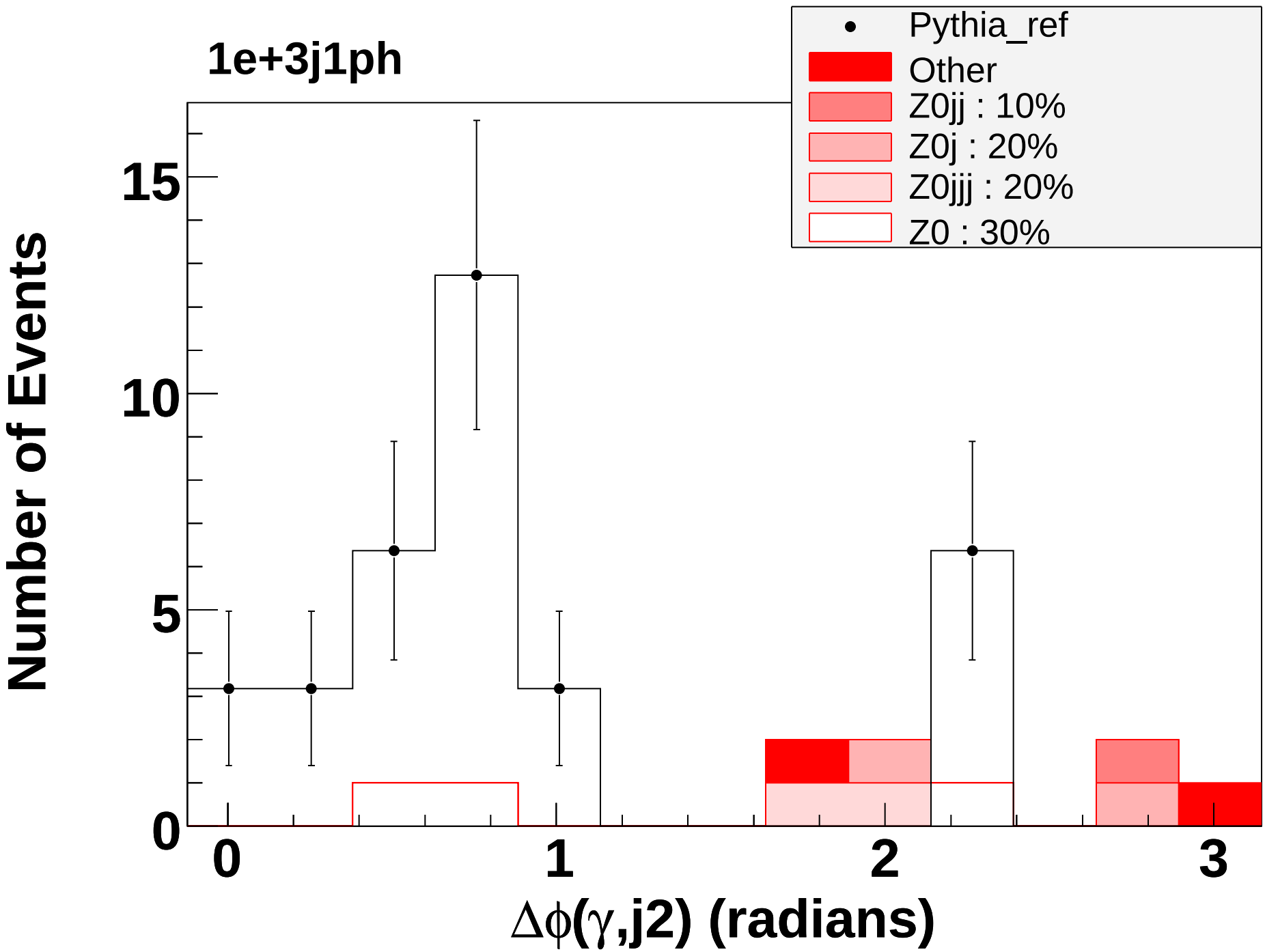
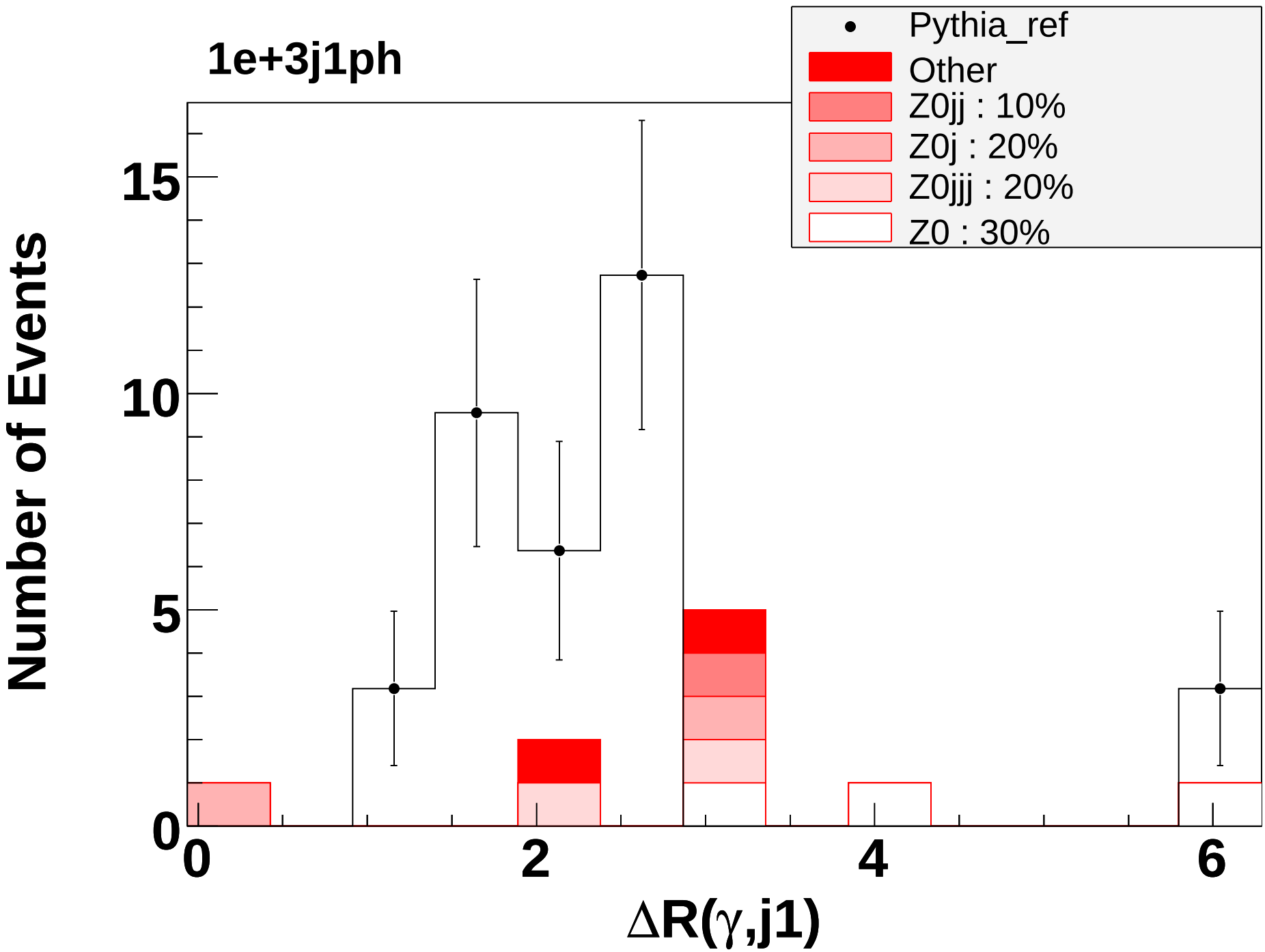
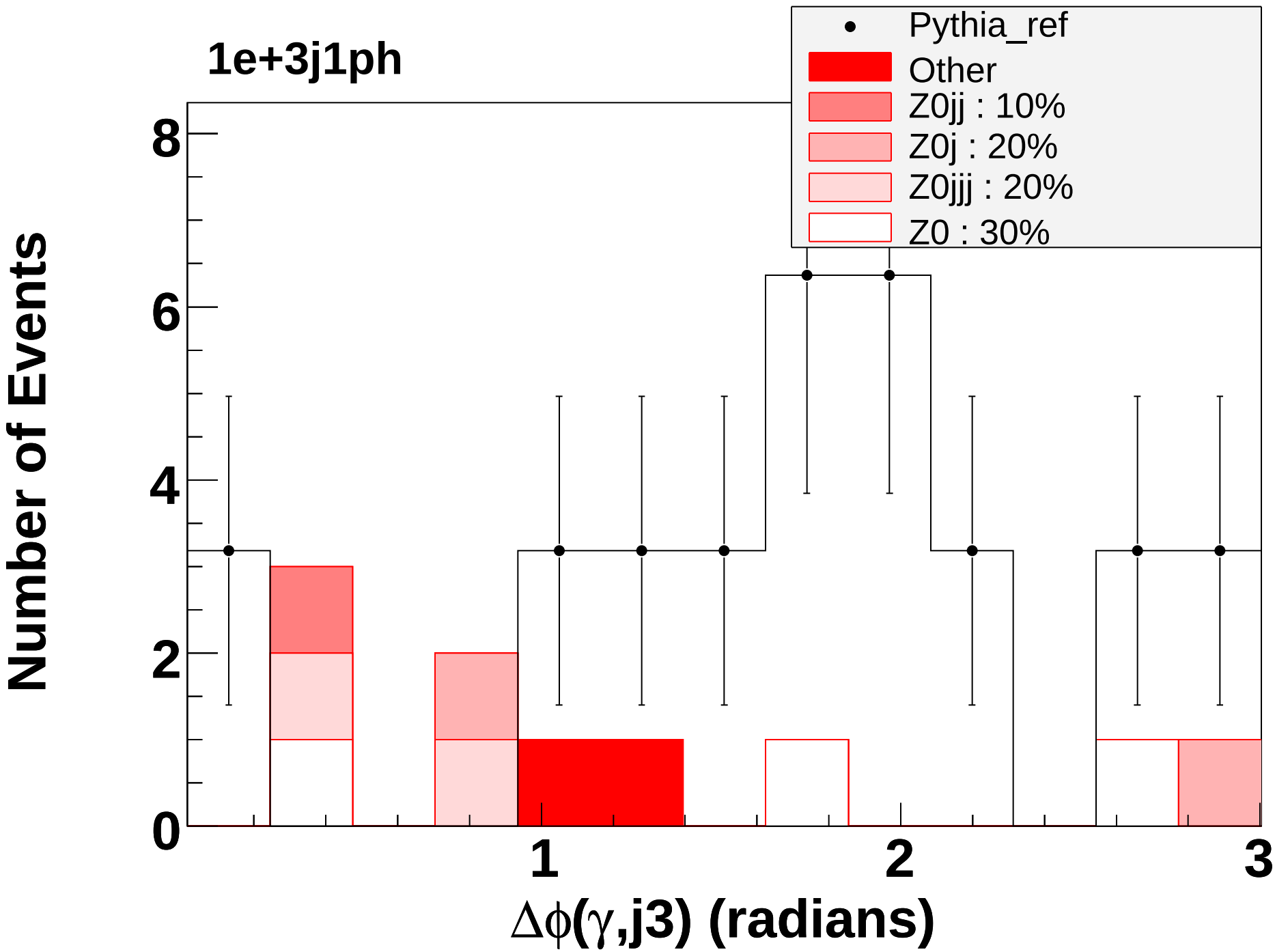
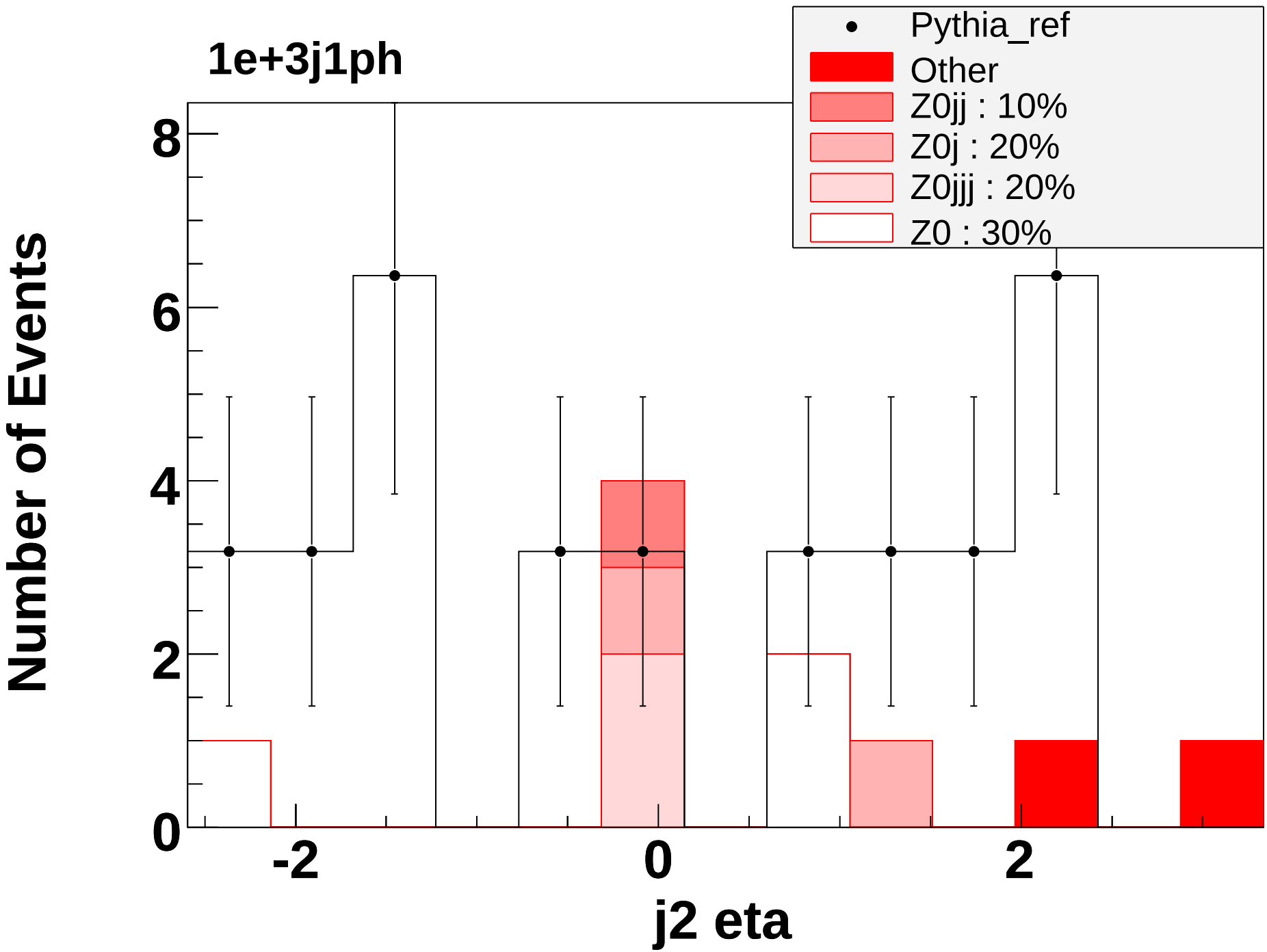
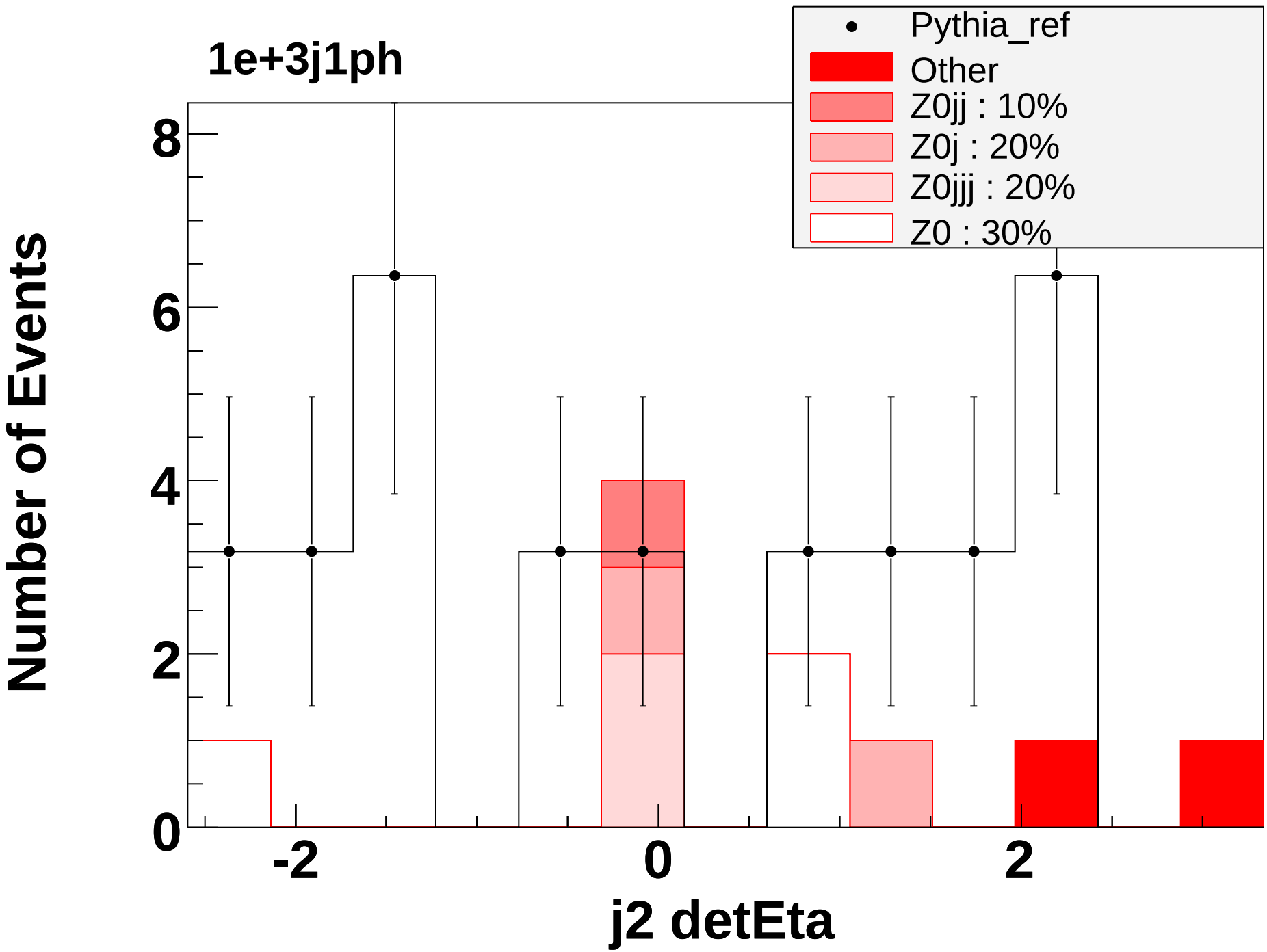
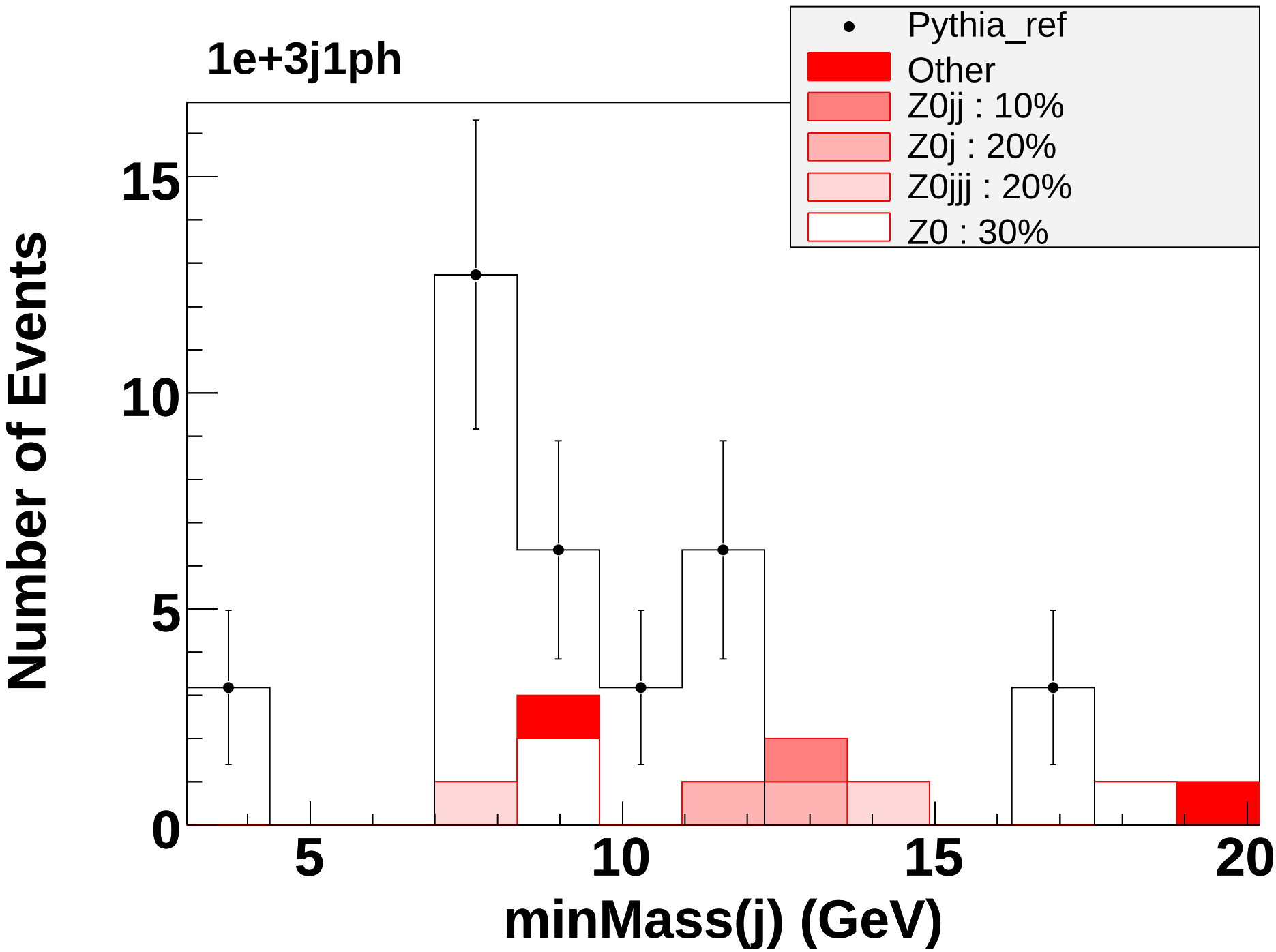

1e+3j1ph
Pythia_ref
Other
Z0jj : 10%
Z0j : 20%
Z0jjj : 20%
Z0 : 30%
Number of Events
0
5
10
15
0
1
2
3
Δϕ(γ,j2) (radians)

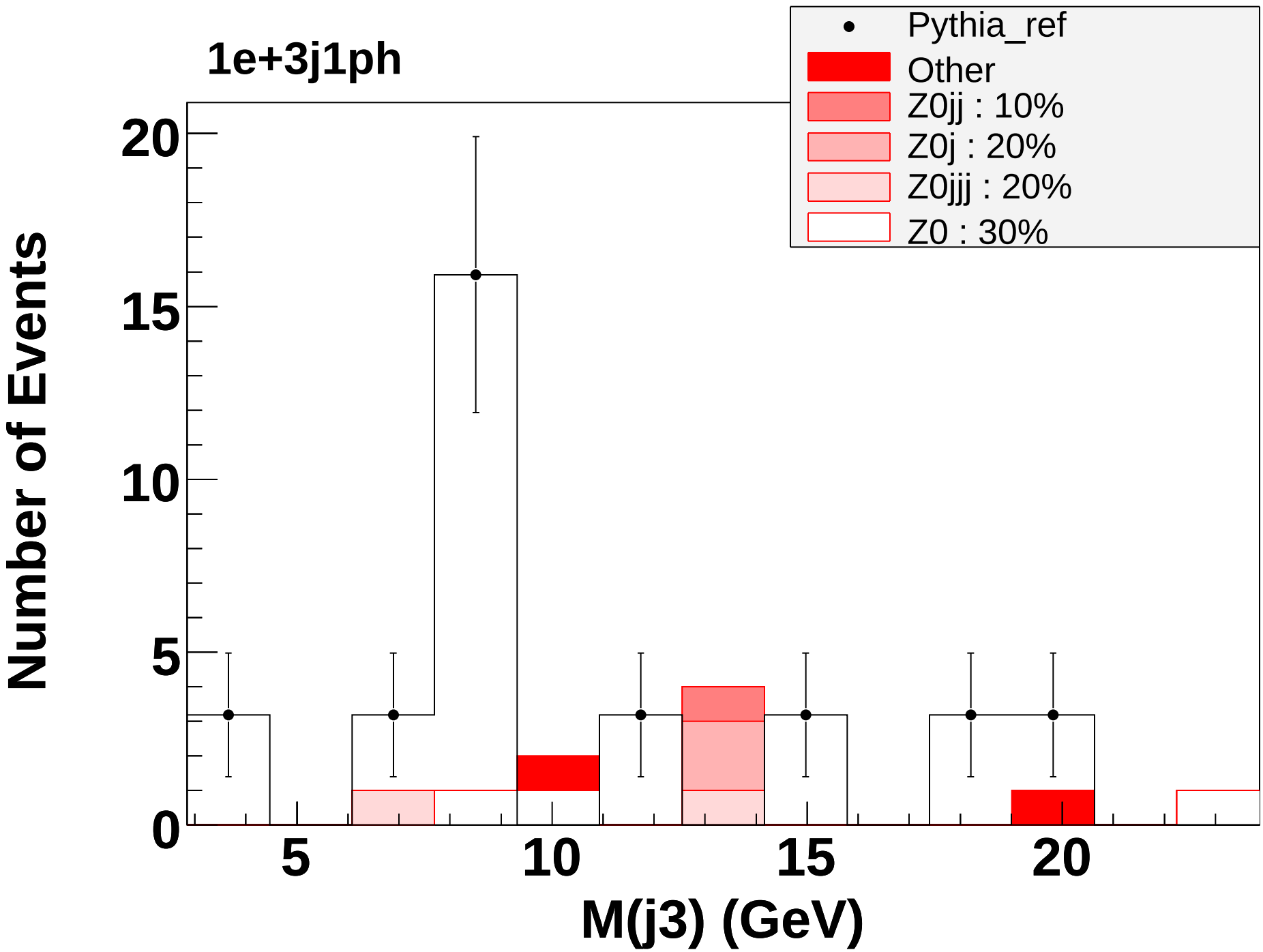

1e+3j1ph
Pythia_ref
Other
Z0jj : 10%
Z0j : 20%
Z0jjj : 20%
Z0 : 30%
Number of Events
0
5
10
15
0
2
4
6
ΔR(γ,j1)

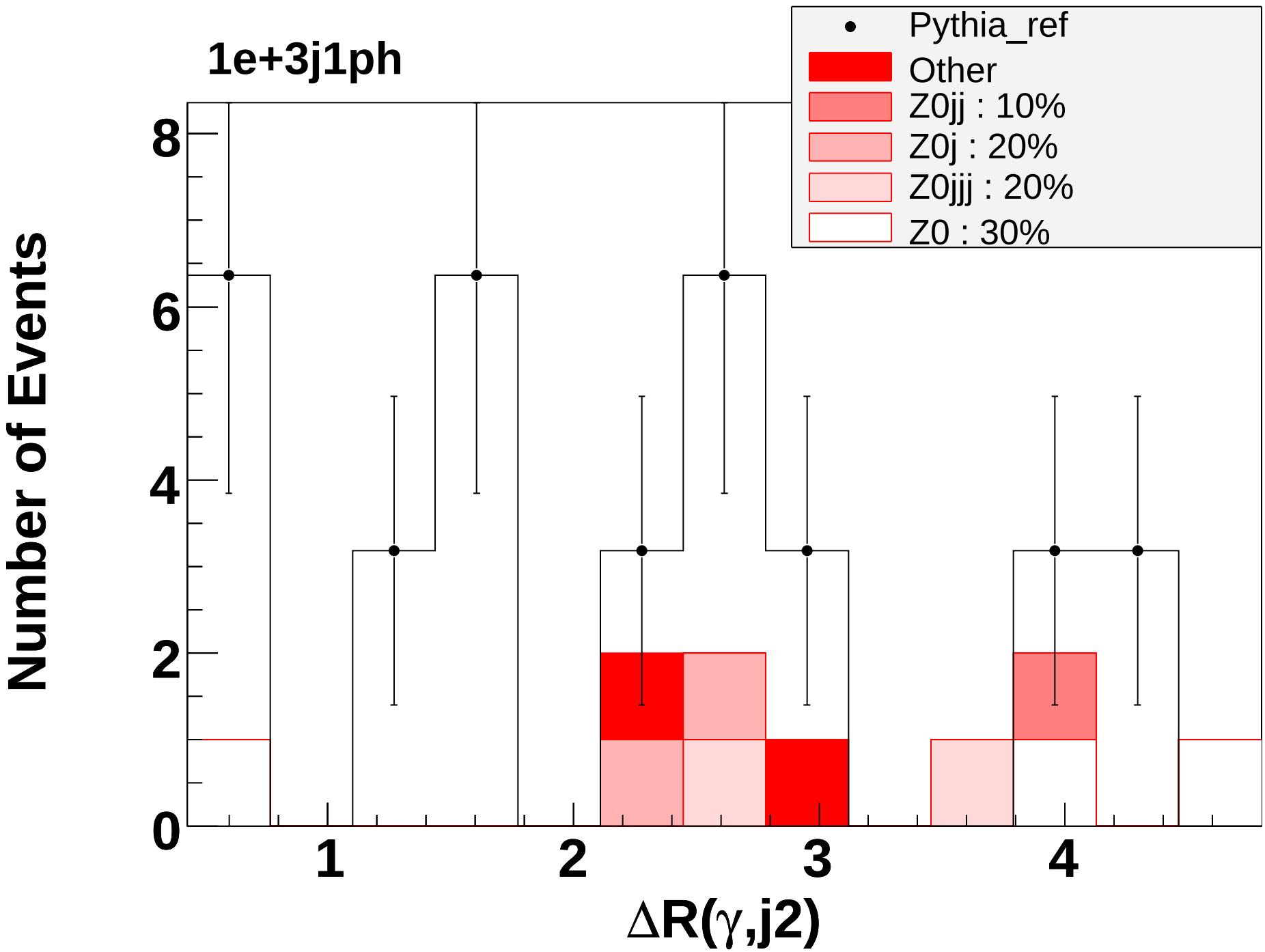

1e+3j1ph
Pythia_ref
Other
Z0jj : 10%
Z0j : 20%
Z0jjj : 20%
Z0 : 30%
Number of Events
0
2
4
6
8
1
2
3
Δϕ(γ,j3) (radians)

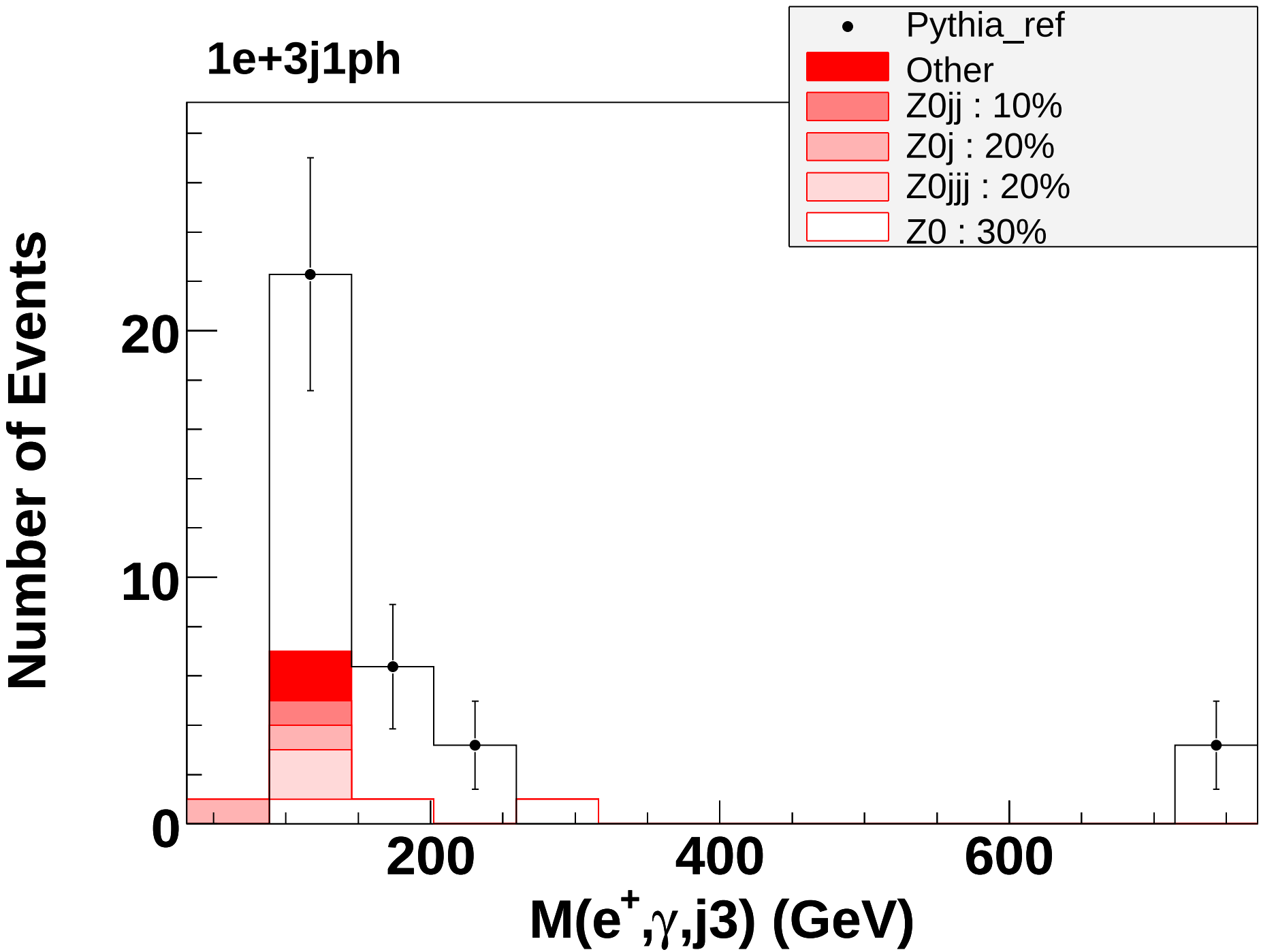

1e+3j1ph
Pythia_ref
Other
Z0jj : 10%
Z0j : 20%
Z0jjj : 20%
Z0 : 30%
Number of Events
0
2
4
6
8
-2
0
2
j2 eta

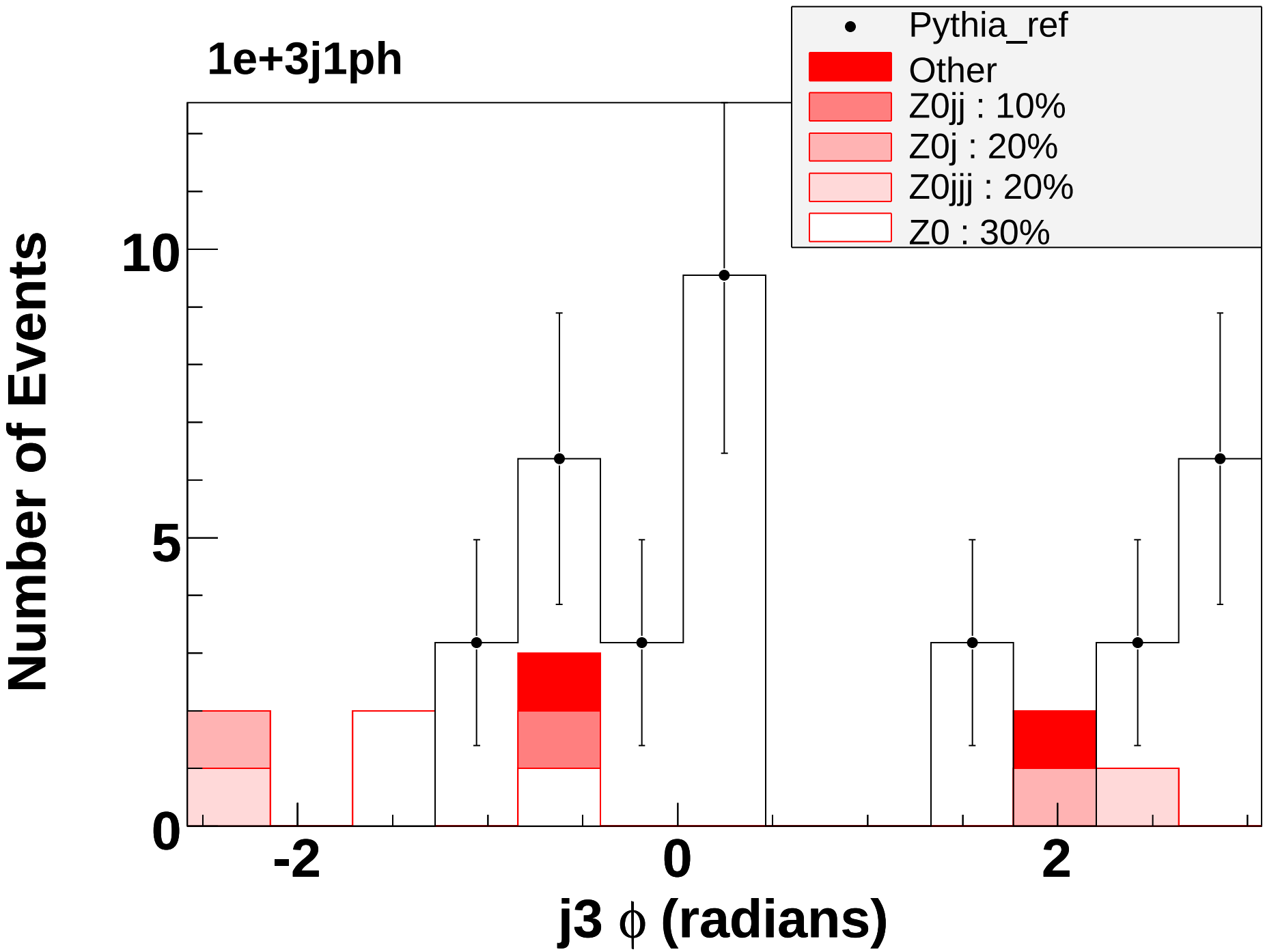

1e+3j1ph
Pythia_ref
Other
Z0jj : 10%
Z0j : 20%
Z0jjj : 20%
Z0 : 30%
Number of Events
0
2
4
6
8
-2
0
2
j2 detEta

