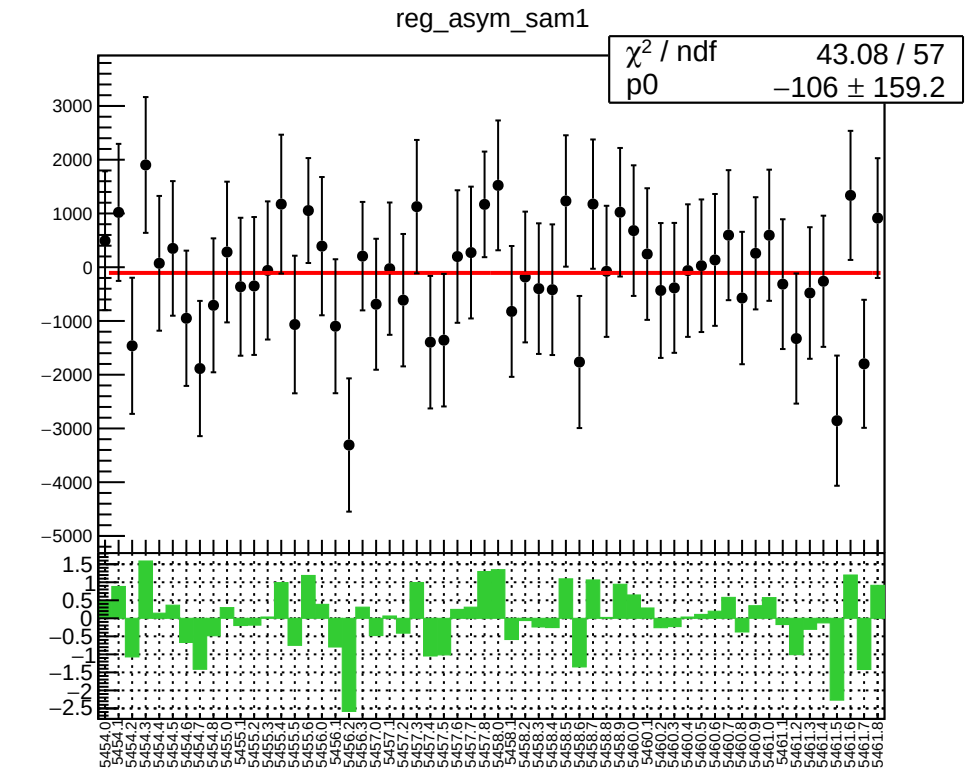
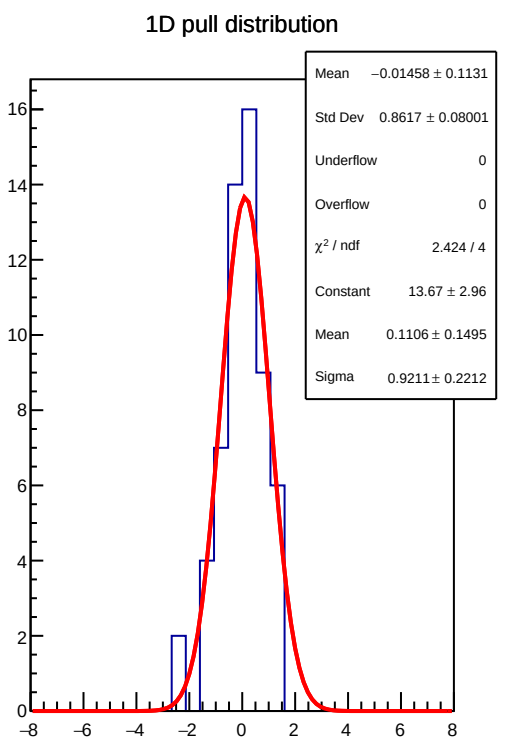
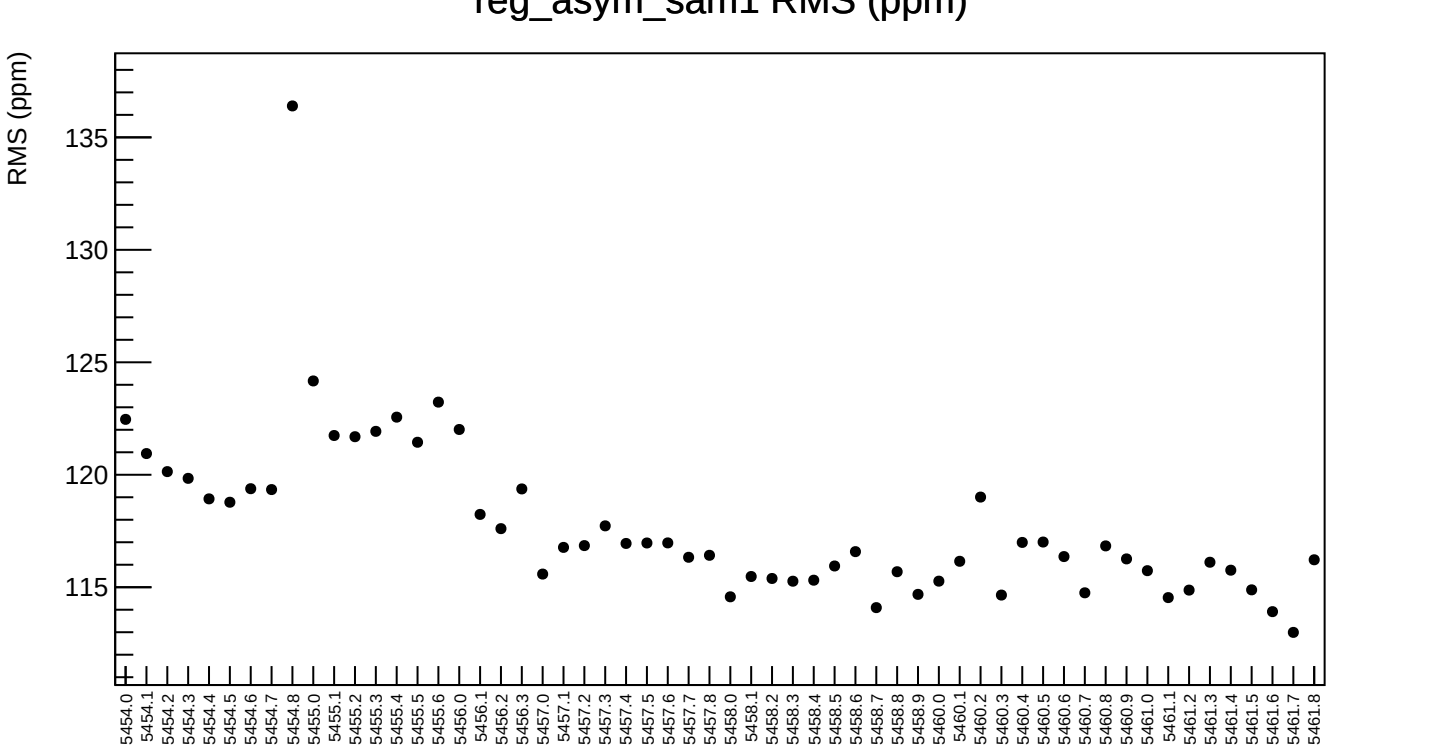
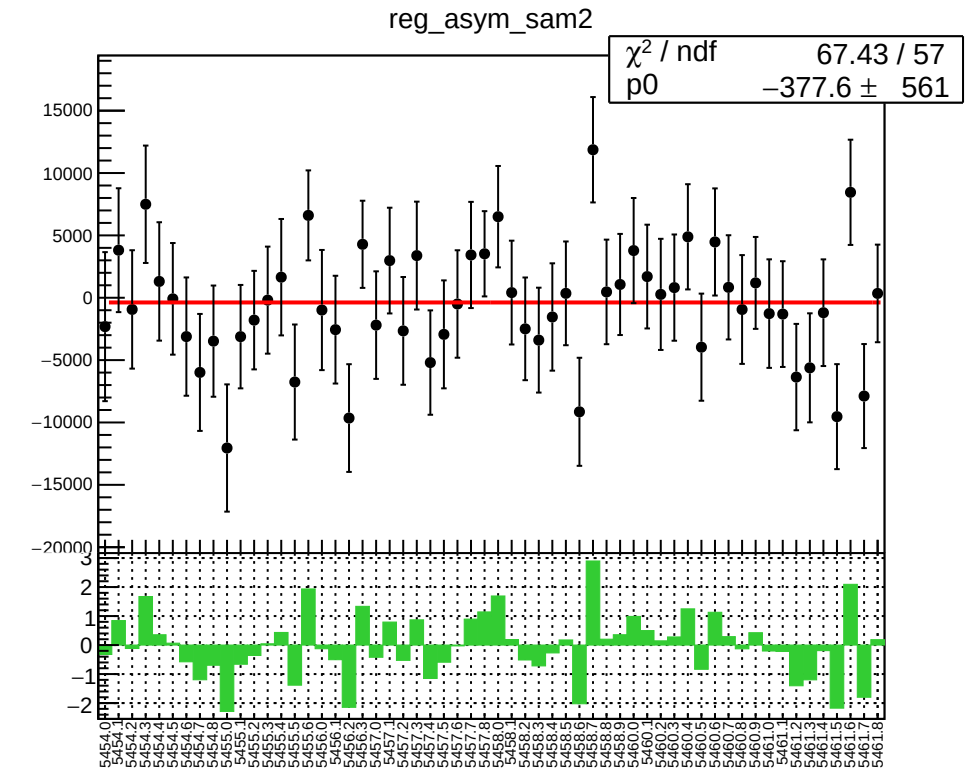
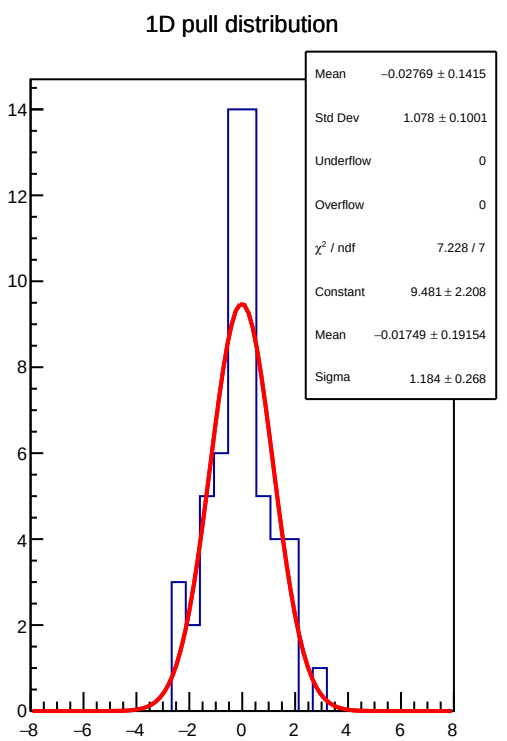
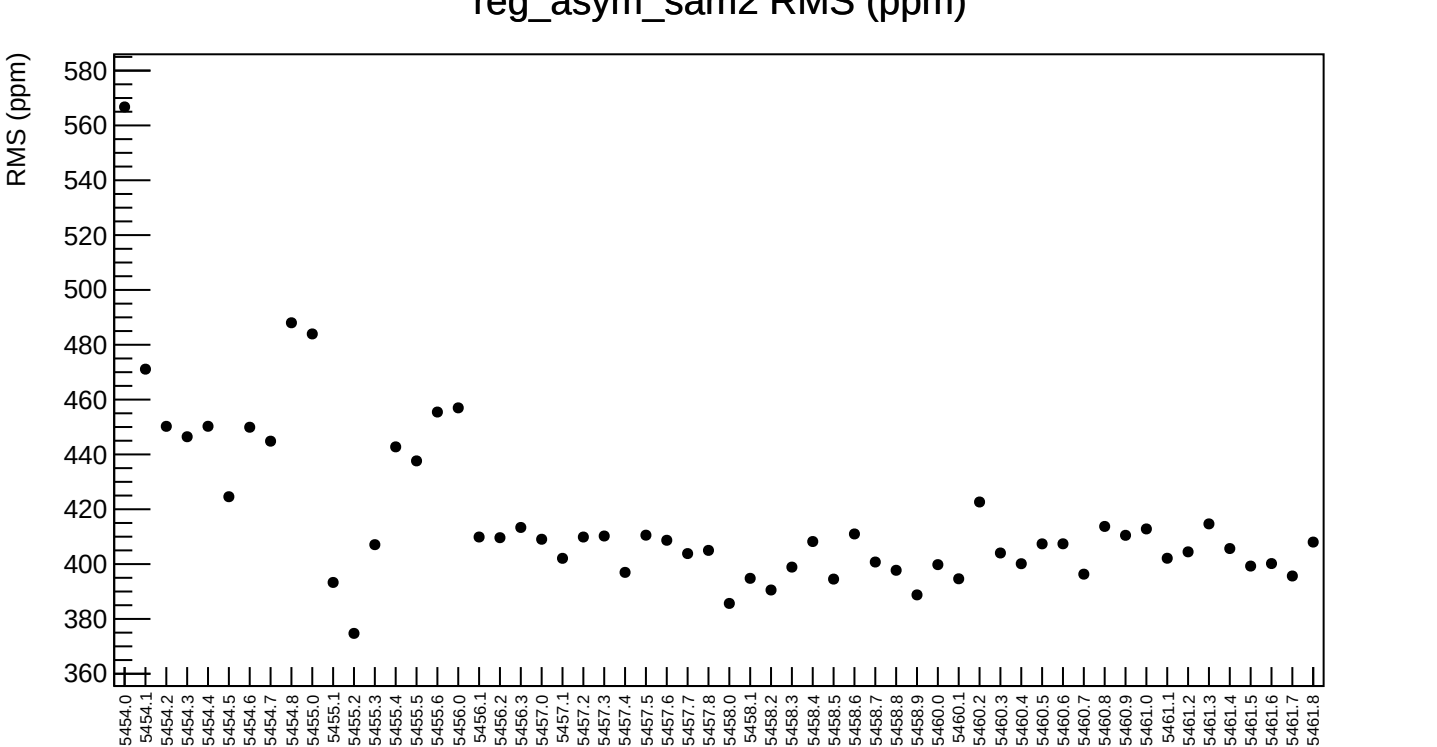

reg_asym_sam1
χ² / ndf 43.08 / 57
p0 −106 ± 159.2

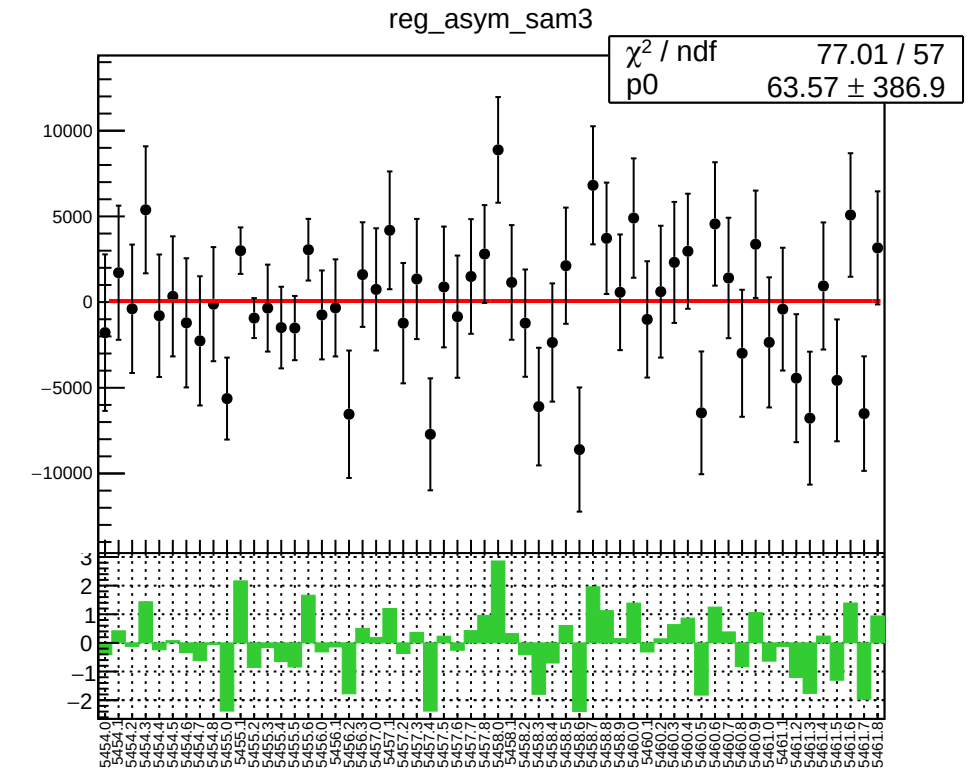

1D pull distribution
Mean −0.01458 ± 0.1131
Std Dev 0.8617 ± 0.08001
Underflow 0
Overflow 0
χ² / ndf 2.424 / 4
Constant 13.67 ± 2.96
Mean 0.1106 ± 0.1495
Sigma 0.9211 ± 0.2212

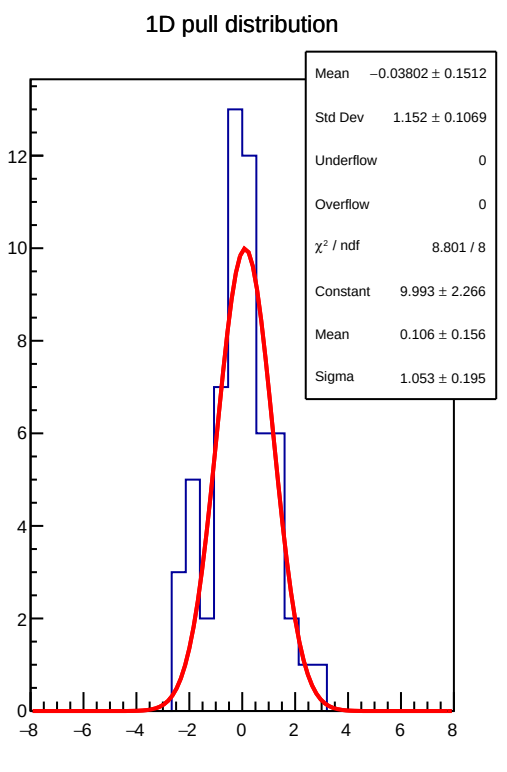

reg_asym_sam1 RMS (ppm)
RMS (ppm)
135
130
125
120
115
5454.0
5454.1
5454.2
5454.3
5454.4
5454.5
5454.6
5454.7
5454.8
5455.0
5455.1
5455.2
5455.3
5455.4
5455.5
5455.6
5456.0
5456.1
5456.2
5456.3
5457.0
5457.1
5457.2
5457.3
5457.4
5457.5
5457.6
5457.7
5457.8
5458.0
5458.1
5458.2
5458.3
5458.4
5458.5
5458.6
5458.7
5458.8
5458.9
5460.0
5460.1
5460.2
5460.3
5460.4
5460.5
5460.6
5460.7
5460.8
5460.9
5461.0
5461.1
5461.2
5461.3
5461.4
5461.5
5461.6
5461.7
5461.8

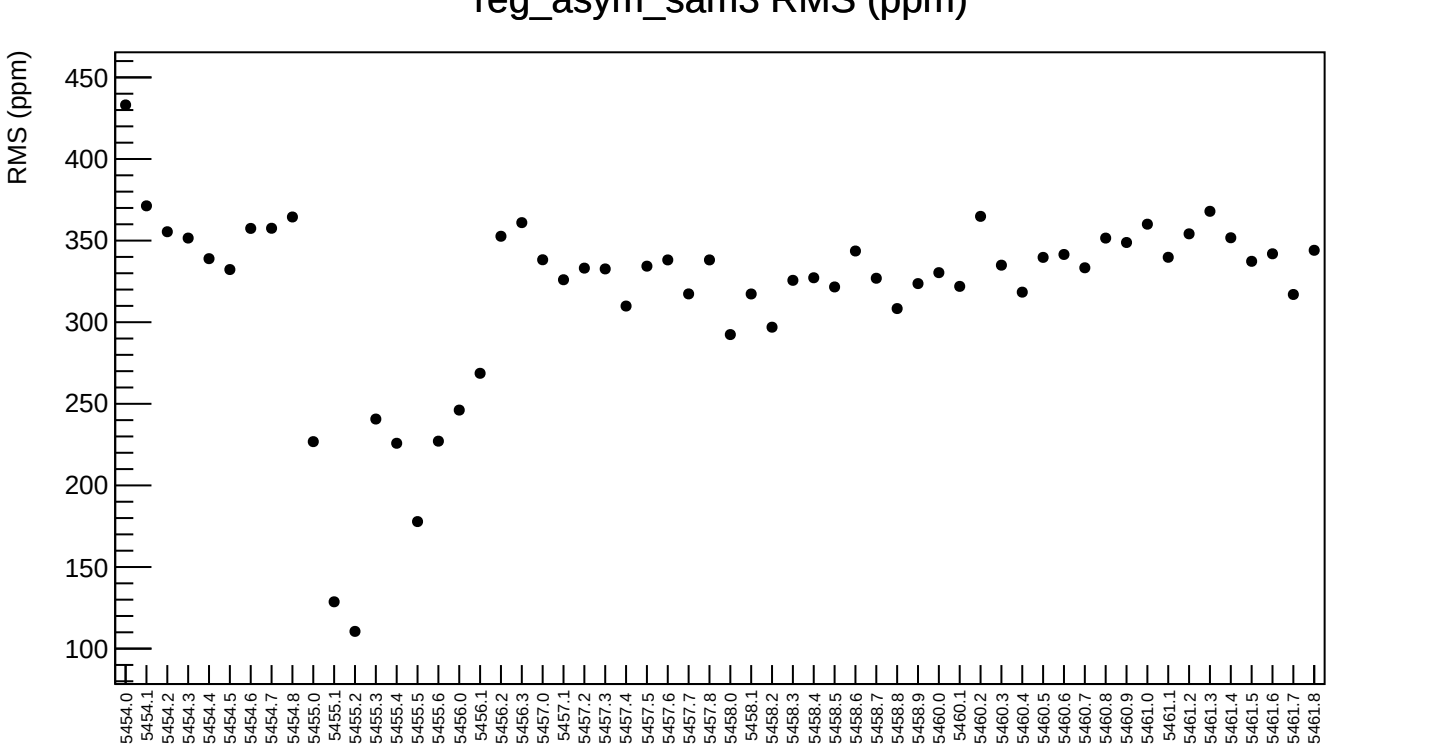

reg_asym_sam2
χ² / ndf 67.43 / 57
p0 −377.6 ± 561

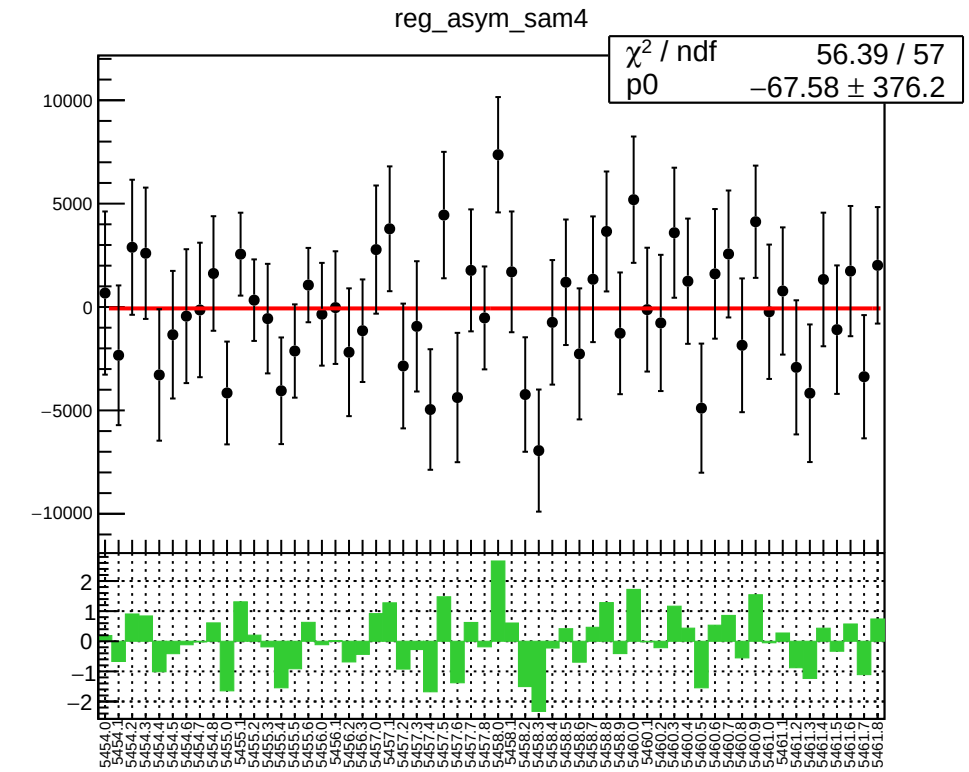

1D pull distribution
Mean −0.02769 ± 0.1415
Std Dev 1.078 ± 0.1001
Underflow 0
Overflow 0
χ² / ndf 7.228 / 7
Constant 9.481 ± 2.208
Mean −0.01749 ± 0.19154
Sigma 1.184 ± 0.268

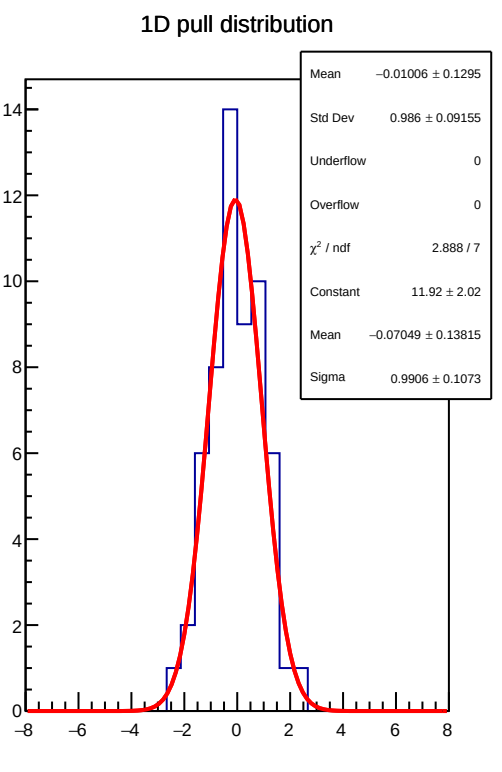

reg_asym_sam2 RMS (ppm)
RMS (ppm)
580
560
540
520
500
480
460
440
420
400
380
360
5454.0
5454.1
5454.2
5454.3
5454.4
5454.5
5454.6
5454.7
5454.8
5455.0
5455.1
5455.2
5455.3
5455.4
5455.5
5455.6
5456.0
5456.1
5456.2
5456.3
5457.0
5457.1
5457.2
5457.3
5457.4
5457.5
5457.6
5457.7
5457.8
5458.0
5458.1
5458.2
5458.3
5458.4
5458.5
5458.6
5458.7
5458.8
5458.9
5460.0
5460.1
5460.2
5460.3
5460.4
5460.5
5460.6
5460.7
5460.8
5460.9
5461.0
5461.1
5461.2
5461.3
5461.4
5461.5
5461.6
5461.7
5461.8

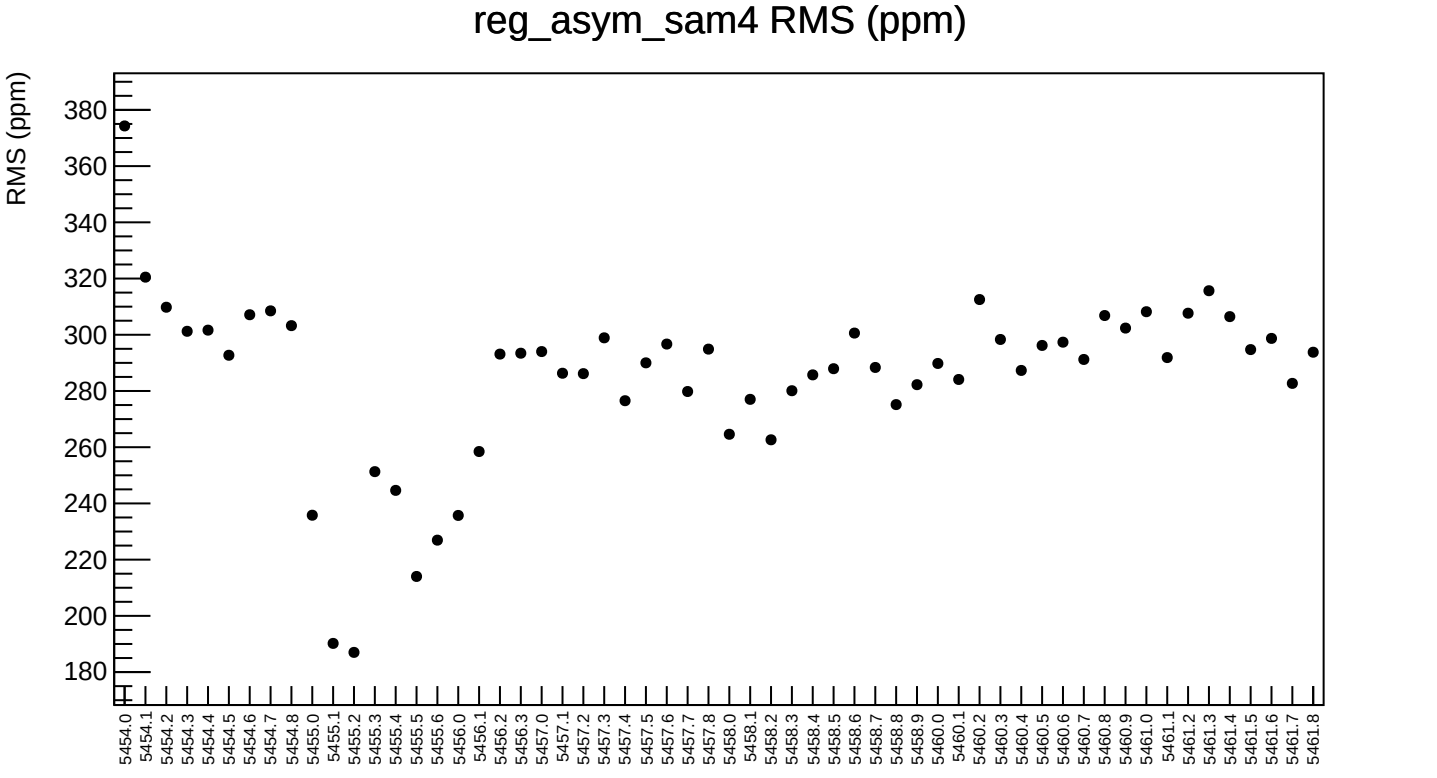

reg_asym_sam3
χ² / ndf 77.01 / 57
p0 63.57 ± 386.9
10000
5000
0
−5000
−10000
3
2
1
0
−1
−2
5454.0
5454.1
5454.2
5454.3
5454.4
5454.5
5454.6
5454.7
5454.8
5455.0
5455.1
5455.2
5455.3
5455.4
5455.5
5455.6
5455.7
5456.0
5456.1
5456.2
5456.3
5456.4
5457.0
5457.1
5457.2
5457.3
5457.4
5457.5
5457.6
5457.7
5457.8
5458.0
5458.1
5458.2
5458.3
5458.4
5458.5
5458.6
5458.7
5458.8
5458.9
5460.0
5460.1
5460.2
5460.3
5460.4
5460.5
5460.6
5460.7
5460.8
5460.9
5461.0
5461.1
5461.2
5461.3
5461.4
5461.5
5461.6
5461.7
5461.8

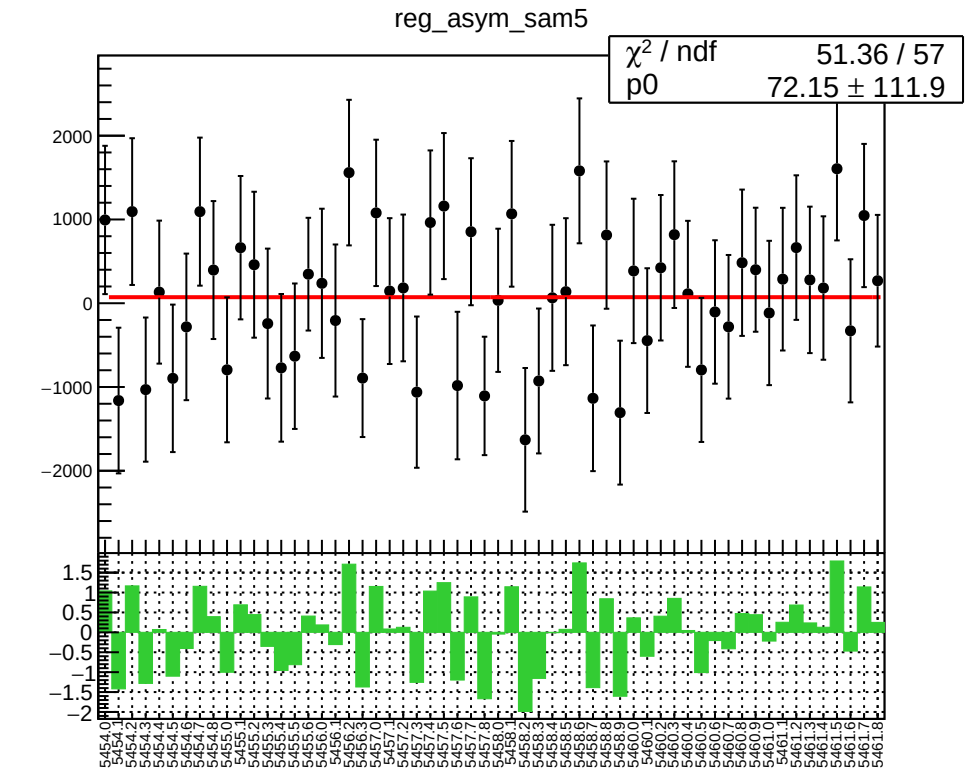

1D pull distribution
Mean −0.03802 ± 0.1512
Std Dev 1.152 ± 0.1069
Underflow 0
Overflow 0
χ² / ndf 8.801 / 8
Constant 9.993 ± 2.266
Mean 0.106 ± 0.156
Sigma 1.053 ± 0.195
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

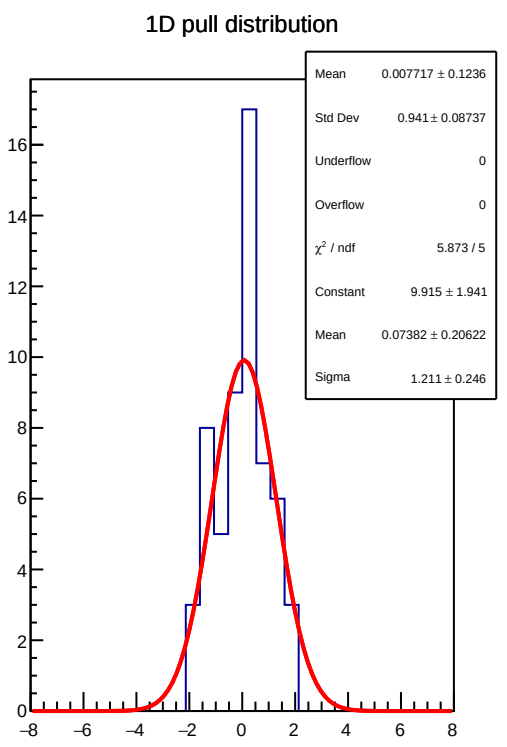

reg_asym_sam3 RMS (ppm)
RMS (ppm)
450
400
350
300
250
200
150
100
5454.0
5454.1
5454.2
5454.3
5454.4
5454.5
5454.6
5454.7
5454.8
5455.0
5455.1
5455.2
5455.3
5455.4
5455.5
5455.6
5456.0
5456.1
5456.2
5456.3
5457.0
5457.1
5457.2
5457.3
5457.4
5457.5
5457.6
5457.7
5457.8
5458.0
5458.1
5458.2
5458.3
5458.4
5458.5
5458.6
5458.7
5458.8
5458.9
5460.0
5460.1
5460.2
5460.3
5460.4
5460.5
5460.6
5460.7
5460.8
5460.9
5461.0
5461.1
5461.2
5461.3
5461.4
5461.5
5461.6
5461.7
5461.8

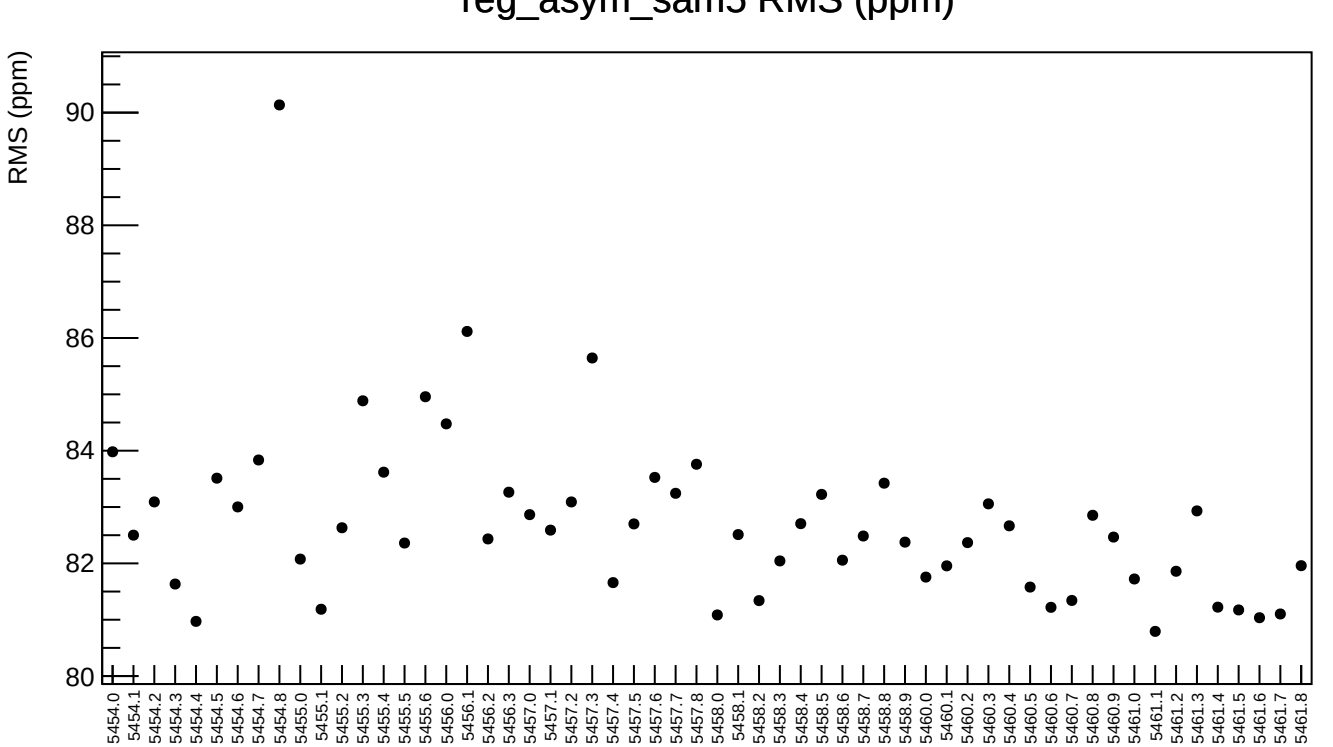

reg_asym_sam4
χ² / ndf 56.39 / 57
p0 −67.58 ± 376.2
10000
5000
0
−5000
−10000
2
1
0
−1
−2
5454.0
5454.1
5454.2
5454.3
5454.4
5454.5
5454.6
5454.7
5454.8
5455.0
5455.1
5455.2
5455.3
5455.4
5455.5
5455.6
5455.7
5456.0
5456.1
5456.2
5456.3
5456.4
5457.0
5457.1
5457.2
5457.3
5457.4
5457.5
5457.6
5457.7
5457.8
5458.0
5458.1
5458.2
5458.3
5458.4
5458.5
5458.6
5458.7
5458.8
5458.9
5460.0
5460.1
5460.2
5460.3
5460.4
5460.5
5460.6
5460.7
5460.8
5460.9
5461.0
5461.1
5461.2
5461.3
5461.4
5461.5
5461.6
5461.7
5461.8

