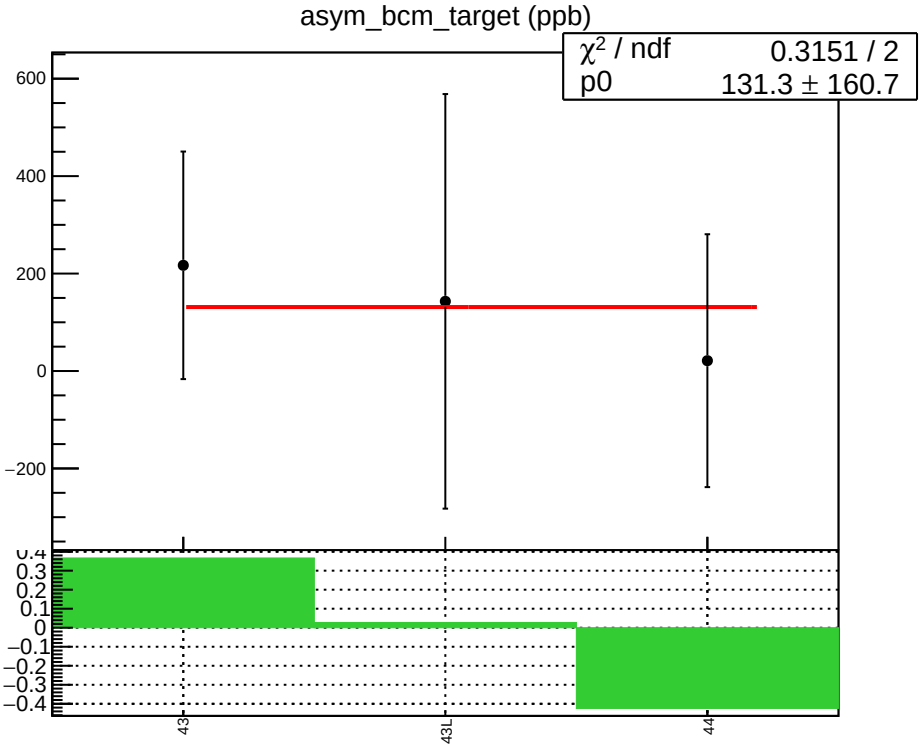
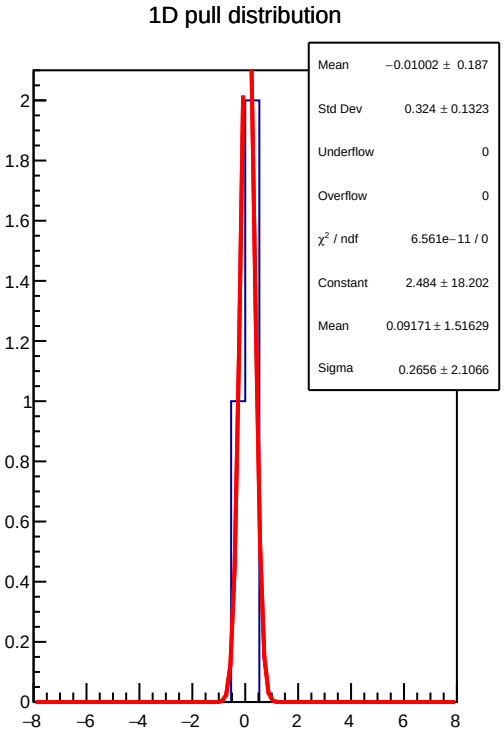
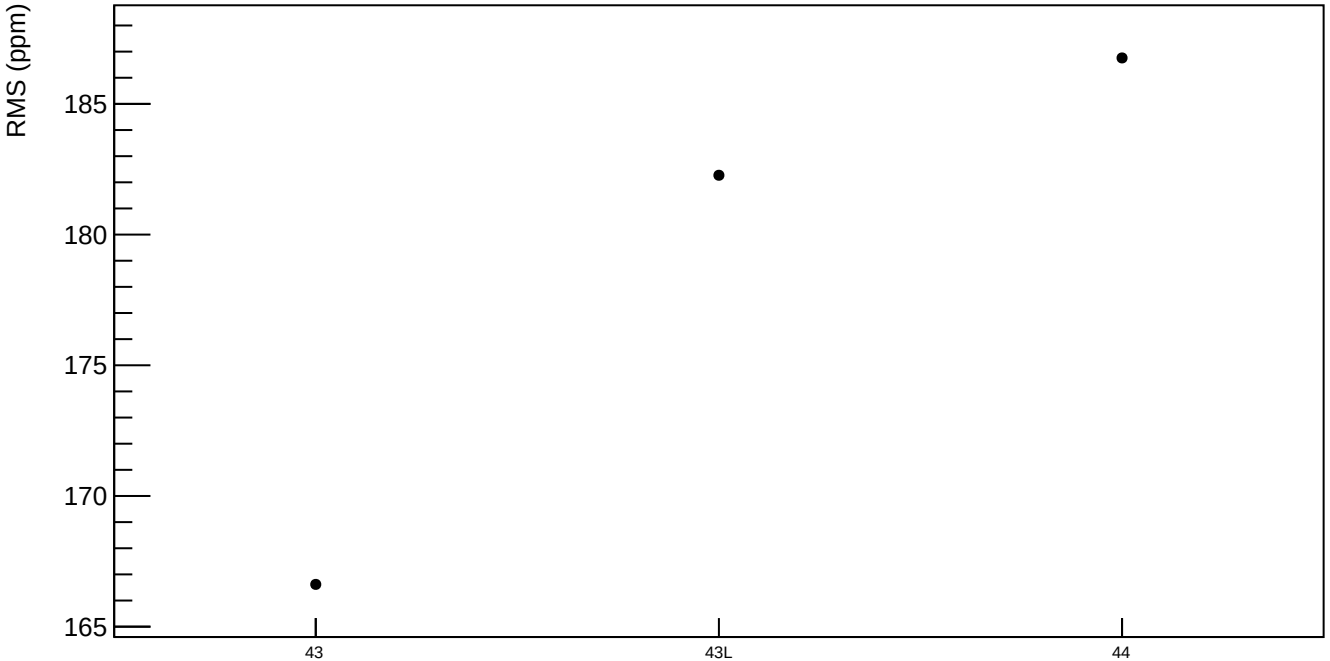
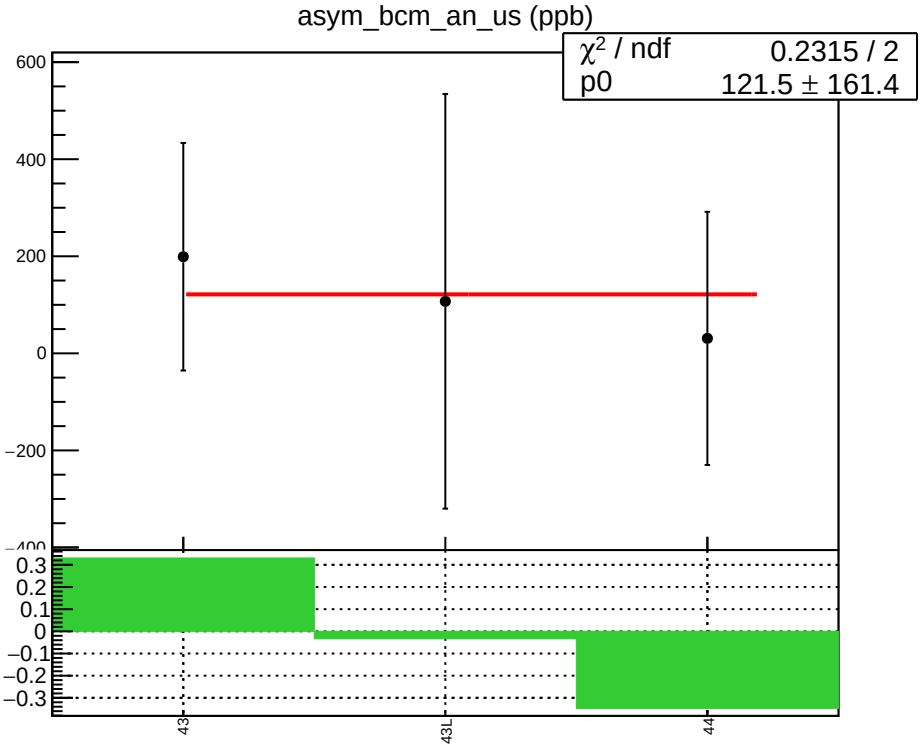
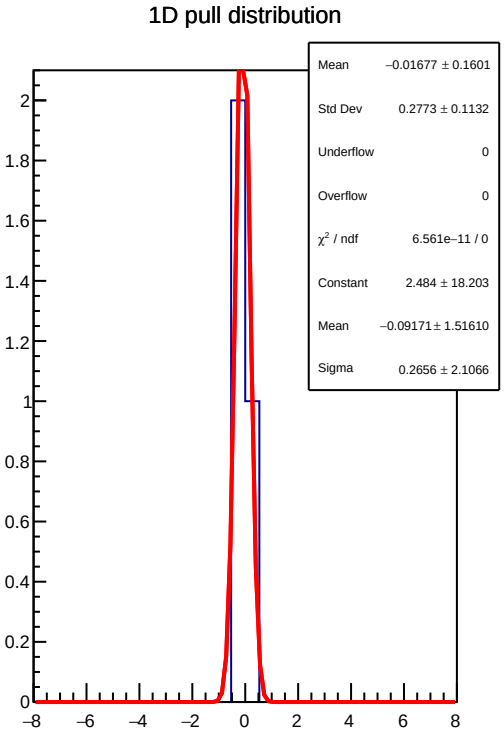

asym_bcm_target (ppb)
χ² / ndf 0.3151 / 2
p0 131.3 ± 160.7
600
400
200
0
−200
0.4
0.3
0.2
0.1
0
−0.1
−0.2
−0.3
−0.4
43
43L
44


1D pull distribution
Mean −0.01002 ± 0.187
Std Dev 0.324 ± 0.1323
Underflow 0
Overflow 0
χ² / ndf 6.561e−11 / 0
Constant 2.484 ± 18.202
Mean 0.09171 ± 1.51629
Sigma 0.2656 ± 2.1066
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

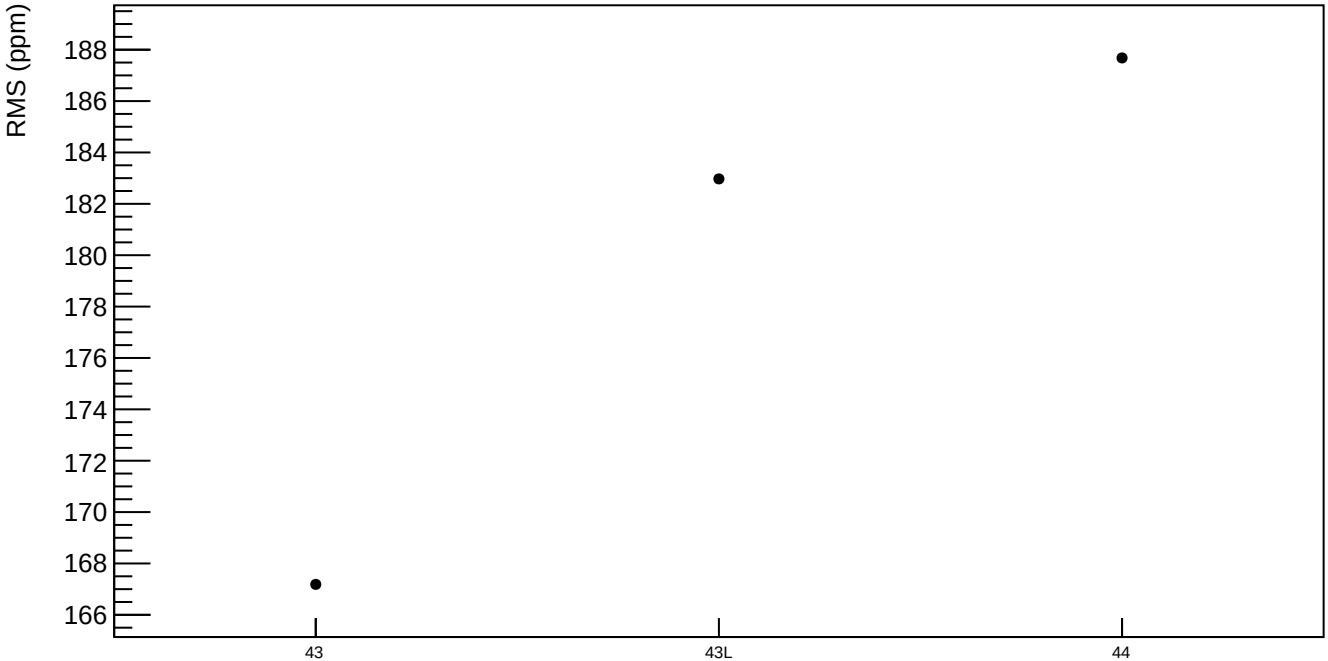
asym_bcm_target RMS (ppm)

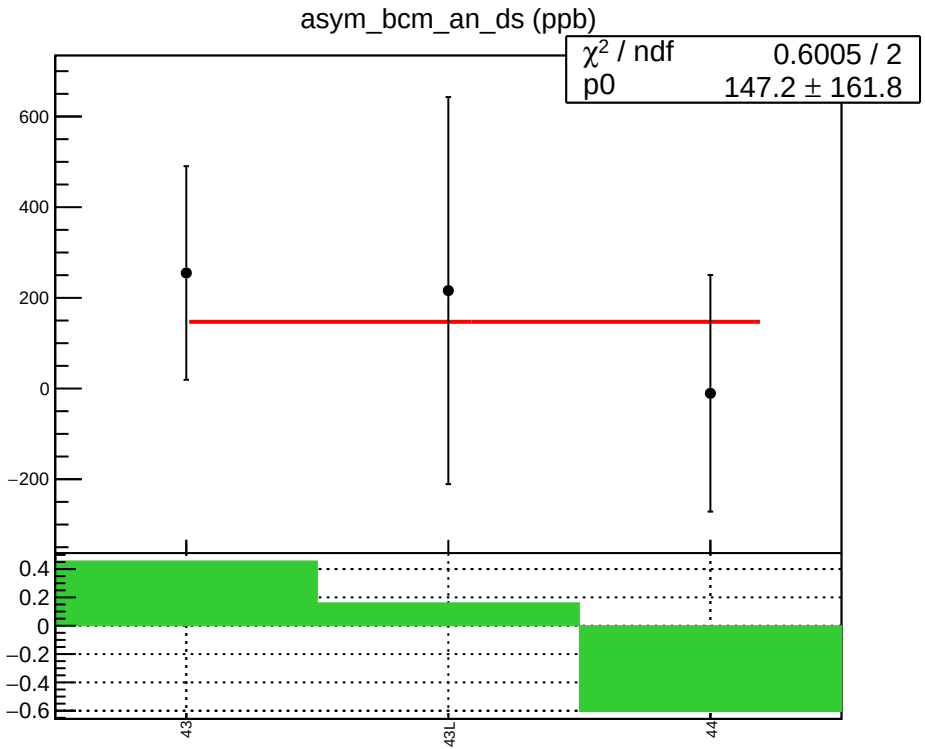


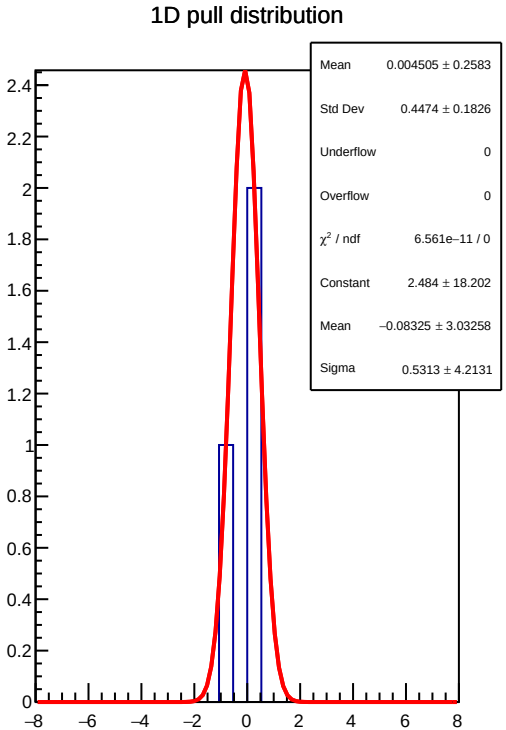

asym_bcm_an_us (ppb)
χ² / ndf 0.2315 / 2
p0 121.5 ± 161.4
600
400
200
0
−200
−400
0.3
0.2
0.1
0
−0.1
−0.2
−0.3
43
43L
44


1D pull distribution
Mean −0.01677 ± 0.1601
Std Dev 0.2773 ± 0.1132
Underflow 0
Overflow 0
χ² / ndf 6.561e−11 / 0
Constant 2.484 ± 18.203
Mean −0.09171 ± 1.51610
Sigma 0.2656 ± 2.1066
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

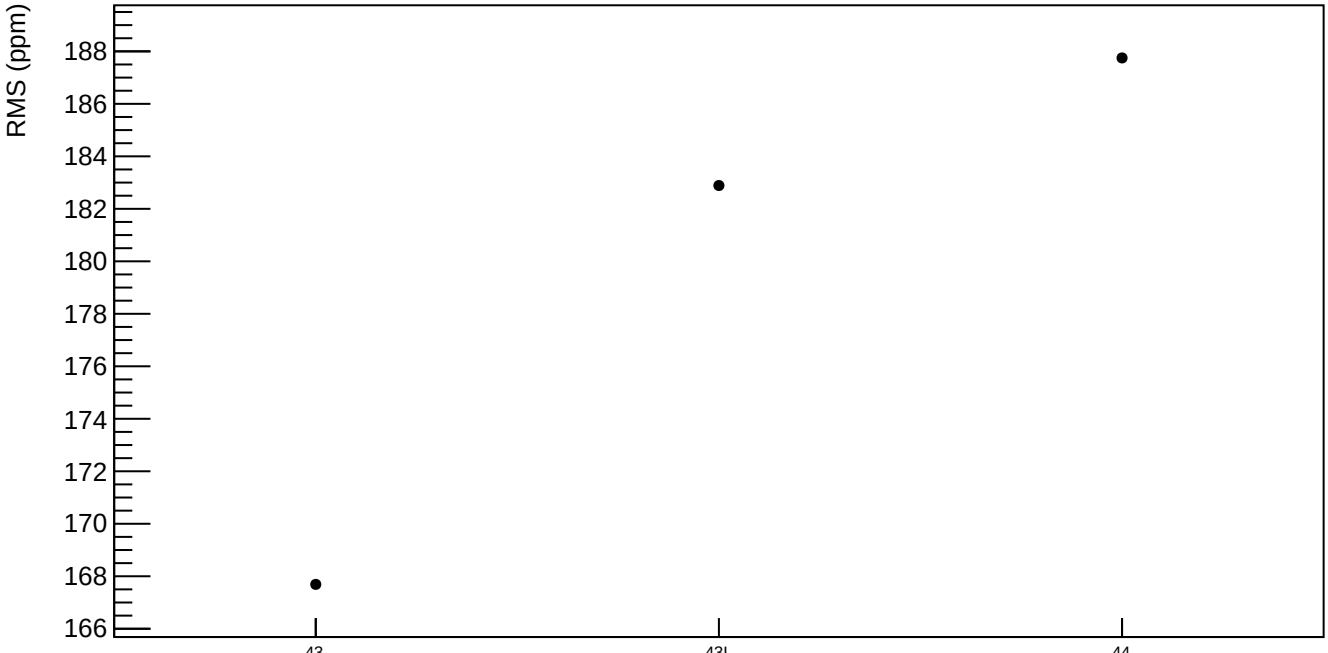
asym_bcm_an_us RMS (ppm)

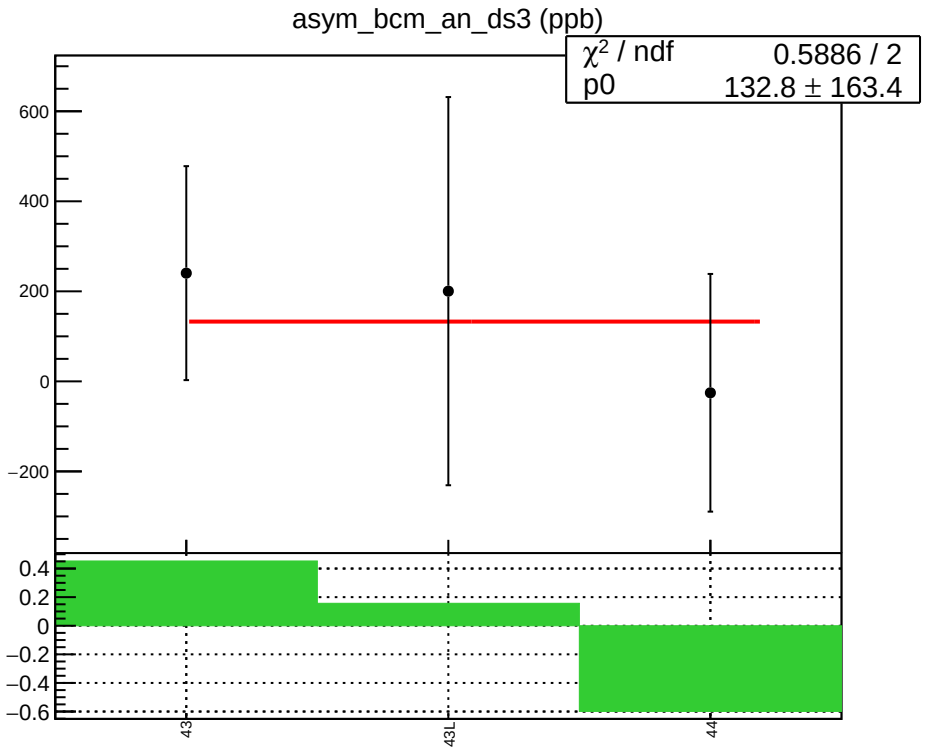


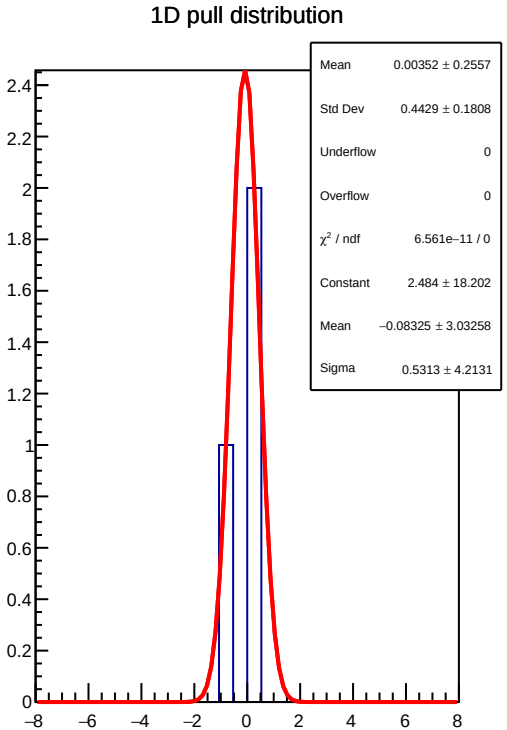

asym_bcm_an_ds (ppb)
χ² / ndf 0.6005 / 2
p0 147.2 ± 161.8
600
400
200
0
−200
0.4
0.2
0
−0.2
−0.4
−0.6
43
43L
44