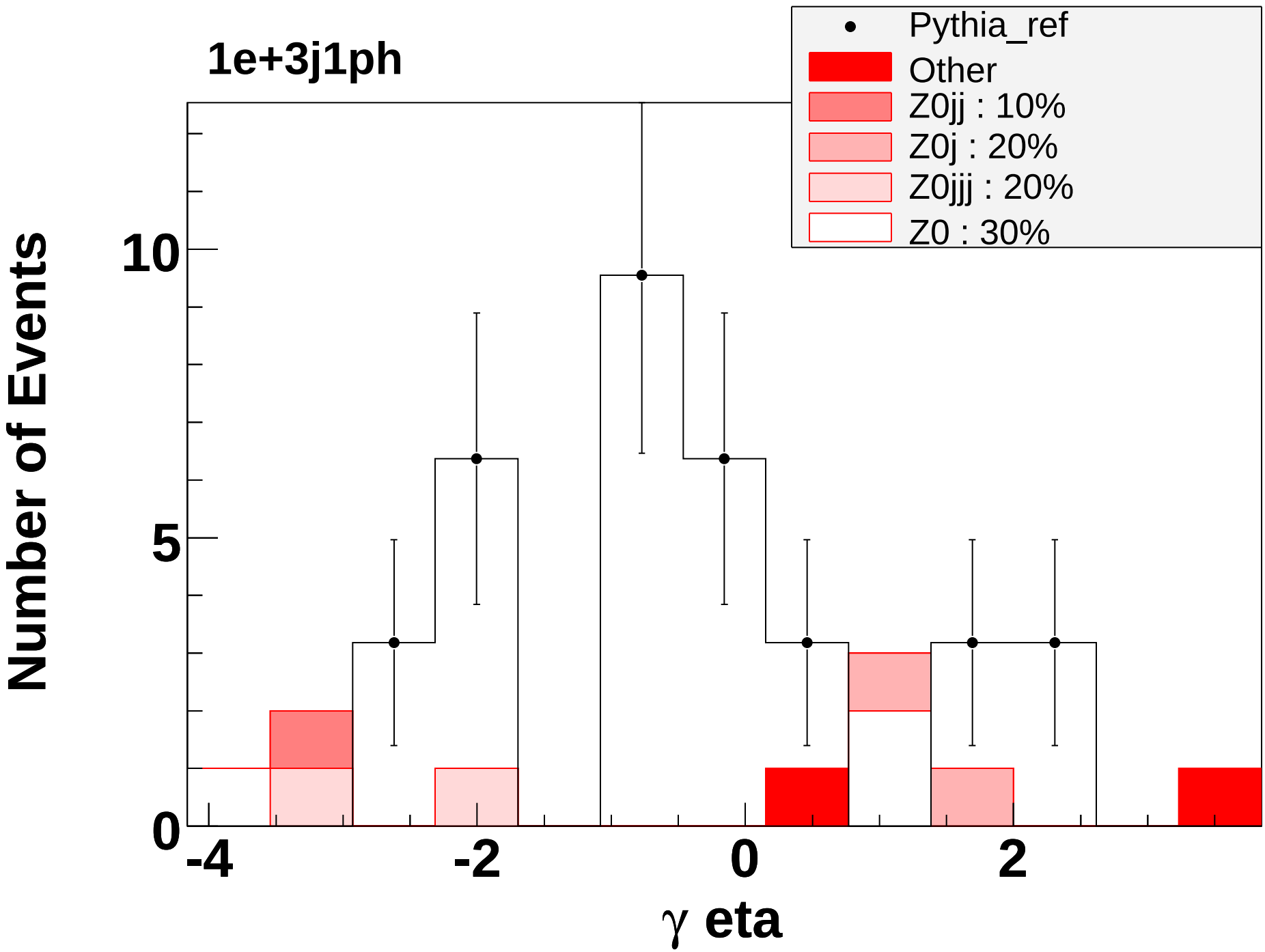

1e+3j1ph
Pythia_ref
Other
Z0jj : 10%
Z0j : 20%
Z0jjj : 20%
Z0 : 30%
Number of Events
0
5
10
15
5
10
15
20
minMass(j) (GeV)

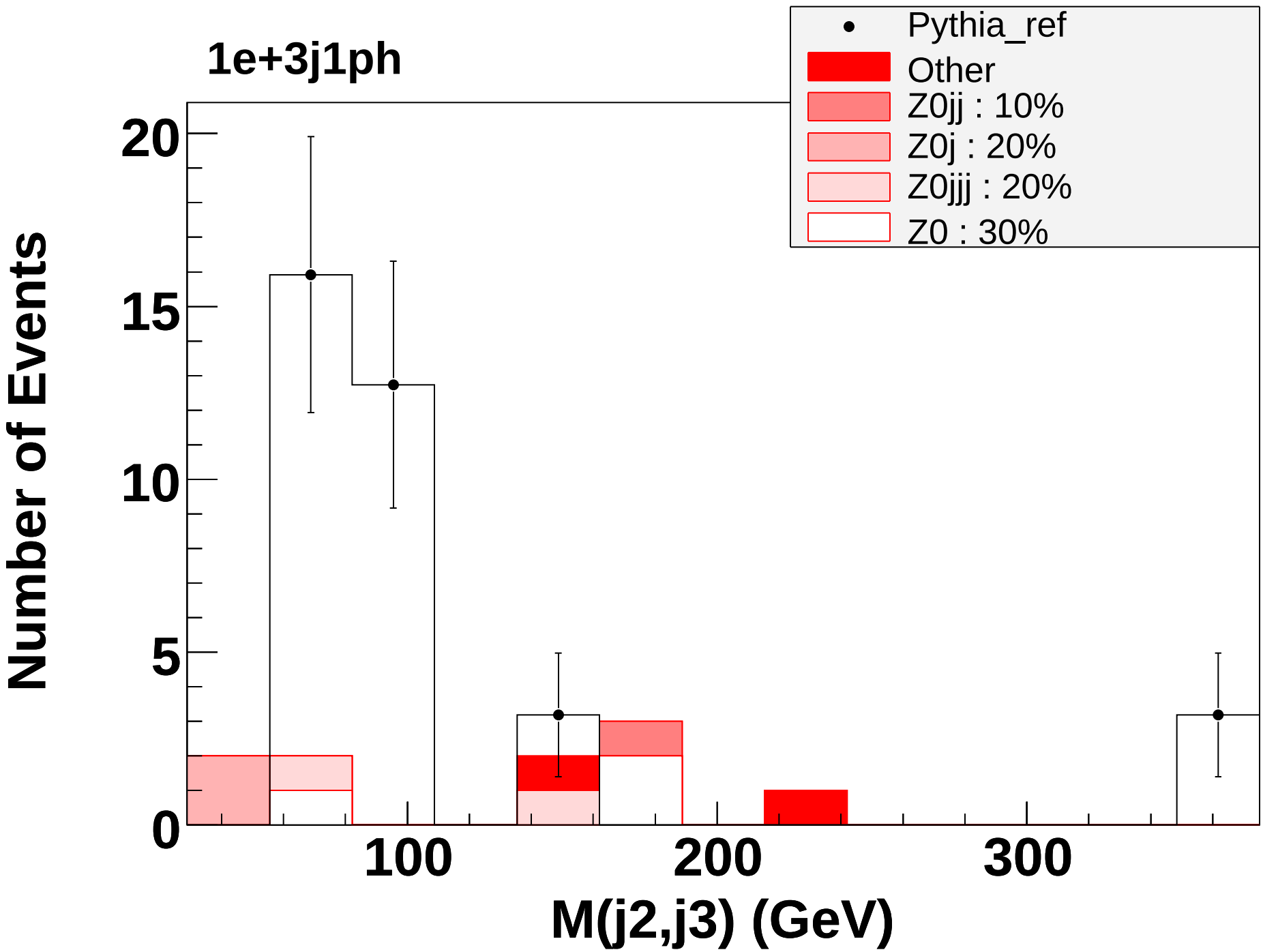

1e+3j1ph
Pythia_ref
Other
Z0jj : 10%
Z0j : 20%
Z0jjj : 20%
Z0 : 30%
Number of Events
0
5
10
15
20
5
10
15
20
M(j3) (GeV)

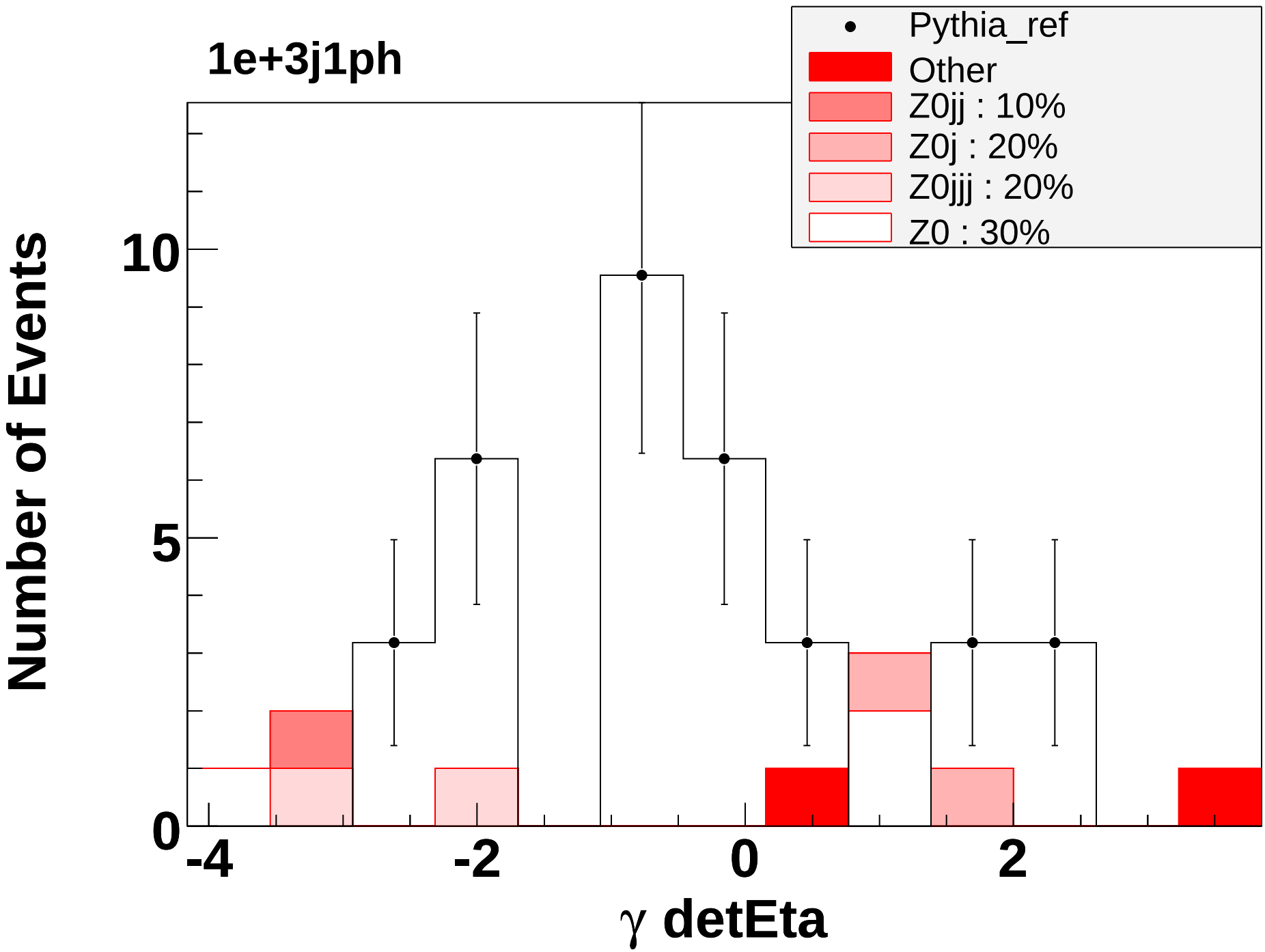

1e+3j1ph
Pythia_ref
Other
Z0jj : 10%
Z0j : 20%
Z0jjj : 20%
Z0 : 30%
Number of Events
0
2
4
6
8
1
2
3
4
ΔR(γ,j2)

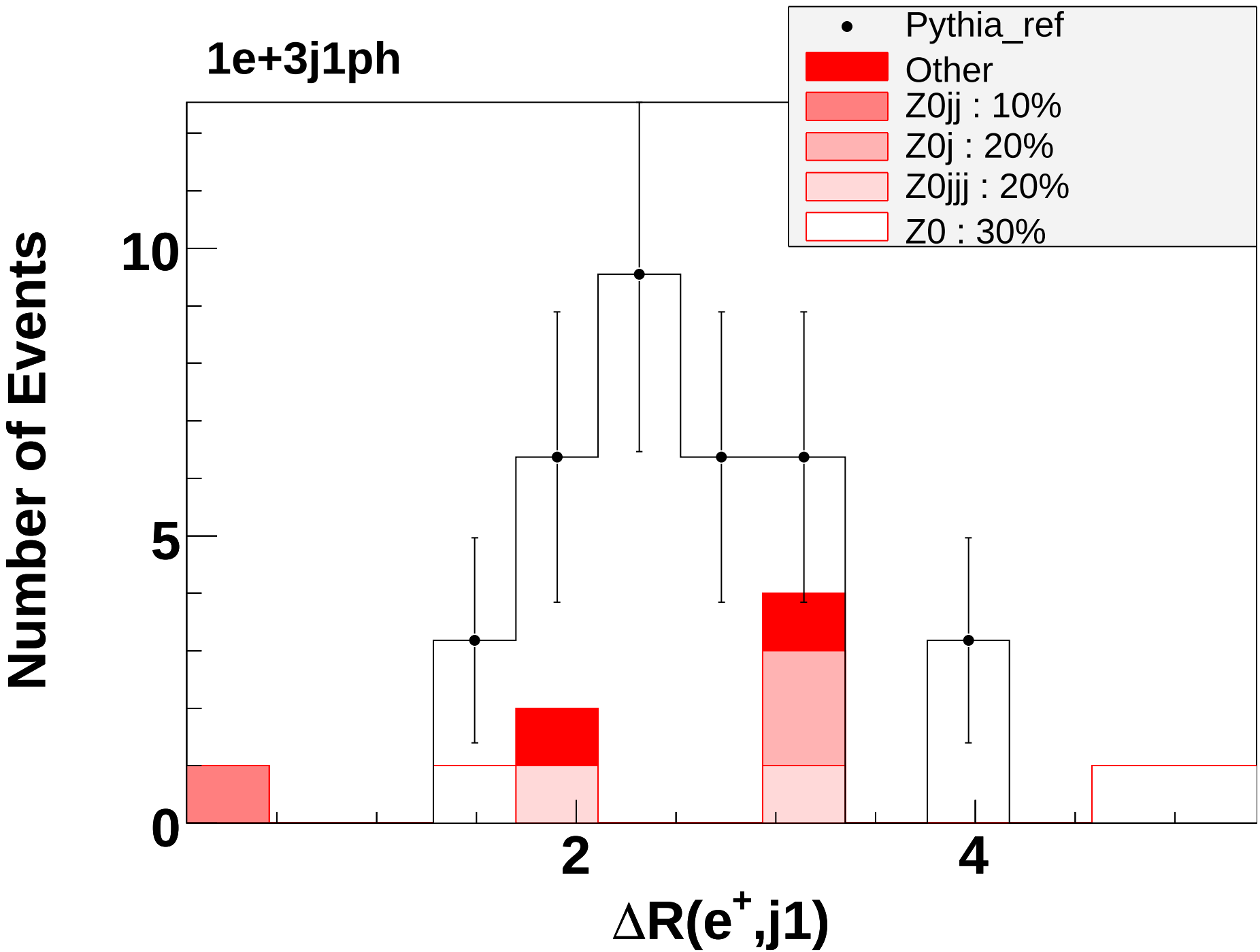

1e+3j1ph
Pythia_ref
Other
Z0jj : 10%
Z0j : 20%
Z0jjj : 20%
Z0 : 30%
Number of Events
0
10
20
200
400
600
M(e+,γ,j3) (GeV)

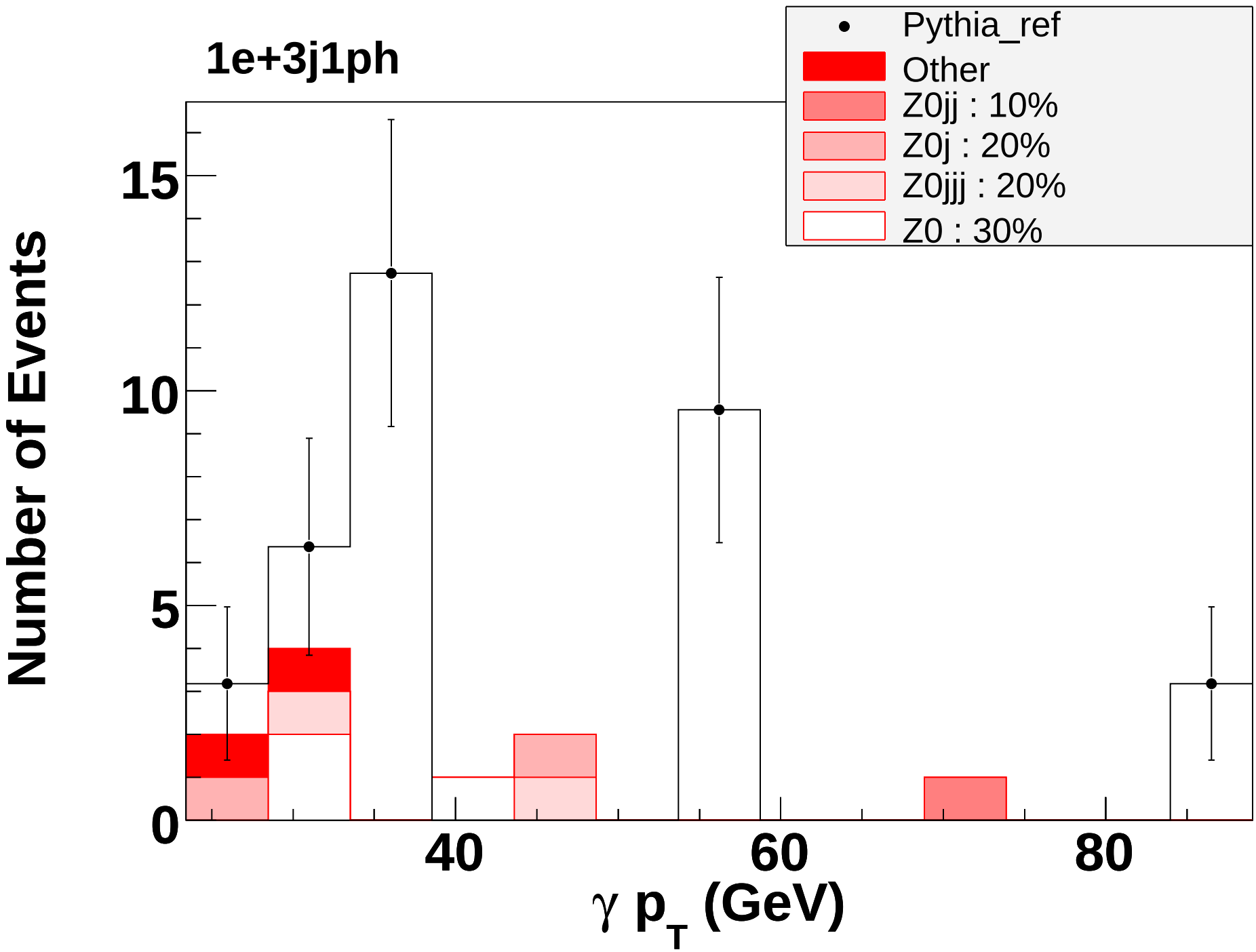

1e+3j1ph
Pythia_ref
Other
Z0jj : 10%
Z0j : 20%
Z0jjj : 20%
Z0 : 30%
Number of Events
0
5
10
-2
0
2
j3 ϕ (radians)

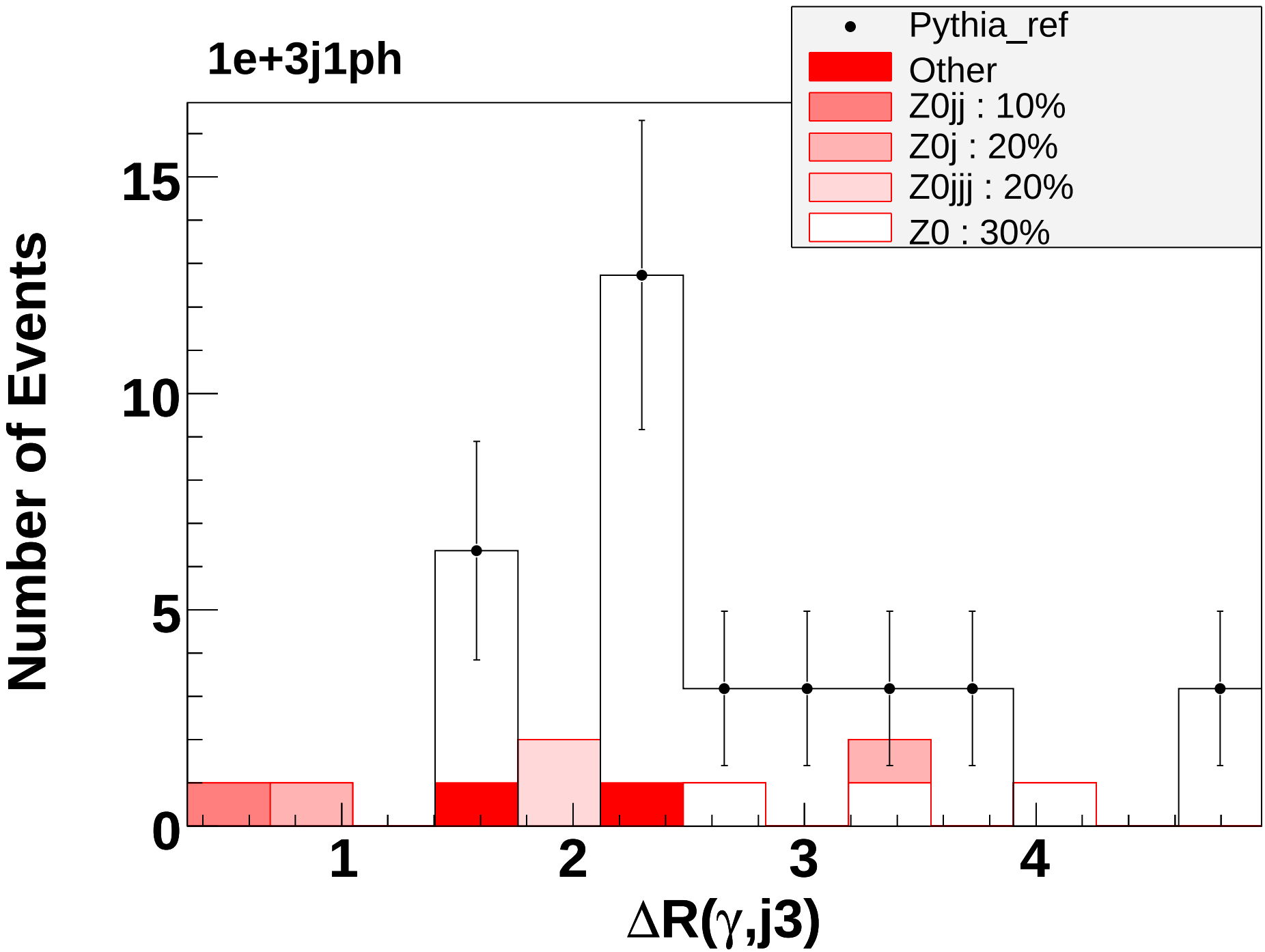

1e+3j1ph
Pythia_ref
Other
Z0jj : 10%
Z0j : 20%
Z0jjj : 20%
Z0 : 30%
Number of Events
0
5
10
-4
-2
0
2
γ eta

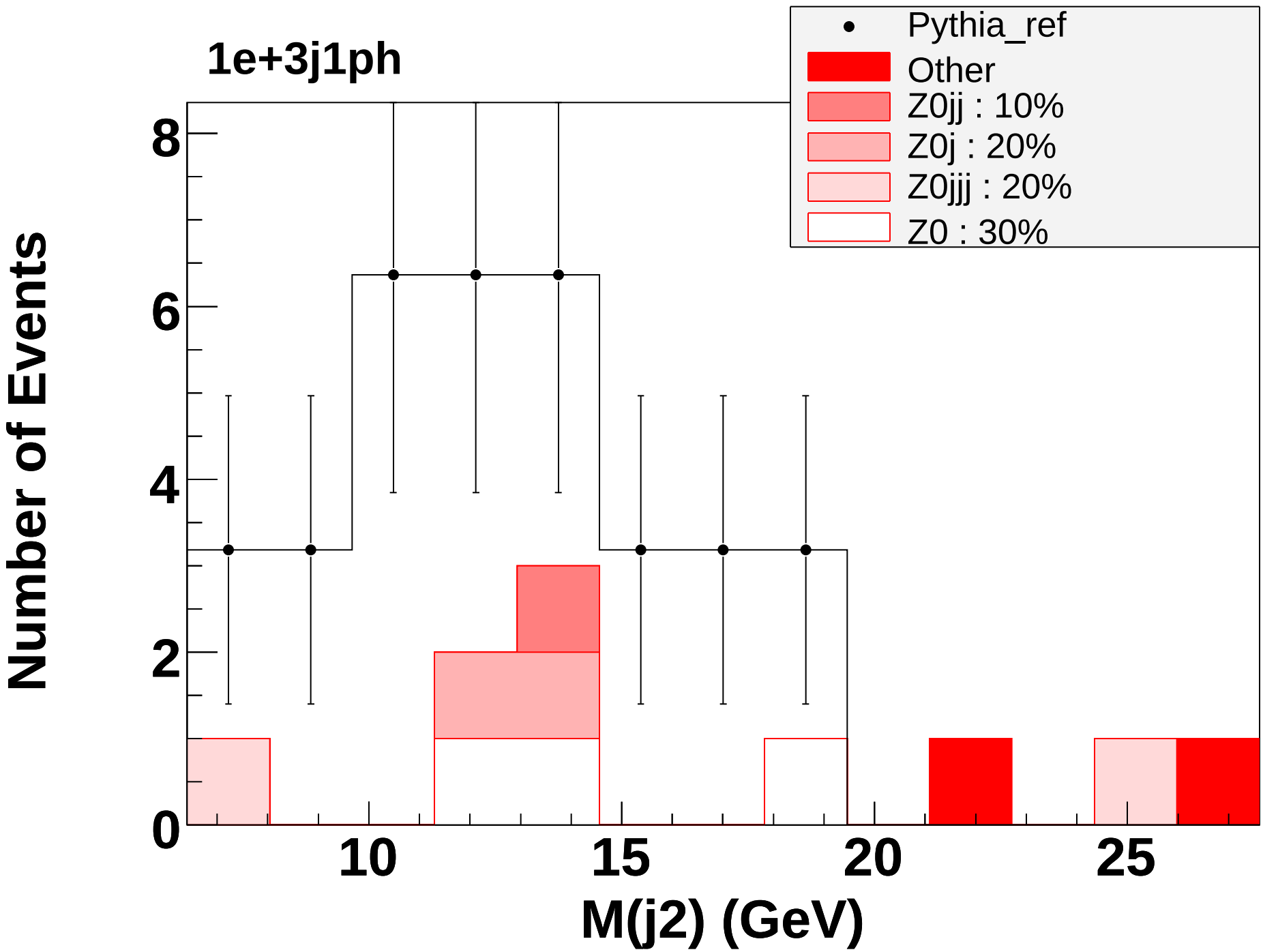

1e+3j1ph
Pythia_ref
Other
Z0jj : 10%
Z0j : 20%
Z0jjj : 20%
Z0 : 30%
Number of Events
0
5
10
15
20
100
200
300
M(j2,j3) (GeV)

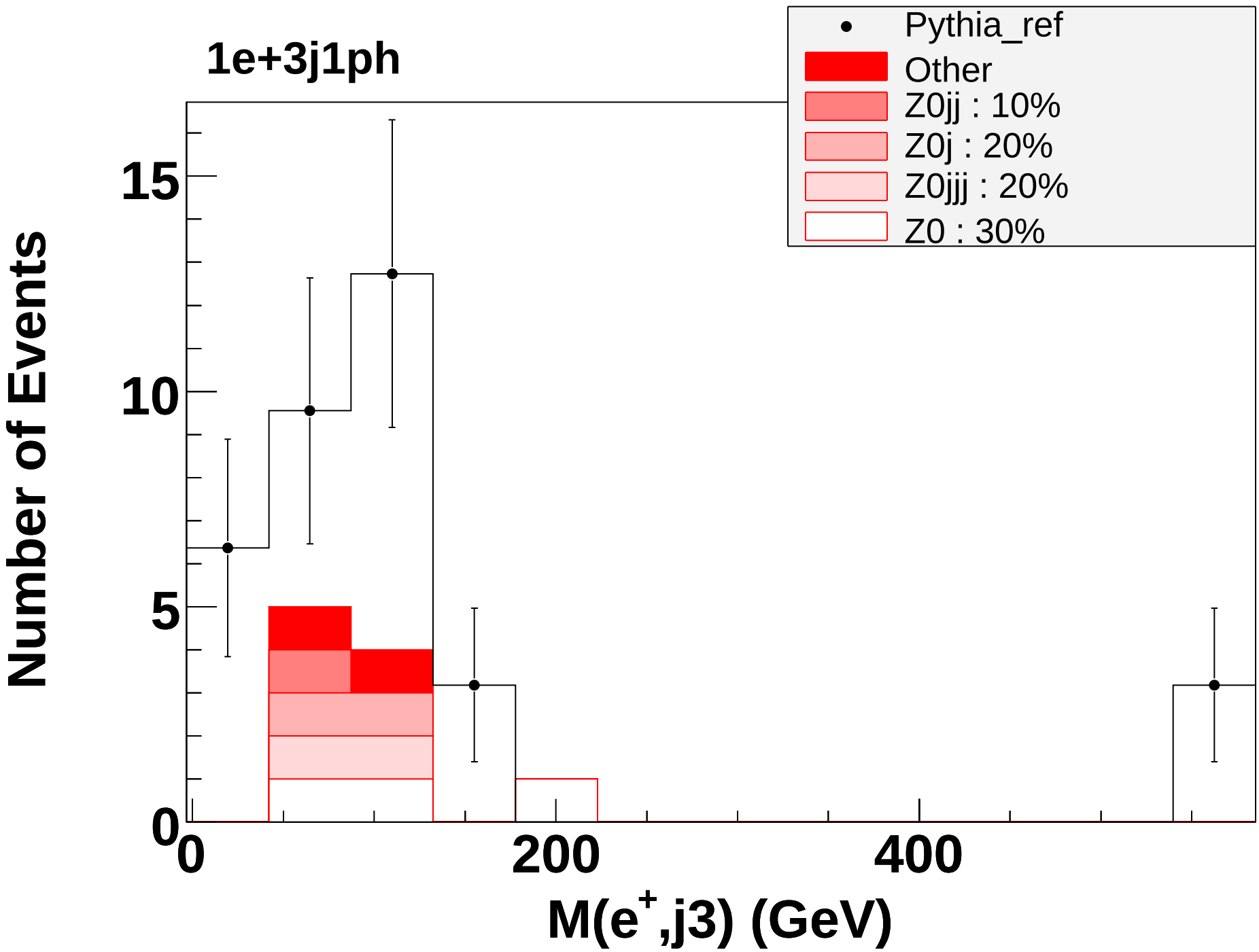

1e+3j1ph
Pythia_ref
Other
Z0jj : 10%
Z0j : 20%
Z0jjj : 20%
Z0 : 30%
Number of Events
0
5
10
-4
-2
0
2
γ detEta

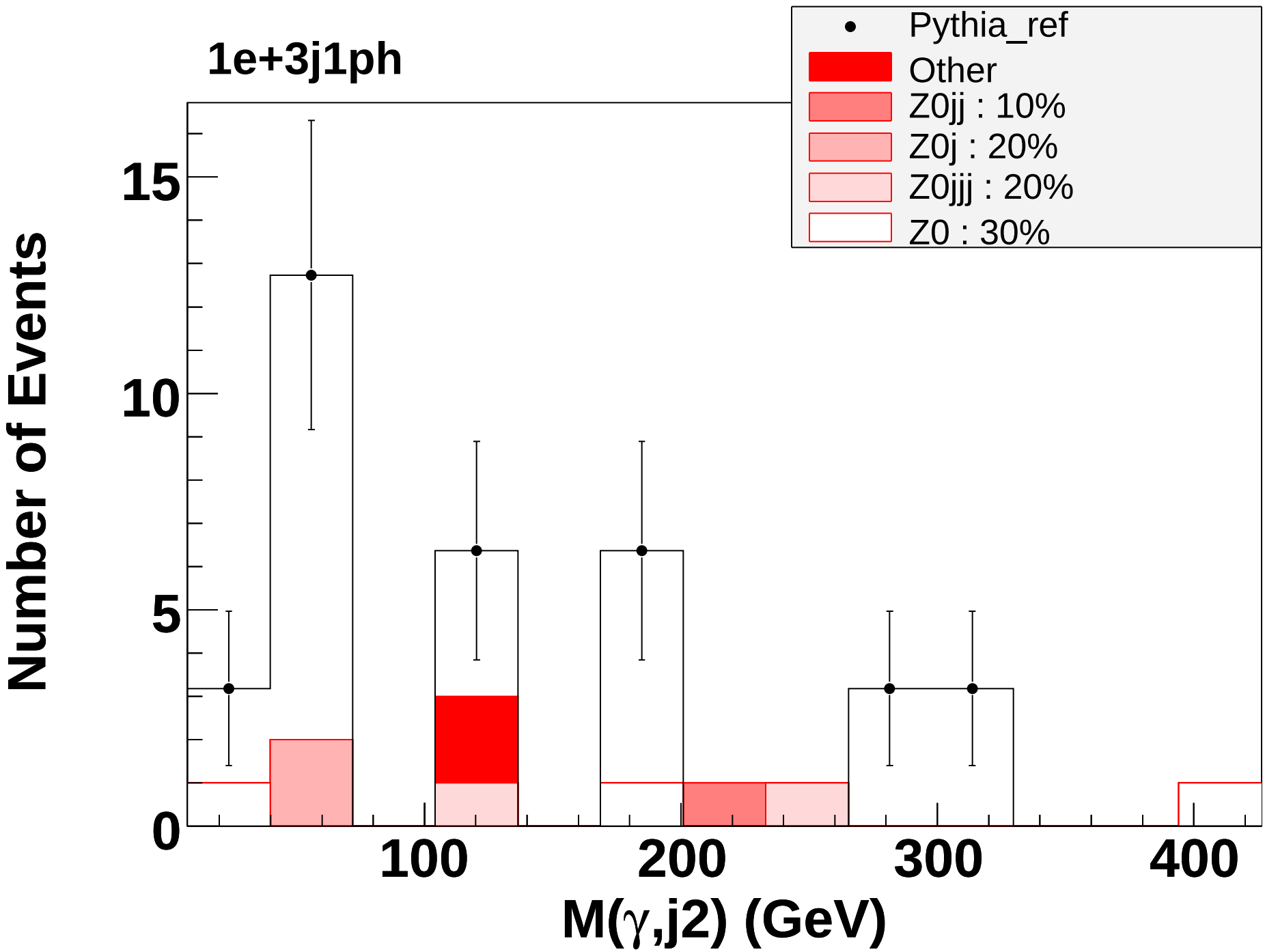

1e+3j1ph
Pythia_ref
Other
Z0jj : 10%
Z0j : 20%
Z0jjj : 20%
Z0 : 30%
Number of Events
0
5
10
2
4
ΔR(e+,j1)

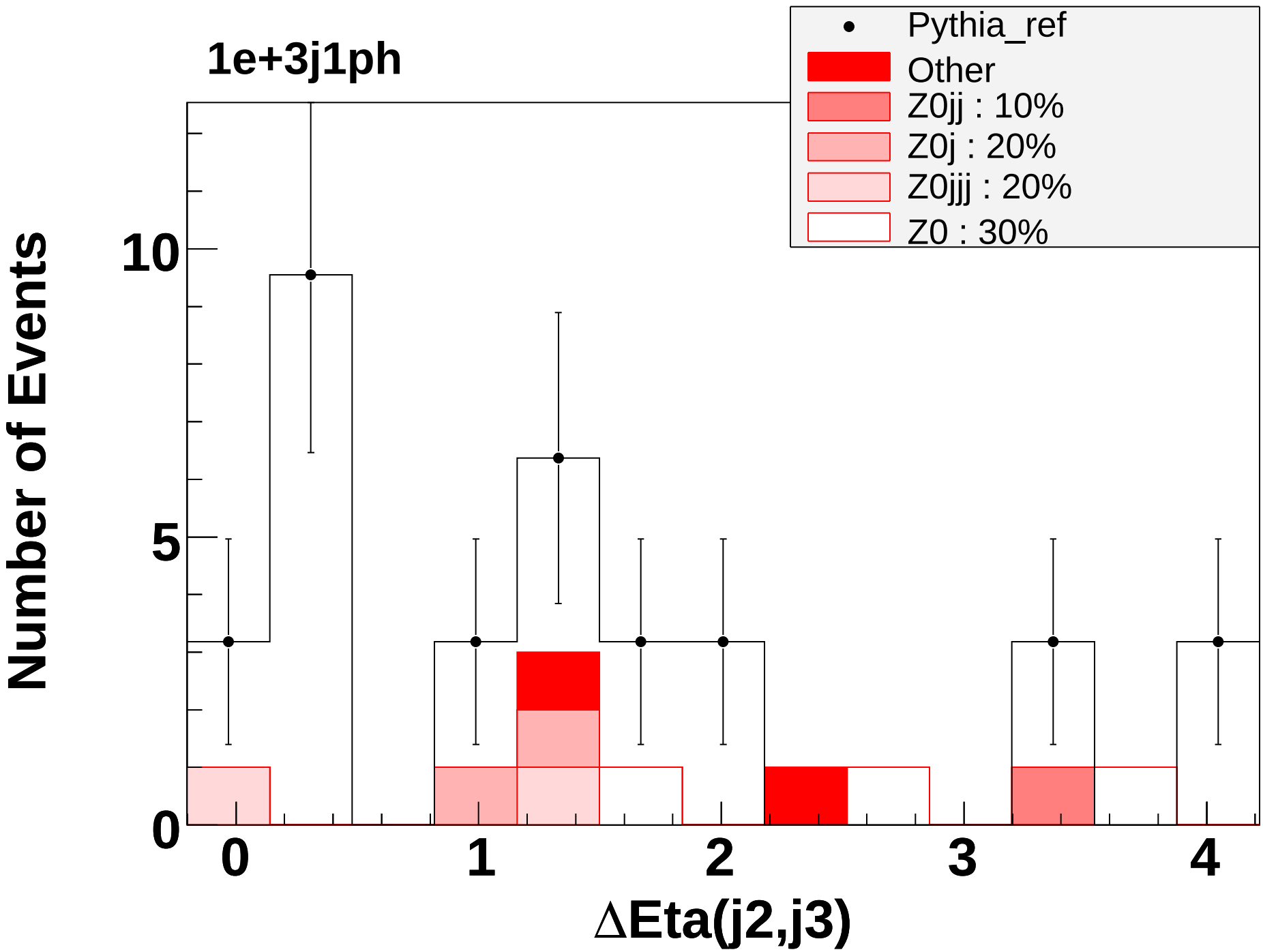

1e+3j1ph
Pythia_ref
Other
Z0jj : 10%
Z0j : 20%
Z0jjj : 20%
Z0 : 30%
Number of Events
0
5
10
15
40
60
80
γ p_T (GeV)