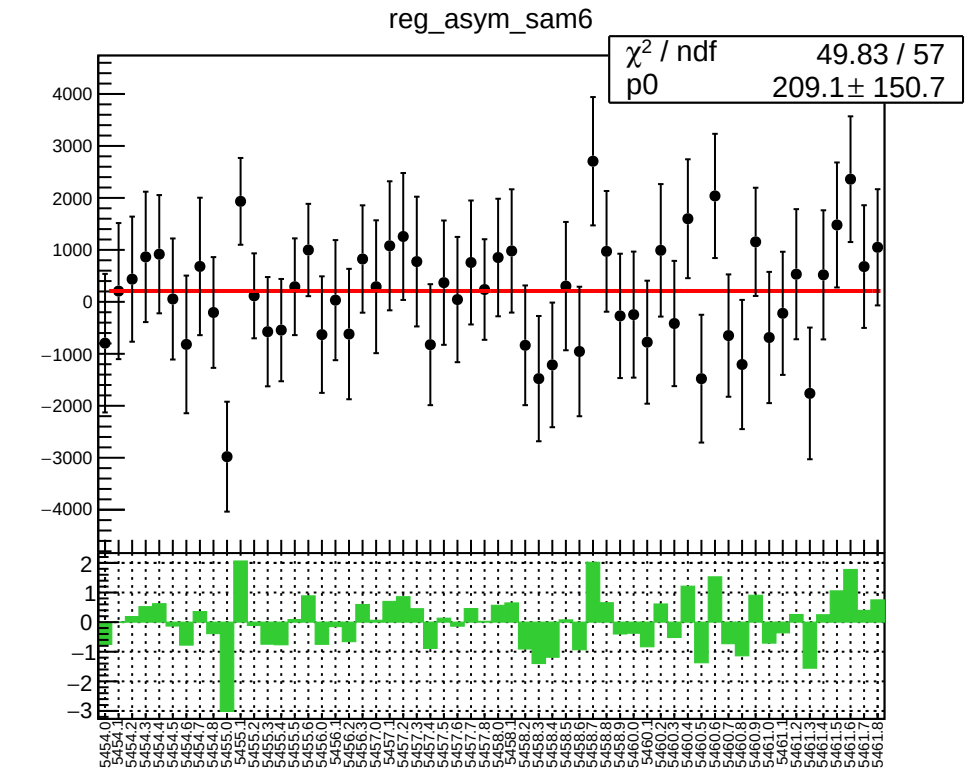

1D pull distribution
Mean −0.01006 ± 0.1295
Std Dev 0.986 ± 0.09155
Underflow 0
Overflow 0
χ² / ndf 2.888 / 7
Constant 11.92 ± 2.02
Mean −0.07049 ± 0.13815
Sigma 0.9906 ± 0.1073
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

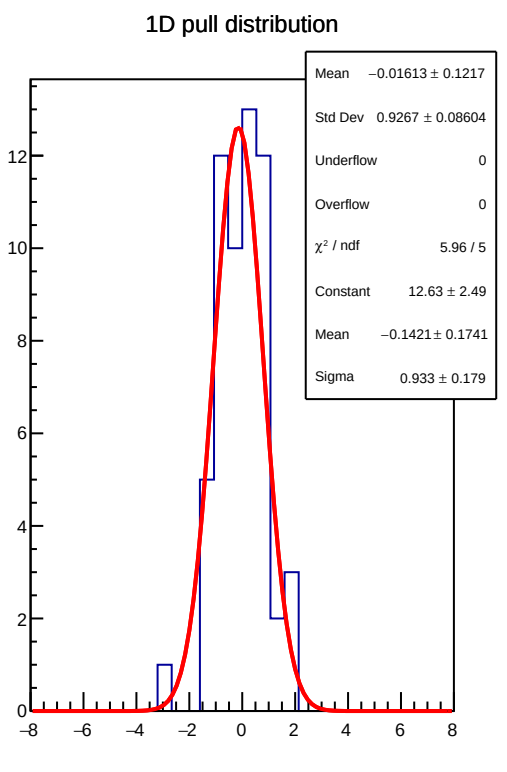

reg_asym_sam4 RMS (ppm)
RMS (ppm)
380
360
340
320
300
280
260
240
220
200
180
5454.0
5454.1
5454.2
5454.3
5454.4
5454.5
5454.6
5454.7
5454.8
5455.0
5455.1
5455.2
5455.3
5455.4
5455.5
5455.6
5456.0
5456.1
5456.2
5456.3
5457.0
5457.1
5457.2
5457.3
5457.4
5457.5
5457.6
5457.7
5457.8
5458.0
5458.1
5458.2
5458.3
5458.4
5458.5
5458.6
5458.7
5458.8
5458.9
5460.0
5460.1
5460.2
5460.3
5460.4
5460.5
5460.6
5460.7
5460.8
5460.9
5461.0
5461.1
5461.2
5461.3
5461.4
5461.5
5461.6
5461.7
5461.8

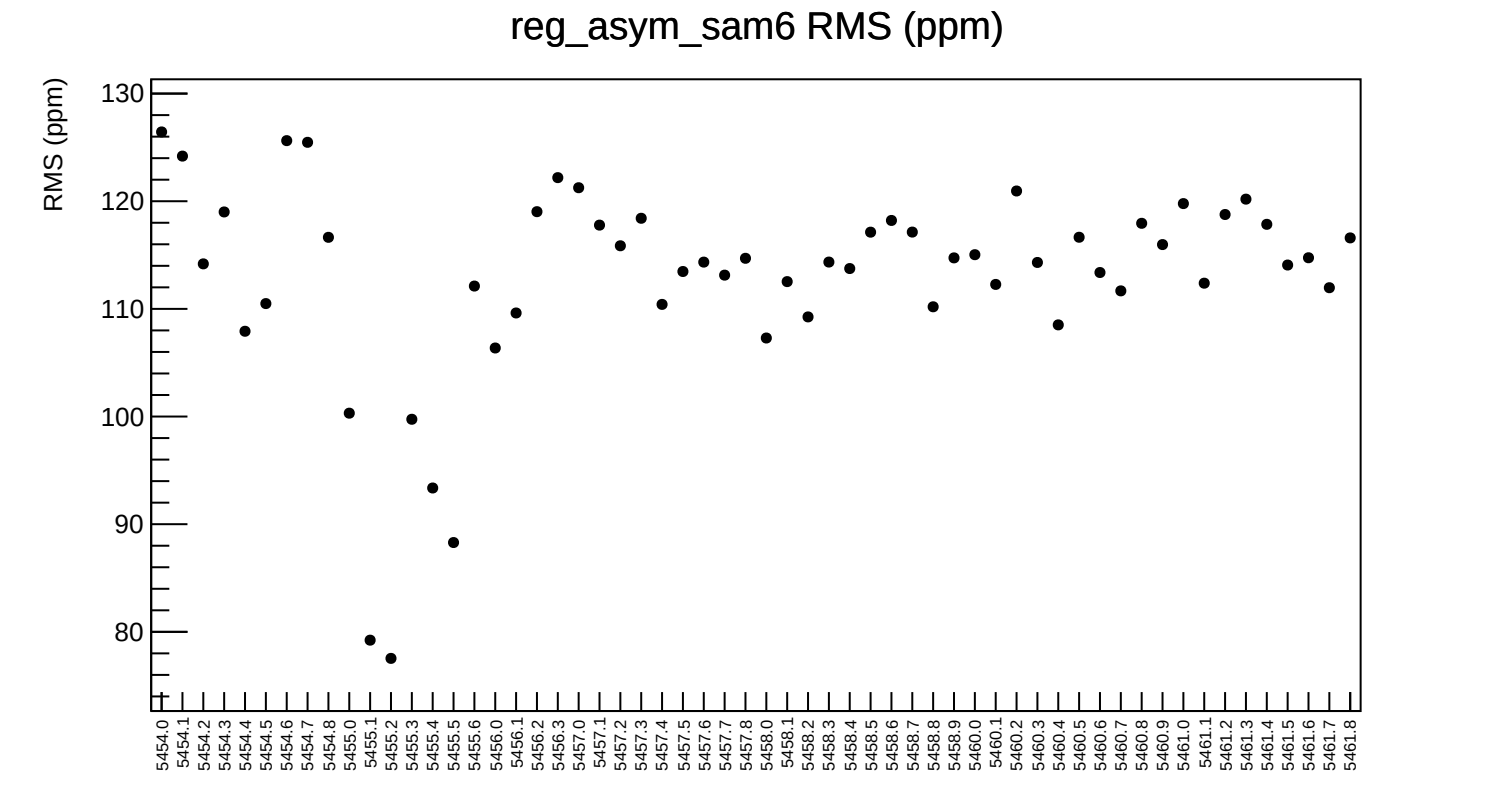

reg_asym_sam5
χ² / ndf 51.36 / 57
p0 72.15 ± 111.9

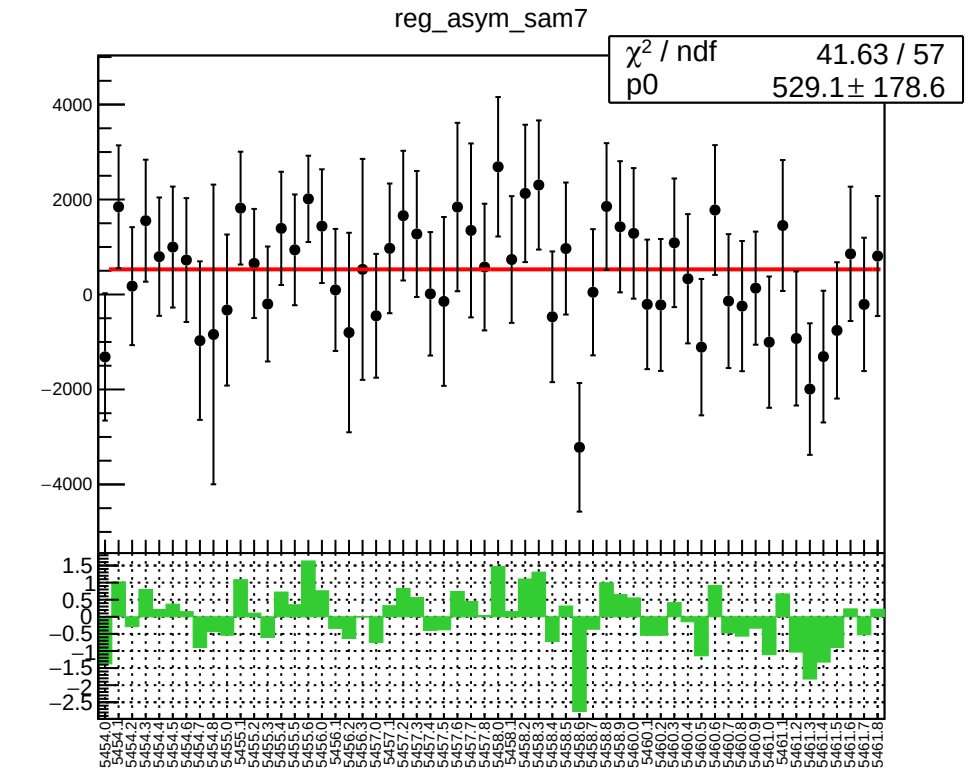

1D pull distribution
Mean 0.007717 ± 0.1236
Std Dev 0.941 ± 0.08737
Underflow 0
Overflow 0
χ² / ndf 5.873 / 5
Constant 9.915 ± 1.941
Mean 0.07382 ± 0.20622
Sigma 1.211 ± 0.246

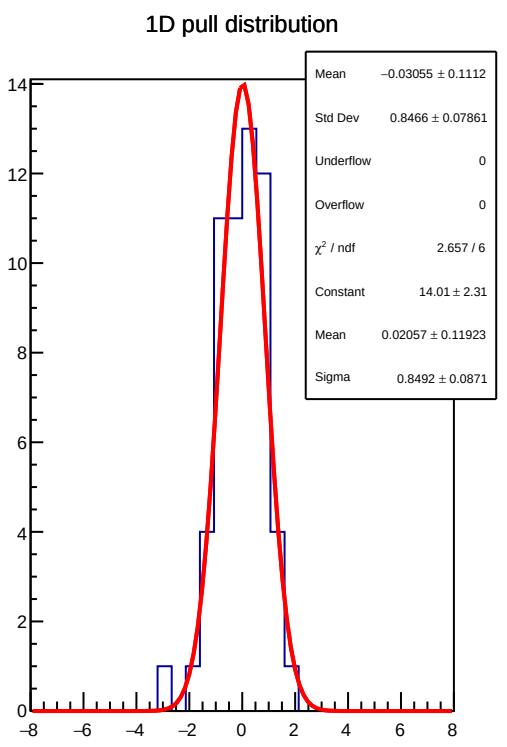

reg_asym_sam5 RMS (ppm)
RMS (ppm)
90
88
86
84
82
80
5454.0
5454.1
5454.2
5454.3
5454.4
5454.5
5454.6
5454.7
5454.8
5455.0
5455.1
5455.2
5455.3
5455.4
5455.5
5455.6
5456.0
5456.1
5456.2
5456.3
5457.0
5457.1
5457.2
5457.3
5457.4
5457.5
5457.6
5457.7
5457.8
5458.0
5458.1
5458.2
5458.3
5458.4
5458.5
5458.6
5458.7
5458.8
5458.9
5460.0
5460.1
5460.2
5460.3
5460.4
5460.5
5460.6
5460.7
5460.8
5460.9
5461.0
5461.1
5461.2
5461.3
5461.4
5461.5
5461.6
5461.7
5461.8

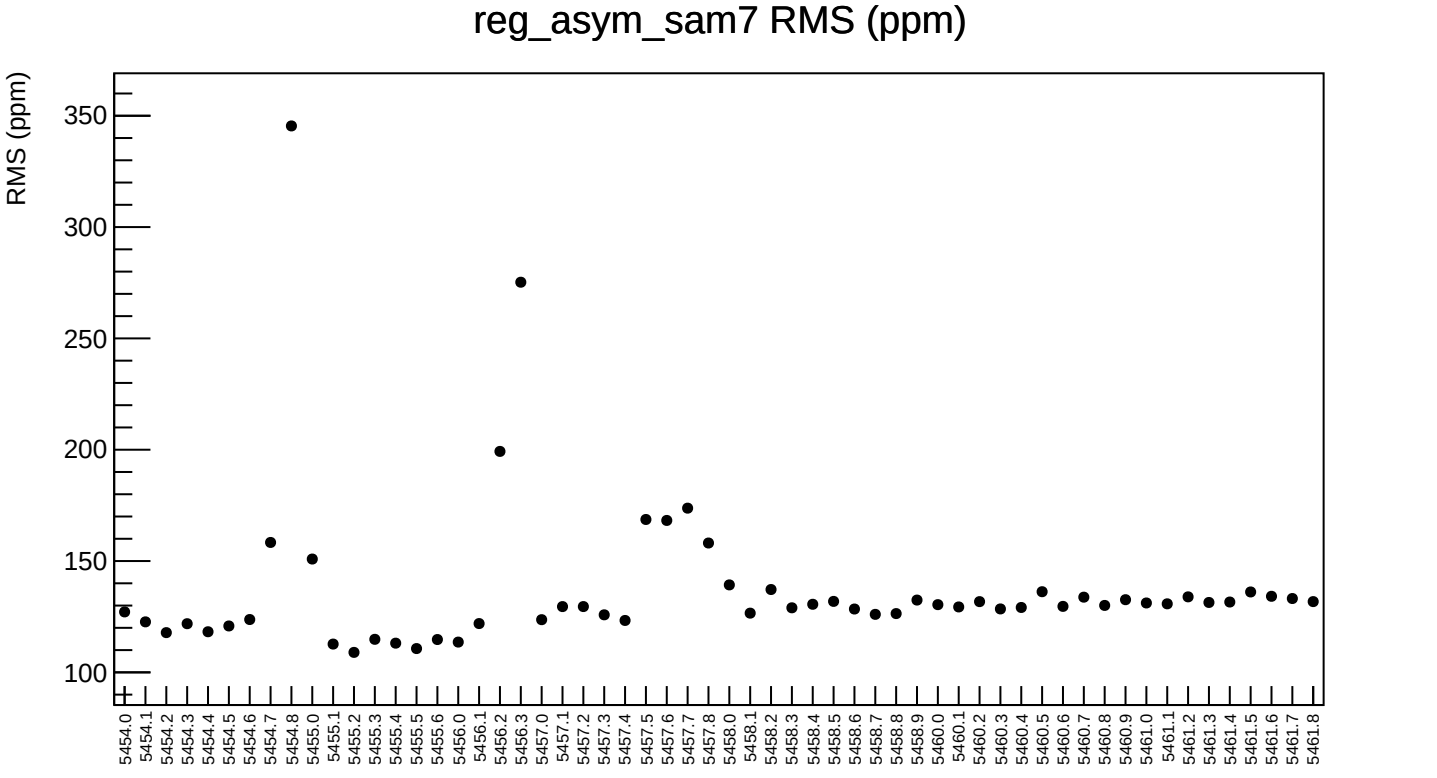

reg_asym_sam6
χ² / ndf 49.83 / 57
p0 209.1 ± 150.7

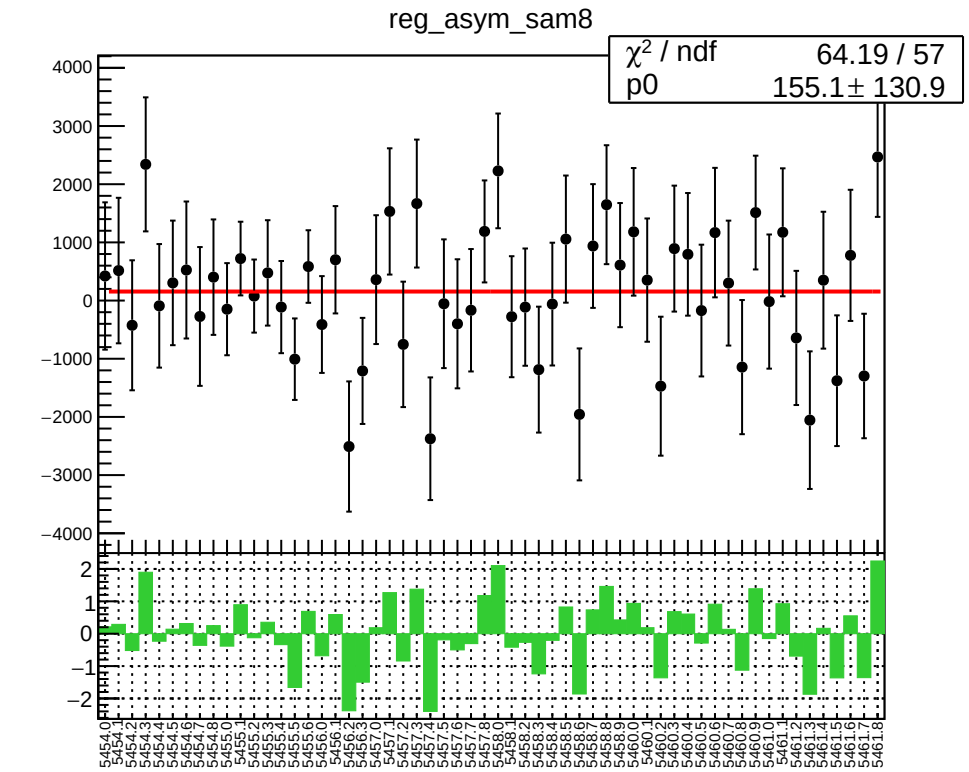

1D pull distribution
Mean −0.01613 ± 0.1217
Std Dev 0.9267 ± 0.08604
Underflow 0
Overflow 0
χ² / ndf 5.96 / 5
Constant 12.63 ± 2.49
Mean −0.1421 ± 0.1741
Sigma 0.933 ± 0.179

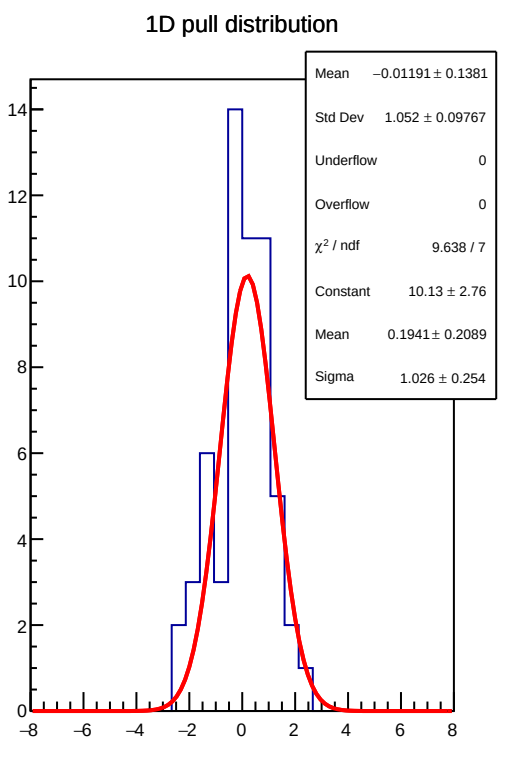

reg_asym_sam6 RMS (ppm)
RMS (ppm)
130
120
110
100
90
80
5454.0
5454.1
5454.2
5454.3
5454.4
5454.5
5454.6
5454.7
5454.8
5455.0
5455.1
5455.2
5455.3
5455.4
5455.5
5455.6
5456.0
5456.1
5456.2
5456.3
5457.0
5457.1
5457.2
5457.3
5457.4
5457.5
5457.6
5457.7
5457.8
5458.0
5458.1
5458.2
5458.3
5458.4
5458.5
5458.6
5458.7
5458.8
5458.9
5460.0
5460.1
5460.2
5460.3
5460.4
5460.5
5460.6
5460.7
5460.8
5460.9
5461.0
5461.1
5461.2
5461.3
5461.4
5461.5
5461.6
5461.7
5461.8

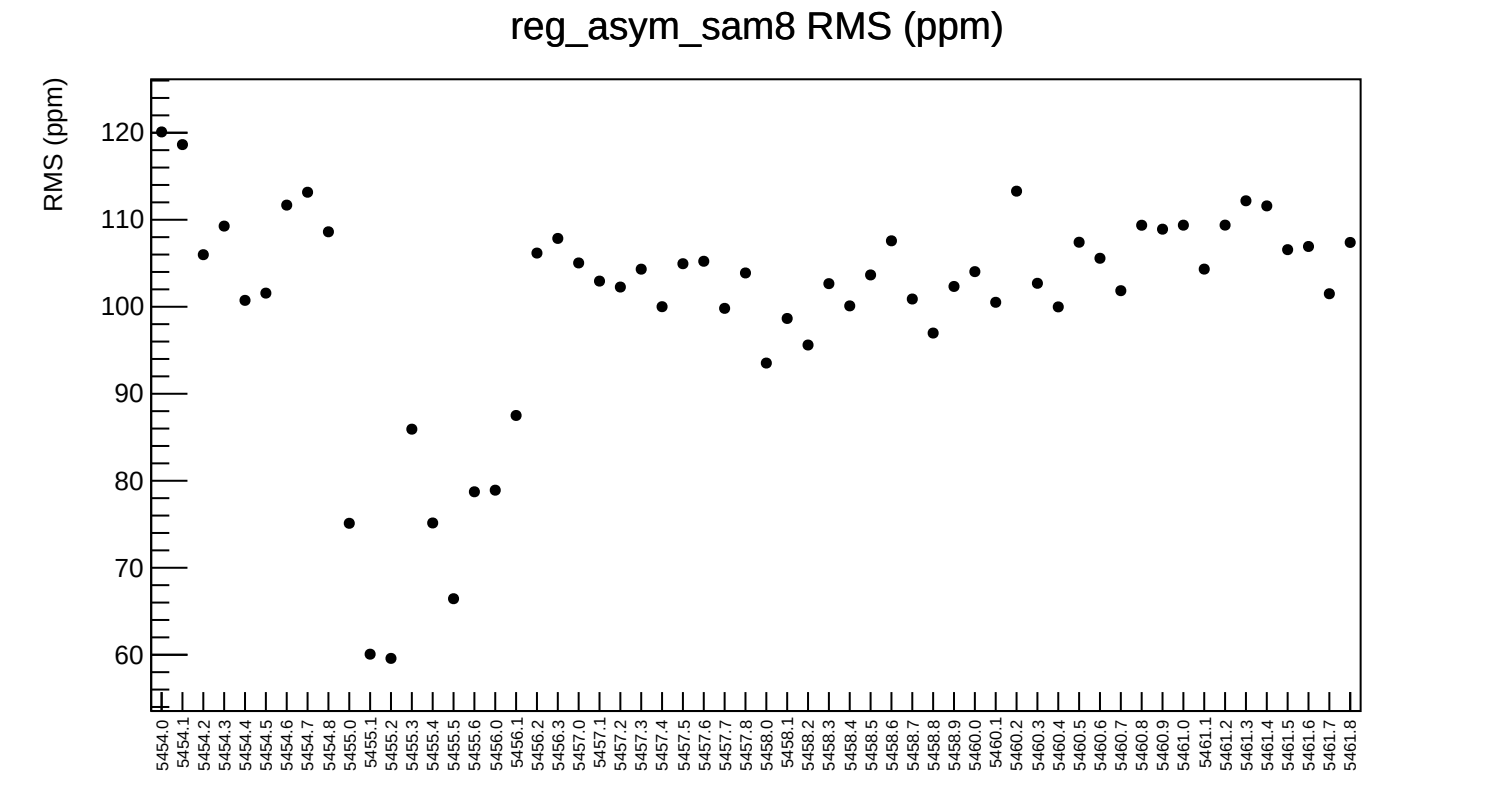

reg_asym_sam7
χ² / ndf 41.63 / 57
p0 529.1± 178.6


1D pull distribution
Mean −0.03055 ± 0.1112
Std Dev 0.8466 ± 0.07861
Underflow 0
Overflow 0
χ² / ndf 2.657 / 6
Constant 14.01 ± 2.31
Mean 0.02057 ± 0.11923
Sigma 0.8492 ± 0.0871


reg_asym_sam7 RMS (ppm)
RMS (ppm)
350
300
250
200
150
100
5454.0
5454.1
5454.2
5454.3
5454.4
5454.5
5454.6
5454.7
5454.8
5455.0
5455.1
5455.2
5455.3
5455.4
5455.5
5455.6
5456.0
5456.1
5456.2
5456.3
5457.0
5457.1
5457.2
5457.3
5457.4
5457.5
5457.6
5457.7
5457.8
5458.0
5458.1
5458.2
5458.3
5458.4
5458.5
5458.6
5458.7
5458.8
5458.9
5460.0
5460.1
5460.2
5460.3
5460.4
5460.5
5460.6
5460.7
5460.8
5460.9
5461.0
5461.1
5461.2
5461.3
5461.4
5461.5
5461.6
5461.7
5461.8


reg_asym_sam8
χ² / ndf 64.19 / 57
p0 155.1 ± 130.9


1D pull distribution
Mean −0.01191 ± 0.1381
Std Dev 1.052 ± 0.09767
Underflow 0
Overflow 0
χ² / ndf 9.638 / 7
Constant 10.13 ± 2.76
Mean 0.1941 ± 0.2089
Sigma 1.026 ± 0.254


reg_asym_sam8 RMS (ppm)
RMS (ppm)
120
110
100
90
80
70
60
5454.0
5454.1
5454.2
5454.3
5454.4
5454.5
5454.6
5454.7
5454.8
5455.0
5455.1
5455.2
5455.3
5455.4
5455.5
5455.6
5456.0
5456.1
5456.2
5456.3
5457.0
5457.1
5457.2
5457.3
5457.4
5457.5
5457.6
5457.7
5457.8
5458.0
5458.1
5458.2
5458.3
5458.4
5458.5
5458.6
5458.7
5458.8
5458.9
5460.0
5460.1
5460.2
5460.3
5460.4
5460.5
5460.6
5460.7
5460.8
5460.9
5461.0
5461.1
5461.2
5461.3
5461.4
5461.5
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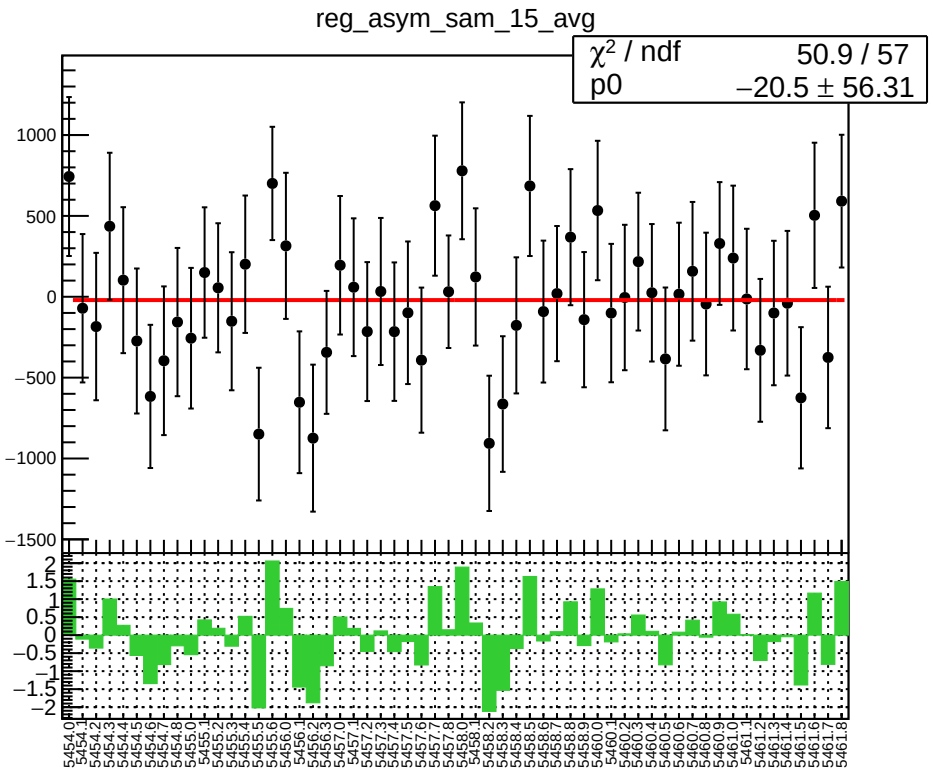
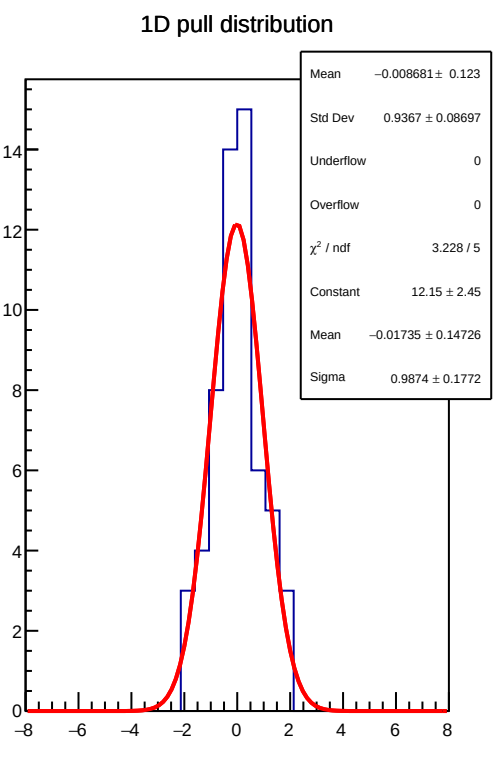
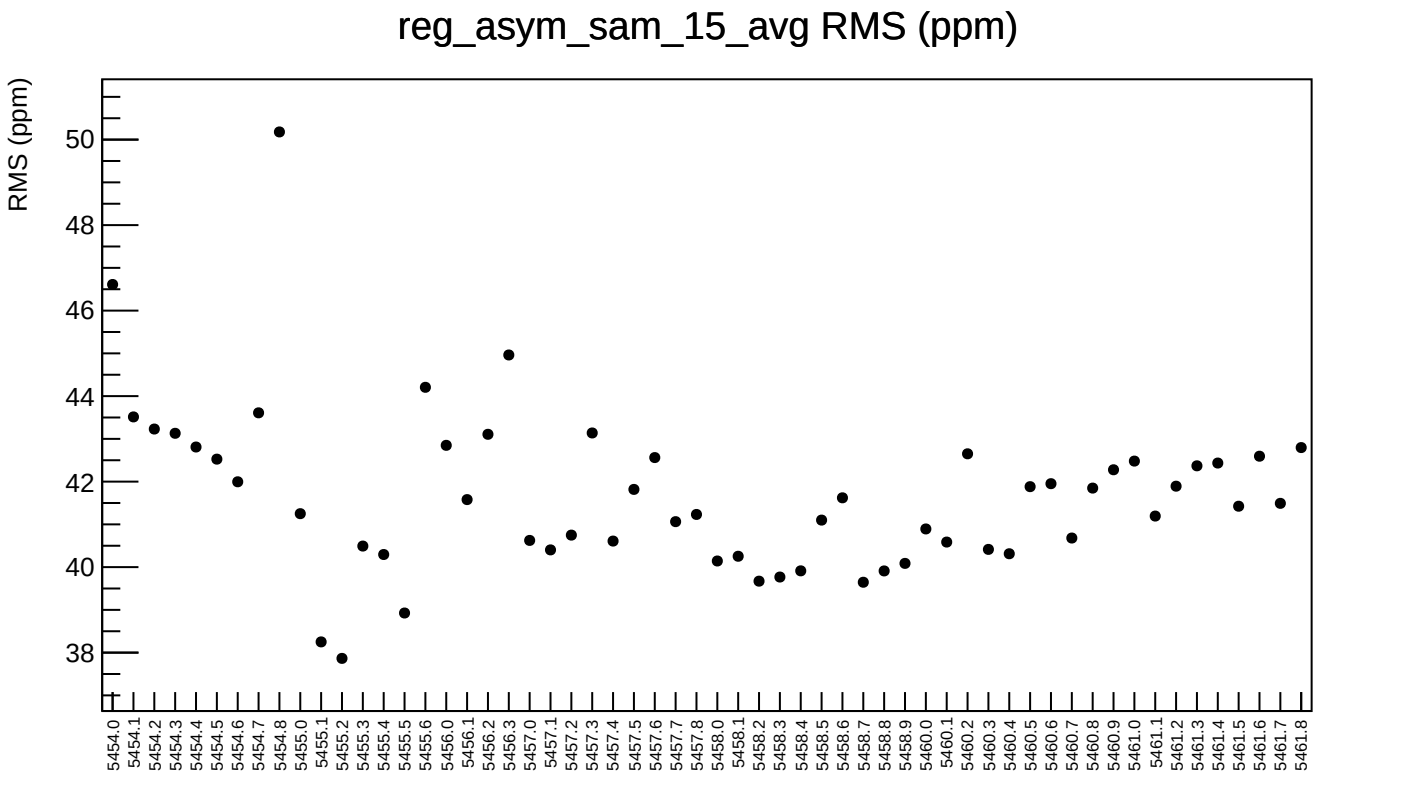
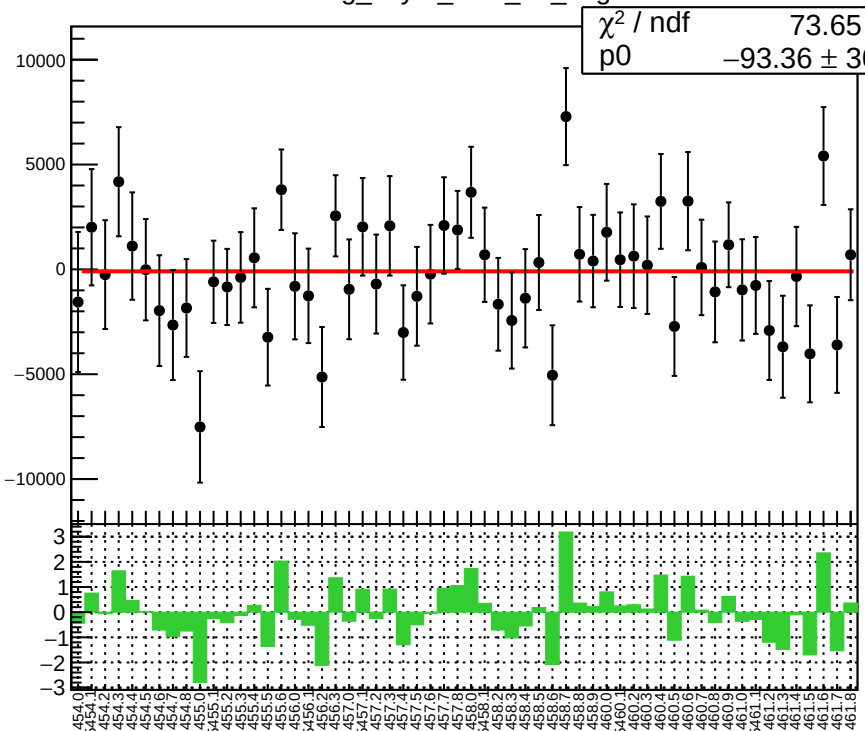
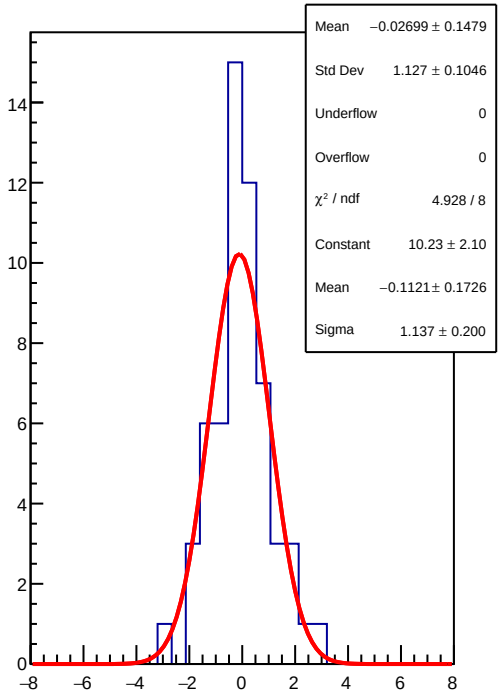
5461.7
5461.8

