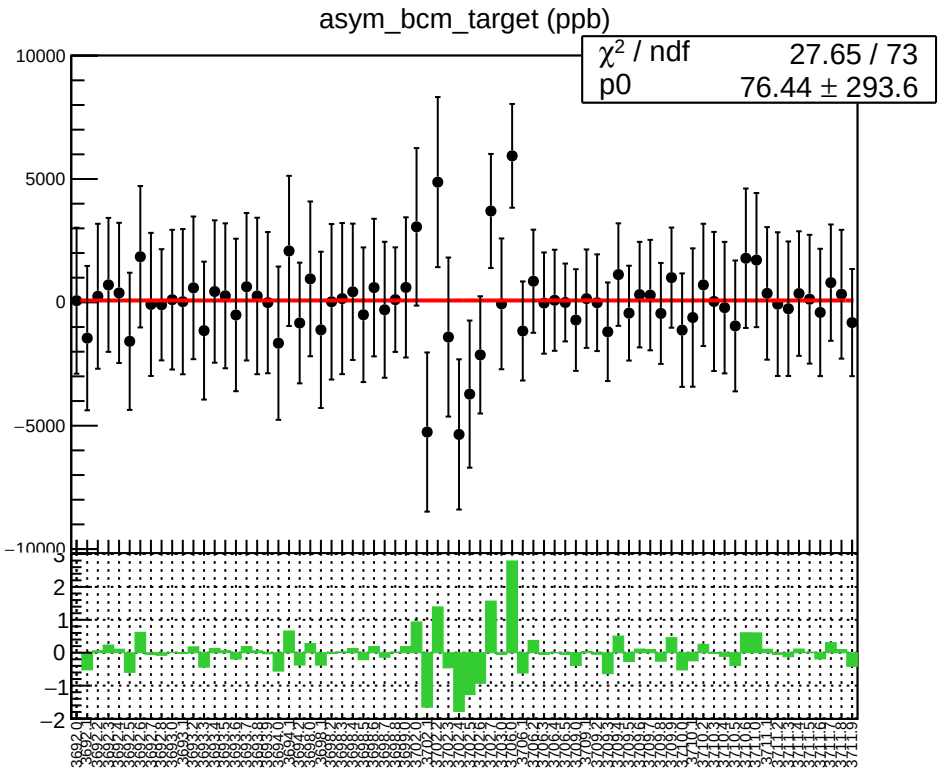
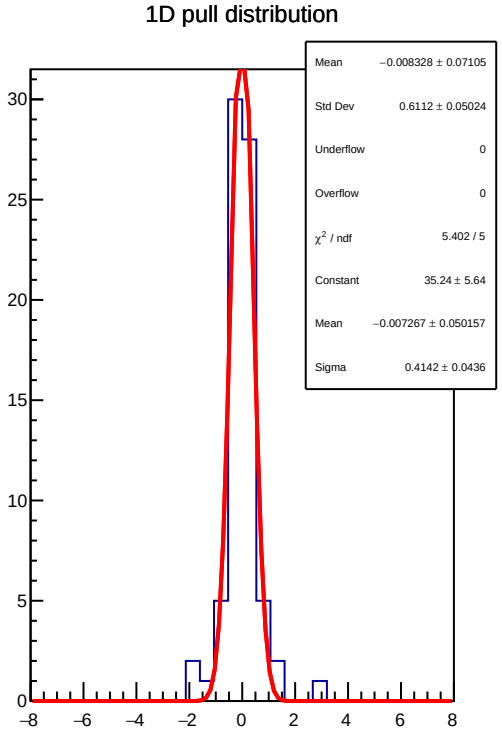
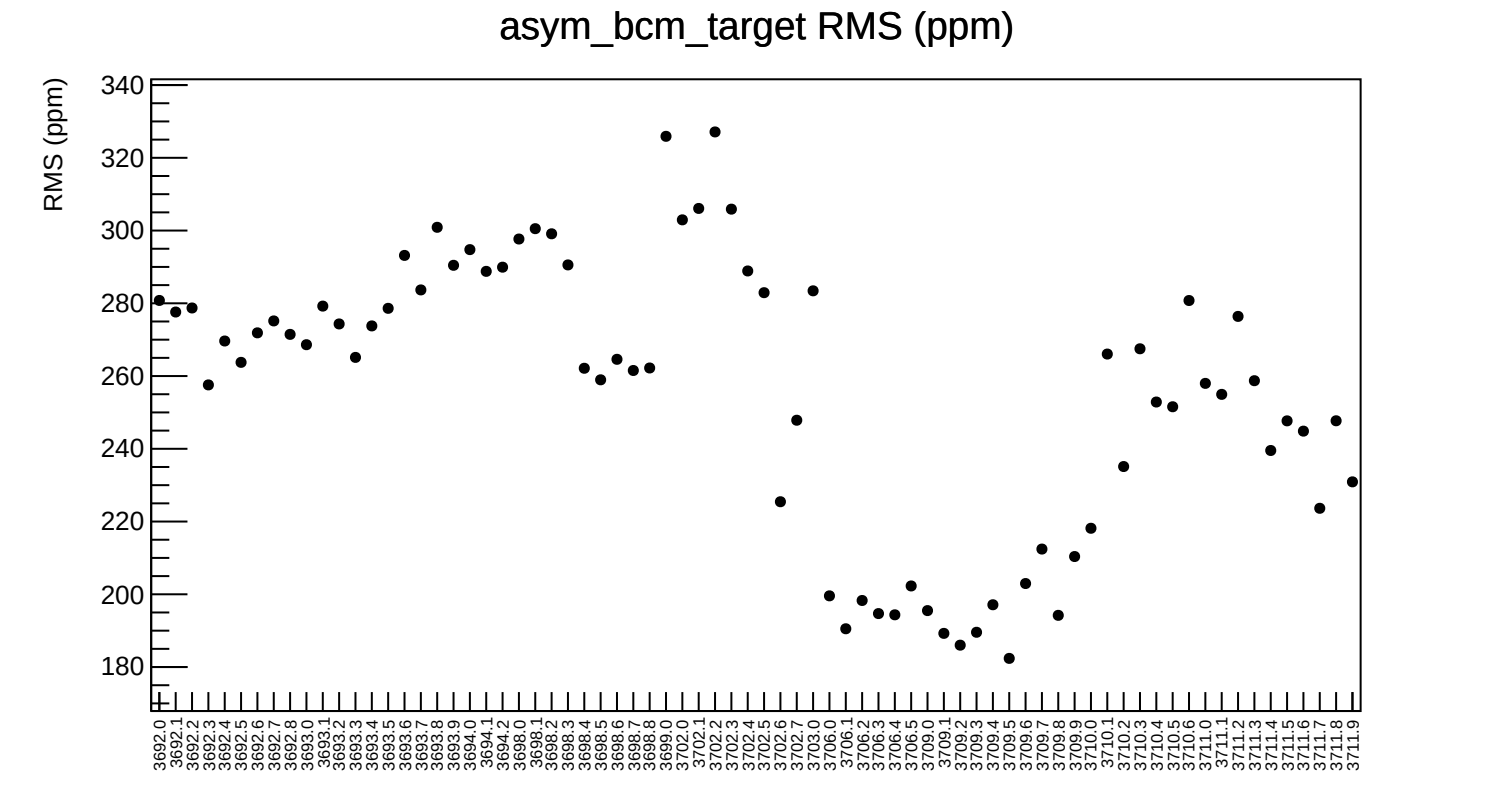
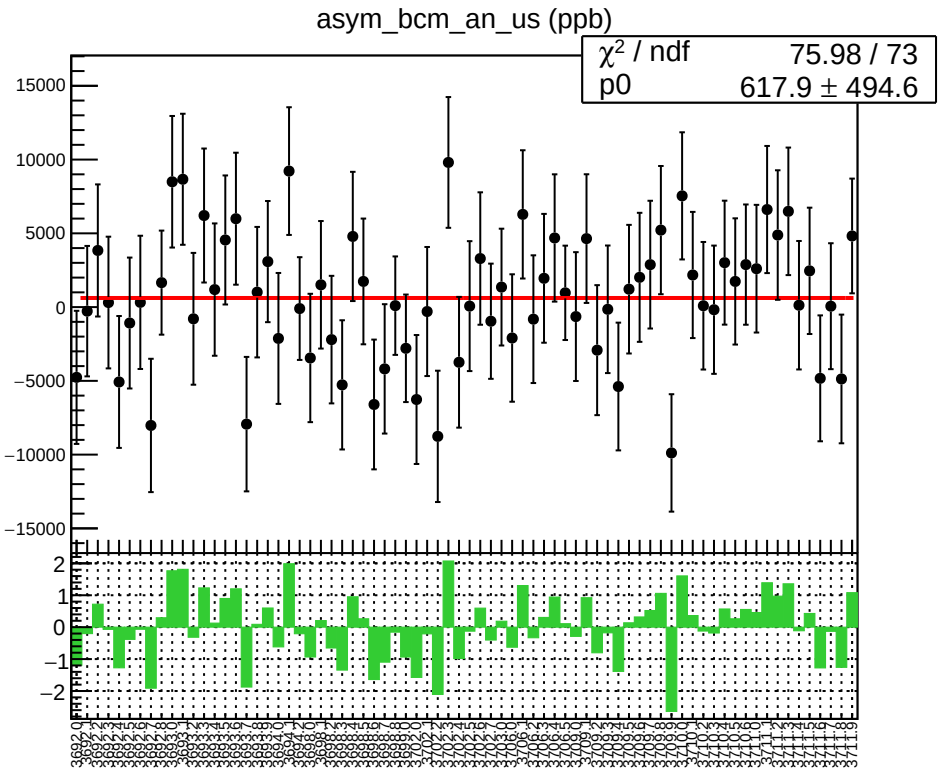
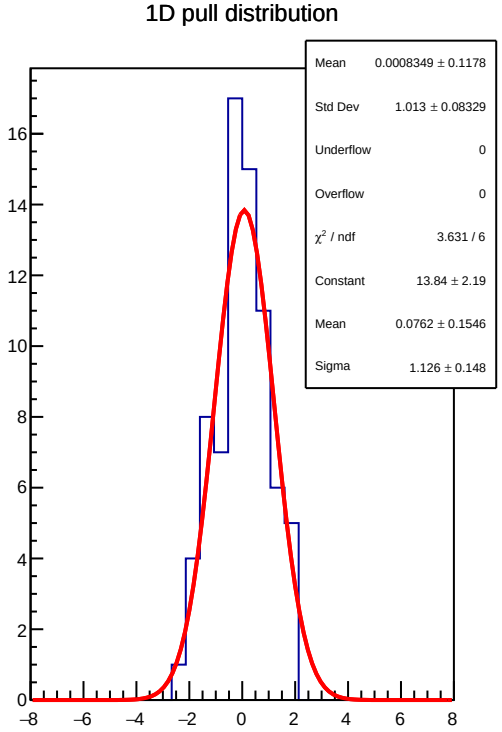
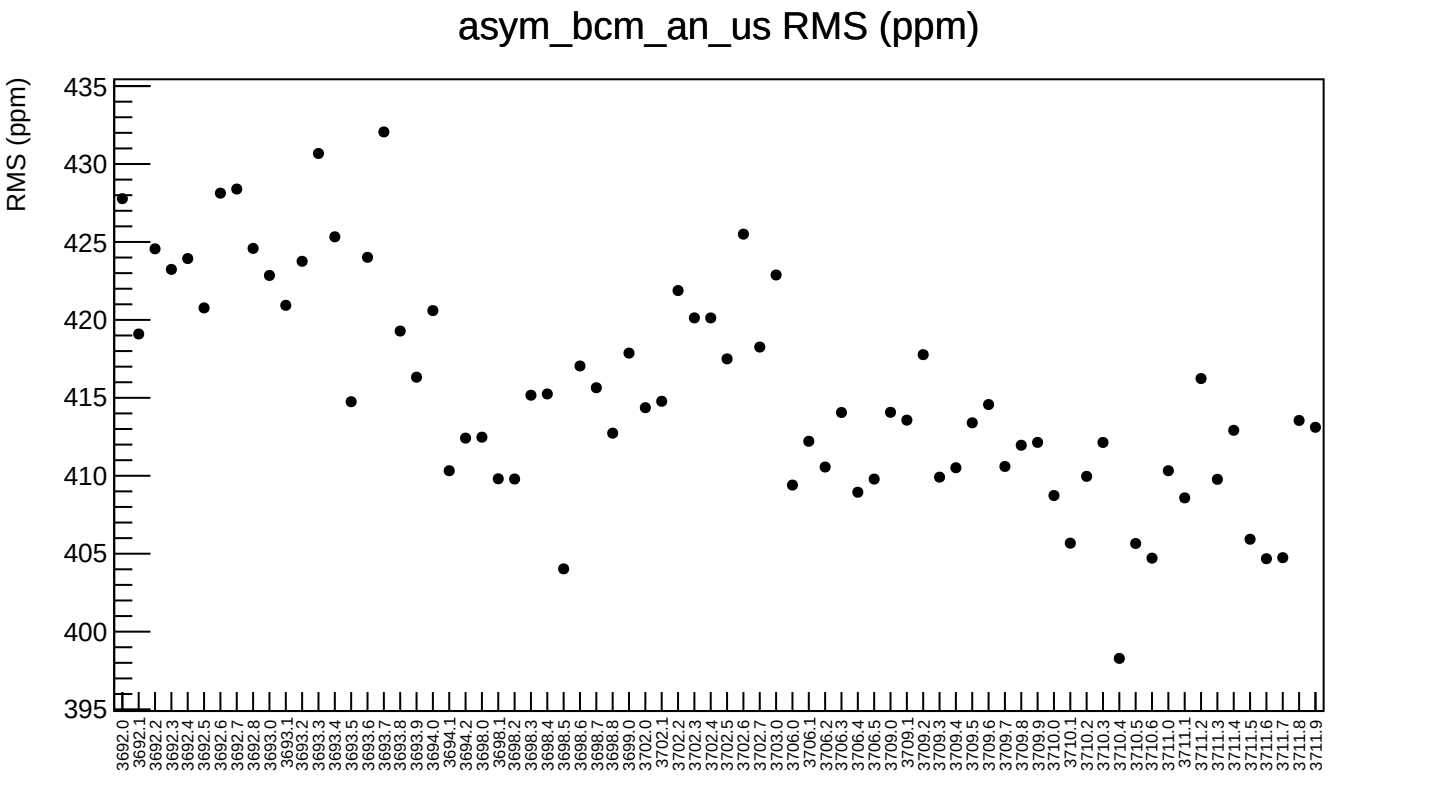

asym_bcm_target (ppb)
χ² / ndf 27.65 / 73
p0 76.44 ± 293.6
10000
5000
0
−5000
−10000
3
2
1
0
−1
−2

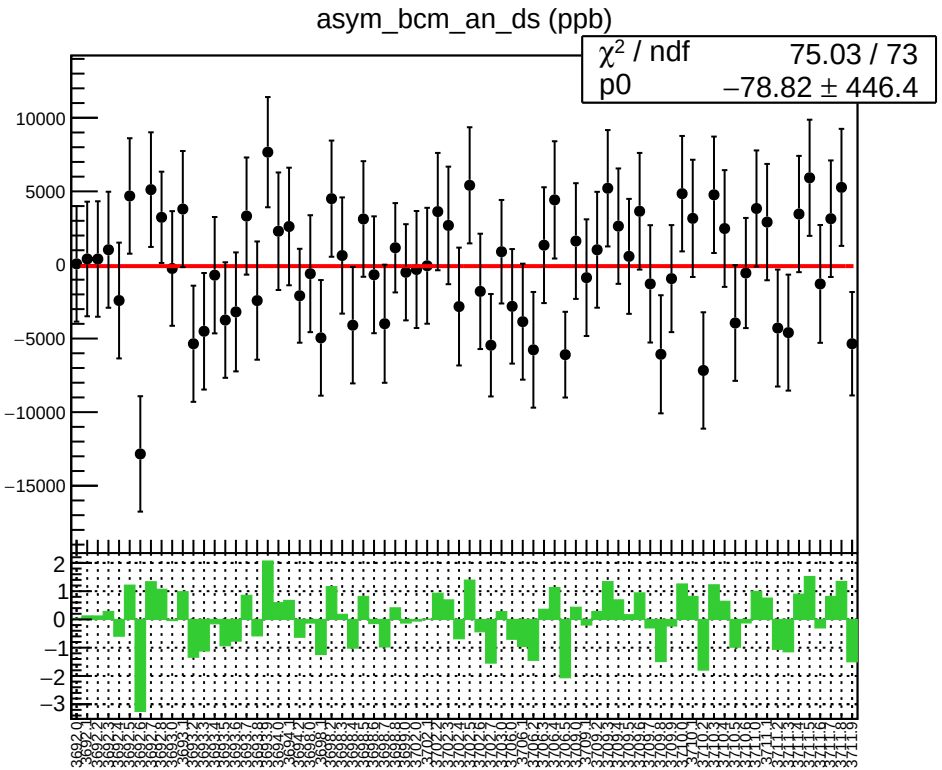

1D pull distribution
Mean −0.008328 ± 0.07105
Std Dev 0.6112 ± 0.05024
Underflow 0
Overflow 0
χ² / ndf 5.402 / 5
Constant 35.24 ± 5.64
Mean −0.007267 ± 0.050157
Sigma 0.4142 ± 0.0436
30
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

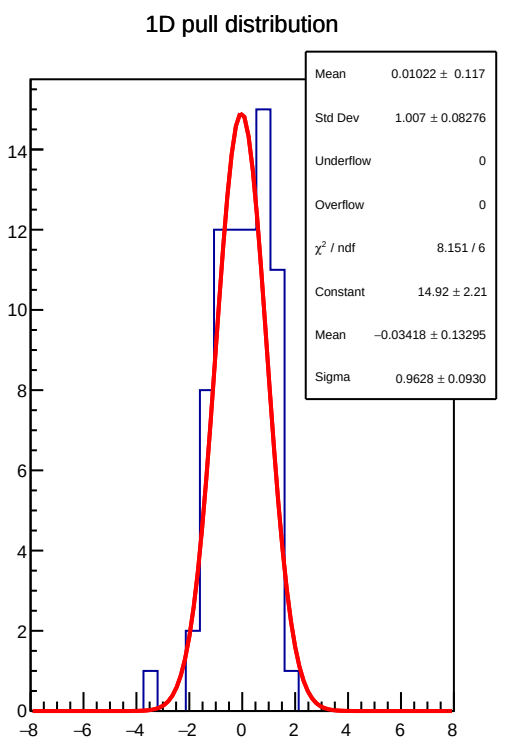

asym_bcm_target RMS (ppm)
RMS (ppm)
340
320
300
280
260
240
220
200
180
3692.0
3692.1
3692.2
3692.3
3692.4
3692.5
3692.6
3692.7
3692.8
3693.0
3693.1
3693.2
3693.3
3693.4
3693.5
3693.6
3693.7
3693.8
3693.9
3694.0
3694.1
3694.2
3698.0
3698.1
3698.2
3698.3
3698.4
3698.5
3698.6
3698.7
3698.8
3699.0
3702.0
3702.1
3702.2
3702.3
3702.4
3702.5
3702.6
3702.7
3703.0
3706.0
3706.1
3706.2
3706.3
3706.4
3706.5
3709.0
3709.1
3709.2
3709.3
3709.4
3709.5
3709.6
3709.7
3709.8
3709.9
3710.0
3710.1
3710.2
3710.3
3710.4
3710.5
3710.6
3711.0
3711.1
3711.2
3711.3
3711.4
3711.5
3711.6
3711.7
3711.8
3711.9

