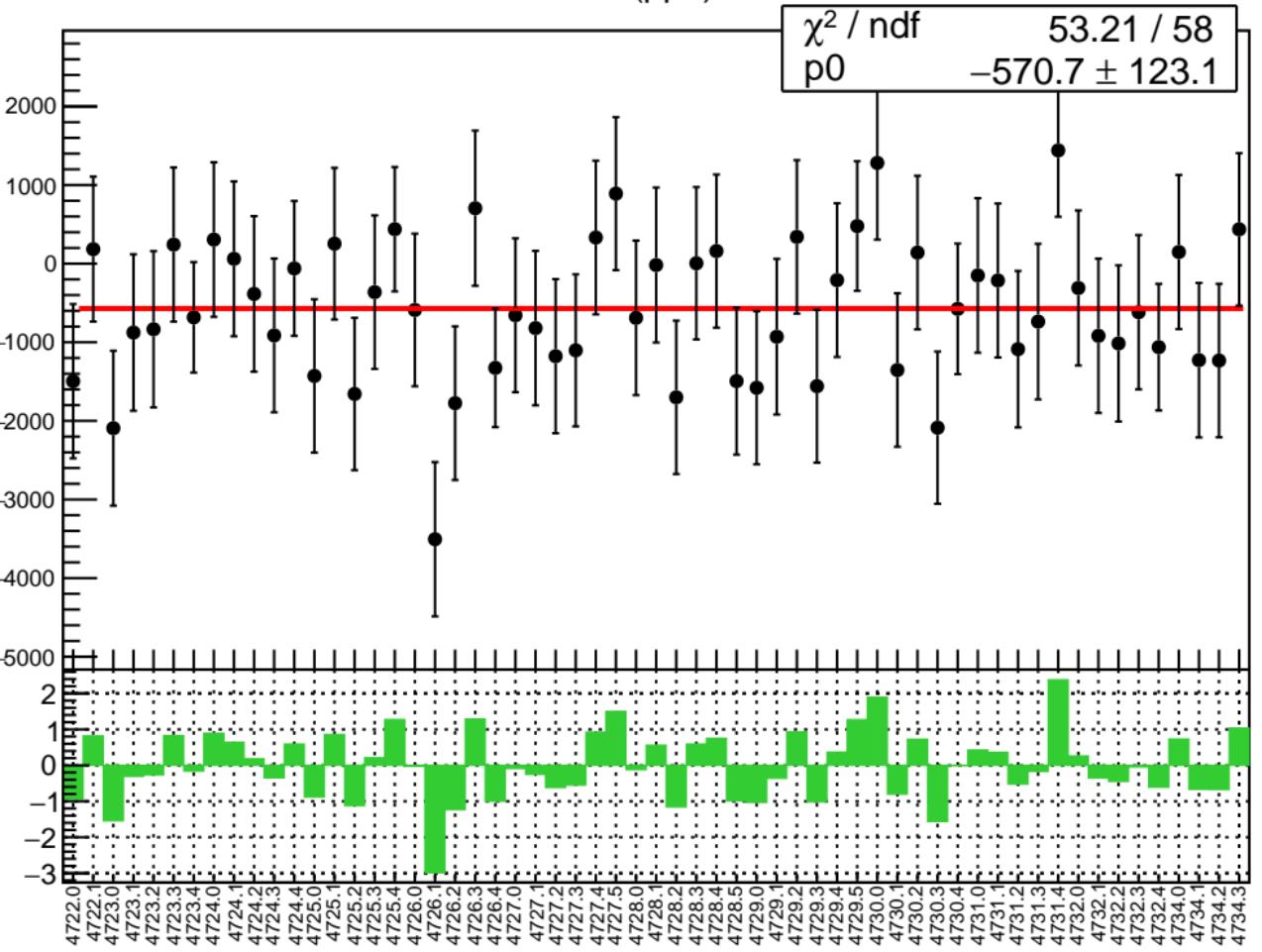
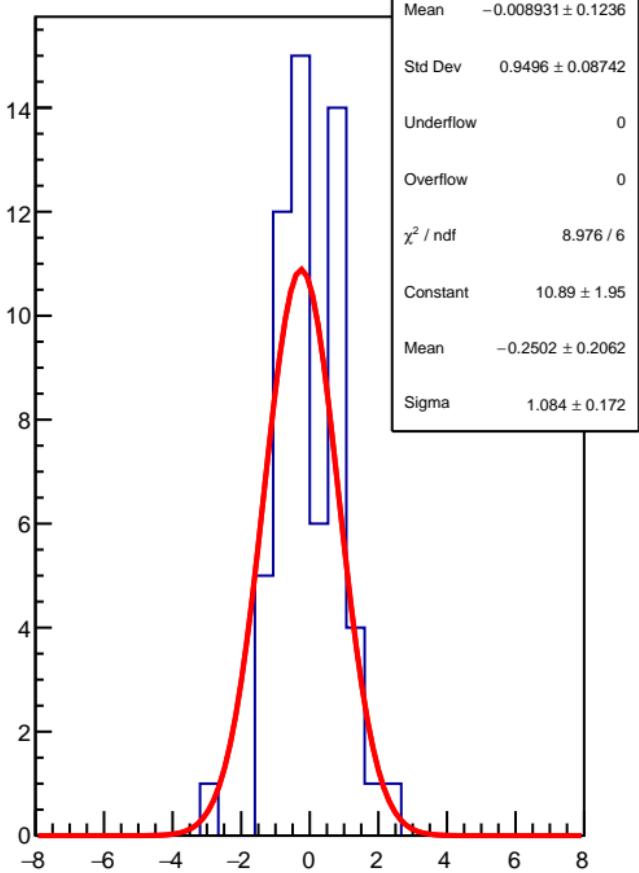


Adet (ppb)



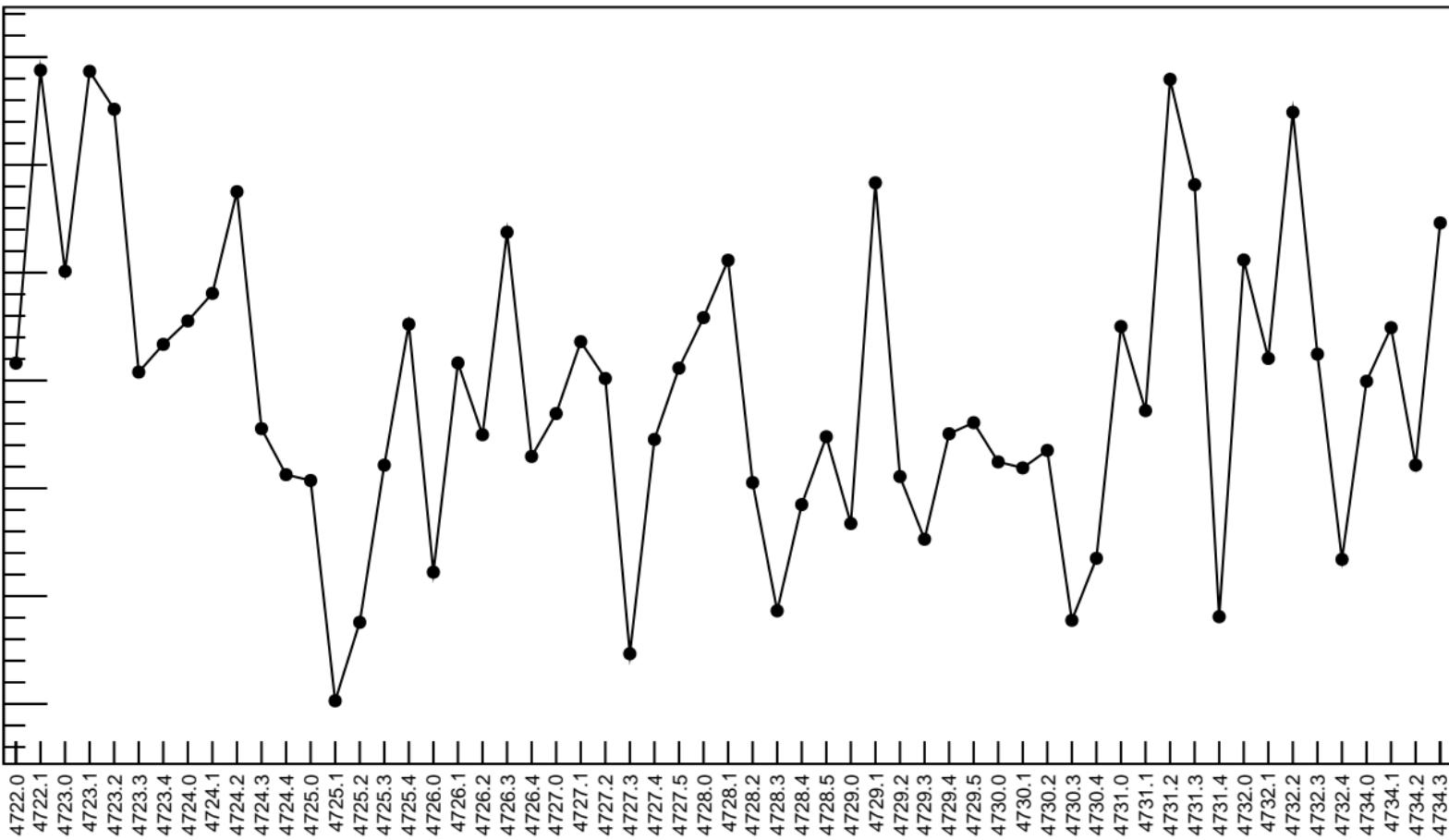
1D pull distribution



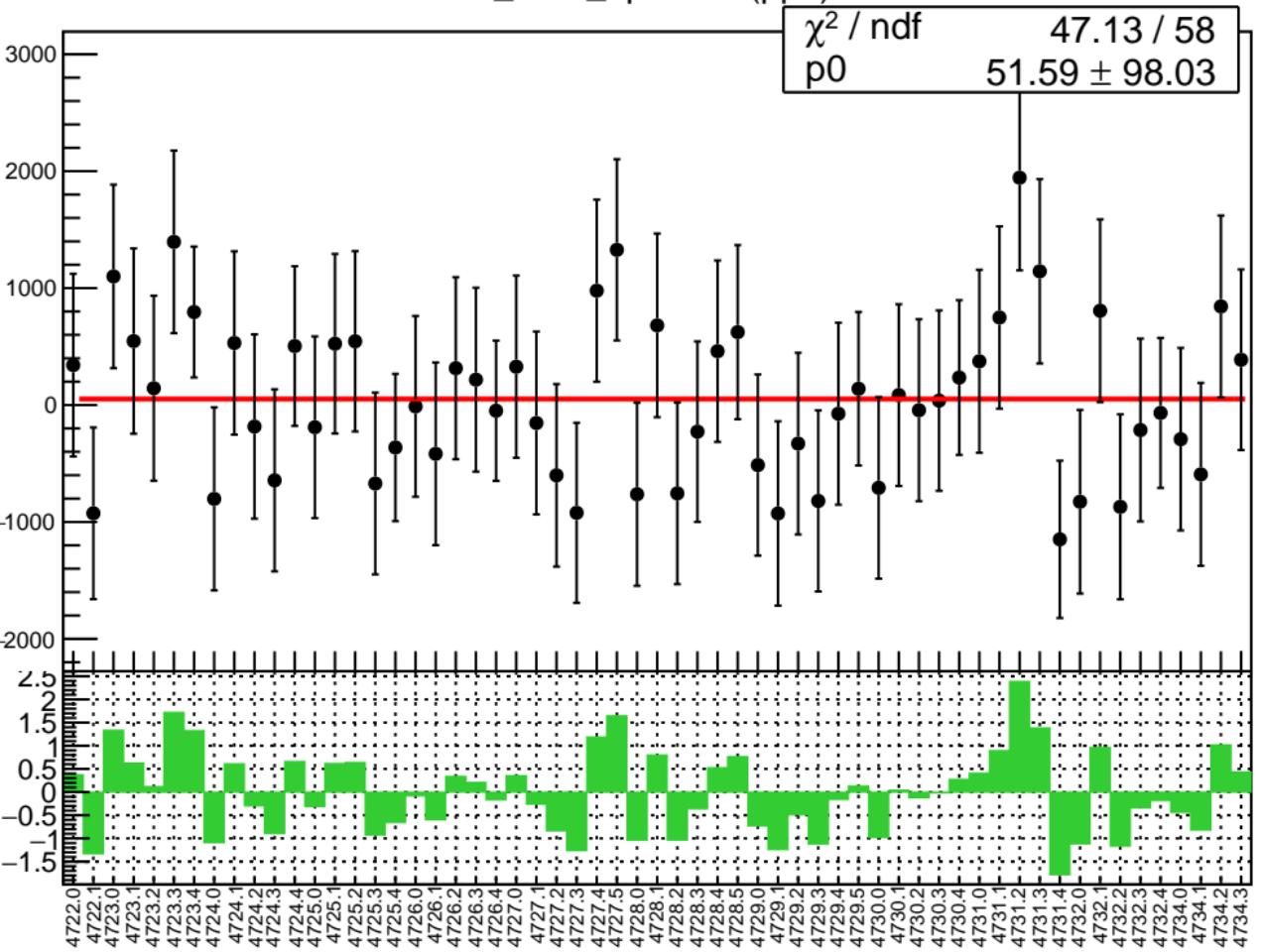
# Adet RMS (ppm)

RMS (ppm)

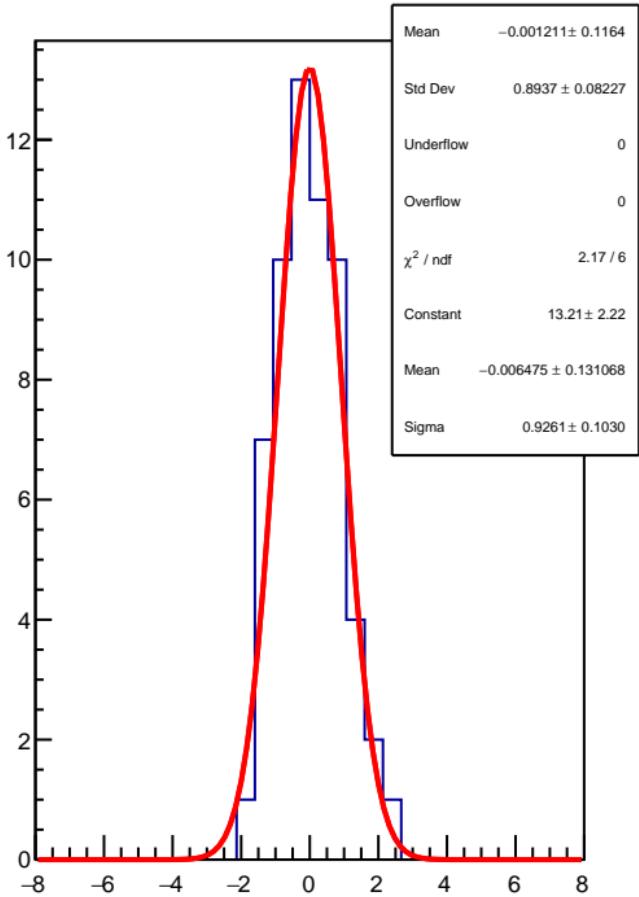
94.5  
94  
93.5  
93  
92.5  
92  
91.5



corr\_Adet\_bpm4eX (ppb)

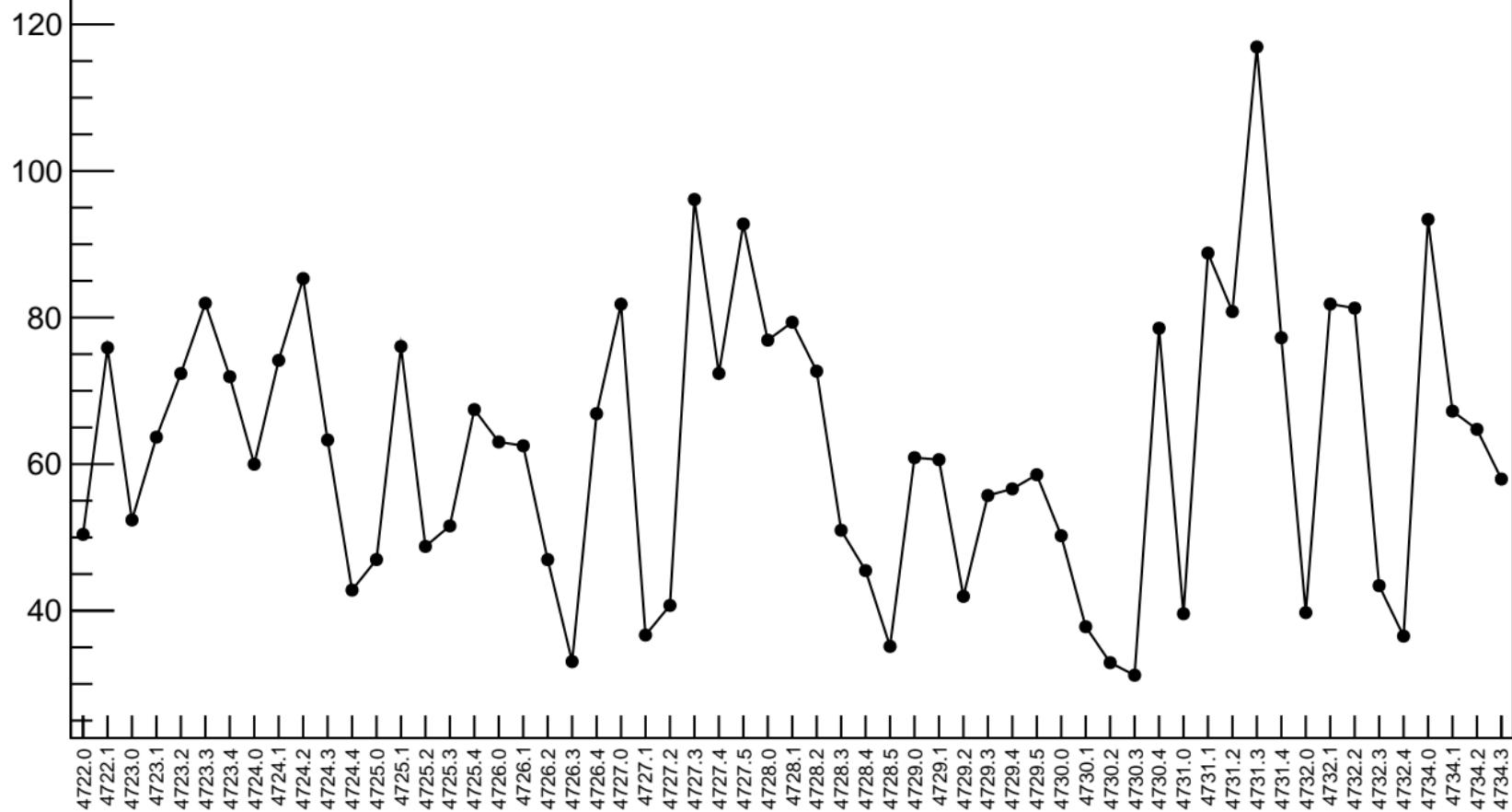


1D pull distribution



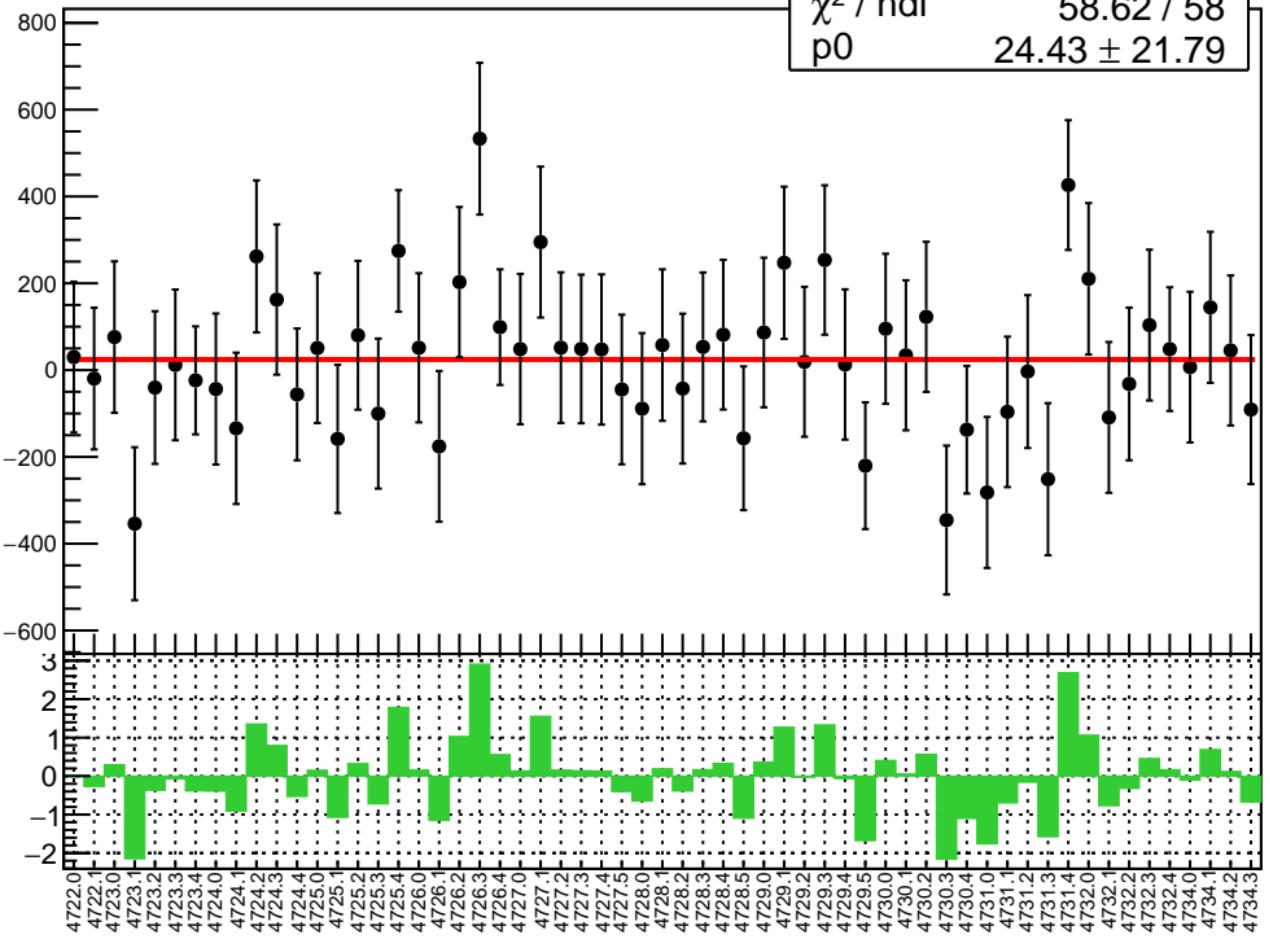
# corr\_Adet\_bpm4eX RMS (ppm)

RMS (ppm)

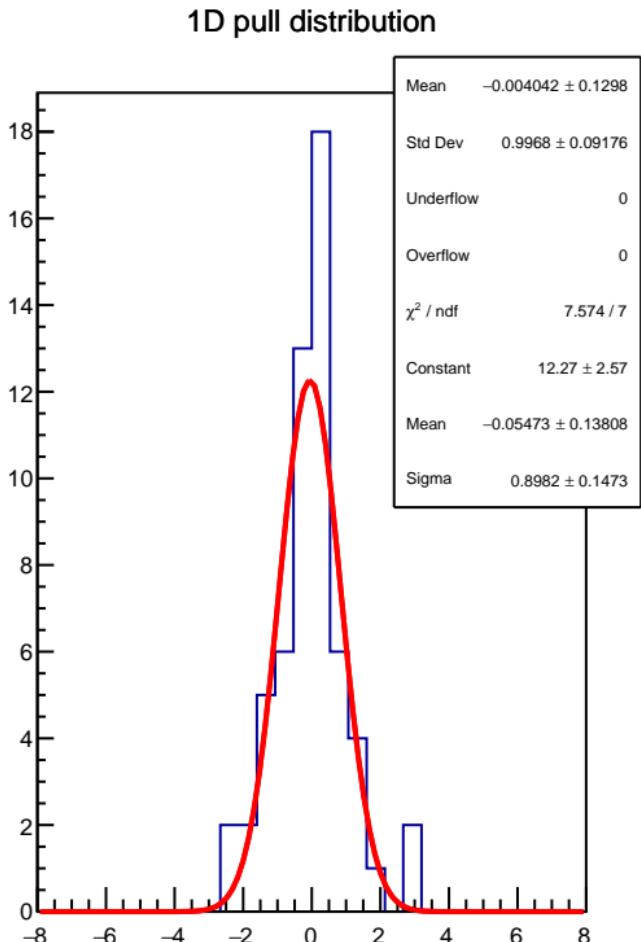


corr\_Adet\_bpm4eY (ppb)

$\chi^2 / \text{ndf}$  58.62 / 58  
p0  $24.43 \pm 21.79$

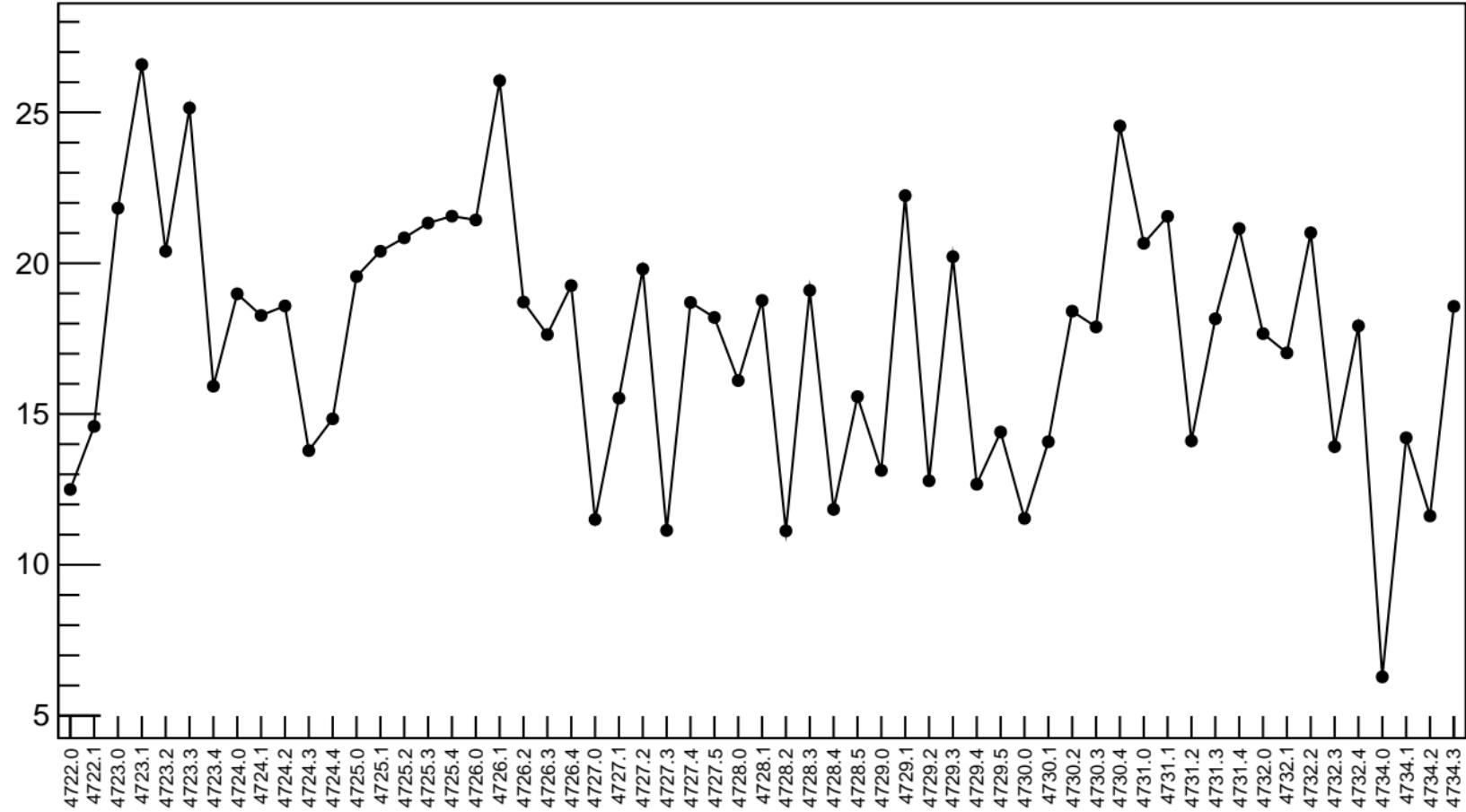


1D pull distribution



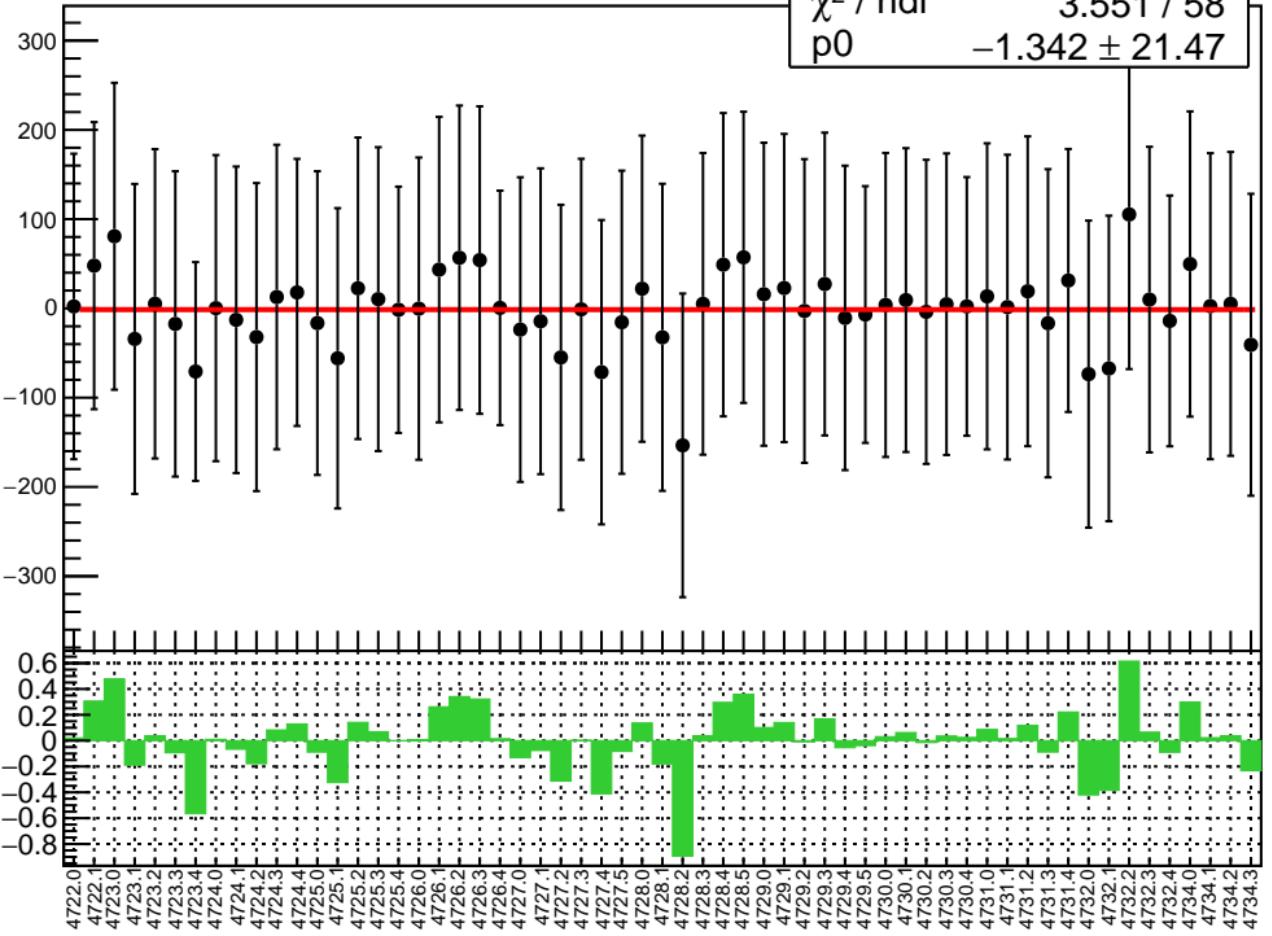
# corr\_Adet\_bpm4eY RMS (ppm)

RMS (ppm)

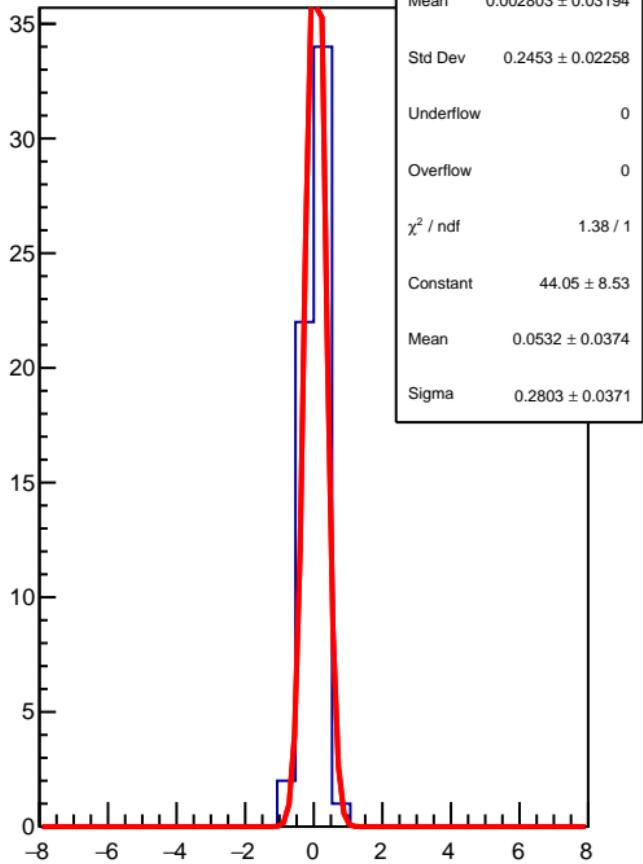


# corr\_Adet\_bpm4aX (ppb)

$\chi^2 / \text{ndf}$  3.551 / 58  
p0  $-1.342 \pm 21.47$

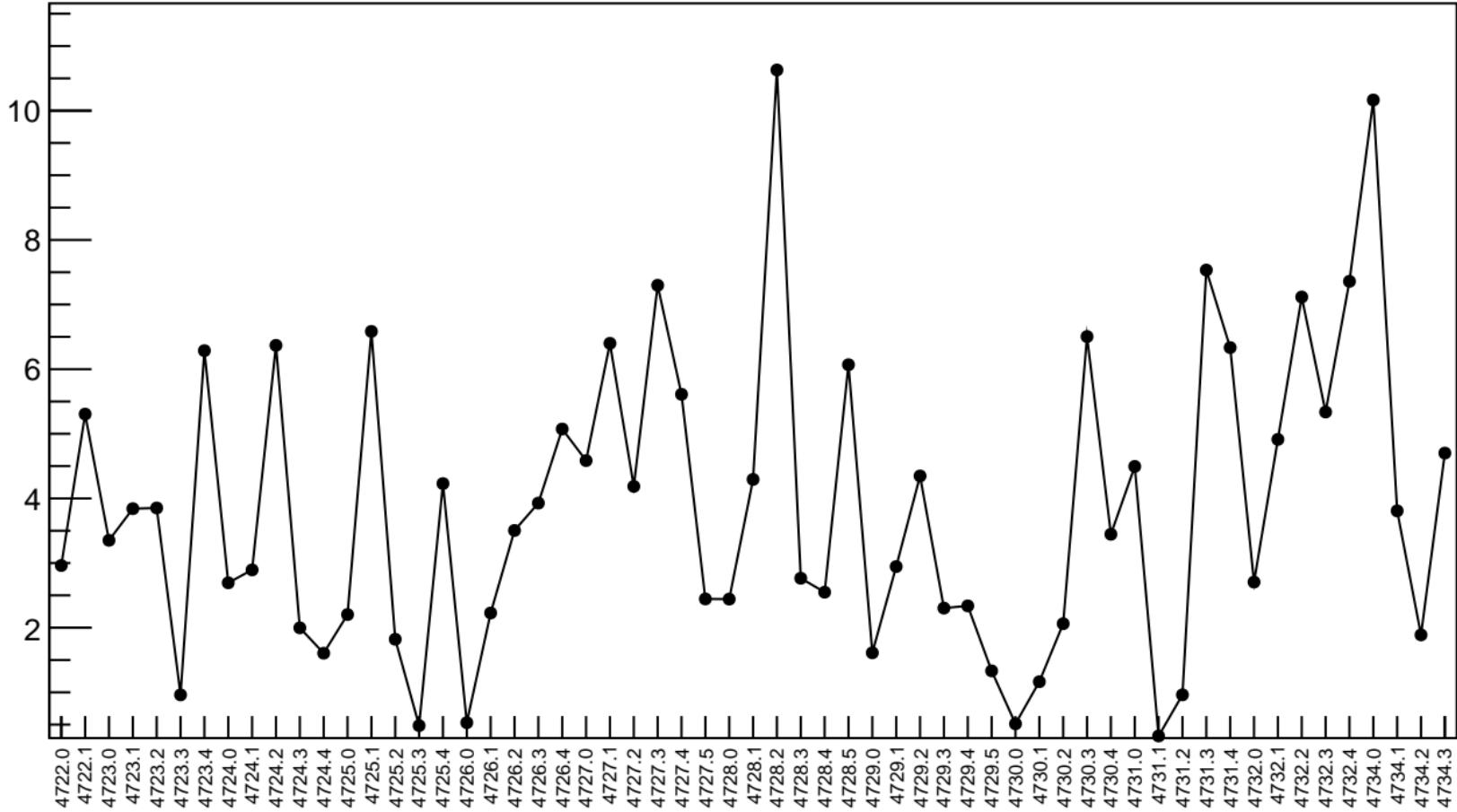


# 1D pull distribution

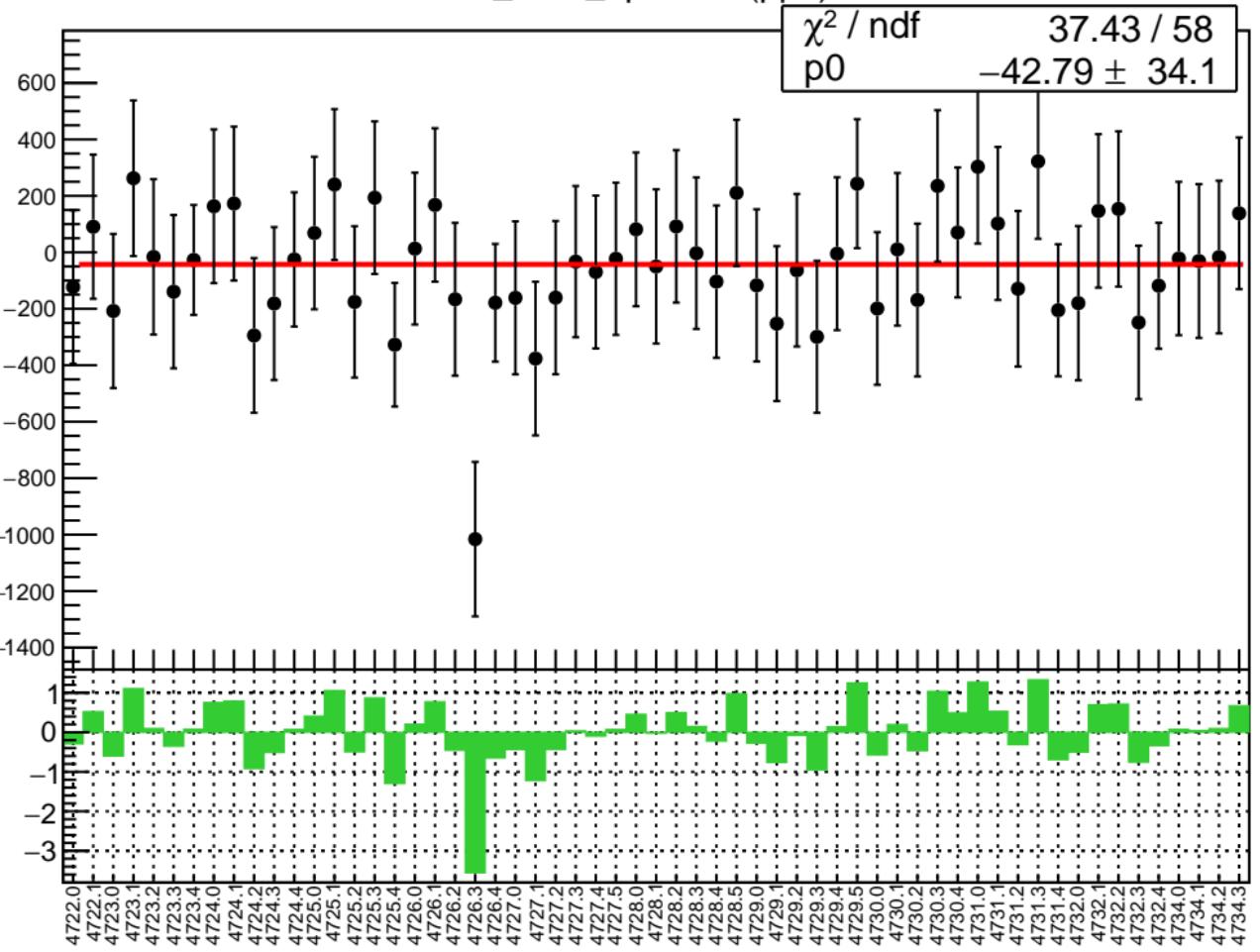


# corr\_Adet\_bpm4aX RMS (ppm)

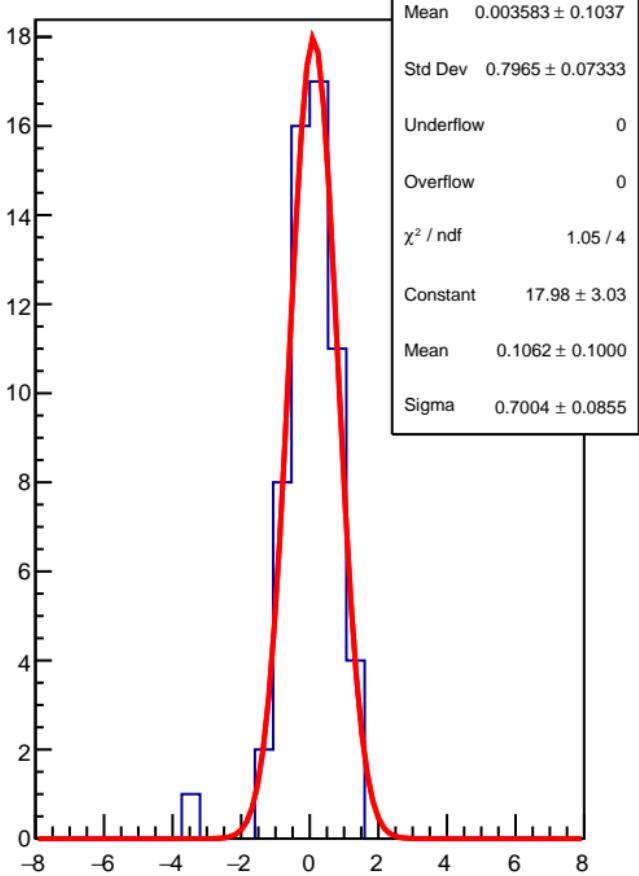
RMS (ppm)



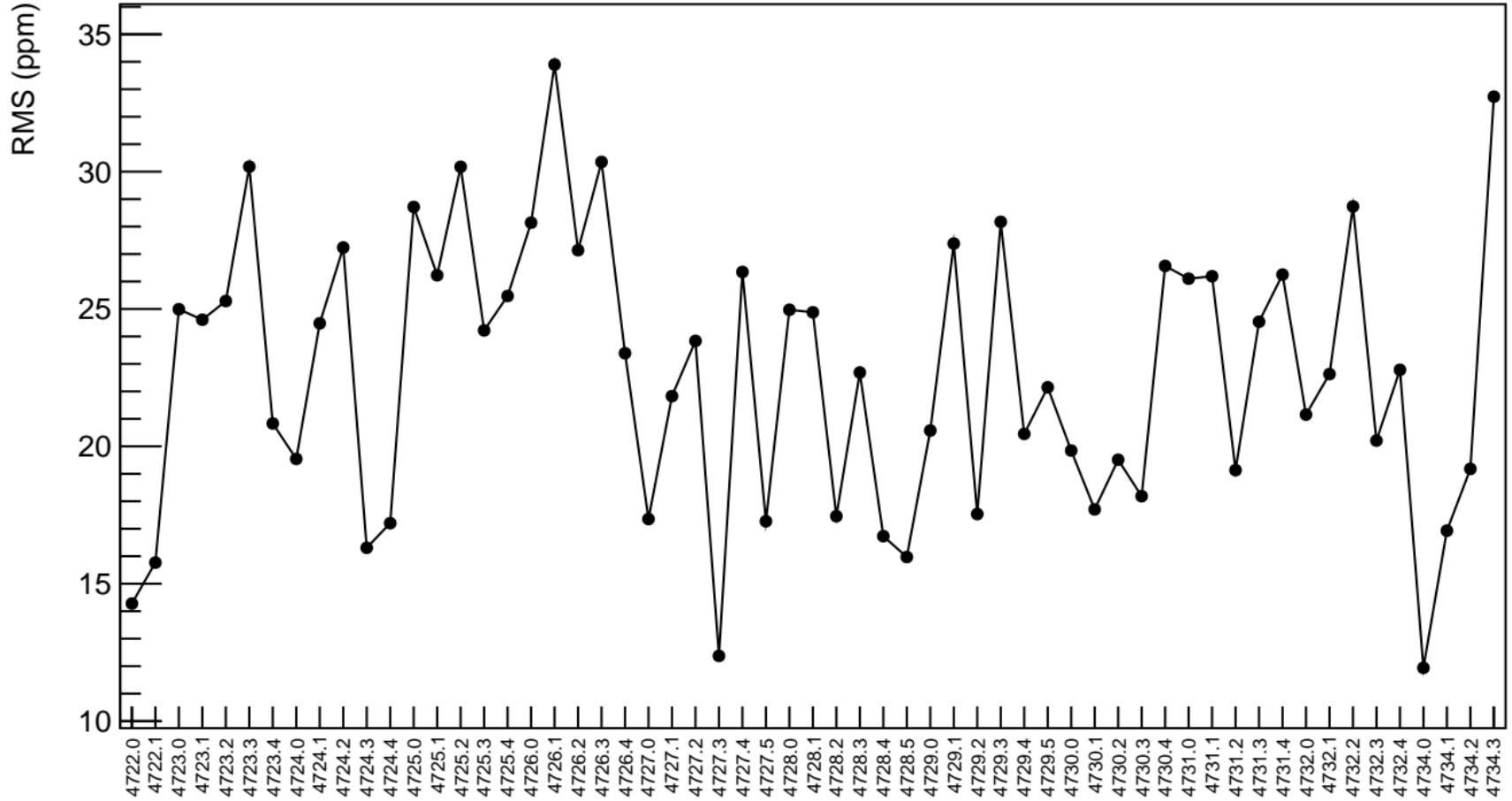
corr\_Adet\_bpm4aY (ppb)



1D pull distribution

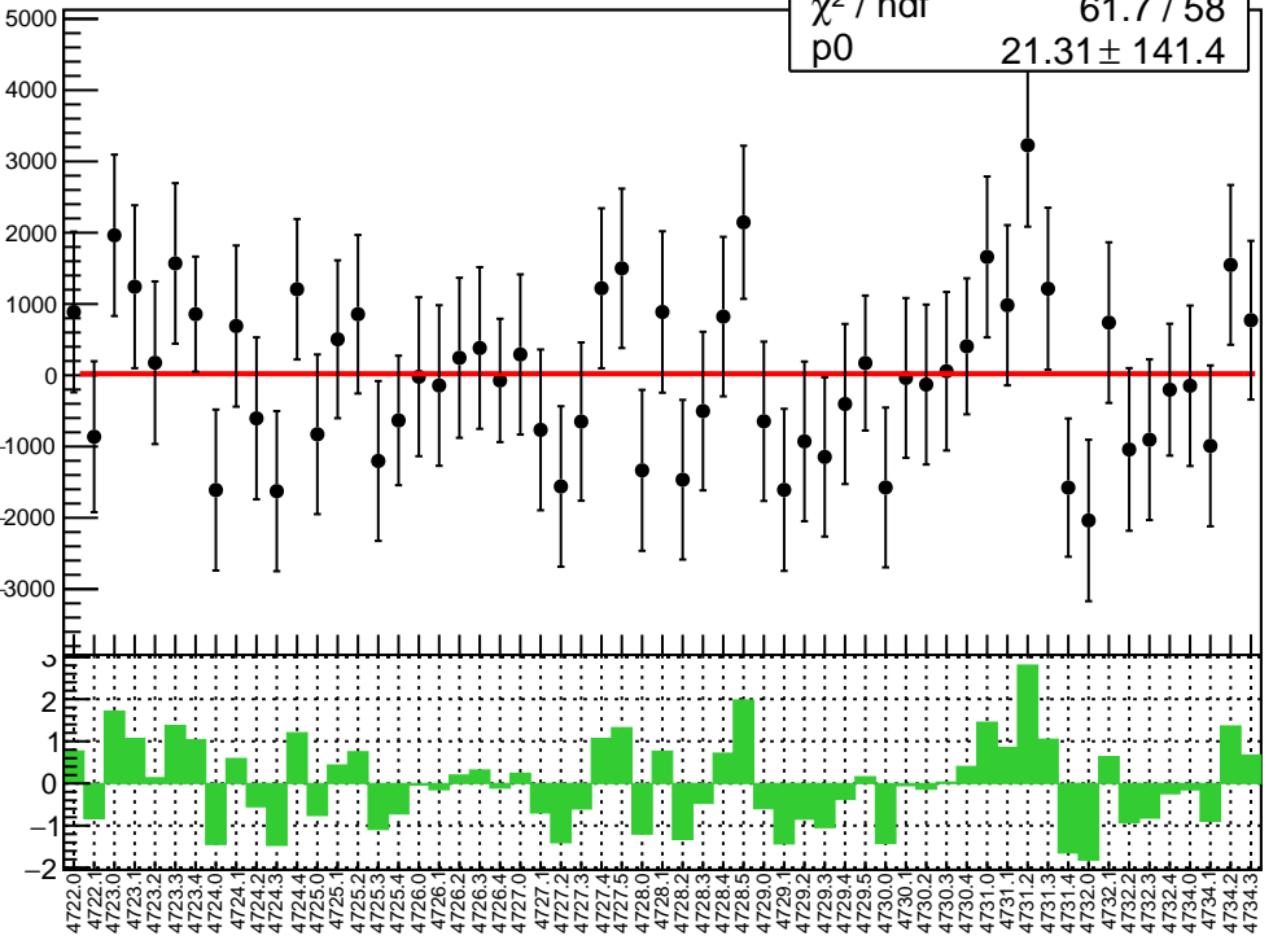


# corr\_Adet\_bpm4aY RMS (ppm)

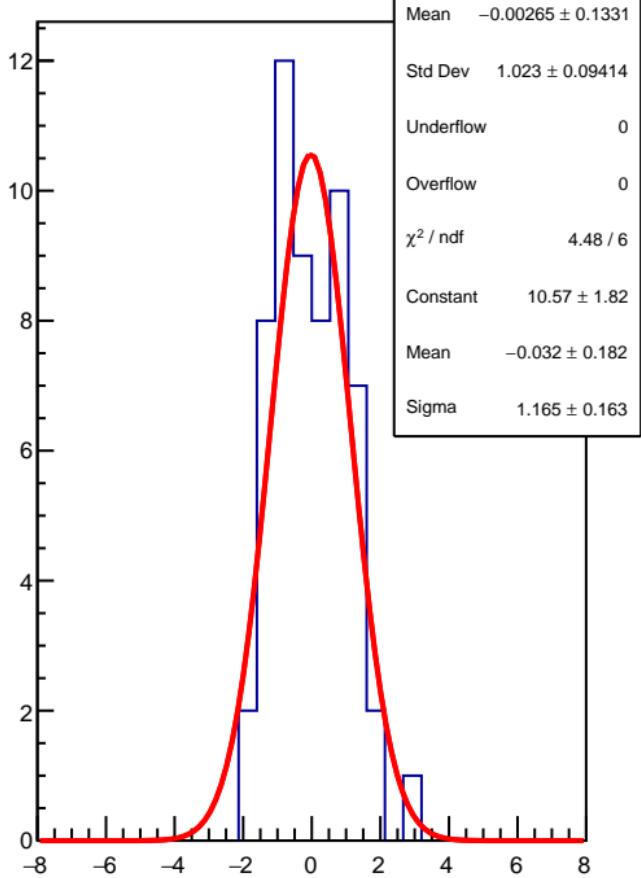


corr\_Adet\_bpm1X (ppb)

$\chi^2 / \text{ndf}$  61.7 / 58  
p0  $21.31 \pm 141.4$

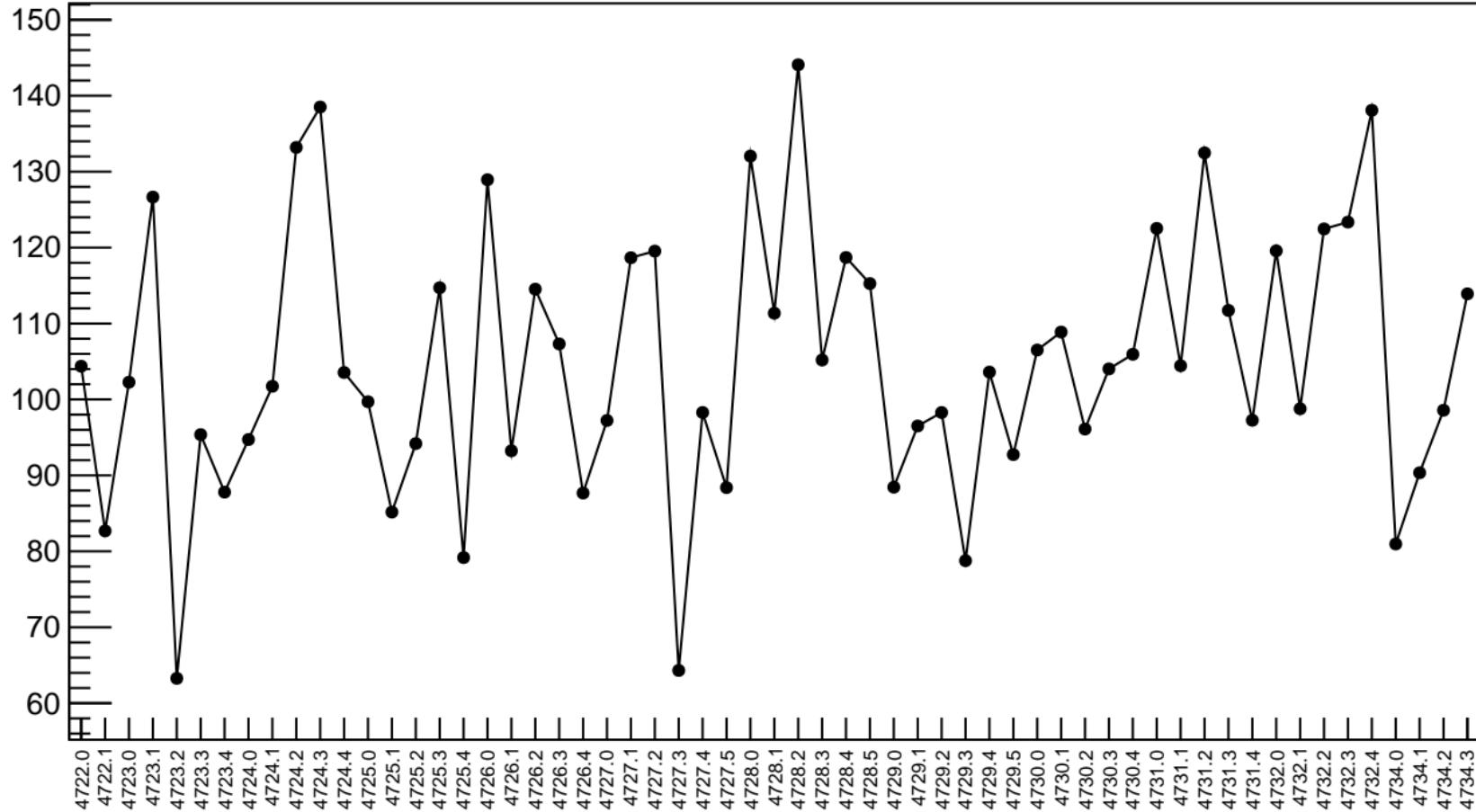


1D pull distribution



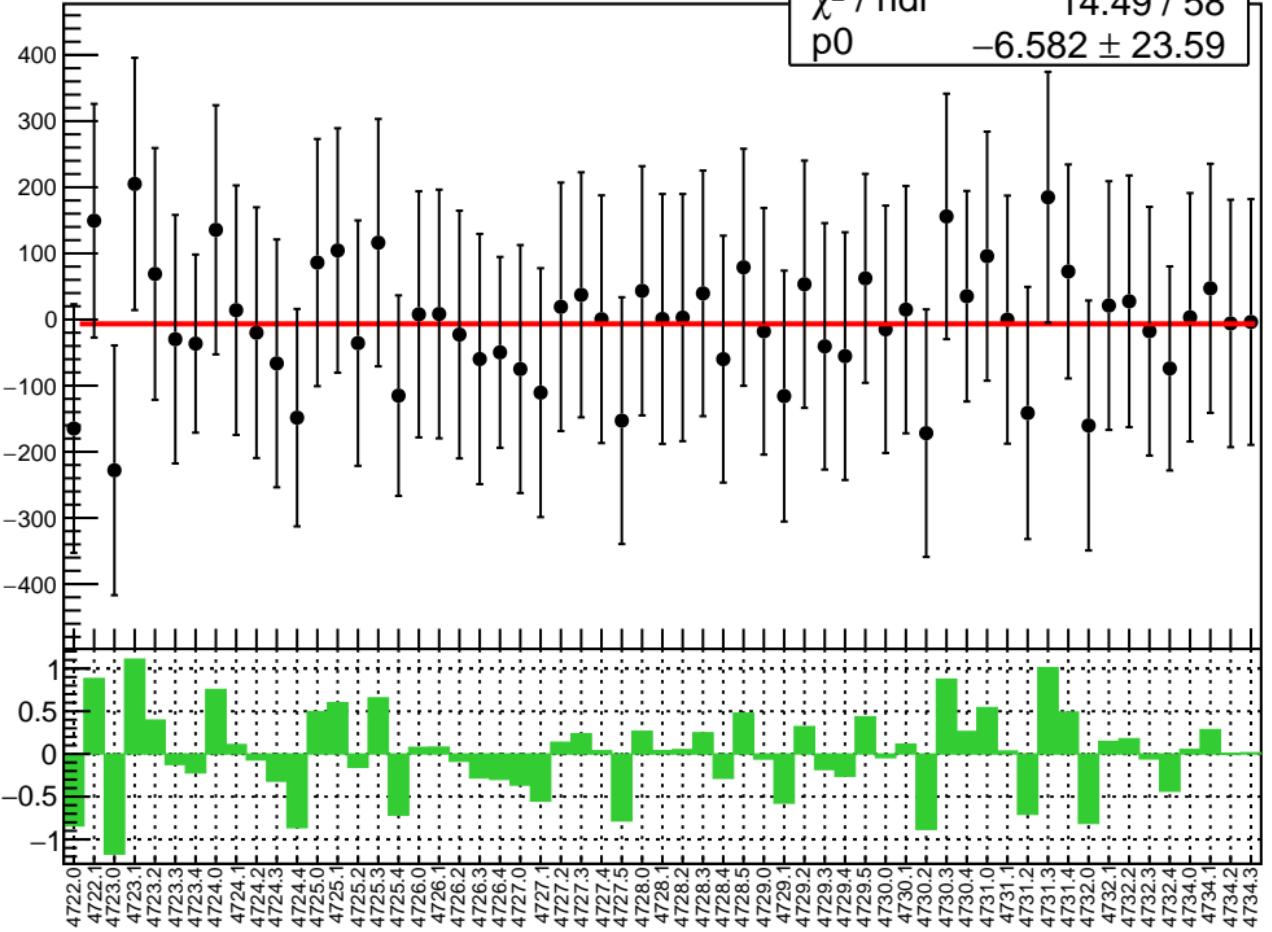
# corr\_Adet\_bpm1X RMS (ppm)

RMS (ppm)

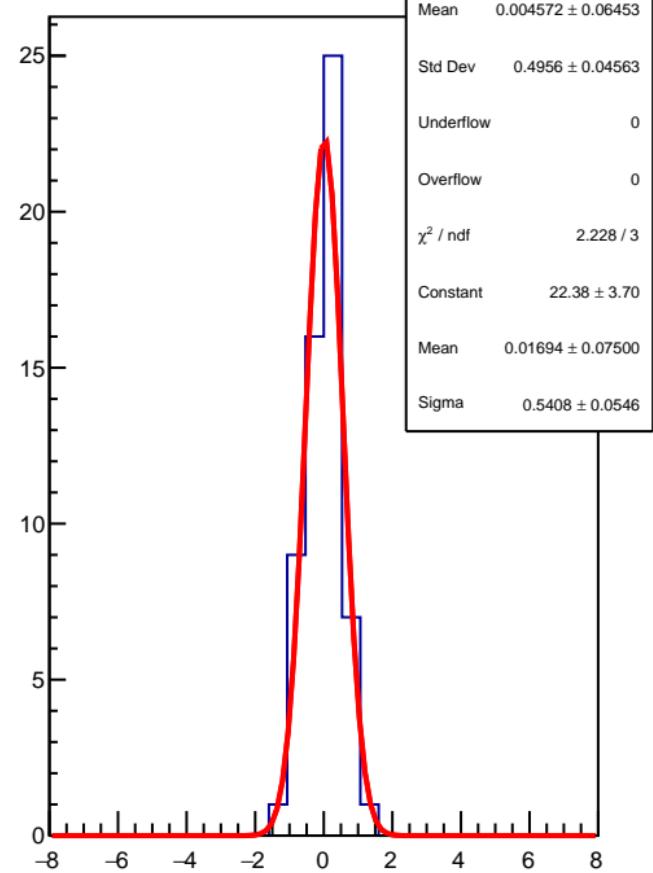


corr\_Adet\_bpm1Y (ppb)

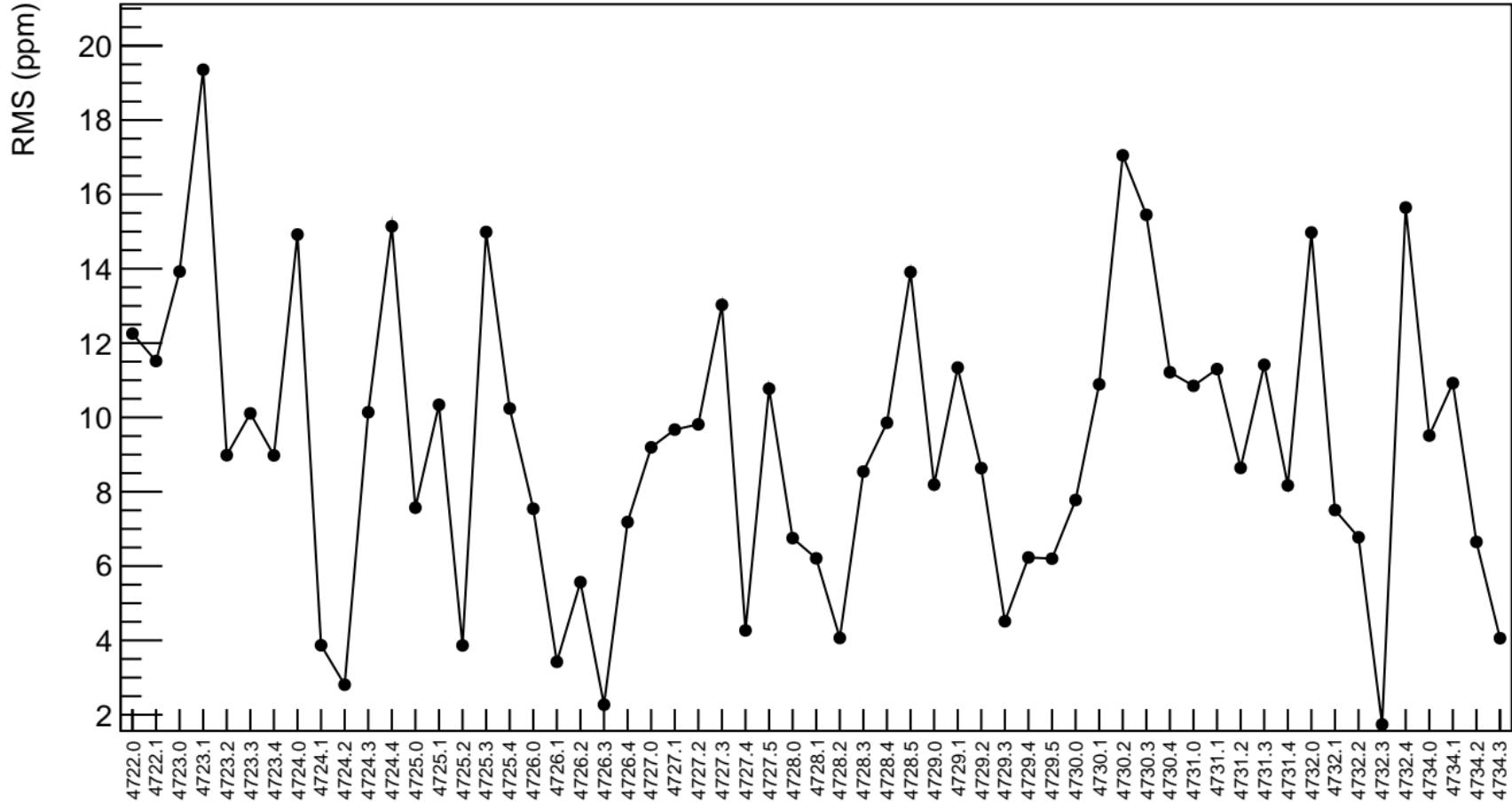
$\chi^2 / \text{ndf}$  14.49 / 58  
p0  $-6.582 \pm 23.59$



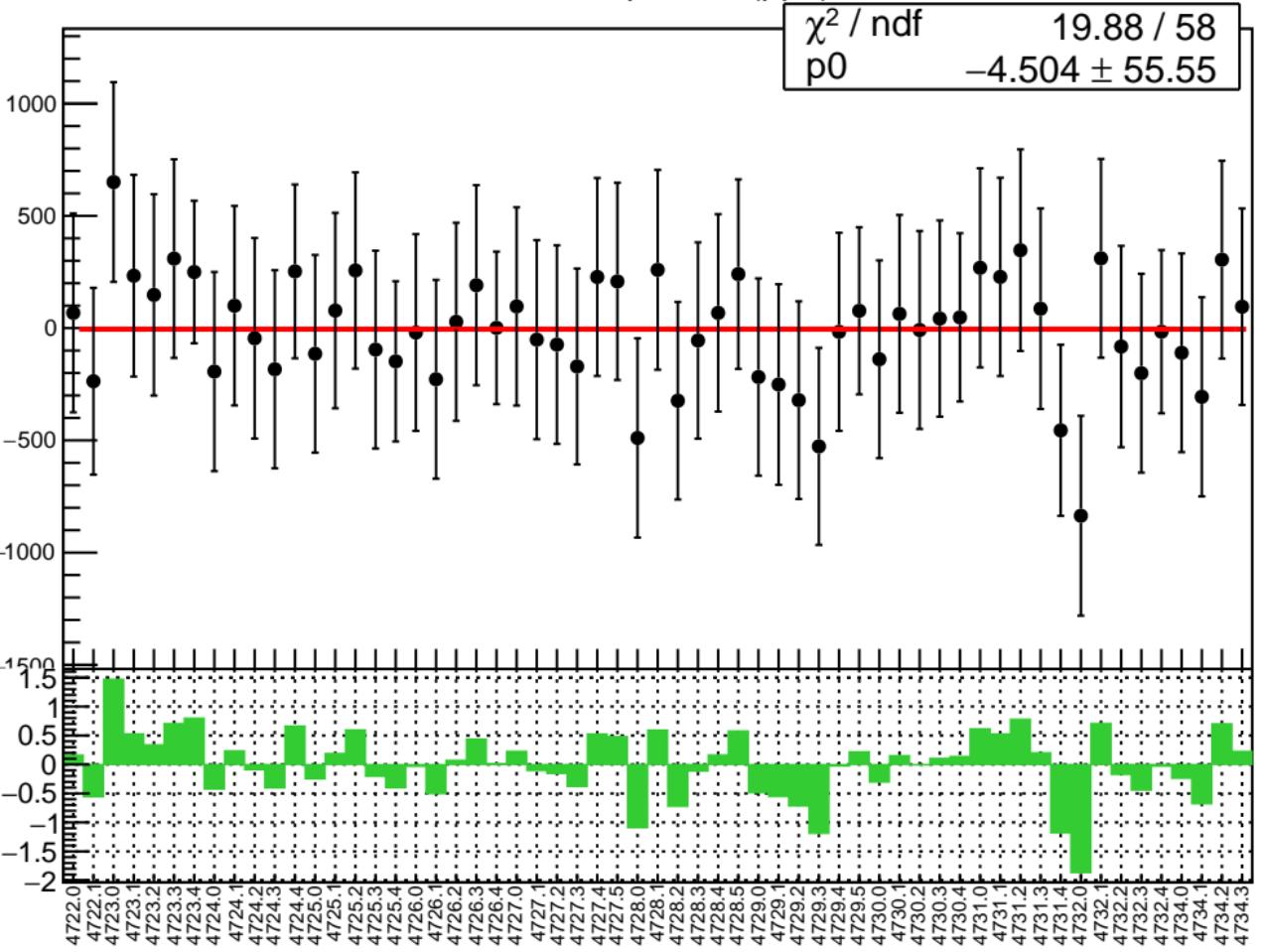
1D pull distribution



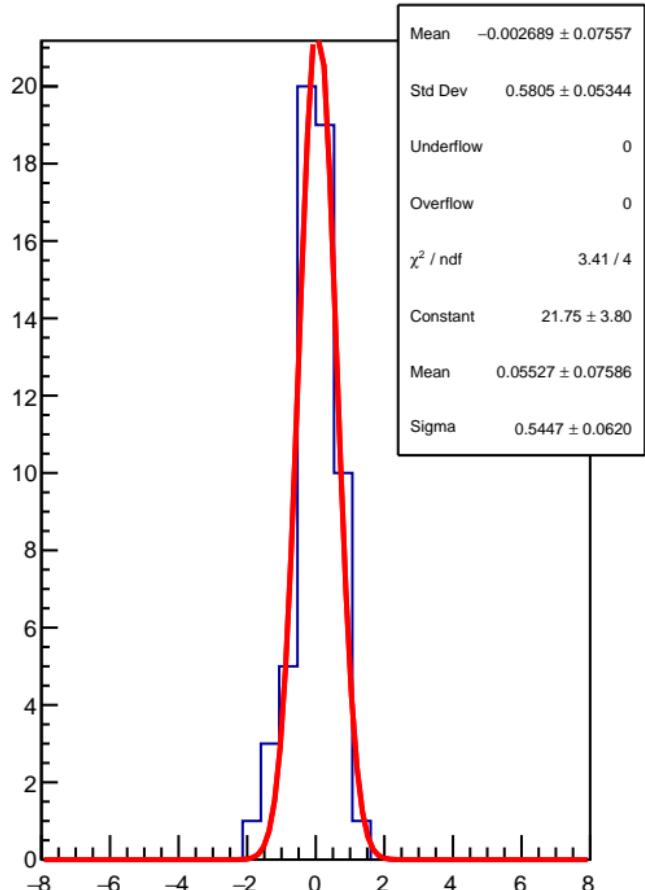
# corr\_Adet\_bpm1Y RMS (ppm)



corr\_Adet\_bpm16X (ppb)

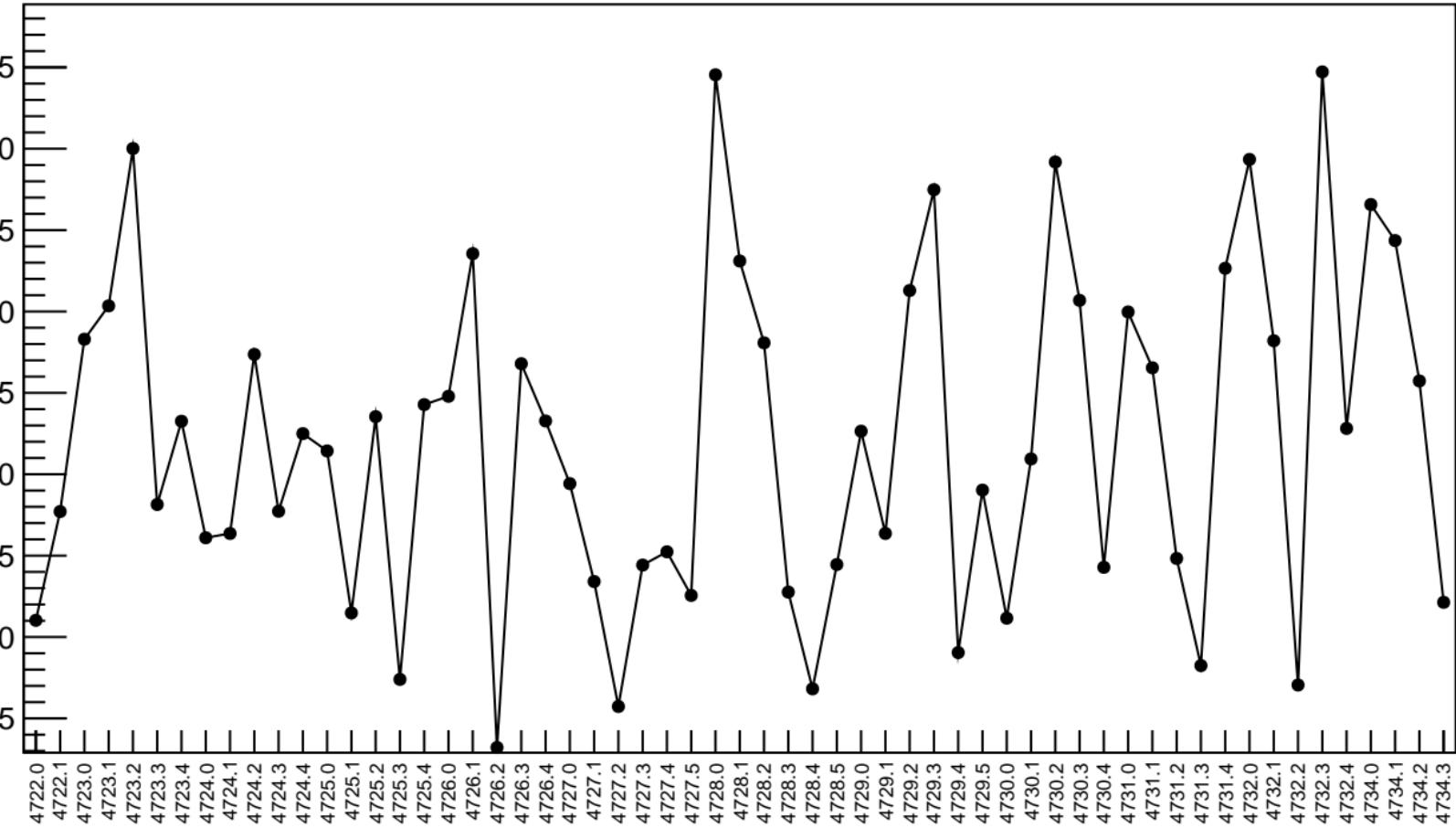


1D pull distribution



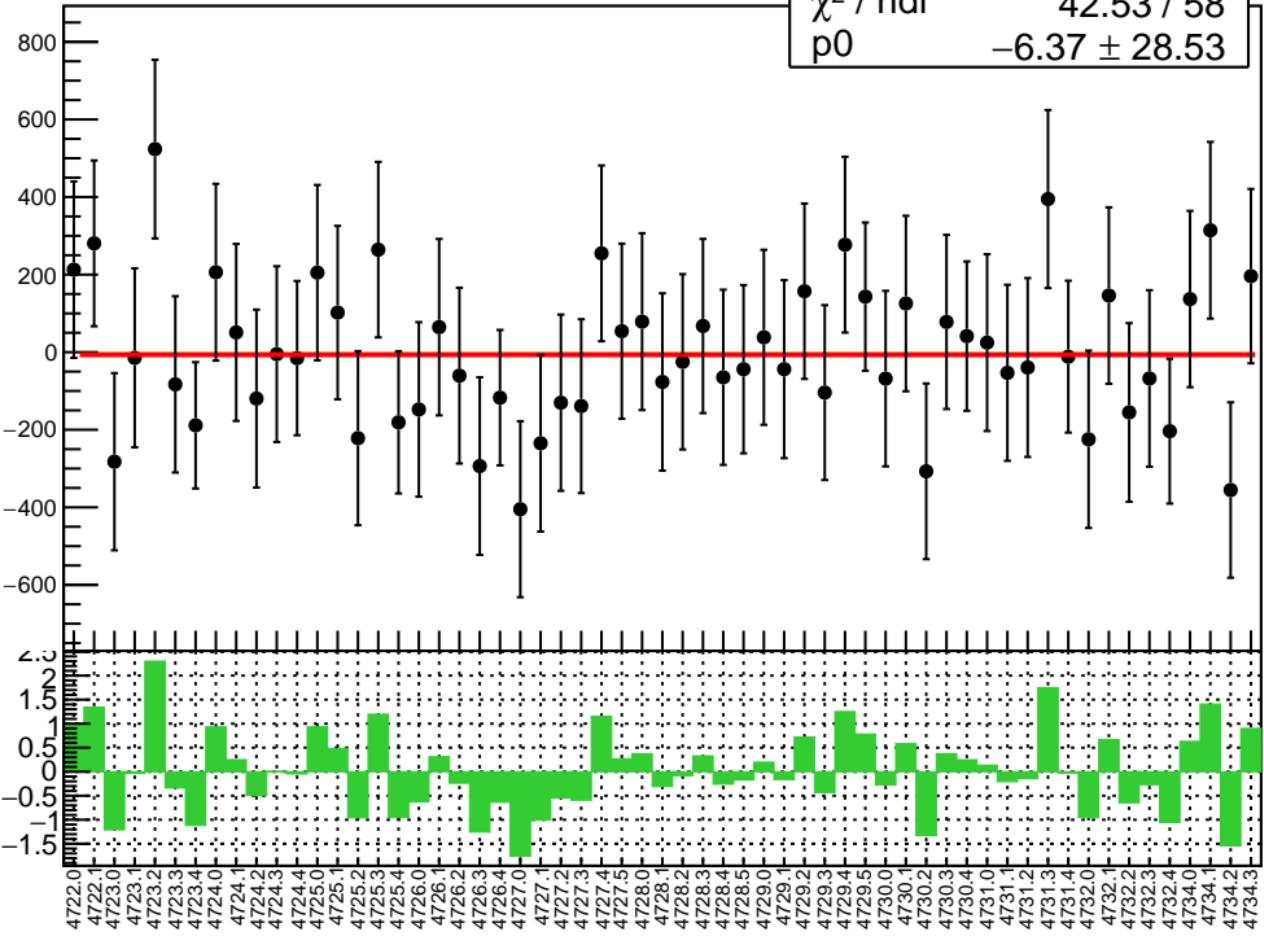
# corr\_Adet\_bpm16X RMS (ppm)

RMS (ppm)

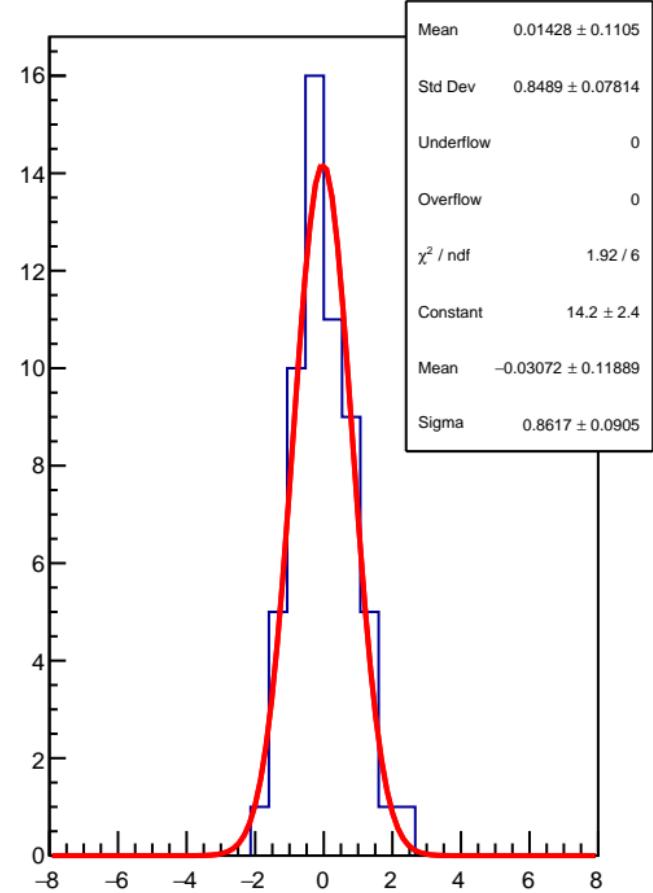


corr\_Adet\_bpm16Y (ppb)

$\chi^2 / \text{ndf}$  42.53 / 58  
 $p_0$   $-6.37 \pm 28.53$

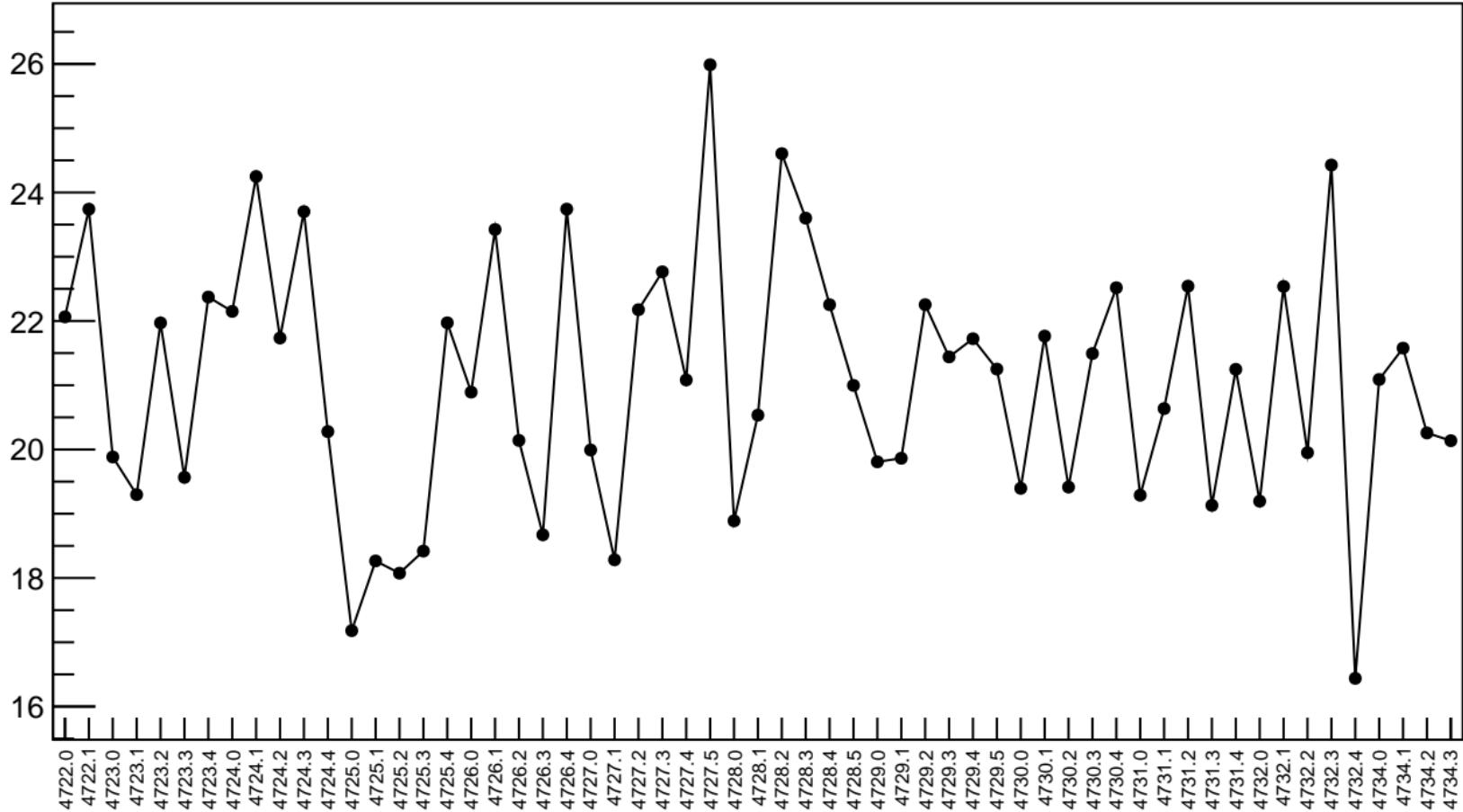


1D pull distribution

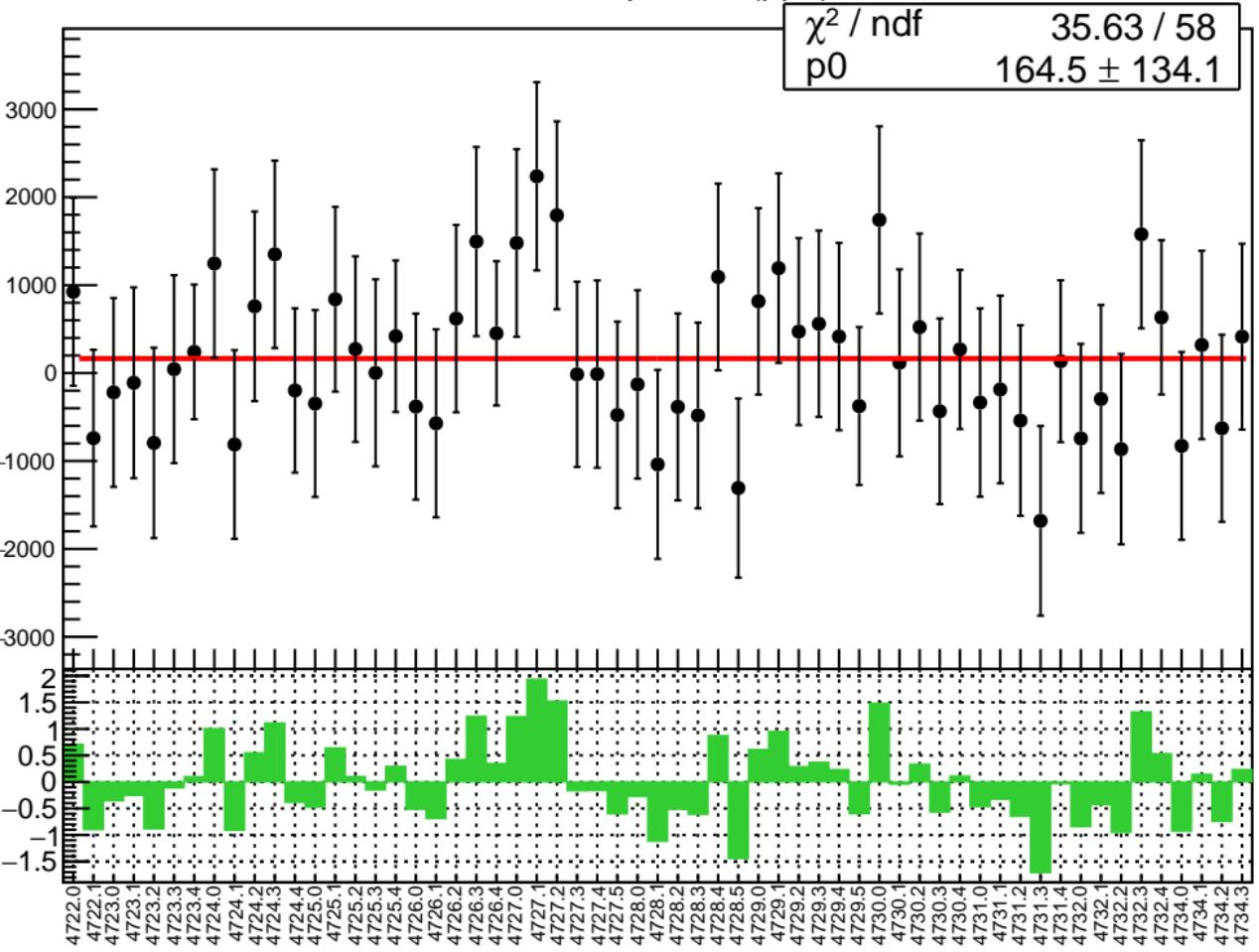


# corr\_Adet\_bpm16Y RMS (ppm)

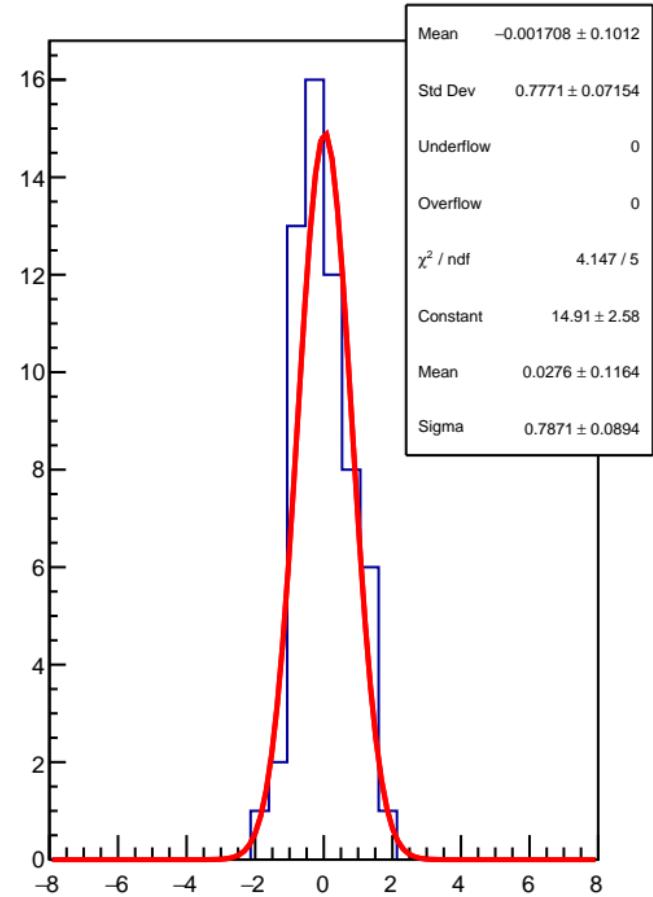
RMS (ppm)



corr\_Adet\_bpm12X (ppb)

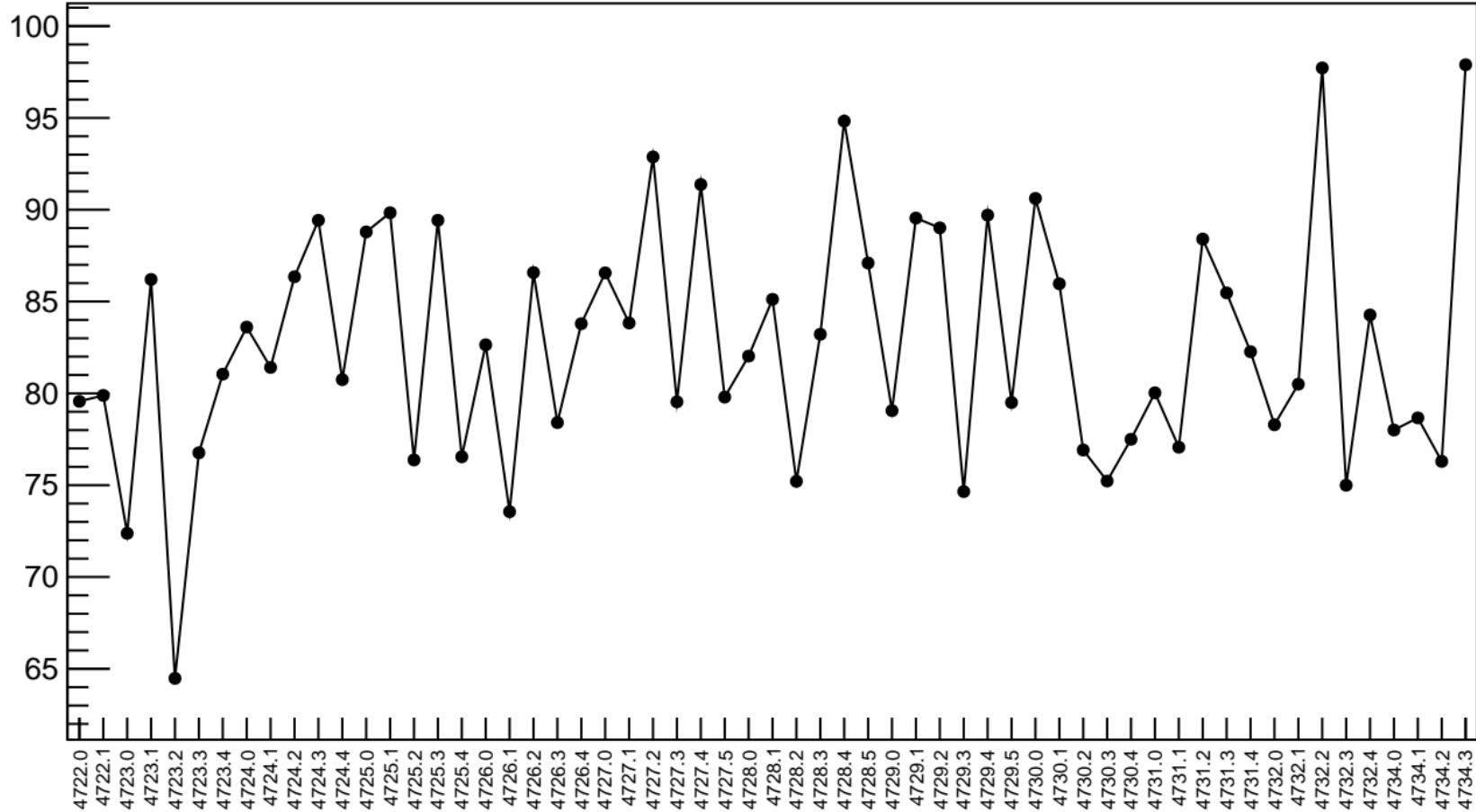


1D pull distribution

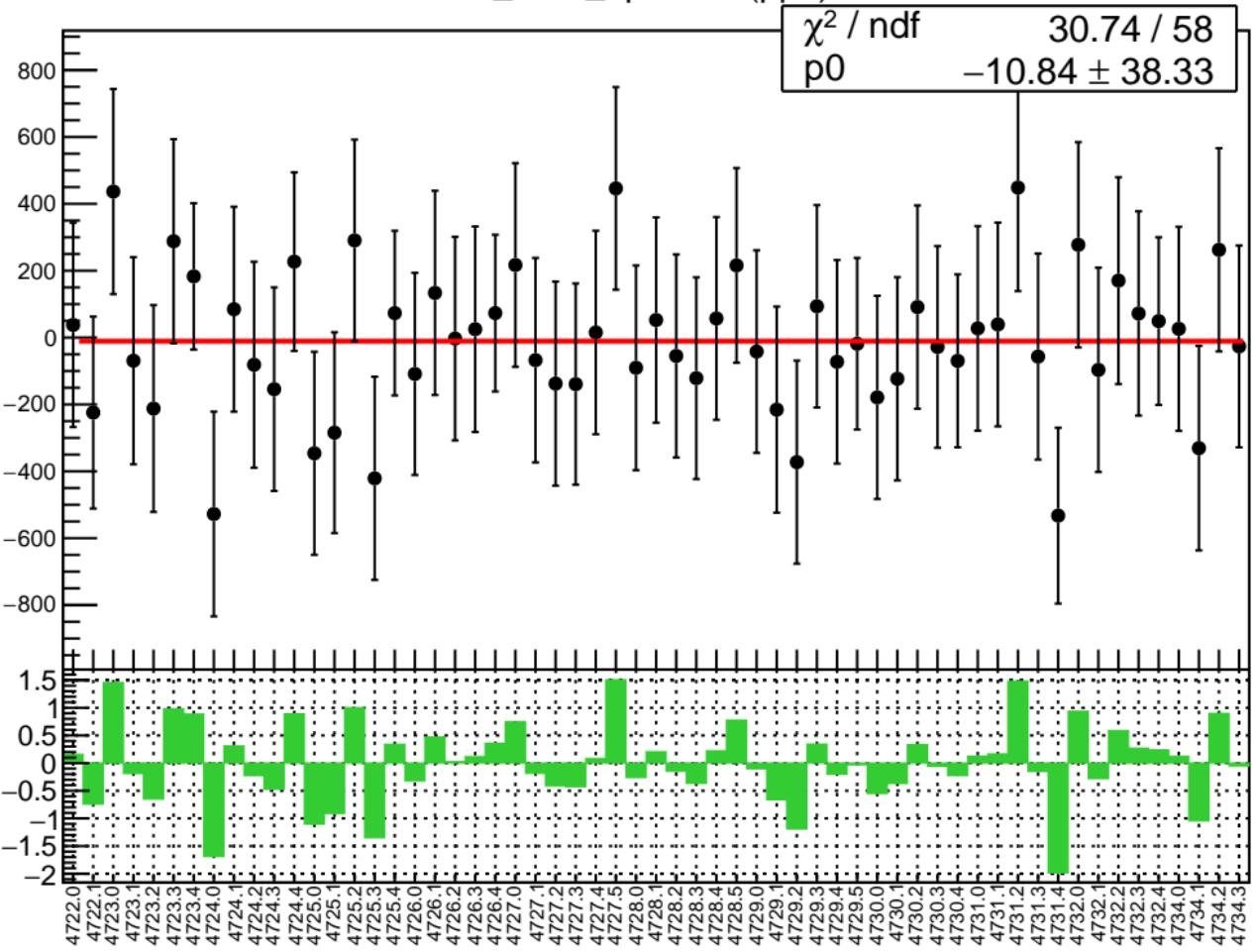


# corr\_Adet\_bpm12X RMS (ppm)

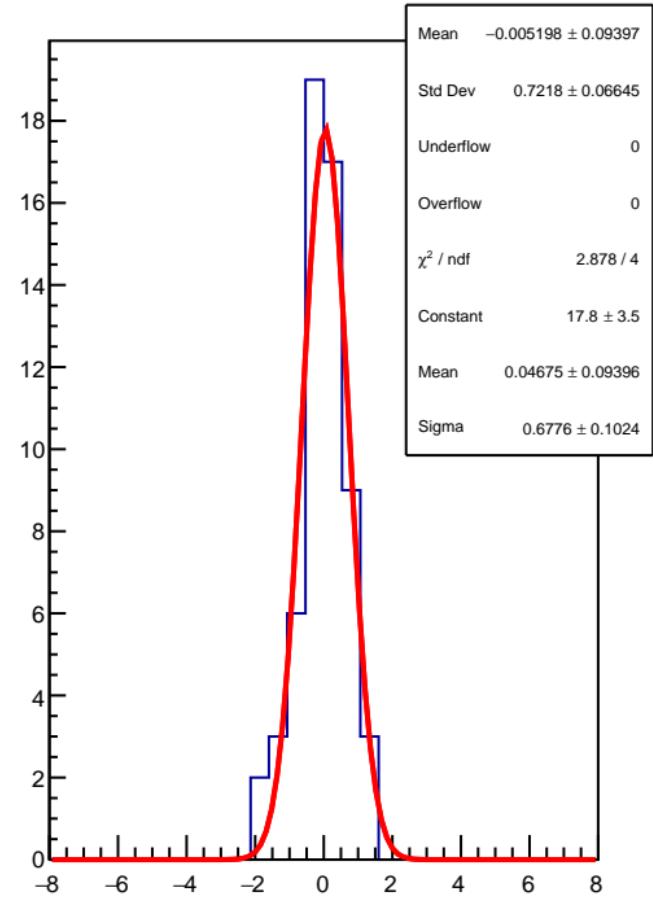
RMS (ppm)



corr\_Adet\_bpm12Y (ppb)