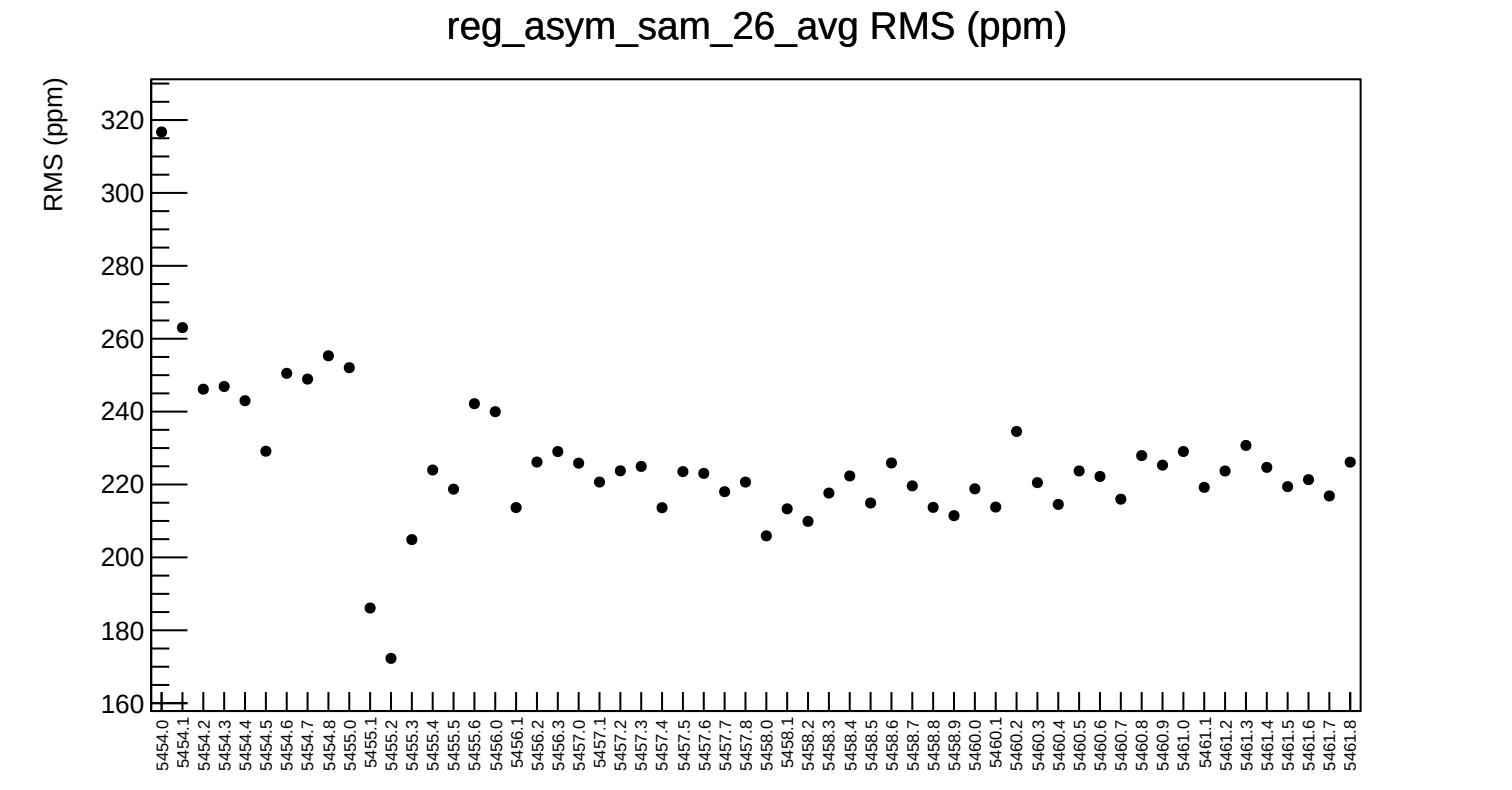

reg_asym_sam_15_avg
χ² / ndf 50.9 / 57
p0 −20.5 ± 56.31
1000
500
0
−500
−1000
−1500
2
1.5
1
0.5
0
−0.5
−1
−1.5
−2
5454.0
5454.1
5454.2
5454.3
5454.4
5454.5
5454.6
5454.7
5454.8
5455.0
5455.1
5455.2
5455.3
5455.4
5455.5
5455.6
5455.7
5456.1
5456.2
5456.3
5456.4
5457.0
5457.1
5457.2
5457.3
5457.4
5457.5
5457.6
5457.7
5457.8
5458.0
5458.1
5458.2
5458.3
5458.4
5458.5
5458.6
5458.7
5458.8
5458.9
5460.0
5460.1
5460.2
5460.3
5460.4
5460.5
5460.6
5460.7
5460.8
5461.0
5461.1
5461.2
5461.3
5461.4
5461.5
5461.6
5461.7
5461.8

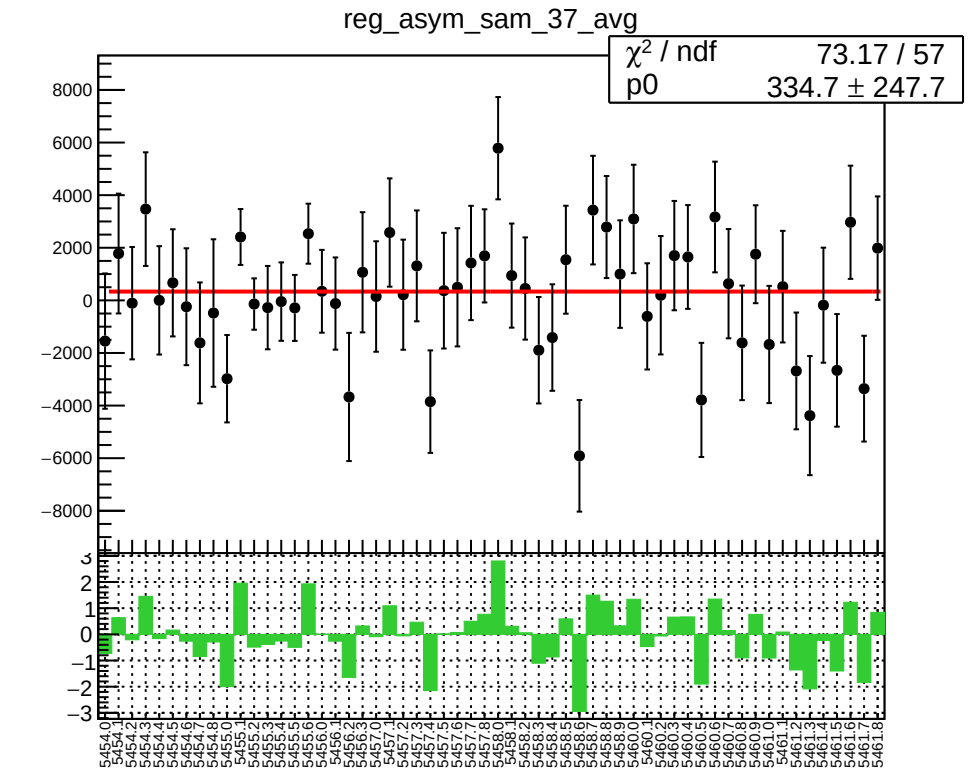

1D pull distribution
Mean −0.008681 ± 0.123
Std Dev 0.9367 ± 0.08697
Underflow 0
Overflow 0
χ² / ndf 3.228 / 5
Constant 12.15 ± 2.45
Mean −0.01735 ± 0.14726
Sigma 0.9874 ± 0.1772
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

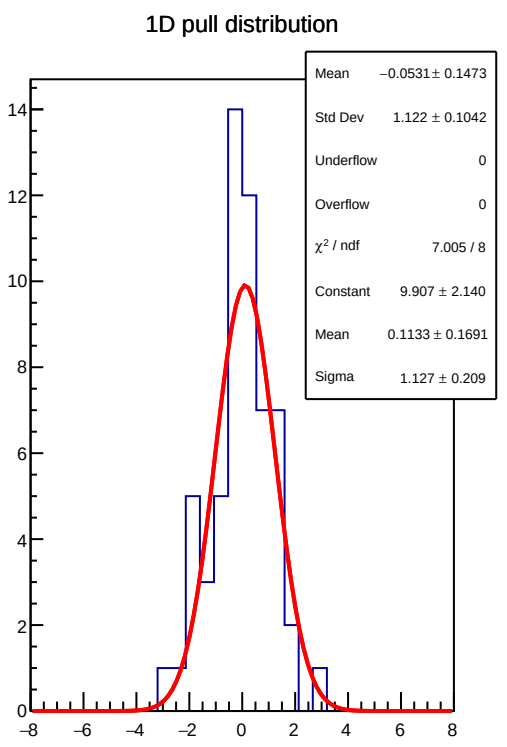

reg_asym_sam_15_avg RMS (ppm)
RMS (ppm)
50
48
46
44
42
40
38
5454.0
5454.1
5454.2
5454.3
5454.4
5454.5
5454.6
5454.7
5454.8
5455.0
5455.1
5455.2
5455.3
5455.4
5455.5
5455.6
5456.0
5456.1
5456.2
5456.3
5457.0
5457.1
5457.2
5457.3
5457.4
5457.5
5457.6
5457.7
5457.8
5458.0
5458.1
5458.2
5458.3
5458.4
5458.5
5458.6
5458.7
5458.8
5458.9
5460.0
5460.1
5460.2
5460.3
5460.4
5460.5
5460.6
5460.7
5460.8
5460.9
5461.0
5461.1
5461.2
5461.3
5461.4
5461.5
5461.6
5461.7
5461.8

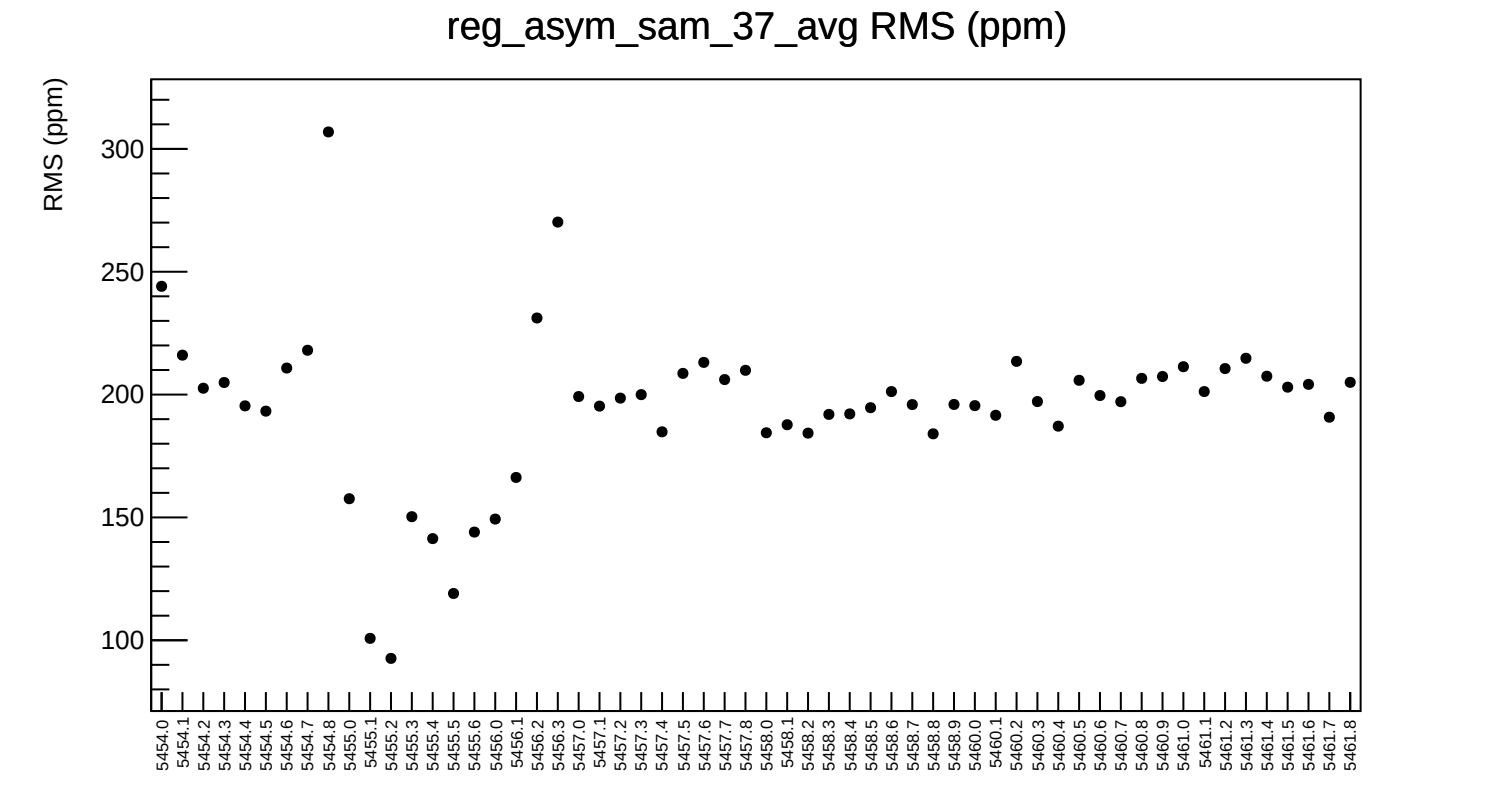

reg_asym_sam_26_avg
χ² / ndf 73.65 / 57
p0 −93.36 ± 302.5
10000
5000
0
−5000
−10000
3
2
1
0
−1
−2
−3

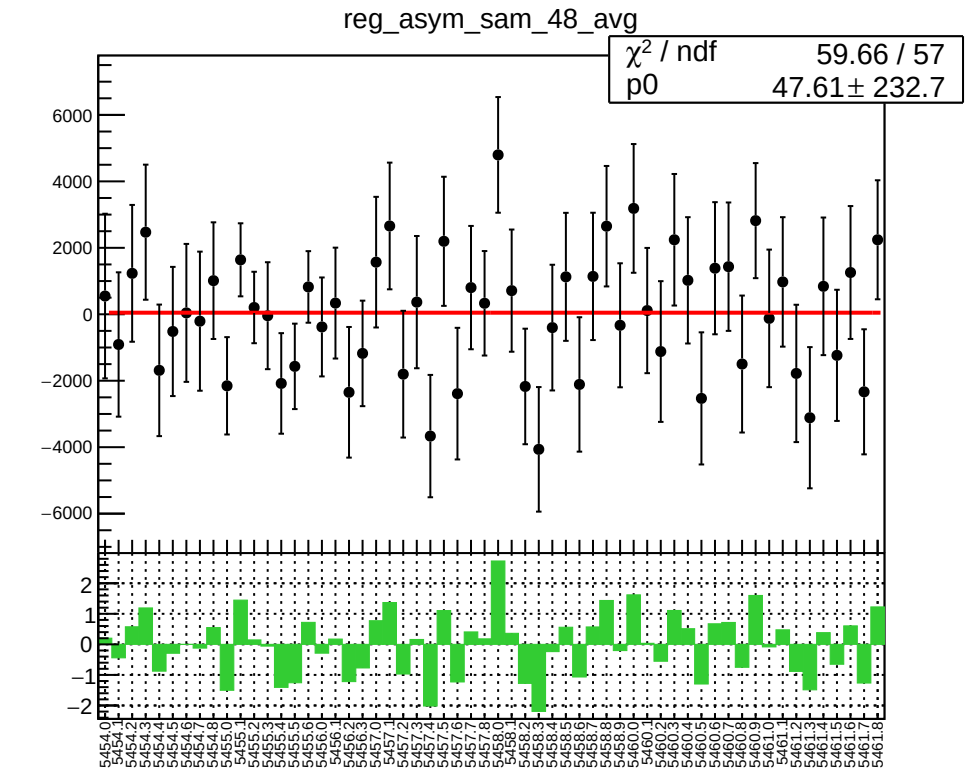

1D pull distribution
Mean −0.02699 ± 0.1479
Std Dev 1.127 ± 0.1046
Underflow 0
Overflow 0
χ² / ndf 4.928 / 8
Constant 10.23 ± 2.10
Mean −0.1121 ± 0.1726
Sigma 1.137 ± 0.200
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

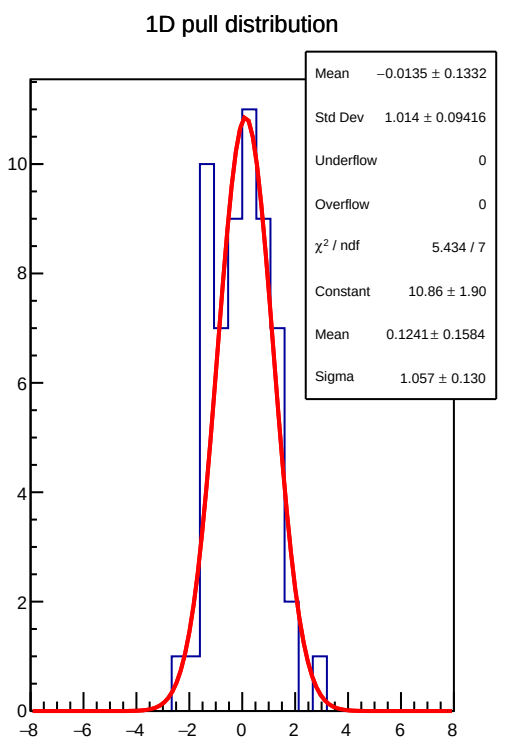

reg_asym_sam_26_avg RMS (ppm)
RMS (ppm)
320
300
280
260
240
220
200
180
160
5454.0
5454.1
5454.2
5454.3
5454.4
5454.5
5454.6
5454.7
5454.8
5455.0
5455.1
5455.2
5455.3
5455.4
5455.5
5455.6
5456.0
5456.1
5456.2
5456.3
5457.0
5457.1
5457.2
5457.3
5457.4
5457.5
5457.6
5457.7
5457.8
5458.0
5458.1
5458.2
5458.3
5458.4
5458.5
5458.6
5458.7
5458.8
5458.9
5460.0
5460.1
5460.2
5460.3
5460.4
5460.5
5460.6
5460.7
5460.8
5460.9
5461.0
5461.1
5461.2
5461.3
5461.4
5461.5
5461.6
5461.7
5461.8

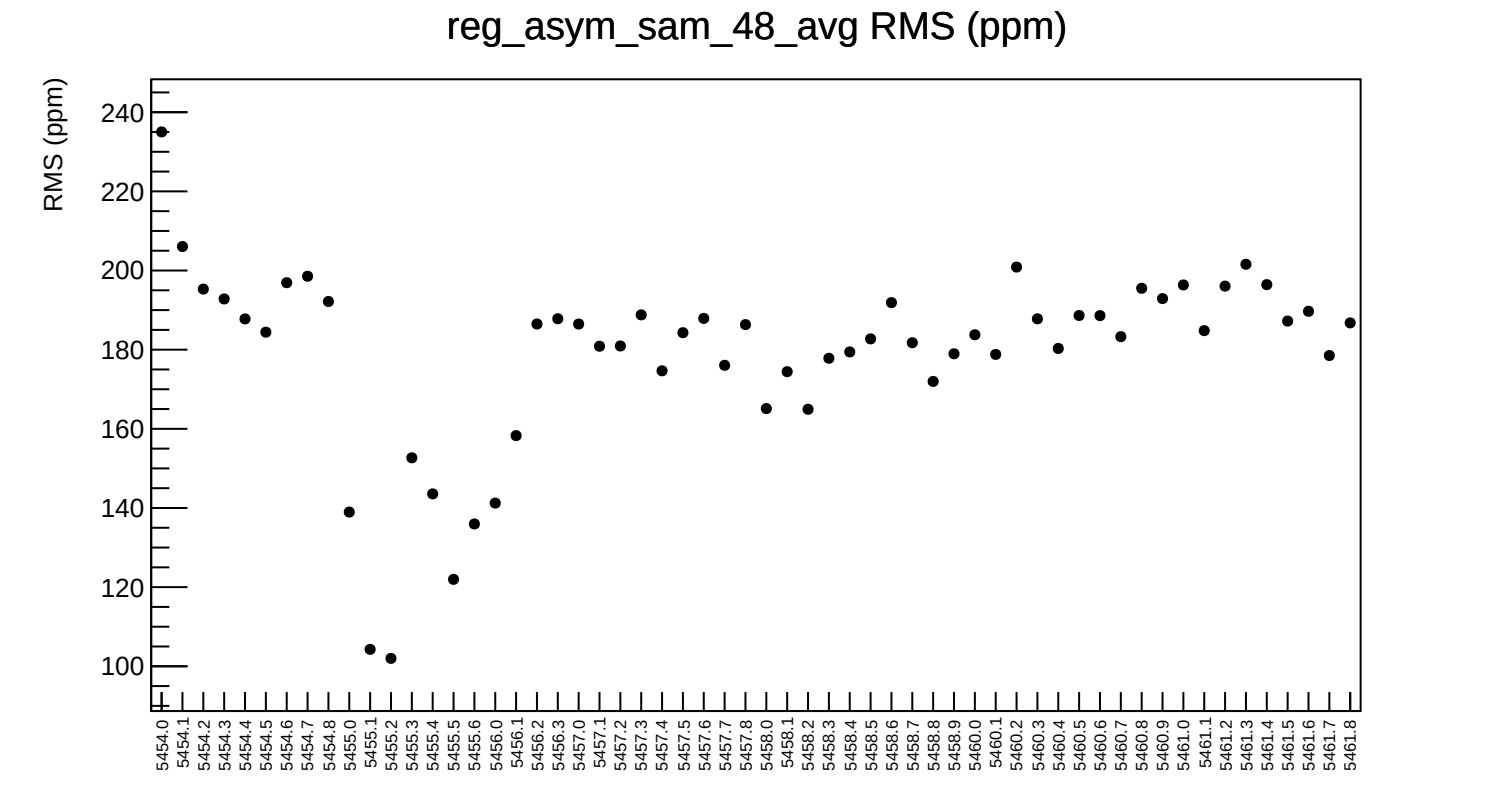

reg_asym_sam_37_avg
χ² / ndf 73.17 / 57
p0 334.7 ± 247.7

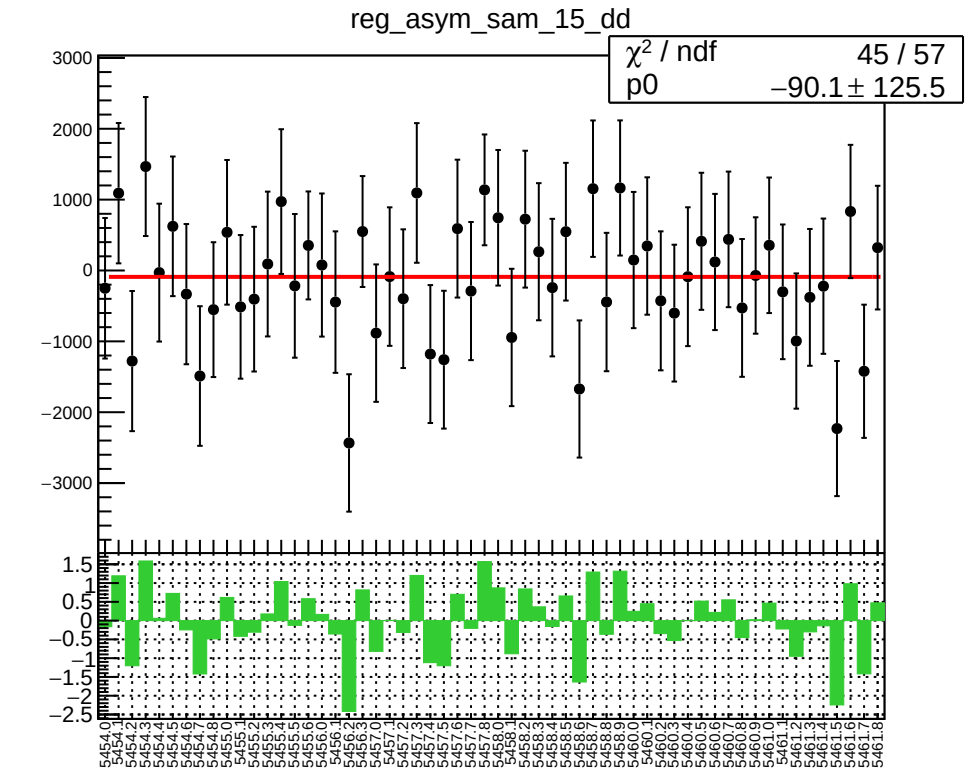

1D pull distribution
Mean −0.0531± 0.1473
Std Dev 1.122 ± 0.1042
Underflow 0
Overflow 0
χ² / ndf 7.005 / 8
Constant 9.907 ± 2.140
Mean 0.1133 ± 0.1691
Sigma 1.127 ± 0.209

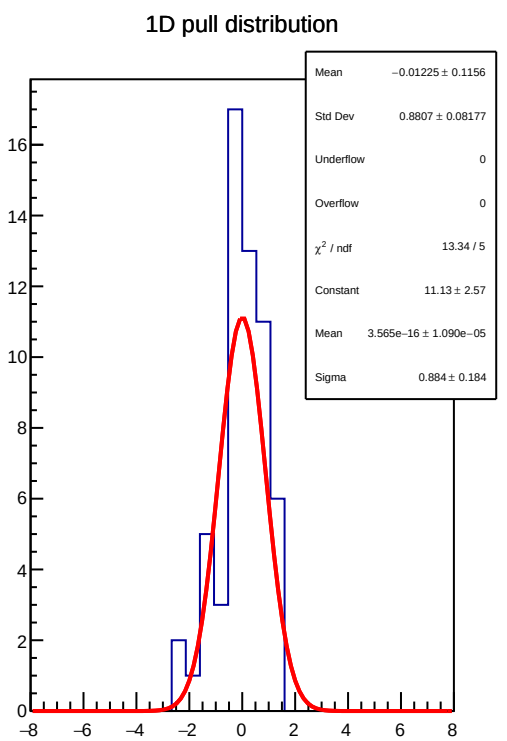

reg_asym_sam_37_avg RMS (ppm)
RMS (ppm)
300
250
200
150
100
5454.0
5454.1
5454.2
5454.3
5454.4
5454.5
5454.6
5454.7
5454.8
5455.0
5455.1
5455.2
5455.3
5455.4
5455.5
5455.6
5456.0
5456.1
5456.2
5456.3
5457.0
5457.1
5457.2
5457.3
5457.4
5457.5
5457.6
5457.7
5457.8
5458.0
5458.1
5458.2
5458.3
5458.4
5458.5
5458.6
5458.7
5458.8
5458.9
5460.0
5460.1
5460.2
5460.3
5460.4
5460.5
5460.6
5460.7
5460.8
5460.9
5461.0
5461.1
5461.2
5461.3
5461.4
5461.5
5461.6
5461.7
5461.8

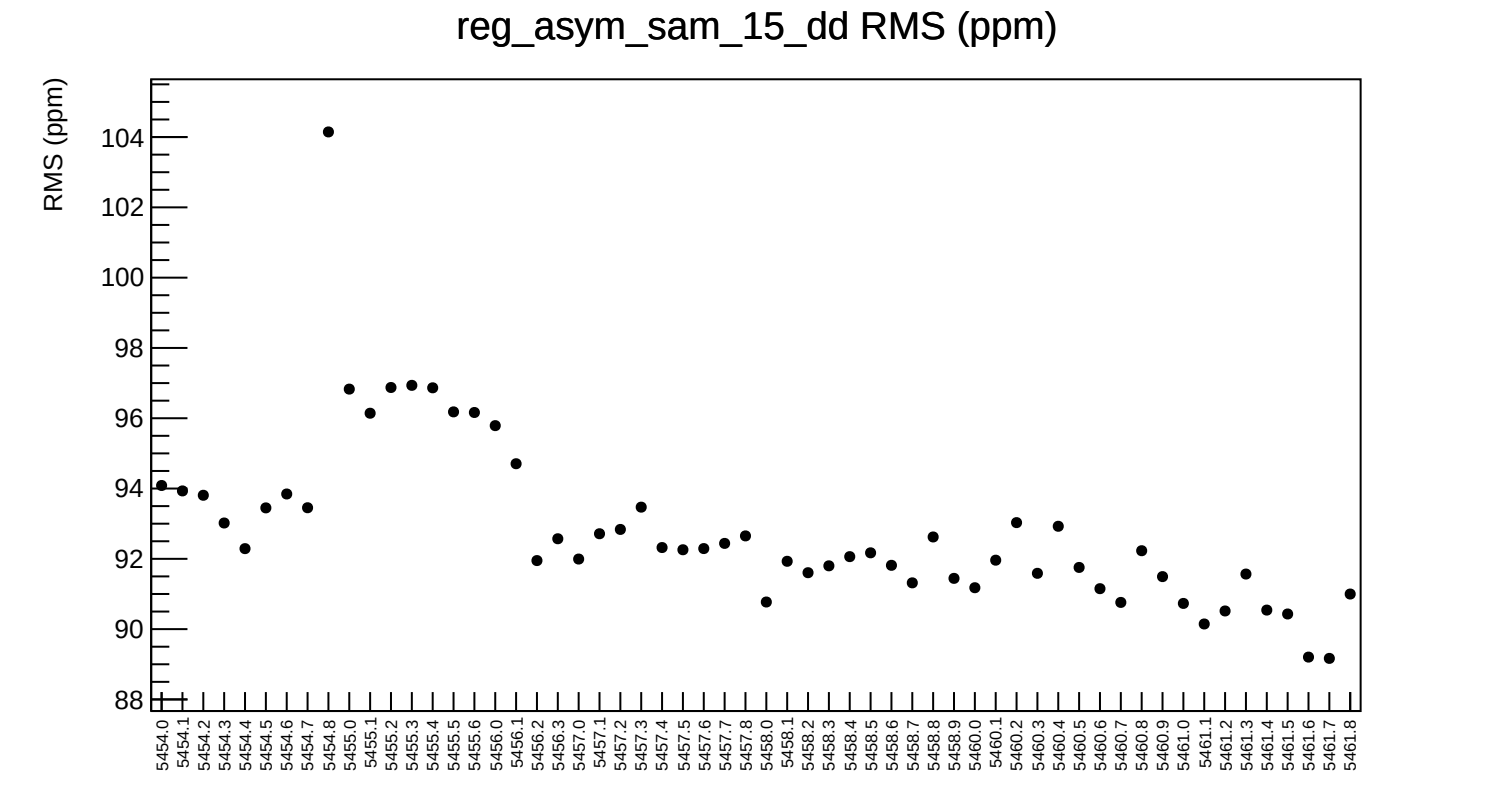

reg_asym_sam_48_avg
χ² / ndf 59.66 / 57
p0 47.61± 232.7

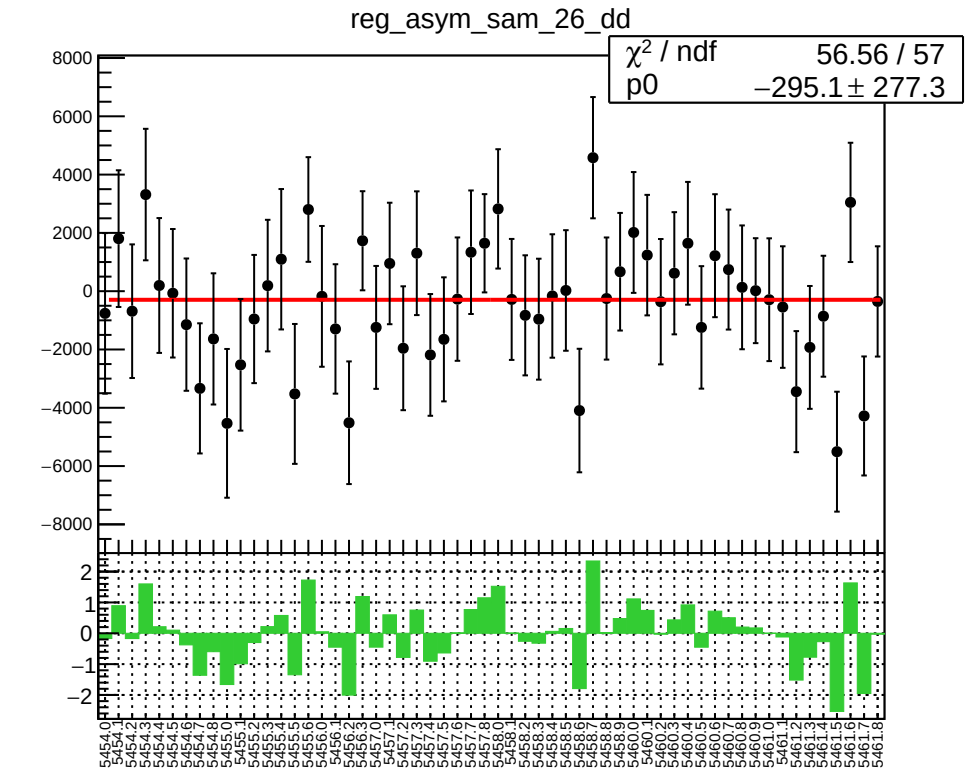

1D pull distribution
Mean −0.0135 ± 0.1332
Std Dev 1.014 ± 0.09416
Underflow 0
Overflow 0
χ² / ndf 5.434 / 7
Constant 10.86 ± 1.90
Mean 0.1241± 0.1584
Sigma 1.057 ± 0.130

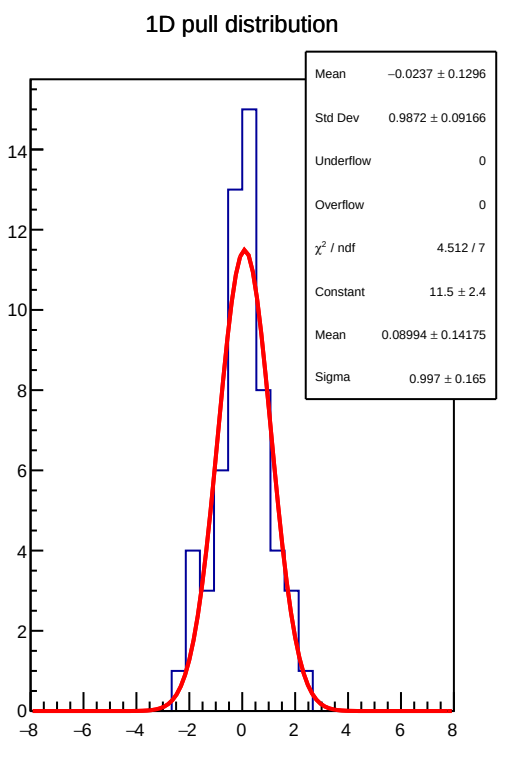

reg_asym_sam_48_avg RMS (ppm)
RMS (ppm)
240
220
200
180
160
140
120
100
5454.0
5454.1
5454.2
5454.3
5454.4
5454.5
5454.6
5454.7
5454.8
5455.0
5455.1
5455.2
5455.3
5455.4
5455.5
5455.6
5456.0
5456.1
5456.2
5456.3
5457.0
5457.1
5457.2
5457.3
5457.4
5457.5
5457.6
5457.7
5457.8
5458.0
5458.1
5458.2
5458.3
5458.4
5458.5
5458.6
5458.7
5458.8
5458.9
5460.0
5460.1
5460.2
5460.3
5460.4
5460.5
5460.6
5460.7
5460.8
5460.9
5461.0
5461.1
5461.2
5461.3
5461.4
5461.5
5461.6
5461.7
5461.8

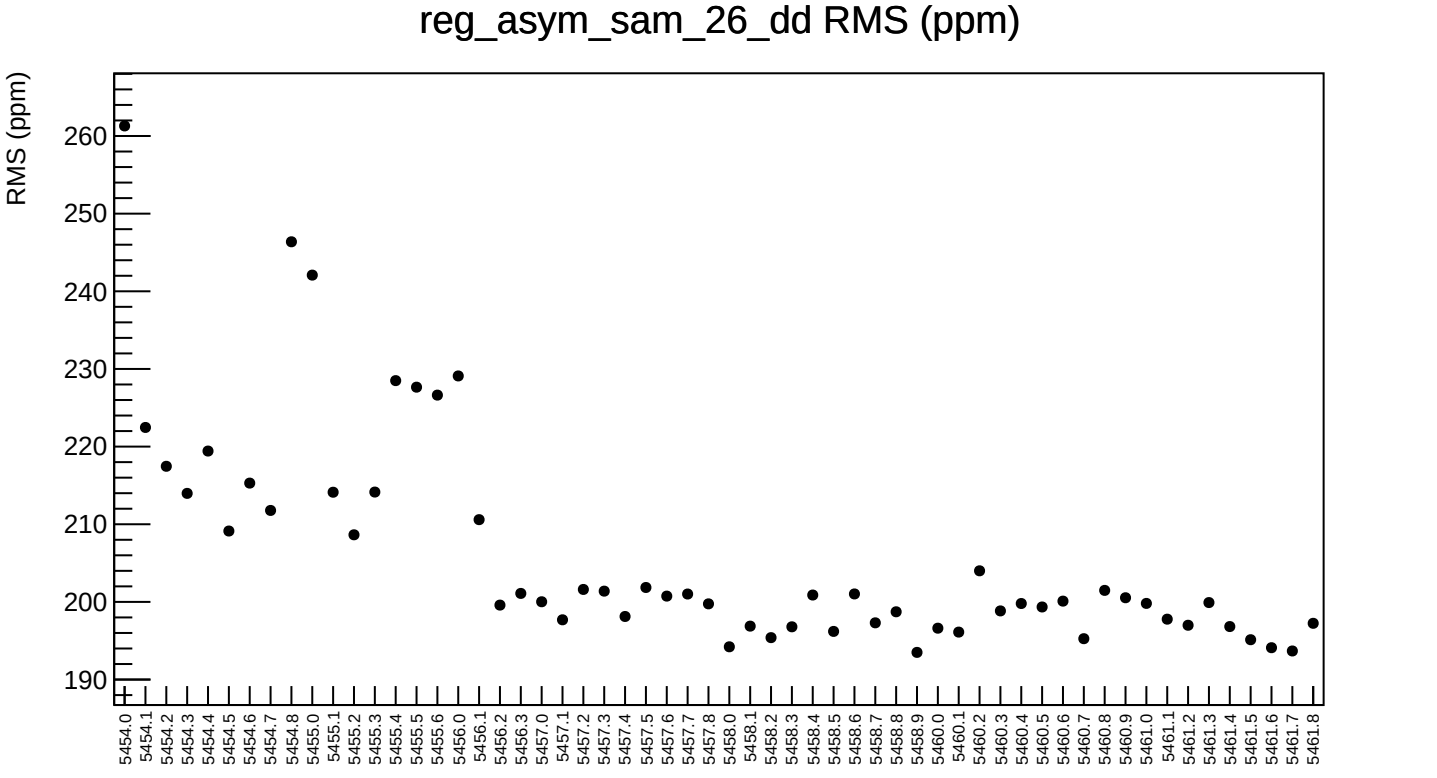

reg_asym_sam_15_dd
χ² / ndf 45 / 57
p0 −90.1 ± 125.5

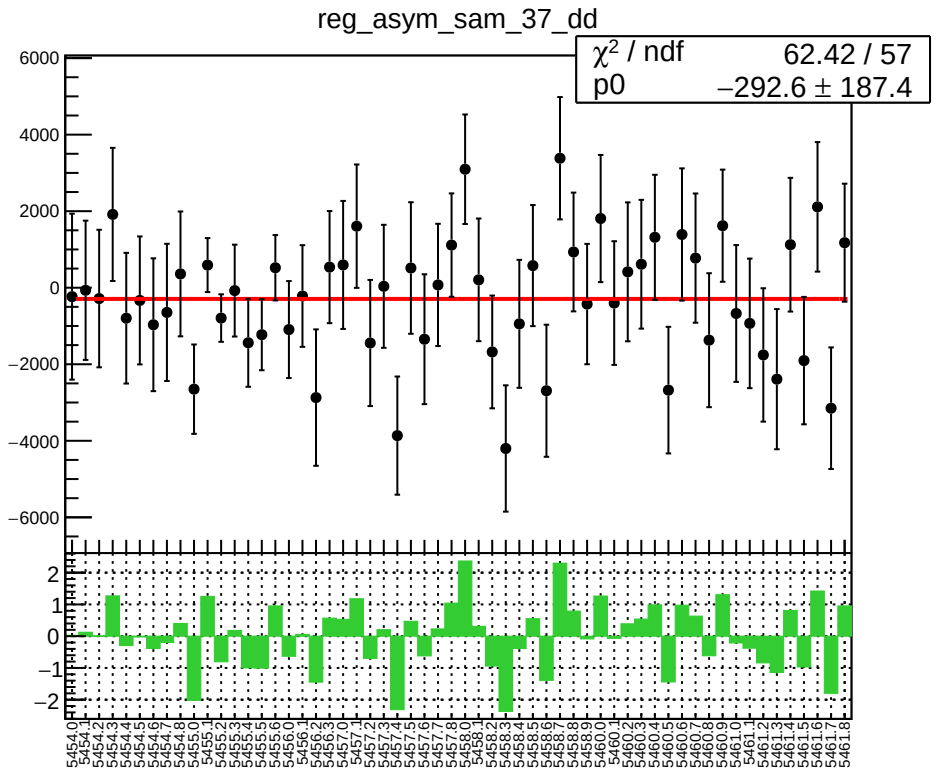

1D pull distribution
Mean −0.01225 ± 0.1156
Std Dev 0.8807 ± 0.08177
Underflow 0
Overflow 0
χ² / ndf 13.34 / 5
Constant 11.13 ± 2.57
Mean 3.565e−16 ± 1.090e−05
Sigma 0.884 ± 0.184


