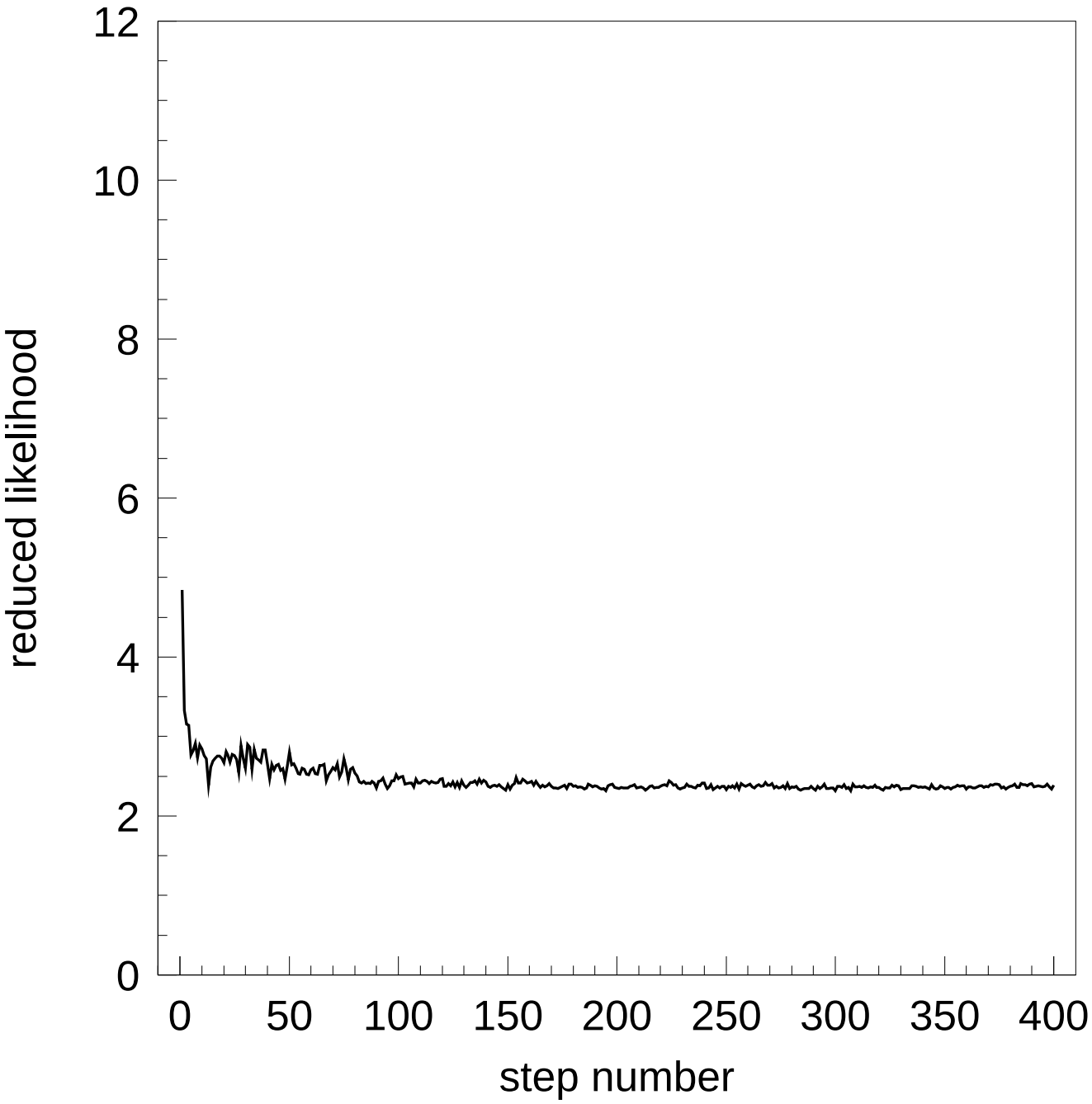
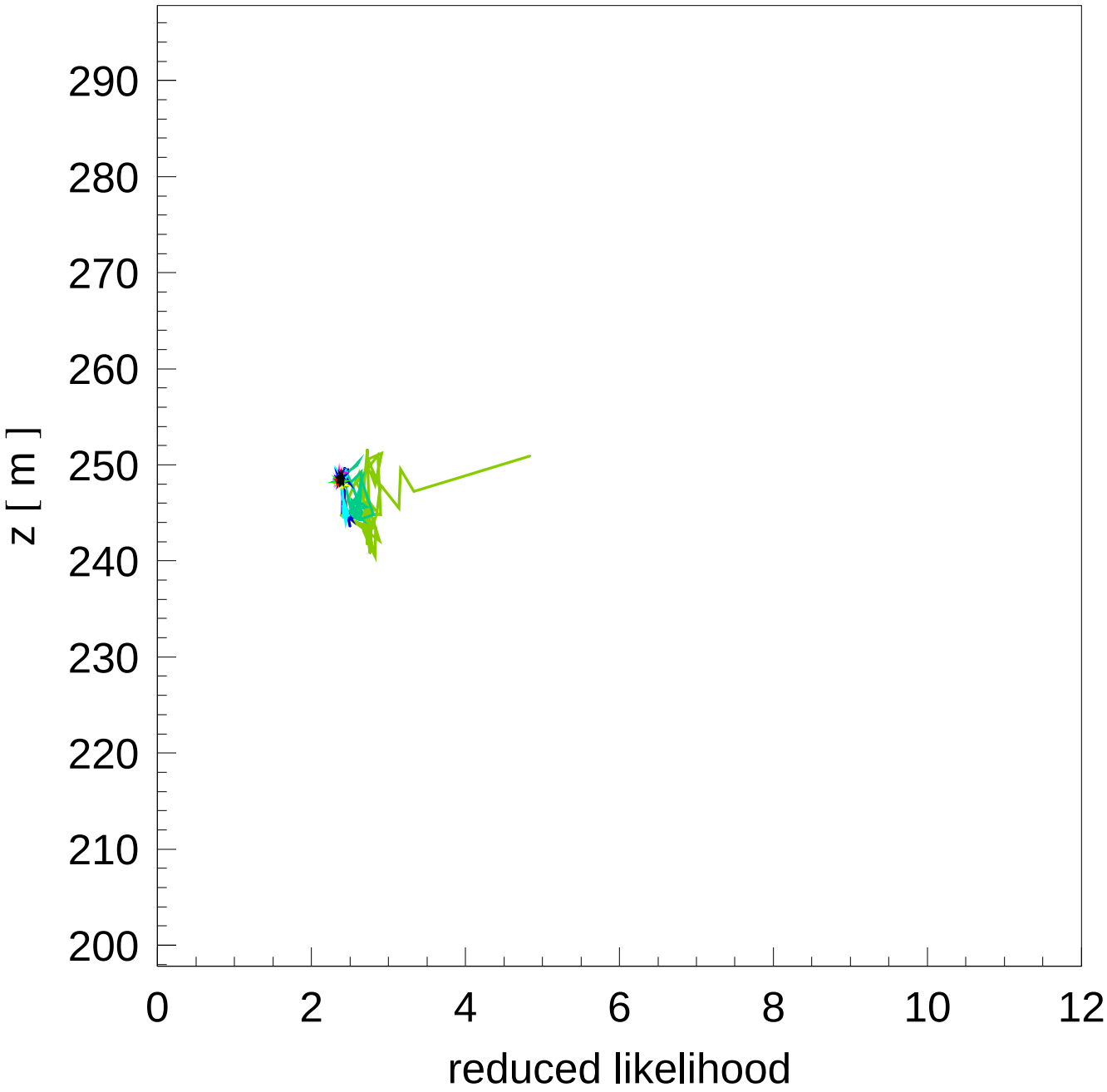
