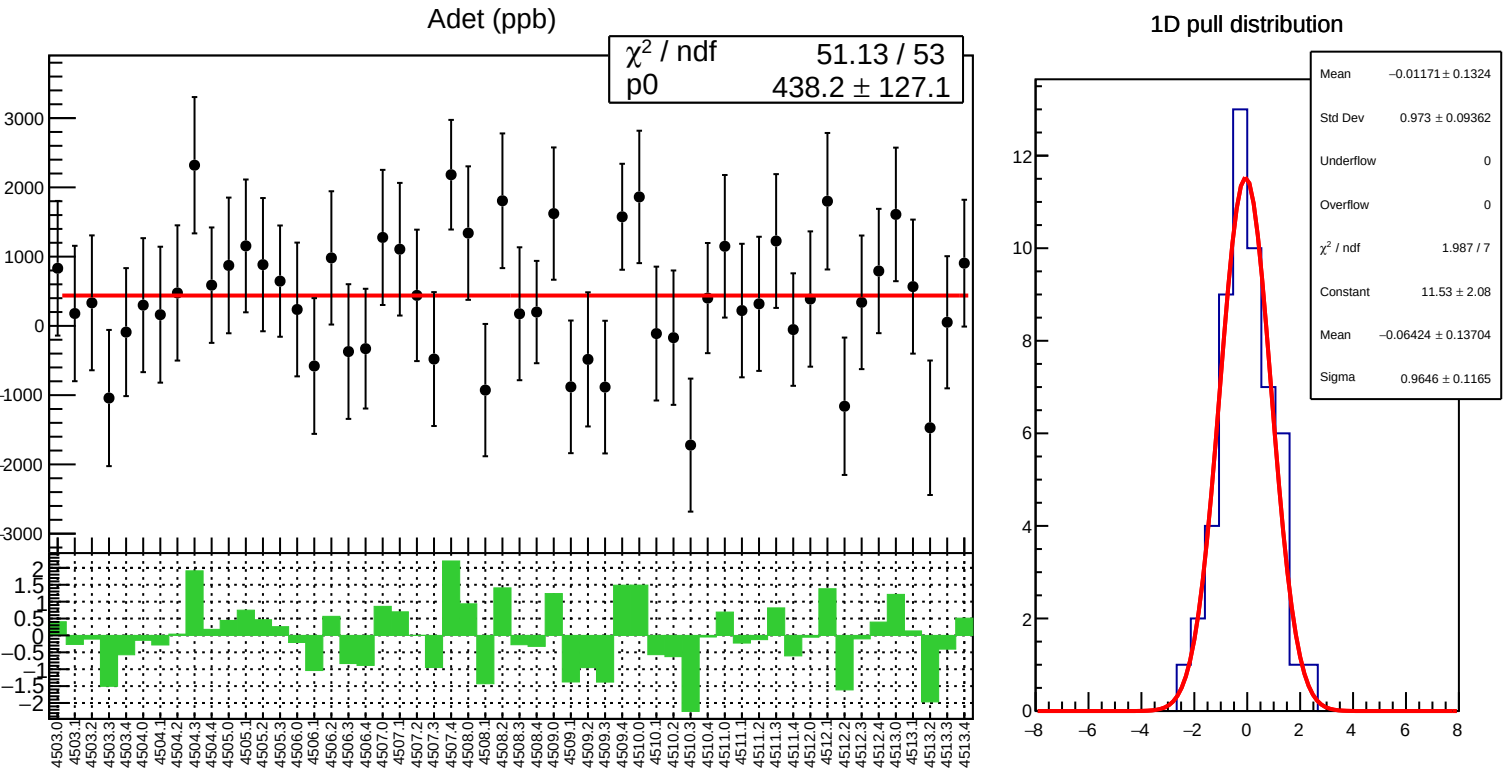
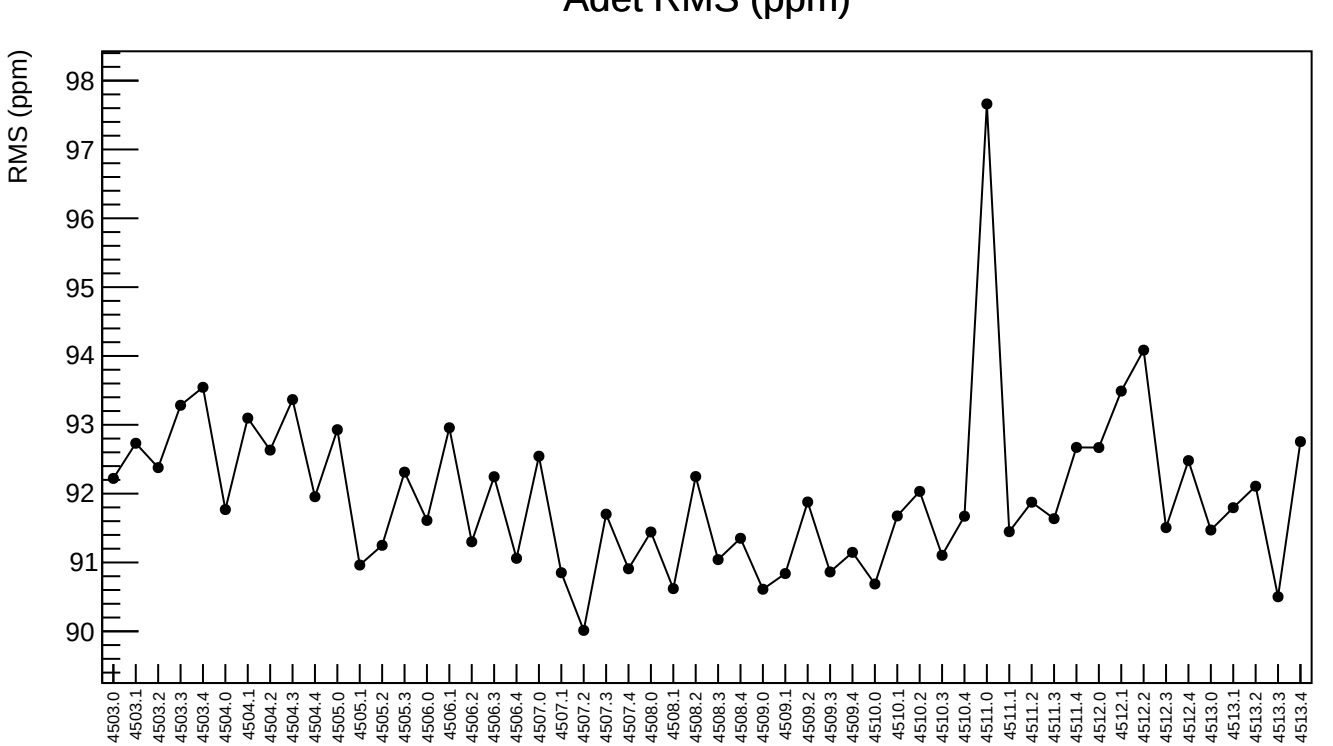
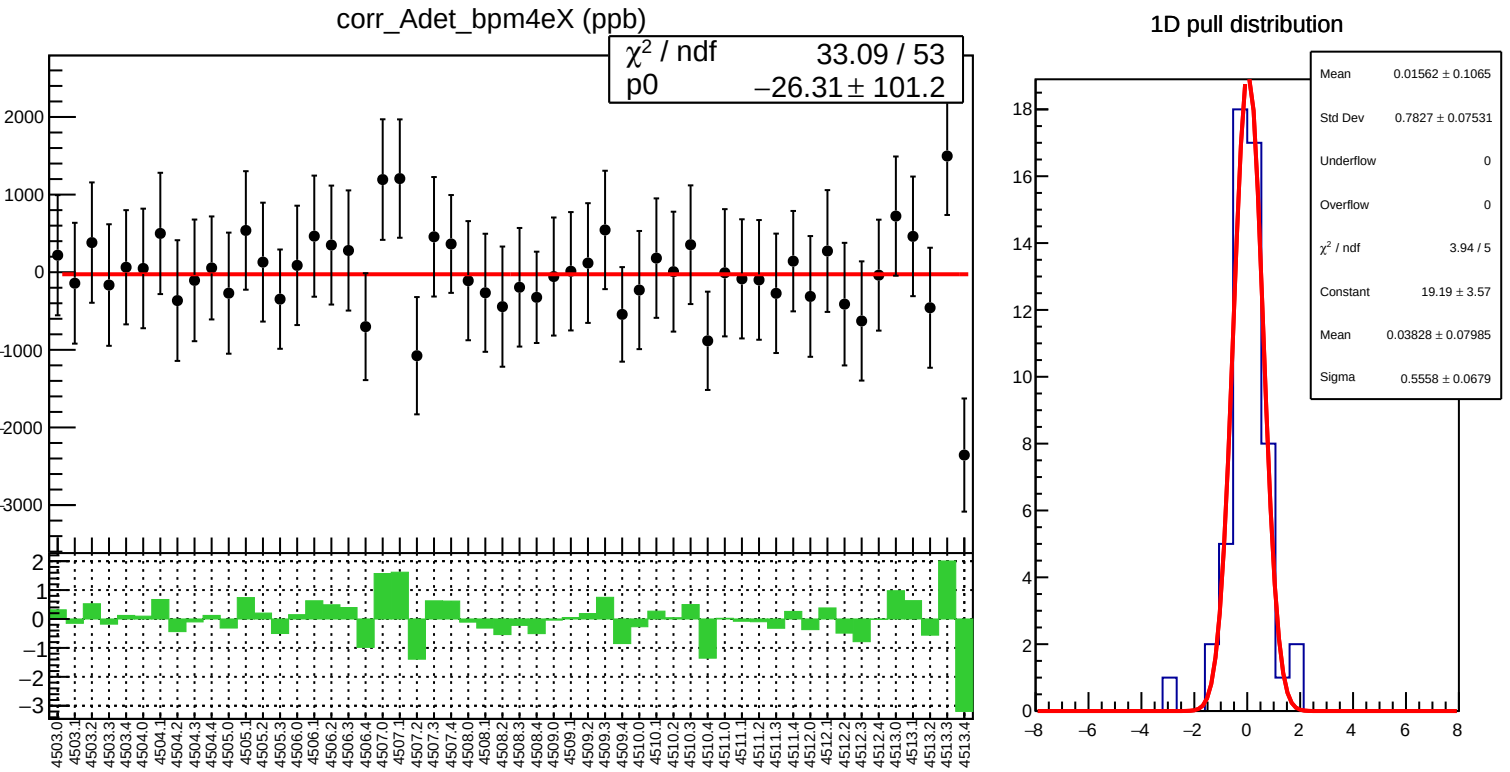
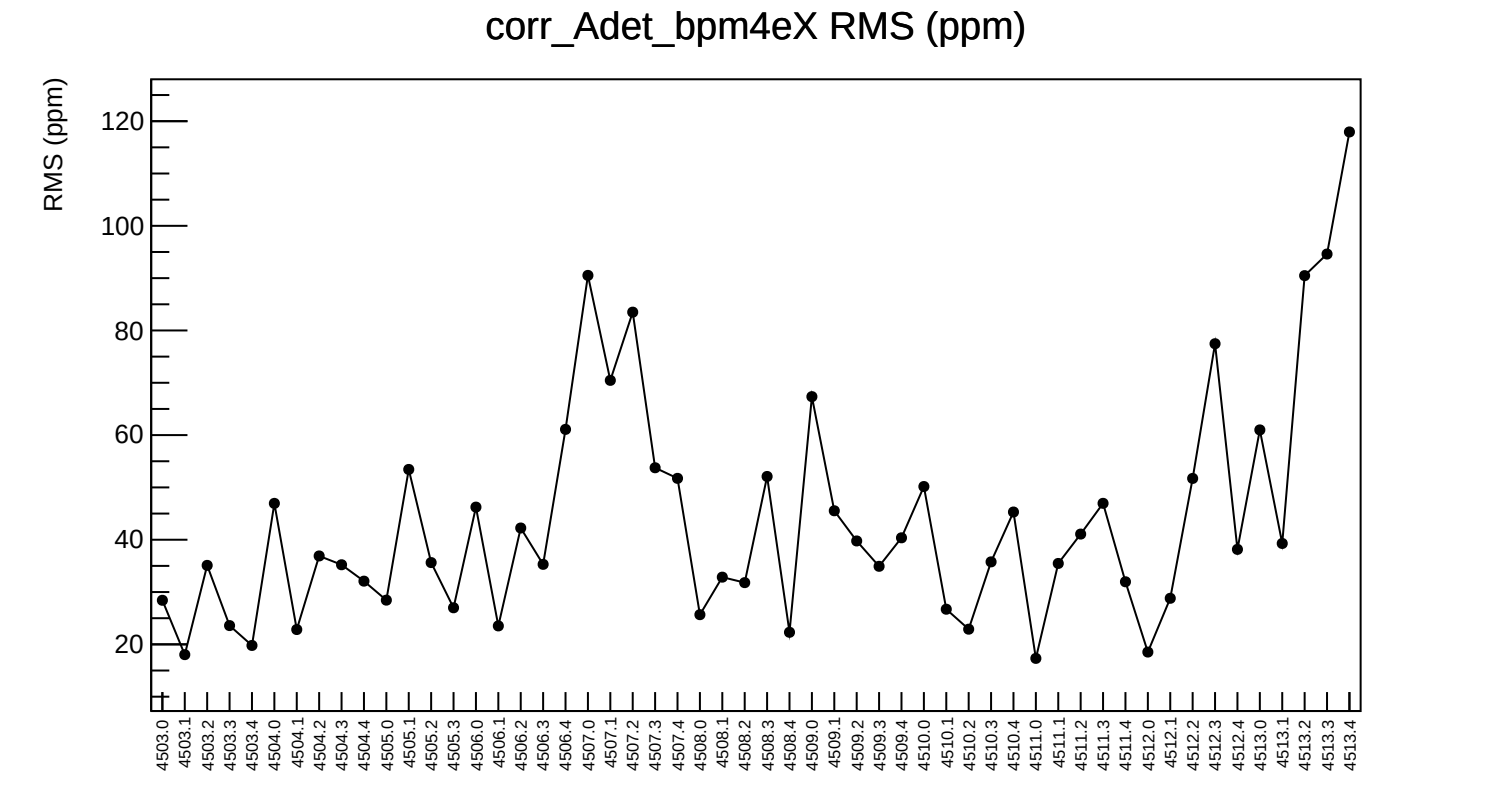
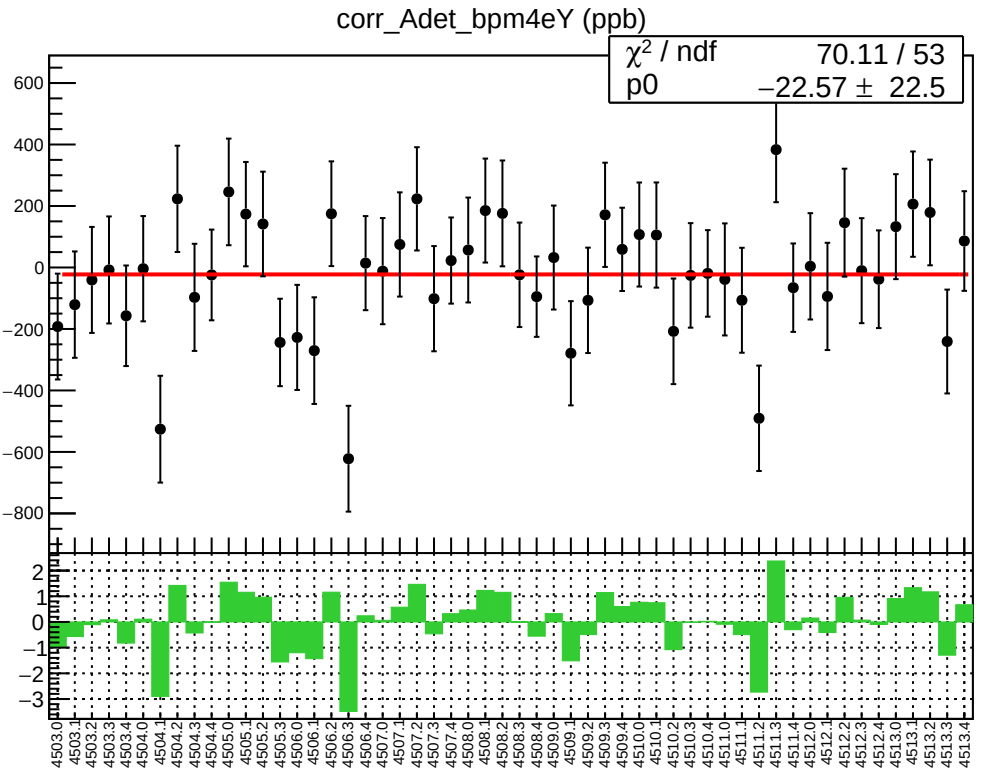

Adet (ppb)
χ² / ndf 51.13 / 53
p0 438.2 ± 127.1
3000
2000
1000
0
-1000
-2000
-3000
2
1.5
1
0.5
0
−0.5
−1
−1.5
−2
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4
1D pull distribution
Mean −0.01171 ± 0.1324
Std Dev 0.973 ± 0.09362
Underflow 0
Overflow 0
χ² / ndf 1.987 / 7
Constant 11.53 ± 2.08
Mean −0.06424 ± 0.13704
Sigma 0.9646 ± 0.1165
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

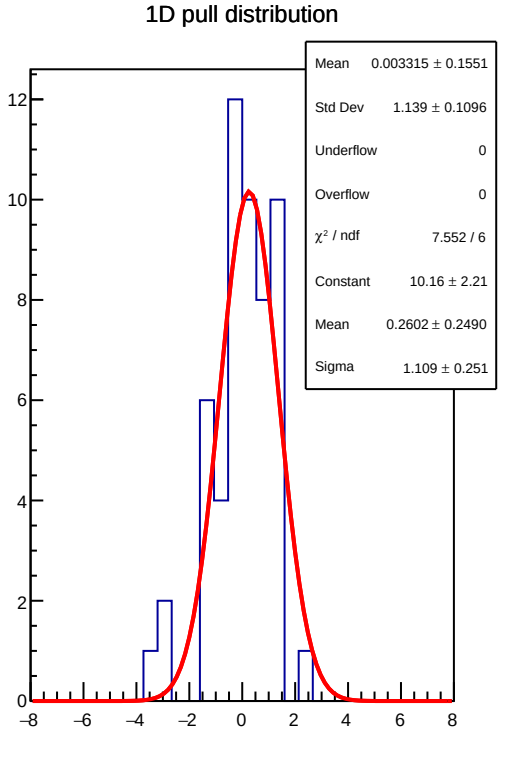

Adet RMS (ppm)
RMS (ppm)
98
97
96
95
94
93
92
91
90
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

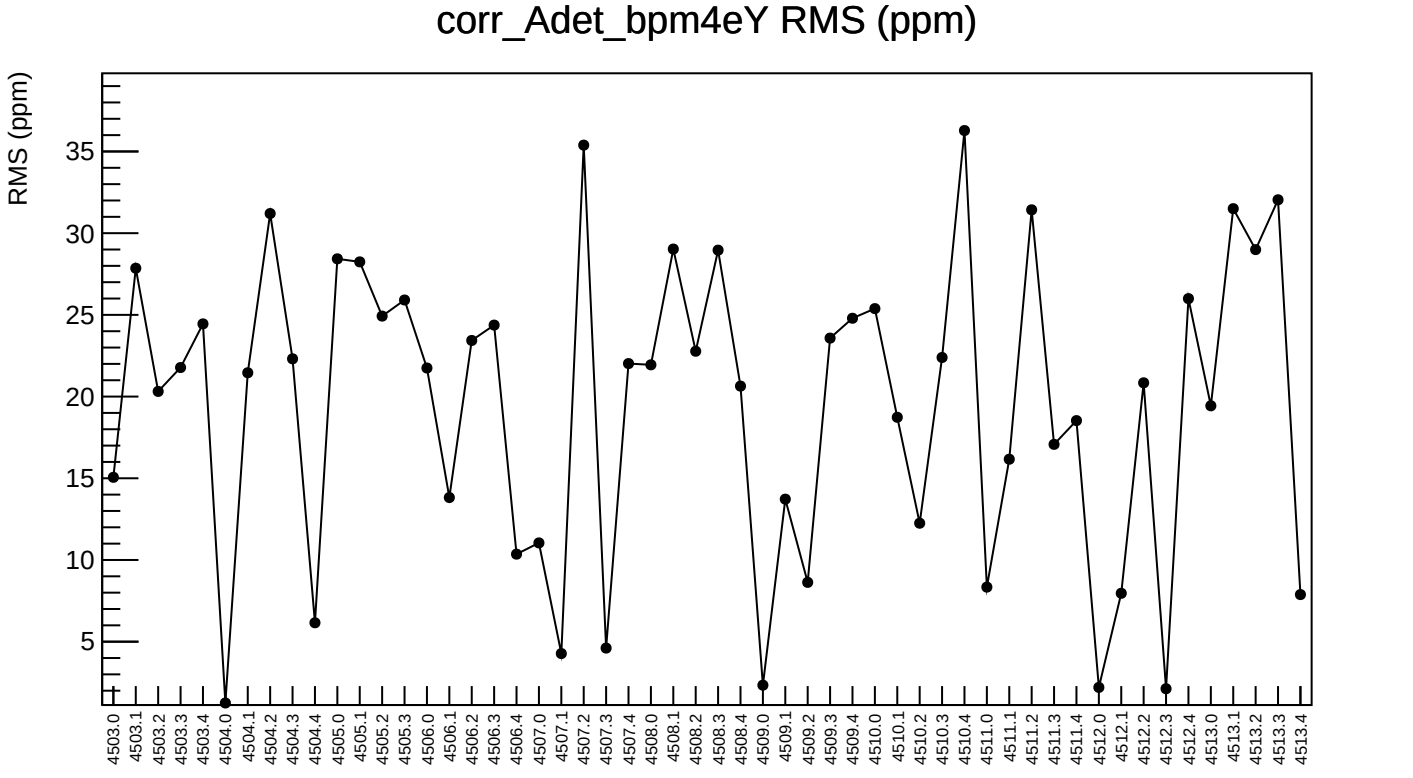

corr_Adet_bpm4eX (ppb)
χ² / ndf 33.09 / 53
p0 −26.31 ± 101.2
2000
1000
0
-1000
-2000
-3000
2
1
0
−1
−2
−3
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

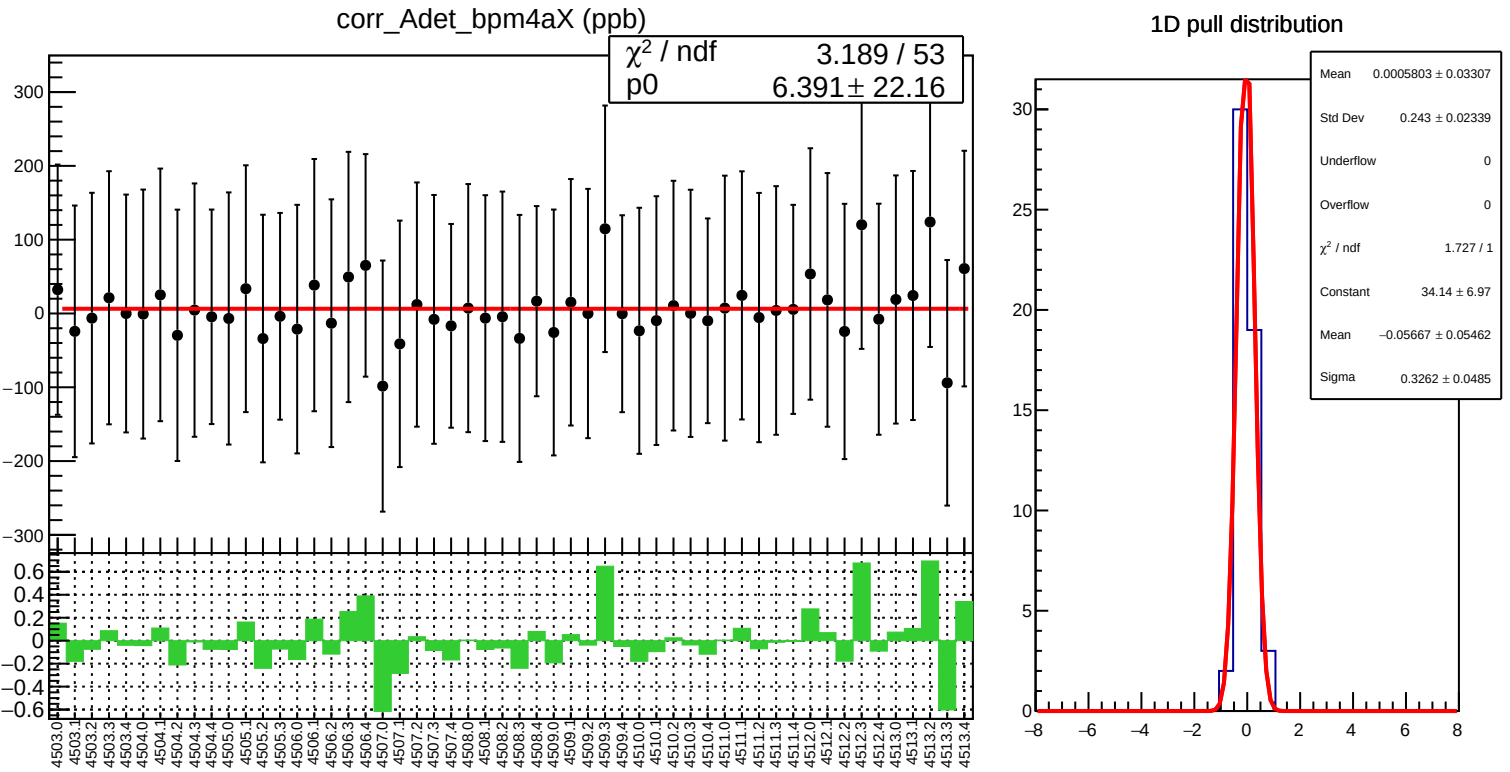
1D pull distribution
Mean 0.01562 ± 0.1065
Std Dev 0.7827 ± 0.07531
Underflow 0
Overflow 0
χ² / ndf 3.94 / 5
Constant 19.19 ± 3.57
Mean 0.03828 ± 0.07985
Sigma 0.5558 ± 0.0679
18
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

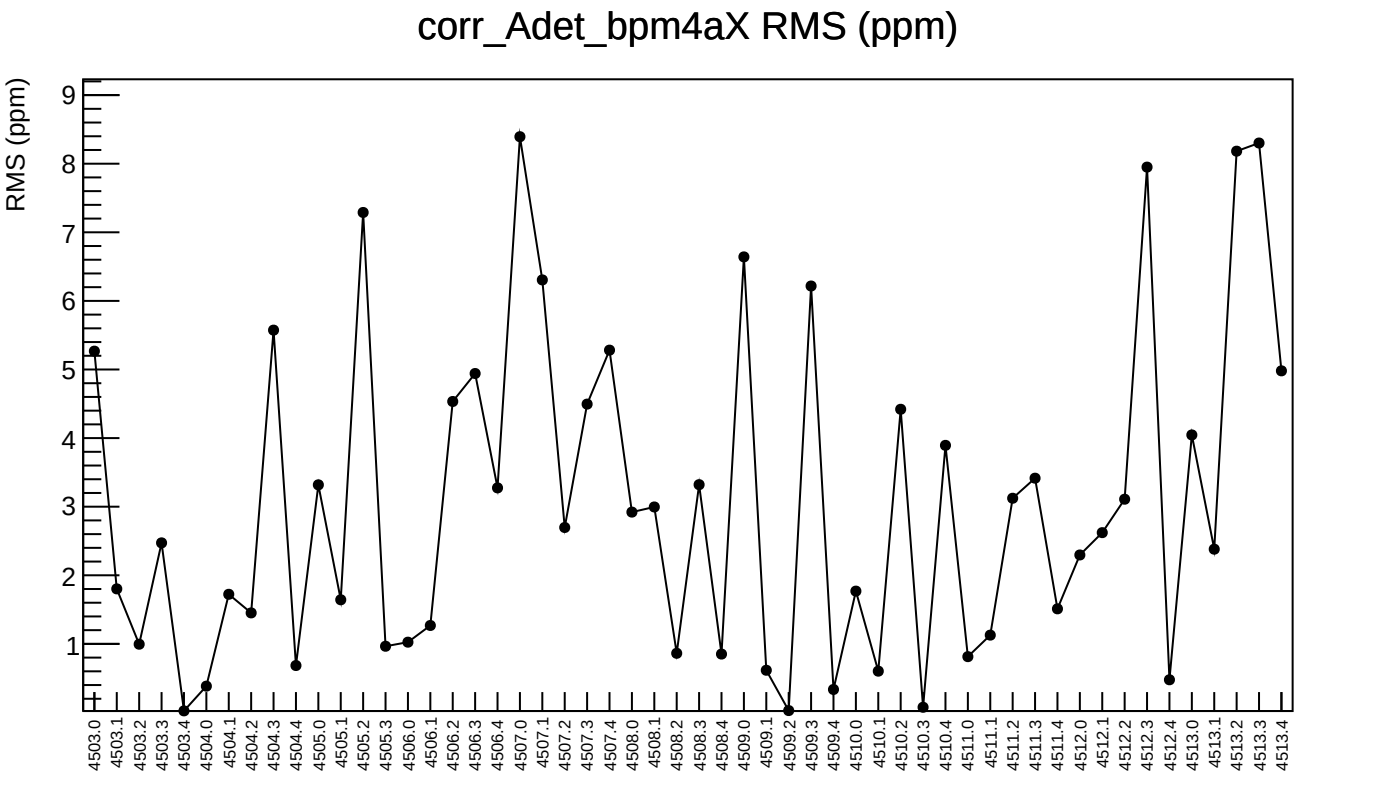

corr_Adet_bpm4eX RMS (ppm)
RMS (ppm)
120
100
80
60
40
20
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

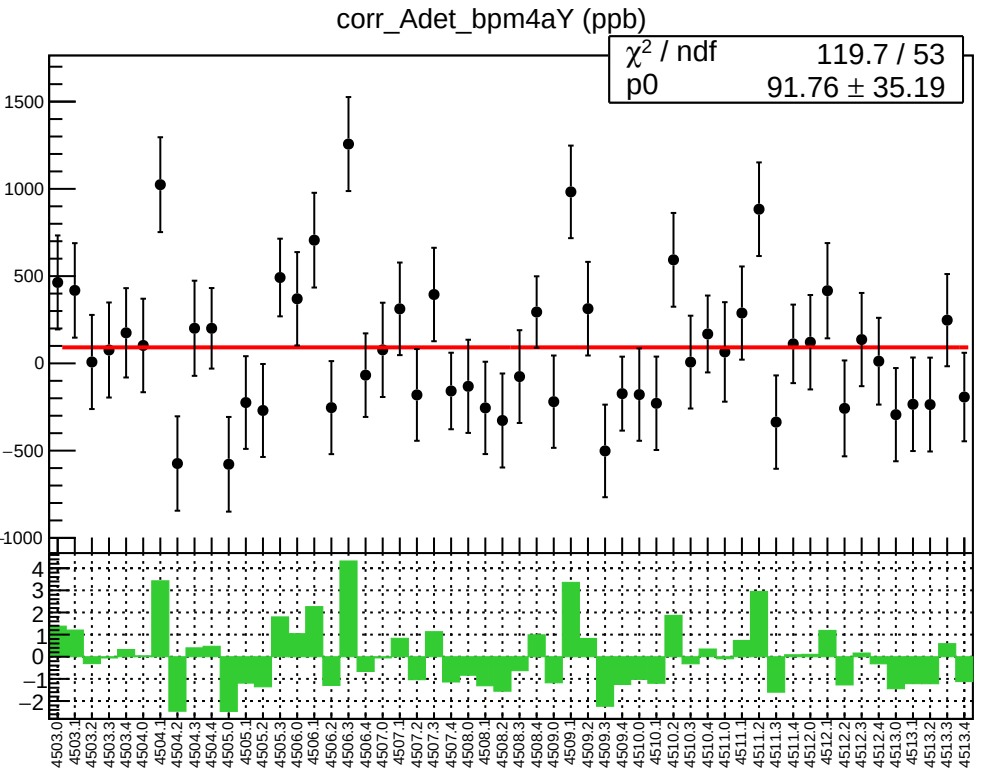

corr_Adet_bpm4eY (ppb)
χ² / ndf 70.11 / 53
p0 −22.57 ± 22.5
600
400
200
0
−200
−400
−600
−800
2
1
0
−1
−2
−3
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

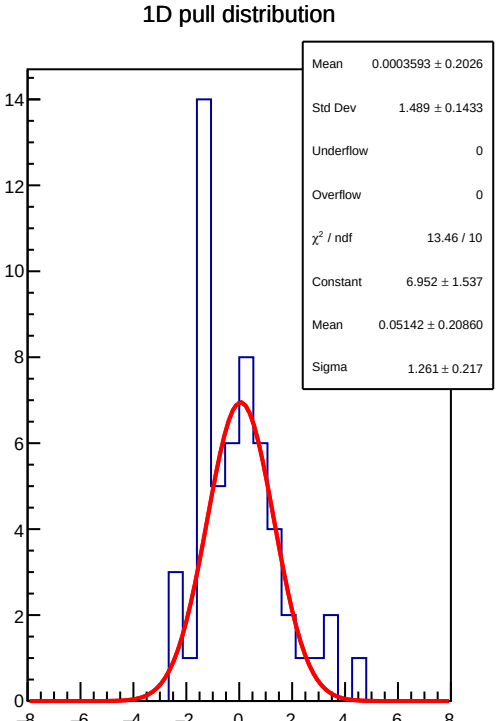

1D pull distribution
Mean 0.003315 ± 0.1551
Std Dev 1.139 ± 0.1096
Underflow 0
Overflow 0
χ² / ndf 7.552 / 6
Constant 10.16 ± 2.21
Mean 0.2602 ± 0.2490
Sigma 1.109 ± 0.251
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

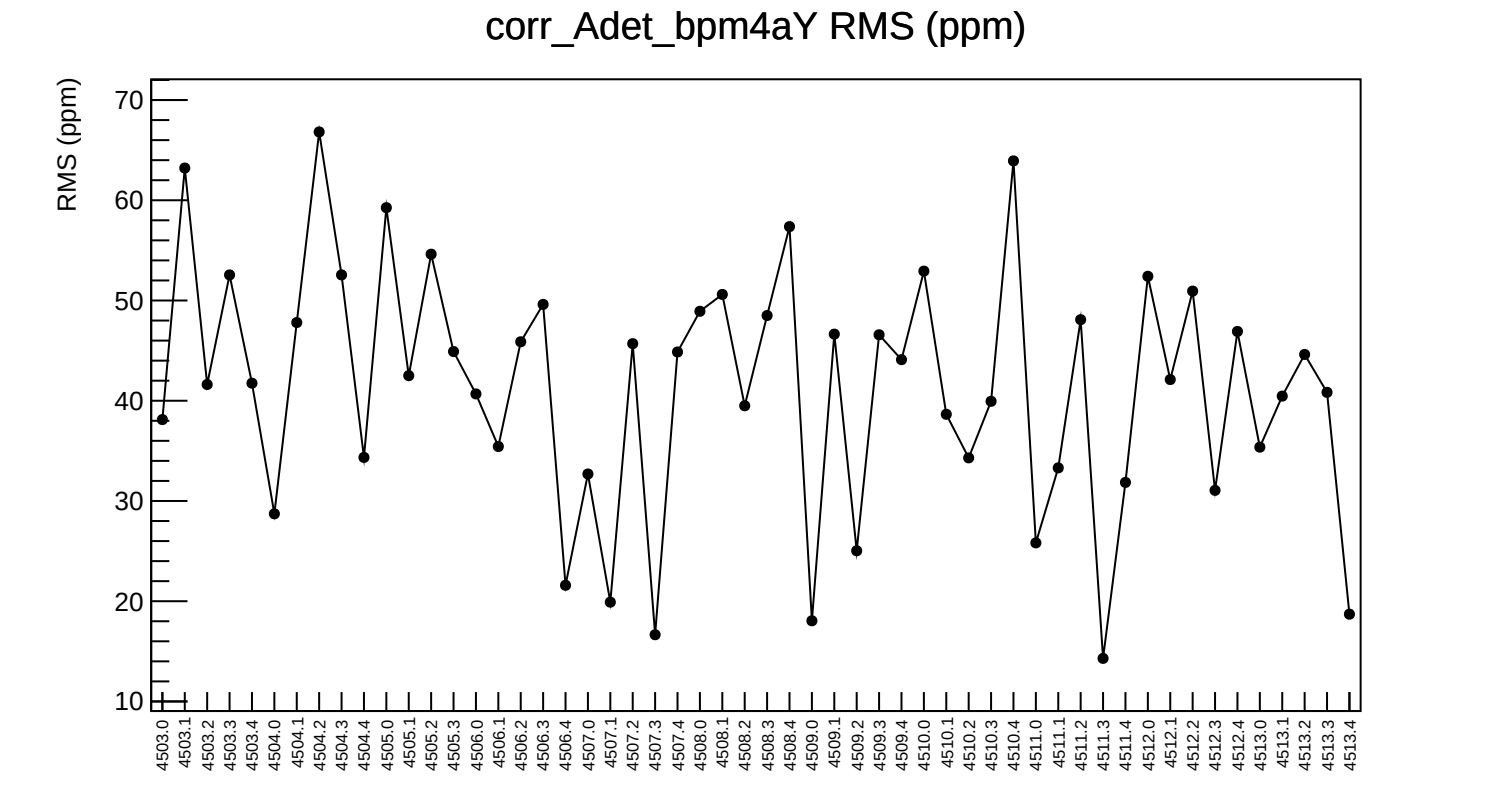

corr_Adet_bpm4eY RMS (ppm)
RMS (ppm)
35
30
25
20
15
10
5
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

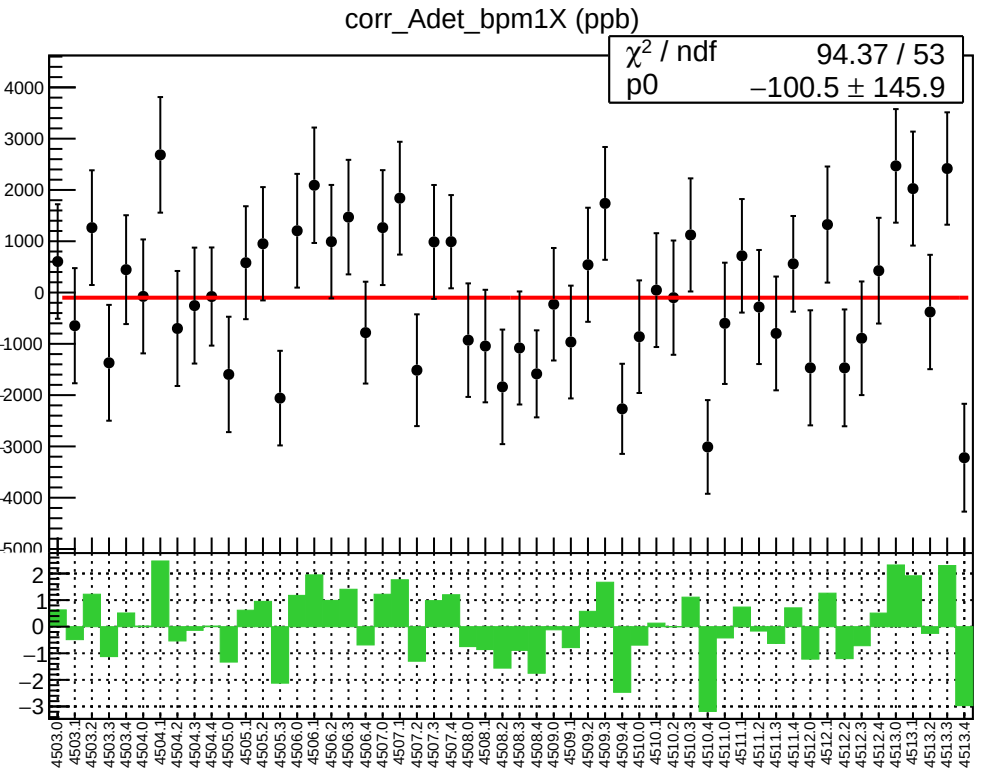

corr_Adet_bpm4aX (ppb)
χ² / ndf 3.189 / 53
p0 6.391 ± 22.16
1D pull distribution
Mean 0.0005803 ± 0.03307
Std Dev 0.243 ± 0.02339
Underflow 0
Overflow 0
χ² / ndf 1.727 / 1
Constant 34.14 ± 6.97
Mean −0.05667 ± 0.05462
Sigma 0.3262 ± 0.0485

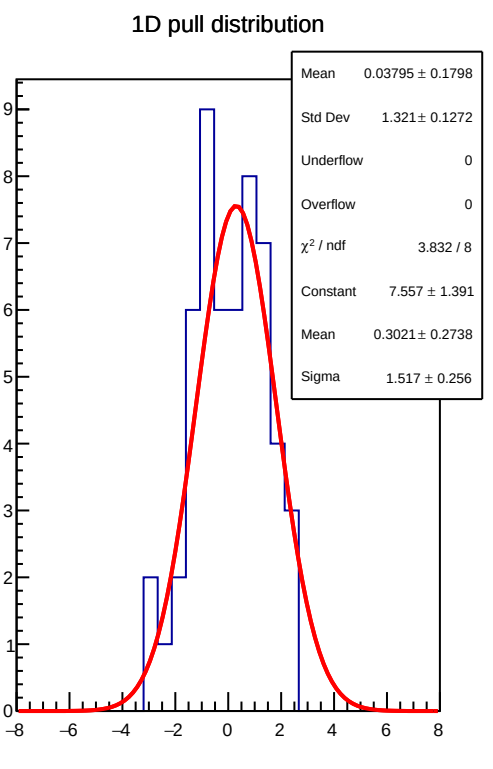

corr_Adet_bpm4aX RMS (ppm)
RMS (ppm)
9
8
7
6
5
4
3
2
1
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

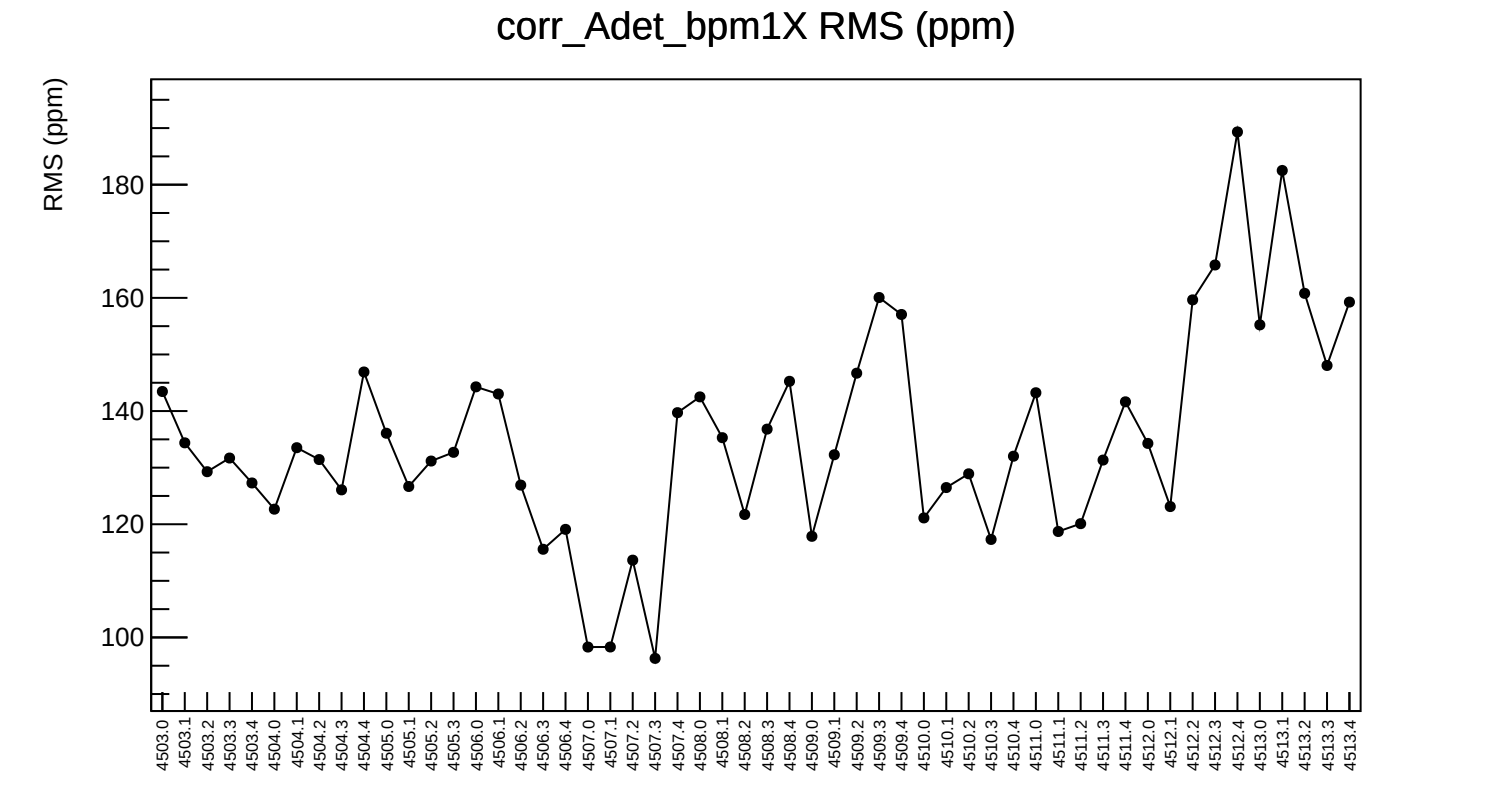

corr_Adet_bpm4aY (ppb)
χ² / ndf 119.7 / 53
p0 91.76 ± 35.19
1500
1000
500
0
−500
−1000
4
3
2
1
0
−1
−2
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

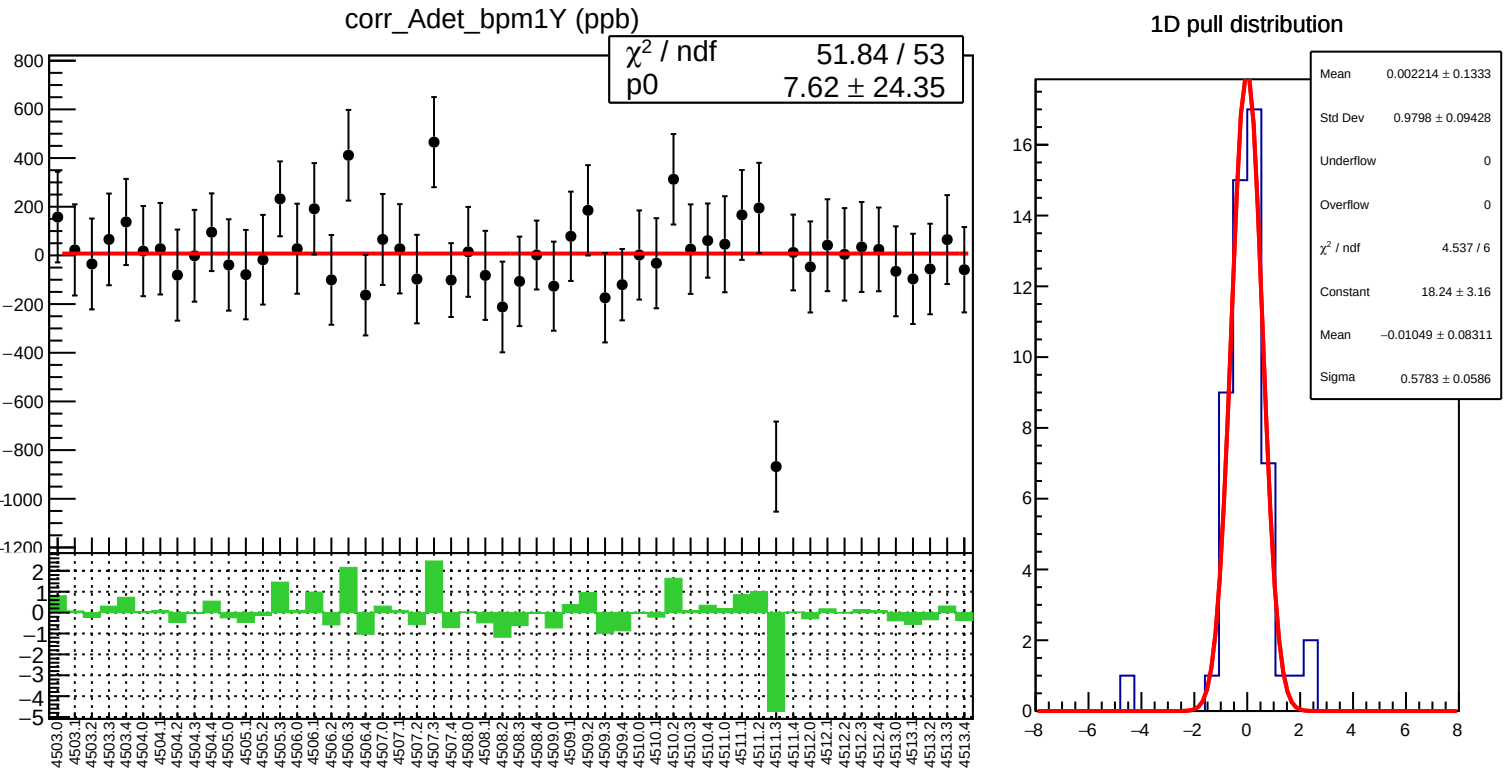

1D pull distribution
Mean 0.0003593 ± 0.2026
Std Dev 1.489 ± 0.1433
Underflow 0
Overflow 0
χ² / ndf 13.46 / 10
Constant 6.952 ± 1.537
Mean 0.05142 ± 0.20860
Sigma 1.261 ± 0.217
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

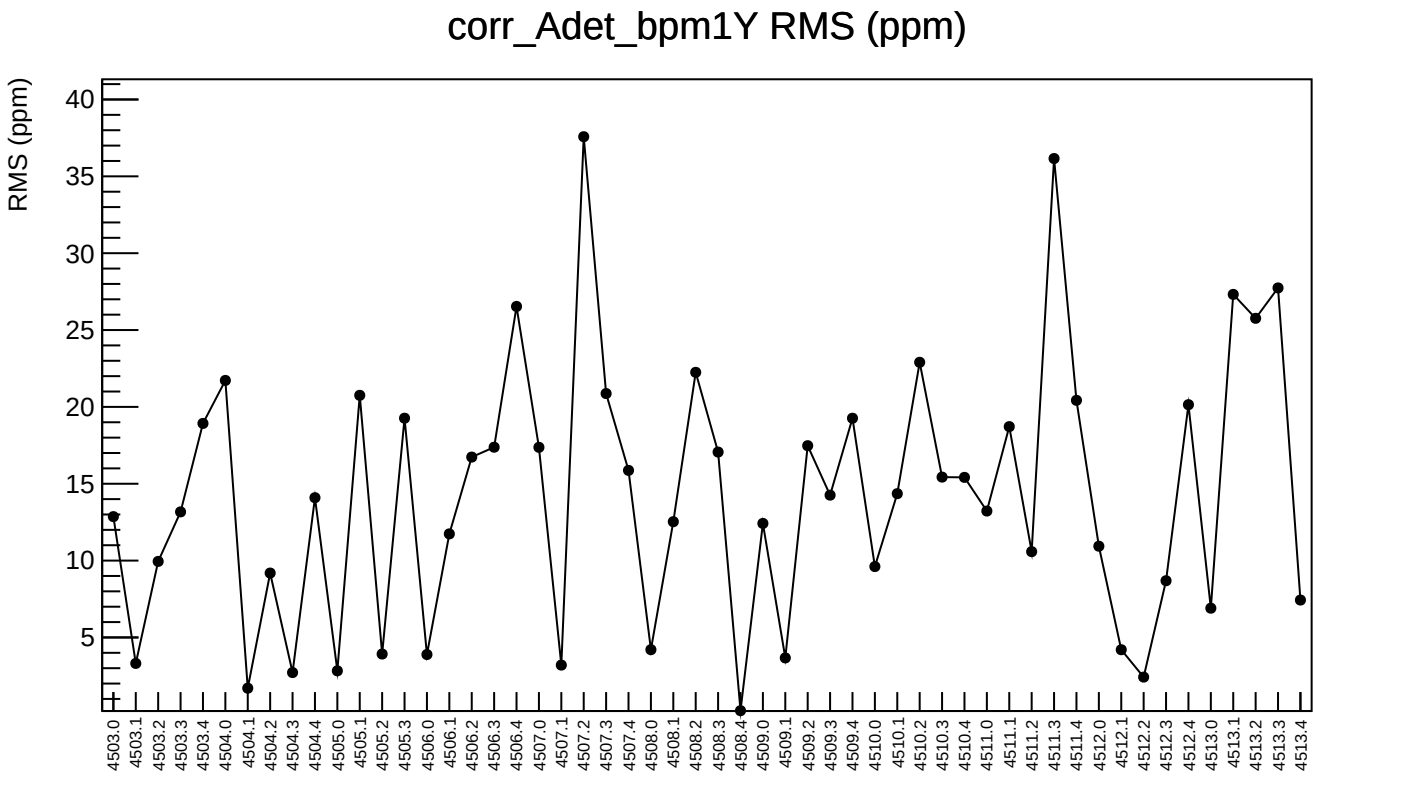

corr_Adet_bpm4aY RMS (ppm)
RMS (ppm)
70
60
50
40
30
20
10
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

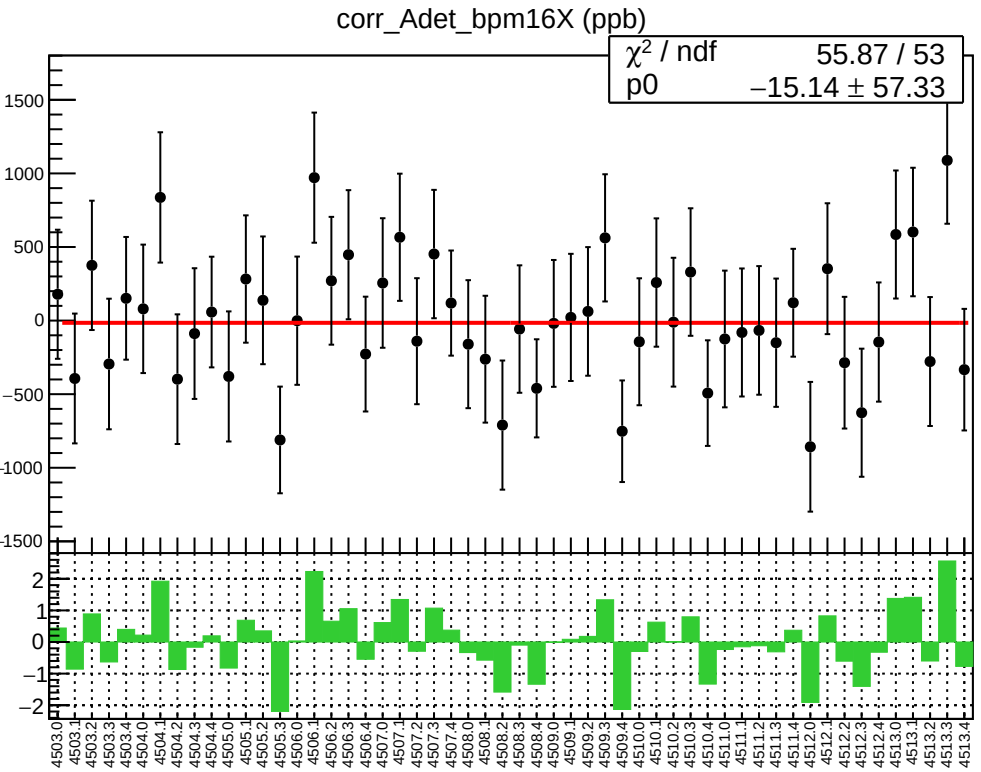

corr_Adet_bpm1X (ppb)
χ² / ndf 94.37 / 53
p0 −100.5 ± 145.9

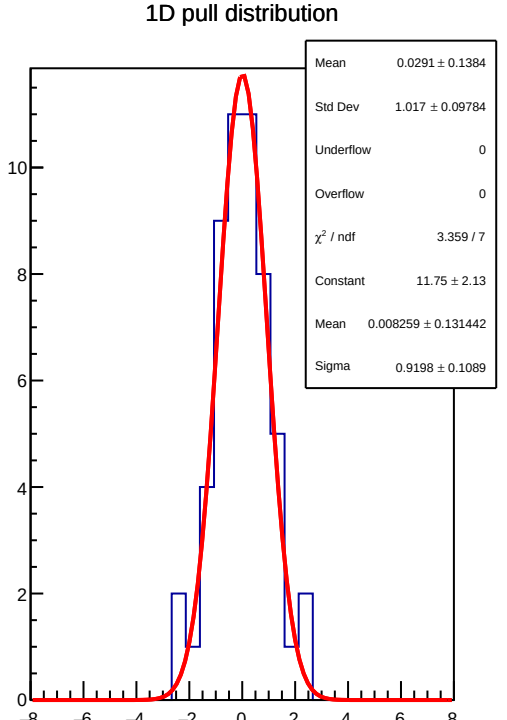

1D pull distribution
Mean 0.03795 ± 0.1798
Std Dev 1.321 ± 0.1272
Underflow 0
Overflow 0
χ² / ndf 3.832 / 8
Constant 7.557 ± 1.391
Mean 0.3021 ± 0.2738
Sigma 1.517 ± 0.256

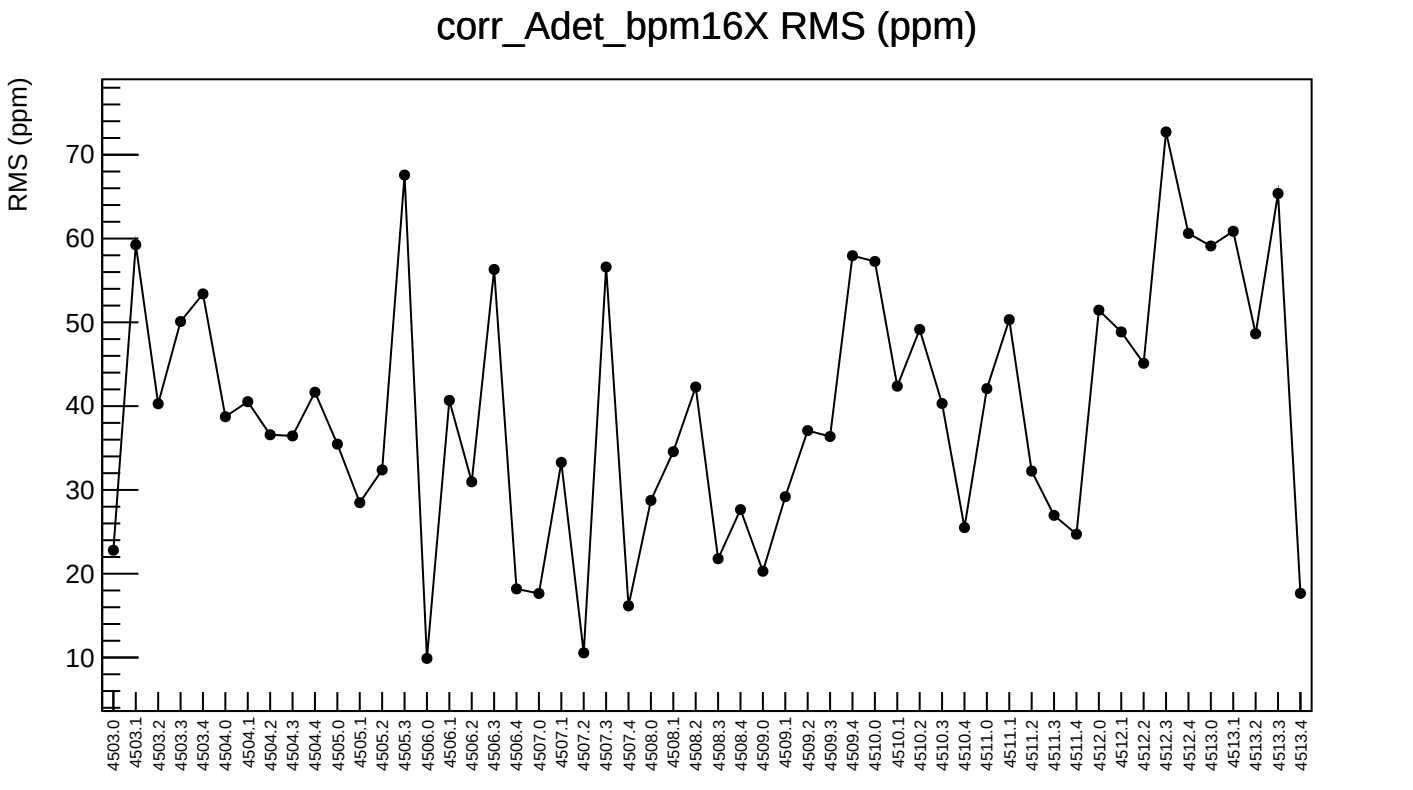

corr_Adet_bpm1X RMS (ppm)
RMS (ppm)
100
120
140
160
180
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

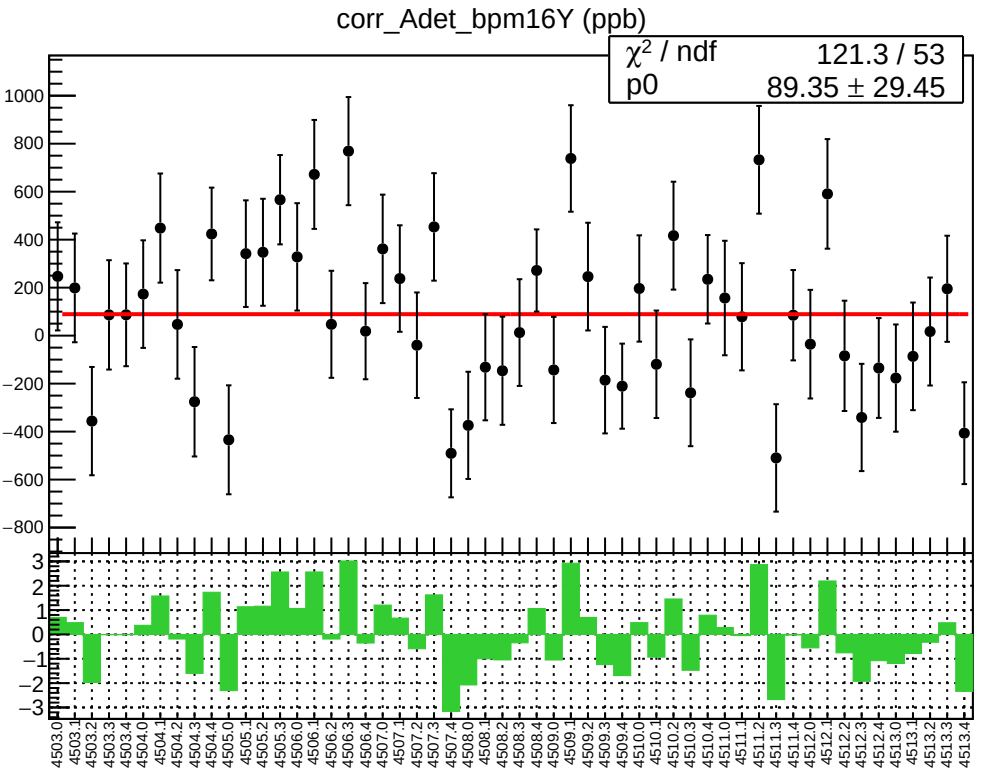

corr_Adet_bpm1Y (ppb)
χ² / ndf 51.84 / 53
p0 7.62 ± 24.35
1D pull distribution
Mean 0.002214 ± 0.1333
Std Dev 0.9798 ± 0.09428
Underflow 0
Overflow 0
χ² / ndf 4.537 / 6
Constant 18.24 ± 3.16
Mean −0.01049 ± 0.08311
Sigma 0.5783 ± 0.0586

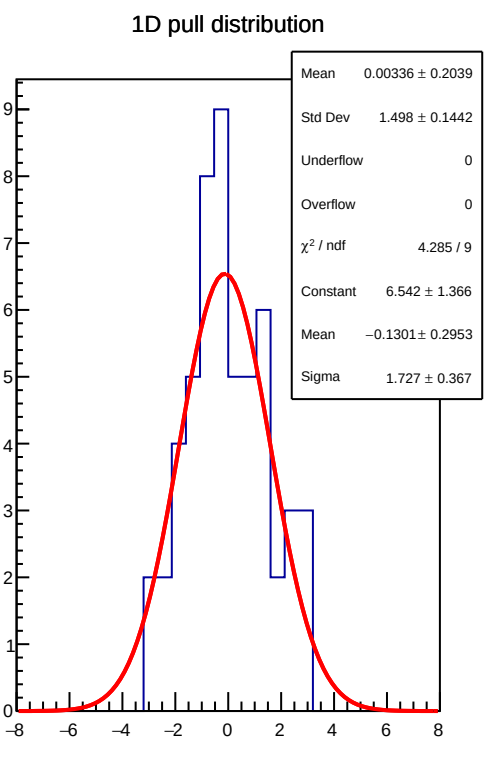

corr_Adet_bpm1Y RMS (ppm)
RMS (ppm)
40
35
30
25
20
15
10
5
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

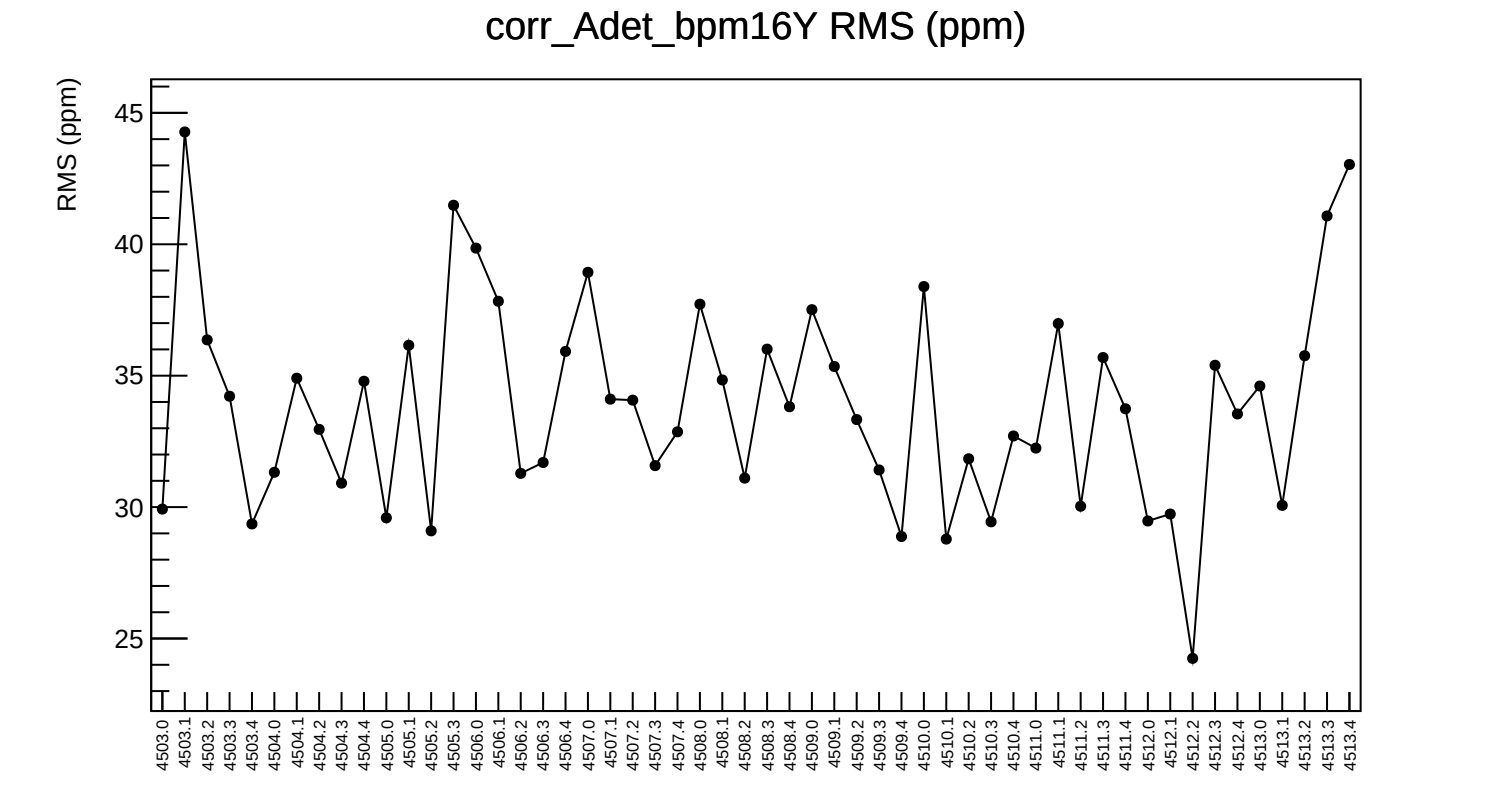

corr_Adet_bpm16X (ppb)
χ² / ndf 55.87 / 53
p0 −15.14 ± 57.33
1500
1000
500
0
−500
−1000
−1500
2
1
0
−1
−2
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

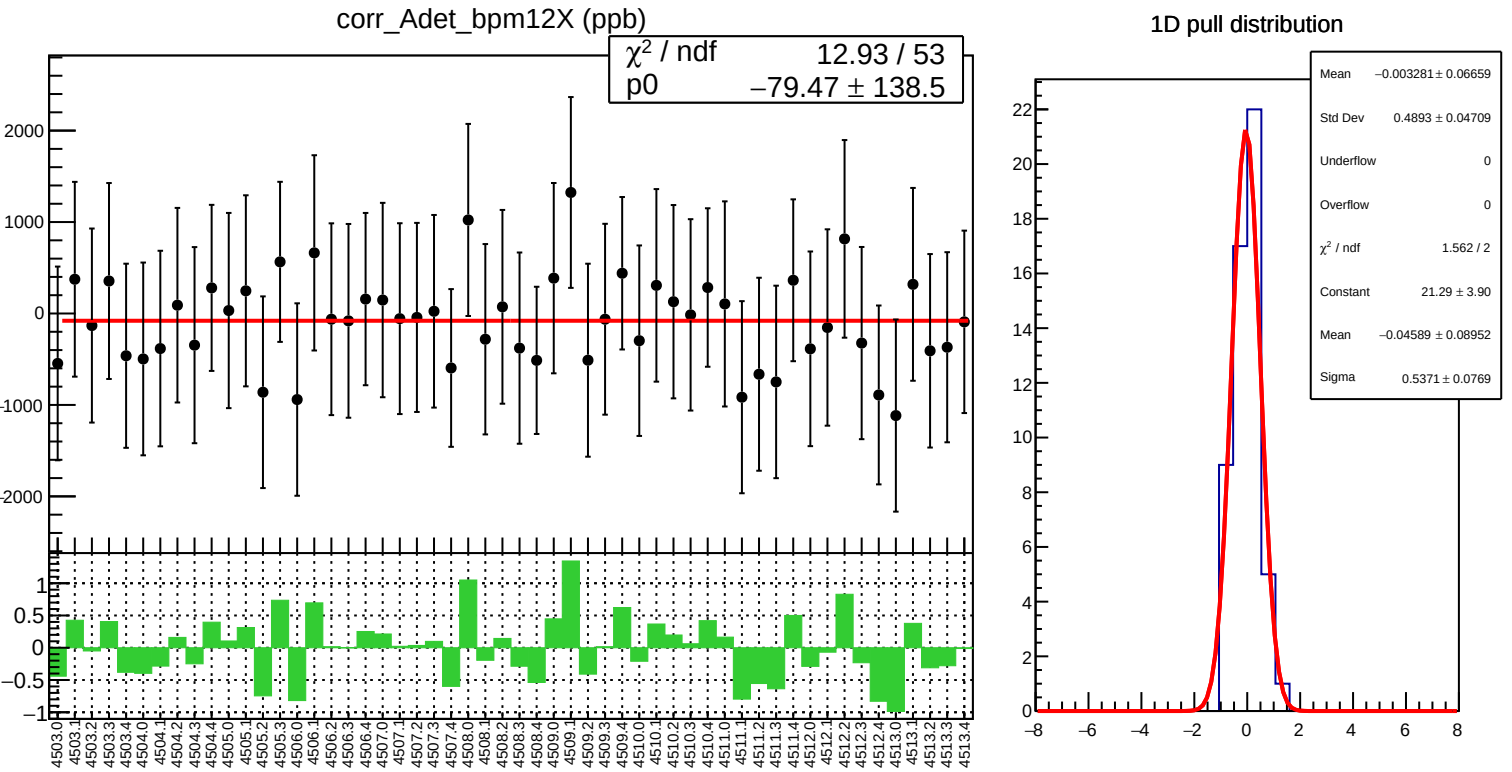

1D pull distribution
Mean 0.0291 ± 0.1384
Std Dev 1.017 ± 0.09784
Underflow 0
Overflow 0
χ² / ndf 3.359 / 7
Constant 11.75 ± 2.13
Mean 0.008259 ± 0.131442
Sigma 0.9198 ± 0.1089
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

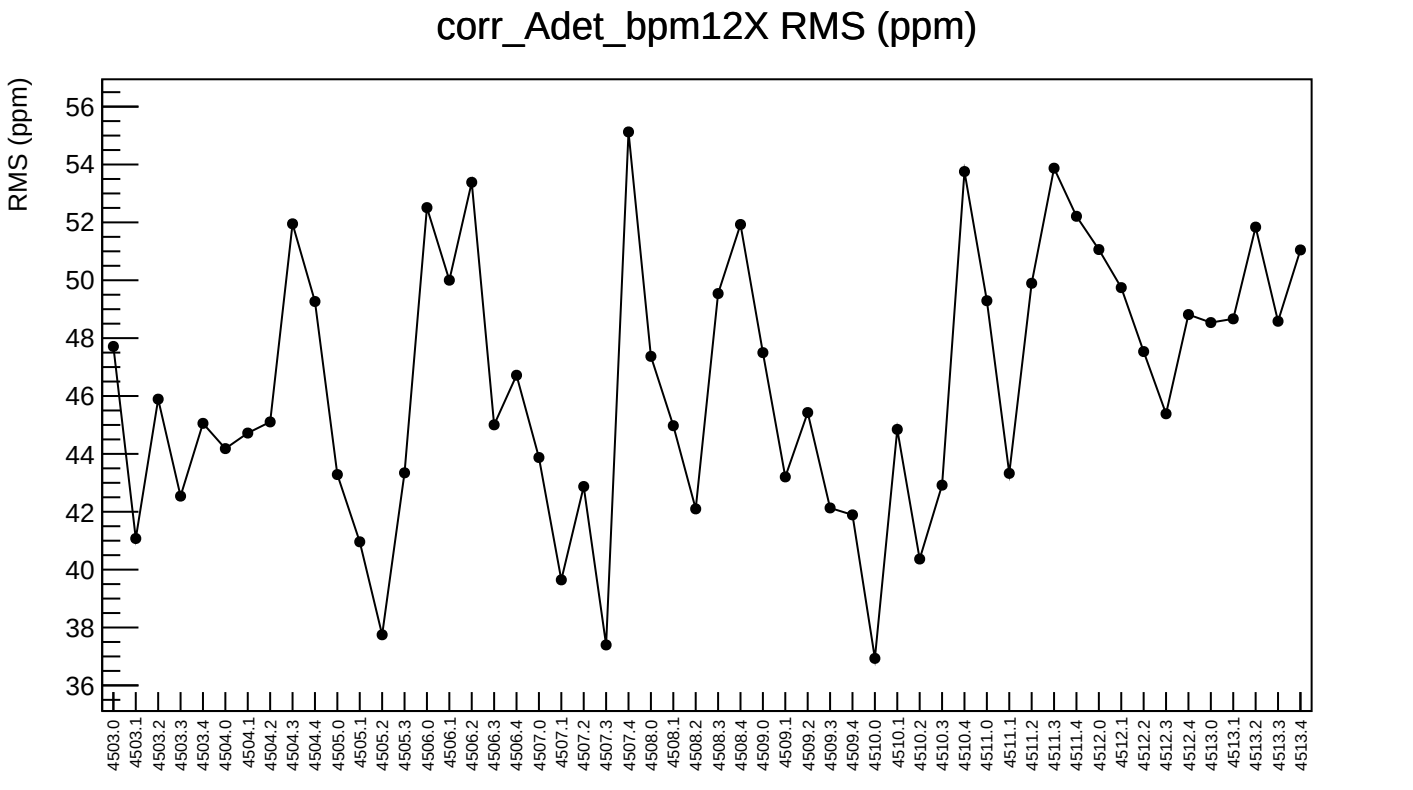

corr_Adet_bpm16X RMS (ppm)
RMS (ppm)
70
60
50
40
30
20
10
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

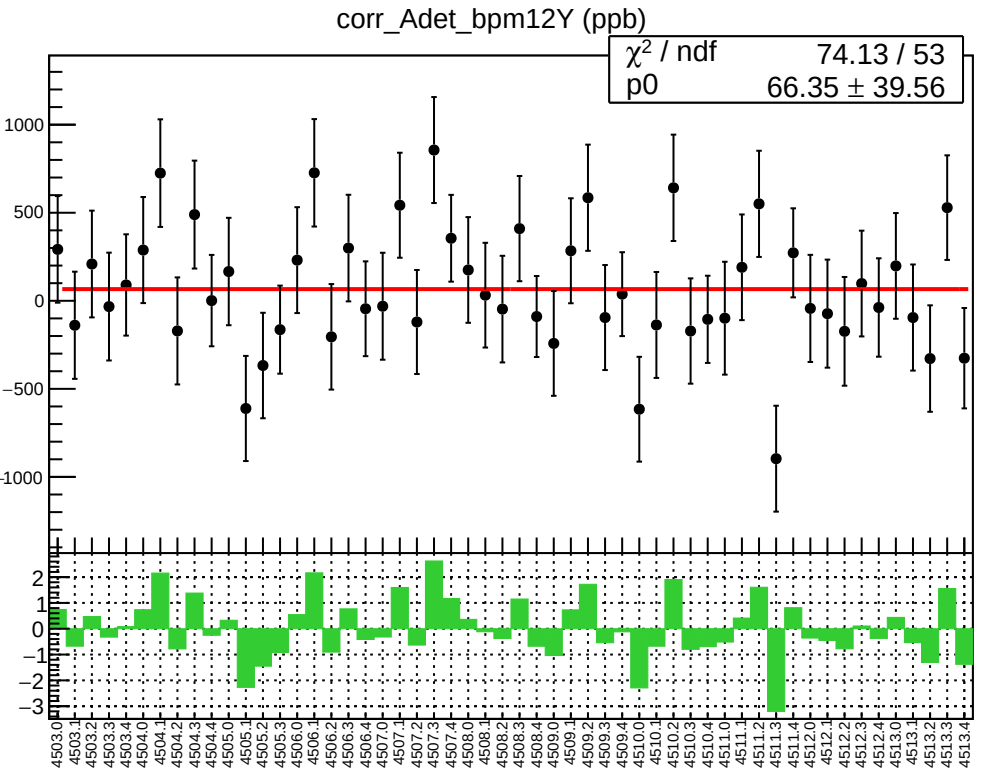

corr_Adet_bpm16Y (ppb)
χ² / ndf 121.3 / 53
p0 89.35 ± 29.45
1000
800
600
400
200
0
−200
−400
−600
−800
3
2
1
0
−1
−2
−3
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

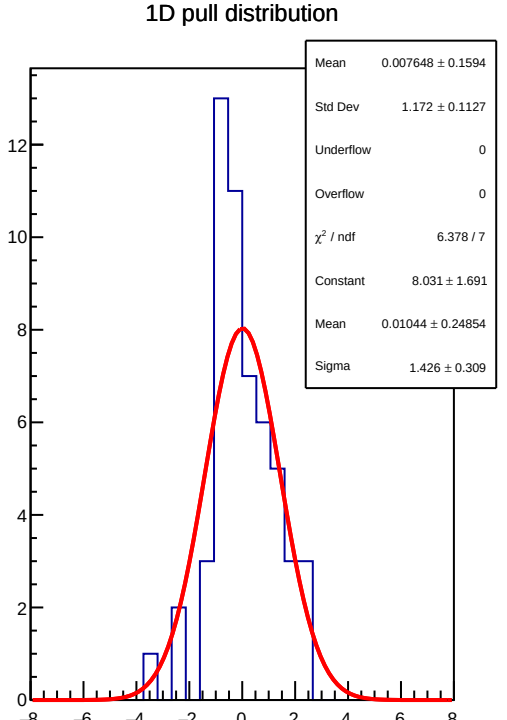

1D pull distribution
Mean 0.00336 ± 0.2039
Std Dev 1.498 ± 0.1442
Underflow 0
Overflow 0
χ² / ndf 4.285 / 9
Constant 6.542 ± 1.366
Mean −0.1301 ± 0.2953
Sigma 1.727 ± 0.367
9
8
7
6
5
4
3
2
1
0
−8
−6
−4
−2
0
2
4
6
8

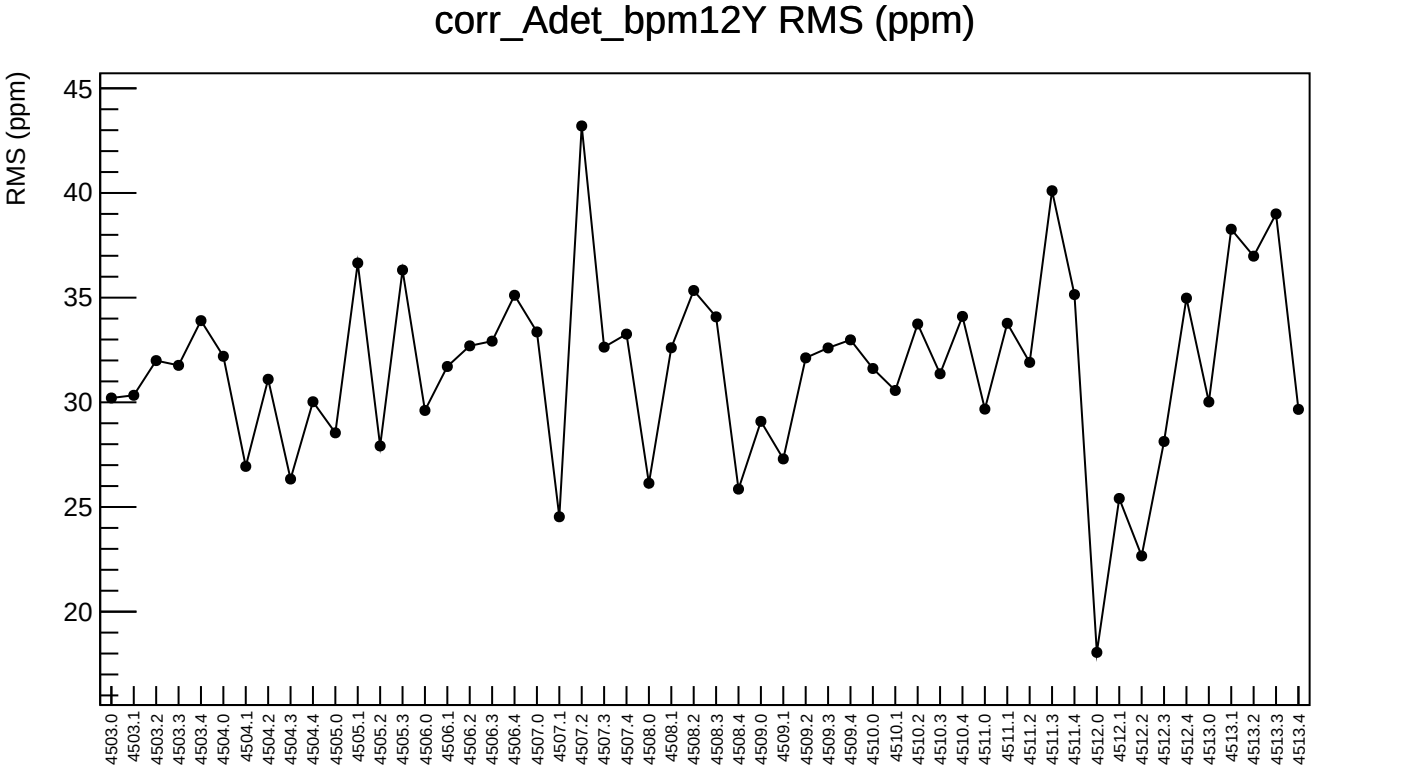

corr_Adet_bpm16Y RMS (ppm)
RMS (ppm)
45
40
35
30
25
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

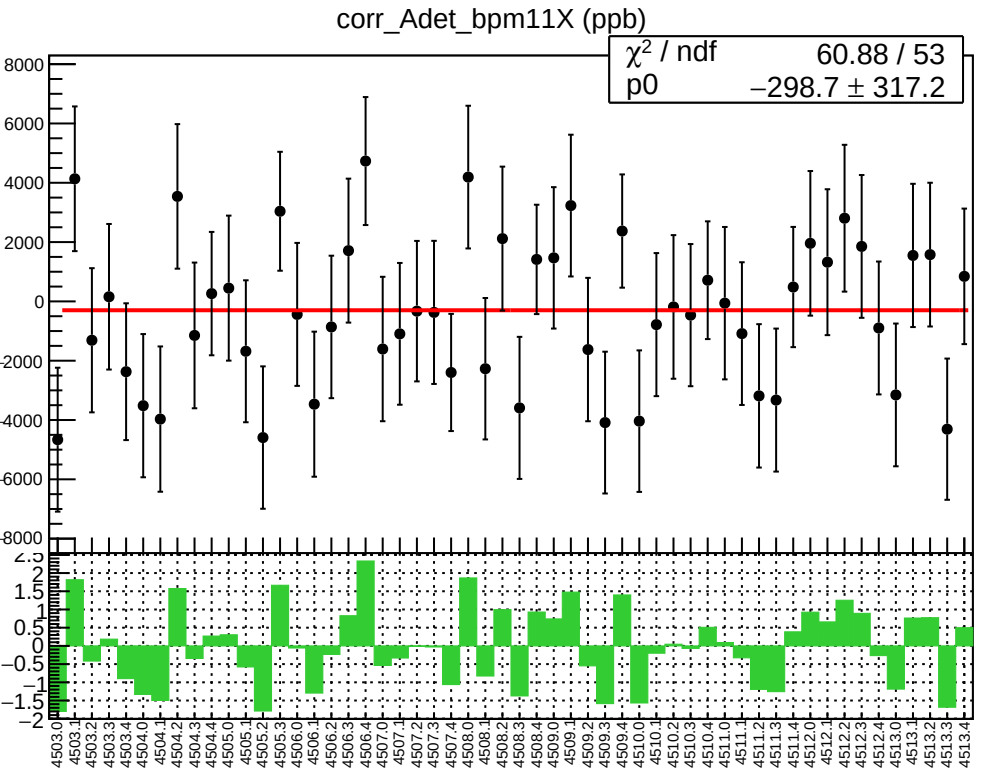

corr_Adet_bpm12X (ppb)
χ² / ndf 12.93 / 53
p0 −79.47 ± 138.5
2000
1000
0
-1000
-2000
1
0.5
0
−0.5
−1
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4
1D pull distribution
Mean −0.003281 ± 0.06659
Std Dev 0.4893 ± 0.04709
Underflow 0
Overflow 0
χ² / ndf 1.562 / 2
Constant 21.29 ± 3.90
Mean −0.04589 ± 0.08952
Sigma 0.5371 ± 0.0769
22
20
18
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