reg_asym_sam_15_dd RMS (ppm)
RMS (ppm)
104
102
100
98
96
94
92
90
88
5454.0
5454.1
5454.2
5454.3
5454.4
5454.5
5454.6
5454.7
5454.8
5455.0
5455.1
5455.2
5455.3
5455.4
5455.5
5455.6
5456.0
5456.1
5456.2
5456.3
5457.0
5457.1
5457.2
5457.3
5457.4
5457.5
5457.6
5457.7
5457.8
5458.0
5458.1
5458.2
5458.3
5458.4
5458.5
5458.6
5458.7
5458.8
5458.9
5460.0
5460.1
5460.2
5460.3
5460.4
5460.5
5460.6
5460.7
5460.8
5460.9
5461.0
5461.1
5461.2
5461.3
5461.4
5461.5
5461.6
5461.7
5461.8


reg_asym_sam_26_dd
χ² / ndf 56.56 / 57
p0 −295.1 ± 277.3


1D pull distribution
Mean −0.0237 ± 0.1296
Std Dev 0.9872 ± 0.09166
Underflow 0
Overflow 0
χ² / ndf 4.512 / 7
Constant 11.5 ± 2.4
Mean 0.08994 ± 0.14175
Sigma 0.997 ± 0.165


reg_asym_sam_26_dd RMS (ppm)
RMS (ppm)
260
250
240
230
220
210
200
190
5454.0
5454.1
5454.2
5454.3
5454.4
5454.5
5454.6
5454.7
5454.8
5455.0
5455.1
5455.2
5455.3
5455.4
5455.5
5455.6
5456.0
5456.1
5456.2
5456.3
5457.0
5457.1
5457.2
5457.3
5457.4
5457.5
5457.6
5457.7
5457.8
5458.0
5458.1
5458.2
5458.3
5458.4
5458.5
5458.6
5458.7
5458.8
5458.9
5460.0
5460.1
5460.2
5460.3
5460.4
5460.5
5460.6
5460.7
5460.8
5460.9
5461.0
5461.1
5461.2
5461.3
5461.4
5461.5
5461.6
5461.7
5461.8


reg_asym_sam_37_dd
χ² / ndf 62.42 / 57
p0 −292.6 ± 187.4
6000
4000
2000
0
−2000
−4000
−6000
2
1
0
−1
−2
5454.0
5454.1
5454.2
5454.3
5454.4
5454.5
5454.6
5454.7
5454.8
5455.0
5455.1
5455.2
5455.3
5455.4
5455.5
5455.6
5455.7
5456.0
5456.1
5456.2
5456.3
5456.4
5457.0
5457.1
5457.2
5457.3
5457.4
5457.5
5457.6
5457.7
5457.8
5458.0
5458.1
5458.2
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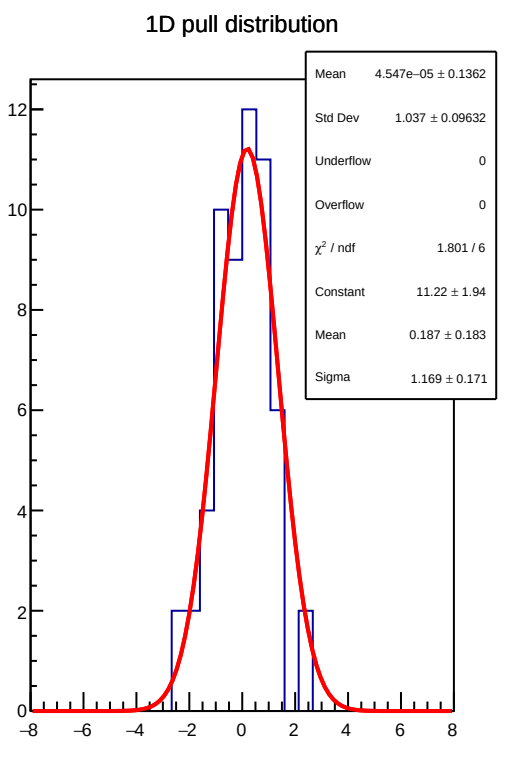
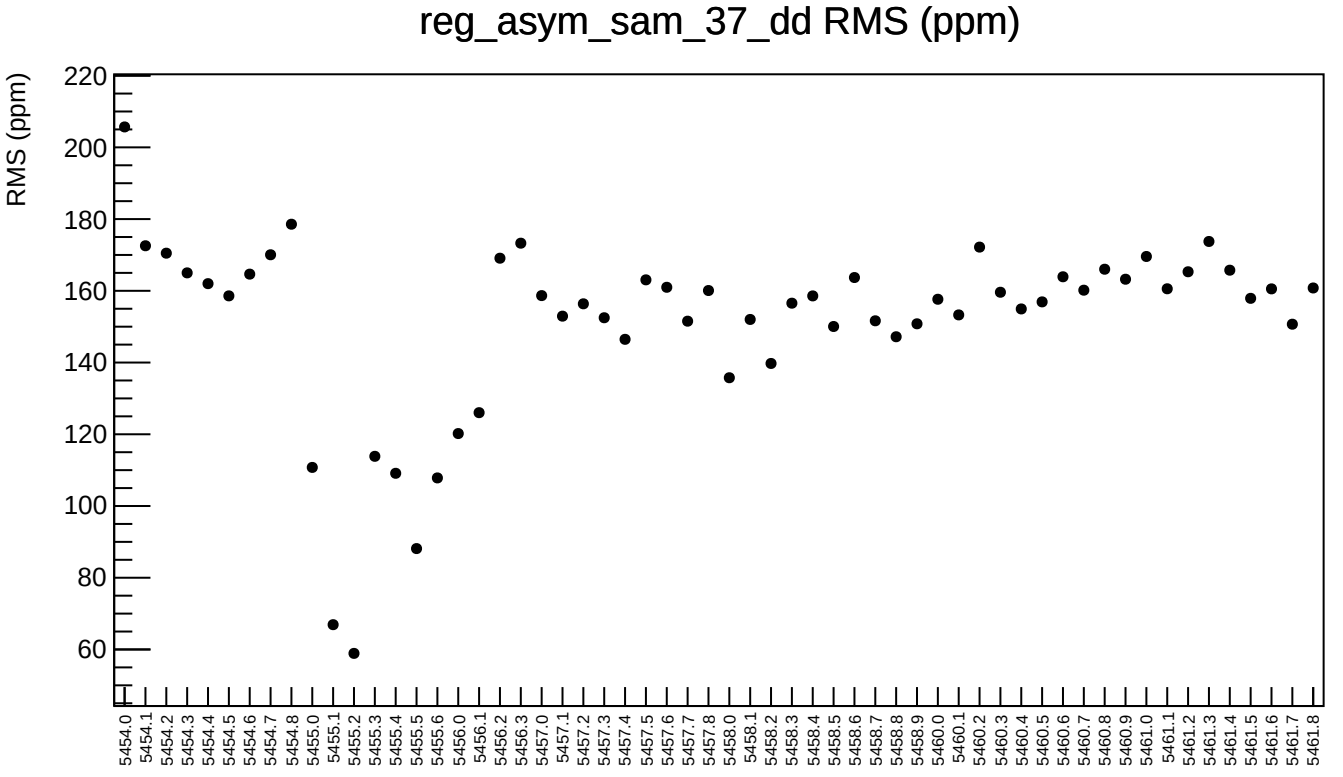
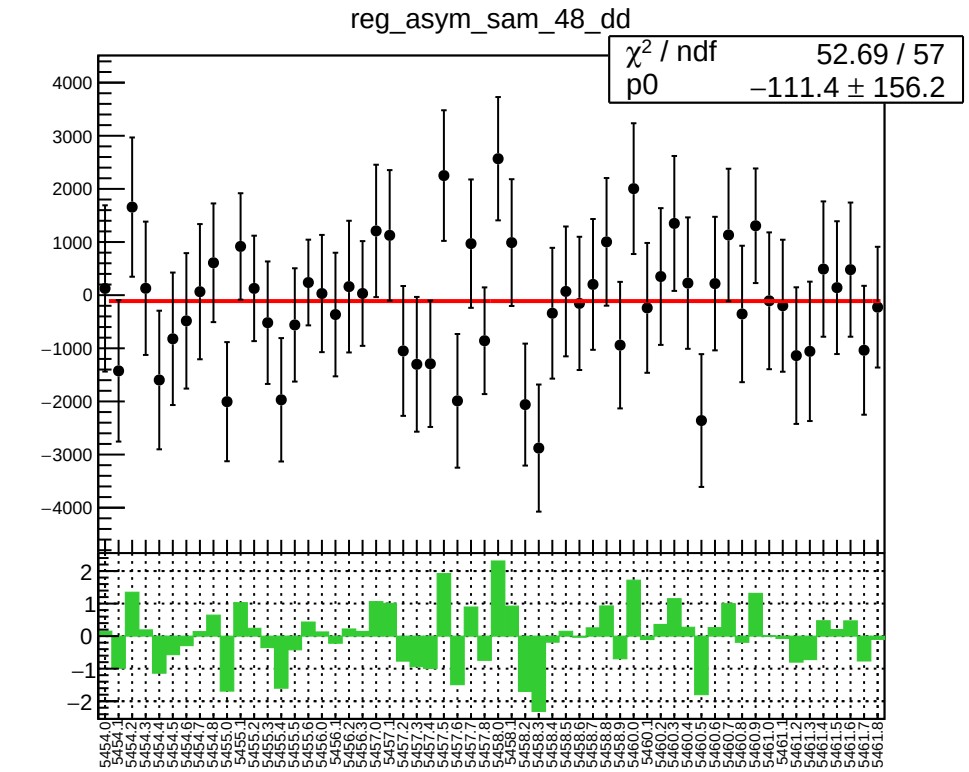
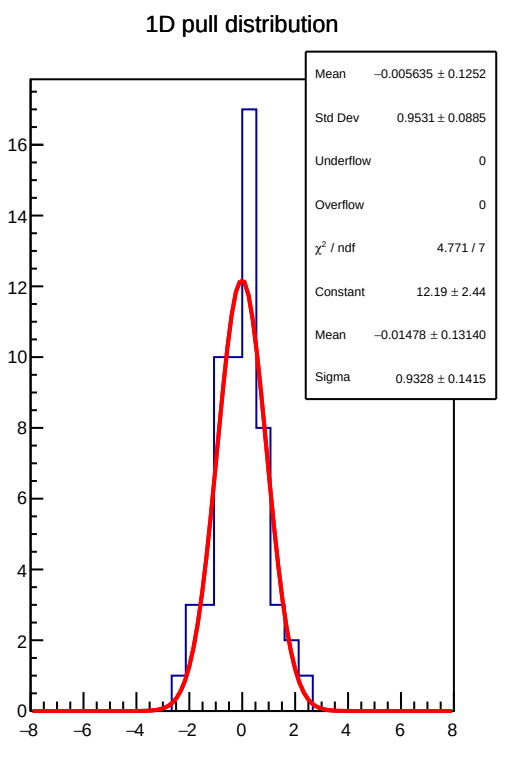
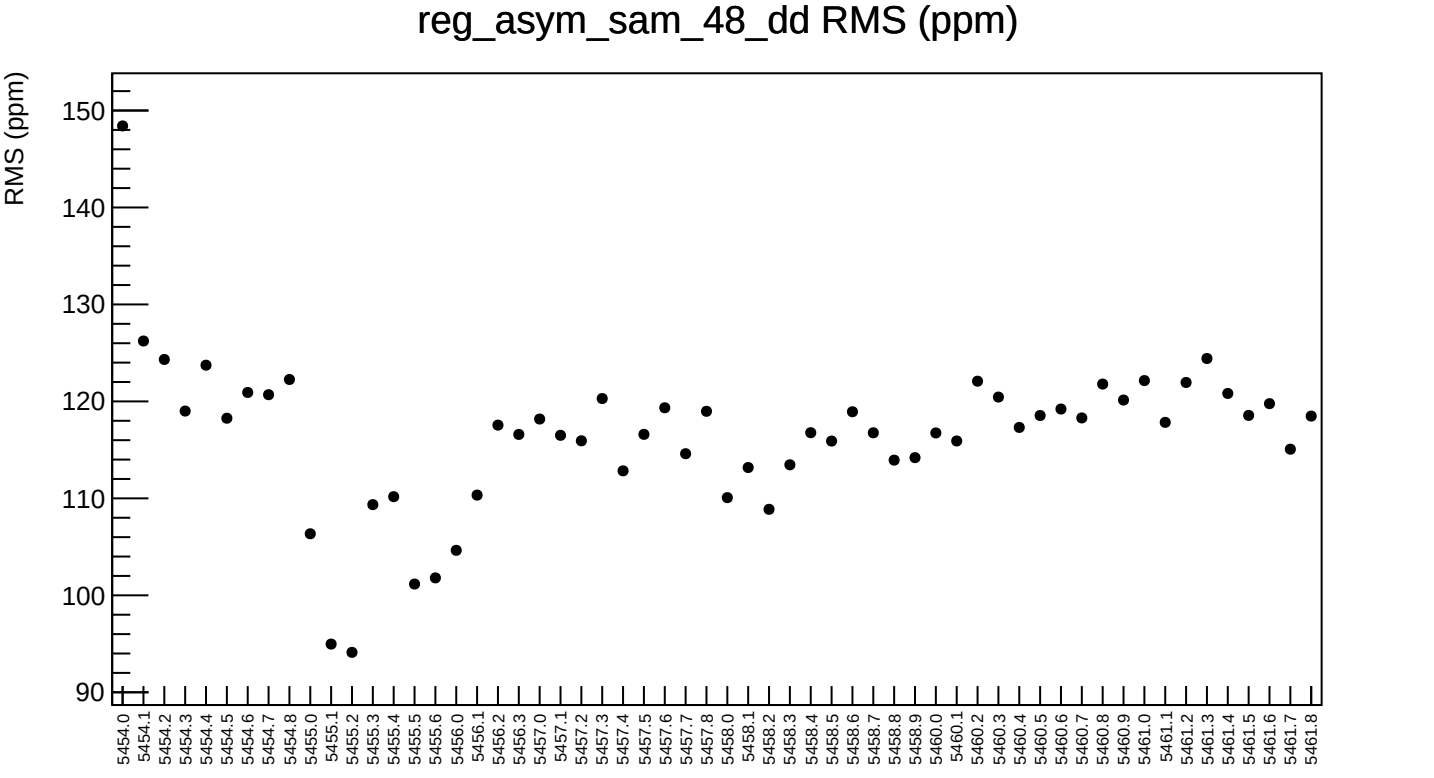
5458.6
5458.7
5458.8
5458.9
5460.0
5460.1
5460.2
5460.3
5460.4
5460.5
5460.6
5460.7
5460.8
5461.0
5461.1
5461.2
5461.3
5461.4
5461.5
5461.6
5461.7
5461.8


1D pull distribution
Mean 4.547e−05 ± 0.1362
Std Dev 1.037 ± 0.09632
Underflow 0
Overflow 0
χ² / ndf 1.801 / 6
Constant 11.22 ± 1.94
Mean 0.187 ± 0.183
Sigma 1.169 ± 0.171
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8


reg_asym_sam_37_dd RMS (ppm)
RMS (ppm)
220
200
180
160
140
120
100
80
60
5454.0
5454.1
5454.2
5454.3
5454.4
5454.5
5454.6
5454.7
5454.8
5455.0
5455.1
5455.2
5455.3
5455.4
5455.5
5455.6
5456.0
5456.1
5456.2
5456.3
5457.0
5457.1
5457.2
5457.3
5457.4
5457.5
5457.6
5457.7
5457.8
5458.0
5458.1
5458.2
5458.3
5458.4
5458.5
5458.6
5458.7
5458.8
5458.9
5460.0
5460.1
5460.2
5460.3
5460.4
5460.5
5460.6
5460.7
5460.8
5460.9
5461.0
5461.1
5461.2
5461.3
5461.4
5461.5
5461.6
5461.7
5461.8


reg_asym_sam_48_dd
χ² / ndf 52.69 / 57
p0 −111.4 ± 156.2


1D pull distribution
Mean −0.005635 ± 0.1252
Std Dev 0.9531 ± 0.0885
Underflow 0
Overflow 0
χ² / ndf 4.771 / 7
Constant 12.19 ± 2.44
Mean −0.01478 ± 0.13140
Sigma 0.9328 ± 0.1415


reg_asym_sam_48_dd RMS (ppm)
RMS (ppm)
150
140
130
120
110
100
90
5454.0
5454.1
5454.2
5454.3
5454.4
5454.5
5454.6
5454.7
5454.8
5455.0
5455.1
5455.2
5455.3
5455.4
5455.5
5455.6
5456.0
5456.1
5456.2
5456.3
5457.0
5457.1
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5457.7
5457.8
5458.0
5458.1
5458.2
5458.3
5458.4
5458.5
5458.6
5458.7
5458.8
5458.9
5460.0
5460.1
5460.2
5460.3
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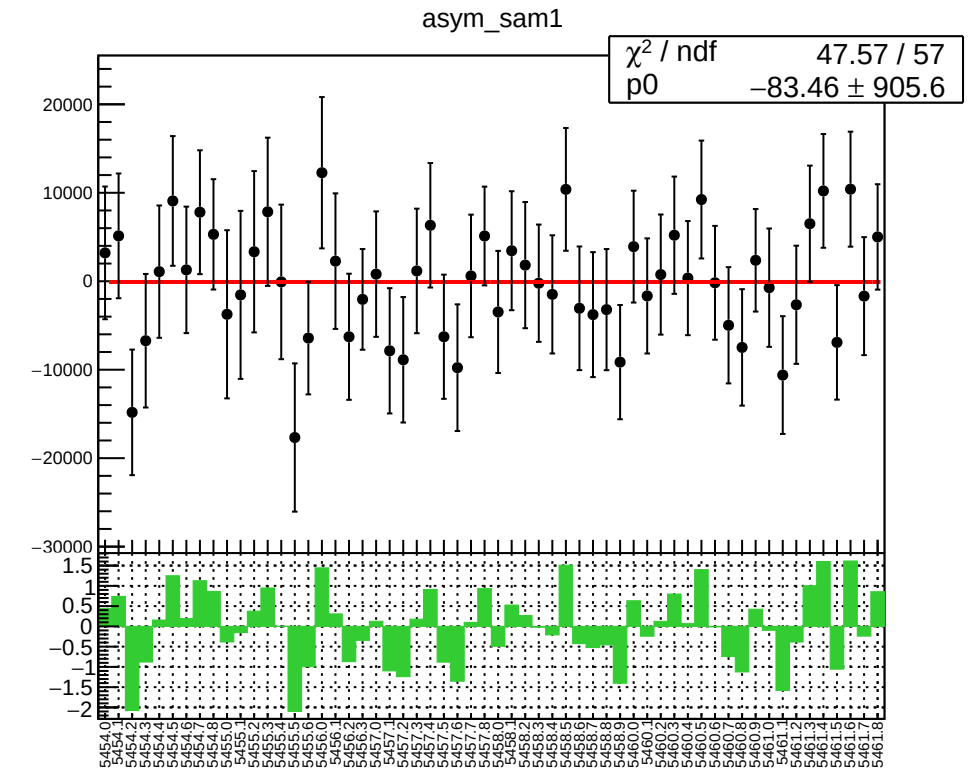
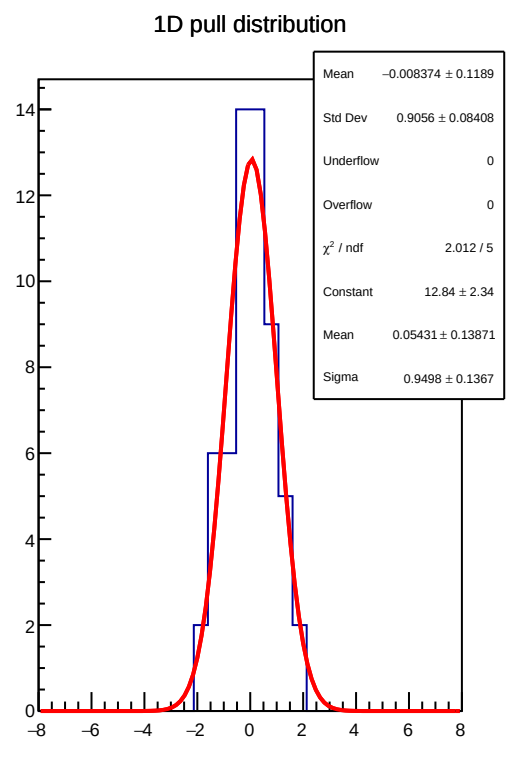
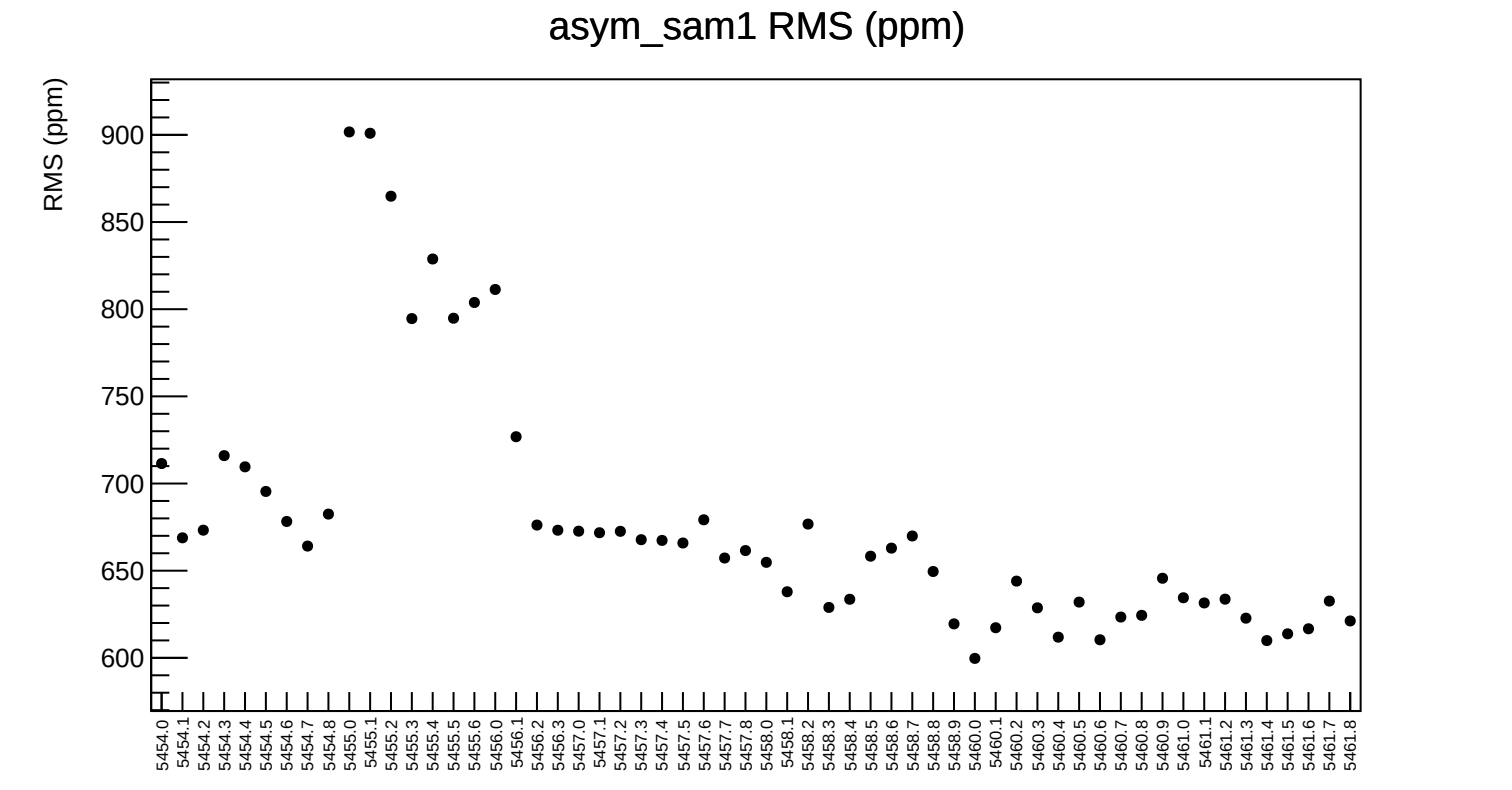
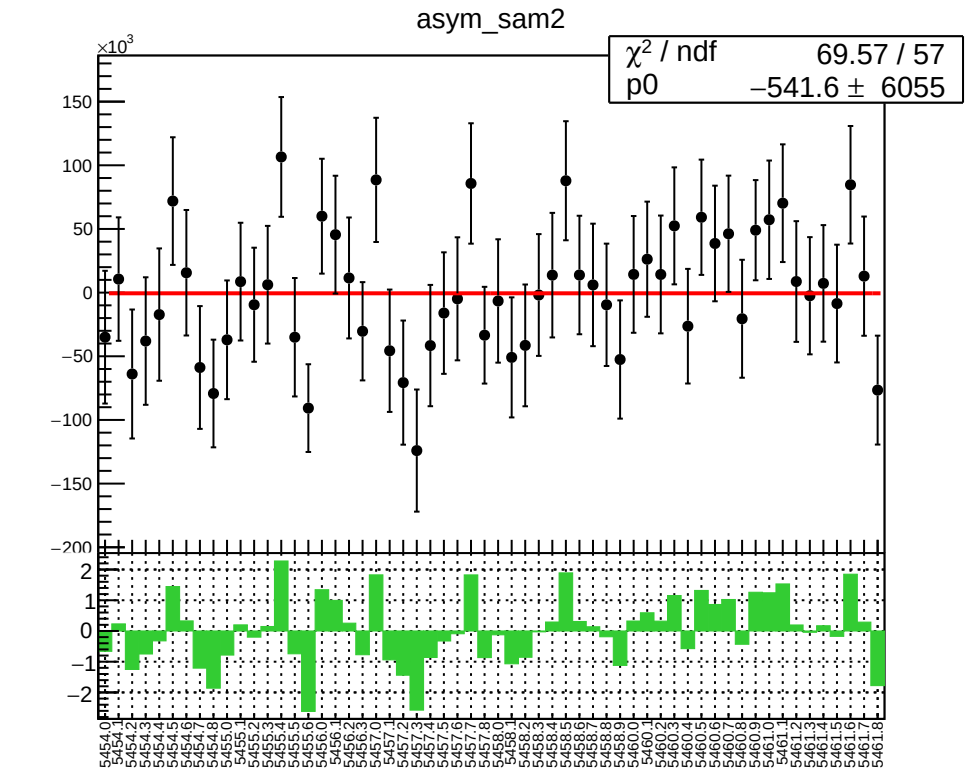
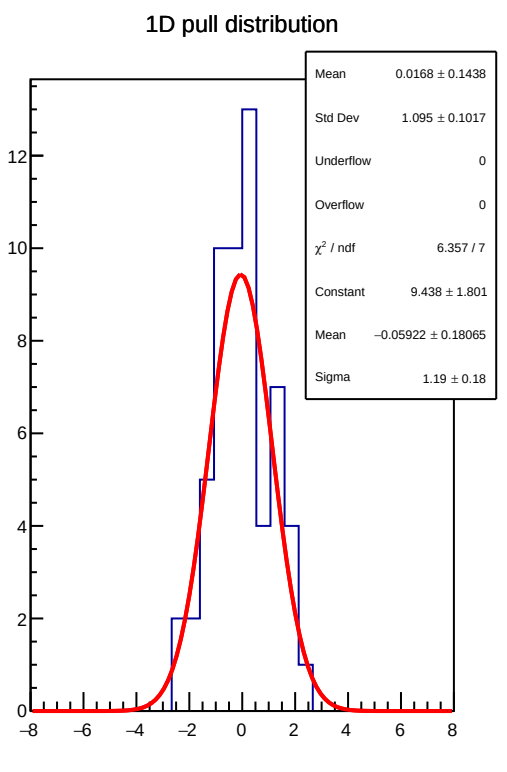
5460.8
5460.9
5461.0
5461.1
5461.2
5461.3
5461.4
5461.5
5461.6
5461.7
5461.8

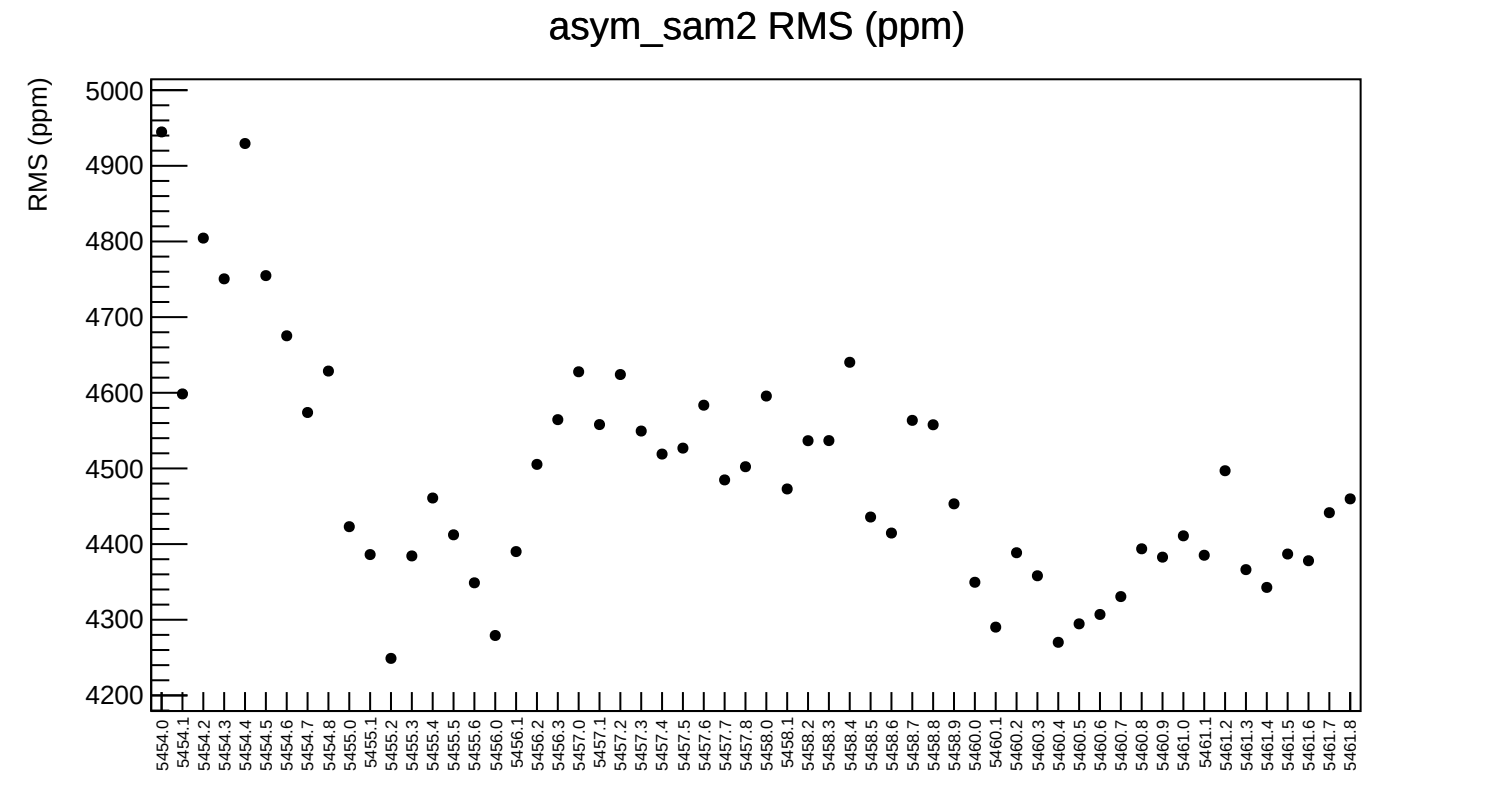

asym_sam1
χ² / ndf 47.57 / 57
p0 −83.46 ± 905.6
20000
10000
0
−10000
−20000
−30000
1.5
1
0.5
0
−0.5
−1
−1.5
−2
5454.0
5454.1
5454.2
5454.3
5454.4
5454.5
5454.6
5454.7
5454.8
5455.0
5455.1
5455.2
5455.3
5455.4
5455.5
5455.6
5455.7
5456.0
5456.1
5456.2
5456.3
5456.4
5457.0
5457.1
5457.2
5457.3
5457.4
5457.5
5457.6
5457.7
5457.8
5458.0
5458.1
5458.2
5458.3
5458.4
5458.5
5458.6
5458.7
5458.8
5458.9
5460.0
5460.1
5460.2
5460.3
5460.4
5460.5
5460.6
5460.7
5460.8
5460.9
5461.0
5461.1
5461.2
5461.3
5461.4
5461.5
5461.6
5461.7
5461.8

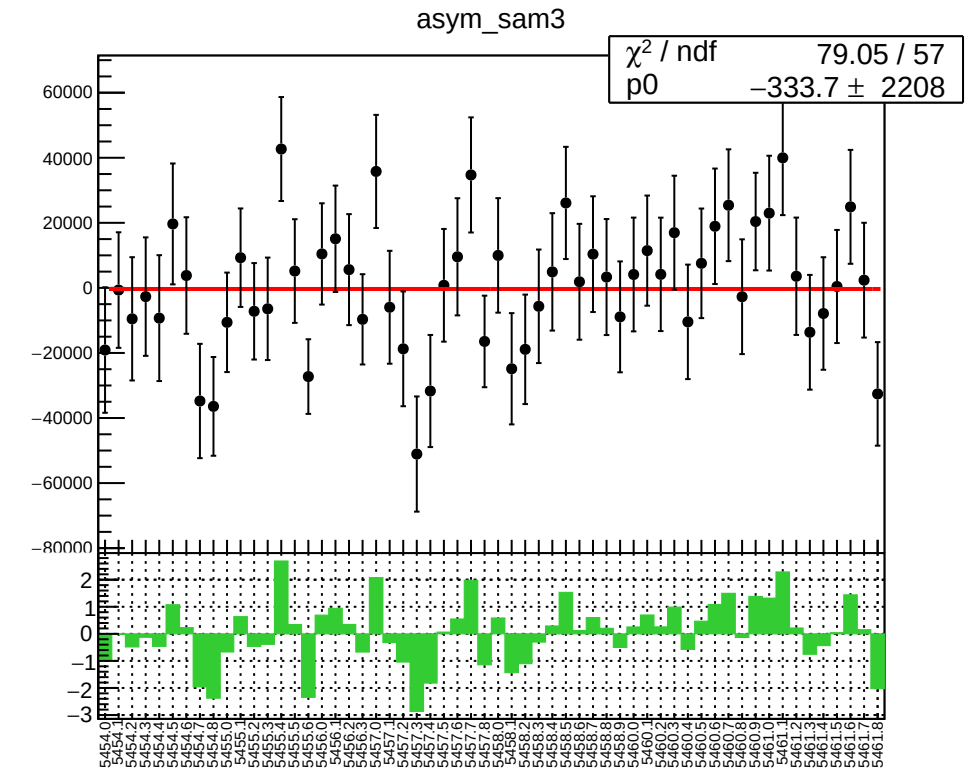

1D pull distribution
Mean −0.008374 ± 0.1189
Std Dev 0.9056 ± 0.08408
Underflow 0
Overflow 0
χ² / ndf 2.012 / 5
Constant 12.84 ± 2.34
Mean 0.05431 ± 0.13871
Sigma 0.9498 ± 0.1367
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

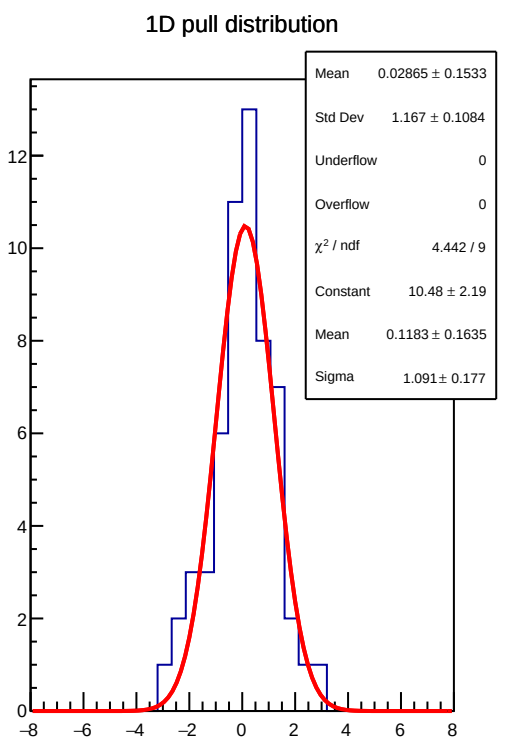

asym_sam1 RMS (ppm)
RMS (ppm)
900
850
800
750
700
650
600
5454.0
5454.1
5454.2
5454.3
5454.4
5454.5
5454.6
5454.7
5454.8
5455.0
5455.1
5455.2
5455.3
5455.4
5455.5
5455.6
5456.0
5456.1
5456.2
5456.3
5457.0
5457.1
5457.2
5457.3
5457.4
5457.5
5457.6
5457.7
5457.8
5458.0
5458.1
5458.2
5458.3
5458.4
5458.5
5458.6
5458.7
5458.8
5458.9
5460.0
5460.1
5460.2
5460.3
5460.4
5460.5
5460.6
5460.7
5460.8
5460.9
5461.0
5461.1
5461.2
5461.3
5461.4
5461.5
5461.6
5461.7
5461.8