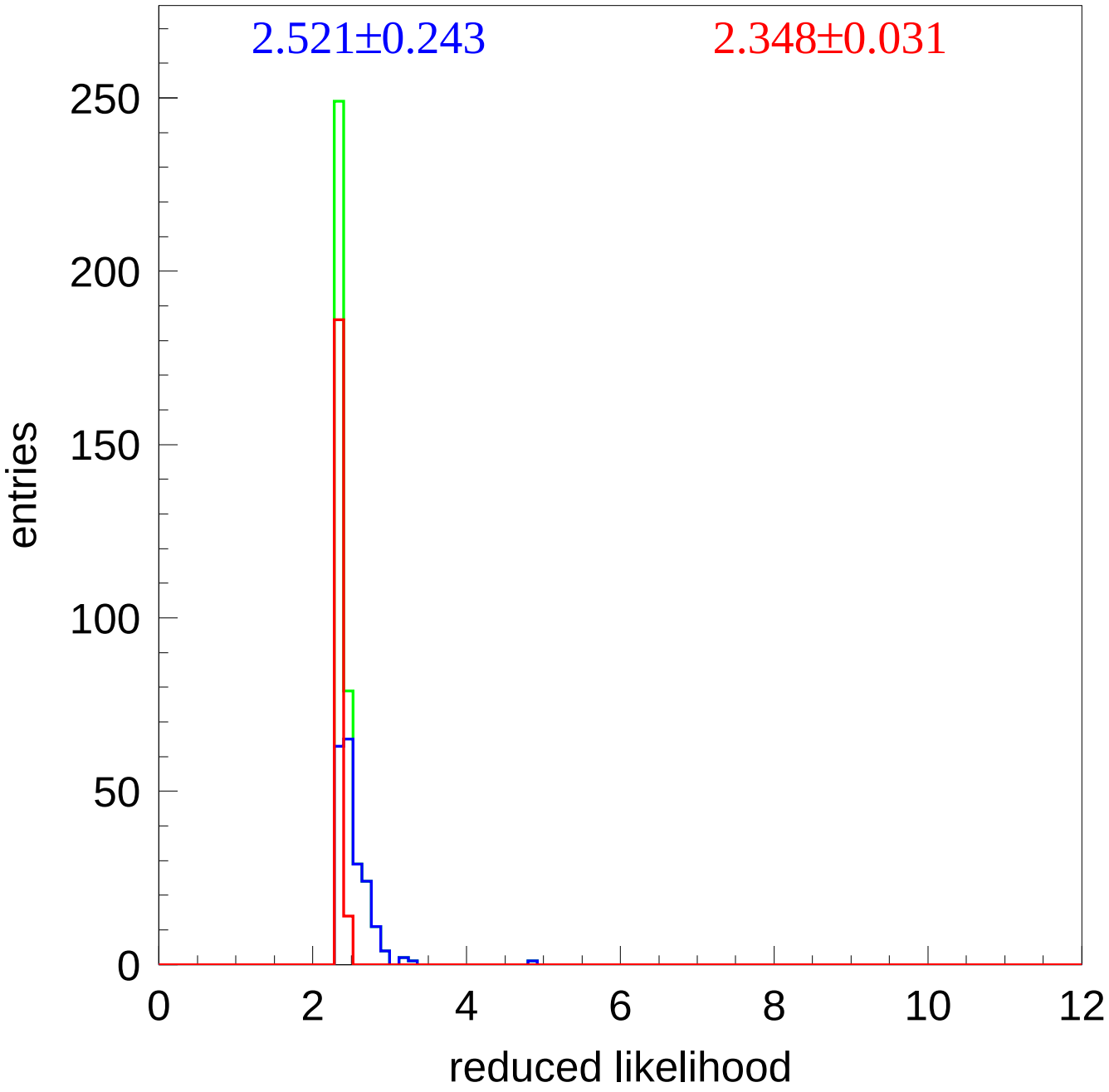