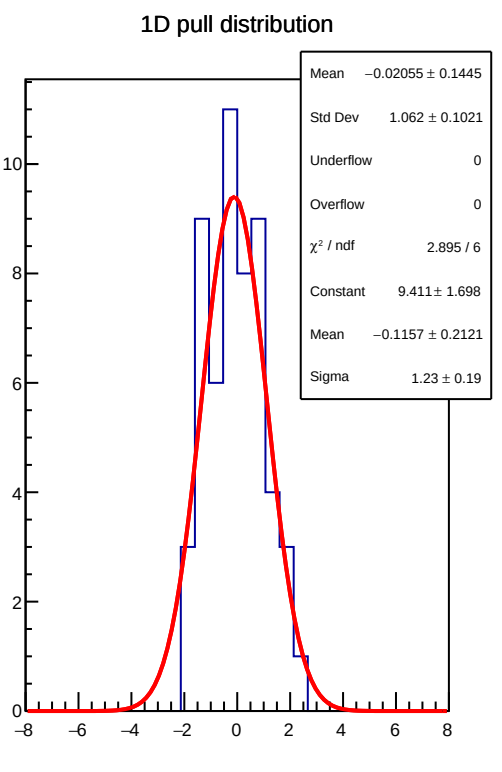

corr_Adet_bpm12X RMS (ppm)
RMS (ppm)
56
54
52
50
48
46
44
42
40
38
36
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

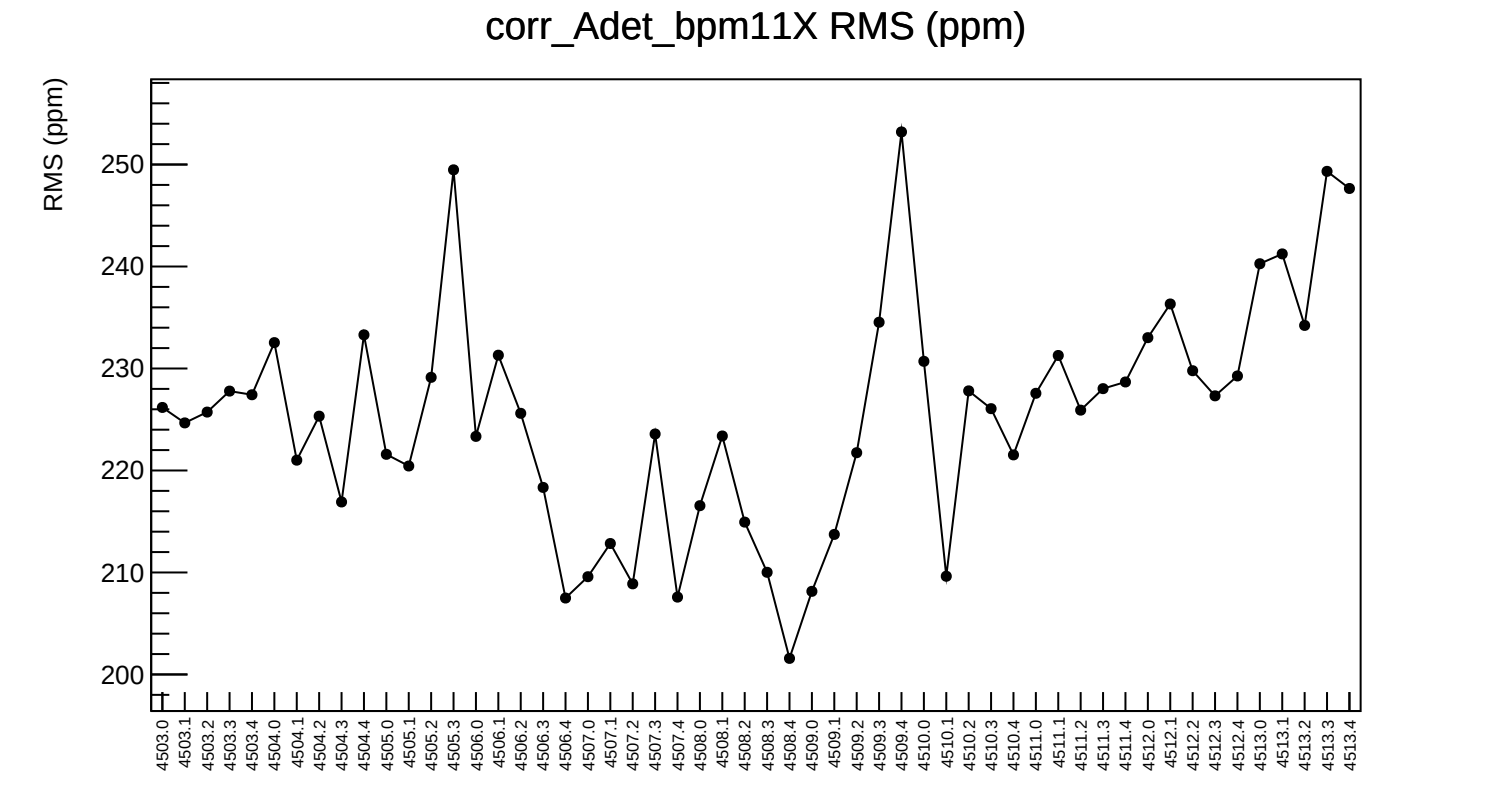

corr_Adet_bpm12Y (ppb)
χ² / ndf 74.13 / 53
p0 66.35 ± 39.56
1000
500
0
−500
−1000
2
1
0
−1
−2
−3
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

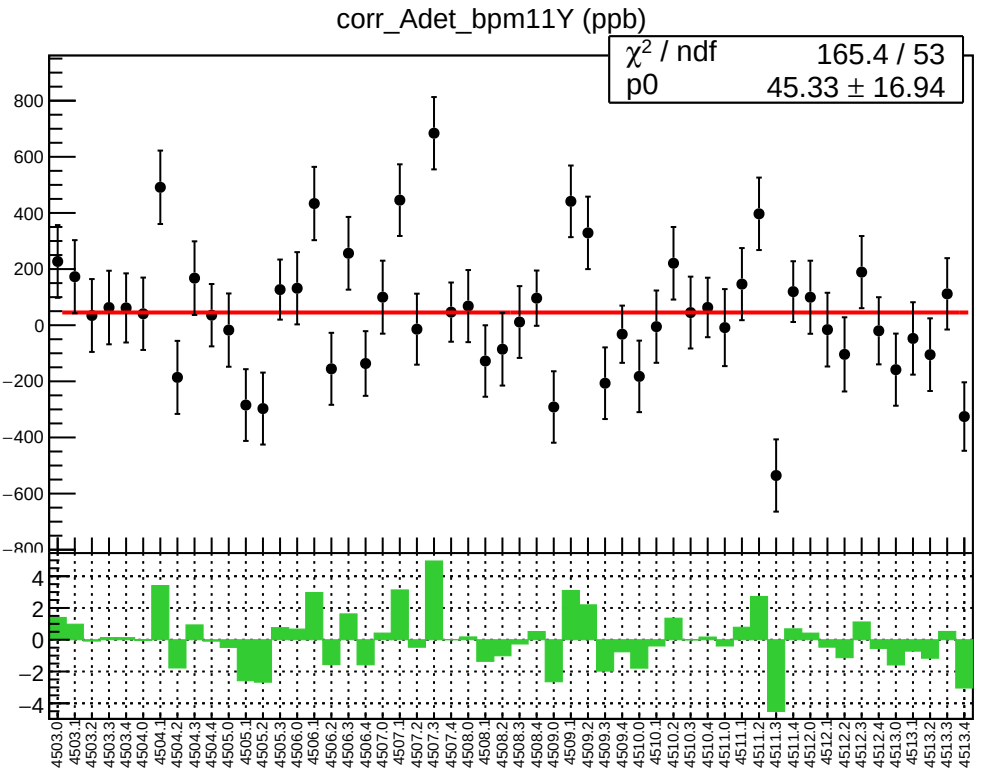

1D pull distribution
Mean 0.007648 ± 0.1594
Std Dev 1.172 ± 0.1127
Underflow 0
Overflow 0
χ² / ndf 6.378 / 7
Constant 8.031 ± 1.691
Mean 0.01044 ± 0.24854
Sigma 1.426 ± 0.309
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

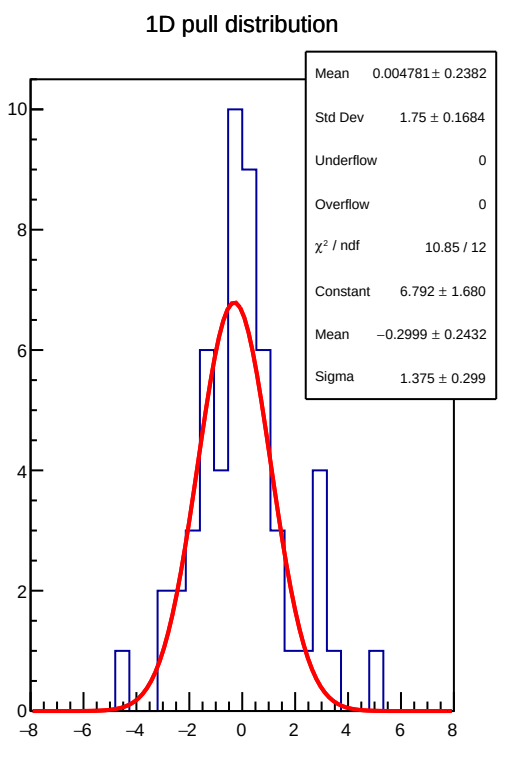

corr_Adet_bpm12Y RMS (ppm)
RMS (ppm)
45
40
35
30
25
20
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

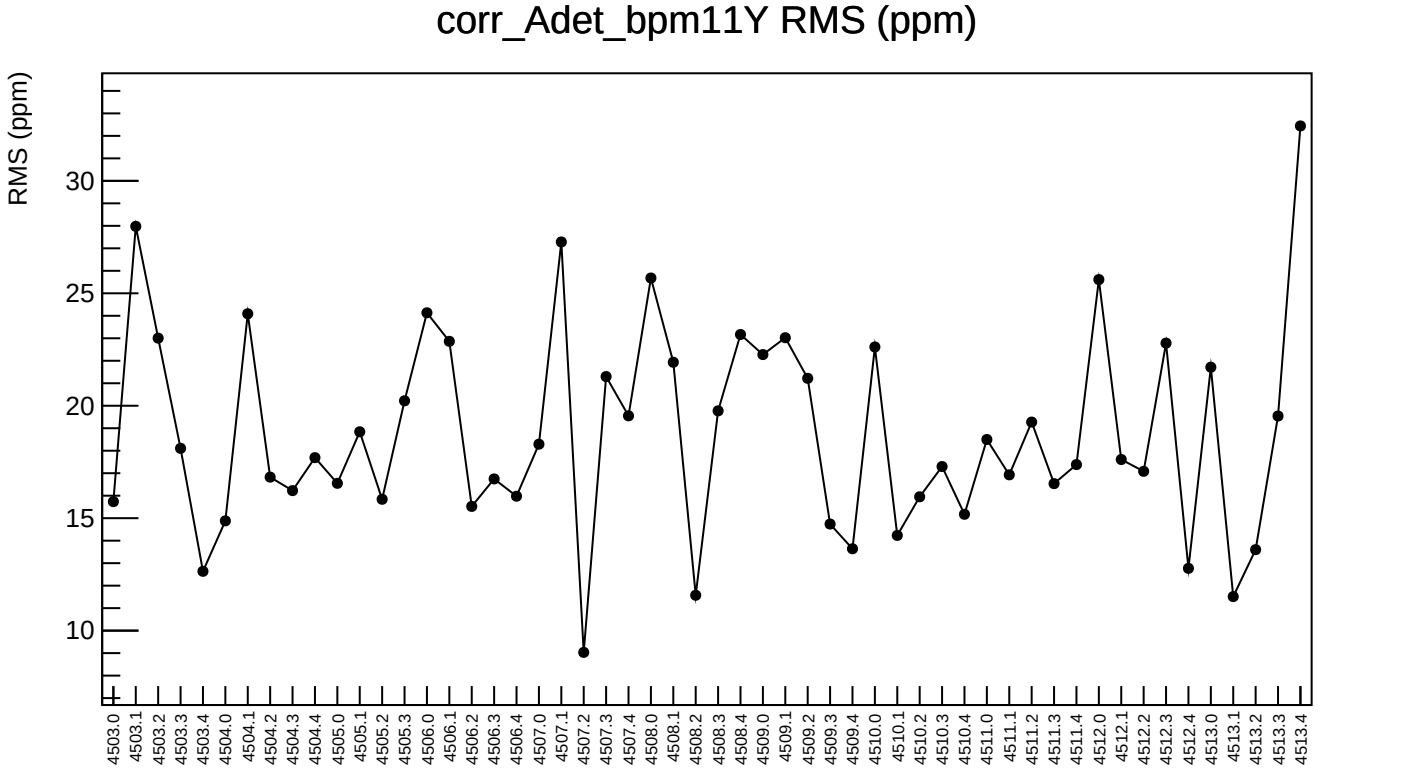

corr_Adet_bpm11X (ppb)
χ² / ndf 60.88 / 53
p0 −298.7 ± 317.2

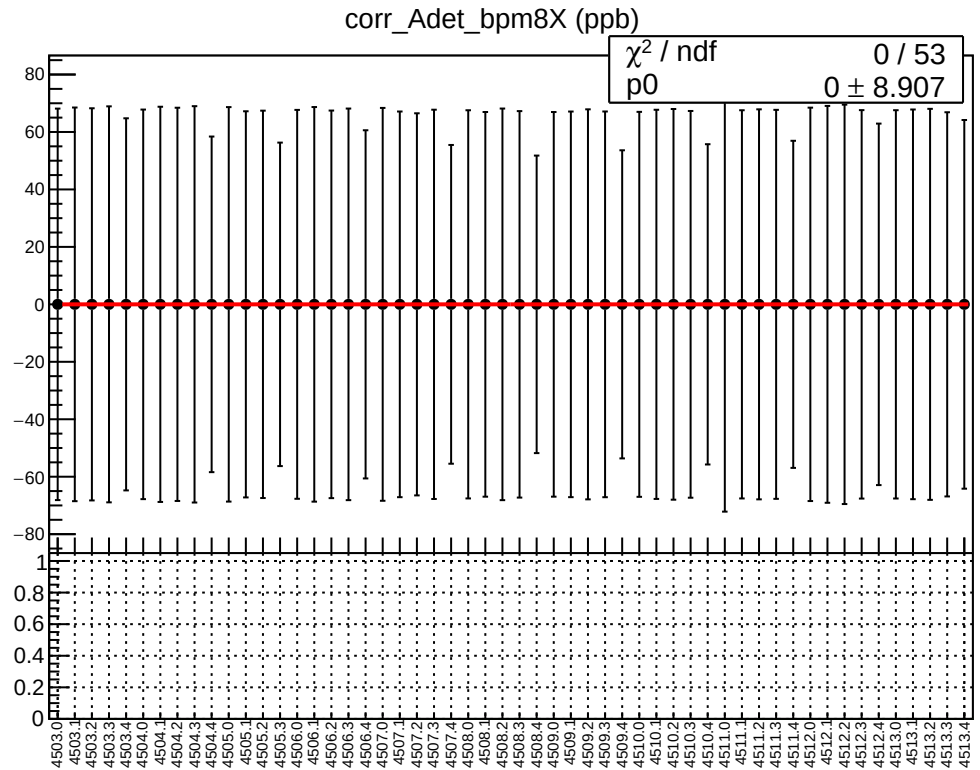

1D pull distribution
Mean −0.02055 ± 0.1445
Std Dev 1.062 ± 0.1021
Underflow 0
Overflow 0
χ² / ndf 2.895 / 6
Constant 9.411 ± 1.698
Mean −0.1157 ± 0.2121
Sigma 1.23 ± 0.19

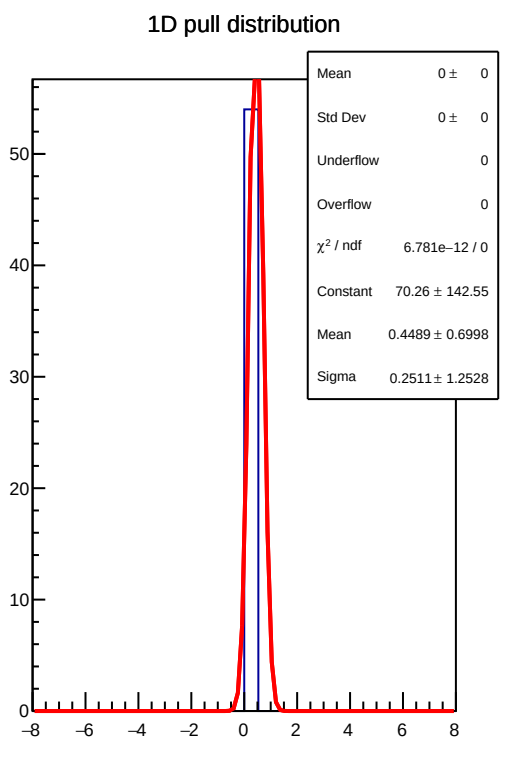

corr_Adet_bpm11X RMS (ppm)
RMS (ppm)
250
240
230
220
210
200
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

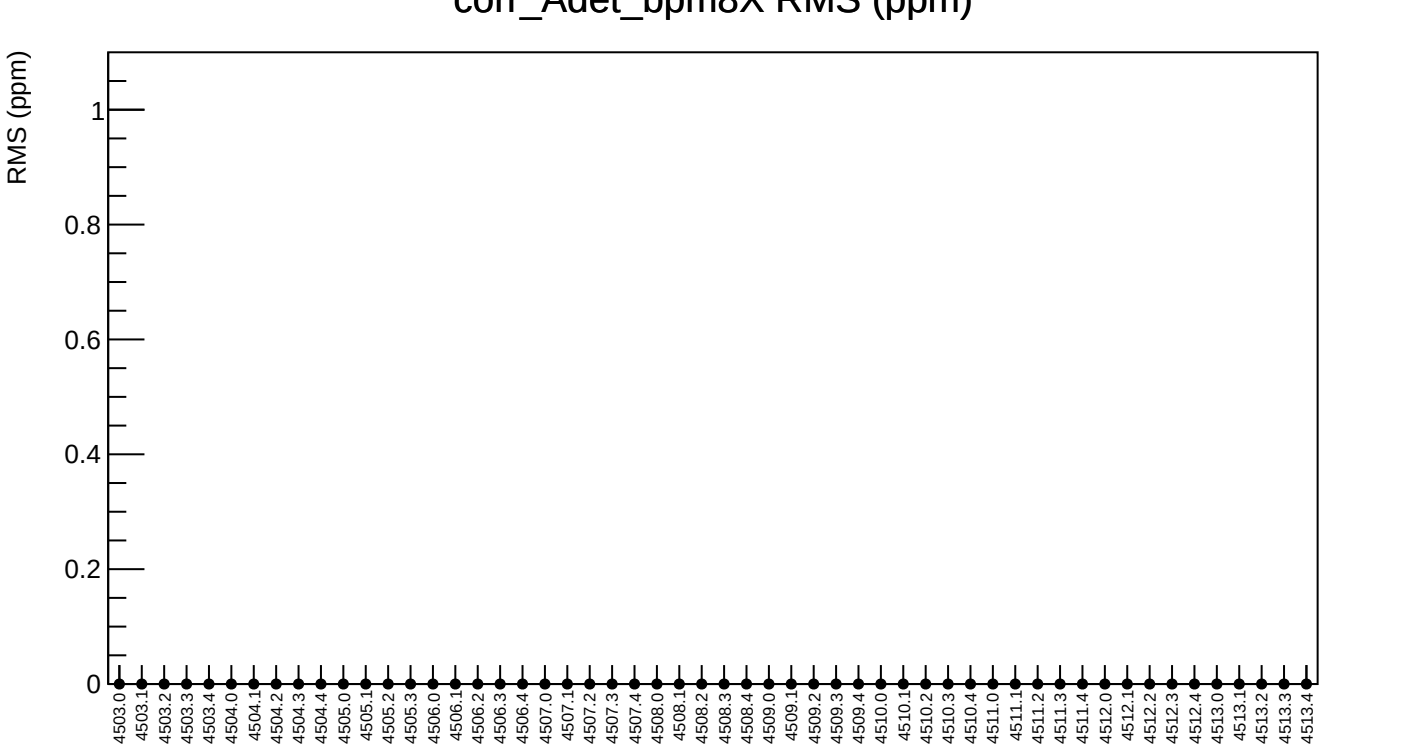

corr_Adet_bpm11Y (ppb)
χ² / ndf 165.4 / 53
p0 45.33 ± 16.94

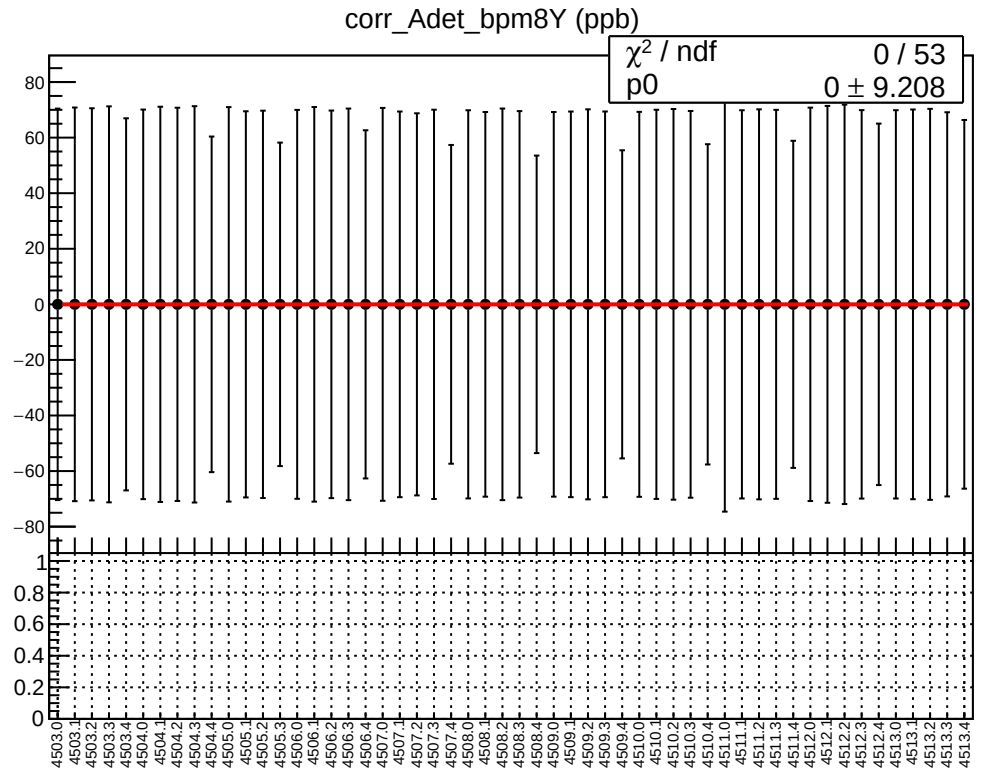

1D pull distribution
Mean 0.004781 ± 0.2382
Std Dev 1.75 ± 0.1684
Underflow 0
Overflow 0
χ² / ndf 10.85 / 12
Constant 6.792 ± 1.680
Mean −0.2999 ± 0.2432
Sigma 1.375 ± 0.299

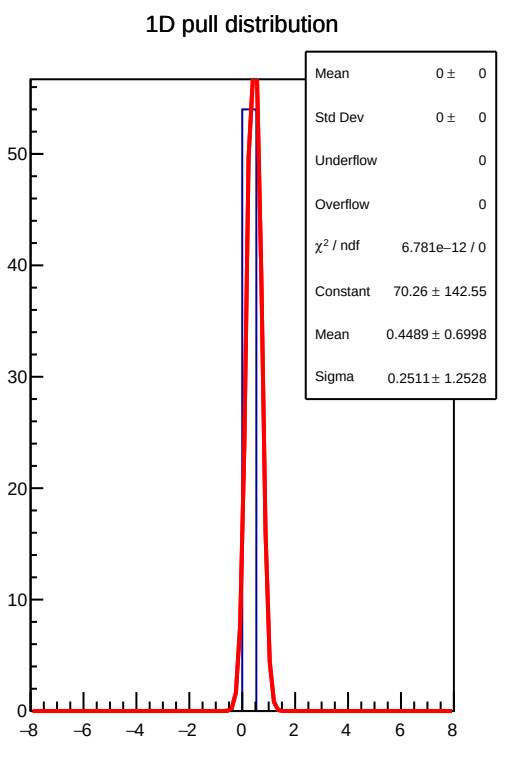

corr_Adet_bpm11Y RMS (ppm)
RMS (ppm)
30
25
20
15
10
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

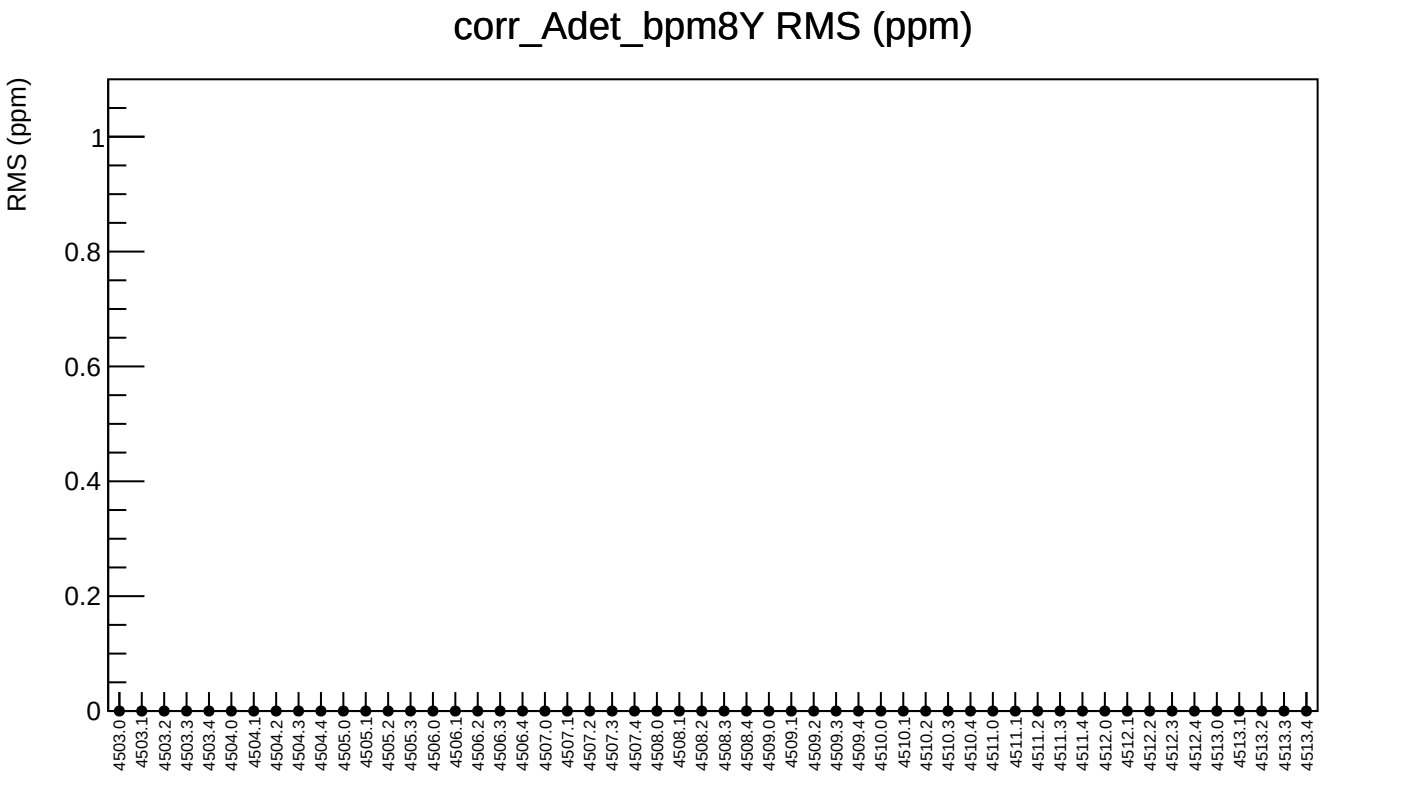

corr_Adet_bpm8X (ppb)
χ² / ndf 0 / 53
p0 0 ± 8.907

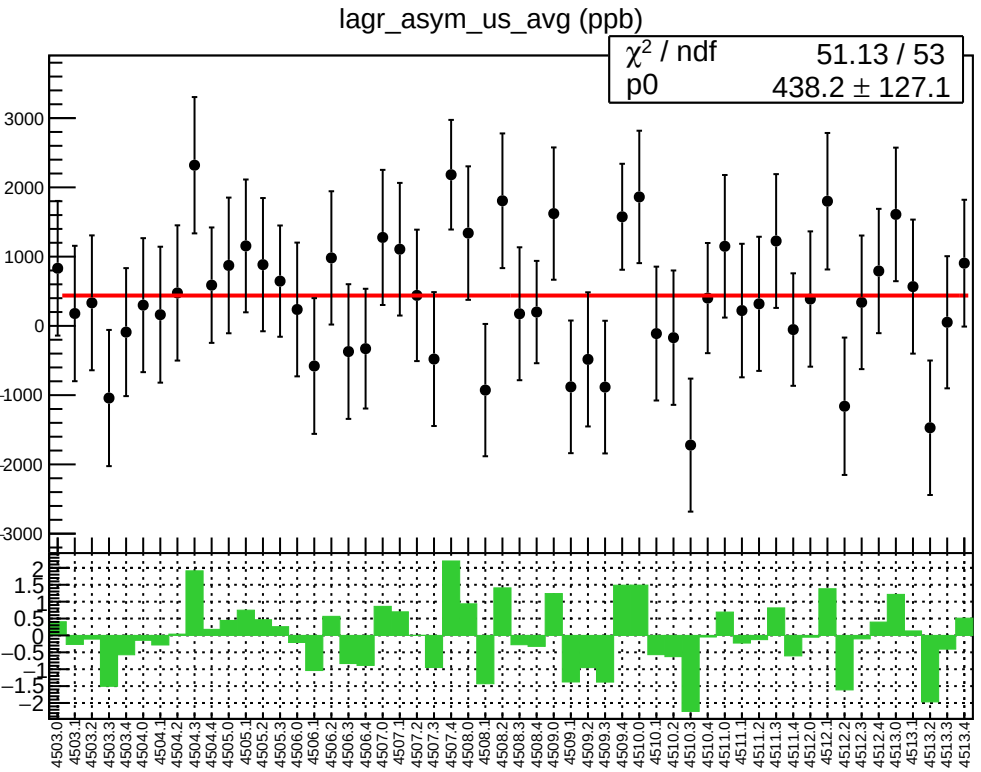

1D pull distribution
Mean 0 ± 0
Std Dev 0 ± 0
Underflow 0
Overflow 0
χ² / ndf 6.781e−12 / 0
Constant 70.26 ± 142.55
Mean 0.4489 ± 0.6998
Sigma 0.2511 ± 1.2528

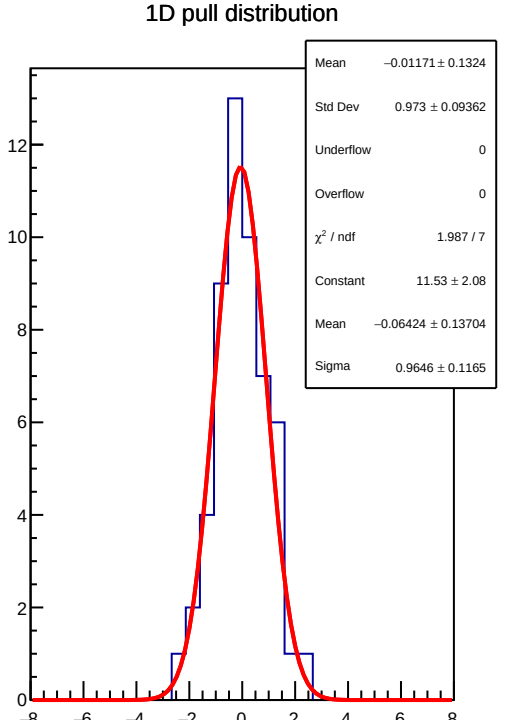

corr_Adet_bpm8X RMS (ppm)
RMS (ppm)
1
0.8
0.6
0.4
0.2
0
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

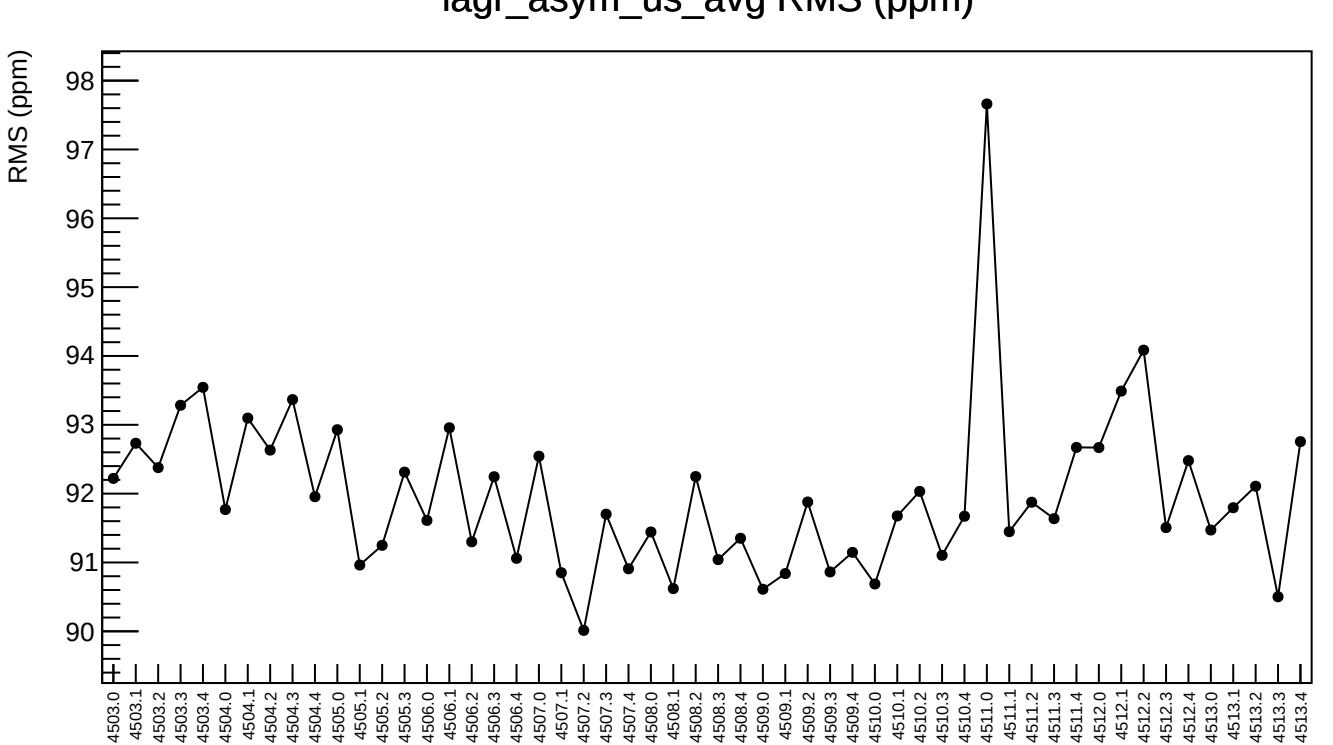

corr_Adet_bpm8Y (ppb)
χ² / ndf 0 / 53
p0 0 ± 9.208

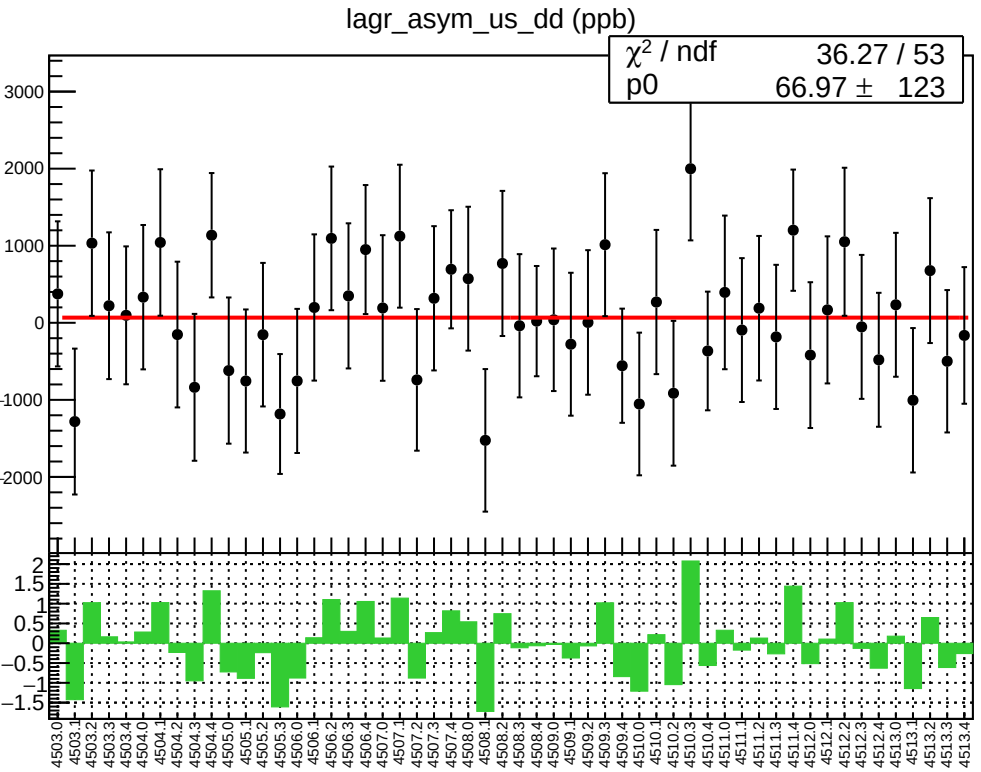

1D pull distribution
Mean 0 ± 0
Std Dev 0 ± 0
Underflow 0
Overflow 0
χ² / ndf 6.781e−12 / 0
Constant 70.26 ± 142.55
Mean 0.4489 ± 0.6998
Sigma 0.2511 ± 1.2528

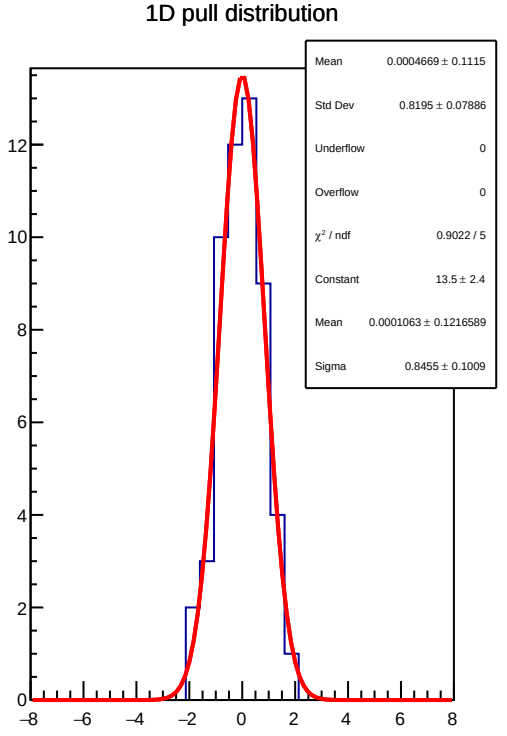

corr_Adet_bpm8Y RMS (ppm)
RMS (ppm)
1
0.8
0.6
0.4
0.2
0
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

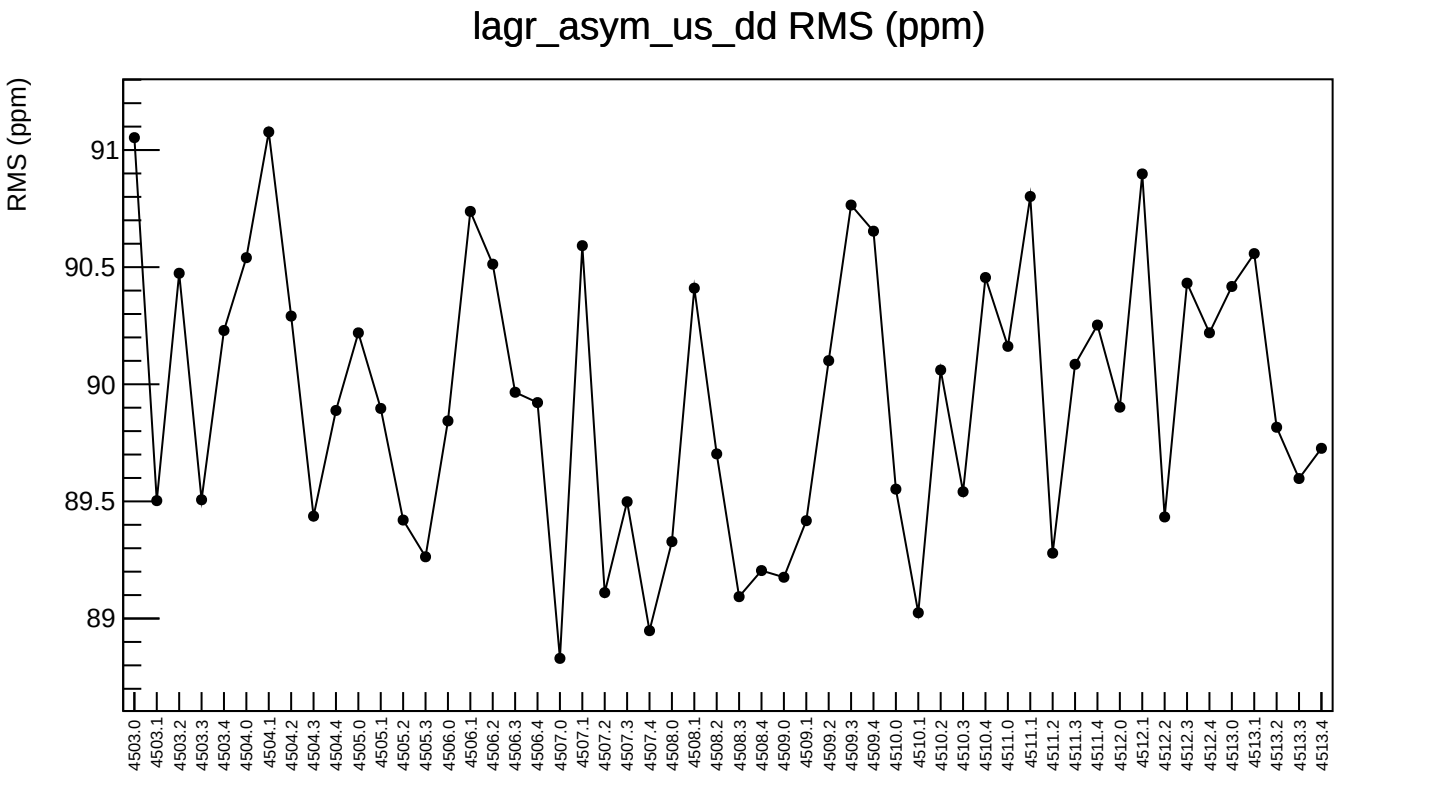

lagr_asym_us_avg (ppb)
χ² / ndf 51.13 / 53
p0 438.2 ± 127.1
3000
2000
1000
0
-1000
-2000
-3000
2
1.5
1
0.5
0
−0.5
−1
−1.5
−2
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

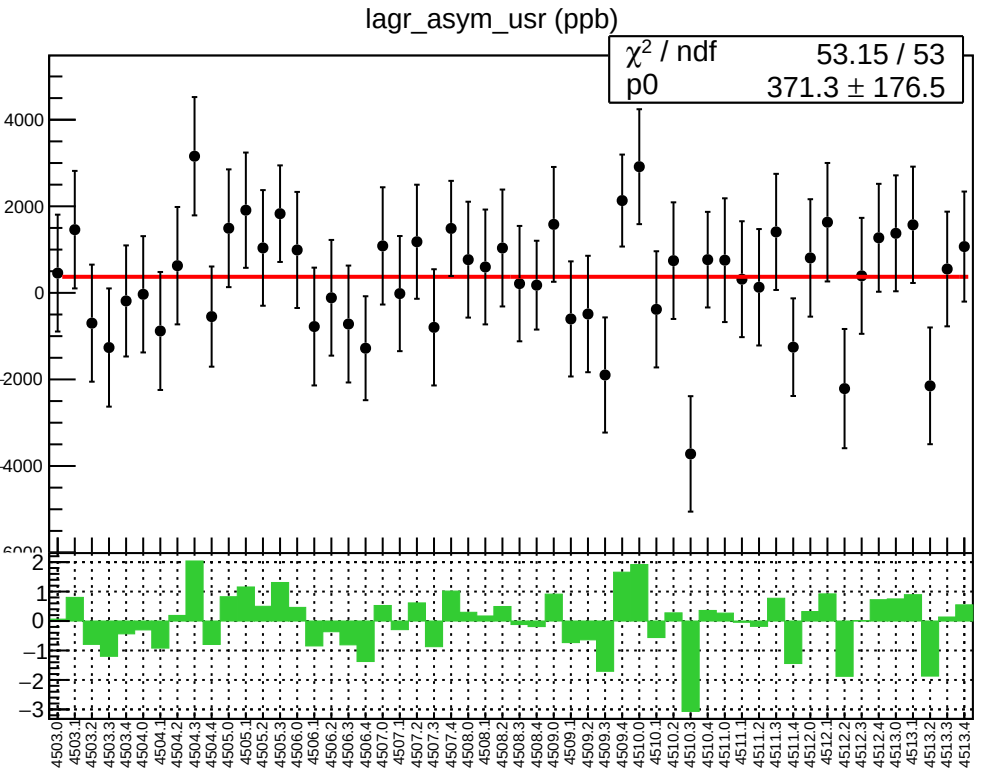

1D pull distribution
Mean −0.01171 ± 0.1324
Std Dev 0.973 ± 0.09362
Underflow 0
Overflow 0
χ² / ndf 1.987 / 7
Constant 11.53 ± 2.08
Mean −0.06424 ± 0.13704
Sigma 0.9646 ± 0.1165
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

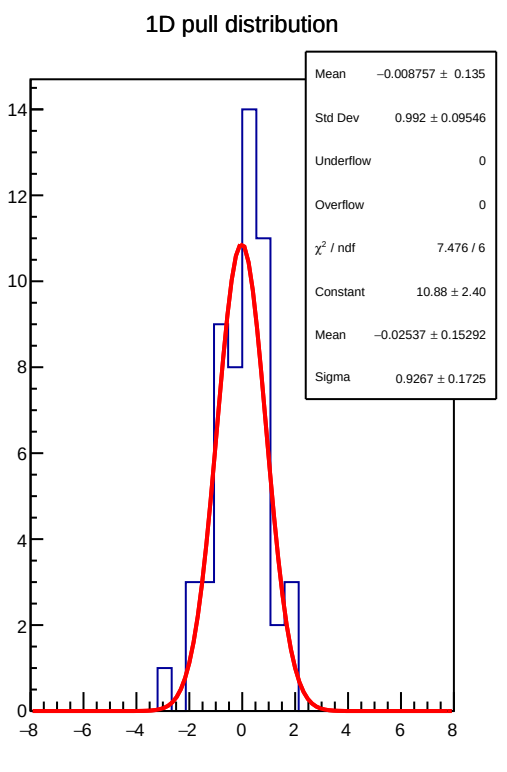

lagr_asym_us_avg RMS (ppm)
RMS (ppm)
98
97
96
95
94
93
92
91
90
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

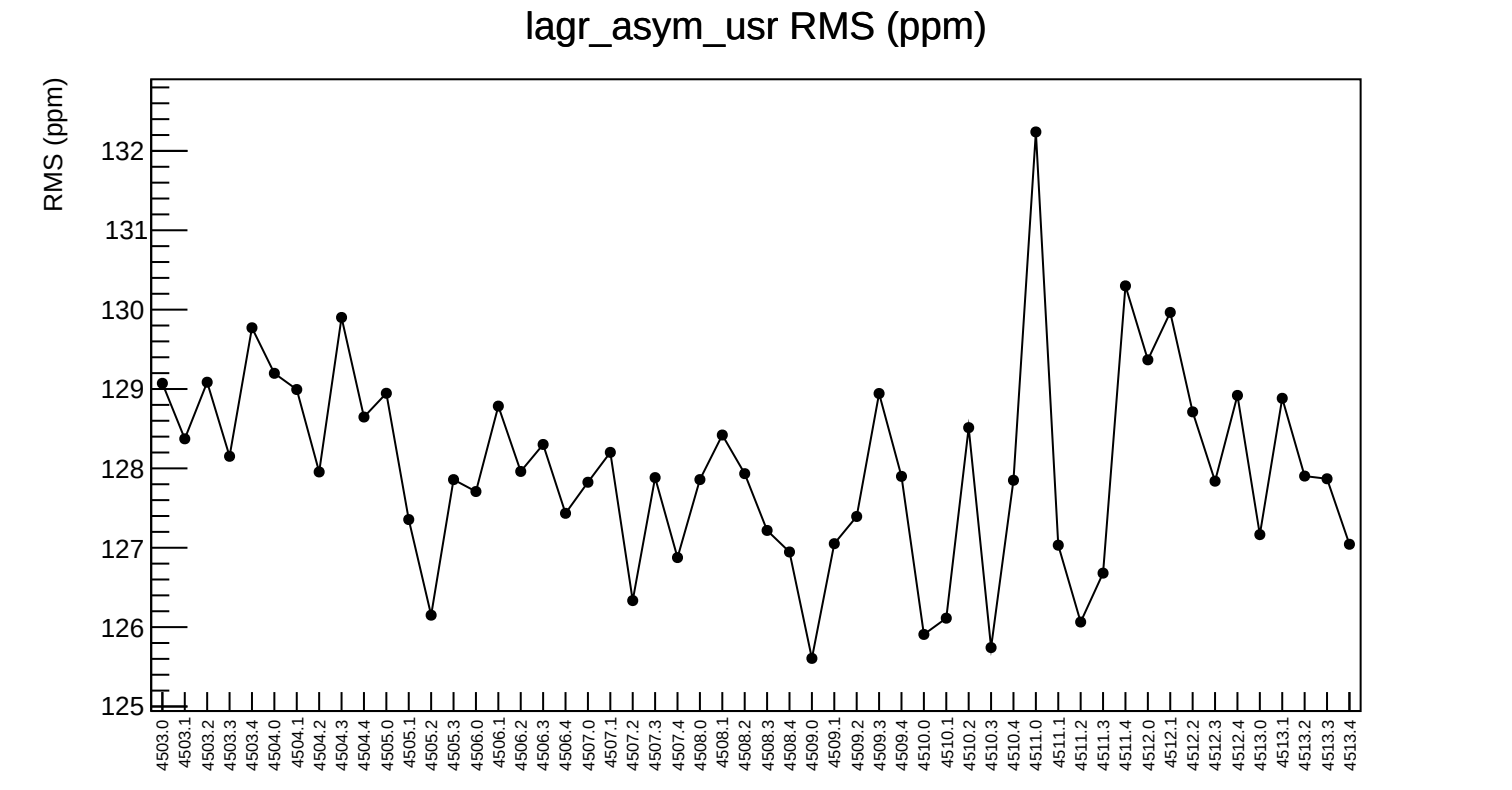

lagr_asym_us_dd (ppb)
χ² / ndf 36.27 / 53
p0 66.97 ± 123
3000
2000
1000
0
-1000
-2000
2
1.5
1
0.5
0
−0.5
−1
−1.5
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

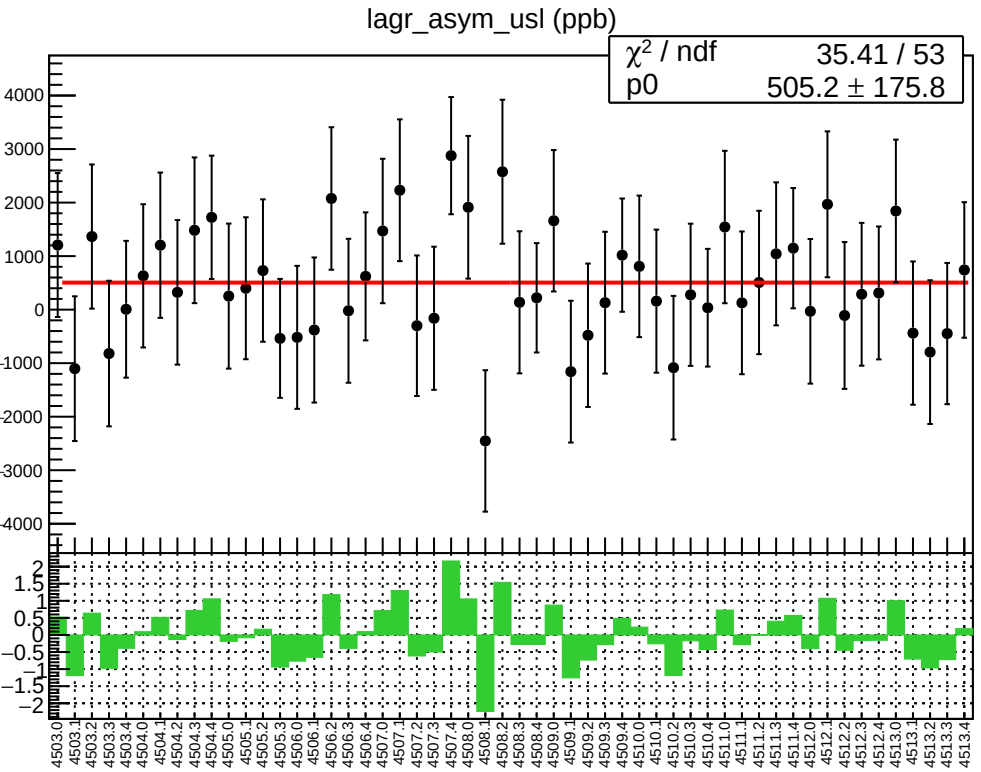

1D pull distribution
Mean 0.0004669 ± 0.1115
Std Dev 0.8195 ± 0.07886
Underflow 0
Overflow 0
χ² / ndf 0.9022 / 5
Constant 13.5 ± 2.4
Mean 0.0001063 ± 0.1216589
Sigma 0.8455 ± 0.1009
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

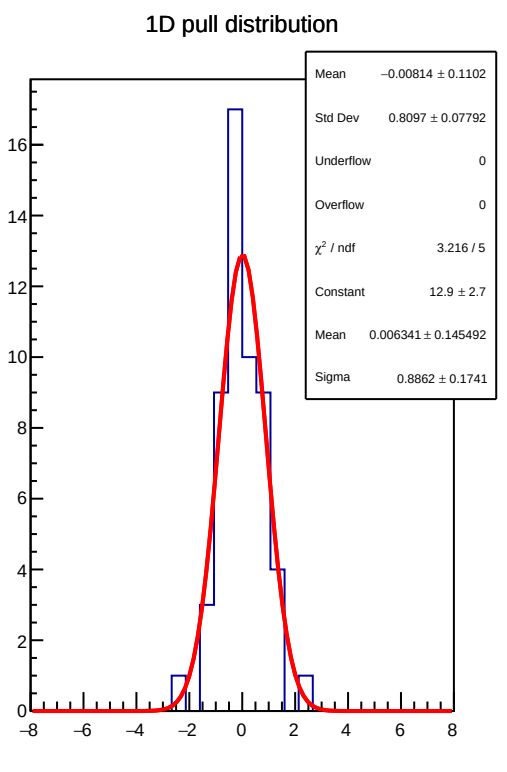

lagr_asym_us_dd RMS (ppm)
RMS (ppm)
91
90.5
90
89.5
89
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

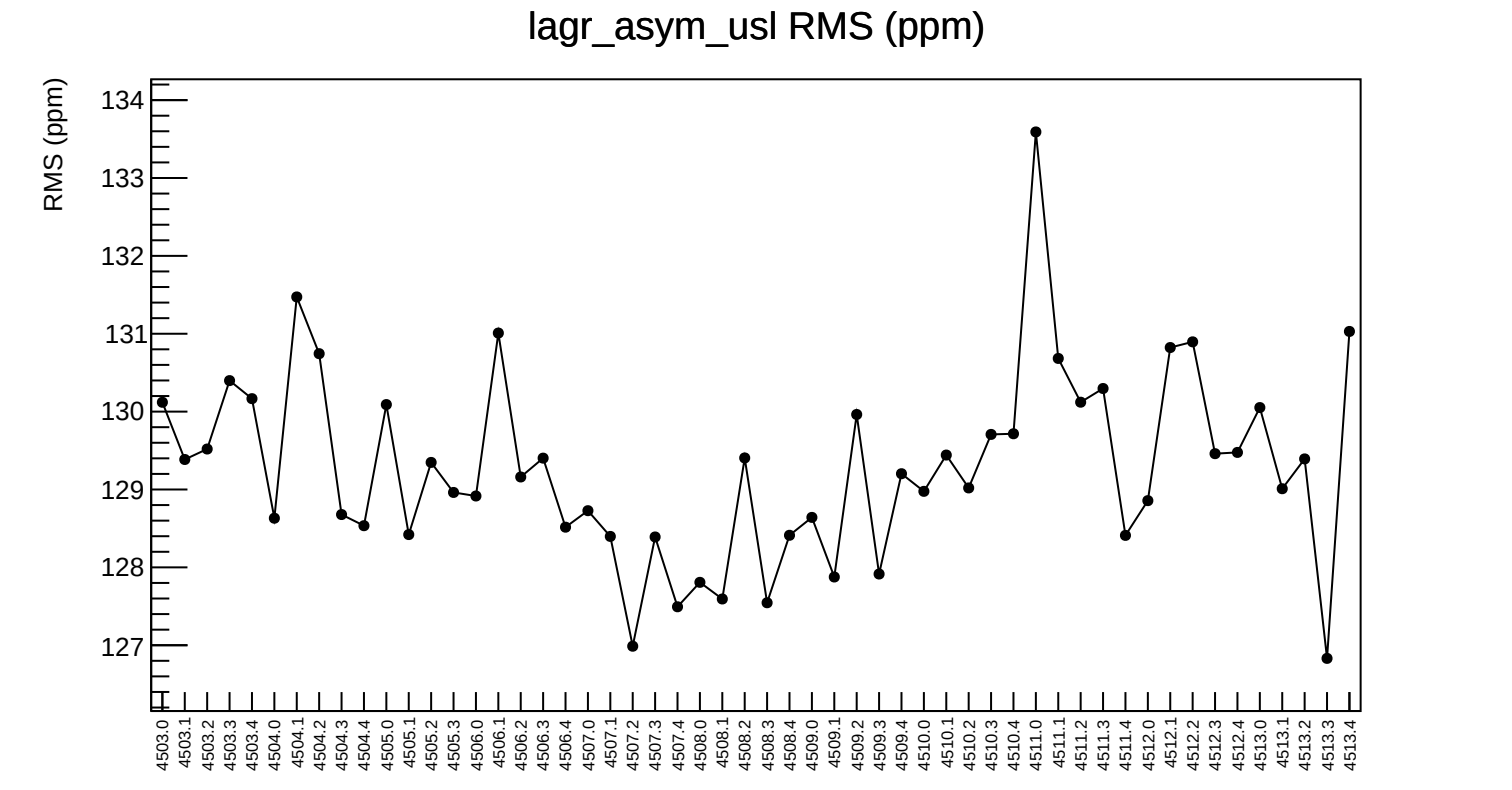

lagr_asym_usr (ppb)
χ² / ndf 53.15 / 53
p0 371.3 ± 176.5
4000
2000
0
-2000
-4000
2
1
0
−1
−2
−3
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

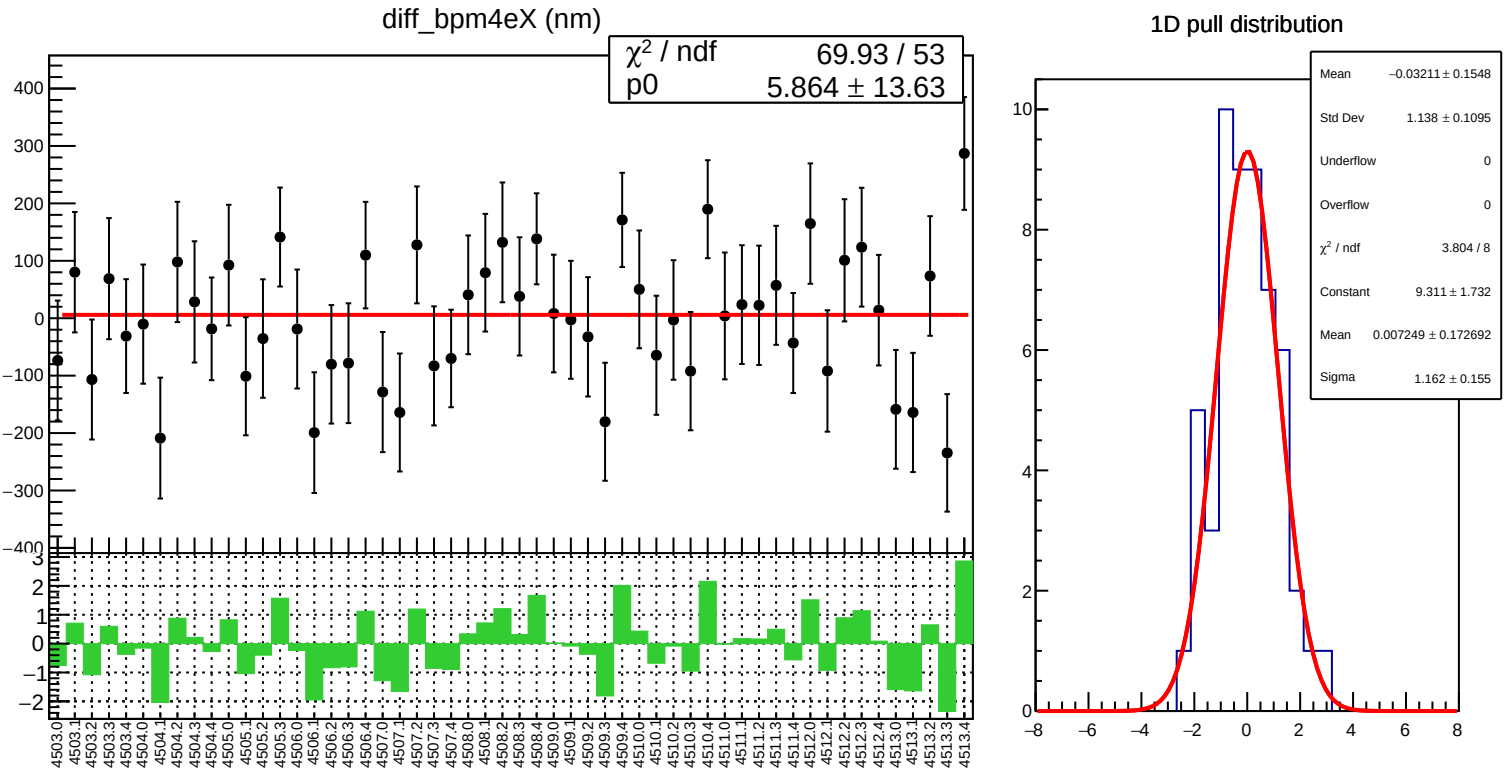

1D pull distribution
Mean −0.008757 ± 0.135
Std Dev 0.992 ± 0.09546
Underflow 0
Overflow 0
χ² / ndf 7.476 / 6
Constant 10.88 ± 2.40
Mean −0.02537 ± 0.15292
Sigma 0.9267 ± 0.1725
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

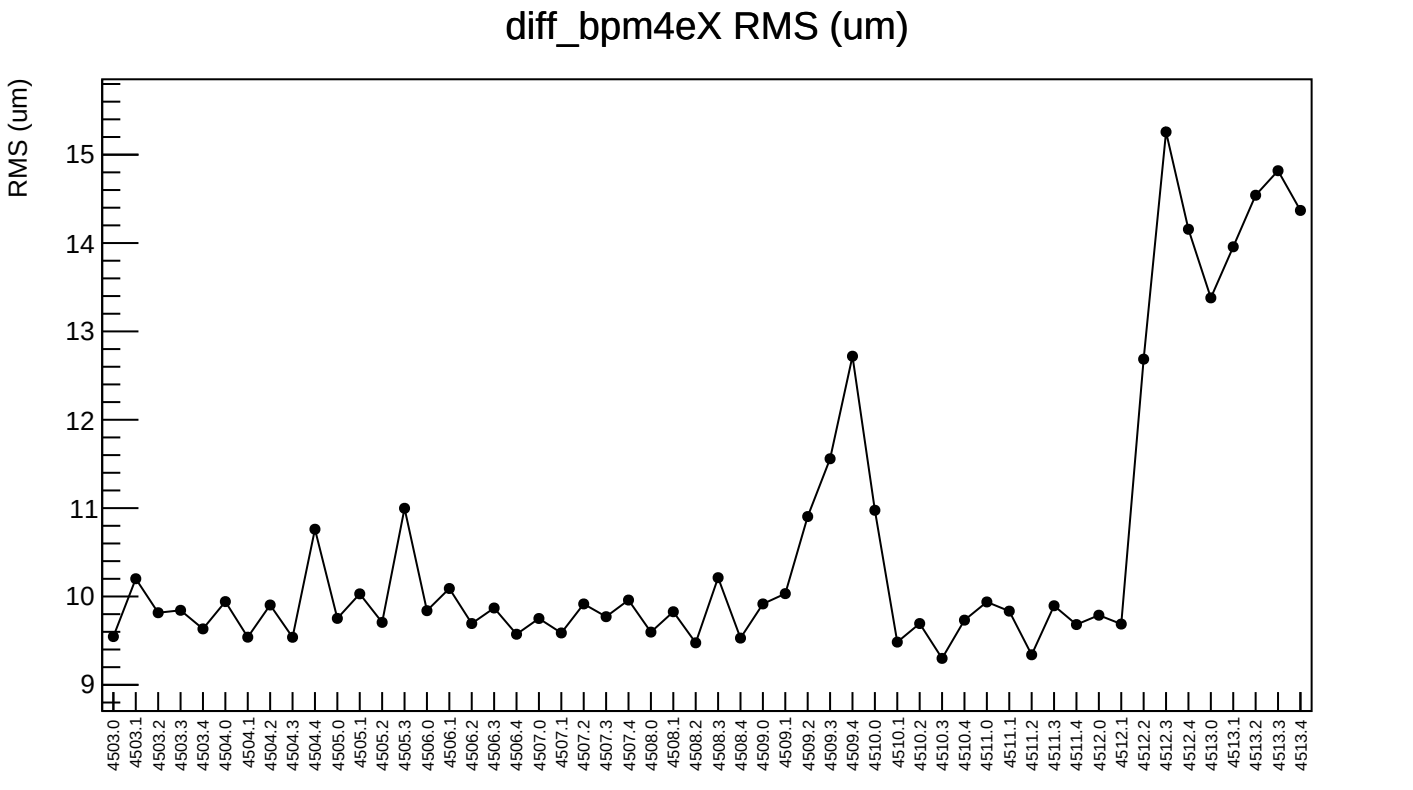

lagr_asym_usr RMS (ppm)
RMS (ppm)
132
131
130
129
128
127
126
125
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

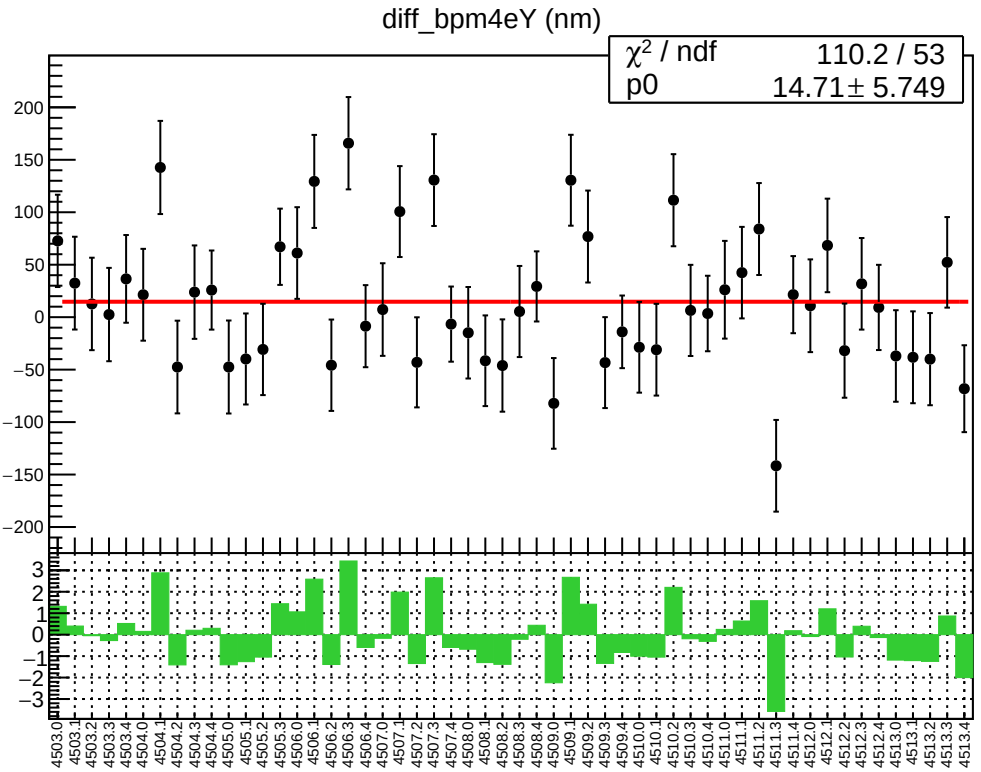

lagr_asym_usl (ppb)
χ² / ndf 35.41 / 53
p0 505.2 ± 175.8
4000
3000
2000
1000
0
-1000
-2000
-3000
-4000
2
1.5
1
0.5
0
−0.5
−1
−1.5
−2
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

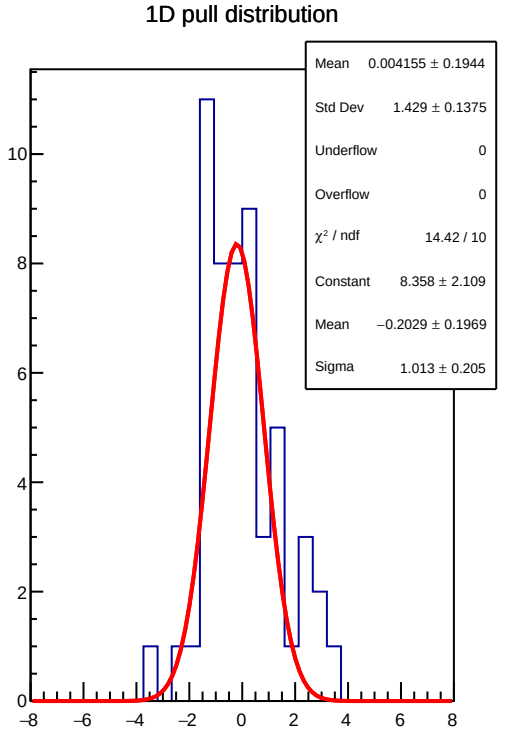

1D pull distribution
Mean −0.00814 ± 0.1102
Std Dev 0.8097 ± 0.07792
Underflow 0
Overflow 0
χ² / ndf 3.216 / 5
Constant 12.9 ± 2.7
Mean 0.006341 ± 0.145492
Sigma 0.8862 ± 0.1741
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

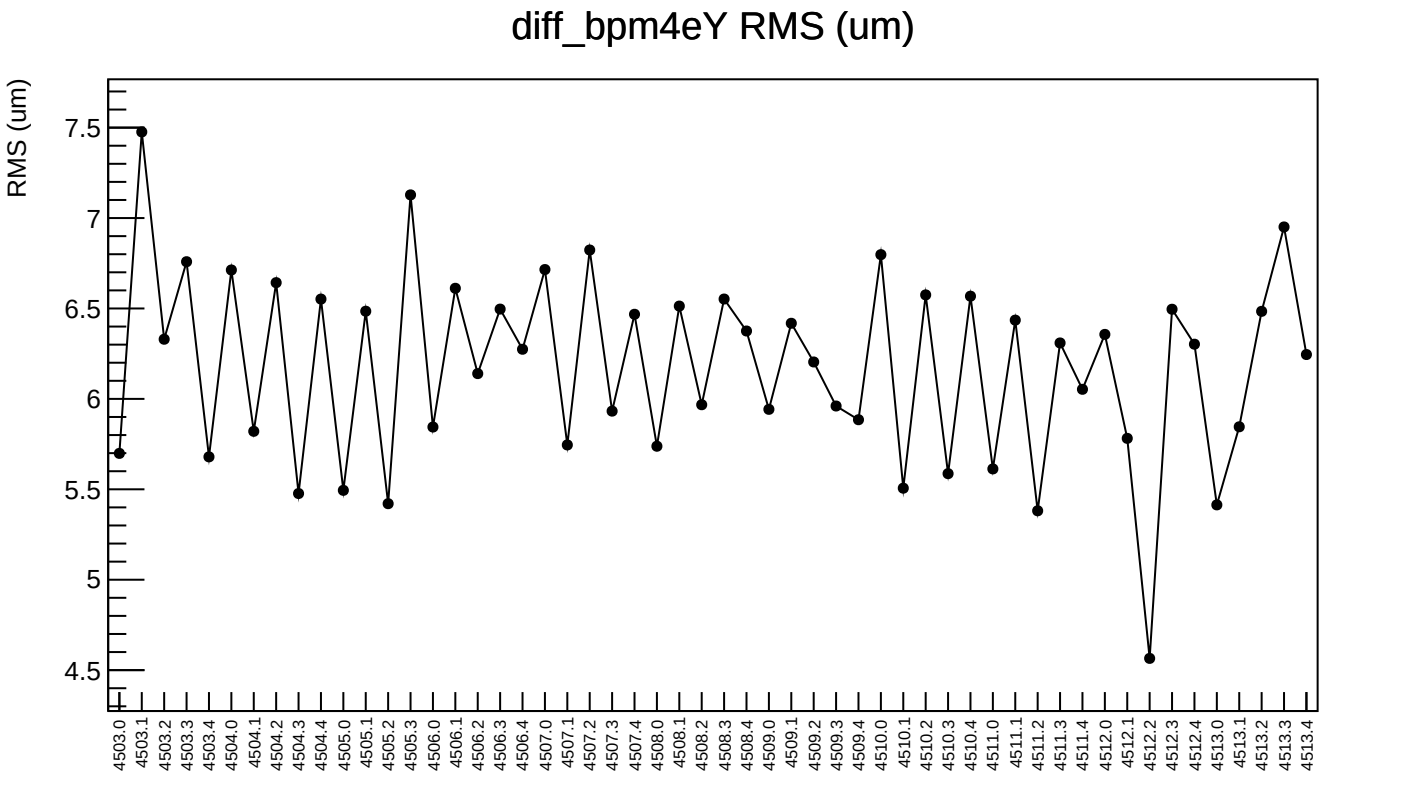

lagr_asym_usl RMS (ppm)
RMS (ppm)
134
133
132
131
130
129
128
127
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

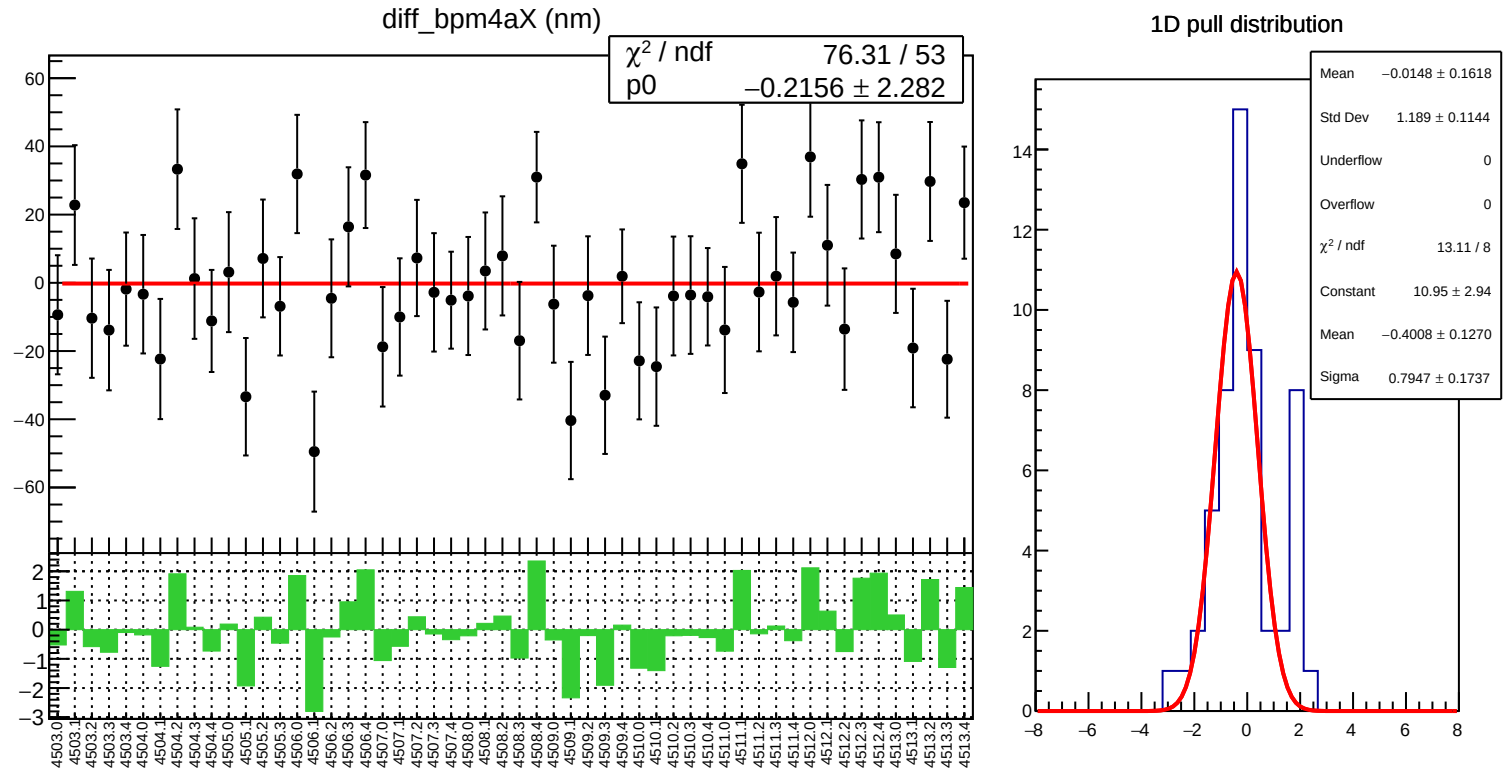

diff_bpm4eX (nm)
χ² / ndf 69.93 / 53
p0 5.864 ± 13.63
1D pull distribution
Mean −0.03211 ± 0.1548
Std Dev 1.138 ± 0.1095
Underflow 0
Overflow 0
χ² / ndf 3.804 / 8
Constant 9.311 ± 1.732
Mean 0.007249 ± 0.172692
Sigma 1.162 ± 0.155

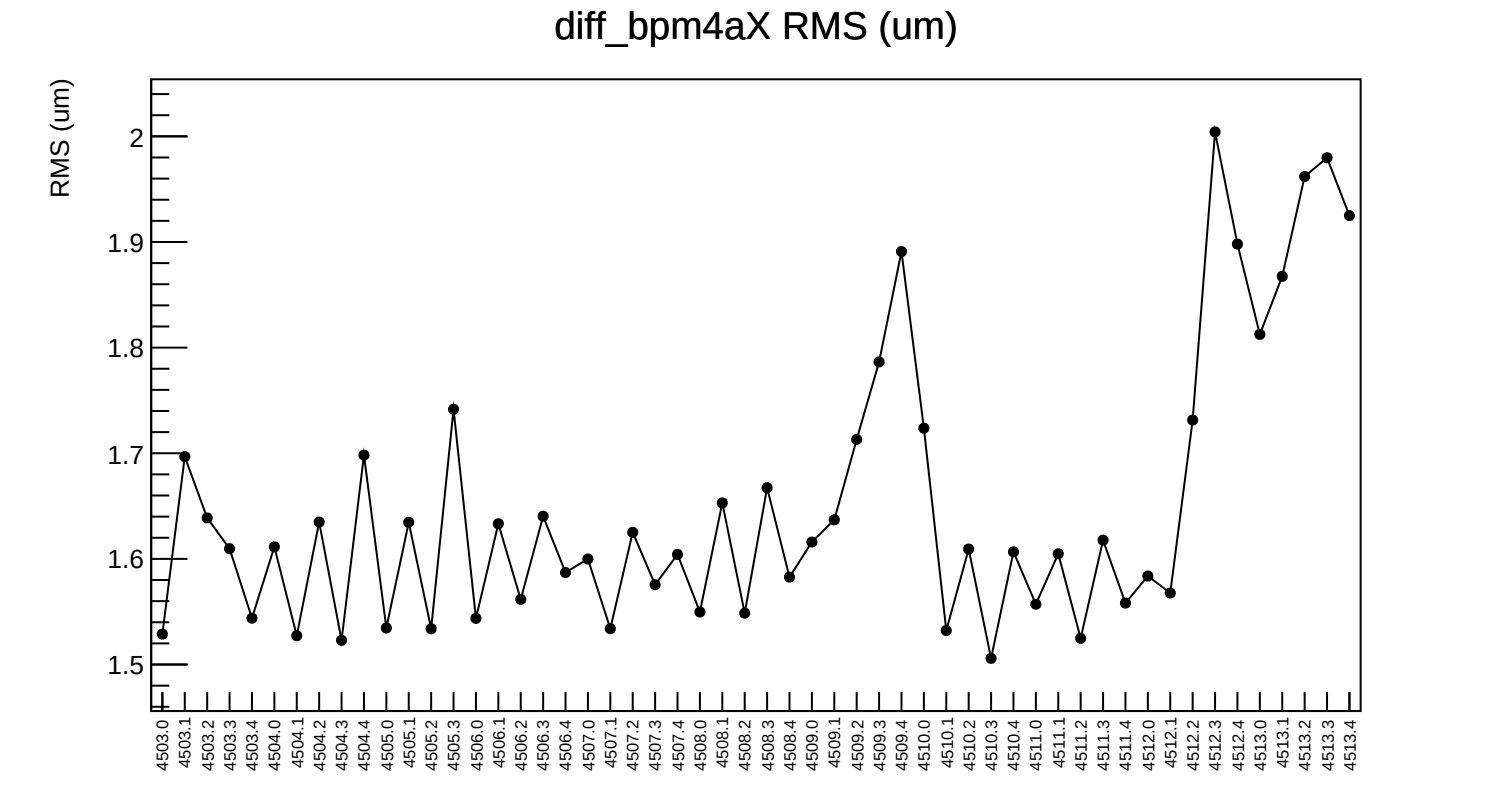

diff_bpm4eX RMS (um)
RMS (um)
15
14
13
12
11
10
9
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

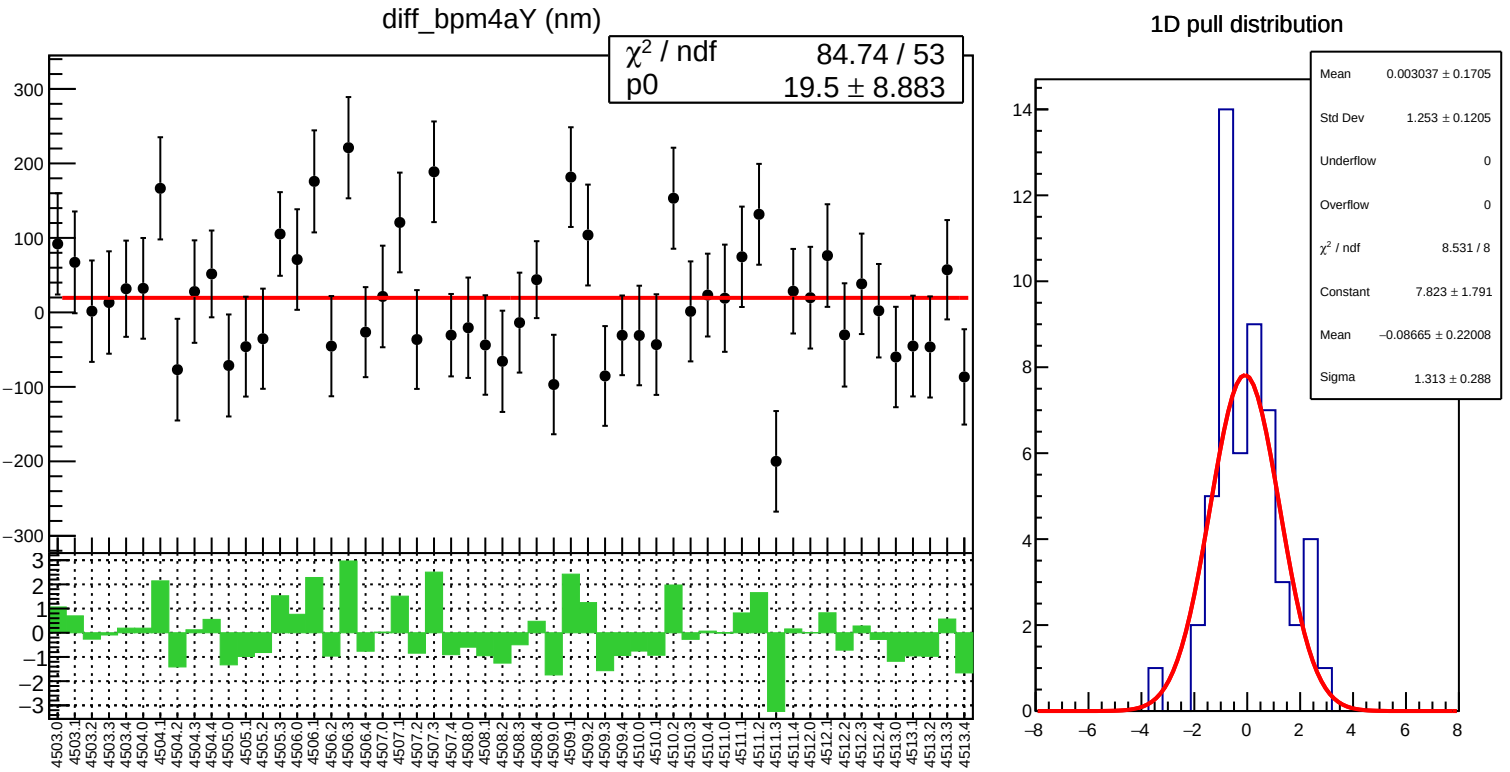

diff_bpm4eY (nm)
χ² / ndf 110.2 / 53
p0 14.71 ± 5.749
200
150
100
50
0
−50
−100
−150
−200
3
2
1
0
−1
−2
−3
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

