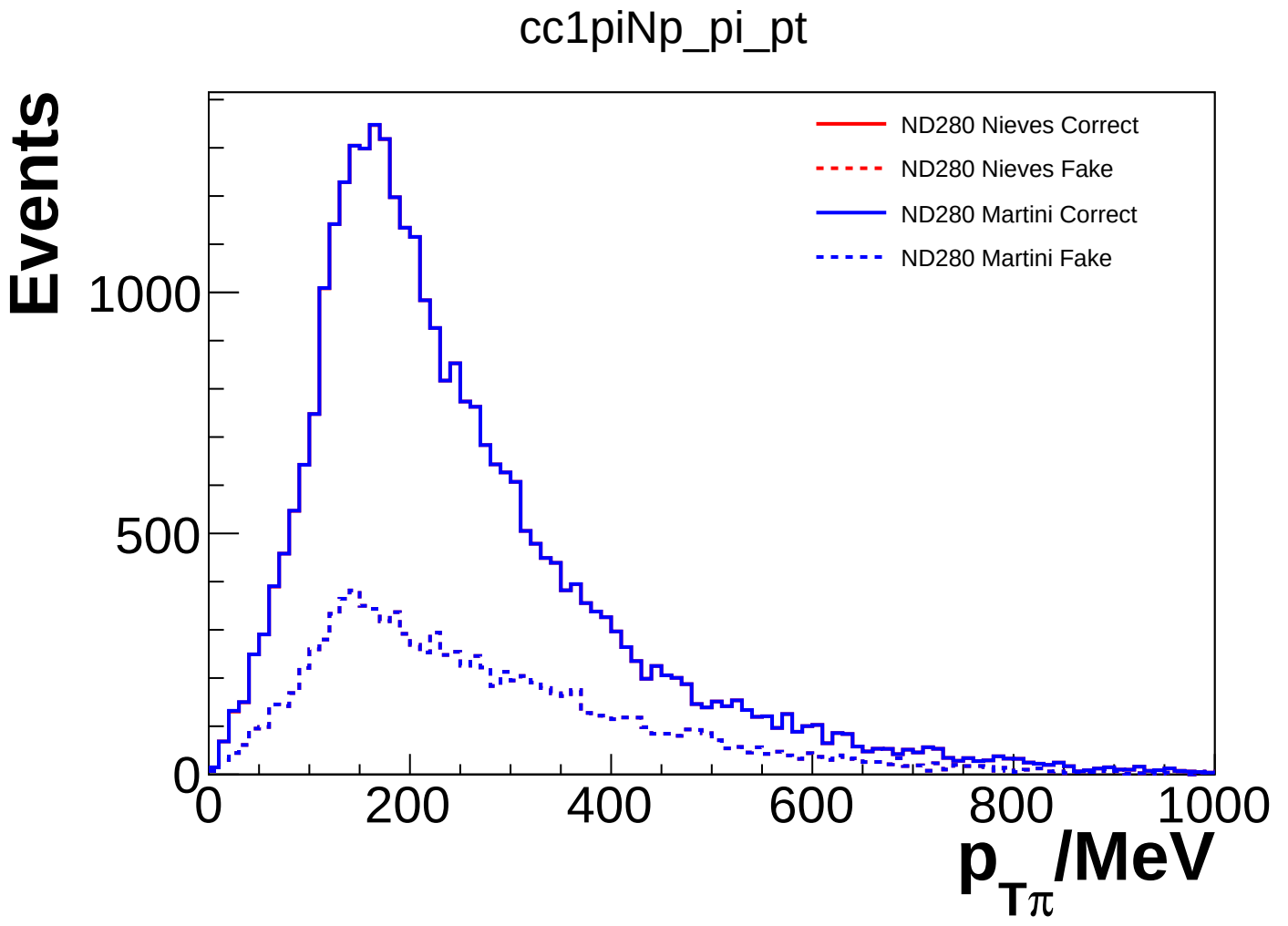

cc1piNpFake ND280 Martini
pi_p
p_p

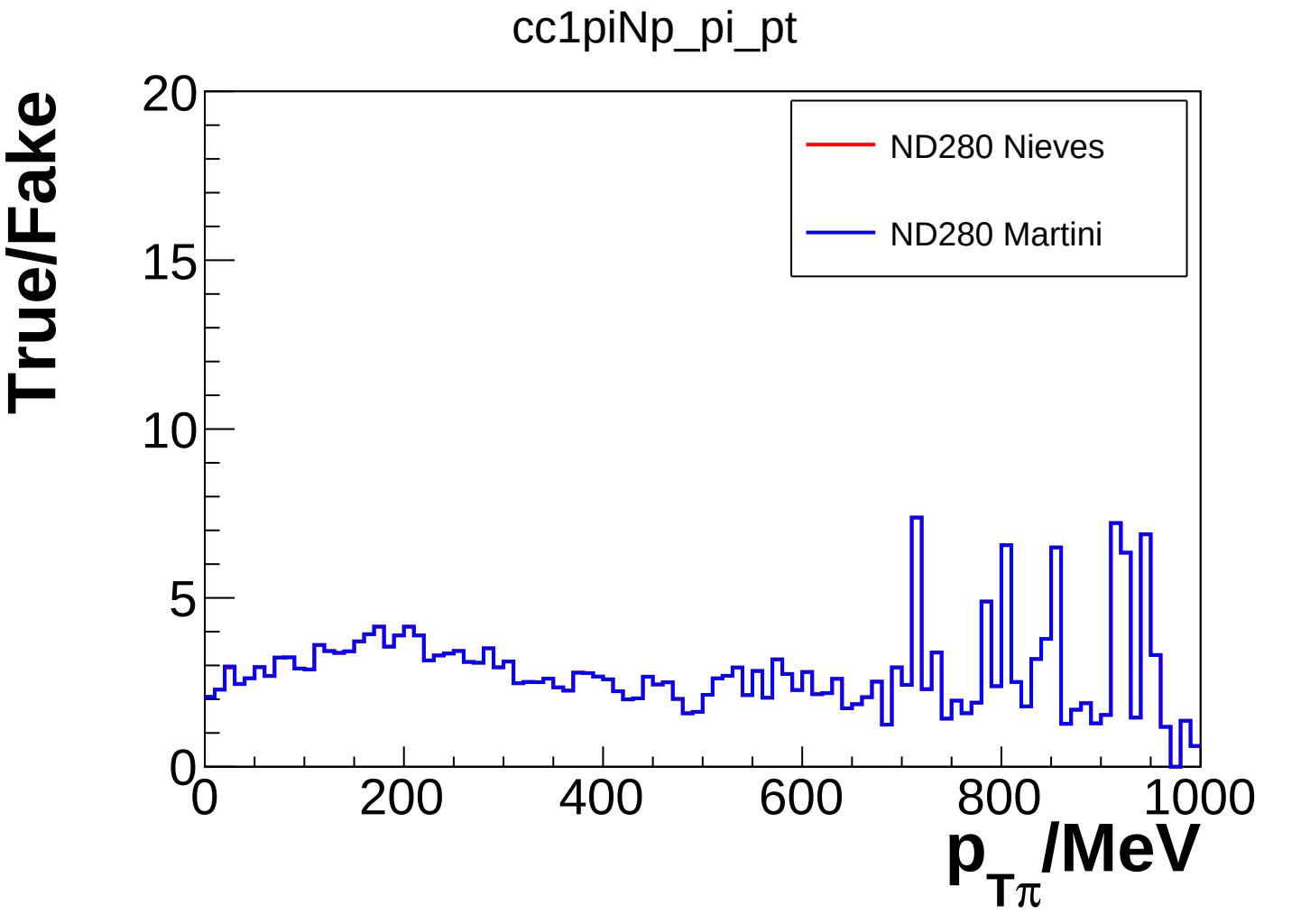

cc1piNpTrue ND280 Nieves
pi_p
p_pt

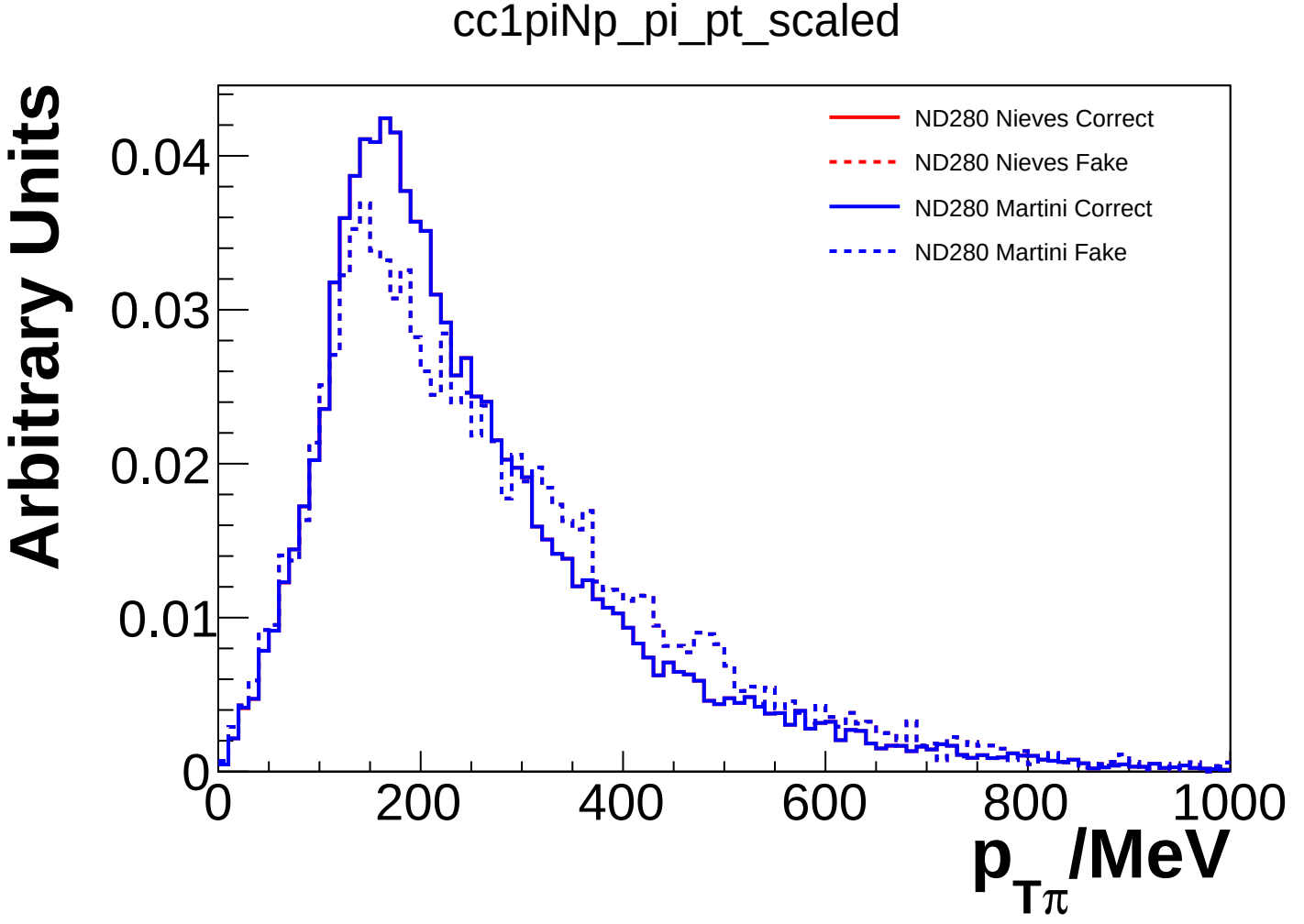

cc1piNpFake ND280 Nieves
pi_p
p_pt

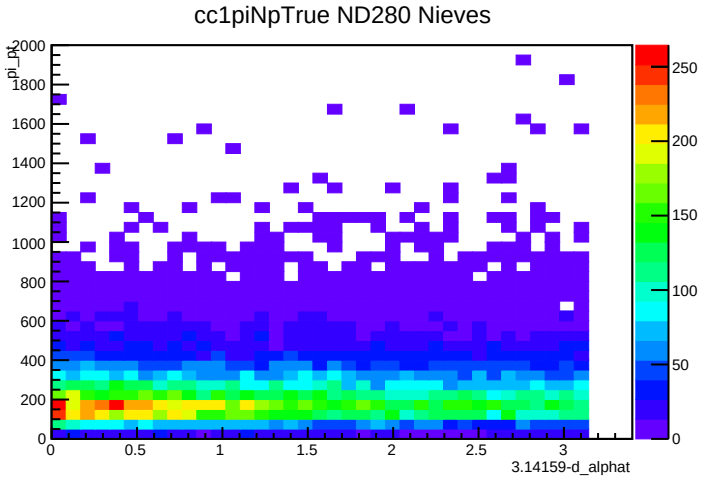

cc1piNpTrue ND280 Martini
pi_p
p_pt

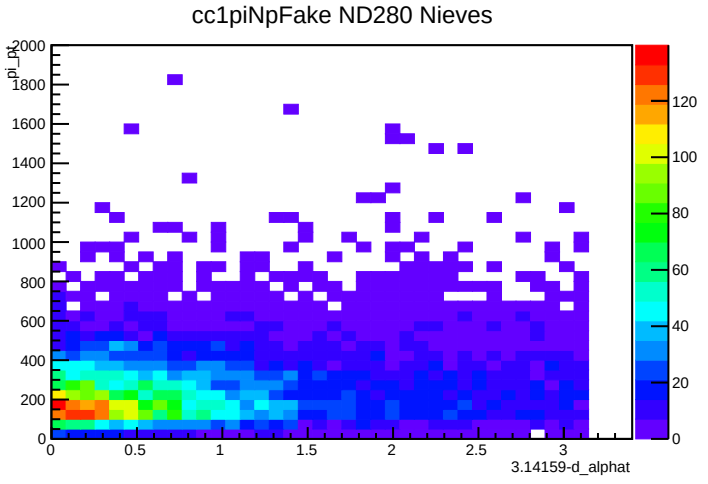

cc1piNpFake ND280 Martini
pi_p
p_pt

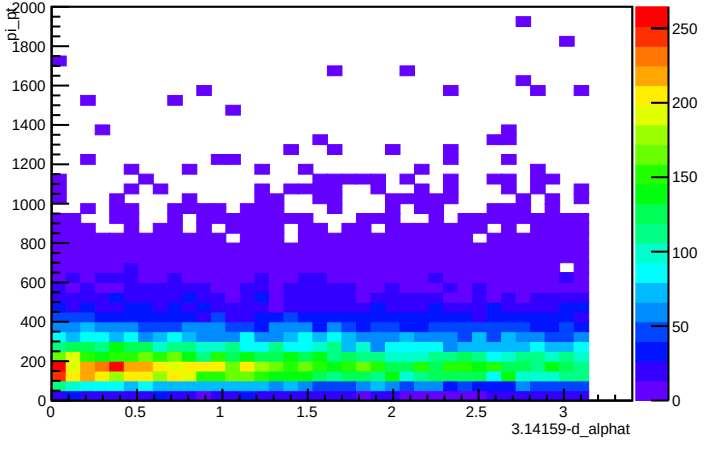

cc1piNp_pi_pt
Events
1000
500
0
0
200
400
600
800
1000
$p_{T\pi}$/MeV
ND280 Nieves Correct
ND280 Nieves Fake
ND280 Martini Correct
ND280 Martini Fake

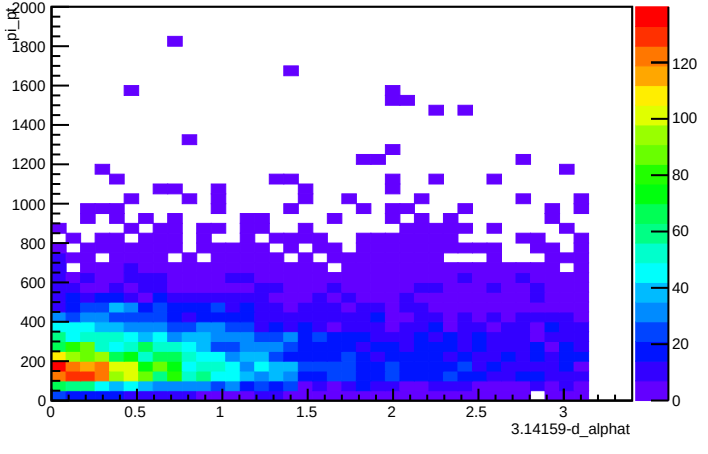

cc1piNp_pi_pt
True/Fake
20
15
10
5
0
0
200
400
600
800
1000
$p_{T\pi}$/MeV
ND280 Nieves
ND280 Martini

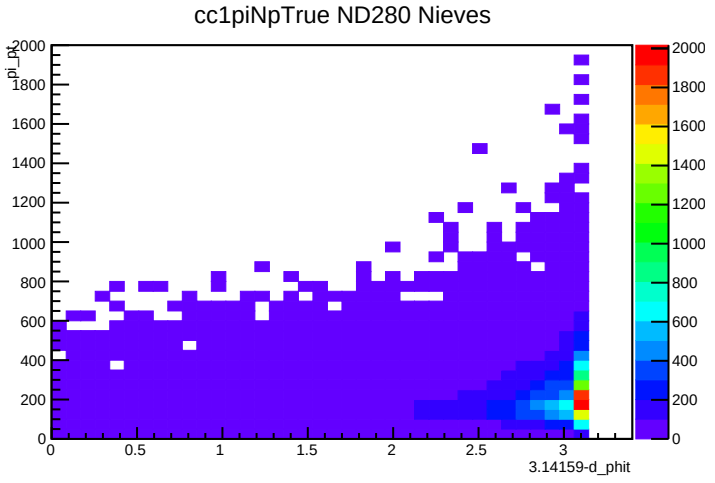

cc1piNp_pi_pt_scaled
Arbitrary Units
0.04
0.03
0.02
0.01
0
0
200
400
600
800
1000
$p_{T\pi}$/MeV
ND280 Nieves Correct
ND280 Nieves Fake
ND280 Martini Correct
ND280 Martini Fake