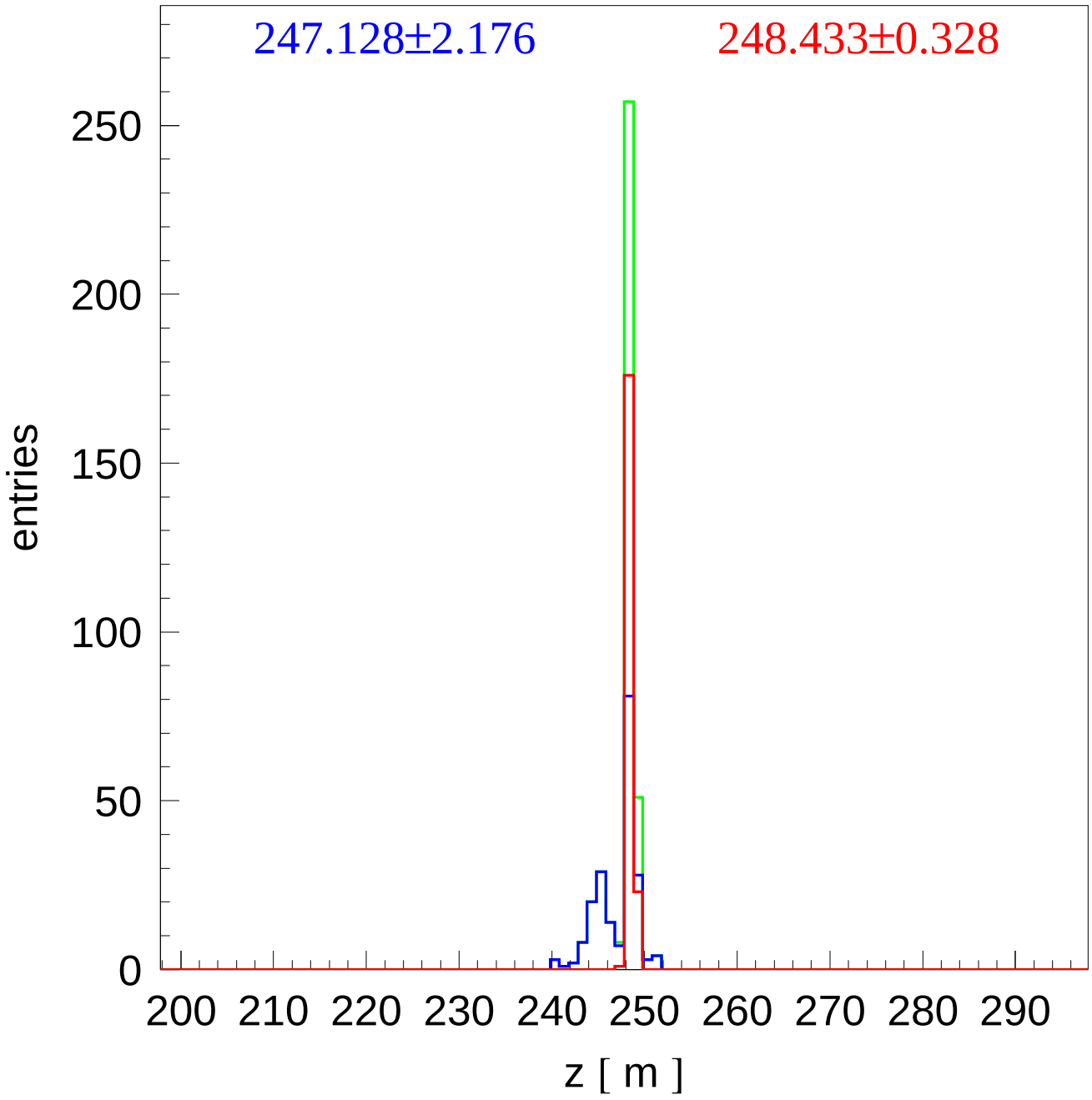
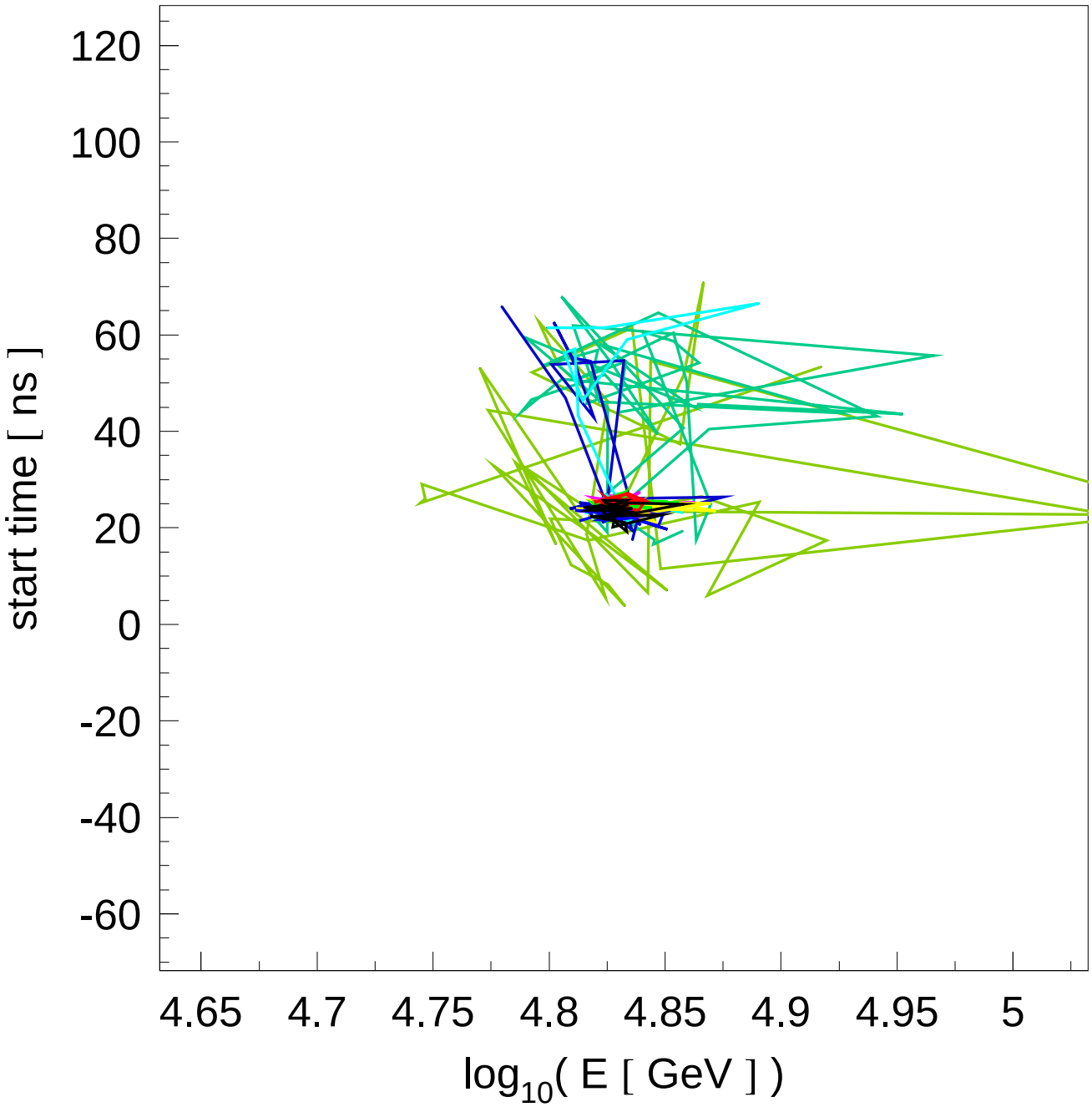
