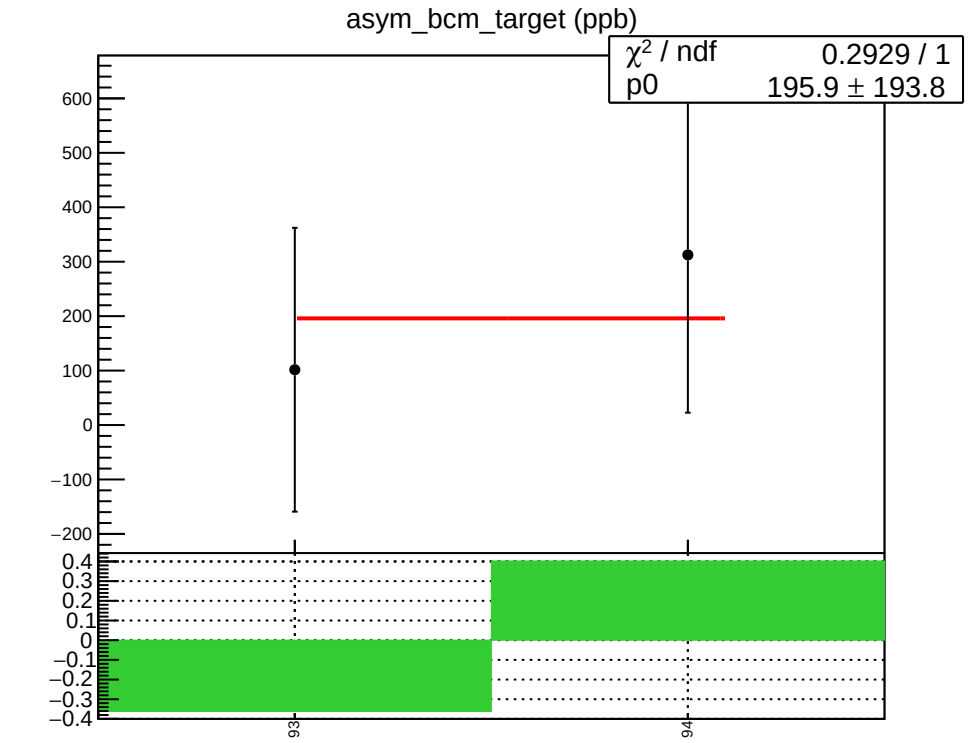
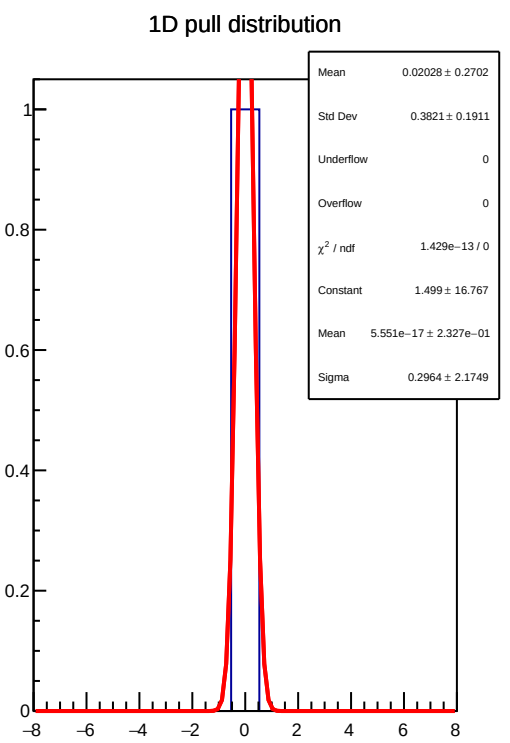
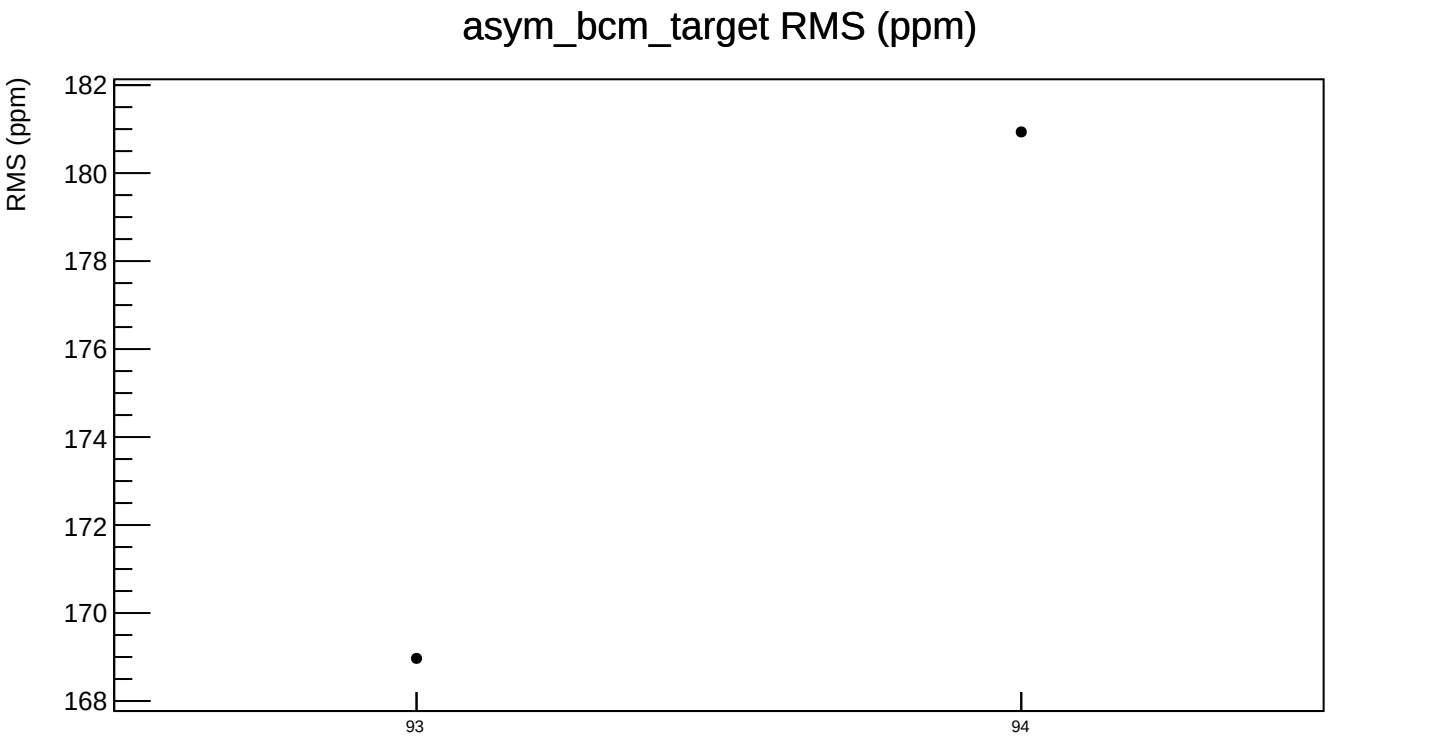
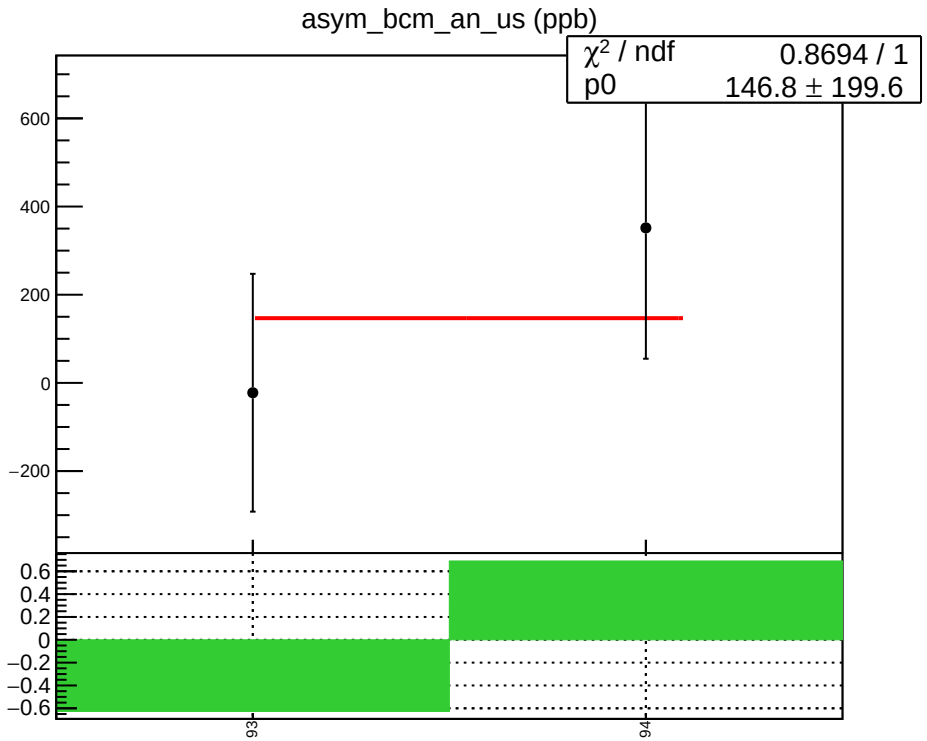
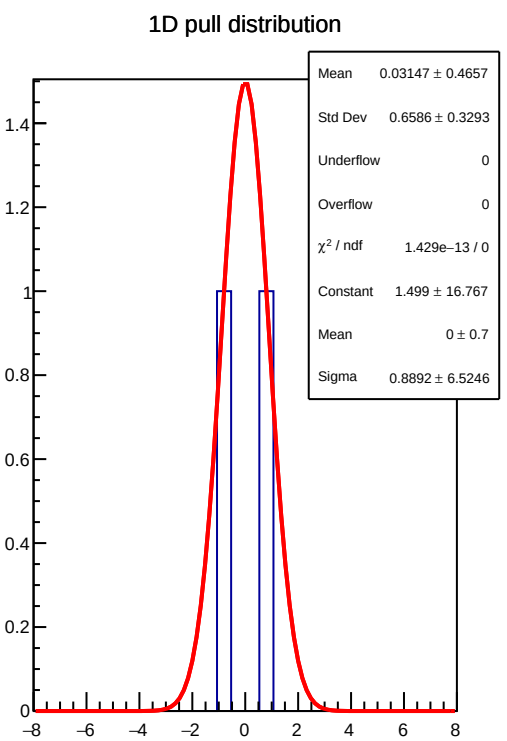
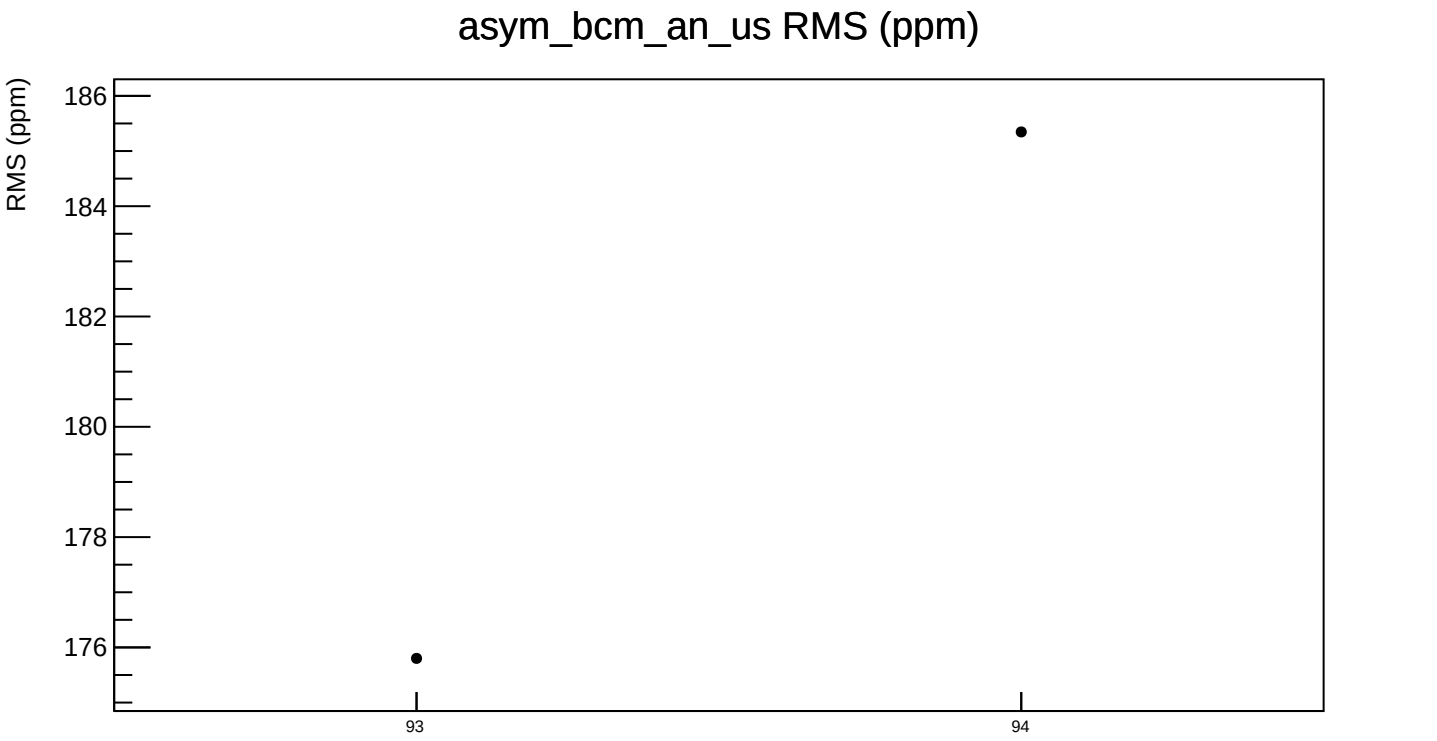

asym_bcm_target (ppb)
χ² / ndf 0.2929 / 1
p0 195.9 ± 193.8
600
500
400
300
200
100
0
−100
−200
0.4
0.3
0.2
0.1
0
−0.1
−0.2
−0.3
−0.4
93
94

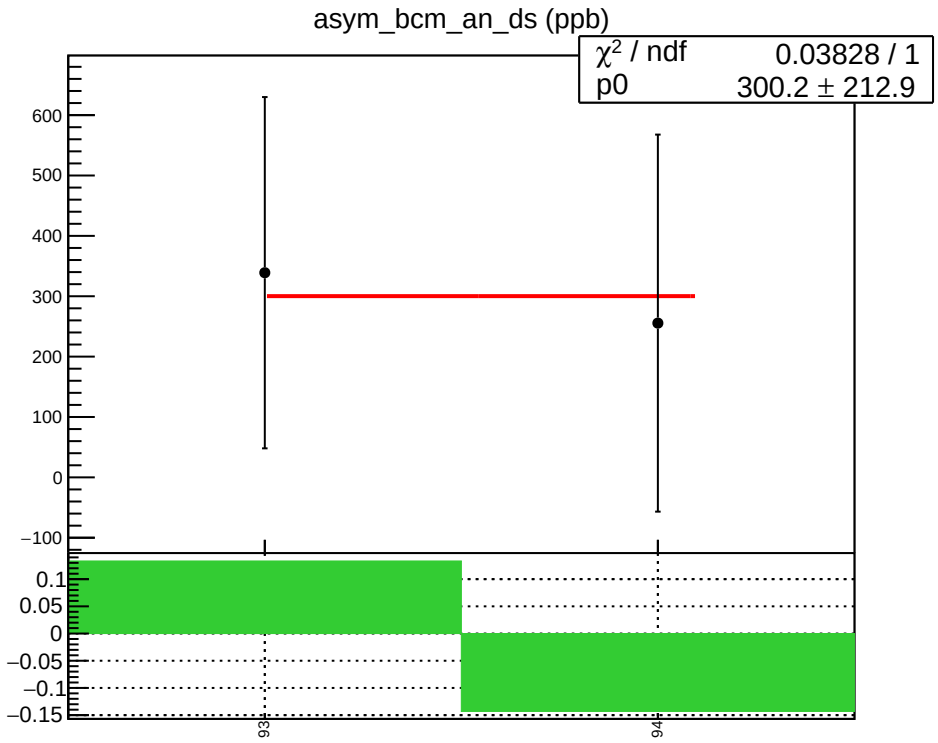

1D pull distribution
Mean 0.02028 ± 0.2702
Std Dev 0.3821 ± 0.1911
Underflow 0
Overflow 0
χ² / ndf 1.429e−13 / 0
Constant 1.499 ± 16.767
Mean 5.551e−17 ± 2.327e−01
Sigma 0.2964 ± 2.1749
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

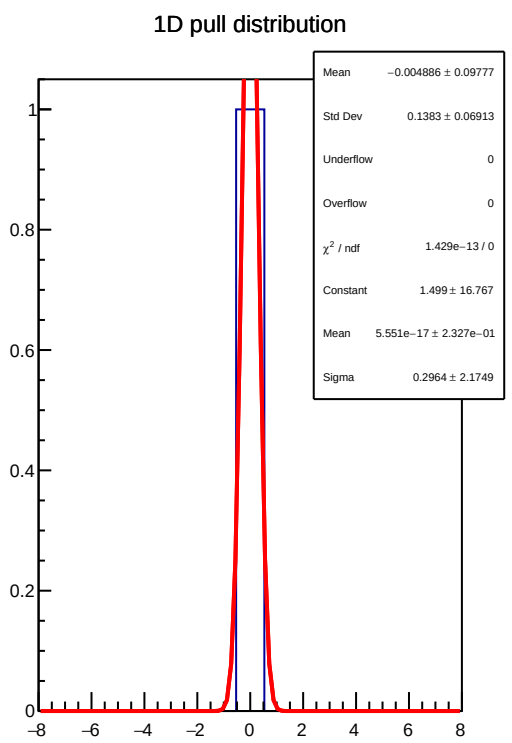

asym_bcm_target RMS (ppm)
RMS (ppm)
182
180
178
176
174
172
170
168
93
94

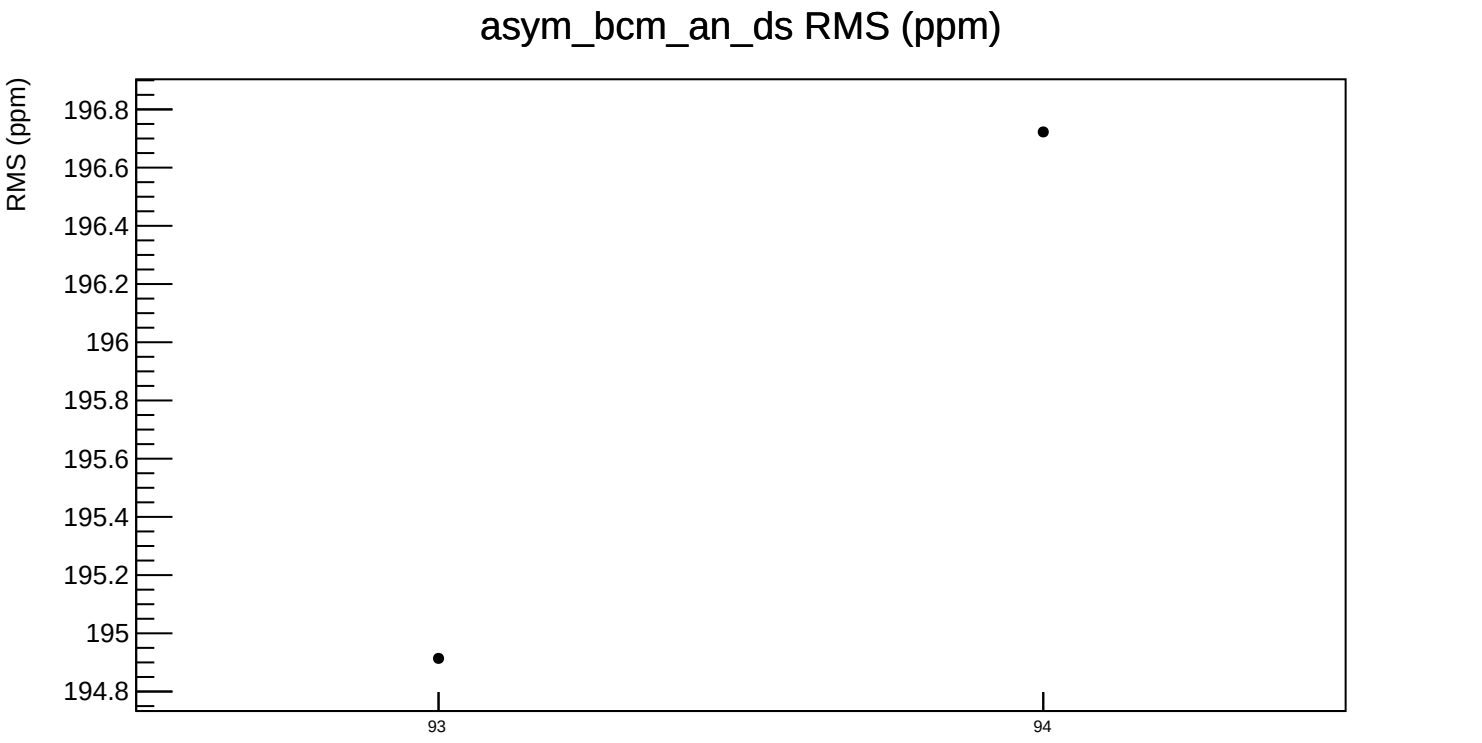

asym_bcm_an_us (ppb)
χ² / ndf 0.8694 / 1
p0 146.8 ± 199.6
600
400
200
0
−200
0.6
0.4
0.2
0
−0.2
−0.4
−0.6
93
94

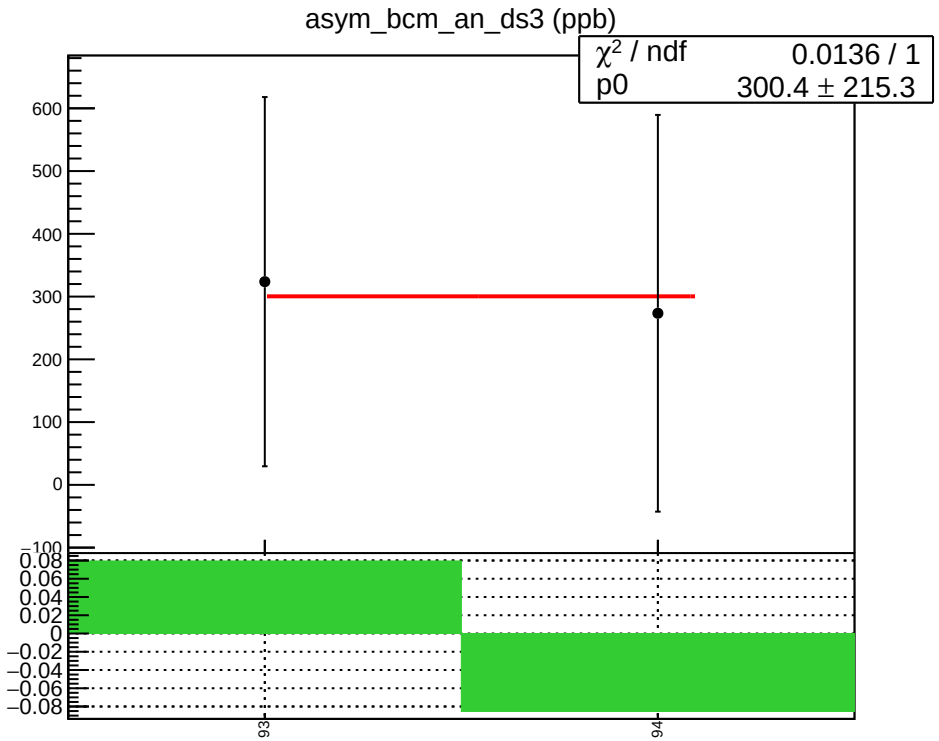

1D pull distribution
Mean 0.03147 ± 0.4657
Std Dev 0.6586 ± 0.3293
Underflow 0
Overflow 0
χ² / ndf 1.429e−13 / 0
Constant 1.499 ± 16.767
Mean 0 ± 0.7
Sigma 0.8892 ± 6.5246
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