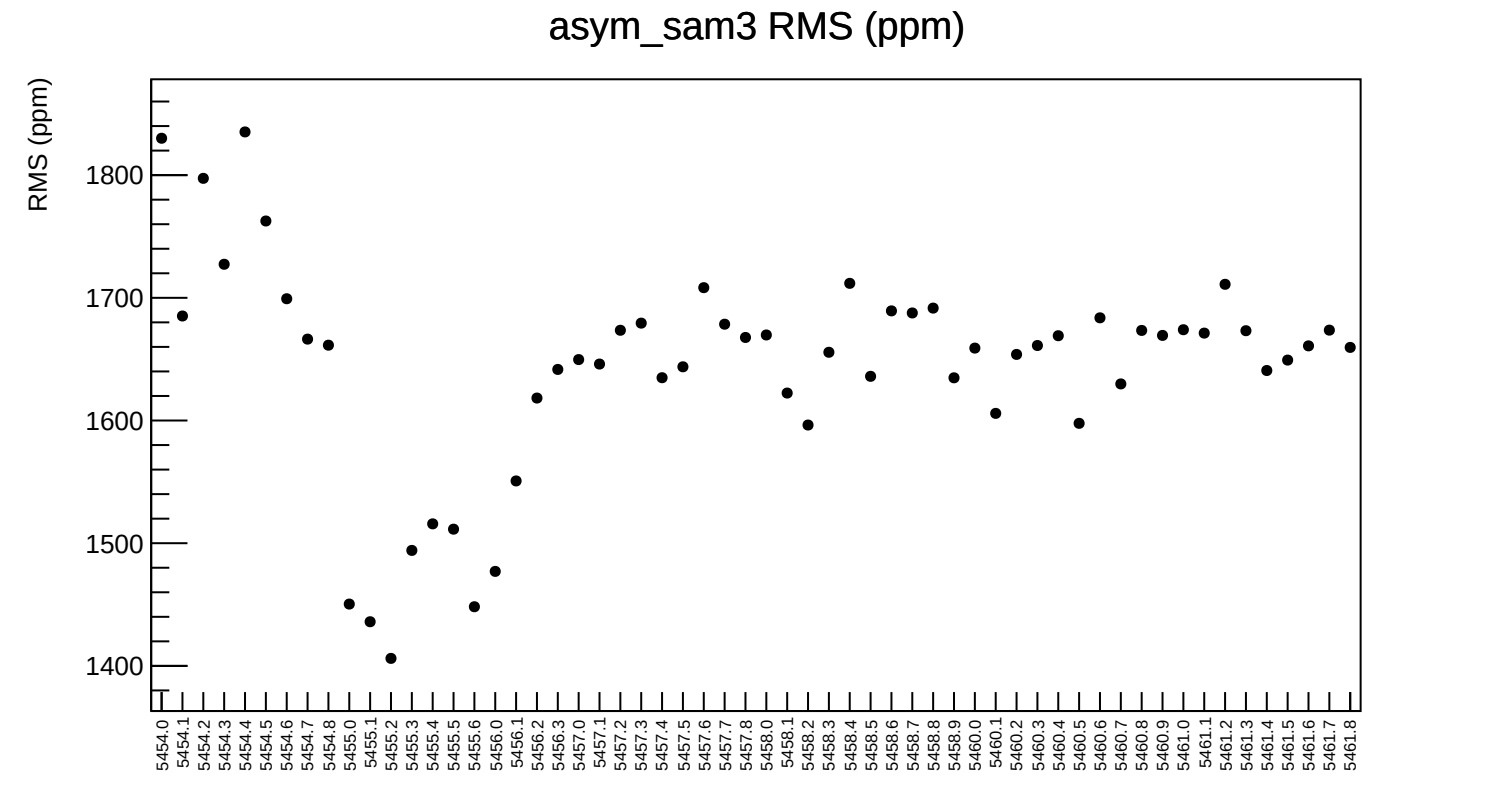

asym_sam2
χ² / ndf 69.57 / 57
p0 −541.6 ± 6055
×10³

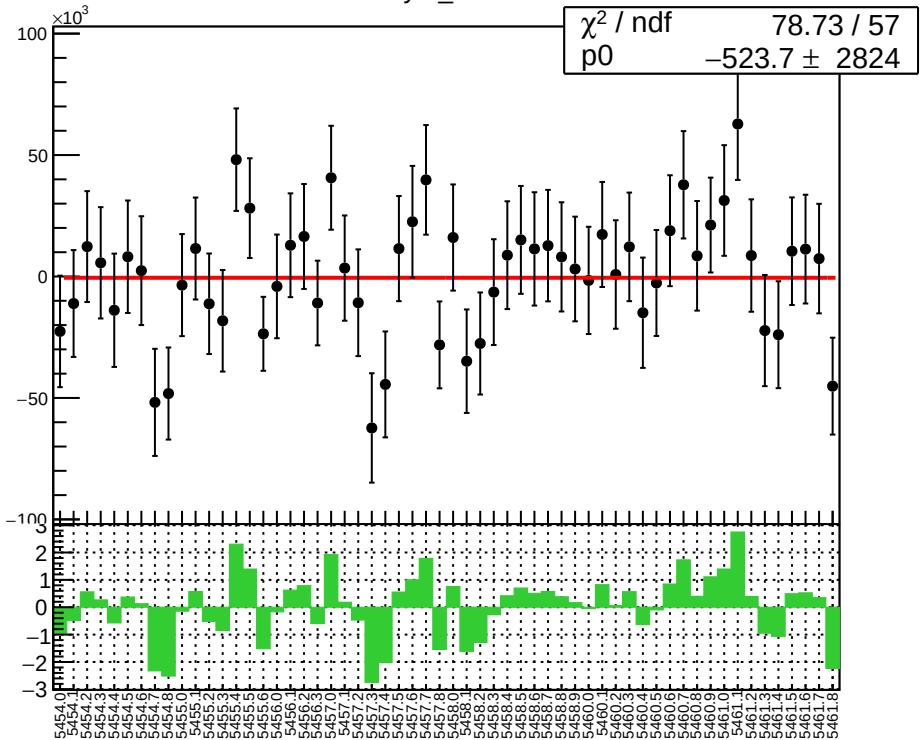

1D pull distribution
Mean 0.0168 ± 0.1438
Std Dev 1.095 ± 0.1017
Underflow 0
Overflow 0
χ² / ndf 6.357 / 7
Constant 9.438 ± 1.801
Mean −0.05922 ± 0.18065
Sigma 1.19 ± 0.18

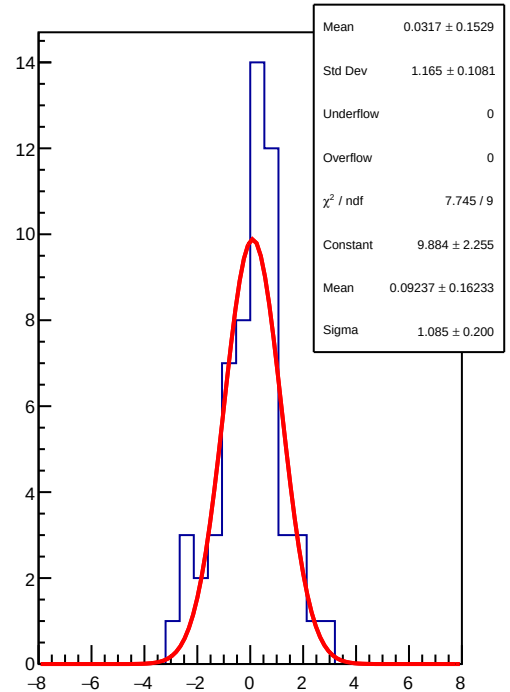

asym_sam2 RMS (ppm)
RMS (ppm)
5000
4900
4800
4700
4600
4500
4400
4300
4200
5454.0
5454.1
5454.2
5454.3
5454.4
5454.5
5454.6
5454.7
5454.8
5455.0
5455.1
5455.2
5455.3
5455.4
5455.5
5455.6
5456.0
5456.1
5456.2
5456.3
5457.0
5457.1
5457.2
5457.3
5457.4
5457.5
5457.6
5457.7
5457.8
5458.0
5458.1
5458.2
5458.3
5458.4
5458.5
5458.6
5458.7
5458.8
5458.9
5460.0
5460.1
5460.2
5460.3
5460.4
5460.5
5460.6
5460.7
5460.8
5460.9
5461.0
5461.1
5461.2
5461.3
5461.4
5461.5
5461.6
5461.7
5461.8

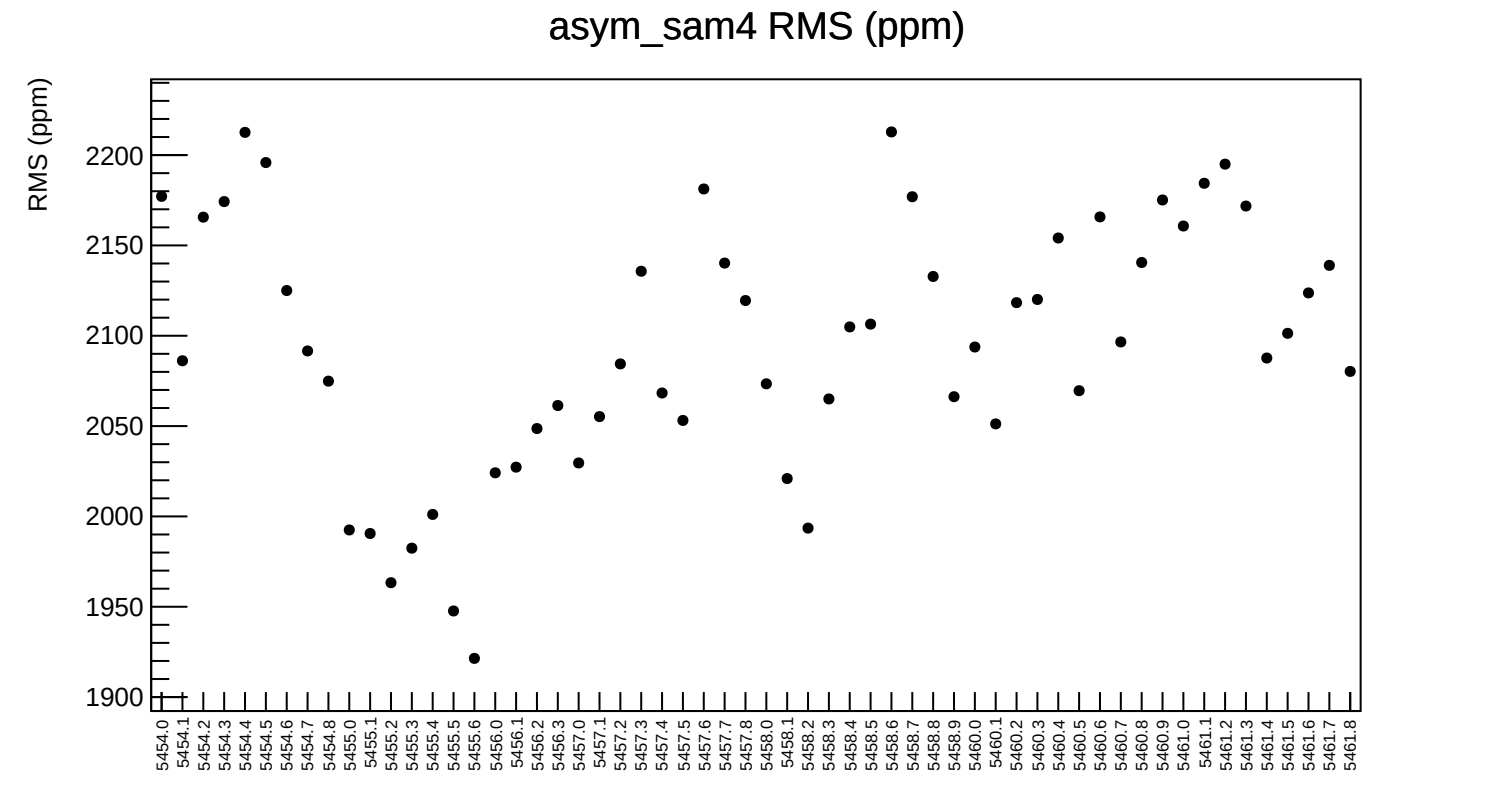

asym_sam3
χ² / ndf 79.05 / 57
p0 −333.7 ± 2208

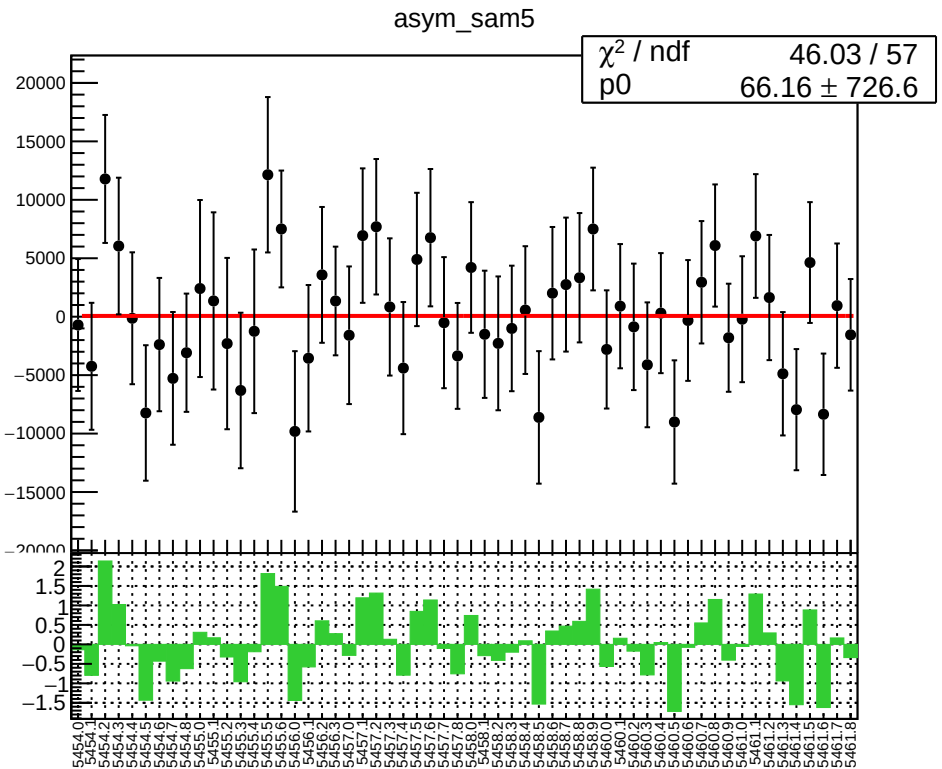

1D pull distribution
Mean 0.02865 ± 0.1533
Std Dev 1.167 ± 0.1084
Underflow 0
Overflow 0
χ² / ndf 4.442 / 9
Constant 10.48 ± 2.19
Mean 0.1183 ± 0.1635
Sigma 1.091 ± 0.177

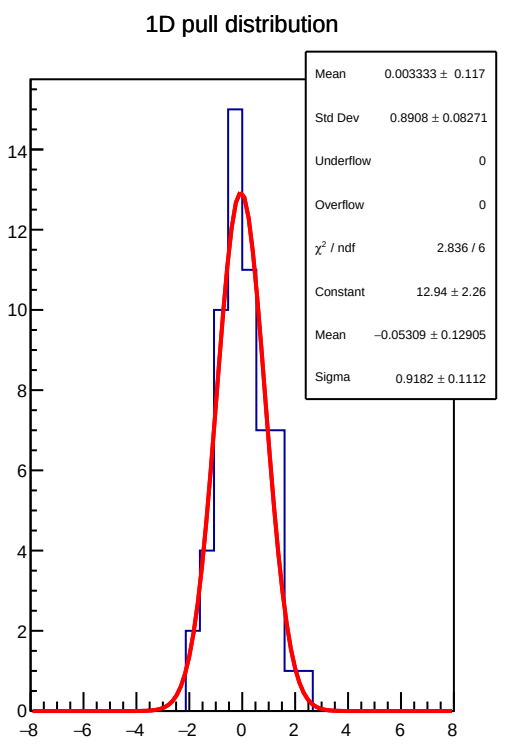

asym_sam3 RMS (ppm)
RMS (ppm)
1800
1700
1600
1500
1400
5454.0
5454.1
5454.2
5454.3
5454.4
5454.5
5454.6
5454.7
5454.8
5455.0
5455.1
5455.2
5455.3
5455.4
5455.5
5455.6
5456.0
5456.1
5456.2
5456.3
5457.0
5457.1
5457.2
5457.3
5457.4
5457.5
5457.6
5457.7
5457.8
5458.0
5458.1
5458.2
5458.3
5458.4
5458.5
5458.6
5458.7
5458.8
5458.9
5460.0
5460.1
5460.2
5460.3
5460.4
5460.5
5460.6
5460.7
5460.8
5460.9
5461.0
5461.1
5461.2
5461.3
5461.4
5461.5
5461.6
5461.7
5461.8

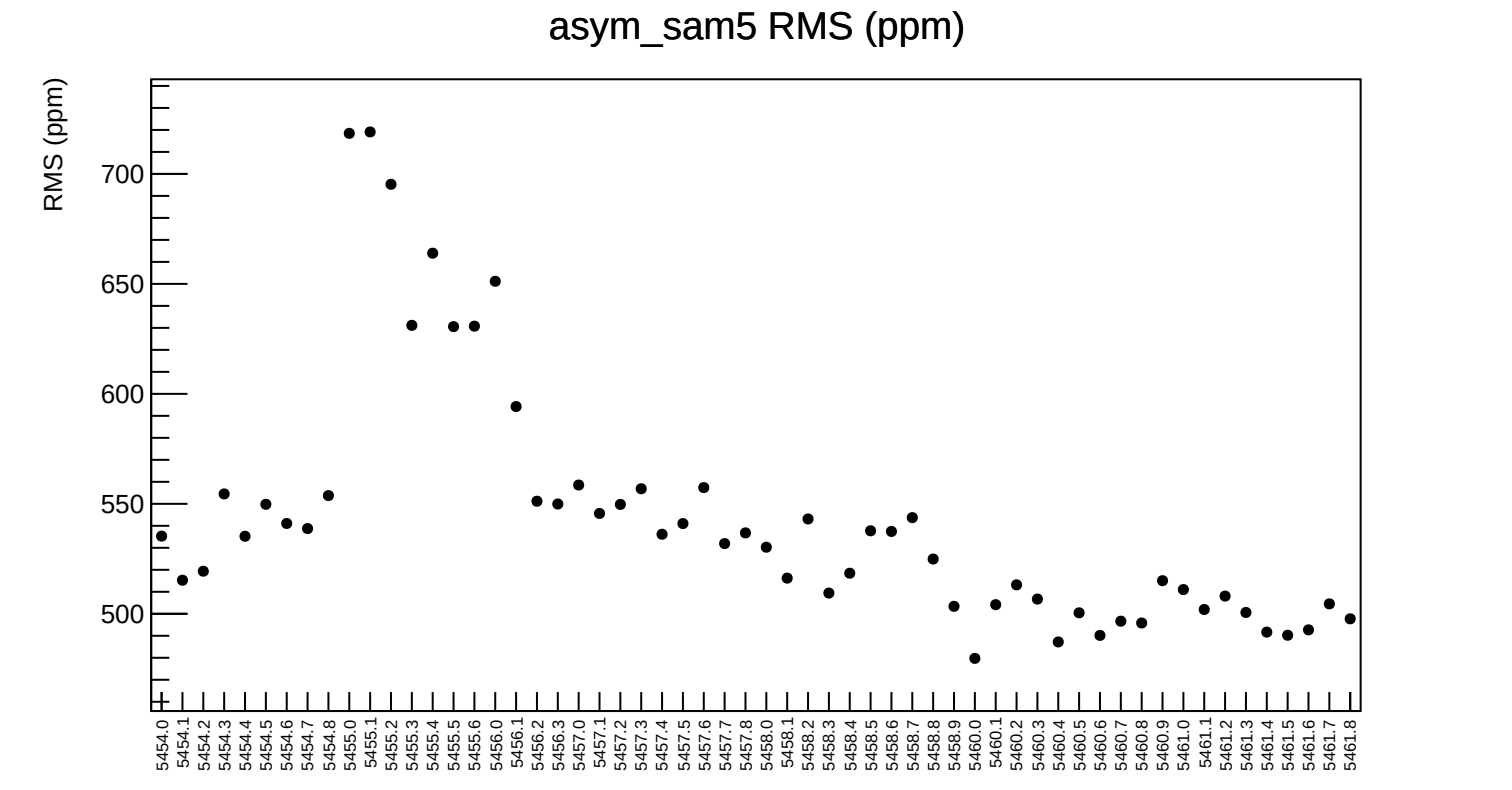

asym_sam4
χ² / ndf 78.73 / 57
p0 −523.7 ± 2824
×10³

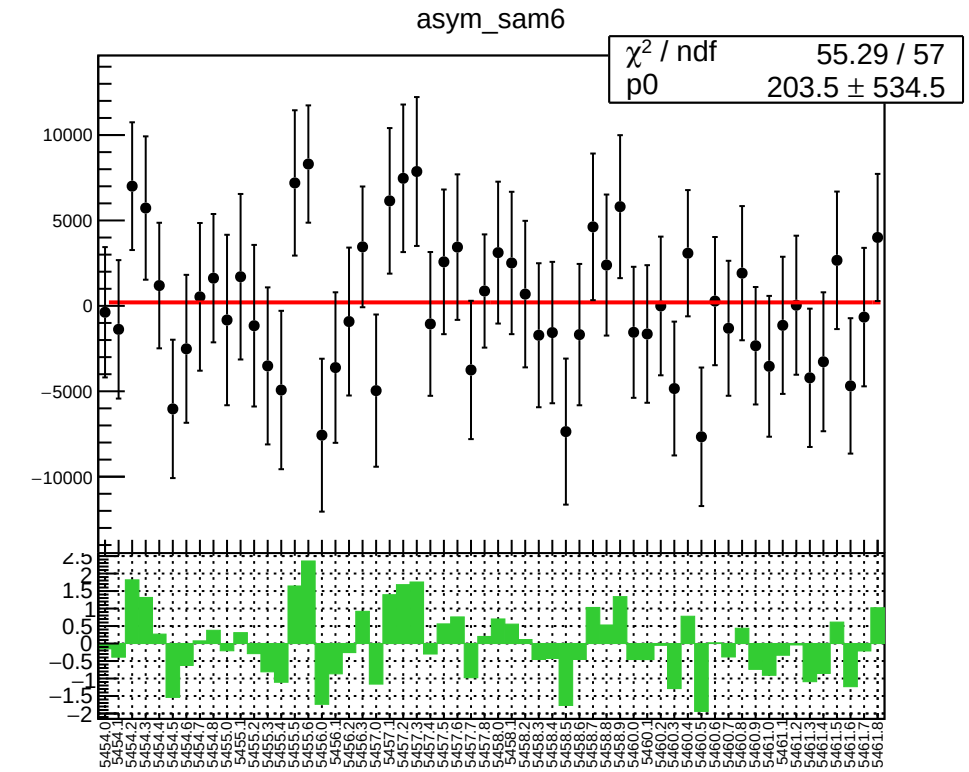

1D pull distribution
Mean 0.0317 ± 0.1529
Std Dev 1.165 ± 0.1081
Underflow 0
Overflow 0
χ² / ndf 7.745 / 9
Constant 9.884 ± 2.255
Mean 0.09237 ± 0.16233
Sigma 1.085 ± 0.200

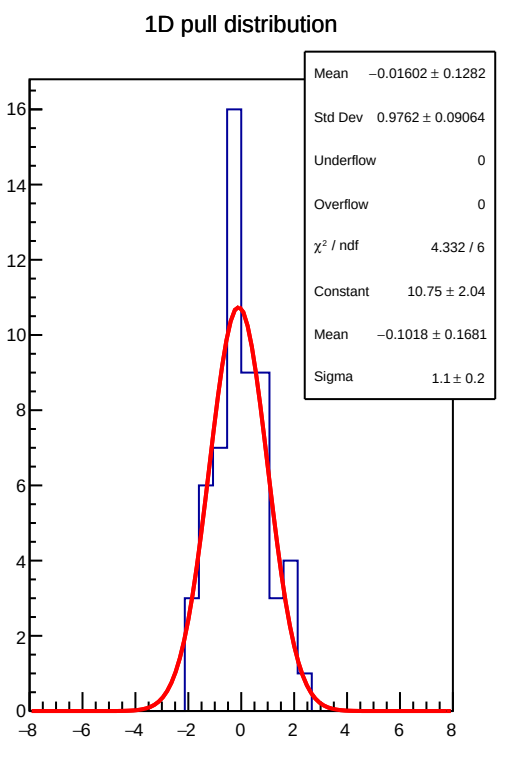

asym_sam4 RMS (ppm)
RMS (ppm)
2200
2150
2100
2050
2000
1950
1900
5454.0
5454.1
5454.2
5454.3
5454.4
5454.5
5454.6
5454.7
5454.8
5455.0
5455.1
5455.2
5455.3
5455.4
5455.5
5455.6
5456.0
5456.1
5456.2
5456.3
5457.0
5457.1
5457.2
5457.3
5457.4
5457.5
5457.6
5457.7
5457.8
5458.0
5458.1
5458.2
5458.3
5458.4
5458.5
5458.6
5458.7
5458.8
5458.9
5460.0
5460.1
5460.2
5460.3
5460.4
5460.5
5460.6
5460.7
5460.8
5460.9
5461.0
5461.1
5461.2
5461.3
5461.4
5461.5
5461.6
5461.7
5461.8

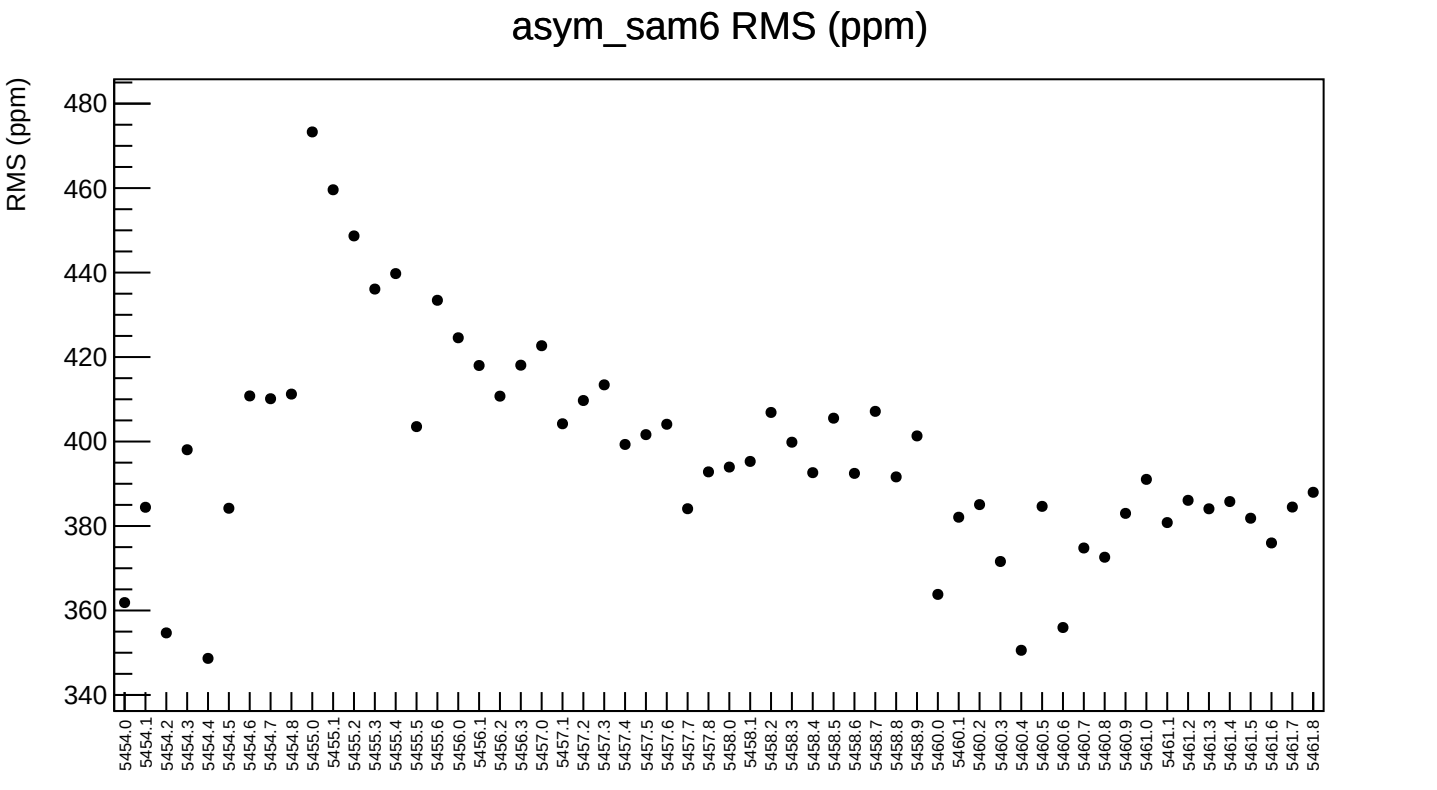

asym_sam5
χ² / ndf 46.03 / 57
p0 66.16 ± 726.6

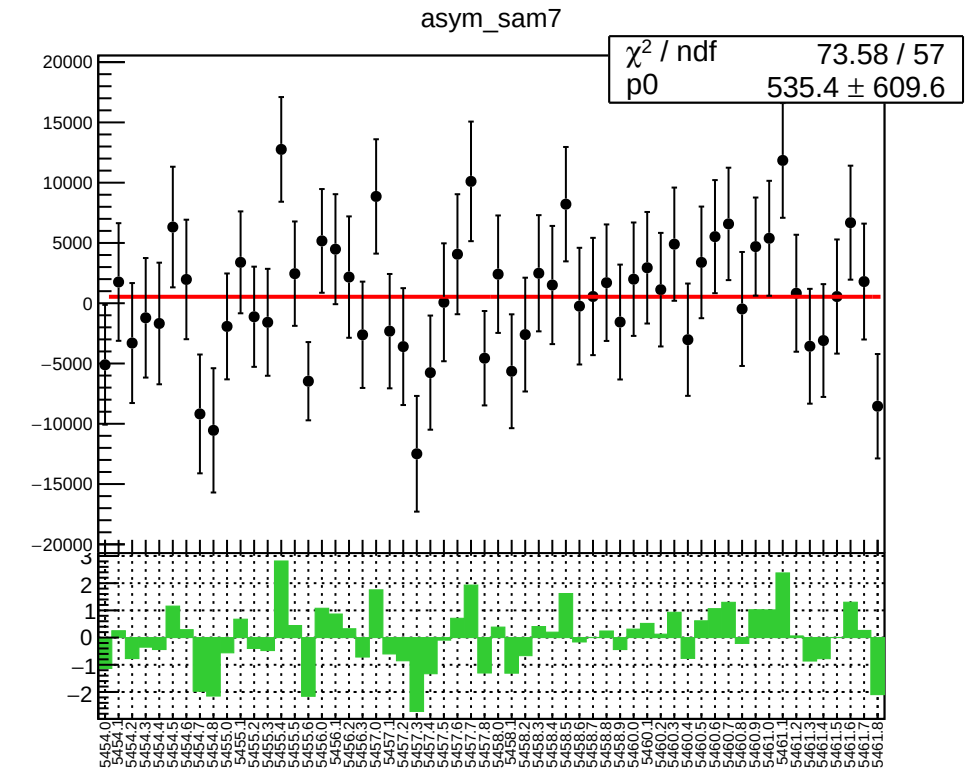

1D pull distribution
Mean 0.003333 ± 0.117
Std Dev 0.8908 ± 0.08271
Underflow 0
Overflow 0
χ² / ndf 2.836 / 6
Constant 12.94 ± 2.26
Mean −0.05309 ± 0.12905
Sigma 0.9182 ± 0.1112

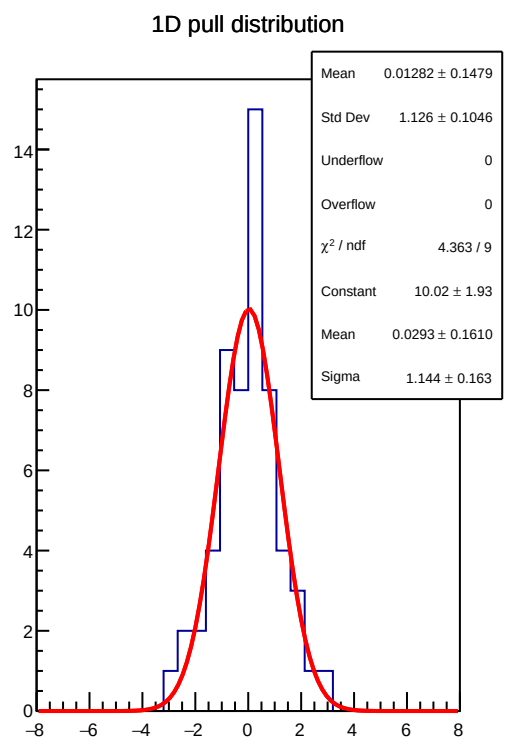

asym_sam5 RMS (ppm)
RMS (ppm)
700
650
600
550
500
5454.0
5454.1
5454.2
5454.3
5454.4
5454.5
5454.6
5454.7
5454.8
5455.0
5455.1
5455.2
5455.3
5455.4
5455.5
5455.6
5456.0
5456.1
5456.2
5456.3
5457.0
5457.1
5457.2
5457.3
5457.4
5457.5
5457.6
5457.7
5457.8
5458.0
5458.1
5458.2
5458.3
5458.4
5458.5
5458.6
5458.7
5458.8
5458.9
5460.0
5460.1
5460.2
5460.3
5460.4
5460.5
5460.6
5460.7
5460.8
5460.9
5461.0
5461.1
5461.2
5461.3
5461.4
5461.5
5461.6
5461.7
5461.8

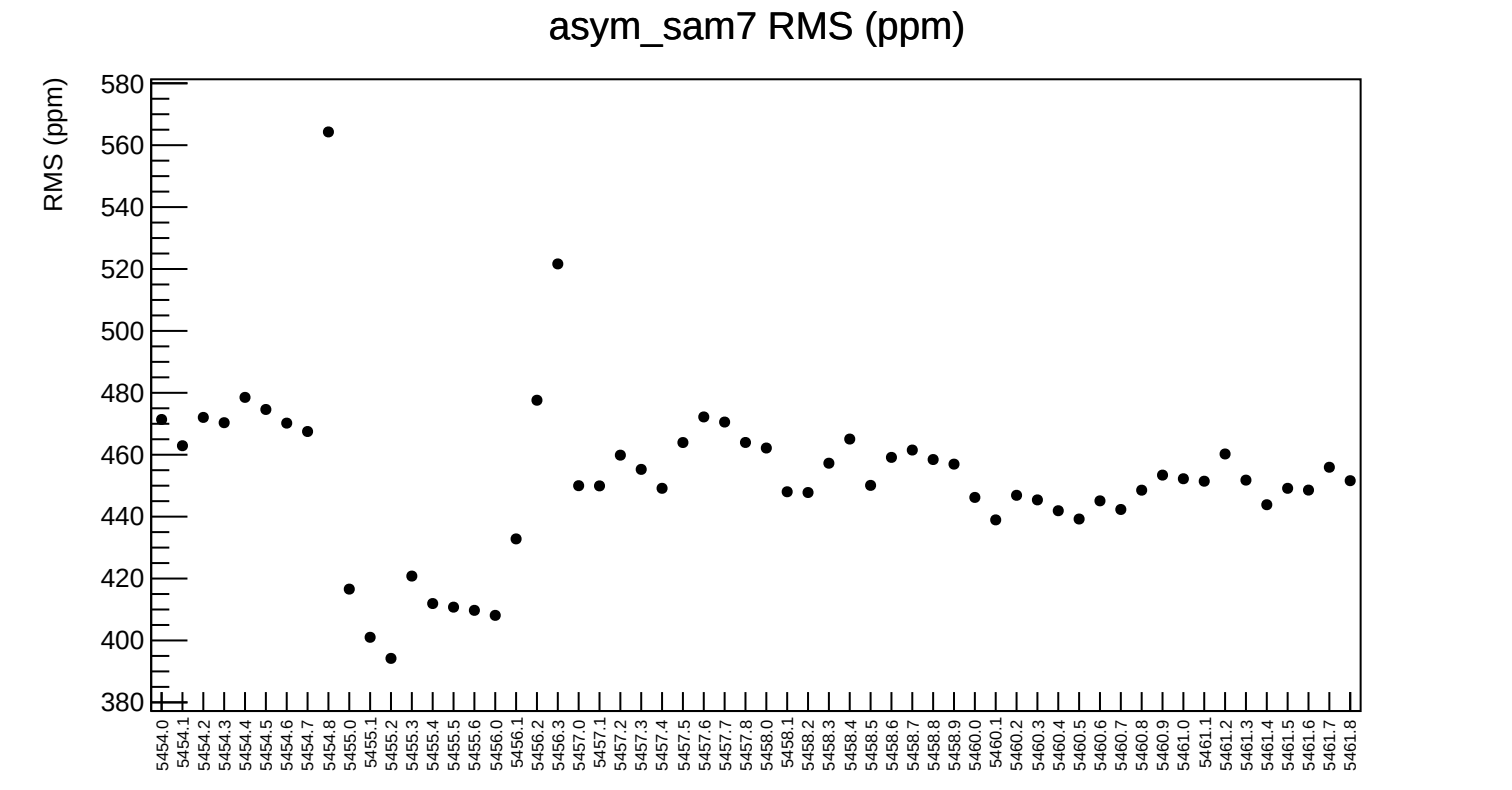

asym_sam6
χ² / ndf 55.29 / 57
p0 203.5 ± 534.5
10000
5000
0
−5000
−10000
2.5
2
1.5
1
0.5
0
−0.5
−1
−1.5
−2
5454.0
5454.1
5454.2
5454.3
5454.4
5454.5
5454.6
5454.7
5454.8
5455.0
5455.1
5455.2
5455.3
5455.4
5455.5
5455.6
5455.7
5455.8
5455.9
5456.1
5456.2
5456.3
5456.4
5457.0
5457.1
5457.2
5457.3
5457.4
5457.5
5457.6
5457.7
5457.8
5458.0
5458.1
5458.2
5458.3
5458.4
5458.5
5458.6
5458.7
5458.8
5458.9
5460.0
5460.1
5460.2
5460.3
5460.4
5460.5
5460.6
5460.7
5460.8
5460.9
5461.0
5461.1
5461.2
5461.3
5461.4
5461.5
5461.6
5461.7
5461.8

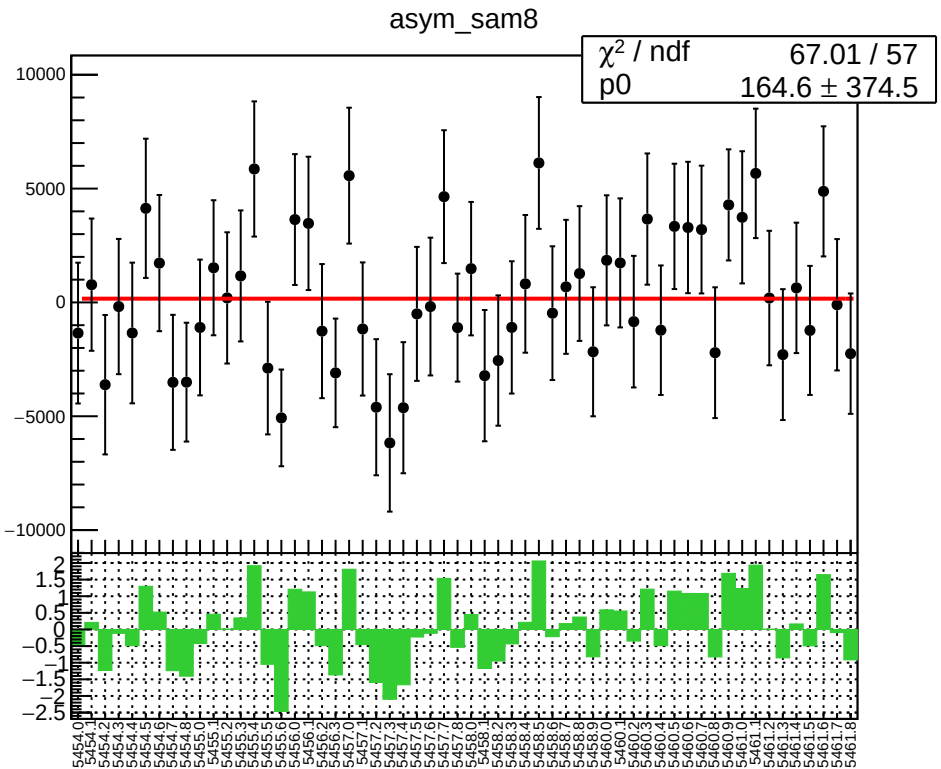

1D pull distribution
Mean −0.01602 ± 0.1282
Std Dev 0.9762 ± 0.09064
Underflow 0
Overflow 0
χ² / ndf 4.332 / 6
Constant 10.75 ± 2.04
Mean −0.1018 ± 0.1681
Sigma 1.1 ± 0.2
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

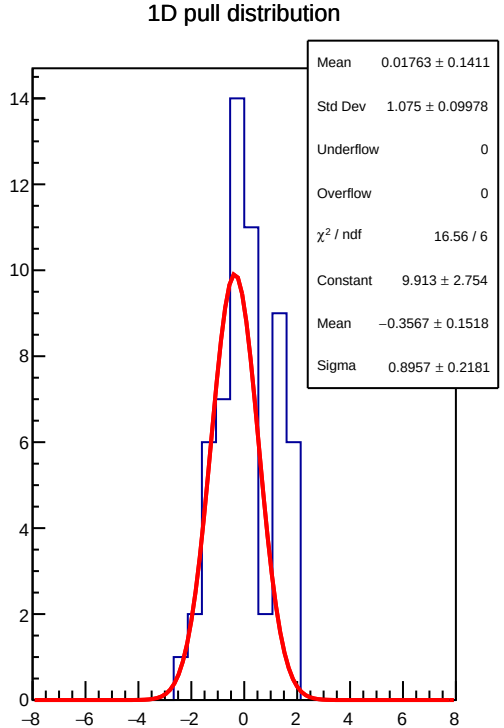

asym_sam6 RMS (ppm)
RMS (ppm)
480
460
440
420
400
380
360
340
5454.0
5454.1
5454.2
5454.3
5454.4
5454.5
5454.6
5454.7
5454.8
5455.0
5455.1
5455.2
5455.3
5455.4
5455.5
5455.6
5456.0
5456.1
5456.2
5456.3
5457.0
5457.1
5457.2
5457.3
5457.4
5457.5
5457.6
5457.7
5457.8
5458.0
5458.1
5458.2
5458.3
5458.4
5458.5
5458.6
5458.7
5458.8
5458.9
5460.0
5460.1
5460.2
5460.3
5460.4
5460.5
5460.6
5460.7
5460.8
5460.9
5461.0
5461.1
5461.2
5461.3
5461.4
5461.5
5461.6
5461.7
5461.8