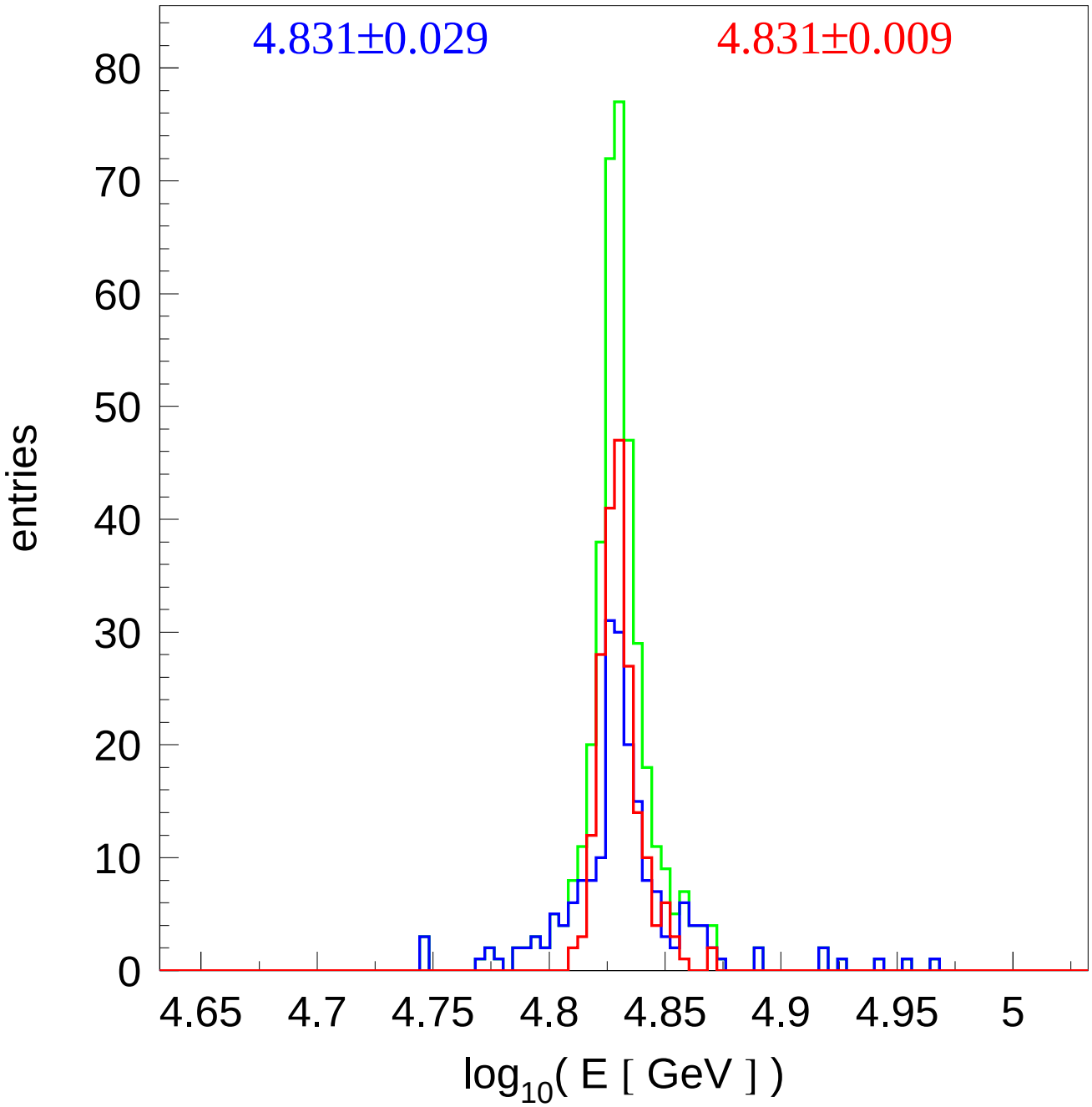

