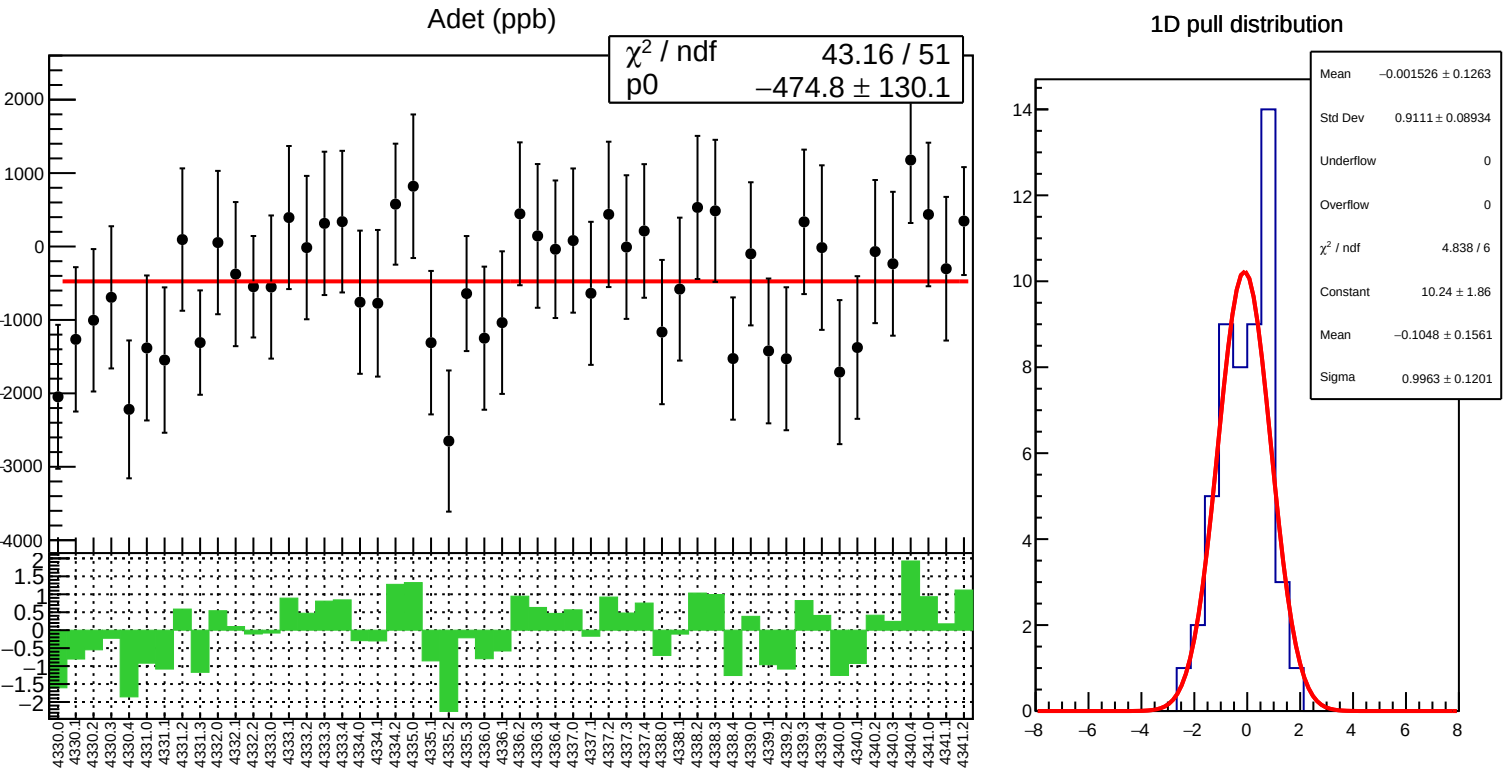
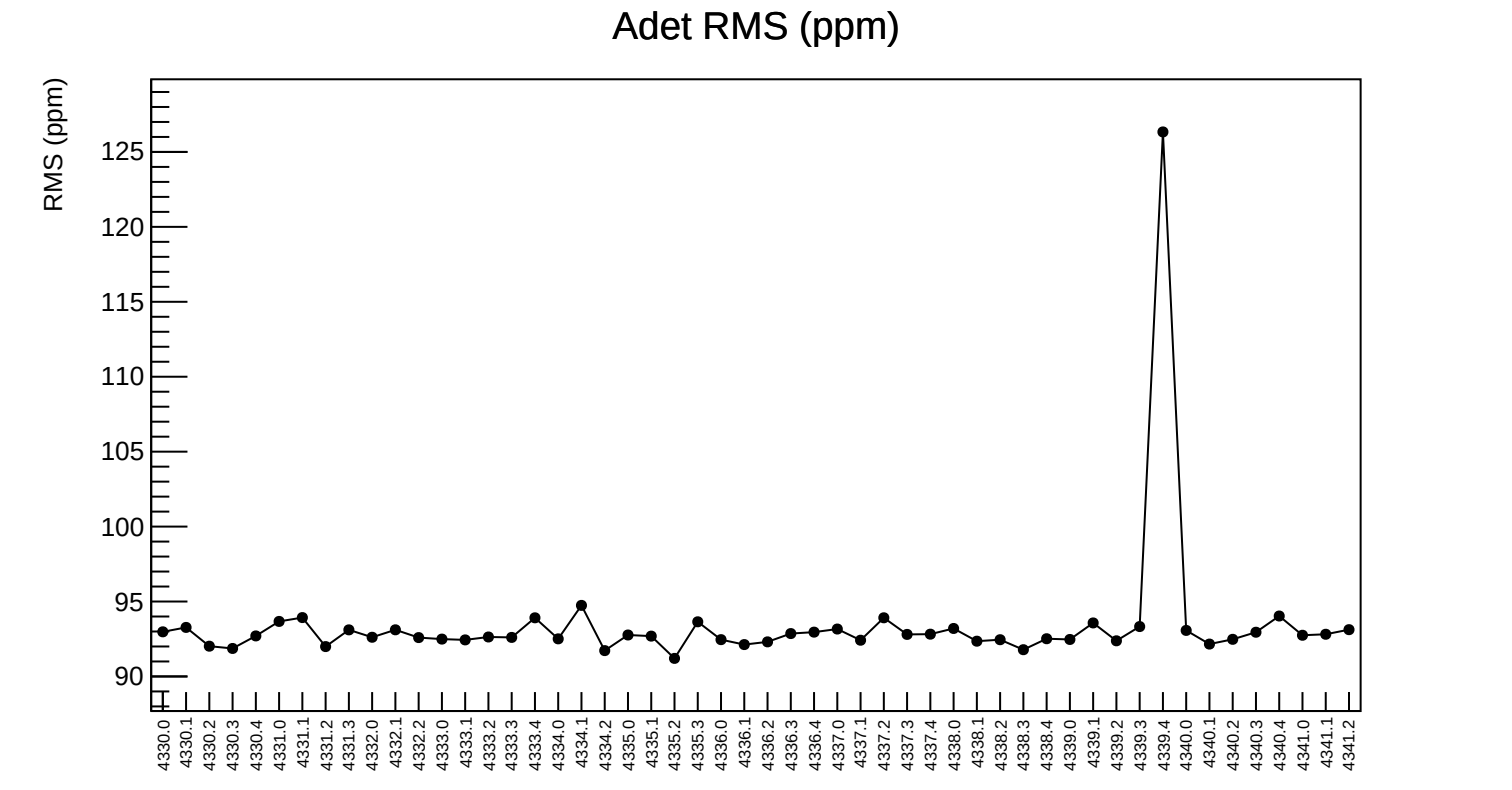
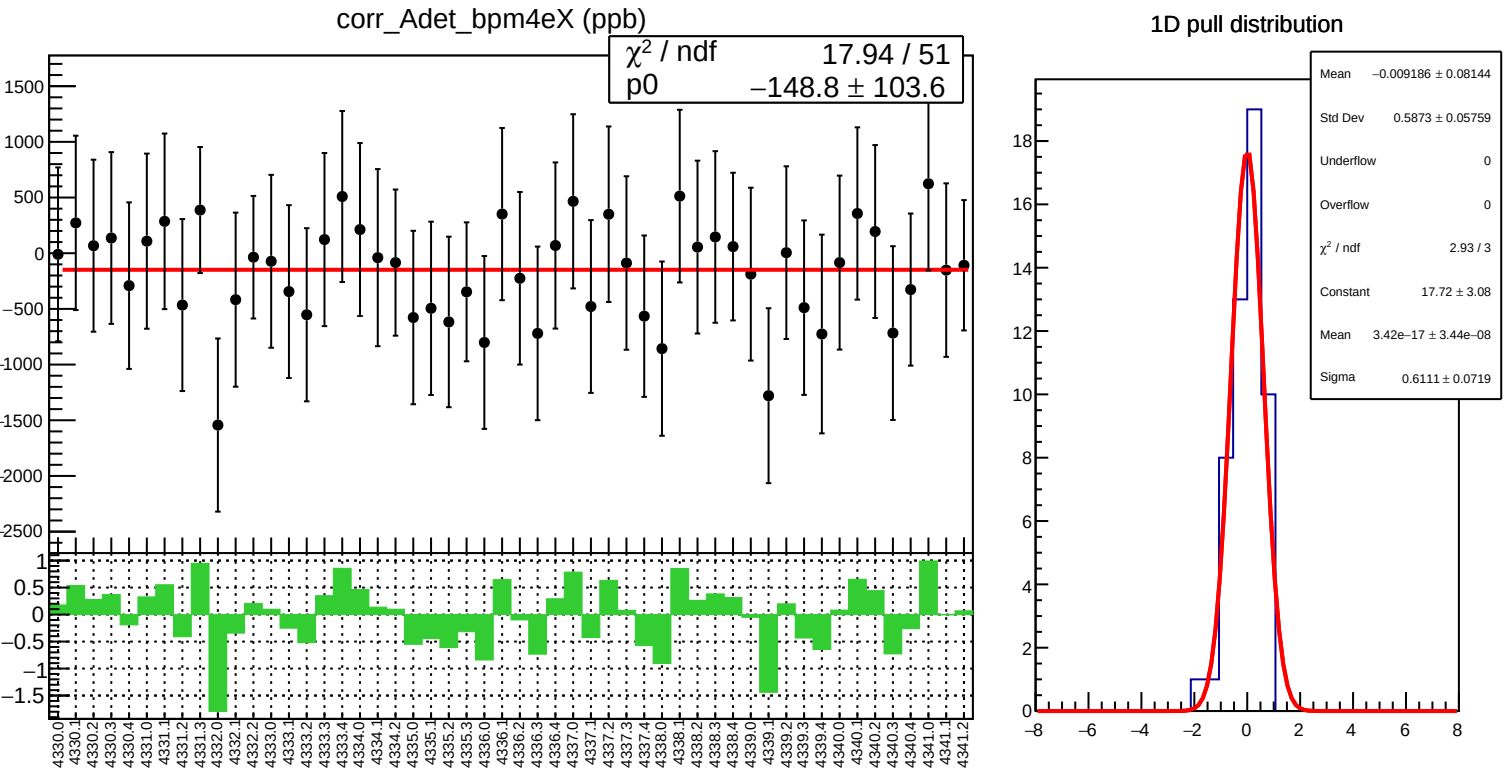
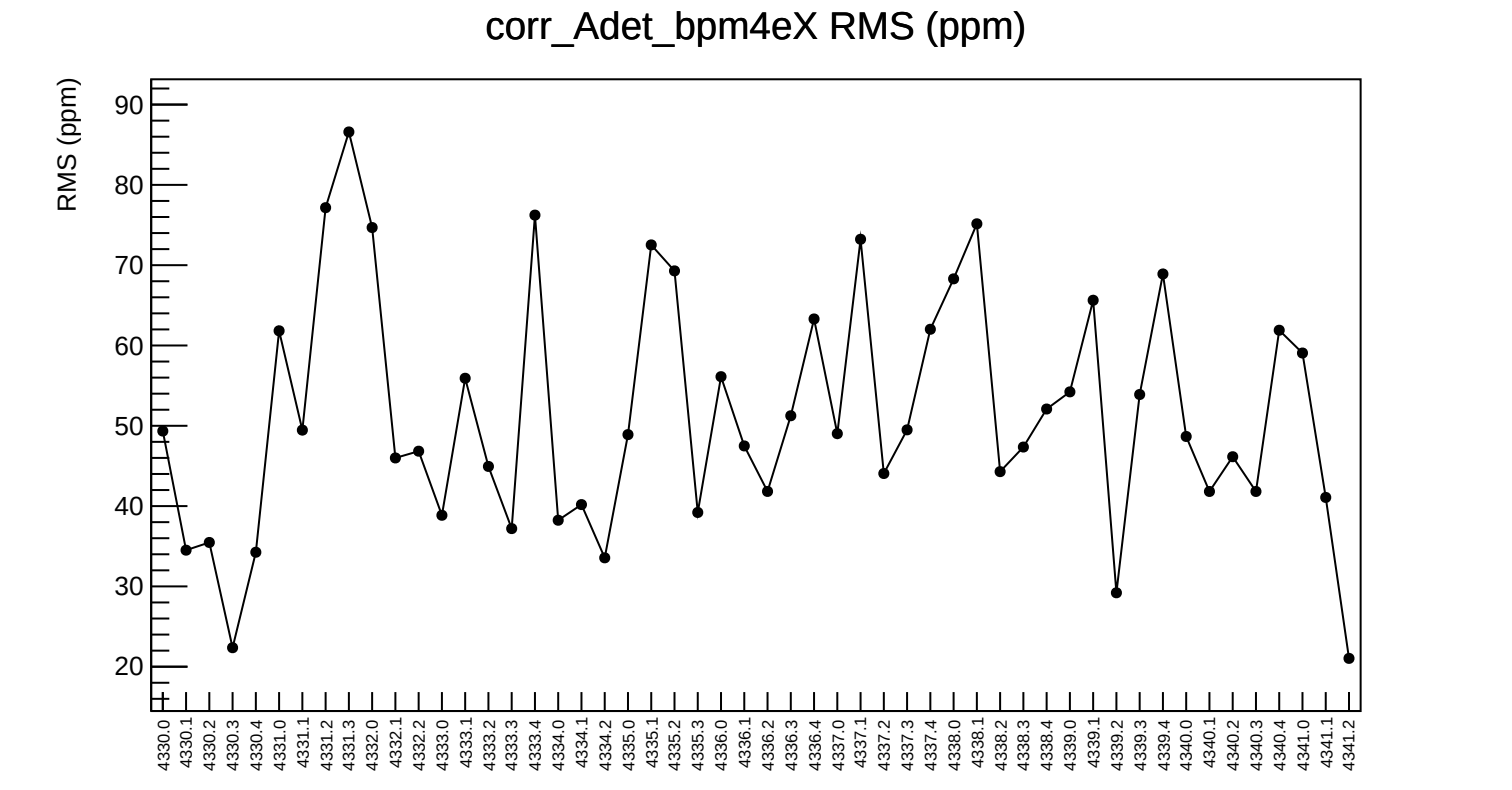
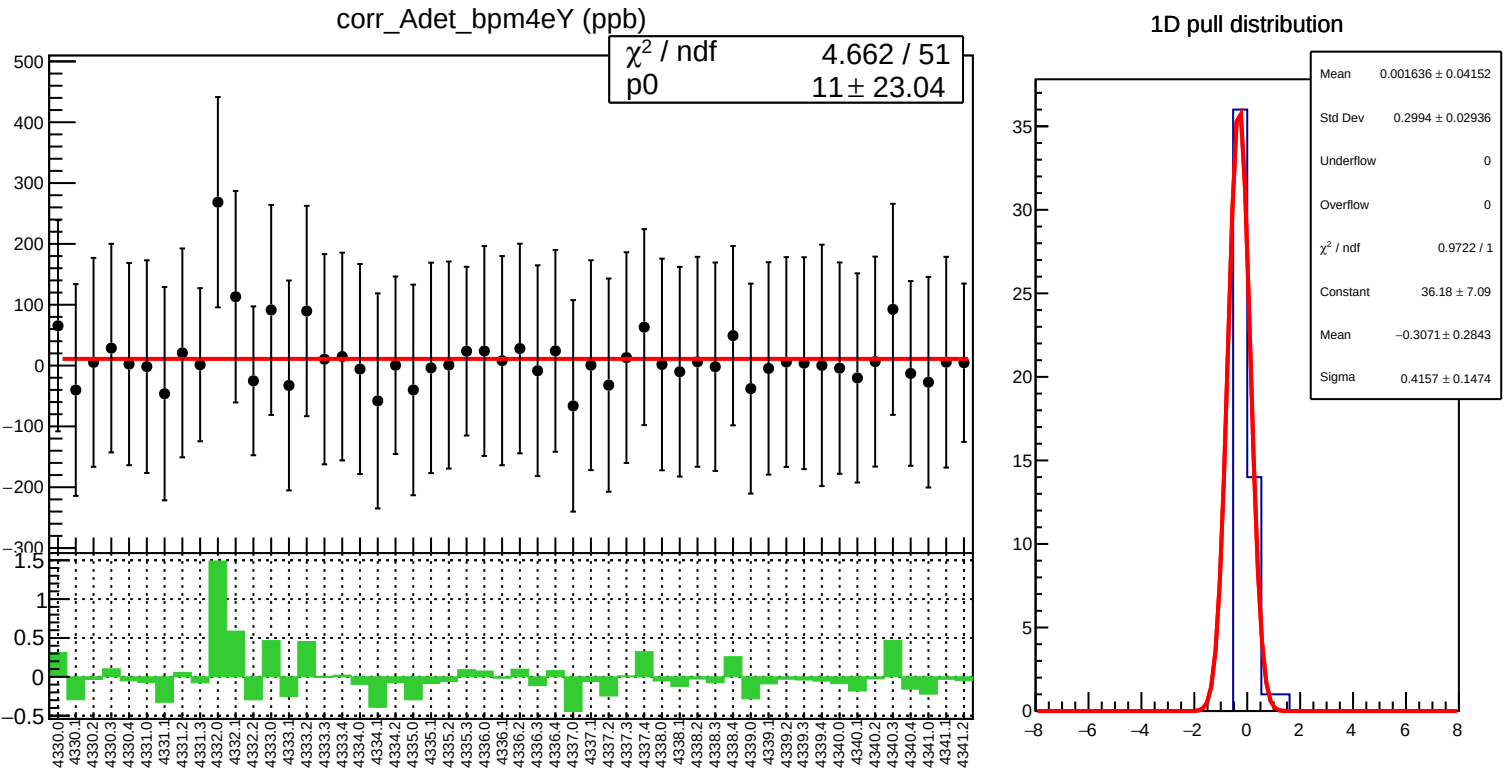
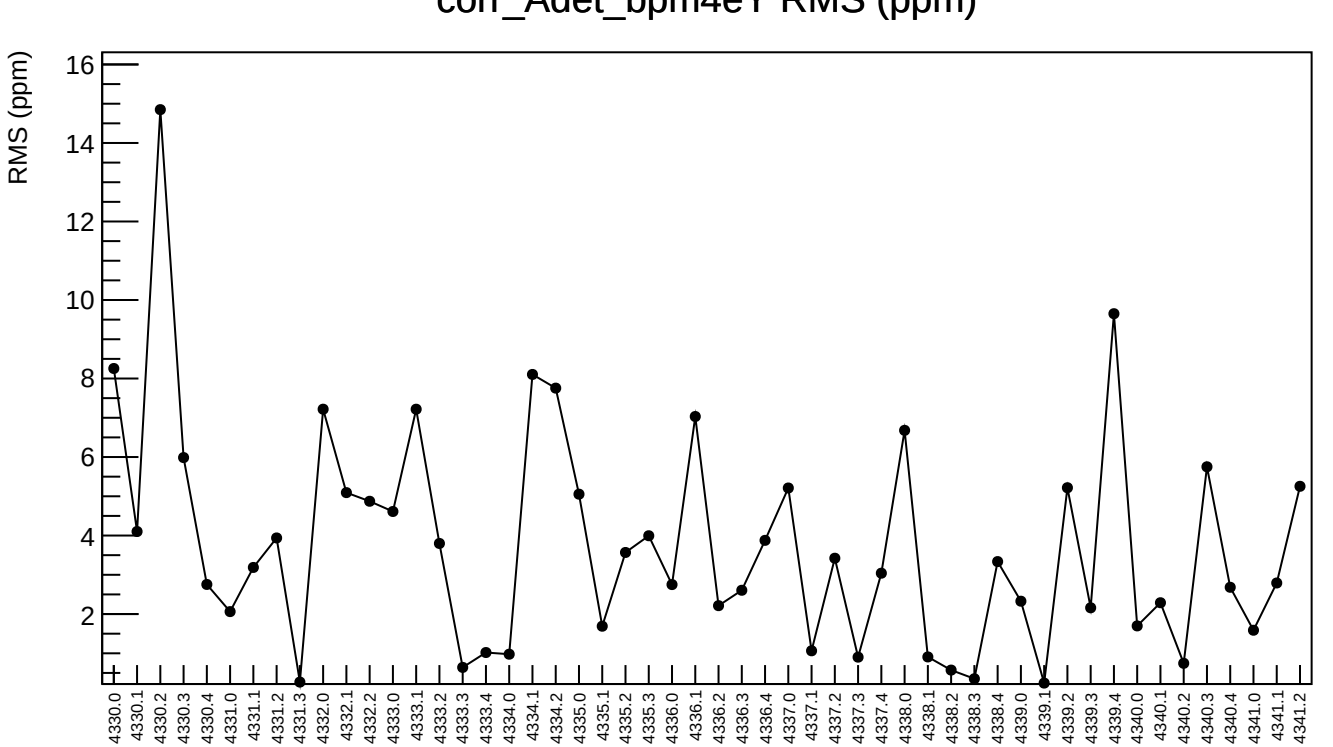

Adet (ppb)
χ² / ndf 43.16 / 51
p0 −474.8 ± 130.1
1D pull distribution
Mean −0.001526 ± 0.1263
Std Dev 0.9111 ± 0.08934
Underflow 0
Overflow 0
χ² / ndf 4.838 / 6
Constant 10.24 ± 1.86
Mean −0.1048 ± 0.1561
Sigma 0.9963 ± 0.1201

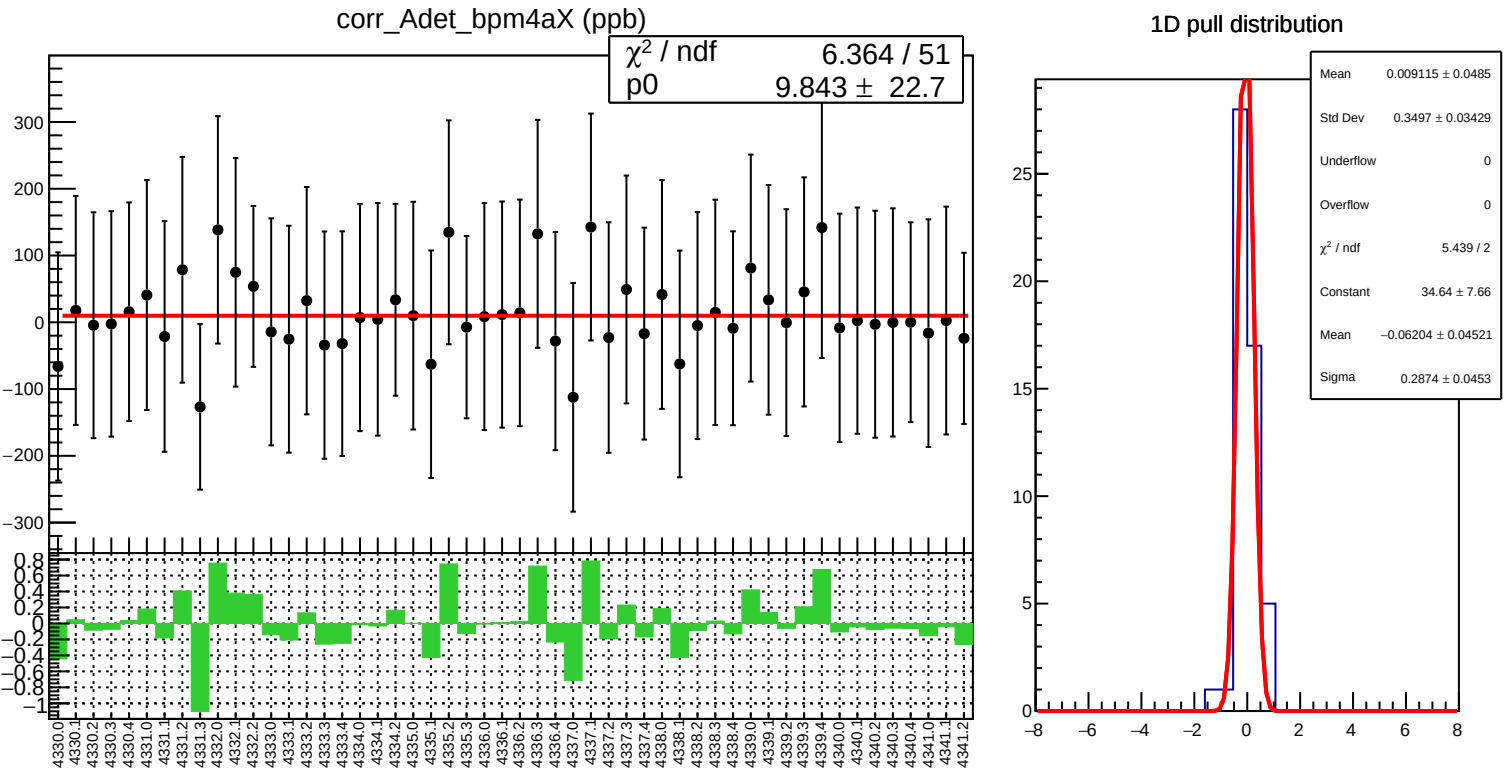

Adet RMS (ppm)
RMS (ppm)
125
120
115
110
105
100
95
90
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

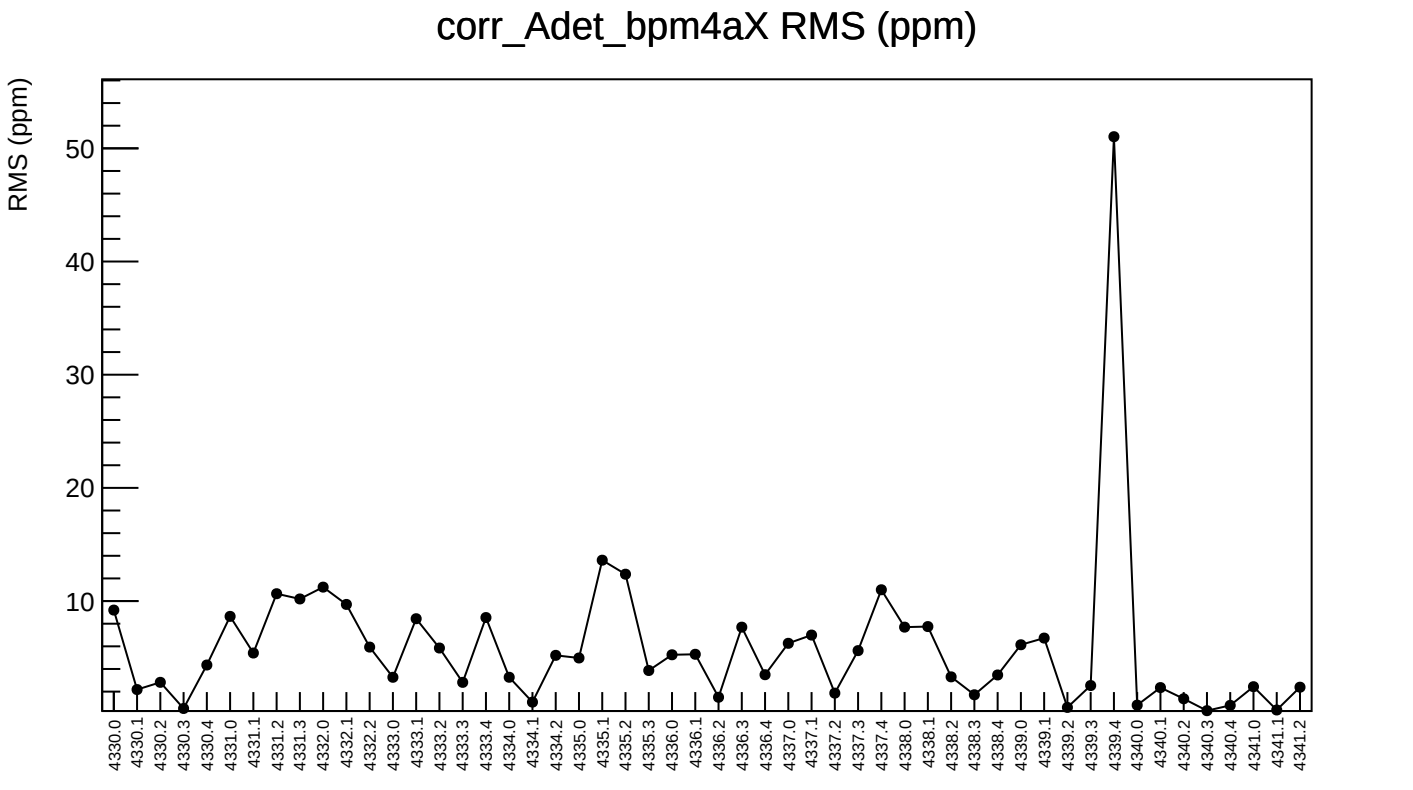

corr_Adet_bpm4eX (ppb)
χ² / ndf 17.94 / 51
p0 −148.8 ± 103.6
1500
1000
500
0
−500
−1000
−1500
−2000
−2500
1
0.5
0
−0.5
−1
−1.5
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2
1D pull distribution
Mean −0.009186 ± 0.08144
Std Dev 0.5873 ± 0.05759
Underflow 0
Overflow 0
χ² / ndf 2.93 / 3
Constant 17.72 ± 3.08
Mean 3.42e−17 ± 3.44e−08
Sigma 0.6111 ± 0.0719
18
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

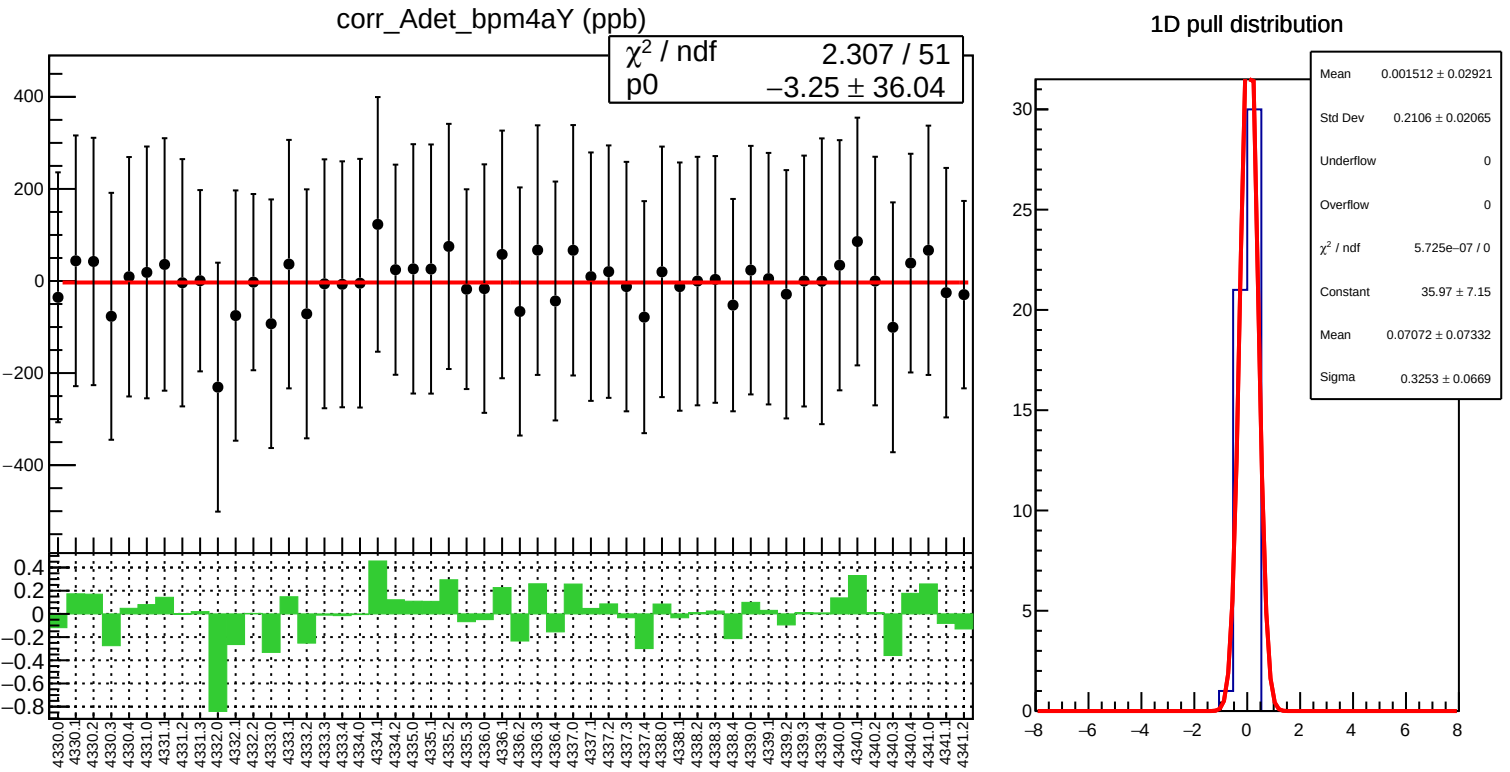

corr_Adet_bpm4eX RMS (ppm)
RMS (ppm)
90
80
70
60
50
40
30
20
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

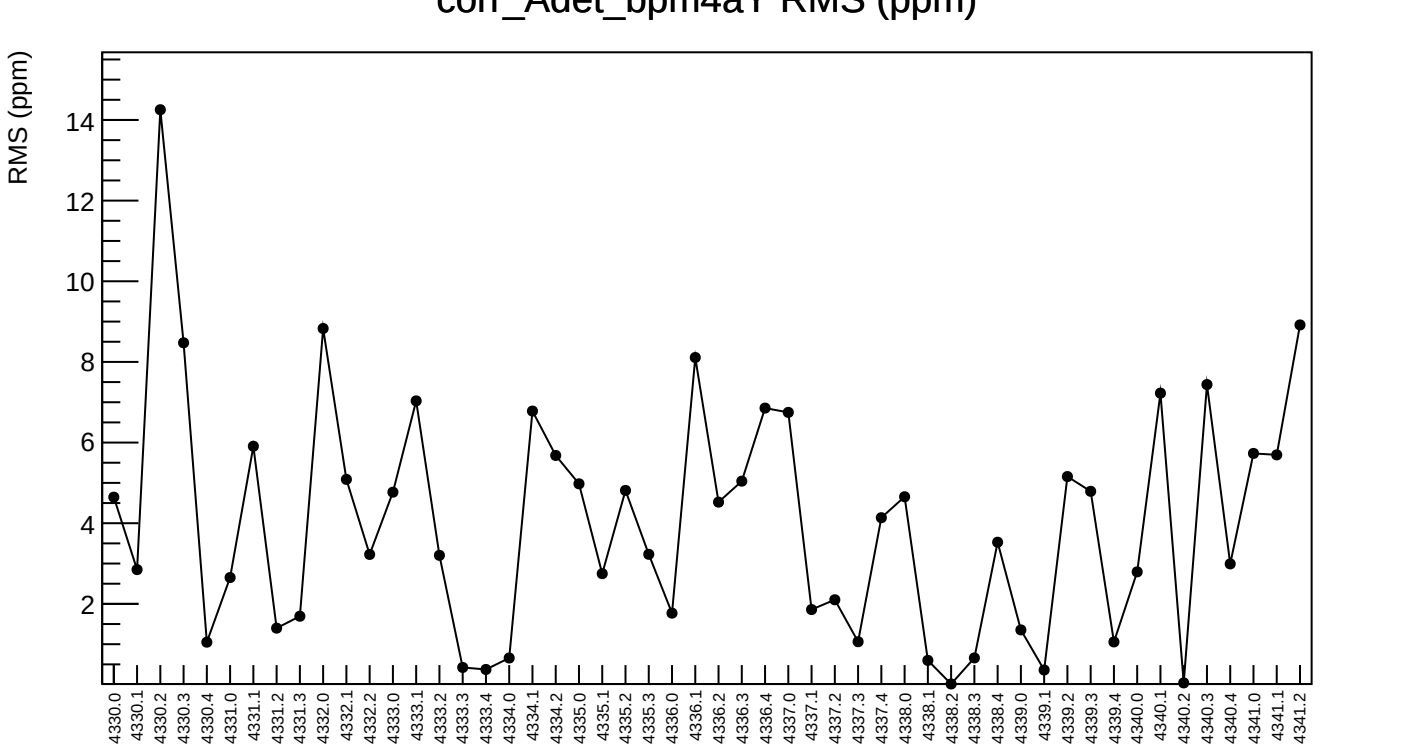

corr_Adet_bpm4eY (ppb)
χ² / ndf 4.662 / 51
p0 11 ± 23.04
1D pull distribution
Mean 0.001636 ± 0.04152
Std Dev 0.2994 ± 0.02936
Underflow 0
Overflow 0
χ² / ndf 0.9722 / 1
Constant 36.18 ± 7.09
Mean −0.3071 ± 0.2843
Sigma 0.4157 ± 0.1474

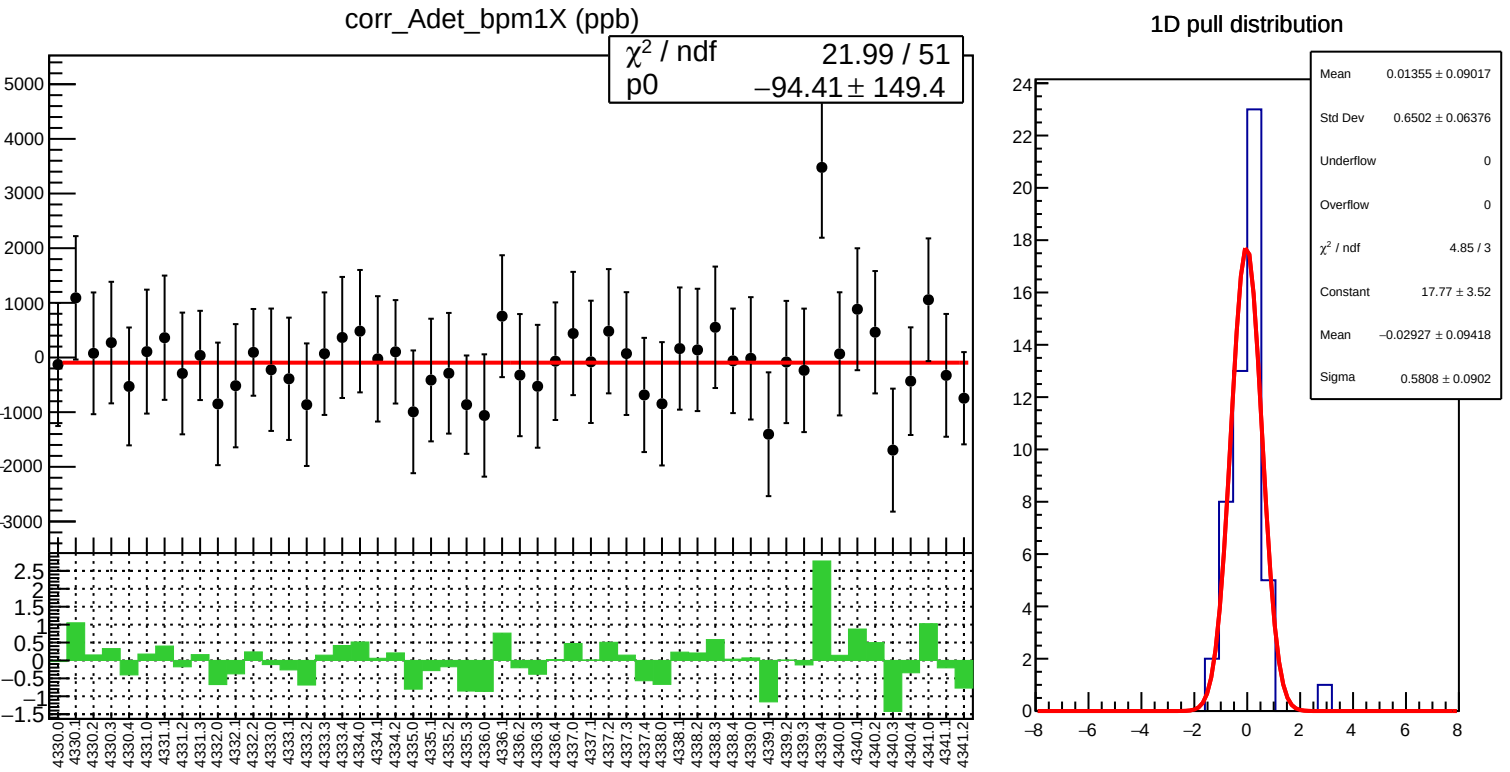

corr_Adet_bpm4eY RMS (ppm)
RMS (ppm)
16
14
12
10
8
6
4
2
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

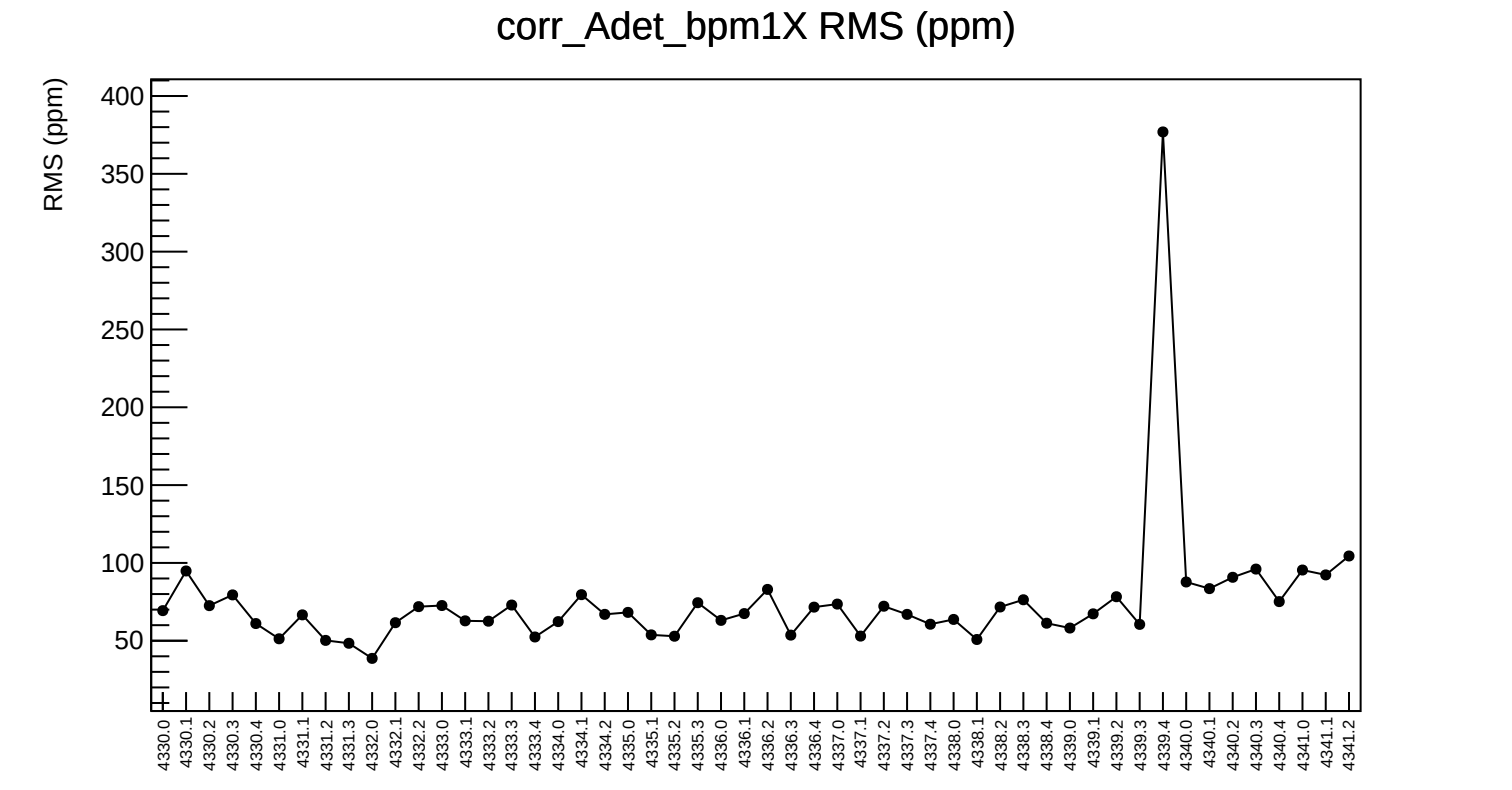

corr_Adet_bpm4aX (ppb)
χ² / ndf 6.364 / 51
p0 9.843 ± 22.7
1D pull distribution
Mean 0.009115 ± 0.0485
Std Dev 0.3497 ± 0.03429
Underflow 0
Overflow 0
χ² / ndf 5.439 / 2
Constant 34.64 ± 7.66
Mean −0.06204 ± 0.04521
Sigma 0.2874 ± 0.0453

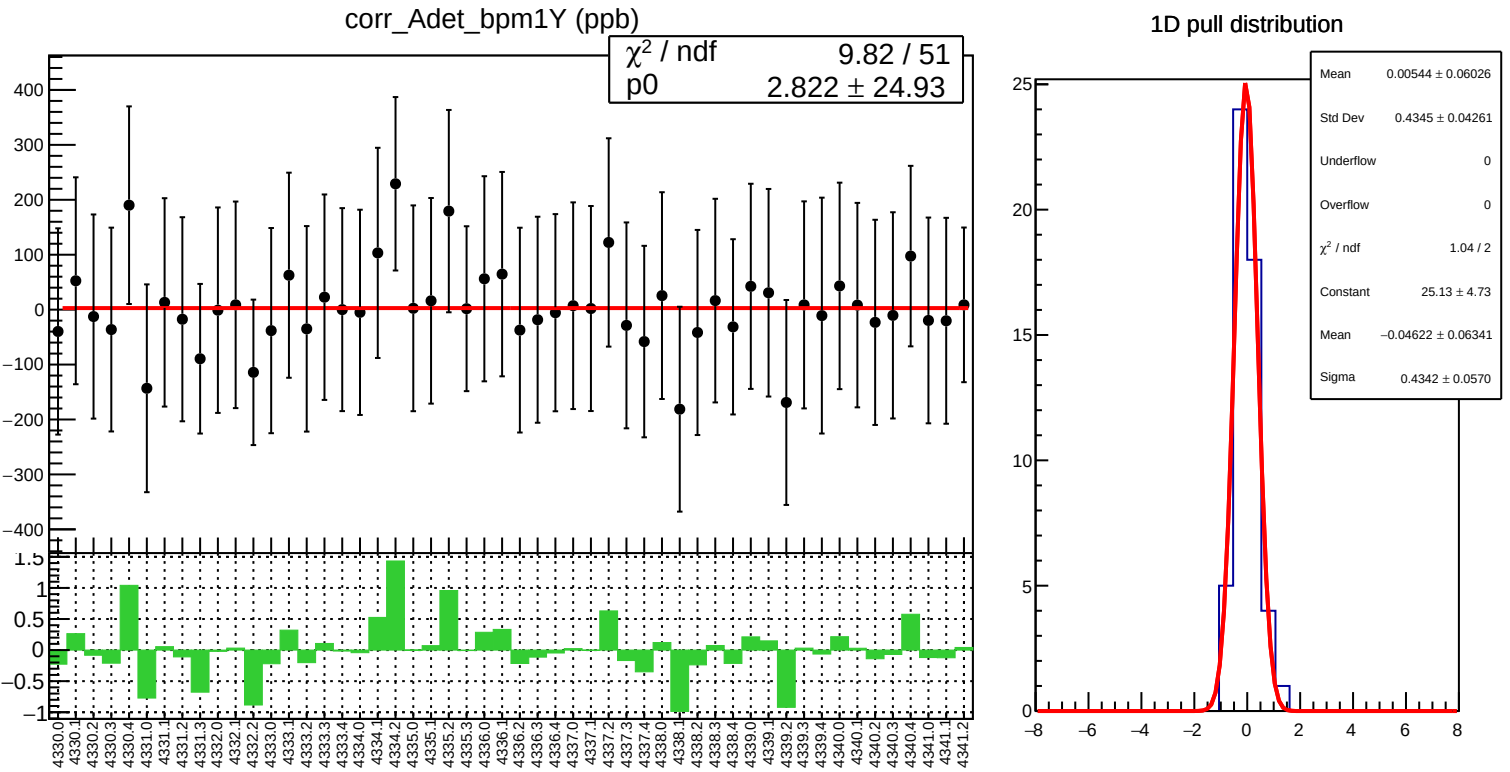

corr_Adet_bpm4aX RMS (ppm)
RMS (ppm)
50
40
30
20
10
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

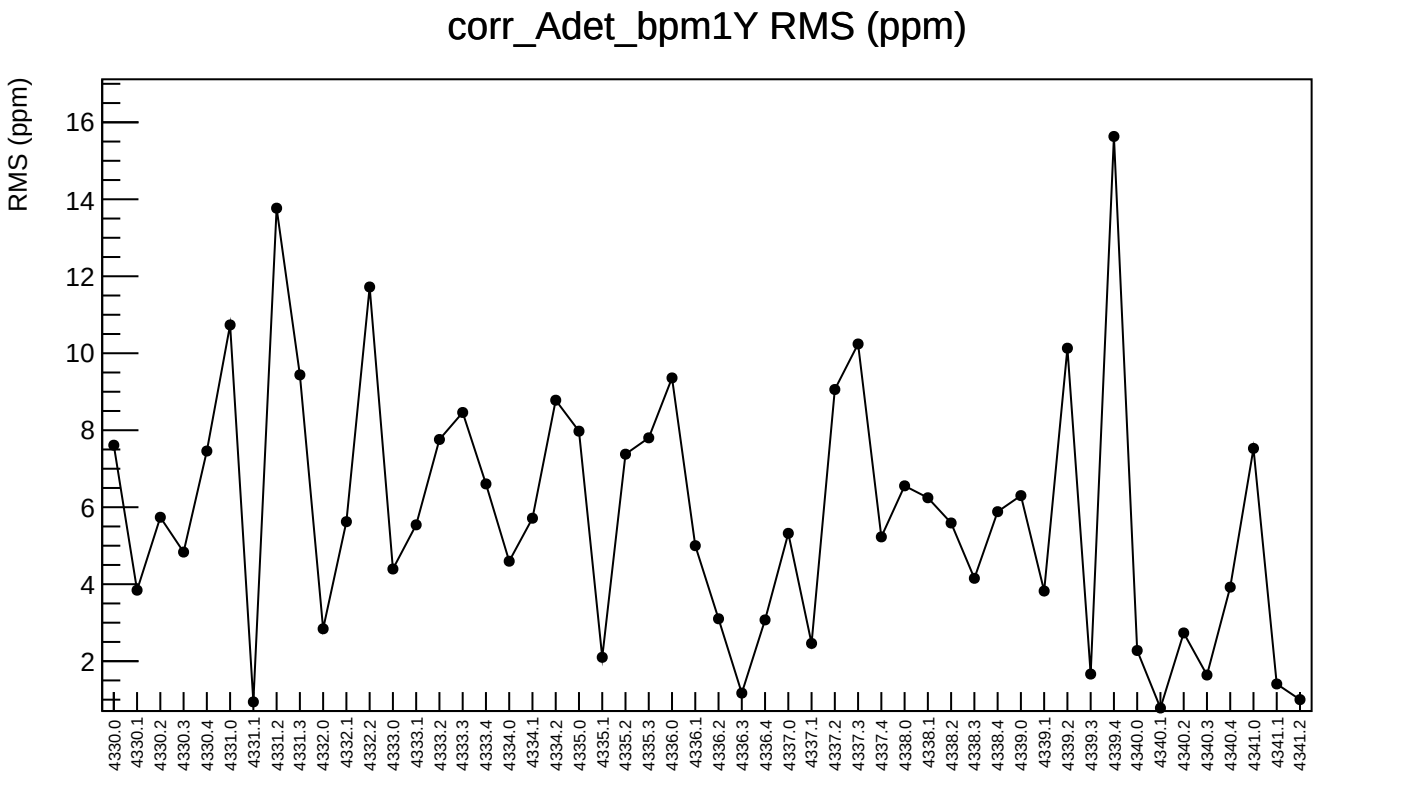

corr_Adet_bpm4aY (ppb)
χ² / ndf 2.307 / 51
p0 −3.25 ± 36.04
1D pull distribution
Mean 0.001512 ± 0.02921
Std Dev 0.2106 ± 0.02065
Underflow 0
Overflow 0
χ² / ndf 5.725e−07 / 0
Constant 35.97 ± 7.15
Mean 0.07072 ± 0.07332
Sigma 0.3253 ± 0.0669

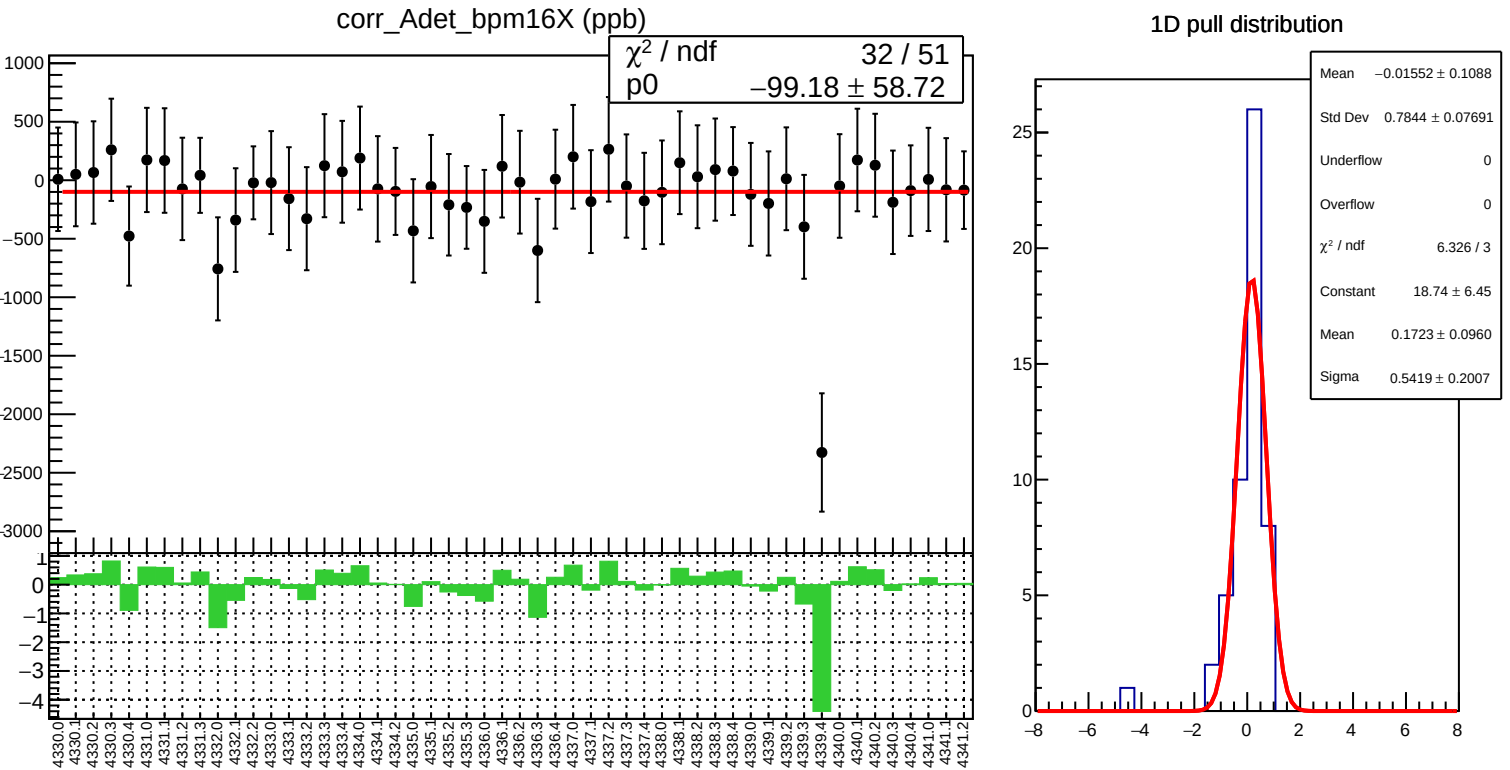

corr_Adet_bpm4aY RMS (ppm)
RMS (ppm)
14
12
10
8
6
4
2
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

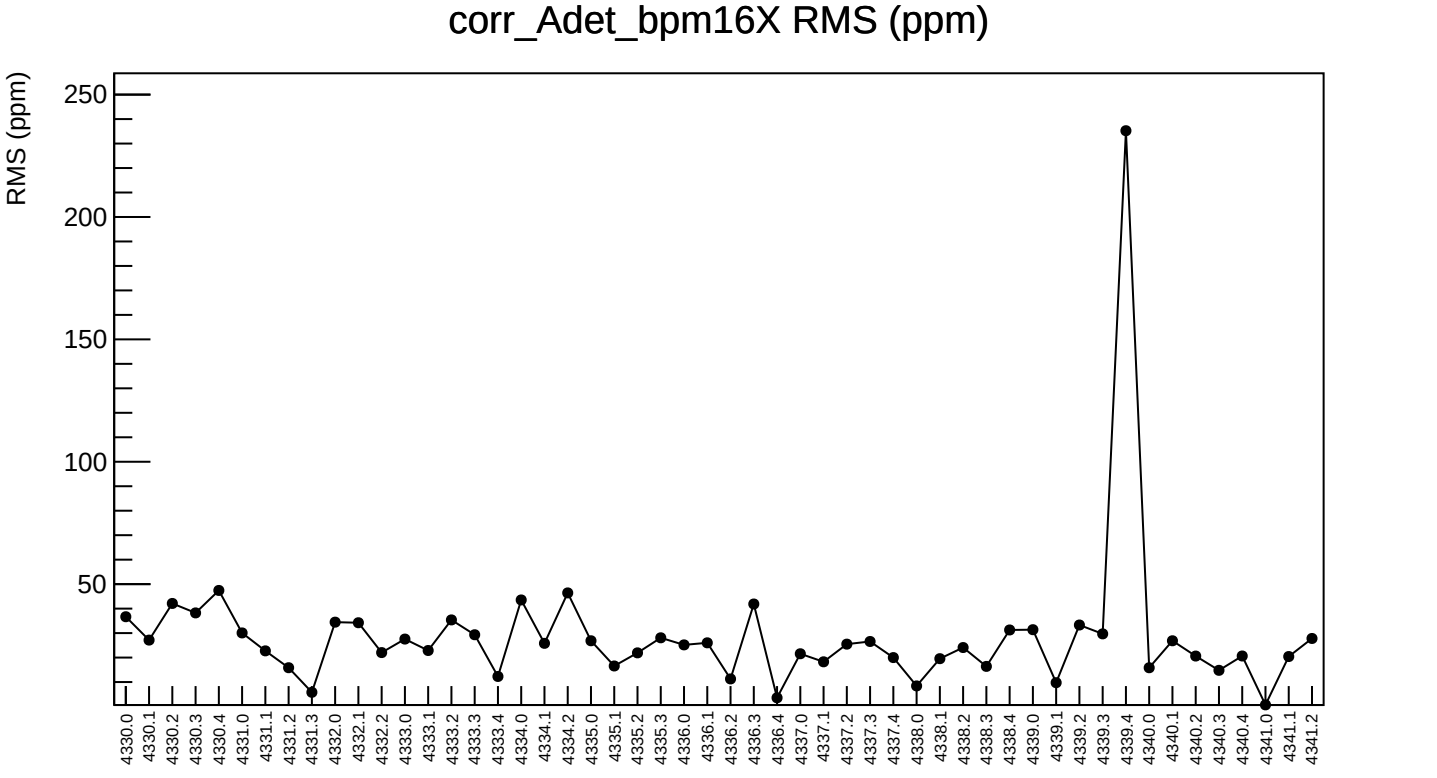

corr_Adet_bpm1X (ppb)
χ² / ndf 21.99 / 51
p0 −94.41 ± 149.4
1D pull distribution
Mean 0.01355 ± 0.09017
Std Dev 0.6502 ± 0.06376
Underflow 0
Overflow 0
χ² / ndf 4.85 / 3
Constant 17.77 ± 3.52
Mean −0.02927 ± 0.09418
Sigma 0.5808 ± 0.0902

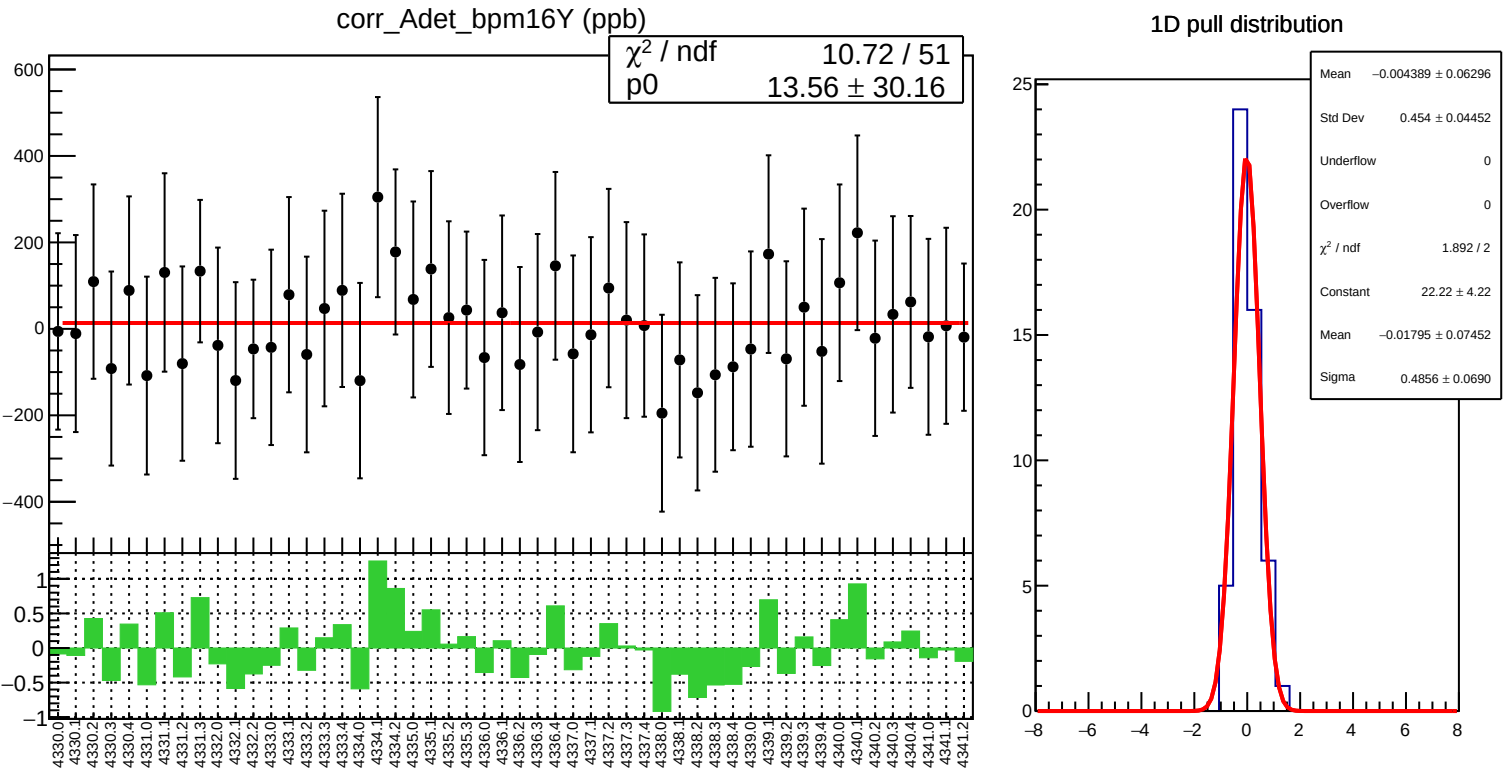

corr_Adet_bpm1X RMS (ppm)
RMS (ppm)
400
350
300
250
200
150
100
50
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

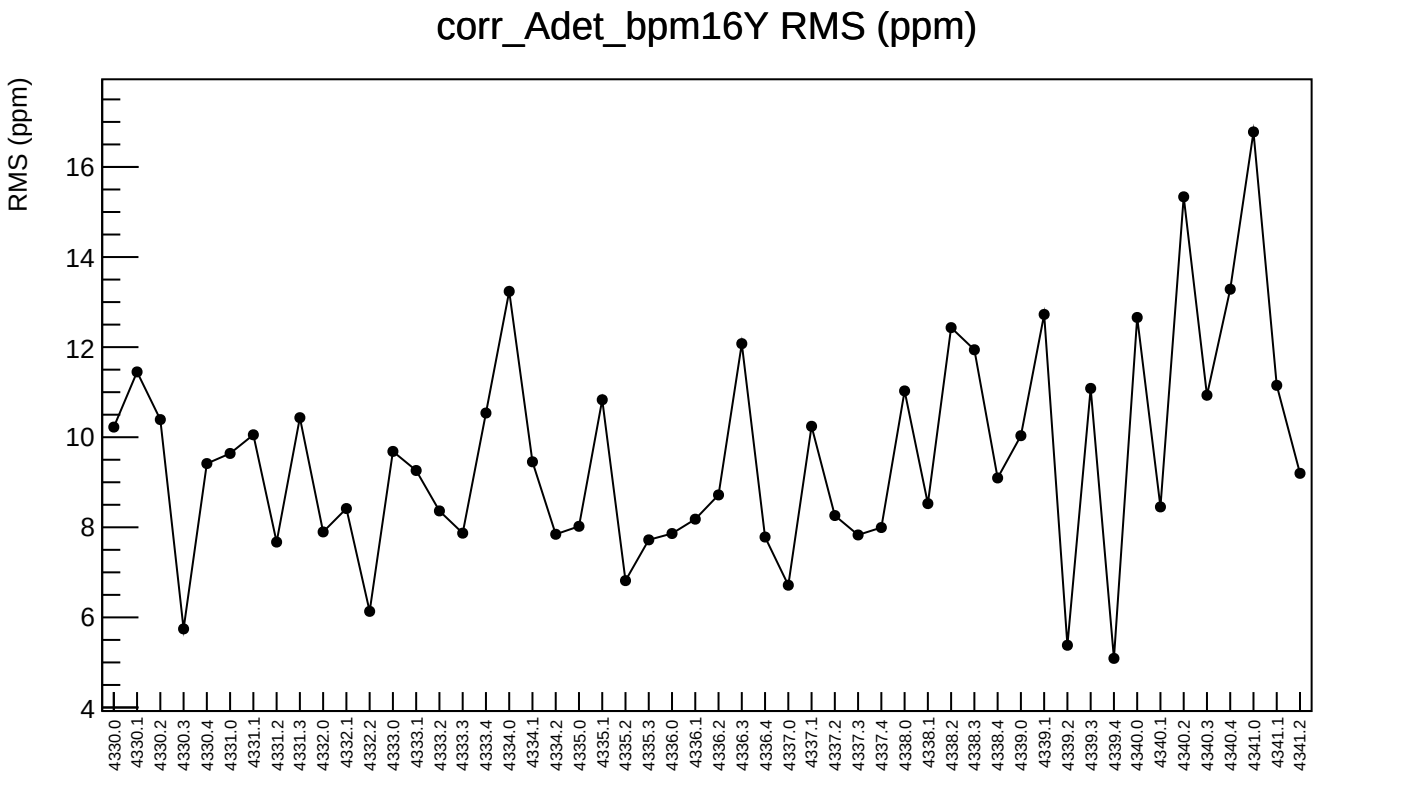

corr_Adet_bpm1Y (ppb)
χ² / ndf 9.82 / 51
p0 2.822 ± 24.93
1D pull distribution
Mean 0.00544 ± 0.06026
Std Dev 0.4345 ± 0.04261
Underflow 0
Overflow 0
χ² / ndf 1.04 / 2
Constant 25.13 ± 4.73
Mean −0.04622 ± 0.06341
Sigma 0.4342 ± 0.0570

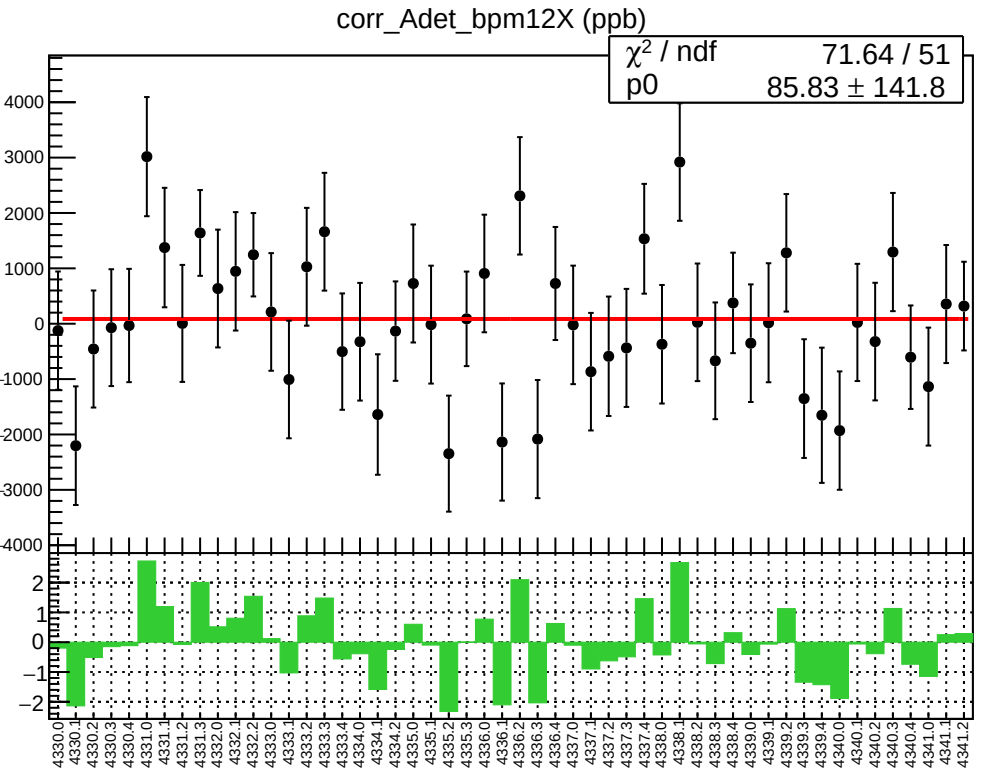

corr_Adet_bpm1Y RMS (ppm)
RMS (ppm)
16
14
12
10
8
6
4
2
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

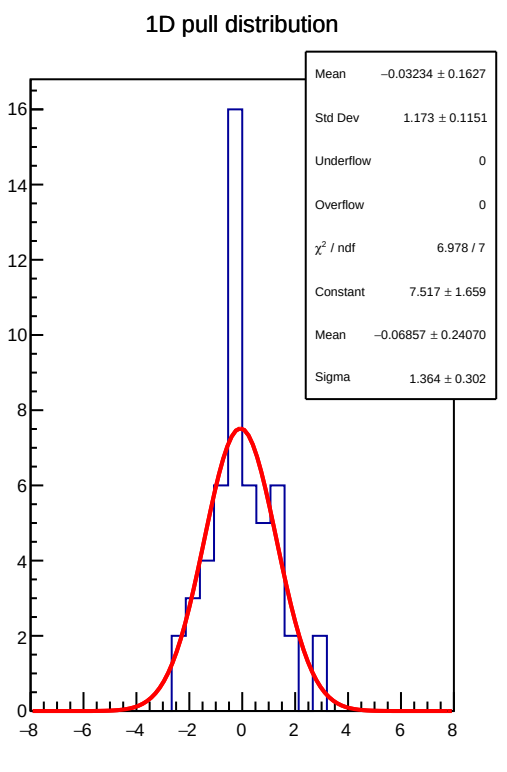

corr_Adet_bpm16X (ppb)
χ² / ndf 32 / 51
p0 −99.18 ± 58.72
1000
500
0
−500
−1000
−1500
−2000
−2500
−3000
1
0
−1
−2
−3
−4
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2
1D pull distribution
Mean −0.01552 ± 0.1088
Std Dev 0.7844 ± 0.07691
Underflow 0
Overflow 0
χ² / ndf 6.326 / 3
Constant 18.74 ± 6.45
Mean 0.1723 ± 0.0960
Sigma 0.5419 ± 0.2007
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

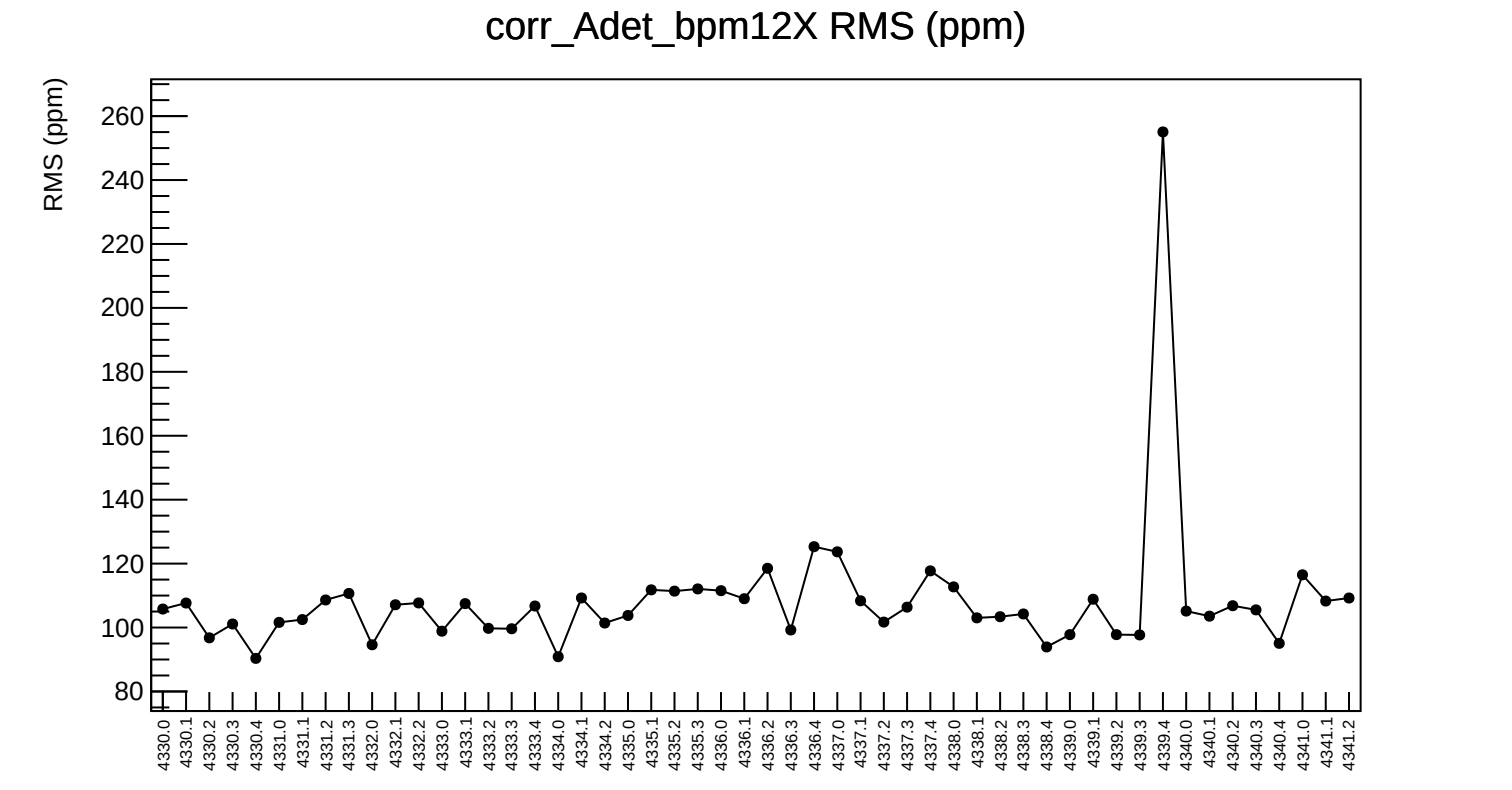

corr_Adet_bpm16X RMS (ppm)
RMS (ppm)
250
200
150
100
50
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

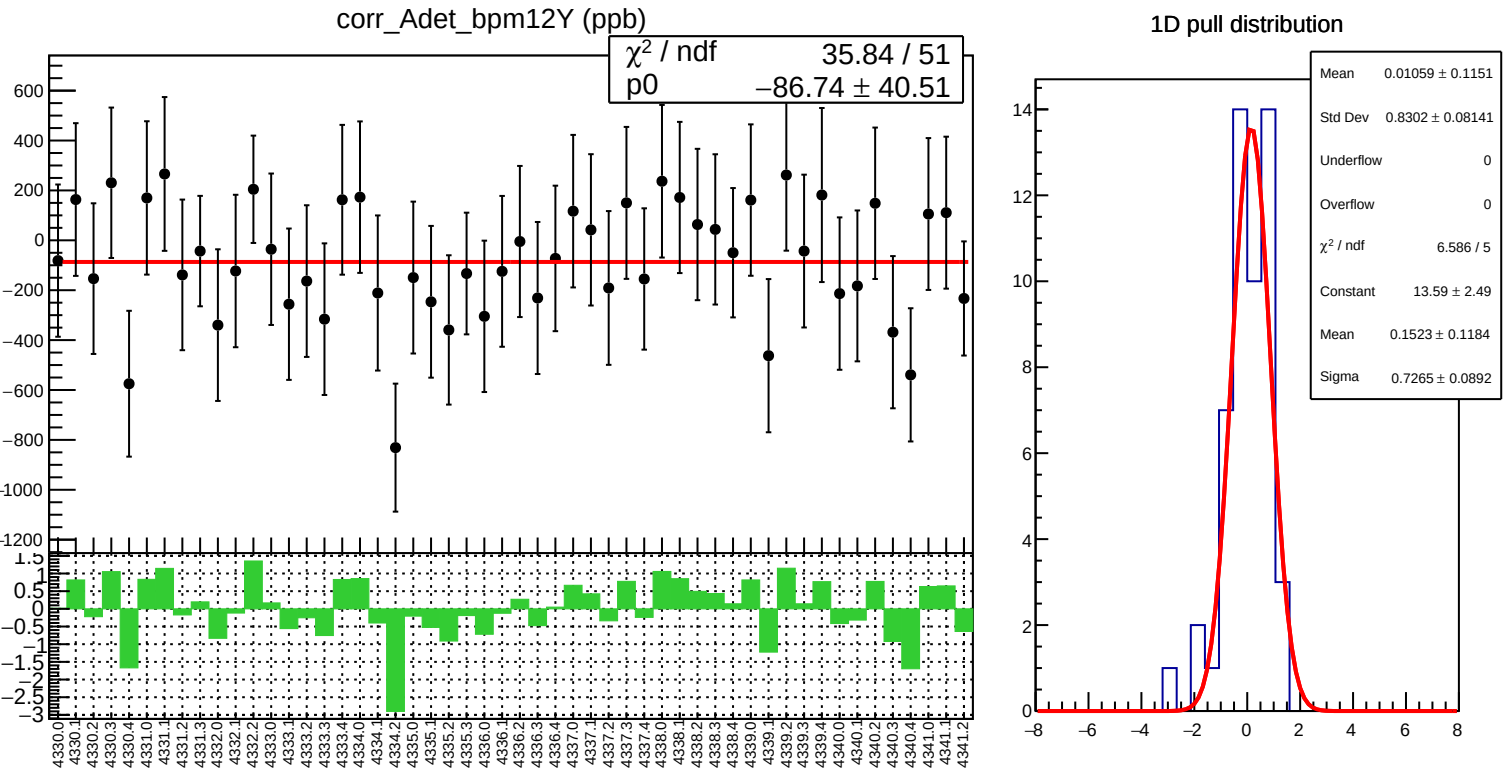

corr_Adet_bpm16Y (ppb)
χ² / ndf 10.72 / 51
p0 13.56 ± 30.16
1D pull distribution
Mean −0.004389 ± 0.06296
Std Dev 0.454 ± 0.04452
Underflow 0
Overflow 0
χ² / ndf 1.892 / 2
Constant 22.22 ± 4.22
Mean −0.01795 ± 0.07452
Sigma 0.4856 ± 0.0690

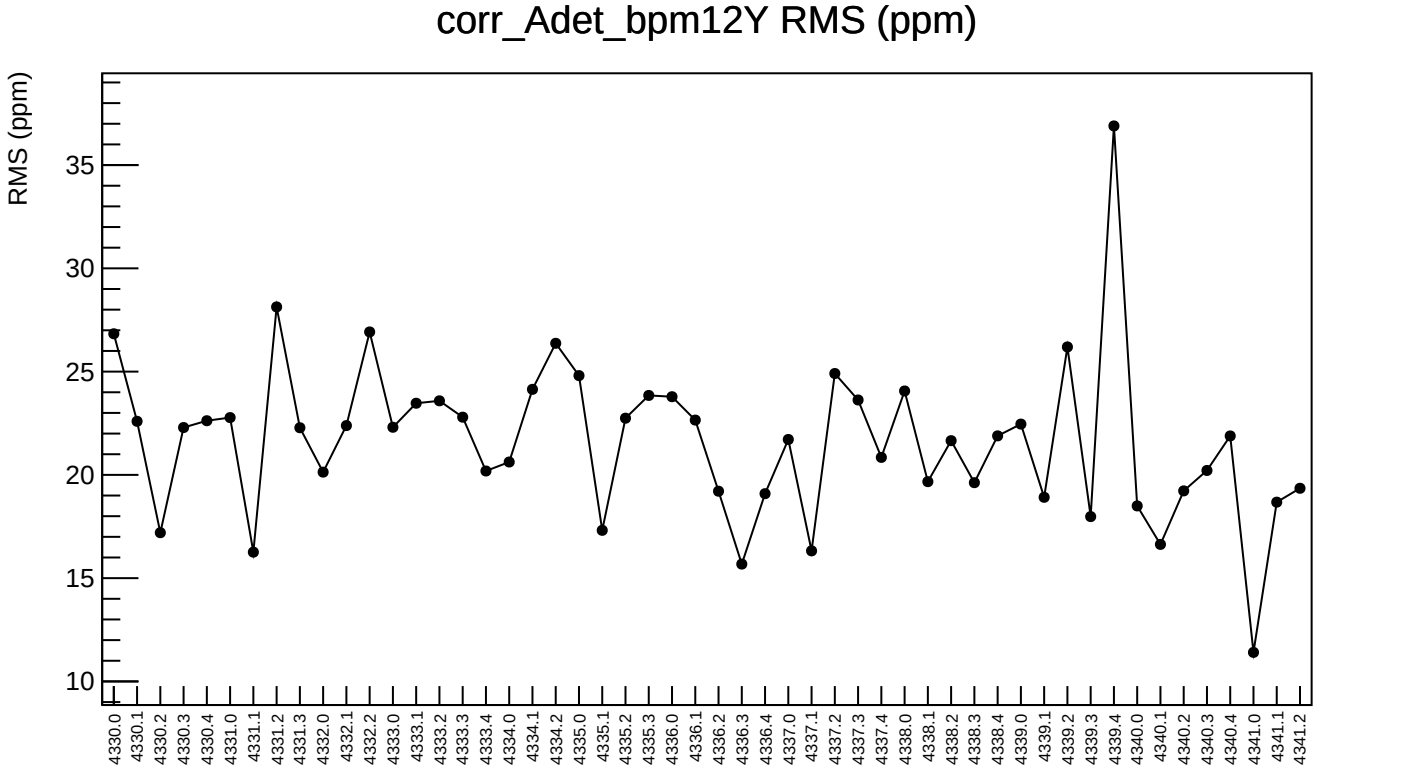

corr_Adet_bpm16Y RMS (ppm)
RMS (ppm)
4
6
8
10
12
14
16
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

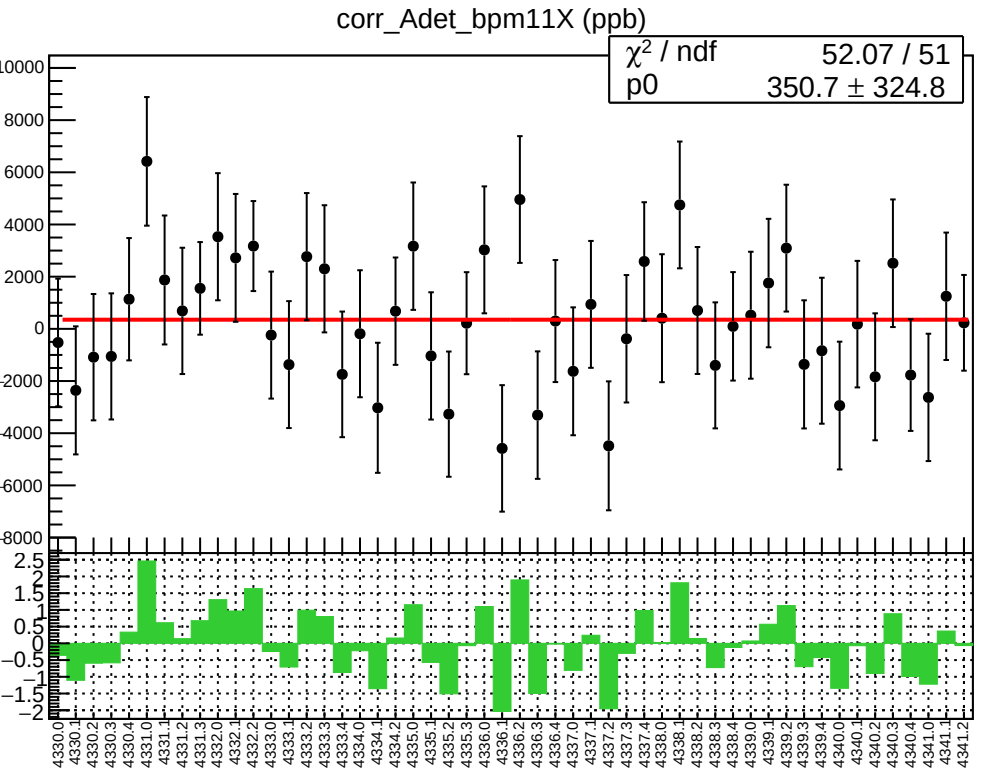

corr_Adet_bpm12X (ppb)
χ² / ndf 71.64 / 51
p0 85.83 ± 141.8

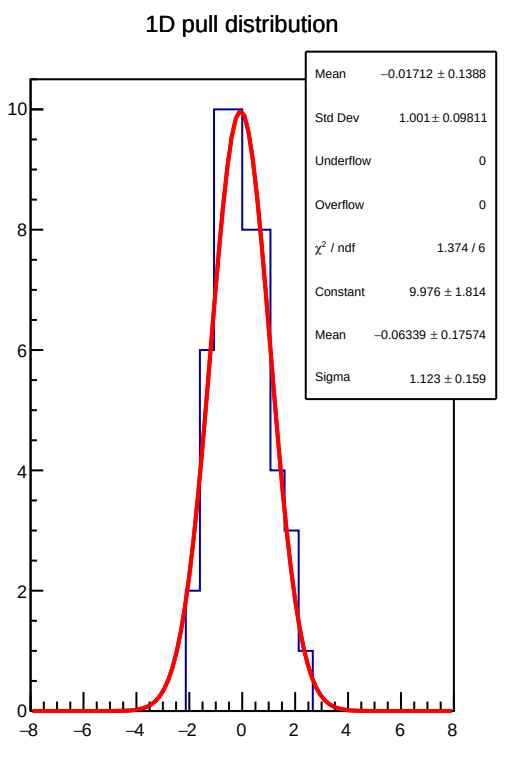

1D pull distribution
Mean −0.03234 ± 0.1627
Std Dev 1.173 ± 0.1151
Underflow 0
Overflow 0
χ² / ndf 6.978 / 7
Constant 7.517 ± 1.659
Mean −0.06857 ± 0.24070
Sigma 1.364 ± 0.302