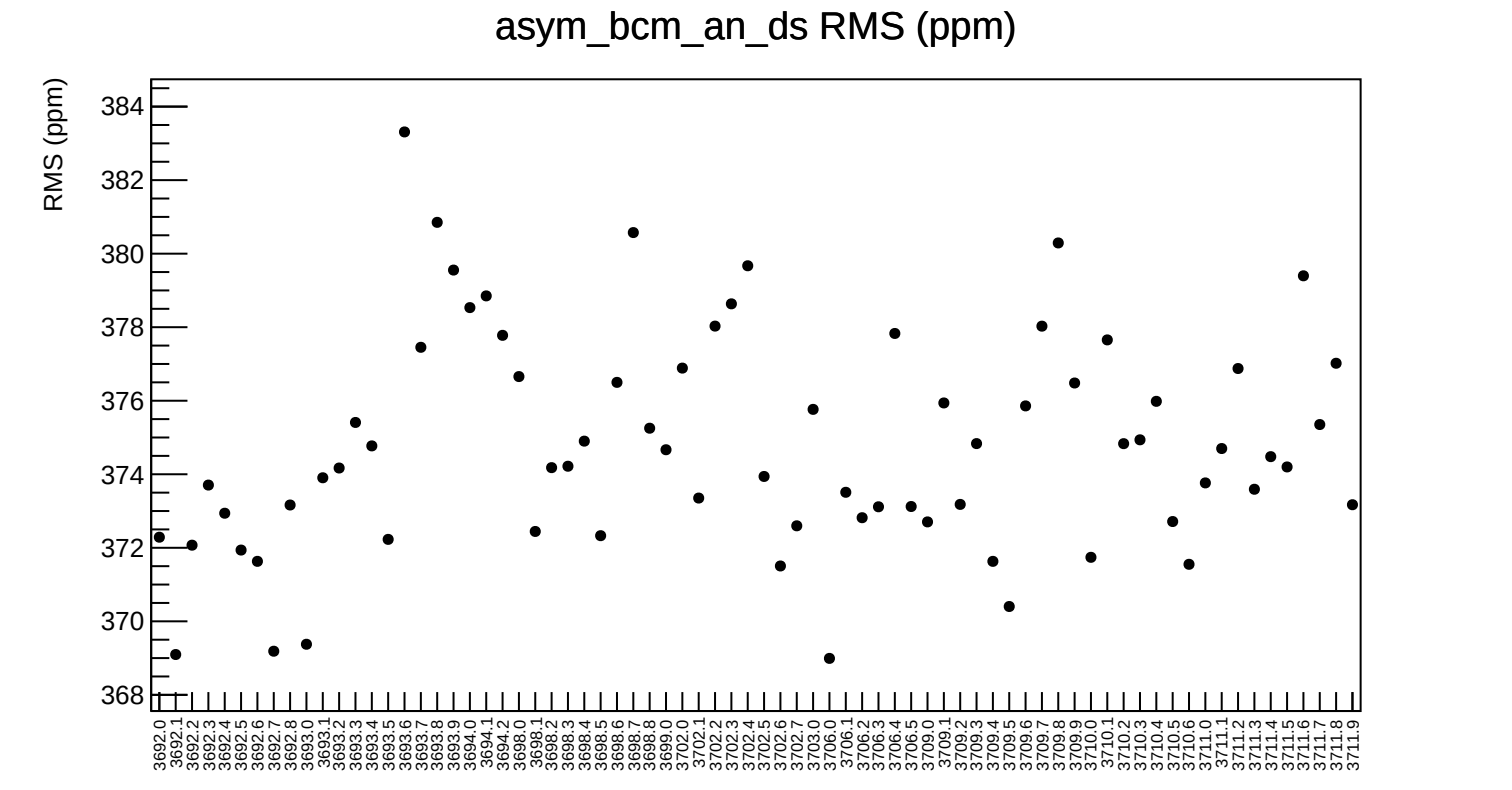

asym_bcm_an_us (ppb)
χ² / ndf 75.98 / 73
p0 617.9 ± 494.6
15000
10000
5000
0
−5000
−10000
−15000
2
1
0
−1
−2

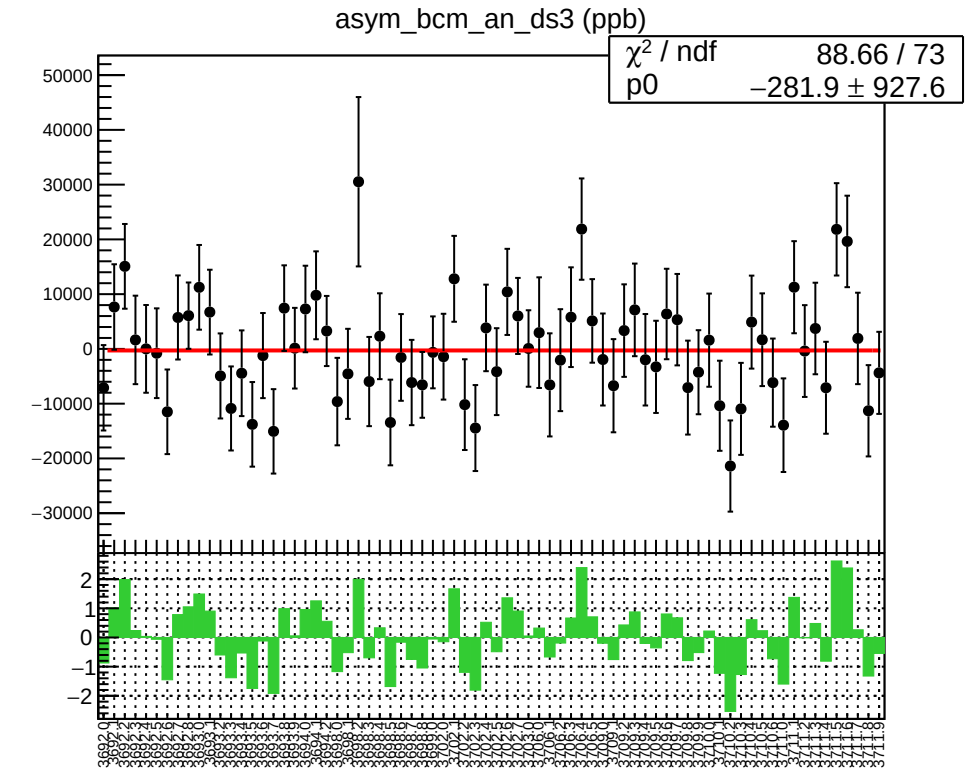

1D pull distribution
Mean 0.0008349 ± 0.1178
Std Dev 1.013 ± 0.08329
Underflow 0
Overflow 0
χ² / ndf 3.631 / 6
Constant 13.84 ± 2.19
Mean 0.0762 ± 0.1546
Sigma 1.126 ± 0.148
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

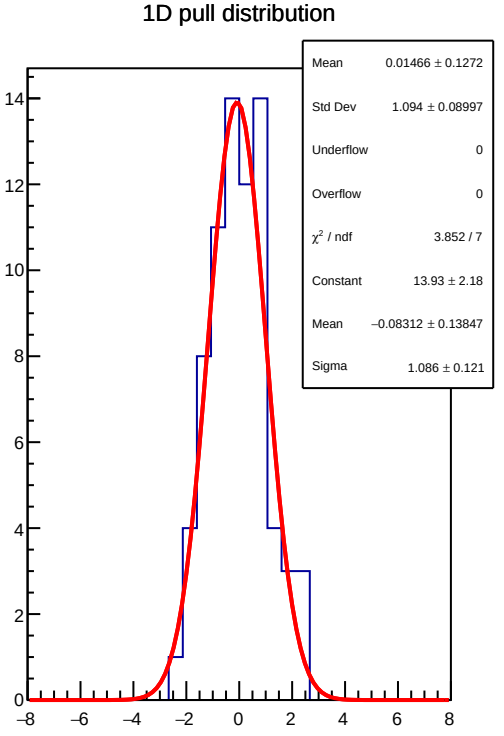

asym_bcm_an_us RMS (ppm)
RMS (ppm)
435
430
425
420
415
410
405
400
395
3692.0
3692.1
3692.2
3692.3
3692.4
3692.5
3692.6
3692.7
3692.8
3693.0
3693.1
3693.2
3693.3
3693.4
3693.5
3693.6
3693.7
3693.8
3693.9
3694.0
3694.1
3694.2
3698.0
3698.1
3698.2
3698.3
3698.4
3698.5
3698.6
3698.7
3698.8
3699.0
3702.0
3702.1
3702.2
3702.3
3702.4
3702.5
3702.6
3702.7
3703.0
3706.0
3706.1
3706.2
3706.3
3706.4
3706.5
3709.0
3709.1
3709.2
3709.3
3709.4
3709.5
3709.6
3709.7
3709.8
3709.9
3710.0
3710.1
3710.2
3710.3
3710.4
3710.5
3710.6
3711.0
3711.1
3711.2
3711.3
3711.4
3711.5
3711.6
3711.7
3711.8
3711.9

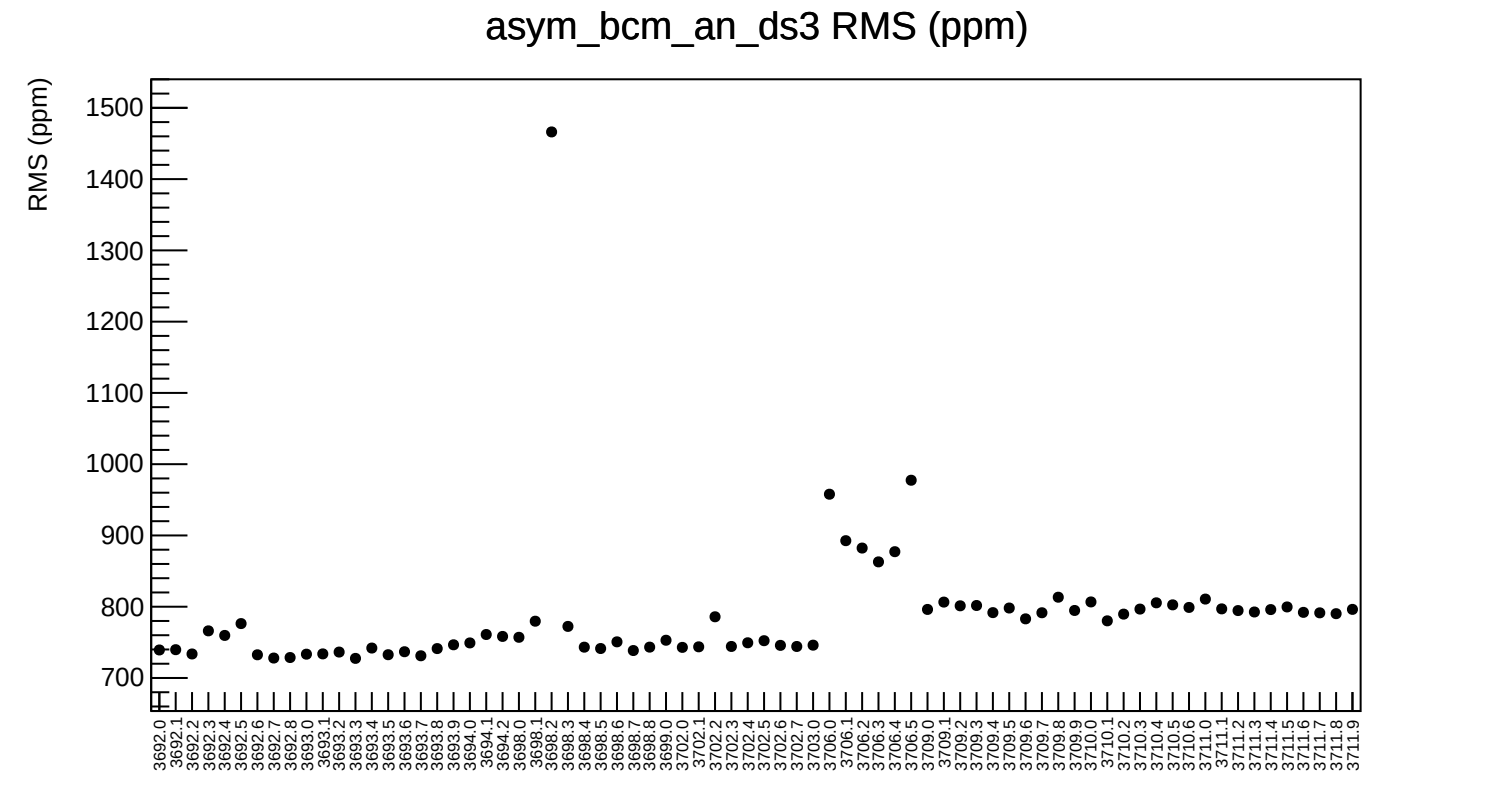

asym_bcm_an_ds (ppb)
χ² / ndf 75.03 / 73
p0 −78.82 ± 446.4
10000
5000
0
−5000
−10000
−15000
2
1
0
−1
−2
−3

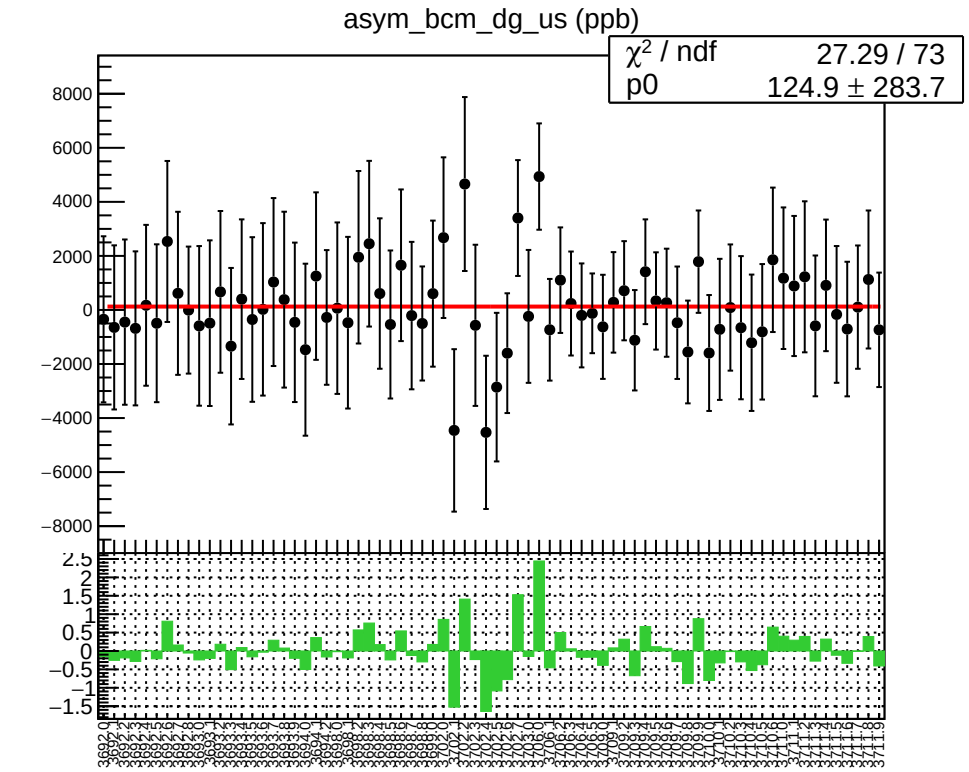

1D pull distribution
Mean 0.01022 ± 0.117
Std Dev 1.007 ± 0.08276
Underflow 0
Overflow 0
χ² / ndf 8.151 / 6
Constant 14.92 ± 2.21
Mean −0.03418 ± 0.13295
Sigma 0.9628 ± 0.0930
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

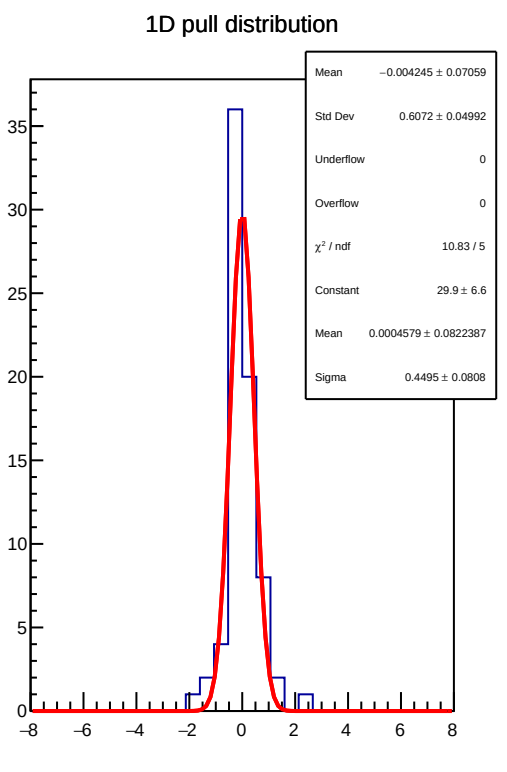

asym_bcm_an_ds RMS (ppm)
RMS (ppm)
384
382
380
378
376
374
372
370
368
3692.0
3692.1
3692.2
3692.3
3692.4
3692.5
3692.6
3692.7
3692.8
3693.0
3693.1
3693.2
3693.3
3693.4
3693.5
3693.6
3693.7
3693.8
3693.9
3694.0
3694.1
3694.2
3698.0
3698.1
3698.2
3698.3
3698.4
3698.5
3698.6
3698.7
3698.8
3699.0
3702.0
3702.1
3702.2
3702.3
3702.4
3702.5
3702.6
3702.7
3703.0
3706.0
3706.1
3706.2
3706.3
3706.4
3706.5
3709.0
3709.1
3709.2
3709.3
3709.4
3709.5
3709.6
3709.7
3709.8
3709.9
3710.0
3710.1
3710.2
3710.3
3710.4
3710.5
3710.6
3711.0
3711.1
3711.2
3711.3
3711.4
3711.5
3711.6
3711.7
3711.8
3711.9

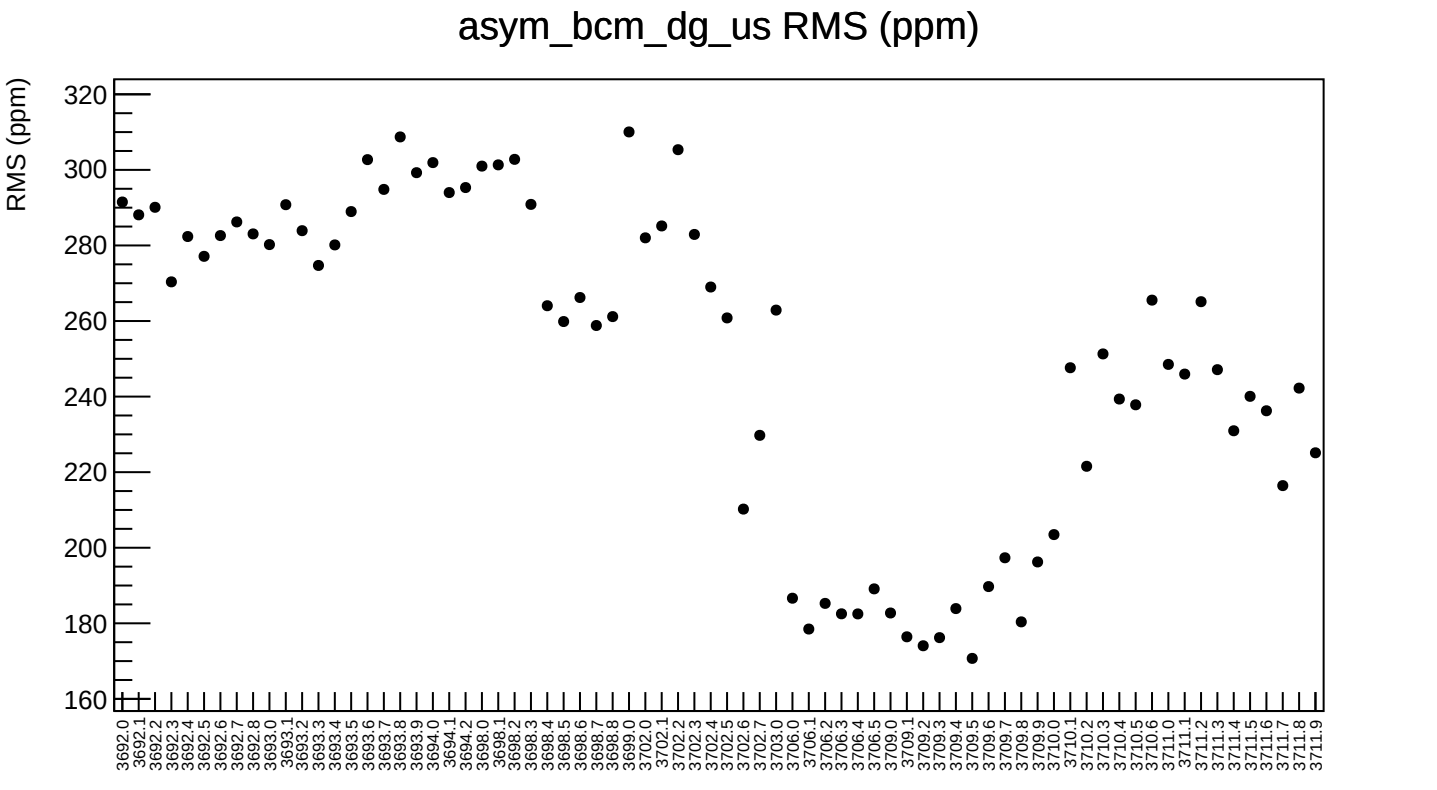

asym_bcm_an_ds3 (ppb)
χ² / ndf 88.66 / 73
p0 −281.9 ± 927.6
50000
40000
30000
20000
10000
0
−10000
−20000
−30000
2
1
0
−1
−2

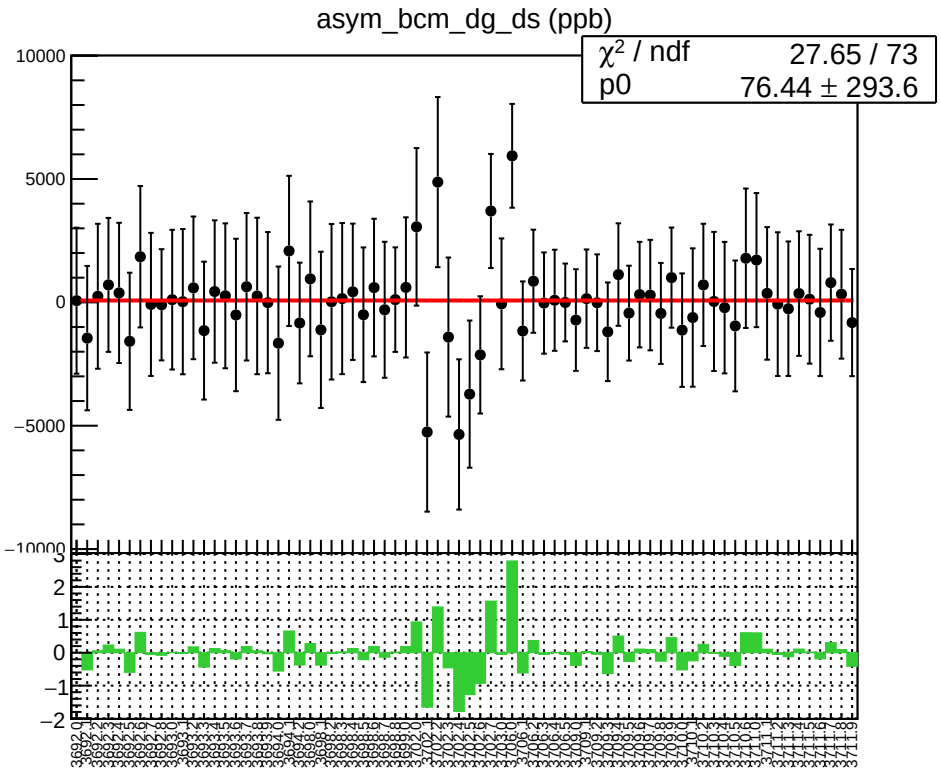

1D pull distribution
Mean 0.01466 ± 0.1272
Std Dev 1.094 ± 0.08997
Underflow 0
Overflow 0
χ² / ndf 3.852 / 7
Constant 13.93 ± 2.18
Mean −0.08312 ± 0.13847
Sigma 1.086 ± 0.121
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