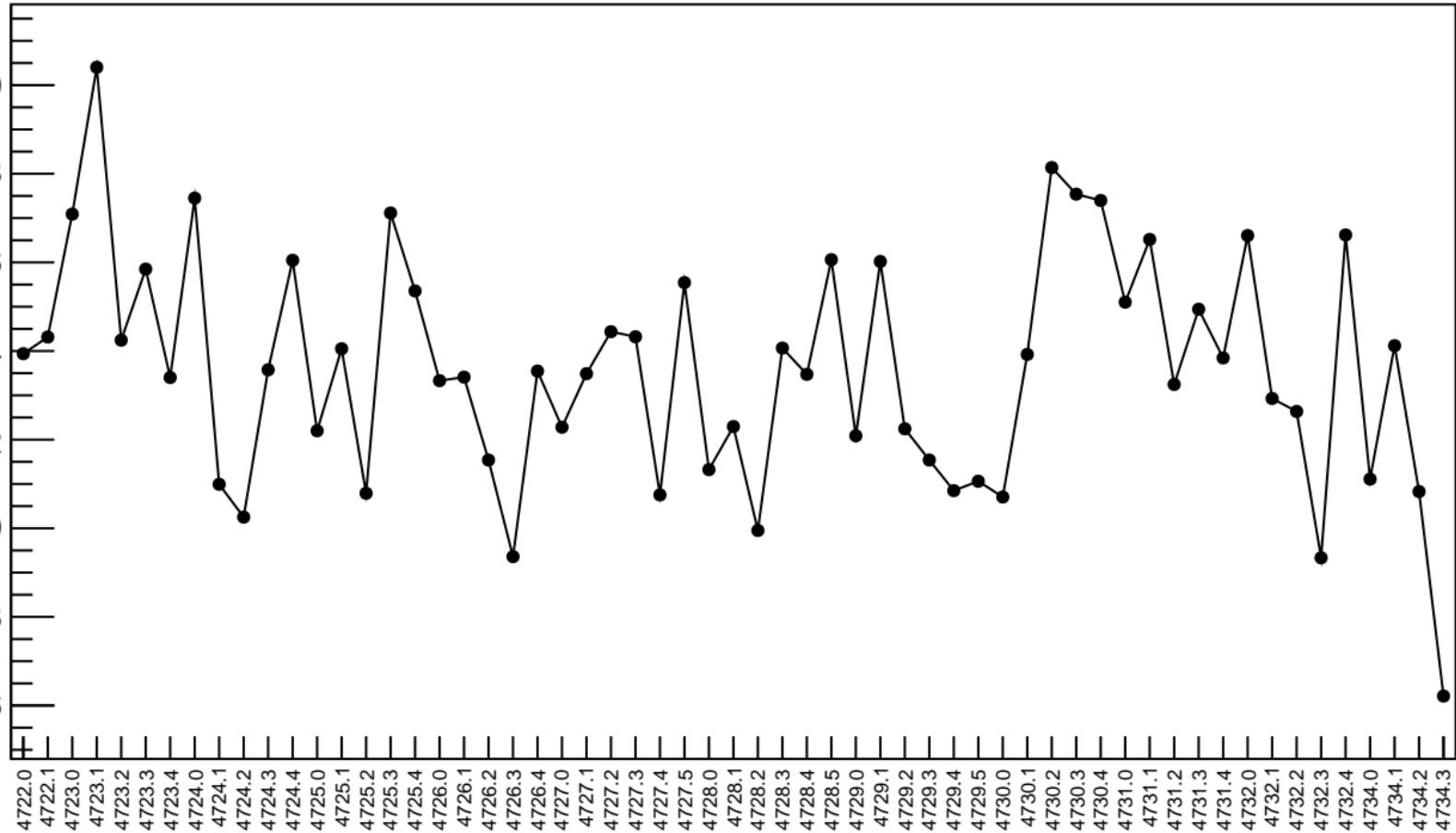


1D pull distribution

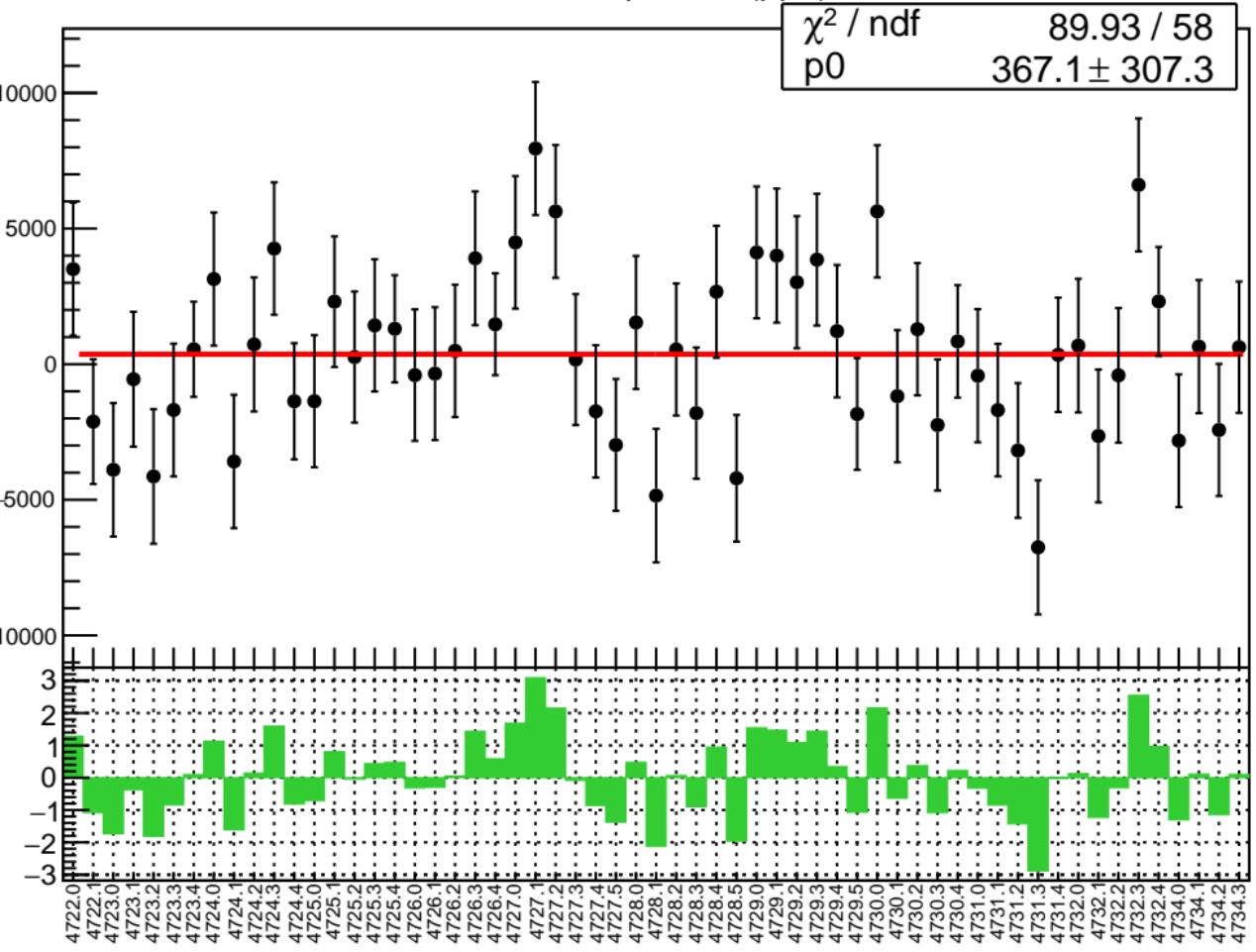


# corr\_Adet\_bpm12Y RMS (ppm)

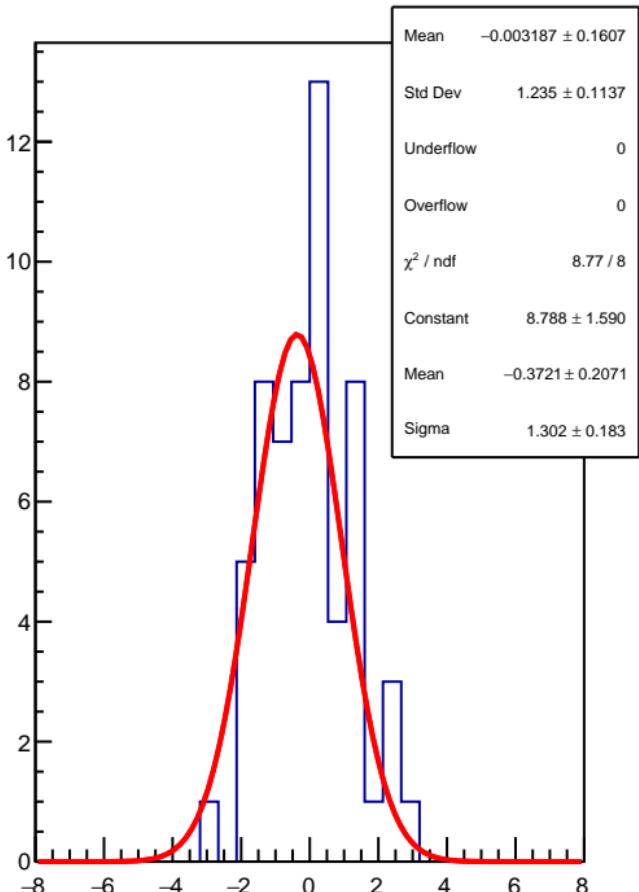
RMS (ppm)



corr\_Adet\_bpm11X (ppb)

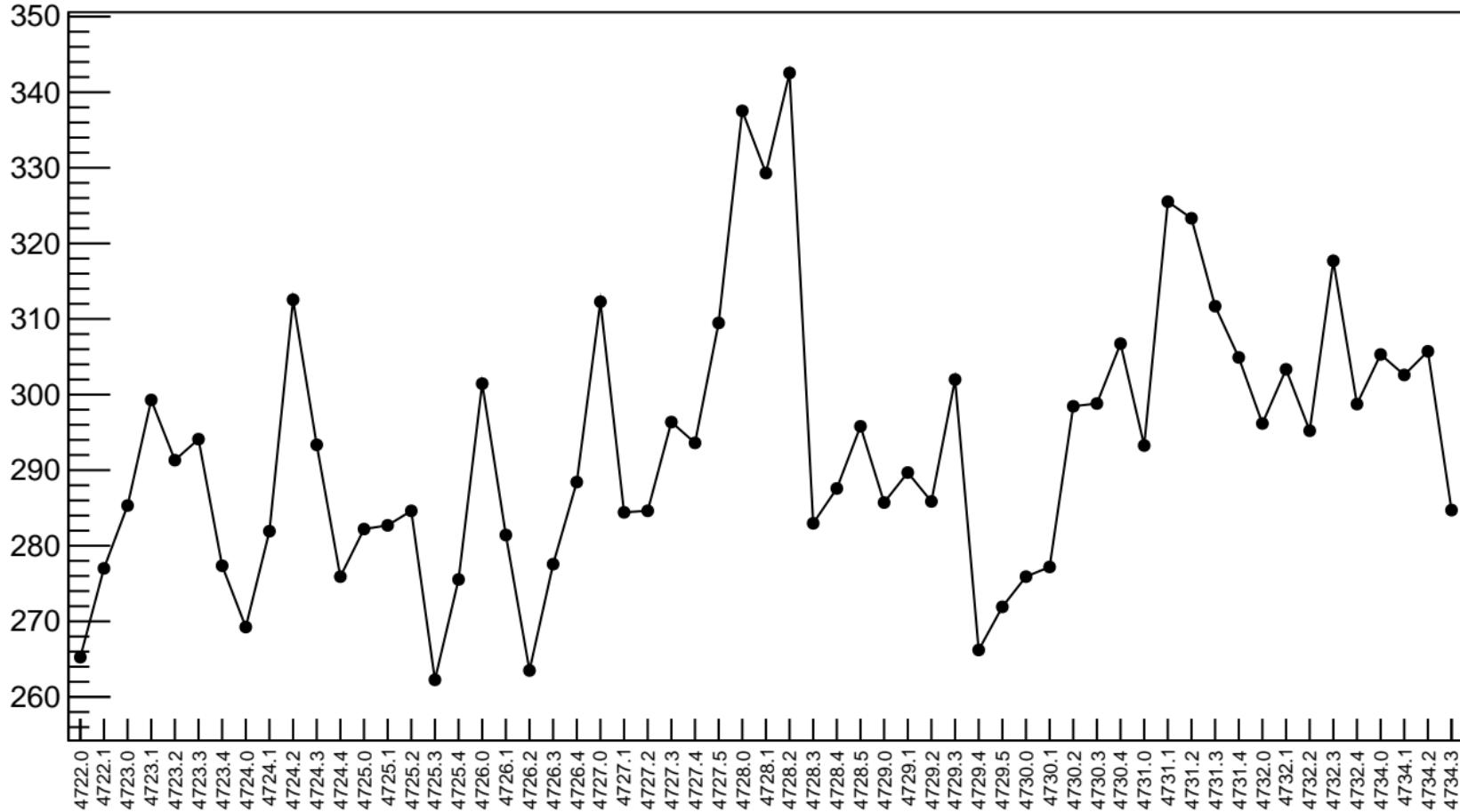


1D pull distribution



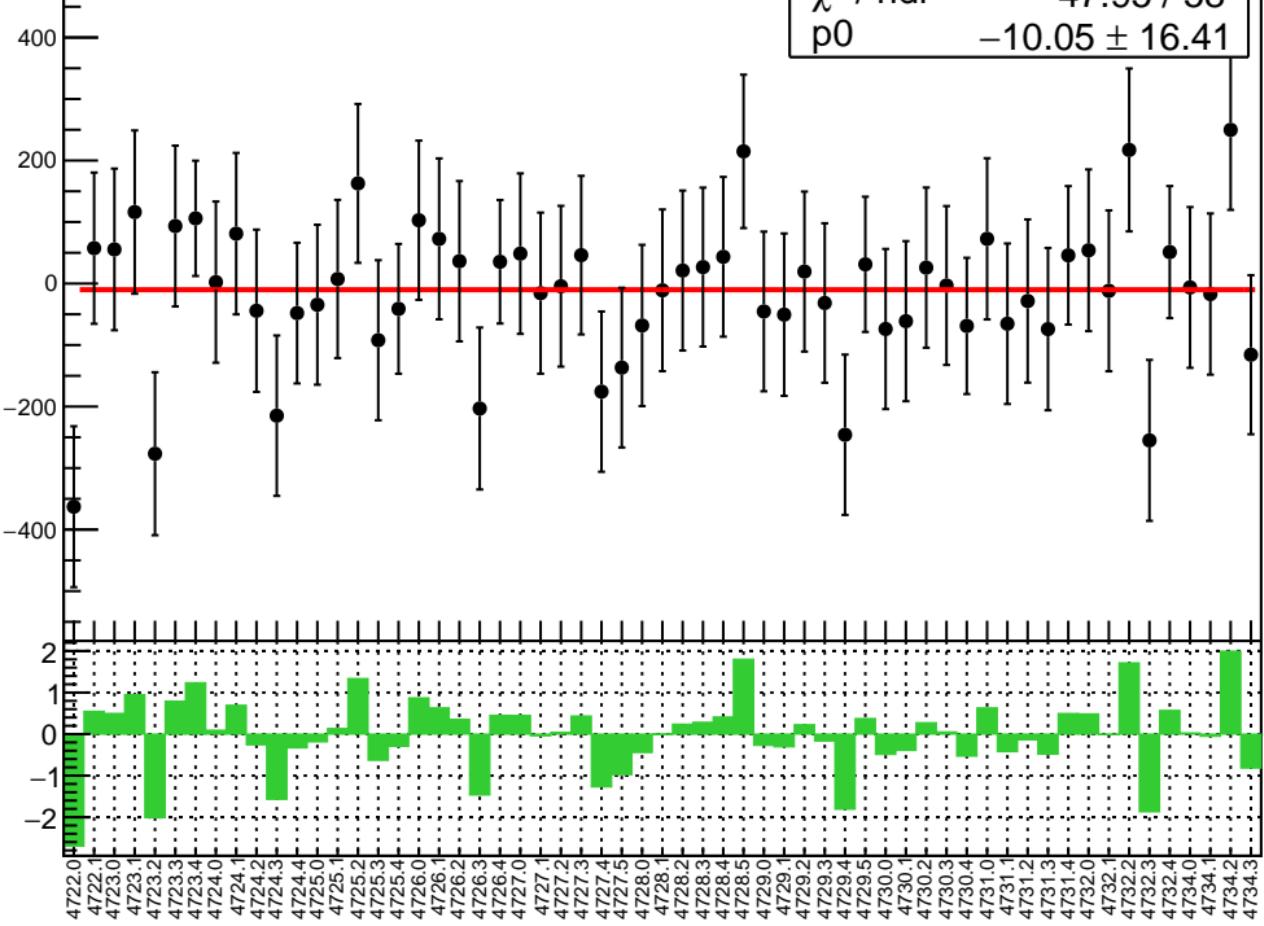
# corr\_Adet\_bpm11X RMS (ppm)

RMS (ppm)

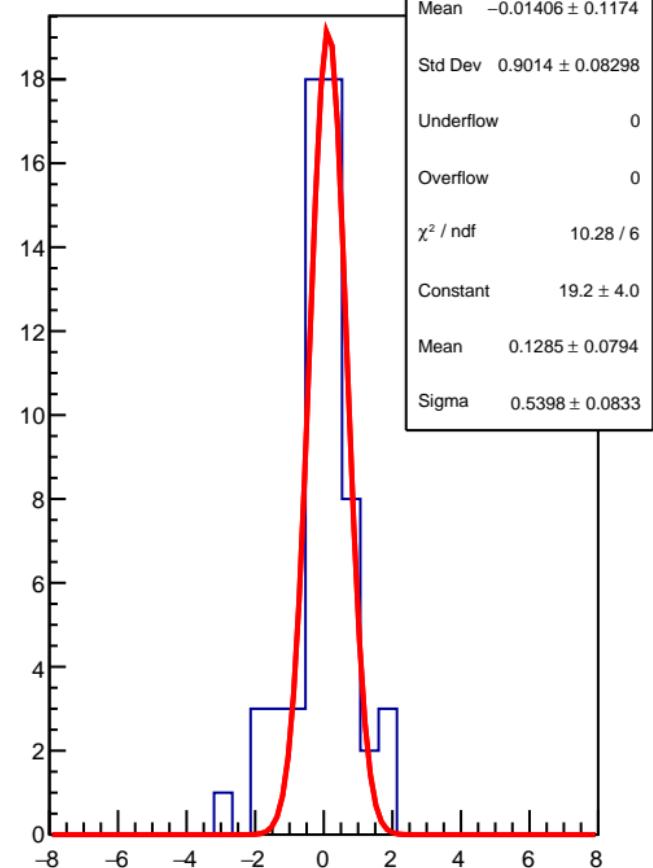


corr\_Adet\_bpm11Y (ppb)

$\chi^2 / \text{ndf}$  47.95 / 58  
p0  $-10.05 \pm 16.41$

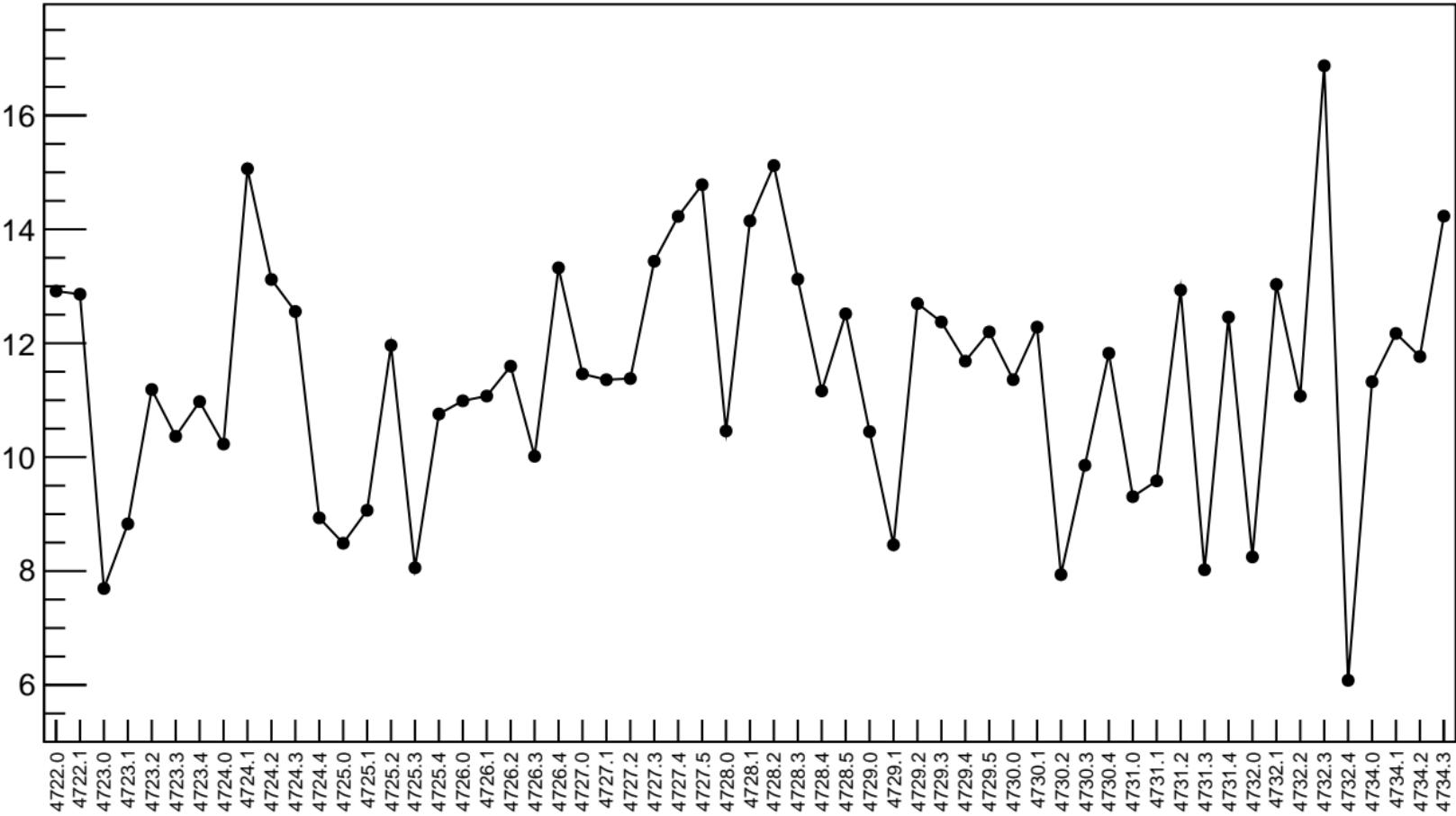


1D pull distribution

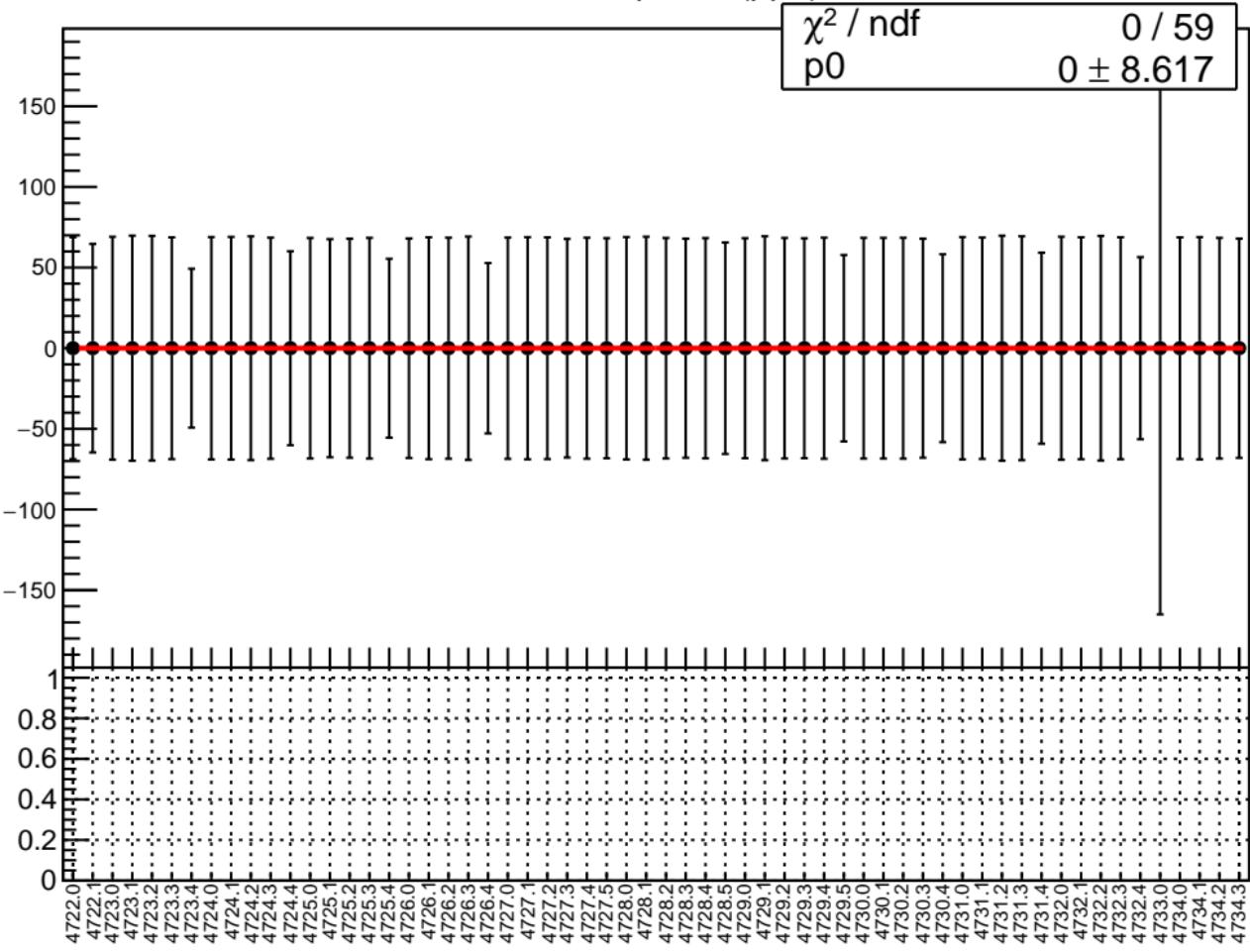


# corr\_Adet\_bpm11Y RMS (ppm)

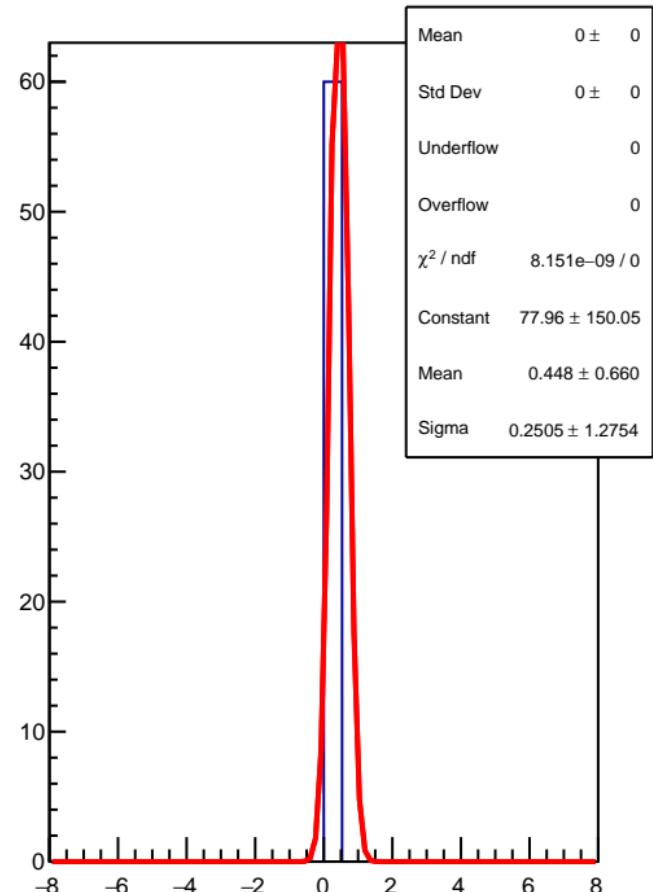
RMS (ppm)



# corr\_Adet\_bpm8X (ppb)

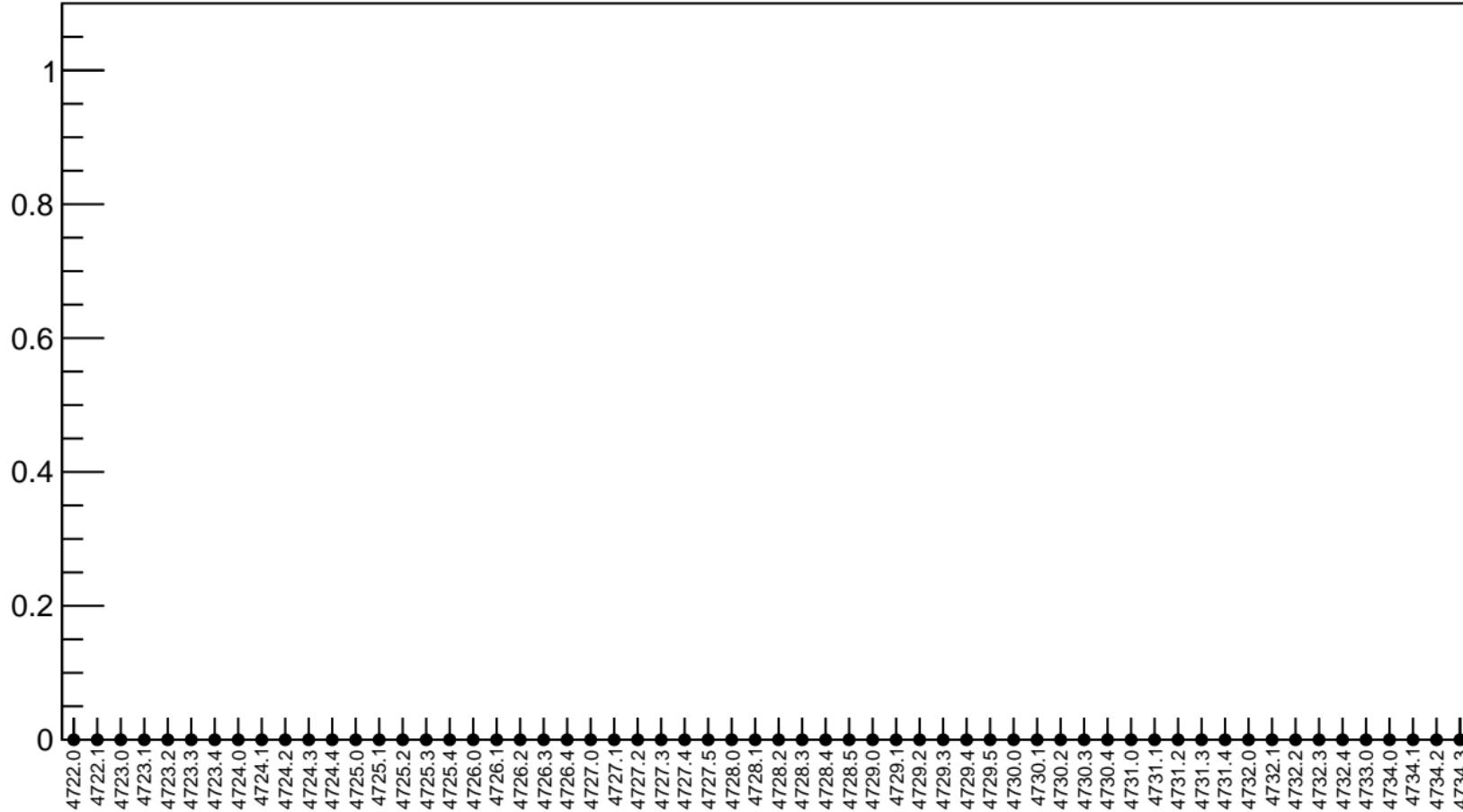


# 1D pull distribution

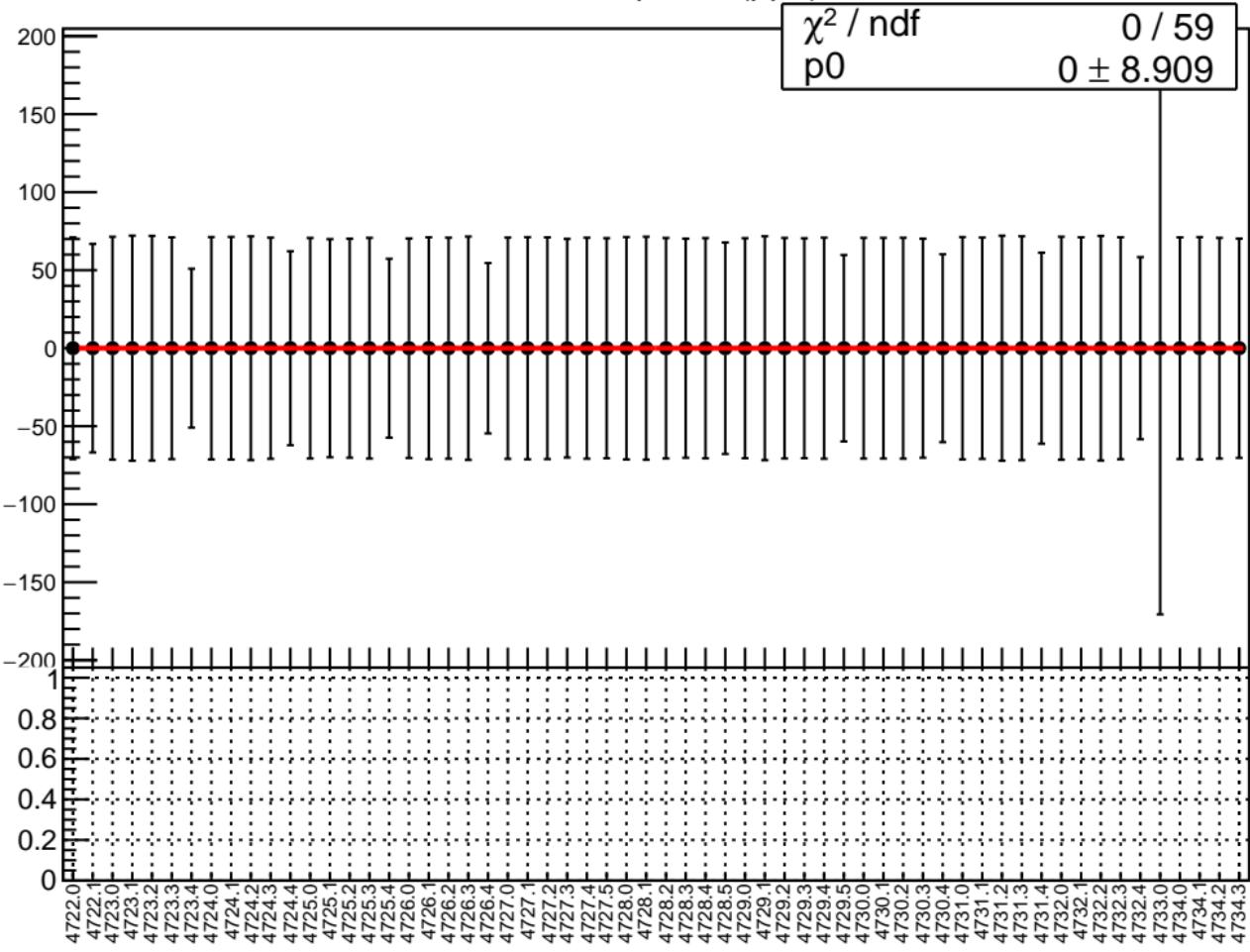


# corr\_Adet\_bpm8X RMS (ppm)

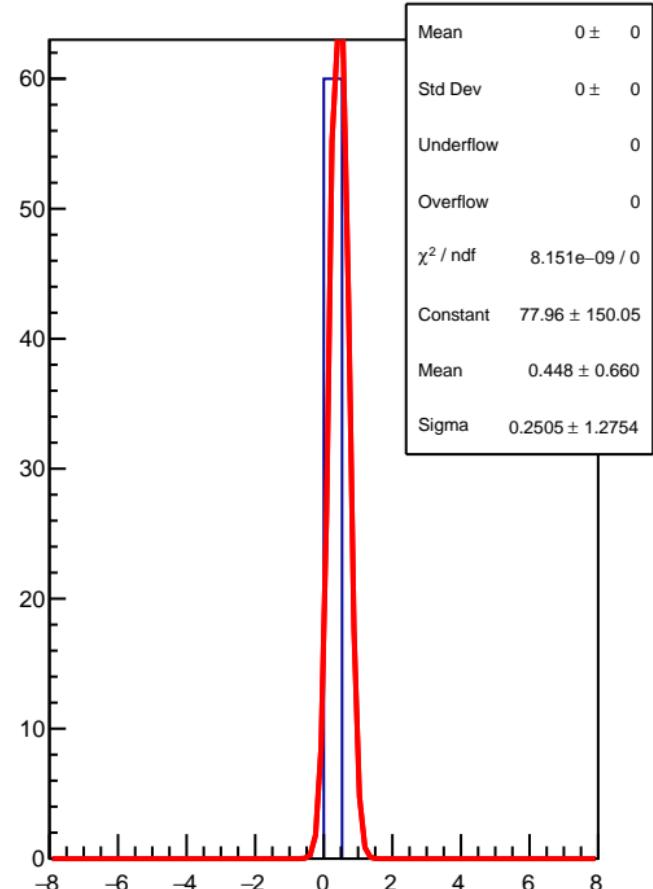
RMS (ppm)



# corr\_Adet\_bpm8Y (ppb)

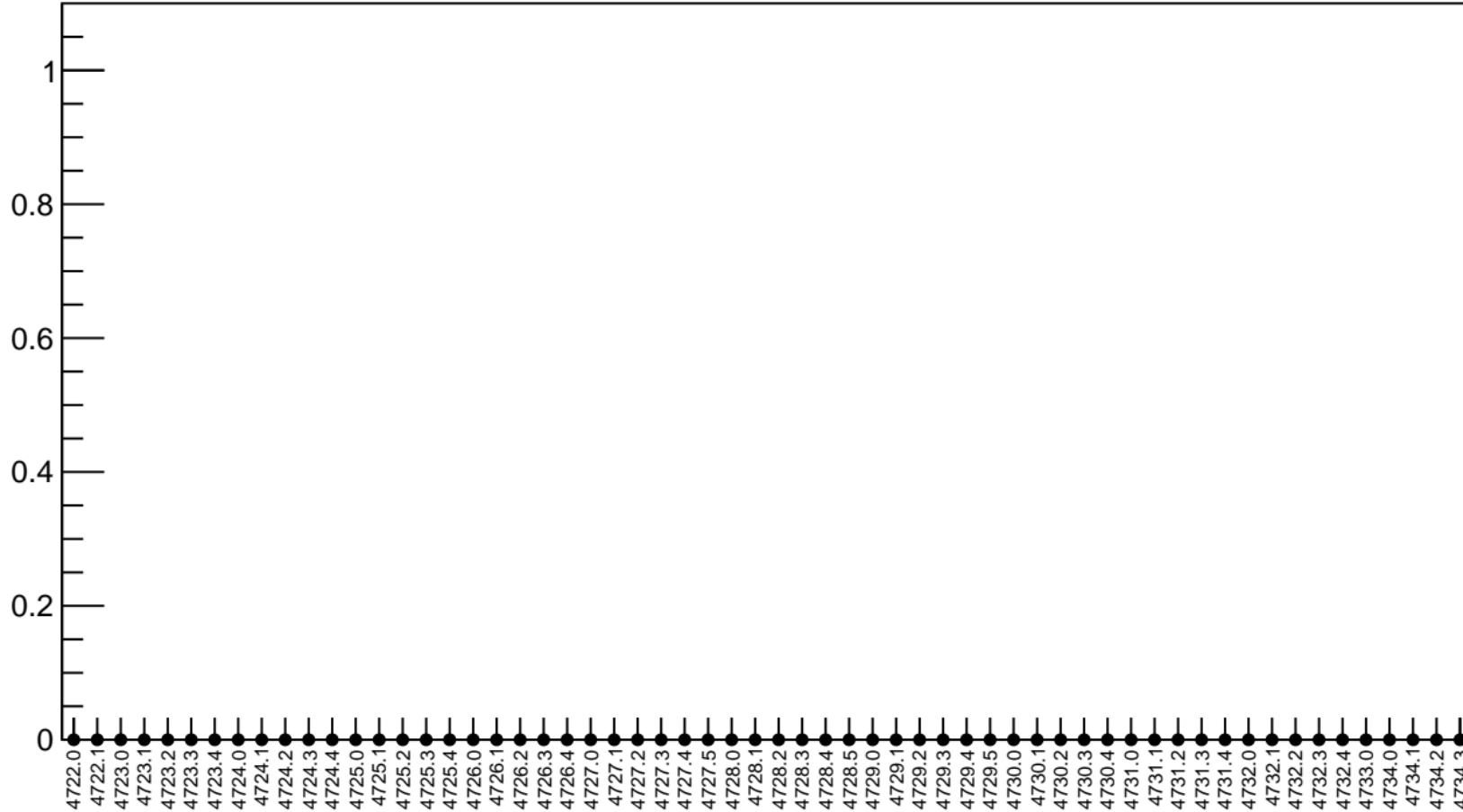


# 1D pull distribution

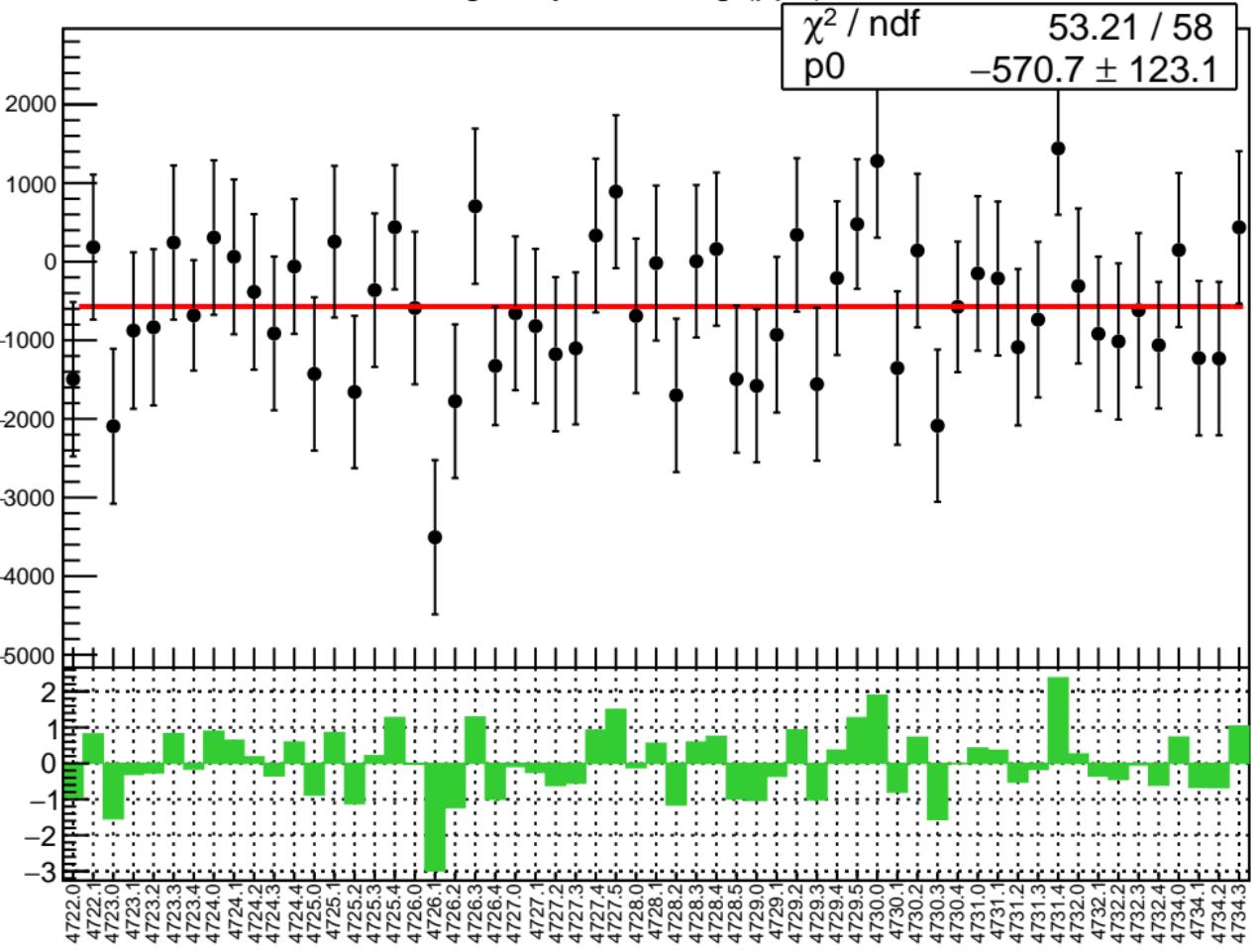


# corr\_Adet\_bpm8Y RMS (ppm)

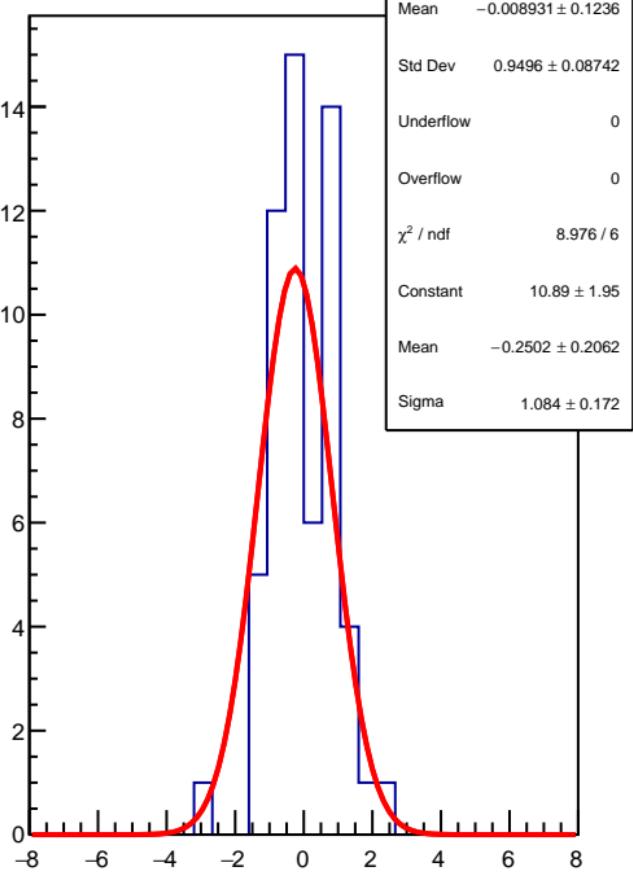
RMS (ppm)



# lagr\_asym\_us\_avg (ppb)

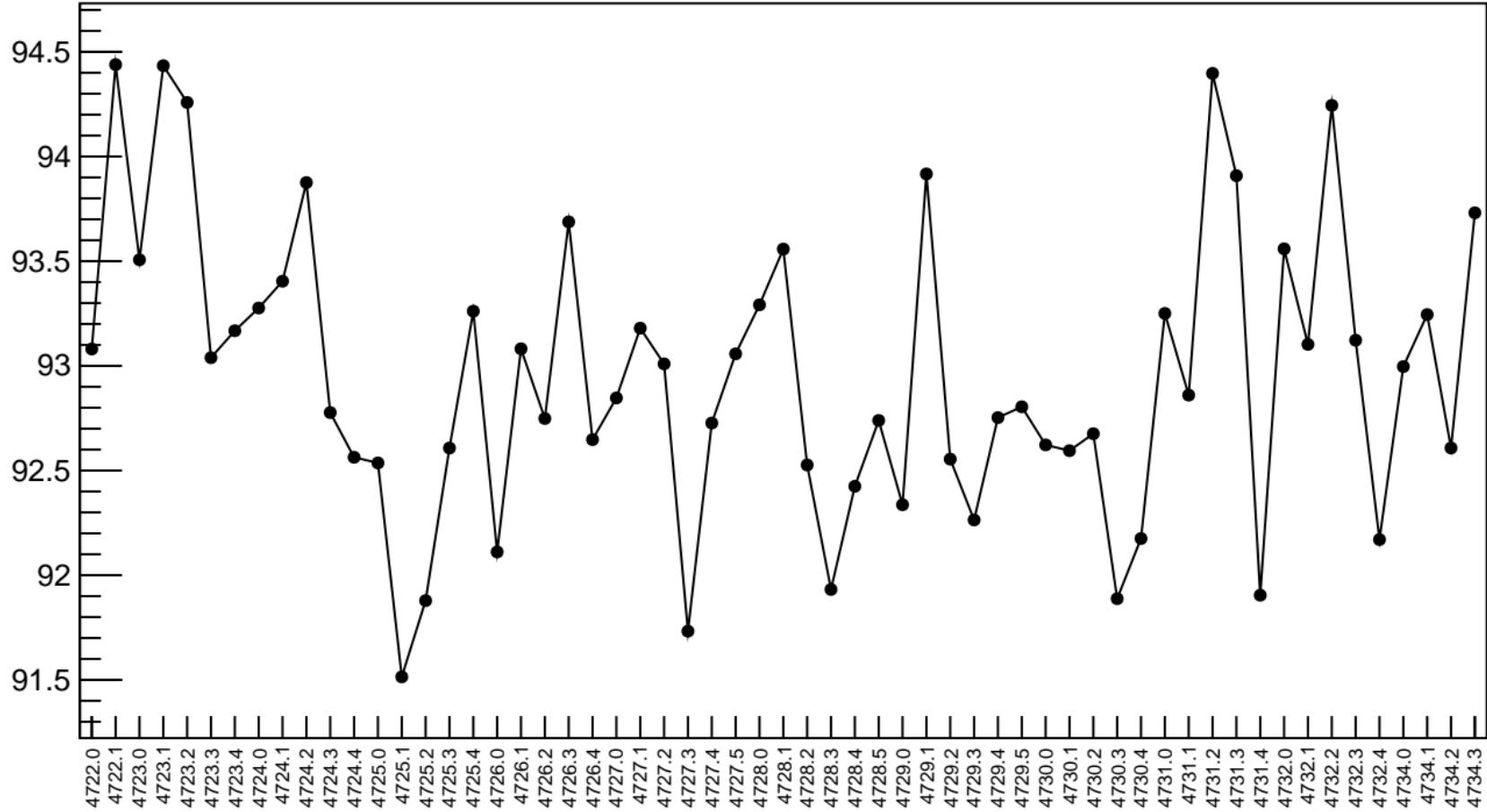


# 1D pull distribution

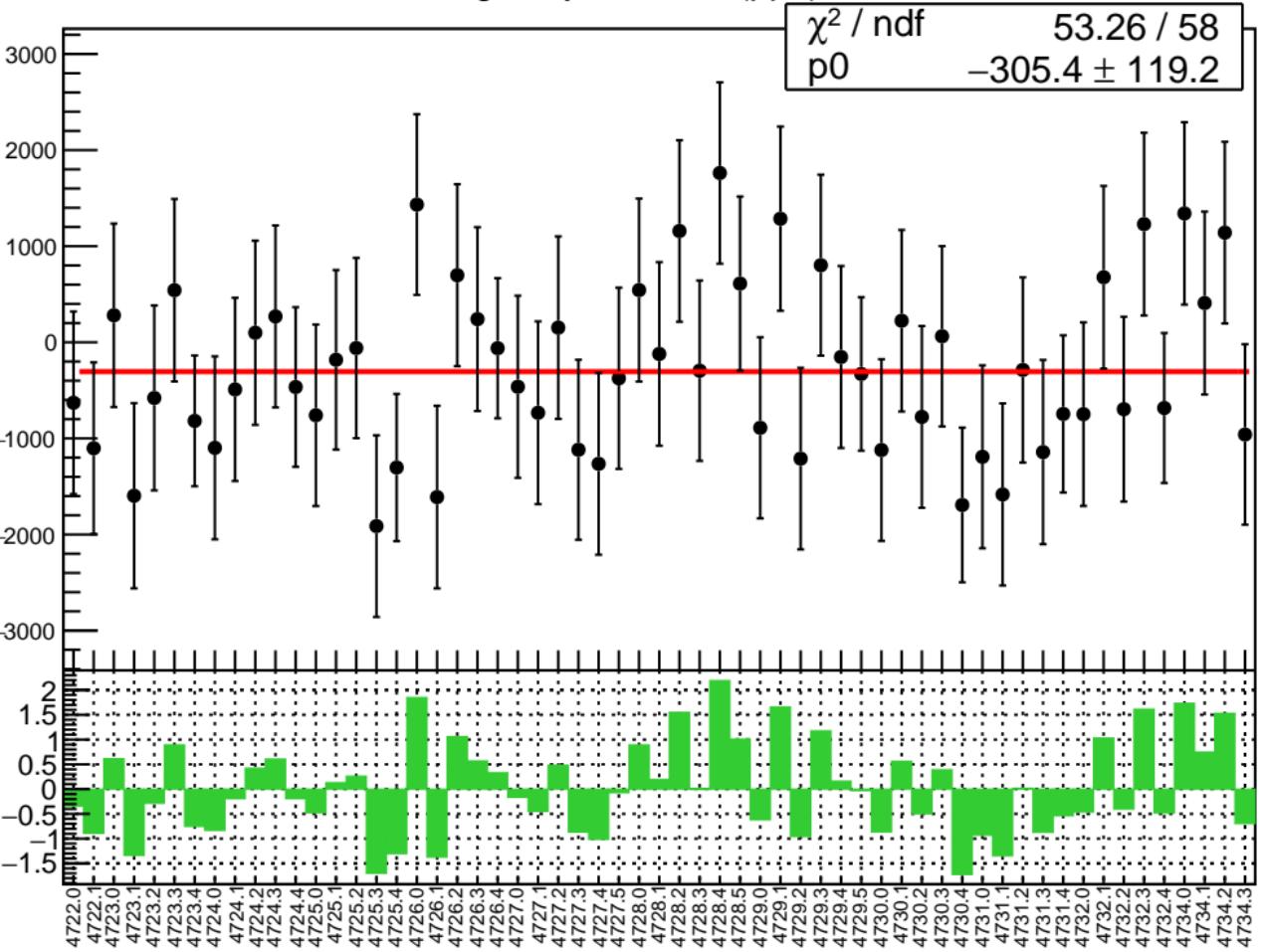


# lagr\_asym\_us\_avg RMS (ppm)

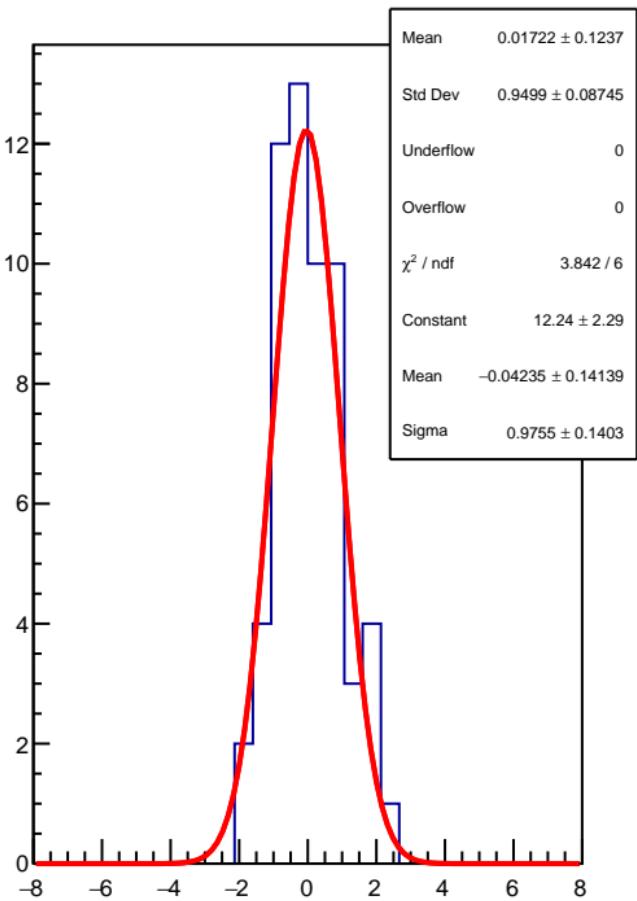
RMS (ppm)



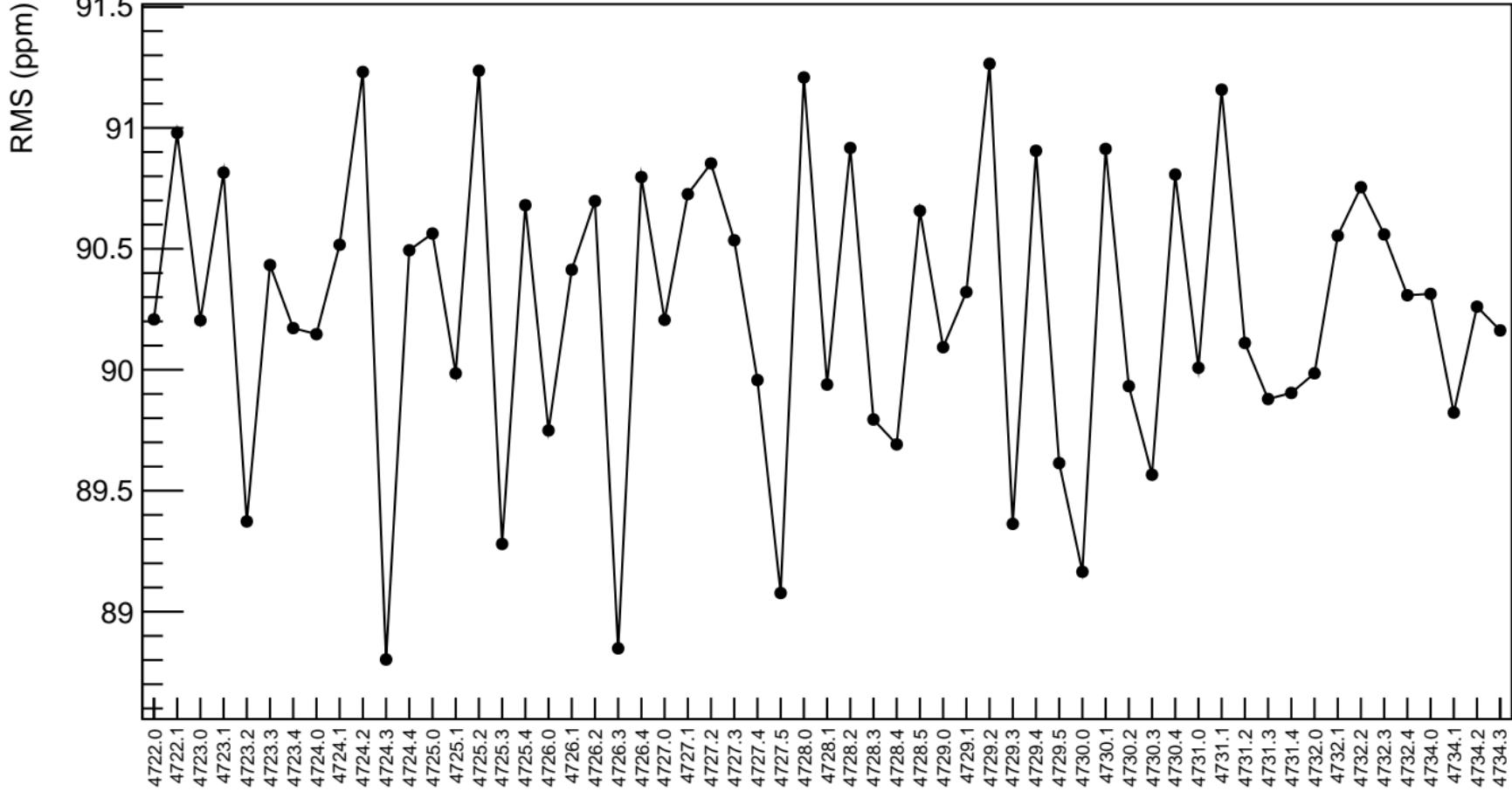
# lagr\_asym\_us\_dd (ppb)



# 1D pull distribution

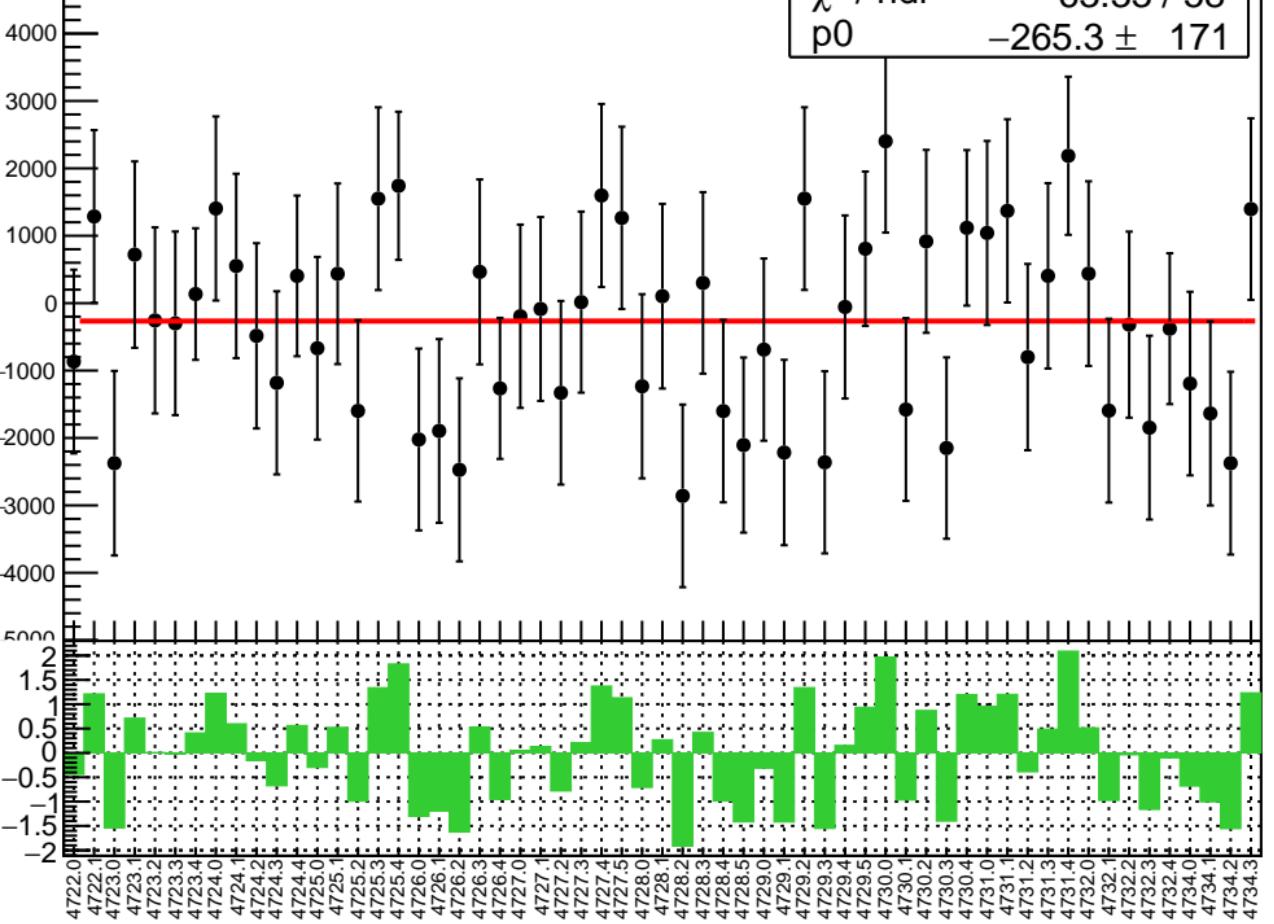


# lagr\_asym\_us\_dd RMS (ppm)

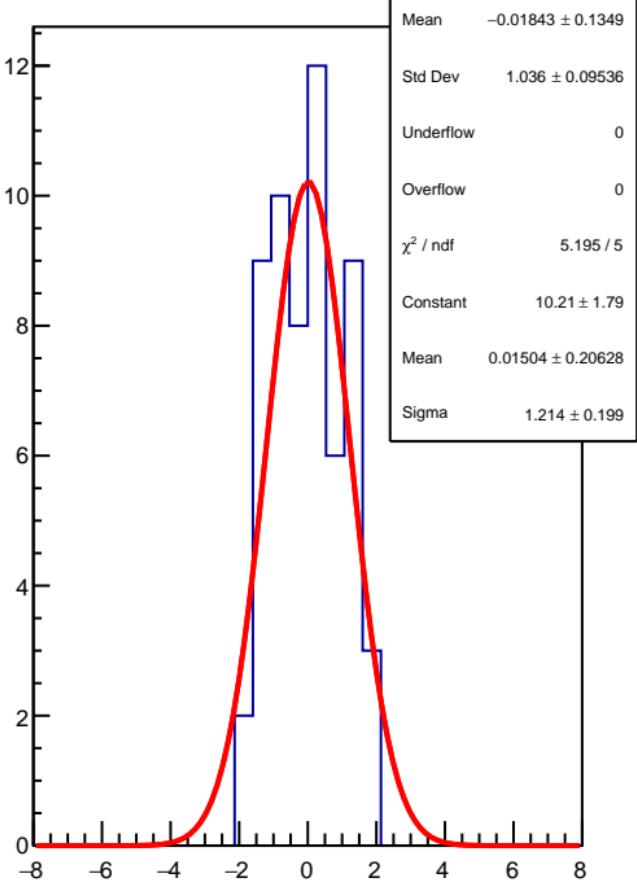


lagr\_asym\_usr (ppb)

$\chi^2 / \text{ndf}$  63.33 / 58  
p0  $-265.3 \pm 171$

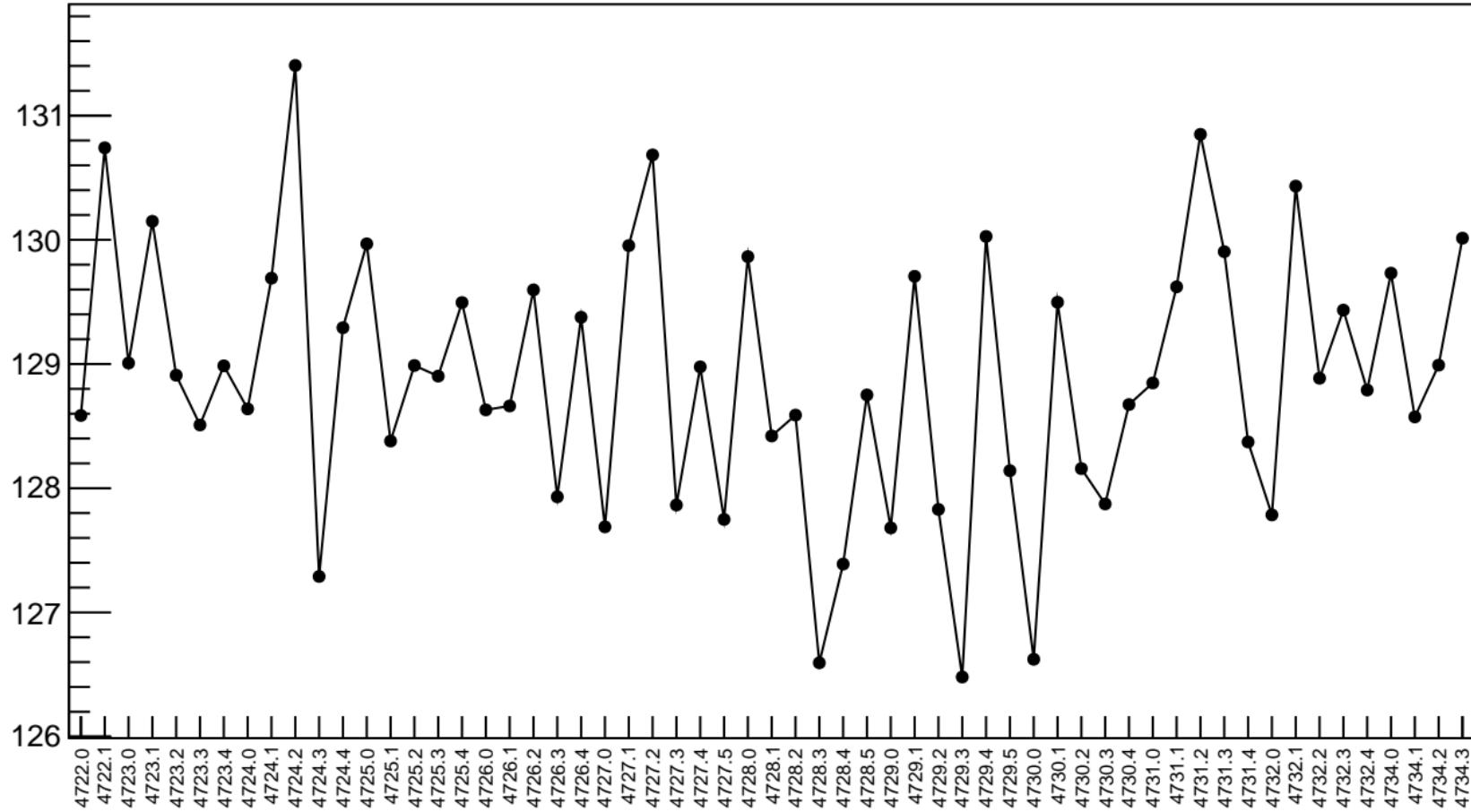


1D pull distribution



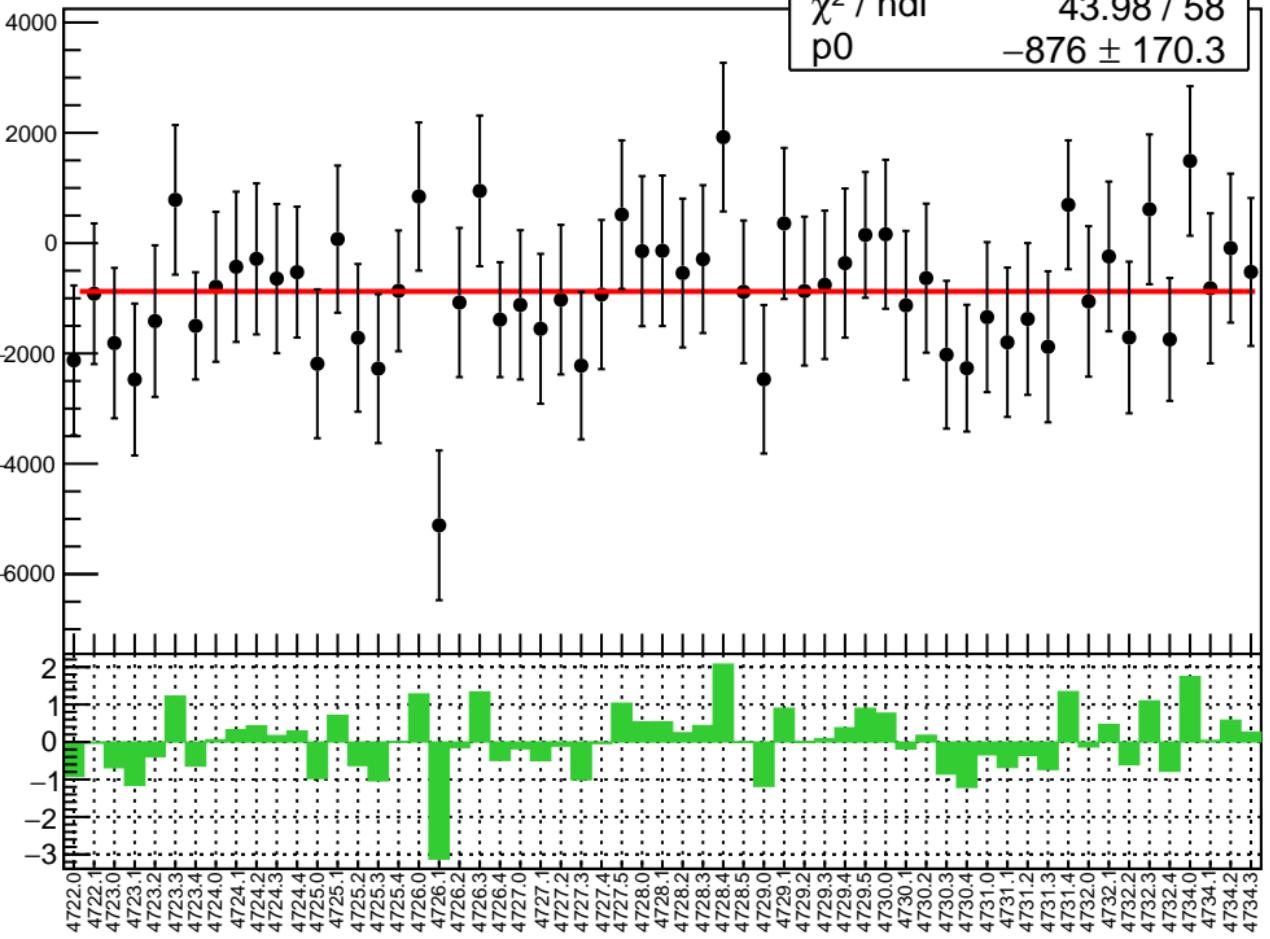
# lagr\_asym\_usr RMS (ppm)

RMS (ppm)

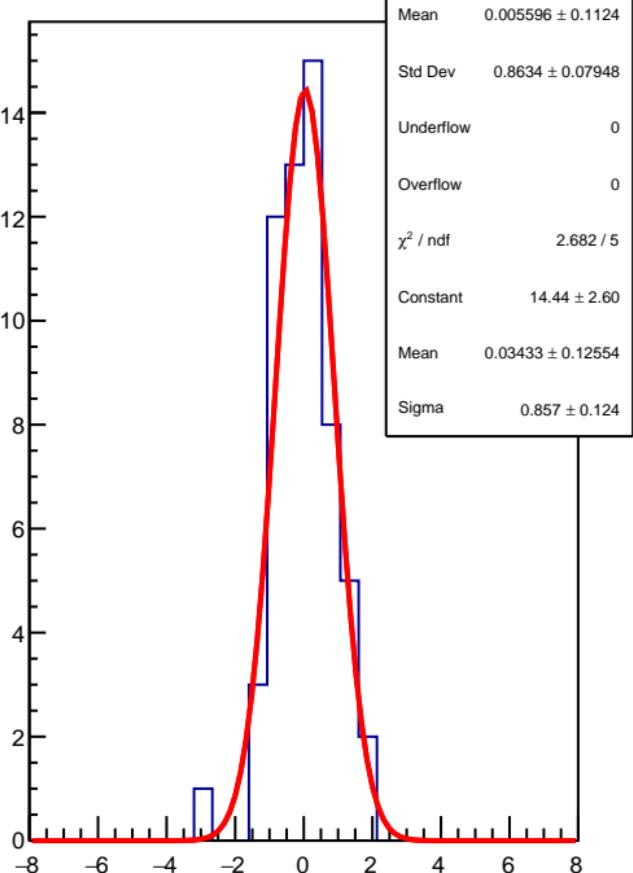


lagr\_asym\_usl (ppb)

$\chi^2 / \text{ndf}$  43.98 / 58  
p0  $-876 \pm 170.3$

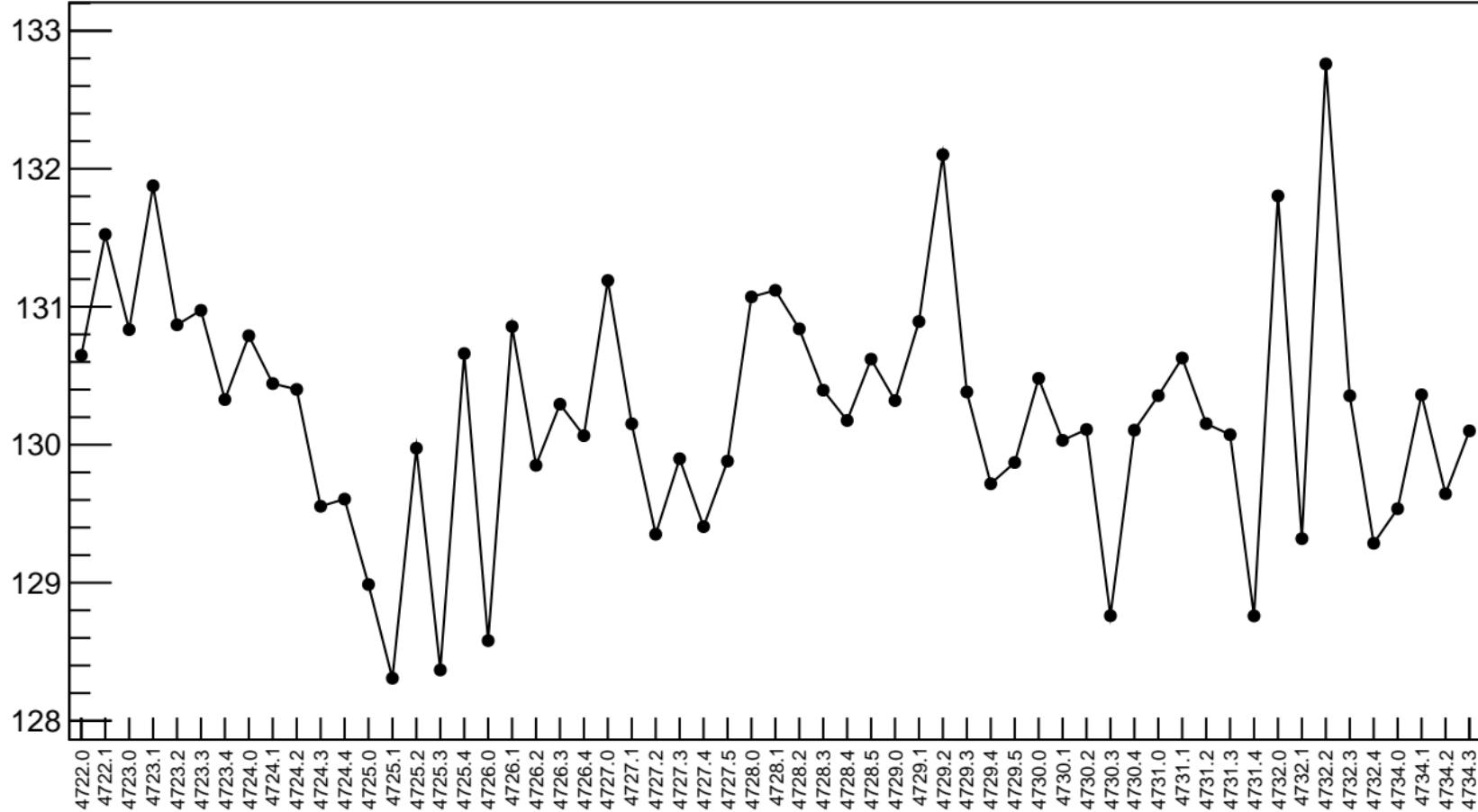


1D pull distribution

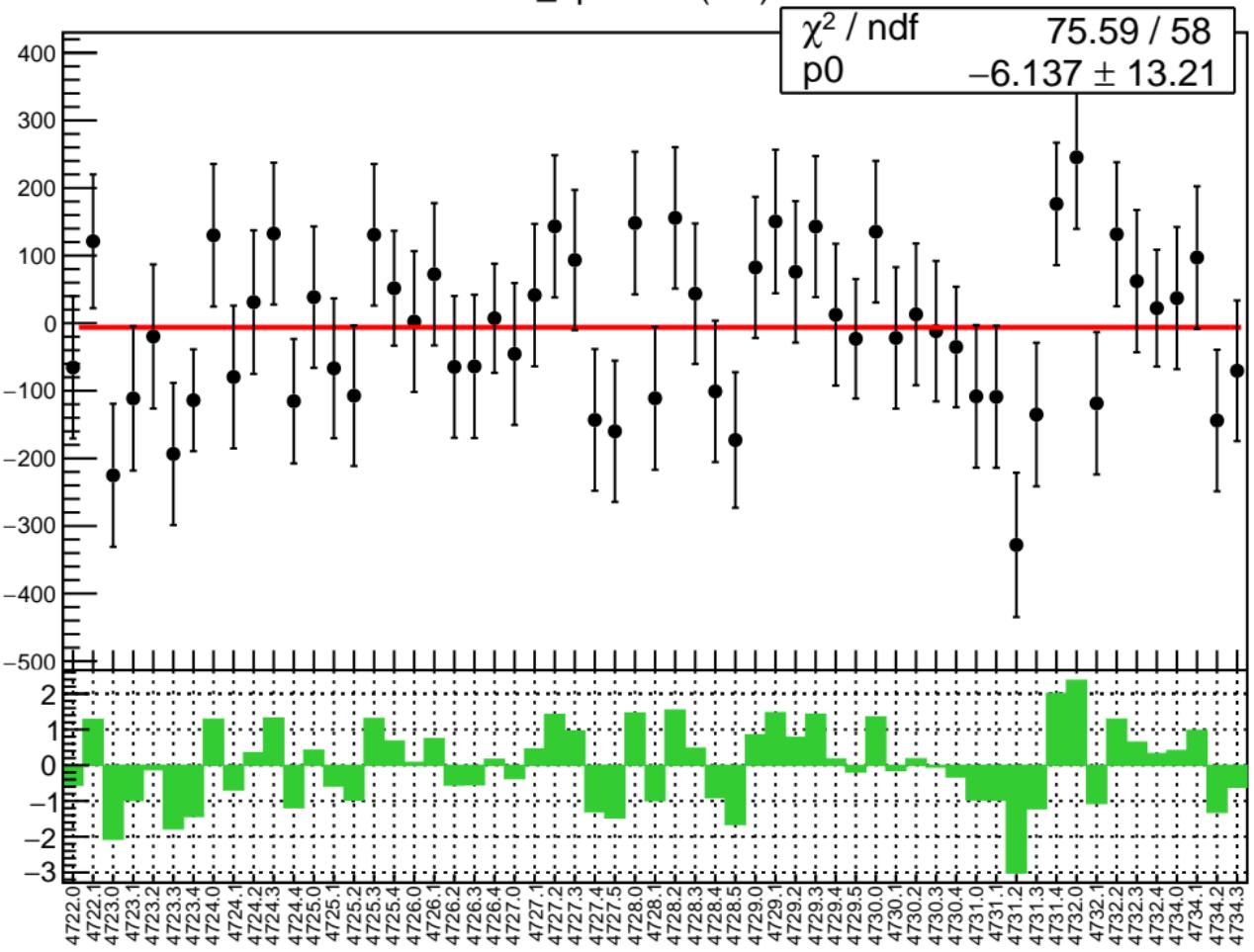


# lagr\_asym\_usl RMS (ppm)

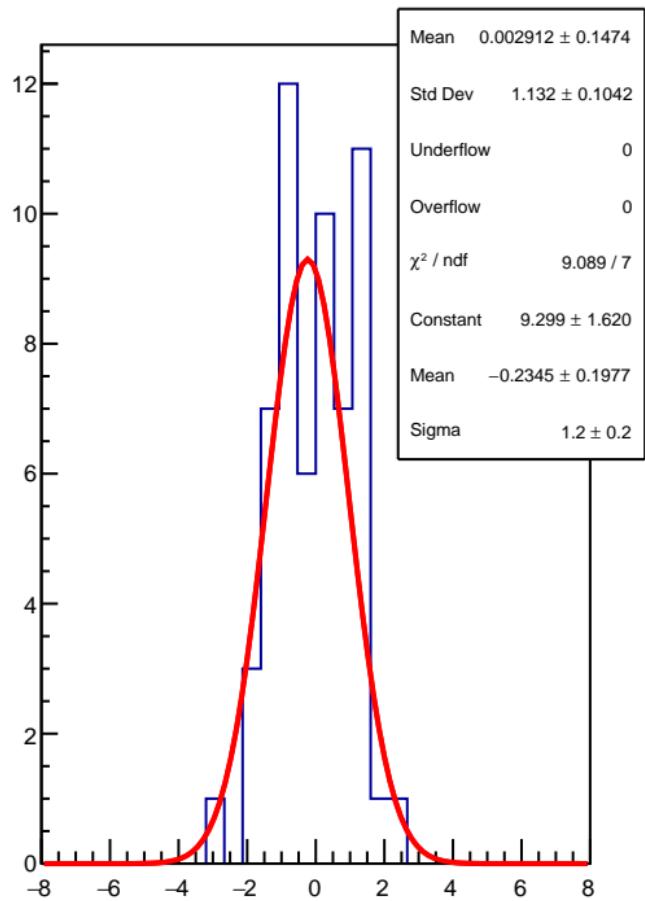
RMS (ppm)



diff\_bpm4eX (nm)

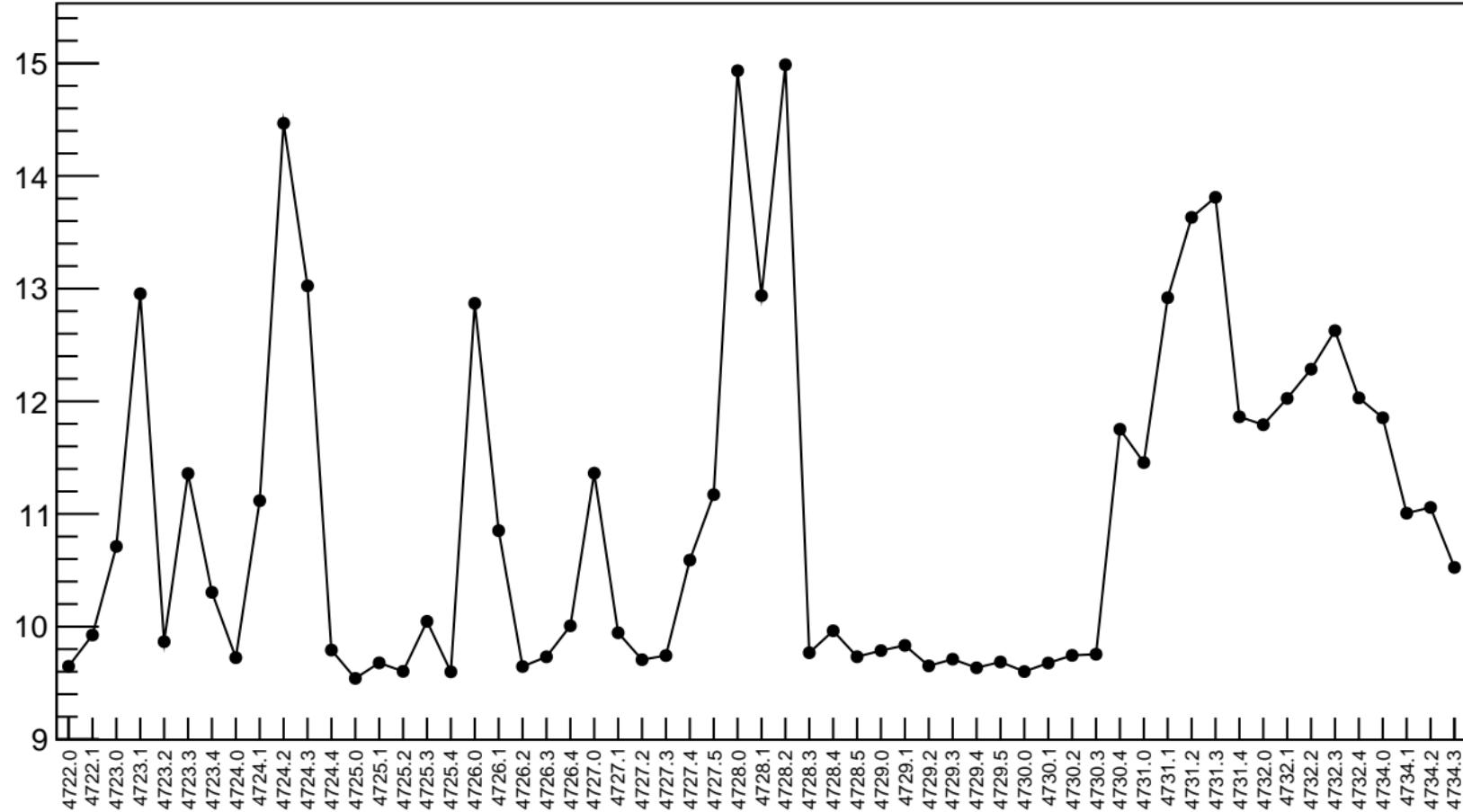


1D pull distribution



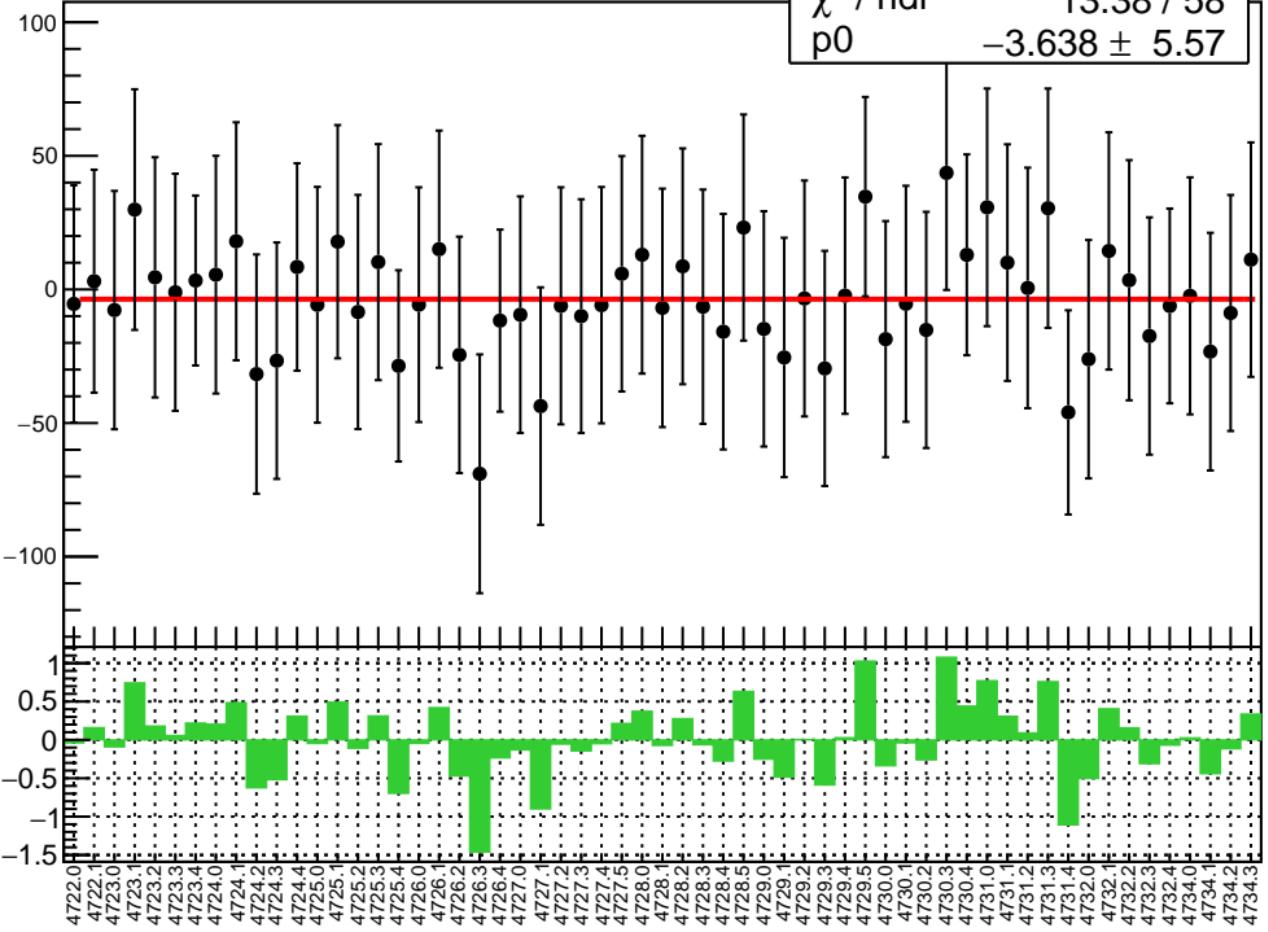
# diff\_bpm4eX RMS (um)

RMS (um)

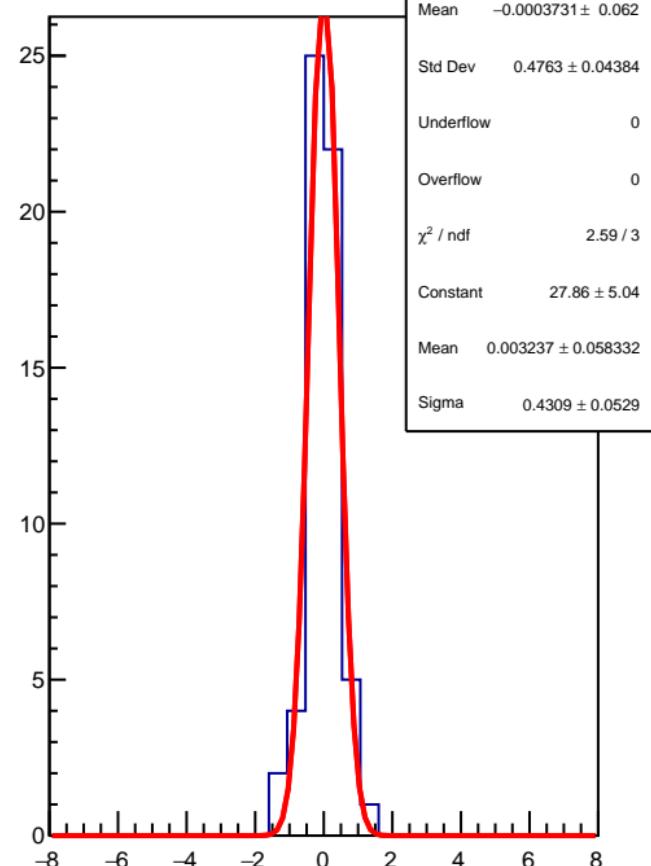


diff\_bpm4eY (nm)

$\chi^2 / \text{ndf}$  13.38 / 58  
p0  $-3.638 \pm 5.57$

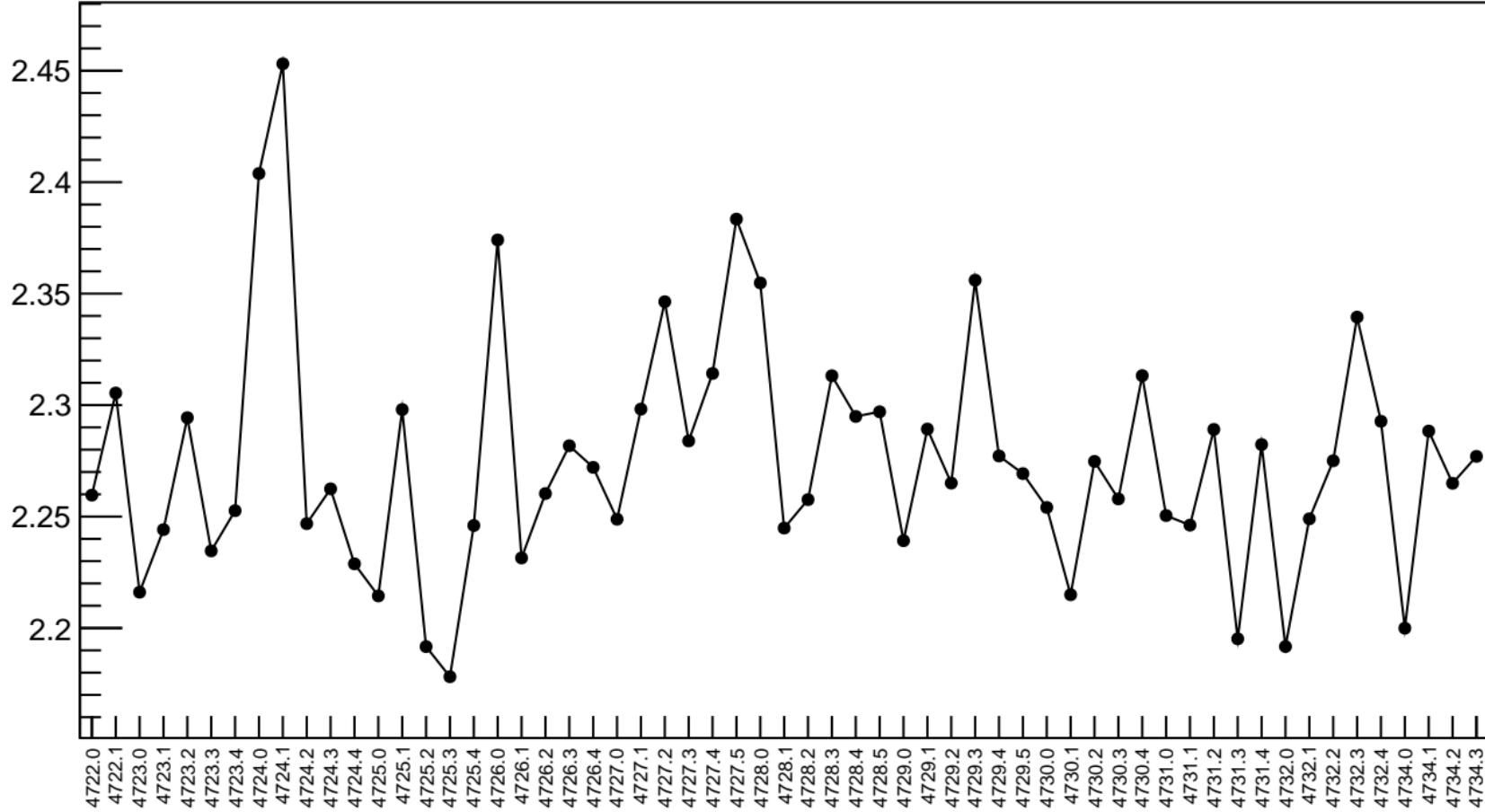


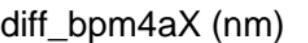
1D pull distribution



# diff\_bpm4eY RMS (um)

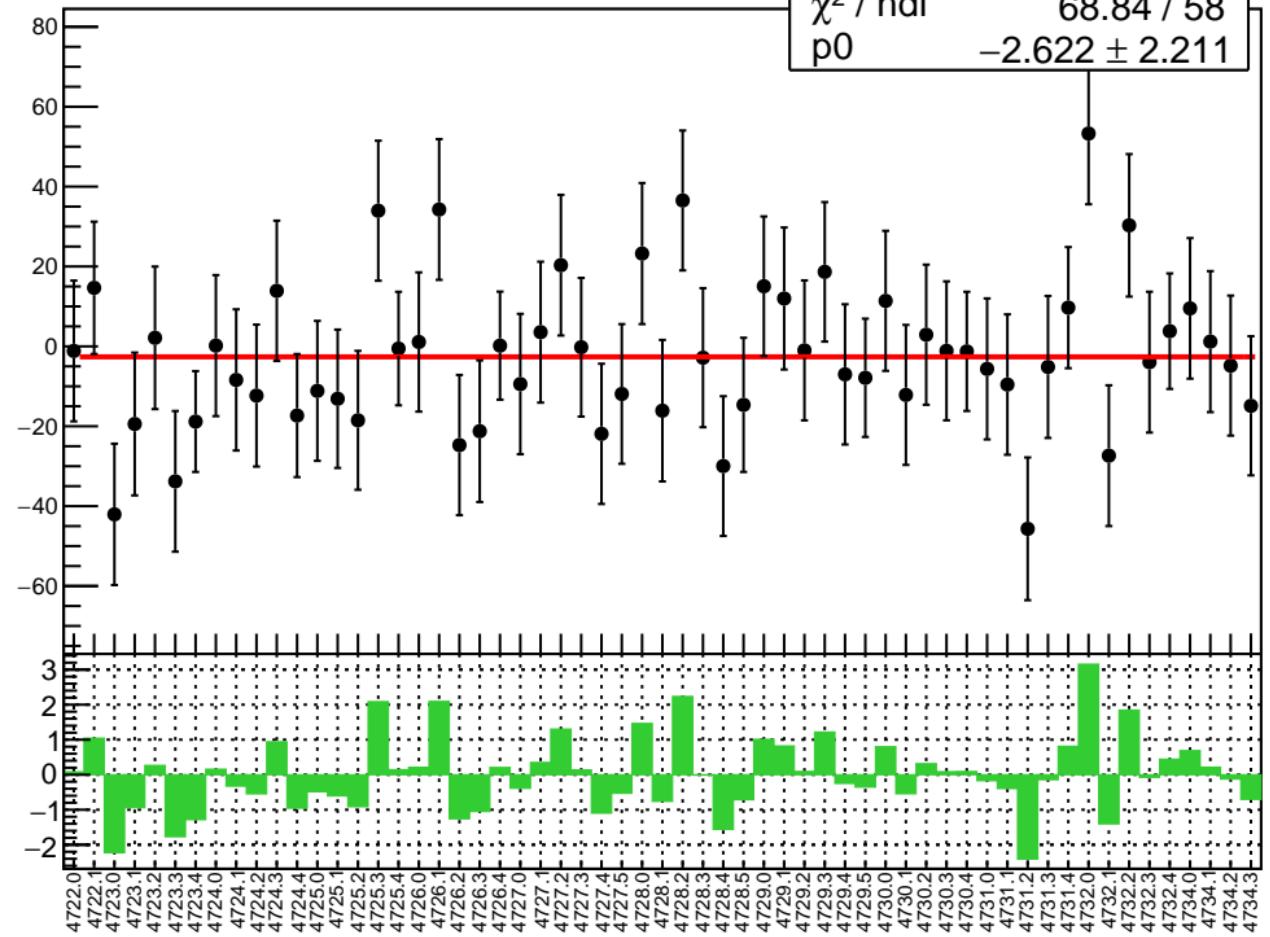
RMS (um)





$\chi^2 / \text{ndf}$

68.84 / 58  
 $-2.622 \pm 2.211$

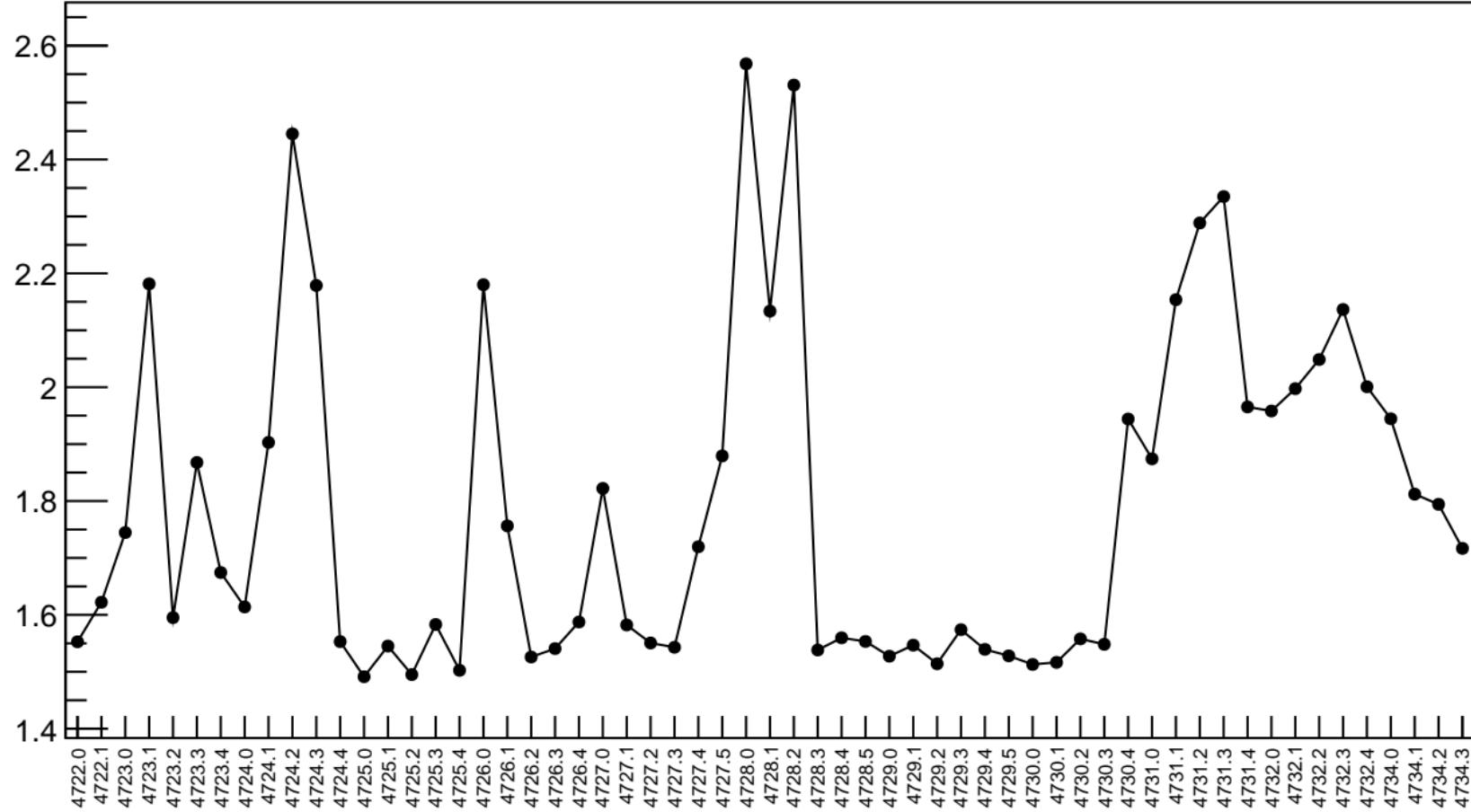


## 1D pull distribution

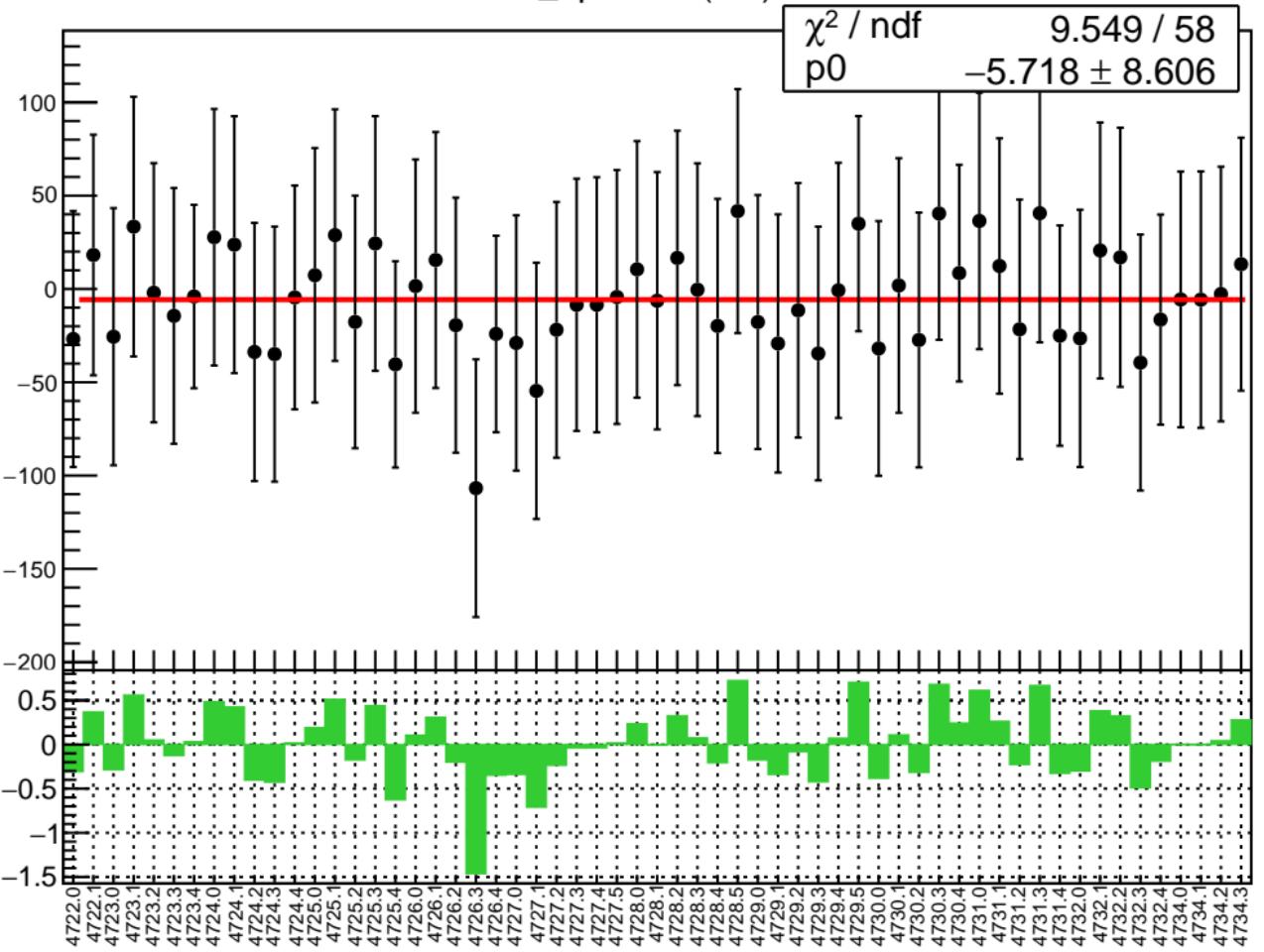
Mean	$0.00547 \pm 0.1406$
Std Dev	$1.08 \pm 0.09944$
Underflow	0
Overflow	0
$\chi^2 / \text{ndf}$	4.888 / 8
Constant	$12.67 \pm 2.49$
Mean	$-0.04644 \pm 0.13195$
Sigma	$0.9101 \pm 0.1314$