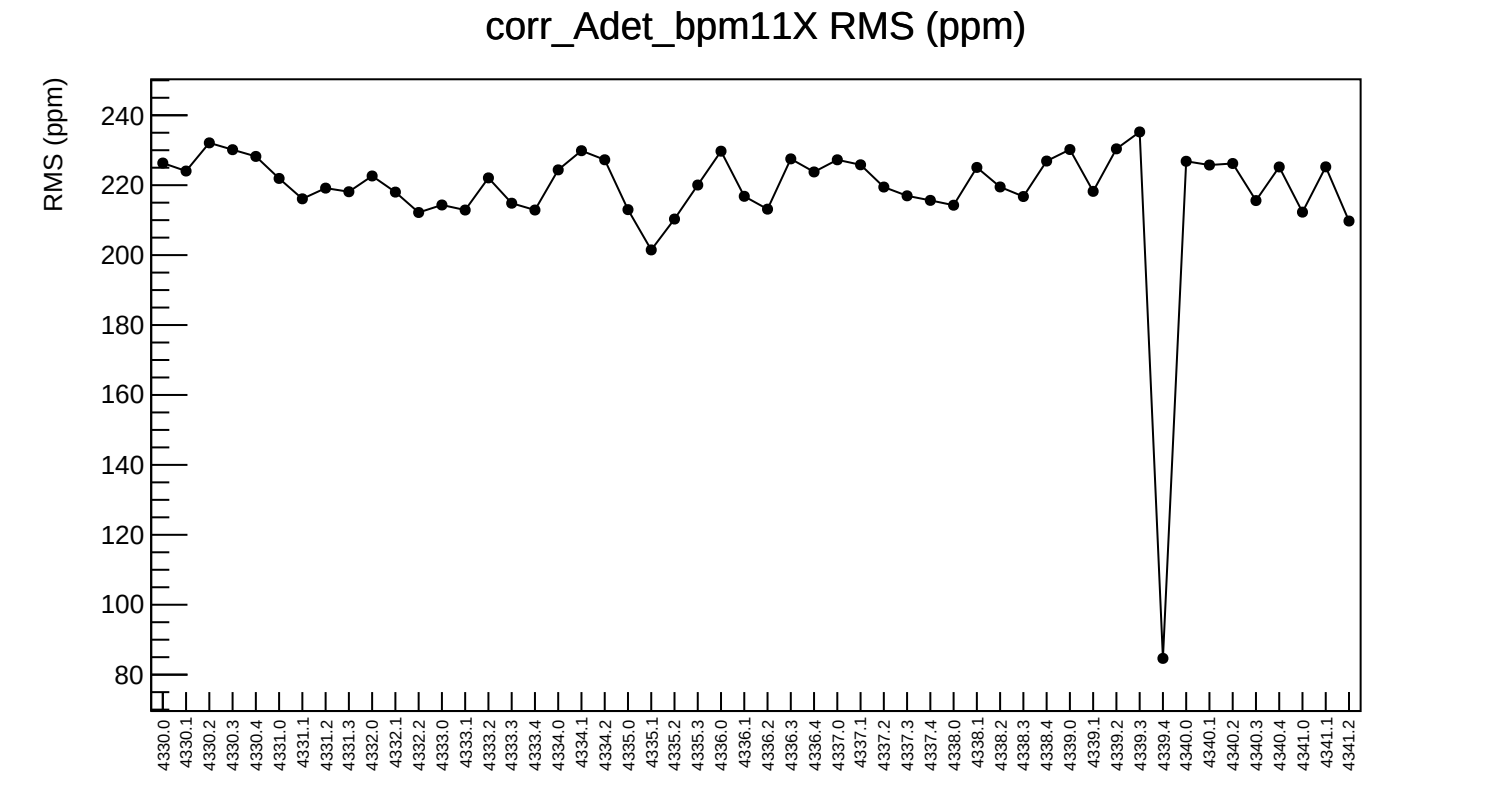

corr_Adet_bpm12X RMS (ppm)
RMS (ppm)
260
240
220
200
180
160
140
120
100
80
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

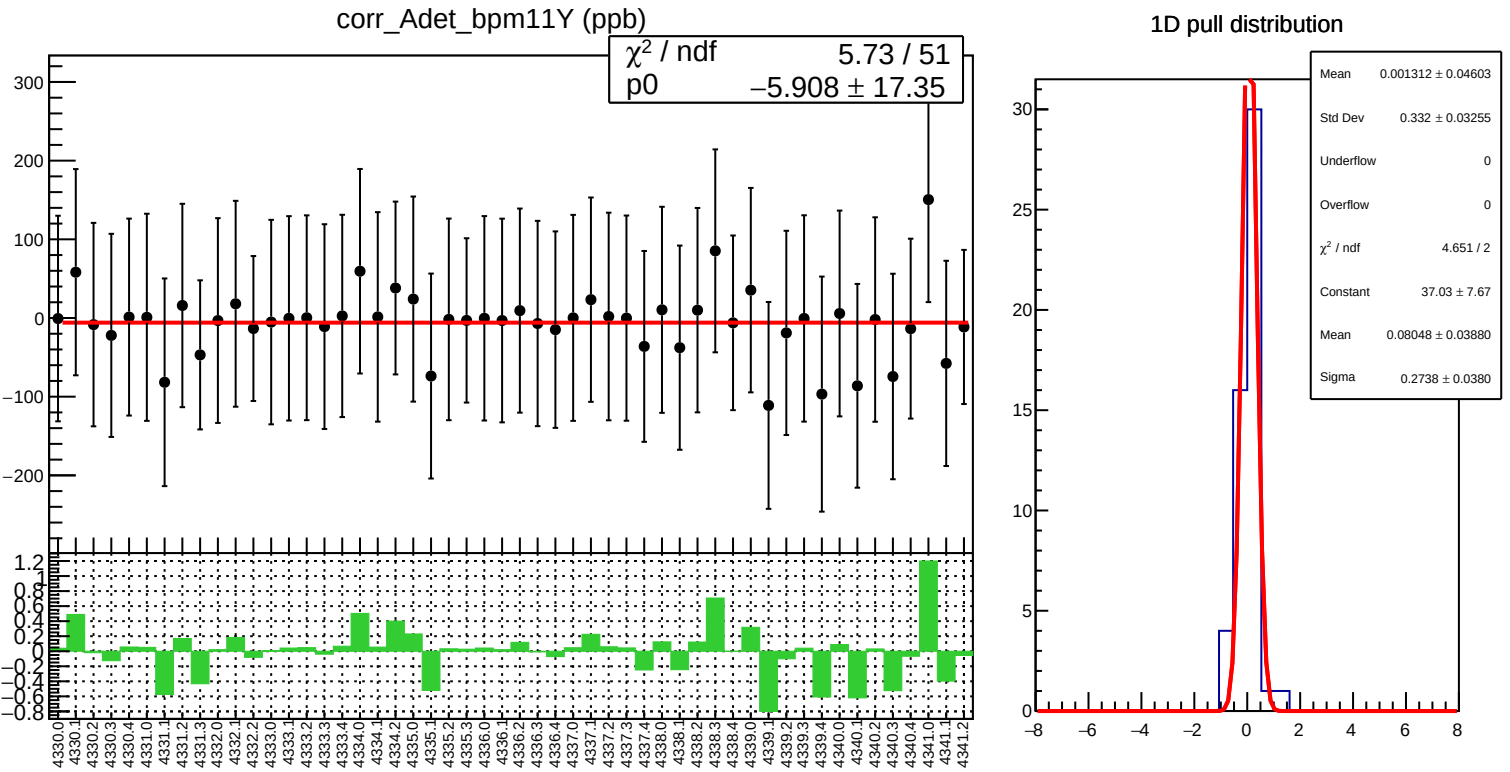

corr_Adet_bpm12Y (ppb)
χ² / ndf 35.84 / 51
p0 −86.74 ± 40.51
1D pull distribution
Mean 0.01059 ± 0.1151
Std Dev 0.8302 ± 0.08141
Underflow 0
Overflow 0
χ² / ndf 6.586 / 5
Constant 13.59 ± 2.49
Mean 0.1523 ± 0.1184
Sigma 0.7265 ± 0.0892

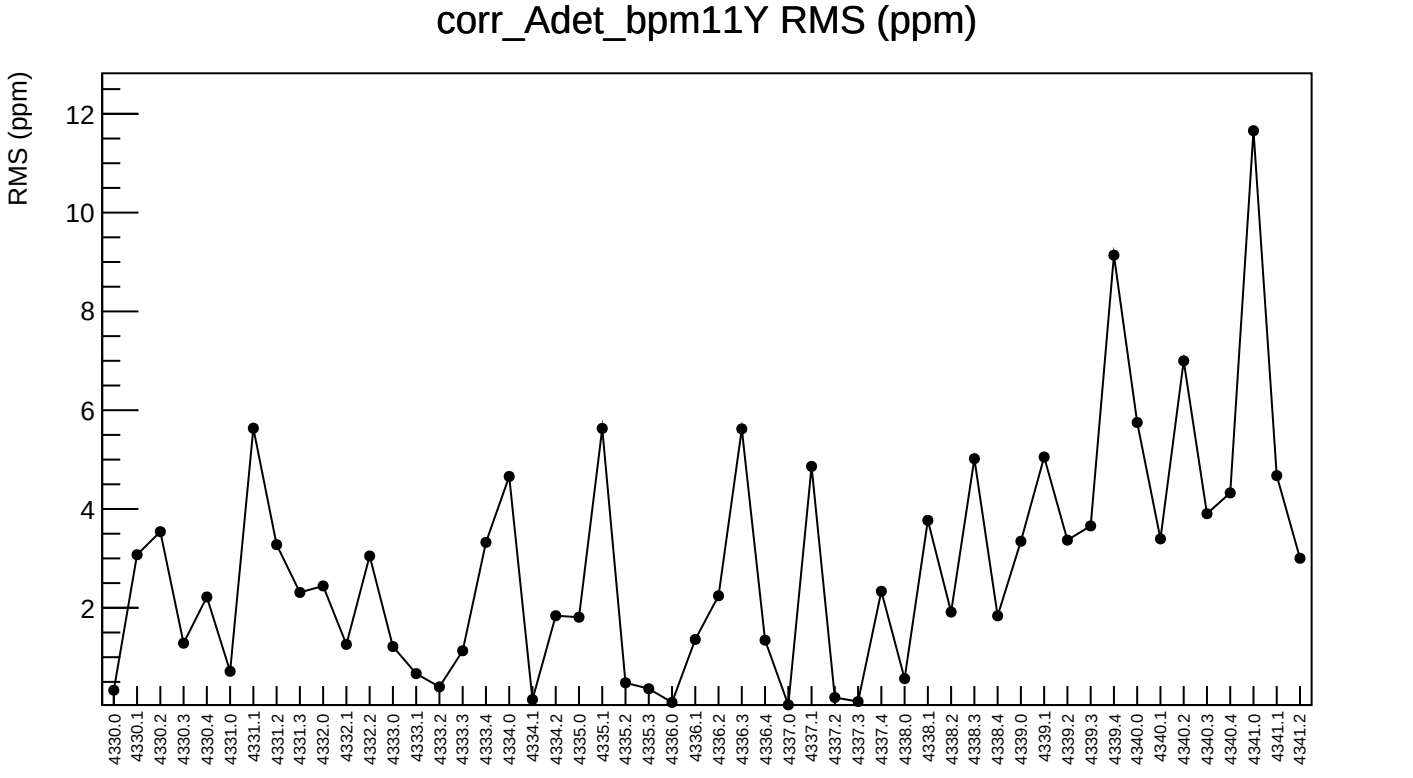

corr_Adet_bpm12Y RMS (ppm)
RMS (ppm)
10
15
20
25
30
35
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

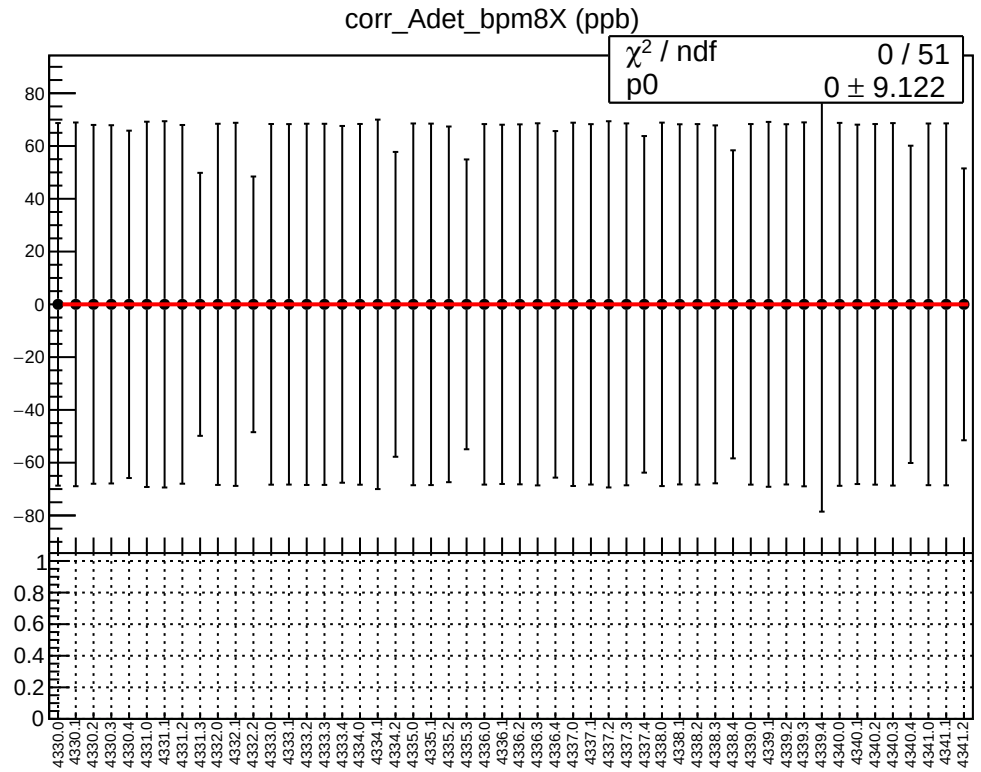

corr_Adet_bpm11X (ppb)
χ² / ndf 52.07 / 51
p0 350.7 ± 324.8

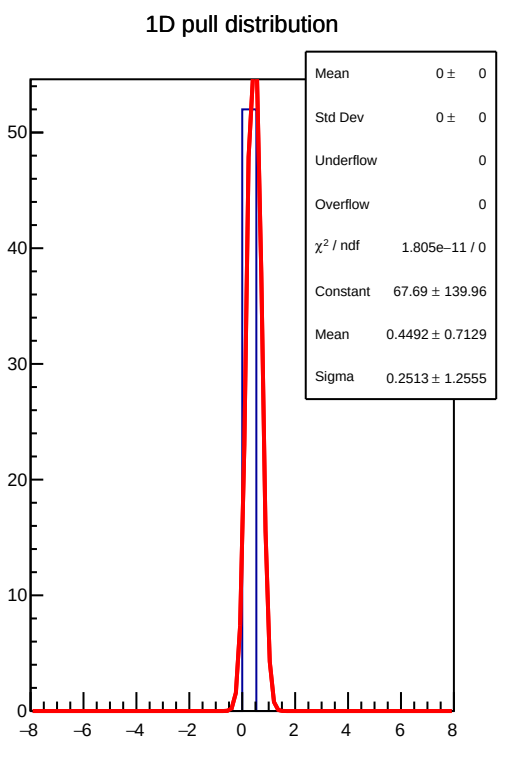

1D pull distribution
Mean −0.01712 ± 0.1388
Std Dev 1.001 ± 0.09811
Underflow 0
Overflow 0
χ² / ndf 1.374 / 6
Constant 9.976 ± 1.814
Mean −0.06339 ± 0.17574
Sigma 1.123 ± 0.159

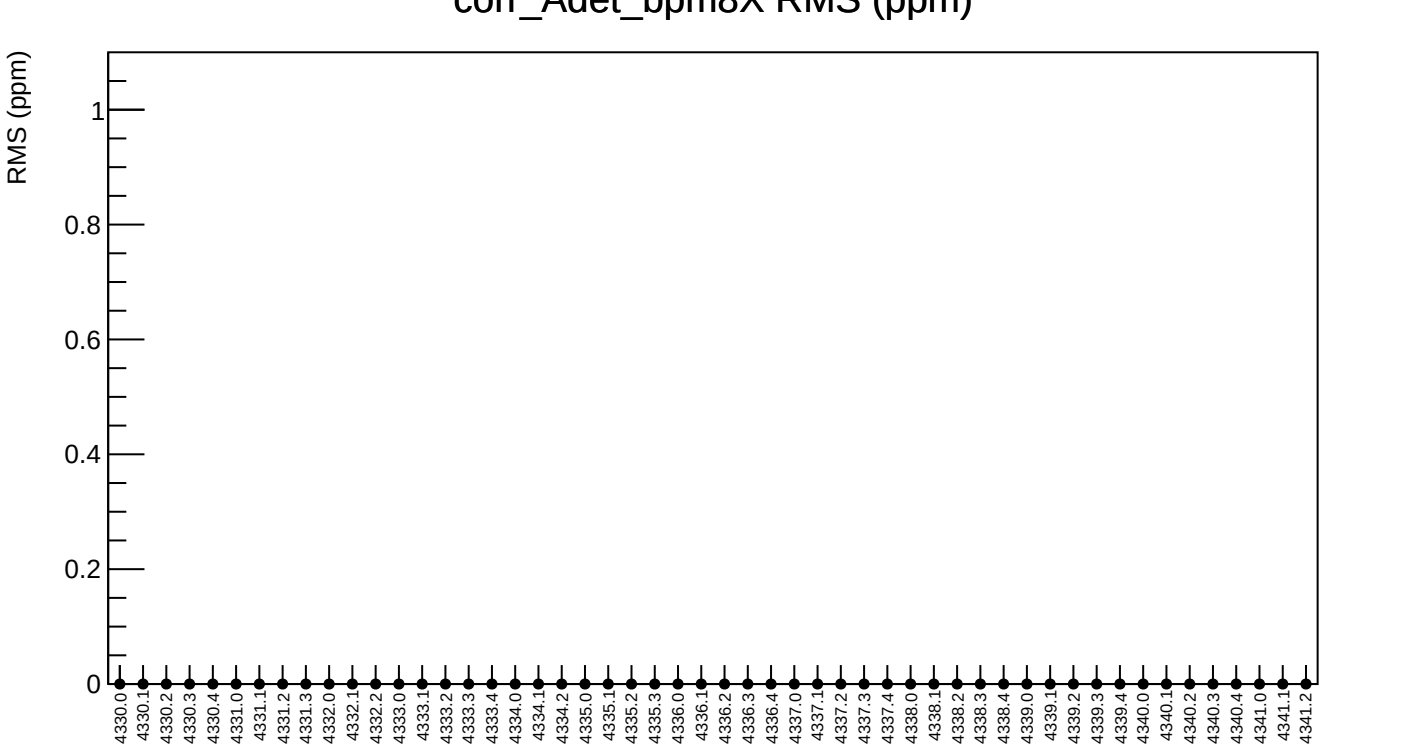

corr_Adet_bpm11X RMS (ppm)
RMS (ppm)
240
220
200
180
160
140
120
100
80
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

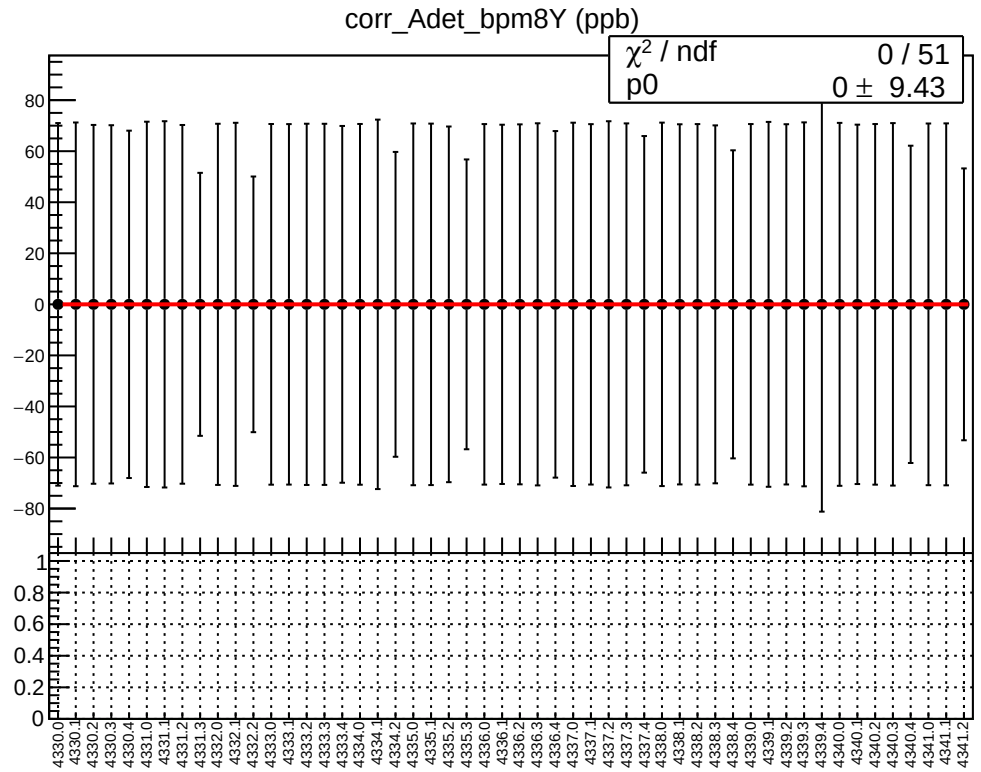

corr_Adet_bpm11Y (ppb)
χ² / ndf 5.73 / 51
p0 −5.908 ± 17.35
1D pull distribution
Mean 0.001312 ± 0.04603
Std Dev 0.332 ± 0.03255
Underflow 0
Overflow 0
χ² / ndf 4.651 / 2
Constant 37.03 ± 7.67
Mean 0.08048 ± 0.03880
Sigma 0.2738 ± 0.0380

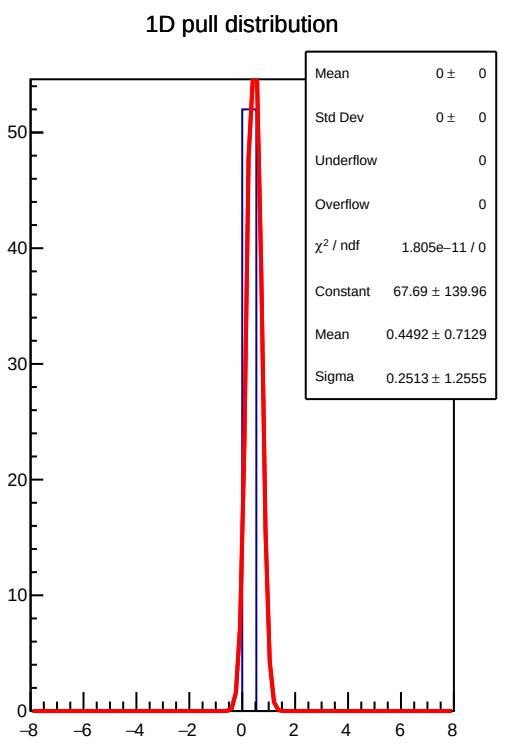

corr_Adet_bpm11Y RMS (ppm)
RMS (ppm)
12
10
8
6
4
2
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

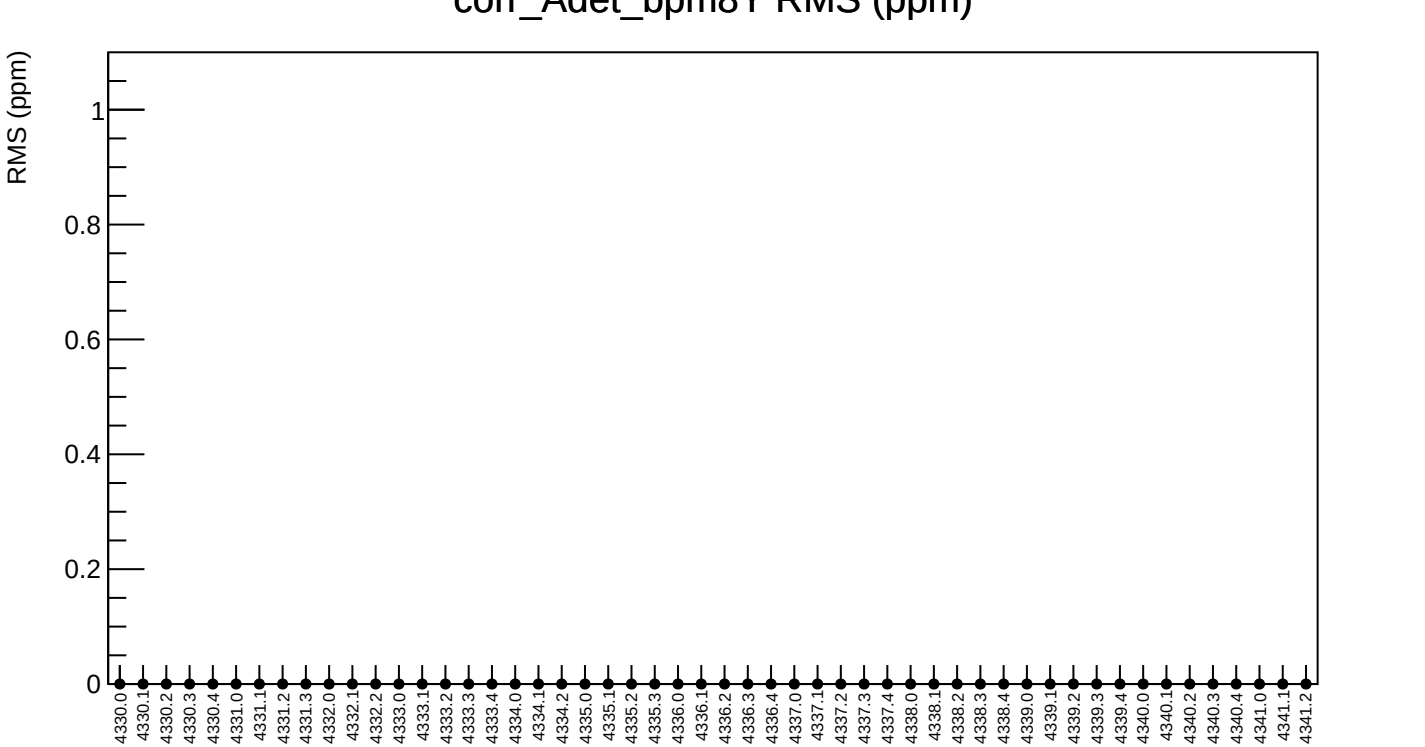

corr_Adet_bpm8X (ppb)
χ² / ndf 0 / 51
p0 0 ± 9.122

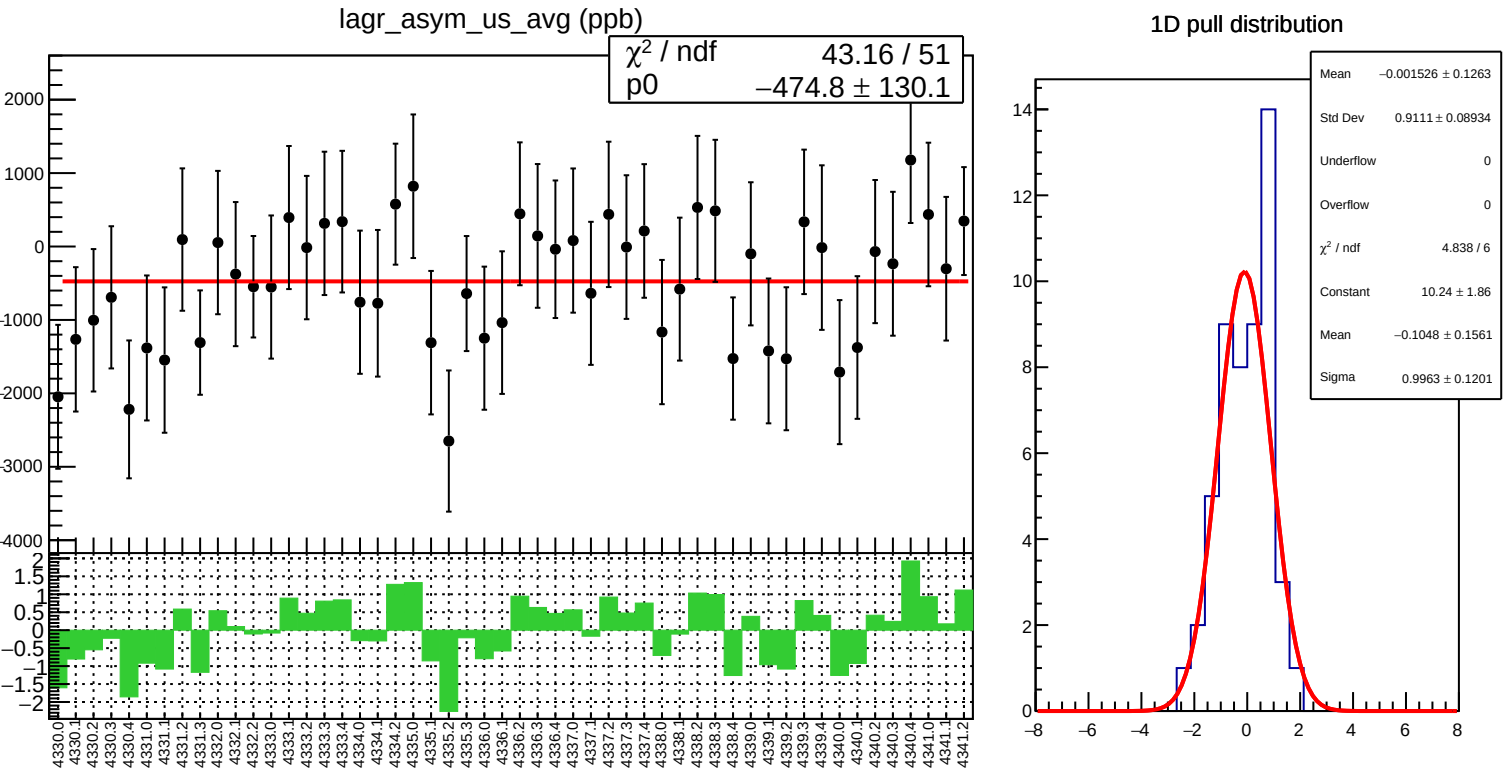

1D pull distribution
Mean 0 ± 0
Std Dev 0 ± 0
Underflow 0
Overflow 0
χ² / ndf 1.805e−11 / 0
Constant 67.69 ± 139.96
Mean 0.4492 ± 0.7129
Sigma 0.2513 ± 1.2555

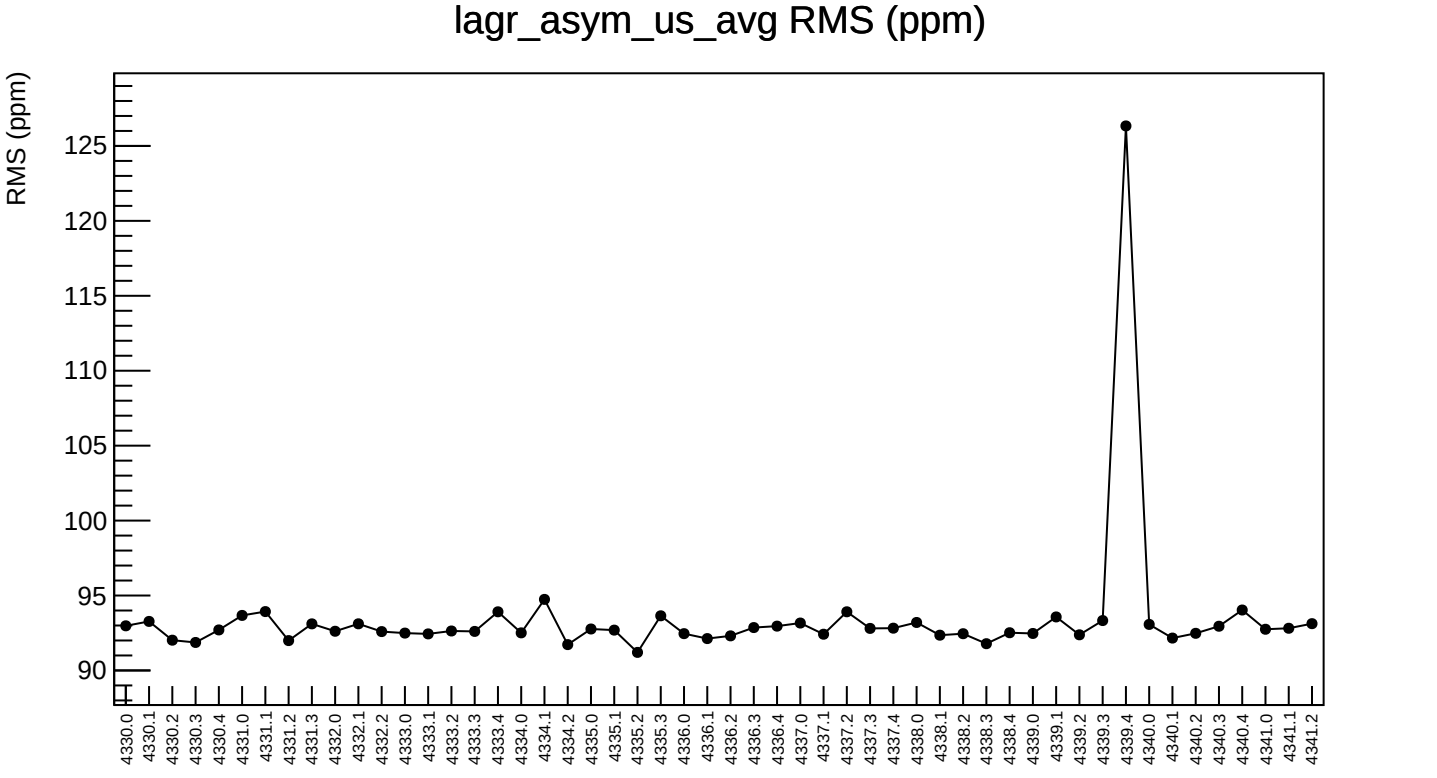

corr_Adet_bpm8X RMS (ppm)
RMS (ppm)
0
0.2
0.4
0.6
0.8
1
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

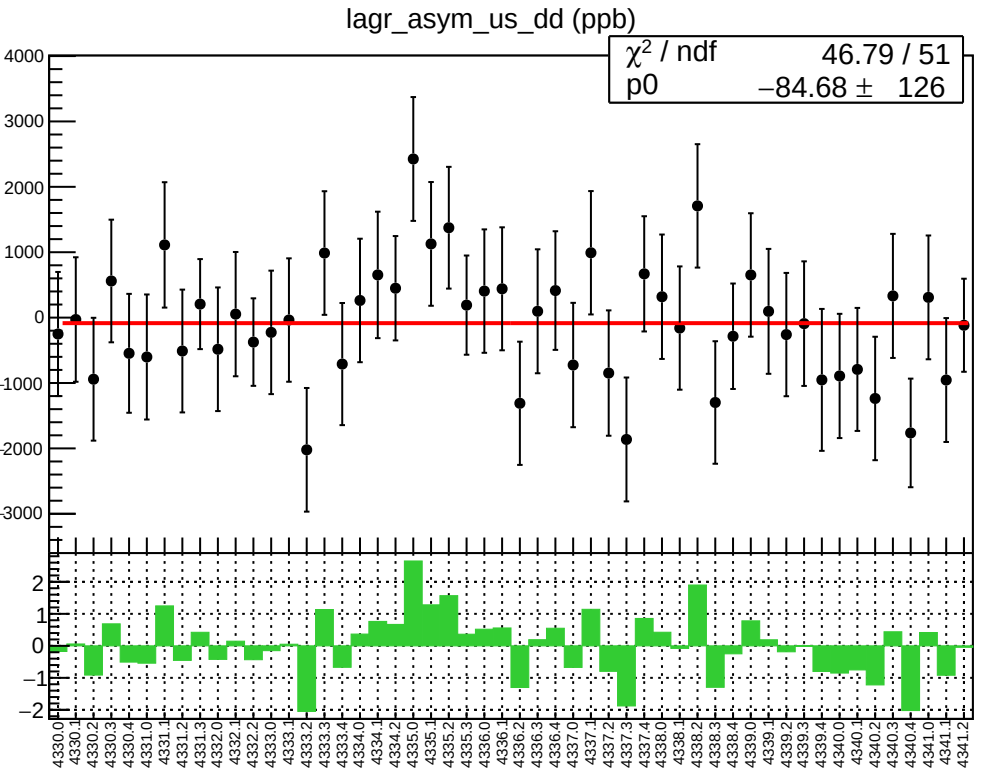

corr_Adet_bpm8Y (ppb)
χ² / ndf 0 / 51
p0 0 ± 9.43

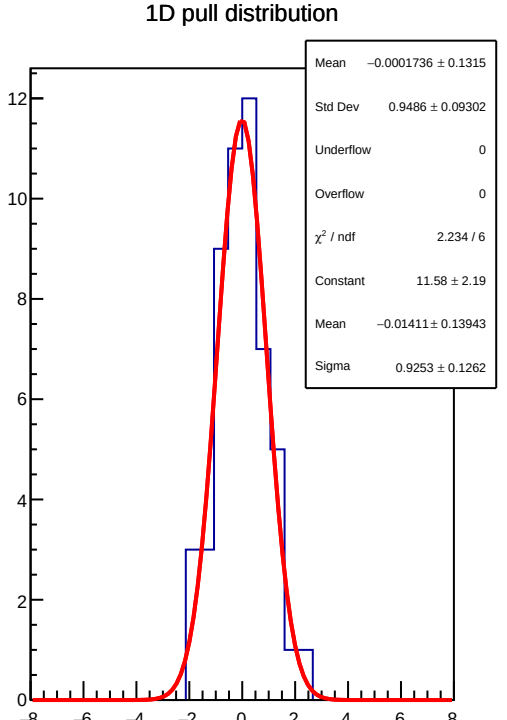

1D pull distribution
Mean 0 ± 0
Std Dev 0 ± 0
Underflow 0
Overflow 0
χ² / ndf 1.805e−11 / 0
Constant 67.69 ± 139.96
Mean 0.4492 ± 0.7129
Sigma 0.2513 ± 1.2555

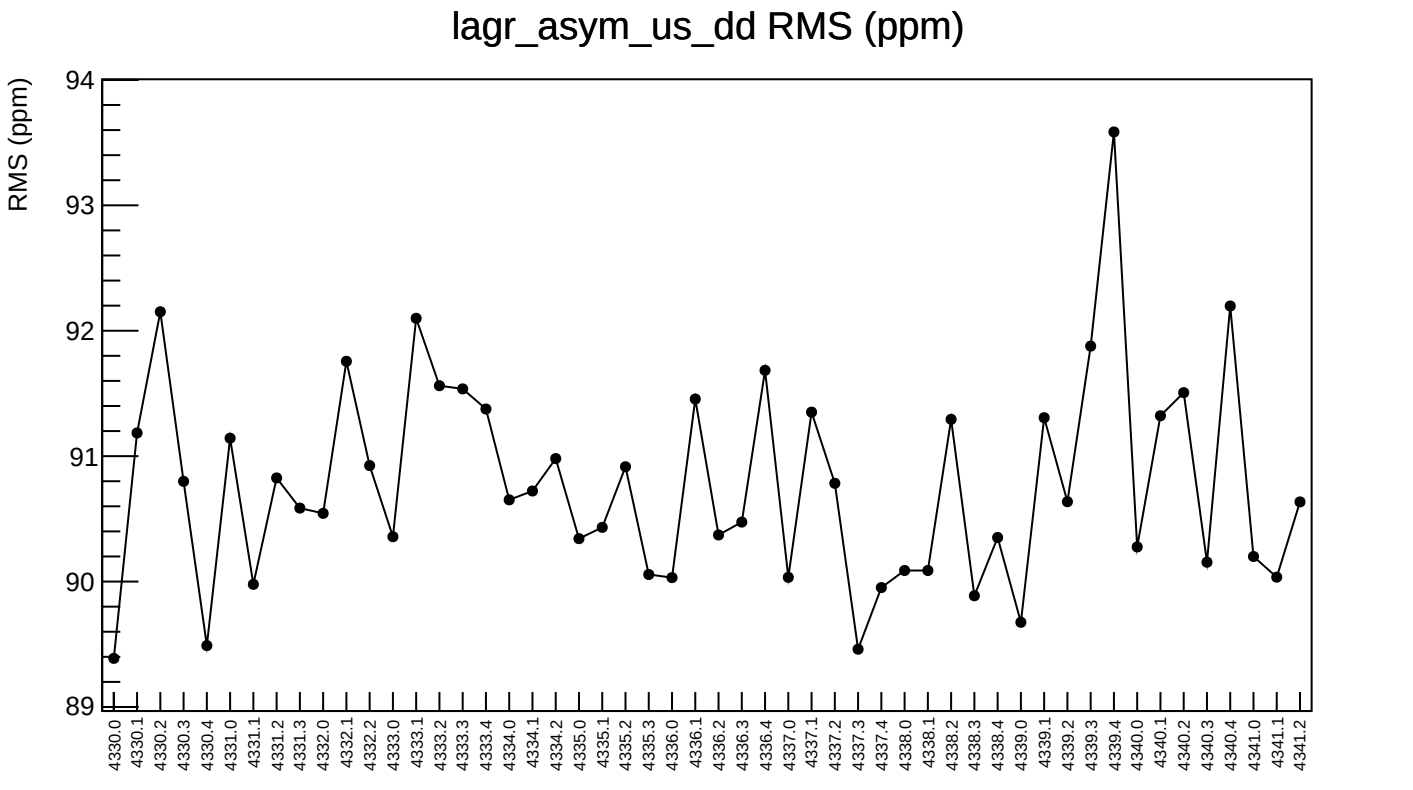

corr_Adet_bpm8Y RMS (ppm)
RMS (ppm)
1
0.8
0.6
0.4
0.2
0
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

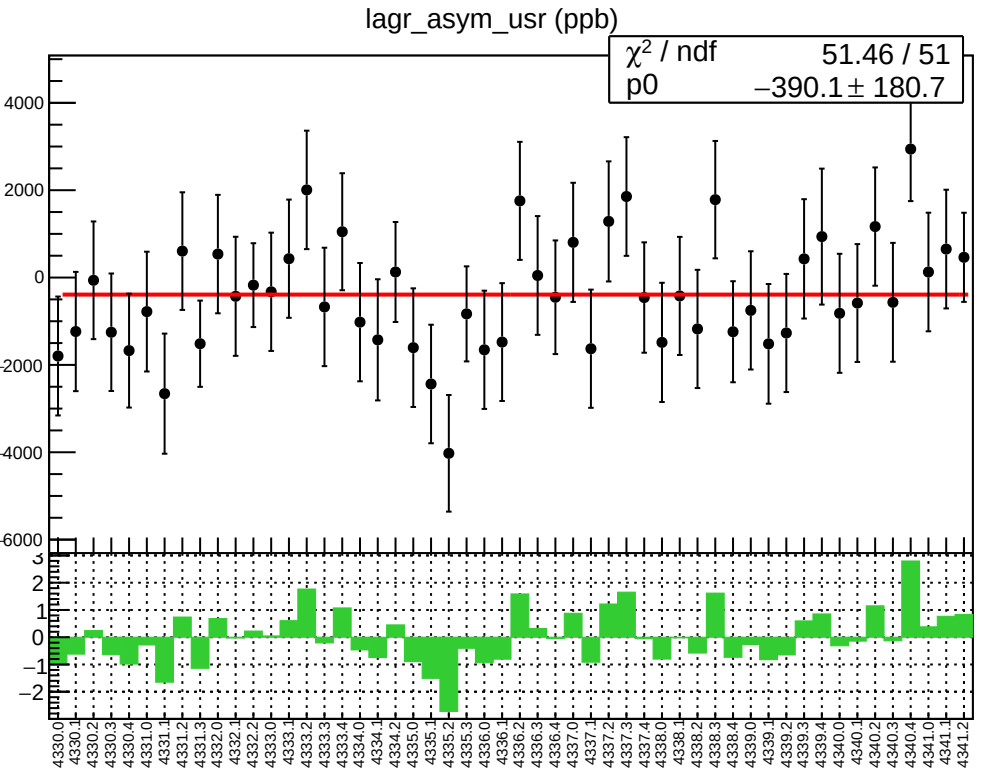

lagr_asym_us_avg (ppb)
χ² / ndf 43.16 / 51
p0 −474.8 ± 130.1
1D pull distribution
Mean −0.001526 ± 0.1263
Std Dev 0.9111 ± 0.08934
Underflow 0
Overflow 0
χ² / ndf 4.838 / 6
Constant 10.24 ± 1.86
Mean −0.1048 ± 0.1561
Sigma 0.9963 ± 0.1201

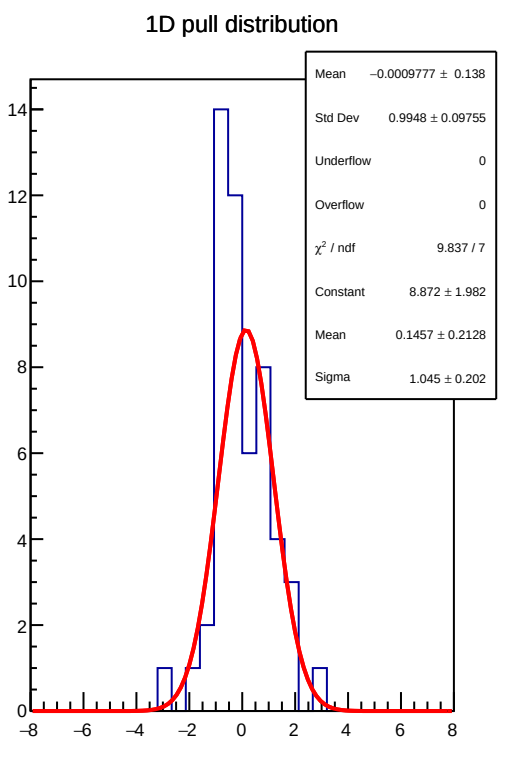

lagr_asym_us_avg RMS (ppm)
RMS (ppm)
125
120
115
110
105
100
95
90
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

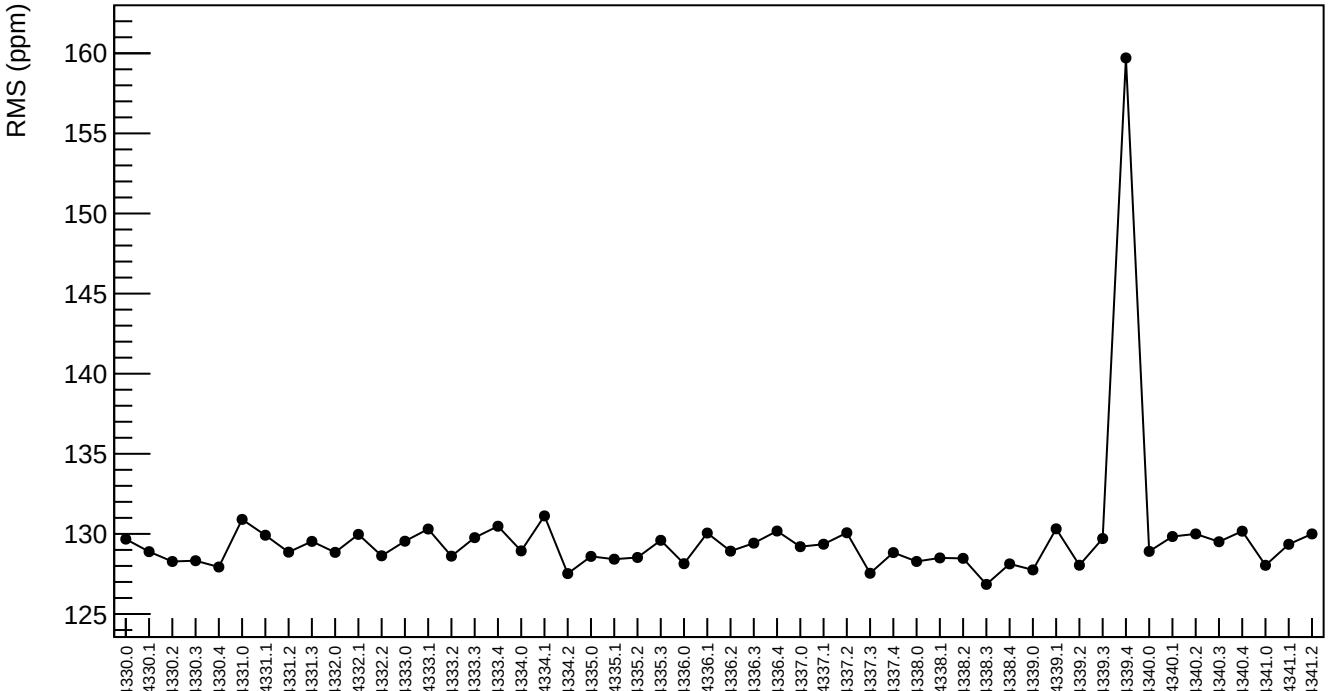

lagr_asym_us_dd (ppb)
χ² / ndf 46.79 / 51
p0 −84.68 ± 126
4000
3000
2000
1000
0
-1000
-2000
-3000
2
1
0
−1
−2
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

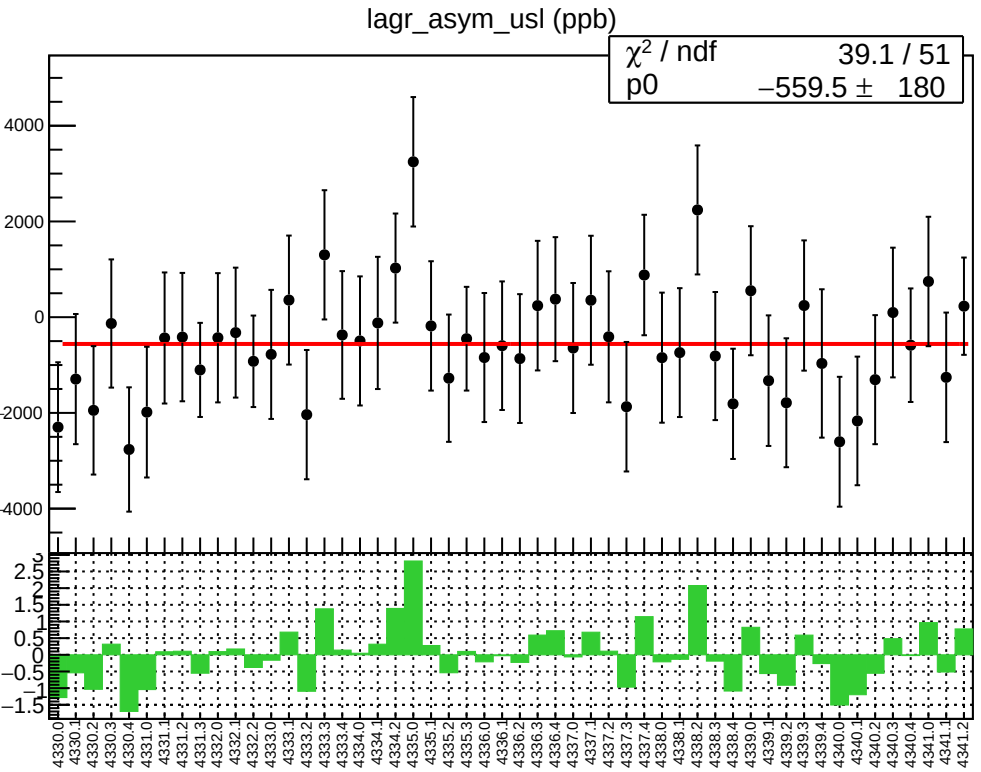

1D pull distribution
Mean −0.0001736 ± 0.1315
Std Dev 0.9486 ± 0.09302
Underflow 0
Overflow 0
χ² / ndf 2.234 / 6
Constant 11.58 ± 2.19
Mean −0.01411 ± 0.13943
Sigma 0.9253 ± 0.1262
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

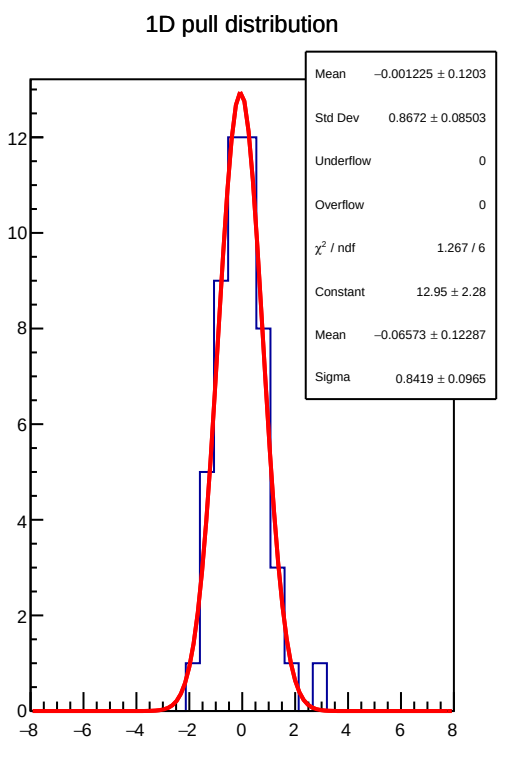

lagr_asym_us_dd RMS (ppm)
RMS (ppm)
94
93
92
91
90
89
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

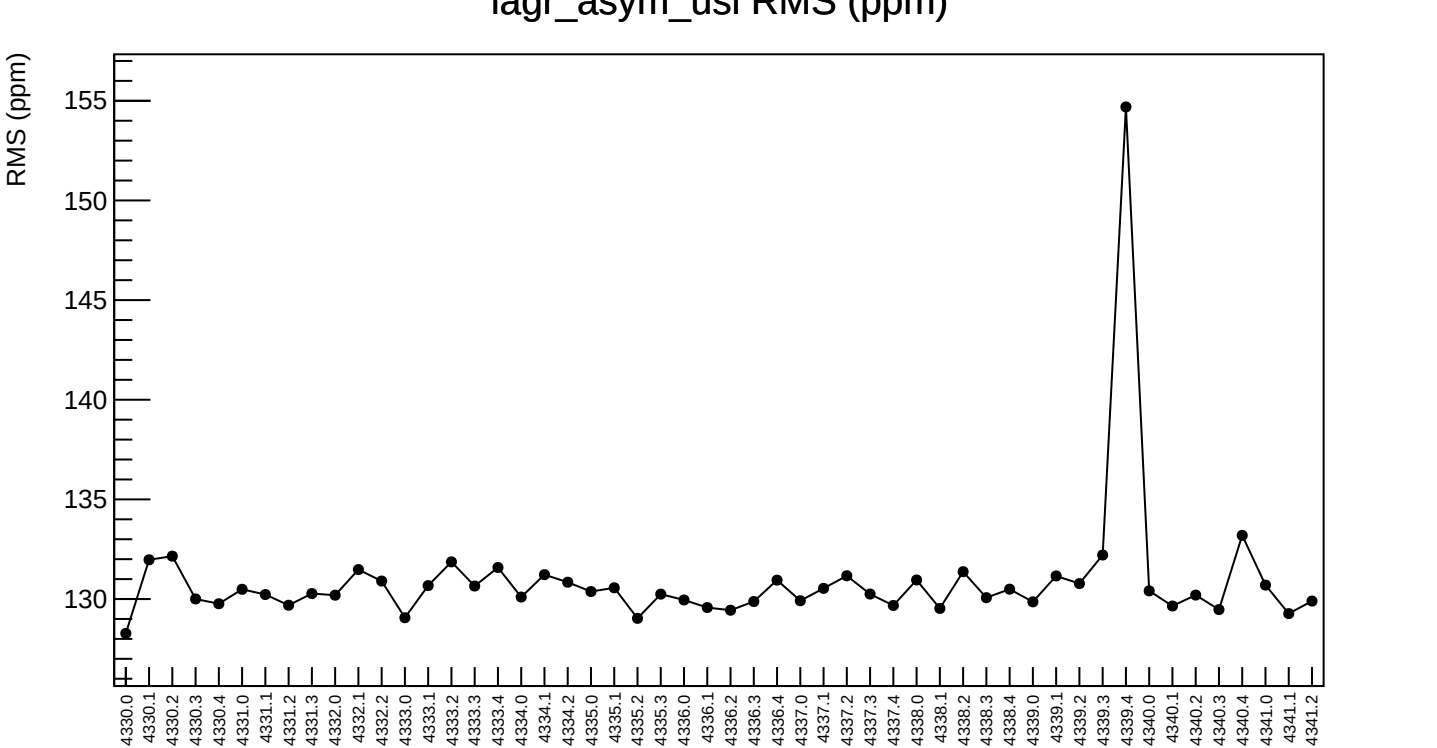

lagr_asym_usr (ppb)
χ² / ndf 51.46 / 51
p0 −390.1 ± 180.7
4000
2000
0
-2000
-4000
-6000
3
2
1
0
−1
−2
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

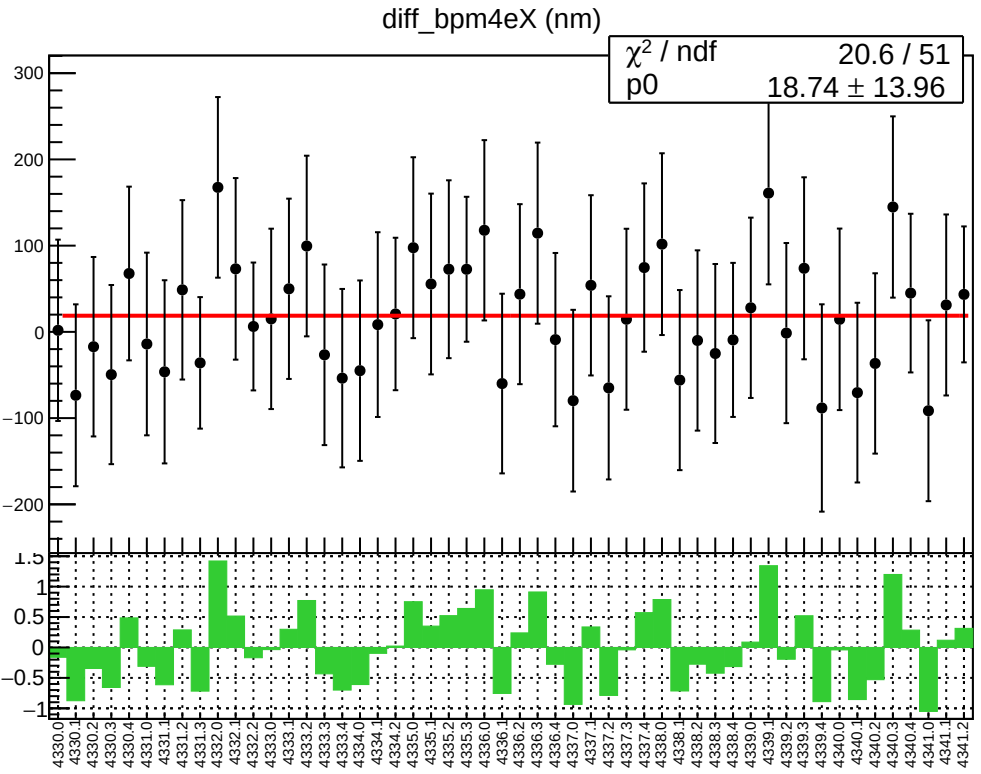

1D pull distribution
Mean −0.0009777 ± 0.138
Std Dev 0.9948 ± 0.09755
Underflow 0
Overflow 0
χ² / ndf 9.837 / 7
Constant 8.872 ± 1.982
Mean 0.1457 ± 0.2128
Sigma 1.045 ± 0.202
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

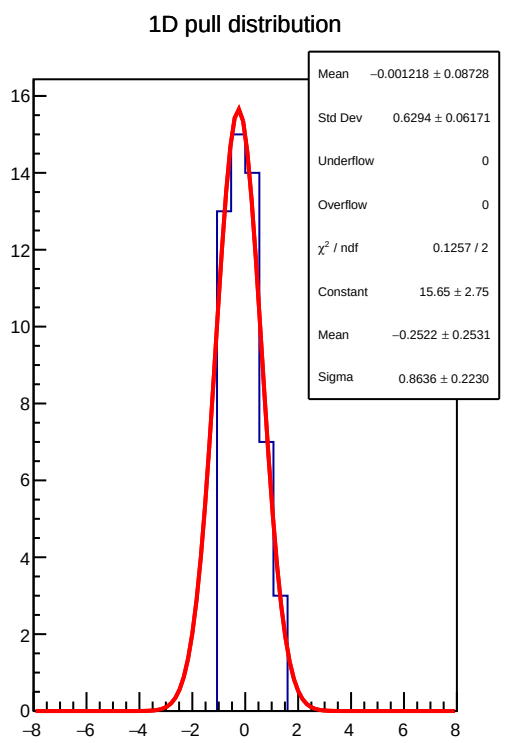

lagr_asym_usr RMS (ppm)
RMS (ppm)
160
155
150
145
140
135
130
125
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

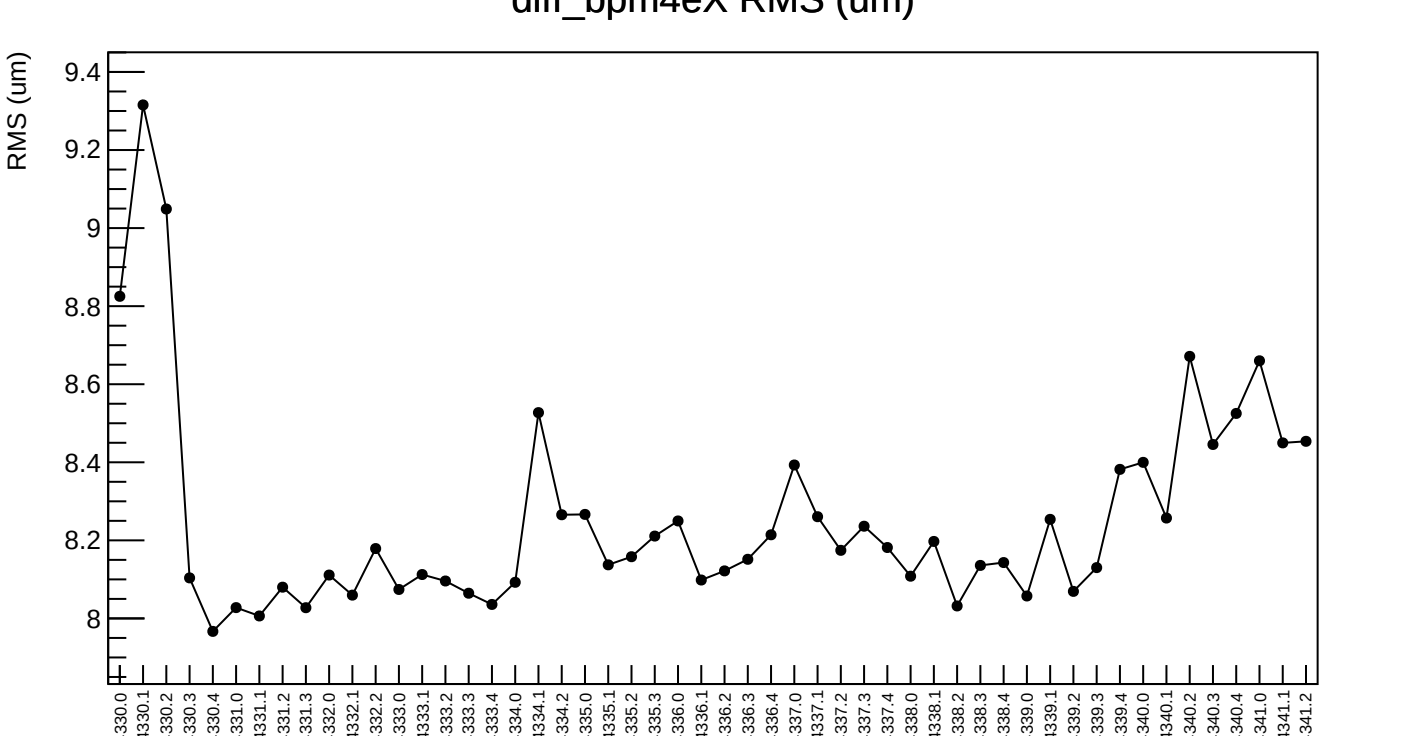

lagr_asym_usl (ppb)
χ² / ndf 39.1 / 51
p0 −559.5 ± 180
4000
2000
0
-2000
-4000
2.5
2
1.5
1
0.5
0
−0.5
−1
−1.5
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

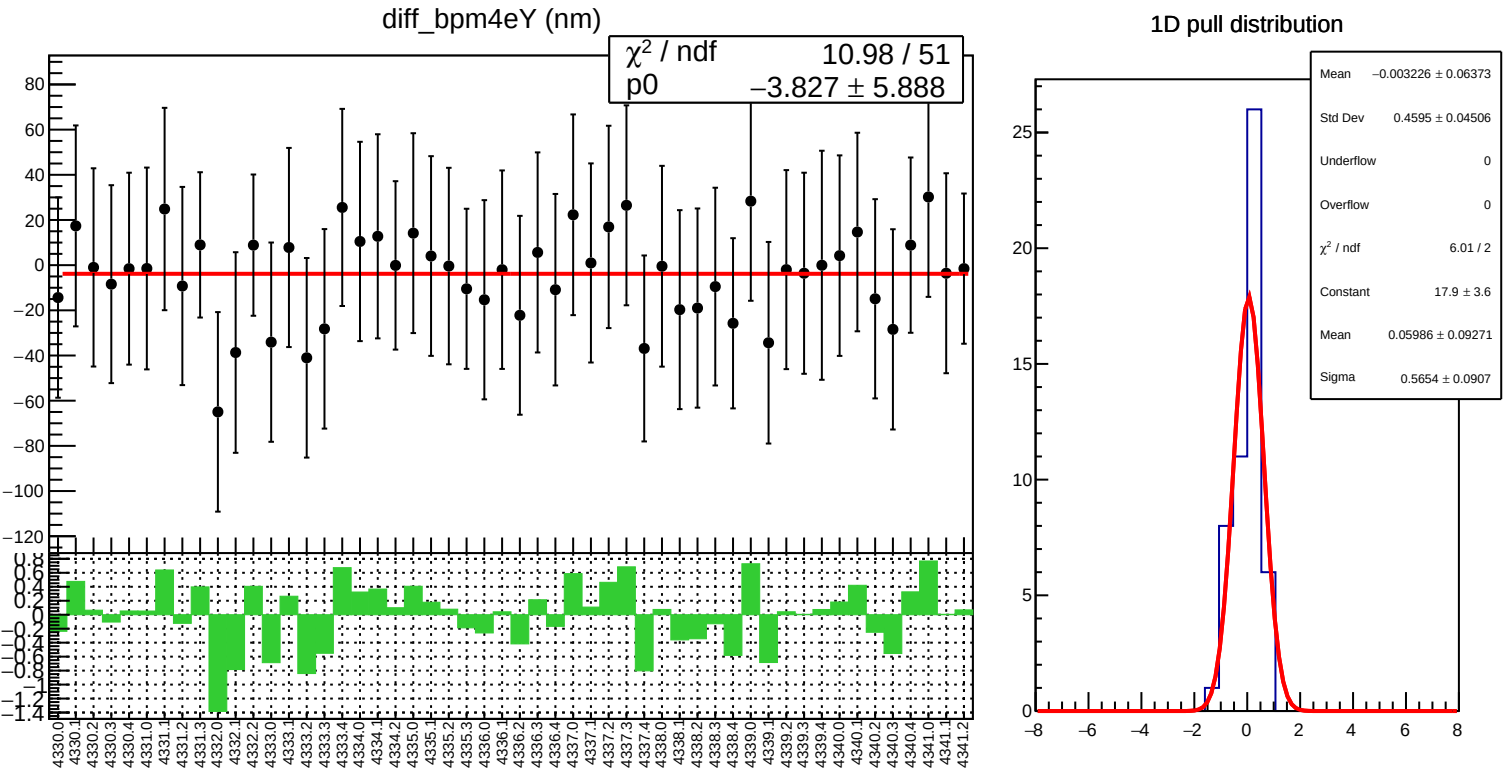

1D pull distribution
Mean −0.001225 ± 0.1203
Std Dev 0.8672 ± 0.08503
Underflow 0
Overflow 0
χ² / ndf 1.267 / 6
Constant 12.95 ± 2.28
Mean −0.06573 ± 0.12287
Sigma 0.8419 ± 0.0965
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

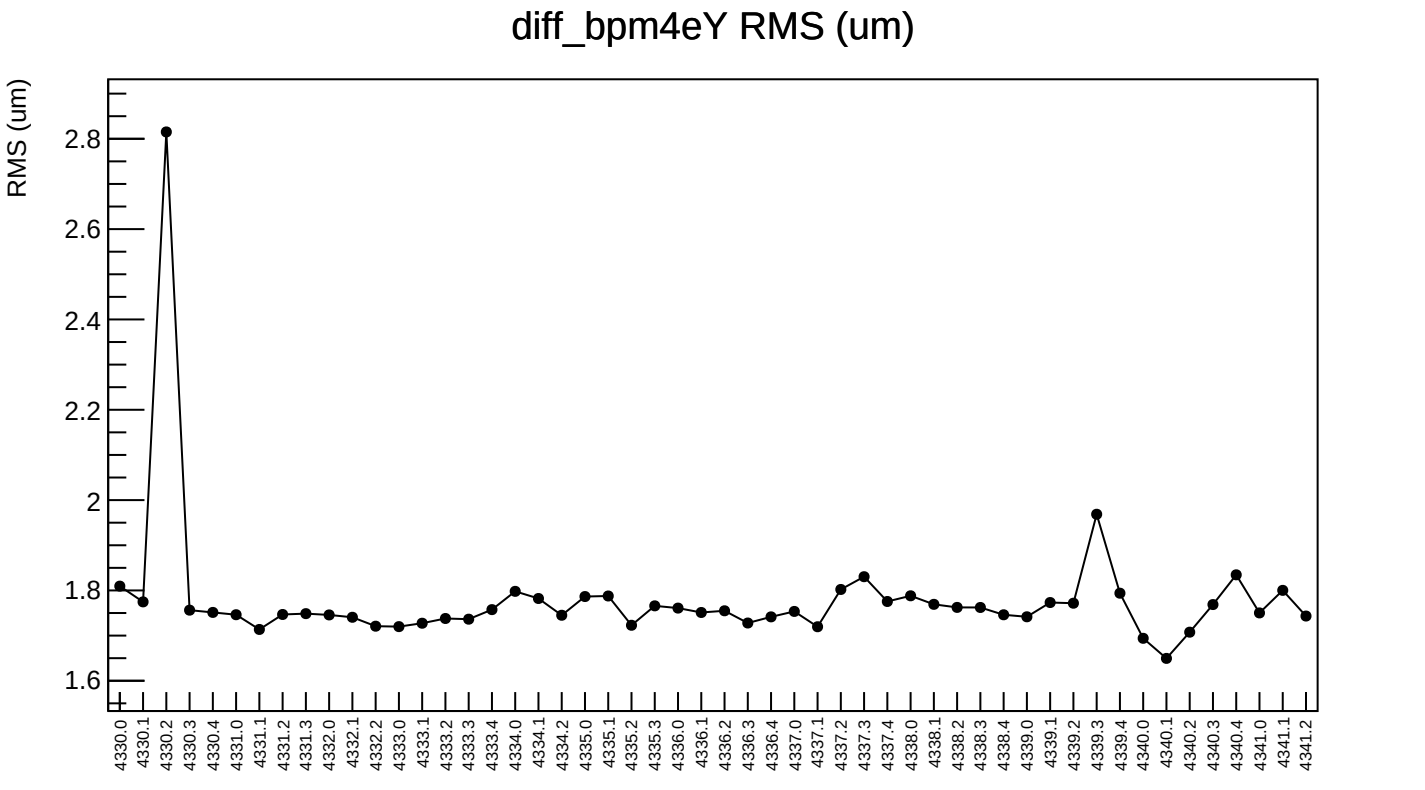

lagr_asym_usl RMS (ppm)
RMS (ppm)
155
150
145
140
135
130
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

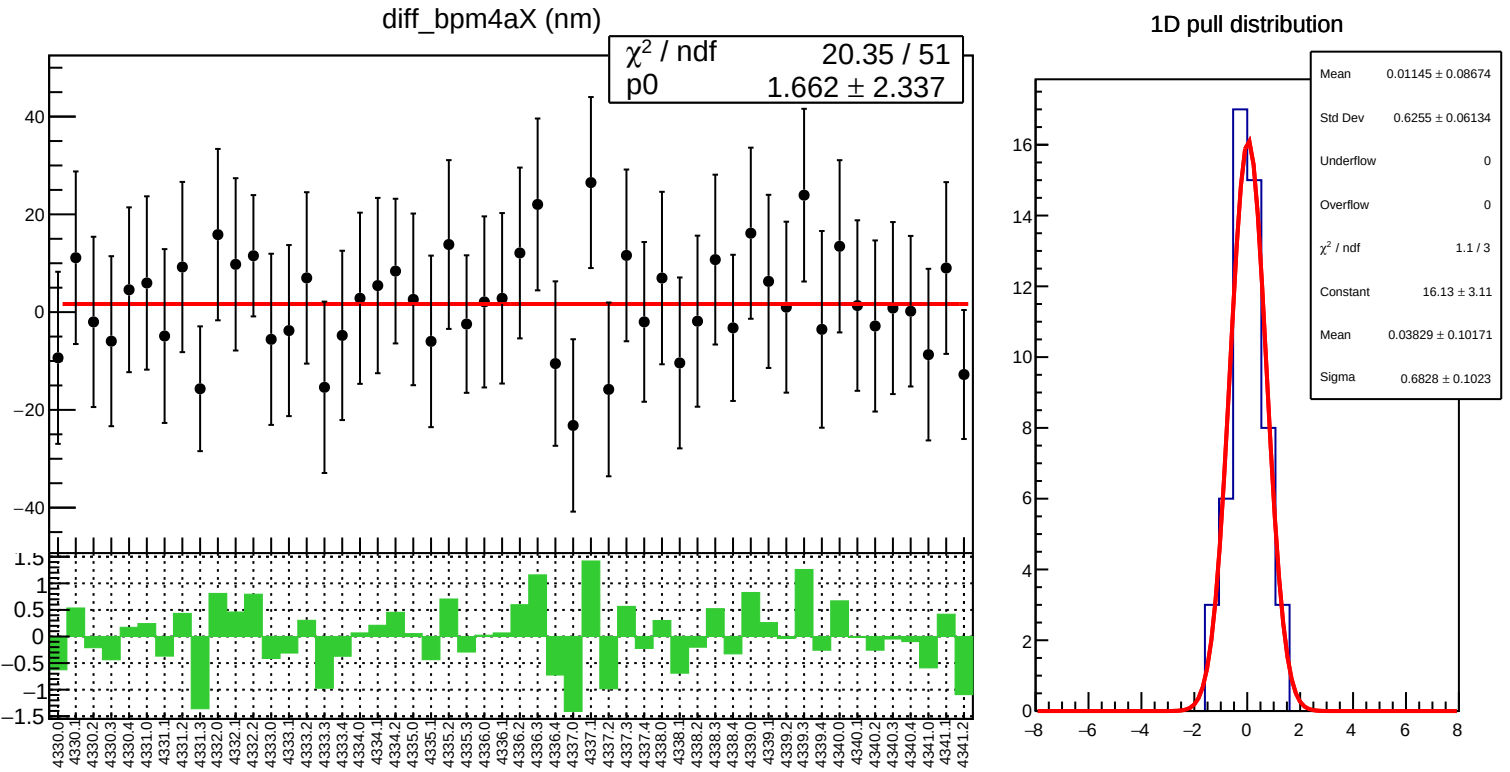

diff_bpm4eX (nm)
χ² / ndf 20.6 / 51
p0 18.74 ± 13.96

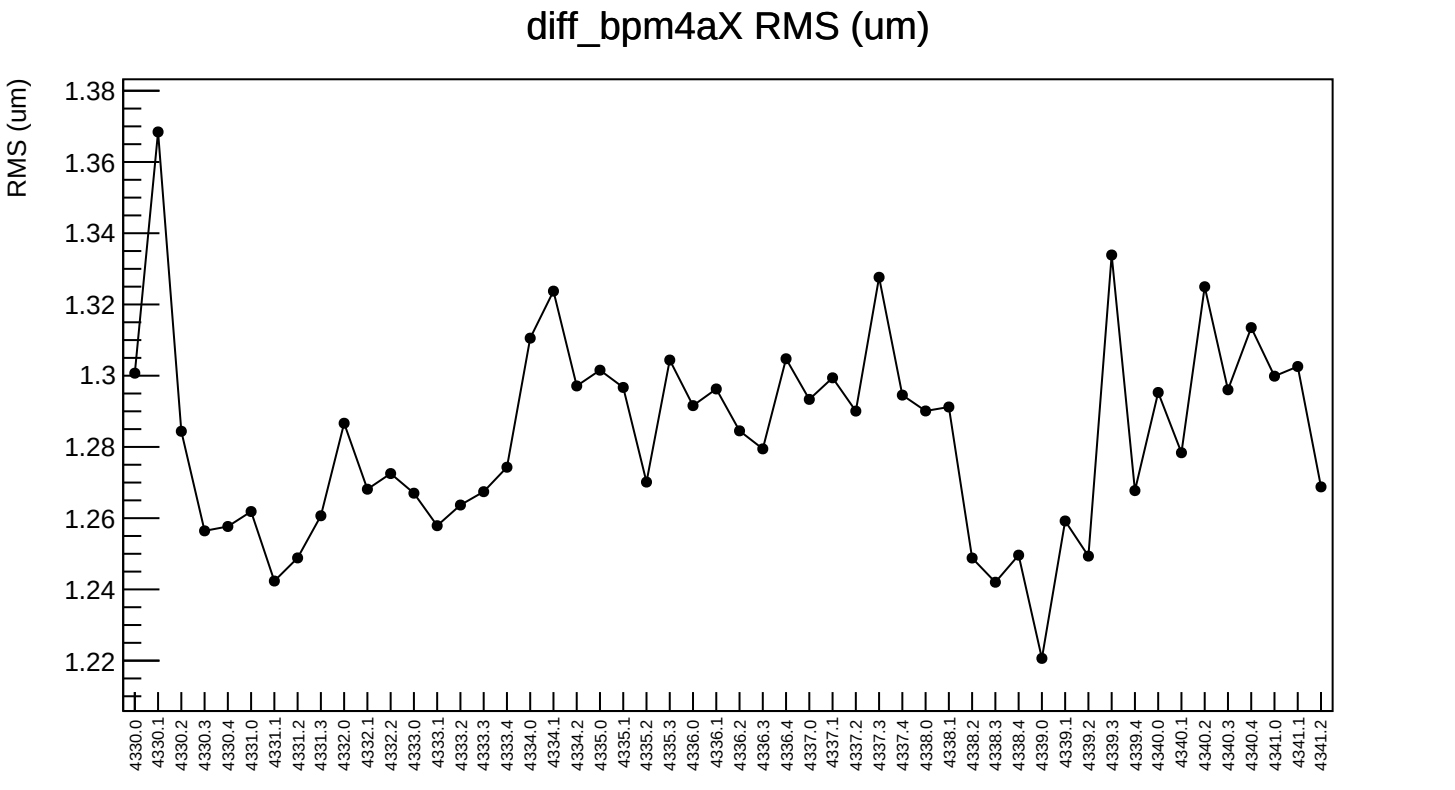

1D pull distribution
Mean −0.001218 ± 0.08728
Std Dev 0.6294 ± 0.06171
Underflow 0
Overflow 0
χ² / ndf 0.1257 / 2
Constant 15.65 ± 2.75
Mean −0.2522 ± 0.2531
Sigma 0.8636 ± 0.2230

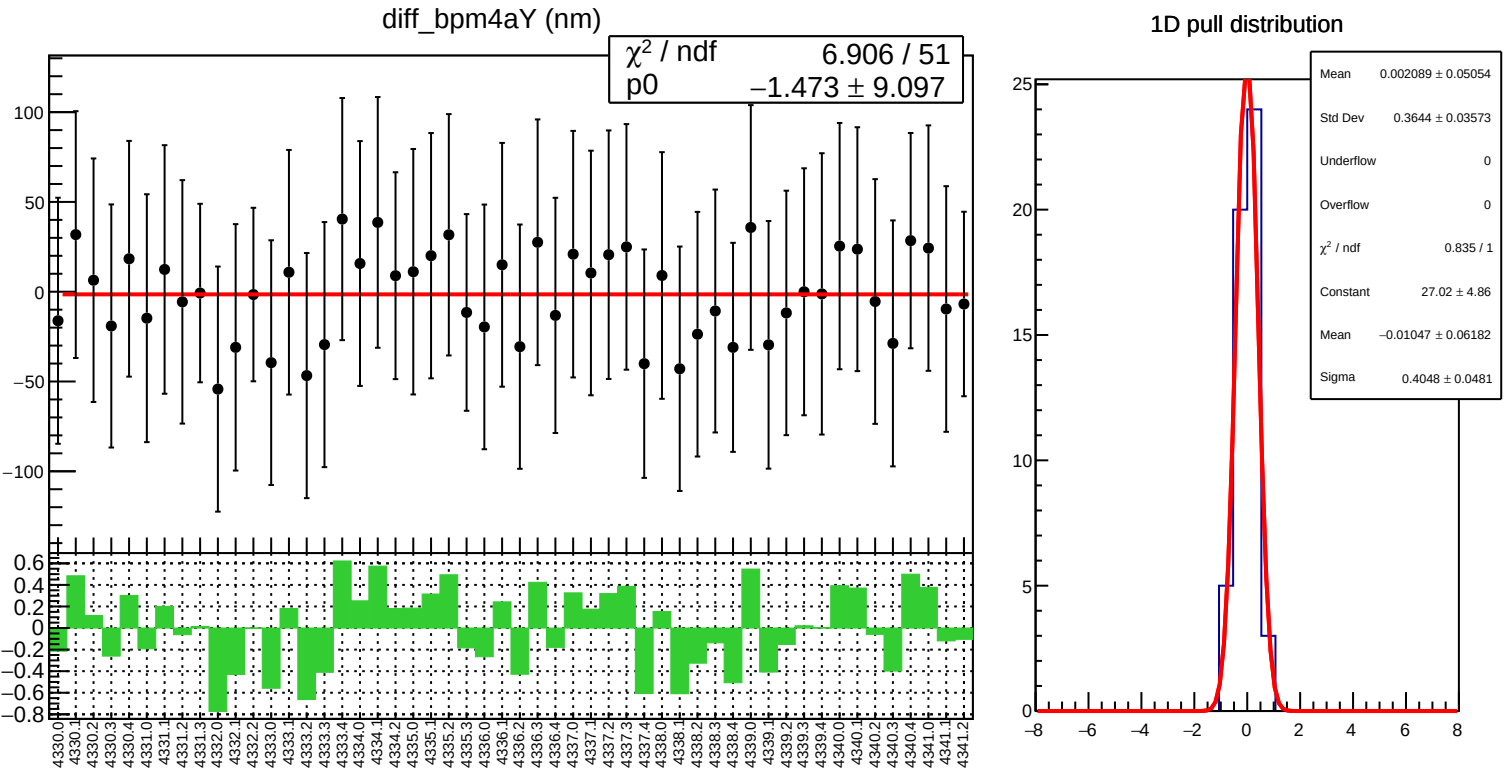

diff_bpm4eX RMS (um)
RMS (um)
9.4
9.2
9
8.8
8.6
8.4
8.2
8
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