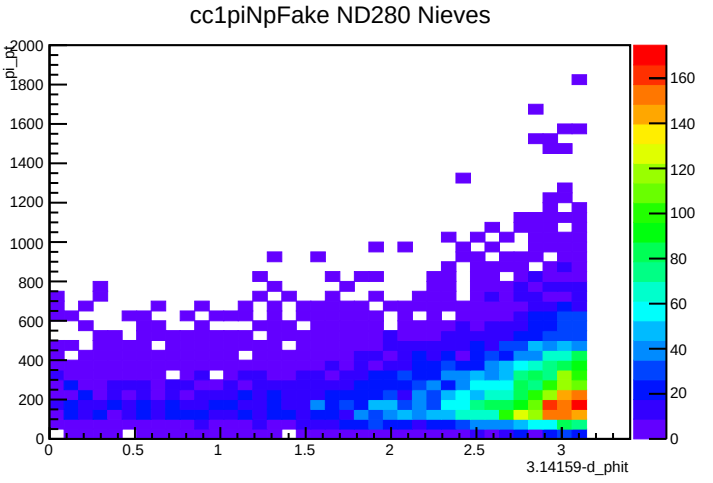

cc1piNpTrue ND280 Nieves
pi_pt
3.14159-d_alphat

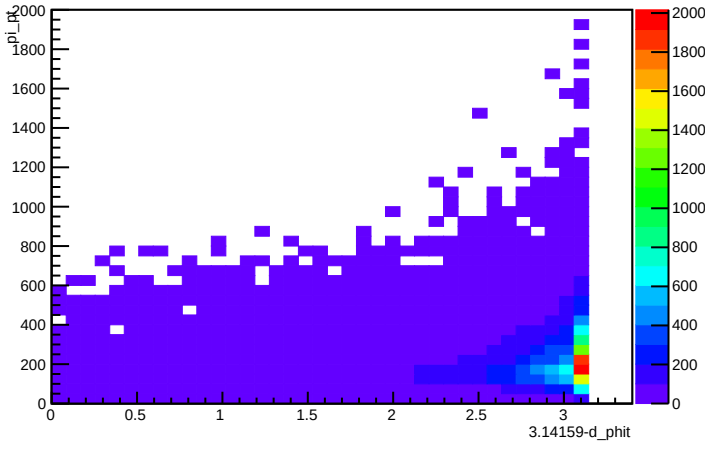

cc1piNpFake ND280 Nieves
pi_pt
3.14159-d_alphat

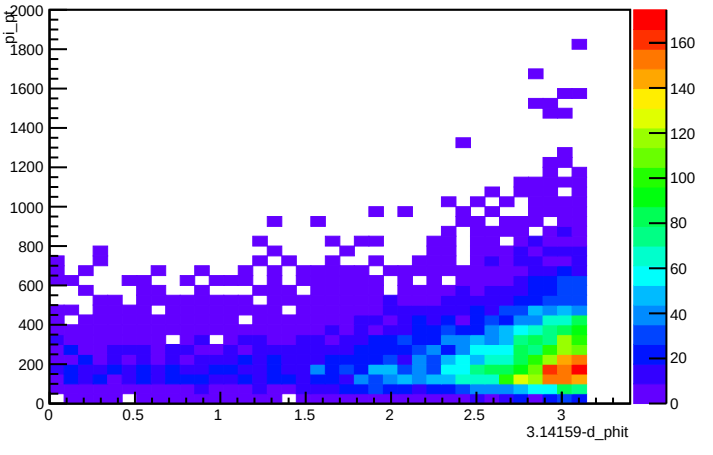

cc1piNpTrue ND280 Martini
pi_pt
3.14159-d_alphat

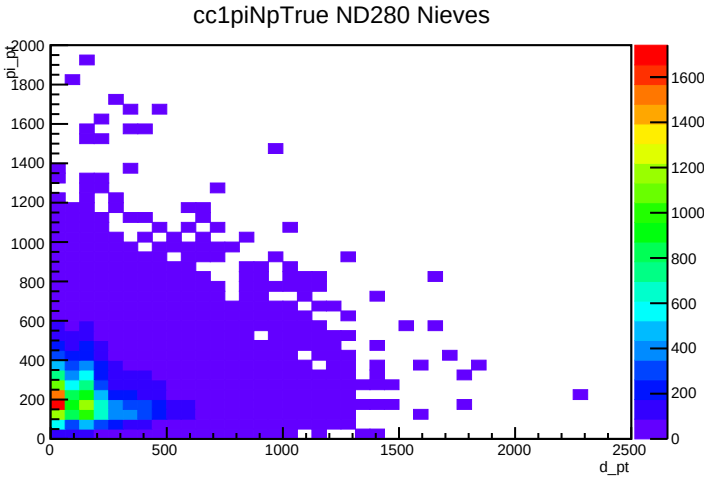

cc1piNpFake ND280 Martini
pi_pt
3.14159-d_alphat

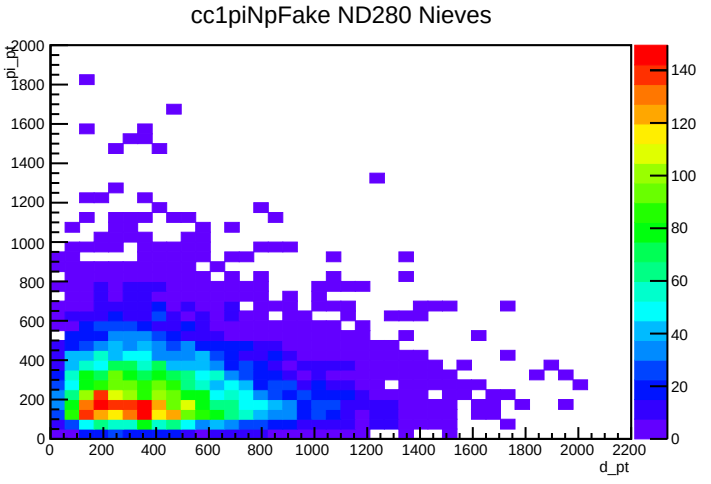

cc1piNpTrue ND280 Nieves
pi_pt
3.14159-d_phit

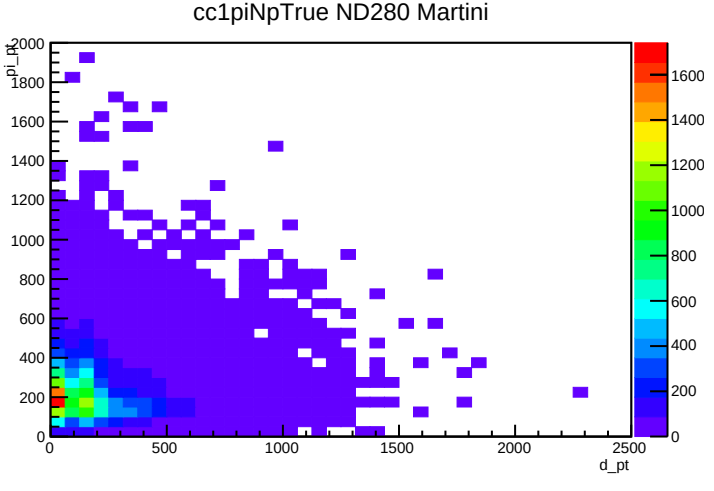

cc1piNpFake ND280 Nieves
pi_pt
3.14159-d_phit

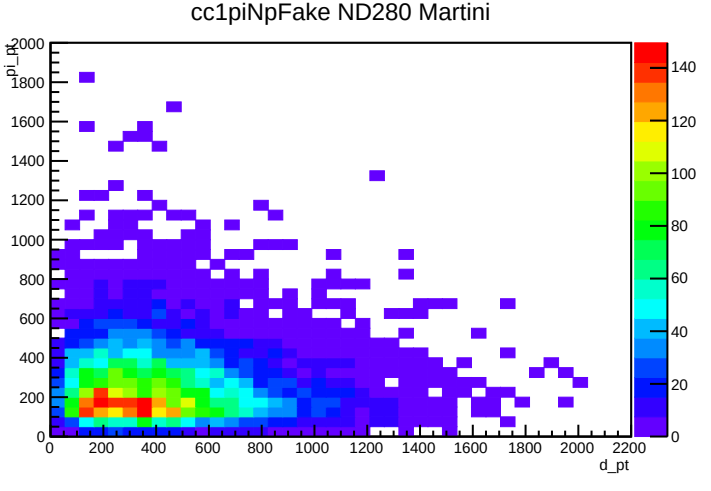

cc1piNpTrue ND280 Martini
pi_pt
3.14159-d_phit

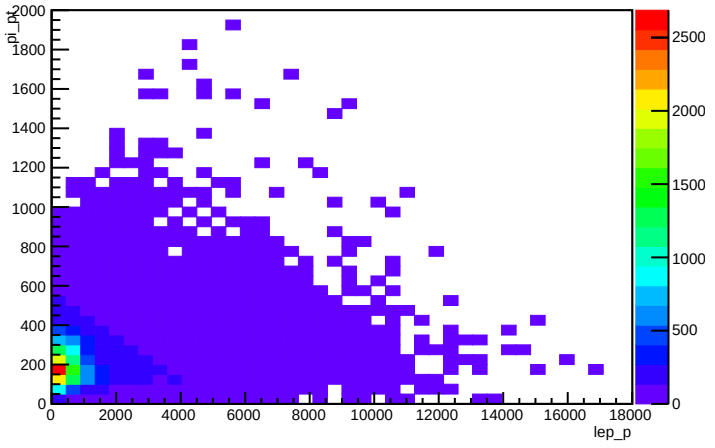

cc1piNpFake ND280 Martini
pi_pt
3.14159-d_phit

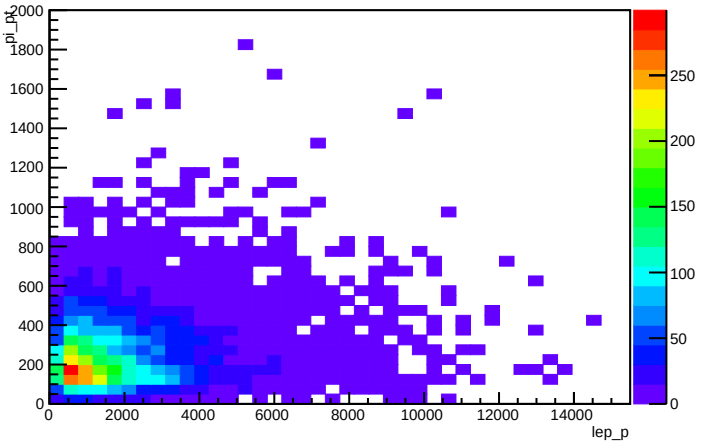

cc1piNpTrue ND280 Nieves
pi_pt
d_pt

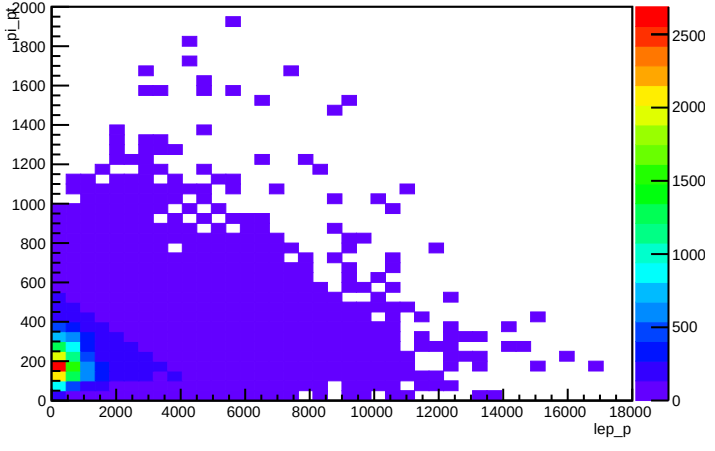

cc1piNpFake ND280 Nieves
pi_pt
d_pt

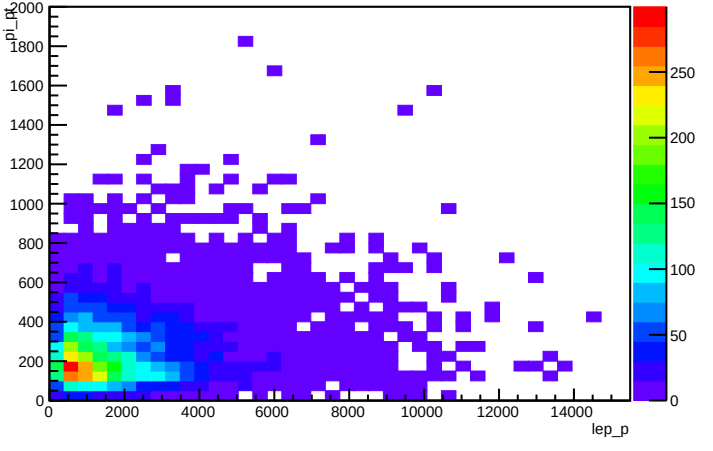

cc1piNpTrue ND280 Martini
pi_pt
d_pt

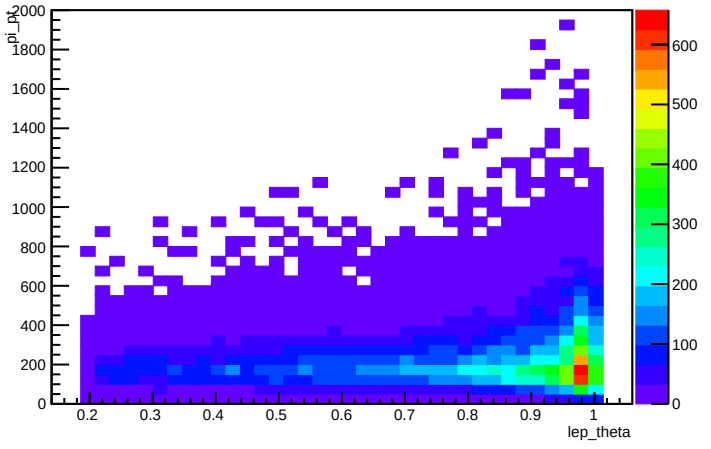

cc1piNpFake ND280 Martini
pi_pt
d_pt

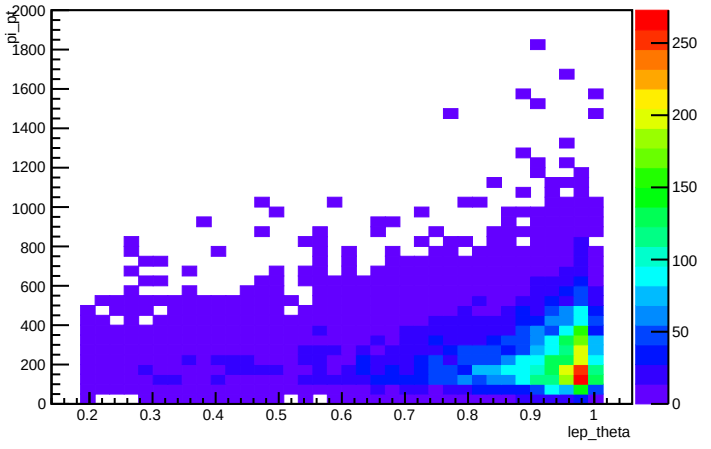

cc1piNpTrue ND280 Nieves
pi_p
lep_p

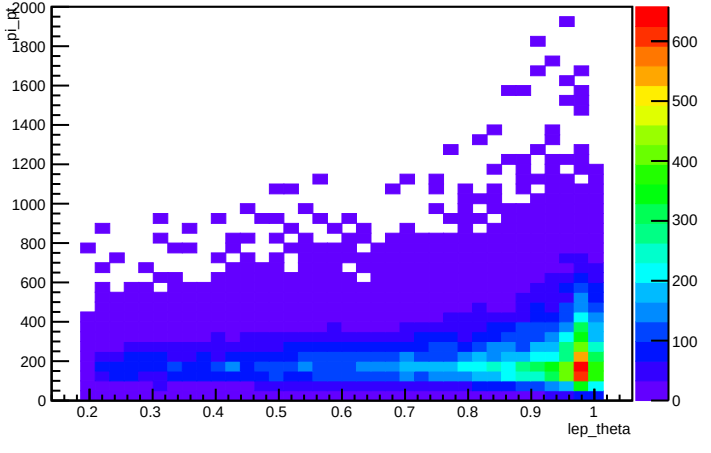

cc1piNpFake ND280 Nieves
pi_p
lep_p

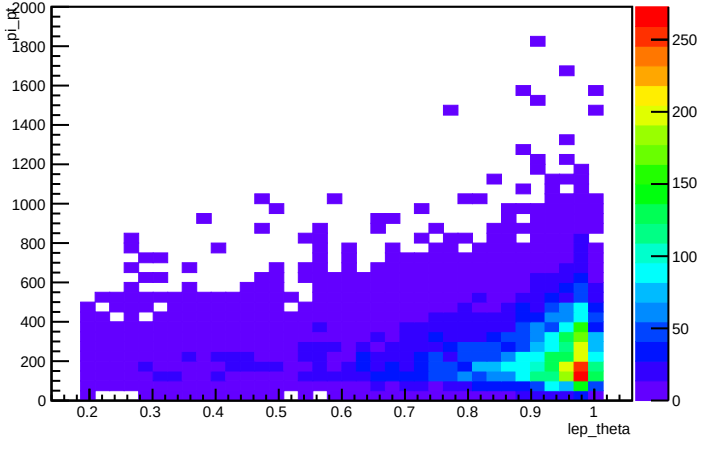

cc1piNpTrue ND280 Martini
pi_p
lep_p

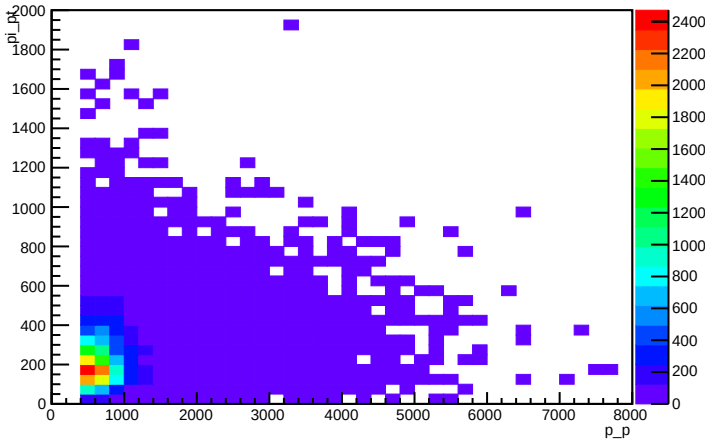

cc1piNpFake ND280 Martini
pi_p
lep_p