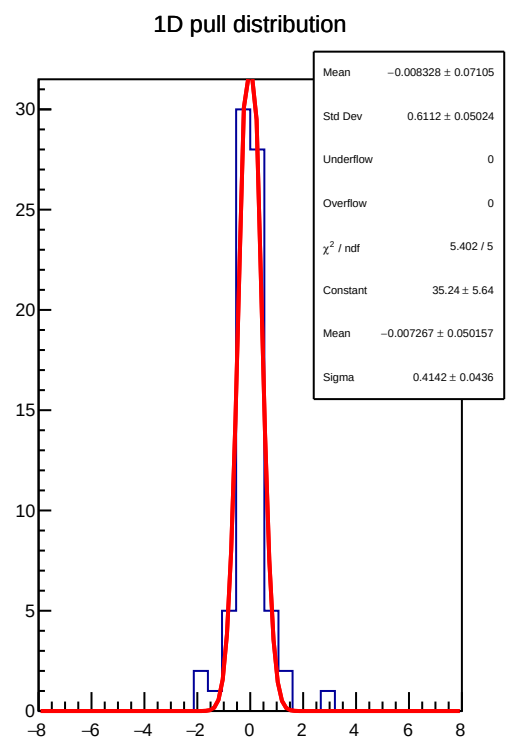

asym_bcm_an_ds3 RMS (ppm)
RMS (ppm)
1500
1400
1300
1200
1100
1000
900
800
700
3692.0
3692.1
3692.2
3692.3
3692.4
3692.5
3692.6
3692.7
3692.8
3693.0
3693.1
3693.2
3693.3
3693.4
3693.5
3693.6
3693.7
3693.8
3693.9
3694.0
3694.1
3694.2
3698.0
3698.1
3698.2
3698.3
3698.4
3698.5
3698.6
3698.7
3698.8
3699.0
3702.0
3702.1
3702.2
3702.3
3702.4
3702.5
3702.6
3702.7
3703.0
3706.0
3706.1
3706.2
3706.3
3706.4
3706.5
3709.0
3709.1
3709.2
3709.3
3709.4
3709.5
3709.6
3709.7
3709.8
3709.9
3710.0
3710.1
3710.2
3710.3
3710.4
3710.5
3710.6
3711.0
3711.1
3711.2
3711.3
3711.4
3711.5
3711.6
3711.7
3711.8
3711.9

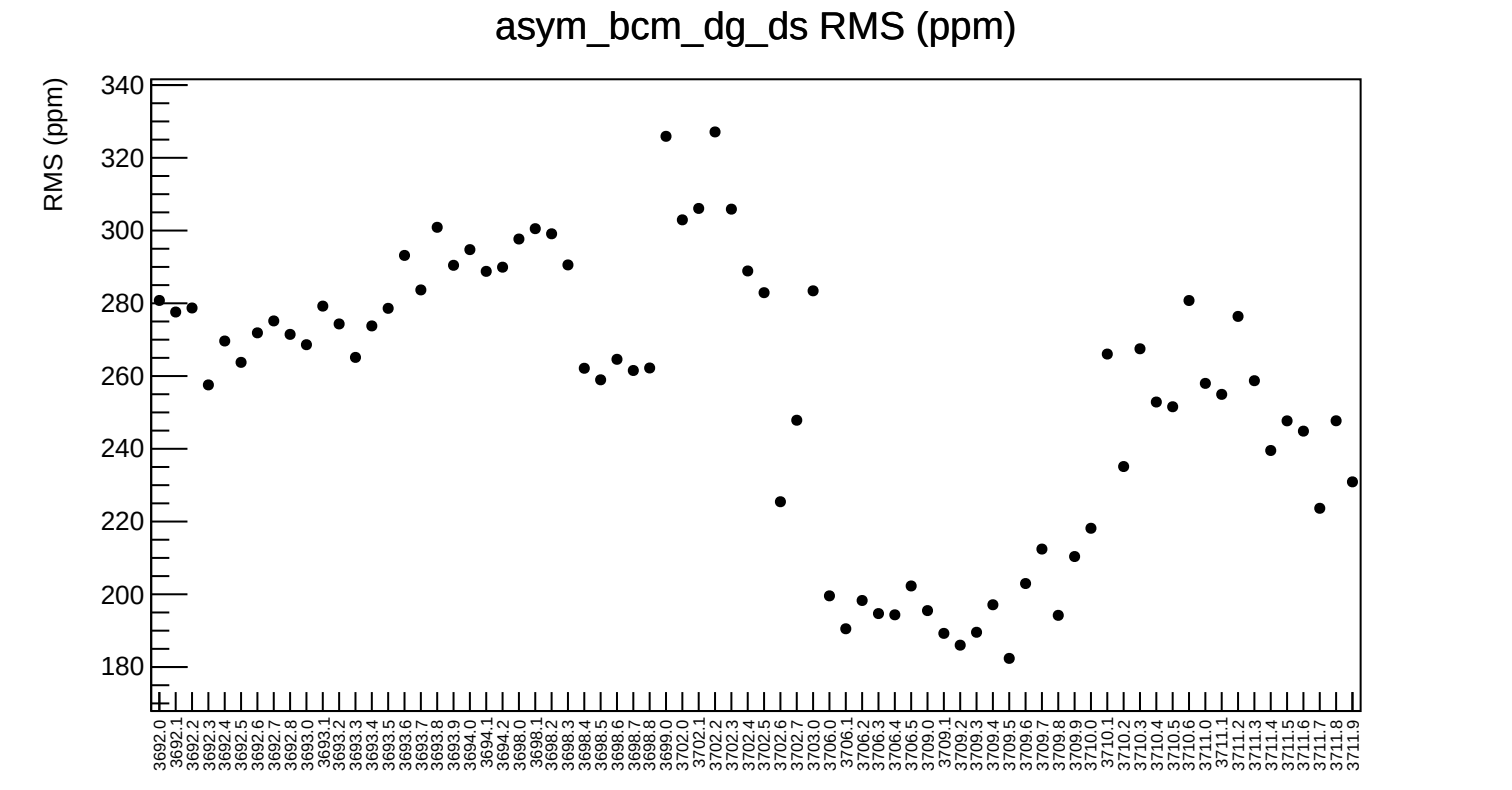

asym_bcm_dg_us (ppb)
χ² / ndf 27.29 / 73
p0 124.9 ± 283.7

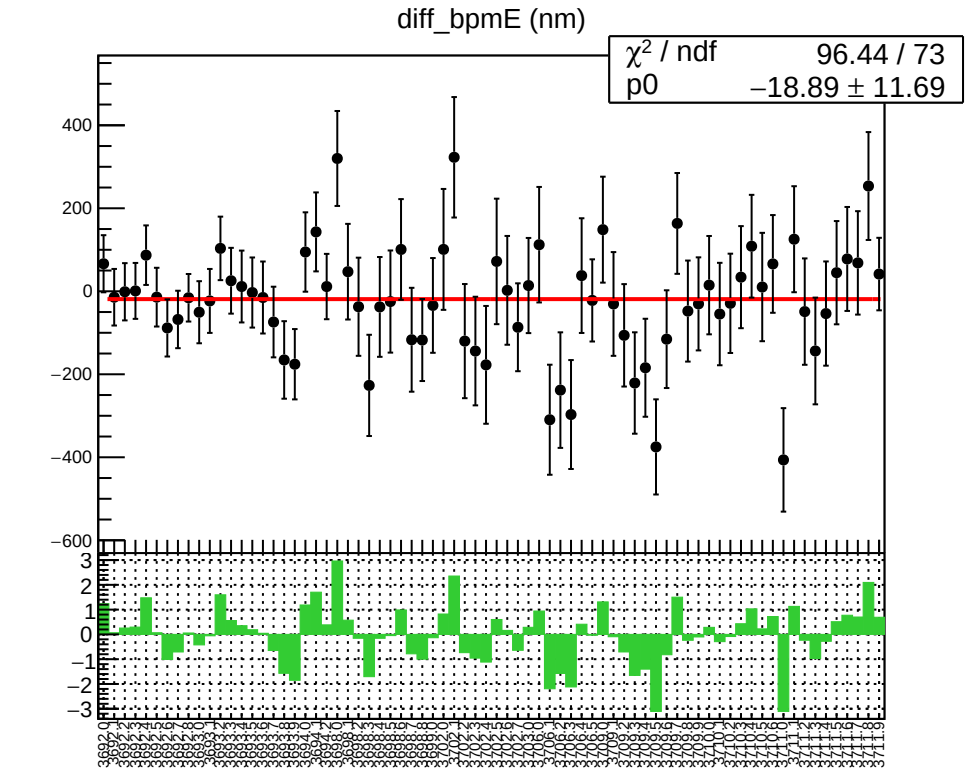

1D pull distribution
Mean −0.004245 ± 0.07059
Std Dev 0.6072 ± 0.04992
Underflow 0
Overflow 0
χ² / ndf 10.83 / 5
Constant 29.9 ± 6.6
Mean 0.0004579 ± 0.0822387
Sigma 0.4495 ± 0.0808

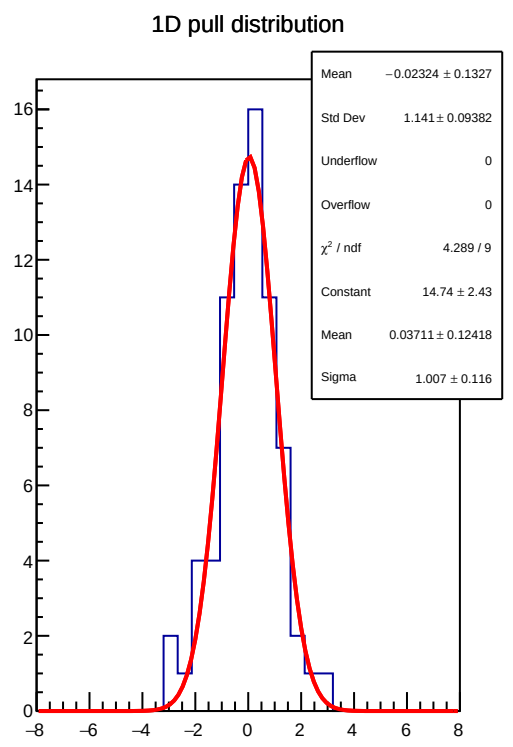

asym_bcm_dg_us RMS (ppm)
RMS (ppm)
320
300
280
260
240
220
200
180
160
3692.0
3692.1
3692.2
3692.3
3692.4
3692.5
3692.6
3692.7
3692.8
3693.0
3693.1
3693.2
3693.3
3693.4
3693.5
3693.6
3693.7
3693.8
3693.9
3694.0
3694.1
3694.2
3698.0
3698.1
3698.2
3698.3
3698.4
3698.5
3698.6
3698.7
3698.8
3699.0
3702.0
3702.1
3702.2
3702.3
3702.4
3702.5
3702.6
3702.7
3703.0
3706.0
3706.1
3706.2
3706.3
3706.4
3706.5
3709.0
3709.1
3709.2
3709.3
3709.4
3709.5
3709.6
3709.7
3709.8
3709.9
3710.0
3710.1
3710.2
3710.3
3710.4
3710.5
3710.6
3711.0
3711.1
3711.2
3711.3
3711.4
3711.5
3711.6
3711.7
3711.8
3711.9

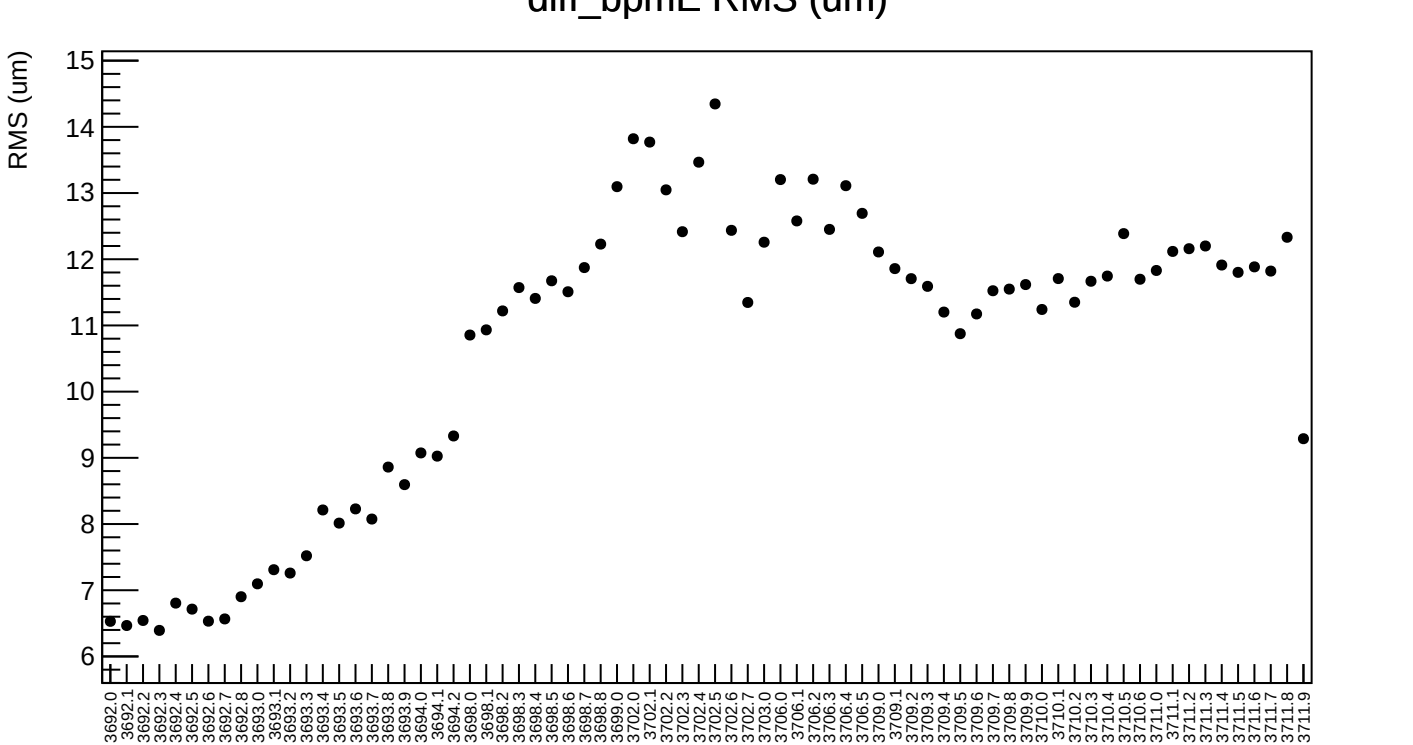

asym_bcm_dg_ds (ppb)
χ² / ndf 27.65 / 73
p0 76.44 ± 293.6
10000
5000
0
−5000
−10000
3
2
1
0
−1
−2

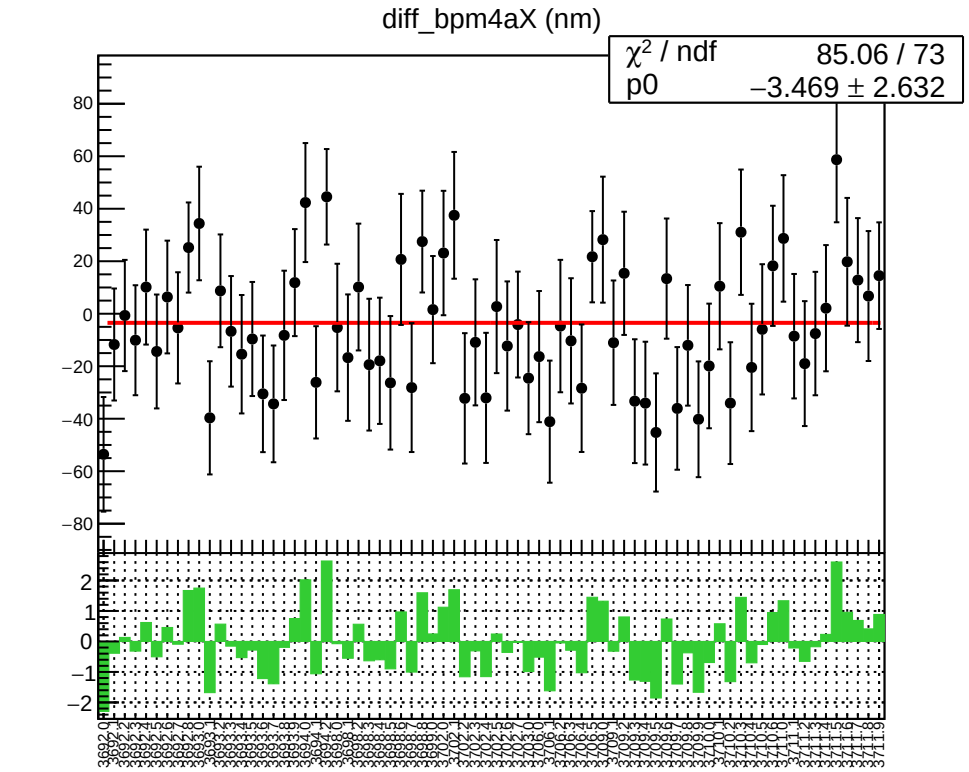

1D pull distribution
Mean −0.008328 ± 0.07105
Std Dev 0.6112 ± 0.05024
Underflow 0
Overflow 0
χ² / ndf 5.402 / 5
Constant 35.24 ± 5.64
Mean −0.007267 ± 0.050157
Sigma 0.4142 ± 0.0436
30
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