12
10
8
6
4
2
0
reduced likelihood
0
50
100
150
200
250
300
350
400
step number

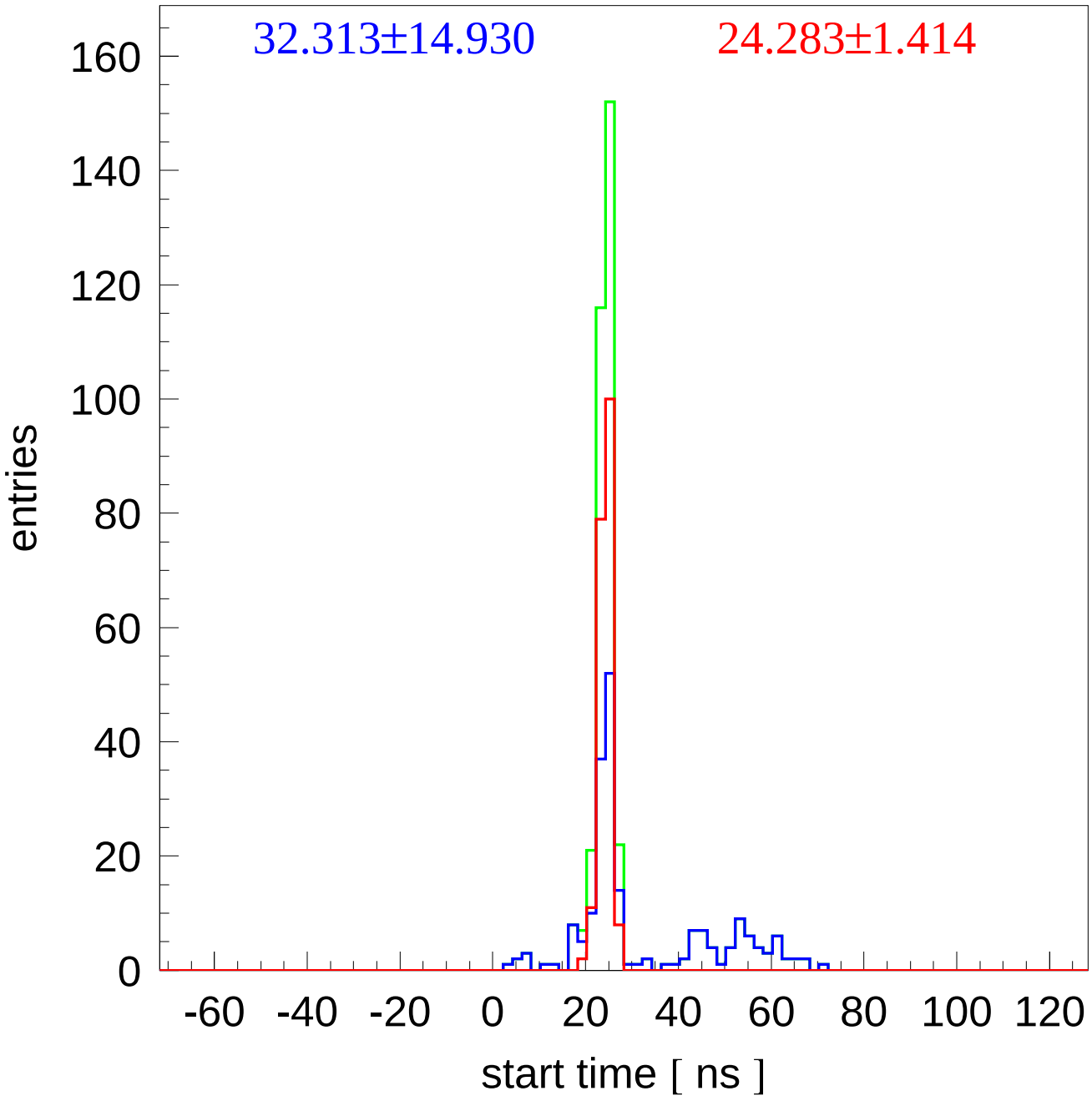

290
280
270
260
250
240
230
220
210
200
z [m]
0
2
4
6
8
10
12
reduced likelihood

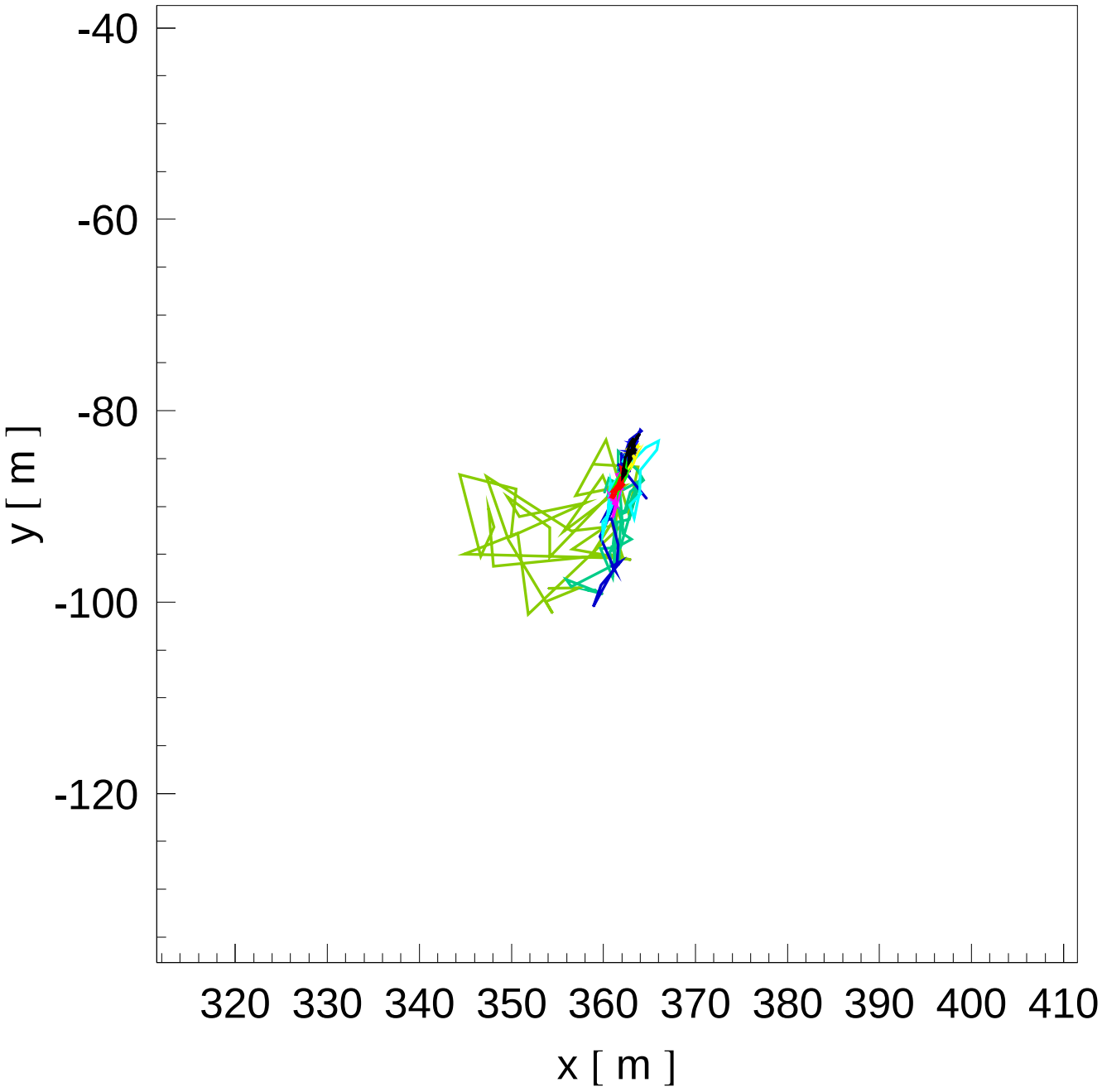

2.521±0.243
2.348±0.031
250
200
150
100
50
0
entries
0
2
4
6
8
10
12
reduced likelihood