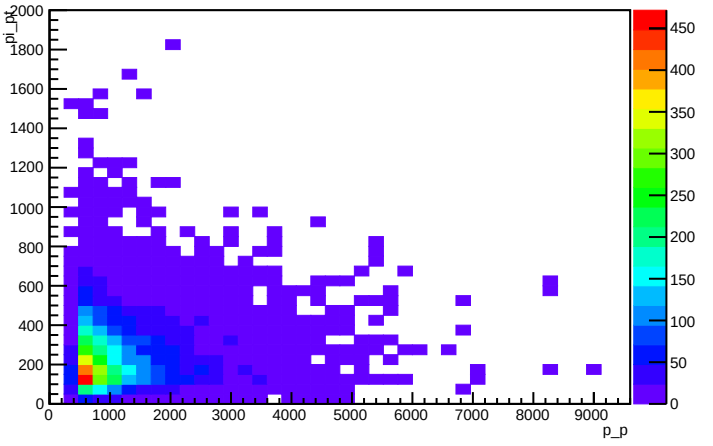

cc1piNpTrue ND280 Nieves
pi_pt
lep_theta

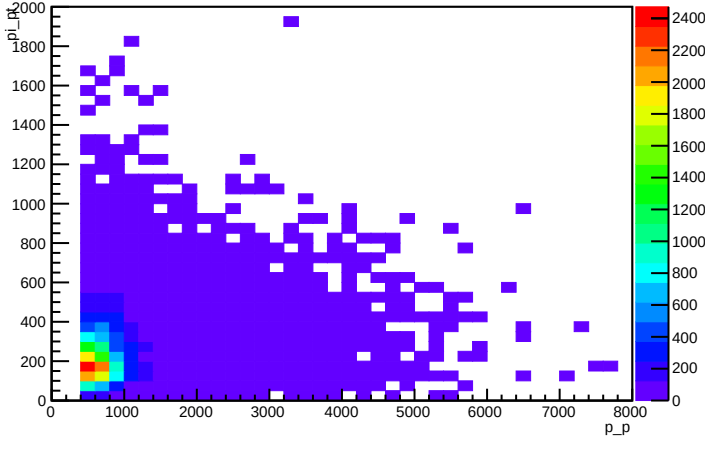

cc1piNpFake ND280 Nieves
pi_pt
lep_theta

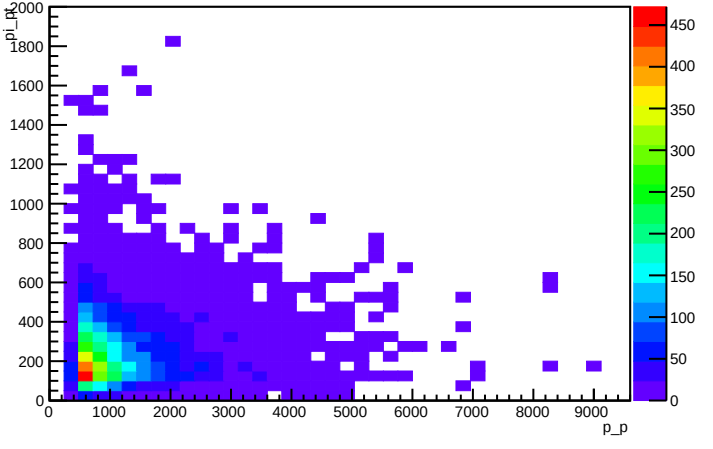

cc1piNpTrue ND280 Martini
pi_pt
lep_theta

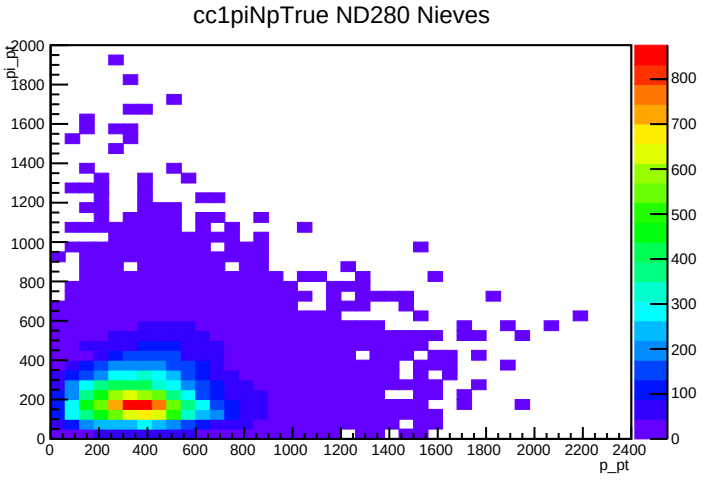

cc1piNpFake ND280 Martini
pi_pt
lep_theta

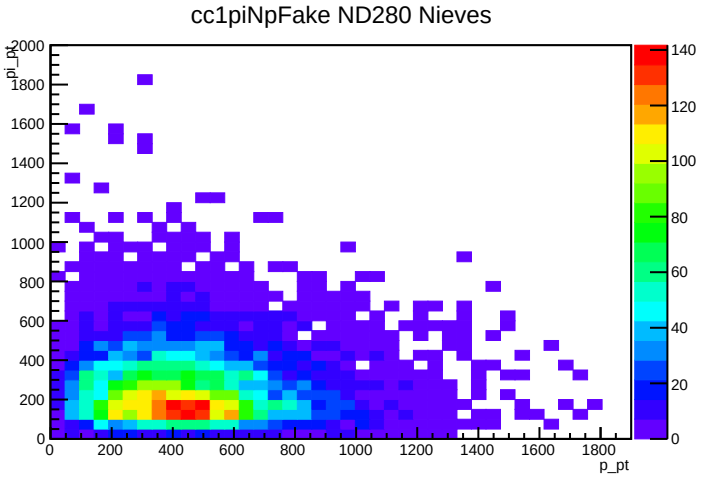

cc1piNpTrue ND280 Nieves
pi_p
p_p

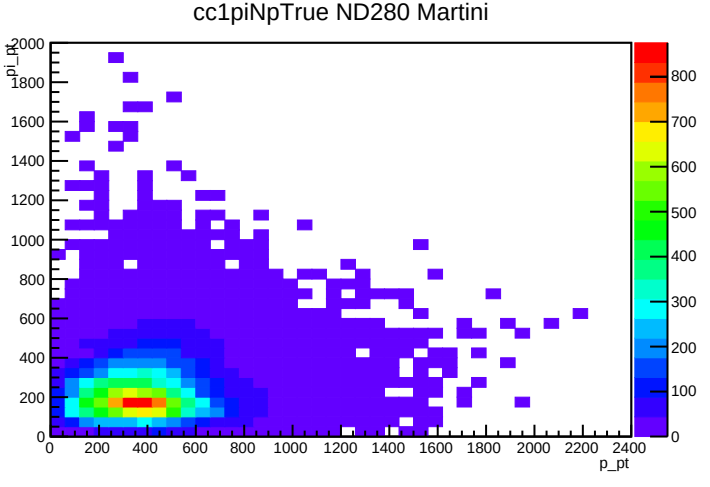

cc1piNpFake ND280 Nieves
pi_p
p_p

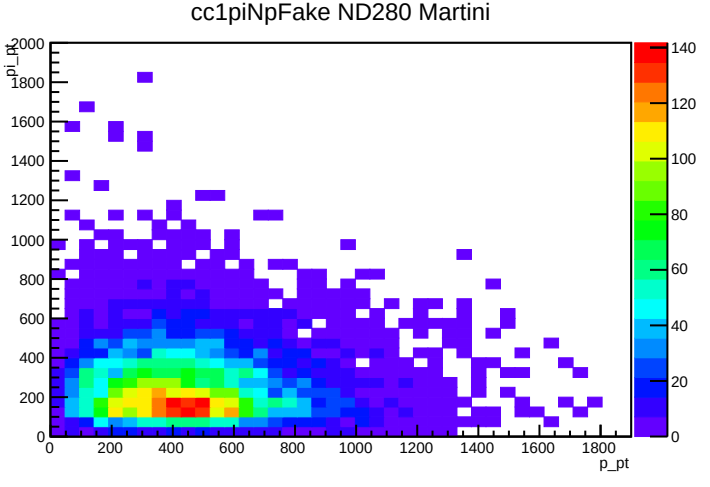

cc1piNpTrue ND280 Martini
pi_p
p_p

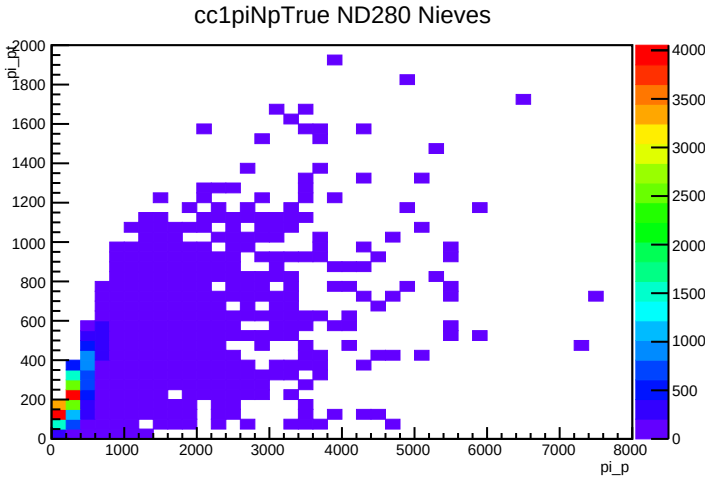

cc1piNpFake ND280 Martini
pi_p
p_p

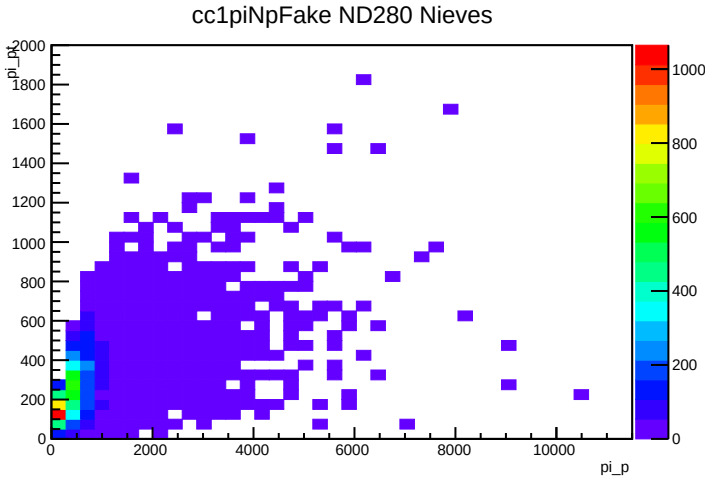

cc1piNpTrue ND280 Nieves
pi_pt
p_pt

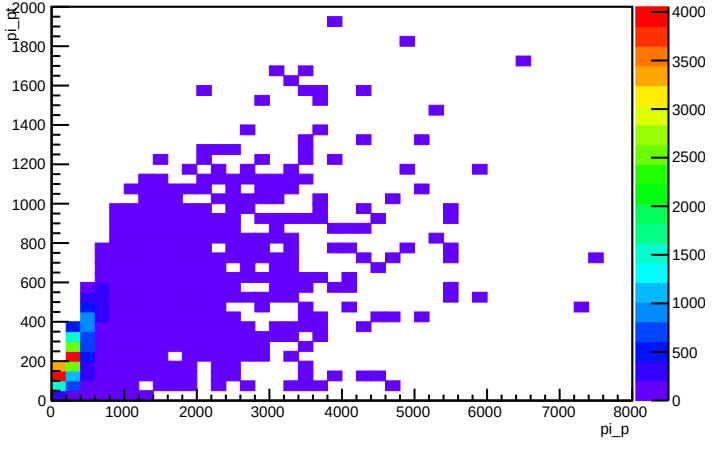

cc1piNpFake ND280 Nieves
pi_pt
p_pt

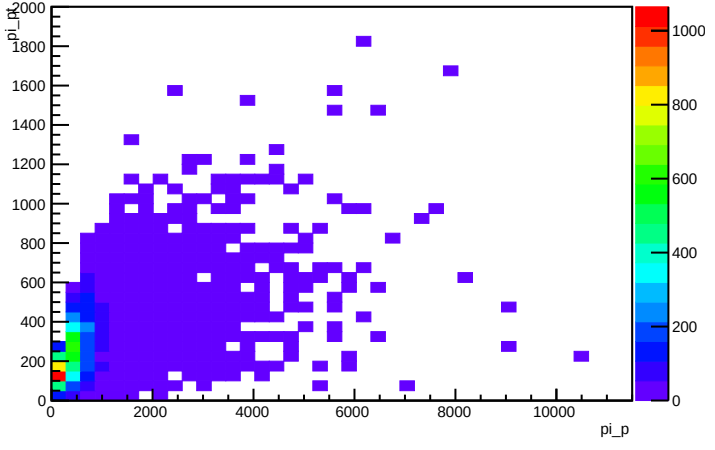

cc1piNpTrue ND280 Martini
pi_pt
p_pt

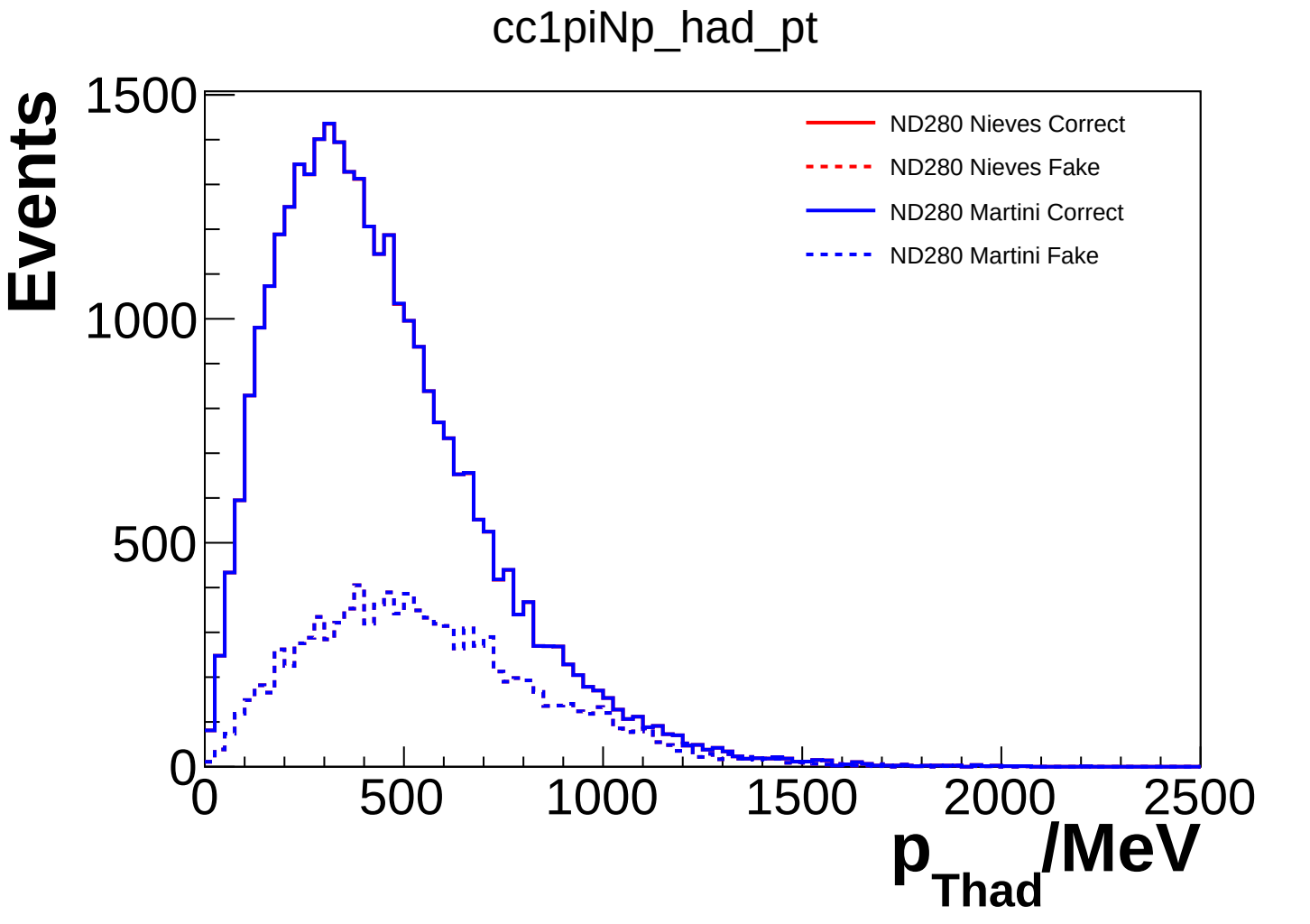

cc1piNpFake ND280 Martini
pi_pt
p_pt

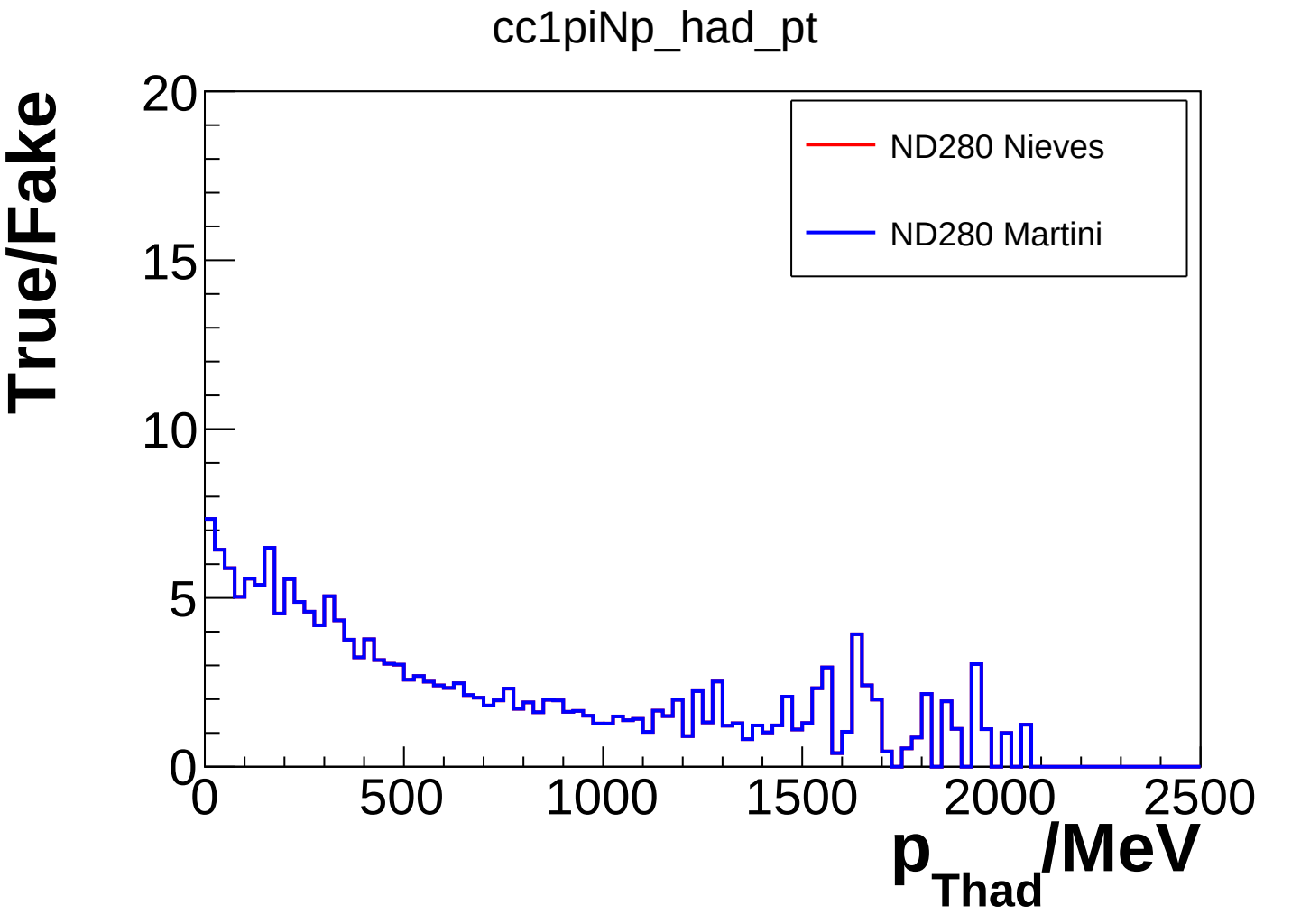

cc1piNpTrue ND280 Nieves
pi_pt
pi_p
0
200
400
600
800
1000
1200
1400
1600
1800
2000
0
1000
2000
3000
4000
5000
6000
7000
8000
0
500
1000
1500
2000
2500
3000
3500
4000

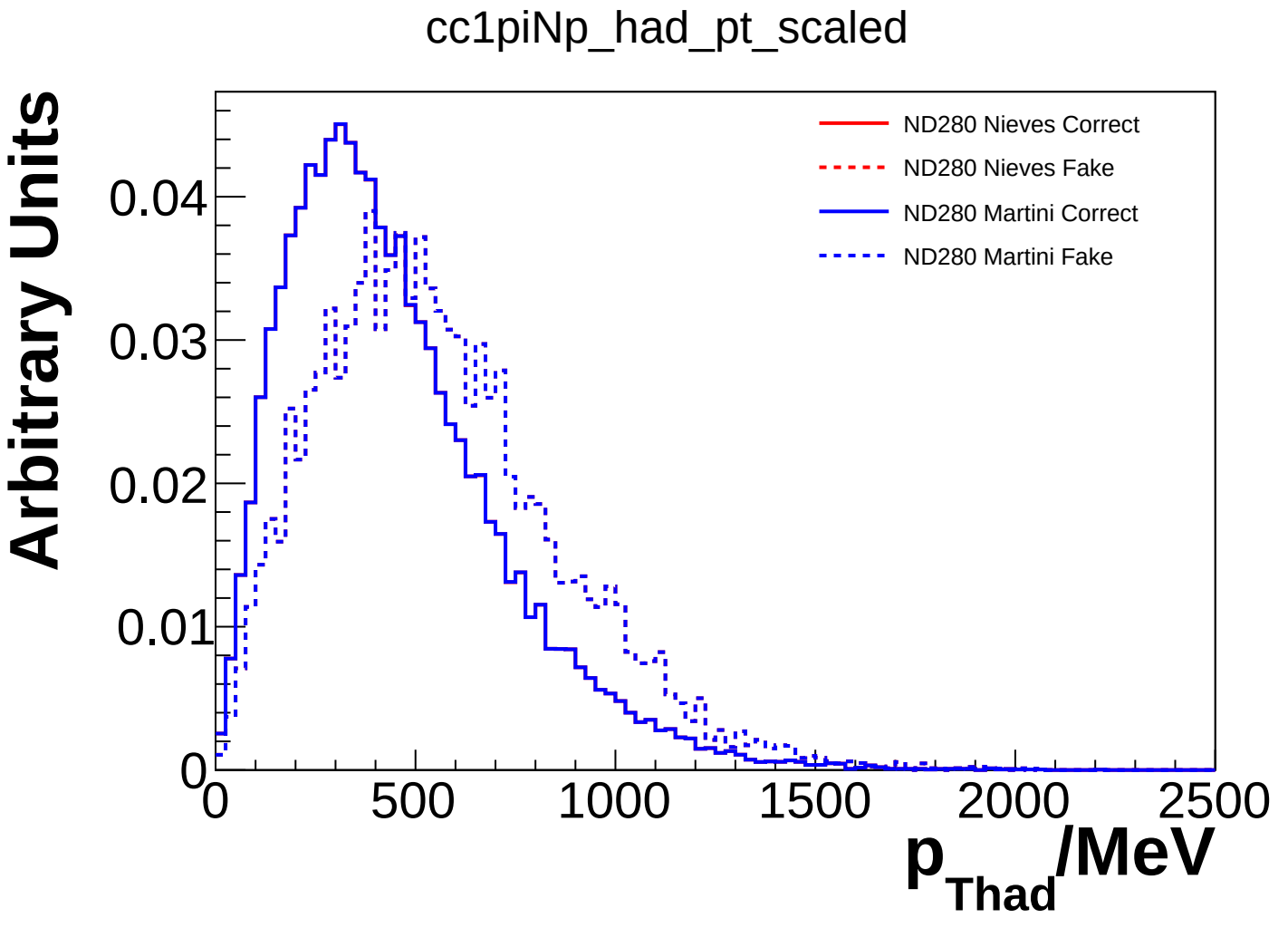

cc1piNpFake ND280 Nieves
pi_pt
pi_p
0
200
400
600
800
1000
1200
1400
1600
1800
2000
0
2000
4000
6000
8000
10000
0
200
400
600
800
1000