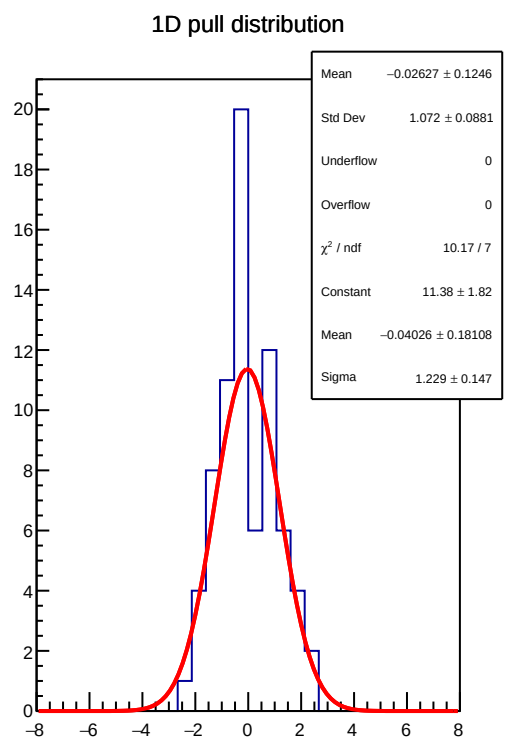

asym_bcm_dg_ds RMS (ppm)
RMS (ppm)
340
320
300
280
260
240
220
200
180
3692.0
3692.1
3692.2
3692.3
3692.4
3692.5
3692.6
3692.7
3692.8
3693.0
3693.1
3693.2
3693.3
3693.4
3693.5
3693.6
3693.7
3693.8
3693.9
3694.0
3694.1
3694.2
3698.0
3698.1
3698.2
3698.3
3698.4
3698.5
3698.6
3698.7
3698.8
3699.0
3702.0
3702.1
3702.2
3702.3
3702.4
3702.5
3702.6
3702.7
3703.0
3706.0
3706.1
3706.2
3706.3
3706.4
3706.5
3709.0
3709.1
3709.2
3709.3
3709.4
3709.5
3709.6
3709.7
3709.8
3709.9
3710.0
3710.1
3710.2
3710.3
3710.4
3710.5
3710.6
3711.0
3711.1
3711.2
3711.3
3711.4
3711.5
3711.6
3711.7
3711.8
3711.9


diff_bpmE (nm)
χ² / ndf 96.44 / 73
p0 −18.89 ± 11.69


1D pull distribution
Mean −0.02324 ± 0.1327
Std Dev 1.141 ± 0.09382
Underflow 0
Overflow 0
χ² / ndf 4.289 / 9
Constant 14.74 ± 2.43
Mean 0.03711 ± 0.12418
Sigma 1.007 ± 0.116


diff_bpmE RMS (um)
RMS (um)
15
14
13
12
11
10
9
8
7
6
3692.0
3692.1
3692.2
3692.3
3692.4
3692.5
3692.6
3692.7
3692.8
3693.0
3693.1
3693.2
3693.3
3693.4
3693.5
3693.6
3693.7
3693.8
3693.9
3694.0
3694.1
3694.2
3698.0
3698.1
3698.2
3698.3
3698.4
3698.5
3698.6
3698.7
3698.8
3699.0
3702.0
3702.1
3702.2
3702.3
3702.4
3702.5
3702.6
3702.7
3703.0
3706.0
3706.1
3706.2
3706.3
3706.4
3706.5
3709.0
3709.1
3709.2
3709.3
3709.4
3709.5
3709.6
3709.7
3709.8
3709.9
3710.0
3710.1
3710.2
3710.3
3710.4
3710.5
3710.6
3711.0
3711.1
3711.2
3711.3
3711.4
3711.5
3711.6
3711.7
3711.8
3711.9


diff_bpm4aX (nm)
χ² / ndf 85.06 / 73
p0 −3.469 ± 2.632

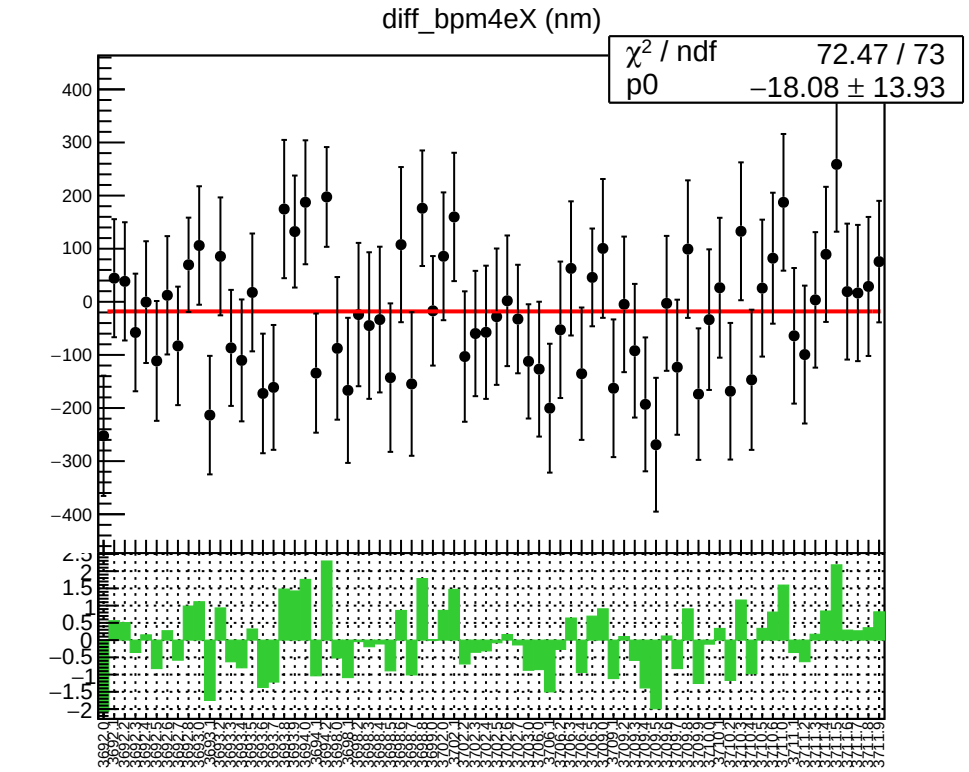

1D pull distribution
Mean −0.02627 ± 0.1246
Std Dev 1.072 ± 0.0881
Underflow 0
Overflow 0
χ² / ndf 10.17 / 7
Constant 11.38 ± 1.82
Mean −0.04026 ± 0.18108
Sigma 1.229 ± 0.147

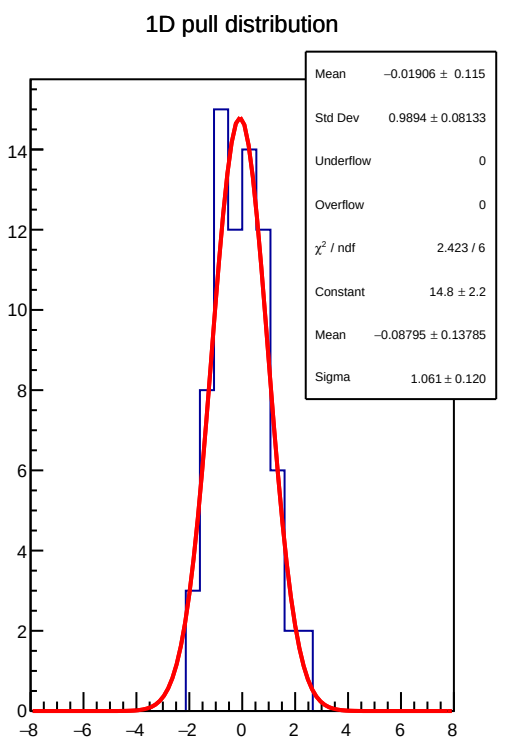
diff_bpm4aX RMS (um)

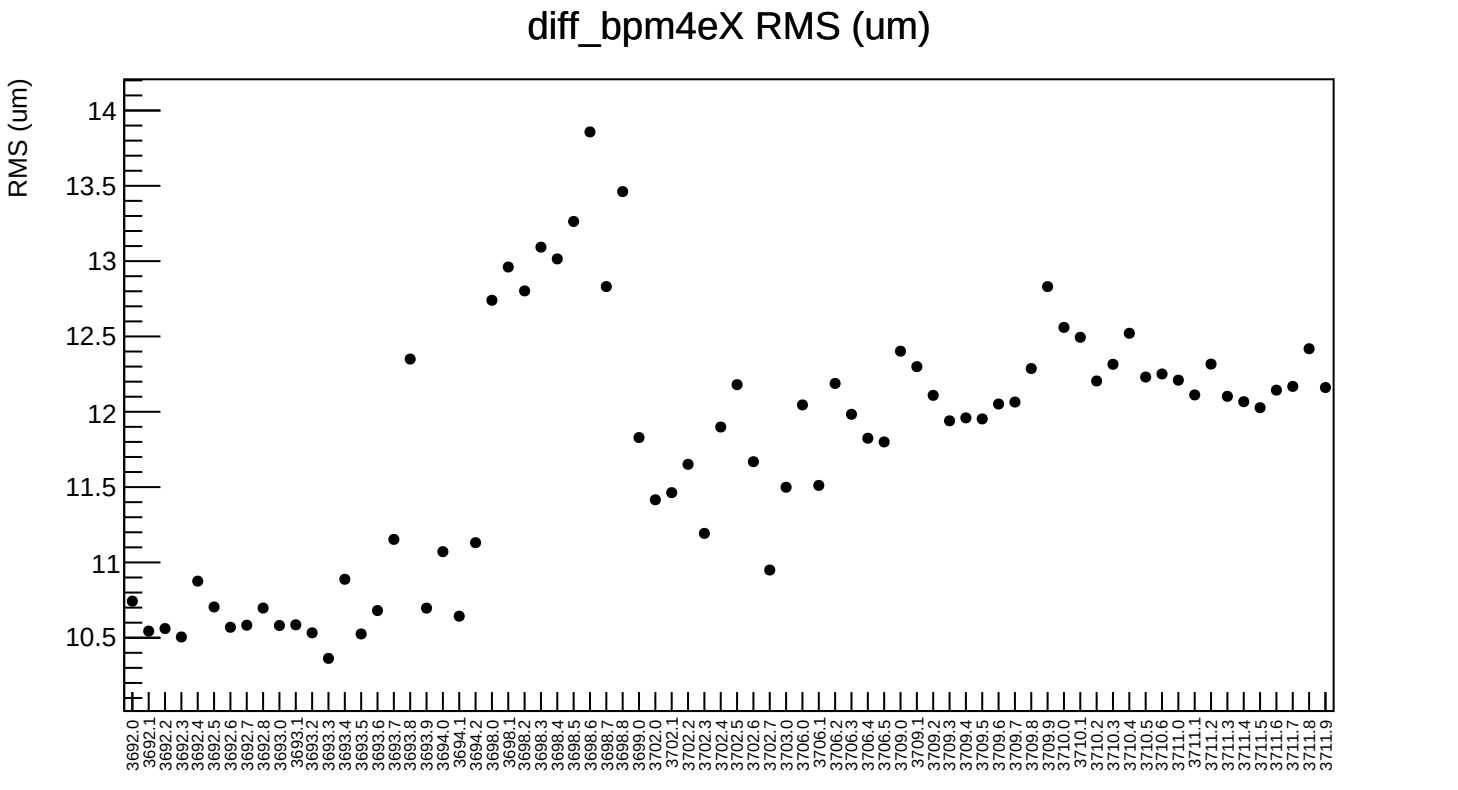
RMS (um)

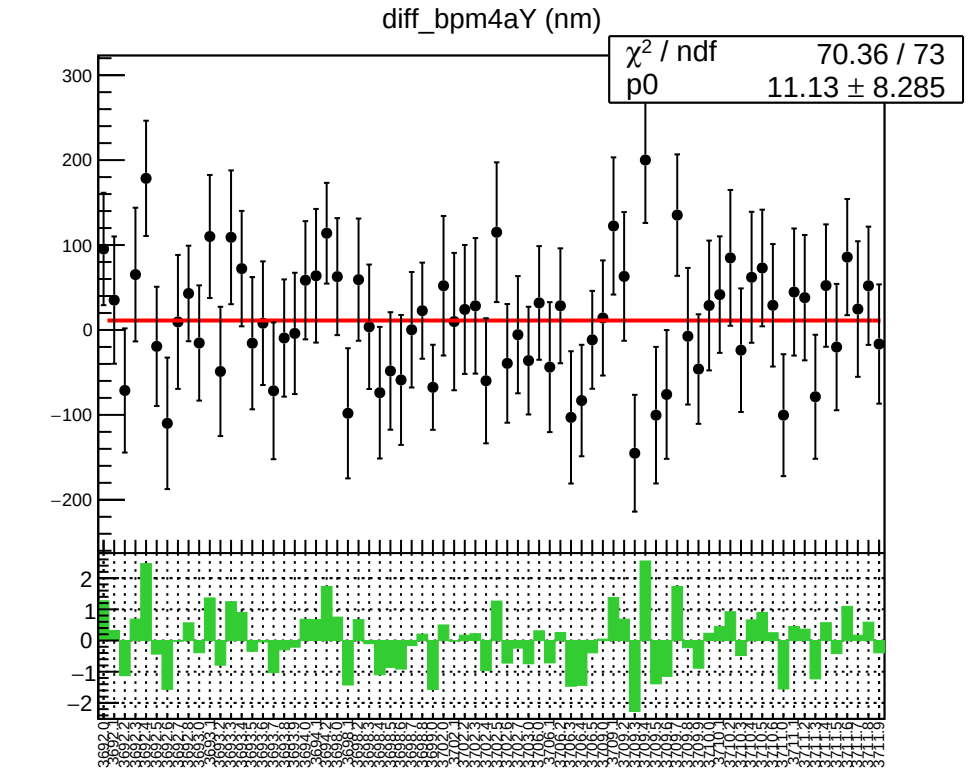
2.4
2.3
2.2
2.1
2

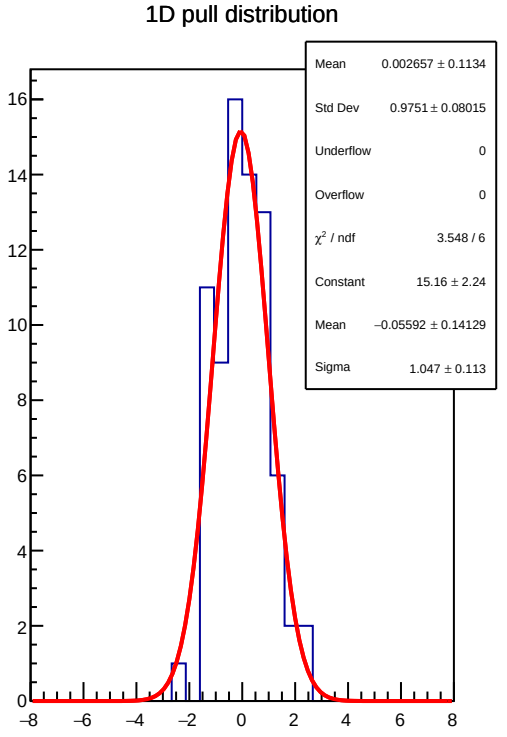
3692.0
3692.1
3692.2
3692.3
3692.4
3692.5
3692.6
3692.7
3692.8
3693.0
3693.1
3693.2
3693.3
3693.4
3693.5
3693.6
3693.7
3693.8
3693.9
3694.0
3694.1
3694.2
3698.0
3698.1
3698.2
3698.3
3698.4
3698.5
3698.6
3698.7
3698.8
3699.0
3702.0
3702.1
3702.2
3702.3
3702.4
3702.5
3702.6
3702.7
3703.0
3706.0
3706.1
3706.2
3706.3
3706.4
3706.5
3709.0
3709.1
3709.2
3709.3
3709.4
3709.5
3709.6
3709.7
3709.8
3709.9
3710.0
3710.1
3710.2
3710.3
3710.4
3710.5
3710.6
3711.0
3711.1
3711.2
3711.3
3711.4
3711.5
3711.6
3711.7
3711.8
3711.9

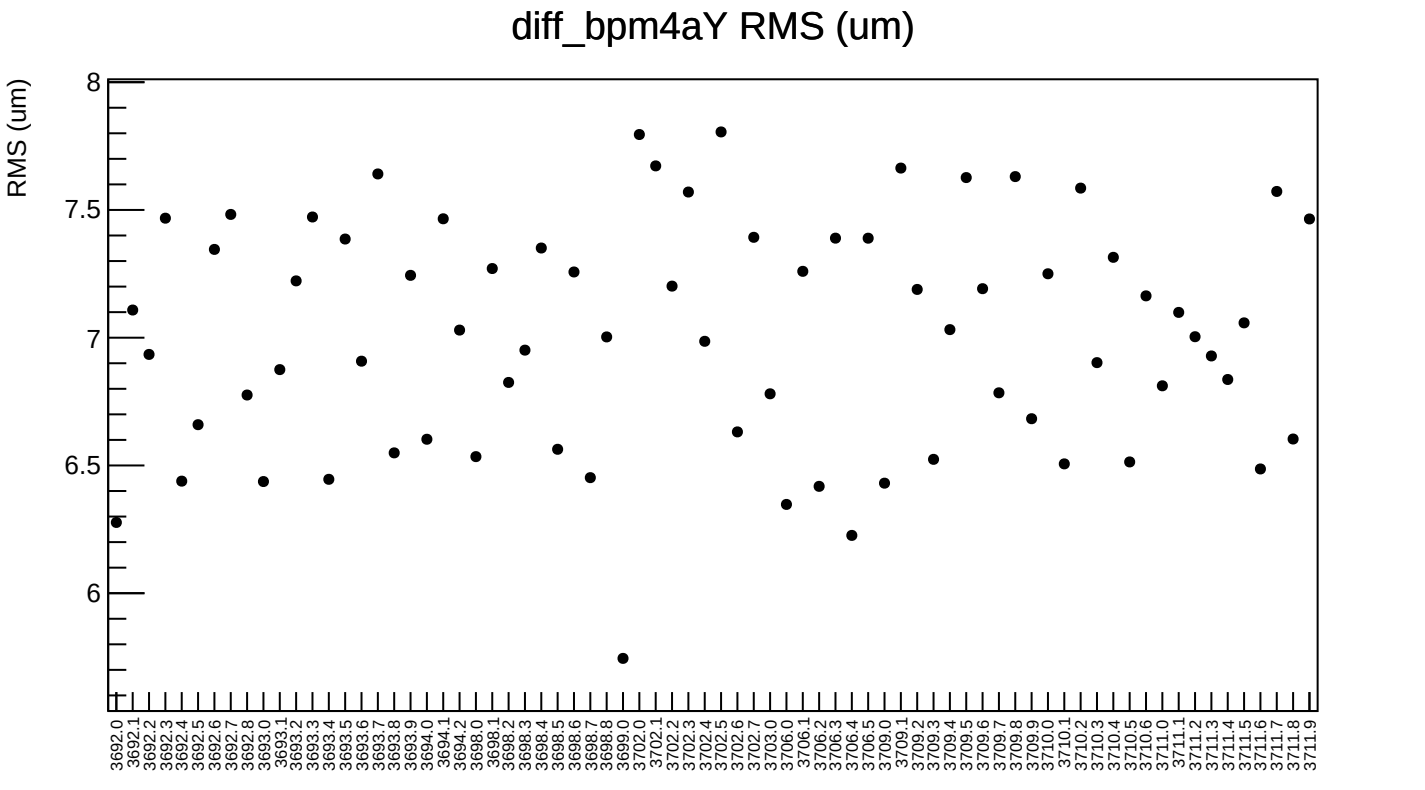

diff_bpm4eX (nm)
χ² / ndf 72.47 / 73
p0 −18.08 ± 13.93

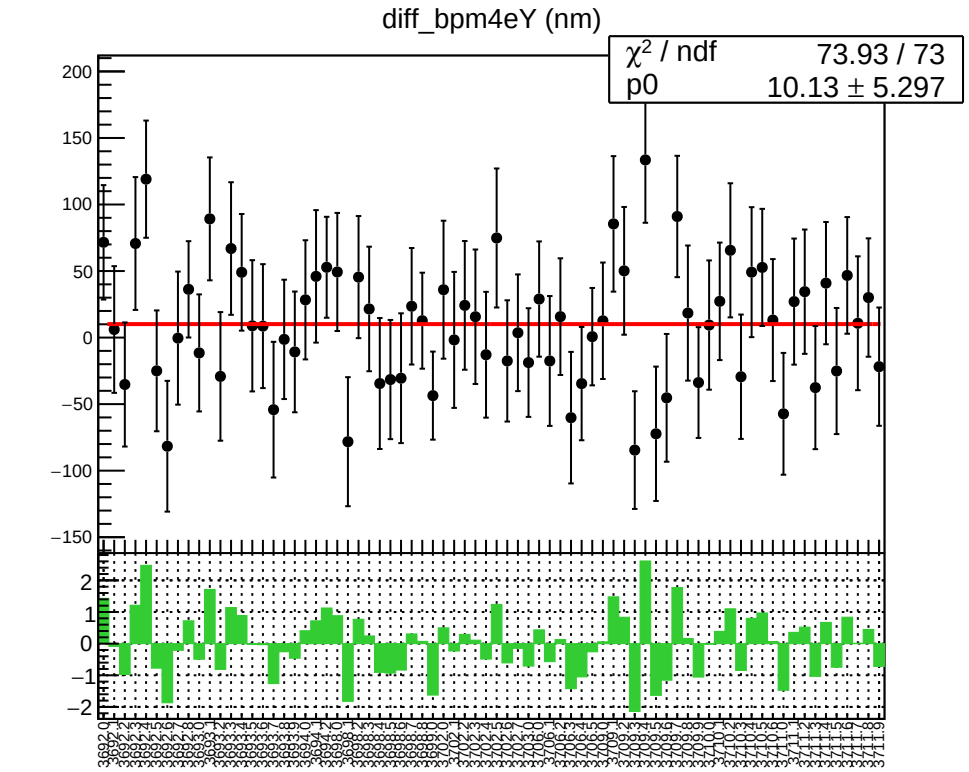

1D pull distribution
Mean −0.01906 ± 0.115
Std Dev 0.9894 ± 0.08133
Underflow 0
Overflow 0
χ² / ndf 2.423 / 6
Constant 14.8 ± 2.2
Mean −0.08795 ± 0.13785
Sigma 1.061 ± 0.120

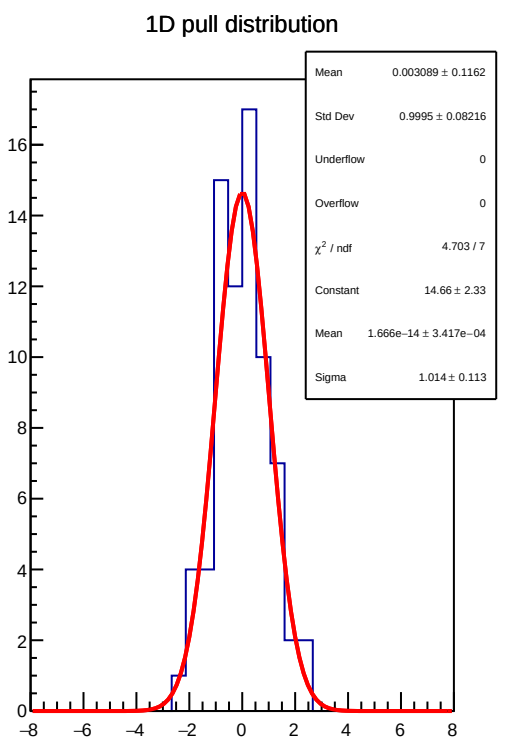

diff_bpm4eX RMS (um)
RMS (um)
14
13.5
13
12.5
12
11.5
11
10.5
3692.0
3692.1
3692.2
3692.3
3692.4
3692.5
3692.6
3692.7
3692.8
3693.0
3693.1
3693.2
3693.3
3693.4
3693.5
3693.6
3693.7
3693.8
3693.9
3694.0
3694.1
3694.2
3698.0
3698.1
3698.2
3698.3
3698.4
3698.5
3698.6
3698.7
3698.8
3699.0
3702.0
3702.1
3702.2
3702.3
3702.4
3702.5
3702.6
3702.7
3703.0
3706.0
3706.1
3706.2
3706.3
3706.4
3706.5
3709.0
3709.1
3709.2
3709.3
3709.4
3709.5
3709.6
3709.7
3709.8
3709.9
3710.0
3710.1
3710.2
3710.3
3710.4
3710.5
3710.6
3711.0
3711.1
3711.2
3711.3
3711.4
3711.5
3711.6
3711.7
3711.8
3711.9