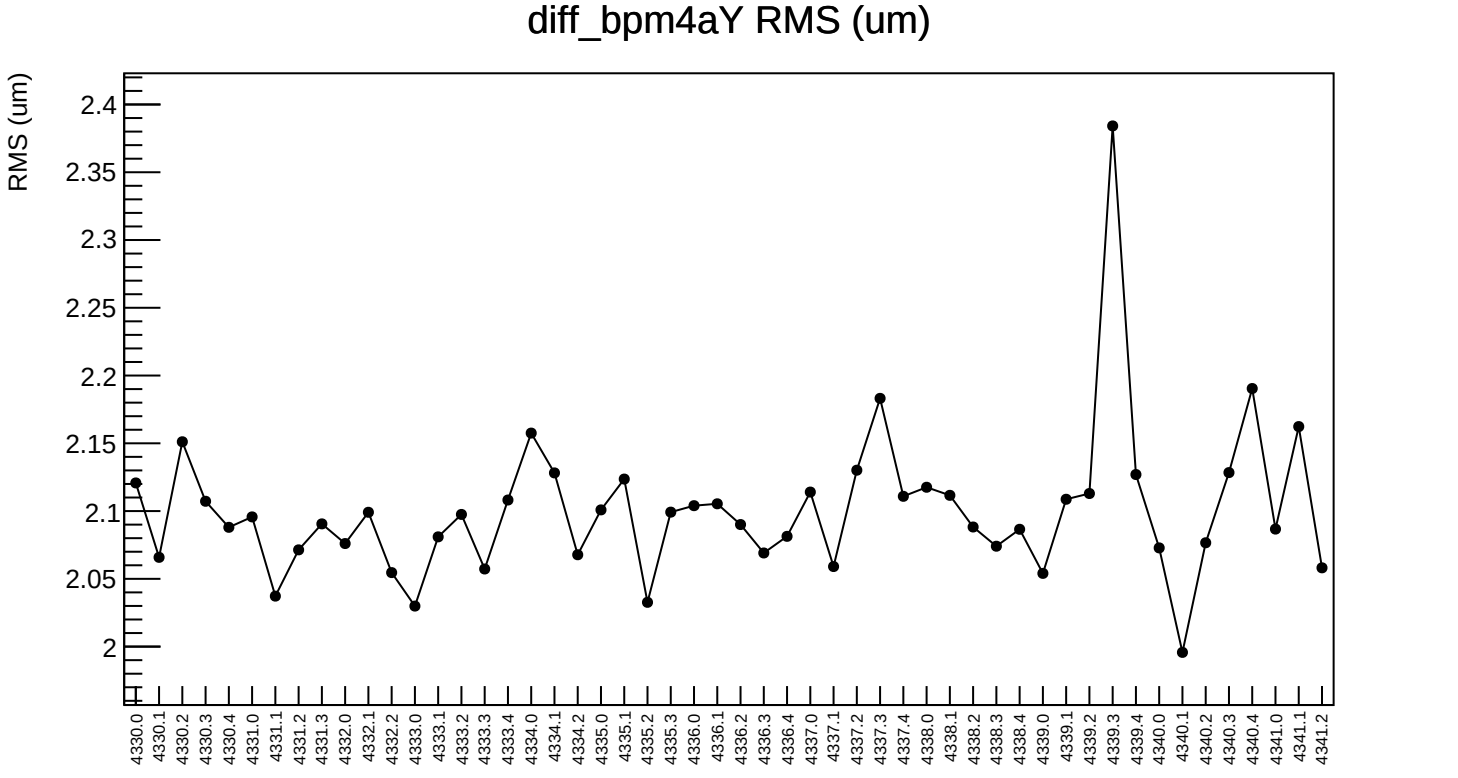

diff_bpm4eY (nm)
χ² / ndf 10.98 / 51
p0 −3.827 ± 5.888
1D pull distribution
Mean −0.003226 ± 0.06373
Std Dev 0.4595 ± 0.04506
Underflow 0
Overflow 0
χ² / ndf 6.01 / 2
Constant 17.9 ± 3.6
Mean 0.05986 ± 0.09271
Sigma 0.5654 ± 0.0907

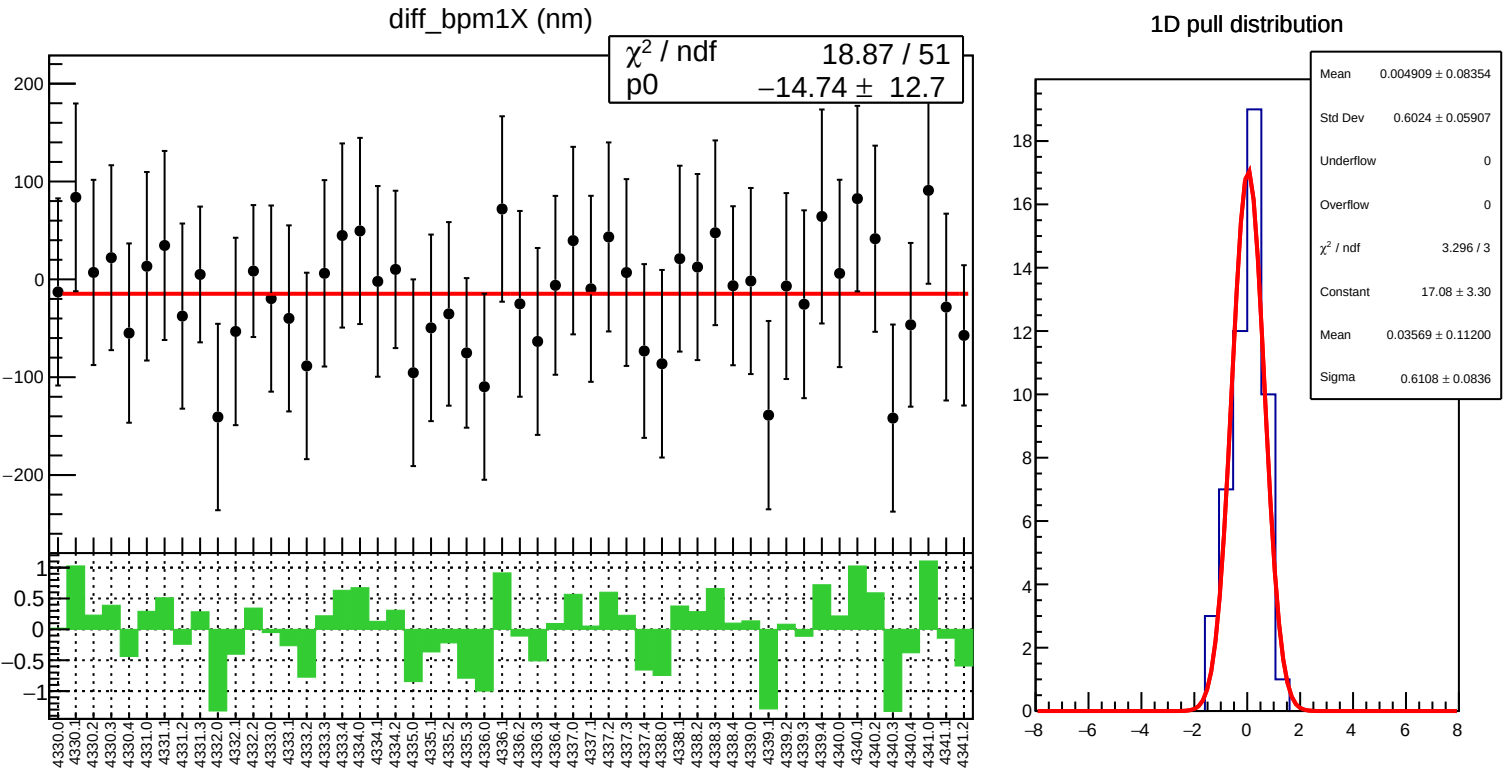

diff_bpm4eY RMS (um)
RMS (um)
2.8
2.6
2.4
2.2
2
1.8
1.6
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

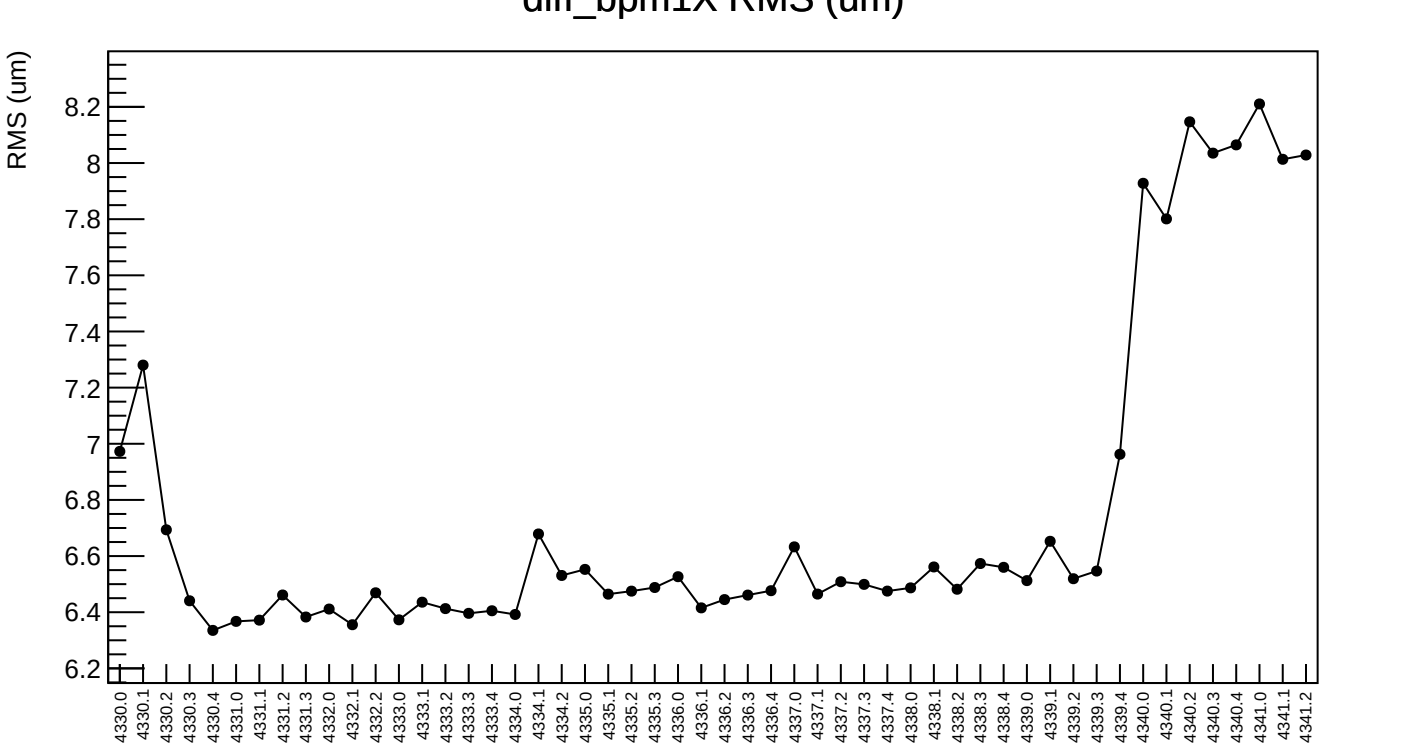

diff_bpm4aX (nm)
χ² / ndf 20.35 / 51
p0 1.662 ± 2.337
1D pull distribution
Mean 0.01145 ± 0.08674
Std Dev 0.6255 ± 0.06134
Underflow 0
Overflow 0
χ² / ndf 1.1 / 3
Constant 16.13 ± 3.11
Mean 0.03829 ± 0.10171
Sigma 0.6828 ± 0.1023

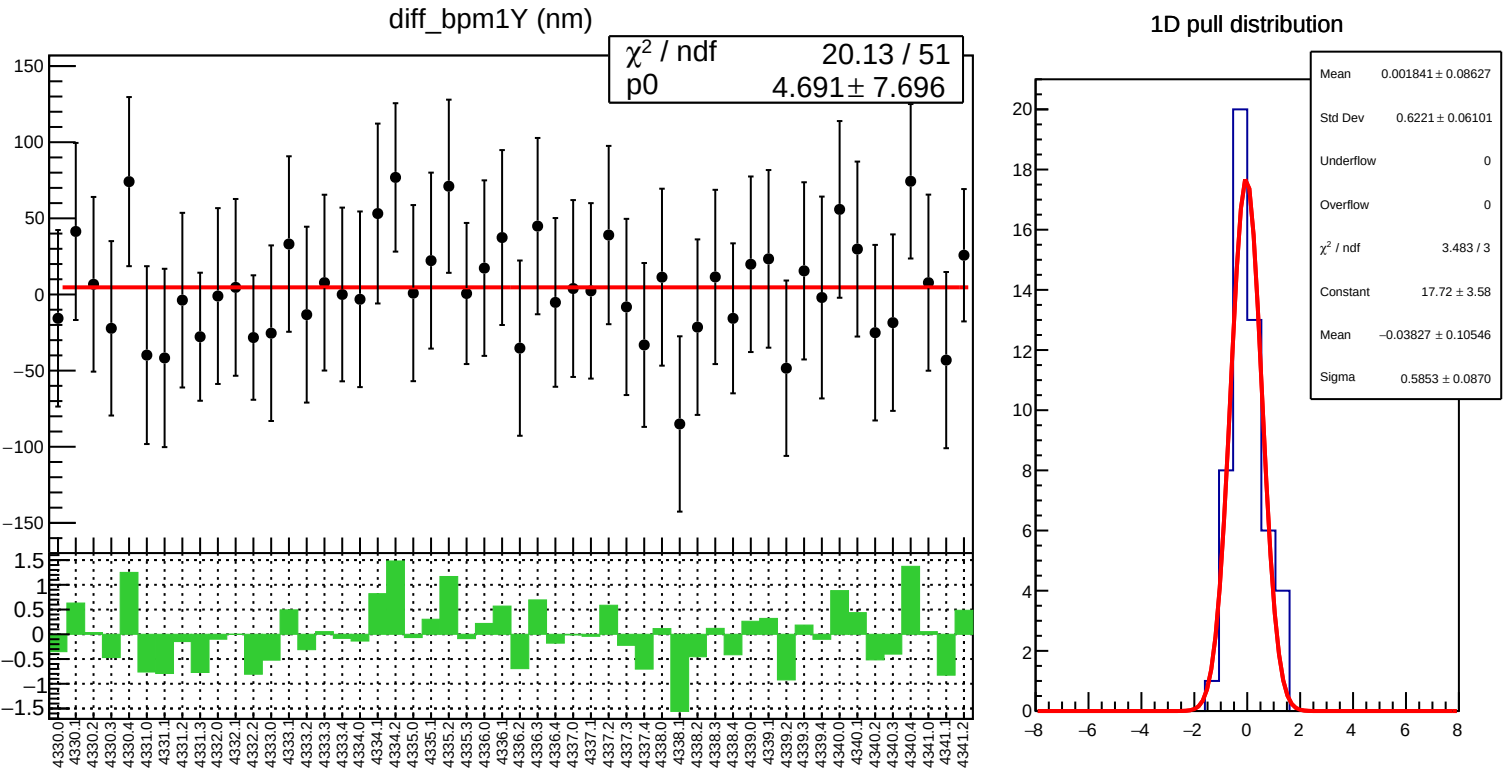

diff_bpm4aX RMS (um)
RMS (um)
1.38
1.36
1.34
1.32
1.3
1.28
1.26
1.24
1.22
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

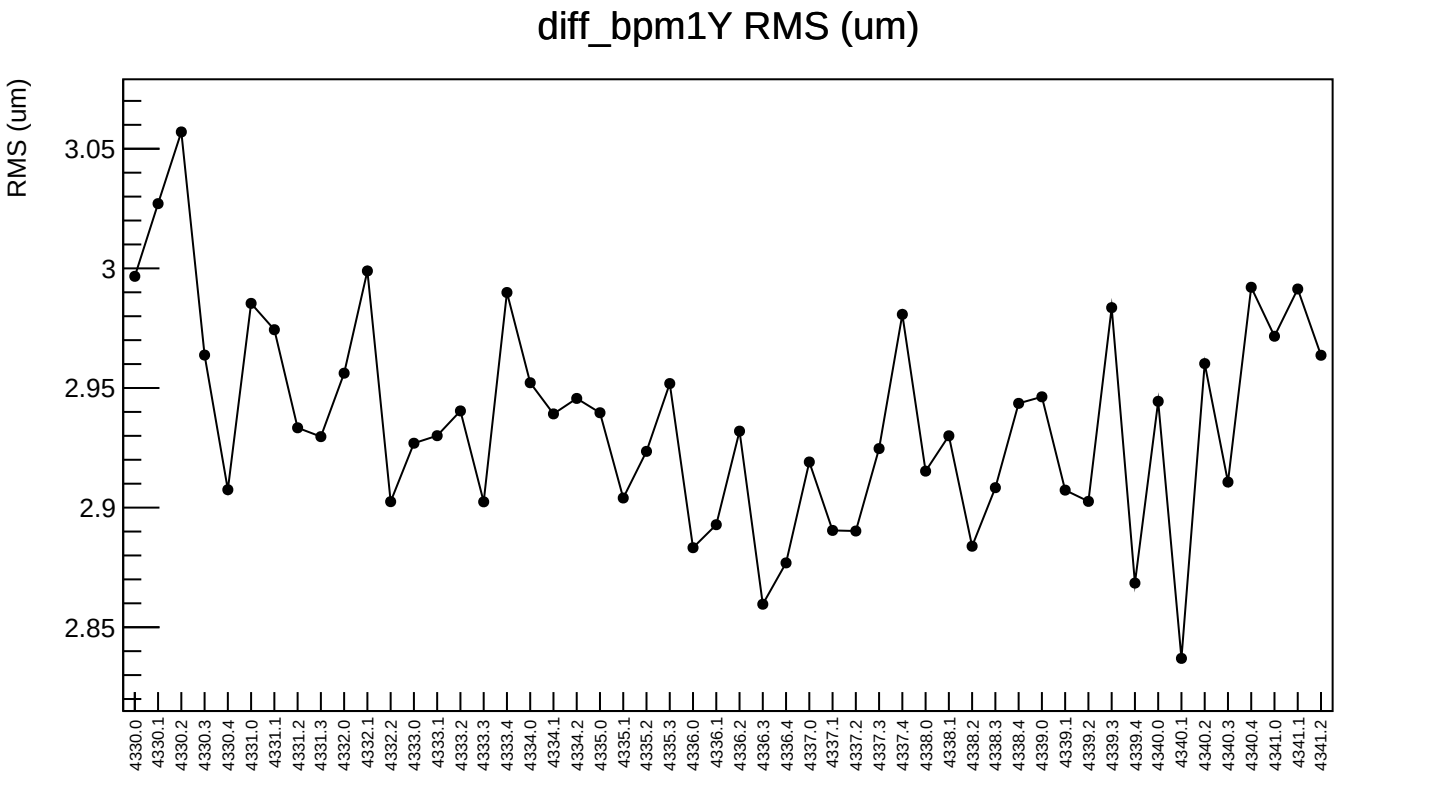

diff_bpm4aY (nm)
χ² / ndf 6.906 / 51
p0 −1.473 ± 9.097
1D pull distribution
Mean 0.002089 ± 0.05054
Std Dev 0.3644 ± 0.03573
Underflow 0
Overflow 0
χ² / ndf 0.835 / 1
Constant 27.02 ± 4.86
Mean −0.01047 ± 0.06182
Sigma 0.4048 ± 0.0481

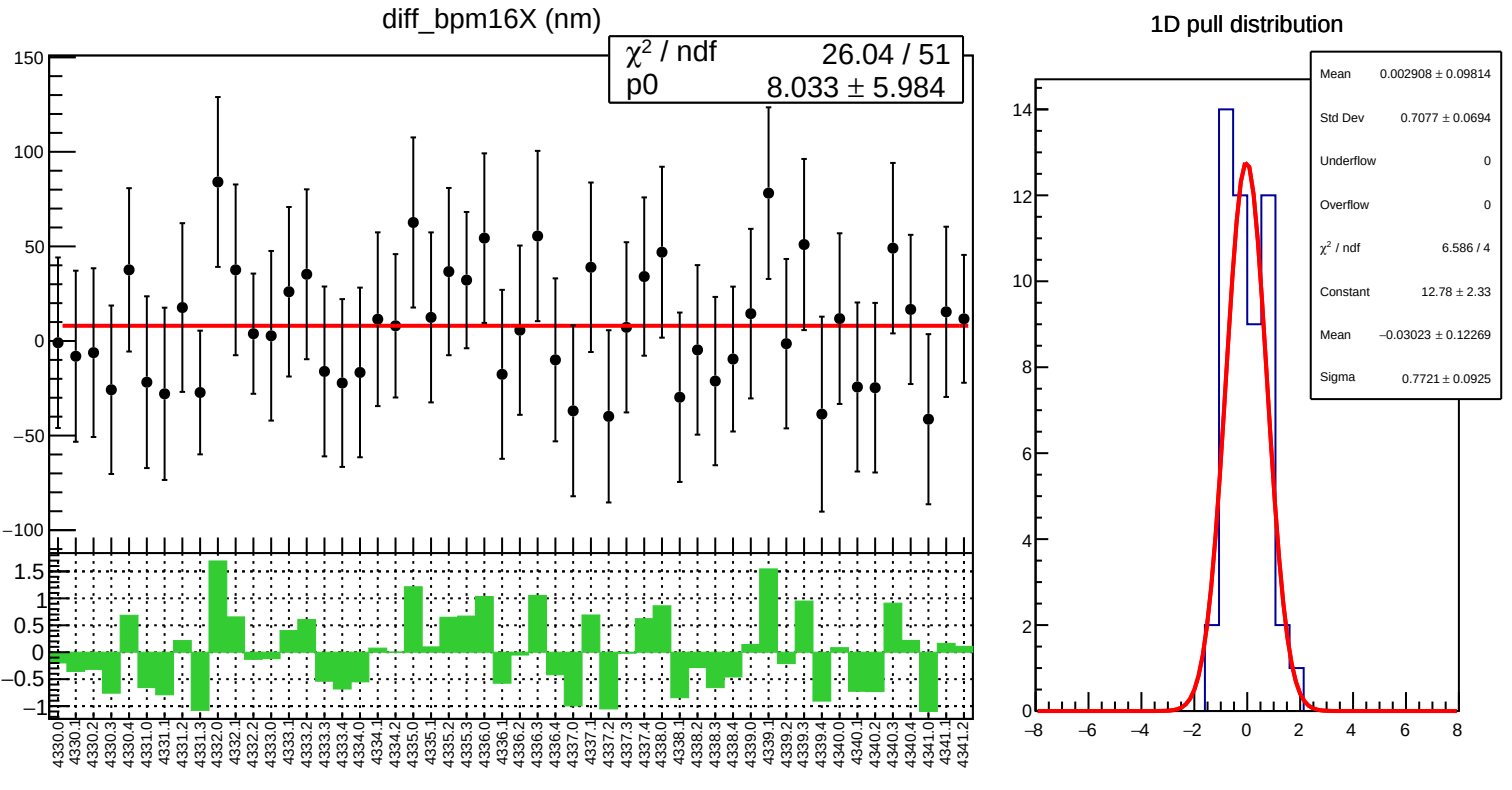

diff_bpm4aY RMS (um)
RMS (um)
2.4
2.35
2.3
2.25
2.2
2.15
2.1
2.05
2
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

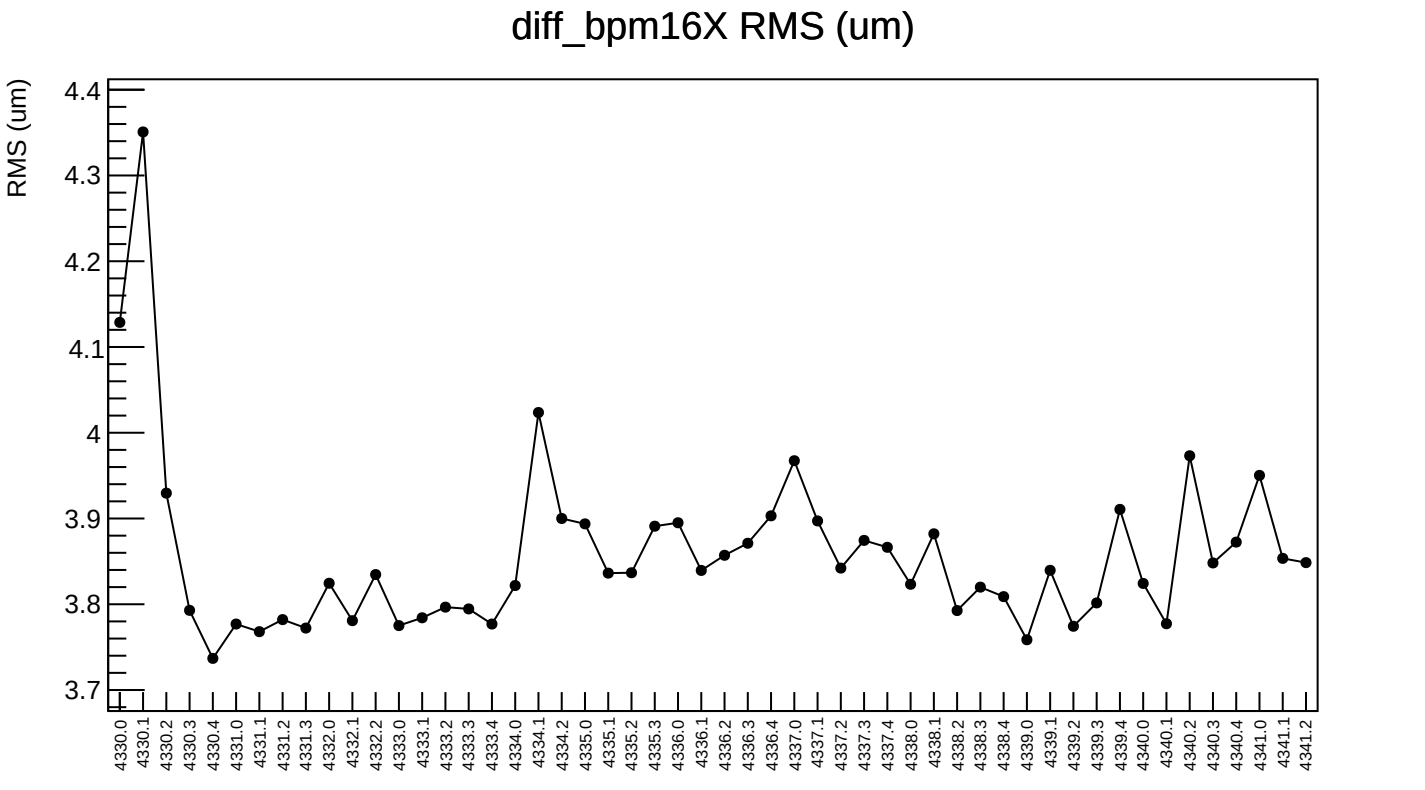

diff_bpm1X (nm)
χ² / ndf 18.87 / 51
p0 −14.74 ± 12.7
1D pull distribution
Mean 0.004909 ± 0.08354
Std Dev 0.6024 ± 0.05907
Underflow 0
Overflow 0
χ² / ndf 3.296 / 3
Constant 17.08 ± 3.30
Mean 0.03569 ± 0.11200
Sigma 0.6108 ± 0.0836

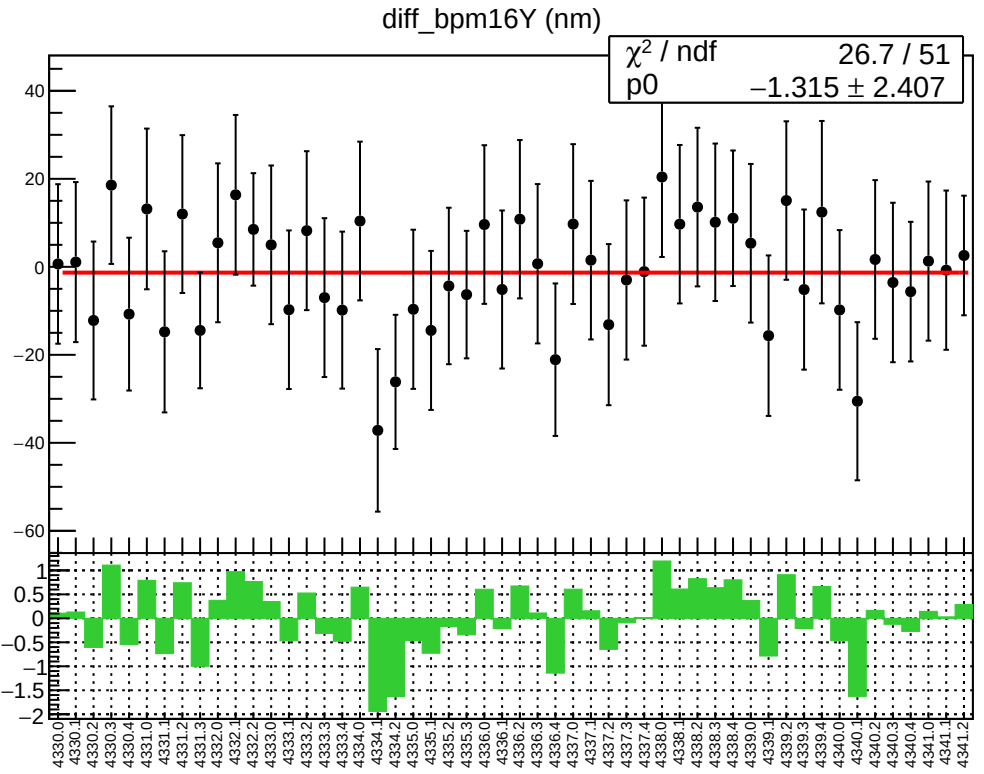

diff_bpm1X RMS (um)
RMS (um)
8.2
8
7.8
7.6
7.4
7.2
7
6.8
6.6
6.4
6.2
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

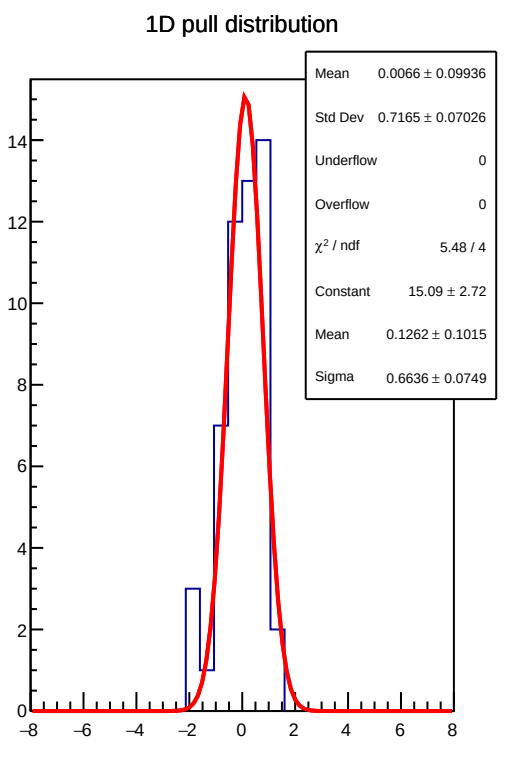

diff_bpm1Y (nm)
χ² / ndf 20.13 / 51
p0 4.691 ± 7.696
1D pull distribution
Mean 0.001841 ± 0.08627
Std Dev 0.6221 ± 0.06101
Underflow 0
Overflow 0
χ² / ndf 3.483 / 3
Constant 17.72 ± 3.58
Mean −0.03827 ± 0.10546
Sigma 0.5853 ± 0.0870

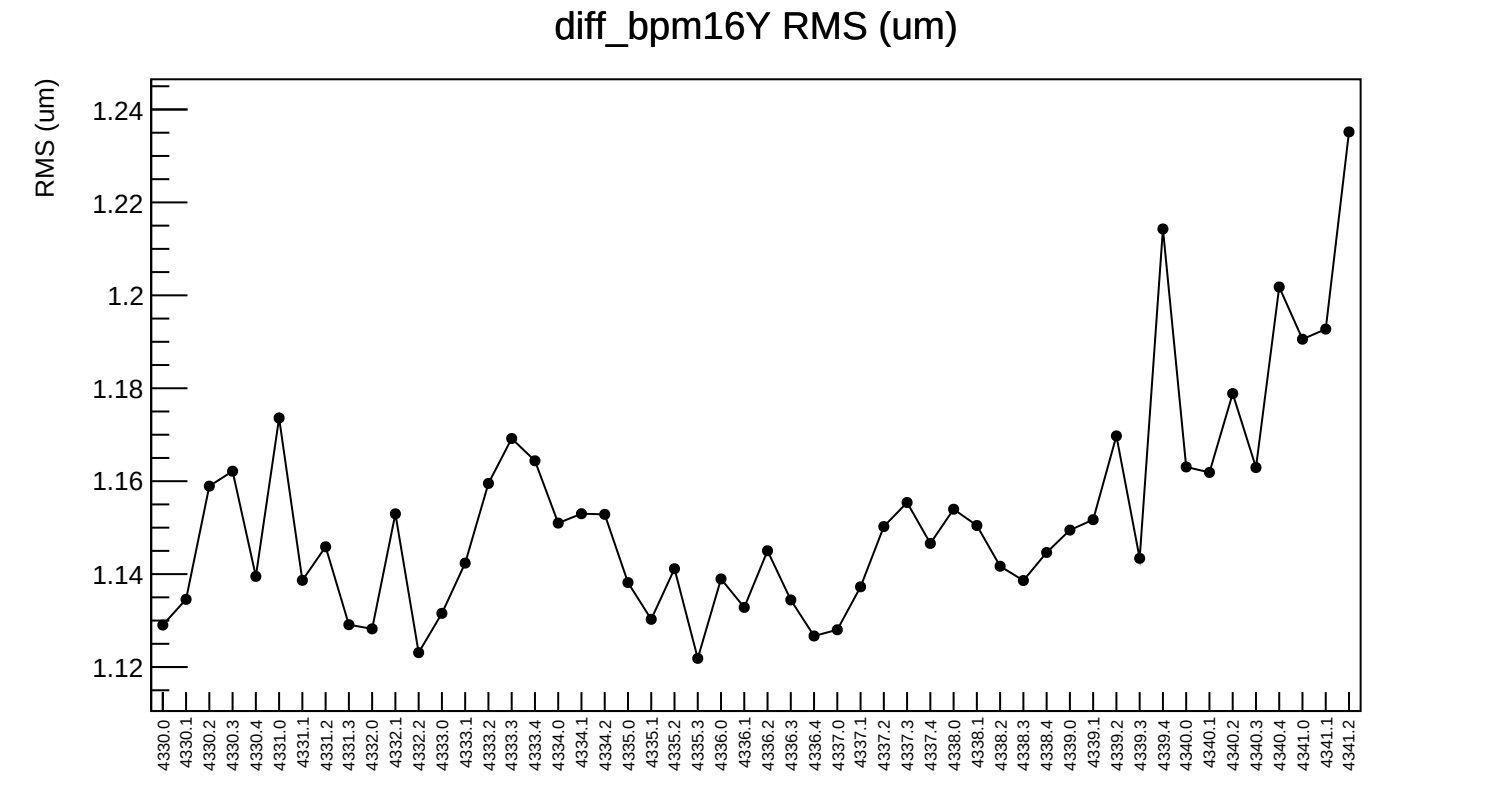

diff_bpm1Y RMS (um)
RMS (um)
3.05
3
2.95
2.9
2.85
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

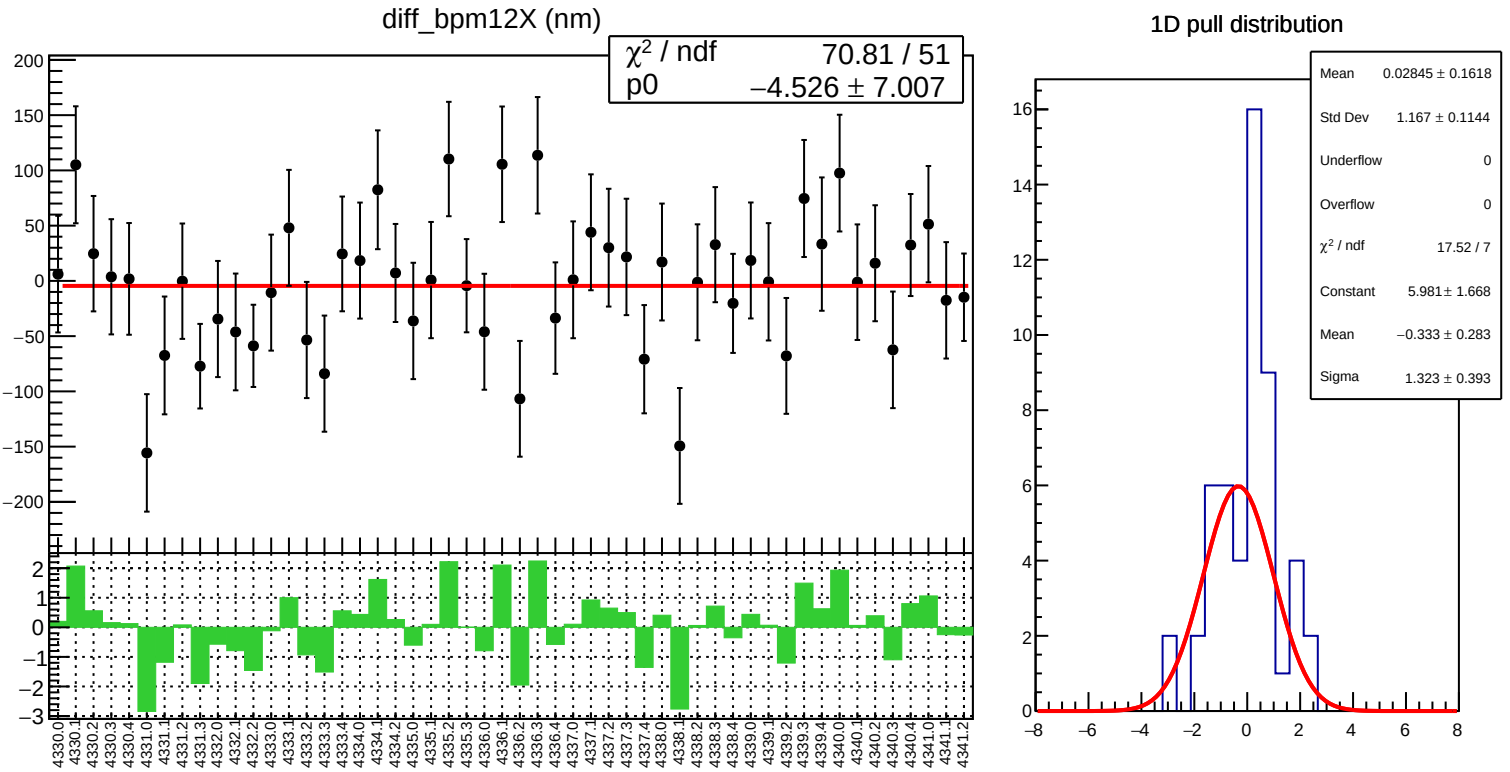

diff_bpm16X (nm)
χ² / ndf 26.04 / 51
p0 8.033 ± 5.984
1D pull distribution
Mean 0.002908 ± 0.09814
Std Dev 0.7077 ± 0.0694
Underflow 0
Overflow 0
χ² / ndf 6.586 / 4
Constant 12.78 ± 2.33
Mean −0.03023 ± 0.12269
Sigma 0.7721 ± 0.0925

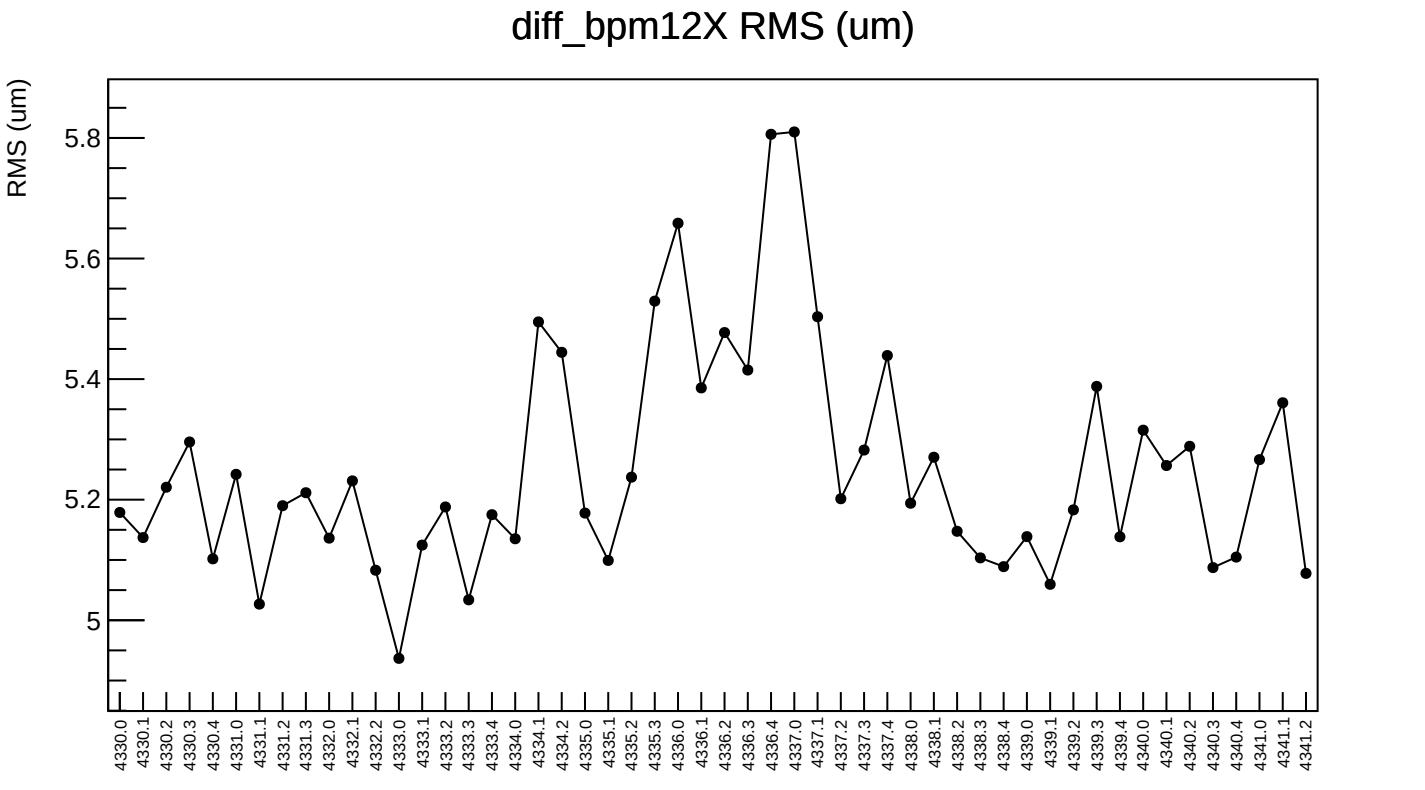

diff_bpm16X RMS (um)
RMS (um)
4.4
4.3
4.2
4.1
4
3.9
3.8
3.7
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

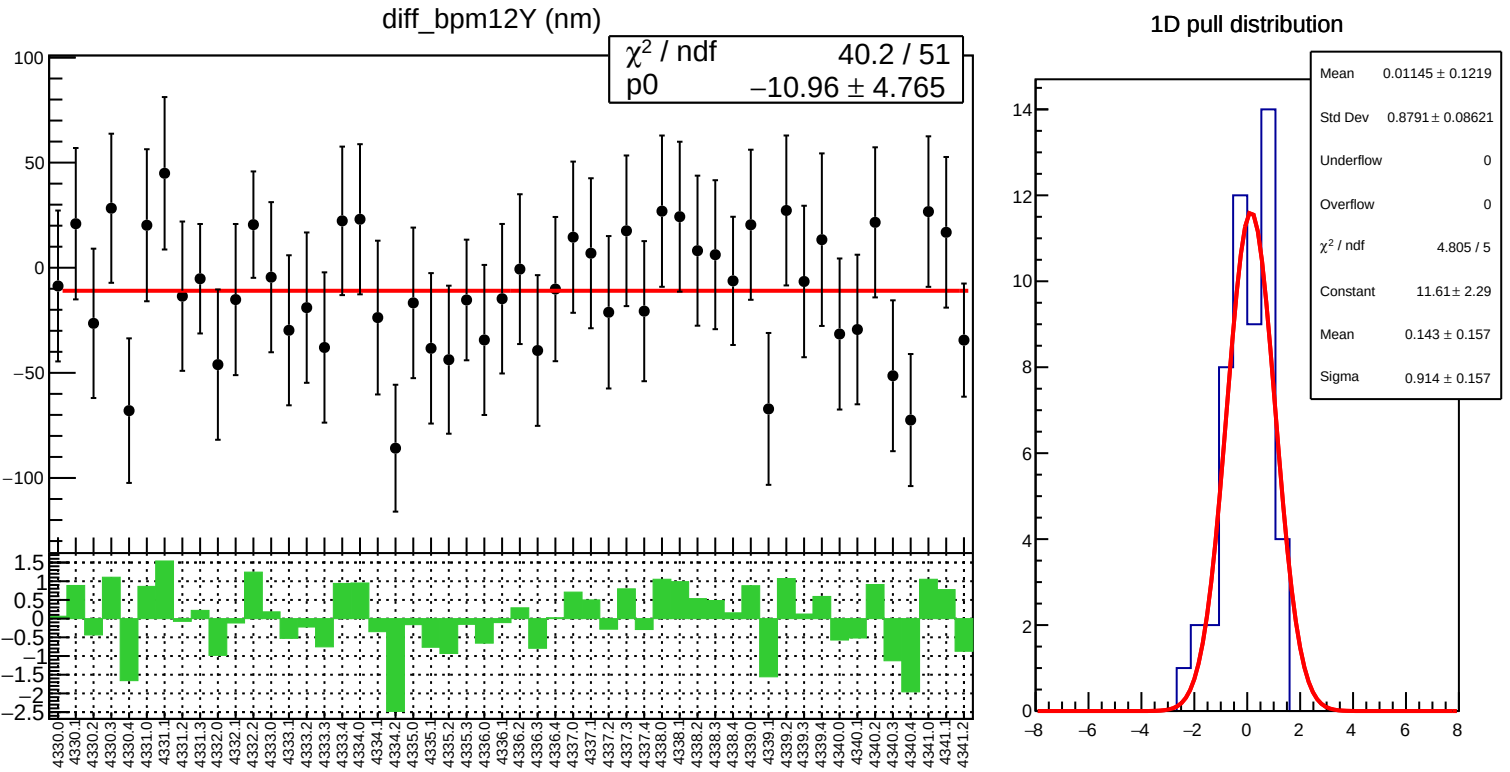

diff_bpm16Y (nm)
χ² / ndf 26.7 / 51
p0 −1.315 ± 2.407

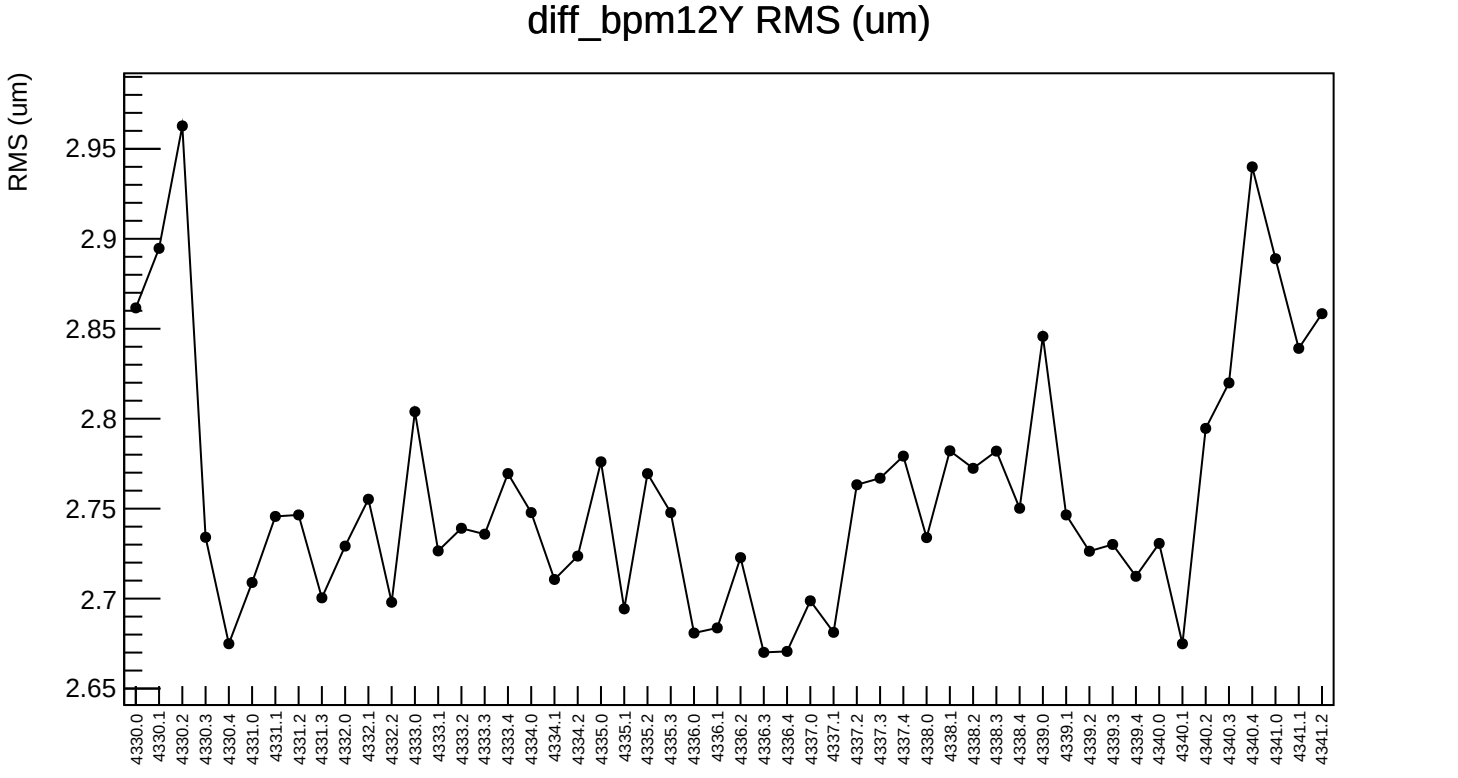

1D pull distribution
Mean 0.0066 ± 0.09936
Std Dev 0.7165 ± 0.07026
Underflow 0
Overflow 0
χ² / ndf 5.48 / 4
Constant 15.09 ± 2.72
Mean 0.1262 ± 0.1015
Sigma 0.6636 ± 0.0749

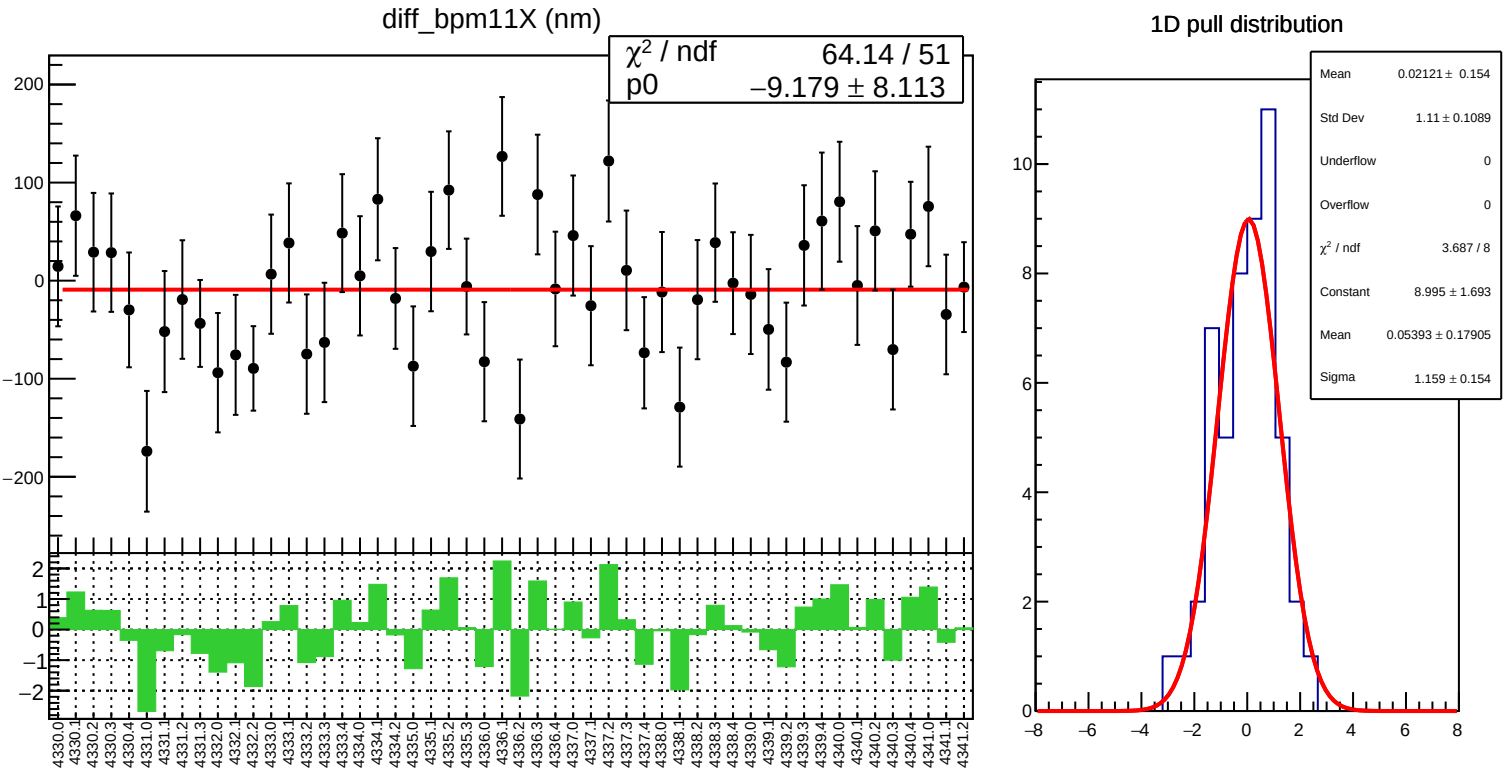

diff_bpm16Y RMS (um)
RMS (um)
1.24
1.22
1.2
1.18
1.16
1.14
1.12
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

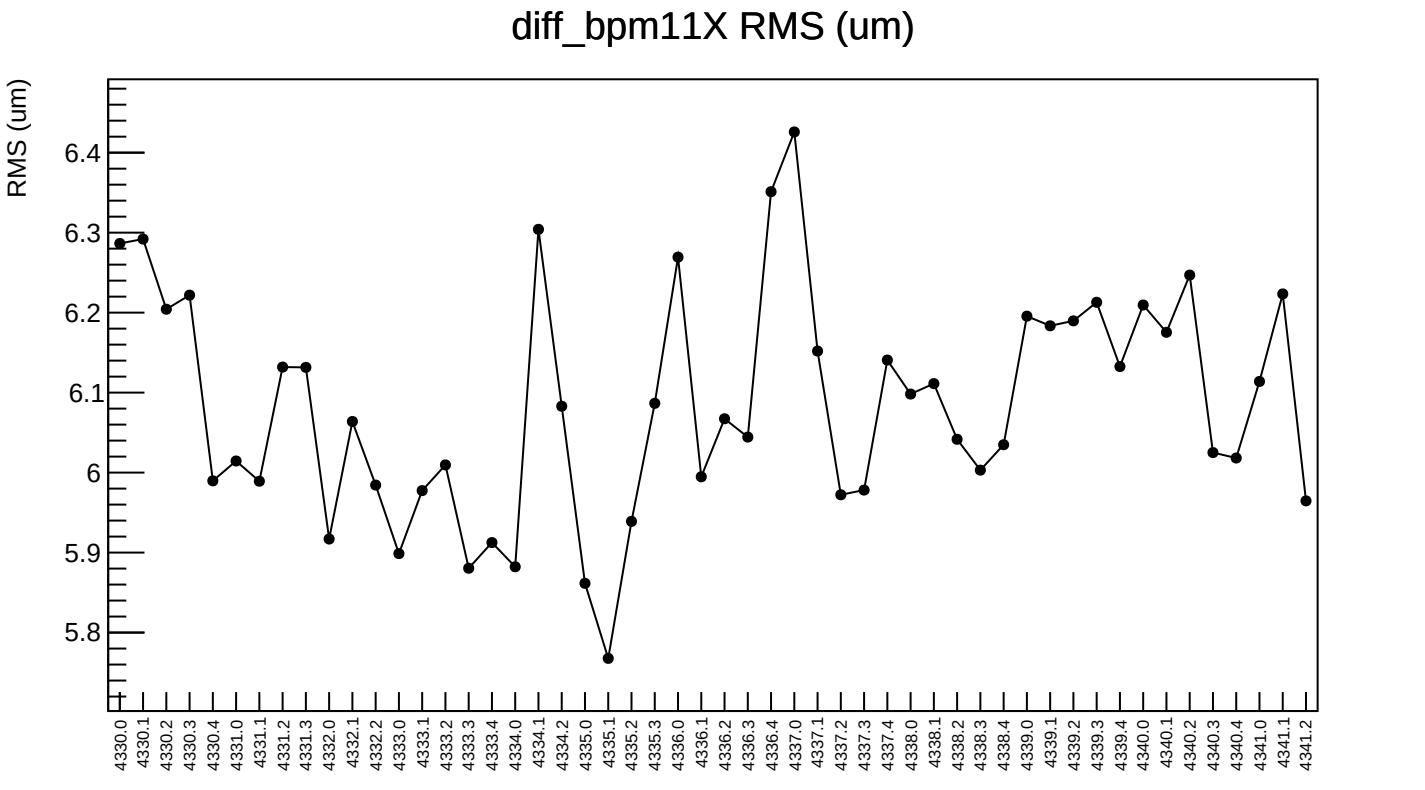

diff_bpm12X (nm)
χ² / ndf 70.81 / 51
p0 −4.526 ± 7.007
1D pull distribution
Mean 0.02845 ± 0.1618
Std Dev 1.167 ± 0.1144
Underflow 0
Overflow 0
χ² / ndf 17.52 / 7
Constant 5.981 ± 1.668
Mean −0.333 ± 0.283
Sigma 1.323 ± 0.393

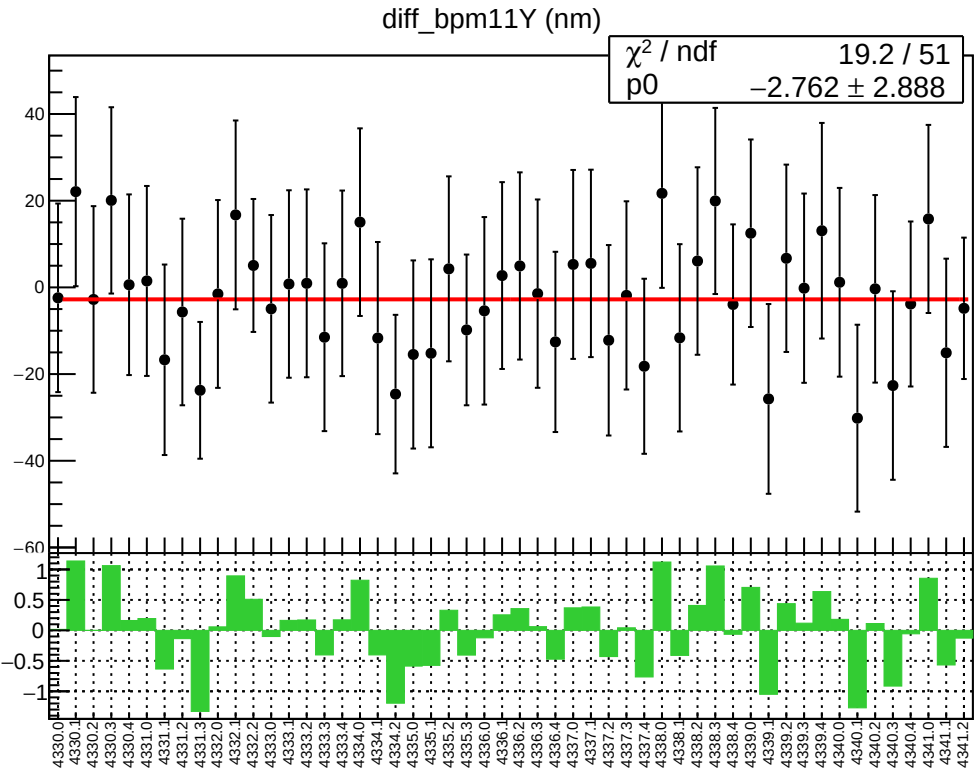

diff_bpm12X RMS (um)
RMS (um)
5.8
5.6
5.4
5.2
5
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

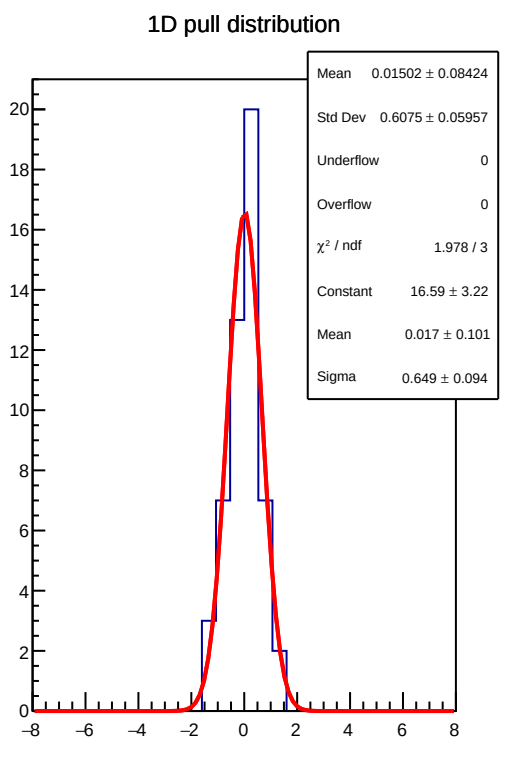

diff_bpm12Y (nm)
χ² / ndf 40.2 / 51
p0 −10.96 ± 4.765
1D pull distribution
Mean 0.01145 ± 0.1219
Std Dev 0.8791 ± 0.08621
Underflow 0
Overflow 0
χ² / ndf 4.805 / 5
Constant 11.61 ± 2.29
Mean 0.143 ± 0.157
Sigma 0.914 ± 0.157

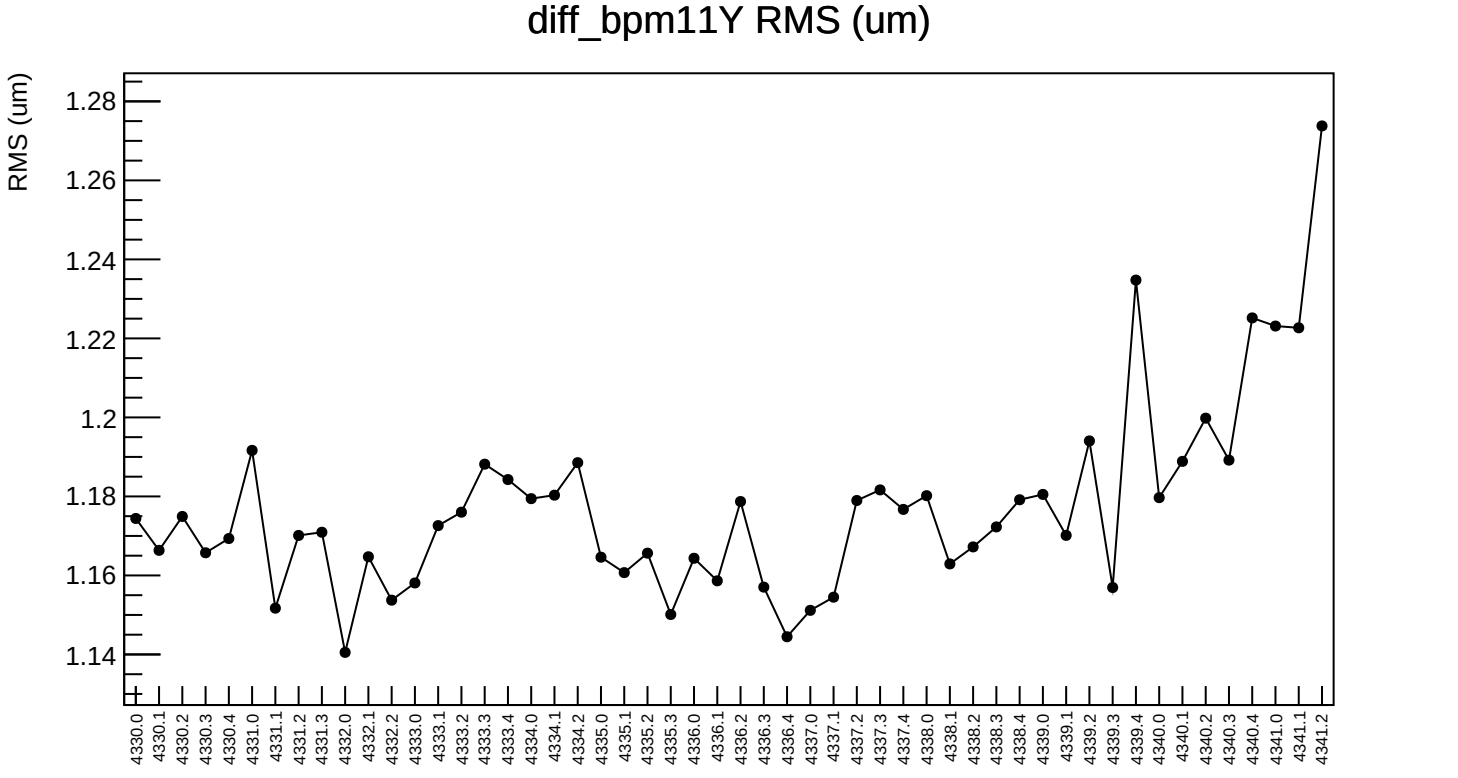

diff_bpm12Y RMS (um)
RMS (um)
2.95
2.9
2.85
2.8
2.75
2.7
2.65
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

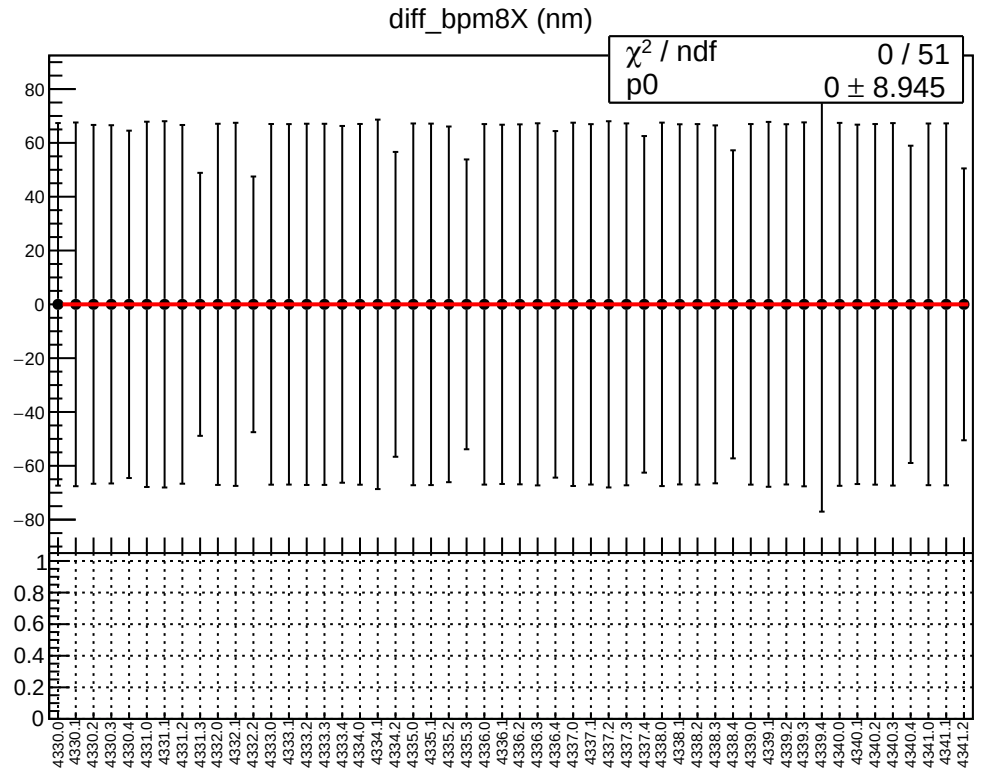

diff_bpm11X (nm)
χ² / ndf 64.14 / 51
p0 −9.179 ± 8.113
200
100
0
−100
−200
2
1
0
−1
−2
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2
1D pull distribution
Mean 0.02121 ± 0.154
Std Dev 1.11 ± 0.1089
Underflow 0
Overflow 0
χ² / ndf 3.687 / 8
Constant 8.995 ± 1.693
Mean 0.05393 ± 0.17905
Sigma 1.159 ± 0.154
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

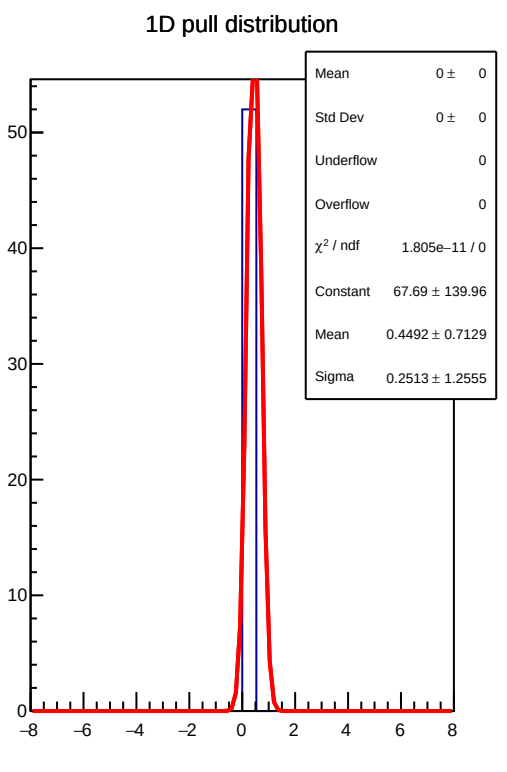

diff_bpm11X RMS (um)
RMS (um)
6.4
6.3
6.2
6.1
6
5.9
5.8
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

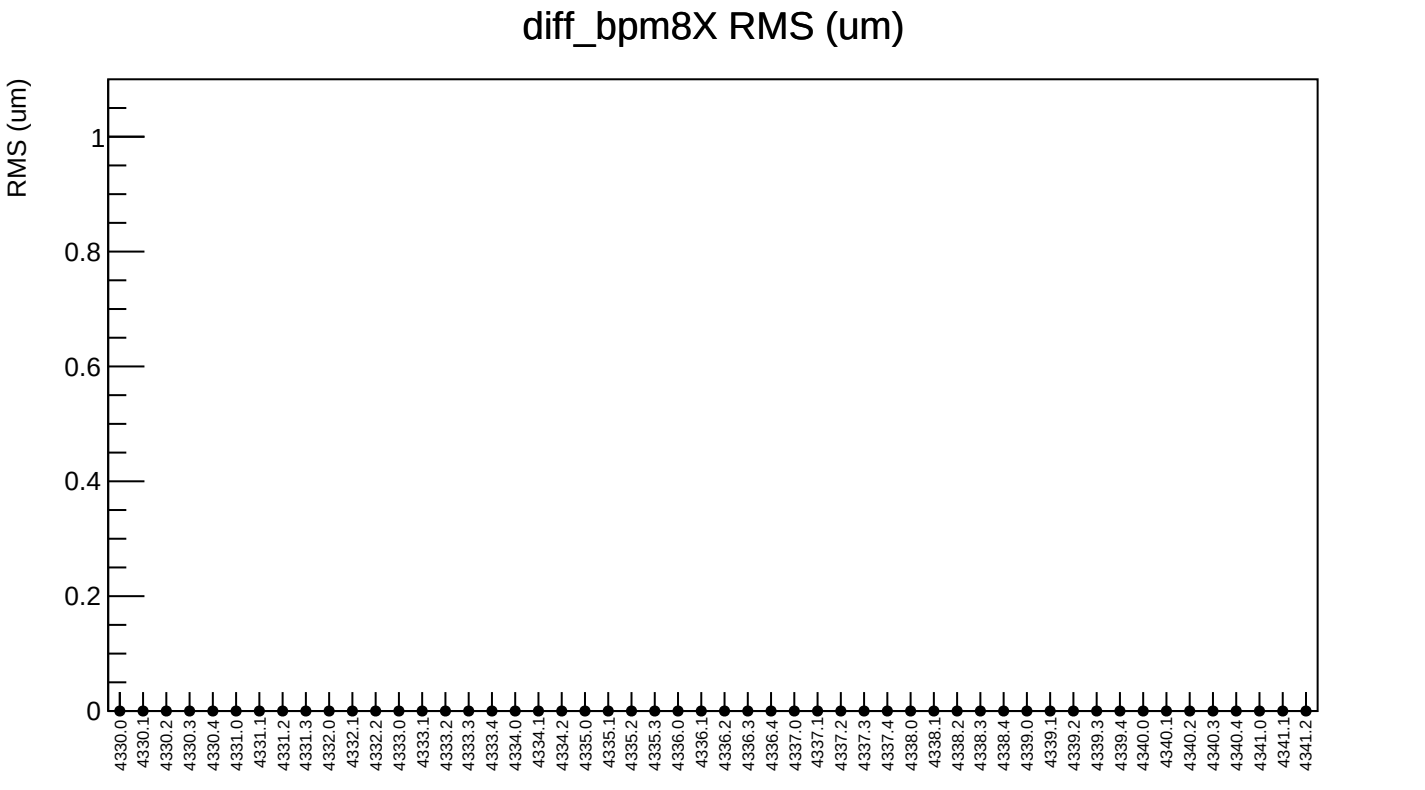

diff_bpm11Y (nm)
χ² / ndf 19.2 / 51
p0 −2.762 ± 2.888

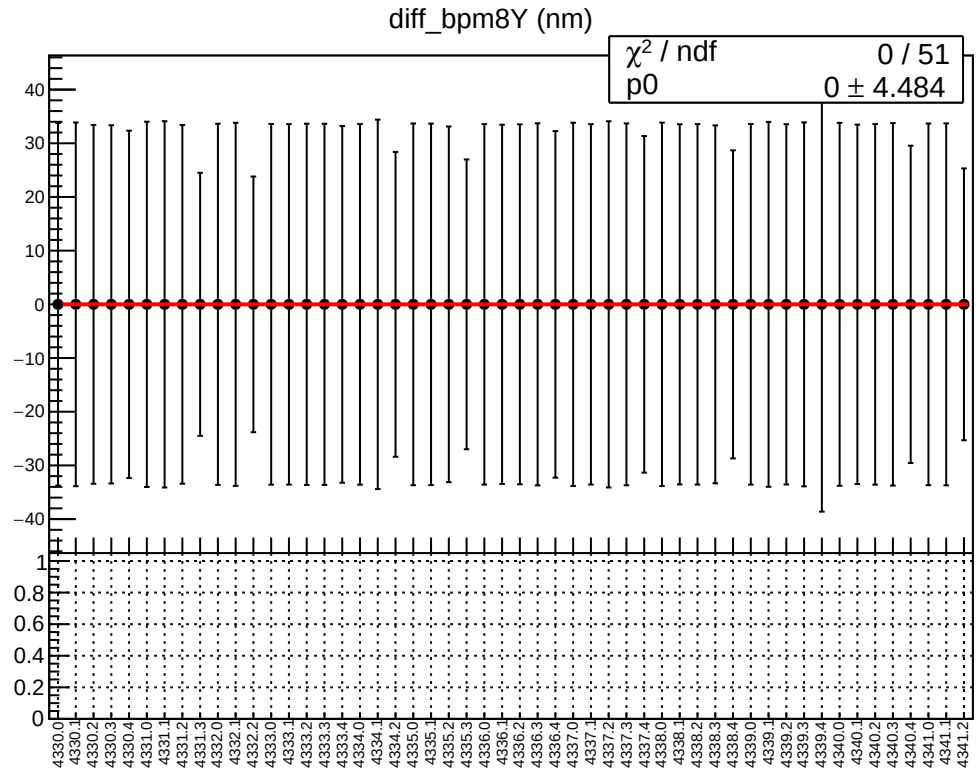

1D pull distribution
Mean 0.01502 ± 0.08424
Std Dev 0.6075 ± 0.05957
Underflow 0
Overflow 0
χ² / ndf 1.978 / 3
Constant 16.59 ± 3.22
Mean 0.017 ± 0.101
Sigma 0.649 ± 0.094

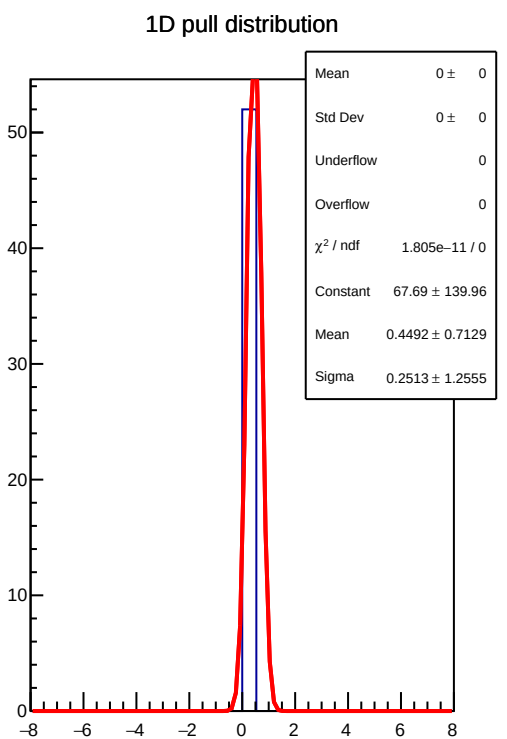

diff_bpm11Y RMS (um)
RMS (um)
1.28
1.26
1.24
1.22
1.2
1.18
1.16
1.14
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

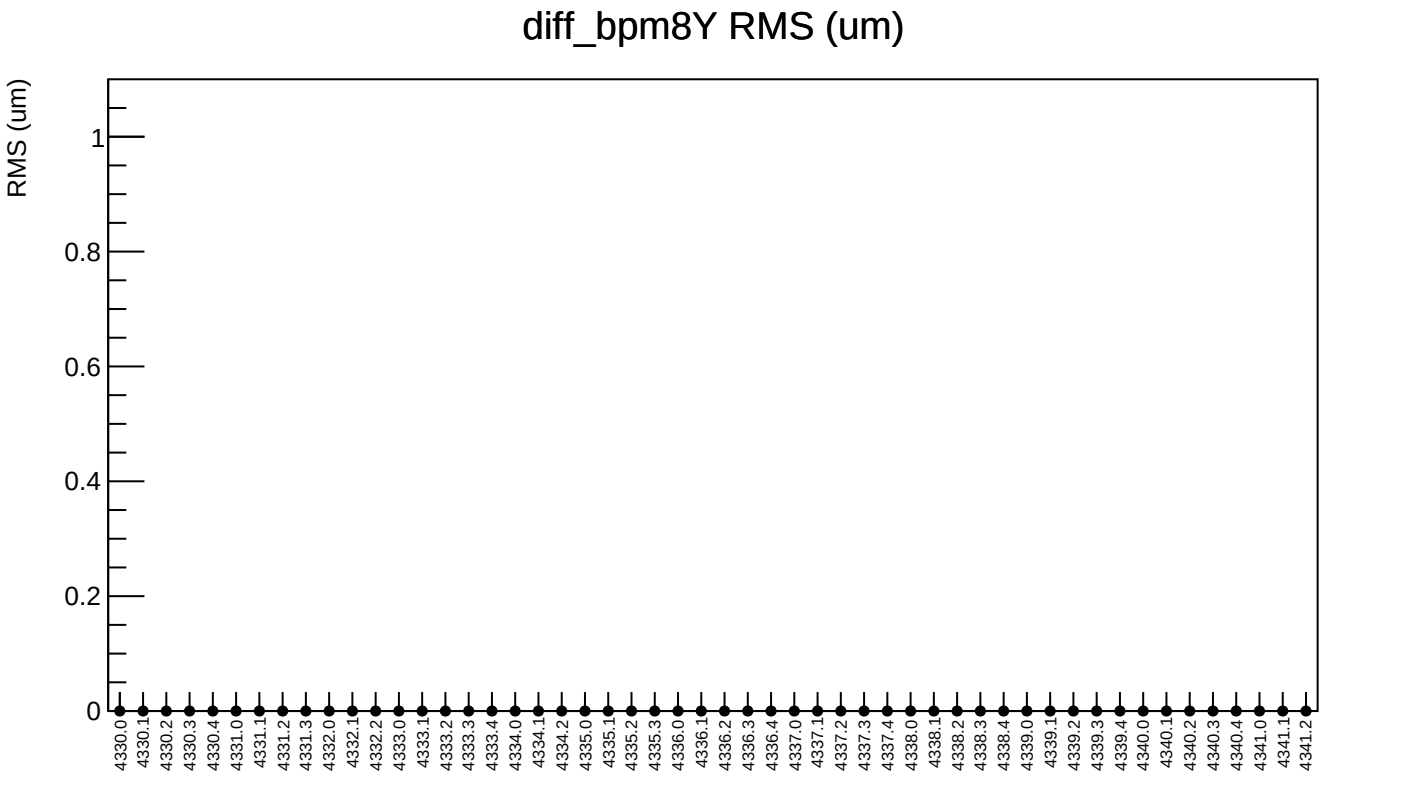

diff_bpm8X (nm)
χ² / ndf 0 / 51
p0 0 ± 8.945

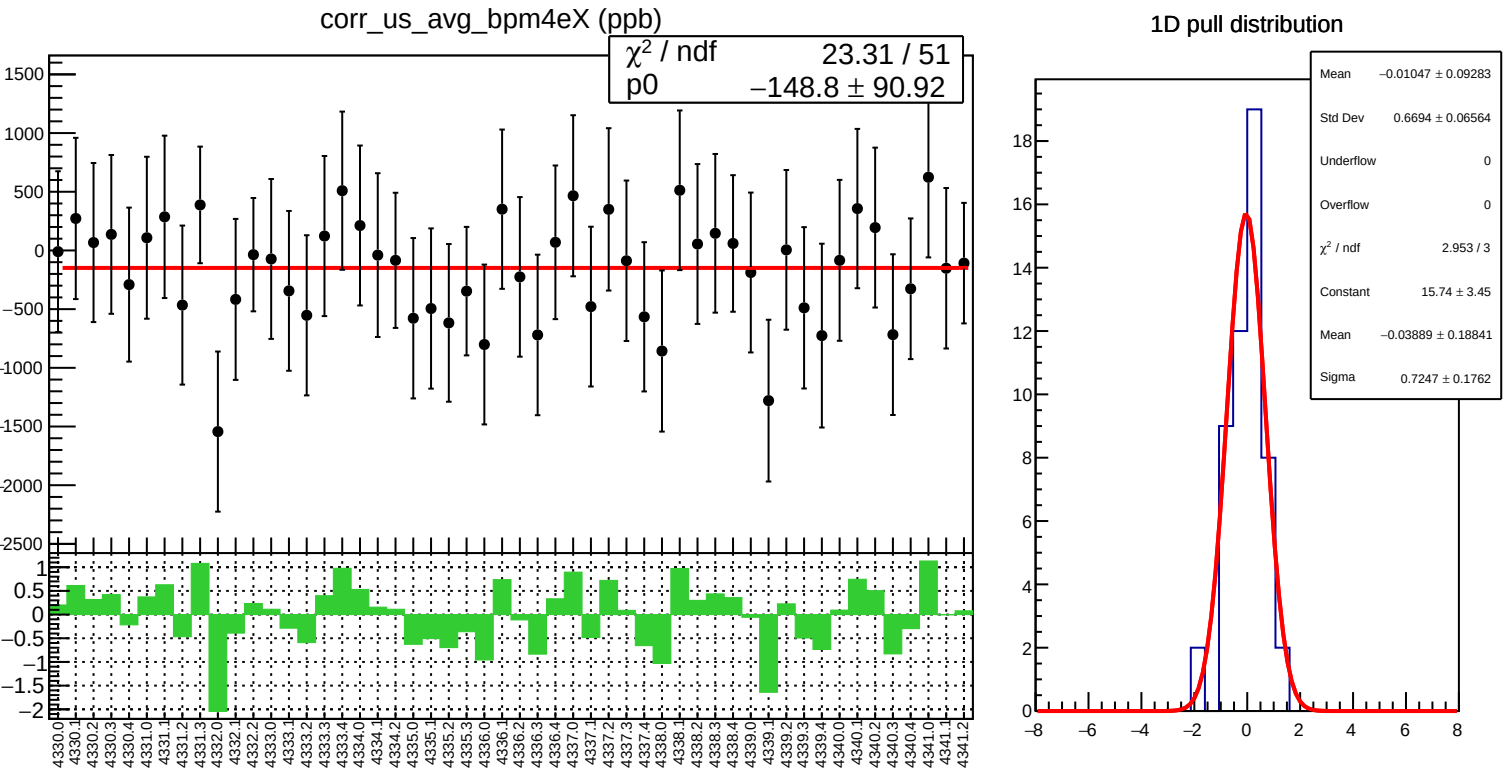

1D pull distribution
Mean 0 ± 0
Std Dev 0 ± 0
Underflow 0
Overflow 0
χ² / ndf 1.805e−11 / 0
Constant 67.69 ± 139.96
Mean 0.4492 ± 0.7129
Sigma 0.2513 ± 1.2555