1D pull distribution
Mean 0.004505 ± 0.2583
Std Dev 0.4474 ± 0.1826
Underflow 0
Overflow 0
χ² / ndf 6.561e−11 / 0
Constant 2.484 ± 18.202
Mean −0.08325 ± 3.03258
Sigma 0.5313 ± 4.2131
2.4
2.2
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

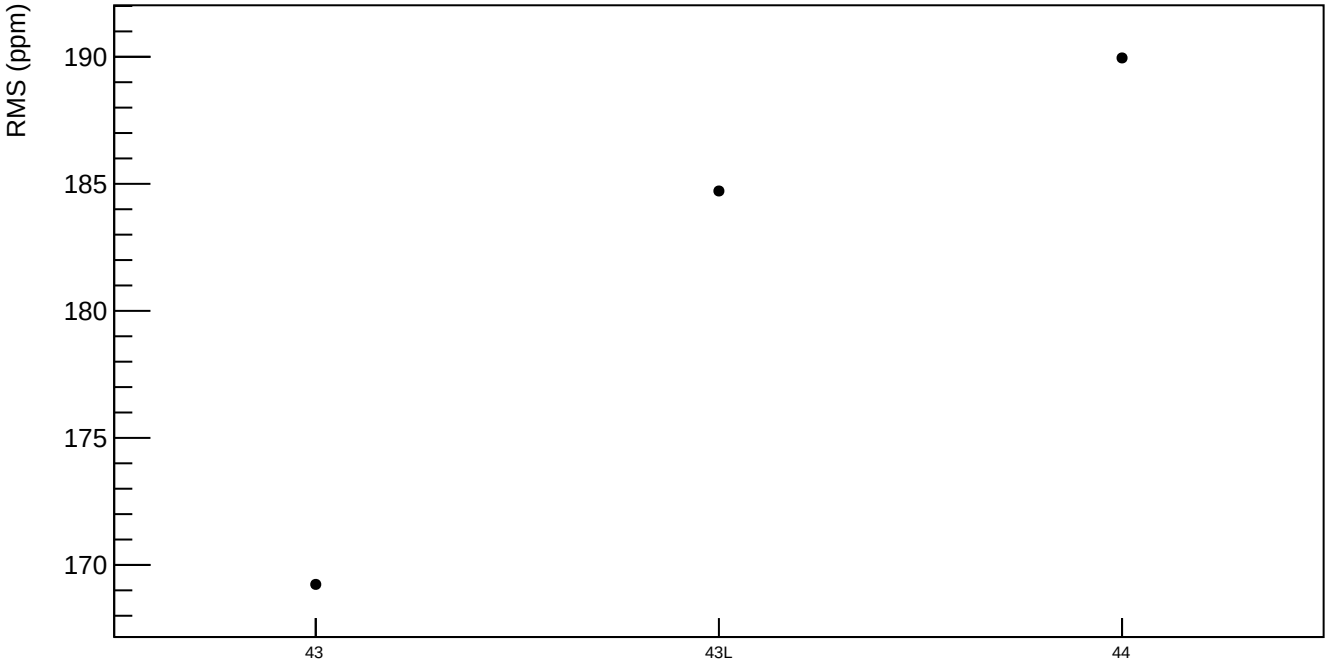
asym_bcm_an_ds RMS (ppm)

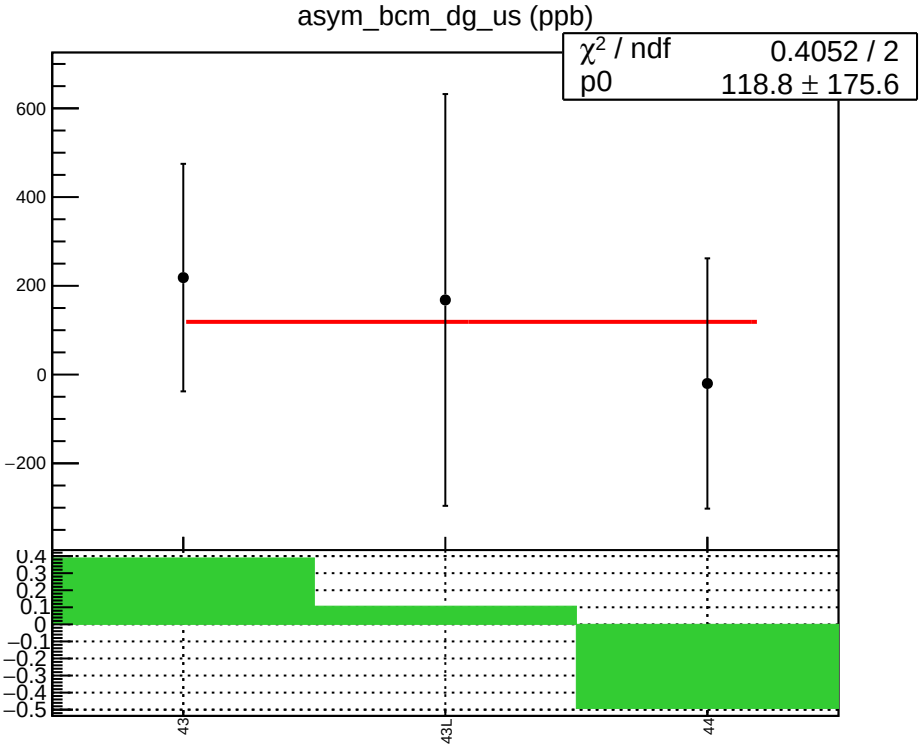


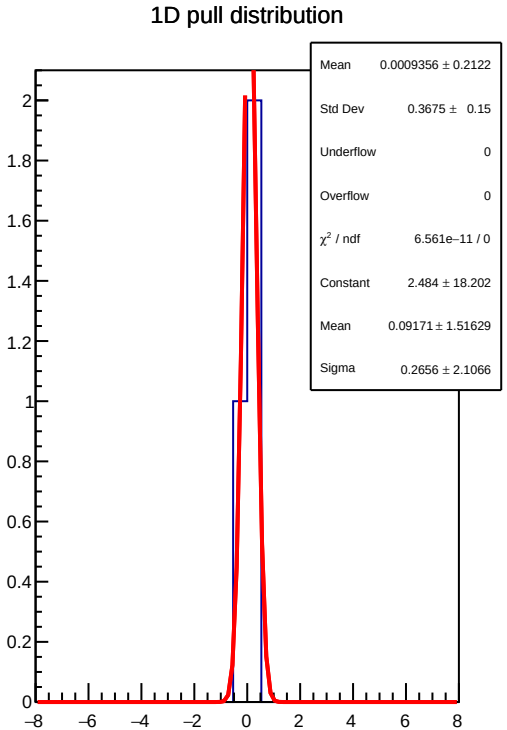

asym_bcm_an_ds3 (ppb)
χ² / ndf 0.5886 / 2
p0 132.8 ± 163.4
600
400
200
0
−200
0.4
0.2
0
−0.2
−0.4
−0.6
43
43L
44

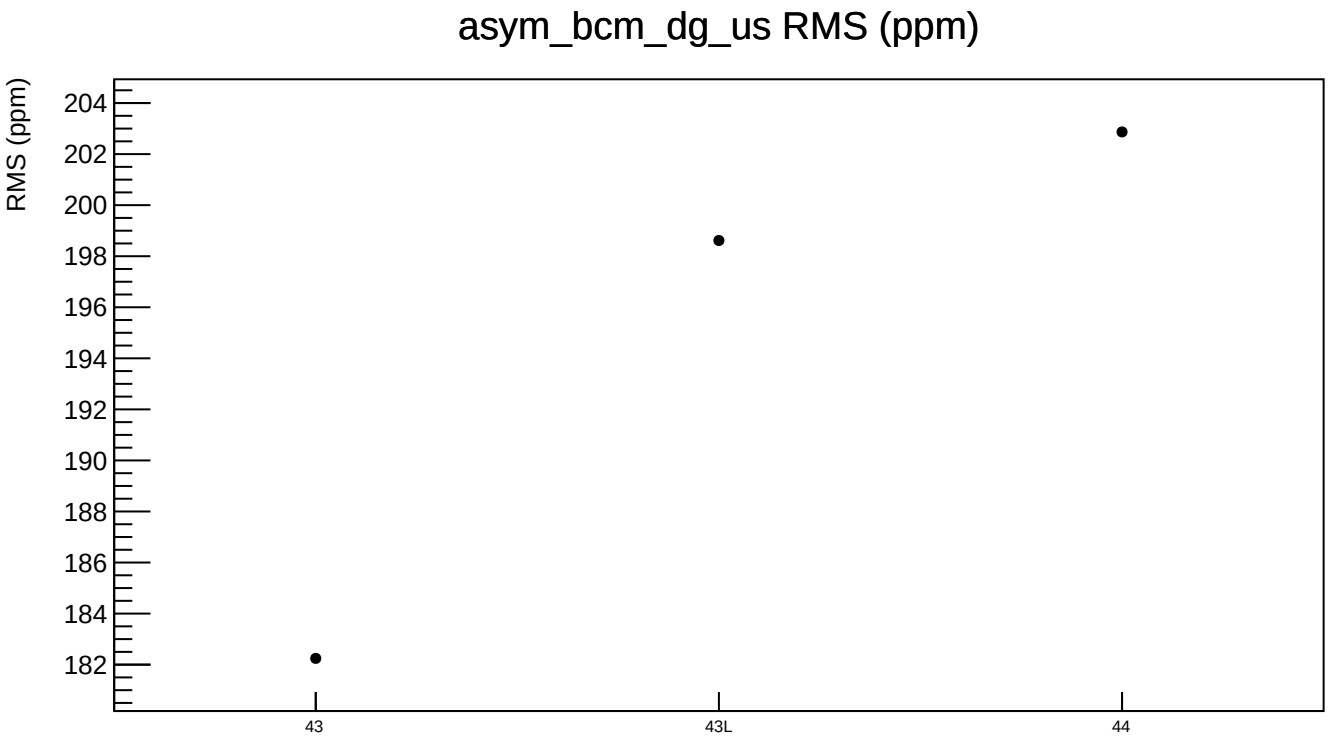

1D pull distribution
Mean 0.00352 ± 0.2557
Std Dev 0.4429 ± 0.1808
Underflow 0
Overflow 0
χ² / ndf 6.561e−11 / 0
Constant 2.484 ± 18.202
Mean −0.08325 ± 3.03258
Sigma 0.5313 ± 4.2131
2.4
2.2
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

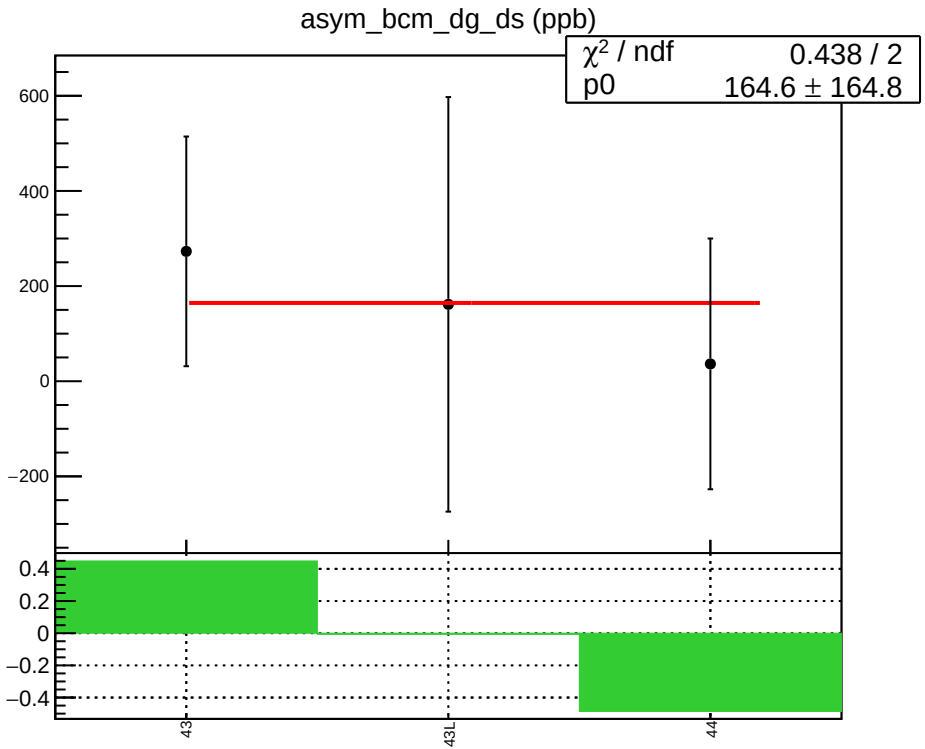
asym_bcm_an_ds3 RMS (ppm)

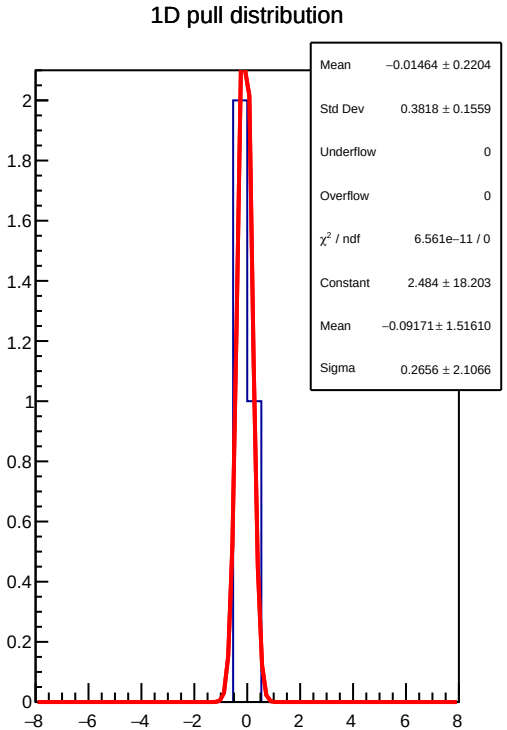


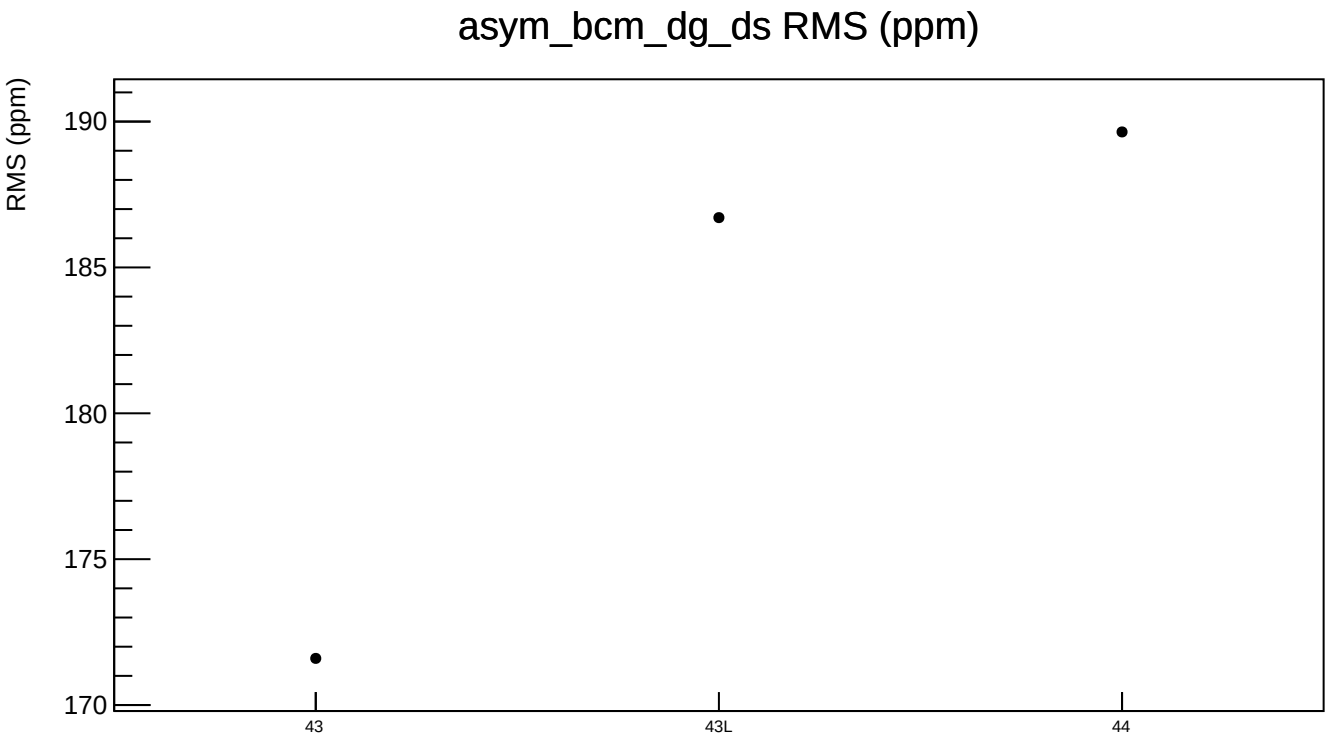

asym_bcm_dg_us (ppb)
χ² / ndf 0.4052 / 2
p0 118.8 ± 175.6
43
43L
44

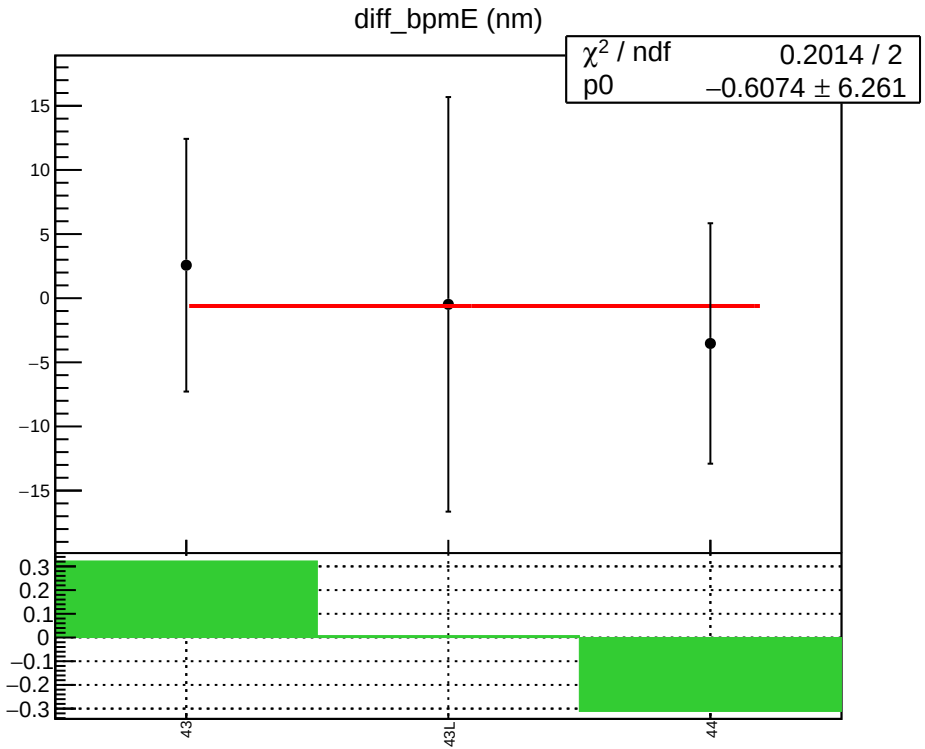

1D pull distribution
Mean 0.0009356 ± 0.2122
Std Dev 0.3675 ± 0.15
Underflow 0
Overflow 0
χ² / ndf 6.561e−11 / 0
Constant 2.484 ± 18.202
Mean 0.09171 ± 1.51629
Sigma 0.2656 ± 2.1066