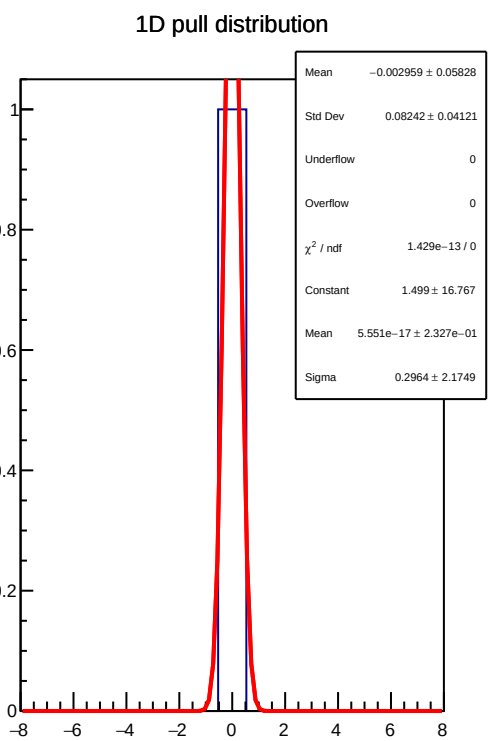

asym_bcm_an_us RMS (ppm)
RMS (ppm)
186
184
182
180
178
176
93
94

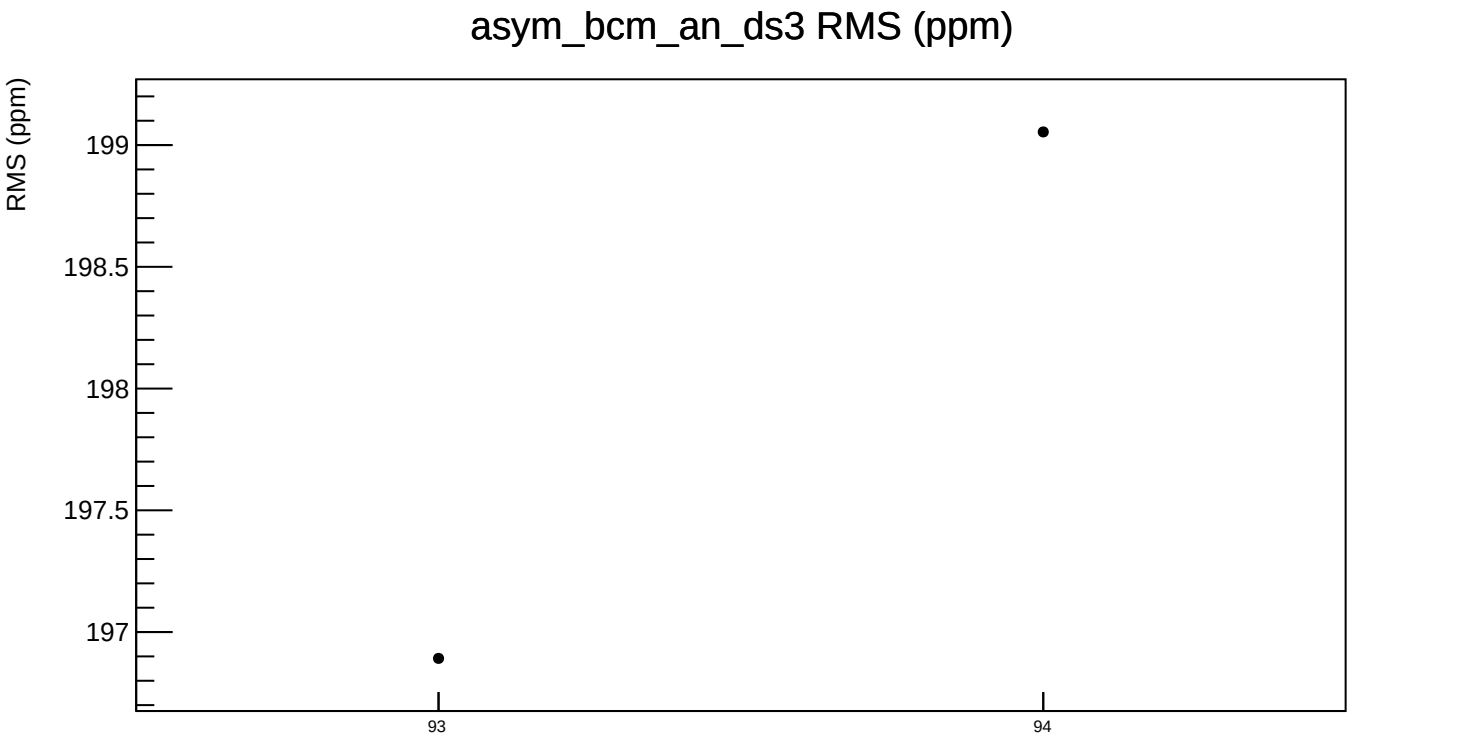

asym_bcm_an_ds (ppb)
χ² / ndf 0.03828 / 1
p0 300.2 ± 212.9
600
500
400
300
200
100
0
−100
0.1
0.05
0
−0.05
−0.1
−0.15
93
94

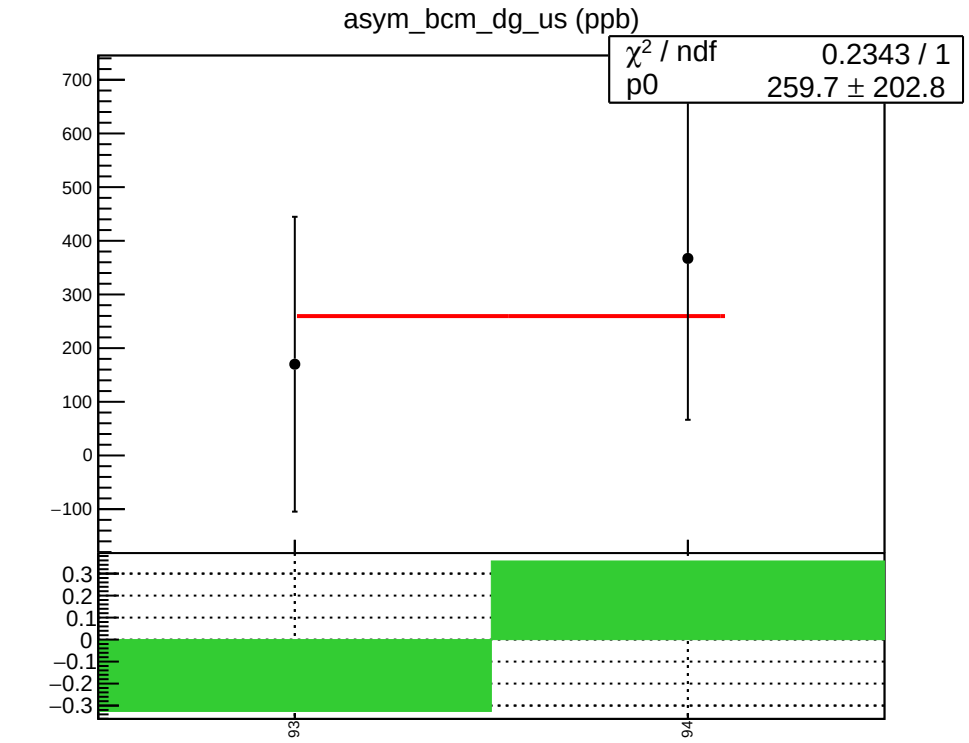

1D pull distribution
Mean −0.004886 ± 0.09777
Std Dev 0.1383 ± 0.06913
Underflow 0
Overflow 0
χ² / ndf 1.429e−13 / 0
Constant 1.499 ± 16.767
Mean 5.551e−17 ± 2.327e−01
Sigma 0.2964 ± 2.1749
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

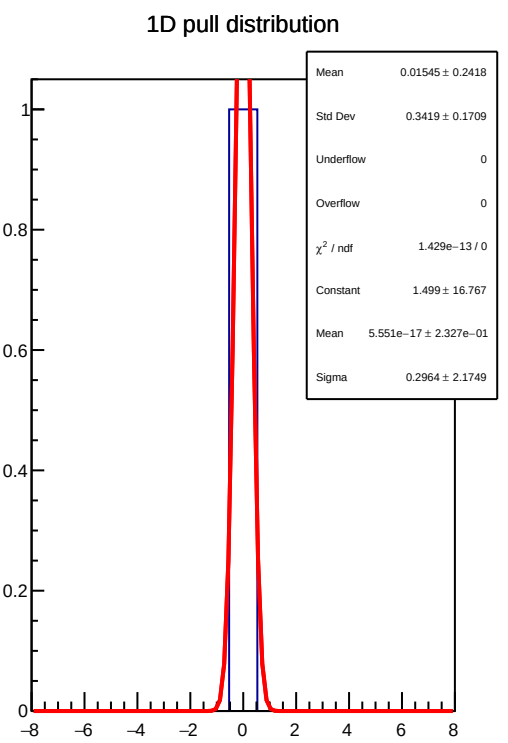

asym_bcm_an_ds RMS (ppm)
RMS (ppm)
196.8
196.6
196.4
196.2
196
195.8
195.6
195.4
195.2
195
194.8
93
94

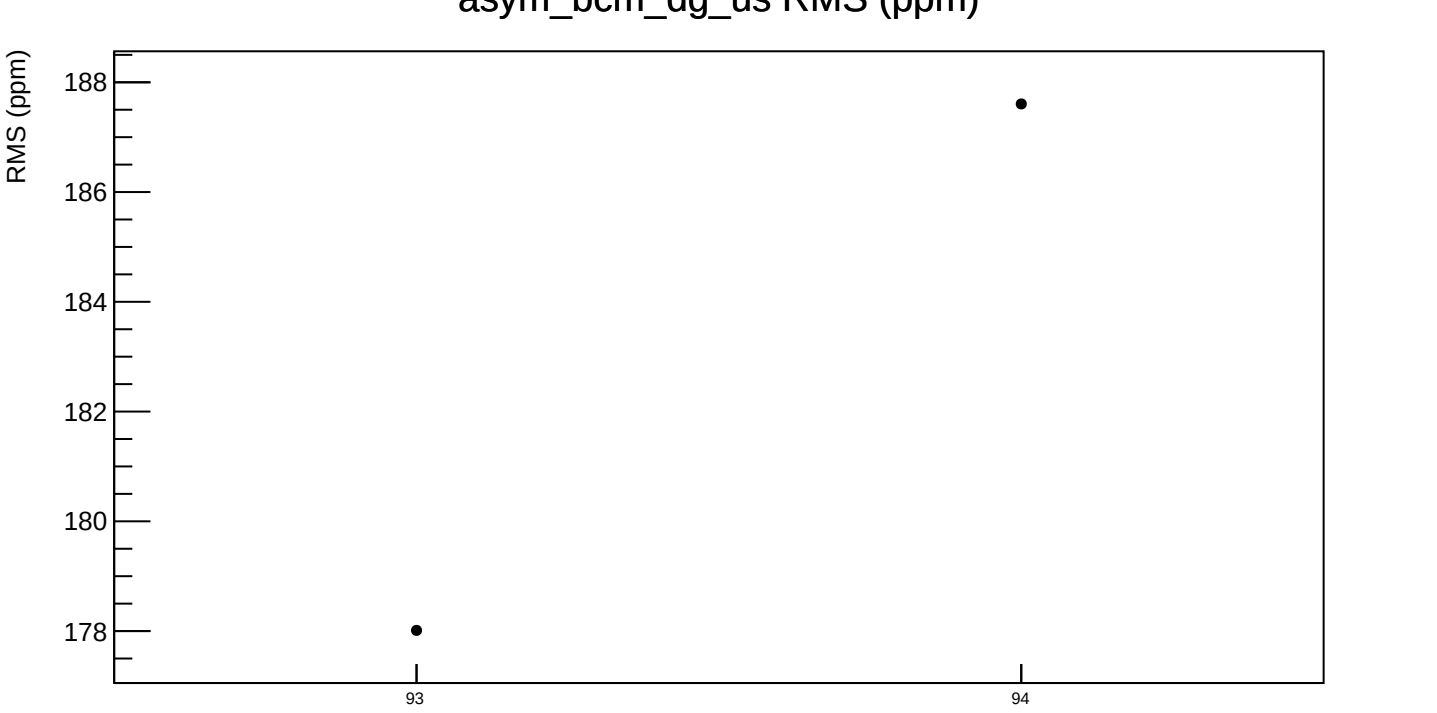

asym_bcm_an_ds3 (ppb)
χ² / ndf 0.0136 / 1
p0 300.4 ± 215.3
600
500
400
300
200
100
0
−100
0.08
0.06
0.04
0.02
0
−0.02
−0.04
−0.06
−0.08
93
94

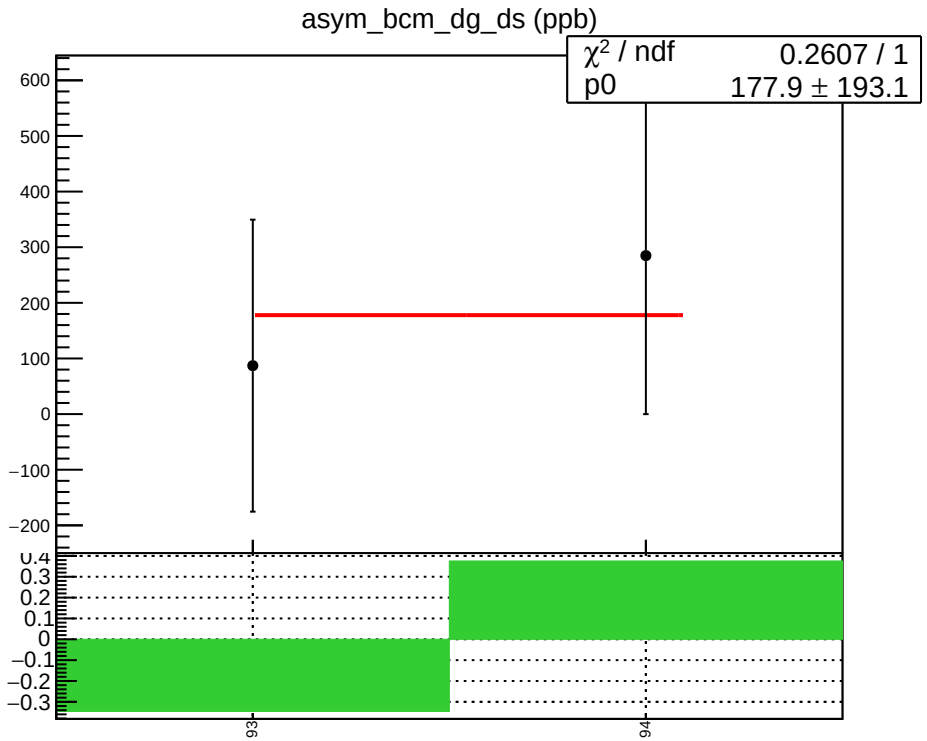

1D pull distribution
Mean −0.002959 ± 0.05828
Std Dev 0.08242 ± 0.04121
Underflow 0
Overflow 0
χ² / ndf 1.429e−13 / 0
Constant 1.499 ± 16.767
Mean 5.551e−17 ± 2.327e−01
Sigma 0.2964 ± 2.1749
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

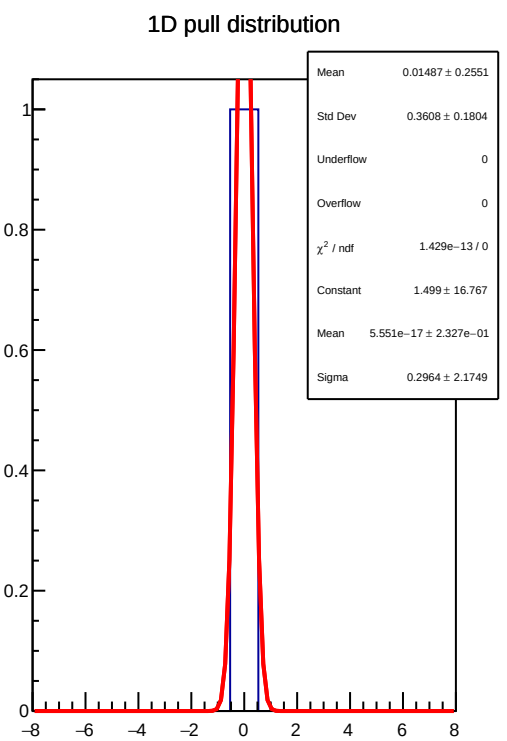

asym_bcm_an_ds3 RMS (ppm)
RMS (ppm)
199
198.5
198
197.5
197
93
94

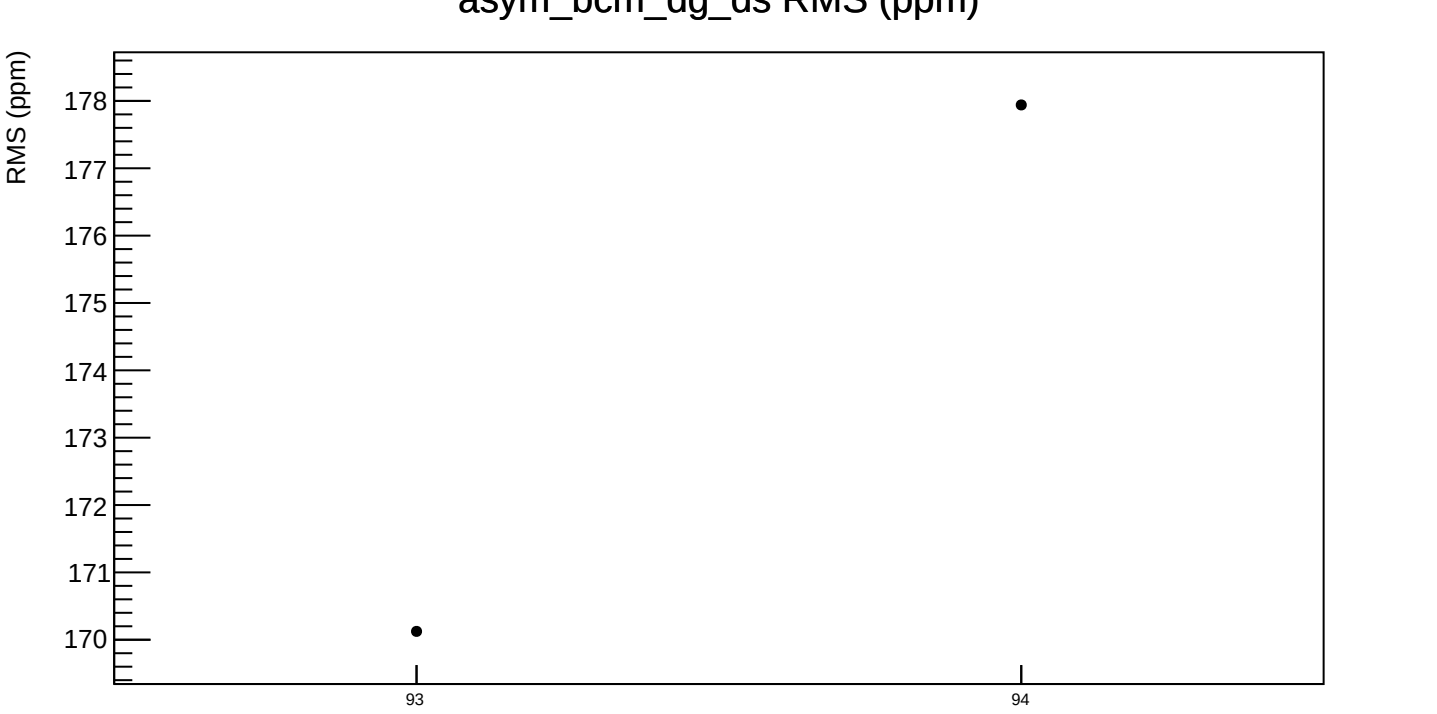

asym_bcm_dg_us (ppb)
χ² / ndf 0.2343 / 1
p0 259.7 ± 202.8
700
600
500
400
300
200
100
0
−100
0.3
0.2
0.1
0
−0.1
−0.2
−0.3
93
94

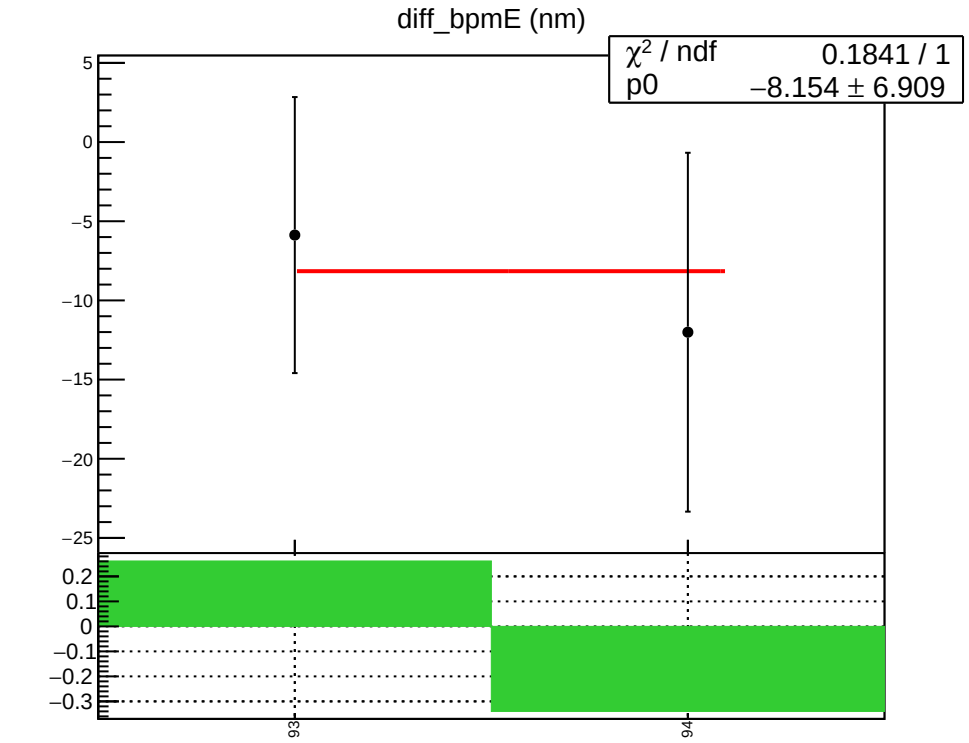

1D pull distribution
Mean 0.01545 ± 0.2418
Std Dev 0.3419 ± 0.1709
Underflow 0
Overflow 0
χ² / ndf 1.429e−13 / 0
Constant 1.499 ± 16.767
Mean 5.551e−17 ± 2.327e−01
Sigma 0.2964 ± 2.1749
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