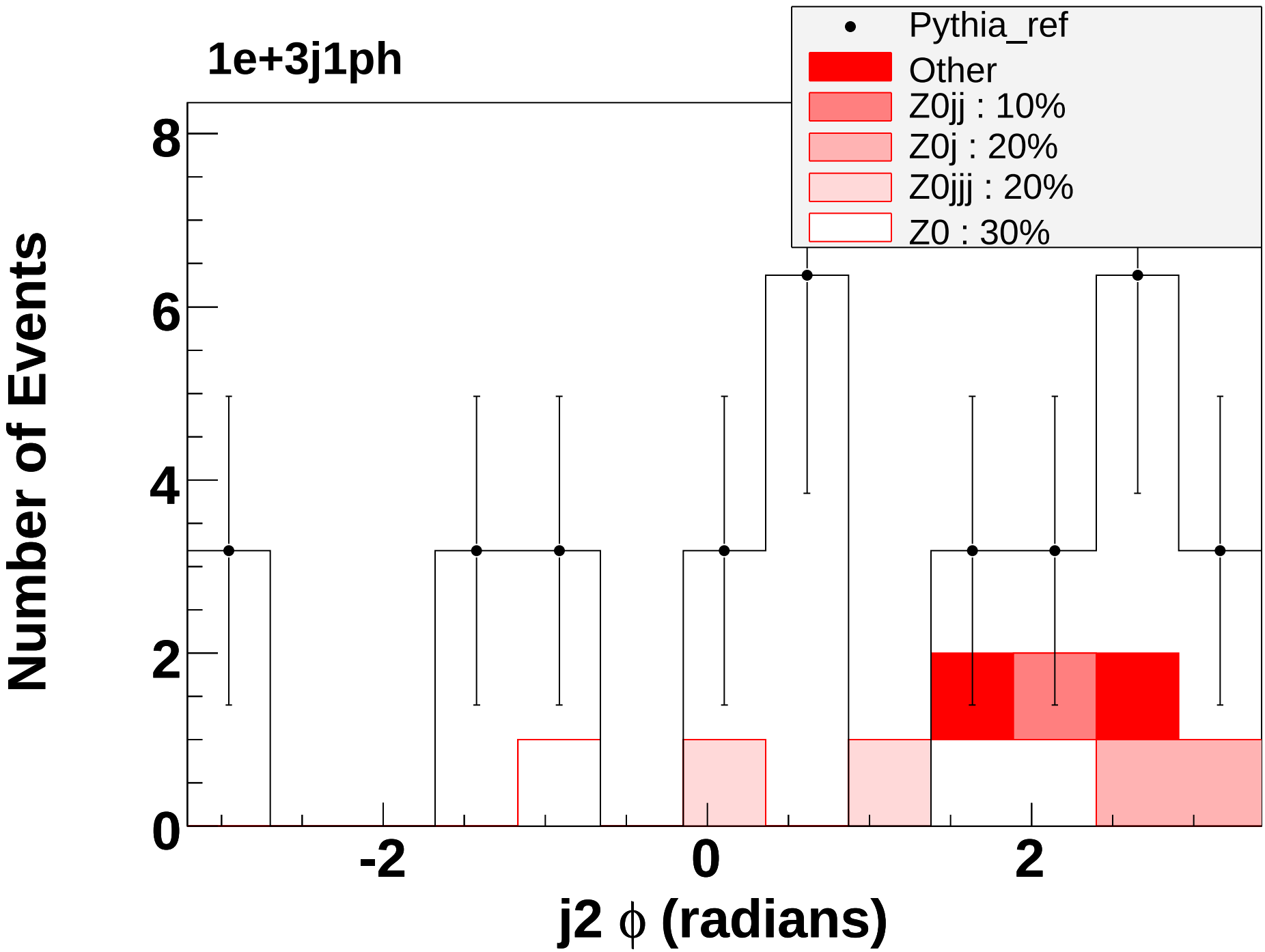

1e+3j1ph
Pythia_ref
Other
Z0jj : 10%
Z0j : 20%
Z0jjj : 20%
Z0 : 30%
Number of Events
0
5
10
15
1
2
3
4
ΔR(γ,j3)

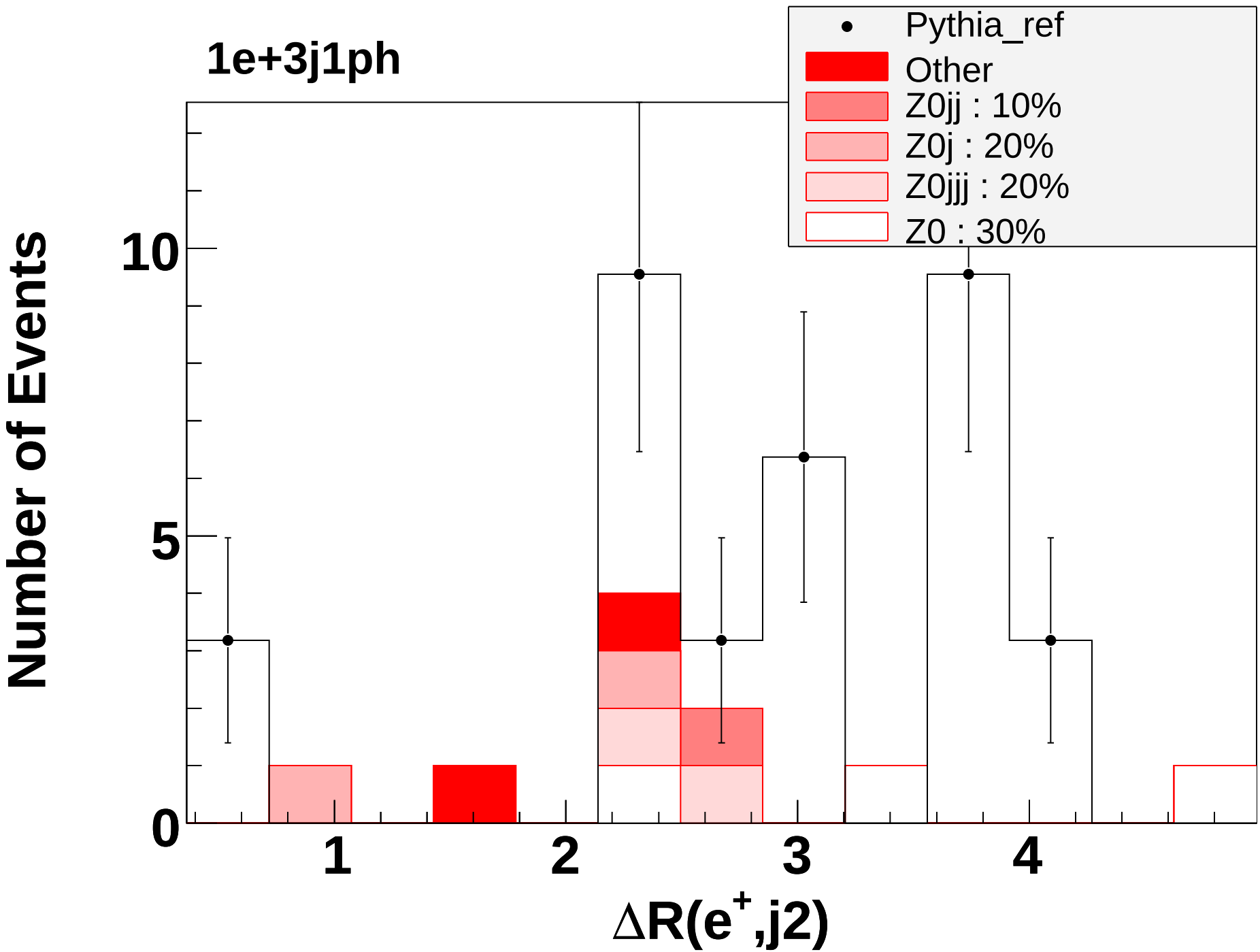

1e+3j1ph
Pythia_ref
Other
Z0jj : 10%
Z0j : 20%
Z0jjj : 20%
Z0 : 30%
Number of Events
0
2
4
6
8
10
15
20
25
M(j2) (GeV)

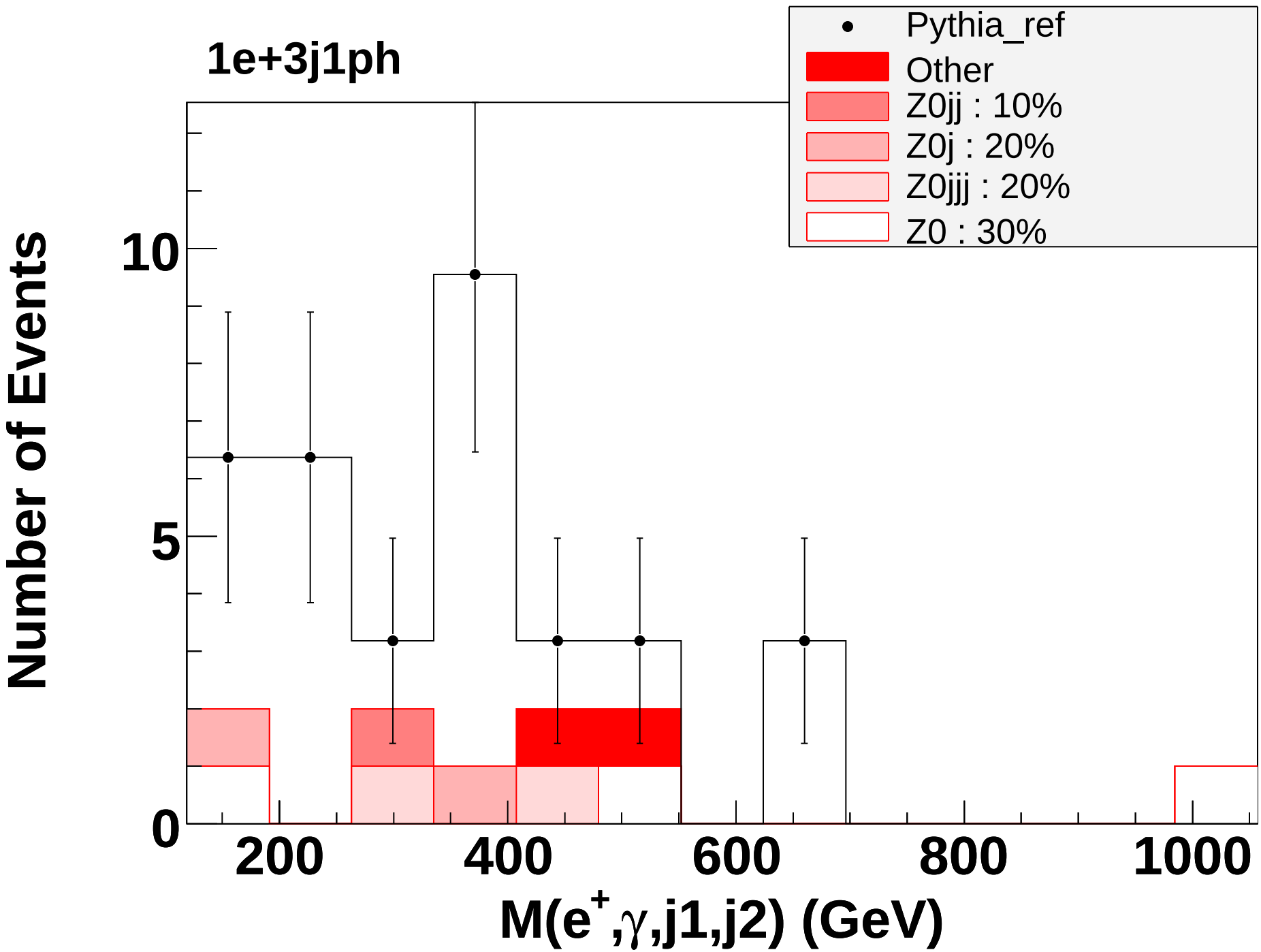

1e+3j1ph
Pythia_ref
Other
Z0jj : 10%
Z0j : 20%
Z0jjj : 20%
Z0 : 30%
Number of Events
0
5
10
15
0
200
400
M(e+,j3) (GeV)

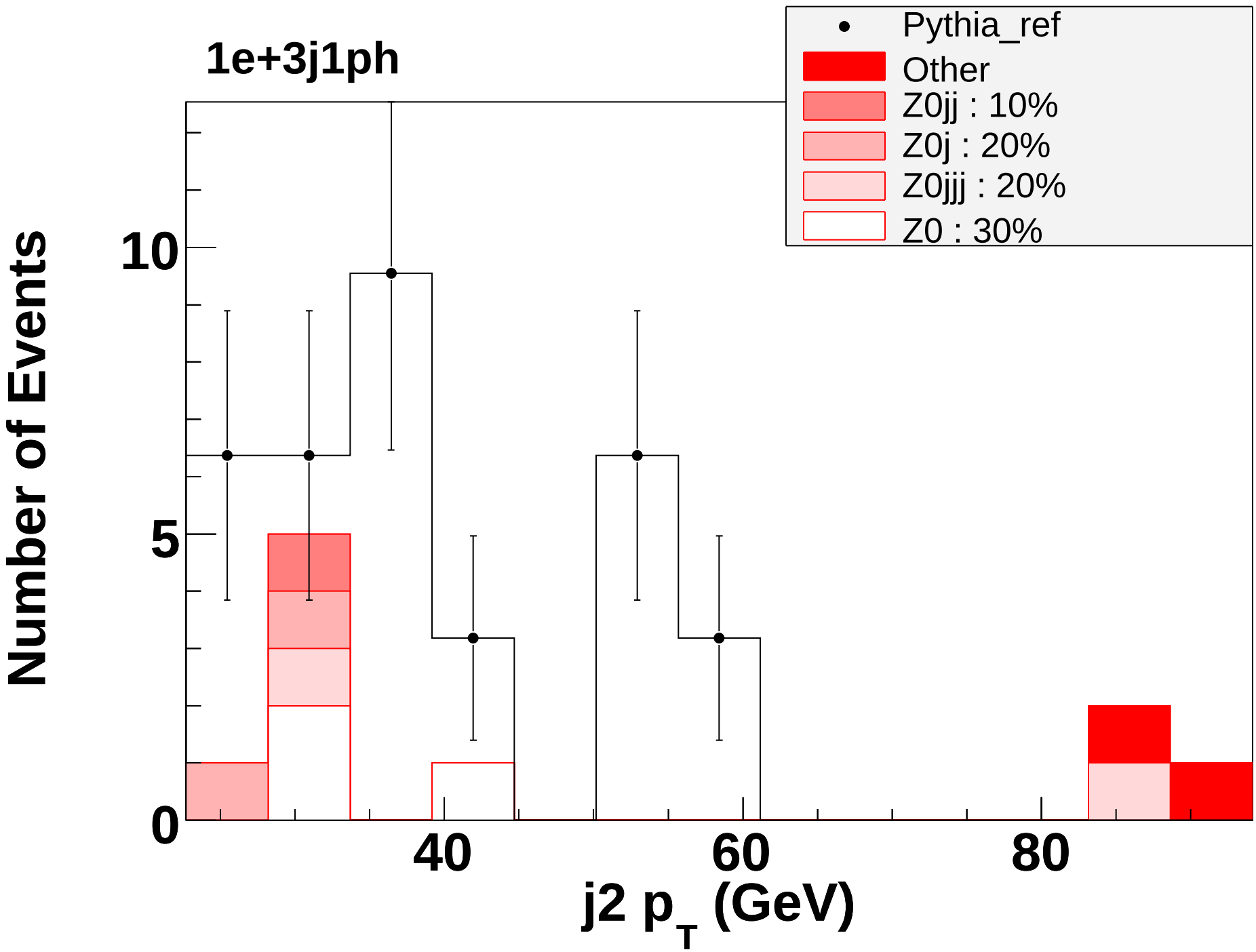

1e+3j1ph
Pythia_ref
Other
Z0jj : 10%
Z0j : 20%
Z0jjj : 20%
Z0 : 30%
Number of Events
0
5
10
15
100
200
300
400
M(γ,j2) (GeV)

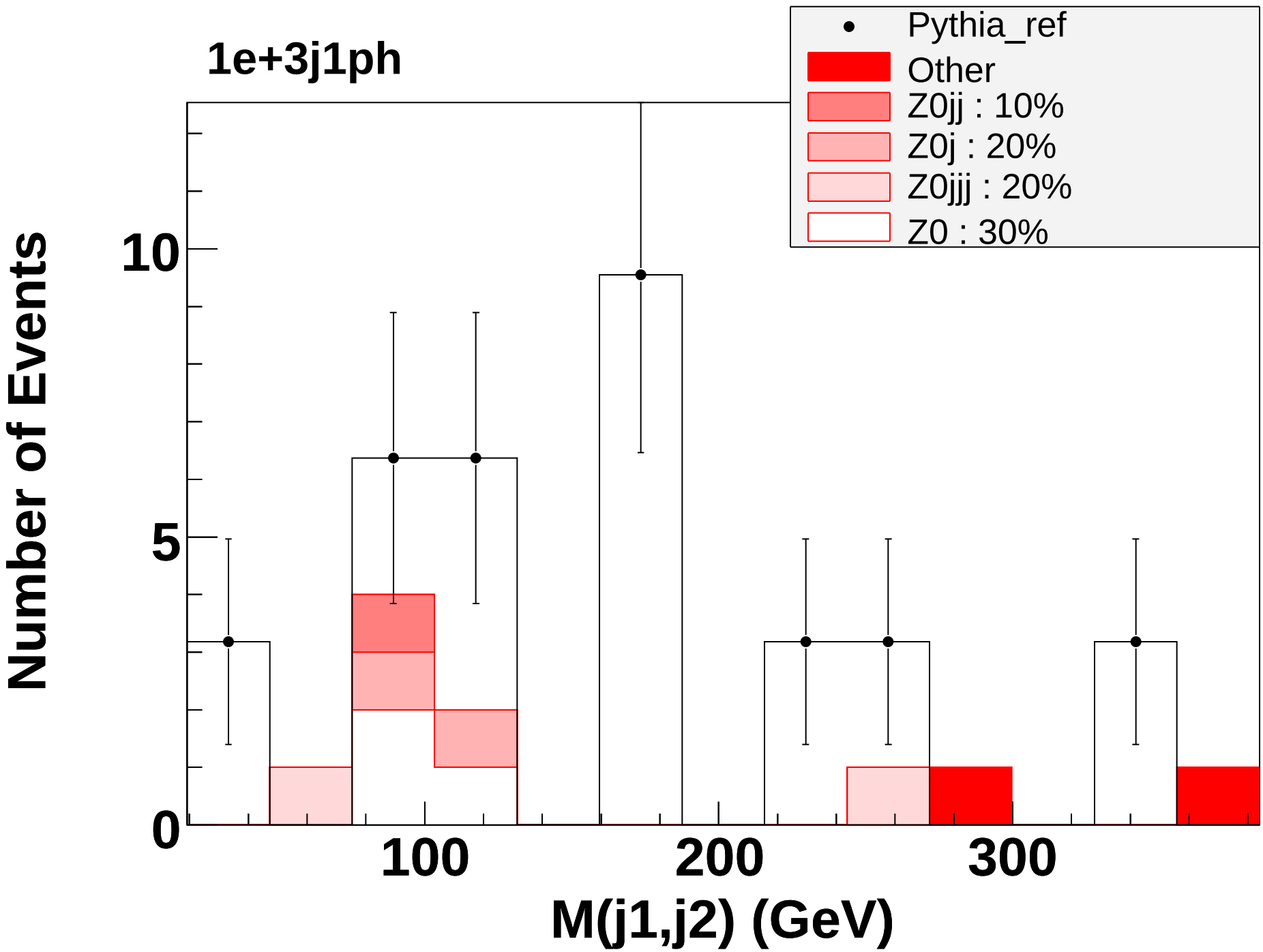

1e+3j1ph
Pythia_ref
Other
Z0jj : 10%
Z0j : 20%
Z0jjj : 20%
Z0 : 30%
Number of Events
0
5
10
0
1
2
3
4
ΔEta(j2,j3)

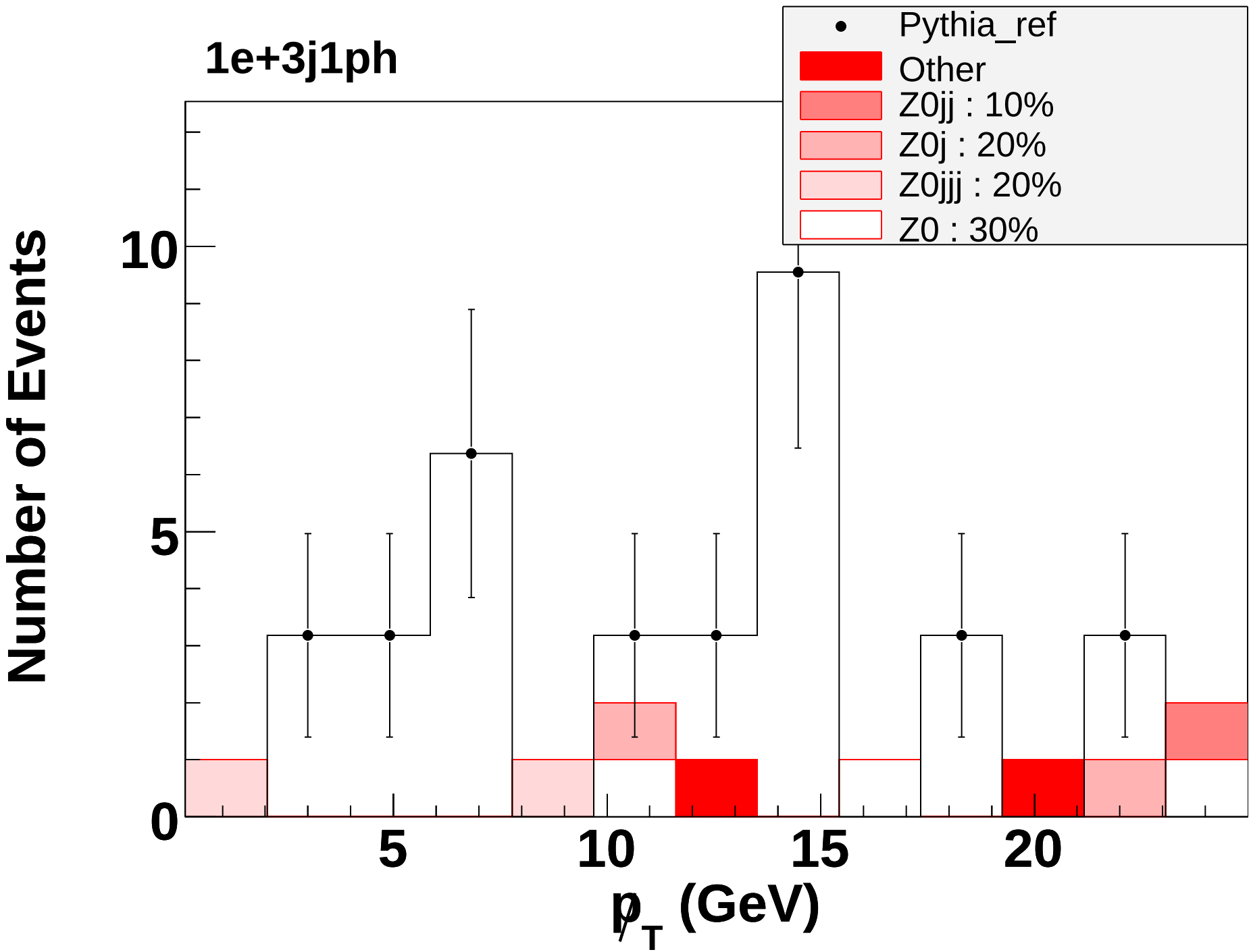

1e+3j1ph
Pythia_ref
Other
Z0jj : 10%
Z0j : 20%
Z0jjj : 20%
Z0 : 30%
Number of Events
0
2
4
6
8
-2
0
2
j2 ϕ (radians)

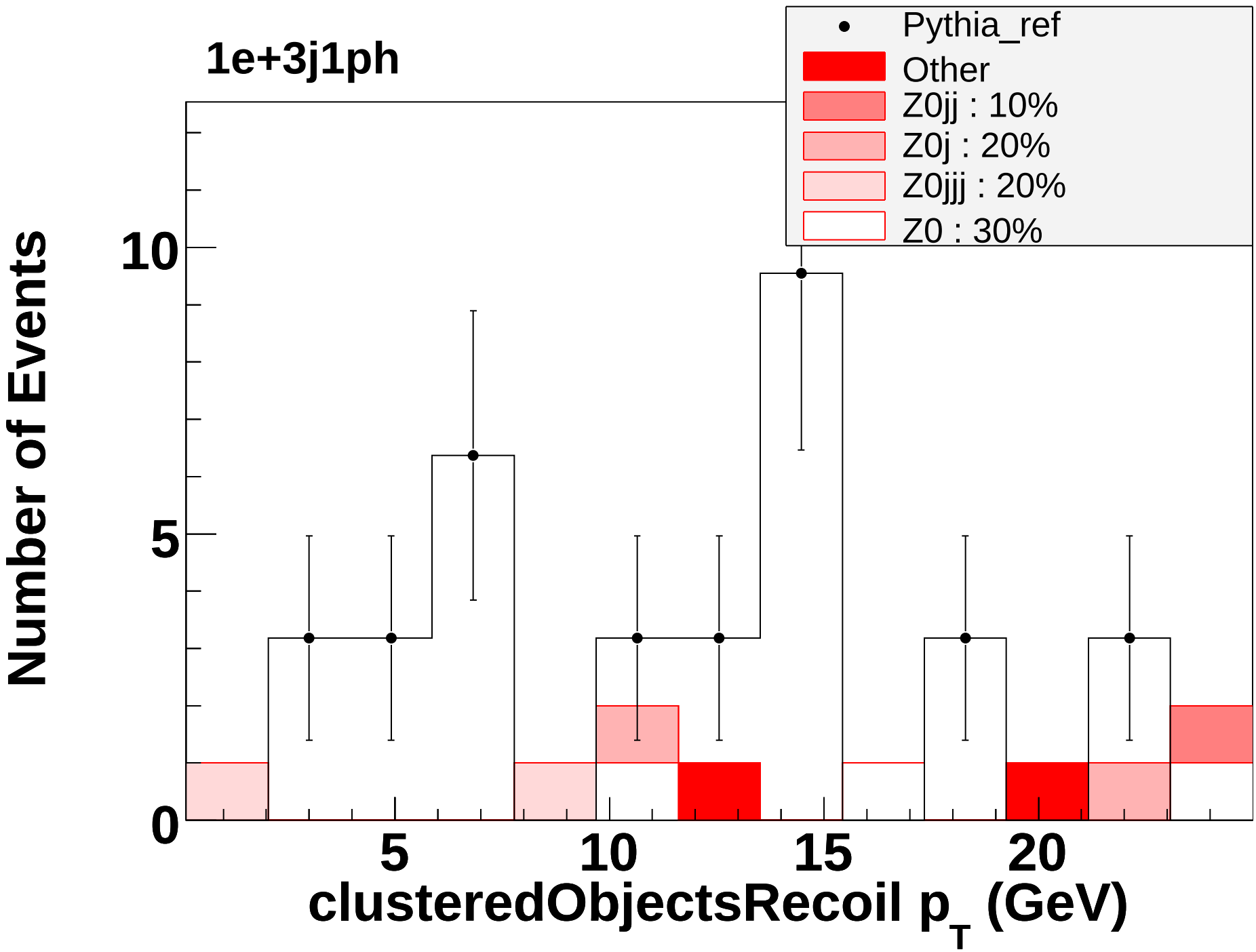

1e+3j1ph
Pythia_ref
Other
Z0jj : 10%
Z0j : 20%
Z0jjj : 20%
Z0 : 30%
Number of Events
0
5
10
1
2
3
4
ΔR(e+,j2)

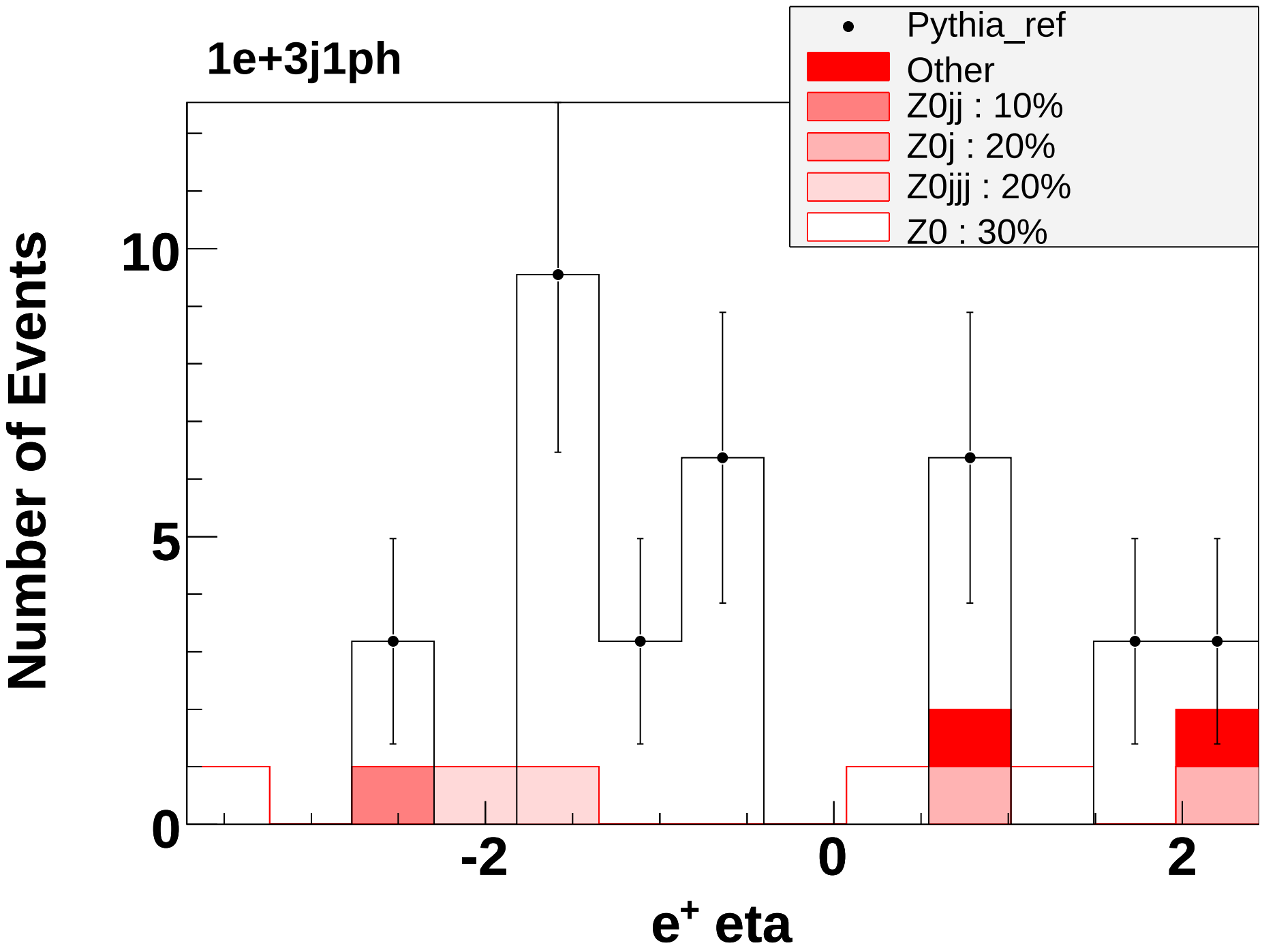

1e+3j1ph
Pythia_ref
Other
Z0jj : 10%
Z0j : 20%
Z0jjj : 20%
Z0 : 30%
Number of Events
0
5
10
200
400
600
800
1000
M(e+,γ,j1,j2) (GeV)

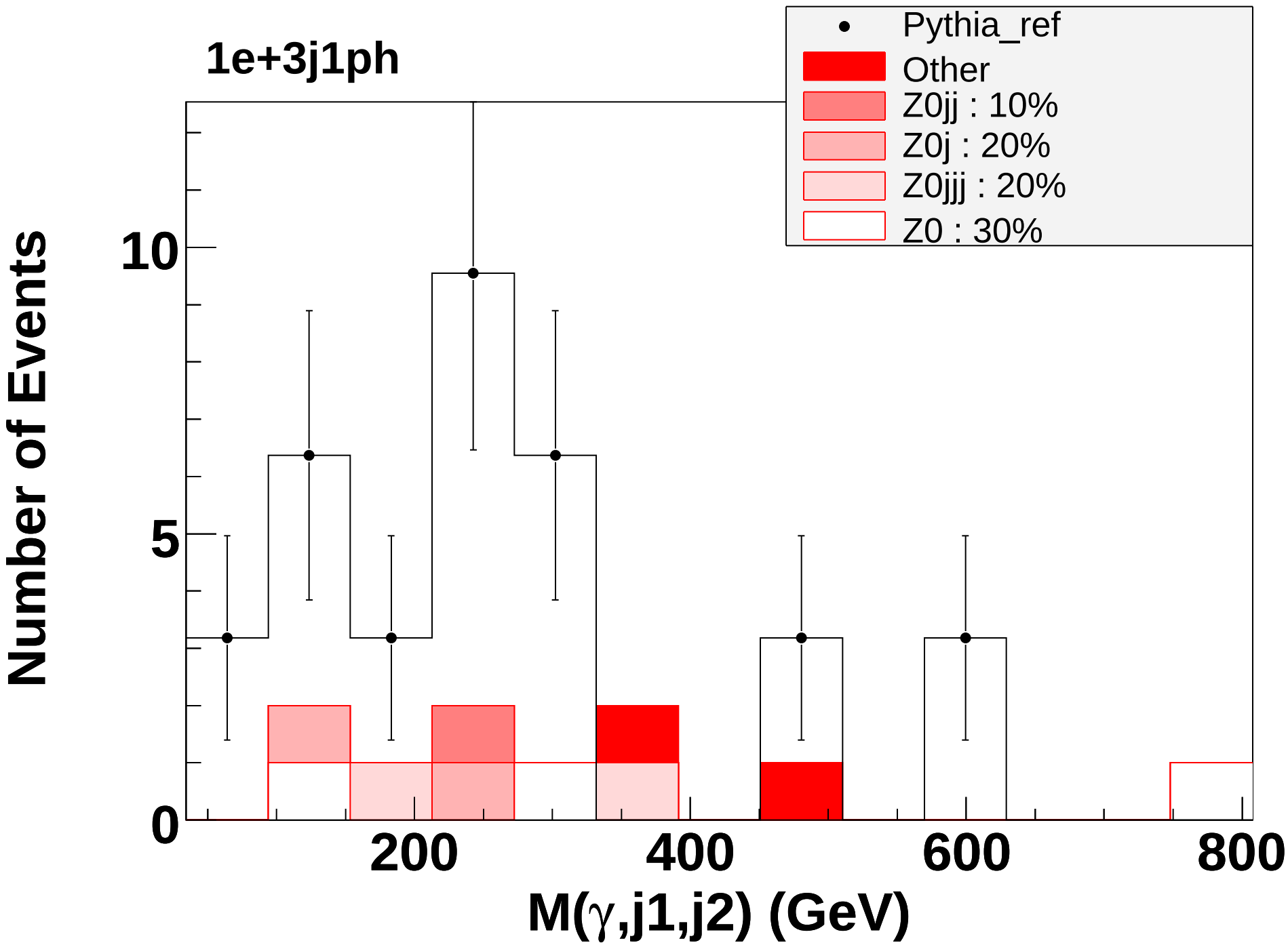

1e+3j1ph
Pythia_ref
Other
Z0jj : 10%
Z0j : 20%
Z0jjj : 20%
Z0 : 30%
Number of Events
0
5
10
40
60
80
j2 p_T (GeV)

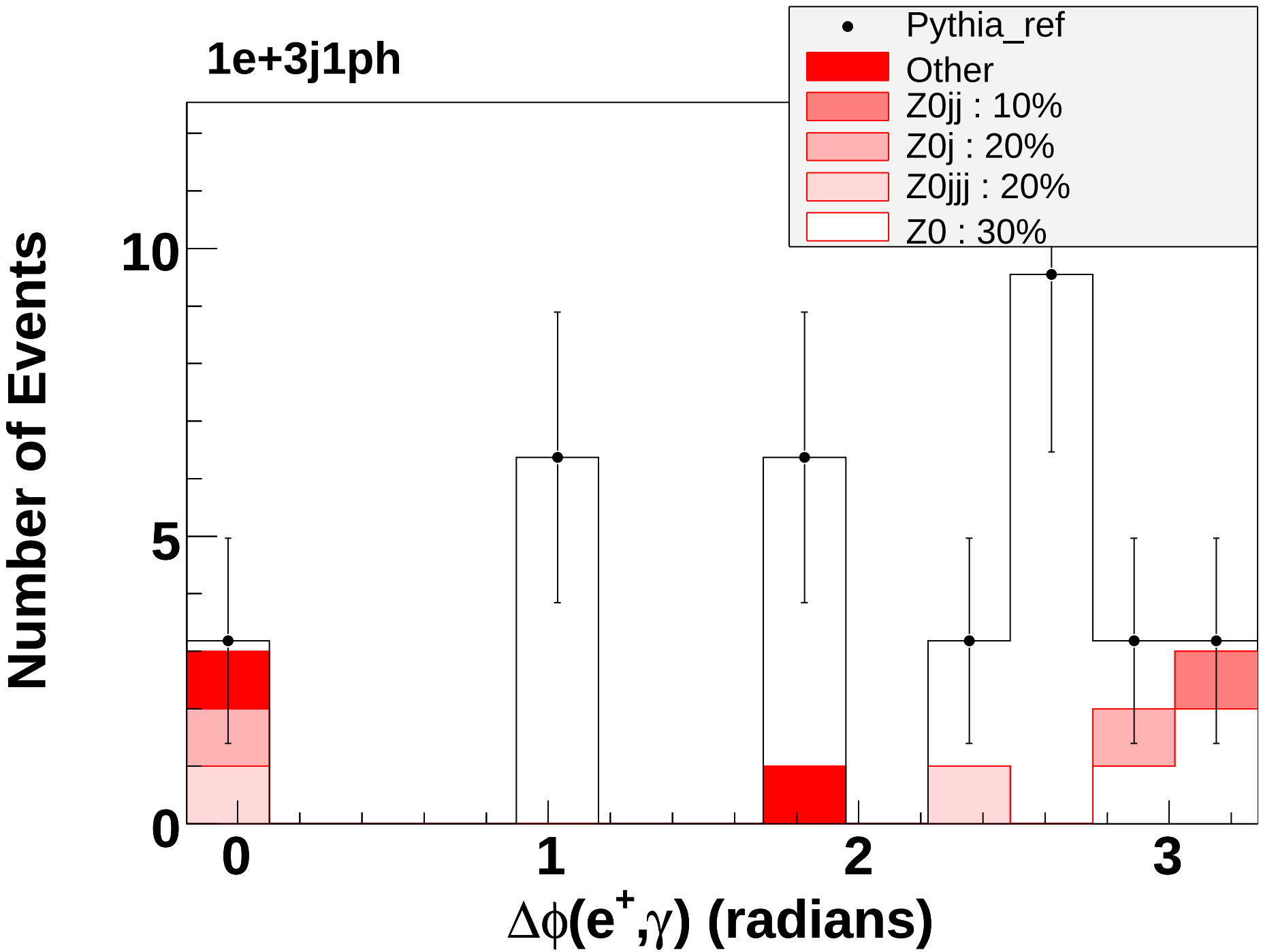

1e+3j1ph
Pythia_ref
Other
Z0jj : 10%
Z0j : 20%
Z0jjj : 20%
Z0 : 30%
Number of Events
0
5
10
100
200
300
M(j1,j2) (GeV)