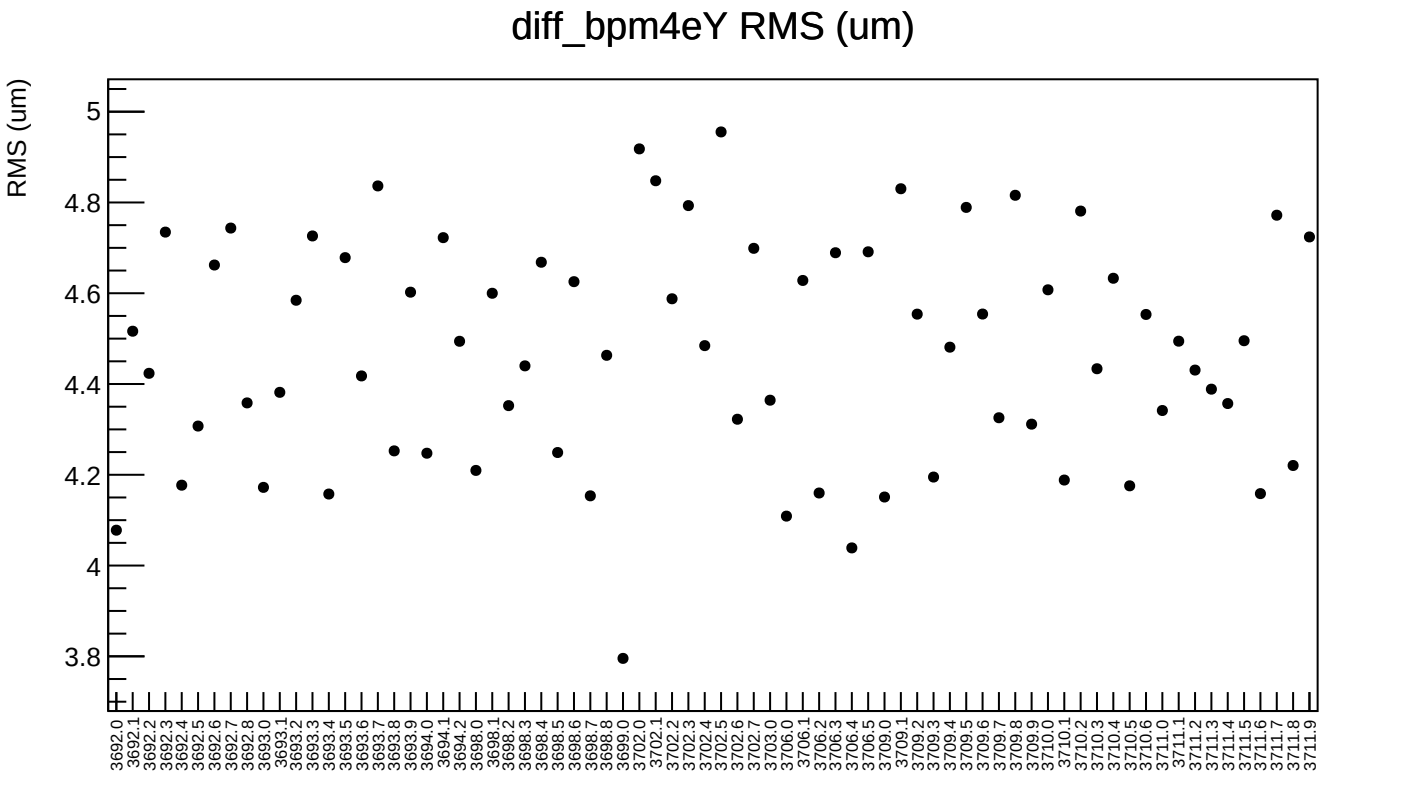

diff_bpm4aY (nm)
χ² / ndf 70.36 / 73
p0 11.13 ± 8.285
300
200
100
0
−100
−200
2
1
0
−1
−2

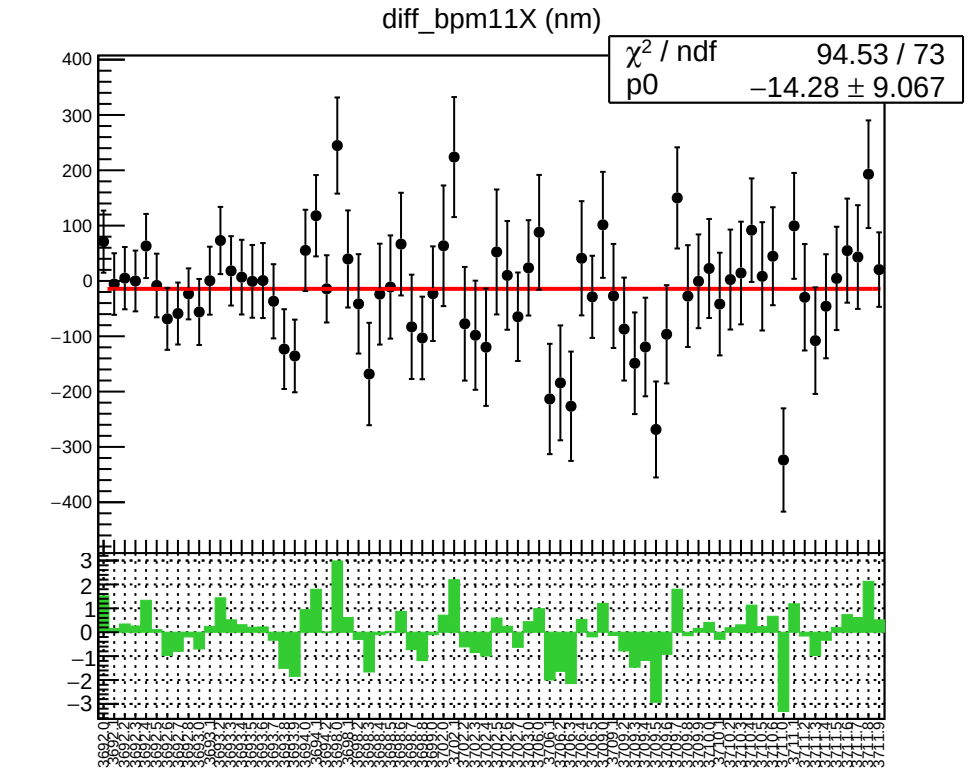

1D pull distribution
Mean 0.002657 ± 0.1134
Std Dev 0.9751 ± 0.08015
Underflow 0
Overflow 0
χ² / ndf 3.548 / 6
Constant 15.16 ± 2.24
Mean −0.05592 ± 0.14129
Sigma 1.047 ± 0.113
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

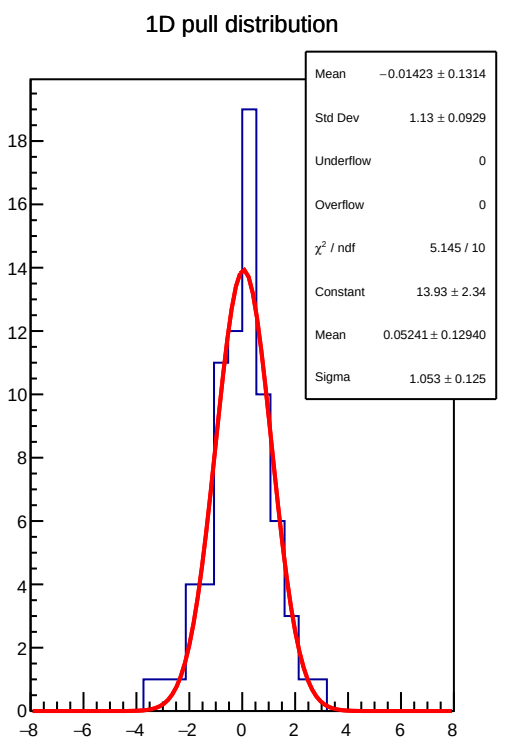

diff_bpm4aY RMS (um)
RMS (um)
8
7.5
7
6.5
6
3692.0
3692.1
3692.2
3692.3
3692.4
3692.5
3692.6
3692.7
3692.8
3693.0
3693.1
3693.2
3693.3
3693.4
3693.5
3693.6
3693.7
3693.8
3693.9
3694.0
3694.1
3694.2
3698.0
3698.1
3698.2
3698.3
3698.4
3698.5
3698.6
3698.7
3698.8
3699.0
3702.0
3702.1
3702.2
3702.3
3702.4
3702.5
3702.6
3702.7
3703.0
3706.0
3706.1
3706.2
3706.3
3706.4
3706.5
3709.0
3709.1
3709.2
3709.3
3709.4
3709.5
3709.6
3709.7
3709.8
3709.9
3710.0
3710.1
3710.2
3710.3
3710.4
3710.5
3710.6
3711.0
3711.1
3711.2
3711.3
3711.4
3711.5
3711.6
3711.7
3711.8
3711.9

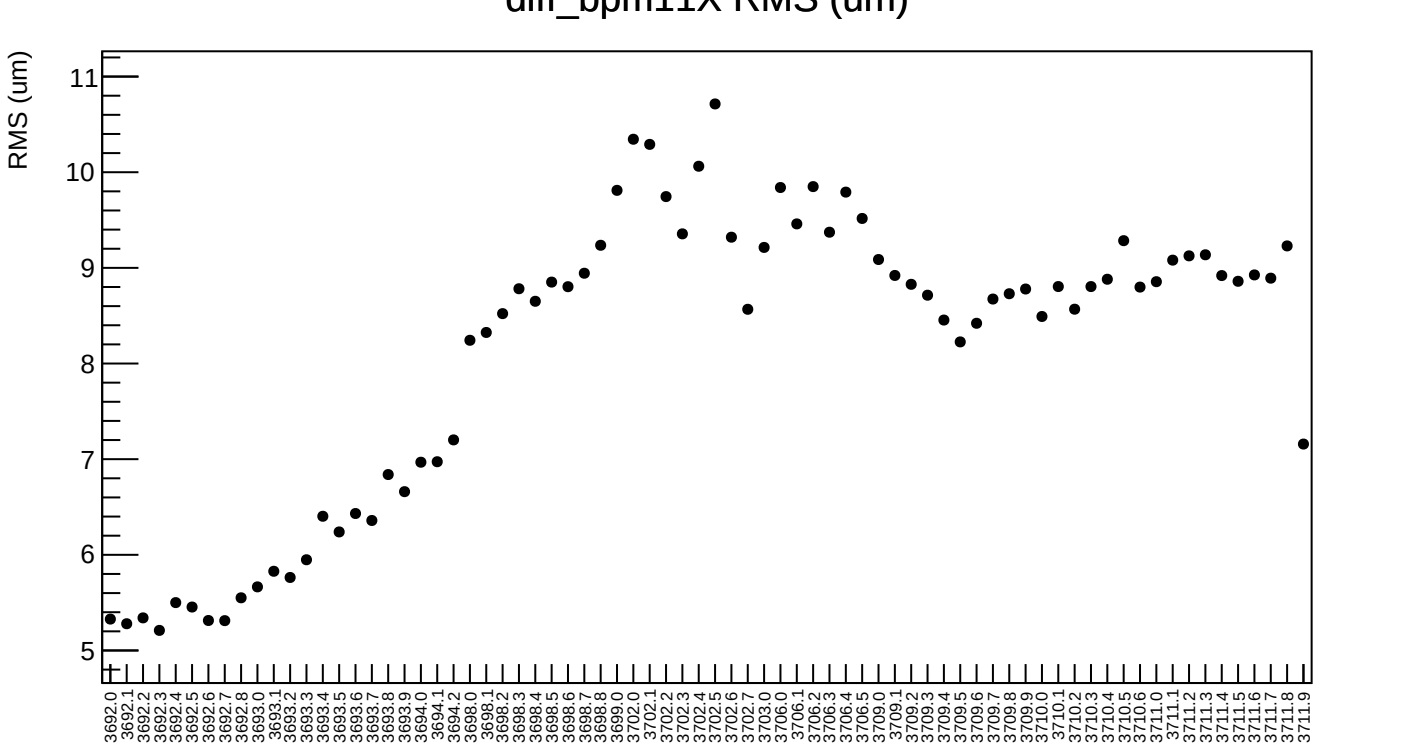

diff_bpm4eY (nm)
χ² / ndf 73.93 / 73
p0 10.13 ± 5.297

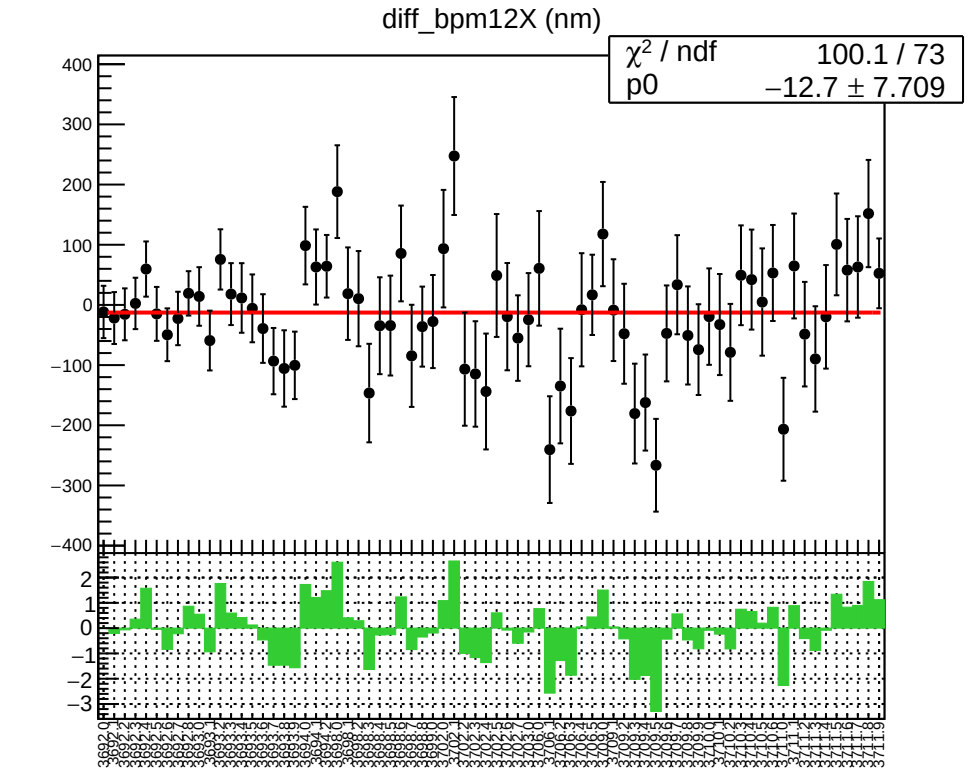

1D pull distribution
Mean 0.003089 ± 0.1162
Std Dev 0.9995 ± 0.08216
Underflow 0
Overflow 0
χ² / ndf 4.703 / 7
Constant 14.66 ± 2.33
Mean 1.666e−14 ± 3.417e−04
Sigma 1.014 ± 0.113

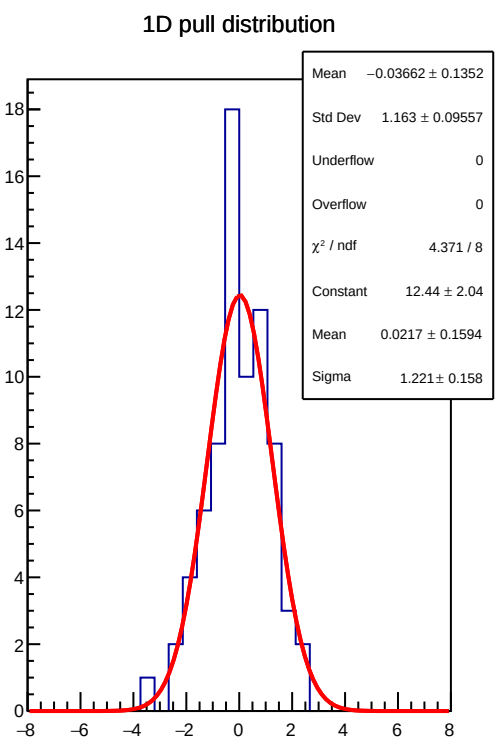

diff_bpm4eY RMS (um)
RMS (um)
5
4.8
4.6
4.4
4.2
4
3.8
3692.0
3692.1
3692.2
3692.3
3692.4
3692.5
3692.6
3692.7
3692.8
3693.0
3693.1
3693.2
3693.3
3693.4
3693.5
3693.6
3693.7
3693.8
3693.9
3694.0
3694.1
3694.2
3698.0
3698.1
3698.2
3698.3
3698.4
3698.5
3698.6
3698.7
3698.8
3699.0
3702.0
3702.1
3702.2
3702.3
3702.4
3702.5
3702.6
3702.7
3703.0
3706.0
3706.1
3706.2
3706.3
3706.4
3706.5
3709.0
3709.1
3709.2
3709.3
3709.4
3709.5
3709.6
3709.7
3709.8
3709.9
3710.0
3710.1
3710.2
3710.3
3710.4
3710.5
3710.6
3711.0
3711.1
3711.2
3711.3
3711.4
3711.5
3711.6
3711.7
3711.8
3711.9

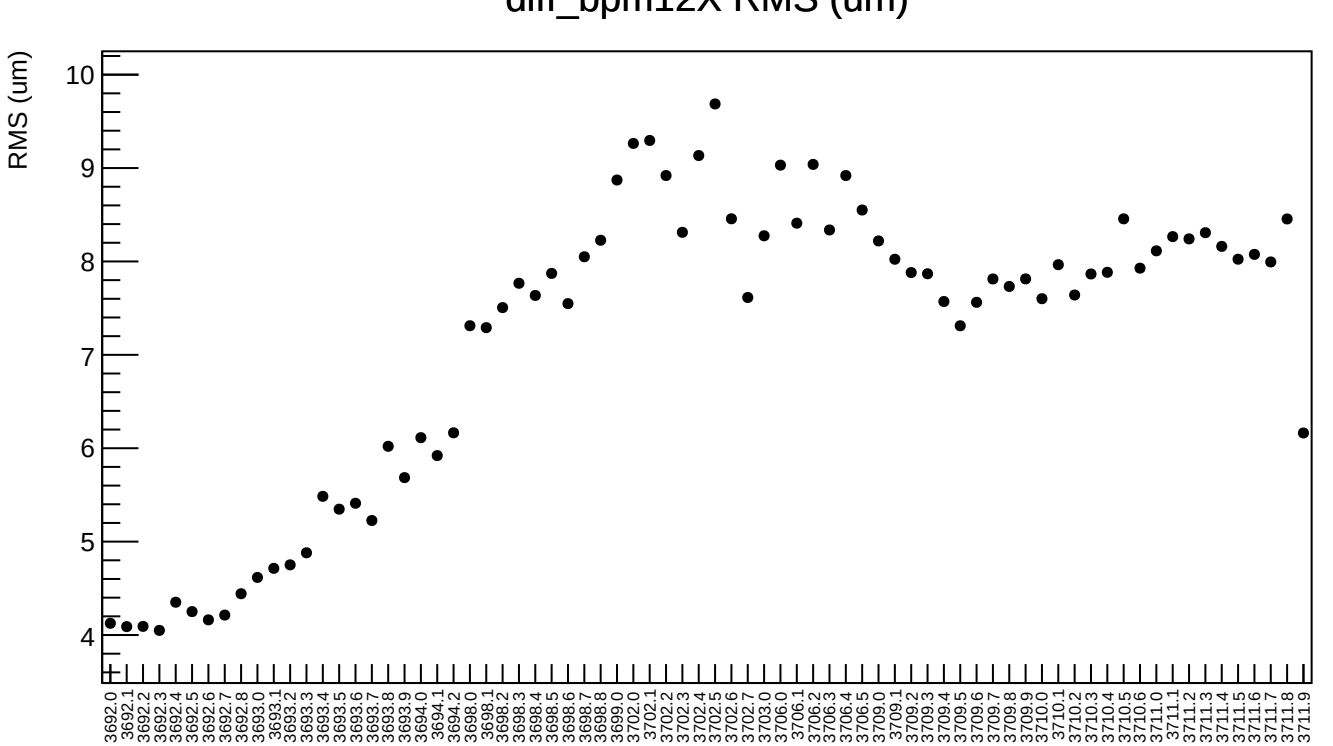

diff_bpm11X (nm)
χ² / ndf 94.53 / 73
p0 −14.28 ± 9.067

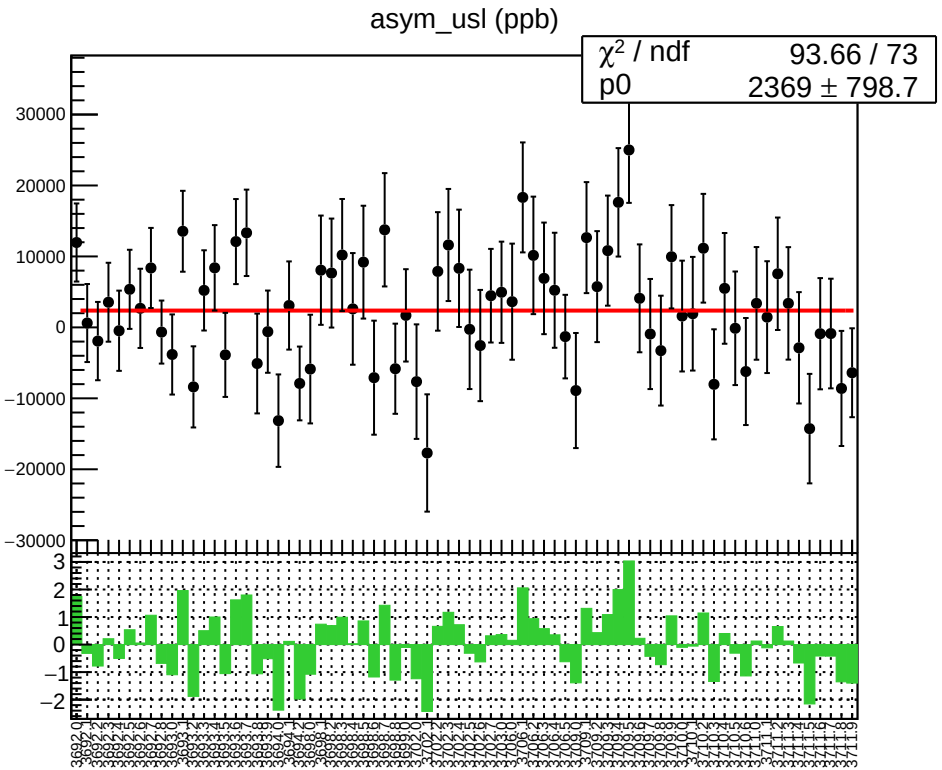

1D pull distribution
Mean −0.01423 ± 0.1314
Std Dev 1.13 ± 0.0929
Underflow 0
Overflow 0
χ² / ndf 5.145 / 10
Constant 13.93 ± 2.34
Mean 0.05241 ± 0.12940
Sigma 1.053 ± 0.125