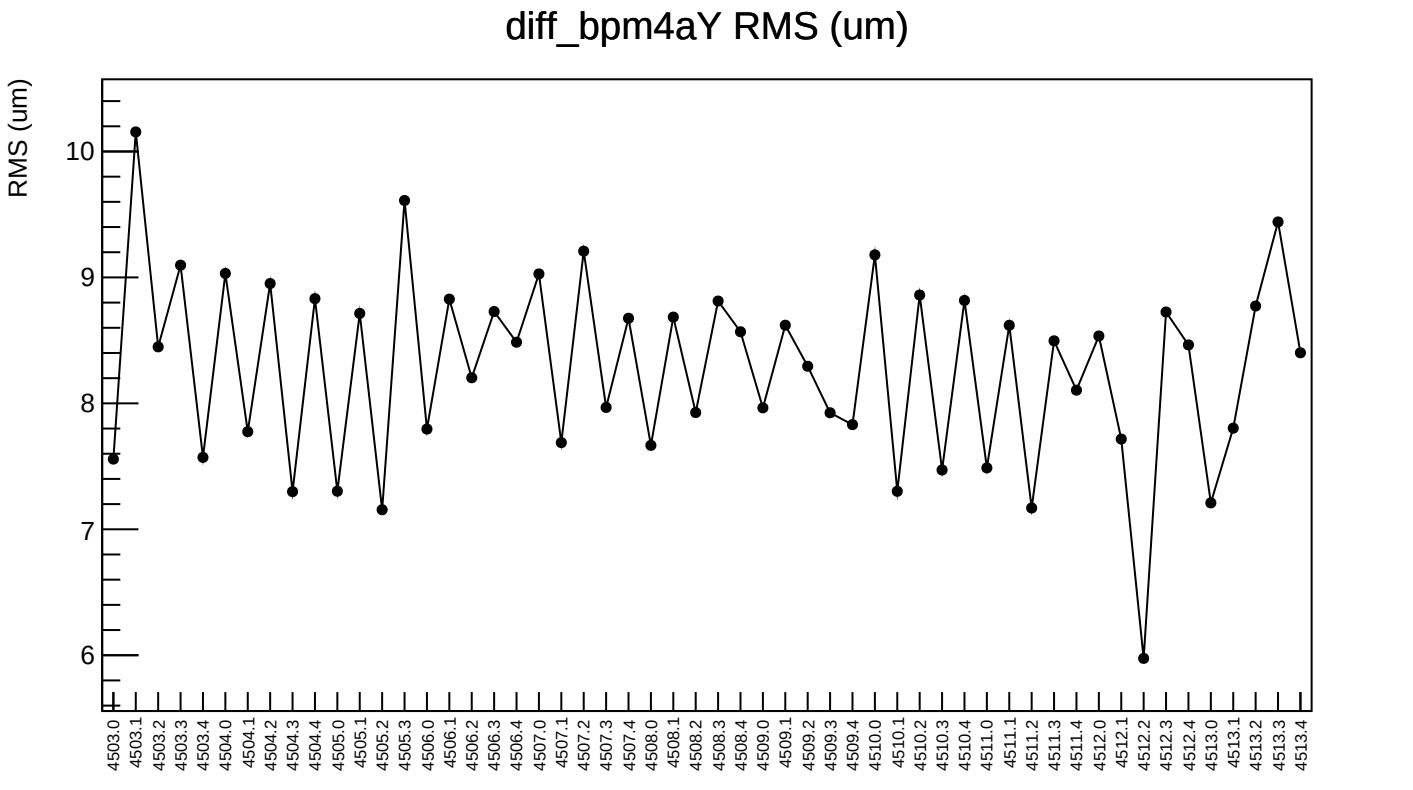

1D pull distribution
Mean 0.004155 ± 0.1944
Std Dev 1.429 ± 0.1375
Underflow 0
Overflow 0
χ² / ndf 14.42 / 10
Constant 8.358 ± 2.109
Mean −0.2029 ± 0.1969
Sigma 1.013 ± 0.205
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

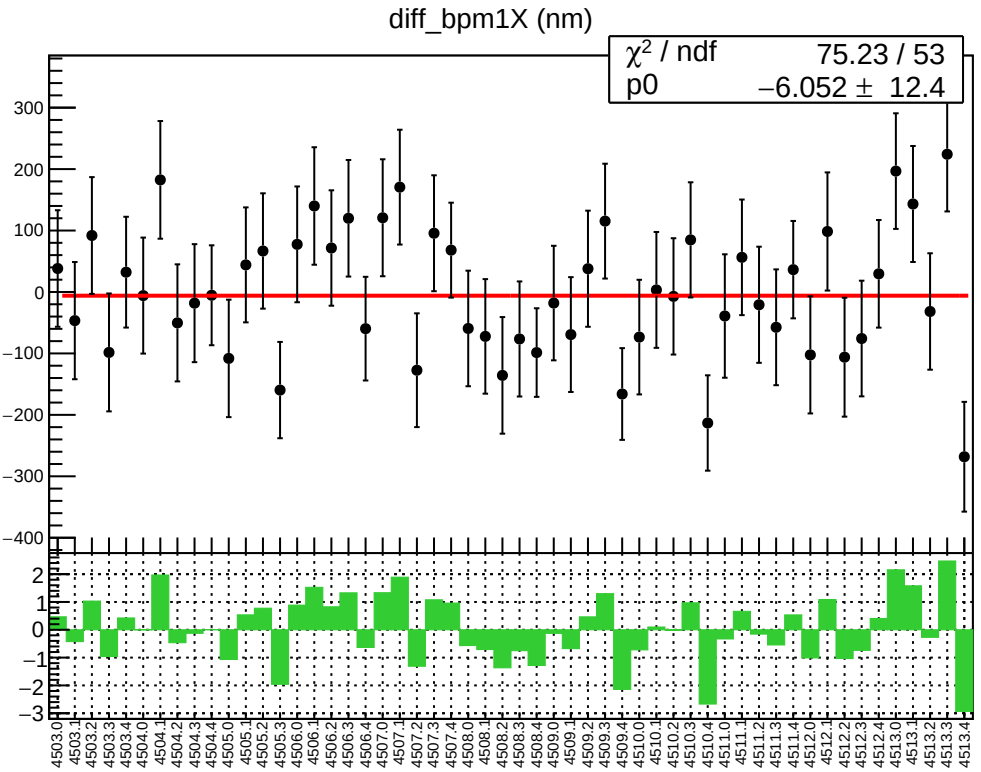

diff_bpm4eY RMS (um)
RMS (um)
7.5
7
6.5
6
5.5
5
4.5
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

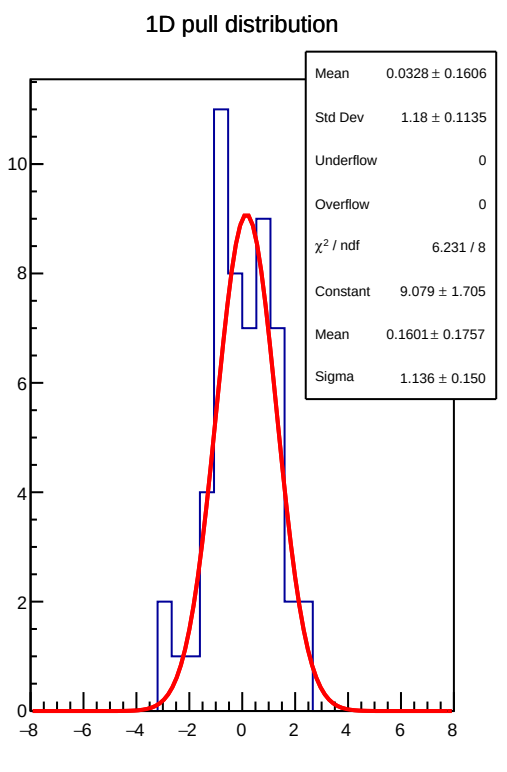

diff_bpm4aX (nm)
χ² / ndf 76.31 / 53
p0 −0.2156 ± 2.282
1D pull distribution
Mean −0.0148 ± 0.1618
Std Dev 1.189 ± 0.1144
Underflow 0
Overflow 0
χ² / ndf 13.11 / 8
Constant 10.95 ± 2.94
Mean −0.4008 ± 0.1270
Sigma 0.7947 ± 0.1737

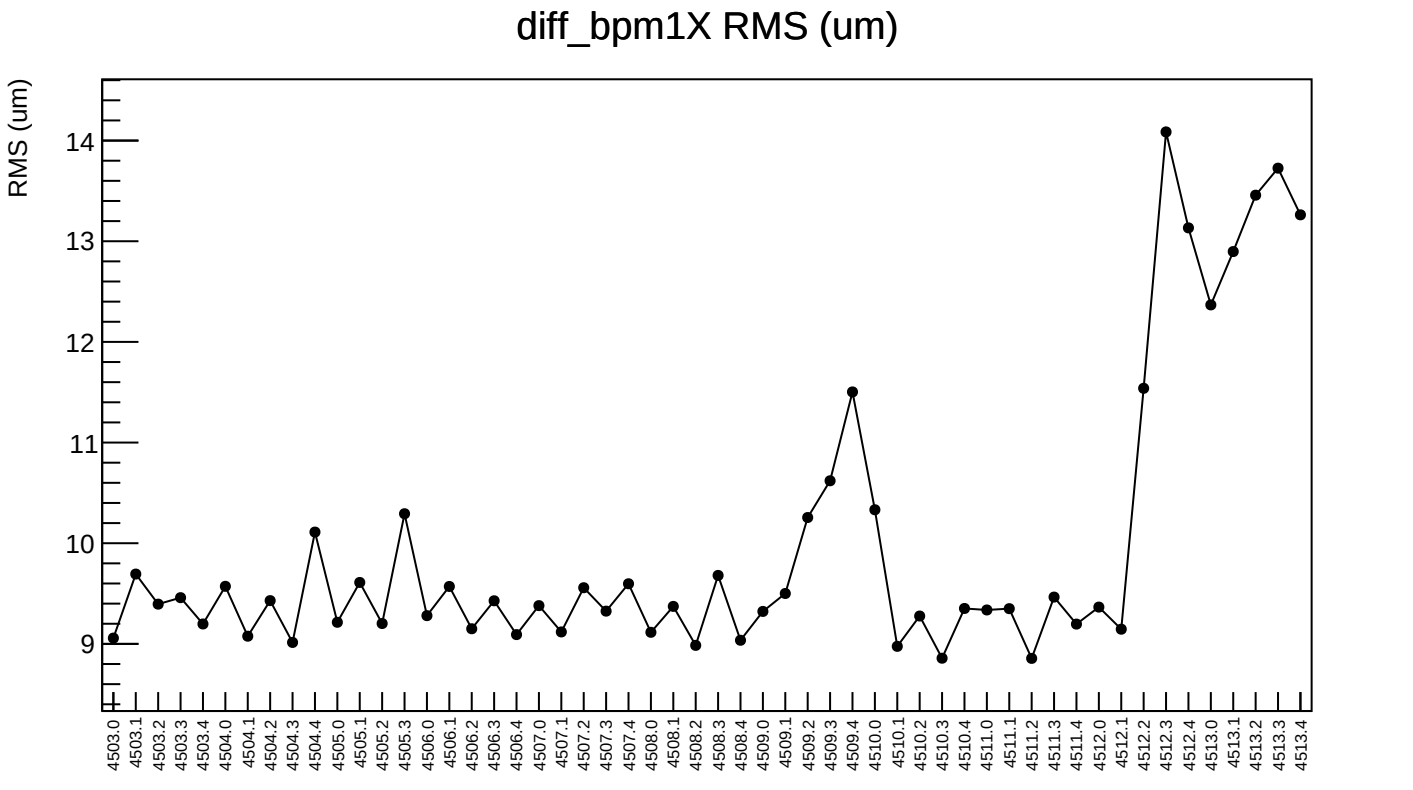

diff_bpm4aX RMS (um)
RMS (um)
2
1.9
1.8
1.7
1.6
1.5
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

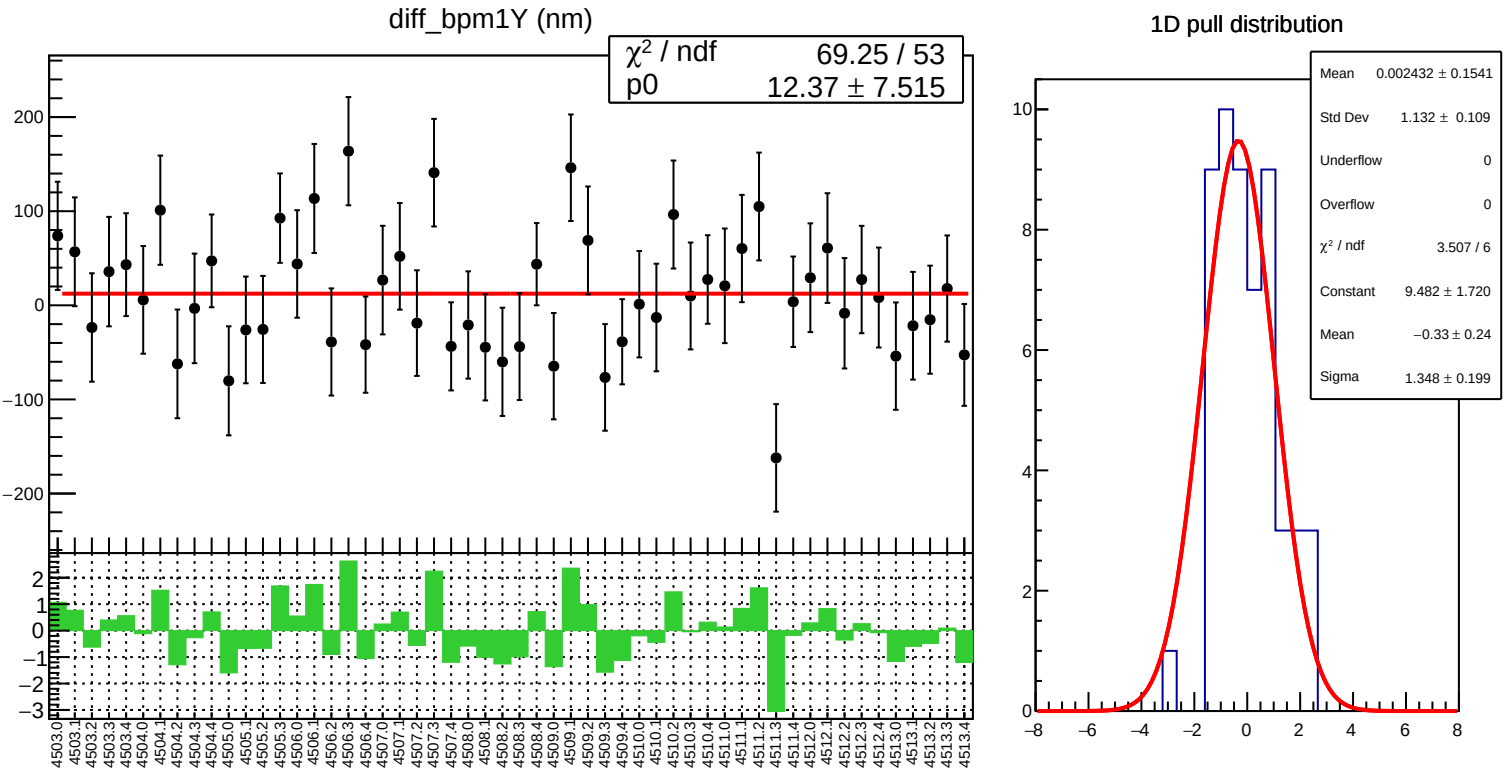

diff_bpm4aY (nm)
χ² / ndf 84.74 / 53
p0 19.5 ± 8.883
1D pull distribution
Mean 0.003037 ± 0.1705
Std Dev 1.253 ± 0.1205
Underflow 0
Overflow 0
χ² / ndf 8.531 / 8
Constant 7.823 ± 1.791
Mean −0.08665 ± 0.22008
Sigma 1.313 ± 0.288

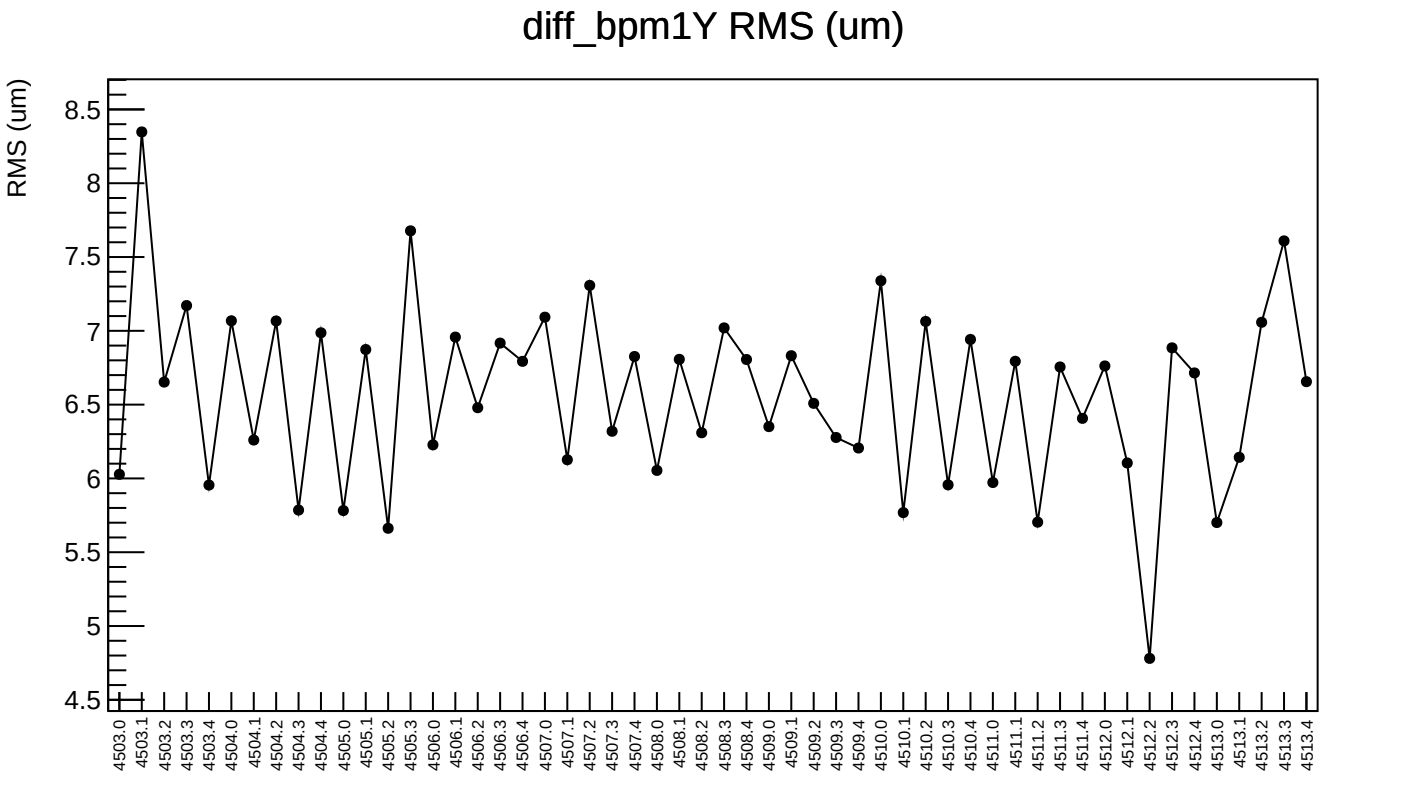

diff_bpm4aY RMS (um)
RMS (um)
10
9
8
7
6
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

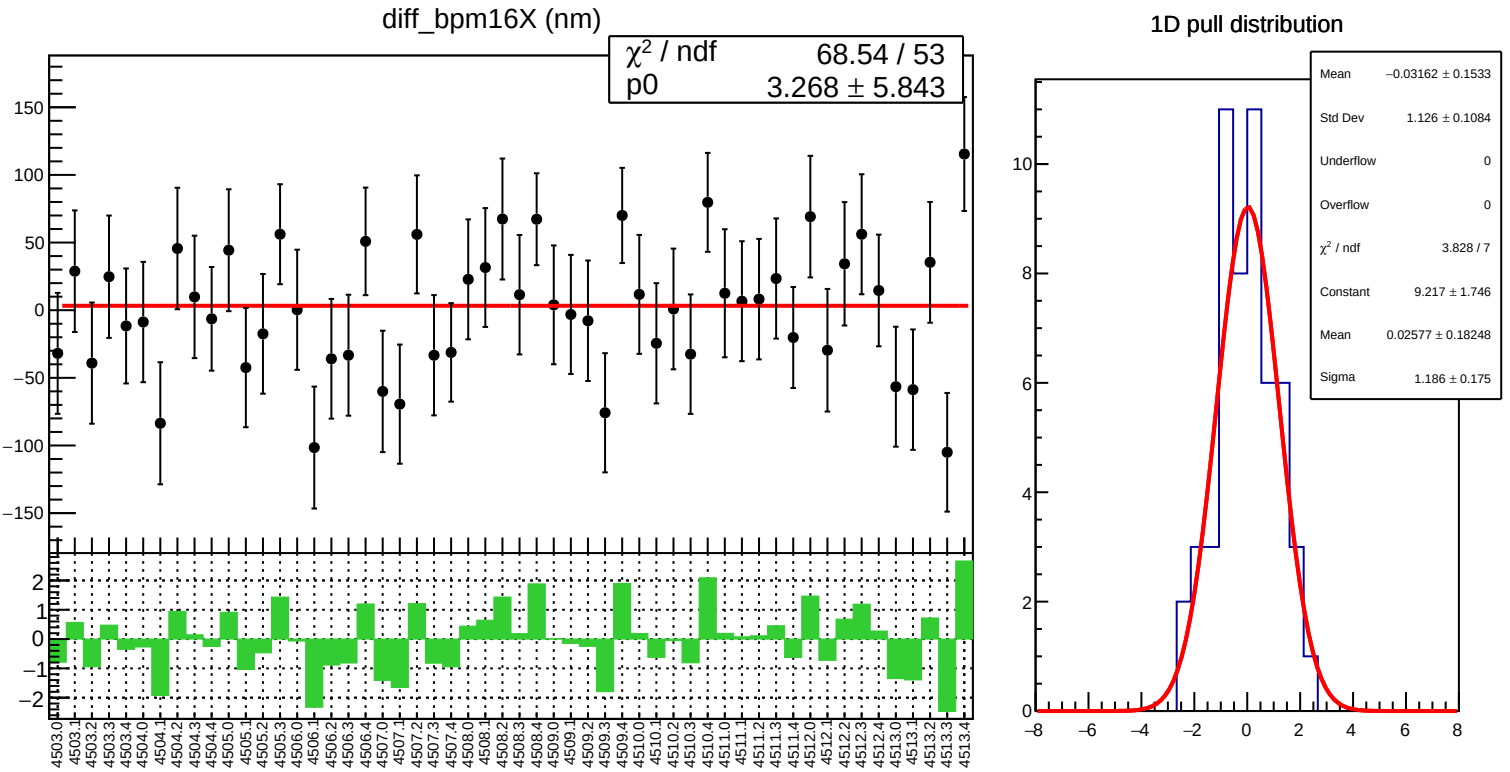

diff_bpm1X (nm)
χ² / ndf 75.23 / 53
p0 −6.052 ± 12.4
300
200
100
0
−100
−200
−300
−400
2
1
0
−1
−2
−3
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

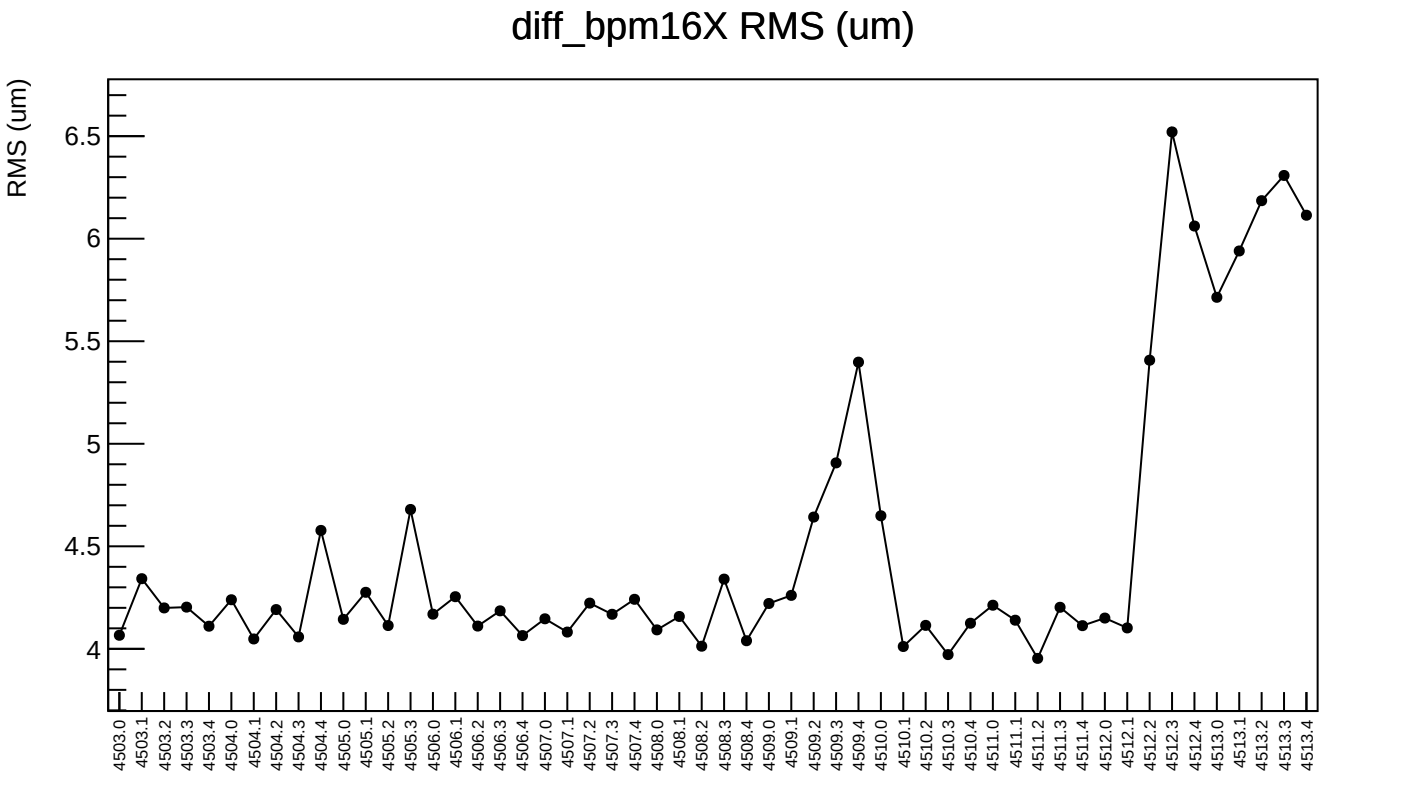

1D pull distribution
Mean 0.0328 ± 0.1606
Std Dev 1.18 ± 0.1135
Underflow 0
Overflow 0
χ² / ndf 6.231 / 8
Constant 9.079 ± 1.705
Mean 0.1601 ± 0.1757
Sigma 1.136 ± 0.150
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

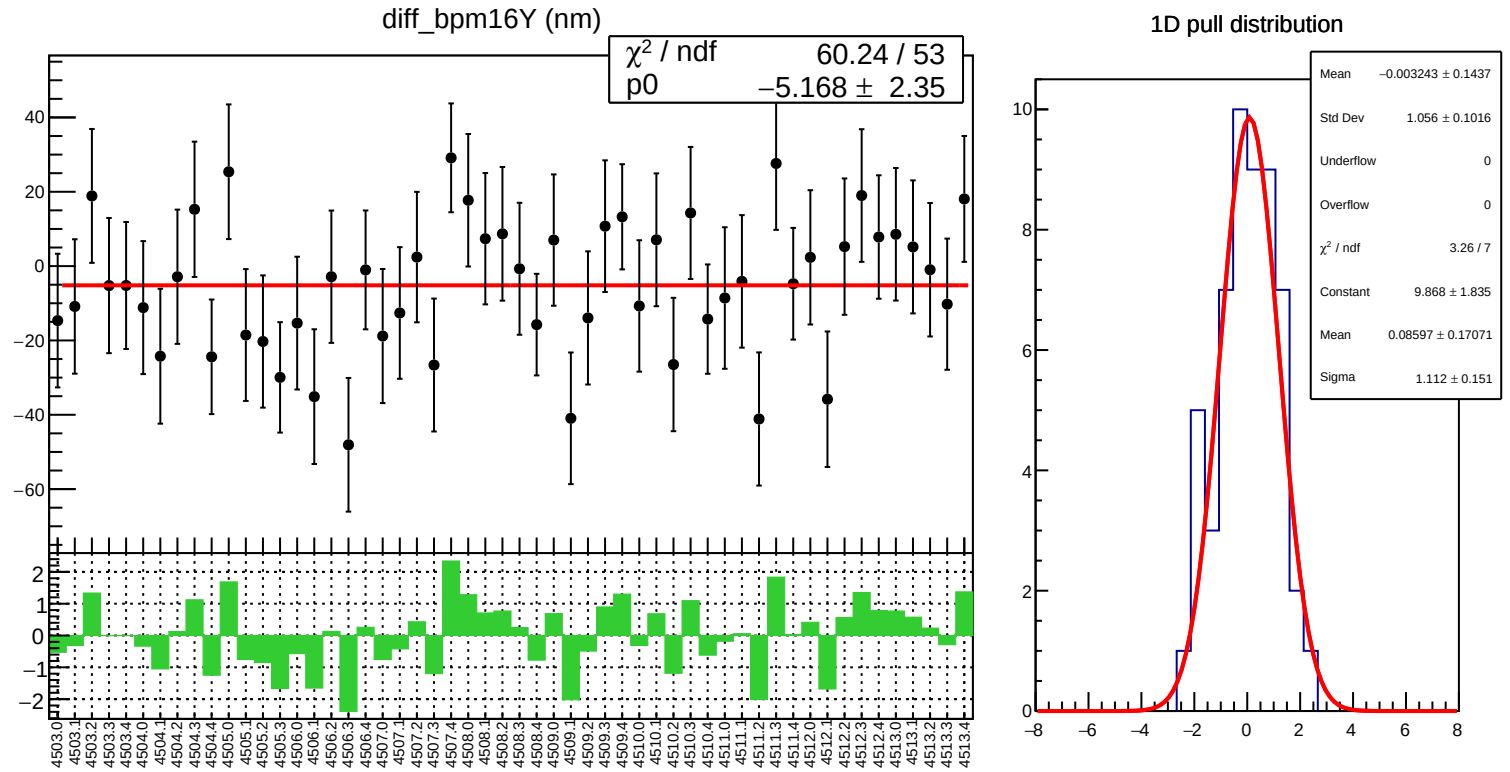

diff_bpm1X RMS (um)
RMS (um)
14
13
12
11
10
9
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

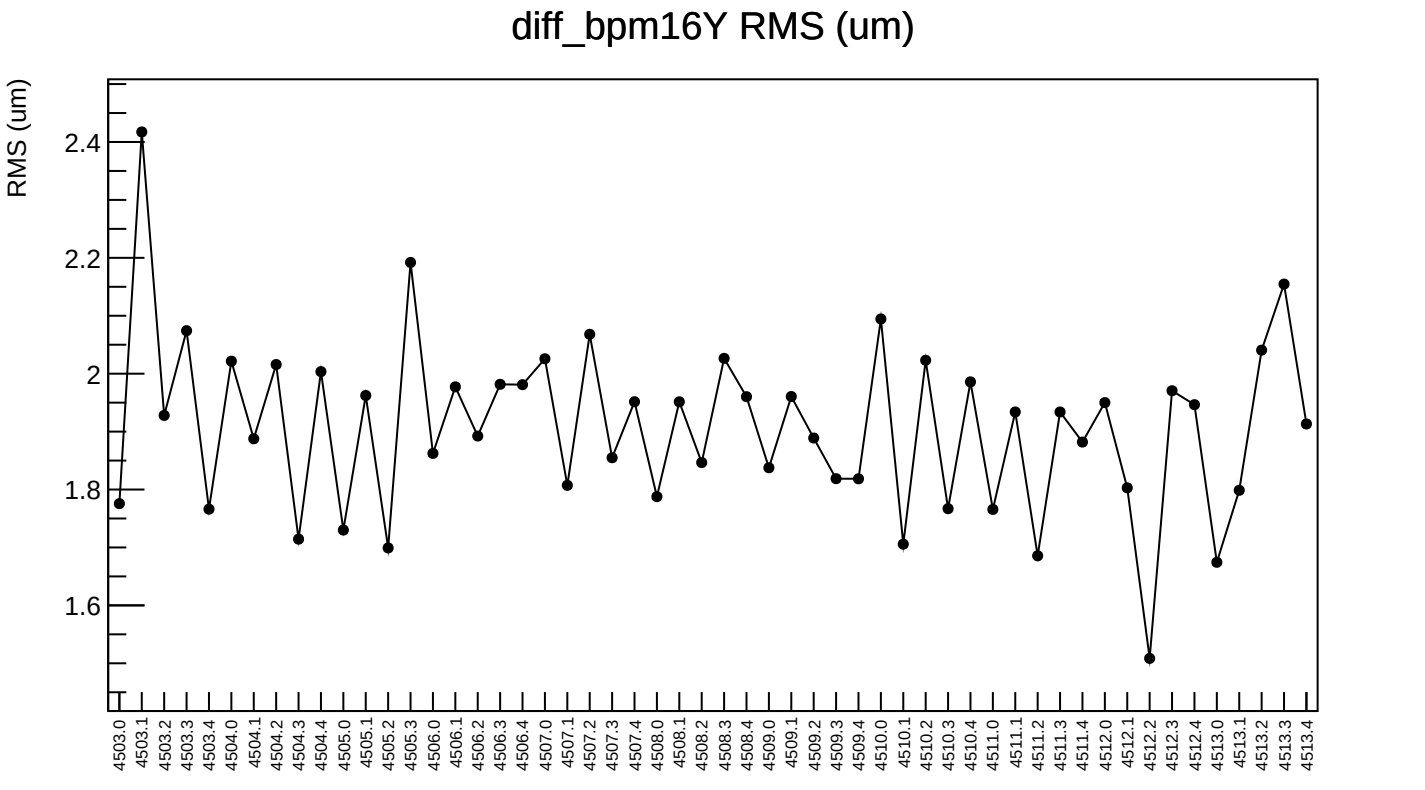

diff_bpm1Y (nm)
χ² / ndf 69.25 / 53
p0 12.37 ± 7.515
1D pull distribution
Mean 0.002432 ± 0.1541
Std Dev 1.132 ± 0.109
Underflow 0
Overflow 0
χ² / ndf 3.507 / 6
Constant 9.482 ± 1.720
Mean −0.33 ± 0.24
Sigma 1.348 ± 0.199

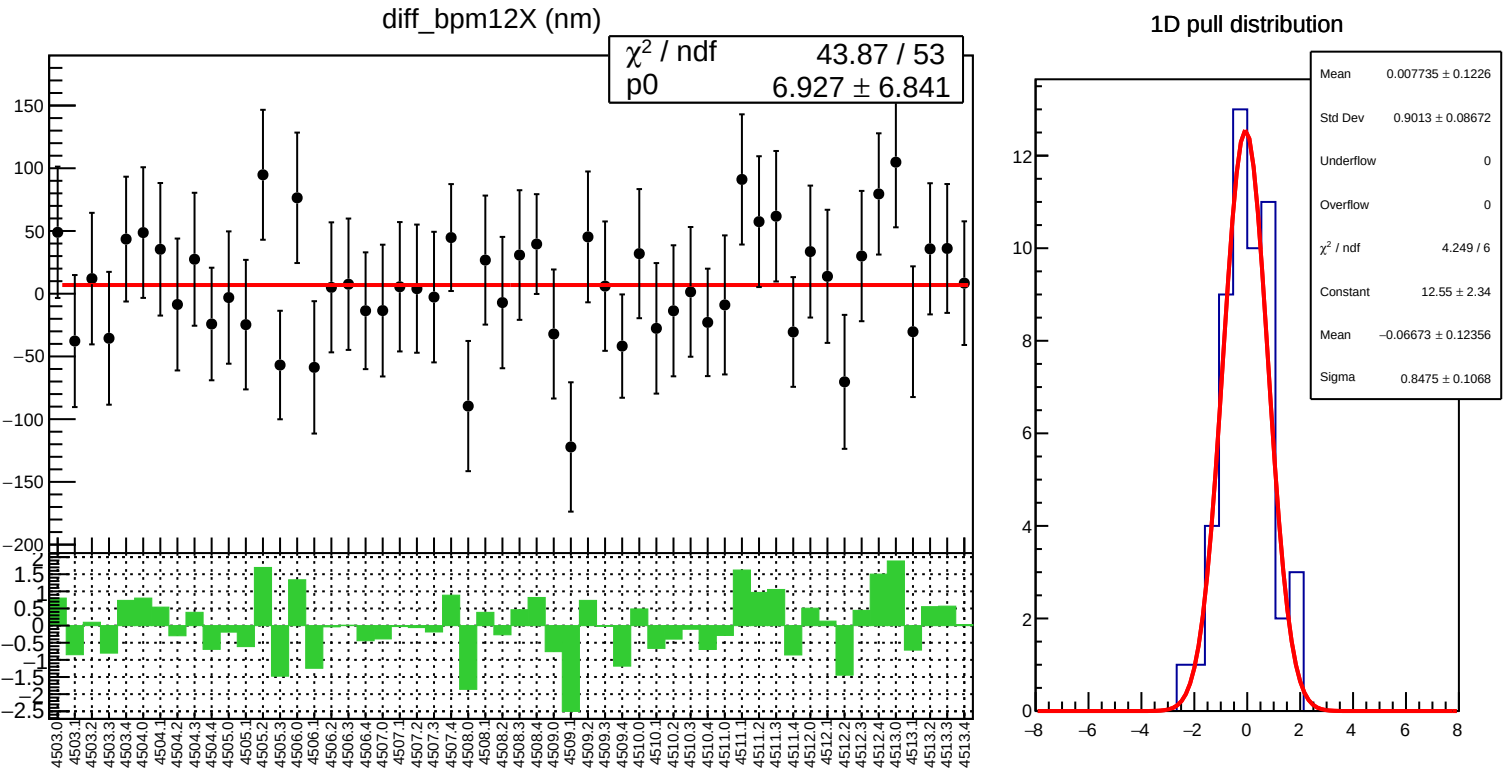

diff_bpm1Y RMS (um)
RMS (um)
8.5
8
7.5
7
6.5
6
5.5
5
4.5
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

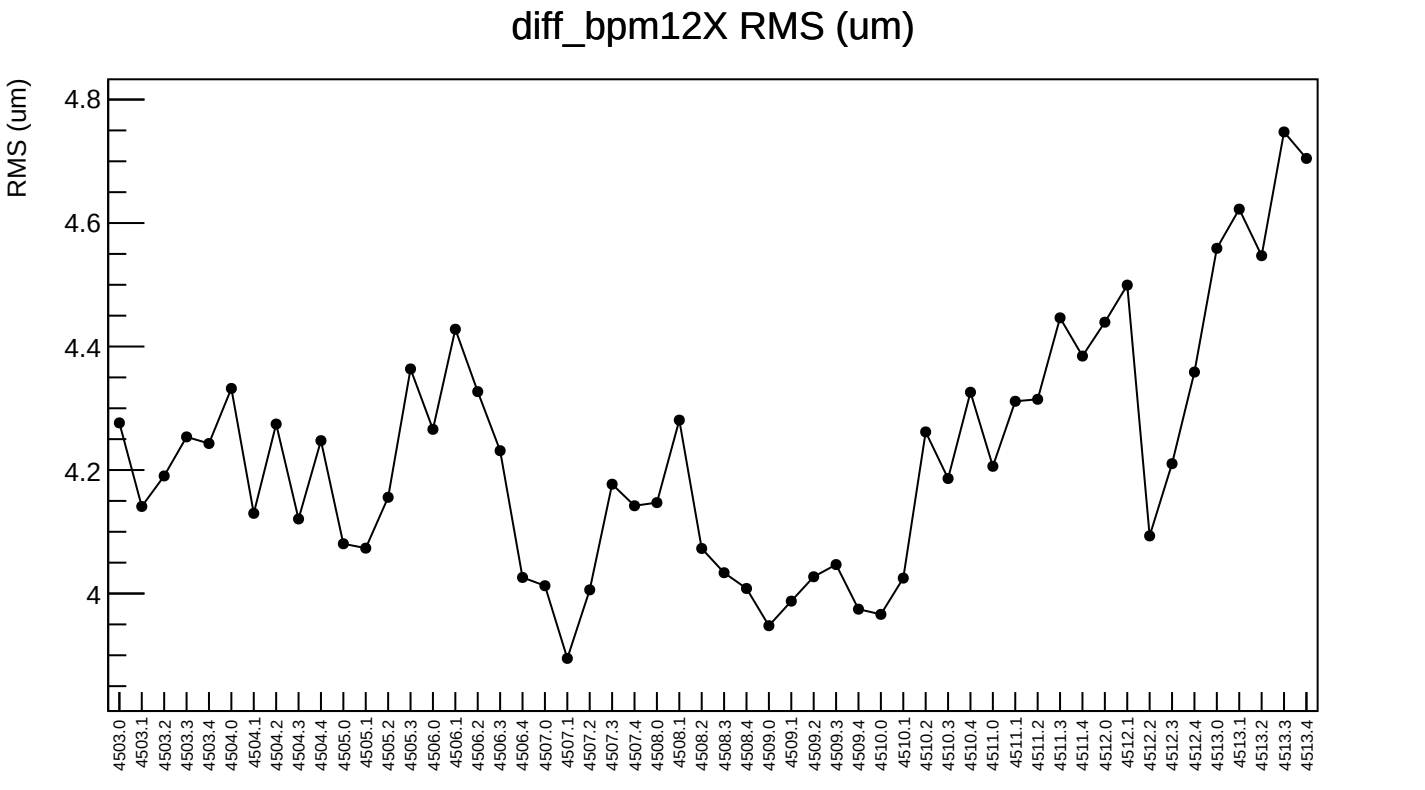

diff_bpm16X (nm)
χ² / ndf 68.54 / 53
p0 3.268 ± 5.843
1D pull distribution
Mean −0.03162 ± 0.1533
Std Dev 1.126 ± 0.1084
Underflow 0
Overflow 0
χ² / ndf 3.828 / 7
Constant 9.217 ± 1.746
Mean 0.02577 ± 0.18248
Sigma 1.186 ± 0.175

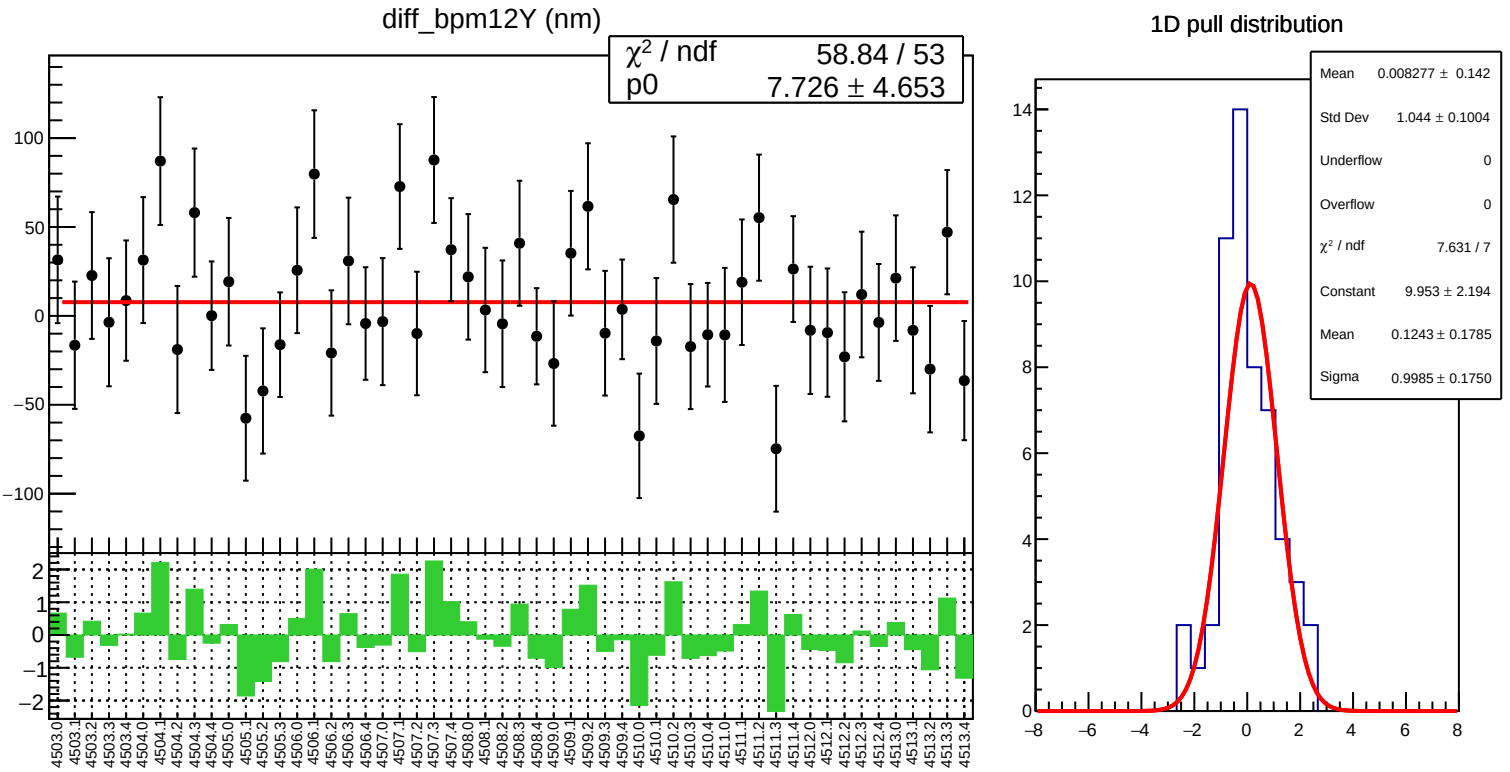

diff_bpm16X RMS (um)
RMS (um)
6.5
6
5.5
5
4.5
4
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

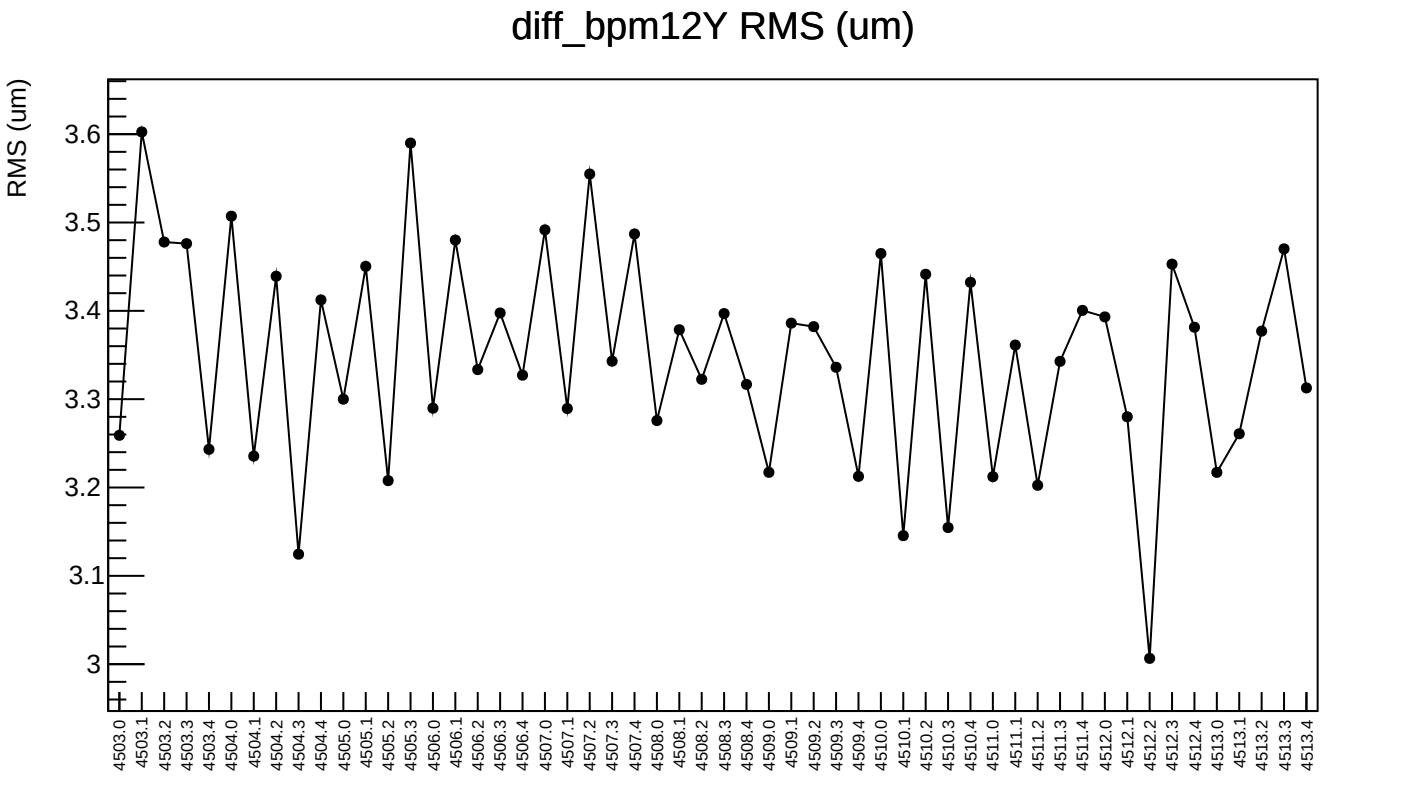

diff_bpm16Y (nm)
χ² / ndf 60.24 / 53
p0 −5.168 ± 2.35
1D pull distribution
Mean −0.003243 ± 0.1437
Std Dev 1.056 ± 0.1016
Underflow 0
Overflow 0
χ² / ndf 3.26 / 7
Constant 9.868 ± 1.835
Mean 0.08597 ± 0.17071
Sigma 1.112 ± 0.151

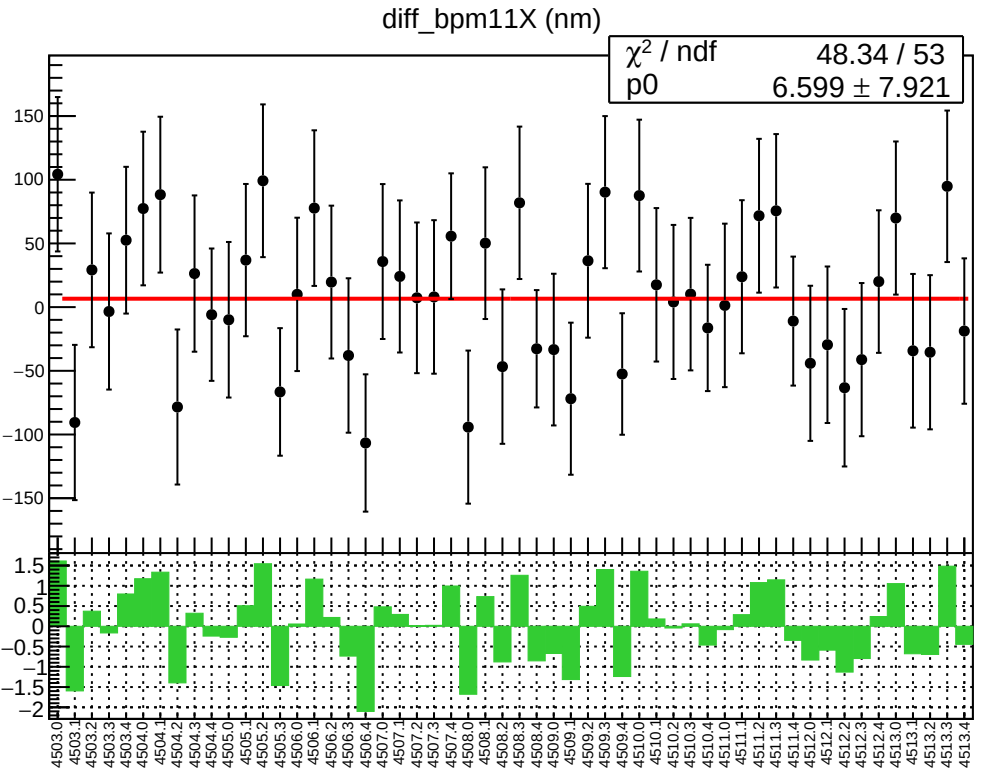

diff_bpm16Y RMS (um)
RMS (um)
2.4
2.2
2
1.8
1.6
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

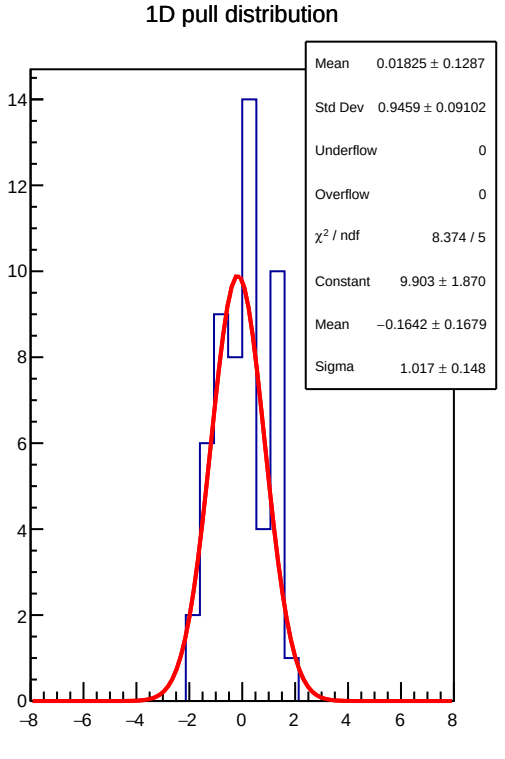

diff_bpm12X (nm)
χ² / ndf 43.87 / 53
p0 6.927 ± 6.841
1D pull distribution
Mean 0.007735 ± 0.1226
Std Dev 0.9013 ± 0.08672
Underflow 0
Overflow 0
χ² / ndf 4.249 / 6
Constant 12.55 ± 2.34
Mean −0.06673 ± 0.12356
Sigma 0.8475 ± 0.1068

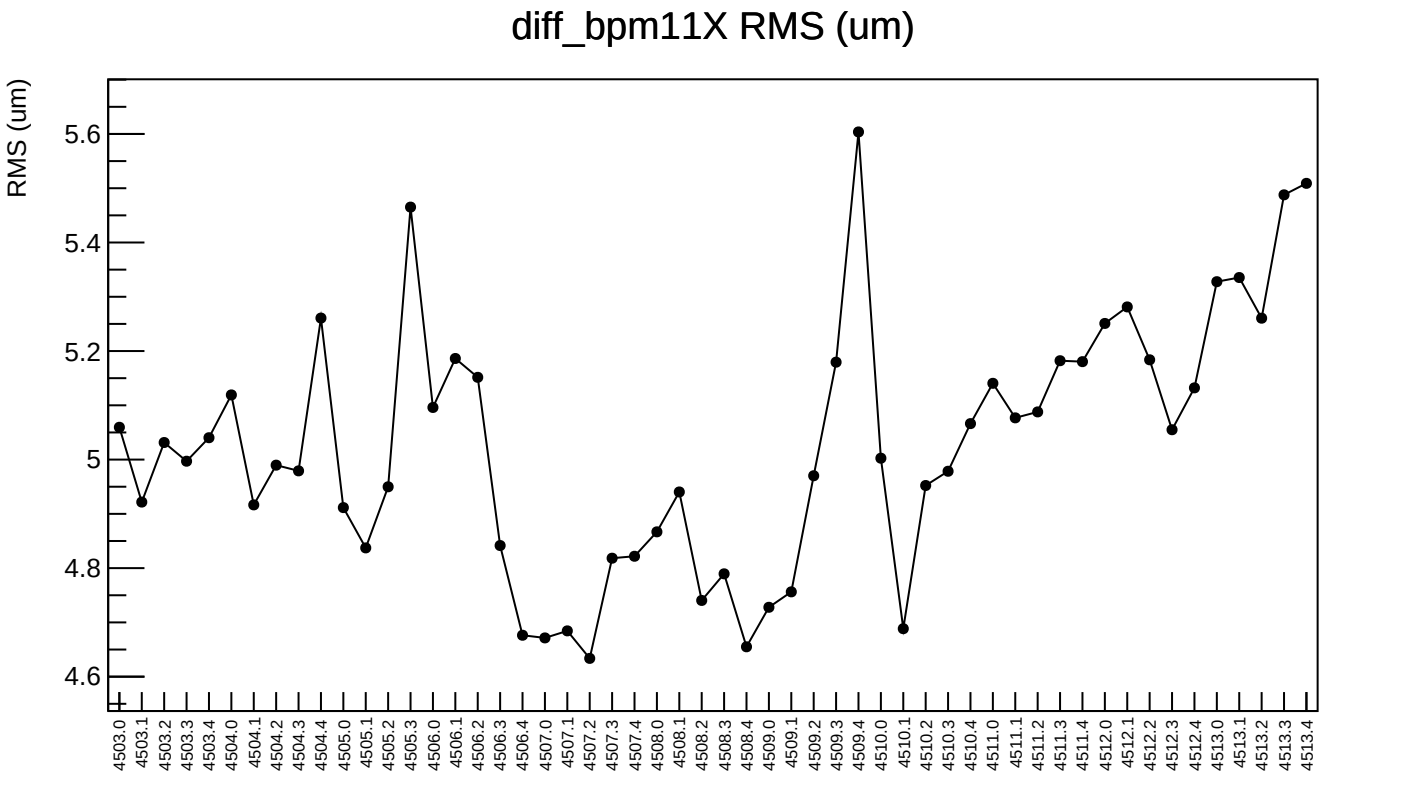

diff_bpm12X RMS (um)
RMS (um)
4.8
4.6
4.4
4.2
4
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

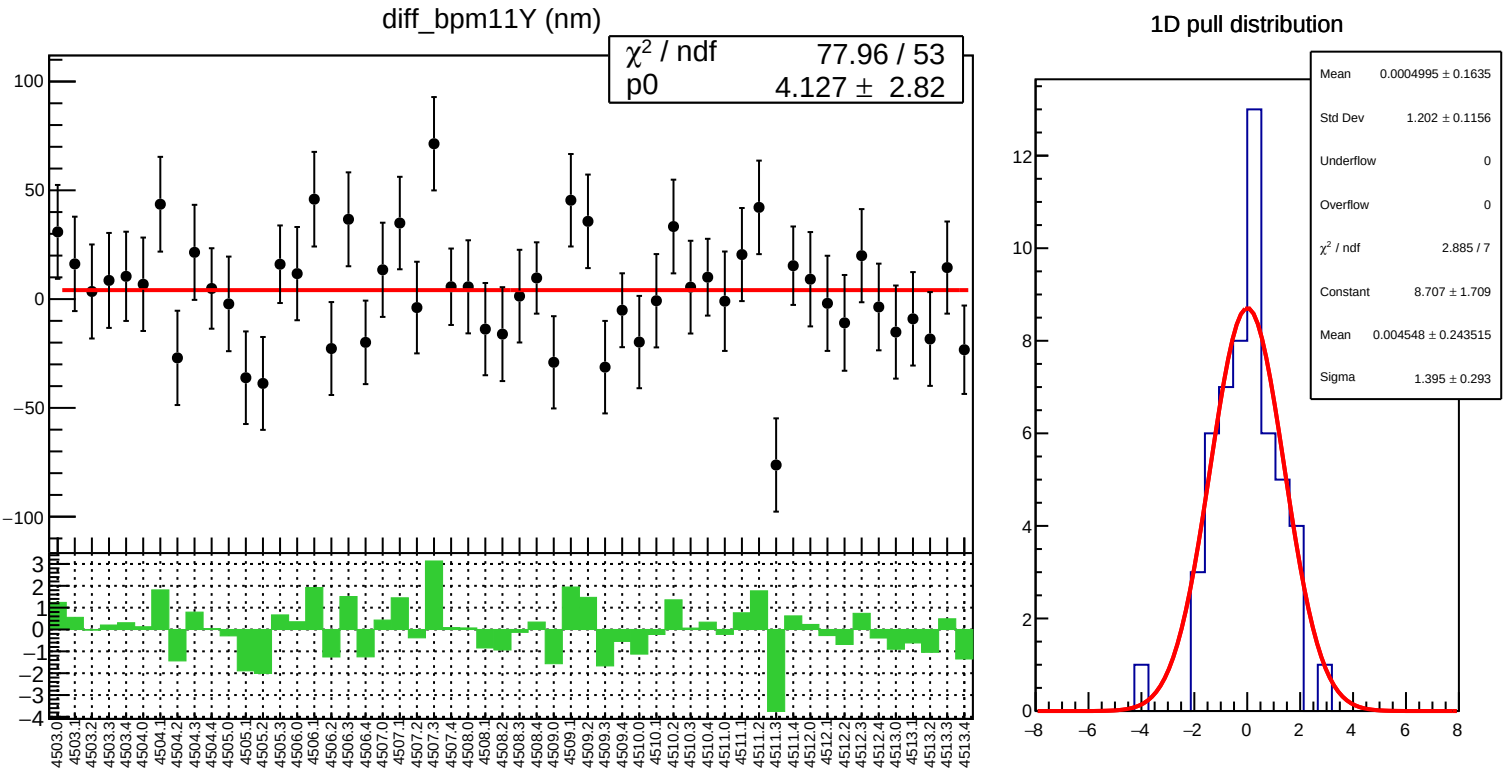

diff_bpm12Y (nm)
χ² / ndf 58.84 / 53
p0 7.726 ± 4.653
100
50
0
−50
−100
2
1
0
−1
−2
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4
1D pull distribution
Mean 0.008277 ± 0.142
Std Dev 1.044 ± 0.1004
Underflow 0
Overflow 0
χ² / ndf 7.631 / 7
Constant 9.953 ± 2.194
Mean 0.1243 ± 0.1785
Sigma 0.9985 ± 0.1750
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

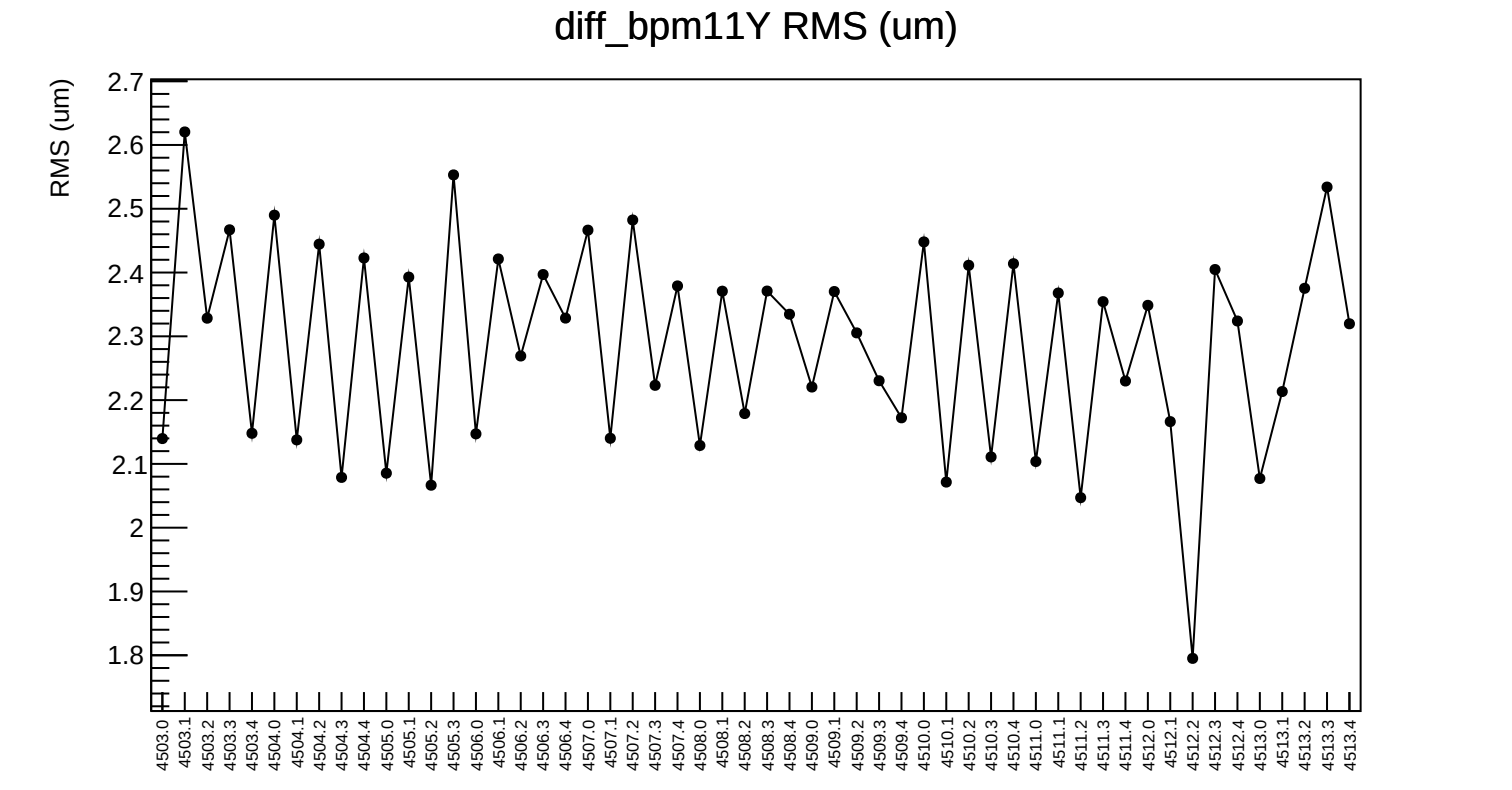

diff_bpm12Y RMS (um)
RMS (um)
3.6
3.5
3.4
3.3
3.2
3.1
3
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

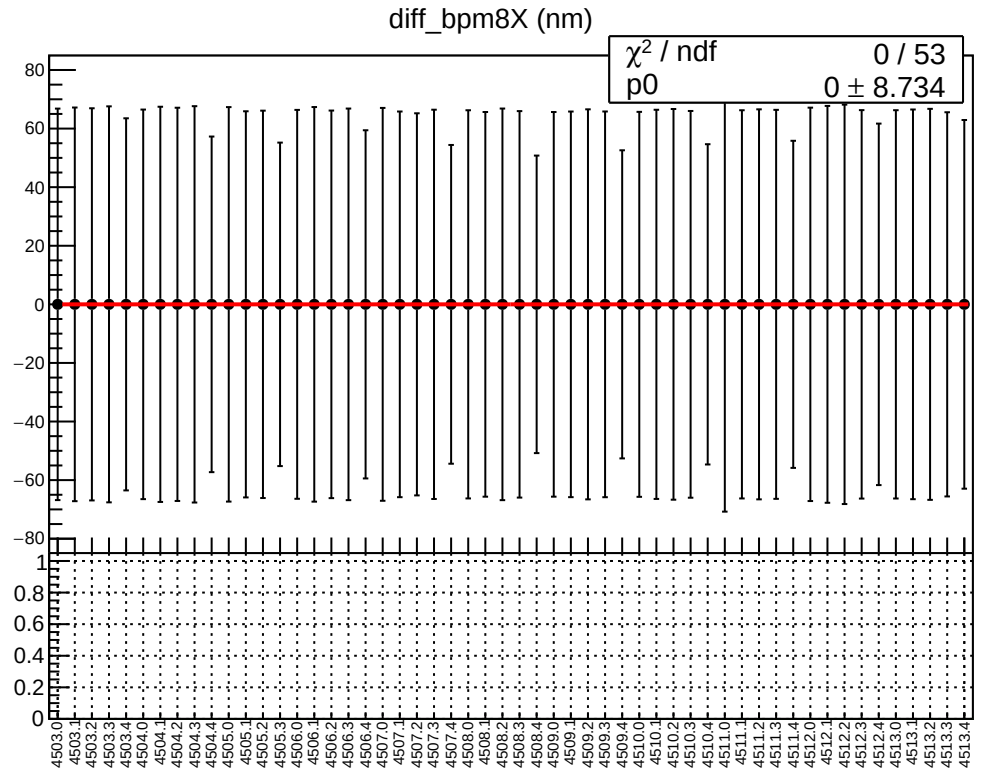

diff_bpm11X (nm)
χ² / ndf 48.34 / 53
p0 6.599 ± 7.921
150
100
50
0
−50
−100
−150
1.5
1
0.5
0
−0.5
−1
−1.5
−2
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

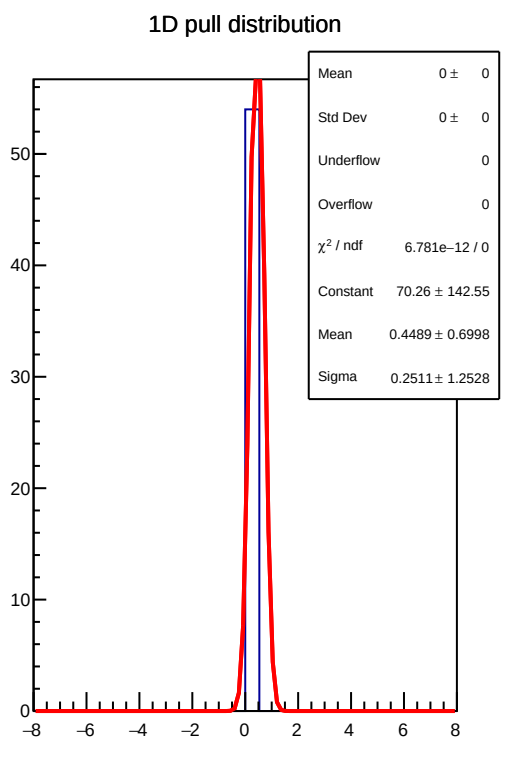

1D pull distribution
Mean 0.01825 ± 0.1287
Std Dev 0.9459 ± 0.09102
Underflow 0
Overflow 0
χ² / ndf 8.374 / 5
Constant 9.903 ± 1.870
Mean −0.1642 ± 0.1679
Sigma 1.017 ± 0.148
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

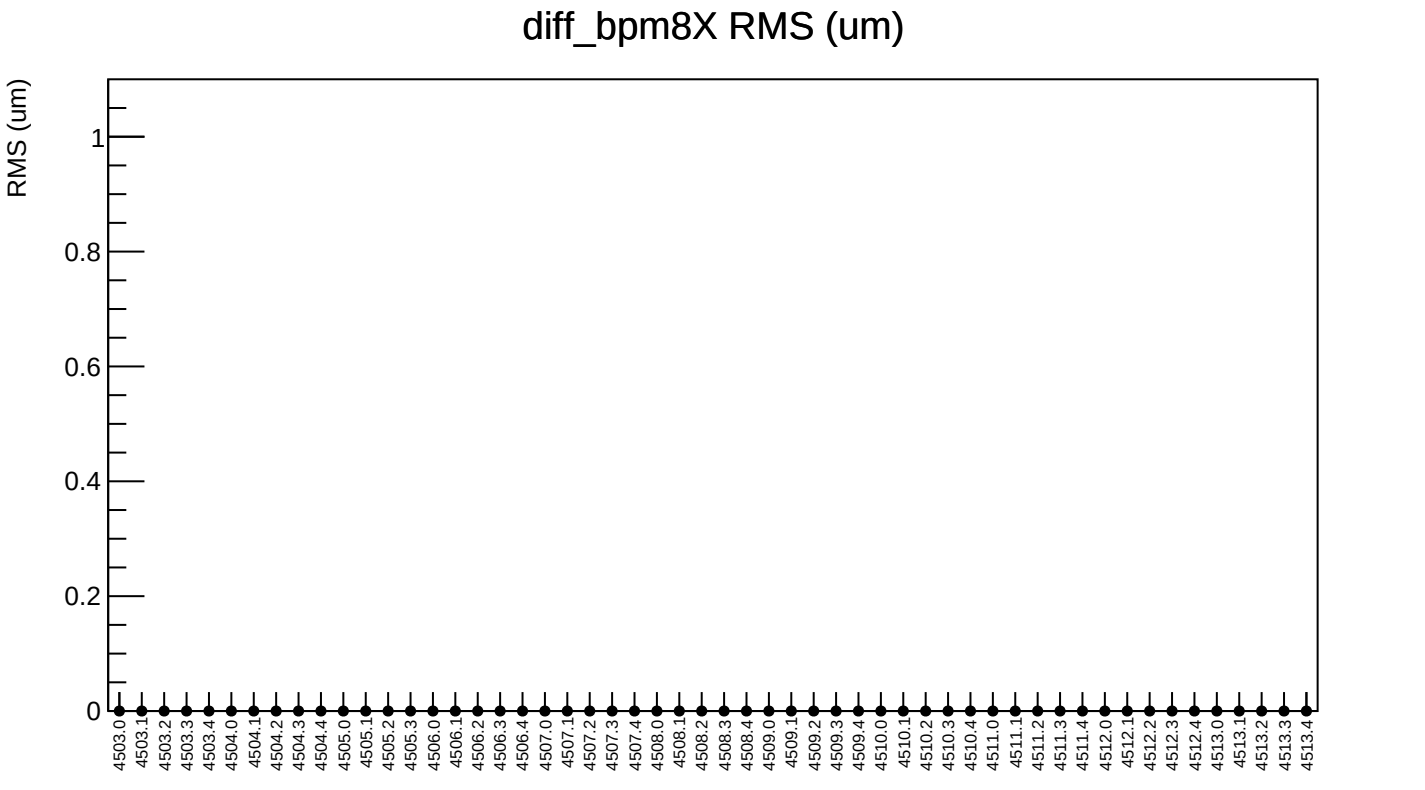

diff_bpm11X RMS (um)
RMS (um)
5.6
5.4
5.2
5
4.8
4.6
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

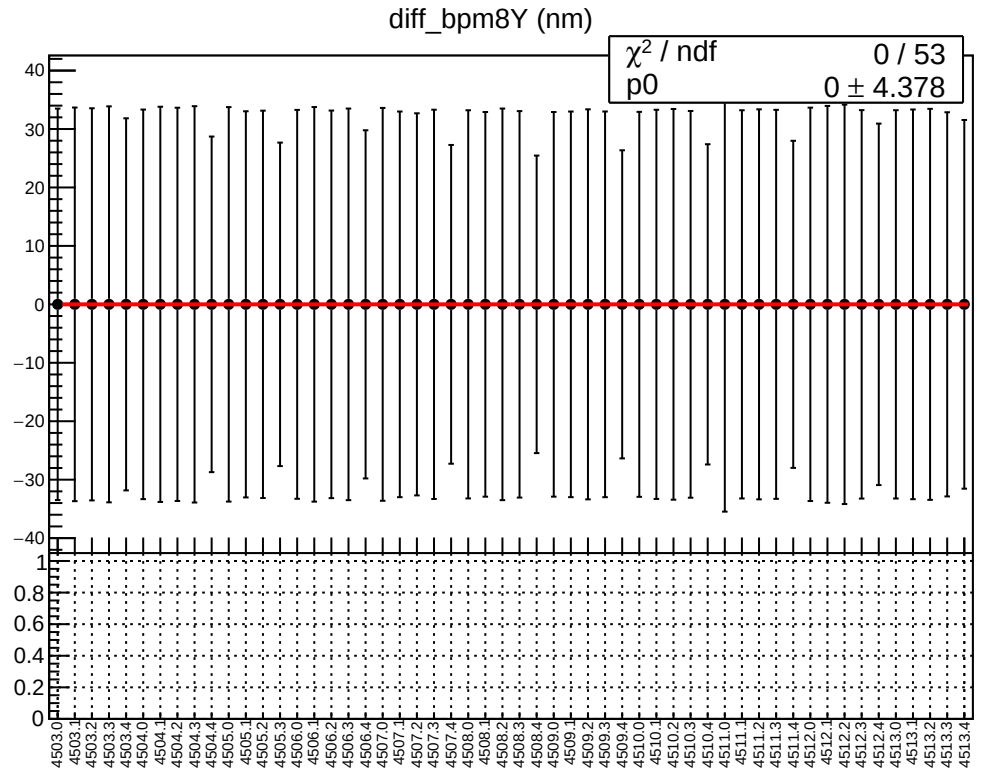

diff_bpm11Y (nm)
χ² / ndf 77.96 / 53
p0 4.127 ± 2.82
1D pull distribution
Mean 0.0004995 ± 0.1635
Std Dev 1.202 ± 0.1156
Underflow 0
Overflow 0
χ² / ndf 2.885 / 7
Constant 8.707 ± 1.709
Mean 0.004548 ± 0.243515
Sigma 1.395 ± 0.293

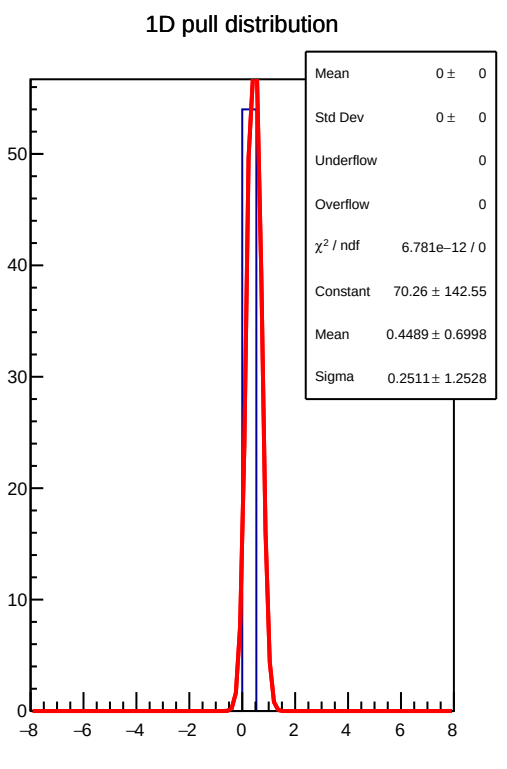

diff_bpm11Y RMS (um)
RMS (um)
2.7
2.6
2.5
2.4
2.3
2.2
2.1
2
1.9
1.8
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

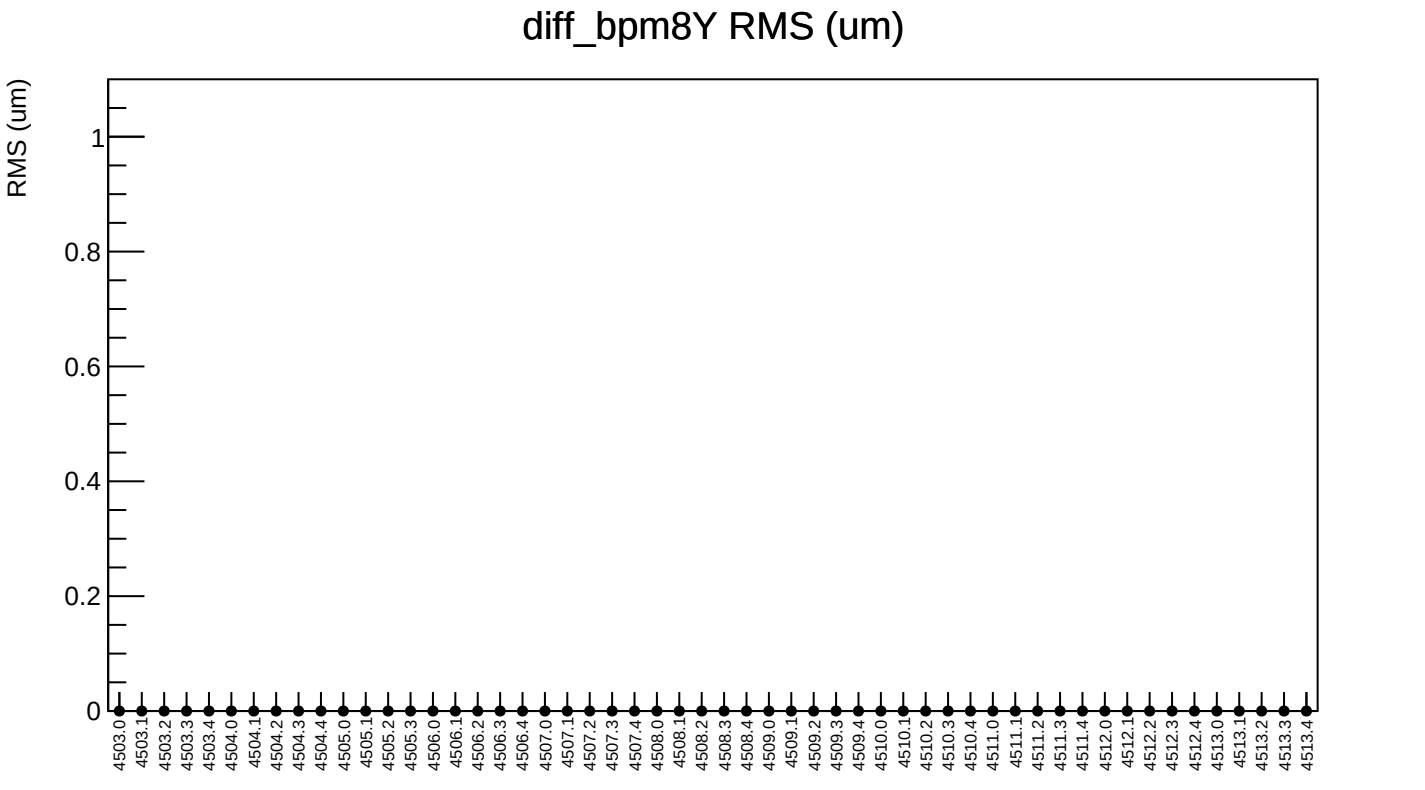

diff_bpm8X (nm)
χ² / ndf 0 / 53
p0 0 ± 8.734

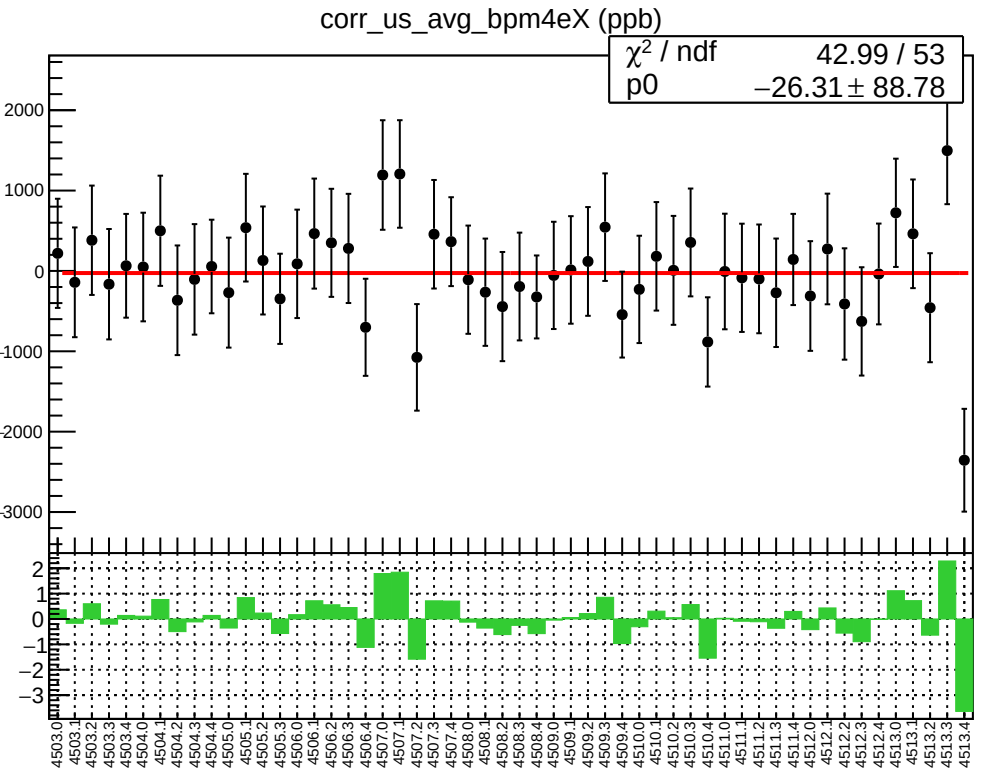

1D pull distribution
Mean 0 ± 0
Std Dev 0 ± 0
Underflow 0
Overflow 0
χ² / ndf 6.781e−12 / 0
Constant 70.26 ± 142.55
Mean 0.4489 ± 0.6998
Sigma 0.2511 ± 1.2528

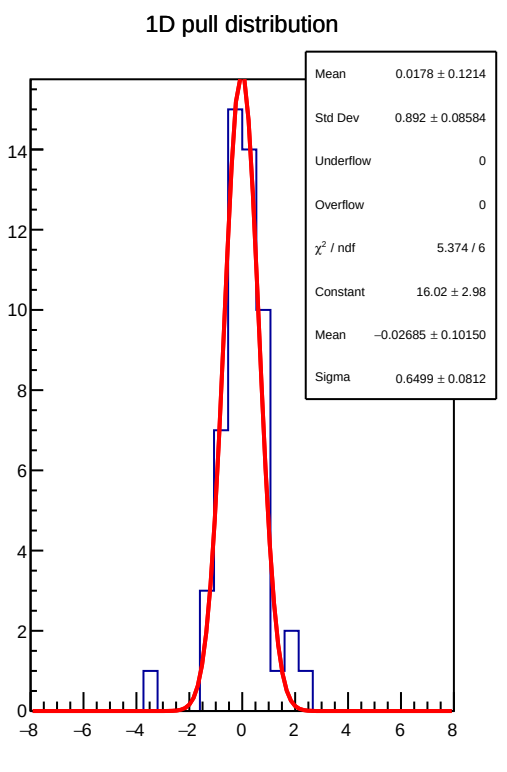

diff_bpm8X RMS (um)
RMS (um)
1
0.8
0.6
0.4
0.2
0
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