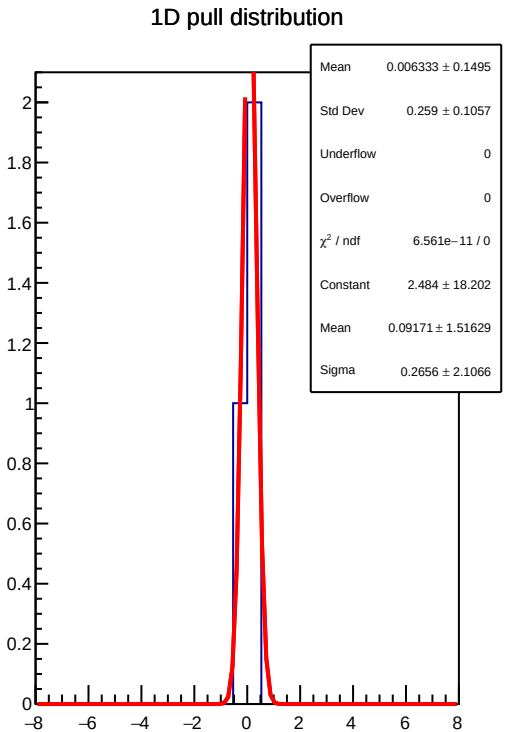

asym_bcm_dg_us RMS (ppm)
RMS (ppm)
204
202
200
198
196
194
192
190
188
186
184
182
43
43L
44


asym_bcm_dg_ds (ppb)
χ² / ndf 0.438 / 2
p0 164.6 ± 164.8
600
400
200
0
−200
0.4
0.2
0
−0.2
−0.4
43
43L
44

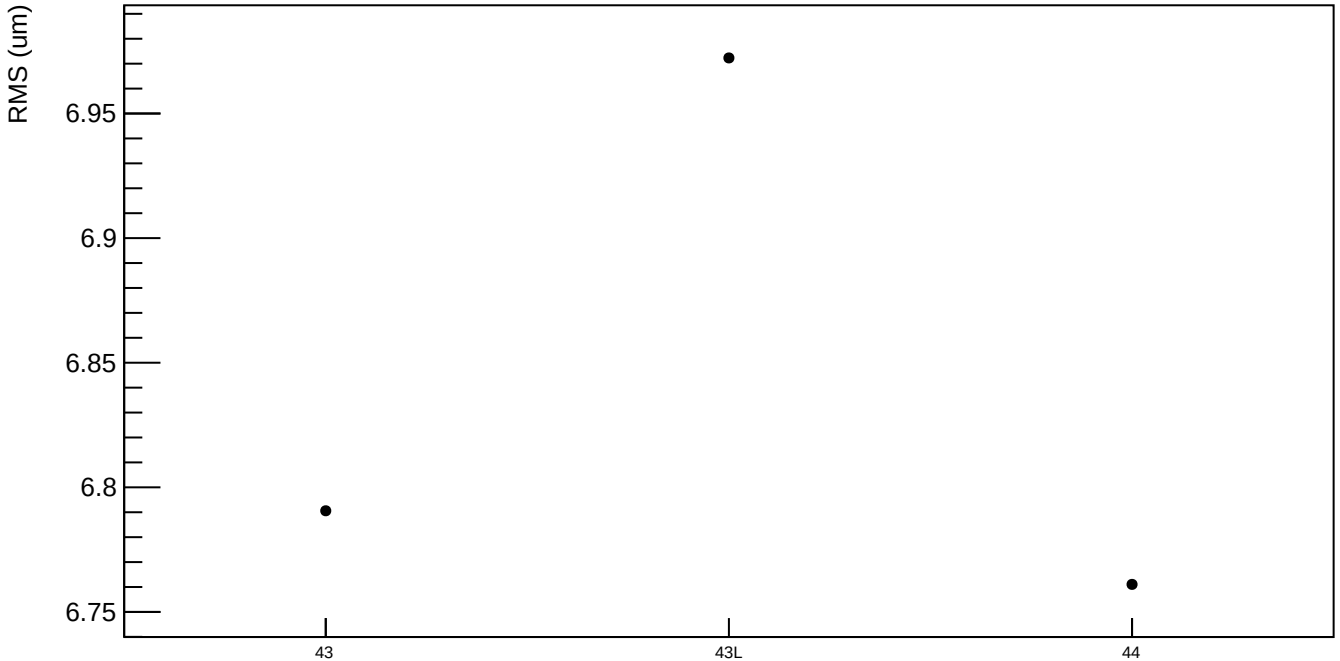

1D pull distribution
Mean −0.01464 ± 0.2204
Std Dev 0.3818 ± 0.1559
Underflow 0
Overflow 0
χ² / ndf 6.561e−11 / 0
Constant 2.484 ± 18.203
Mean −0.09171 ± 1.51610
Sigma 0.2656 ± 2.1066
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

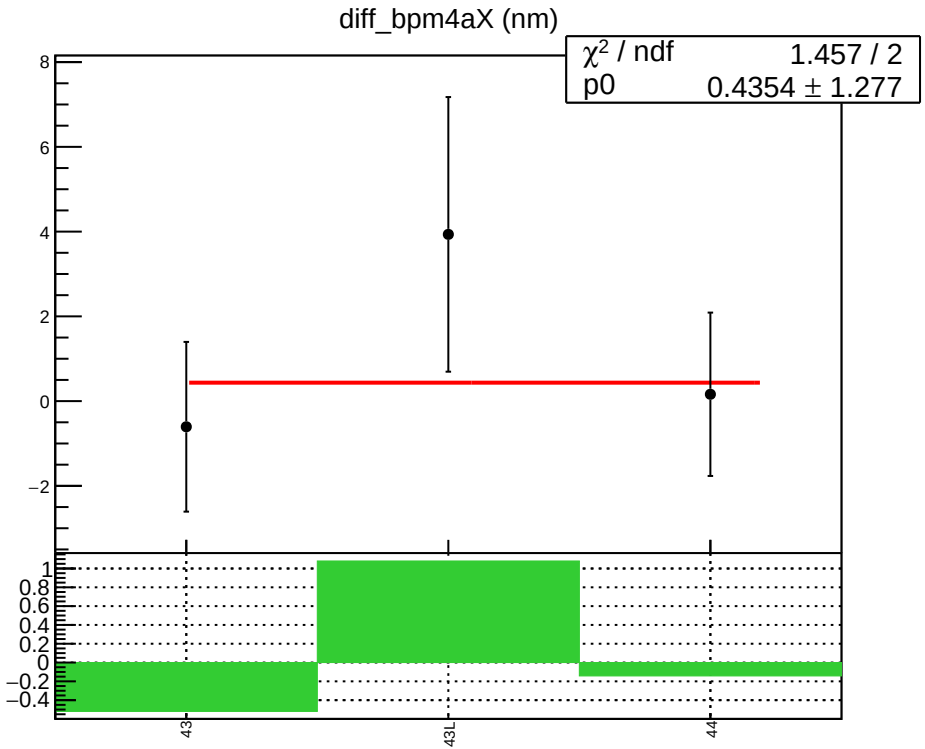

asym_bcm_dg_ds RMS (ppm)
RMS (ppm)
190
185
180
175
170
43
43L
44

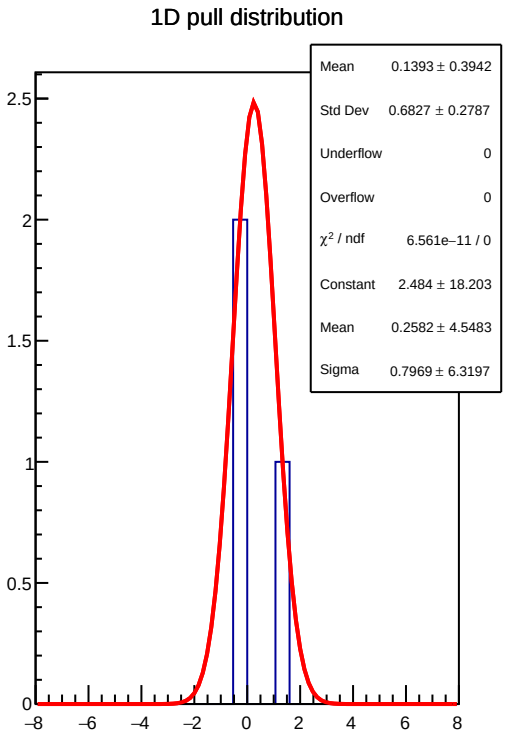

diff_bpmE (nm)
χ² / ndf 0.2014 / 2
p0 −0.6074 ± 6.261
15
10
5
0
−5
−10
−15
0.3
0.2
0.1
0
−0.1
−0.2
−0.3
43
43L
44


1D pull distribution
Mean 0.006333 ± 0.1495
Std Dev 0.259 ± 0.1057
Underflow 0
Overflow 0
χ² / ndf 6.561e−11 / 0
Constant 2.484 ± 18.202
Mean 0.09171 ± 1.51629
Sigma 0.2656 ± 2.1066
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

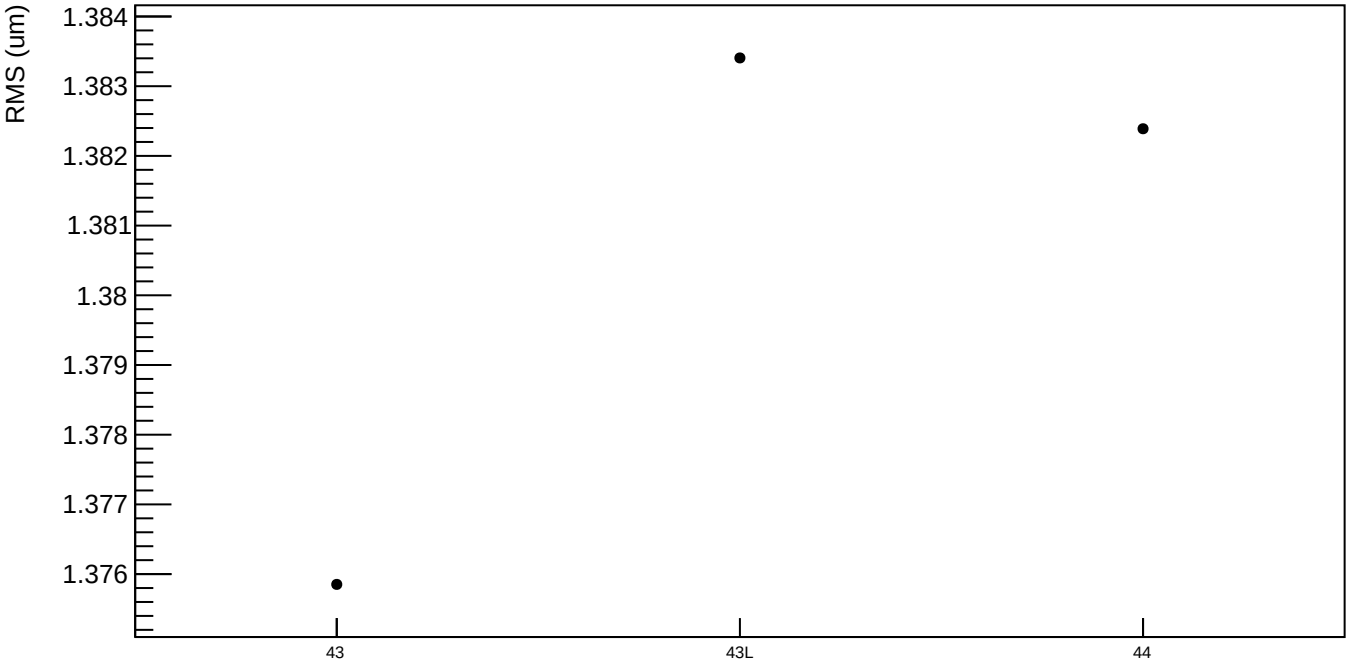
diff_bpmE RMS (um)

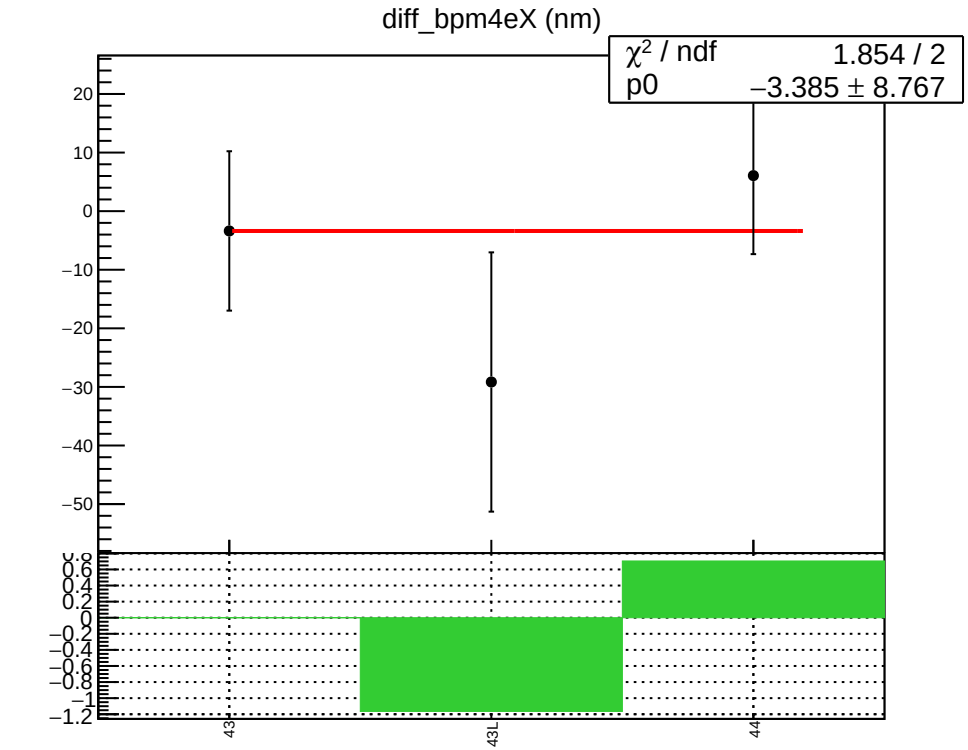


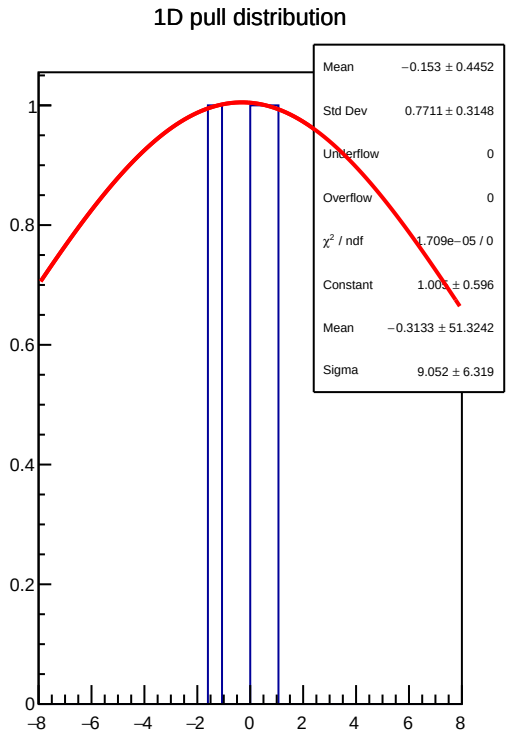

diff_bpm4aX (nm)
χ² / ndf 1.457 / 2
p0 0.4354 ± 1.277
43
43L
44


1D pull distribution
Mean 0.1393 ± 0.3942
Std Dev 0.6827 ± 0.2787
Underflow 0
Overflow 0
χ² / ndf 6.561e−11 / 0
Constant 2.484 ± 18.203
Mean 0.2582 ± 4.5483
Sigma 0.7969 ± 6.3197

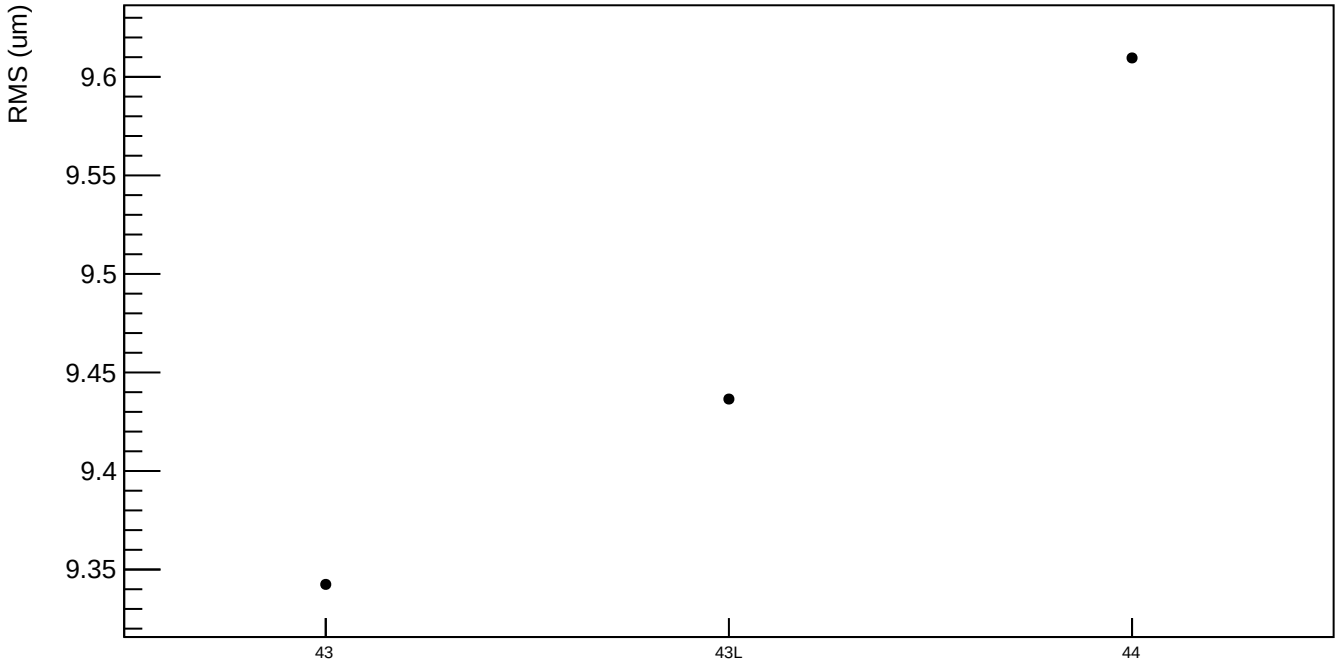
diff_bpm4aX RMS (um)

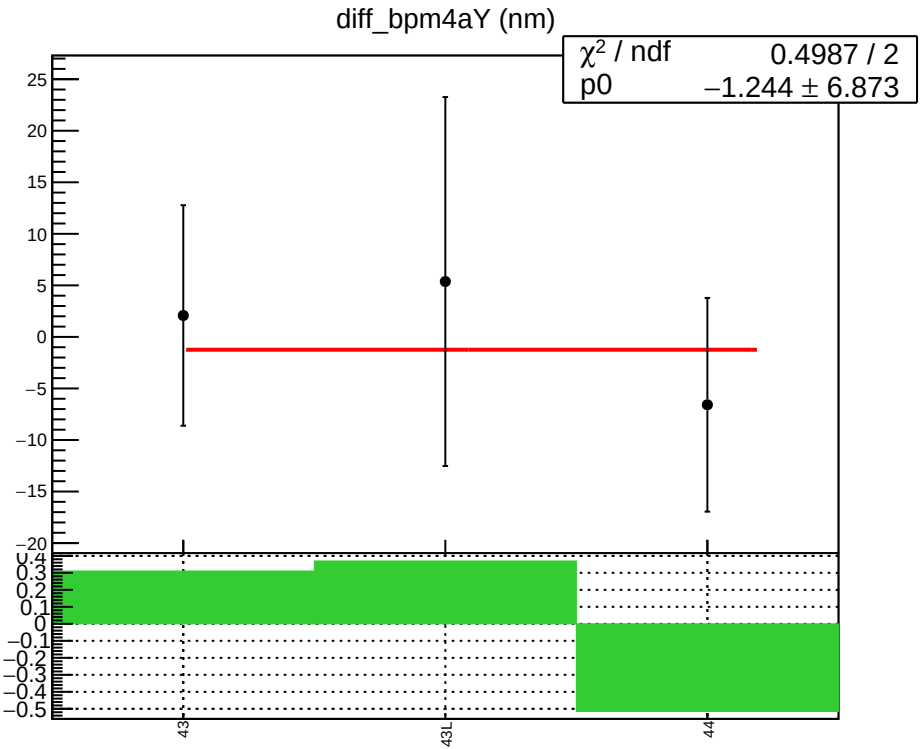


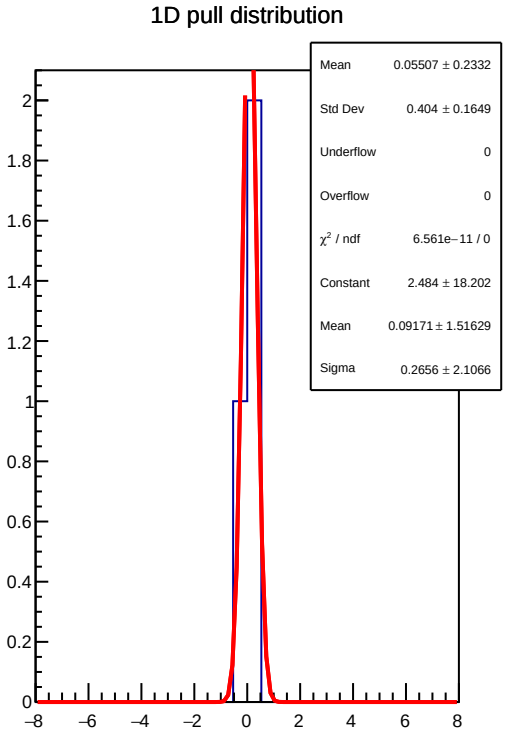

diff_bpm4eX (nm)
χ² / ndf 1.854 / 2
p0 −3.385 ± 8.767
43
43L
44

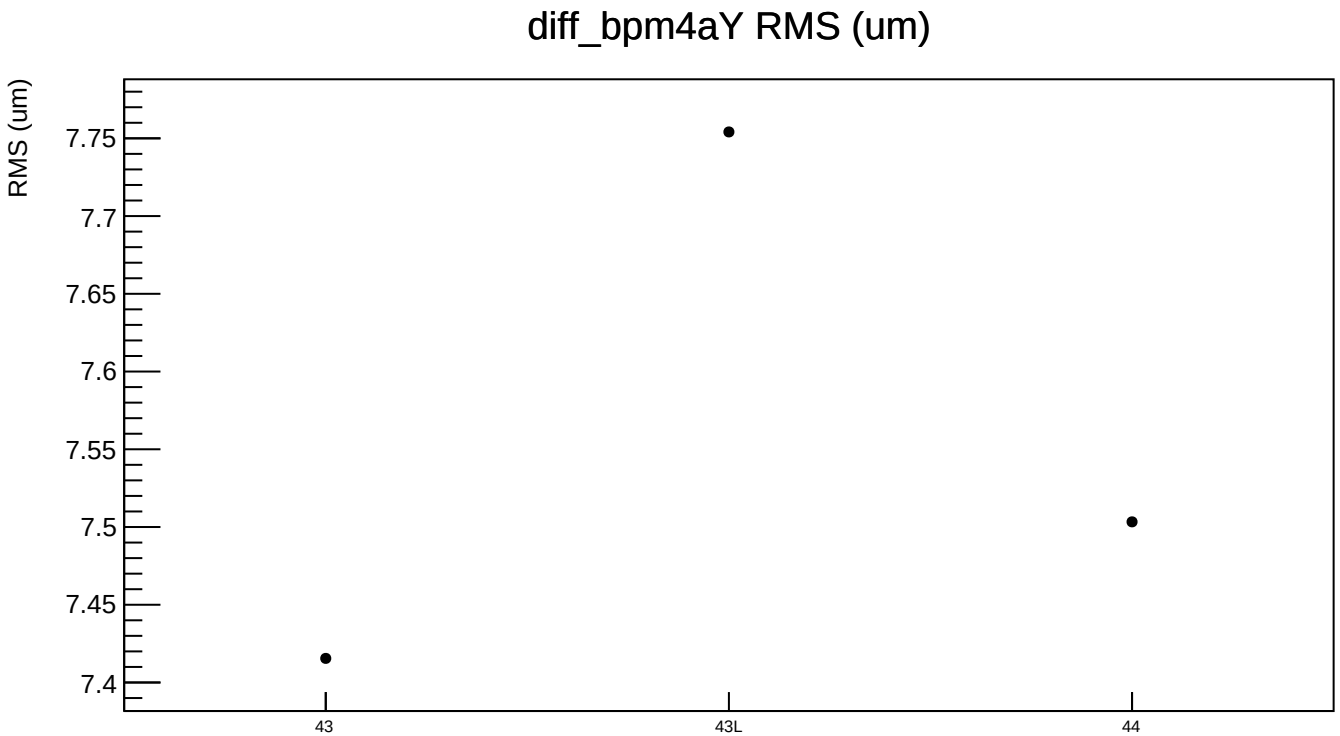

1D pull distribution
Mean −0.153 ± 0.4452
Std Dev 0.7711 ± 0.3148
Underflow 0
Overflow 0
χ² / ndf 1.709e−05 / 0
Constant 1.005 ± 0.596
Mean −0.3133 ± 51.3242
Sigma 9.052 ± 6.319