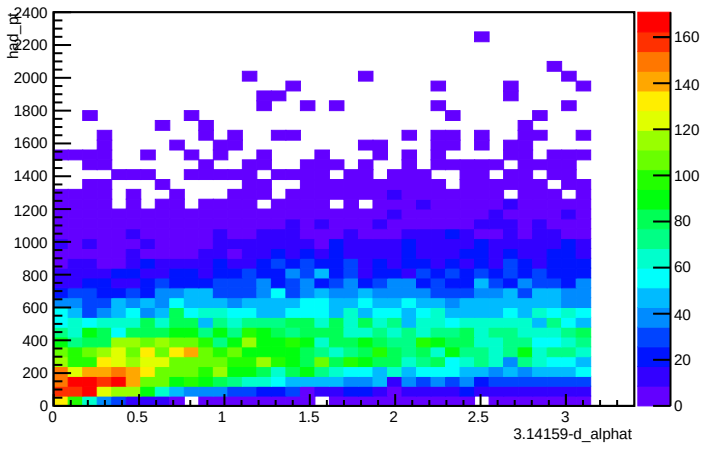

cc1piNpTrue ND280 Martini
pi_pt
pi_p
0
200
400
600
800
1000
1200
1400
1600
1800
2000
0
1000
2000
3000
4000
5000
6000
7000
8000
0
500
1000
1500
2000
2500
3000
3500
4000

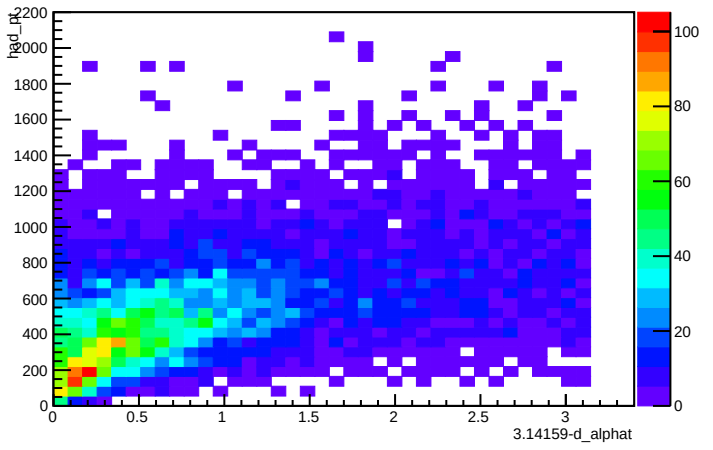

cc1piNpFake ND280 Martini
pi_pt
pi_p
0
200
400
600
800
1000
1200
1400
1600
1800
2000
0
2000
4000
6000
8000
10000
0
200
400
600
800
1000

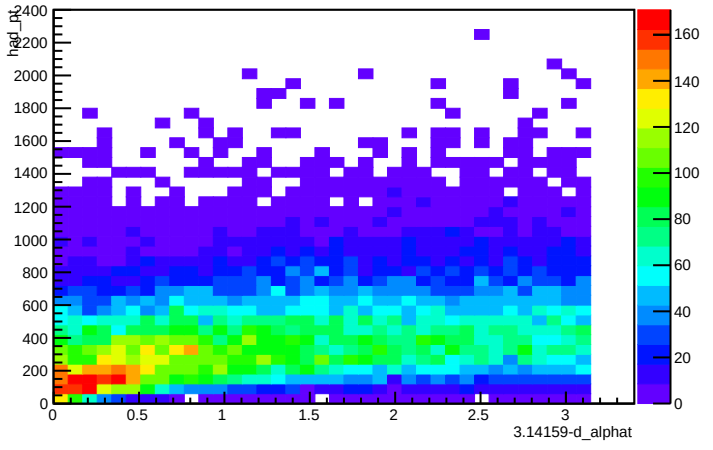

cc1piNp_had_pt
Events
1500
1000
500
0
0
500
1000
1500
2000
2500
p_{Thad}/MeV
ND280 Nieves Correct
ND280 Nieves Fake
ND280 Martini Correct
ND280 Martini Fake

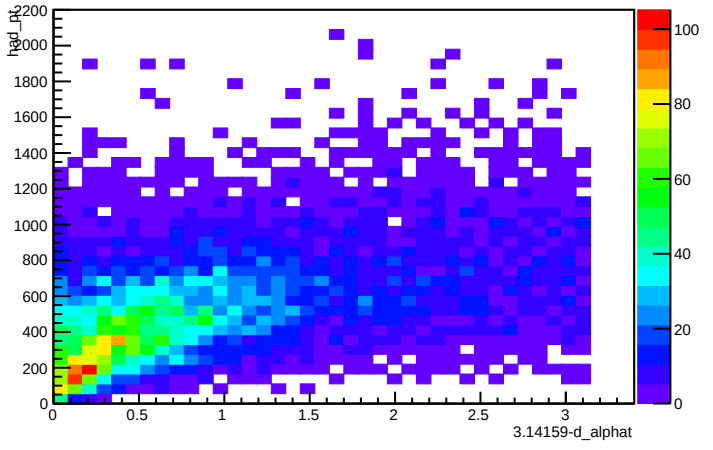

cc1piNp_had_pt
True/Fake
20
15
10
5
0
0
500
1000
1500
2000
2500
p_{Thad}/MeV
ND280 Nieves
ND280 Martini

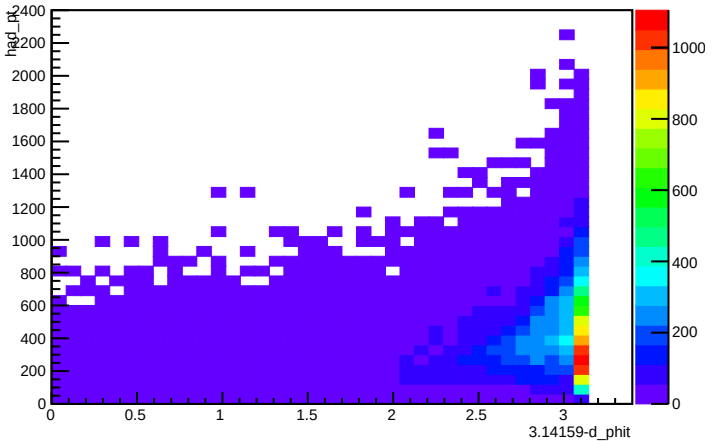

cc1piNp_had_pt_scaled
Arbitrary Units
0.04
0.03
0.02
0.01
0
0
500
1000
1500
2000
2500
p_{Thad}/MeV
ND280 Nieves Correct
ND280 Nieves Fake
ND280 Martini Correct
ND280 Martini Fake