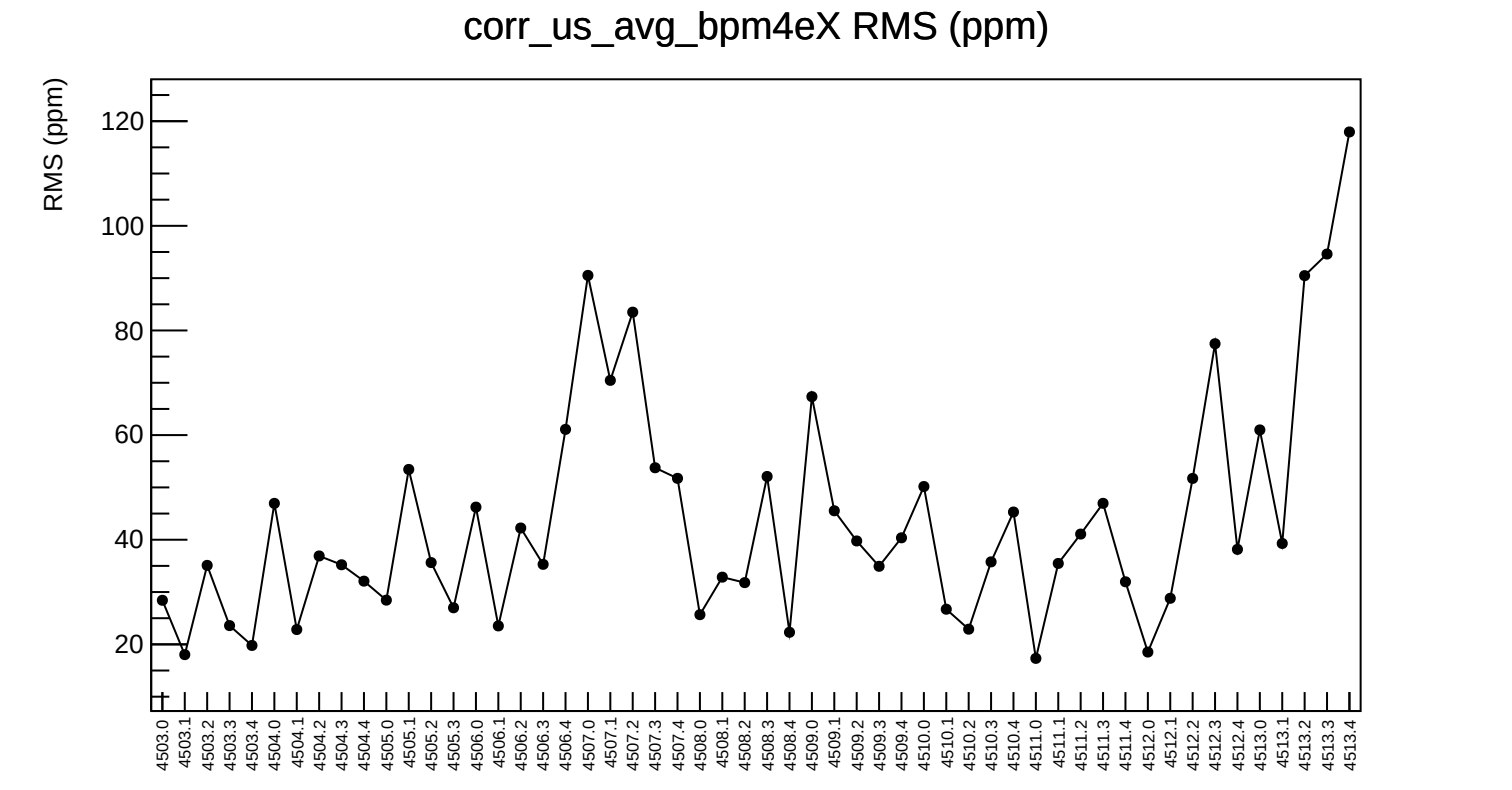

diff_bpm8Y (nm)
χ² / ndf 0 / 53
p0 0 ± 4.378

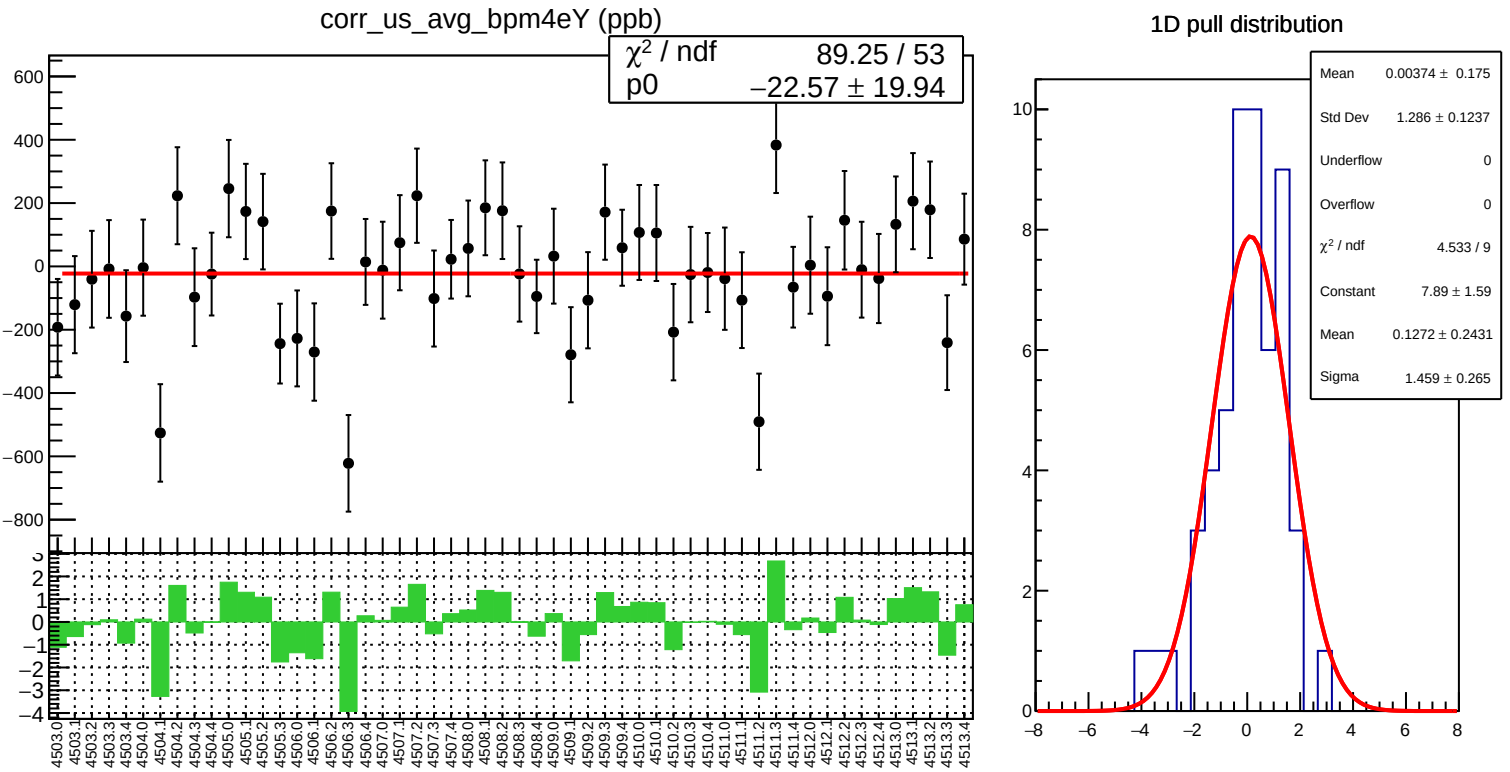

1D pull distribution
Mean 0 ± 0
Std Dev 0 ± 0
Underflow 0
Overflow 0
χ² / ndf 6.781e−12 / 0
Constant 70.26 ± 142.55
Mean 0.4489 ± 0.6998
Sigma 0.2511 ± 1.2528

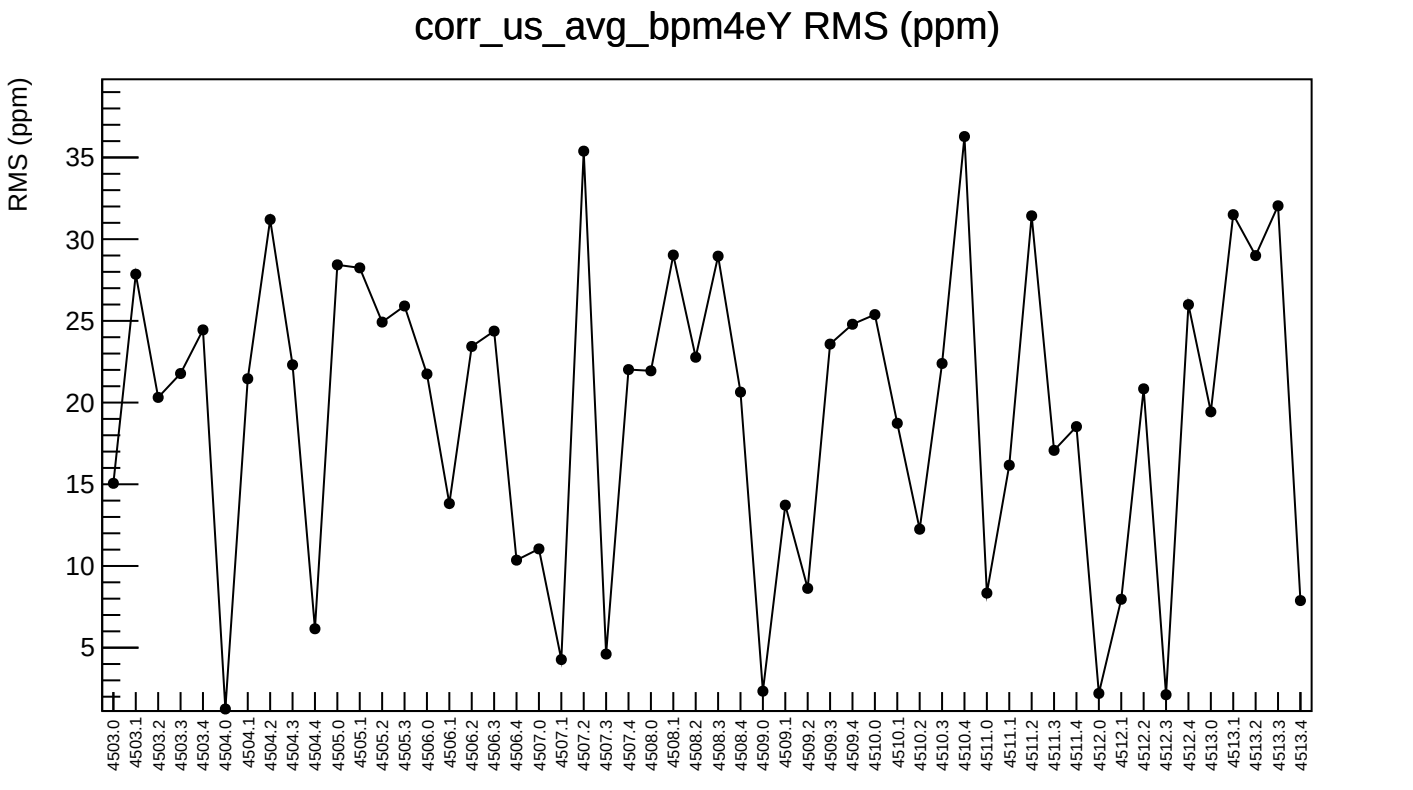

diff_bpm8Y RMS (um)
RMS (um)
1
0.8
0.6
0.4
0.2
0
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

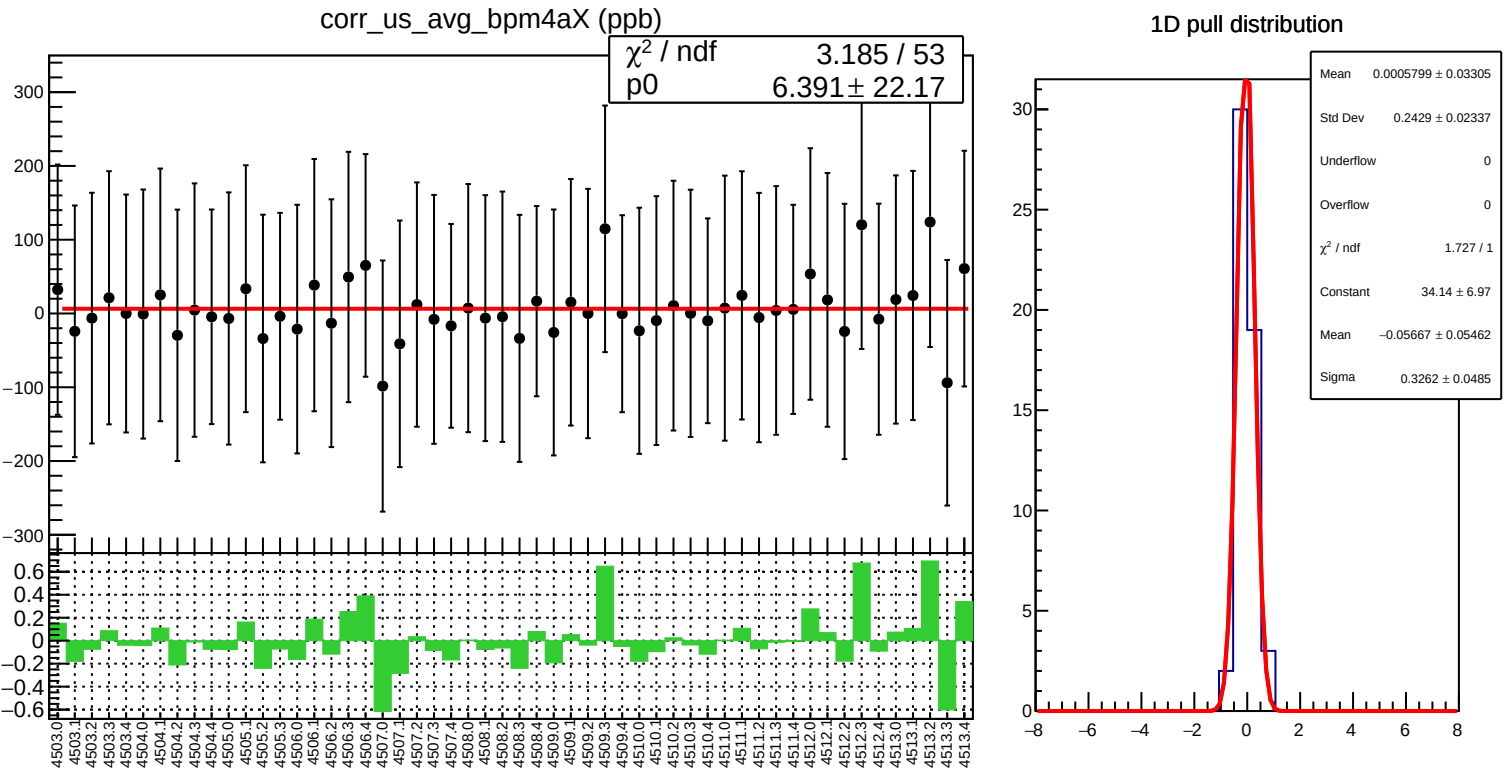

corr_us_avg_bpm4eX (ppb)
χ² / ndf 42.99 / 53
p0 −26.31 ± 88.78
2000
1000
0
-1000
-2000
-3000
2
1
0
−1
−2
−3
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

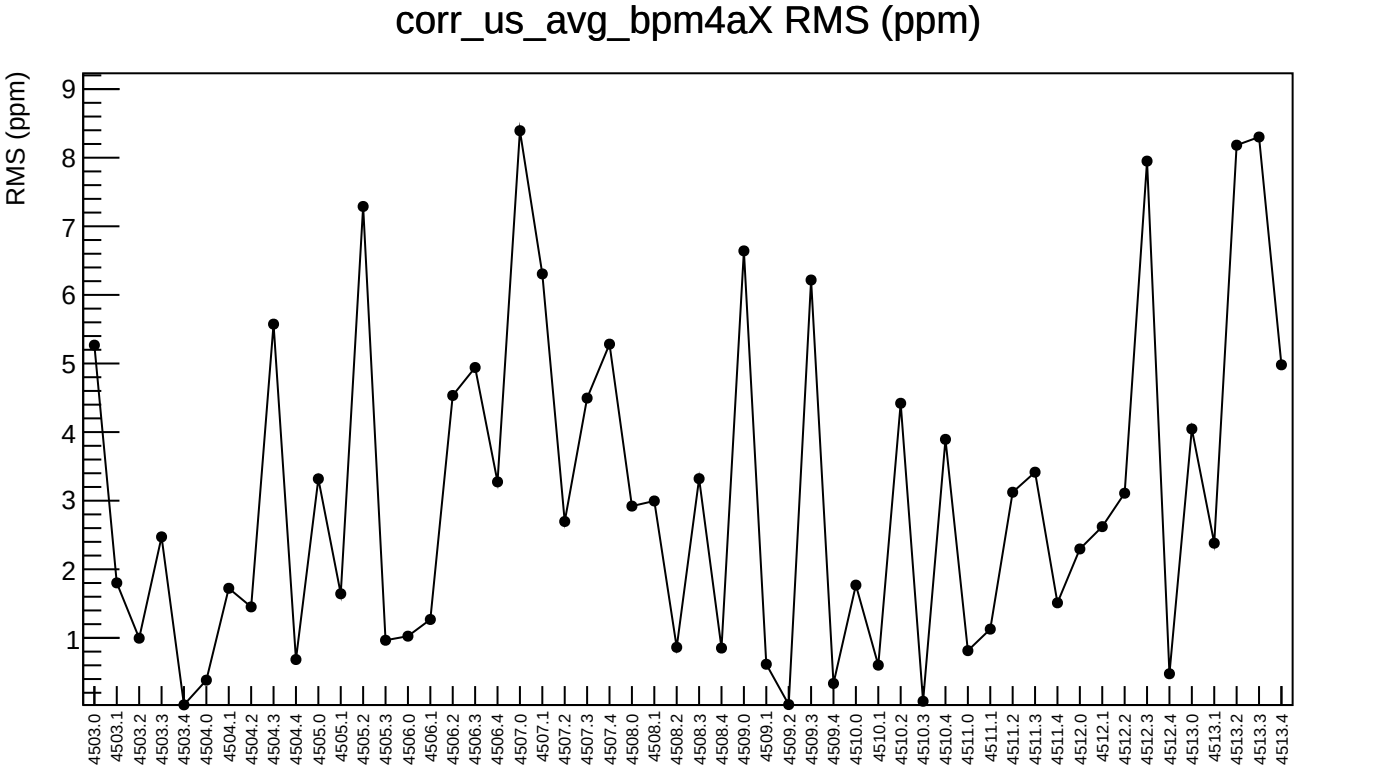

1D pull distribution
Mean 0.0178 ± 0.1214
Std Dev 0.892 ± 0.08584
Underflow 0
Overflow 0
χ² / ndf 5.374 / 6
Constant 16.02 ± 2.98
Mean −0.02685 ± 0.10150
Sigma 0.6499 ± 0.0812
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

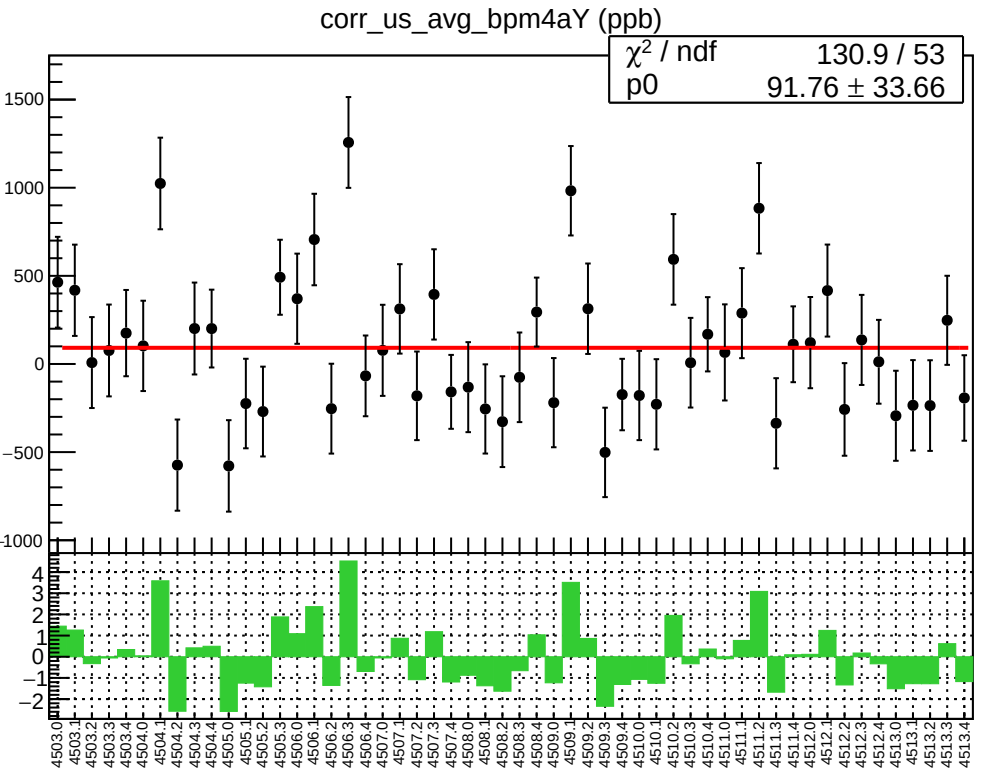

corr_us_avg_bpm4eX RMS (ppm)
RMS (ppm)
120
100
80
60
40
20
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

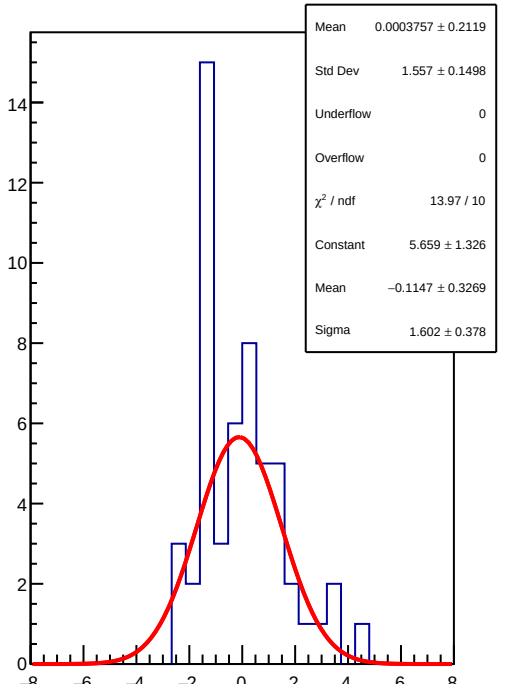

corr_us_avg_bpm4eY (ppb)
χ² / ndf 89.25 / 53
p0 −22.57 ± 19.94
1D pull distribution
Mean 0.00374 ± 0.175
Std Dev 1.286 ± 0.1237
Underflow 0
Overflow 0
χ² / ndf 4.533 / 9
Constant 7.89 ± 1.59
Mean 0.1272 ± 0.2431
Sigma 1.459 ± 0.265

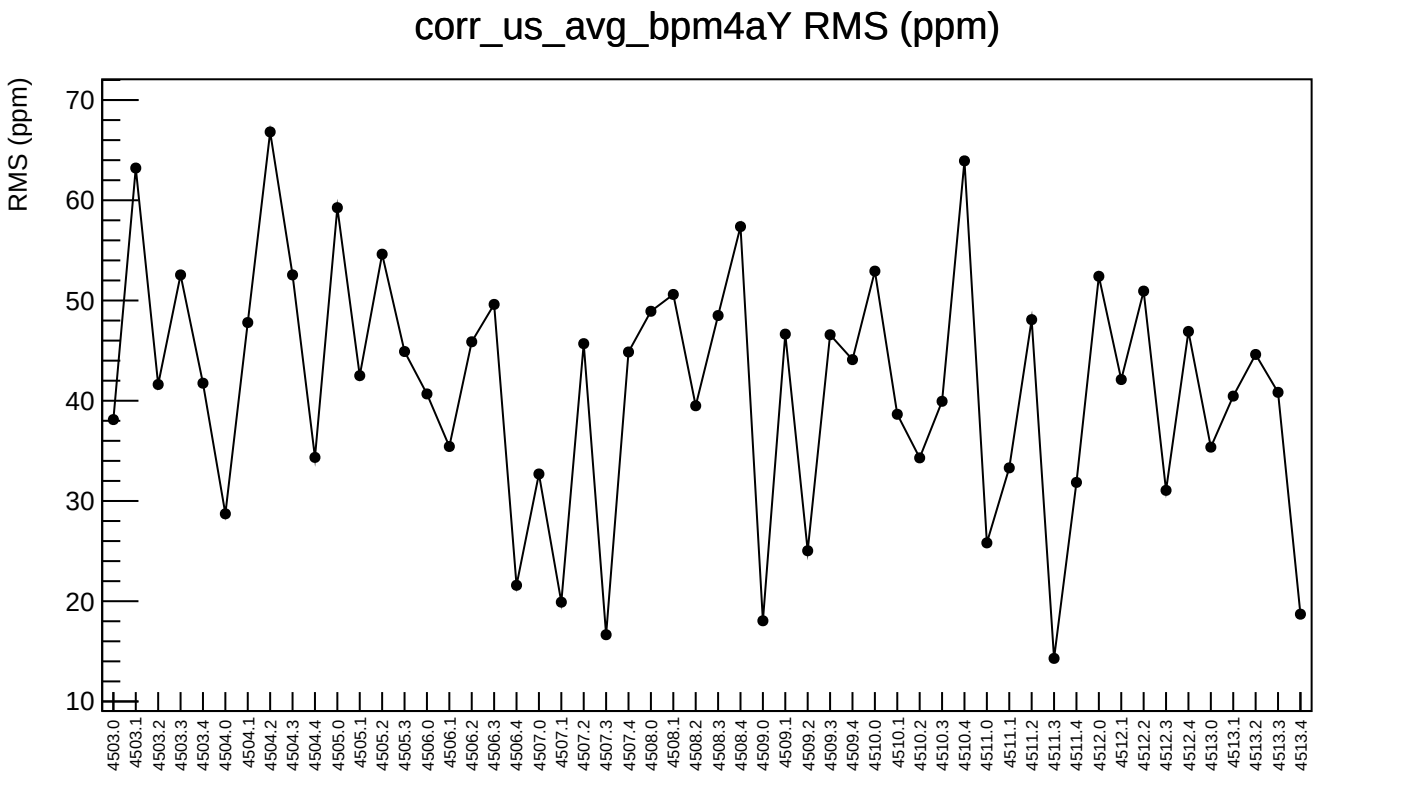

corr_us_avg_bpm4eY RMS (ppm)
RMS (ppm)
35
30
25
20
15
10
5
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

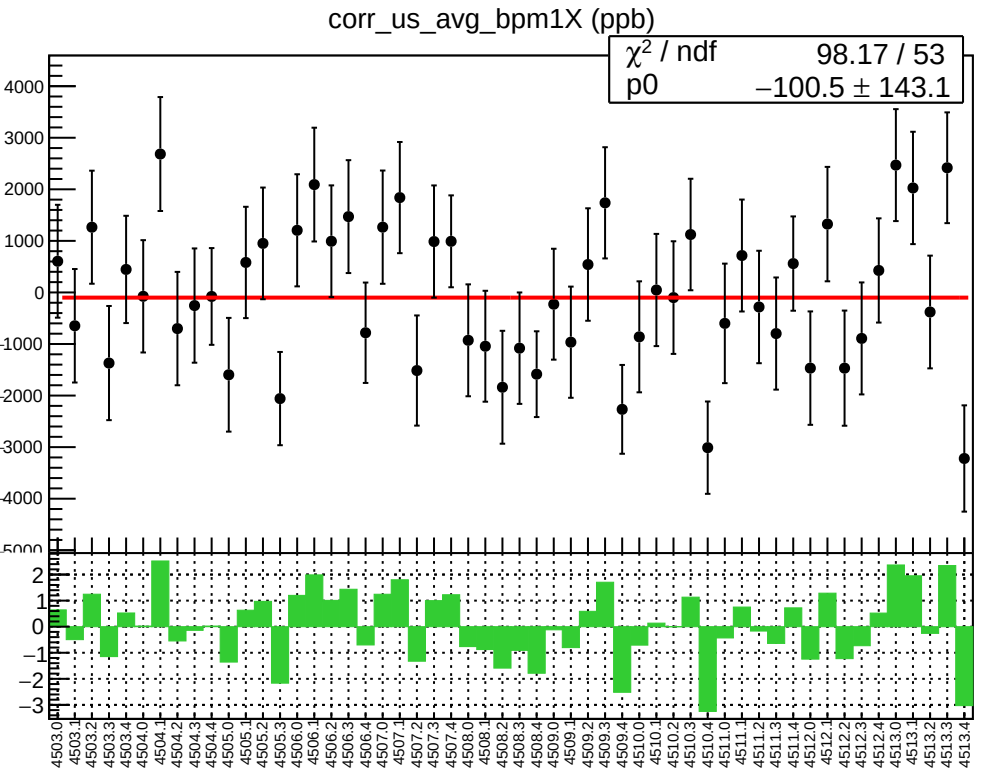

corr_us_avg_bpm4aX (ppb)
χ² / ndf 3.185 / 53
p0 6.391 ± 22.17
1D pull distribution
Mean 0.0005799 ± 0.03305
Std Dev 0.2429 ± 0.02337
Underflow 0
Overflow 0
χ² / ndf 1.727 / 1
Constant 34.14 ± 6.97
Mean −0.05667 ± 0.05462
Sigma 0.3262 ± 0.0485

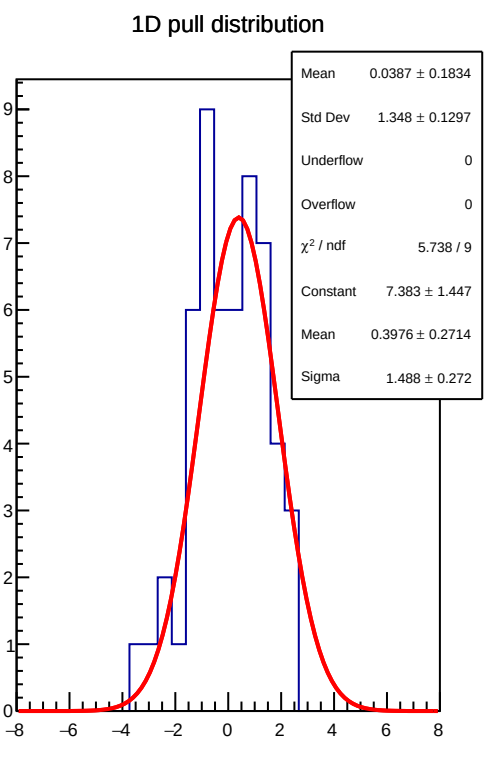

corr_us_avg_bpm4aX RMS (ppm)
RMS (ppm)
9
8
7
6
5
4
3
2
1
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

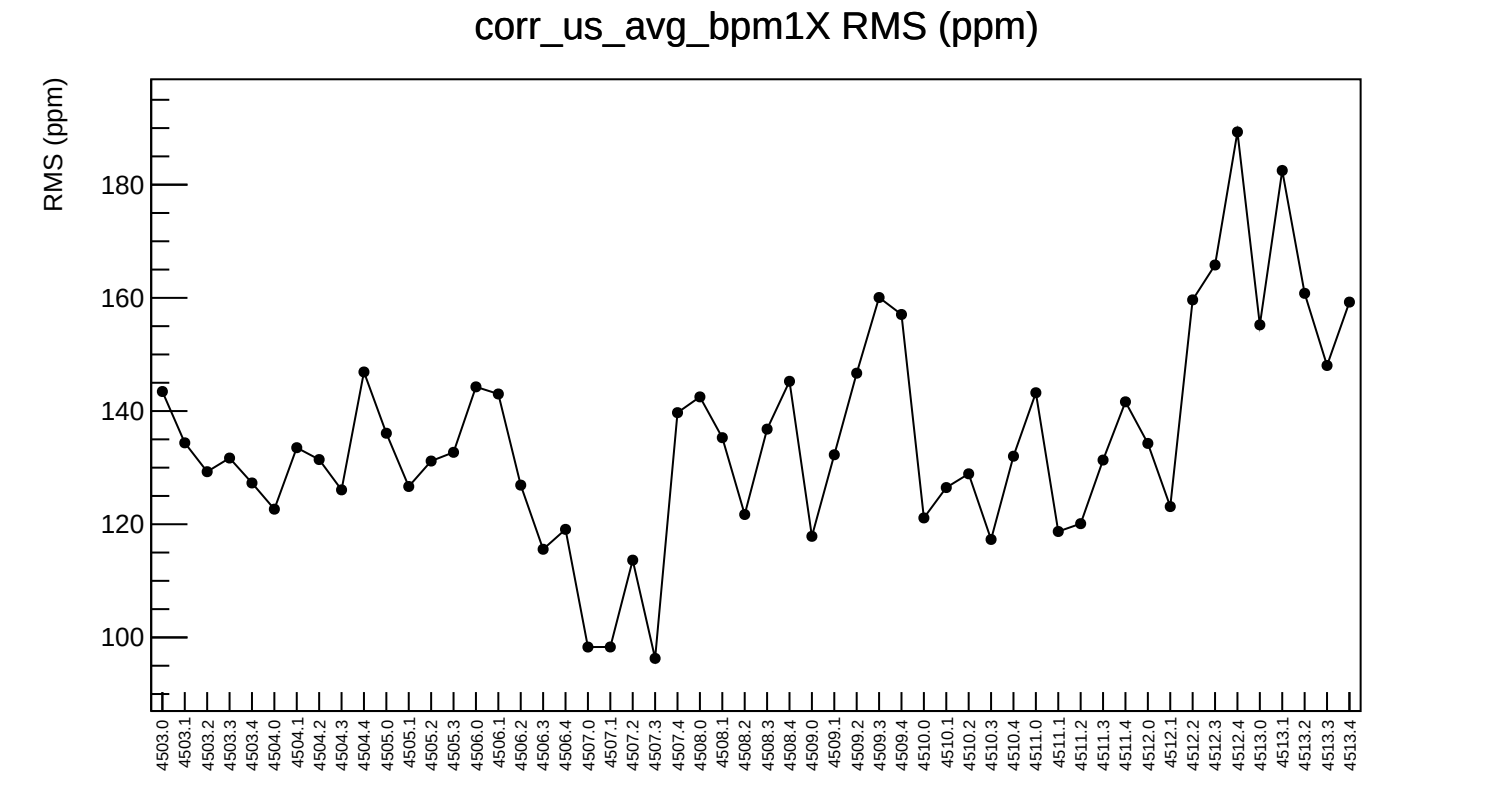

corr_us_avg_bpm4aY (ppb)
χ² / ndf 130.9 / 53
p0 91.76 ± 33.66
1500
1000
500
0
−500
−1000
4
3
2
1
0
−1
−2
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

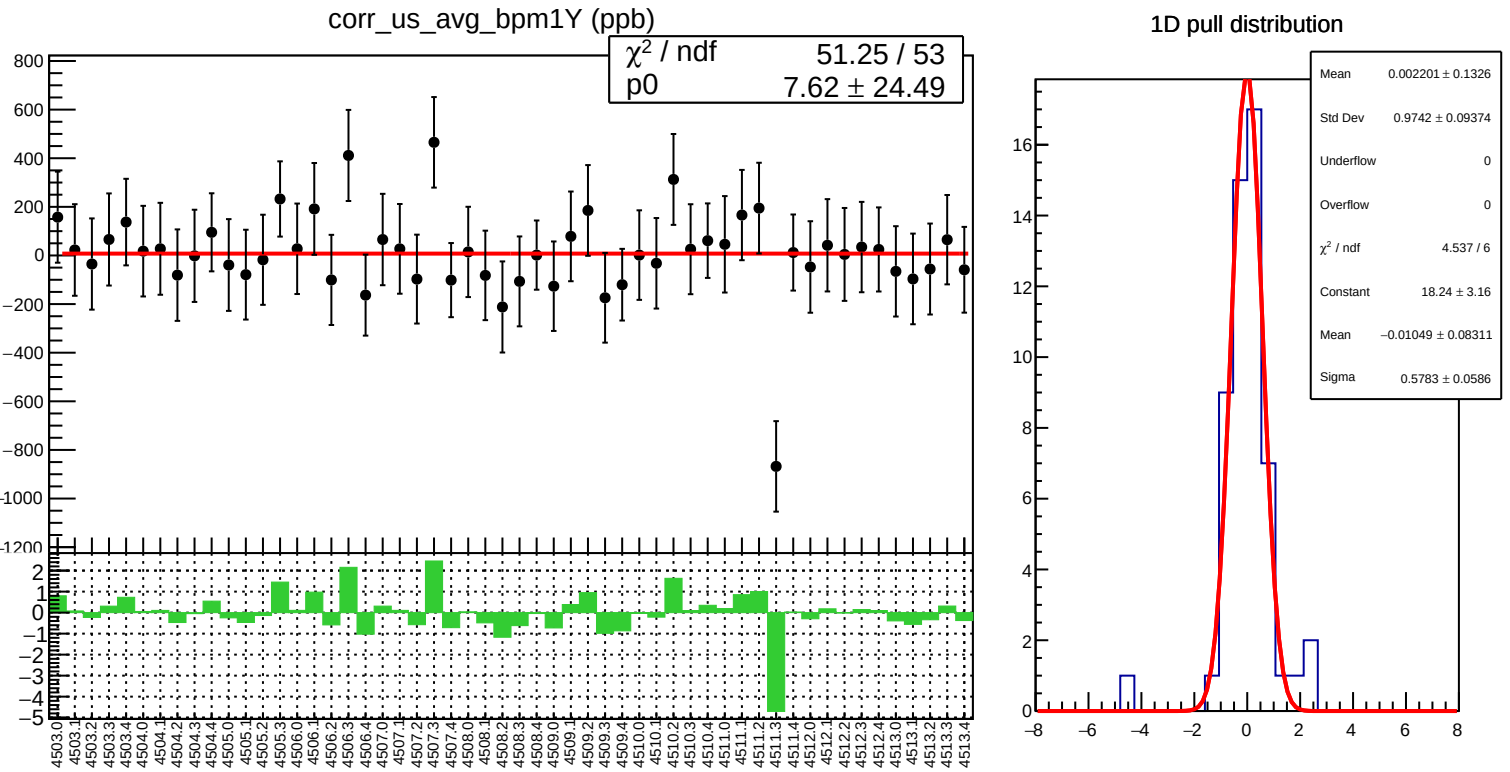

1D pull distribution
Mean 0.0003757 ± 0.2119
Std Dev 1.557 ± 0.1498
Underflow 0
Overflow 0
χ² / ndf 13.97 / 10
Constant 5.659 ± 1.326
Mean −0.1147 ± 0.3269
Sigma 1.602 ± 0.378
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

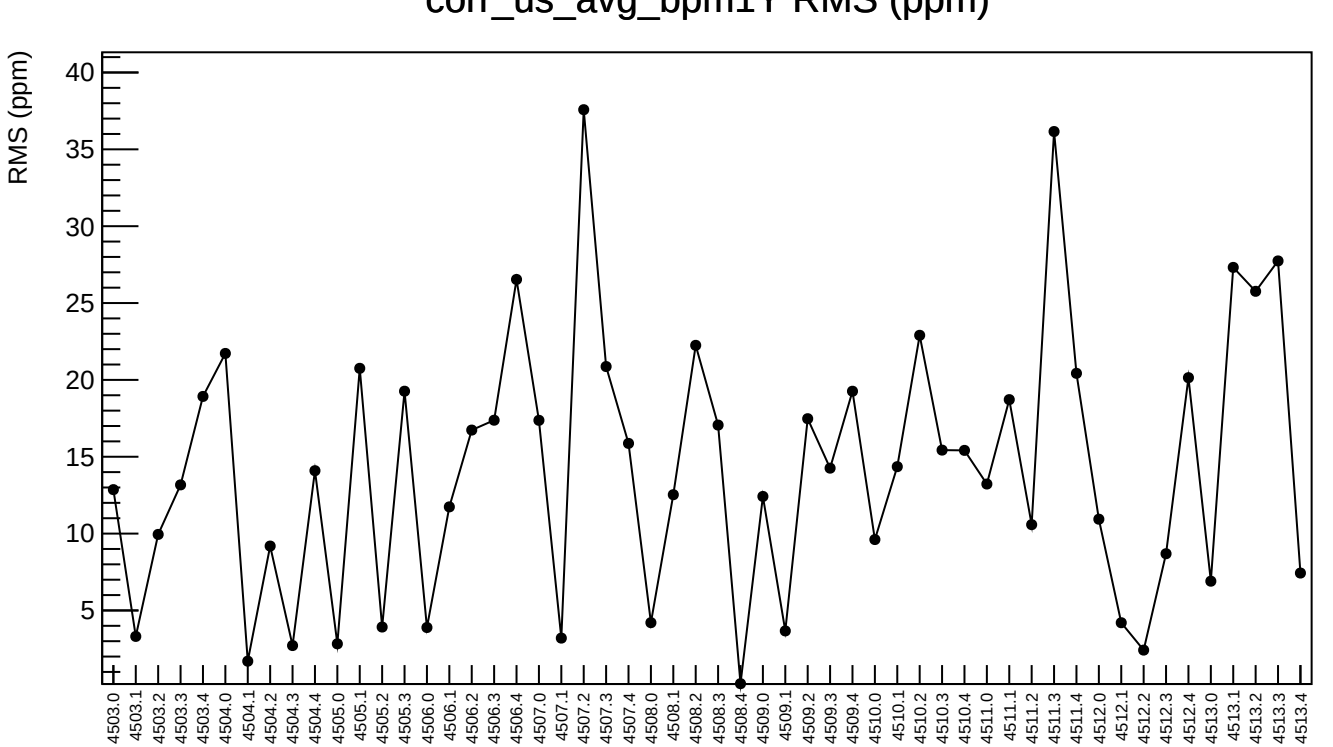

corr_us_avg_bpm4aY RMS (ppm)
RMS (ppm)
70
60
50
40
30
20
10
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

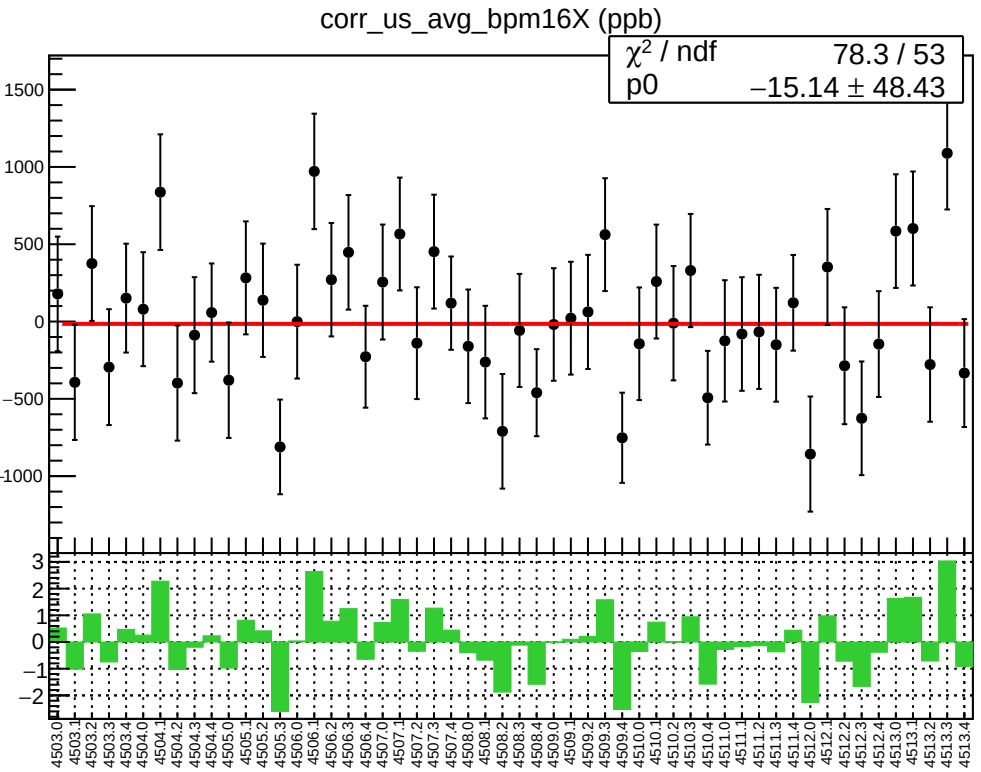

corr_us_avg_bpm1X (ppb)
χ² / ndf 98.17 / 53
p0 −100.5 ± 143.1
4000
3000
2000
1000
0
-1000
-2000
-3000
-4000
-5000
2
1
0
−1
−2
−3
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

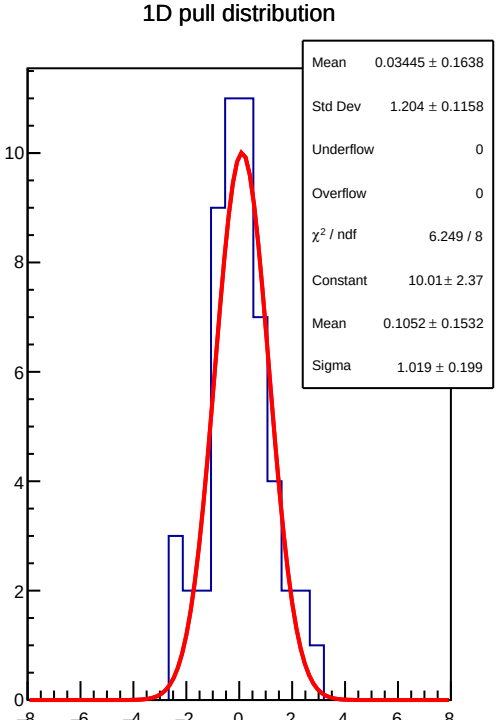

1D pull distribution
Mean 0.0387 ± 0.1834
Std Dev 1.348 ± 0.1297
Underflow 0
Overflow 0
χ² / ndf 5.738 / 9
Constant 7.383 ± 1.447
Mean 0.3976 ± 0.2714
Sigma 1.488 ± 0.272
9
8
7
6
5
4
3
2
1
0
−8
−6
−4
−2
0
2
4
6
8

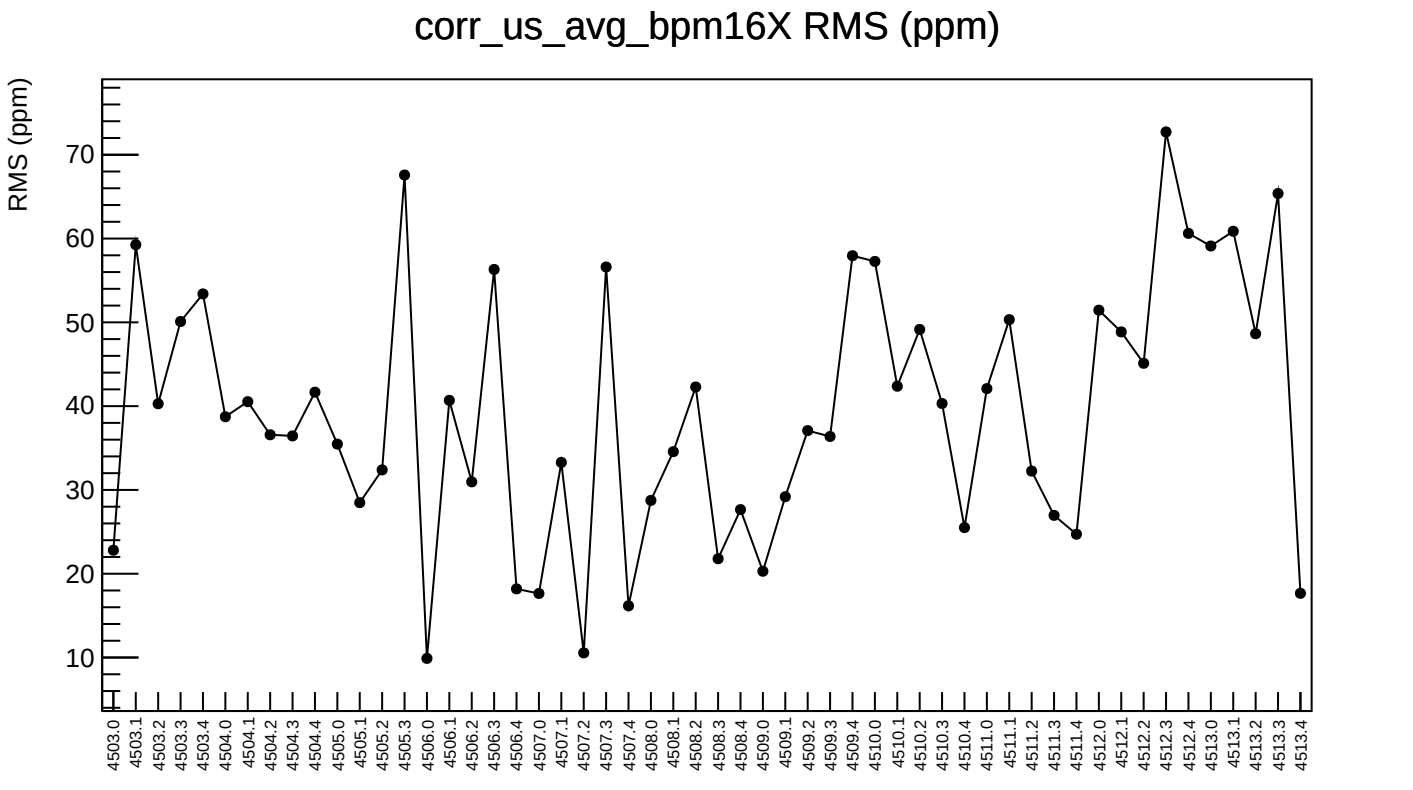

corr_us_avg_bpm1X RMS (ppm)
RMS (ppm)
100
120
140
160
180
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

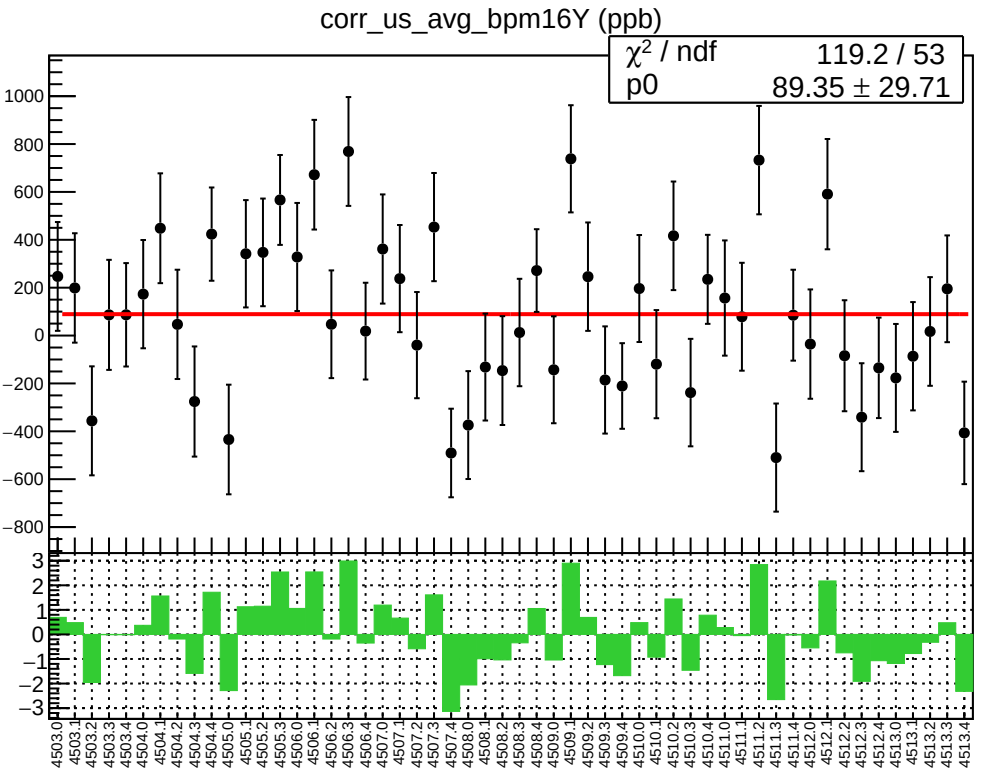

corr_us_avg_bpm1Y (ppb)
χ² / ndf 51.25 / 53
p0 7.62 ± 24.49
1D pull distribution
Mean 0.002201 ± 0.1326
Std Dev 0.9742 ± 0.09374
Underflow 0
Overflow 0
χ² / ndf 4.537 / 6
Constant 18.24 ± 3.16
Mean −0.01049 ± 0.08311
Sigma 0.5783 ± 0.0586

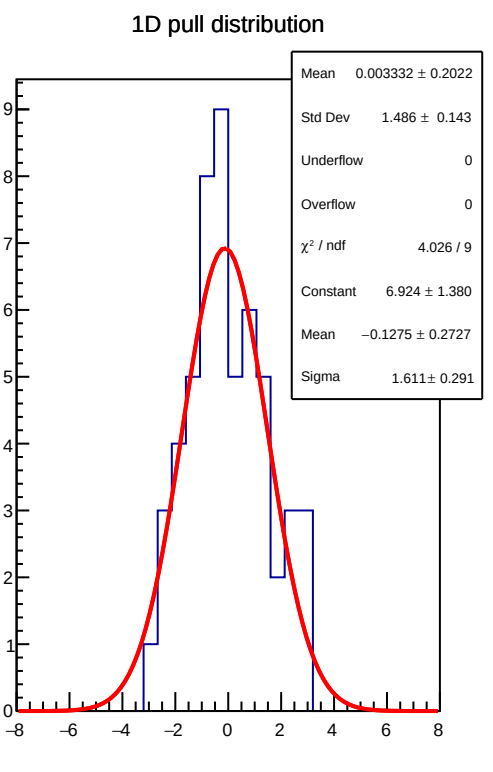

corr_us_avg_bpm1Y RMS (ppm)
RMS (ppm)
40
35
30
25
20
15
10
5
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

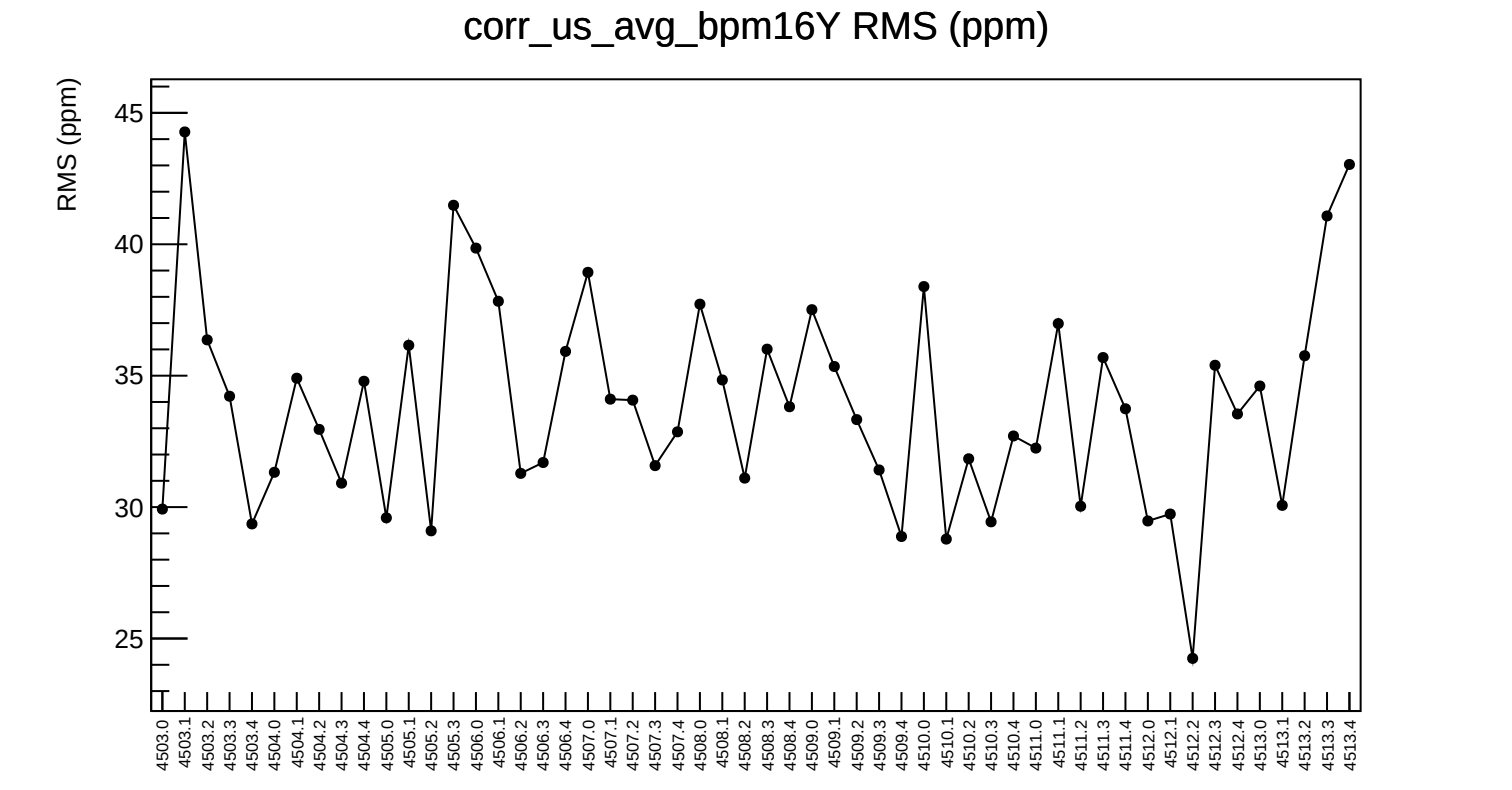

corr_us_avg_bpm16X (ppb)
χ² / ndf 78.3 / 53
p0 −15.14 ± 48.43
1500
1000
500
0
−500
−1000
3
2
1
0
−1
−2
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

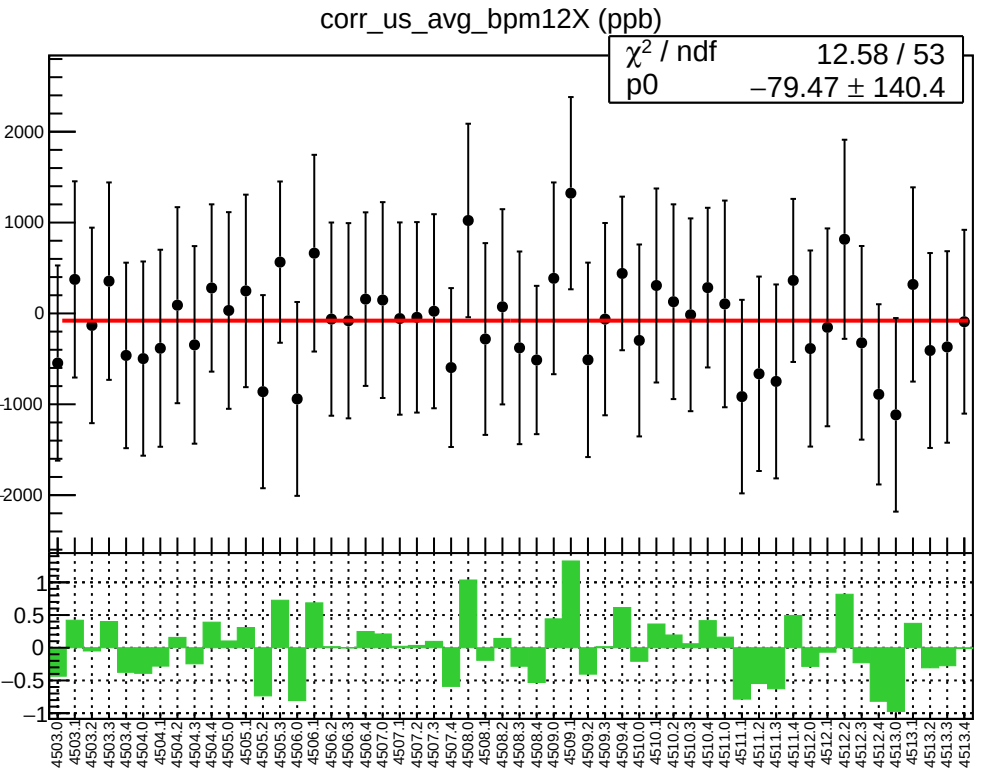

1D pull distribution
Mean 0.03445 ± 0.1638
Std Dev 1.204 ± 0.1158
Underflow 0
Overflow 0
χ² / ndf 6.249 / 8
Constant 10.01± 2.37
Mean 0.1052 ± 0.1532
Sigma 1.019 ± 0.199
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

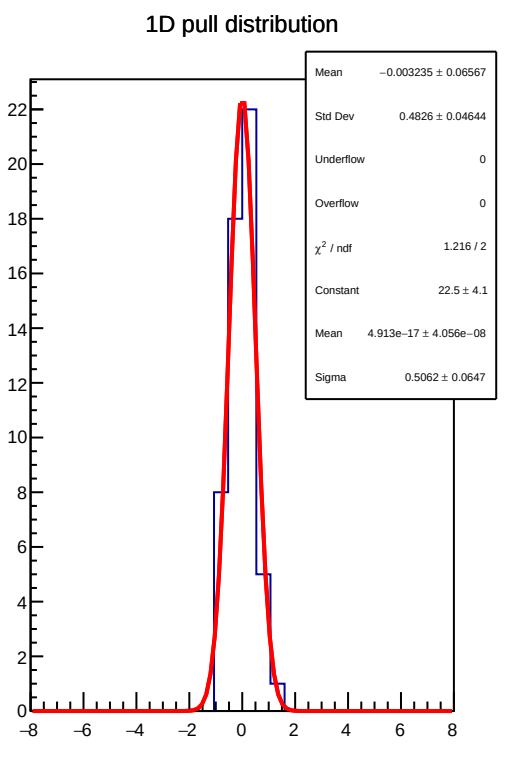

corr_us_avg_bpm16X RMS (ppm)
RMS (ppm)
70
60
50
40
30
20
10
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

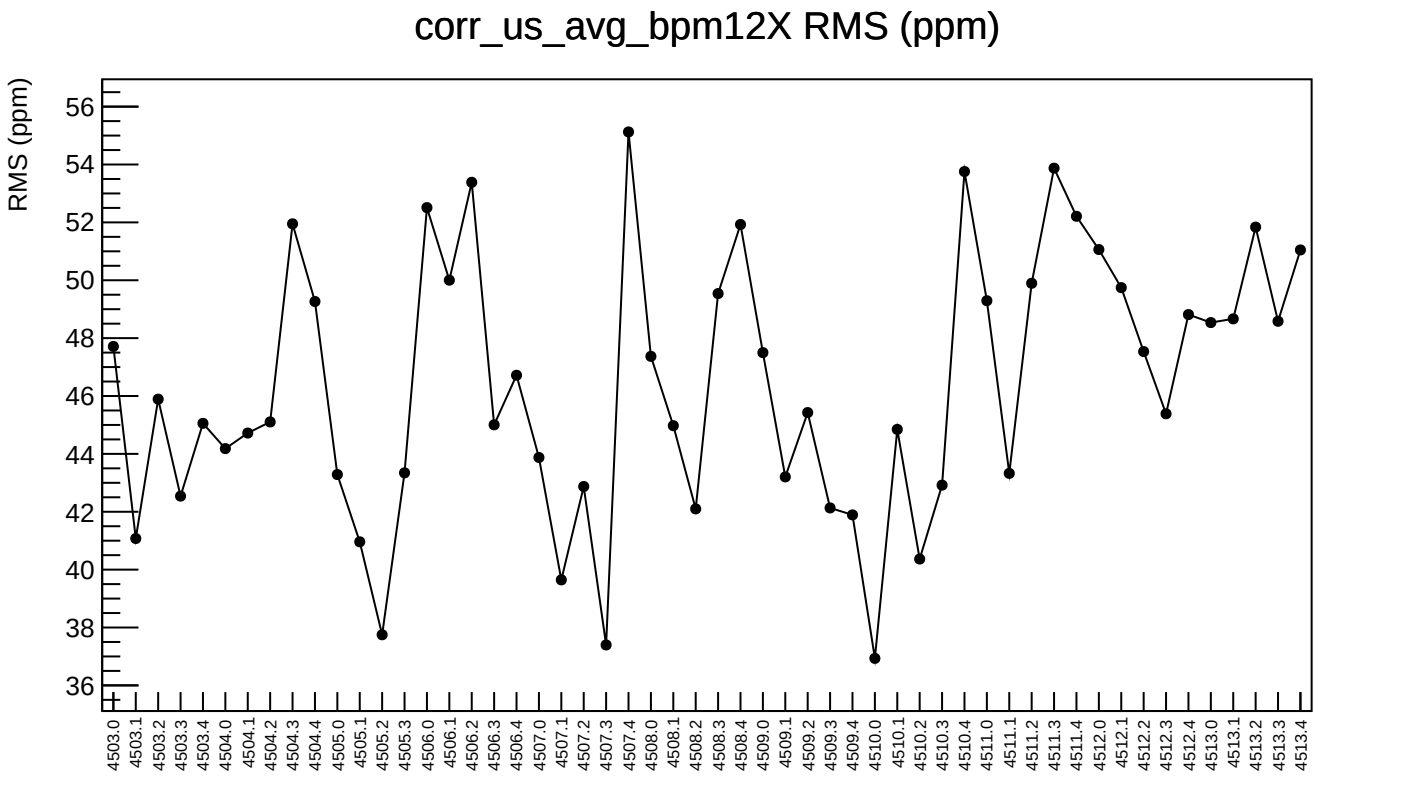

corr_us_avg_bpm16Y (ppb)
χ² / ndf 119.2 / 53
p0 89.35 ± 29.71

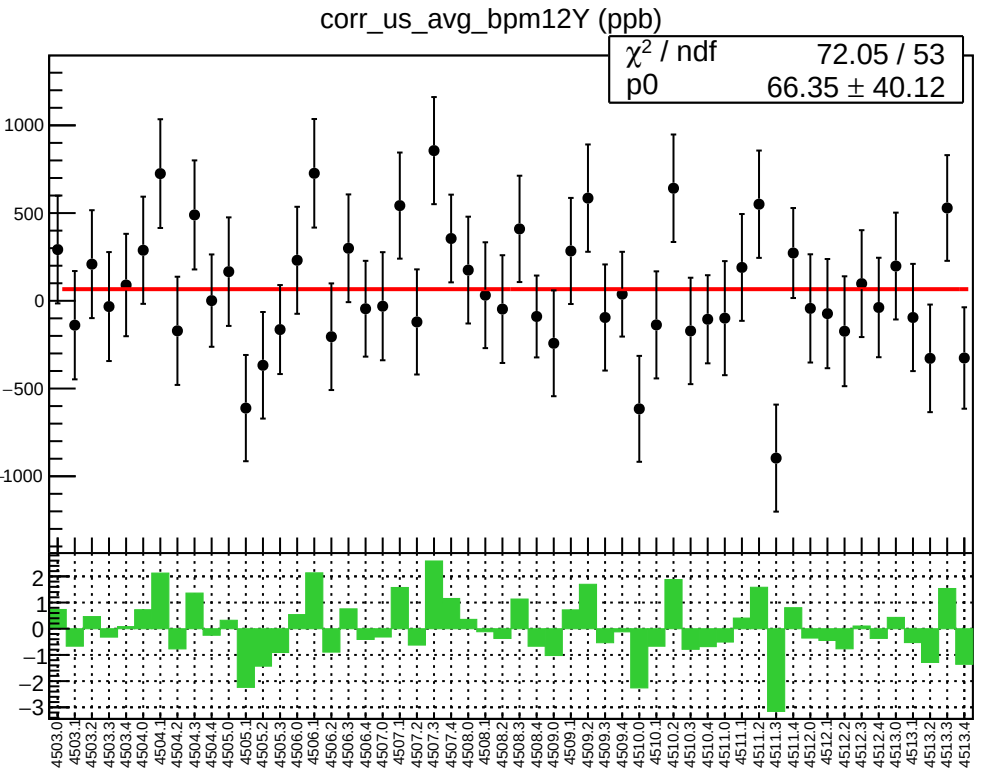

1D pull distribution
Mean 0.003332 ± 0.2022
Std Dev 1.486 ± 0.143
Underflow 0
Overflow 0
χ² / ndf 4.026 / 9
Constant 6.924 ± 1.380
Mean −0.1275 ± 0.2727
Sigma 1.611± 0.291

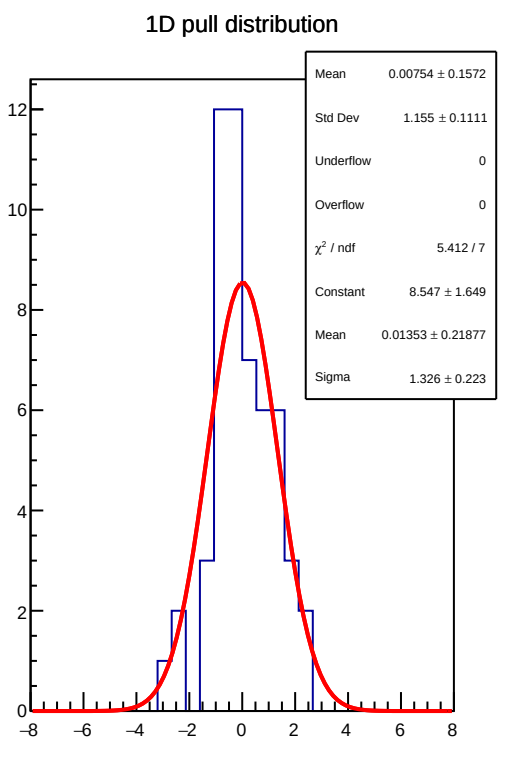

corr_us_avg_bpm16Y RMS (ppm)
RMS (ppm)
45
40
35
30
25
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

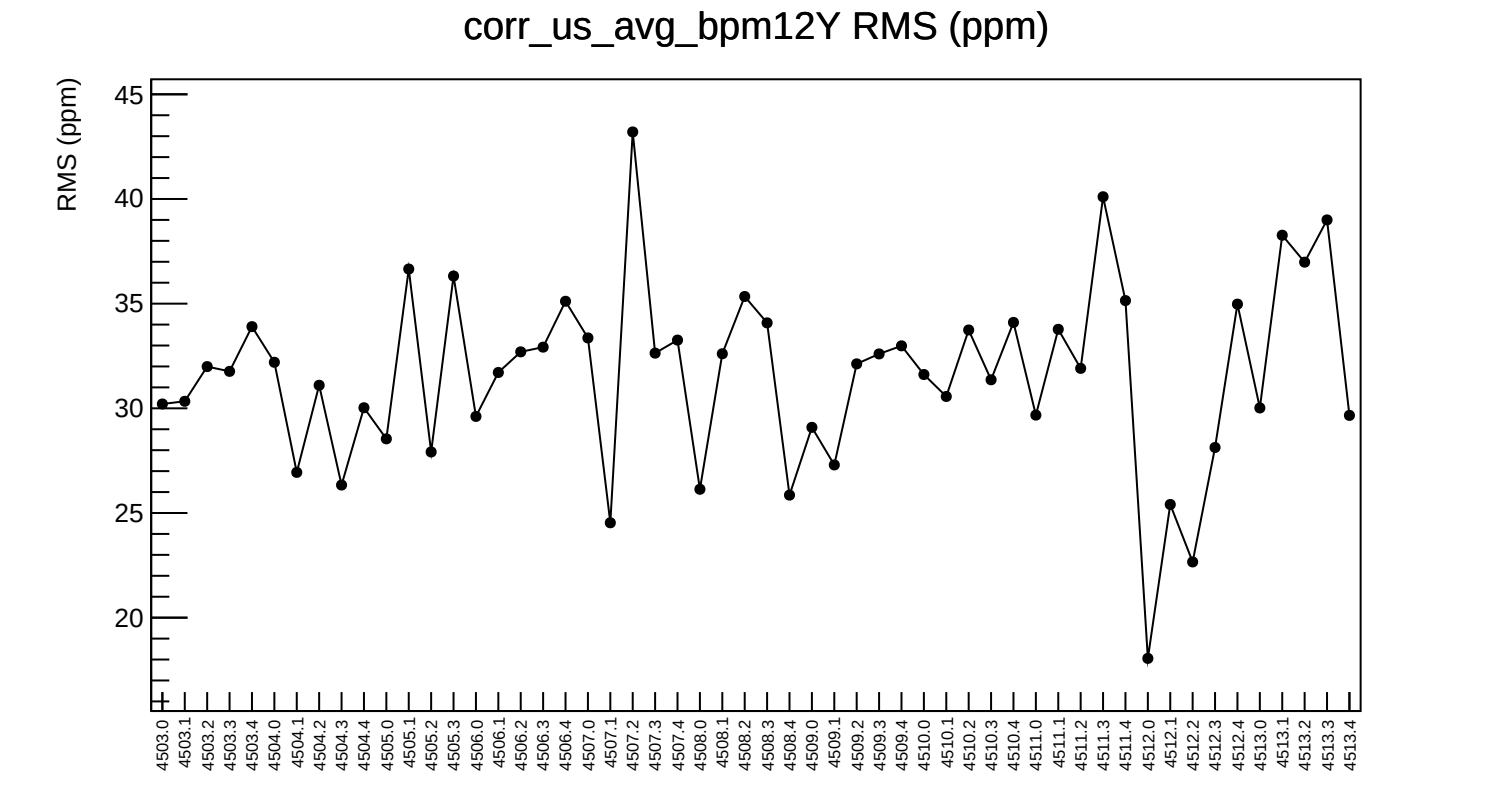

corr_us_avg_bpm12X (ppb)
χ² / ndf 12.58 / 53
p0 −79.47 ± 140.4
2000
1000
0
-1000
-2000
1
0.5
0
−0.5
−1
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

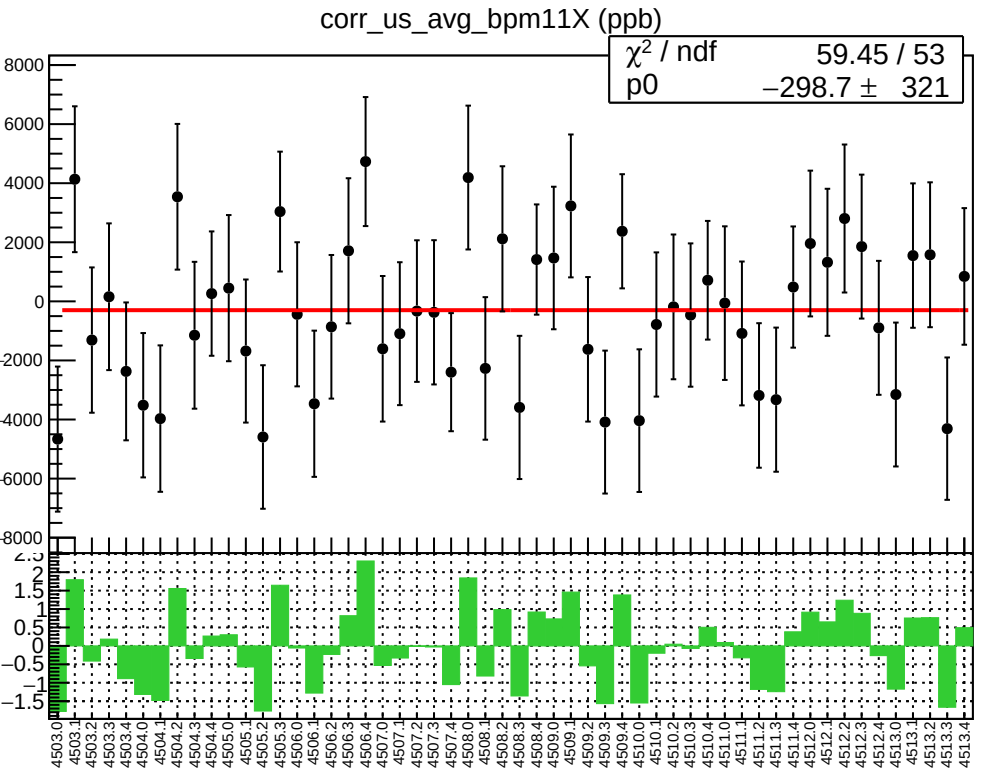

1D pull distribution
Mean −0.003235 ± 0.06567
Std Dev 0.4826 ± 0.04644
Underflow 0
Overflow 0
χ² / ndf 1.216 / 2
Constant 22.5 ± 4.1
Mean 4.913e−17 ± 4.056e−08
Sigma 0.5062 ± 0.0647
22
20
18
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

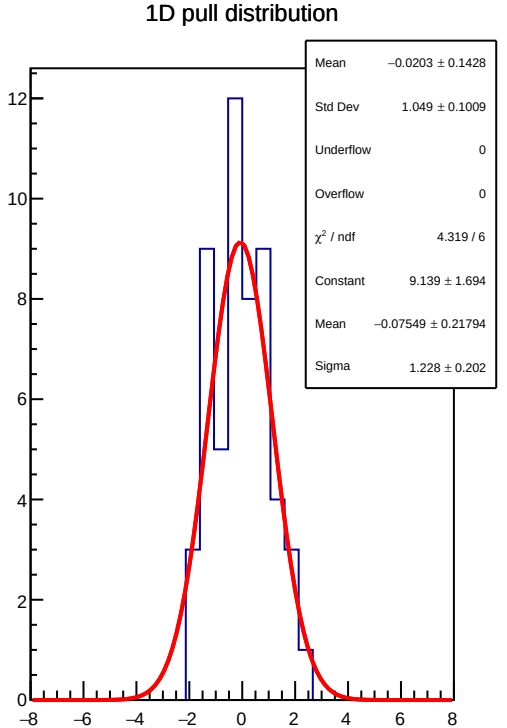

corr_us_avg_bpm12X RMS (ppm)
RMS (ppm)
56
54
52
50
48
46
44
42
40
38
36
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

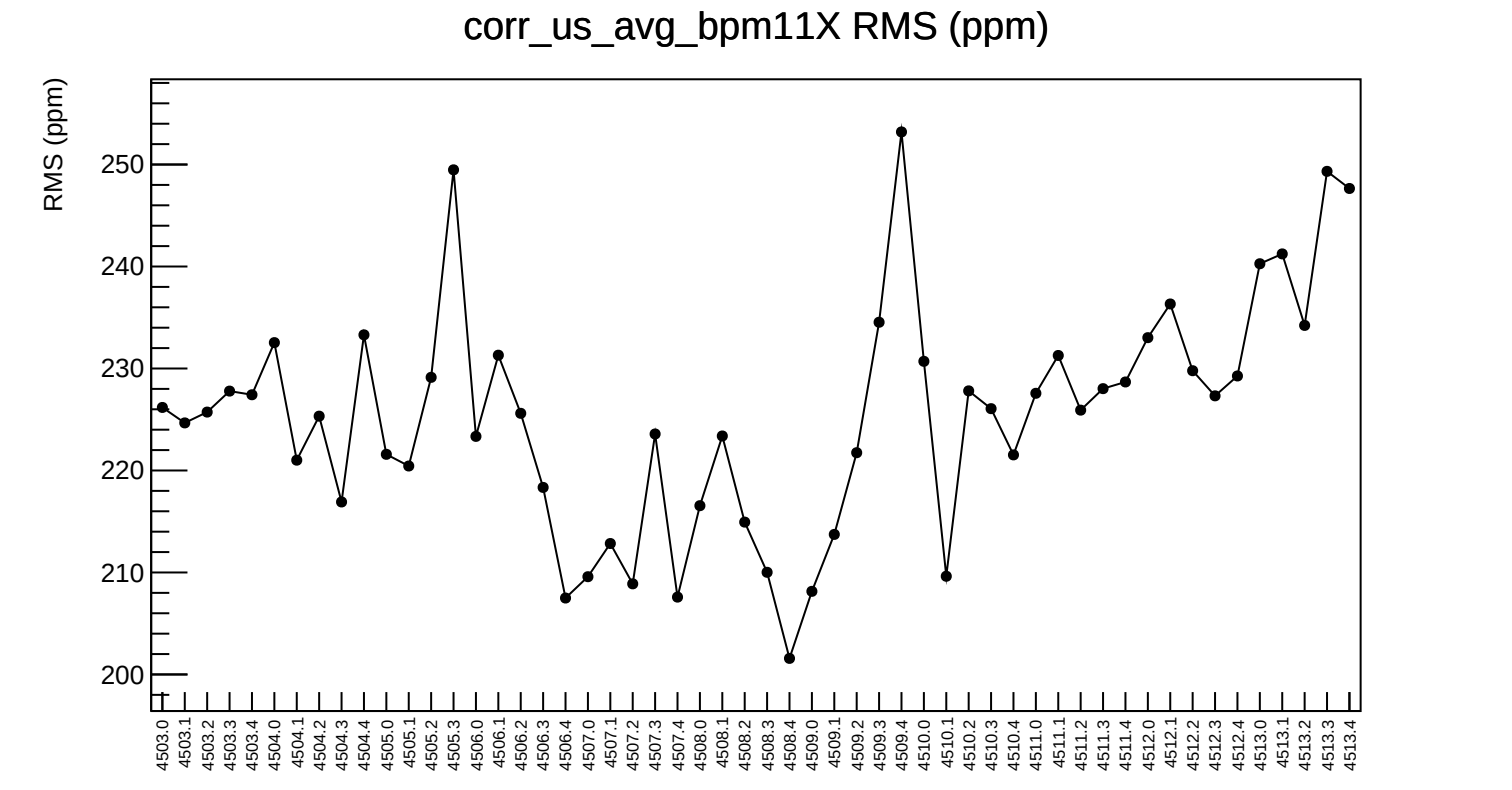

corr_us_avg_bpm12Y (ppb)
χ² / ndf 72.05 / 53
p0 66.35 ± 40.12
1000
500
0
−500
−1000
2
1
0
−1
−2
−3
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

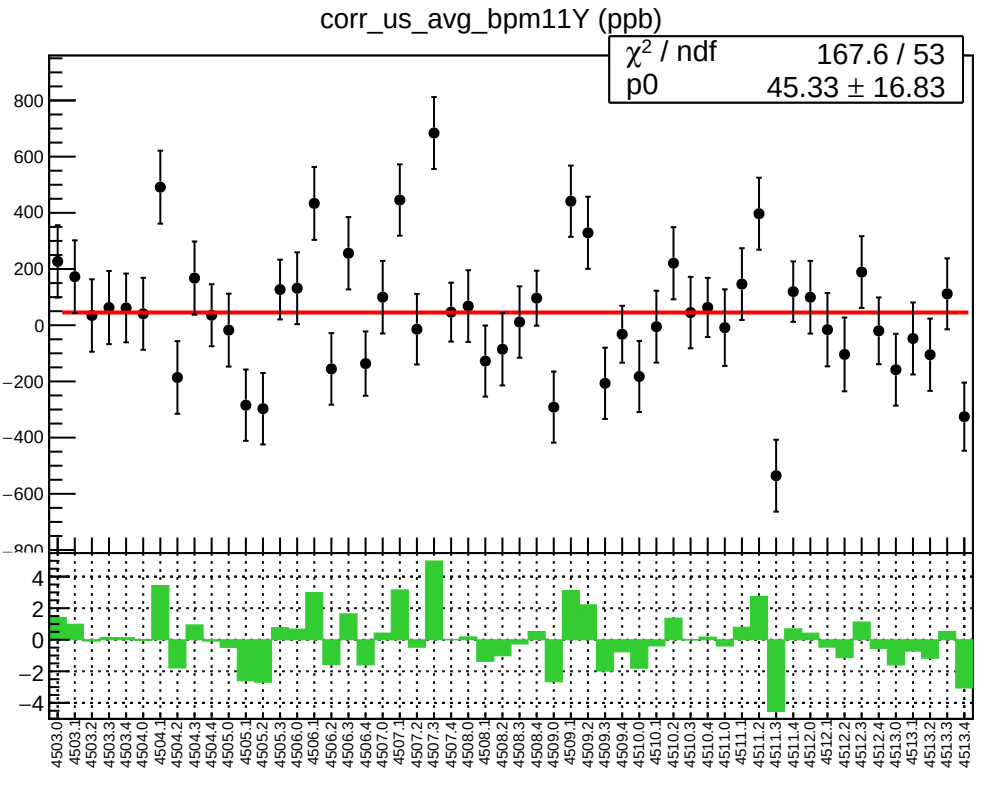

1D pull distribution
Mean 0.00754 ± 0.1572
Std Dev 1.155 ± 0.1111
Underflow 0
Overflow 0
χ² / ndf 5.412 / 7
Constant 8.547 ± 1.649
Mean 0.01353 ± 0.21877
Sigma 1.326 ± 0.223
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

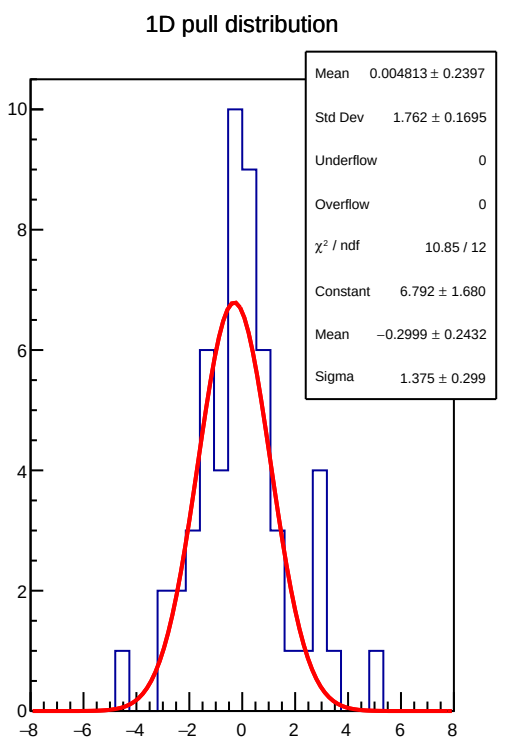

corr_us_avg_bpm12Y RMS (ppm)
RMS (ppm)
45
40
35
30
25
20
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