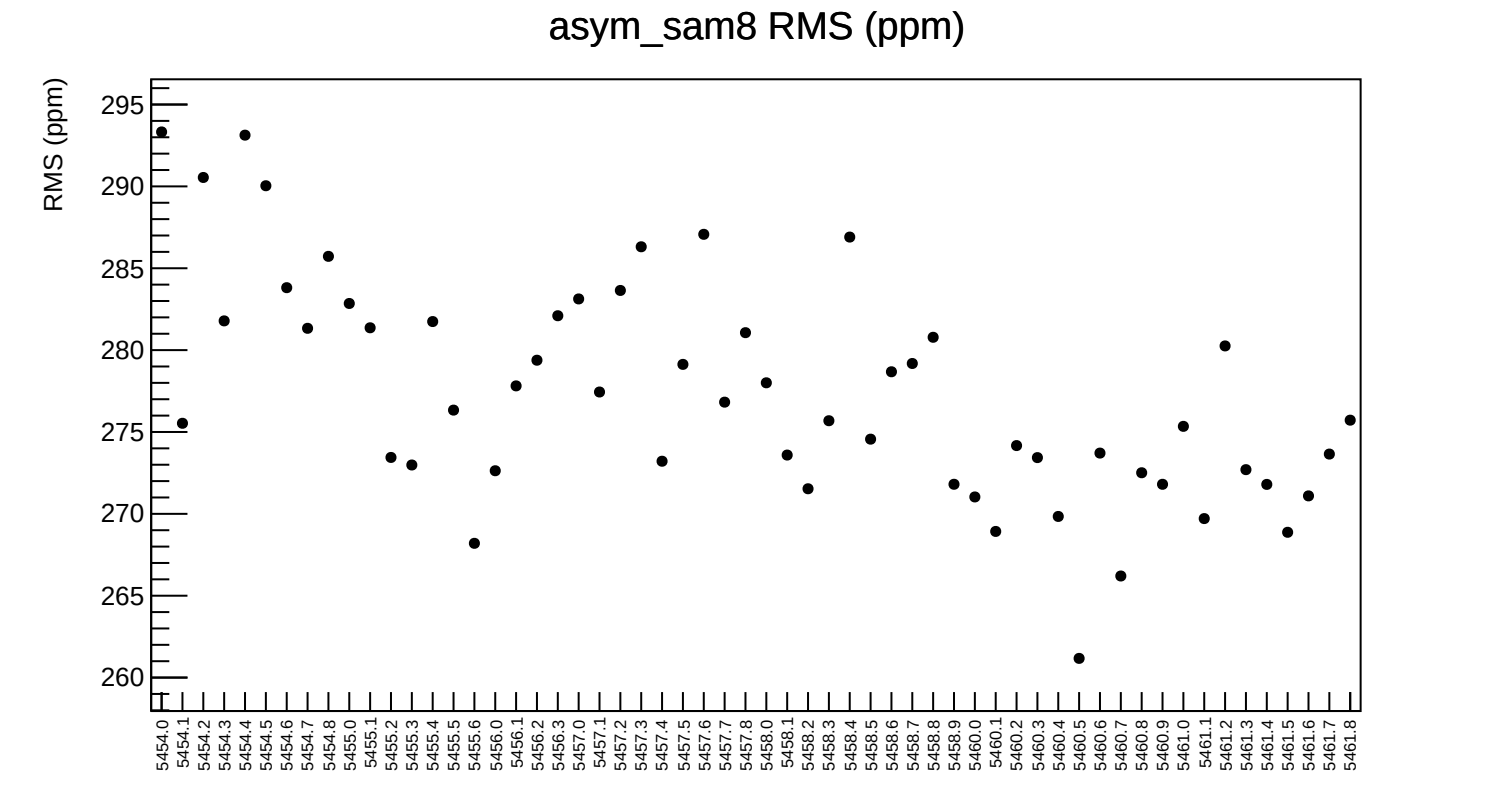

asym_sam7
χ² / ndf 73.58 / 57
p0 535.4 ± 609.6

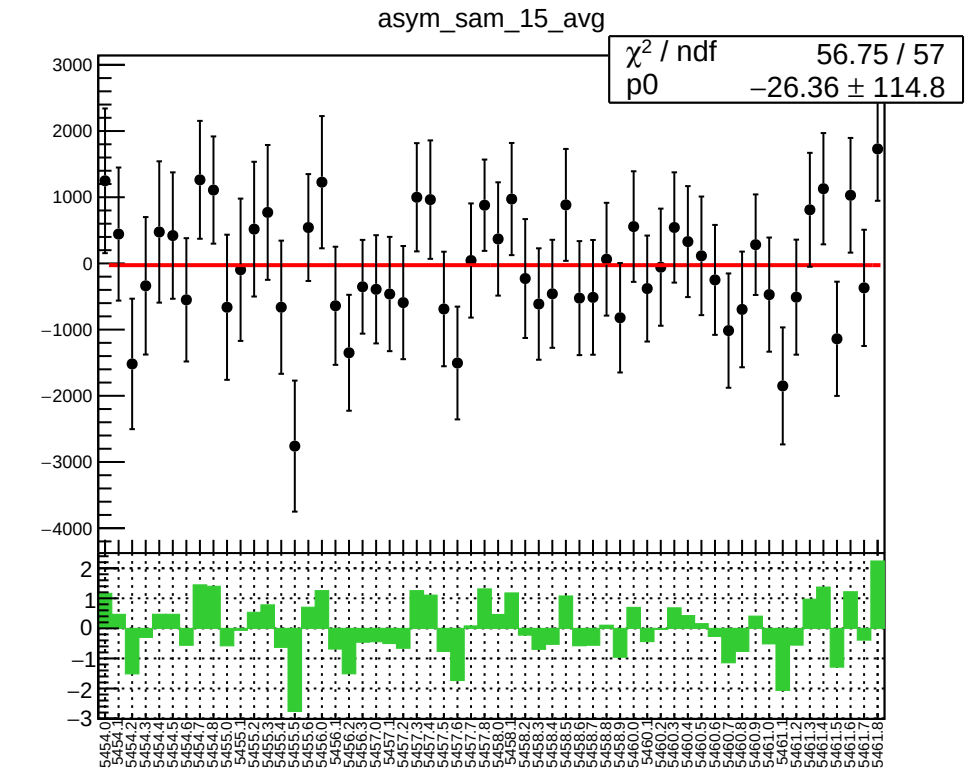

1D pull distribution
Mean 0.01282 ± 0.1479
Std Dev 1.126 ± 0.1046
Underflow 0
Overflow 0
χ² / ndf 4.363 / 9
Constant 10.02 ± 1.93
Mean 0.0293 ± 0.1610
Sigma 1.144 ± 0.163

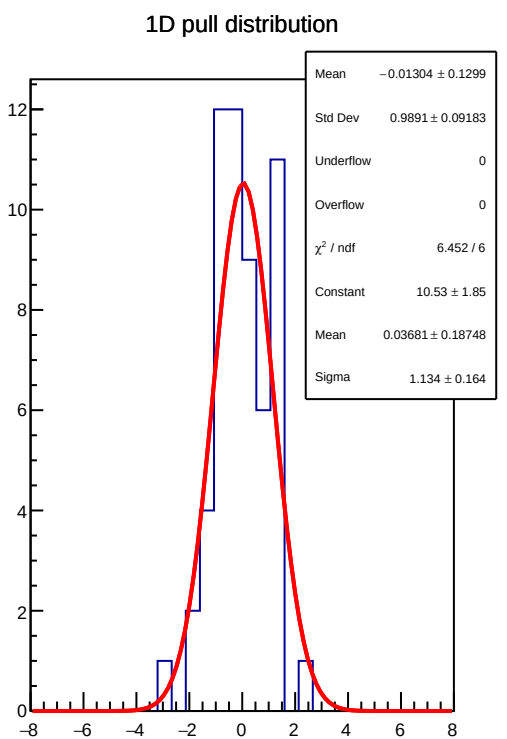

asym_sam7 RMS (ppm)
RMS (ppm)
580
560
540
520
500
480
460
440
420
400
380
5454.0
5454.1
5454.2
5454.3
5454.4
5454.5
5454.6
5454.7
5454.8
5455.0
5455.1
5455.2
5455.3
5455.4
5455.5
5455.6
5456.0
5456.1
5456.2
5456.3
5457.0
5457.1
5457.2
5457.3
5457.4
5457.5
5457.6
5457.7
5457.8
5458.0
5458.1
5458.2
5458.3
5458.4
5458.5
5458.6
5458.7
5458.8
5458.9
5460.0
5460.1
5460.2
5460.3
5460.4
5460.5
5460.6
5460.7
5460.8
5460.9
5461.0
5461.1
5461.2
5461.3
5461.4
5461.5
5461.6
5461.7
5461.8

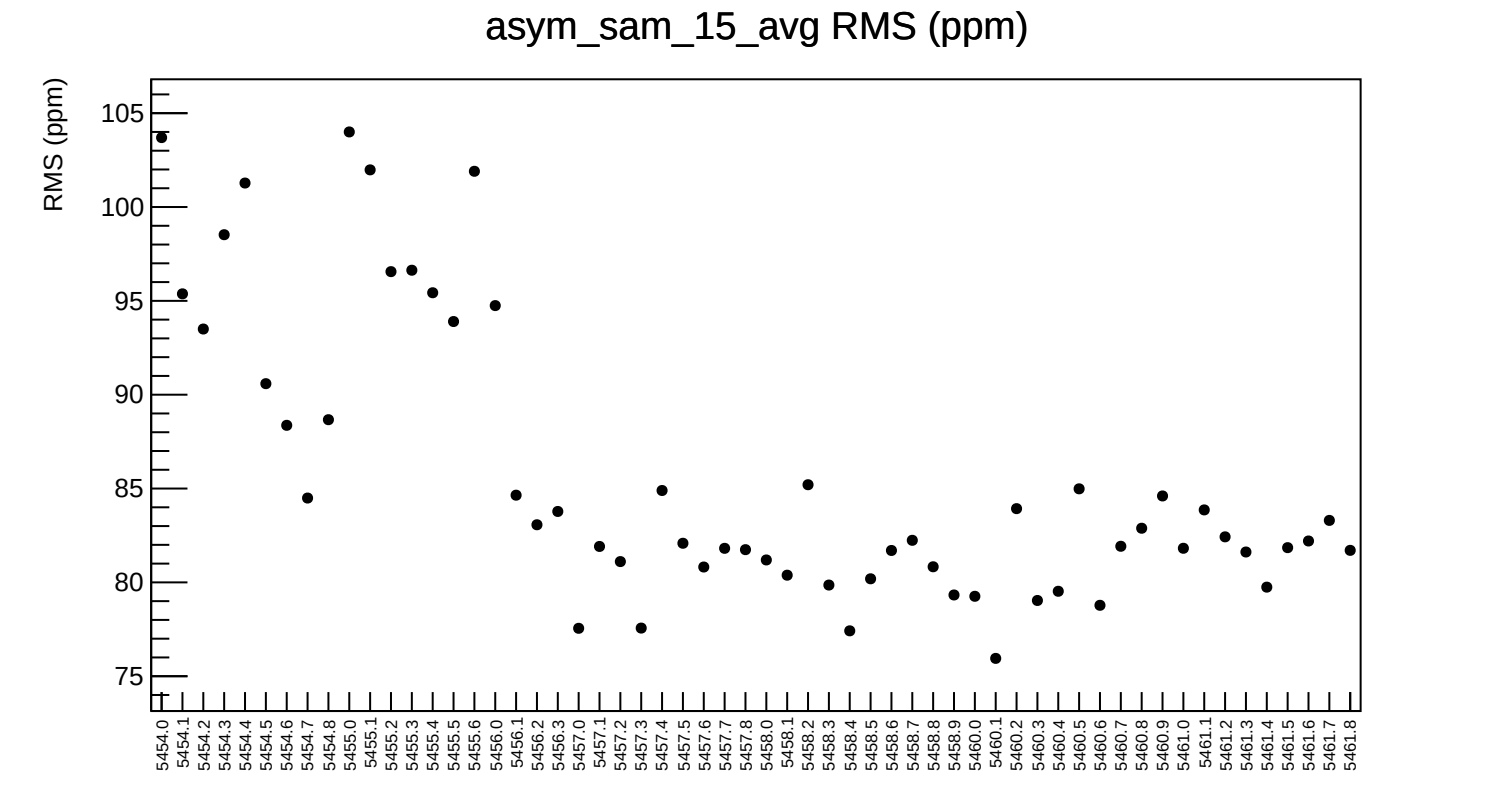

asym_sam8
χ² / ndf 67.01 / 57
p0 164.6 ± 374.5
10000
5000
0
−5000
−10000
2
1.5
1
0.5
0
−0.5
−1
−1.5
−2
−2.5
5454.0
5454.1
5454.2
5454.3
5454.4
5454.5
5454.6
5454.7
5454.8
5455.0
5455.1
5455.2
5455.3
5455.4
5455.5
5455.6
5455.7
5455.8
5455.9
5456.0
5456.1
5456.2
5456.3
5456.4
5457.0
5457.1
5457.2
5457.3
5457.4
5457.5
5457.6
5457.7
5457.8
5458.0
5458.1
5458.2
5458.3
5458.4
5458.5
5458.6
5458.7
5458.8
5458.9
5460.0
5460.1
5460.2
5460.3
5460.4
5460.5
5460.6
5460.7
5460.8
5460.9
5461.0
5461.1
5461.2
5461.3
5461.4
5461.5
5461.6
5461.7
5461.8

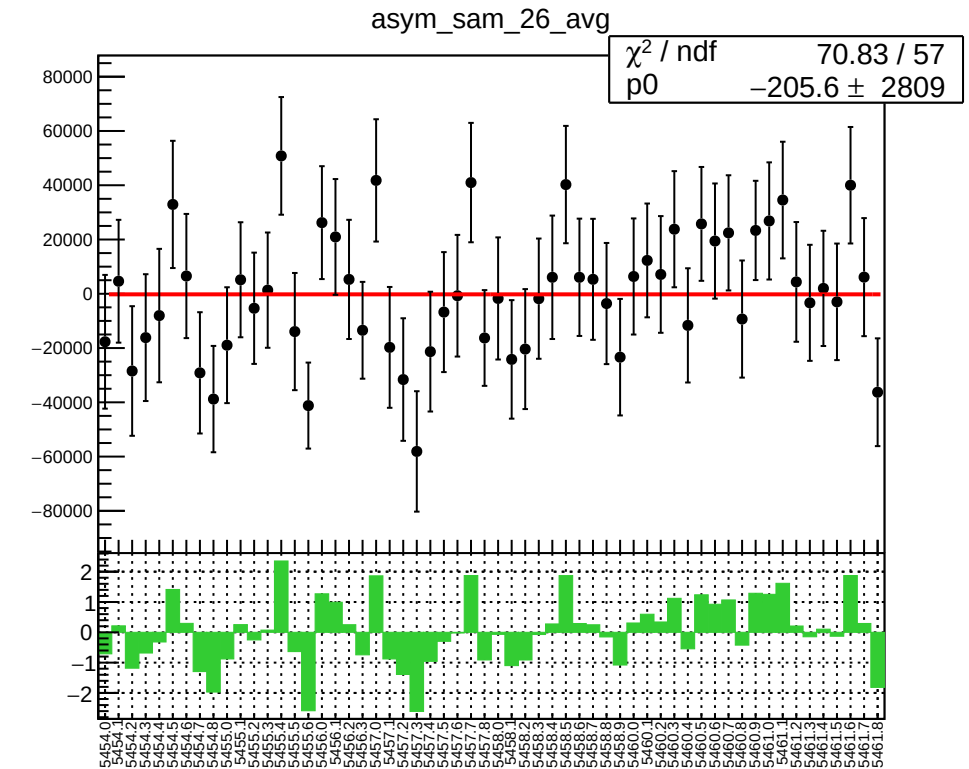

1D pull distribution
Mean 0.01763 ± 0.1411
Std Dev 1.075 ± 0.09978
Underflow 0
Overflow 0
χ² / ndf 16.56 / 6
Constant 9.913 ± 2.754
Mean −0.3567 ± 0.1518
Sigma 0.8957 ± 0.2181
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

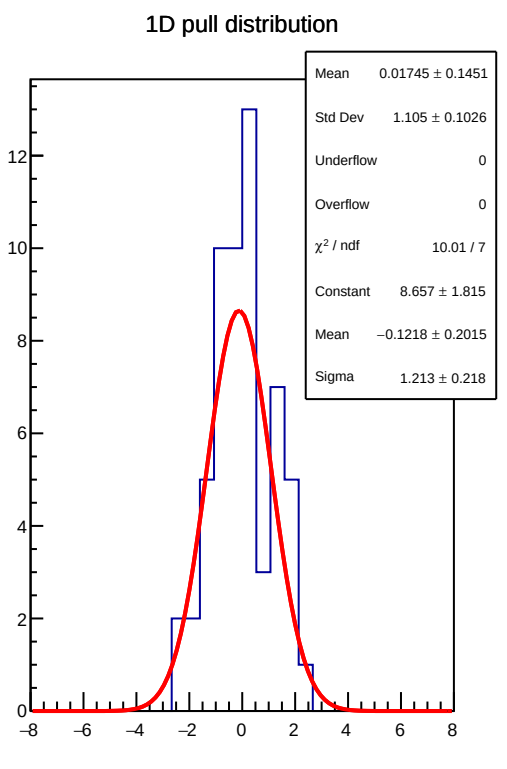

asym_sam8 RMS (ppm)
RMS (ppm)
295
290
285
280
275
270
265
260
5454.0
5454.1
5454.2
5454.3
5454.4
5454.5
5454.6
5454.7
5454.8
5455.0
5455.1
5455.2
5455.3
5455.4
5455.5
5455.6
5456.0
5456.1
5456.2
5456.3
5457.0
5457.1
5457.2
5457.3
5457.4
5457.5
5457.6
5457.7
5457.8
5458.0
5458.1
5458.2
5458.3
5458.4
5458.5
5458.6
5458.7
5458.8
5458.9
5460.0
5460.1
5460.2
5460.3
5460.4
5460.5
5460.6
5460.7
5460.8
5460.9
5461.0
5461.1
5461.2
5461.3
5461.4
5461.5
5461.6
5461.7
5461.8

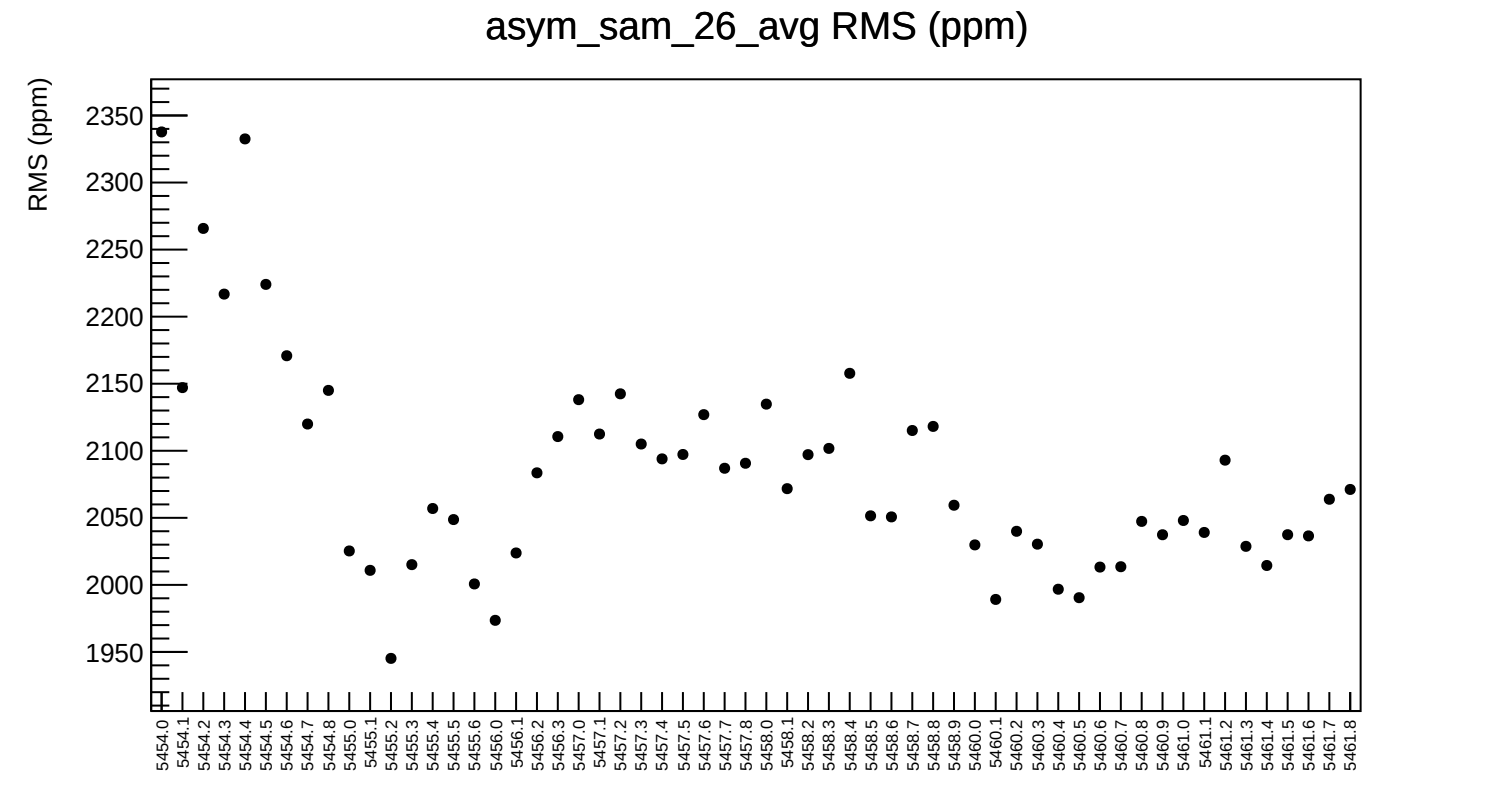

asym_sam_15_avg
χ² / ndf 56.75 / 57
p0 −26.36 ± 114.8

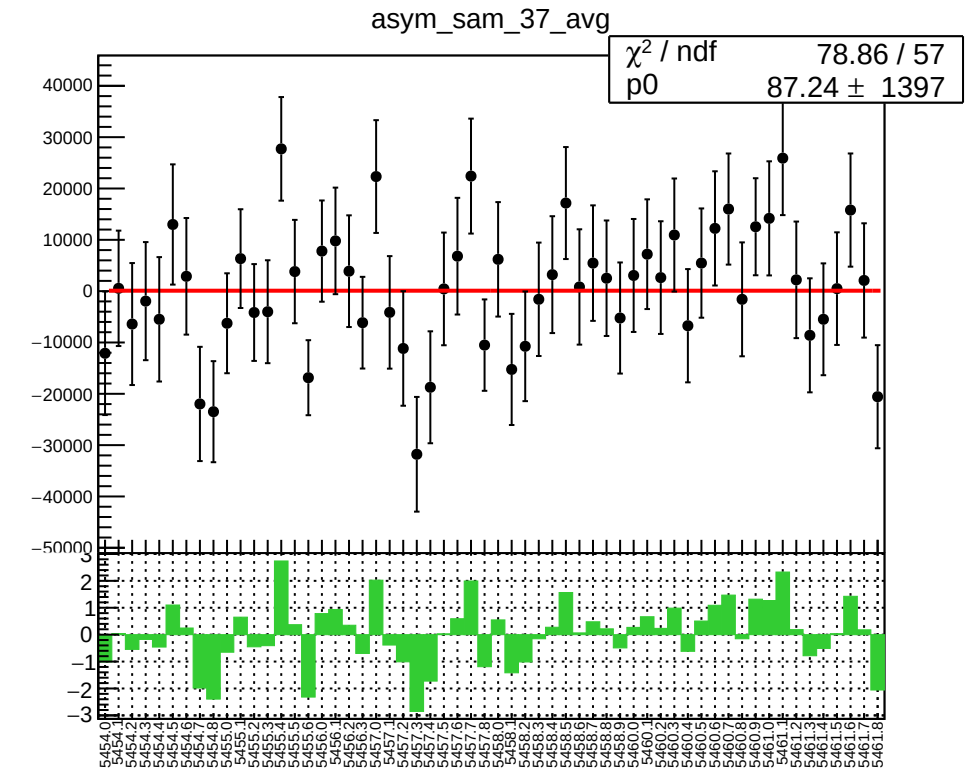

1D pull distribution
Mean −0.01304 ± 0.1299
Std Dev 0.9891 ± 0.09183
Underflow 0
Overflow 0
χ² / ndf 6.452 / 6
Constant 10.53 ± 1.85
Mean 0.03681 ± 0.18748
Sigma 1.134 ± 0.164

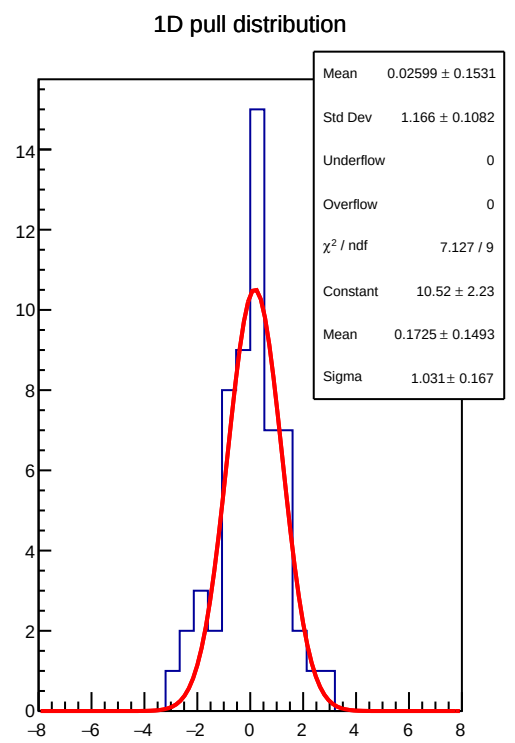

asym_sam_15_avg RMS (ppm)
RMS (ppm)
105
100
95
90
85
80
75
5454.0
5454.1
5454.2
5454.3
5454.4
5454.5
5454.6
5454.7
5454.8
5455.0
5455.1
5455.2
5455.3
5455.4
5455.5
5455.6
5456.0
5456.1
5456.2
5456.3
5457.0
5457.1
5457.2
5457.3
5457.4
5457.5
5457.6
5457.7
5457.8
5458.0
5458.1
5458.2
5458.3
5458.4
5458.5
5458.6
5458.7
5458.8
5458.9
5460.0
5460.1
5460.2
5460.3
5460.4
5460.5
5460.6
5460.7
5460.8
5460.9
5461.0
5461.1
5461.2
5461.3
5461.4
5461.5
5461.6
5461.7
5461.8

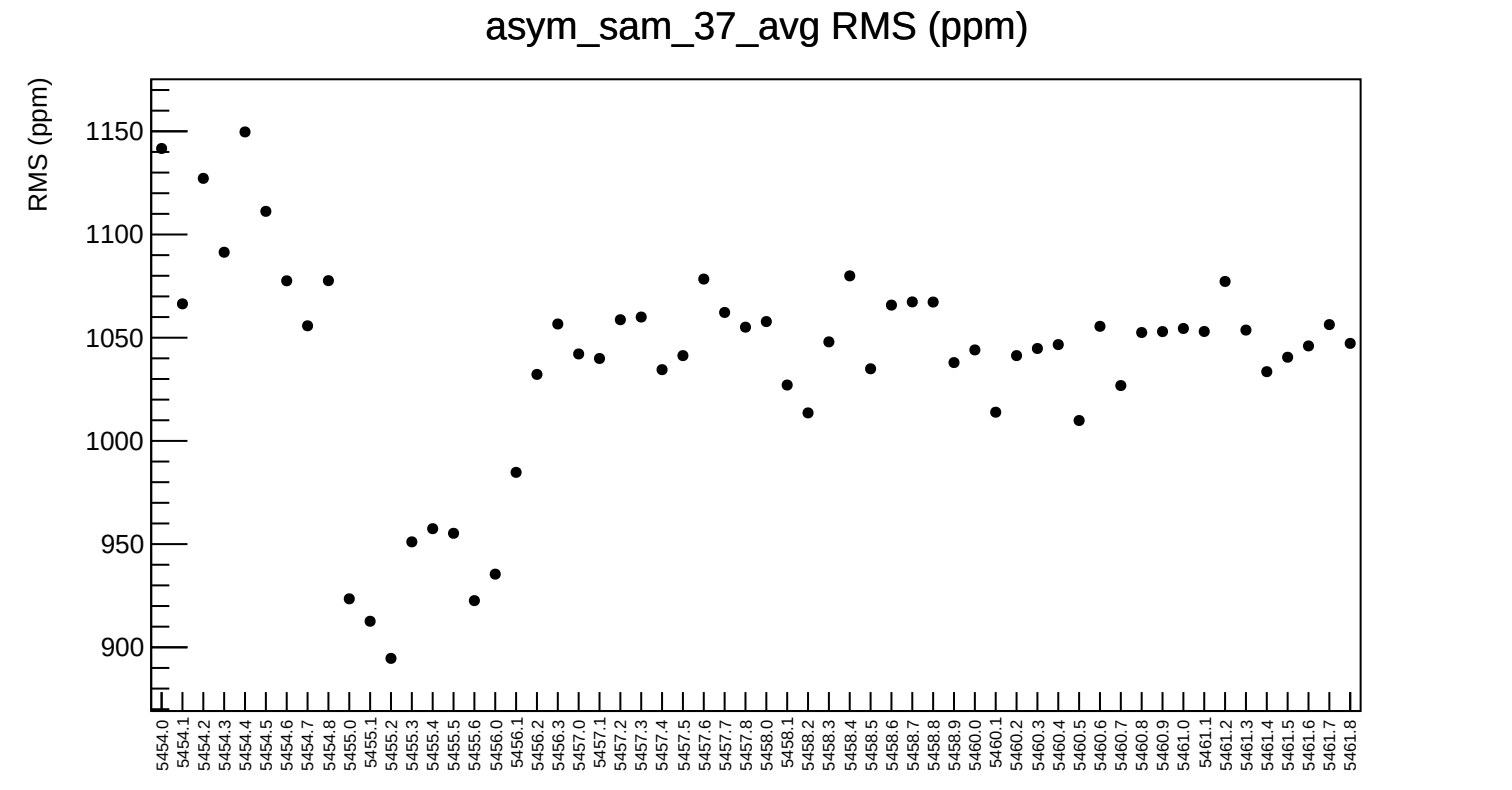

asym_sam_26_avg
χ² / ndf 70.83 / 57
p0 −205.6 ± 2809

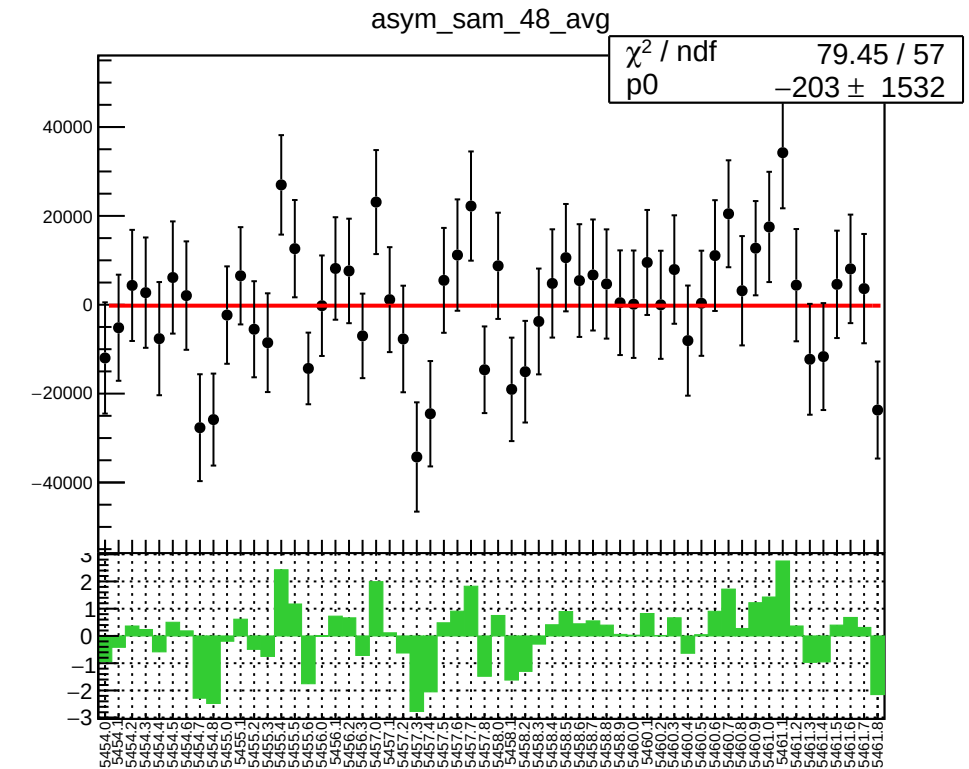

1D pull distribution
Mean 0.01745 ± 0.1451
Std Dev 1.105 ± 0.1026
Underflow 0
Overflow 0
χ² / ndf 10.01 / 7
Constant 8.657 ± 1.815
Mean −0.1218 ± 0.2015
Sigma 1.213 ± 0.218

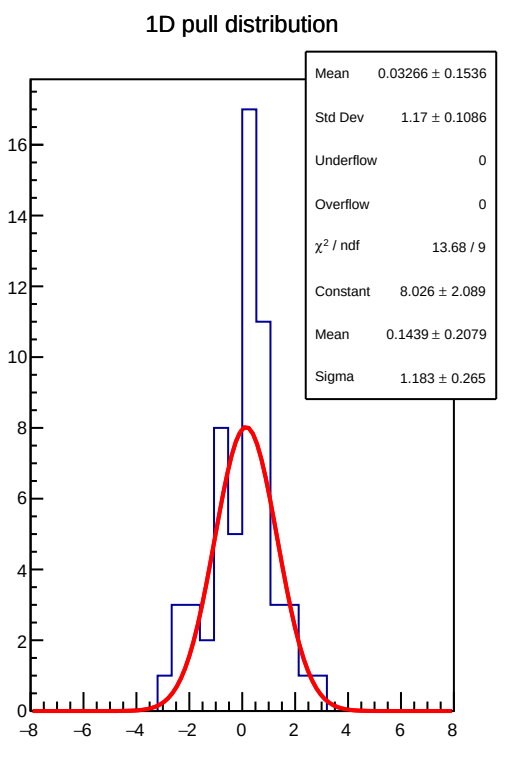

asym_sam_26_avg RMS (ppm)
RMS (ppm)
2350
2300
2250
2200
2150
2100
2050
2000
1950
5454.0
5454.1
5454.2
5454.3
5454.4
5454.5
5454.6
5454.7
5454.8
5455.0
5455.1
5455.2
5455.3
5455.4
5455.5
5455.6
5456.0
5456.1
5456.2
5456.3
5457.0
5457.1
5457.2
5457.3
5457.4
5457.5
5457.6
5457.7
5457.8
5458.0
5458.1
5458.2
5458.3
5458.4
5458.5
5458.6
5458.7
5458.8
5458.9
5460.0
5460.1
5460.2
5460.3
5460.4
5460.5
5460.6
5460.7
5460.8
5460.9
5461.0
5461.1
5461.2
5461.3
5461.4
5461.5
5461.6
5461.7
5461.8

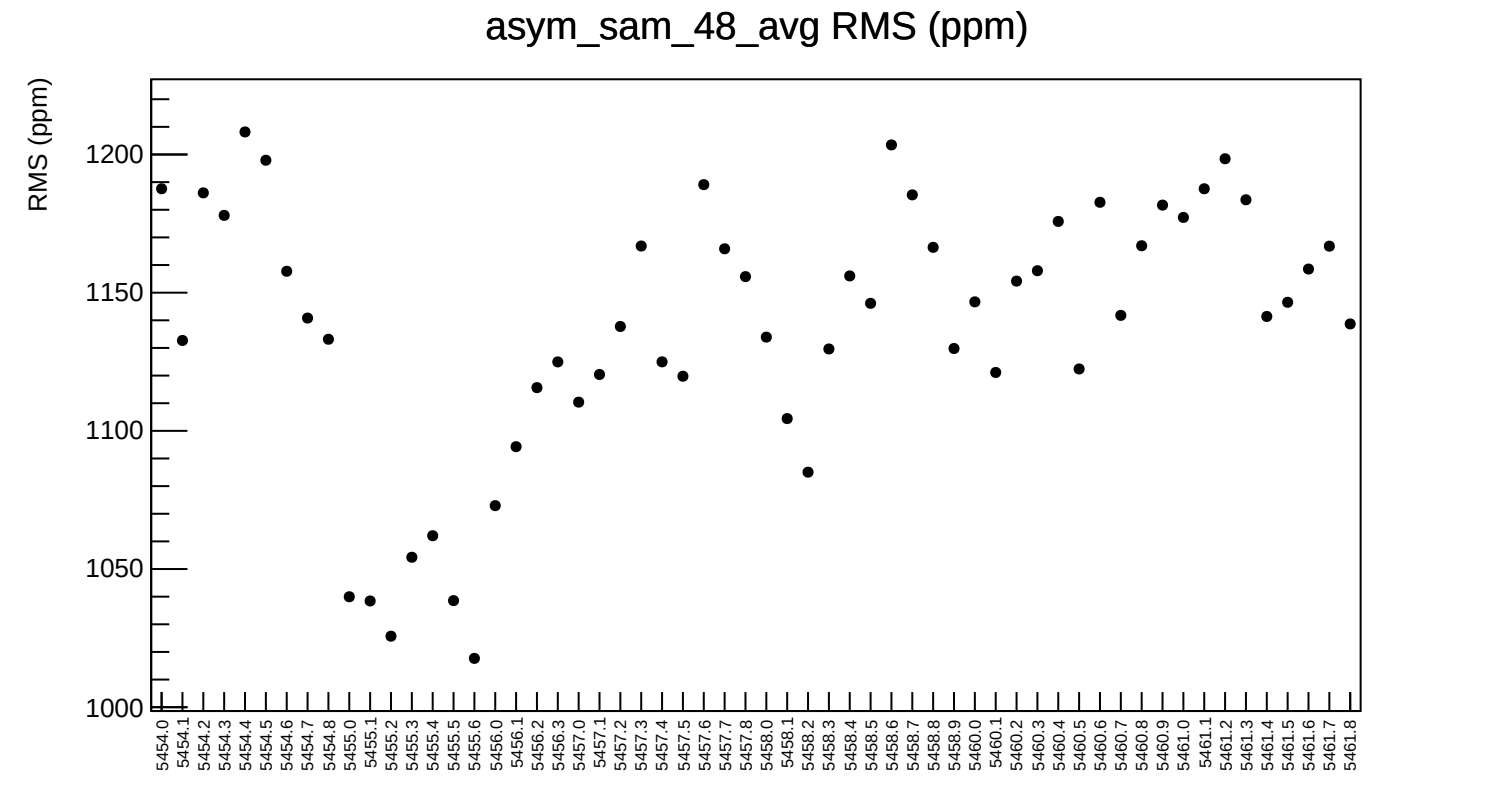

asym_sam_37_avg
χ² / ndf 78.86 / 57
p0 87.24 ± 1397

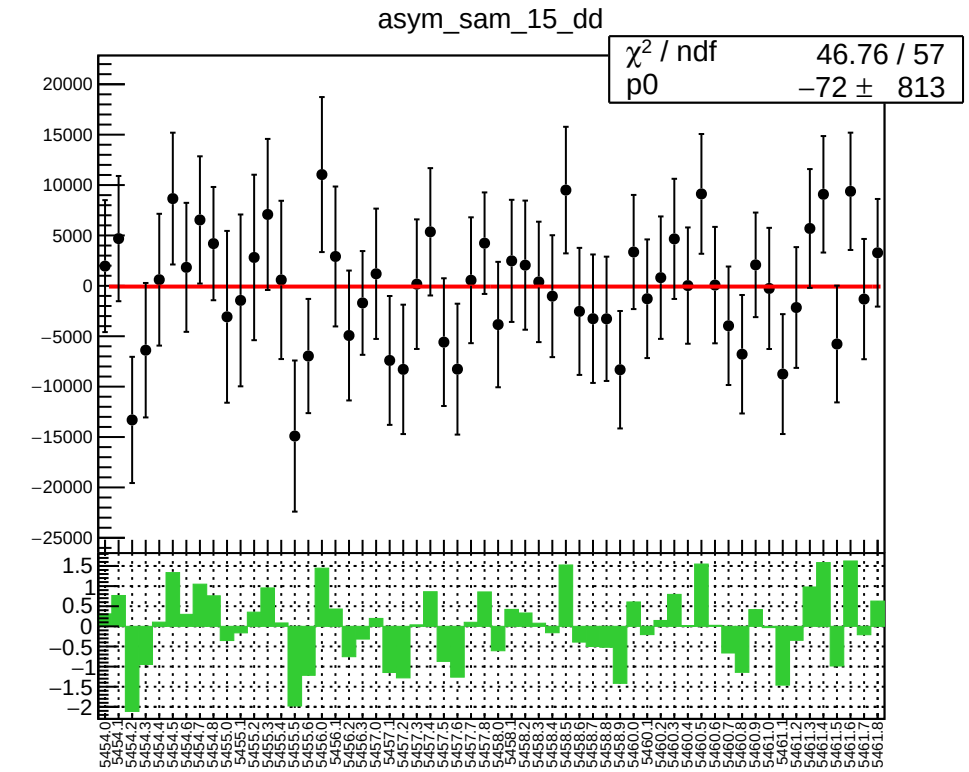

1D pull distribution
Mean 0.02599 ± 0.1531
Std Dev 1.166 ± 0.1082
Underflow 0
Overflow 0
χ² / ndf 7.127 / 9
Constant 10.52 ± 2.23
Mean 0.1725 ± 0.1493
Sigma 1.031 ± 0.167