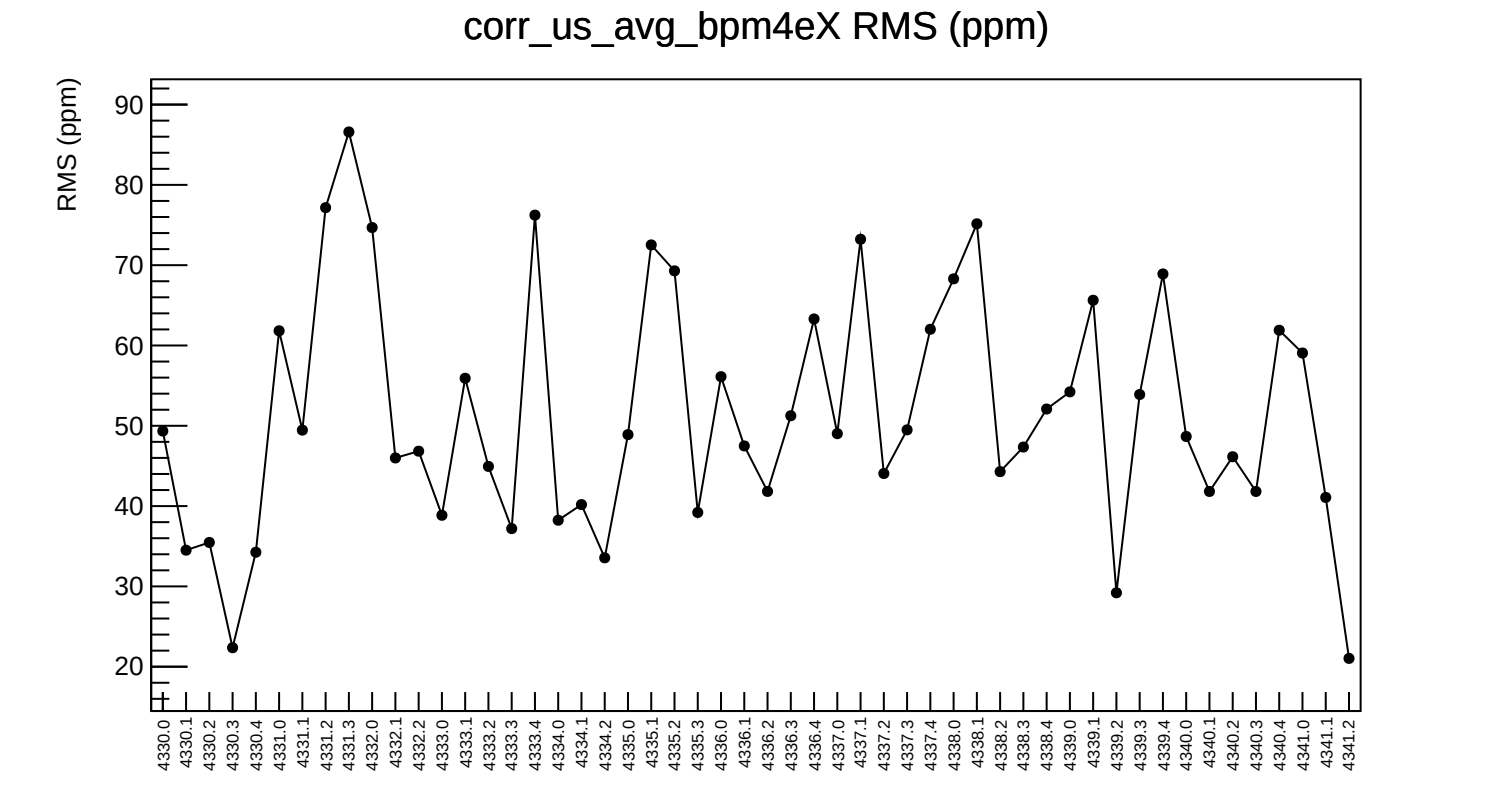

diff_bpm8X RMS (um)
RMS (um)
1
0.8
0.6
0.4
0.2
0
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

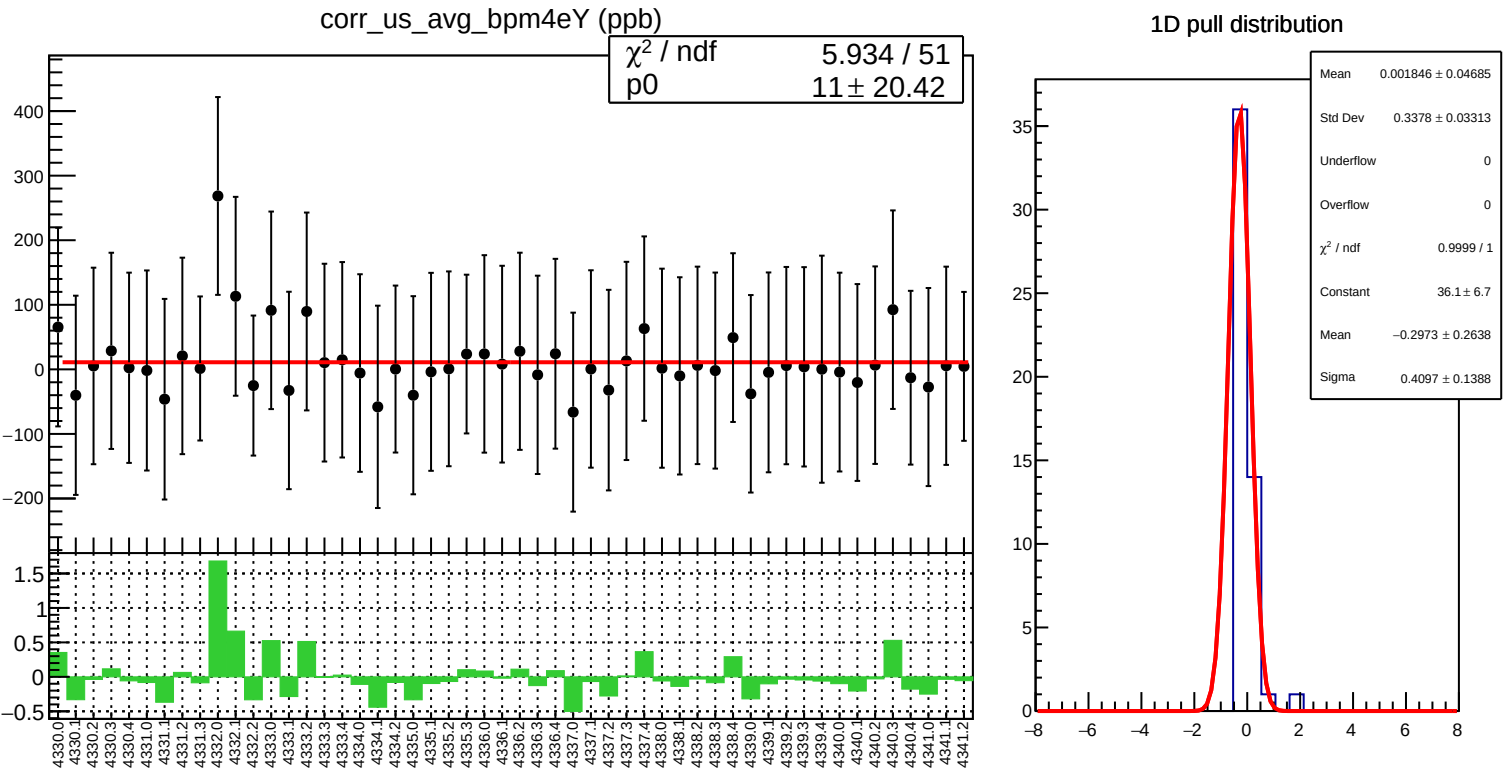

diff_bpm8Y (nm)
χ² / ndf 0 / 51
p0 0 ± 4.484

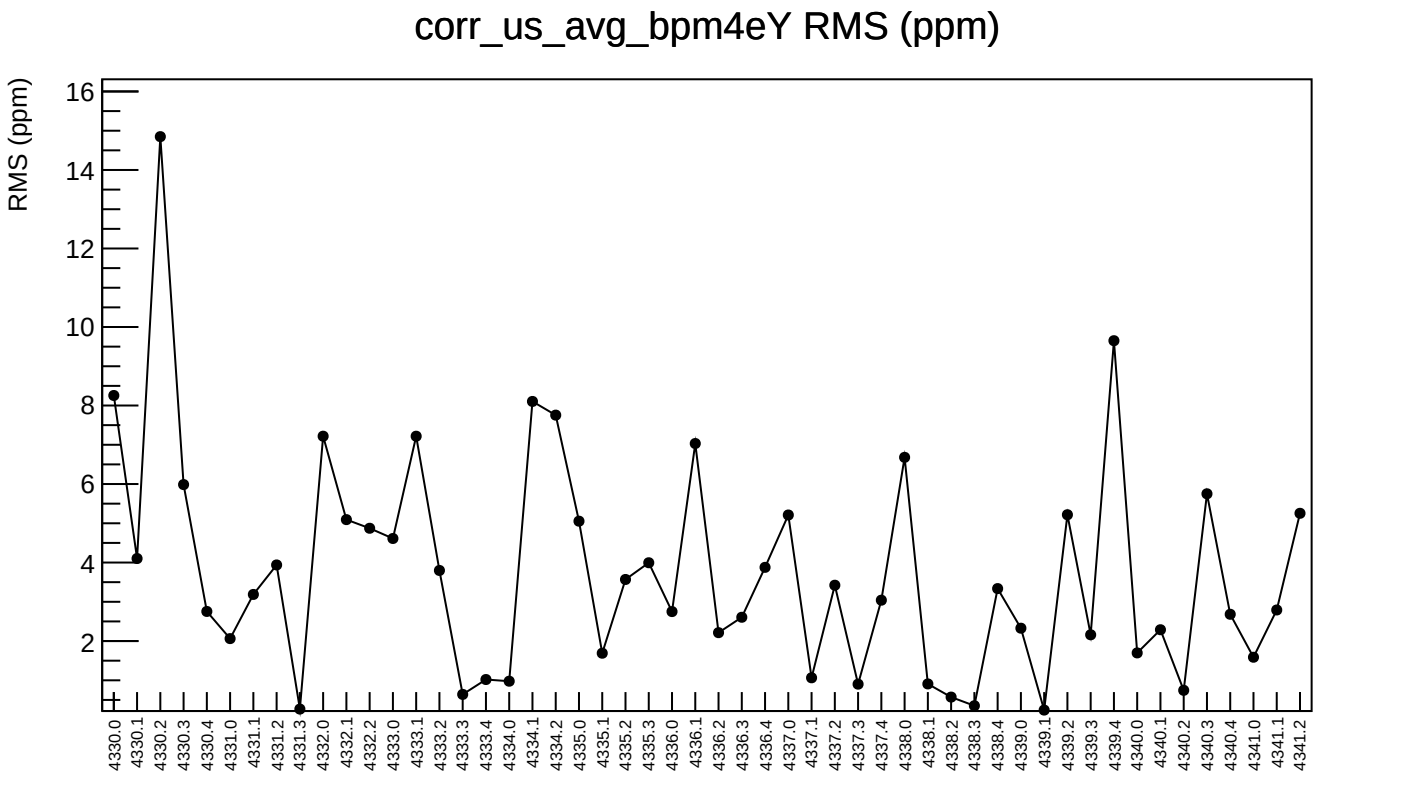

1D pull distribution
Mean 0 ± 0
Std Dev 0 ± 0
Underflow 0
Overflow 0
χ² / ndf 1.805e−11 / 0
Constant 67.69 ± 139.96
Mean 0.4492 ± 0.7129
Sigma 0.2513 ± 1.2555

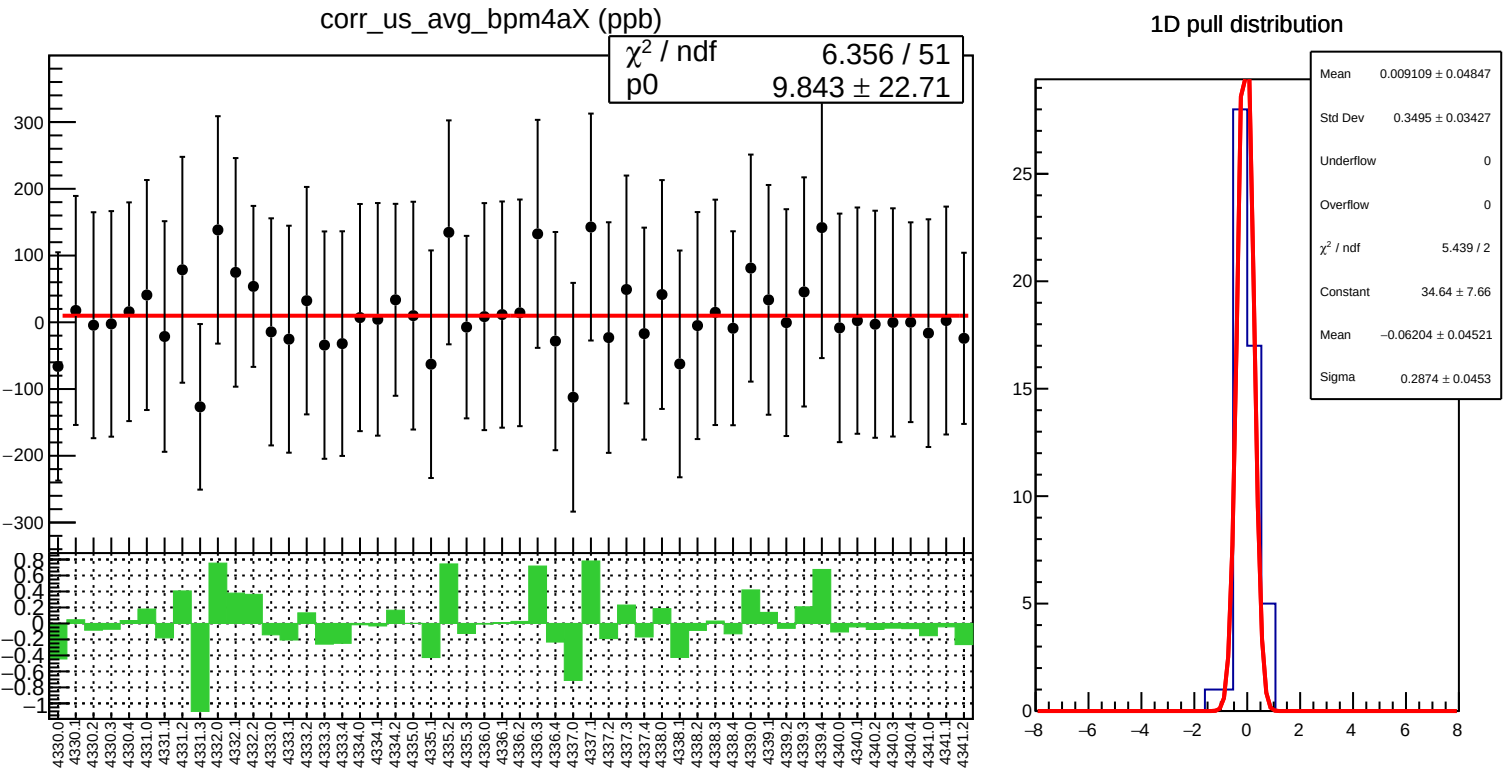

diff_bpm8Y RMS (um)
RMS (um)
1
0.8
0.6
0.4
0.2
0
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

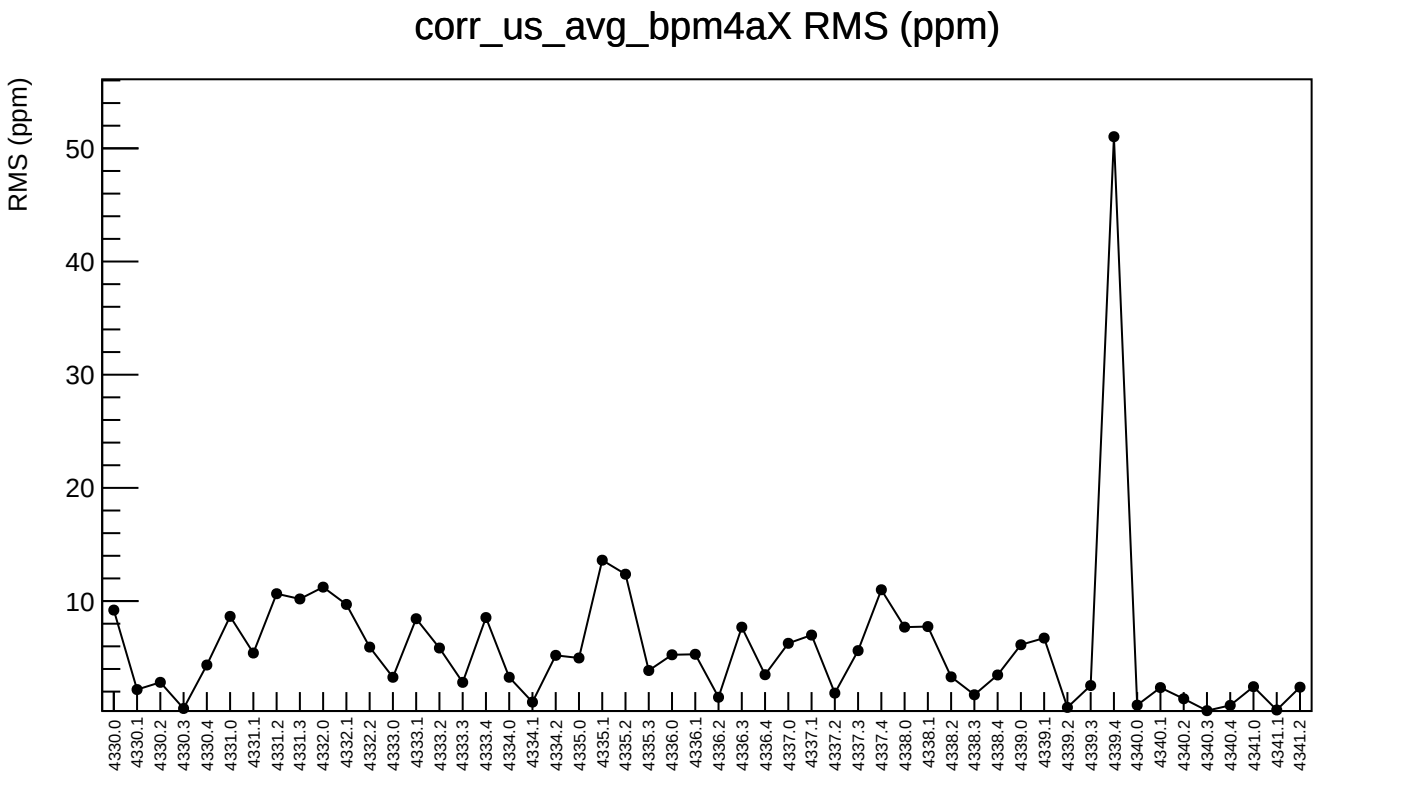

corr_us_avg_bpm4eX (ppb)
χ² / ndf 23.31 / 51
p0 −148.8 ± 90.92
1500
1000
500
0
−500
−1000
−1500
−2000
−2500
1
0.5
0
−0.5
−1
−1.5
−2
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2
1D pull distribution
Mean −0.01047 ± 0.09283
Std Dev 0.6694 ± 0.06564
Underflow 0
Overflow 0
χ² / ndf 2.953 / 3
Constant 15.74 ± 3.45
Mean −0.03889 ± 0.18841
Sigma 0.7247 ± 0.1762
18
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

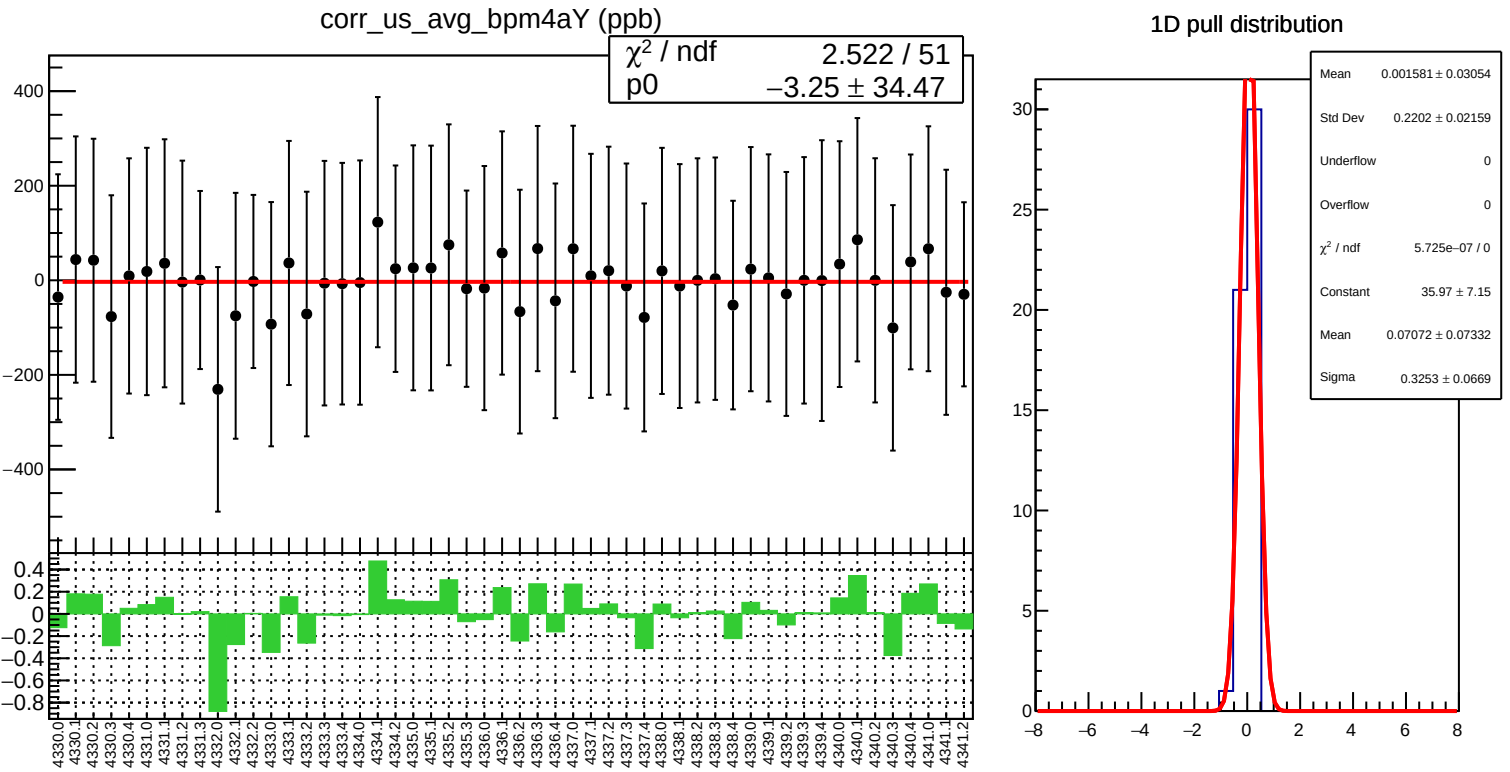

corr_us_avg_bpm4eX RMS (ppm)
RMS (ppm)
90
80
70
60
50
40
30
20
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

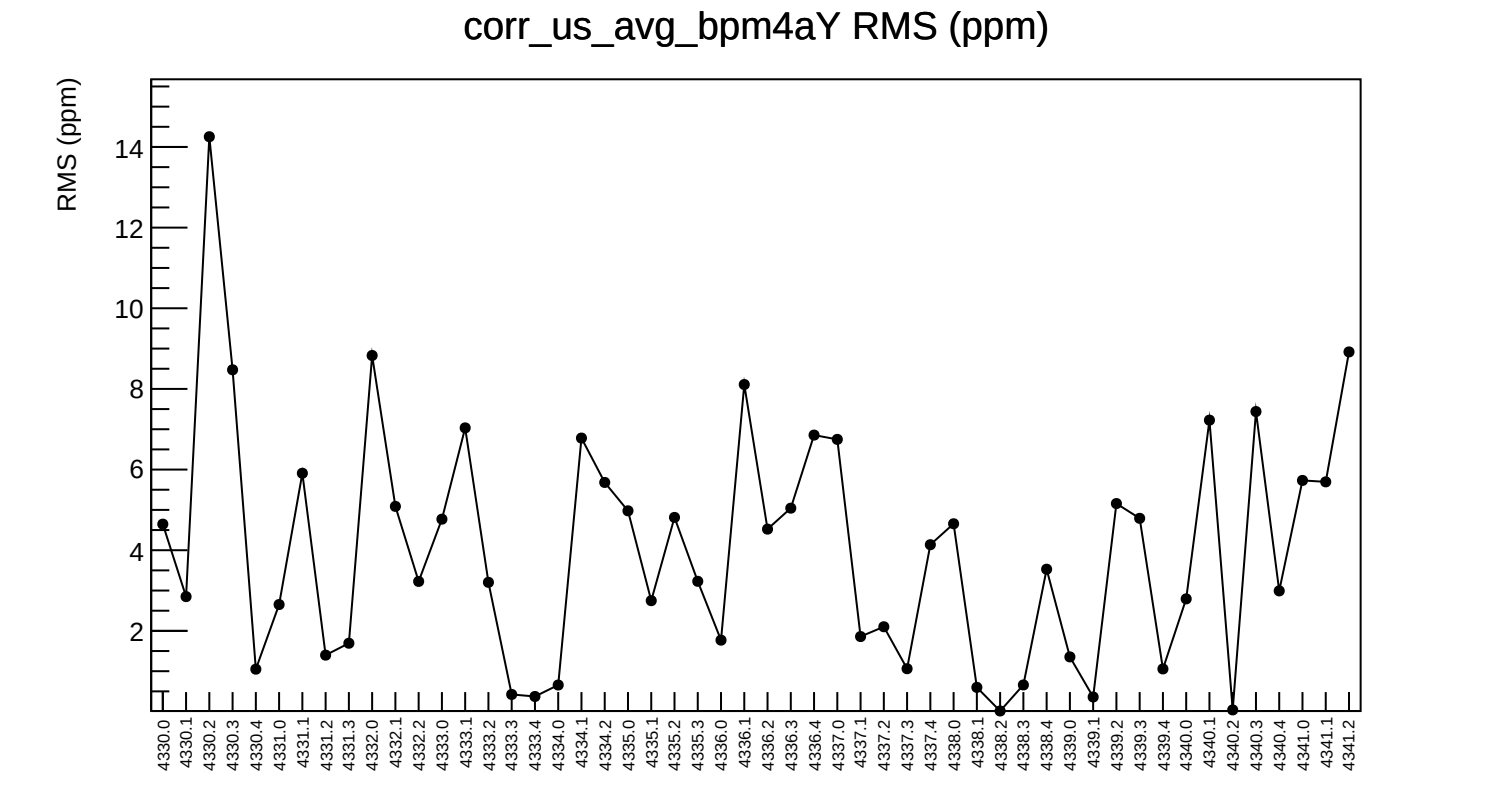

corr_us_avg_bpm4eY (ppb)
χ² / ndf 5.934 / 51
p0 11 ± 20.42
1D pull distribution
Mean 0.001846 ± 0.04685
Std Dev 0.3378 ± 0.03313
Underflow 0
Overflow 0
χ² / ndf 0.9999 / 1
Constant 36.1 ± 6.7
Mean −0.2973 ± 0.2638
Sigma 0.4097 ± 0.1388

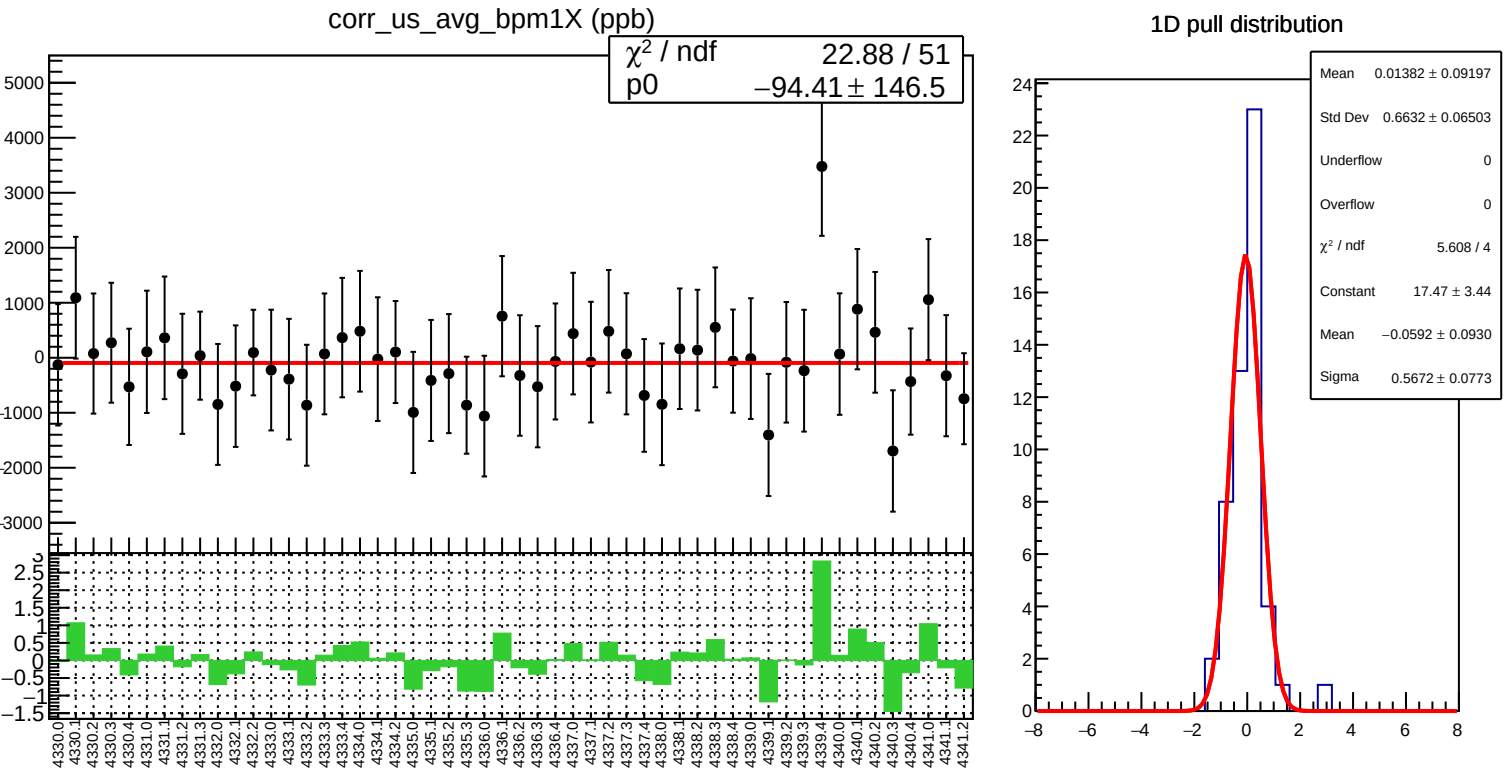

corr_us_avg_bpm4eY RMS (ppm)
RMS (ppm)
16
14
12
10
8
6
4
2
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

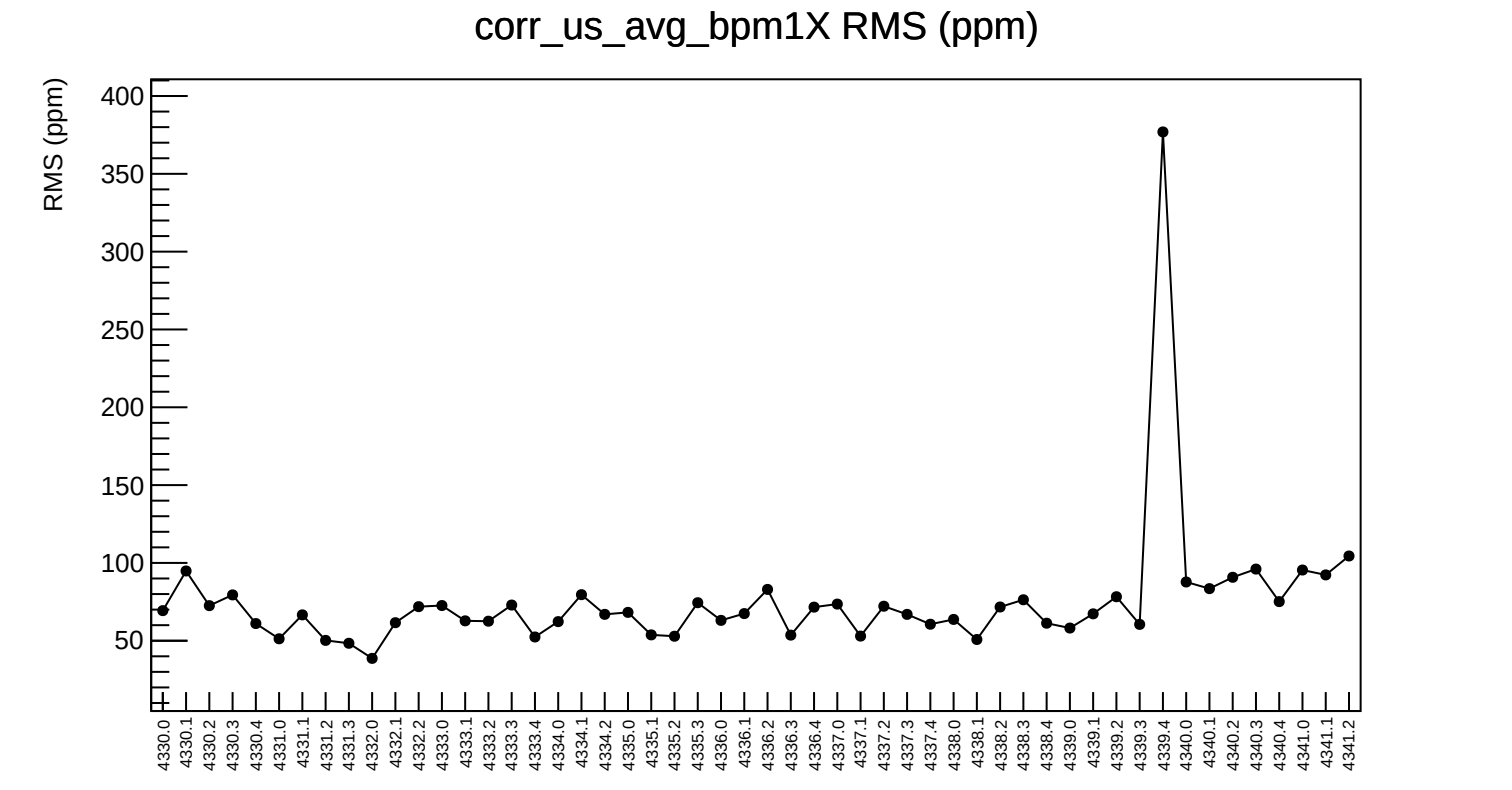

corr_us_avg_bpm4aX (ppb)
χ² / ndf 6.356 / 51
p0 9.843 ± 22.71
1D pull distribution
Mean 0.009109 ± 0.04847
Std Dev 0.3495 ± 0.03427
Underflow 0
Overflow 0
χ² / ndf 5.439 / 2
Constant 34.64 ± 7.66
Mean −0.06204 ± 0.04521
Sigma 0.2874 ± 0.0453

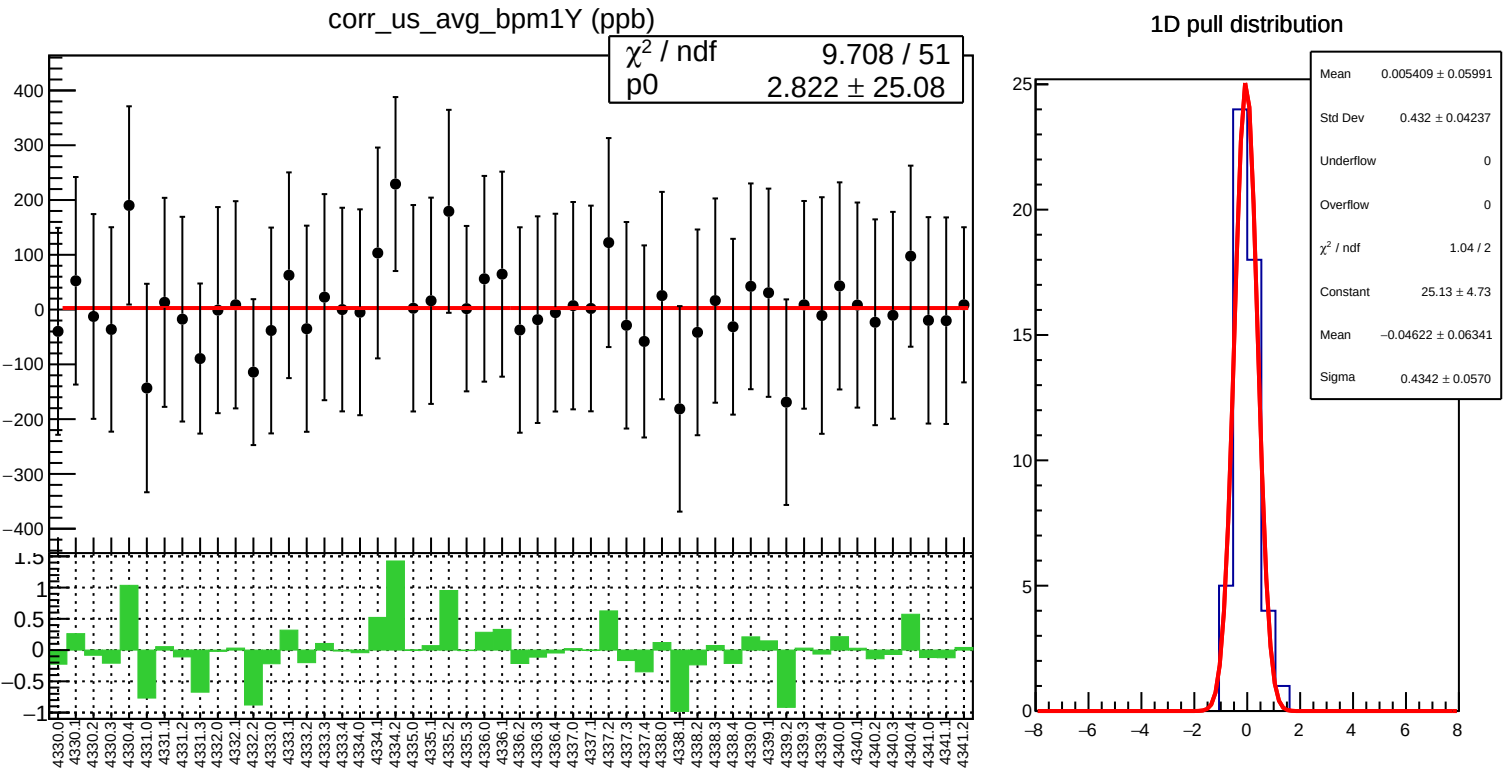

corr_us_avg_bpm4aX RMS (ppm)
RMS (ppm)
50
40
30
20
10
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

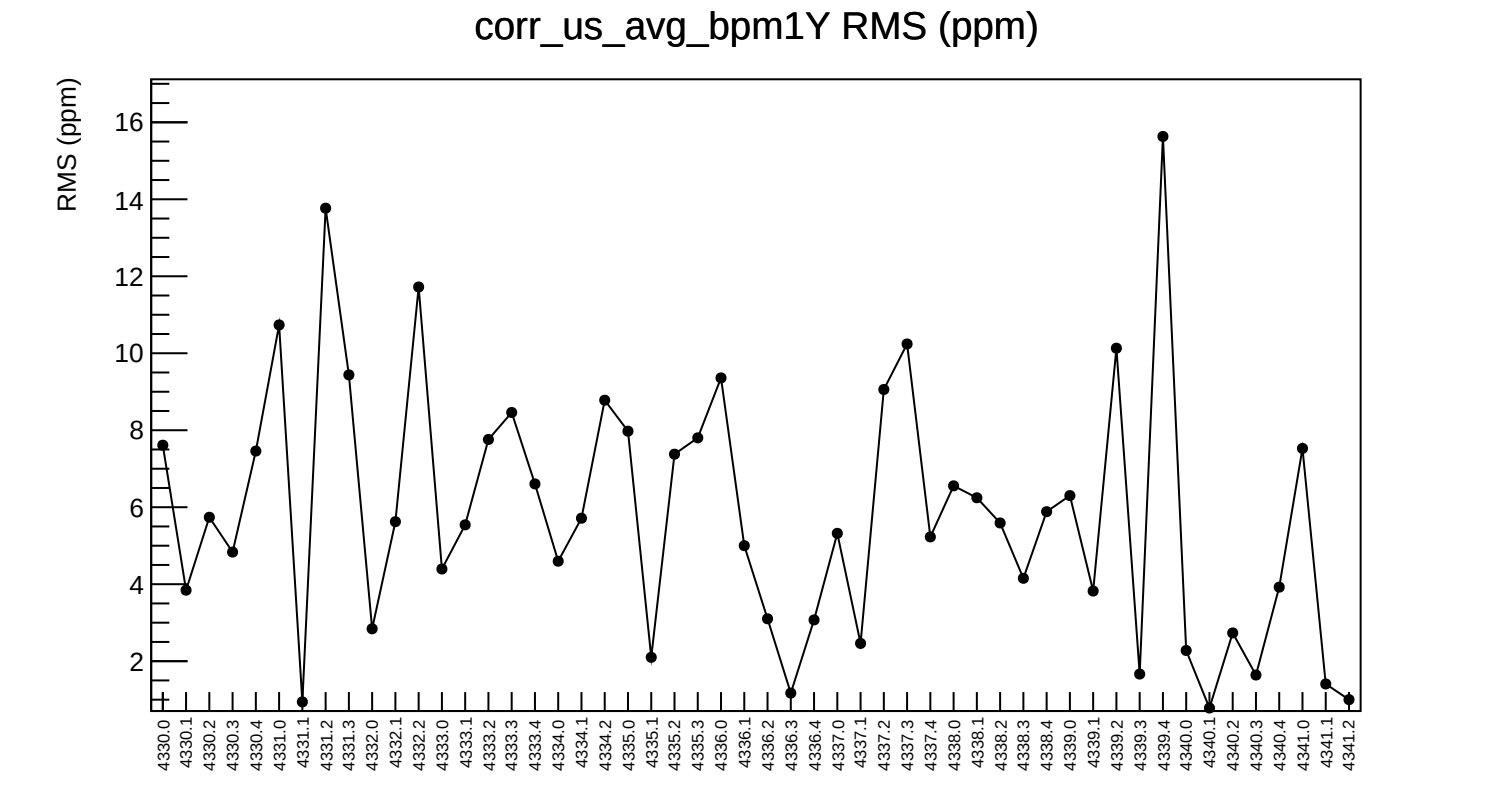

corr_us_avg_bpm4aY (ppb)
χ² / ndf 2.522 / 51
p0 −3.25 ± 34.47
1D pull distribution
Mean 0.001581 ± 0.03054
Std Dev 0.2202 ± 0.02159
Underflow 0
Overflow 0
χ² / ndf 5.725e−07 / 0
Constant 35.97 ± 7.15
Mean 0.07072 ± 0.07332
Sigma 0.3253 ± 0.0669

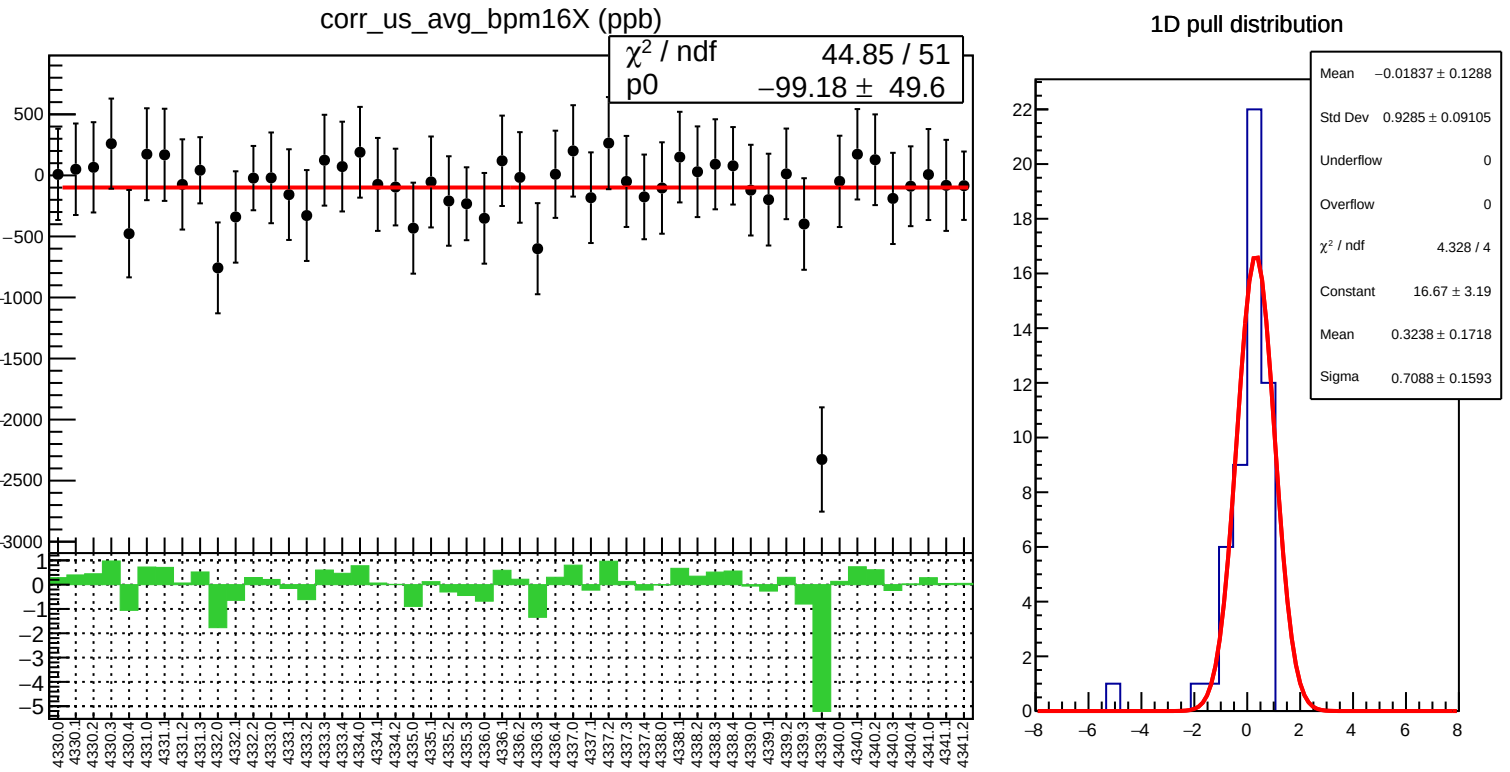

corr_us_avg_bpm4aY RMS (ppm)
RMS (ppm)
14
12
10
8
6
4
2
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

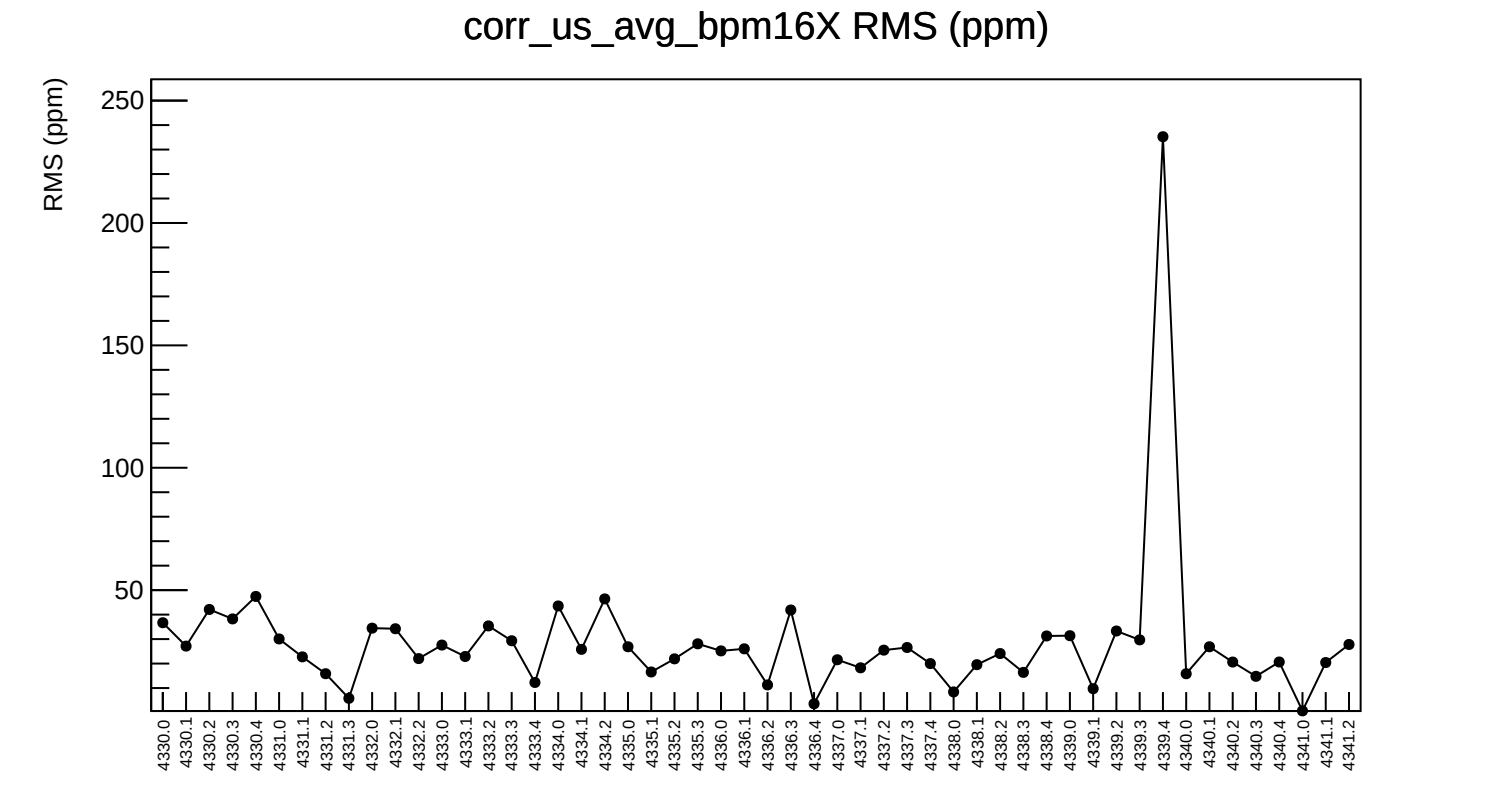

corr_us_avg_bpm1X (ppb)
χ² / ndf 22.88 / 51
p0 −94.41 ± 146.5
1D pull distribution
Mean 0.01382 ± 0.09197
Std Dev 0.6632 ± 0.06503
Underflow 0
Overflow 0
χ² / ndf 5.608 / 4
Constant 17.47 ± 3.44
Mean −0.0592 ± 0.0930
Sigma 0.5672 ± 0.0773

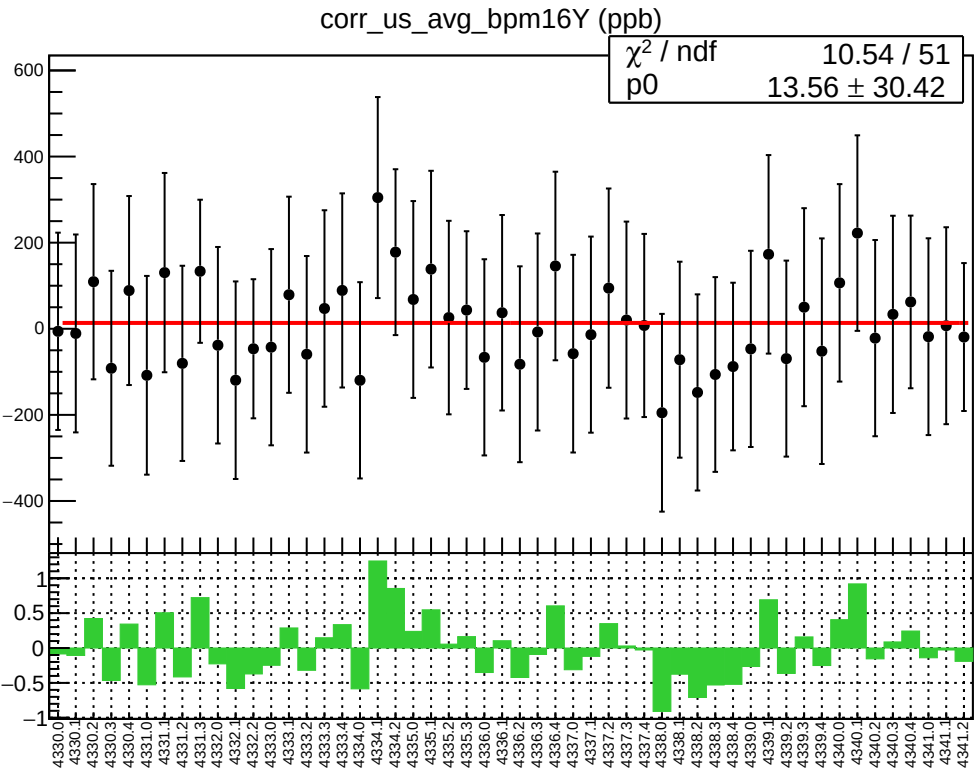

corr_us_avg_bpm1X RMS (ppm)
RMS (ppm)
400
350
300
250
200
150
100
50
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

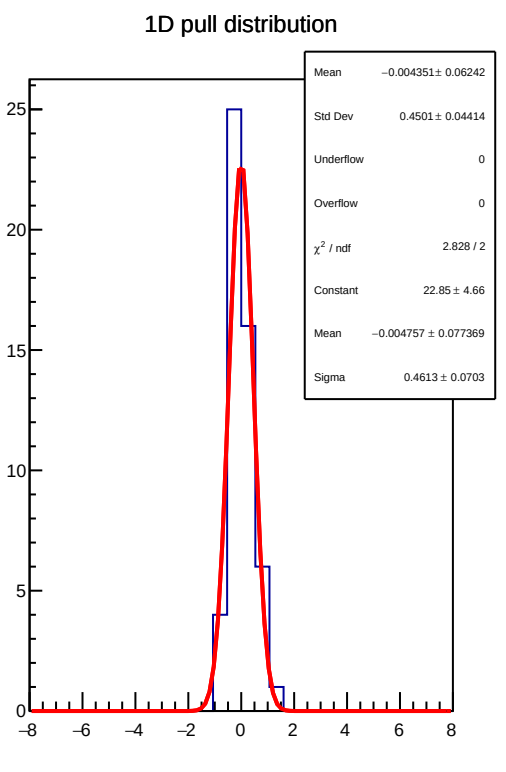

corr_us_avg_bpm1Y (ppb)
χ² / ndf 9.708 / 51
p0 2.822 ± 25.08
1D pull distribution
Mean 0.005409 ± 0.05991
Std Dev 0.432 ± 0.04237
Underflow 0
Overflow 0
χ² / ndf 1.04 / 2
Constant 25.13 ± 4.73
Mean −0.04622 ± 0.06341
Sigma 0.4342 ± 0.0570

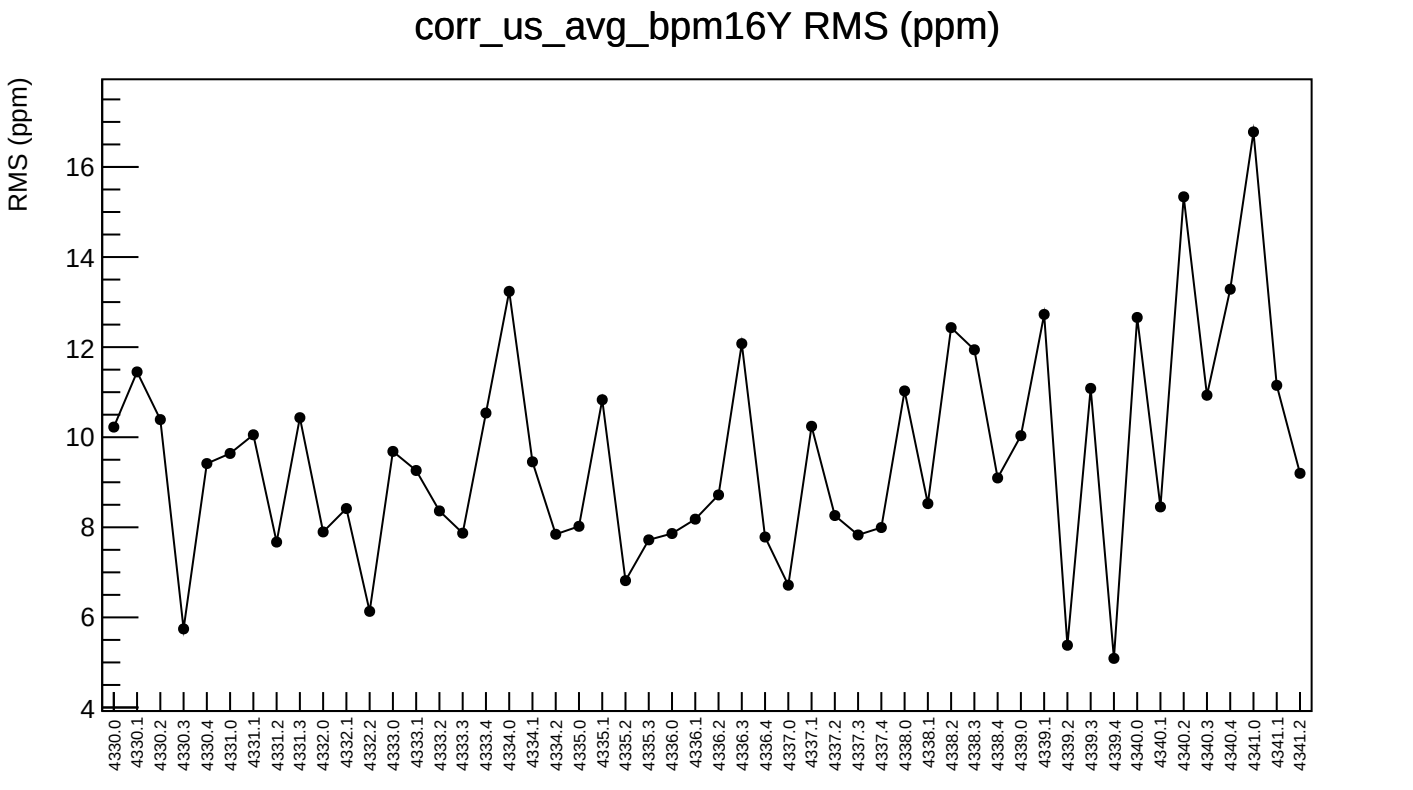

corr_us_avg_bpm1Y RMS (ppm)
RMS (ppm)
16
14
12
10
8
6
4
2
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

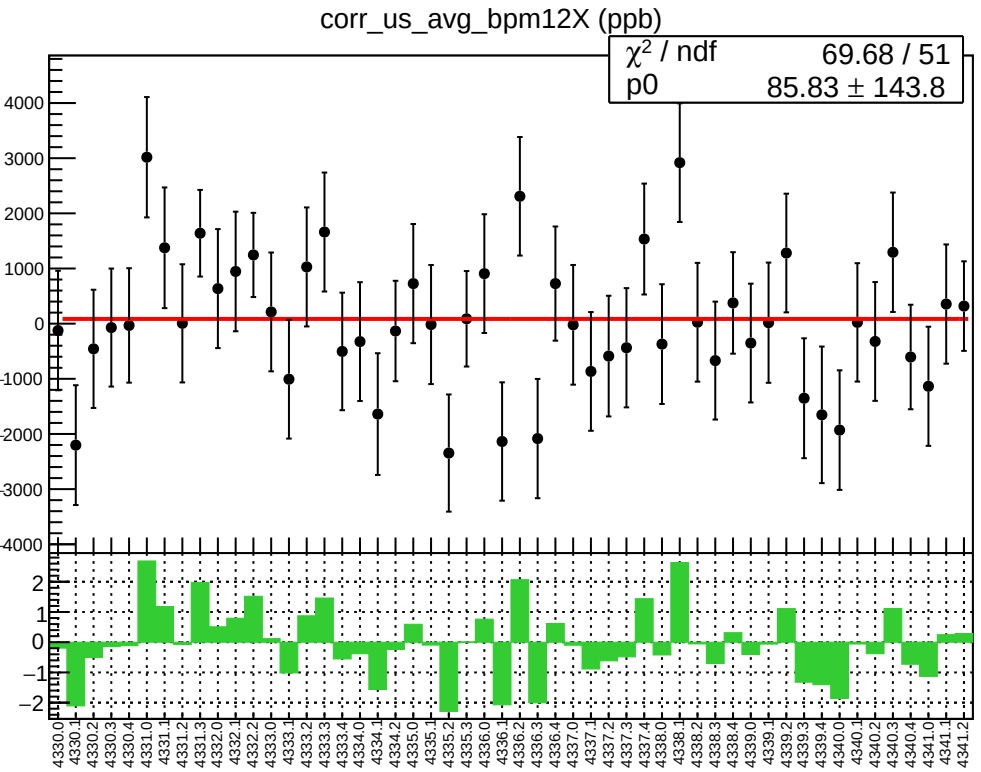

corr_us_avg_bpm16X (ppb)
χ² / ndf 44.85 / 51
p0 −99.18 ± 49.6
1D pull distribution
Mean −0.01837 ± 0.1288
Std Dev 0.9285 ± 0.09105
Underflow 0
Overflow 0
χ² / ndf 4.328 / 4
Constant 16.67 ± 3.19
Mean 0.3238 ± 0.1718
Sigma 0.7088 ± 0.1593

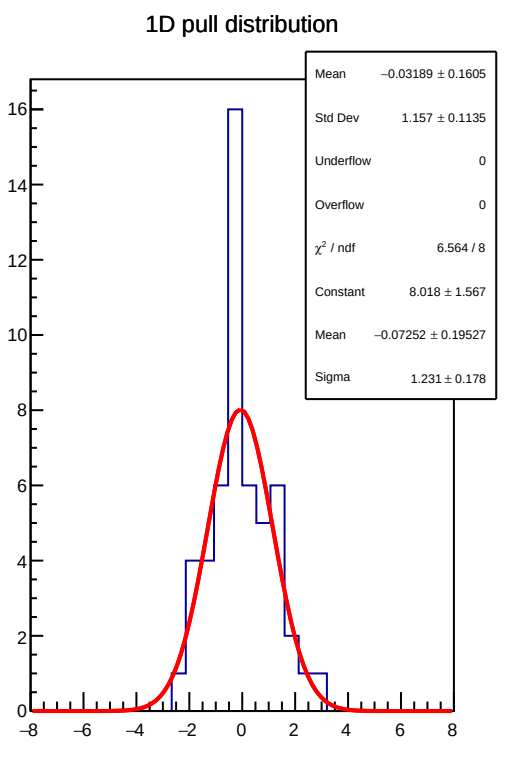

corr_us_avg_bpm16X RMS (ppm)
RMS (ppm)
250
200
150
100
50
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

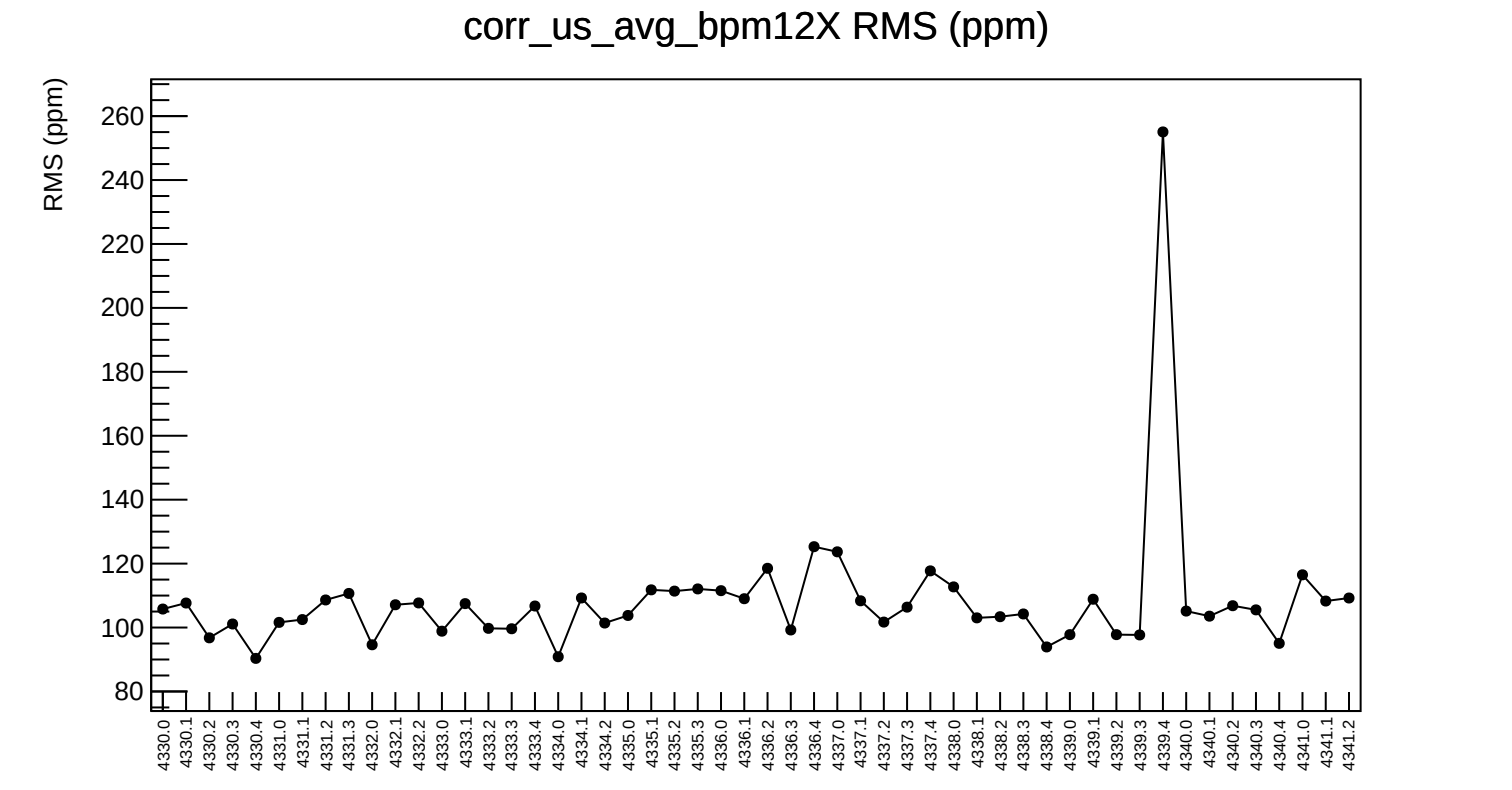

corr_us_avg_bpm16Y (ppb)
χ² / ndf 10.54 / 51
p0 13.56 ± 30.42
600
400
200
0
−200
−400
1
0.5
0
−0.5
−1
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

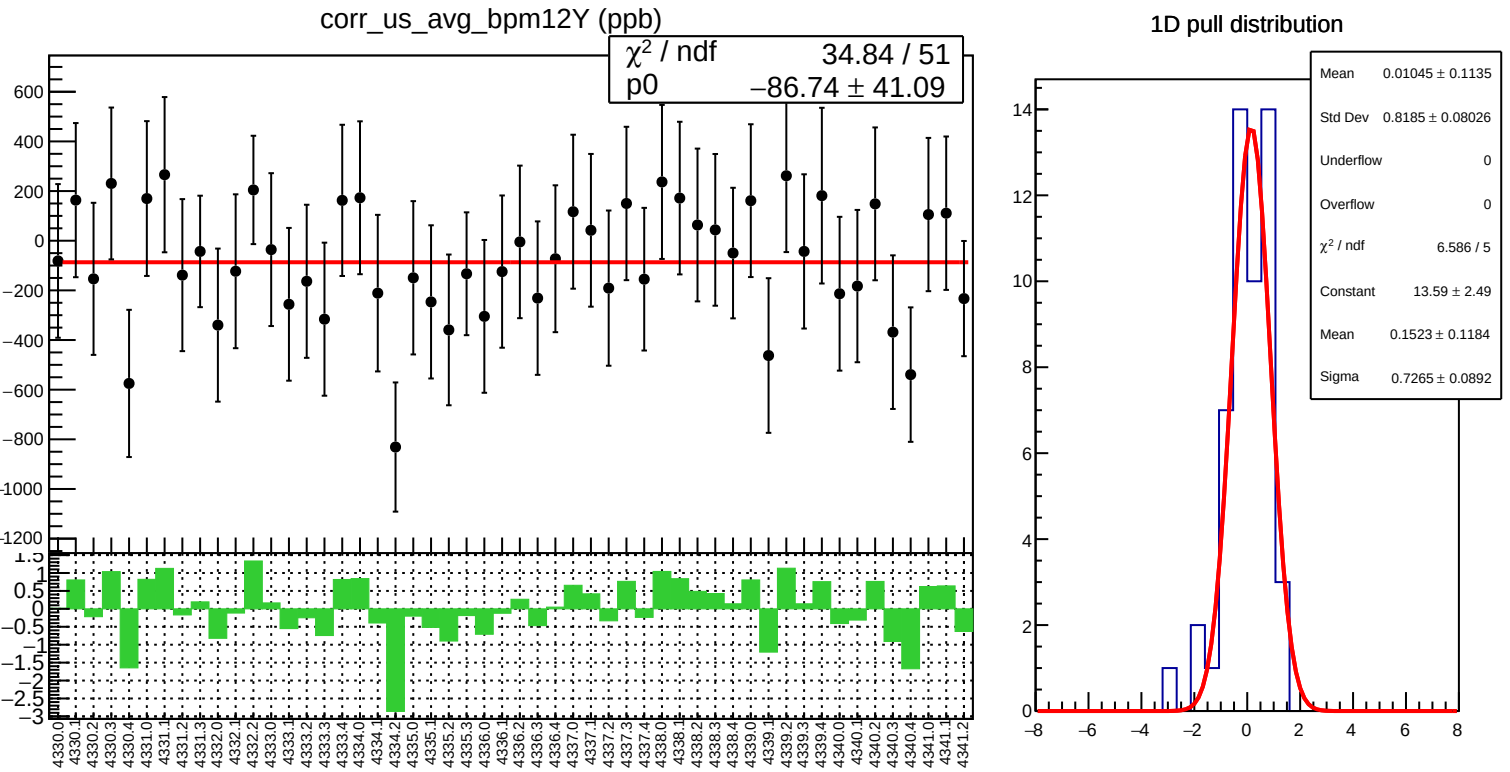

1D pull distribution
Mean −0.004351 ± 0.06242
Std Dev 0.4501 ± 0.04414
Underflow 0
Overflow 0
χ² / ndf 2.828 / 2
Constant 22.85 ± 4.66
Mean −0.004757 ± 0.077369
Sigma 0.4613 ± 0.0703
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

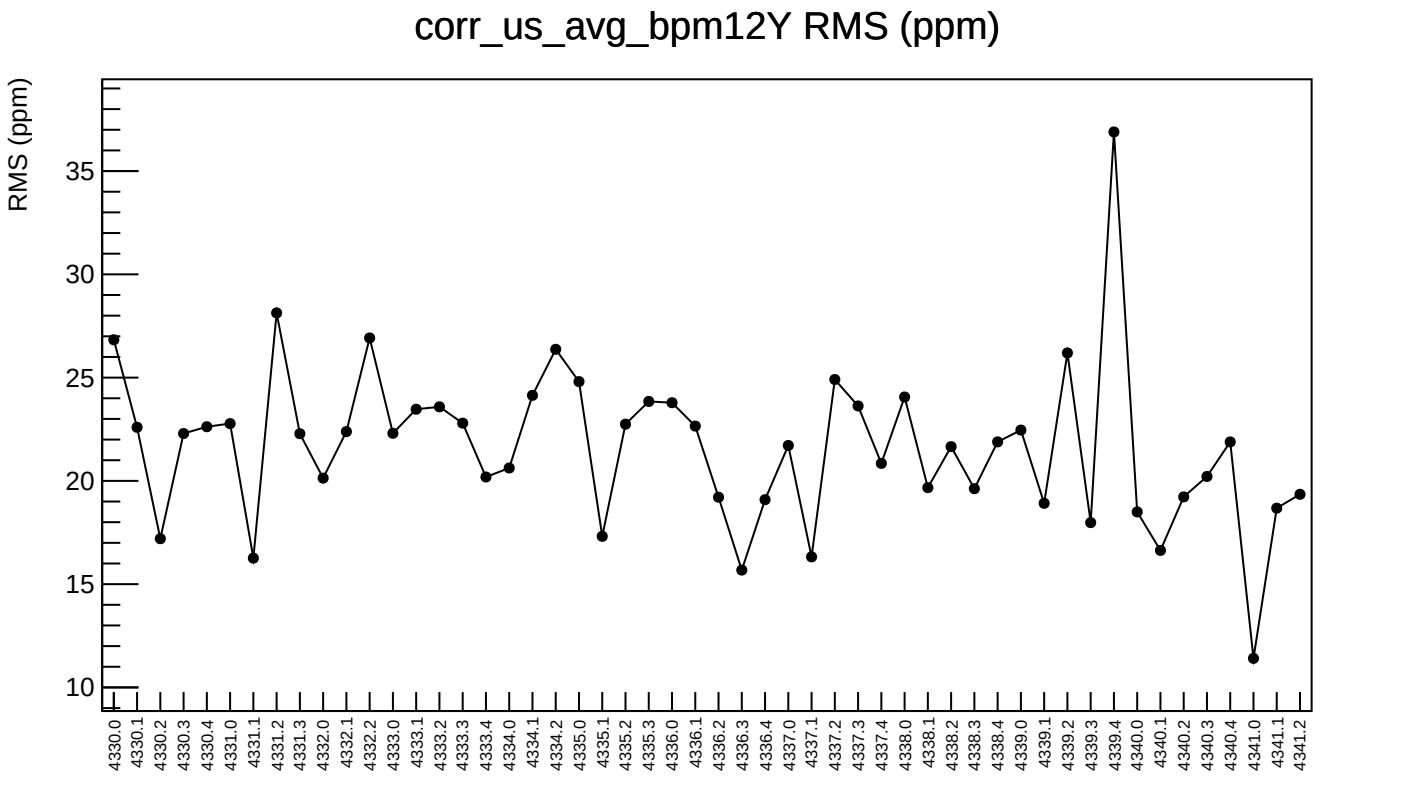

corr_us_avg_bpm16Y RMS (ppm)
RMS (ppm)
4
6
8
10
12
14
16
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

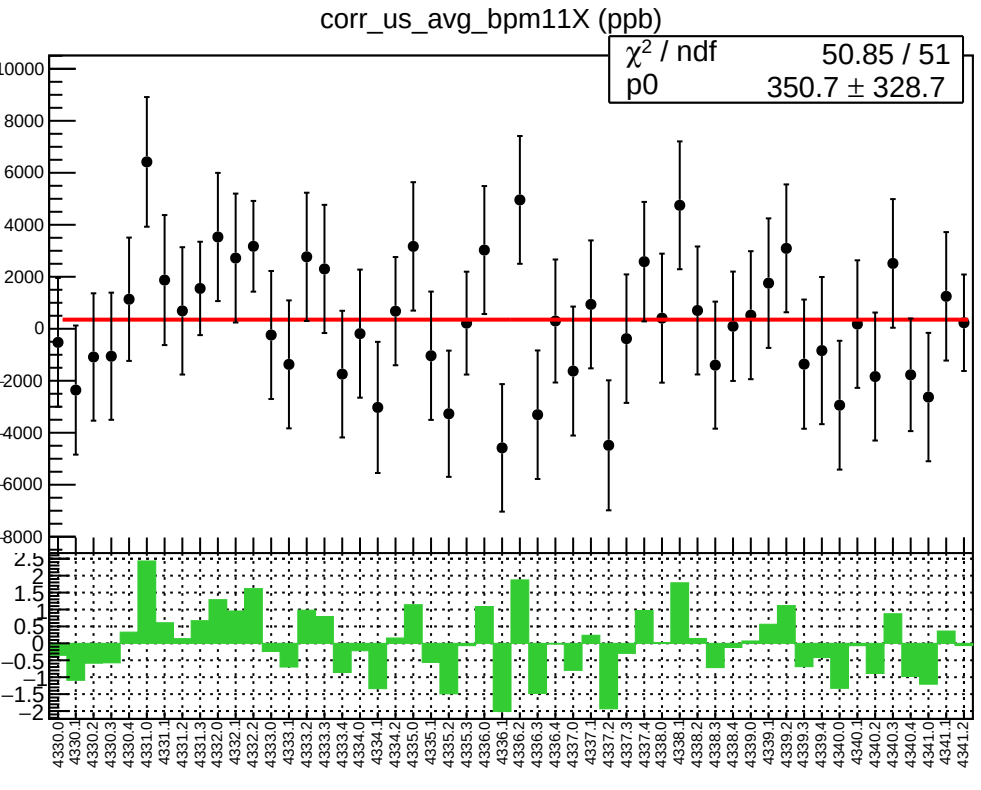

corr_us_avg_bpm12X (ppb)
χ² / ndf 69.68 / 51
p0 85.83 ± 143.8

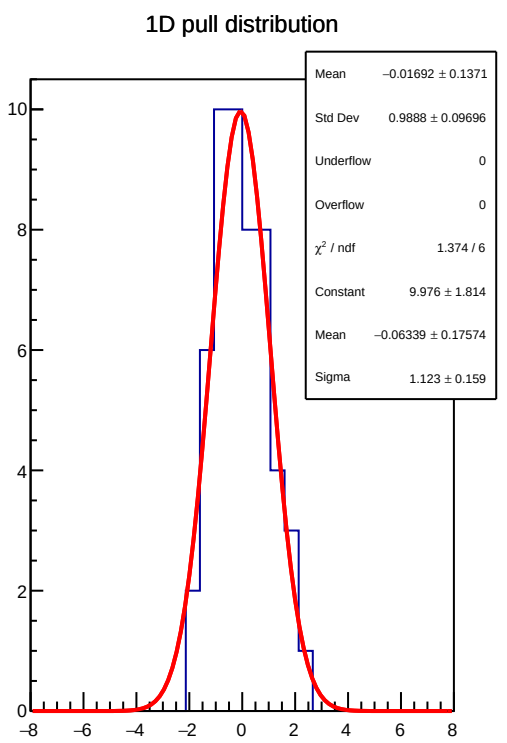

1D pull distribution
Mean −0.03189 ± 0.1605
Std Dev 1.157 ± 0.1135
Underflow 0
Overflow 0
χ² / ndf 6.564 / 8
Constant 8.018 ± 1.567
Mean −0.07252 ± 0.19527
Sigma 1.231 ± 0.178

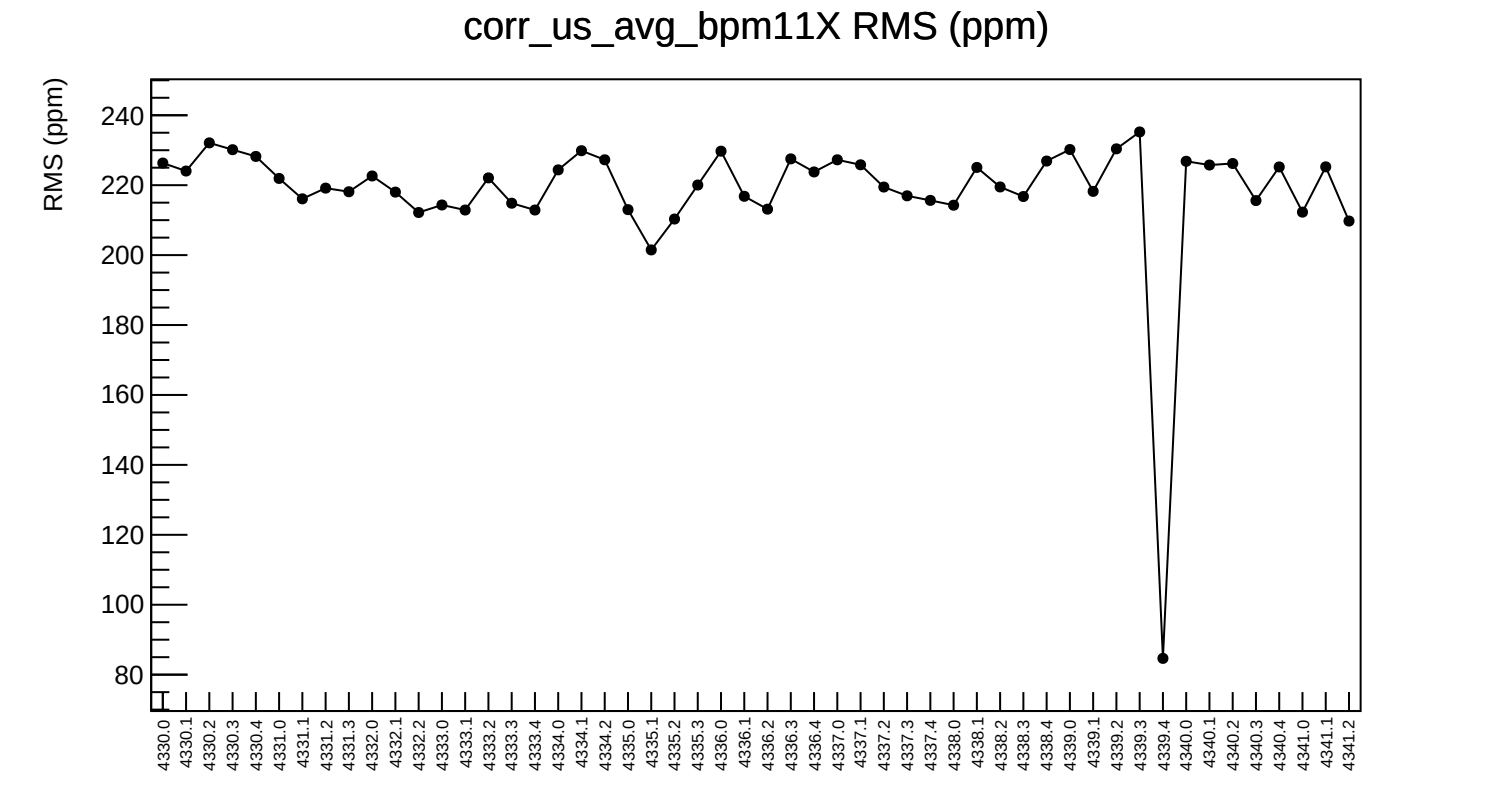

corr_us_avg_bpm12X RMS (ppm)
RMS (ppm)
260
240
220
200
180
160
140
120
100
80
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

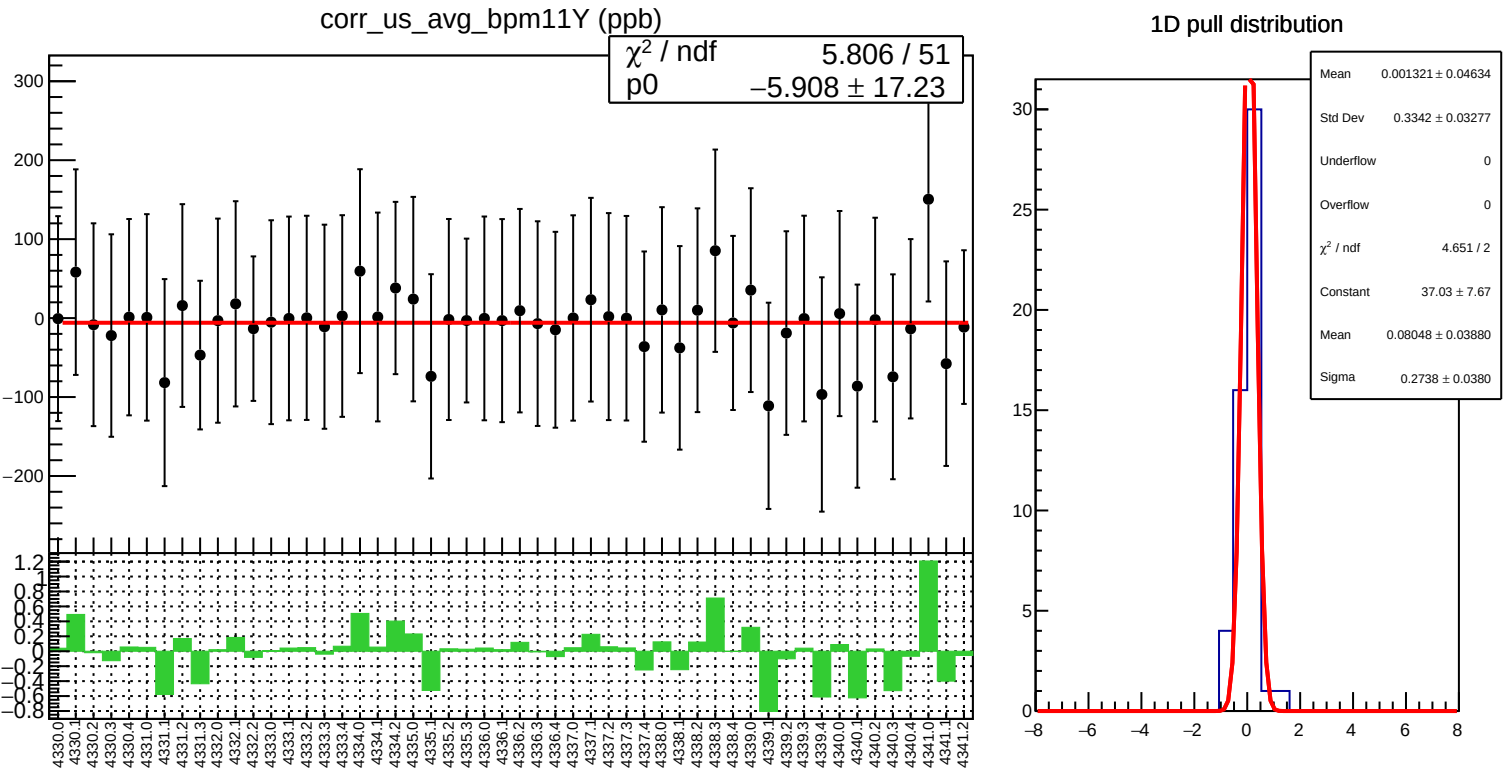

corr_us_avg_bpm12Y (ppb)
χ² / ndf 34.84 / 51
p0 −86.74 ± 41.09
1D pull distribution
Mean 0.01045 ± 0.1135
Std Dev 0.8185 ± 0.08026
Underflow 0
Overflow 0
χ² / ndf 6.586 / 5
Constant 13.59 ± 2.49
Mean 0.1523 ± 0.1184
Sigma 0.7265 ± 0.0892