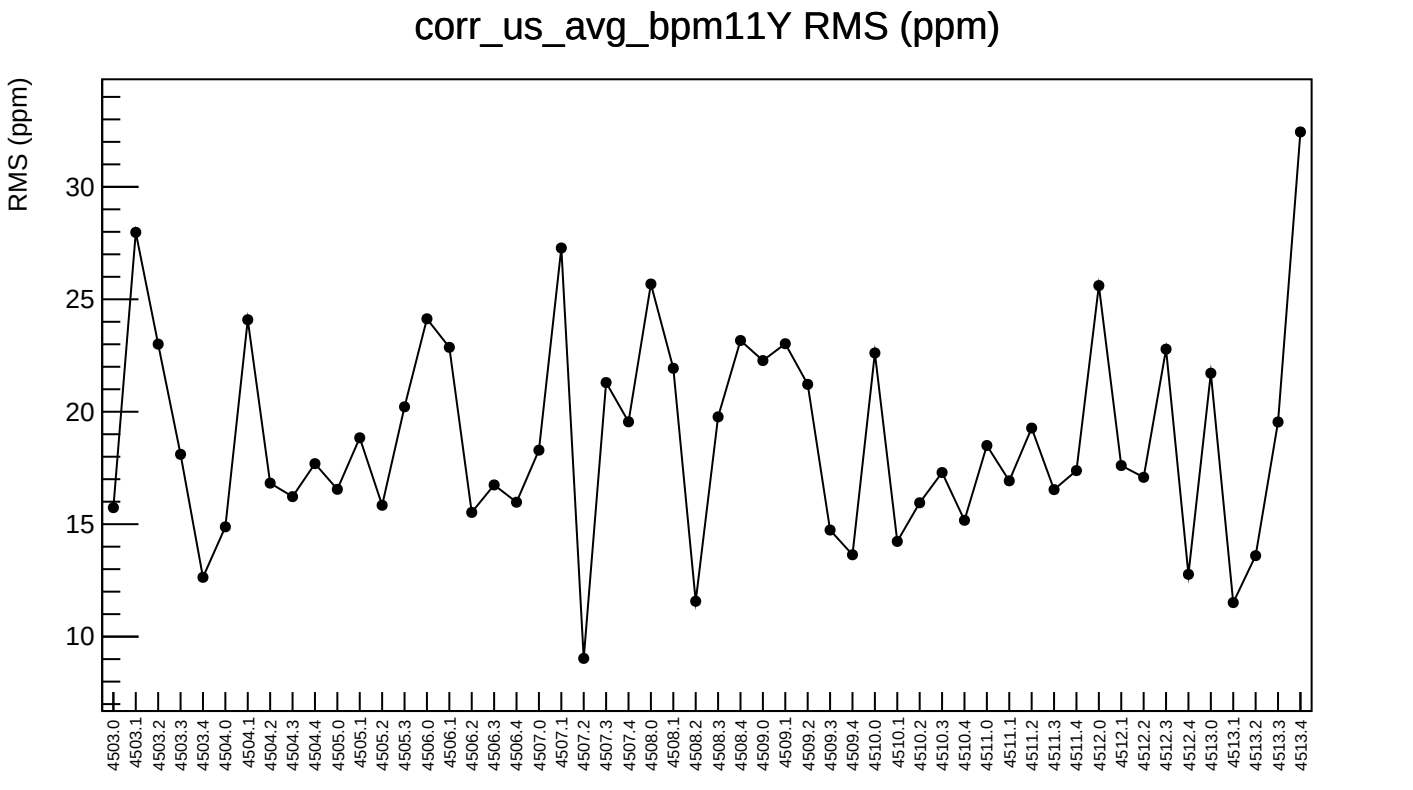

corr_us_avg_bpm11X (ppb)
χ² / ndf 59.45 / 53
p0 −298.7 ± 321
8000
6000
4000
2000
0
−2000
−4000
−6000
−8000
2.5
2
1.5
1
0.5
0
−0.5
−1
−1.5
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

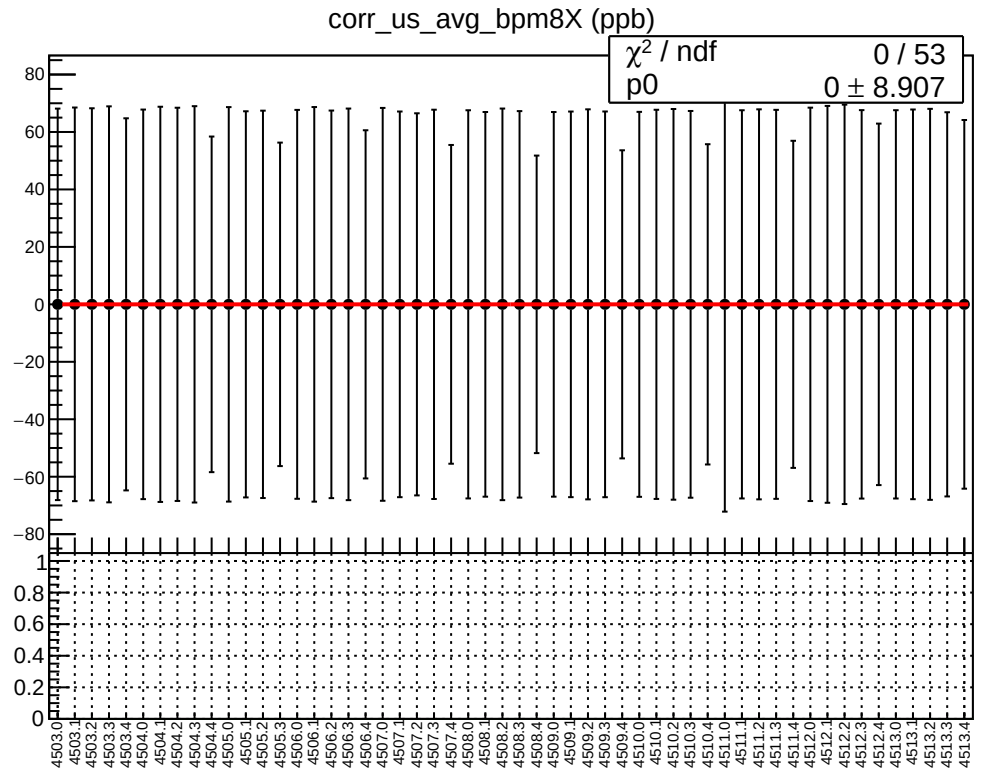

1D pull distribution
Mean −0.0203 ± 0.1428
Std Dev 1.049 ± 0.1009
Underflow 0
Overflow 0
χ² / ndf 4.319 / 6
Constant 9.139 ± 1.694
Mean −0.07549 ± 0.21794
Sigma 1.228 ± 0.202
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

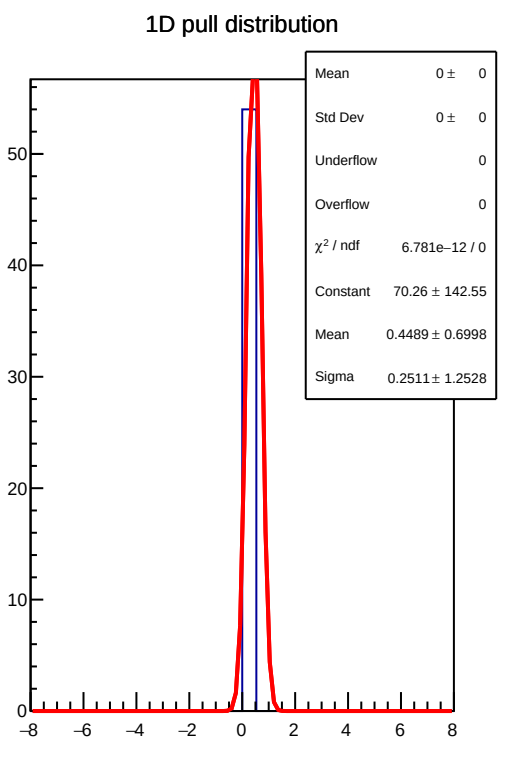

corr_us_avg_bpm11X RMS (ppm)
RMS (ppm)
250
240
230
220
210
200
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

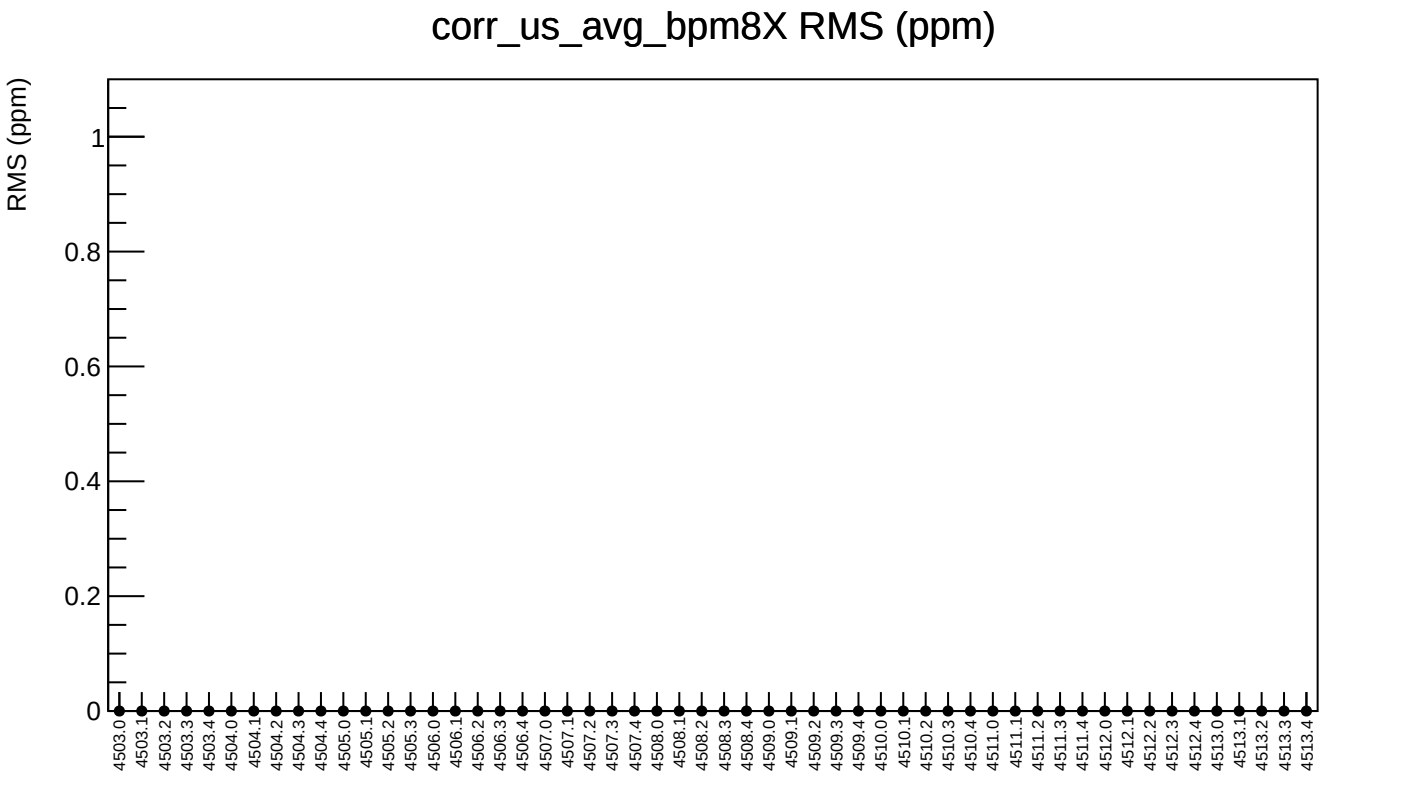

corr_us_avg_bpm11Y (ppb)
χ² / ndf 167.6 / 53
p0 45.33 ± 16.83

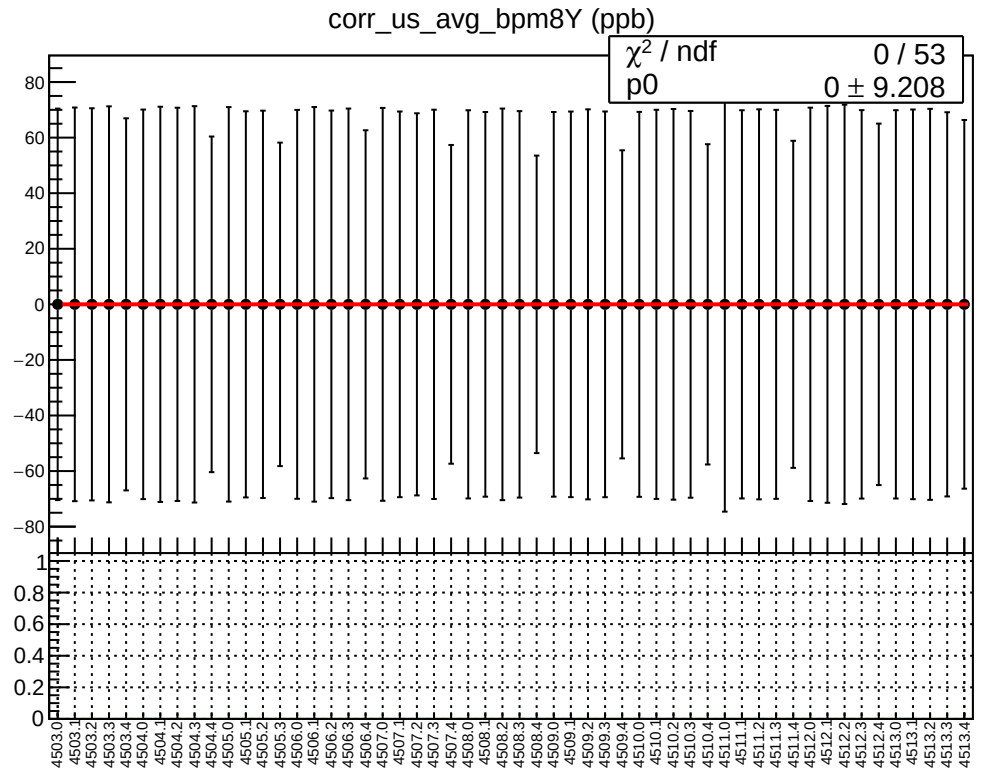

1D pull distribution
Mean 0.004813 ± 0.2397
Std Dev 1.762 ± 0.1695
Underflow 0
Overflow 0
χ² / ndf 10.85 / 12
Constant 6.792 ± 1.680
Mean −0.2999 ± 0.2432
Sigma 1.375 ± 0.299

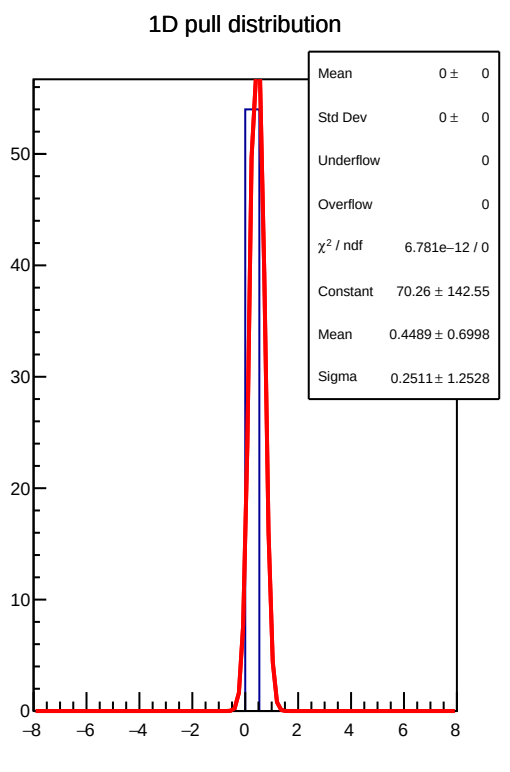

corr_us_avg_bpm11Y RMS (ppm)
RMS (ppm)
30
25
20
15
10
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

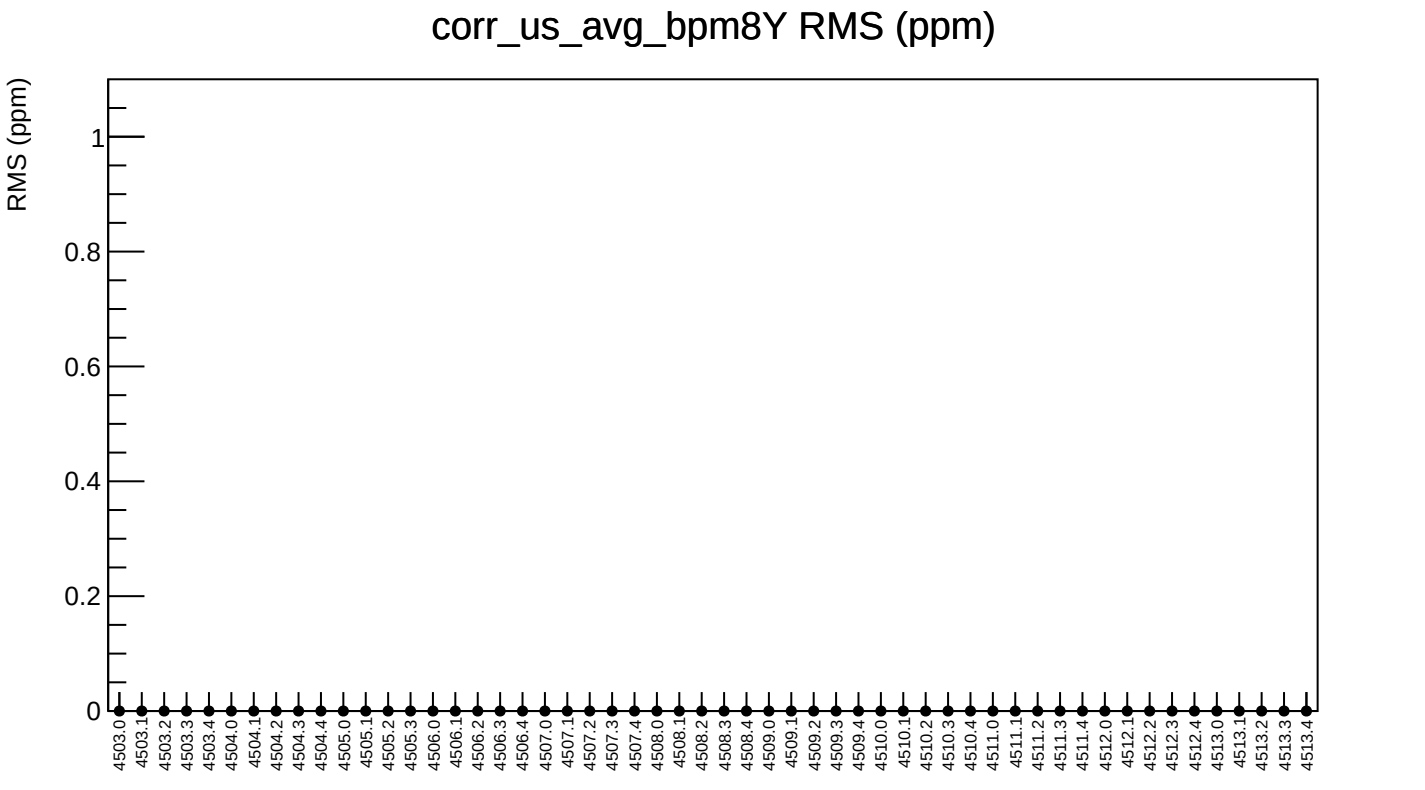

corr_us_avg_bpm8X (ppb)
χ² / ndf 0 / 53
p0 0 ± 8.907

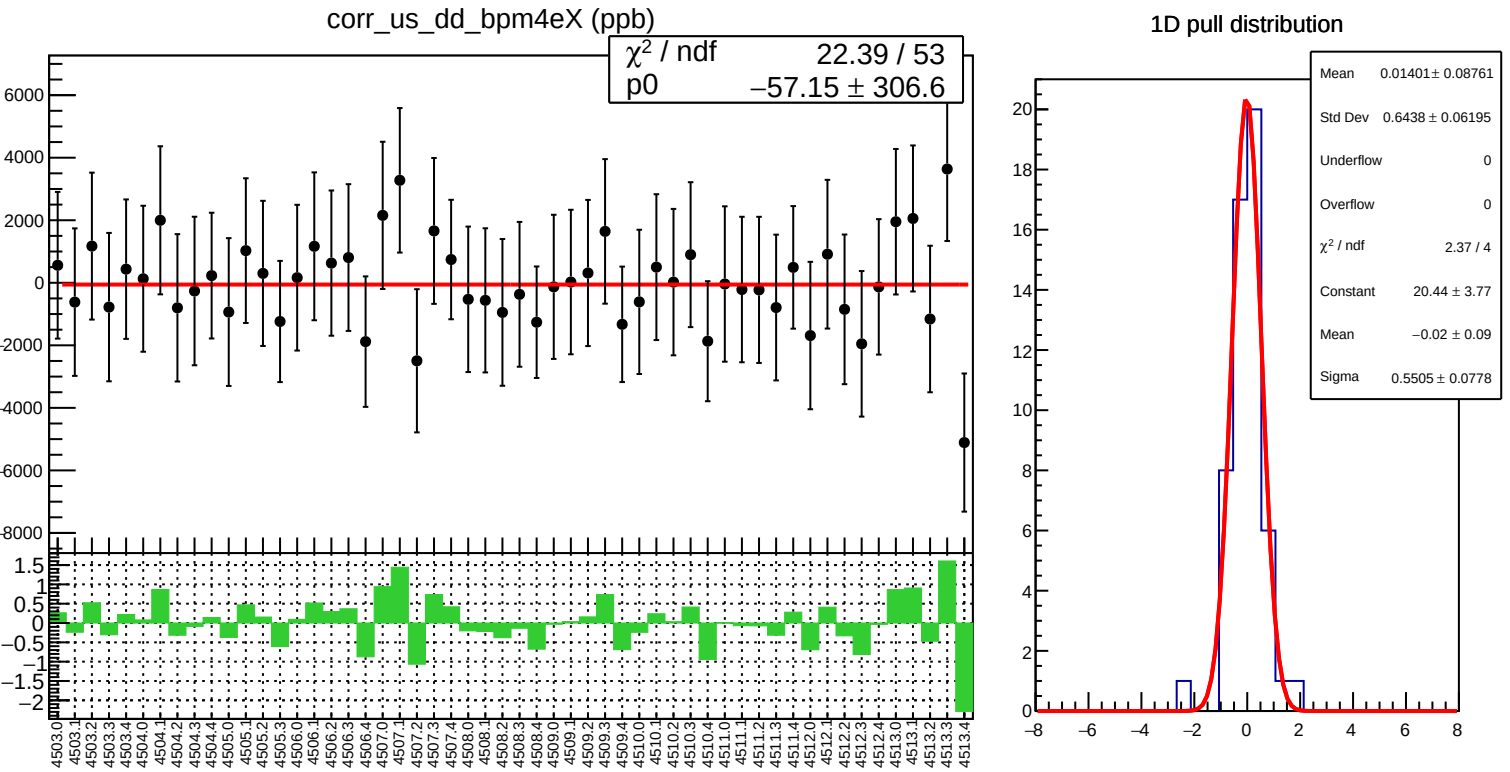

1D pull distribution
Mean 0 ± 0
Std Dev 0 ± 0
Underflow 0
Overflow 0
χ² / ndf 6.781e−12 / 0
Constant 70.26 ± 142.55
Mean 0.4489 ± 0.6998
Sigma 0.2511 ± 1.2528

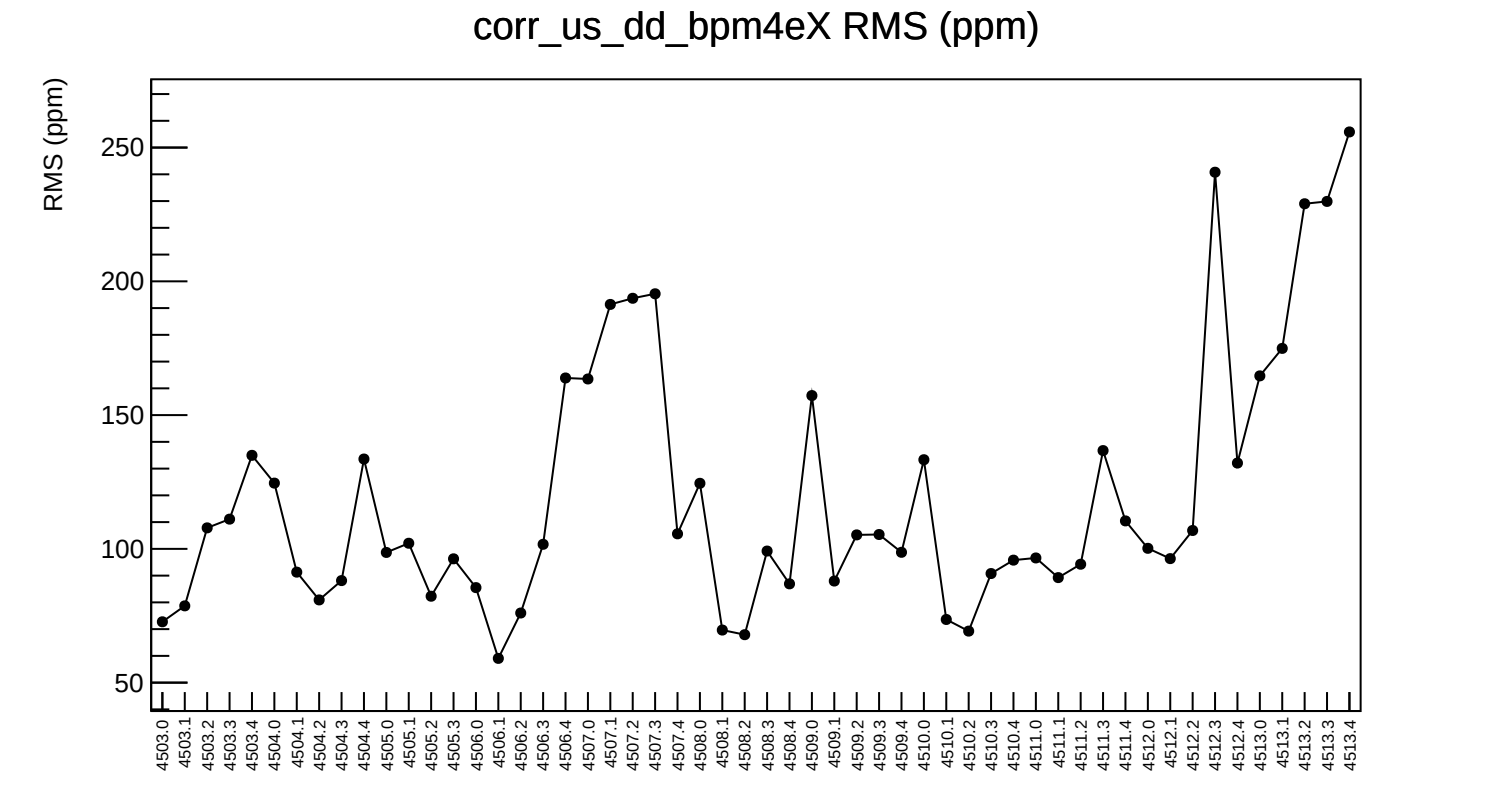

corr_us_avg_bpm8X RMS (ppm)
RMS (ppm)
1
0.8
0.6
0.4
0.2
0
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

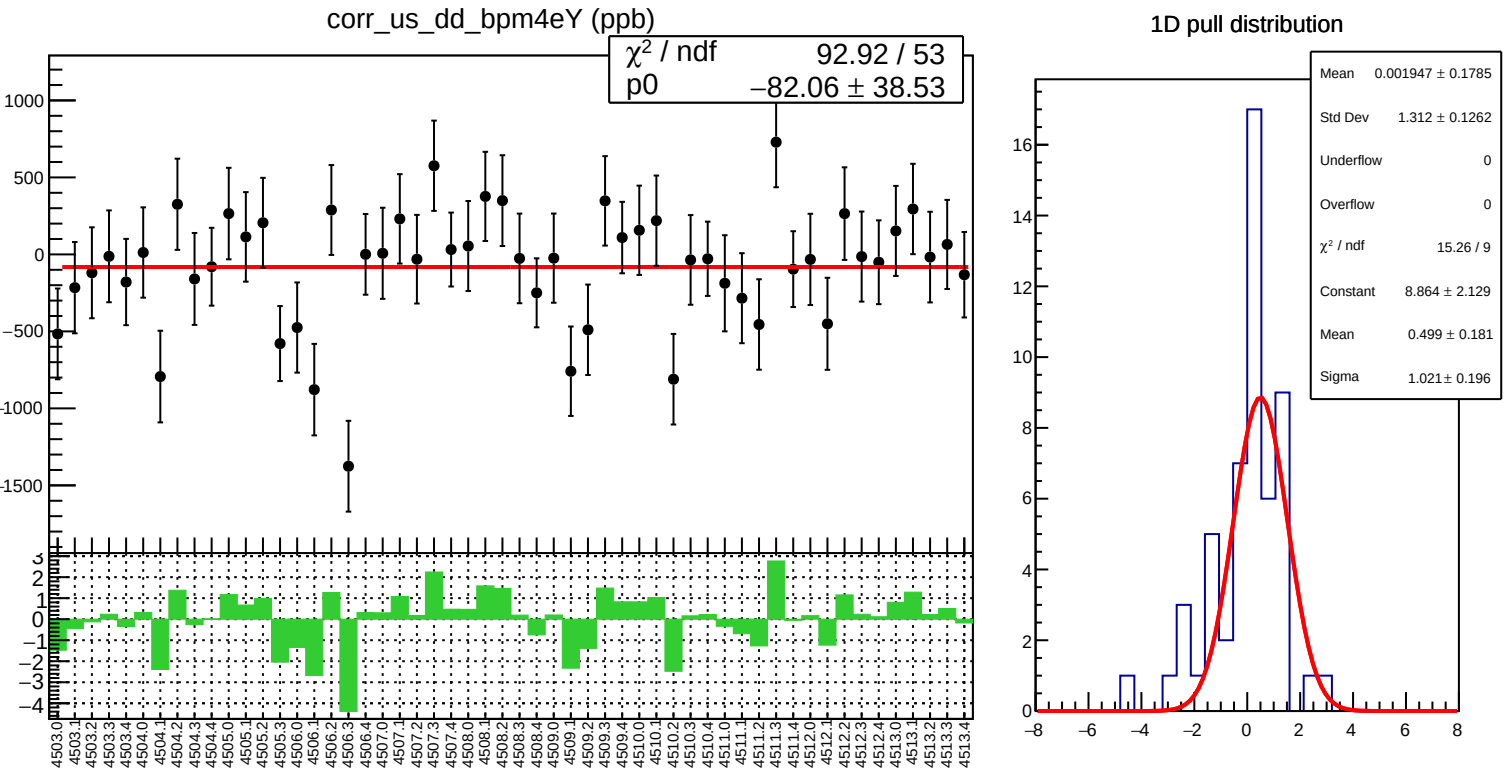

corr_us_avg_bpm8Y (ppb)
χ² / ndf 0 / 53
p0 0 ± 9.208

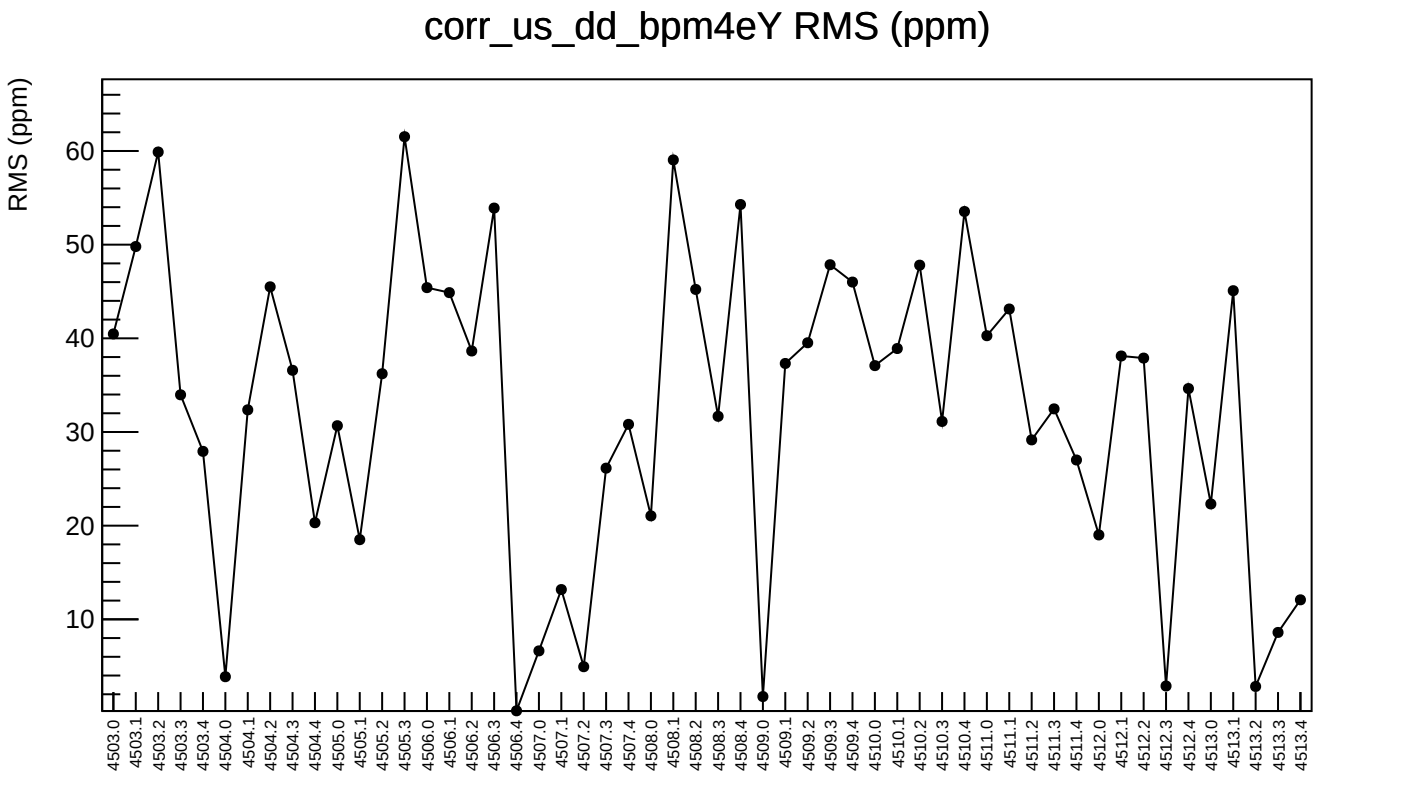

1D pull distribution
Mean 0 ± 0
Std Dev 0 ± 0
Underflow 0
Overflow 0
χ² / ndf 6.781e−12 / 0
Constant 70.26 ± 142.55
Mean 0.4489 ± 0.6998
Sigma 0.2511 ± 1.2528

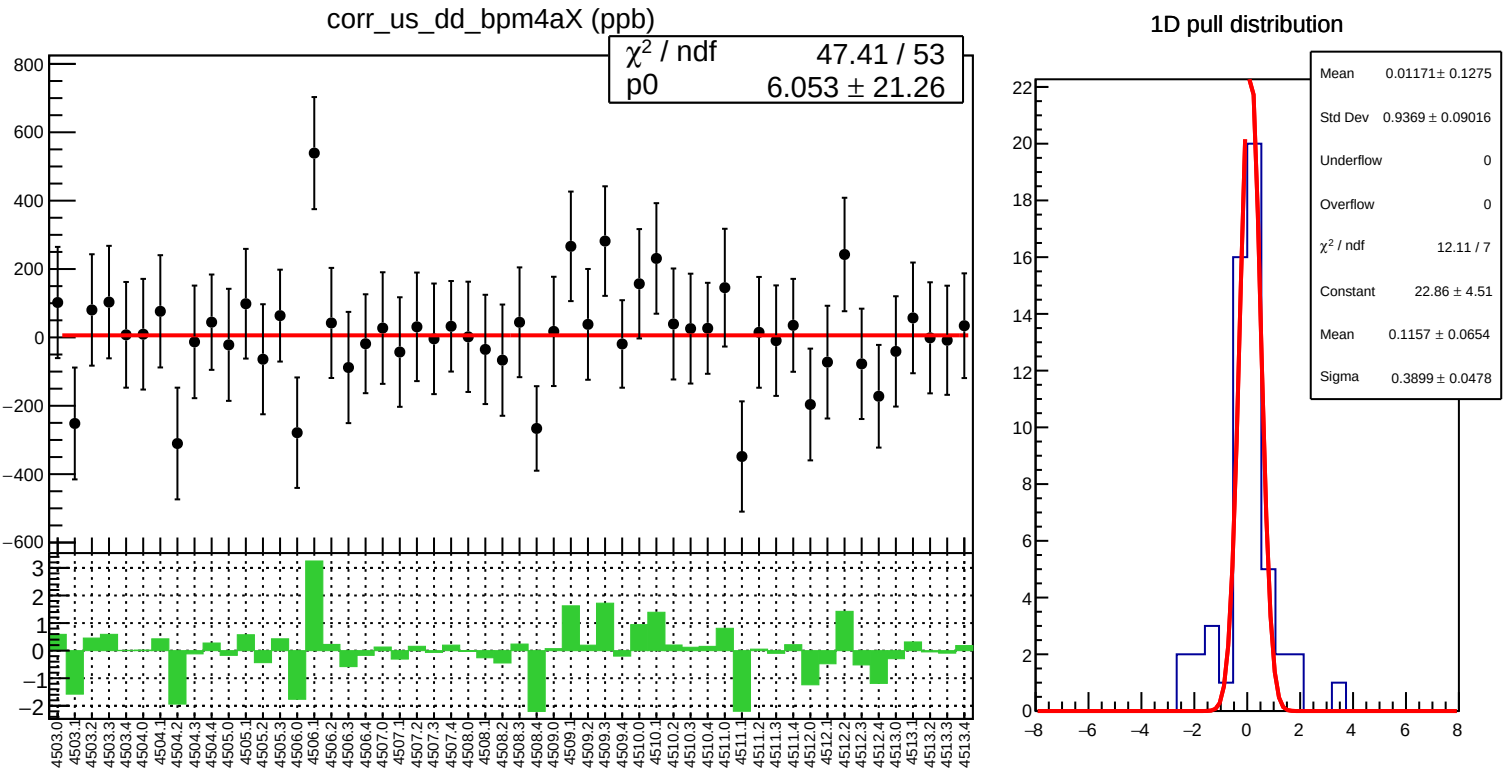

corr_us_avg_bpm8Y RMS (ppm)
RMS (ppm)
1
0.8
0.6
0.4
0.2
0
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

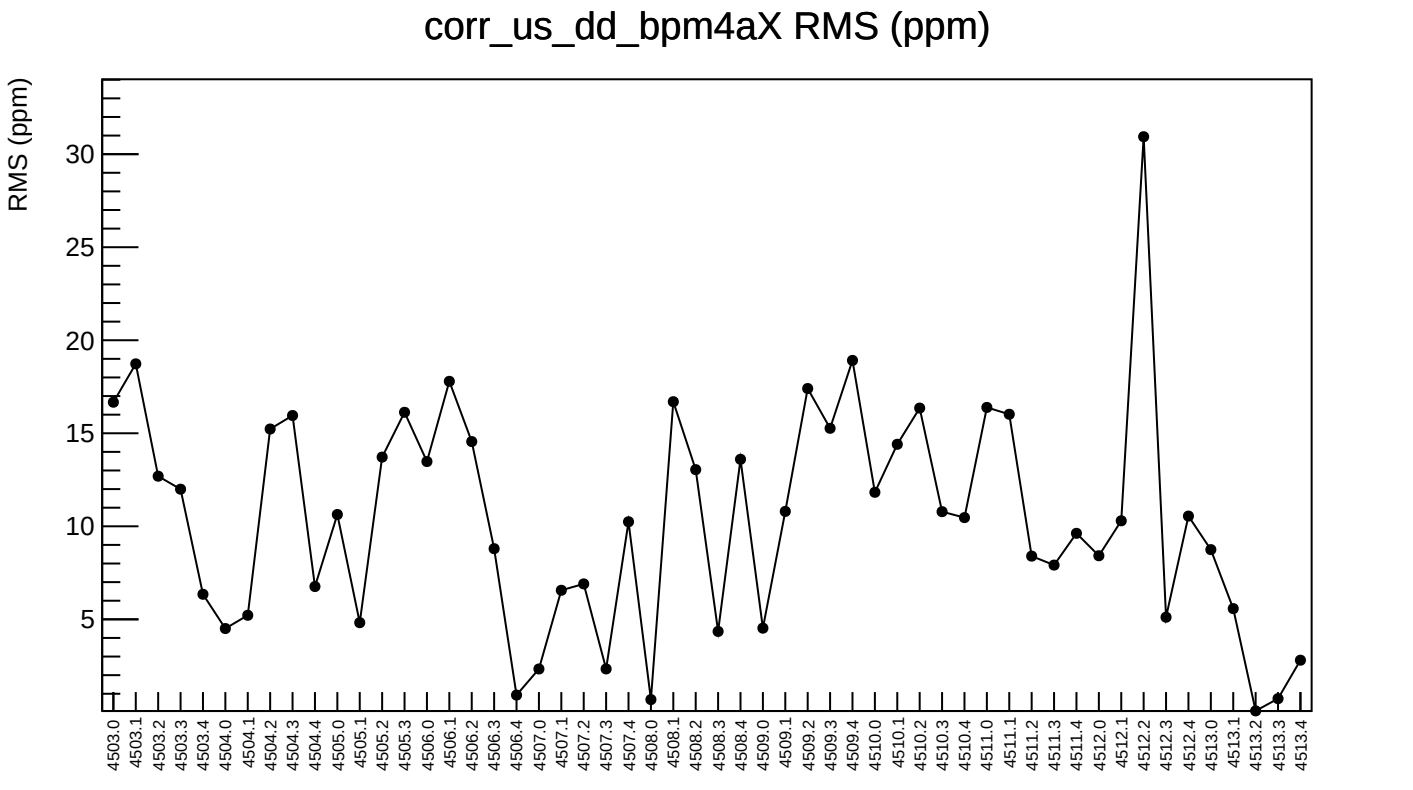

corr_us_dd_bpm4eX (ppb)
χ² / ndf 22.39 / 53
p0 −57.15 ± 306.6
6000
4000
2000
0
-2000
-4000
-6000
-8000
1.5
1
0.5
0
−0.5
−1
−1.5
−2
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4
1D pull distribution
Mean 0.01401± 0.08761
Std Dev 0.6438 ± 0.06195
Underflow 0
Overflow 0
χ² / ndf 2.37 / 4
Constant 20.44 ± 3.77
Mean −0.02 ± 0.09
Sigma 0.5505 ± 0.0778
20
18
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

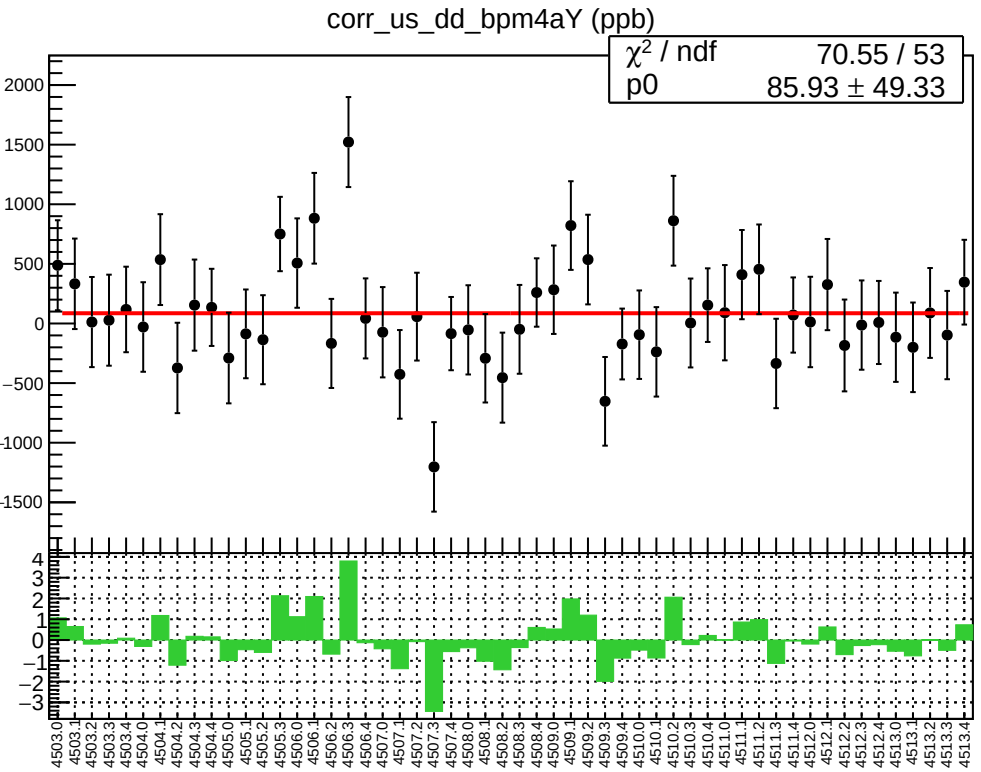

corr_us_dd_bpm4eX RMS (ppm)
RMS (ppm)
250
200
150
100
50
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

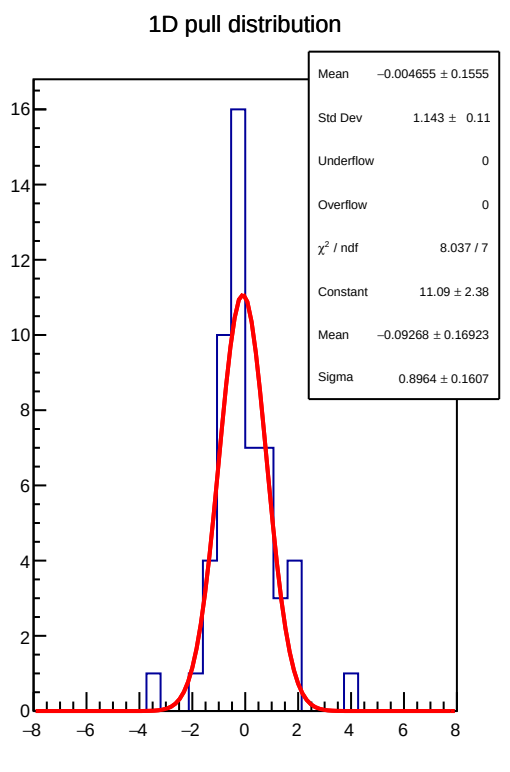

corr_us_dd_bpm4eY (ppb)
χ² / ndf 92.92 / 53
p0 −82.06 ± 38.53
1000
500
0
−500
−1000
−1500
3
2
1
0
−1
−2
−3
−4
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4
1D pull distribution
Mean 0.001947 ± 0.1785
Std Dev 1.312 ± 0.1262
Underflow 0
Overflow 0
χ² / ndf 15.26 / 9
Constant 8.864 ± 2.129
Mean 0.499 ± 0.181
Sigma 1.021 ± 0.196
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

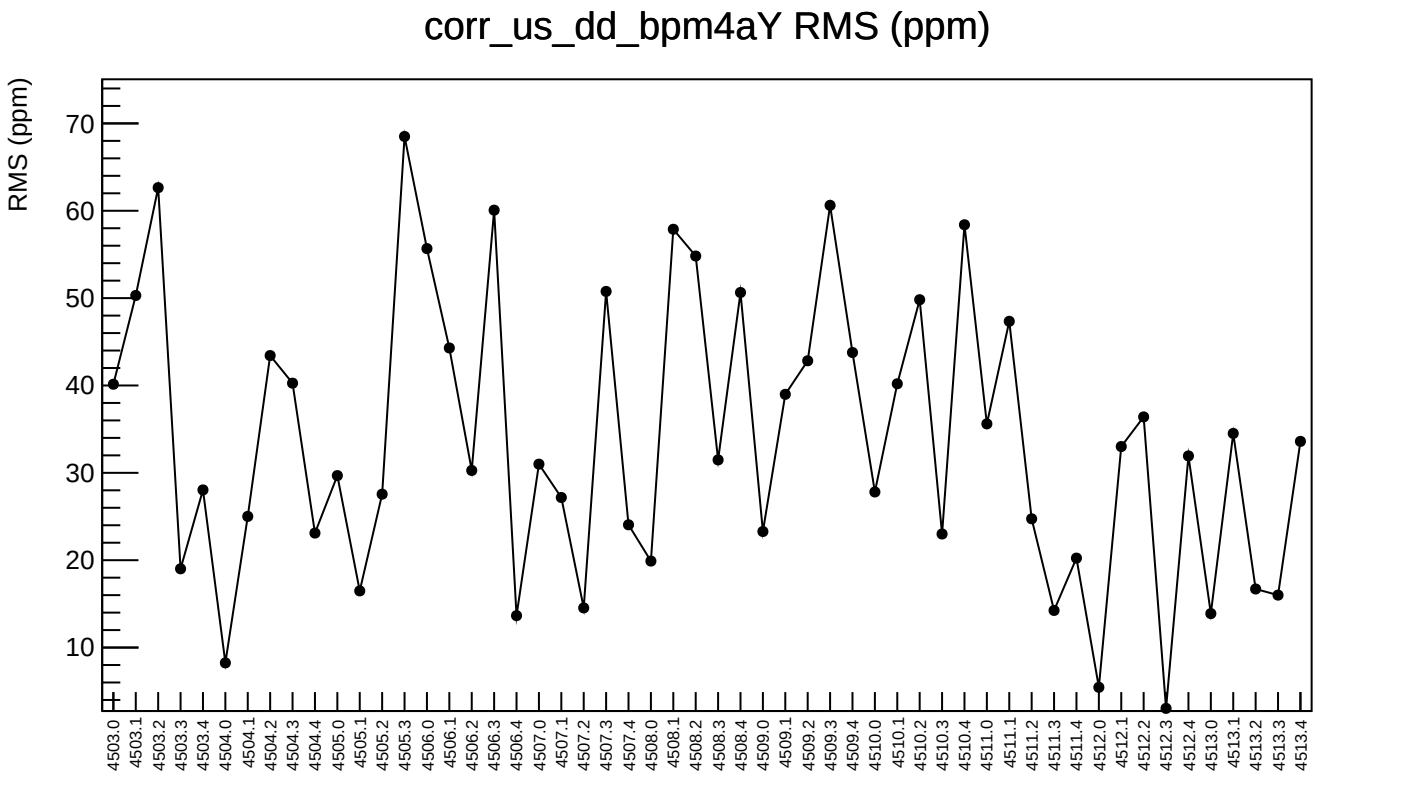

corr_us_dd_bpm4eY RMS (ppm)
RMS (ppm)
60
50
40
30
20
10
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

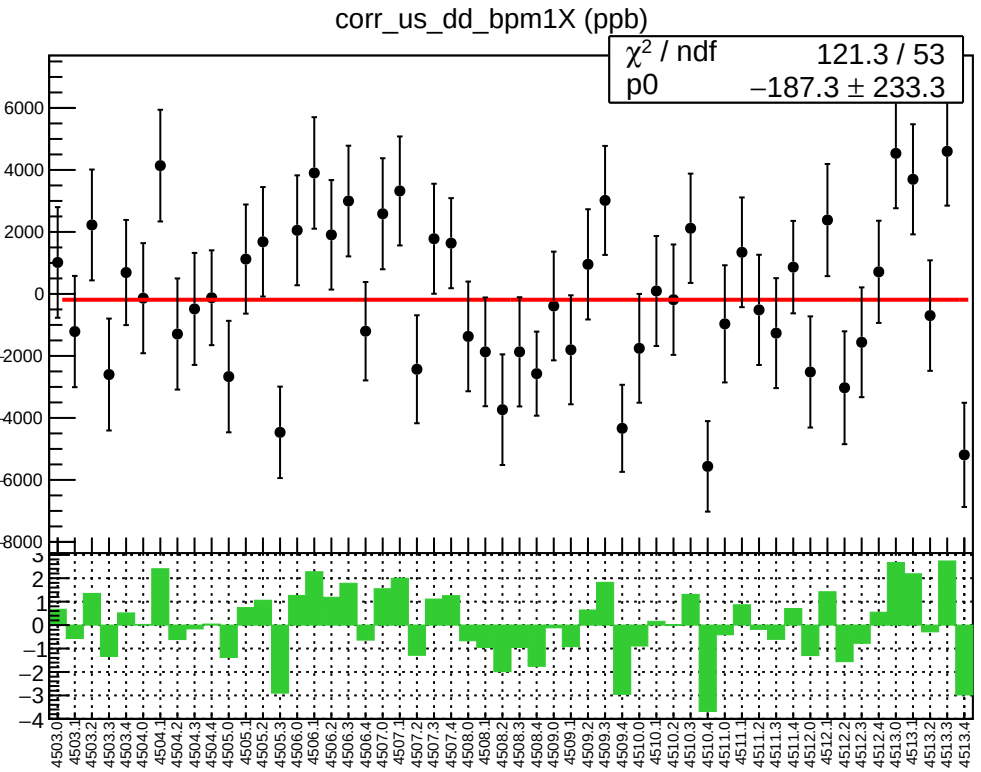

corr_us_dd_bpm4aX (ppb)
χ² / ndf 47.41 / 53
p0 6.053 ± 21.26
1D pull distribution
Mean 0.01171± 0.1275
Std Dev 0.9369 ± 0.09016
Underflow 0
Overflow 0
χ² / ndf 12.11 / 7
Constant 22.86 ± 4.51
Mean 0.1157 ± 0.0654
Sigma 0.3899 ± 0.0478

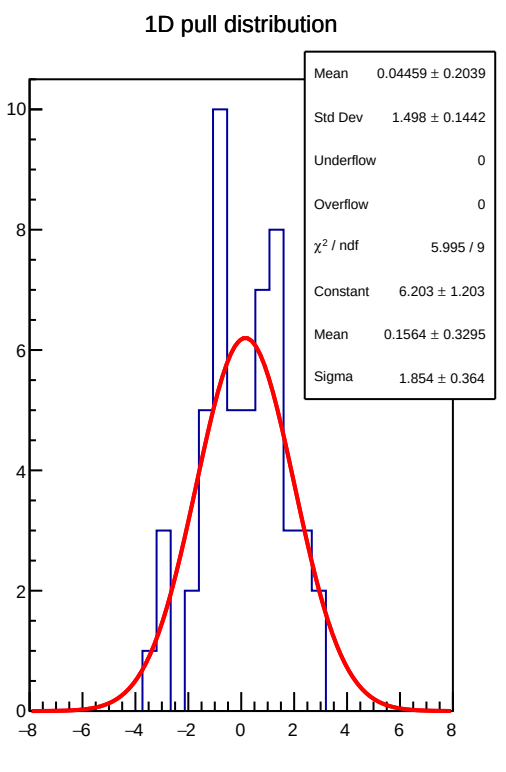

corr_us_dd_bpm4aX RMS (ppm)
RMS (ppm)
30
25
20
15
10
5
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

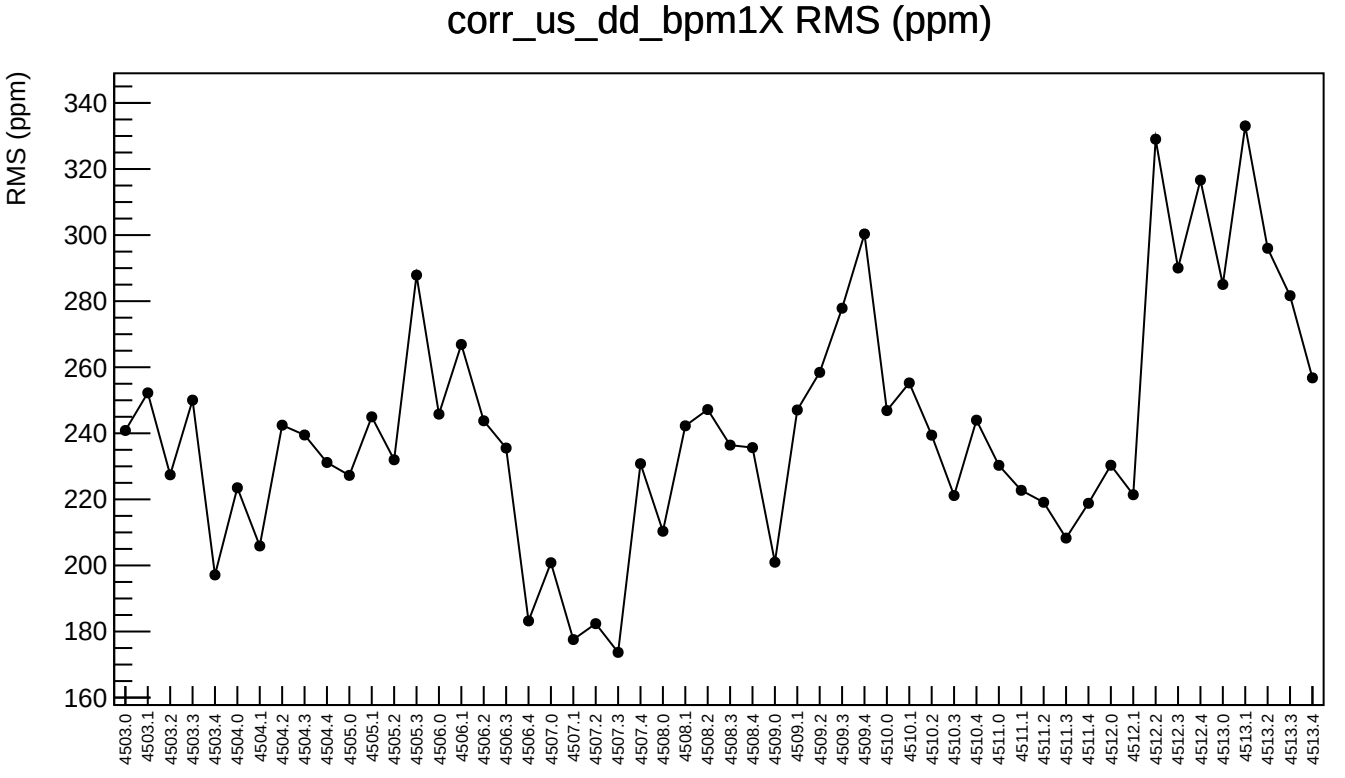

corr_us_dd_bpm4aY (ppb)
χ² / ndf 70.55 / 53
p0 85.93 ± 49.33

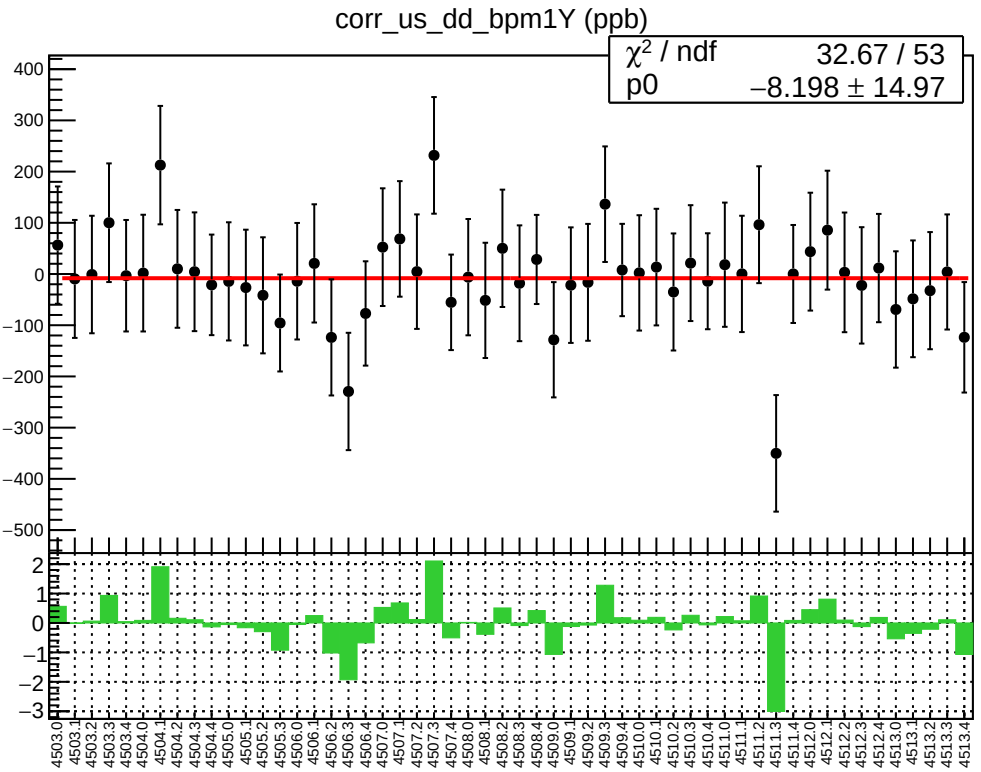

1D pull distribution
Mean −0.004655 ± 0.1555
Std Dev 1.143 ± 0.11
Underflow 0
Overflow 0
χ² / ndf 8.037 / 7
Constant 11.09 ± 2.38
Mean −0.09268 ± 0.16923
Sigma 0.8964 ± 0.1607

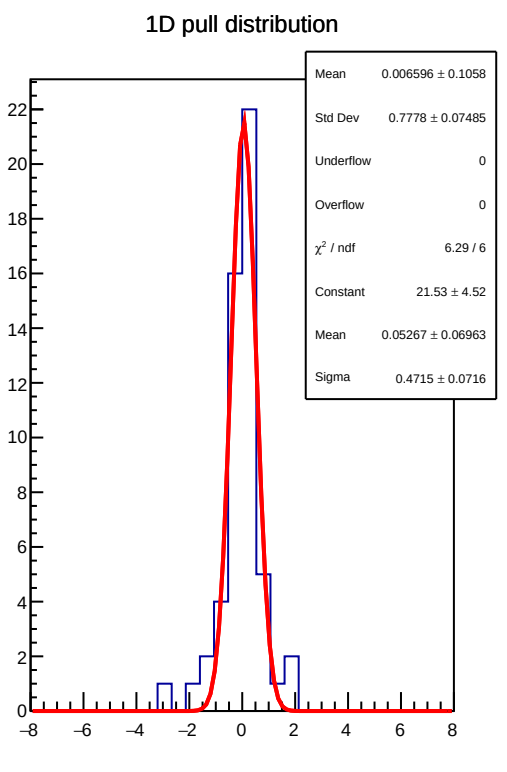

corr_us_dd_bpm4aY RMS (ppm)
RMS (ppm)
70
60
50
40
30
20
10
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

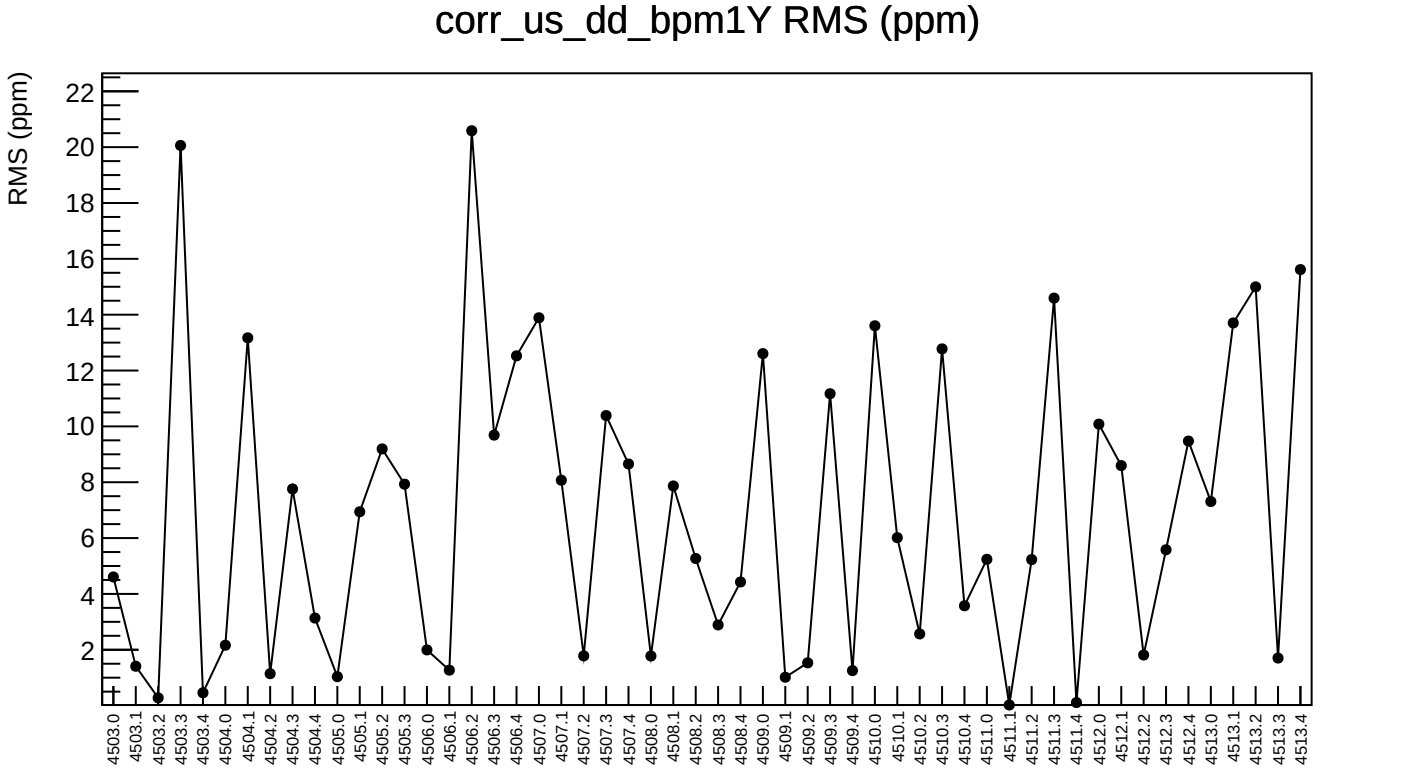

corr_us_dd_bpm1X (ppb)
χ² / ndf 121.3 / 53
p0 −187.3 ± 233.3
6000
4000
2000
0
-2000
-4000
-6000
-8000
3
2
1
0
−1
−2
−3
−4
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

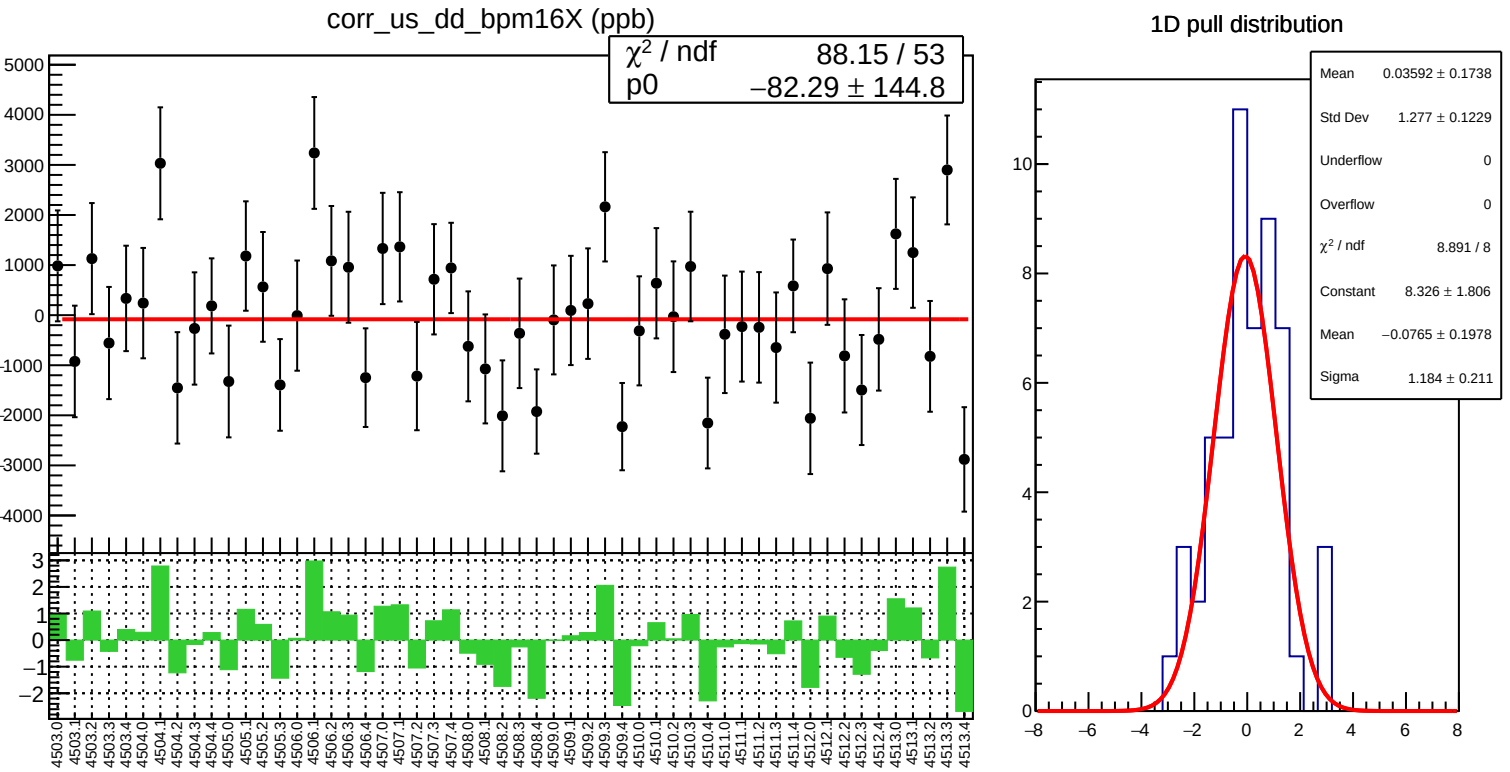

1D pull distribution
Mean 0.04459 ± 0.2039
Std Dev 1.498 ± 0.1442
Underflow 0
Overflow 0
χ² / ndf 5.995 / 9
Constant 6.203 ± 1.203
Mean 0.1564 ± 0.3295
Sigma 1.854 ± 0.364
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

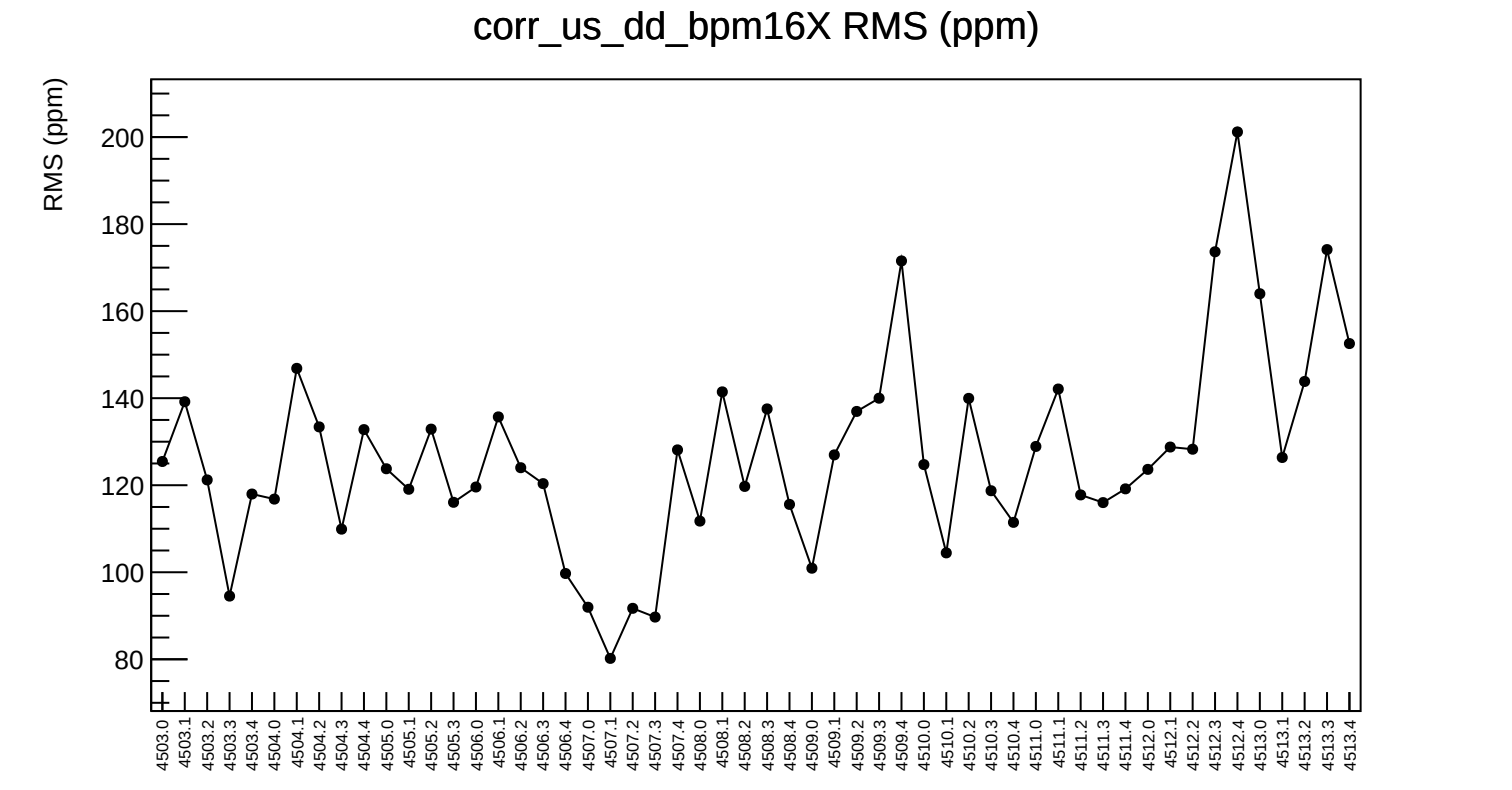

corr_us_dd_bpm1X RMS (ppm)
RMS (ppm)
340
320
300
280
260
240
220
200
180
160
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

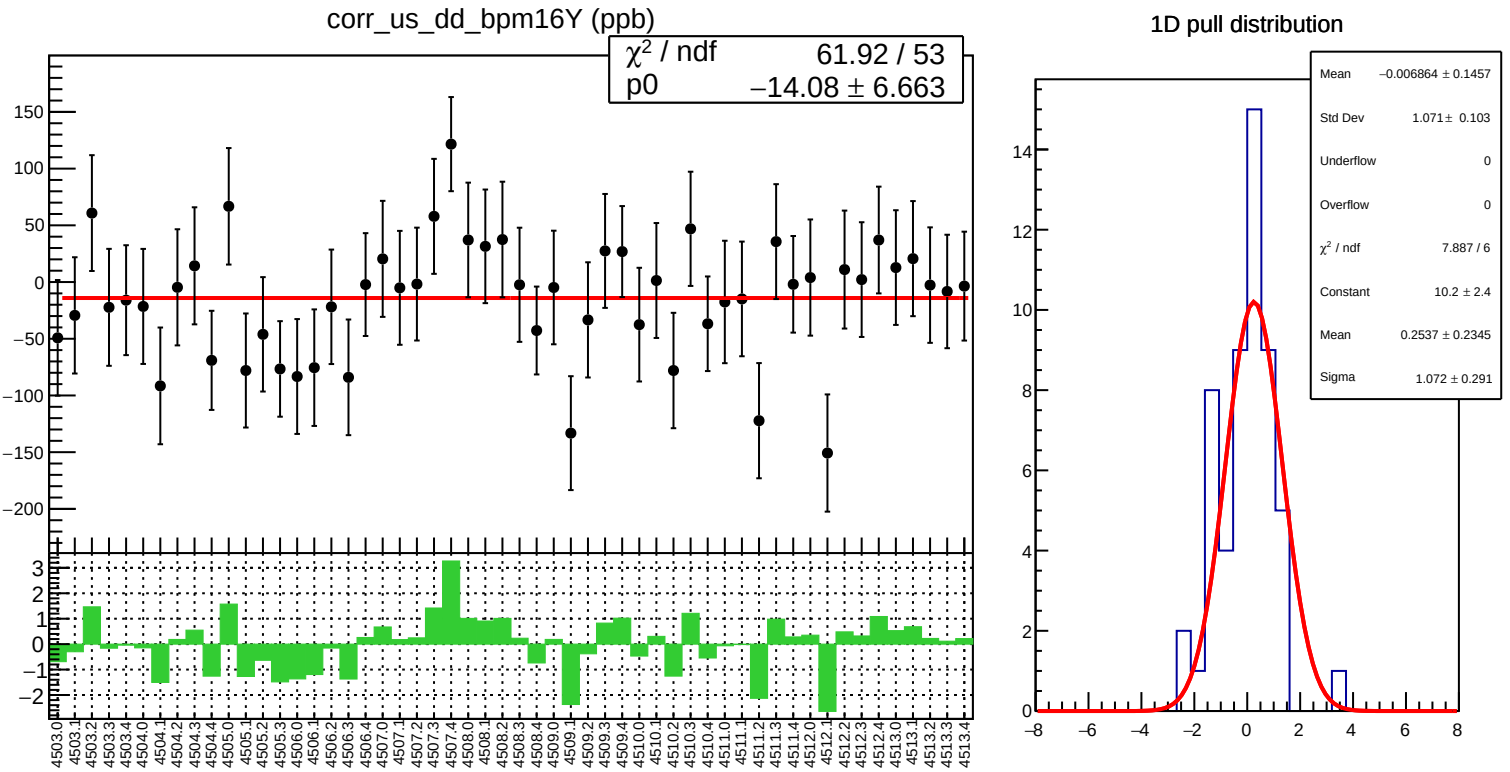

corr_us_dd_bpm1Y (ppb)
χ² / ndf 32.67 / 53
p0 −8.198 ± 14.97

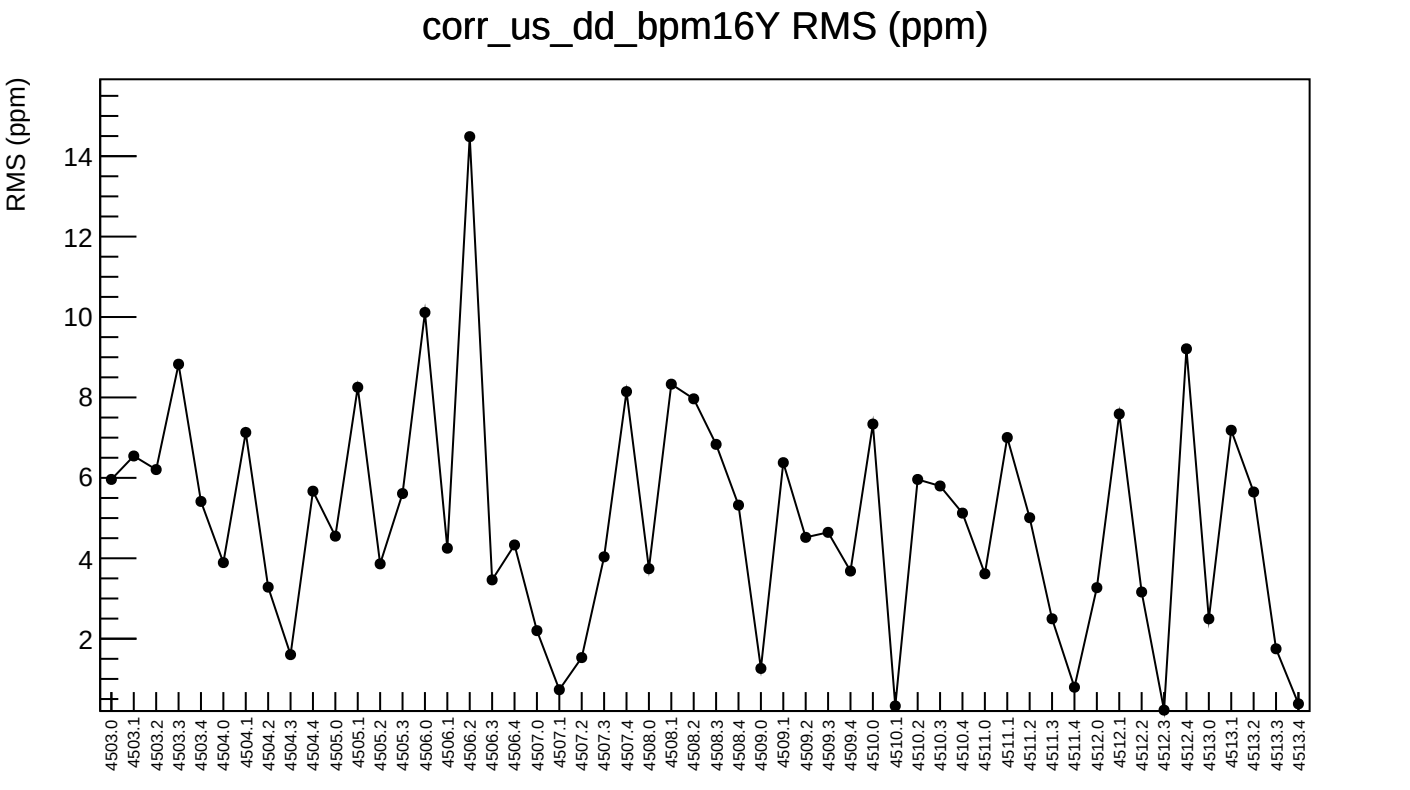

1D pull distribution
Mean 0.006596 ± 0.1058
Std Dev 0.7778 ± 0.07485
Underflow 0
Overflow 0
χ² / ndf 6.29 / 6
Constant 21.53 ± 4.52
Mean 0.05267 ± 0.06963
Sigma 0.4715 ± 0.0716

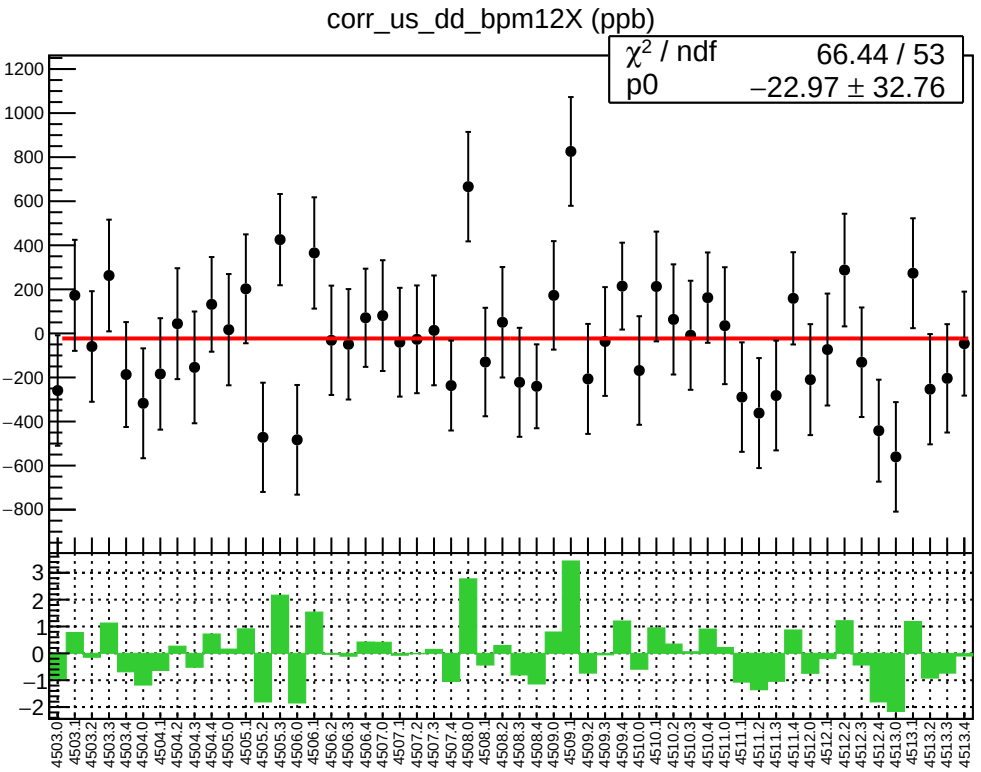

corr_us_dd_bpm1Y RMS (ppm)
RMS (ppm)
22
20
18
16
14
12
10
8
6
4
2
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

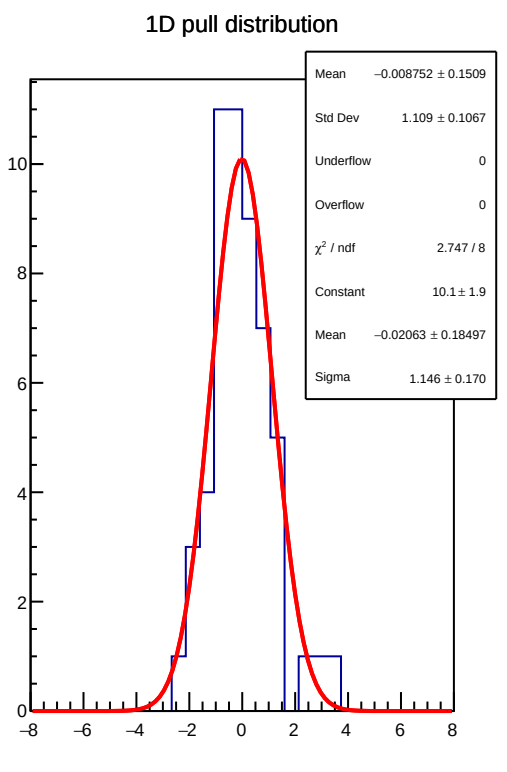

corr_us_dd_bpm16X (ppb)
χ² / ndf 88.15 / 53
p0 −82.29 ± 144.8
1D pull distribution
Mean 0.03592 ± 0.1738
Std Dev 1.277 ± 0.1229
Underflow 0
Overflow 0
χ² / ndf 8.891 / 8
Constant 8.326 ± 1.806
Mean −0.0765 ± 0.1978
Sigma 1.184 ± 0.211