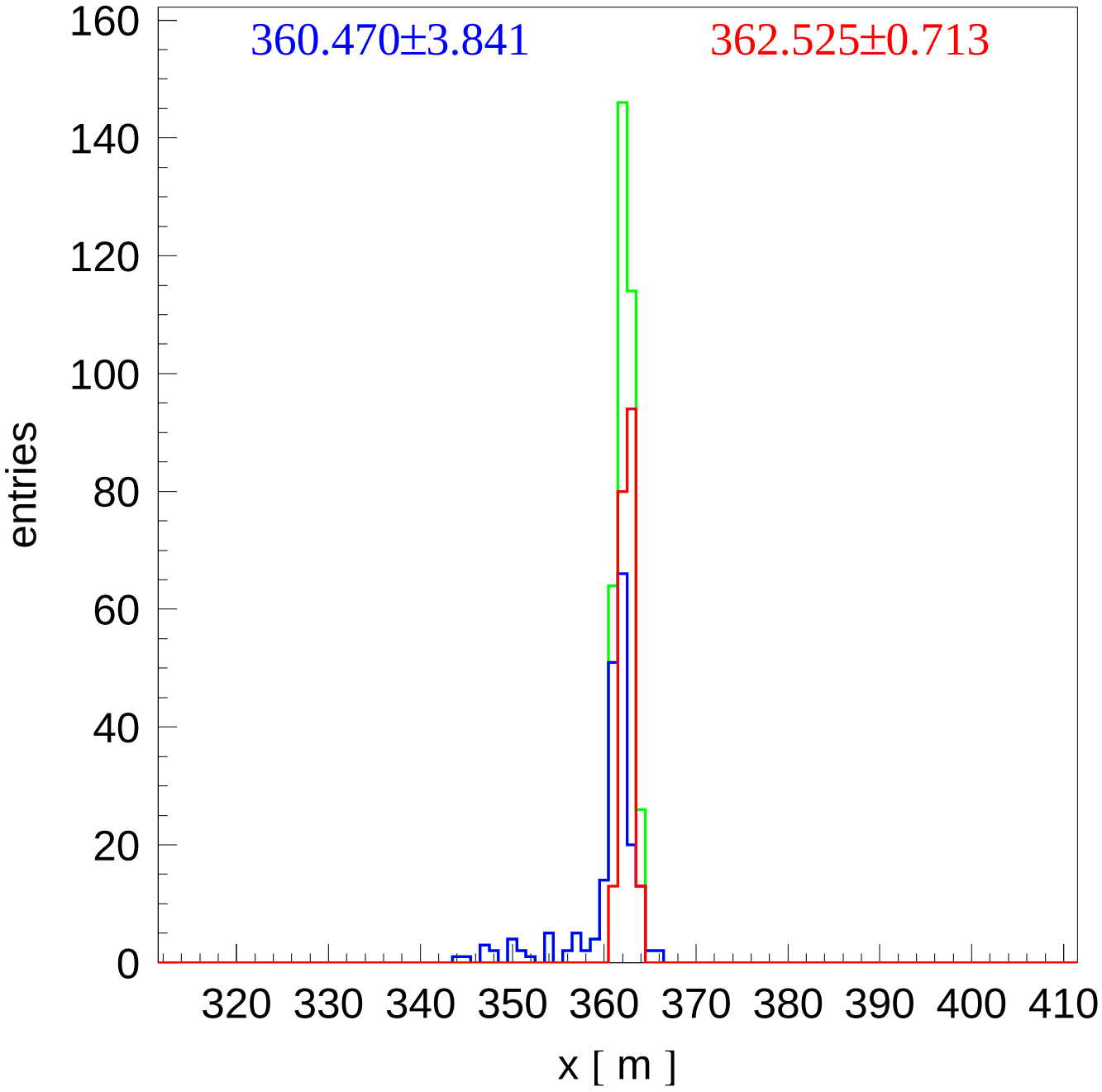

247.128±2.176
248.433±0.328
entries
250
200
150
100
50
0
200 210 220 230 240 250 260 270 280 290
z [m]

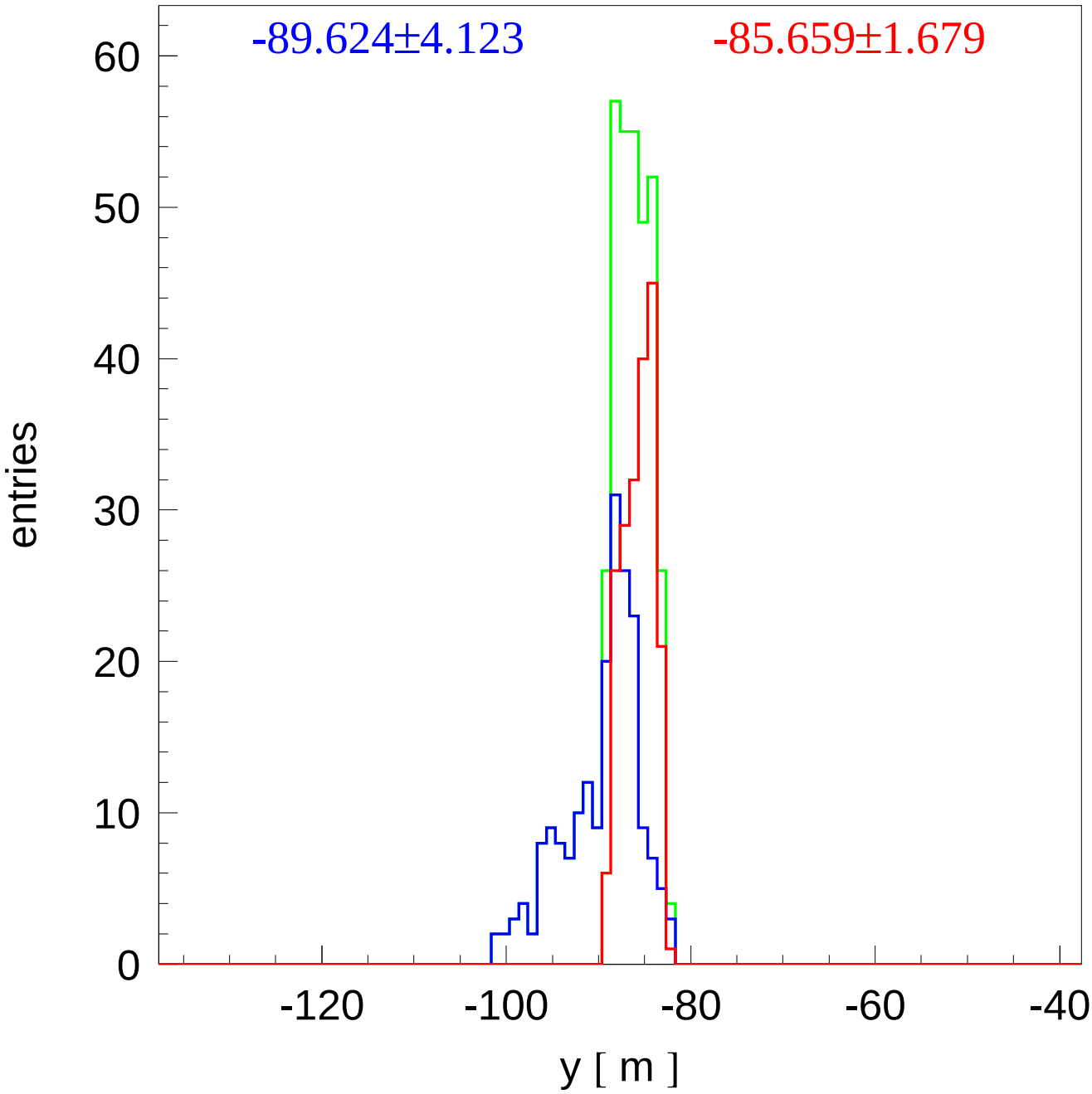

120
100
80
60
40
20
0
-20
-40
-60
start time [ns]
4.65
4.7
4.75
4.8
4.85
4.9
4.95
5
log10(E [GeV])