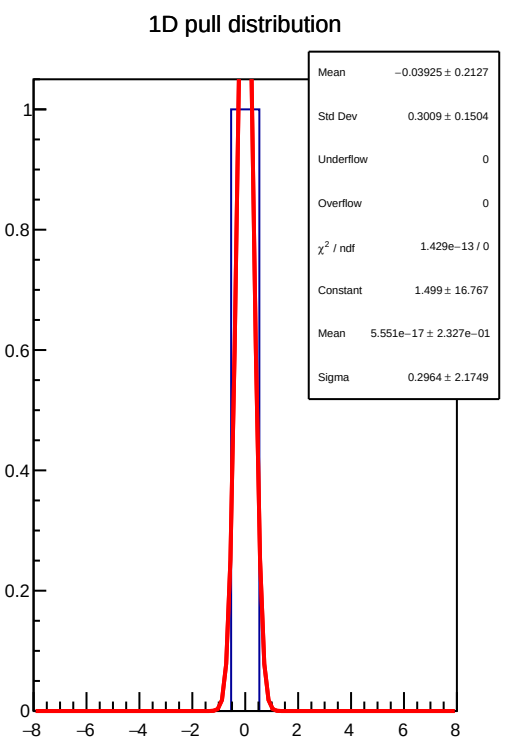

asym_bcm_dg_us RMS (ppm)
RMS (ppm)
188
186
184
182
180
178
93
94

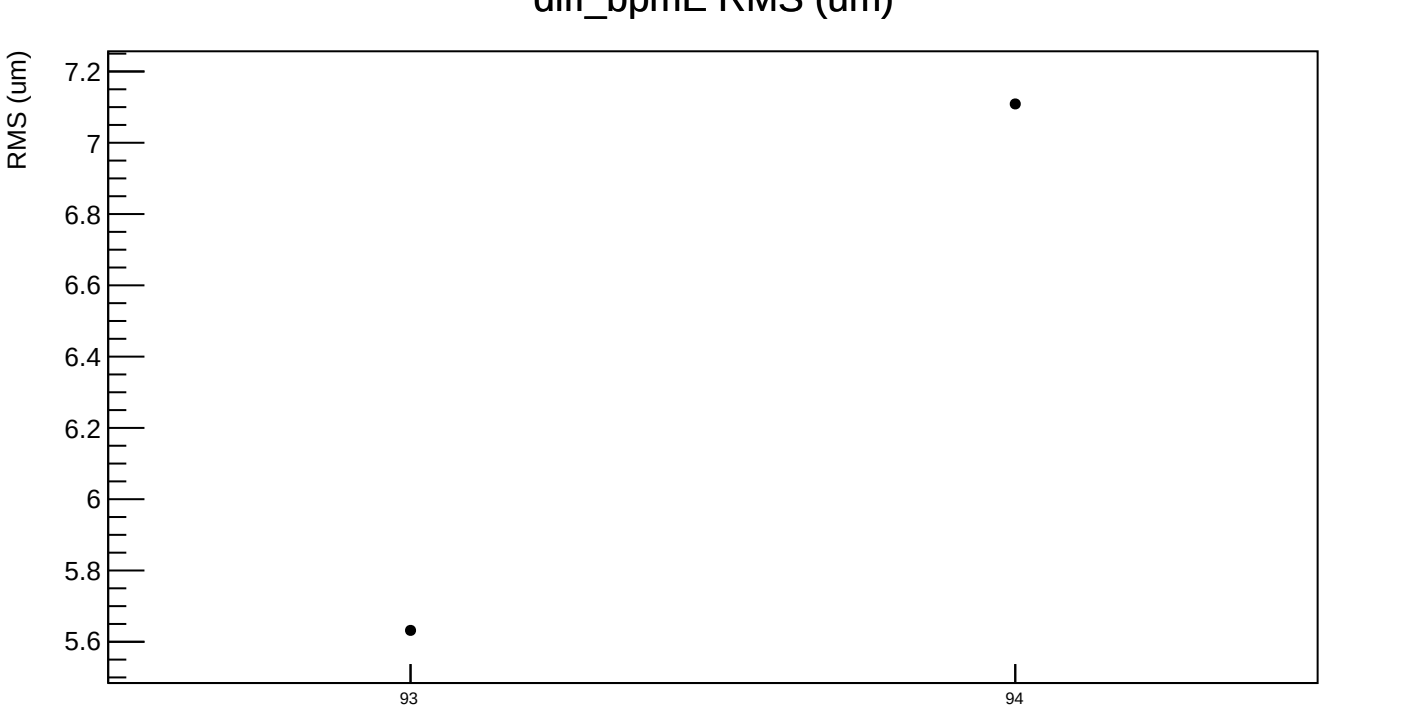

asym_bcm_dg_ds (ppb)
χ² / ndf 0.2607 / 1
p0 177.9 ± 193.1
600
500
400
300
200
100
0
−100
−200
0.4
0.3
0.2
0.1
0
−0.1
−0.2
−0.3
93
94

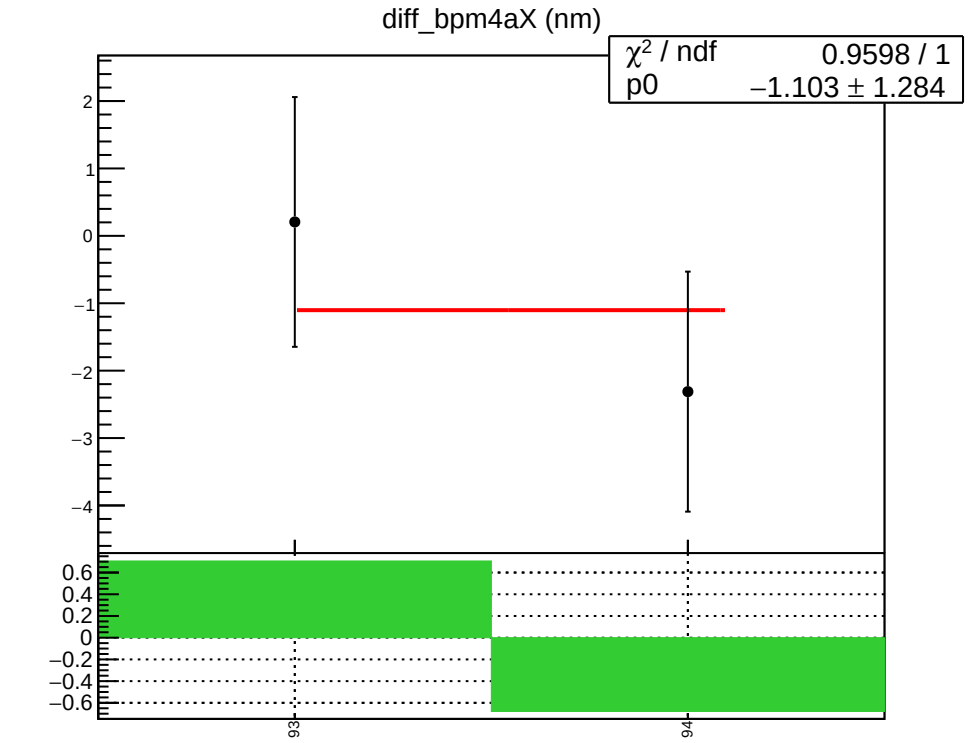

1D pull distribution
Mean 0.01487 ± 0.2551
Std Dev 0.3608 ± 0.1804
Underflow 0
Overflow 0
χ² / ndf 1.429e−13 / 0
Constant 1.499 ± 16.767
Mean 5.551e−17 ± 2.327e−01
Sigma 0.2964 ± 2.1749
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

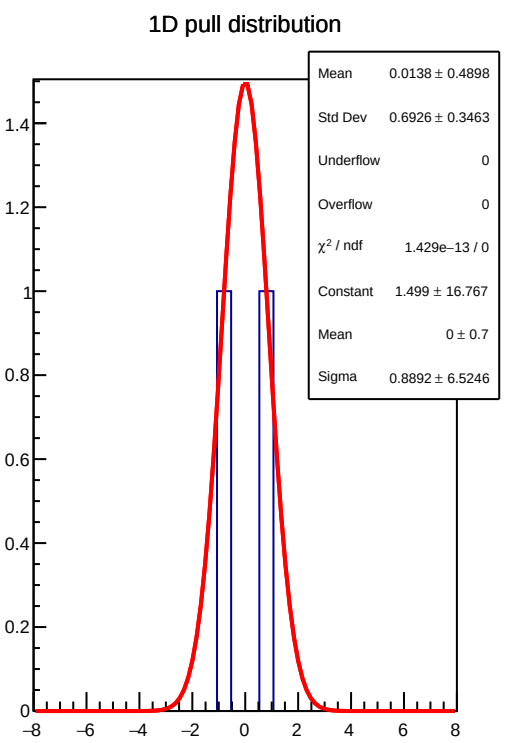

asym_bcm_dg_ds RMS (ppm)
RMS (ppm)
178
177
176
175
174
173
172
171
170
93
94

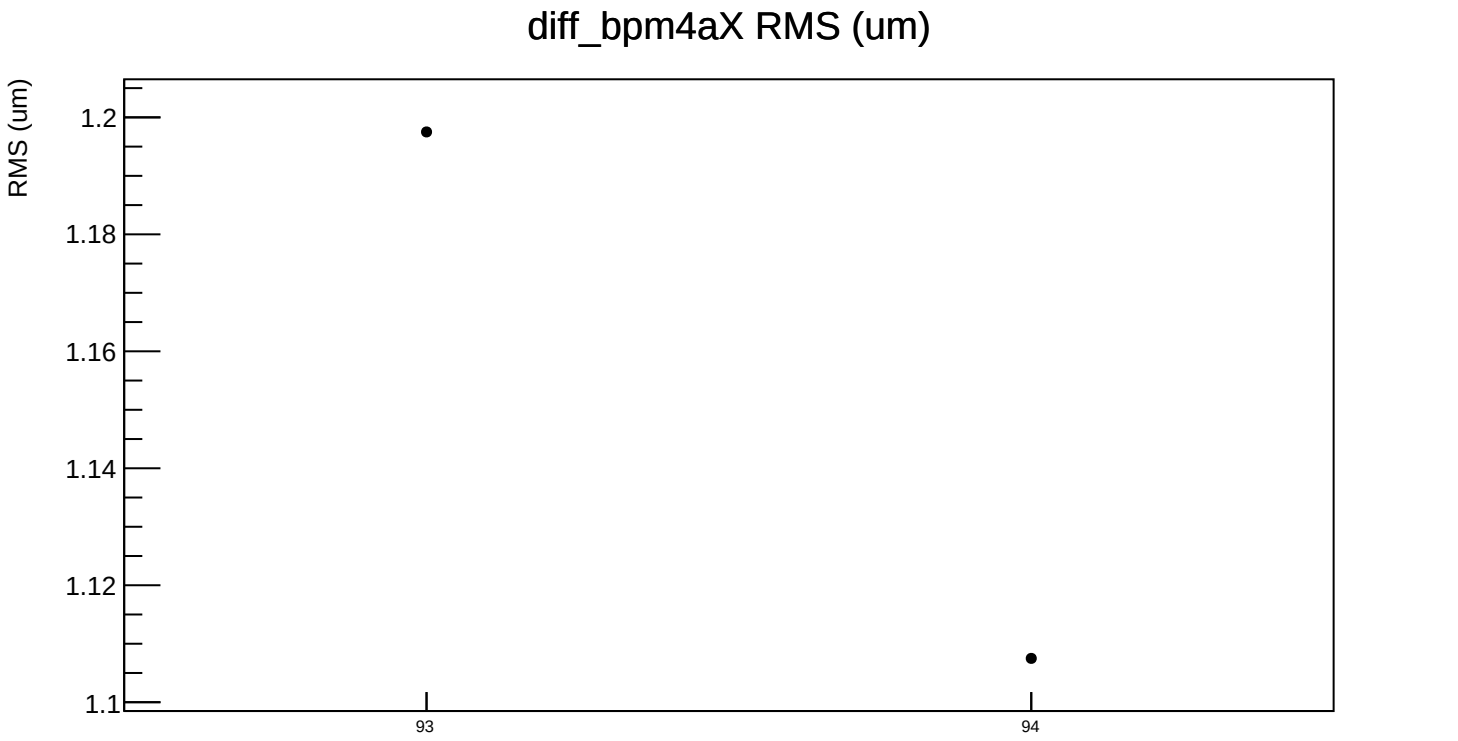

diff_bpmE (nm)
χ² / ndf 0.1841 / 1
p0 −8.154 ± 6.909
5
0
−5
−10
−15
−20
−25
0.2
0.1
0
−0.1
−0.2
−0.3
93
94

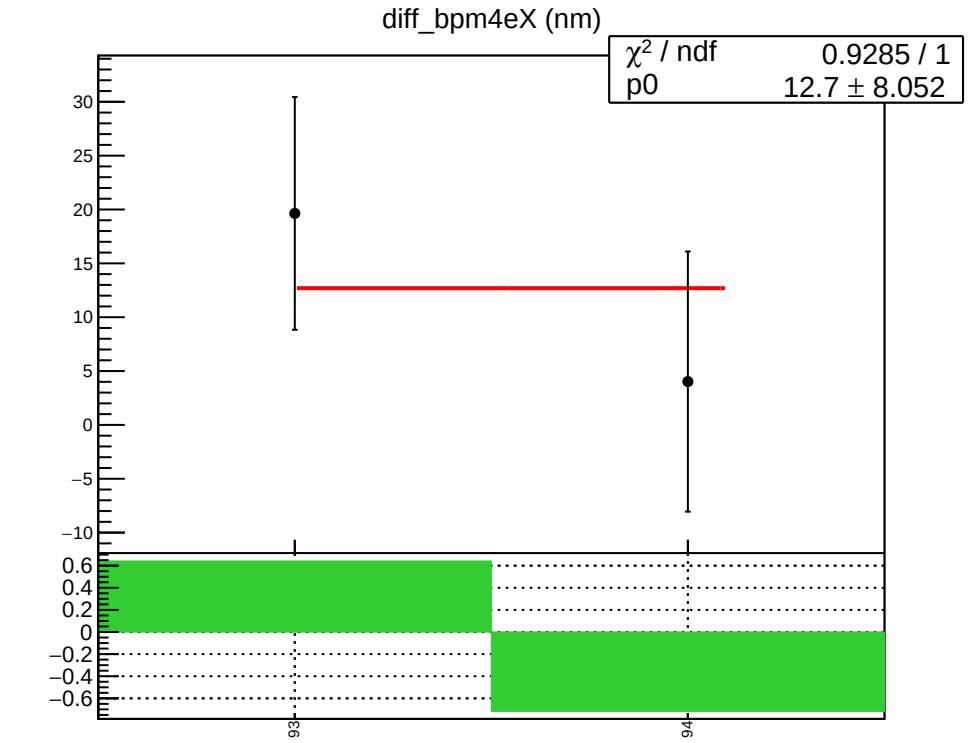

1D pull distribution
Mean −0.03925 ± 0.2127
Std Dev 0.3009 ± 0.1504
Underflow 0
Overflow 0
χ² / ndf 1.429e−13 / 0
Constant 1.499 ± 16.767
Mean 5.551e−17 ± 2.327e−01
Sigma 0.2964 ± 2.1749
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

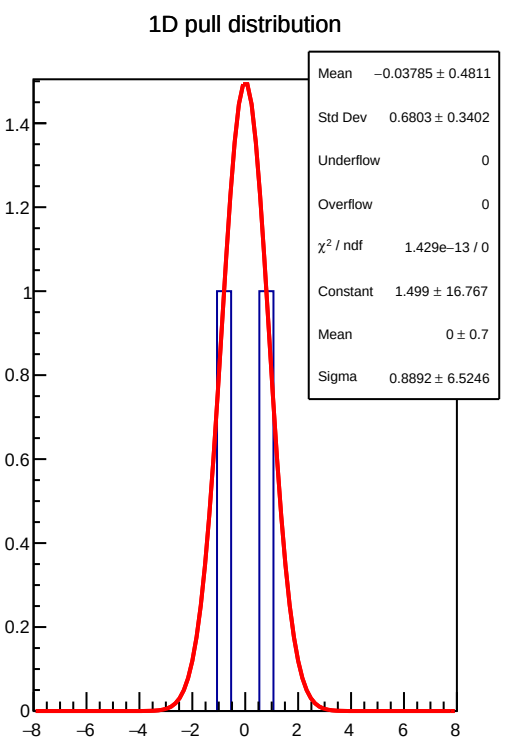

diff_bpmE RMS (um)
RMS (um)
7.2
7
6.8
6.6
6.4
6.2
6
5.8
5.6
93
94

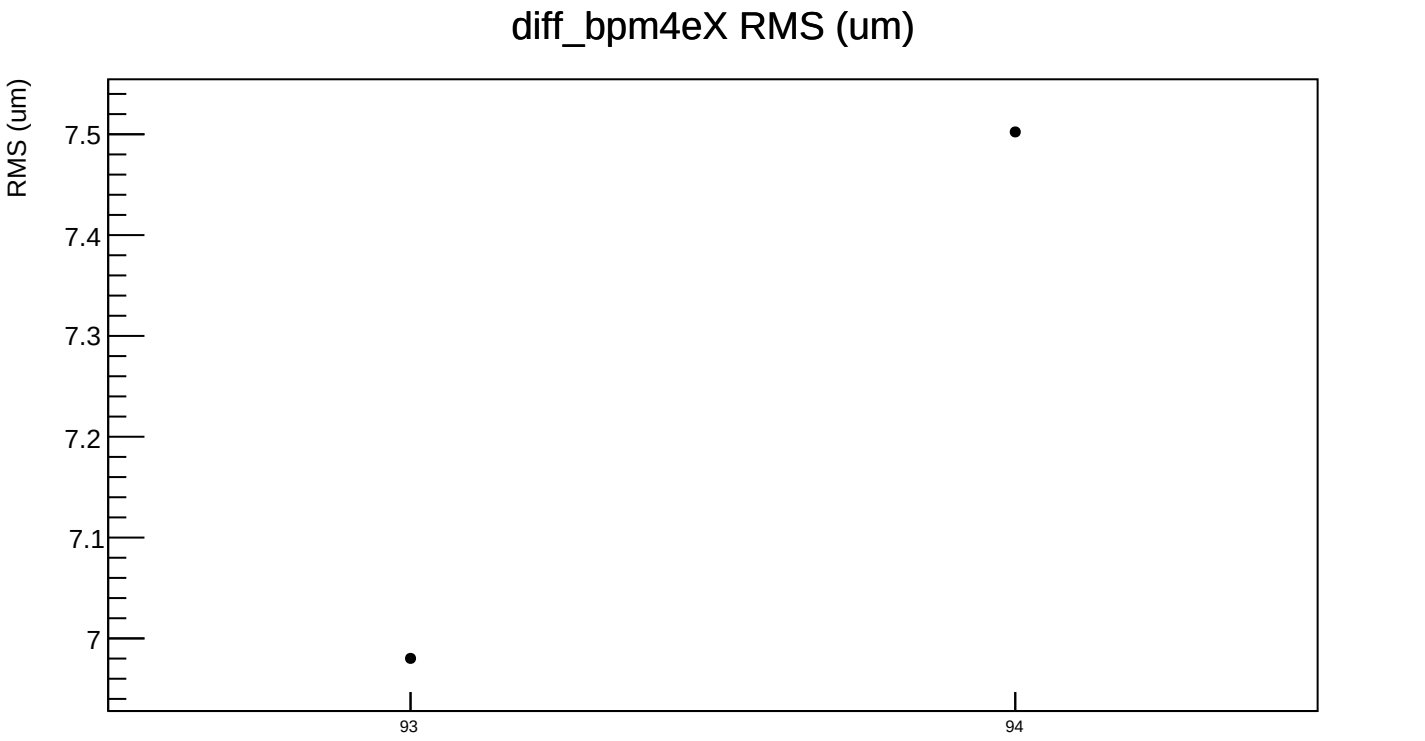

diff_bpm4aX (nm)
χ² / ndf 0.9598 / 1
p0 −1.103 ± 1.284
2
1
0
−1
−2
−3
−4
0.6
0.4
0.2
0
−0.2
−0.4
−0.6
93
94

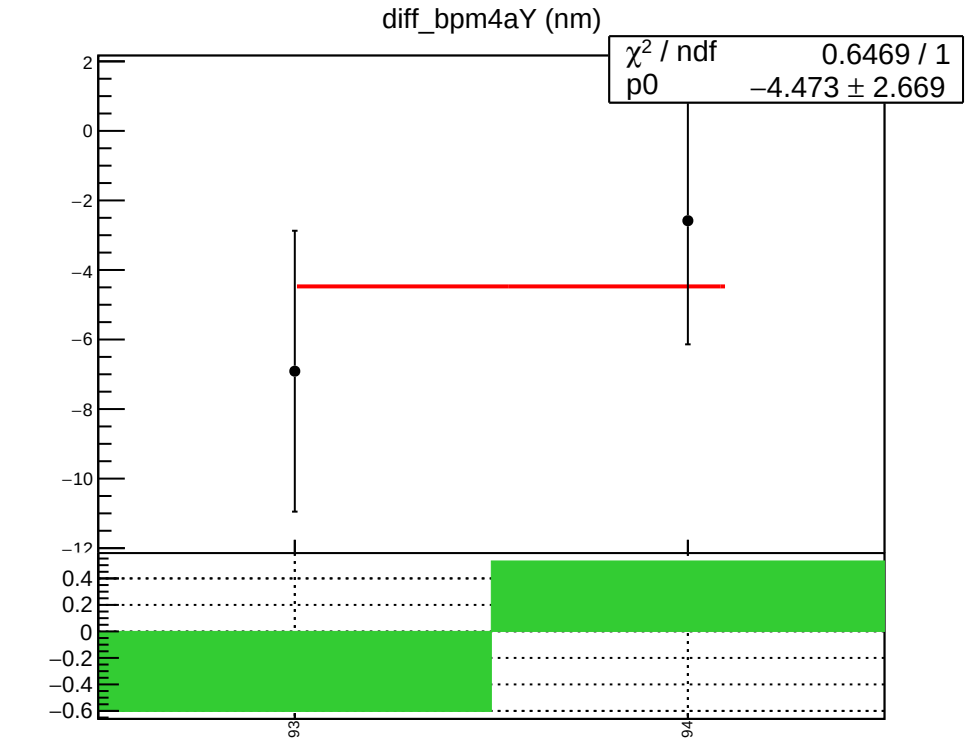

1D pull distribution
Mean 0.0138 ± 0.4898
Std Dev 0.6926 ± 0.3463
Underflow 0
Overflow 0
χ² / ndf 1.429e−13 / 0
Constant 1.499 ± 16.767
Mean 0 ± 0.7
Sigma 0.8892 ± 6.5246
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