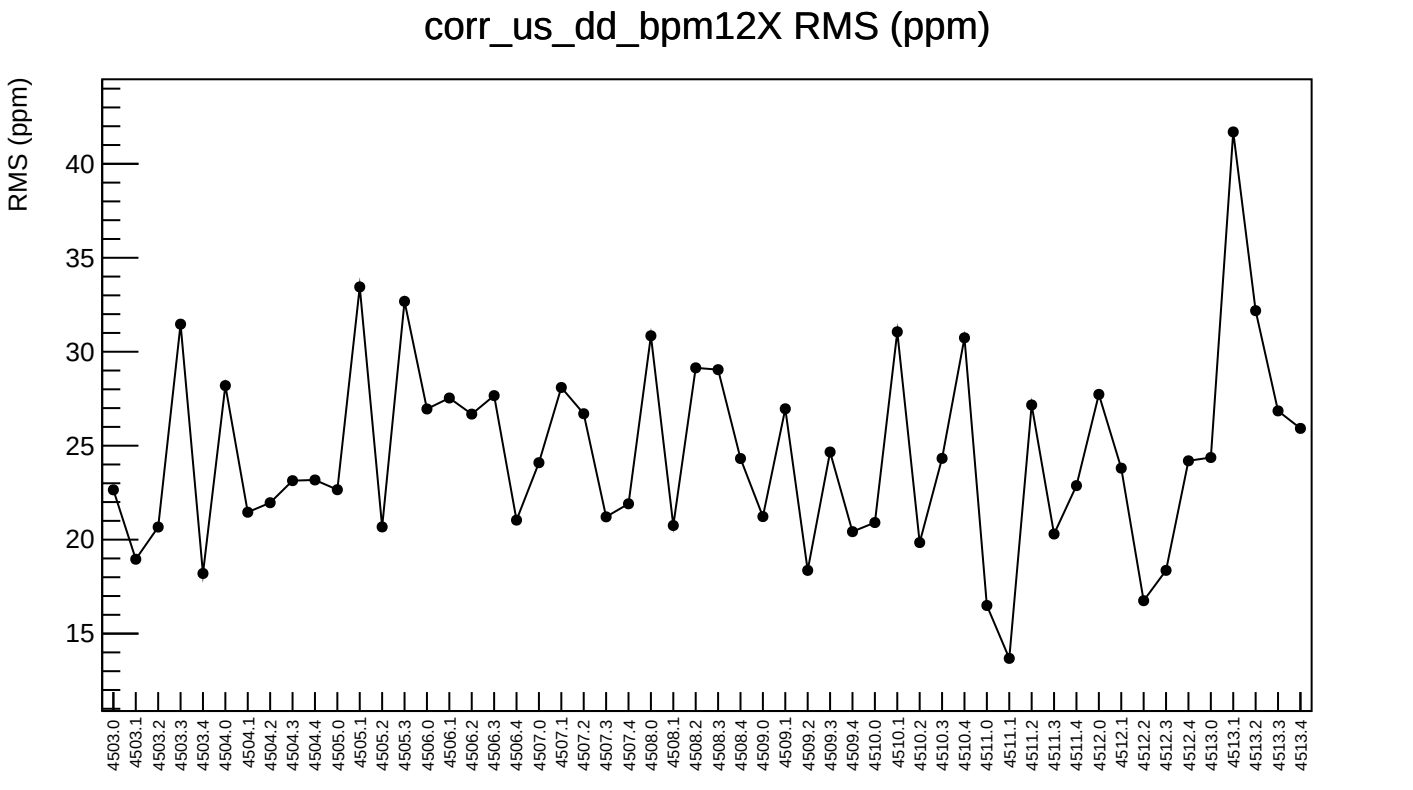

corr_us_dd_bpm16X RMS (ppm)
RMS (ppm)
200
180
160
140
120
100
80
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

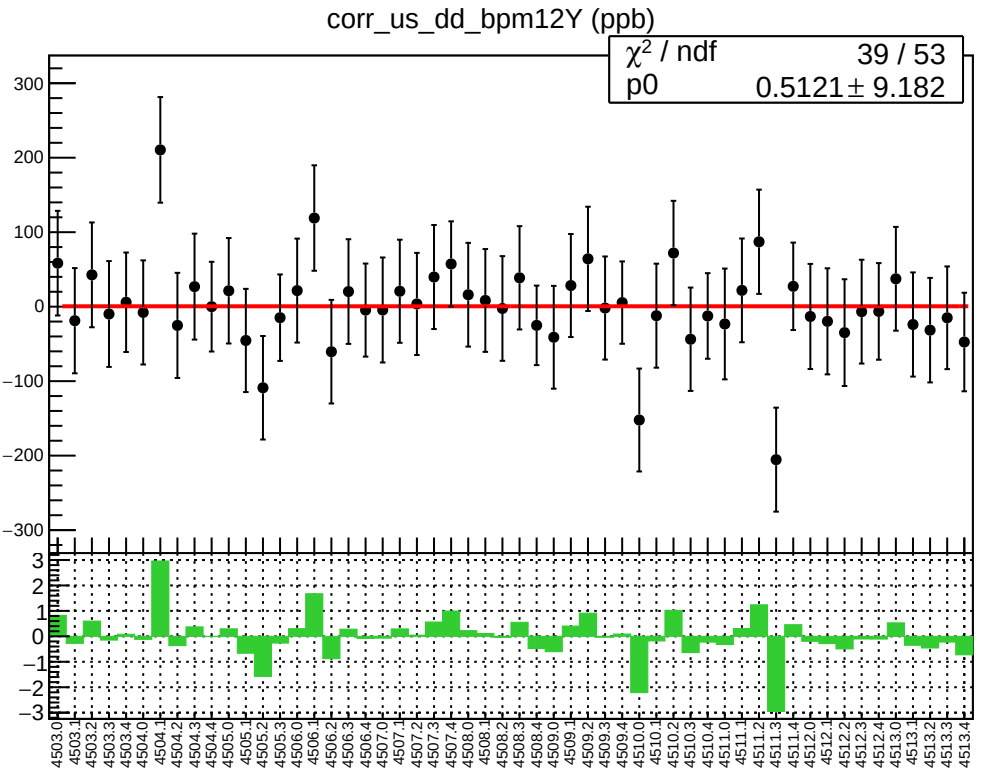

corr_us_dd_bpm16Y (ppb)
χ² / ndf 61.92 / 53
p0 −14.08 ± 6.663
1D pull distribution
Mean −0.006864 ± 0.1457
Std Dev 1.071± 0.103
Underflow 0
Overflow 0
χ² / ndf 7.887 / 6
Constant 10.2 ± 2.4
Mean 0.2537 ± 0.2345
Sigma 1.072 ± 0.291

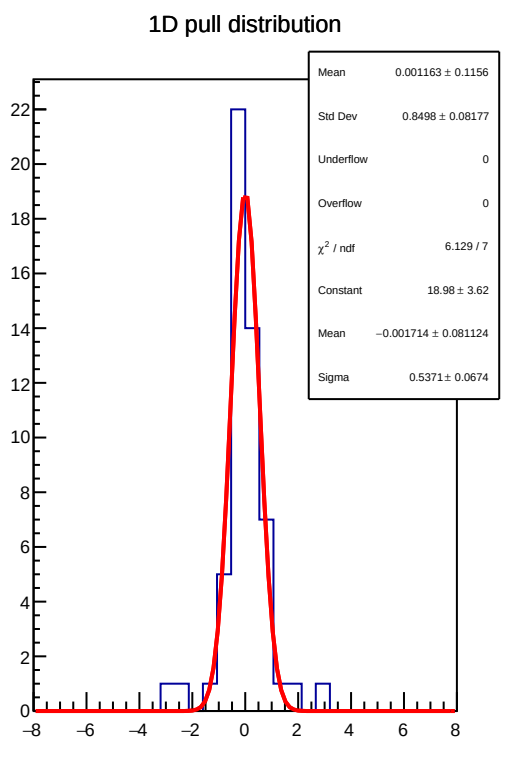

corr_us_dd_bpm16Y RMS (ppm)
RMS (ppm)
14
12
10
8
6
4
2
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

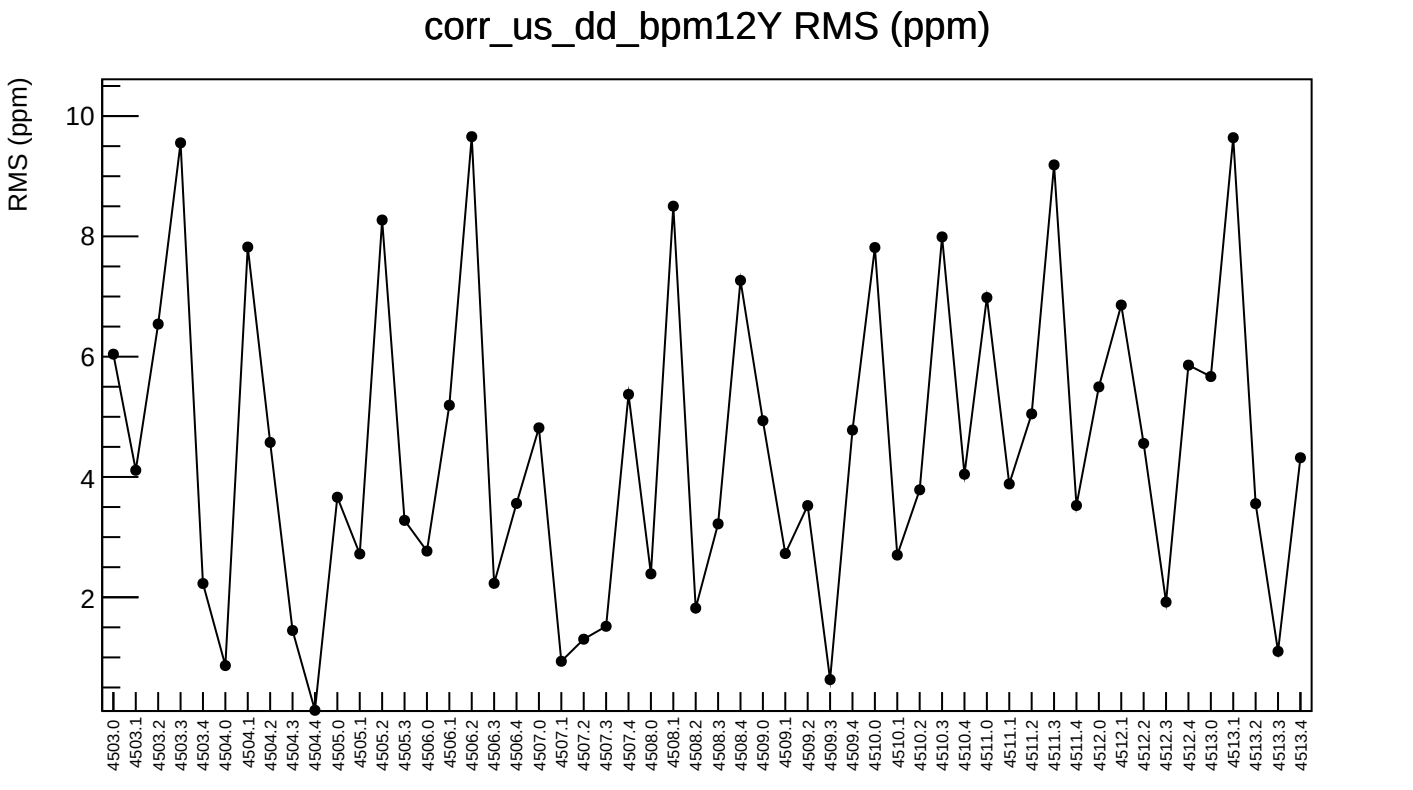

corr_us_dd_bpm12X (ppb)
χ² / ndf 66.44 / 53
p0 −22.97 ± 32.76

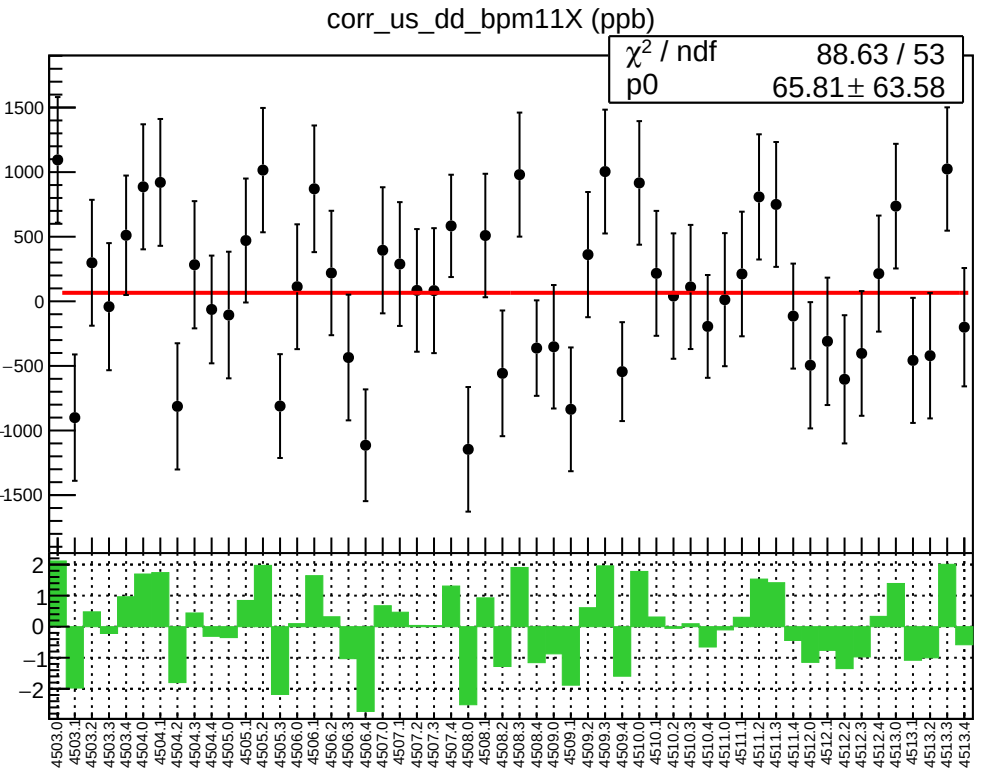

1D pull distribution
Mean −0.008752 ± 0.1509
Std Dev 1.109 ± 0.1067
Underflow 0
Overflow 0
χ² / ndf 2.747 / 8
Constant 10.1 ± 1.9
Mean −0.02063 ± 0.18497
Sigma 1.146 ± 0.170

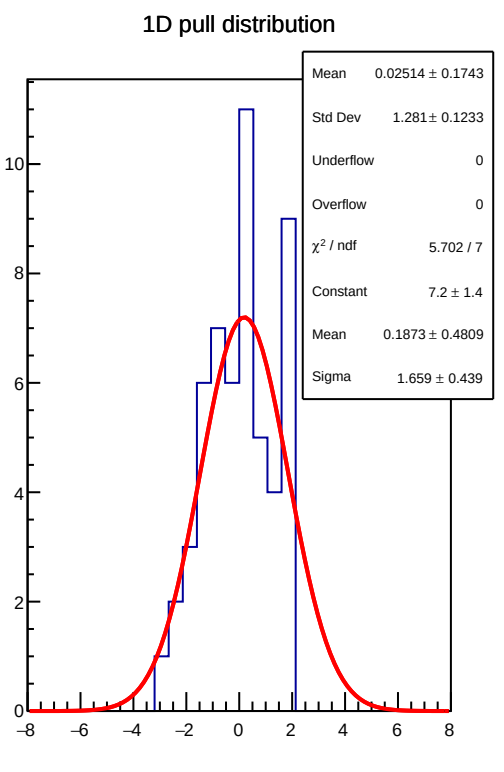

corr_us_dd_bpm12X RMS (ppm)
RMS (ppm)
40
35
30
25
20
15
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

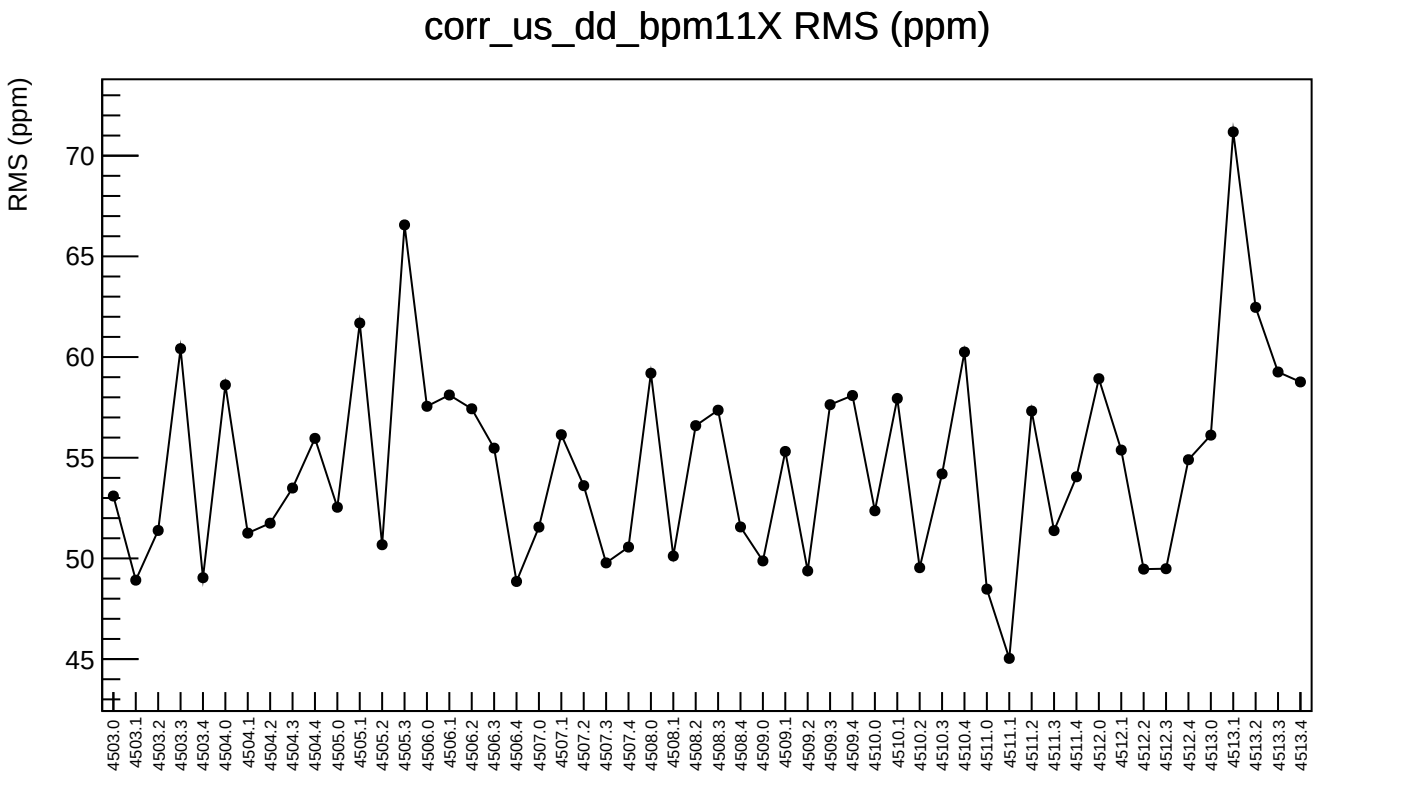

corr_us_dd_bpm12Y (ppb)
χ² / ndf 39 / 53
p0 0.5121 ± 9.182

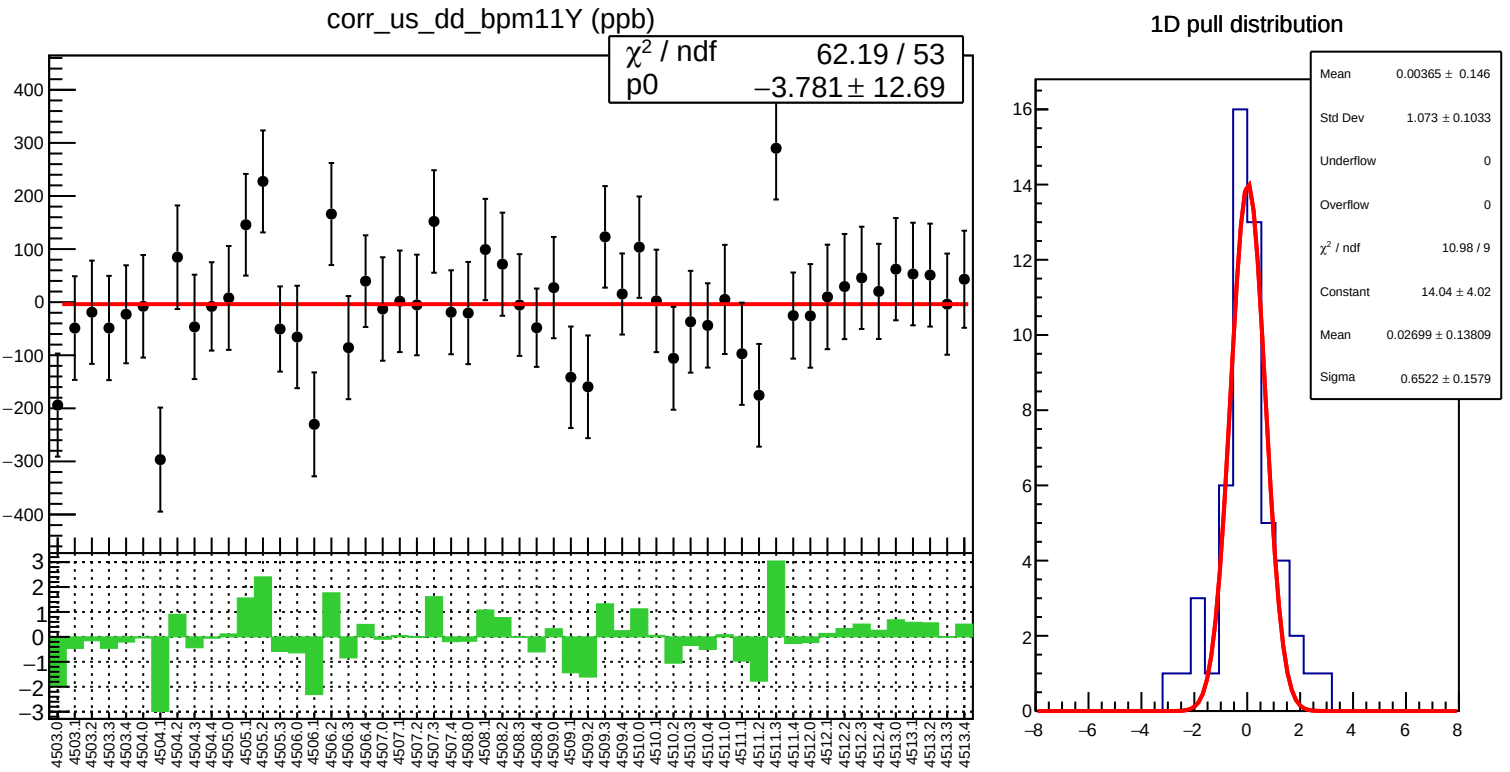

1D pull distribution
Mean 0.001163 ± 0.1156
Std Dev 0.8498 ± 0.08177
Underflow 0
Overflow 0
χ² / ndf 6.129 / 7
Constant 18.98 ± 3.62
Mean −0.001714 ± 0.081124
Sigma 0.5371 ± 0.0674

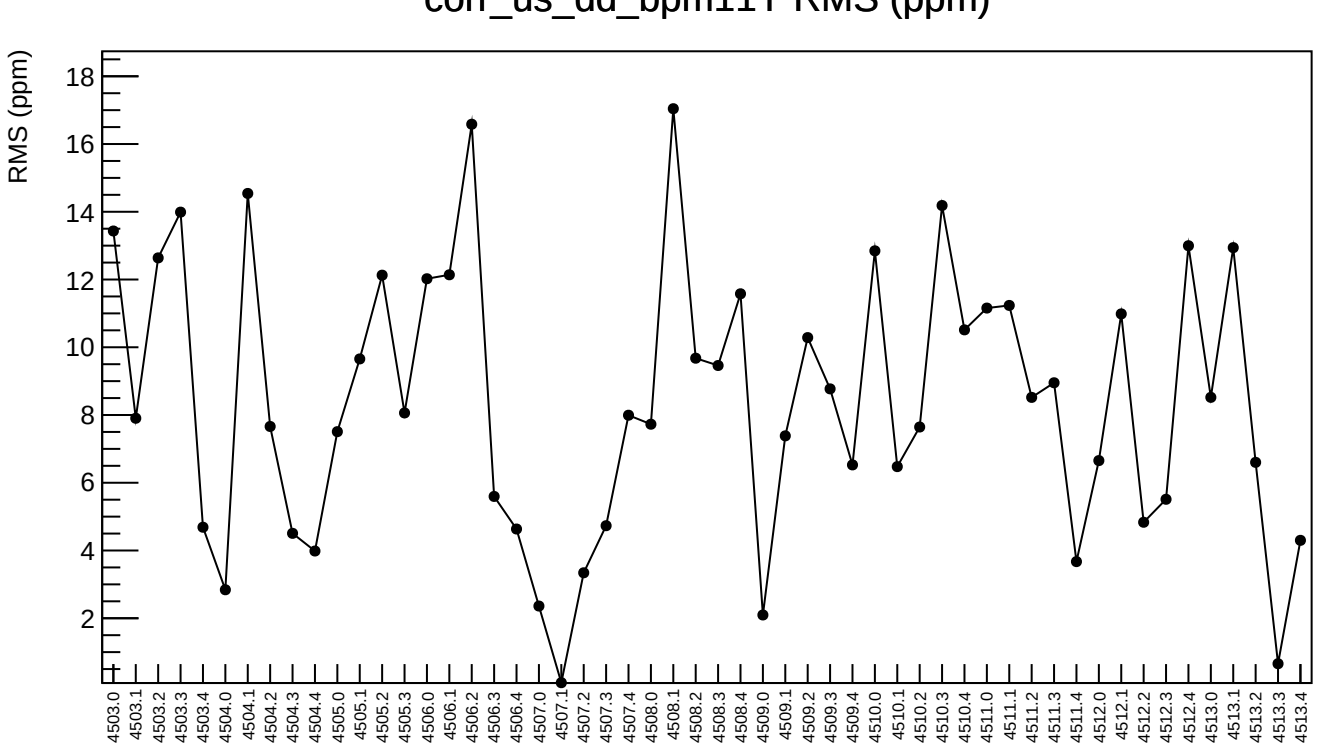

corr_us_dd_bpm12Y RMS (ppm)
RMS (ppm)
10
8
6
4
2
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

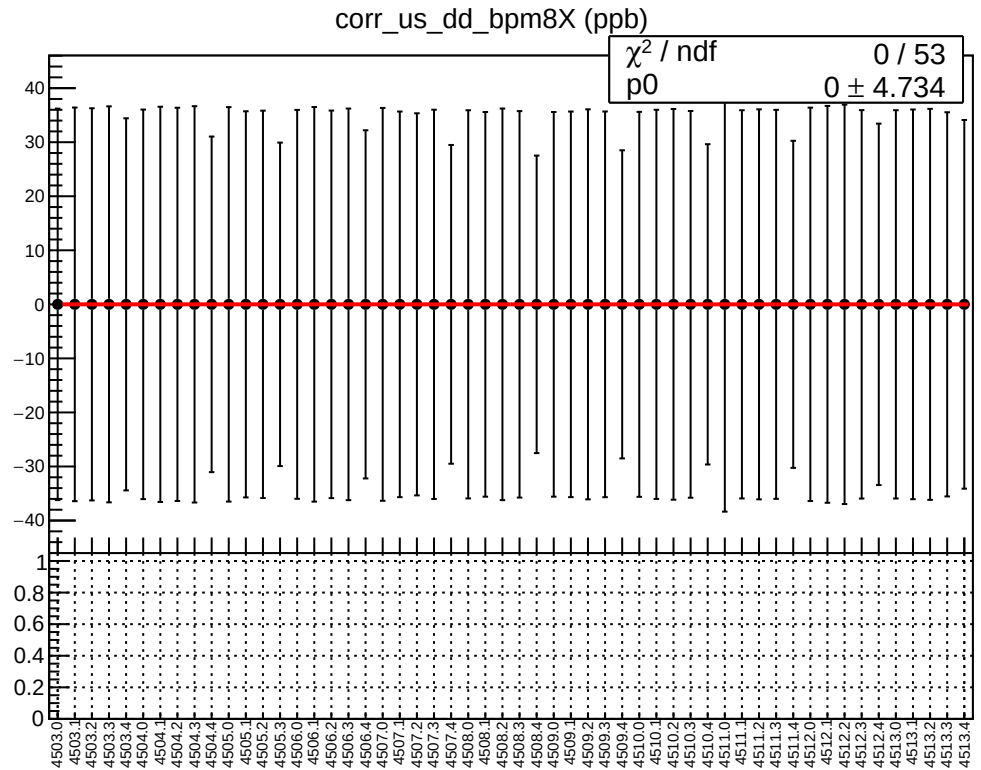

corr_us_dd_bpm11X (ppb)
χ² / ndf 88.63 / 53
p0 65.81 ± 63.58
1500
1000
500
0
−500
−1000
−1500
2
1
0
−1
−2
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

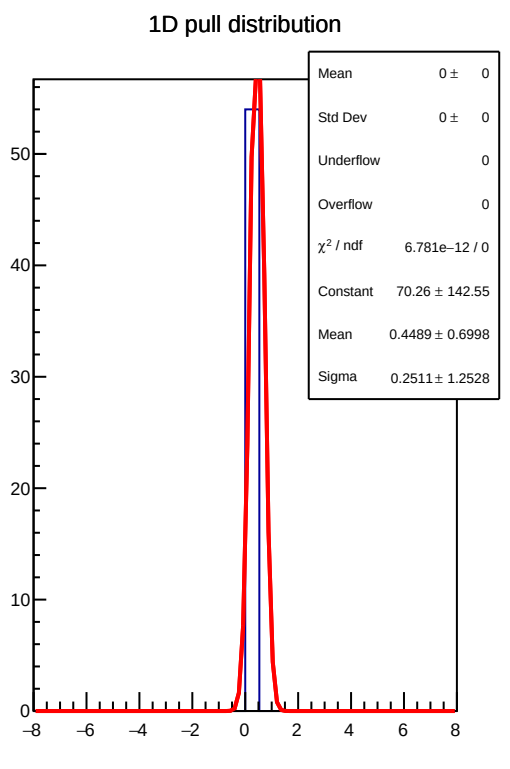

1D pull distribution
Mean 0.02514 ± 0.1743
Std Dev 1.281 ± 0.1233
Underflow 0
Overflow 0
χ² / ndf 5.702 / 7
Constant 7.2 ± 1.4
Mean 0.1873 ± 0.4809
Sigma 1.659 ± 0.439
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

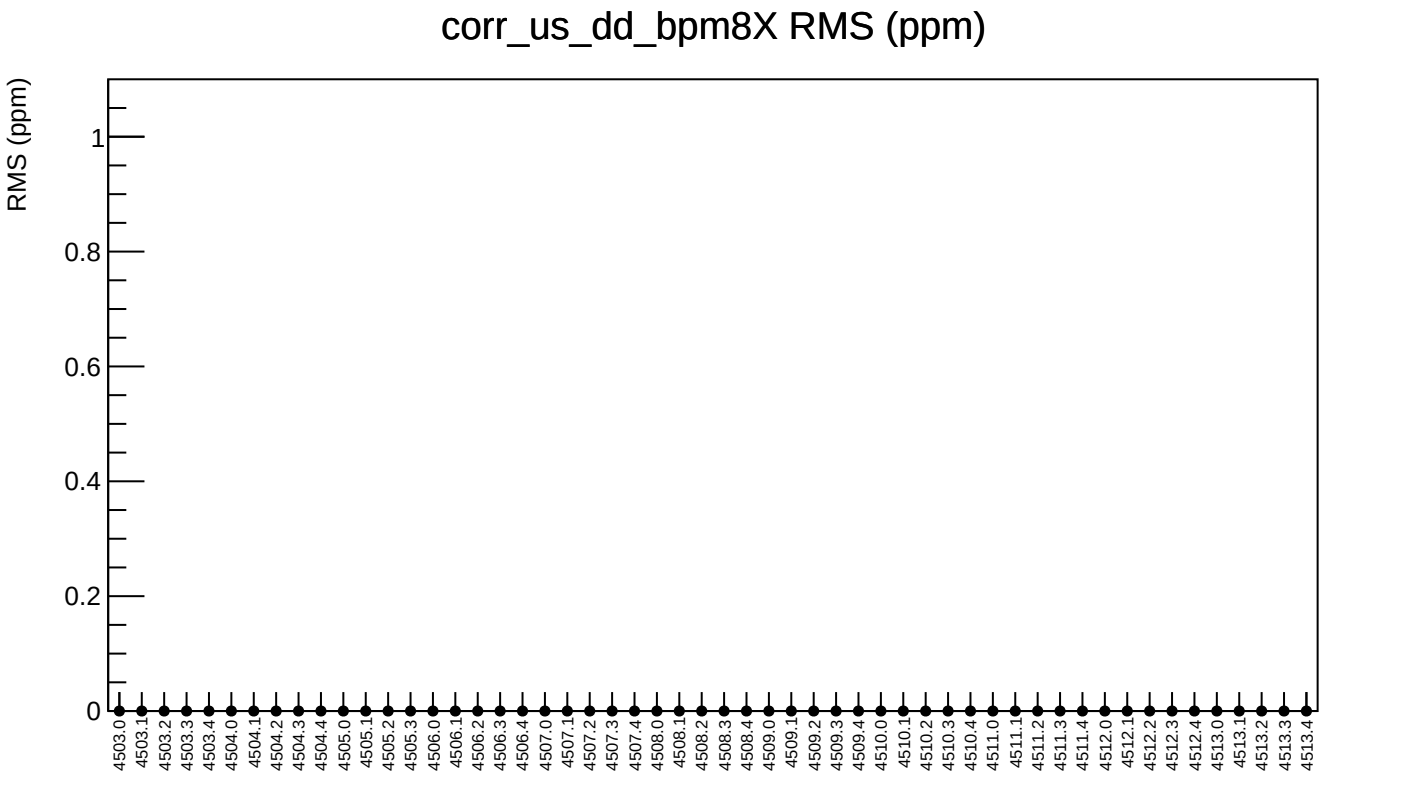

corr_us_dd_bpm11X RMS (ppm)
RMS (ppm)
70
65
60
55
50
45
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

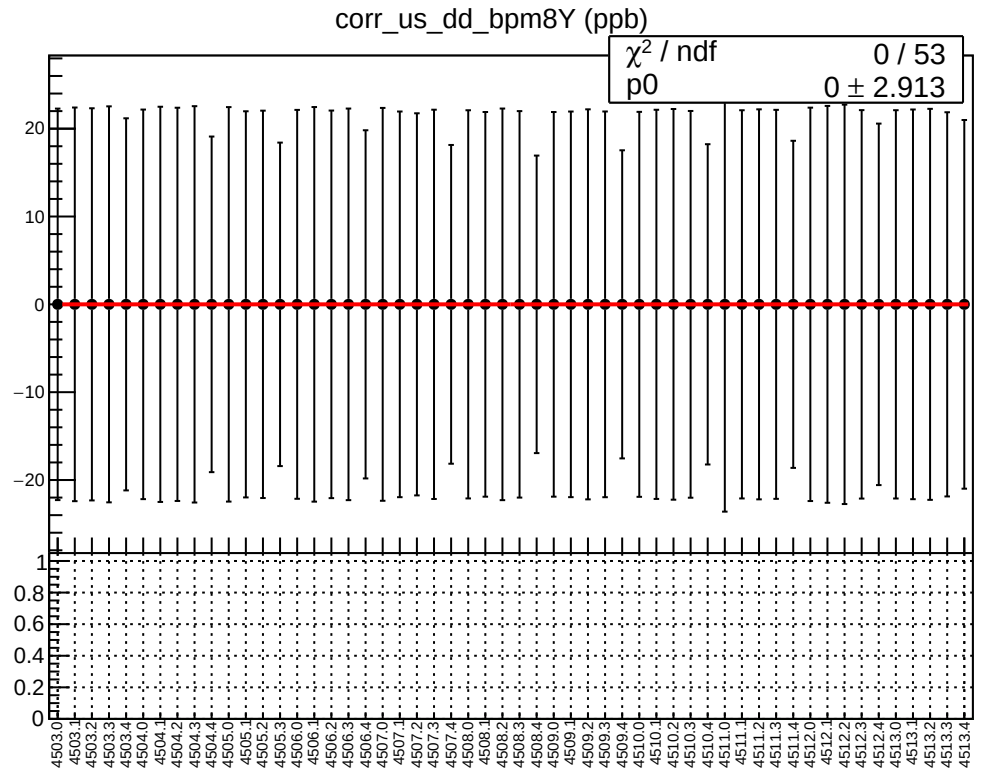

corr_us_dd_bpm11Y (ppb)
χ² / ndf 62.19 / 53
p0 −3.781 ± 12.69
1D pull distribution
Mean 0.00365 ± 0.146
Std Dev 1.073 ± 0.1033
Underflow 0
Overflow 0
χ² / ndf 10.98 / 9
Constant 14.04 ± 4.02
Mean 0.02699 ± 0.13809
Sigma 0.6522 ± 0.1579

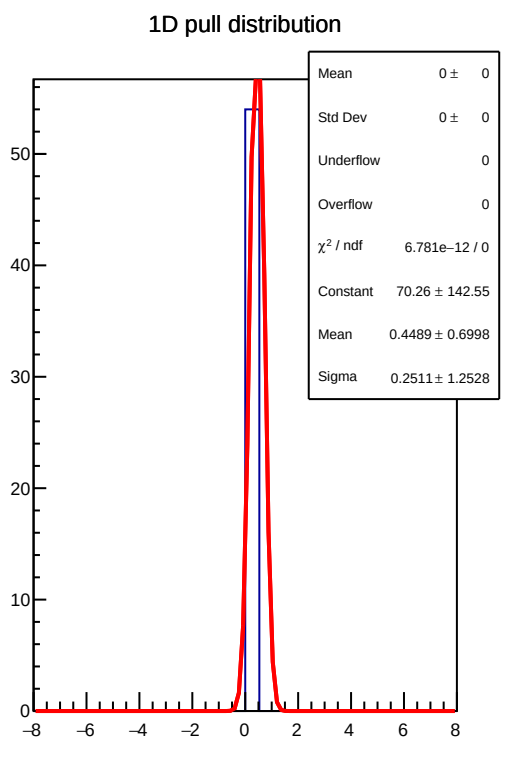

corr_us_dd_bpm11Y RMS (ppm)
RMS (ppm)
18
16
14
12
10
8
6
4
2
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

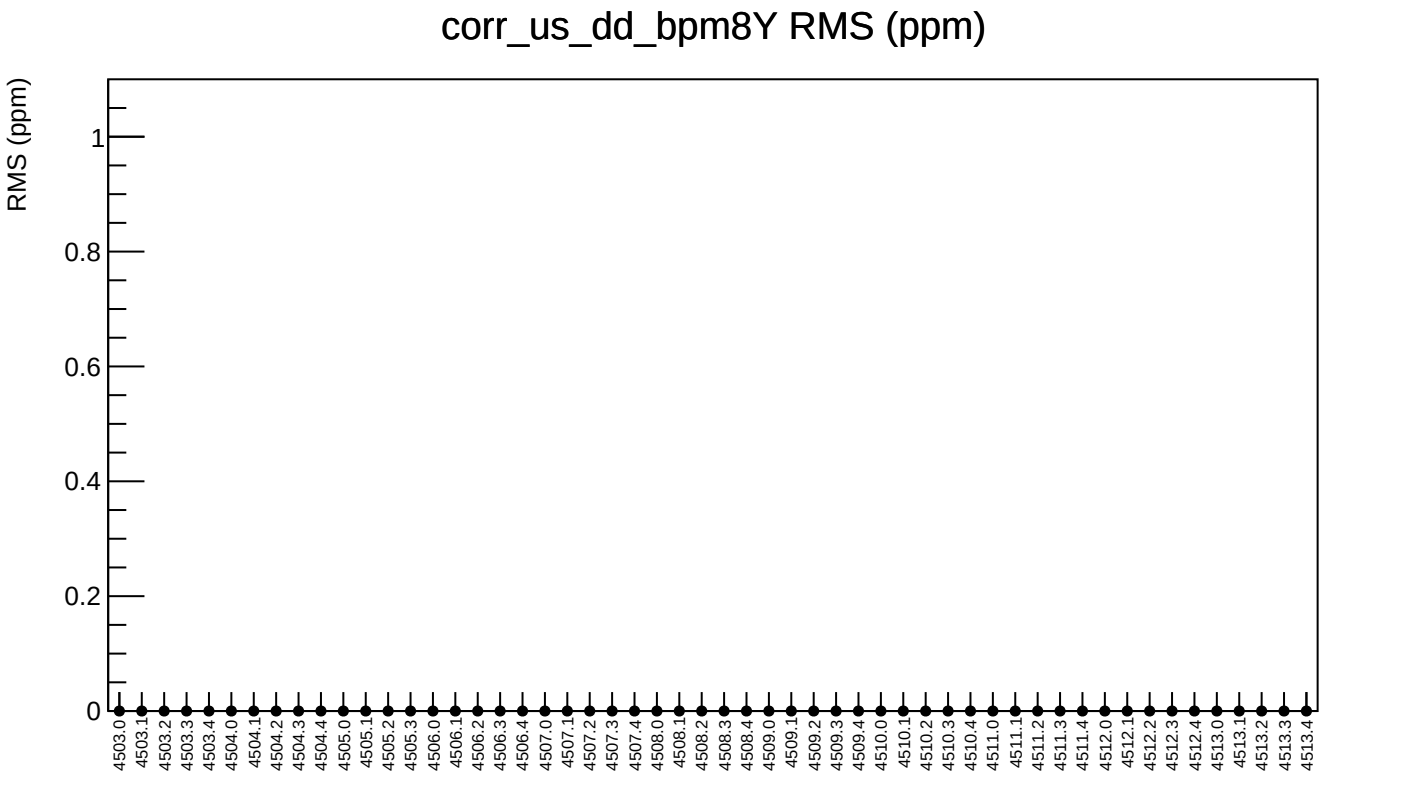

corr_us_dd_bpm8X (ppb)
χ² / ndf 0 / 53
p0 0 ± 4.734

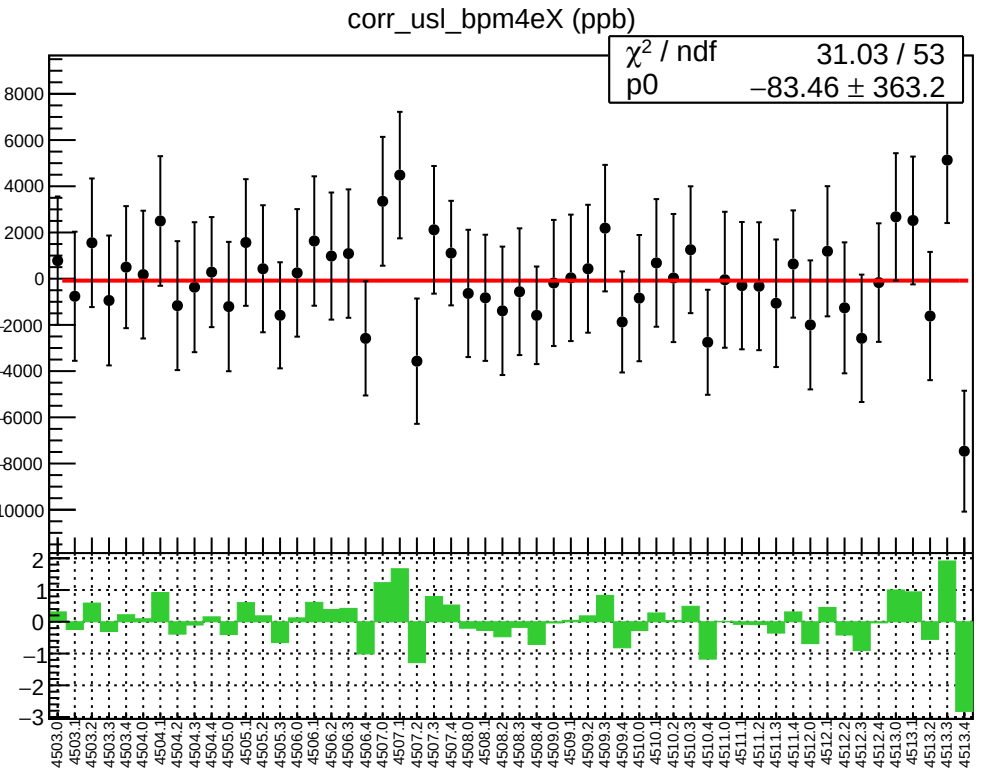

1D pull distribution
Mean 0 ± 0
Std Dev 0 ± 0
Underflow 0
Overflow 0
χ² / ndf 6.781e−12 / 0
Constant 70.26 ± 142.55
Mean 0.4489 ± 0.6998
Sigma 0.2511 ± 1.2528

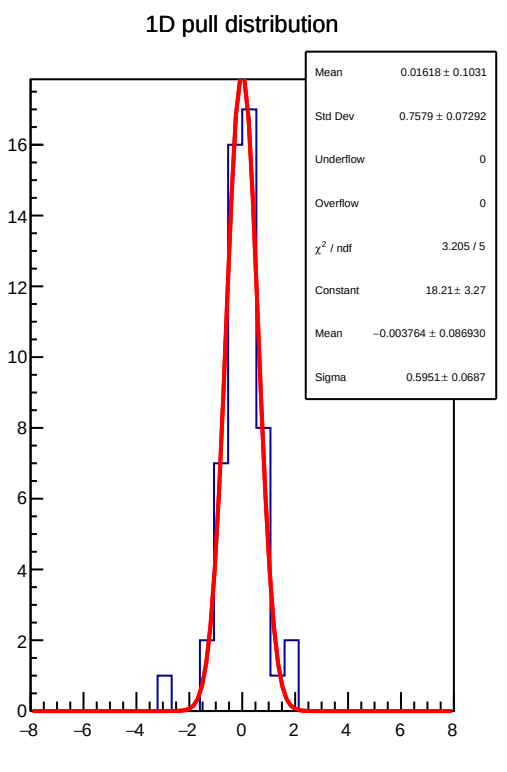

corr_us_dd_bpm8X RMS (ppm)
RMS (ppm)
1
0.8
0.6
0.4
0.2
0
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

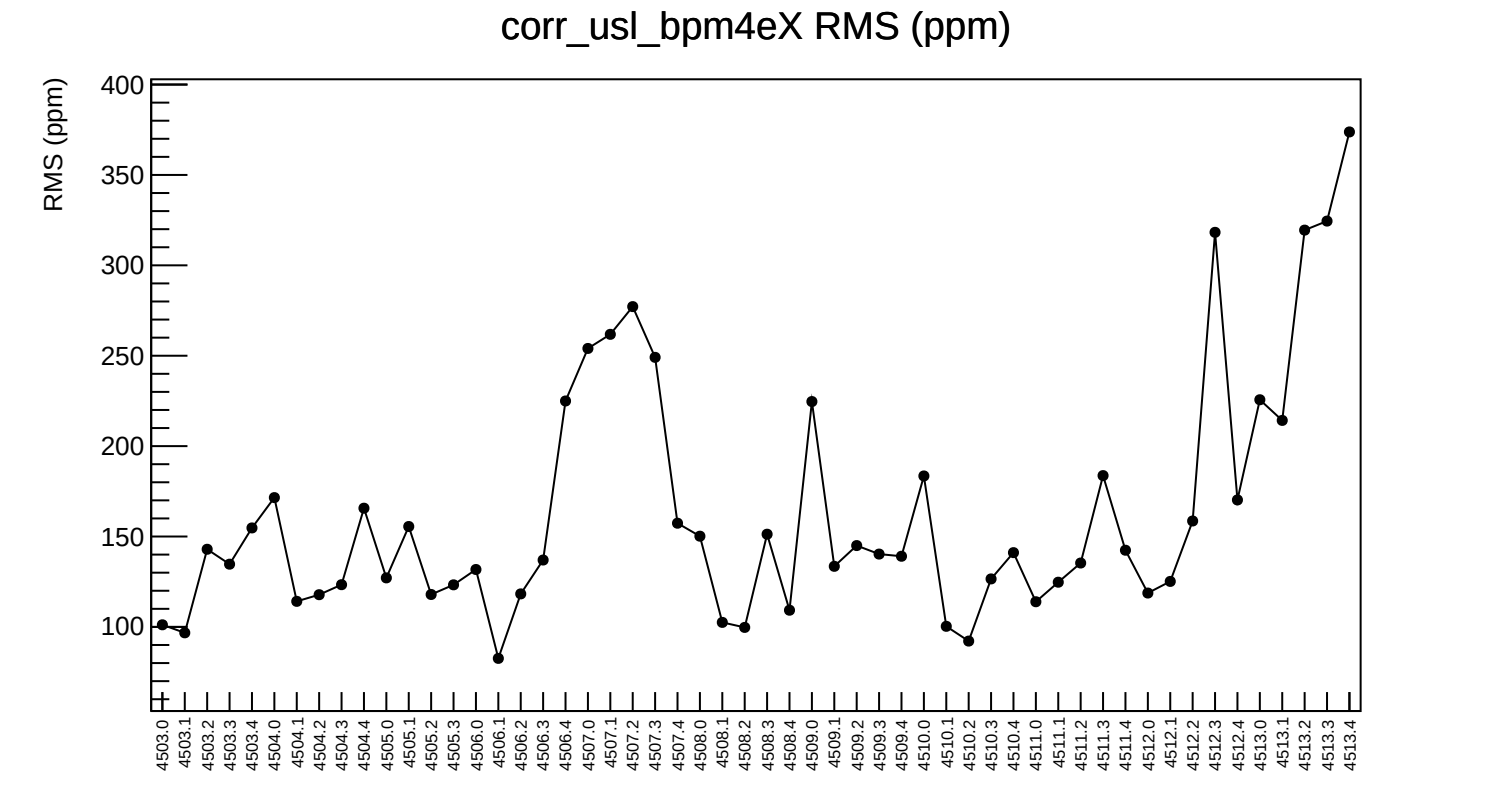

corr_us_dd_bpm8Y (ppb)
χ² / ndf 0 / 53
p0 0 ± 2.913

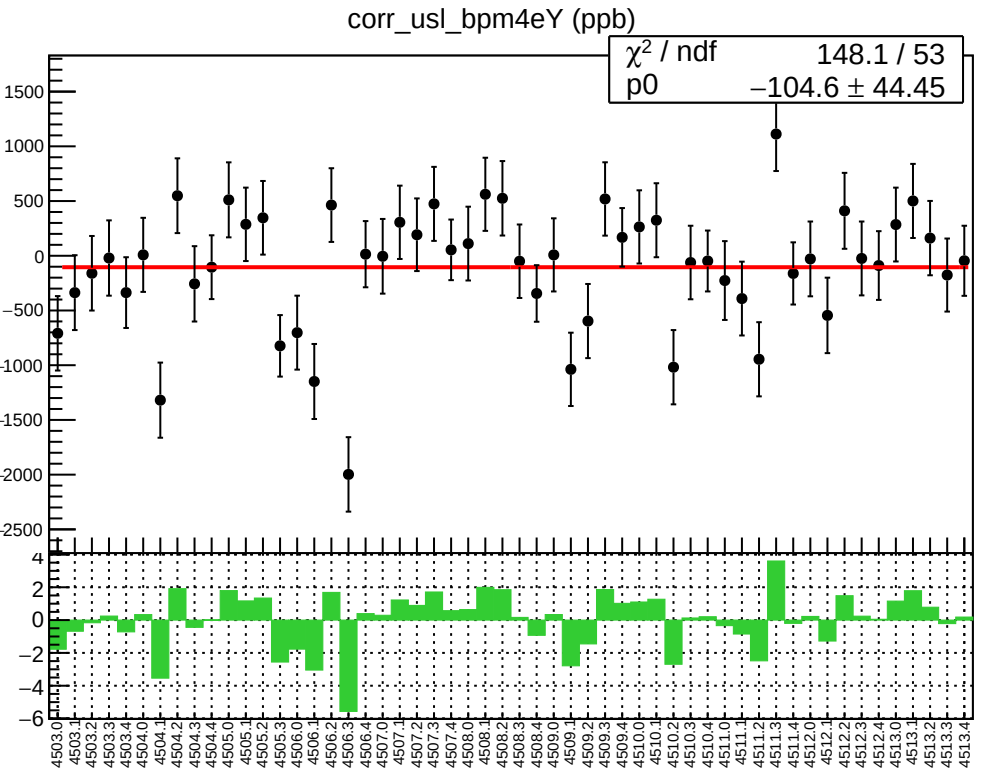

1D pull distribution
Mean 0 ± 0
Std Dev 0 ± 0
Underflow 0
Overflow 0
χ² / ndf 6.781e−12 / 0
Constant 70.26 ± 142.55
Mean 0.4489 ± 0.6998
Sigma 0.2511 ± 1.2528

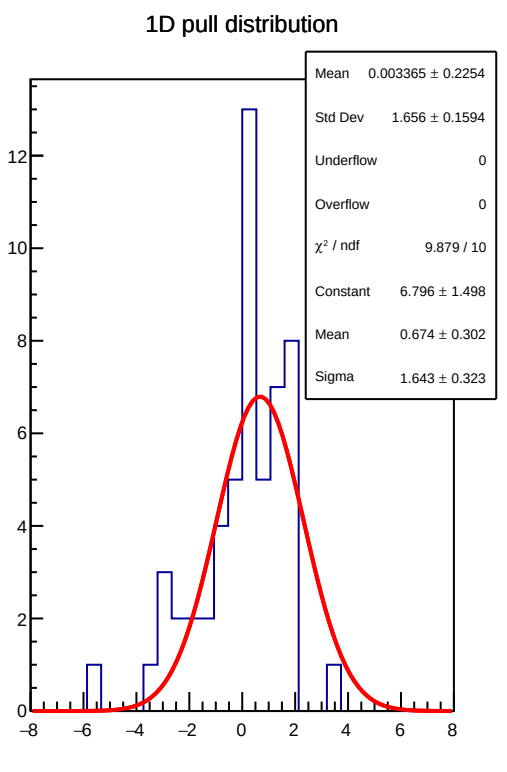

corr_us_dd_bpm8Y RMS (ppm)
RMS (ppm)
1
0.8
0.6
0.4
0.2
0
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

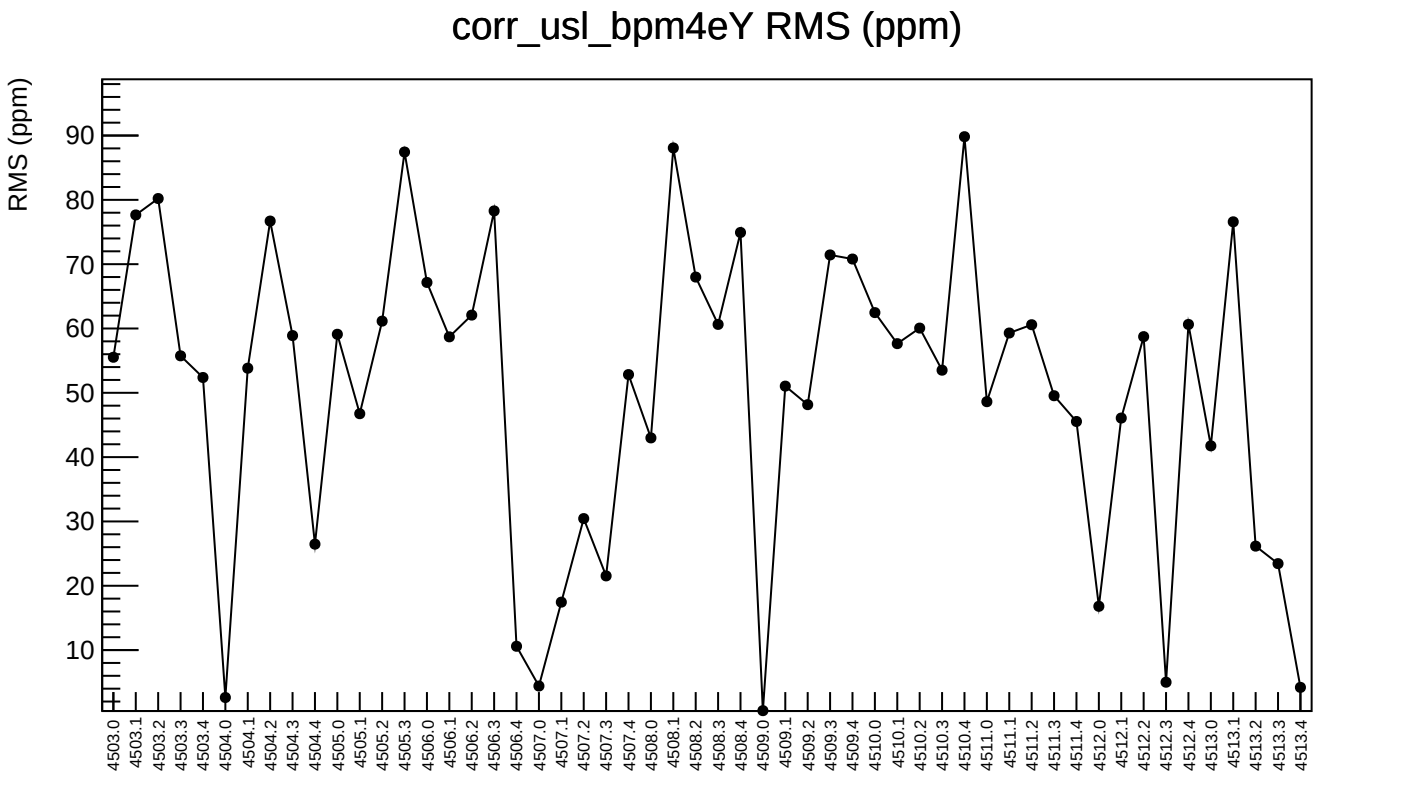

corr_usl_bpm4eX (ppb)
χ² / ndf 31.03 / 53
p0 −83.46 ± 363.2


1D pull distribution
Mean 0.01618 ± 0.1031
Std Dev 0.7579 ± 0.07292
Underflow 0
Overflow 0
χ² / ndf 3.205 / 5
Constant 18.21 ± 3.27
Mean −0.003764 ± 0.086930
Sigma 0.5951 ± 0.0687


corr_usl_bpm4eX RMS (ppm)
RMS (ppm)
400
350
300
250
200
150
100
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4


corr_usl_bpm4eY (ppb)
χ² / ndf 148.1 / 53
p0 −104.6 ± 44.45


1D pull distribution
Mean 0.003365 ± 0.2254
Std Dev 1.656 ± 0.1594
Underflow 0
Overflow 0
χ² / ndf 9.879 / 10
Constant 6.796 ± 1.498
Mean 0.674 ± 0.302
Sigma 1.643 ± 0.323


corr_usl_bpm4eY RMS (ppm)
RMS (ppm)
10
20
30
40
50
60
70
80
90
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
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4512.2
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4512.4
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4513.1
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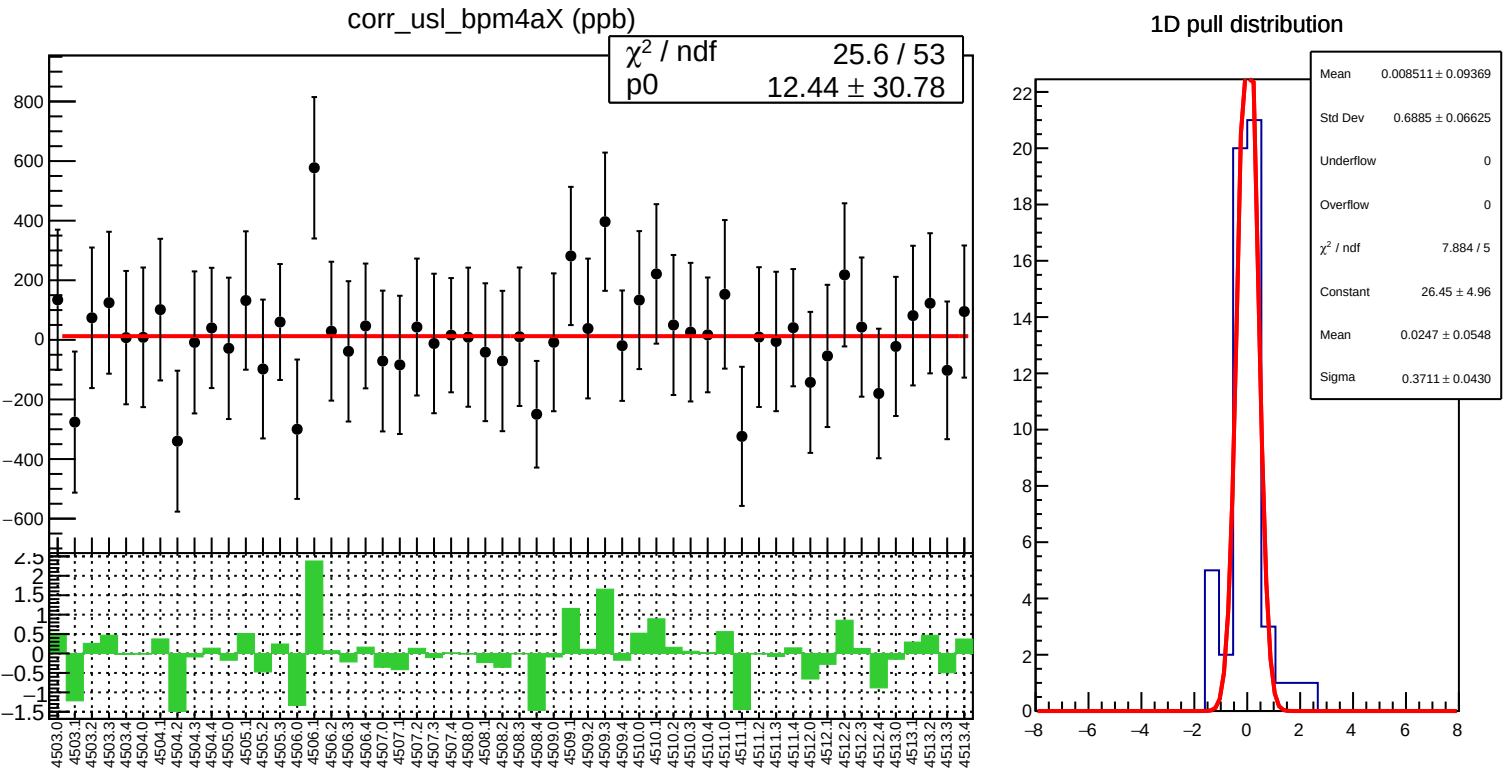
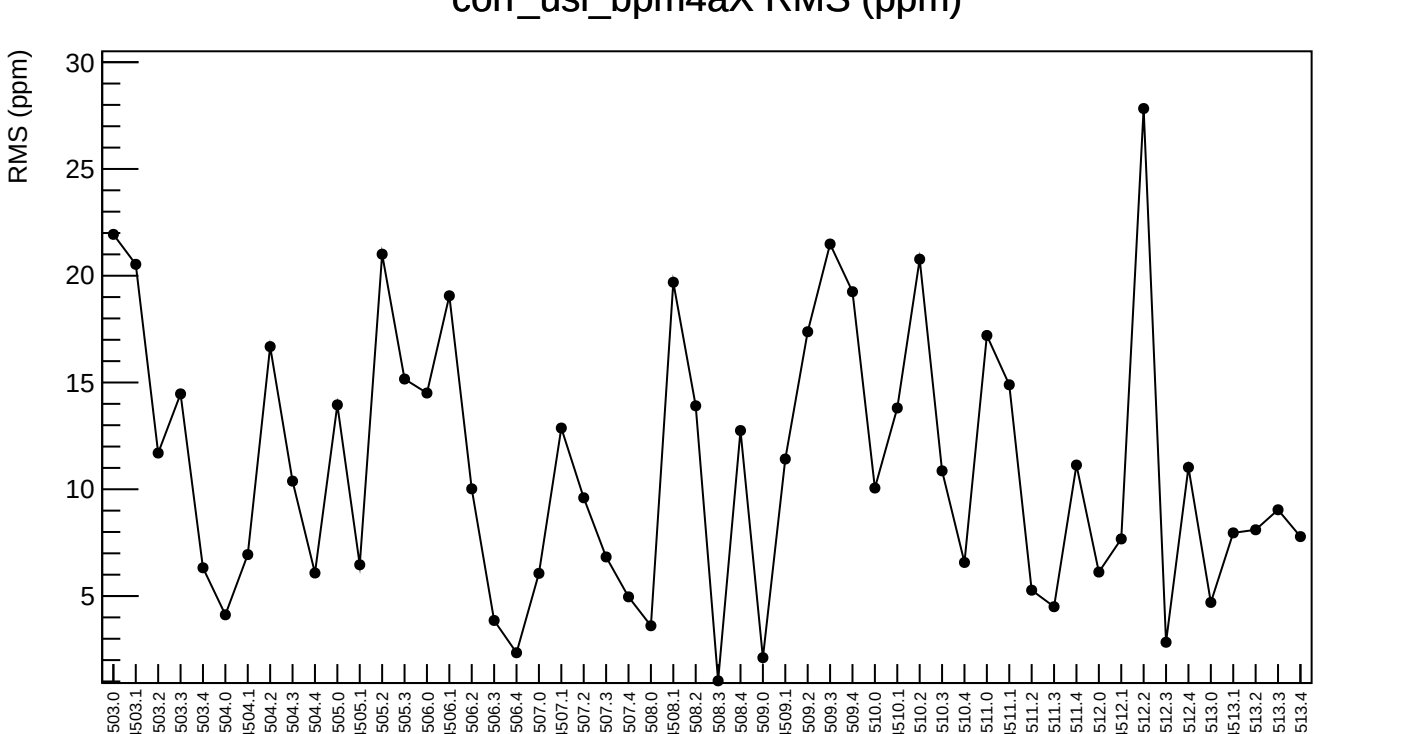
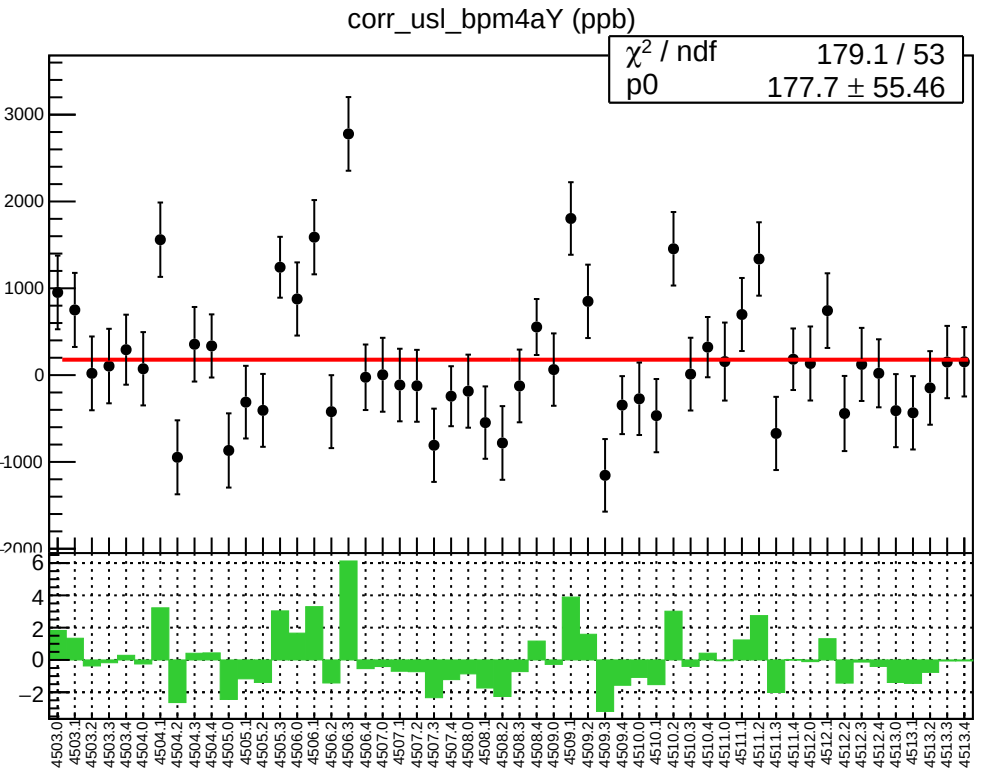
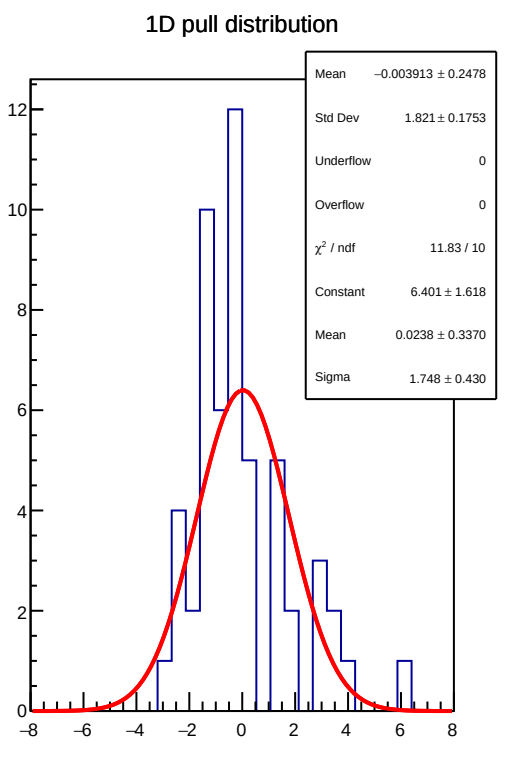
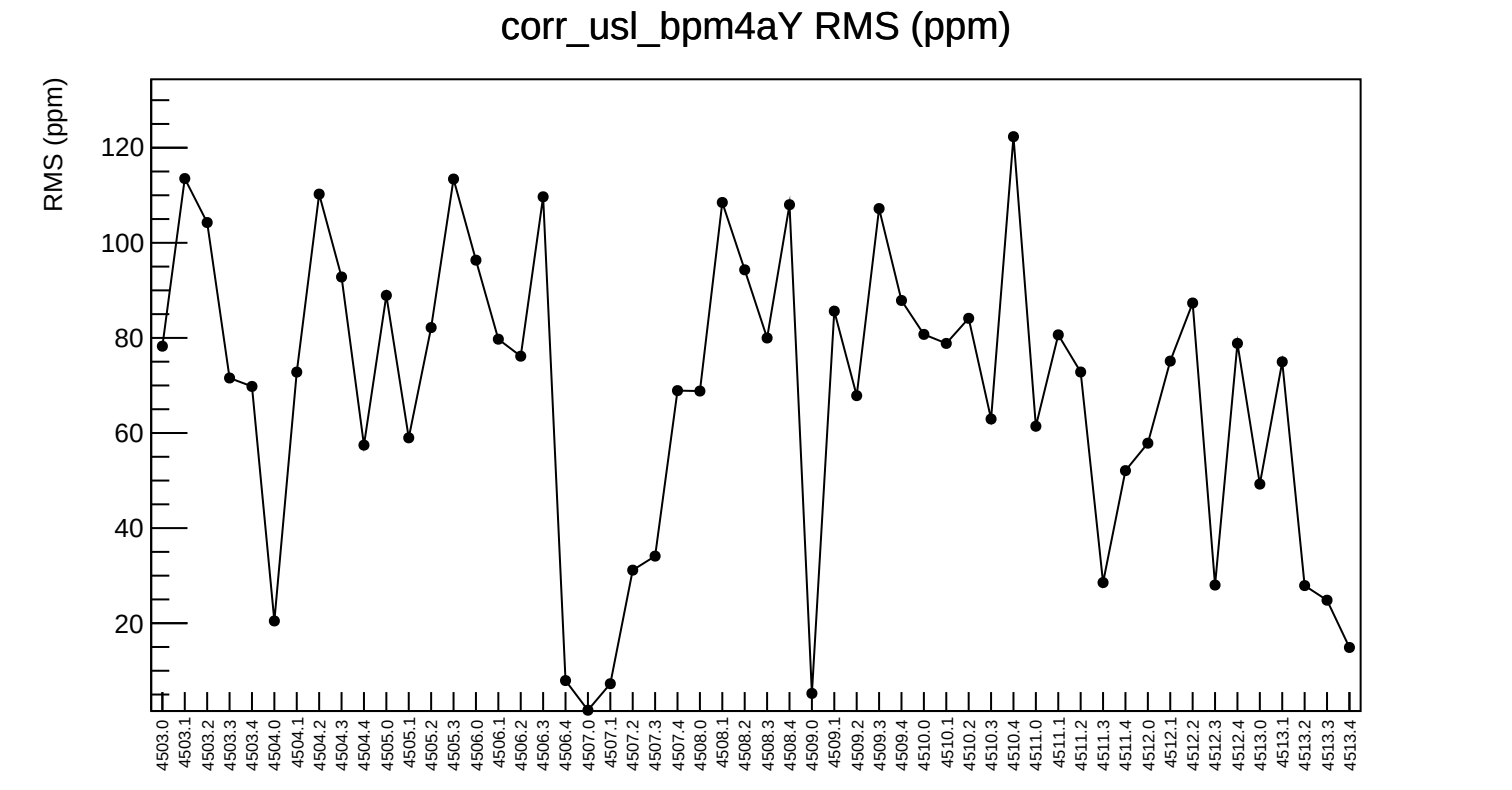
4513.3
4513.4

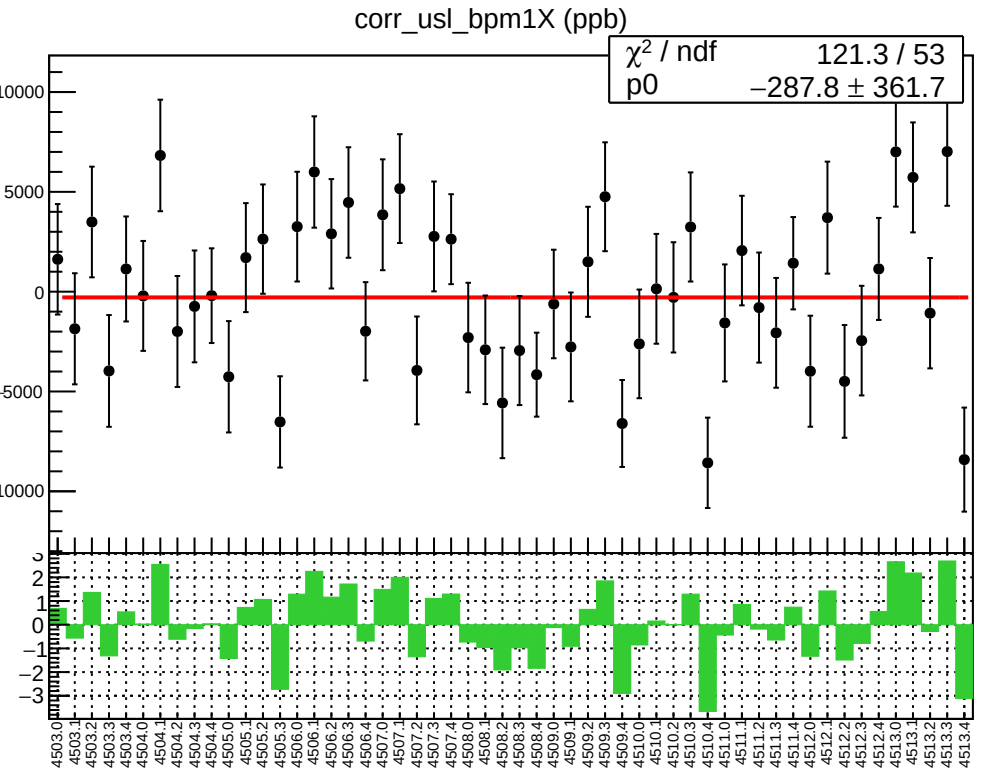

corr_usl_bpm4aX (ppb)
χ² / ndf 25.6 / 53
p0 12.44 ± 30.78
1D pull distribution
Mean 0.008511 ± 0.09369
Std Dev 0.6885 ± 0.06625
Underflow 0
Overflow 0
χ² / ndf 7.884 / 5
Constant 26.45 ± 4.96
Mean 0.0247 ± 0.0548
Sigma 0.3711 ± 0.0430

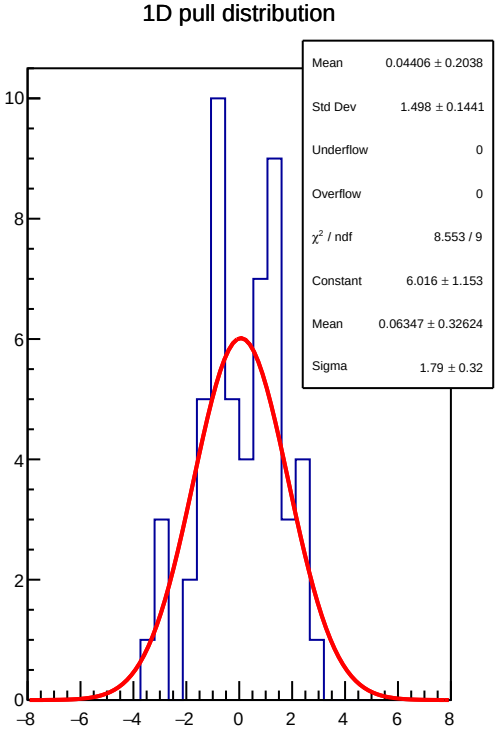

corr_usl_bpm4aX RMS (ppm)
RMS (ppm)
30
25
20
15
10
5
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

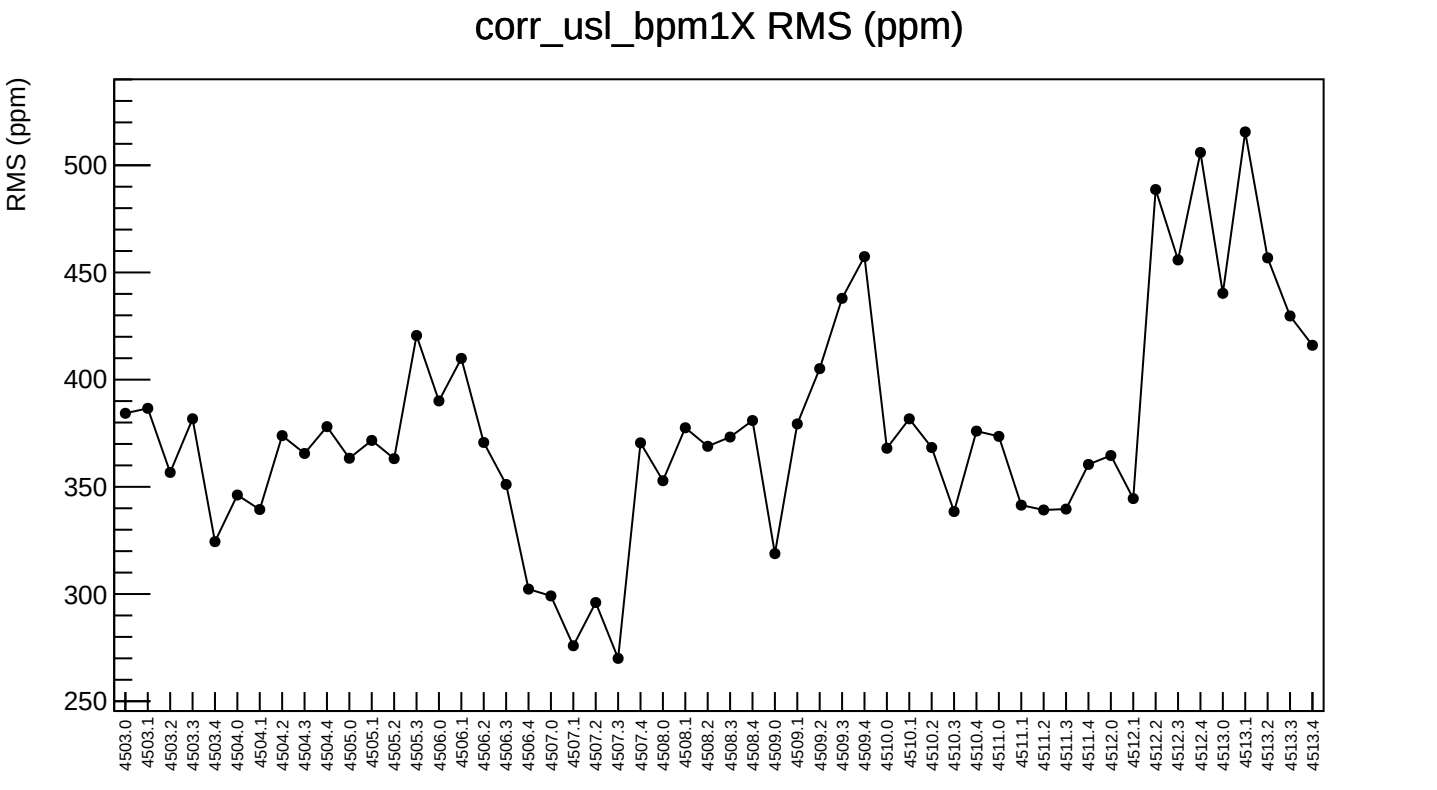

corr_usl_bpm4aY (ppb)
χ² / ndf 179.1 / 53
p0 177.7 ± 55.46
3000
2000
1000
0
-1000
-2000
6
4
2
0
−2
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

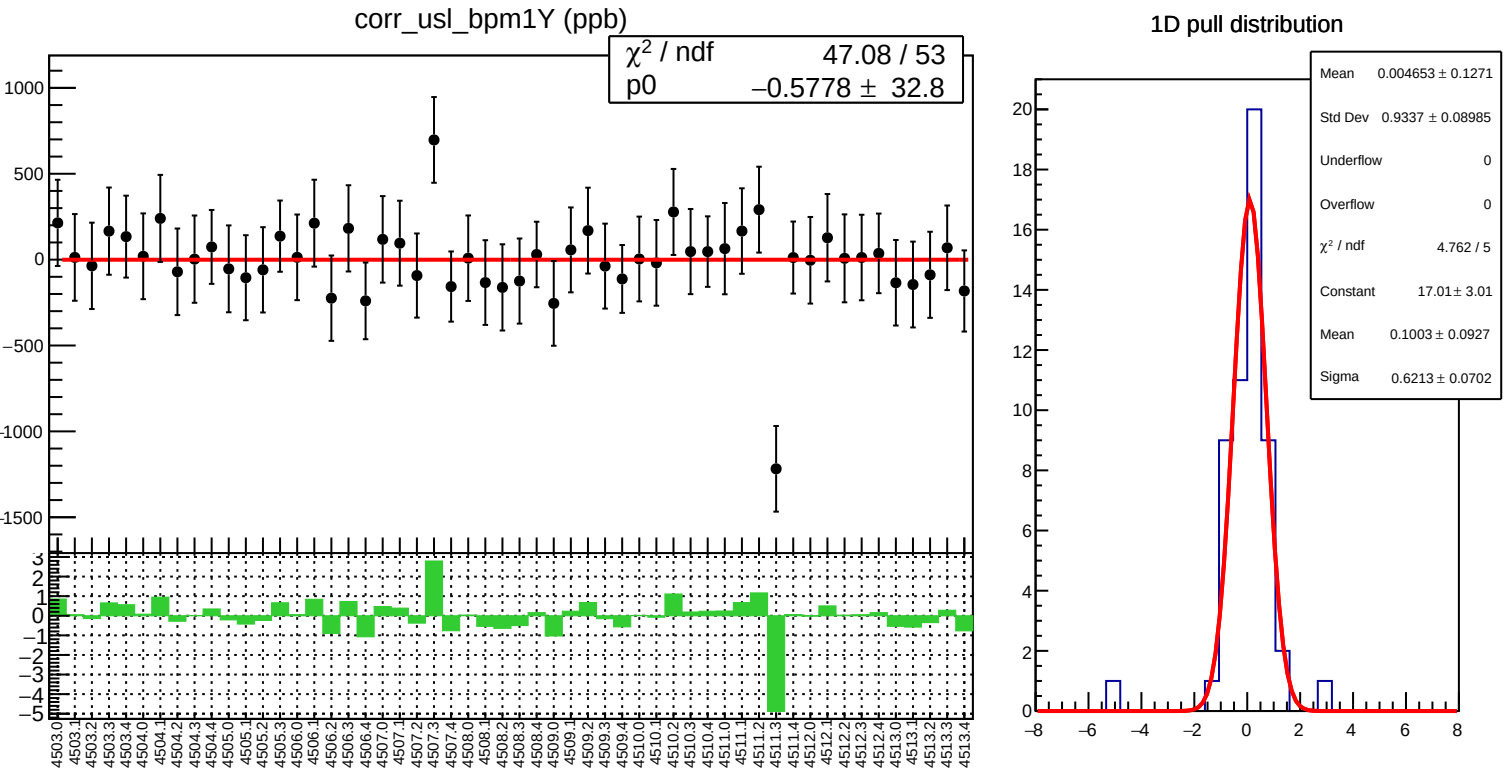

1D pull distribution
Mean −0.003913 ± 0.2478
Std Dev 1.821 ± 0.1753
Underflow 0
Overflow 0
χ² / ndf 11.83 / 10
Constant 6.401 ± 1.618
Mean 0.0238 ± 0.3370
Sigma 1.748 ± 0.430
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

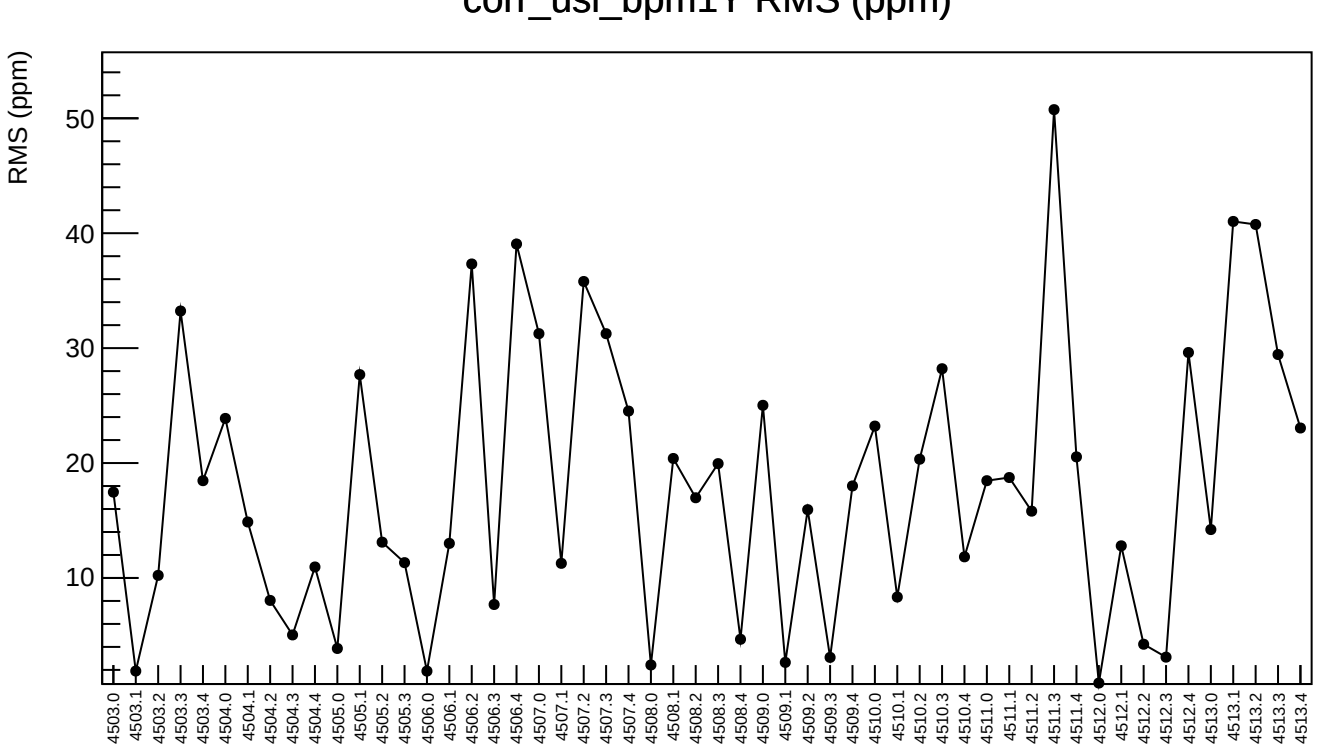

corr_usl_bpm4aY RMS (ppm)
RMS (ppm)
120
100
80
60
40
20
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