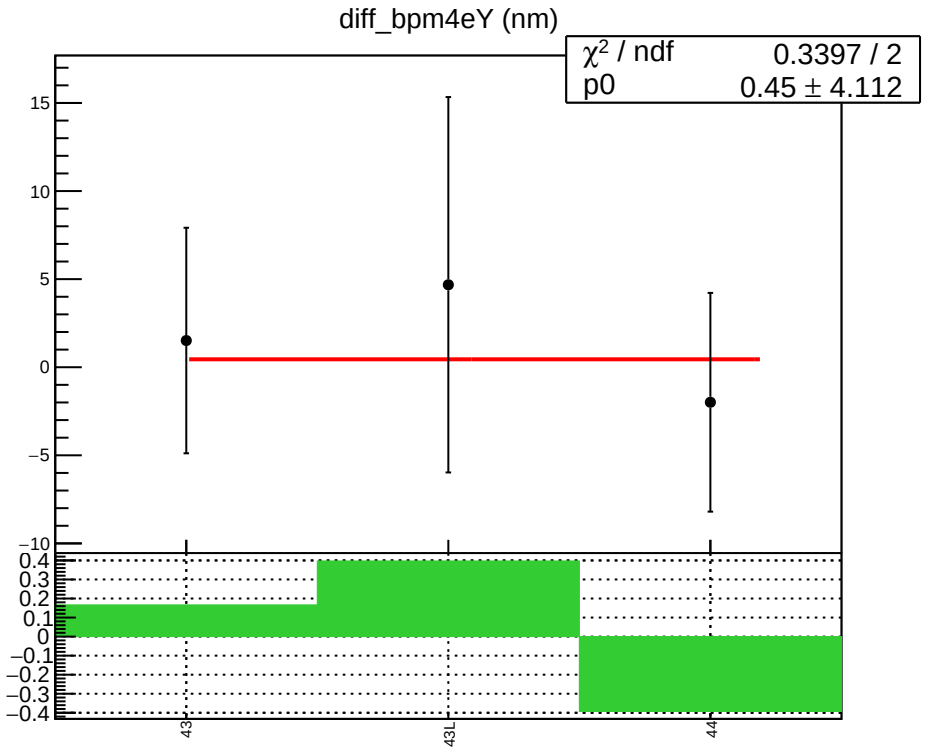
diff_bpm4eX RMS (um)

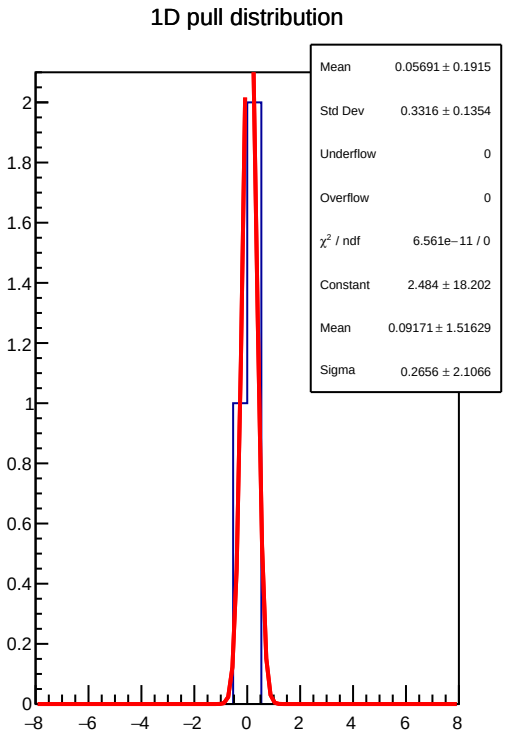



diff_bpm4aY (nm)
χ² / ndf 0.4987 / 2
p0 −1.244 ± 6.873
43
43L
44

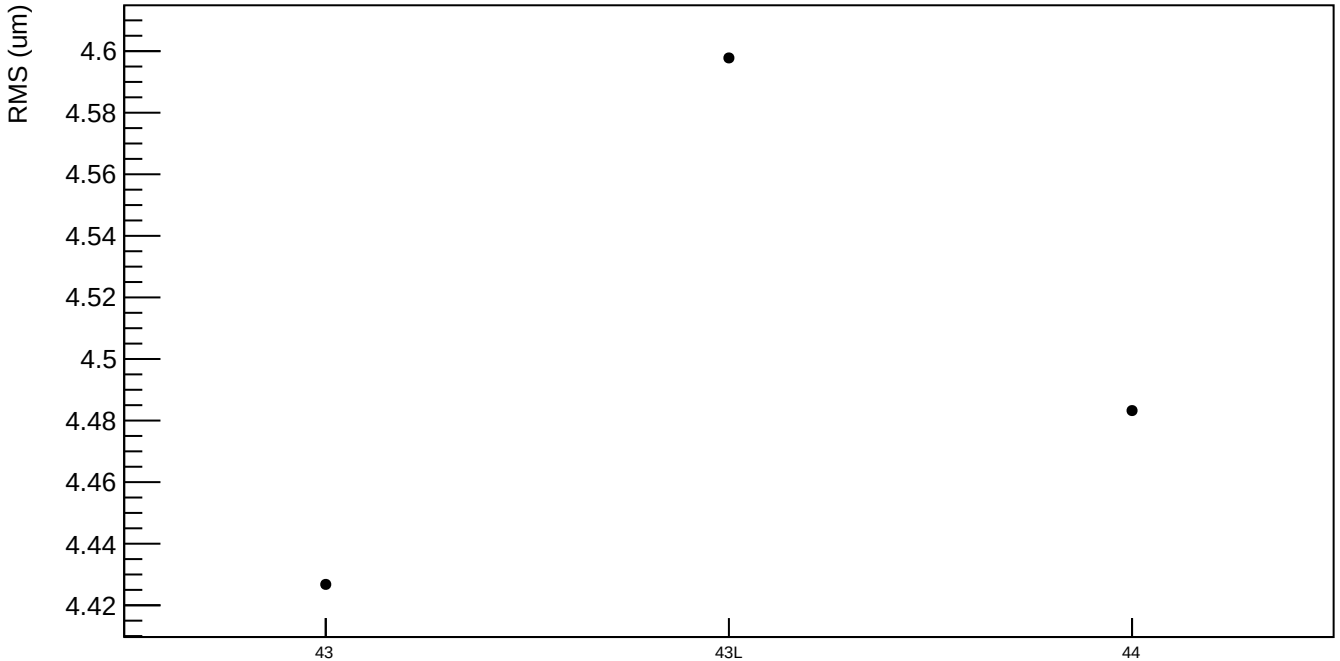

1D pull distribution
Mean 0.05507 ± 0.2332
Std Dev 0.404 ± 0.1649
Underflow 0
Overflow 0
χ² / ndf 6.561e−11 / 0
Constant 2.484 ± 18.202
Mean 0.09171 ± 1.51629
Sigma 0.2656 ± 2.1066

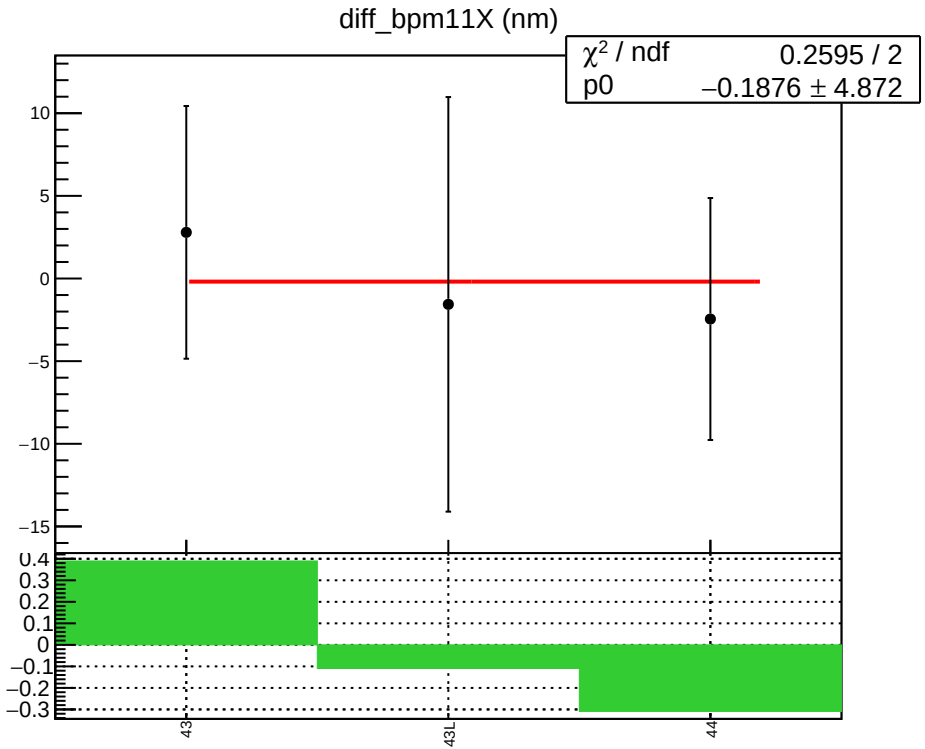

diff_bpm4aY RMS (um)
RMS (um)
7.75
7.7
7.65
7.6
7.55
7.5
7.45
7.4
43
43L
44

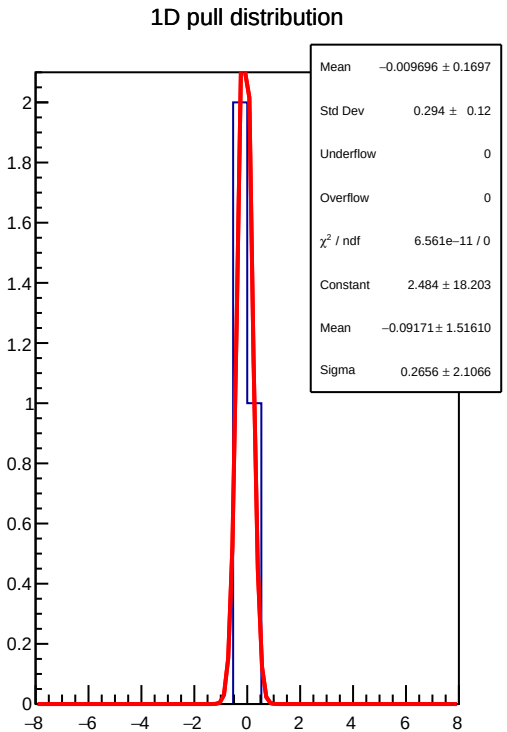

diff_bpm4eY (nm)
χ² / ndf 0.3397 / 2
p0 0.45 ± 4.112
15
10
5
0
−5
−10
0.4
0.3
0.2
0.1
0
−0.1
−0.2
−0.3
−0.4
43
43L
44


1D pull distribution
Mean 0.05691 ± 0.1915
Std Dev 0.3316 ± 0.1354
Underflow 0
Overflow 0
χ² / ndf 6.561e−11 / 0
Constant 2.484 ± 18.202
Mean 0.09171 ± 1.51629
Sigma 0.2656 ± 2.1066
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

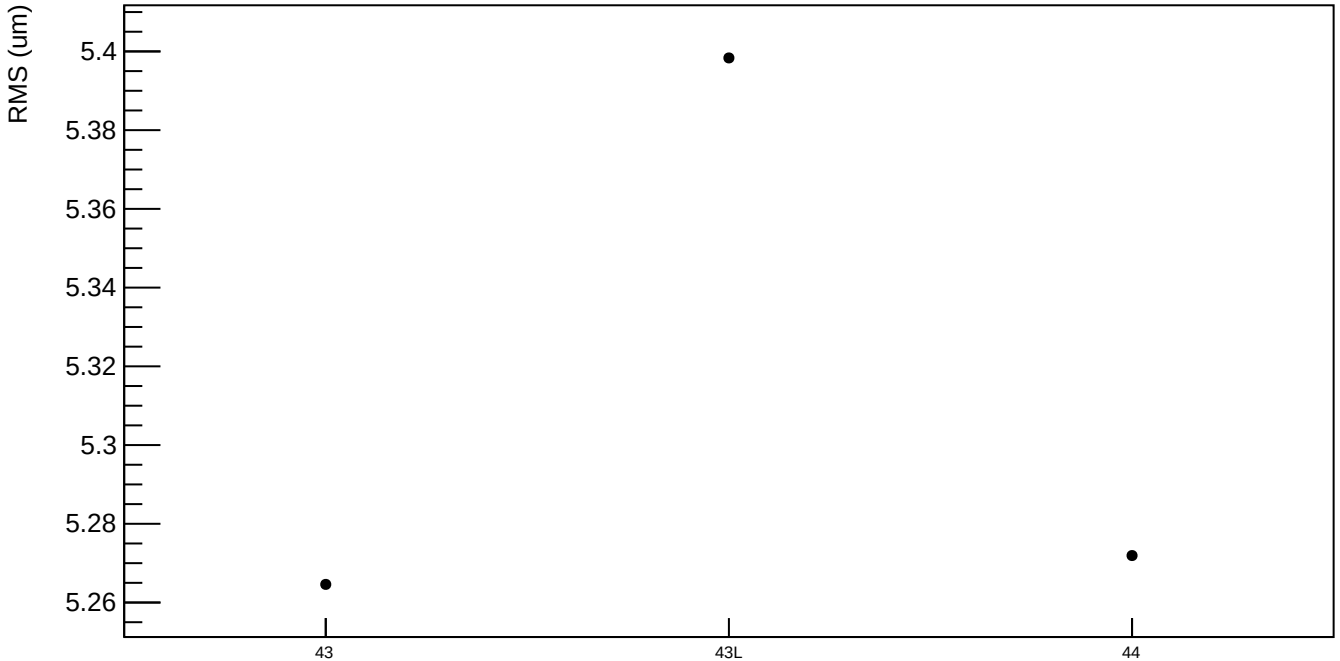
diff_bpm4eY RMS (um)

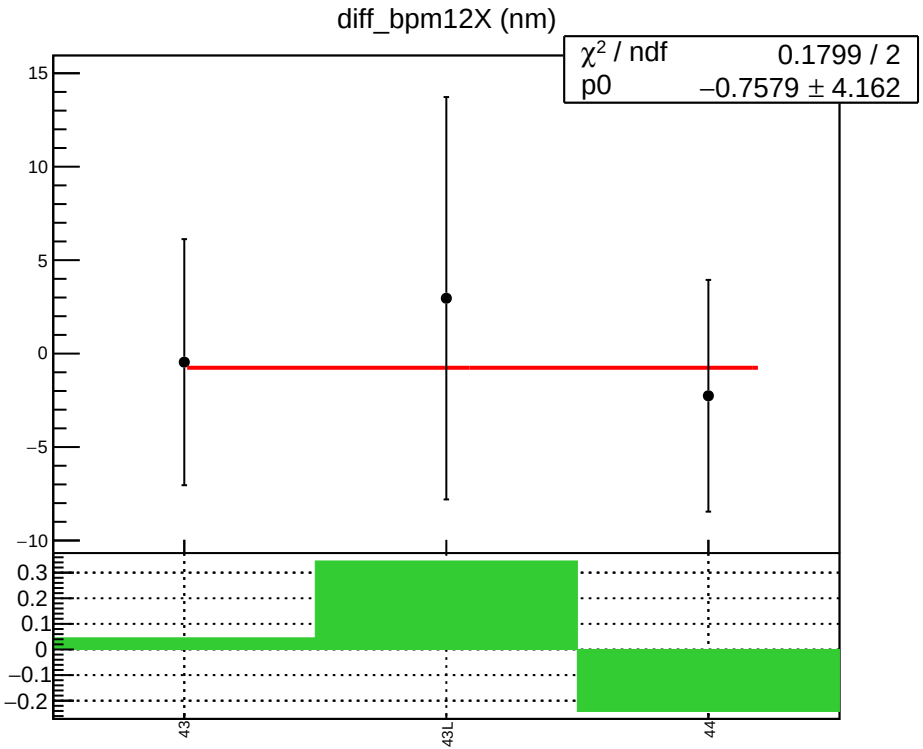


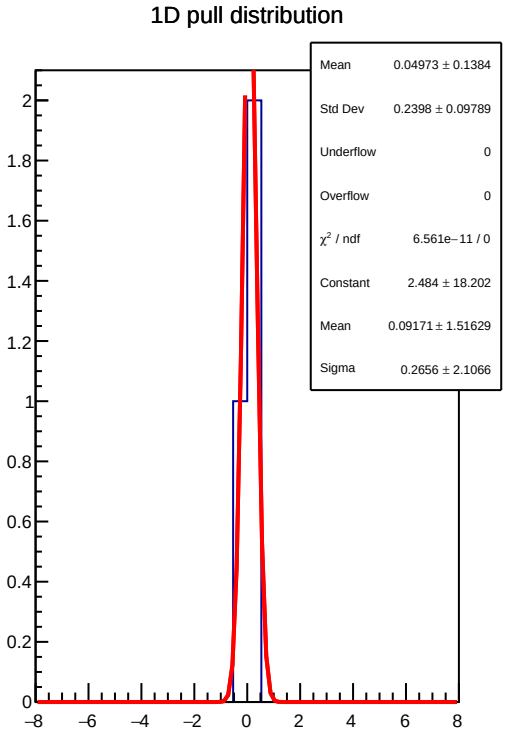

diff_bpm11X (nm)
χ² / ndf 0.2595 / 2
p0 −0.1876 ± 4.872
10
5
0
−5
−10
−15
0.4
0.3
0.2
0.1
0
−0.1
−0.2
−0.3
43
43L
44


1D pull distribution
Mean −0.009696 ± 0.1697
Std Dev 0.294 ± 0.12
Underflow 0
Overflow 0
χ² / ndf 6.561e−11 / 0
Constant 2.484 ± 18.203
Mean −0.09171 ± 1.51610
Sigma 0.2656 ± 2.1066
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