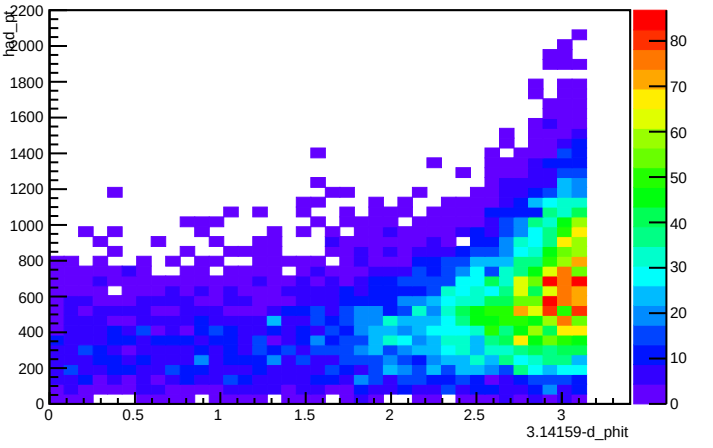

cc1piNpTrue ND280 Nieves
had_pt
3.14159-d_alphat

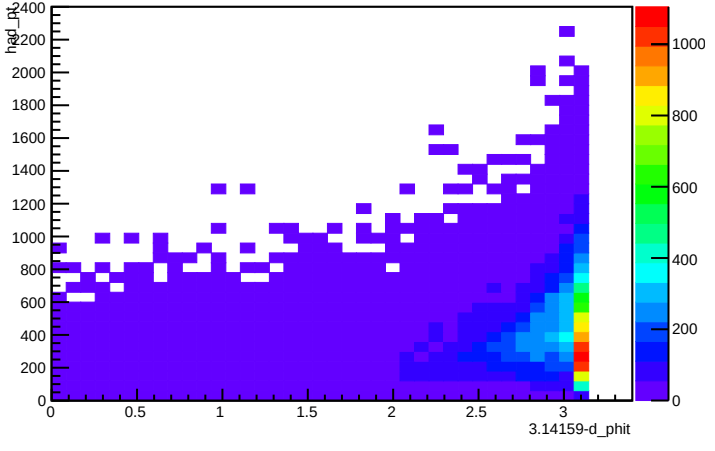

cc1piNpFake ND280 Nieves
had_pt
3.14159-d_alphat

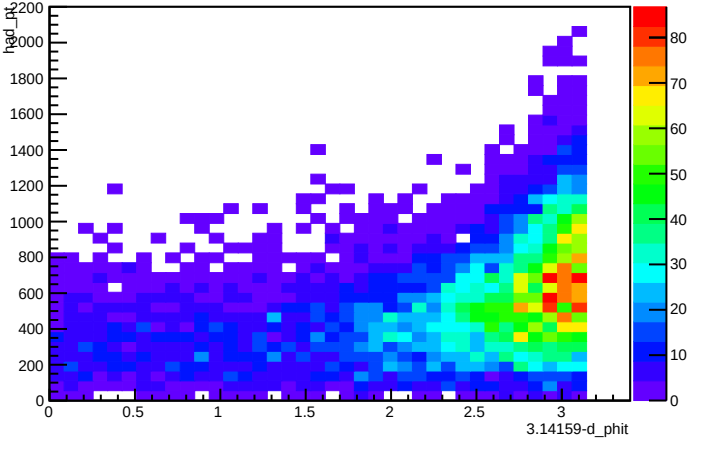

cc1piNpTrue ND280 Martini
had_pt
3.14159-d_alphat

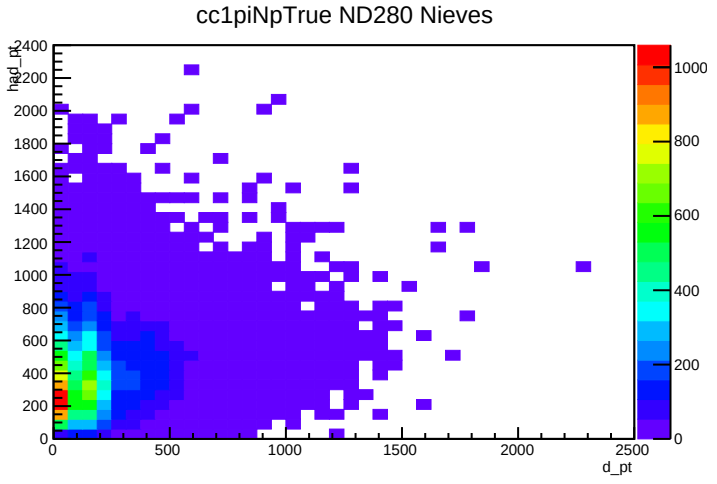

cc1piNpFake ND280 Martini
had_pt
3.14159-d_alphat

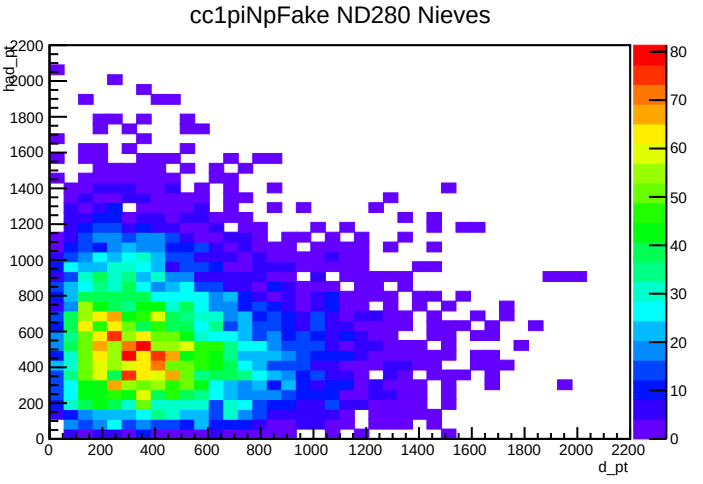

cc1piNpTrue ND280 Nieves
had_pt
3.14159-d_phit

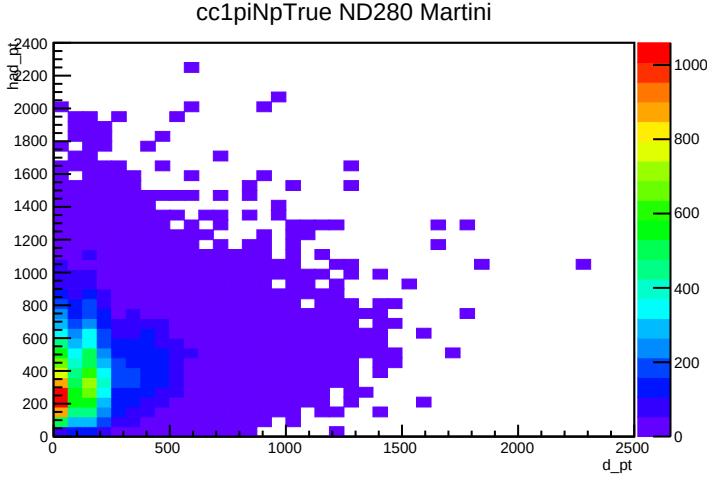

cc1piNpFake ND280 Nieves
had_pt
3.14159-d_phit

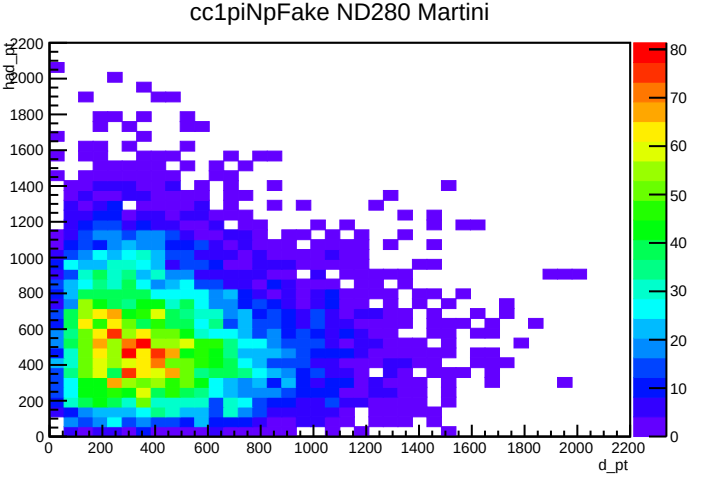

cc1piNpTrue ND280 Martini
had_pt
3.14159-d_phit

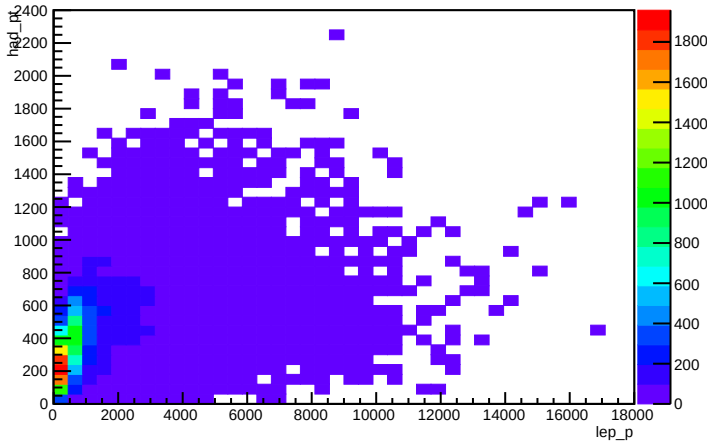

cc1piNpFake ND280 Martini
had_pt
3.14159-d_phit

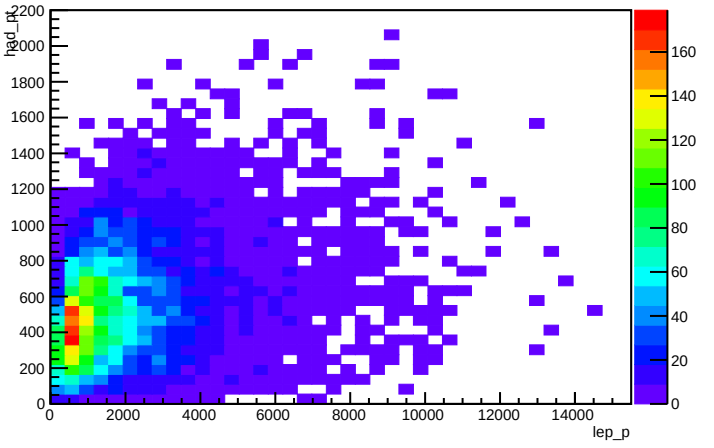

cc1piNpTrue ND280 Nieves
had_pt
d_pt

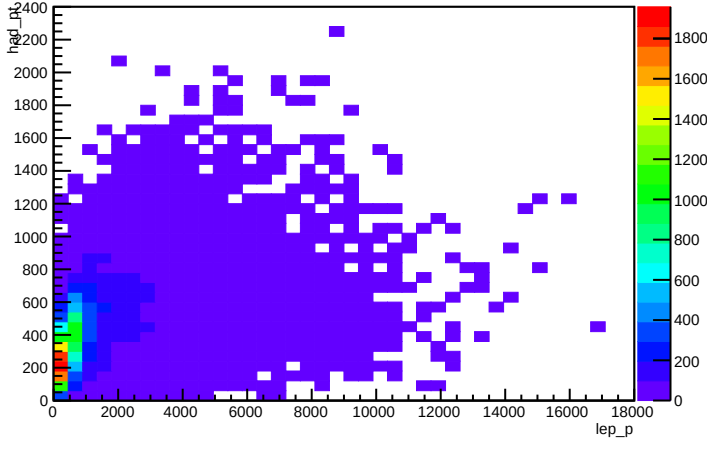

cc1piNpFake ND280 Nieves
had_pt
d_pt

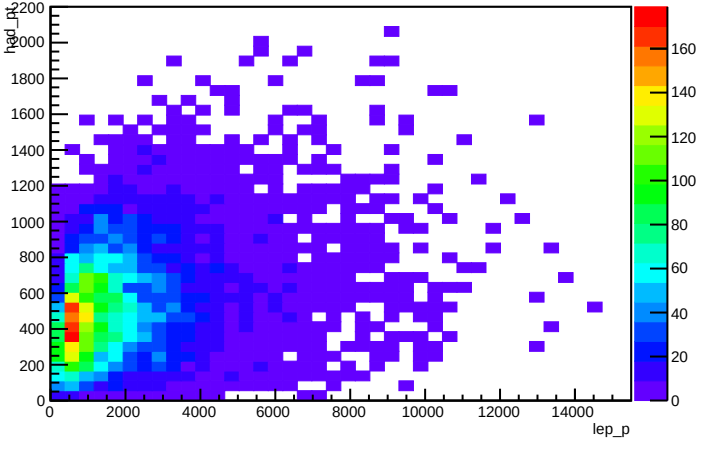

cc1piNpTrue ND280 Martini
had_pt
d_pt

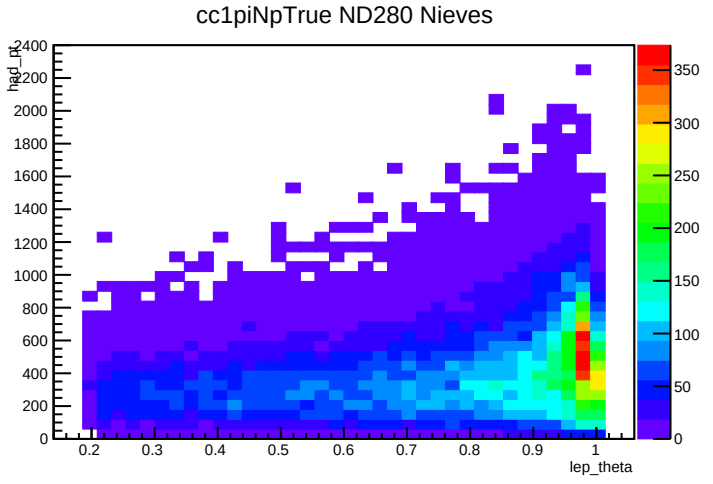

cc1piNpFake ND280 Martini
had_pt
d_pt

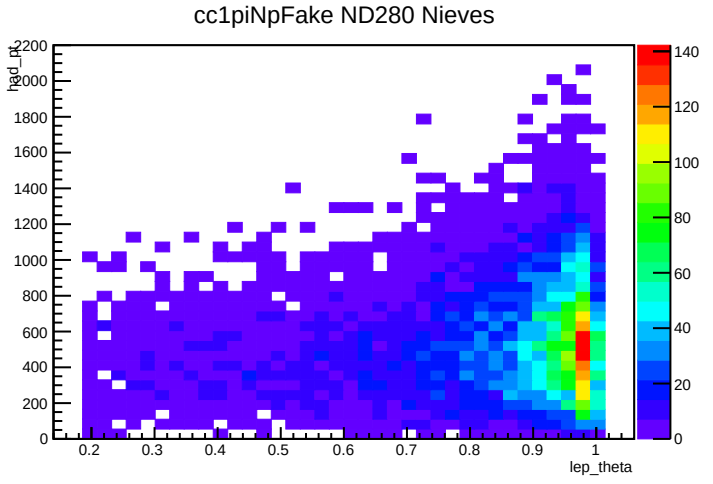

cc1piNpTrue ND280 Nieves
had_p
lep_p

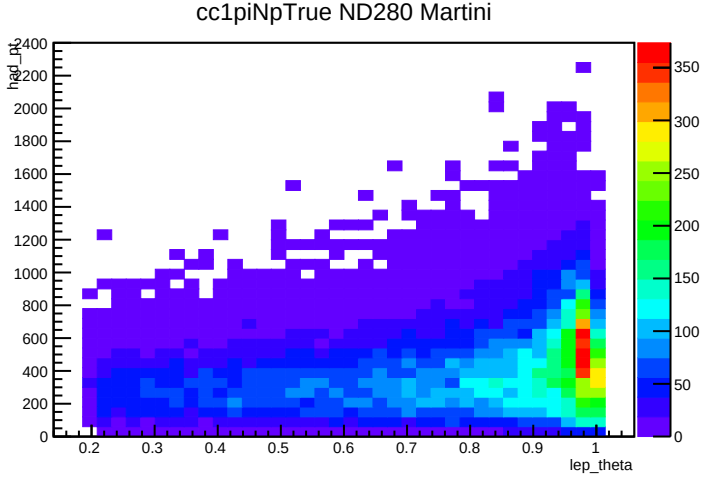

cc1piNpFake ND280 Nieves
had_p
lep_p

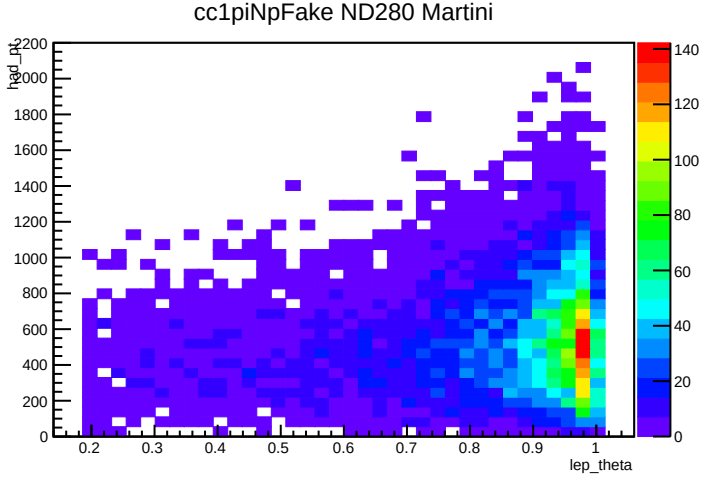

cc1piNpTrue ND280 Martini
had_p
lep_p

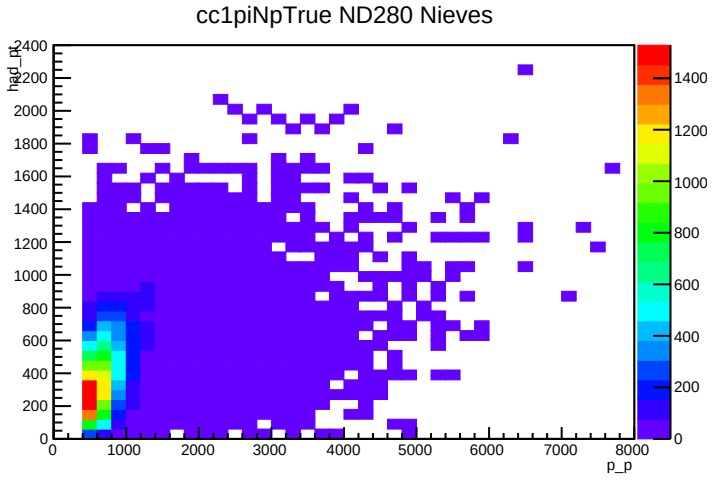

cc1piNpFake ND280 Martini
had_p
lep_p

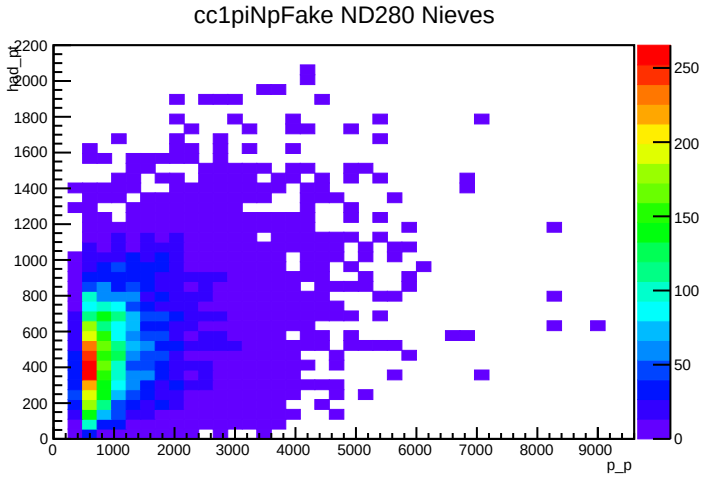

cc1piNpTrue ND280 Nieves
had_pt
lep_theta

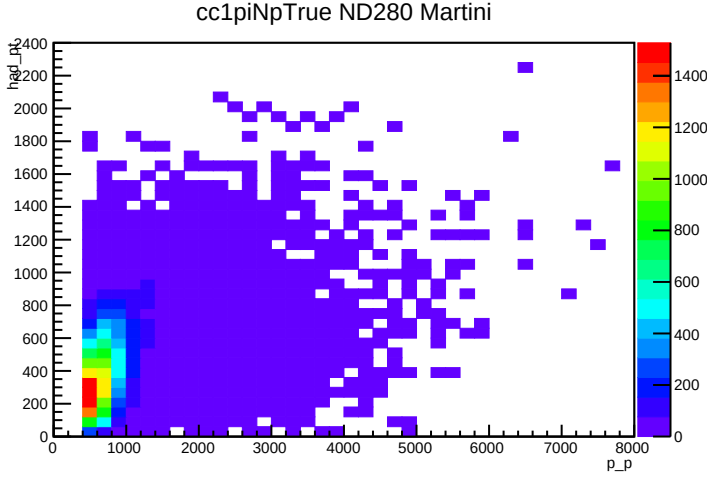

cc1piNpFake ND280 Nieves
had_pt
lep_theta

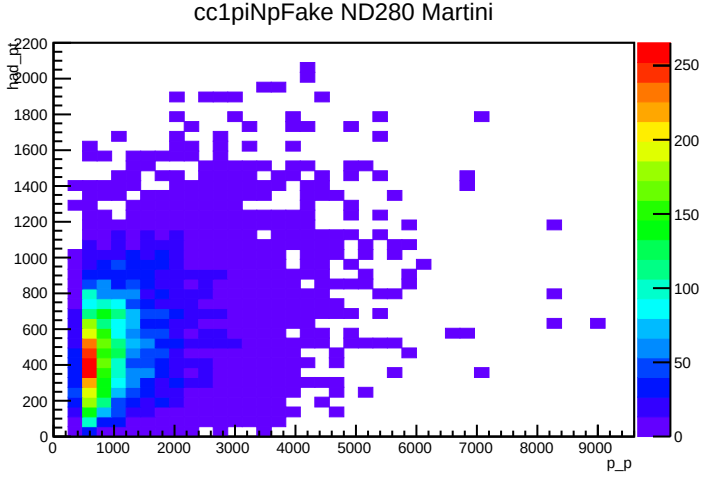

cc1piNpTrue ND280 Martini
had_pt
lep_theta


cc1piNpFake ND280 Martini
had_pt
lep_theta

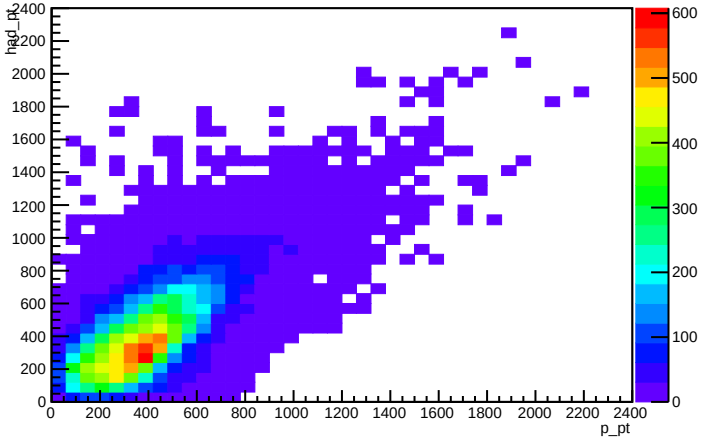

cc1piNpTrue ND280 Nieves
had_pt
p_p


cc1piNpFake ND280 Nieves
had_pt