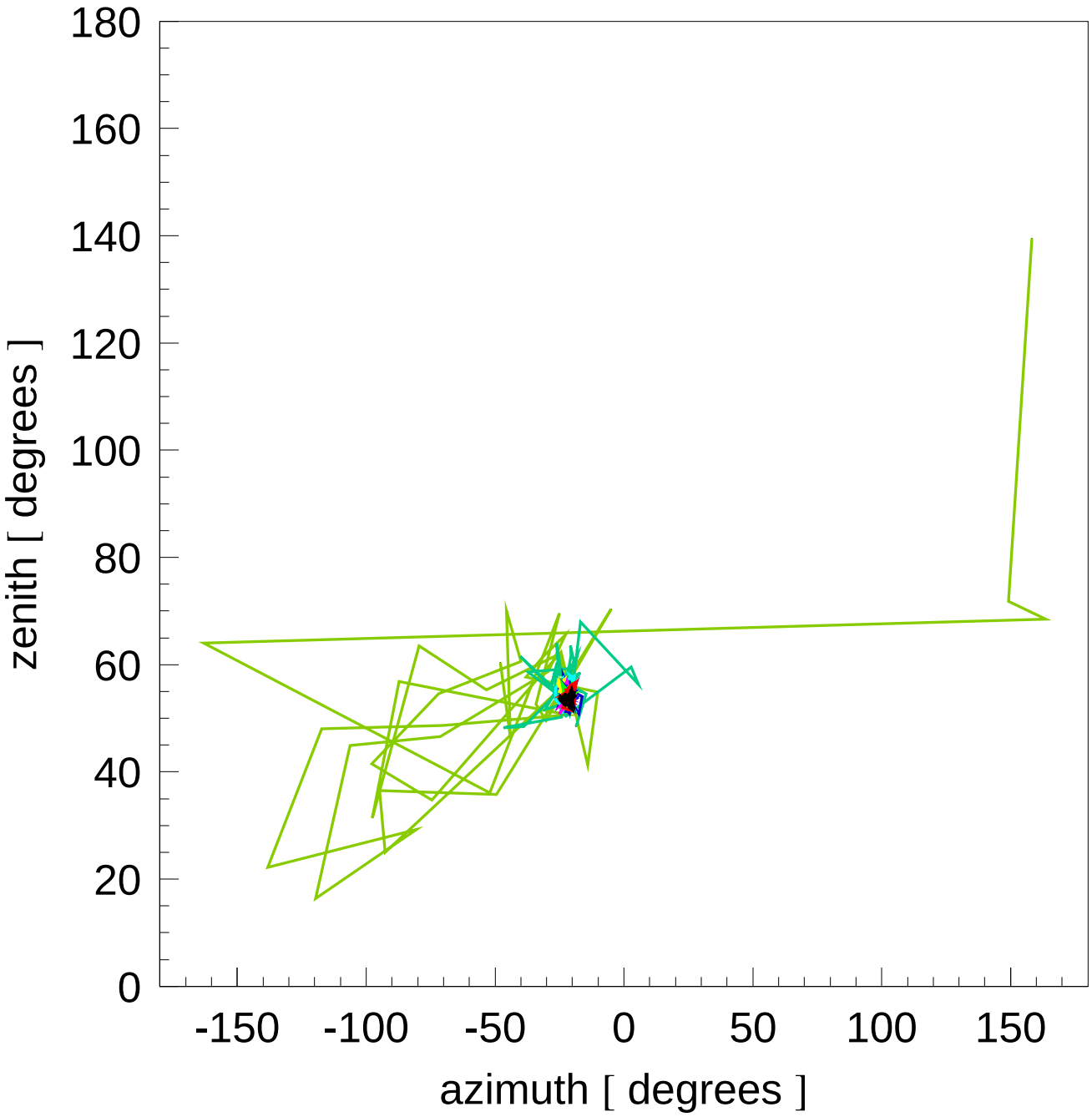

4.831±0.029
4.831±0.009
entries
0
10
20
30
40
50
60
70
80
4.65
4.7
4.75
4.8
4.85
4.9
4.95
5
log10(E [GeV])