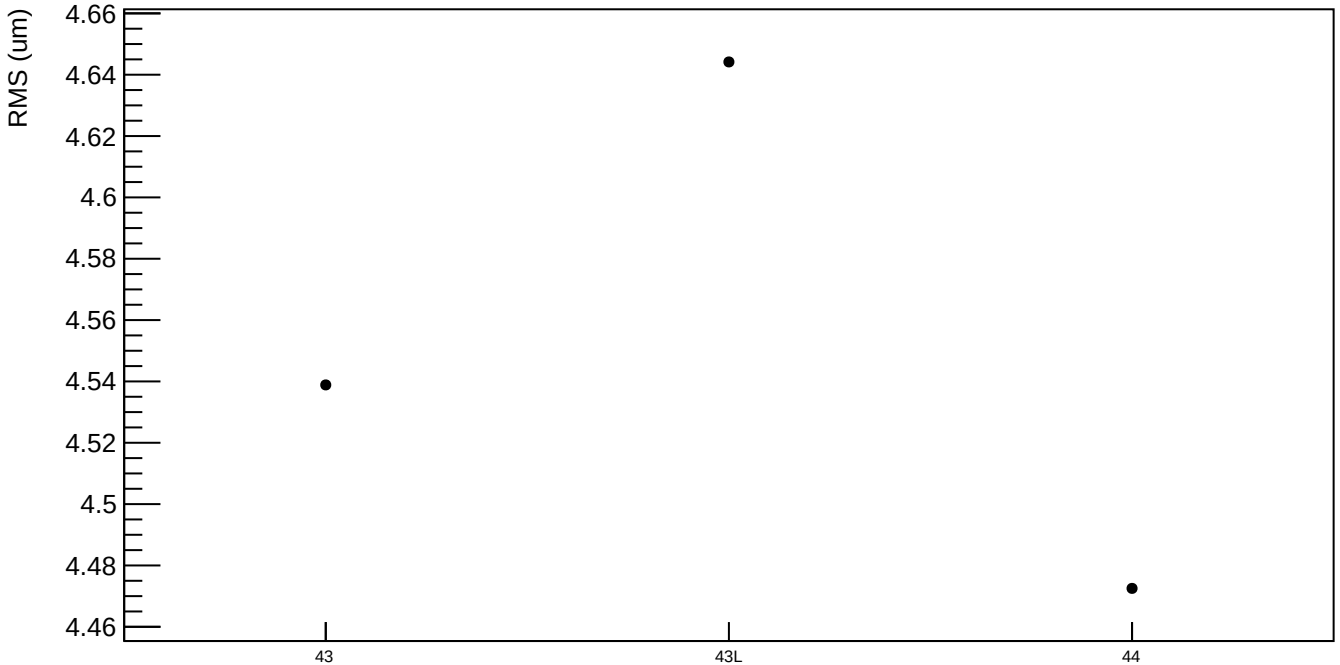
diff_bpm11X RMS (um)

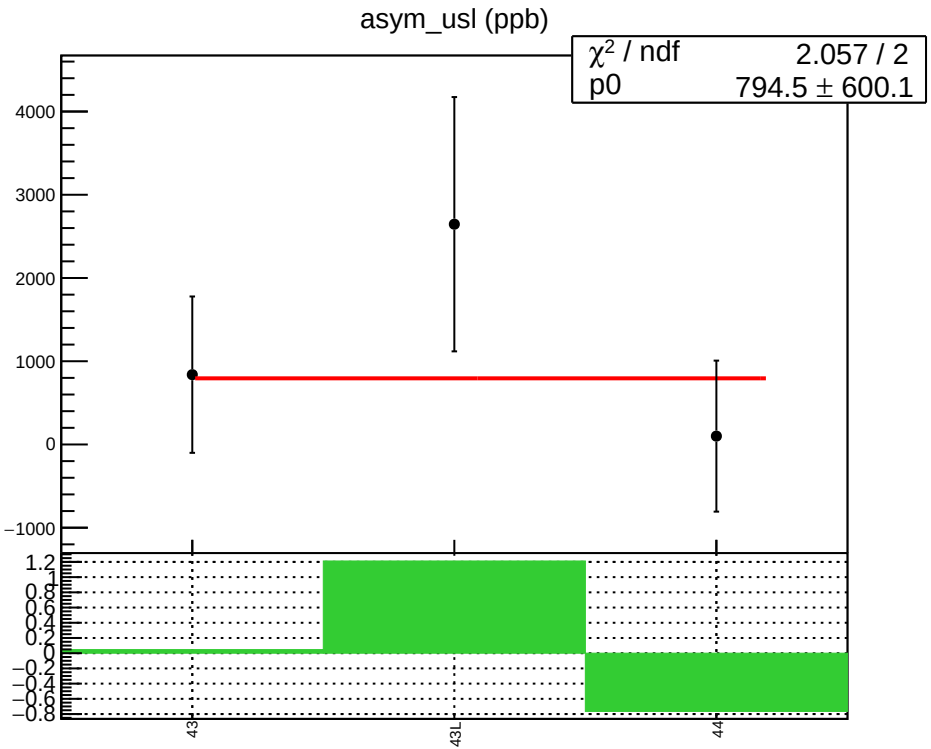


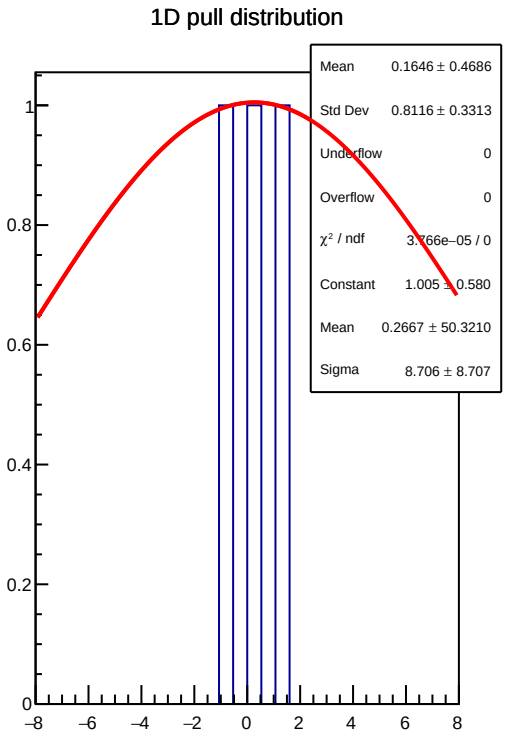

diff_bpm12X (nm)
χ² / ndf 0.1799 / 2
p0 −0.7579 ± 4.162
15
10
5
0
−5
−10
0.3
0.2
0.1
0
−0.1
−0.2
43
43L
44

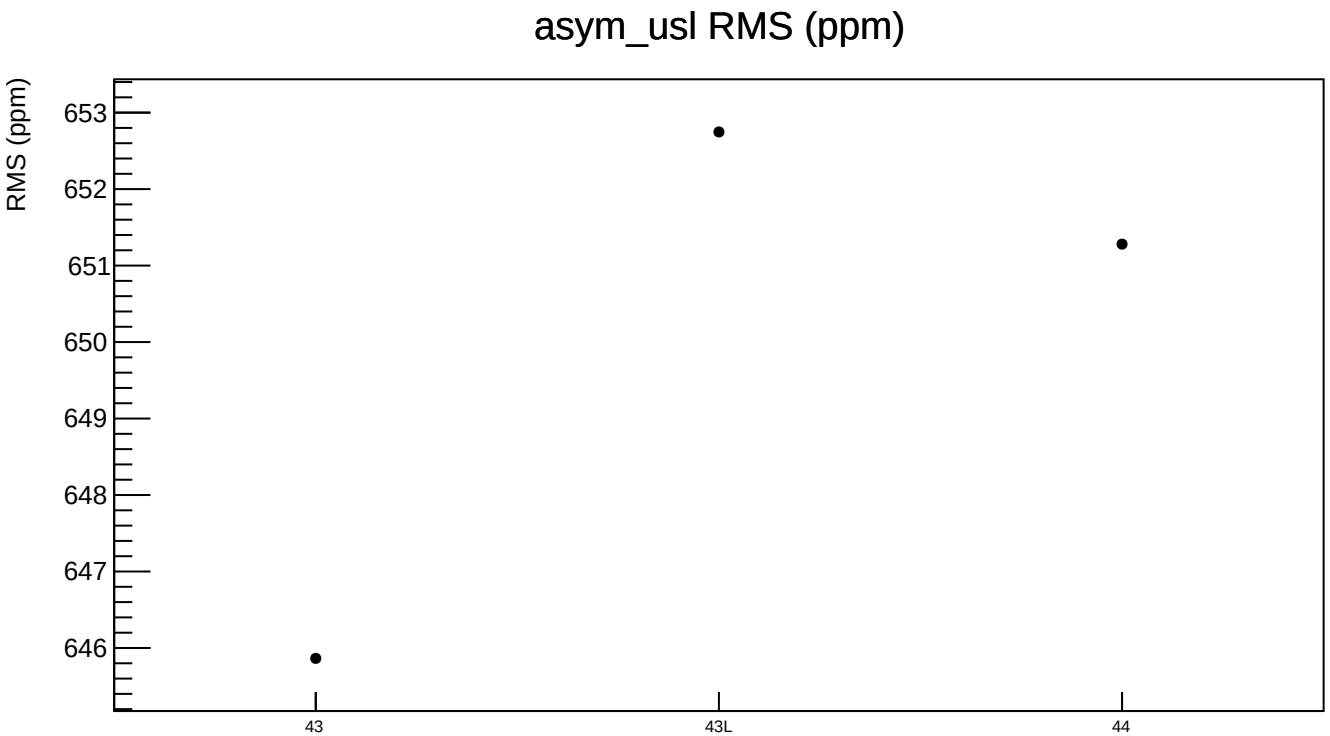

1D pull distribution
Mean 0.04973 ± 0.1384
Std Dev 0.2398 ± 0.09789
Underflow 0
Overflow 0
χ² / ndf 6.561e−11 / 0
Constant 2.484 ± 18.202
Mean 0.09171 ± 1.51629
Sigma 0.2656 ± 2.1066
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

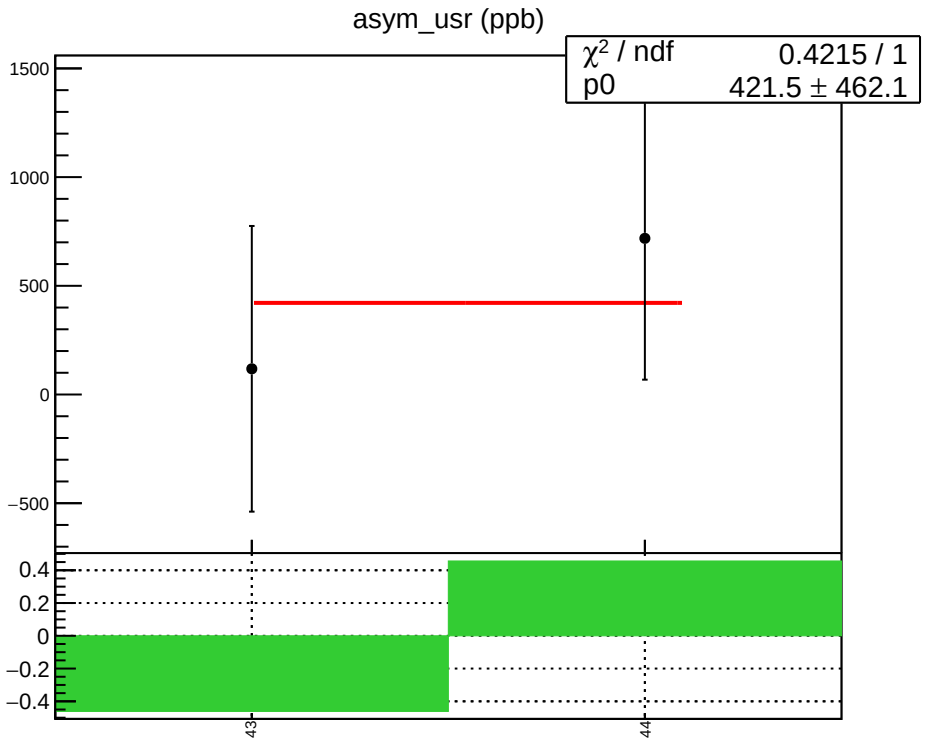
diff_bpm12X RMS (um)

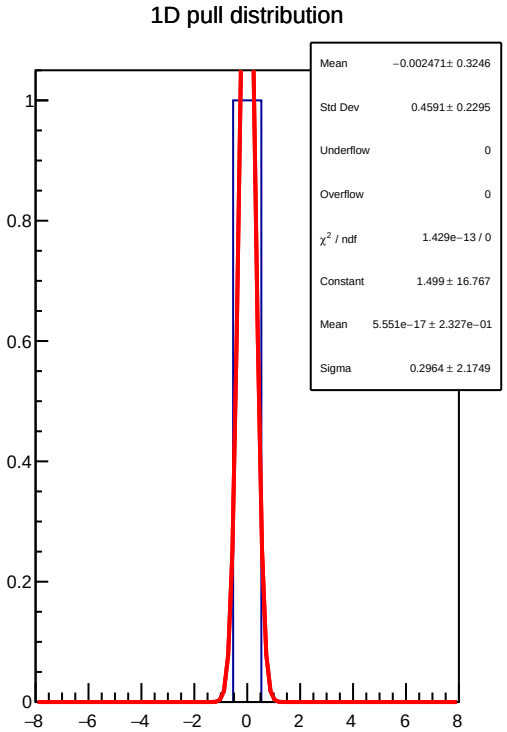



asym_usl (ppb)
χ² / ndf 2.057 / 2
p0 794.5 ± 600.1
4000
3000
2000
1000
0
−1000
1.2
1
0.8
0.6
0.4
0.2
0
−0.2
−0.4
−0.6
−0.8
43
43L
44

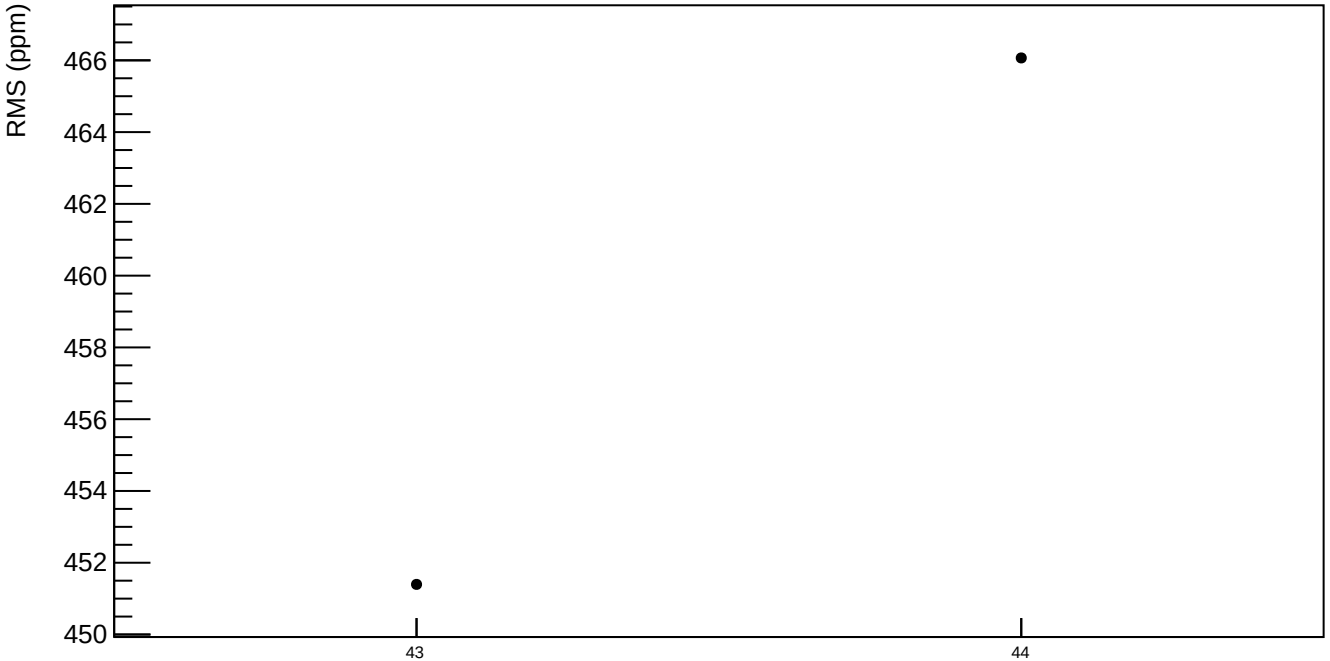

1D pull distribution
Mean 0.1646 ± 0.4686
Std Dev 0.8116 ± 0.3313
Underflow 0
Overflow 0
χ² / ndf 3.766e−05 / 0
Constant 1.005 ± 0.580
Mean 0.2667 ± 50.3210
Sigma 8.706 ± 8.707
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

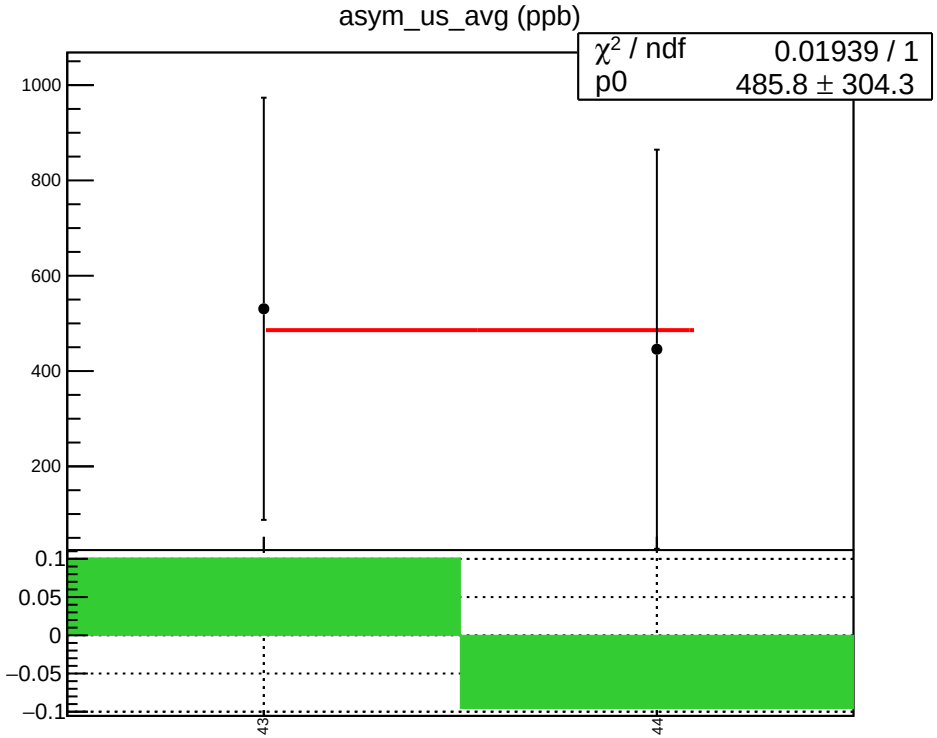

asym_usl RMS (ppm)
RMS (ppm)
653
652
651
650
649
648
647
646
43
43L
44

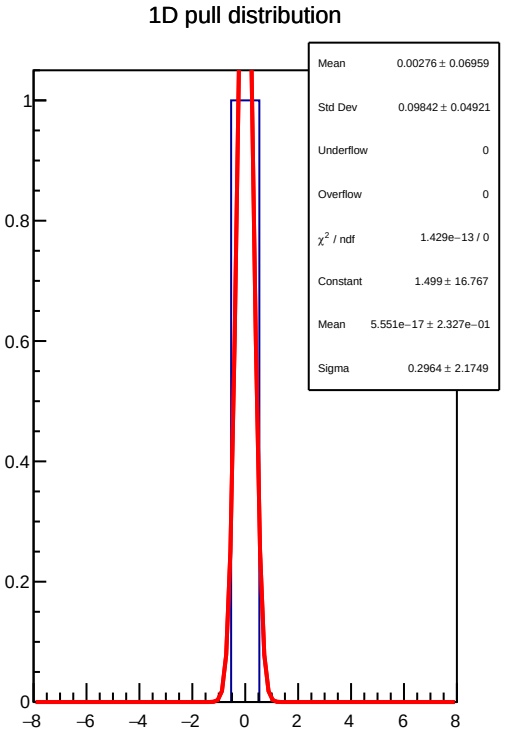

asym_usr (ppb)
χ² / ndf 0.4215 / 1
p0 421.5 ± 462.1
1500
1000
500
0
−500
0.4
0.2
0
−0.2
−0.4
43
44

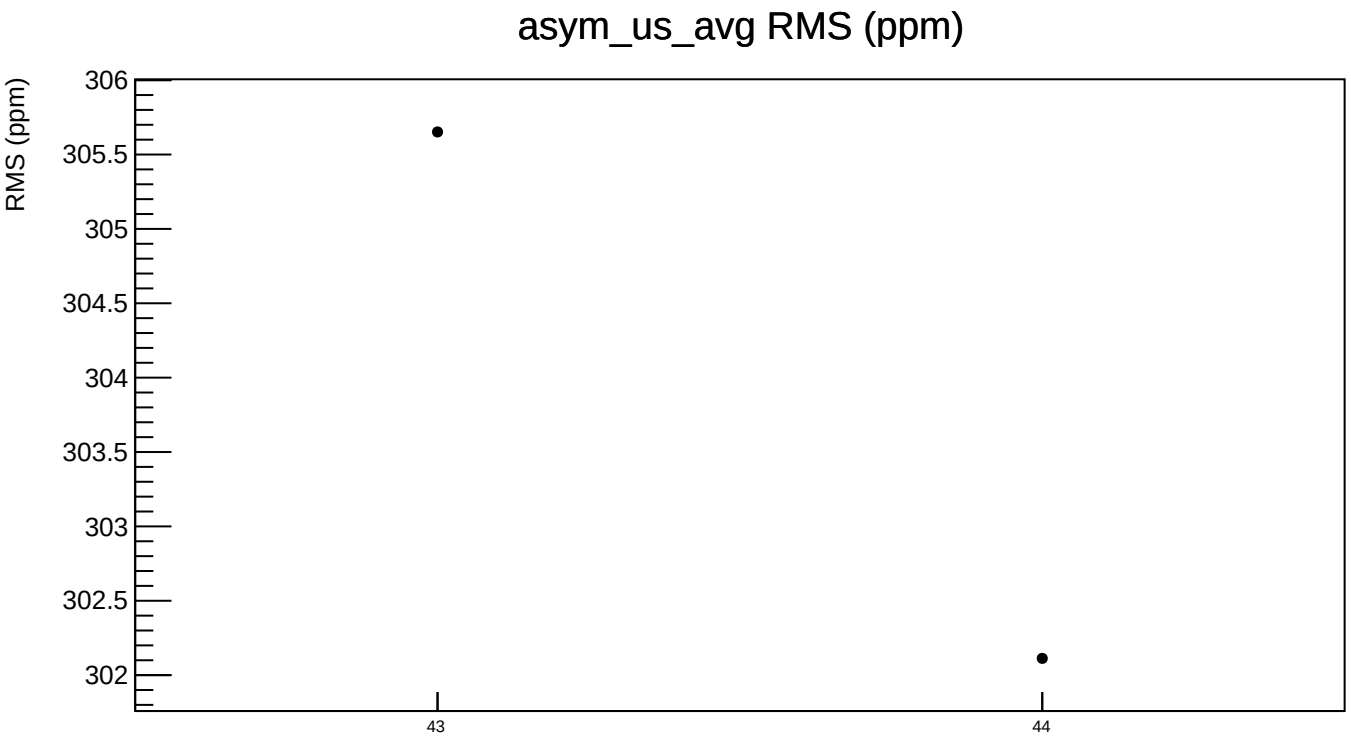

1D pull distribution
Mean −0.002471 ± 0.3246
Std Dev 0.4591 ± 0.2295
Underflow 0
Overflow 0
χ² / ndf 1.429e−13 / 0
Constant 1.499 ± 16.767
Mean 5.551e−17 ± 2.327e−01
Sigma 0.2964 ± 2.1749
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