p_p

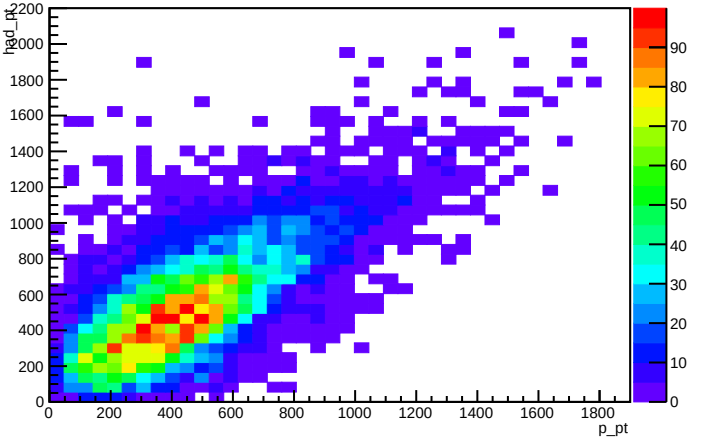

cc1piNpTrue ND280 Martini
had_pt
p_p


cc1piNpFake ND280 Martini
had_pt
p_p

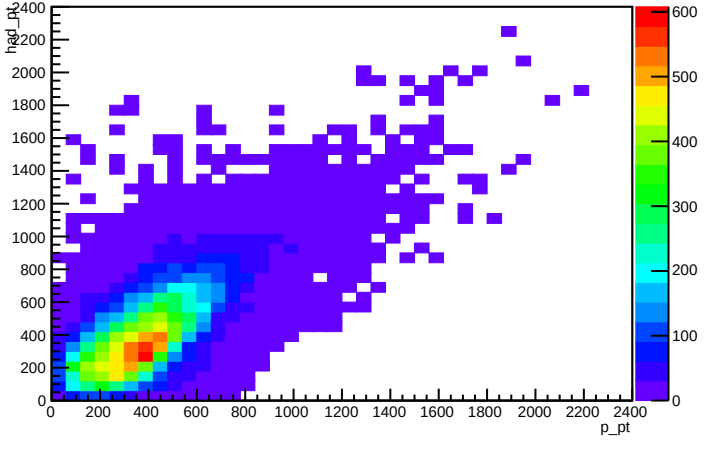
cc1piNpTrue ND280 Nieves



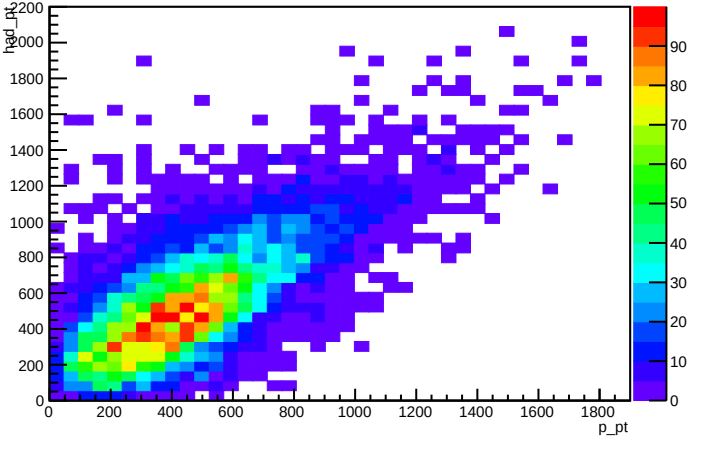
cc1piNpFake ND280 Nieves

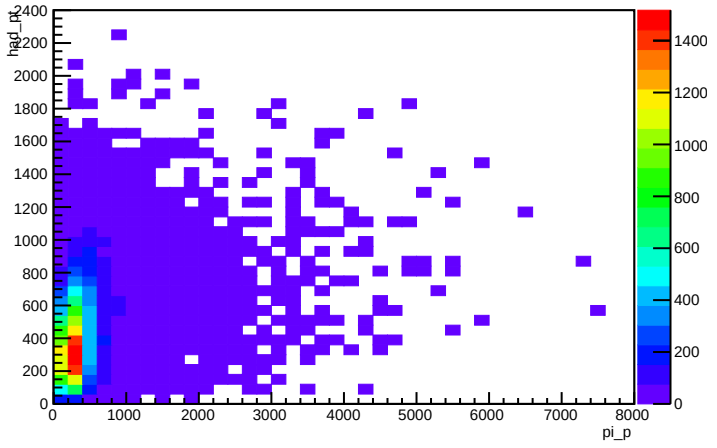


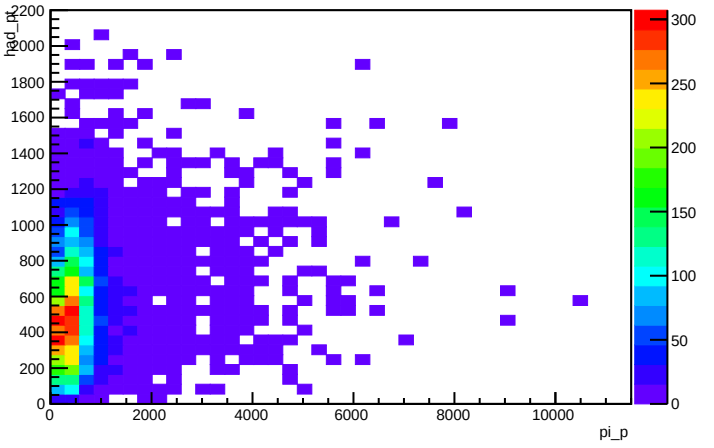
cc1piNpTrue ND280 Martini

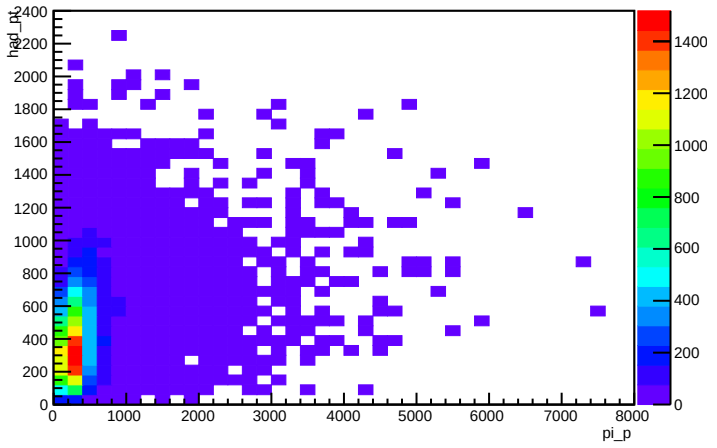


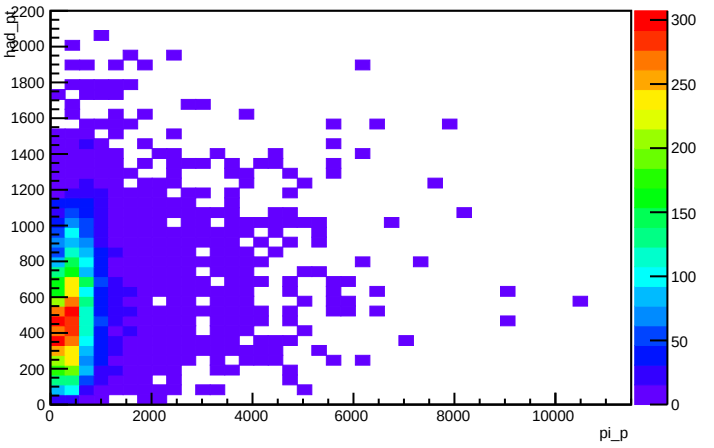
cc1piNpFake ND280 Martini

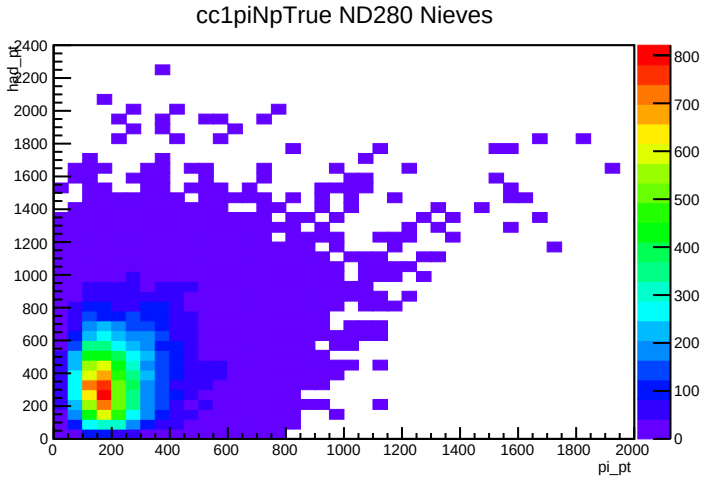


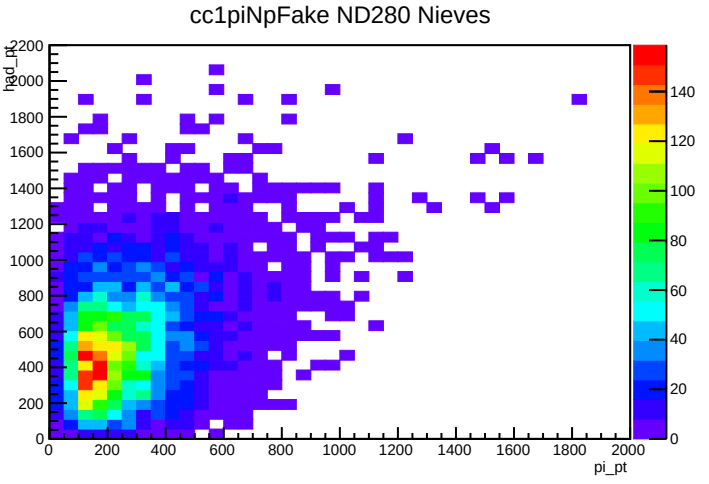

cc1piNpTrue ND280 Nieves
had_pt
pi_p

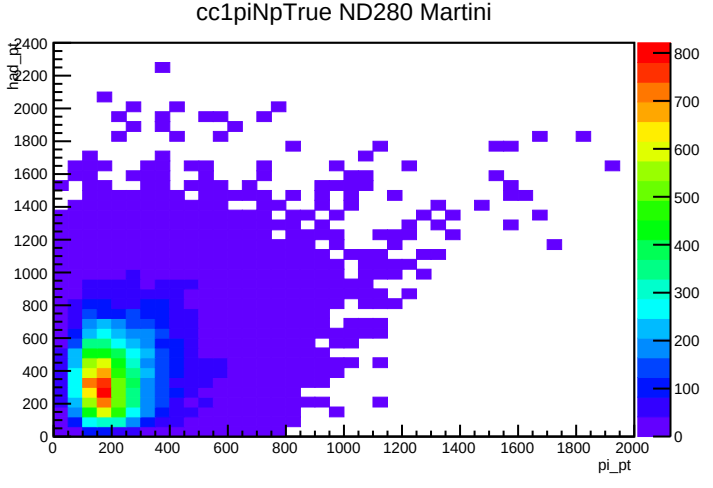

cc1piNpFake ND280 Nieves
had_pt
pi_p

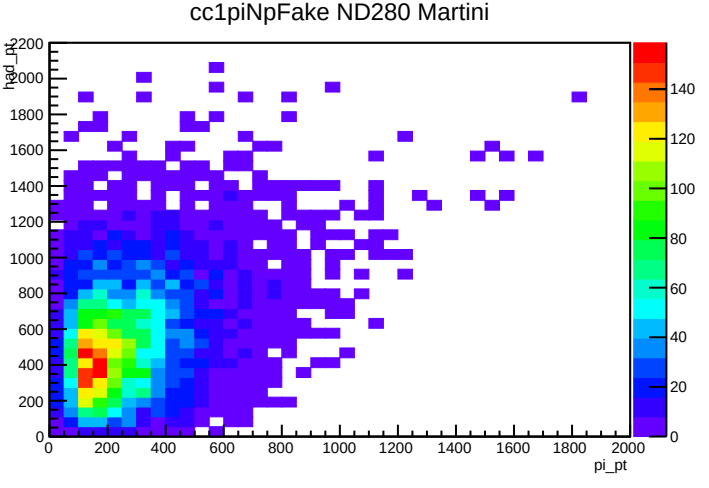

cc1piNpTrue ND280 Martini
had_pt
pi_p

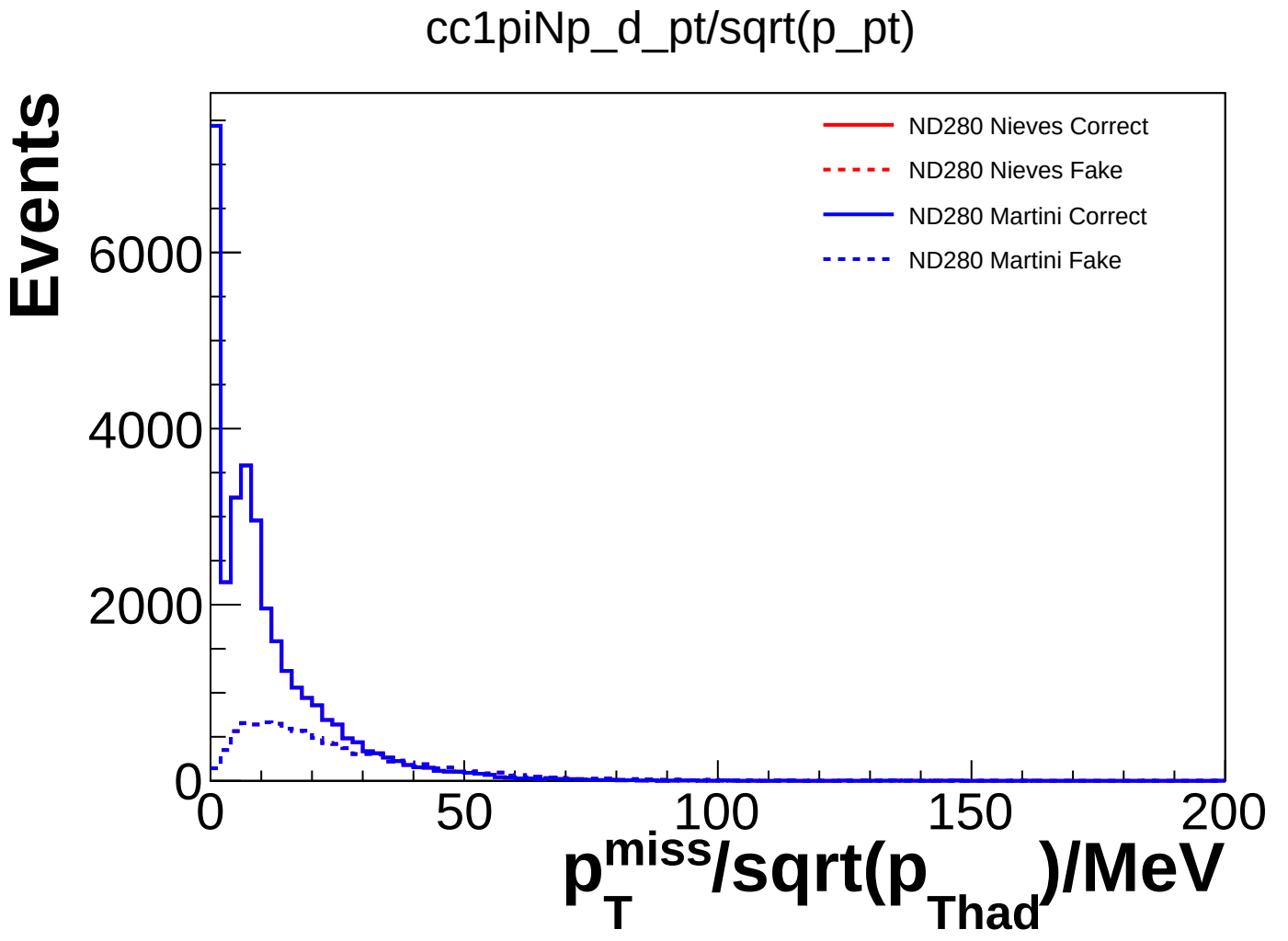

cc1piNpFake ND280 Martini
had_pt
pi_p

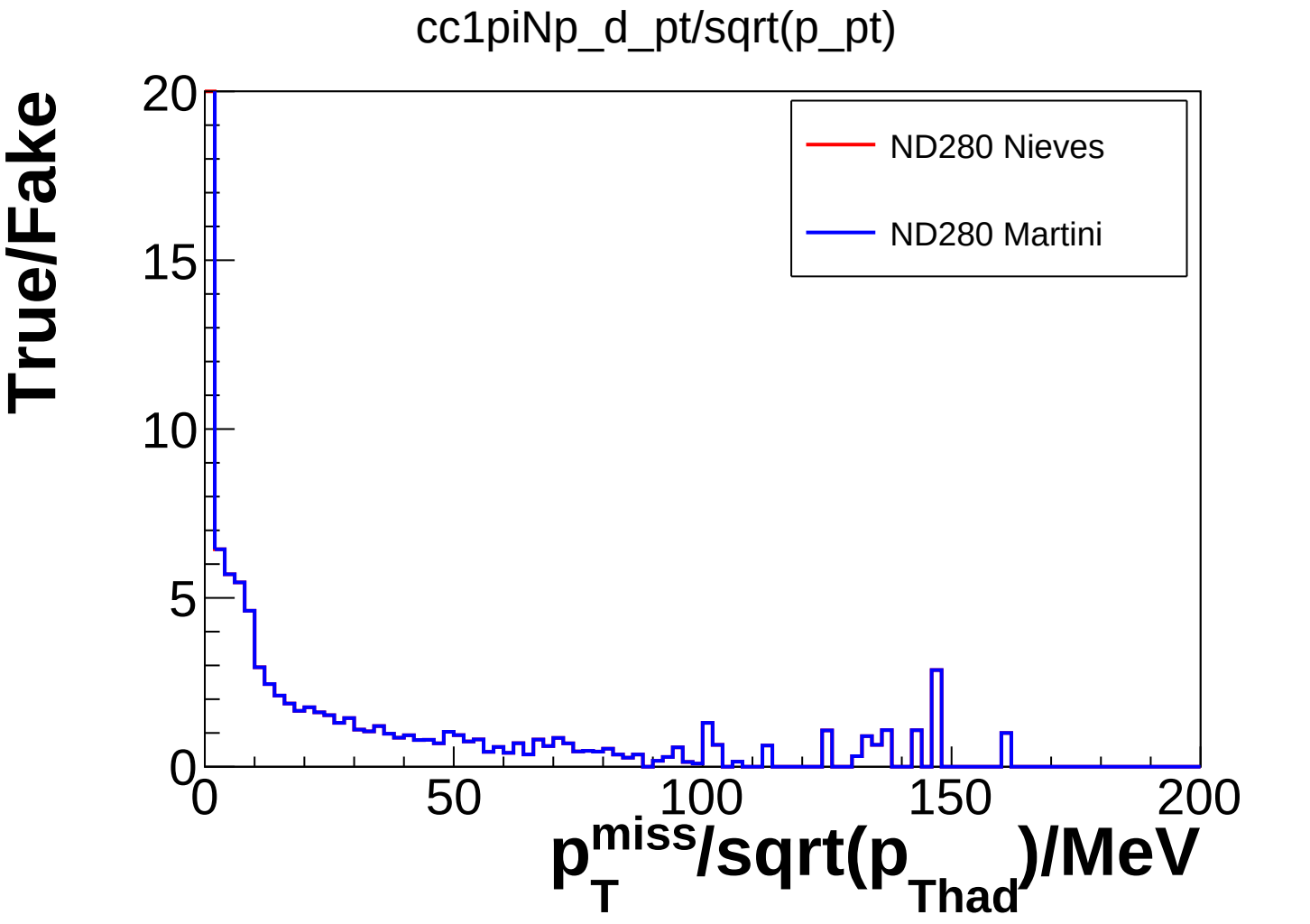

cc1piNpTrue ND280 Nieves
had_pt
pi_pt

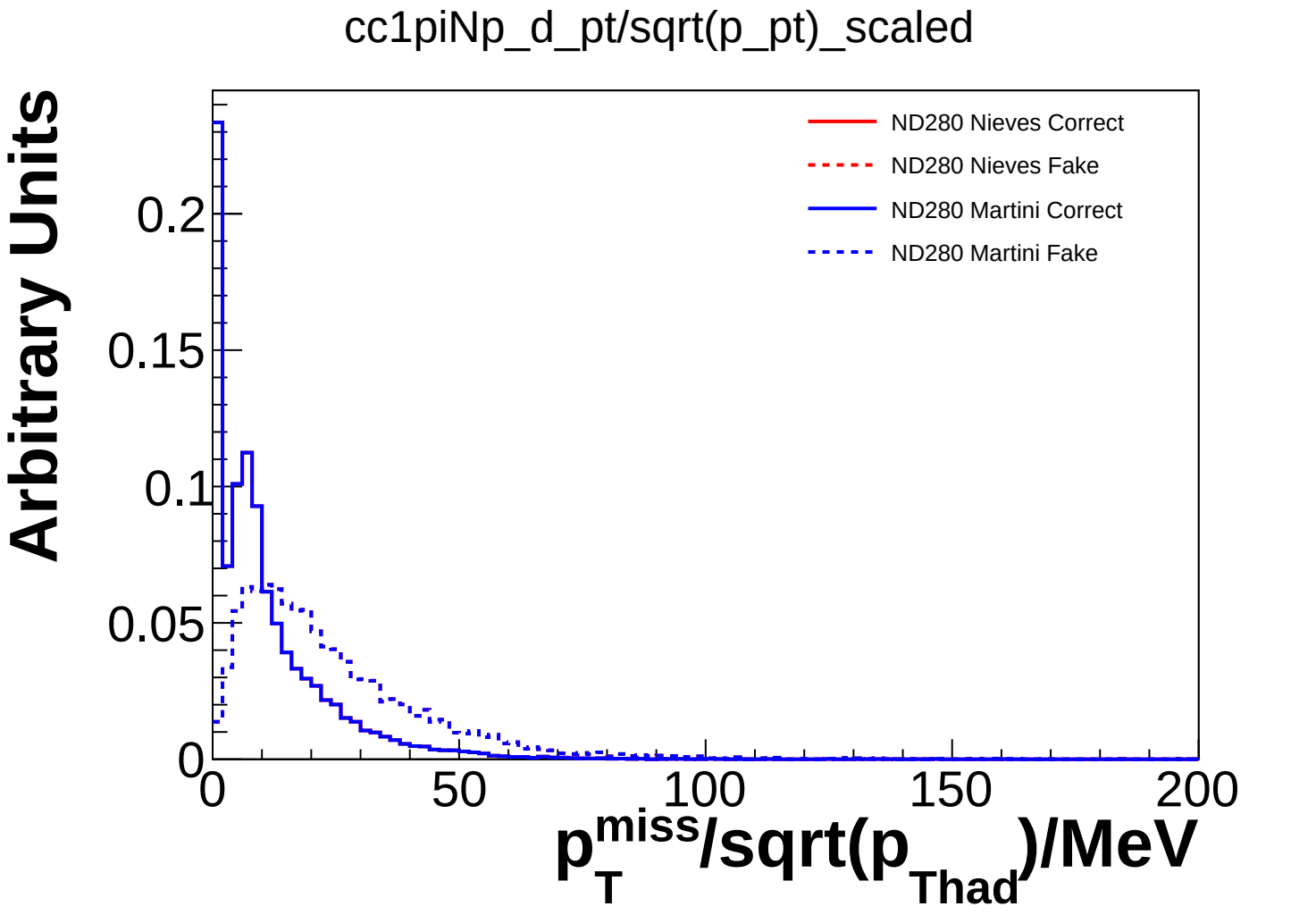

cc1piNpFake ND280 Nieves
had_pt
pi_pt

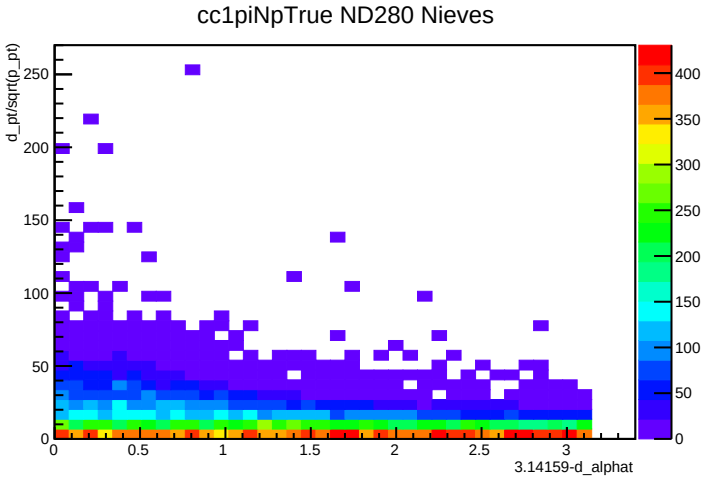

cc1piNpTrue ND280 Martini
had_pt
pi_pt

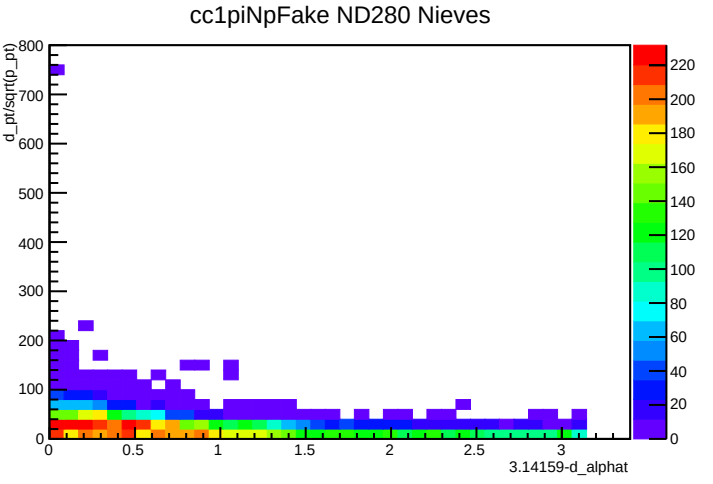

cc1piNpFake ND280 Martini
had_pt
pi_pt

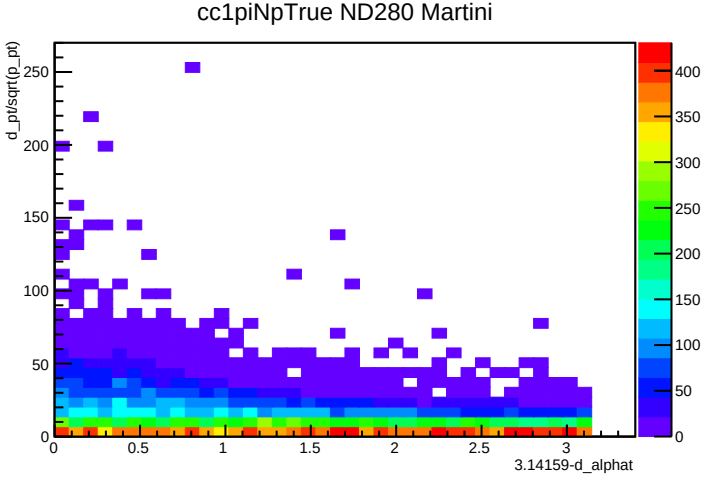

cc1piNp_d_pt/sqrt(p_pt)
Events
6000
4000
2000
0
0
50
100
150
200
$p_T^{miss}/sqrt(p_{Thad})/MeV$
ND280 Nieves Correct
ND280 Nieves Fake
ND280 Martini Correct
ND280 Martini Fake

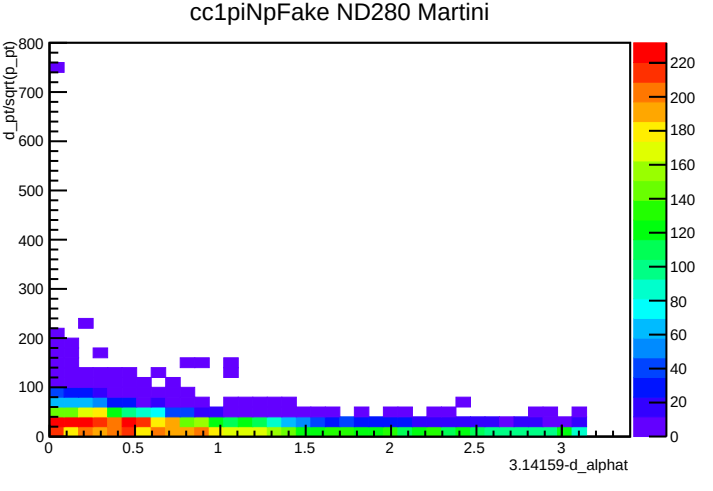

cc1piNp_d_pt/sqrt(p_pt)
True/Fake
20
15
10
5
0
0
50
100
150
200
ND280 Nieves
ND280 Martini
p_T^miss/sqrt(p_Thad)/MeV

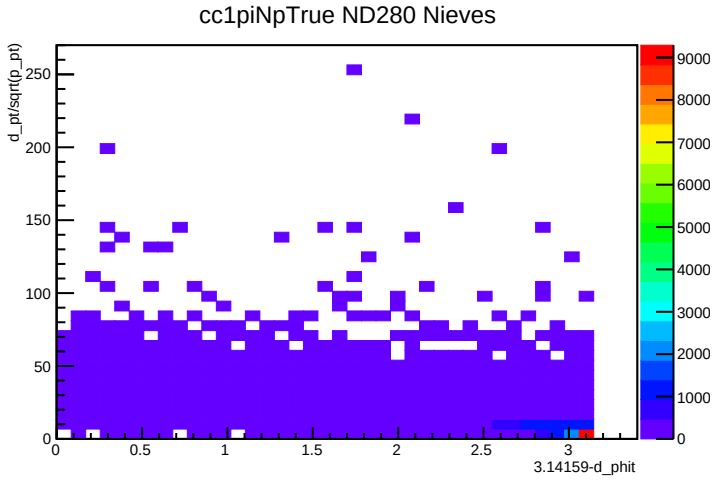

cc1piNp_d_pt/sqrt(p_pt)_scaled
ND280 Nieves Correct
ND280 Nieves Fake
ND280 Martini Correct
ND280 Martini Fake
Arbitrary Units
0.2
0.15
0.1
0.05
0
0
50
100
150
200
p_T^miss/sqrt(p_Thad)/MeV