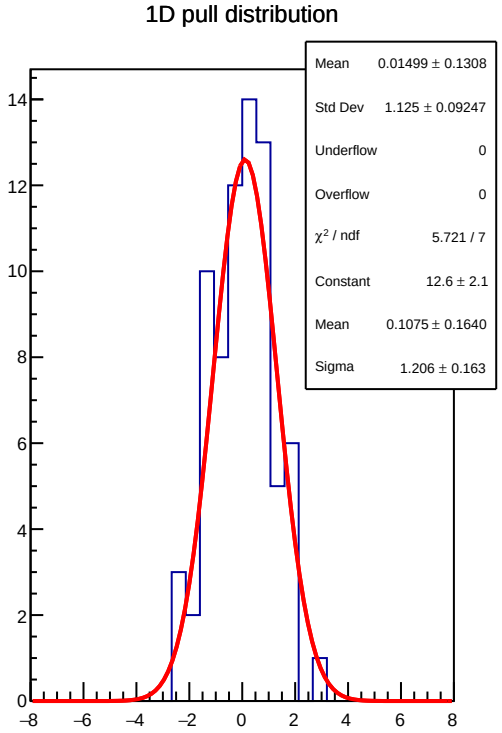

diff_bpm11X RMS (um)
RMS (um)
11
10
9
8
7
6
5
3692.0
3692.1
3692.2
3692.3
3692.4
3692.5
3692.6
3692.7
3692.8
3693.0
3693.1
3693.2
3693.3
3693.4
3693.5
3693.6
3693.7
3693.8
3693.9
3694.0
3694.1
3694.2
3698.0
3698.1
3698.2
3698.3
3698.4
3698.5
3698.6
3698.7
3698.8
3699.0
3702.0
3702.1
3702.2
3702.3
3702.4
3702.5
3702.6
3702.7
3703.0
3706.0
3706.1
3706.2
3706.3
3706.4
3706.5
3709.0
3709.1
3709.2
3709.3
3709.4
3709.5
3709.6
3709.7
3709.8
3709.9
3710.0
3710.1
3710.2
3710.3
3710.4
3710.5
3710.6
3711.0
3711.1
3711.2
3711.3
3711.4
3711.5
3711.6
3711.7
3711.8
3711.9


diff_bpm12X (nm)
χ² / ndf 100.1 / 73
p0 −12.7 ± 7.709


1D pull distribution
Mean −0.03662 ± 0.1352
Std Dev 1.163 ± 0.09557
Underflow 0
Overflow 0
χ² / ndf 4.371 / 8
Constant 12.44 ± 2.04
Mean 0.0217 ± 0.1594
Sigma 1.221 ± 0.158


diff_bpm12X RMS (um)
RMS (um)
10
9
8
7
6
5
4
3692.0
3692.1
3692.2
3692.3
3692.4
3692.5
3692.6
3692.7
3692.8
3693.0
3693.1
3693.2
3693.3
3693.4
3693.5
3693.6
3693.7
3693.8
3693.9
3694.0
3694.1
3694.2
3698.0
3698.1
3698.2
3698.3
3698.4
3698.5
3698.6
3698.7
3698.8
3699.0
3702.0
3702.1
3702.2
3702.3
3702.4
3702.5
3702.6
3702.7
3703.0
3706.0
3706.1
3706.2
3706.3
3706.4
3706.5
3709.0
3709.1
3709.2
3709.3
3709.4
3709.5
3709.6
3709.7
3709.8
3709.9
3710.0
3710.1
3710.2
3710.3
3710.4
3710.5
3710.6
3711.0
3711.1
3711.2
3711.3
3711.4
3711.5
3711.6
3711.7
3711.8
3711.9


asym_usl (ppb)
χ² / ndf 93.66 / 73
p0 2369 ± 798.7
30000
20000
10000
0
−10000
−20000
−30000
3
2
1
0
−1
−2

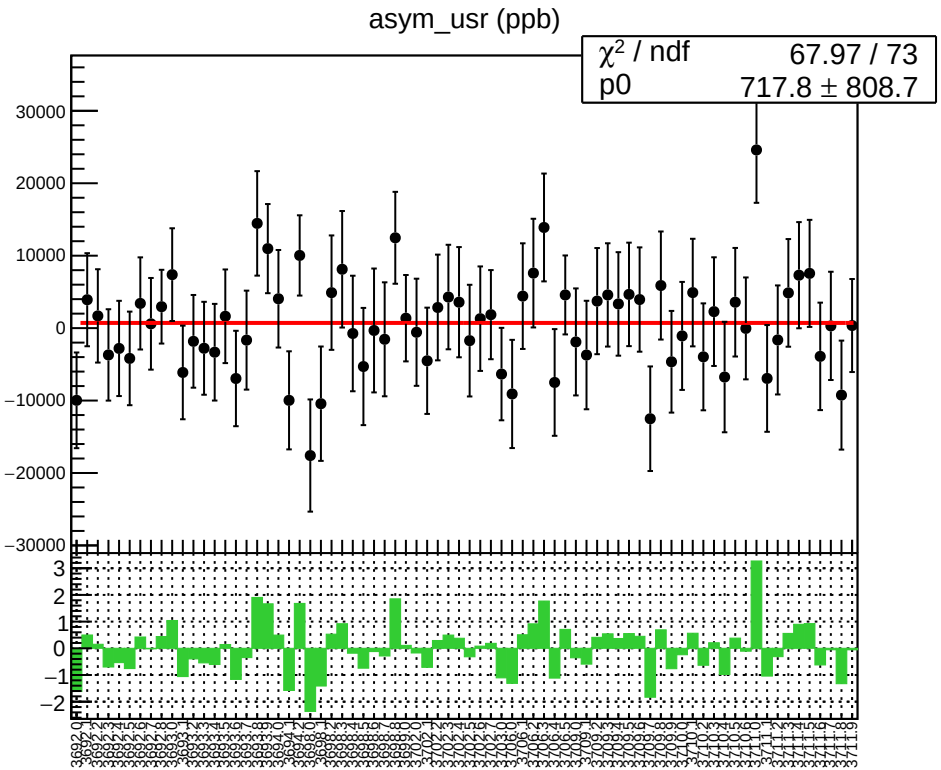

1D pull distribution
Mean 0.01499 ± 0.1308
Std Dev 1.125 ± 0.09247
Underflow 0
Overflow 0
χ² / ndf 5.721 / 7
Constant 12.6 ± 2.1
Mean 0.1075 ± 0.1640
Sigma 1.206 ± 0.163
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

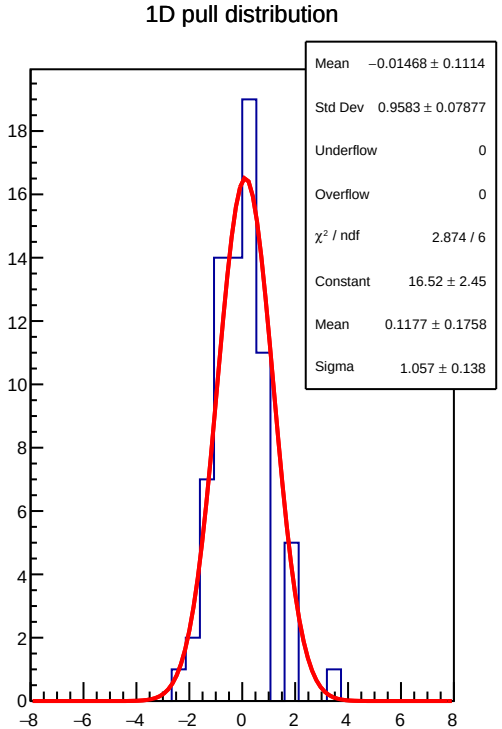
asym_usl RMS (ppm)

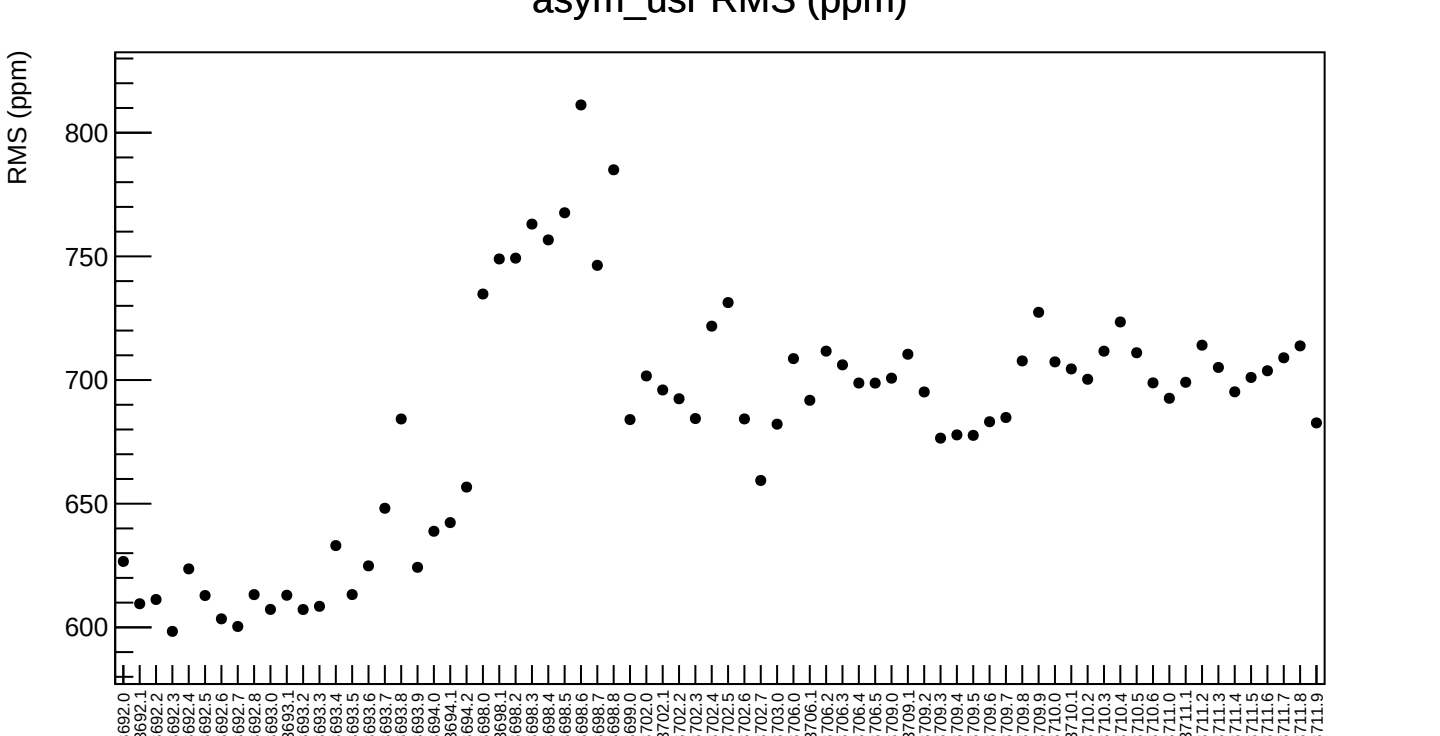
RMS (ppm)

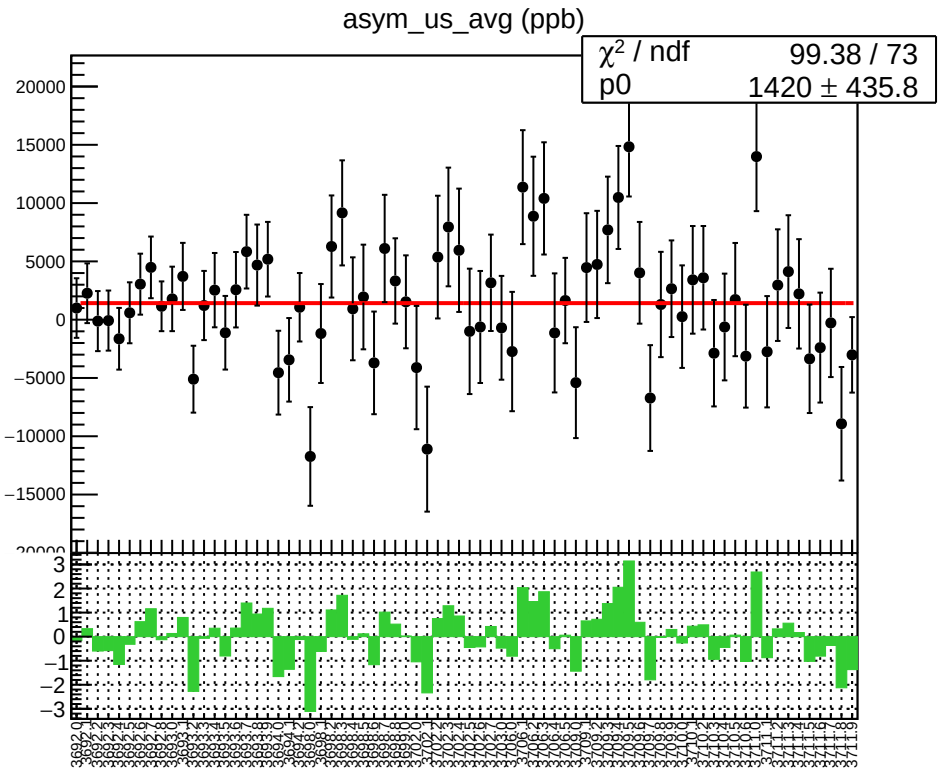
800
750
700
650
600
550
500

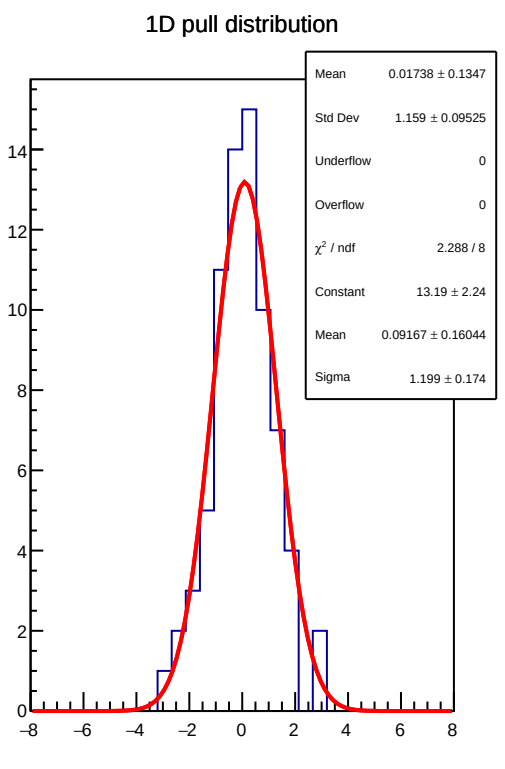
3692.0
3692.1
3692.2
3692.3
3692.4
3692.5
3692.6
3692.7
3692.8
3693.0
3693.1
3693.2
3693.3
3693.4
3693.5
3693.6
3693.7
3693.8
3693.9
3694.0
3694.1
3694.2
3698.0
3698.1
3698.2
3698.3
3698.4
3698.5
3698.6
3698.7
3698.8
3699.0
3702.0
3702.1
3702.2
3702.3
3702.4
3702.5
3702.6
3702.7
3703.0
3706.0
3706.1
3706.2
3706.3
3706.4
3706.5
3709.0
3709.1
3709.2
3709.3
3709.4
3709.5
3709.6
3709.7
3709.8
3709.9
3710.0
3710.1
3710.2
3710.3
3710.4
3710.5
3710.6
3711.0
3711.1
3711.2
3711.3
3711.4
3711.5
3711.6
3711.7
3711.8
3711.9

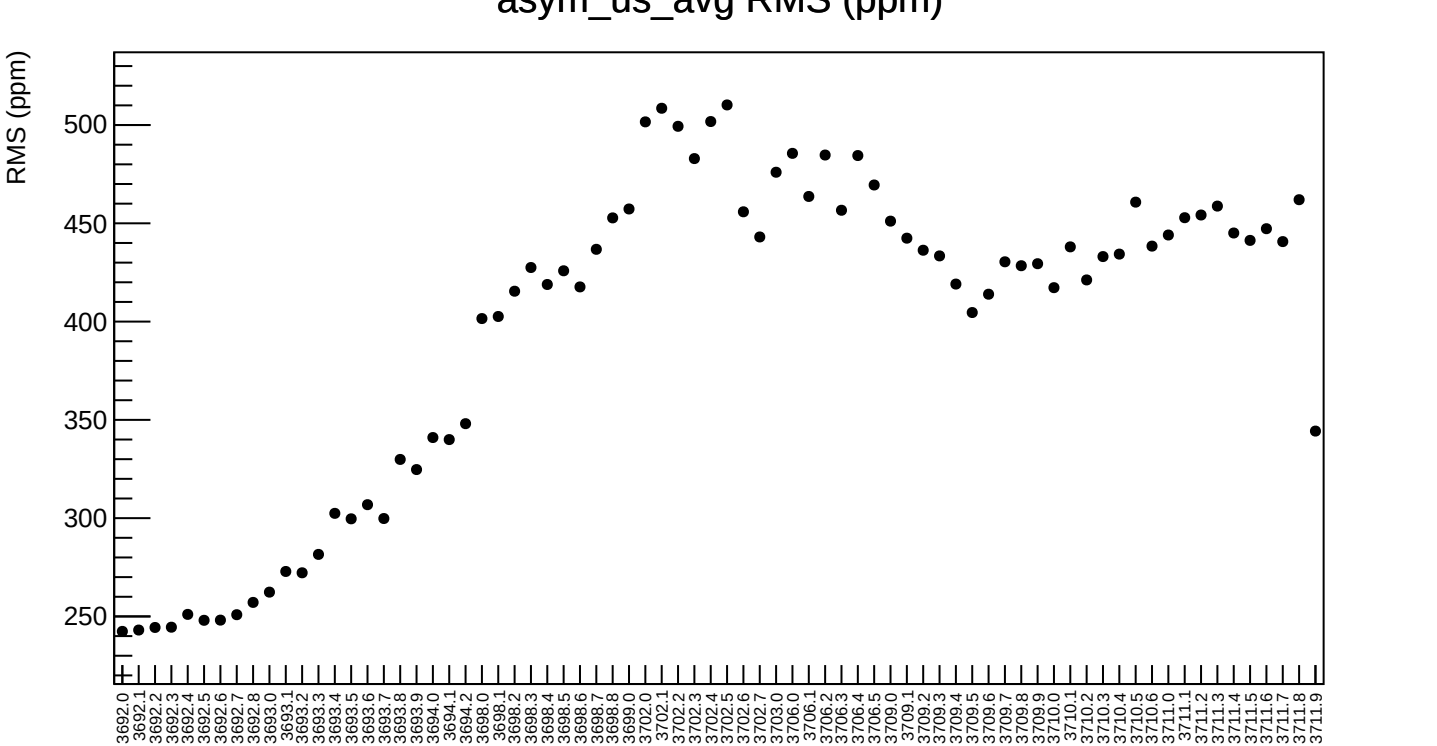

asym_usr (ppb)
χ² / ndf 67.97 / 73
p0 717.8 ± 808.7
30000
20000
10000
0
−10000
−20000
−30000
3
2
1
0
−1
−2