# diff\_bpm4aX RMS (um)

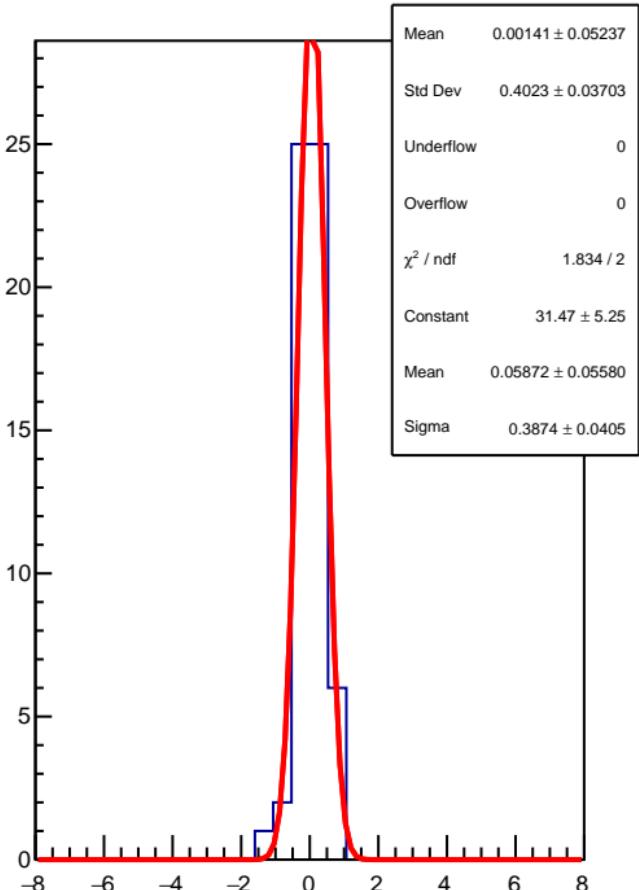
RMS (um)



diff\_bpm4aY (nm)

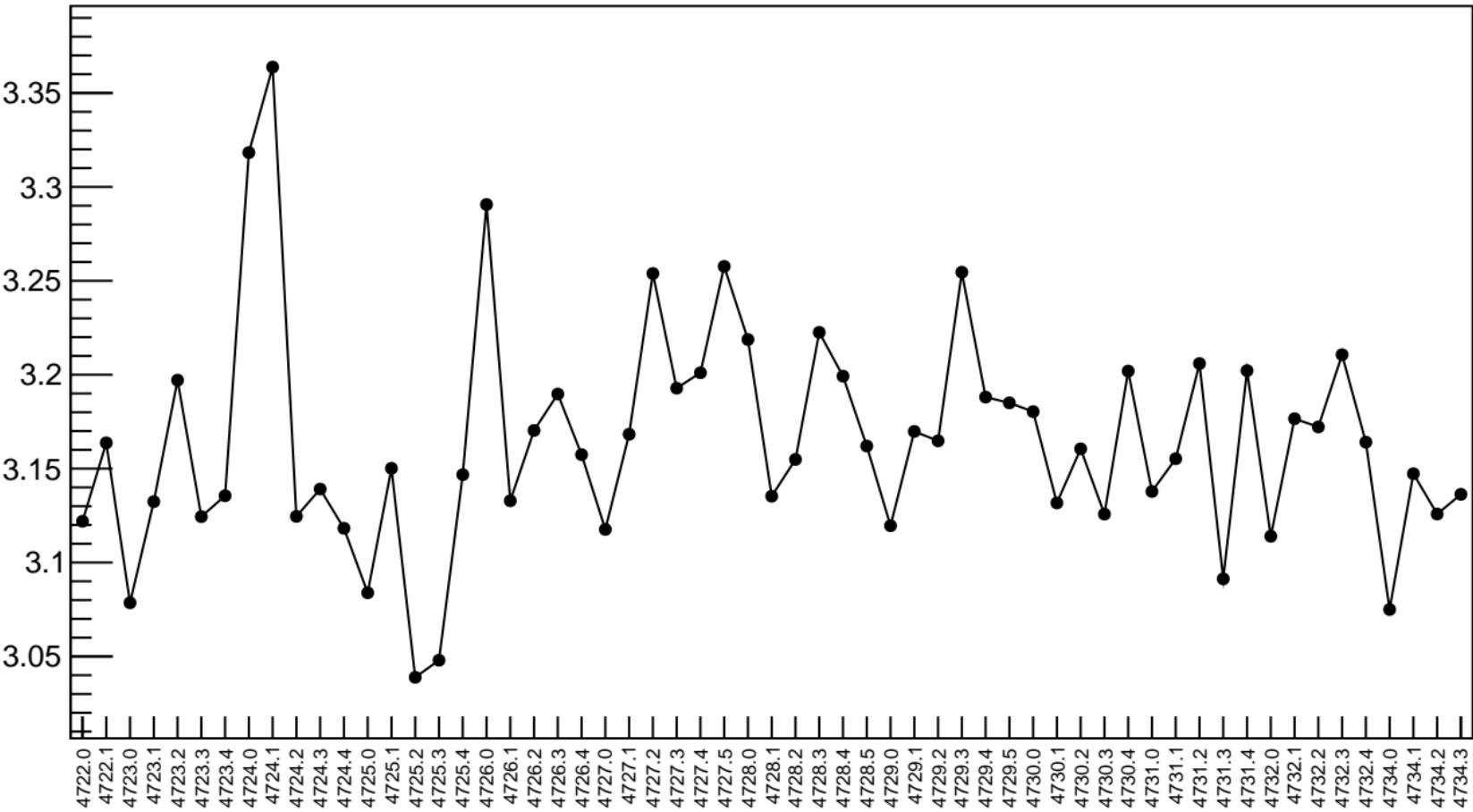


1D pull distribution



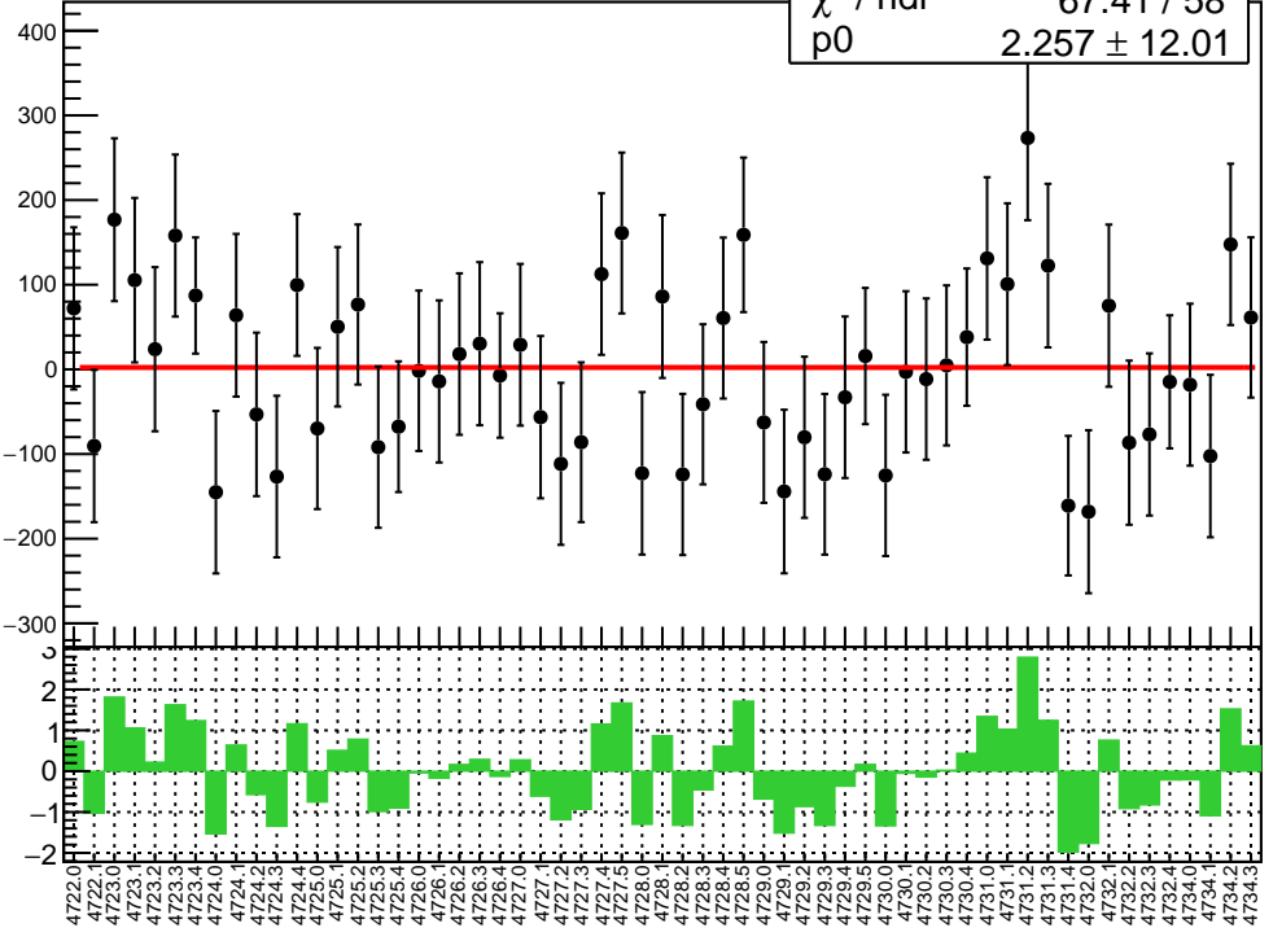
# diff\_bpm4aY RMS (um)

RMS (um)

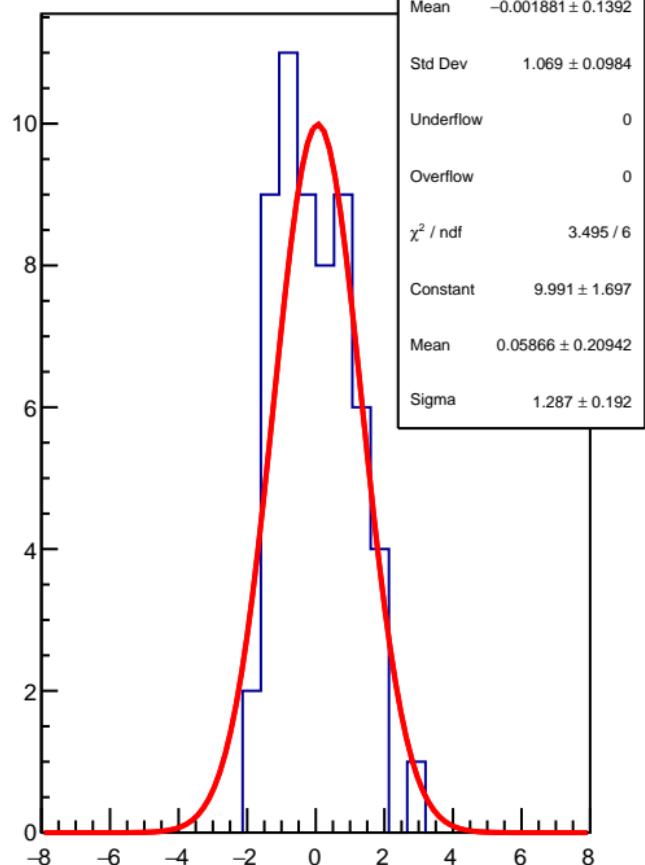


diff\_bpm1X (nm)

$\chi^2 / \text{ndf}$   
67.41 / 58  
 $p_0$   
 $2.257 \pm 12.01$

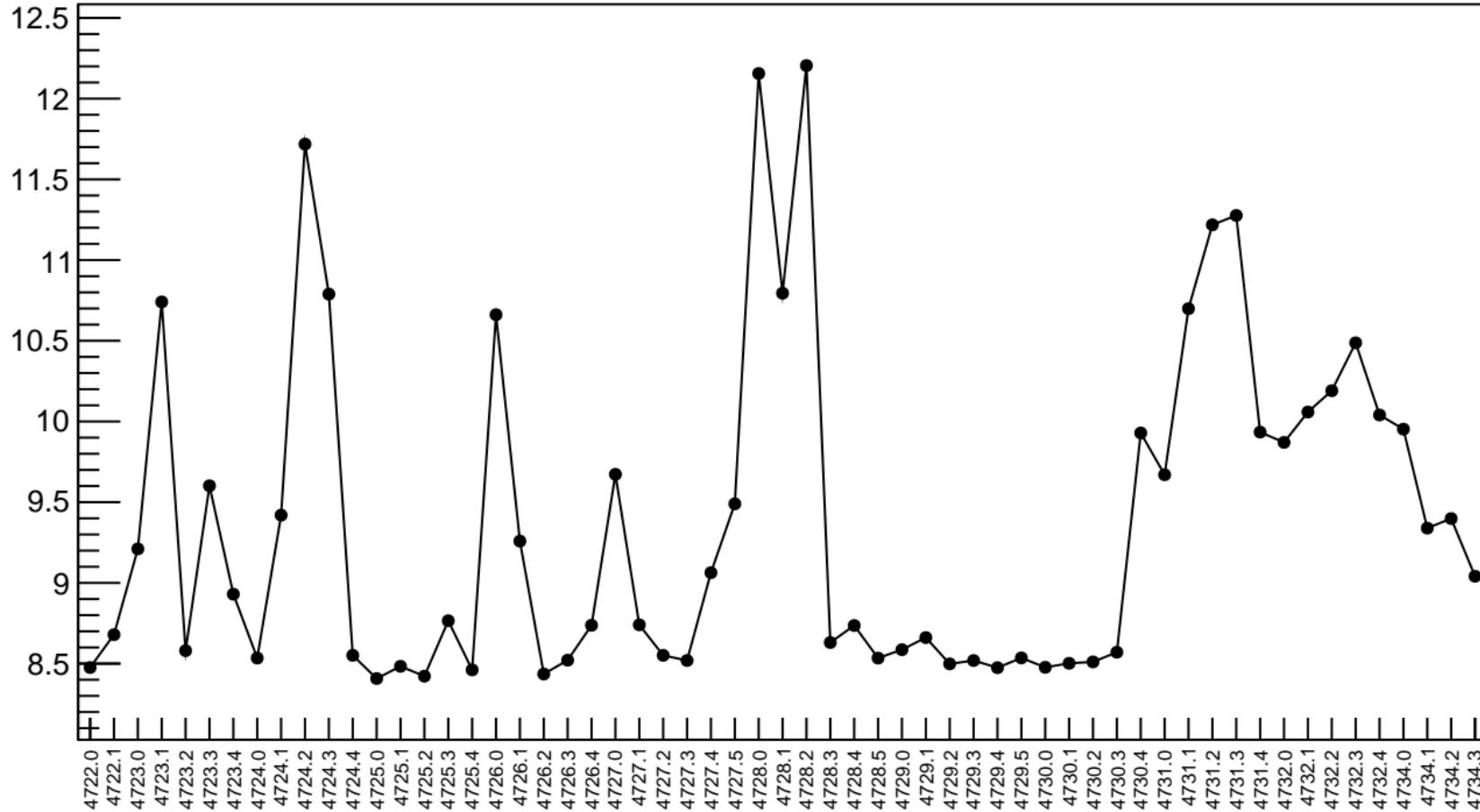


1D pull distribution



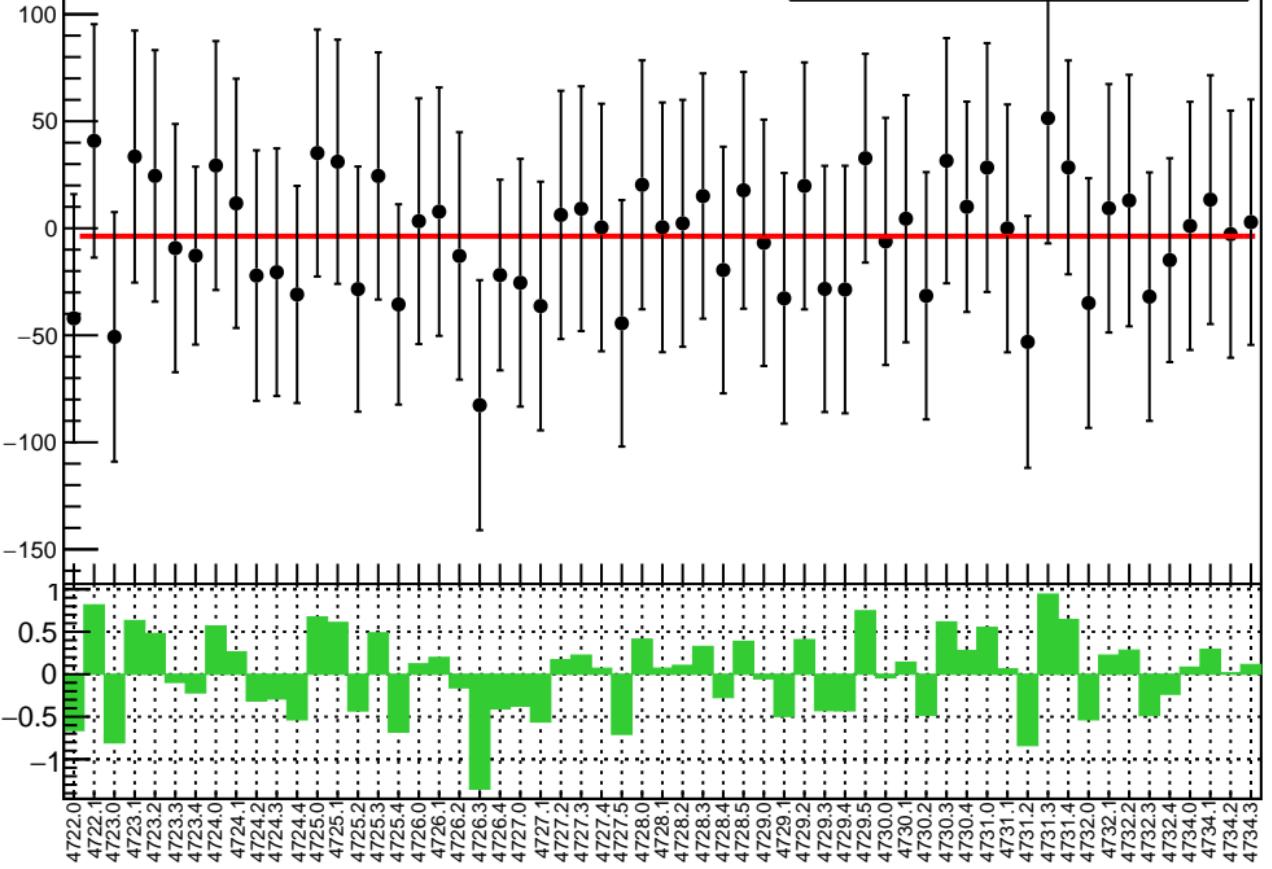
# diff\_bpm1X RMS (um)

RMS (um)

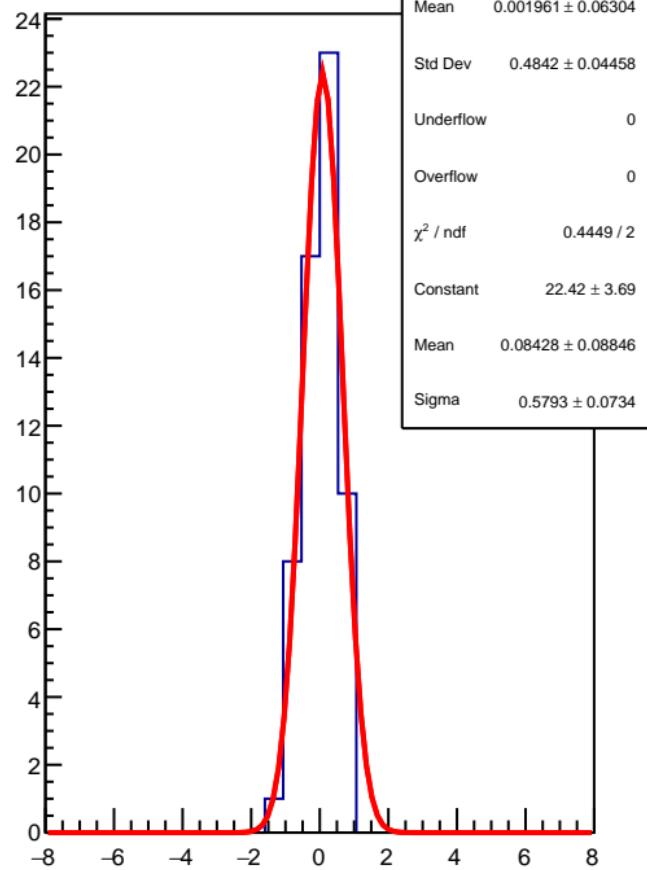


diff\_bpm1Y (nm)

$\chi^2 / \text{ndf}$   
13.83 / 58  
 $p_0$   
 $-3.7 \pm 7.281$

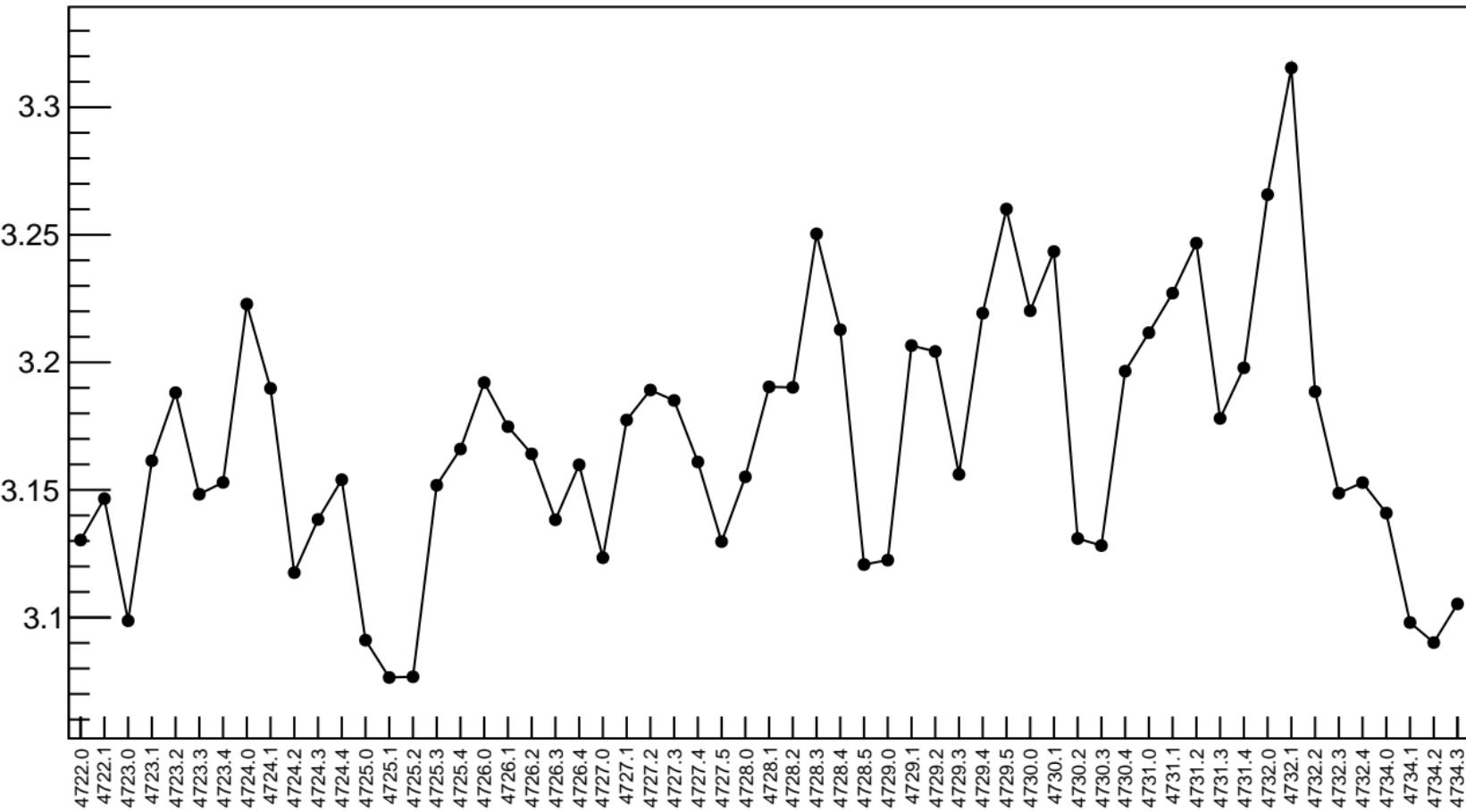


1D pull distribution



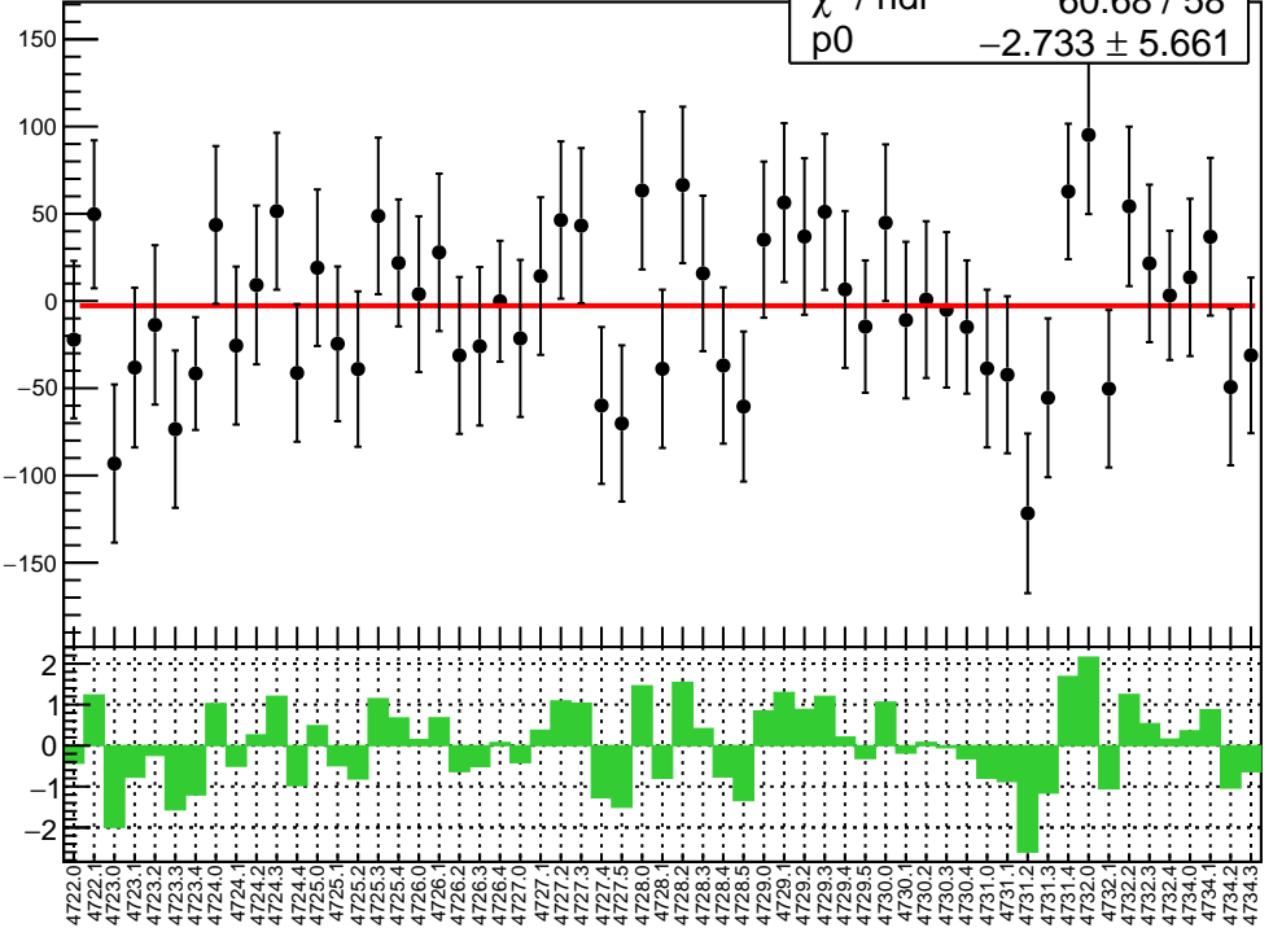
# diff\_bpm1Y RMS (um)

RMS (um)

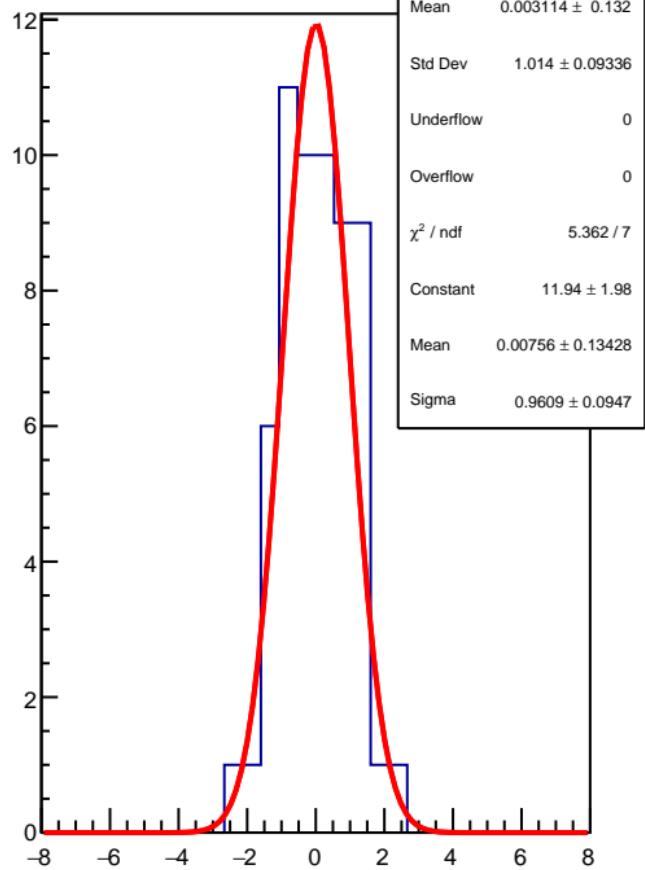


diff\_bpm16X (nm)

$\chi^2 / \text{ndf}$  60.68 / 58  
 $p_0$   $-2.733 \pm 5.661$

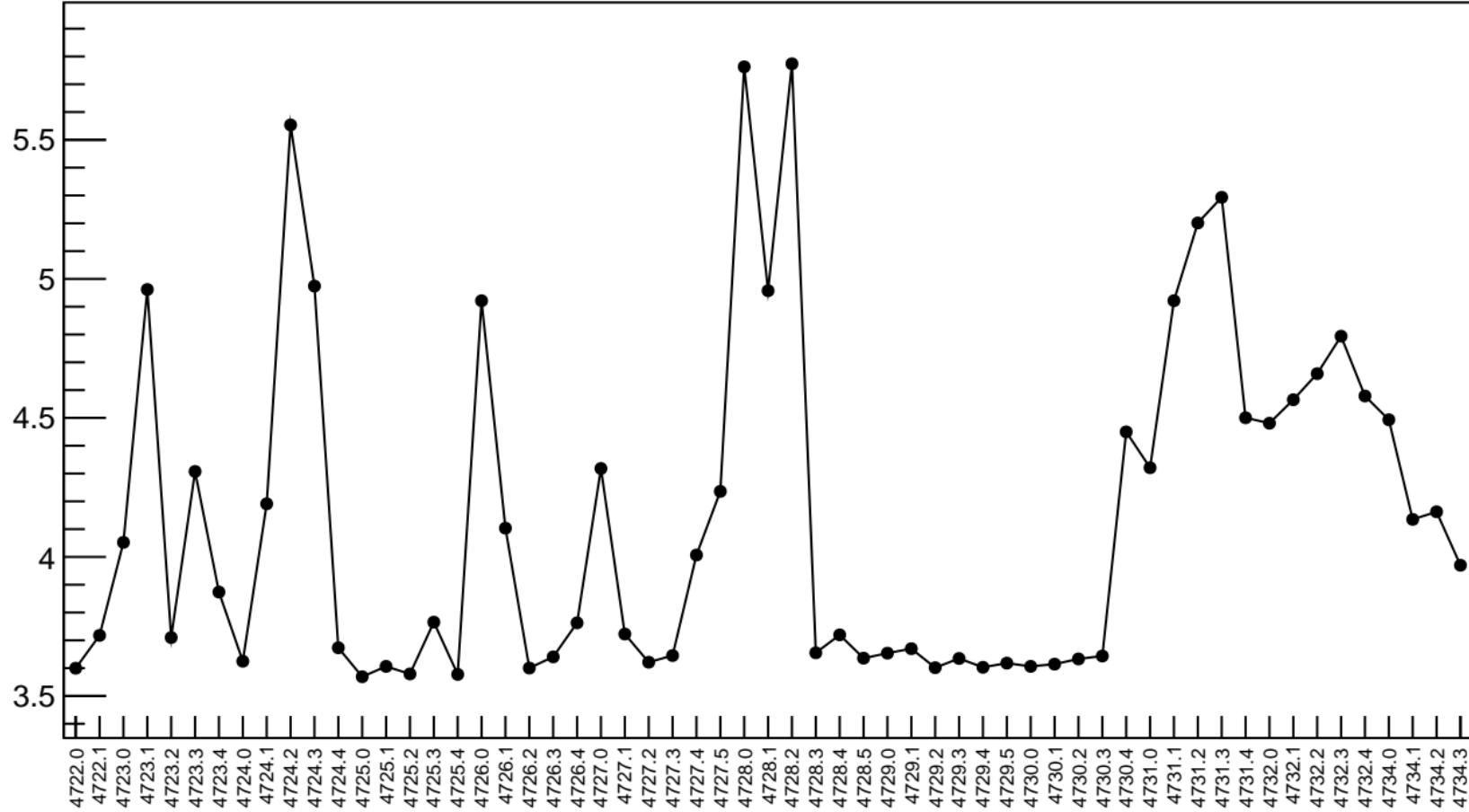


1D pull distribution

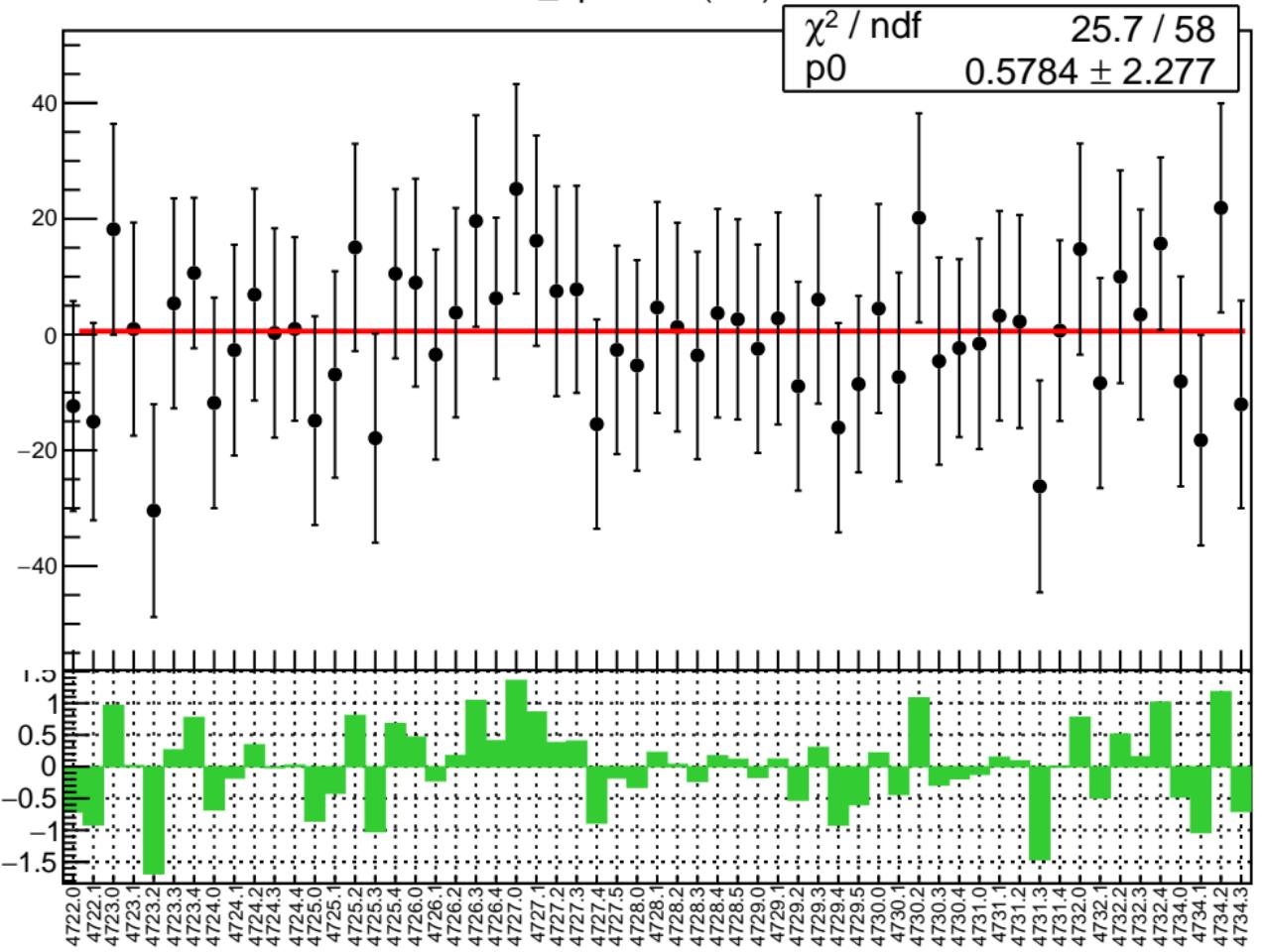


# diff\_bpm16X RMS (um)

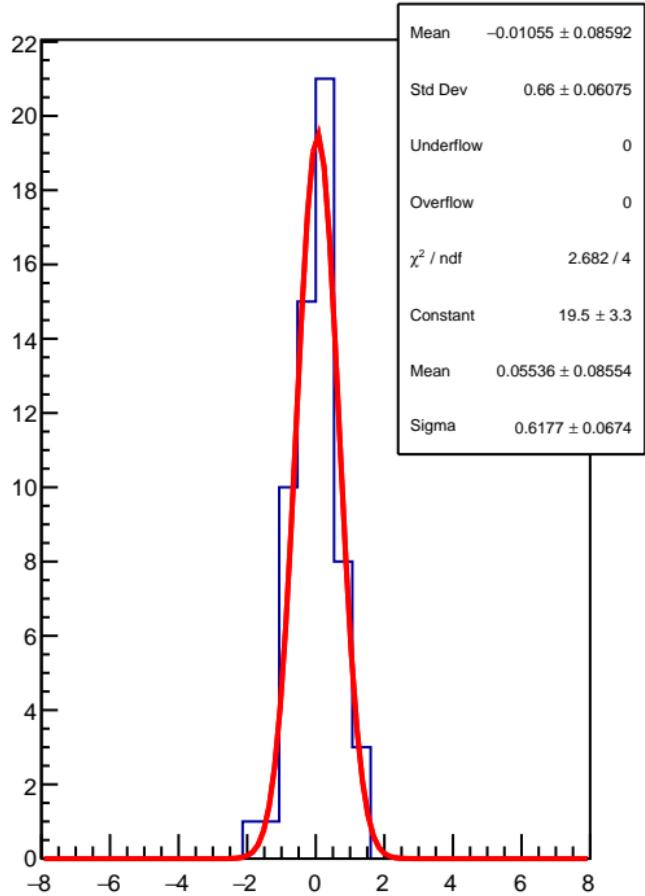
RMS (um)



diff\_bpm16Y (nm)

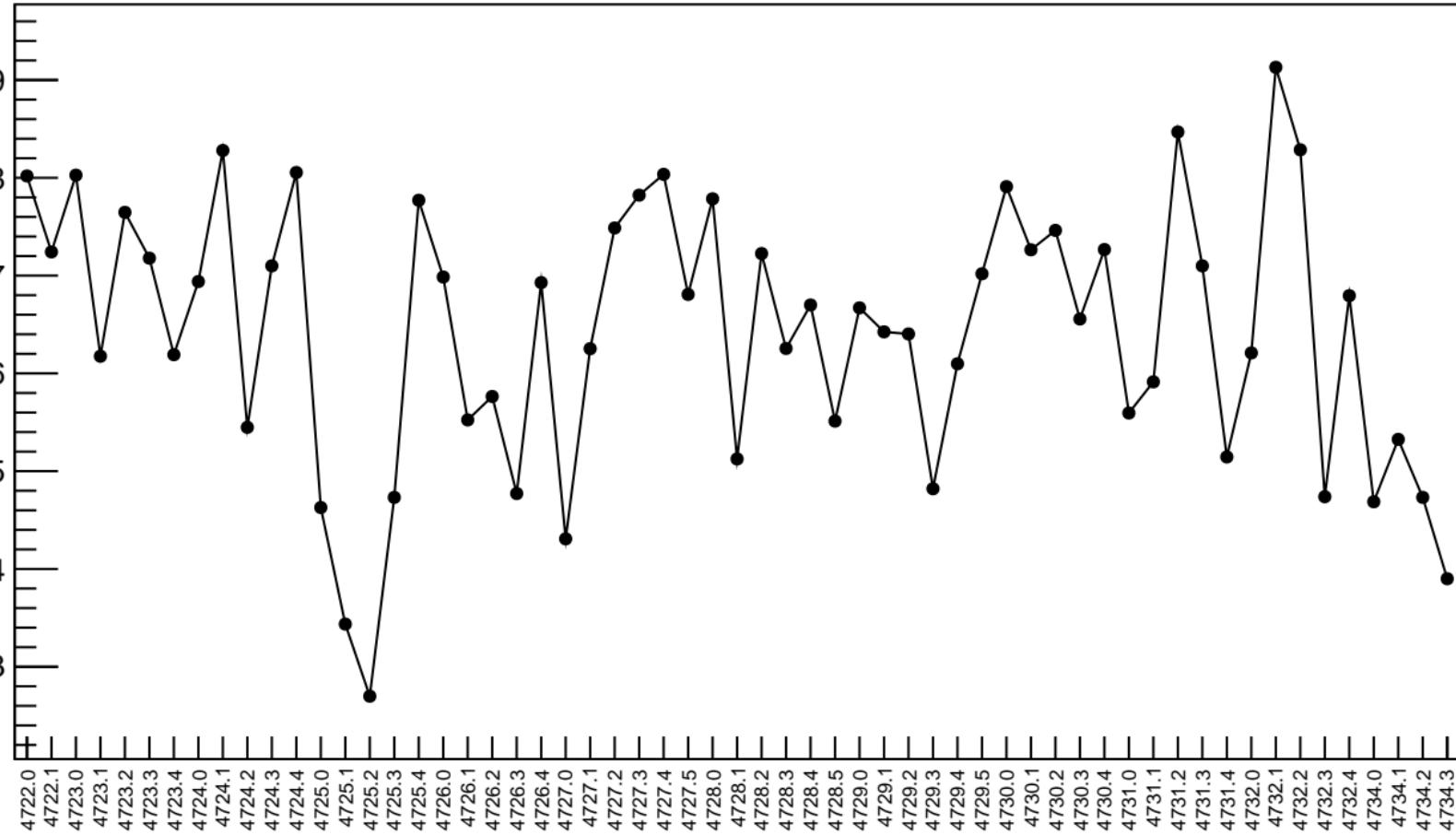


1D pull distribution



# diff\_bpm16Y RMS (um)

RMS (um)

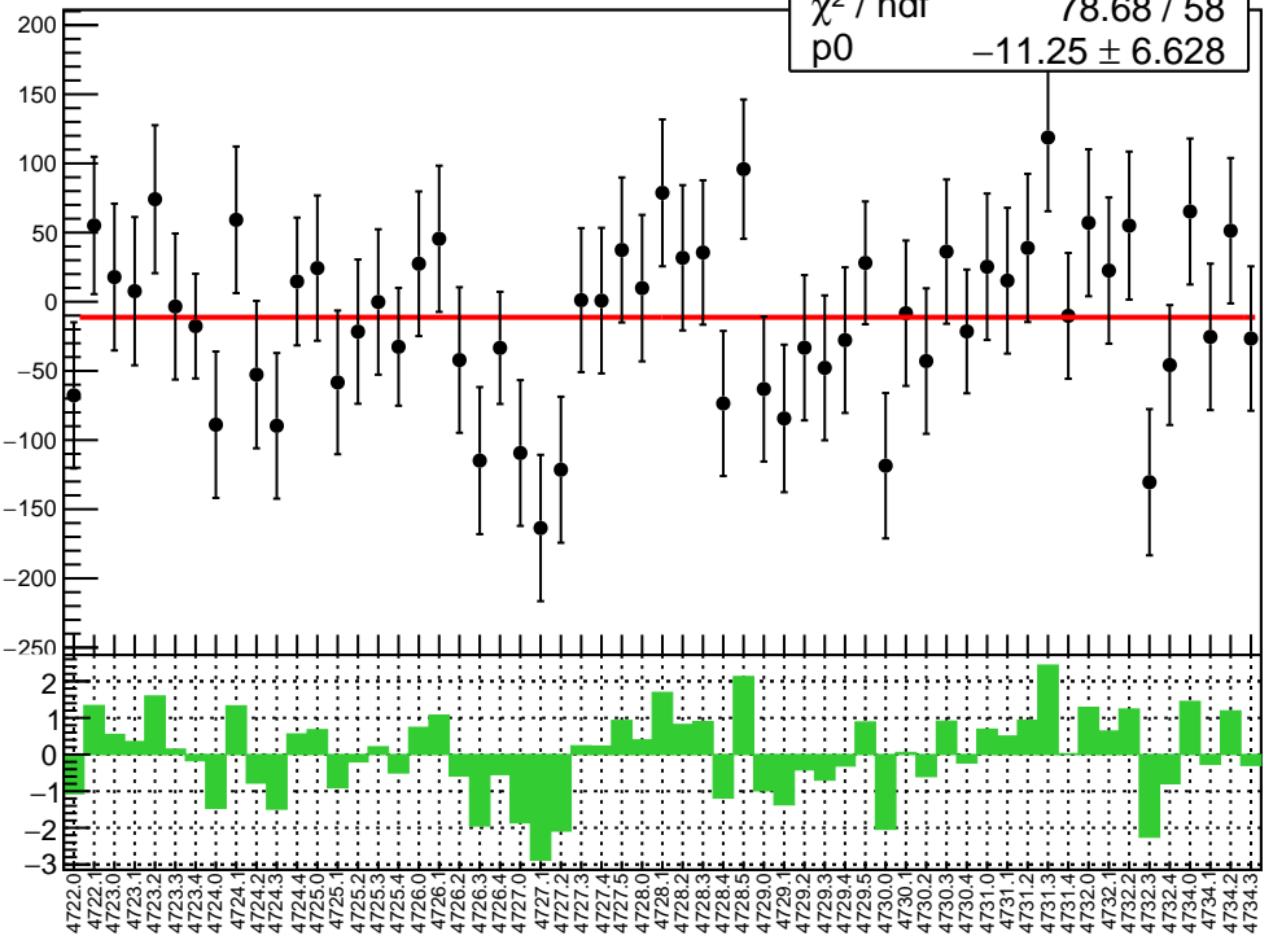


diff\_bpm12X (nm)

$\chi^2 / \text{ndf}$

78.68 / 58

p0  $-11.25 \pm 6.628$



1D pull distribution

F

12

10

8

6

4

2

0

-2

-4

-6

-8

Mean	$0.003348 \pm 0.1503$
Std Dev	$1.155 \pm 0.1063$
Underflow	0
Overflow	0
$\chi^2 / \text{ndf}$	3.873 / 8
Constant	$10.07 \pm 1.71$
Mean	$0.01396 \pm 0.17147$
Sigma	$1.183 \pm 0.136$

4

2

0

-2

-4

-6

-8

-10

-12

-14

-16

-18

-20

-22

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-558

-560

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-578

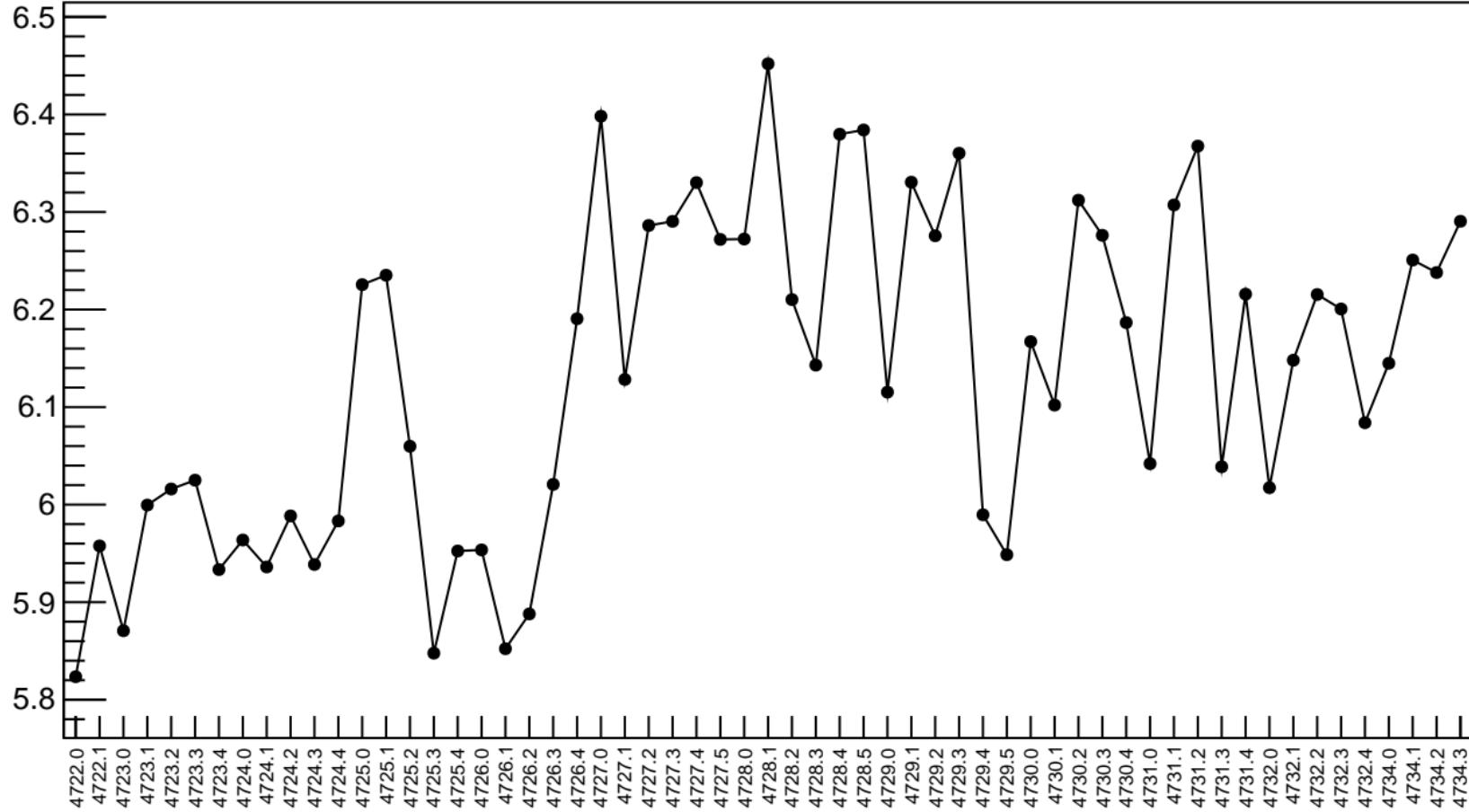
-580

-582

-584</

# diff\_bpm12X RMS (um)

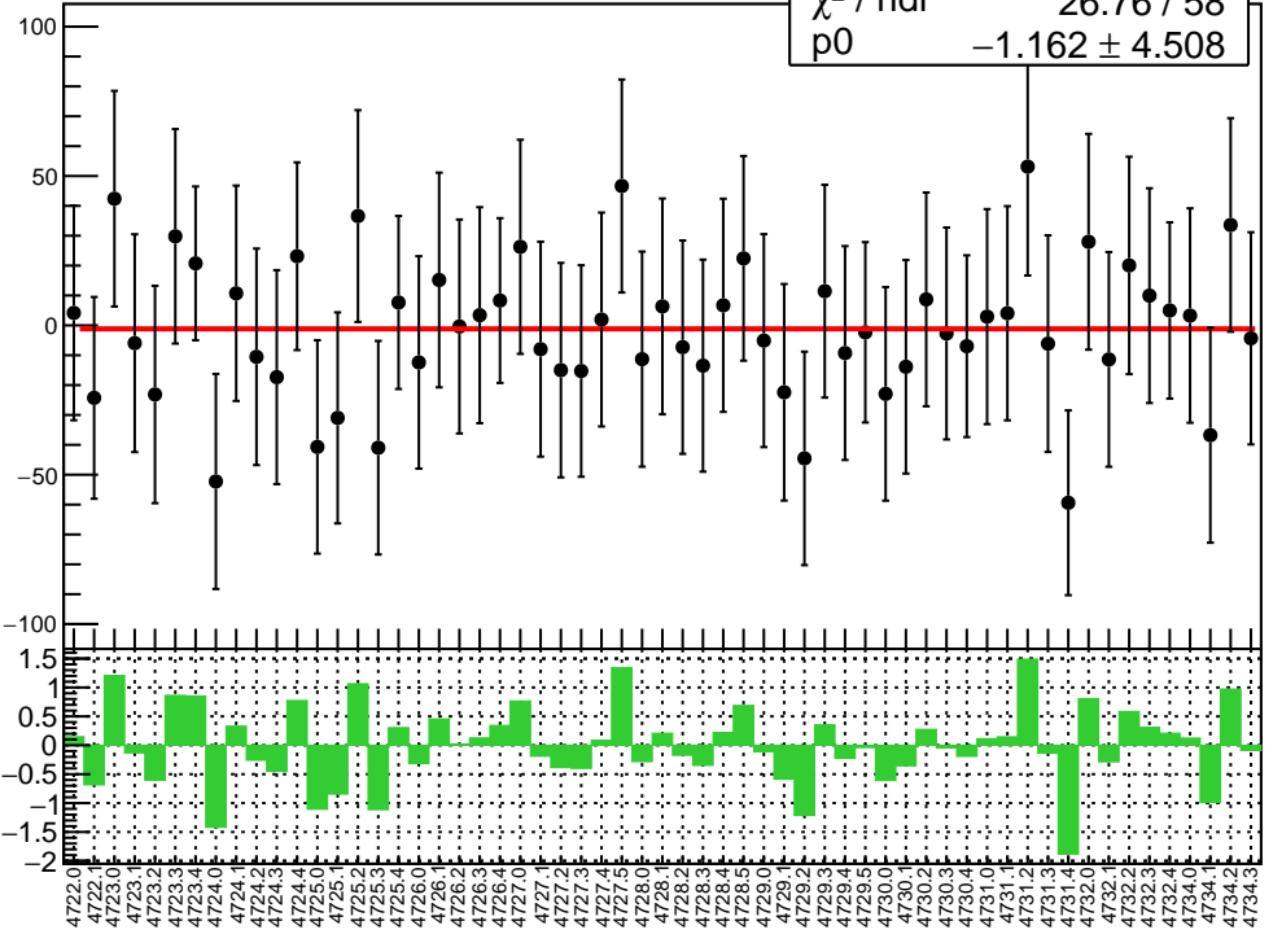
RMS (um)



diff\_bpm12Y (nm)

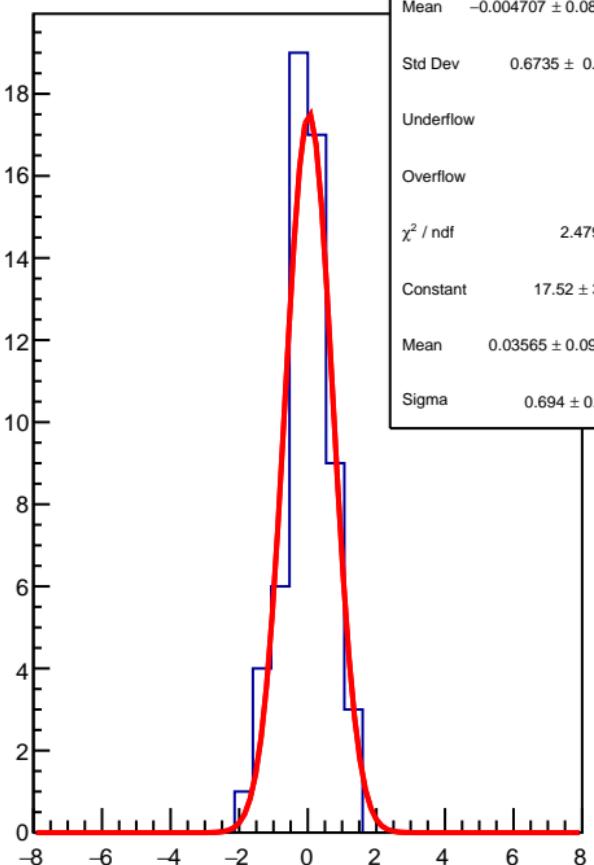
$\chi^2 / \text{ndf}$   
p0

26.76 / 58  
 $-1.162 \pm 4.508$

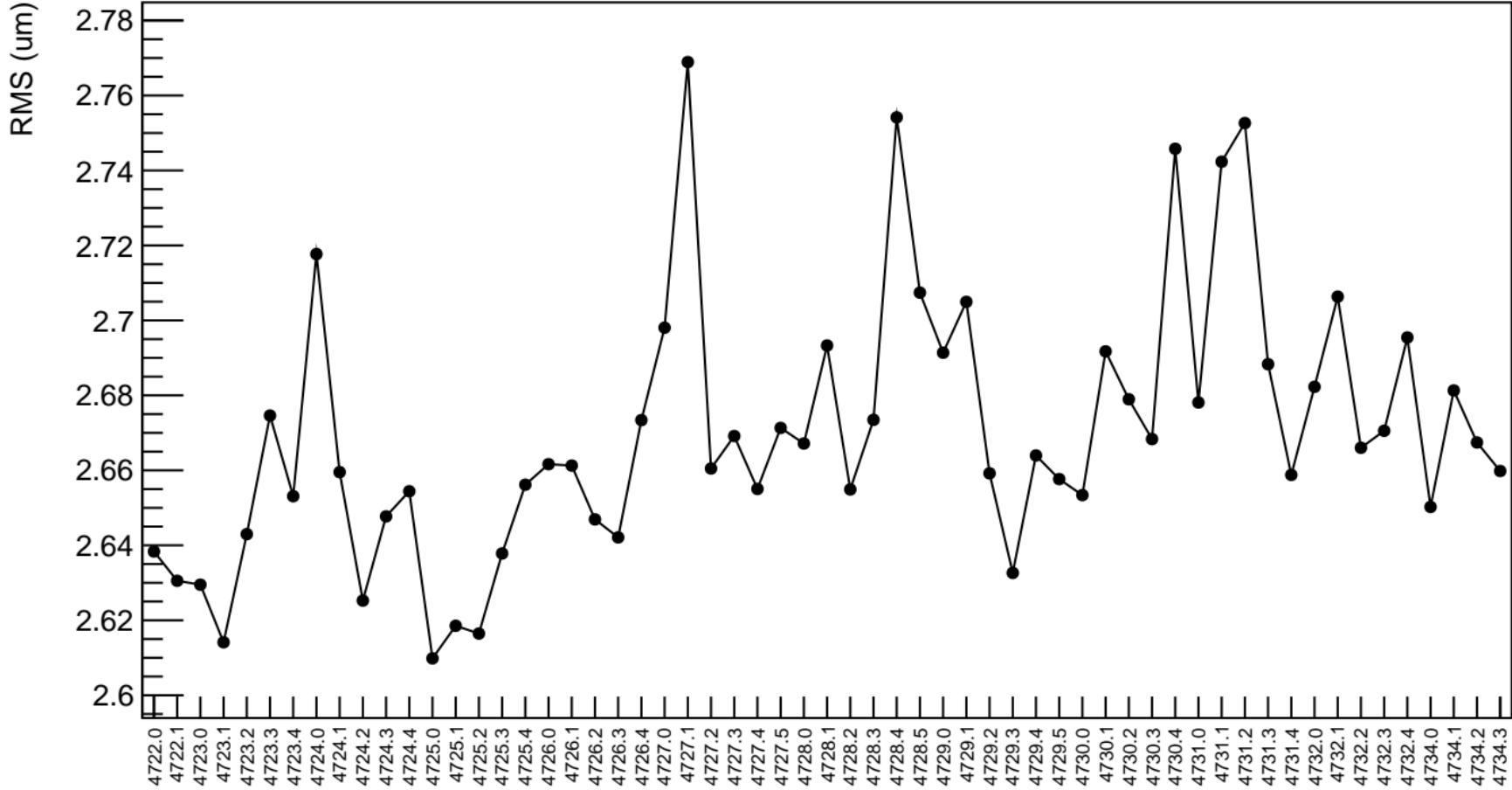


1D pull distribution

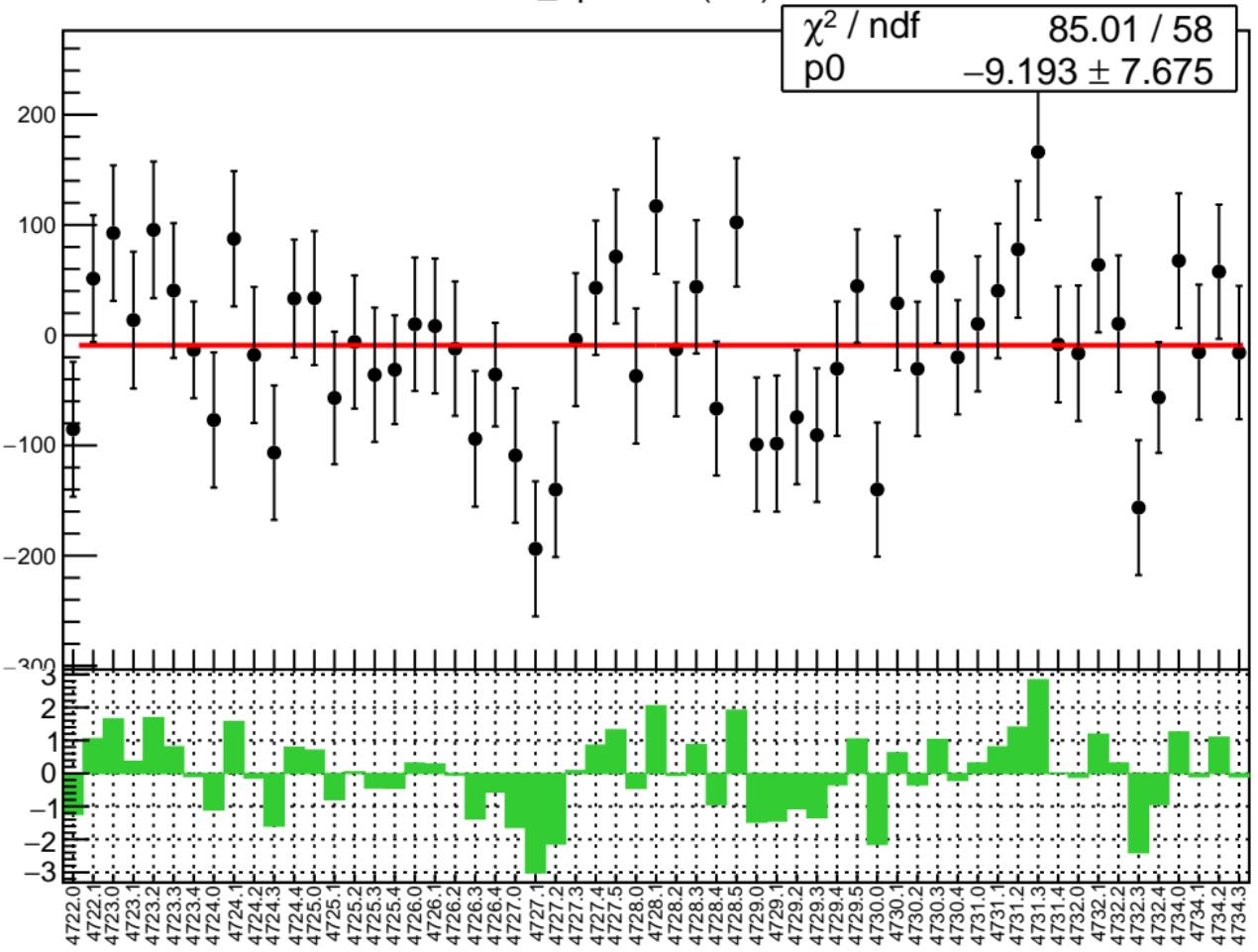
Mean  $-0.004707 \pm 0.08768$   
Std Dev  $0.6735 \pm 0.062$   
Underflow 0  
Overflow 0  
 $\chi^2 / \text{ndf}$  2.479 / 4  
Constant  $17.52 \pm 3.38$   
Mean  $0.03565 \pm 0.09670$   
Sigma  $0.694 \pm 0.105$



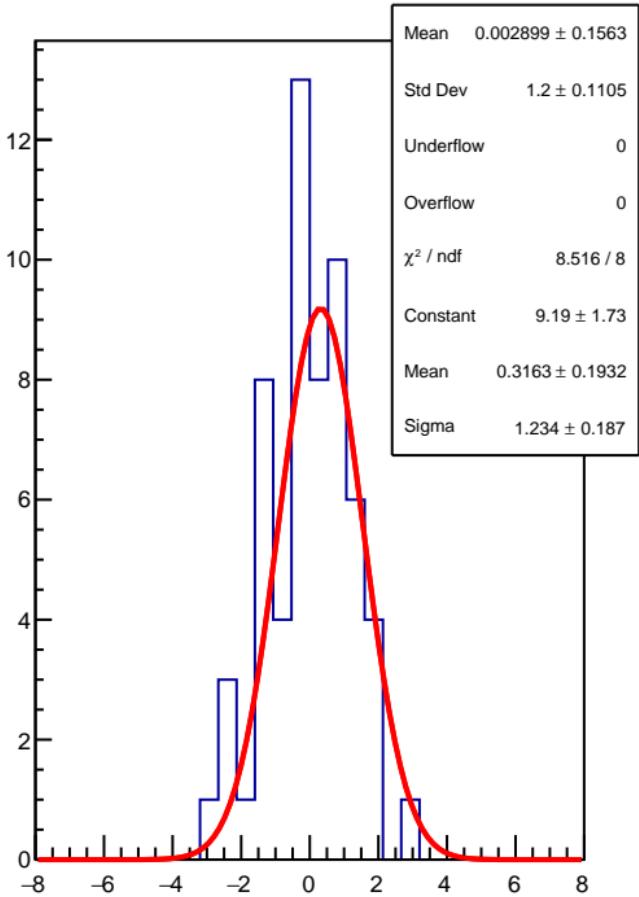
# diff\_bpm12Y RMS (um)



diff\_bpm11X (nm)



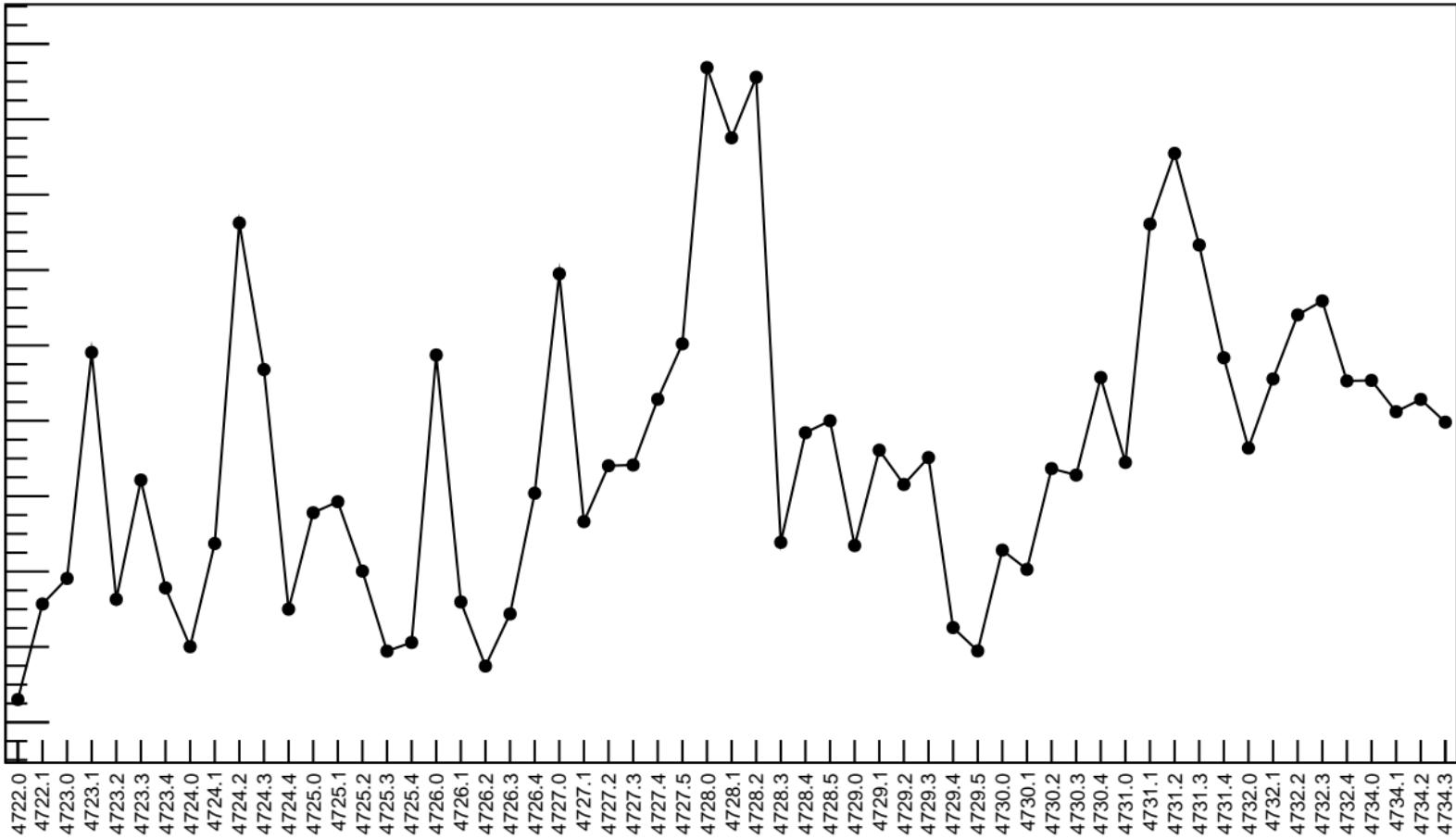
1D pull distribution



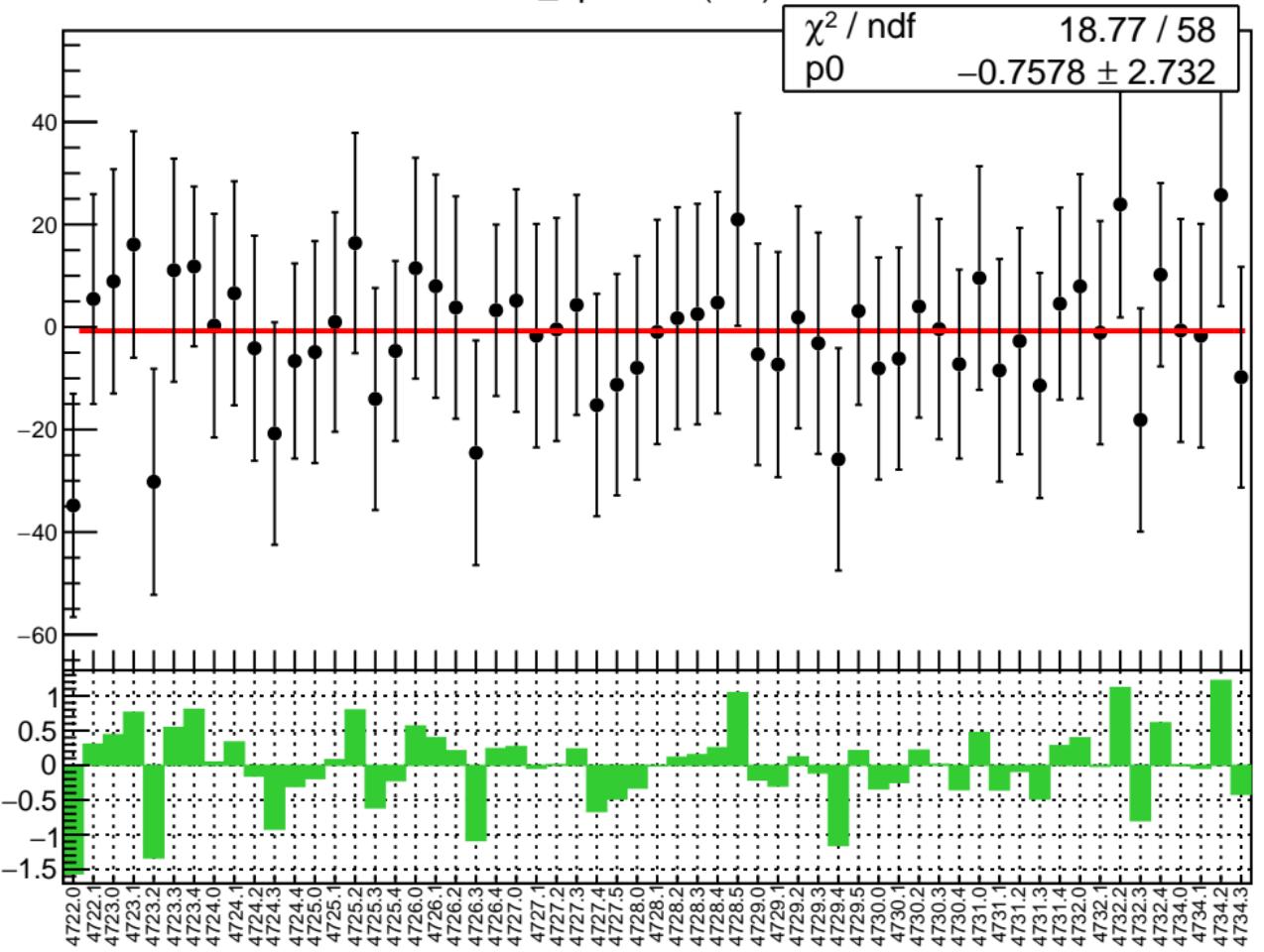
# diff\_bpm11X RMS (um)

RMS (um)

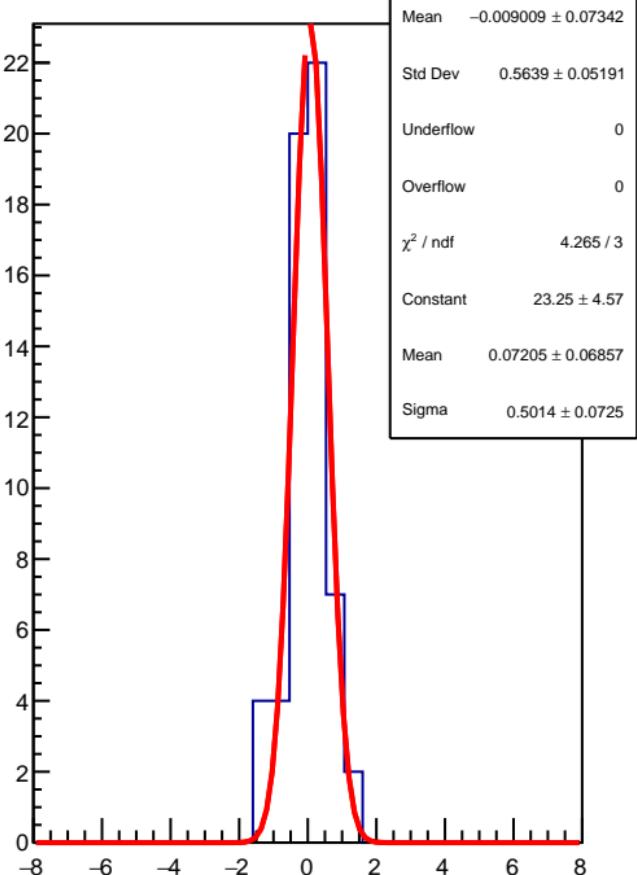
8.2  
8  
7.8  
7.6  
7.4  
7.2  
7.0  
6.8  
6.6  
6.4



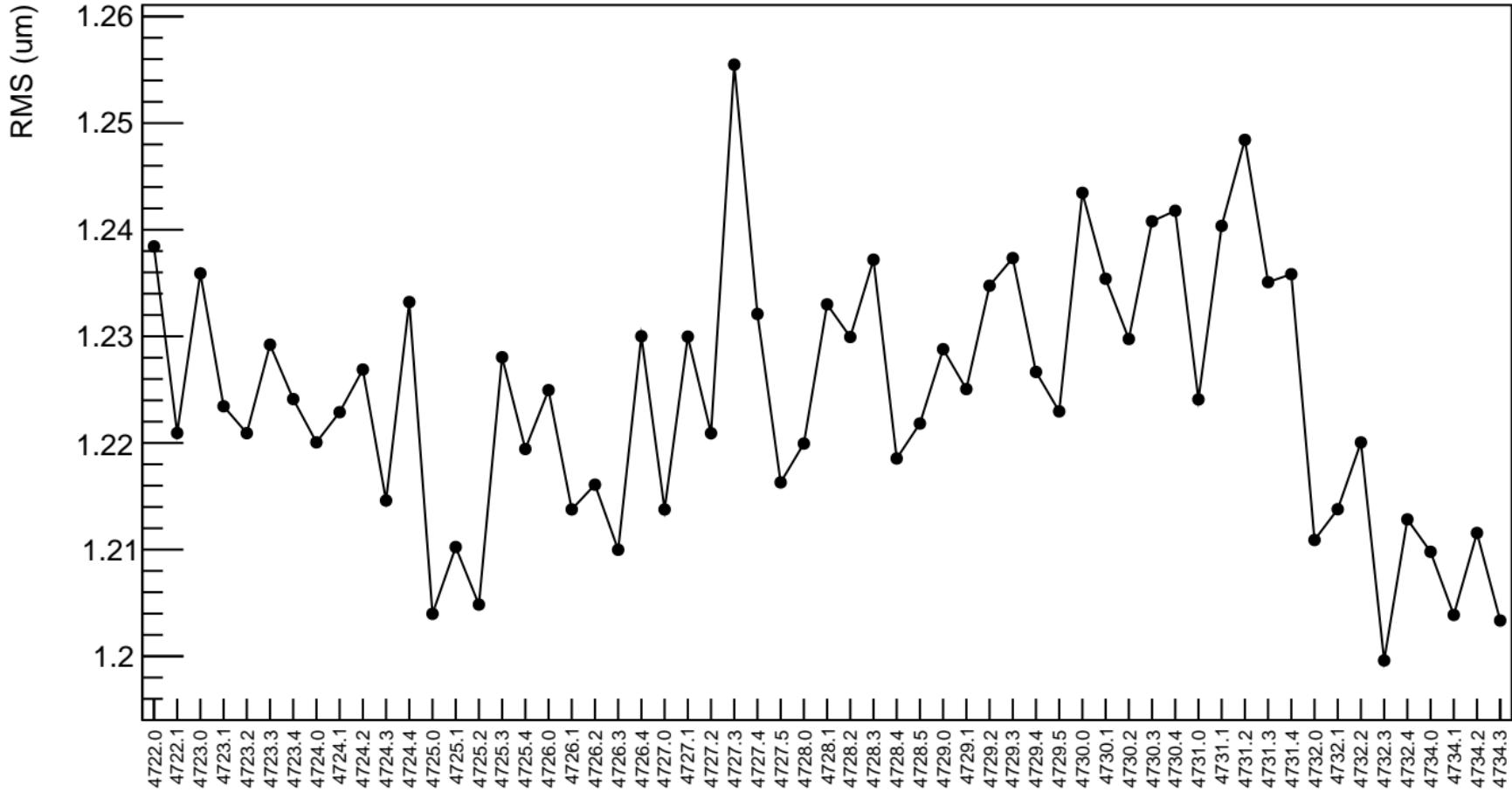
diff\_bpm11Y (nm)



1D pull distribution

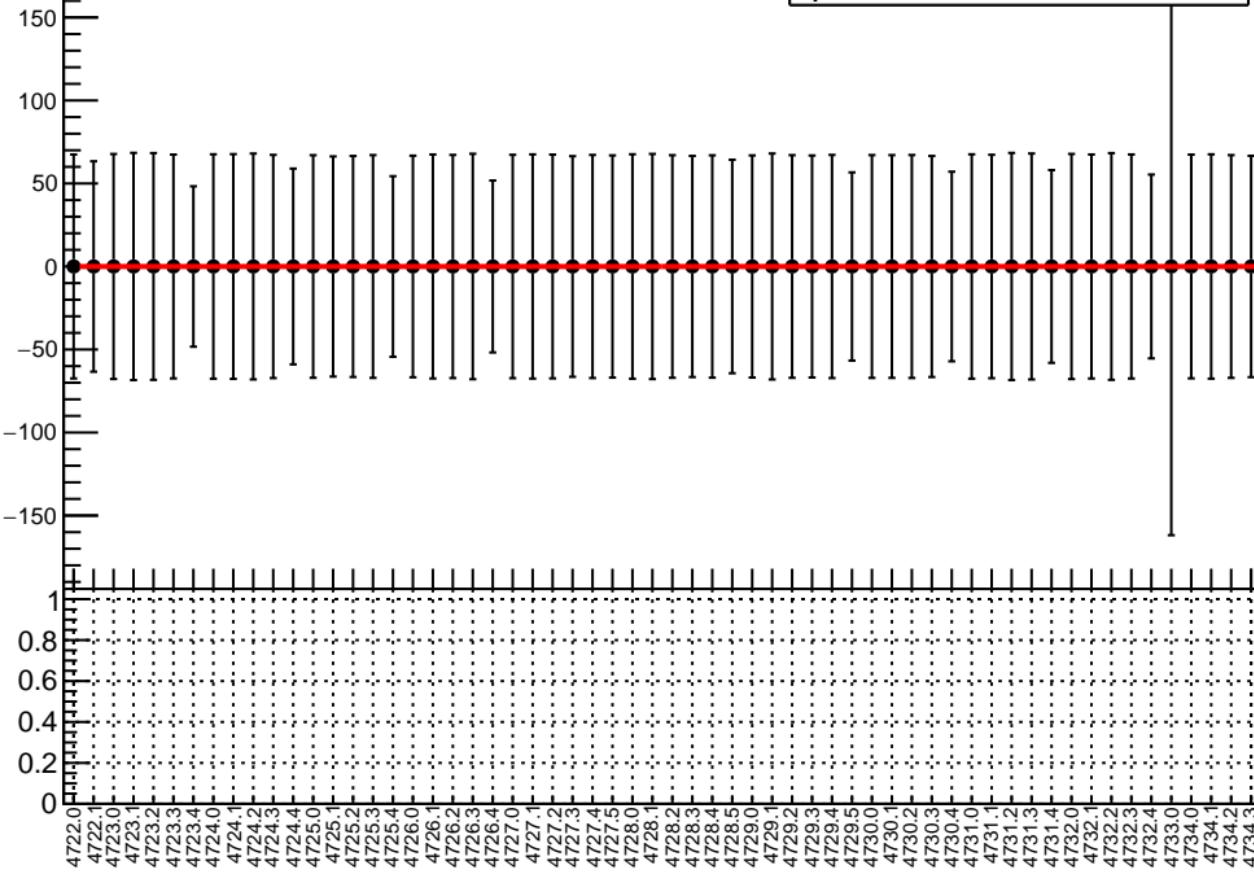


# diff\_bpm11Y RMS (um)

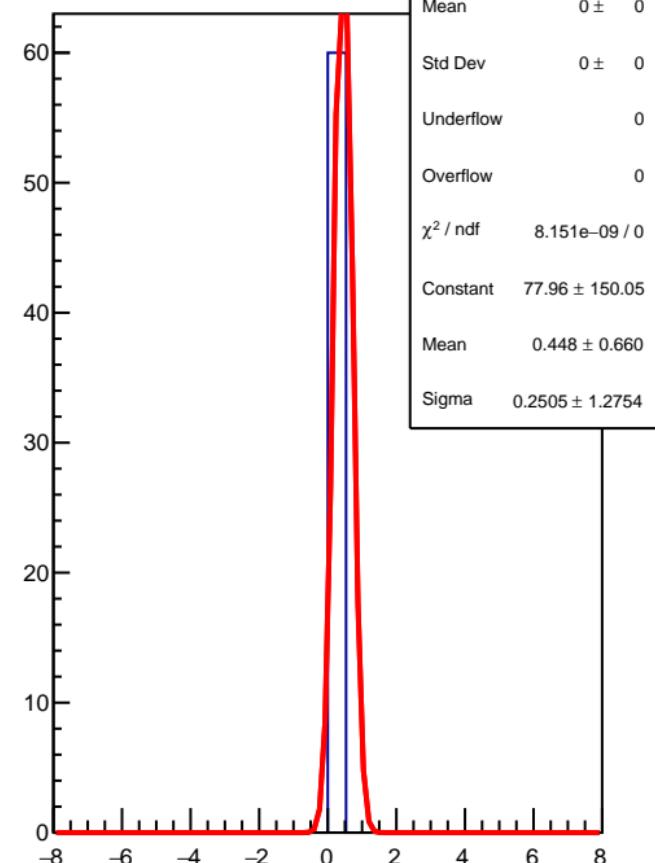


diff\_bpm8X (nm)

$\chi^2 / \text{ndf}$  0 / 59  
p0  $0 \pm 8.451$

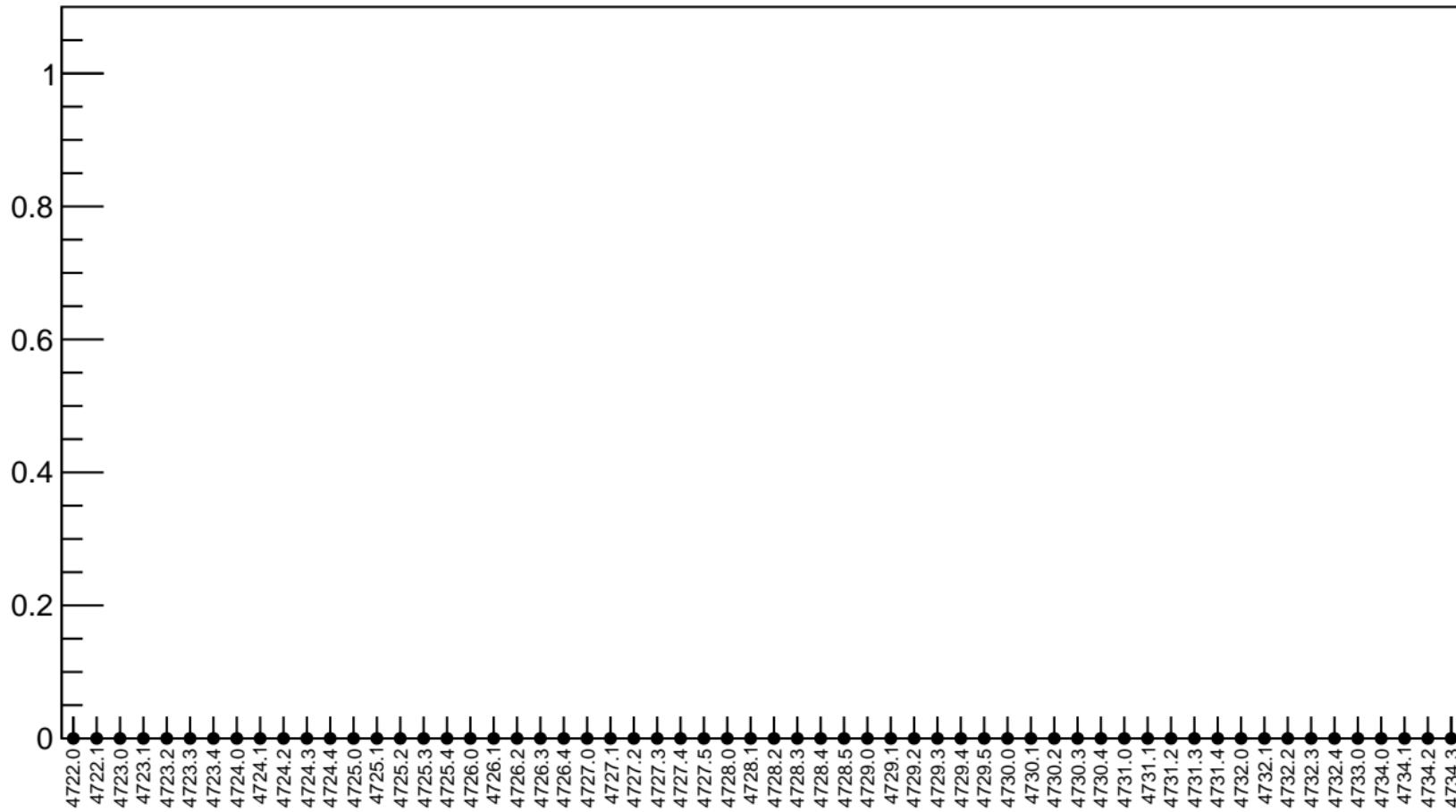


1D pull distribution

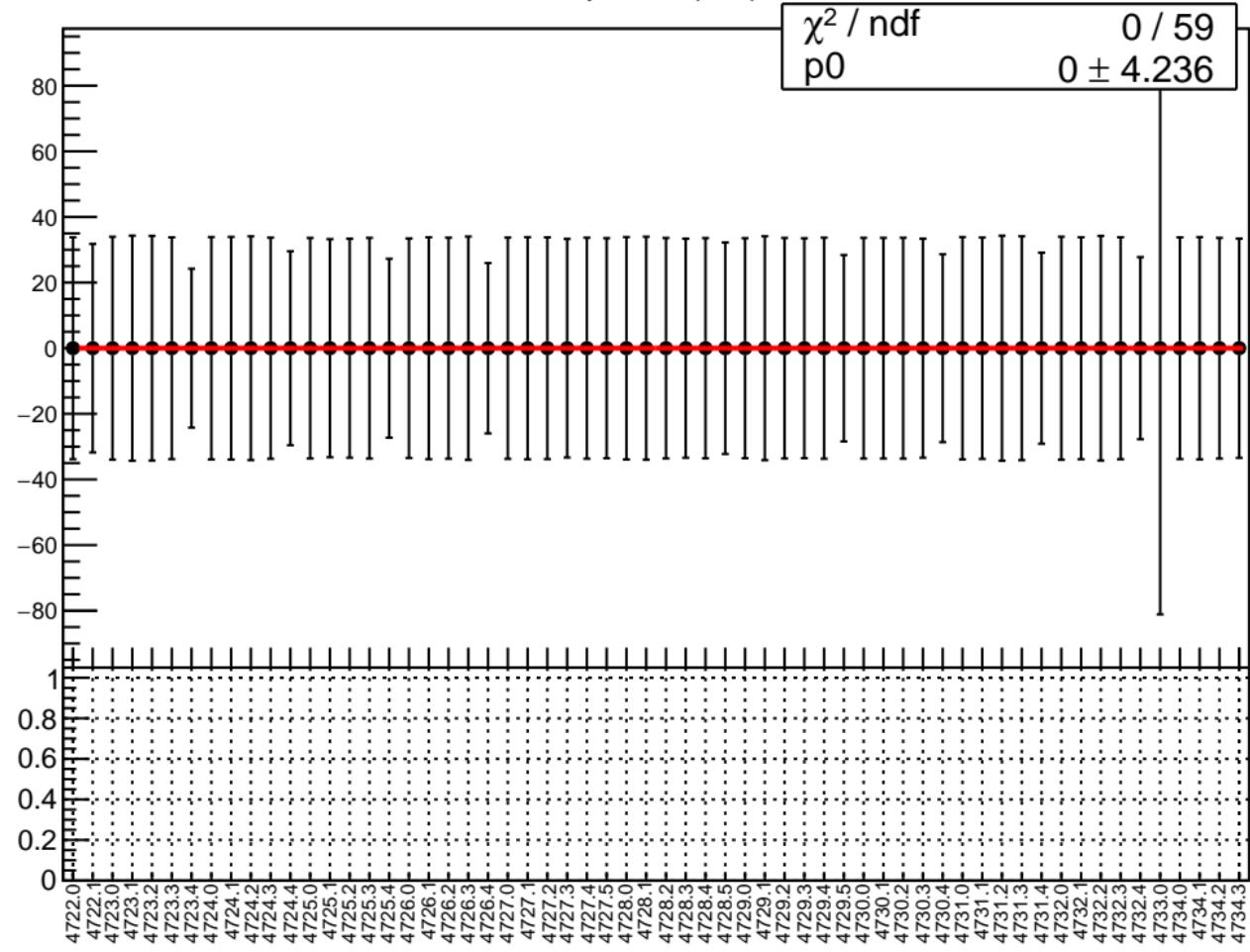


# diff\_bpm8X RMS (um)

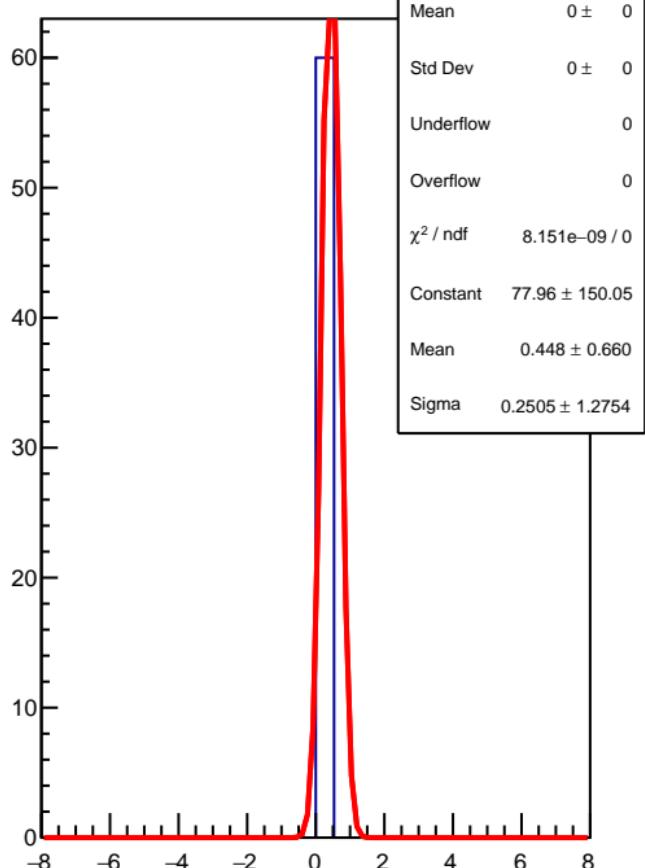
RMS (um)



diff\_bpm8Y (nm)

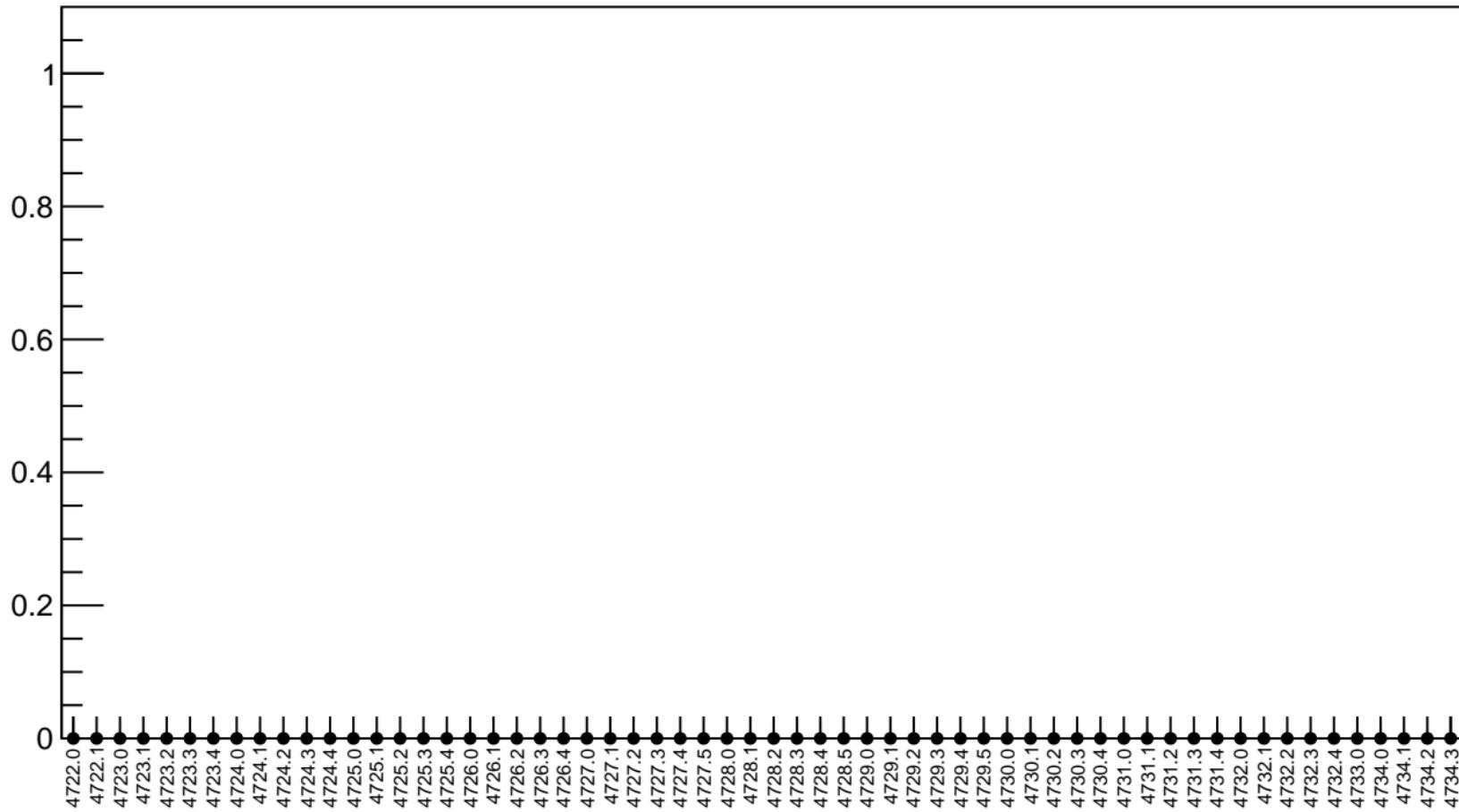


1D pull distribution

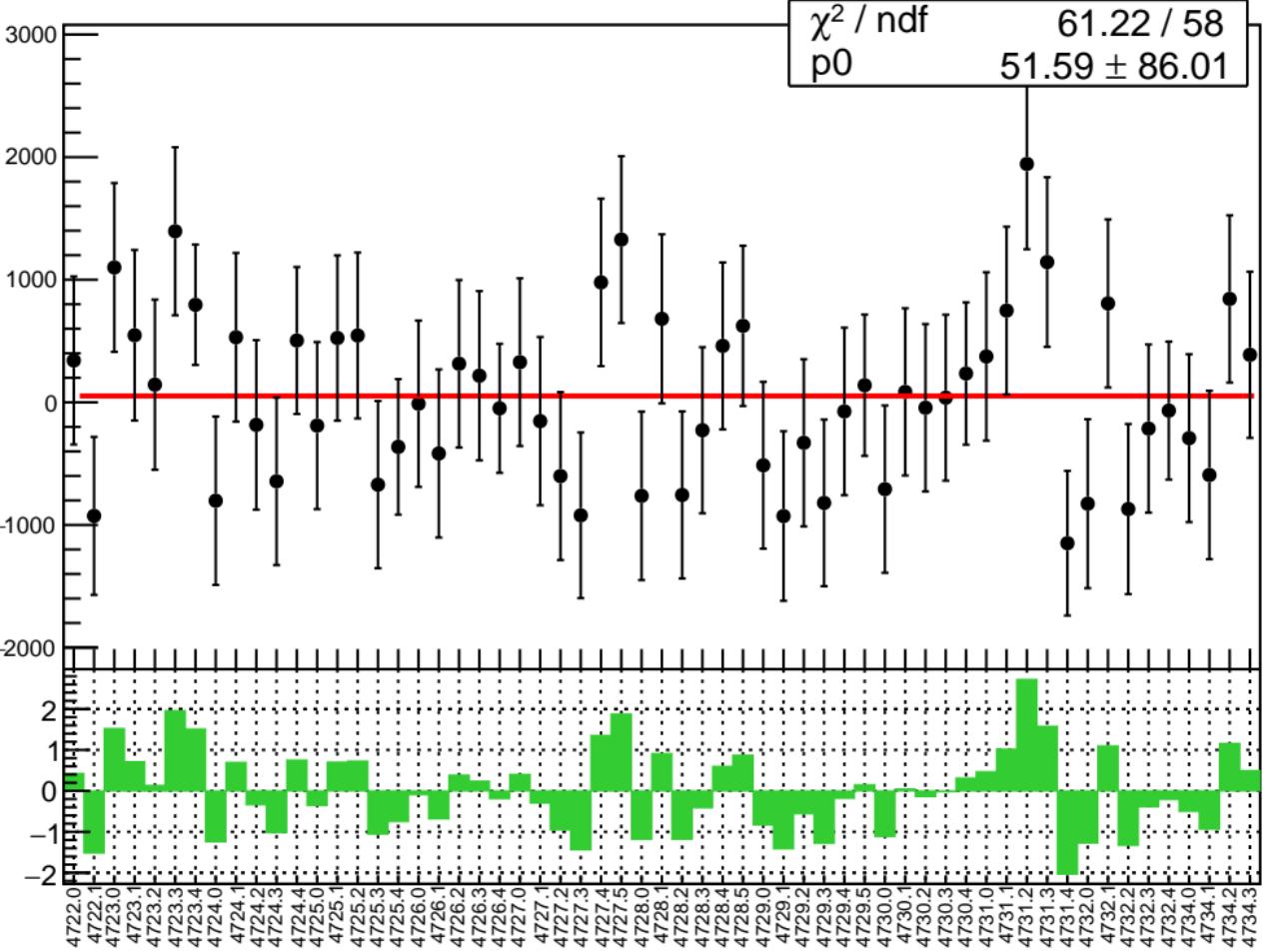


# diff\_bpm8Y RMS (um)

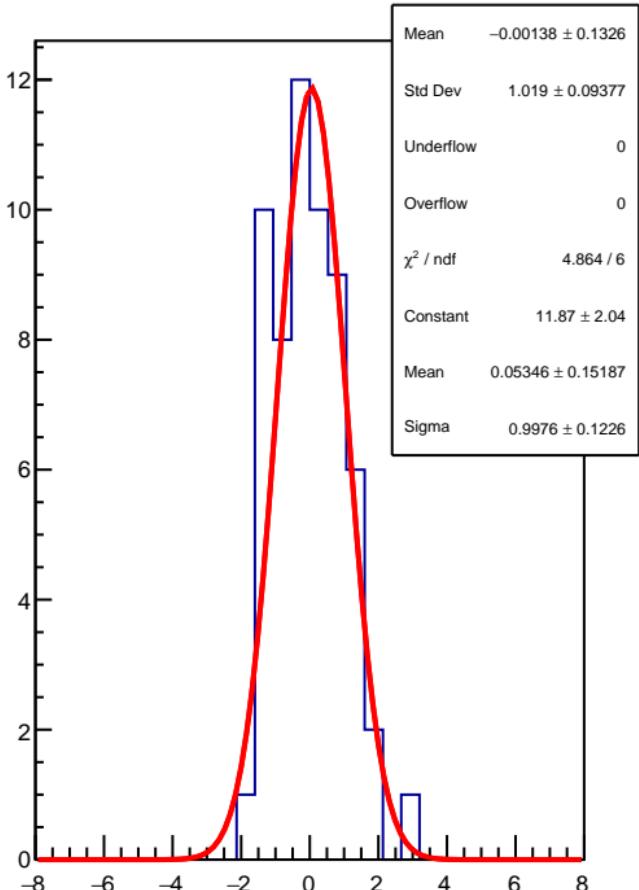
RMS (um)



corr\_us\_avg\_bpm4eX (ppb)