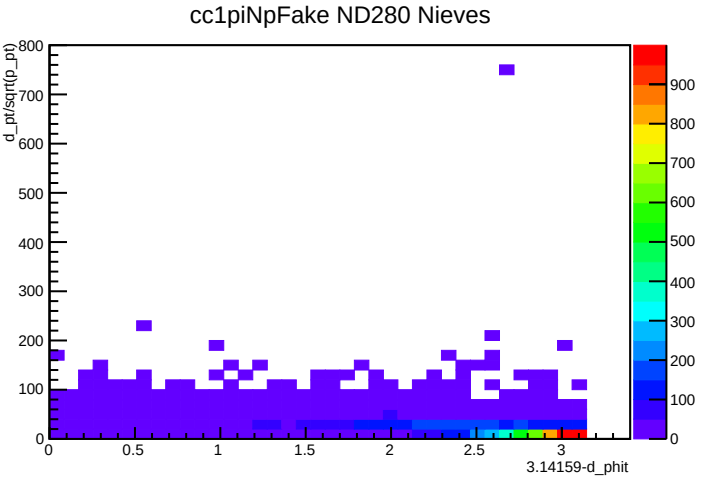

cc1piNpTrue ND280 Nieves
d_pt/sqrt(p_pt)
3.14159-d_alphat

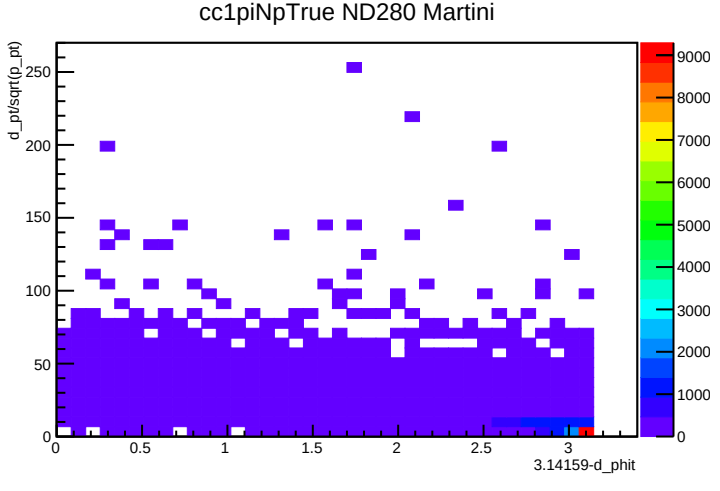

cc1piNpFake ND280 Nieves
d_pt/sqrt(p_pt)
3.14159-d_alphat

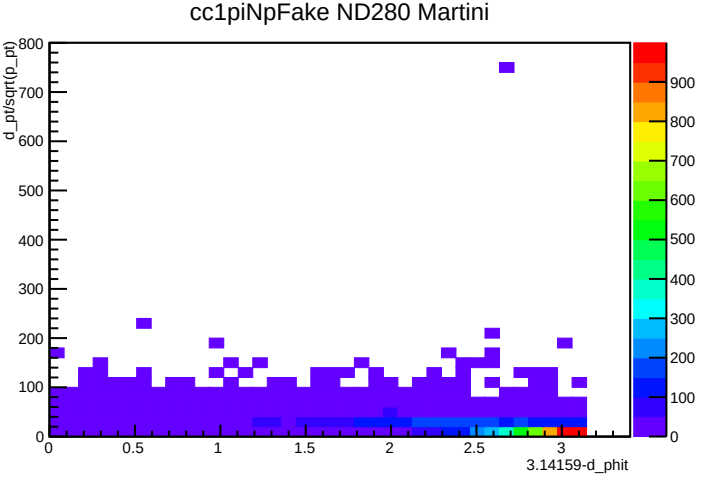

cc1piNpTrue ND280 Martini
d_pt/sqrt(p_pt)
3.14159-d_alphat

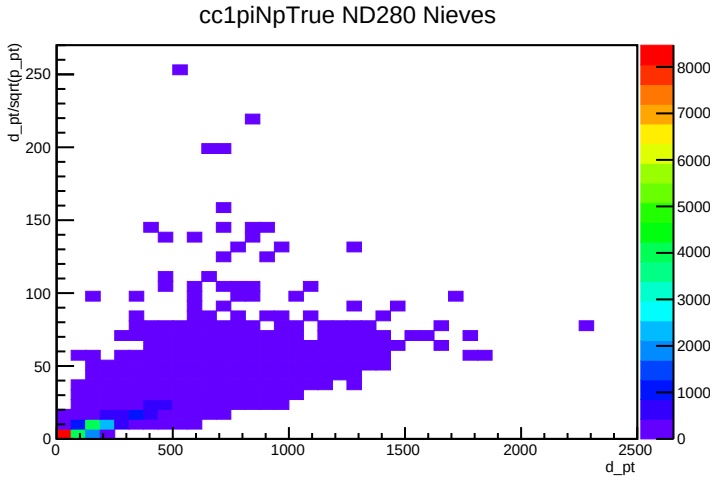

cc1piNpFake ND280 Martini
d_pt/sqrt(p_pt)
3.14159-d_alphat

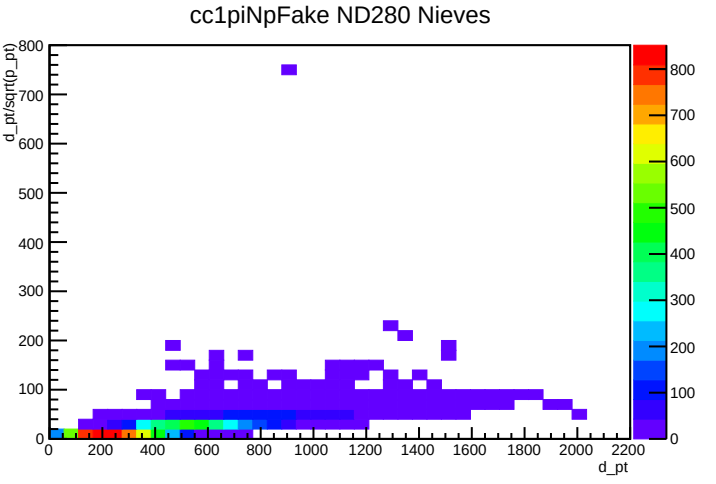

cc1piNpTrue ND280 Nieves
d_pt/sqrt(p_pt)
3.14159-d_phit

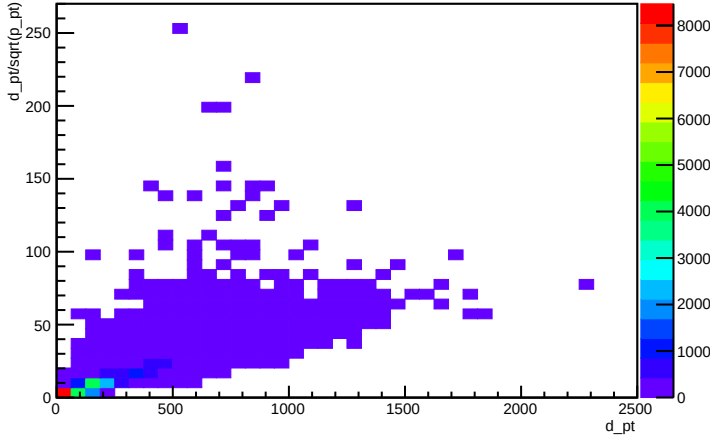

cc1piNpFake ND280 Nieves
d_pt/sqrt(p_pt)
3.14159-d_phit

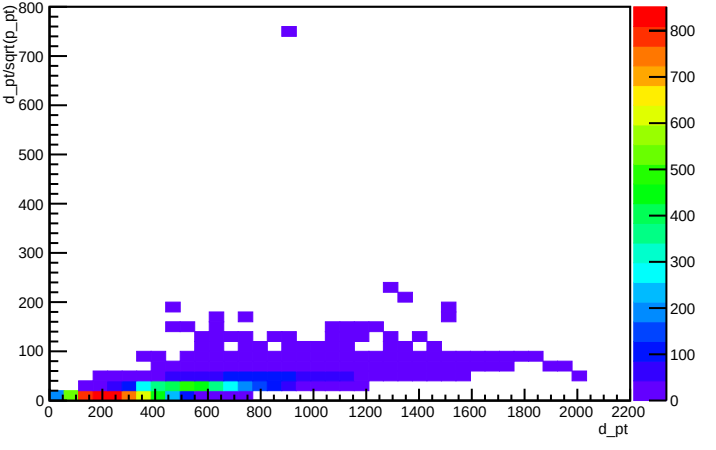

cc1piNpTrue ND280 Martini
d_pt/sqrt(p_pt)
3.14159-d_phit

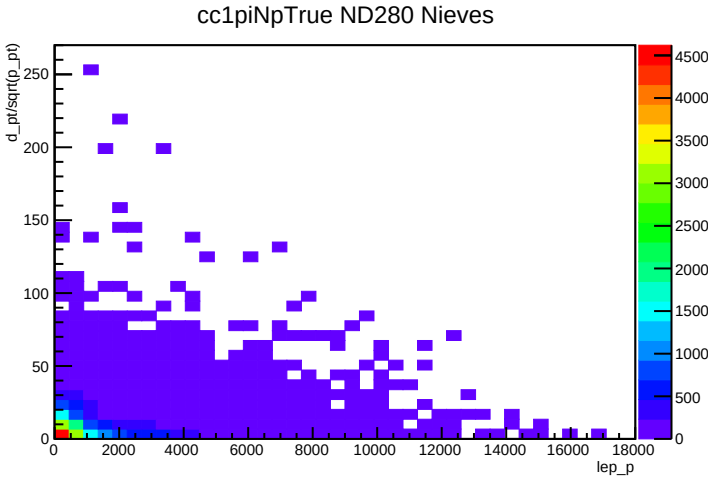

cc1piNpFake ND280 Martini
d_pt/sqrt(p_pt)
3.14159-d_phit

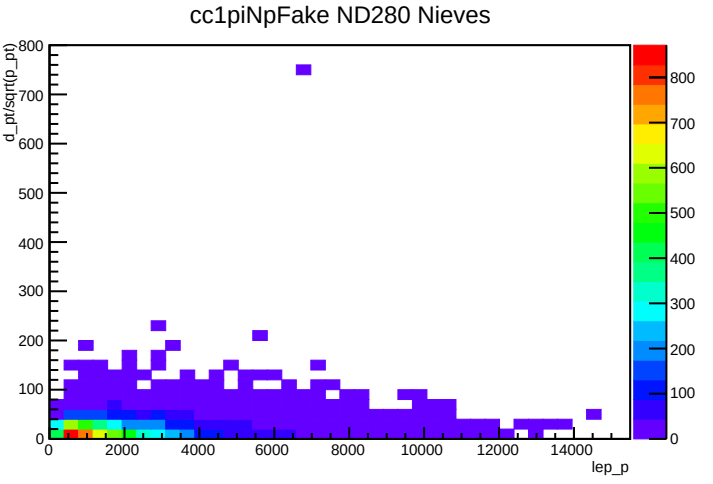

cc1piNpTrue ND280 Nieves
d_pt/sqrt(p_pt)
d_pt

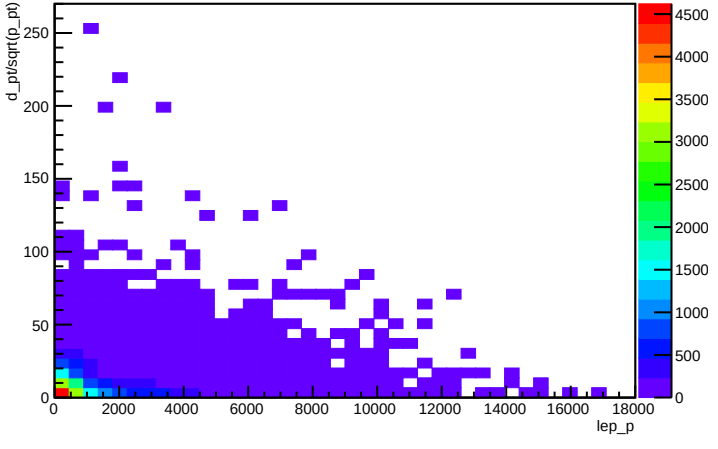

cc1piNpFake ND280 Nieves
d_pt/sqrt(p_pt)
d_pt

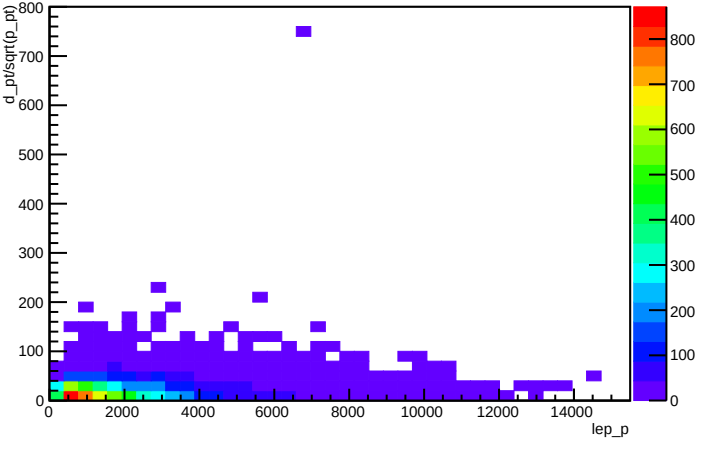

cc1piNpTrue ND280 Martini
d_pt/sqrt(p_pt)
d_pt

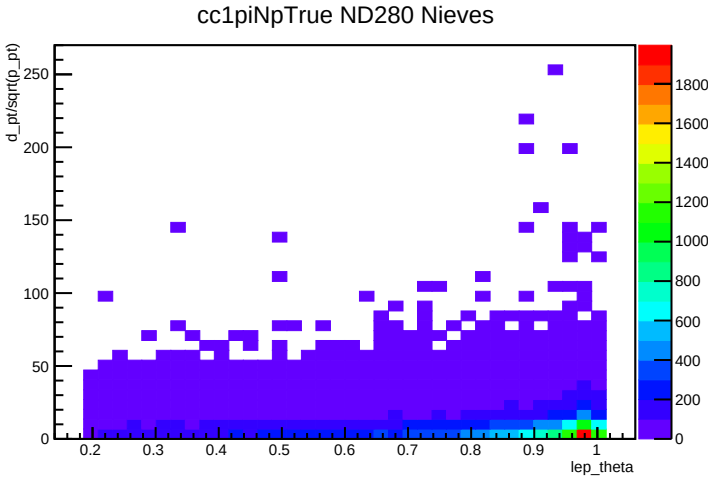

cc1piNpFake ND280 Martini
d_pt/sqrt(p_pt)
d_pt

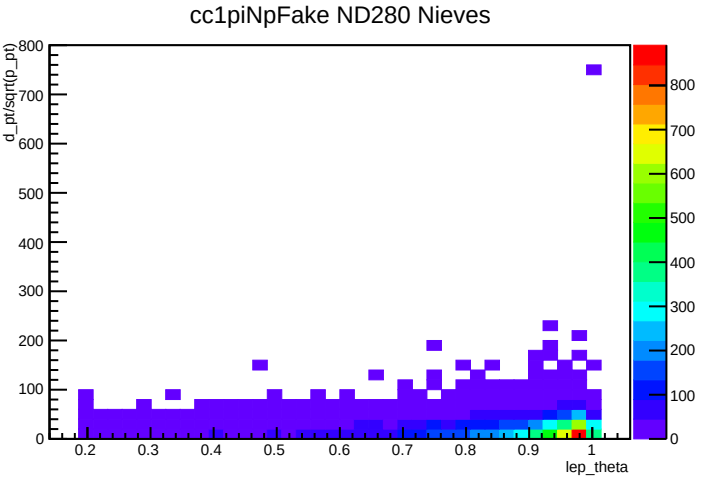

cc1piNpTrue ND280 Nieves
d_pt/sqrt(p_pt)
lep_p

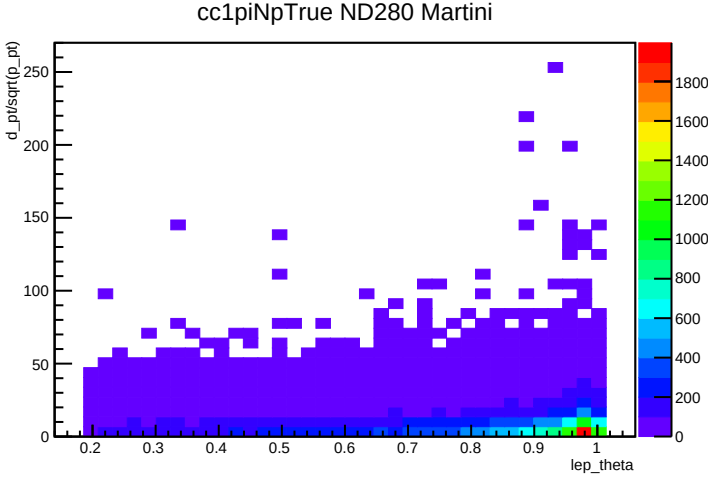

cc1piNpFake ND280 Nieves
d_pt/sqrt(p_pt)
lep_p

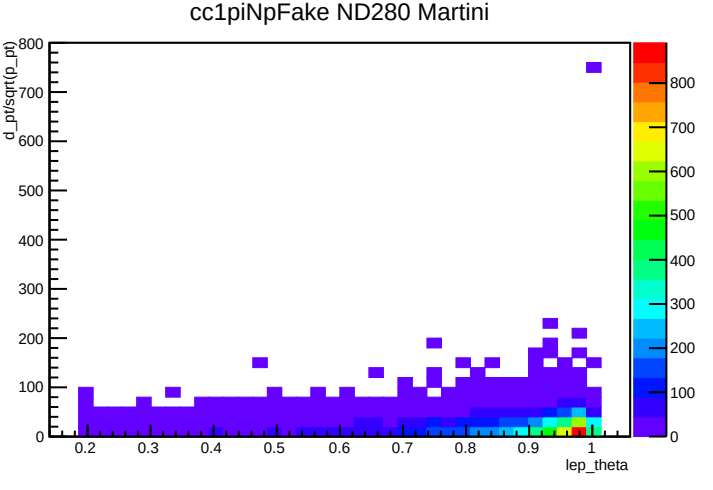

cc1piNpTrue ND280 Martini
d_pt/sqrt(p_pt)
lep_p

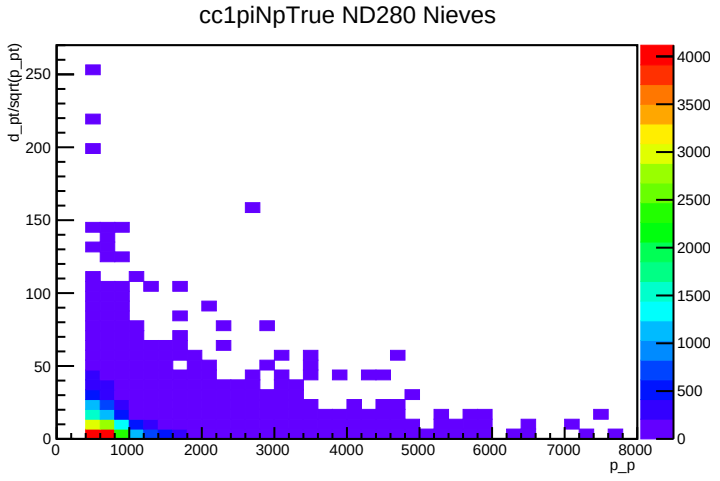

cc1piNpFake ND280 Martini
d_pt/sqrt(p_pt)
lep_p

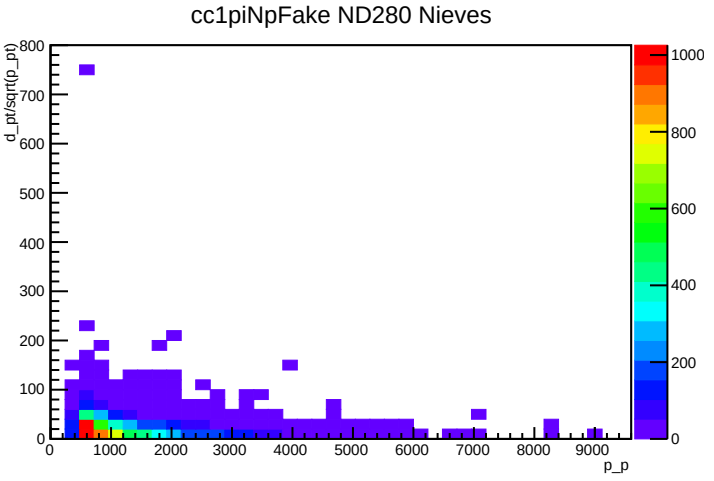

cc1piNpTrue ND280 Nieves
d_pt/sqrt(p_pt)
lep_theta

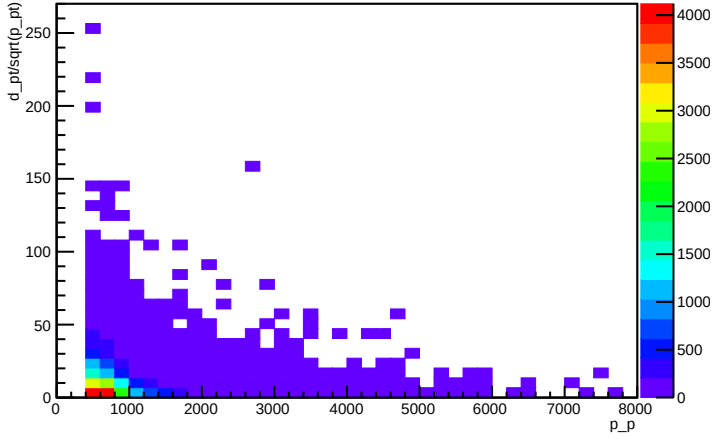

cc1piNpFake ND280 Nieves
d_pt/sqrt(p_pt)