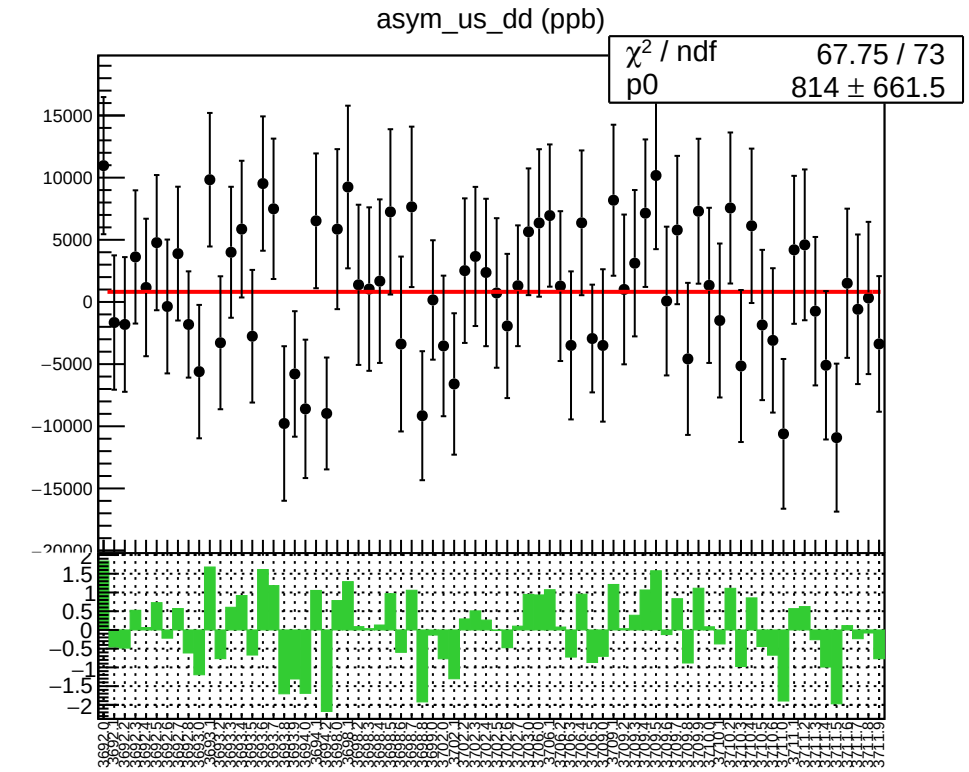

1D pull distribution
Mean −0.01468 ± 0.1114
Std Dev 0.9583 ± 0.07877
Underflow 0
Overflow 0
χ² / ndf 2.874 / 6
Constant 16.52 ± 2.45
Mean 0.1177 ± 0.1758
Sigma 1.057 ± 0.138
18
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

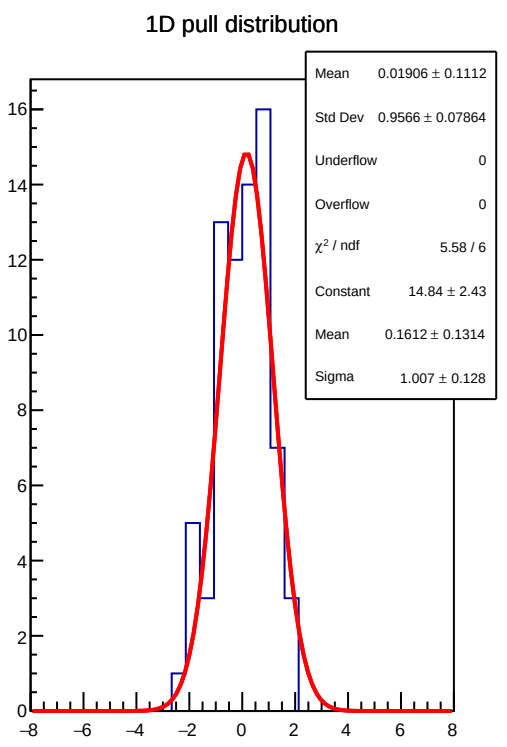

asym_usr RMS (ppm)
RMS (ppm)
800
750
700
650
600
3692.0
3692.1
3692.2
3692.3
3692.4
3692.5
3692.6
3692.7
3692.8
3693.0
3693.1
3693.2
3693.3
3693.4
3693.5
3693.6
3693.7
3693.8
3693.9
3694.0
3694.1
3694.2
3698.0
3698.1
3698.2
3698.3
3698.4
3698.5
3698.6
3698.7
3698.8
3699.0
3702.0
3702.1
3702.2
3702.3
3702.4
3702.5
3702.6
3702.7
3703.0
3706.0
3706.1
3706.2
3706.3
3706.4
3706.5
3709.0
3709.1
3709.2
3709.3
3709.4
3709.5
3709.6
3709.7
3709.8
3709.9
3710.0
3710.1
3710.2
3710.3
3710.4
3710.5
3710.6
3711.0
3711.1
3711.2
3711.3
3711.4
3711.5
3711.6
3711.7
3711.8
3711.9

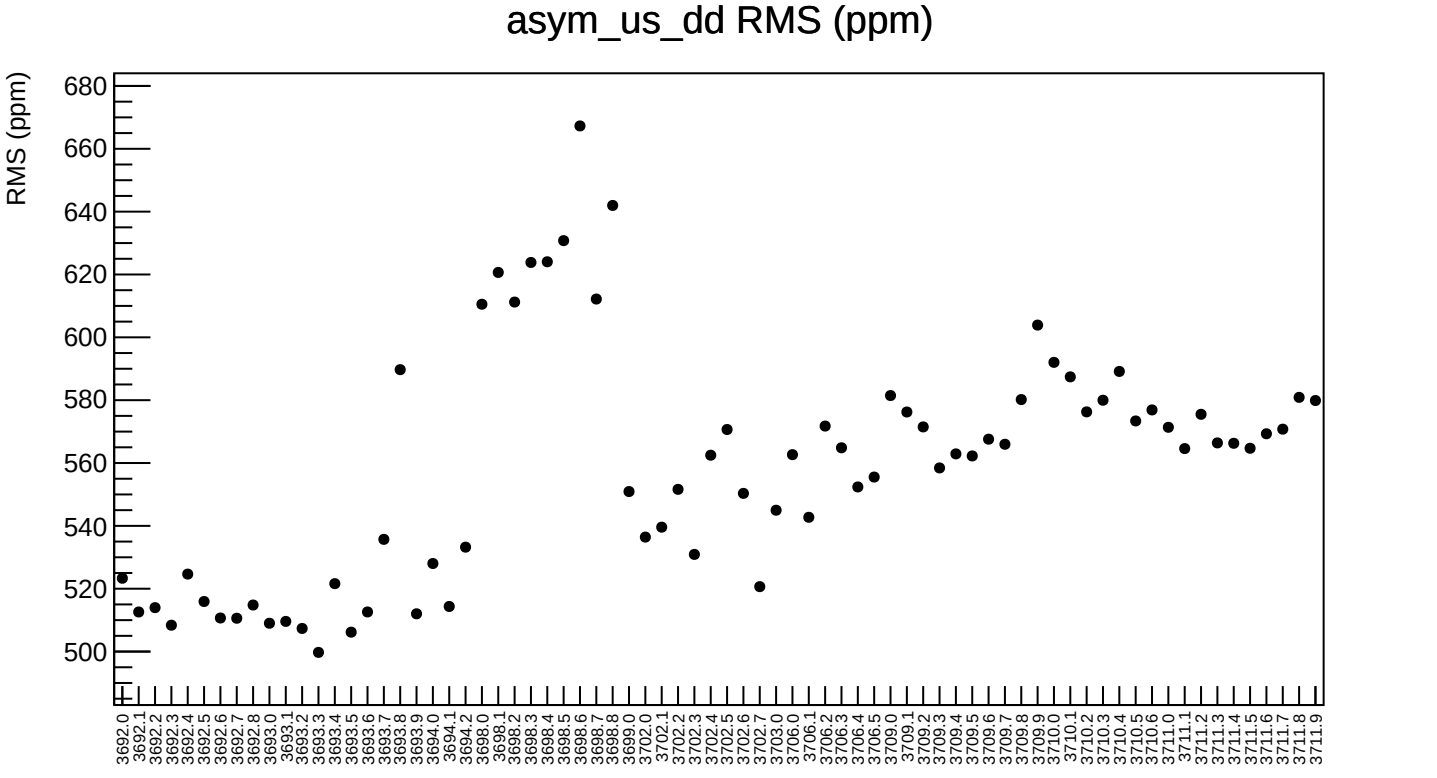

asym_us_avg (ppb)
χ² / ndf 99.38 / 73
p0 1420 ± 435.8
20000
15000
10000
5000
0
−5000
−10000
−15000
3
2
1
0
−1
−2
−3

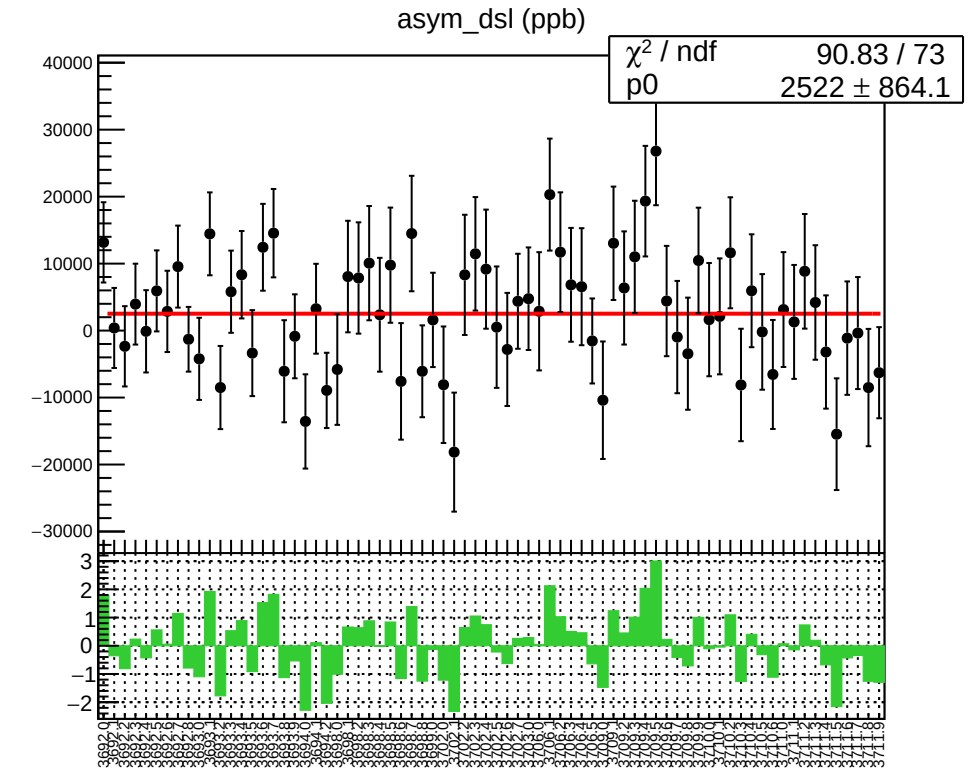

1D pull distribution
Mean 0.01738 ± 0.1347
Std Dev 1.159 ± 0.09525
Underflow 0
Overflow 0
χ² / ndf 2.288 / 8
Constant 13.19 ± 2.24
Mean 0.09167 ± 0.16044
Sigma 1.199 ± 0.174
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

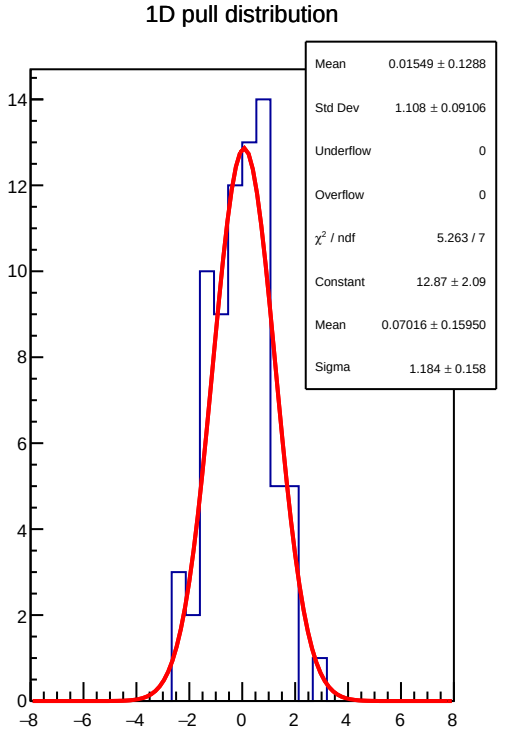

asym_us_avg RMS (ppm)
RMS (ppm)
500
450
400
350
300
250
3692.0
3692.1
3692.2
3692.3
3692.4
3692.5
3692.6
3692.7
3692.8
3693.0
3693.1
3693.2
3693.3
3693.4
3693.5
3693.6
3693.7
3693.8
3693.9
3694.0
3694.1
3694.2
3698.0
3698.1
3698.2
3698.3
3698.4
3698.5
3698.6
3698.7
3698.8
3699.0
3702.0
3702.1
3702.2
3702.3
3702.4
3702.5
3702.6
3702.7
3703.0
3706.0
3706.1
3706.2
3706.3
3706.4
3706.5
3709.0
3709.1
3709.2
3709.3
3709.4
3709.5
3709.6
3709.7
3709.8
3709.9
3710.0
3710.1
3710.2
3710.3
3710.4
3710.5
3710.6
3711.0
3711.1
3711.2
3711.3
3711.4
3711.5
3711.6
3711.7
3711.8
3711.9


asym_us_dd (ppb)
χ² / ndf 67.75 / 73
p0 814 ± 661.5


1D pull distribution
Mean 0.01906 ± 0.1112
Std Dev 0.9566 ± 0.07864
Underflow 0
Overflow 0
χ² / ndf 5.58 / 6
Constant 14.84 ± 2.43
Mean 0.1612 ± 0.1314
Sigma 1.007 ± 0.128


asym_us_dd RMS (ppm)
RMS (ppm)
680
660
640
620
600
580
560
540
520
500
3692.0
3692.1
3692.2
3692.3
3692.4
3692.5
3692.6
3692.7
3692.8
3693.0
3693.1
3693.2
3693.3
3693.4
3693.5
3693.6
3693.7
3693.8
3693.9
3694.0
3694.1
3694.2
3698.0
3698.1
3698.2
3698.3
3698.4
3698.5
3698.6
3698.7
3698.8
3699.0
3702.0
3702.1
3702.2
3702.3
3702.4
3702.5
3702.6
3702.7
3703.0
3706.0
3706.1
3706.2
3706.3
3706.4
3706.5
3709.0
3709.1
3709.2
3709.3
3709.4
3709.5
3709.6
3709.7
3709.8
3709.9
3710.0
3710.1
3710.2
3710.3
3710.4
3710.5
3710.6
3711.0
3711.1
3711.2
3711.3
3711.4
3711.5
3711.6
3711.7
3711.8
3711.9


asym_dsl (ppb)
χ² / ndf 90.83 / 73
p0 2522 ± 864.1
40000
30000
20000
10000
0
−10000
−20000
−30000
3
2
1
0
−1
−2

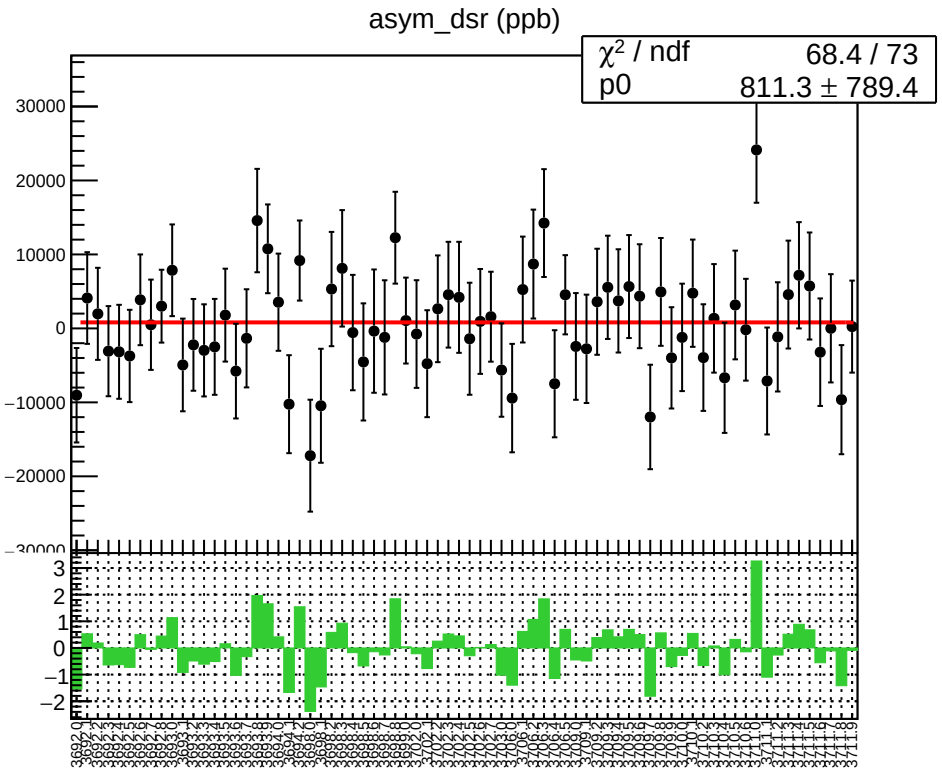

1D pull distribution
Mean 0.01549 ± 0.1288
Std Dev 1.108 ± 0.09106
Underflow 0
Overflow 0
χ² / ndf 5.263 / 7
Constant 12.87 ± 2.09
Mean 0.07016 ± 0.15950
Sigma 1.184 ± 0.158
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

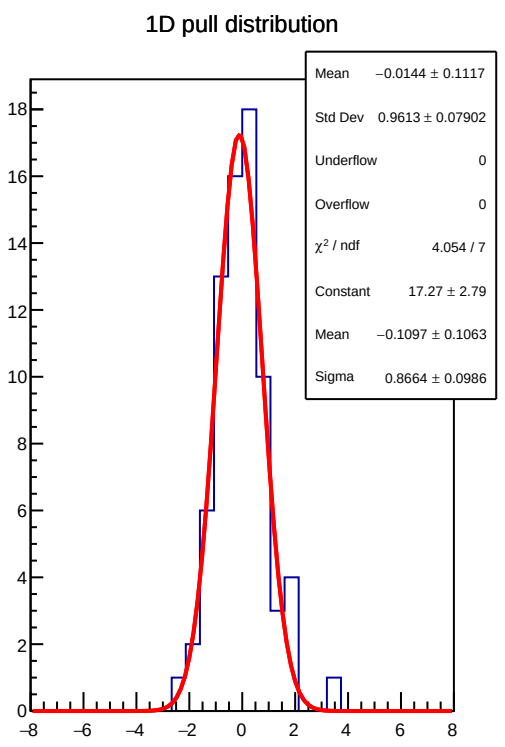
asym_dsl RMS (ppm)

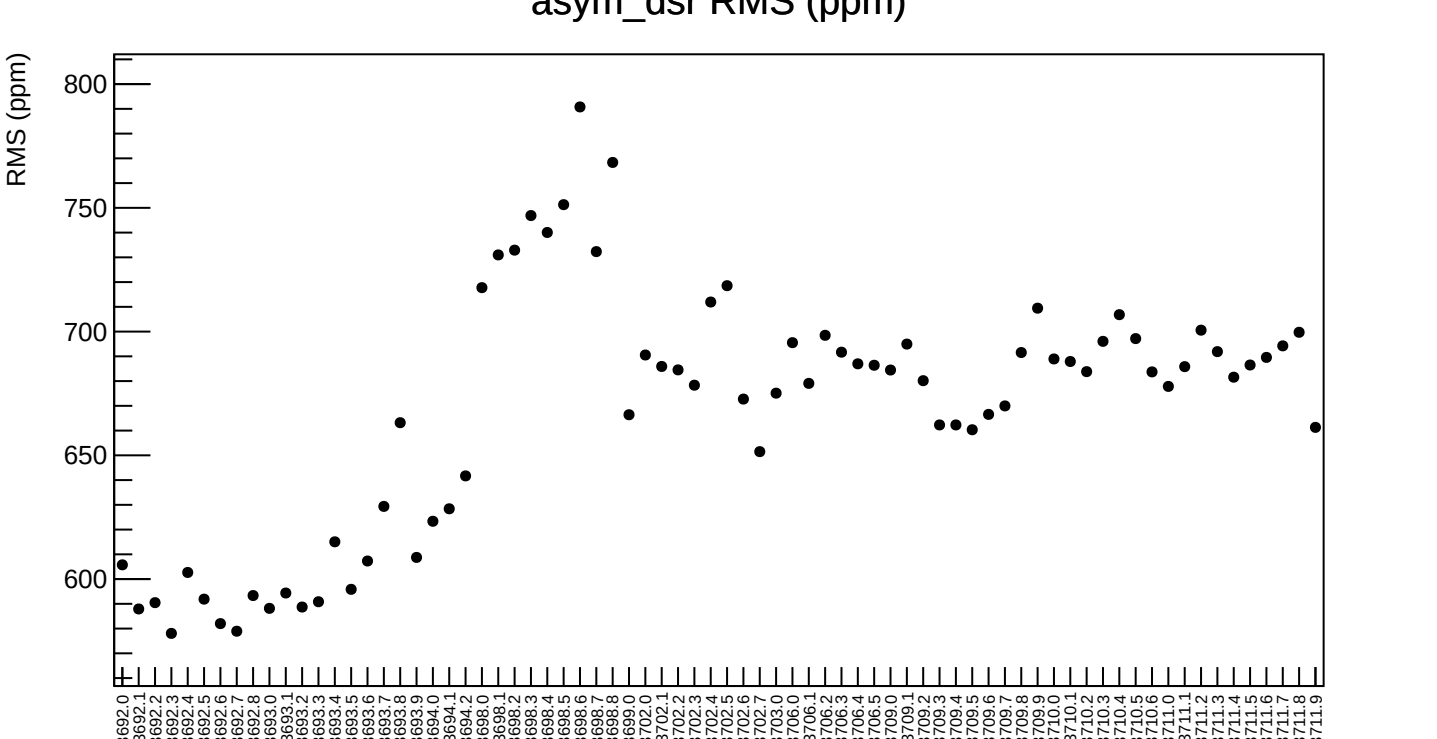
RMS (ppm)