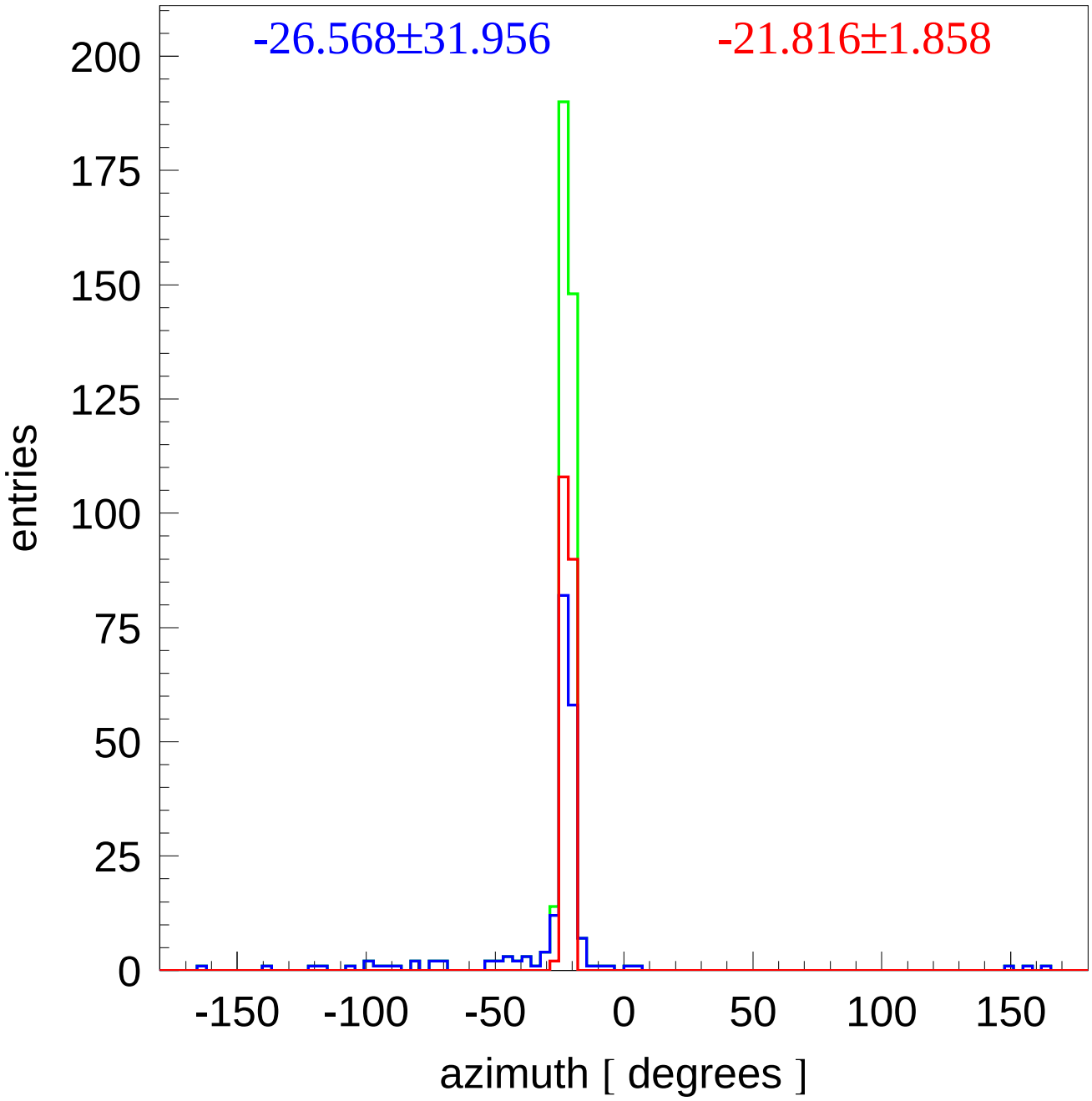

32.313±14.930
24.283±1.414
160
140
120
100
80
60
40
20
0
entries
-60
-40
-20
0
20
40
60
80
100
120
start time [ns]

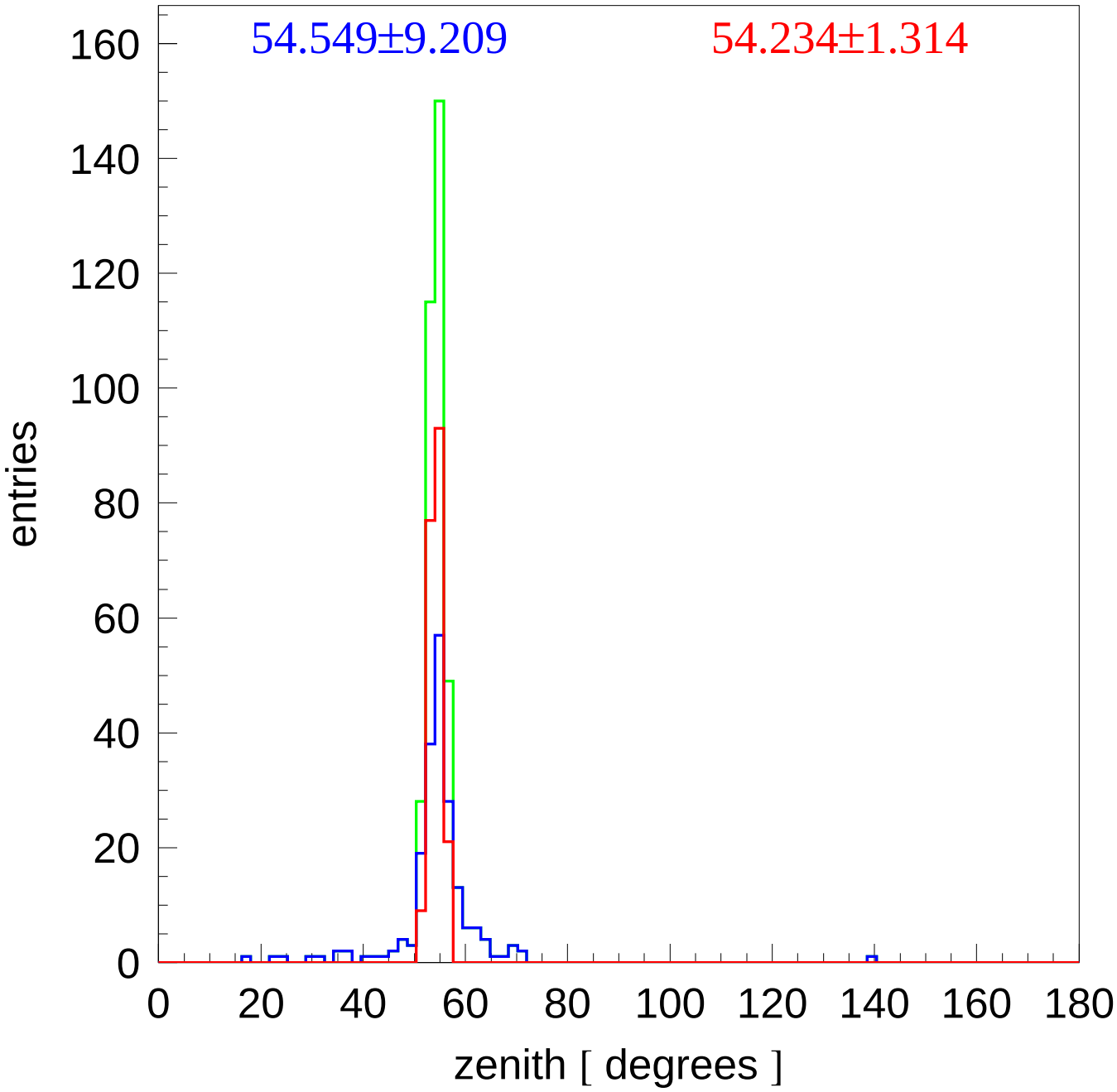

-40
-60
-80
-100
-120
y [m]
320
330
340
350
360
370
380
390
400
410
x [m]


360.470±3.841
362.525±0.713
entries
160
140
120
100
80
60
40
20
0
320
330
340
350
360
370
380
390
400
410
x [m]


-89.624±4.123
-85.659±1.679
60
50
40
30
20
10
0
entries
-120
-100
-80
-60
-40
y [m]


180
160
140
120
100
80
60
40
20
0
zenith [degrees]
-150
-100
-50
0
50
100
150
azimuth [degrees]


-26.568±31.956
-21.816±1.858
200
175
150
125
100
75
50
25
0
entries
-150
-100
-50
0
50
100
150
azimuth [degrees]


54.549±9.209
54.234±1.314
entries
zenith [degrees]
0
20
40
60
80
100
120
140
160
180