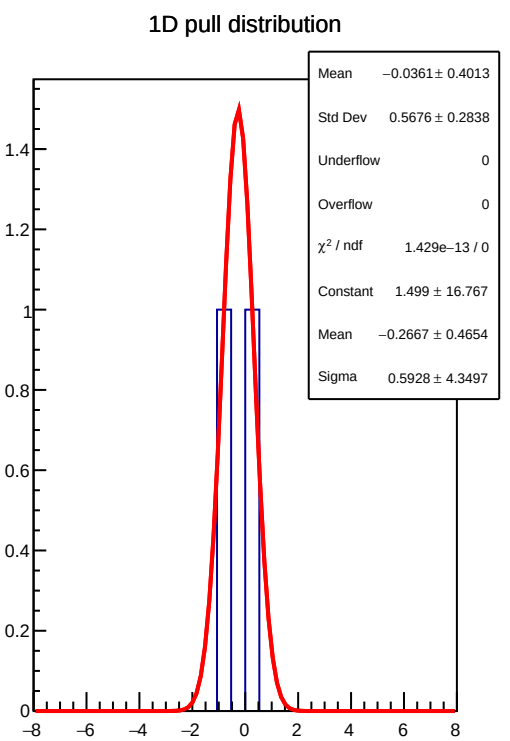

diff_bpm4aX RMS (um)
RMS (um)
1.2
1.18
1.16
1.14
1.12
1.1
93
94

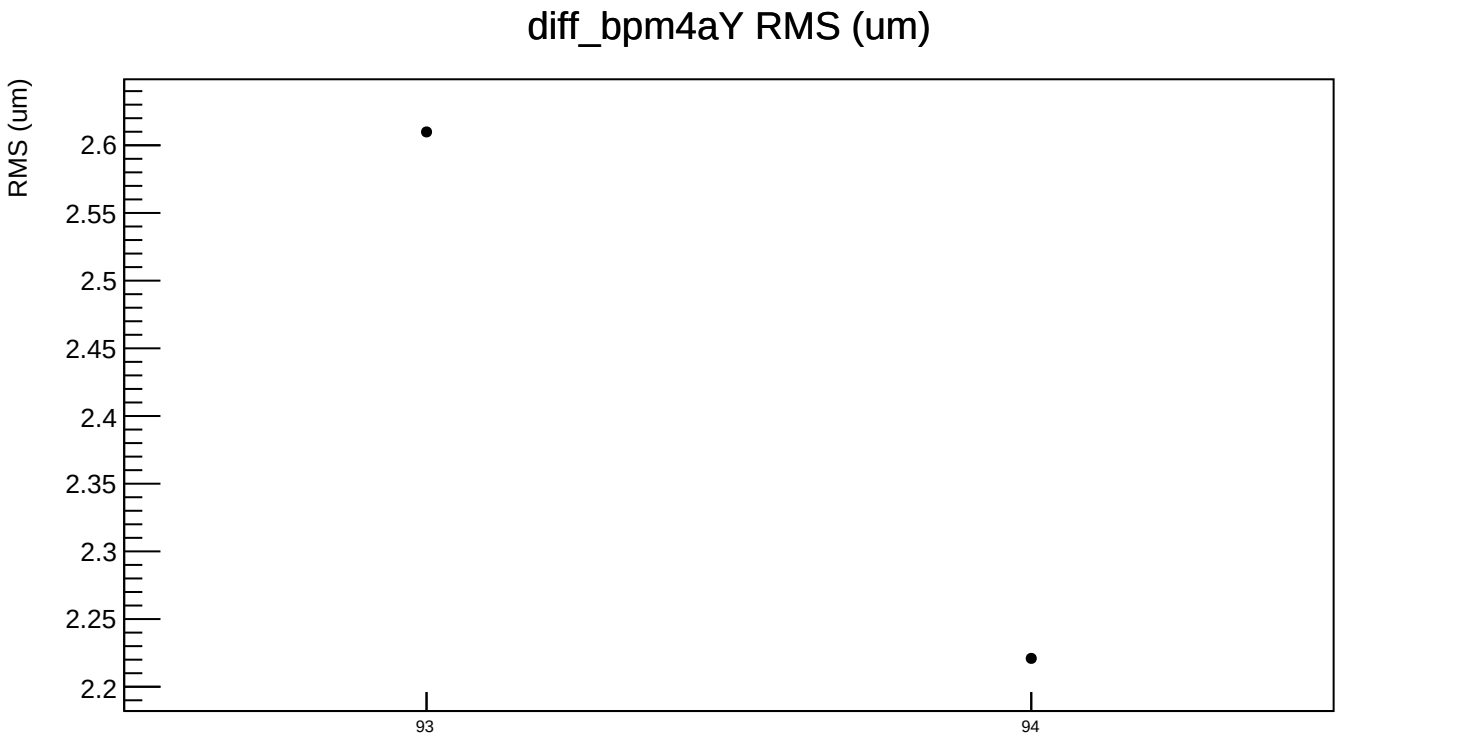

diff_bpm4eX (nm)
χ² / ndf 0.9285 / 1
p0 12.7 ± 8.052
30
25
20
15
10
5
0
−5
−10
0.6
0.4
0.2
0
−0.2
−0.4
−0.6
93
94

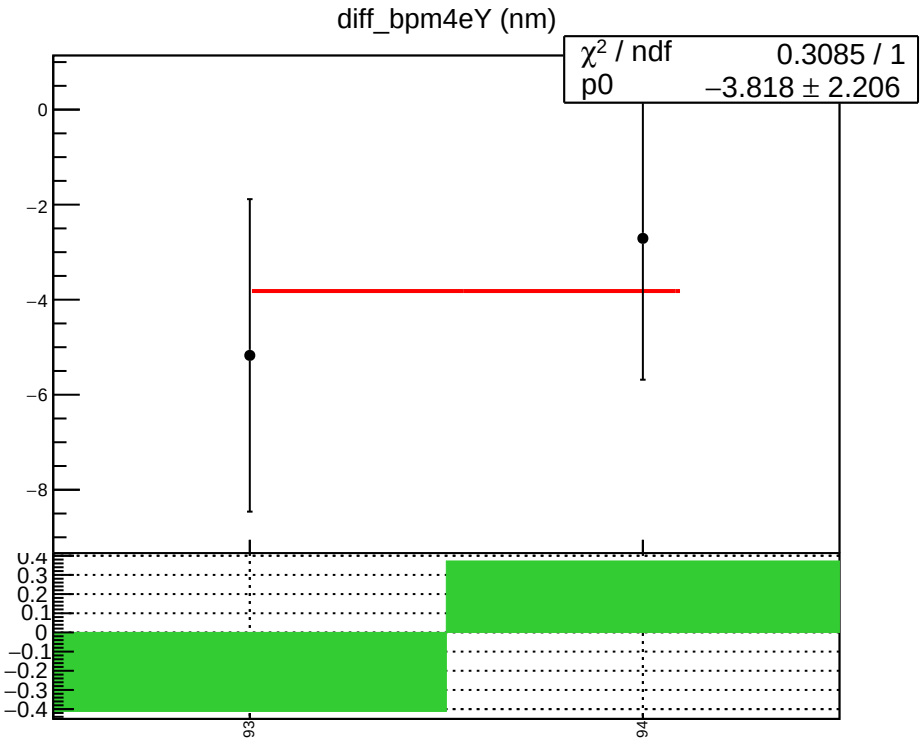

1D pull distribution
Mean −0.03785 ± 0.4811
Std Dev 0.6803 ± 0.3402
Underflow 0
Overflow 0
χ² / ndf 1.429e−13 / 0
Constant 1.499 ± 16.767
Mean 0 ± 0.7
Sigma 0.8892 ± 6.5246
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

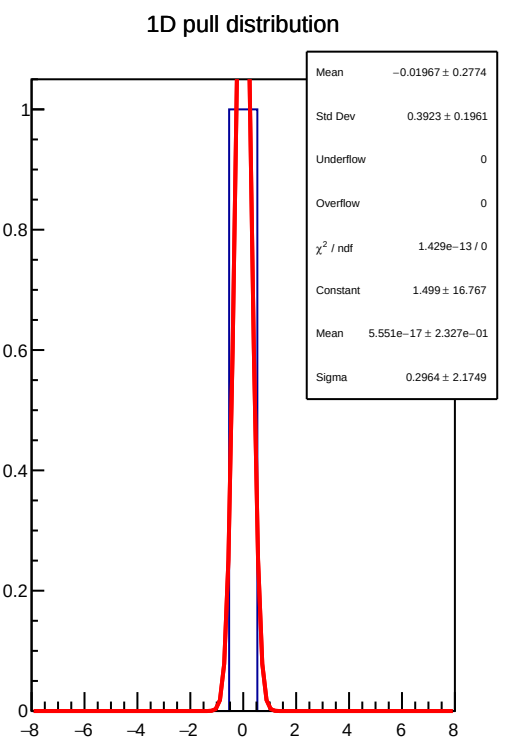

diff_bpm4eX RMS (um)
RMS (um)
7.5
7.4
7.3
7.2
7.1
7
93
94

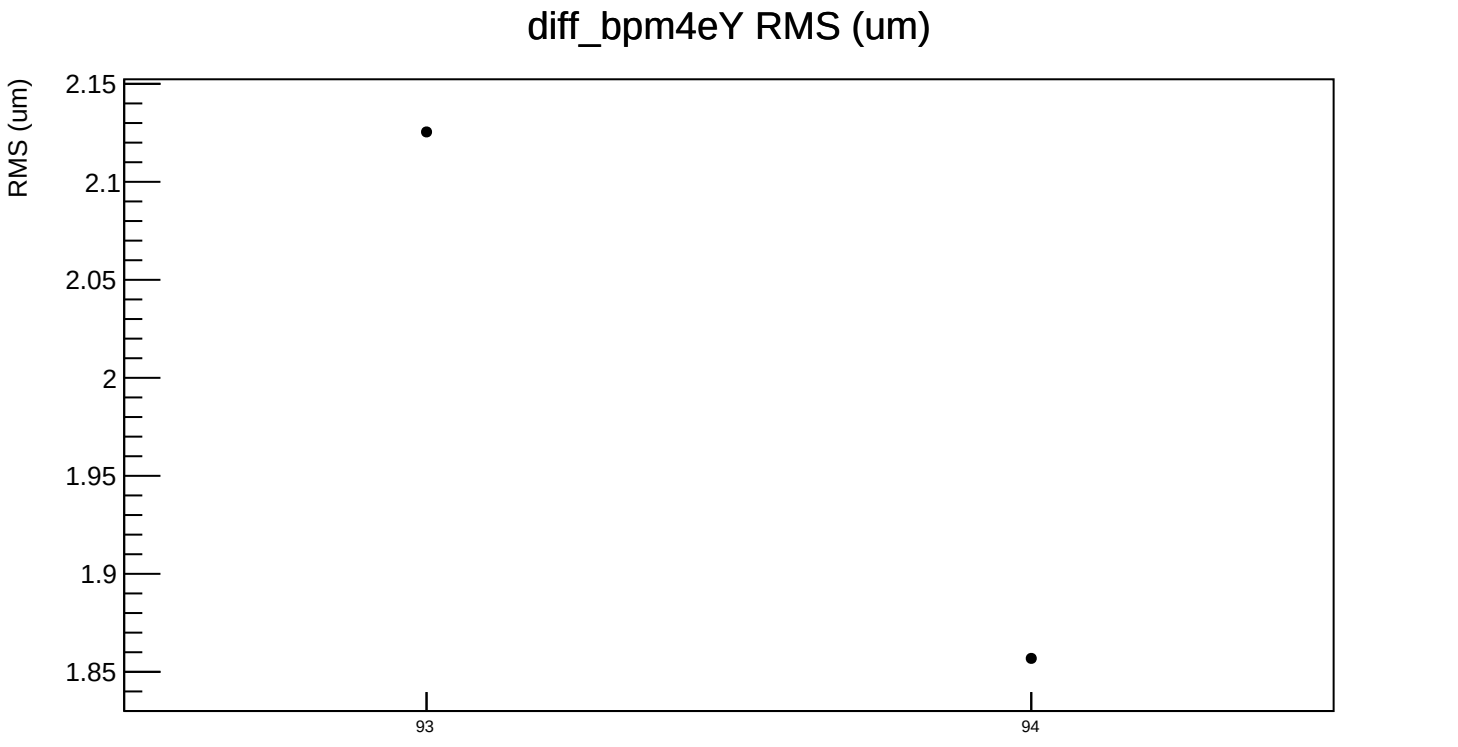

diff_bpm4aY (nm)
χ² / ndf 0.6469 / 1
p0 −4.473 ± 2.669
2
0
−2
−4
−6
−8
−10
−12
0.4
0.2
0
−0.2
−0.4
−0.6
93
94

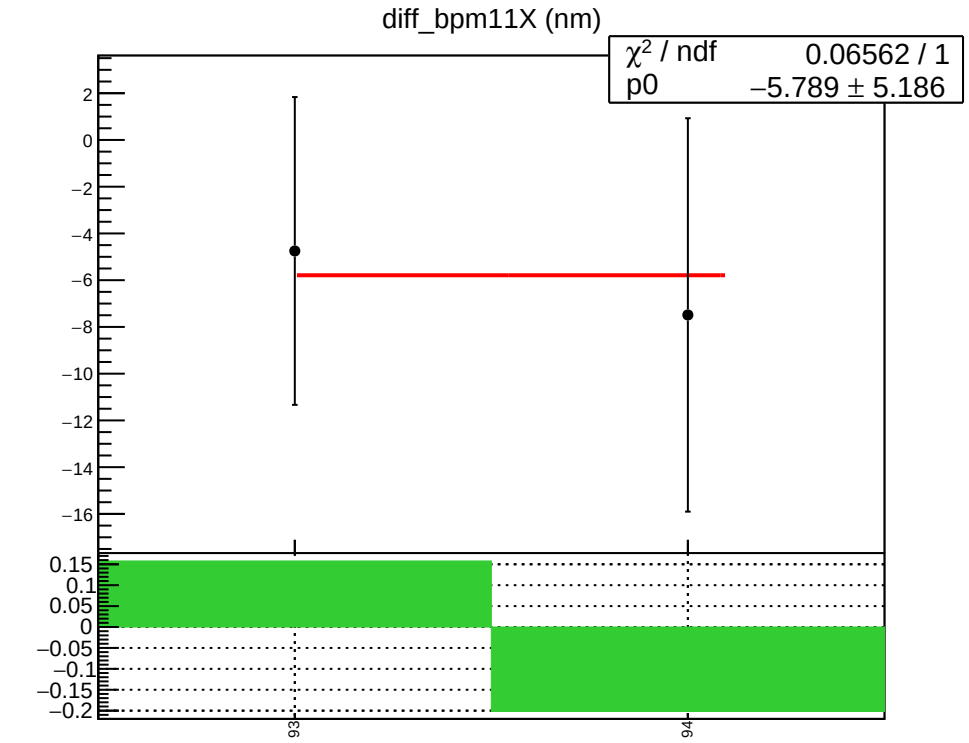

1D pull distribution
Mean −0.0361 ± 0.4013
Std Dev 0.5676 ± 0.2838
Underflow 0
Overflow 0
χ² / ndf 1.429e−13 / 0
Constant 1.499 ± 16.767
Mean −0.2667 ± 0.4654
Sigma 0.5928 ± 4.3497
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

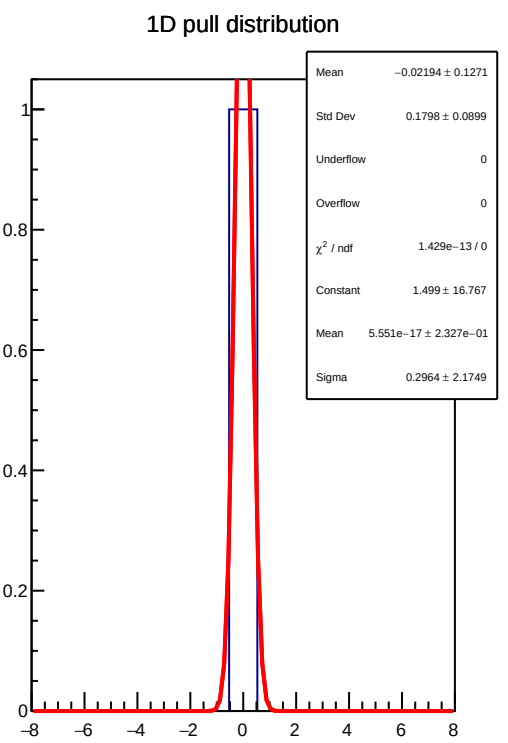

diff_bpm4aY RMS (um)
RMS (um)
2.6
2.55
2.5
2.45
2.4
2.35
2.3
2.25
2.2
93
94

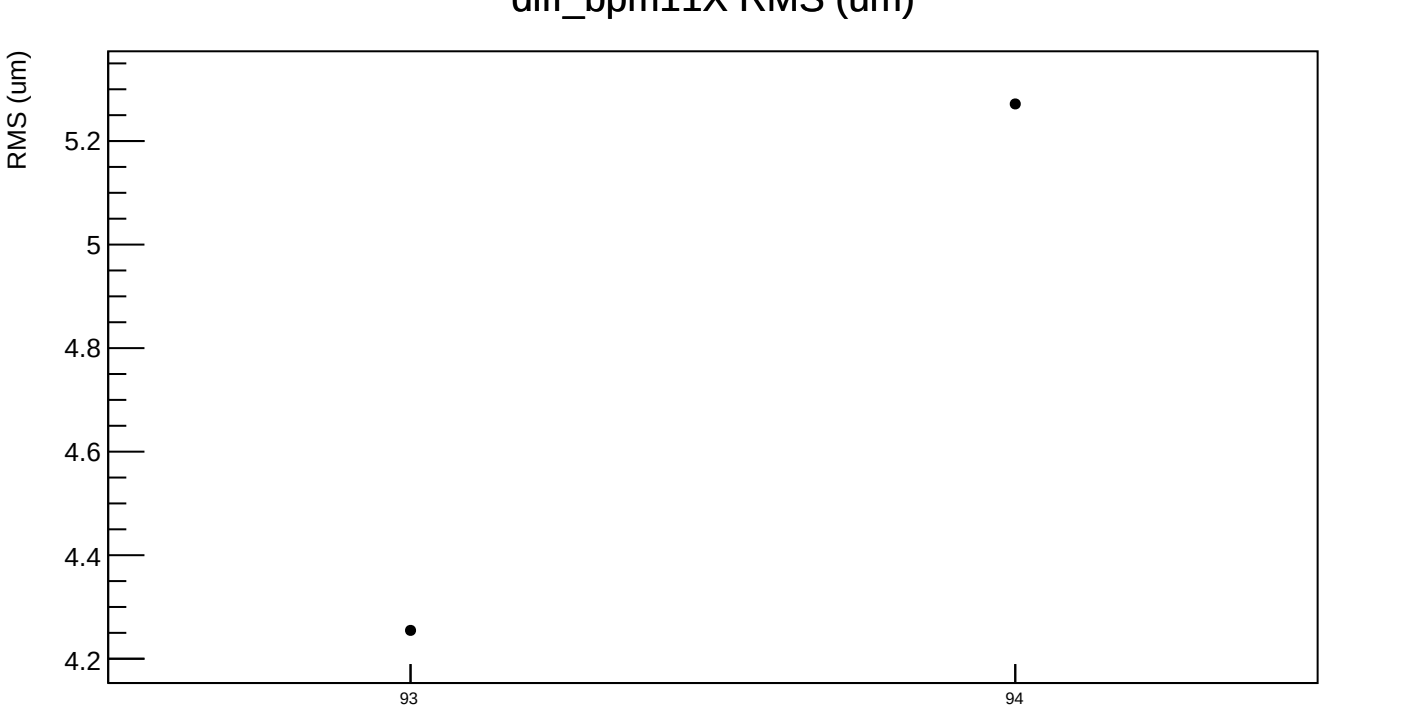

diff_bpm4eY (nm)
χ² / ndf 0.3085 / 1
p0 −3.818 ± 2.206
0
−2
−4
−6
−8
0.4
0.3
0.2
0.1
0
−0.1
−0.2
−0.3
−0.4
93
94

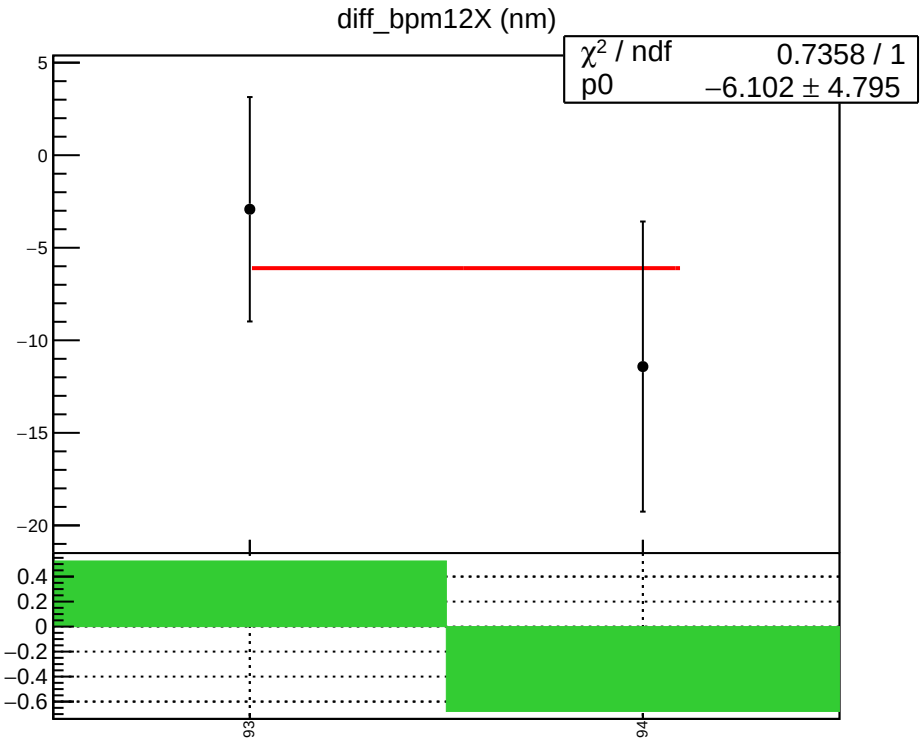

1D pull distribution
Mean −0.01967 ± 0.2774
Std Dev 0.3923 ± 0.1961
Underflow 0
Overflow 0
χ² / ndf 1.429e−13 / 0
Constant 1.499 ± 16.767
Mean 5.551e−17 ± 2.327e−01
Sigma 0.2964 ± 2.1749
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