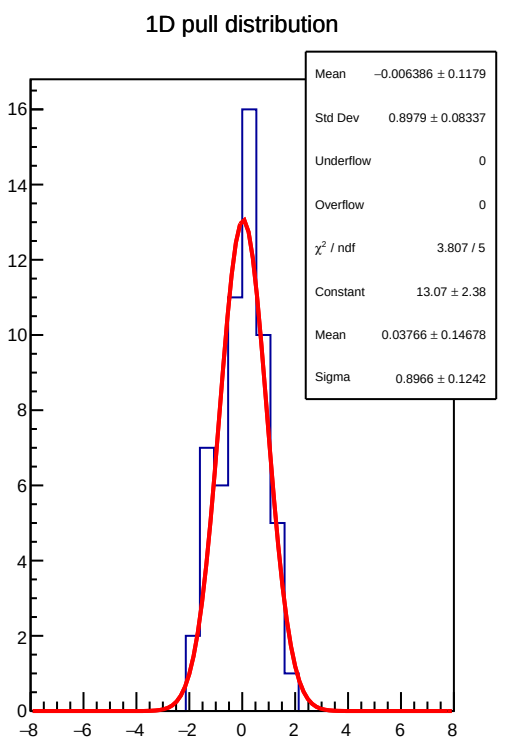

asym_sam_37_avg RMS (ppm)
RMS (ppm)
1150
1100
1050
1000
950
900
5454.0
5454.1
5454.2
5454.3
5454.4
5454.5
5454.6
5454.7
5454.8
5455.0
5455.1
5455.2
5455.3
5455.4
5455.5
5455.6
5456.0
5456.1
5456.2
5456.3
5457.0
5457.1
5457.2
5457.3
5457.4
5457.5
5457.6
5457.7
5457.8
5458.0
5458.1
5458.2
5458.3
5458.4
5458.5
5458.6
5458.7
5458.8
5458.9
5460.0
5460.1
5460.2
5460.3
5460.4
5460.5
5460.6
5460.7
5460.8
5460.9
5461.0
5461.1
5461.2
5461.3
5461.4
5461.5
5461.6
5461.7
5461.8

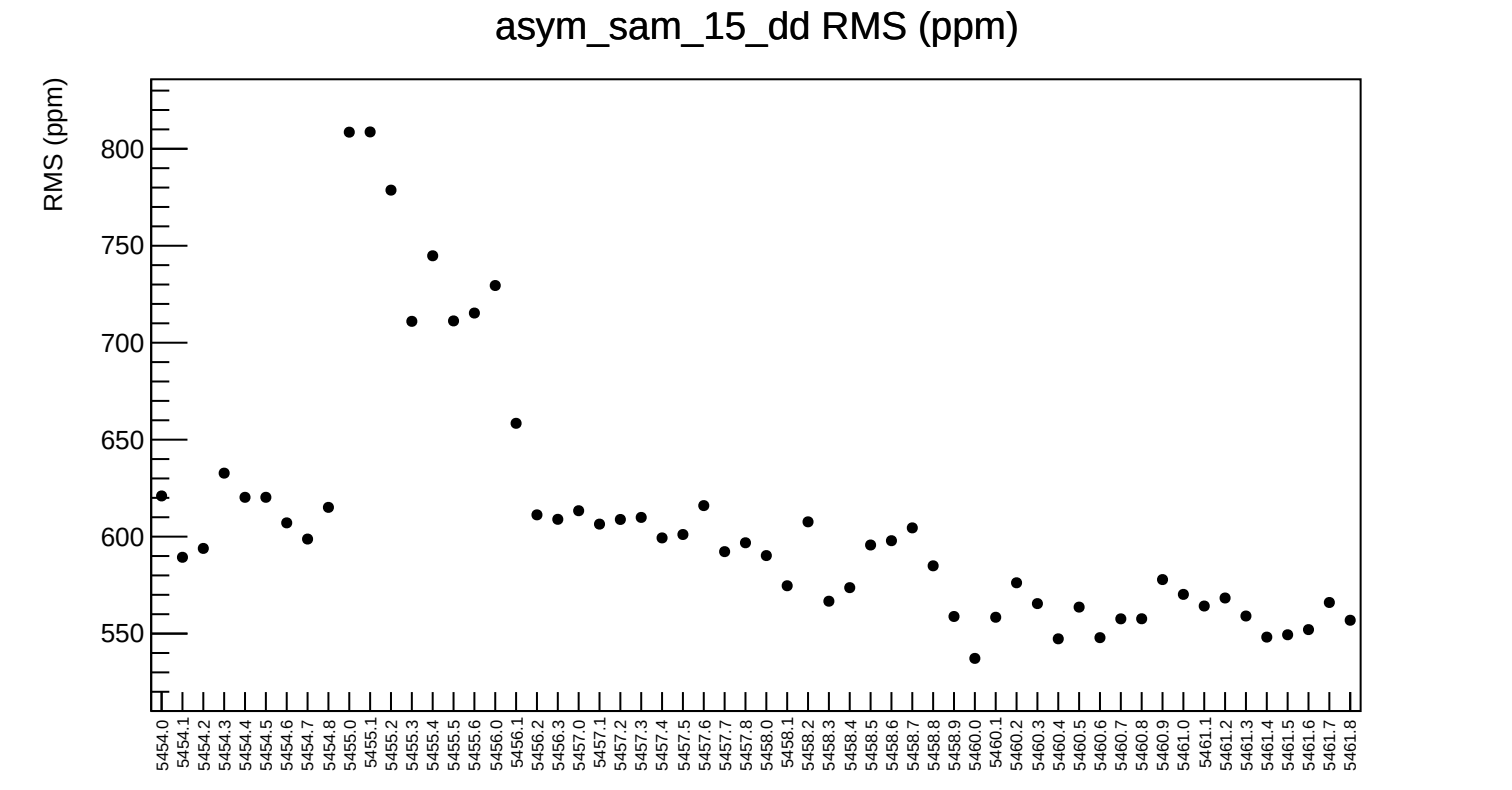

asym_sam_48_avg
χ² / ndf 79.45 / 57
p0 −203 ± 1532
40000
20000
0
−20000
−40000
3
2
1
0
−1
−2
−3
5454.0
5454.1
5454.2
5454.3
5454.4
5454.5
5454.6
5454.7
5454.8
5455.0
5455.1
5455.2
5455.3
5455.4
5455.5
5455.6
5456.0
5456.1
5456.2
5456.3
5456.4
5457.0
5457.1
5457.2
5457.3
5457.4
5457.5
5457.6
5457.7
5457.8
5458.0
5458.1
5458.2
5458.3
5458.4
5458.5
5458.6
5458.7
5458.8
5458.9
5460.0
5460.1
5460.2
5460.3
5460.4
5460.5
5460.6
5460.7
5460.8
5460.9
5461.0
5461.1
5461.2
5461.3
5461.4
5461.5
5461.6
5461.7
5461.8

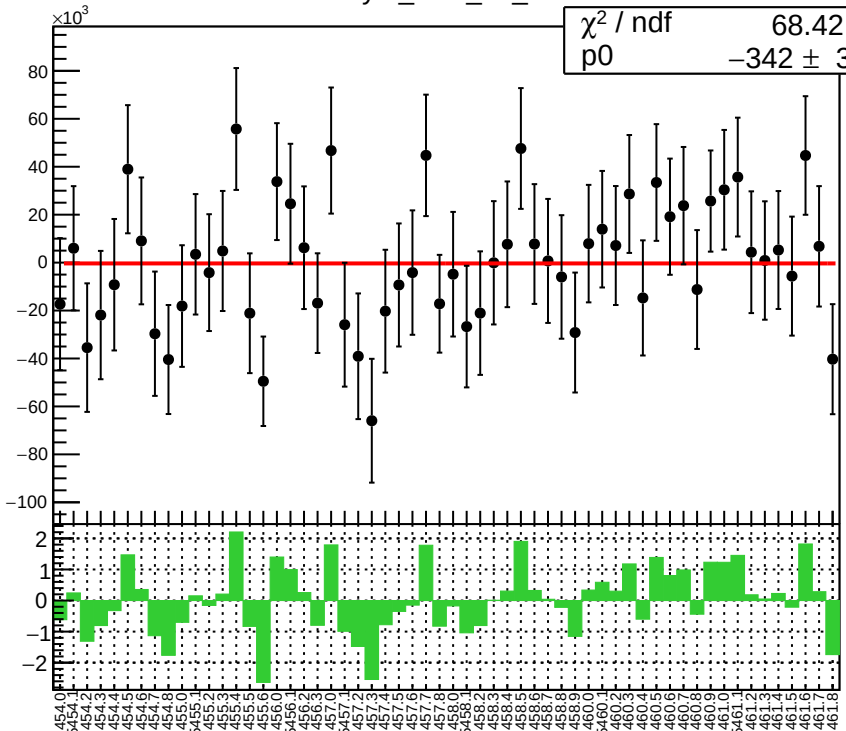

1D pull distribution
Mean 0.03266 ± 0.1536
Std Dev 1.17 ± 0.1086
Underflow 0
Overflow 0
χ² / ndf 13.68 / 9
Constant 8.026 ± 2.089
Mean 0.1439 ± 0.2079
Sigma 1.183 ± 0.265
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8

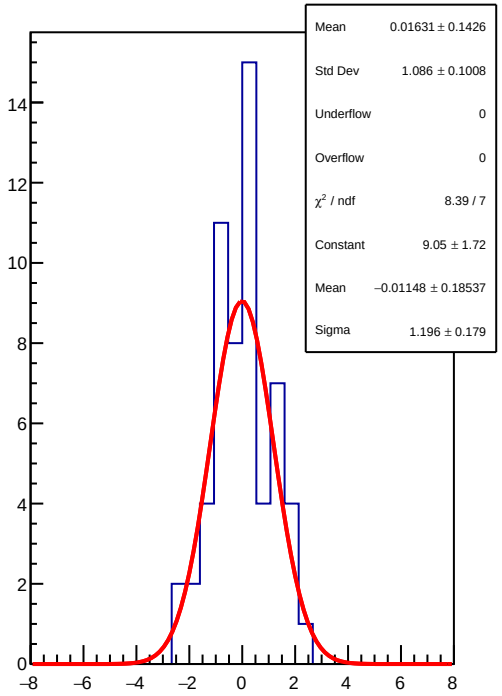

asym_sam_48_avg RMS (ppm)
RMS (ppm)
1200
1150
1100
1050
1000
5454.0
5454.1
5454.2
5454.3
5454.4
5454.5
5454.6
5454.7
5454.8
5455.0
5455.1
5455.2
5455.3
5455.4
5455.5
5455.6
5456.0
5456.1
5456.2
5456.3
5457.0
5457.1
5457.2
5457.3
5457.4
5457.5
5457.6
5457.7
5457.8
5458.0
5458.1
5458.2
5458.3
5458.4
5458.5
5458.6
5458.7
5458.8
5458.9
5460.0
5460.1
5460.2
5460.3
5460.4
5460.5
5460.6
5460.7
5460.8
5460.9
5461.0
5461.1
5461.2
5461.3
5461.4
5461.5
5461.6
5461.7
5461.8

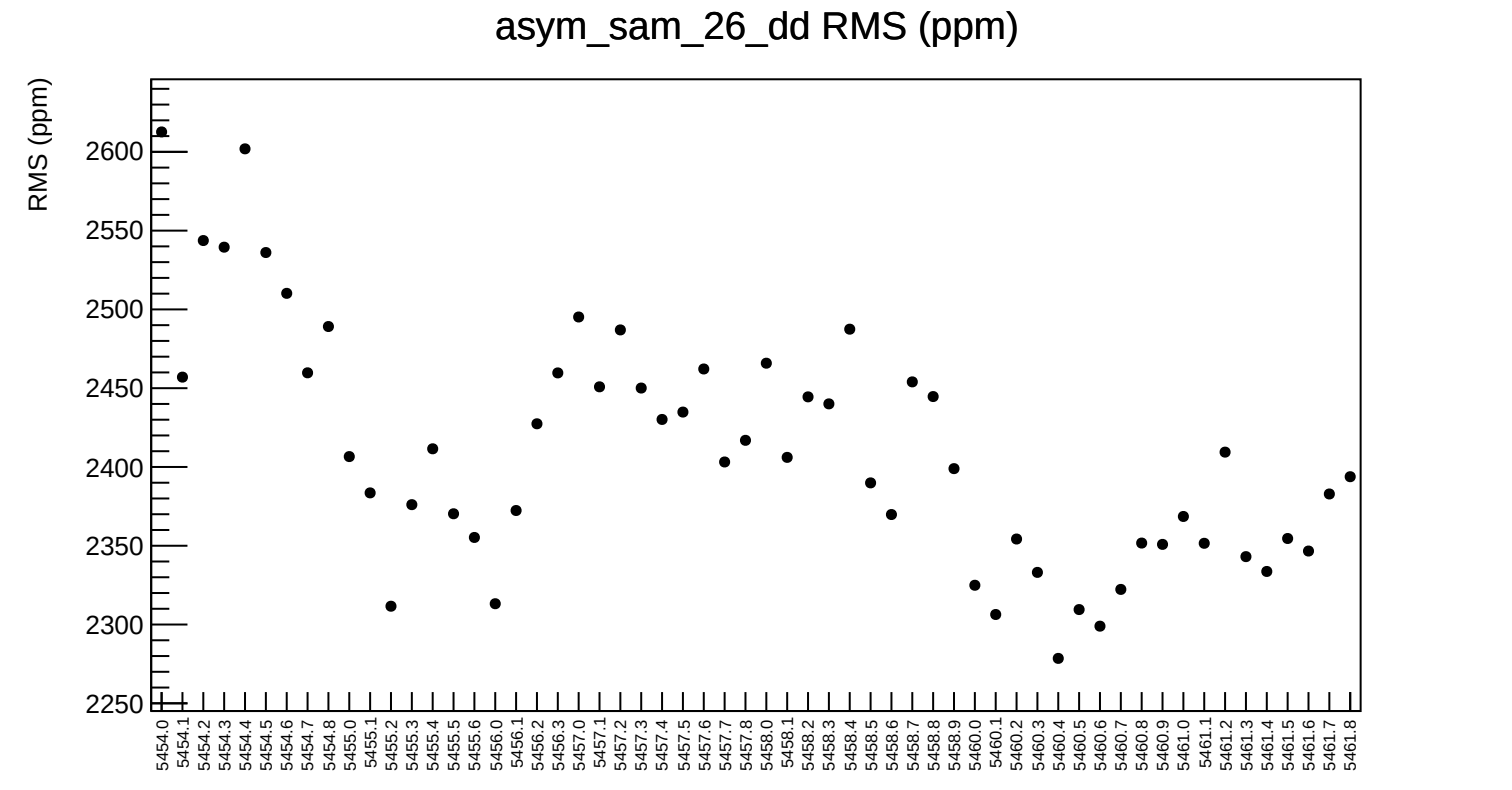

asym_sam_15_dd
χ² / ndf 46.76 / 57
p0 −72 ± 813

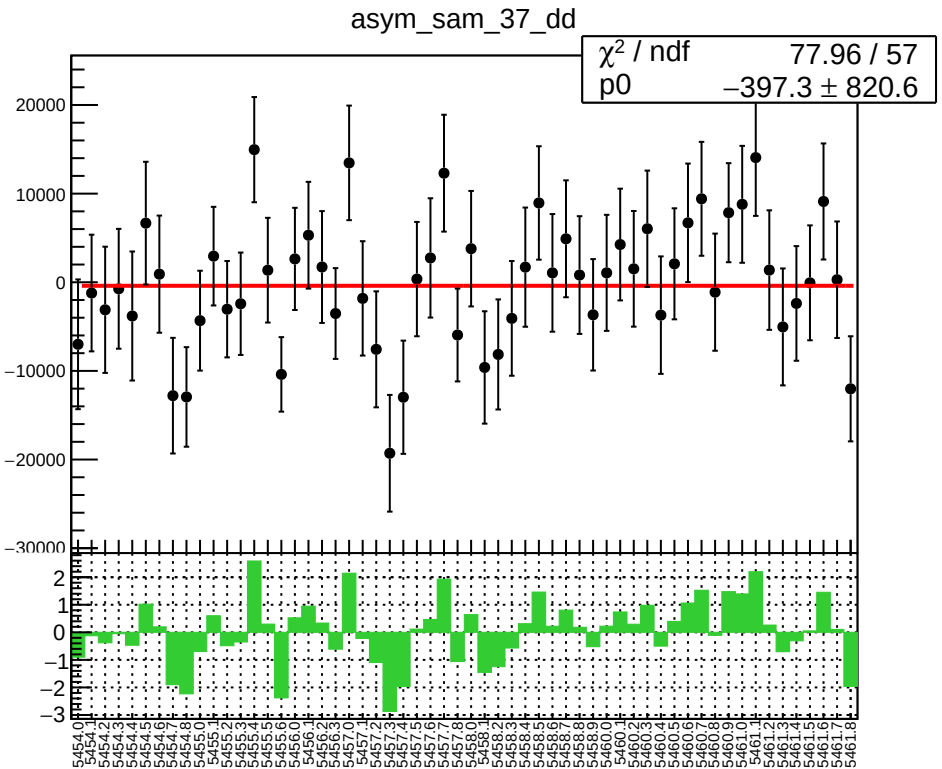

1D pull distribution
Mean −0.006386 ± 0.1179
Std Dev 0.8979 ± 0.08337
Underflow 0
Overflow 0
χ² / ndf 3.807 / 5
Constant 13.07 ± 2.38
Mean 0.03766 ± 0.14678
Sigma 0.8966 ± 0.1242

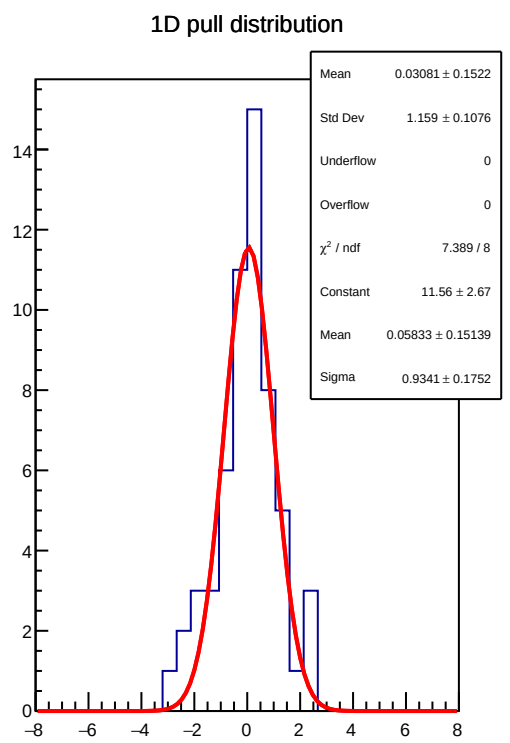

asym_sam_15_dd RMS (ppm)
RMS (ppm)
800
750
700
650
600
550
5454.0
5454.1
5454.2
5454.3
5454.4
5454.5
5454.6
5454.7
5454.8
5455.0
5455.1
5455.2
5455.3
5455.4
5455.5
5455.6
5456.0
5456.1
5456.2
5456.3
5457.0
5457.1
5457.2
5457.3
5457.4
5457.5
5457.6
5457.7
5457.8
5458.0
5458.1
5458.2
5458.3
5458.4
5458.5
5458.6
5458.7
5458.8
5458.9
5460.0
5460.1
5460.2
5460.3
5460.4
5460.5
5460.6
5460.7
5460.8
5460.9
5461.0
5461.1
5461.2
5461.3
5461.4
5461.5
5461.6
5461.7
5461.8

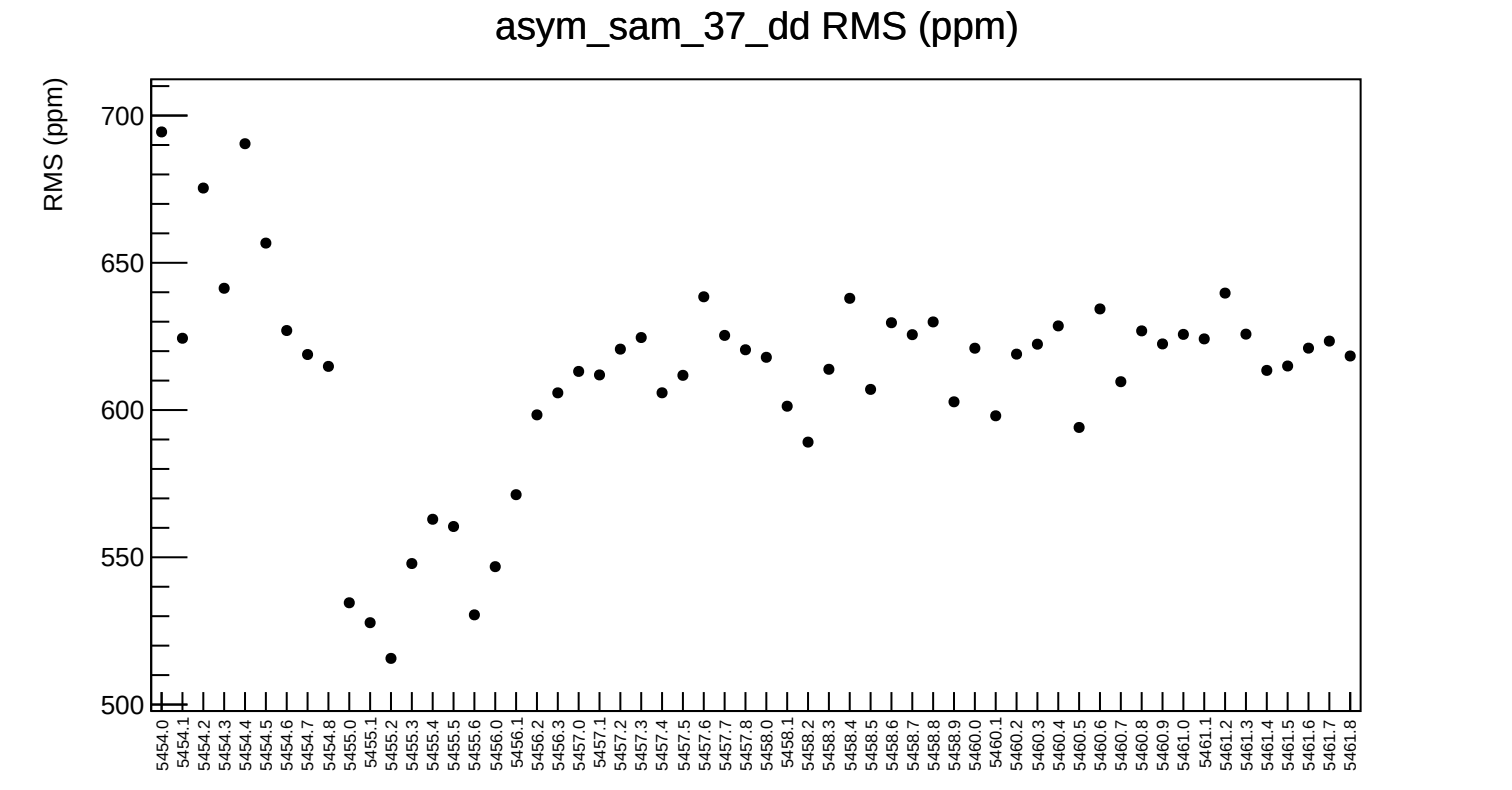

asym_sam_26_dd
χ² / ndf 68.42 / 57
p0 −342 ± 3253
×10³

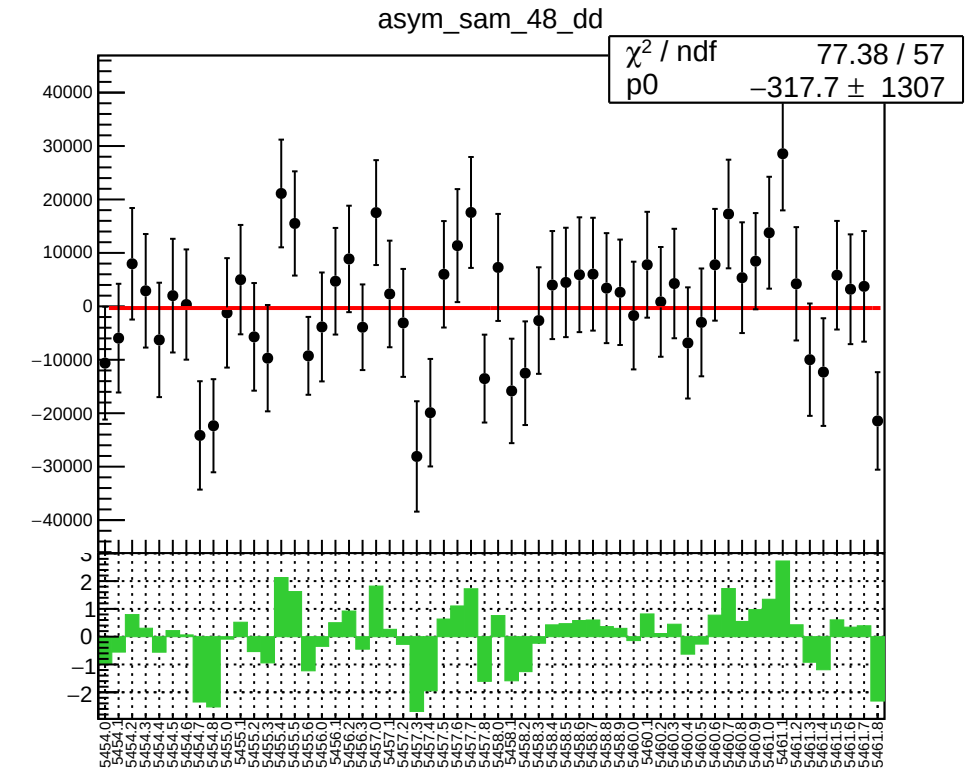

1D pull distribution
Mean 0.01631 ± 0.1426
Std Dev 1.086 ± 0.1008
Underflow 0
Overflow 0
χ² / ndf 8.39 / 7
Constant 9.05 ± 1.72
Mean −0.01148 ± 0.18537
Sigma 1.196 ± 0.179

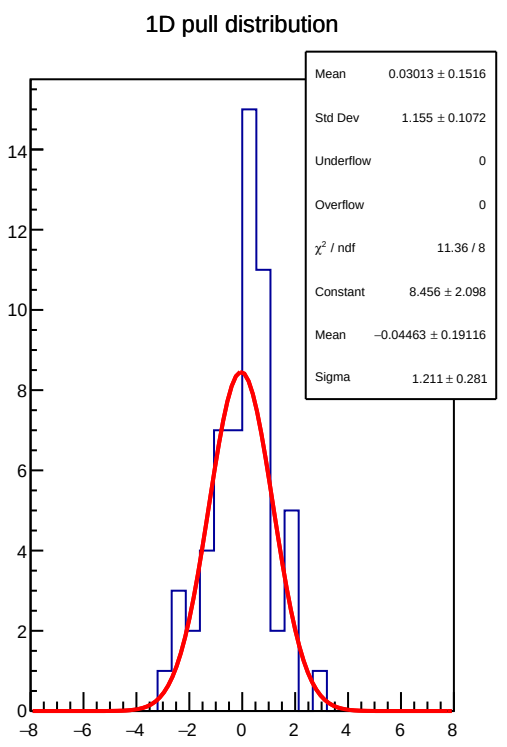

asym_sam_26_dd RMS (ppm)
RMS (ppm)
2600
2550
2500
2450
2400
2350
2300
2250
5454.0
5454.1
5454.2
5454.3
5454.4
5454.5
5454.6
5454.7
5454.8
5455.0
5455.1
5455.2
5455.3
5455.4
5455.5
5455.6
5456.0
5456.1
5456.2
5456.3
5457.0
5457.1
5457.2
5457.3
5457.4
5457.5
5457.6
5457.7
5457.8
5458.0
5458.1
5458.2
5458.3
5458.4
5458.5
5458.6
5458.7
5458.8
5458.9
5460.0
5460.1
5460.2
5460.3
5460.4
5460.5
5460.6
5460.7
5460.8
5460.9
5461.0
5461.1
5461.2
5461.3
5461.4
5461.5
5461.6
5461.7
5461.8

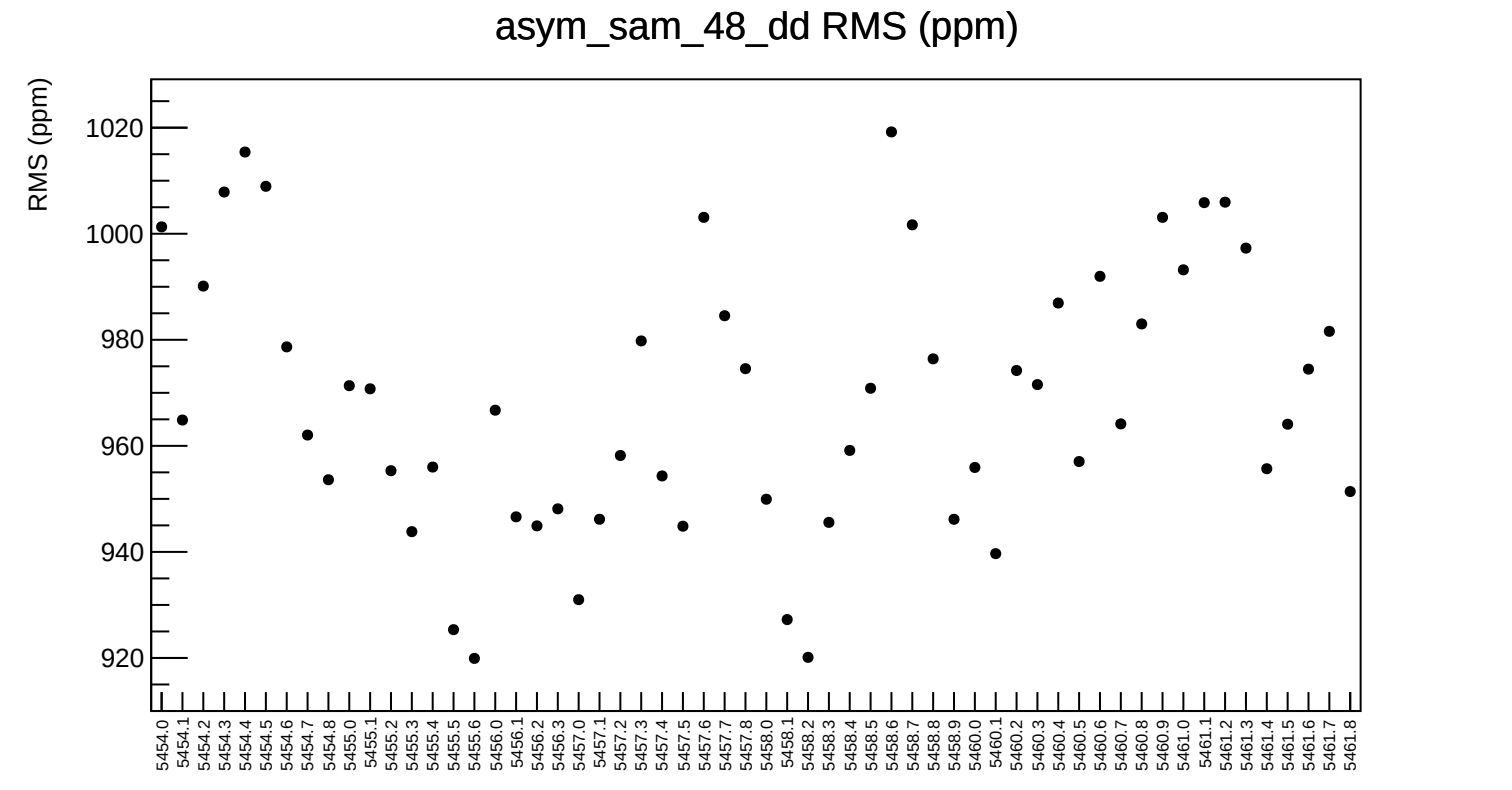

asym_sam_37_dd
χ² / ndf 77.96 / 57
p0 −397.3 ± 820.6

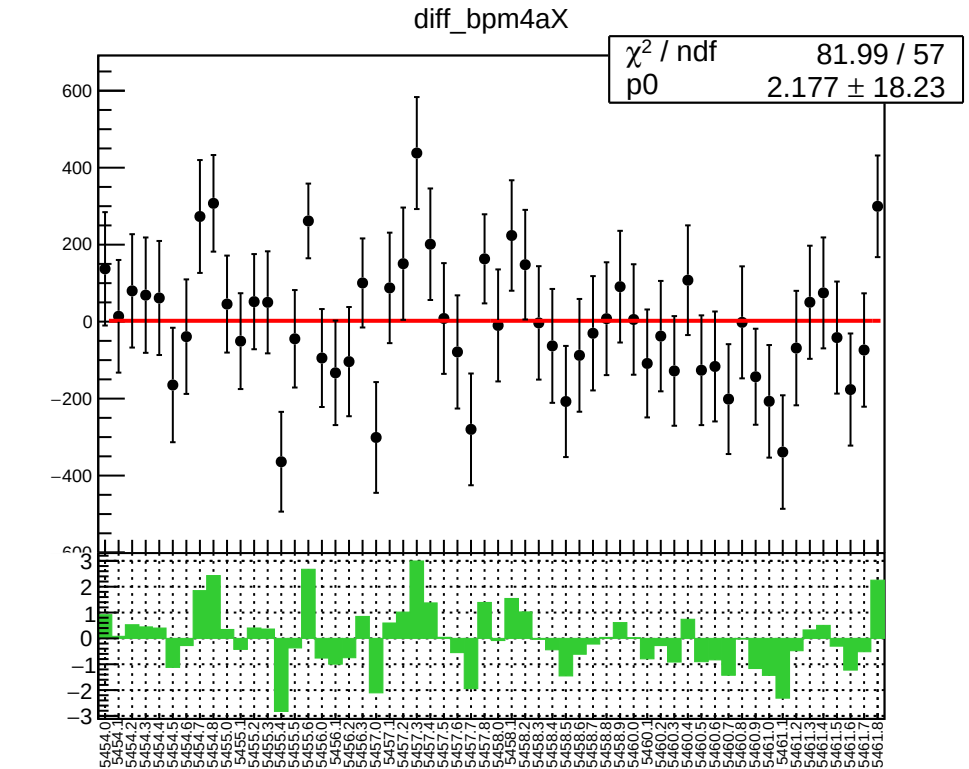

1D pull distribution
Mean 0.03081 ± 0.1522
Std Dev 1.159 ± 0.1076
Underflow 0
Overflow 0
χ² / ndf 7.389 / 8
Constant 11.56 ± 2.67
Mean 0.05833 ± 0.15139
Sigma 0.9341 ± 0.1752

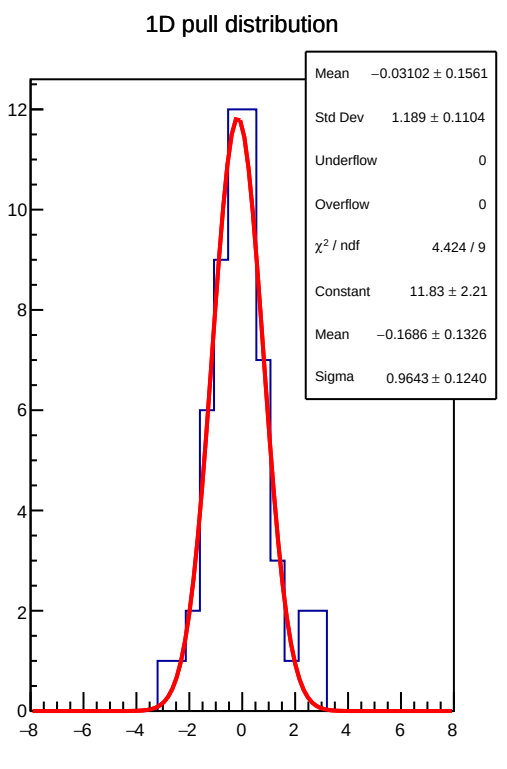

asym_sam_37_dd RMS (ppm)
RMS (ppm)
700
650
600
550
500
5454.0
5454.1
5454.2
5454.3
5454.4
5454.5
5454.6
5454.7
5454.8
5455.0
5455.1
5455.2
5455.3
5455.4
5455.5
5455.6
5456.0
5456.1
5456.2
5456.3
5457.0
5457.1
5457.2
5457.3
5457.4
5457.5
5457.6
5457.7
5457.8
5458.0
5458.1
5458.2
5458.3
5458.4
5458.5
5458.6
5458.7
5458.8
5458.9
5460.0
5460.1
5460.2
5460.3
5460.4
5460.5
5460.6
5460.7
5460.8
5460.9
5461.0
5461.1
5461.2
5461.3
5461.4
5461.5
5461.6
5461.7
5461.8