1D pull distribution



# corr\_us\_avg\_bpm4eX RMS (ppm)

RMS (ppm)

120

100

80

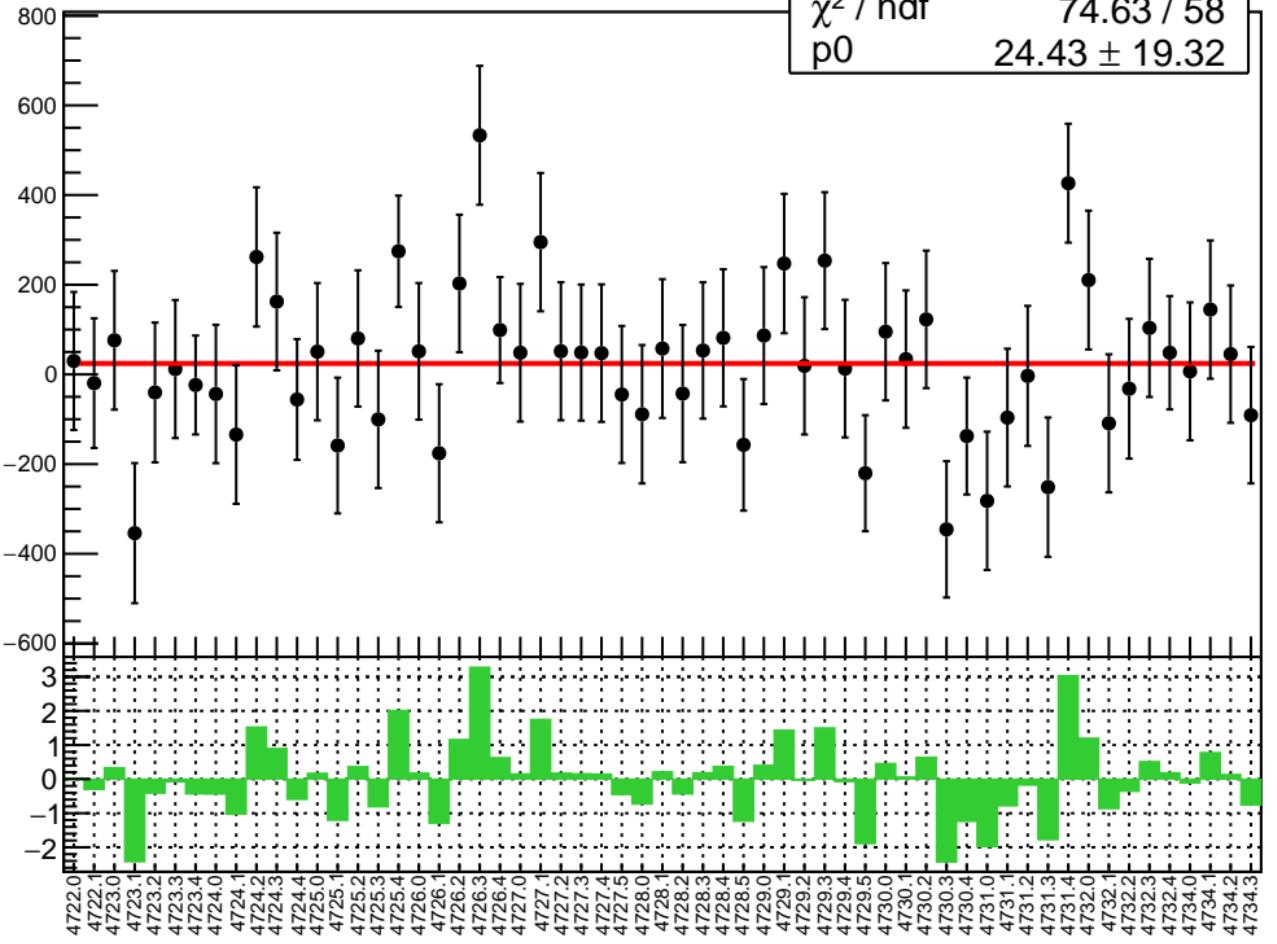
60

40

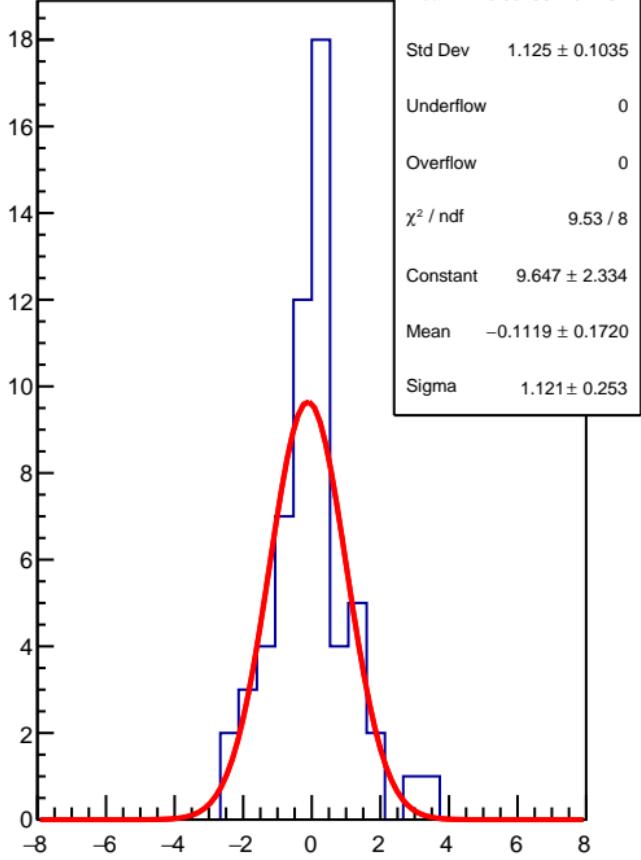


corr\_us\_avg\_bpm4eY (ppb)

$\chi^2 / \text{ndf}$  74.63 / 58  
p0  $24.43 \pm 19.32$

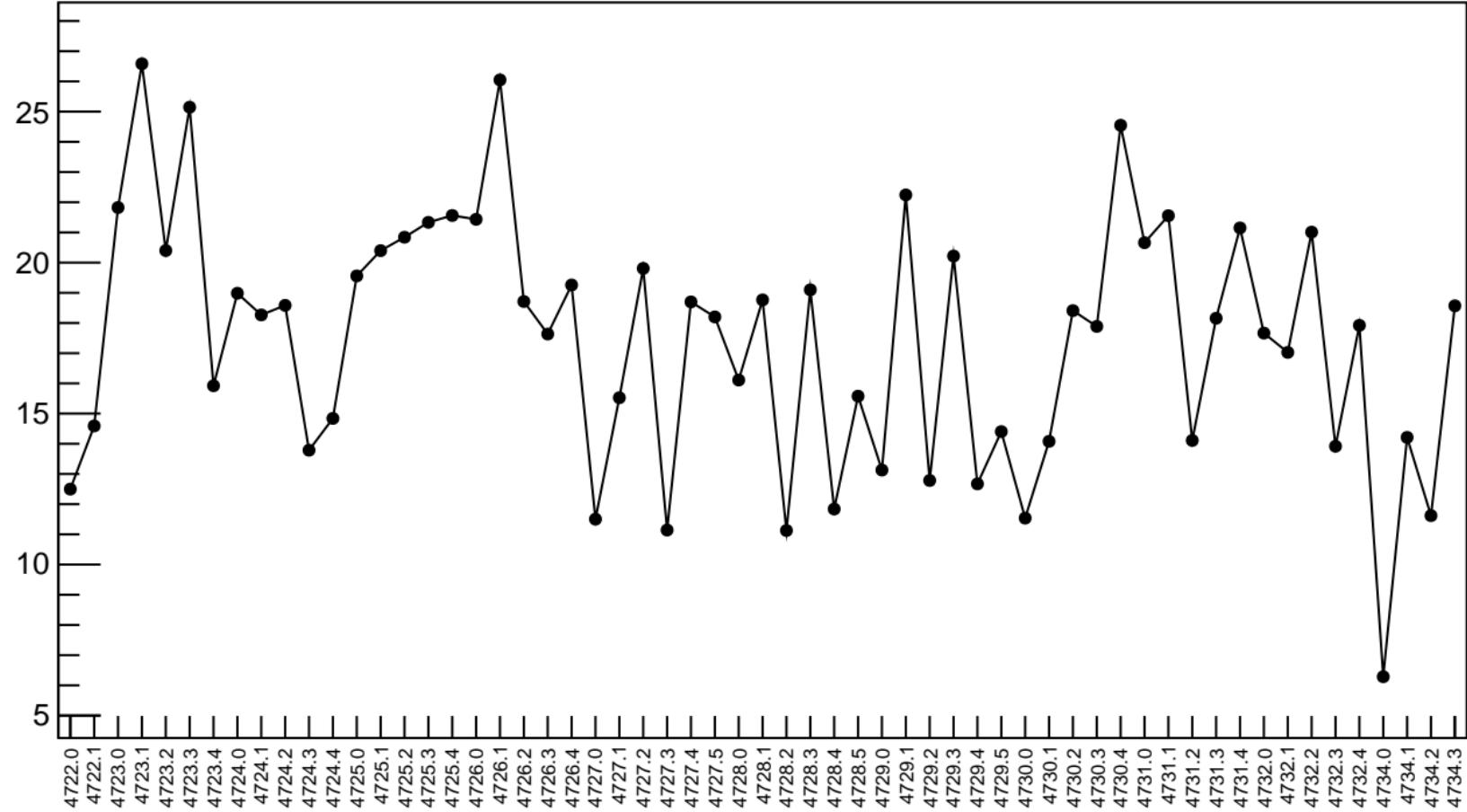


1D pull distribution



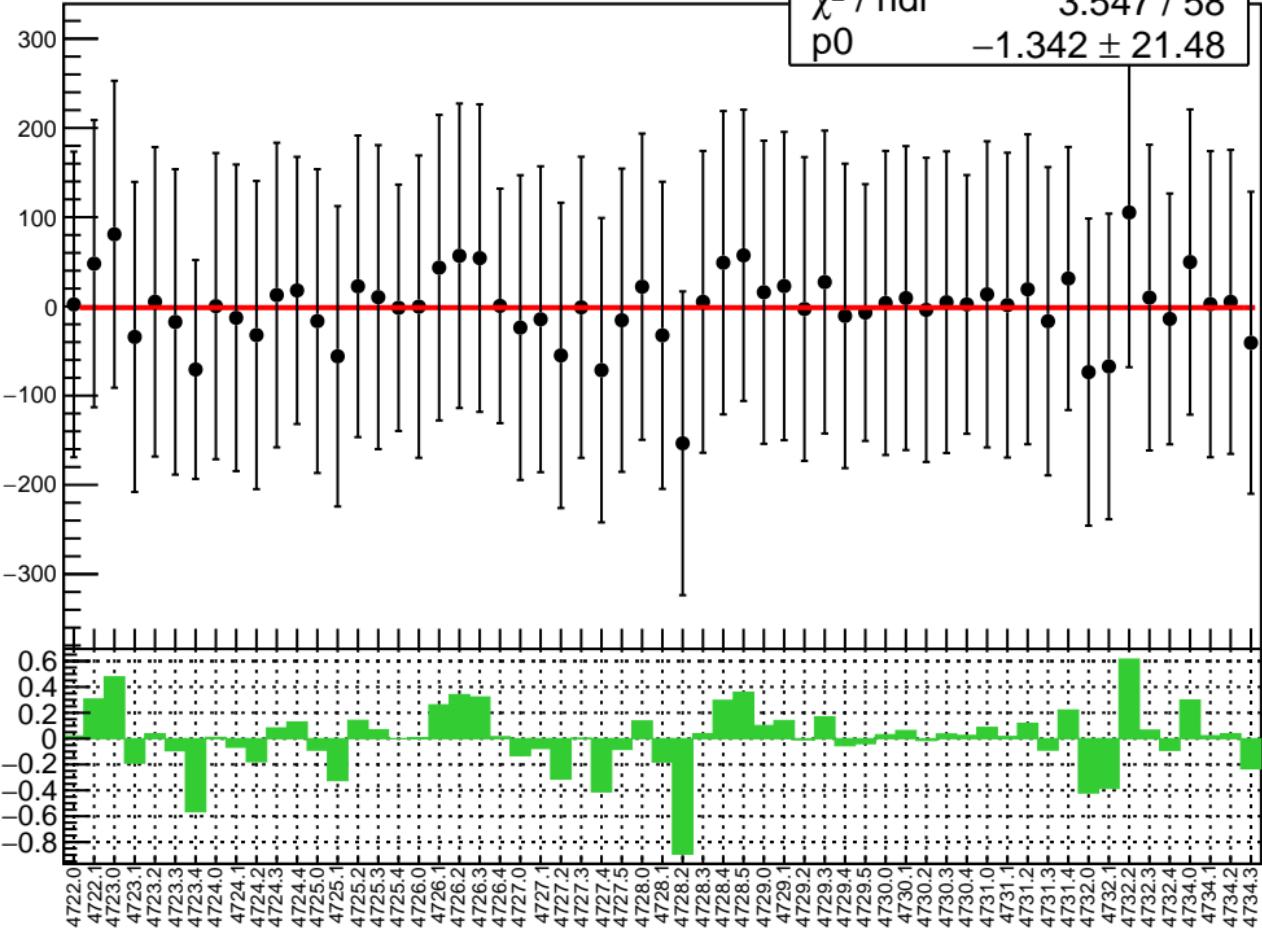
# corr\_us\_avg\_bpm4eY RMS (ppm)

RMS (ppm)

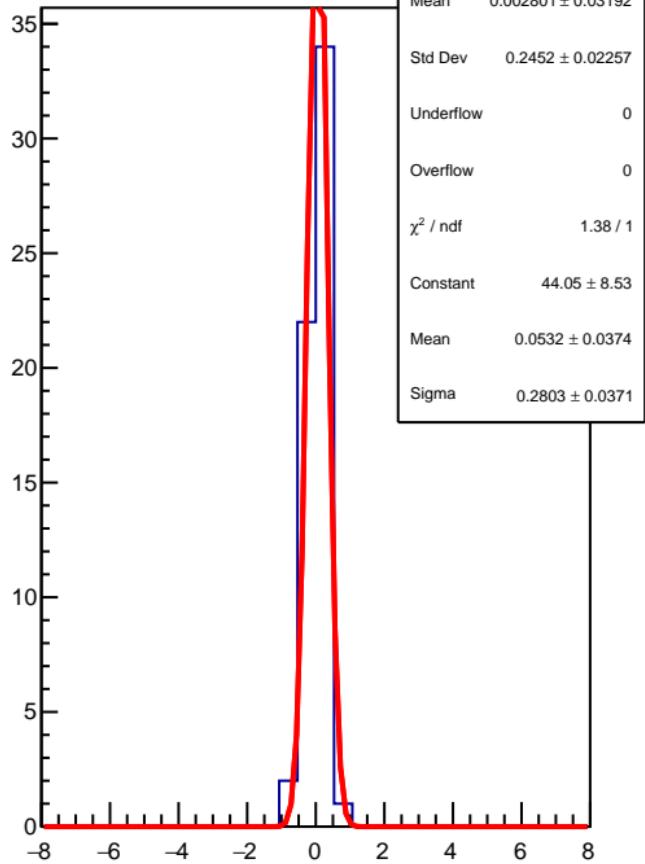


corr\_us\_avg\_bpm4aX (ppb)

$\chi^2 / \text{ndf}$  3.547 / 58  
p0  $-1.342 \pm 21.48$

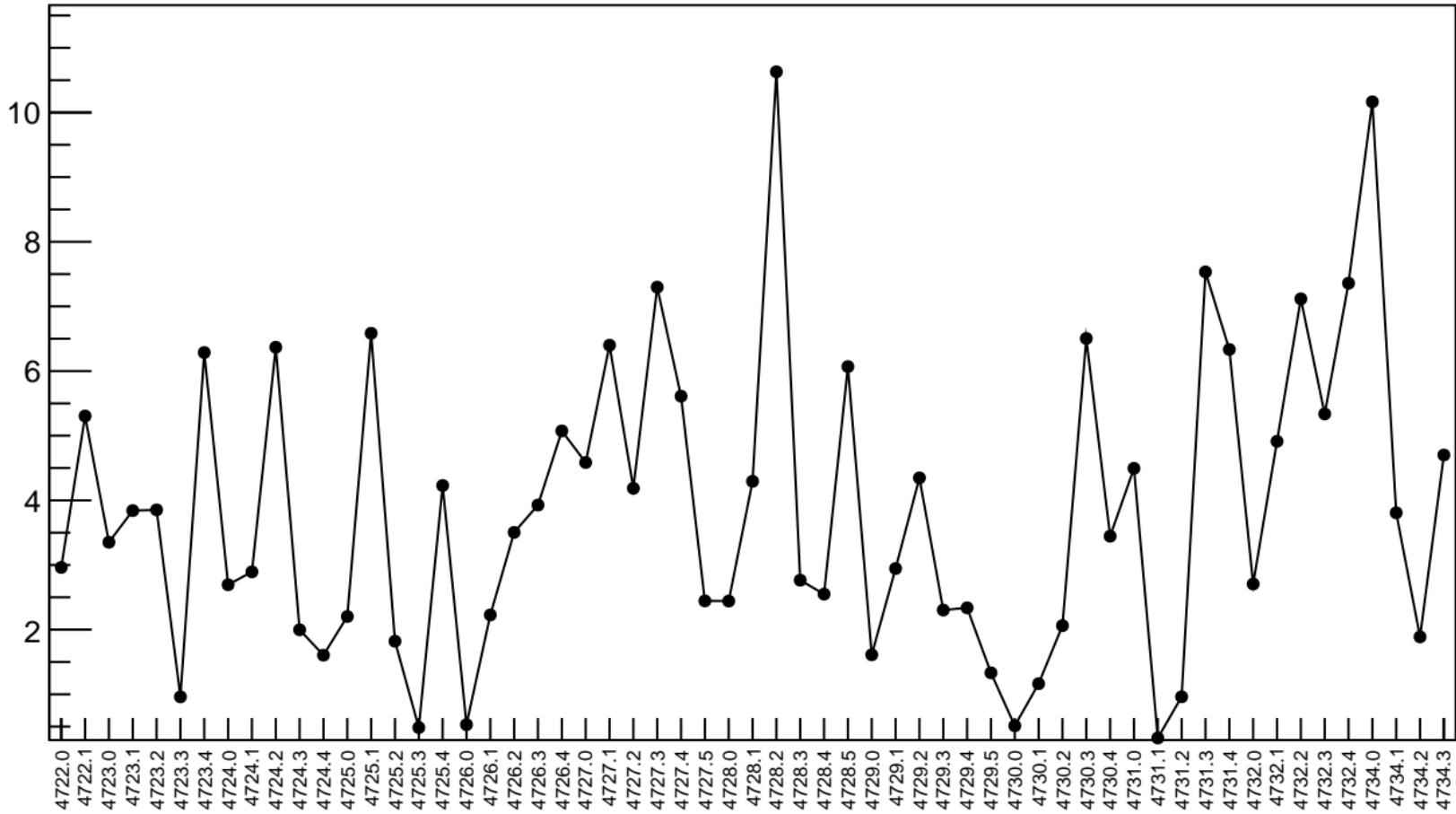


1D pull distribution



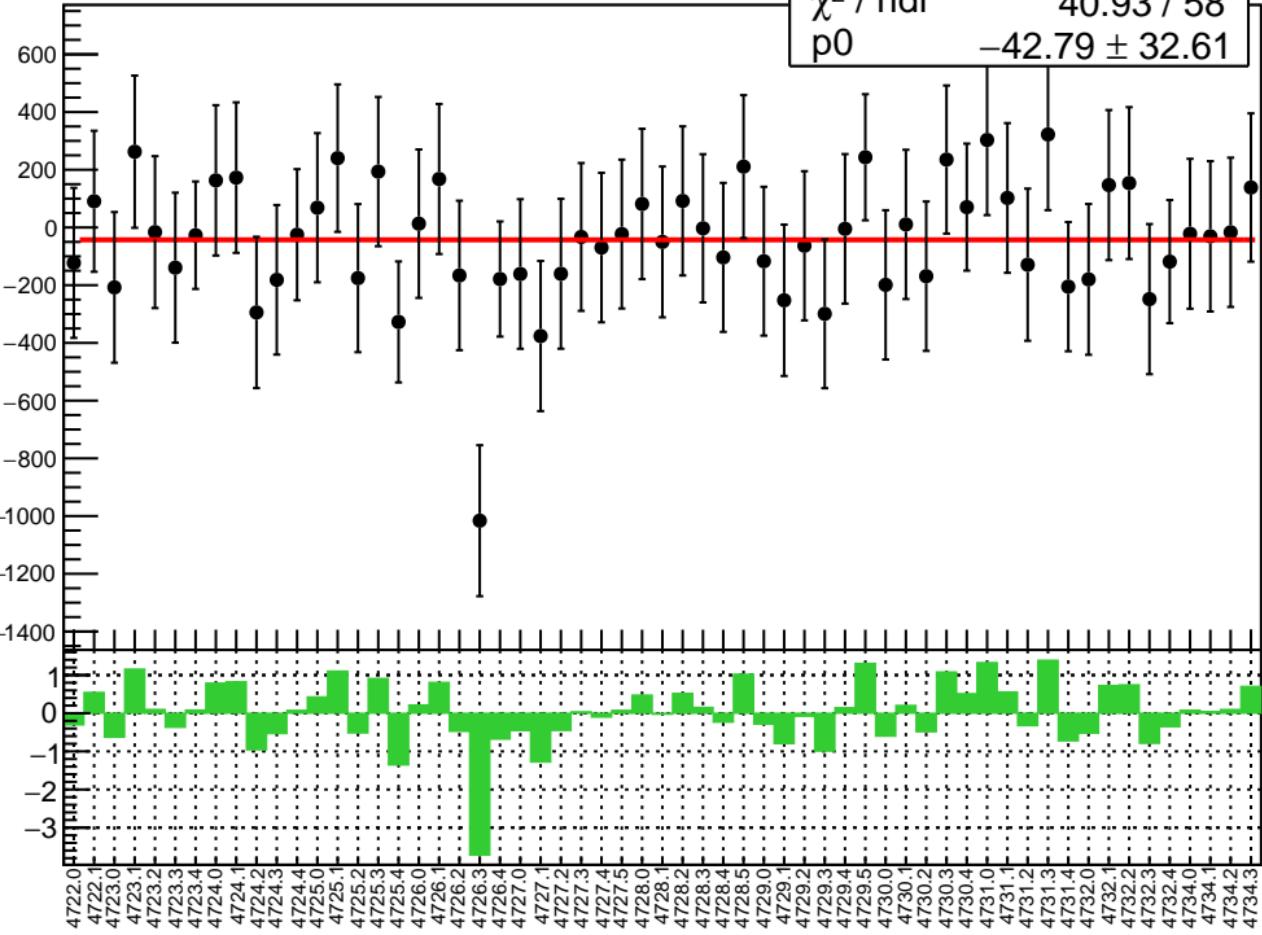
# corr\_us\_avg\_bpm4aX RMS (ppm)

RMS (ppm)

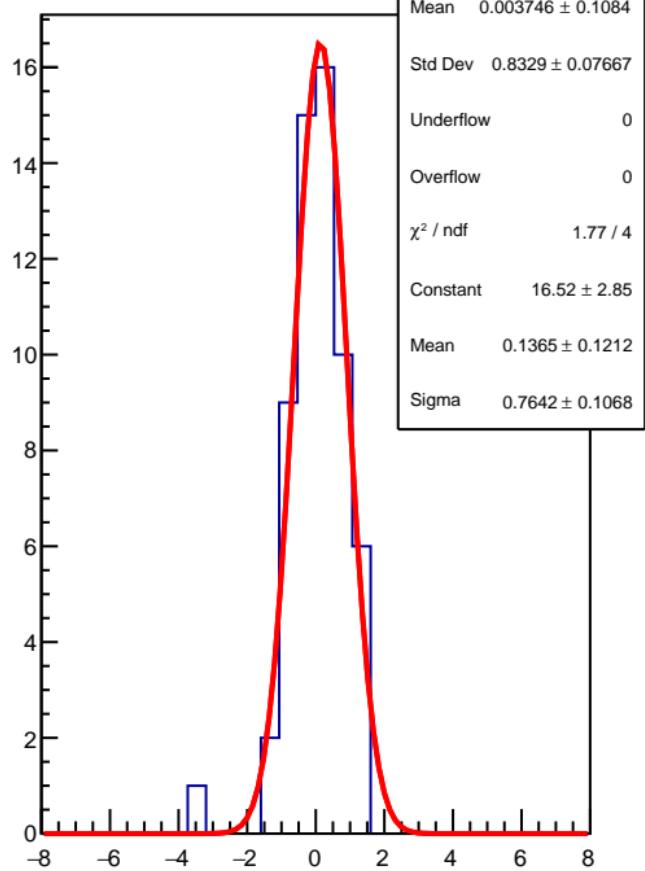


corr\_us\_avg\_bpm4aY (ppb)

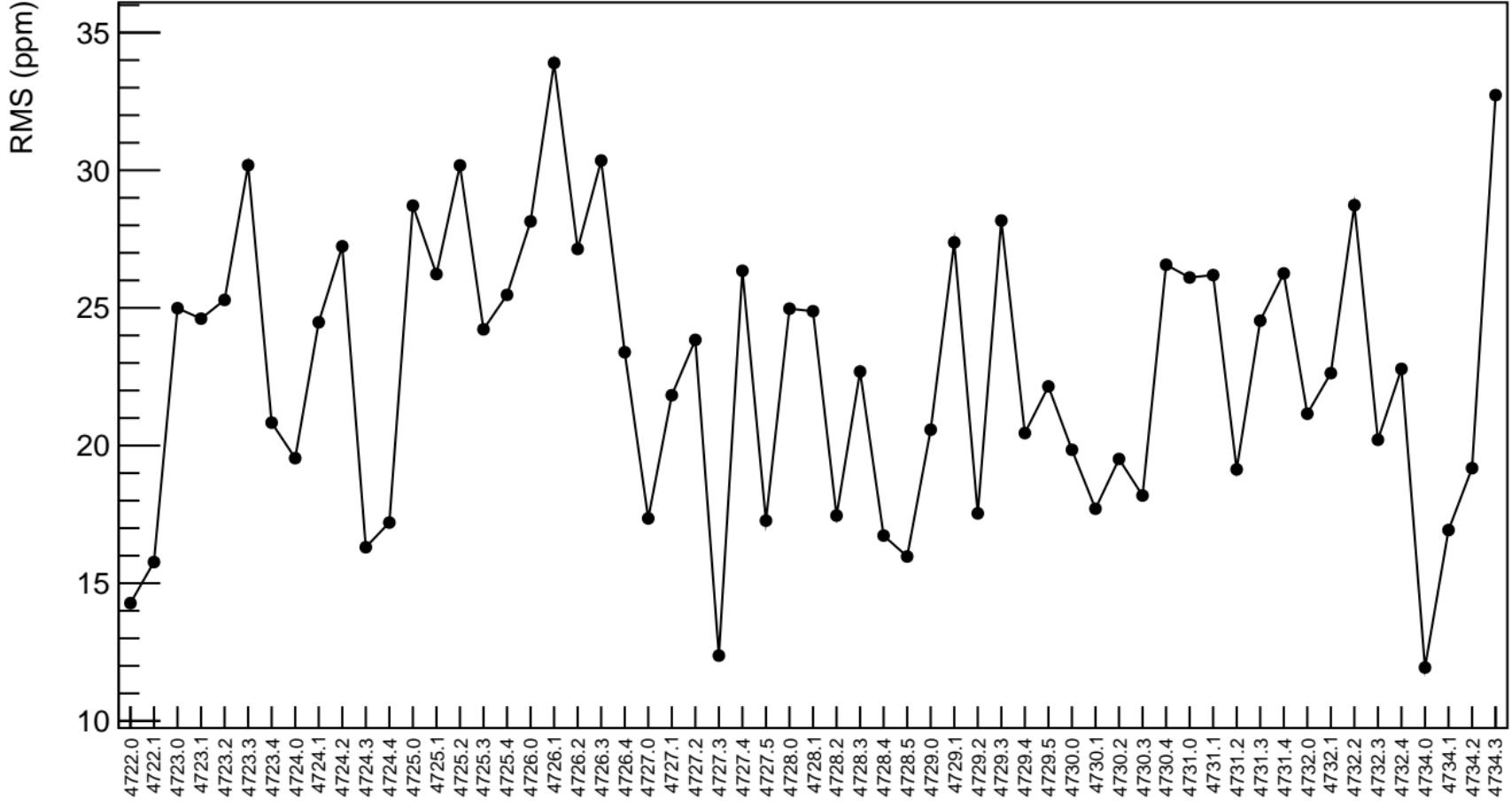
$\chi^2 / \text{ndf}$  40.93 / 58  
p0  $-42.79 \pm 32.61$



1D pull distribution

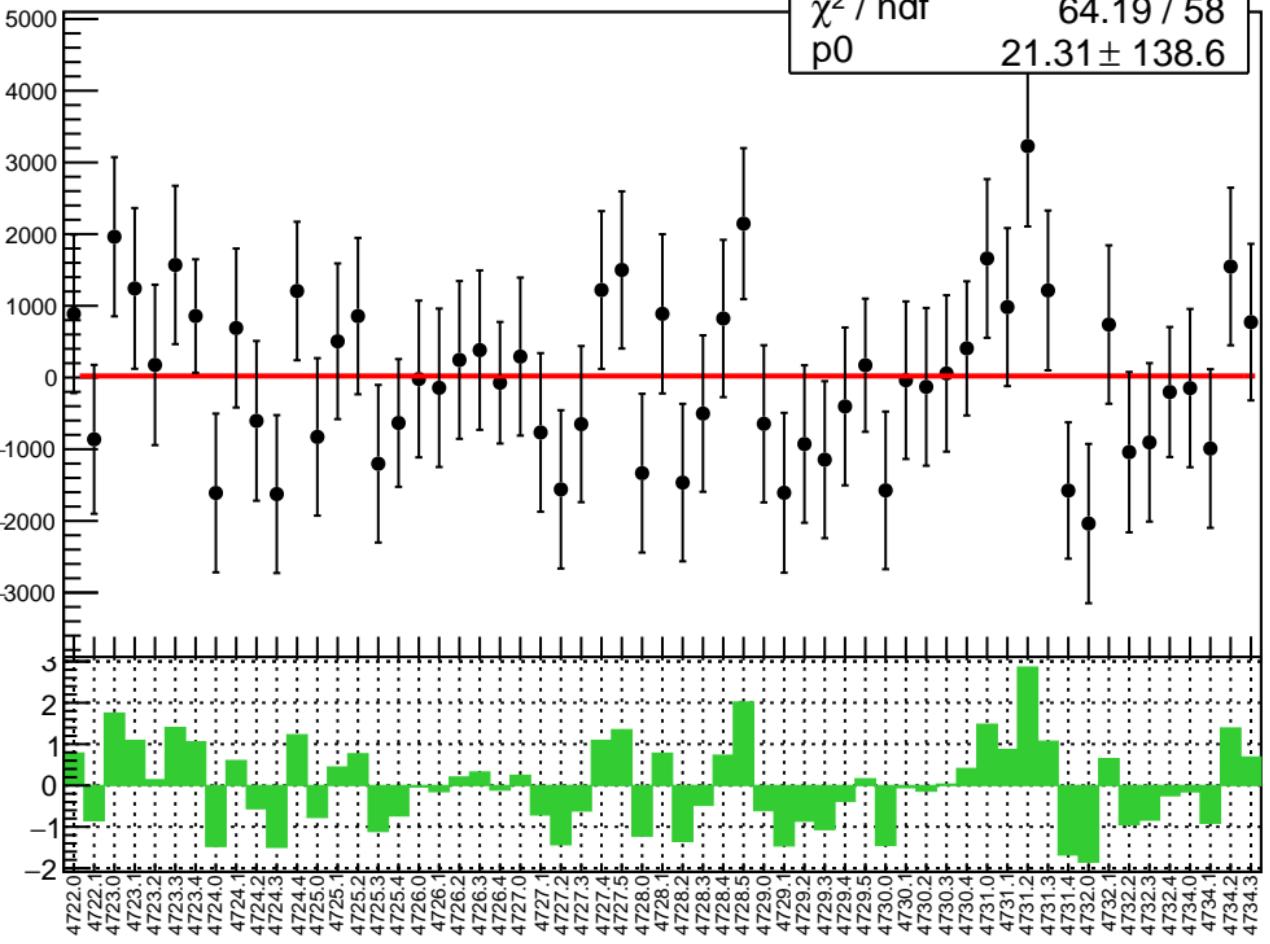


# corr\_us\_avg\_bpm4aY RMS (ppm)

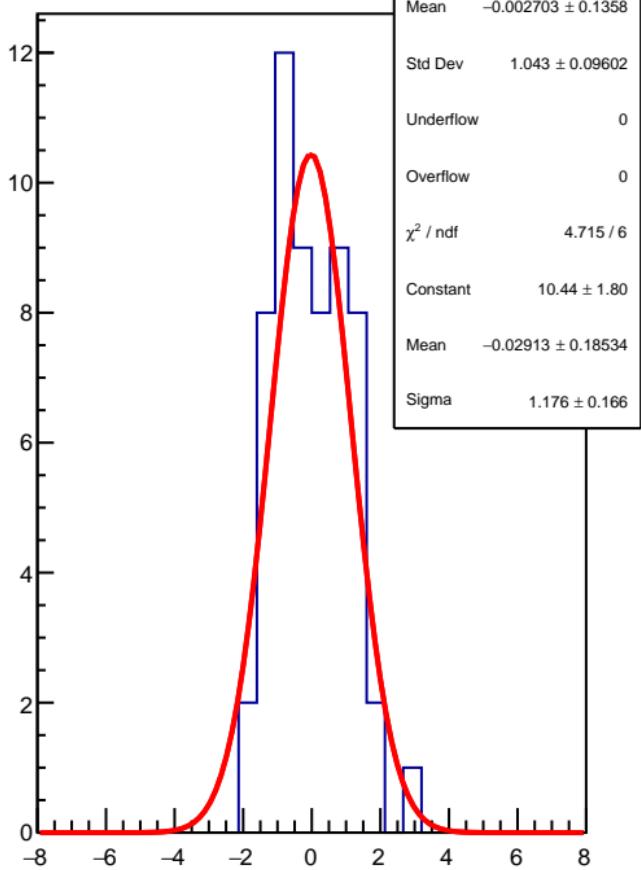


corr\_us\_avg\_bpm1X (ppb)

$\chi^2 / \text{ndf}$   
64.19 / 58  
p0  
 $21.31 \pm 138.6$

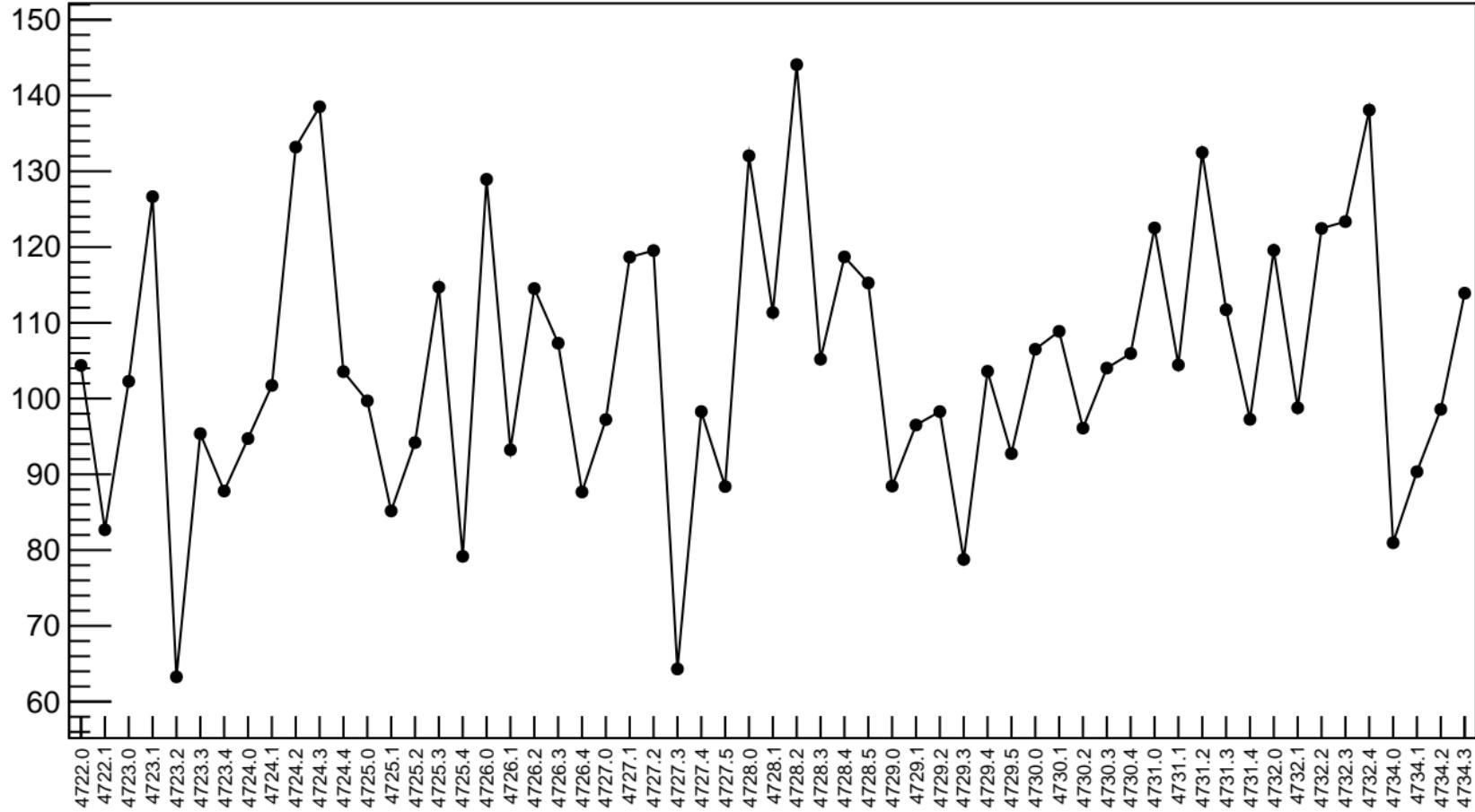


1D pull distribution

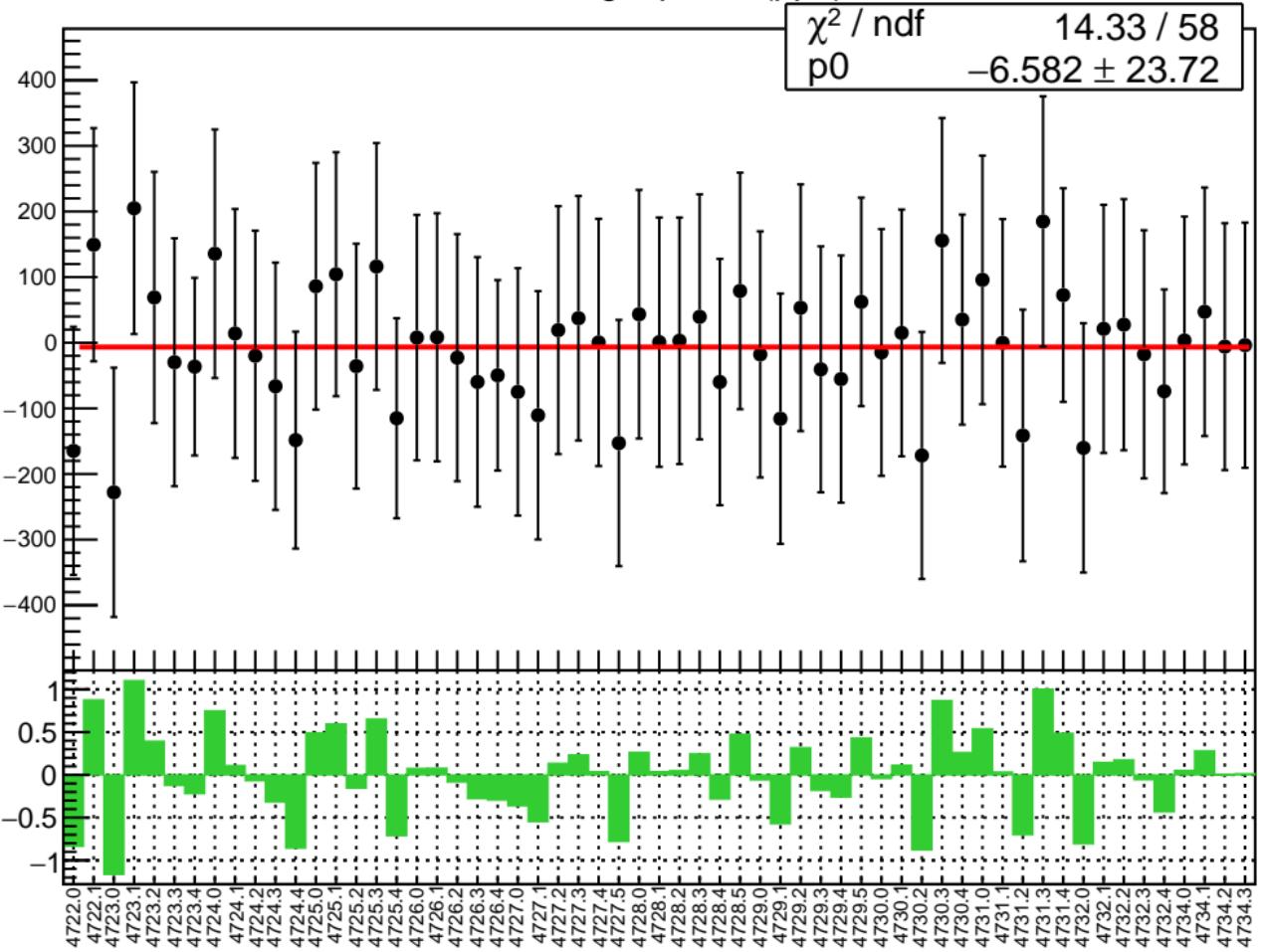


# corr\_us\_avg\_bpm1X RMS (ppm)

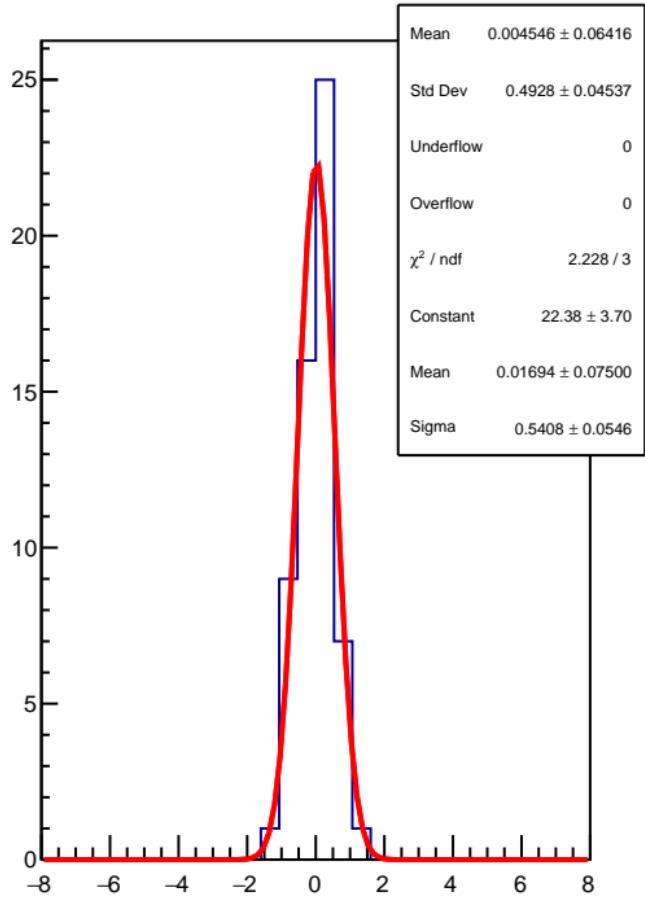
RMS (ppm)



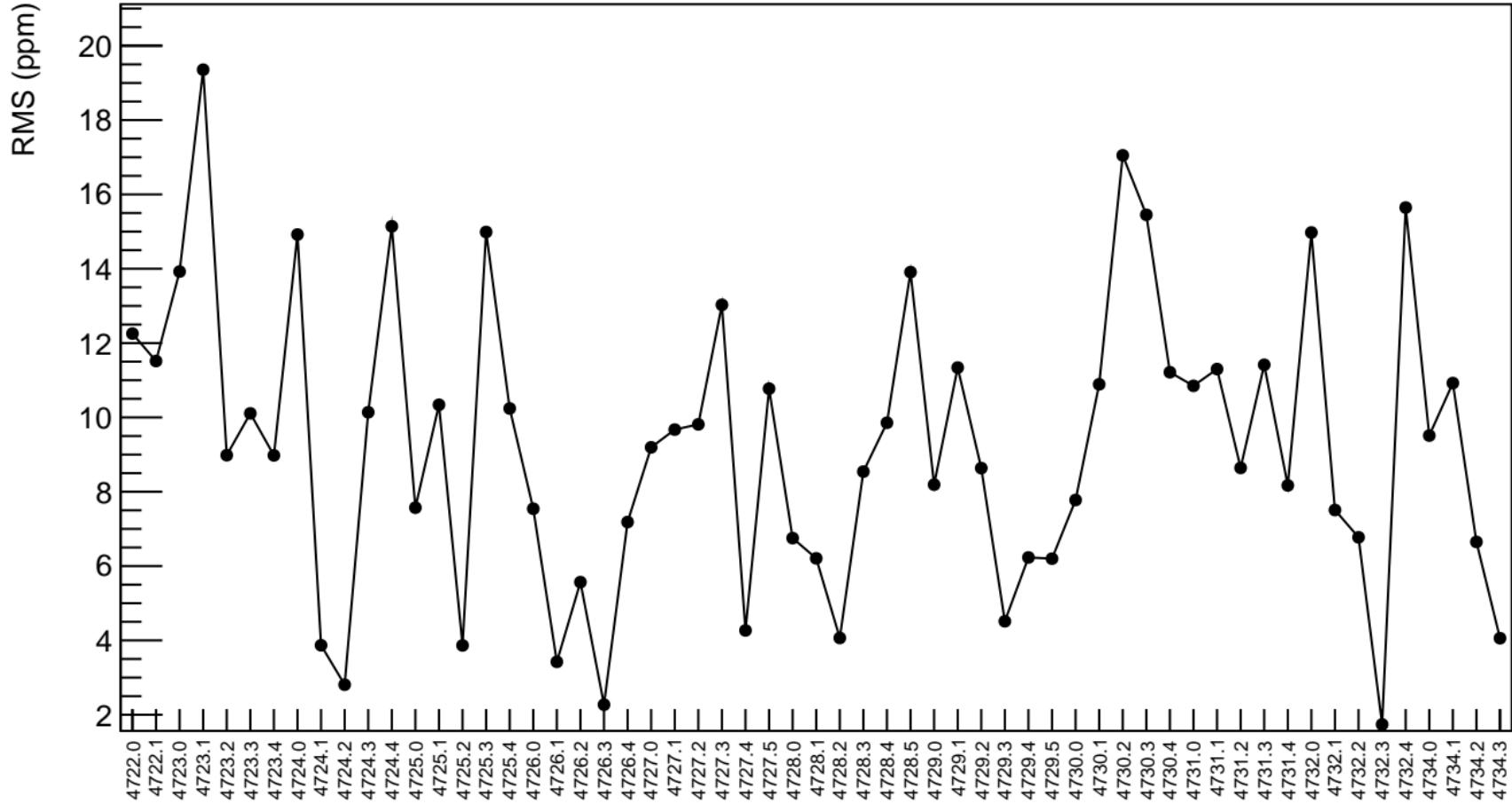
corr\_us\_avg\_bpm1Y (ppb)



1D pull distribution

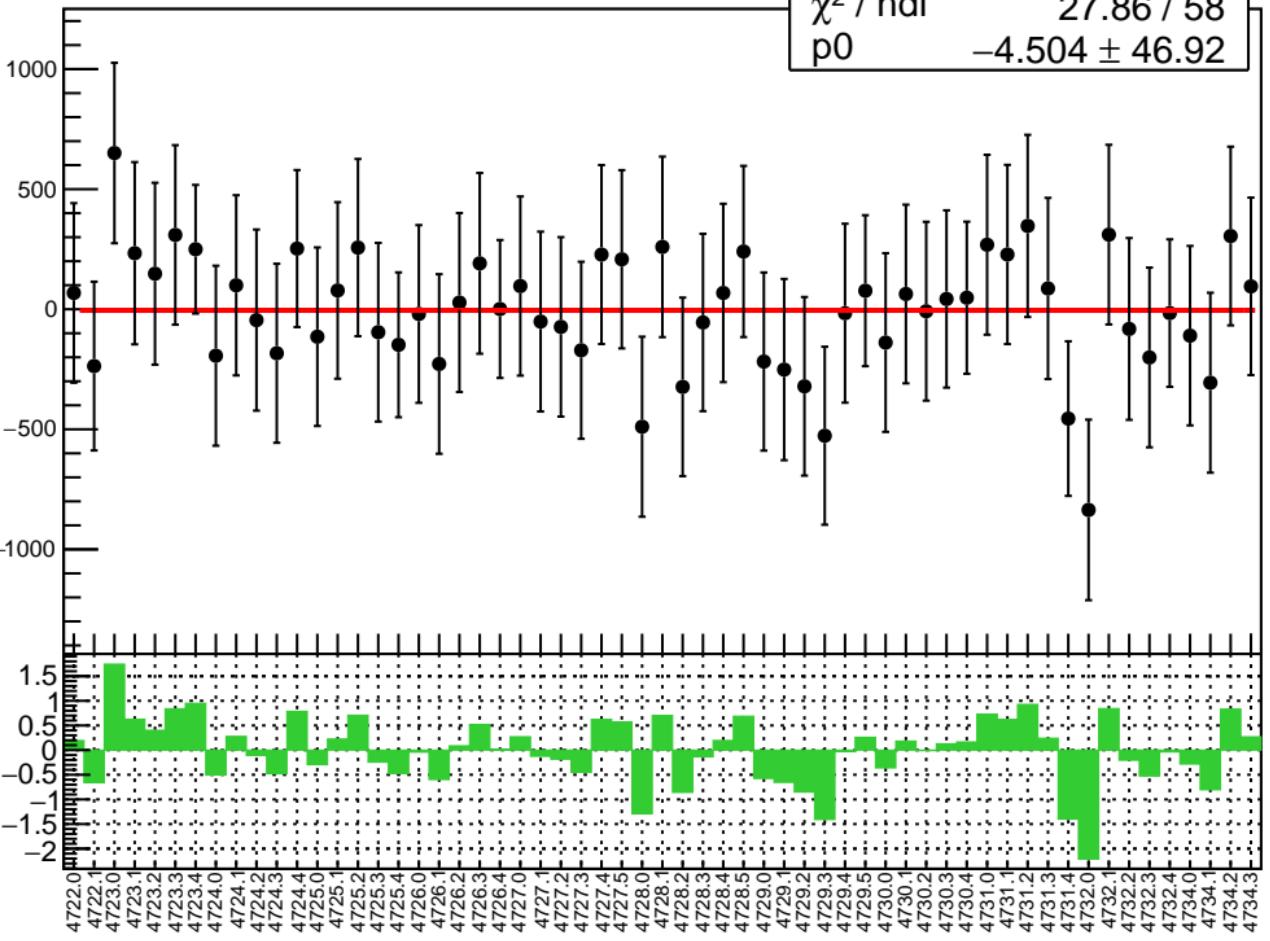


# corr\_us\_avg\_bpm1Y RMS (ppm)

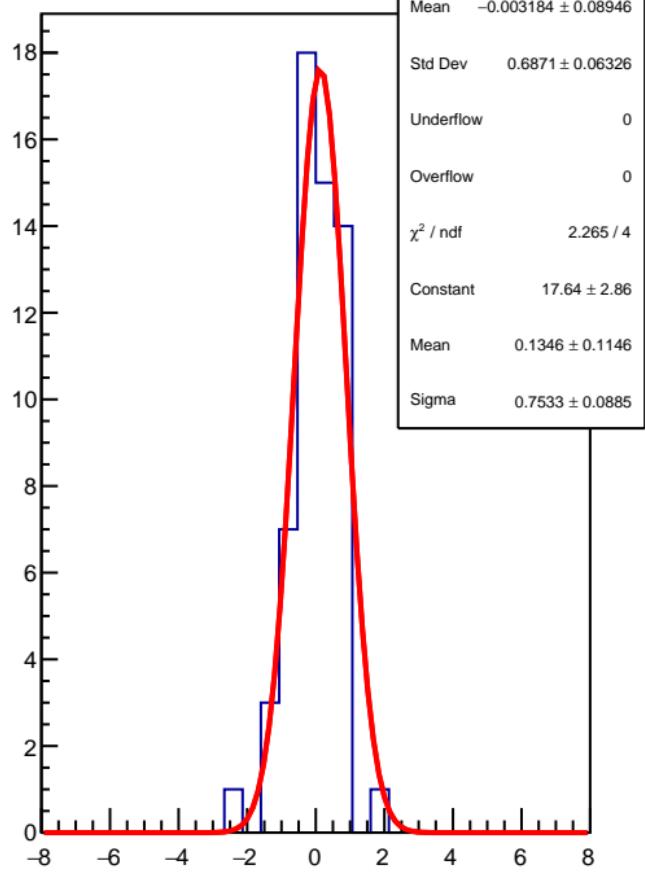


corr\_us\_avg\_bpm16X (ppb)

$\chi^2 / \text{ndf}$  27.86 / 58  
p0  $-4.504 \pm 46.92$

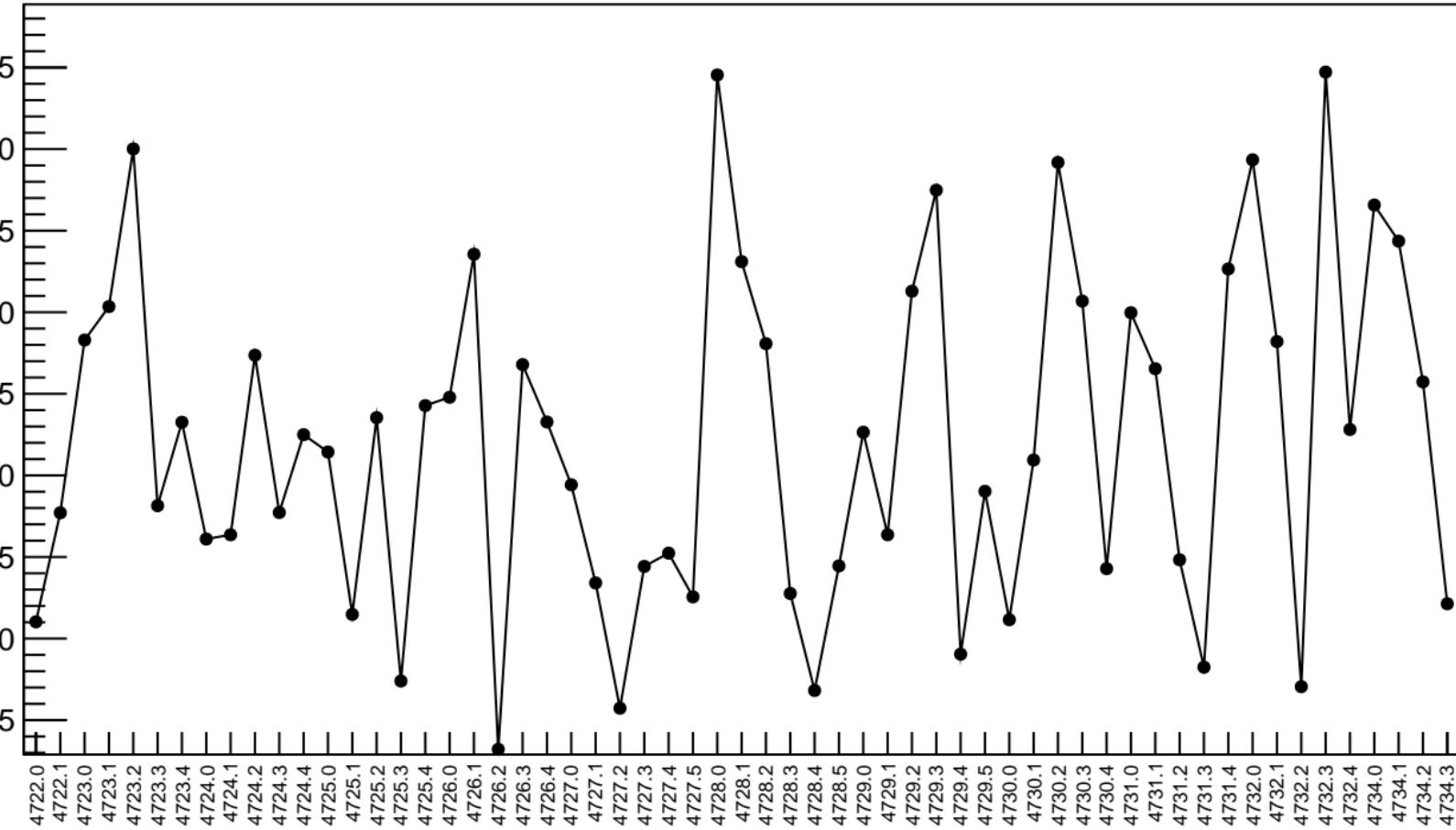


1D pull distribution



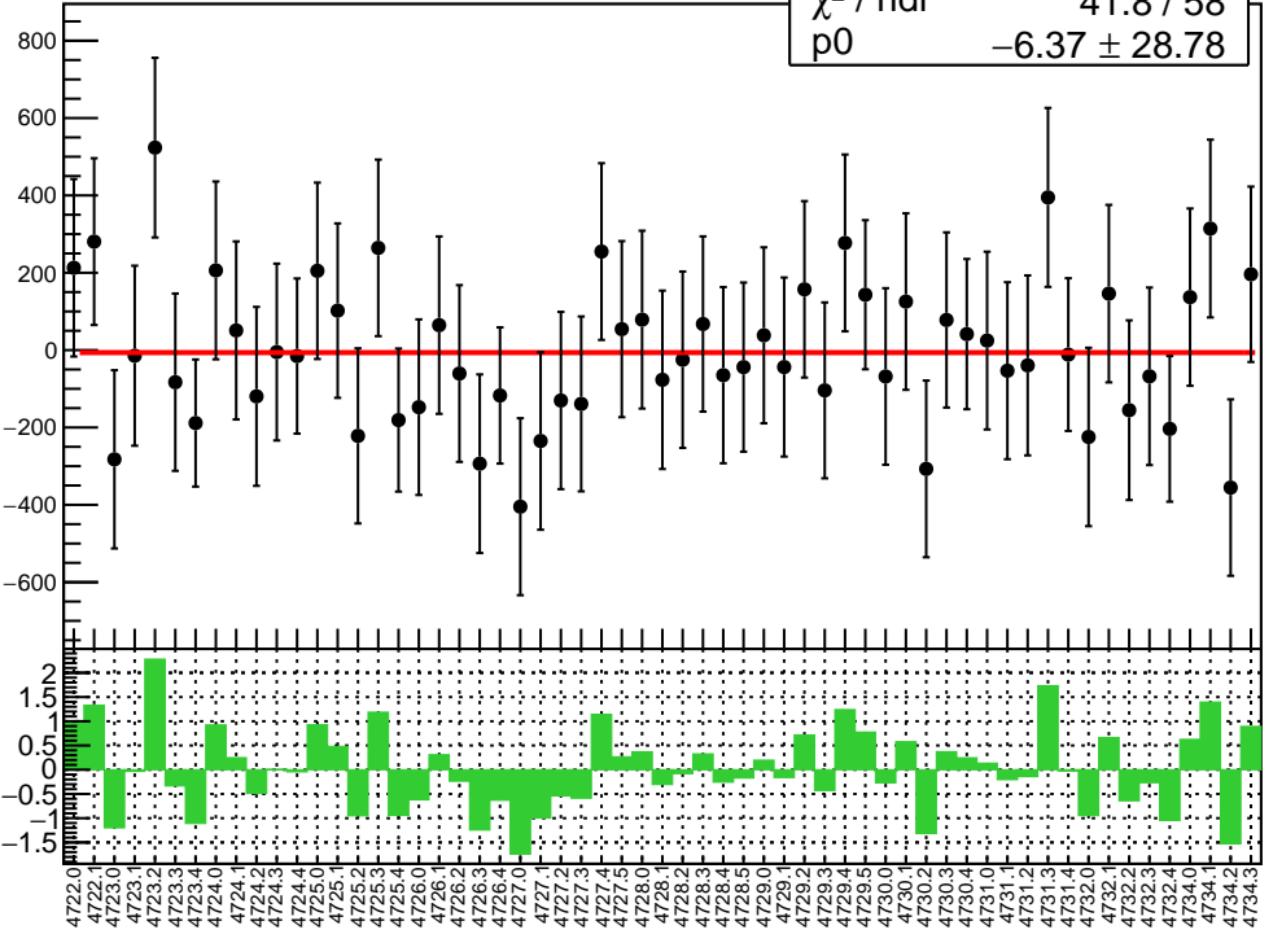
# corr\_us\_avg\_bpm16X RMS (ppm)

RMS (ppm)

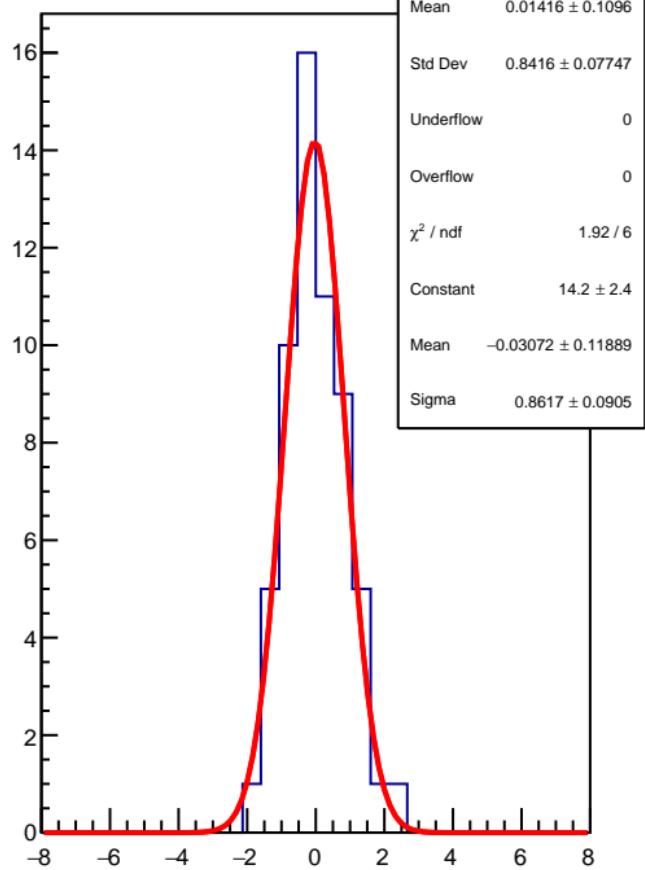


corr\_us\_avg\_bpm16Y (ppb)

$\chi^2 / \text{ndf}$  41.8 / 58  
p0  $-6.37 \pm 28.78$

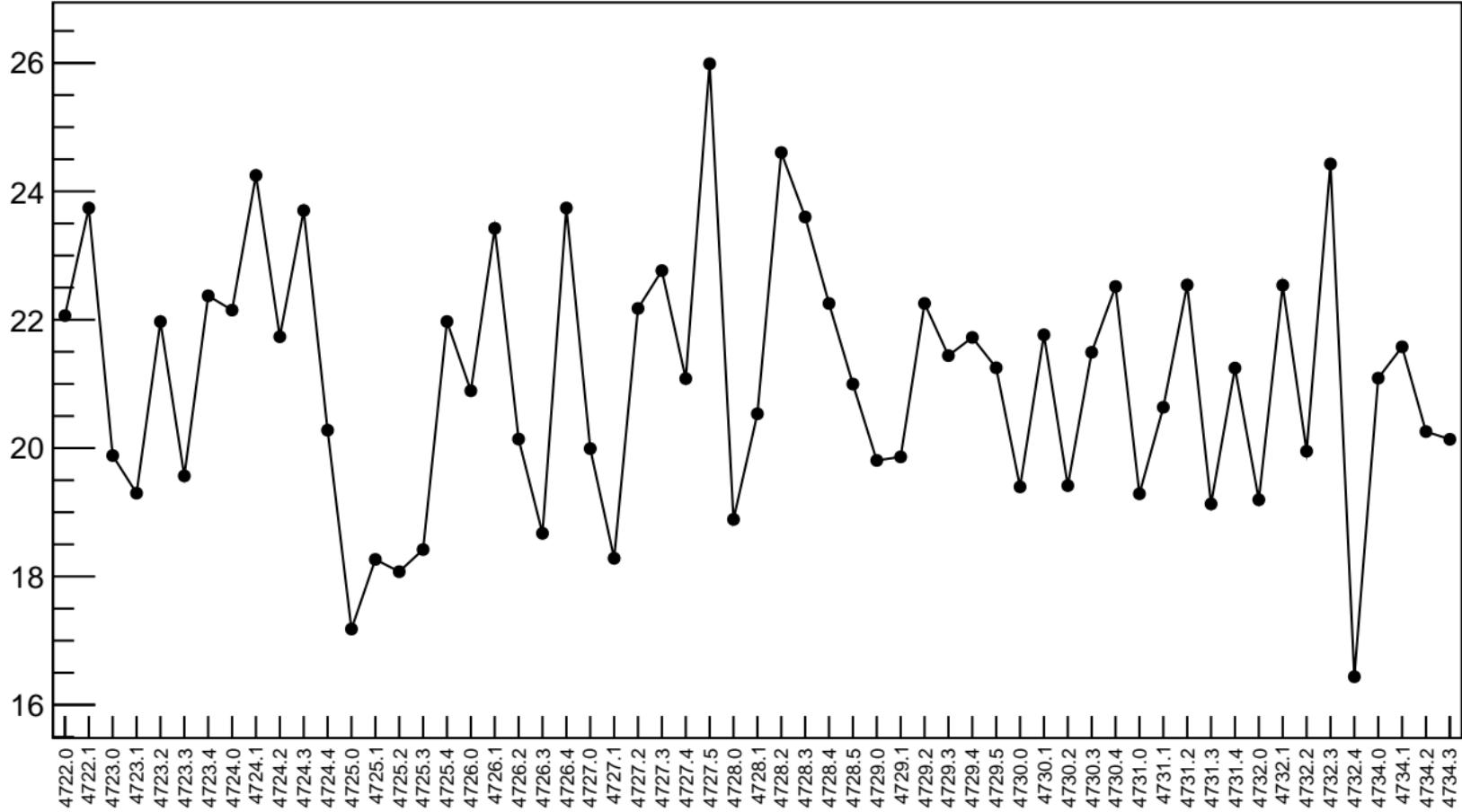


1D pull distribution



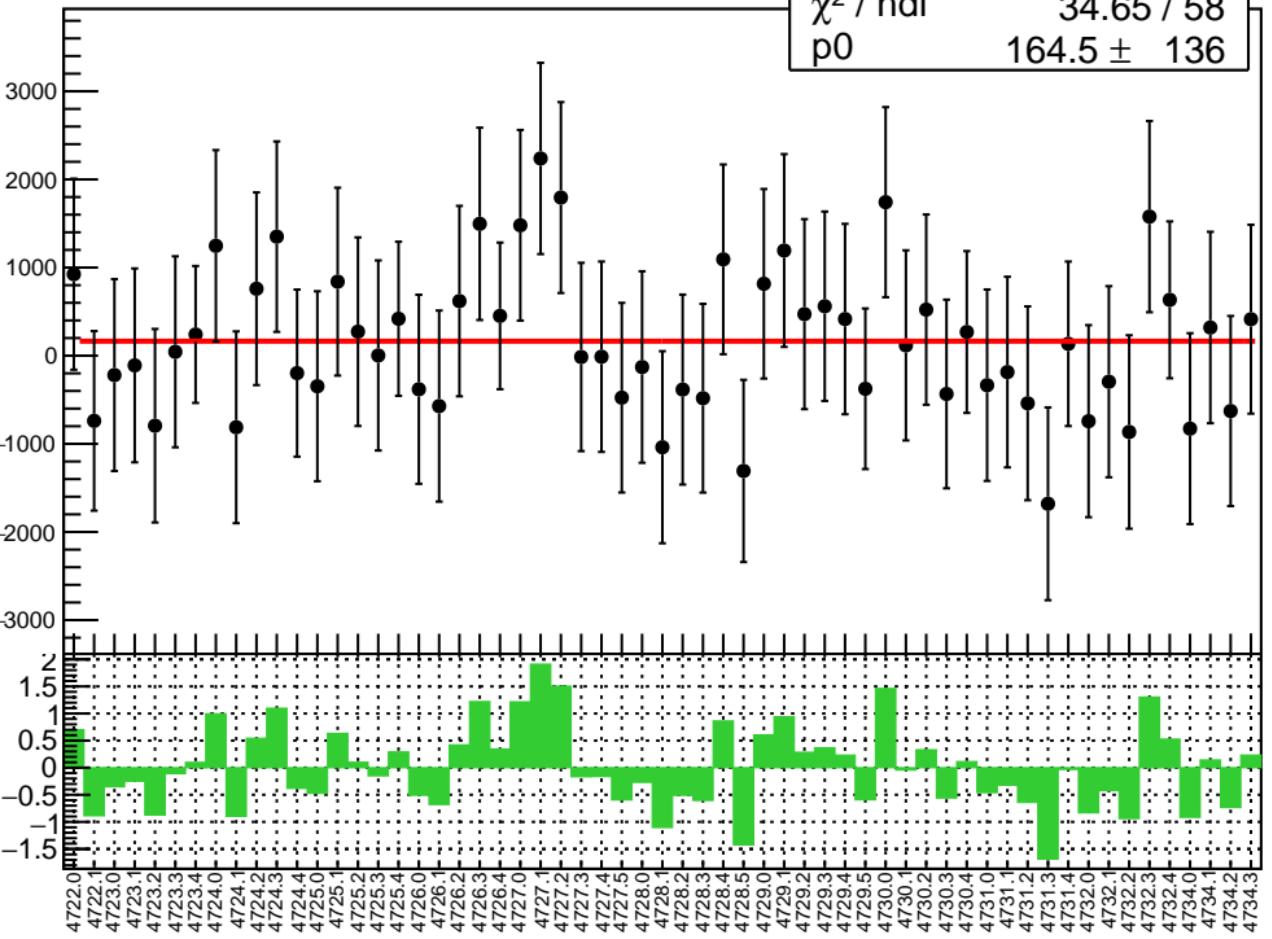
# corr\_us\_avg\_bpm16Y RMS (ppm)

RMS (ppm)

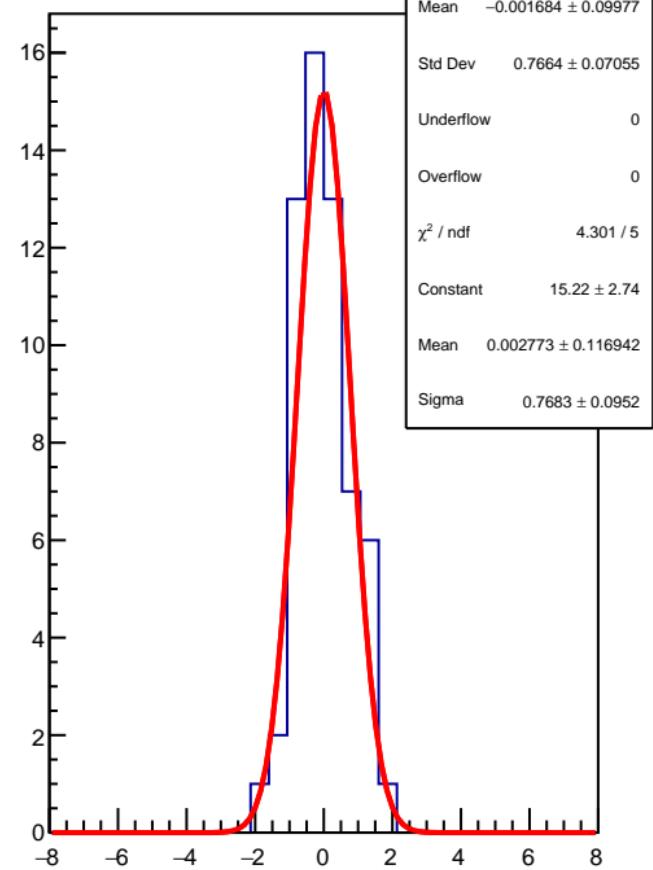


corr\_us\_avg\_bpm12X (ppb)

$\chi^2 / \text{ndf}$  34.65 / 58  
p0  $164.5 \pm 136$

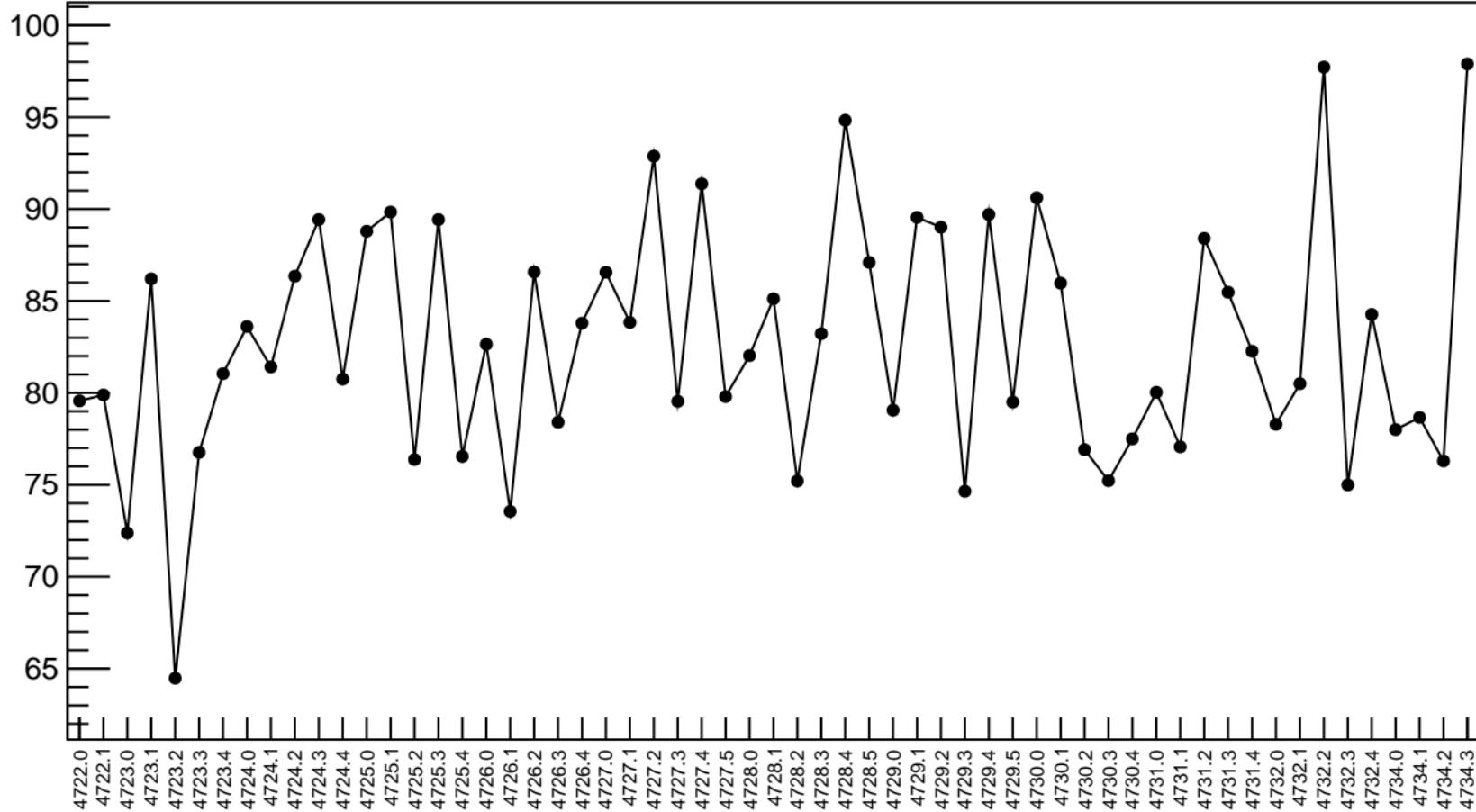


1D pull distribution



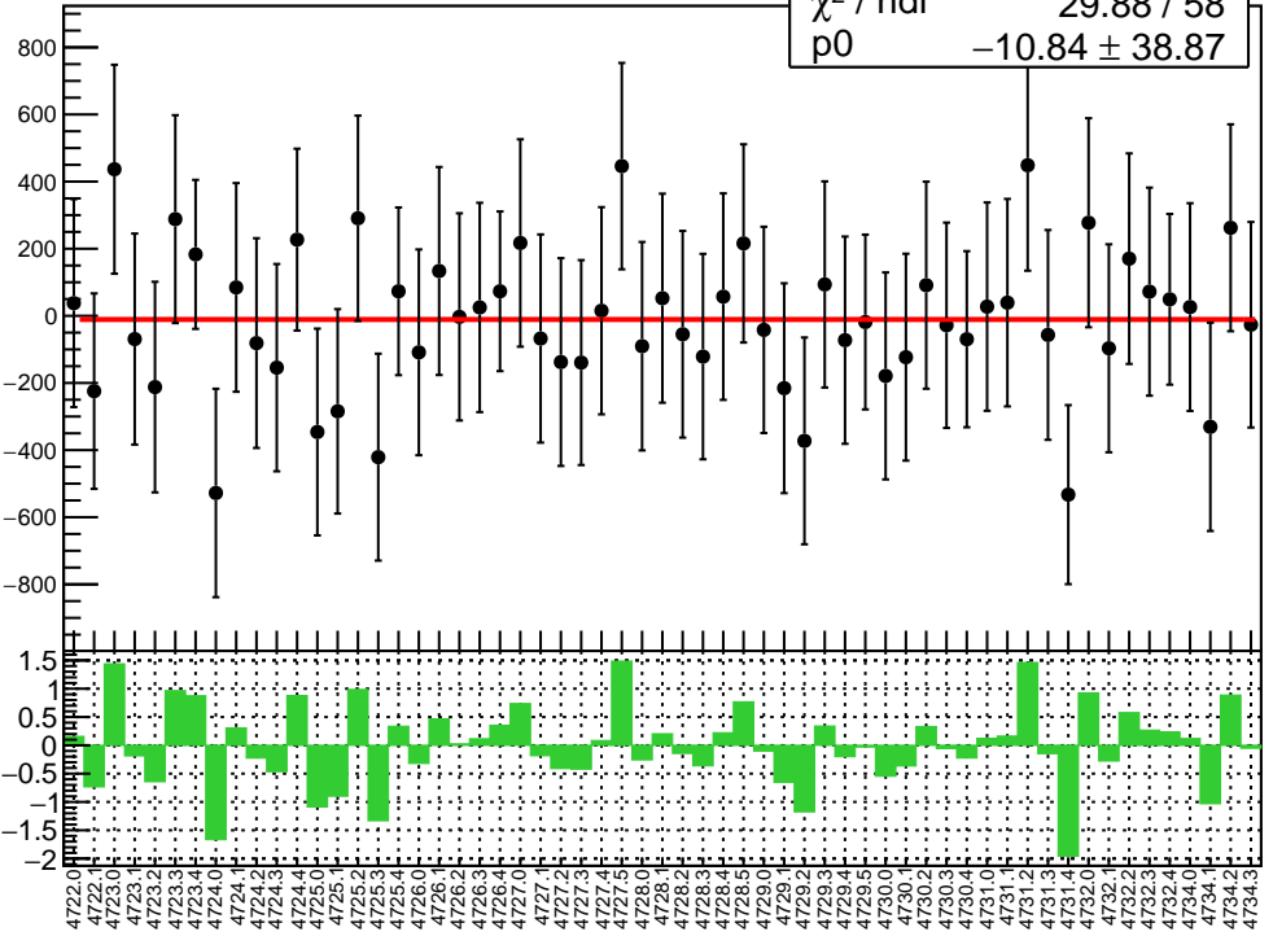
# corr\_us\_avg\_bpm12X RMS (ppm)

RMS (ppm)



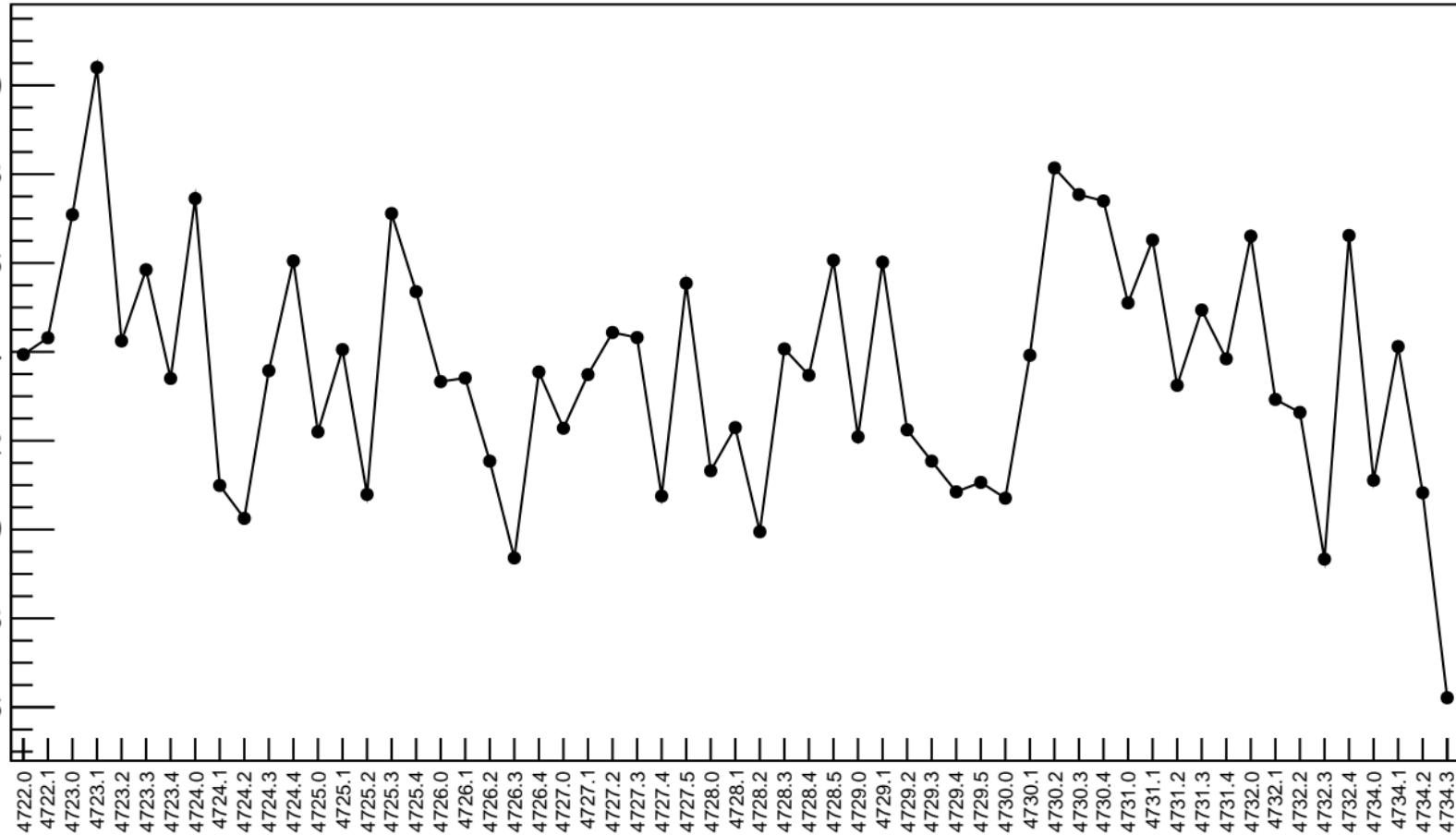
corr\_us\_avg\_bpm12Y (ppb)

$\chi^2 / \text{ndf}$  29.88 / 58  
p0  $-10.84 \pm 38.87$



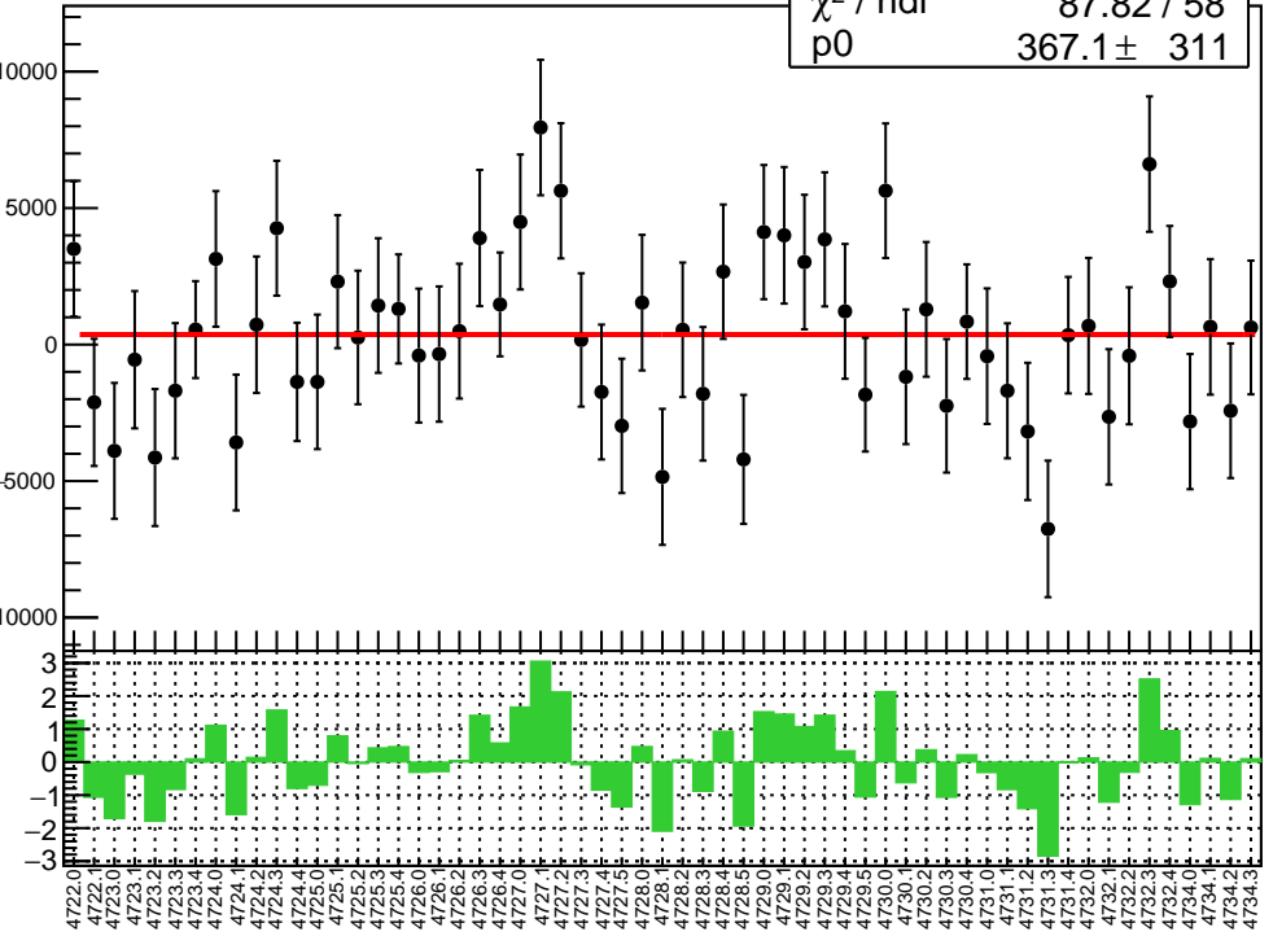
# corr\_us\_avg\_bpm12Y RMS (ppm)

RMS (ppm)

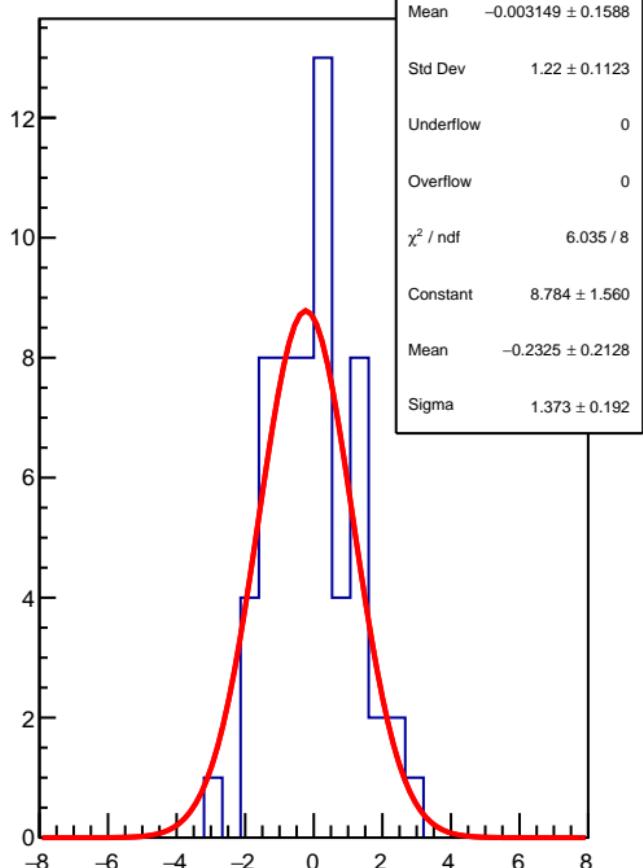


corr\_us\_avg\_bpm11X (ppb)

$\chi^2 / \text{ndf}$  87.82 / 58  
p0  $367.1 \pm 311$

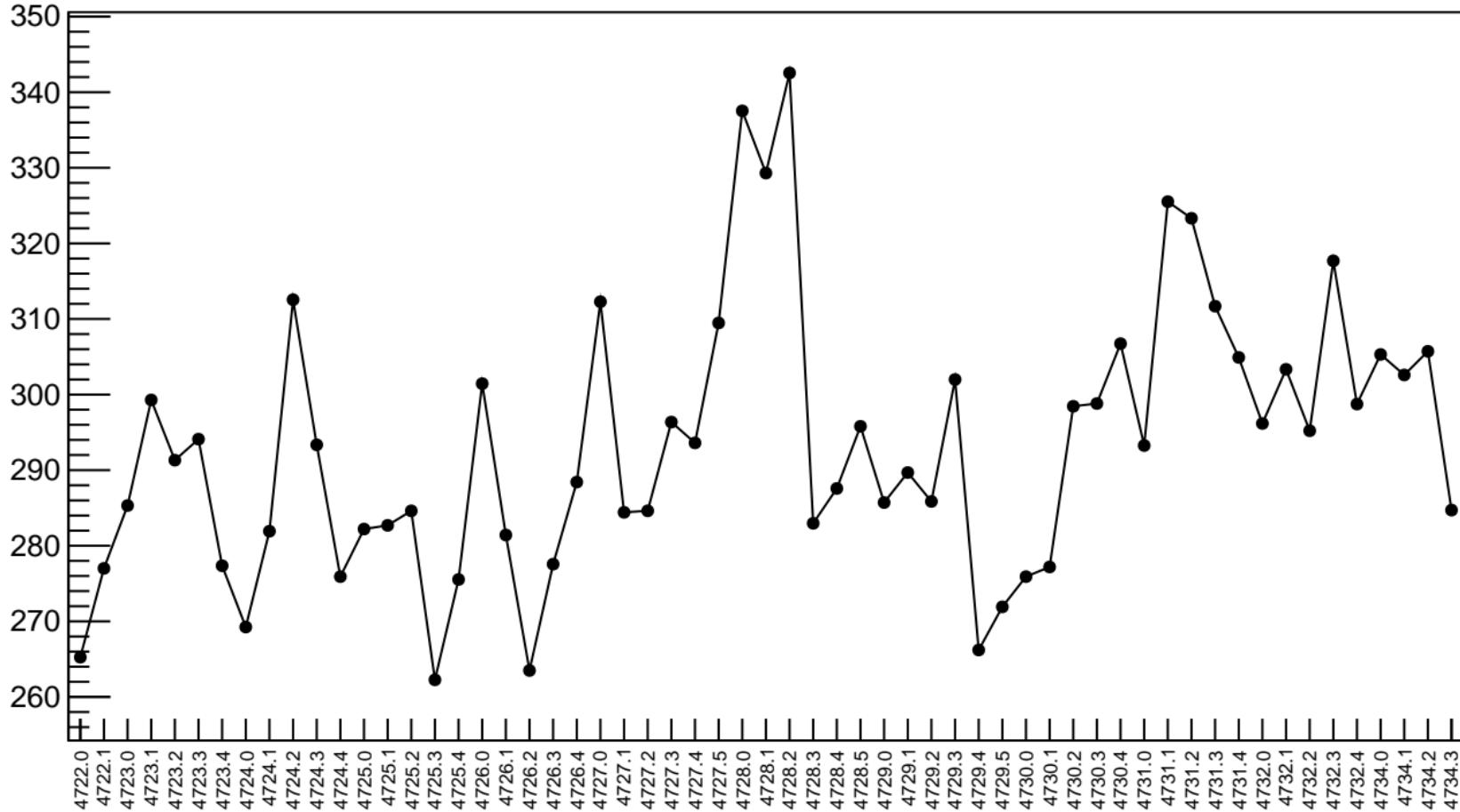


1D pull distribution



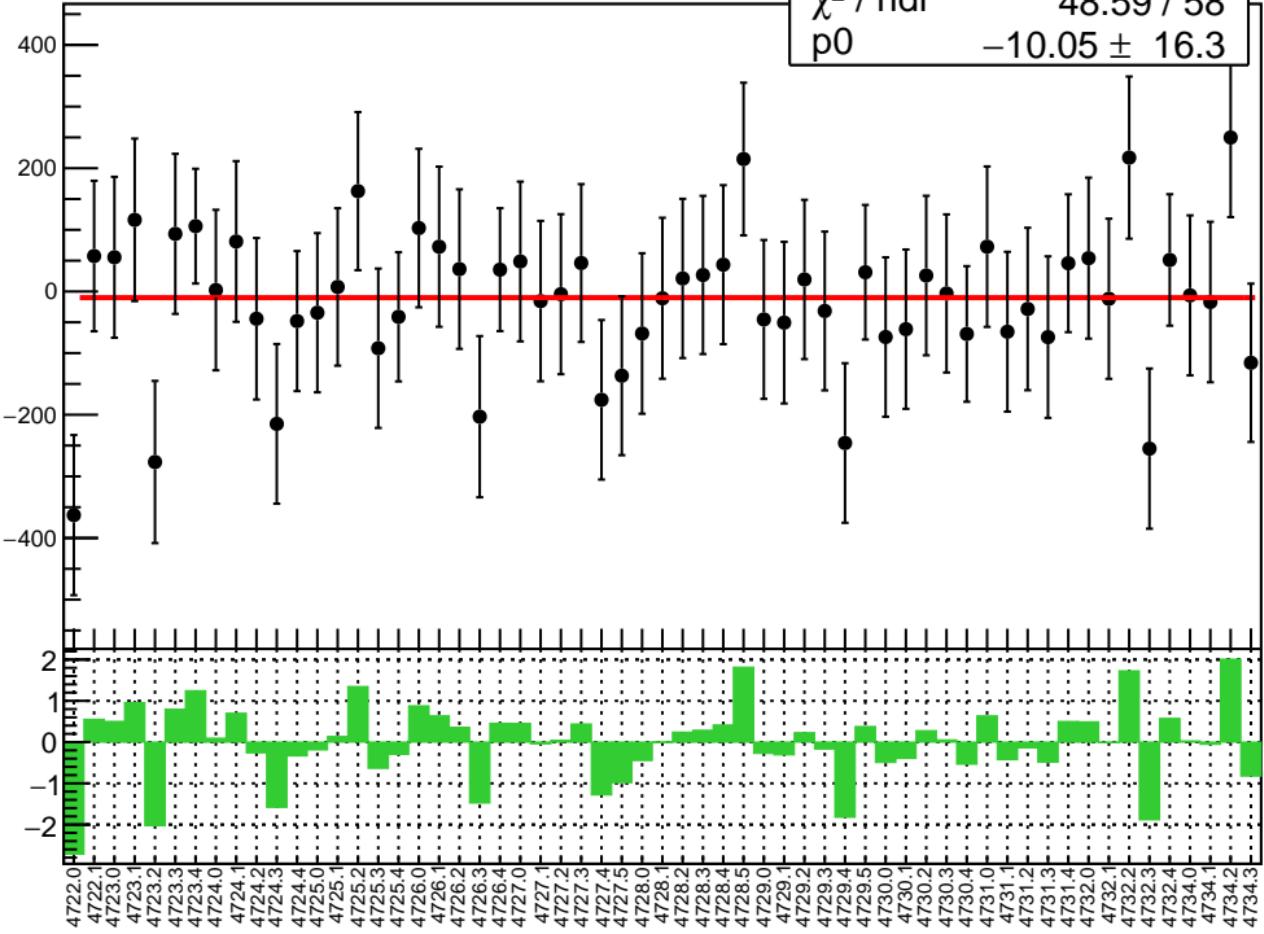
# corr\_us\_avg\_bpm11X RMS (ppm)

RMS (ppm)

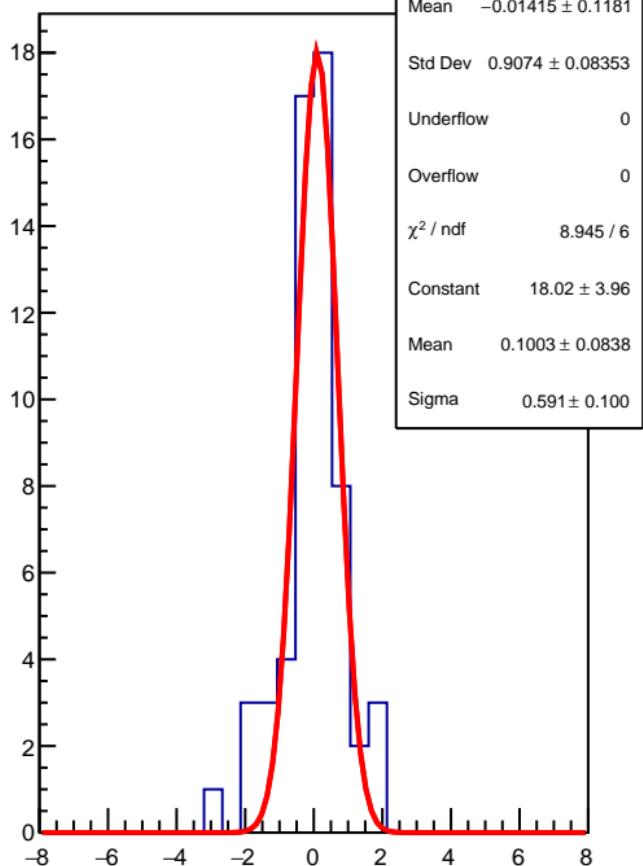


corr\_us\_avg\_bpm11Y (ppb)