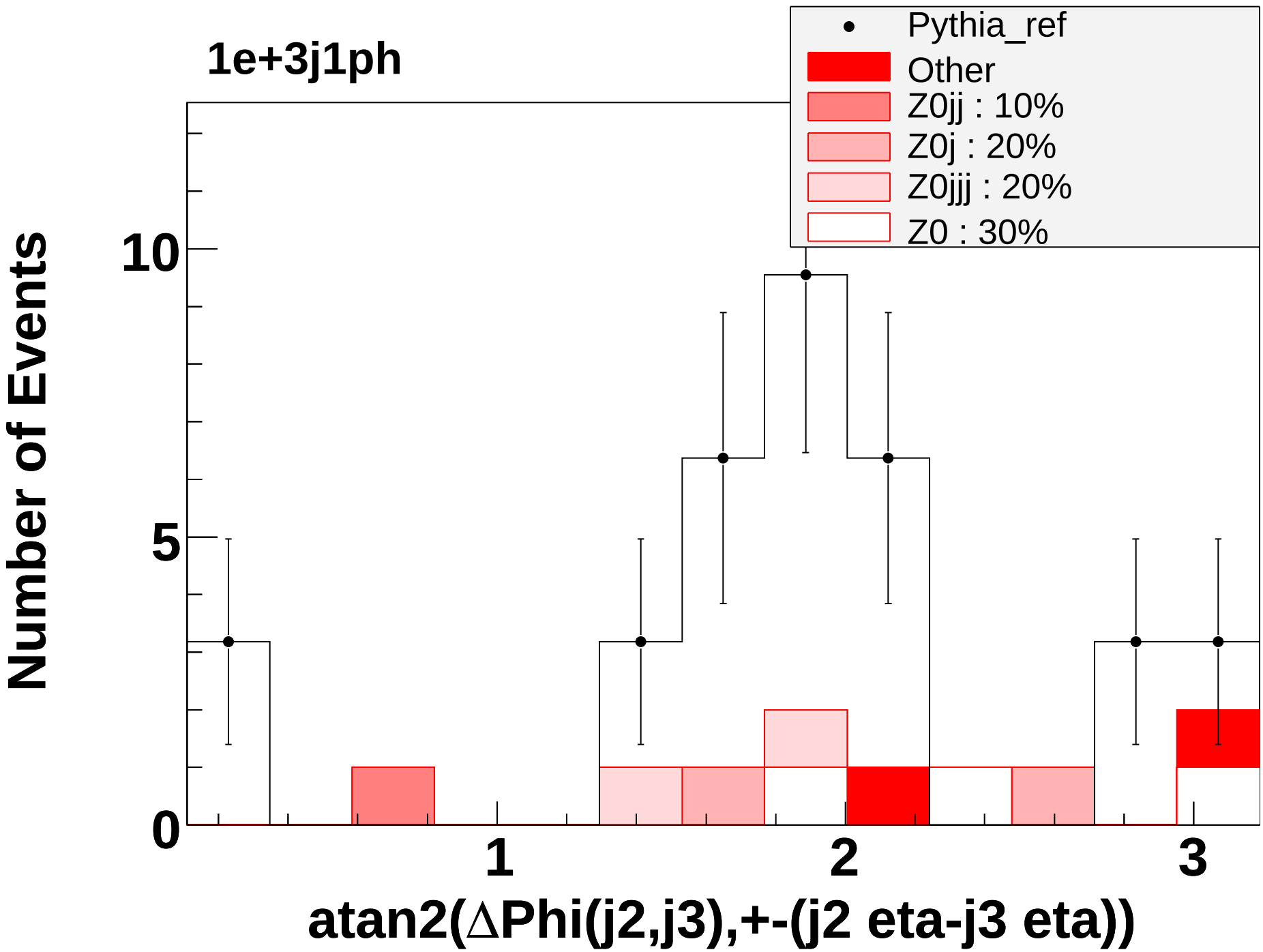

1e+3j1ph
Pythia_ref
Other
Z0jj : 10%
Z0j : 20%
Z0jjj : 20%
Z0 : 30%
Number of Events
0
5
10
5
10
15
20
p_T (GeV)

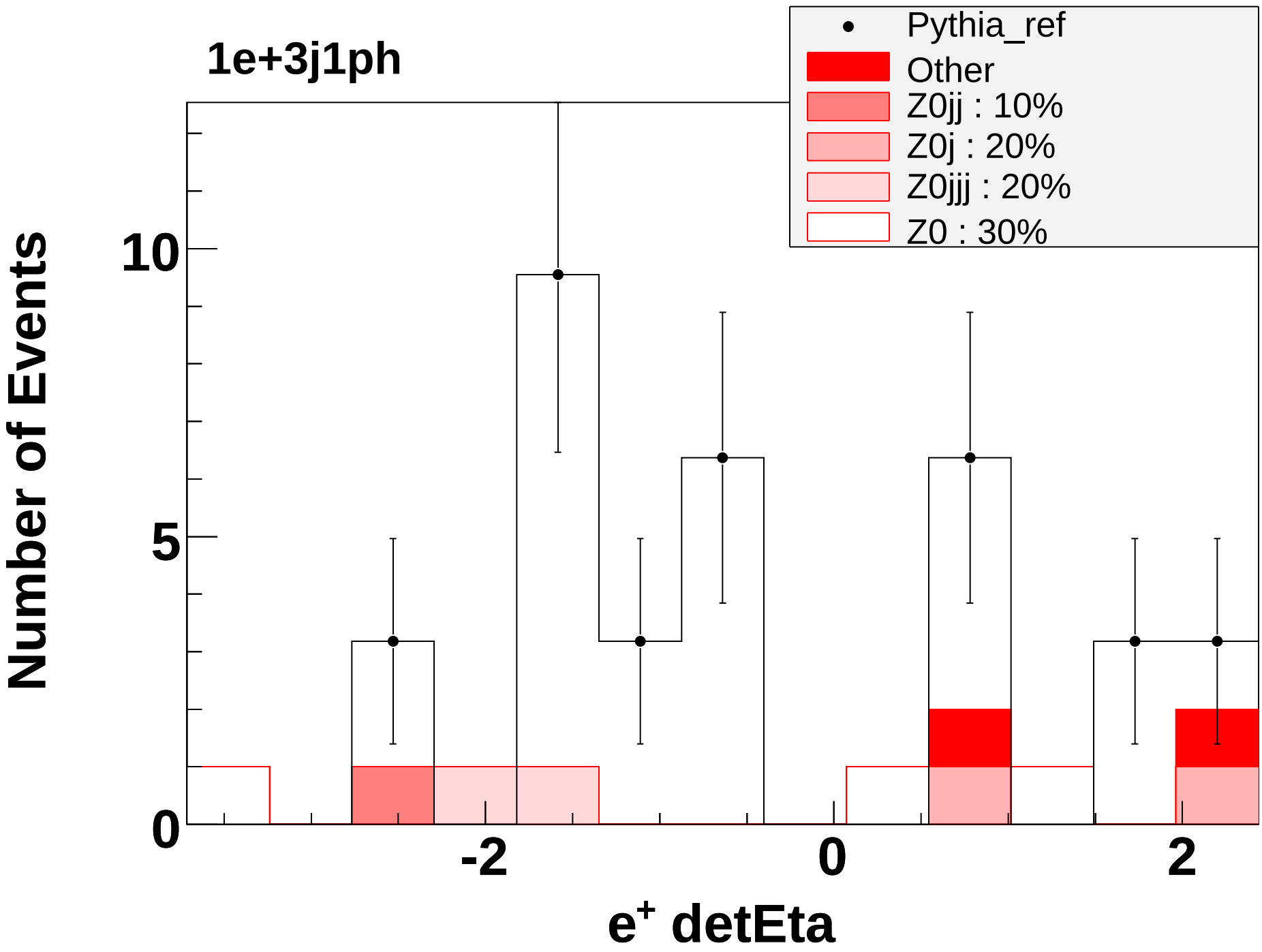

1e+3j1ph
Pythia_ref
Other
Z0jj : 10%
Z0j : 20%
Z0jjj : 20%
Z0 : 30%
Number of Events
0
5
10
5
10
15
20
clusteredObjectsRecoil p_T (GeV)

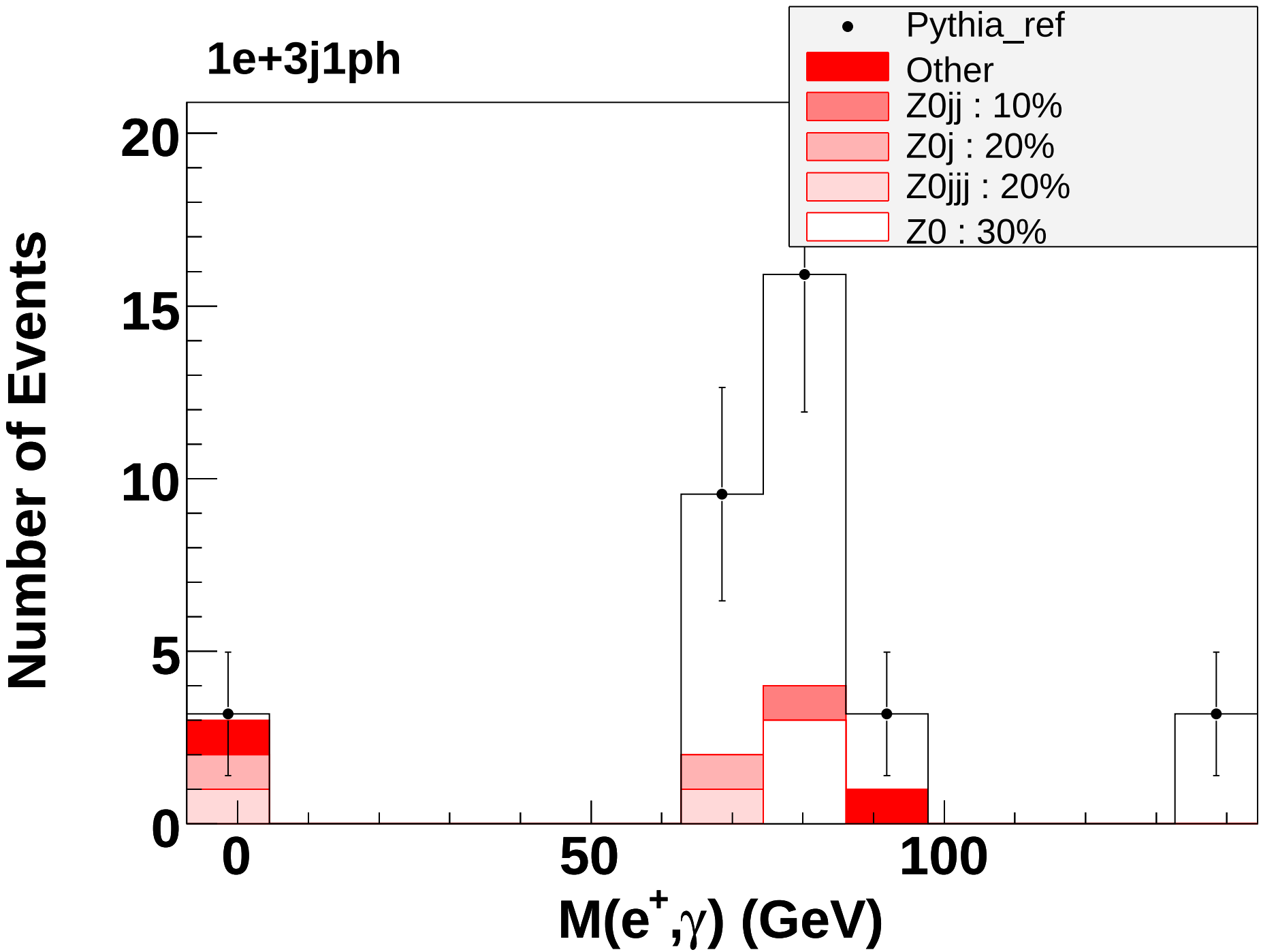

1e+3j1ph
Pythia_ref
Other
Z0jj : 10%
Z0j : 20%
Z0jjj : 20%
Z0 : 30%
Number of Events
10
5
0
-2
0
2
e+ eta

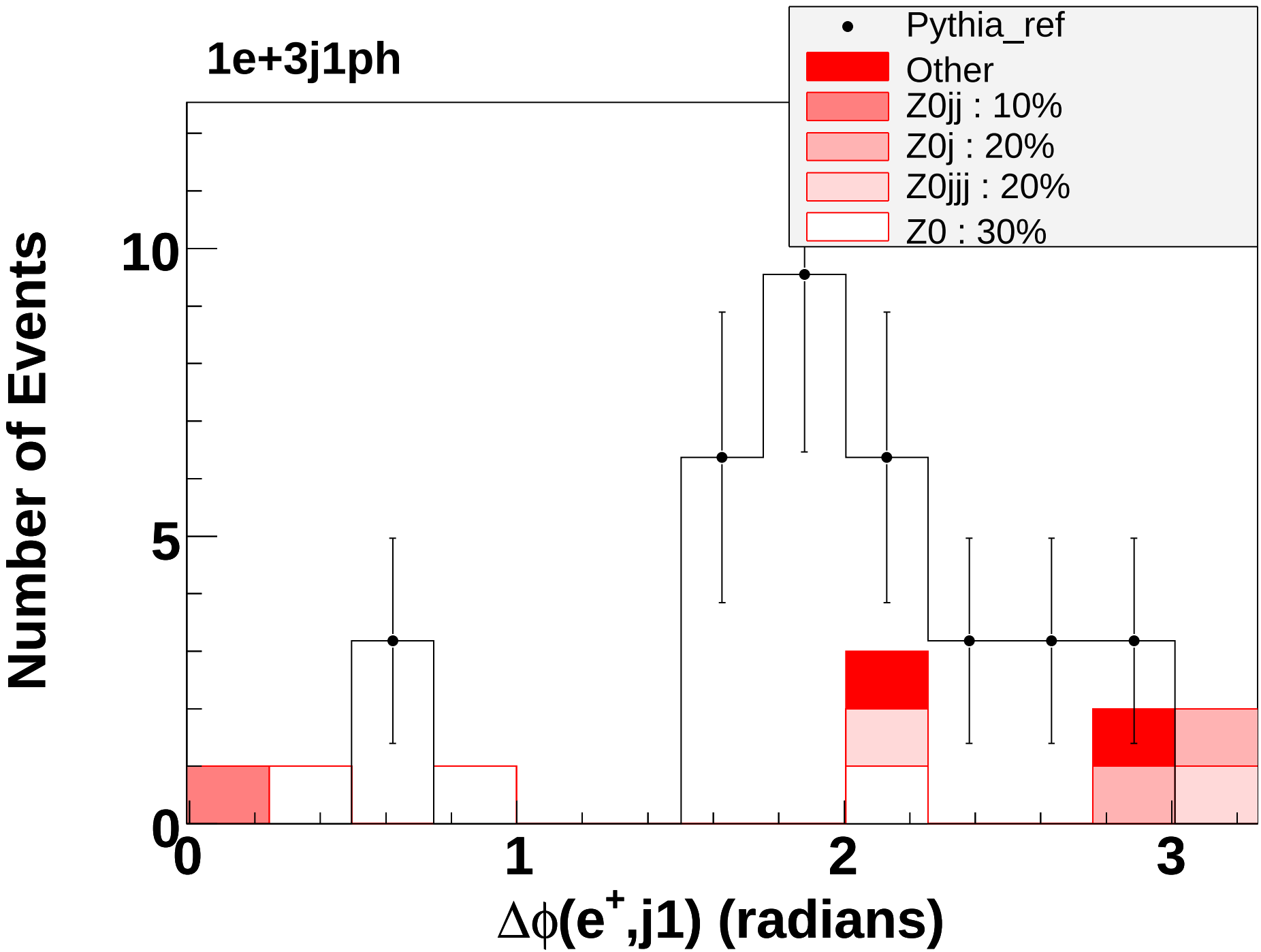

1e+3j1ph
Pythia_ref
Other
Z0jj : 10%
Z0j : 20%
Z0jjj : 20%
Z0 : 30%
Number of Events
0
5
10
200
400
600
800
M(γ,j1,j2) (GeV)

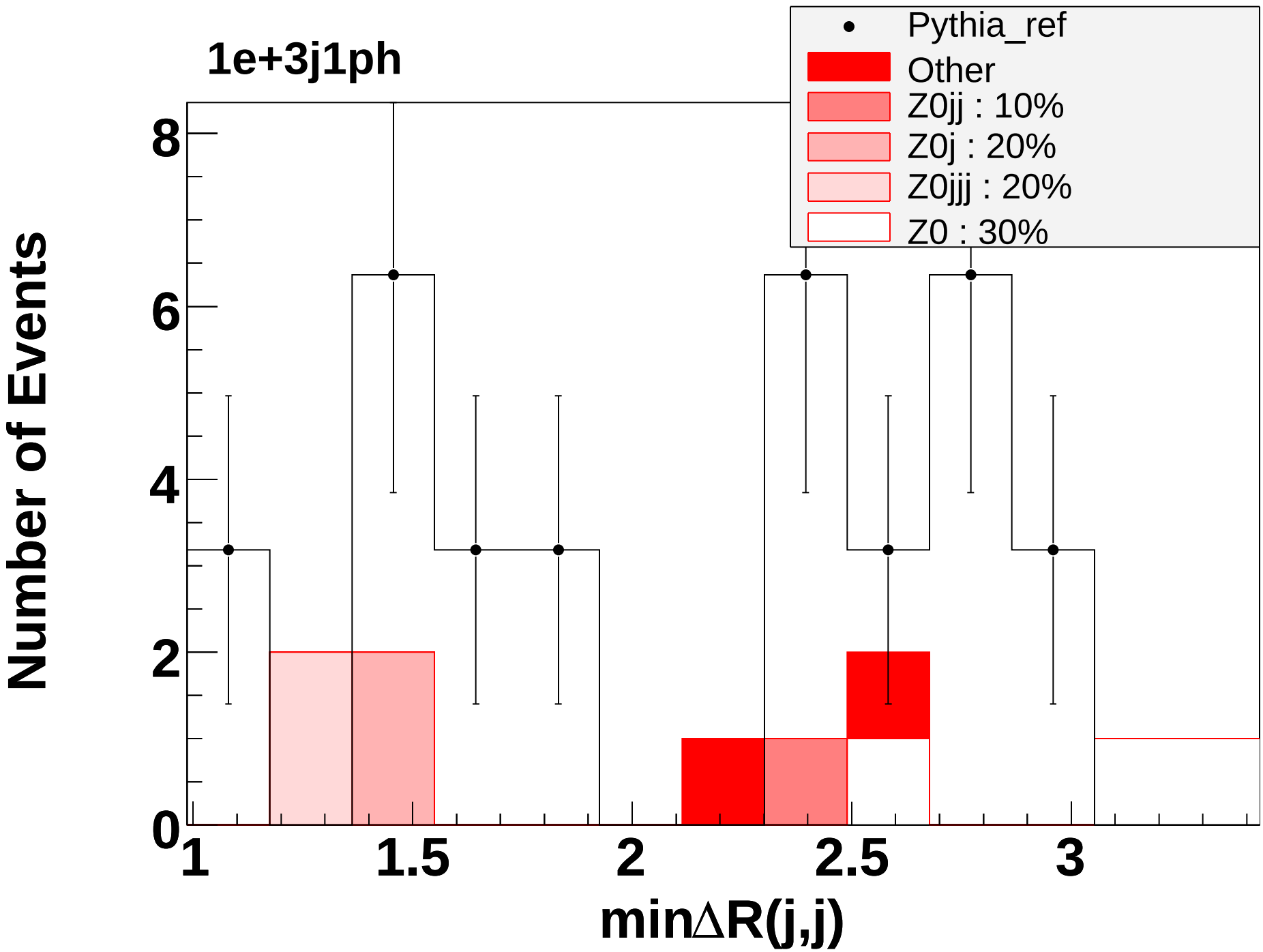

1e+3j1ph
Pythia_ref
Other
Z0jj : 10%
Z0j : 20%
Z0jjj : 20%
Z0 : 30%
Number of Events
0
5
10
0
1
2
3
Δφ(e+,γ) (radians)

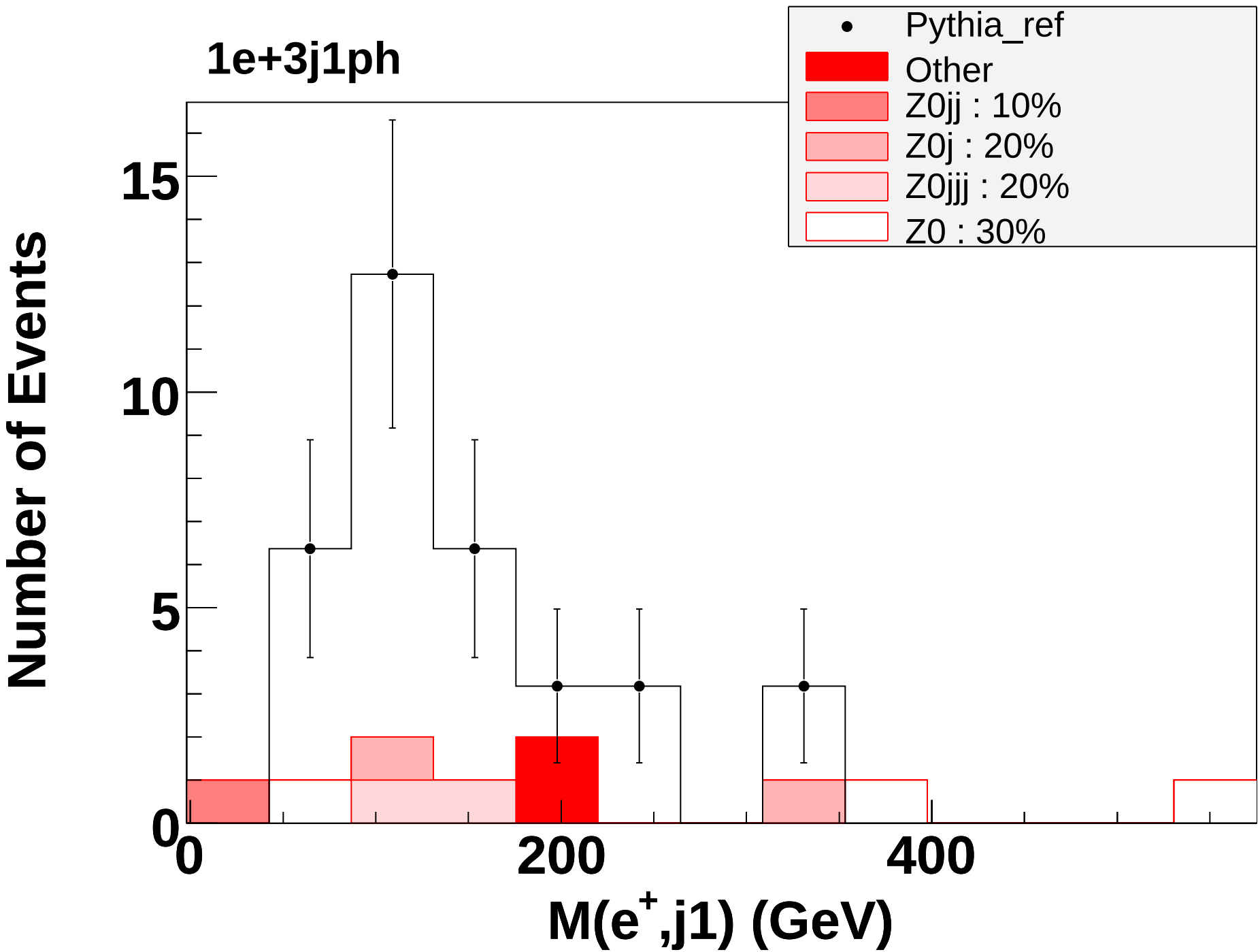

1e+3j1ph
Pythia_ref
Other
Z0jj : 10%
Z0j : 20%
Z0jjj : 20%
Z0 : 30%
Number of Events
0
5
10
1
2
3
atan2(ΔPhi(j2,j3),+-(j2 eta-j3 eta))

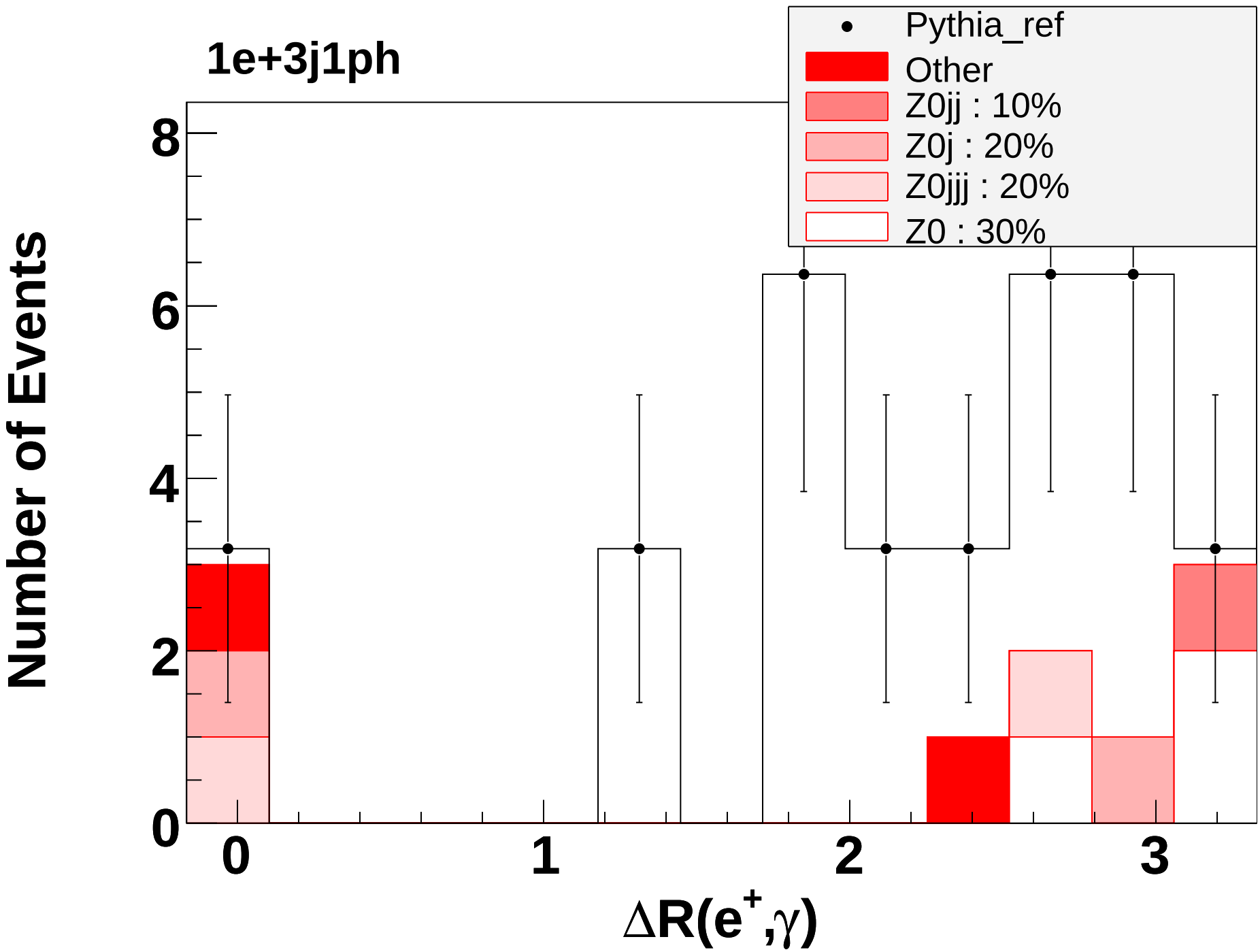

1e+3j1ph
Pythia_ref
Other
Z0jj : 10%
Z0j : 20%
Z0jjj : 20%
Z0 : 30%
Number of Events
10
5
0
-2
0
2
e+ detEta

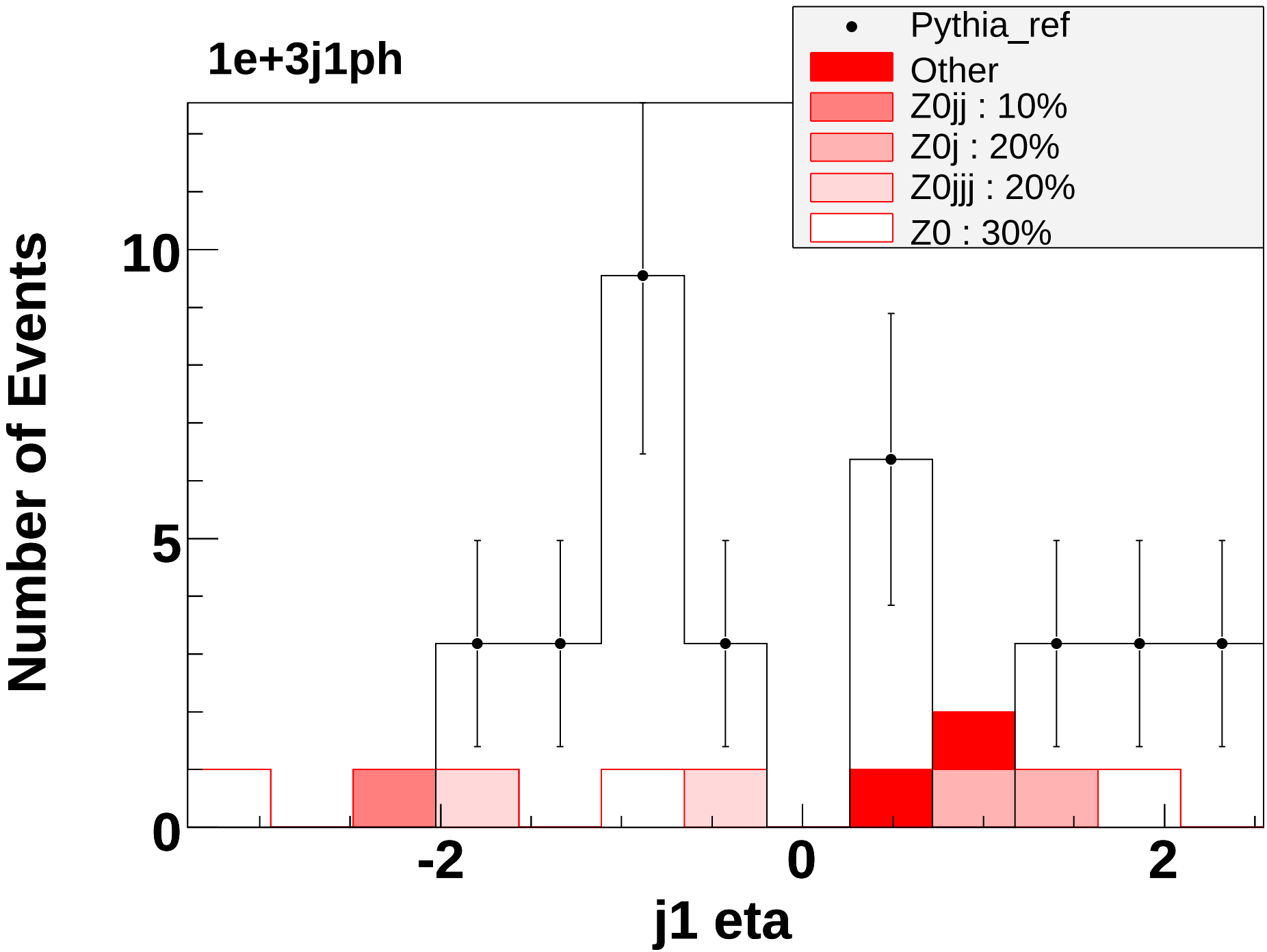

1e+3j1ph
Pythia_ref
Other
Z0jj : 10%
Z0j : 20%
Z0jjj : 20%
Z0 : 30%
Number of Events
0
5
10
15
20
0
50
100
M(e+,γ) (GeV)

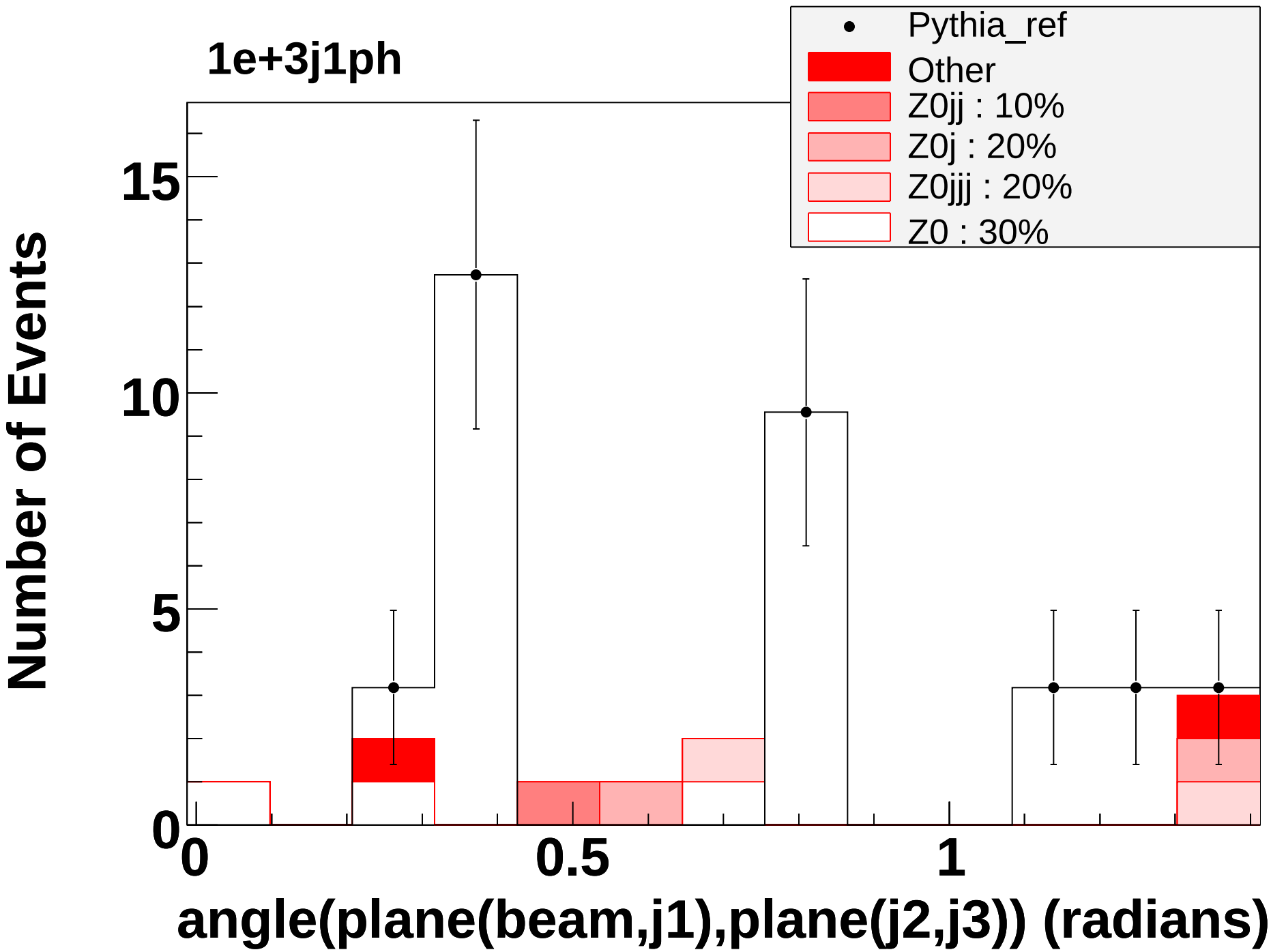

1e+3j1ph
Pythia_ref
Other
Z0jj : 10%
Z0j : 20%
Z0jjj : 20%
Z0 : 30%
Number of Events
0
5
10
0
1
2
3
Δϕ(e+,j1) (radians)

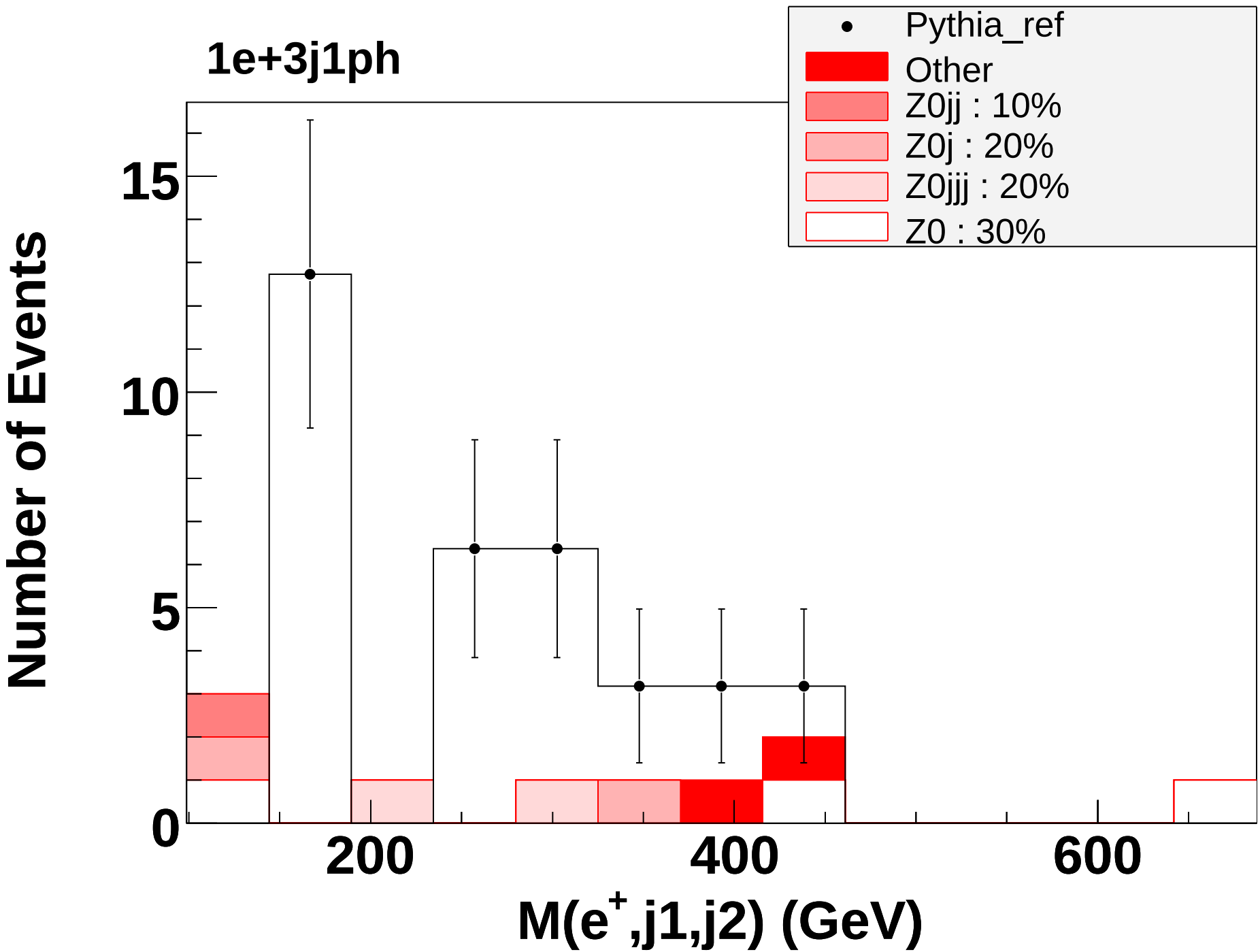

1e+3j1ph
Pythia_ref
Other
Z0jj : 10%
Z0j : 20%
Z0jjj : 20%
Z0 : 30%
Number of Events
0
2
4
6
8
1
1.5
2
2.5
3
minΔR(j,j)