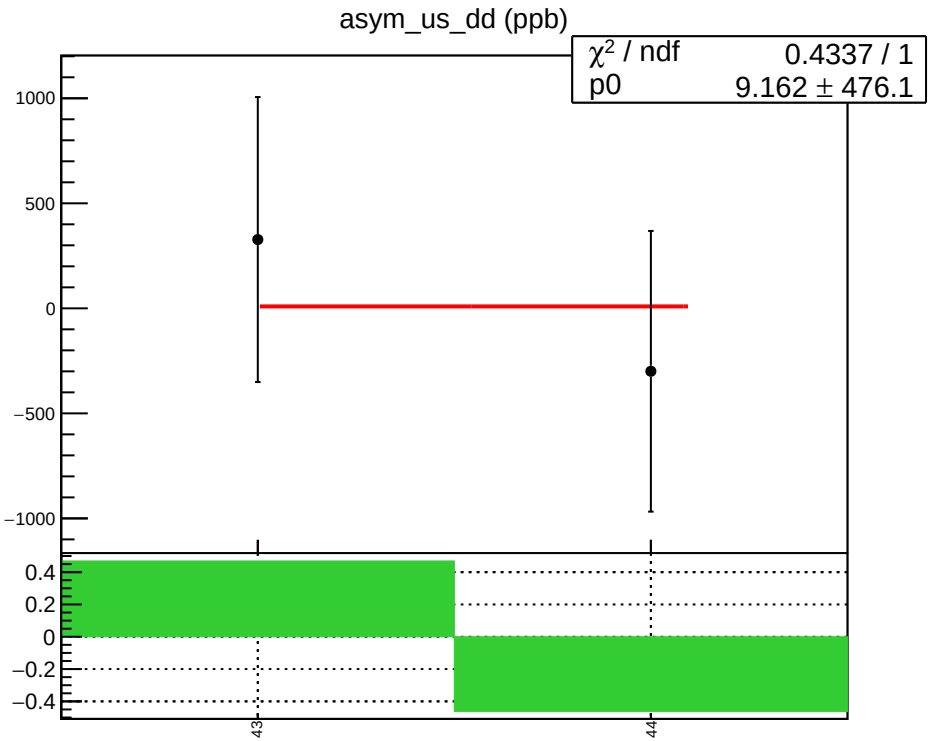
asym_usr RMS (ppm)

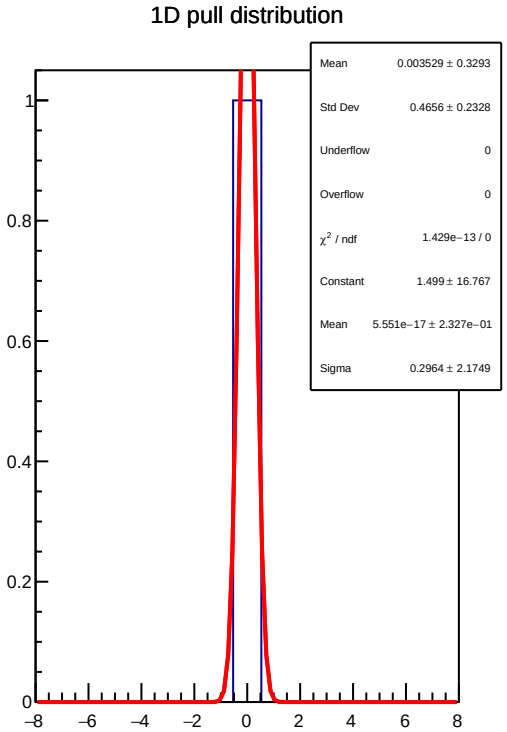



asym_us_avg (ppb)
χ² / ndf 0.01939 / 1
p0 485.8 ± 304.3
1000
800
600
400
200
0.1
0.05
0
−0.05
−0.1
43
44

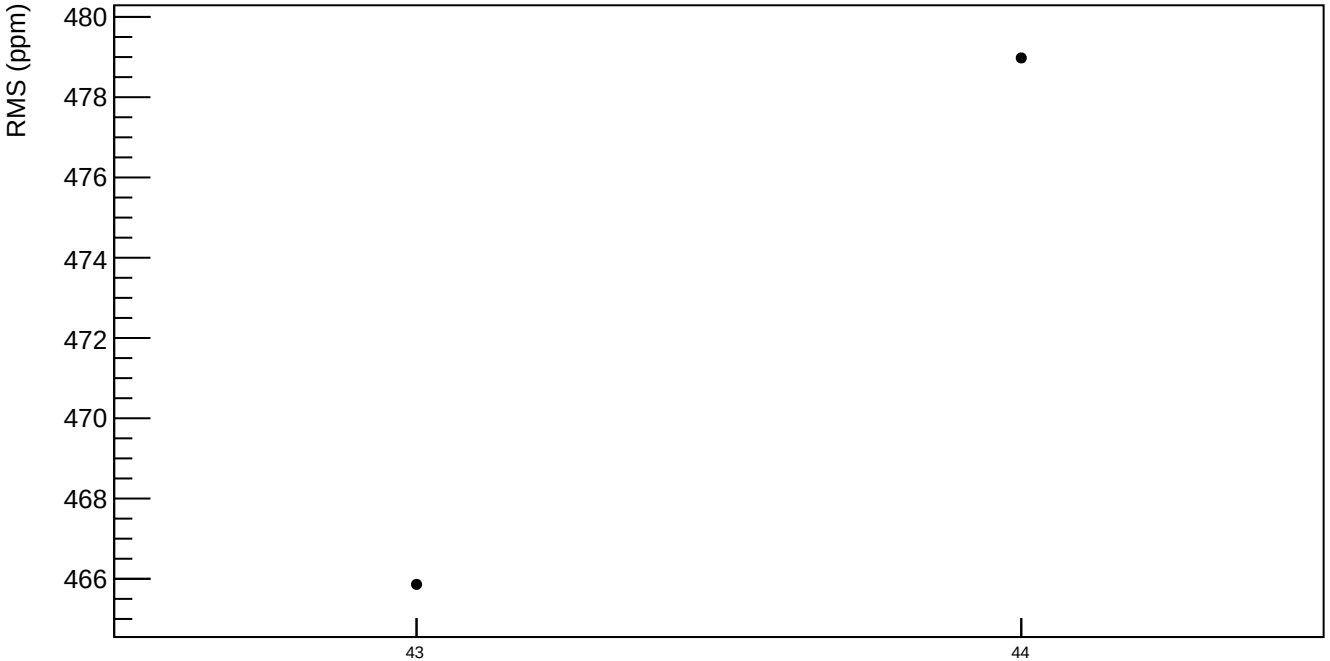

1D pull distribution
Mean 0.00276 ± 0.06959
Std Dev 0.09842 ± 0.04921
Underflow 0
Overflow 0
χ² / ndf 1.429e−13 / 0
Constant 1.499 ± 16.767
Mean 5.551e−17 ± 2.327e−01
Sigma 0.2964 ± 2.1749
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

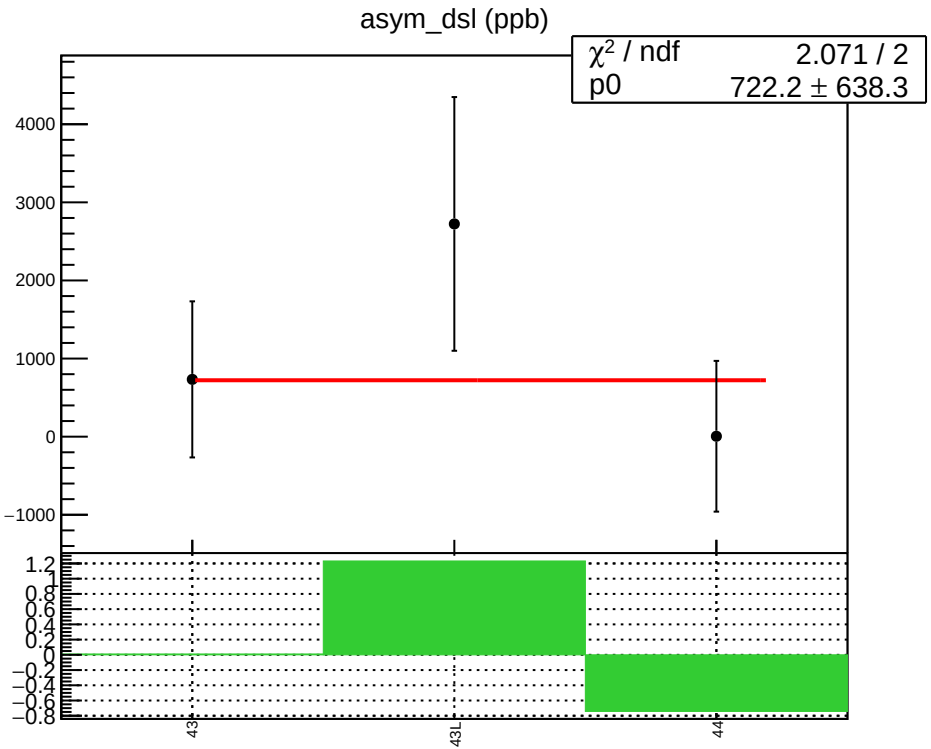

asym_us_avg RMS (ppm)
RMS (ppm)
306
305.5
305
304.5
304
303.5
303
302.5
302
43
44

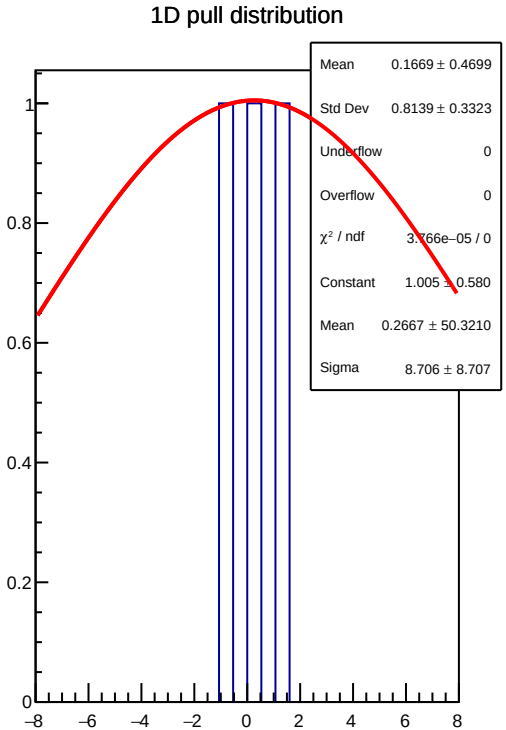

asym_us_dd (ppb)
χ² / ndf 0.4337 / 1
p0 9.162 ± 476.1
1000
500
0
−500
−1000
0.4
0.2
0
−0.2
−0.4
43
44


1D pull distribution
Mean 0.003529 ± 0.3293
Std Dev 0.4656 ± 0.2328
Underflow 0
Overflow 0
χ² / ndf 1.429e−13 / 0
Constant 1.499 ± 16.767
Mean 5.551e−17 ± 2.327e−01
Sigma 0.2964 ± 2.1749
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

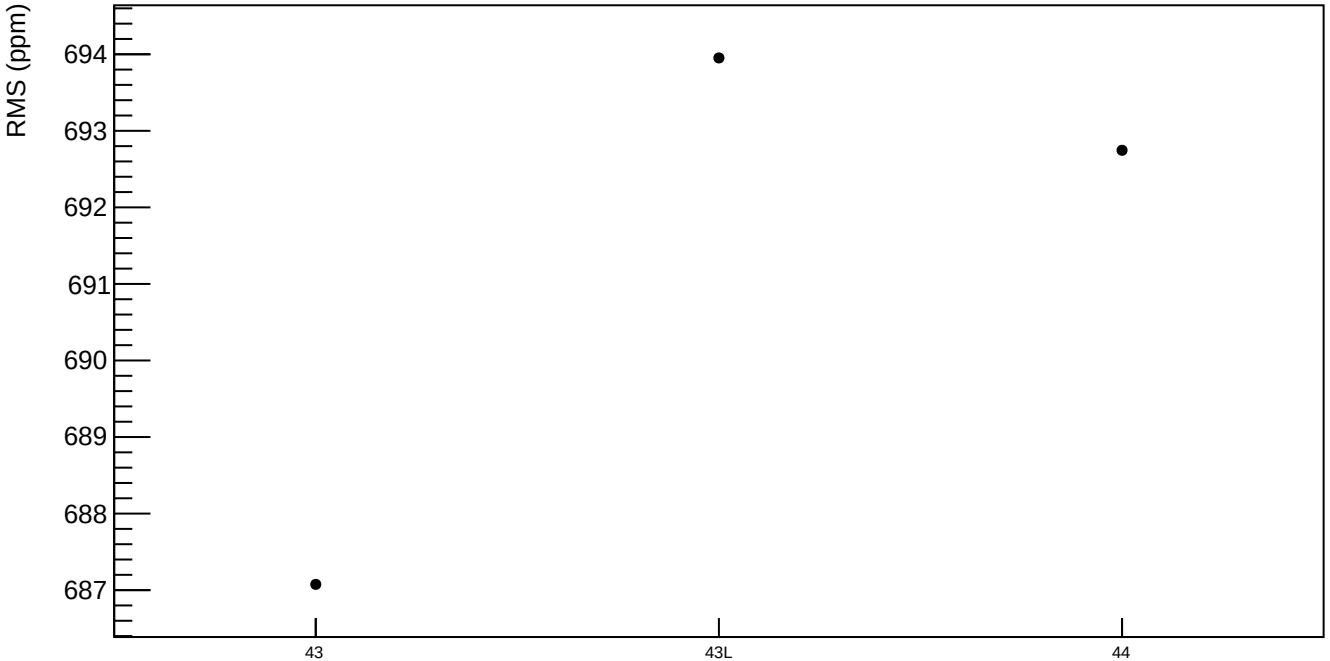
asym_us_dd RMS (ppm)

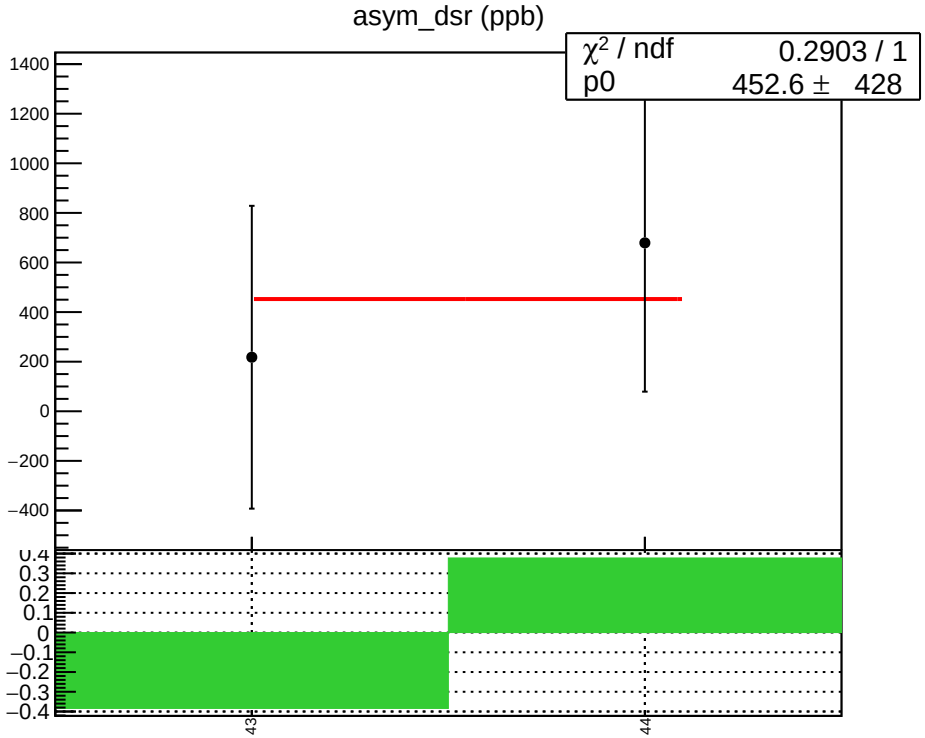


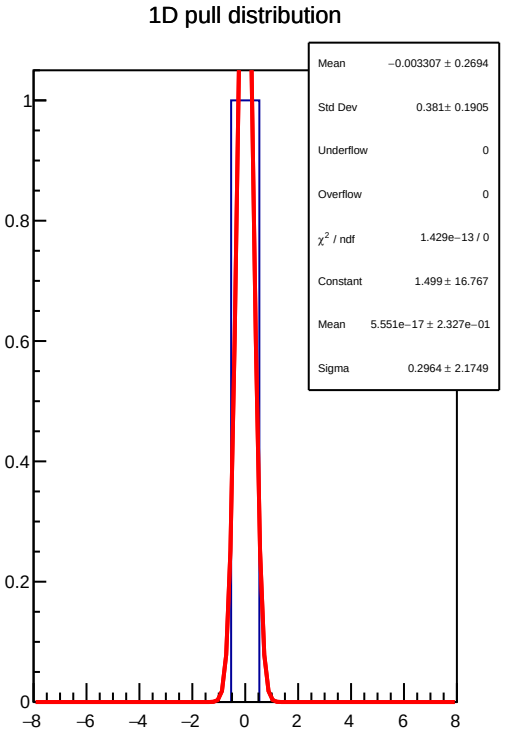

asym_dsl (ppb)
χ² / ndf 2.071 / 2
p0 722.2 ± 638.3
4000
3000
2000
1000
0
−1000
1.2
1
0.8
0.6
0.4
0.2
0
−0.2
−0.4
−0.6
−0.8
43
43L
44


1D pull distribution
Mean 0.1669 ± 0.4699
Std Dev 0.8139 ± 0.3323
Underflow 0
Overflow 0
χ² / ndf 3.766e−05 / 0
Constant 1.005 ± 0.580
Mean 0.2667 ± 50.3210
Sigma 8.706 ± 8.707
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

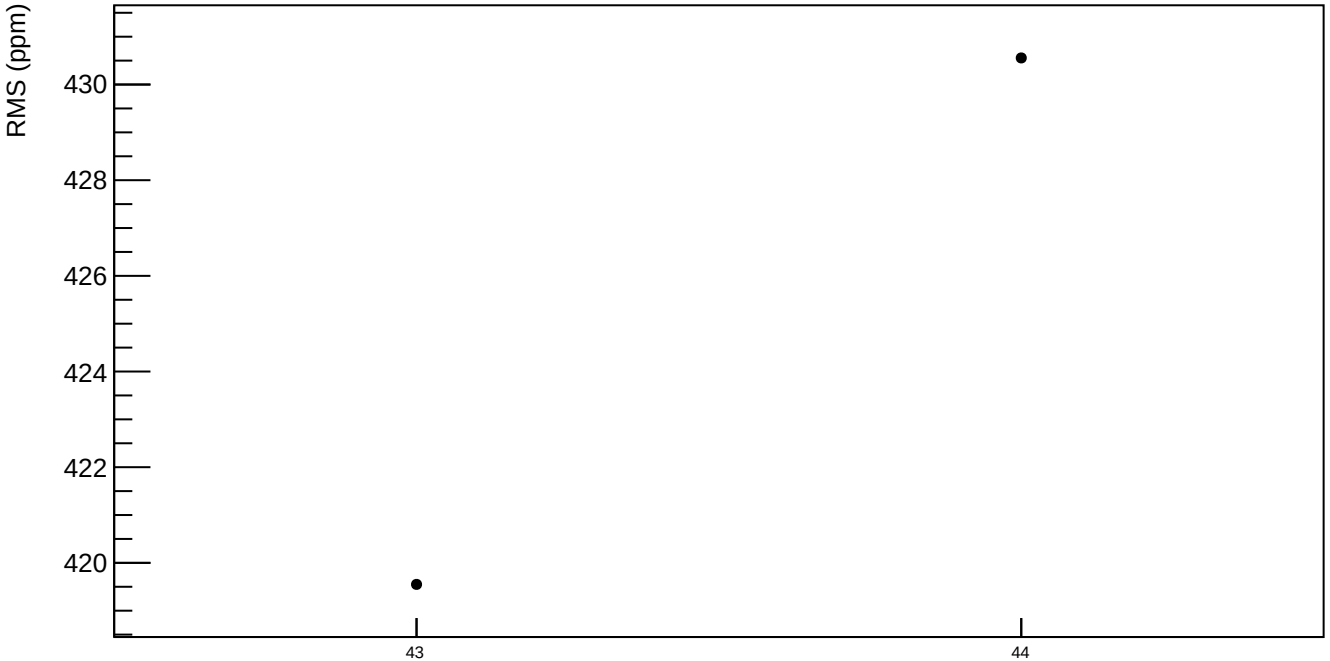
asym_dsl RMS (ppm)