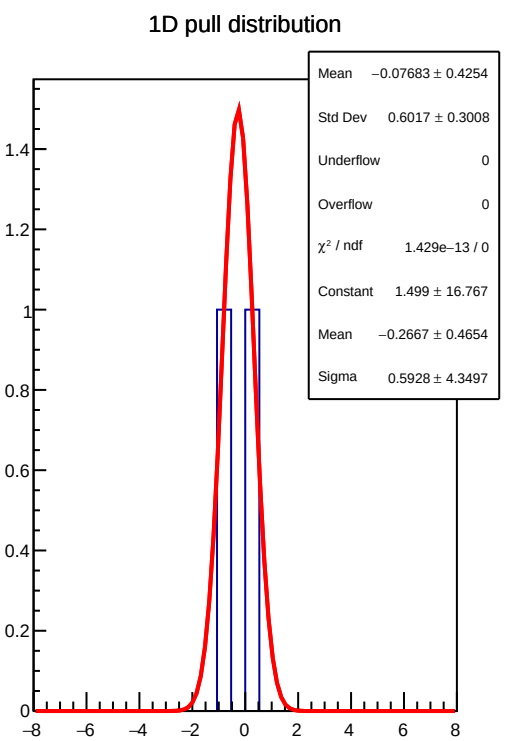

diff_bpm4eY RMS (um)
RMS (um)
2.15
2.1
2.05
2
1.95
1.9
1.85
93
94

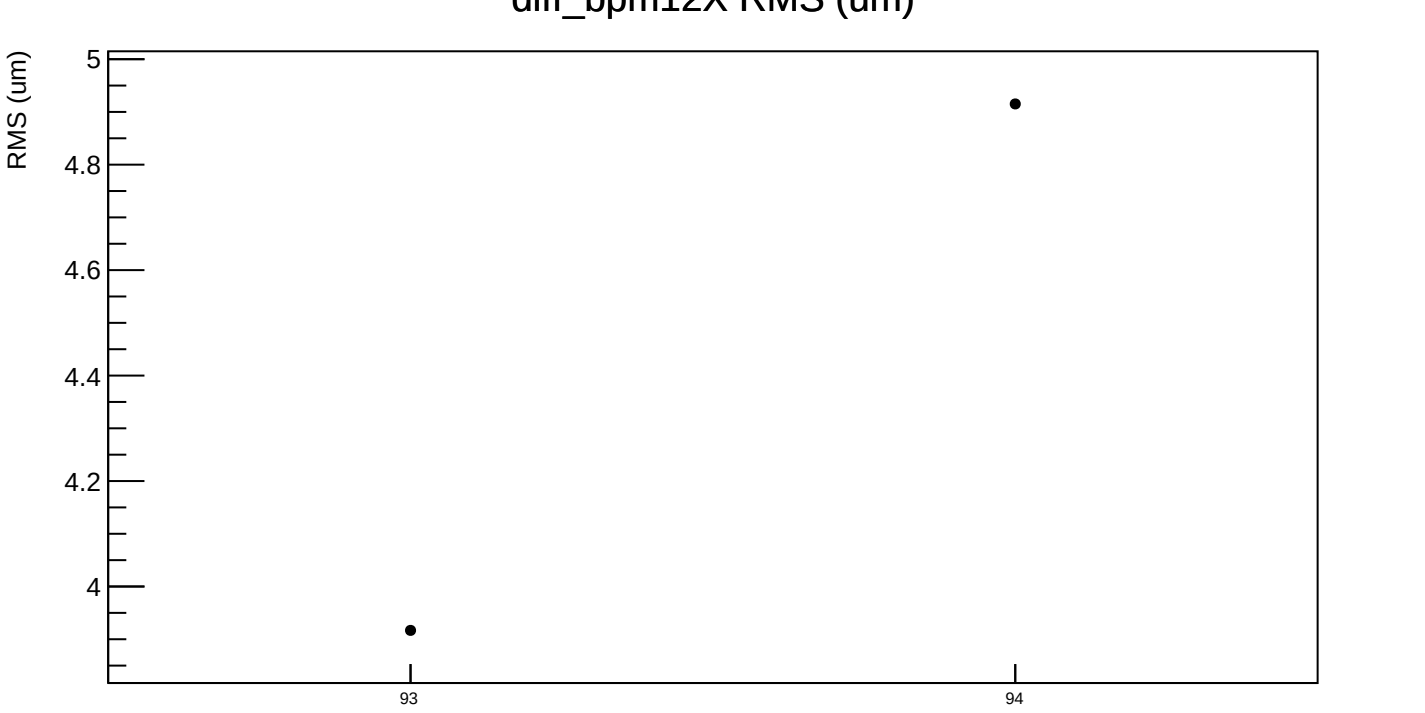

diff_bpm11X (nm)
χ² / ndf 0.06562 / 1
p0 −5.789 ± 5.186
2
0
−2
−4
−6
−8
−10
−12
−14
−16
0.15
0.1
0.05
0
−0.05
−0.1
−0.15
−0.2
93
94

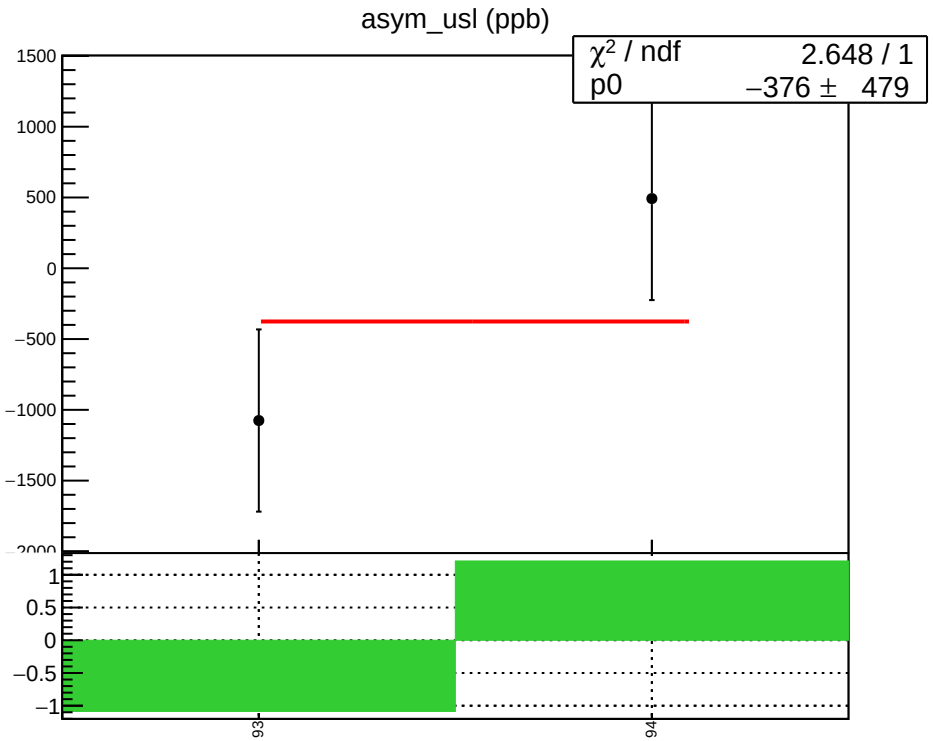

1D pull distribution
Mean −0.02194 ± 0.1271
Std Dev 0.1798 ± 0.0899
Underflow 0
Overflow 0
χ² / ndf 1.429e−13 / 0
Constant 1.499 ± 16.767
Mean 5.551e−17 ± 2.327e−01
Sigma 0.2964 ± 2.1749
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

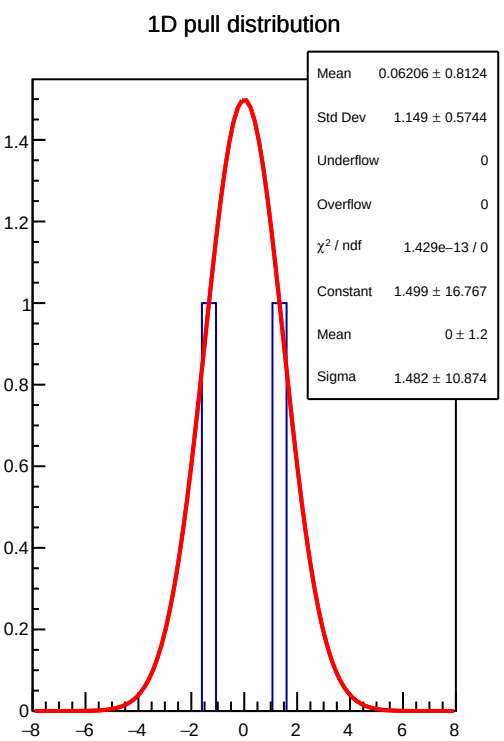

diff_bpm11X RMS (um)
RMS (um)
5.2
5
4.8
4.6
4.4
4.2
93
94

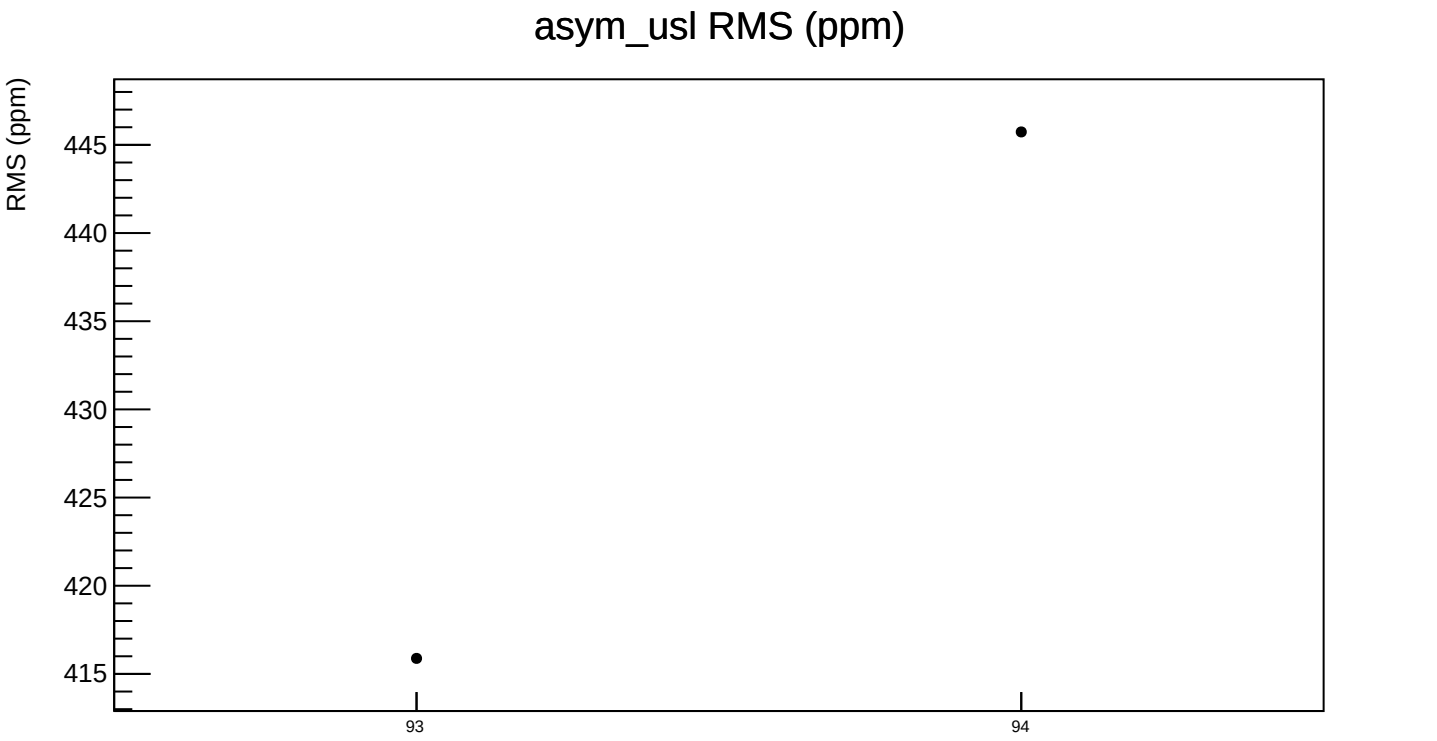

diff_bpm12X (nm)
χ² / ndf 0.7358 / 1
p0 −6.102 ± 4.795
5
0
−5
−10
−15
−20
0.4
0.2
0
−0.2
−0.4
−0.6
93
94

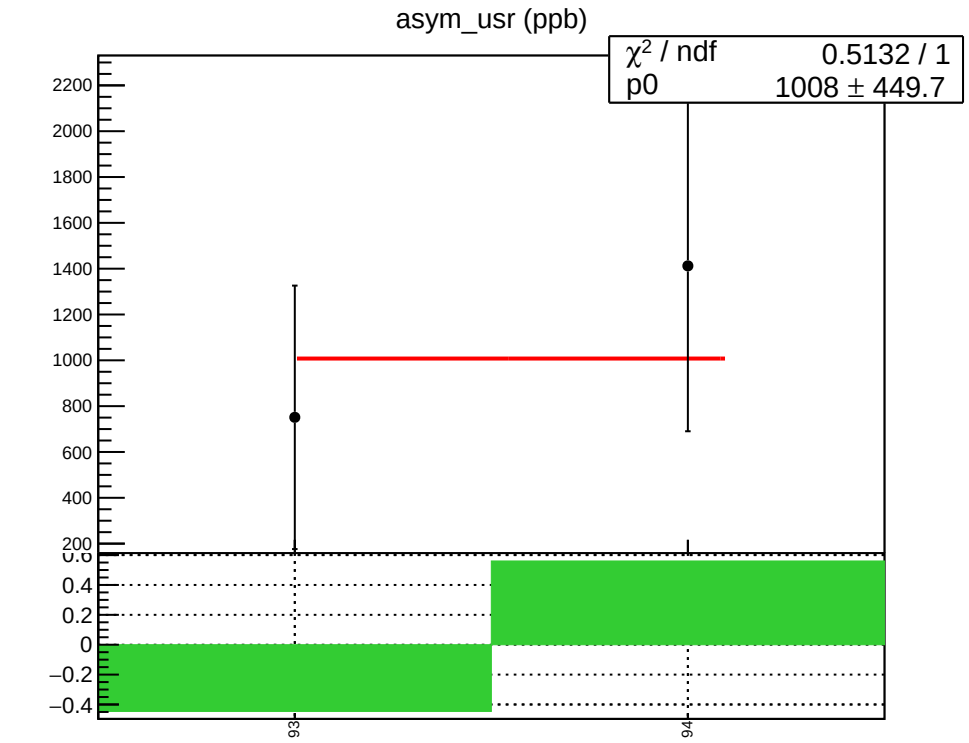

1D pull distribution
Mean −0.07683 ± 0.4254
Std Dev 0.6017 ± 0.3008
Underflow 0
Overflow 0
χ² / ndf 1.429e−13 / 0
Constant 1.499 ± 16.767
Mean −0.2667 ± 0.4654
Sigma 0.5928 ± 4.3497
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

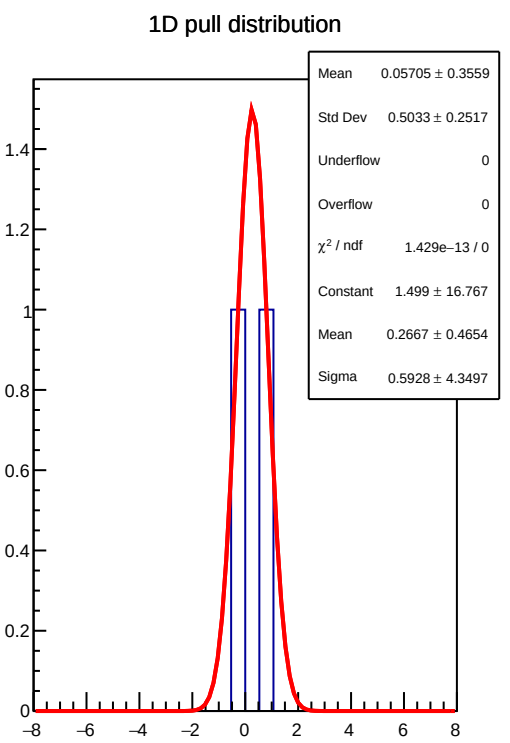

diff_bpm12X RMS (um)
RMS (um)
5
4.8
4.6
4.4
4.2
4
93
94

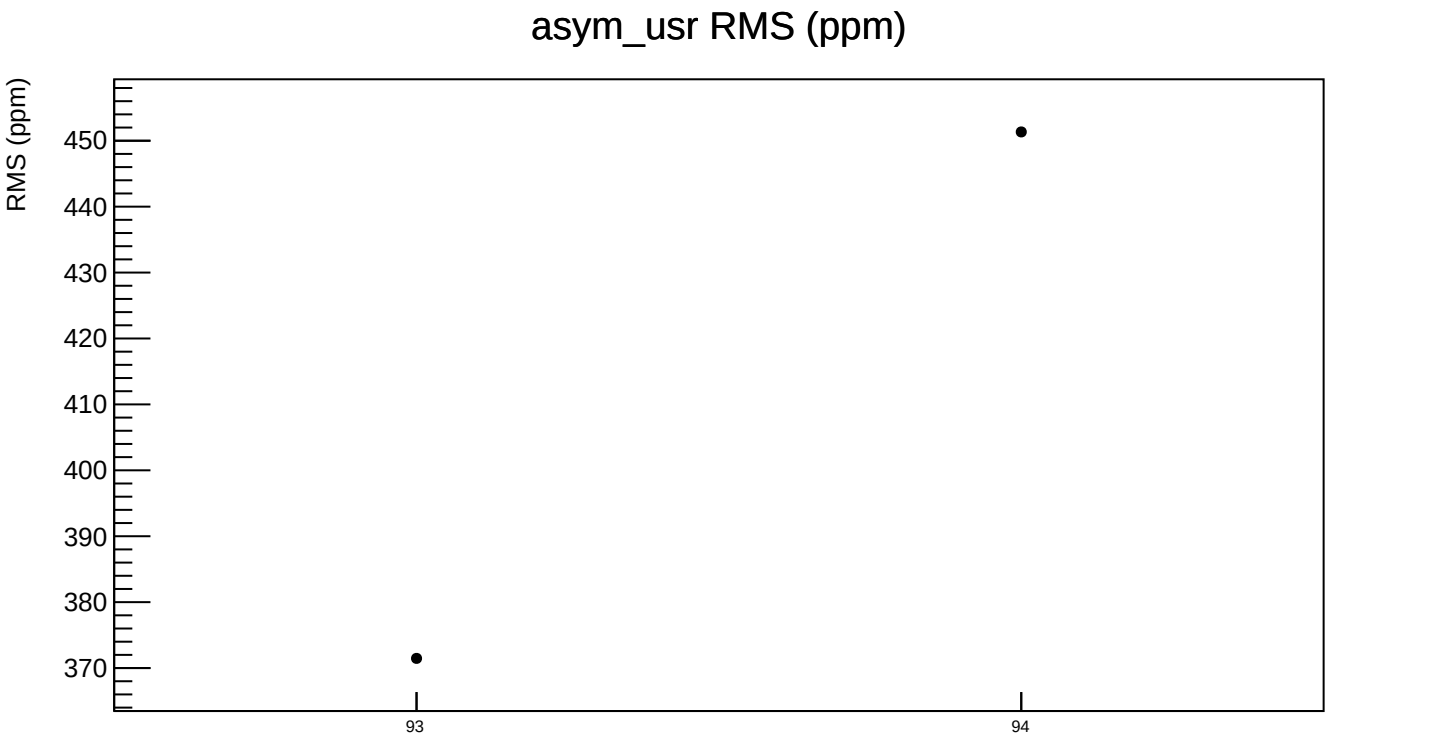

asym_usl (ppb)
χ² / ndf 2.648 / 1
p0 −376 ± 479
1500
1000
500
0
−500
−1000
−1500
1
0.5
0
−0.5
−1
93
94

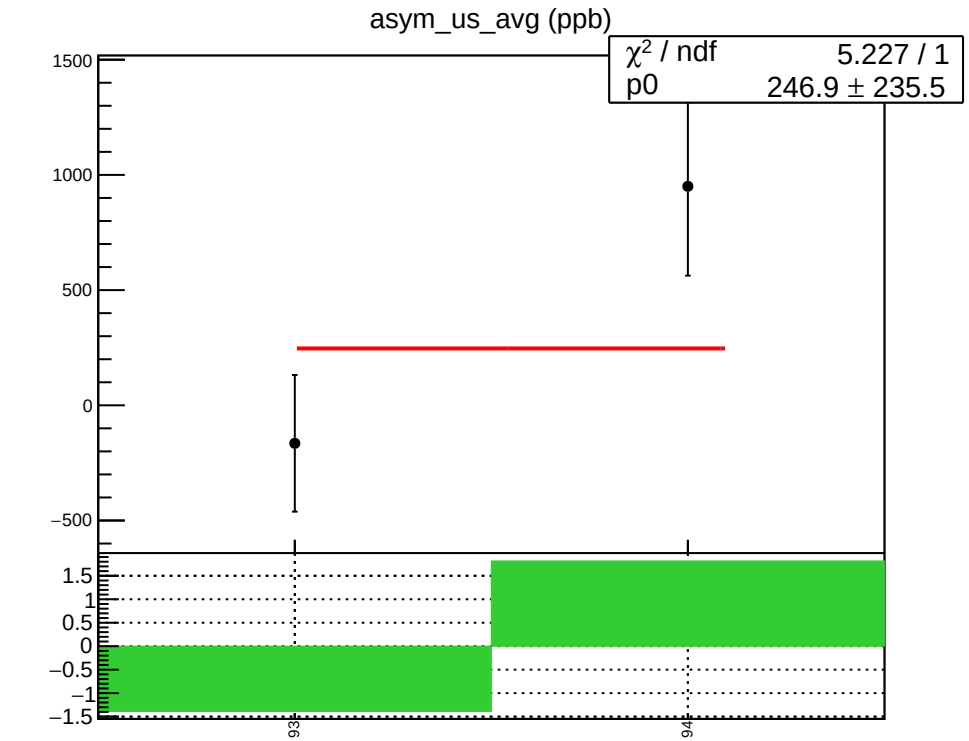

1D pull distribution
Mean 0.06206 ± 0.8124
Std Dev 1.149 ± 0.5744
Underflow 0
Overflow 0
χ² / ndf 1.429e−13 / 0
Constant 1.499 ± 16.767
Mean 0 ± 1.2
Sigma 1.482 ± 10.874
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

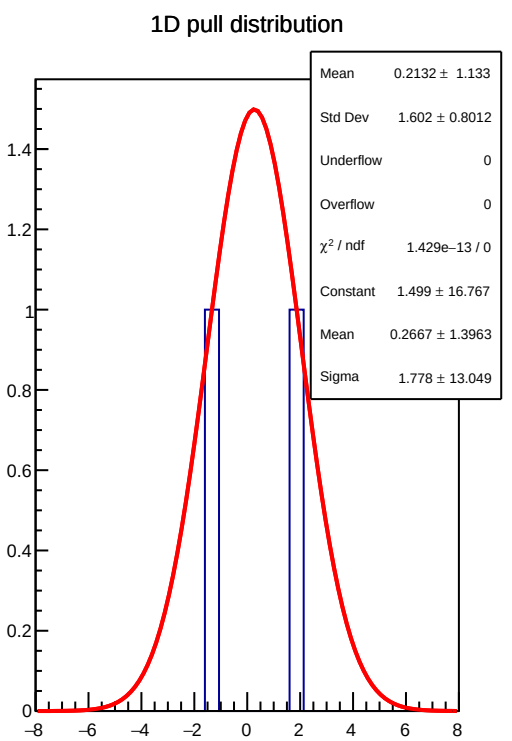

asym_usl RMS (ppm)
RMS (ppm)
445
440
435
430
425
420
415
93
94

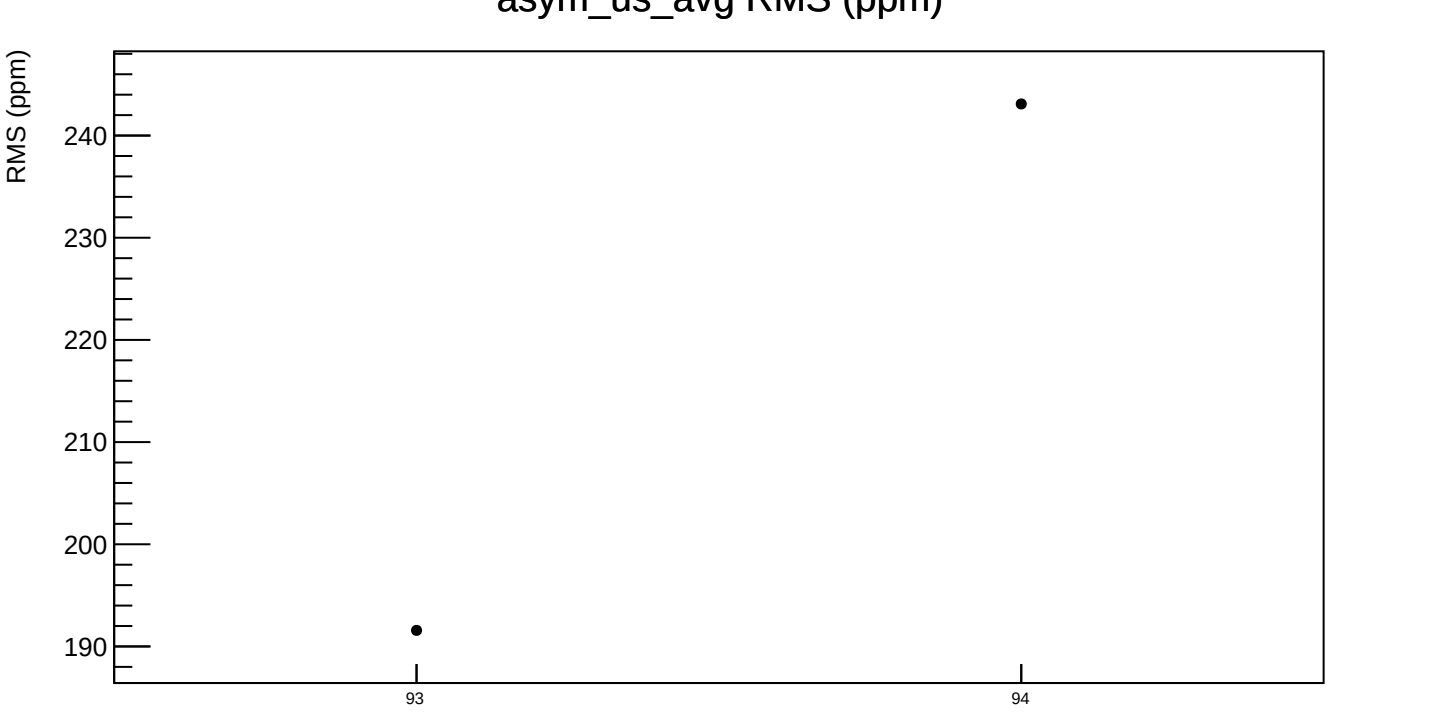

asym_usr (ppb)
χ² / ndf 0.5132 / 1
p0 1008 ± 449.7
2200
2000
1800
1600
1400
1200
1000
800
600
400
200
0.6
0.4
0.2
0
−0.2
−0.4
93
94