$\chi^2 / \text{ndf}$  48.59 / 58  
 $p_0$   $-10.05 \pm 16.3$

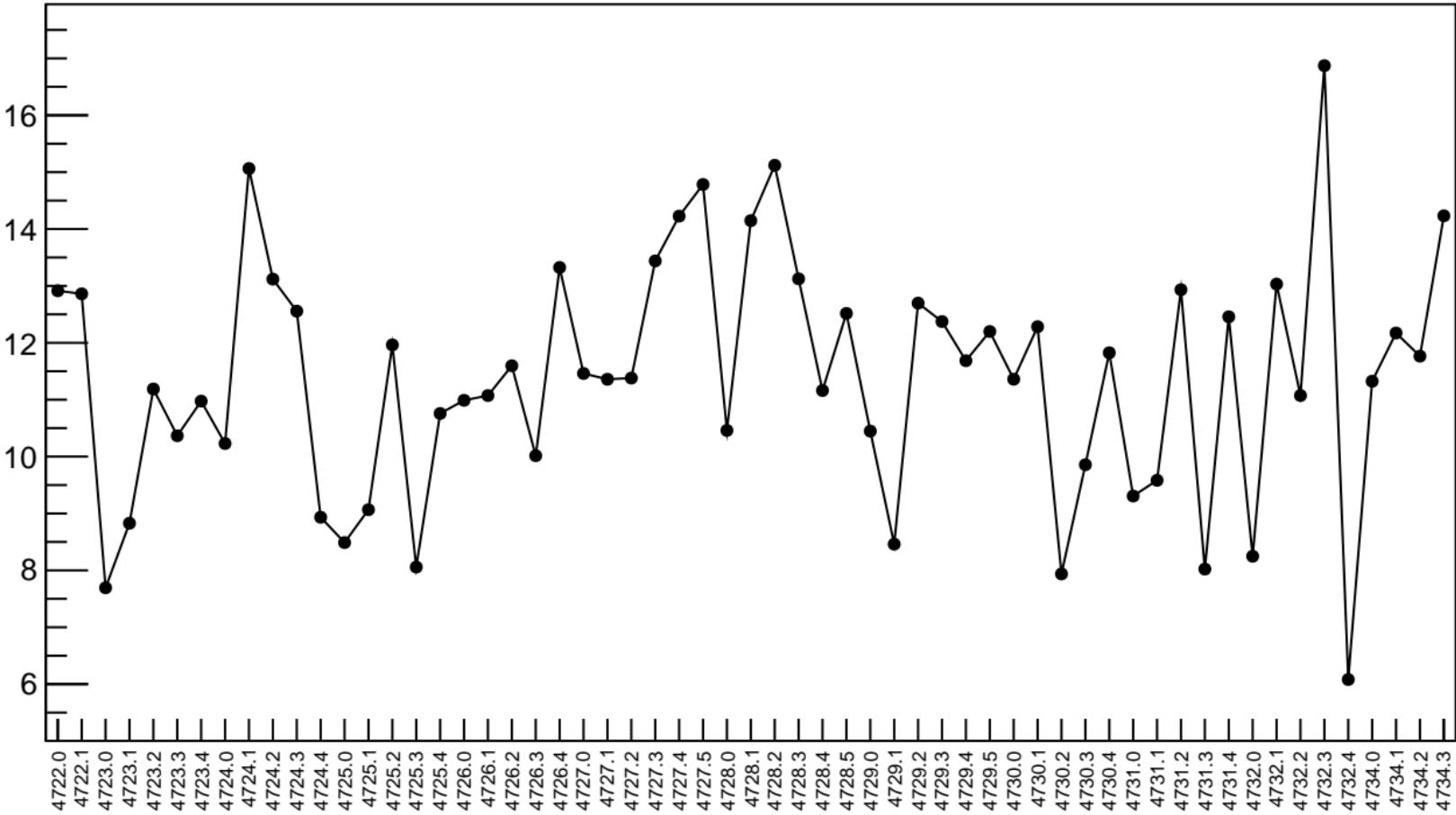


1D pull distribution

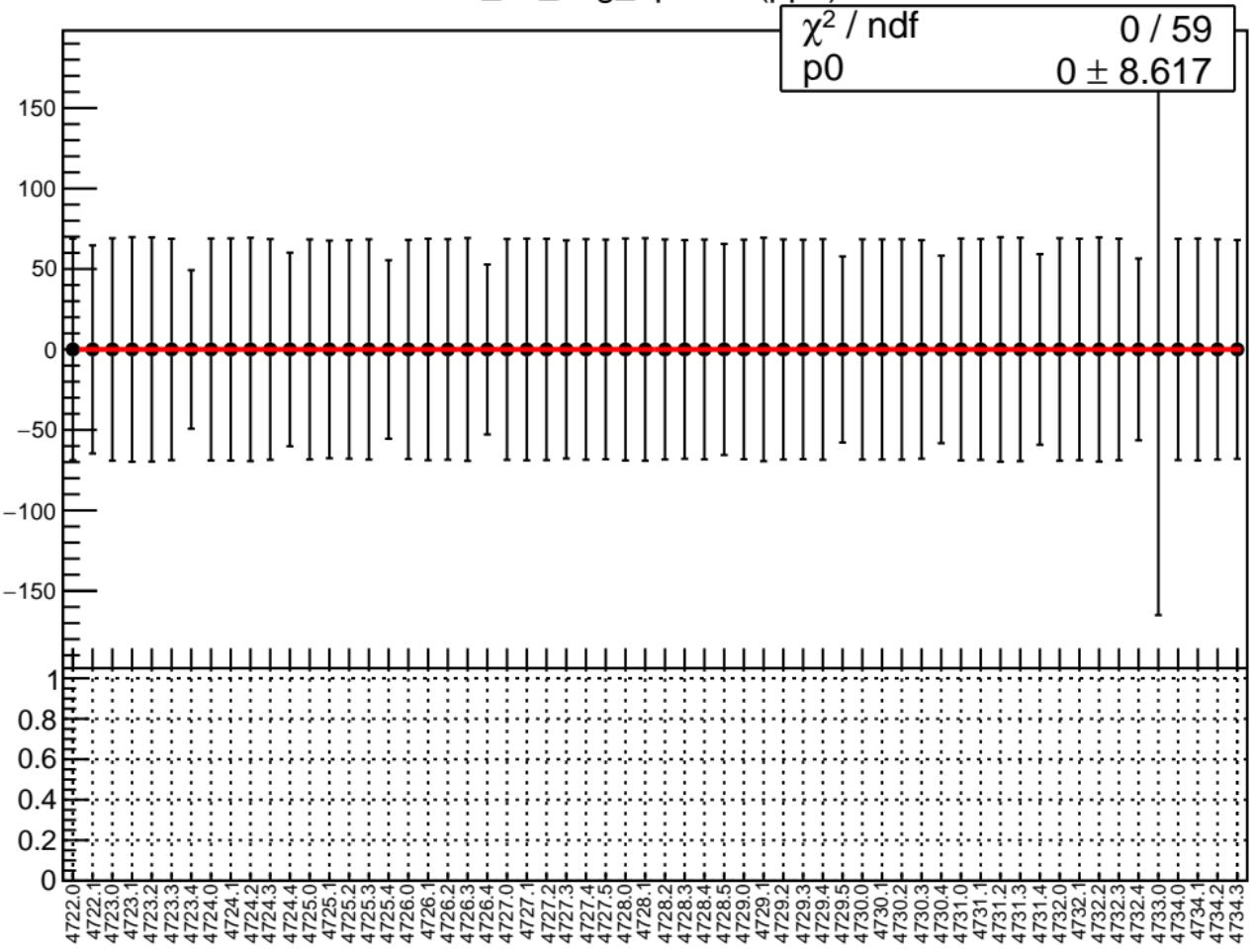


# corr\_us\_avg\_bpm11Y RMS (ppm)

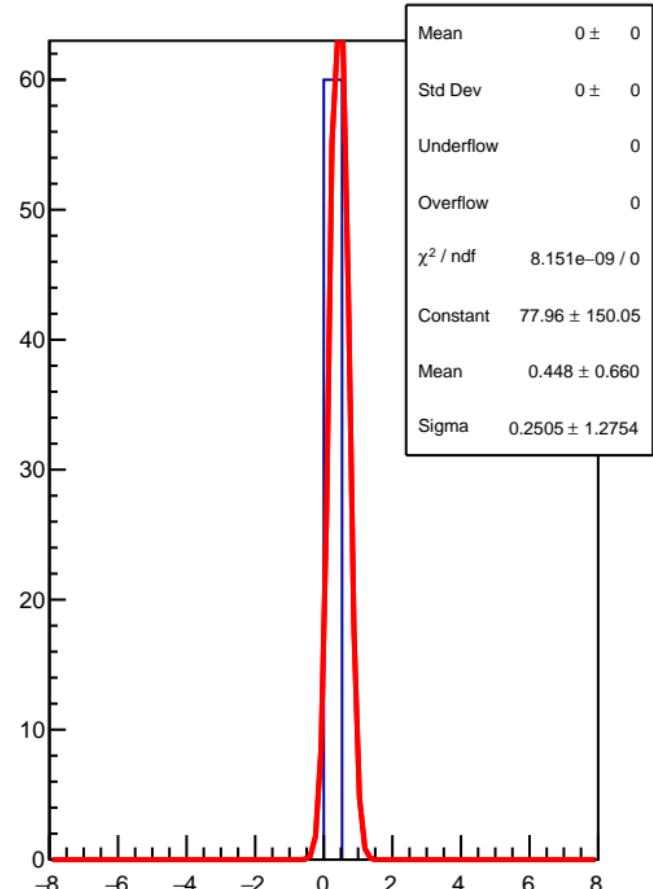
RMS (ppm)



corr\_us\_avg\_bpm8X (ppb)

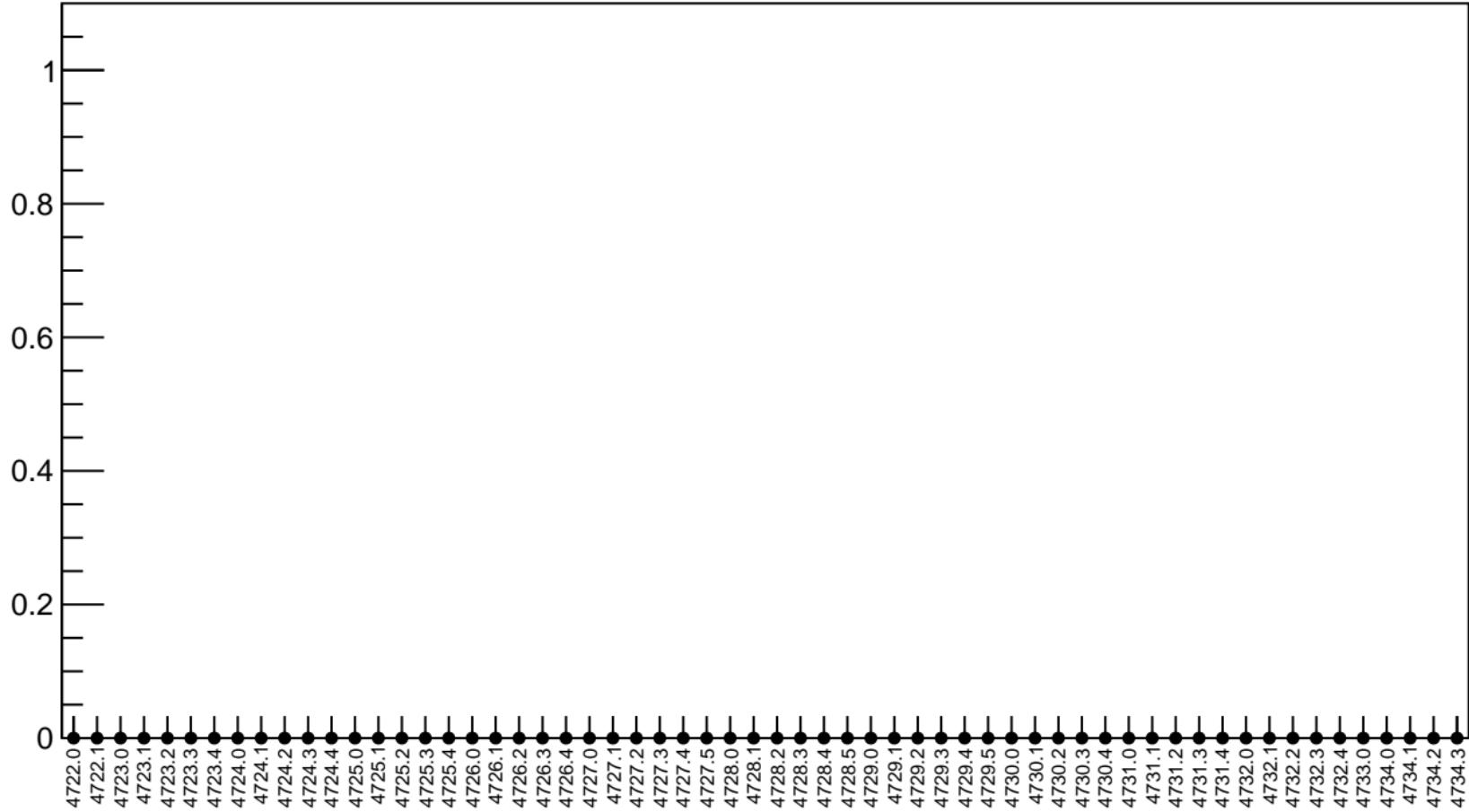


1D pull distribution

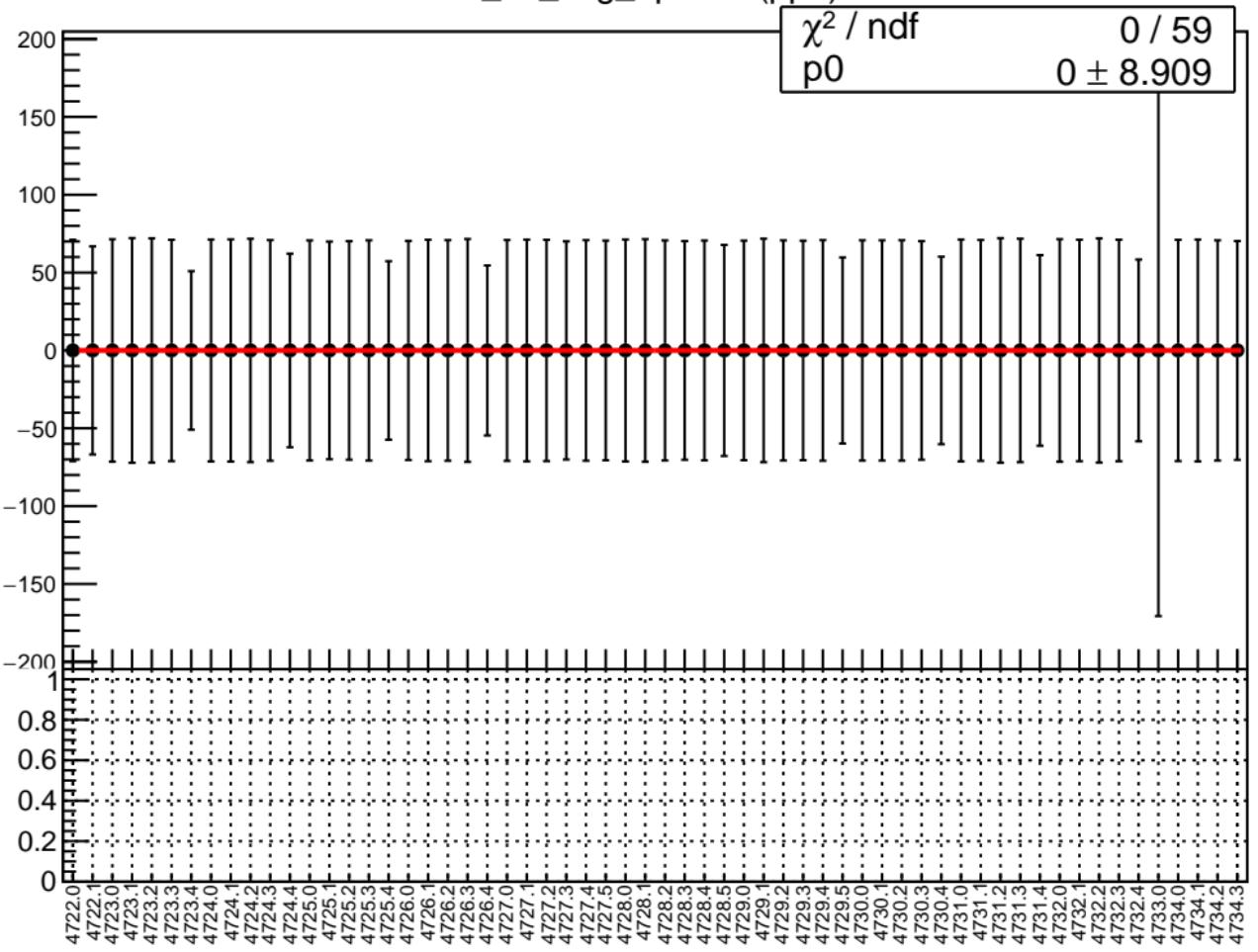


# corr\_us\_avg\_bpm8X RMS (ppm)

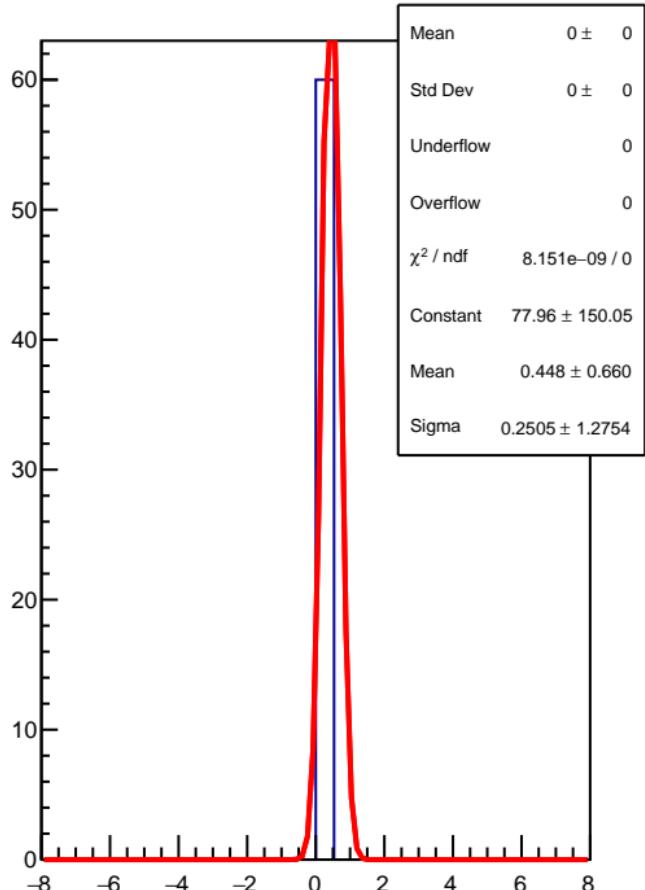
RMS (ppm)



corr\_us\_avg\_bpm8Y (ppb)

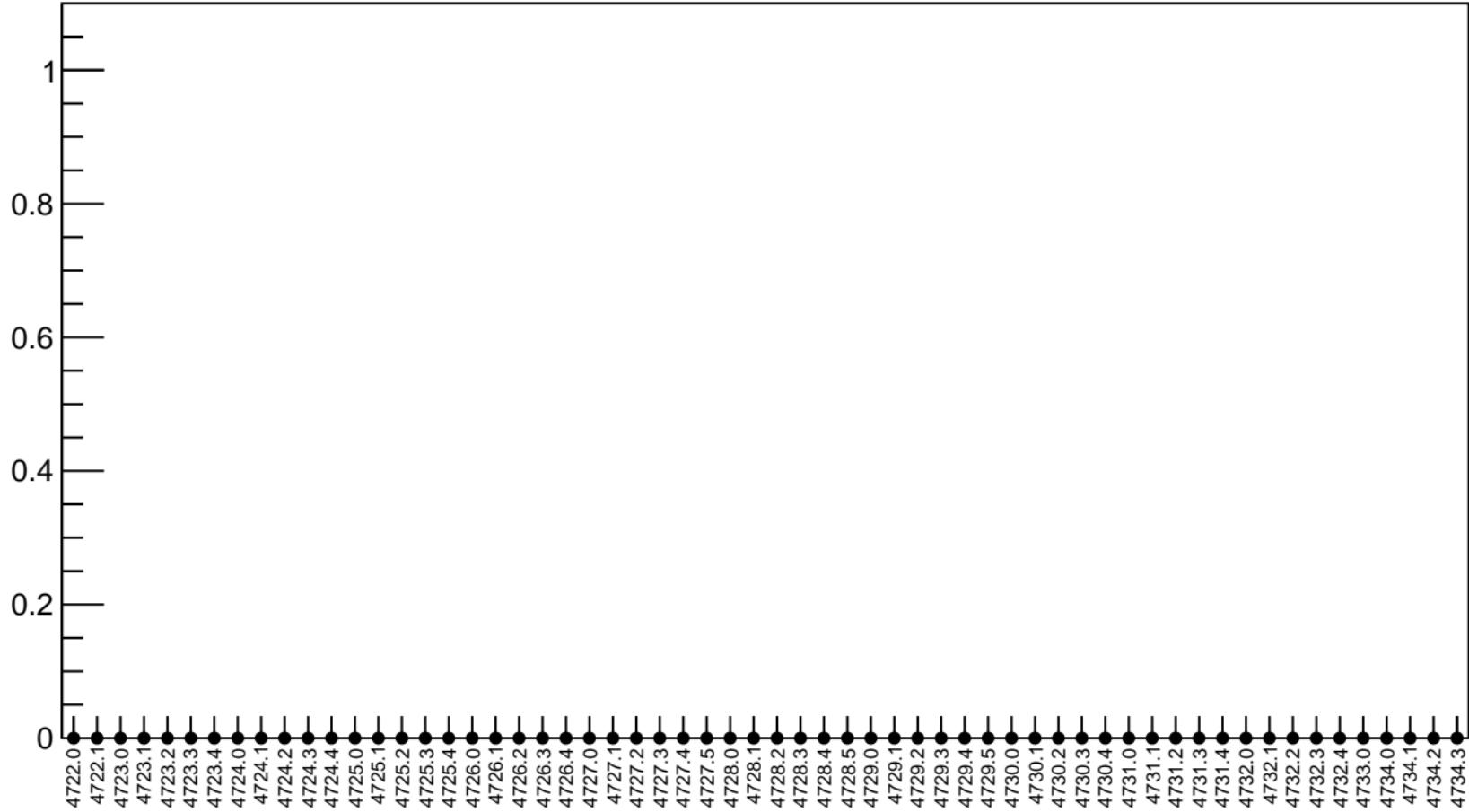


1D pull distribution



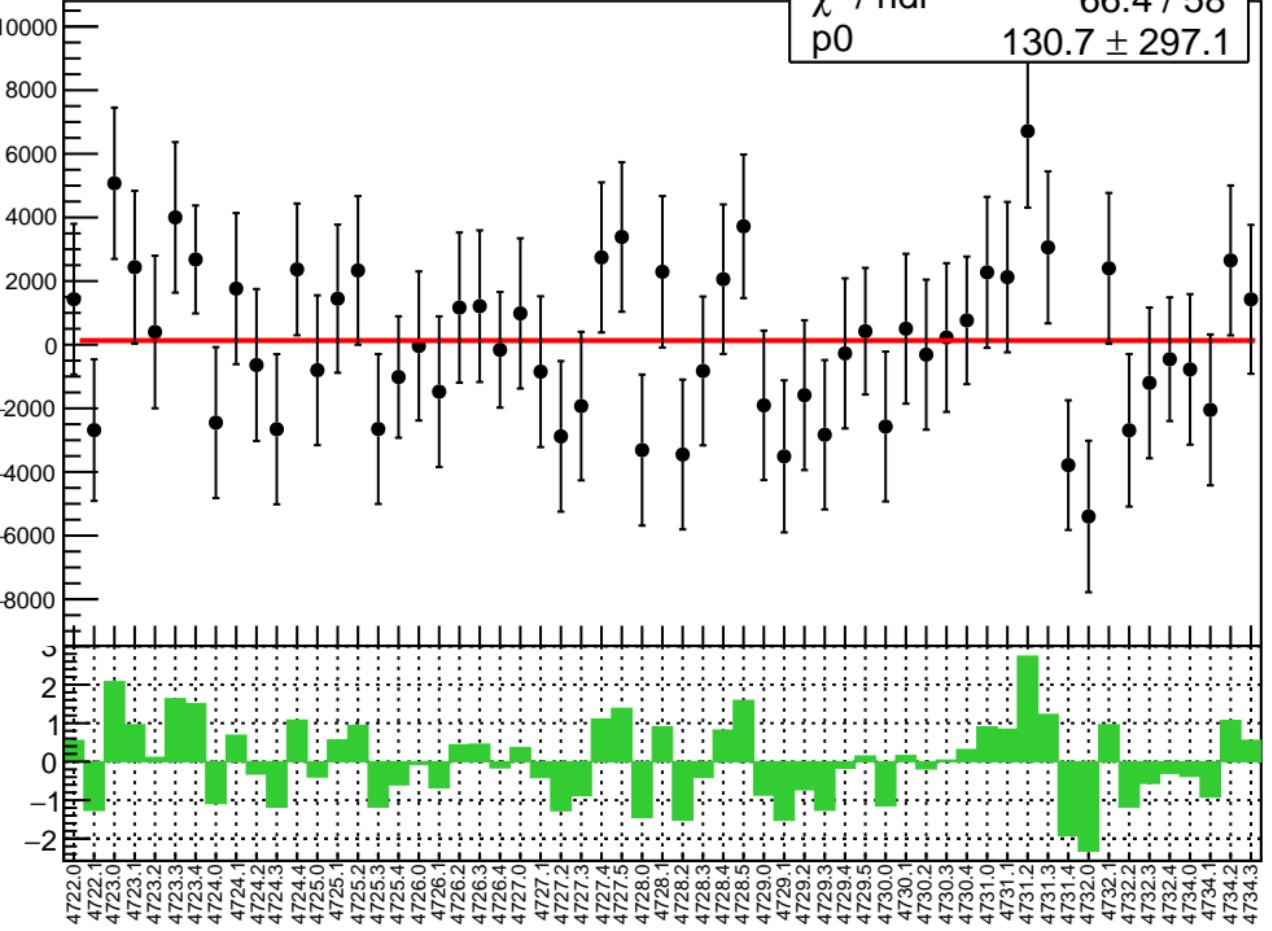
# corr\_us\_avg\_bpm8Y RMS (ppm)

RMS (ppm)

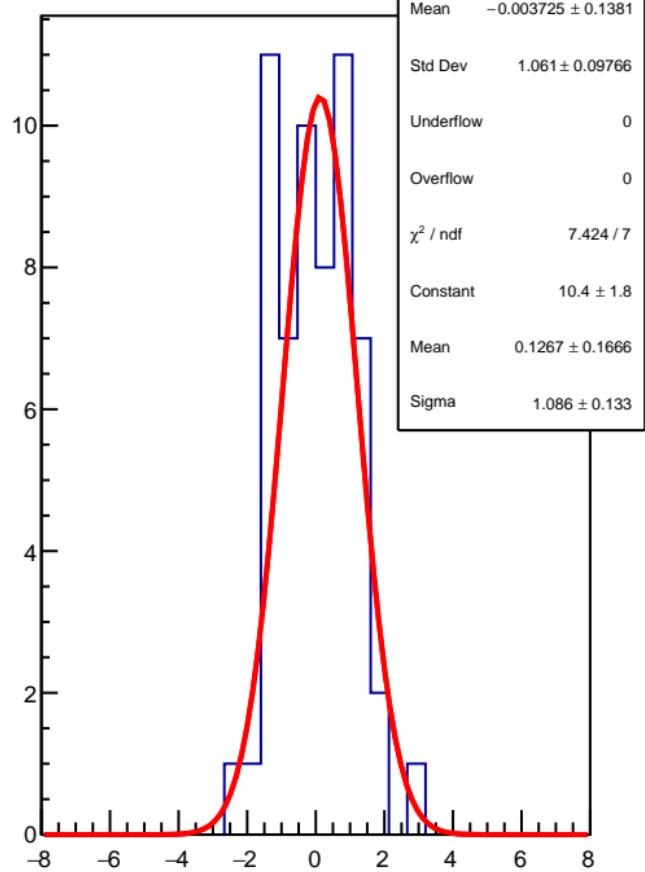


corr\_us\_dd\_bpm4eX (ppb)

$\chi^2 / \text{ndf}$  66.4 / 58  
p0  $130.7 \pm 297.1$

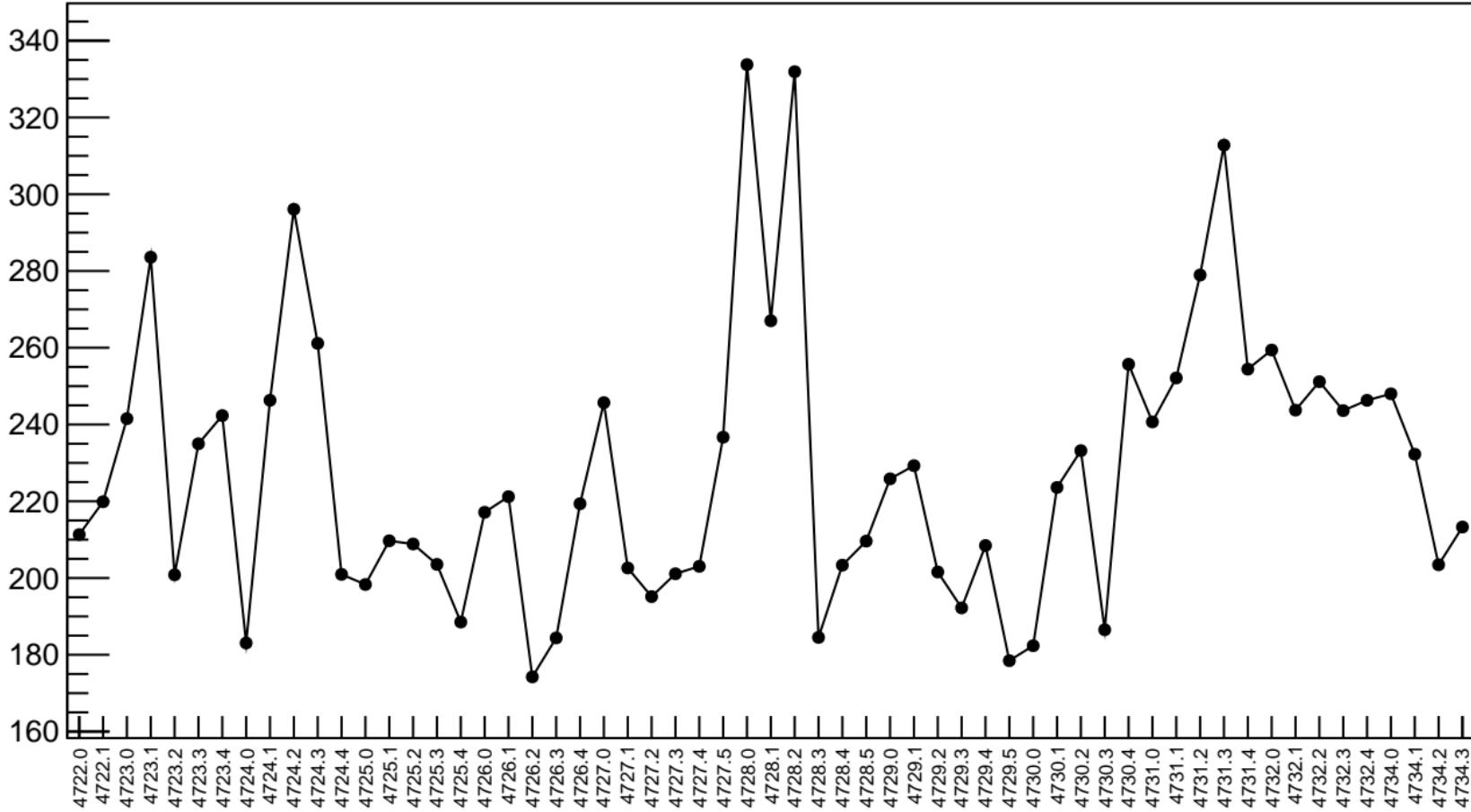


1D pull distribution

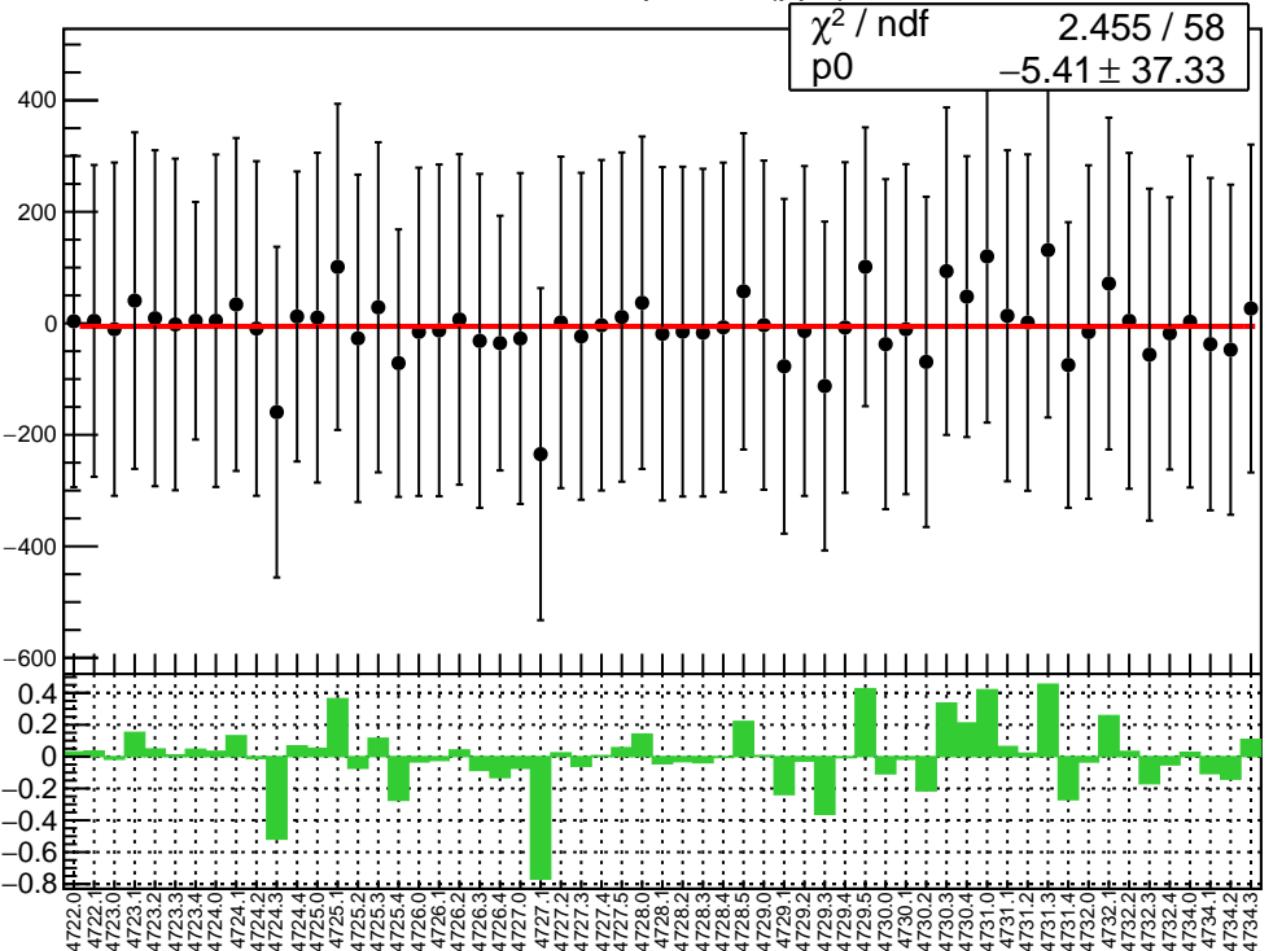


# corr\_us\_dd\_bpm4eX RMS (ppm)

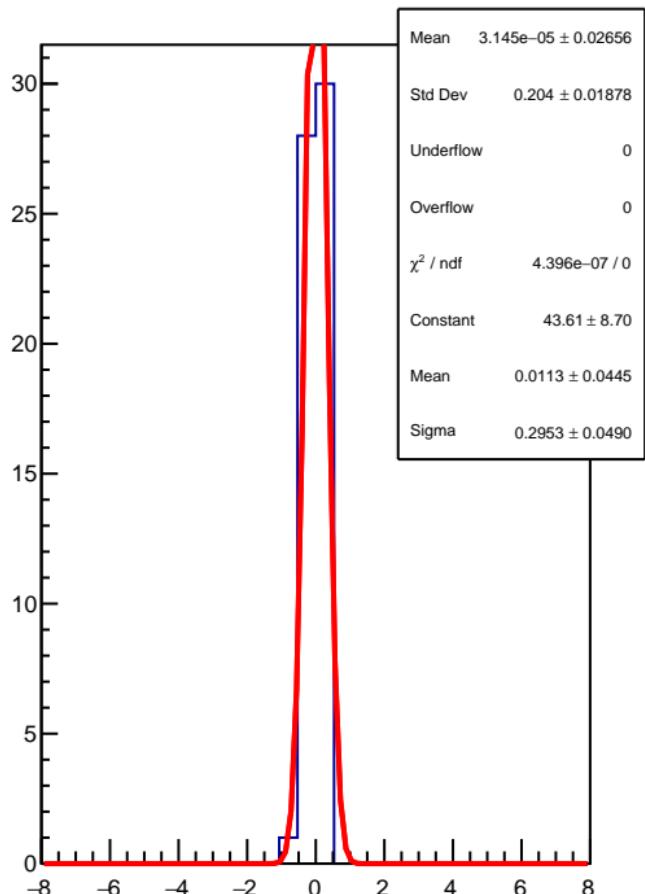
RMS (ppm)



corr\_us\_dd\_bpm4eY (ppb)



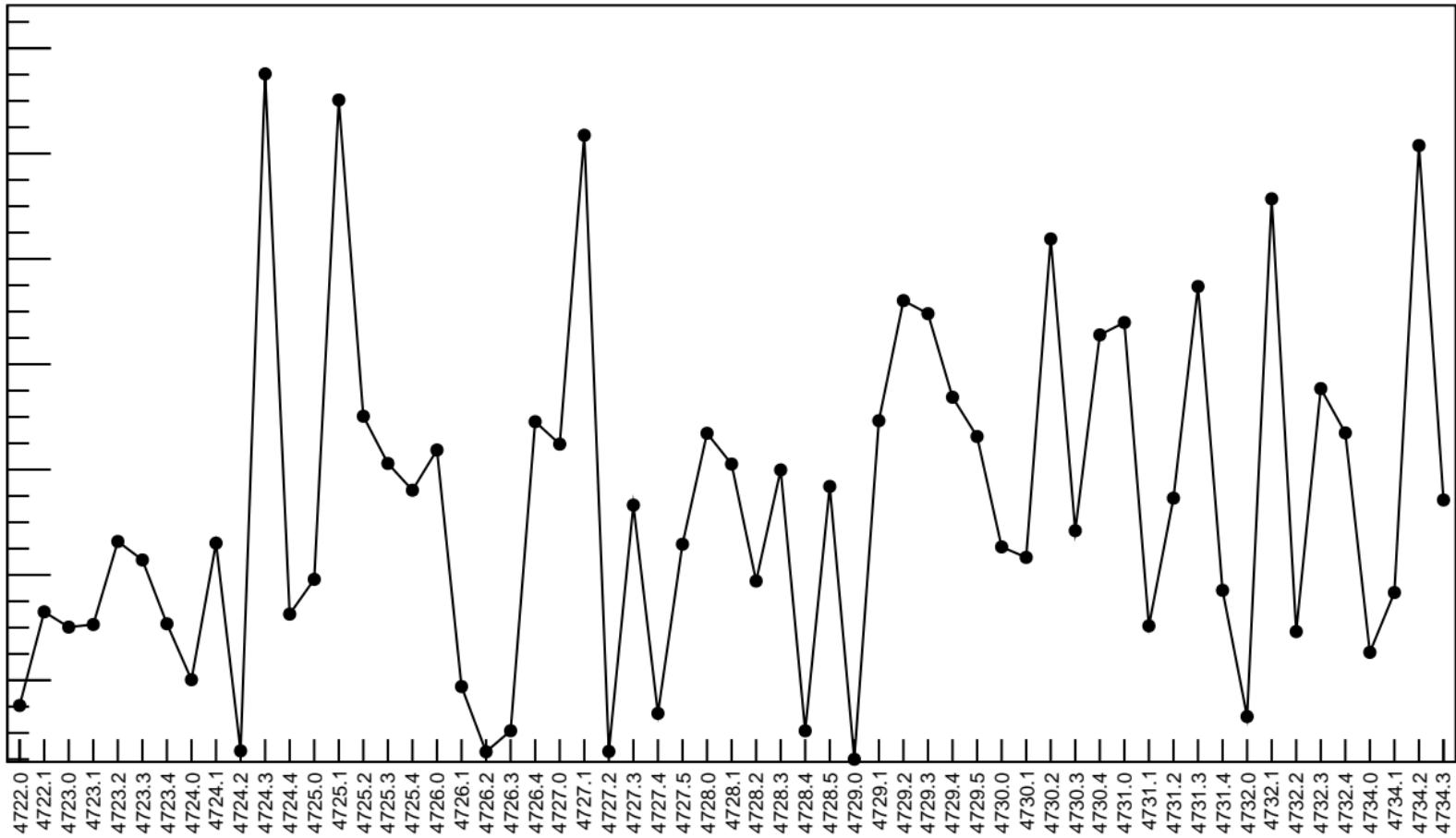
1D pull distribution



# corr\_us\_dd\_bpm4eY RMS (ppm)

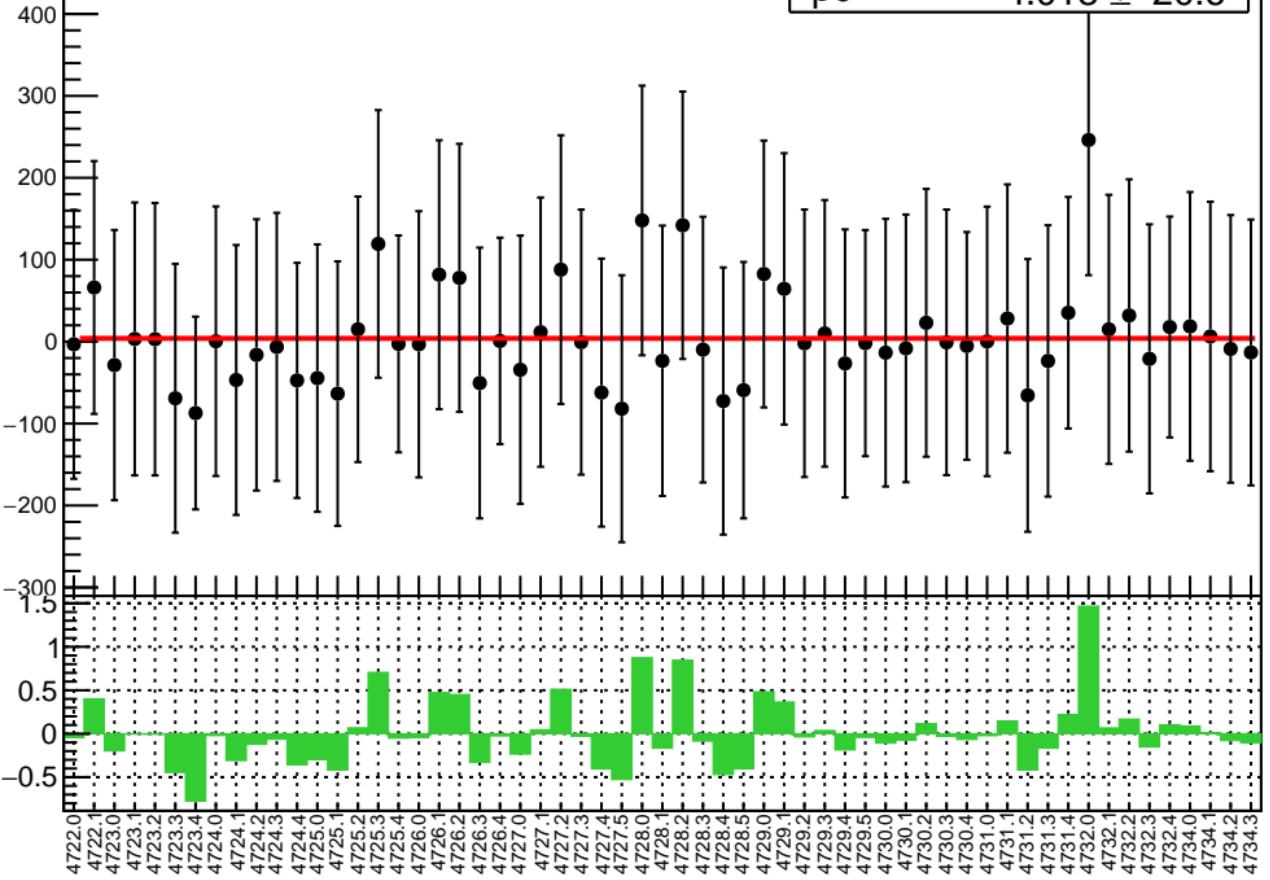
RMS (ppm)

14  
12  
10  
8  
6  
4  
2

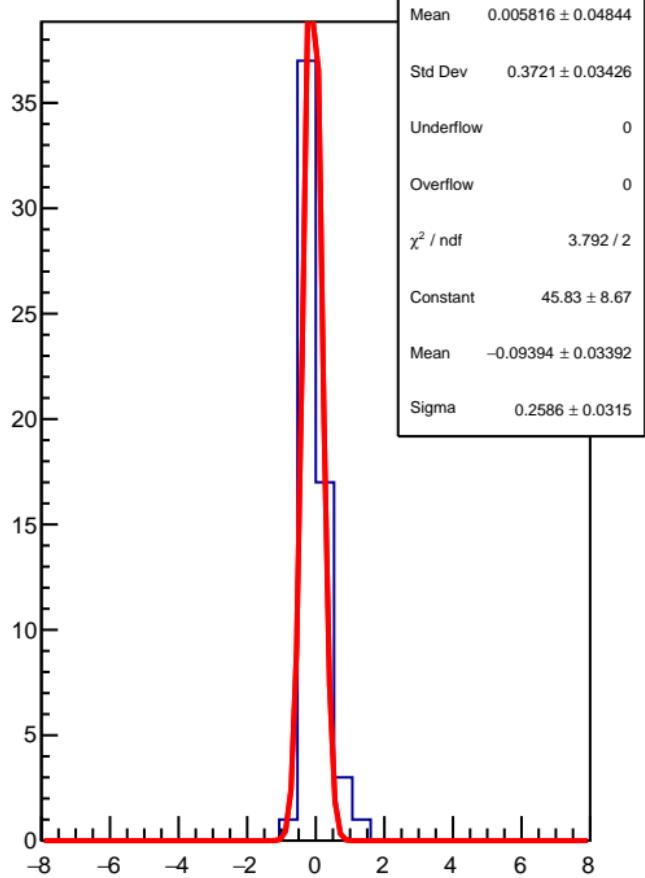


corr\_us\_dd\_bpm4aX (ppb)

$\chi^2 / \text{ndf}$  8.171 / 58  
 $p_0$   $4.018 \pm 20.6$

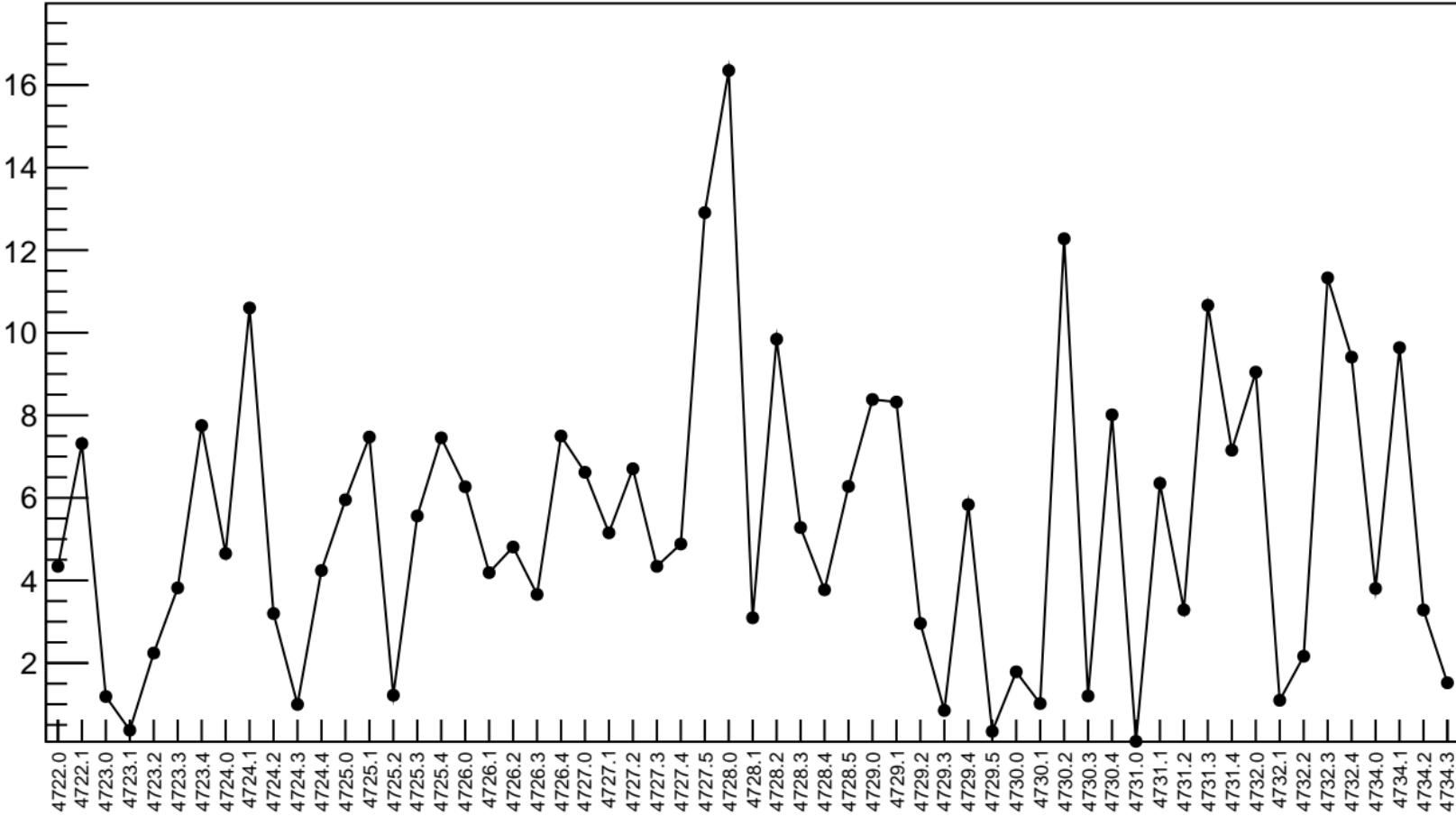


1D pull distribution



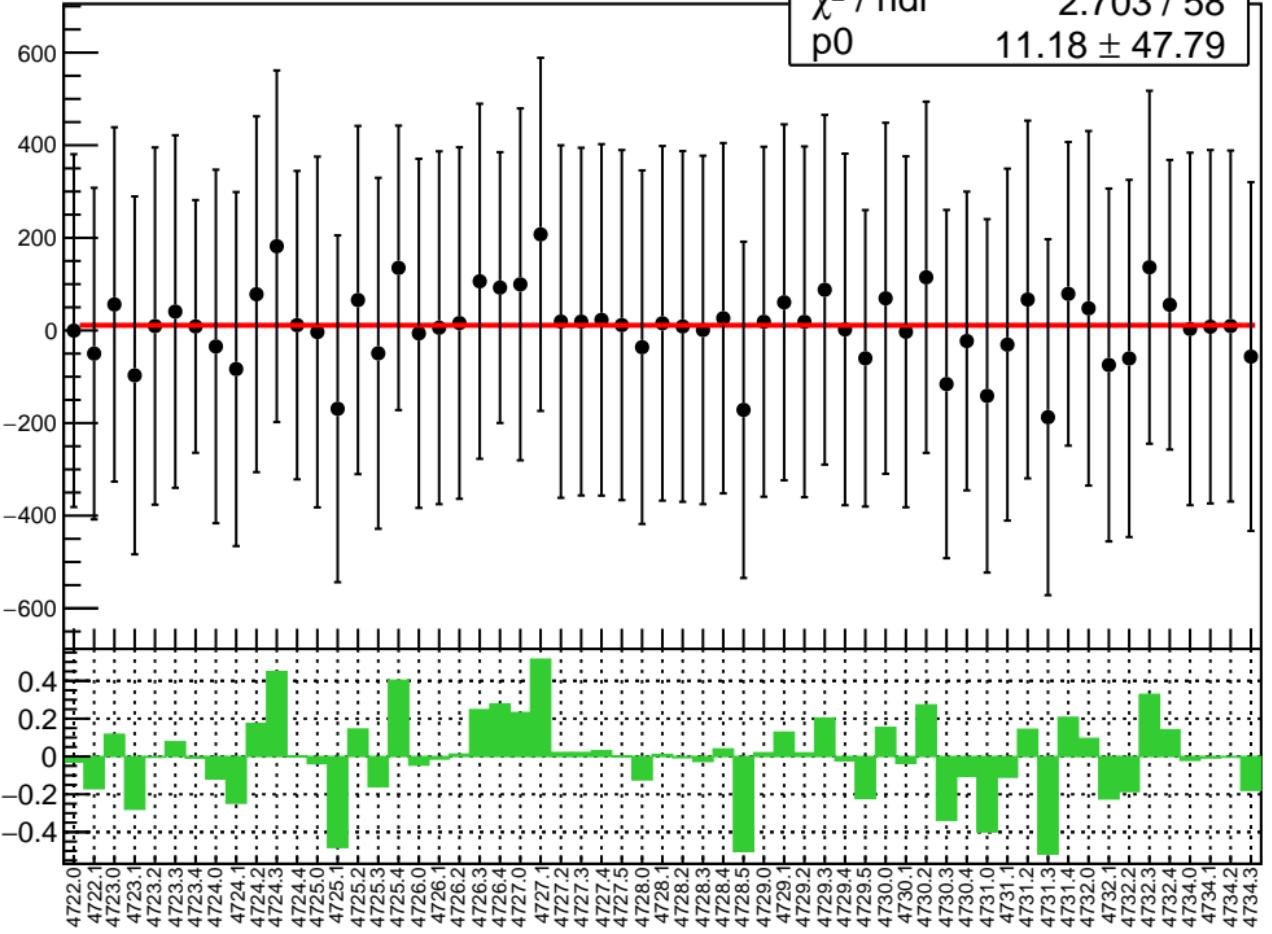
# corr\_us\_dd\_bpm4aX RMS (ppm)

RMS (ppm)

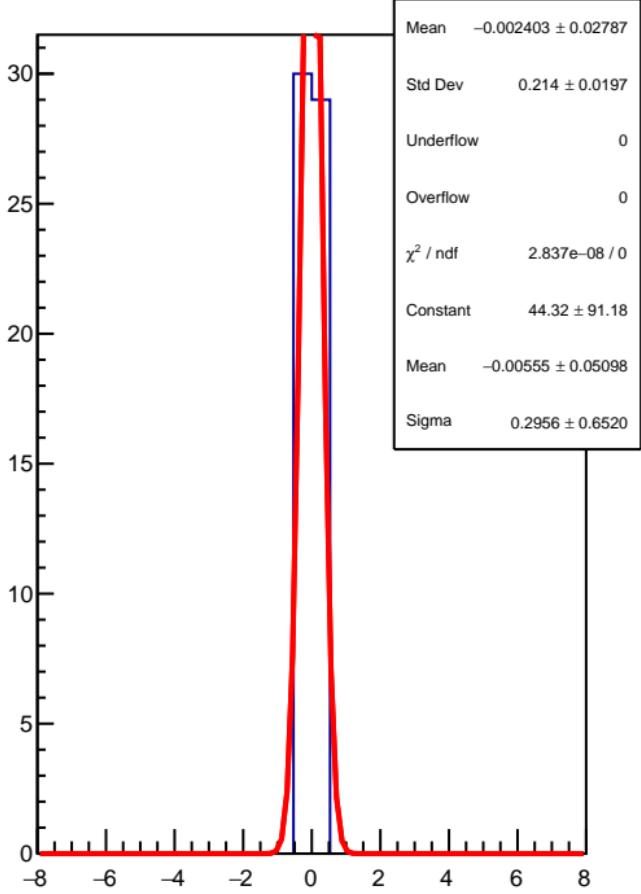


corr\_us\_dd\_bpm4aY (ppb)

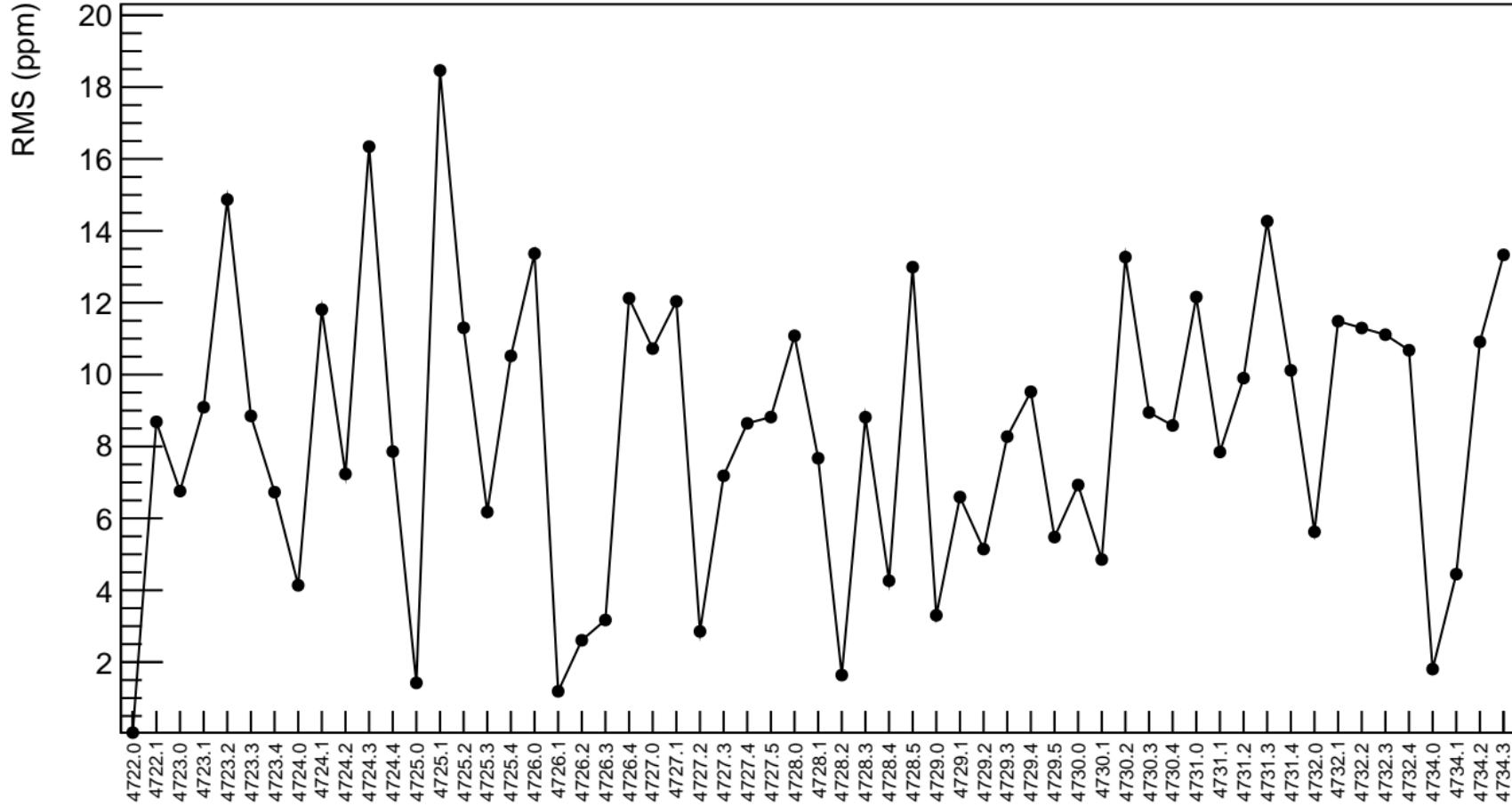
$\chi^2 / \text{ndf}$  2.703 / 58  
 $p_0$   $11.18 \pm 47.79$



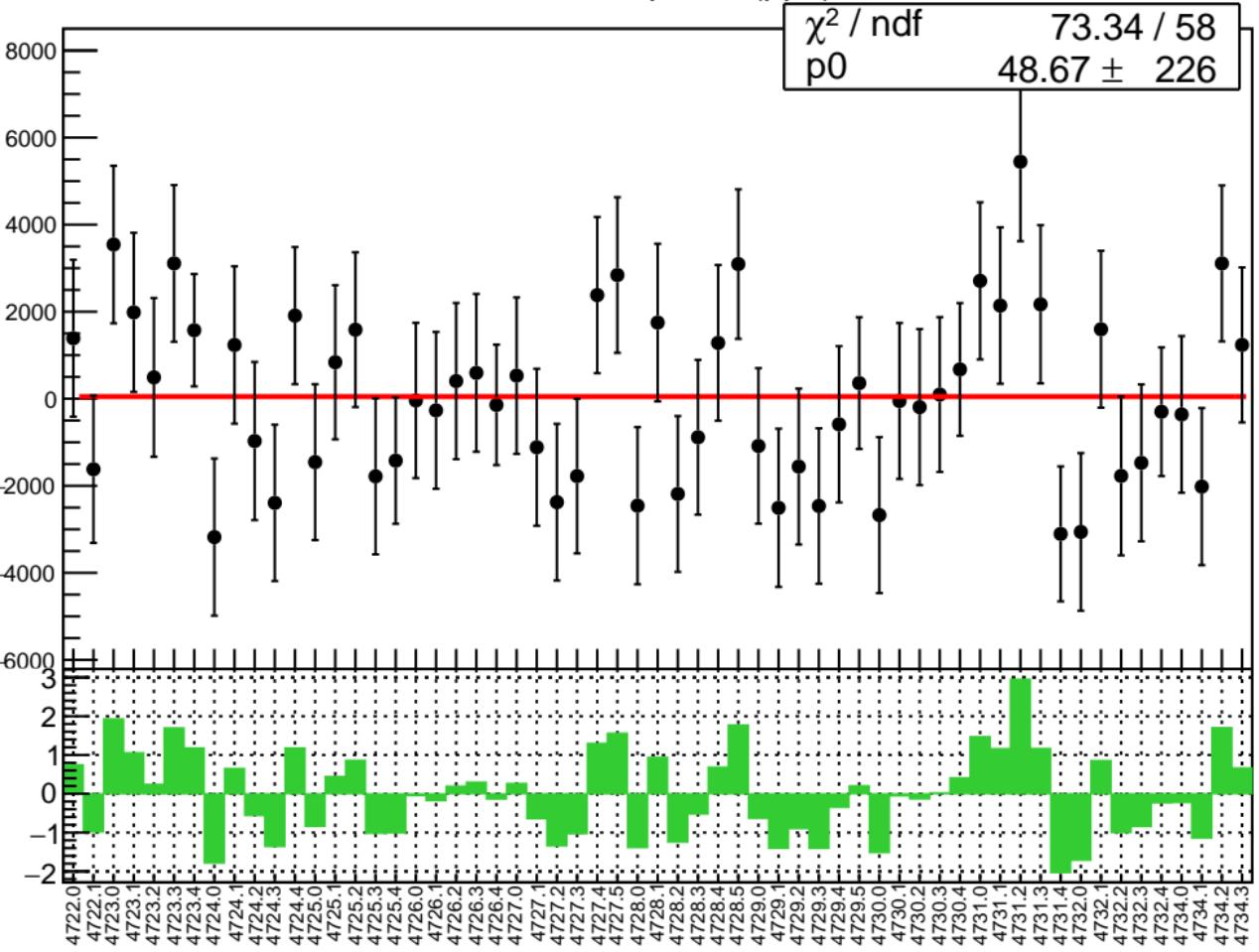
1D pull distribution



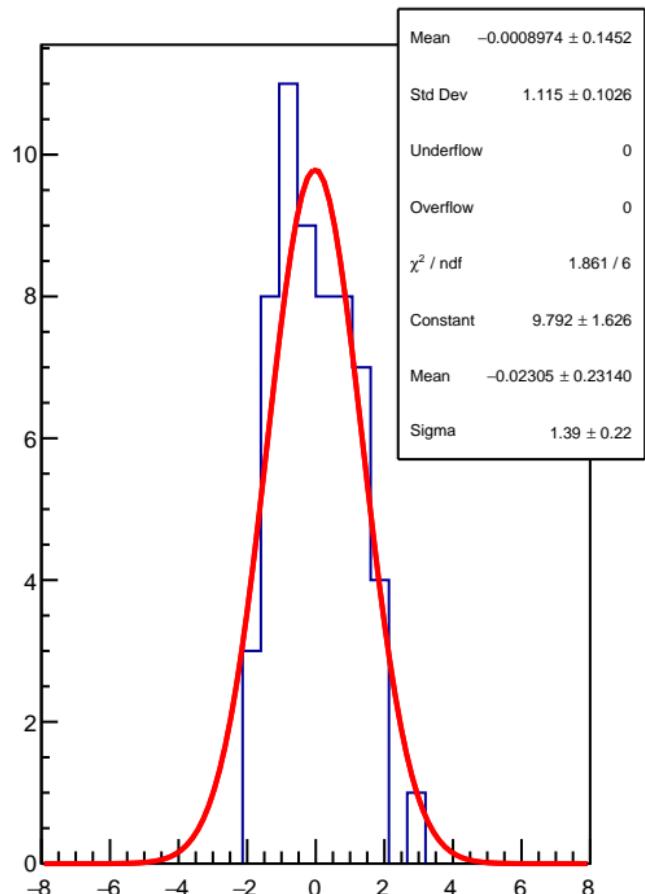
# corr\_us\_dd\_bpm4aY RMS (ppm)



corr\_us\_dd\_bpm1X (ppb)

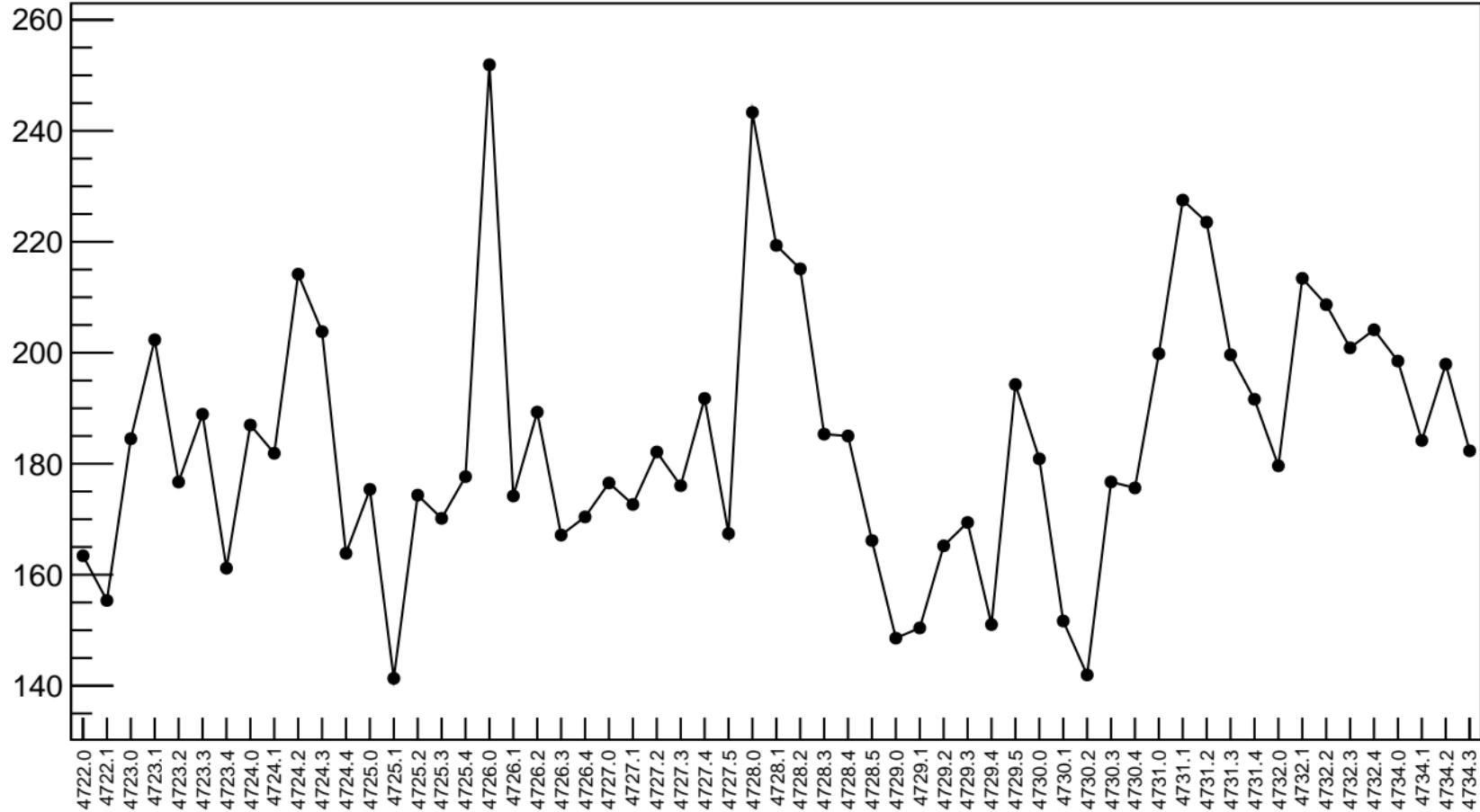


1D pull distribution



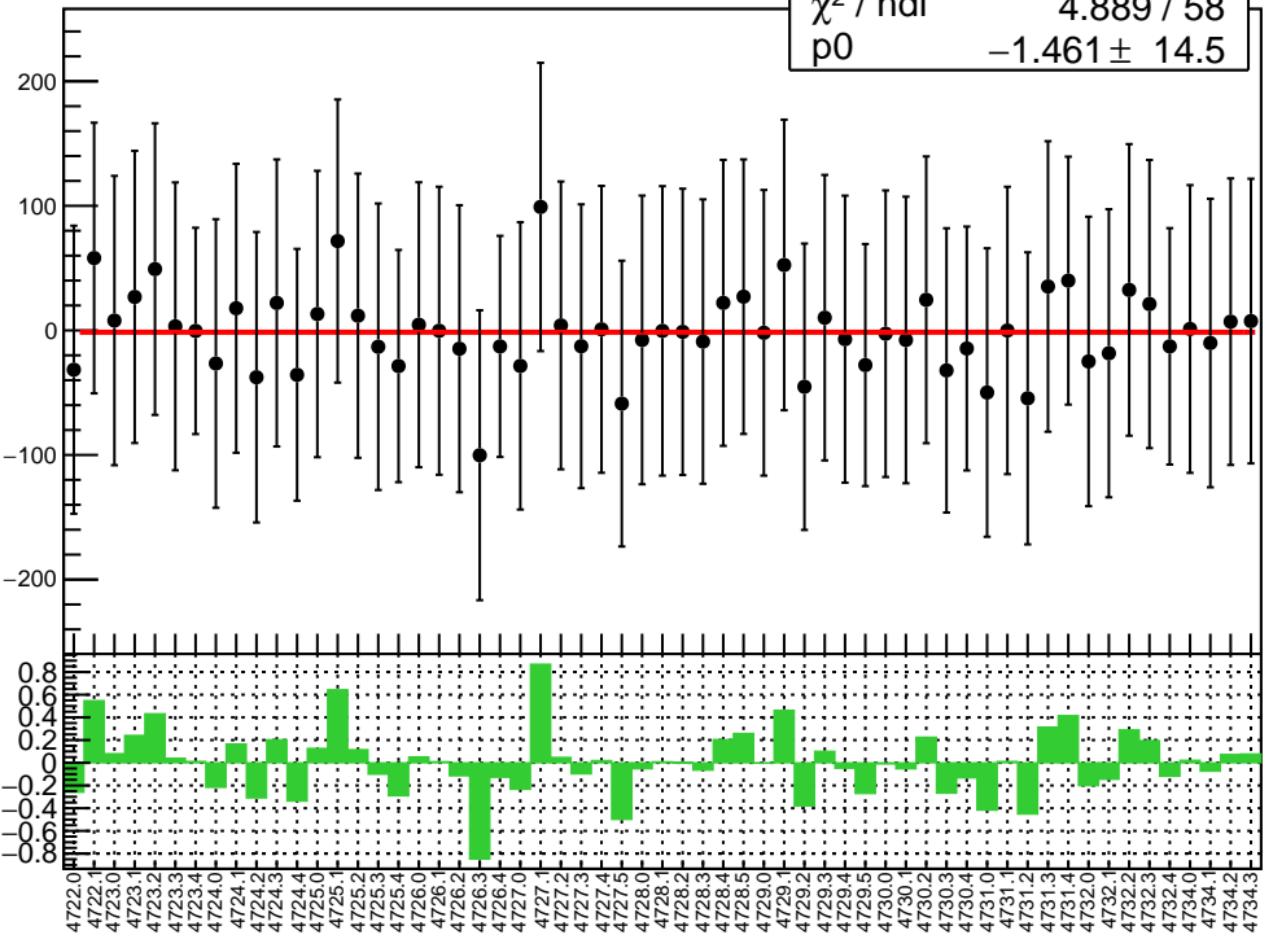
# corr\_us\_dd\_bpm1X RMS (ppm)

RMS (ppm)

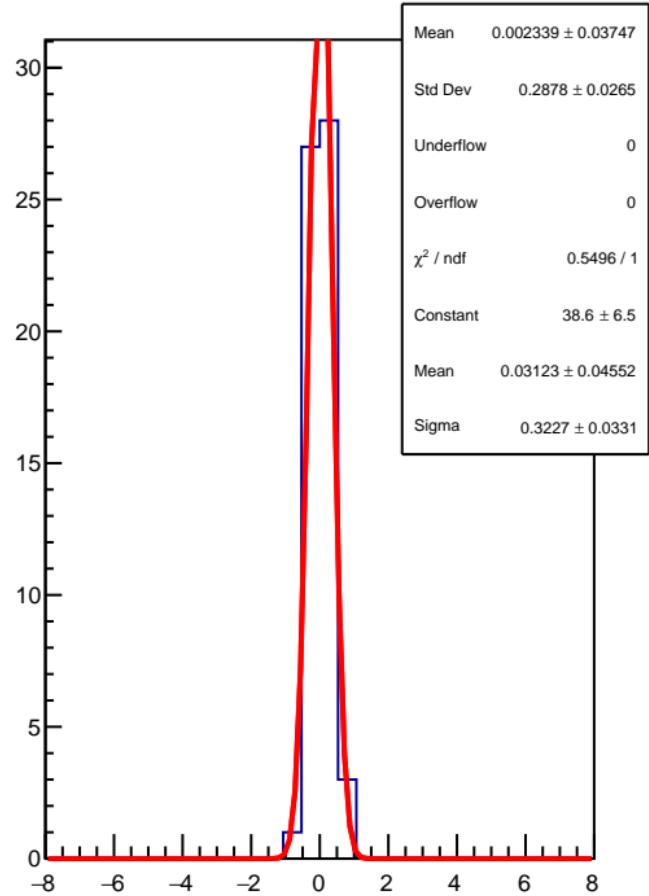


corr\_us\_dd\_bpm1Y (ppb)

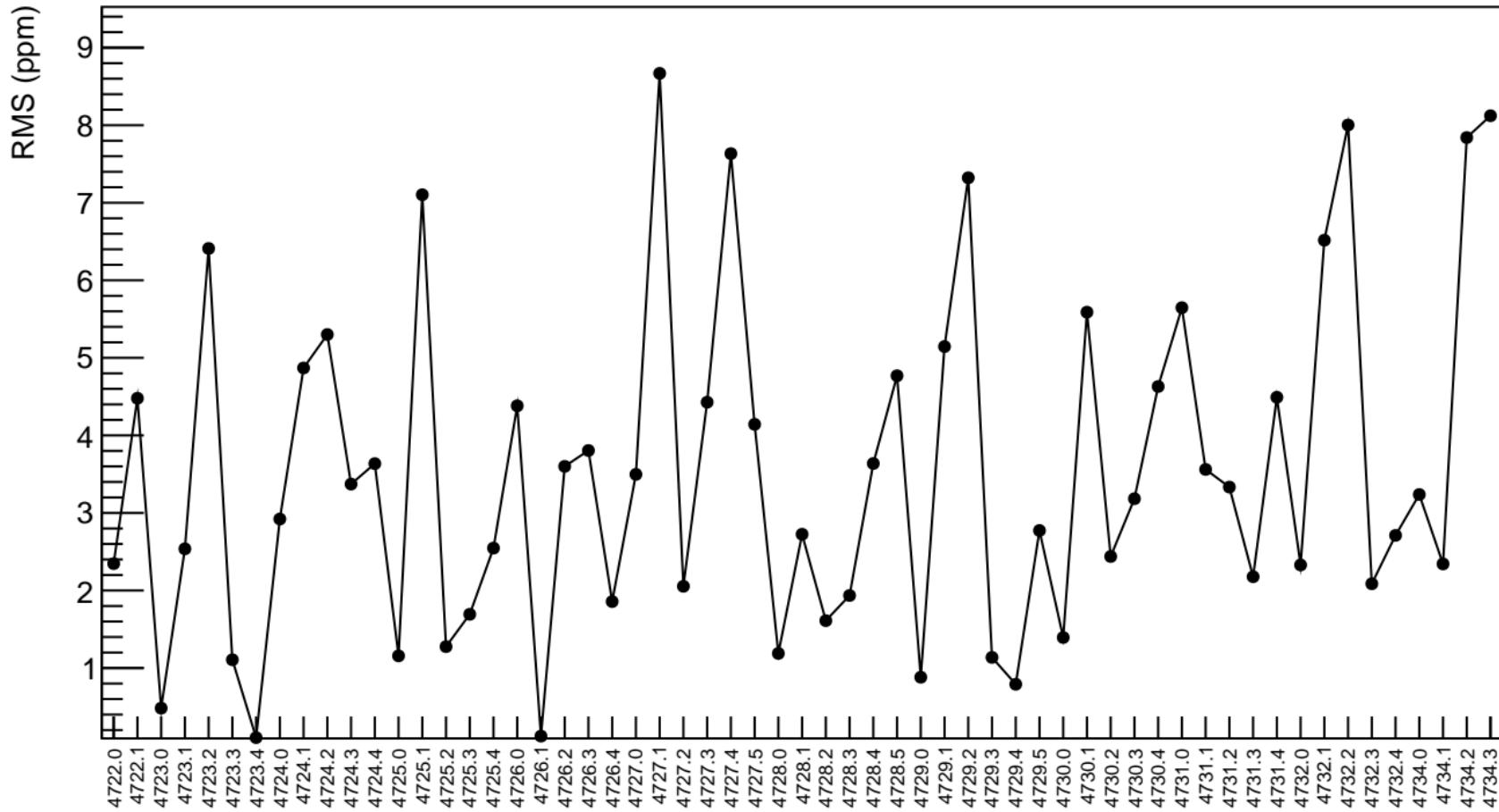
$\chi^2 / \text{ndf}$  4.889 / 58  
 $p_0$   $-1.461 \pm 14.5$



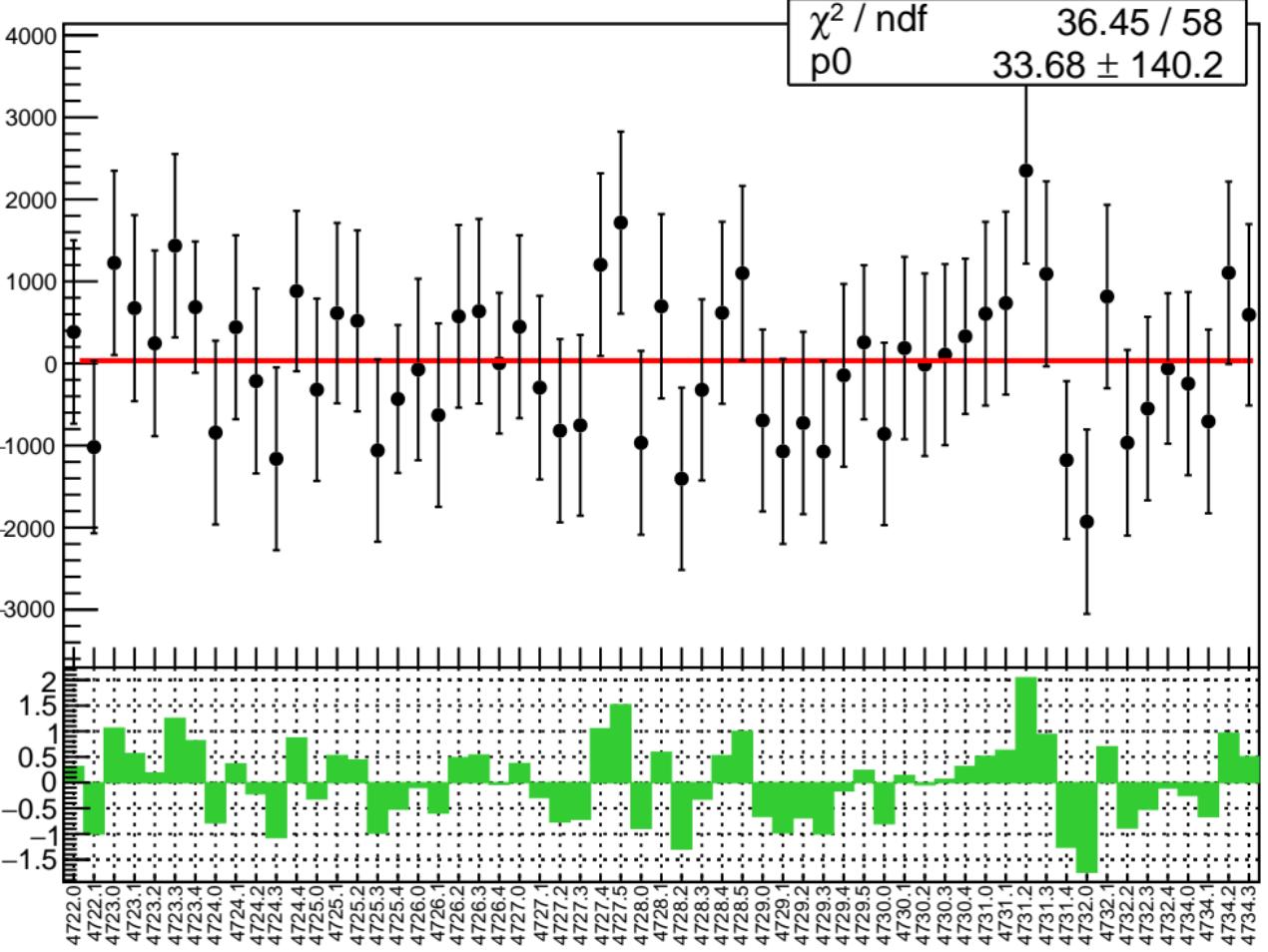
1D pull distribution



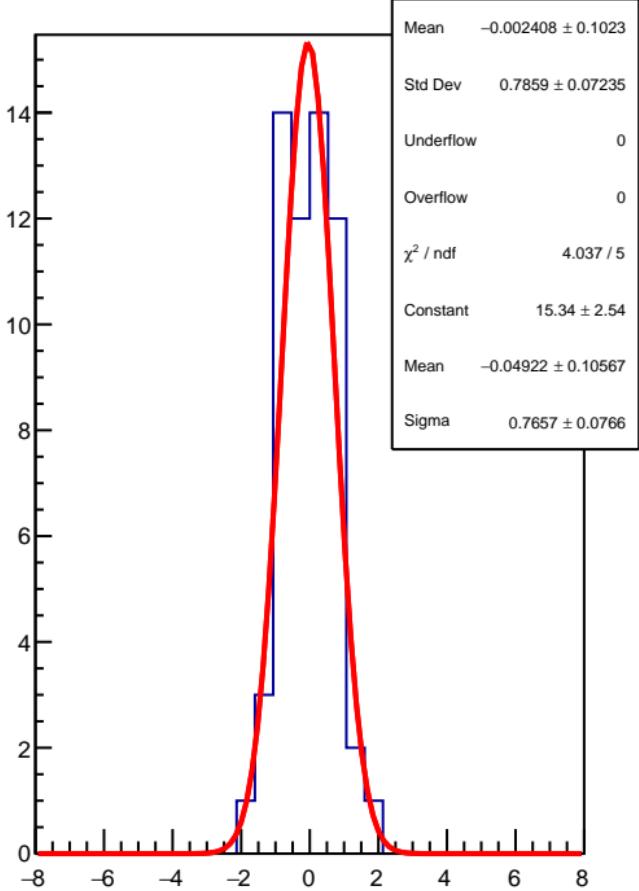
# corr\_us\_dd\_bpm1Y RMS (ppm)



corr\_us\_dd\_bpm16X (ppb)

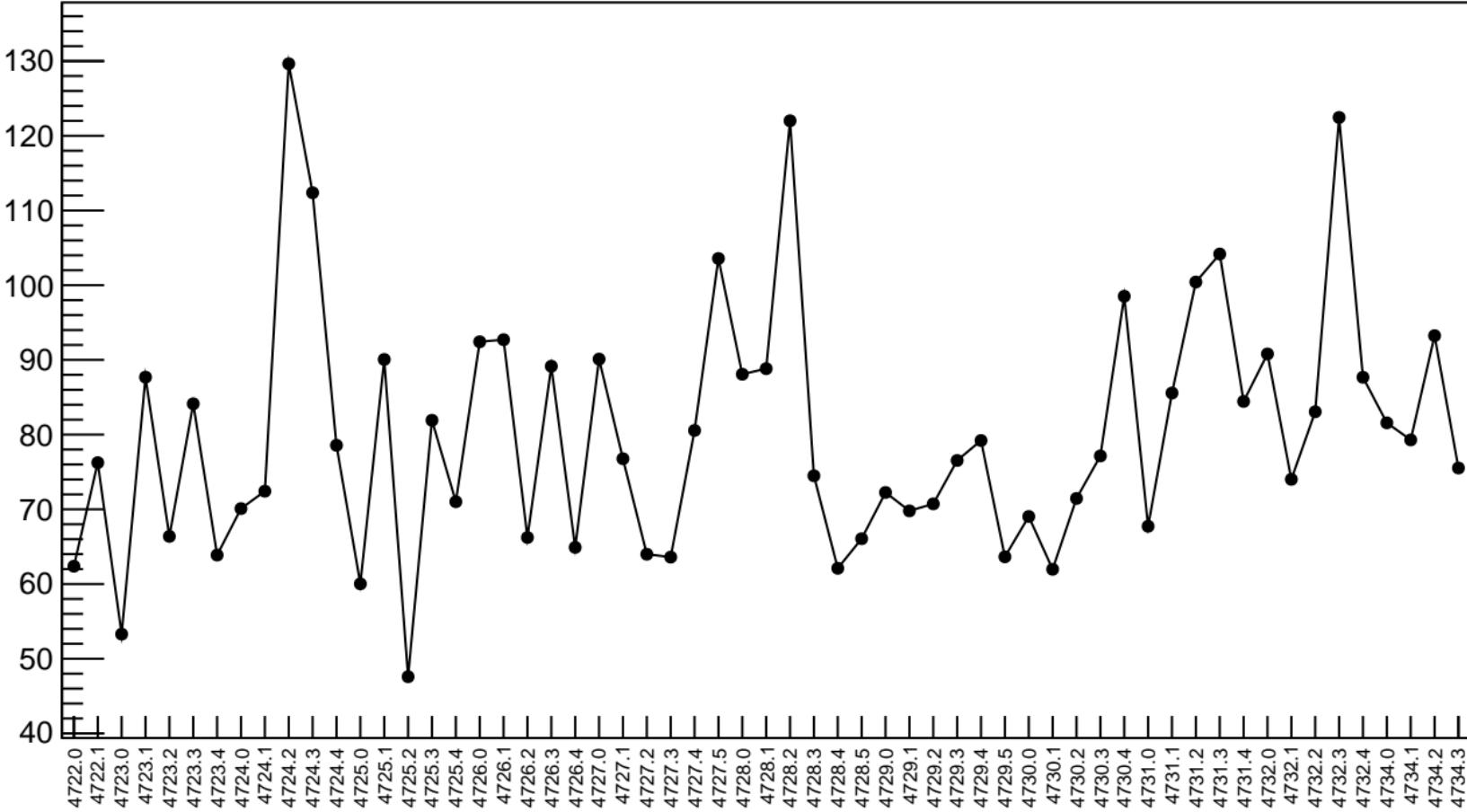


1D pull distribution



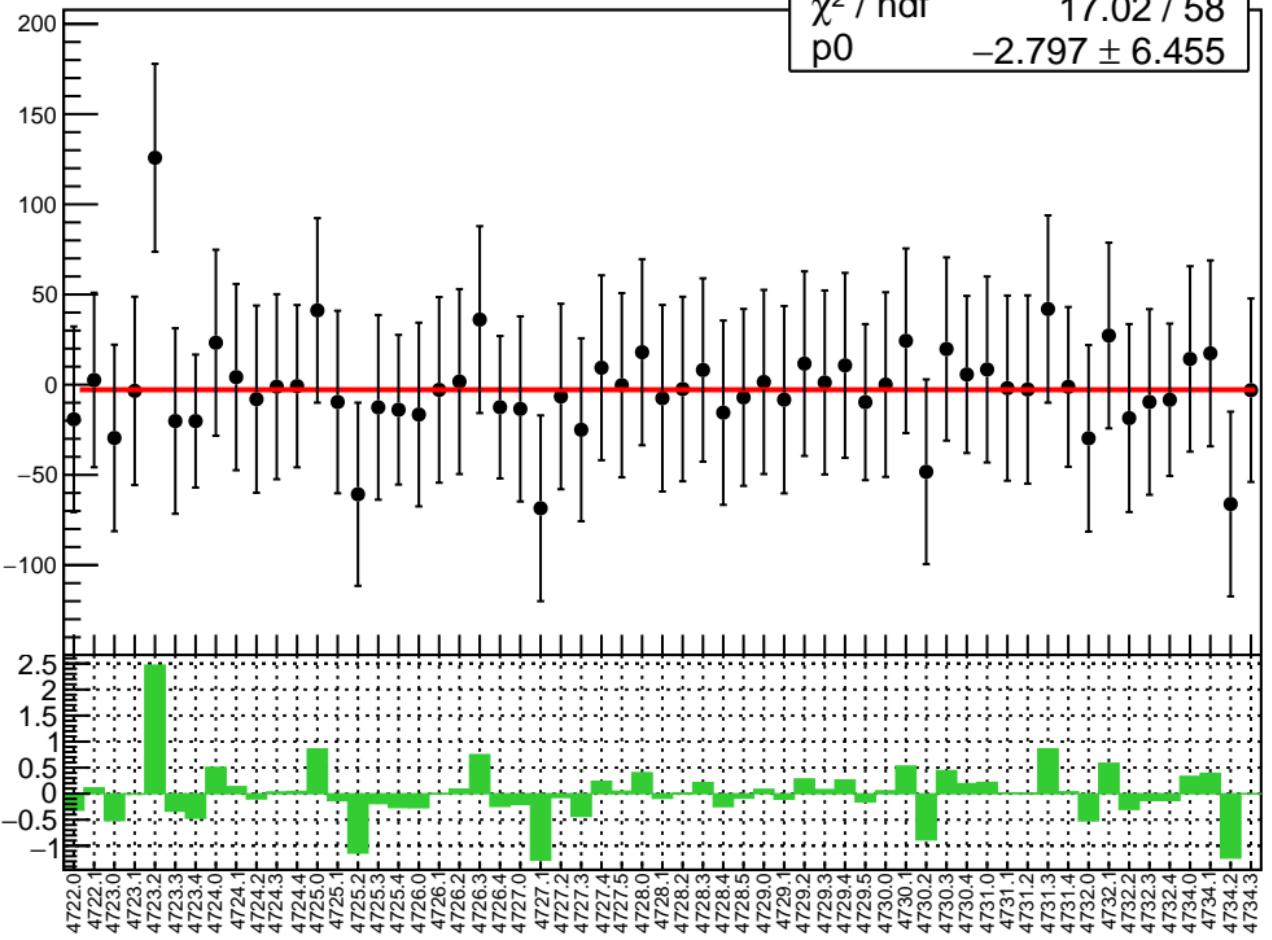
# corr\_us\_dd\_bpm16X RMS (ppm)

RMS (ppm)

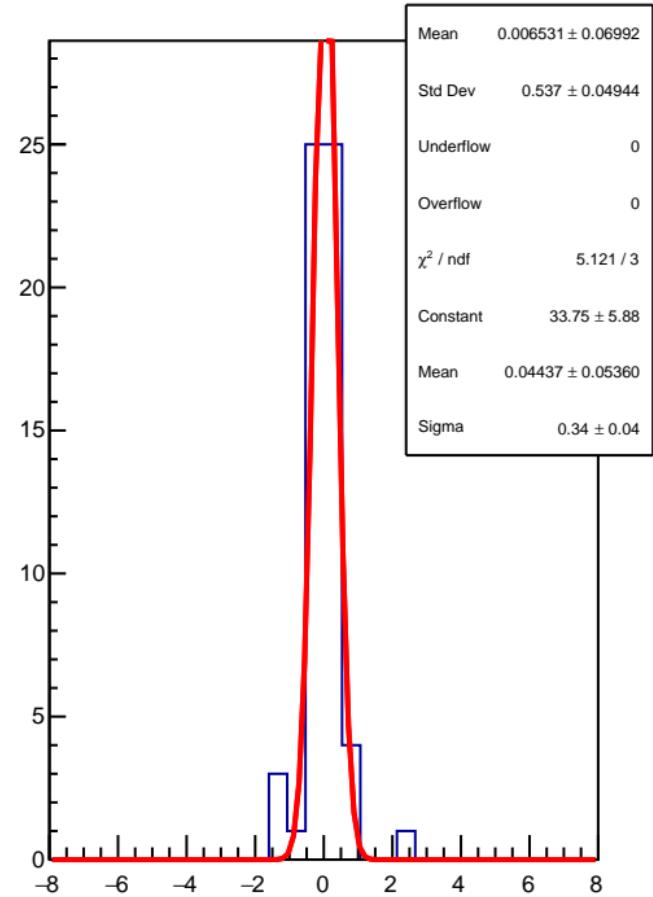


corr\_us\_dd\_bpm16Y (ppb)

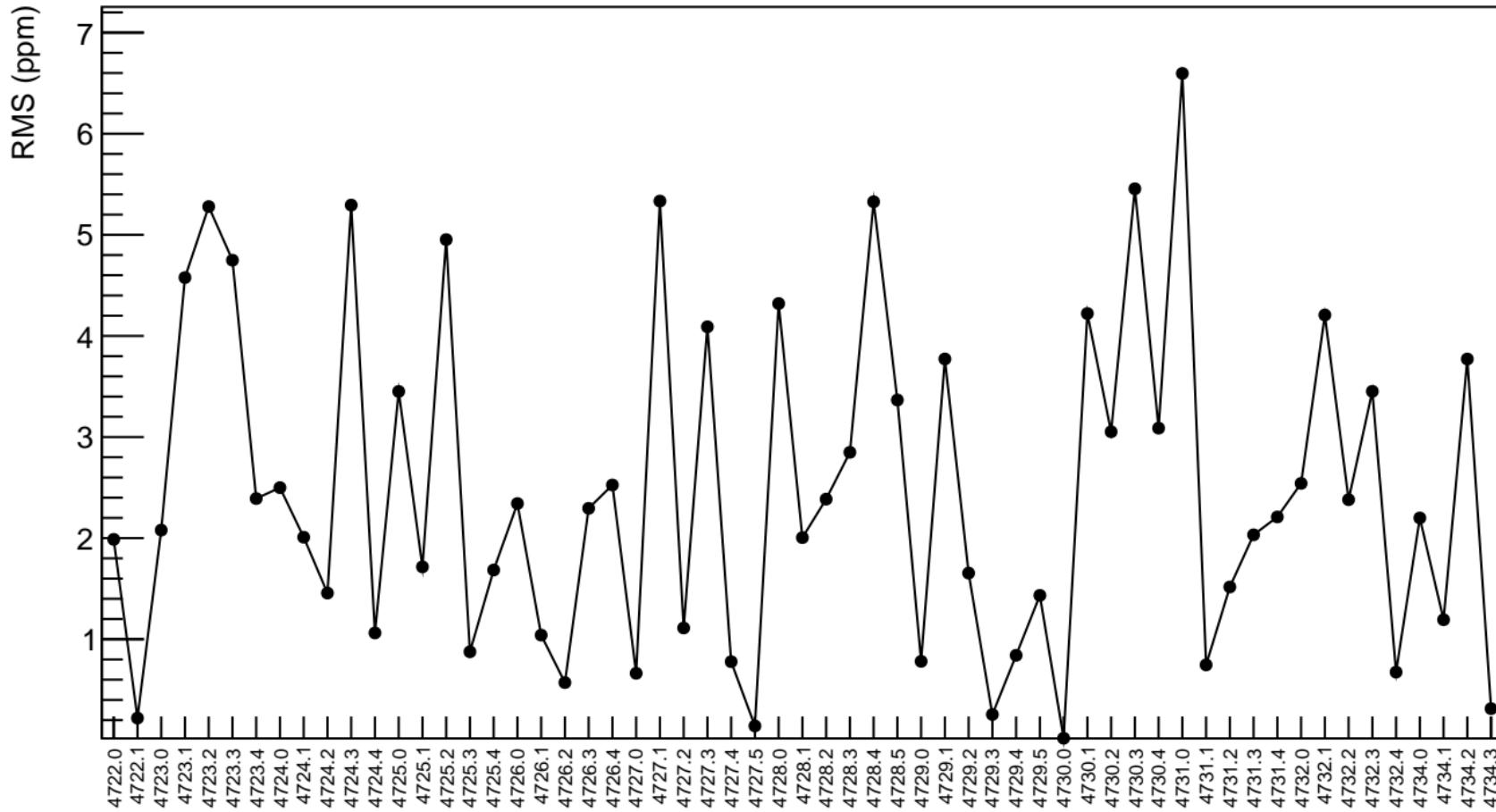
$\chi^2 / \text{ndf}$  17.02 / 58  
p0  $-2.797 \pm 6.455$



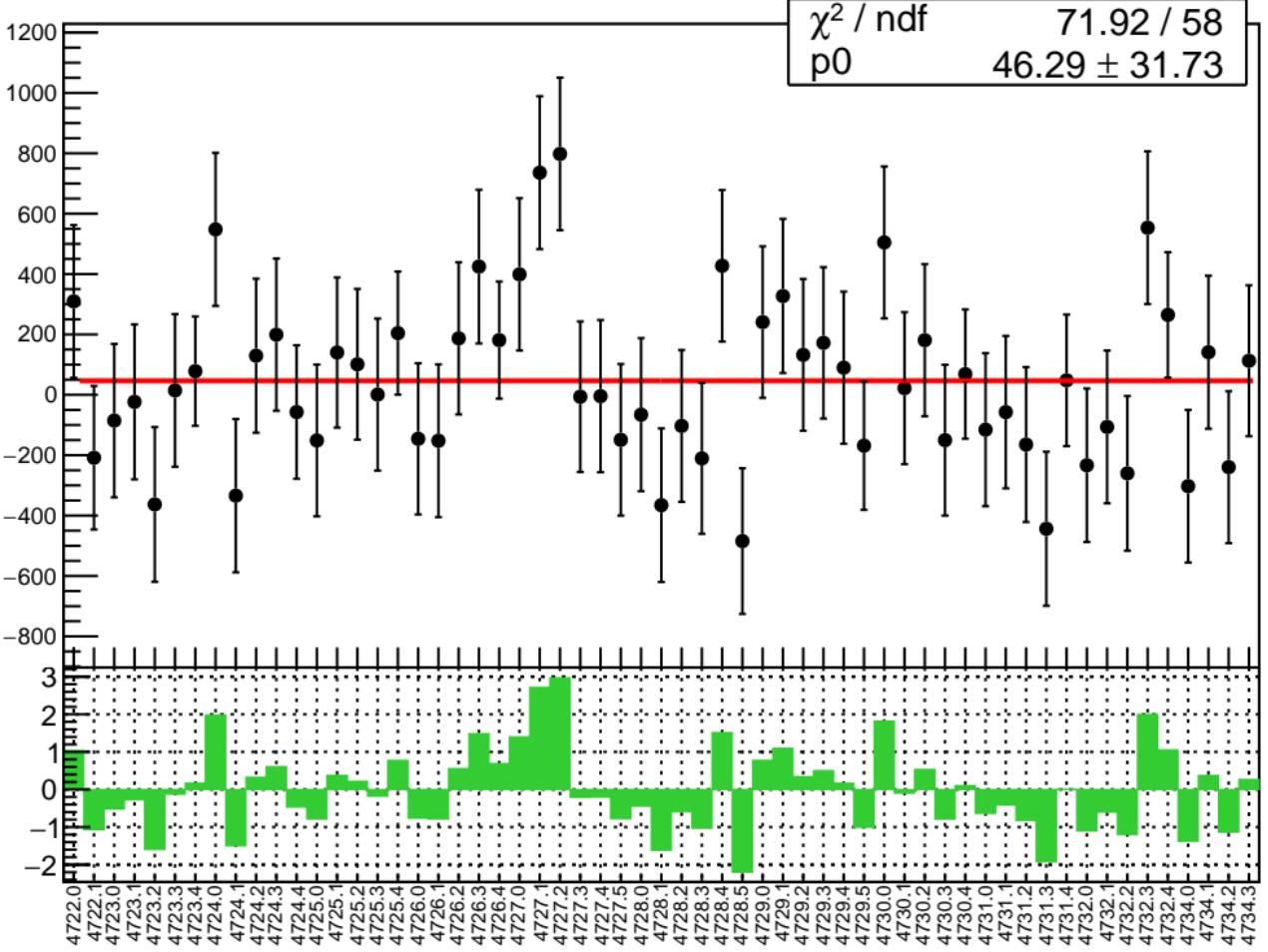
1D pull distribution



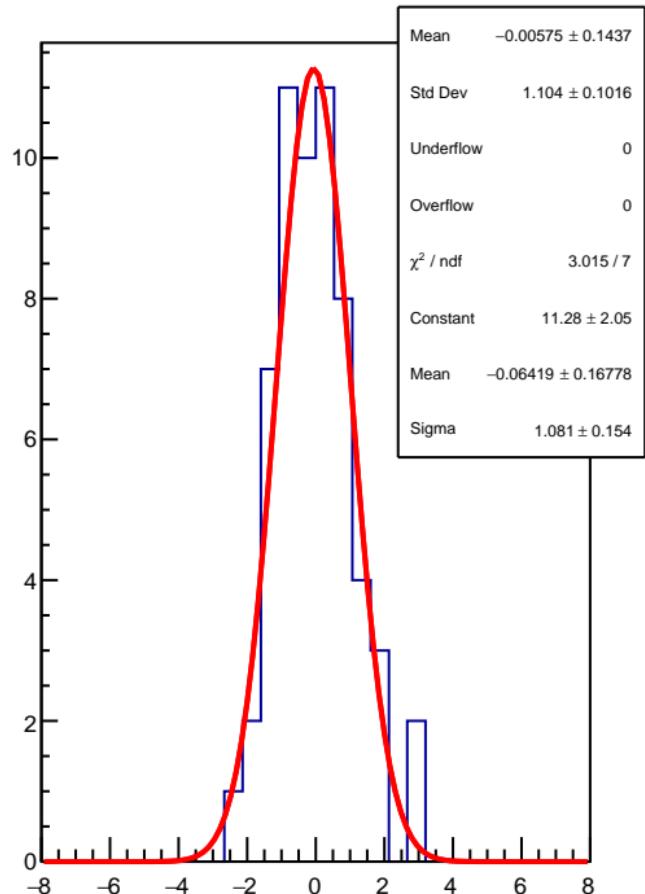
# corr\_us\_dd\_bpm16Y RMS (ppm)



corr\_us\_dd\_bpm12X (ppb)