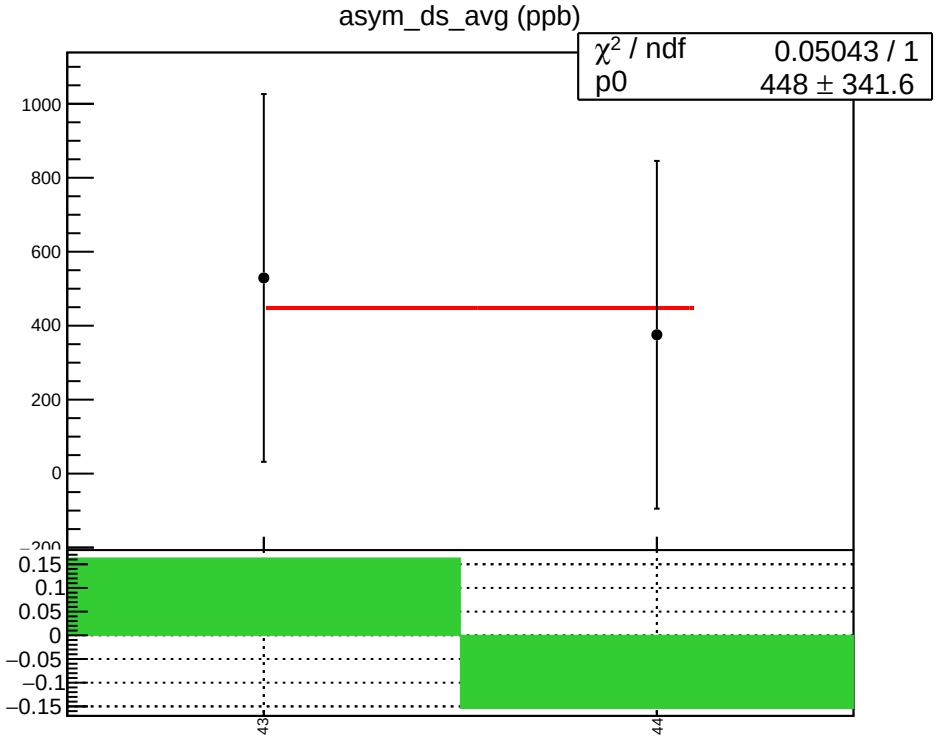


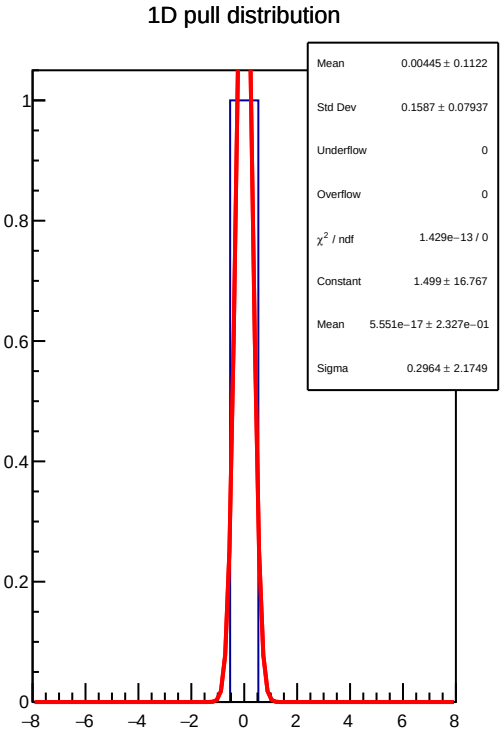

asym_dsr (ppb)
χ² / ndf 0.2903 / 1
p0 452.6 ± 428
1400
1200
1000
800
600
400
200
0
−200
−400
0.4
0.3
0.2
0.1
0
−0.1
−0.2
−0.3
−0.4
43
44

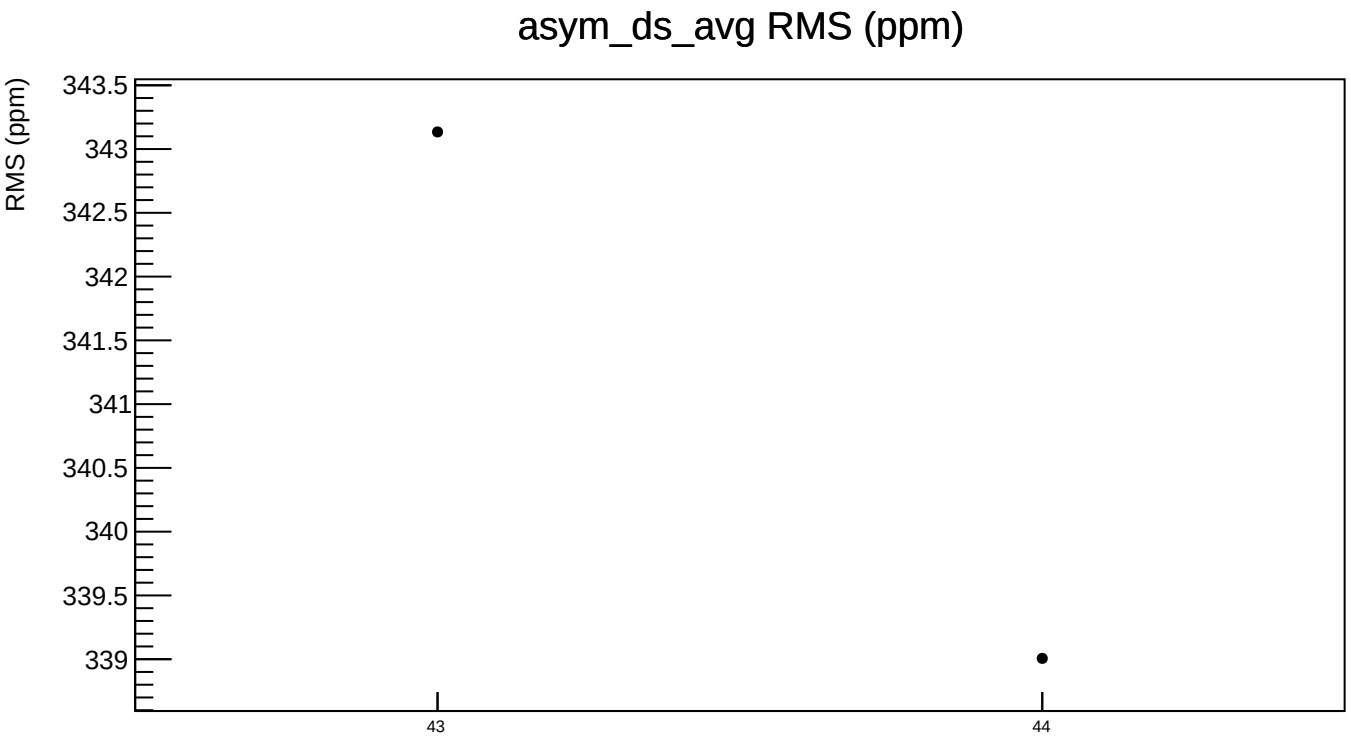

1D pull distribution
Mean −0.003307 ± 0.2694
Std Dev 0.381± 0.1905
Underflow 0
Overflow 0
χ² / ndf 1.429e−13 / 0
Constant 1.499 ± 16.767
Mean 5.551e−17 ± 2.327e−01
Sigma 0.2964 ± 2.1749
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

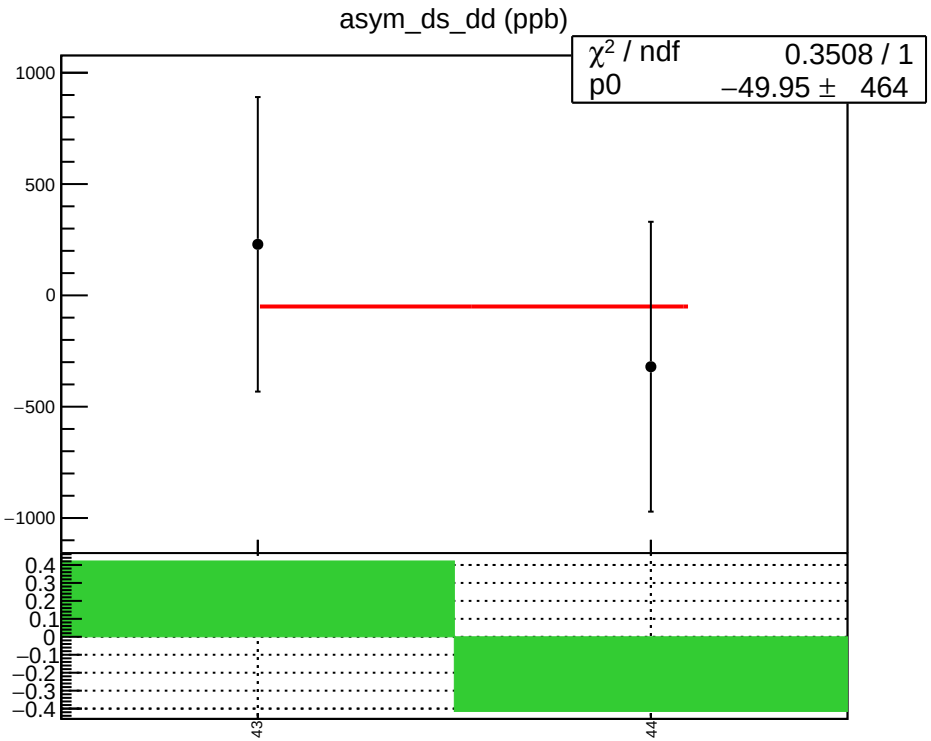
asym_dsr RMS (ppm)

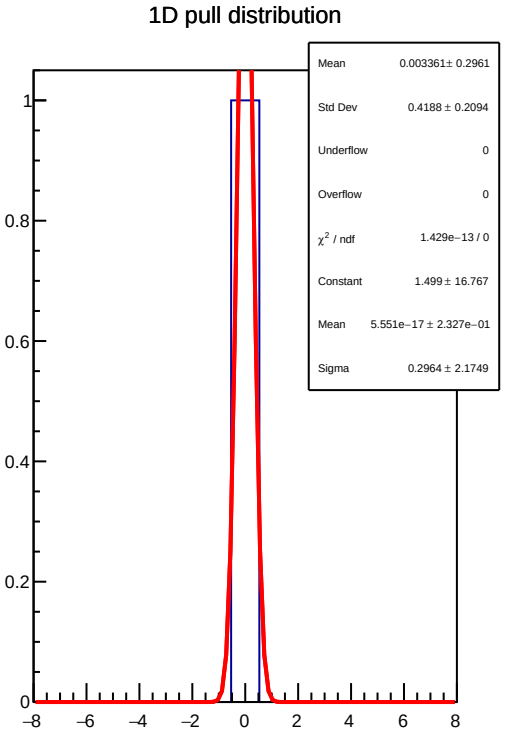



asym_ds_avg (ppb)
χ² / ndf 0.05043 / 1
p0 448 ± 341.6
1000
800
600
400
200
0
0.15
0.1
0.05
0
−0.05
−0.1
−0.15
43
44

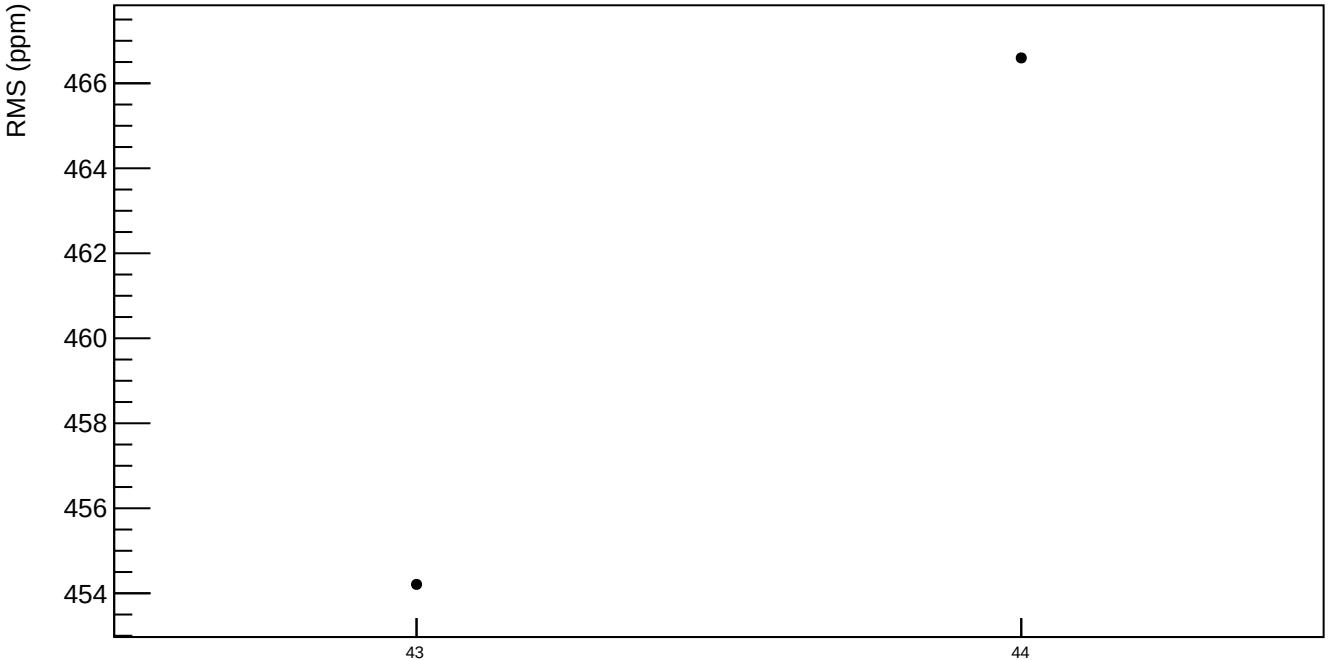

1D pull distribution
Mean 0.00445 ± 0.1122
Std Dev 0.1587 ± 0.07937
Underflow 0
Overflow 0
χ² / ndf 1.429e−13 / 0
Constant 1.499 ± 16.767
Mean 5.551e−17 ± 2.327e−01
Sigma 0.2964 ± 2.1749
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

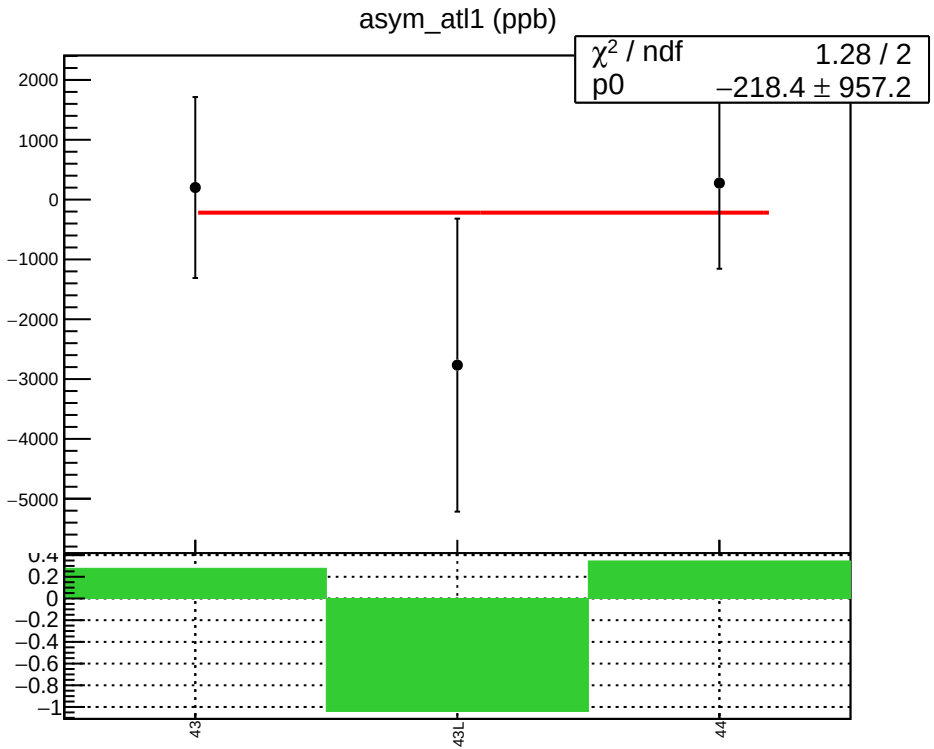

asym_ds_avg RMS (ppm)
RMS (ppm)
343.5
343
342.5
342
341.5
341
340.5
340
339.5
339
43
44

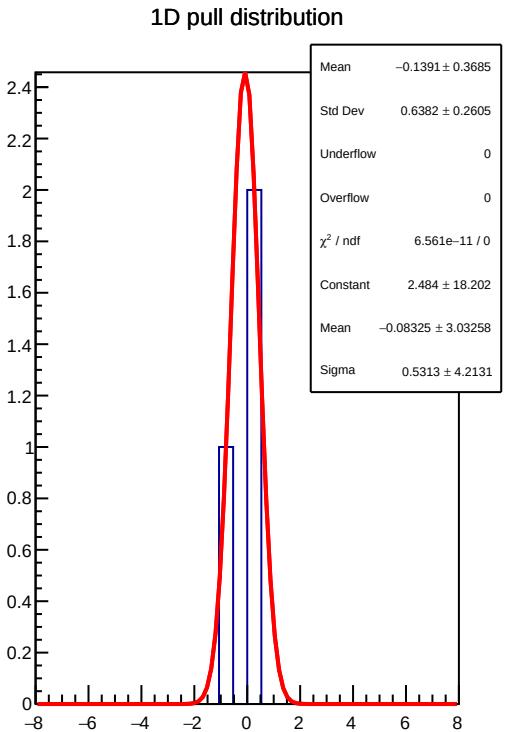

asym_ds_dd (ppb)
χ² / ndf 0.3508 / 1
p0 −49.95 ± 464
1000
500
0
−500
−1000
0.4
0.3
0.2
0.1
0
−0.1
−0.2
−0.3
−0.4
43
44

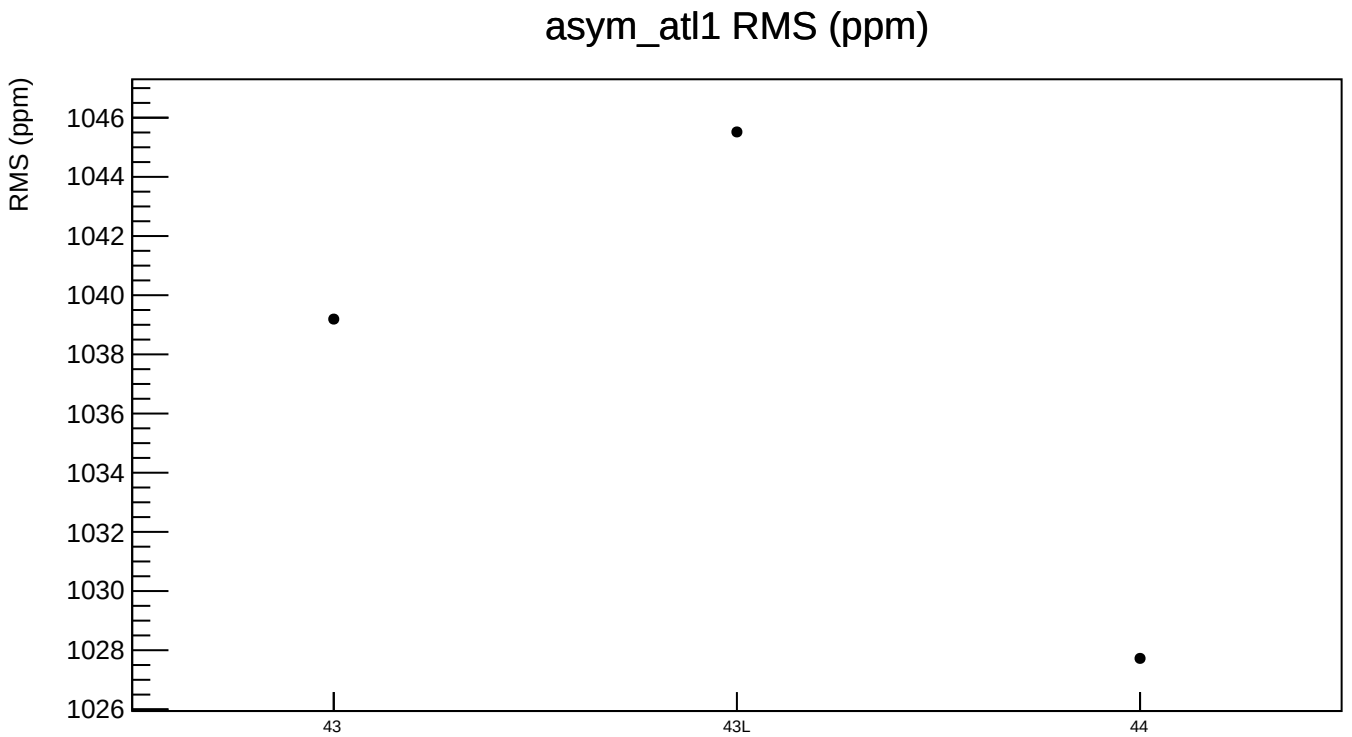

1D pull distribution
Mean 0.003361 ± 0.2961
Std Dev 0.4188 ± 0.2094
Underflow 0
Overflow 0
χ² / ndf 1.429e−13 / 0
Constant 1.499 ± 16.767
Mean 5.551e−17 ± 2.327e−01
Sigma 0.2964 ± 2.1749
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