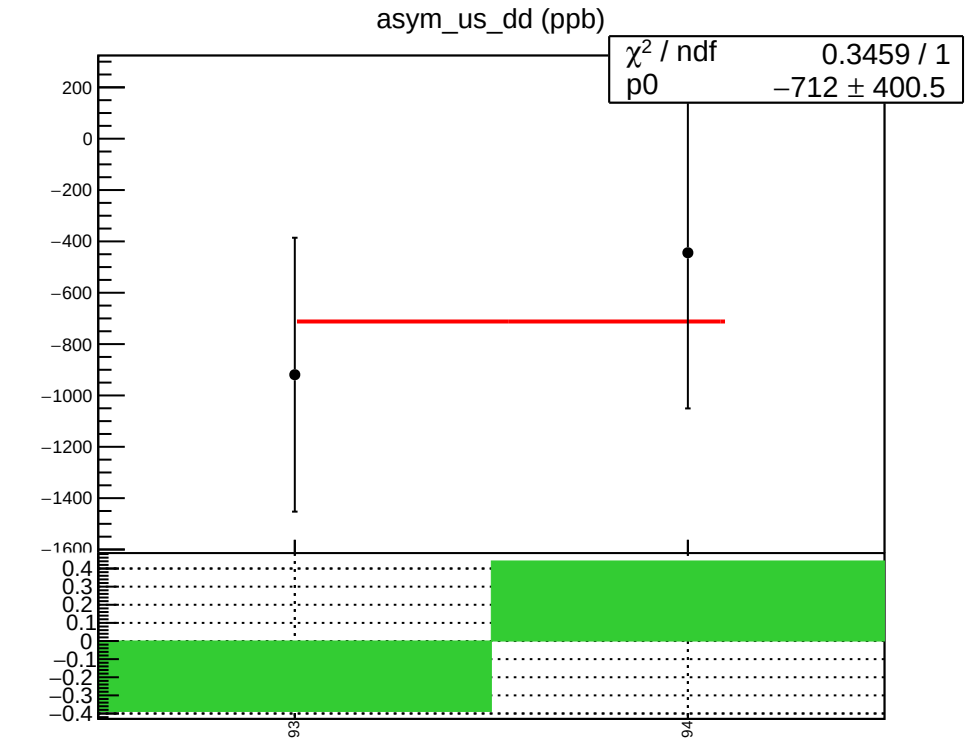

1D pull distribution
Mean 0.05705 ± 0.3559
Std Dev 0.5033 ± 0.2517
Underflow 0
Overflow 0
χ² / ndf 1.429e−13 / 0
Constant 1.499 ± 16.767
Mean 0.2667 ± 0.4654
Sigma 0.5928 ± 4.3497
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

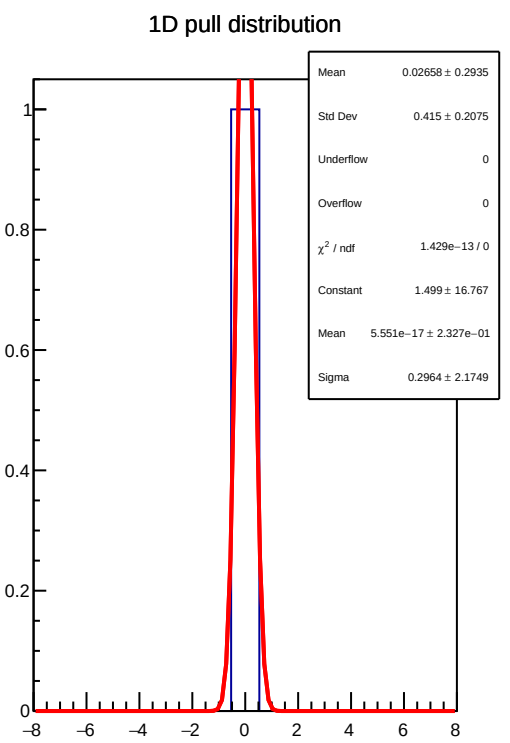

asym_usr RMS (ppm)
RMS (ppm)
450
440
430
420
410
400
390
380
370
93
94

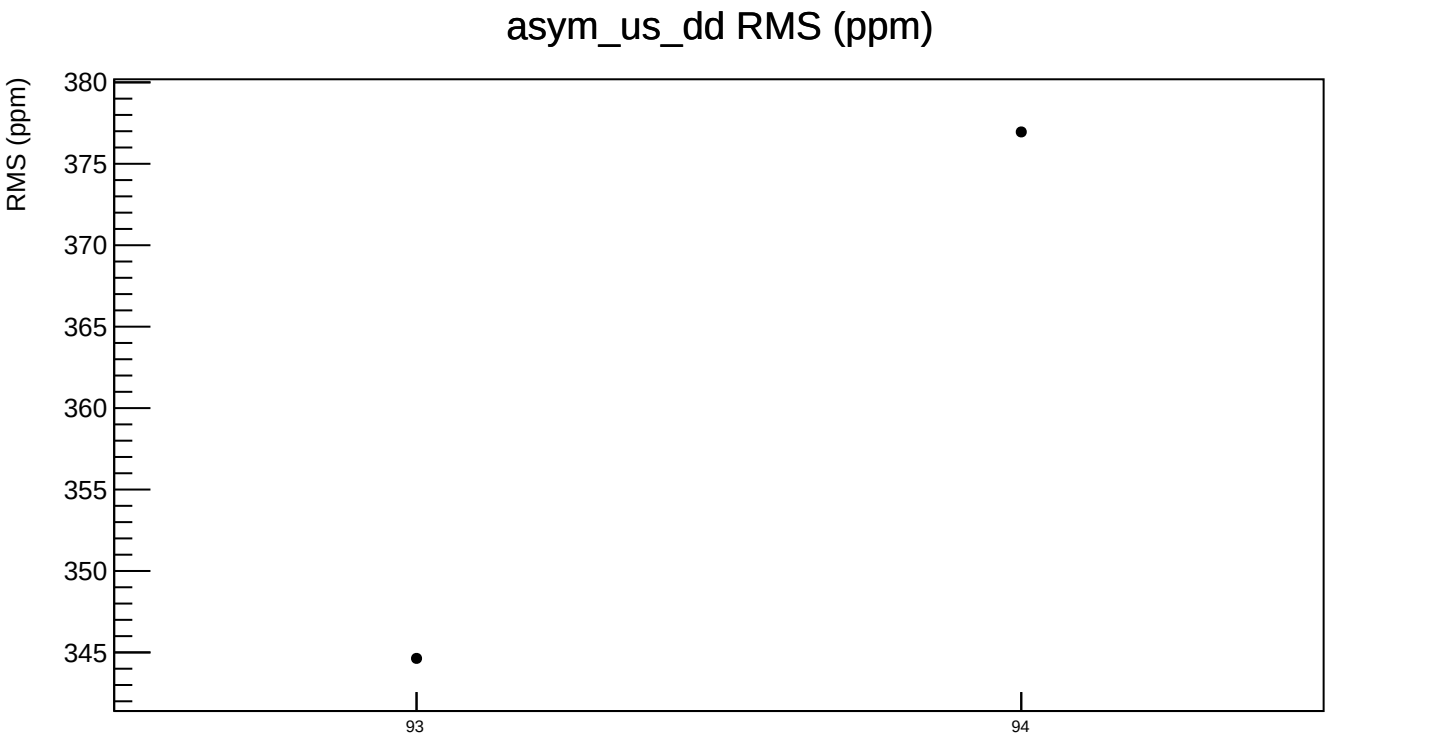

asym_us_avg (ppb)
χ² / ndf 5.227 / 1
p0 246.9 ± 235.5
1500
1000
500
0
−500
1.5
1
0.5
0
−0.5
−1
−1.5
93
94

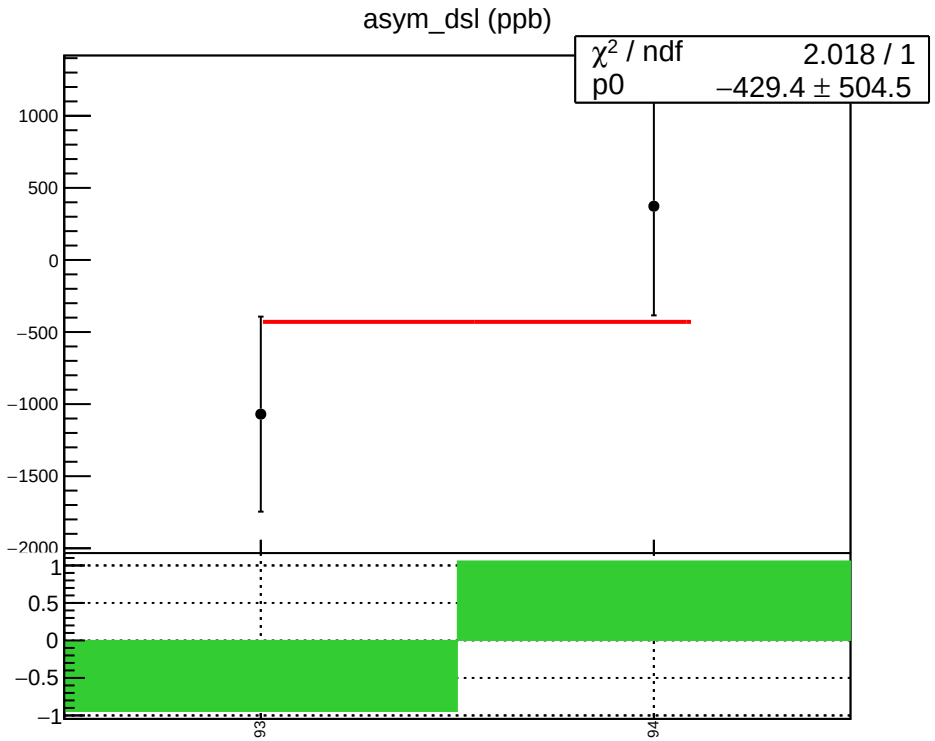

1D pull distribution
Mean 0.2132 ± 1.133
Std Dev 1.602 ± 0.8012
Underflow 0
Overflow 0
χ² / ndf 1.429e−13 / 0
Constant 1.499 ± 16.767
Mean 0.2667 ± 1.3963
Sigma 1.778 ± 13.049
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

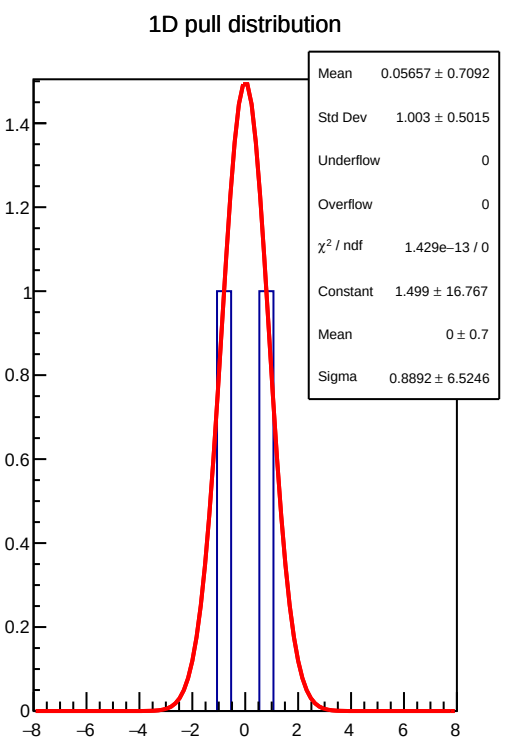

asym_us_avg RMS (ppm)
RMS (ppm)
240
230
220
210
200
190
93
94

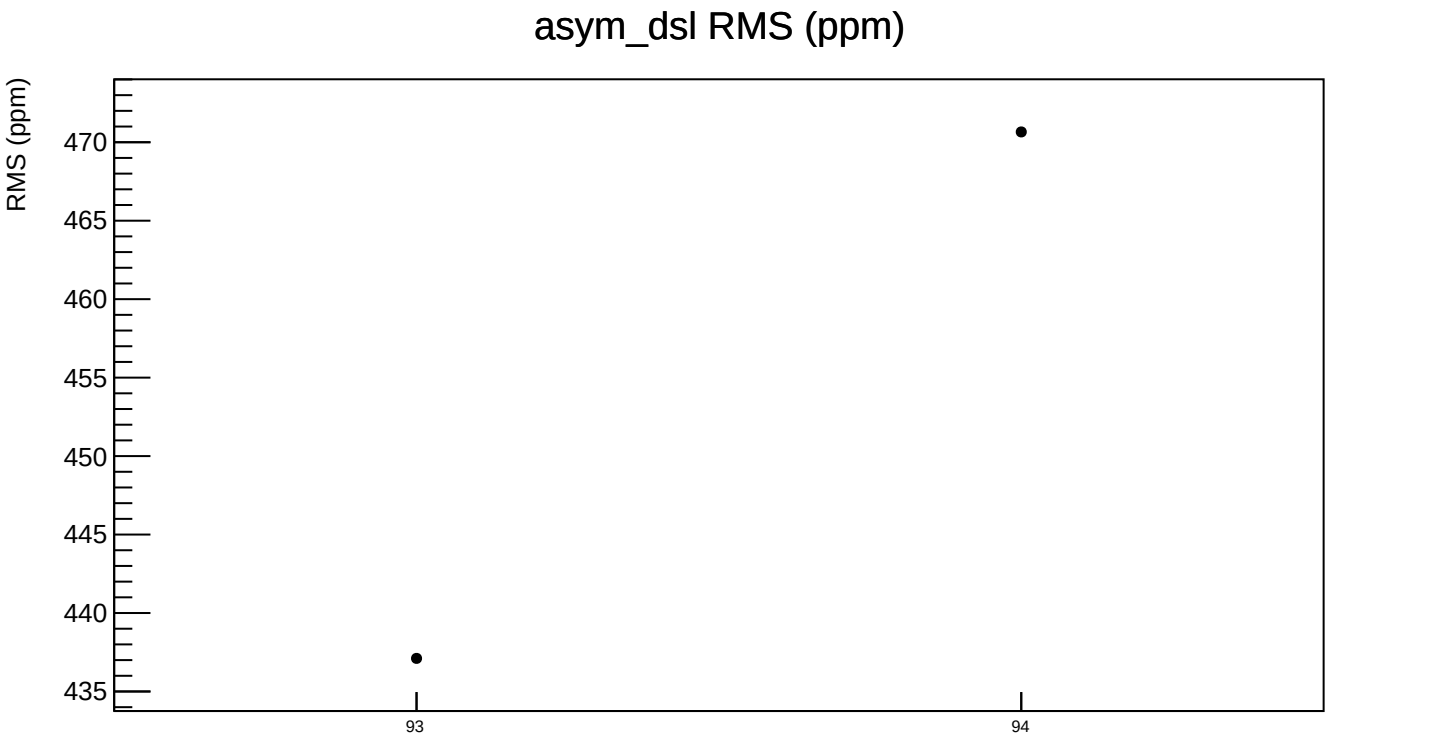

asym_us_dd (ppb)
χ² / ndf 0.3459 / 1
p0 −712 ± 400.5
200
0
−200
−400
−600
−800
−1000
−1200
−1400
−1600
0.4
0.3
0.2
0.1
0
−0.1
−0.2
−0.3
−0.4
93
94

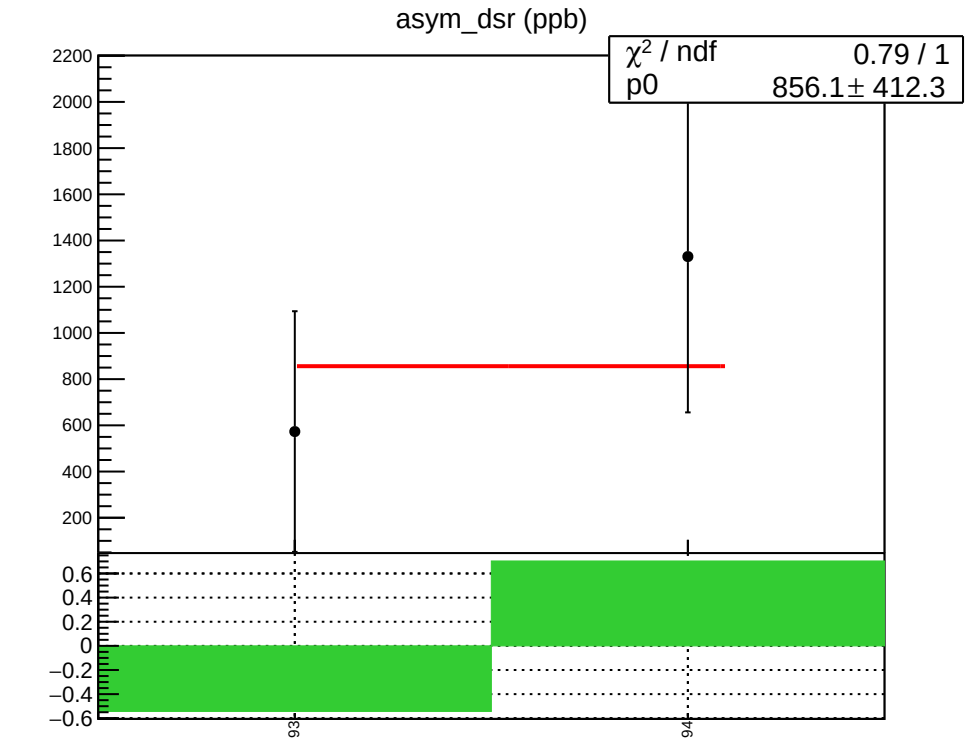

1D pull distribution
Mean 0.02658 ± 0.2935
Std Dev 0.415 ± 0.2075
Underflow 0
Overflow 0
χ² / ndf 1.429e−13 / 0
Constant 1.499 ± 16.767
Mean 5.551e−17 ± 2.327e−01
Sigma 0.2964 ± 2.1749
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

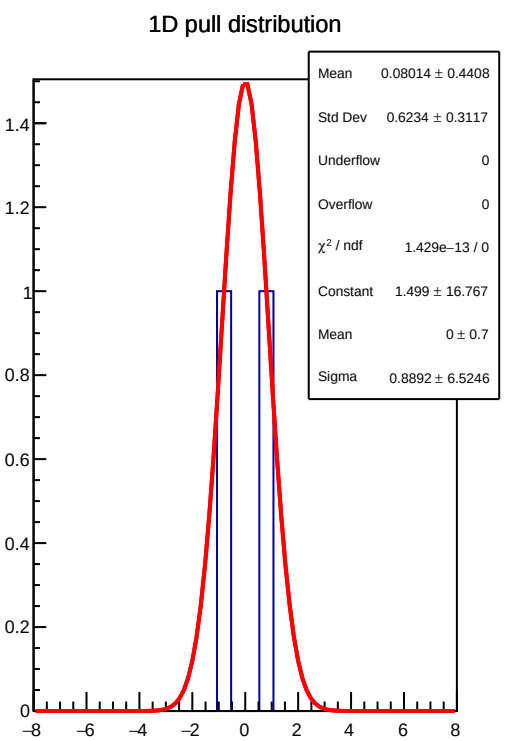

asym_us_dd RMS (ppm)
RMS (ppm)
380
375
370
365
360
355
350
345
93
94

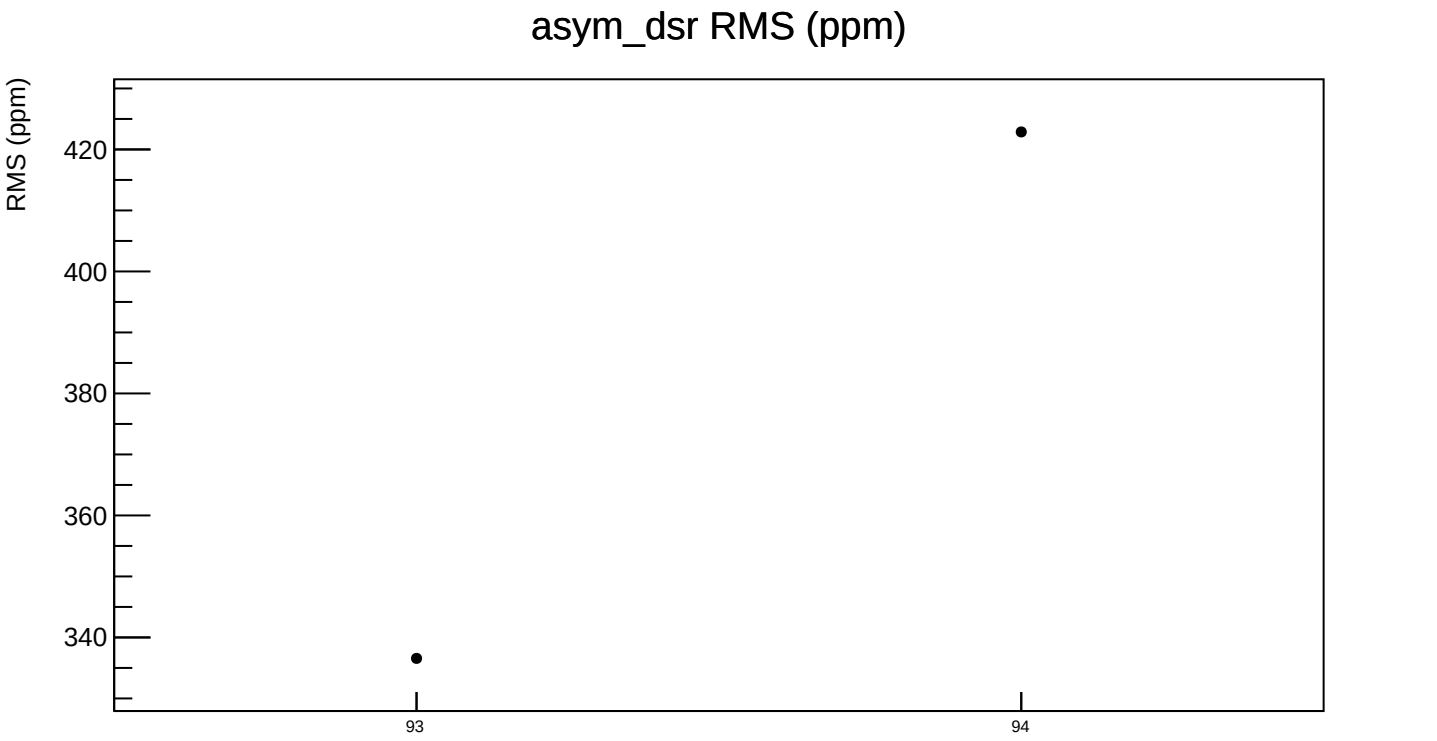

asym_dsl (ppb)
χ² / ndf 2.018 / 1
p0 −429.4 ± 504.5
1000
500
0
−500
−1000
−1500
−2000
1
0.5
0
−0.5
−1
93
94