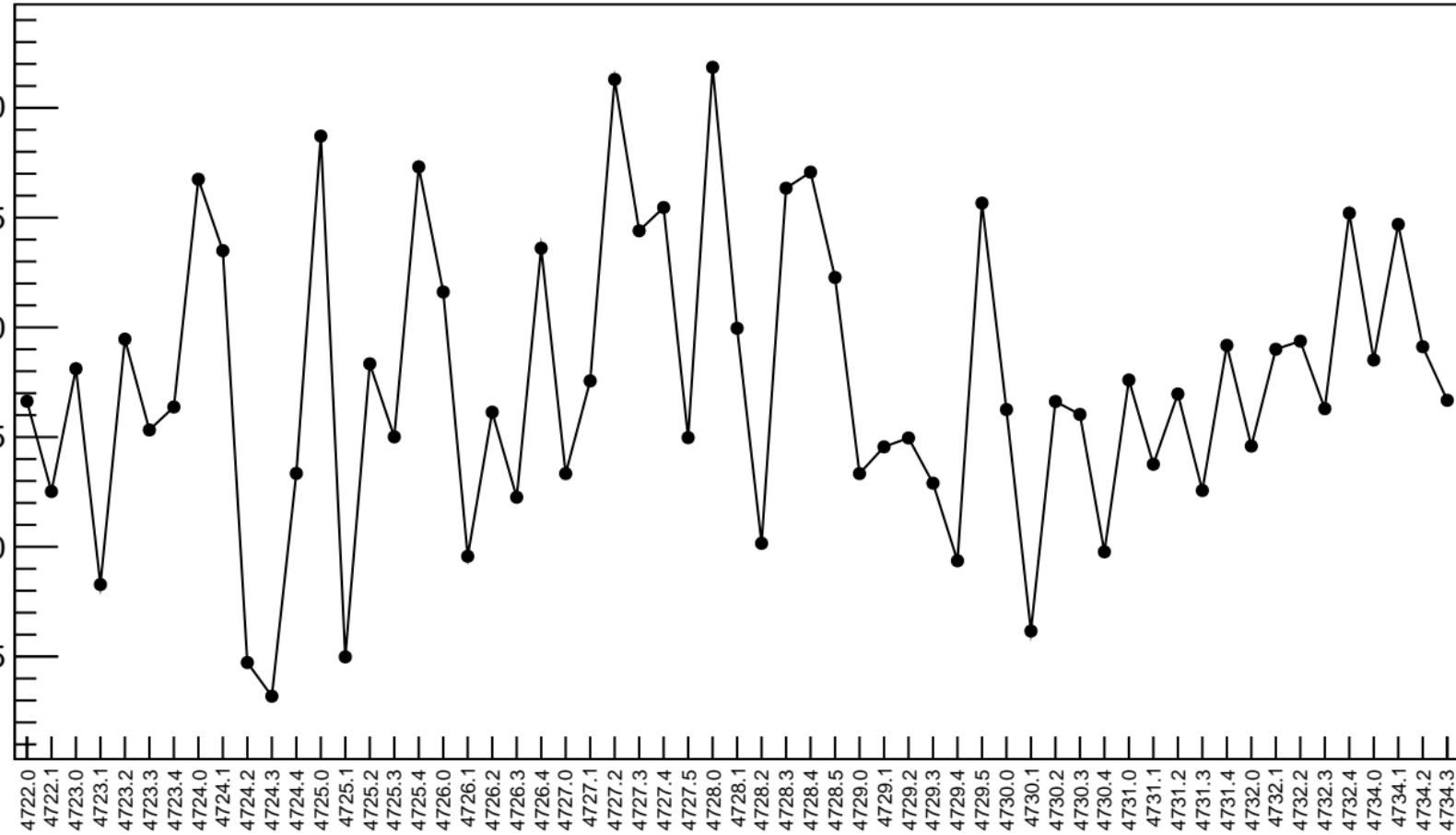


1D pull distribution

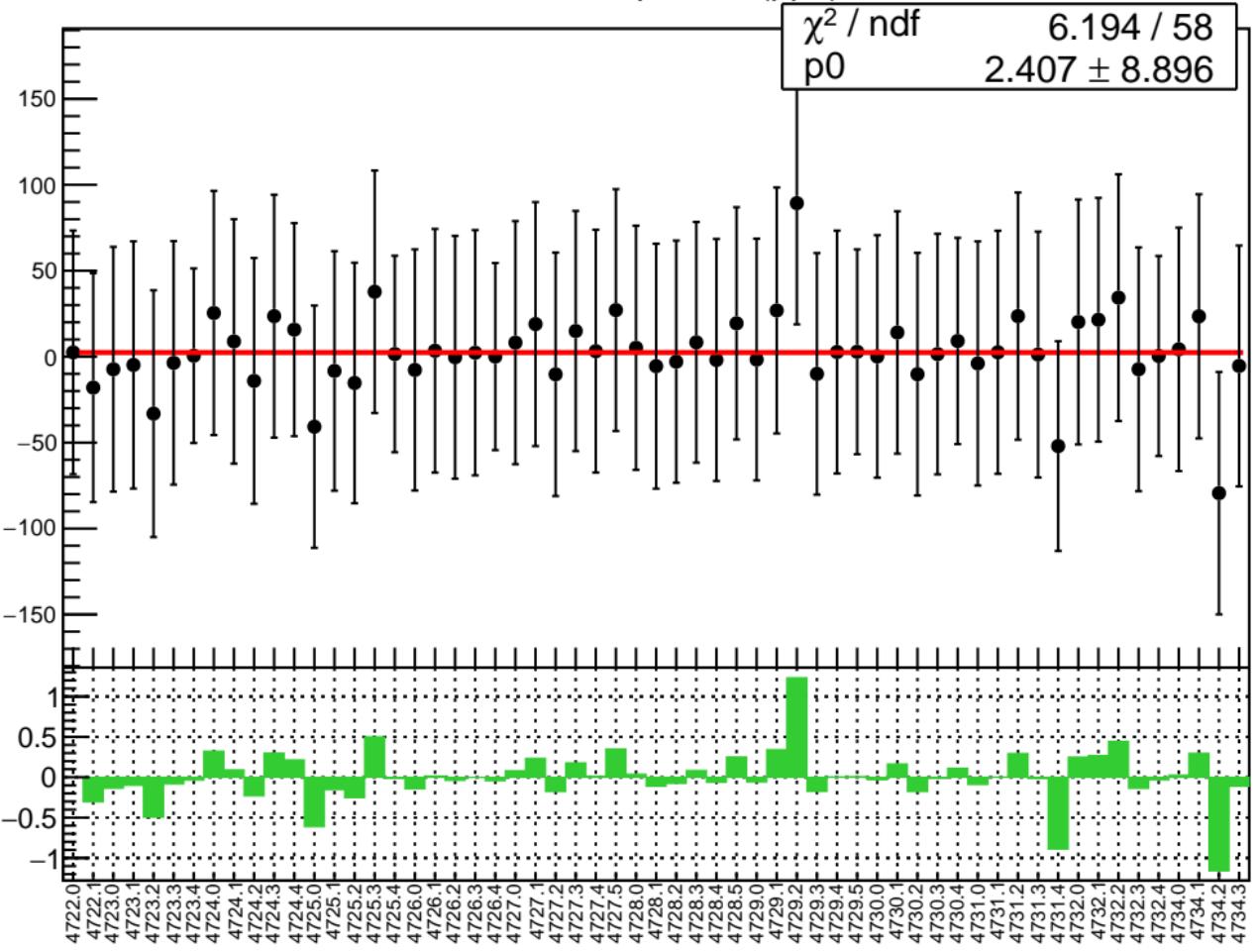


# corr\_us\_dd\_bpm12X RMS (ppm)

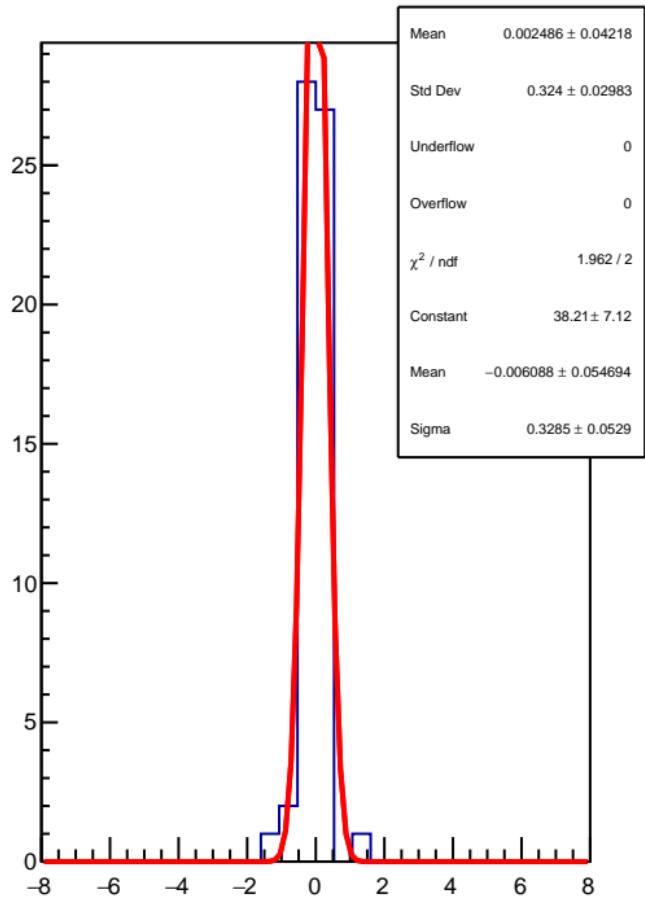
RMS (ppm)



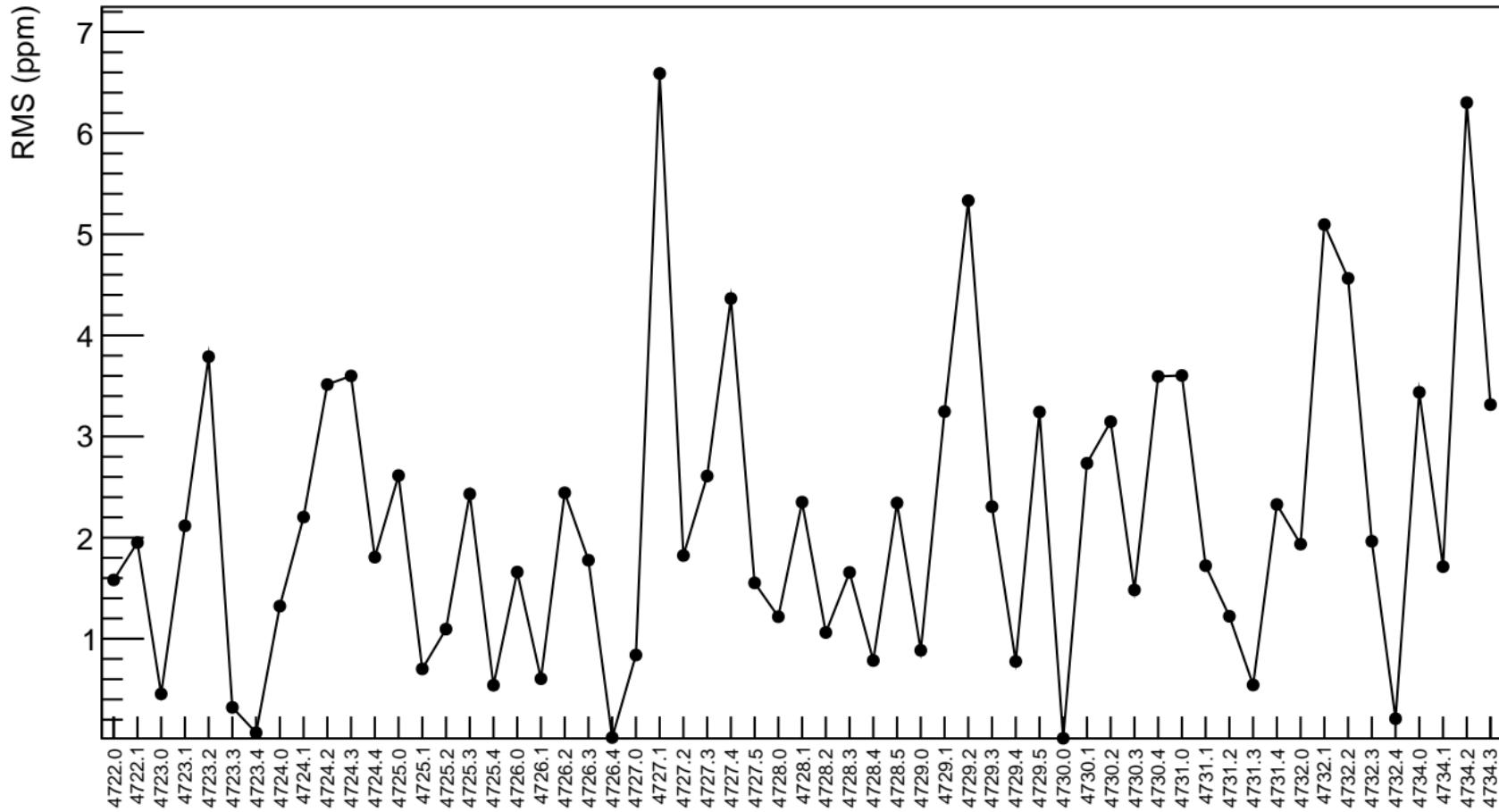
corr\_us\_dd\_bpm12Y (ppb)



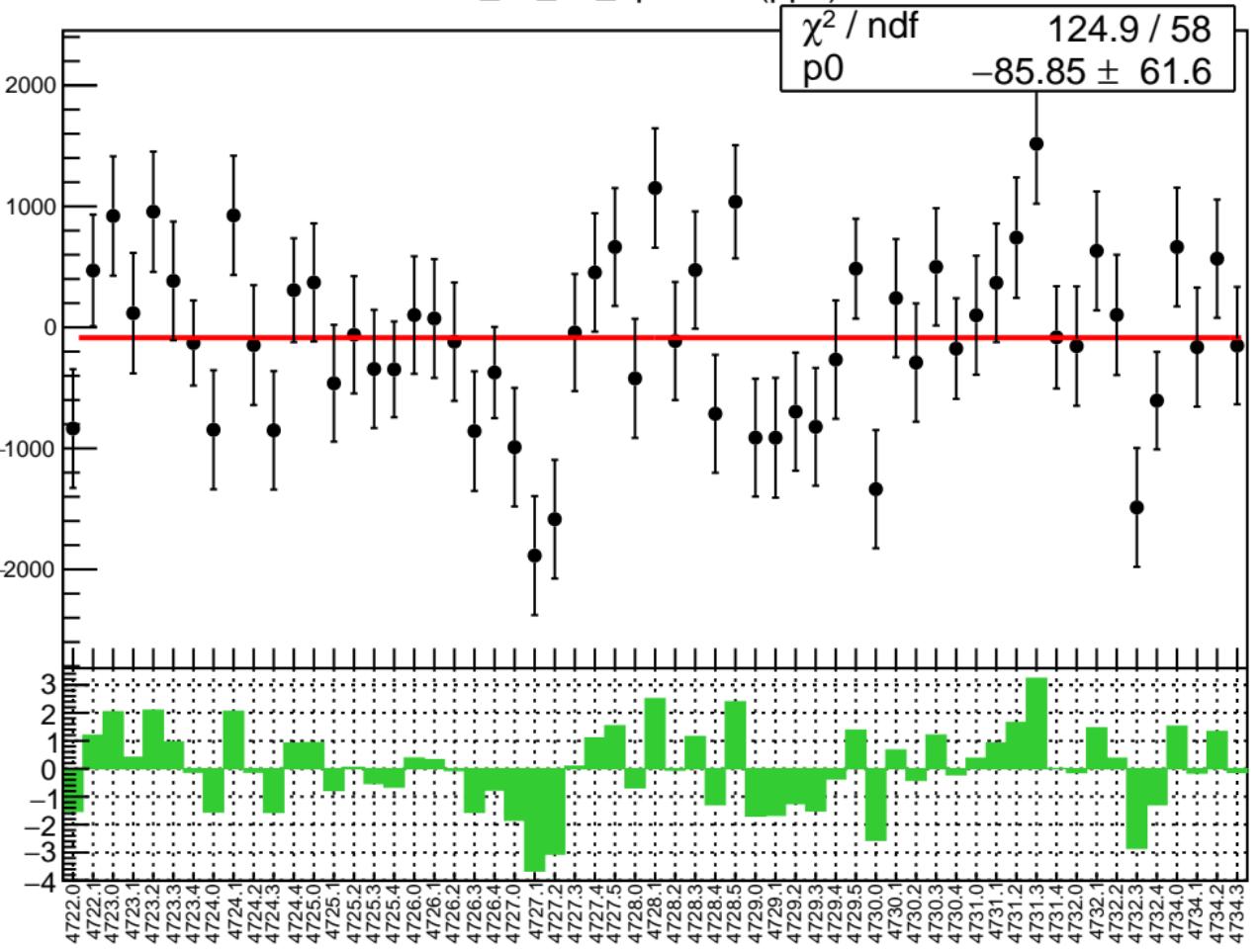
1D pull distribution



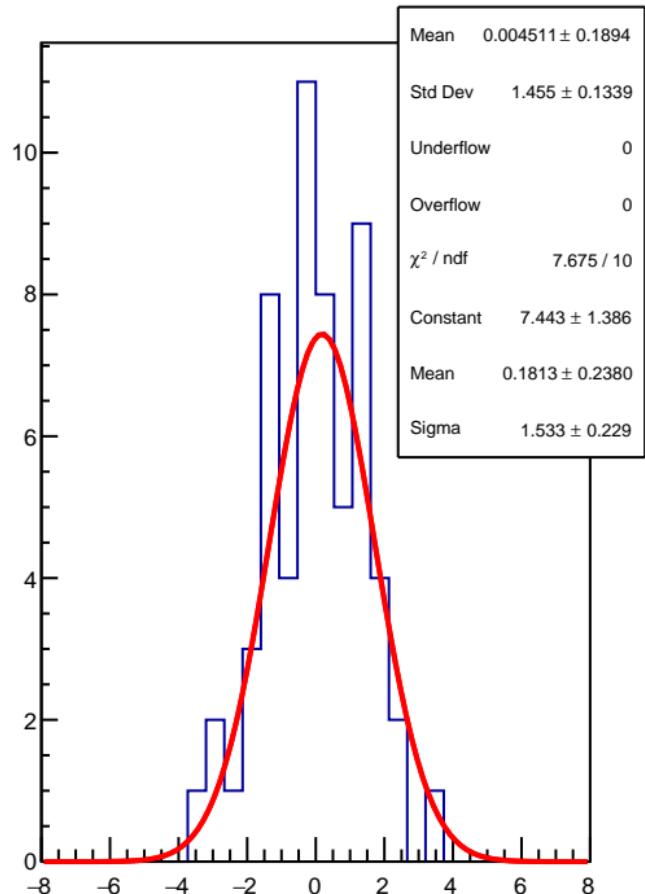
# corr\_us\_dd\_bpm12Y RMS (ppm)



corr\_us\_dd\_bpm11X (ppb)

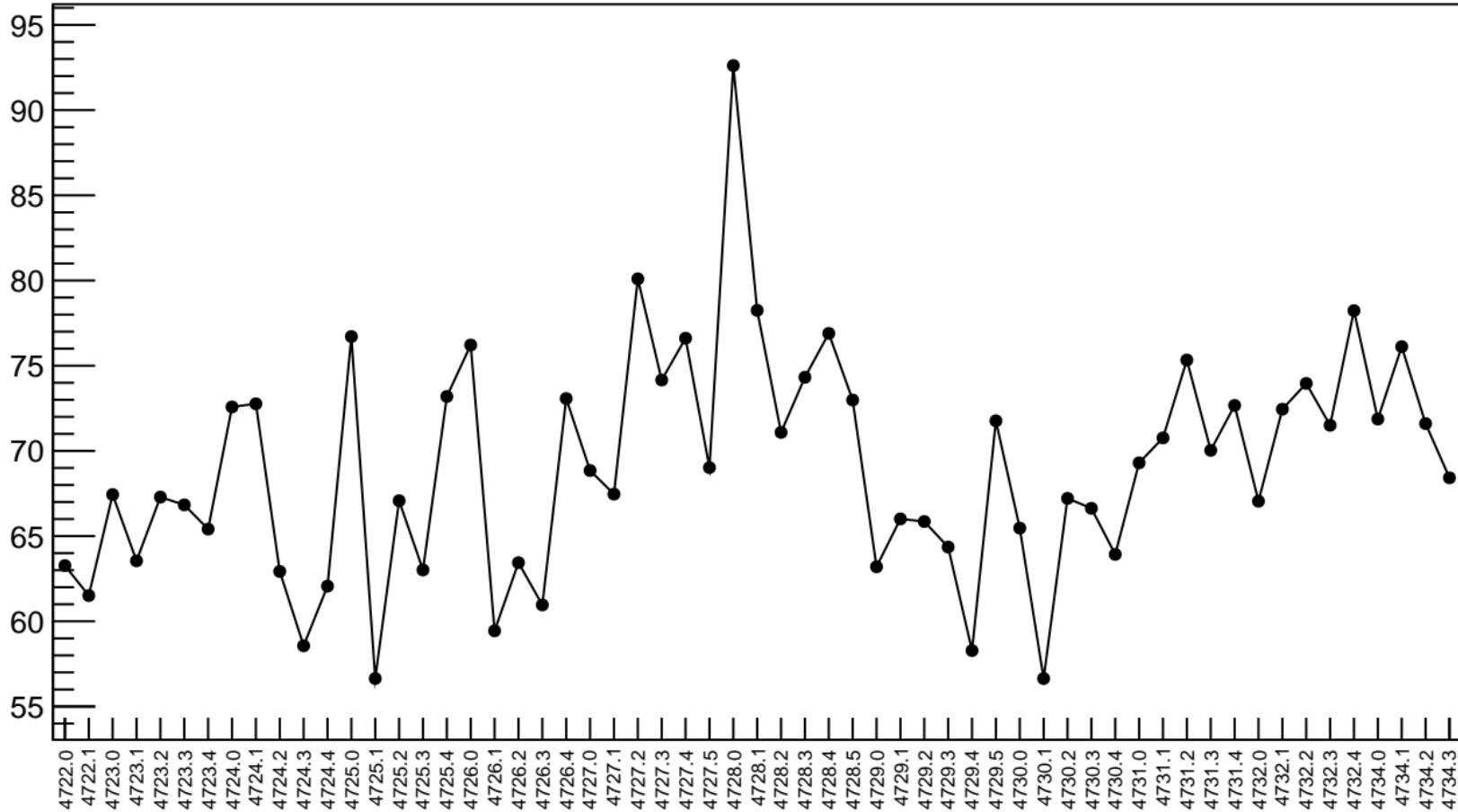


1D pull distribution



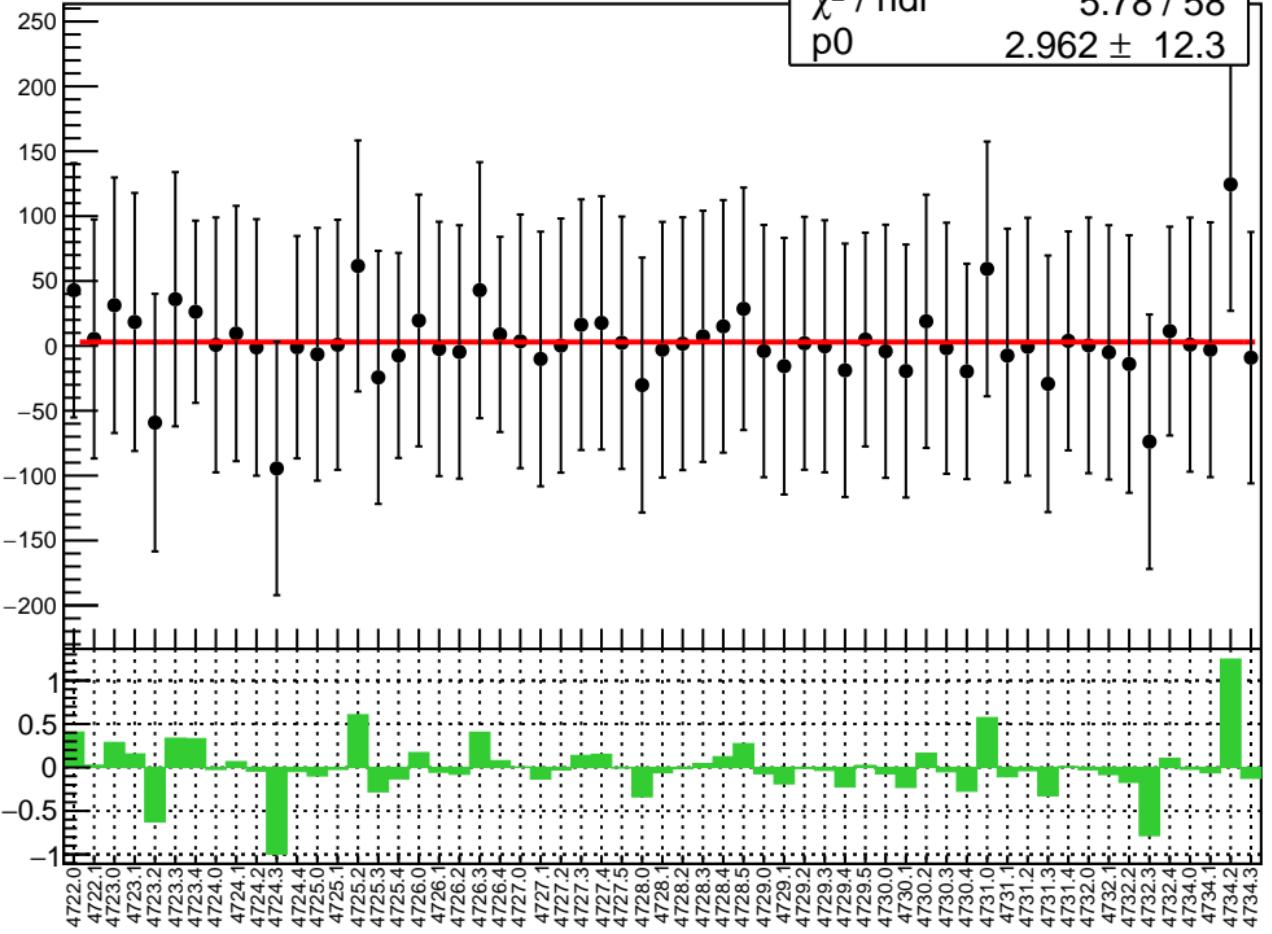
# corr\_us\_dd\_bpm11X RMS (ppm)

RMS (ppm)

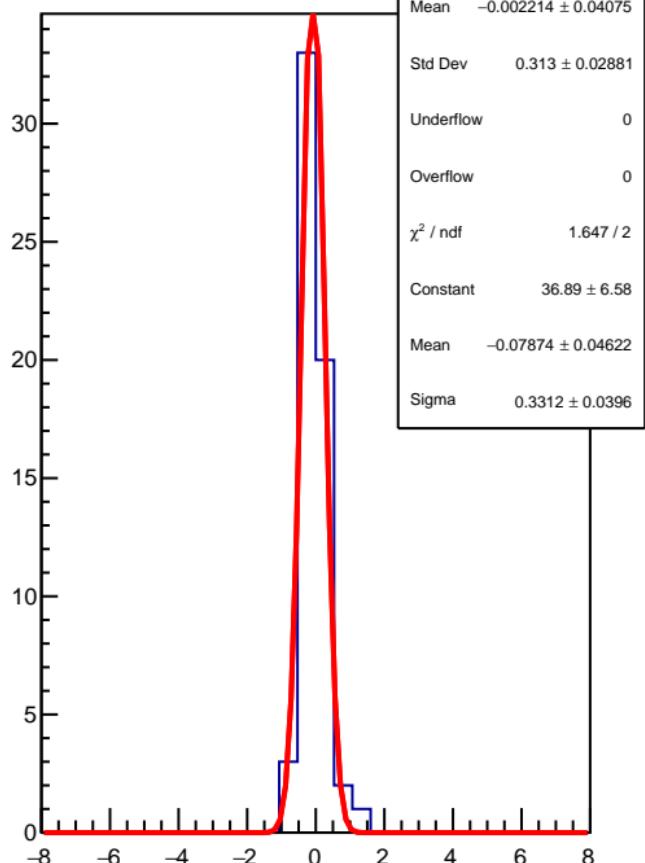


corr\_us\_dd\_bpm11Y (ppb)

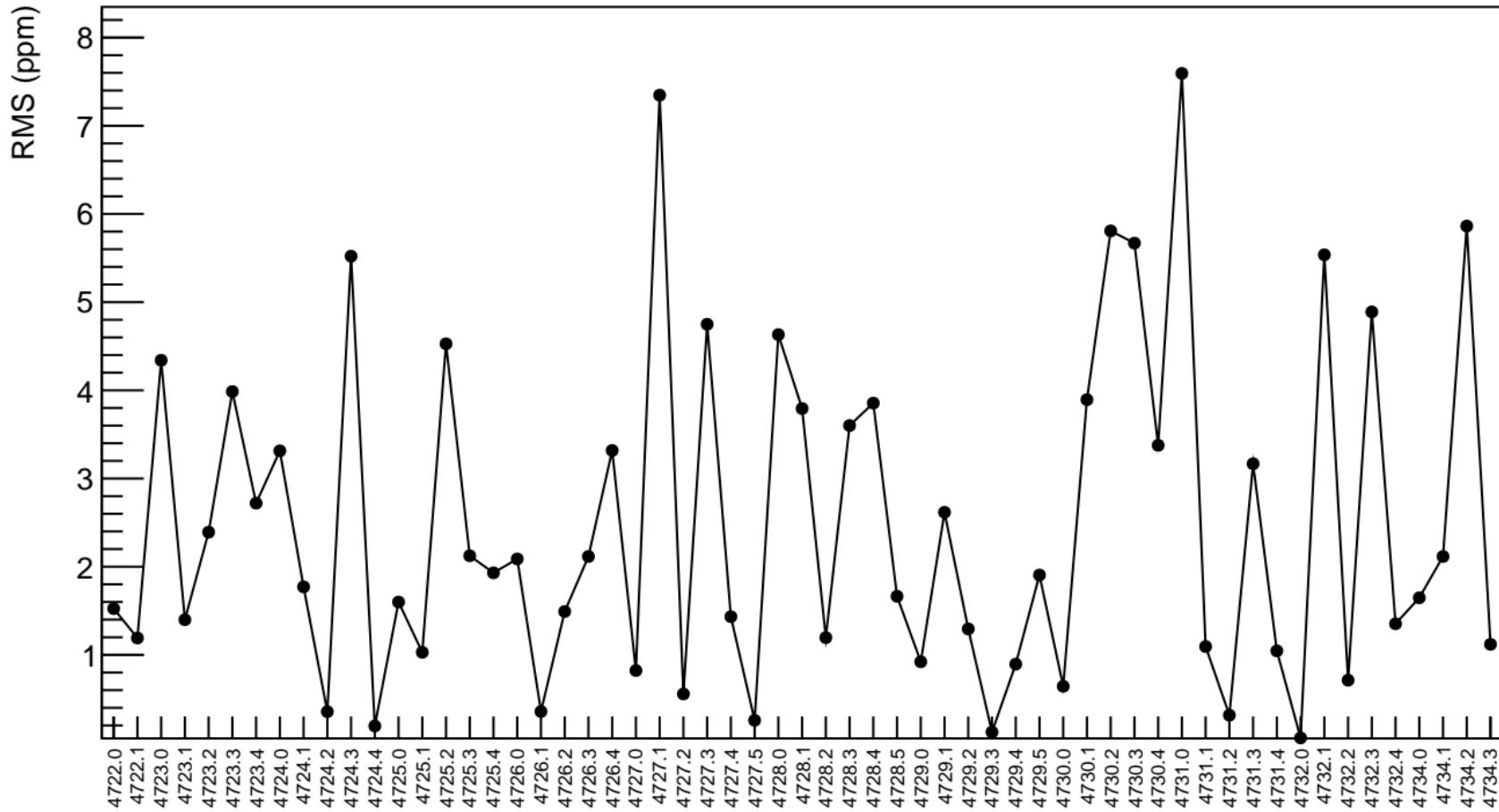
$\chi^2 / \text{ndf}$  5.78 / 58  
 $p_0$   $2.962 \pm 12.3$



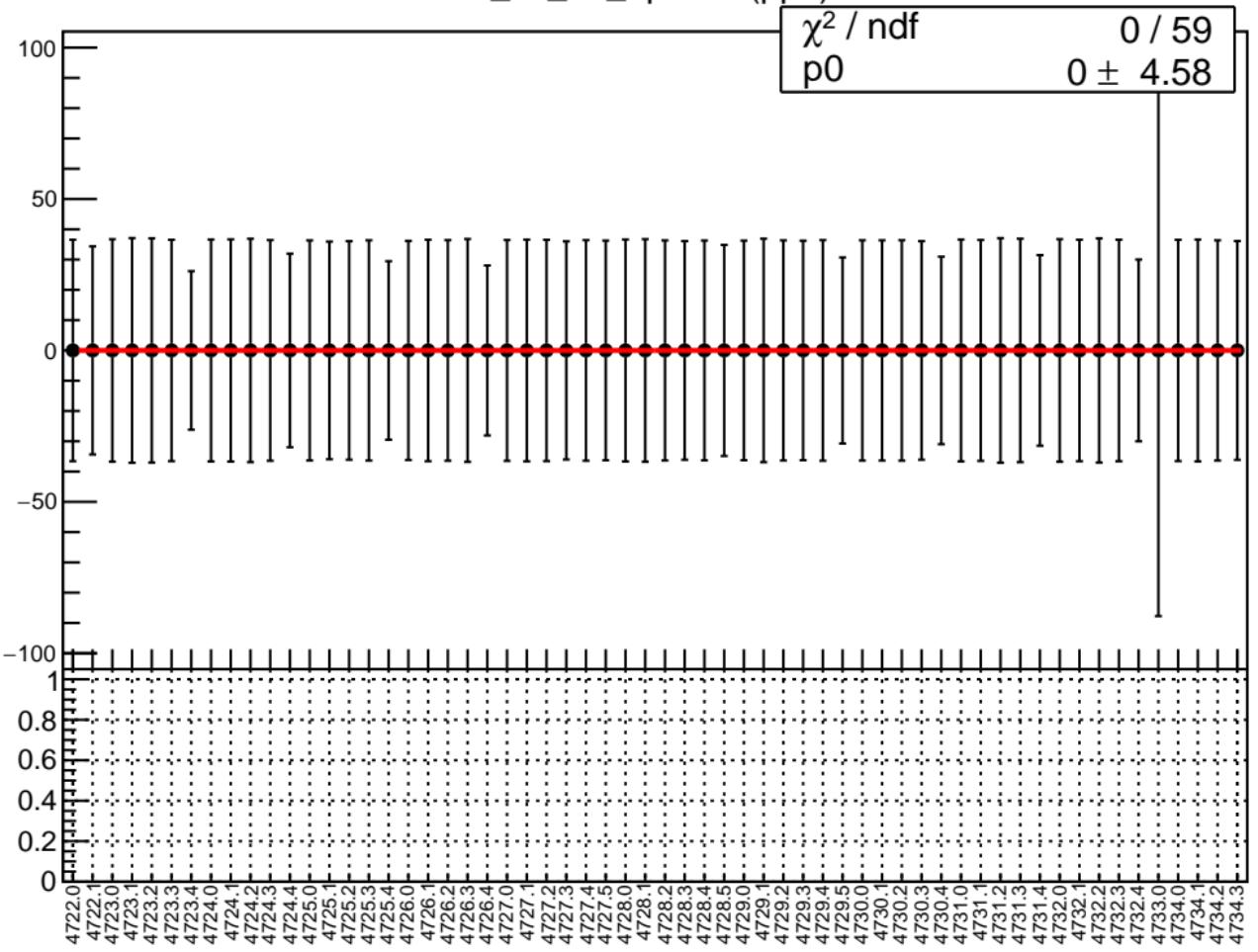
1D pull distribution



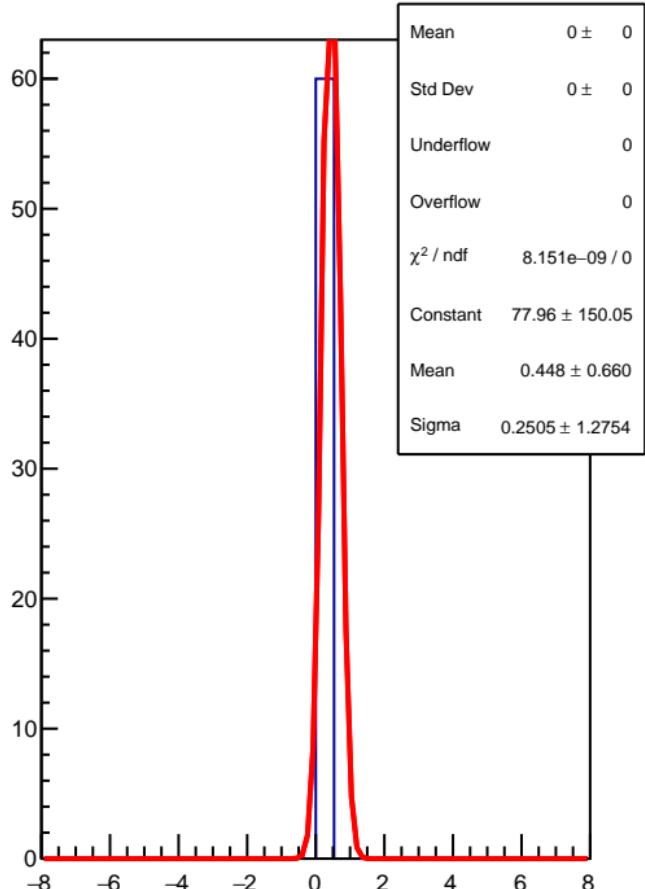
# corr\_us\_dd\_bpm11Y RMS (ppm)



corr\_us\_dd\_bpm8X (ppb)

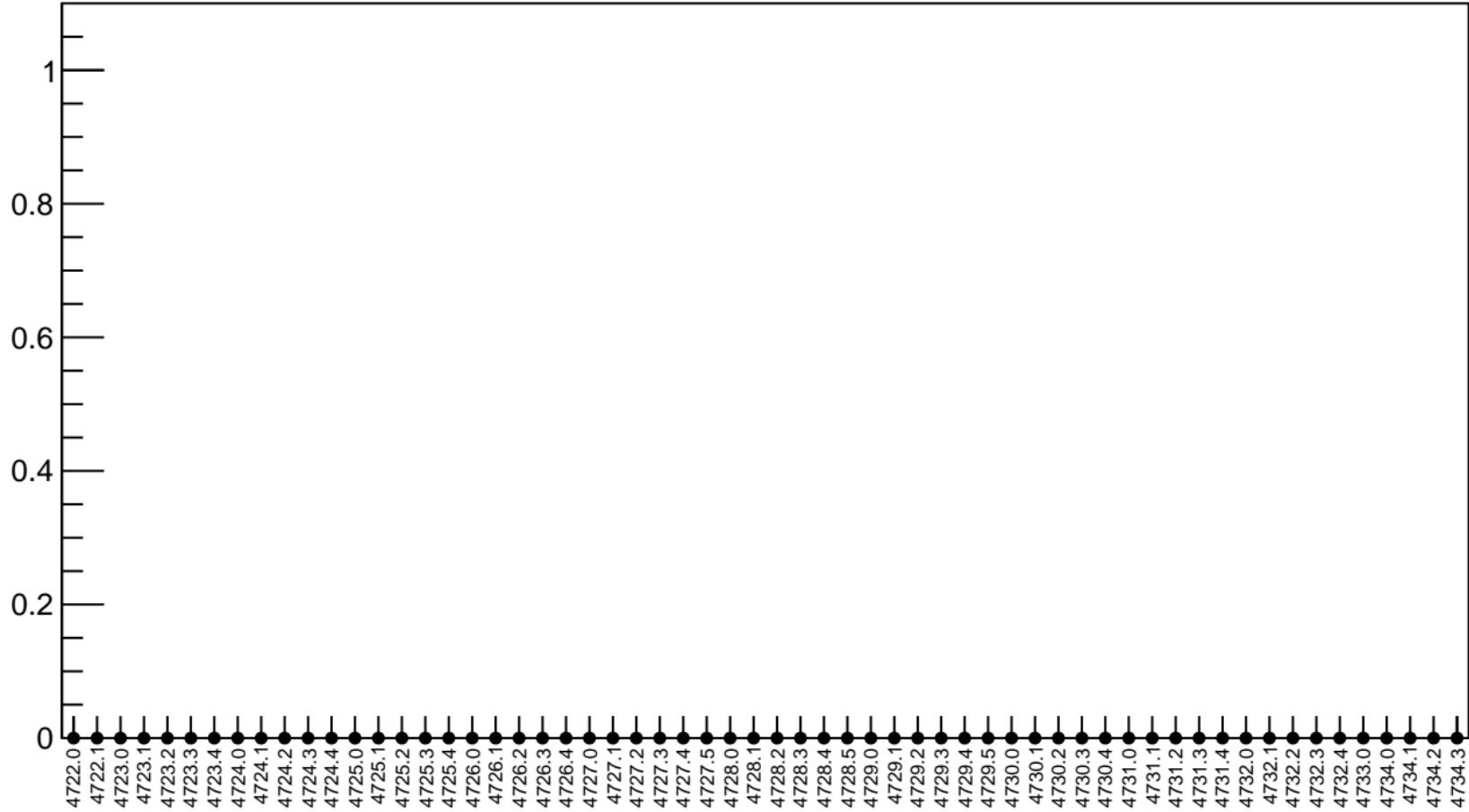


1D pull distribution

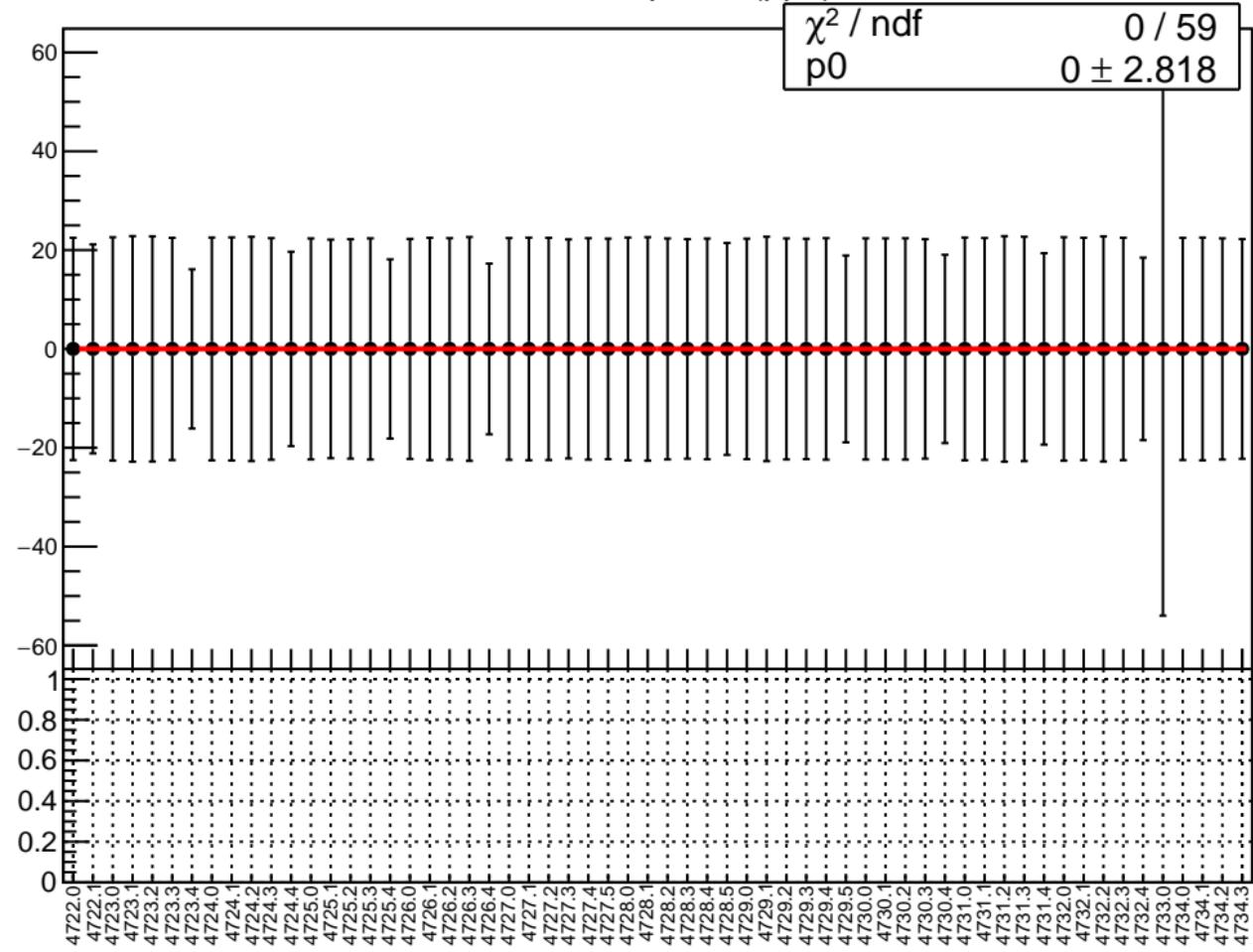


# corr\_us\_dd\_bpm8X RMS (ppm)

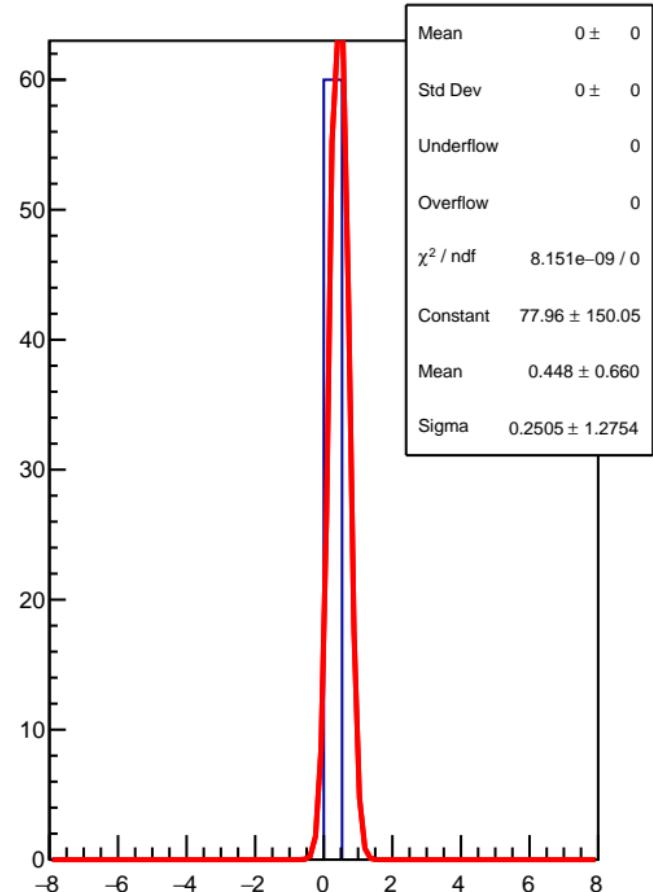
RMS (ppm)



corr\_us\_dd\_bpm8Y (ppb)

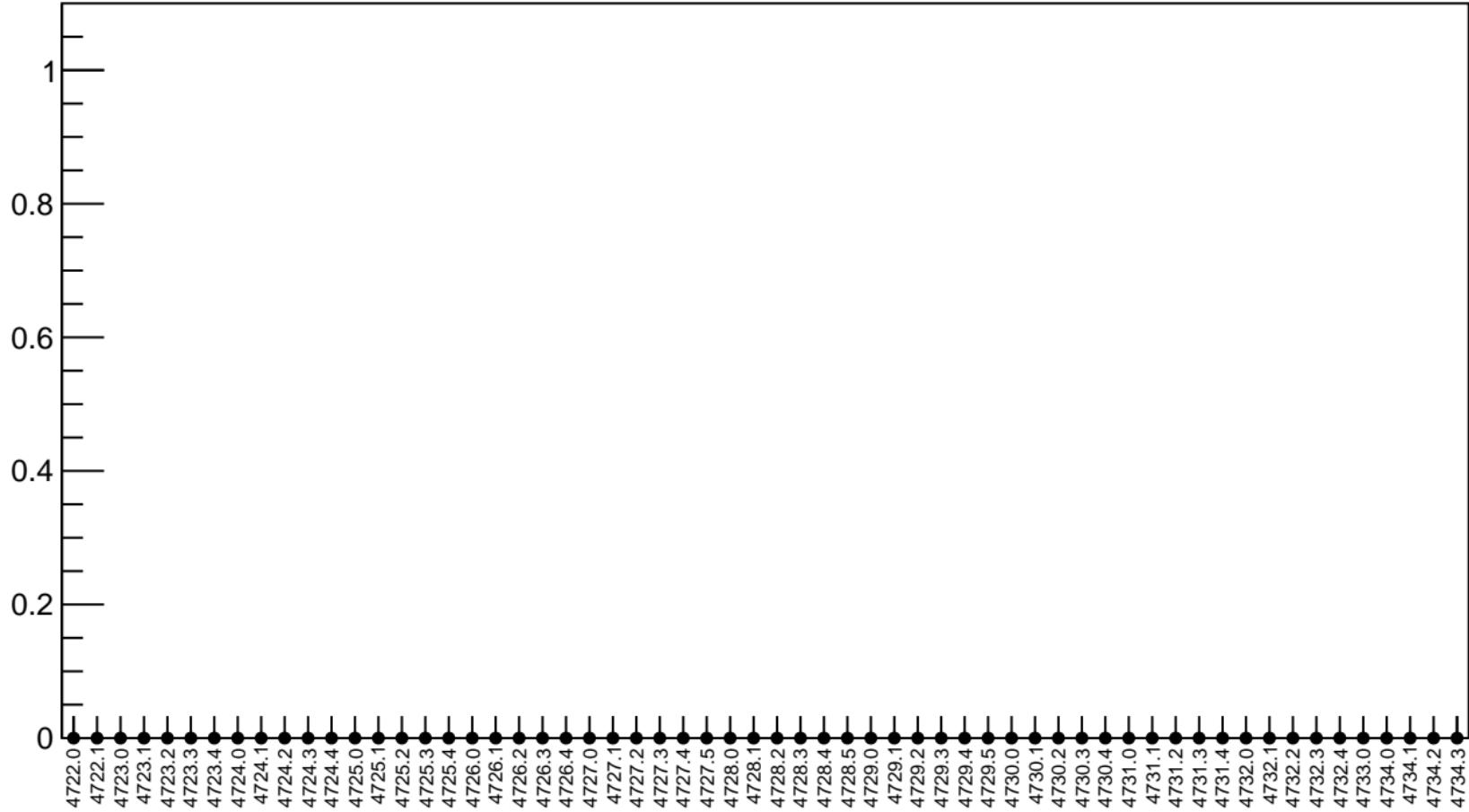


1D pull distribution

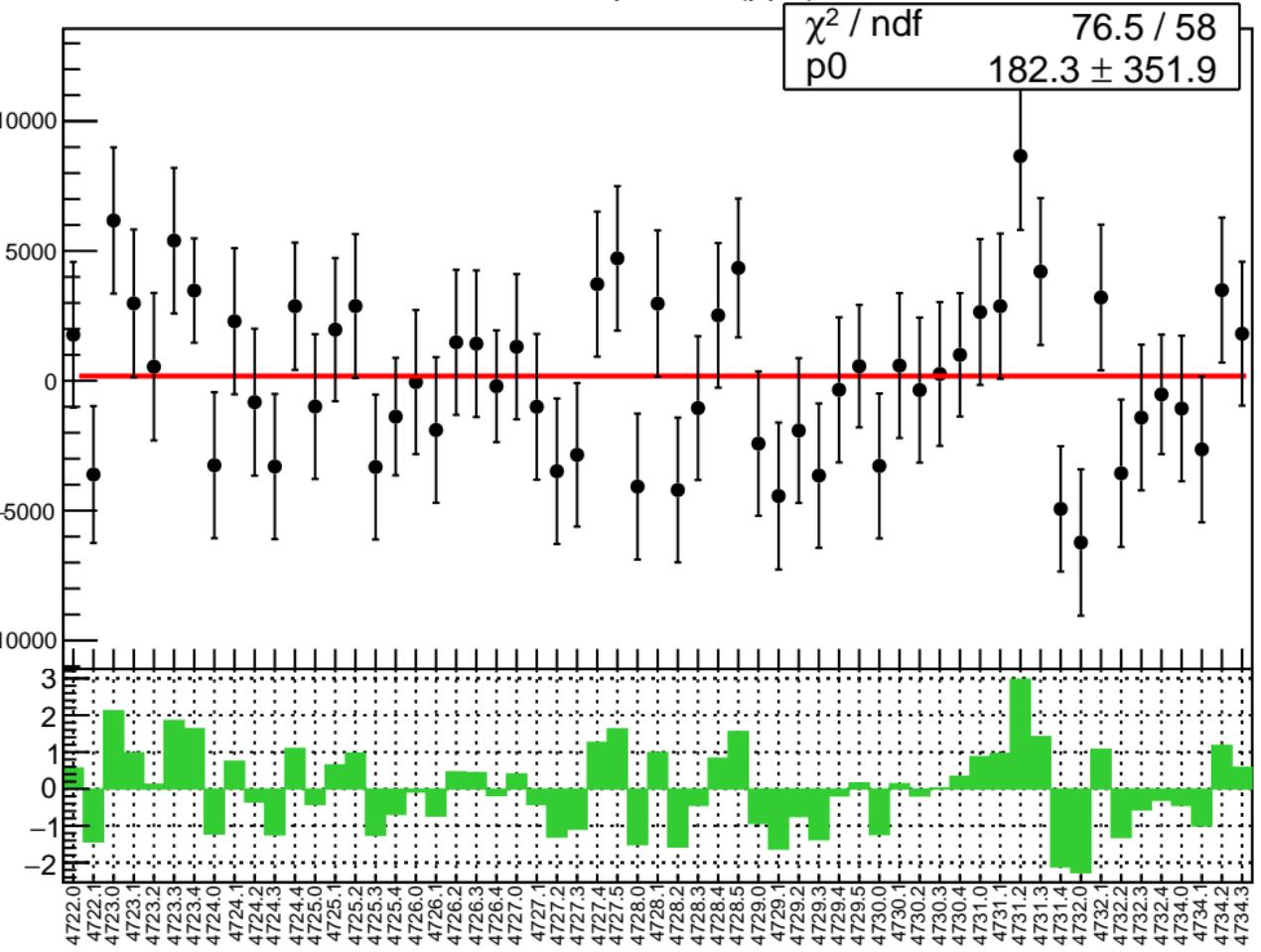


# corr\_us\_dd\_bpm8Y RMS (ppm)

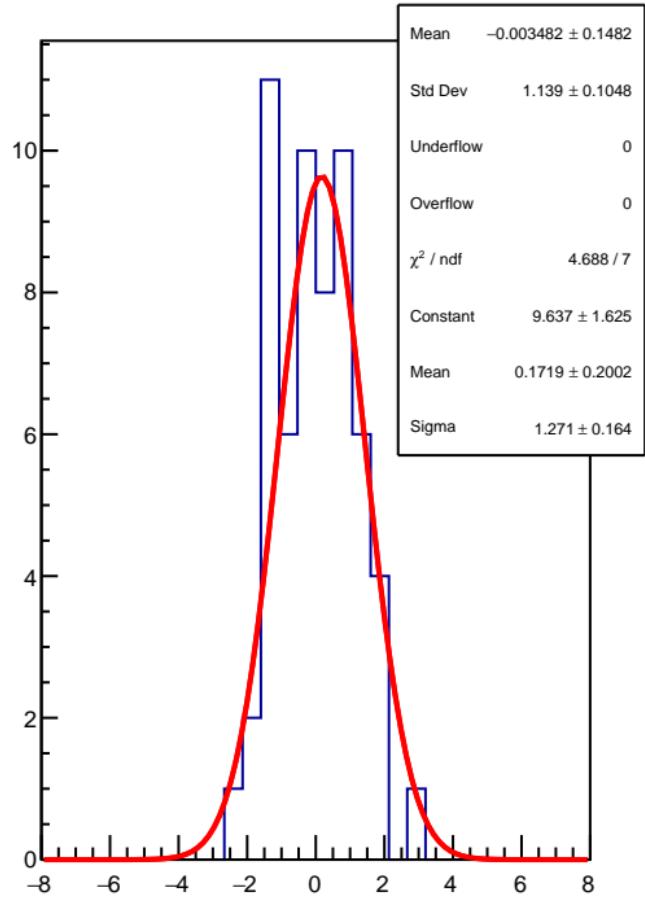
RMS (ppm)



corr\_usl\_bpm4eX (ppb)

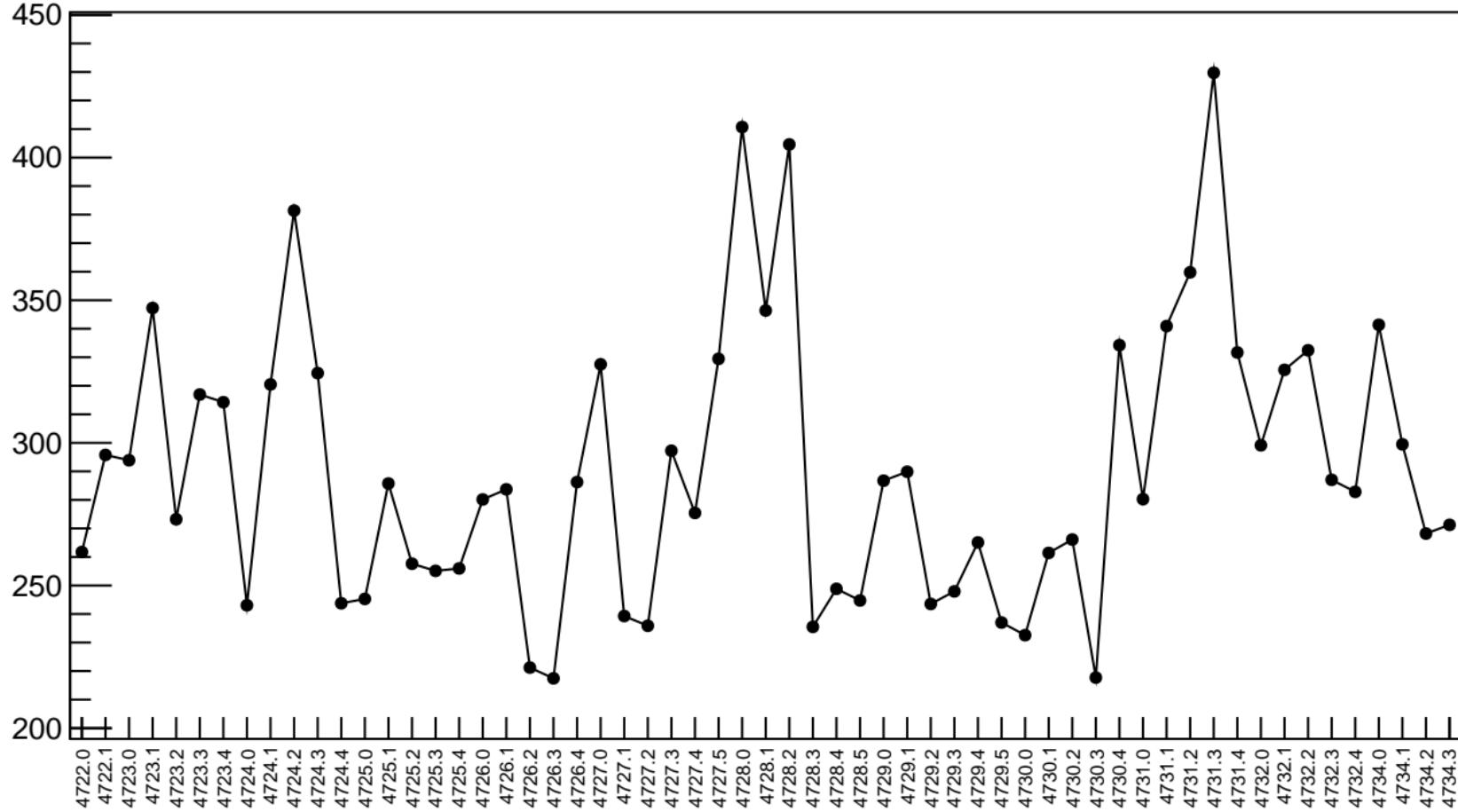


1D pull distribution



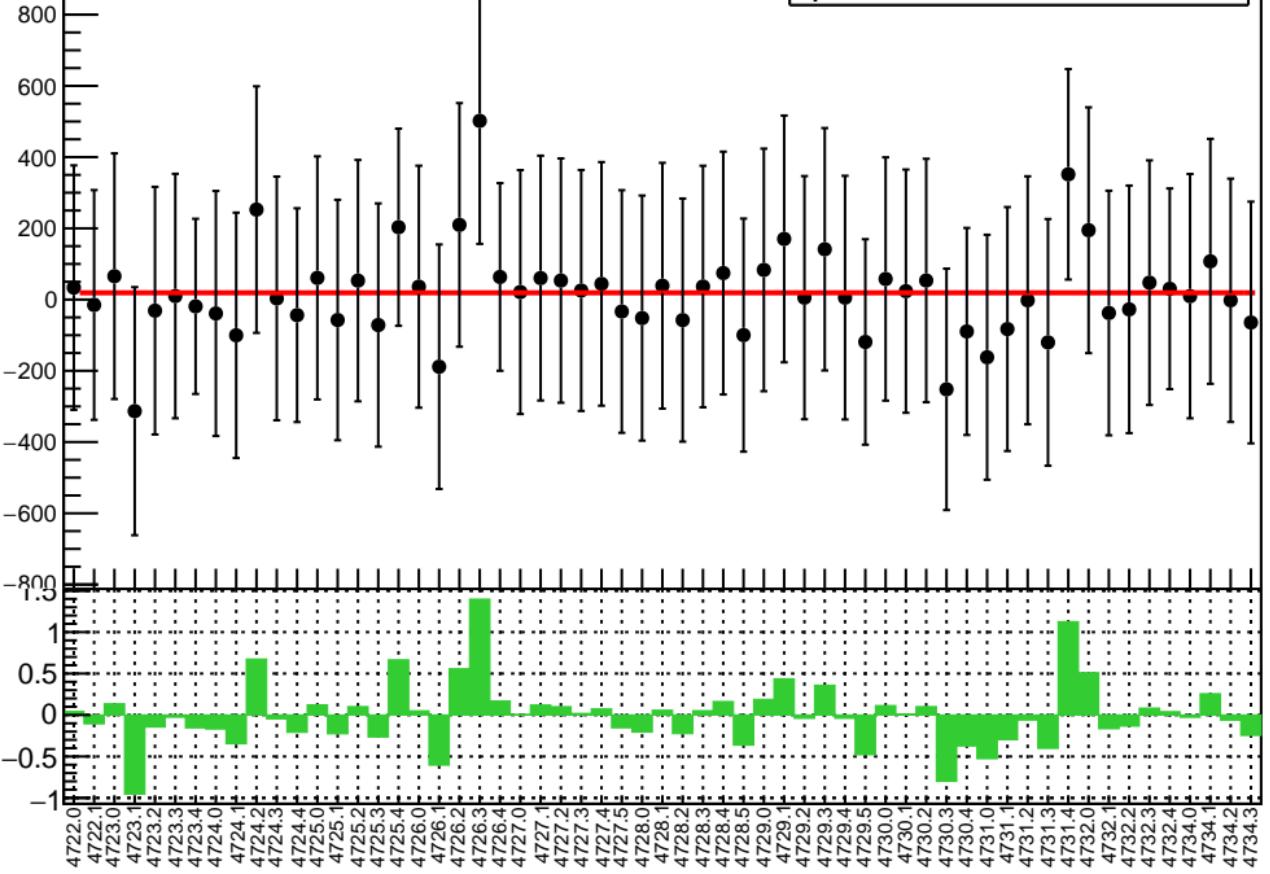
# corr\_usl\_bpm4eX RMS (ppm)

RMS (ppm)

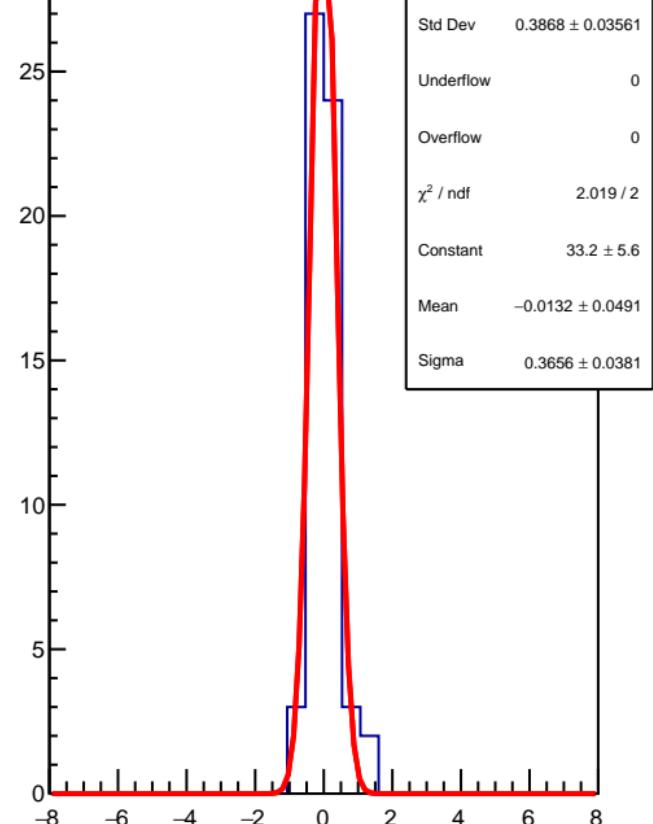


corr\_usl\_bpm4eY (ppb)

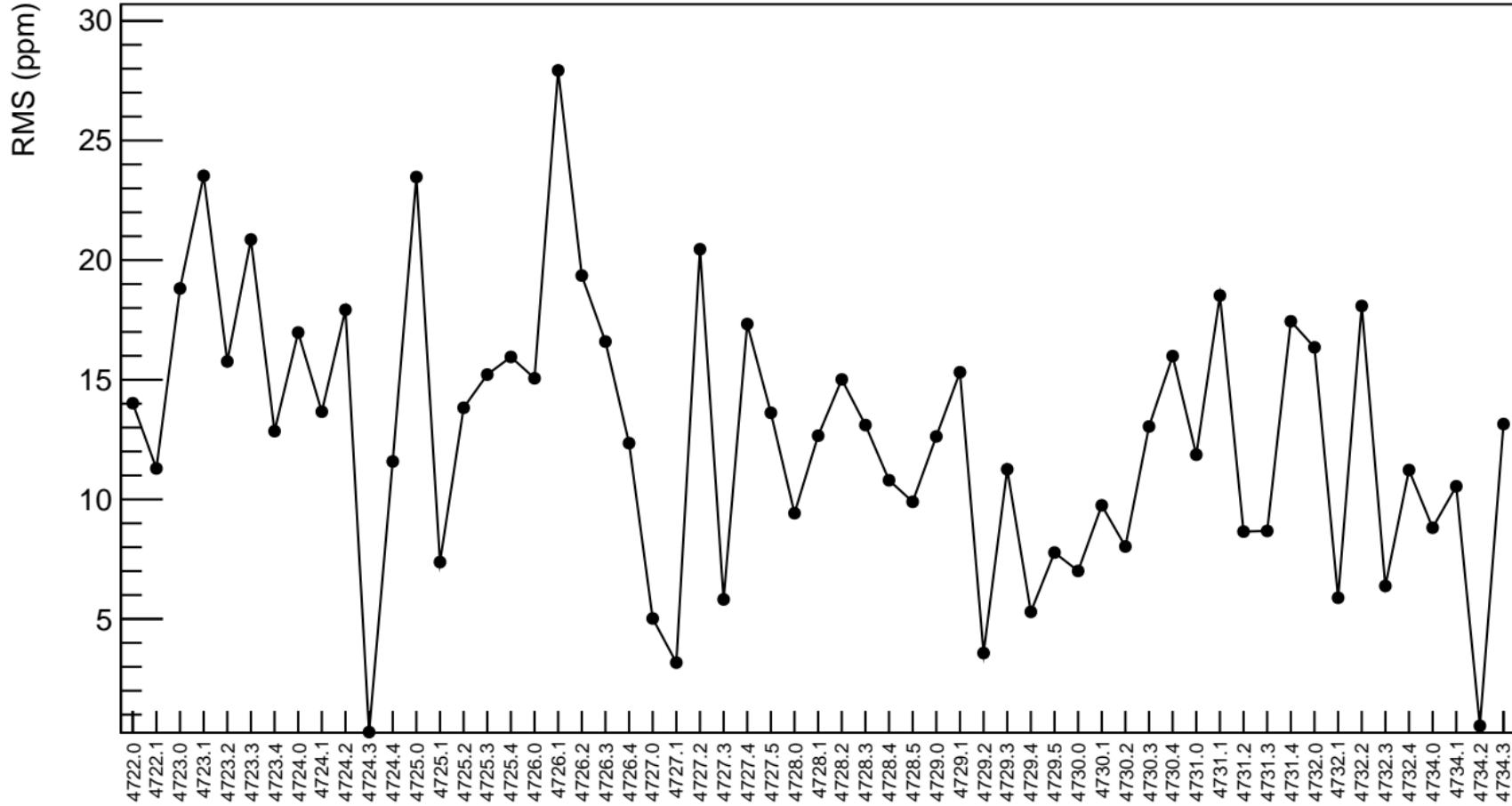
$\chi^2 / \text{ndf}$  8.829 / 58  
 $p_0$   $19.01 \pm 43.07$



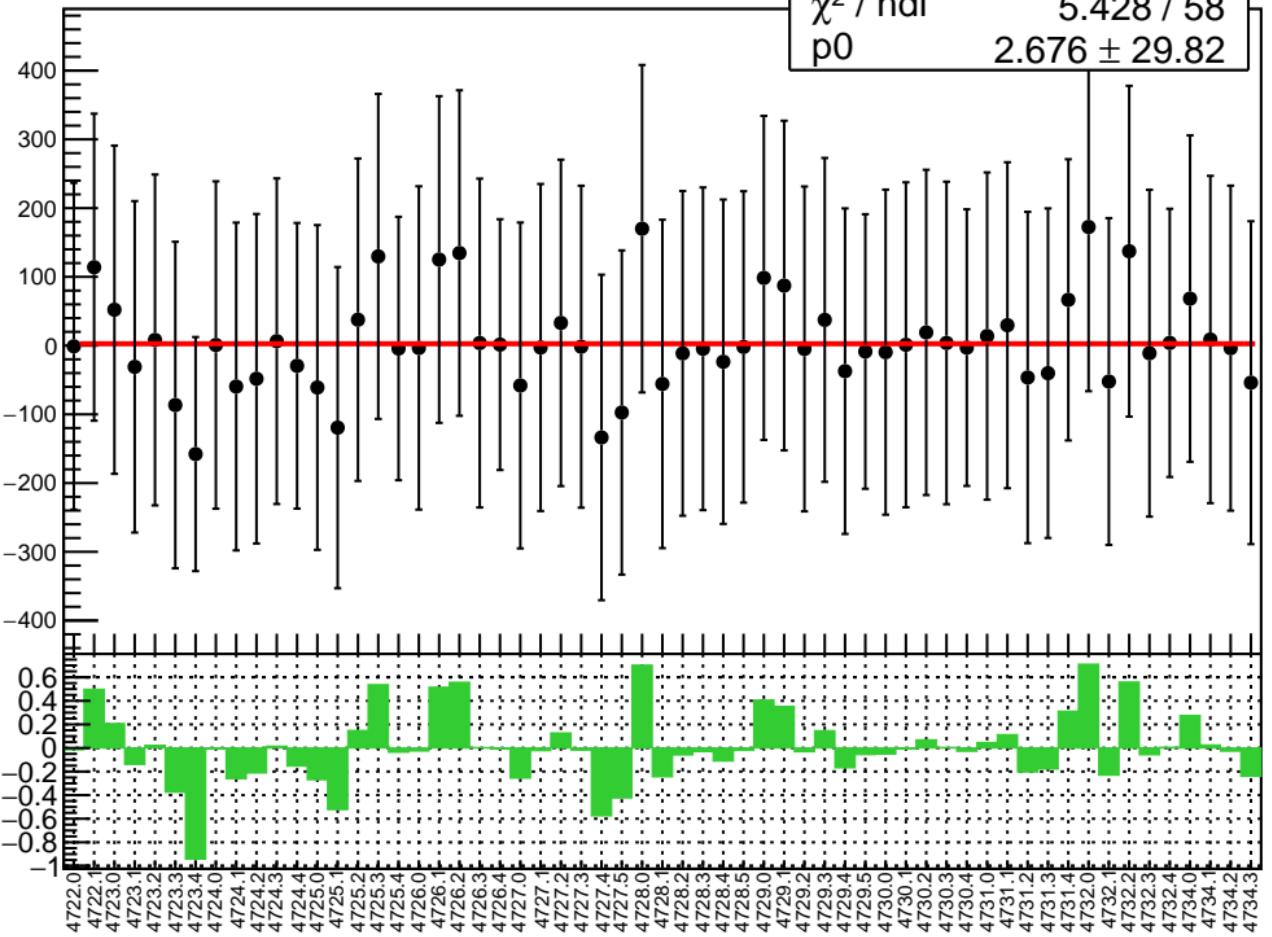
1D pull distribution



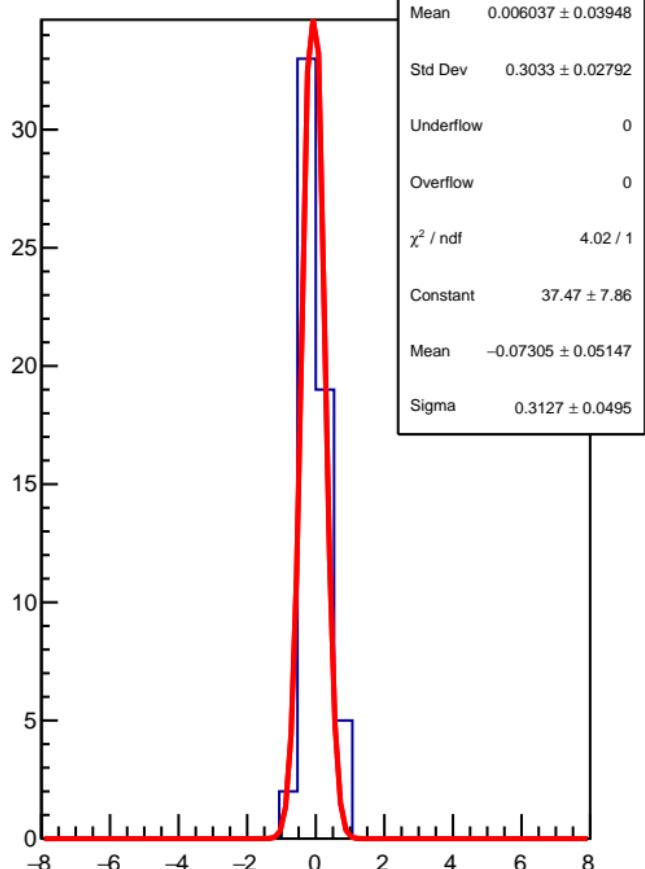
# corr\_usl\_bpm4eY RMS (ppm)



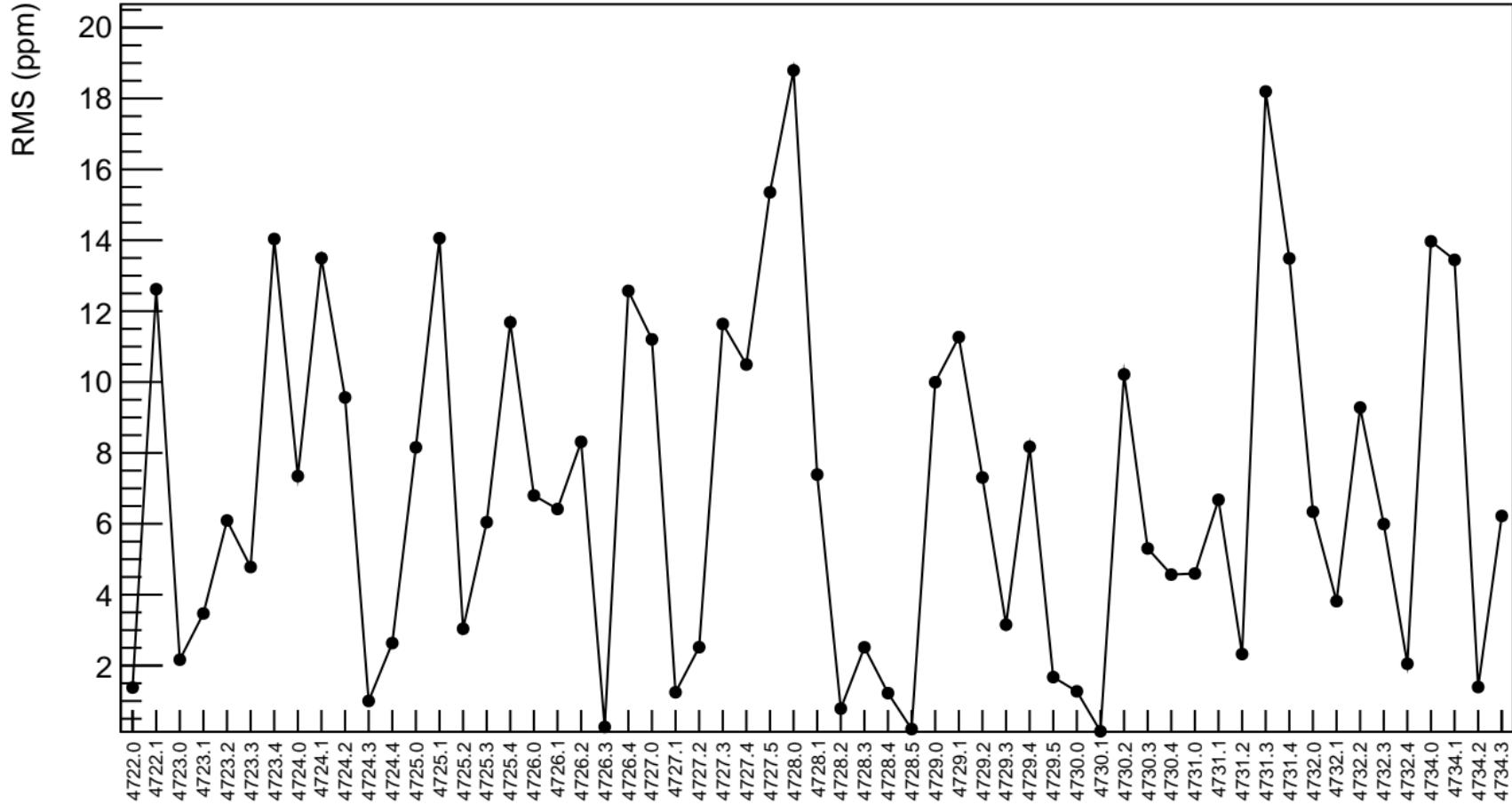
corr\_usl\_bpm4aX (ppb)

 $\chi^2 / \text{ndf}$   
 $5.428 / 58$   
 $p_0$   
 $2.676 \pm 29.82$ 


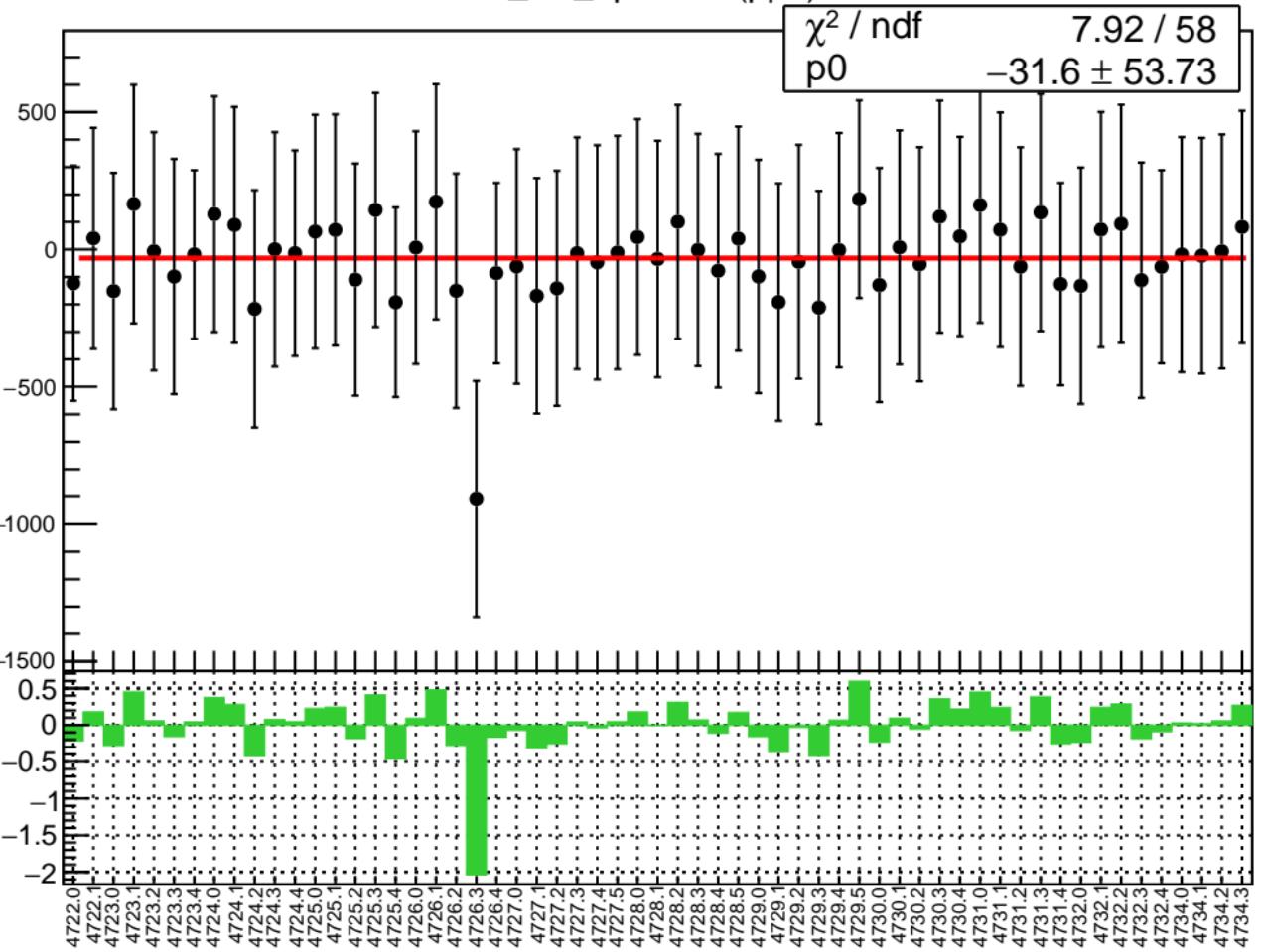
1D pull distribution



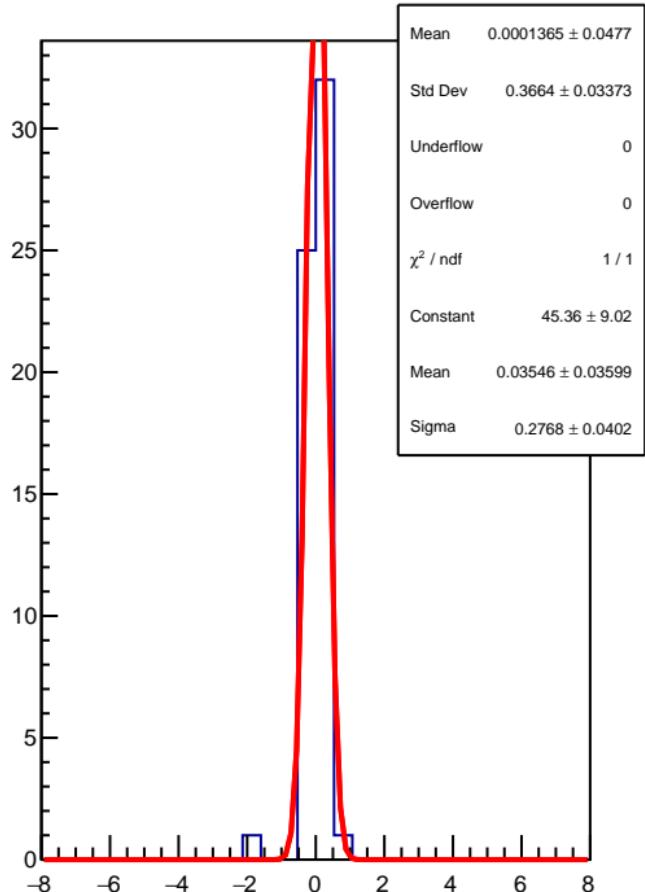
# corr\_usl\_bpm4aX RMS (ppm)



corr\_usl\_bpm4aY (ppb)

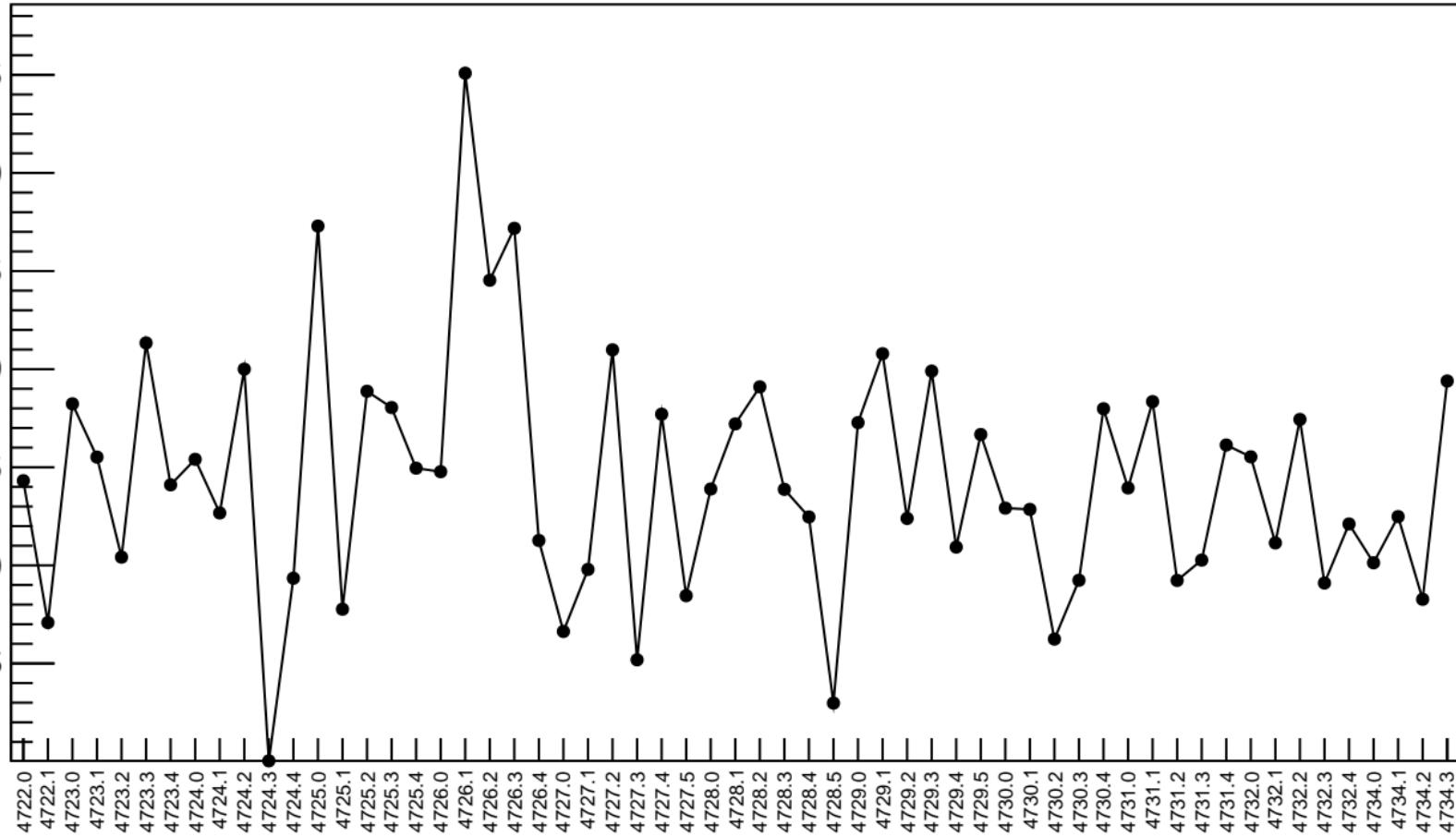


1D pull distribution



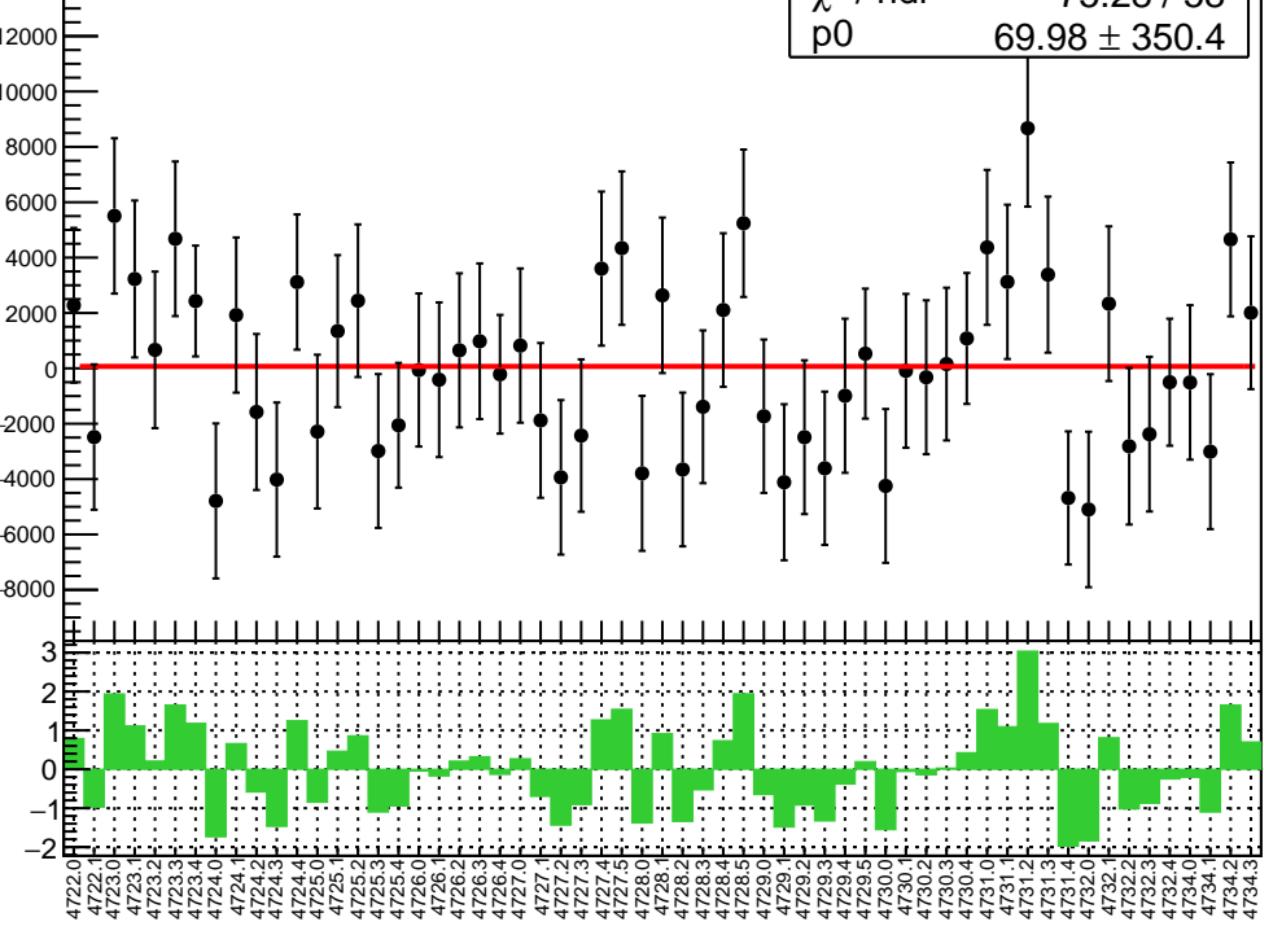
# corr\_usl\_bpm4aY RMS (ppm)

RMS (ppm)

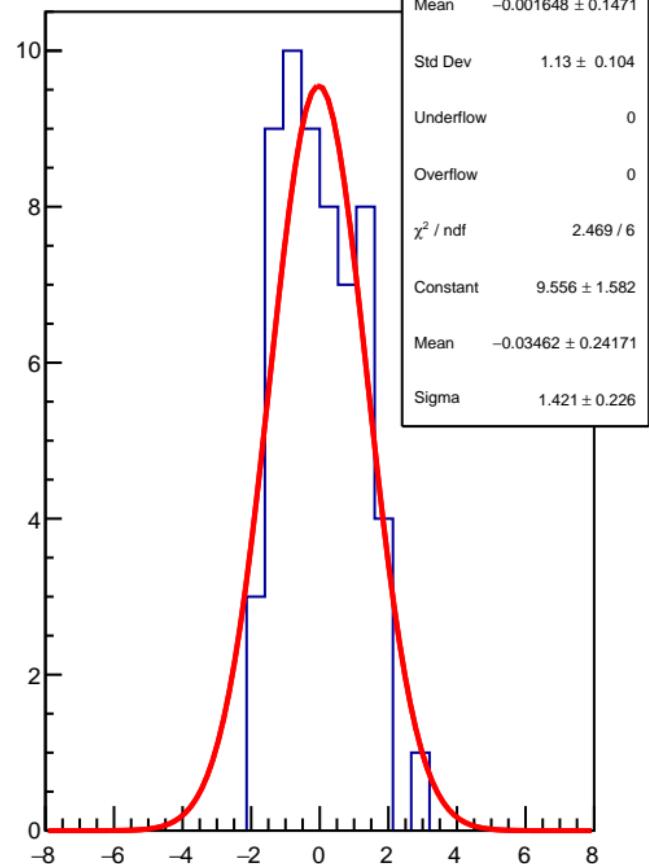


corr\_usl\_bpm1X (ppb)

$\chi^2 / \text{ndf}$  75.28 / 58  
p0  $69.98 \pm 350.4$

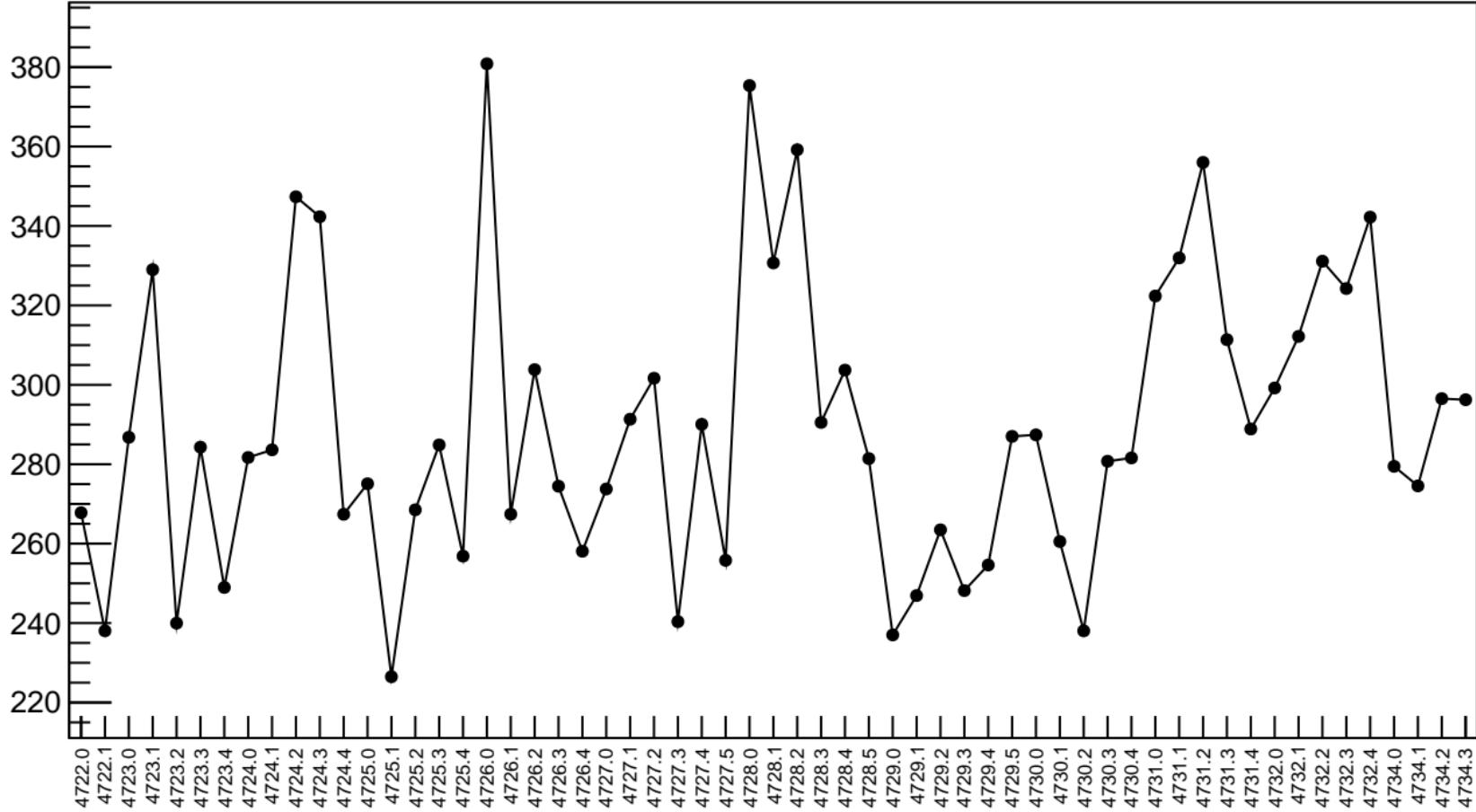


1D pull distribution



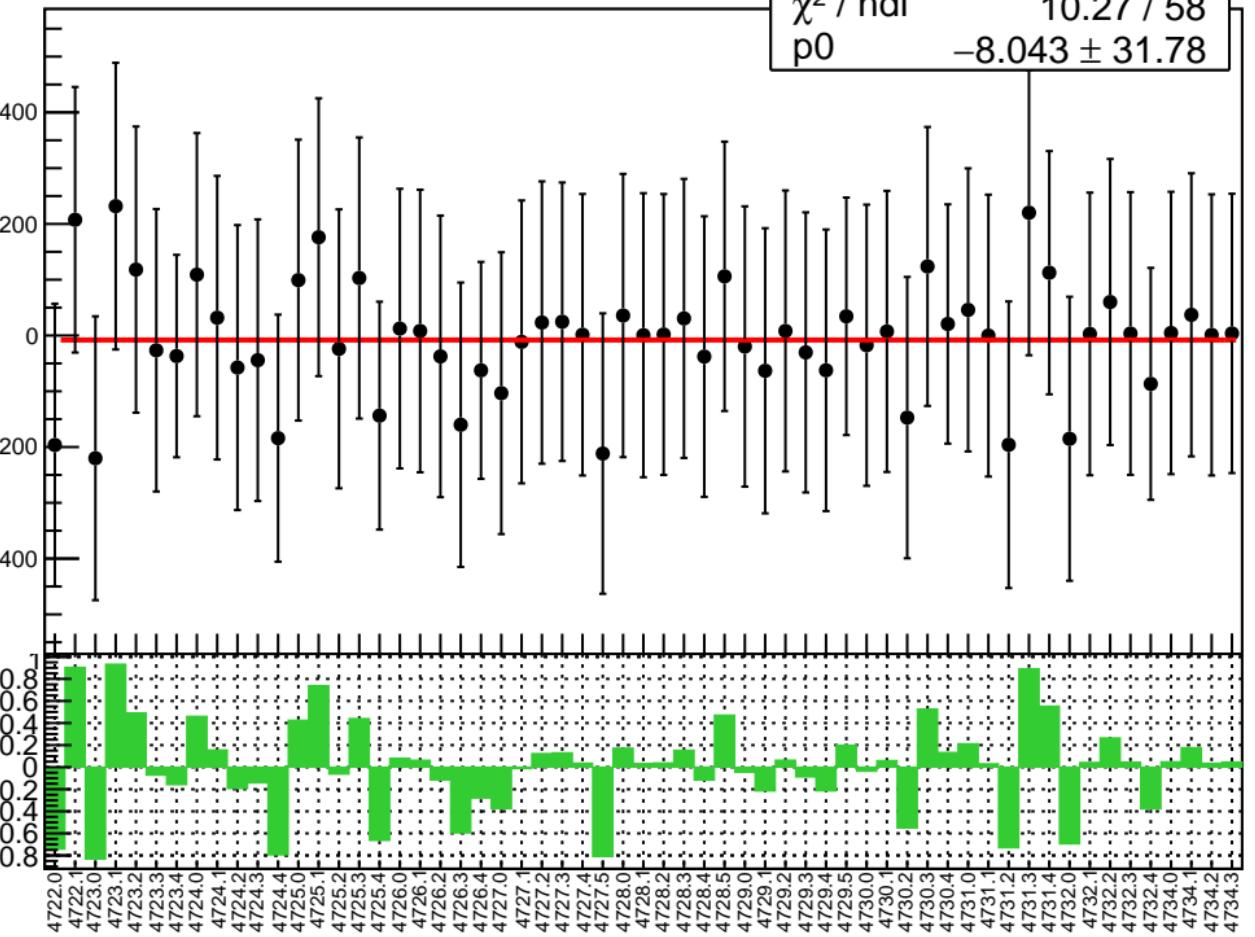
# corr\_usl\_bpm1X RMS (ppm)

RMS (ppm)

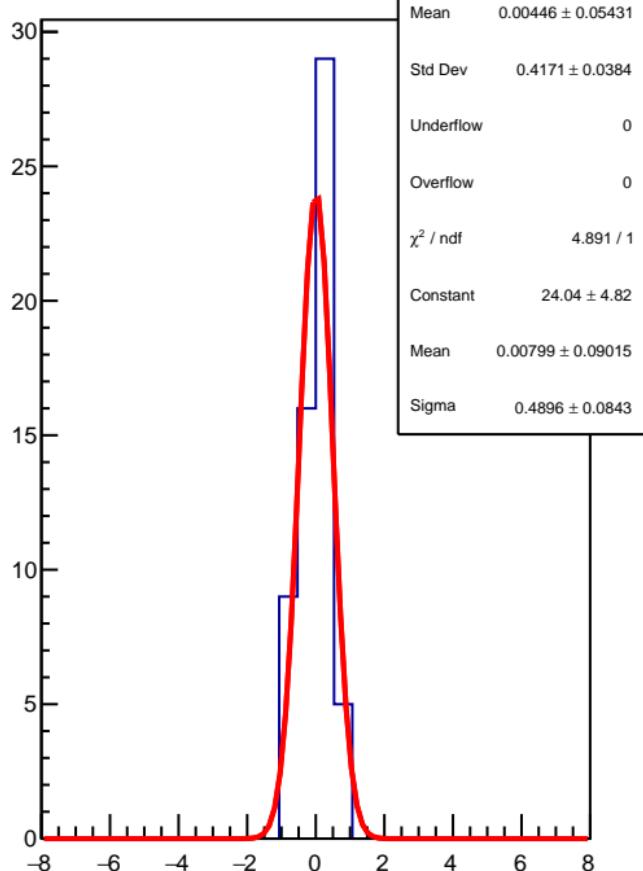


corr\_usl\_bpm1Y (ppb)