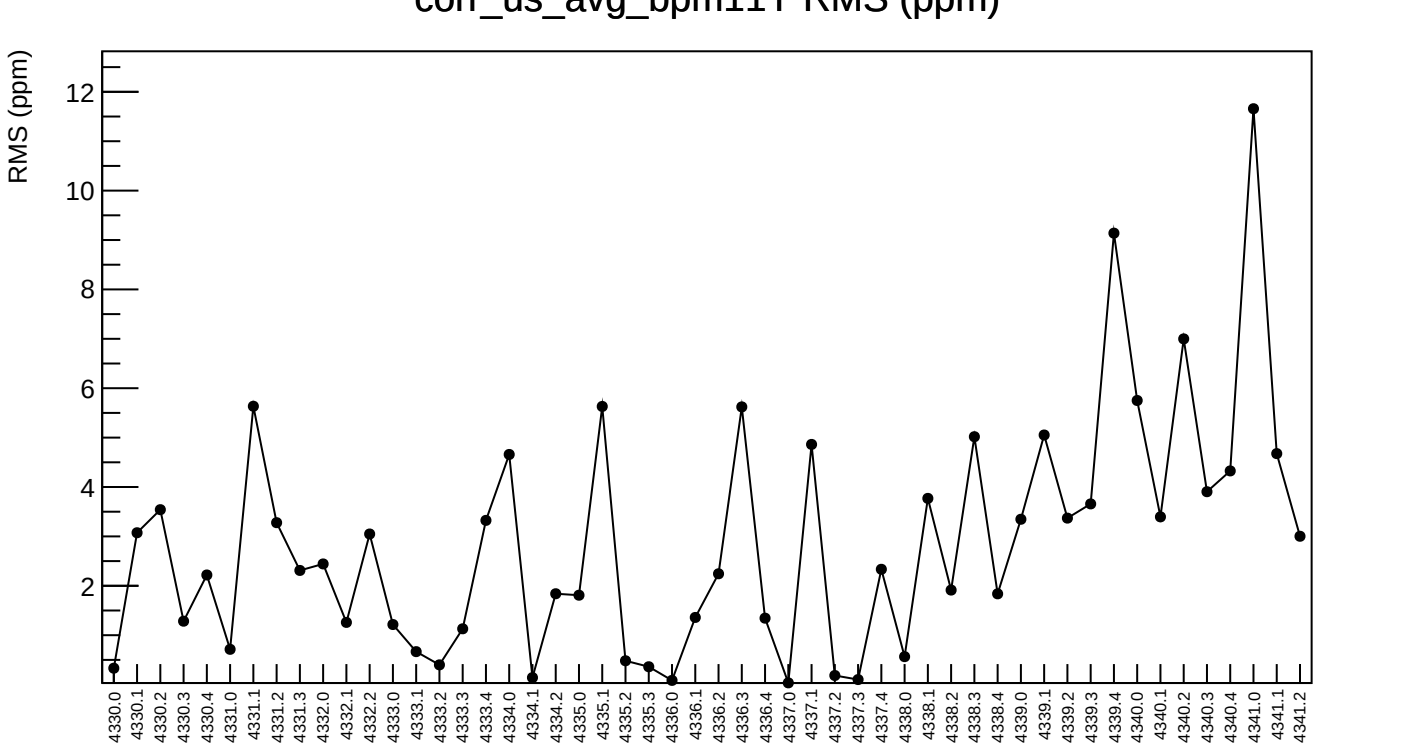

corr_us_avg_bpm12Y RMS (ppm)
RMS (ppm)
10
15
20
25
30
35
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

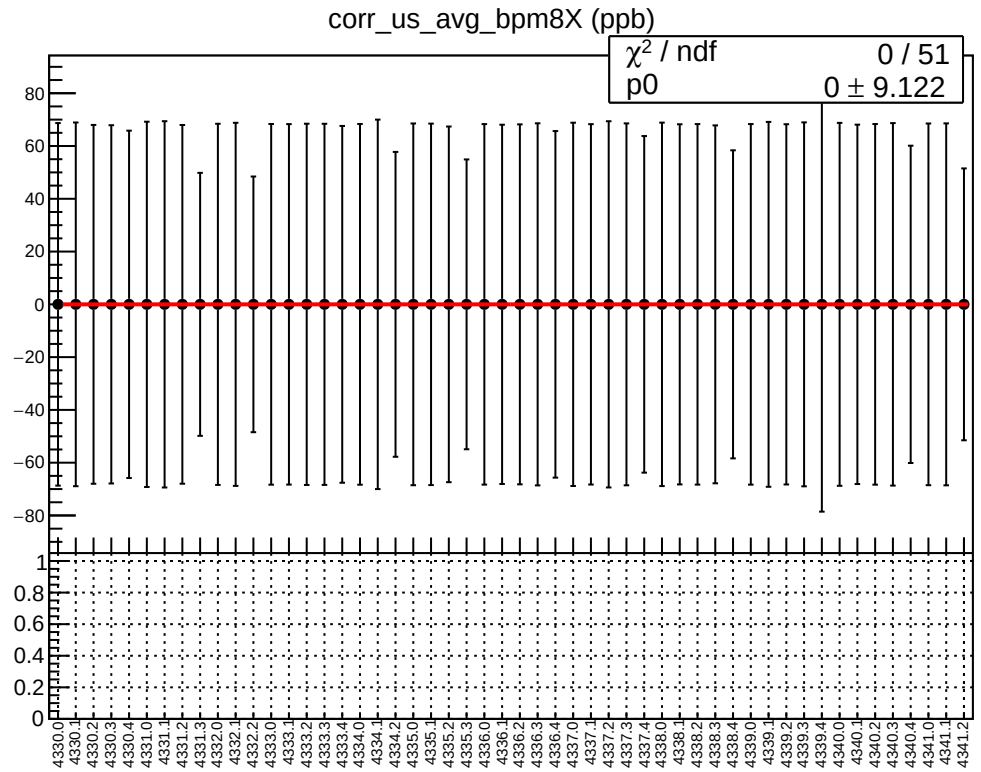

corr_us_avg_bpm11X (ppb)
χ² / ndf 50.85 / 51
p0 350.7 ± 328.7

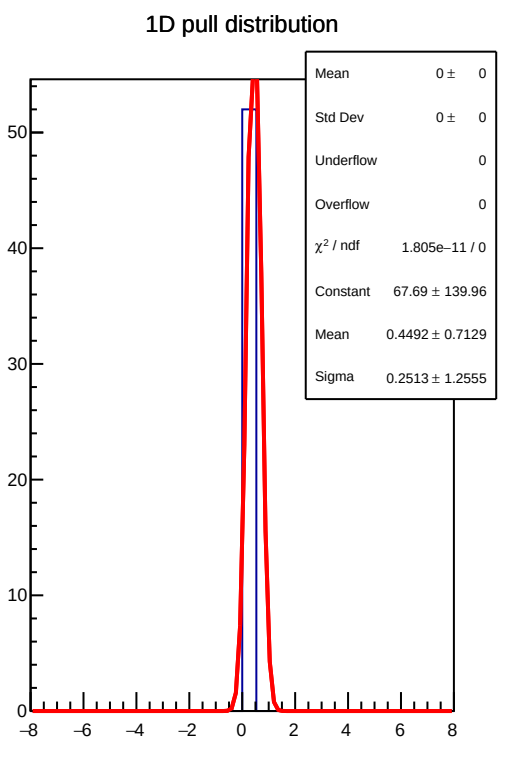

1D pull distribution
Mean −0.01692 ± 0.1371
Std Dev 0.9888 ± 0.09696
Underflow 0
Overflow 0
χ² / ndf 1.374 / 6
Constant 9.976 ± 1.814
Mean −0.06339 ± 0.17574
Sigma 1.123 ± 0.159

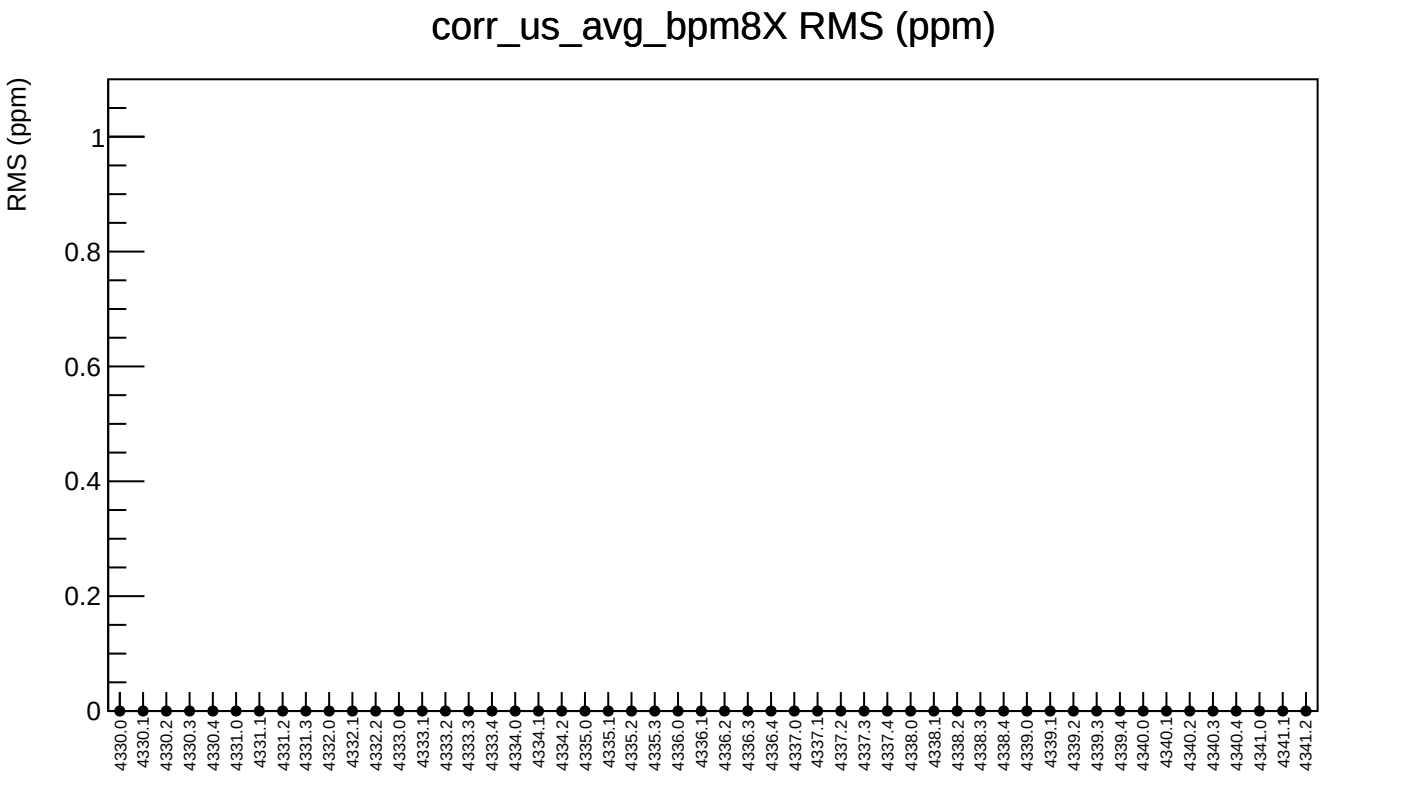

corr_us_avg_bpm11X RMS (ppm)
RMS (ppm)
240
220
200
180
160
140
120
100
80
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

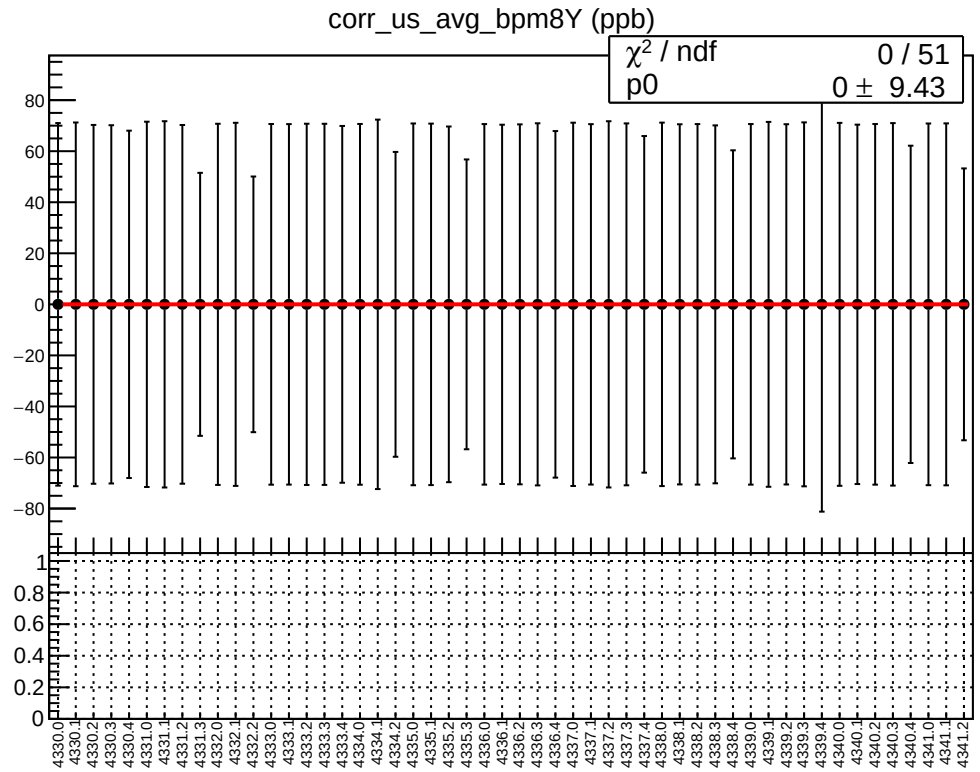

corr_us_avg_bpm11Y (ppb)
χ² / ndf 5.806 / 51
p0 −5.908 ± 17.23
1D pull distribution
Mean 0.001321 ± 0.04634
Std Dev 0.3342 ± 0.03277
Underflow 0
Overflow 0
χ² / ndf 4.651 / 2
Constant 37.03 ± 7.67
Mean 0.08048 ± 0.03880
Sigma 0.2738 ± 0.0380

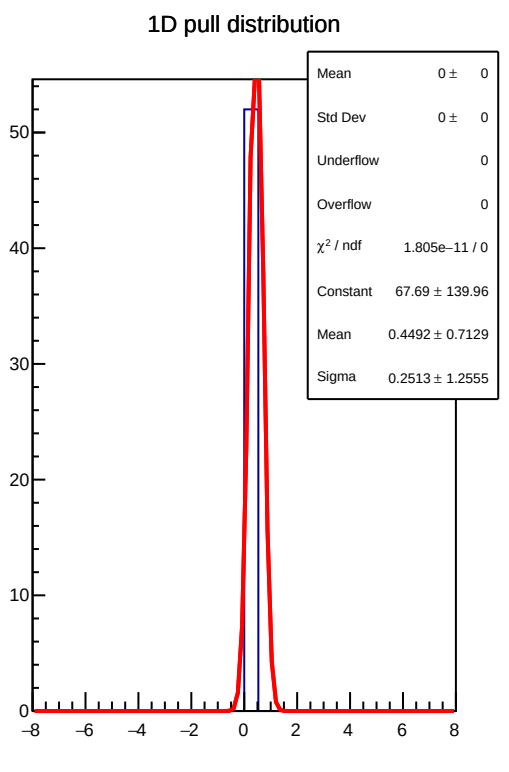

corr_us_avg_bpm11Y RMS (ppm)
RMS (ppm)
12
10
8
6
4
2
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

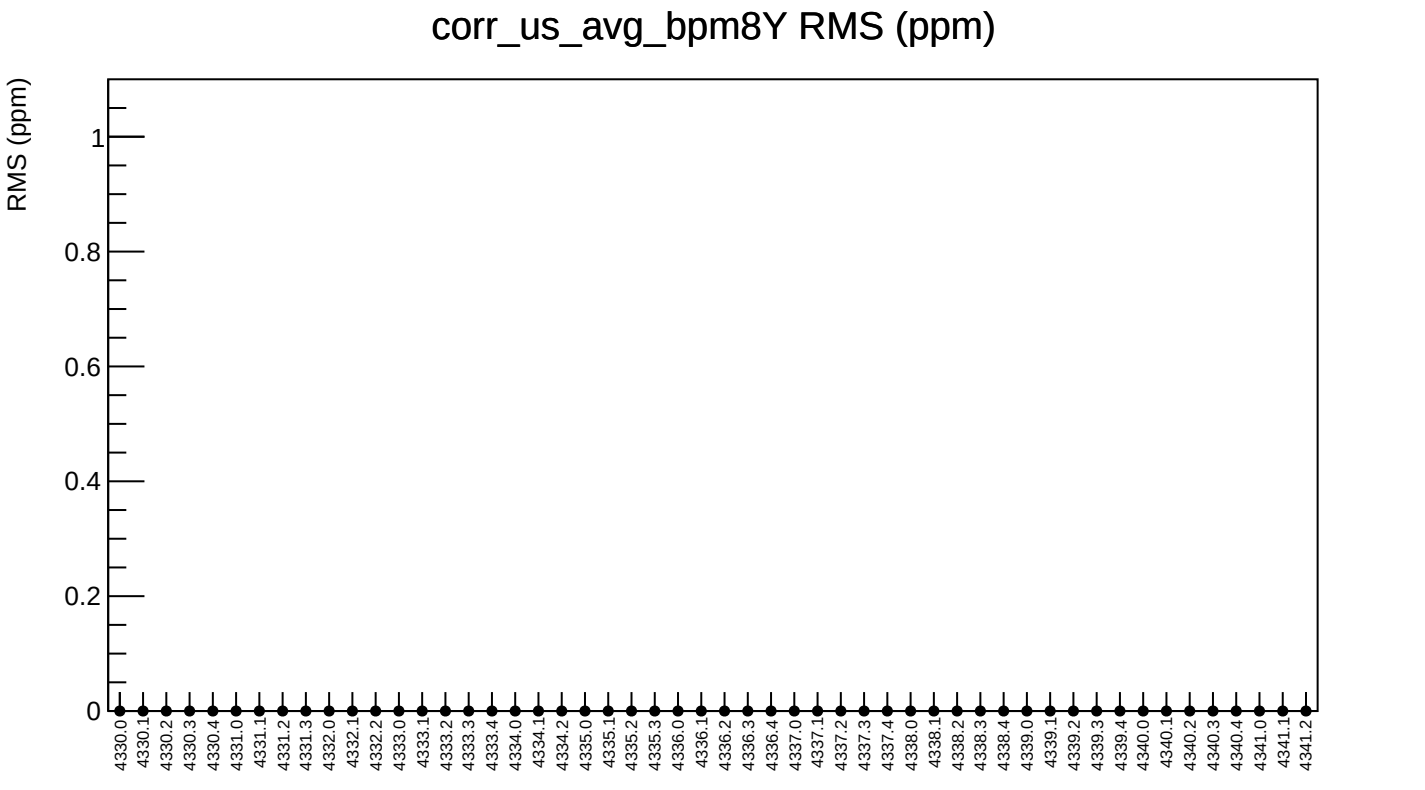

corr_us_avg_bpm8X (ppb)
χ² / ndf 0 / 51
p0 0 ± 9.122
80
60
40
20
0
−20
−40
−60
−80
1
0.8
0.6
0.4
0.2
0
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

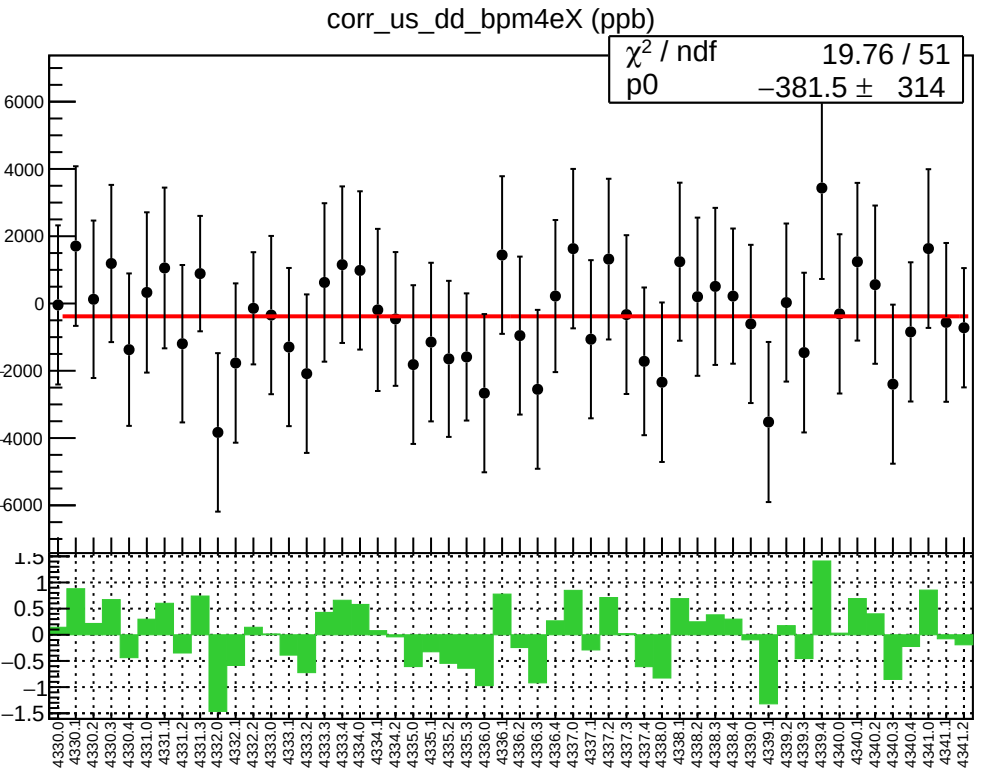

1D pull distribution
Mean 0 ± 0
Std Dev 0 ± 0
Underflow 0
Overflow 0
χ² / ndf 1.805e−11 / 0
Constant 67.69 ± 139.96
Mean 0.4492 ± 0.7129
Sigma 0.2513 ± 1.2555
50
40
30
20
10
0
−8
−6
−4
−2
0
2
4
6
8

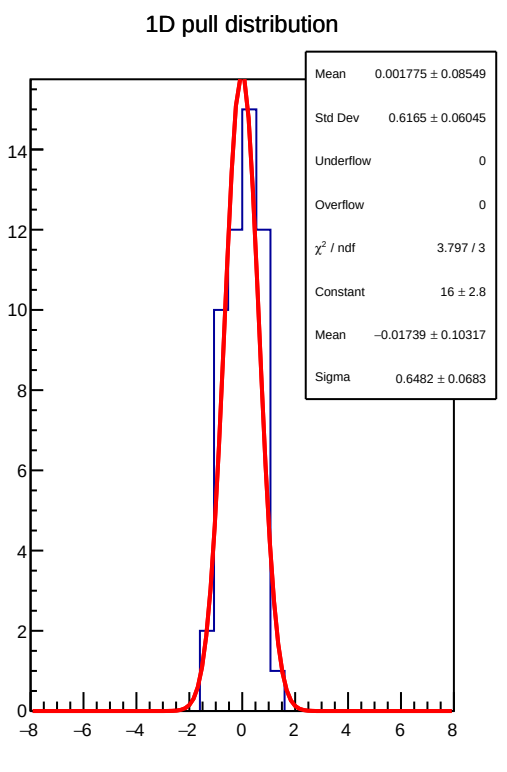

corr_us_avg_bpm8X RMS (ppm)
RMS (ppm)
0
0.2
0.4
0.6
0.8
1
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

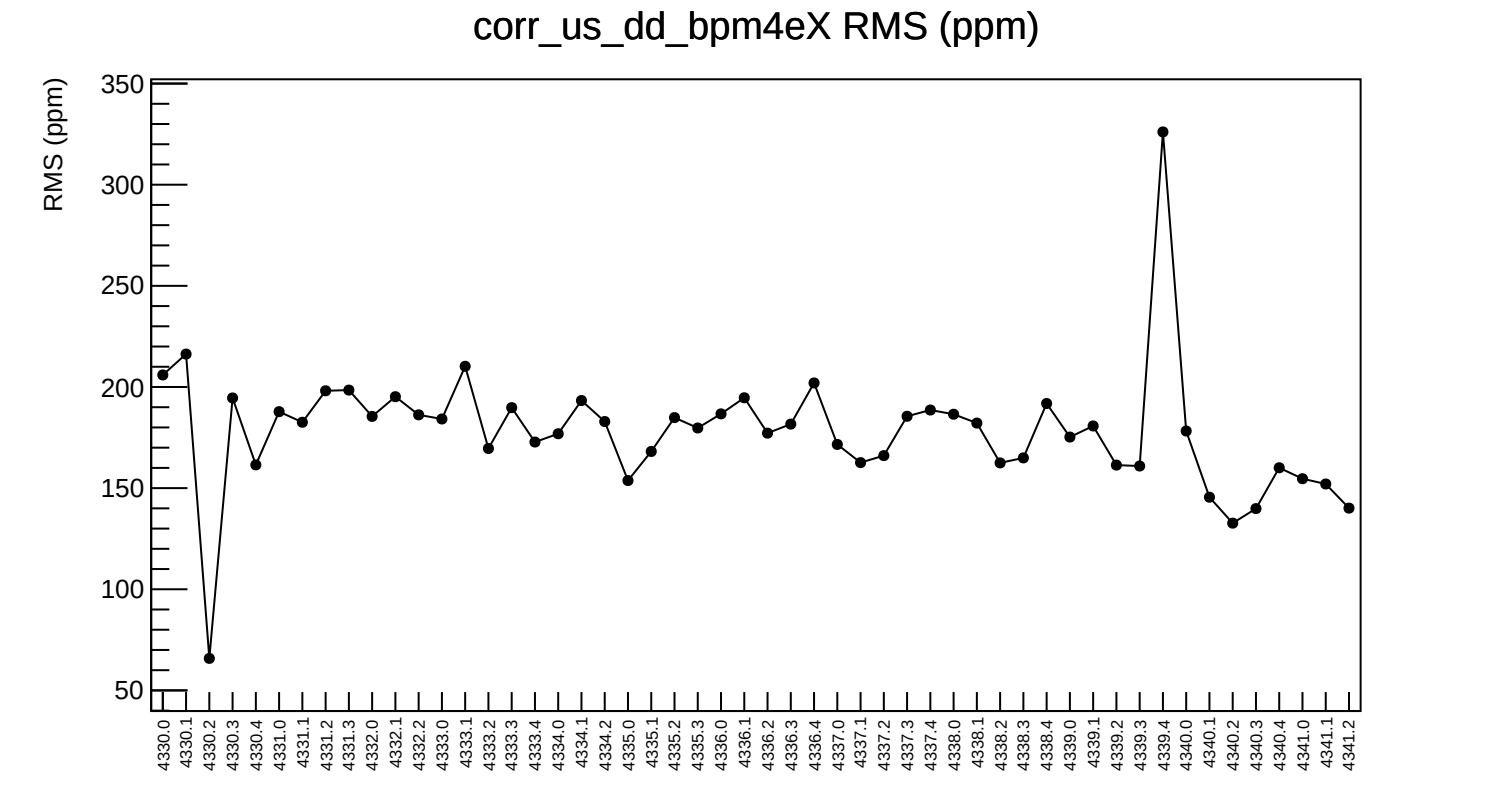

corr_us_avg_bpm8Y (ppb)
χ² / ndf 0 / 51
p0 0 ± 9.43
80
60
40
20
0
−20
−40
−60
−80
1
0.8
0.6
0.4
0.2
0
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

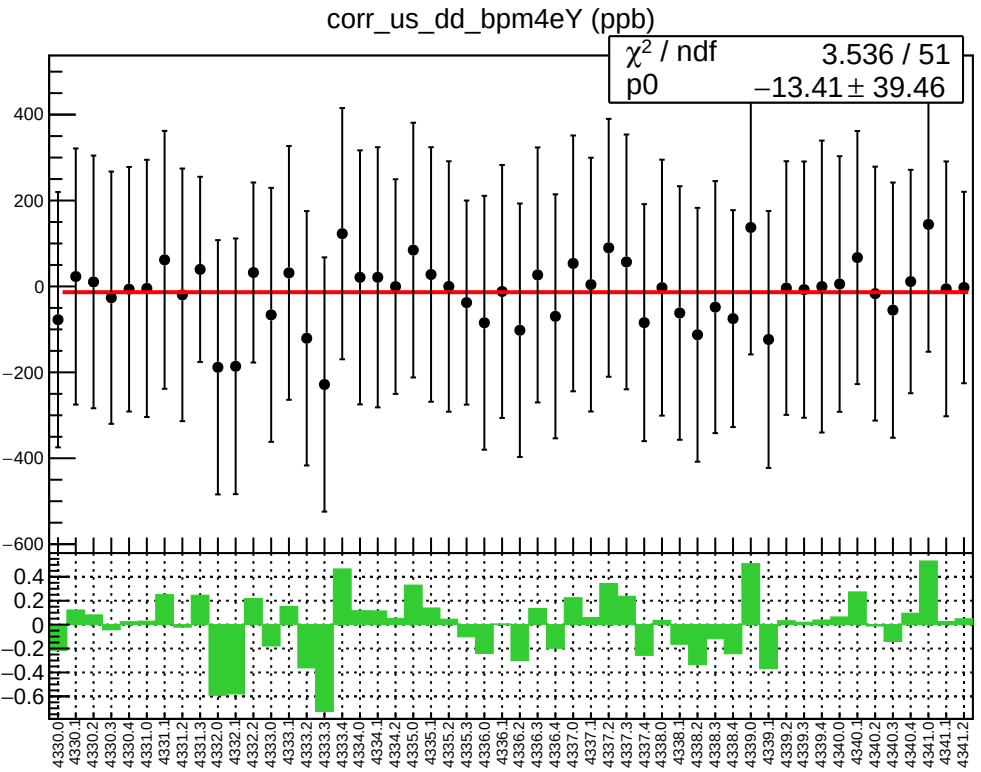

1D pull distribution
Mean 0 ± 0
Std Dev 0 ± 0
Underflow 0
Overflow 0
χ² / ndf 1.805e−11 / 0
Constant 67.69 ± 139.96
Mean 0.4492 ± 0.7129
Sigma 0.2513 ± 1.2555
50
40
30
20
10
0
−8
−6
−4
−2
0
2
4
6
8

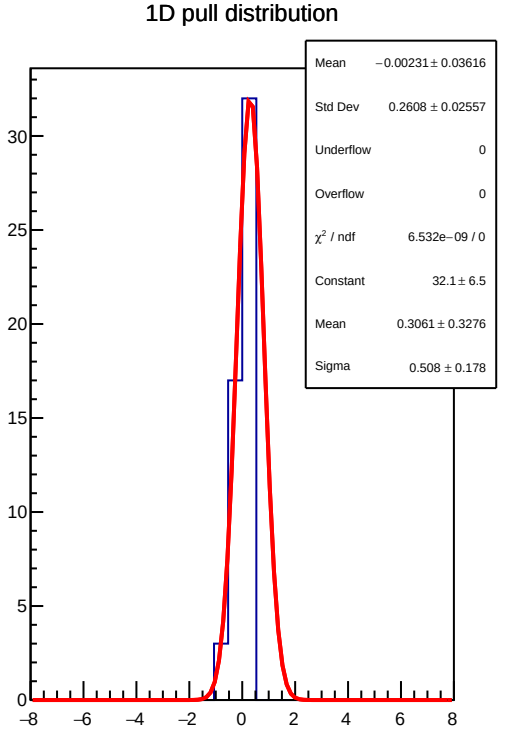

corr_us_avg_bpm8Y RMS (ppm)
RMS (ppm)
1
0.8
0.6
0.4
0.2
0
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

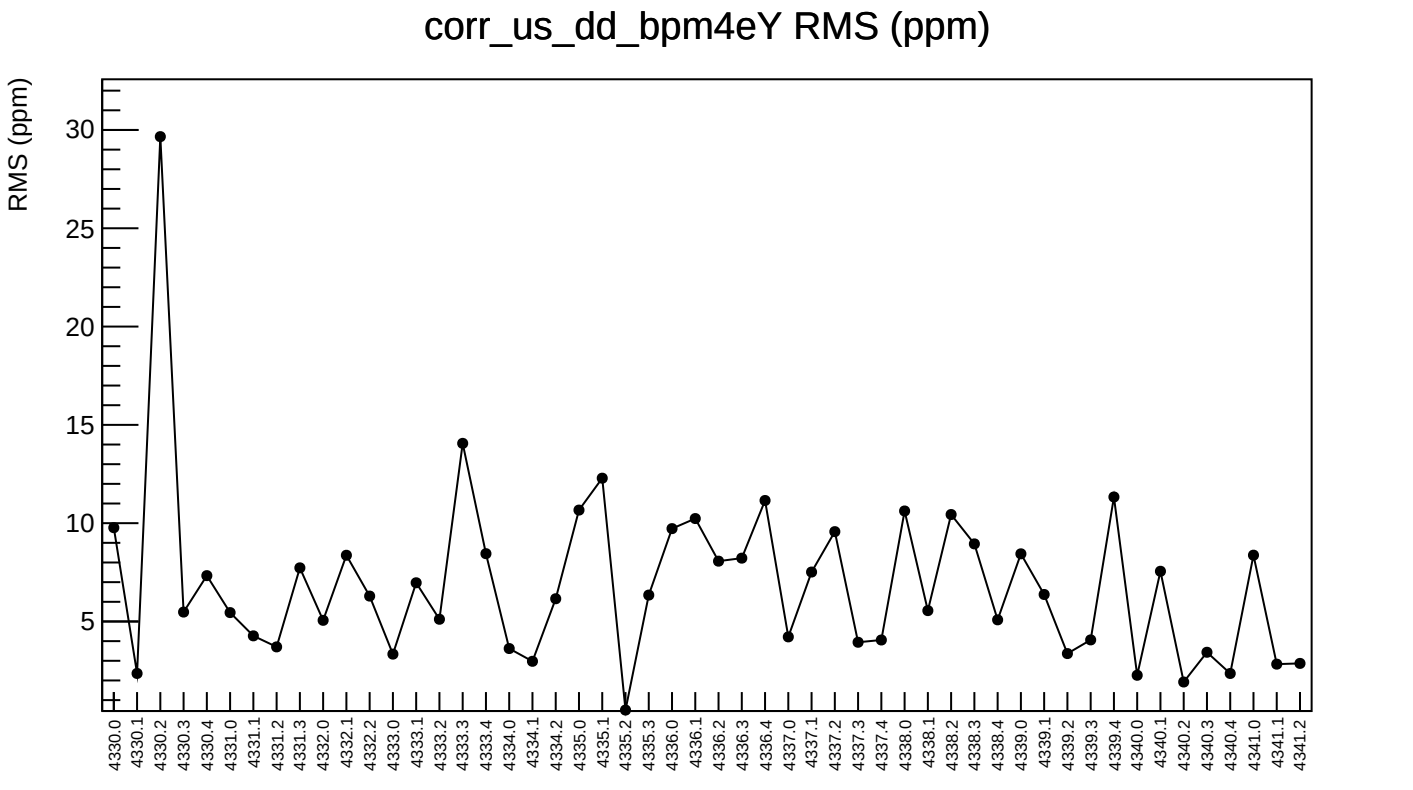

corr_us_dd_bpm4eX (ppb)
χ² / ndf 19.76 / 51
p0 −381.5 ± 314
6000
4000
2000
0
-2000
-4000
-6000
1.5
1
0.5
0
−0.5
−1
−1.5
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

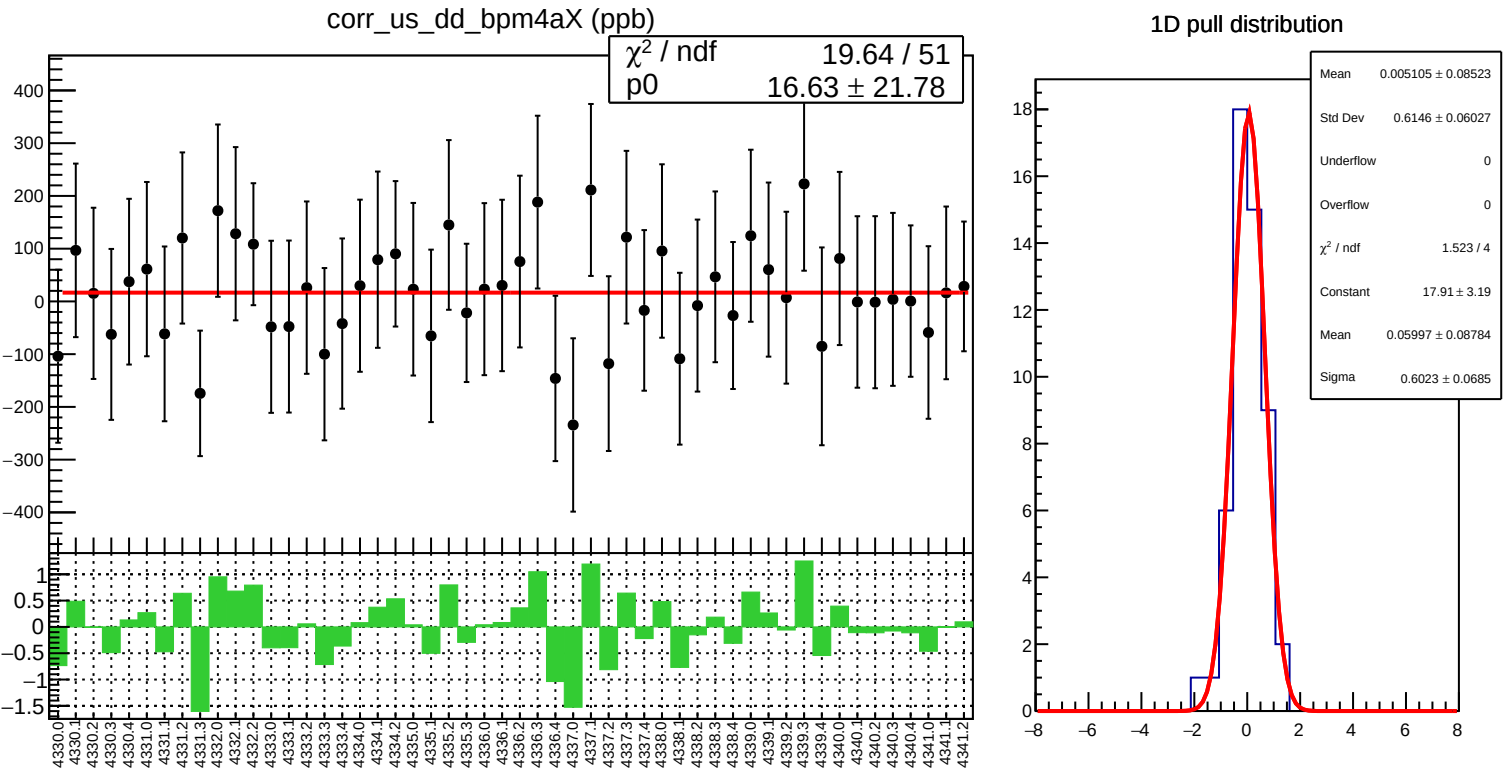

1D pull distribution
Mean 0.001775 ± 0.08549
Std Dev 0.6165 ± 0.06045
Underflow 0
Overflow 0
χ² / ndf 3.797 / 3
Constant 16 ± 2.8
Mean −0.01739 ± 0.10317
Sigma 0.6482 ± 0.0683
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

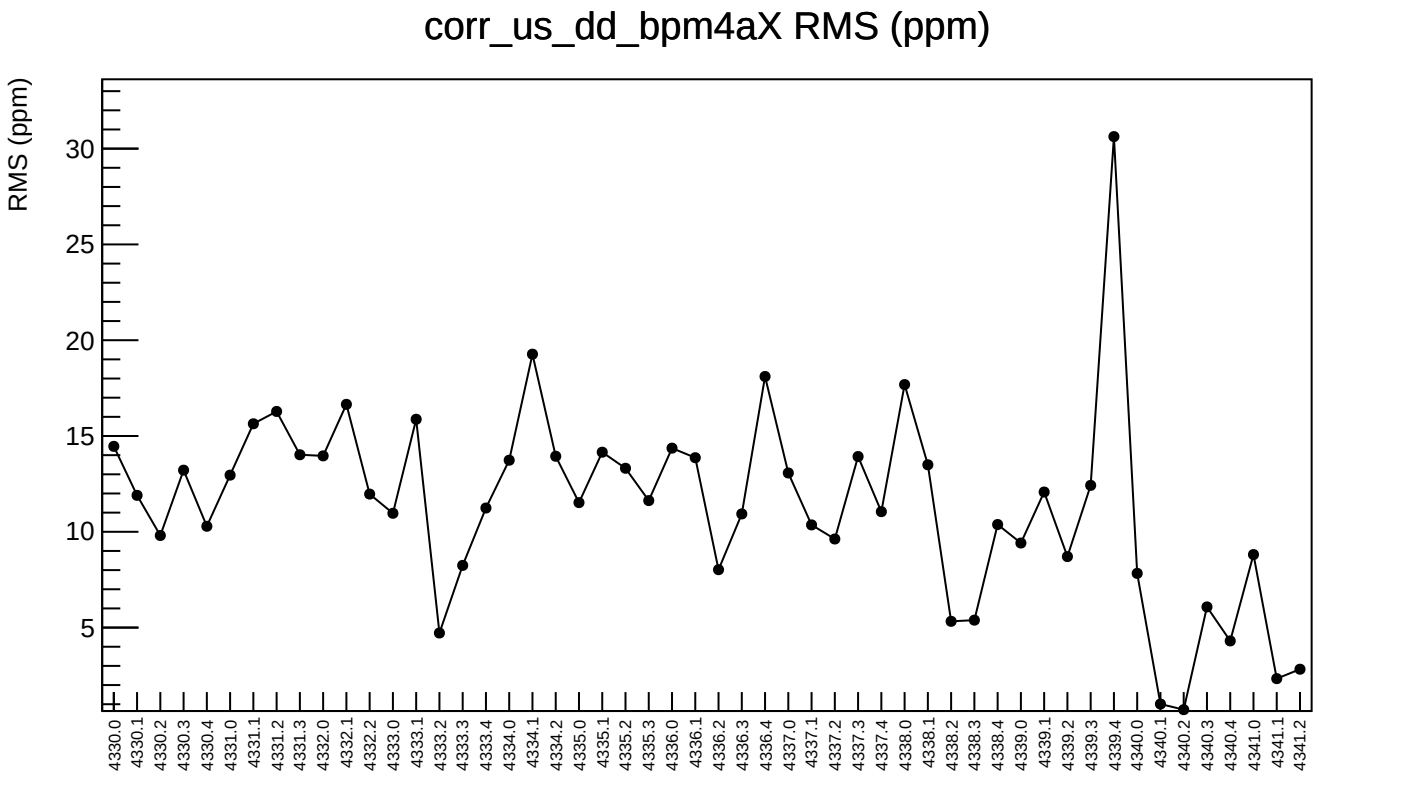

corr_us_dd_bpm4eX RMS (ppm)
RMS (ppm)
350
300
250
200
150
100
50
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

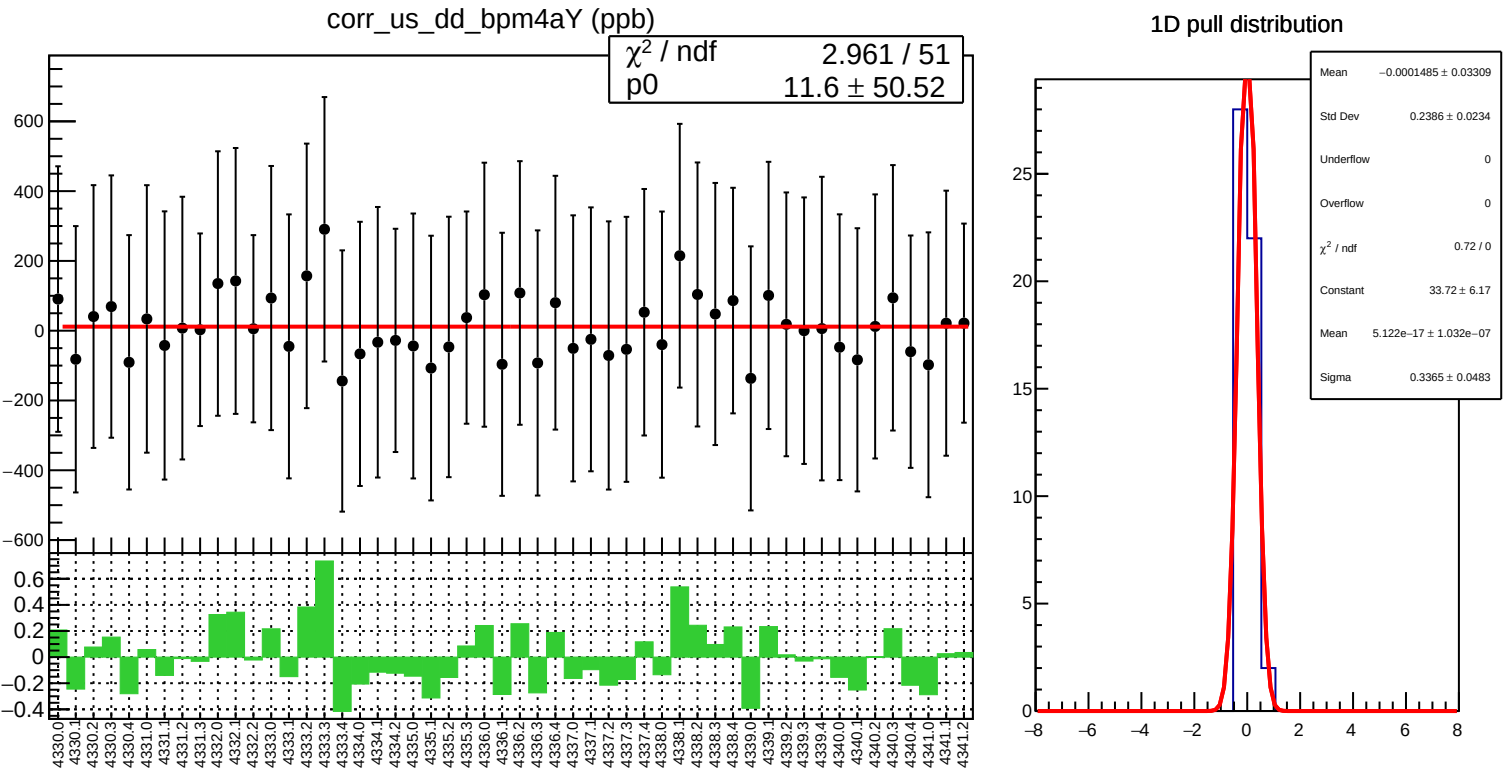

corr_us_dd_bpm4eY (ppb)
χ² / ndf 3.536 / 51
p0 −13.41 ± 39.46
400
200
0
−200
−400
−600
0.4
0.2
0
−0.2
−0.4
−0.6
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

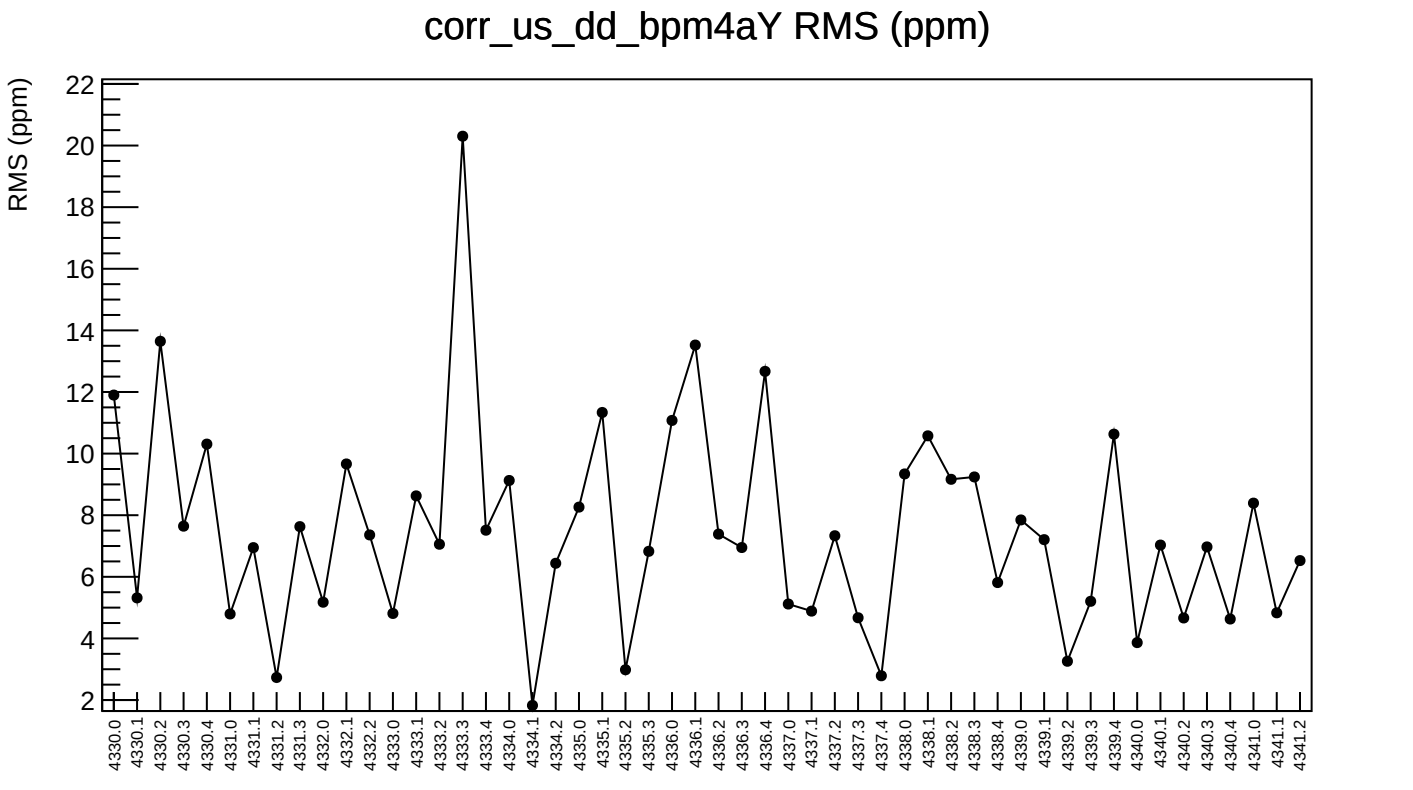

1D pull distribution
Mean −0.00231 ± 0.03616
Std Dev 0.2608 ± 0.02557
Underflow 0
Overflow 0
χ² / ndf 6.532e−09 / 0
Constant 32.1 ± 6.5
Mean 0.3061 ± 0.3276
Sigma 0.508 ± 0.178
30
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

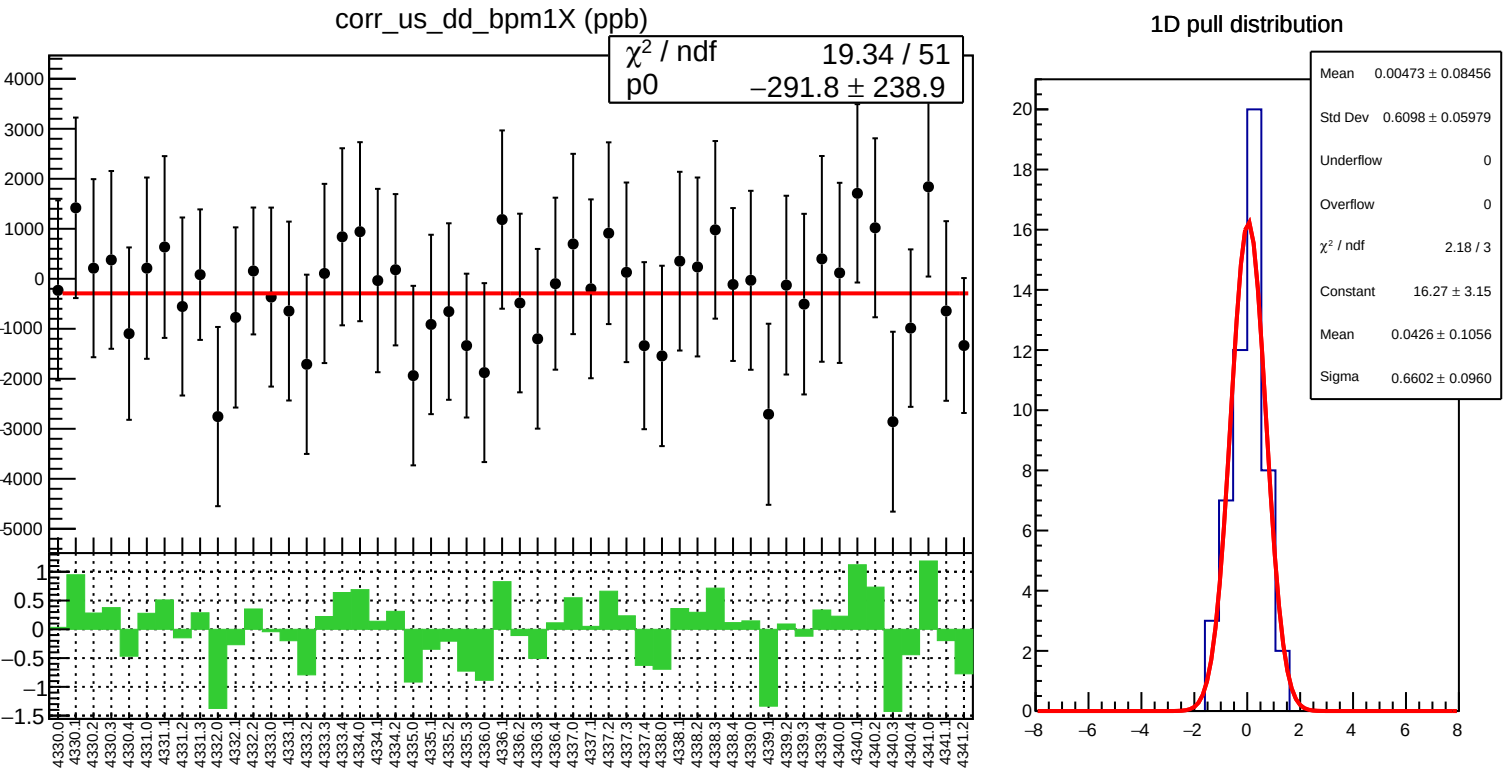

corr_us_dd_bpm4eY RMS (ppm)
RMS (ppm)
30
25
20
15
10
5
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

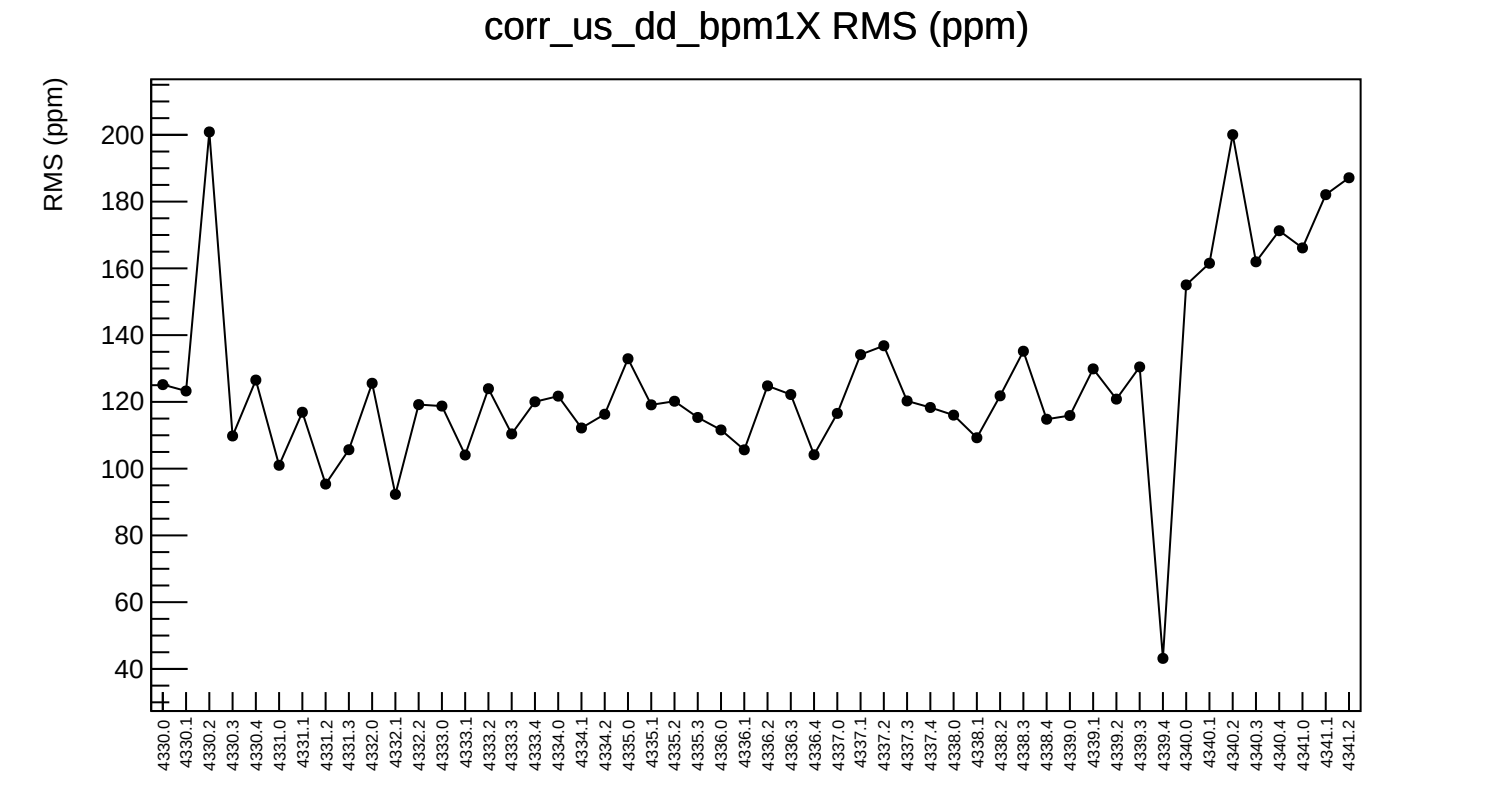

corr_us_dd_bpm4aX (ppb)
χ² / ndf 19.64 / 51
p0 16.63 ± 21.78
1D pull distribution
Mean 0.005105 ± 0.08523
Std Dev 0.6146 ± 0.06027
Underflow 0
Overflow 0
χ² / ndf 1.523 / 4
Constant 17.91 ± 3.19
Mean 0.05997 ± 0.08784
Sigma 0.6023 ± 0.0685

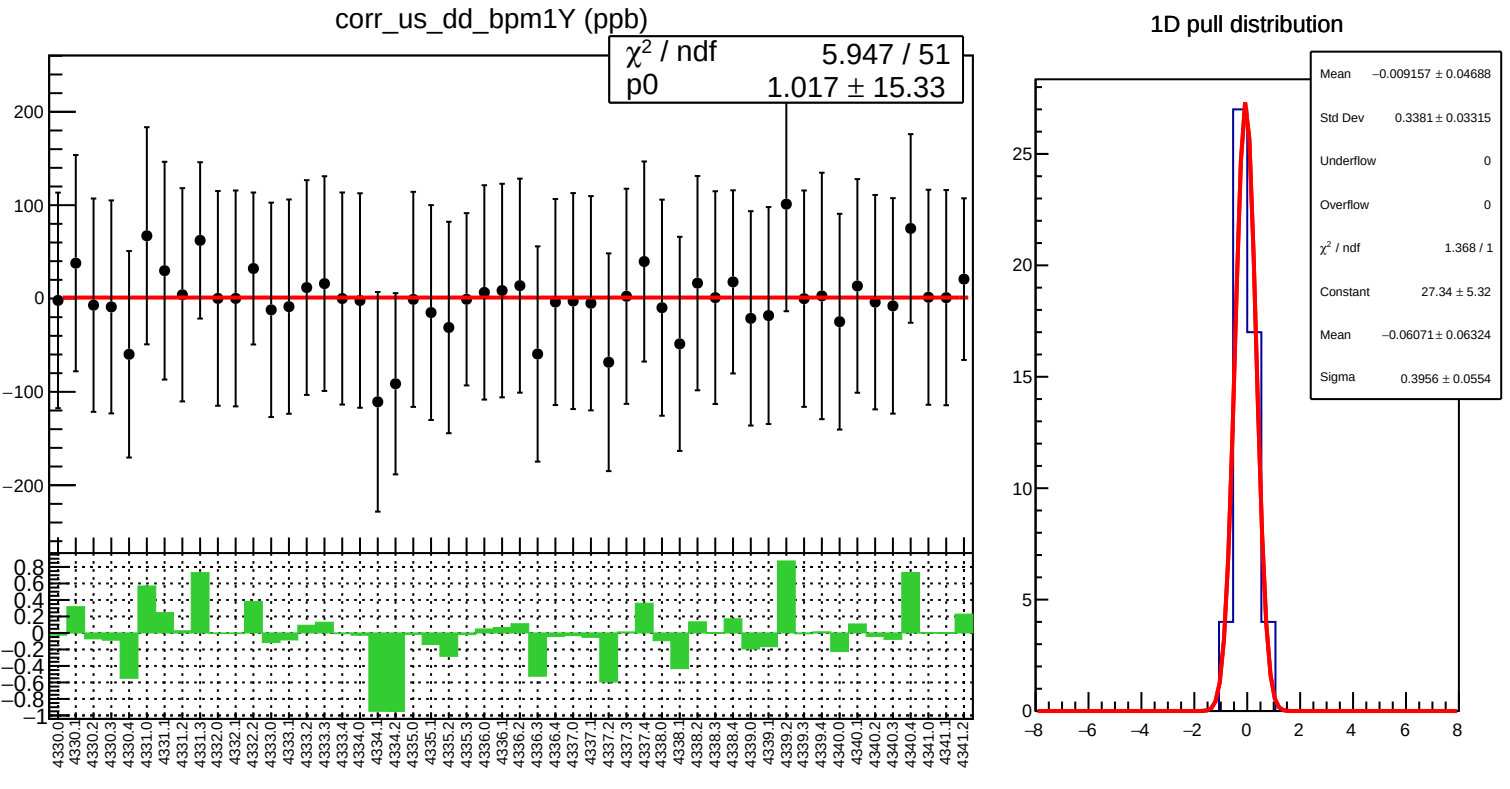

corr_us_dd_bpm4aX RMS (ppm)
RMS (ppm)
30
25
20
15
10
5
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

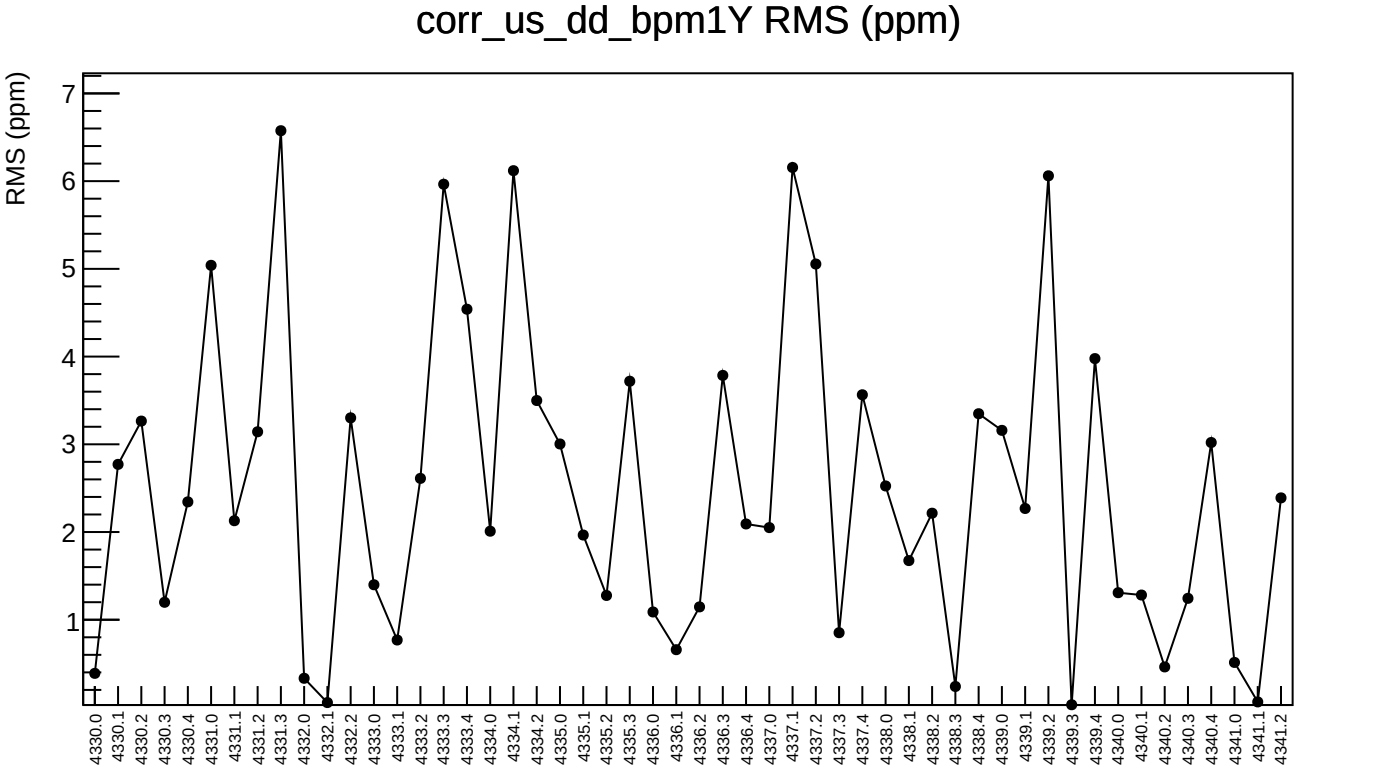

corr_us_dd_bpm4aY (ppb)
χ² / ndf 2.961 / 51
p0 11.6 ± 50.52
1D pull distribution
Mean −0.0001485 ± 0.03309
Std Dev 0.2386 ± 0.0234
Underflow 0
Overflow 0
χ² / ndf 0.72 / 0
Constant 33.72 ± 6.17
Mean 5.122e−17 ± 1.032e−07
Sigma 0.3365 ± 0.0483

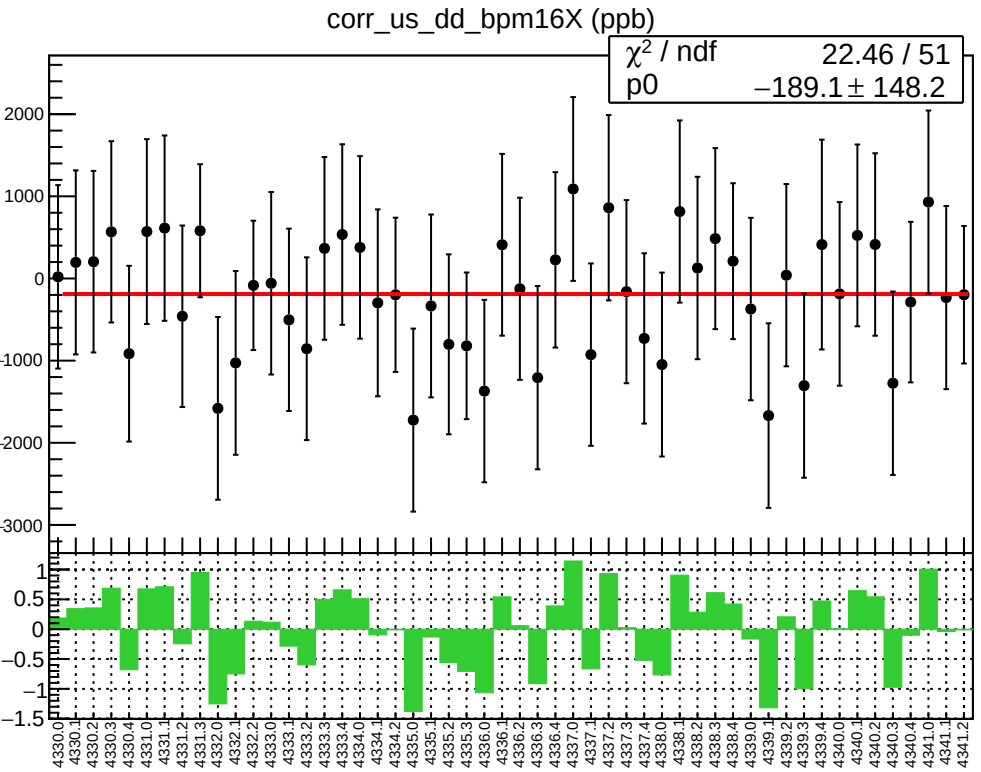

corr_us_dd_bpm4aY RMS (ppm)
RMS (ppm)
22
20
18
16
14
12
10
8
6
4
2
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

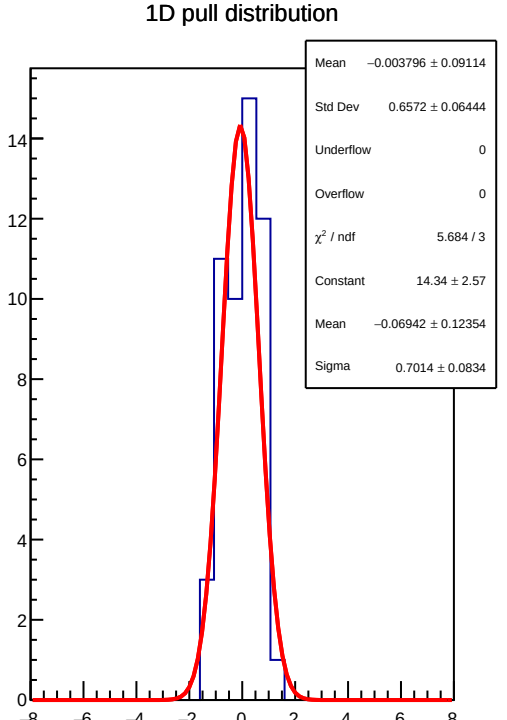

corr_us_dd_bpm1X (ppb)
χ² / ndf 19.34 / 51
p0 −291.8 ± 238.9
1D pull distribution
Mean 0.00473 ± 0.08456
Std Dev 0.6098 ± 0.05979
Underflow 0
Overflow 0
χ² / ndf 2.18 / 3
Constant 16.27 ± 3.15
Mean 0.0426 ± 0.1056
Sigma 0.6602 ± 0.0960

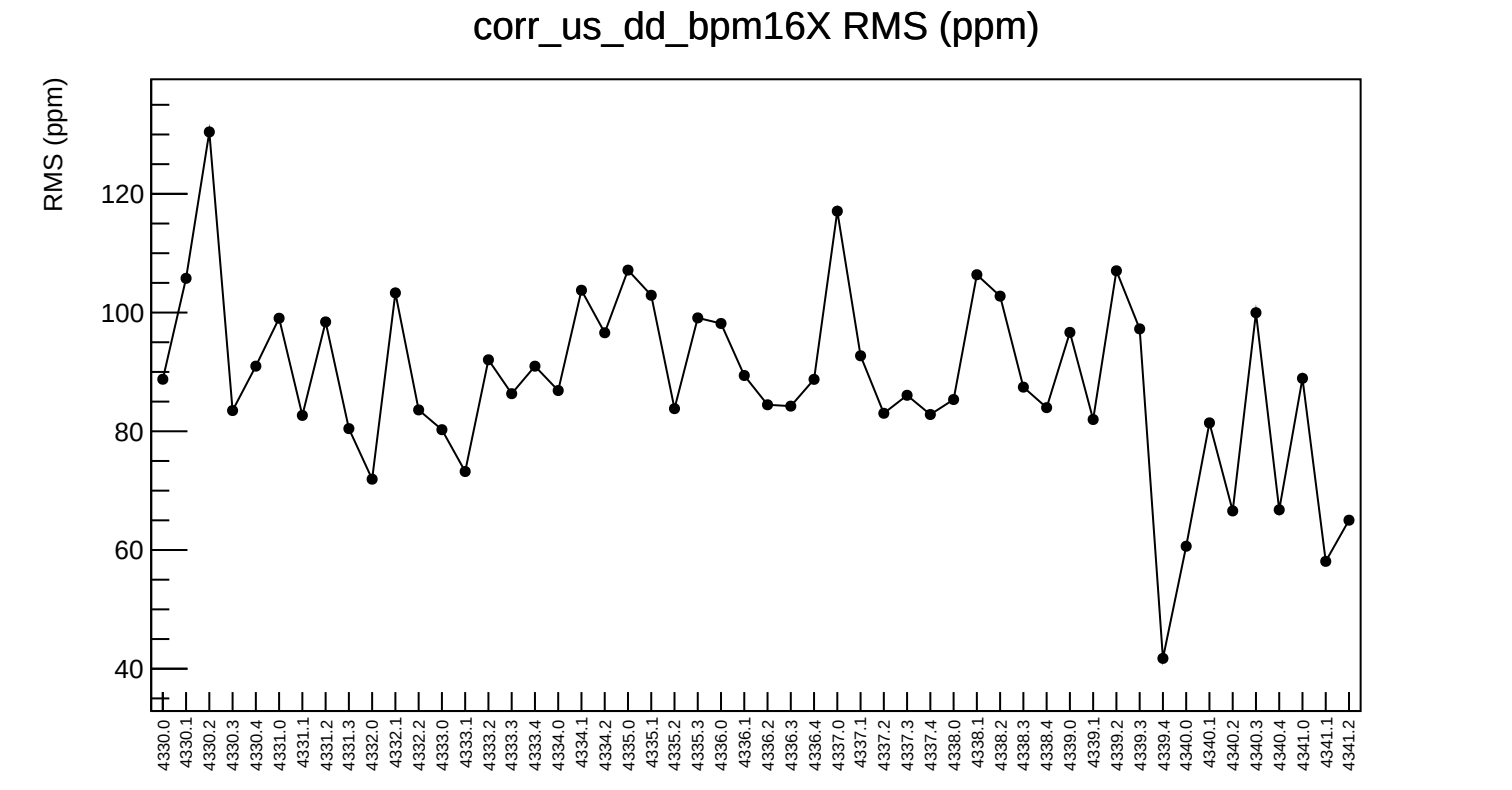

corr_us_dd_bpm1X RMS (ppm)
RMS (ppm)
200
180
160
140
120
100
80
60
40
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

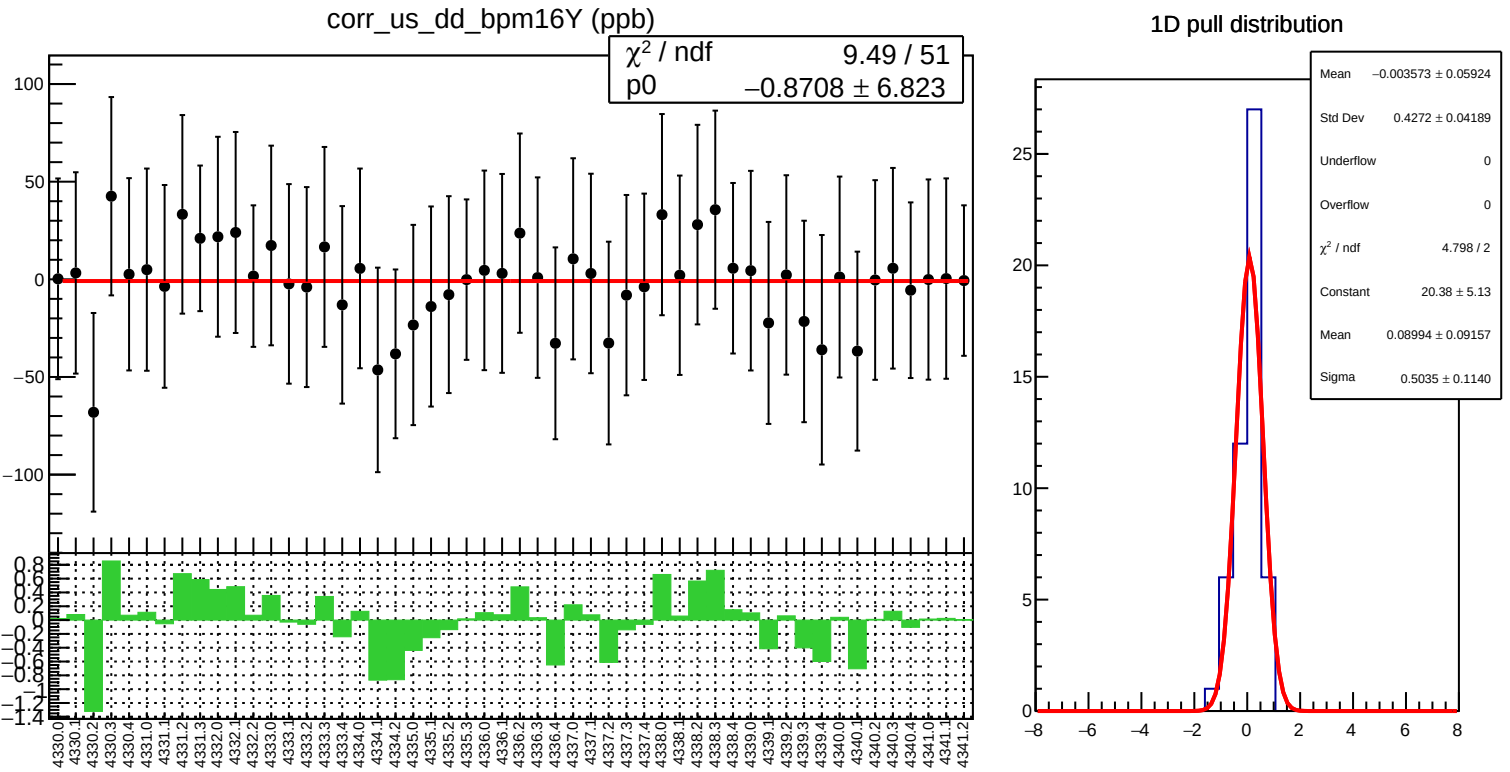

corr_us_dd_bpm1Y (ppb)
χ² / ndf 5.947 / 51
p0 1.017 ± 15.33
1D pull distribution
Mean −0.009157 ± 0.04688
Std Dev 0.3381 ± 0.03315
Underflow 0
Overflow 0
χ² / ndf 1.368 / 1
Constant 27.34 ± 5.32
Mean −0.06071 ± 0.06324
Sigma 0.3956 ± 0.0554

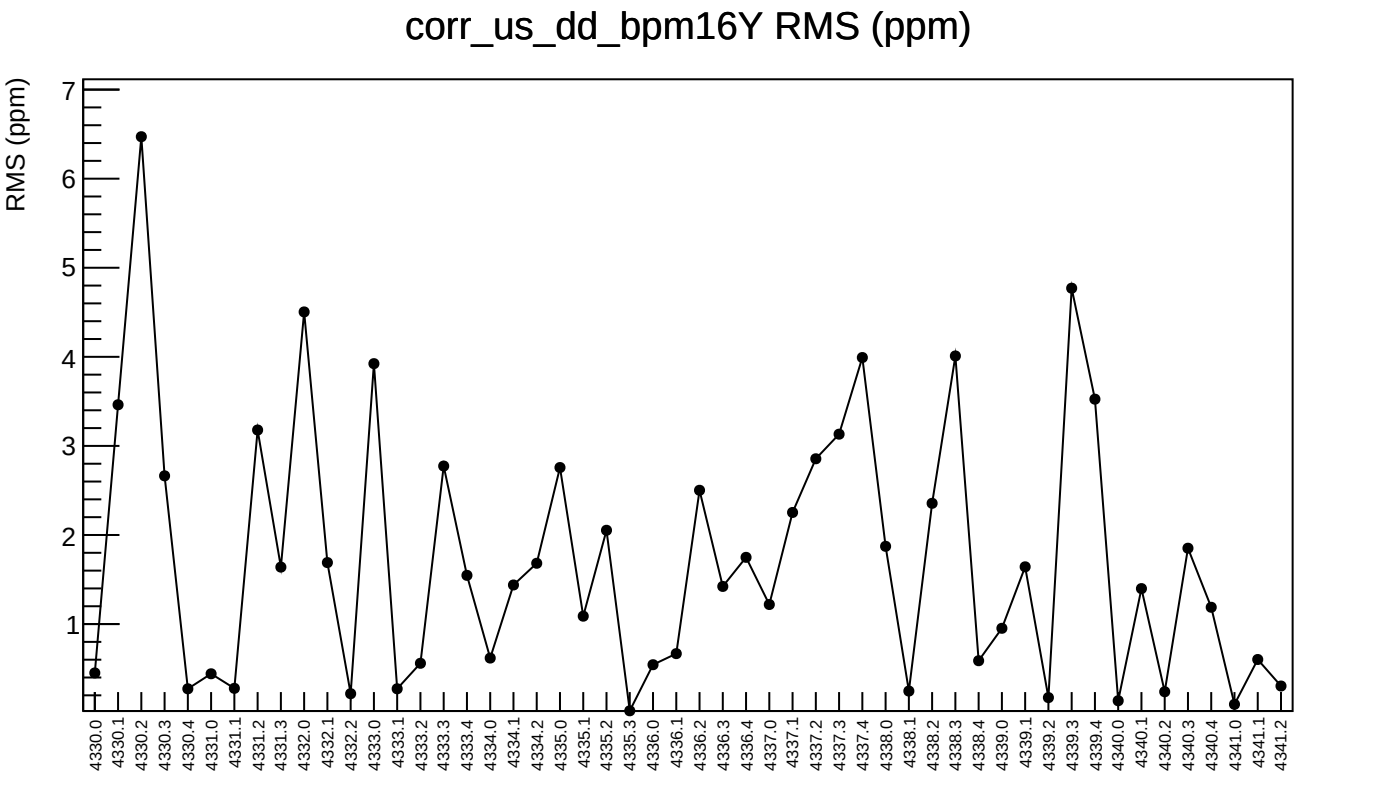

corr_us_dd_bpm1Y RMS (ppm)
RMS (ppm)
7
6
5
4
3
2
1
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

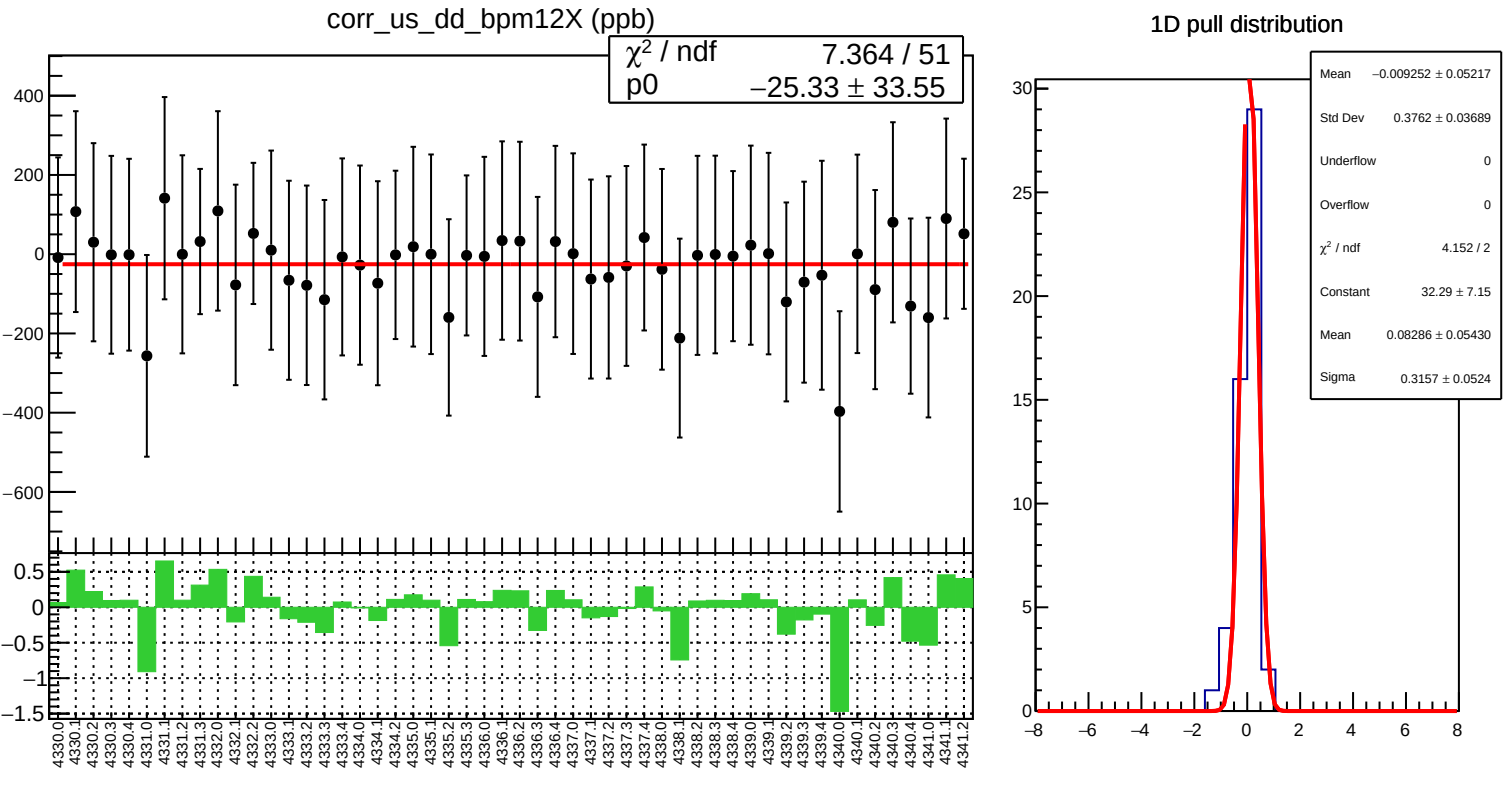

corr_us_dd_bpm16X (ppb)
χ² / ndf 22.46 / 51
p0 −189.1 ± 148.2
2000
1000
0
−1000
−2000
−3000
1
0.5
0
−0.5
−1
−1.5
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