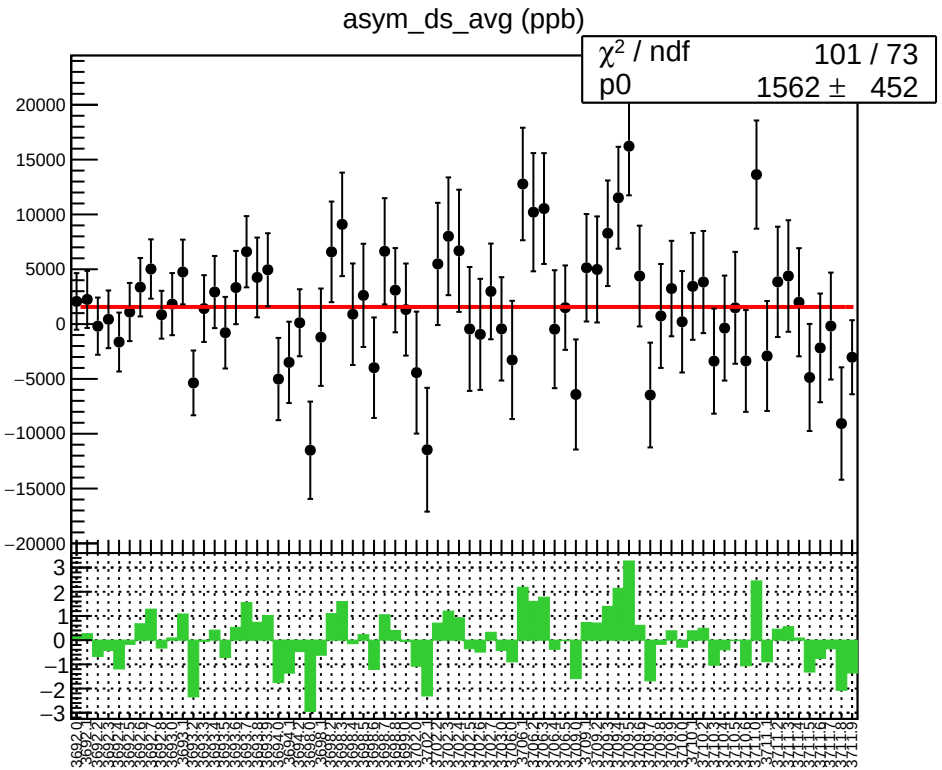
850
800
750
700
650
600
550

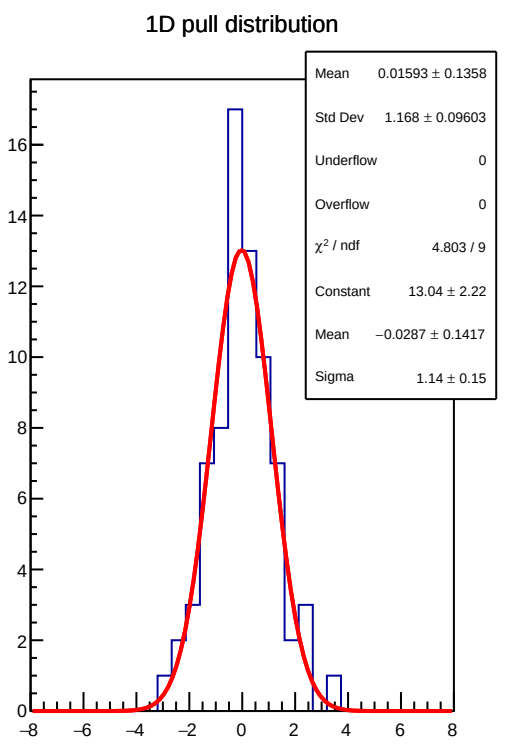
3692.0
3692.1
3692.2
3692.3
3692.4
3692.5
3692.6
3692.7
3692.8
3693.0
3693.1
3693.2
3693.3
3693.4
3693.5
3693.6
3693.7
3693.8
3693.9
3694.0
3694.1
3694.2
3698.0
3698.1
3698.2
3698.3
3698.4
3698.5
3698.6
3698.7
3698.8
3699.0
3702.0
3702.1
3702.2
3702.3
3702.4
3702.5
3702.6
3702.7
3703.0
3706.0
3706.1
3706.2
3706.3
3706.4
3706.5
3709.0
3709.1
3709.2
3709.3
3709.4
3709.5
3709.6
3709.7
3709.8
3709.9
3710.0
3710.1
3710.2
3710.3
3710.4
3710.5
3710.6
3711.0
3711.1
3711.2
3711.3
3711.4
3711.5
3711.6
3711.7
3711.8
3711.9

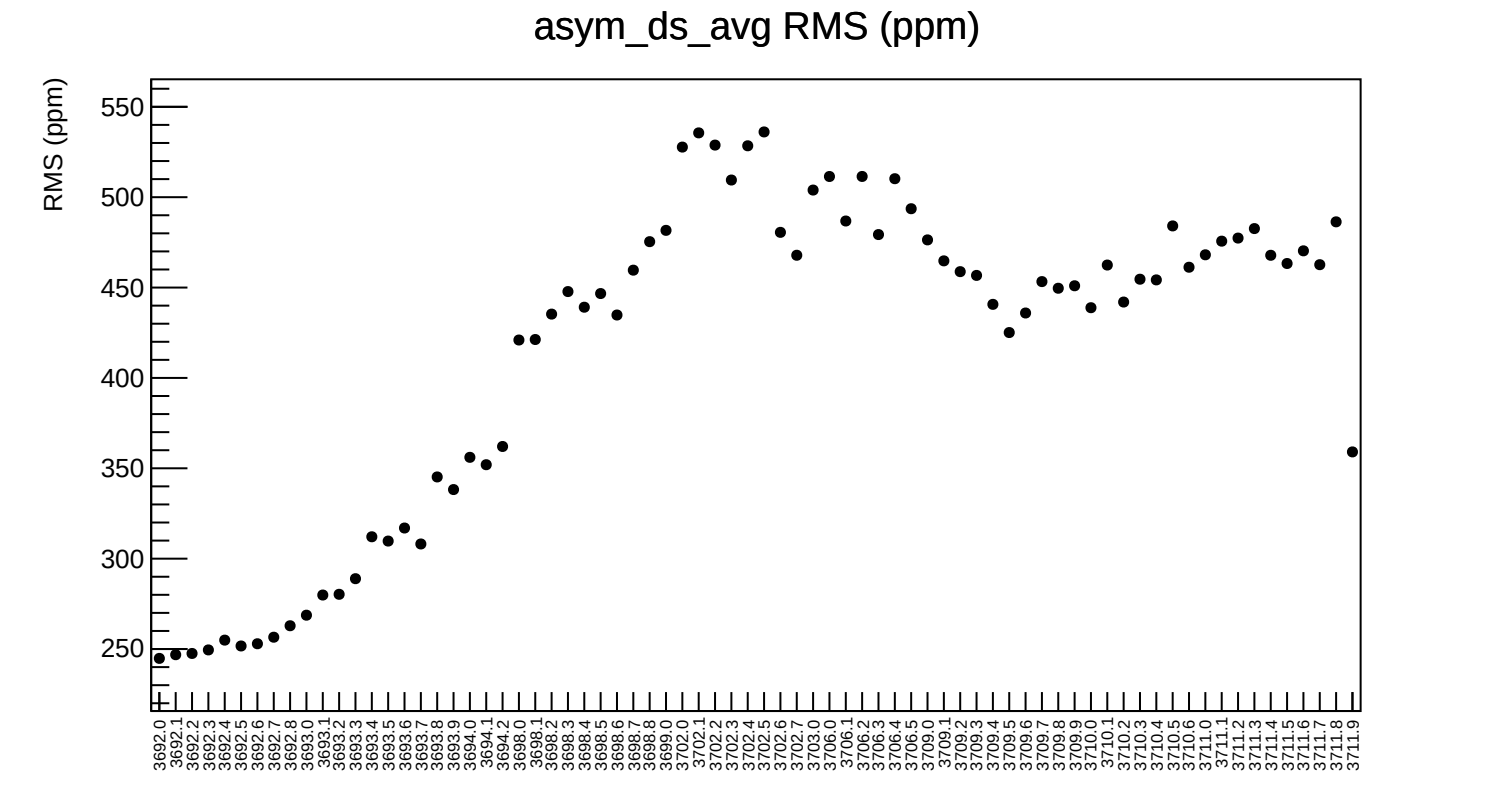

asym_dsr (ppb)
χ² / ndf 68.4 / 73
p0 811.3 ± 789.4
30000
20000
10000
0
−10000
−20000
3
2
1
0
−1
−2

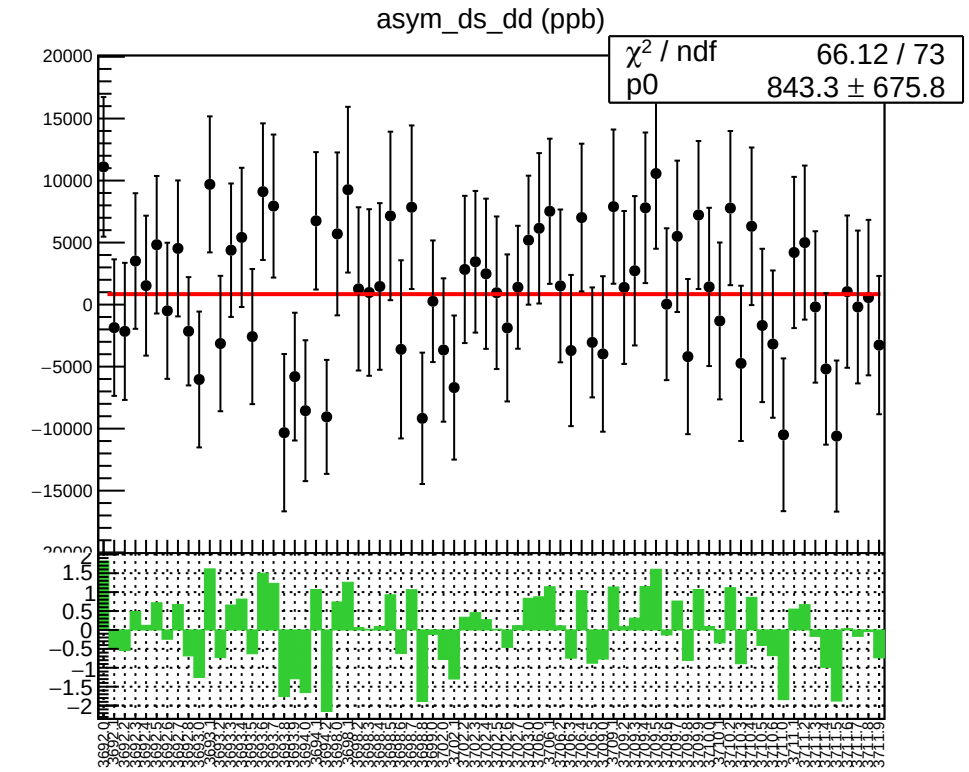

1D pull distribution
Mean −0.0144 ± 0.1117
Std Dev 0.9613 ± 0.07902
Underflow 0
Overflow 0
χ² / ndf 4.054 / 7
Constant 17.27 ± 2.79
Mean −0.1097 ± 0.1063
Sigma 0.8664 ± 0.0986
18
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

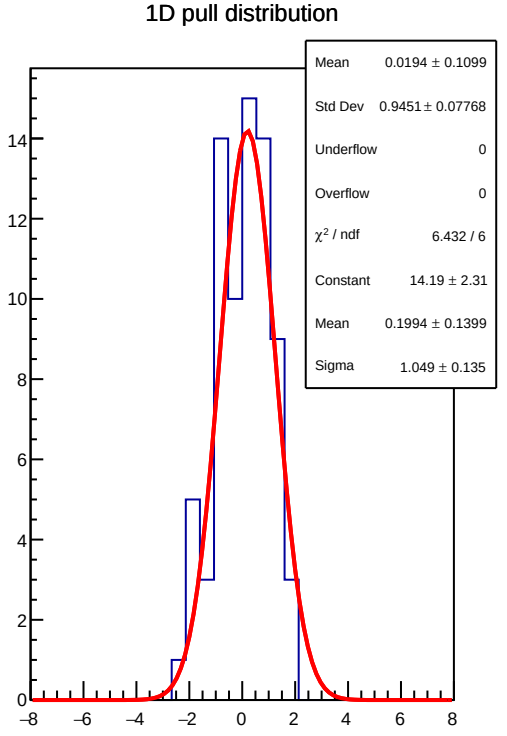

asym_dsr RMS (ppm)
RMS (ppm)
800
750
700
650
600
3692.0
3692.1
3692.2
3692.3
3692.4
3692.5
3692.6
3692.7
3692.8
3693.0
3693.1
3693.2
3693.3
3693.4
3693.5
3693.6
3693.7
3693.8
3693.9
3694.0
3694.1
3694.2
3698.0
3698.1
3698.2
3698.3
3698.4
3698.5
3698.6
3698.7
3698.8
3699.0
3702.0
3702.1
3702.2
3702.3
3702.4
3702.5
3702.6
3702.7
3703.0
3706.0
3706.1
3706.2
3706.3
3706.4
3706.5
3709.0
3709.1
3709.2
3709.3
3709.4
3709.5
3709.6
3709.7
3709.8
3709.9
3710.0
3710.1
3710.2
3710.3
3710.4
3710.5
3710.6
3711.0
3711.1
3711.2
3711.3
3711.4
3711.5
3711.6
3711.7
3711.8
3711.9

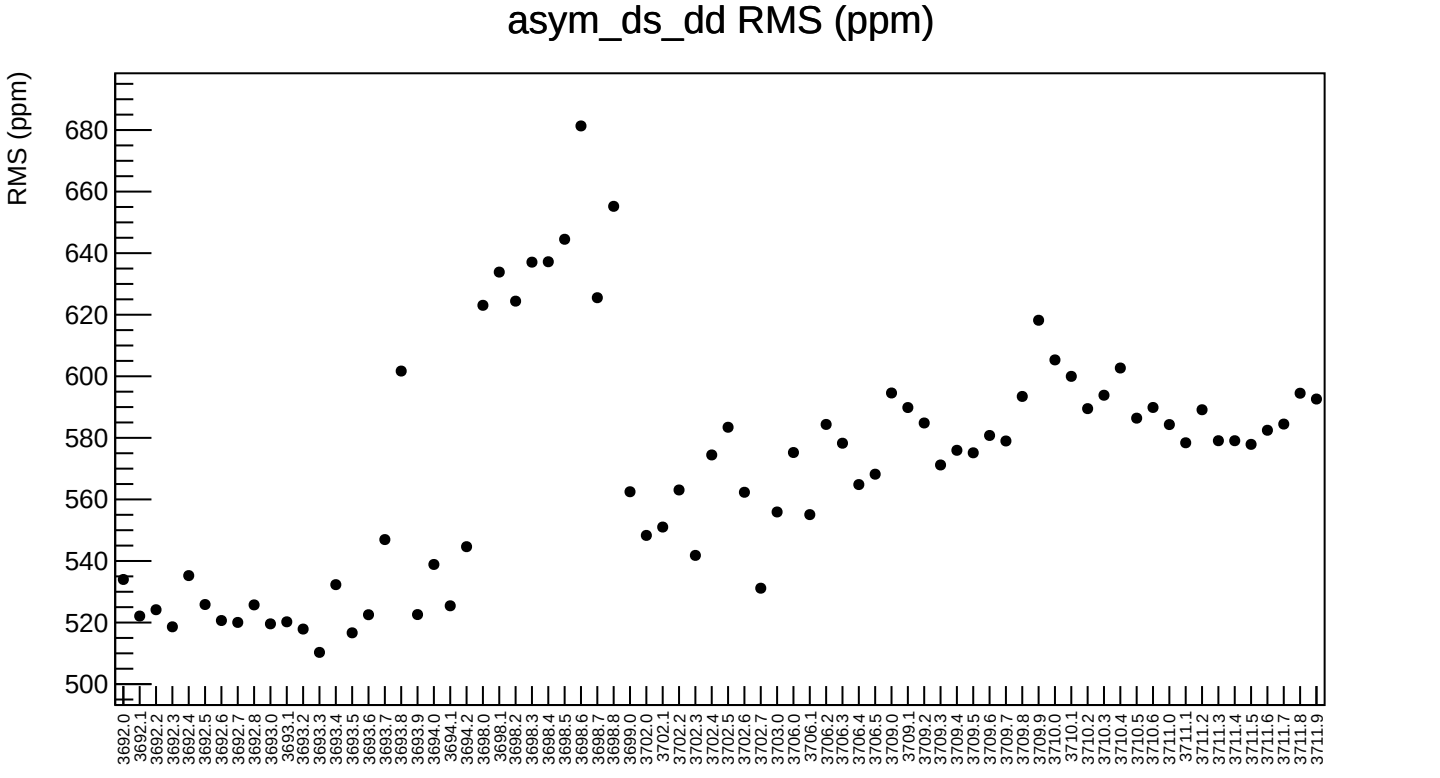

asym_ds_avg (ppb)
χ² / ndf 101 / 73
p0 1562 ± 452


1D pull distribution
Mean 0.01593 ± 0.1358
Std Dev 1.168 ± 0.09603
Underflow 0
Overflow 0
χ² / ndf 4.803 / 9
Constant 13.04 ± 2.22
Mean −0.0287 ± 0.1417
Sigma 1.14 ± 0.15


asym_ds_avg RMS (ppm)
RMS (ppm)
550
500
450
400
350
300
250
3692.0
3692.1
3692.2
3692.3
3692.4
3692.5
3692.6
3692.7
3692.8
3693.0
3693.1
3693.2
3693.3
3693.4
3693.5
3693.6
3693.7
3693.8
3693.9
3694.0
3694.1
3694.2
3698.0
3698.1
3698.2
3698.3
3698.4
3698.5
3698.6
3698.7
3698.8
3699.0
3702.0
3702.1
3702.2
3702.3
3702.4
3702.5
3702.6
3702.7
3703.0
3706.0
3706.1
3706.2
3706.3
3706.4
3706.5
3709.0
3709.1
3709.2
3709.3
3709.4
3709.5
3709.6
3709.7
3709.8
3709.9
3710.0
3710.1
3710.2
3710.3
3710.4
3710.5
3710.6
3711.0
3711.1
3711.2
3711.3
3711.4
3711.5
3711.6
3711.7
3711.8
3711.9


asym_ds_dd (ppb)
χ² / ndf 66.12 / 73
p0 843.3 ± 675.8
20000
15000
10000
5000
0
−5000
−10000
−15000
1.5
1
0.5
0
−0.5
−1
−1.5
−2


1D pull distribution
Mean 0.0194 ± 0.1099
Std Dev 0.9451 ± 0.07768
Underflow 0
Overflow 0
χ² / ndf 6.432 / 6
Constant 14.19 ± 2.31
Mean 0.1994 ± 0.1399
Sigma 1.049 ± 0.135
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8


asym_ds_dd RMS (ppm)
RMS (ppm)
500
520
540
560
580
600
620
640
660
680
3692.0
3692.1
3692.2
3692.3
3692.4
3692.5
3692.6
3692.7
3692.8
3693.0
3693.1
3693.2
3693.3
3693.4
3693.5
3693.6
3693.7
3693.8
3693.9
3694.0
3694.1
3694.2
3698.0
3698.1
3698.2
3698.3
3698.4
3698.5
3698.6
3698.7
3698.8
3699.0
3702.0
3702.1
3702.2
3702.3
3702.4
3702.5
3702.6
3702.7
3703.0
3706.0
3706.1
3706.2
3706.3
3706.4
3706.5
3709.0
3709.1
3709.2
3709.3
3709.4
3709.5
3709.6
3709.7
3709.8
3709.9
3710.0
3710.1
3710.2
3710.3
3710.4
3710.5
3710.6
3711.0
3711.1
3711.2
3711.3
3711.4
3711.5
3711.6
3711.7
3711.8
3711.9