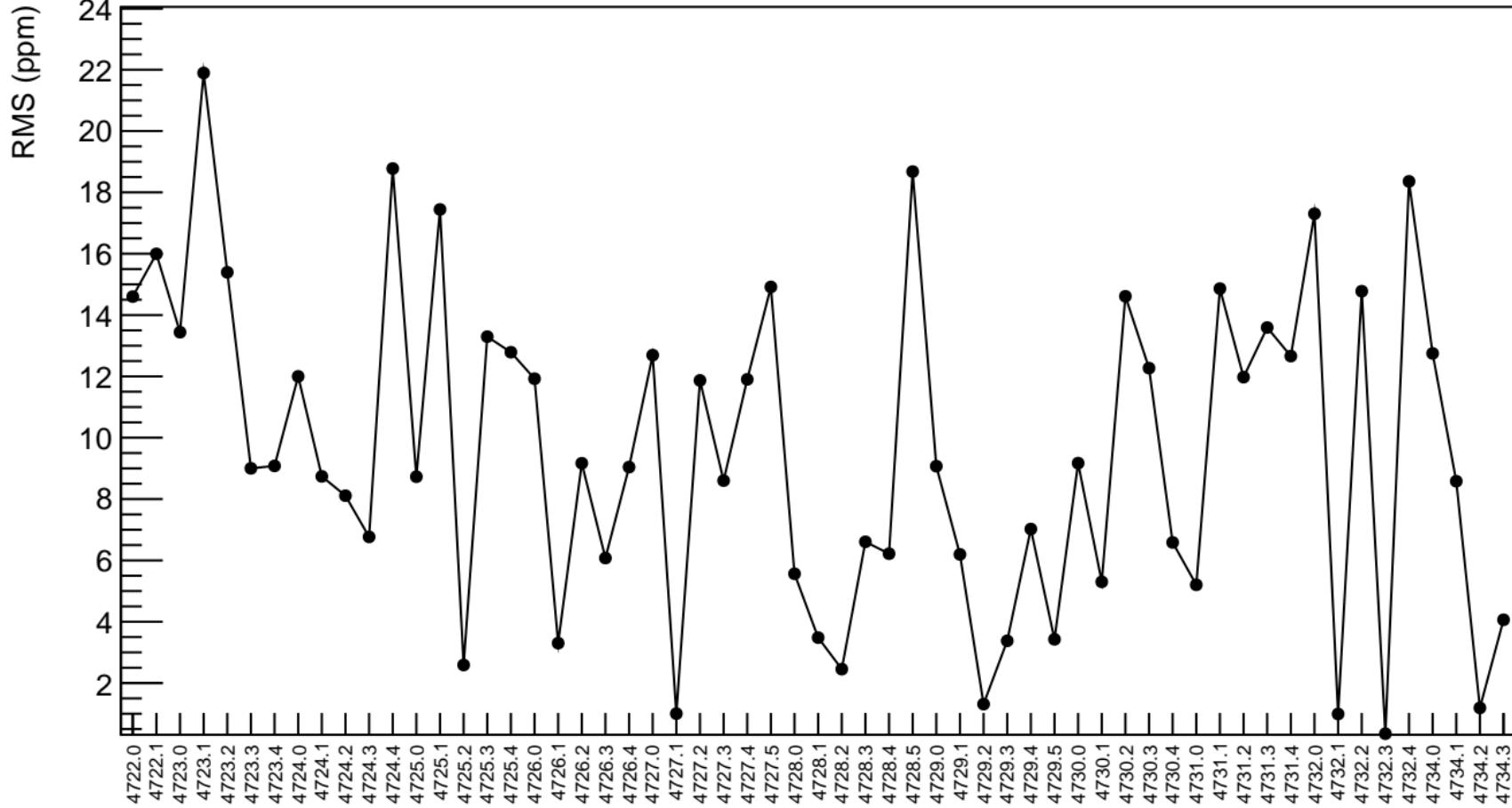
$\chi^2 / \text{ndf}$  10.27 / 58  
 $p_0$   $-8.043 \pm 31.78$



1D pull distribution

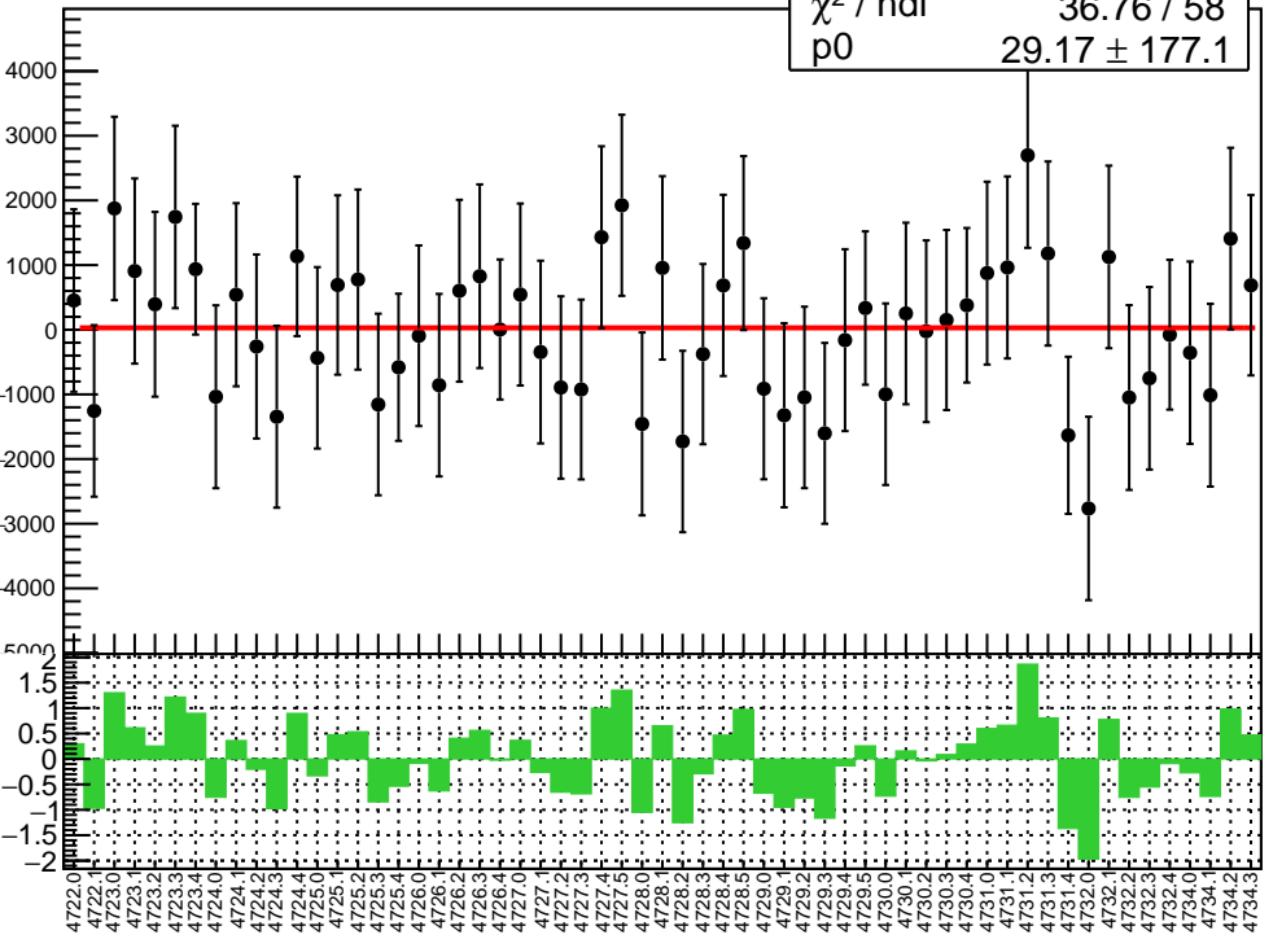


# corr\_usl\_bpm1Y RMS (ppm)

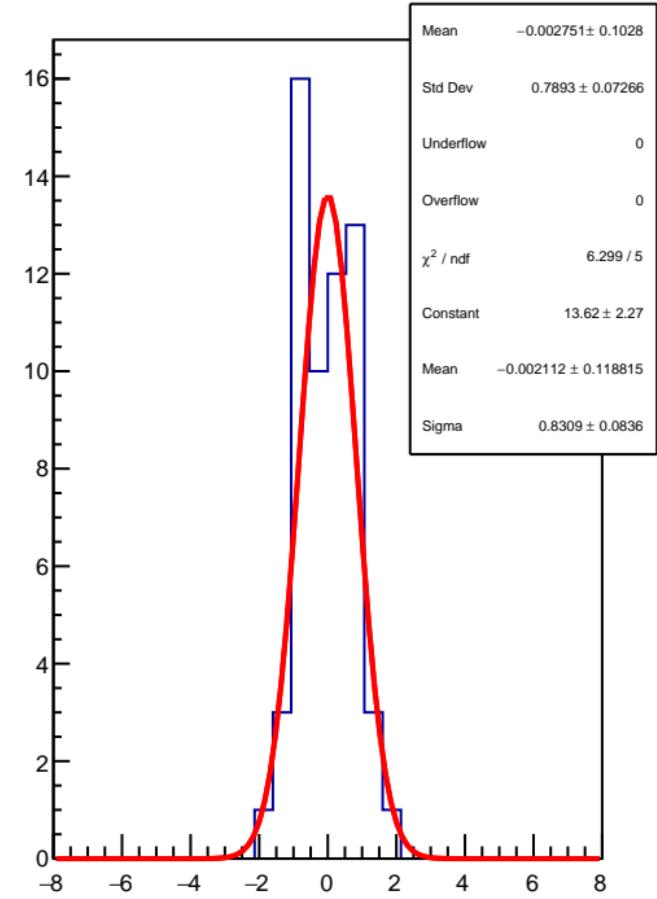


corr\_usl\_bpm16X (ppb)

$\chi^2 / \text{ndf}$   
36.76 / 58  
 $p_0$   
 $29.17 \pm 177.1$

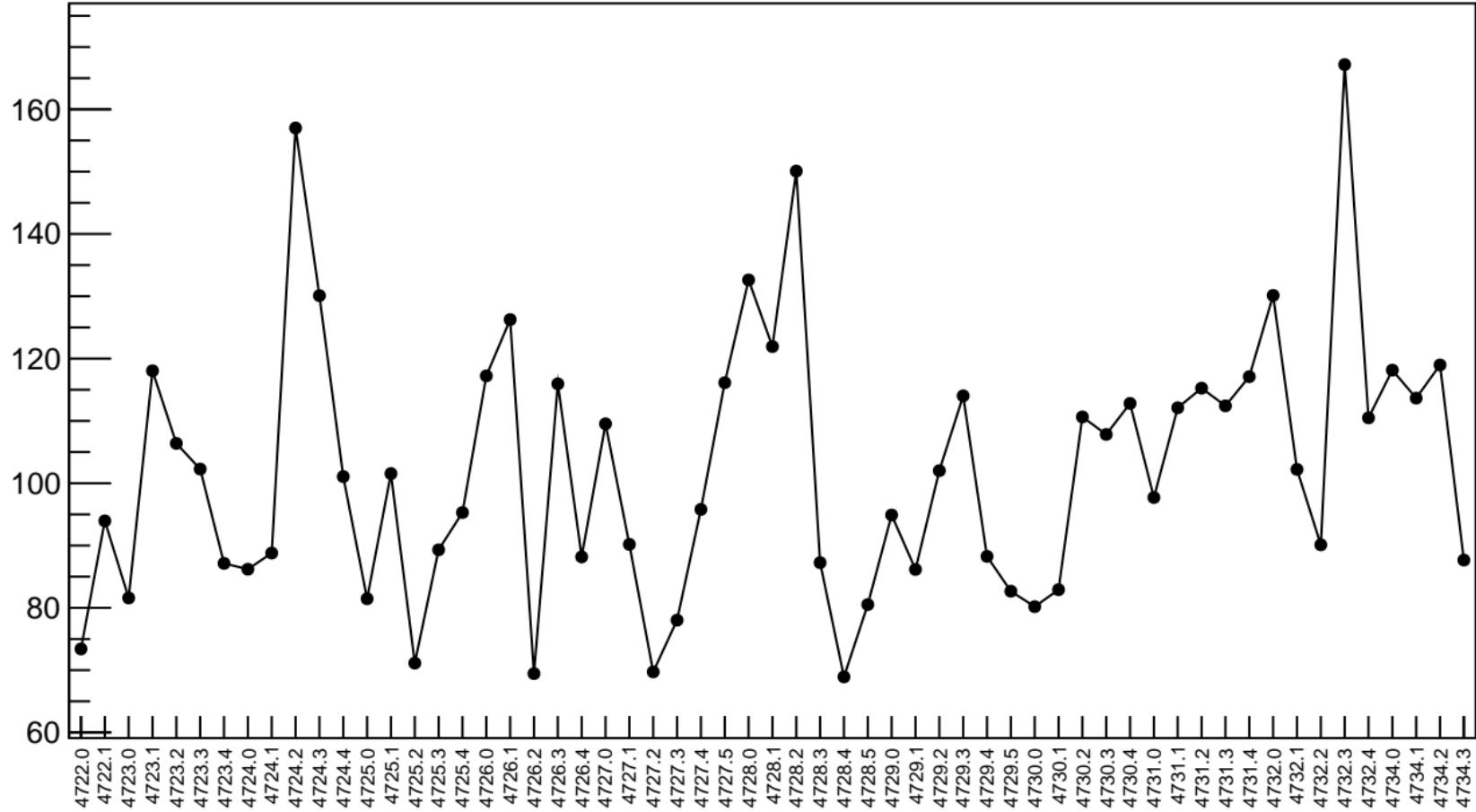


1D pull distribution



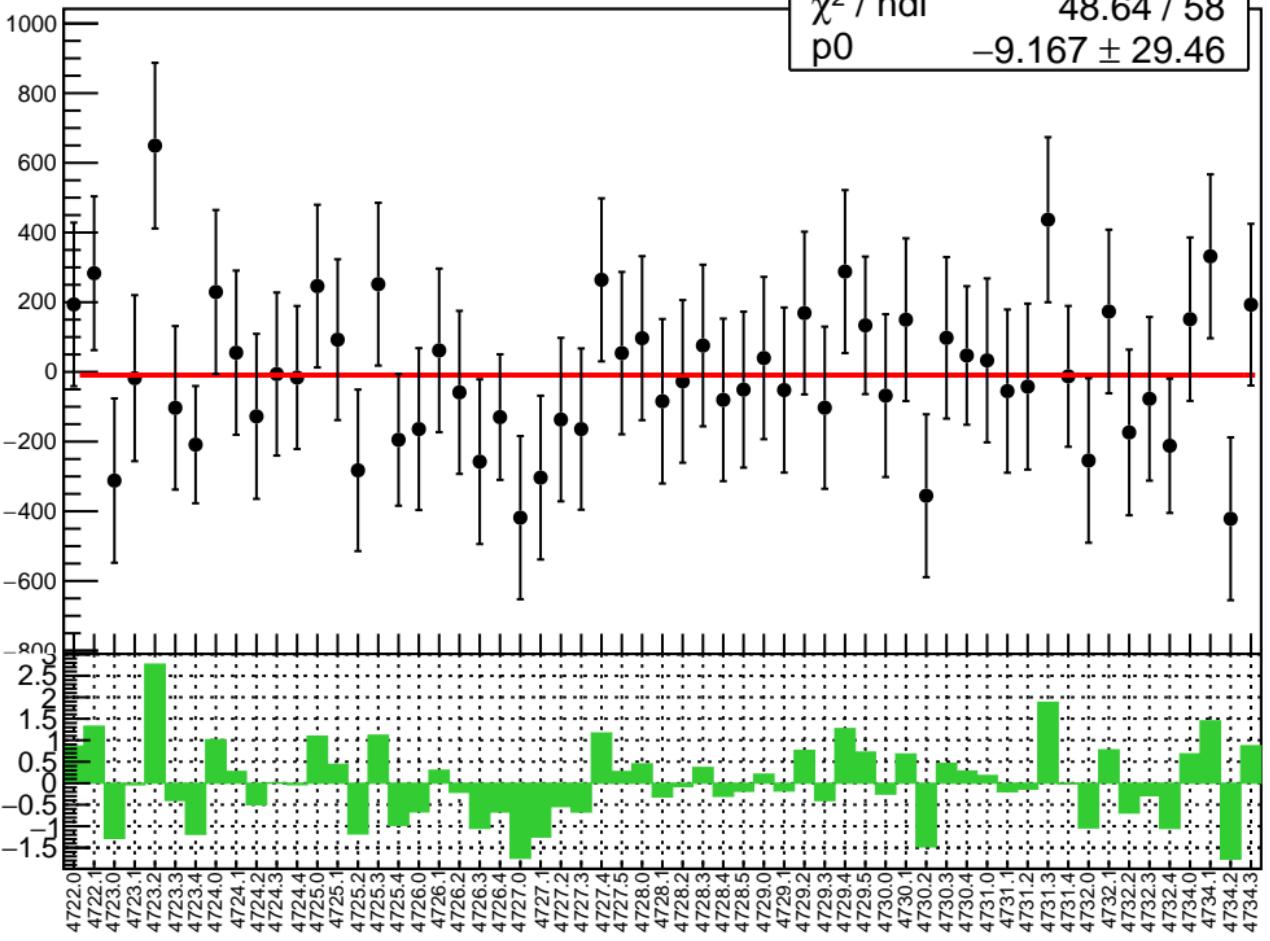
# corr\_usl\_bpm16X RMS (ppm)

RMS (ppm)

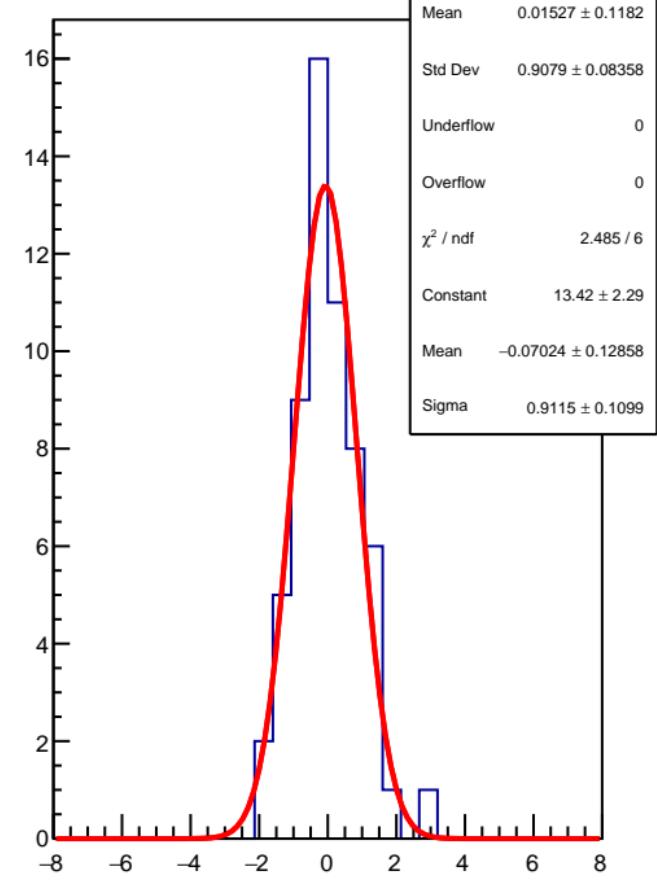


corr\_usl\_bpm16Y (ppb)

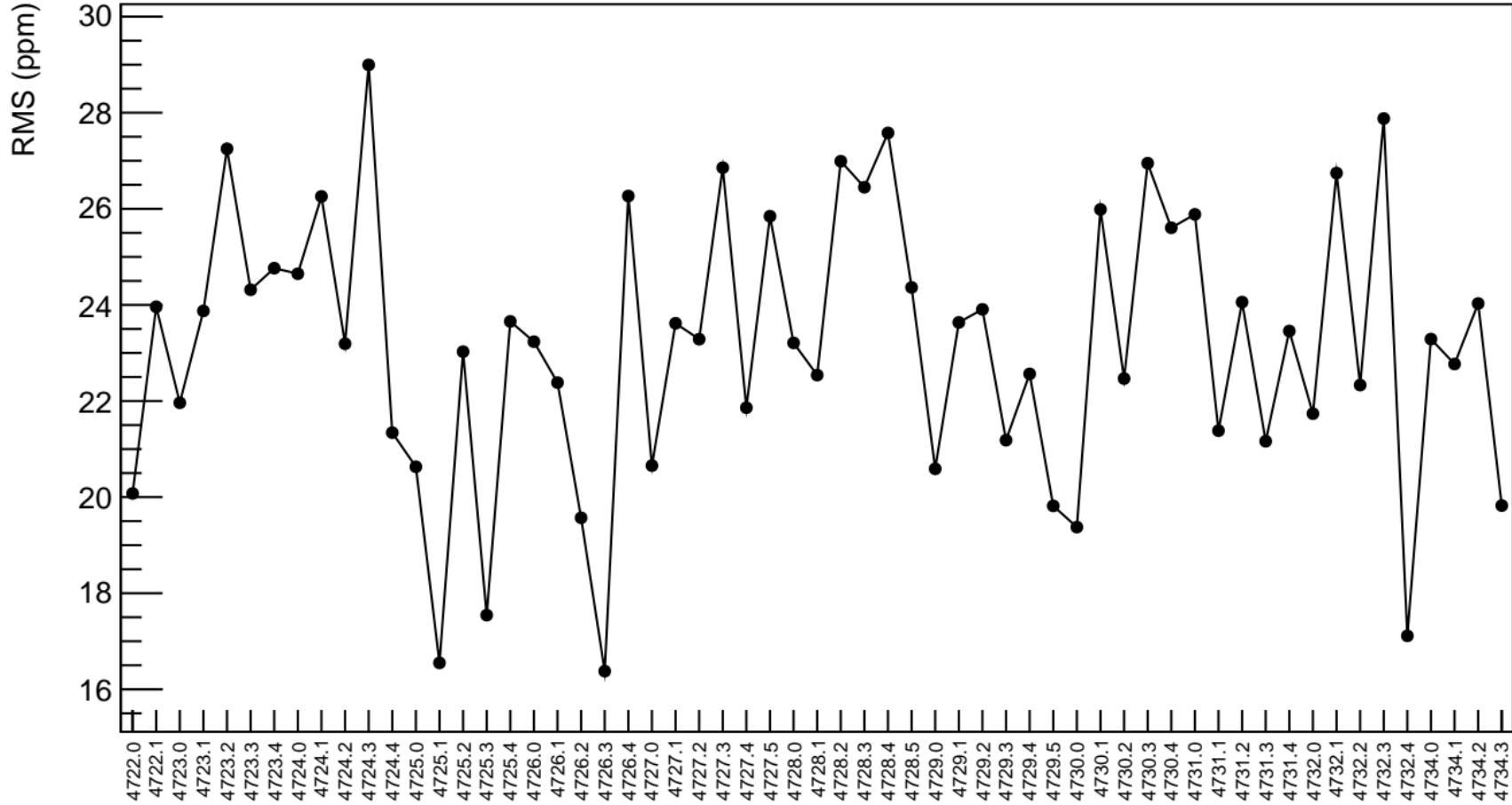
$\chi^2 / \text{ndf}$  48.64 / 58  
p0  $-9.167 \pm 29.46$



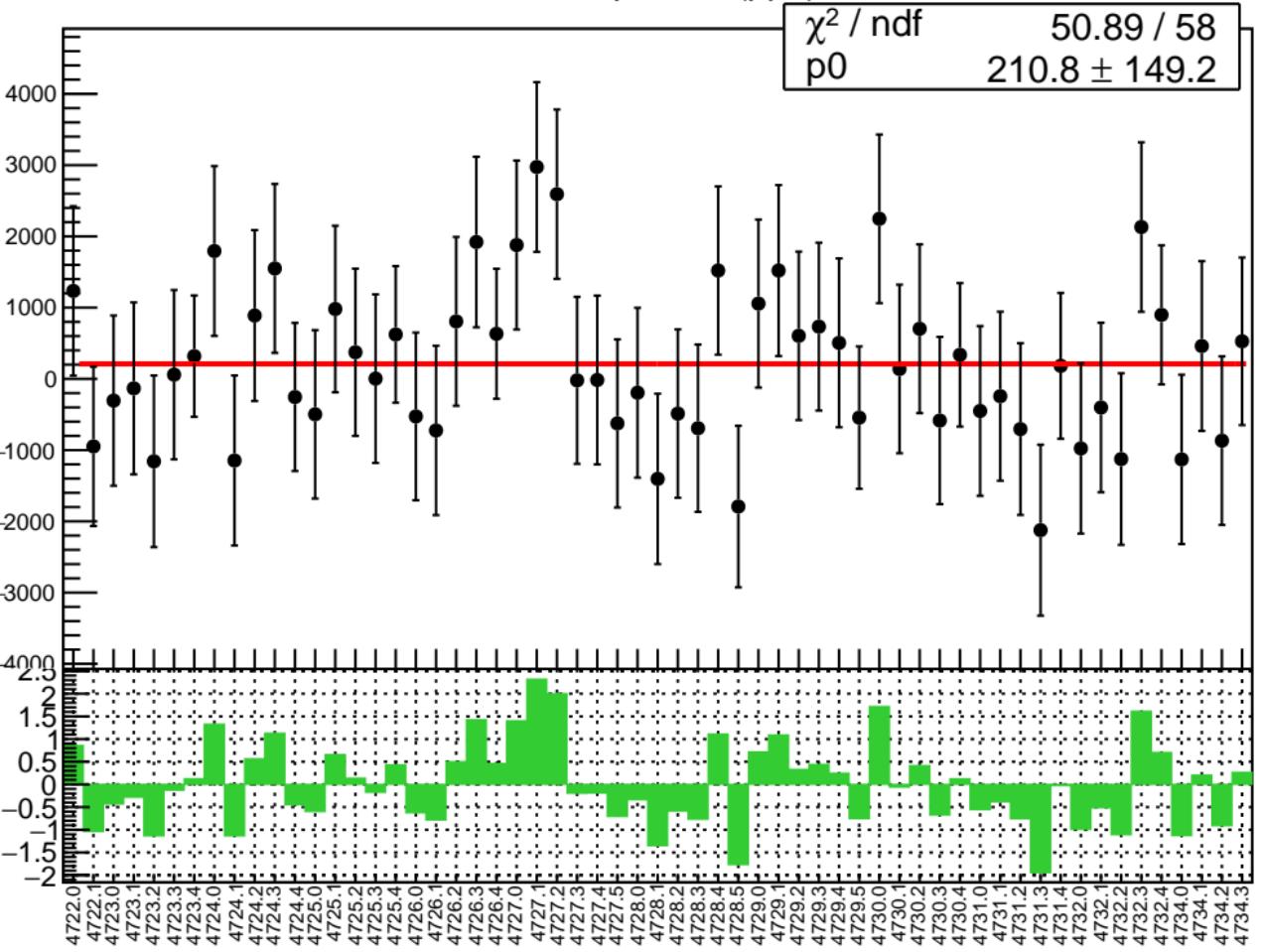
1D pull distribution



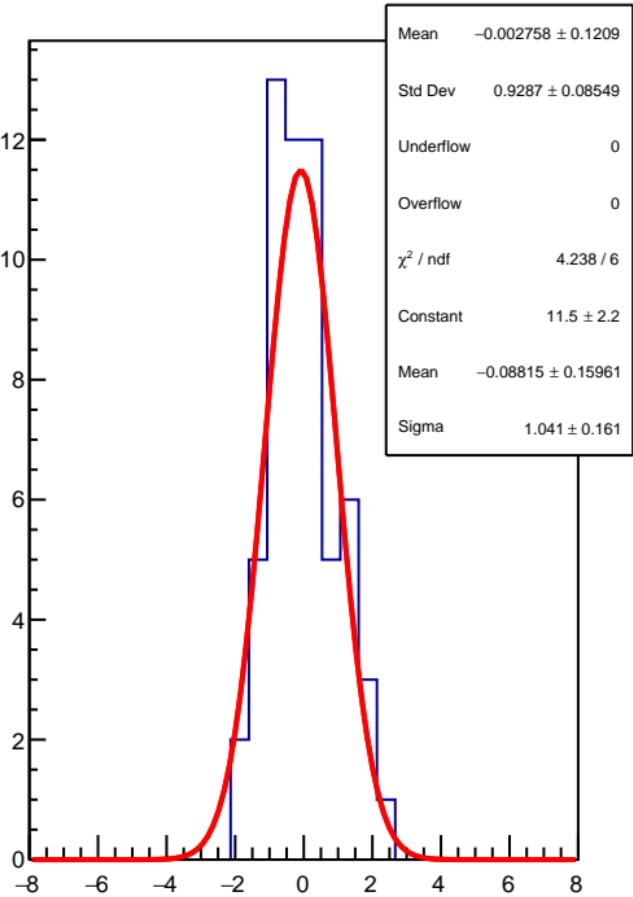
# corr\_usl\_bpm16Y RMS (ppm)



corr\_usl\_bpm12X (ppb)

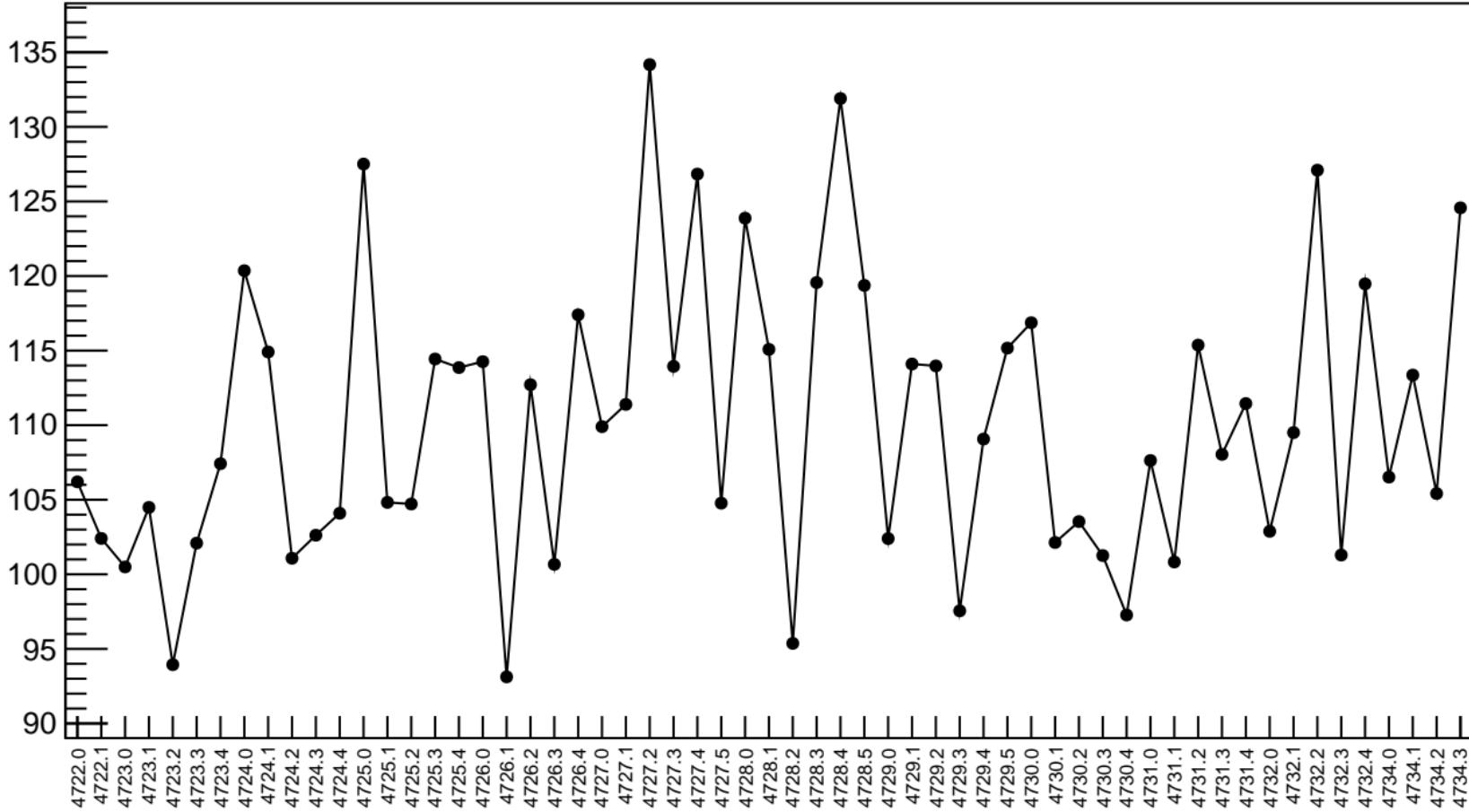


1D pull distribution



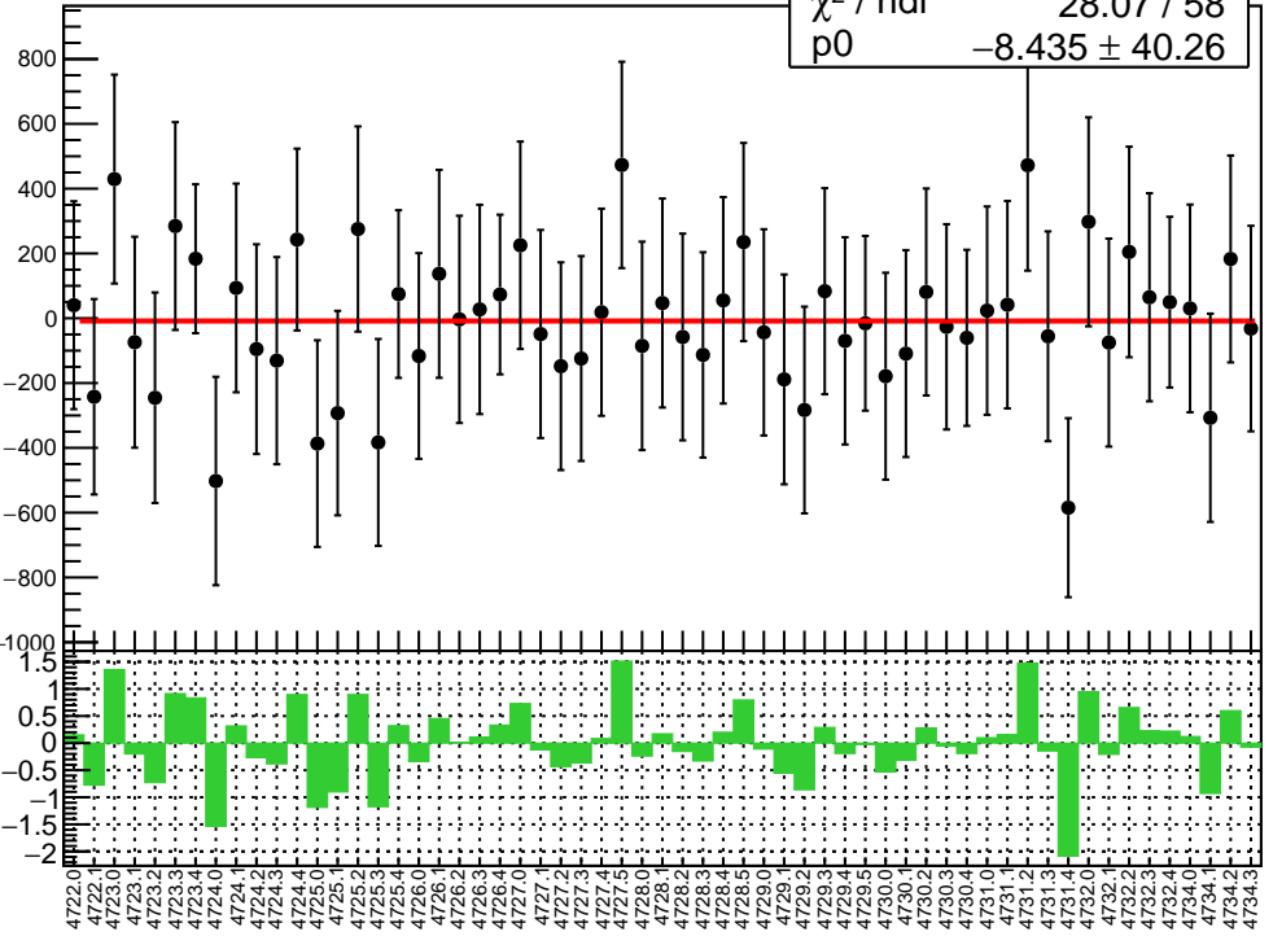
# corr\_usl\_bpm12X RMS (ppm)

RMS (ppm)

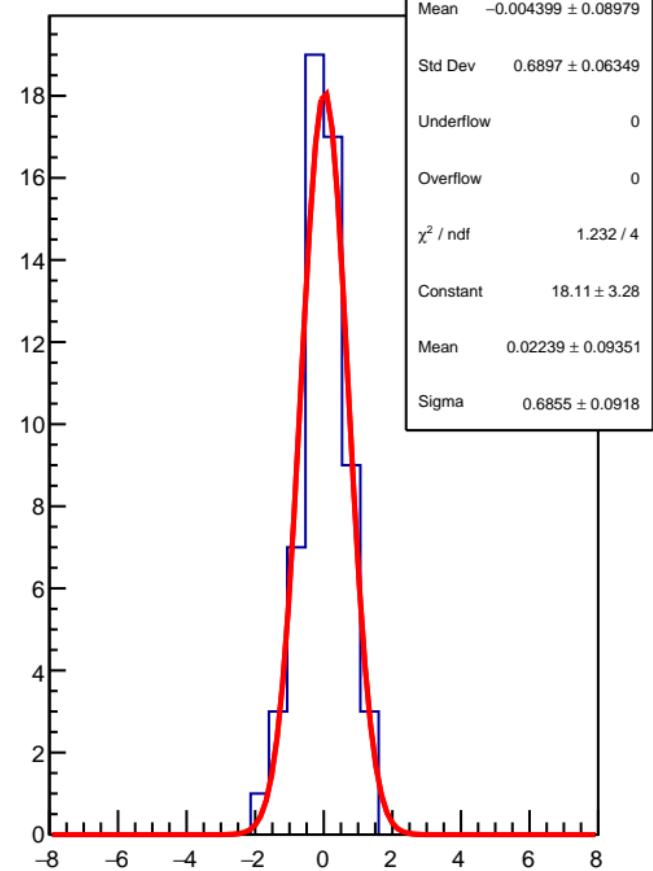


corr\_usl\_bpm12Y (ppb)

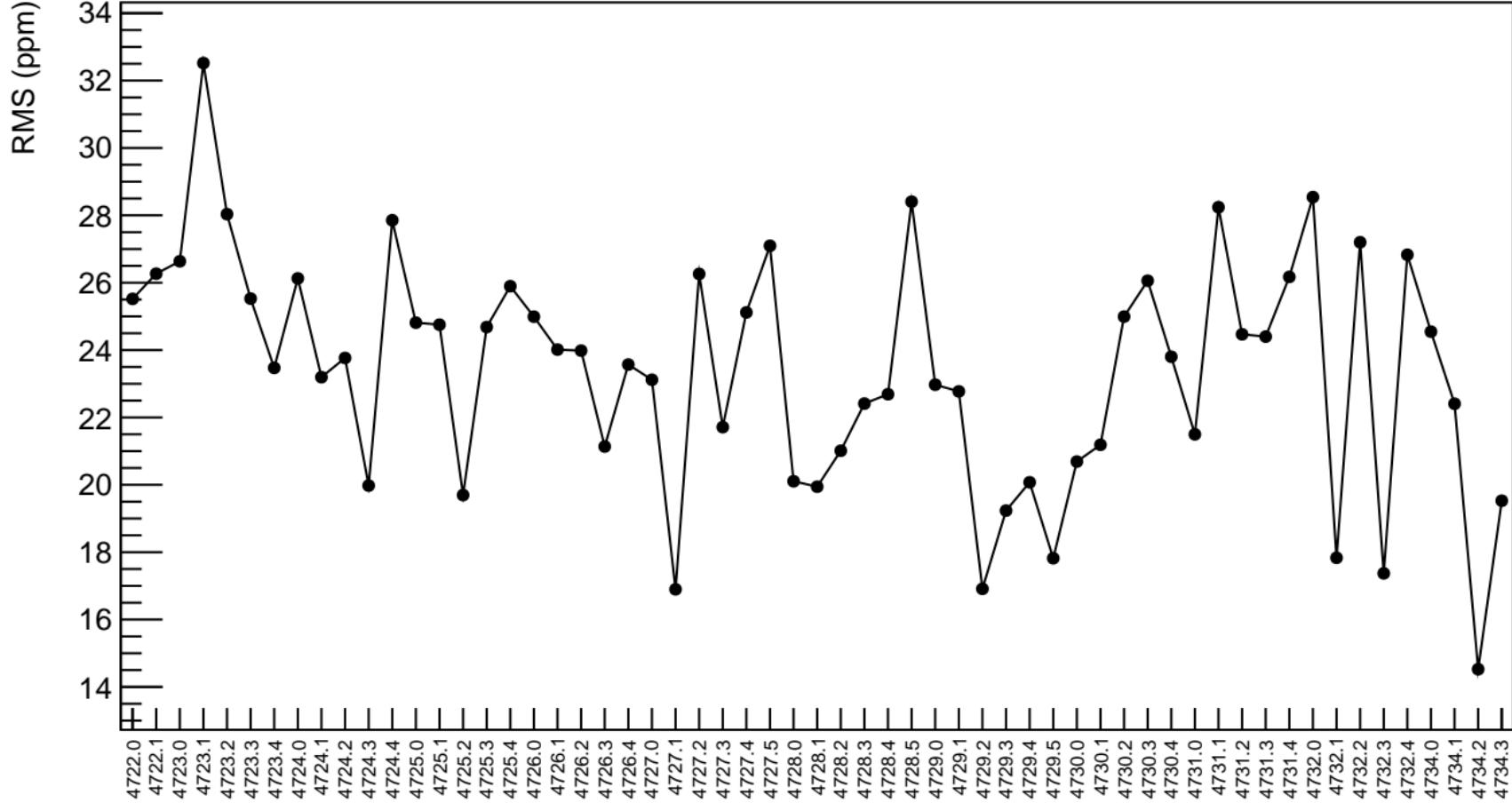
$\chi^2 / \text{ndf}$  28.07 / 58  
p0  $-8.435 \pm 40.26$



1D pull distribution

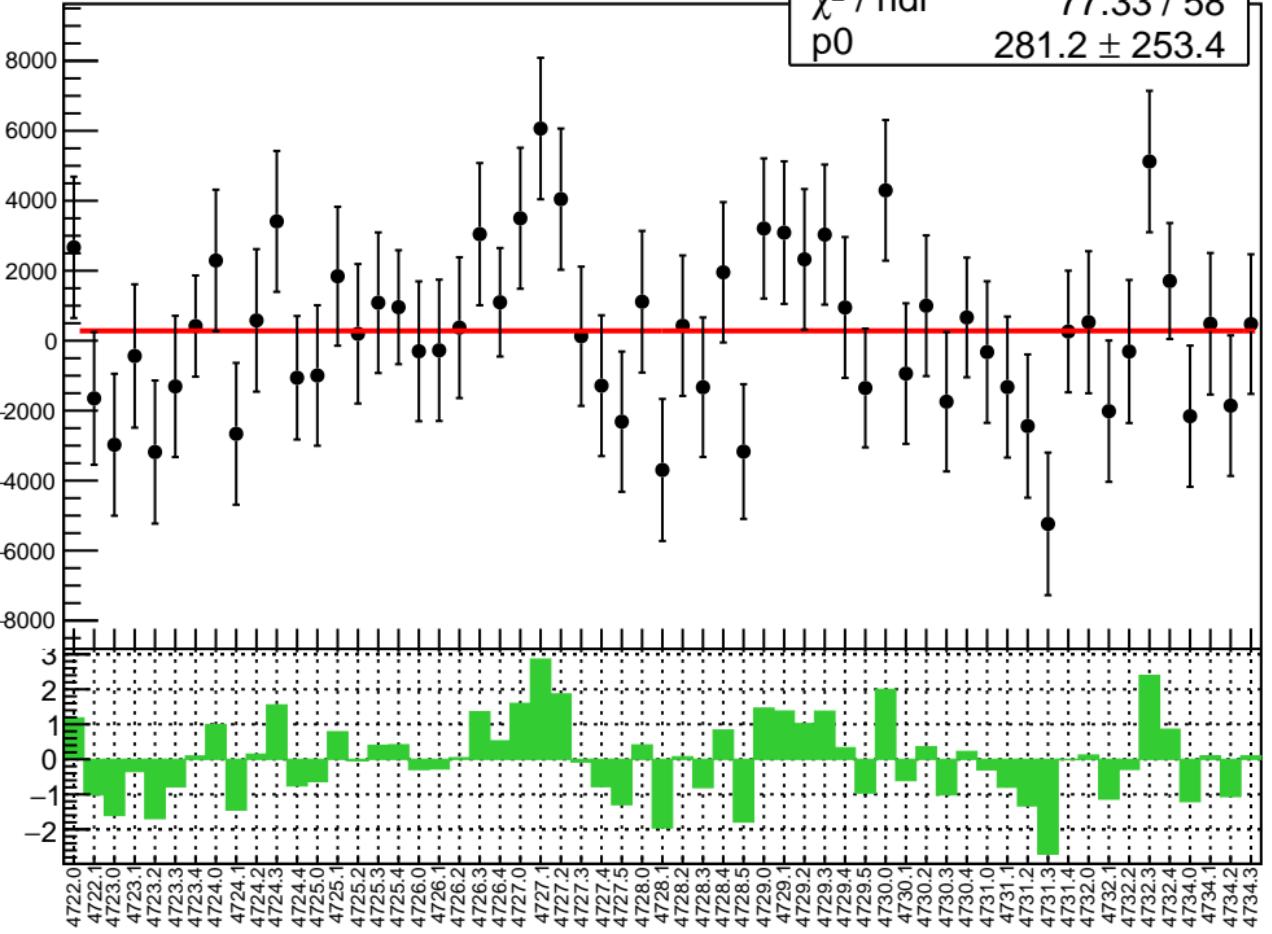


# corr\_usl\_bpm12Y RMS (ppm)

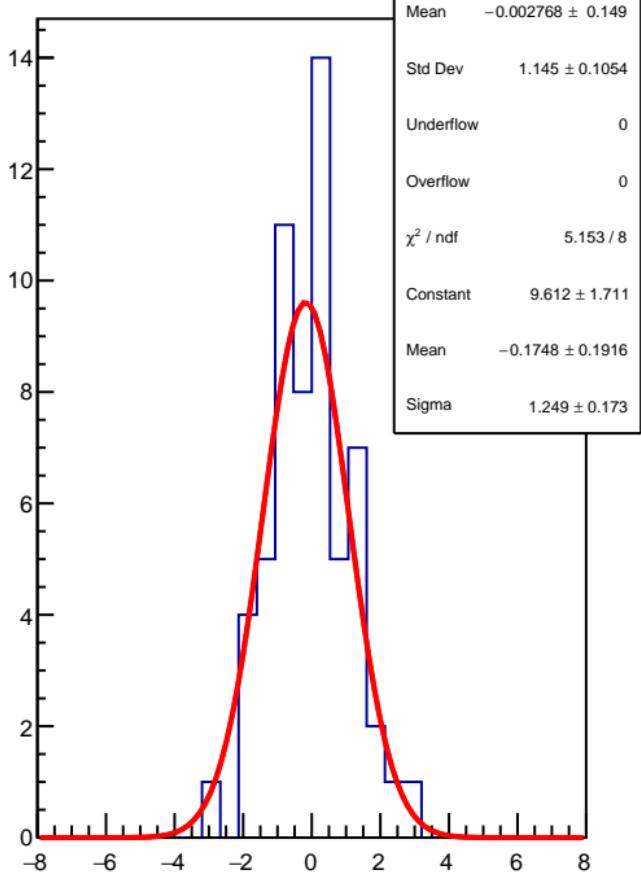


corr\_usl\_bpm11X (ppb)

$\chi^2 / \text{ndf}$  77.33 / 58  
p0  $281.2 \pm 253.4$

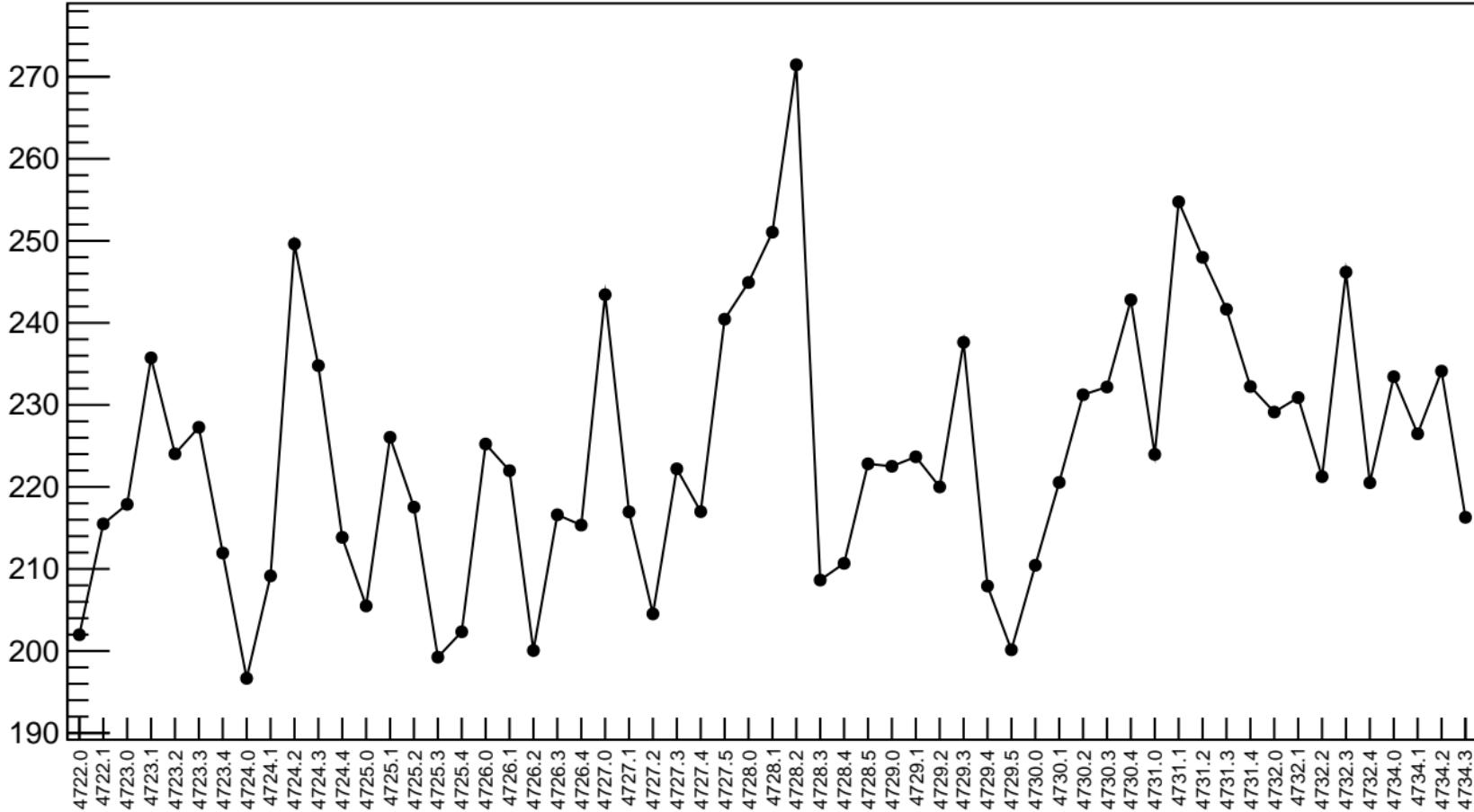


1D pull distribution

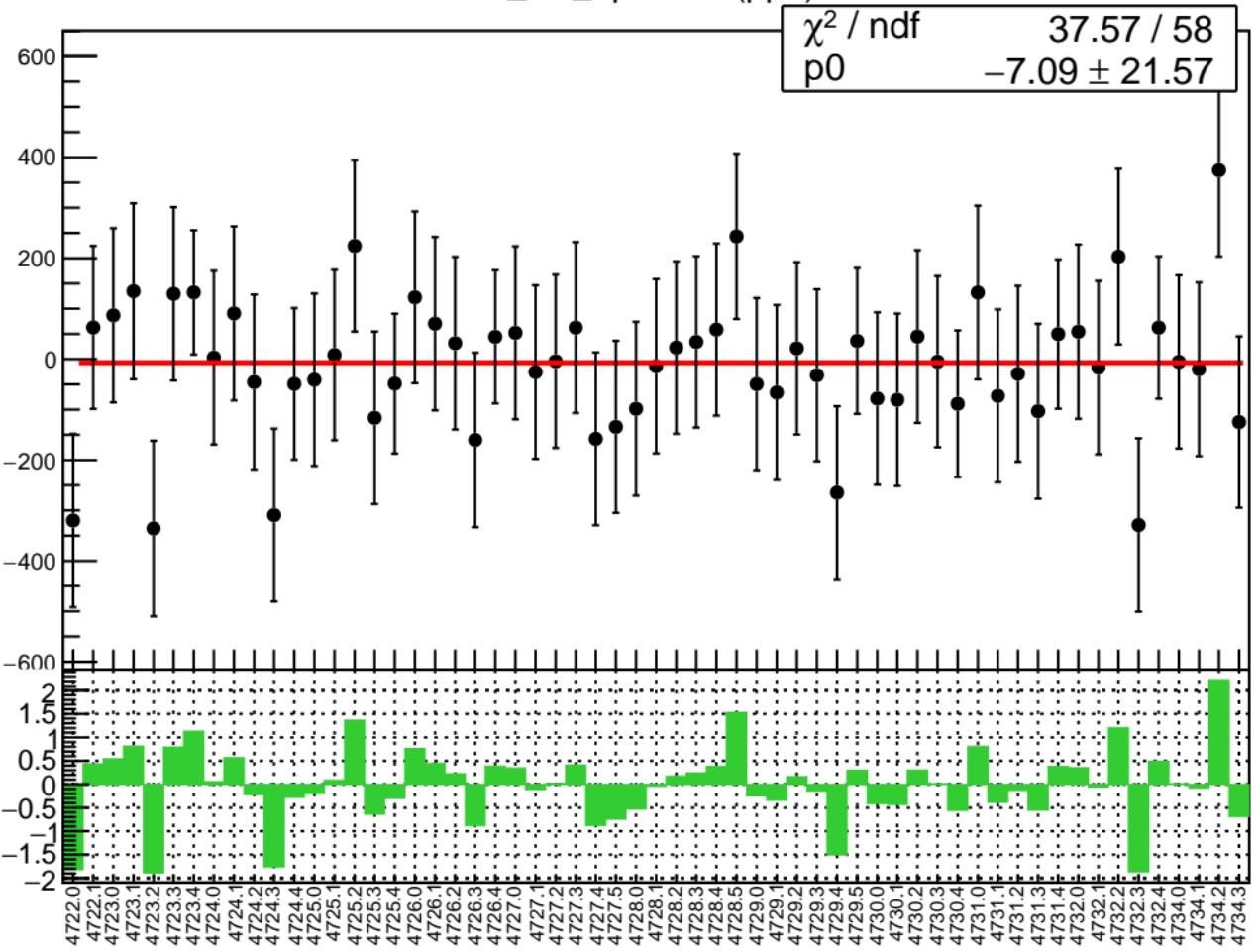


# corr\_usl\_bpm11X RMS (ppm)

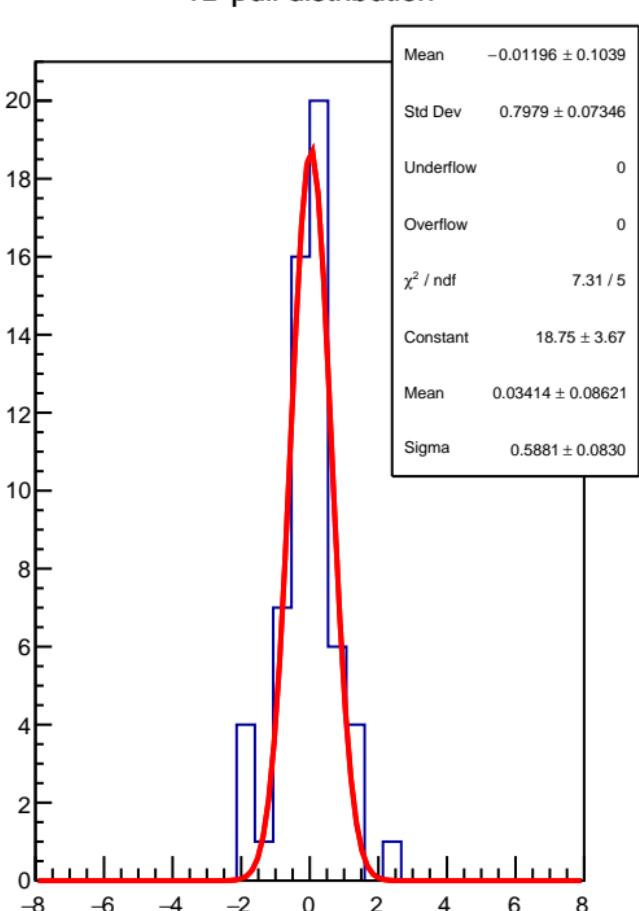
RMS (ppm)



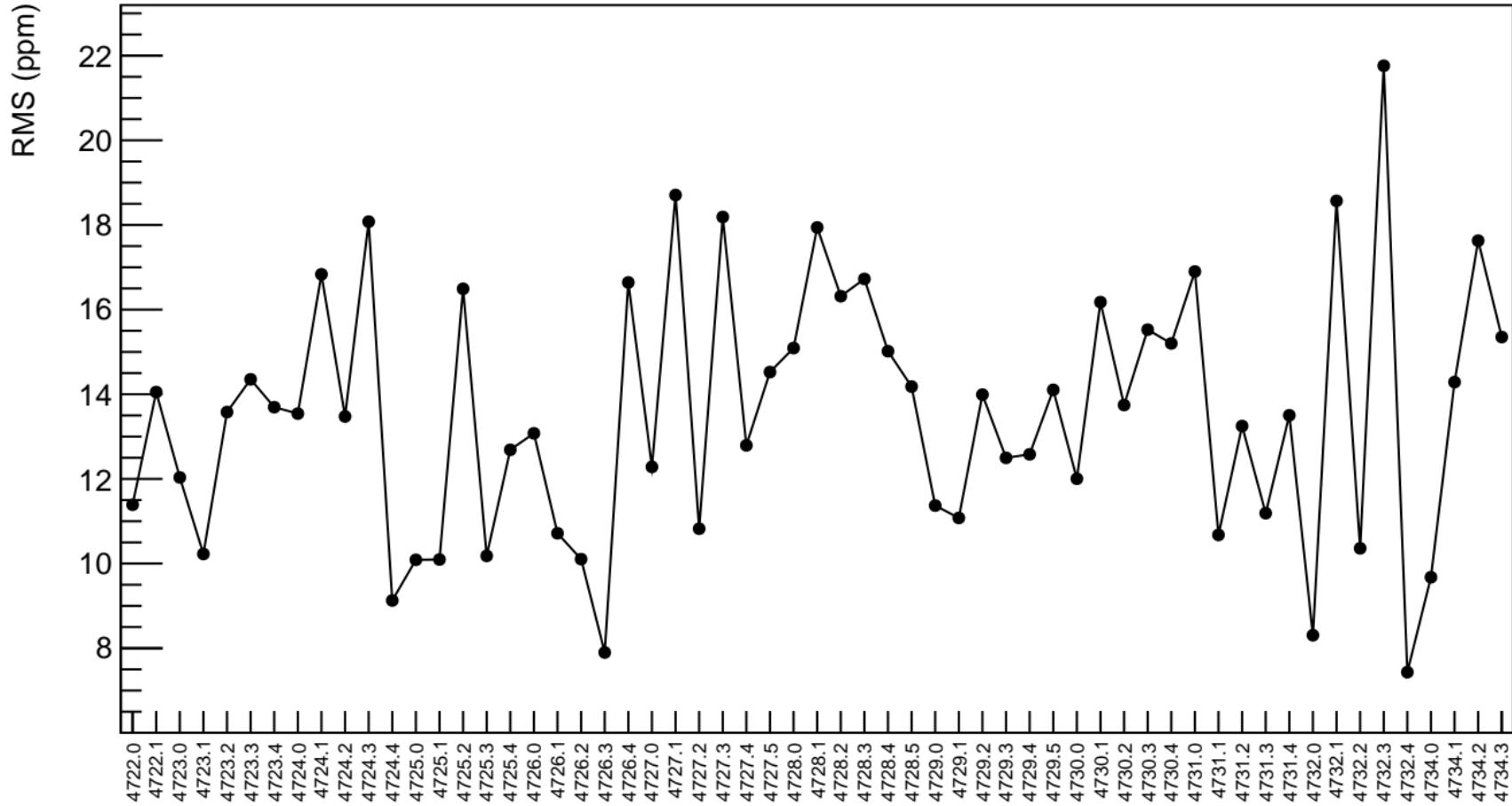
corr\_usl\_bpm11Y (ppb)



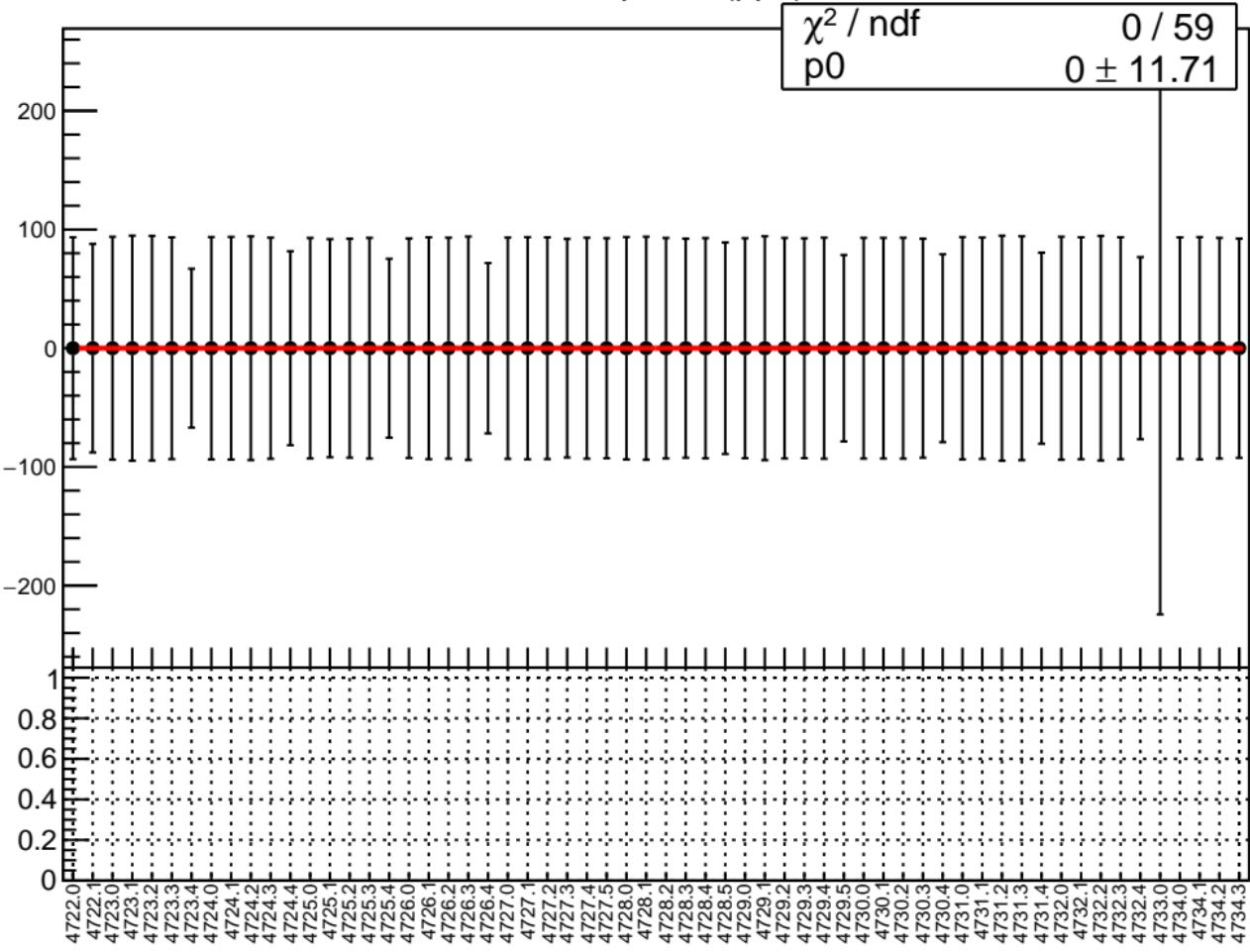
1D pull distribution



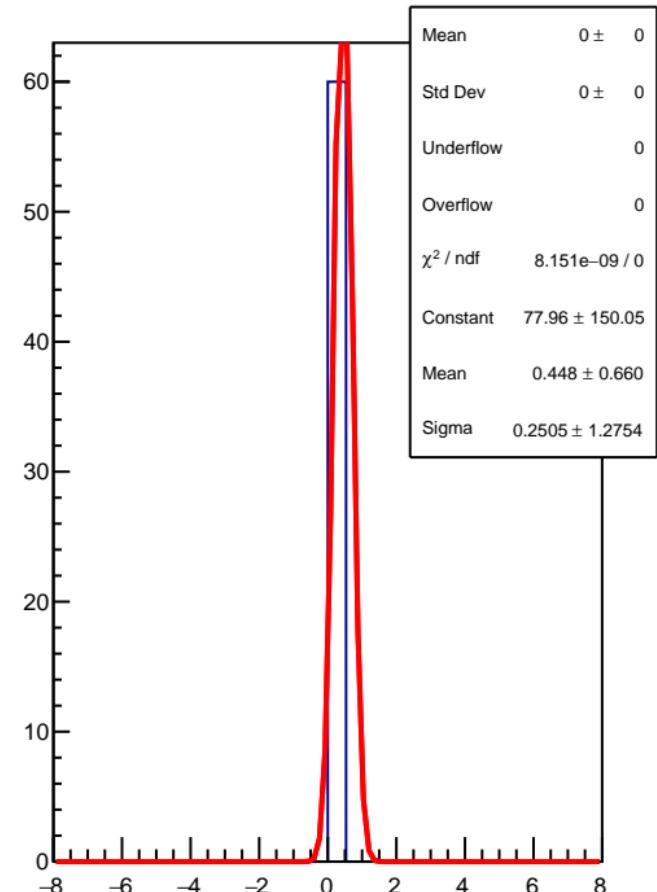
# corr\_usl\_bpm11Y RMS (ppm)



corr\_usl\_bpm8X (ppb)

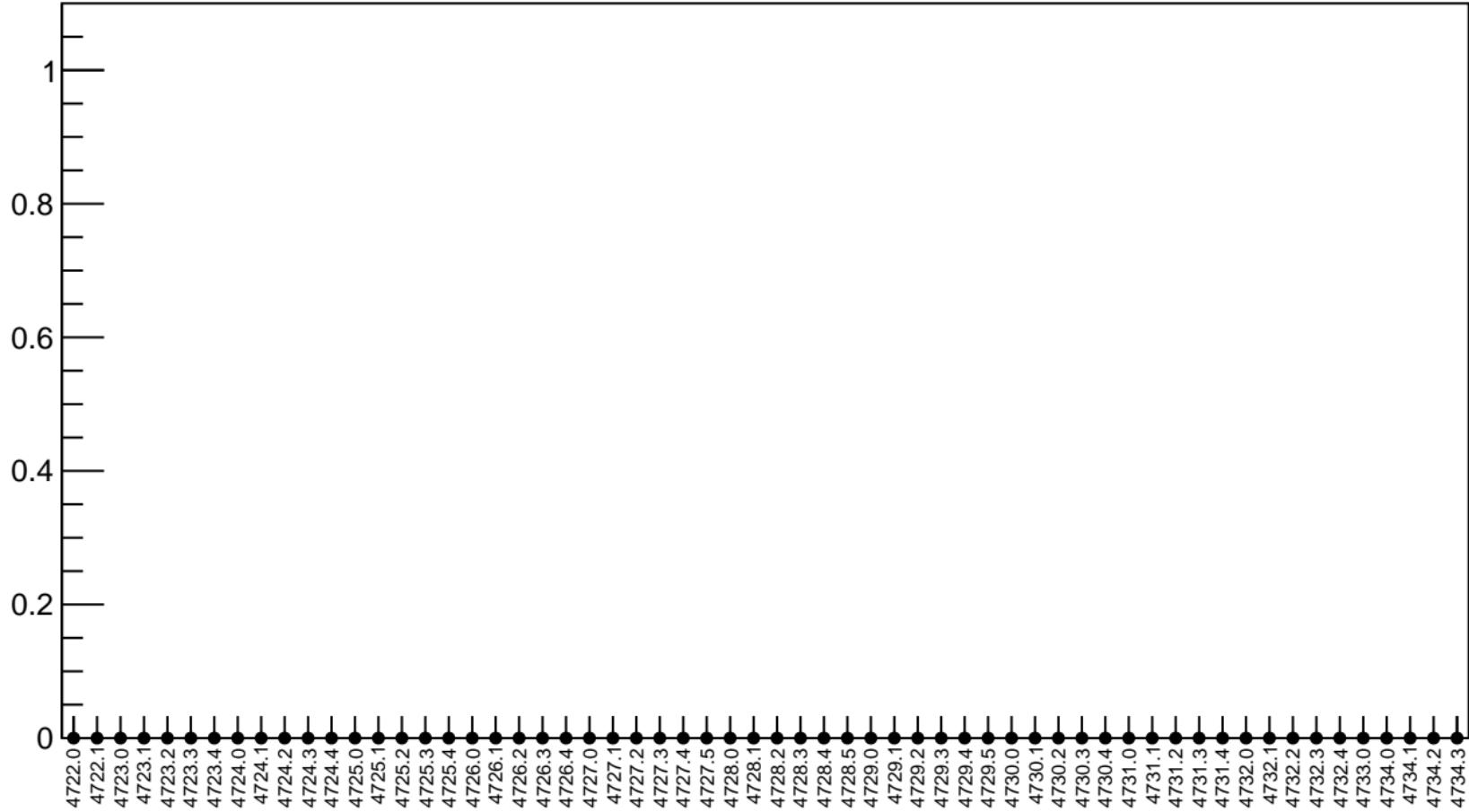


1D pull distribution

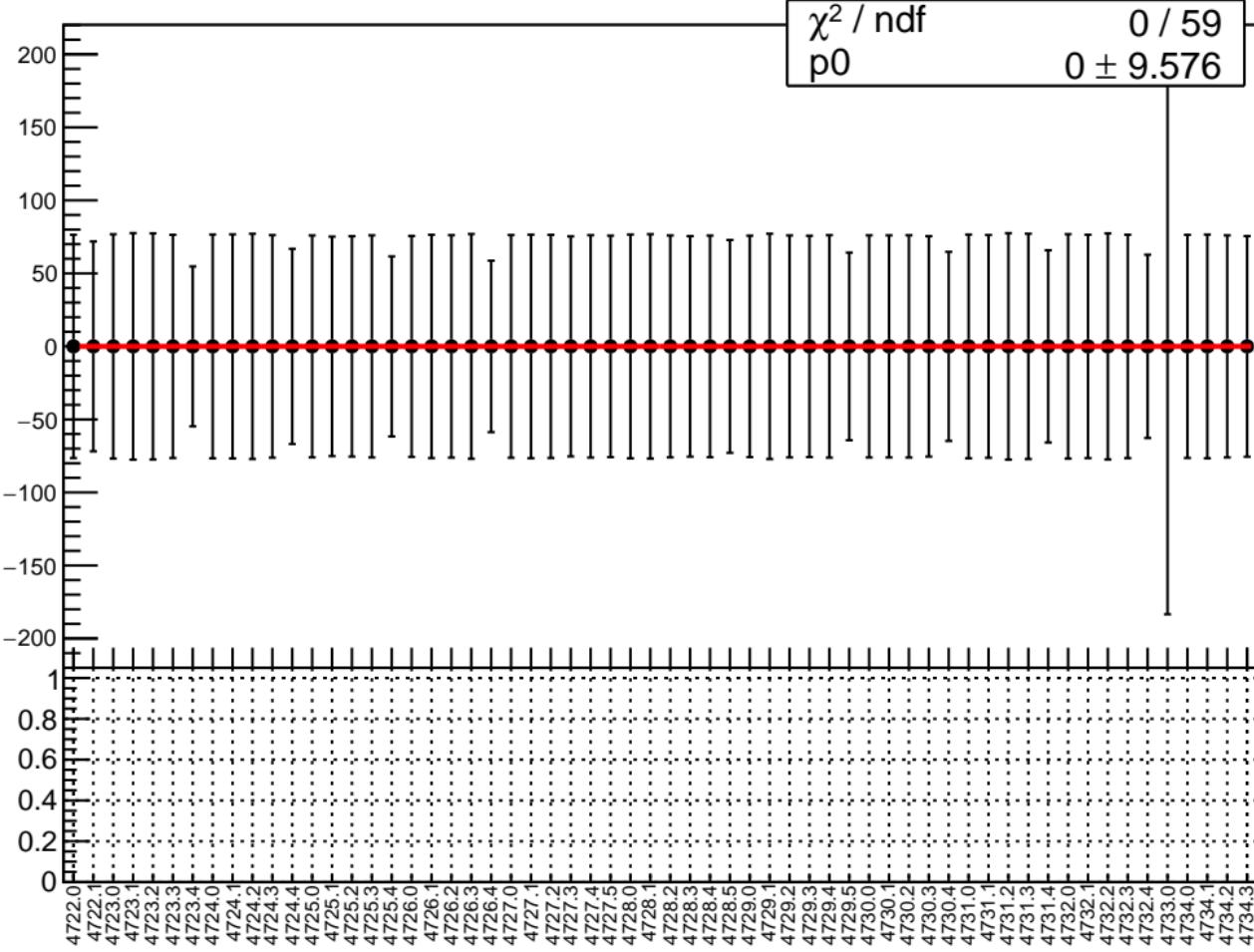


# corr\_usl\_bpm8X RMS (ppm)

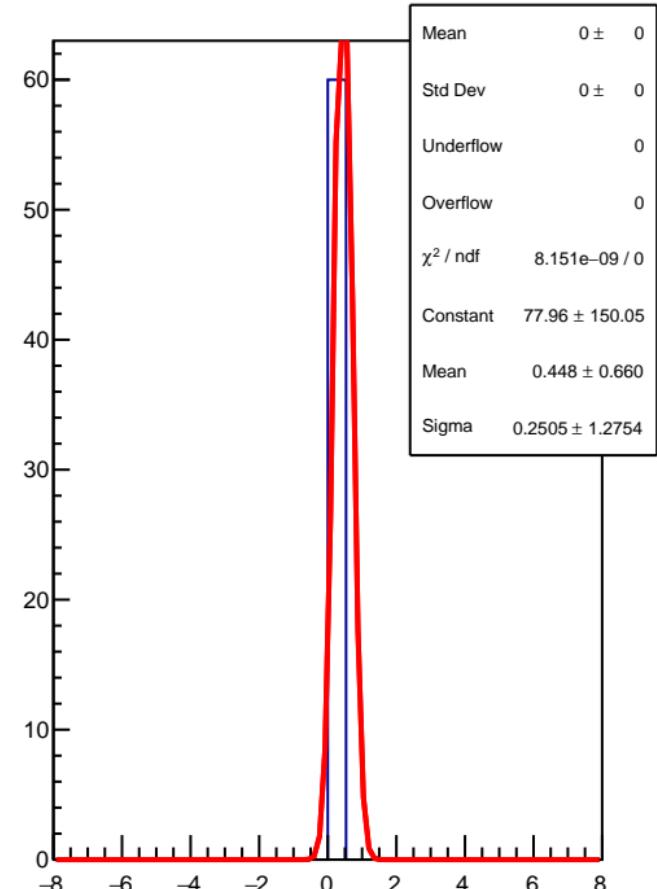
RMS (ppm)



# corr\_usl\_bpm8Y (ppb)

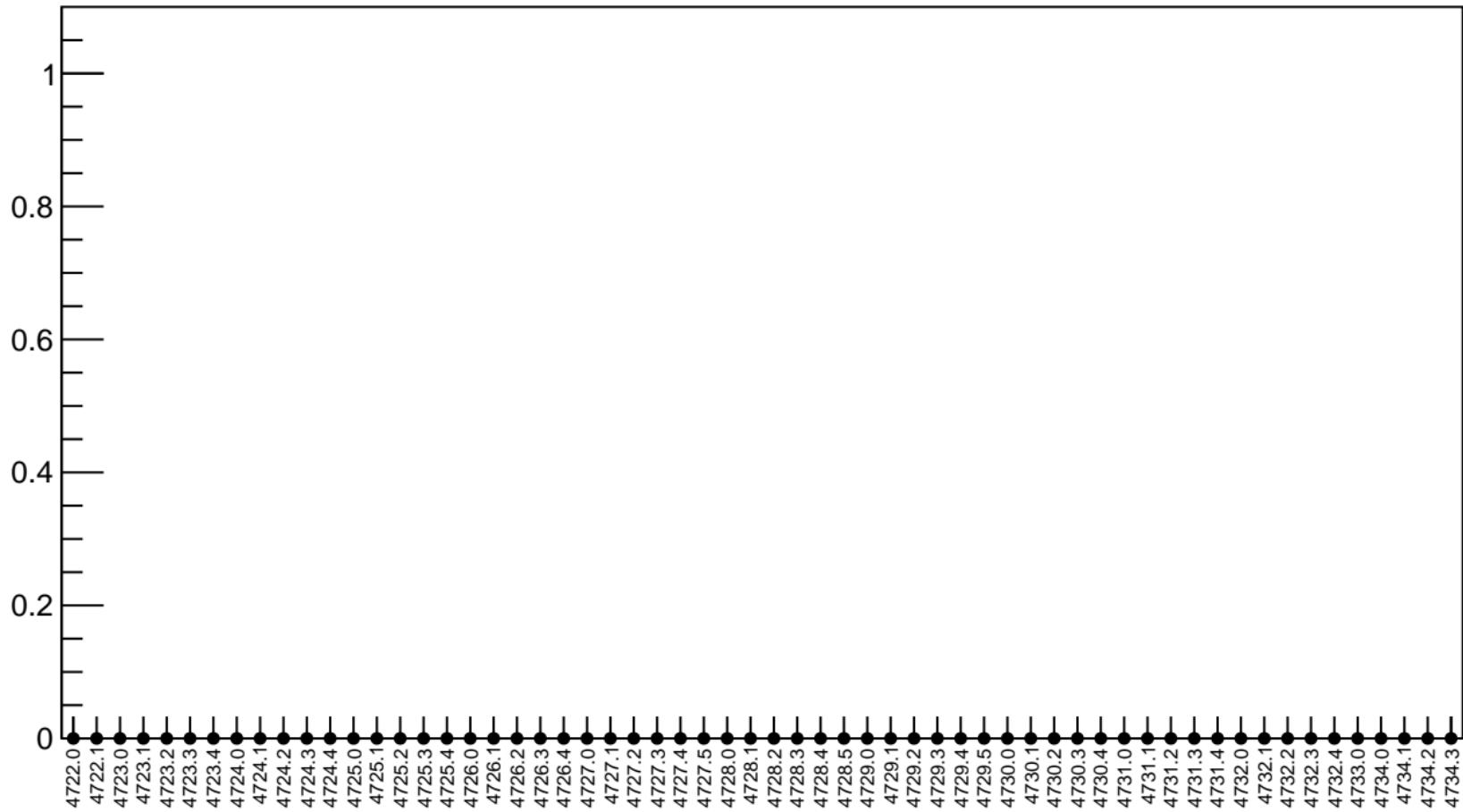


# 1D pull distribution



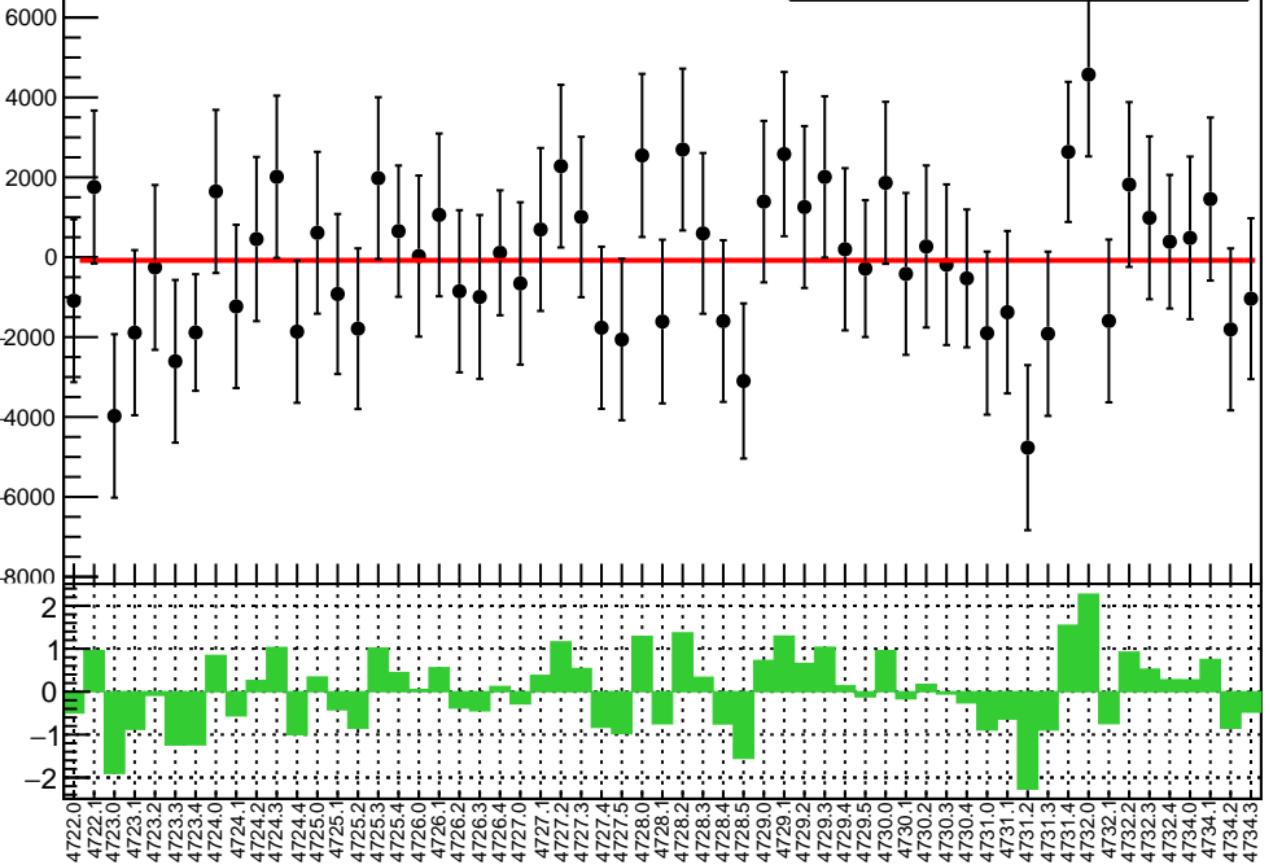
# corr\_usl\_bpm8Y RMS (ppm)

RMS (ppm)

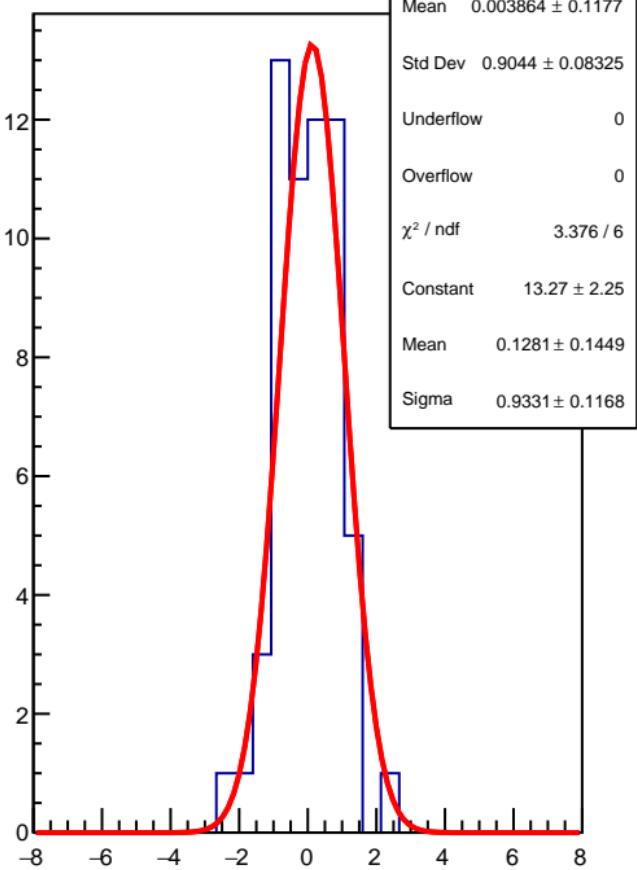


corr\_usr\_bpm4eX (ppb)

$\chi^2 / \text{ndf}$  48.25 / 58  
p0  $-79.14 \pm 255.6$

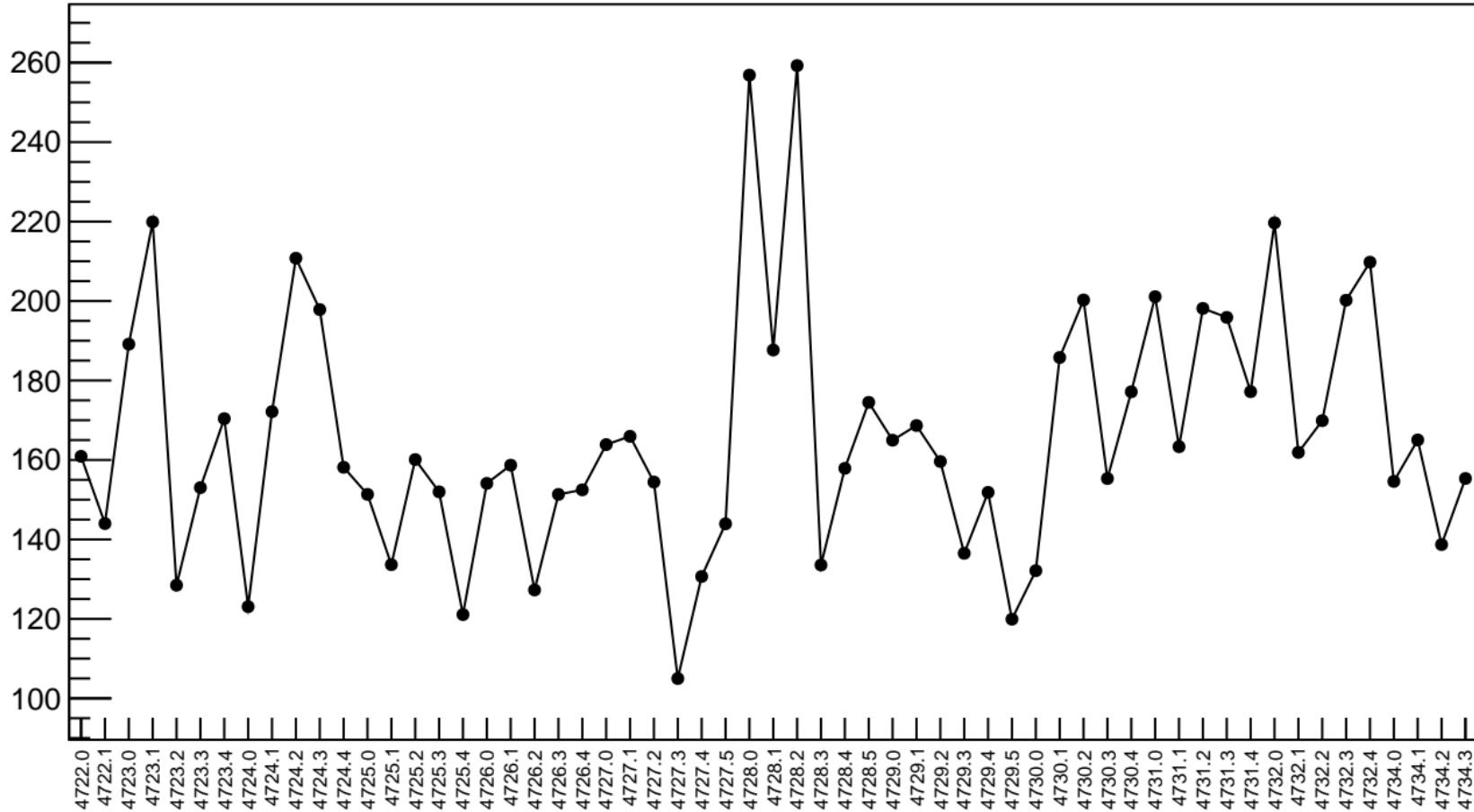


1D pull distribution

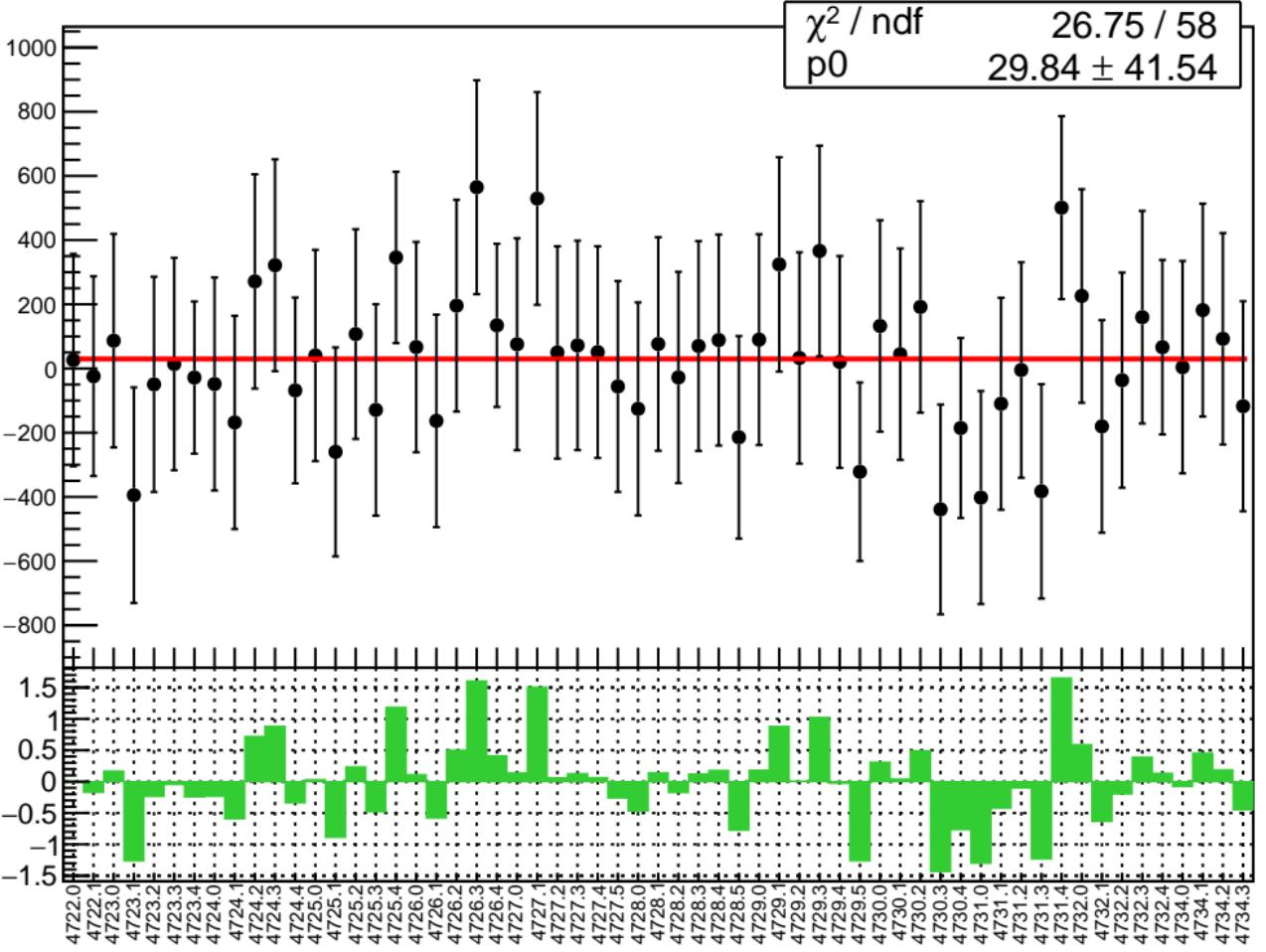


# corr\_usr\_bpm4eX RMS (ppm)

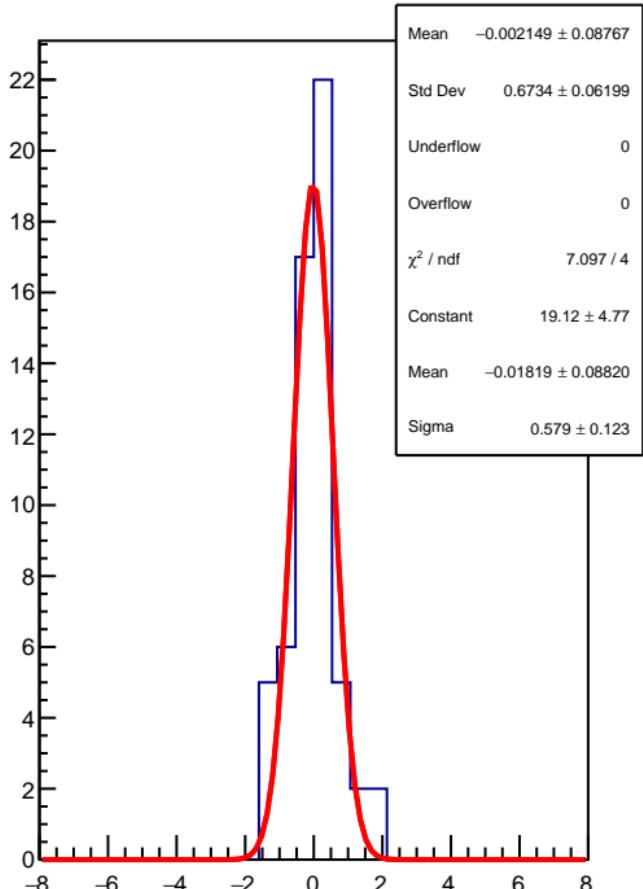
RMS (ppm)



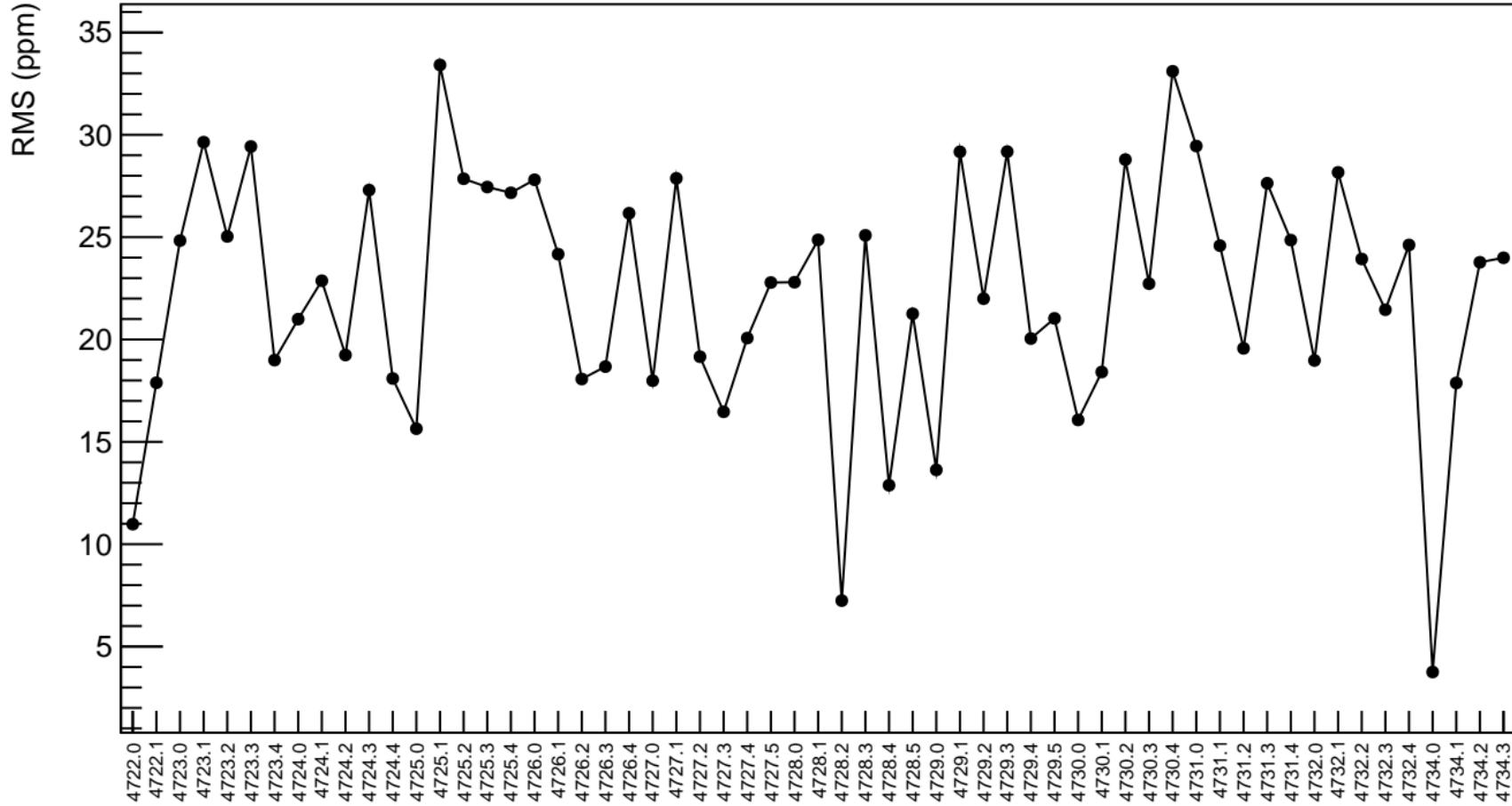
corr\_usr\_bpm4eY (ppb)



1D pull distribution

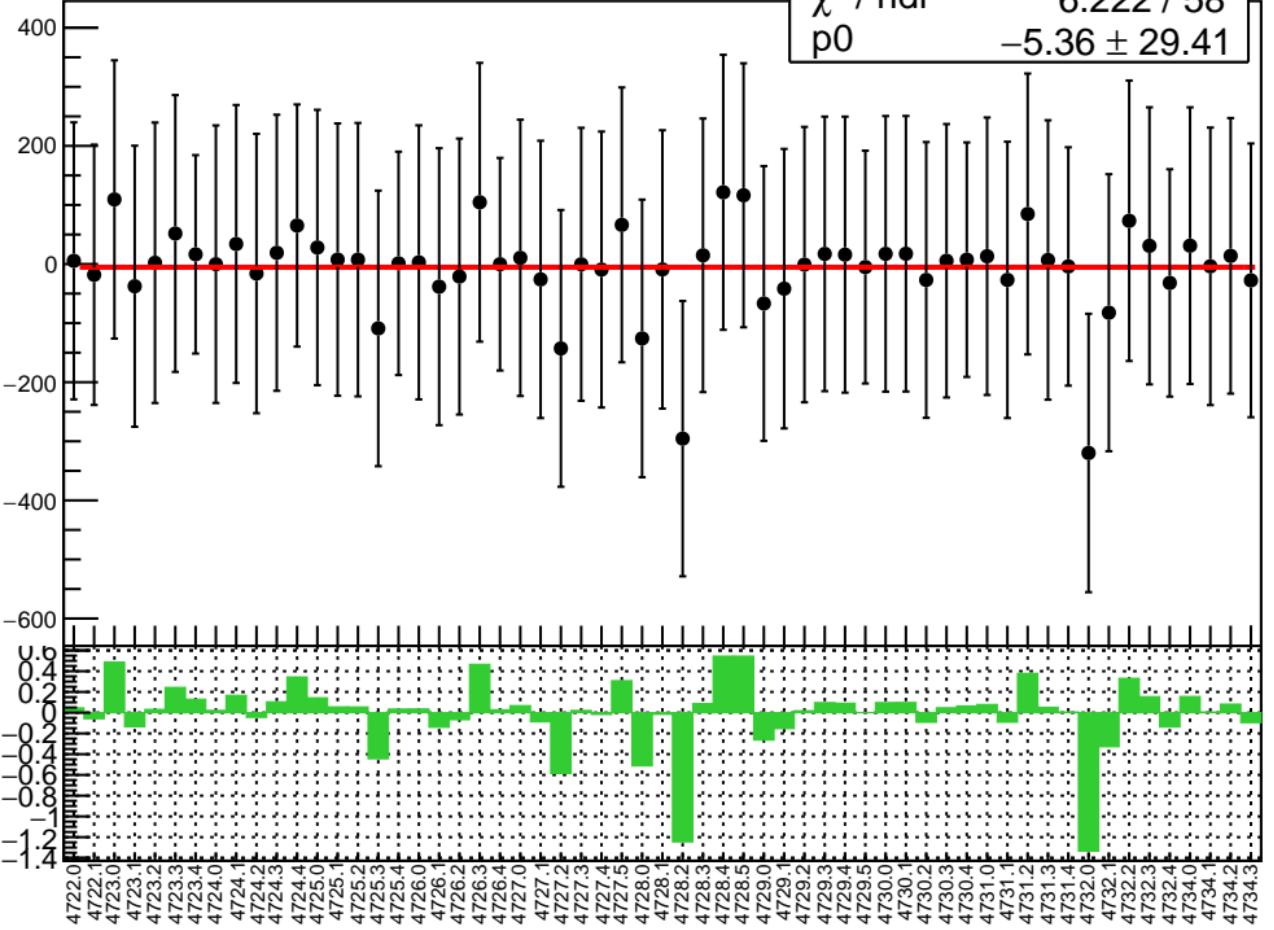


# corr\_usr\_bpm4eY RMS (ppm)

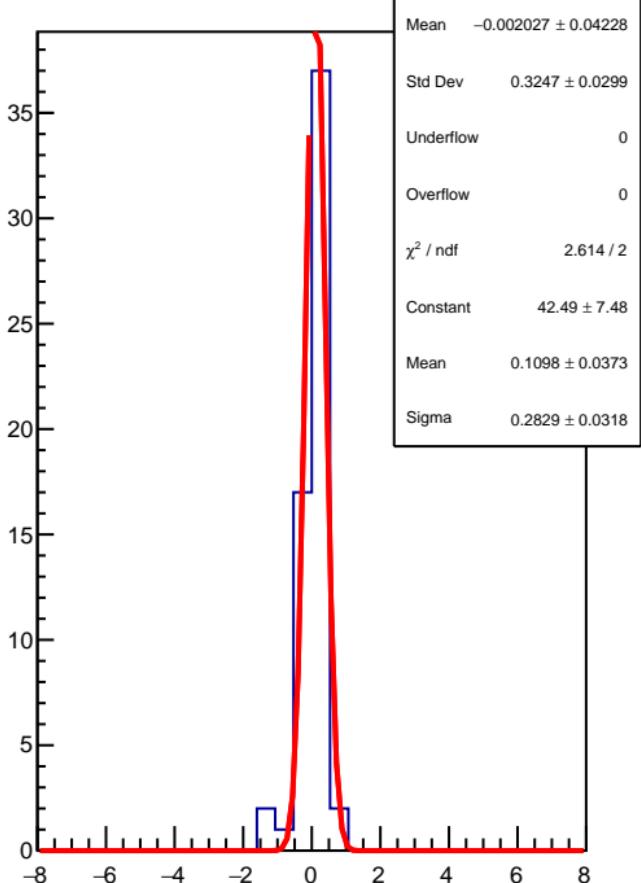


corr\_usr\_bpm4aX (ppb)