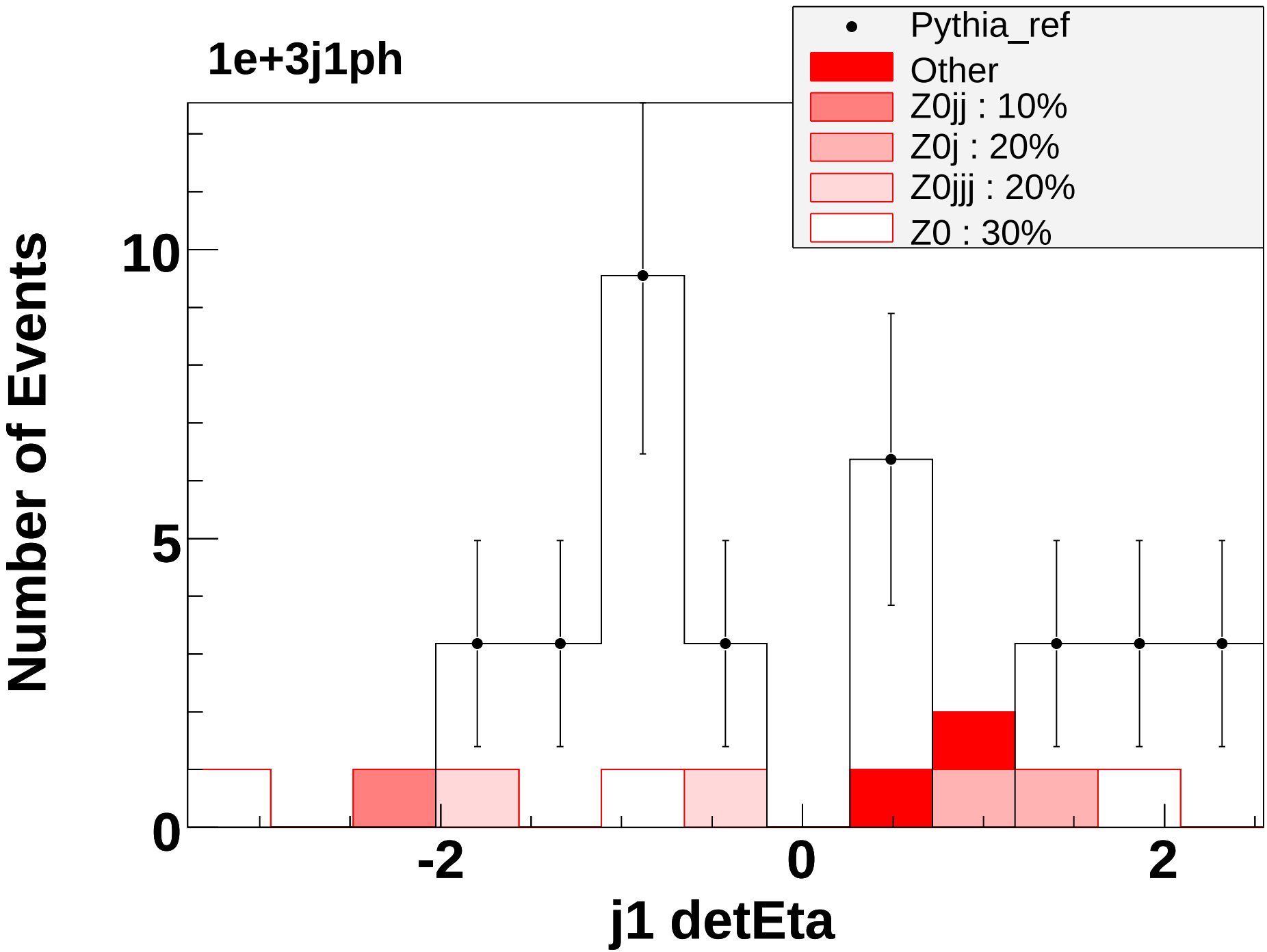

1e+3j1ph
Pythia_ref
Other
Z0jj : 10%
Z0j : 20%
Z0jjj : 20%
Z0 : 30%
Number of Events
0
5
10
15
0
200
400
M(e+,j1) (GeV)

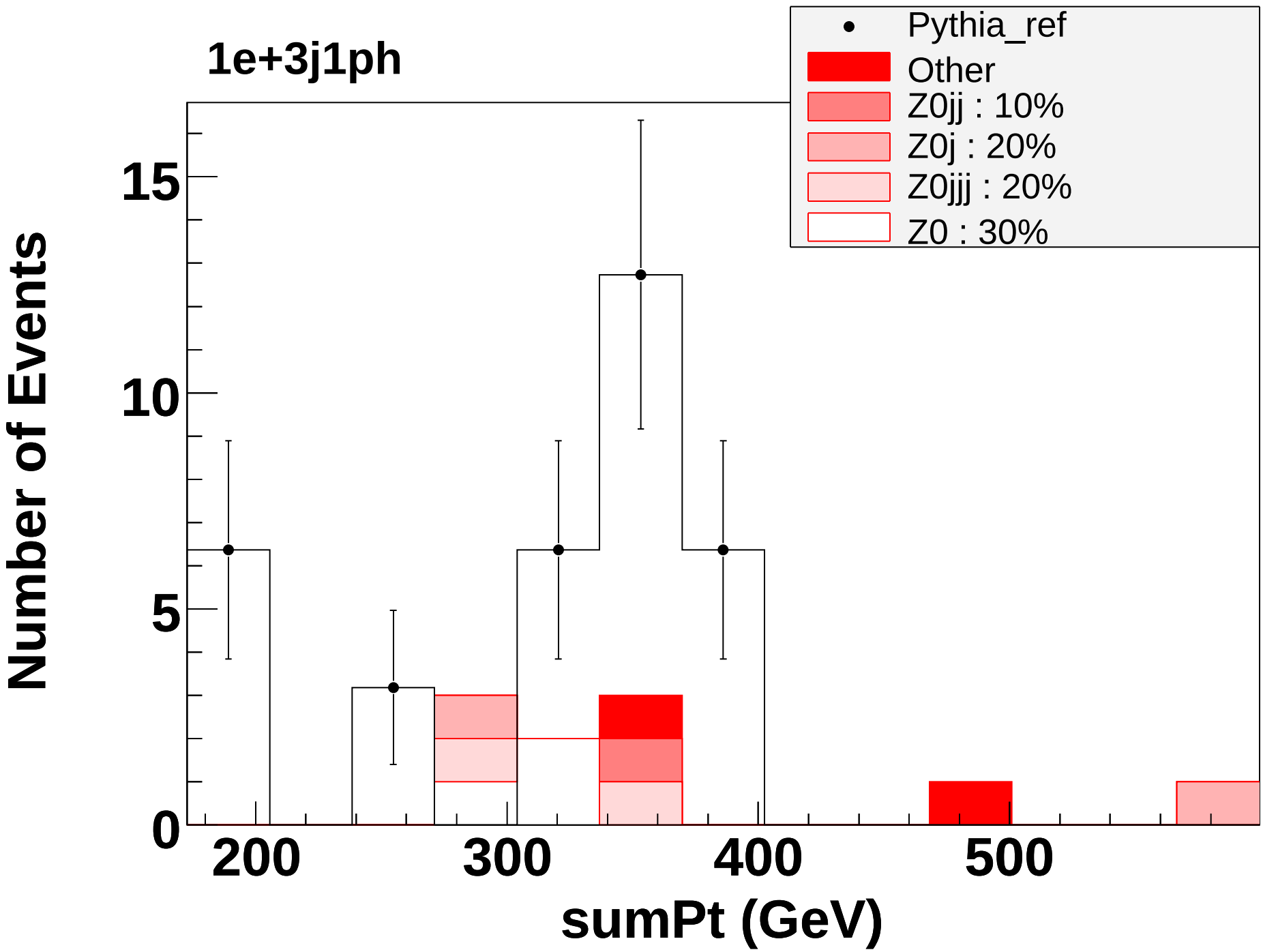

1e+3j1ph
Pythia_ref
Other
Z0jj : 10%
Z0j : 20%
Z0jjj : 20%
Z0 : 30%
Number of Events
0
2
4
6
8
0
1
2
3
ΔR(e+,γ)

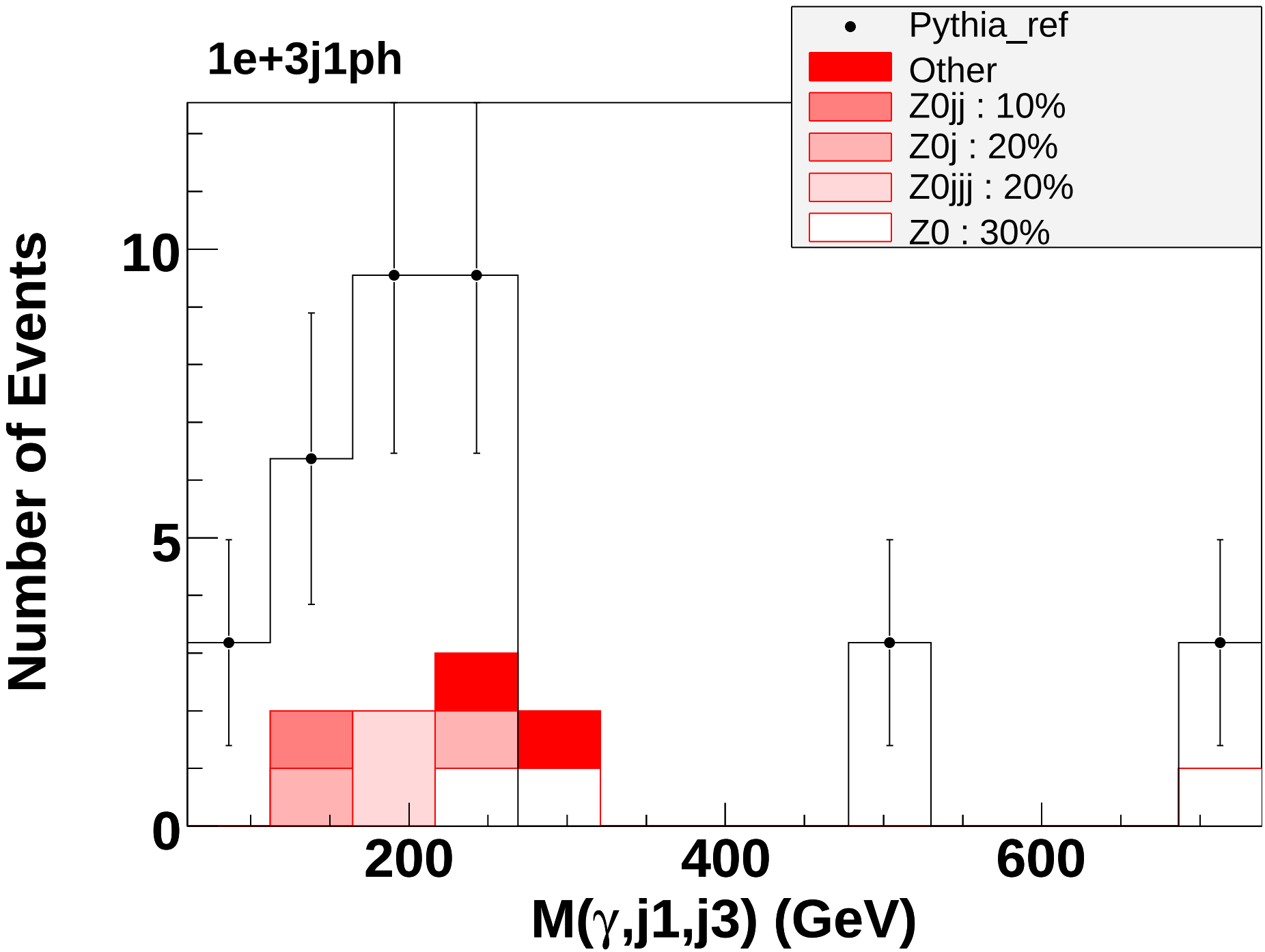

1e+3j1ph
Pythia_ref
Other
Z0jj : 10%
Z0j : 20%
Z0jjj : 20%
Z0 : 30%
Number of Events
0
5
10
-2
0
2
j1 eta

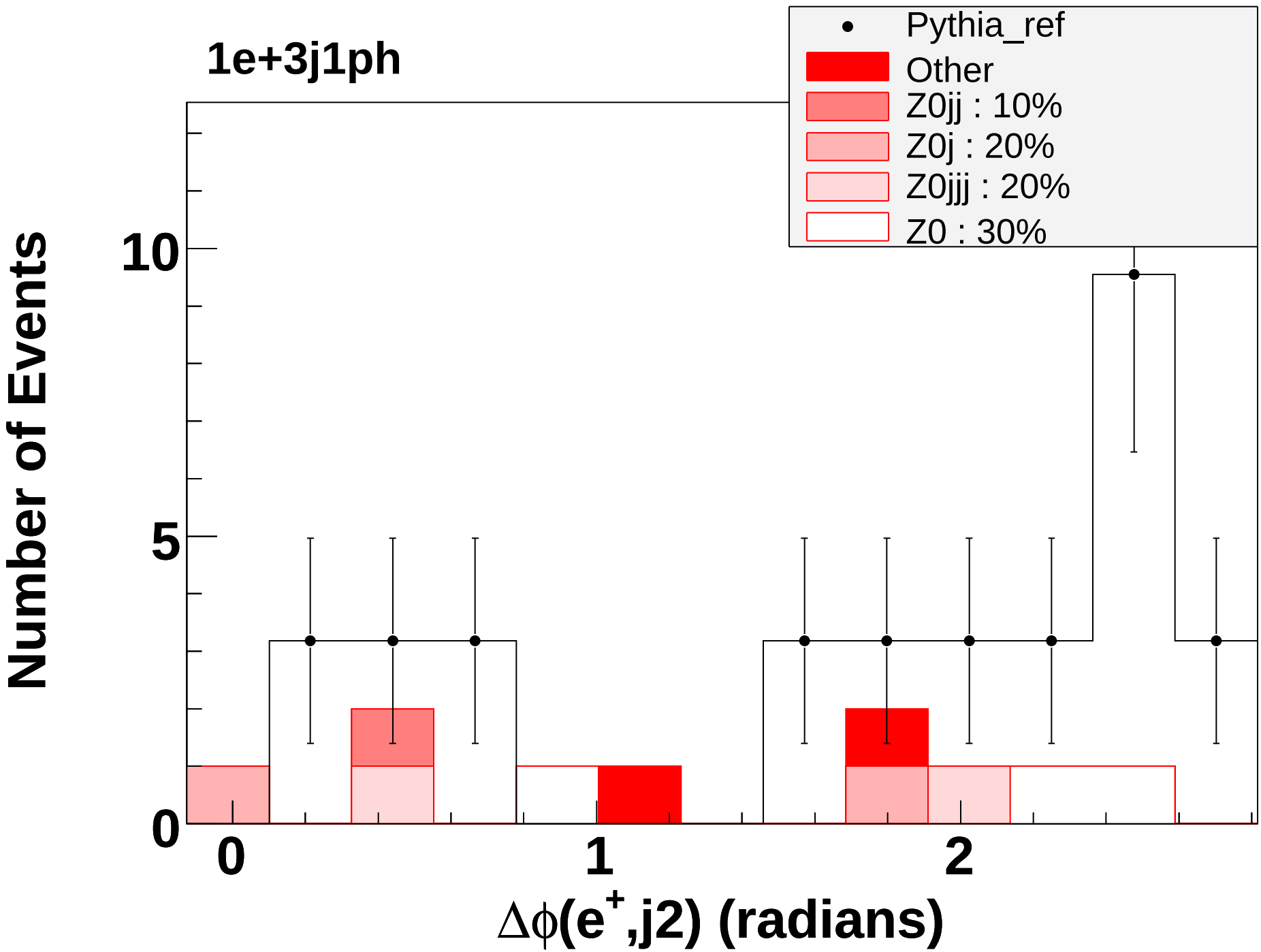

1e+3j1ph
Pythia_ref
Other
Z0jj : 10%
Z0j : 20%
Z0jjj : 20%
Z0 : 30%
Number of Events
0
5
10
15
0
0.5
1
angle(plane(beam,j1),plane(j2,j3)) (radians)

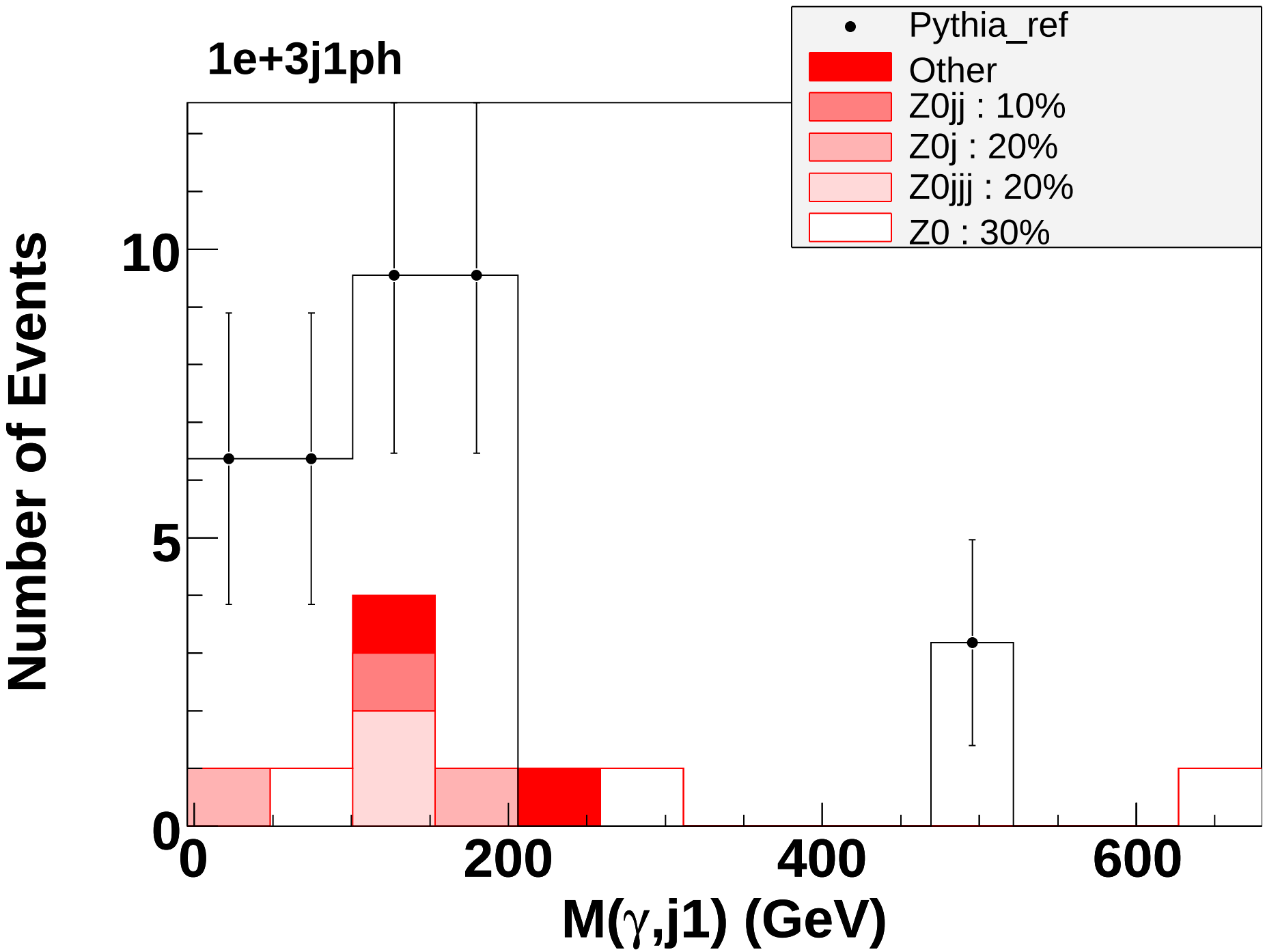

1e+3j1ph
Pythia_ref
Other
Z0jj : 10%
Z0j : 20%
Z0jjj : 20%
Z0 : 30%
Number of Events
0
5
10
15
200
400
600
M(e+,j1,j2) (GeV)

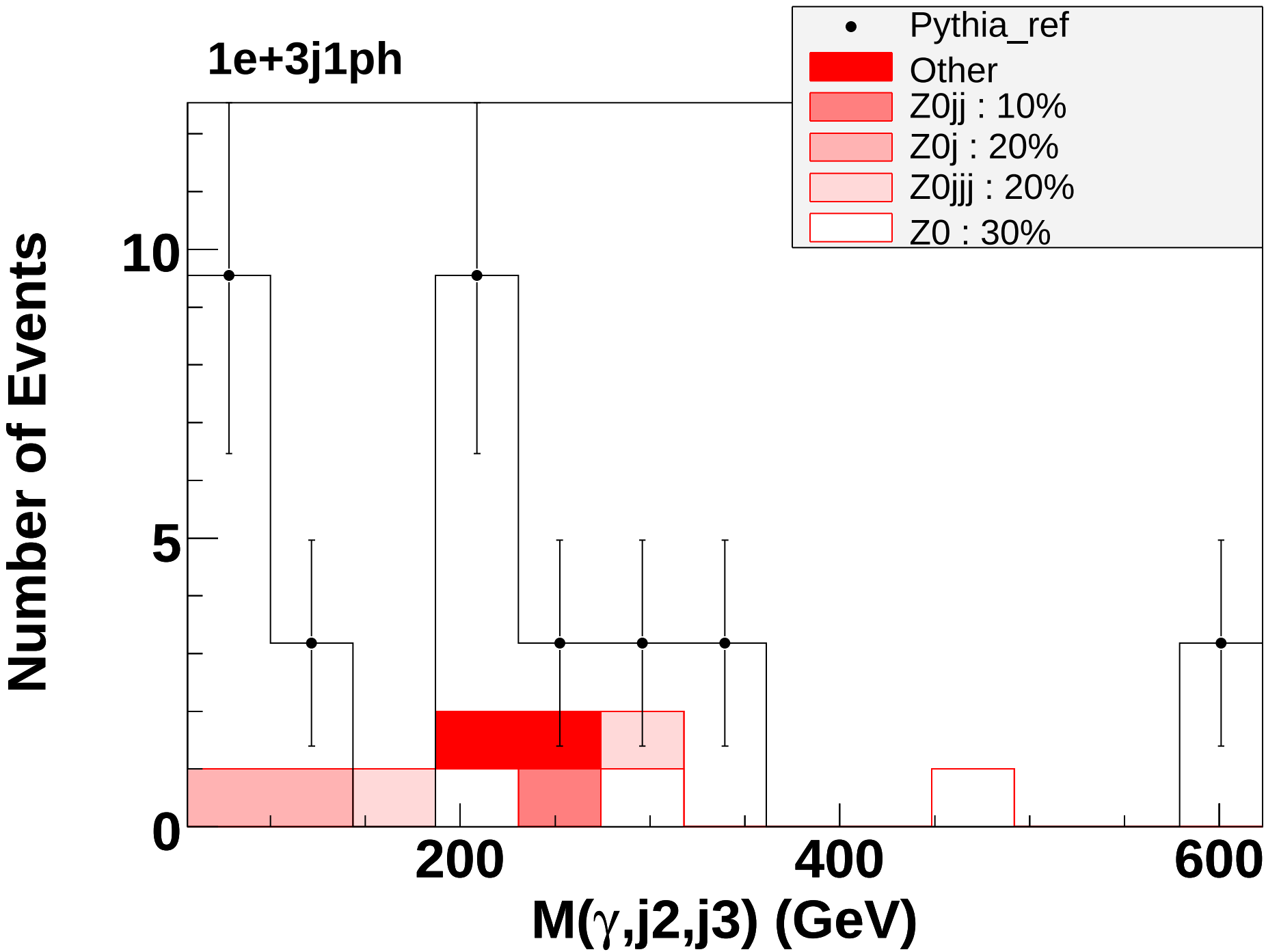

1e+3j1ph
Pythia_ref
Other
Z0jj : 10%
Z0j : 20%
Z0jjj : 20%
Z0 : 30%
Number of Events
0
5
10
-2
0
2
j1 detEta

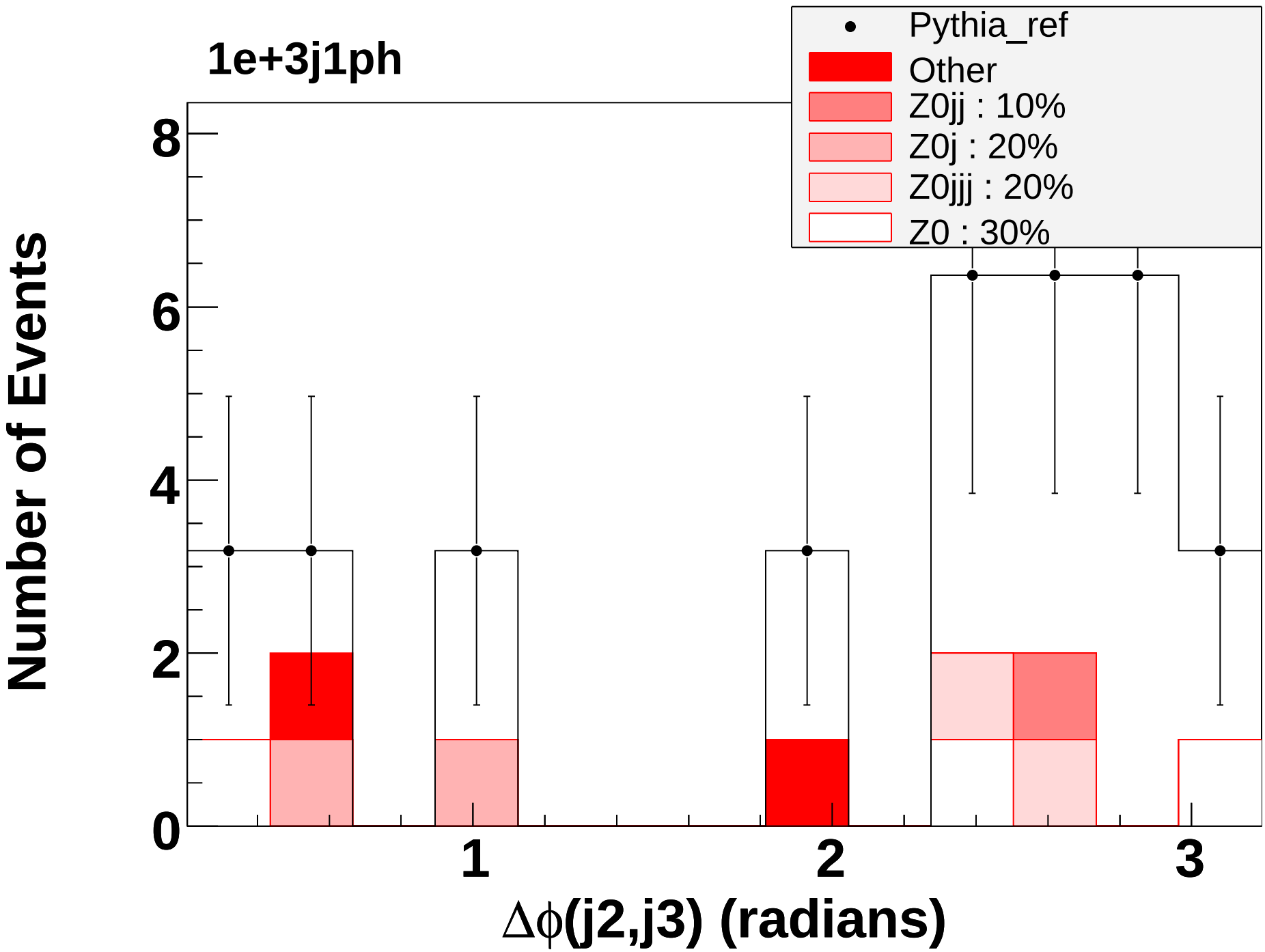

1e+3j1ph
Pythia_ref
Other
Z0jj : 10%
Z0j : 20%
Z0jjj : 20%
Z0 : 30%
Number of Events
0
5
10
15
200
300
400
500
sumPt (GeV)

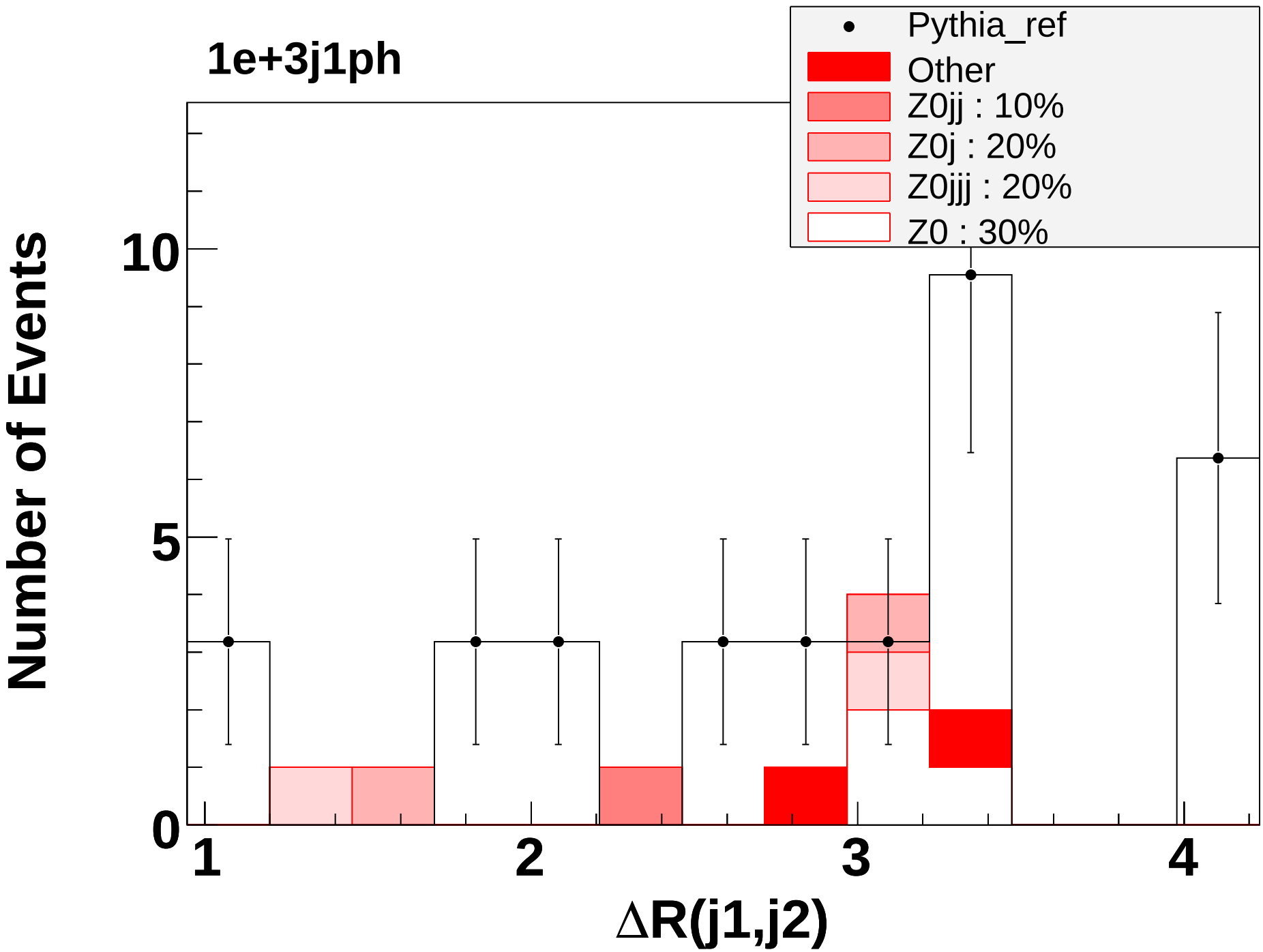

1e+3j1ph
Pythia_ref
Other
Z0jj : 10%
Z0j : 20%
Z0jjj : 20%
Z0 : 30%
Number of Events
0
5
10
200
400
600
M(γ,j1,j3) (GeV)

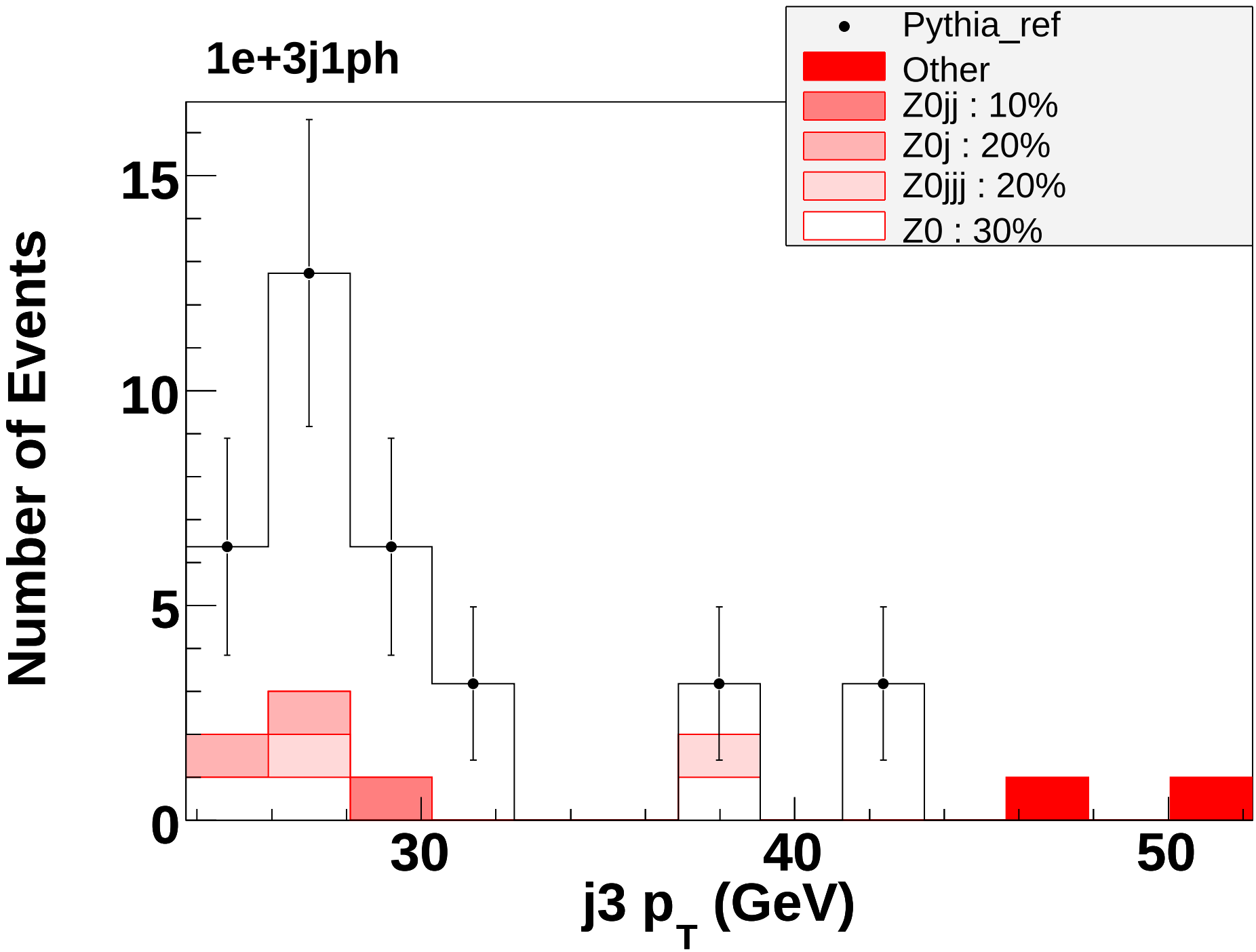

1e+3j1ph
Pythia_ref
Other
Z0jj : 10%
Z0j : 20%
Z0jjj : 20%
Z0 : 30%
Number of Events
0
5
10
0
1
2
Δϕ(e+,j2) (radians)

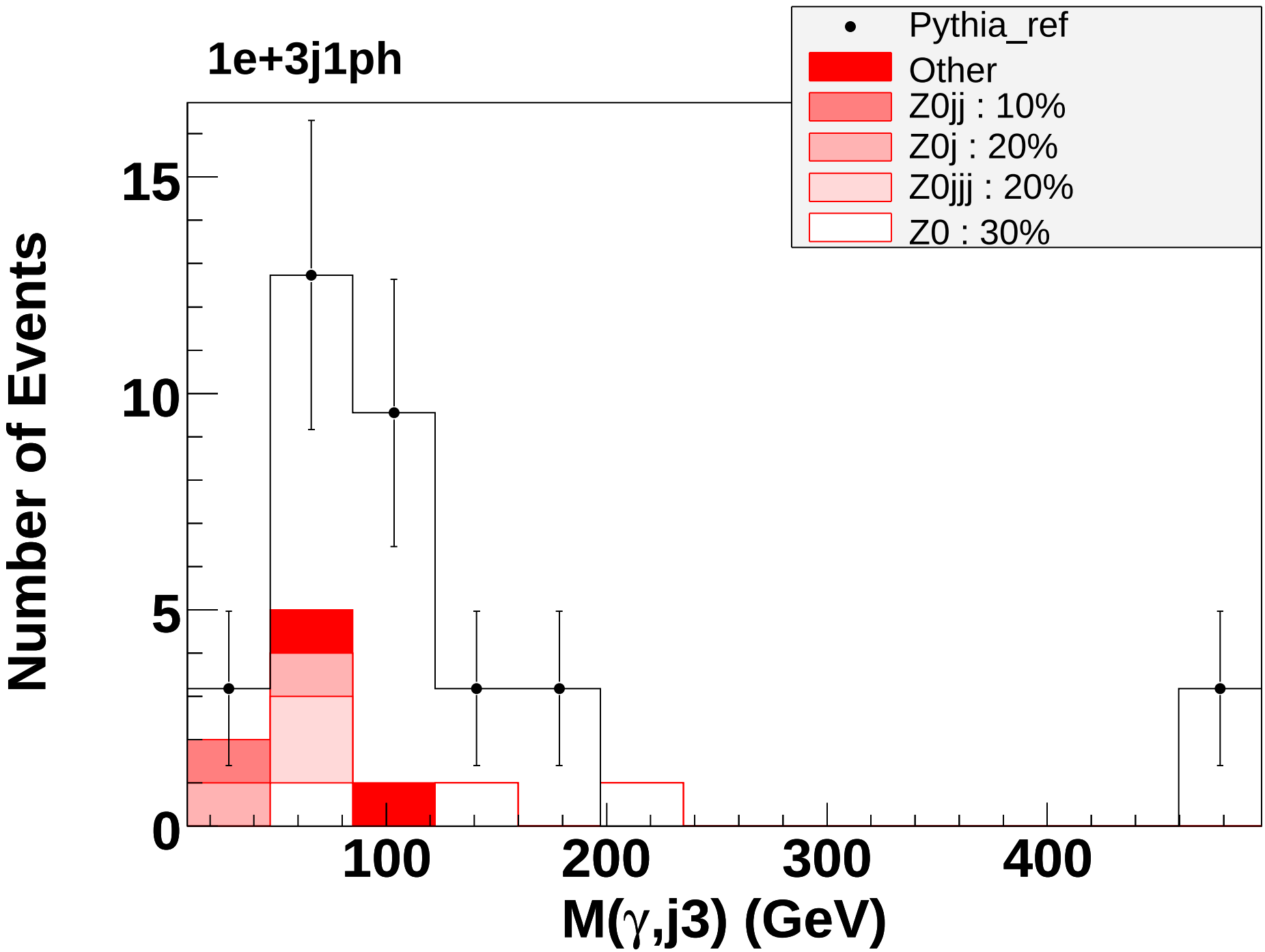

1e+3j1ph
Pythia_ref
Other
Z0jj : 10%
Z0j : 20%
Z0jjj : 20%
Z0 : 30%
Number of Events
0
5
10
0
200
400
600
M(γ,j1) (GeV)