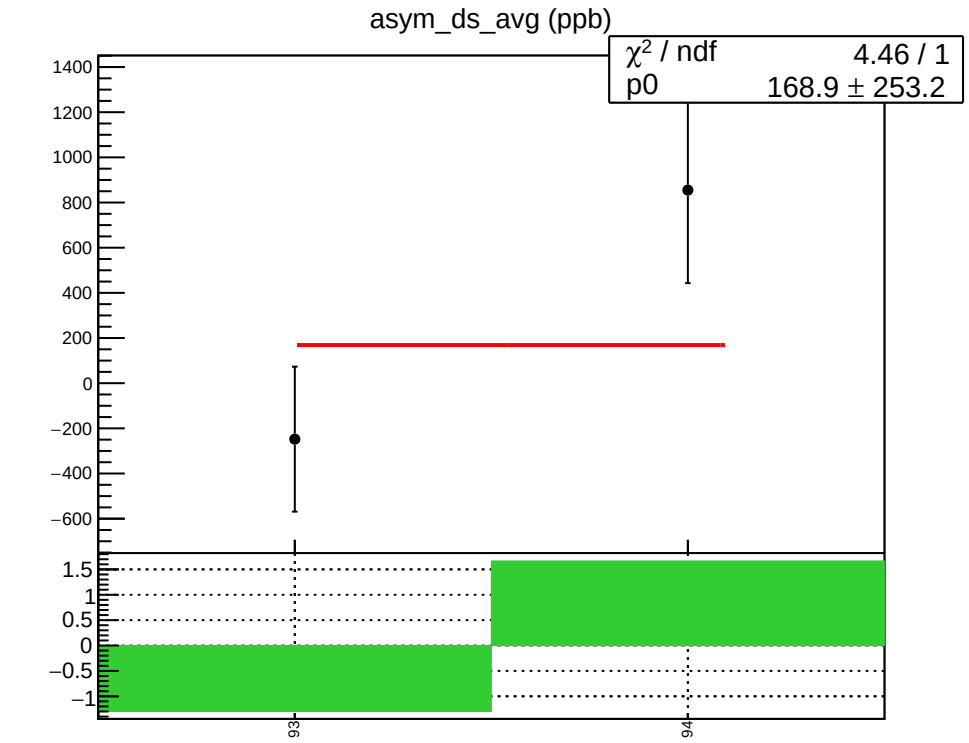

1D pull distribution
Mean 0.05657 ± 0.7092
Std Dev 1.003 ± 0.5015
Underflow 0
Overflow 0
χ² / ndf 1.429e−13 / 0
Constant 1.499 ± 16.767
Mean 0 ± 0.7
Sigma 0.8892 ± 6.5246
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

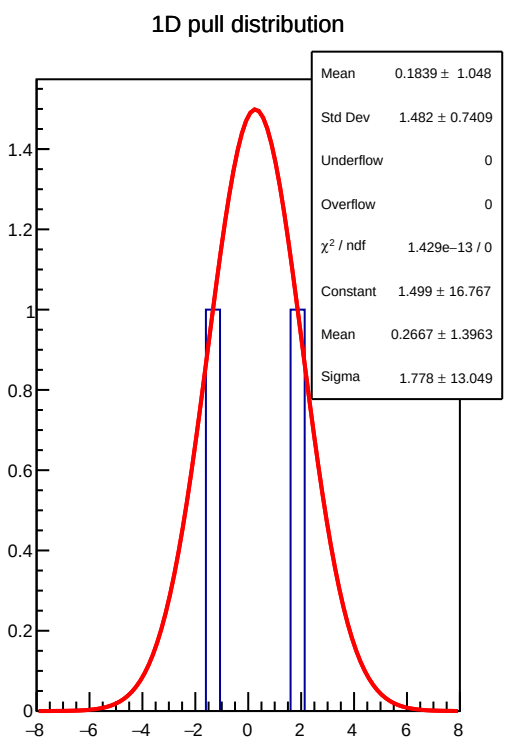

asym_dsl RMS (ppm)
RMS (ppm)
470
465
460
455
450
445
440
435
93
94

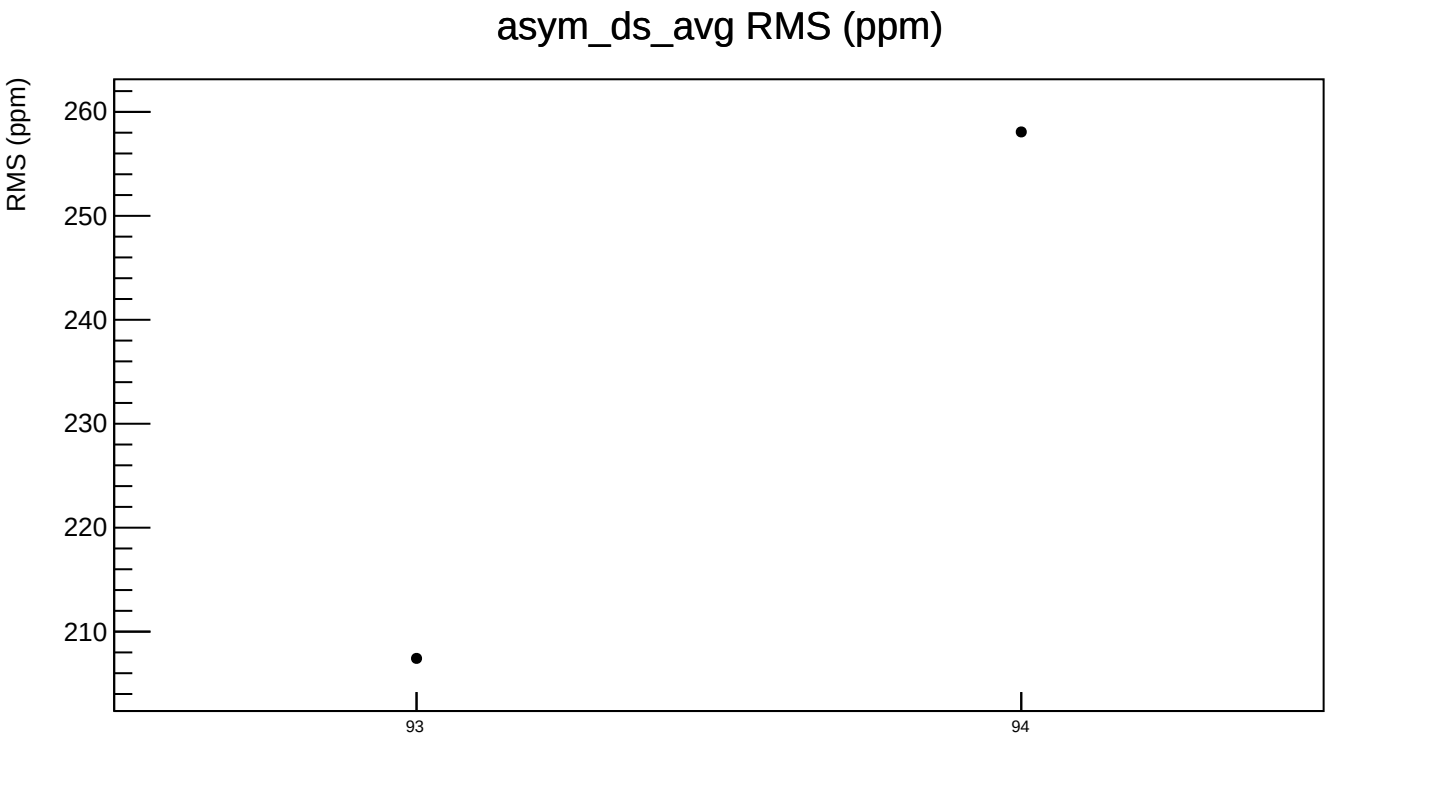

asym_dsr (ppb)
χ² / ndf 0.79 / 1
p0 856.1 ± 412.3
2200
2000
1800
1600
1400
1200
1000
800
600
400
200
0.6
0.4
0.2
0
−0.2
−0.4
−0.6
93
94

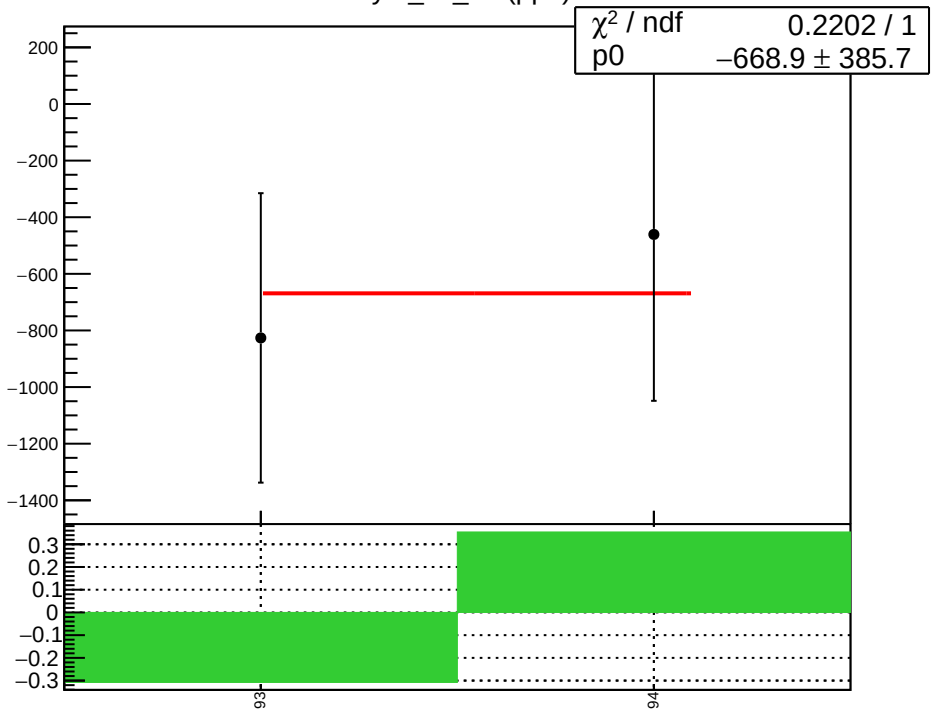

1D pull distribution
Mean 0.08014 ± 0.4408
Std Dev 0.6234 ± 0.3117
Underflow 0
Overflow 0
χ² / ndf 1.429e−13 / 0
Constant 1.499 ± 16.767
Mean 0 ± 0.7
Sigma 0.8892 ± 6.5246
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

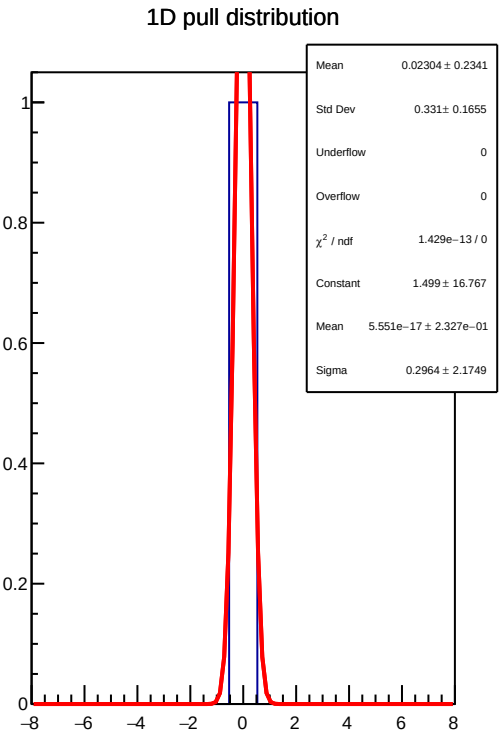

asym_dsr RMS (ppm)
RMS (ppm)
420
400
380
360
340
93
94

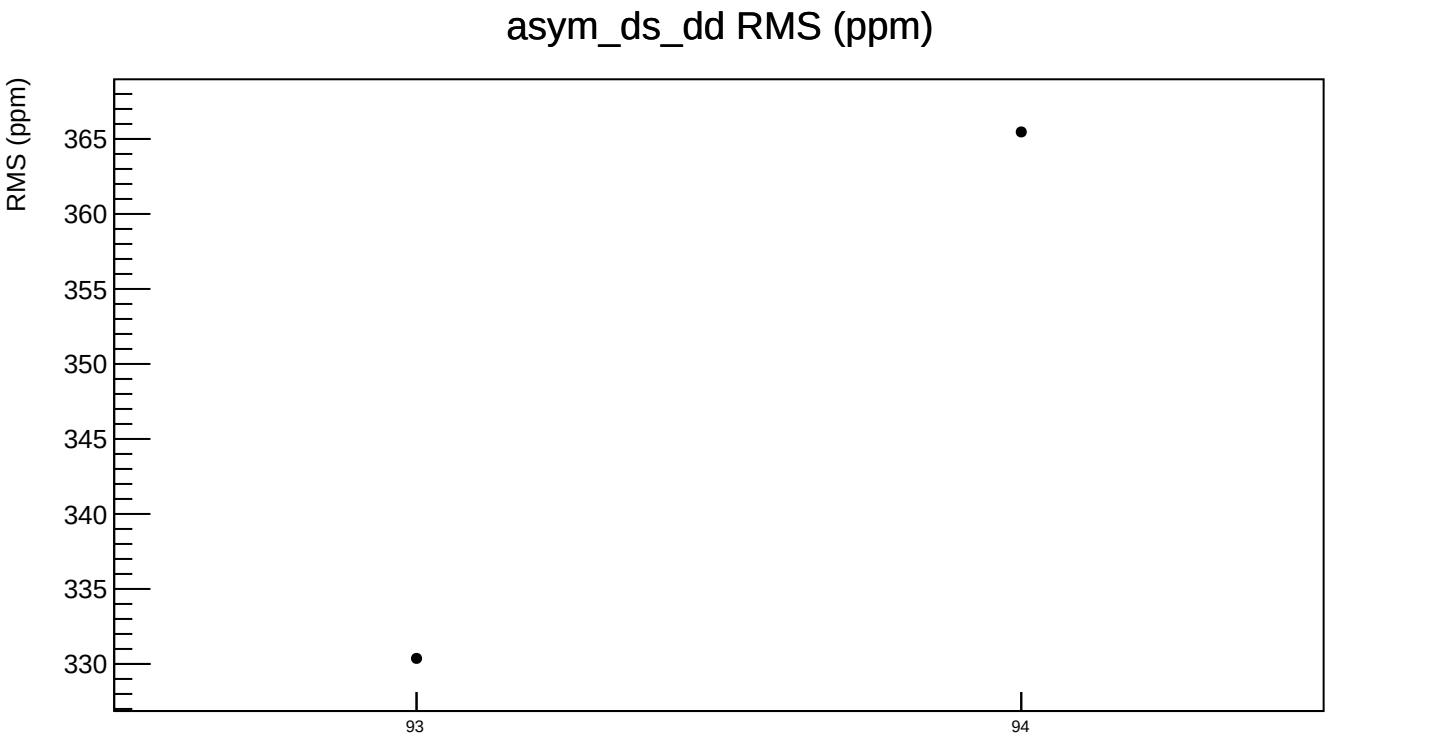

asym_ds_avg (ppb)
χ² / ndf 4.46 / 1
p0 168.9 ± 253.2
1400
1200
1000
800
600
400
200
0
−200
−400
−600
1.5
1
0.5
0
−0.5
−1
93
94

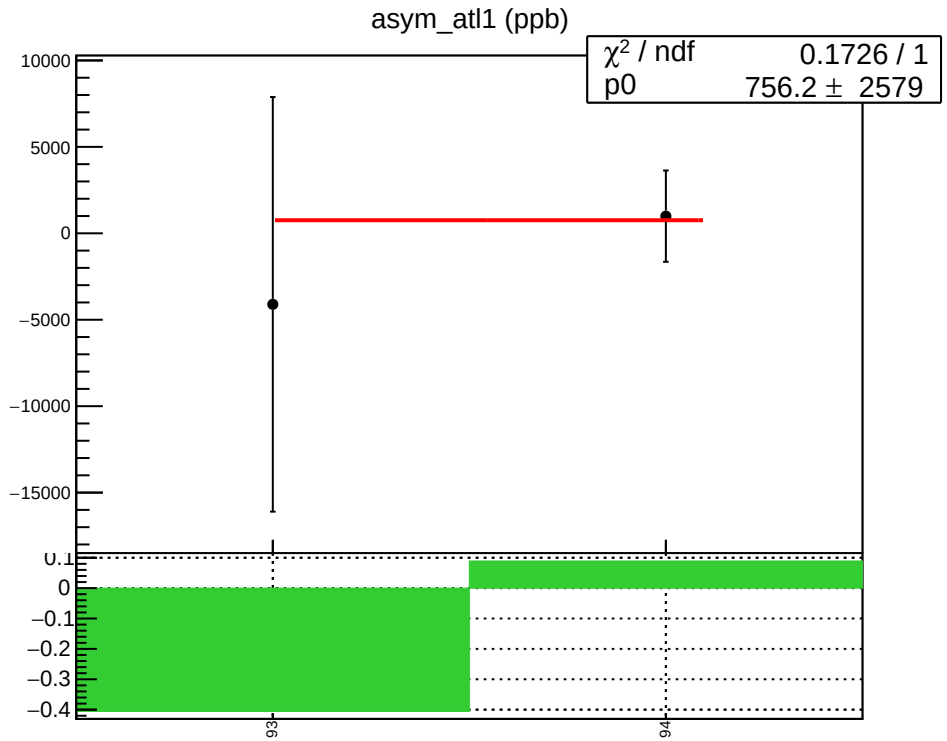

1D pull distribution
Mean 0.1839 ± 1.048
Std Dev 1.482 ± 0.7409
Underflow 0
Overflow 0
χ² / ndf 1.429e−13 / 0
Constant 1.499 ± 16.767
Mean 0.2667 ± 1.3963
Sigma 1.778 ± 13.049
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

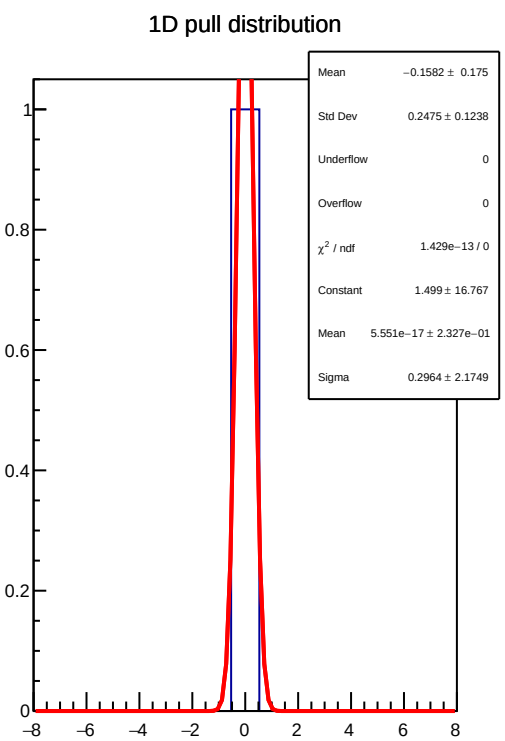

asym_ds_avg RMS (ppm)
RMS (ppm)
260
250
240
230
220
210
93
94

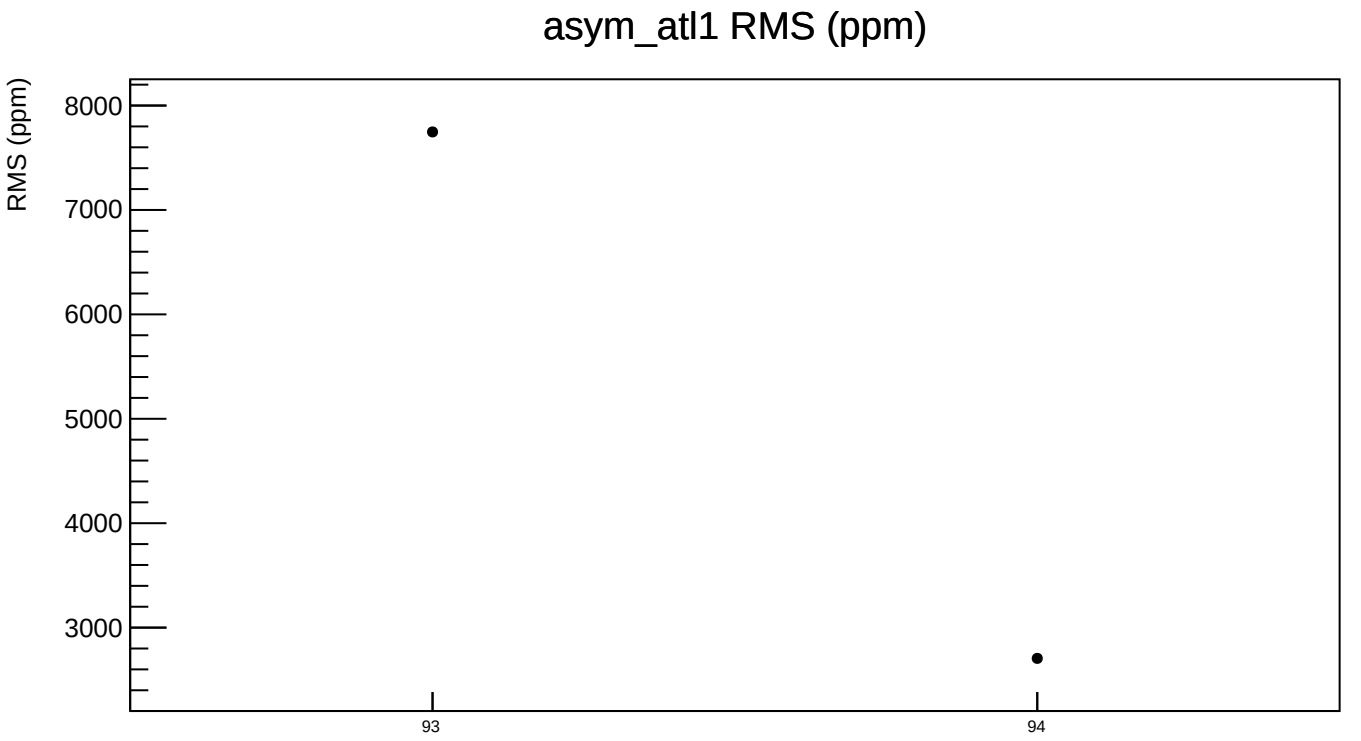

asym_ds_dd (ppb)
χ² / ndf 0.2202 / 1
p0 −668.9 ± 385.7
200
0
−200
−400
−600
−800
−1000
−1200
−1400
0.3
0.2
0.1
0
−0.1
−0.2
−0.3
93
94