lep_theta

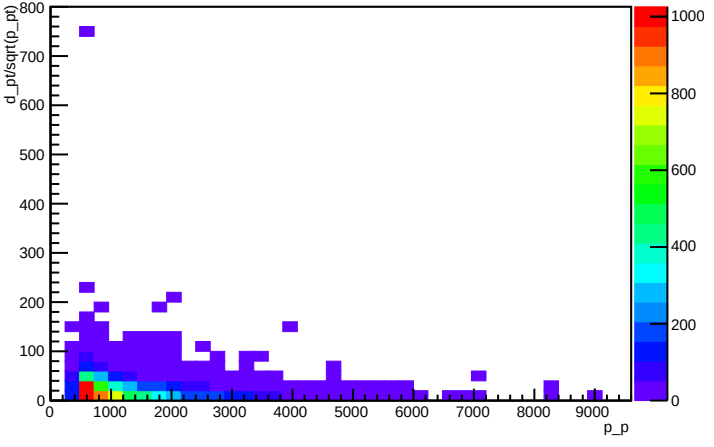

cc1piNpTrue ND280 Martini
d_pt/sqrt(p_pt)
lep_theta

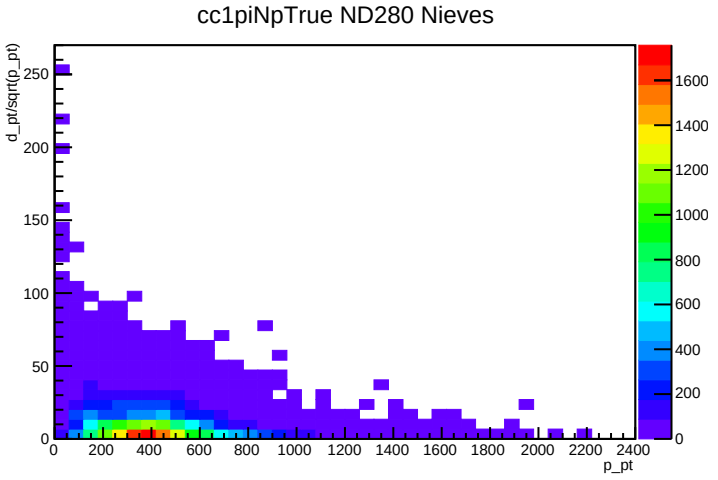

cc1piNpFake ND280 Martini
d_pt/sqrt(p_pt)
lep_theta

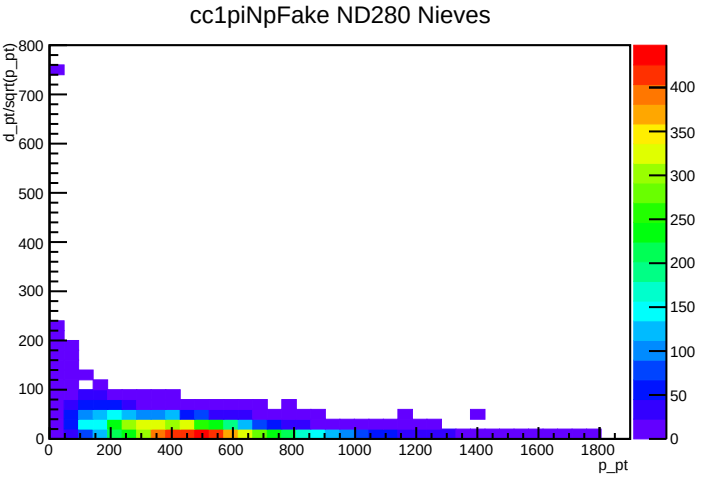

cc1piNpTrue ND280 Nieves
d_pt/sqrt(p_pt)
p_p

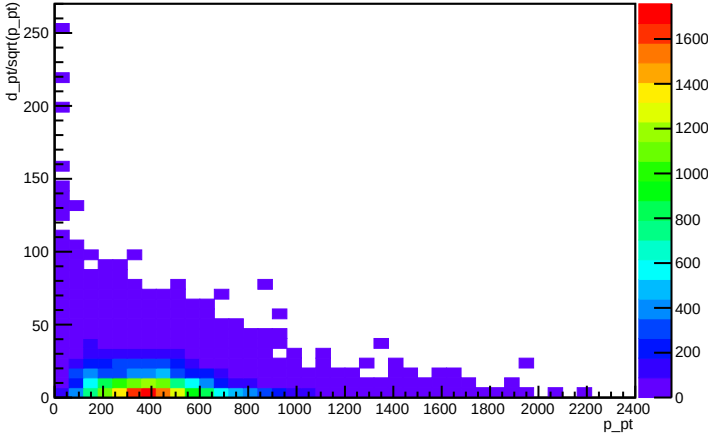

cc1piNpFake ND280 Nieves
d_pt/sqrt(p_pt)
p_p

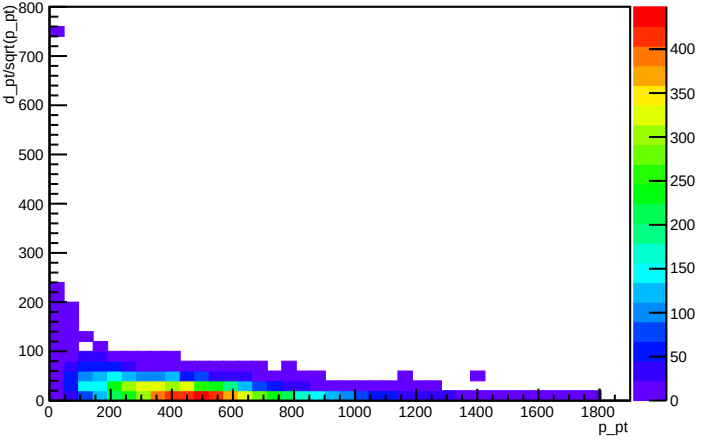

cc1piNpTrue ND280 Martini
d_pt/sqrt(p_pt)
p_p

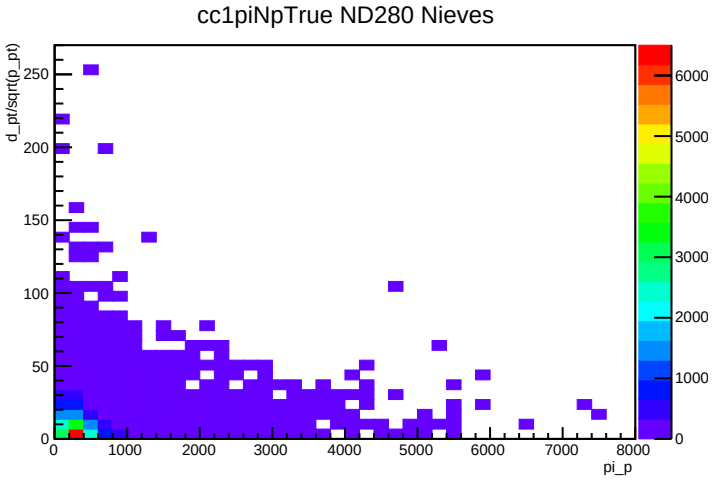

cc1piNpFake ND280 Martini
d_pt/sqrt(p_pt)
p_p

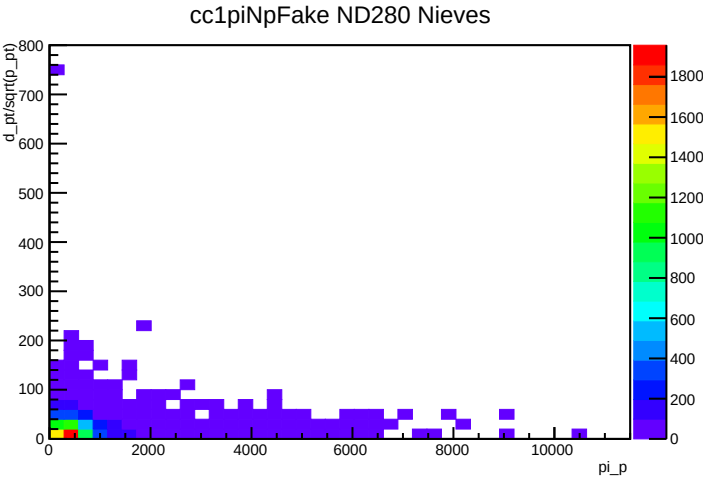

cc1piNpTrue ND280 Nieves
d_pt/sqrt(p_pt)
p_pt

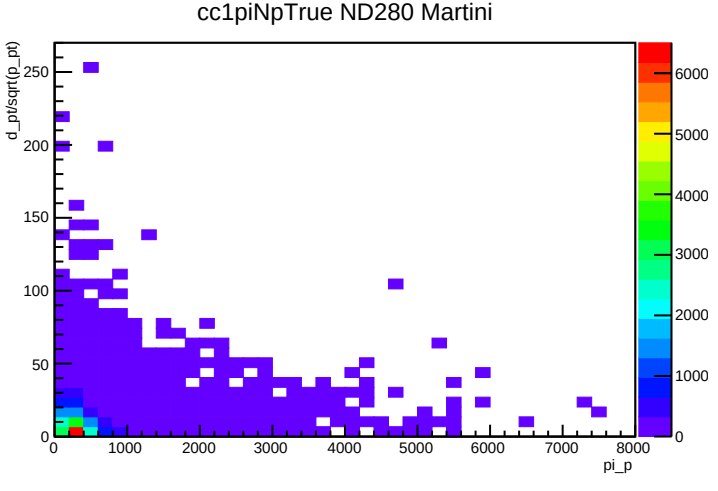

cc1piNpFake ND280 Nieves
d_pt/sqrt(p_pt)
p_pt

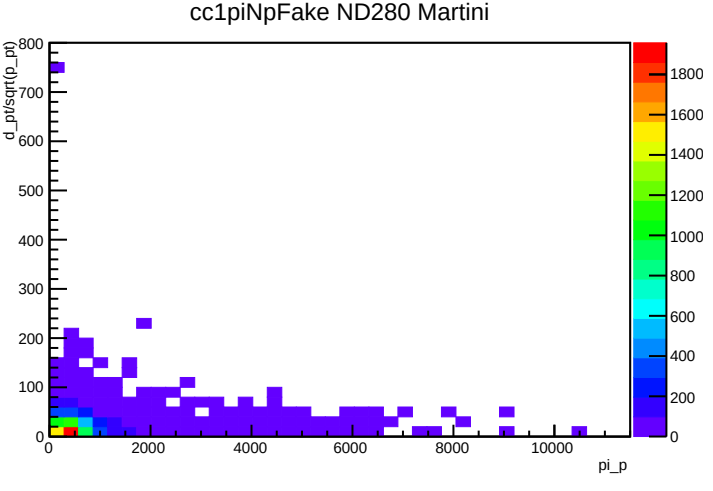

cc1piNpTrue ND280 Martini
d_pt/sqrt(p_pt)
p_pt


cc1piNpFake ND280 Martini
d_pt/sqrt(p_pt)
p_pt

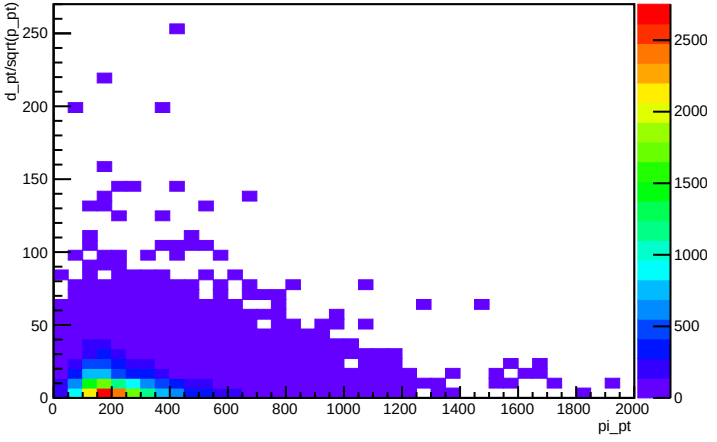

cc1piNpTrue ND280 Nieves
d_pt/sqrt(p_pt)
pi_p


cc1piNpFake ND280 Nieves
d_pt/sqrt(p_pt)
pi_p

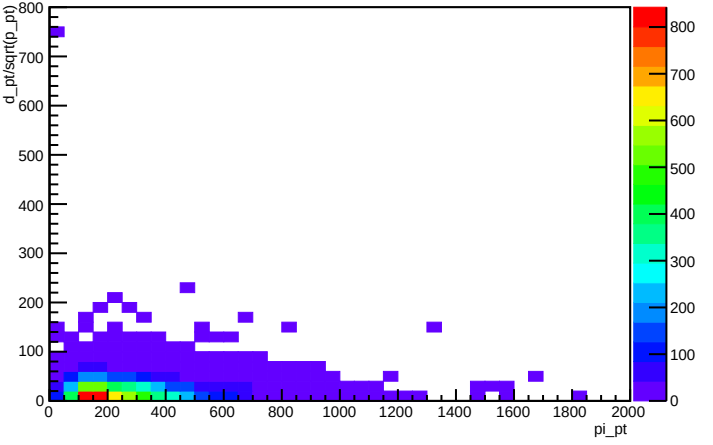

cc1piNpTrue ND280 Martini
d_pt/sqrt(p_pt)
pi_p


cc1piNpFake ND280 Martini
d_pt/sqrt(p_pt)
pi_p

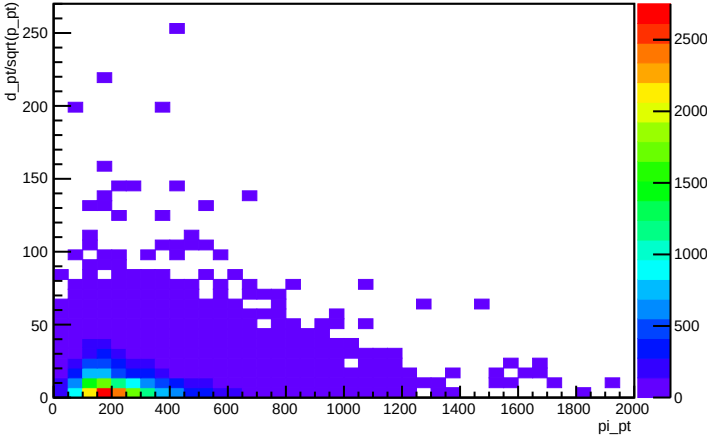
cc1piNpTrue ND280 Nieves



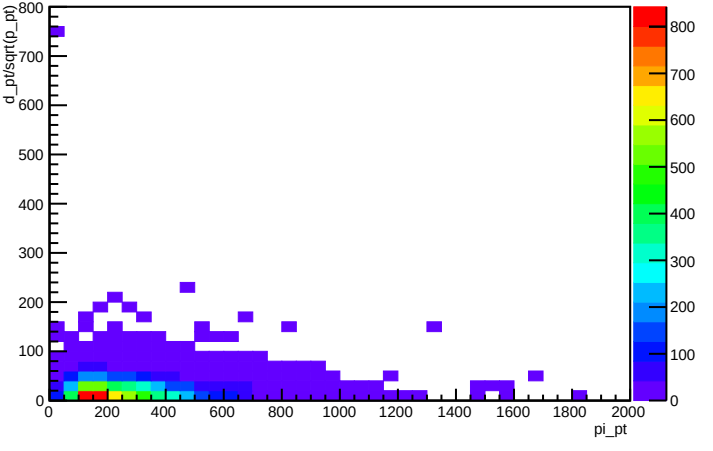
cc1piNpFake ND280 Nieves

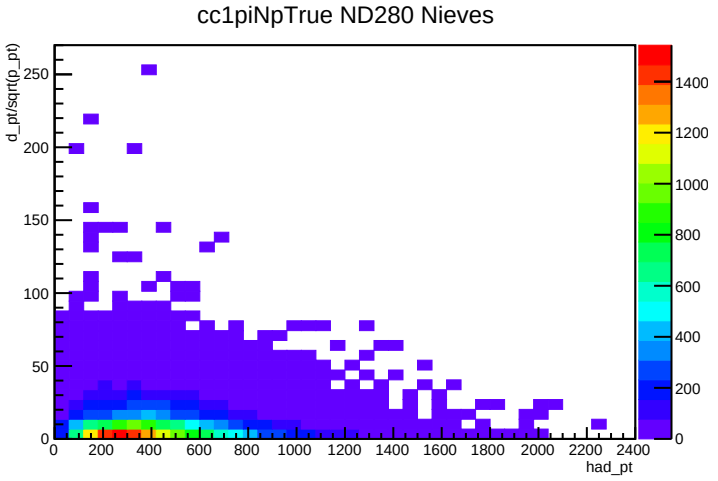


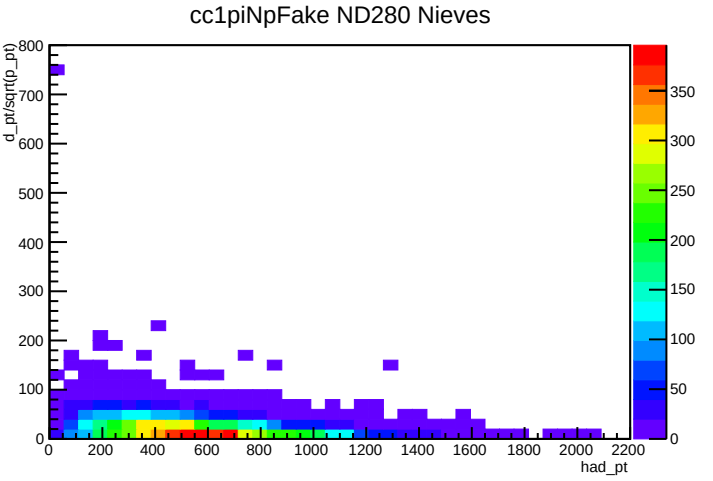
cc1piNpTrue ND280 Martini

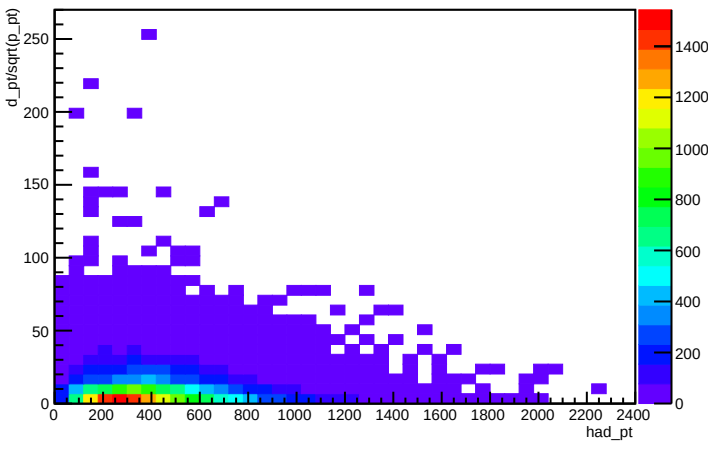


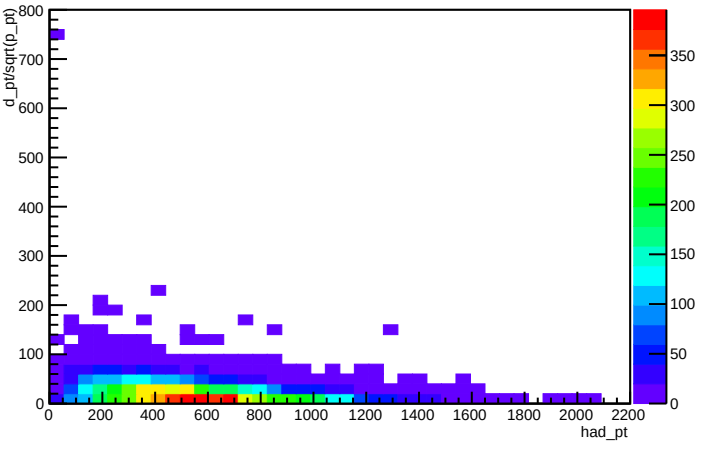
cc1piNpFake ND280 Martini




cc1piNpTrue ND280 Nieves
d_pt/sqrt(p_pt)
had_pt


cc1piNpFake ND280 Nieves
d_pt/sqrt(p_pt)
had_pt


cc1piNpTrue ND280 Martini
d_pt/sqrt(p_pt)
had_pt


cc1piNpFake ND280 Martini
d_pt/sqrt(p_pt)
had_pt