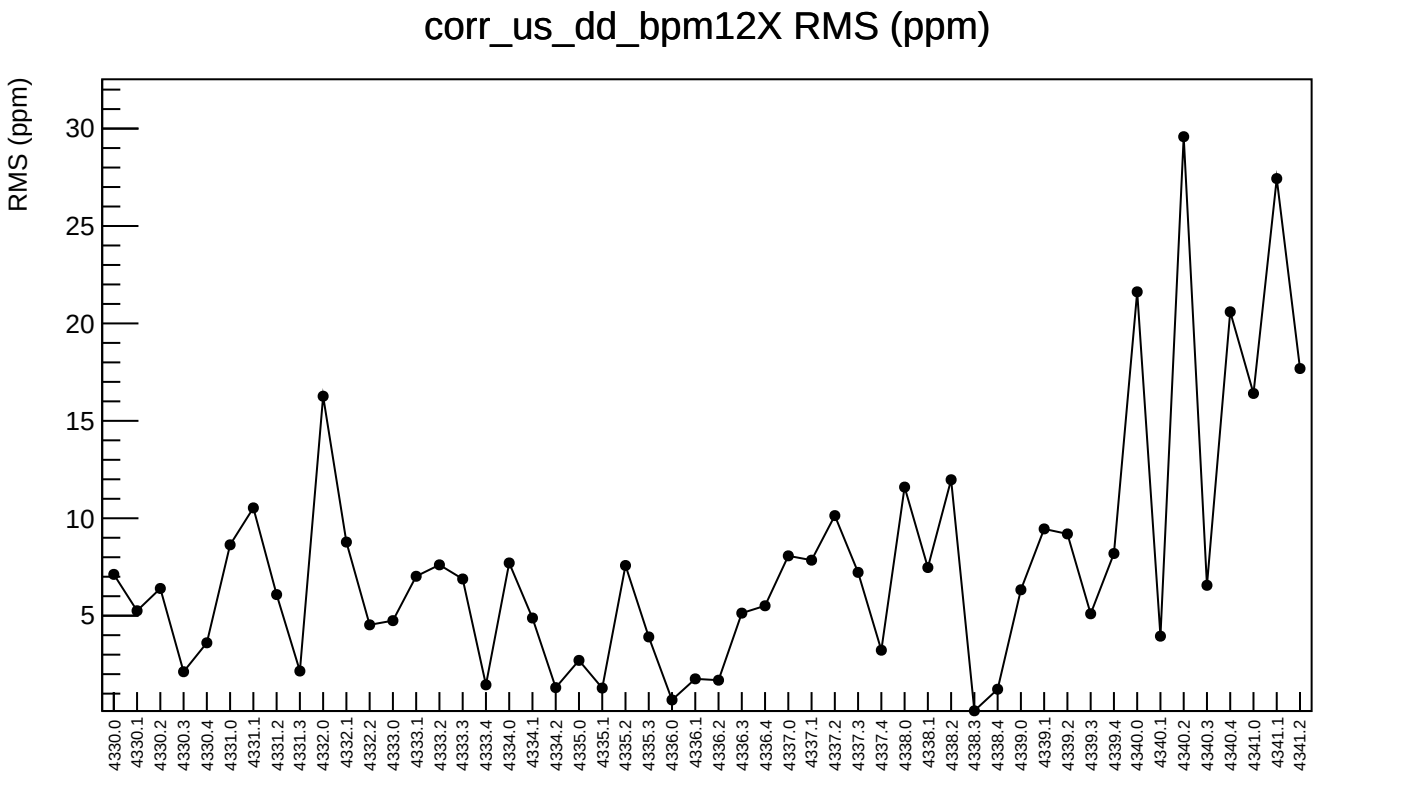

1D pull distribution
Mean −0.003796 ± 0.09114
Std Dev 0.6572 ± 0.06444
Underflow 0
Overflow 0
χ² / ndf 5.684 / 3
Constant 14.34 ± 2.57
Mean −0.06942 ± 0.12354
Sigma 0.7014 ± 0.0834
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

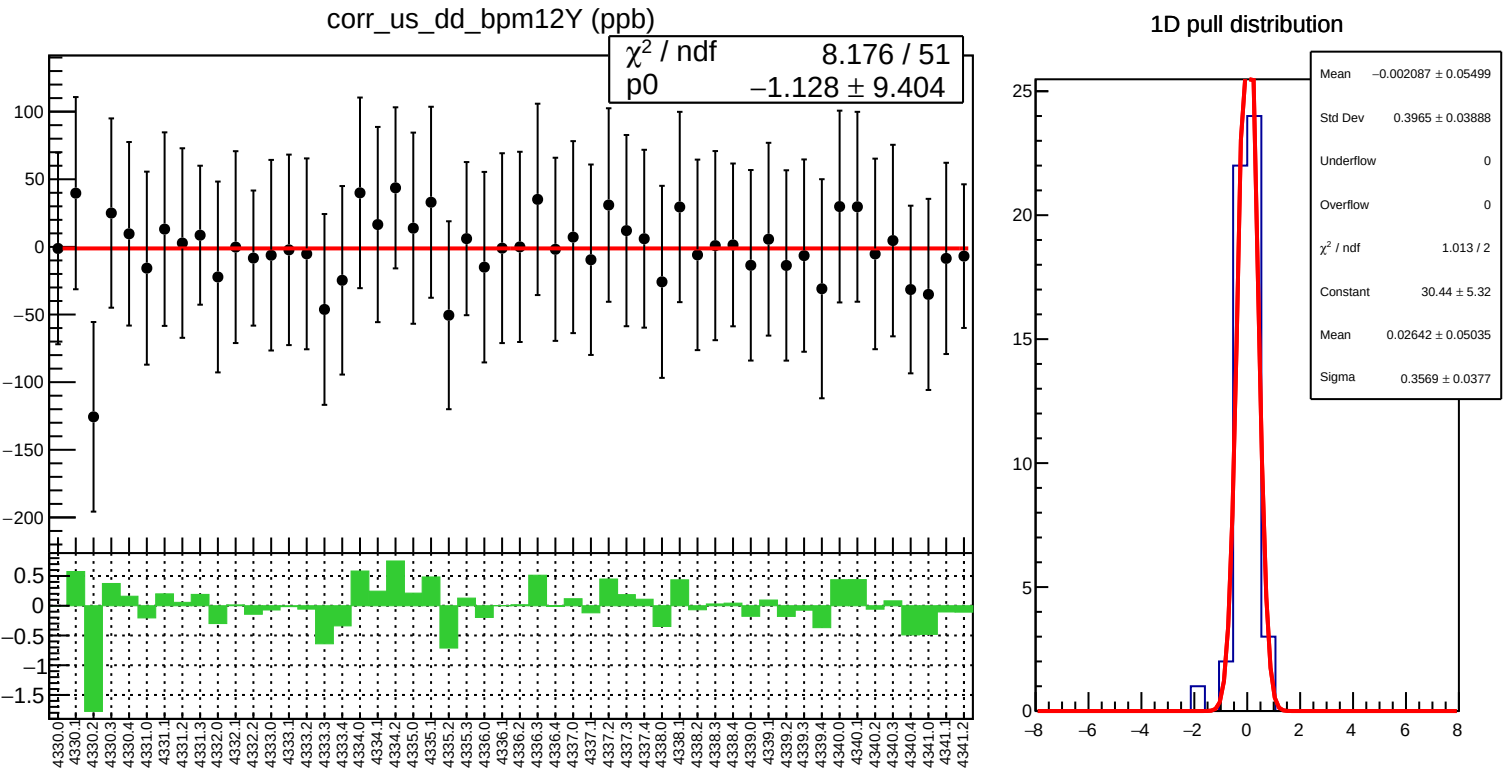

corr_us_dd_bpm16X RMS (ppm)
RMS (ppm)
120
100
80
60
40
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

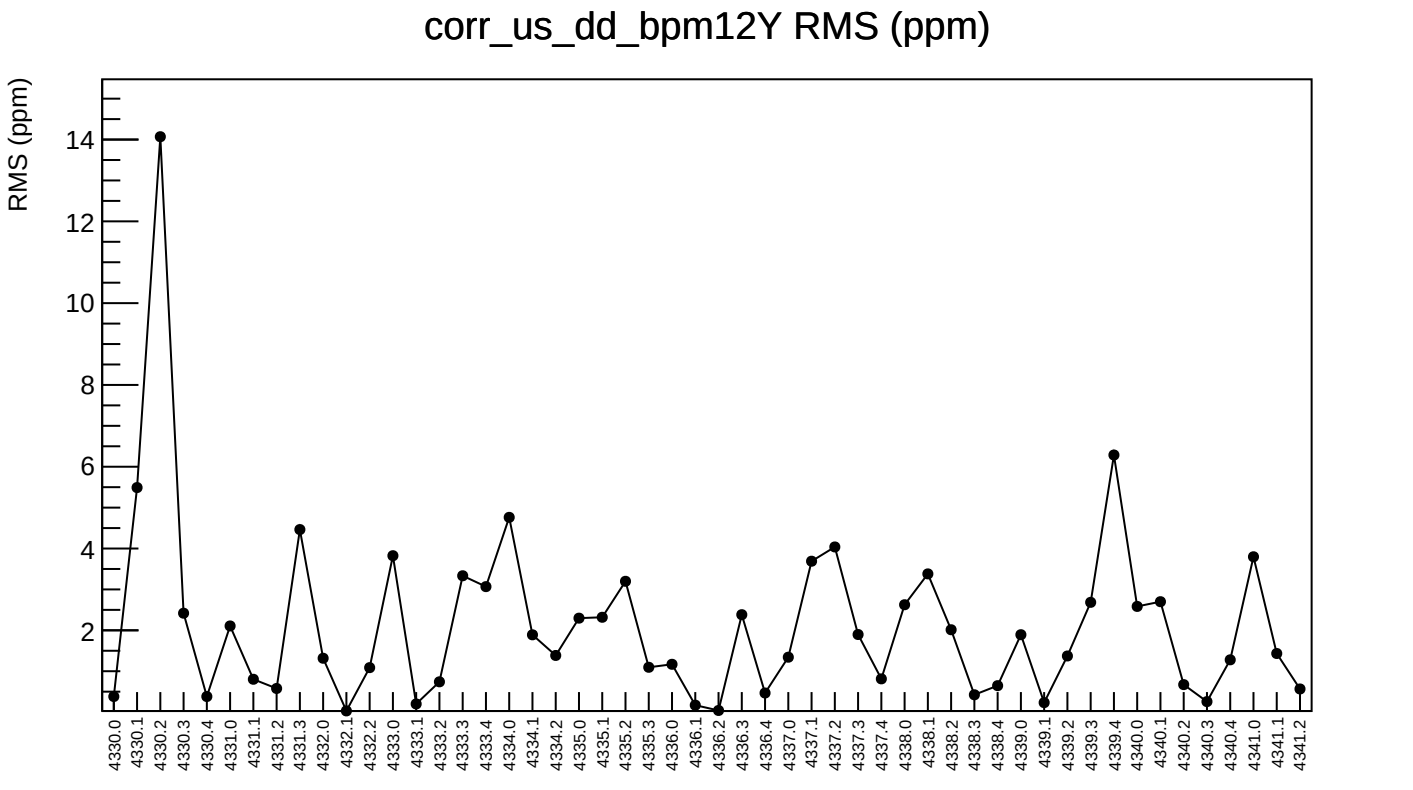

corr_us_dd_bpm16Y (ppb)
χ² / ndf 9.49 / 51
p0 −0.8708 ± 6.823
1D pull distribution
Mean −0.003573 ± 0.05924
Std Dev 0.4272 ± 0.04189
Underflow 0
Overflow 0
χ² / ndf 4.798 / 2
Constant 20.38 ± 5.13
Mean 0.08994 ± 0.09157
Sigma 0.5035 ± 0.1140

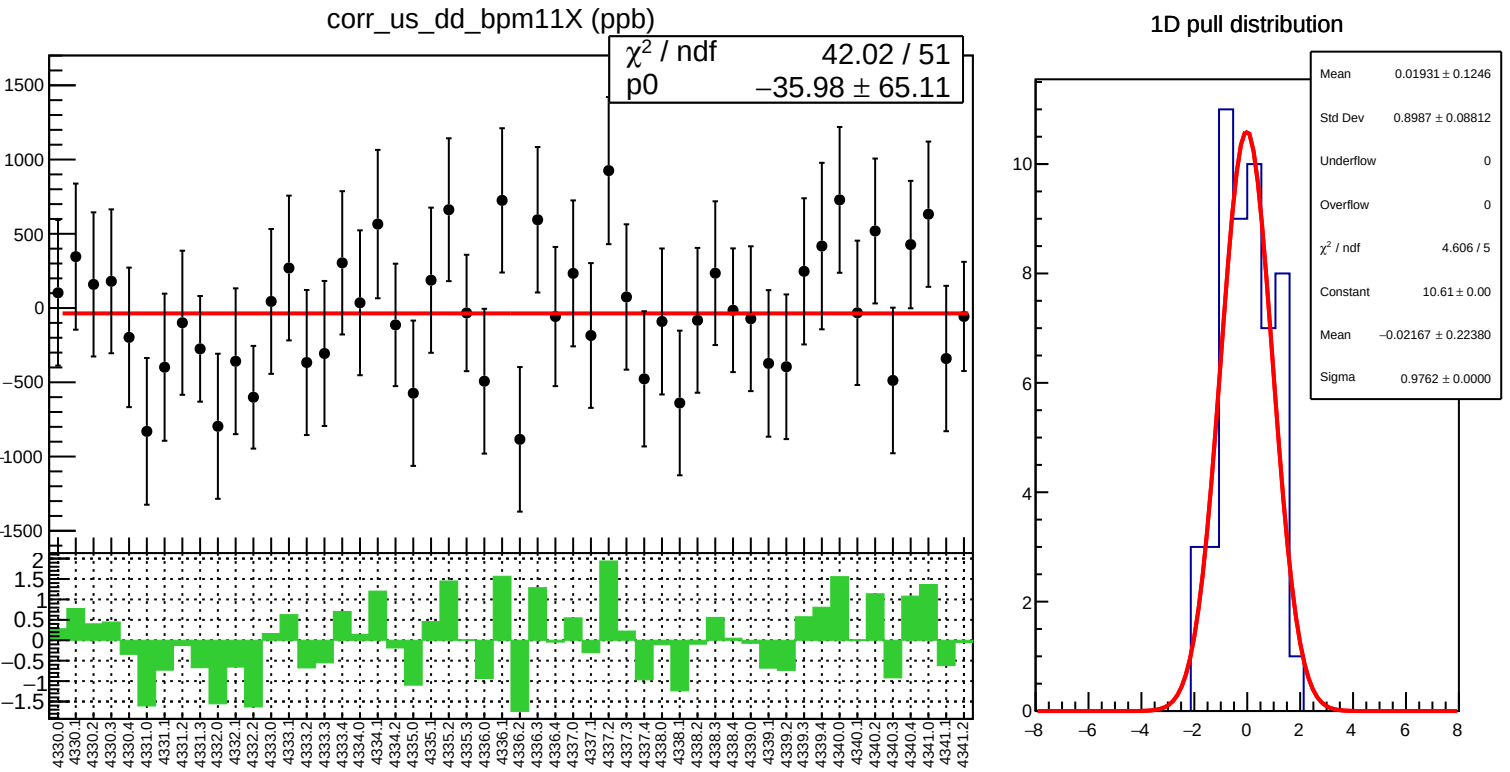

corr_us_dd_bpm16Y RMS (ppm)
RMS (ppm)
7
6
5
4
3
2
1
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

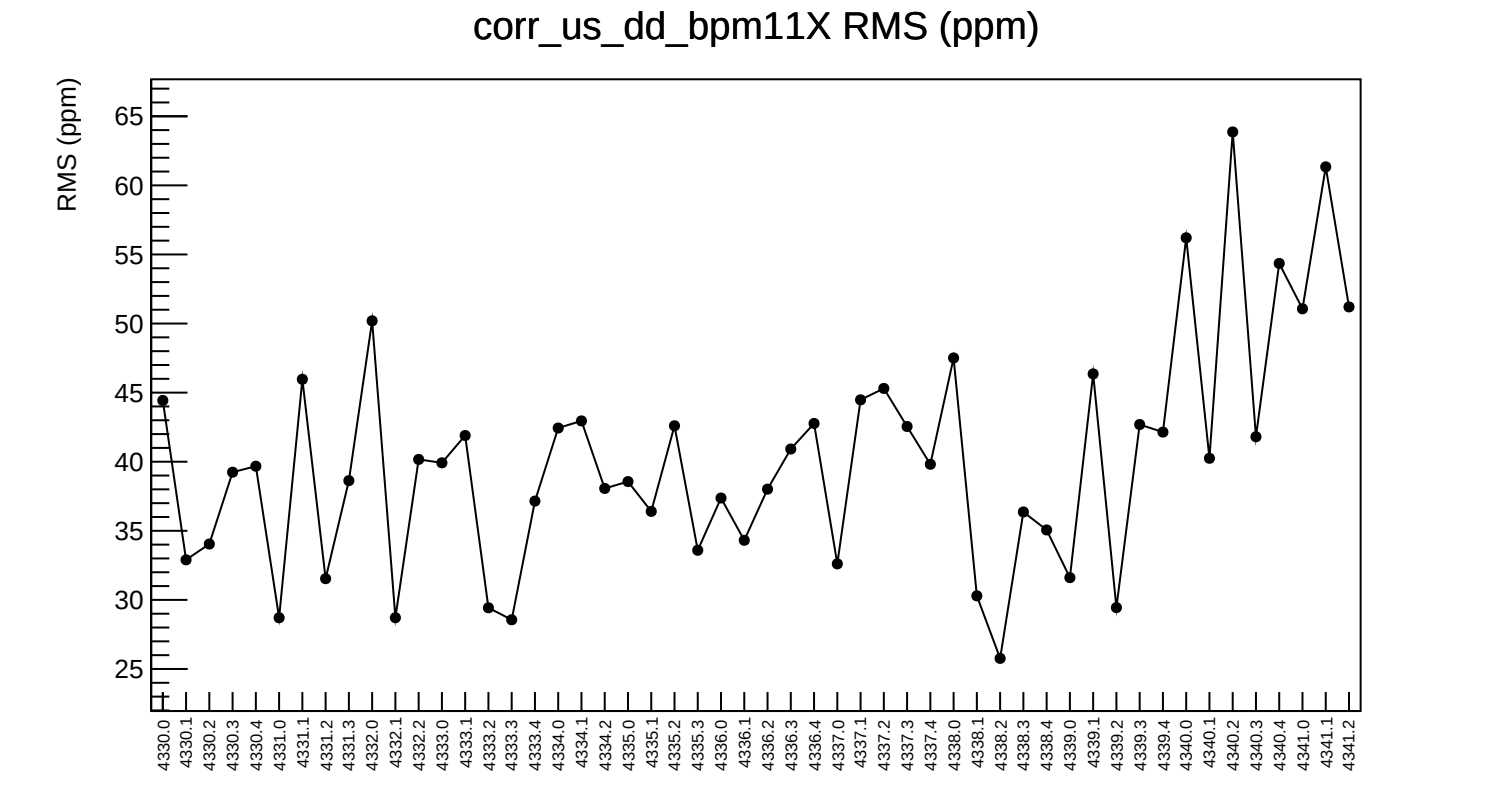

corr_us_dd_bpm12X (ppb)
χ² / ndf 7.364 / 51
p0 −25.33 ± 33.55
1D pull distribution
Mean −0.009252 ± 0.05217
Std Dev 0.3762 ± 0.03689
Underflow 0
Overflow 0
χ² / ndf 4.152 / 2
Constant 32.29 ± 7.15
Mean 0.08286 ± 0.05430
Sigma 0.3157 ± 0.0524

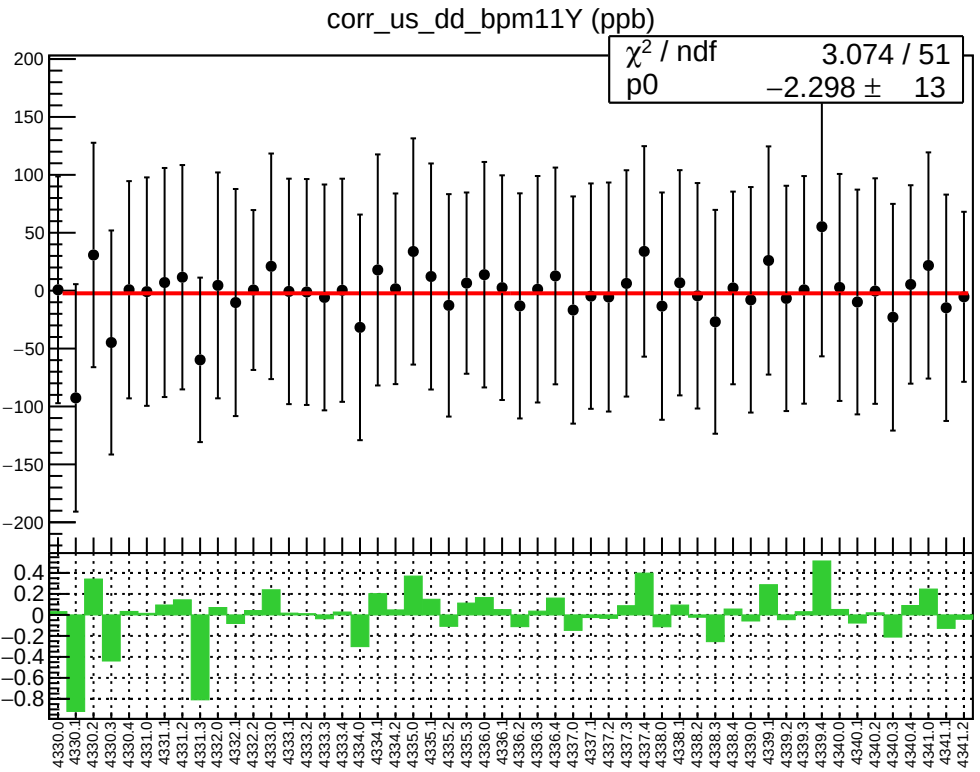

corr_us_dd_bpm12X RMS (ppm)
RMS (ppm)
30
25
20
15
10
5
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

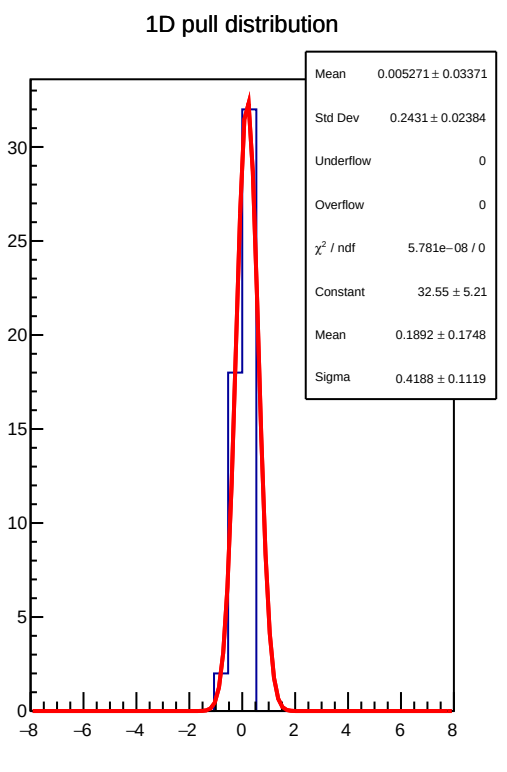

corr_us_dd_bpm12Y (ppb)
χ² / ndf 8.176 / 51
p0 −1.128 ± 9.404
1D pull distribution
Mean −0.002087 ± 0.05499
Std Dev 0.3965 ± 0.03888
Underflow 0
Overflow 0
χ² / ndf 1.013 / 2
Constant 30.44 ± 5.32
Mean 0.02642 ± 0.05035
Sigma 0.3569 ± 0.0377

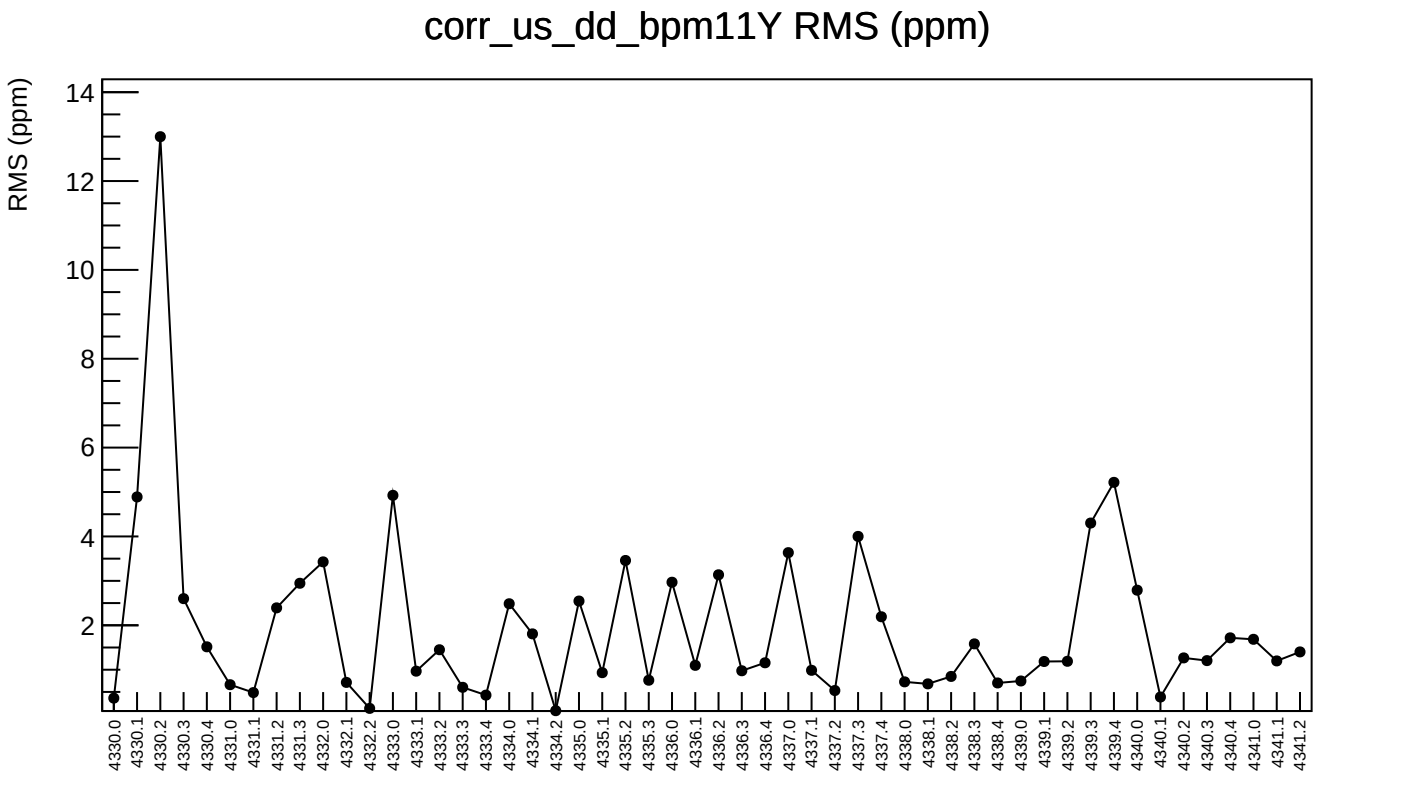

corr_us_dd_bpm12Y RMS (ppm)
RMS (ppm)
14
12
10
8
6
4
2
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

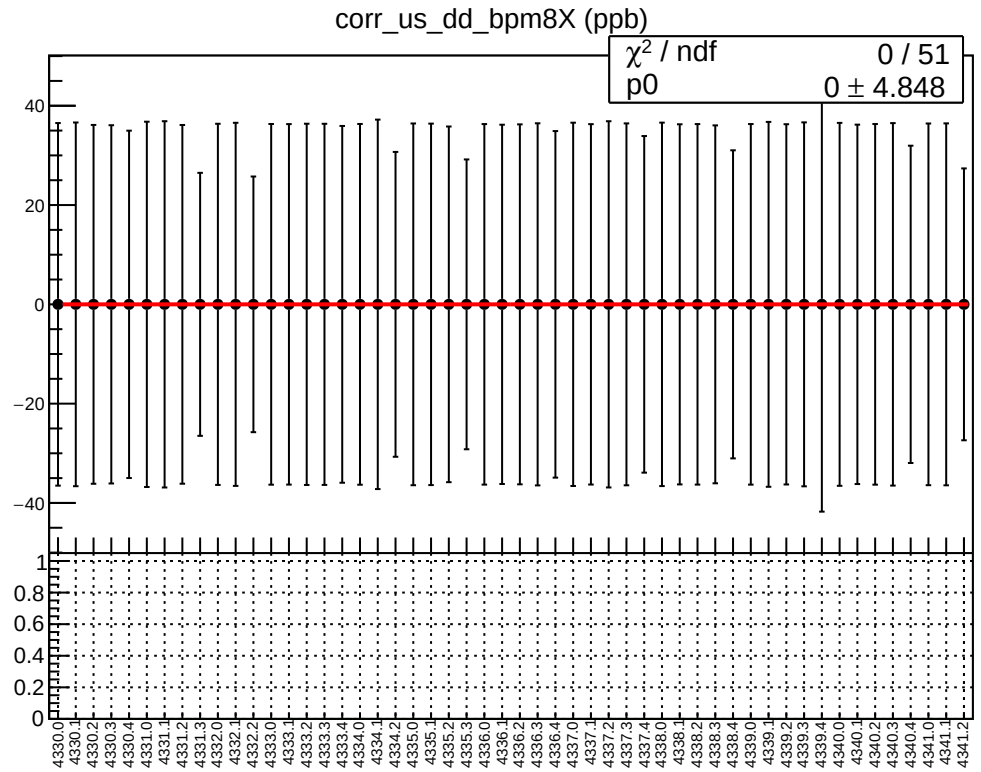

corr_us_dd_bpm11X (ppb)
χ² / ndf 42.02 / 51
p0 −35.98 ± 65.11
1500
1000
500
0
−500
−1000
−1500
2
1.5
1
0.5
0
−0.5
−1
−1.5
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2
1D pull distribution
Mean 0.01931 ± 0.1246
Std Dev 0.8987 ± 0.08812
Underflow 0
Overflow 0
χ² / ndf 4.606 / 5
Constant 10.61 ± 0.00
Mean −0.02167 ± 0.22380
Sigma 0.9762 ± 0.0000
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

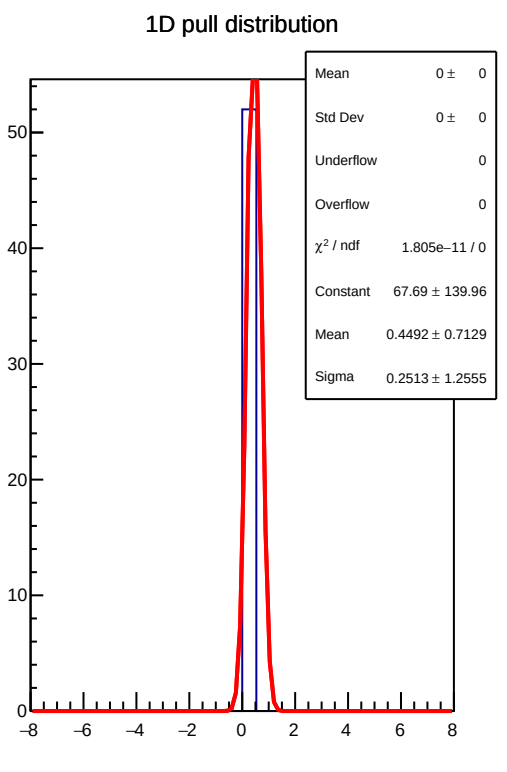

corr_us_dd_bpm11X RMS (ppm)
RMS (ppm)
65
60
55
50
45
40
35
30
25
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

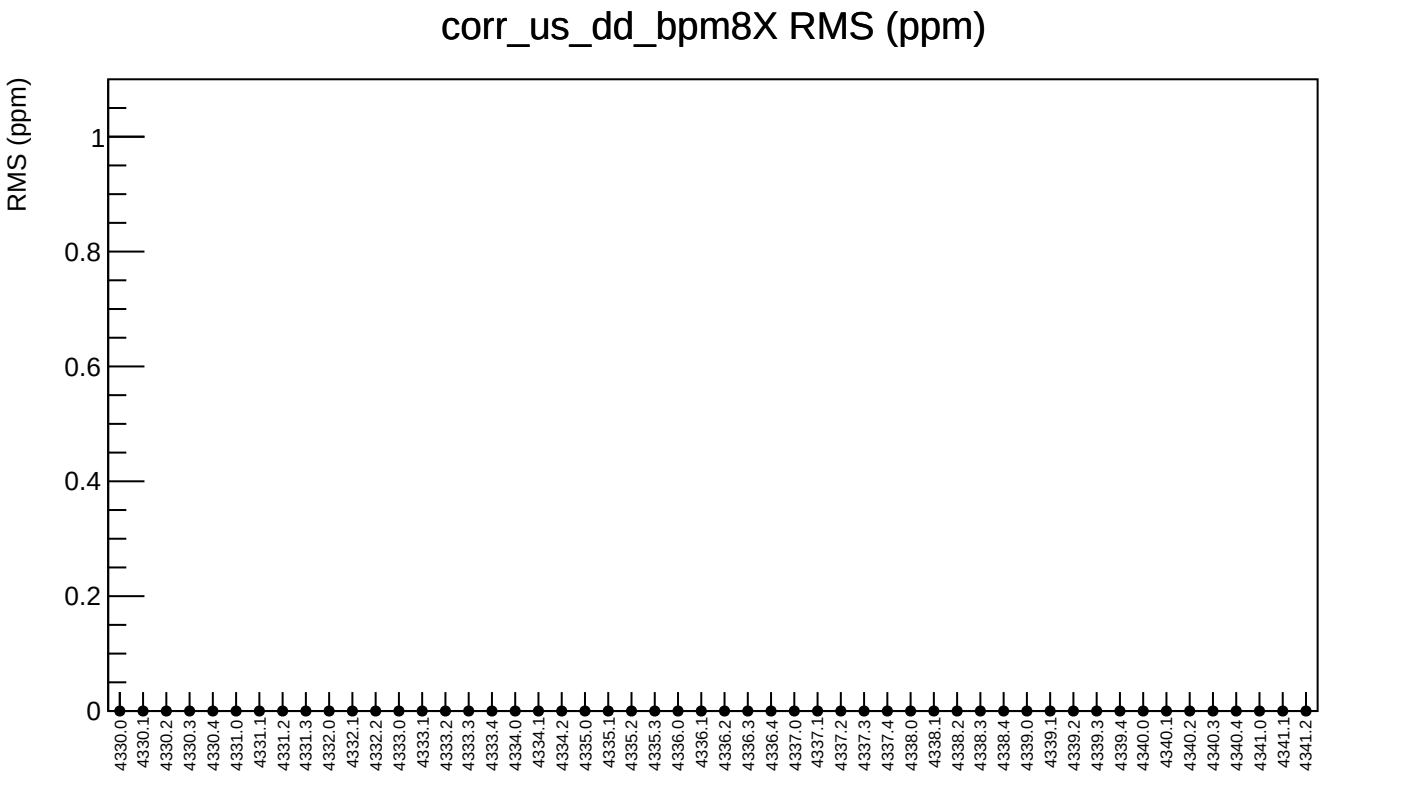

corr_us_dd_bpm11Y (ppb)
χ² / ndf 3.074 / 51
p0 −2.298 ± 13
200
150
100
50
0
−50
−100
−150
−200
0.4
0.2
0
−0.2
−0.4
−0.6
−0.8
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

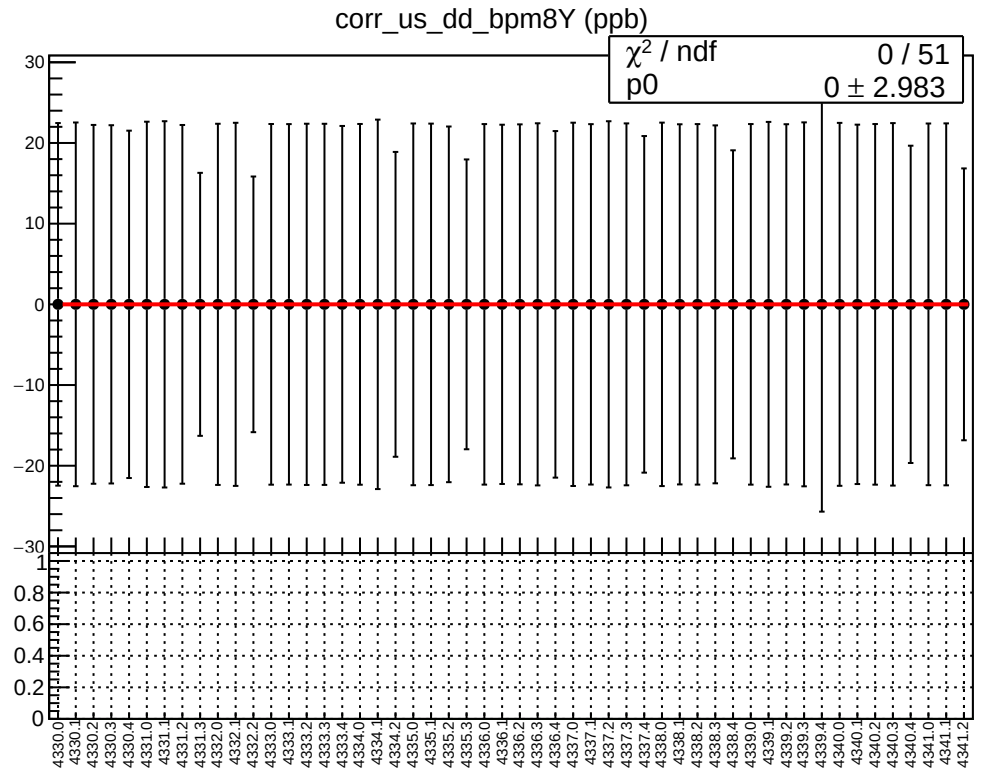

1D pull distribution
Mean 0.005271 ± 0.03371
Std Dev 0.2431 ± 0.02384
Underflow 0
Overflow 0
χ² / ndf 5.781e−08 / 0
Constant 32.55 ± 5.21
Mean 0.1892 ± 0.1748
Sigma 0.4188 ± 0.1119
30
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

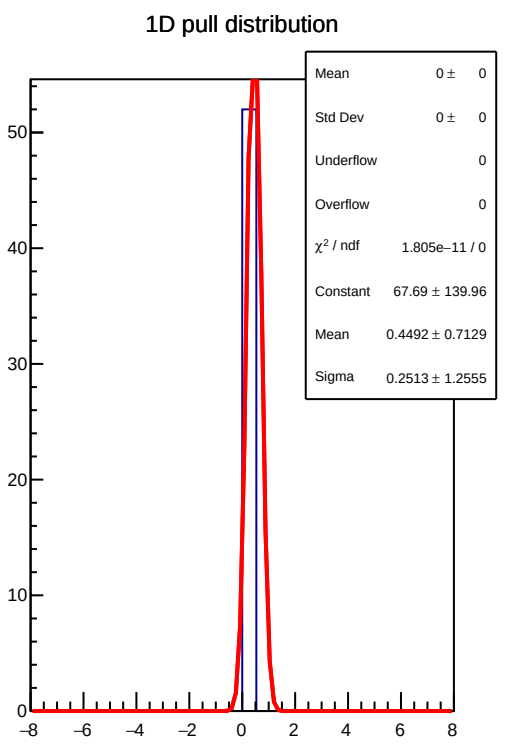

corr_us_dd_bpm11Y RMS (ppm)
RMS (ppm)
14
12
10
8
6
4
2
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

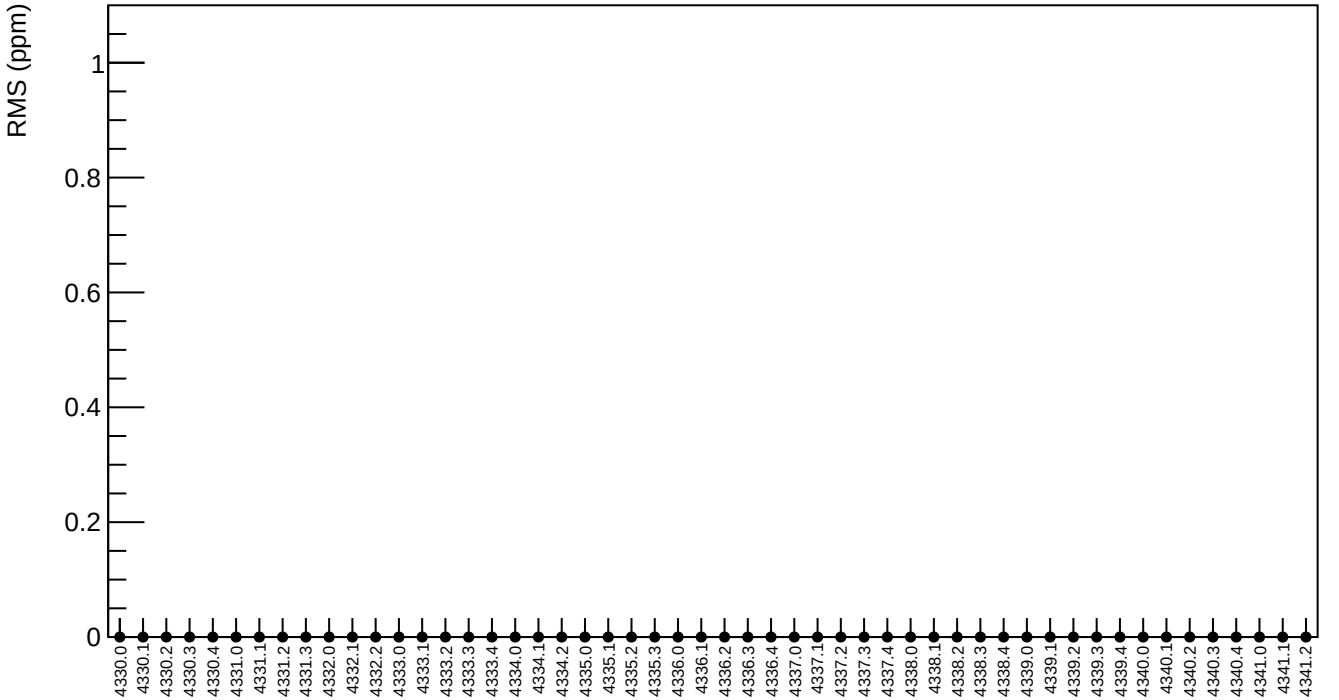

corr_us_dd_bpm8X (ppb)
χ² / ndf 0 / 51
p0 0 ± 4.848
40
20
0
−20
−40
1
0.8
0.6
0.4
0.2
0
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

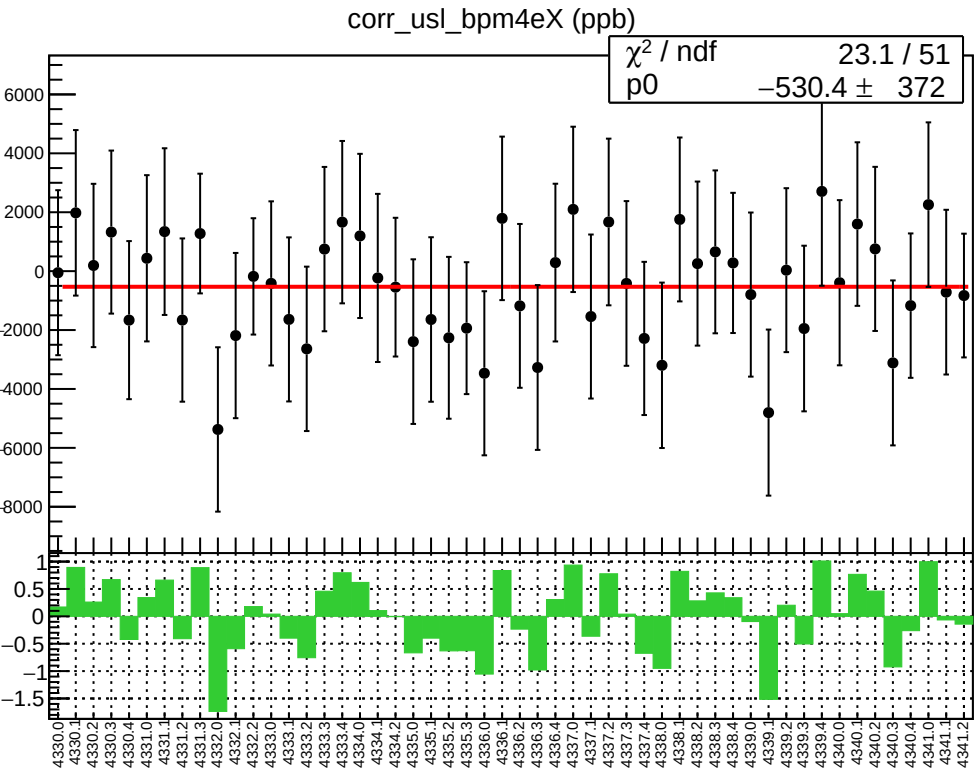

1D pull distribution
Mean 0 ± 0
Std Dev 0 ± 0
Underflow 0
Overflow 0
χ² / ndf 1.805e−11 / 0
Constant 67.69 ± 139.96
Mean 0.4492 ± 0.7129
Sigma 0.2513 ± 1.2555
50
40
30
20
10
0
−8
−6
−4
−2
0
2
4
6
8

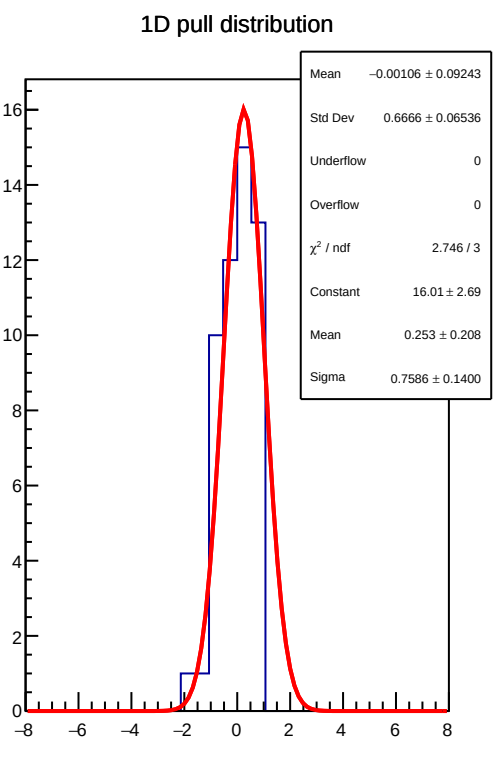

corr_us_dd_bpm8X RMS (ppm)
RMS (ppm)
1
0.8
0.6
0.4
0.2
0
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

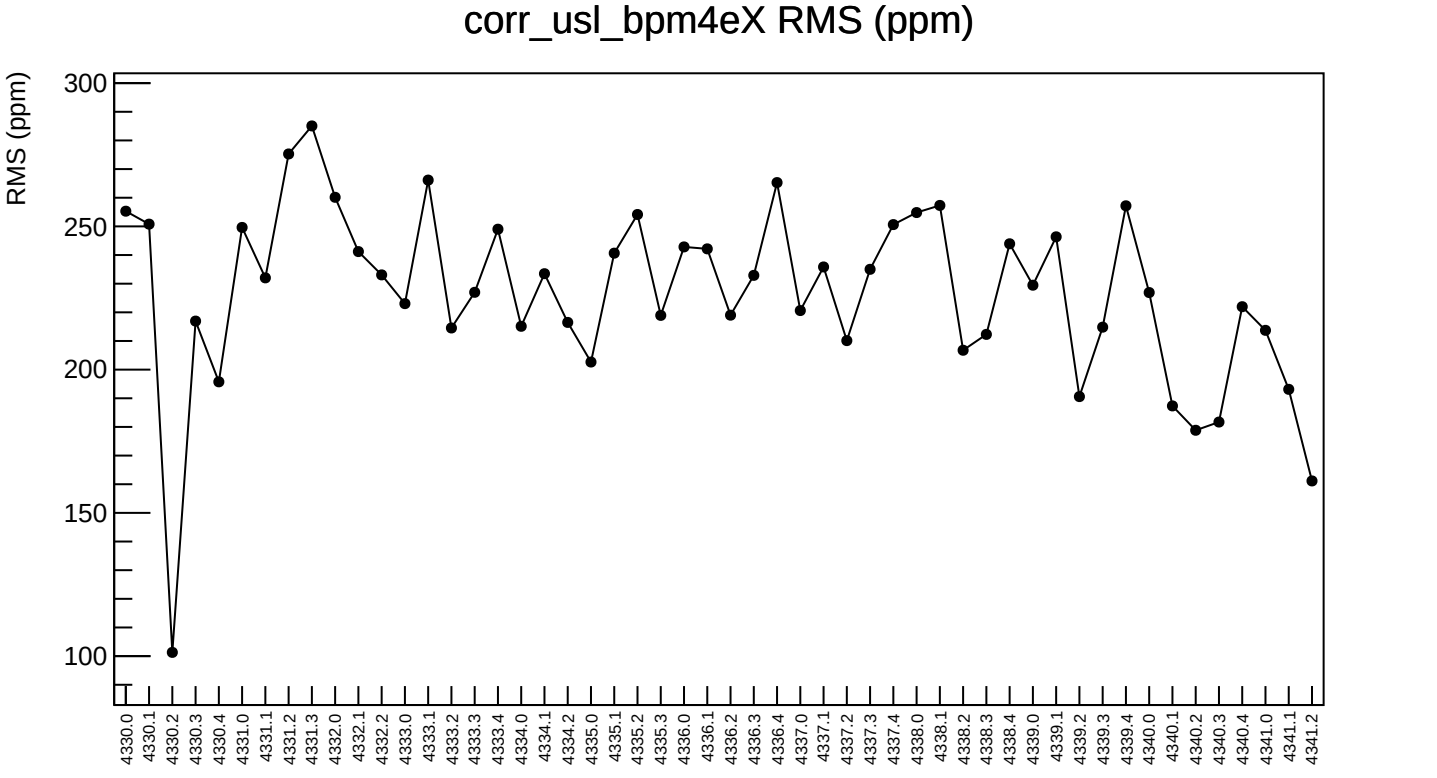

corr_us_dd_bpm8Y (ppb)
χ² / ndf 0 / 51
p0 0 ± 2.983
30
20
10
0
−10
−20
−30
1
0.8
0.6
0.4
0.2
0
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

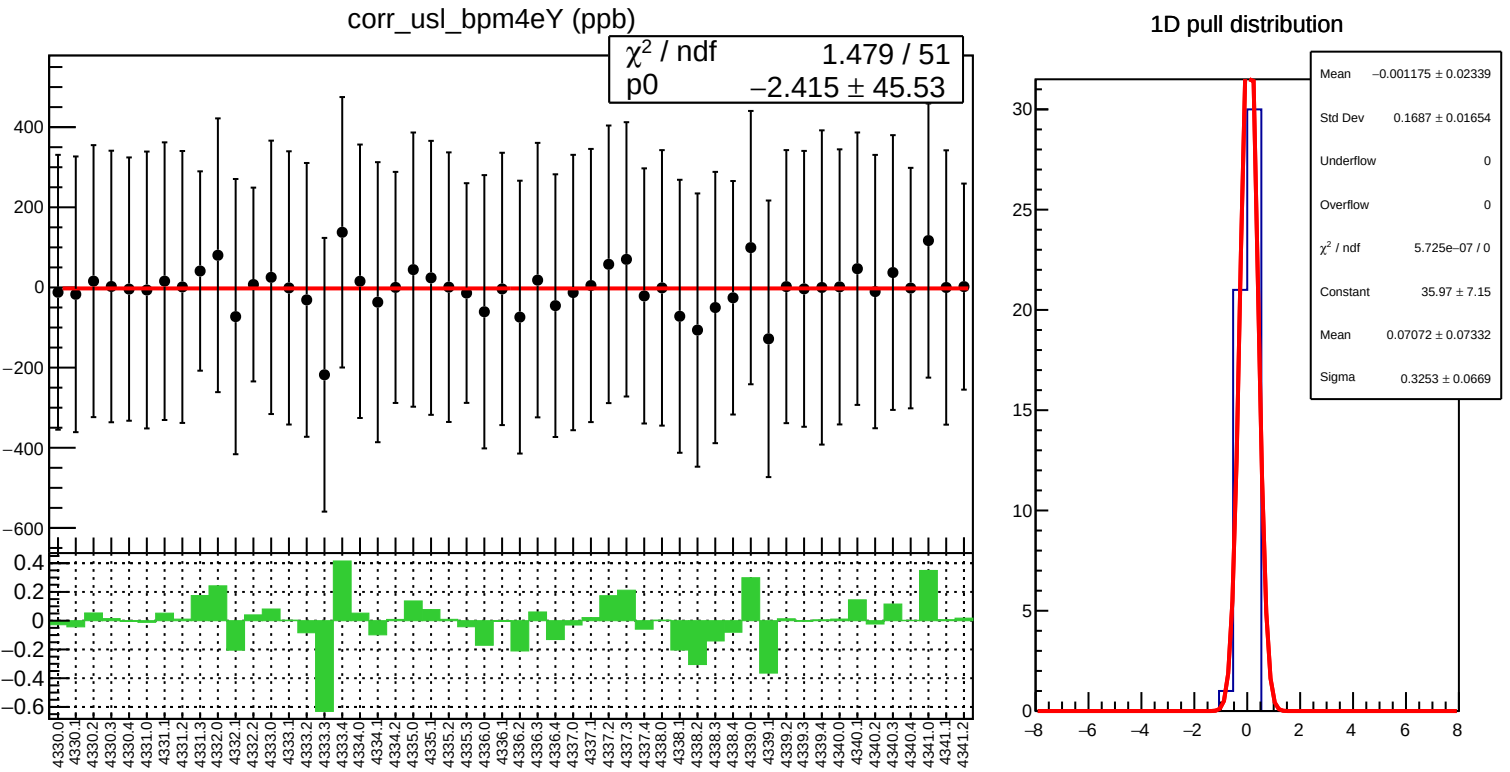

1D pull distribution
Mean 0 ± 0
Std Dev 0 ± 0
Underflow 0
Overflow 0
χ² / ndf 1.805e−11 / 0
Constant 67.69 ± 139.96
Mean 0.4492 ± 0.7129
Sigma 0.2513 ± 1.2555
50
40
30
20
10
0
−8
−6
−4
−2
0
2
4
6
8

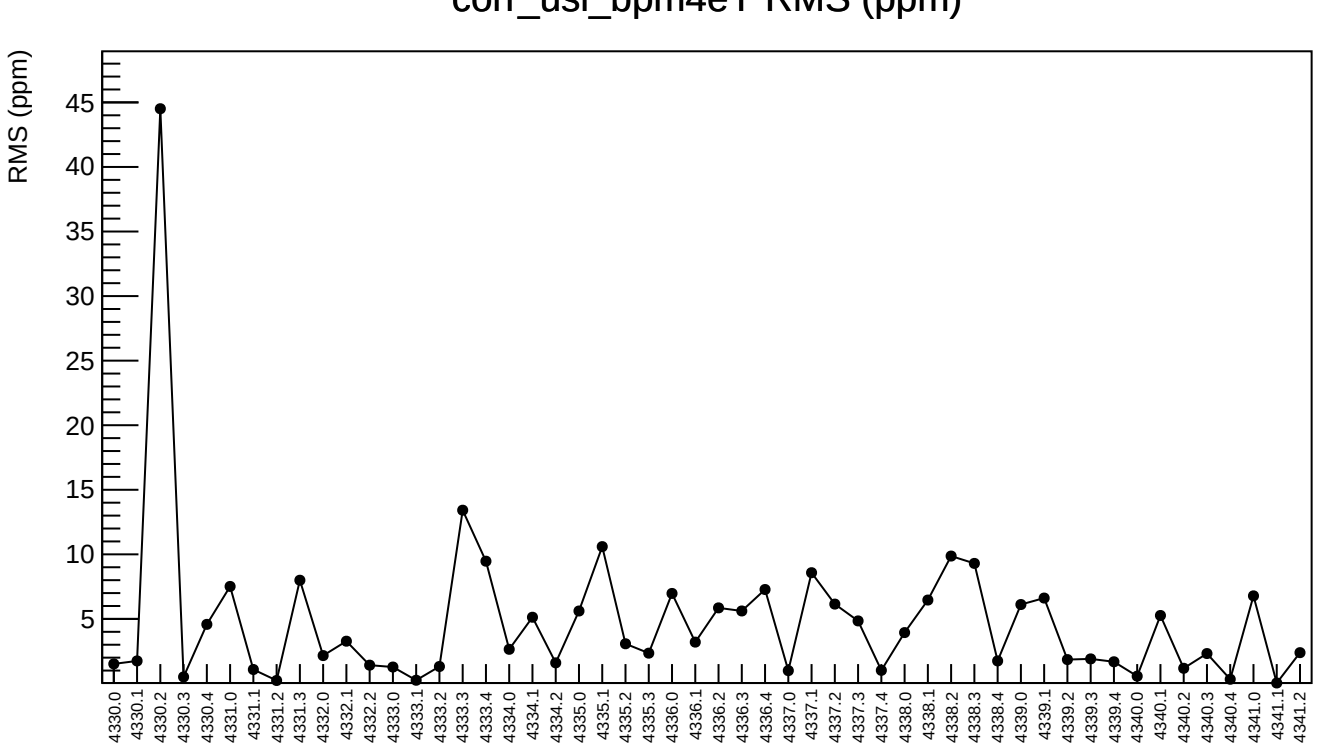

corr_us_dd_bpm8Y RMS (ppm)
RMS (ppm)
1
0.8
0.6
0.4
0.2
0
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

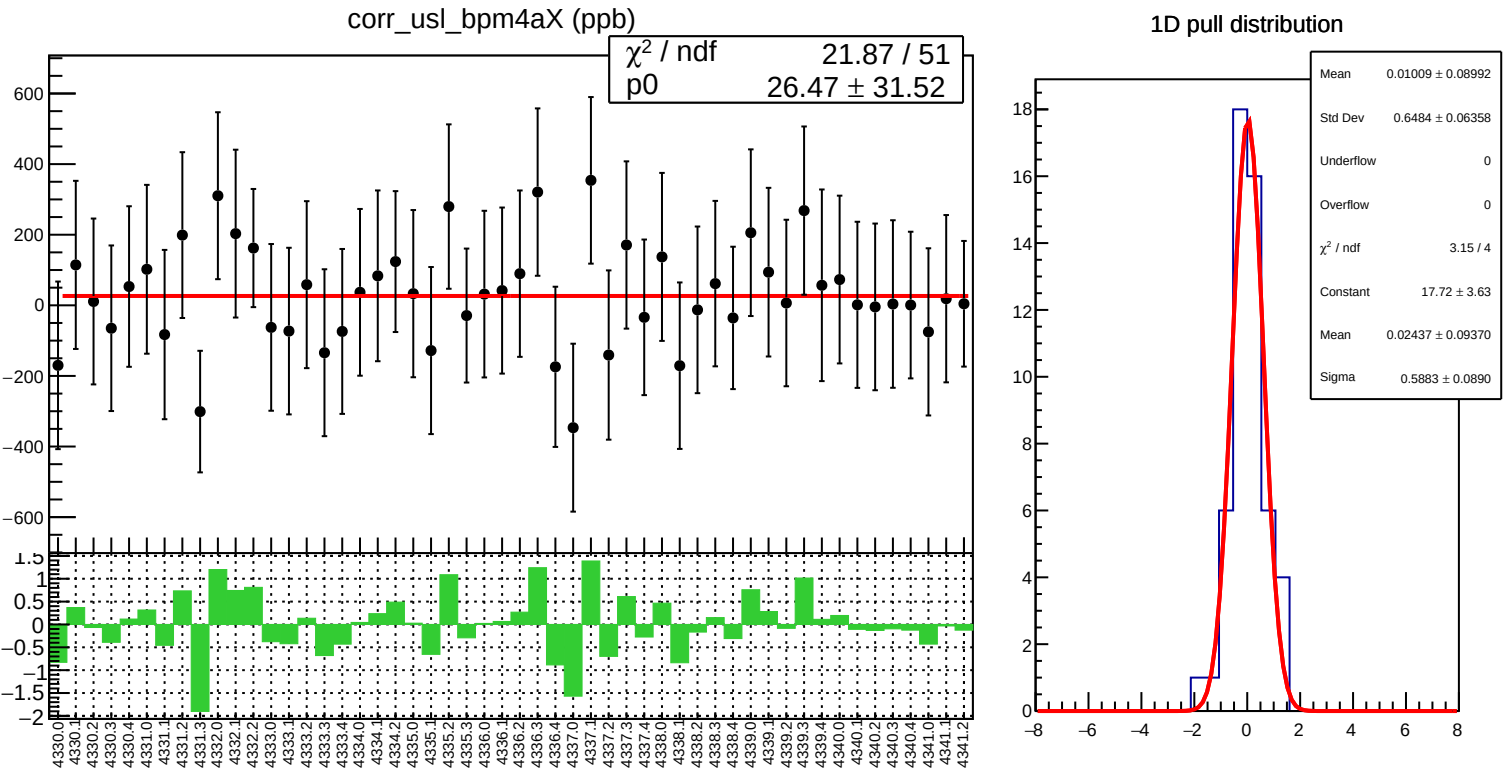

corr_usl_bpm4eX (ppb)
χ² / ndf 23.1 / 51
p0 −530.4 ± 372
6000
4000
2000
0
−2000
−4000
−6000
−8000
1
0.5
0
−0.5
−1
−1.5
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

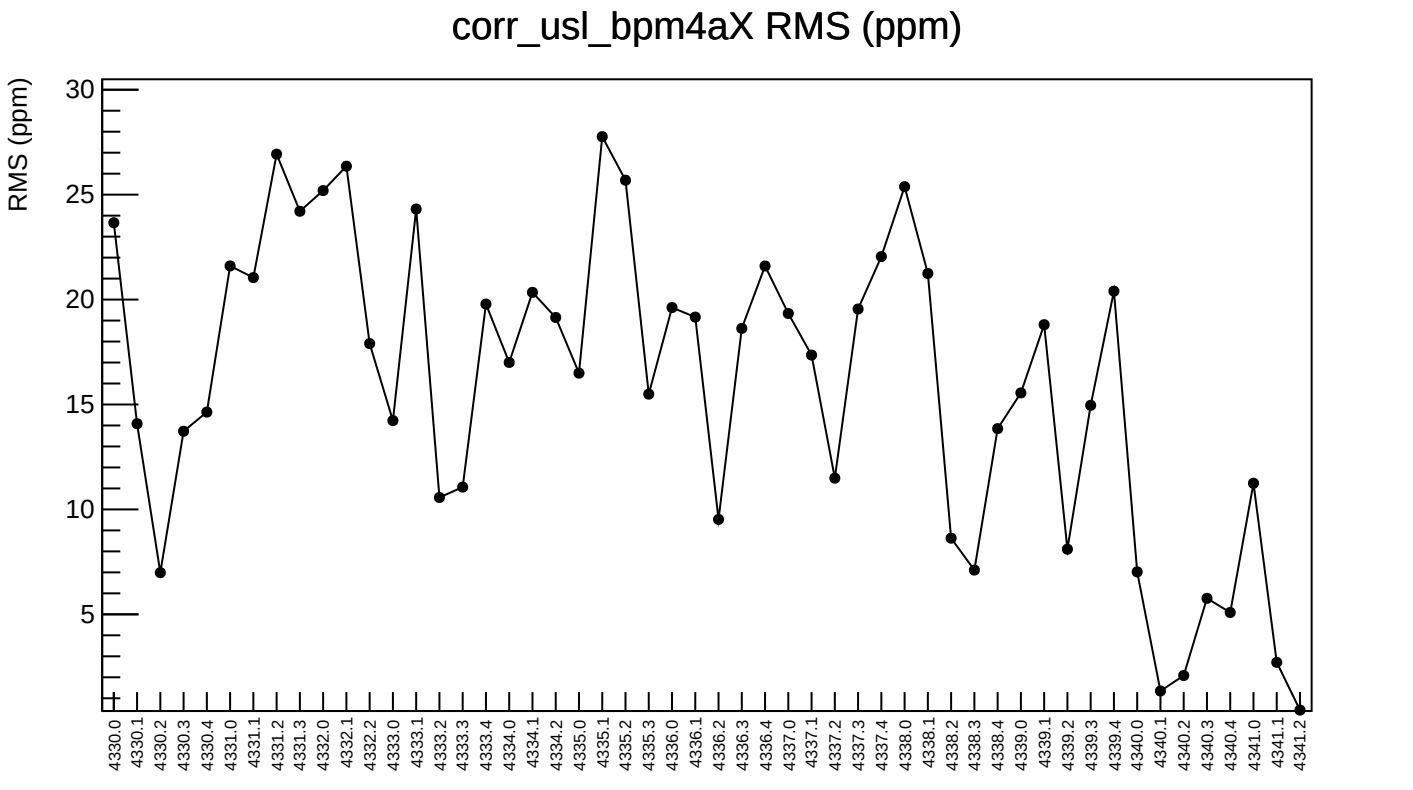

1D pull distribution
Mean −0.00106 ± 0.09243
Std Dev 0.6666 ± 0.06536
Underflow 0
Overflow 0
χ² / ndf 2.746 / 3
Constant 16.01 ± 2.69
Mean 0.253 ± 0.208
Sigma 0.7586 ± 0.1400
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8


corr_usl_bpm4eX RMS (ppm)
RMS (ppm)
300
250
200
150
100
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2


corr_usl_bpm4eY (ppb)
χ² / ndf 1.479 / 51
p0 −2.415 ± 45.53
1D pull distribution
Mean −0.001175 ± 0.02339
Std Dev 0.1687 ± 0.01654
Underflow 0
Overflow 0
χ² / ndf 5.725e−07 / 0
Constant 35.97 ± 7.15
Mean 0.07072 ± 0.07332
Sigma 0.3253 ± 0.0669


corr_usl_bpm4eY RMS (ppm)
RMS (ppm)
45
40
35
30
25
20
15
10
5
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2


corr_usl_bpm4aX (ppb)
χ² / ndf 21.87 / 51
p0 26.47 ± 31.52
1D pull distribution
Mean 0.01009 ± 0.08992
Std Dev 0.6484 ± 0.06358
Underflow 0
Overflow 0
χ² / ndf 3.15 / 4
Constant 17.72 ± 3.63
Mean 0.02437 ± 0.09370
Sigma 0.5883 ± 0.0890


corr_usl_bpm4aX RMS (ppm)
RMS (ppm)
30
25
20
15
10
5
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
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4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
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4340.2
4340.3
4340.4
4341.0
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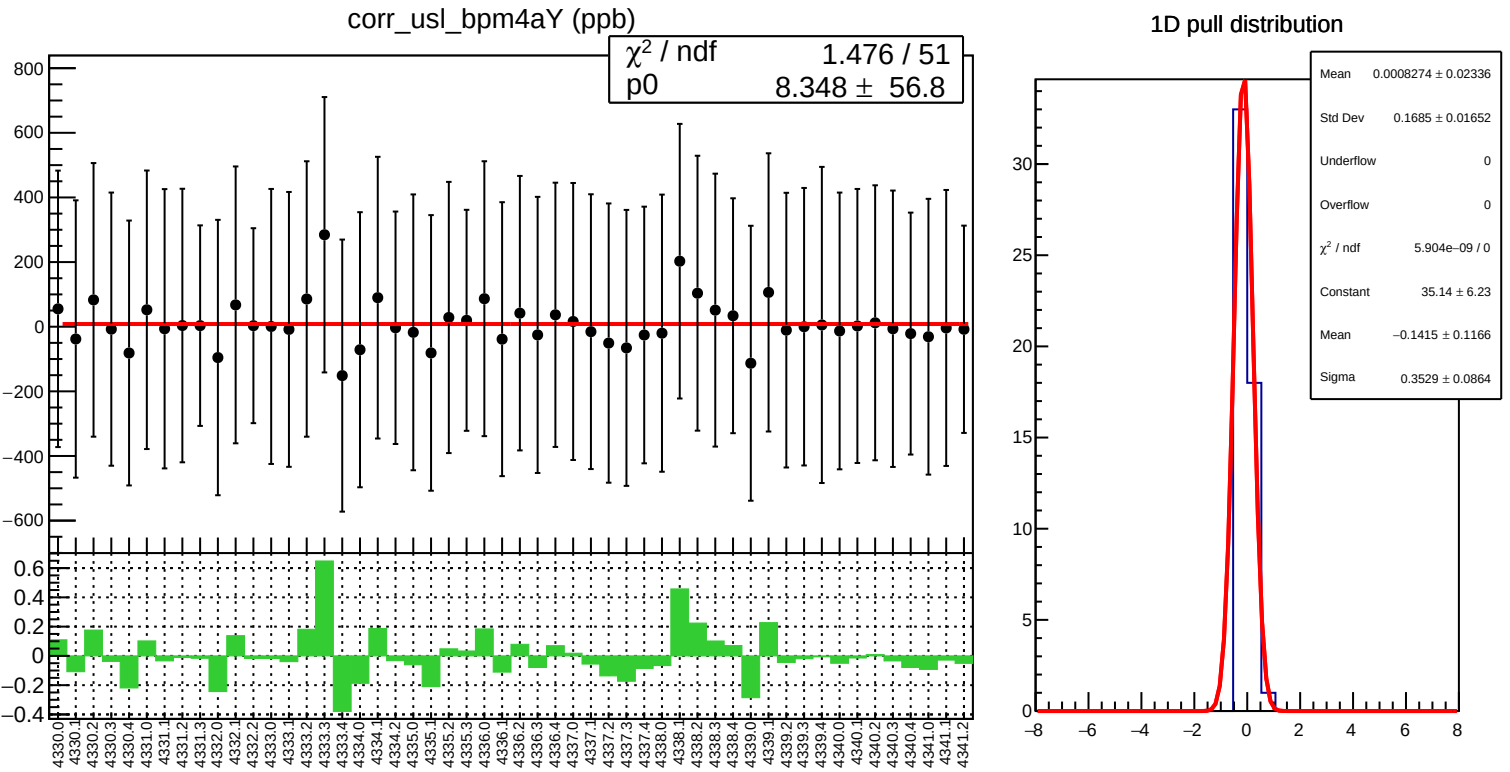
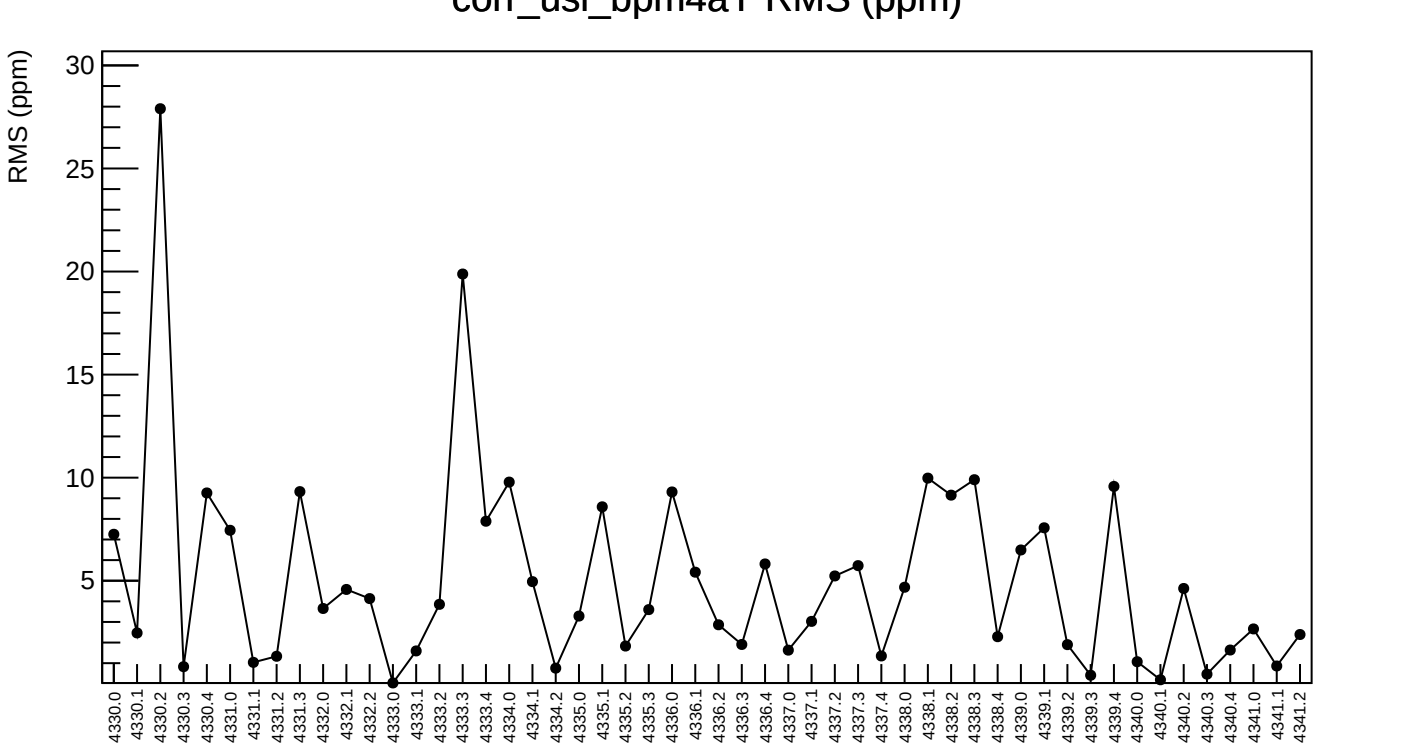
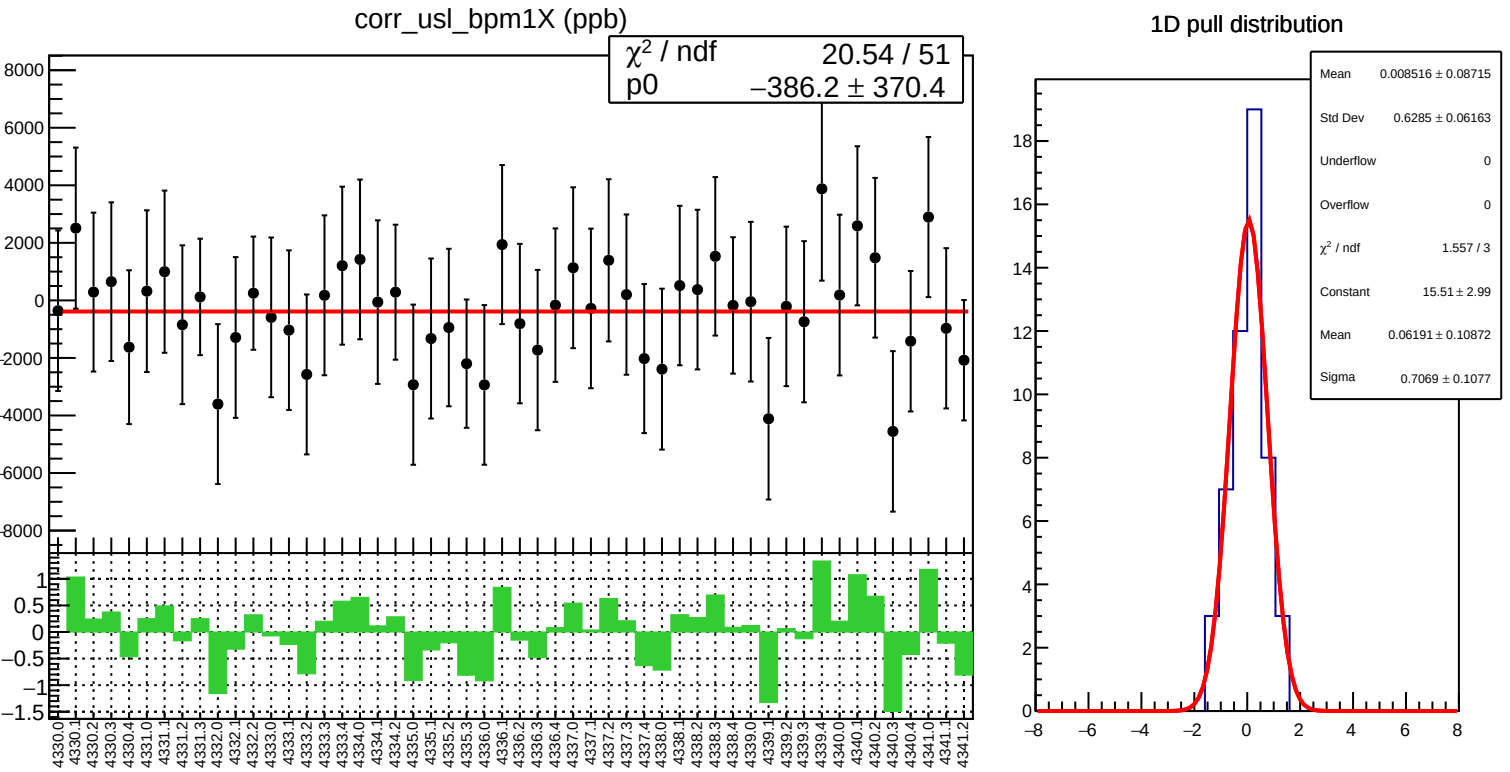
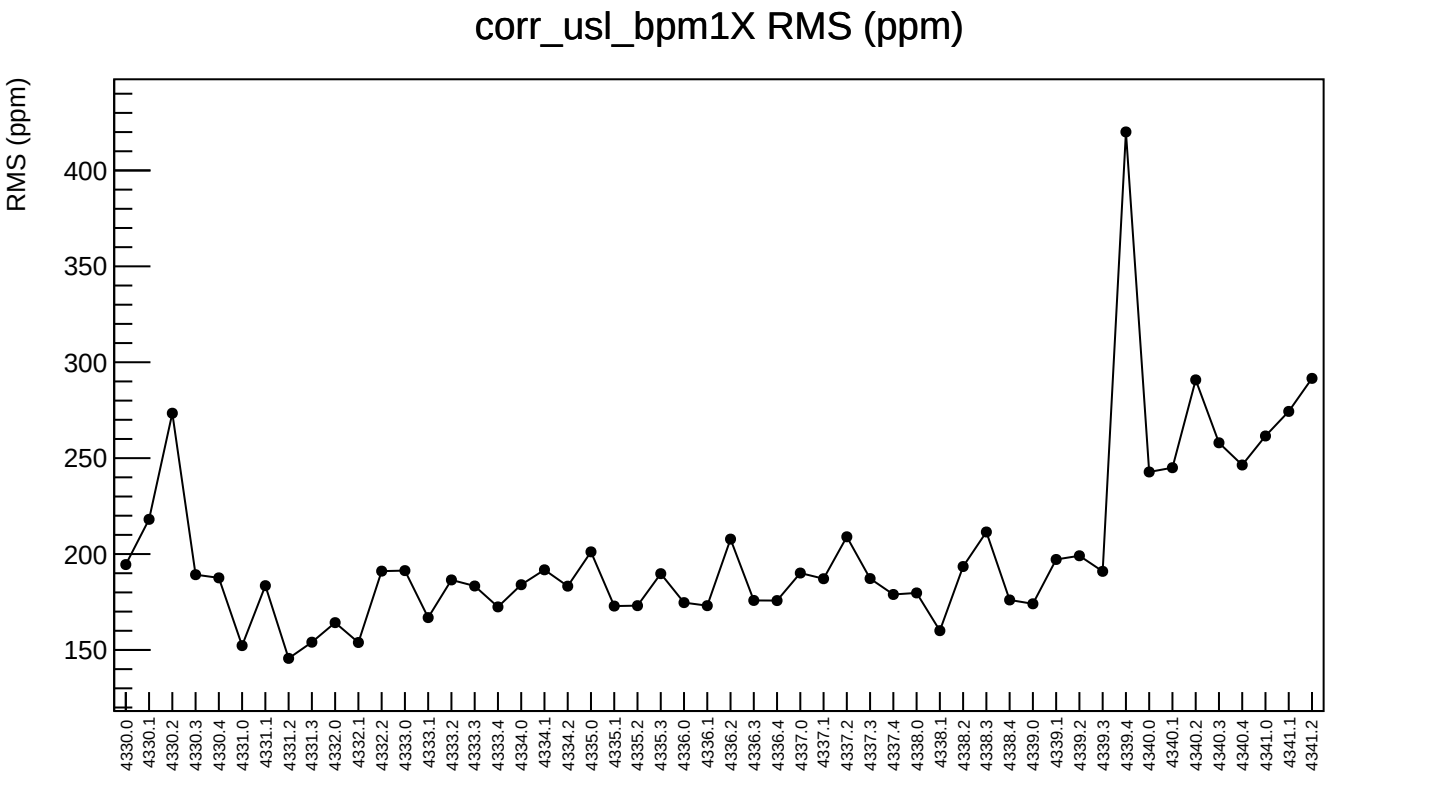
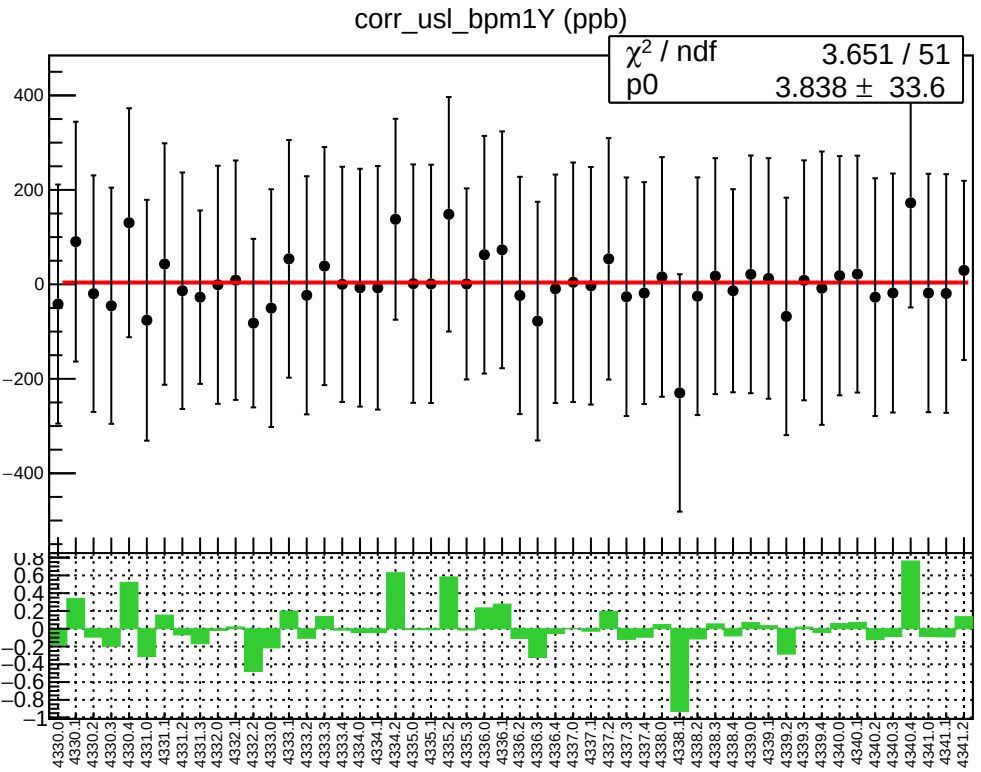
4341.2

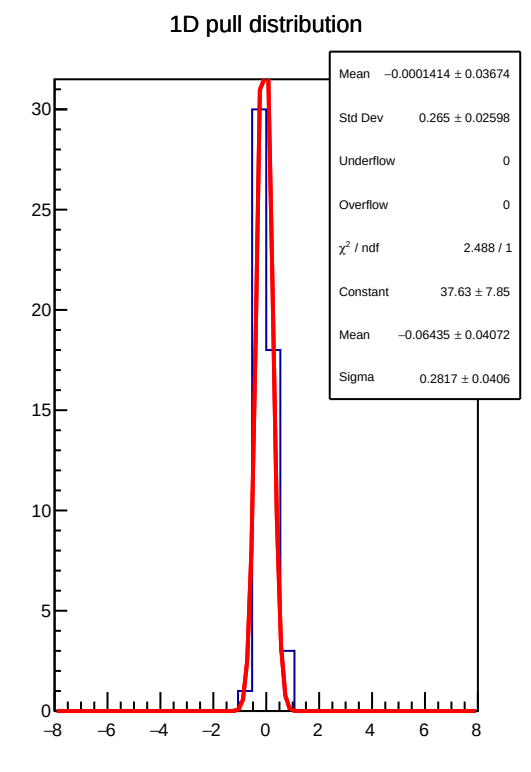

corr_usl_bpm4aY (ppb)
χ² / ndf 1.476 / 51
p0 8.348 ± 56.8
1D pull distribution
Mean 0.0008274 ± 0.02336
Std Dev 0.1685 ± 0.01652
Underflow 0
Overflow 0
χ² / ndf 5.904e−09 / 0
Constant 35.14 ± 6.23
Mean −0.1415 ± 0.1166
Sigma 0.3529 ± 0.0864

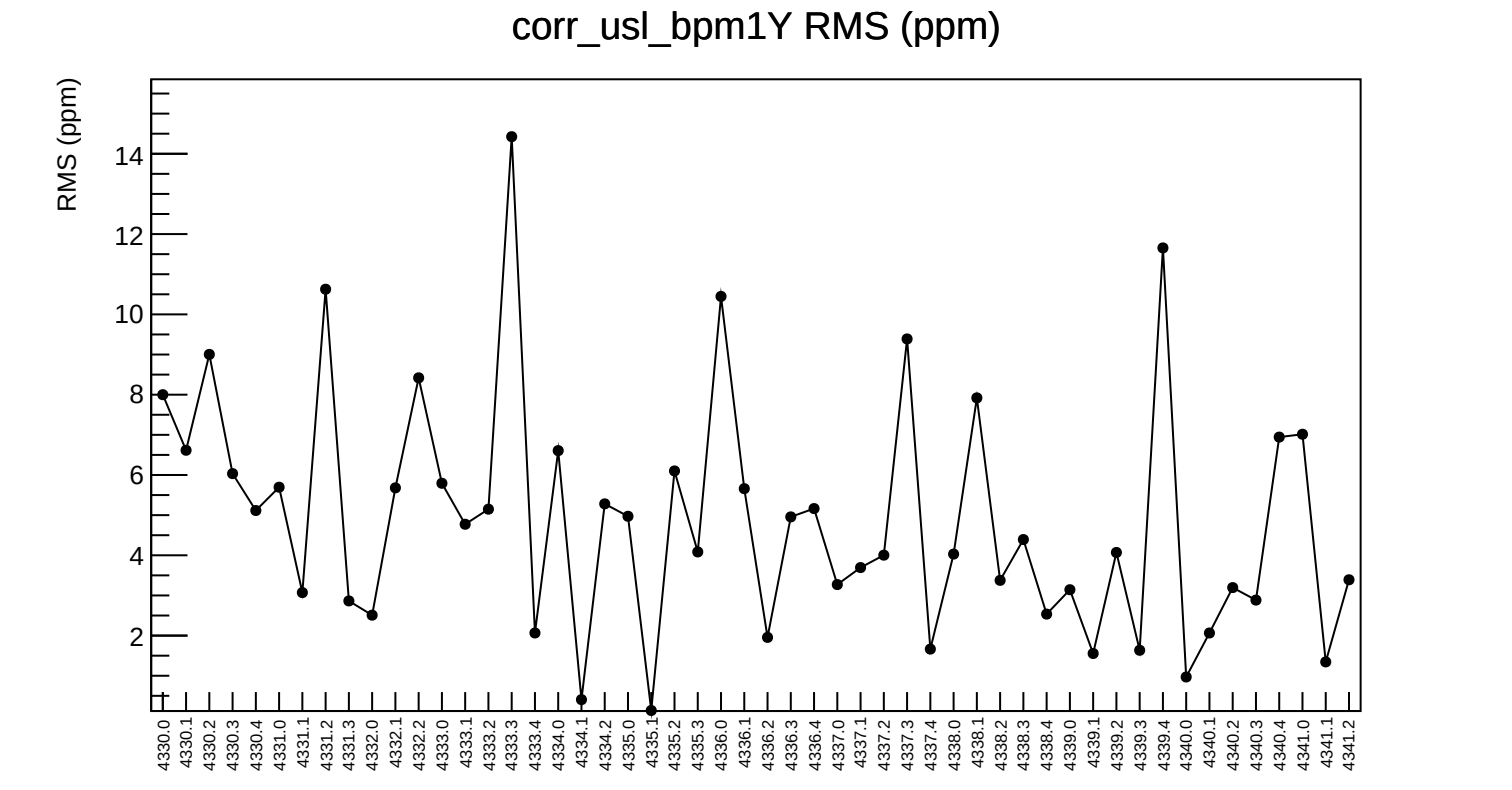

corr_usl_bpm4aY RMS (ppm)
RMS (ppm)
30
25
20
15
10
5
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