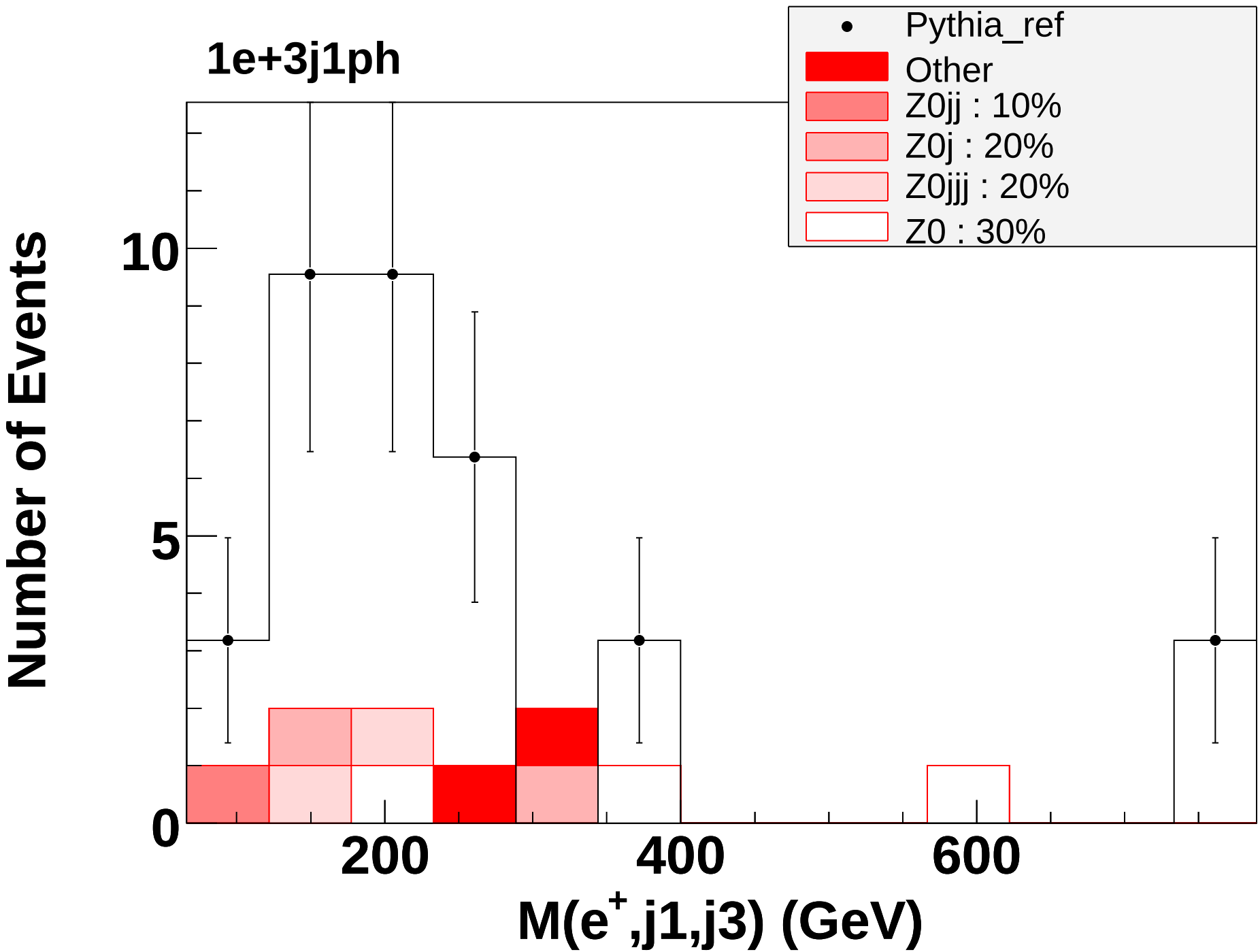

1e+3j1ph
Pythia_ref
Other
Z0jj : 10%
Z0j : 20%
Z0jjj : 20%
Z0 : 30%
Number of Events
0
5
10
200
400
600
M(γ,j2,j3) (GeV)

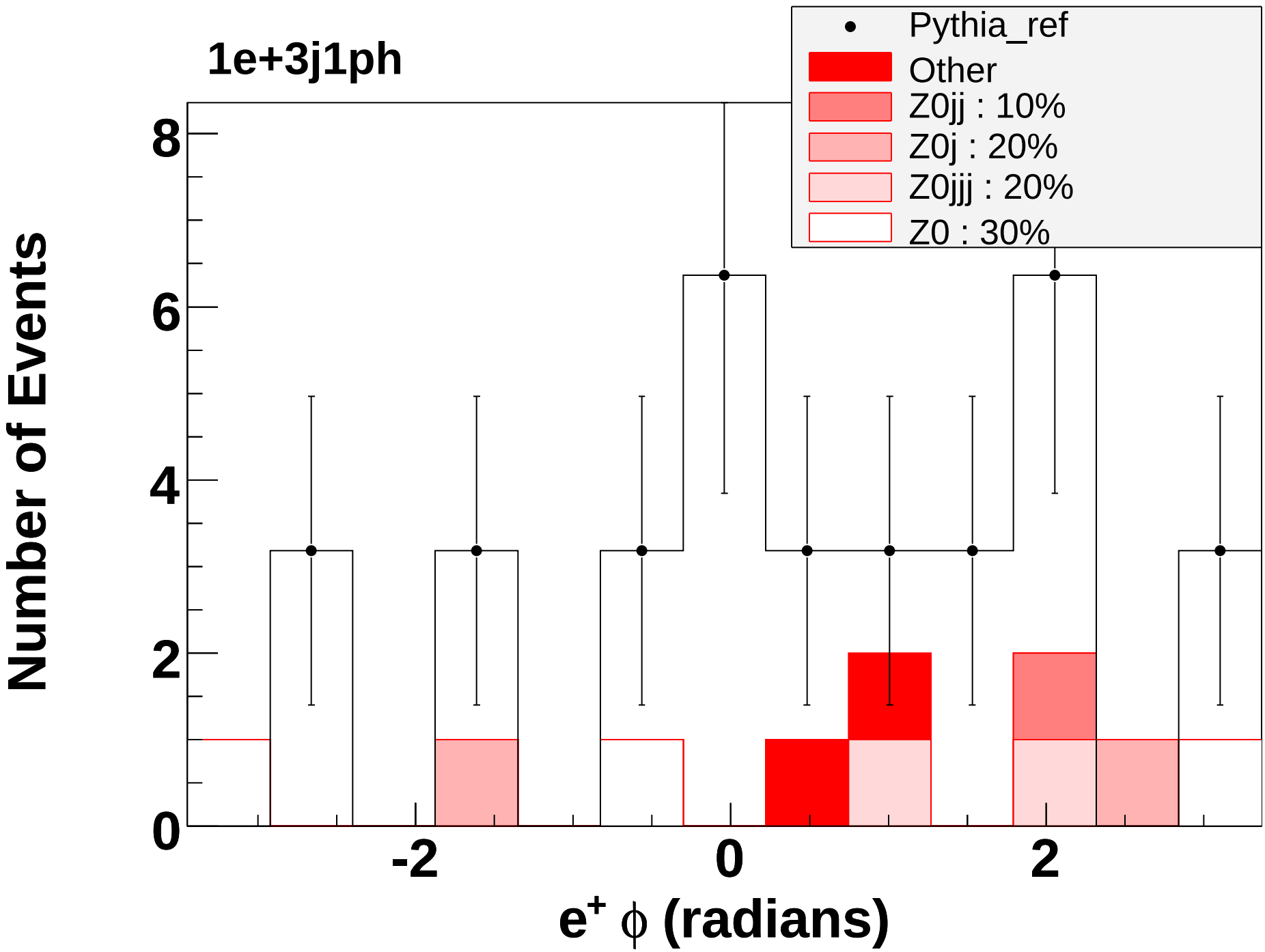

1e+3j1ph
Pythia_ref
Other
Z0jj : 10%
Z0j : 20%
Z0jjj : 20%
Z0 : 30%
Number of Events
0
2
4
6
8
1
2
3
Δϕ(j2,j3) (radians)

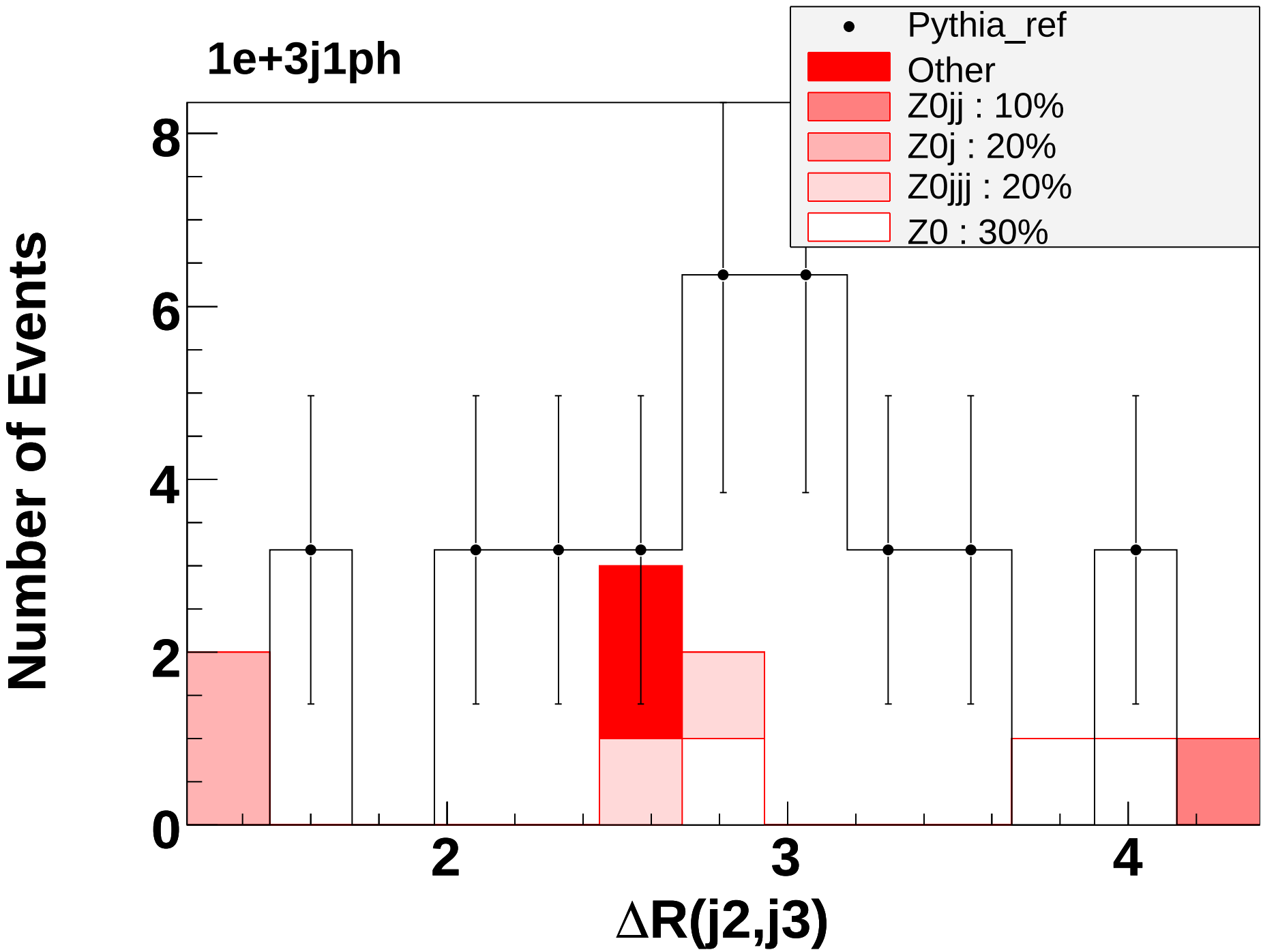

1e+3j1ph
Pythia_ref
Other
Z0jj : 10%
Z0j : 20%
Z0jjj : 20%
Z0 : 30%
Number of Events
0
5
10
1
2
3
4
ΔR(j1,j2)

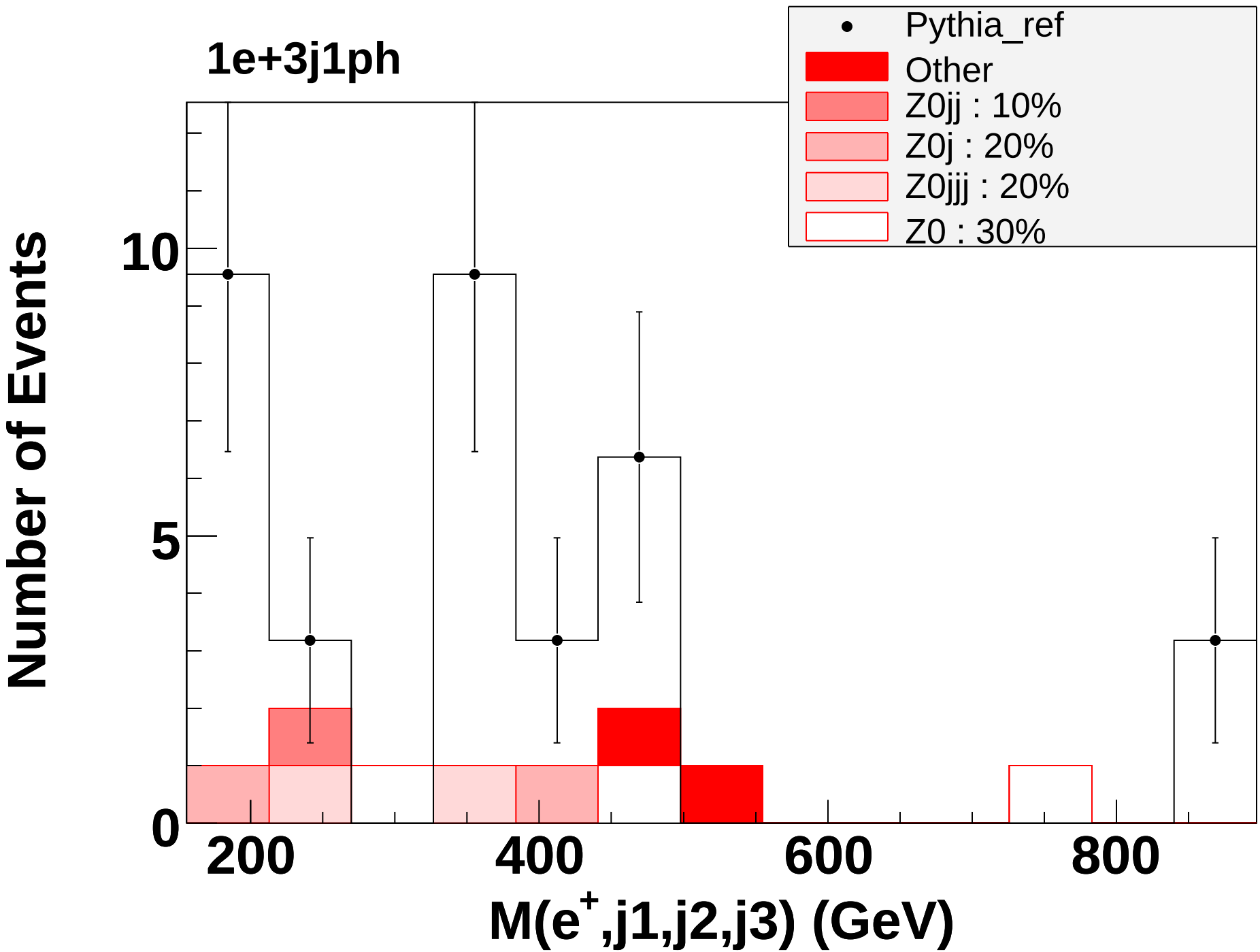

1e+3j1ph
Pythia_ref
Other
Z0jj : 10%
Z0j : 20%
Z0jjj : 20%
Z0 : 30%
Number of Events
0
5
10
15
30
40
50
j3 p_T (GeV)

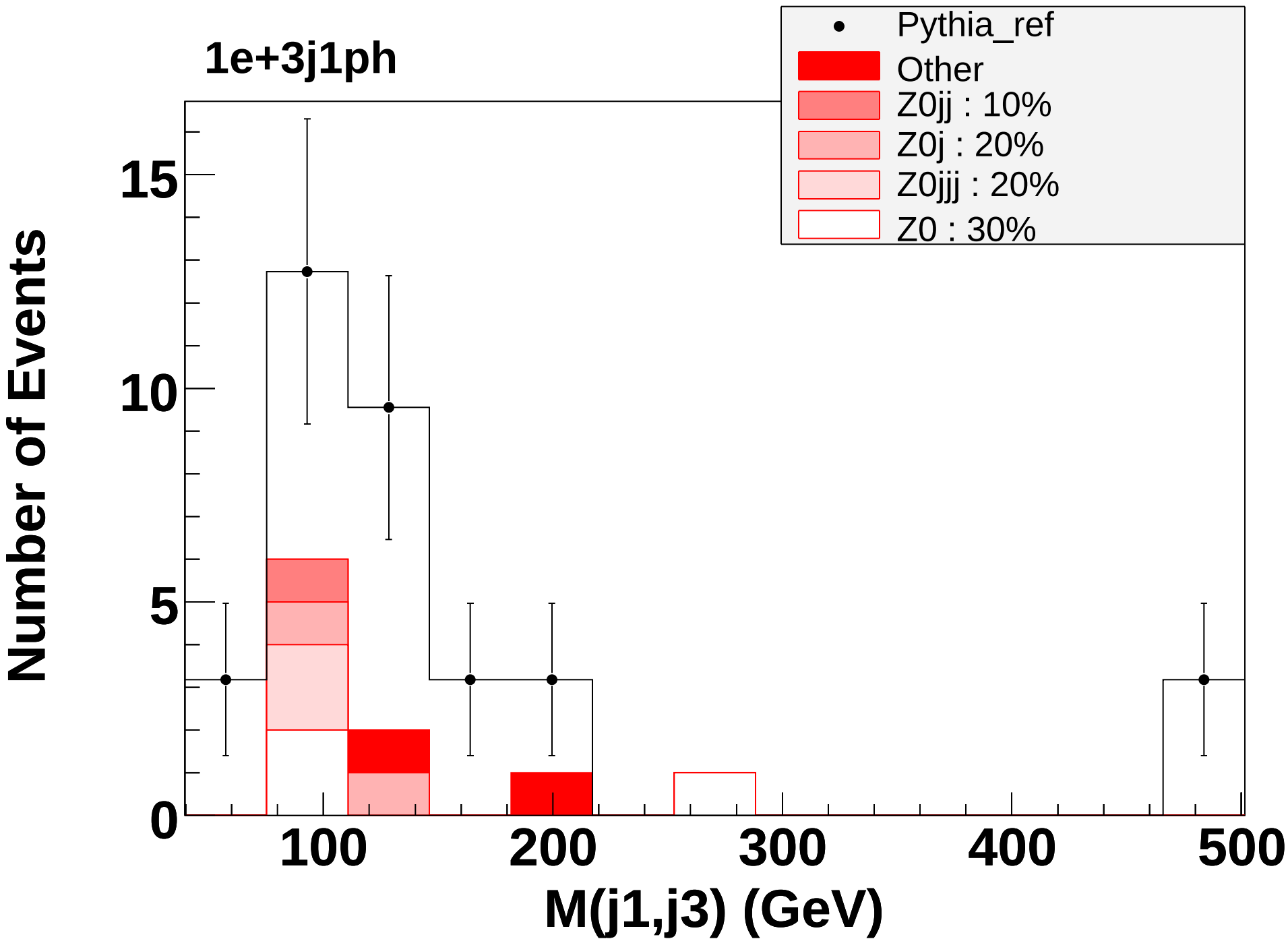

1e+3j1ph
Pythia_ref
Other
Z0jj : 10%
Z0j : 20%
Z0jjj : 20%
Z0 : 30%
Number of Events
0
5
10
15
100
200
300
400
M(γ,j3) (GeV)

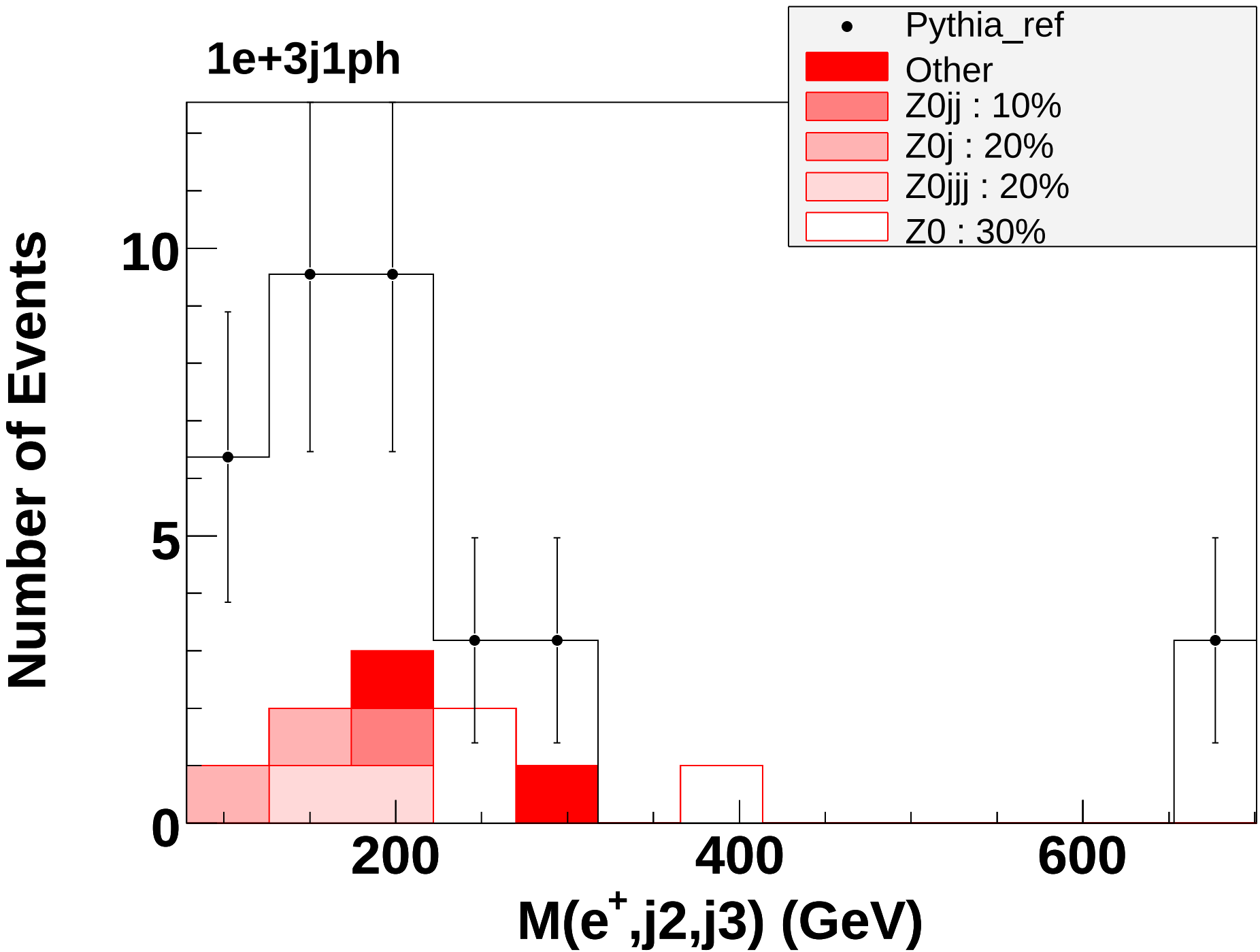

1e+3j1ph
Pythia_ref
Other
Z0jj : 10%
Z0j : 20%
Z0jjj : 20%
Z0 : 30%
Number of Events
0
5
10
200
400
600
M(e+,j1,j3) (GeV)

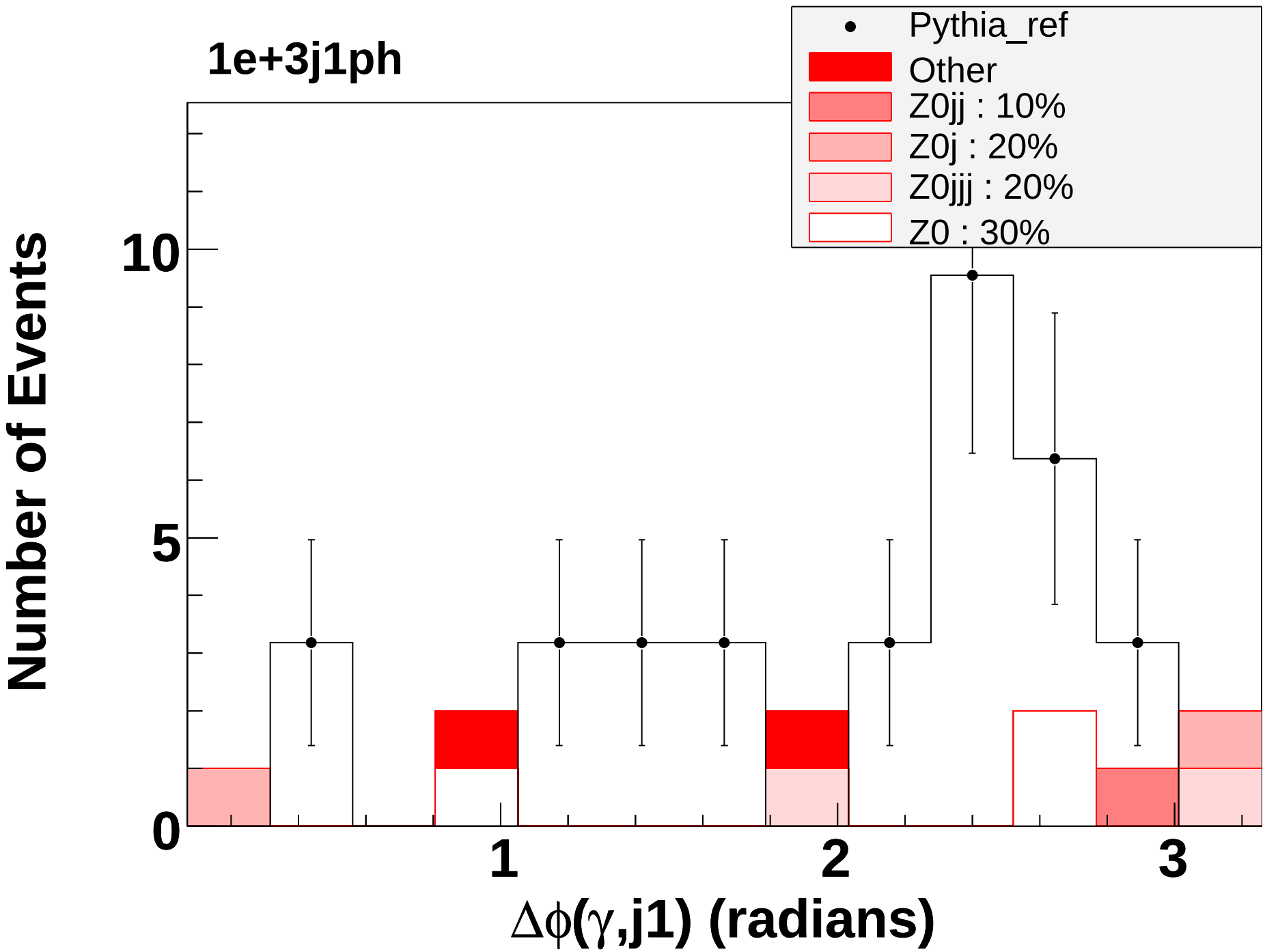

1e+3j1ph
Pythia_ref
Other
Z0jj : 10%
Z0j : 20%
Z0jjj : 20%
Z0 : 30%
Number of Events
0
2
4
6
8
-2
0
2
e+ ϕ (radians)

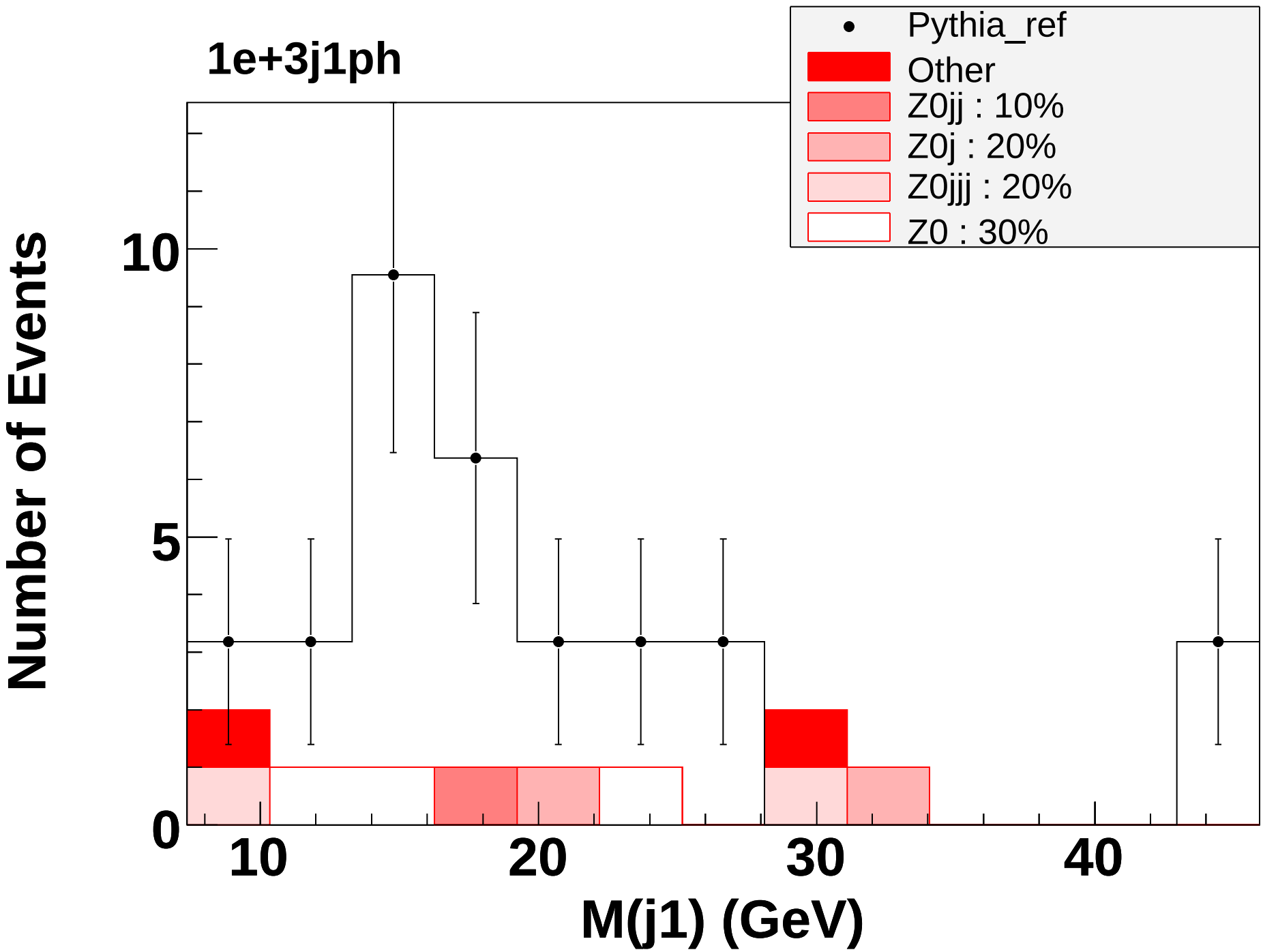

1e+3j1ph
Pythia_ref
Other
Z0jj : 10%
Z0j : 20%
Z0jjj : 20%
Z0 : 30%
Number of Events
0
2
4
6
8
2
3
4
ΔR(j2,j3)

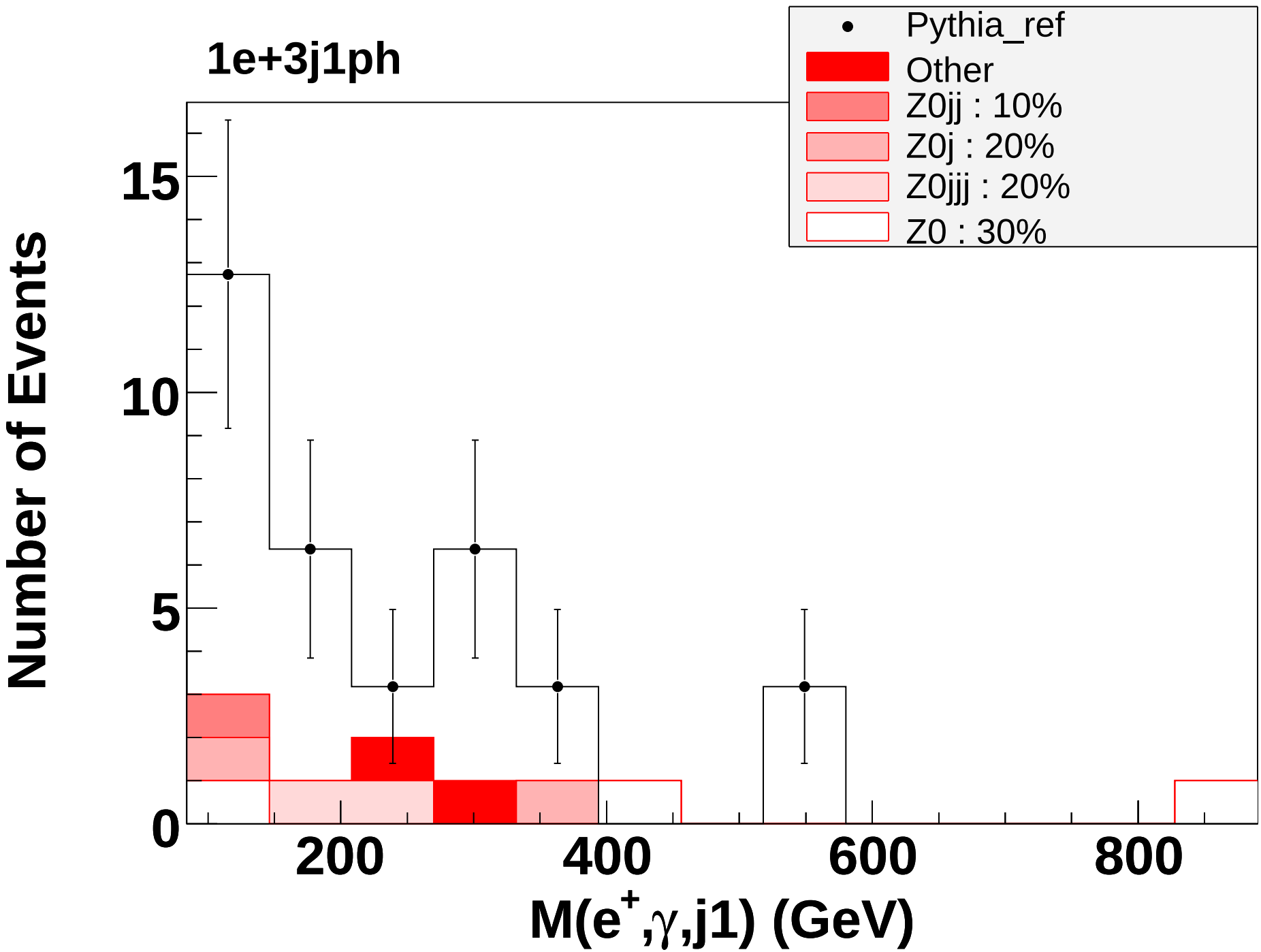

1e+3j1ph
Pythia_ref
Other
Z0jj : 10%
Z0j : 20%
Z0jjj : 20%
Z0 : 30%
Number of Events
0
5
10
200
400
600
800
M(e+,j1,j2,j3) (GeV)

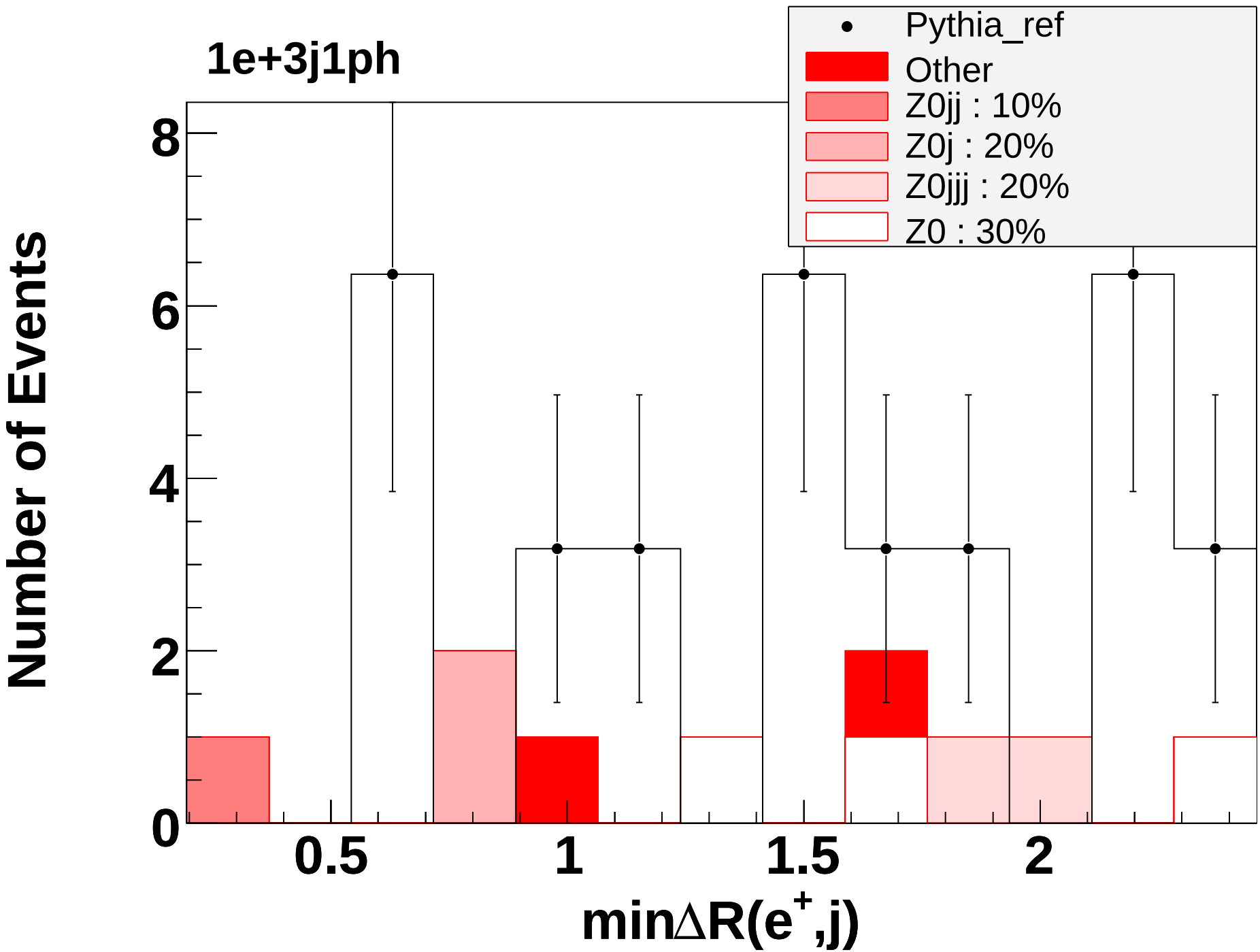

1e+3j1ph
Pythia_ref
Other
Z0jj : 10%
Z0j : 20%
Z0jjj : 20%
Z0 : 30%
Number of Events
0
5
10
15
100
200
300
400
500
M(j1,j3) (GeV)