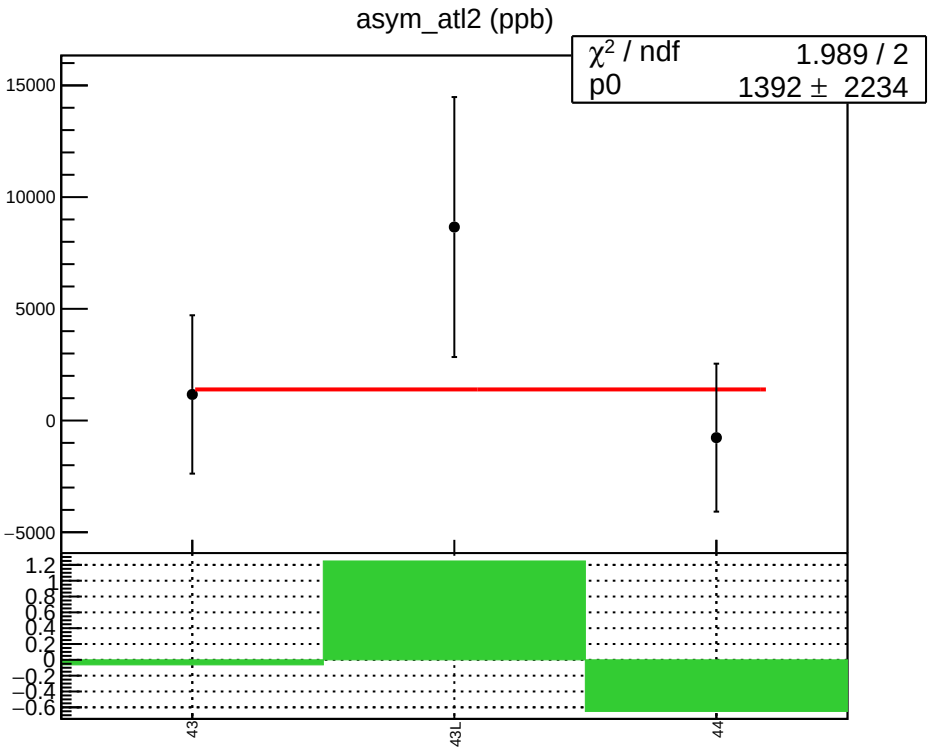
asym_ds_dd RMS (ppm)

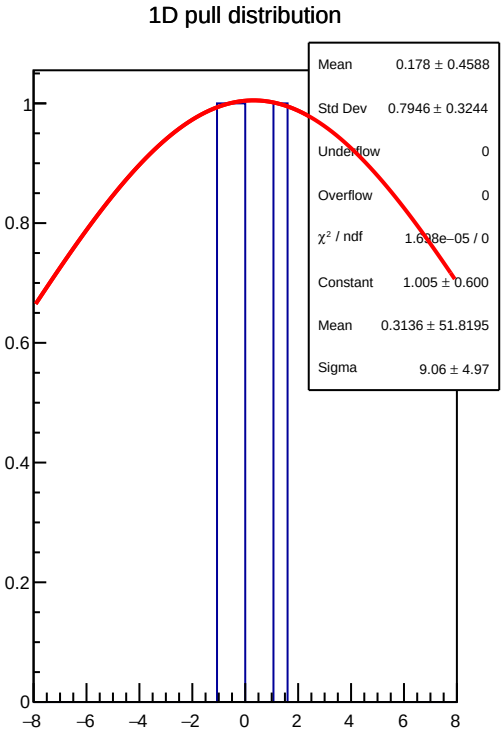


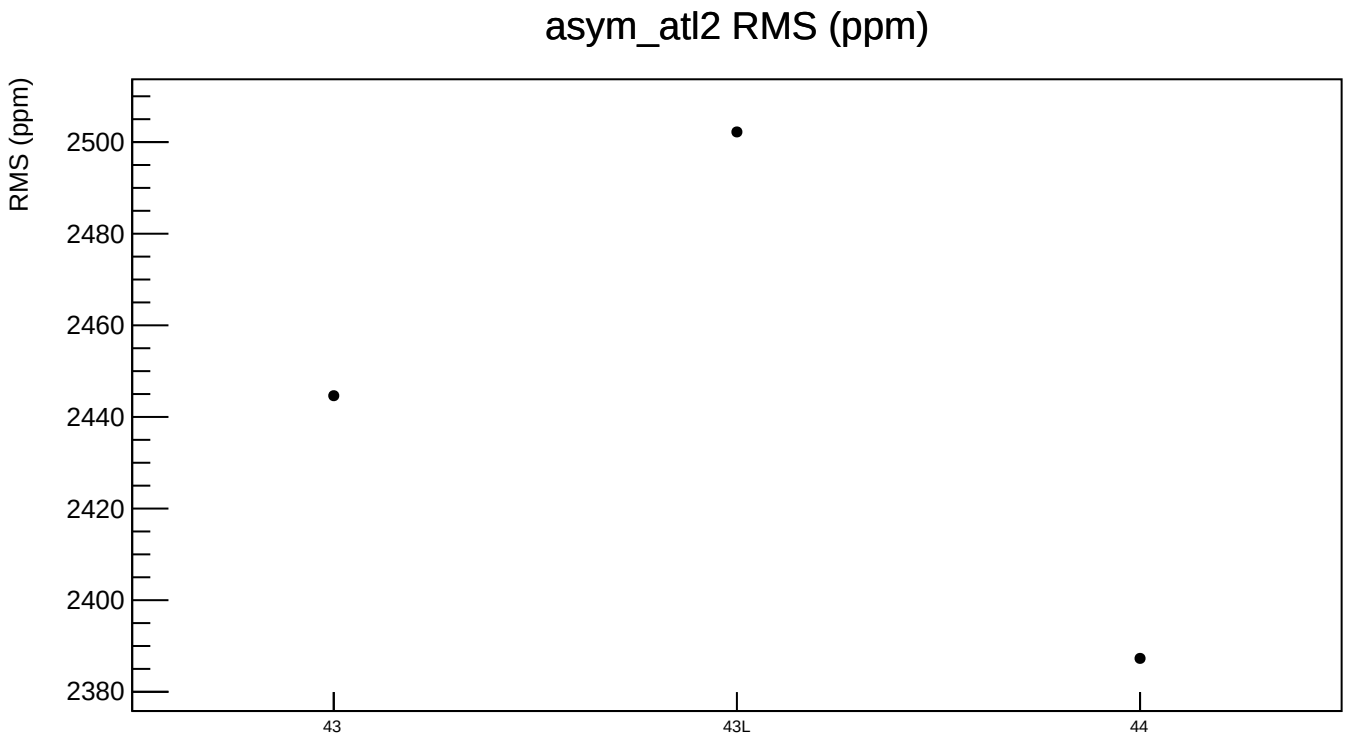

asym_atl1 (ppb)
χ² / ndf 1.28 / 2
p0 −218.4 ± 957.2
2000
1000
0
−1000
−2000
−3000
−4000
−5000
0.4
0.2
0
−0.2
−0.4
−0.6
−0.8
−1
43
43L
44

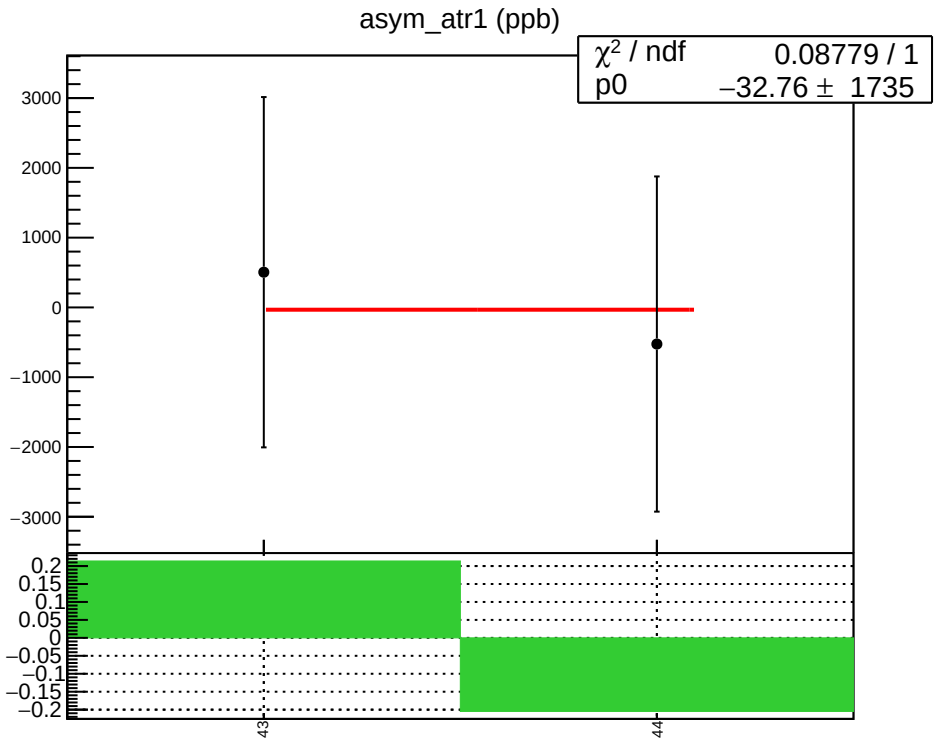

1D pull distribution
Mean −0.1391 ± 0.3685
Std Dev 0.6382 ± 0.2605
Underflow 0
Overflow 0
χ² / ndf 6.561e−11 / 0
Constant 2.484 ± 18.202
Mean −0.08325 ± 3.03258
Sigma 0.5313 ± 4.2131
2.4
2.2
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

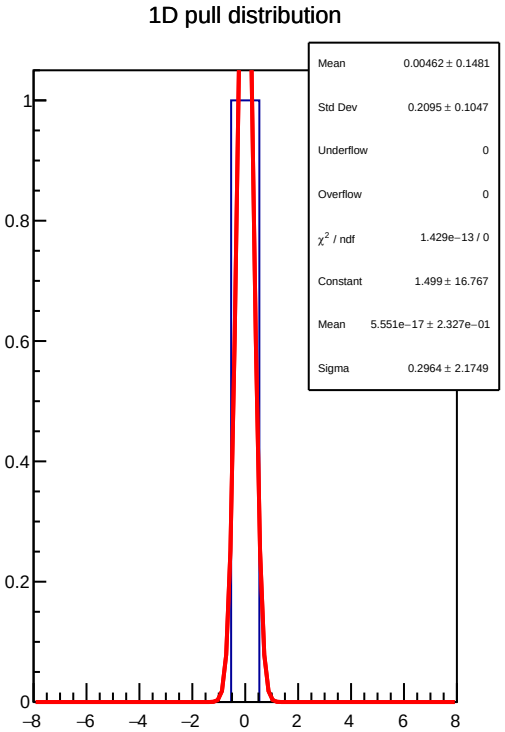

asym_atl1 RMS (ppm)
RMS (ppm)
1046
1044
1042
1040
1038
1036
1034
1032
1030
1028
1026
43
43L
44


asym_atl2 (ppb)
χ² / ndf 1.989 / 2
p0 1392 ± 2234
15000
10000
5000
0
−5000
1.2
1
0.8
0.6
0.4
0.2
0
−0.2
−0.4
−0.6
43
43L
44

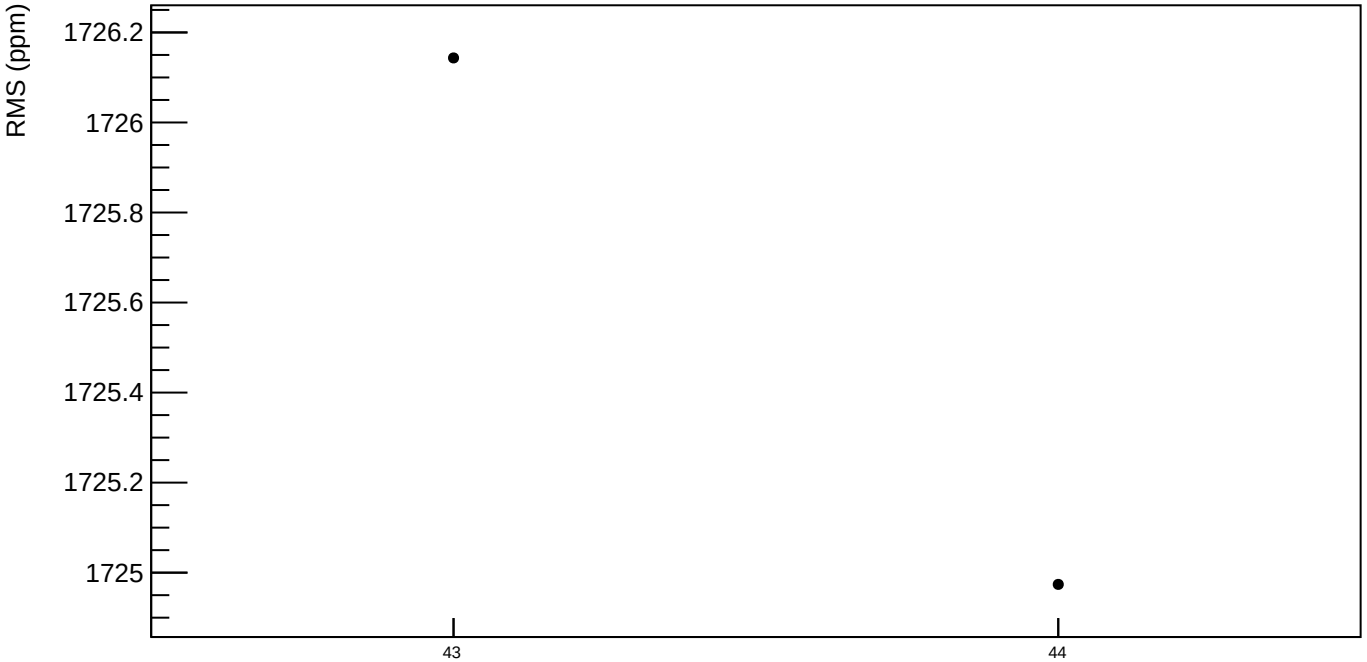

1D pull distribution
Mean 0.178 ± 0.4588
Std Dev 0.7946 ± 0.3244
Underflow 0
Overflow 0
χ² / ndf 1.608e−05 / 0
Constant 1.005 ± 0.600
Mean 0.3136 ± 51.8195
Sigma 9.06 ± 4.97
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

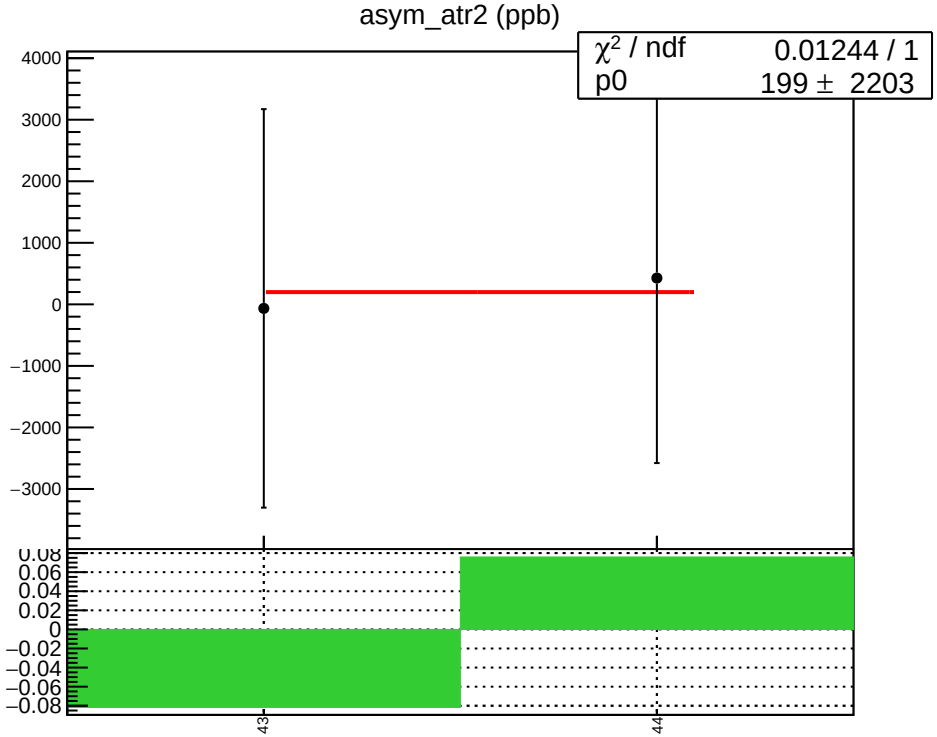

asym_atl2 RMS (ppm)
RMS (ppm)
2500
2480
2460
2440
2420
2400
2380
43
43L
44

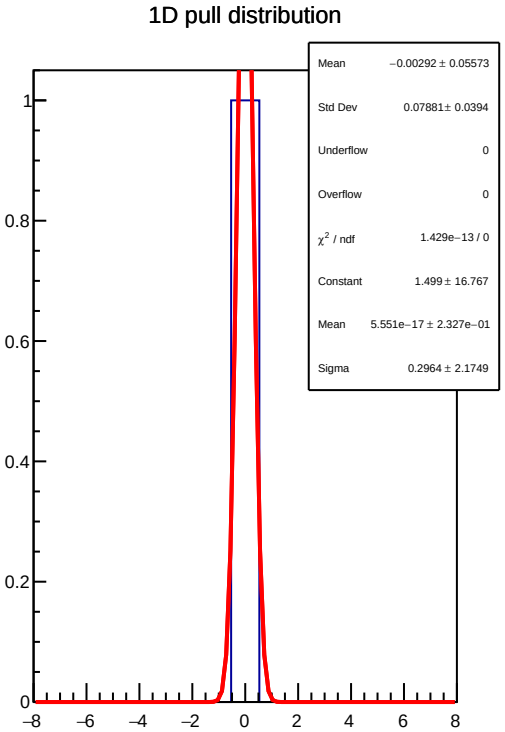
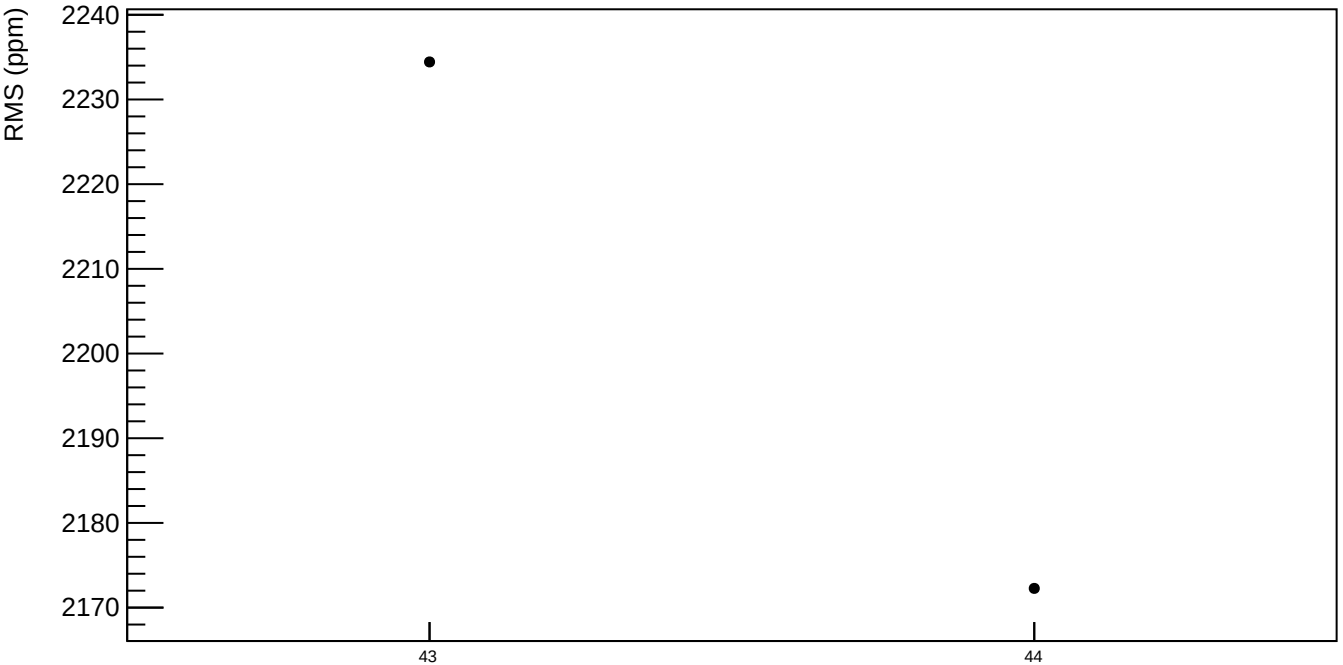

asym_atr1 (ppb)
χ² / ndf 0.08779 / 1
p0 −32.76 ± 1735
3000
2000
1000
0
−1000
−2000
−3000
0.2
0.15
0.1
0.05
0
−0.05
−0.1
−0.15
−0.2
43
44


1D pull distribution
Mean 0.00462 ± 0.1481
Std Dev 0.2095 ± 0.1047
Underflow 0
Overflow 0
χ² / ndf 1.429e−13 / 0
Constant 1.499 ± 16.767
Mean 5.551e−17 ± 2.327e−01
Sigma 0.2964 ± 2.1749
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

asym_atr1 RMS (ppm)




asym_atr2 (ppb)
χ² / ndf 0.01244 / 1
p0 199 ± 2203
4000
3000
2000
1000
0
−1000
−2000
−3000
0.08
0.06
0.04
0.02
0
−0.02
−0.04
−0.06
−0.08
43
44


1D pull distribution
Mean −0.00292 ± 0.05573
Std Dev 0.07881 ± 0.0394
Underflow 0
Overflow 0
χ² / ndf 1.429e−13 / 0
Constant 1.499 ± 16.767
Mean 5.551e−17 ± 2.327e−01
Sigma 0.2964 ± 2.1749
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

asym_atr2 RMS (ppm)