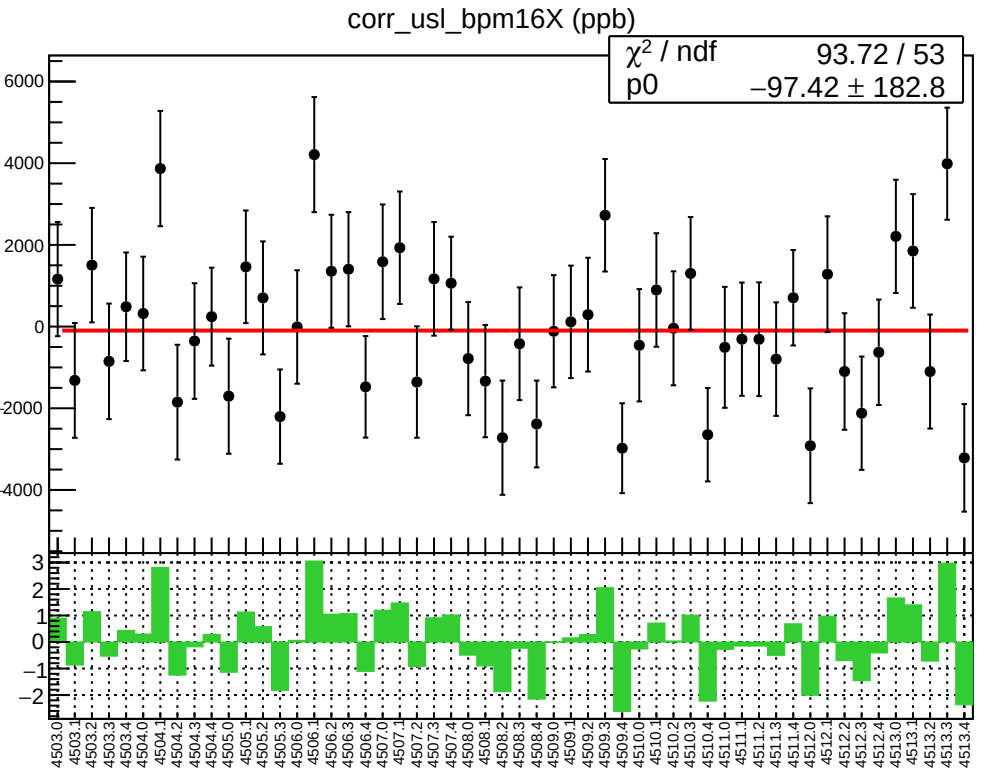

corr_usl_bpm1X (ppb)
χ² / ndf 121.3 / 53
p0 −287.8 ± 361.7
10000
5000
0
−5000
−10000
3
2
1
0
−1
−2
−3
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

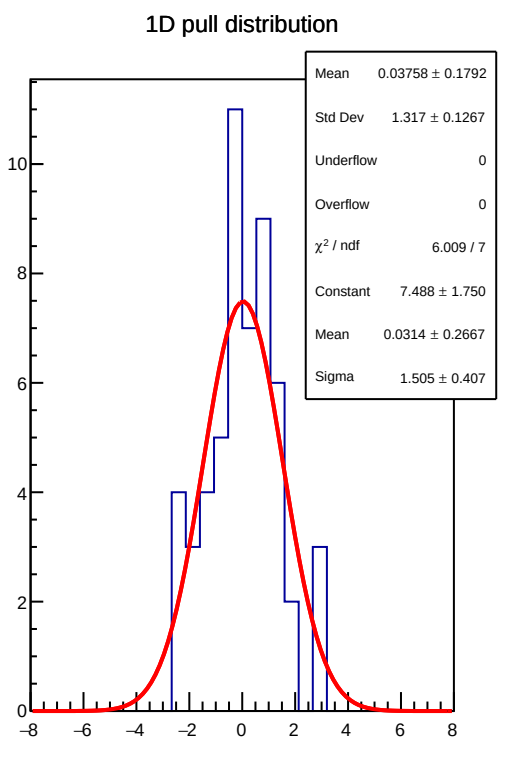

1D pull distribution
Mean 0.04406 ± 0.2038
Std Dev 1.498 ± 0.1441
Underflow 0
Overflow 0
χ² / ndf 8.553 / 9
Constant 6.016 ± 1.153
Mean 0.06347 ± 0.32624
Sigma 1.79 ± 0.32
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

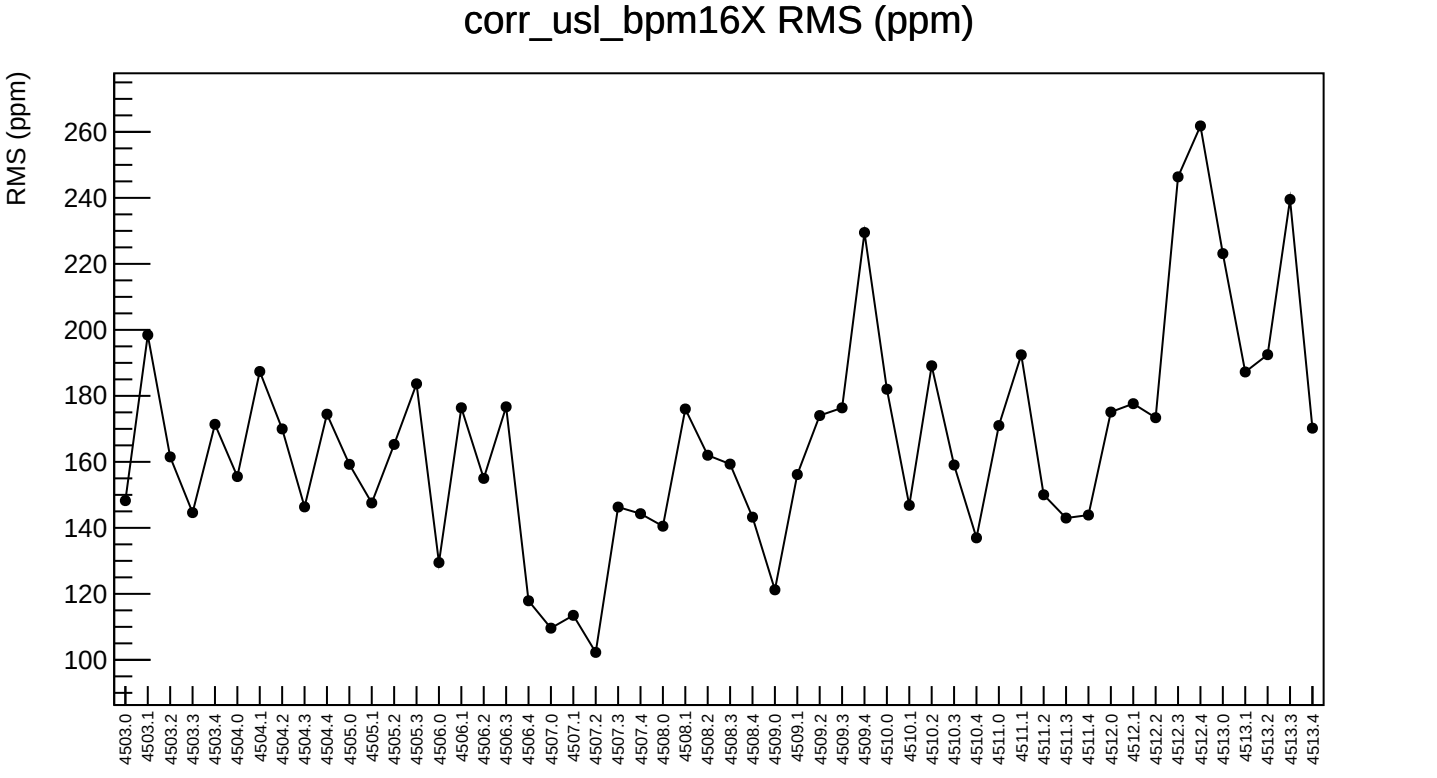

corr_usl_bpm1X RMS (ppm)
RMS (ppm)
500
450
400
350
300
250
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

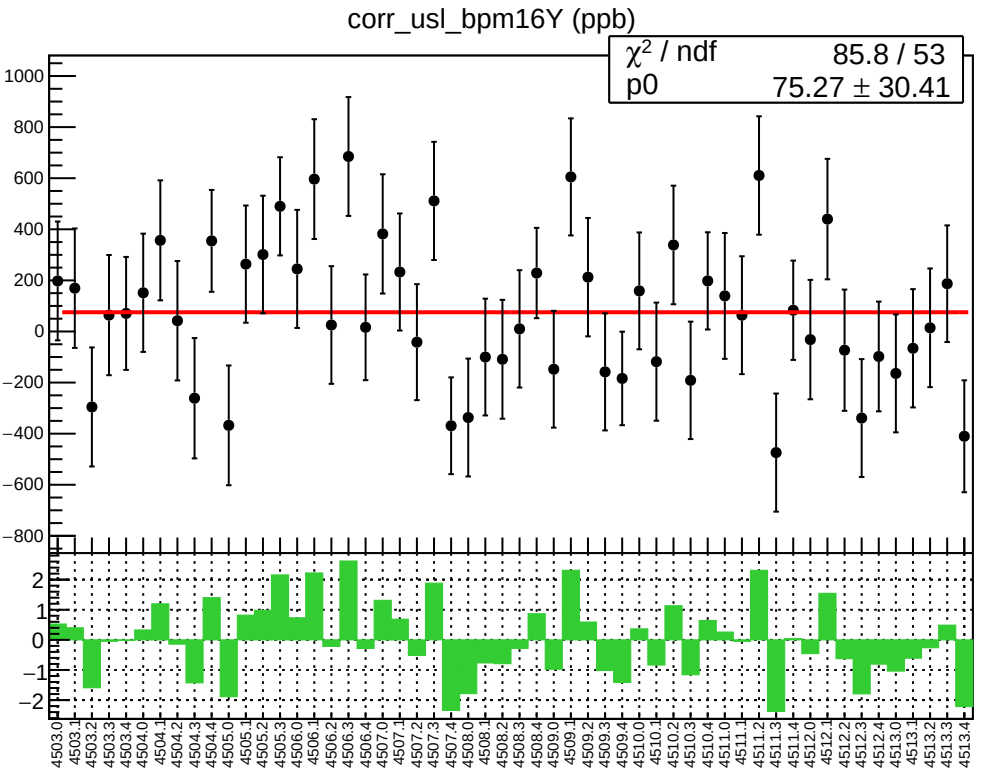

corr_usl_bpm1Y (ppb)
χ² / ndf 47.08 / 53
p0 −0.5778 ± 32.8
1000
500
0
−500
−1000
−1500
3
2
1
0
−1
−2
−3
−4
−5
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4
1D pull distribution
Mean 0.004653 ± 0.1271
Std Dev 0.9337 ± 0.08985
Underflow 0
Overflow 0
χ² / ndf 4.762 / 5
Constant 17.01 ± 3.01
Mean 0.1003 ± 0.0927
Sigma 0.6213 ± 0.0702
20
18
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

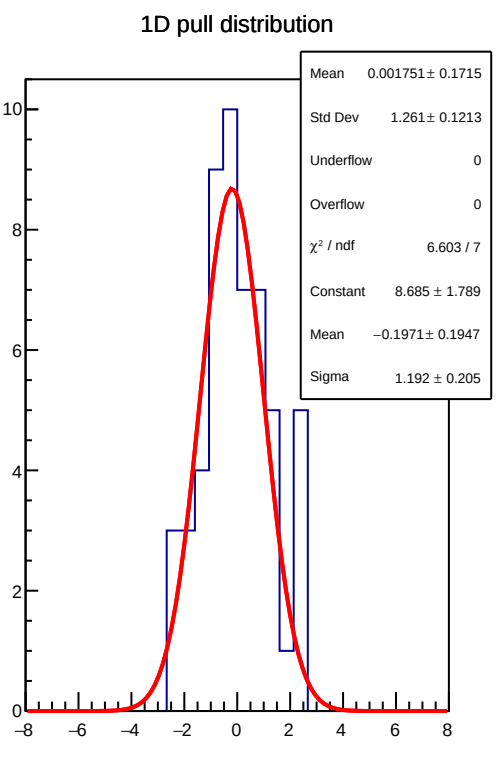

corr_usl_bpm1Y RMS (ppm)
RMS (ppm)
50
40
30
20
10
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

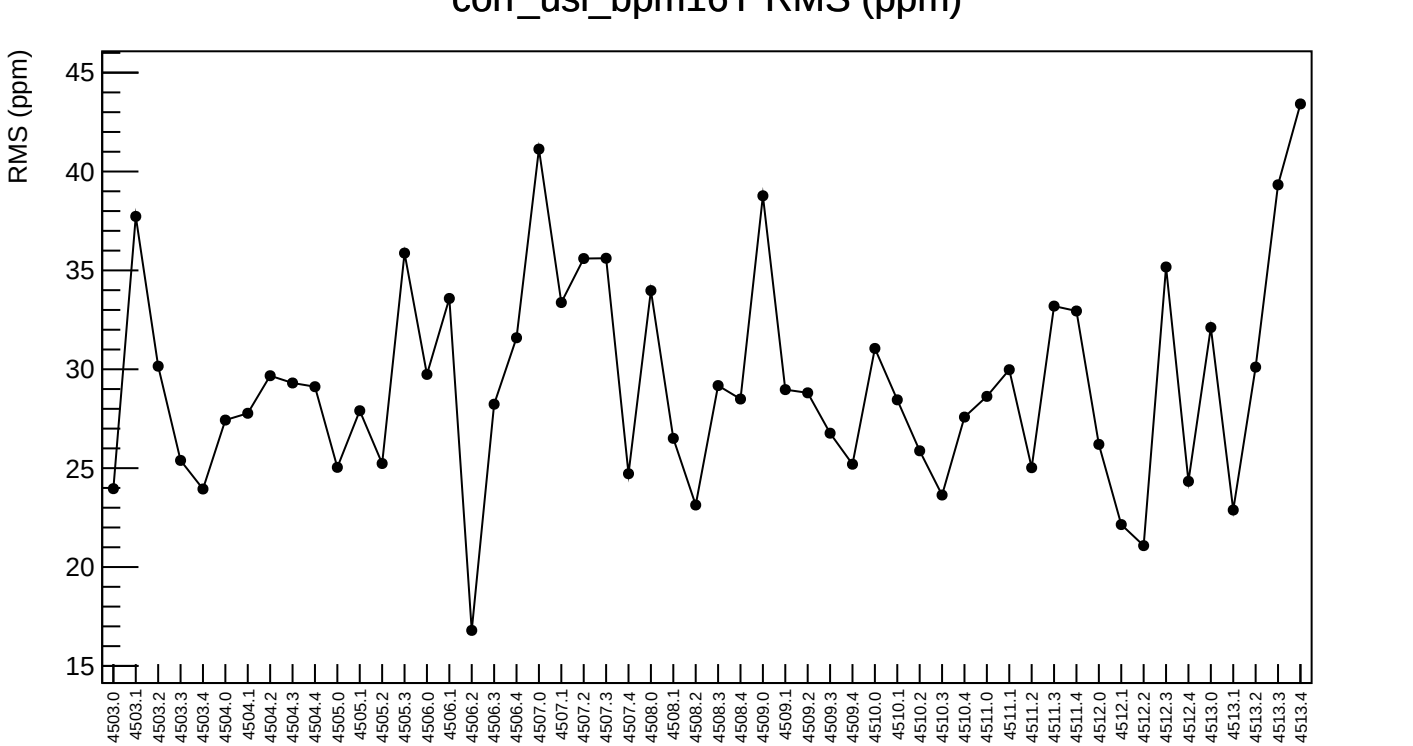

corr_usl_bpm16X (ppb)
χ² / ndf 93.72 / 53
p0 −97.42 ± 182.8
6000
4000
2000
0
-2000
-4000
3
2
1
0
−1
−2
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

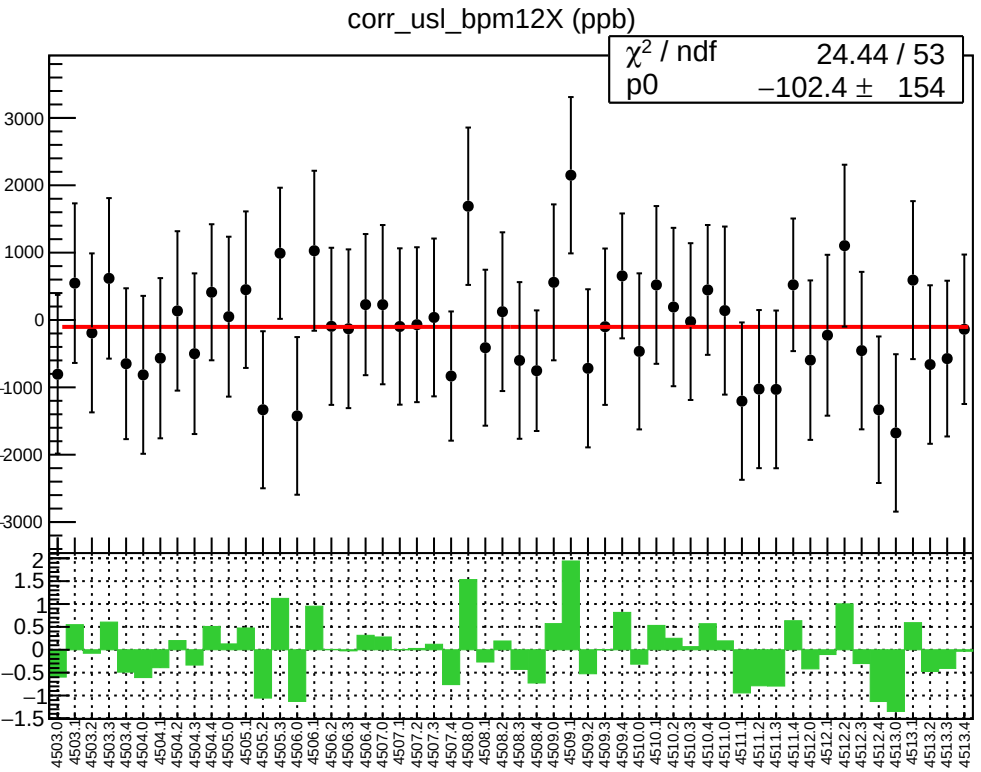

1D pull distribution
Mean 0.03758 ± 0.1792
Std Dev 1.317 ± 0.1267
Underflow 0
Overflow 0
χ² / ndf 6.009 / 7
Constant 7.488 ± 1.750
Mean 0.0314 ± 0.2667
Sigma 1.505 ± 0.407
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

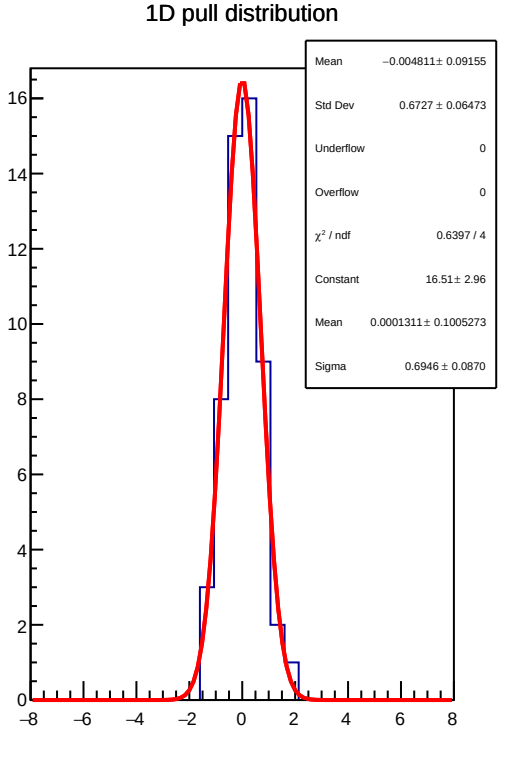

corr_usl_bpm16X RMS (ppm)
RMS (ppm)
260
240
220
200
180
160
140
120
100
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

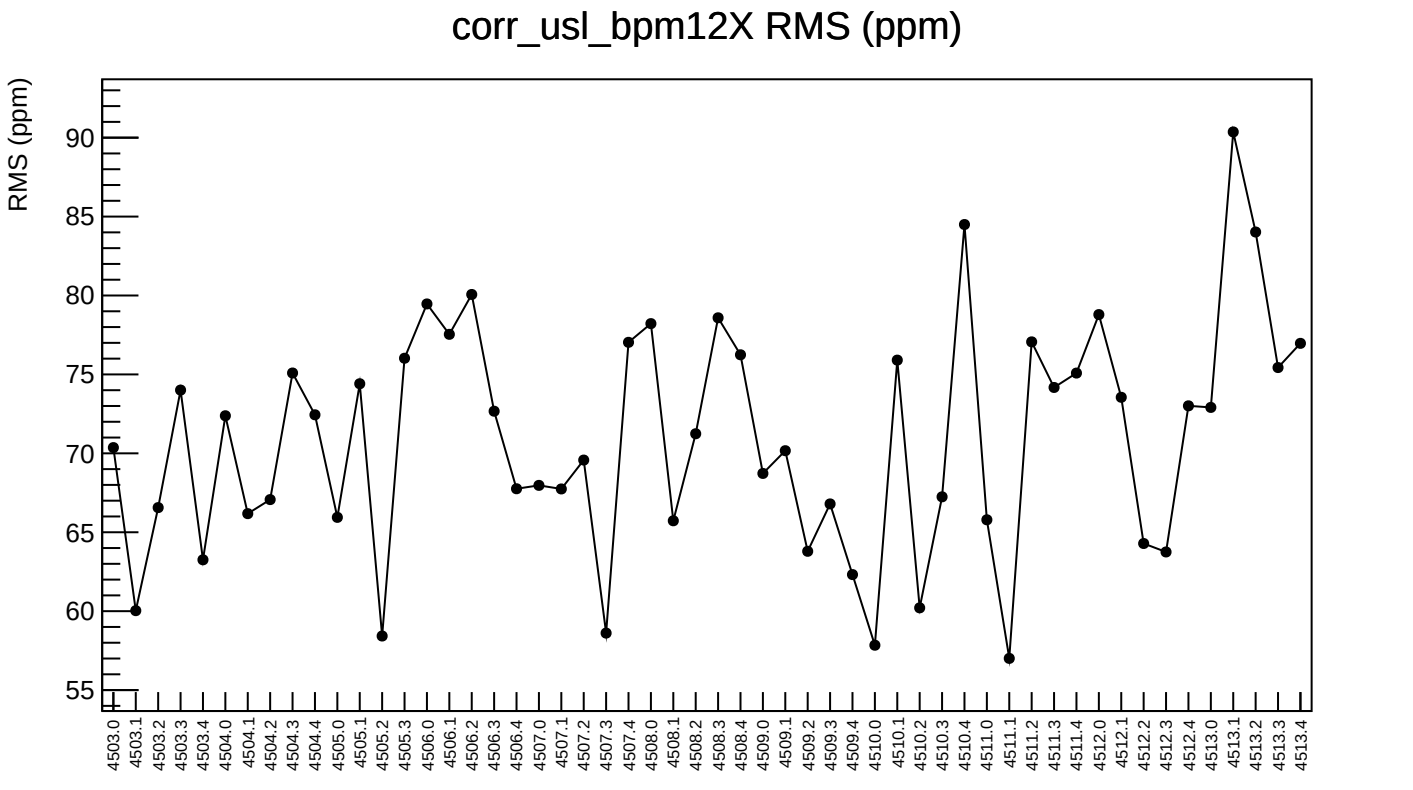

corr_usl_bpm16Y (ppb)
χ² / ndf 85.8 / 53
p0 75.27 ± 30.41

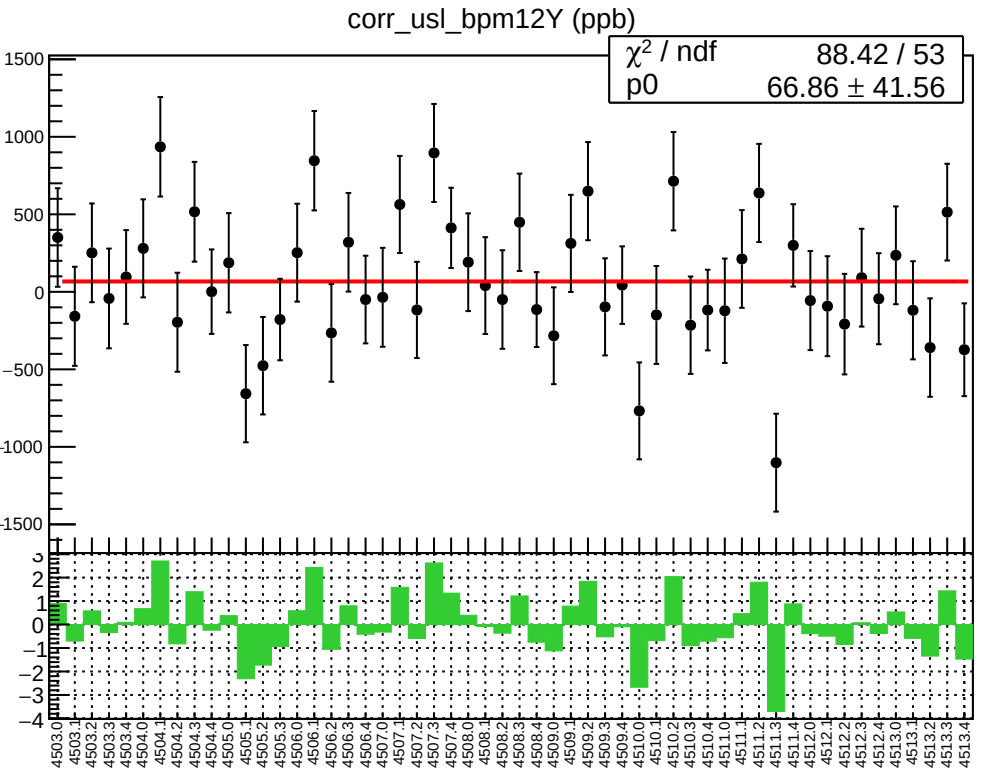

1D pull distribution
Mean 0.001751 ± 0.1715
Std Dev 1.261 ± 0.1213
Underflow 0
Overflow 0
χ² / ndf 6.603 / 7
Constant 8.685 ± 1.789
Mean −0.1971 ± 0.1947
Sigma 1.192 ± 0.205

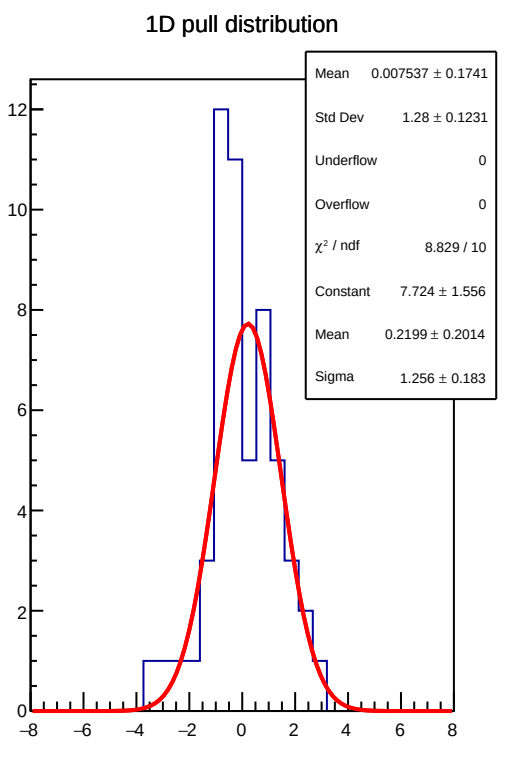

corr_usl_bpm16Y RMS (ppm)
RMS (ppm)
45
40
35
30
25
20
15
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

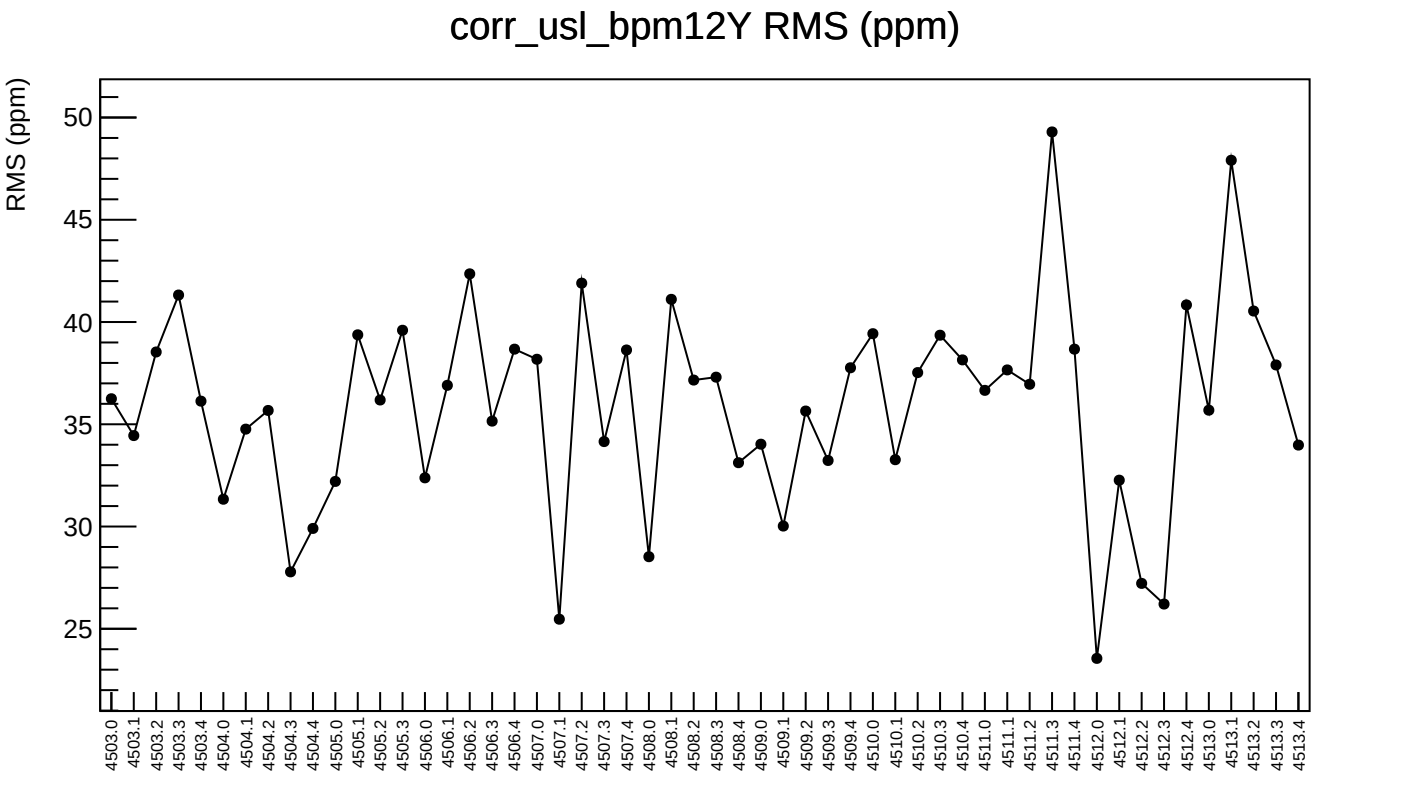

corr_usl_bpm12X (ppb)
χ² / ndf 24.44 / 53
p0 −102.4 ± 154
3000
2000
1000
0
-1000
-2000
-3000
2
1.5
1
0.5
0
−0.5
−1
−1.5
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

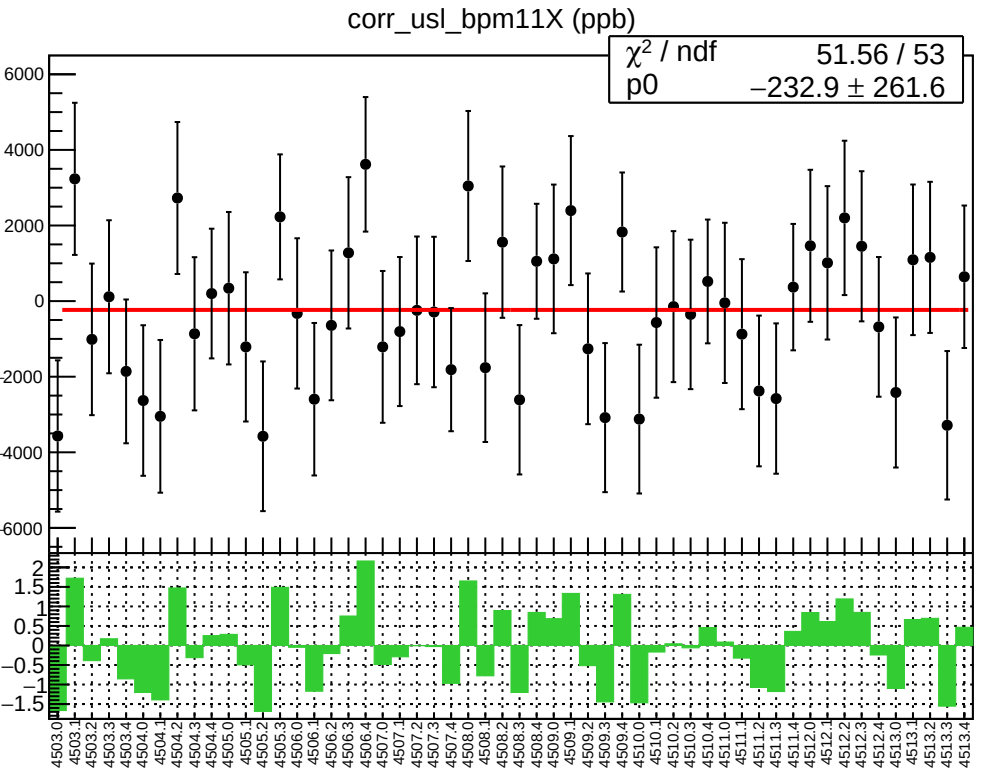

1D pull distribution
Mean −0.004811± 0.09155
Std Dev 0.6727 ± 0.06473
Underflow 0
Overflow 0
χ² / ndf 0.6397 / 4
Constant 16.51± 2.96
Mean 0.0001311± 0.1005273
Sigma 0.6946 ± 0.0870
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

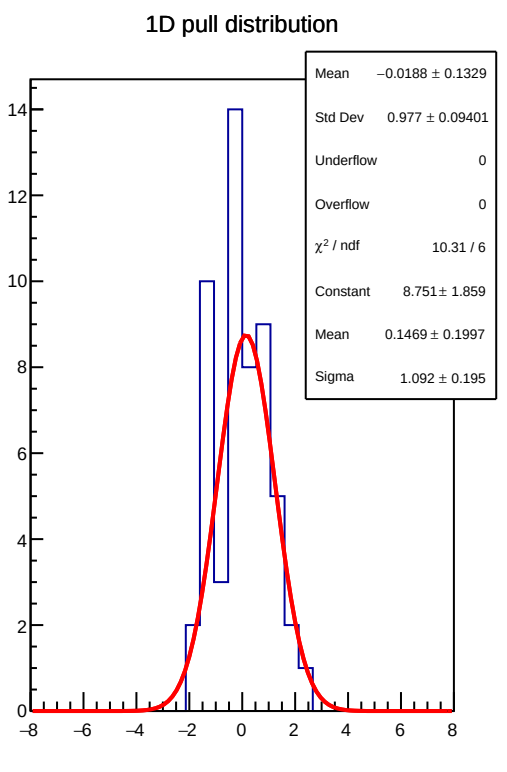

corr_usl_bpm12X RMS (ppm)
RMS (ppm)
90
85
80
75
70
65
60
55
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

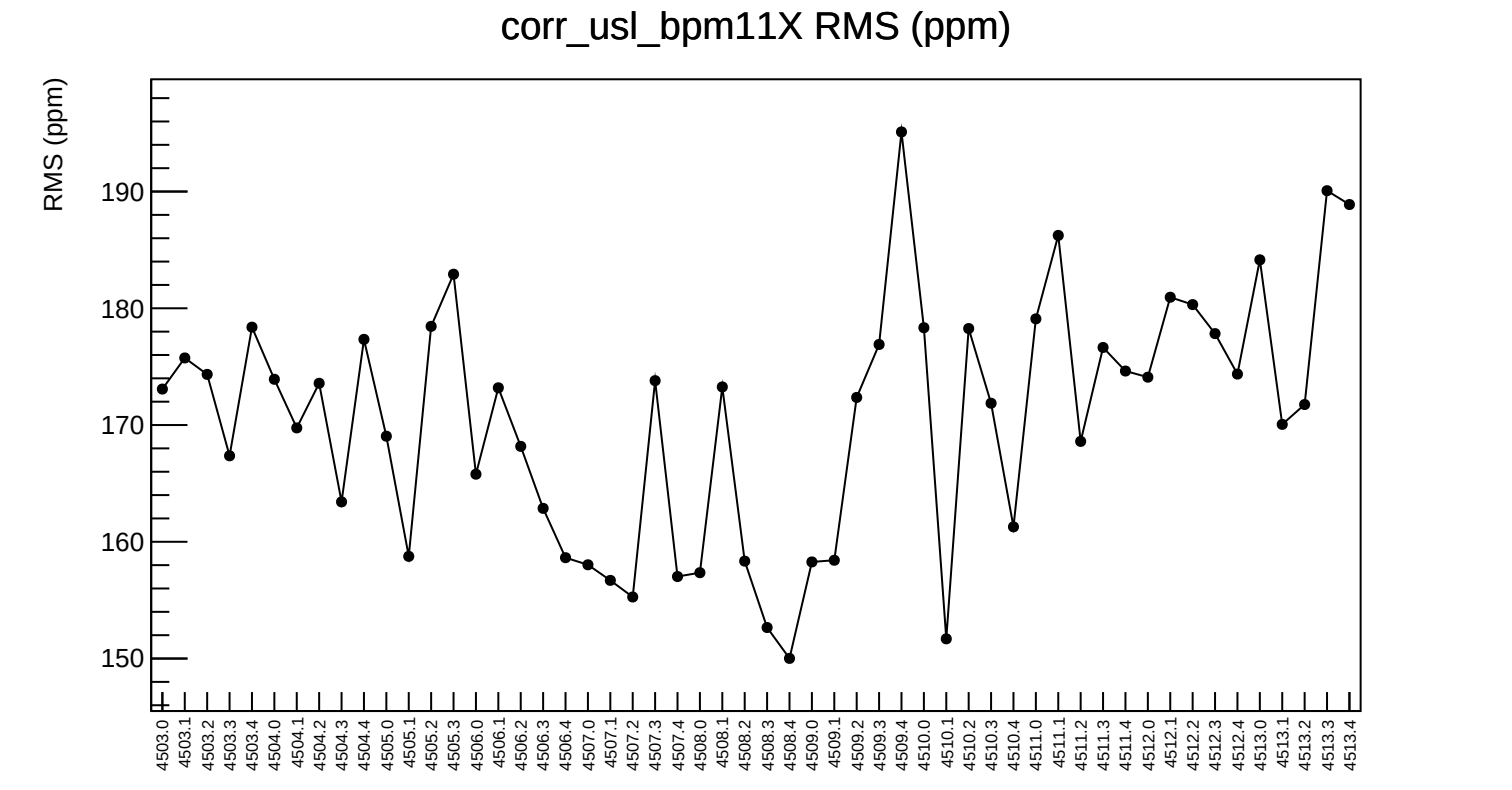

corr_usl_bpm12Y (ppb)
χ² / ndf 88.42 / 53
p0 66.86 ± 41.56

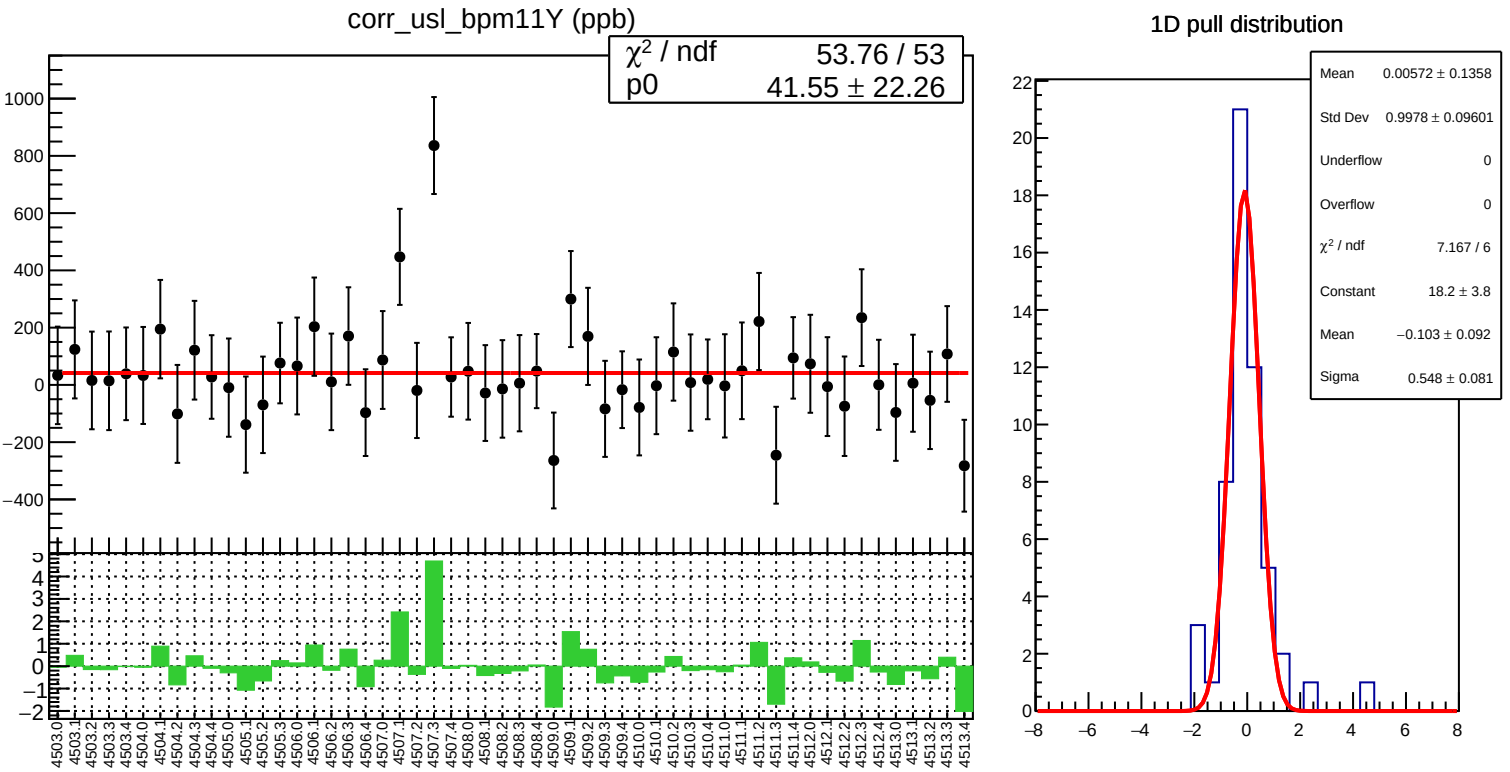

1D pull distribution
Mean 0.007537 ± 0.1741
Std Dev 1.28 ± 0.1231
Underflow 0
Overflow 0
χ² / ndf 8.829 / 10
Constant 7.724 ± 1.556
Mean 0.2199 ± 0.2014
Sigma 1.256 ± 0.183

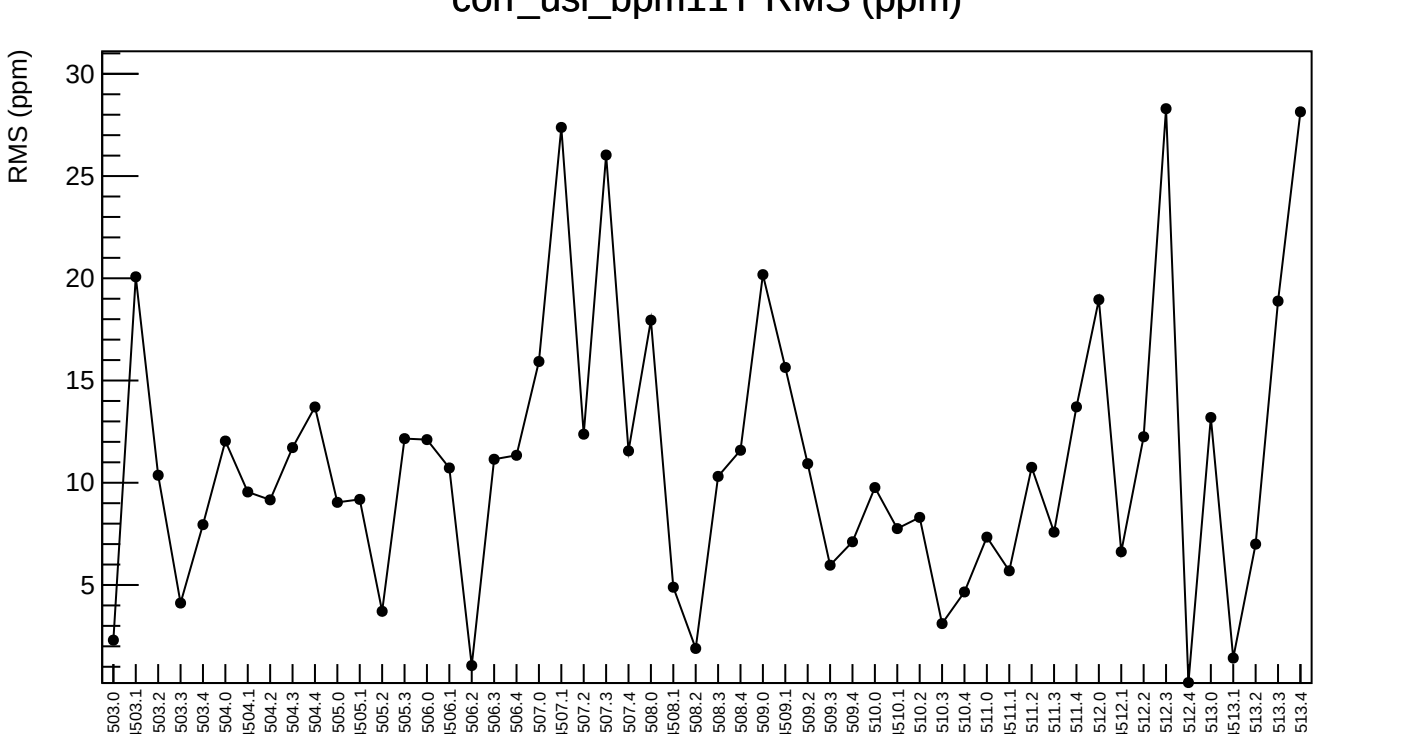

corr_usl_bpm12Y RMS (ppm)
RMS (ppm)
50
45
40
35
30
25
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

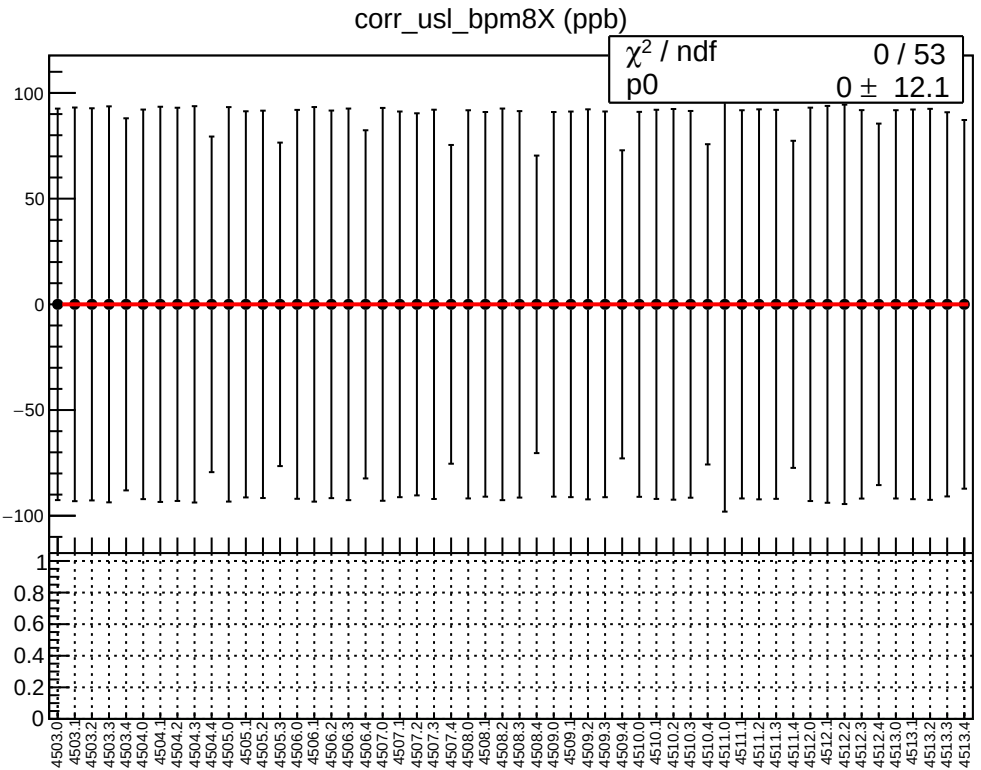

corr_usl_bpm11X (ppb)
χ² / ndf 51.56 / 53
p0 −232.9 ± 261.6
6000
4000
2000
0
-2000
-4000
-6000
2
1.5
1
0.5
0
−0.5
−1
−1.5
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

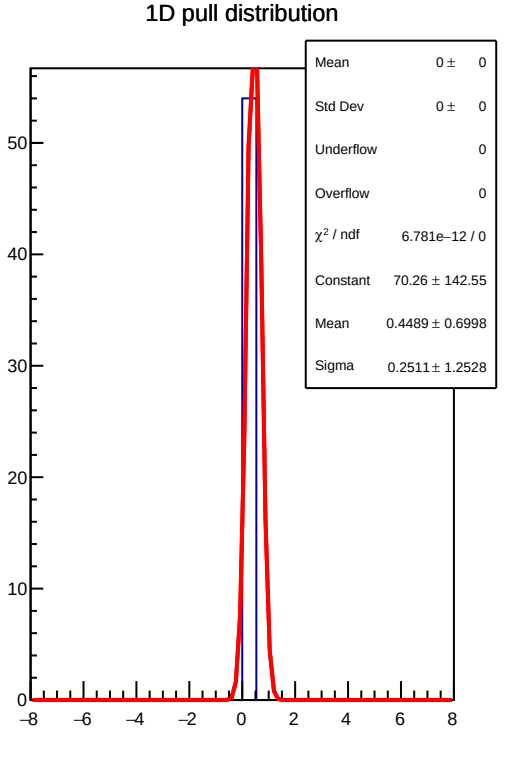

1D pull distribution
Mean −0.0188 ± 0.1329
Std Dev 0.977 ± 0.09401
Underflow 0
Overflow 0
χ² / ndf 10.31 / 6
Constant 8.751 ± 1.859
Mean 0.1469 ± 0.1997
Sigma 1.092 ± 0.195
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

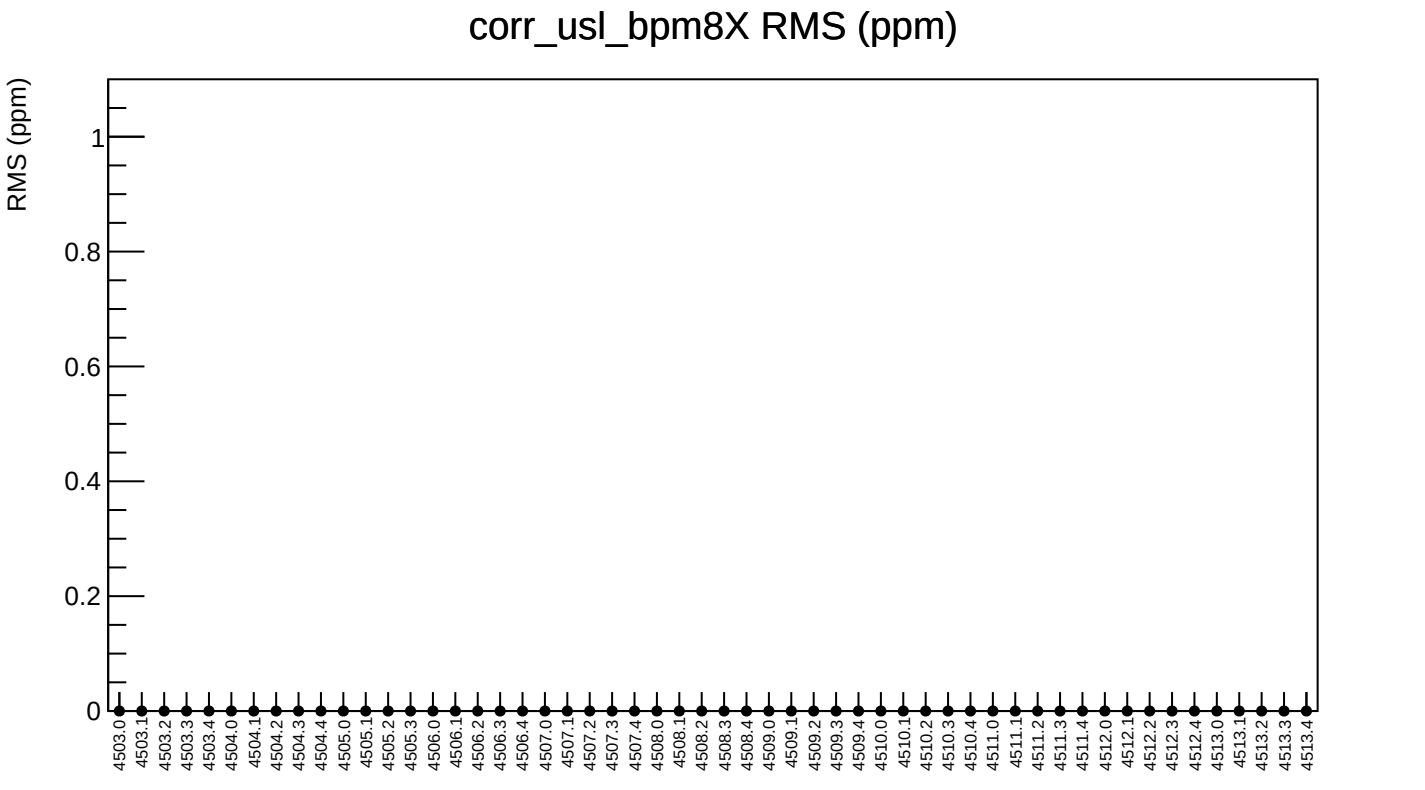

corr_usl_bpm11X RMS (ppm)
RMS (ppm)
190
180
170
160
150
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

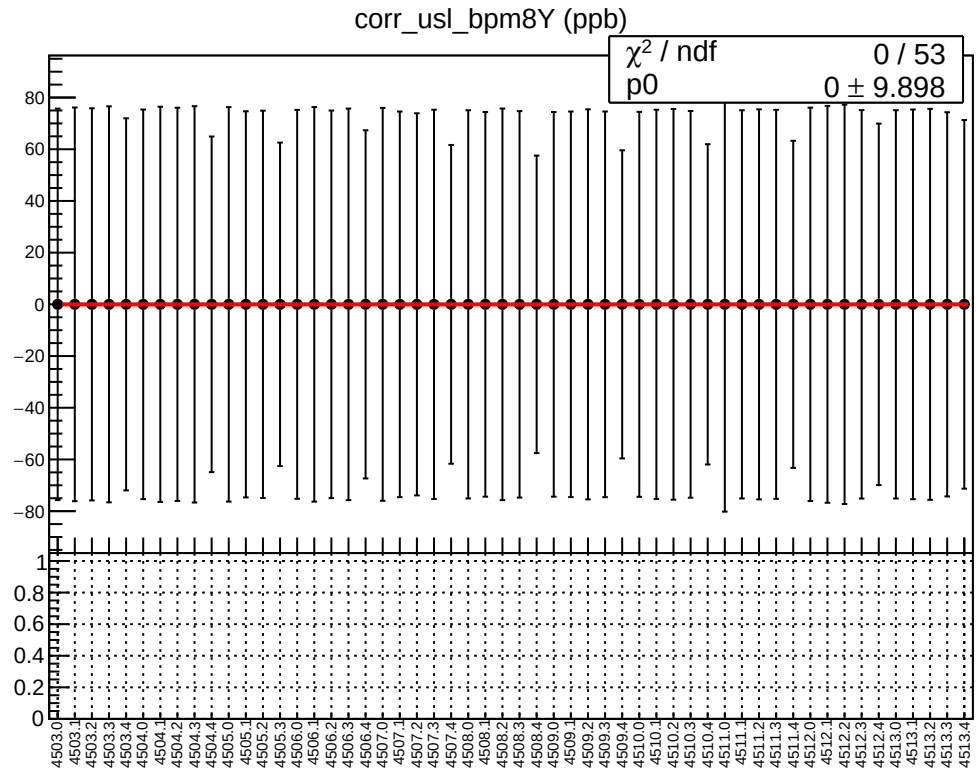

corr_usl_bpm11Y (ppb)
χ² / ndf 53.76 / 53
p0 41.55 ± 22.26
1000
800
600
400
200
0
−200
−400
5
4
3
2
1
0
−1
−2
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4
1D pull distribution
Mean 0.00572 ± 0.1358
Std Dev 0.9978 ± 0.09601
Underflow 0
Overflow 0
χ² / ndf 7.167 / 6
Constant 18.2 ± 3.8
Mean −0.103 ± 0.092
Sigma 0.548 ± 0.081
22
20
18
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

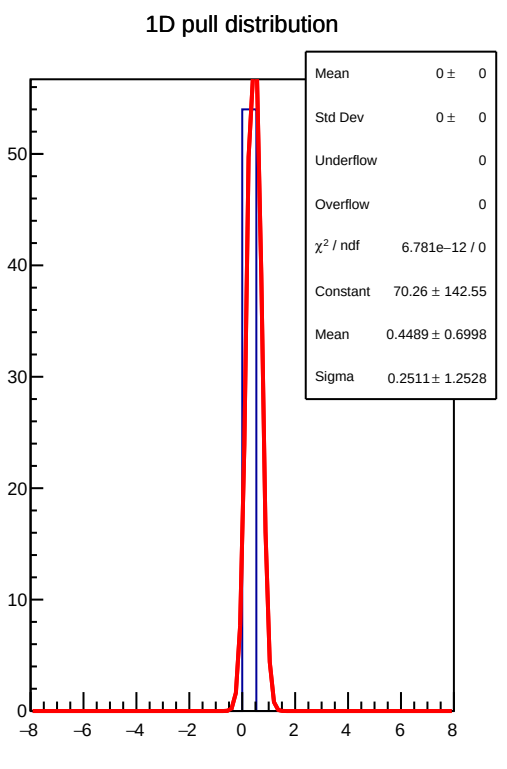

corr_usl_bpm11Y RMS (ppm)
RMS (ppm)
30
25
20
15
10
5
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

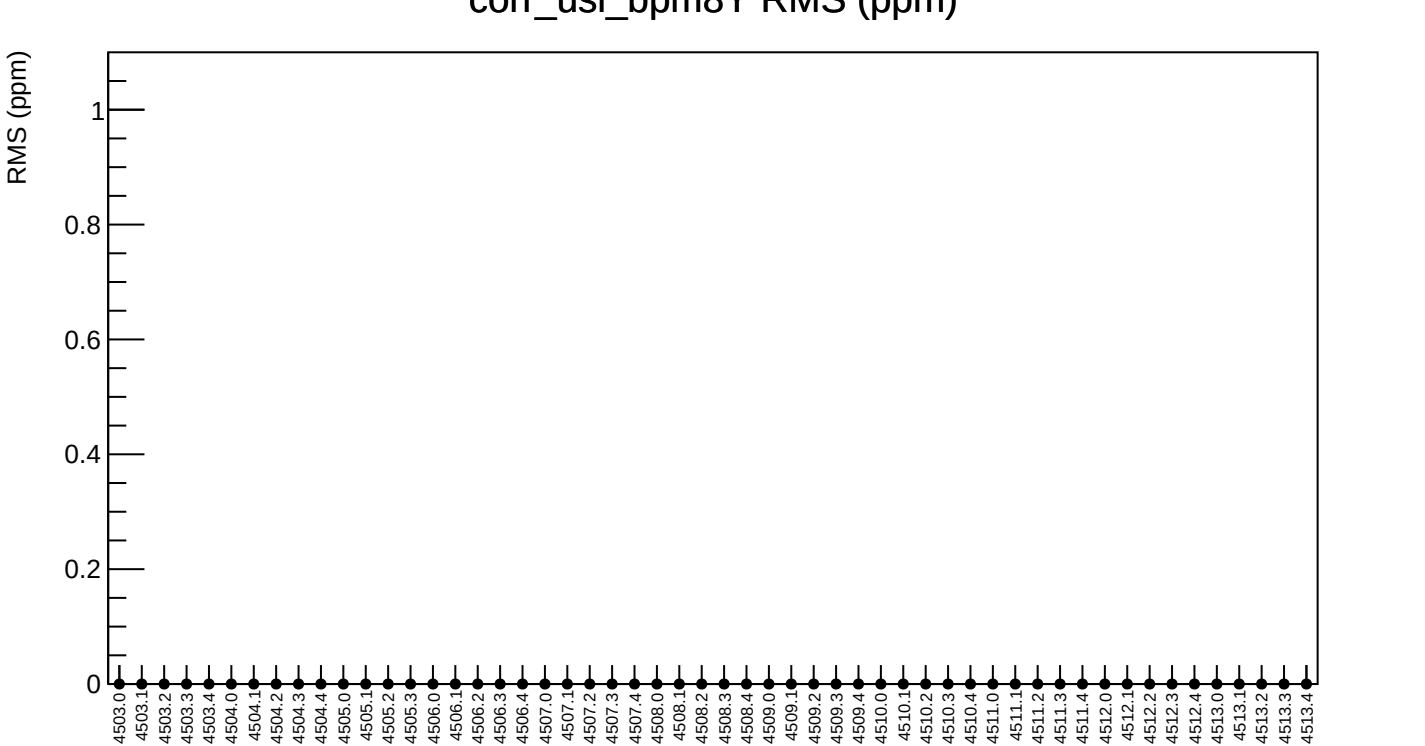

corr_usl_bpm8X (ppb)
χ² / ndf 0 / 53
p0 0 ± 12.1
100
50
0
−50
−100
1
0.8
0.6
0.4
0.2
0
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

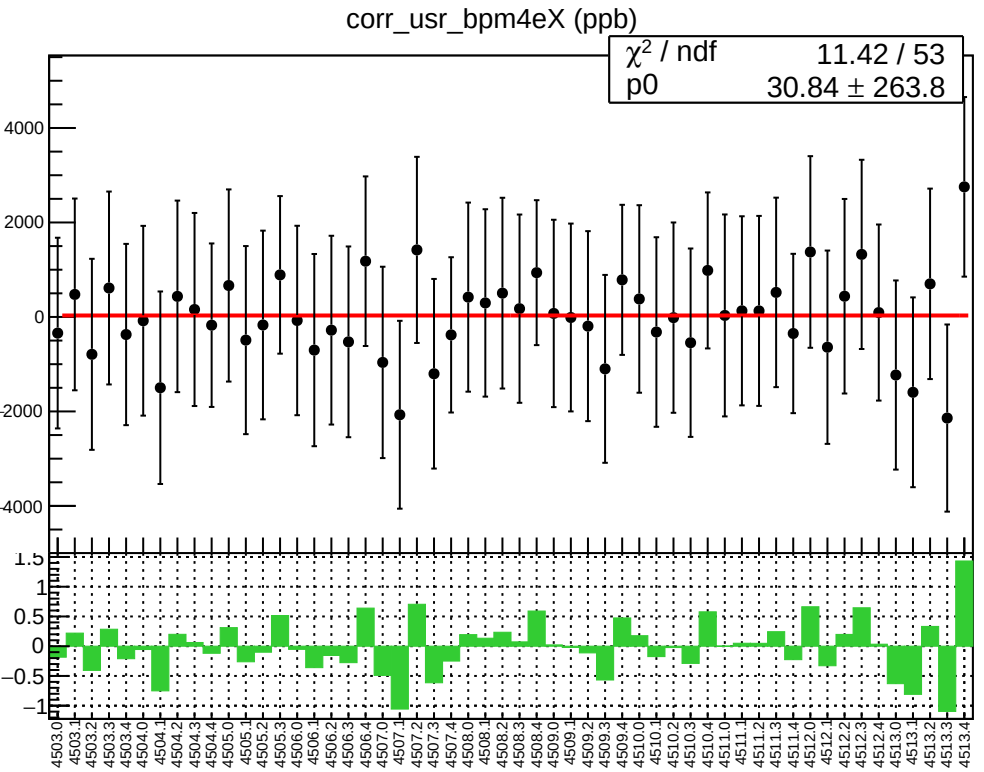

1D pull distribution
Mean 0 ± 0
Std Dev 0 ± 0
Underflow 0
Overflow 0
χ² / ndf 6.781e−12 / 0
Constant 70.26 ± 142.55
Mean 0.4489 ± 0.6998
Sigma 0.2511 ± 1.2528
50
40
30
20
10
0
−8
−6
−4
−2
0
2
4
6
8

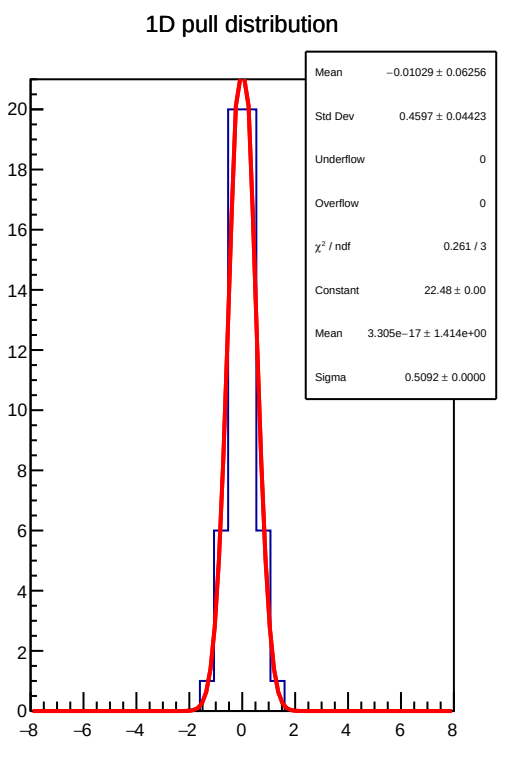

corr_usl_bpm8X RMS (ppm)
RMS (ppm)
1
0.8
0.6
0.4
0.2
0
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

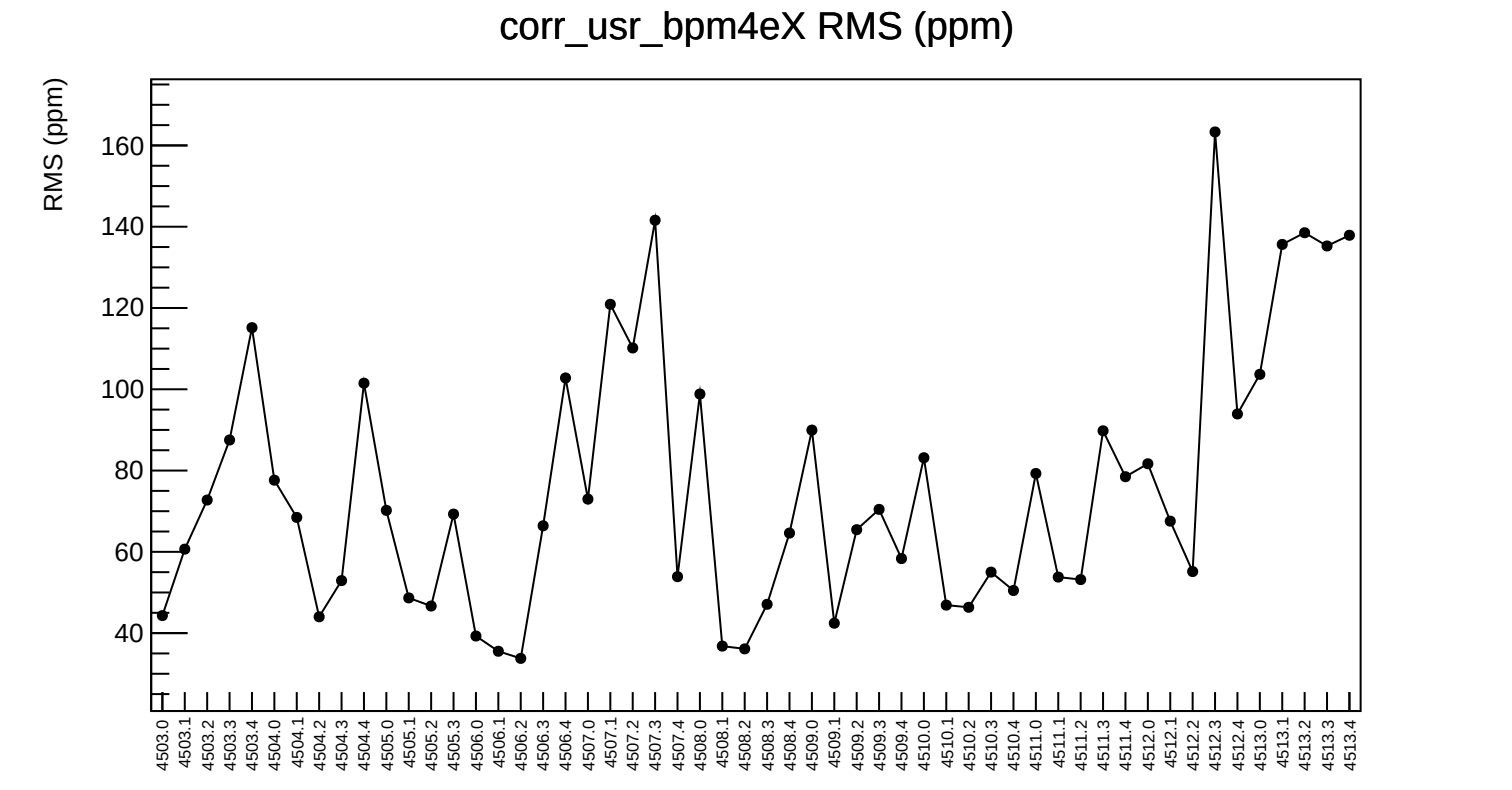

corr_usl_bpm8Y (ppb)
χ² / ndf 0 / 53
p0 0 ± 9.898

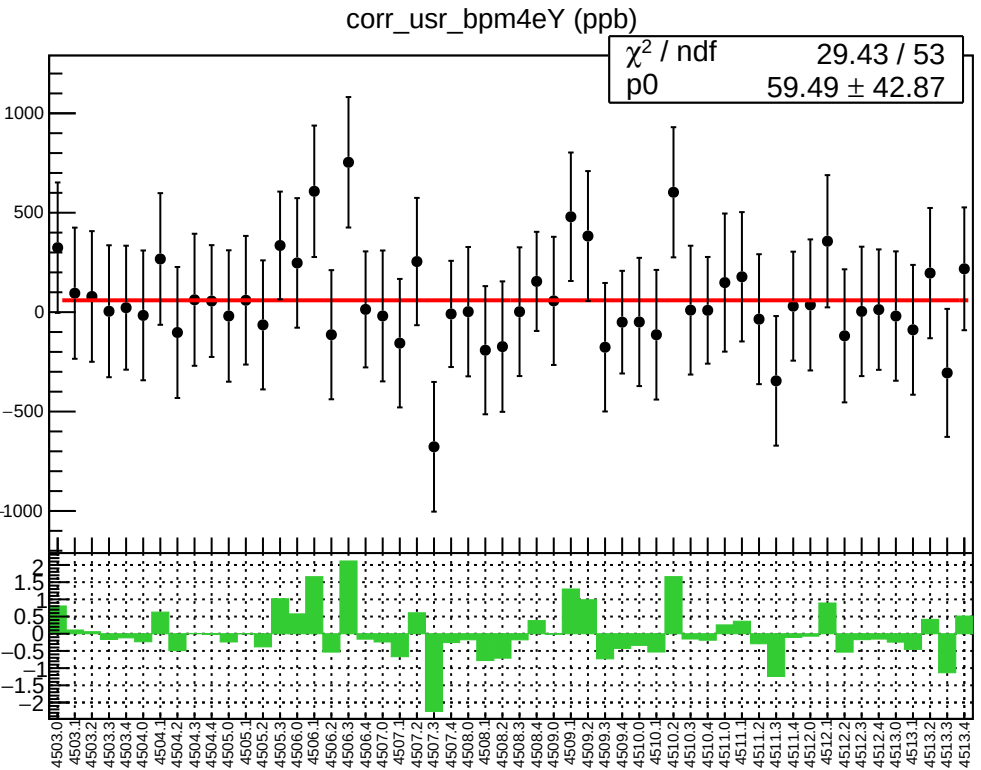

1D pull distribution
Mean 0 ± 0
Std Dev 0 ± 0
Underflow 0
Overflow 0
χ² / ndf 6.781e−12 / 0
Constant 70.26 ± 142.55
Mean 0.4489 ± 0.6998
Sigma 0.2511 ± 1.2528

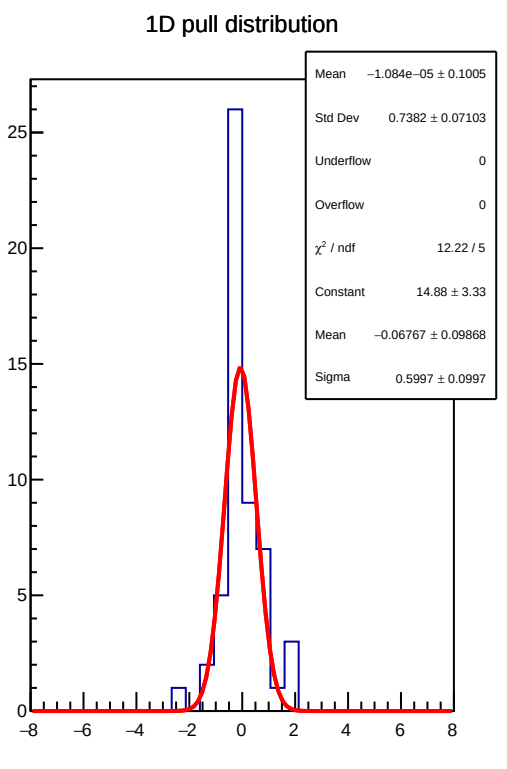

corr_usl_bpm8Y RMS (ppm)
RMS (ppm)
1
0.8
0.6
0.4
0.2
0
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

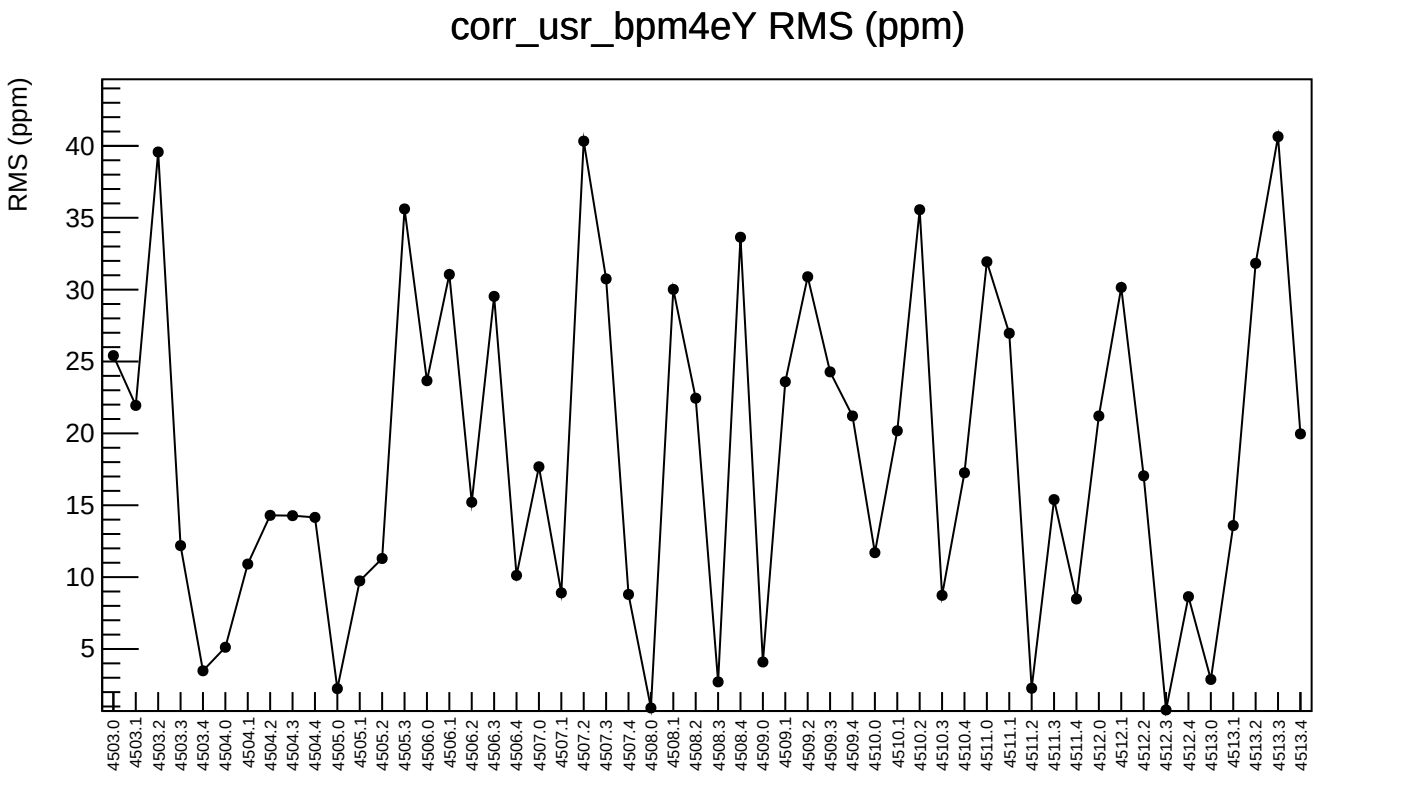

corr_usr_bpm4eX (ppb)
χ² / ndf 11.42 / 53
p0 30.84 ± 263.8
4000
2000
0
-2000
-4000
1.5
1
0.5
0
−0.5
−1
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

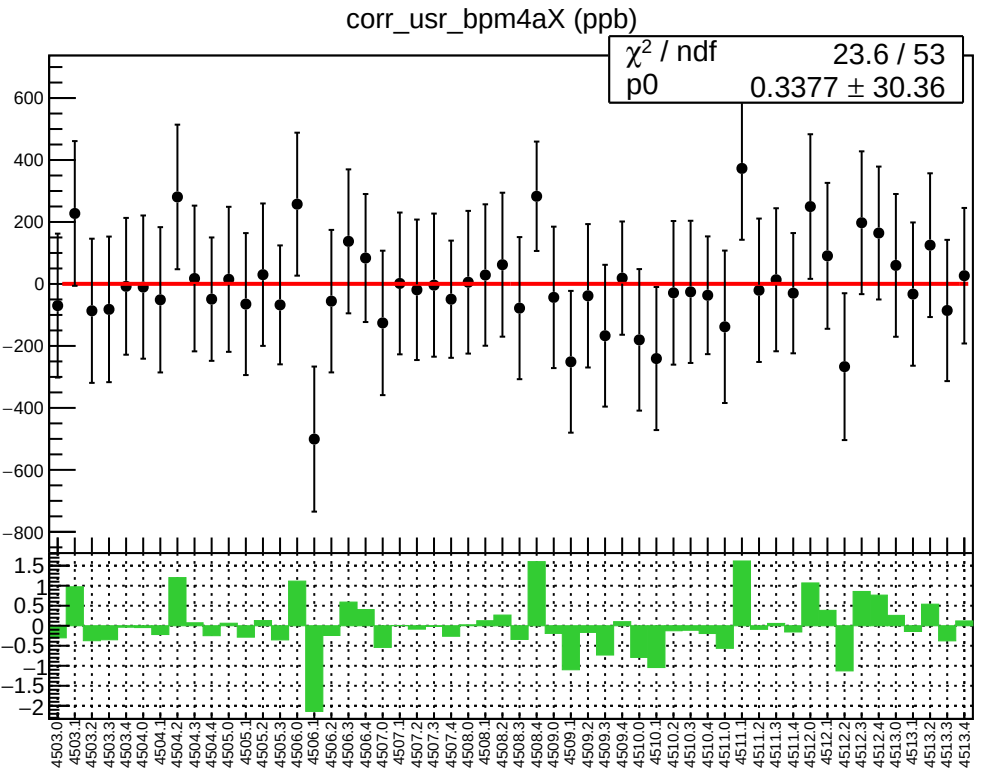

1D pull distribution
Mean −0.01029 ± 0.06256
Std Dev 0.4597 ± 0.04423
Underflow 0
Overflow 0
χ² / ndf 0.261 / 3
Constant 22.48 ± 0.00
Mean 3.305e−17 ± 1.414e+00
Sigma 0.5092 ± 0.0000
20
18
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

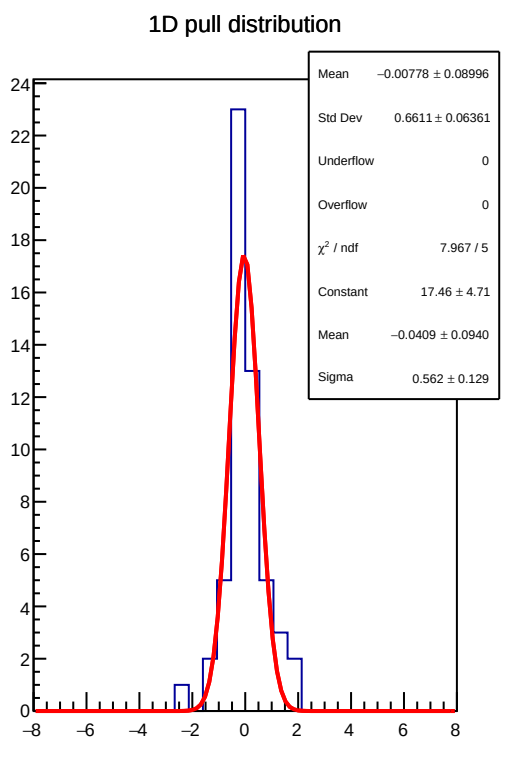

corr_usr_bpm4eX RMS (ppm)
RMS (ppm)
160
140
120
100
80
60
40
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

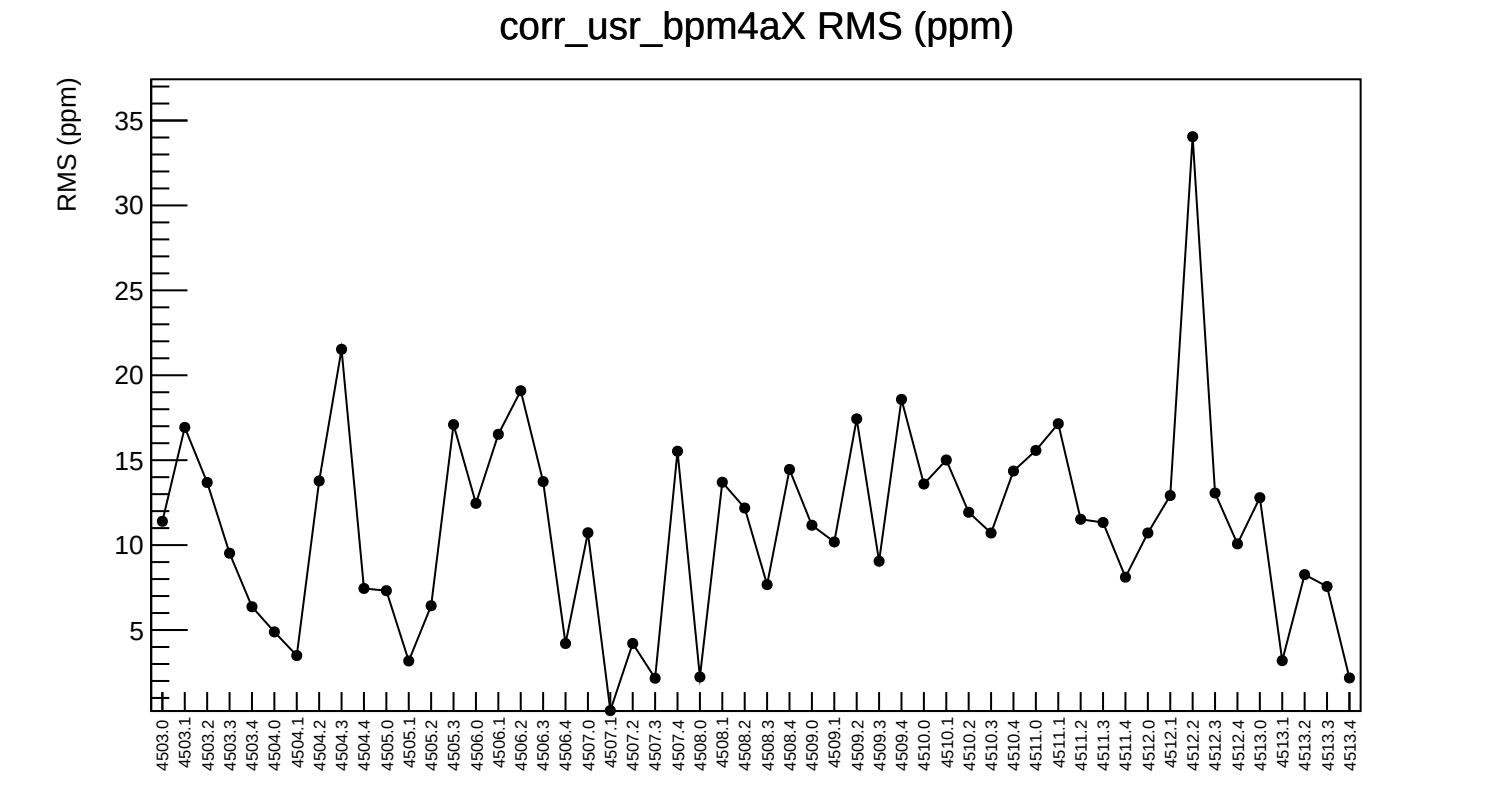

corr_usr_bpm4eY (ppb)
χ² / ndf 29.43 / 53
p0 59.49 ± 42.87
1000
500
0
−500
−1000
2
1.5
1
0.5
0
−0.5
−1
−1.5
−2
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