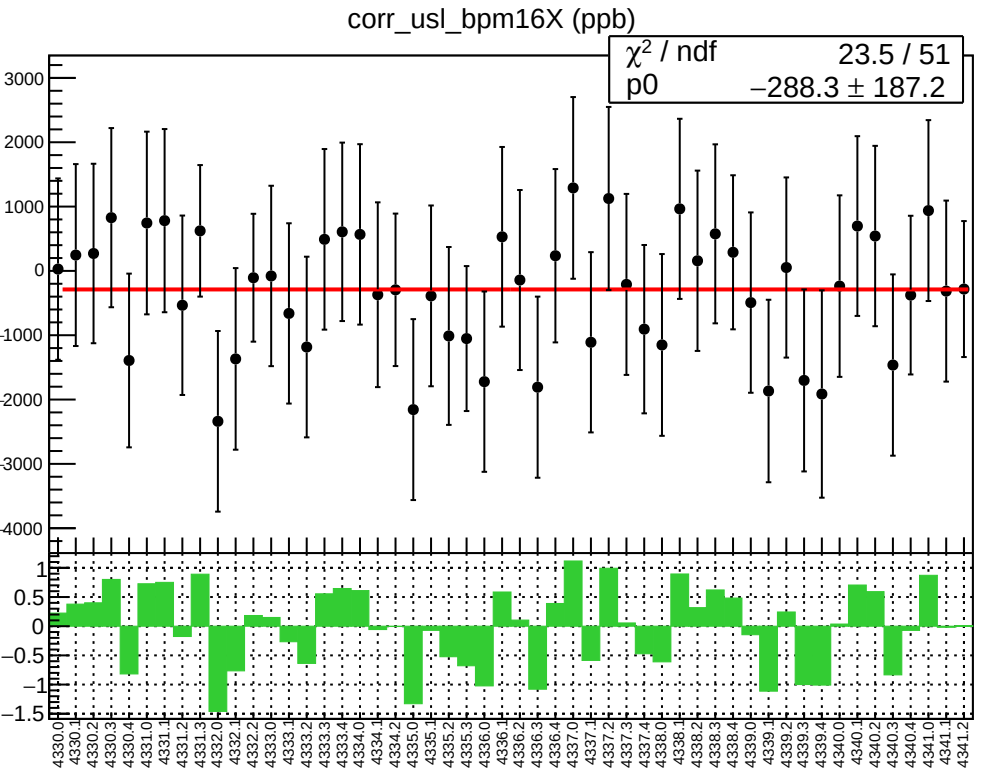

corr_usl_bpm1X (ppb)
χ² / ndf 20.54 / 51
p0 −386.2 ± 370.4
1D pull distribution
Mean 0.008516 ± 0.08715
Std Dev 0.6285 ± 0.06163
Underflow 0
Overflow 0
χ² / ndf 1.557 / 3
Constant 15.51 ± 2.99
Mean 0.06191 ± 0.10872
Sigma 0.7069 ± 0.1077

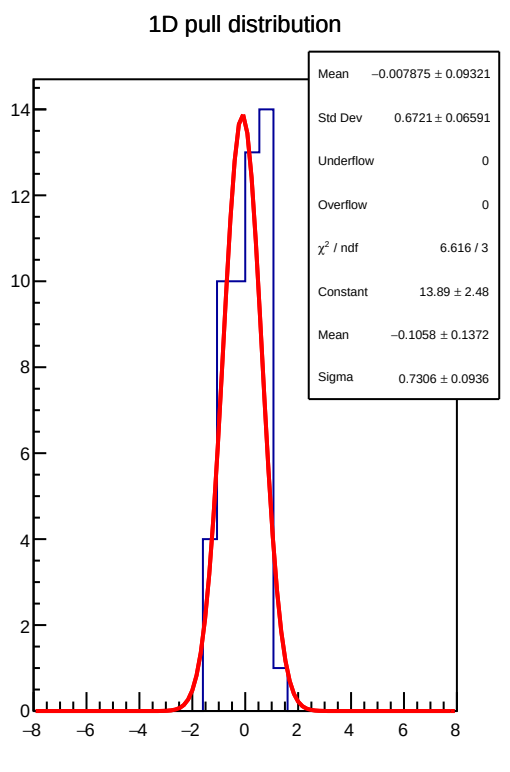

corr_usl_bpm1X RMS (ppm)
RMS (ppm)
400
350
300
250
200
150
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

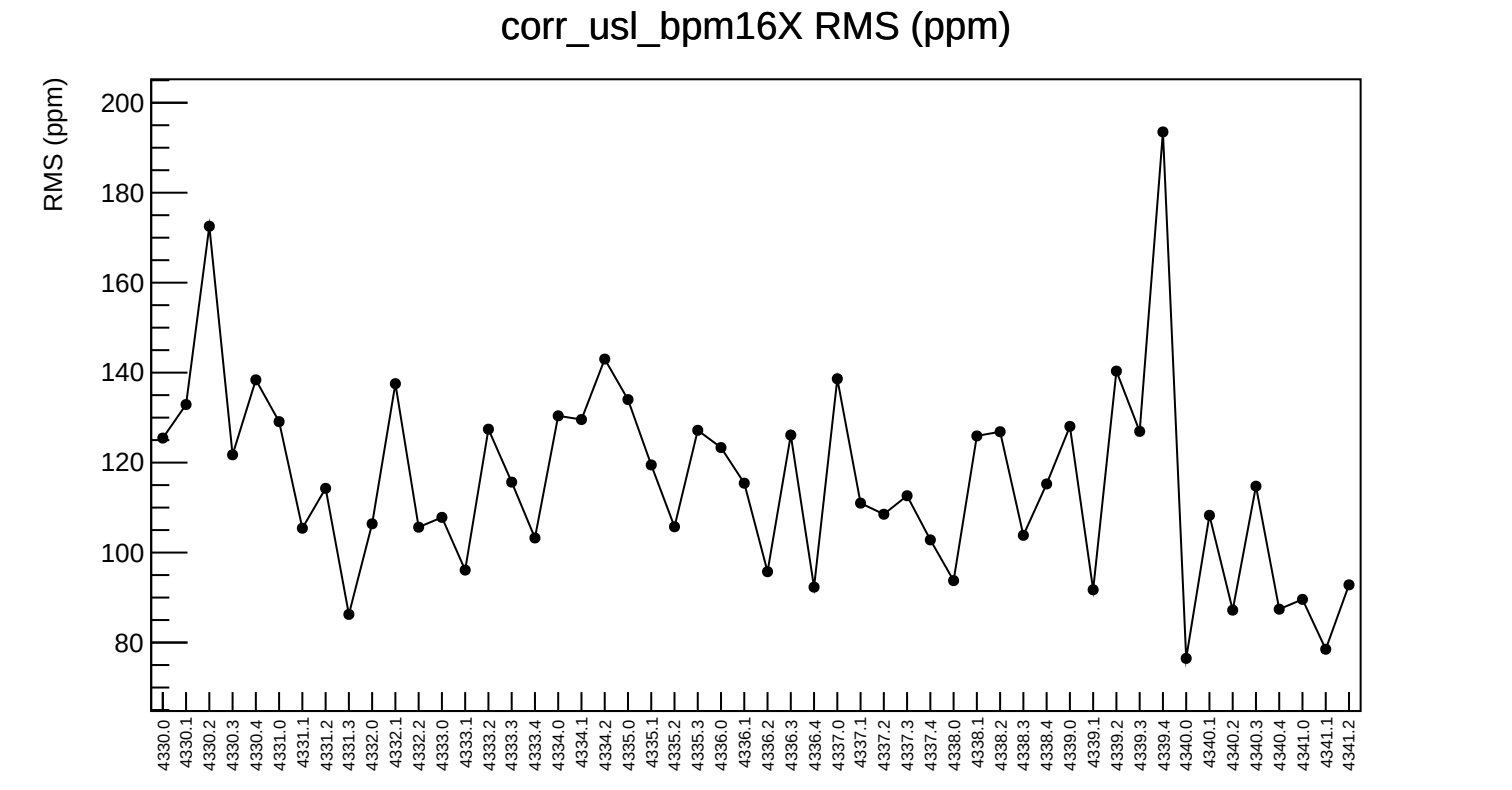

corr_usl_bpm1Y (ppb)
χ² / ndf 3.651 / 51
p0 3.838 ± 33.6

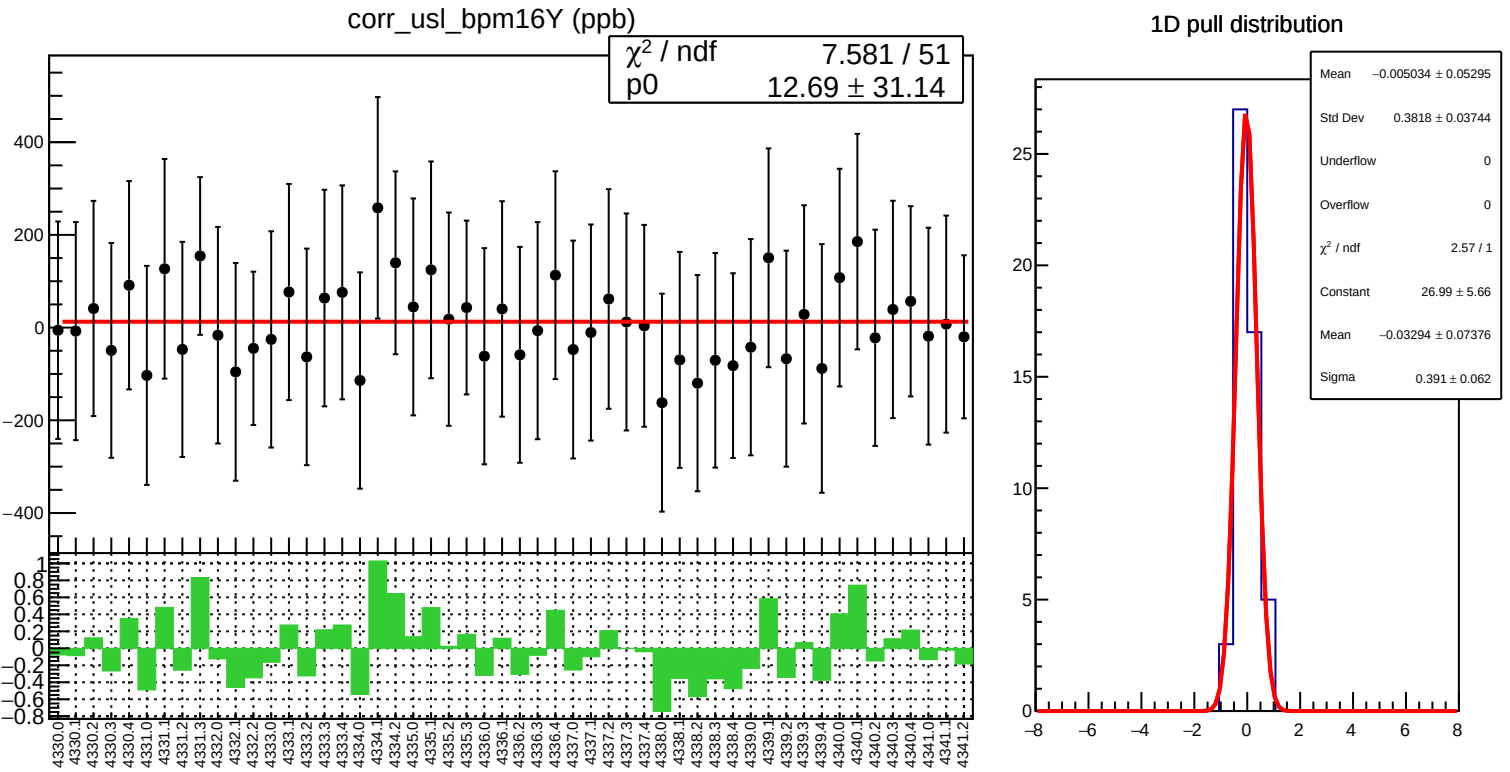

1D pull distribution
Mean −0.0001414 ± 0.03674
Std Dev 0.265 ± 0.02598
Underflow 0
Overflow 0
χ² / ndf 2.488 / 1
Constant 37.63 ± 7.85
Mean −0.06435 ± 0.04072
Sigma 0.2817 ± 0.0406

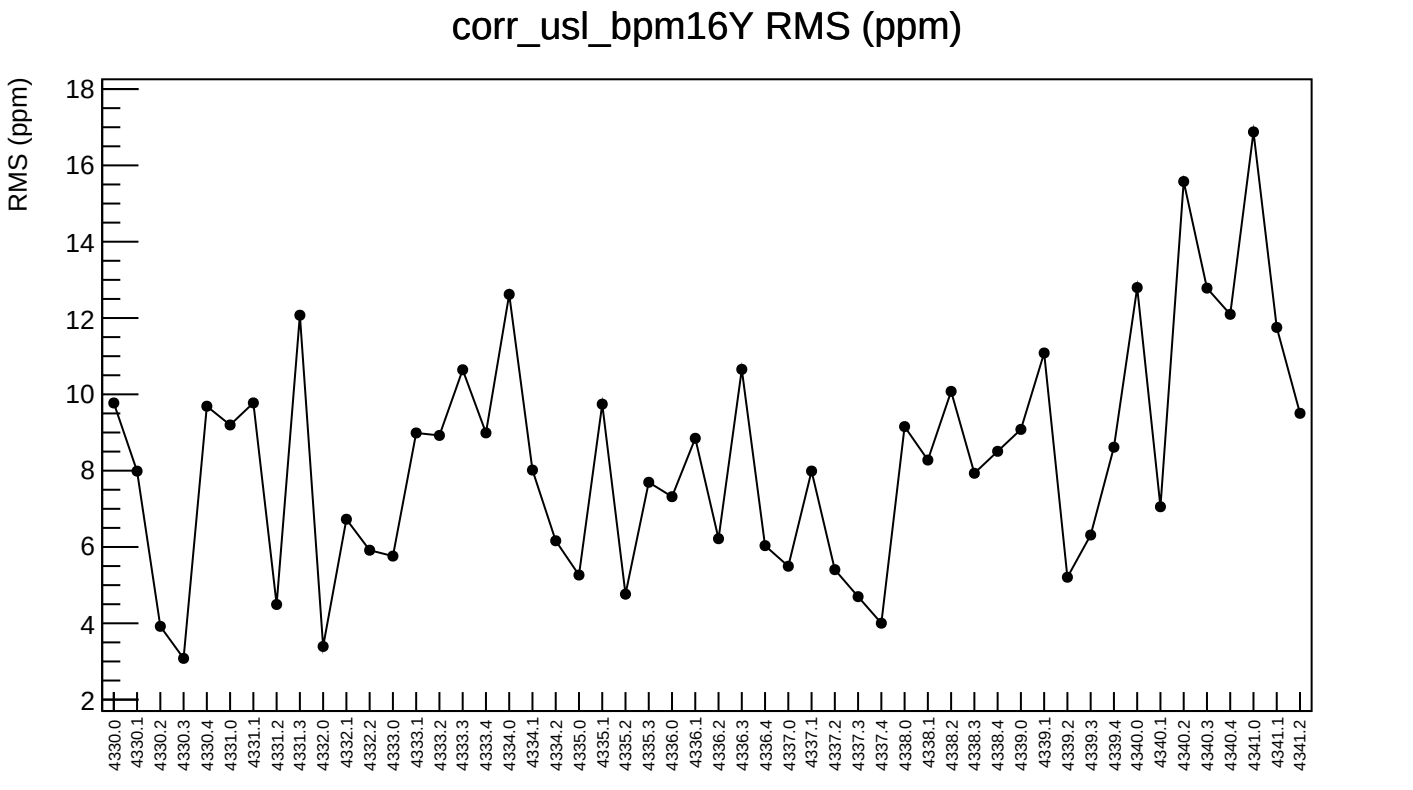

corr_usl_bpm1Y RMS (ppm)
RMS (ppm)
14
12
10
8
6
4
2
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

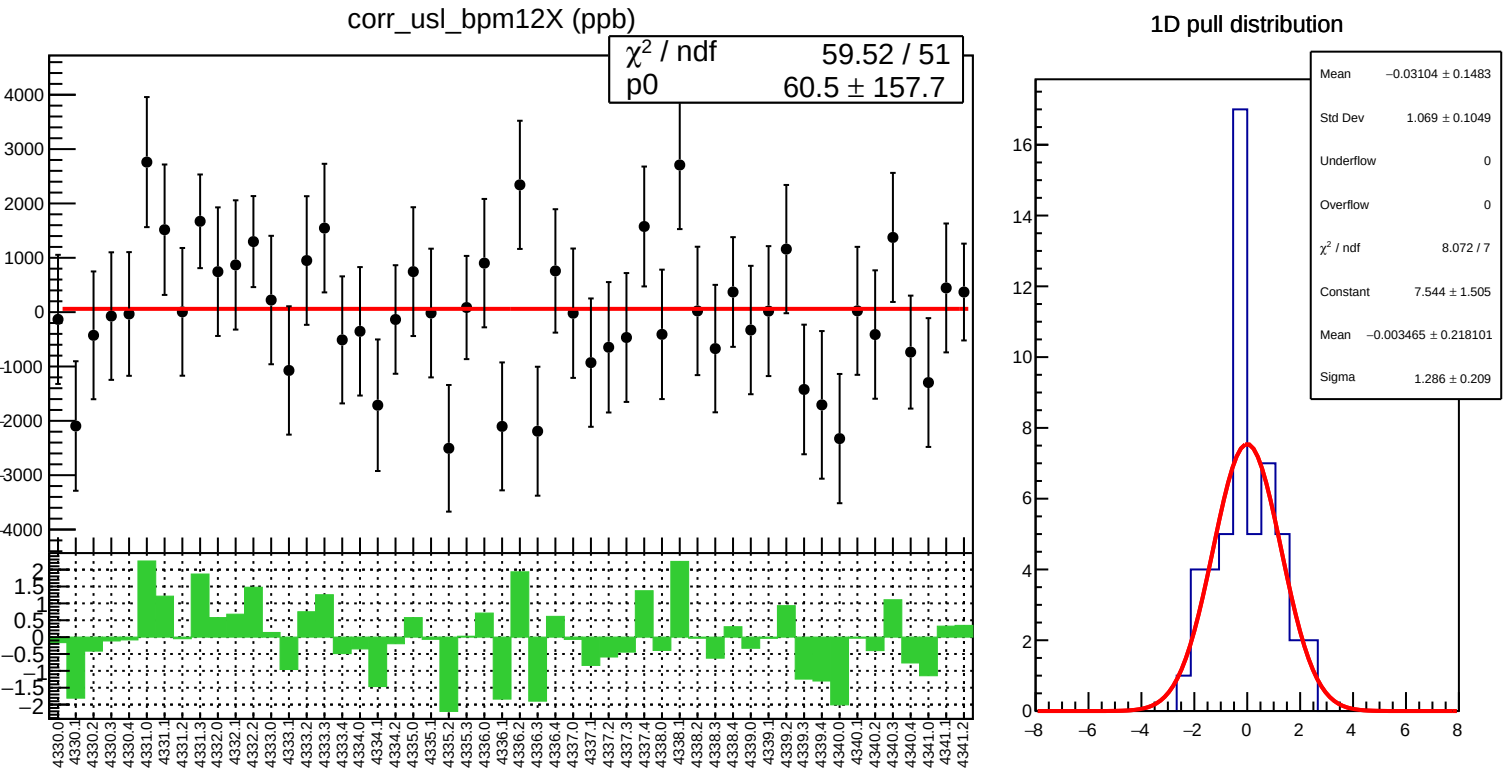

corr_usl_bpm16X (ppb)
χ² / ndf 23.5 / 51
p0 −288.3 ± 187.2

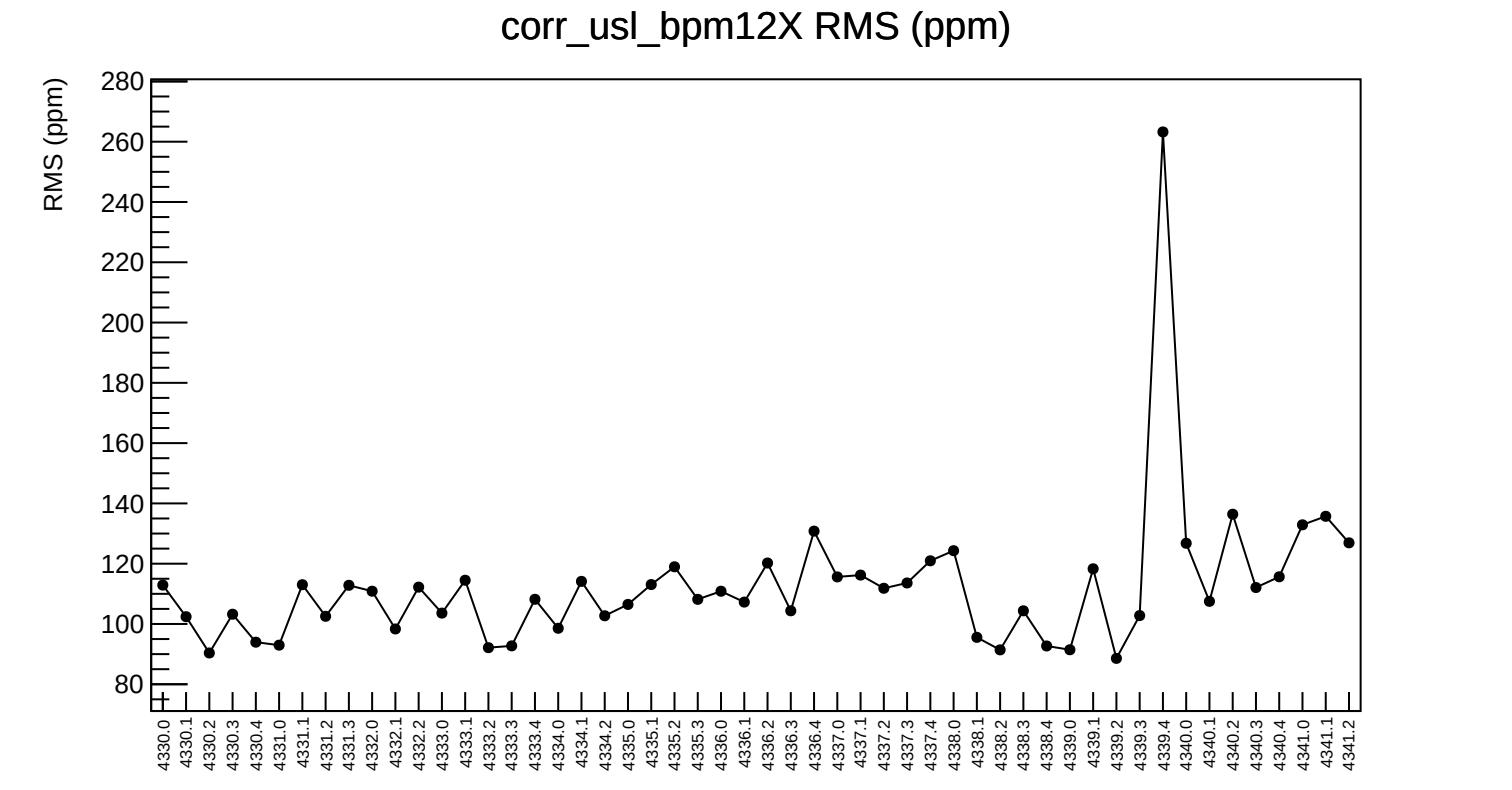

1D pull distribution
Mean −0.007875 ± 0.09321
Std Dev 0.6721 ± 0.06591
Underflow 0
Overflow 0
χ² / ndf 6.616 / 3
Constant 13.89 ± 2.48
Mean −0.1058 ± 0.1372
Sigma 0.7306 ± 0.0936

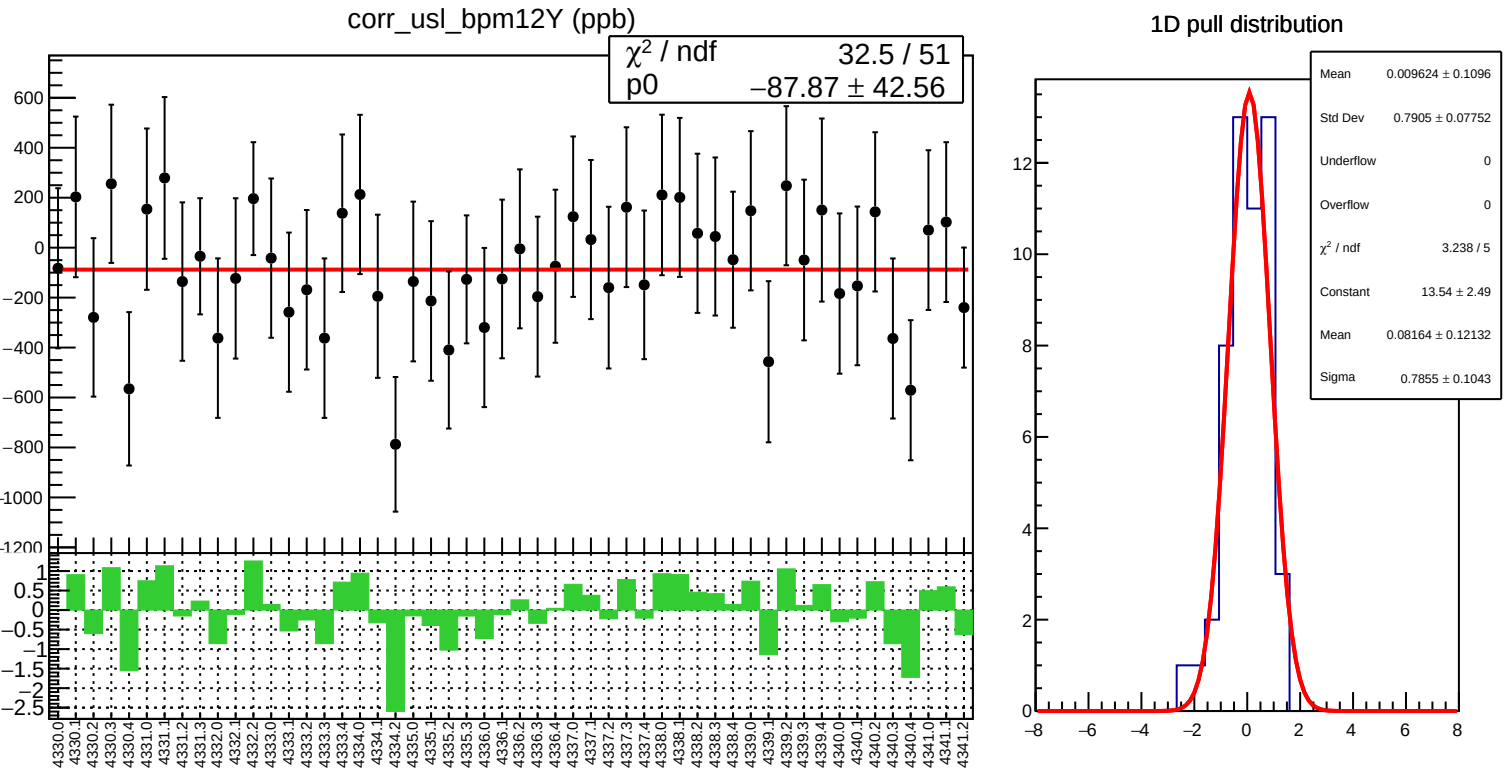

corr_usl_bpm16X RMS (ppm)
RMS (ppm)
200
180
160
140
120
100
80
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

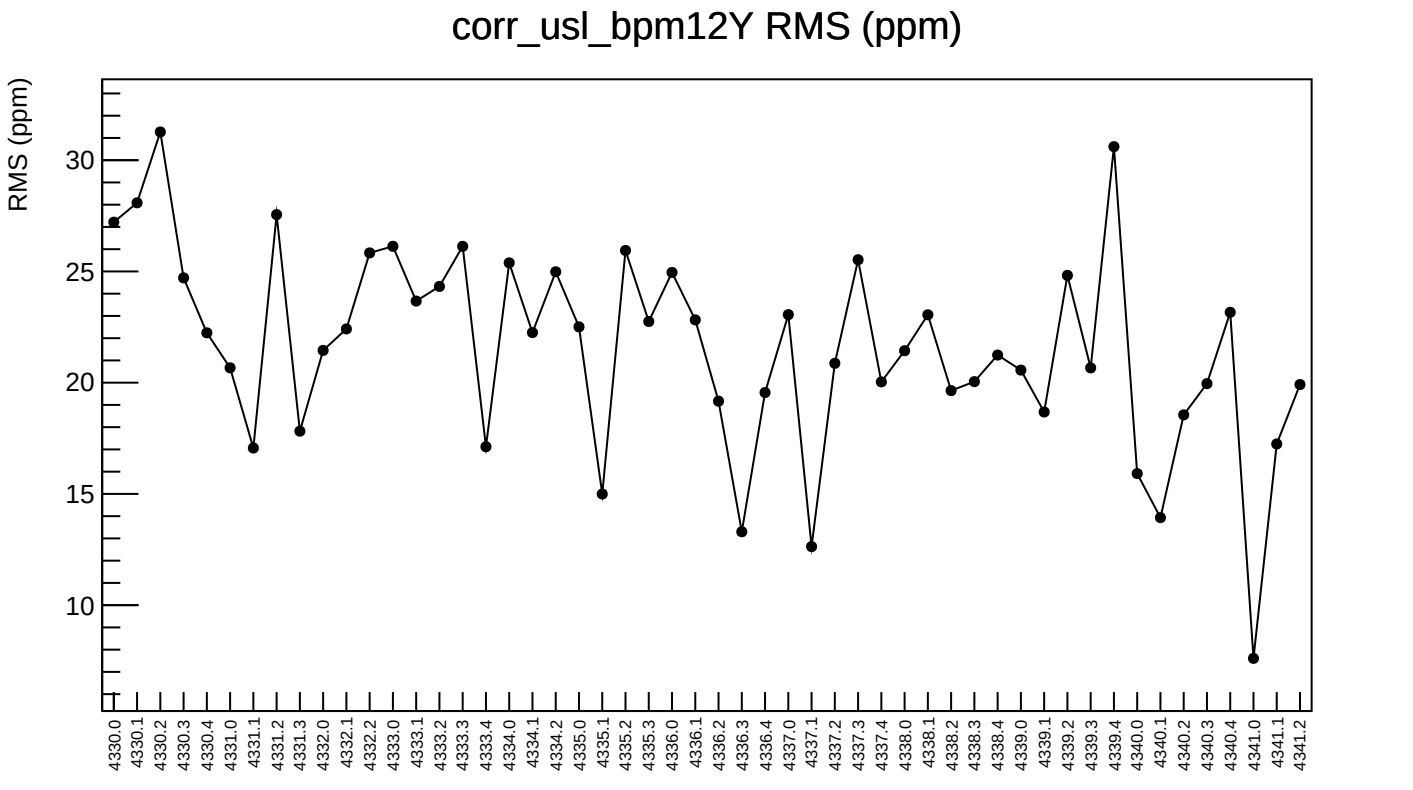

corr_usl_bpm16Y (ppb)
χ² / ndf 7.581 / 51
p0 12.69 ± 31.14
1D pull distribution
Mean −0.005034 ± 0.05295
Std Dev 0.3818 ± 0.03744
Underflow 0
Overflow 0
χ² / ndf 2.57 / 1
Constant 26.99 ± 5.66
Mean −0.03294 ± 0.07376
Sigma 0.391 ± 0.062

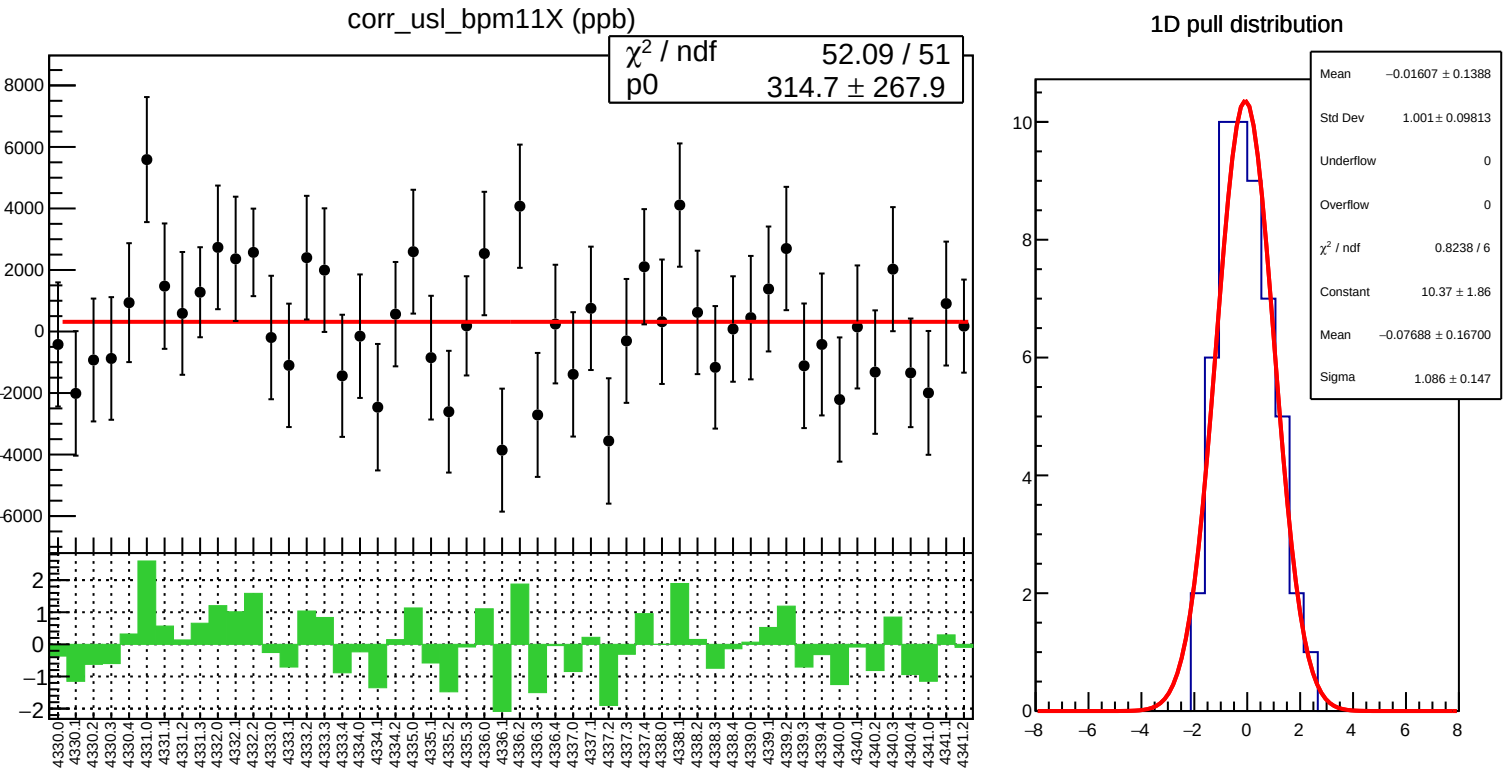

corr_usl_bpm16Y RMS (ppm)
RMS (ppm)
18
16
14
12
10
8
6
4
2
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

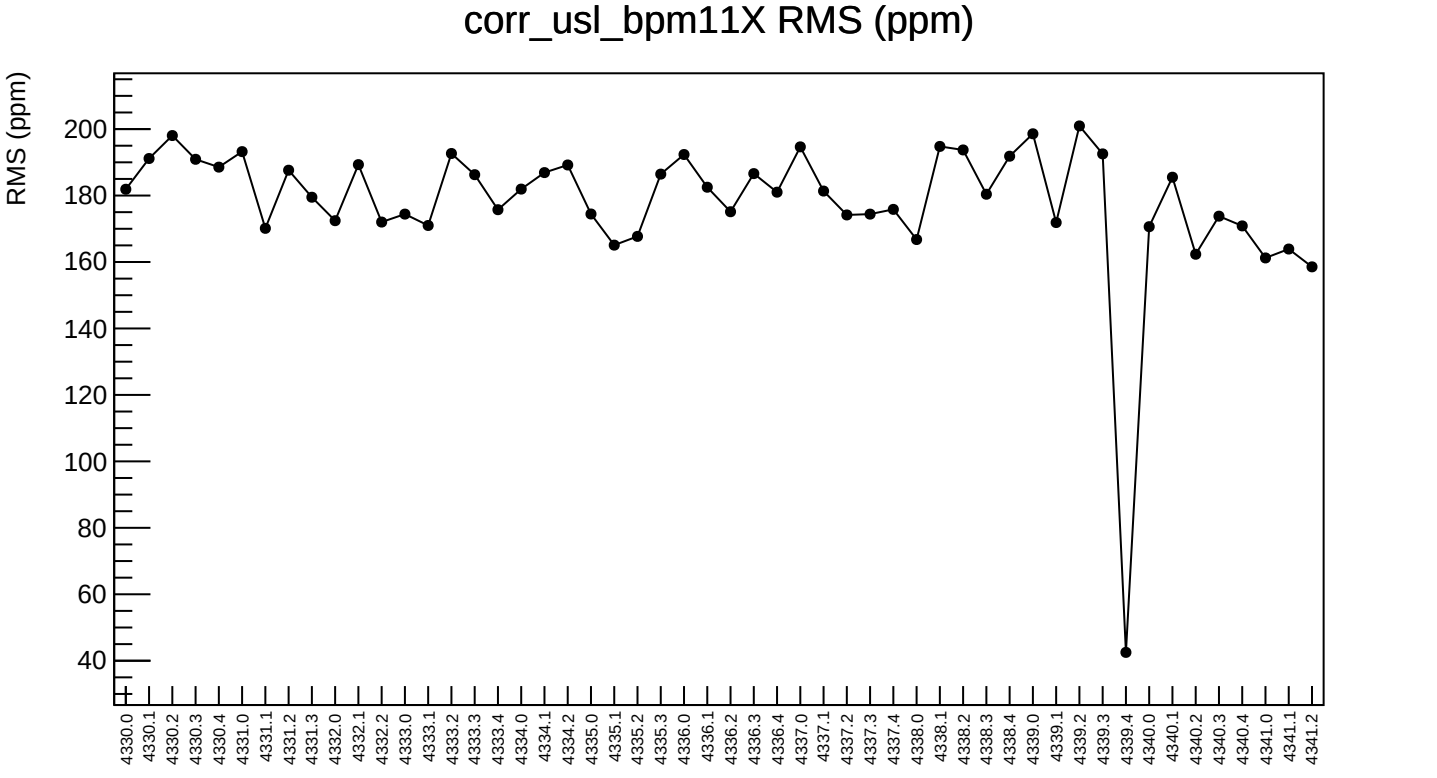

corr_usl_bpm12X (ppb)
χ² / ndf 59.52 / 51
p0 60.5 ± 157.7
1D pull distribution
Mean −0.03104 ± 0.1483
Std Dev 1.069 ± 0.1049
Underflow 0
Overflow 0
χ² / ndf 8.072 / 7
Constant 7.544 ± 1.505
Mean −0.003465 ± 0.218101
Sigma 1.286 ± 0.209


corr_usl_bpm12X RMS (ppm)
RMS (ppm)
280
260
240
220
200
180
160
140
120
100
80
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2


corr_usl_bpm12Y (ppb)
χ² / ndf 32.5 / 51
p0 −87.87 ± 42.56
1D pull distribution
Mean 0.009624 ± 0.1096
Std Dev 0.7905 ± 0.07752
Underflow 0
Overflow 0
χ² / ndf 3.238 / 5
Constant 13.54 ± 2.49
Mean 0.08164 ± 0.12132
Sigma 0.7855 ± 0.1043


corr_usl_bpm12Y RMS (ppm)
RMS (ppm)
30
25
20
15
10
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2


corr_usl_bpm11X (ppb)
χ² / ndf 52.09 / 51
p0 314.7 ± 267.9
1D pull distribution
Mean −0.01607 ± 0.1388
Std Dev 1.001 ± 0.09813
Underflow 0
Overflow 0
χ² / ndf 0.8238 / 6
Constant 10.37 ± 1.86
Mean −0.07688 ± 0.16700
Sigma 1.086 ± 0.147


corr_usl_bpm11X RMS (ppm)
RMS (ppm)
200
180
160
140
120
100
80
60
40
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
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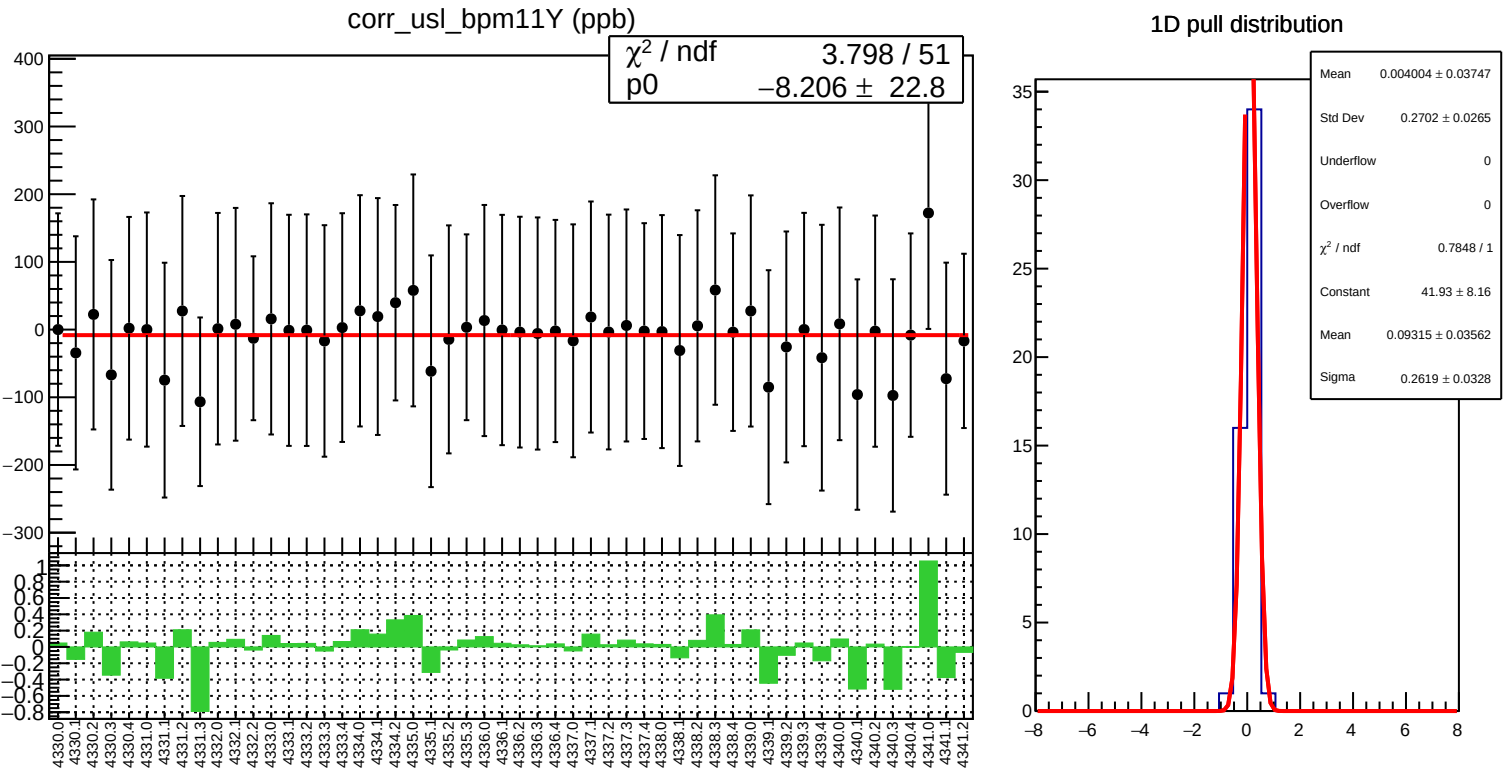
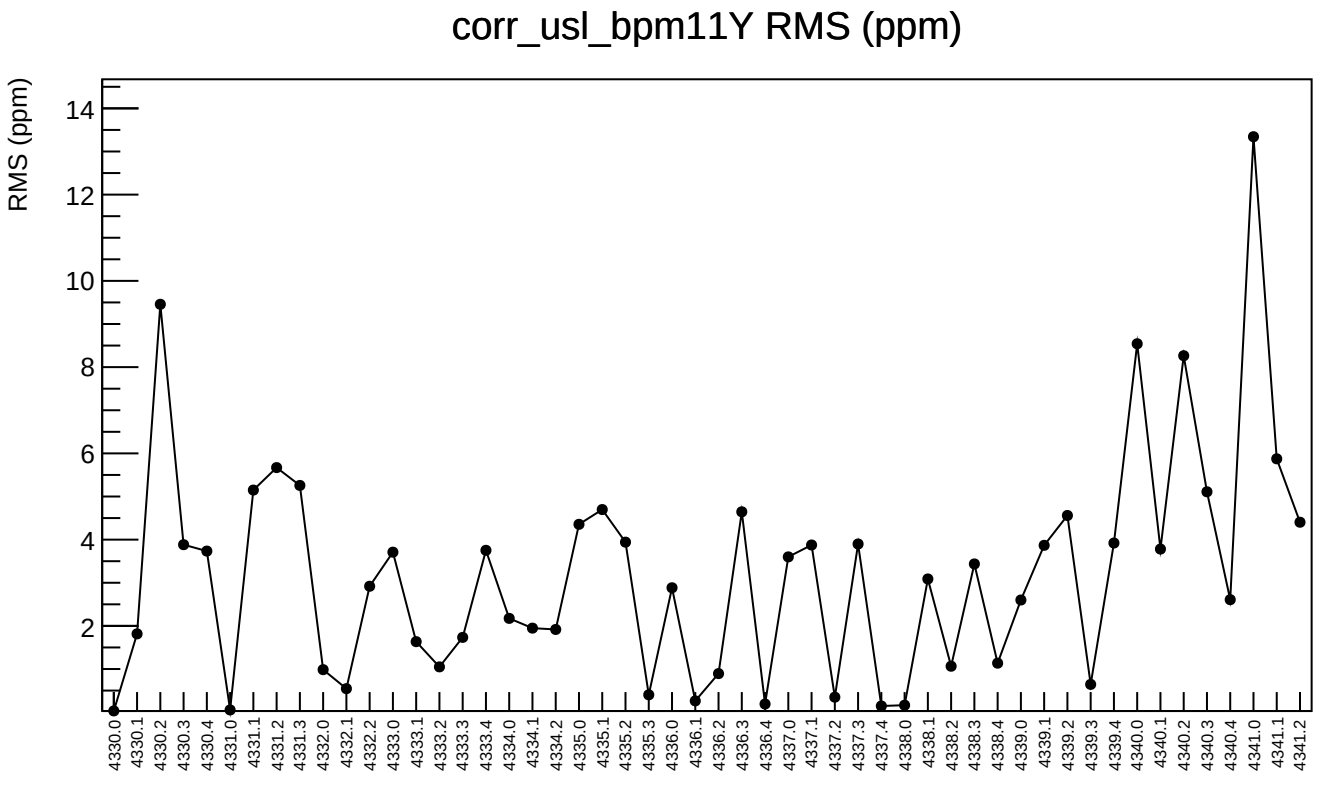
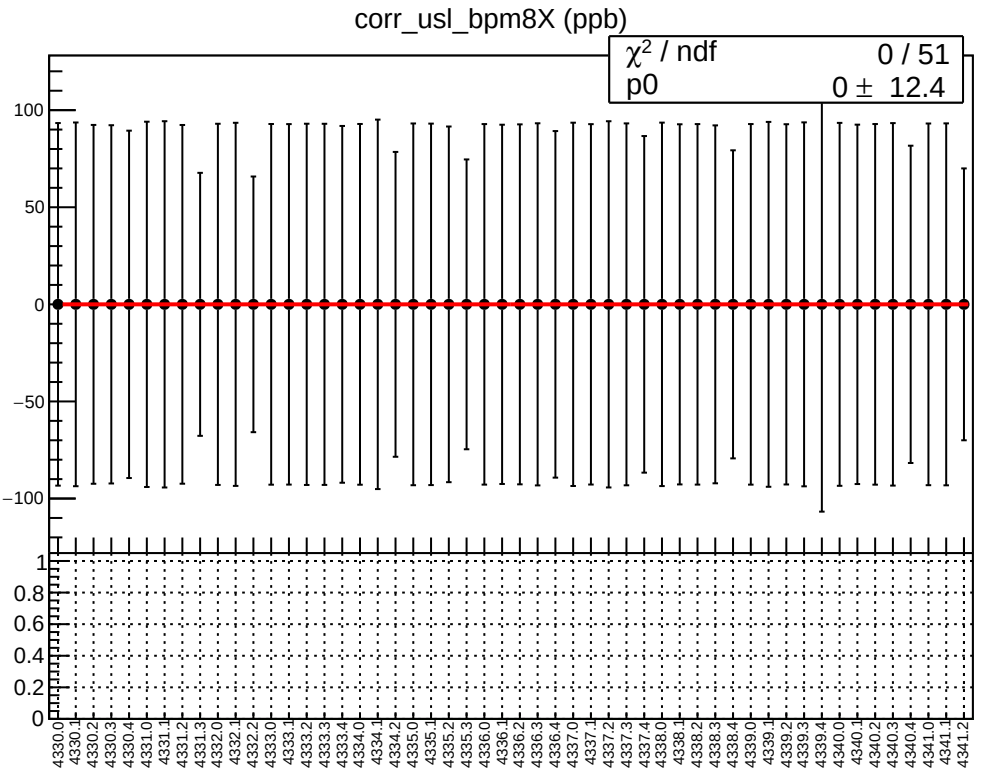
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2


corr_usl_bpm11Y (ppb)
χ² / ndf 3.798 / 51
p0 −8.206 ± 22.8
1D pull distribution
Mean 0.004004 ± 0.03747
Std Dev 0.2702 ± 0.0265
Underflow 0
Overflow 0
χ² / ndf 0.7848 / 1
Constant 41.93 ± 8.16
Mean 0.09315 ± 0.03562
Sigma 0.2619 ± 0.0328


corr_usl_bpm11Y RMS (ppm)
RMS (ppm)
14
12
10
8
6
4
2
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2


corr_usl_bpm8X (ppb)
χ² / ndf 0 / 51
p0 0 ± 12.4
100
50
0
−50
−100
1
0.8
0.6
0.4
0.2
0
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
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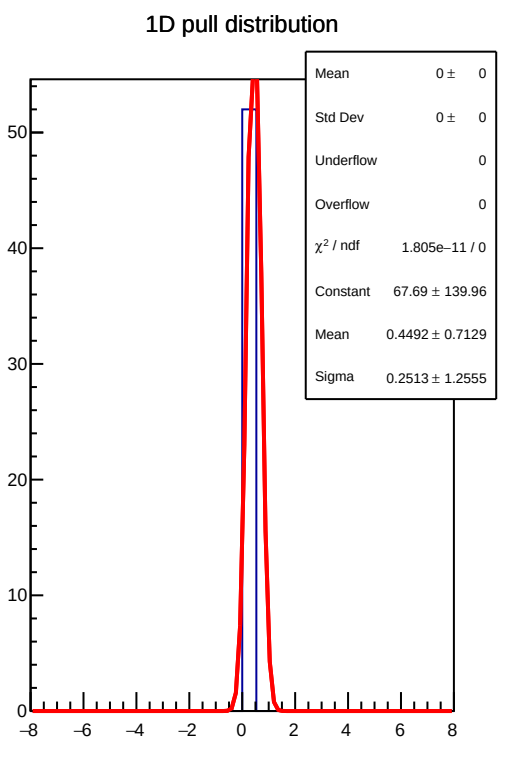
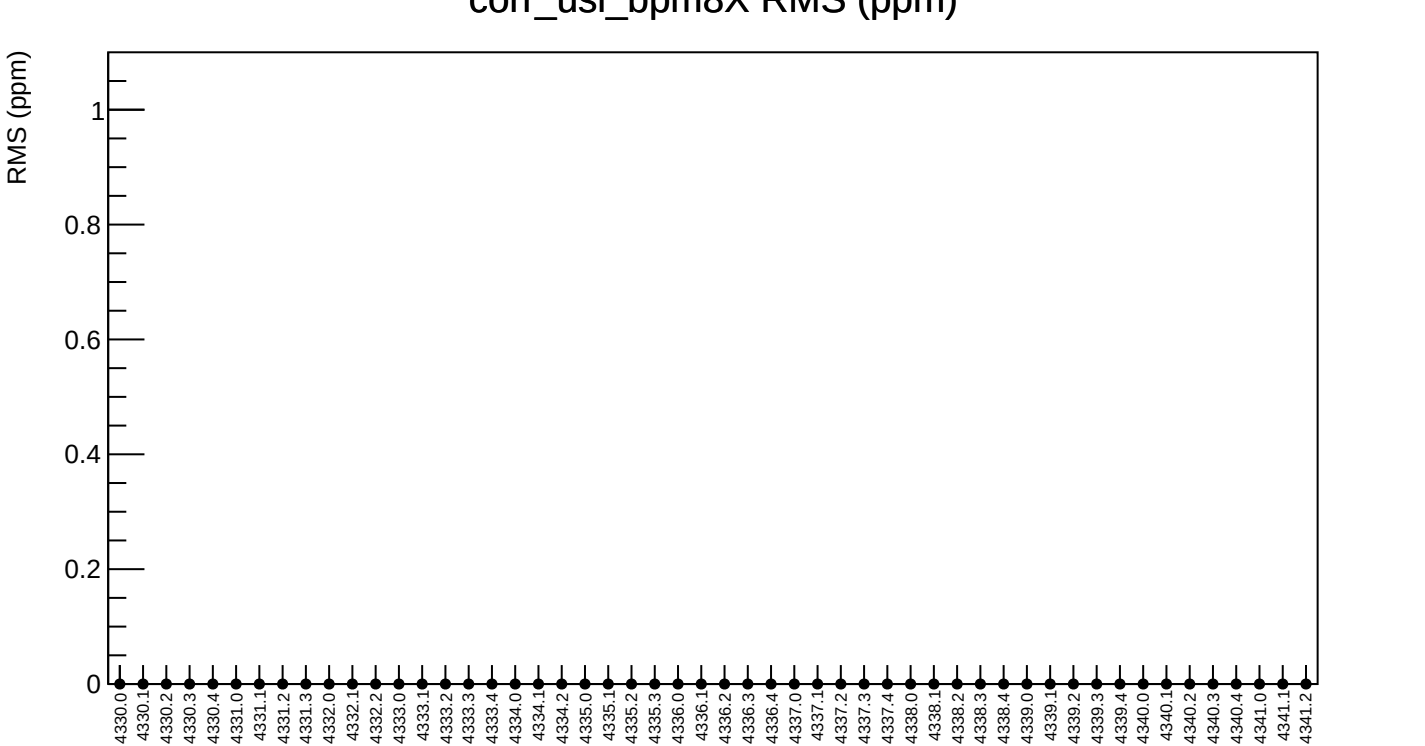
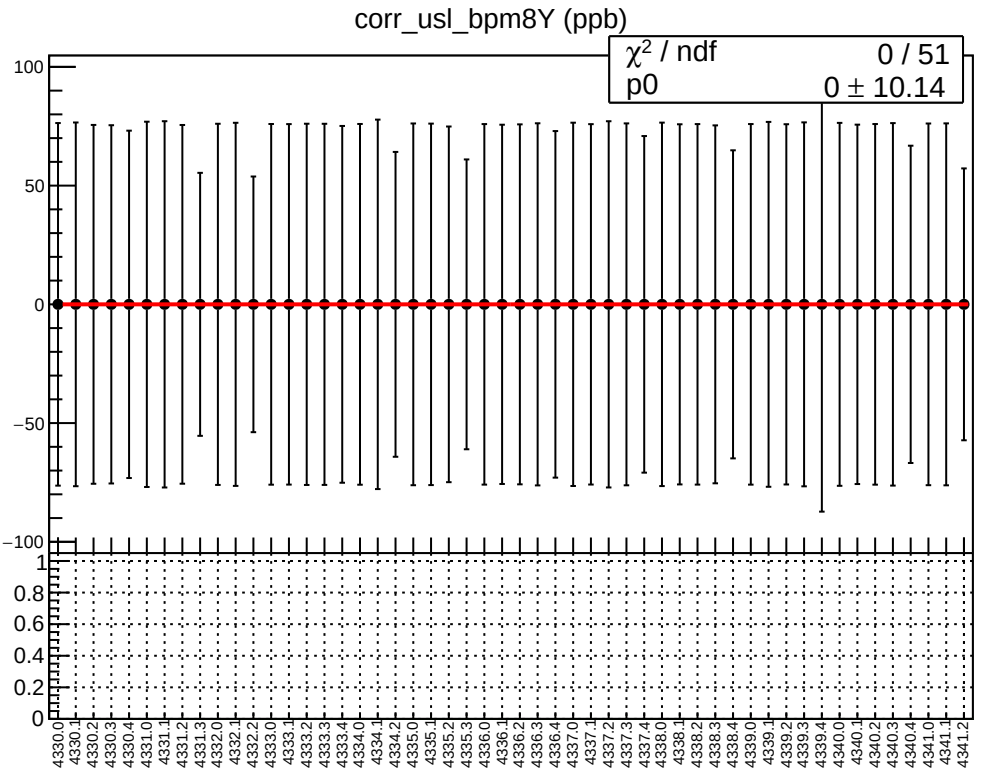
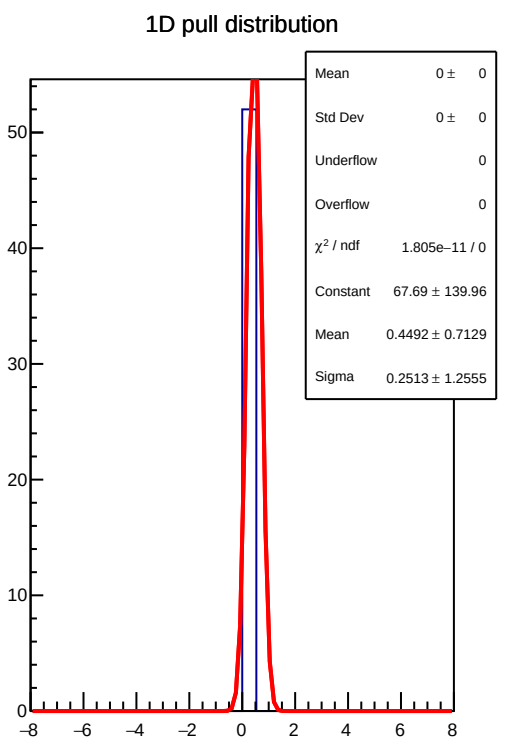
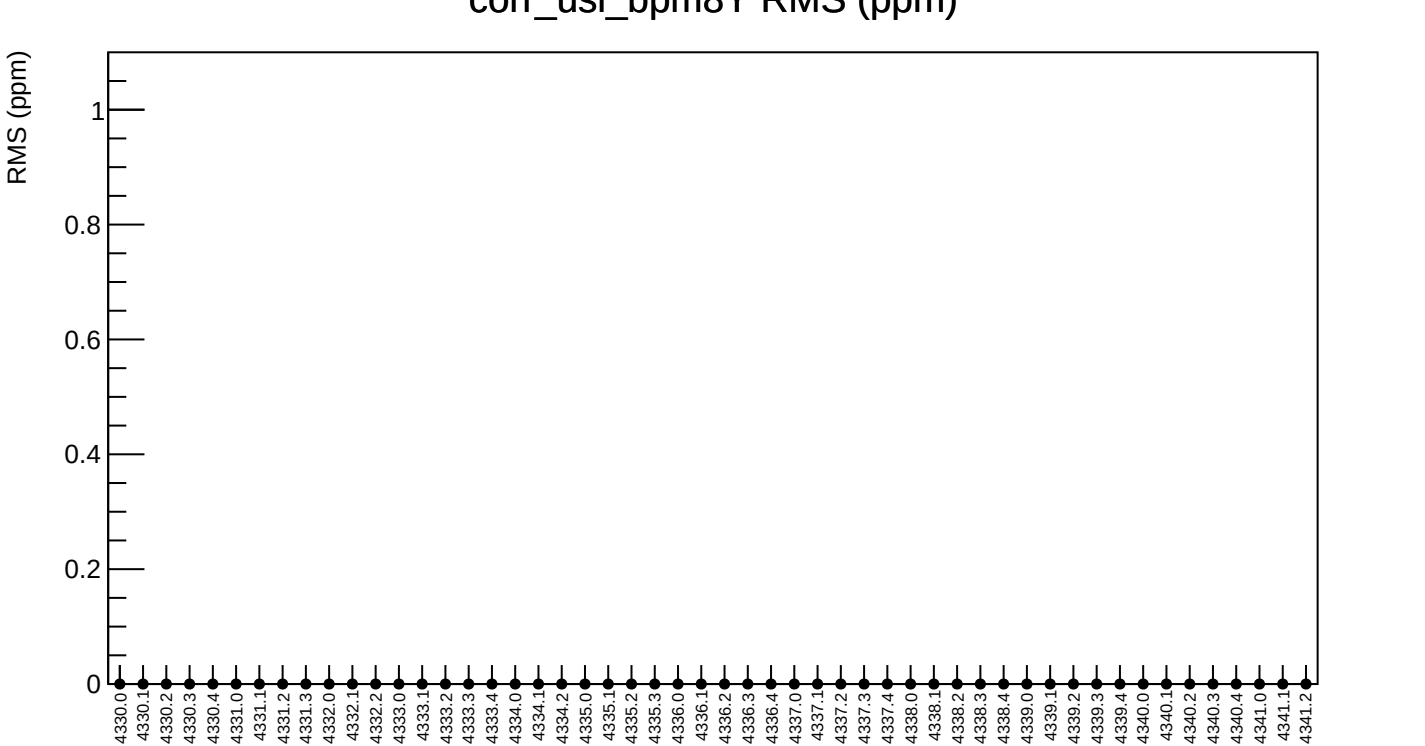
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

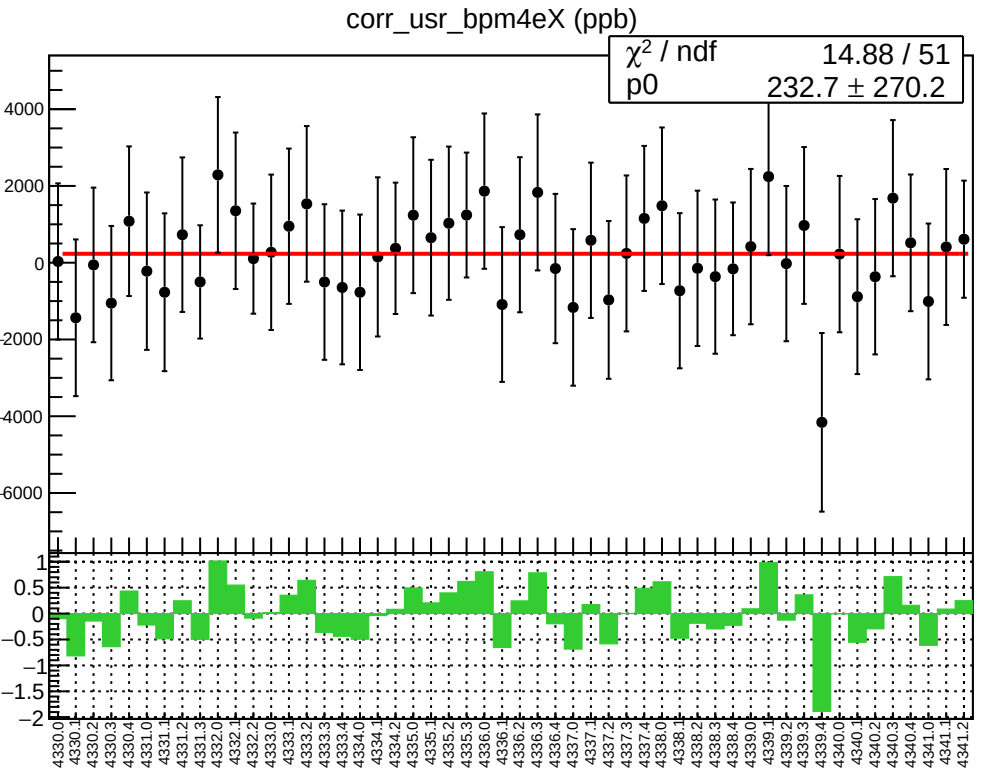

1D pull distribution
Mean 0 ± 0
Std Dev 0 ± 0
Underflow 0
Overflow 0
χ² / ndf 1.805e−11 / 0
Constant 67.69 ± 139.96
Mean 0.4492 ± 0.7129
Sigma 0.2513 ± 1.2555
50
40
30
20
10
0
−8
−6
−4
−2
0
2
4
6
8

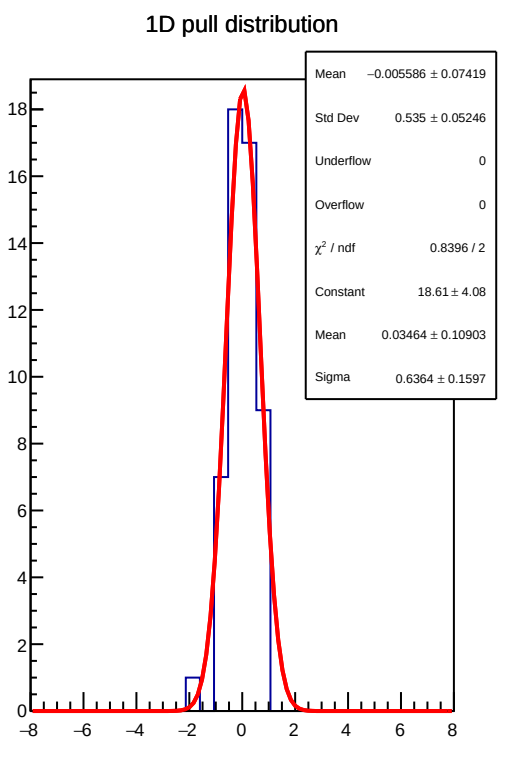

corr_usl_bpm8X RMS (ppm)
RMS (ppm)
1
0.8
0.6
0.4
0.2
0
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

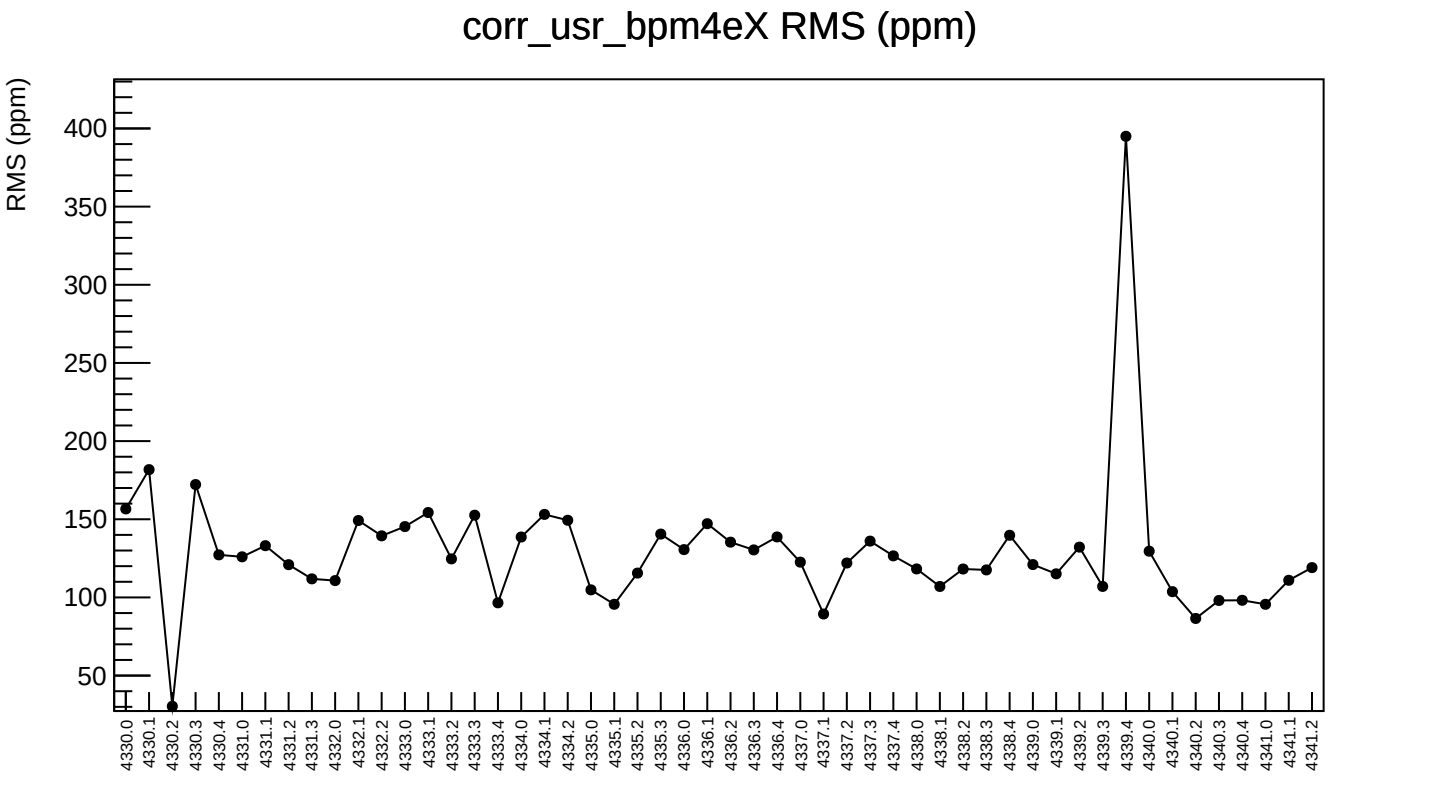

corr_usl_bpm8Y (ppb)
χ² / ndf 0 / 51
p0 0 ± 10.14
100
50
0
−50
−100
1
0.8
0.6
0.4
0.2
0
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

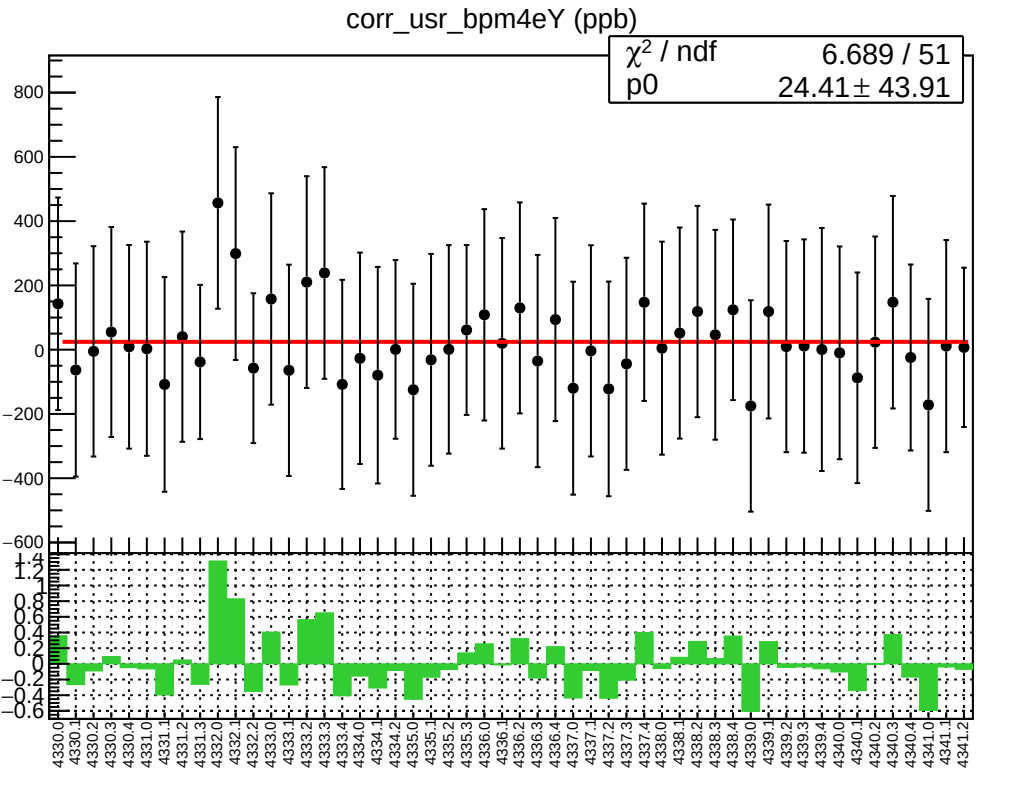

1D pull distribution
Mean 0 ± 0
Std Dev 0 ± 0
Underflow 0
Overflow 0
χ² / ndf 1.805e−11 / 0
Constant 67.69 ± 139.96
Mean 0.4492 ± 0.7129
Sigma 0.2513 ± 1.2555
50
40
30
20
10
0
−8
−6
−4
−2
0
2
4
6
8

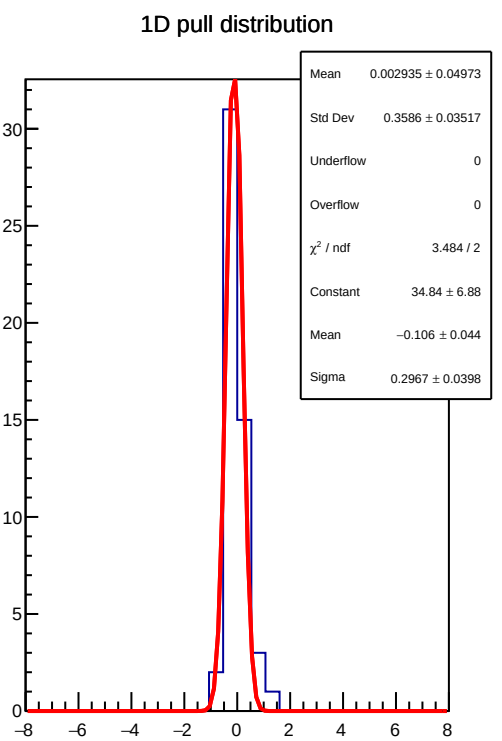

corr_usl_bpm8Y RMS (ppm)
RMS (ppm)
1
0.8
0.6
0.4
0.2
0
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

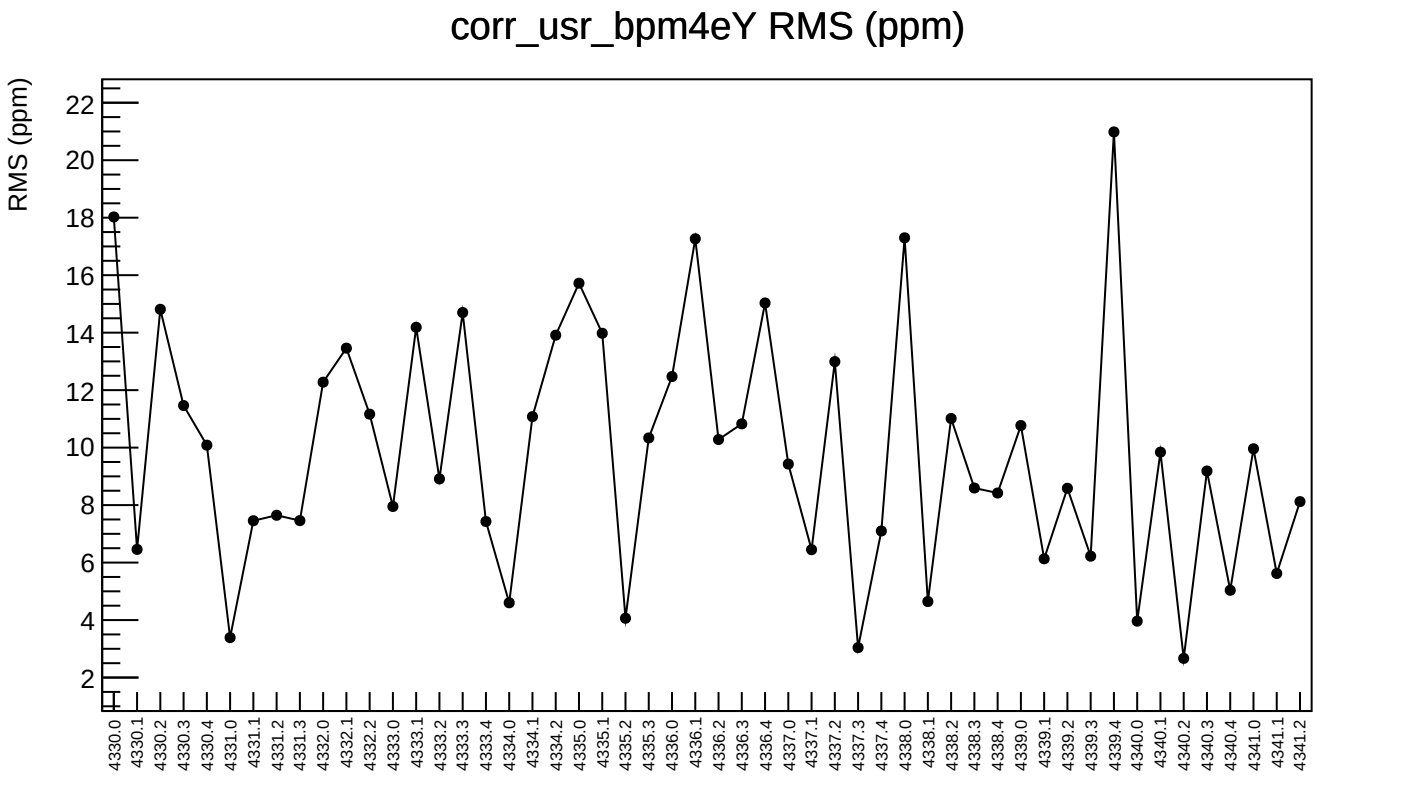

corr_usr_bpm4eX (ppb)
χ² / ndf 14.88 / 51
p0 232.7 ± 270.2
4000
2000
0
-2000
-4000
-6000
1
0.5
0
−0.5
−1
−1.5
−2
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

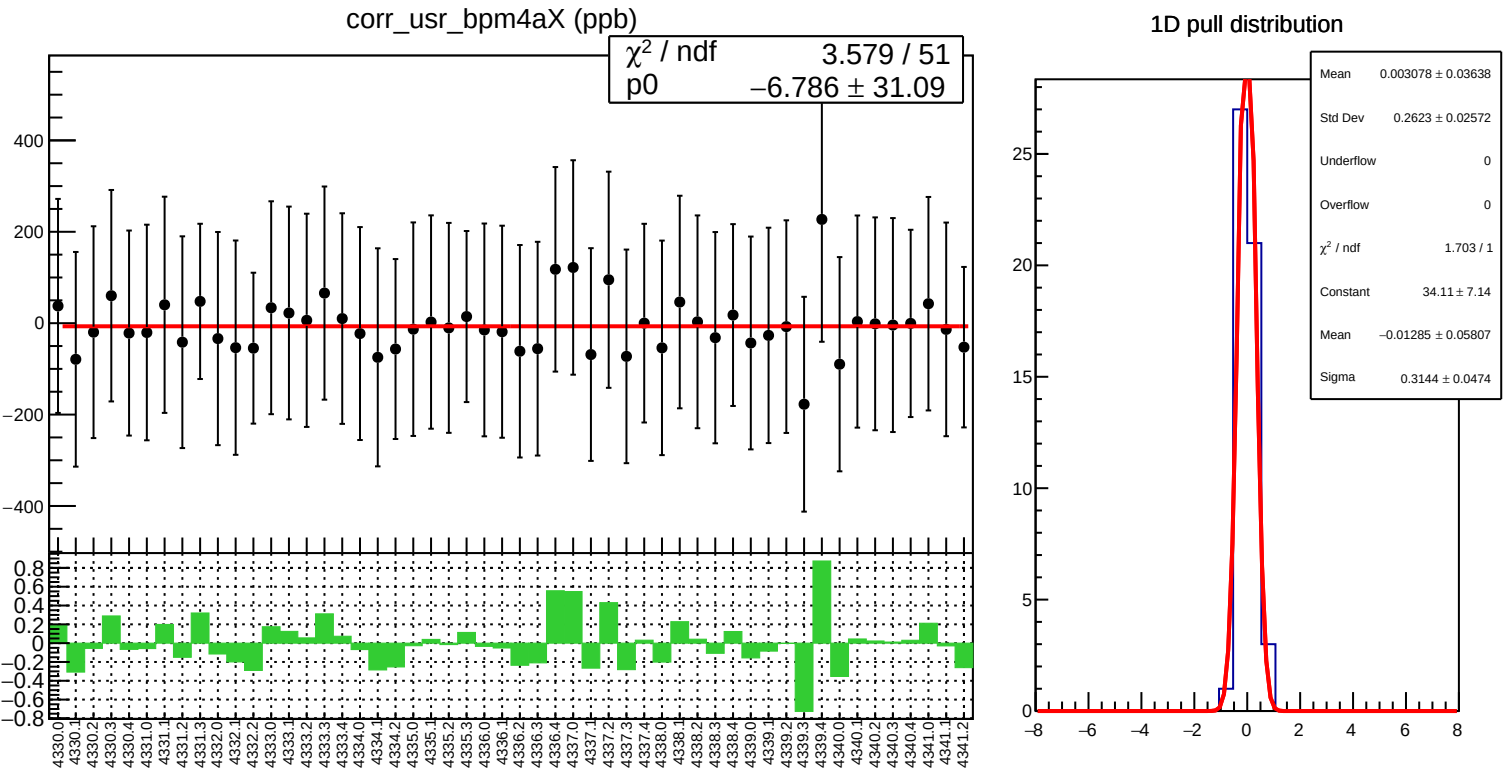

1D pull distribution
Mean −0.005586 ± 0.07419
Std Dev 0.535 ± 0.05246
Underflow 0
Overflow 0
χ² / ndf 0.8396 / 2
Constant 18.61 ± 4.08
Mean 0.03464 ± 0.10903
Sigma 0.6364 ± 0.1597
18
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

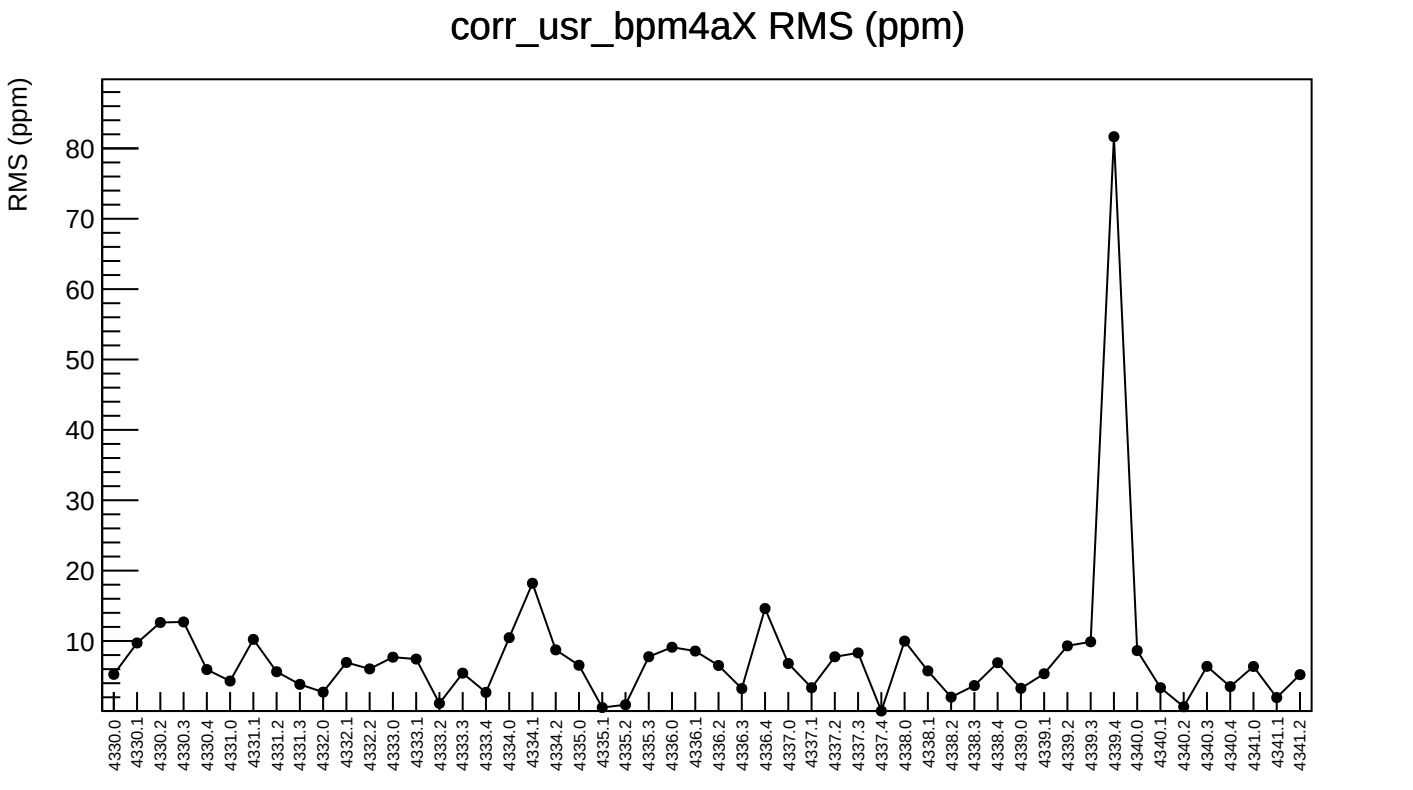

corr_usr_bpm4eX RMS (ppm)
RMS (ppm)
400
350
300
250
200
150
100
50
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