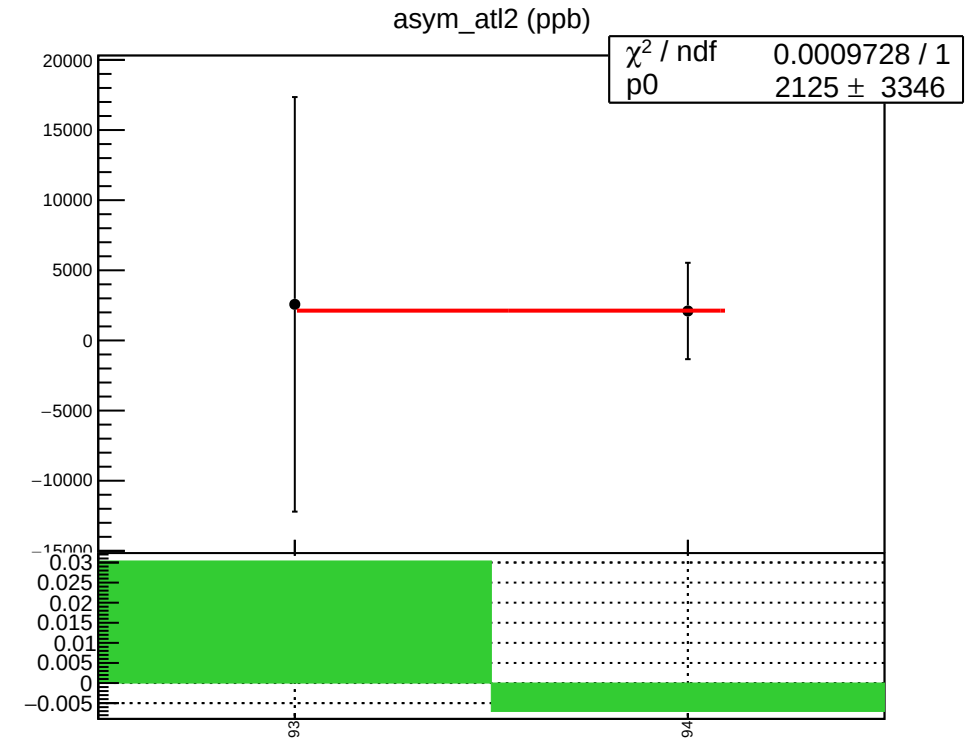

1D pull distribution
Mean 0.02304 ± 0.2341
Std Dev 0.331± 0.1655
Underflow 0
Overflow 0
χ² / ndf 1.429e−13 / 0
Constant 1.499 ± 16.767
Mean 5.551e−17 ± 2.327e−01
Sigma 0.2964 ± 2.1749
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

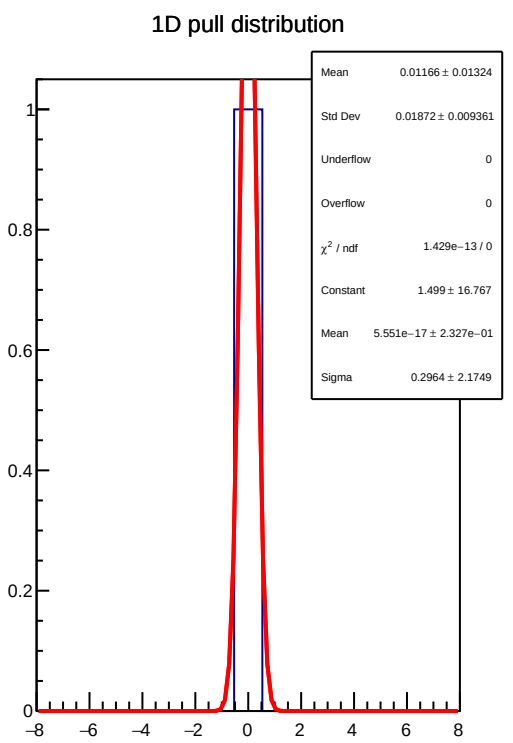

asym_ds_dd RMS (ppm)
RMS (ppm)
365
360
355
350
345
340
335
330
93
94

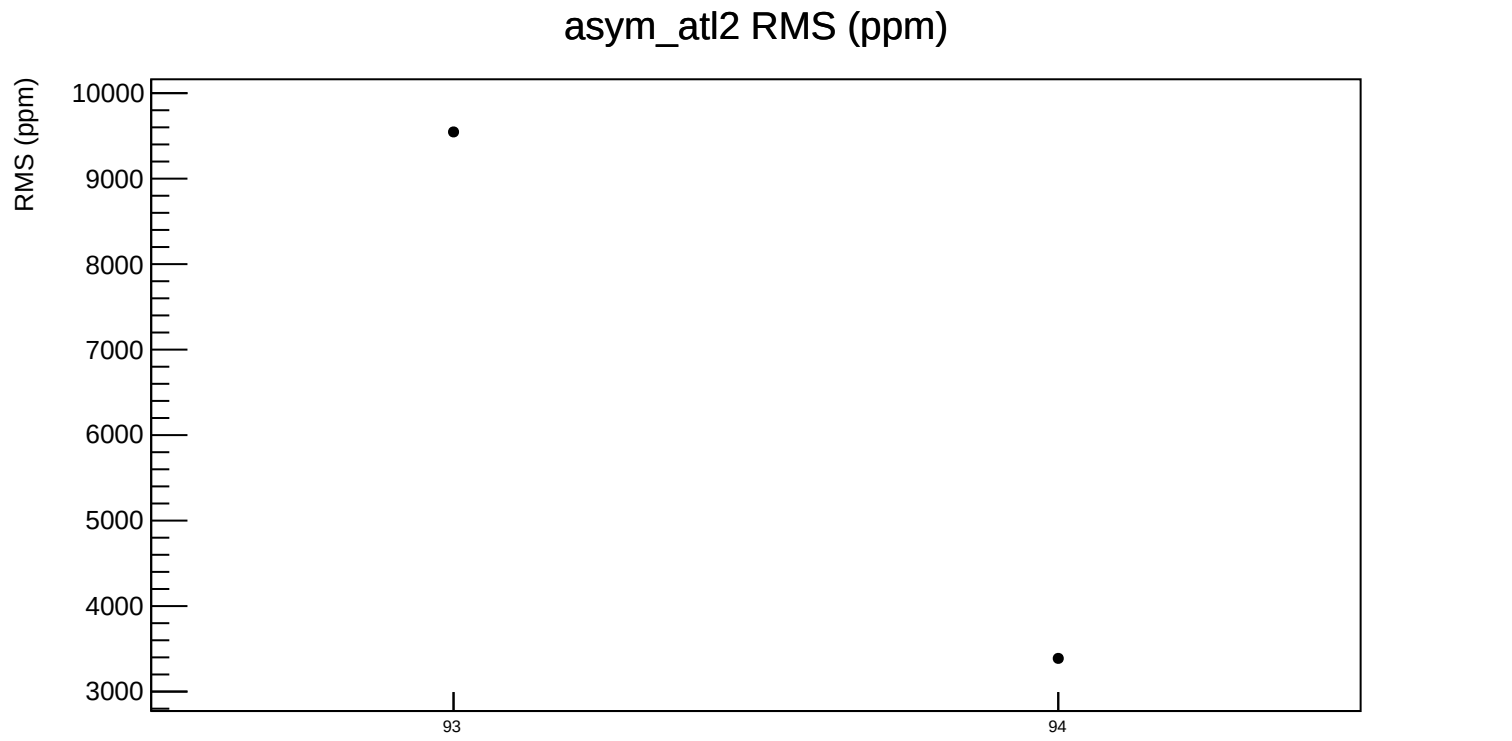

asym_atl1 (ppb)
χ² / ndf 0.1726 / 1
p0 756.2 ± 2579
10000
5000
0
−5000
−10000
−15000
0.1
0
−0.1
−0.2
−0.3
−0.4
93
94

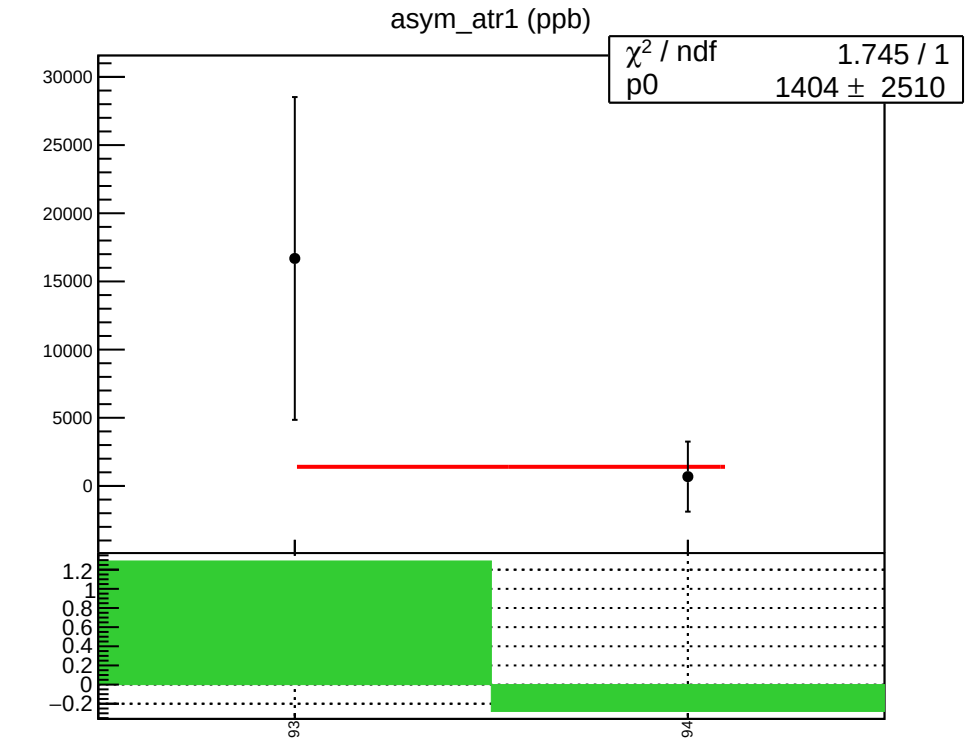

1D pull distribution
Mean −0.1582 ± 0.175
Std Dev 0.2475 ± 0.1238
Underflow 0
Overflow 0
χ² / ndf 1.429e−13 / 0
Constant 1.499 ± 16.767
Mean 5.551e−17 ± 2.327e−01
Sigma 0.2964 ± 2.1749
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

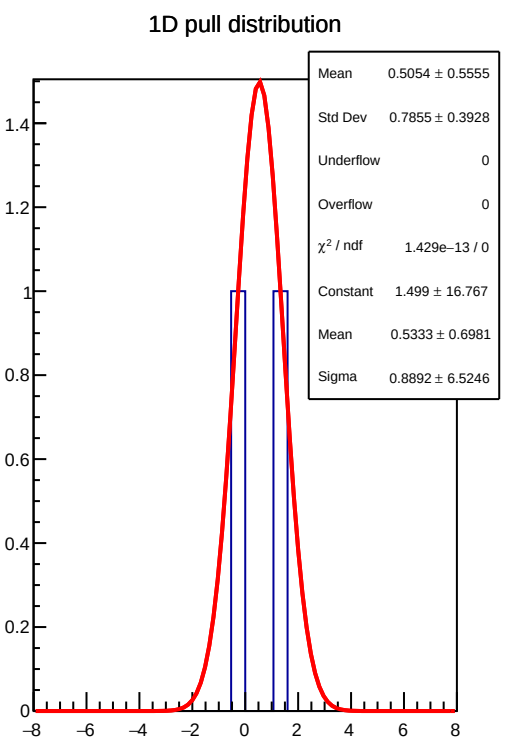

asym_atl1 RMS (ppm)
RMS (ppm)
8000
7000
6000
5000
4000
3000
93
94

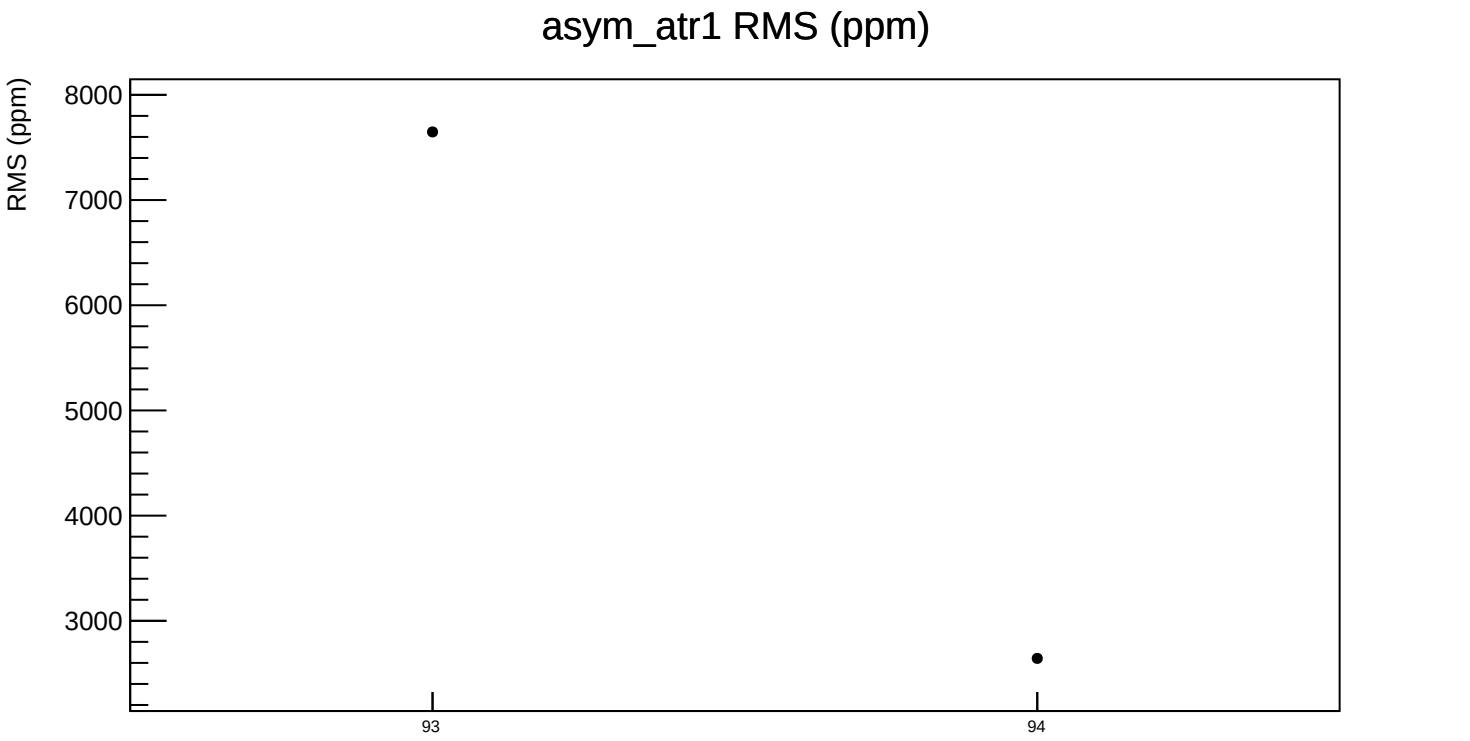

asym_atl2 (ppb)
χ² / ndf 0.0009728 / 1
p0 2125 ± 3346
20000
15000
10000
5000
0
−5000
−10000
−15000
0.03
0.025
0.02
0.015
0.01
0.005
0
−0.005
93
94

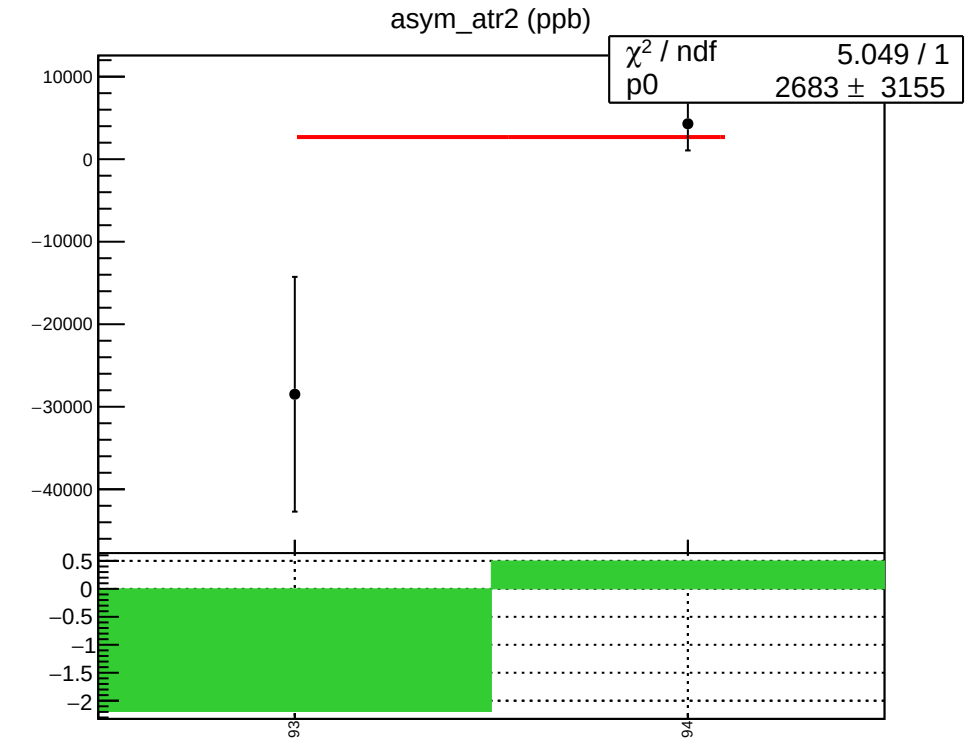

1D pull distribution
Mean 0.01166 ± 0.01324
Std Dev 0.01872 ± 0.009361
Underflow 0
Overflow 0
χ² / ndf 1.429e−13 / 0
Constant 1.499 ± 16.767
Mean 5.551e−17 ± 2.327e−01
Sigma 0.2964 ± 2.1749
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8

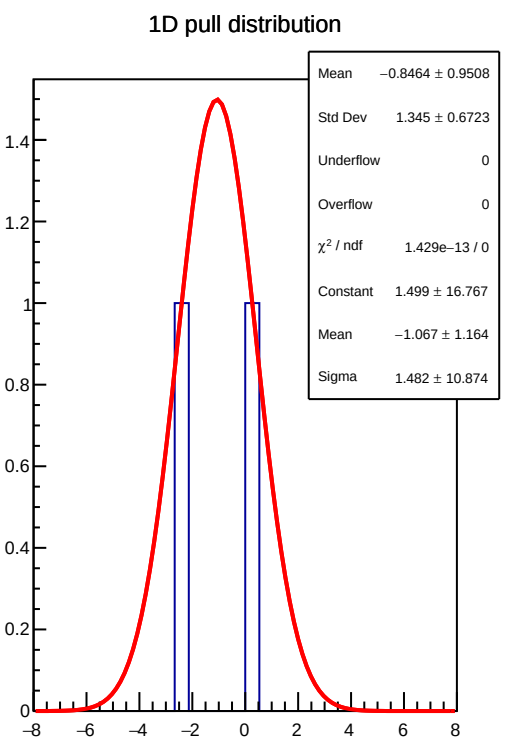

asym_atl2 RMS (ppm)
RMS (ppm)
10000
9000
8000
7000
6000
5000
4000
3000
93
94

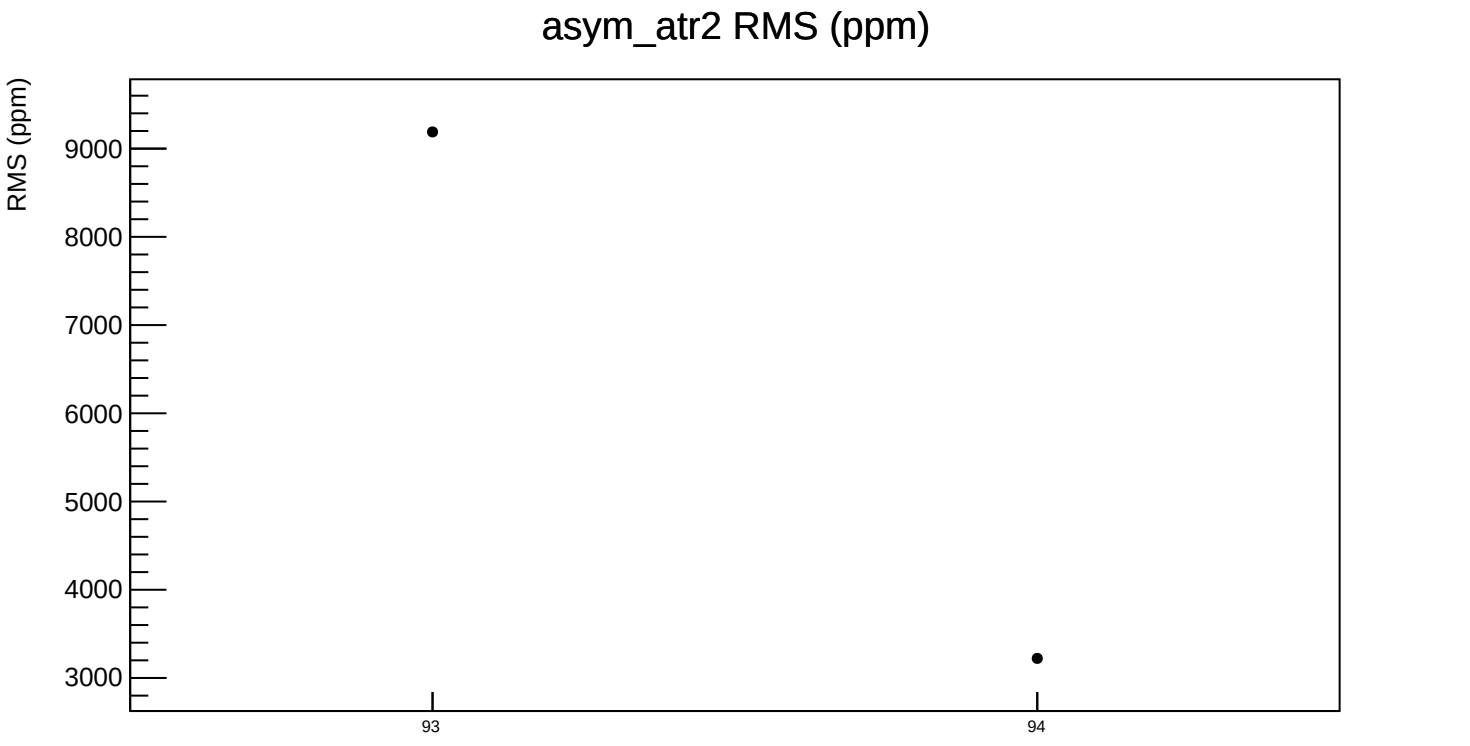

asym_atr1 (ppb)
χ² / ndf 1.745 / 1
p0 1404 ± 2510
30000
25000
20000
15000
10000
5000
0
1.2
1
0.8
0.6
0.4
0.2
0
−0.2
93
94


1D pull distribution
Mean 0.5054 ± 0.5555
Std Dev 0.7855 ± 0.3928
Underflow 0
Overflow 0
χ² / ndf 1.429e−13 / 0
Constant 1.499 ± 16.767
Mean 0.5333 ± 0.6981
Sigma 0.8892 ± 6.5246
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8


asym_atr1 RMS (ppm)
RMS (ppm)
8000
7000
6000
5000
4000
3000
93
94


asym_atr2 (ppb)
χ² / ndf 5.049 / 1
p0 2683 ± 3155
10000
0
−10000
−20000
−30000
−40000
0.5
0
−0.5
−1
−1.5
−2
93
94


1D pull distribution
Mean −0.8464 ± 0.9508
Std Dev 1.345 ± 0.6723
Underflow 0
Overflow 0
χ² / ndf 1.429e−13 / 0
Constant 1.499 ± 16.767
Mean −1.067 ± 1.164
Sigma 1.482 ± 10.874
1.4
1.2
1
0.8
0.6
0.4
0.2
0
−8
−6
−4
−2
0
2
4
6
8


asym_atr2 RMS (ppm)
RMS (ppm)
9000
8000
7000
6000
5000
4000
3000
93
94