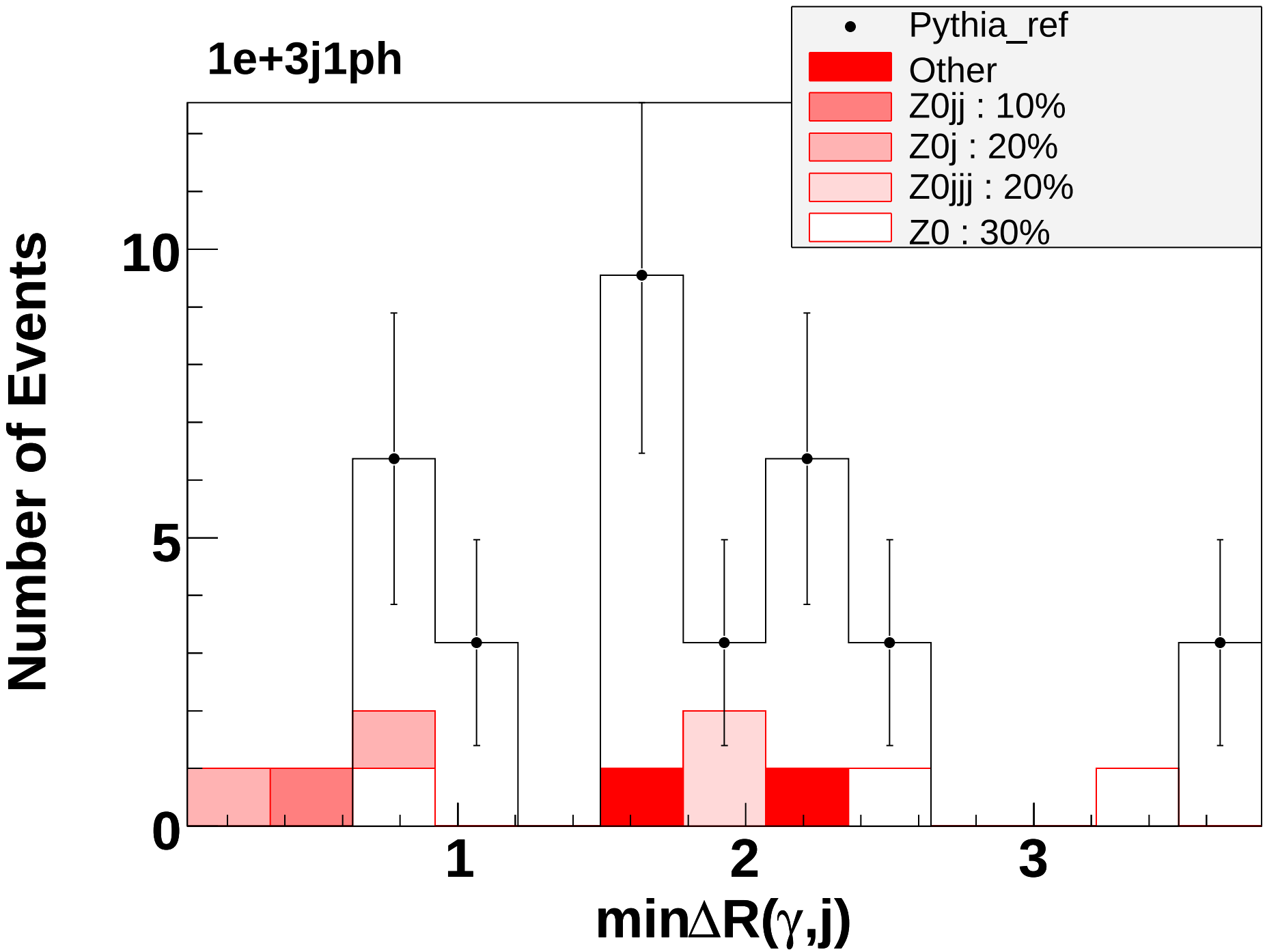

1e+3j1ph
Pythia_ref
Other
Z0jj : 10%
Z0j : 20%
Z0jjj : 20%
Z0 : 30%
Number of Events
0
5
10
200
400
600
M(e+,j2,j3) (GeV)

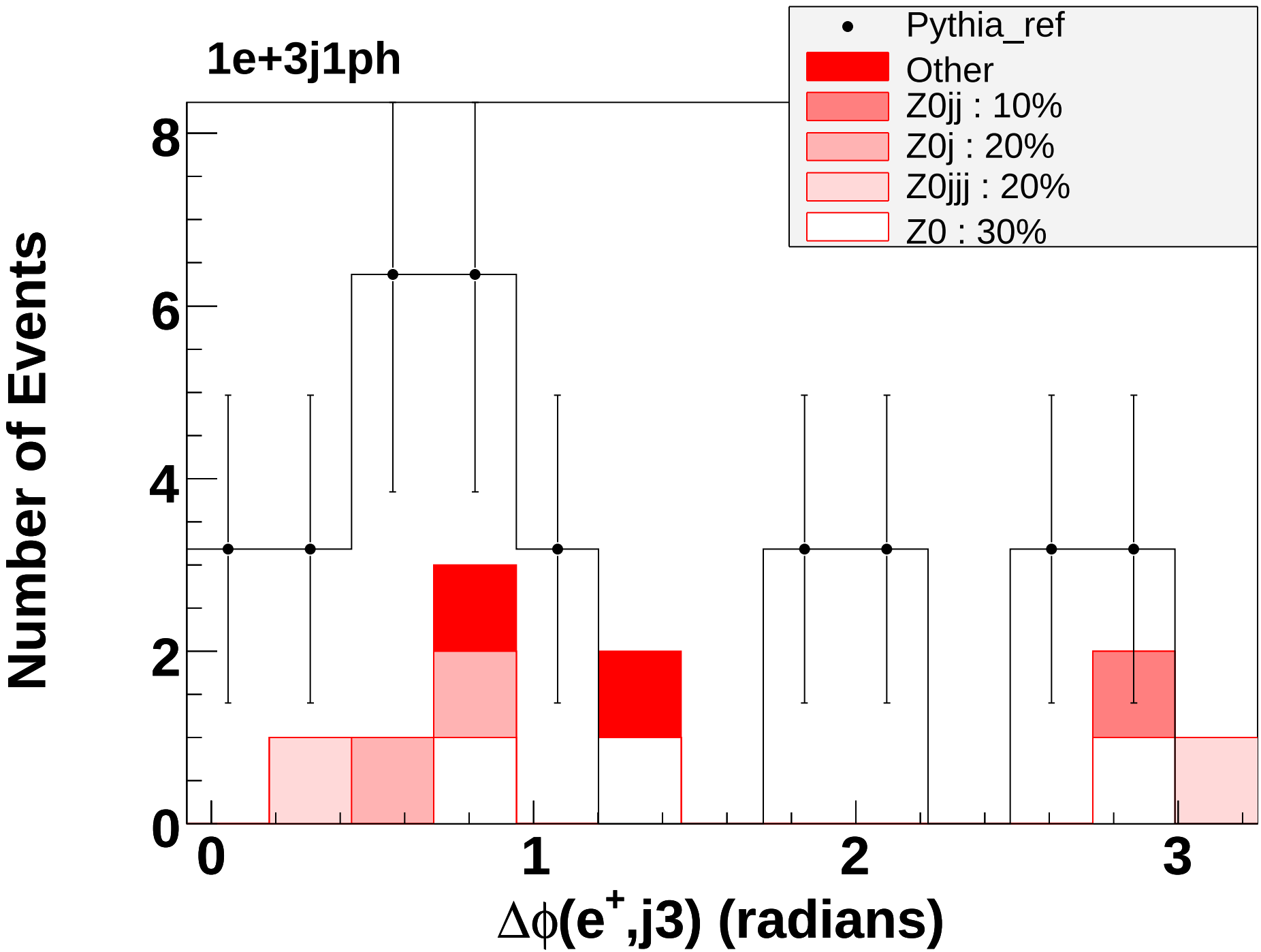

1e+3j1ph
Pythia_ref
Other
Z0jj : 10%
Z0j : 20%
Z0jjj : 20%
Z0 : 30%
Number of Events
0
5
10
1
2
3
Δϕ(γ,j1) (radians)

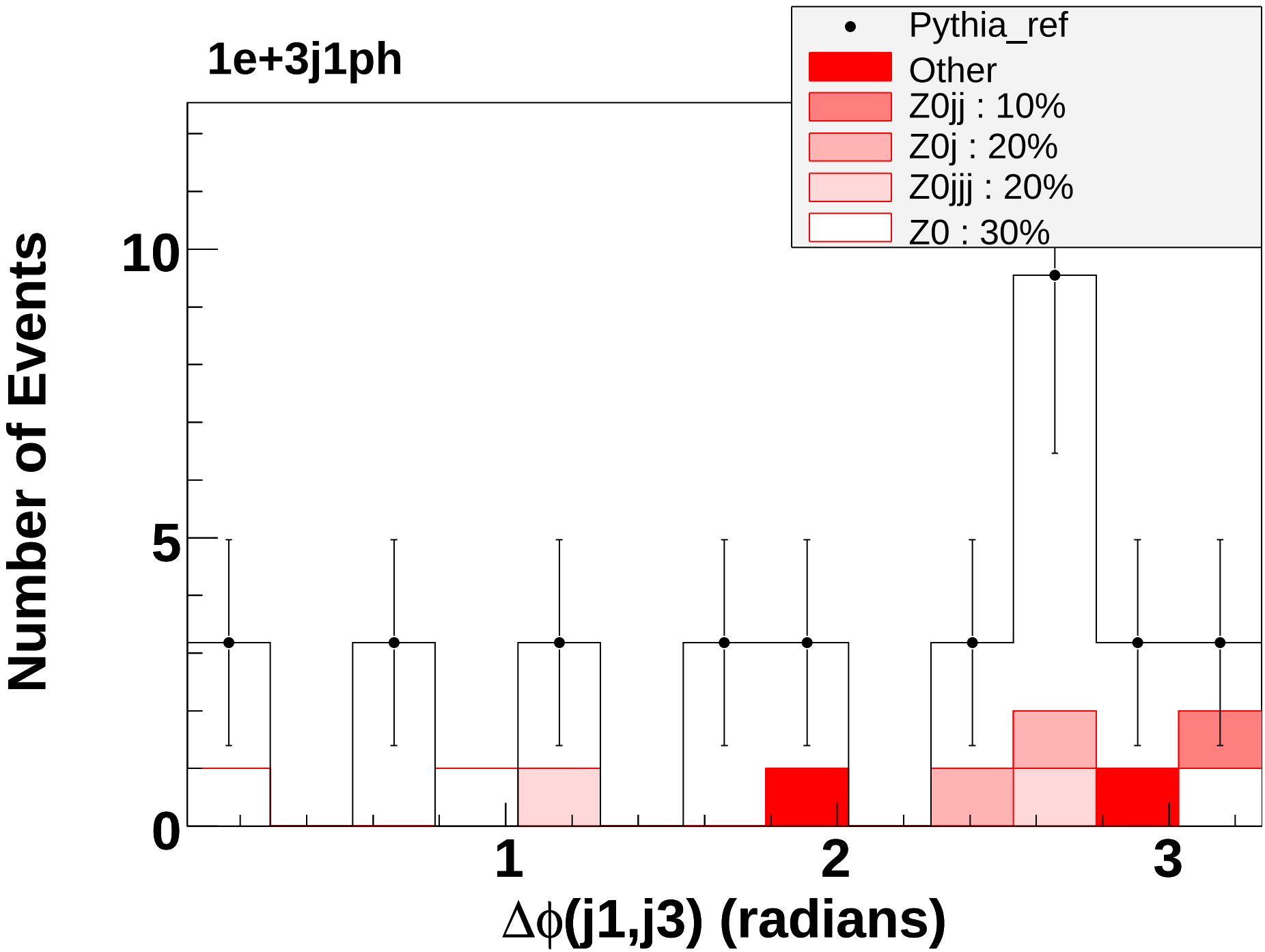

1e+3j1ph
Pythia_ref
Other
Z0jj : 10%
Z0j : 20%
Z0jjj : 20%
Z0 : 30%
Number of Events
0
5
10
10
20
30
40
M(j1) (GeV)

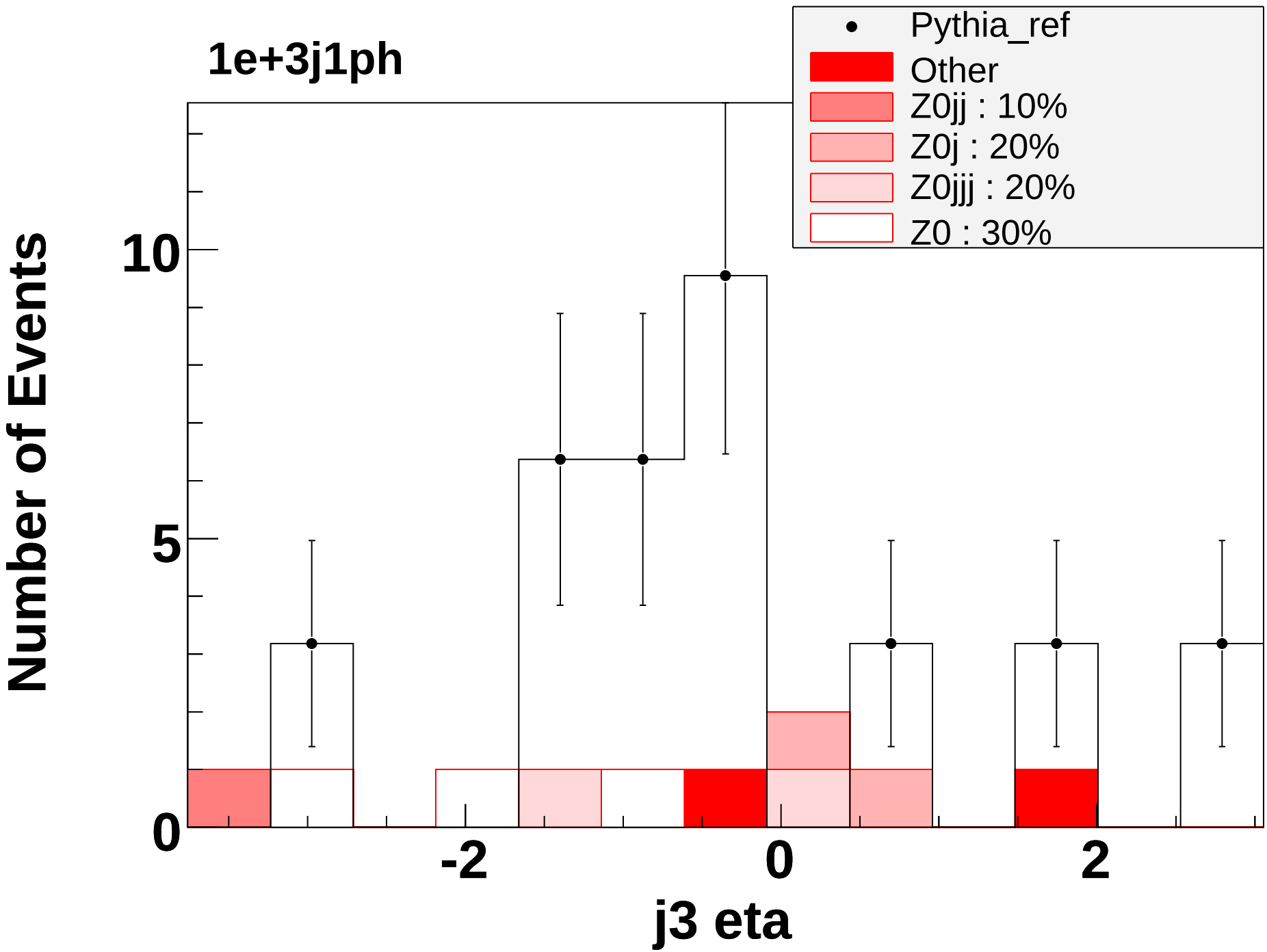

1e+3j1ph
Pythia_ref
Other
Z0jj : 10%
Z0j : 20%
Z0jjj : 20%
Z0 : 30%
Number of Events
0
5
10
15
200
400
600
800
M(e+,γ,j1) (GeV)

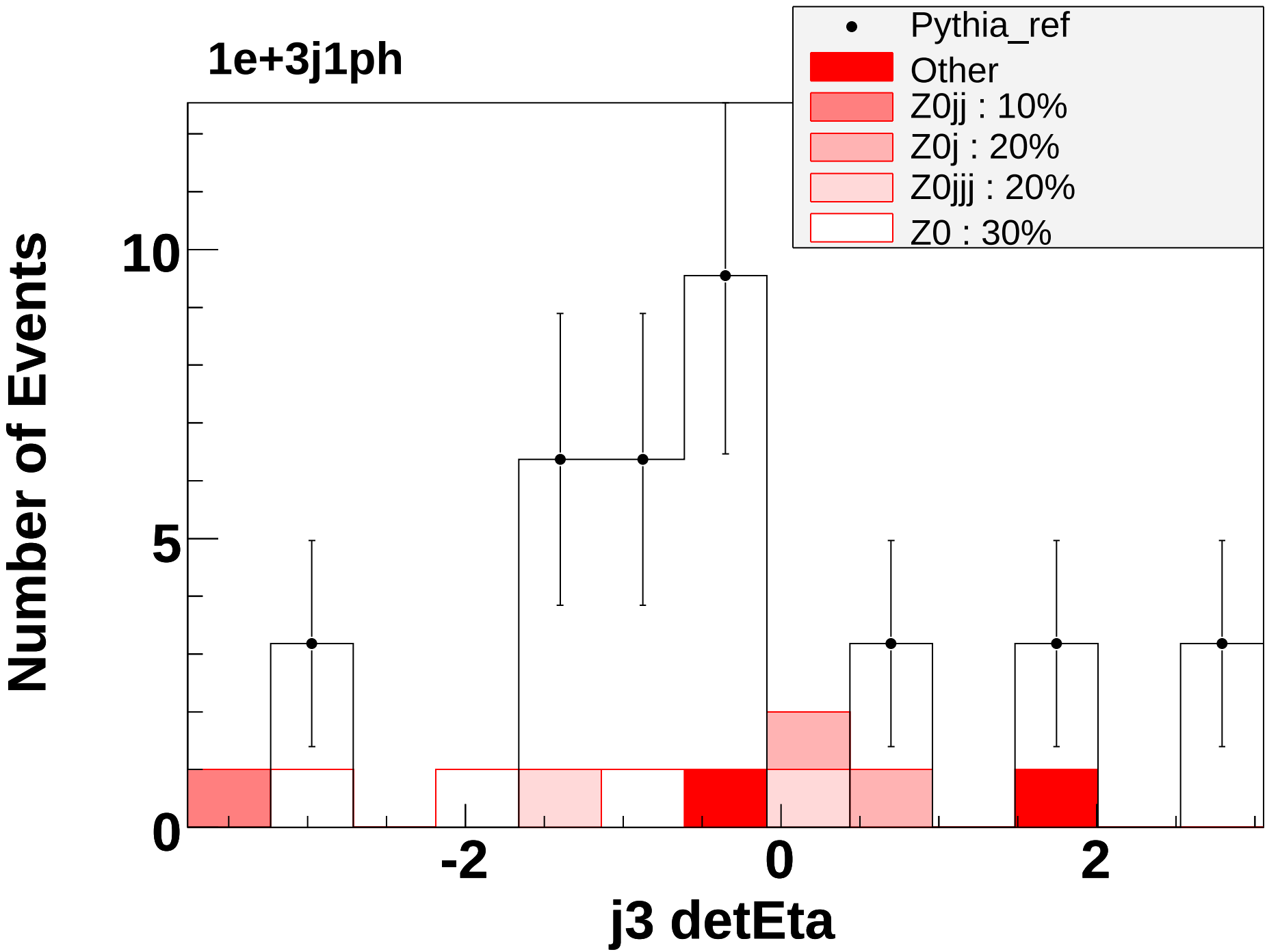

1e+3j1ph
Pythia_ref
Other
Z0jj : 10%
Z0j : 20%
Z0jjj : 20%
Z0 : 30%
Number of Events
0
2
4
6
8
0.5
1
1.5
2
minΔR(e+,j)

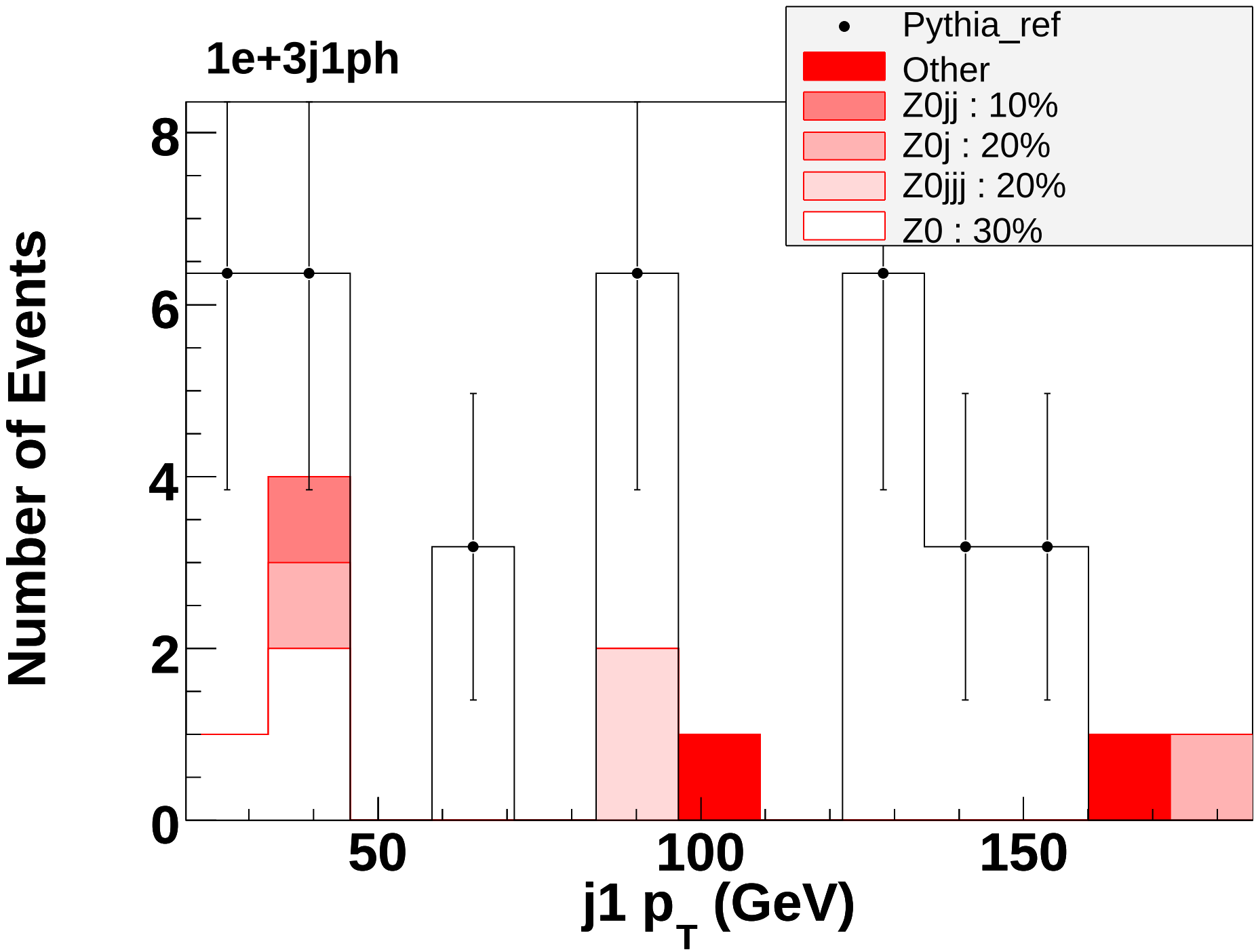

1e+3j1ph
Pythia_ref
Other
Z0jj : 10%
Z0j : 20%
Z0jjj : 20%
Z0 : 30%
Number of Events
0
5
10
1
2
3
minΔR(γ,j)

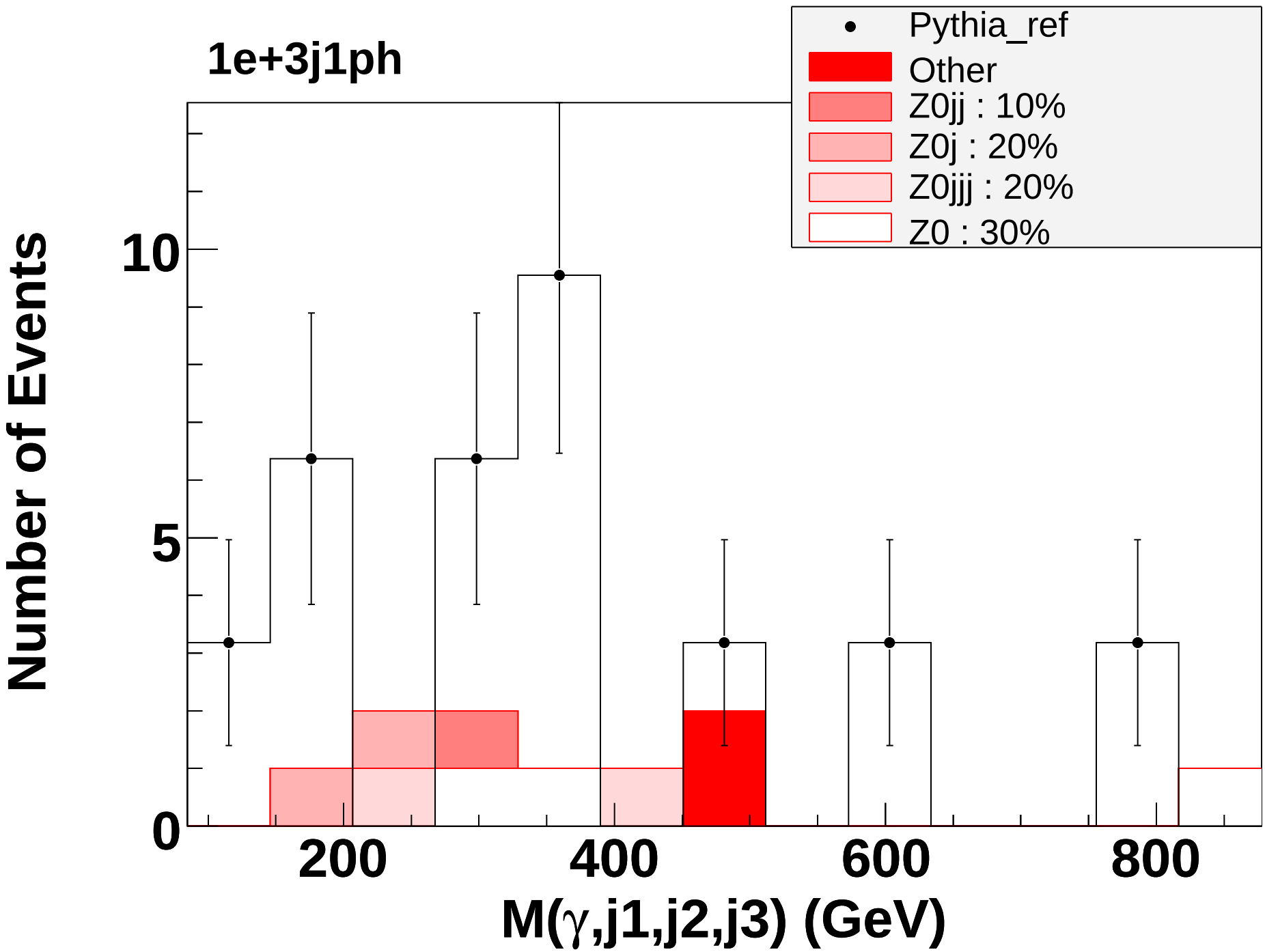

1e+3j1ph
Pythia_ref
Other
Z0jj : 10%
Z0j : 20%
Z0jjj : 20%
Z0 : 30%
Number of Events
0
2
4
6
8
0
1
2
3
Δϕ(e+,j3) (radians)

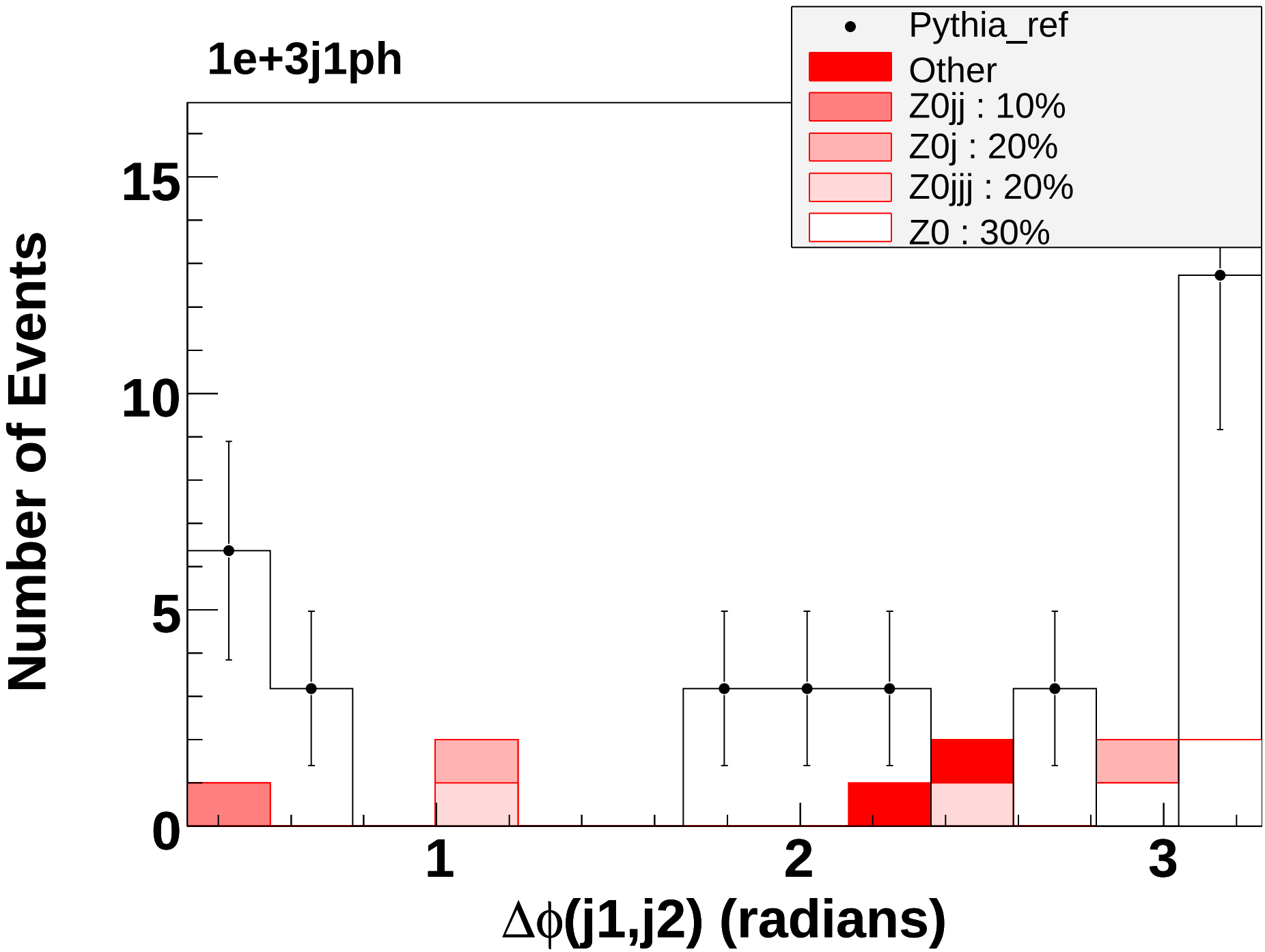

1e+3j1ph
Pythia_ref
Other
Z0jj : 10%
Z0j : 20%
Z0jjj : 20%
Z0 : 30%
Number of Events
0
5
10
1
2
3
Δϕ(j1,j3) (radians)

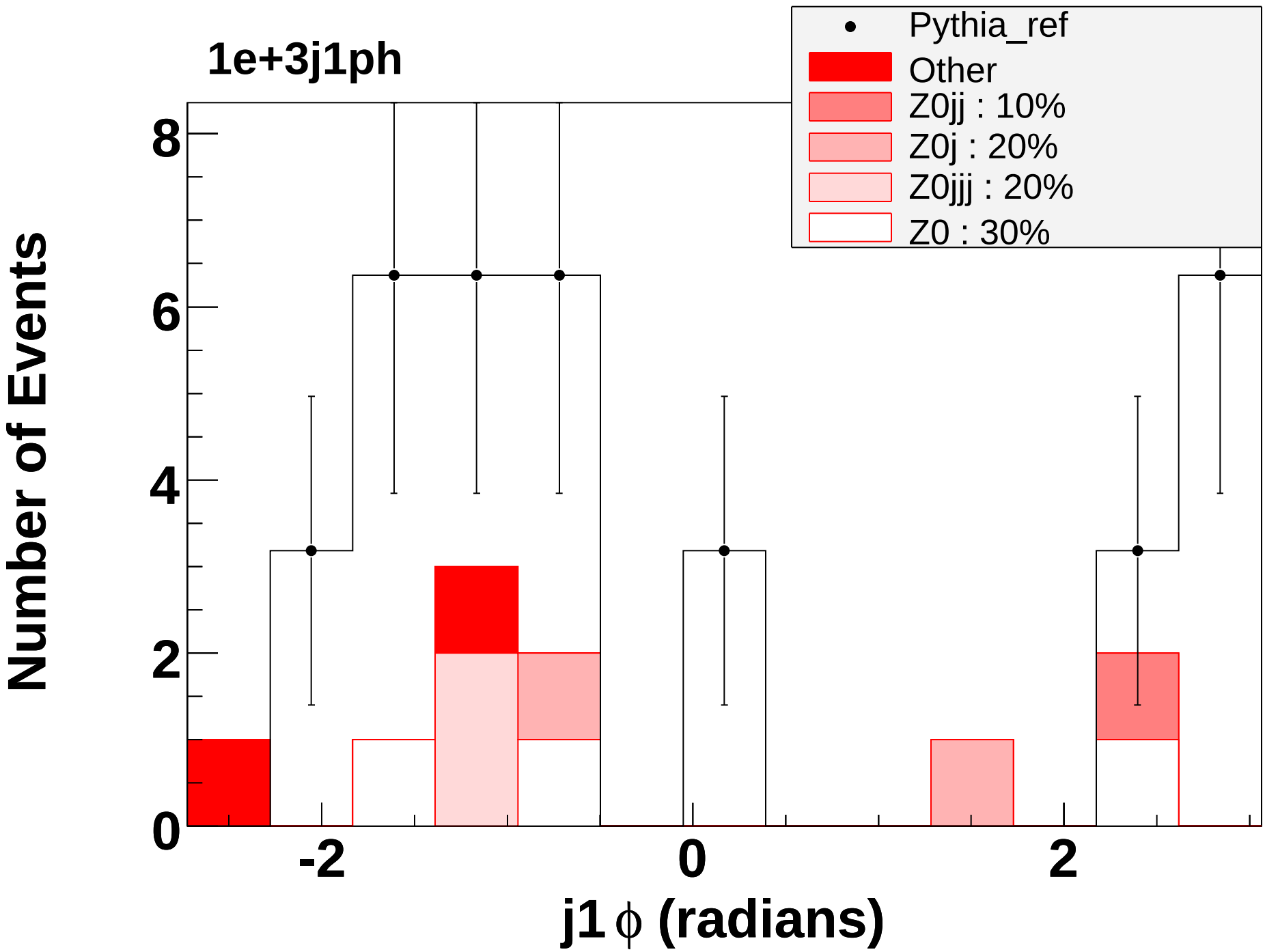

1e+3j1ph
Pythia_ref
Other
Z0jj : 10%
Z0j : 20%
Z0jjj : 20%
Z0 : 30%
Number of Events
0
5
10
-2
0
2
j3 eta

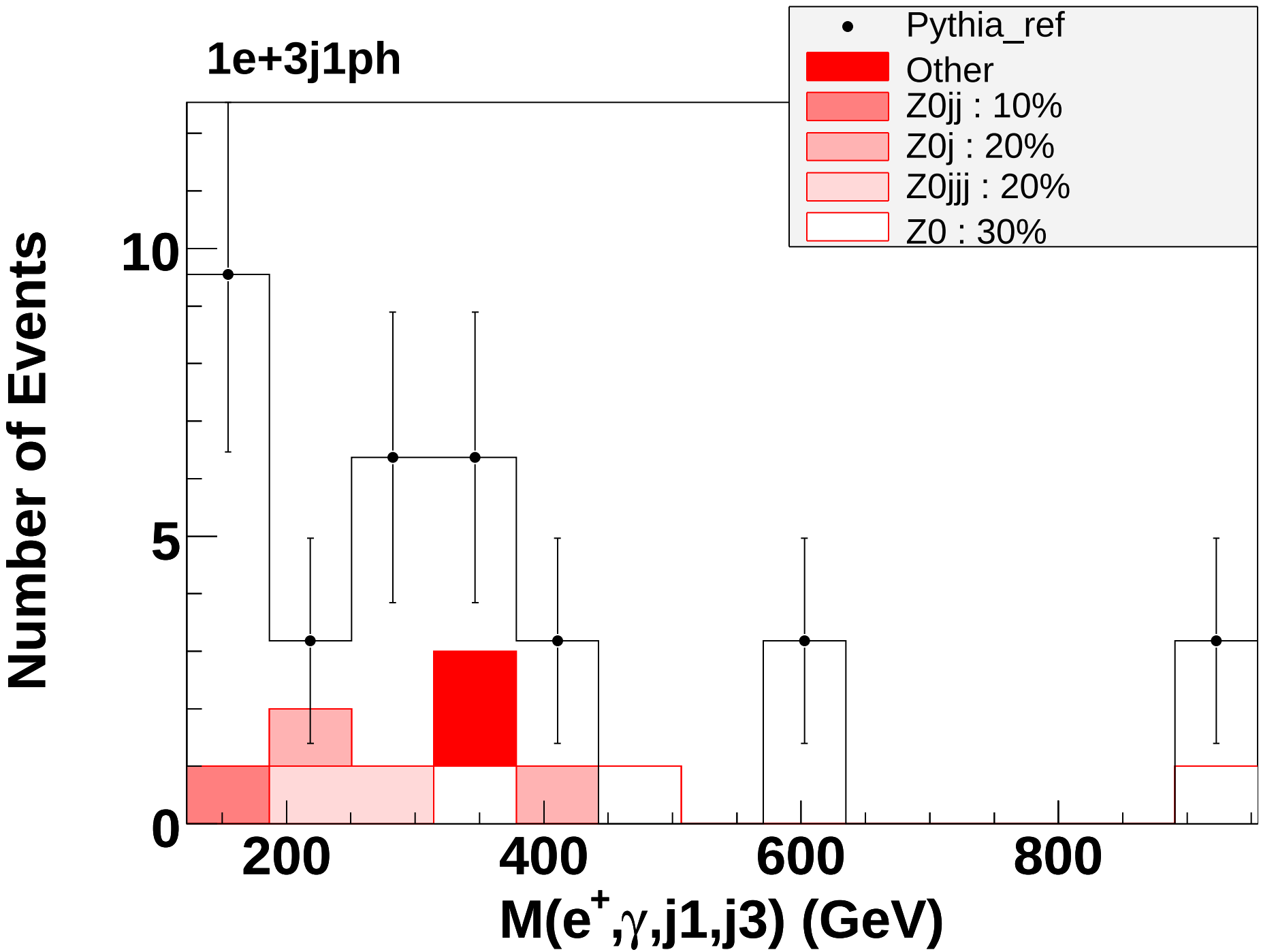

1e+3j1ph
Pythia_ref
Other
Z0jj : 10%
Z0j : 20%
Z0jjj : 20%
Z0 : 30%
Number of Events
0
5
10
-2
0
2
j3 detEta