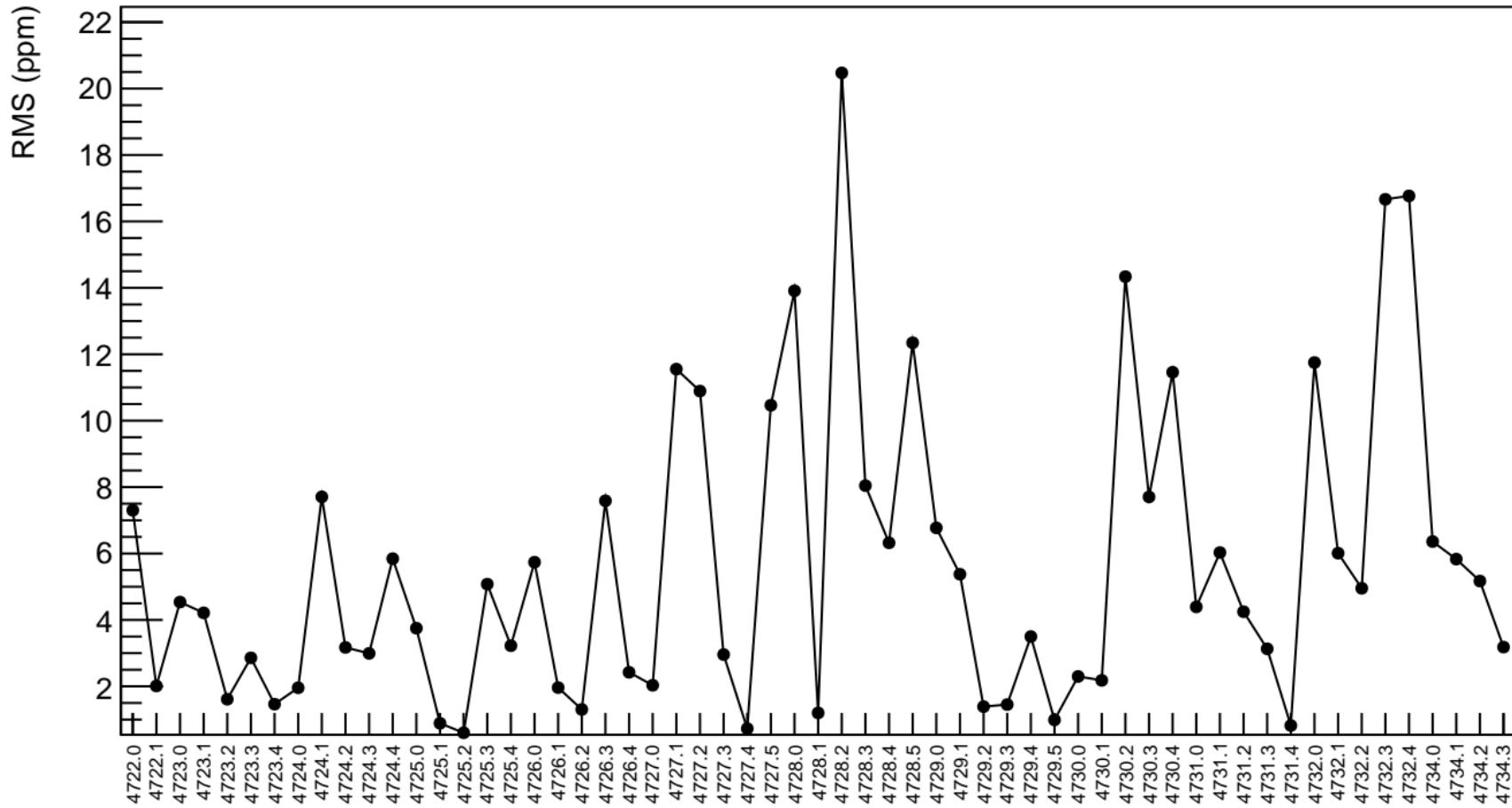
$\chi^2 / \text{ndf}$  6.222 / 58  
p0  $-5.36 \pm 29.41$



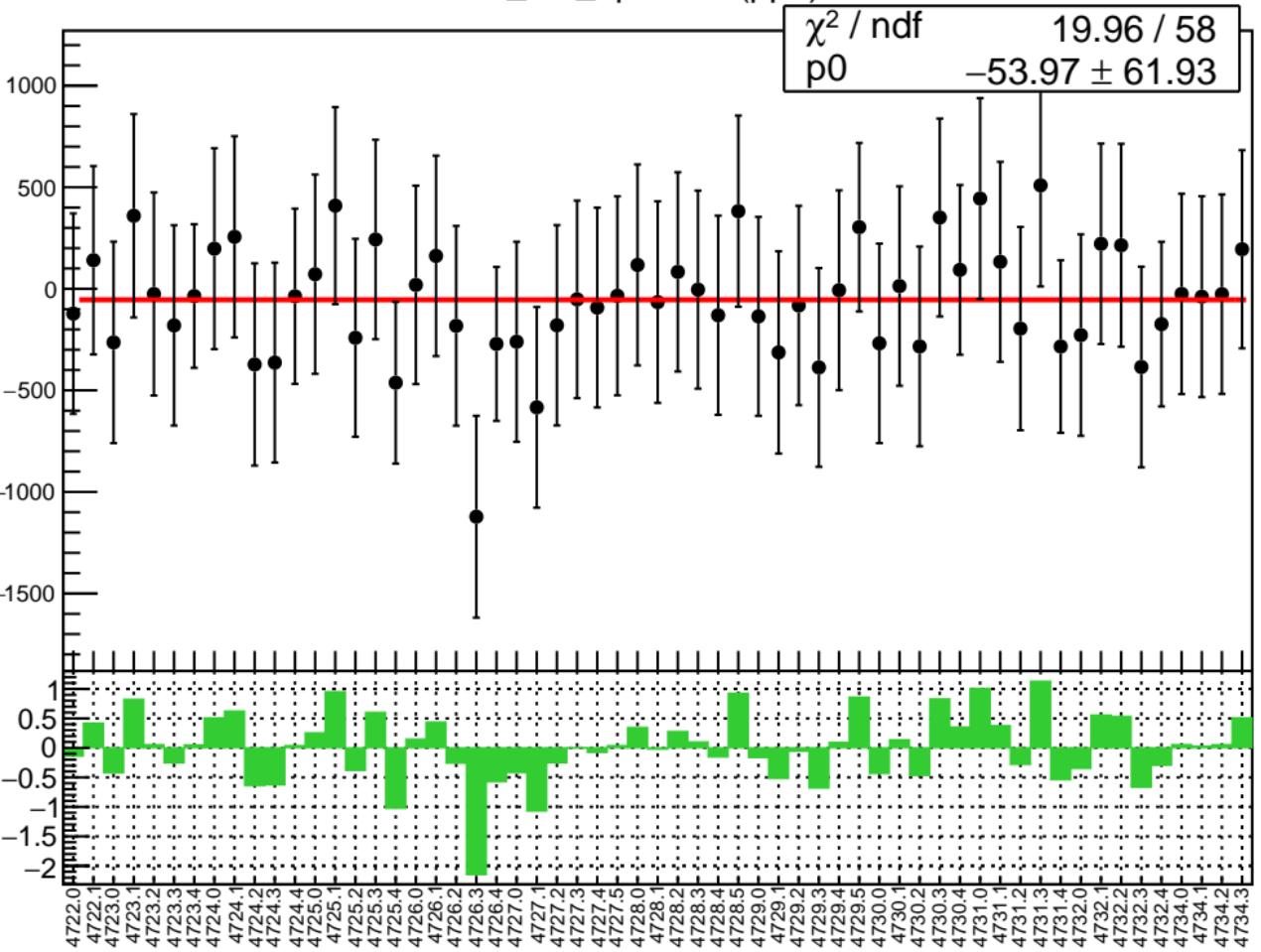
1D pull distribution



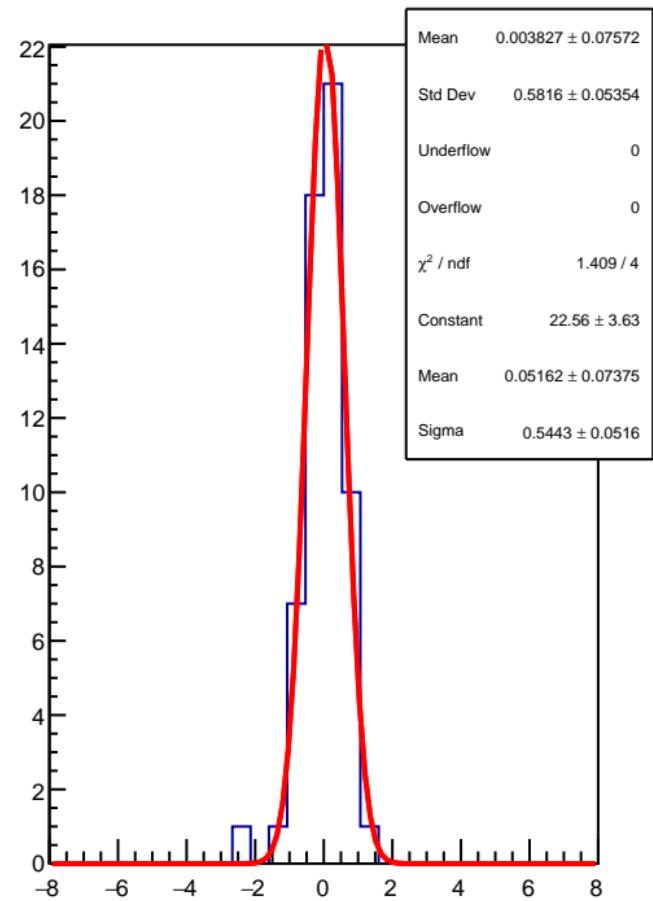
# corr\_usr\_bpm4aX RMS (ppm)



corr\_usr\_bpm4aY (ppb)

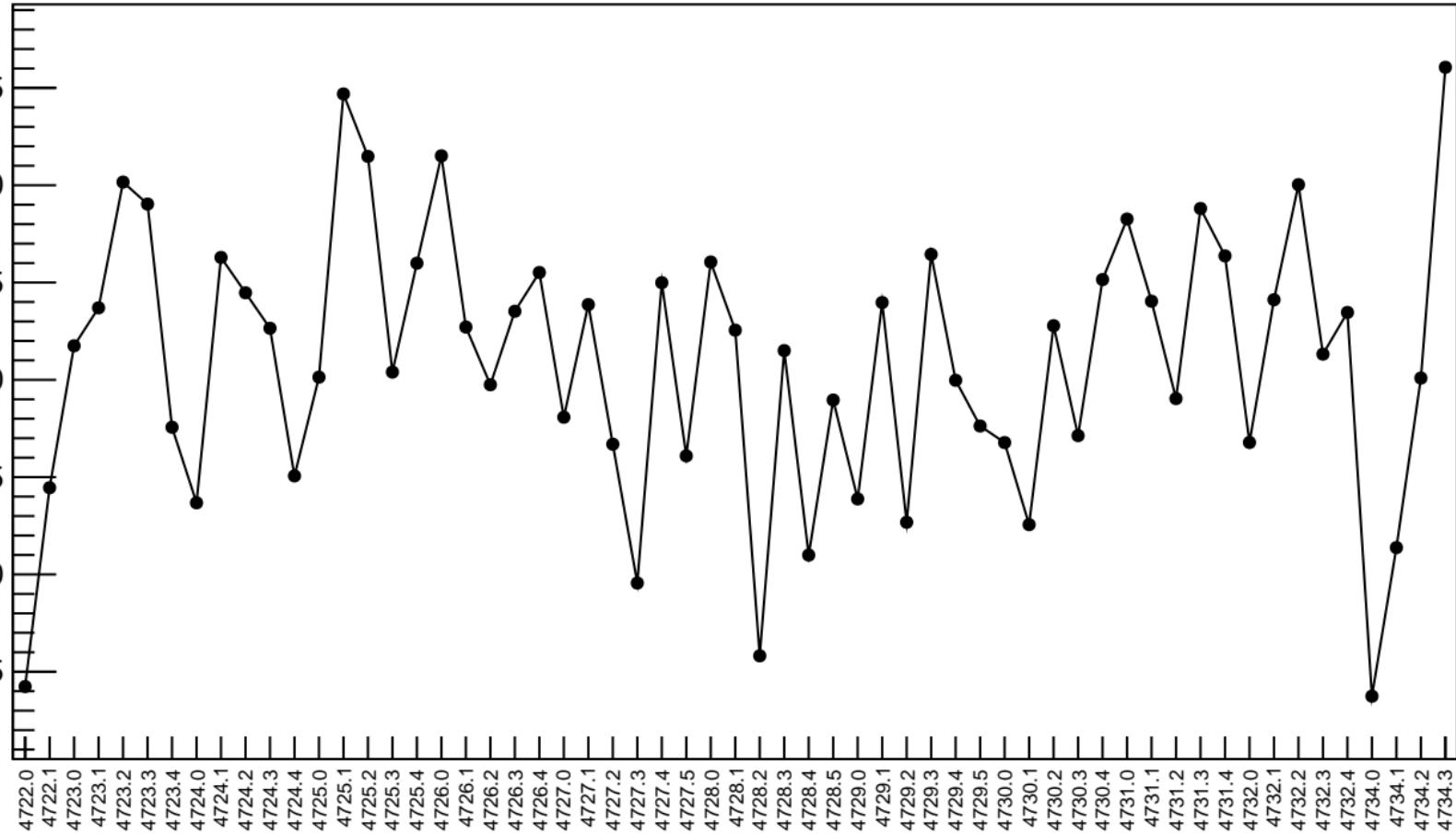


1D pull distribution

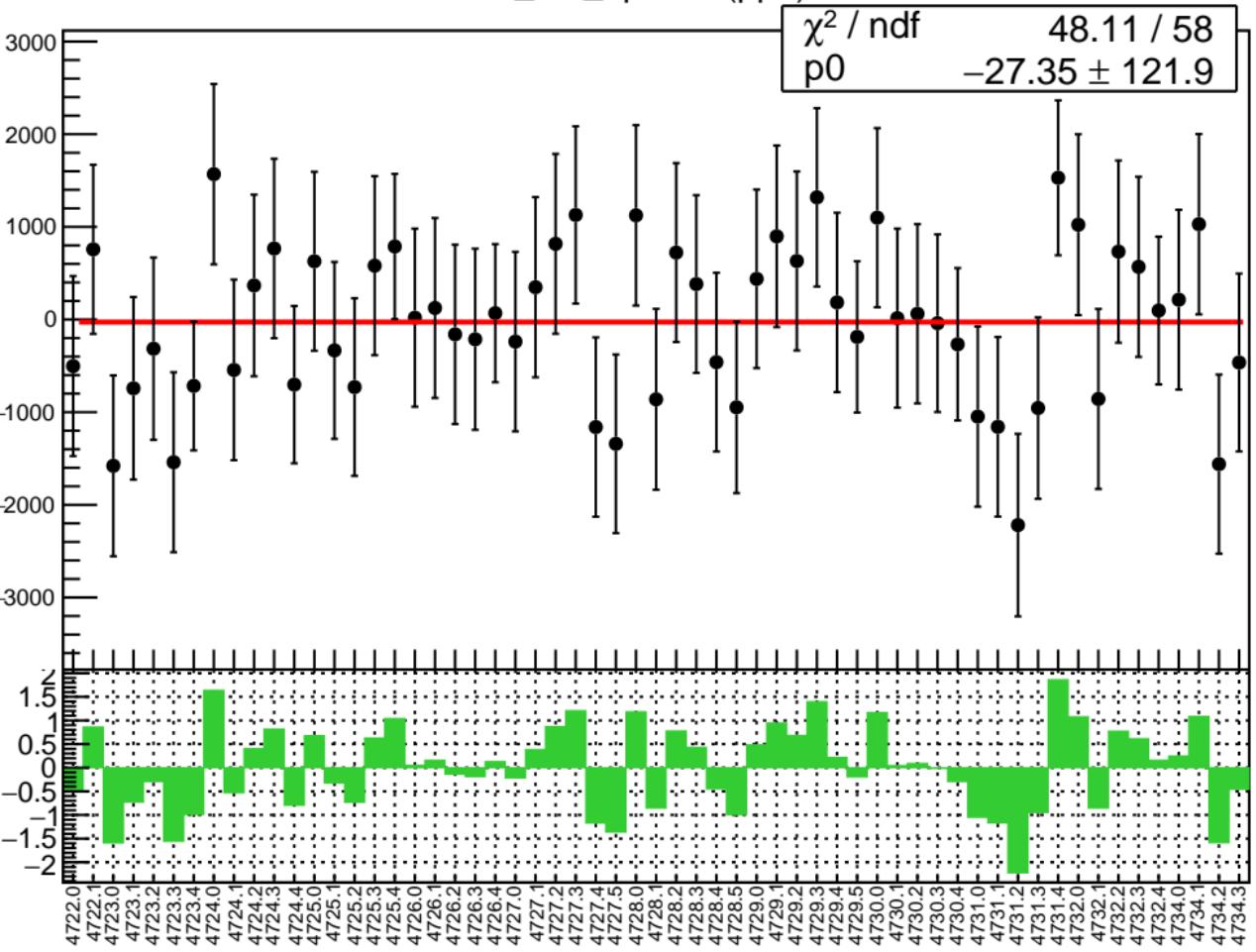


# corr\_usr\_bpm4aY RMS (ppm)

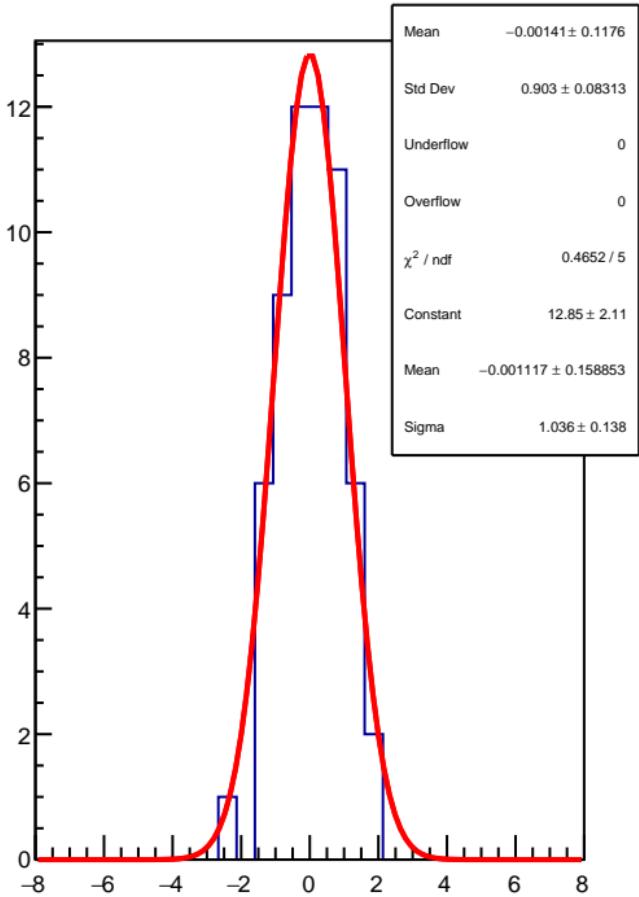
RMS (ppm)



corr\_usr\_bpm1X (ppb)

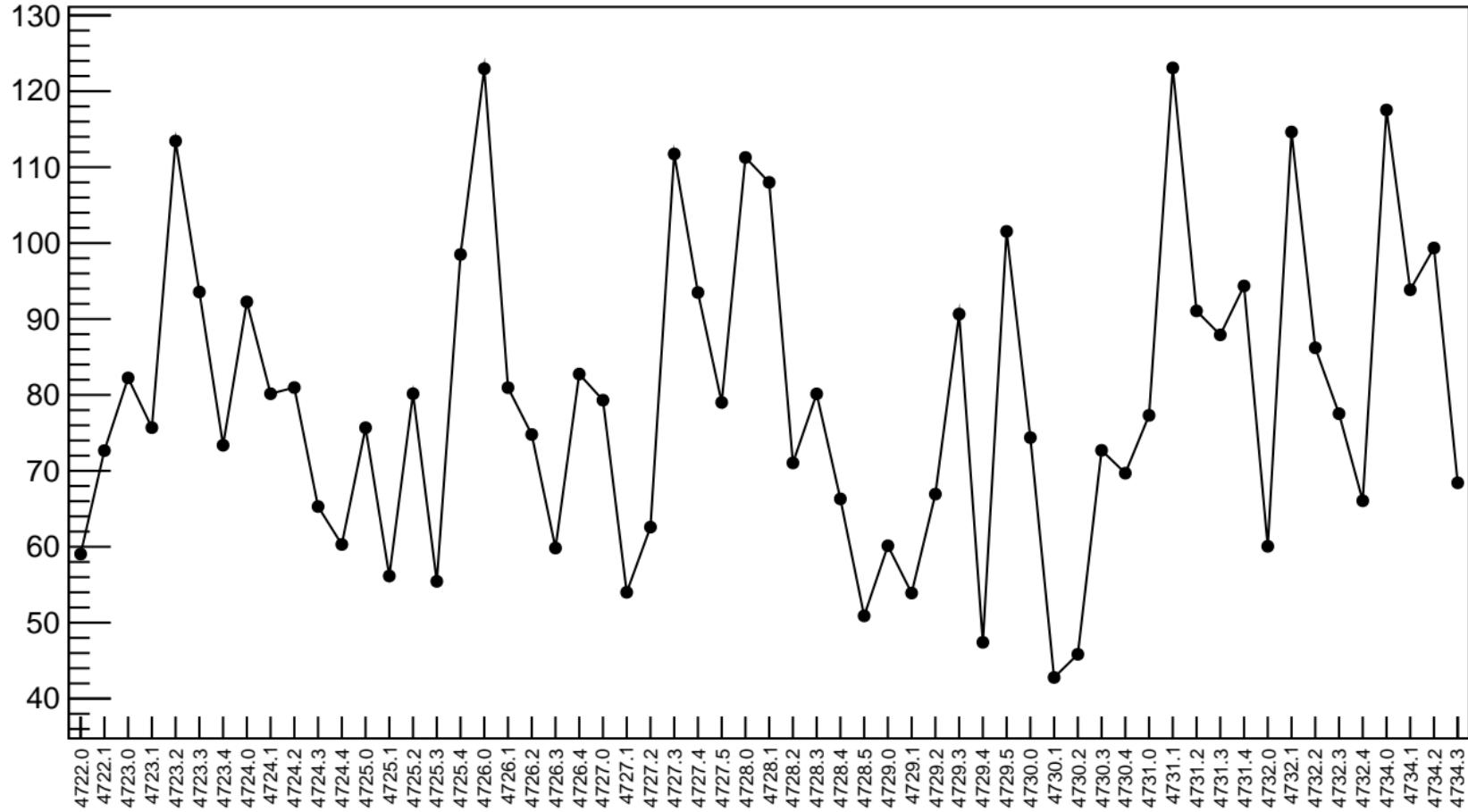


1D pull distribution

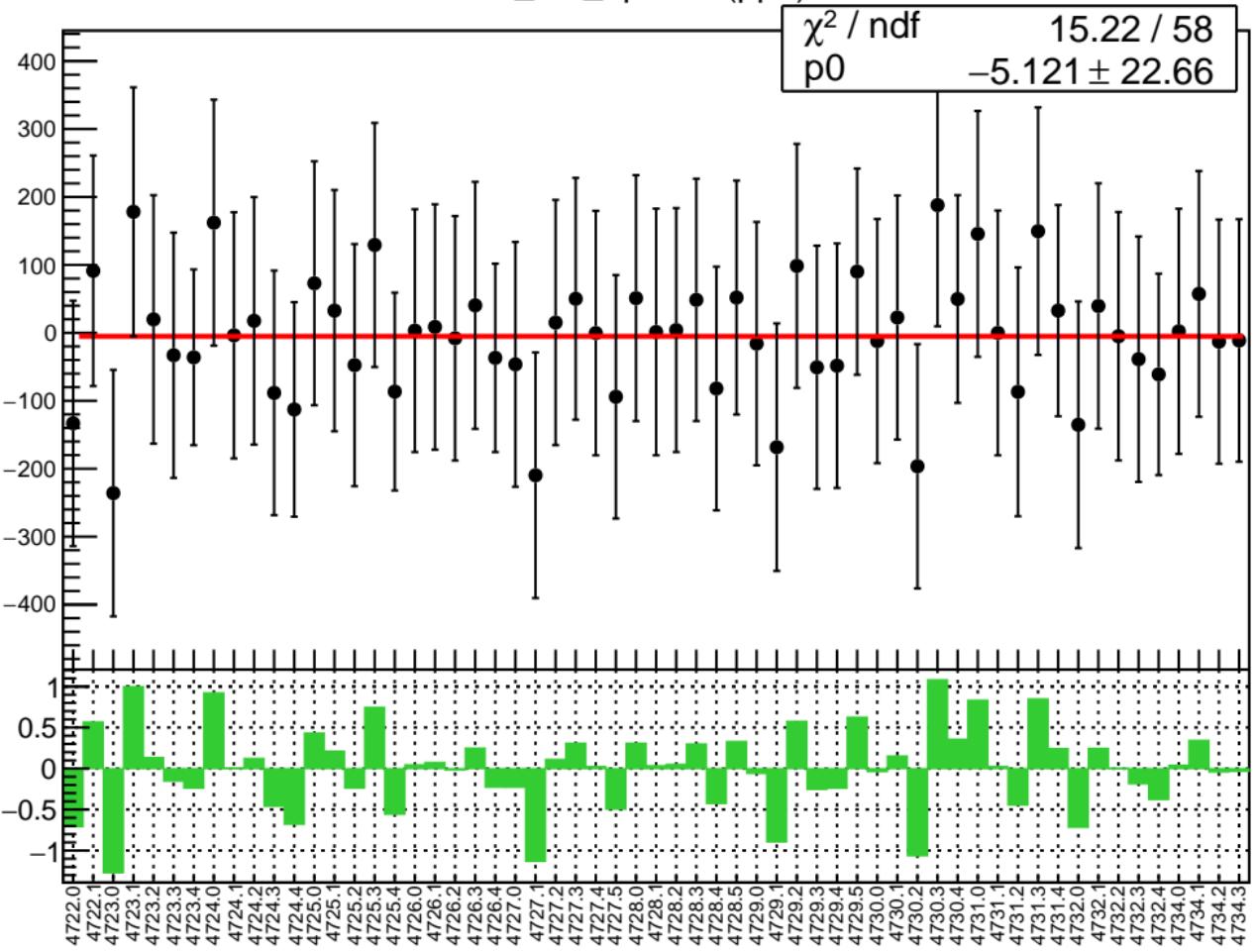


# corr\_usr\_bpm1X RMS (ppm)

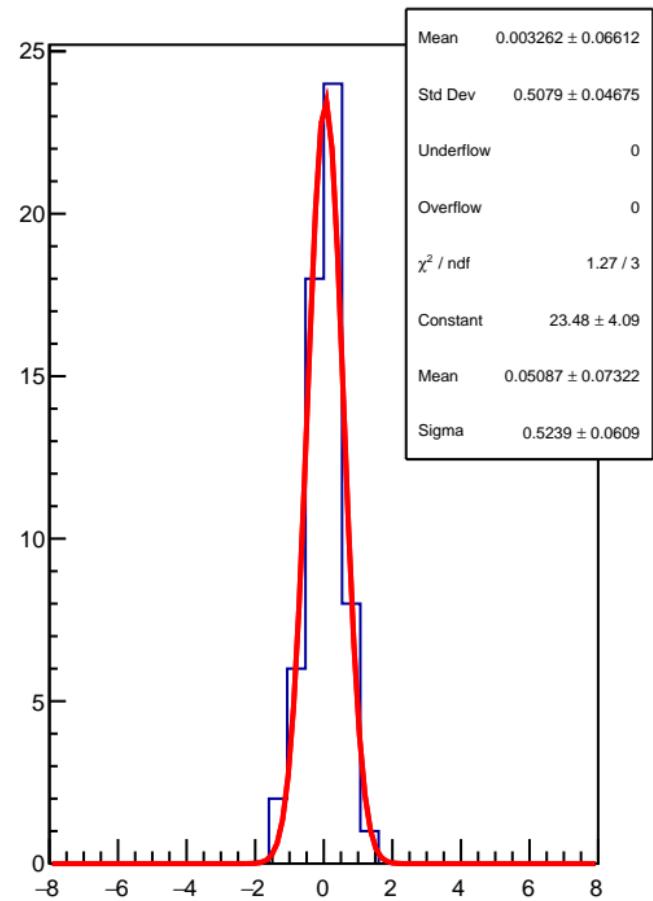
RMS (ppm)



corr\_usr\_bpm1Y (ppb)

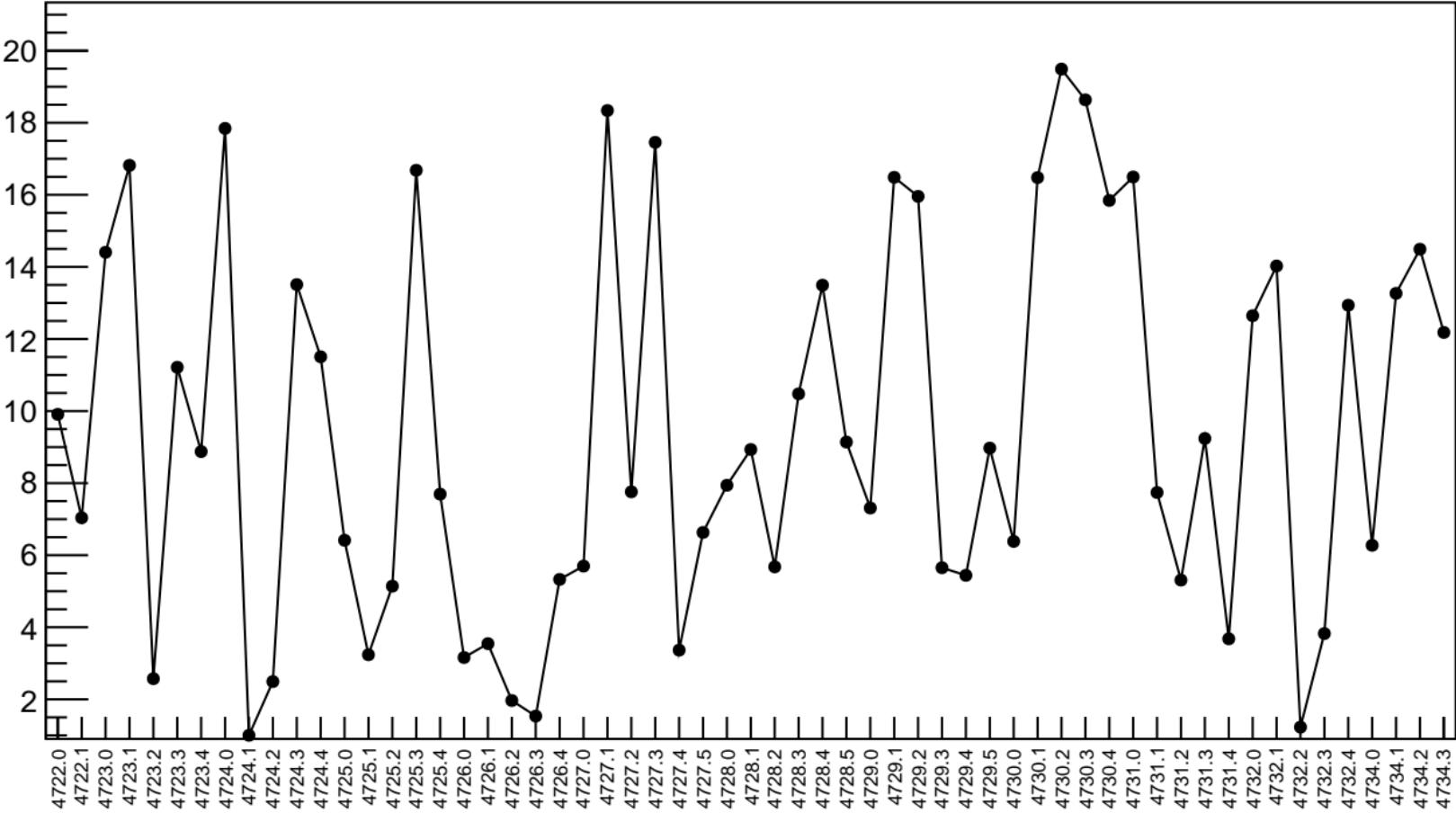


1D pull distribution

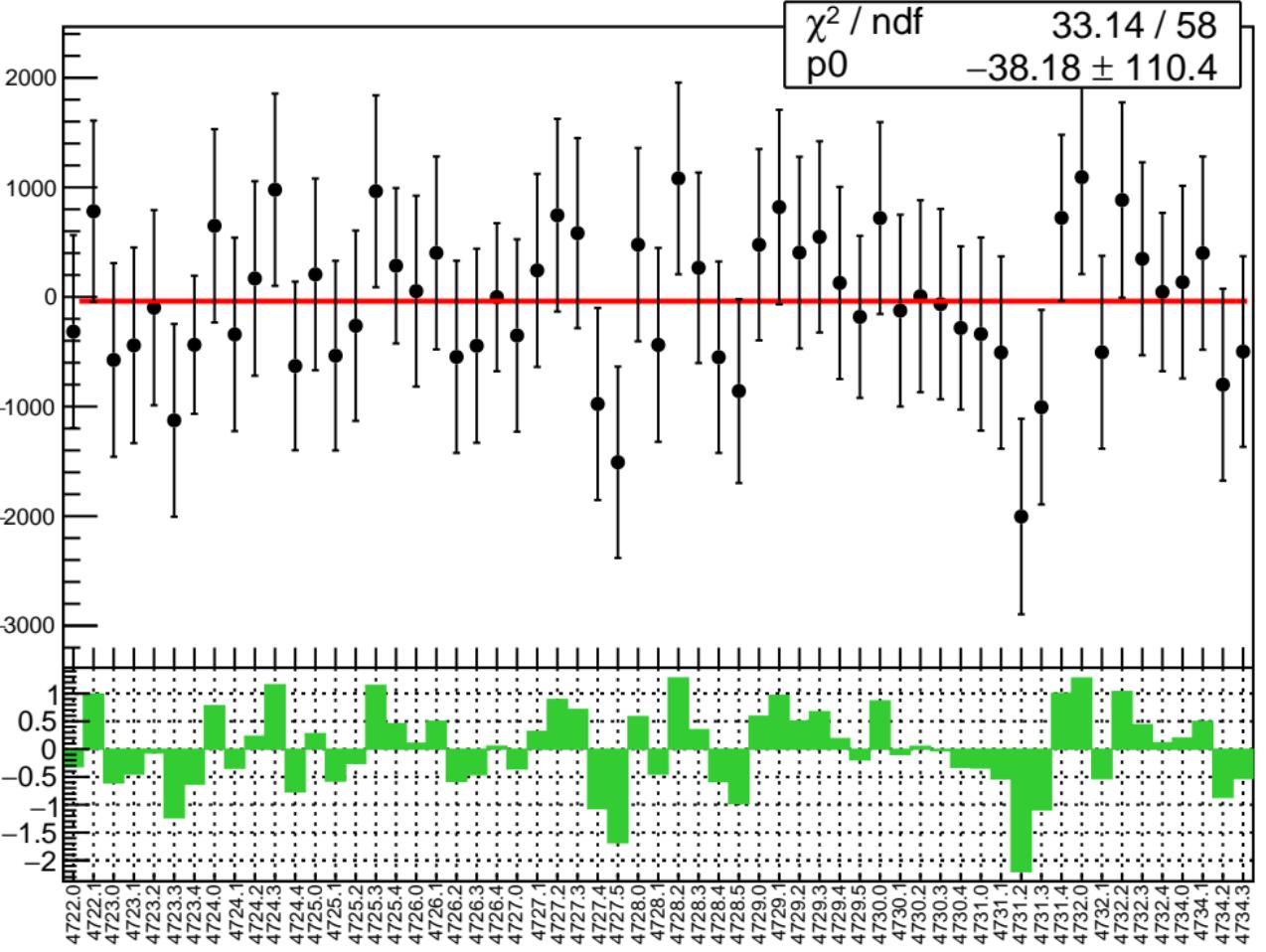


# corr\_usr\_bpm1Y RMS (ppm)

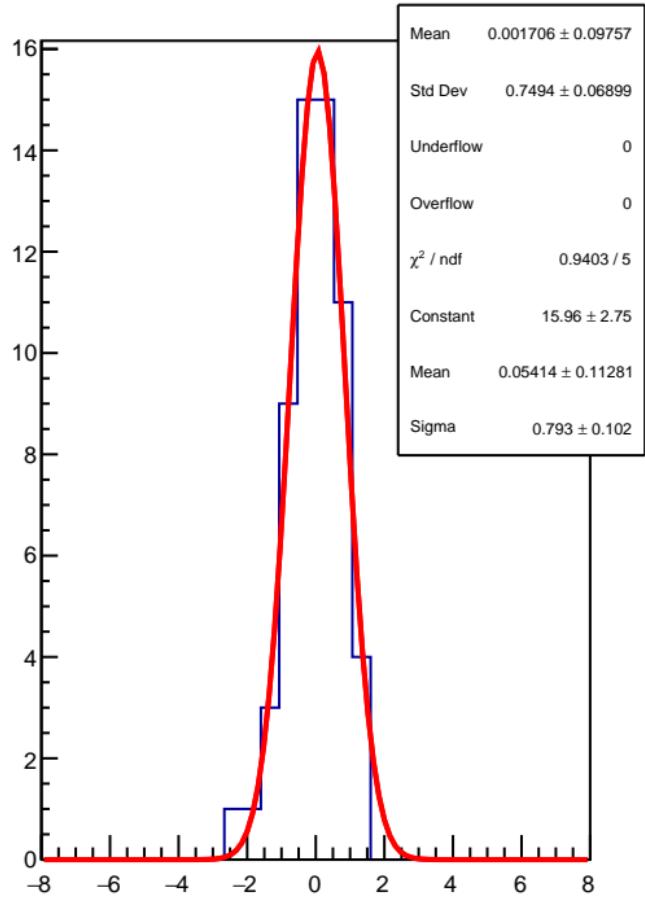
RMS (ppm)



corr\_usr\_bpm16X (ppb)

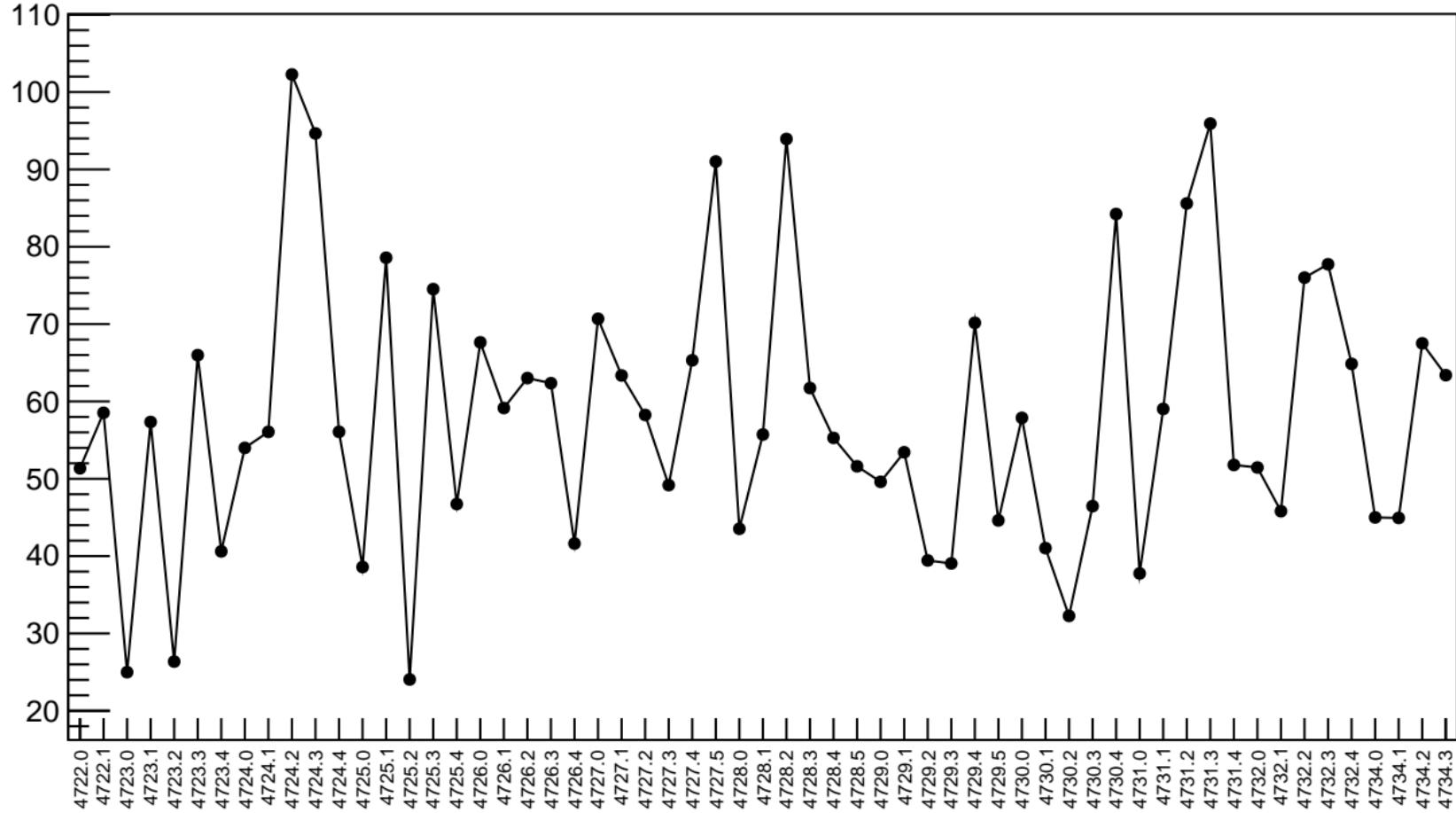


1D pull distribution



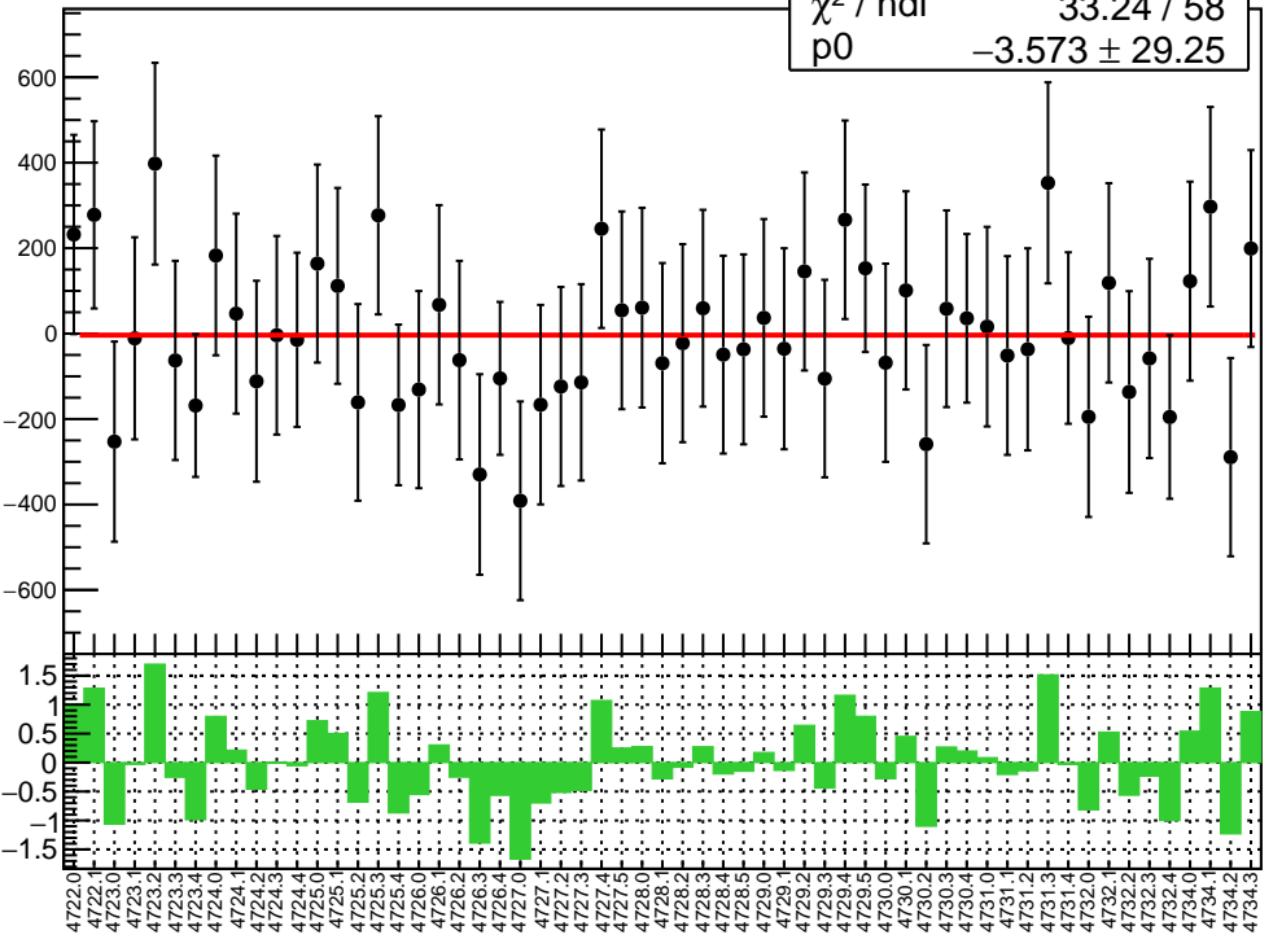
# corr\_usr\_bpm16X RMS (ppm)

RMS (ppm)

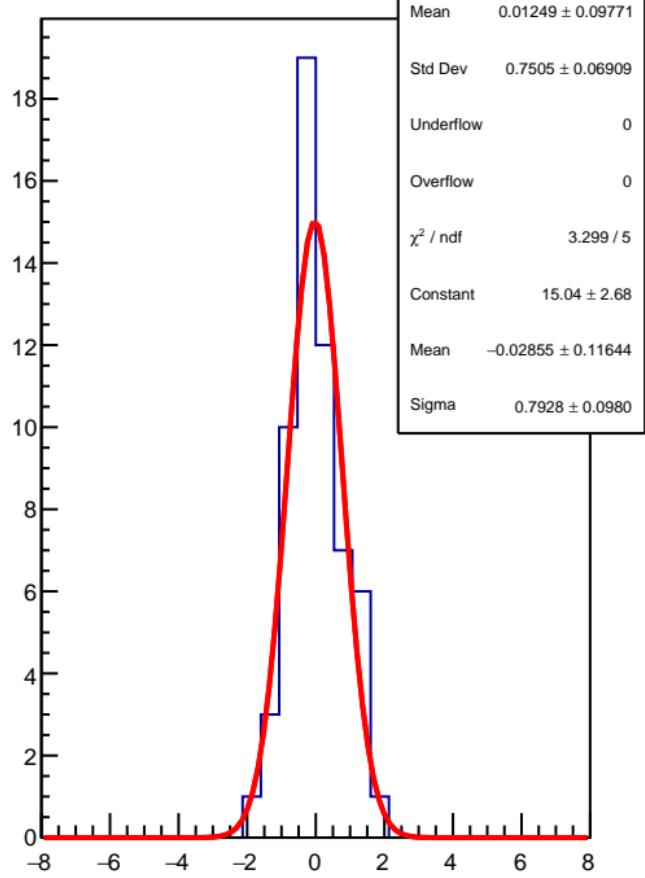


corr\_usr\_bpm16Y (ppb)

$\chi^2 / \text{ndf}$  33.24 / 58  
p0  $-3.573 \pm 29.25$

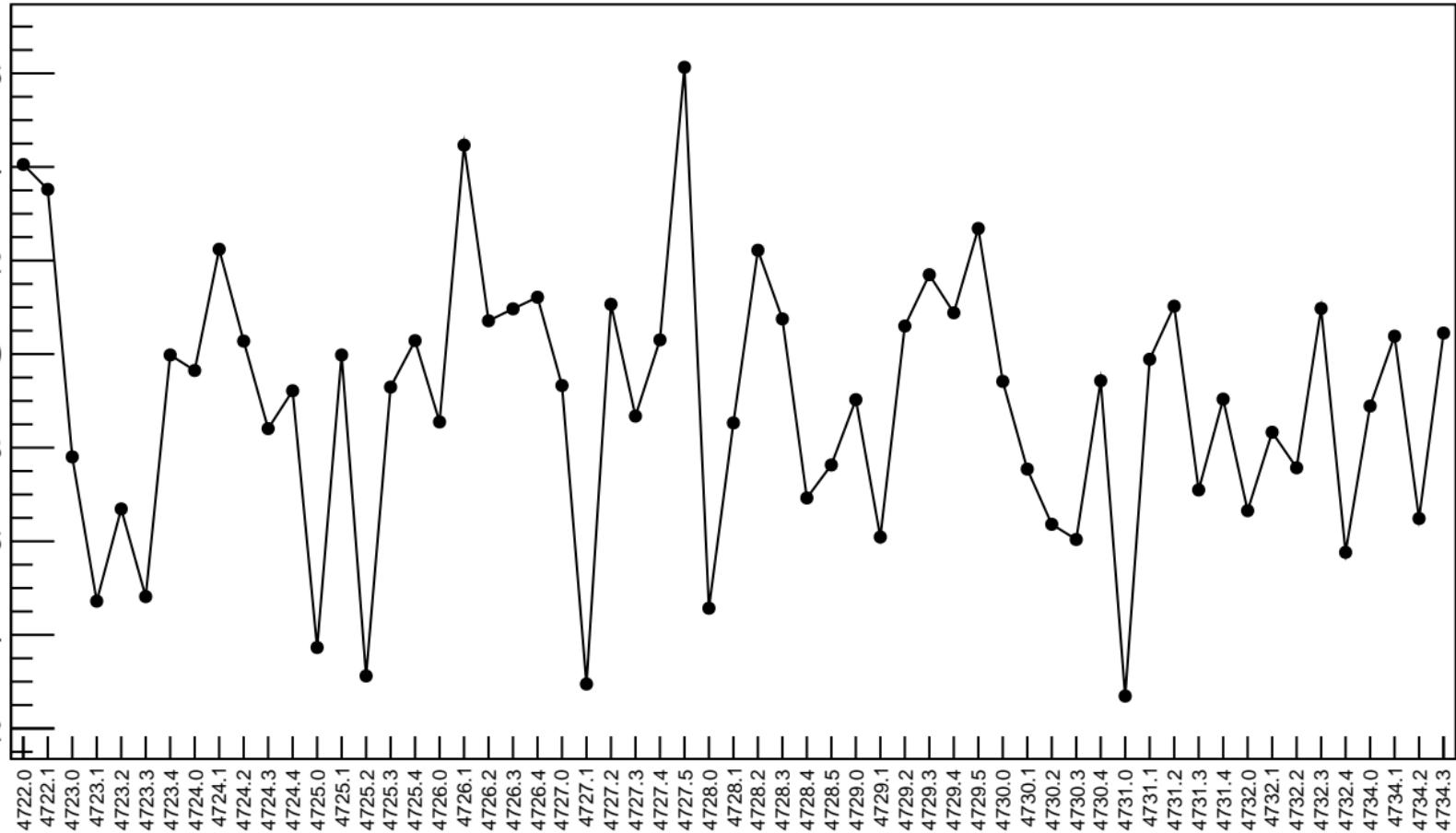


1D pull distribution



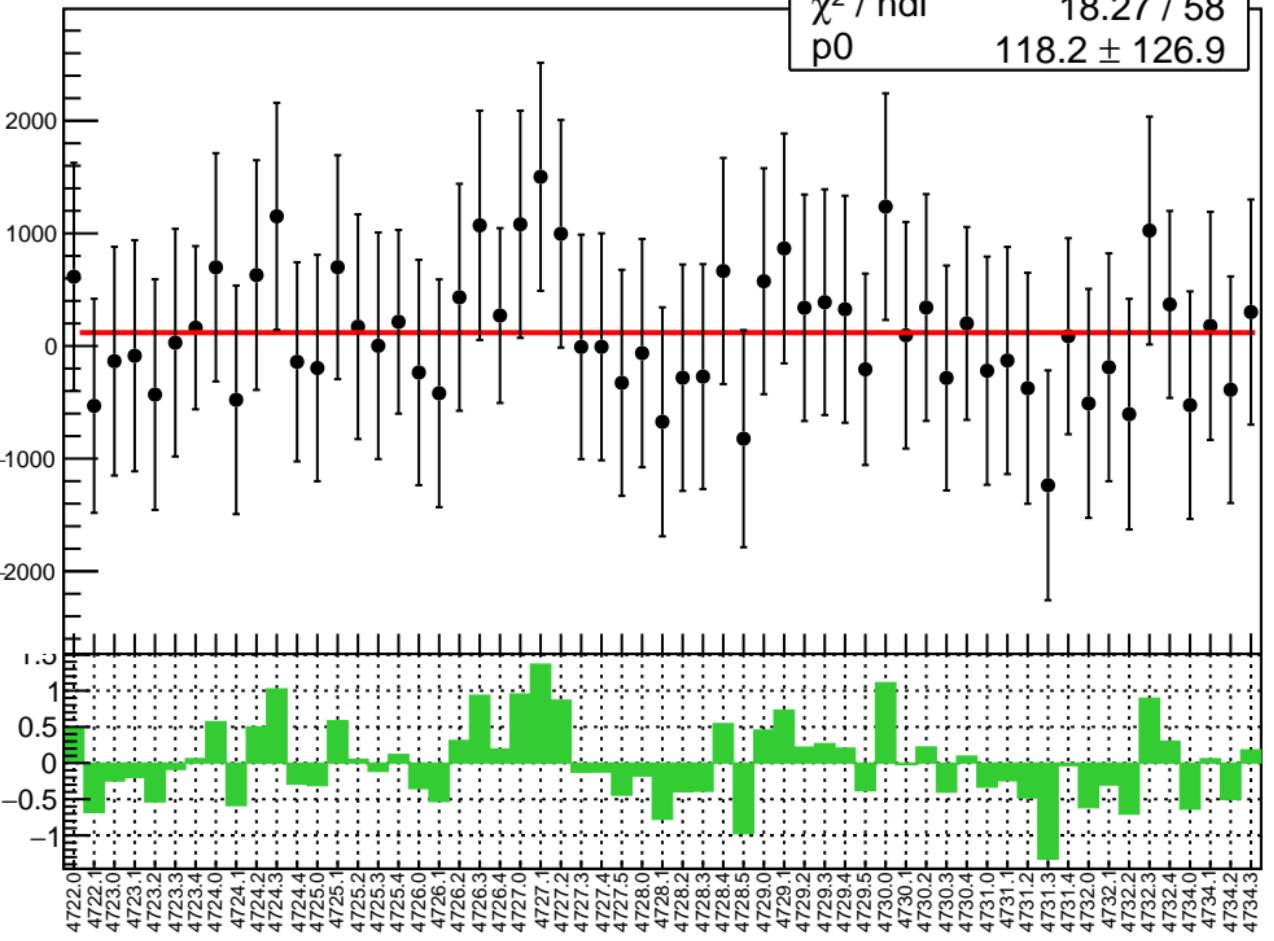
# corr\_usr\_bpm16Y RMS (ppm)

RMS (ppm)

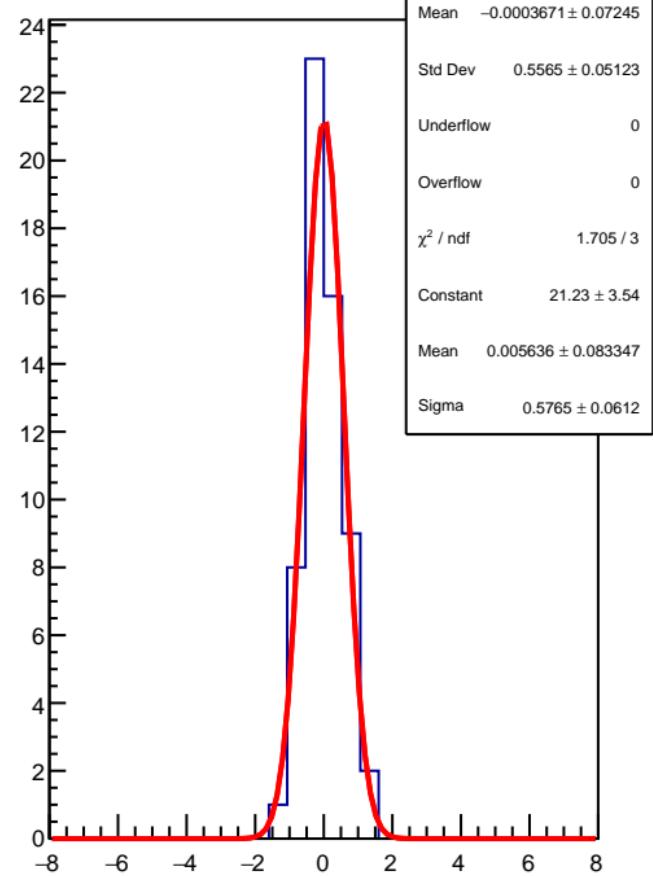


corr\_usr\_bpm12X (ppb)

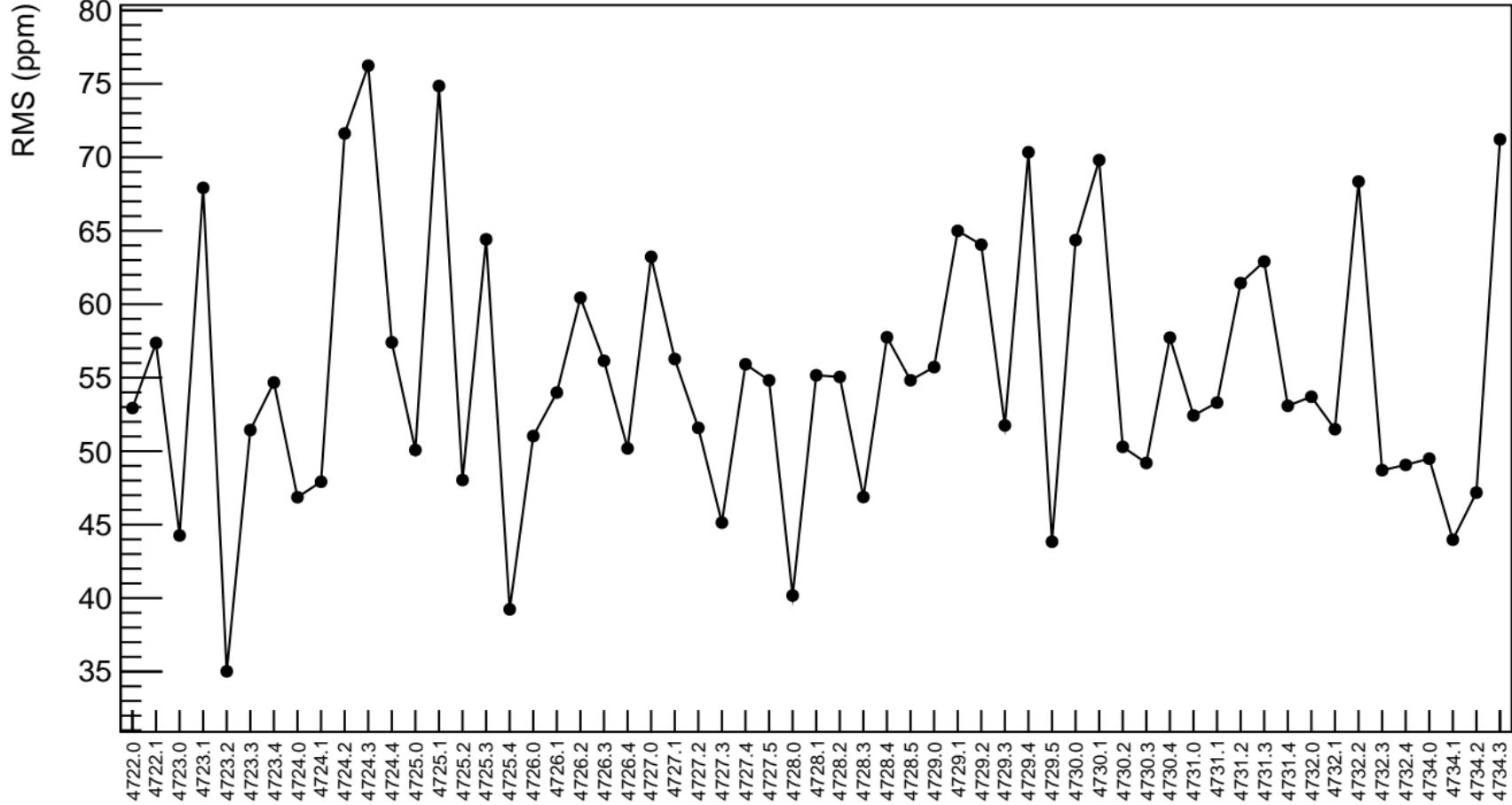
$\chi^2 / \text{ndf}$  18.27 / 58  
p0  $118.2 \pm 126.9$



1D pull distribution

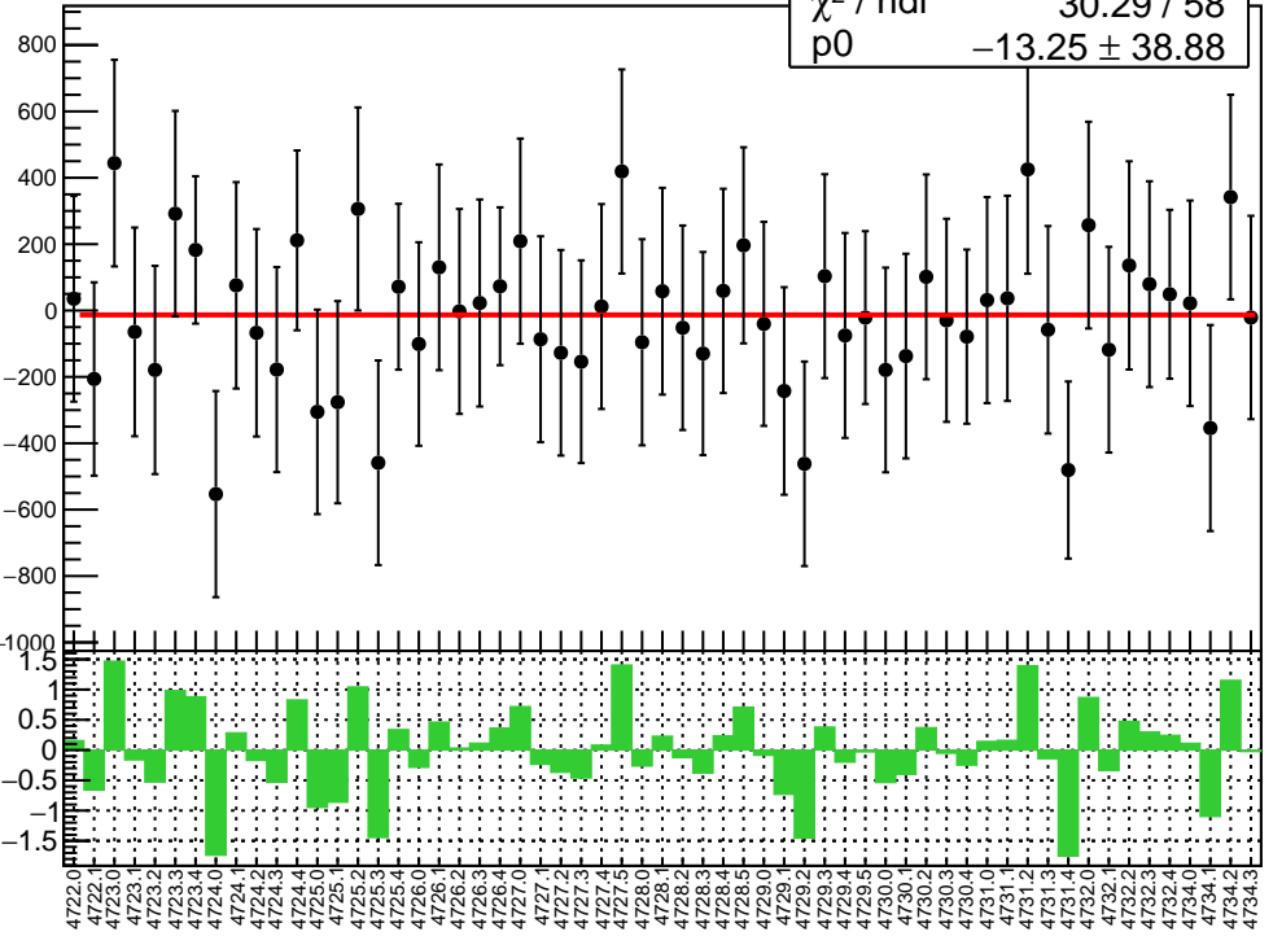


# corr\_usr\_bpm12X RMS (ppm)

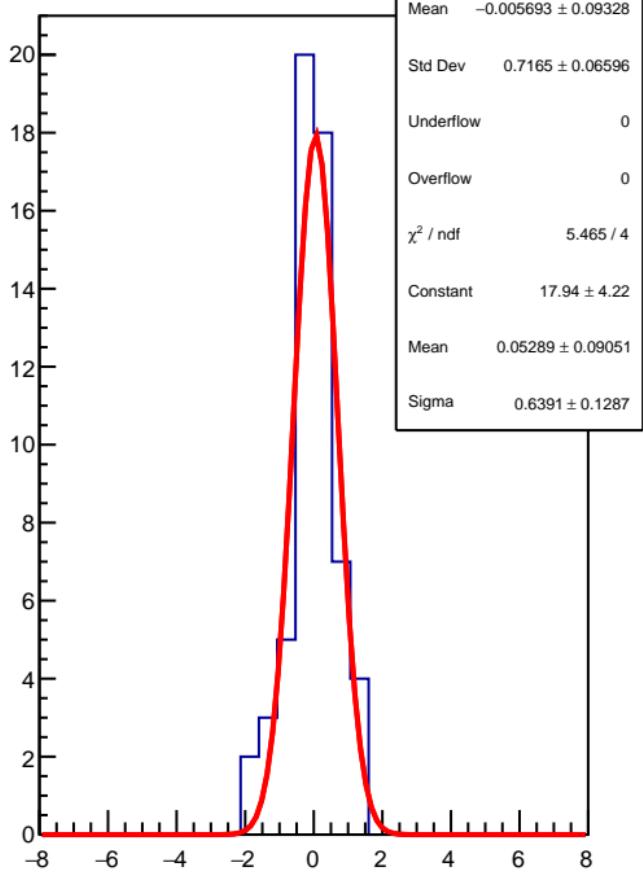


corr\_usr\_bpm12Y (ppb)

$\chi^2 / \text{ndf}$  30.29 / 58  
p0  $-13.25 \pm 38.88$

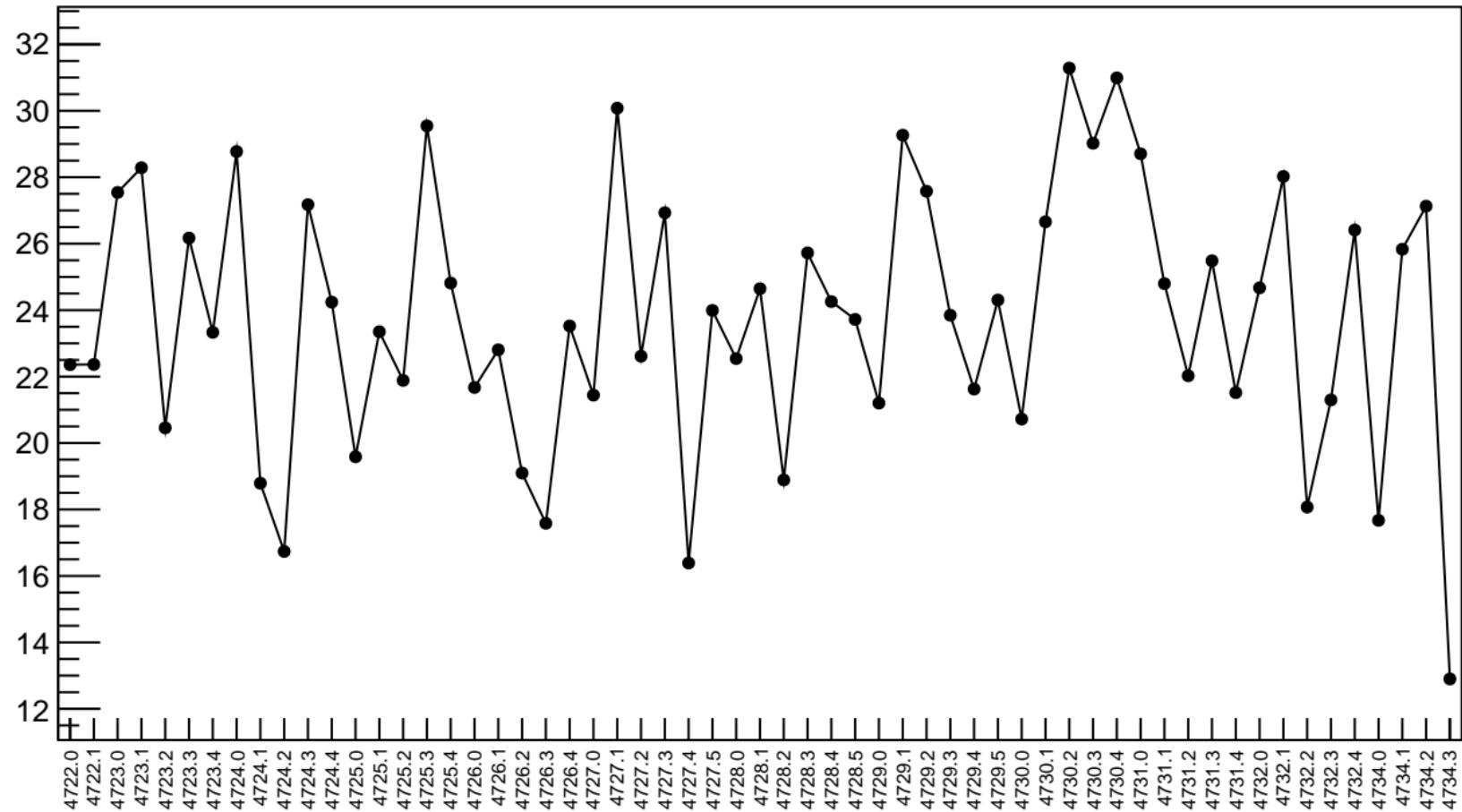


1D pull distribution

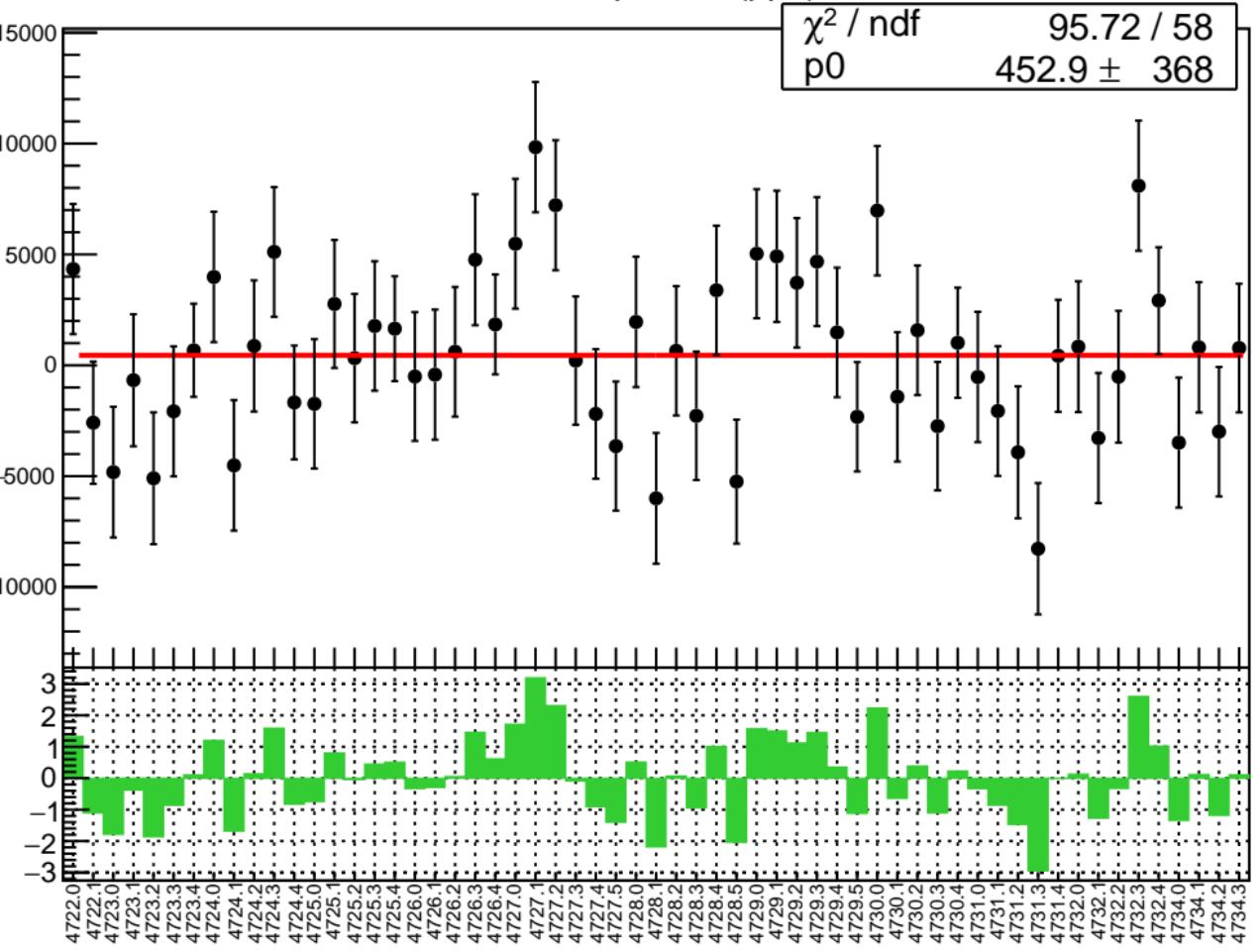


# corr\_usr\_bpm12Y RMS (ppm)

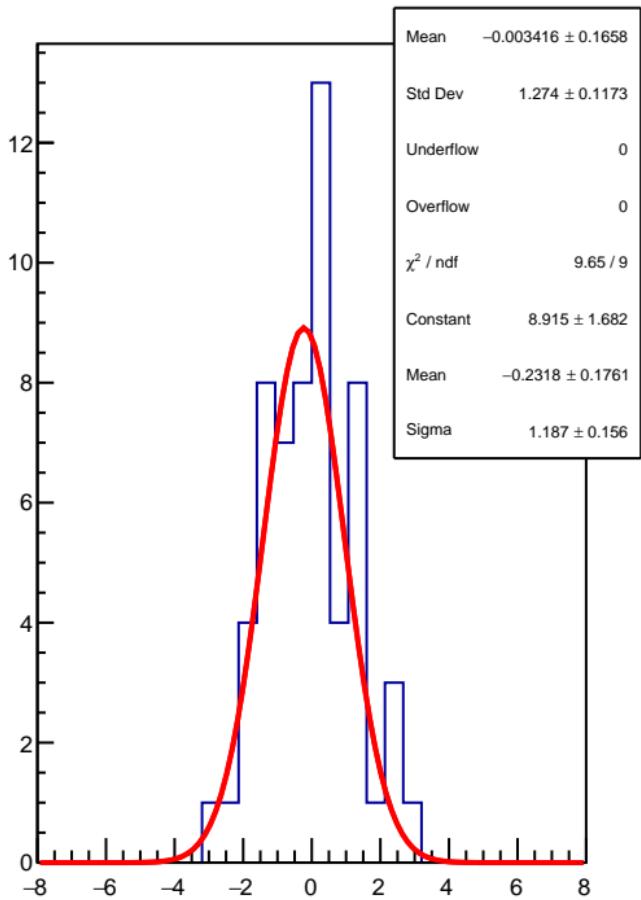
RMS (ppm)



corr\_usr\_bpm11X (ppb)

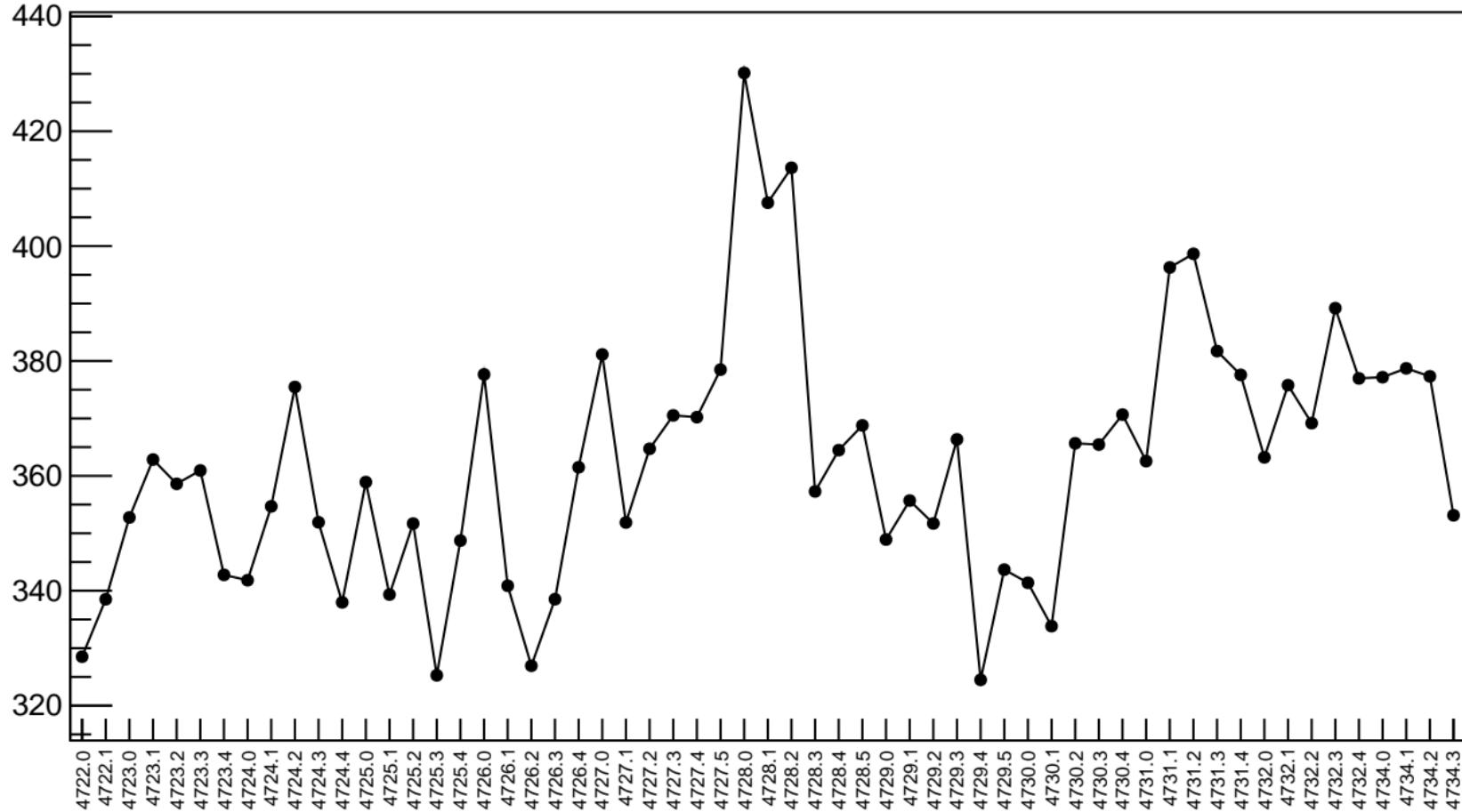


1D pull distribution

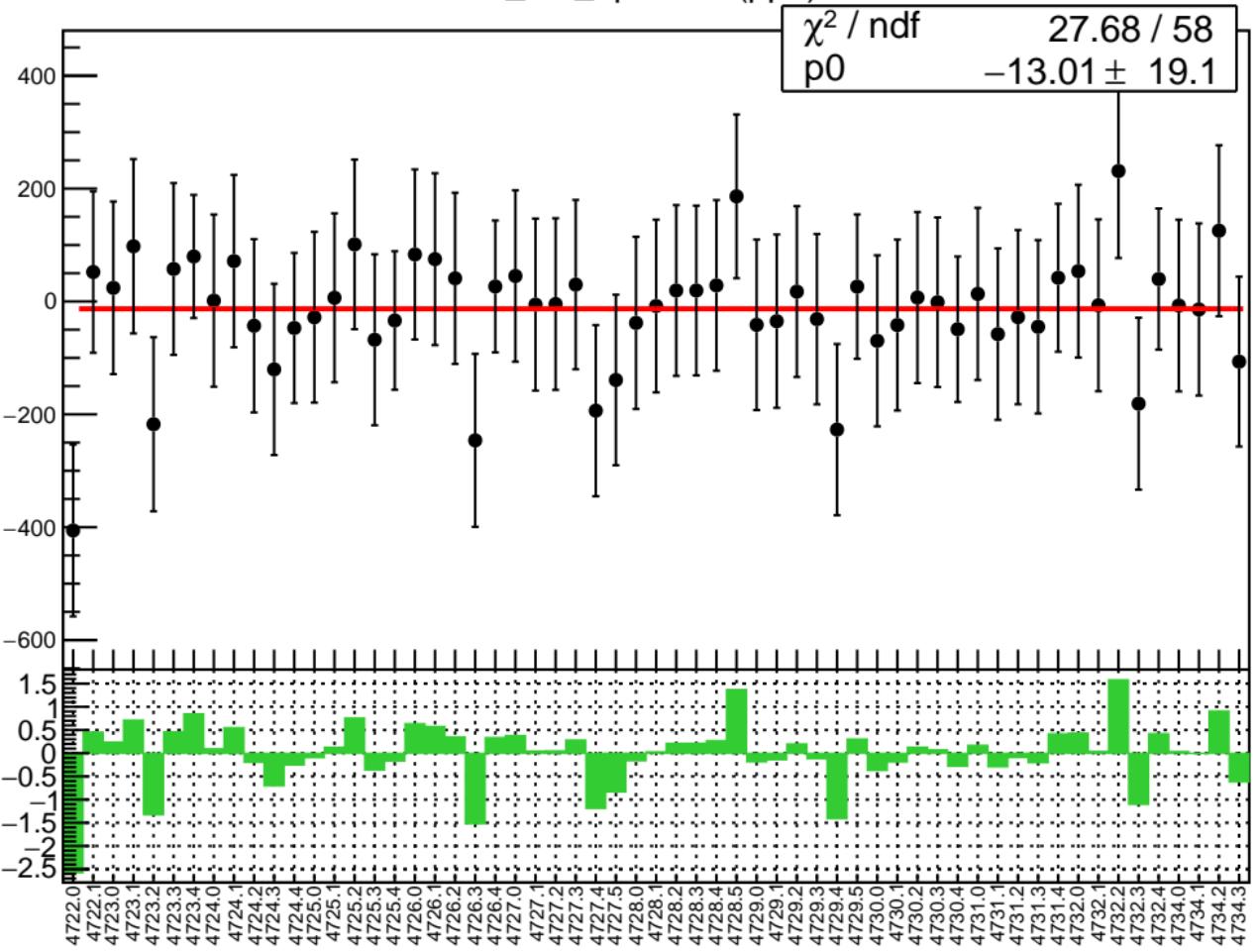


# corr\_usr\_bpm11X RMS (ppm)

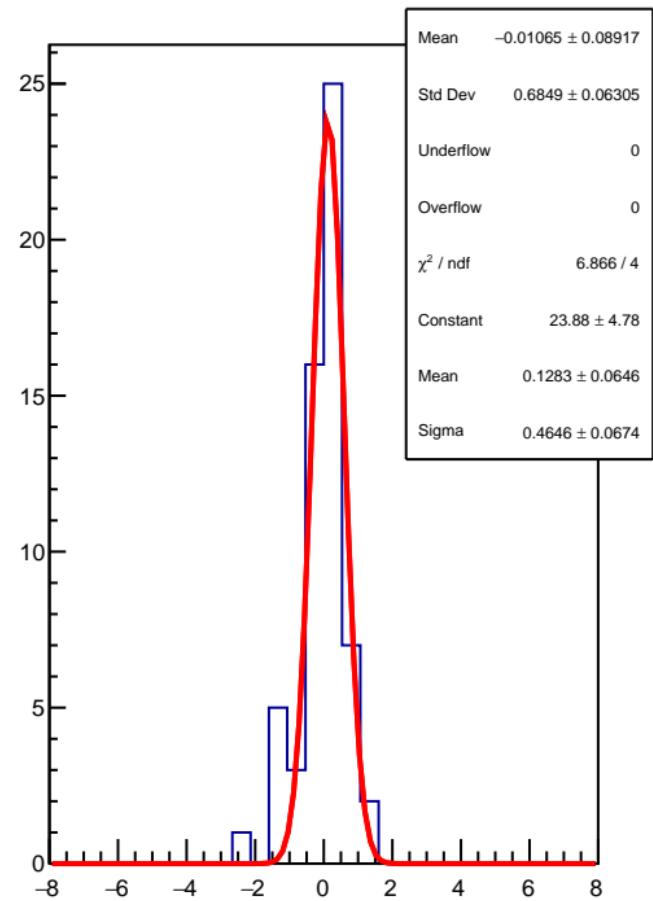
RMS (ppm)



corr\_usr\_bpm11Y (ppb)

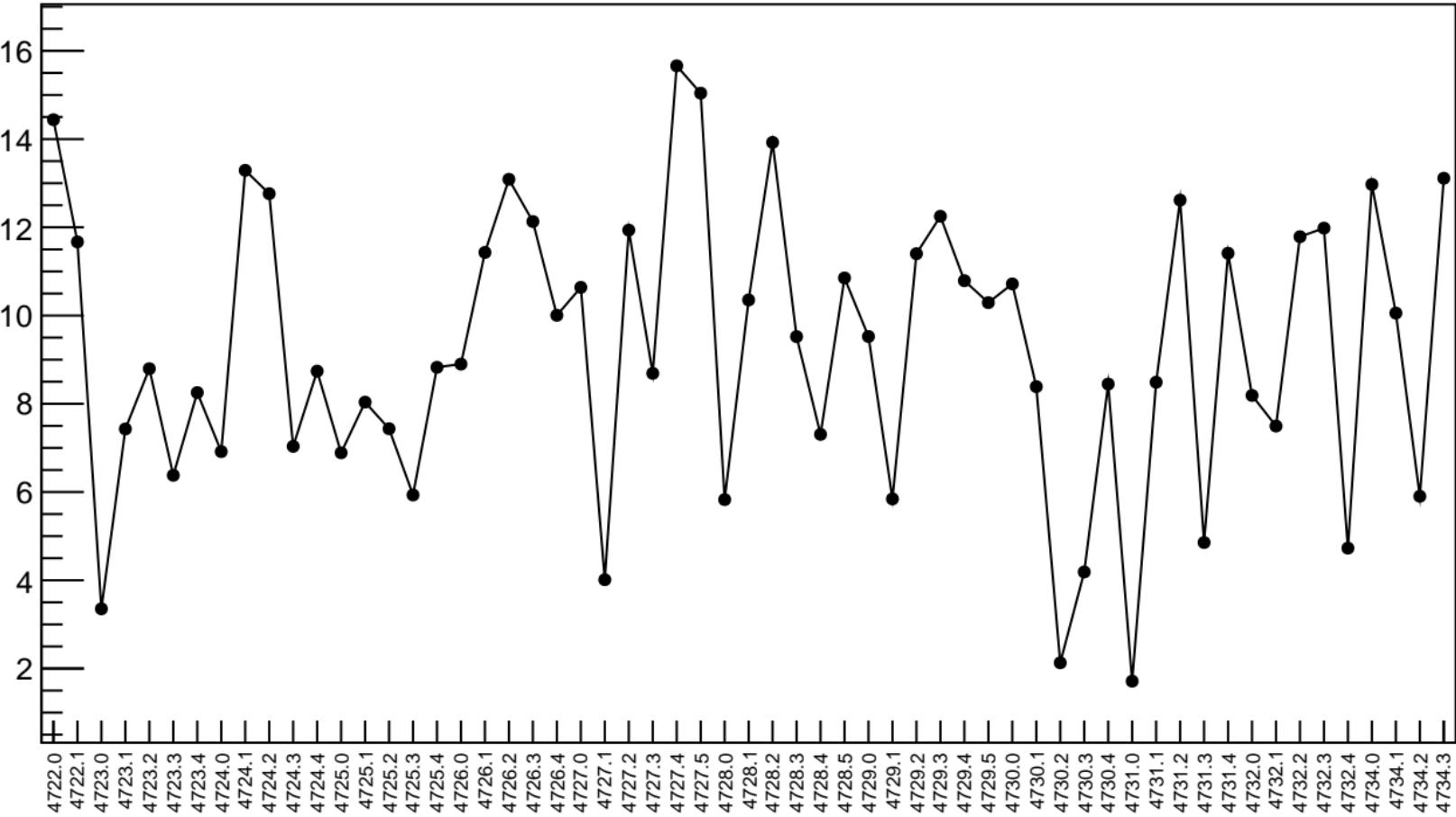


1D pull distribution

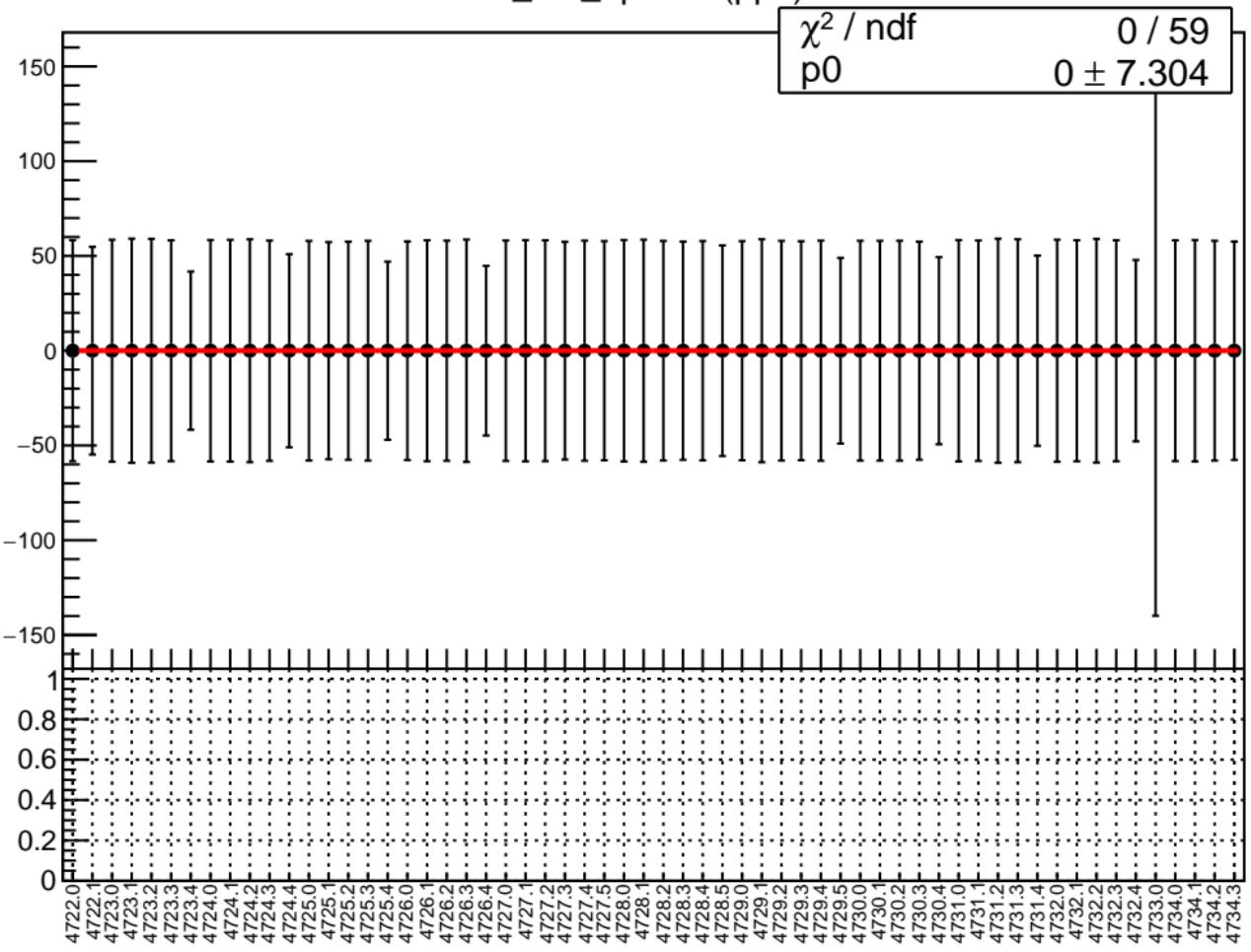


# corr\_usr\_bpm11Y RMS (ppm)

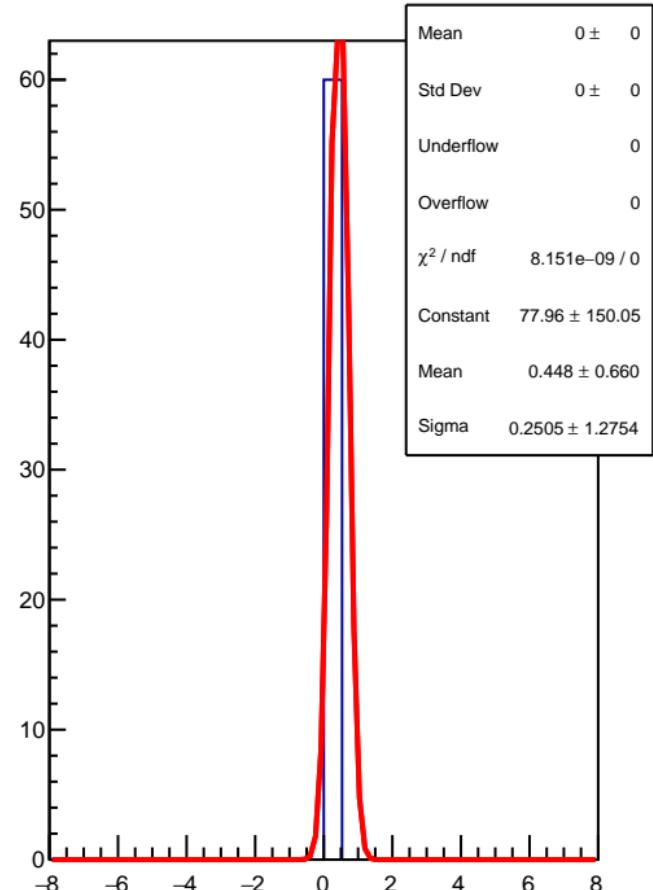
RMS (ppm)



corr\_usr\_bpm8X (ppb)

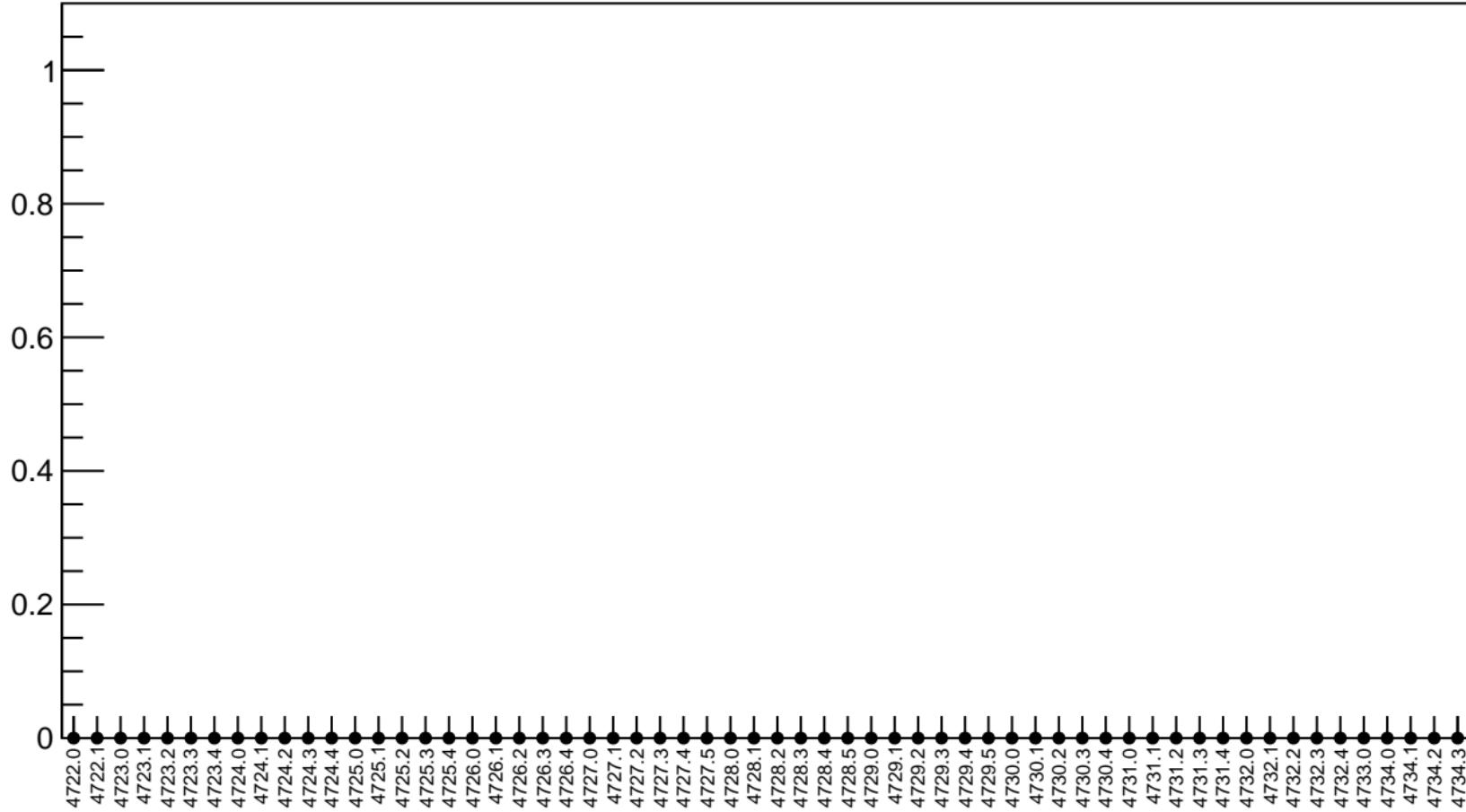


1D pull distribution

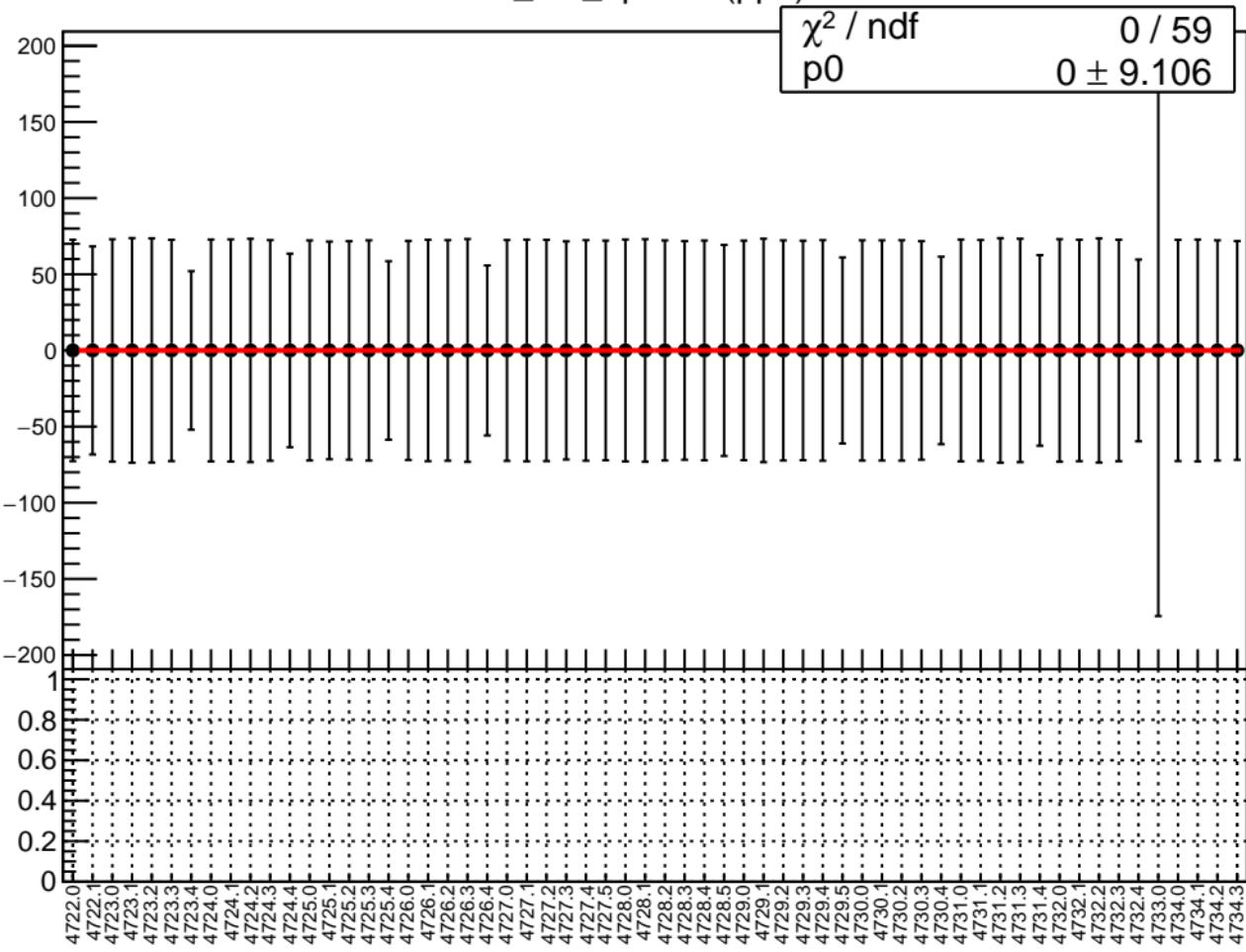


# corr\_usr\_bpm8X RMS (ppm)

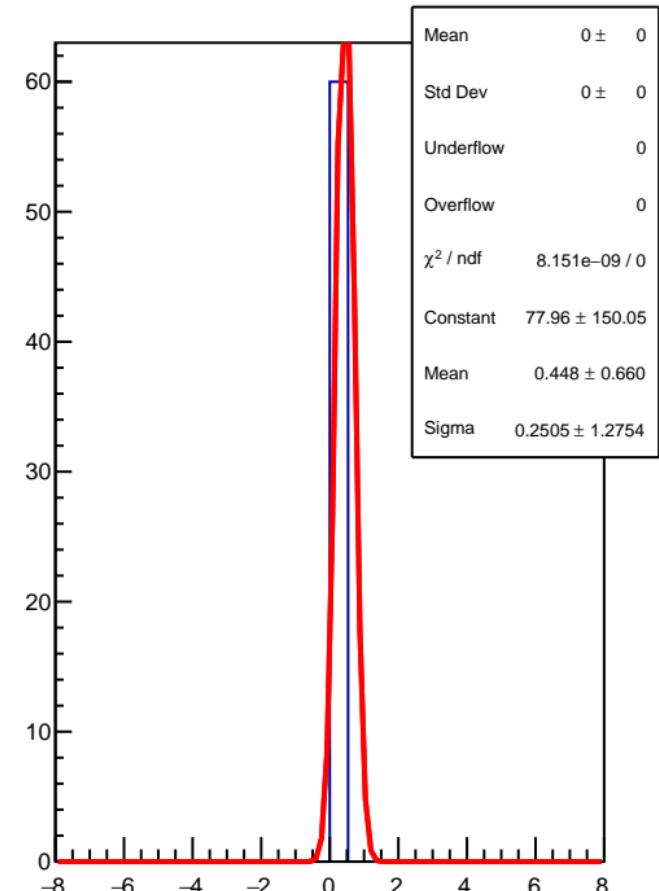
RMS (ppm)



corr\_usr\_bpm8Y (ppb)



1D pull distribution



# corr\_usr\_bpm8Y RMS (ppm)

RMS (ppm)