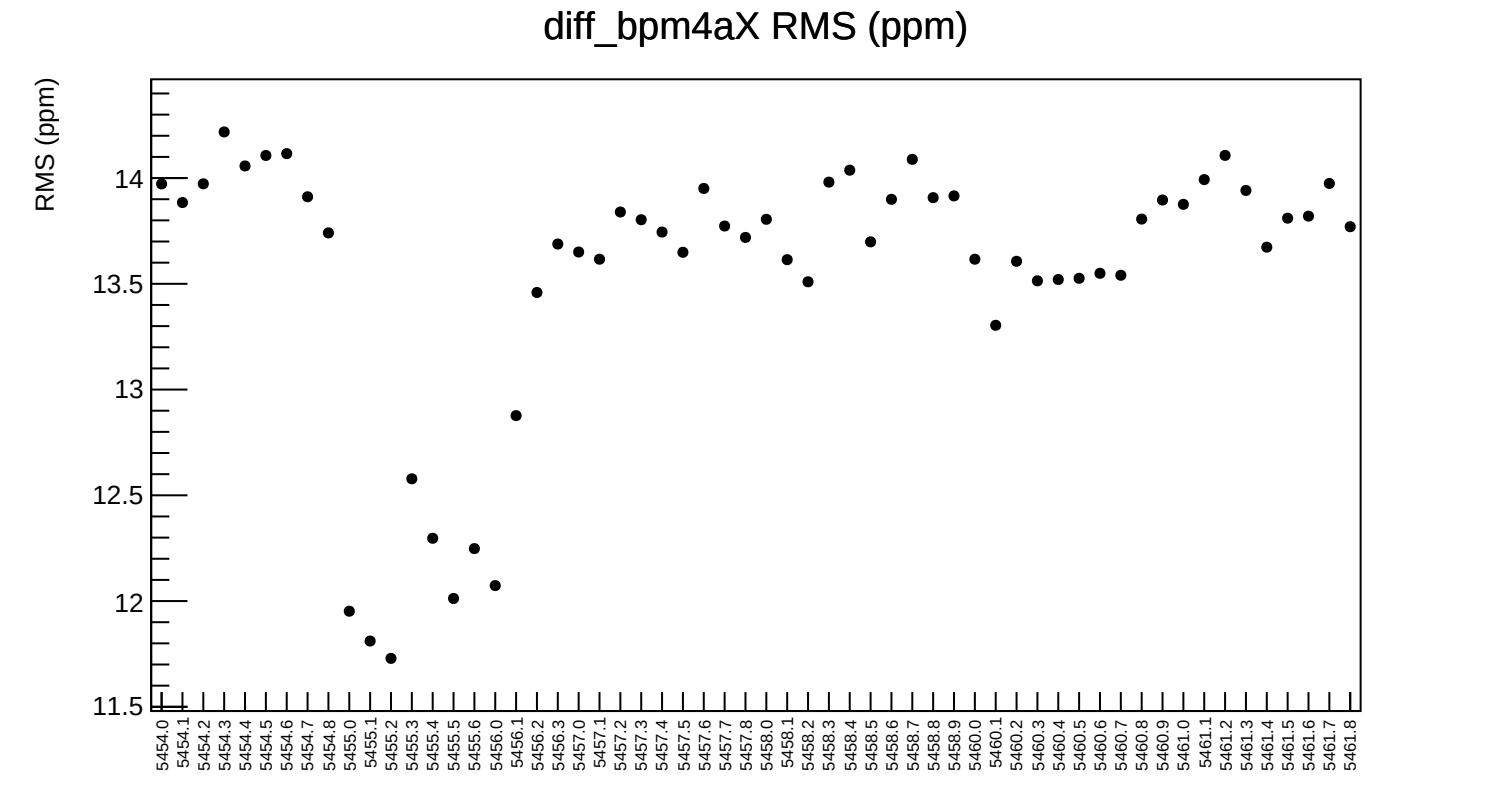

asym_sam_48_dd
χ² / ndf 77.38 / 57
p0 −317.7 ± 1307

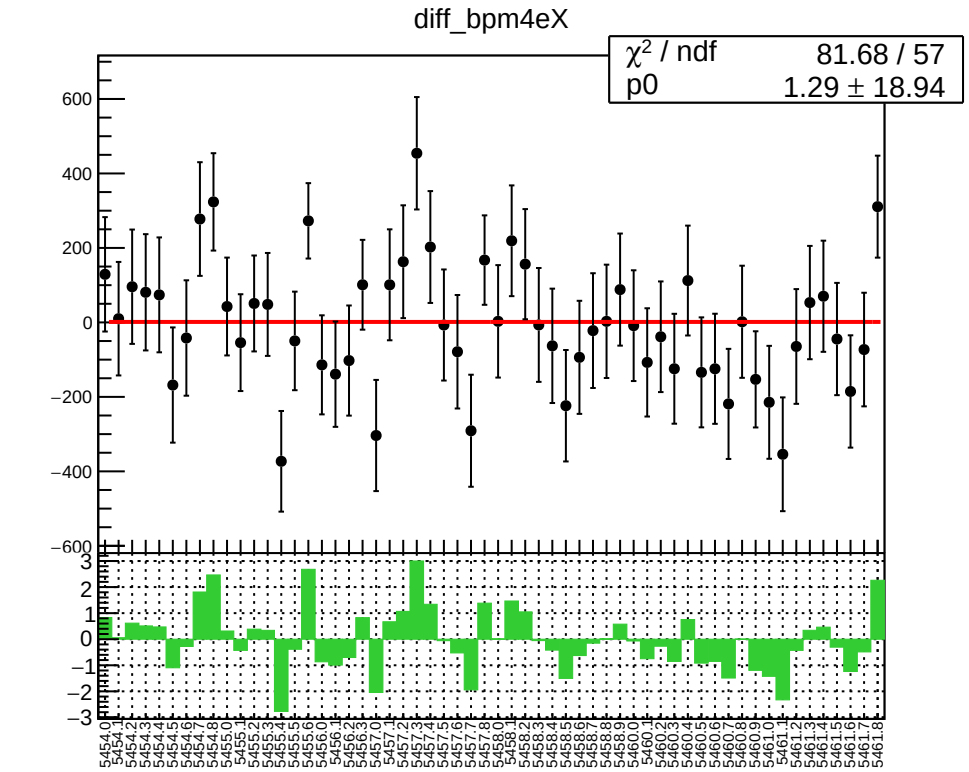

1D pull distribution
Mean 0.03013 ± 0.1516
Std Dev 1.155 ± 0.1072
Underflow 0
Overflow 0
χ² / ndf 11.36 / 8
Constant 8.456 ± 2.098
Mean −0.04463 ± 0.19116
Sigma 1.211 ± 0.281

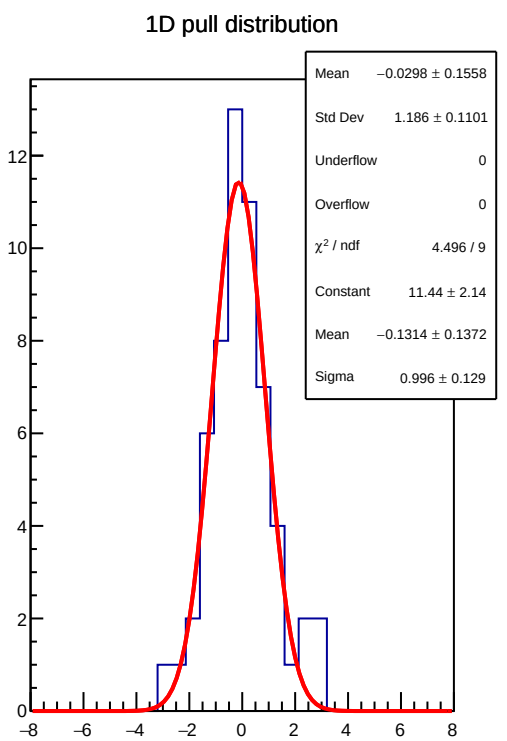

asym_sam_48_dd RMS (ppm)
RMS (ppm)
1020
1000
980
960
940
920
5454.0
5454.1
5454.2
5454.3
5454.4
5454.5
5454.6
5454.7
5454.8
5455.0
5455.1
5455.2
5455.3
5455.4
5455.5
5455.6
5456.0
5456.1
5456.2
5456.3
5457.0
5457.1
5457.2
5457.3
5457.4
5457.5
5457.6
5457.7
5457.8
5458.0
5458.1
5458.2
5458.3
5458.4
5458.5
5458.6
5458.7
5458.8
5458.9
5460.0
5460.1
5460.2
5460.3
5460.4
5460.5
5460.6
5460.7
5460.8
5460.9
5461.0
5461.1
5461.2
5461.3
5461.4
5461.5
5461.6
5461.7
5461.8

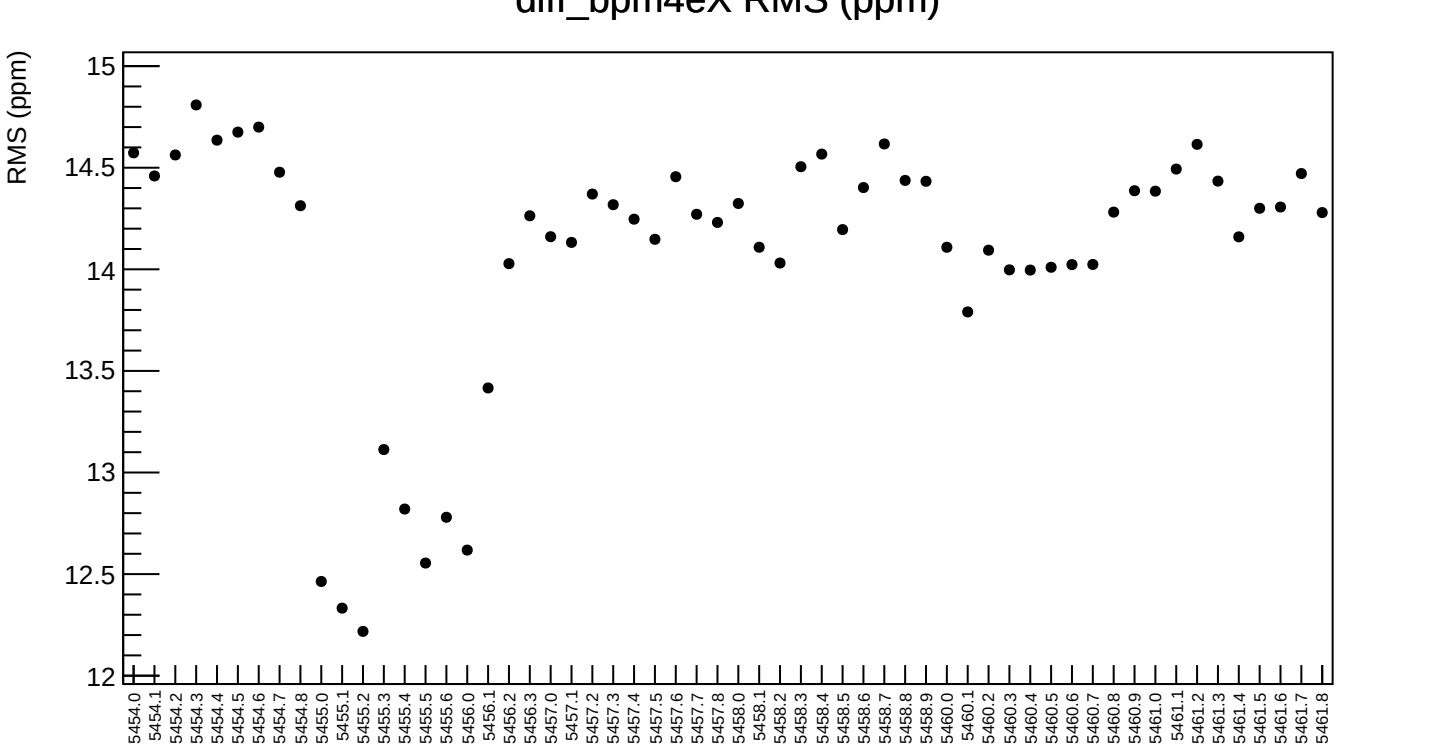

diff_bpm4aX
χ² / ndf 81.99 / 57
p0 2.177 ± 18.23

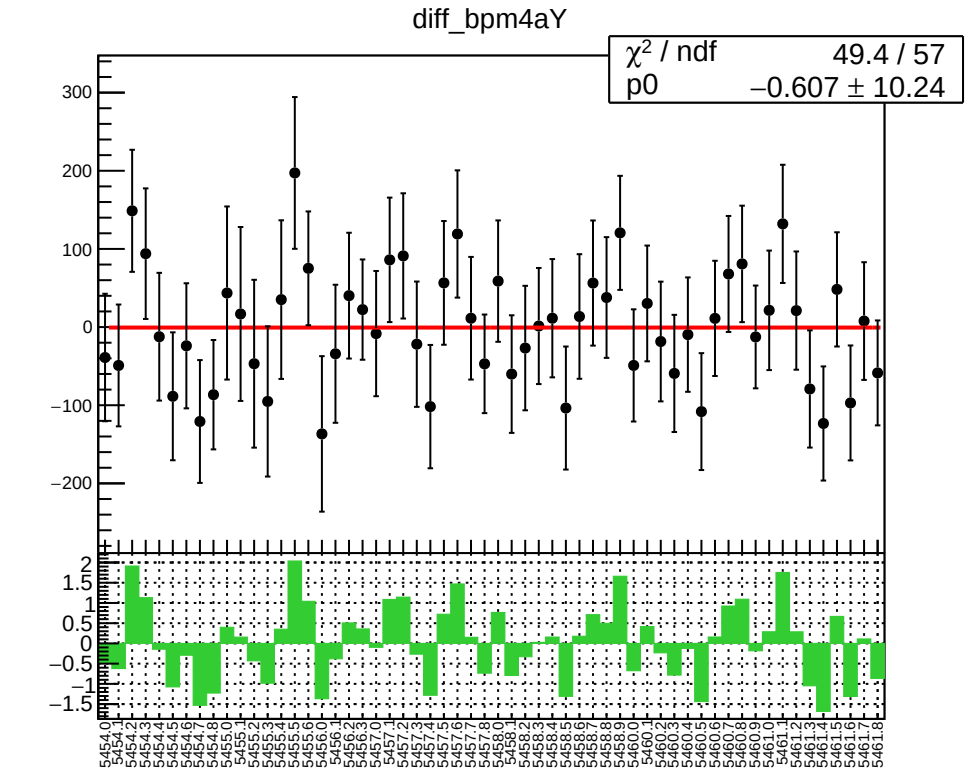

1D pull distribution
Mean −0.03102 ± 0.1561
Std Dev 1.189 ± 0.1104
Underflow 0
Overflow 0
χ² / ndf 4.424 / 9
Constant 11.83 ± 2.21
Mean −0.1686 ± 0.1326
Sigma 0.9643 ± 0.1240

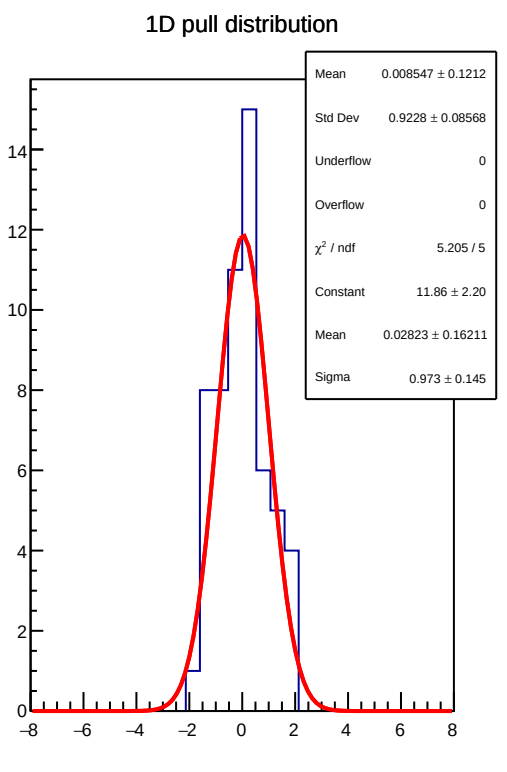

diff_bpm4aX RMS (ppm)
RMS (ppm)
14
13.5
13
12.5
12
11.5
5454.0
5454.1
5454.2
5454.3
5454.4
5454.5
5454.6
5454.7
5454.8
5455.0
5455.1
5455.2
5455.3
5455.4
5455.5
5455.6
5456.0
5456.1
5456.2
5456.3
5457.0
5457.1
5457.2
5457.3
5457.4
5457.5
5457.6
5457.7
5457.8
5458.0
5458.1
5458.2
5458.3
5458.4
5458.5
5458.6
5458.7
5458.8
5458.9
5460.0
5460.1
5460.2
5460.3
5460.4
5460.5
5460.6
5460.7
5460.8
5460.9
5461.0
5461.1
5461.2
5461.3
5461.4
5461.5
5461.6
5461.7
5461.8

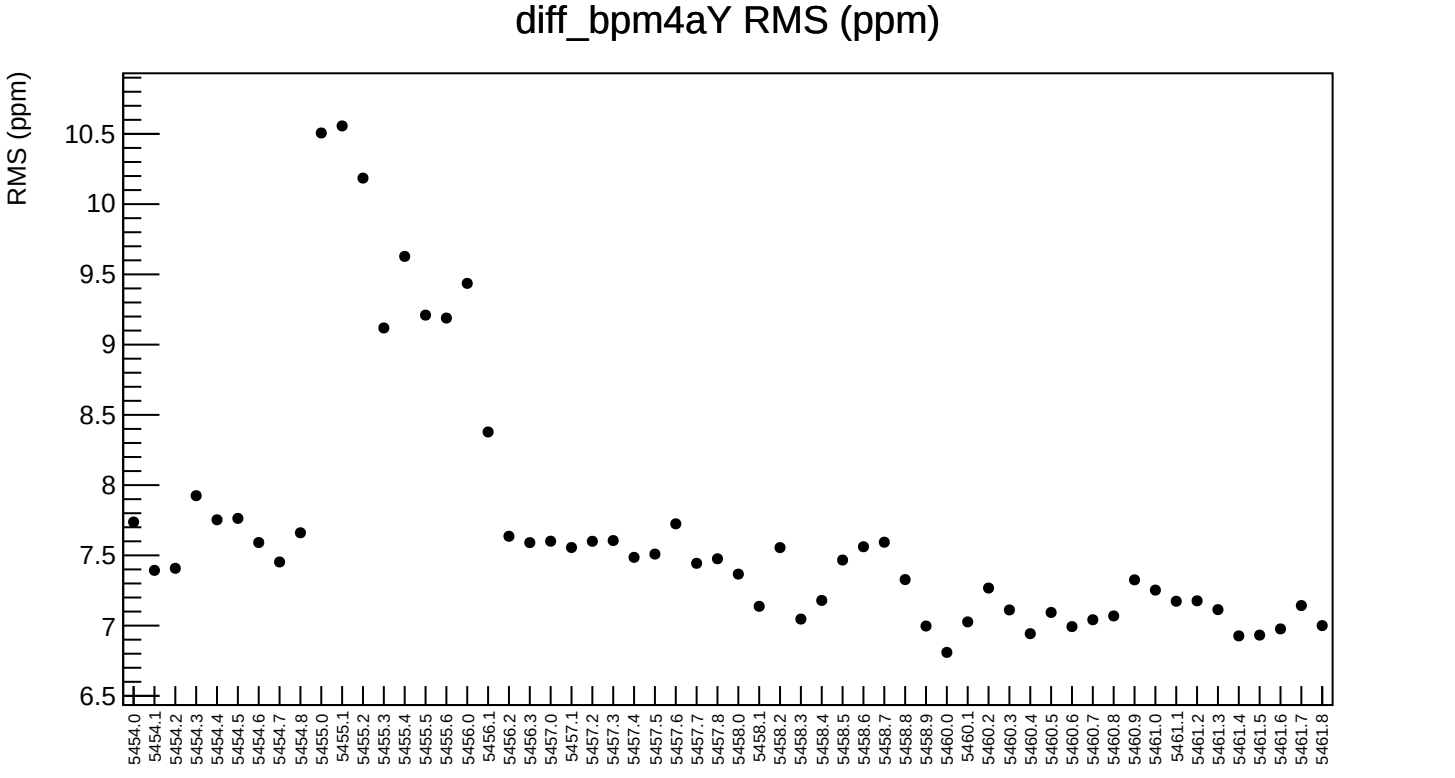

diff_bpm4eX
χ² / ndf 81.68 / 57
p0 1.29 ± 18.94

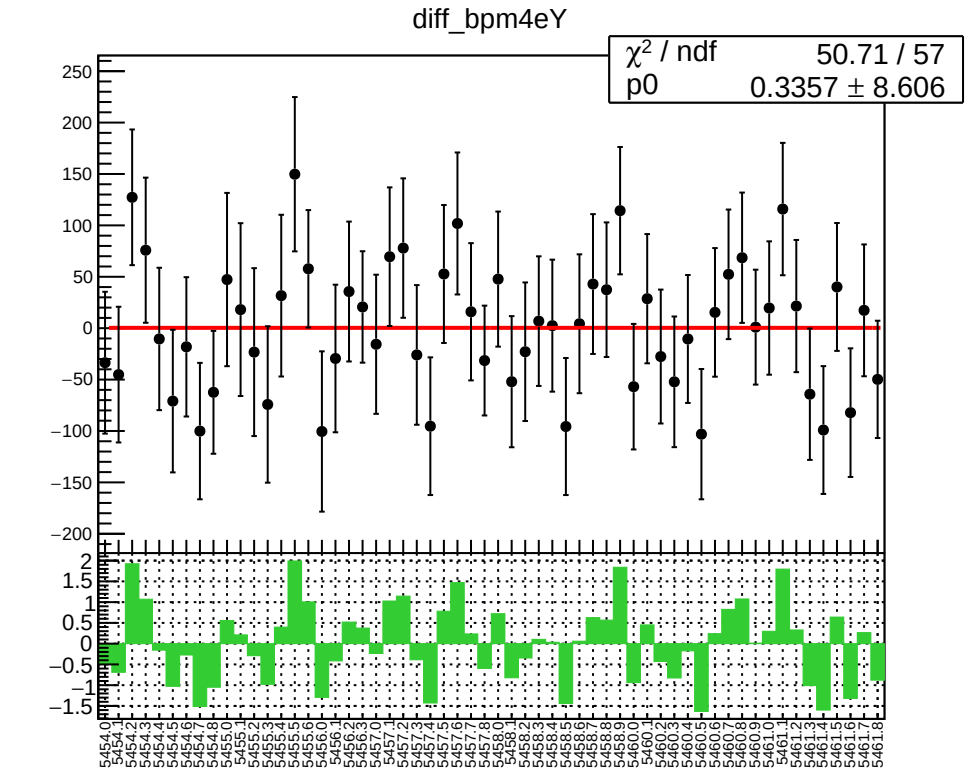

1D pull distribution
Mean −0.0298 ± 0.1558
Std Dev 1.186 ± 0.1101
Underflow 0
Overflow 0
χ² / ndf 4.496 / 9
Constant 11.44 ± 2.14
Mean −0.1314 ± 0.1372
Sigma 0.996 ± 0.129

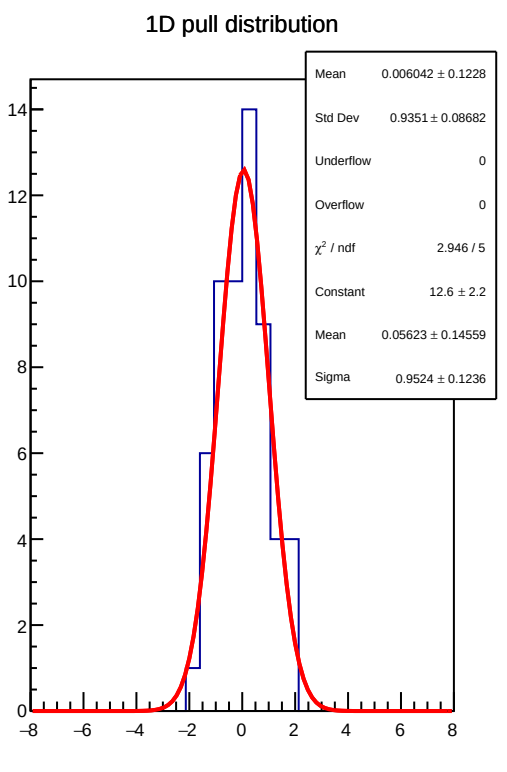

diff_bpm4eX RMS (ppm)
RMS (ppm)
15
14.5
14
13.5
13
12.5
12
5454.0
5454.1
5454.2
5454.3
5454.4
5454.5
5454.6
5454.7
5454.8
5455.0
5455.1
5455.2
5455.3
5455.4
5455.5
5455.6
5456.0
5456.1
5456.2
5456.3
5457.0
5457.1
5457.2
5457.3
5457.4
5457.5
5457.6
5457.7
5457.8
5458.0
5458.1
5458.2
5458.3
5458.4
5458.5
5458.6
5458.7
5458.8
5458.9
5460.0
5460.1
5460.2
5460.3
5460.4
5460.5
5460.6
5460.7
5460.8
5460.9
5461.0
5461.1
5461.2
5461.3
5461.4
5461.5
5461.6
5461.7
5461.8

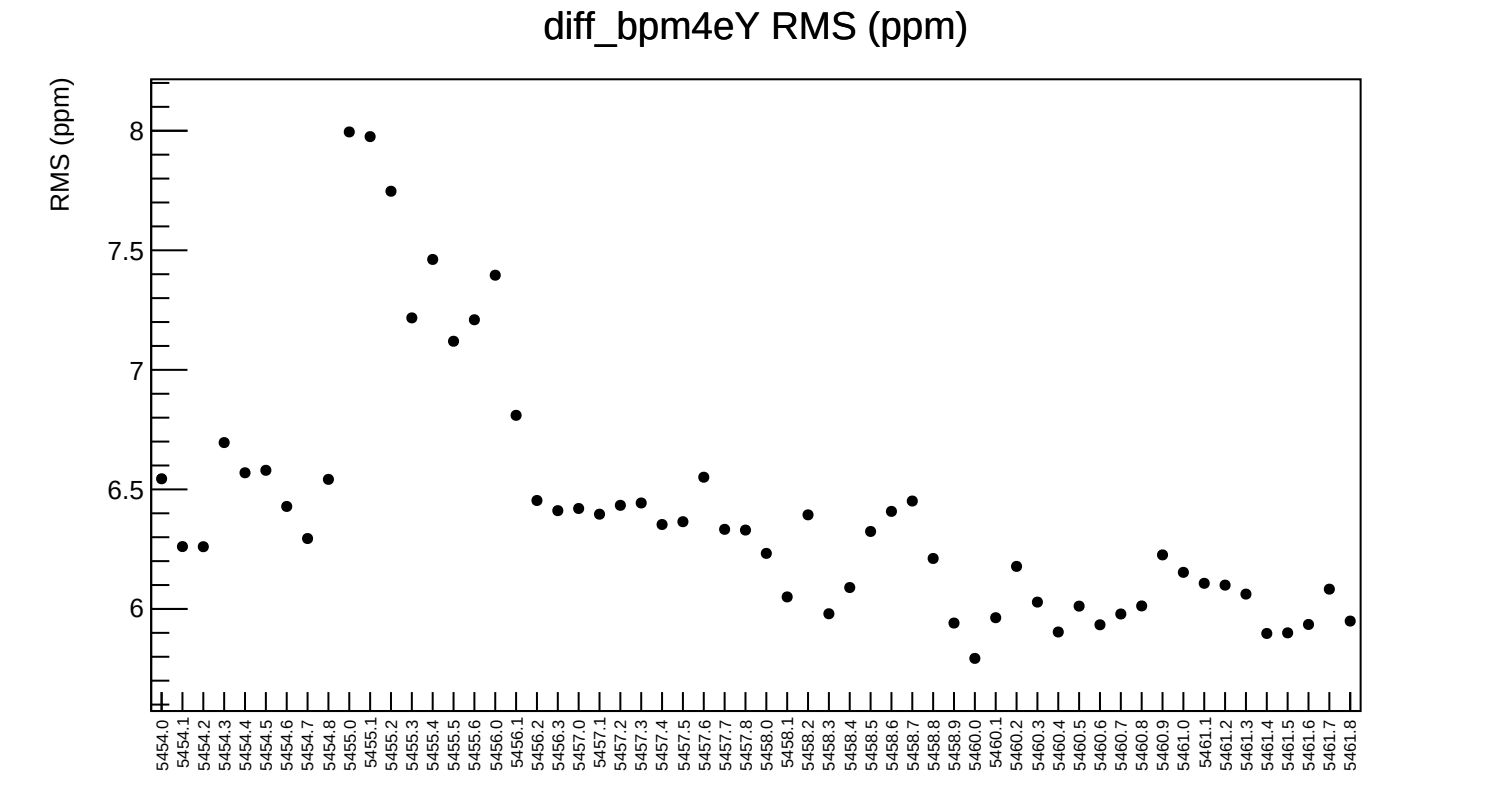

diff_bpm4aY
χ² / ndf 49.4 / 57
p0 −0.607 ± 10.24
300
200
100
0
−100
−200
2
1.5
1
0.5
0
−0.5
−1
−1.5
5454.0
5454.1
5454.2
5454.3
5454.4
5454.5
5454.6
5454.7
5454.8
5455.0
5455.1
5455.2
5455.3
5455.4
5455.5
5455.6
5456.0
5456.1
5456.2
5456.3
5456.4
5457.0
5457.1
5457.2
5457.3
5457.4
5457.5
5457.6
5457.7
5457.8
5458.0
5458.1
5458.2
5458.3
5458.4
5458.5
5458.6
5458.7
5458.8
5458.9
5460.0
5460.1
5460.2
5460.3
5460.4
5460.5
5460.6
5460.7
5460.8
5460.9
5461.0
5461.1
5461.2
5461.3
5461.4
5461.5
5461.6
5461.7
5461.8


1D pull distribution
Mean 0.008547 ± 0.1212
Std Dev 0.9228 ± 0.08568
Underflow 0
Overflow 0
χ² / ndf 5.205 / 5
Constant 11.86 ± 2.20
Mean 0.02823 ± 0.16211
Sigma 0.973 ± 0.145
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8


diff_bpm4aY RMS (ppm)
RMS (ppm)
10.5
10
9.5
9
8.5
8
7.5
7
6.5
5454.0
5454.1
5454.2
5454.3
5454.4
5454.5
5454.6
5454.7
5454.8
5455.0
5455.1
5455.2
5455.3
5455.4
5455.5
5455.6
5456.0
5456.1
5456.2
5456.3
5457.0
5457.1
5457.2
5457.3
5457.4
5457.5
5457.6
5457.7
5457.8
5458.0
5458.1
5458.2
5458.3
5458.4
5458.5
5458.6
5458.7
5458.8
5458.9
5460.0
5460.1
5460.2
5460.3
5460.4
5460.5
5460.6
5460.7
5460.8
5460.9
5461.0
5461.1
5461.2
5461.3
5461.4
5461.5
5461.6
5461.7
5461.8


diff_bpm4eY
χ² / ndf 50.71 / 57
p0 0.3357 ± 8.606


1D pull distribution
Mean 0.006042 ± 0.1228
Std Dev 0.9351 ± 0.08682
Underflow 0
Overflow 0
χ² / ndf 2.946 / 5
Constant 12.6 ± 2.2
Mean 0.05623 ± 0.14559
Sigma 0.9524 ± 0.1236


diff_bpm4eY RMS (ppm)
RMS (ppm)
8
7.5
7
6.5
6
5454.0
5454.1
5454.2
5454.3
5454.4
5454.5
5454.6
5454.7
5454.8
5455.0
5455.1
5455.2
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5455.5
5455.6
5456.0
5456.1
5456.2
5456.3
5457.0
5457.1
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5457.6
5457.7
5457.8
5458.0
5458.1
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5458.5
5458.6
5458.7
5458.8
5458.9
5460.0
5460.1
5460.2
5460.3
5460.4
5460.5
5460.6
5460.7
5460.8
5460.9
5461.0
5461.1
5461.2
5461.3
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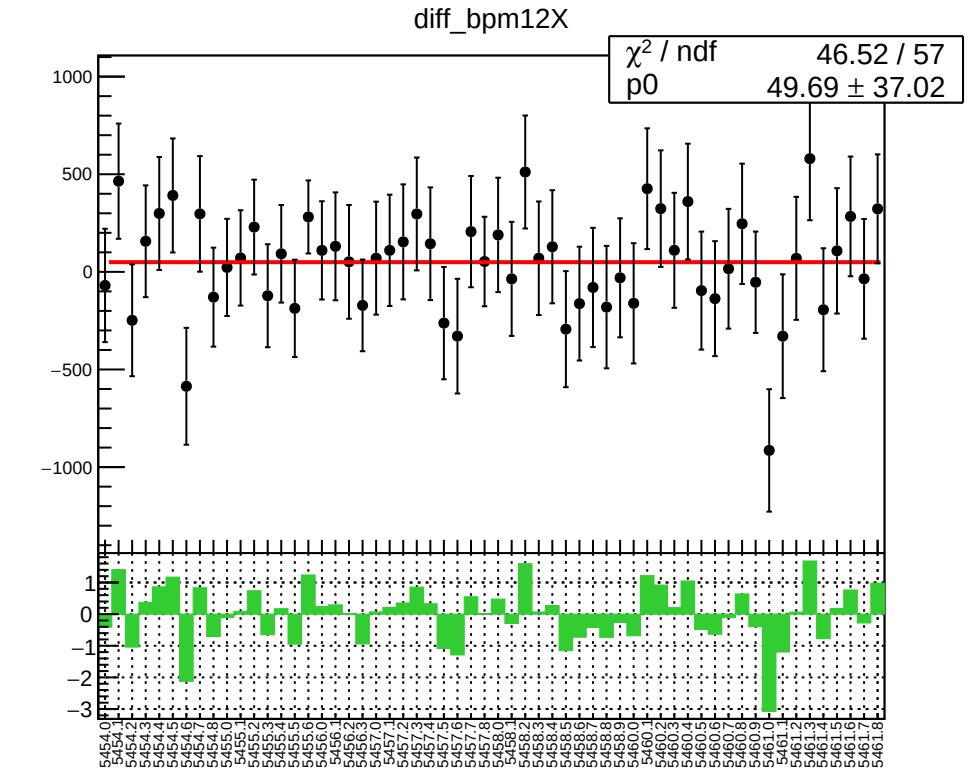
5461.6
5461.7
5461.8


diff_bpm12X
χ² / ndf 46.52 / 57
p0 49.69 ± 37.02
1000
500
0
−500
−1000
1
0
−1
−2
−3
5454.0
5454.1
5454.2
5454.3
5454.4
5454.5
5454.6
5454.7
5454.8
5455.0
5455.1
5455.2
5455.3
5455.4
5455.5
5455.6
5455.7
5456.0
5456.1
5456.2
5456.3
5456.4
5457.0
5457.1
5457.2
5457.3
5457.4
5457.5
5457.6
5457.7
5457.8
5458.0
5458.1
5458.2
5458.3
5458.4
5458.5
5458.6
5458.7
5458.8
5458.9
5460.0
5460.1
5460.2
5460.3
5460.4
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5460.6
5460.7
5460.8
5460.9
5461.0
5461.1
5461.2
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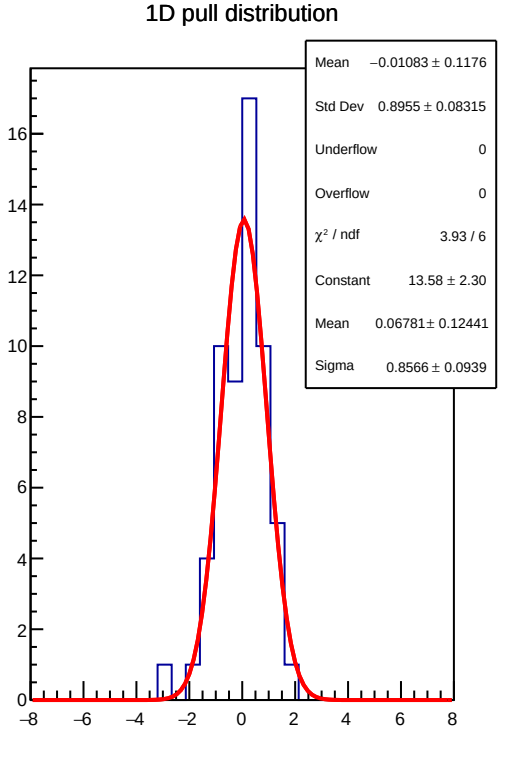
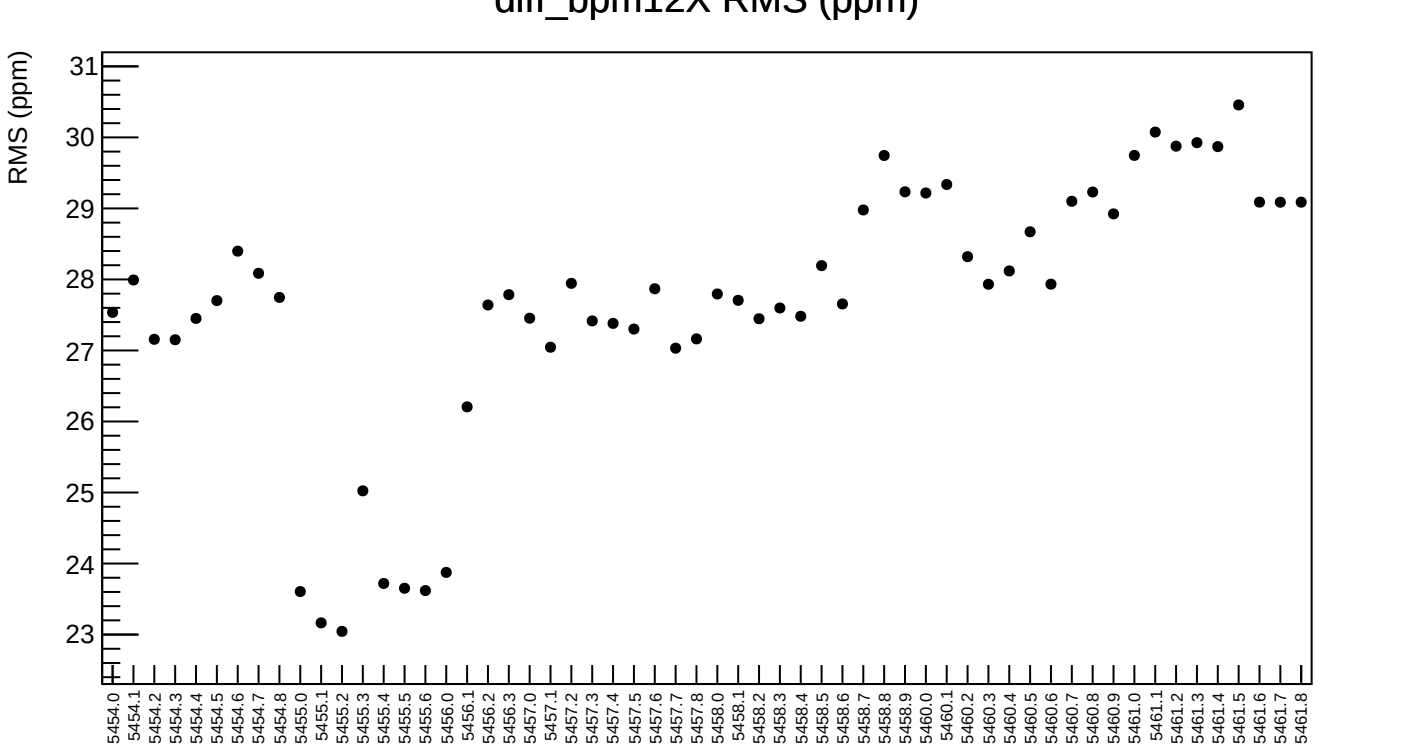
5461.8


1D pull distribution
Mean −0.01083 ± 0.1176
Std Dev 0.8955 ± 0.08315
Underflow 0
Overflow 0
χ² / ndf 3.93 / 6
Constant 13.58 ± 2.30
Mean 0.06781± 0.12441
Sigma 0.8566 ± 0.0939
16
14
12
10
8
6
4
2
0
−8
−6
−4
−2
0
2
4
6
8


diff_bpm12X RMS (ppm)
RMS (ppm)
31
30
29
28
27
26
25
24
23
5454.0
5454.1
5454.2
5454.3
5454.4
5454.5
5454.6
5454.7
5454.8
5455.0
5455.1
5455.2
5455.3
5455.4
5455.5
5455.6
5456.0
5456.1
5456.2
5456.3
5457.0
5457.1
5457.2
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5457.7
5457.8
5458.0
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5458.8
5458.9
5460.0
5460.1
5460.2
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