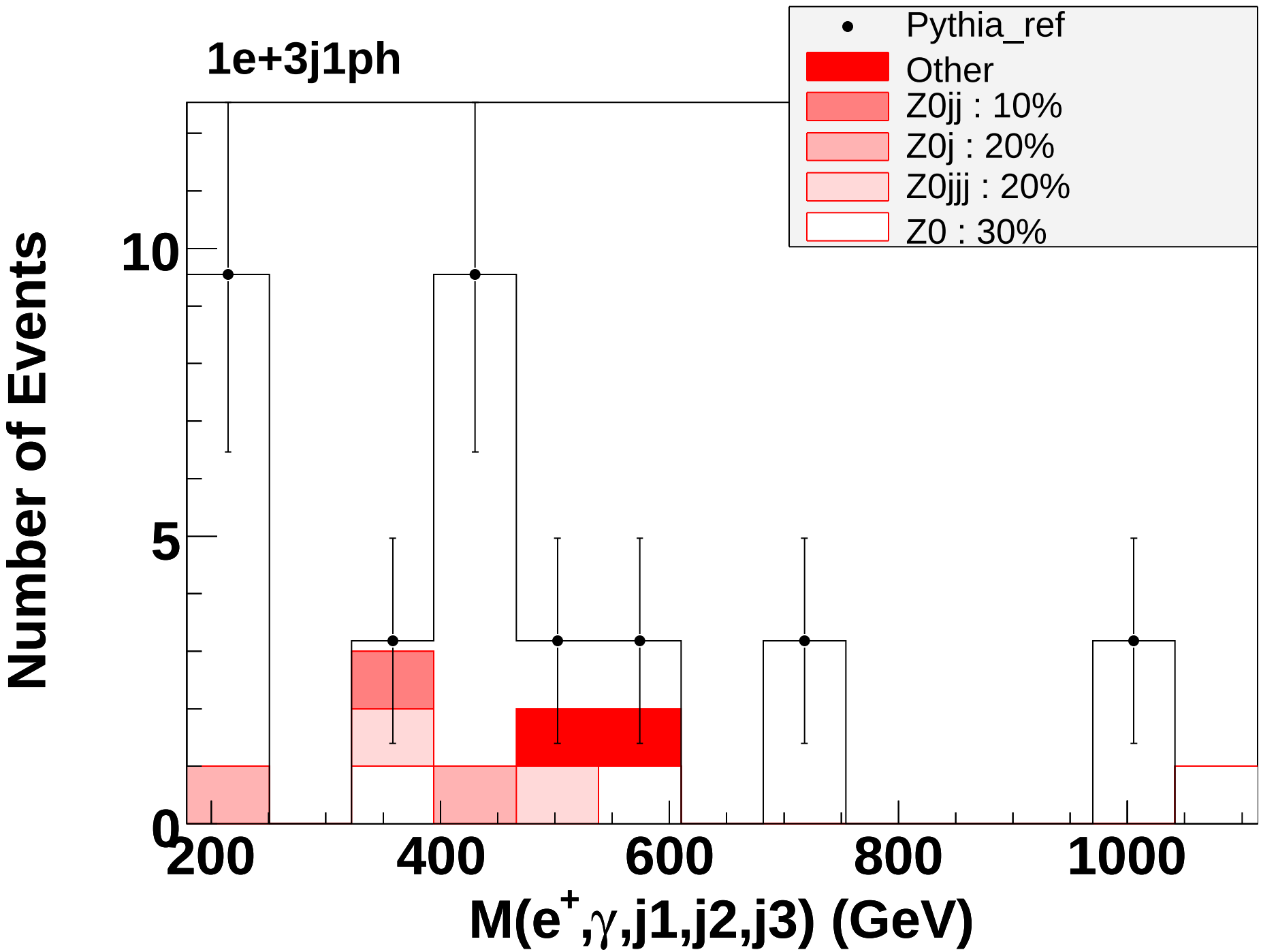

1e+3j1ph
Pythia_ref
Other
Z0jj : 10%
Z0j : 20%
Z0jjj : 20%
Z0 : 30%
Number of Events
0
2
4
6
8
50
100
150
j1 p_T (GeV)

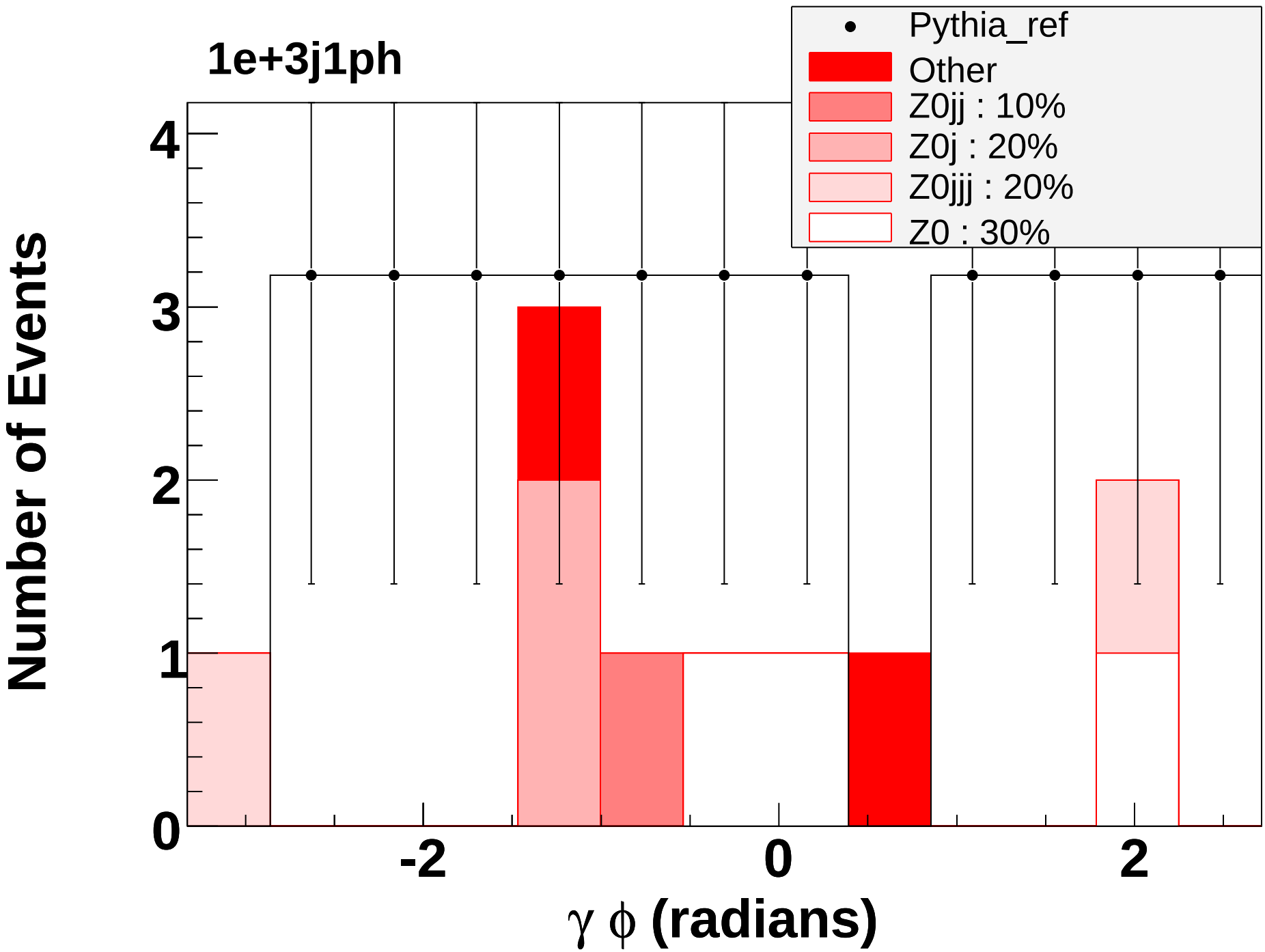

1e+3j1ph
Pythia_ref
Other
Z0jj : 10%
Z0j : 20%
Z0jjj : 20%
Z0 : 30%
Number of Events
0
5
10
200
400
600
800
M(γ,j1,j2,j3) (GeV)

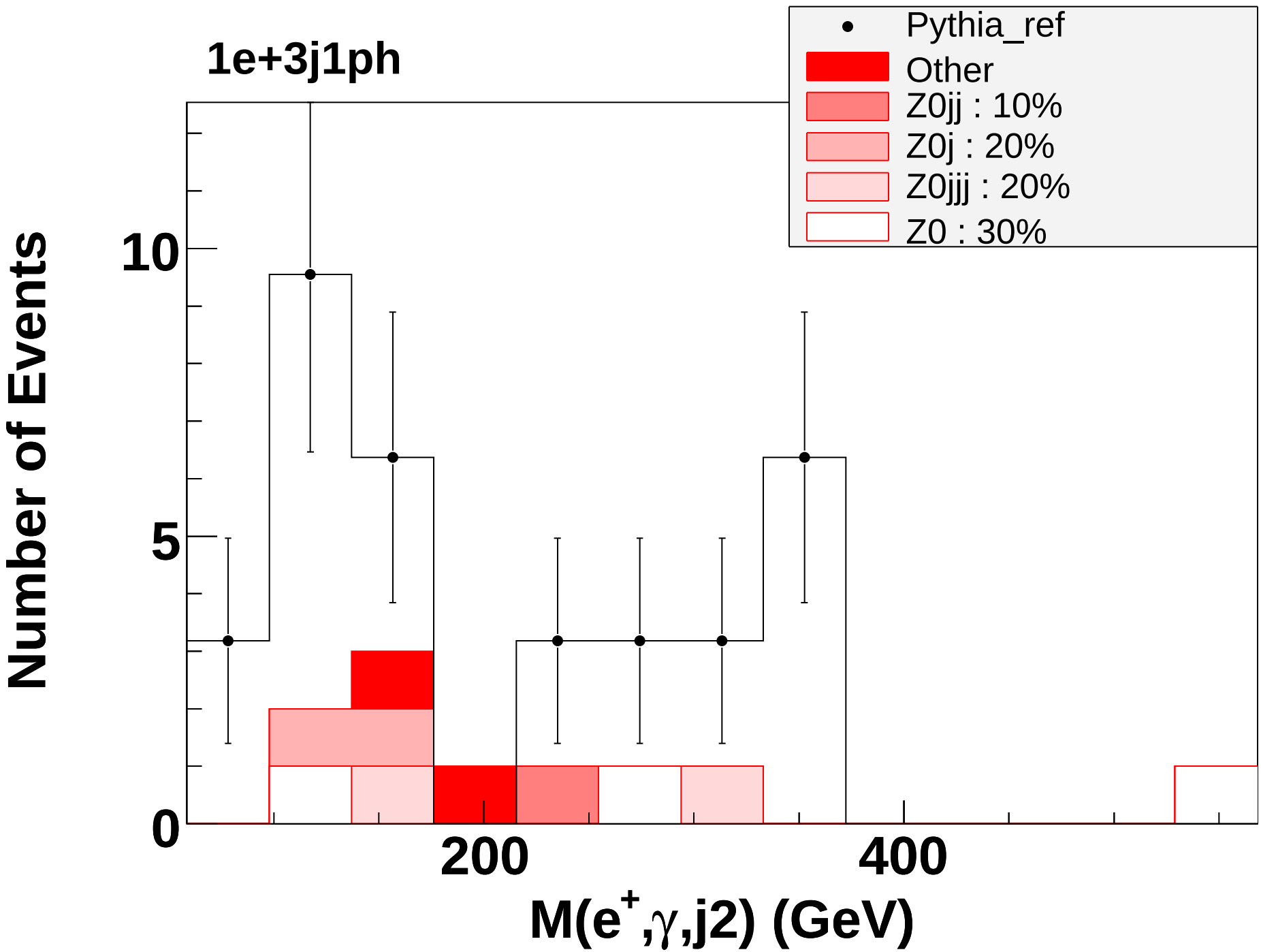

1e+3j1ph
Pythia_ref
Other
Z0jj : 10%
Z0j : 20%
Z0jjj : 20%
Z0 : 30%
Number of Events
0
5
10
15
1
2
3
Δϕ(j1,j2) (radians)

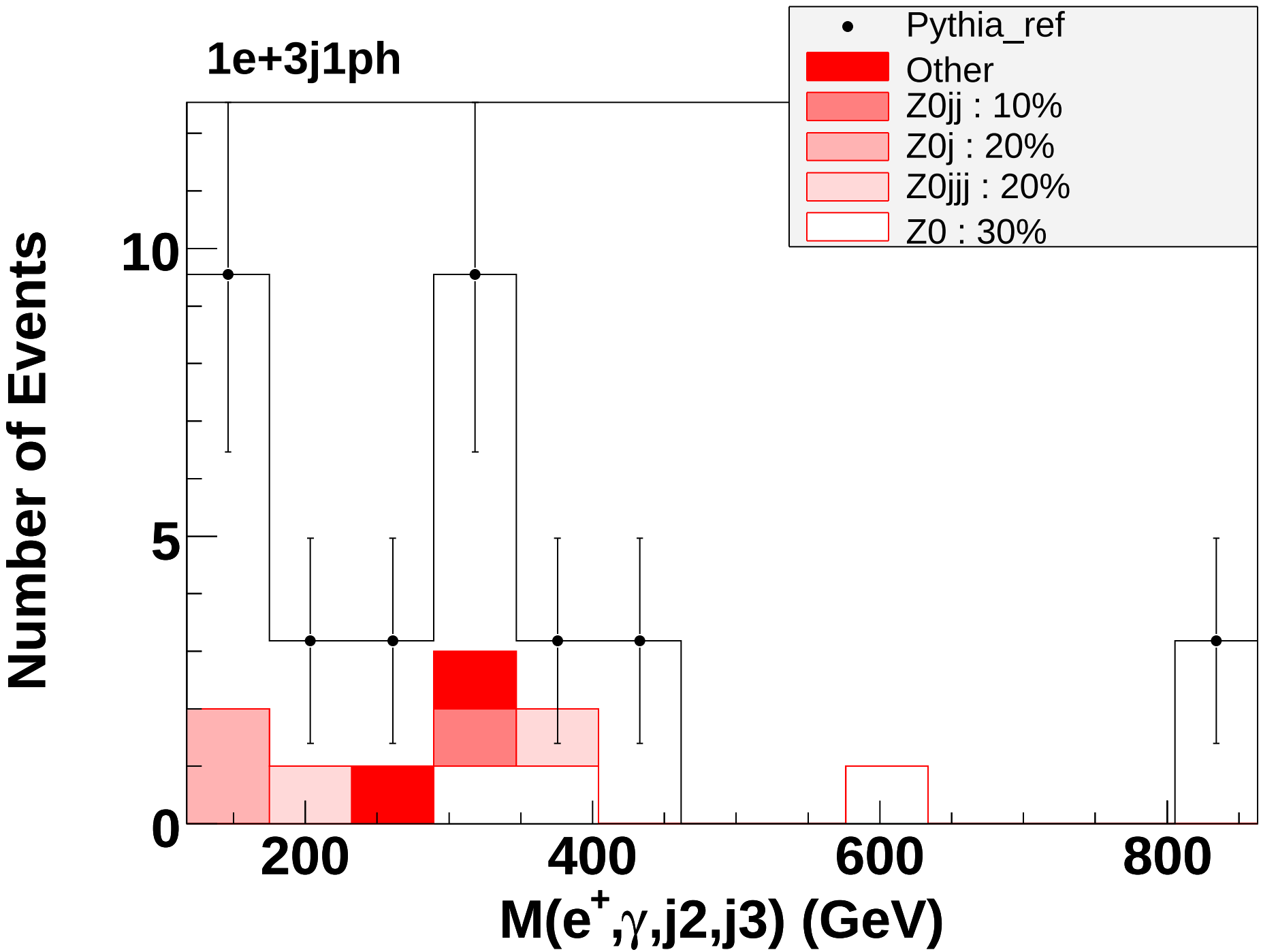

1e+3j1ph
Pythia_ref
Other
Z0jj : 10%
Z0j : 20%
Z0jjj : 20%
Z0 : 30%
Number of Events
0
2
4
6
8
-2
0
2
j1 ϕ (radians)

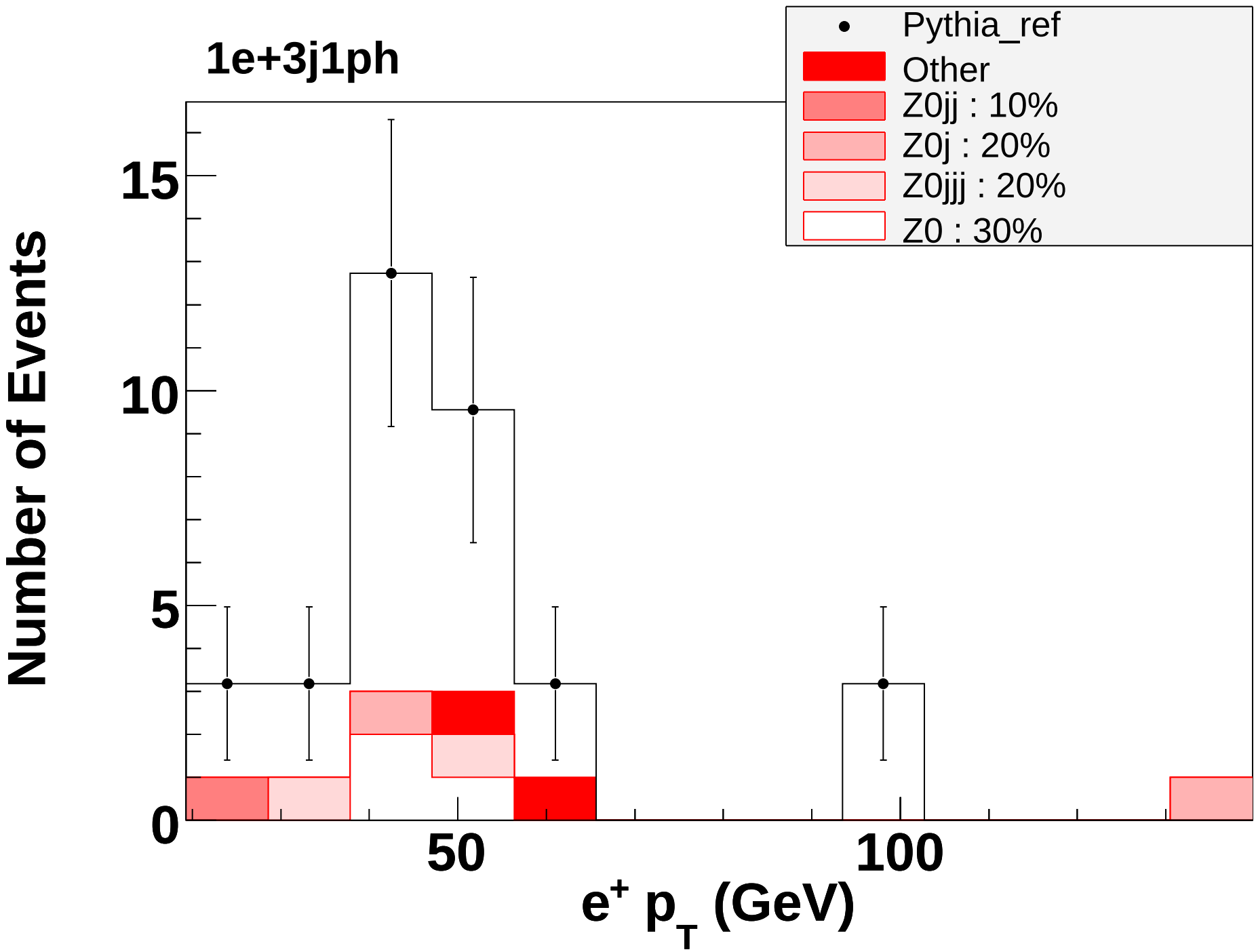

1e+3j1ph
Pythia_ref
Other
Z0jj : 10%
Z0j : 20%
Z0jjj : 20%
Z0 : 30%
Number of Events
0
5
10
200
400
600
800
M(e+,γ,j1,j3) (GeV)

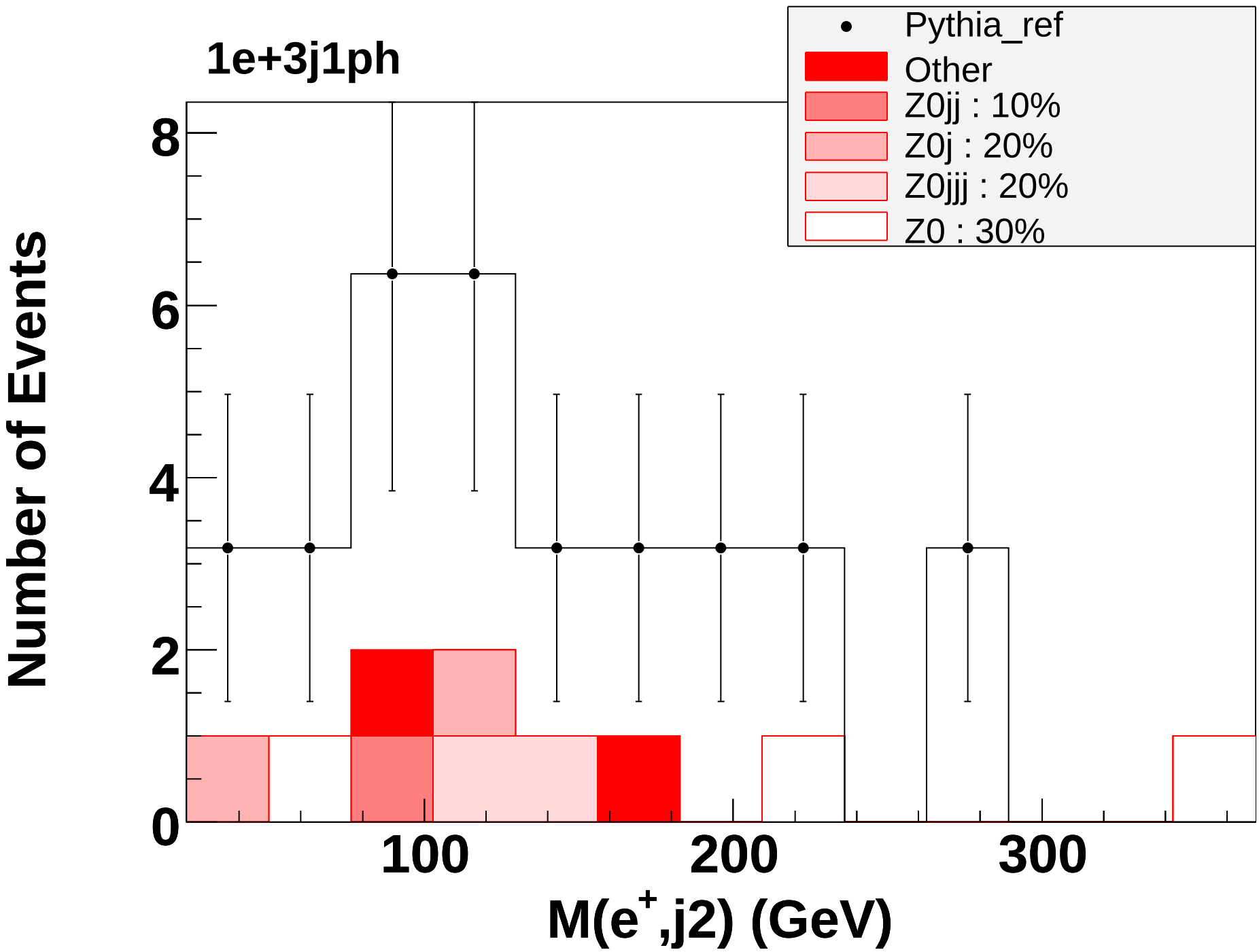

1e+3j1ph
Pythia_ref
Other
Z0jj : 10%
Z0j : 20%
Z0jjj : 20%
Z0 : 30%
Number of Events
0
5
10
200
400
600
800
1000
M(e+,γ,j1,j2,j3) (GeV)

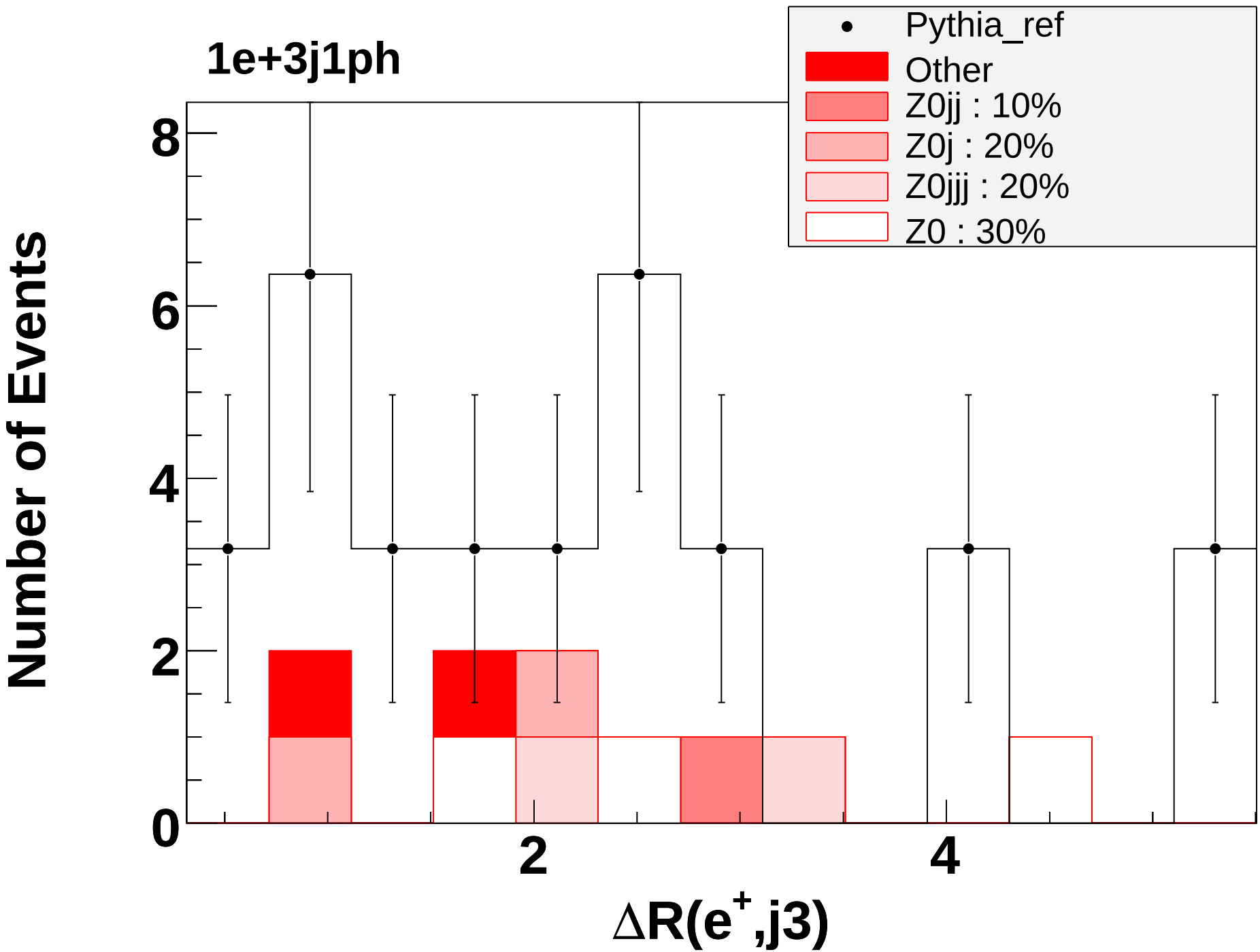

1e+3j1ph
Pythia_ref
Other
Z0jj : 10%
Z0j : 20%
Z0jjj : 20%
Z0 : 30%
Number of Events
0
1
2
3
4
-2
0
2
γ ϕ (radians)

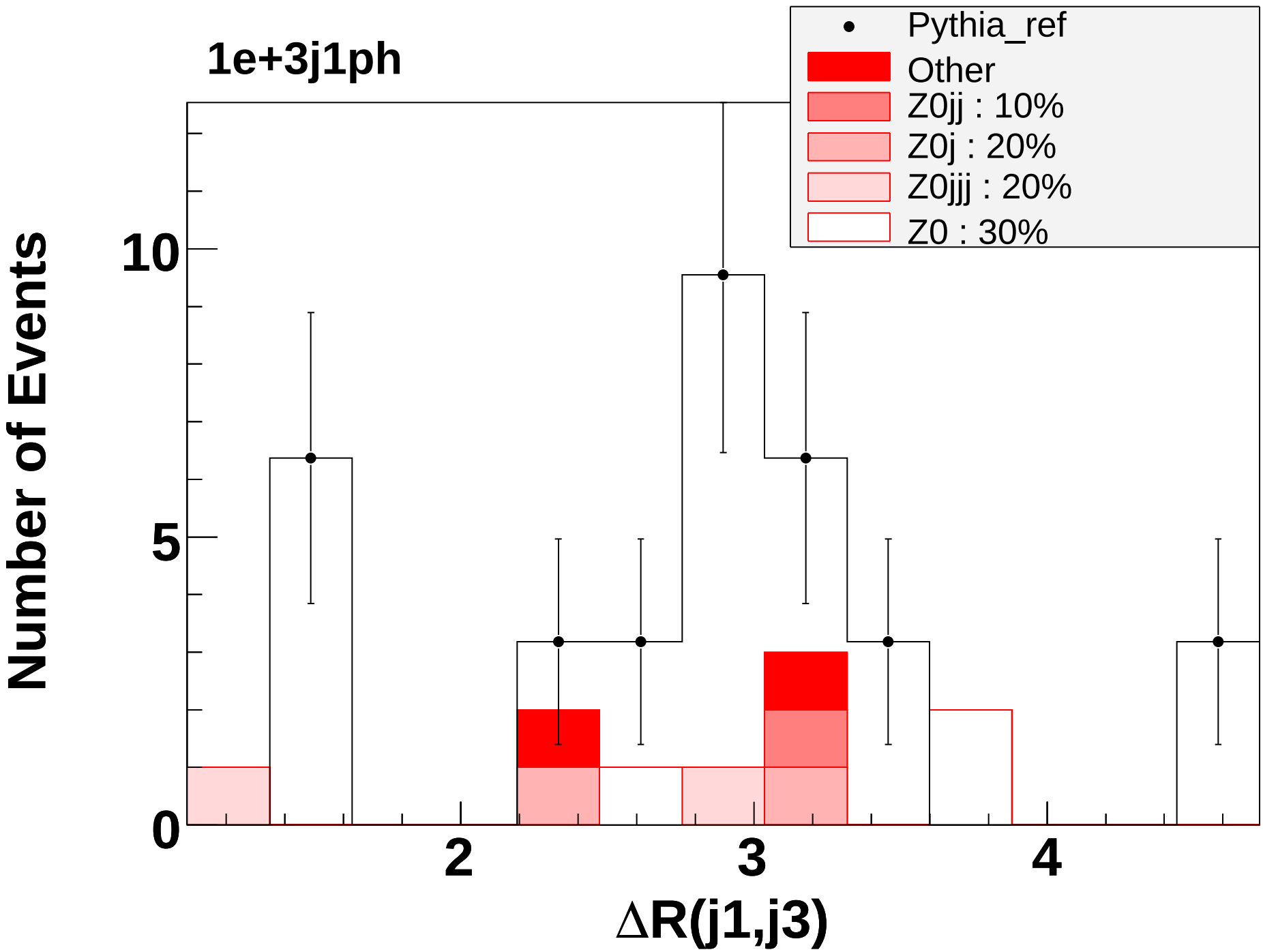

1e+3j1ph
Pythia_ref
Other
Z0jj : 10%
Z0j : 20%
Z0jjj : 20%
Z0 : 30%
Number of Events
0
5
10
200
400
M(e+,γ,j2) (GeV)

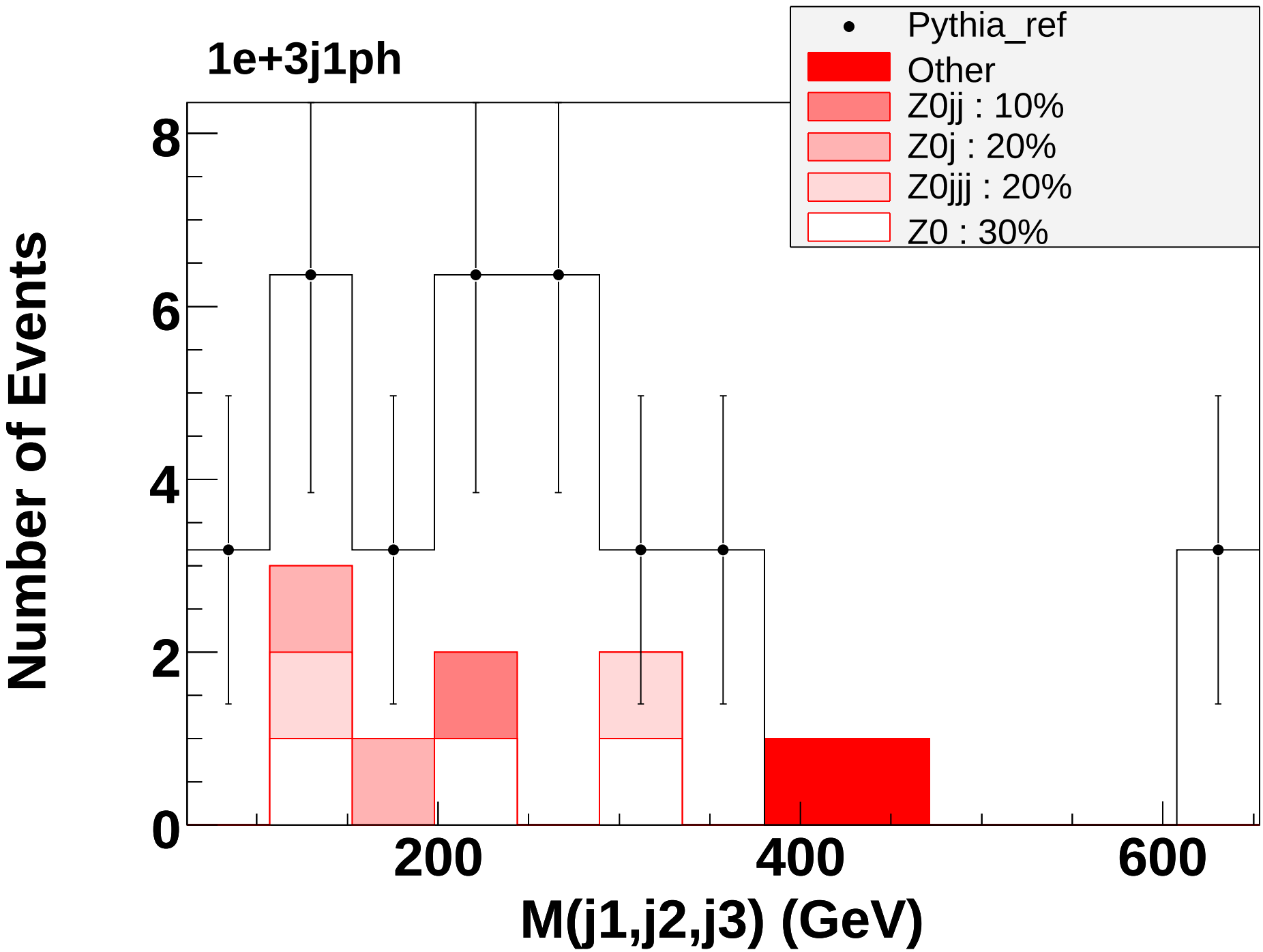

1e+3j1ph
Pythia_ref
Other
Z0jj : 10%
Z0j : 20%
Z0jjj : 20%
Z0 : 30%
Number of Events
0
5
10
200
400
600
800
M(e+,γ,j2,j3) (GeV)

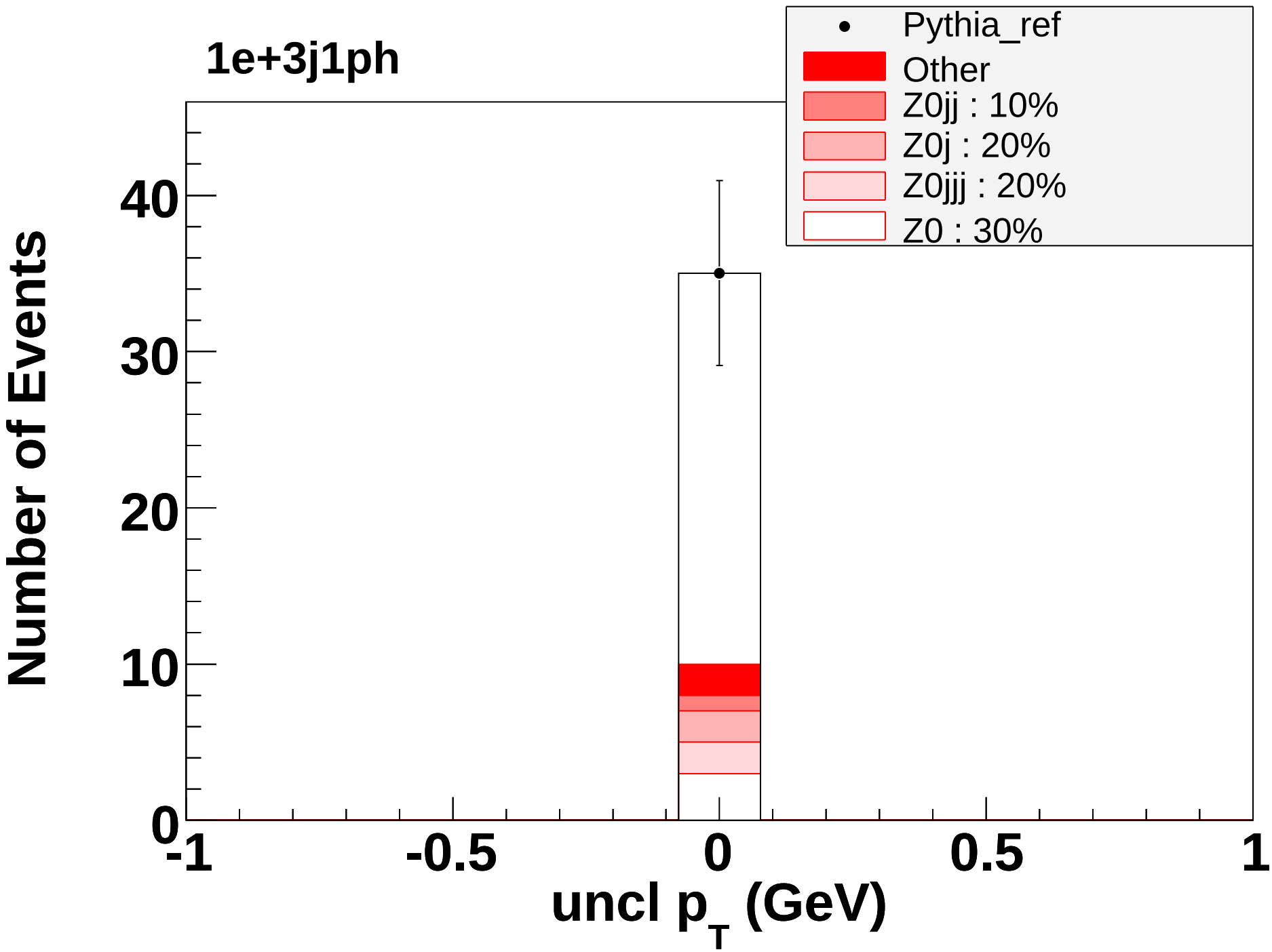

1e+3j1ph
Pythia_ref
Other
Z0jj : 10%
Z0j : 20%
Z0jjj : 20%
Z0 : 30%
Number of Events
0
5
10
15
50
100
e+ pT (GeV)


1e+3j1ph
Pythia_ref
Other
Z0jj : 10%
Z0j : 20%
Z0jjj : 20%
Z0 : 30%
Number of Events
0
2
4
6
8
100
200
300
M(e+,j2) (GeV)


1e+3j1ph
Pythia_ref
Other
Z0jj : 10%
Z0j : 20%
Z0jjj : 20%
Z0 : 30%
Number of Events
0
2
4
6
8
2
4
ΔR(e+,j3)


1e+3j1ph
Pythia_ref
Other
Z0jj : 10%
Z0j : 20%
Z0jjj : 20%
Z0 : 30%
Number of Events
0
5
10
2
3
4
ΔR(j1,j3)


1e+3j1ph
Pythia_ref
Other
Z0jj : 10%
Z0j : 20%
Z0jjj : 20%
Z0 : 30%
Number of Events
0
2
4
6
8
200
400
600
M(j1,j2,j3) (GeV)


1e+3j1ph
Pythia_ref
Other
Z0jj : 10%
Z0j : 20%
Z0jjj : 20%
Z0 : 30%
Number of Events
0
10
20
30
40
-1
-0.5
0
0.5
1
uncl p_T (GeV)