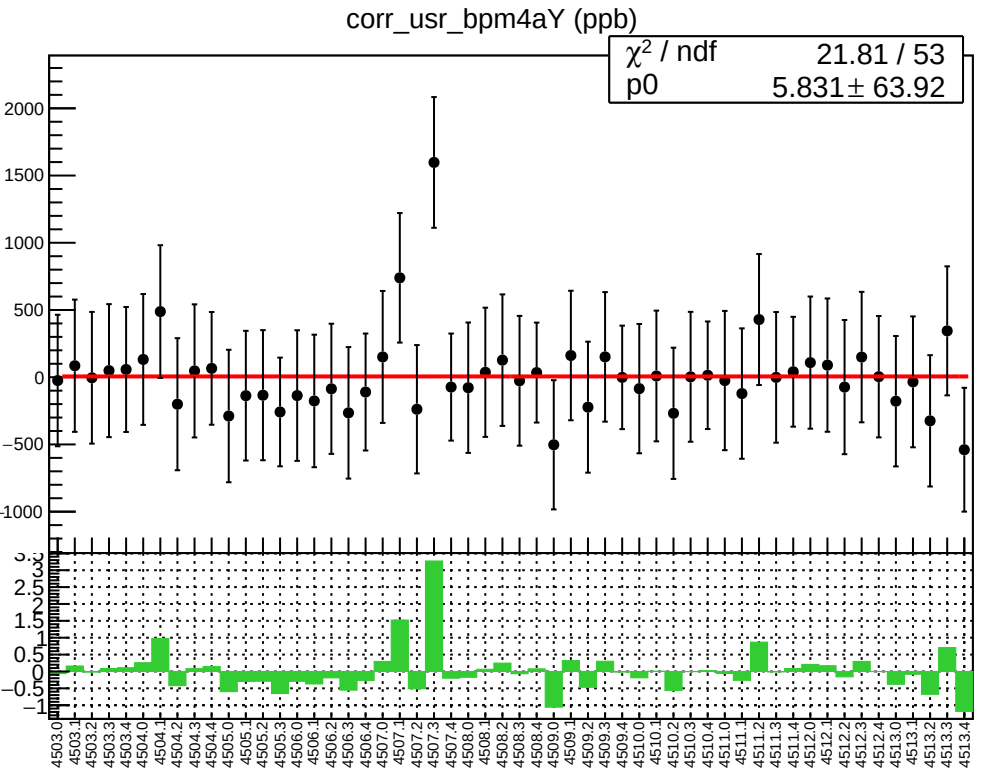

1D pull distribution
Mean −1.084e−05 ± 0.1005
Std Dev 0.7382 ± 0.07103
Underflow 0
Overflow 0
χ² / ndf 12.22 / 5
Constant 14.88 ± 3.33
Mean −0.06767 ± 0.09868
Sigma 0.5997 ± 0.0997
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

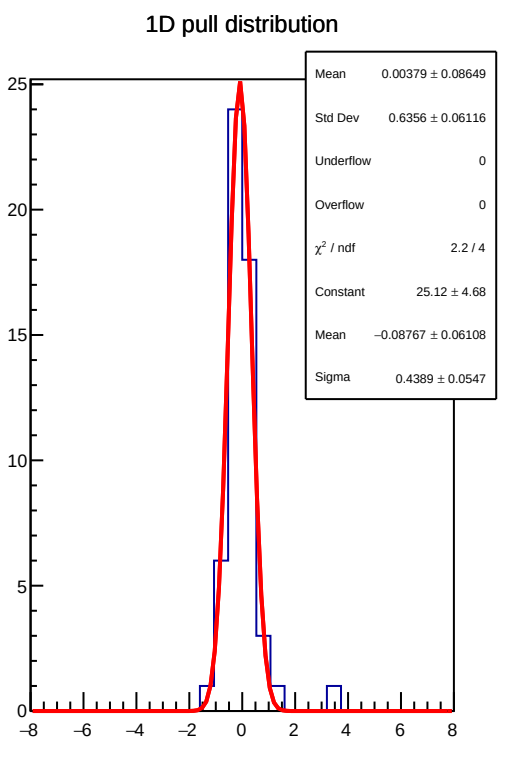

corr_usr_bpm4eY RMS (ppm)
RMS (ppm)
40
35
30
25
20
15
10
5
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

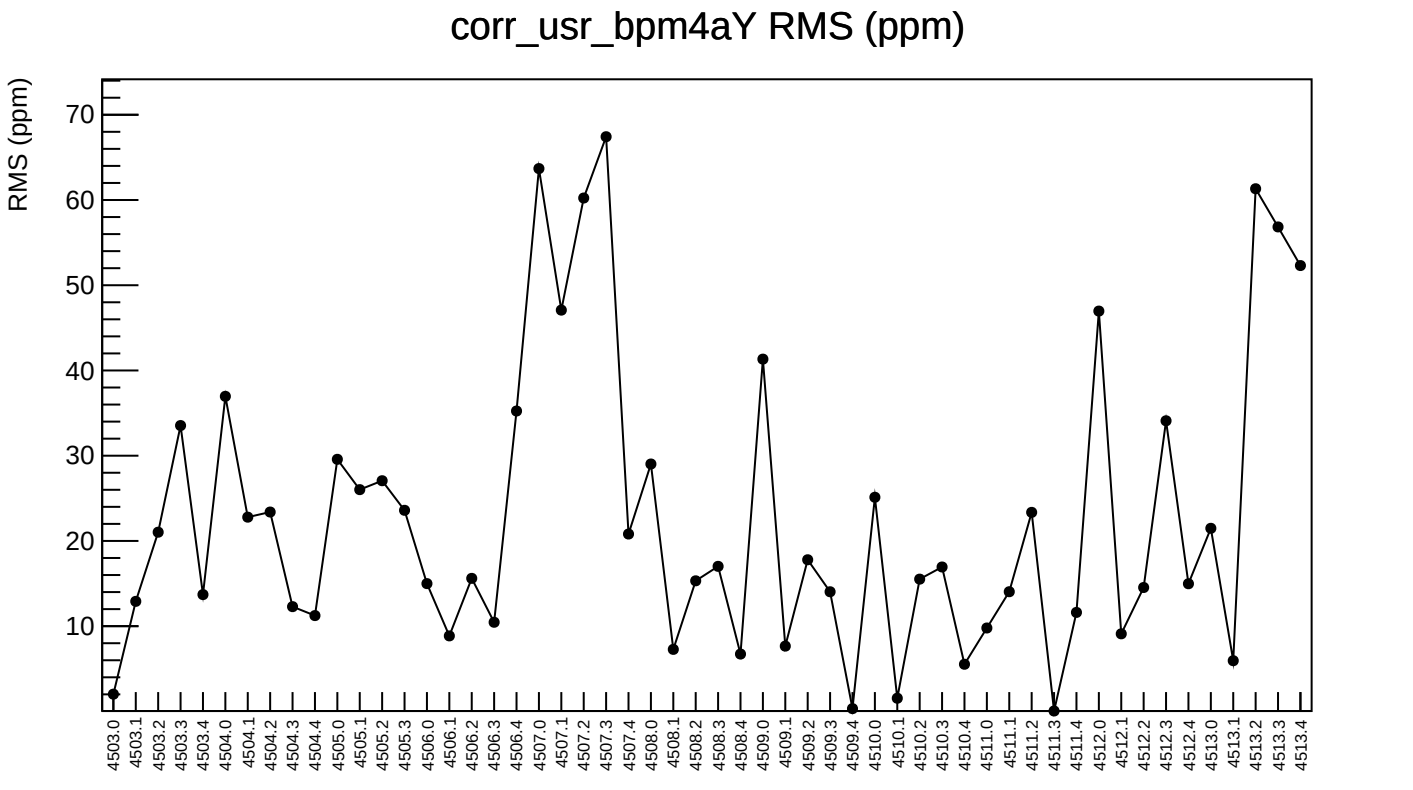

corr_usr_bpm4aX (ppb)
χ² / ndf 23.6 / 53
p0 0.3377 ± 30.36
600
400
200
0
−200
−400
−600
−800
1.5
1
0.5
0
−0.5
−1
−1.5
−2
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

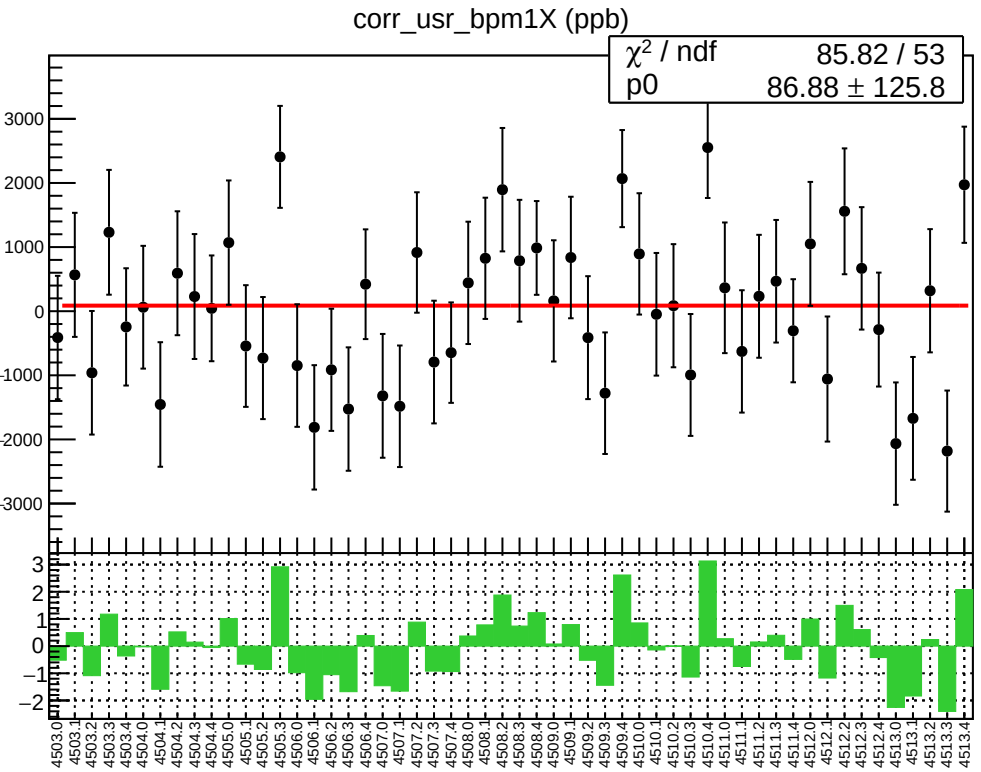

1D pull distribution
Mean −0.00778 ± 0.08996
Std Dev 0.6611 ± 0.06361
Underflow 0
Overflow 0
χ² / ndf 7.967 / 5
Constant 17.46 ± 4.71
Mean −0.0409 ± 0.0940
Sigma 0.562 ± 0.129
24
22
20
18
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

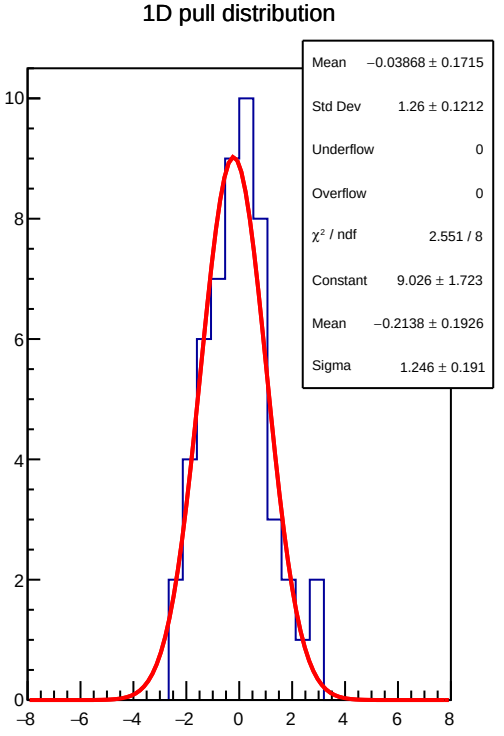

corr_usr_bpm4aX RMS (ppm)
RMS (ppm)
35
30
25
20
15
10
5
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

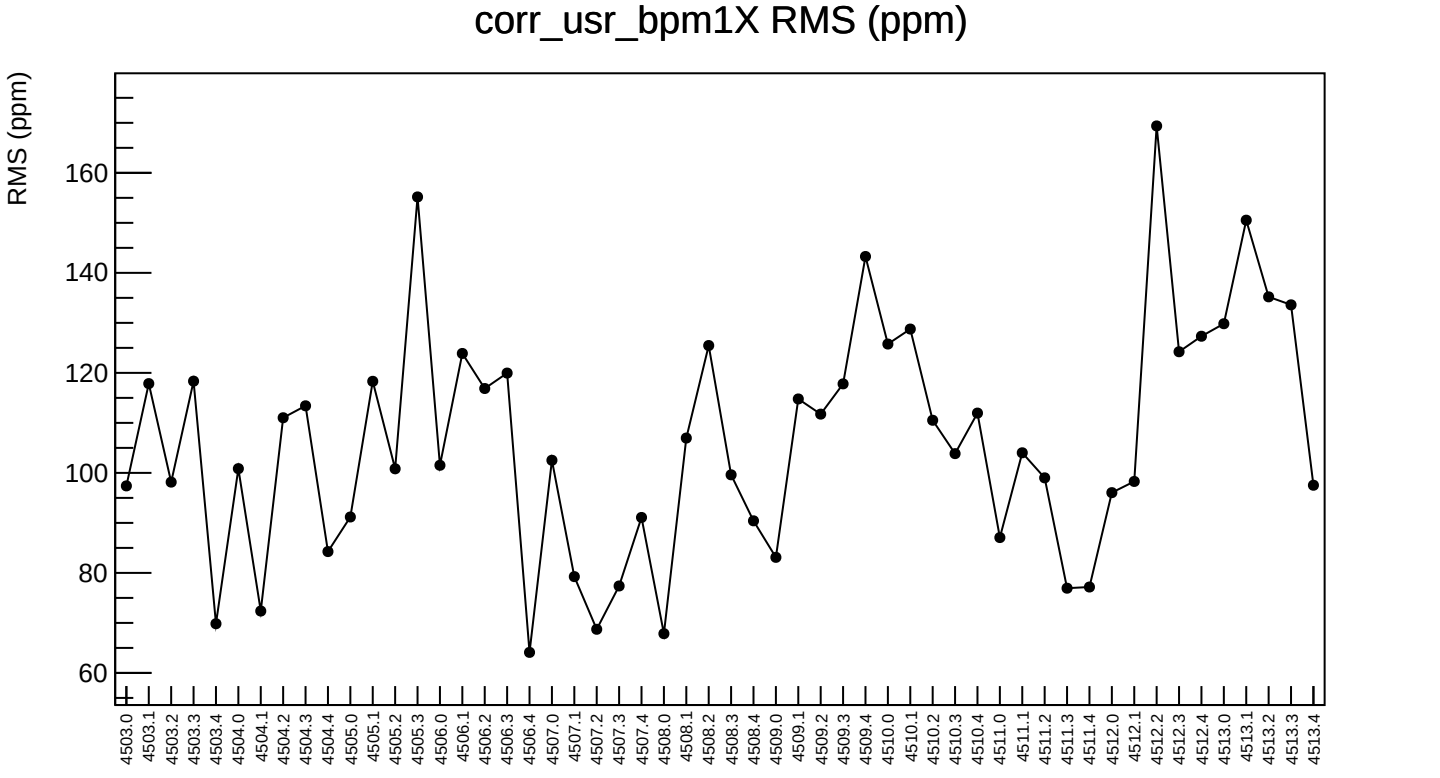

corr_usr_bpm4aY (ppb)
χ² / ndf 21.81 / 53
p0 5.831 ± 63.92
2000
1500
1000
500
0
−500
−1000
2.5
2
1.5
1
0.5
0
−0.5
−1
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

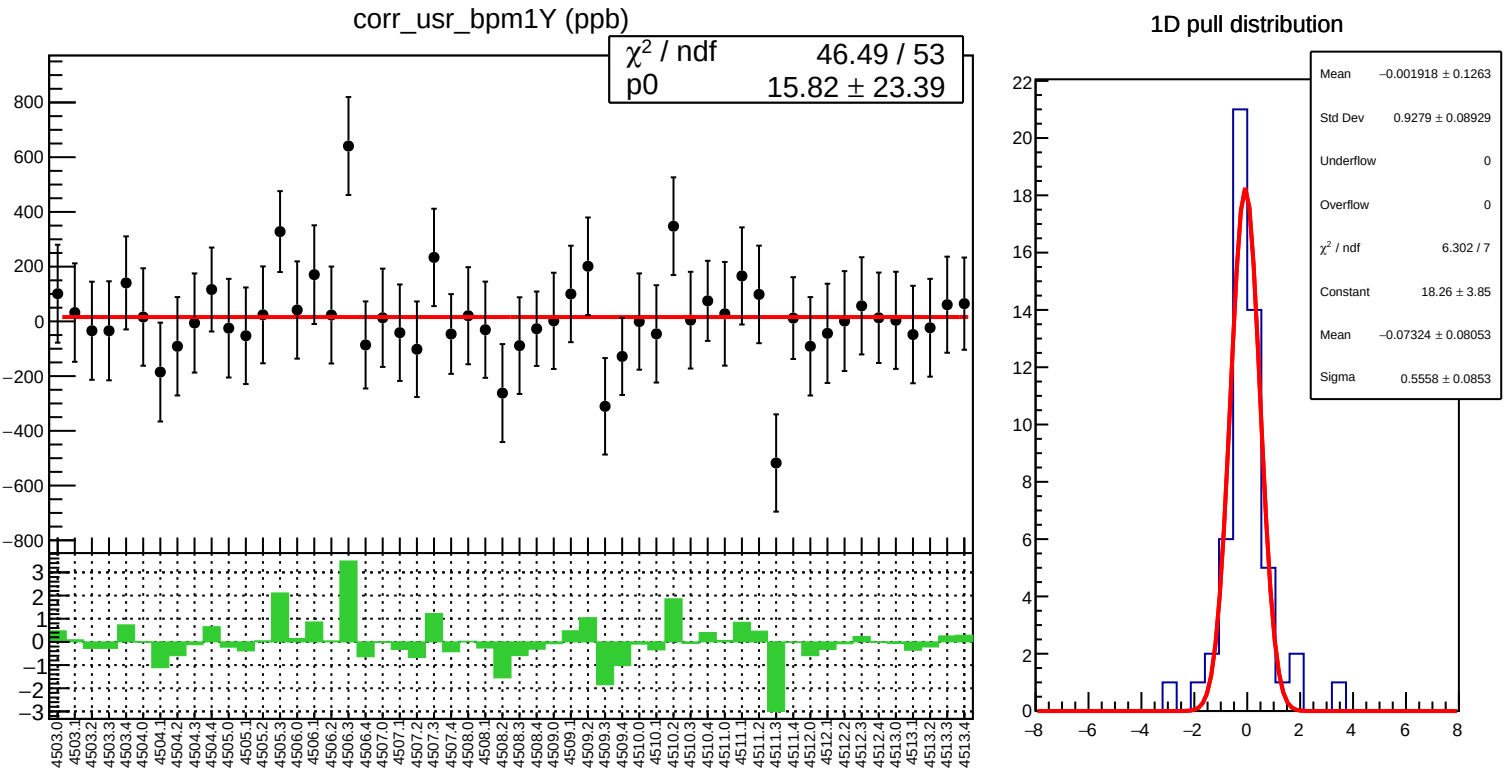

1D pull distribution
Mean 0.00379 ± 0.08649
Std Dev 0.6356 ± 0.06116
Underflow 0
Overflow 0
χ² / ndf 2.2 / 4
Constant 25.12 ± 4.68
Mean −0.08767 ± 0.06108
Sigma 0.4389 ± 0.0547
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

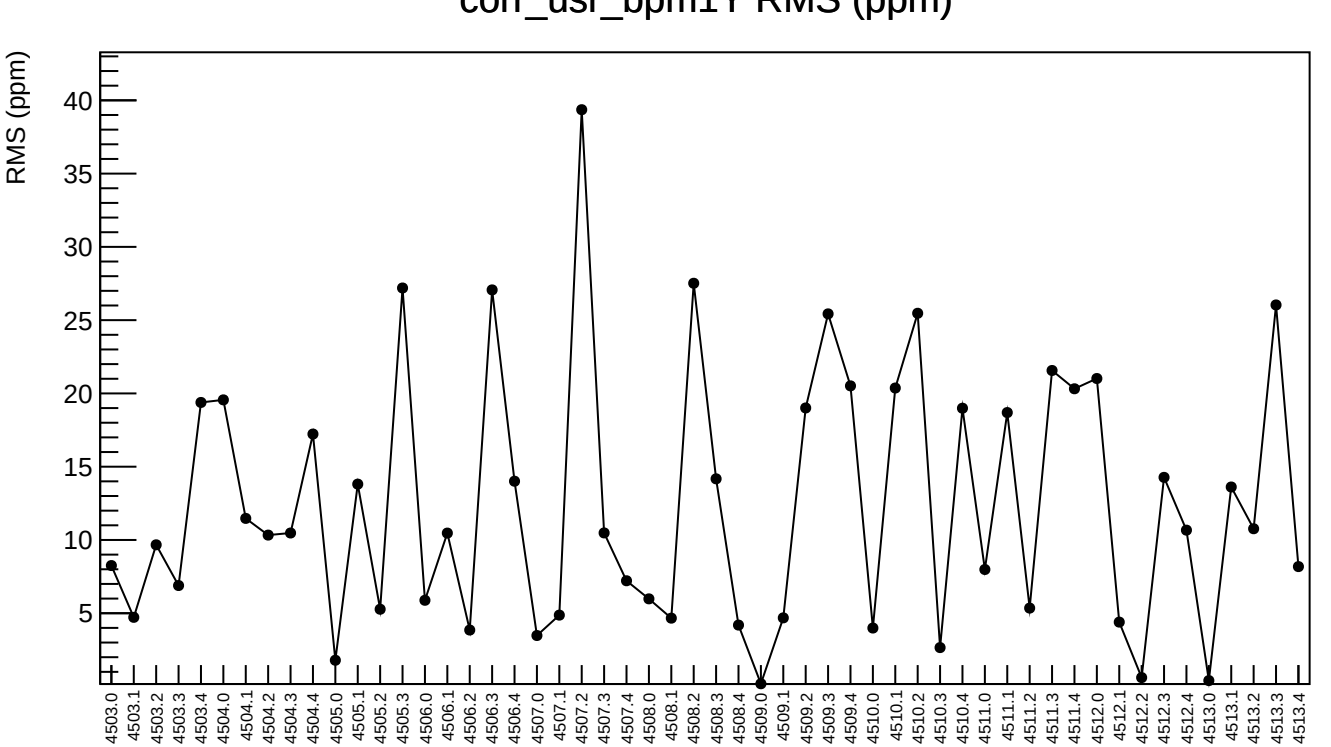

corr_usr_bpm4aY RMS (ppm)
RMS (ppm)
70
60
50
40
30
20
10
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

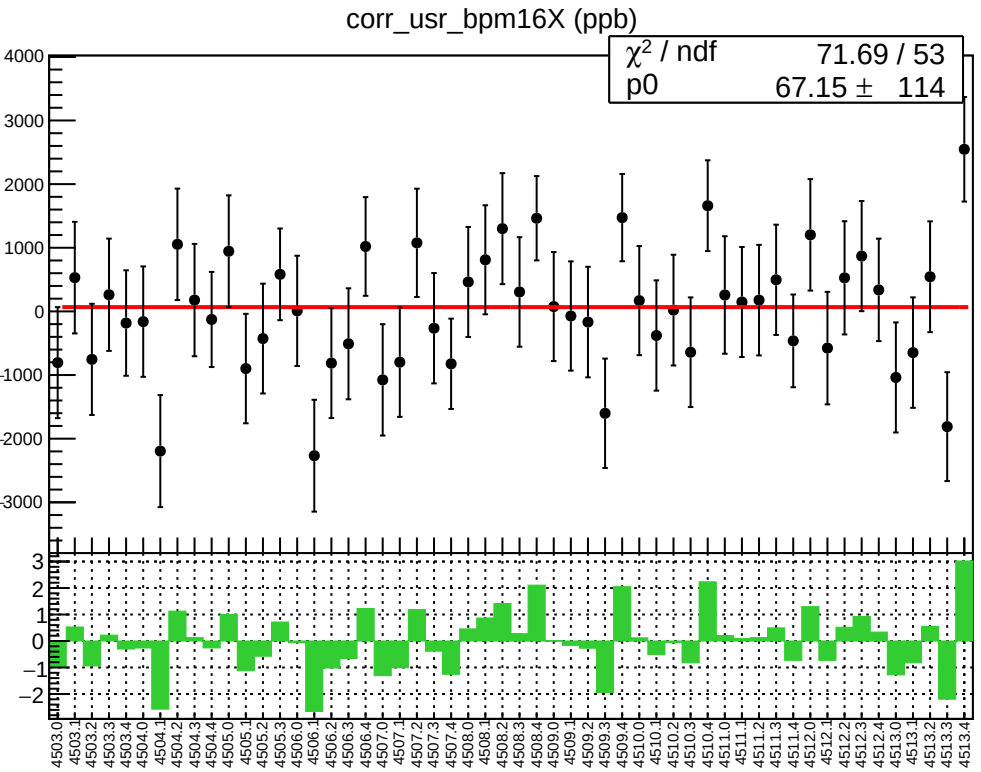

corr_usr_bpm1X (ppb)
χ² / ndf 85.82 / 53
p0 86.88 ± 125.8
3000
2000
1000
0
-1000
-2000
-3000
3
2
1
0
−1
−2
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

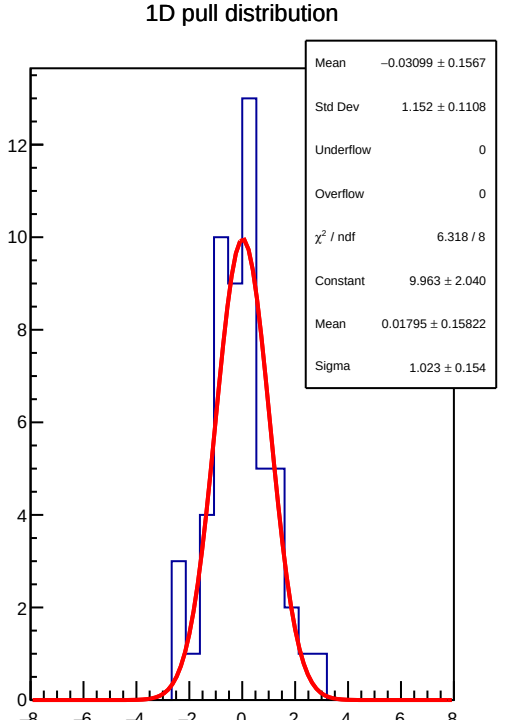

1D pull distribution
Mean −0.03868 ± 0.1715
Std Dev 1.26 ± 0.1212
Underflow 0
Overflow 0
χ² / ndf 2.551 / 8
Constant 9.026 ± 1.723
Mean −0.2138 ± 0.1926
Sigma 1.246 ± 0.191
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

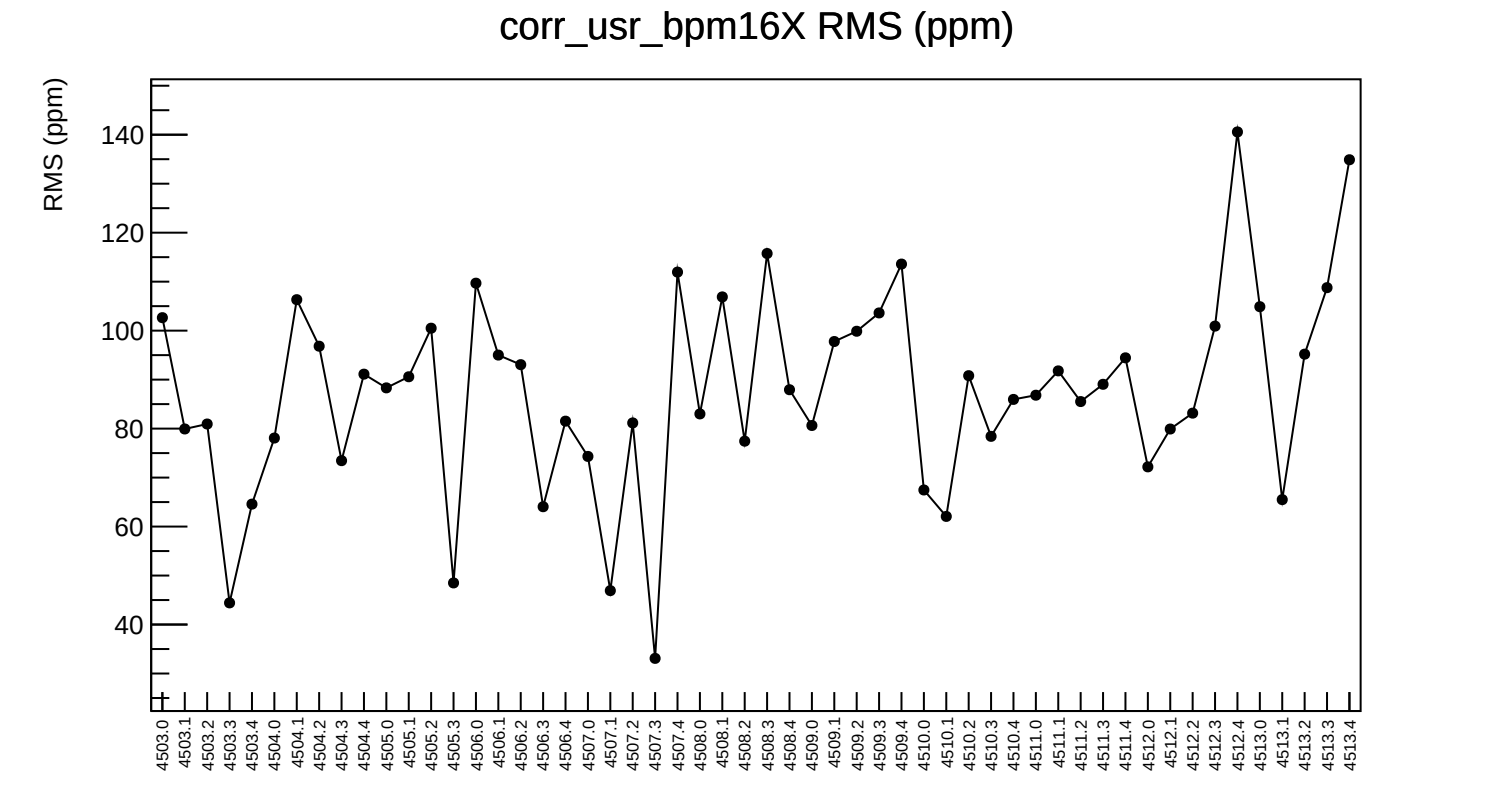

corr_usr_bpm1X RMS (ppm)
RMS (ppm)
160
140
120
100
80
60
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

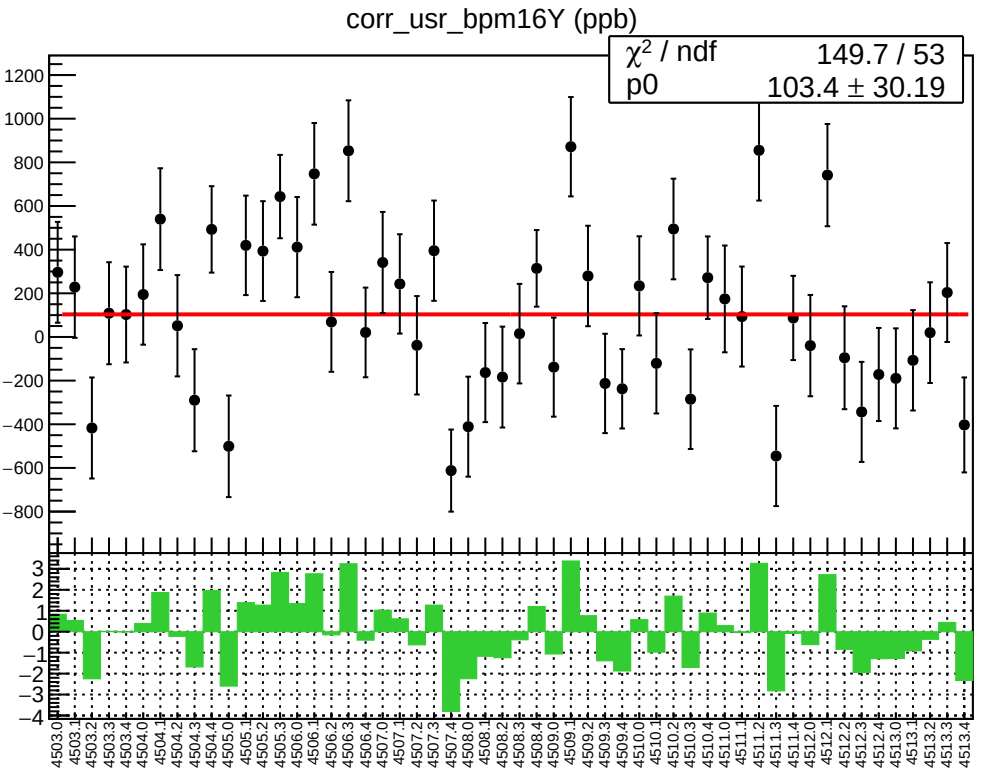

corr_usr_bpm1Y (ppb)
χ² / ndf 46.49 / 53
p0 15.82 ± 23.39
1D pull distribution
Mean −0.001918 ± 0.1263
Std Dev 0.9279 ± 0.08929
Underflow 0
Overflow 0
χ² / ndf 6.302 / 7
Constant 18.26 ± 3.85
Mean −0.07324 ± 0.08053
Sigma 0.5558 ± 0.0853

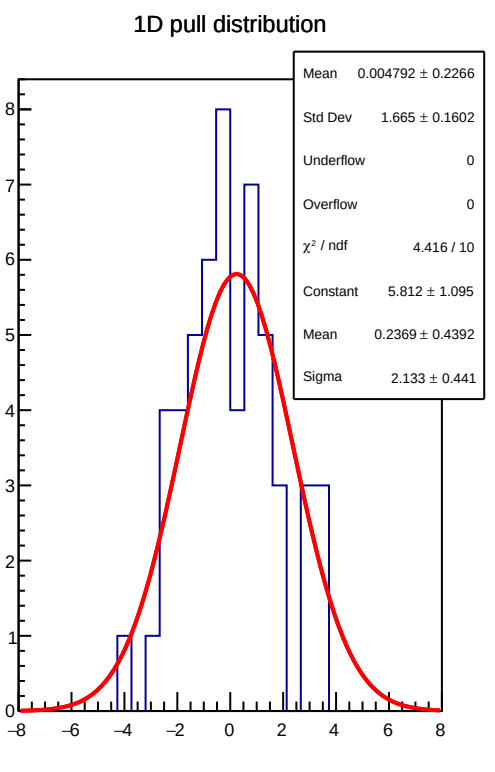

corr_usr_bpm1Y RMS (ppm)
RMS (ppm)
40
35
30
25
20
15
10
5
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

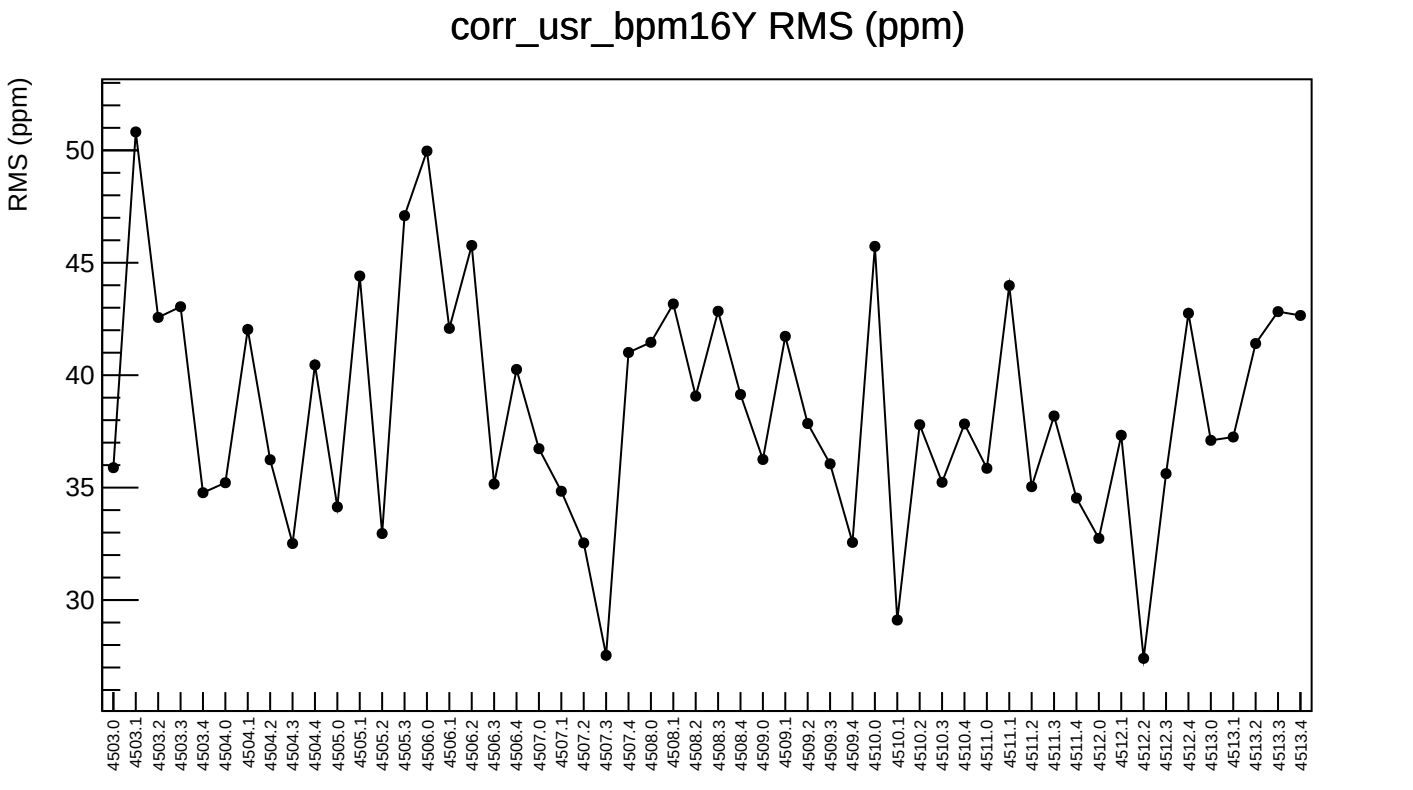

corr_usr_bpm16X (ppb)
χ² / ndf 71.69 / 53
p0 67.15 ± 114
4000
3000
2000
1000
0
-1000
-2000
-3000
3
2
1
0
−1
−2
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

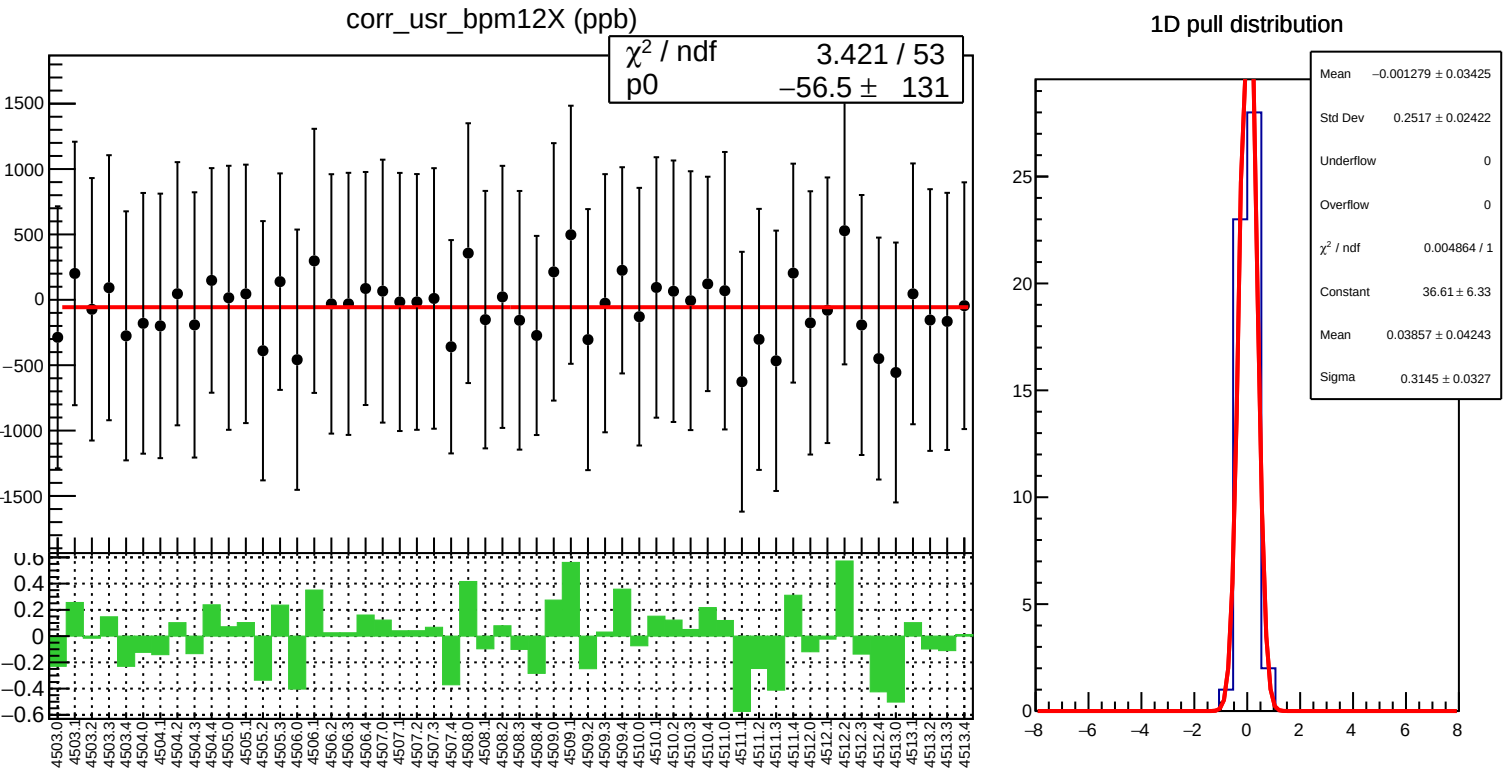

1D pull distribution
Mean −0.03099 ± 0.1567
Std Dev 1.152 ± 0.1108
Underflow 0
Overflow 0
χ² / ndf 6.318 / 8
Constant 9.963 ± 2.040
Mean 0.01795 ± 0.15822
Sigma 1.023 ± 0.154
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8


corr_usr_bpm16X RMS (ppm)
RMS (ppm)
140
120
100
80
60
40
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

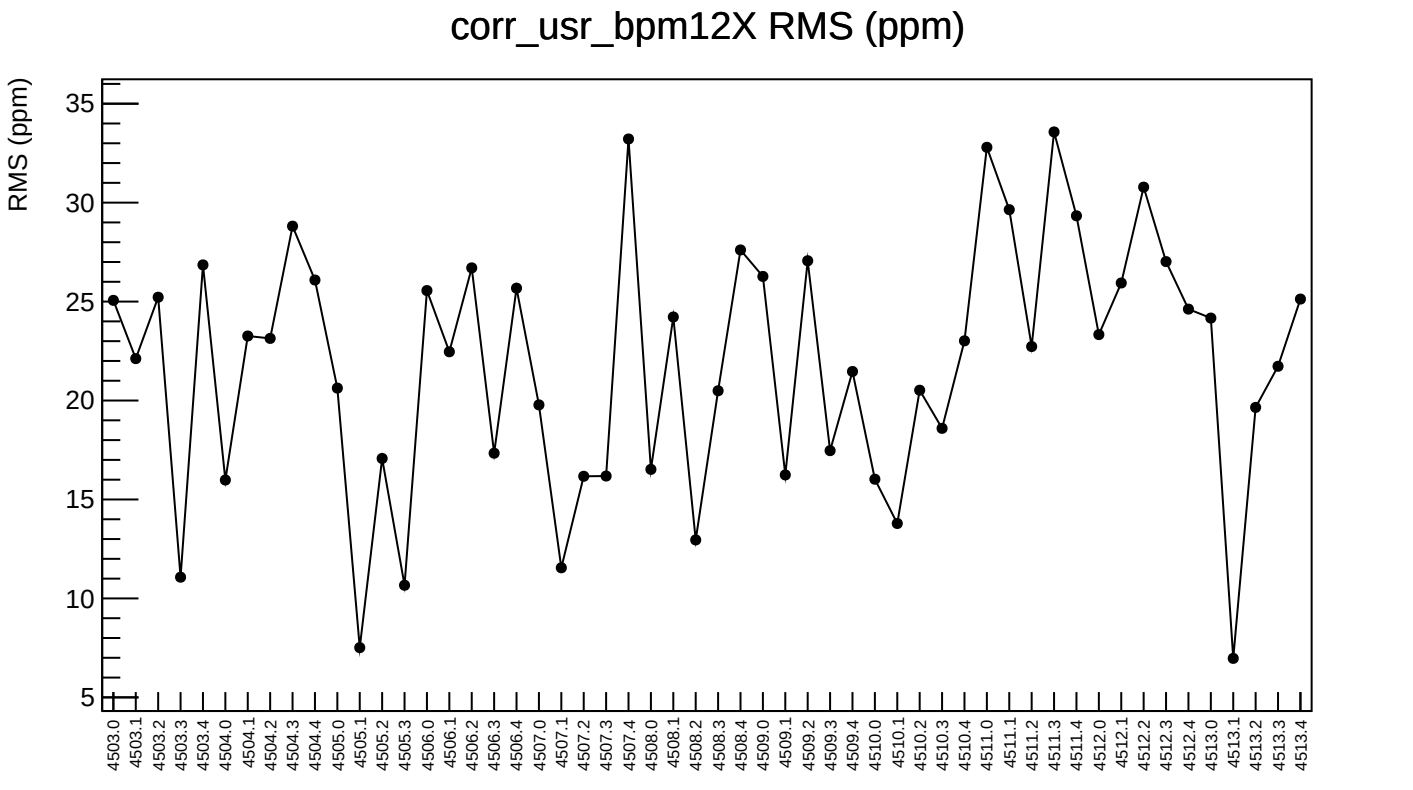

corr_usr_bpm16Y (ppb)
χ² / ndf 149.7 / 53
p0 103.4 ± 30.19

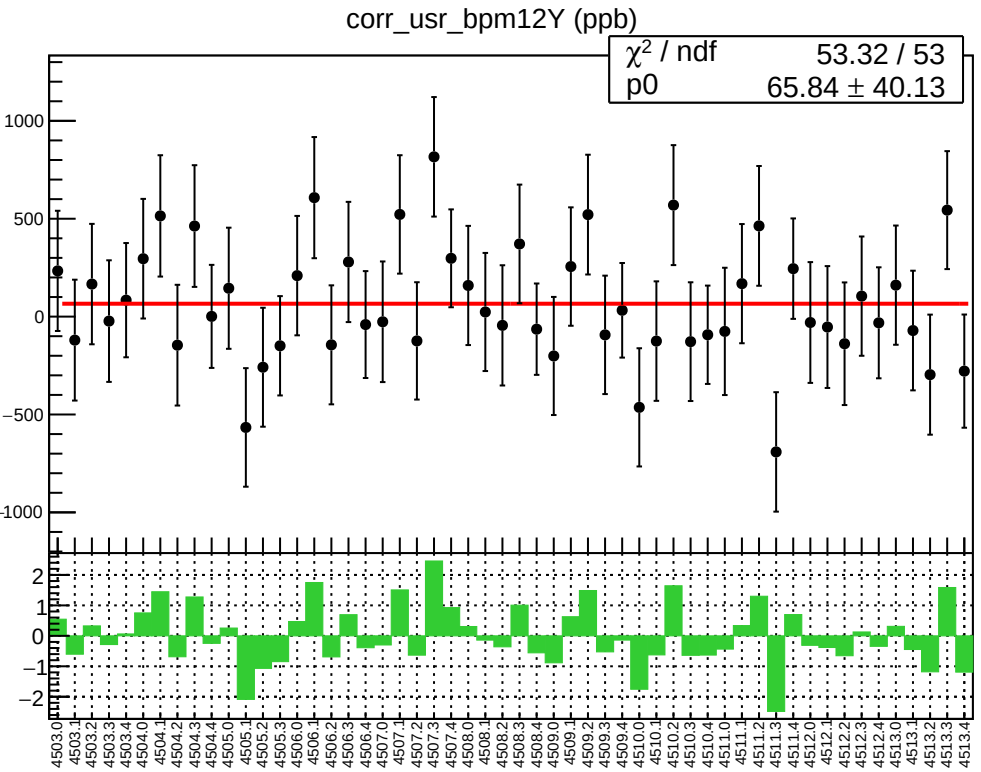

1D pull distribution
Mean 0.004792 ± 0.2266
Std Dev 1.665 ± 0.1602
Underflow 0
Overflow 0
χ² / ndf 4.416 / 10
Constant 5.812 ± 1.095
Mean 0.2369 ± 0.4392
Sigma 2.133 ± 0.441

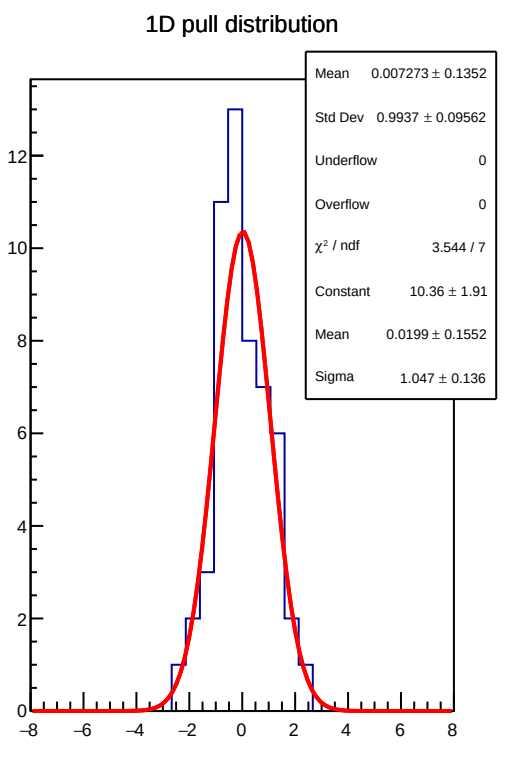

corr_usr_bpm16Y RMS (ppm)
RMS (ppm)
50
45
40
35
30
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

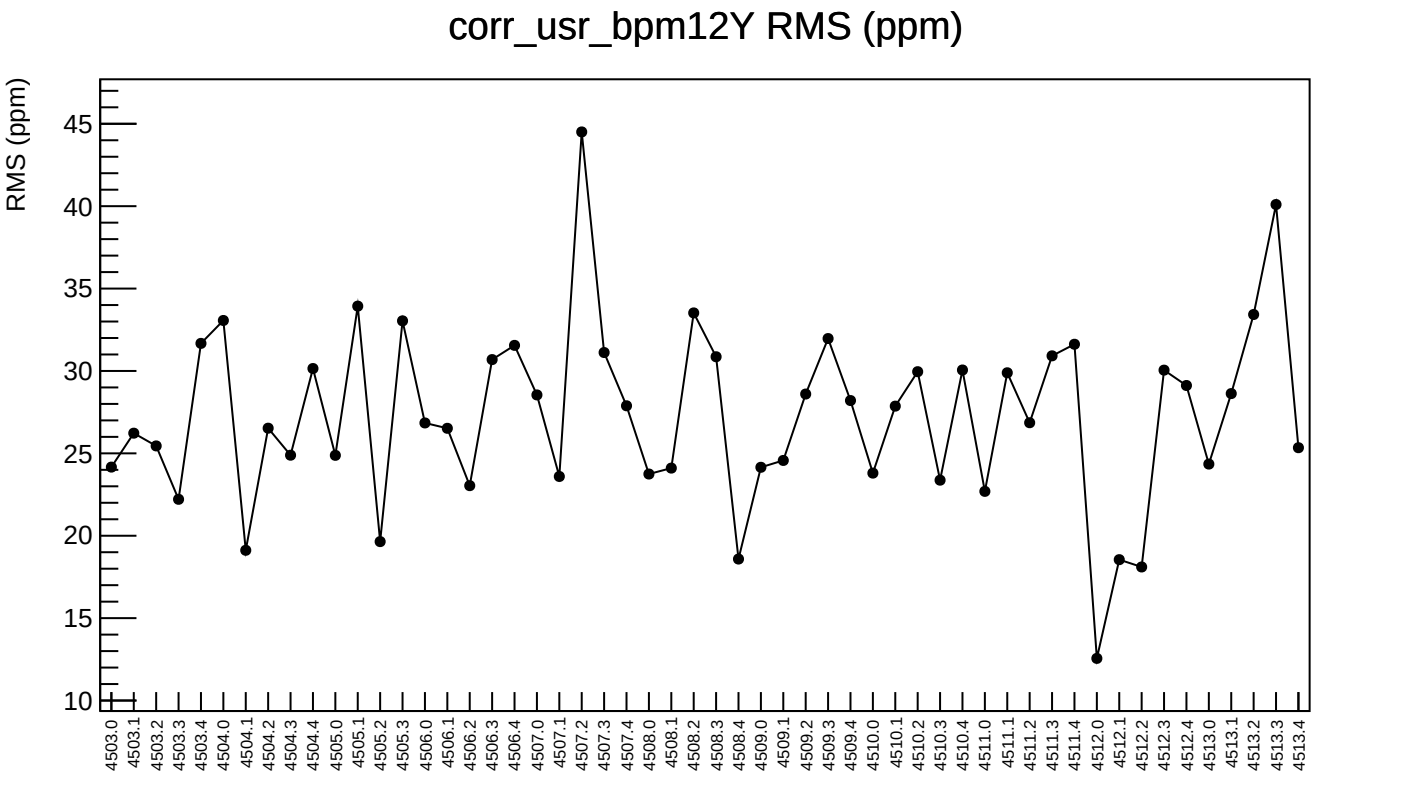

corr_usr_bpm12X (ppb)
χ² / ndf 3.421 / 53
p0 −56.5 ± 131
1500
1000
500
0
−500
−1000
−1500
0.6
0.4
0.2
0
−0.2
−0.4
−0.6
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

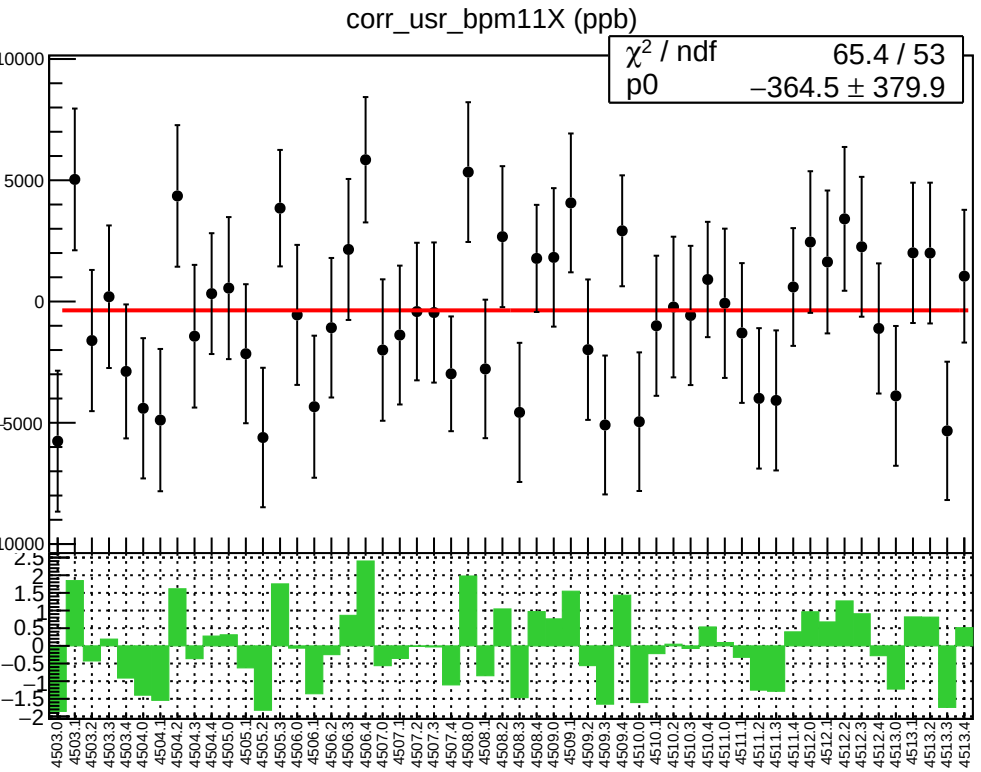
1D pull distribution
Mean −0.001279 ± 0.03425
Std Dev 0.2517 ± 0.02422
Underflow 0
Overflow 0
χ² / ndf 0.004864 / 1
Constant 36.61 ± 6.33
Mean 0.03857 ± 0.04243
Sigma 0.3145 ± 0.0327
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

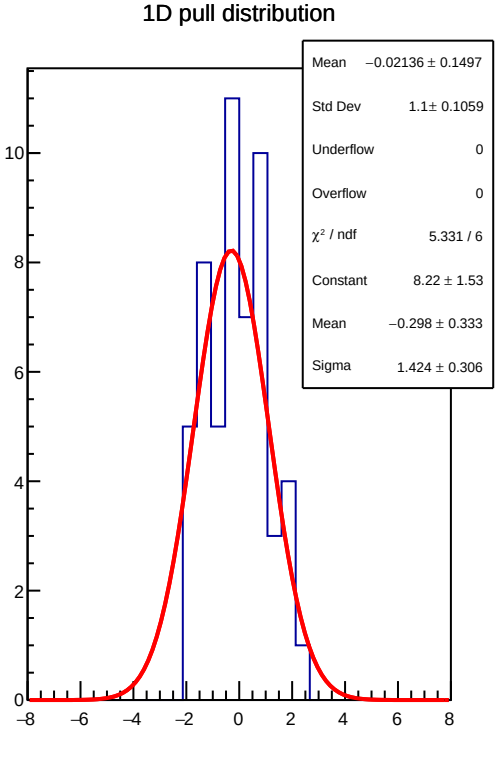

corr_usr_bpm12X RMS (ppm)
RMS (ppm)
35
30
25
20
15
10
5
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

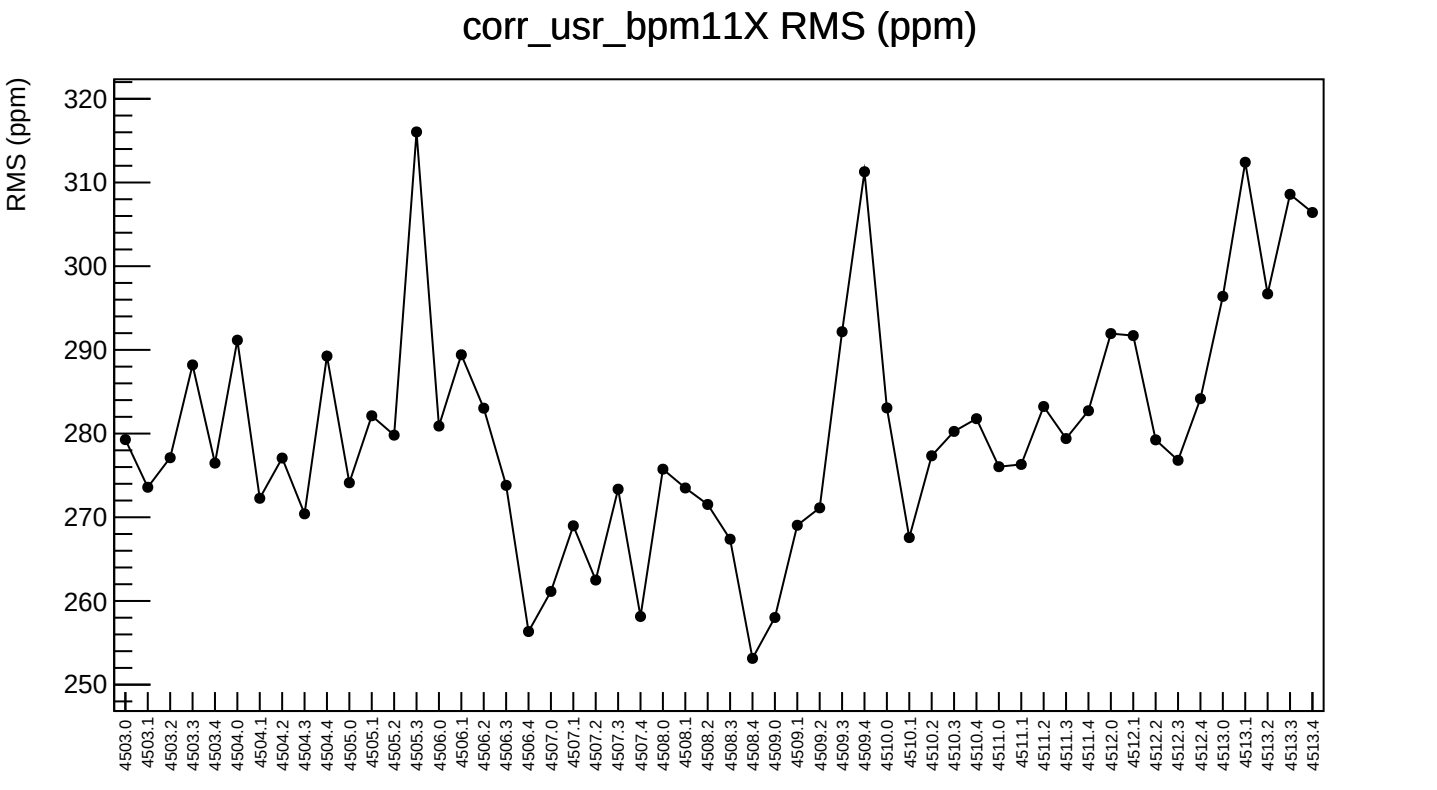

corr_usr_bpm12Y (ppb)
χ² / ndf 53.32 / 53
p0 65.84 ± 40.13
1000
500
0
−500
−1000
2
1
0
−1
−2
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

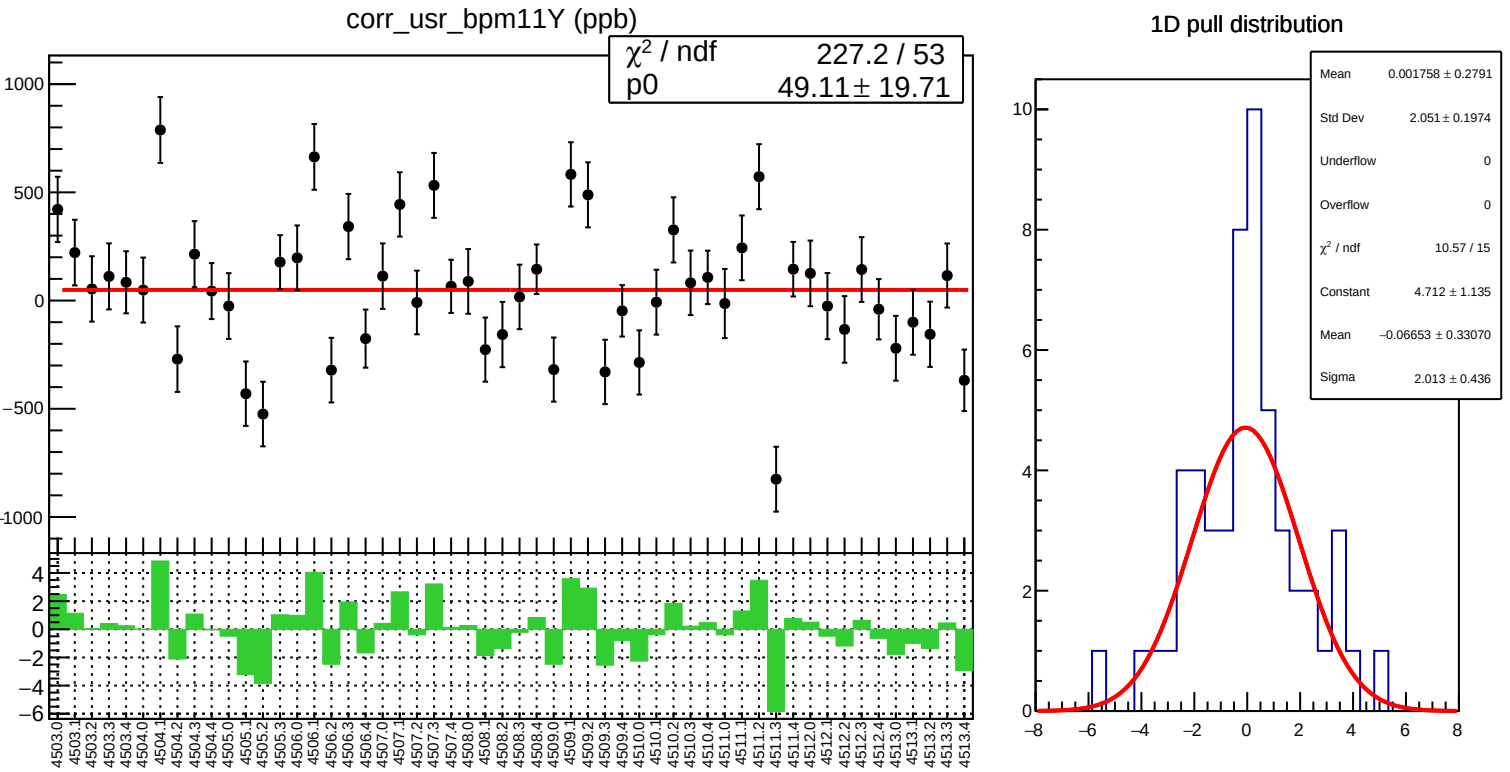

1D pull distribution
Mean 0.007273 ± 0.1352
Std Dev 0.9937 ± 0.09562
Underflow 0
Overflow 0
χ² / ndf 3.544 / 7
Constant 10.36 ± 1.91
Mean 0.0199 ± 0.1552
Sigma 1.047 ± 0.136
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

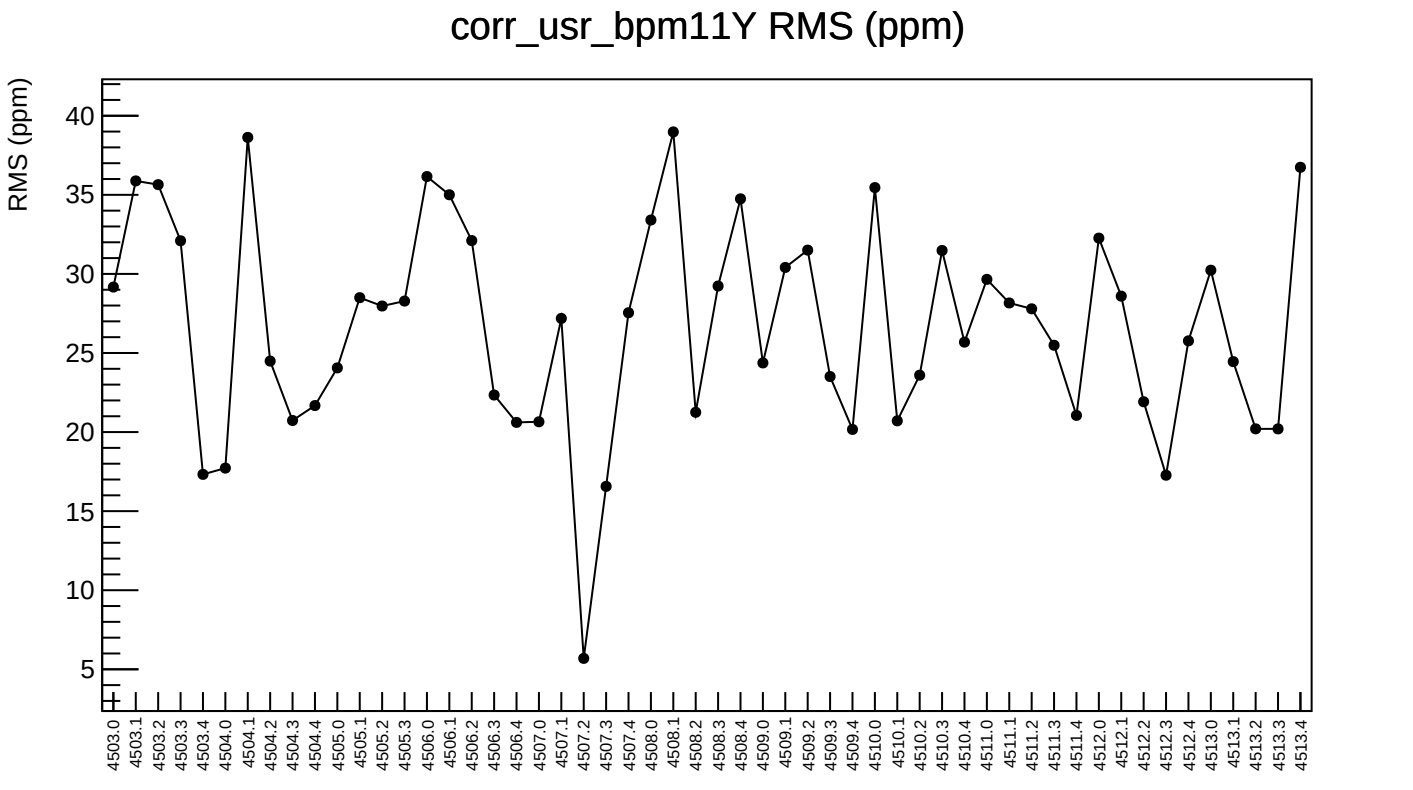

corr_usr_bpm12Y RMS (ppm)
RMS (ppm)
10
15
20
25
30
35
40
45
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

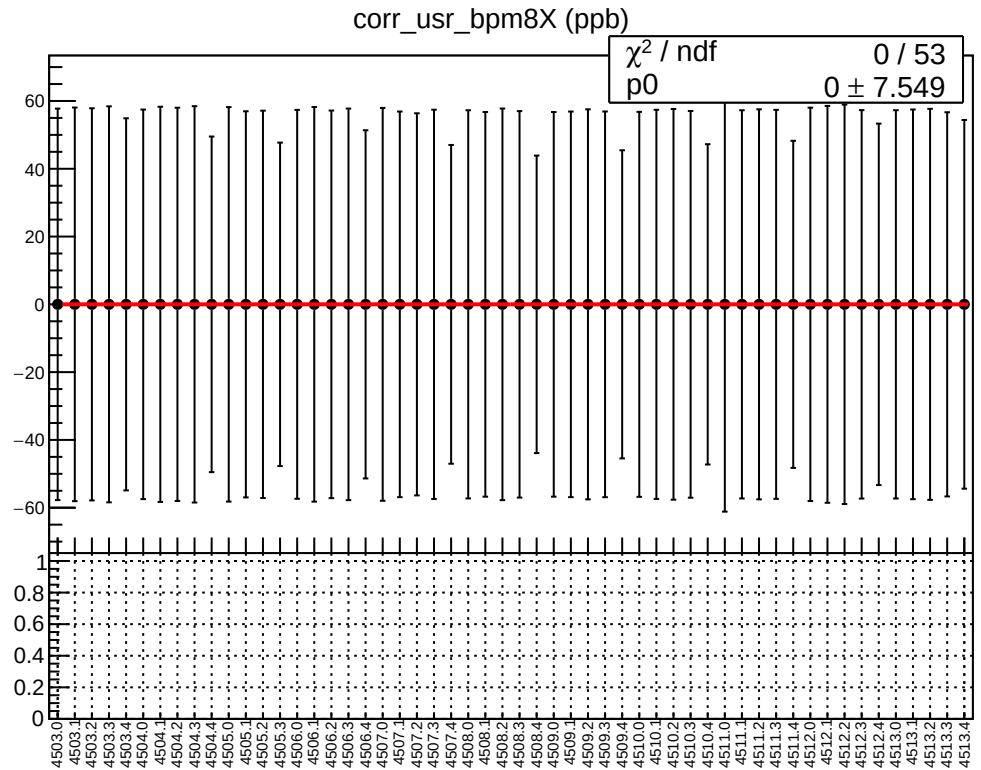

corr_usr_bpm11X (ppb)
χ² / ndf 65.4 / 53
p0 −364.5 ± 379.9
10000
5000
0
−5000
−10000
2.5
2
1.5
1
0.5
0
−0.5
−1
−1.5
−2
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

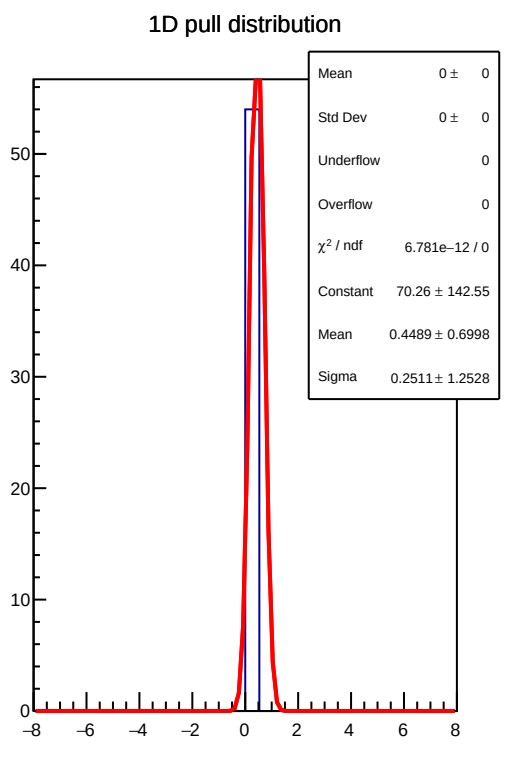

1D pull distribution
Mean −0.02136 ± 0.1497
Std Dev 1.1± 0.1059
Underflow 0
Overflow 0
χ² / ndf 5.331 / 6
Constant 8.22 ± 1.53
Mean −0.298 ± 0.333
Sigma 1.424 ± 0.306
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

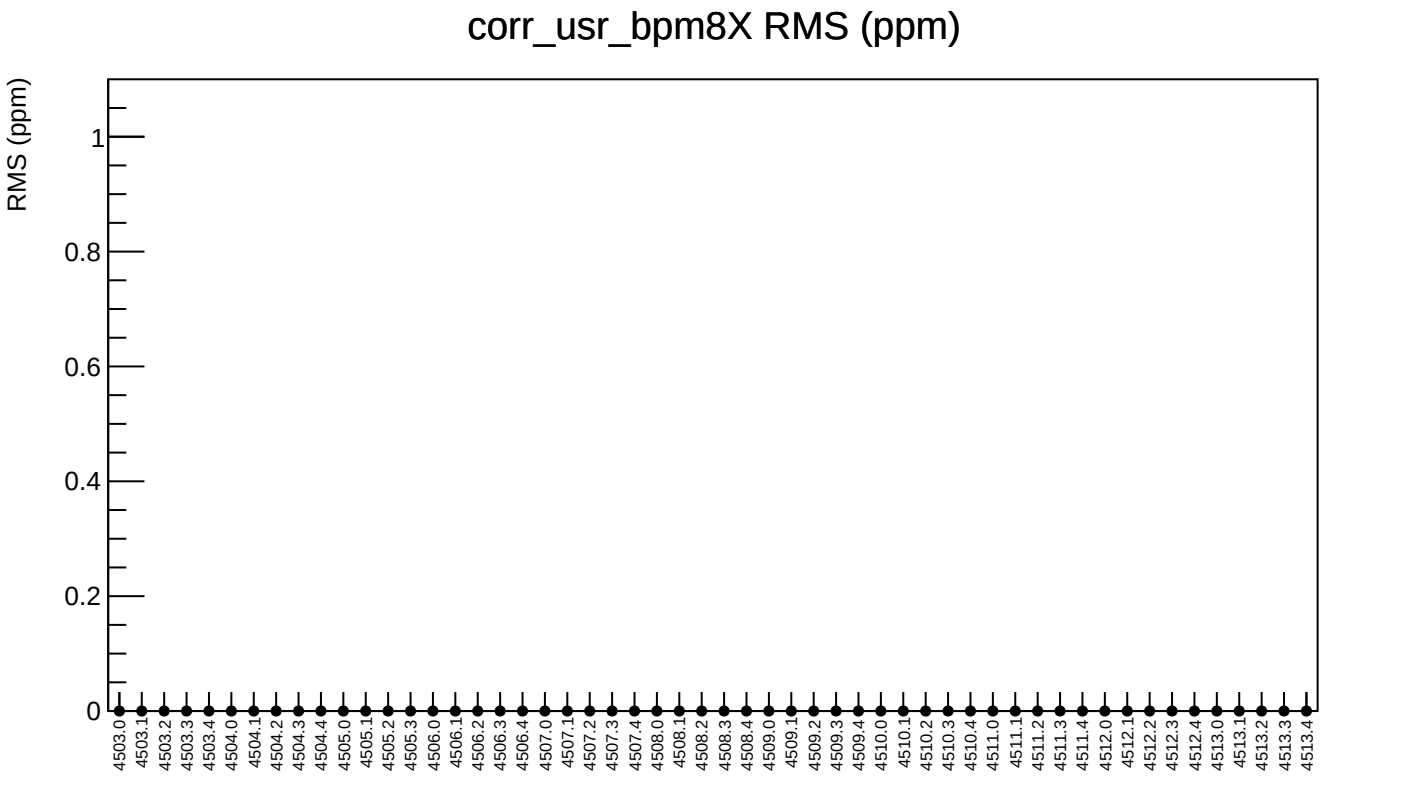

corr_usr_bpm11X RMS (ppm)
RMS (ppm)
320
310
300
290
280
270
260
250
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

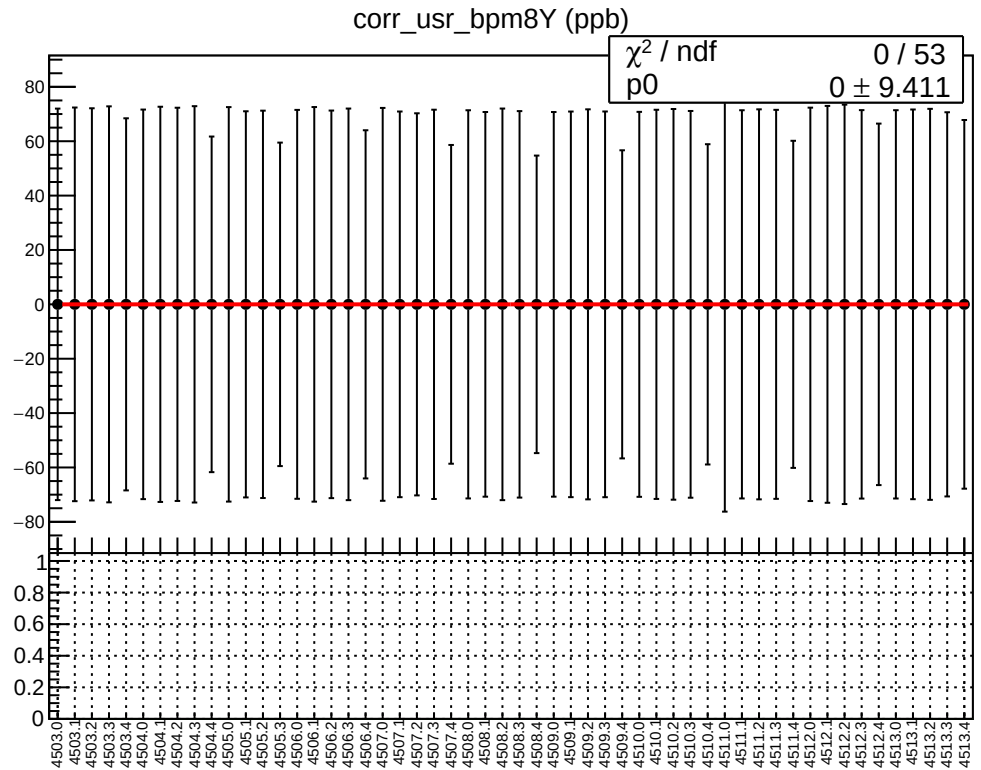

corr_usr_bpm11Y (ppb)
χ² / ndf 227.2 / 53
p0 49.11 ± 19.71
1000
500
0
−500
−1000
4
2
0
−2
−4
−6
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4
1D pull distribution
Mean 0.001758 ± 0.2791
Std Dev 2.051 ± 0.1974
Underflow 0
Overflow 0
χ² / ndf 10.57 / 15
Constant 4.712 ± 1.135
Mean −0.06653 ± 0.33070
Sigma 2.013 ± 0.436
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

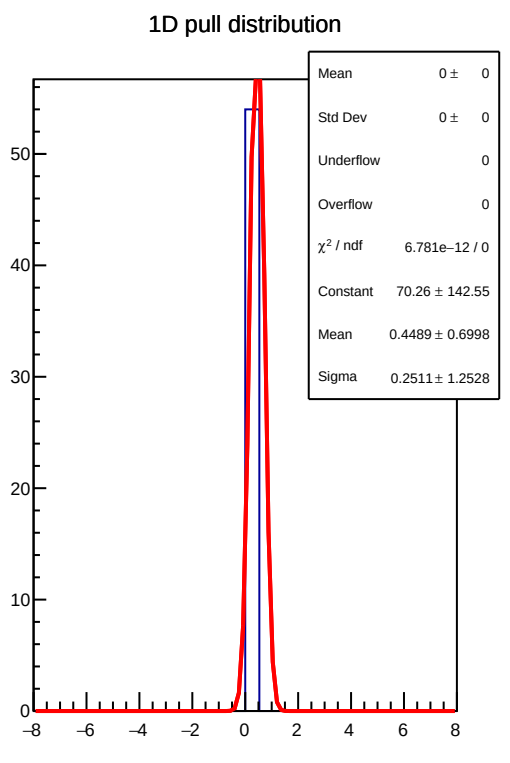

corr_usr_bpm11Y RMS (ppm)
RMS (ppm)
40
35
30
25
20
15
10
5
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4

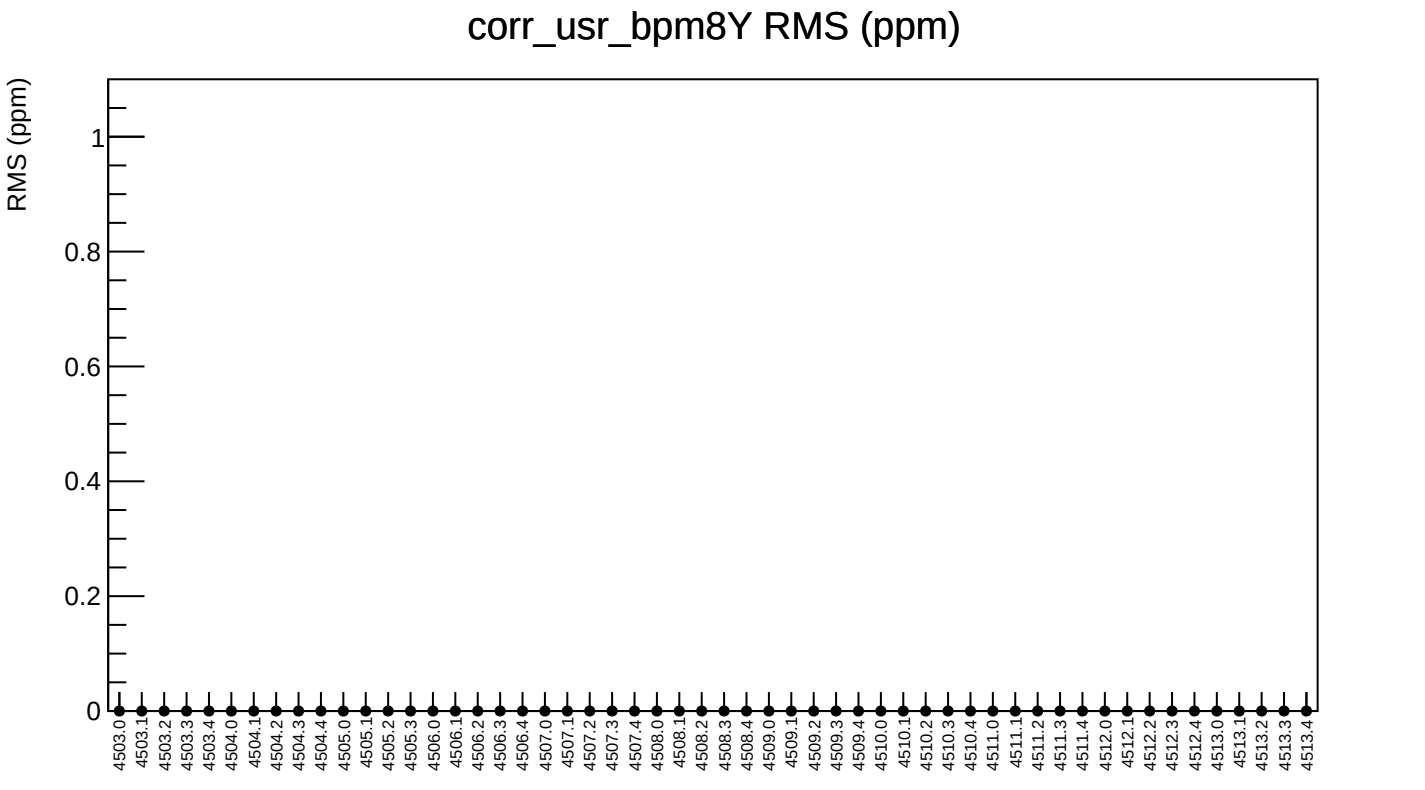

corr_usr_bpm8X (ppb)
χ² / ndf 0 / 53
p0 0 ± 7.549


1D pull distribution
Mean 0 ± 0
Std Dev 0 ± 0
Underflow 0
Overflow 0
χ² / ndf 6.781e−12 / 0
Constant 70.26 ± 142.55
Mean 0.4489 ± 0.6998
Sigma 0.2511 ± 1.2528


corr_usr_bpm8X RMS (ppm)
RMS (ppm)
1
0.8
0.6
0.4
0.2
0
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4


corr_usr_bpm8Y (ppb)
χ² / ndf 0 / 53
p0 0 ± 9.411


1D pull distribution
Mean 0 ± 0
Std Dev 0 ± 0
Underflow 0
Overflow 0
χ² / ndf 6.781e−12 / 0
Constant 70.26 ± 142.55
Mean 0.4489 ± 0.6998
Sigma 0.2511 ± 1.2528


corr_usr_bpm8Y RMS (ppm)
RMS (ppm)
1
0.8
0.6
0.4
0.2
0
4503.0
4503.1
4503.2
4503.3
4503.4
4504.0
4504.1
4504.2
4504.3
4504.4
4505.0
4505.1
4505.2
4505.3
4506.0
4506.1
4506.2
4506.3
4506.4
4507.0
4507.1
4507.2
4507.3
4507.4
4508.0
4508.1
4508.2
4508.3
4508.4
4509.0
4509.1
4509.2
4509.3
4509.4
4510.0
4510.1
4510.2
4510.3
4510.4
4511.0
4511.1
4511.2
4511.3
4511.4
4512.0
4512.1
4512.2
4512.3
4512.4
4513.0
4513.1
4513.2
4513.3
4513.4