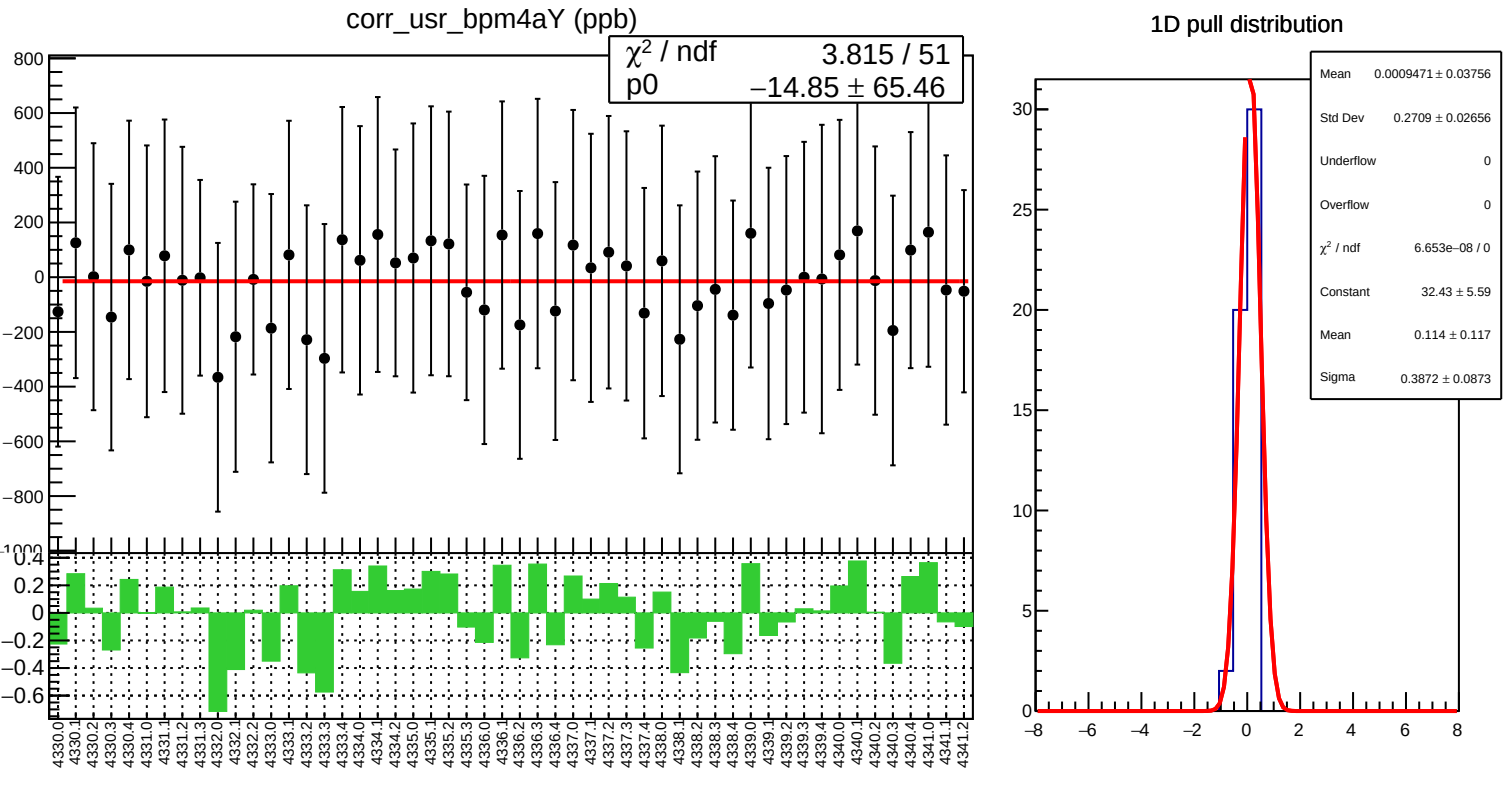

corr_usr_bpm4eY (ppb)
χ² / ndf 6.689 / 51
p0 24.41 ± 43.91

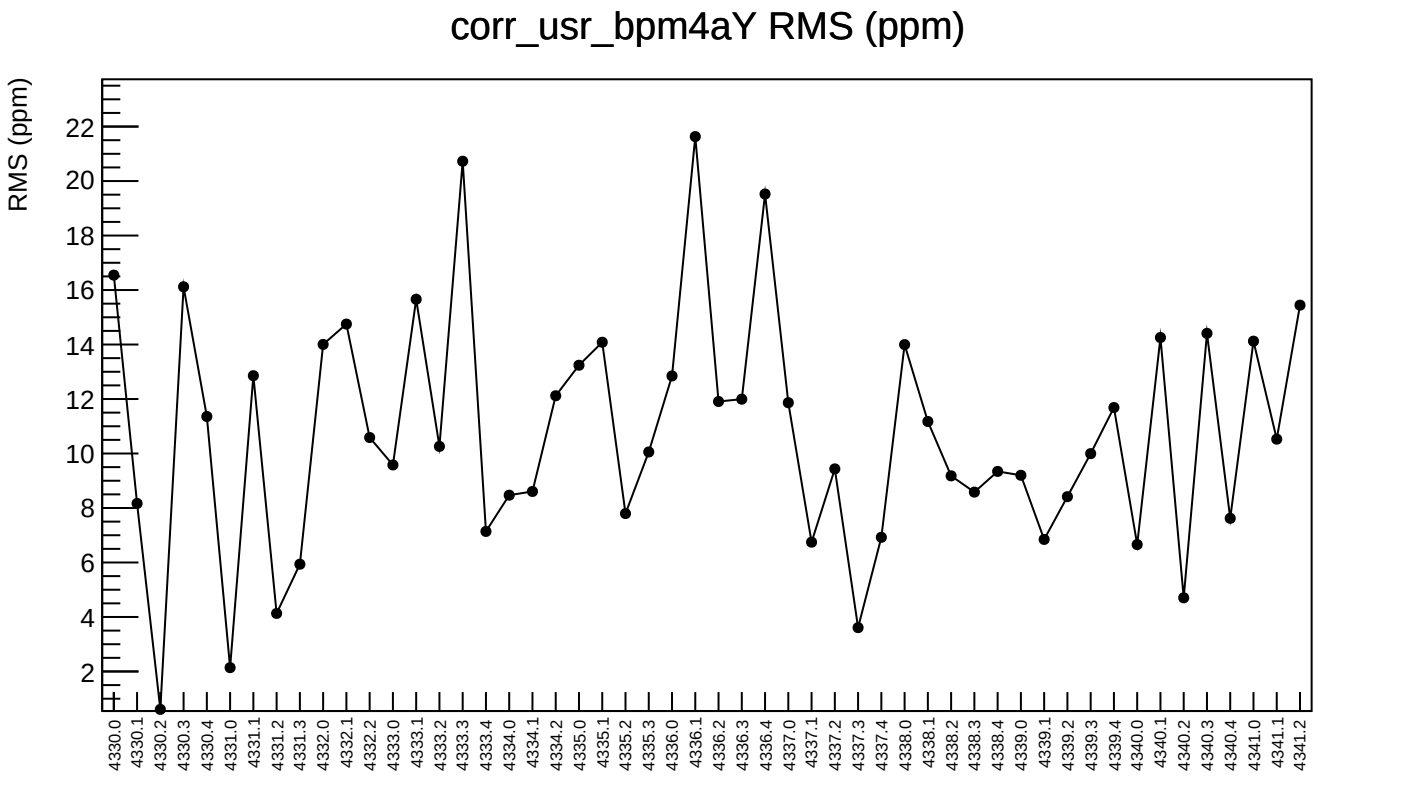

1D pull distribution
Mean 0.002935 ± 0.04973
Std Dev 0.3586 ± 0.03517
Underflow 0
Overflow 0
χ² / ndf 3.484 / 2
Constant 34.84 ± 6.88
Mean −0.106 ± 0.044
Sigma 0.2967 ± 0.0398

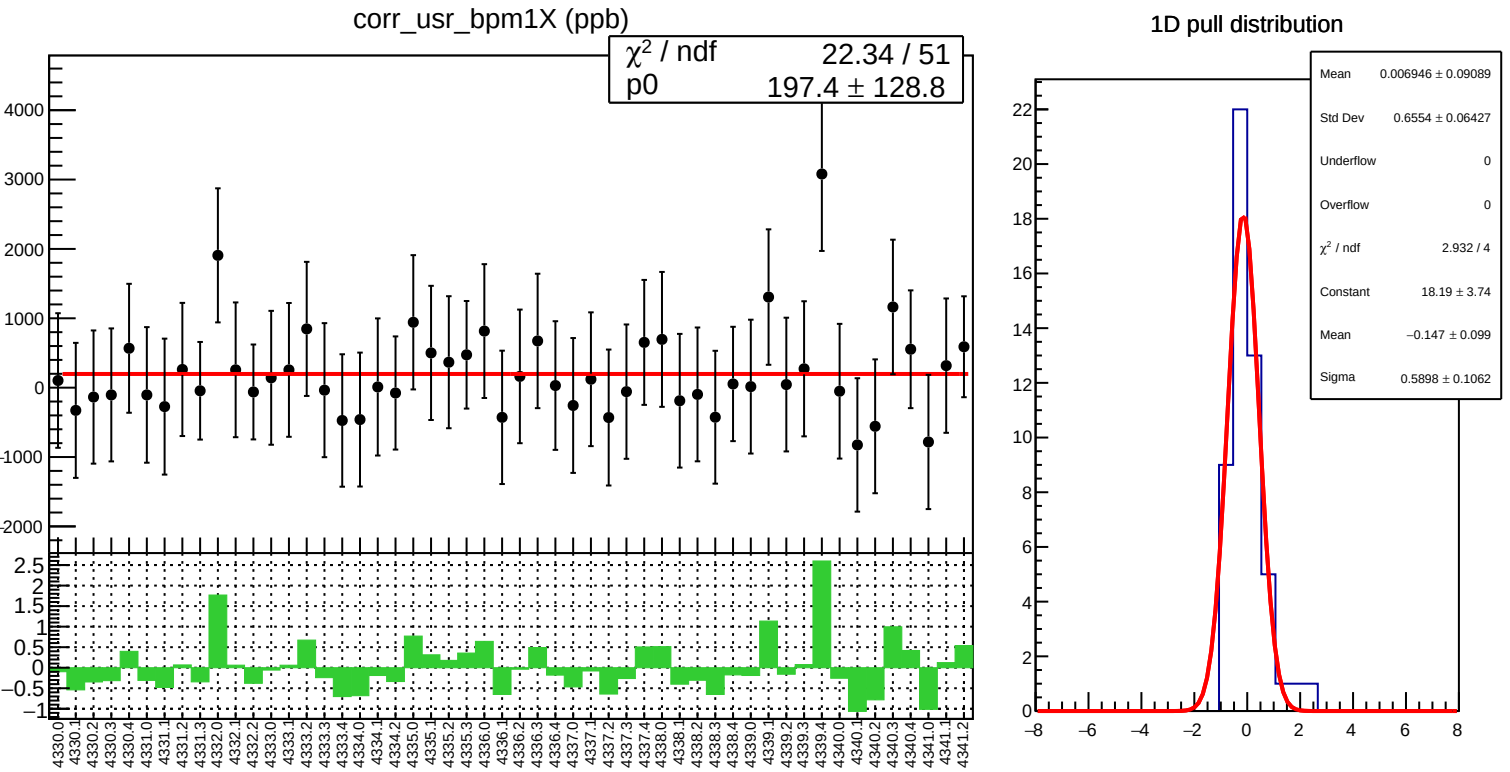

corr_usr_bpm4eY RMS (ppm)
RMS (ppm)
22
20
18
16
14
12
10
8
6
4
2
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

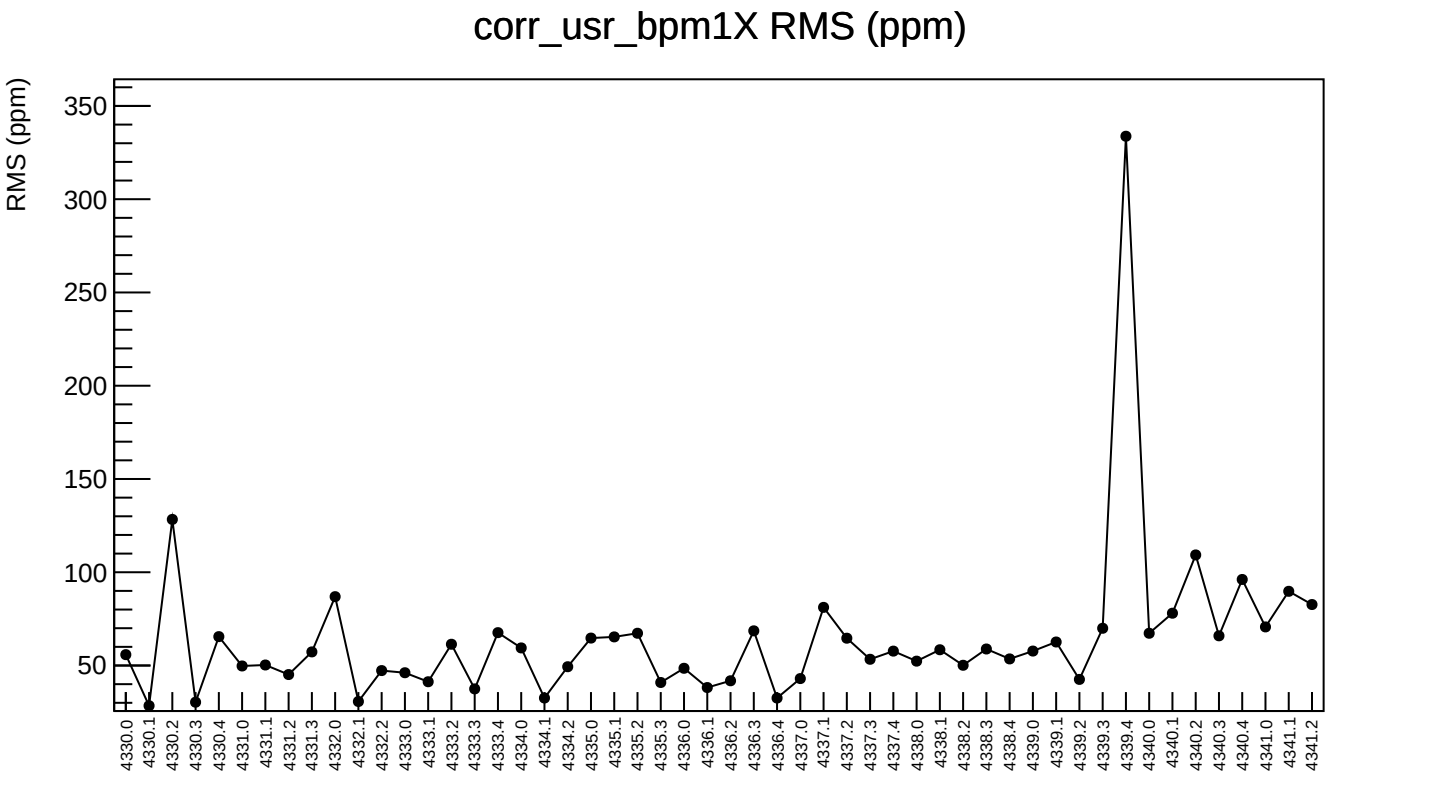

corr_usr_bpm4aX (ppb)
χ² / ndf 3.579 / 51
p0 −6.786 ± 31.09
400
200
0
−200
−400
0.8
0.6
0.4
0.2
0
−0.2
−0.4
−0.6
−0.8
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2
1D pull distribution
Mean 0.003078 ± 0.03638
Std Dev 0.2623 ± 0.02572
Underflow 0
Overflow 0
χ² / ndf 1.703 / 1
Constant 34.11 ± 7.14
Mean −0.01285 ± 0.05807
Sigma 0.3144 ± 0.0474
25
20
15
10
5
0
−8
−6
−4
−2
0
2
4
6
8

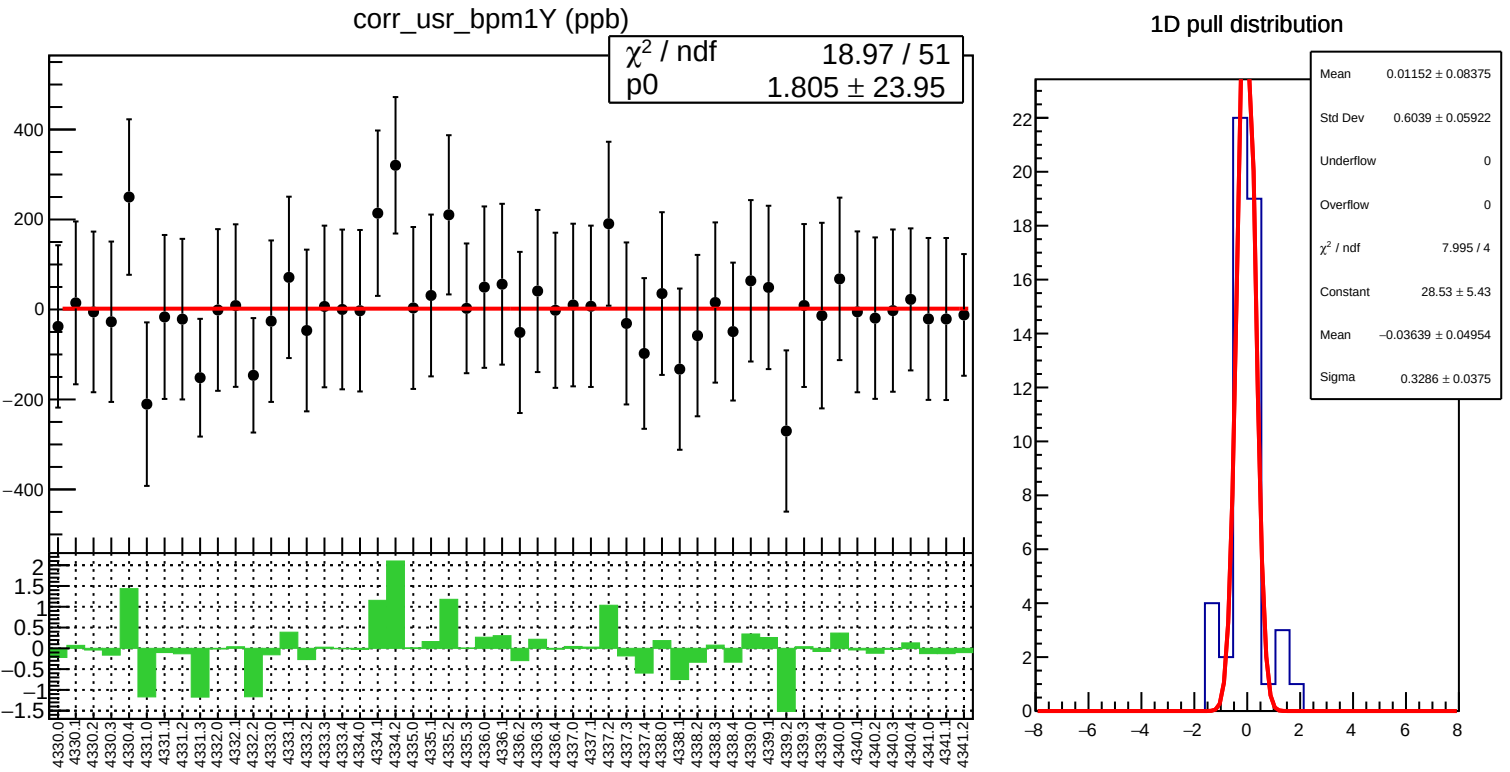

corr_usr_bpm4aX RMS (ppm)
RMS (ppm)
80
70
60
50
40
30
20
10
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

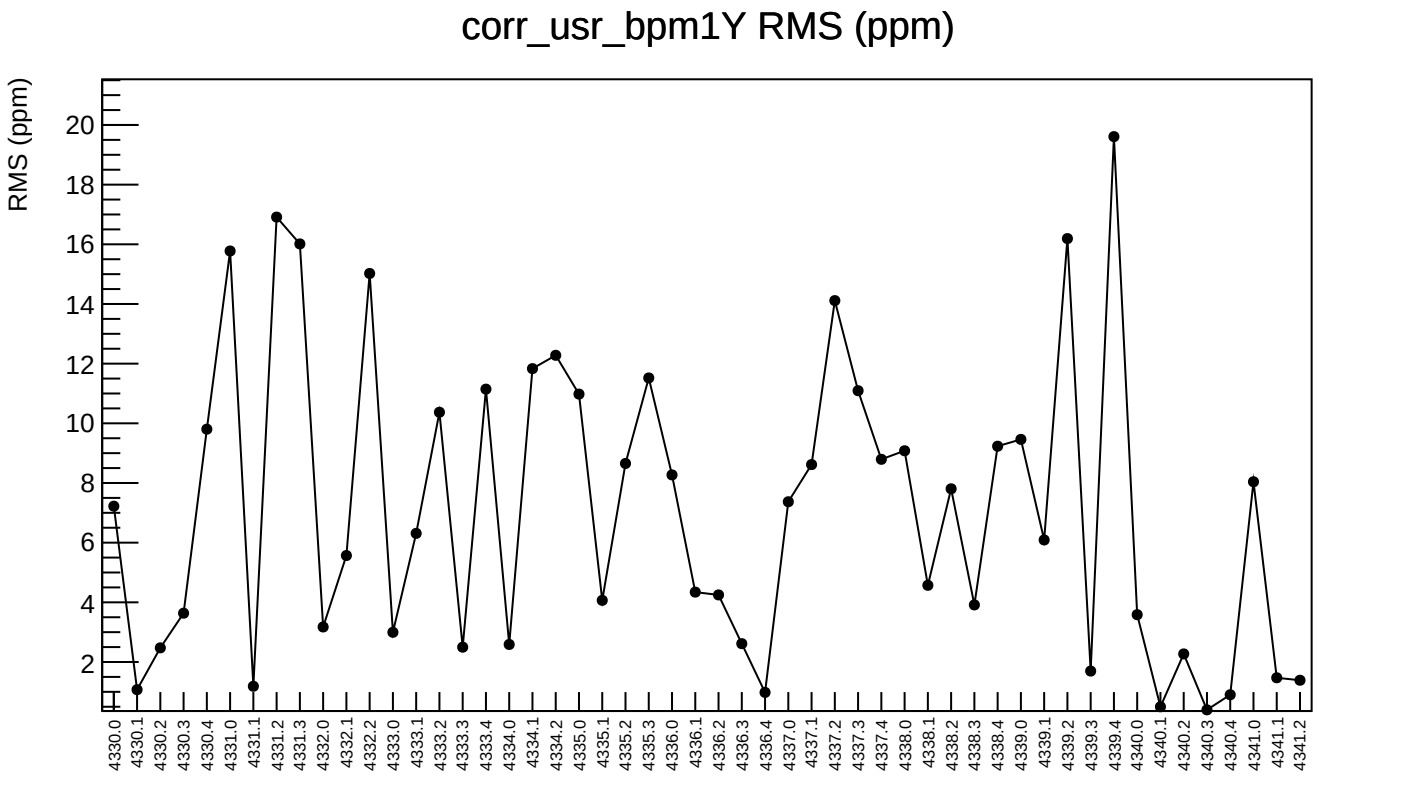

corr_usr_bpm4aY (ppb)
χ² / ndf 3.815 / 51
p0 −14.85 ± 65.46
1D pull distribution
Mean 0.0009471 ± 0.03756
Std Dev 0.2709 ± 0.02656
Underflow 0
Overflow 0
χ² / ndf 6.653e−08 / 0
Constant 32.43 ± 5.59
Mean 0.114 ± 0.117
Sigma 0.3872 ± 0.0873

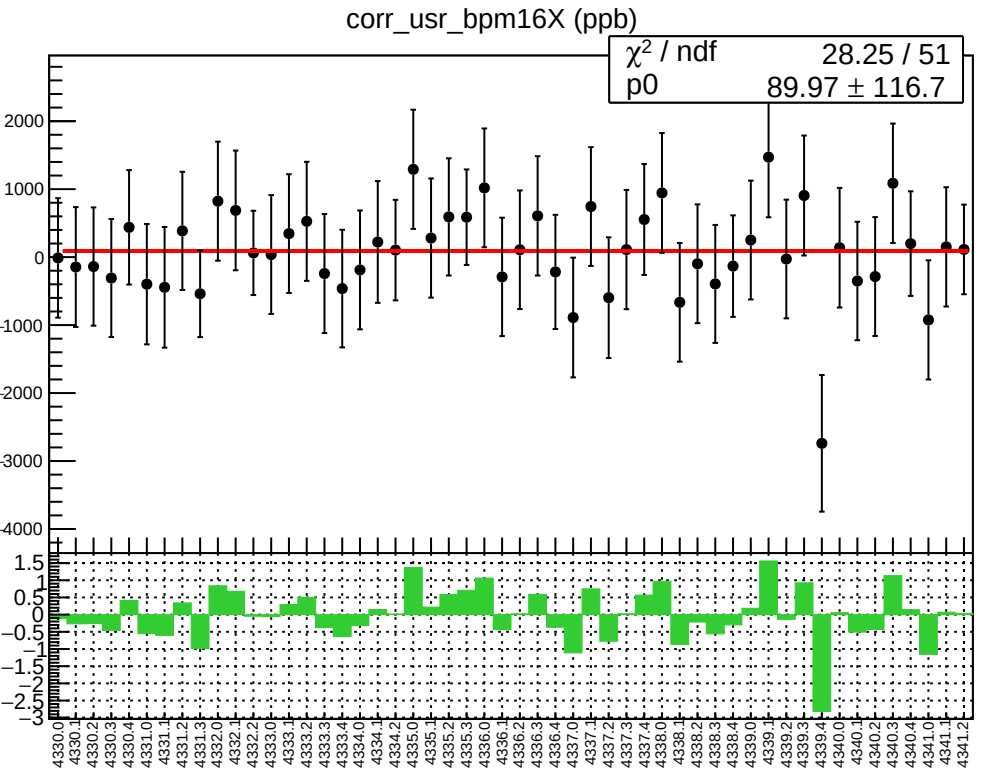

corr_usr_bpm4aY RMS (ppm)
RMS (ppm)
2
4
6
8
10
12
14
16
18
20
22
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

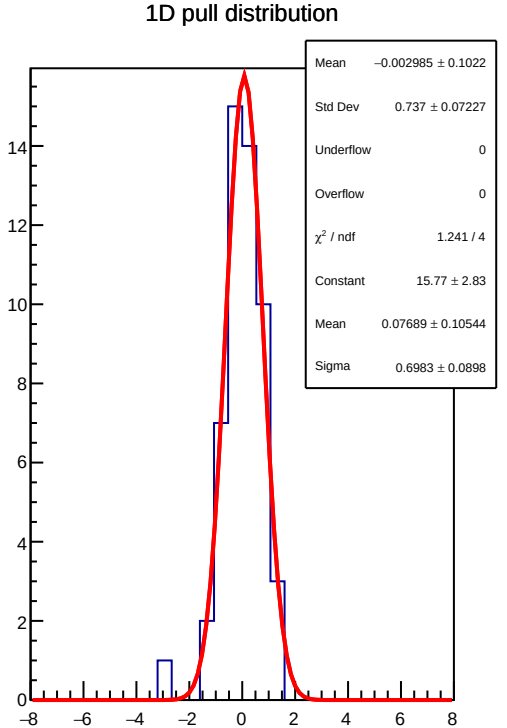

corr_usr_bpm1X (ppb)
χ² / ndf 22.34 / 51
p0 197.4 ± 128.8
1D pull distribution
Mean 0.006946 ± 0.09089
Std Dev 0.6554 ± 0.06427
Underflow 0
Overflow 0
χ² / ndf 2.932 / 4
Constant 18.19 ± 3.74
Mean −0.147 ± 0.099
Sigma 0.5898 ± 0.1062

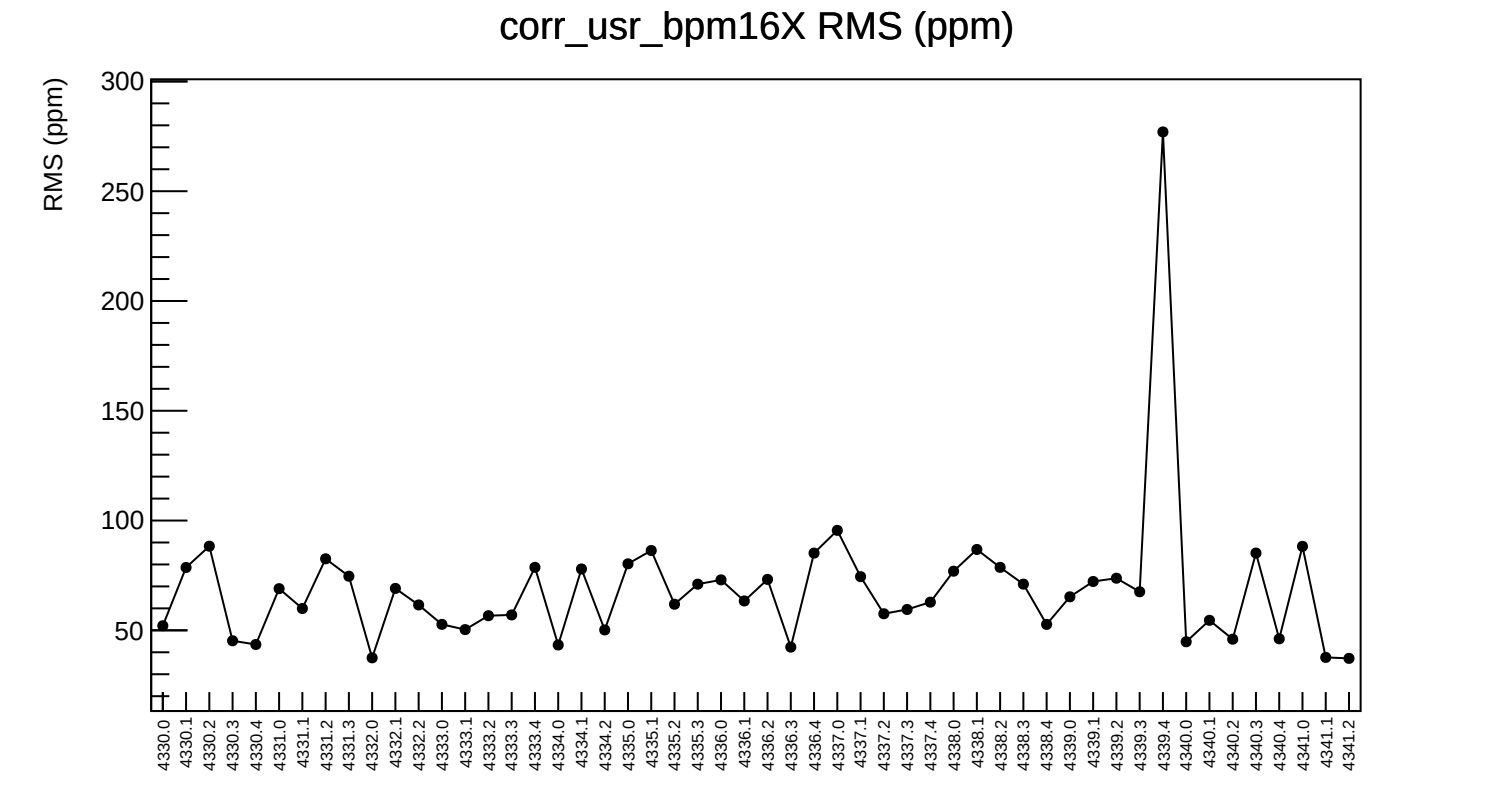

corr_usr_bpm1X RMS (ppm)
RMS (ppm)
350
300
250
200
150
100
50
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

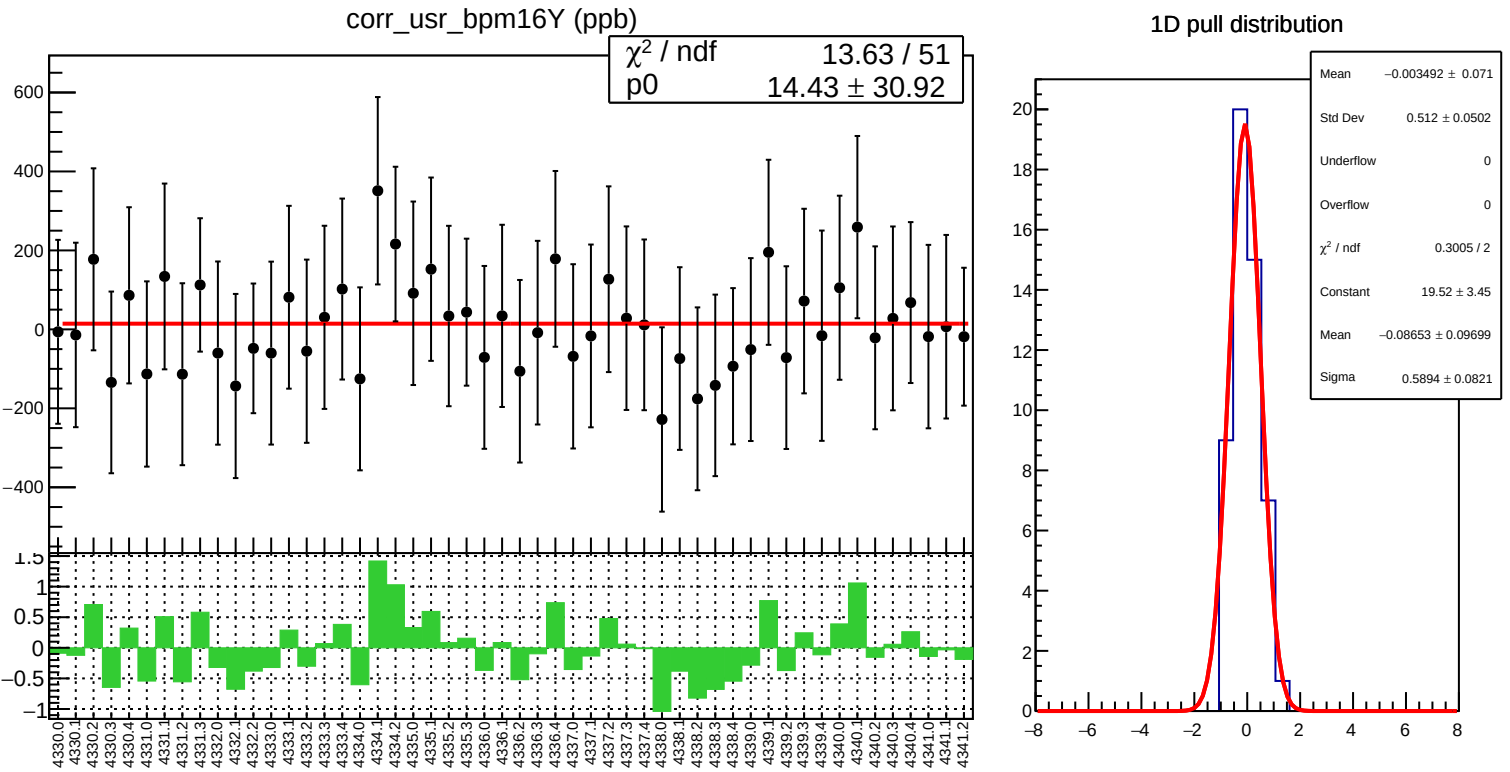

corr_usr_bpm1Y (ppb)
χ² / ndf 18.97 / 51
p0 1.805 ± 23.95
400
200
0
−200
−400
2
1.5
1
0.5
0
−0.5
−1
−1.5
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2
1D pull distribution
Mean 0.01152 ± 0.08375
Std Dev 0.6039 ± 0.05922
Underflow 0
Overflow 0
χ² / ndf 7.995 / 4
Constant 28.53 ± 5.43
Mean −0.03639 ± 0.04954
Sigma 0.3286 ± 0.0375
22
20
18
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

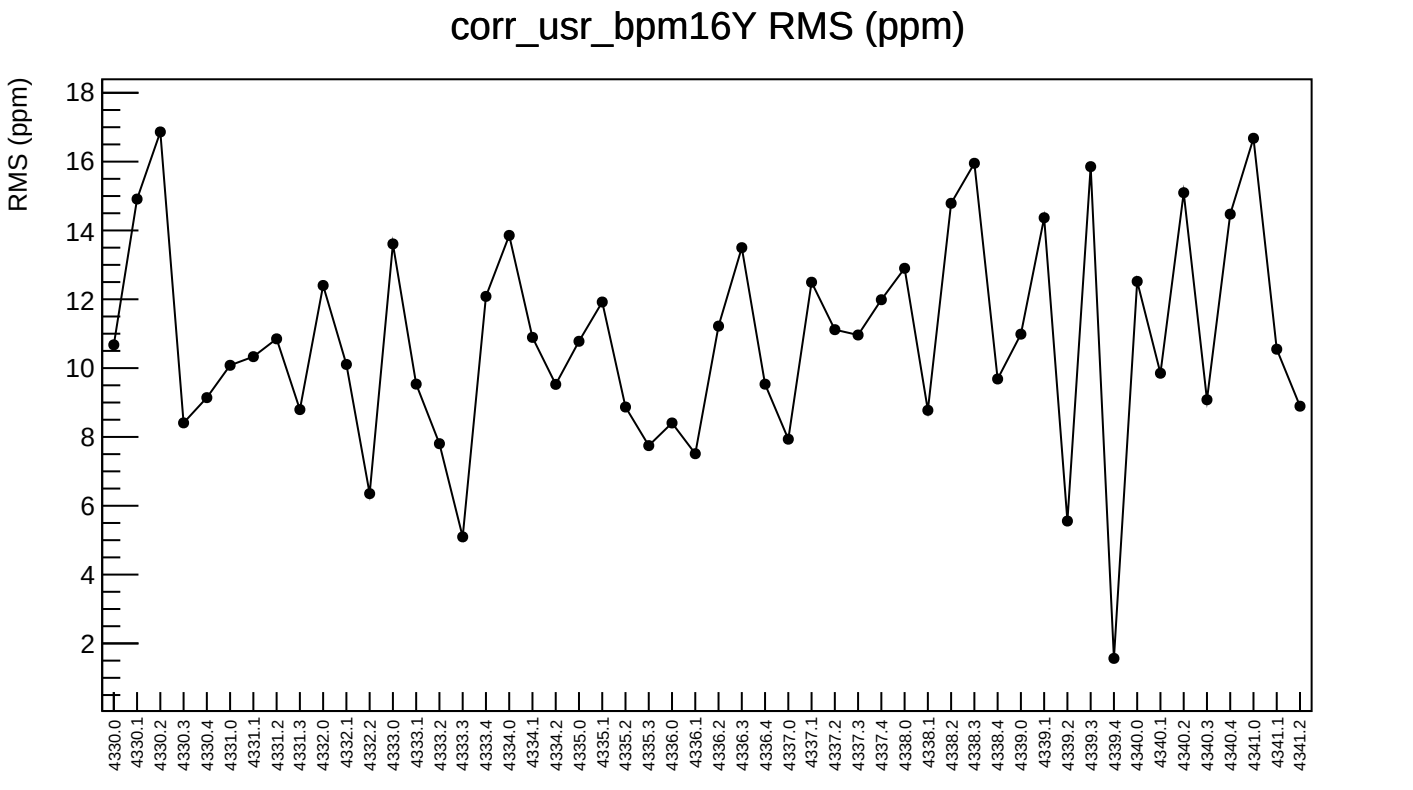

corr_usr_bpm1Y RMS (ppm)
RMS (ppm)
20
18
16
14
12
10
8
6
4
2
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

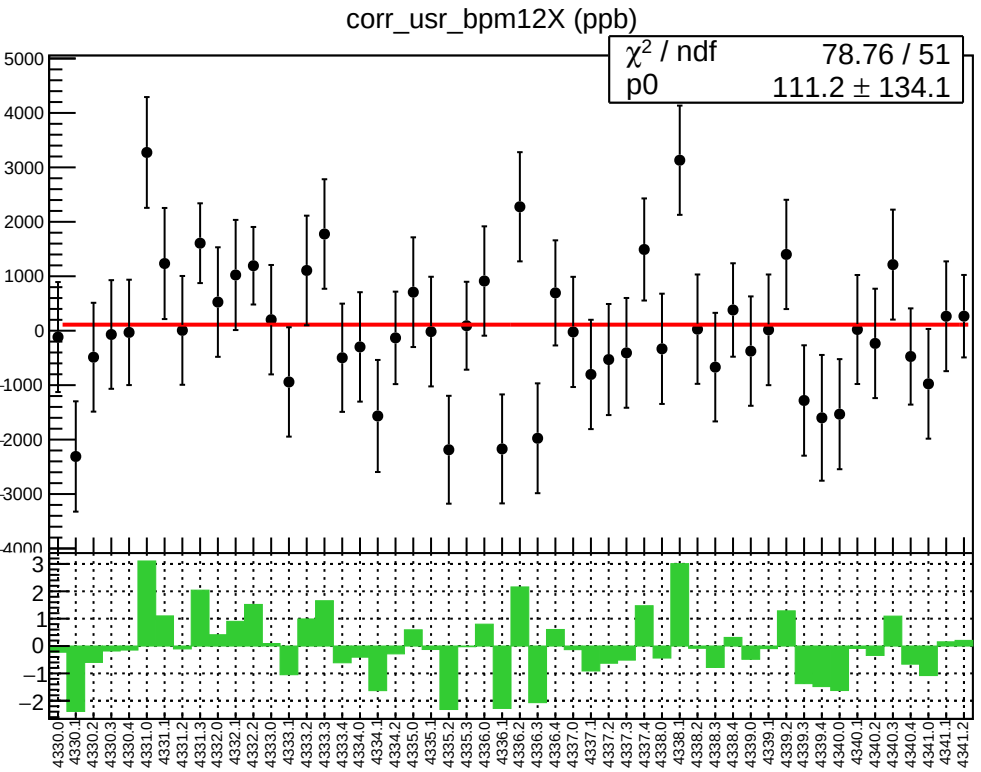

corr_usr_bpm16X (ppb)
χ² / ndf 28.25 / 51
p0 89.97 ± 116.7
2000
1000
0
-1000
-2000
-3000
-4000
1.5
1
0.5
0
−0.5
−1
−1.5
−2
−2.5
−3
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

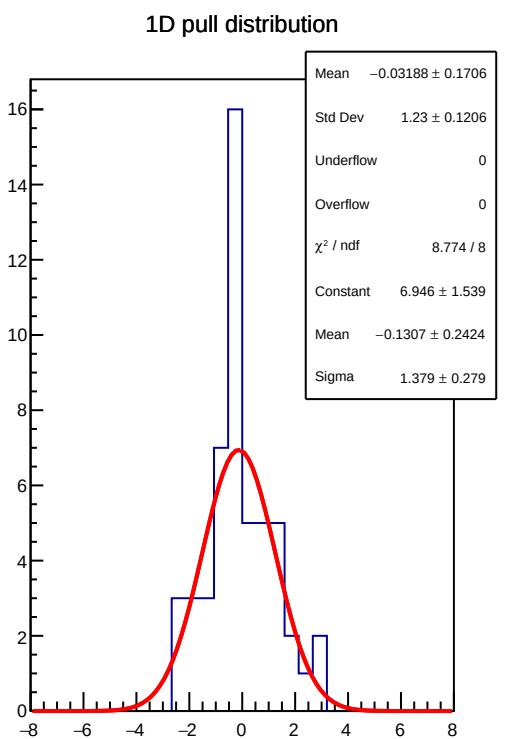

1D pull distribution
Mean −0.002985 ± 0.1022
Std Dev 0.737 ± 0.07227
Underflow 0
Overflow 0
χ² / ndf 1.241 / 4
Constant 15.77 ± 2.83
Mean 0.07689 ± 0.10544
Sigma 0.6983 ± 0.0898
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

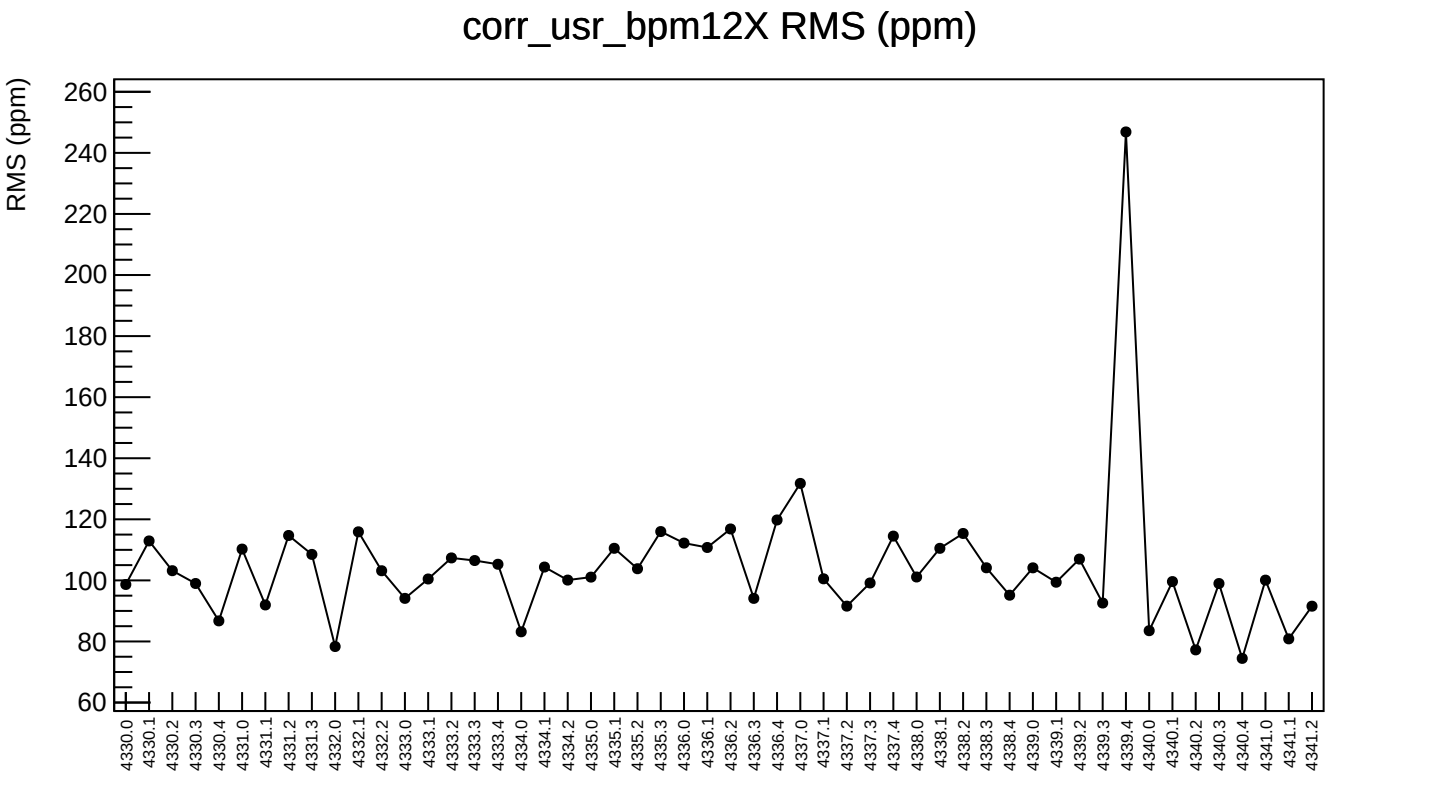

corr_usr_bpm16X RMS (ppm)
RMS (ppm)
300
250
200
150
100
50
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

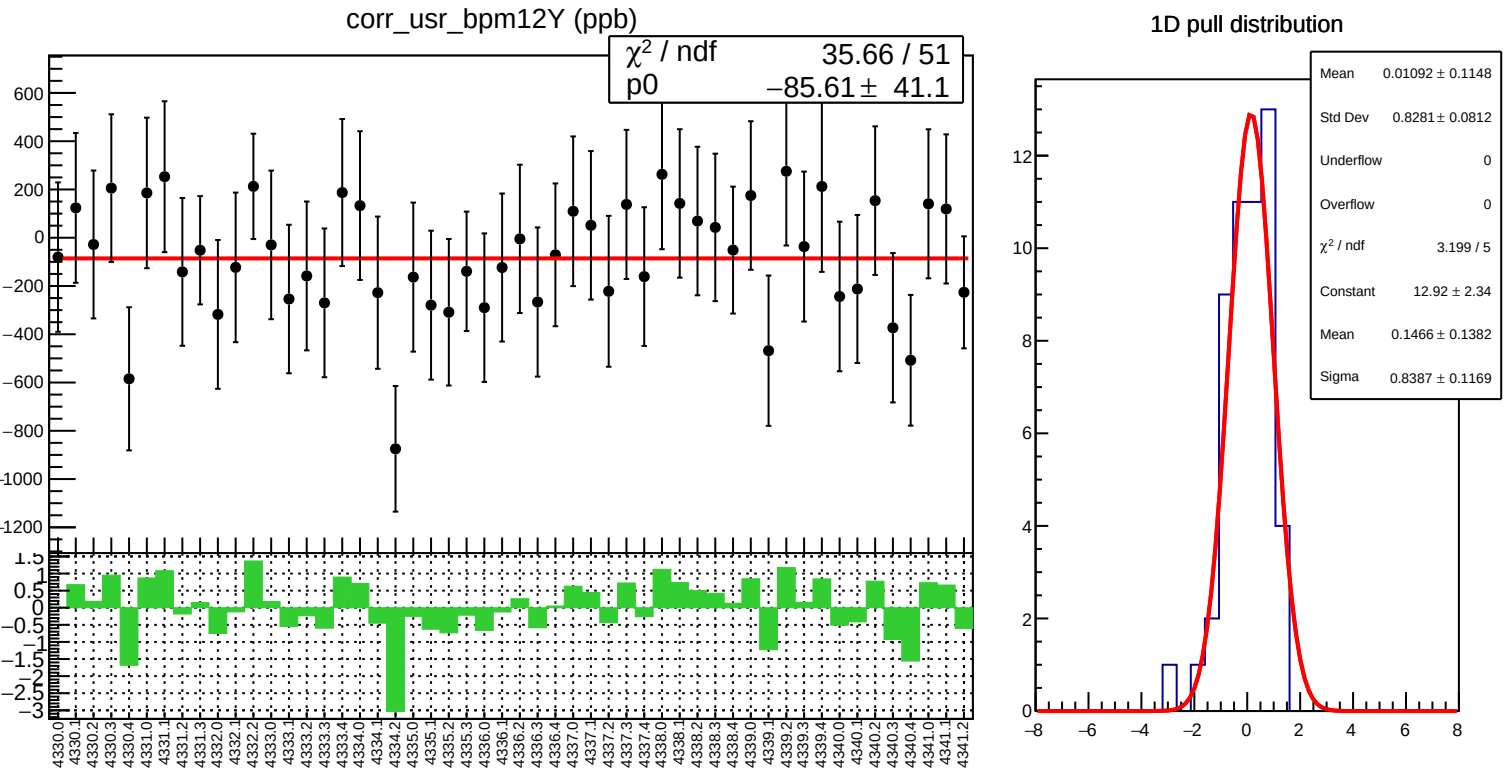

corr_usr_bpm16Y (ppb)
χ² / ndf 13.63 / 51
p0 14.43 ± 30.92
1D pull distribution
Mean −0.003492 ± 0.071
Std Dev 0.512 ± 0.0502
Underflow 0
Overflow 0
χ² / ndf 0.3005 / 2
Constant 19.52 ± 3.45
Mean −0.08653 ± 0.09699
Sigma 0.5894 ± 0.0821

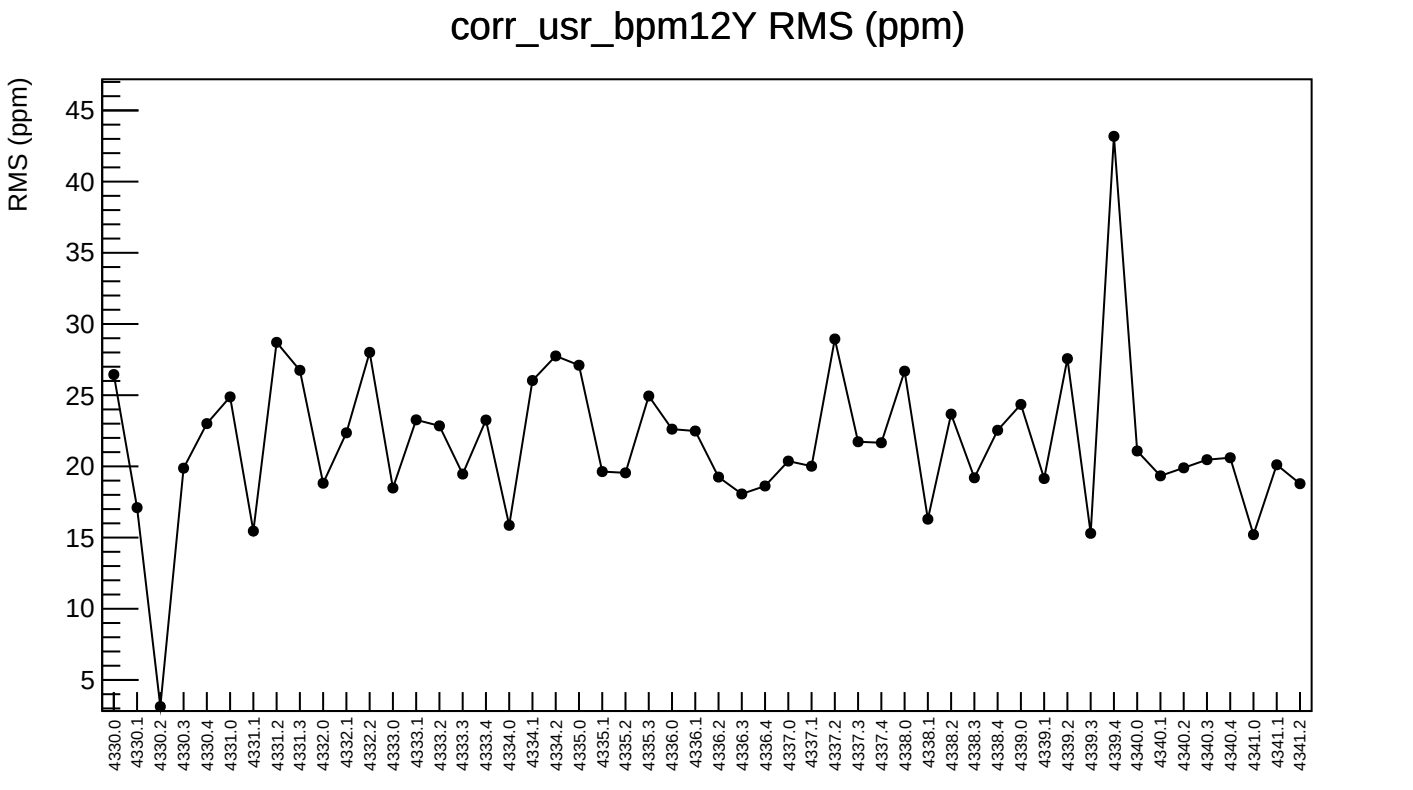

corr_usr_bpm16Y RMS (ppm)
RMS (ppm)
18
16
14
12
10
8
6
4
2
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

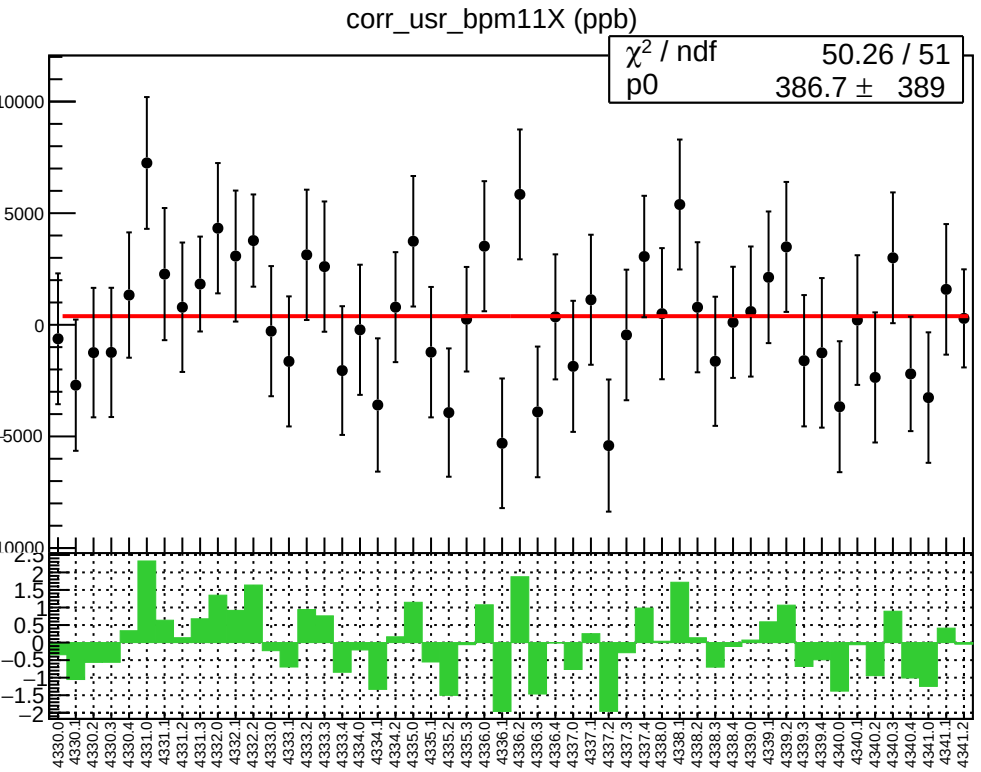

corr_usr_bpm12X (ppb)
χ² / ndf 78.76 / 51
p0 111.2 ± 134.1

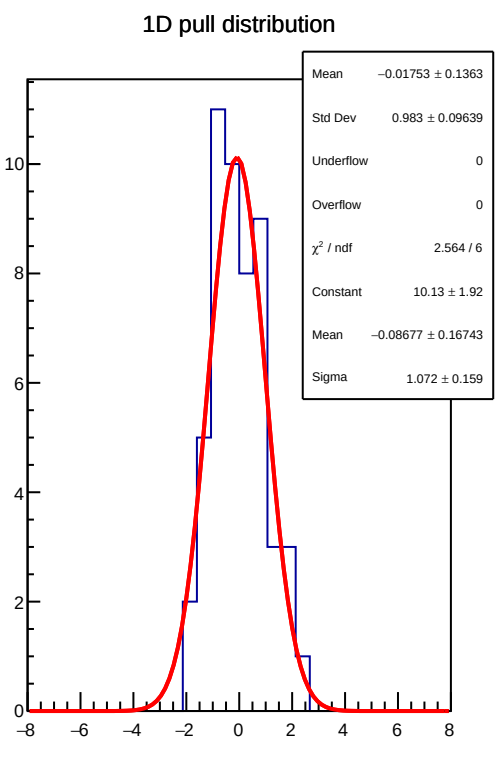

1D pull distribution
Mean −0.03188 ± 0.1706
Std Dev 1.23 ± 0.1206
Underflow 0
Overflow 0
χ² / ndf 8.774 / 8
Constant 6.946 ± 1.539
Mean −0.1307 ± 0.2424
Sigma 1.379 ± 0.279

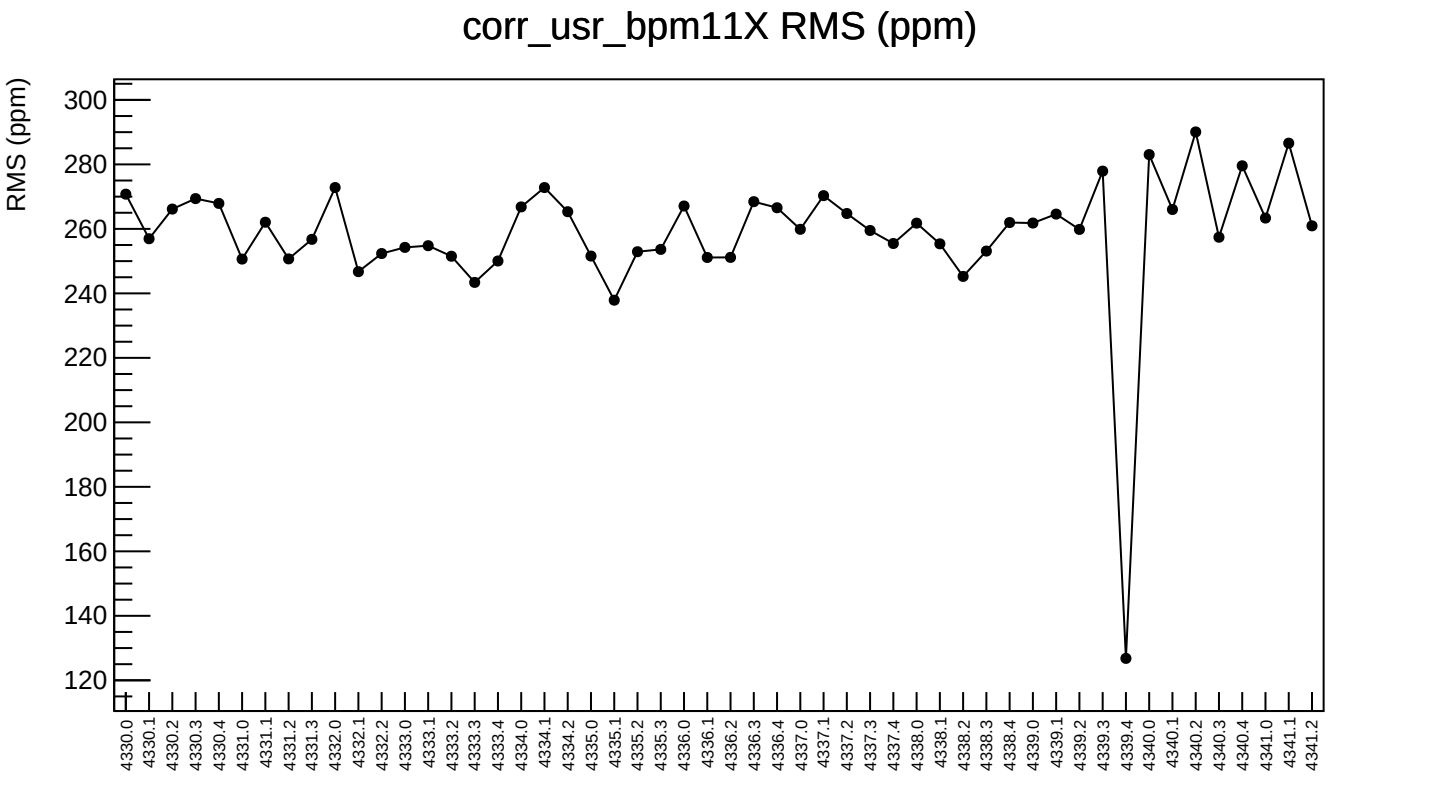

corr_usr_bpm12X RMS (ppm)
RMS (ppm)
260
240
220
200
180
160
140
120
100
80
60
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

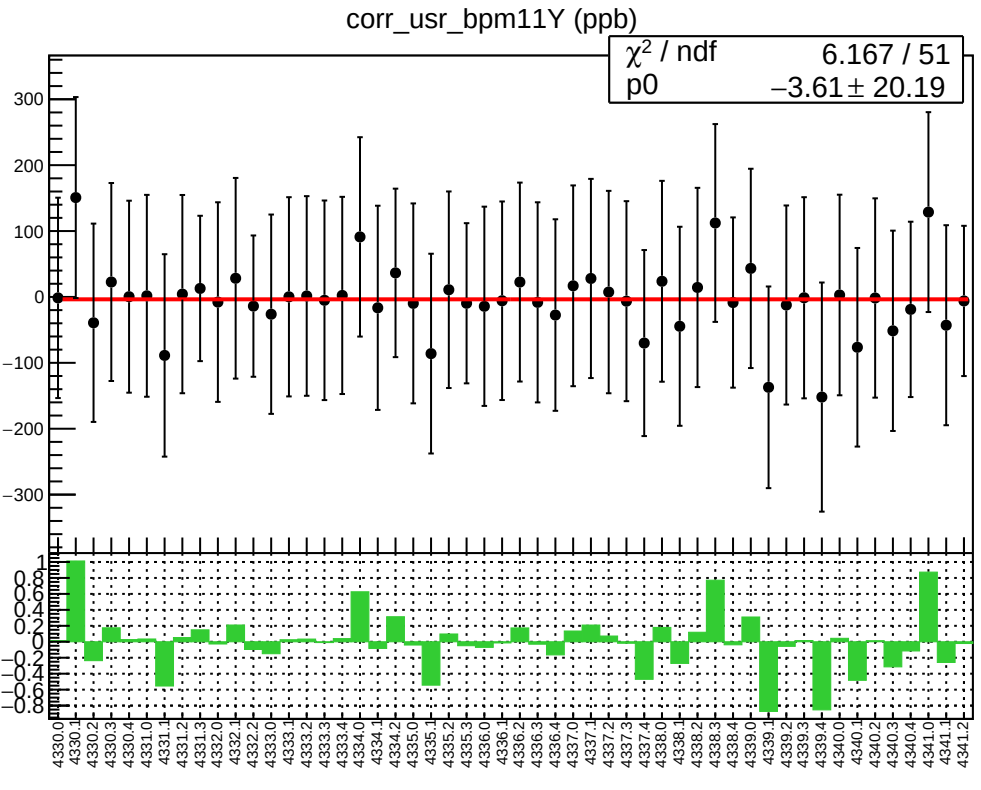

corr_usr_bpm12Y (ppb)
χ² / ndf 35.66 / 51
p0 −85.61 ± 41.1
1D pull distribution
Mean 0.01092 ± 0.1148
Std Dev 0.8281 ± 0.0812
Underflow 0
Overflow 0
χ² / ndf 3.199 / 5
Constant 12.92 ± 2.34
Mean 0.1466 ± 0.1382
Sigma 0.8387 ± 0.1169

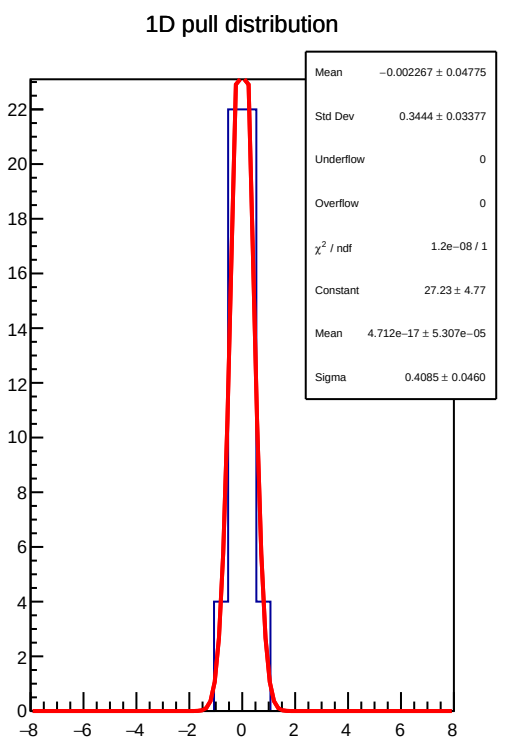

corr_usr_bpm12Y RMS (ppm)
RMS (ppm)
45
40
35
30
25
20
15
10
5
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

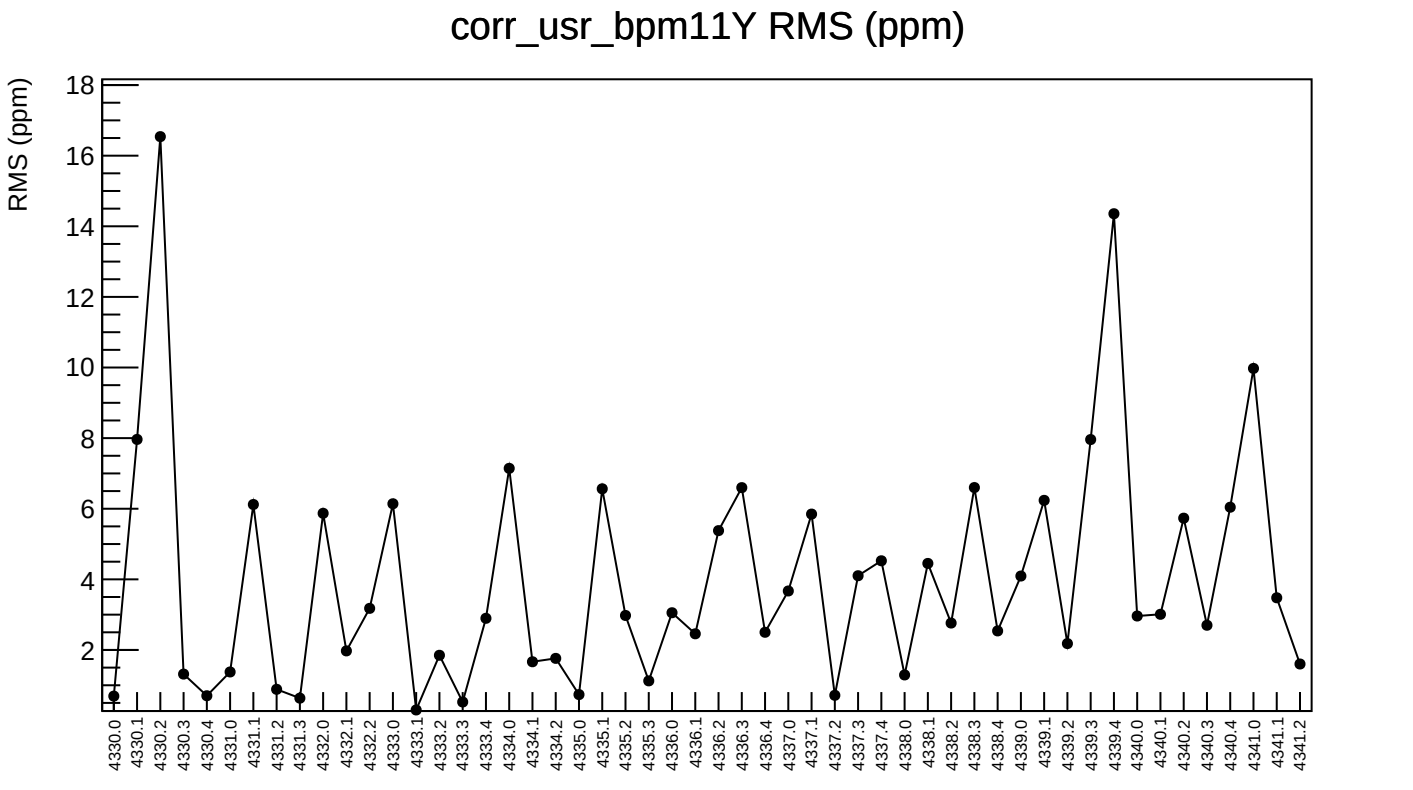

corr_usr_bpm11X (ppb)
χ² / ndf 50.26 / 51
p0 386.7 ± 389
10000
5000
0
-5000
-10000
2.5
2
1.5
1
0.5
0
−0.5
−1
−1.5
−2
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2


1D pull distribution
Mean −0.01753 ± 0.1363
Std Dev 0.983 ± 0.09639
Underflow 0
Overflow 0
χ² / ndf 2.564 / 6
Constant 10.13 ± 1.92
Mean −0.08677 ± 0.16743
Sigma 1.072 ± 0.159
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8


corr_usr_bpm11X RMS (ppm)
RMS (ppm)
300
280
260
240
220
200
180
160
140
120
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2


corr_usr_bpm11Y (ppb)
χ² / ndf 6.167 / 51
p0 −3.61 ± 20.19
300
200
100
0
−100
−200
−300
1
0.8
0.6
0.4
0.2
0
−0.2
−0.4
−0.6
−0.8
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2


1D pull distribution
Mean −0.002267 ± 0.04775
Std Dev 0.3444 ± 0.03377
Underflow 0
Overflow 0
χ² / ndf 1.2e−08 / 1
Constant 27.23 ± 4.77
Mean 4.712e−17 ± 5.307e−05
Sigma 0.4085 ± 0.0460
22
20
18
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8


corr_usr_bpm11Y RMS (ppm)
RMS (ppm)
18
16
14
12
10
8
6
4
2
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
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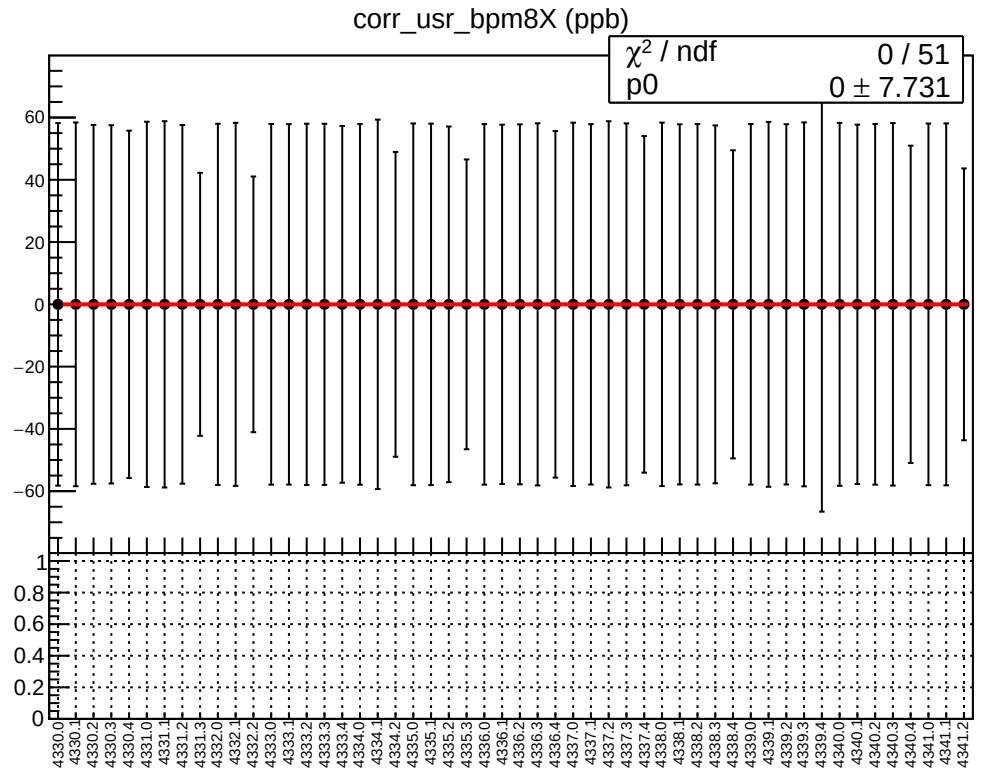
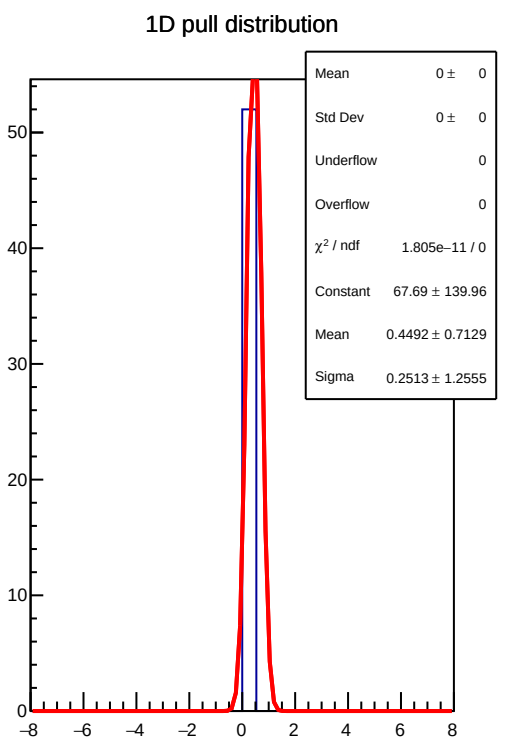
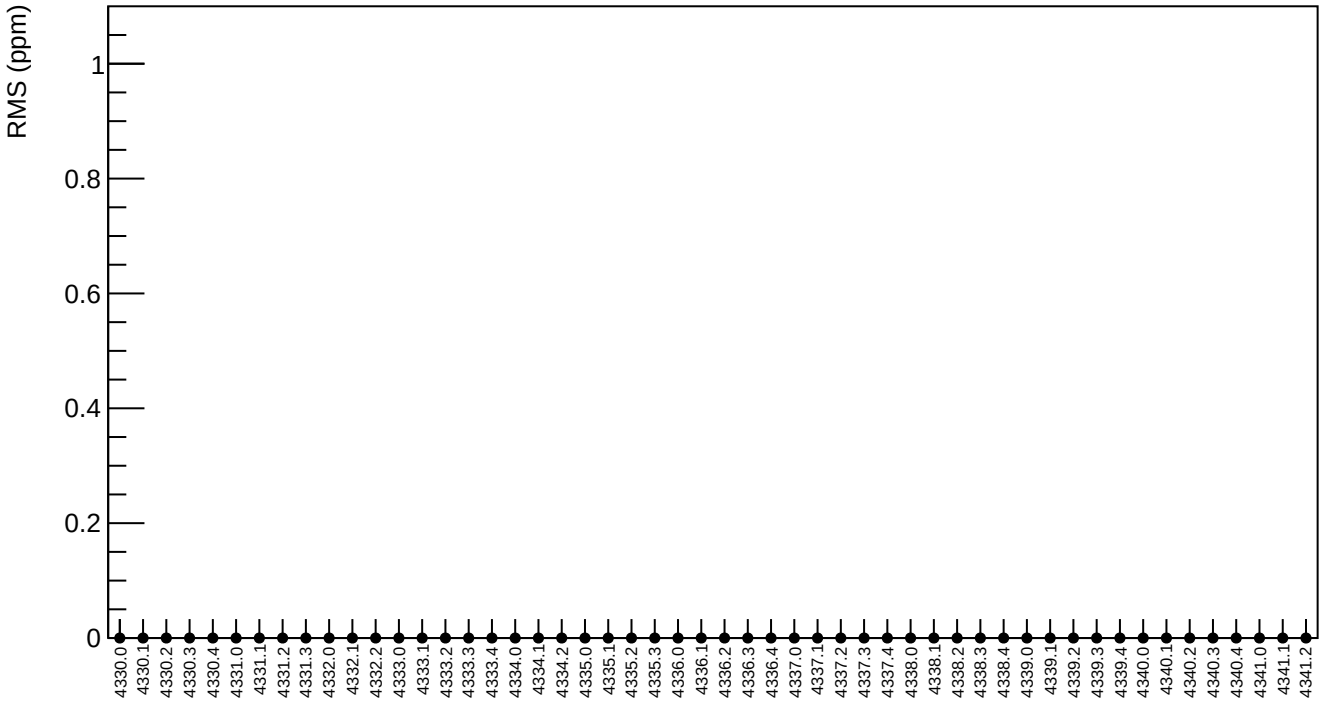
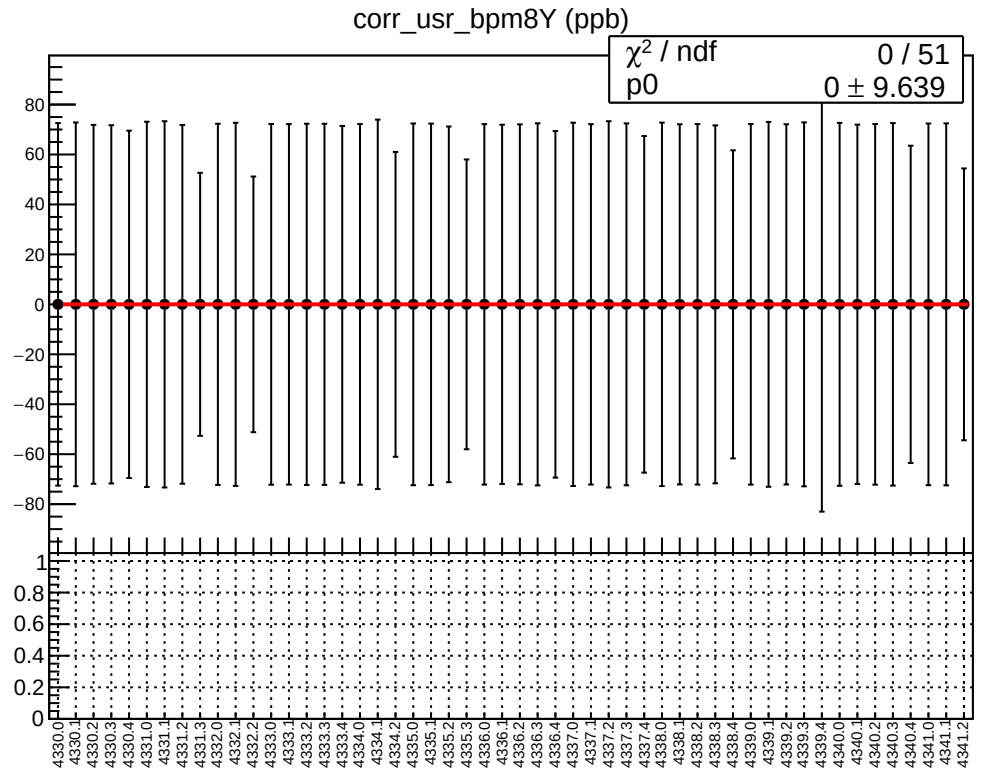
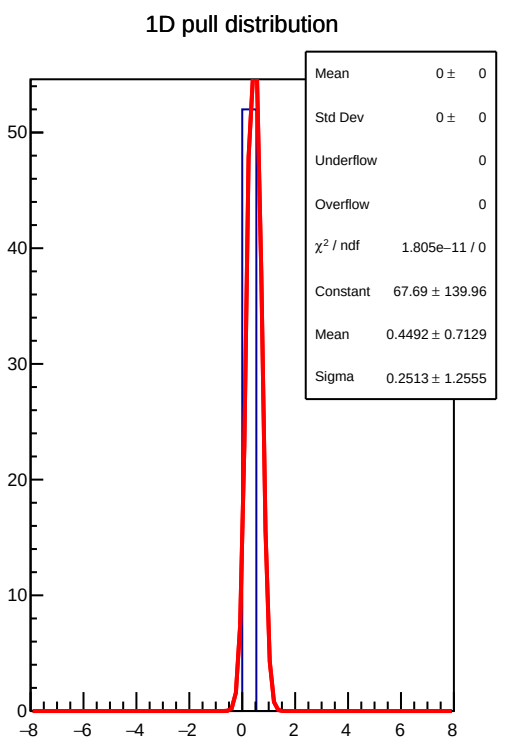
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2

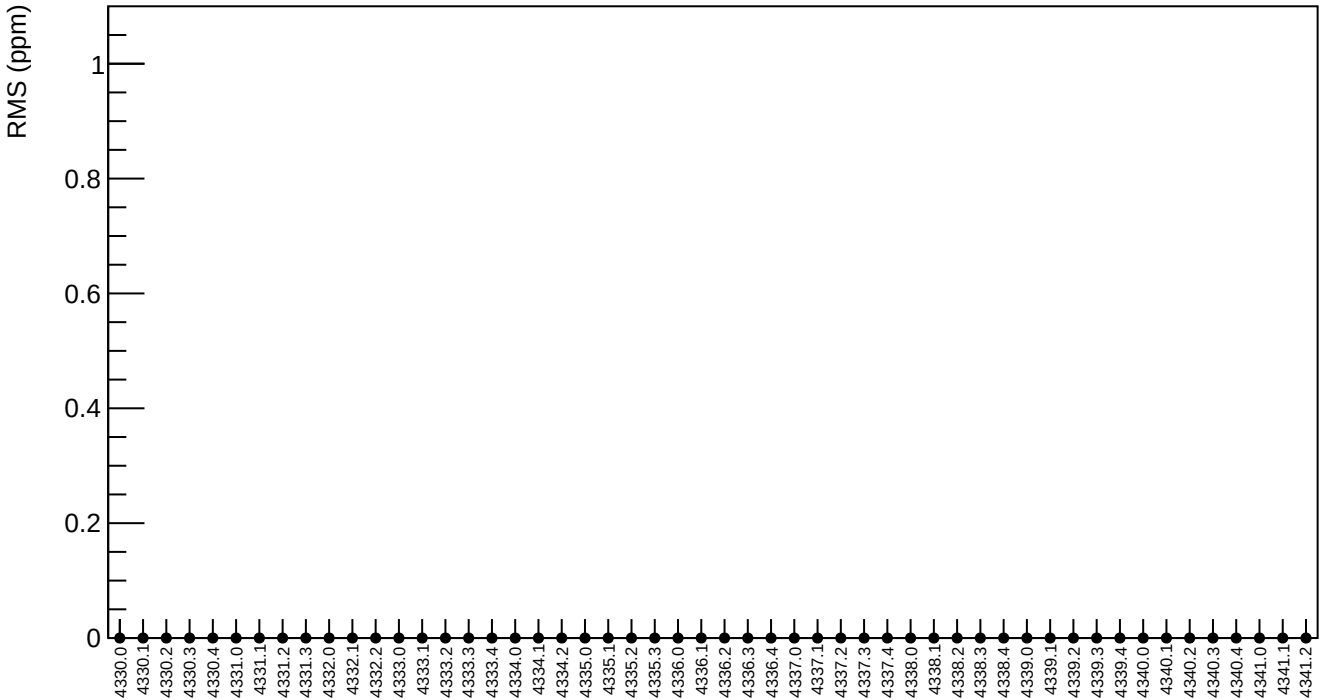

corr_usr_bpm8X (ppb)
χ² / ndf 0 / 51
p0 0 ± 7.731


1D pull distribution
Mean 0 ± 0
Std Dev 0 ± 0
Underflow 0
Overflow 0
χ² / ndf 1.805e−11 / 0
Constant 67.69 ± 139.96
Mean 0.4492 ± 0.7129
Sigma 0.2513 ± 1.2555


corr_usr_bpm8X RMS (ppm)
RMS (ppm)
1
0.8
0.6
0.4
0.2
0
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2


corr_usr_bpm8Y (ppb)
χ² / ndf 0 / 51
p0 0 ± 9.639


1D pull distribution
Mean 0 ± 0
Std Dev 0 ± 0
Underflow 0
Overflow 0
χ² / ndf 1.805e−11 / 0
Constant 67.69 ± 139.96
Mean 0.4492 ± 0.7129
Sigma 0.2513 ± 1.2555


corr_usr_bpm8Y RMS (ppm)
RMS (ppm)
1
0.8
0.6
0.4
0.2
0
4330.0
4330.1
4330.2
4330.3
4330.4
4331.0
4331.1
4331.2
4331.3
4332.0
4332.1
4332.2
4333.0
4333.1
4333.2
4333.3
4333.4
4334.0
4334.1
4334.2
4335.0
4335.1
4335.2
4335.3
4336.0
4336.1
4336.2
4336.3
4336.4
4337.0
4337.1
4337.2
4337.3
4337.4
4338.0
4338.1
4338.2
4338.3
4338.4
4339.0
4339.1
4339.2
4339.3
4339.4
4340.0
4340.1
4340.2
4340.3
4340.4
4341.0
4341.1
4341.2