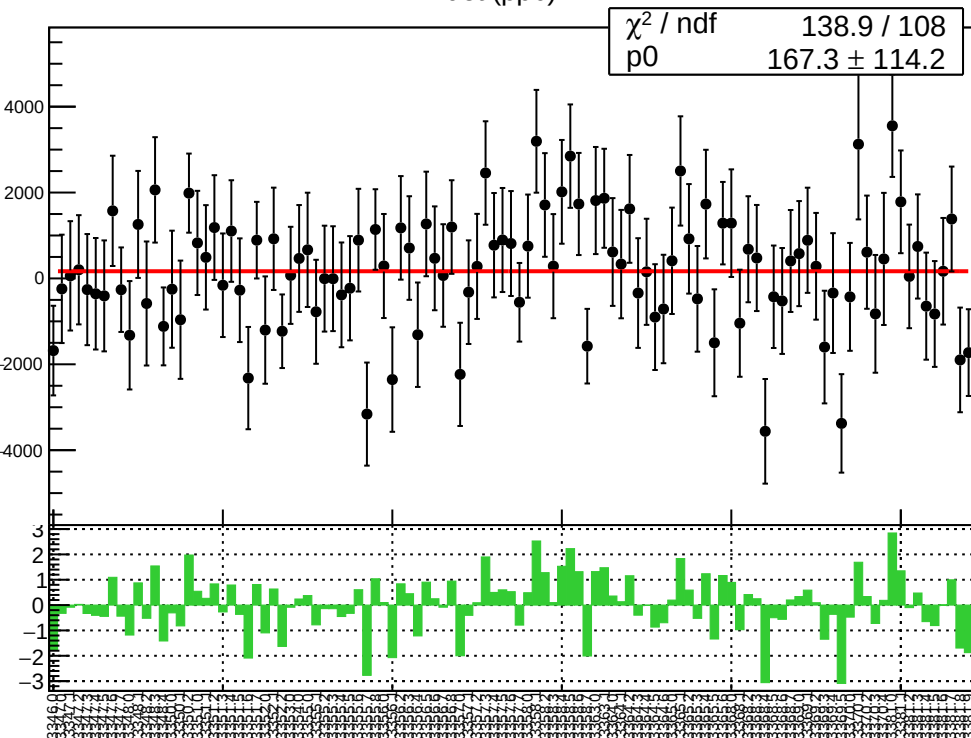
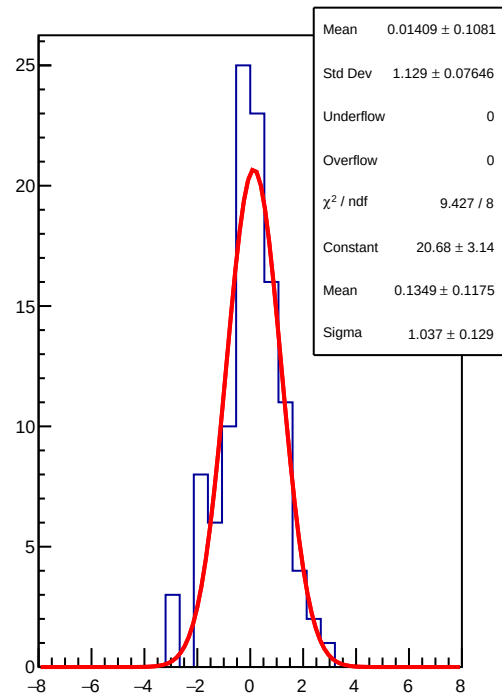


Adet (ppb)

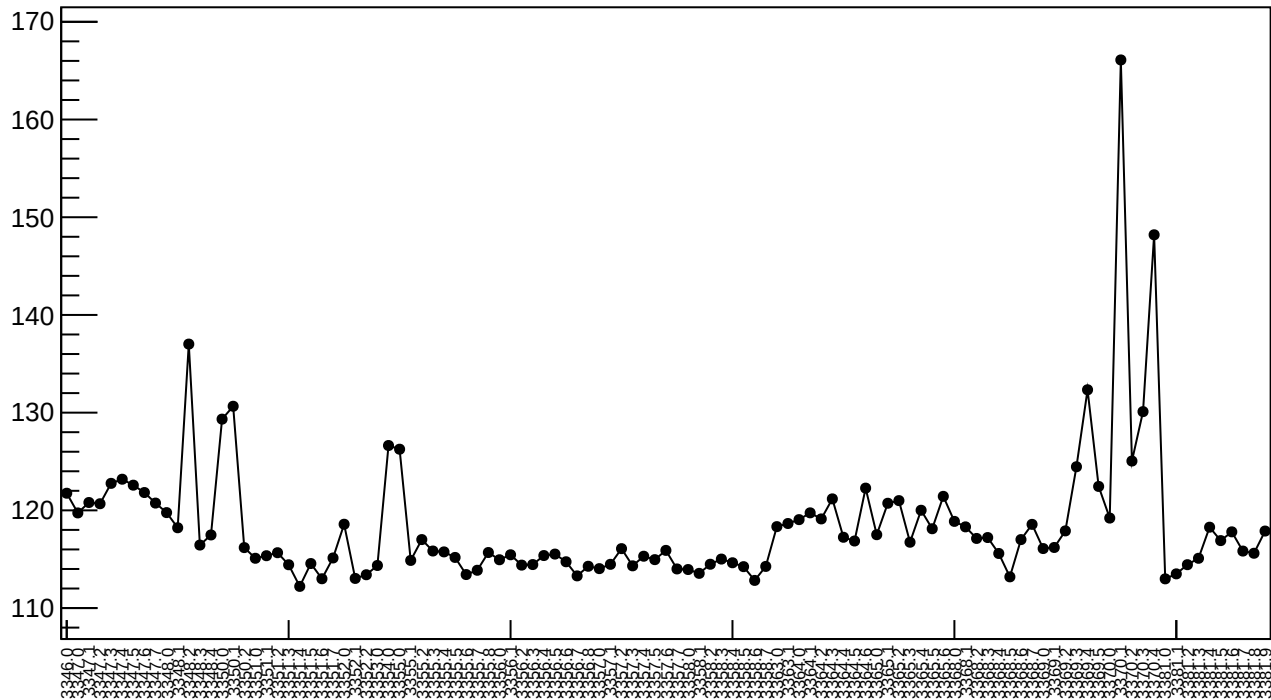


1D pull distribution

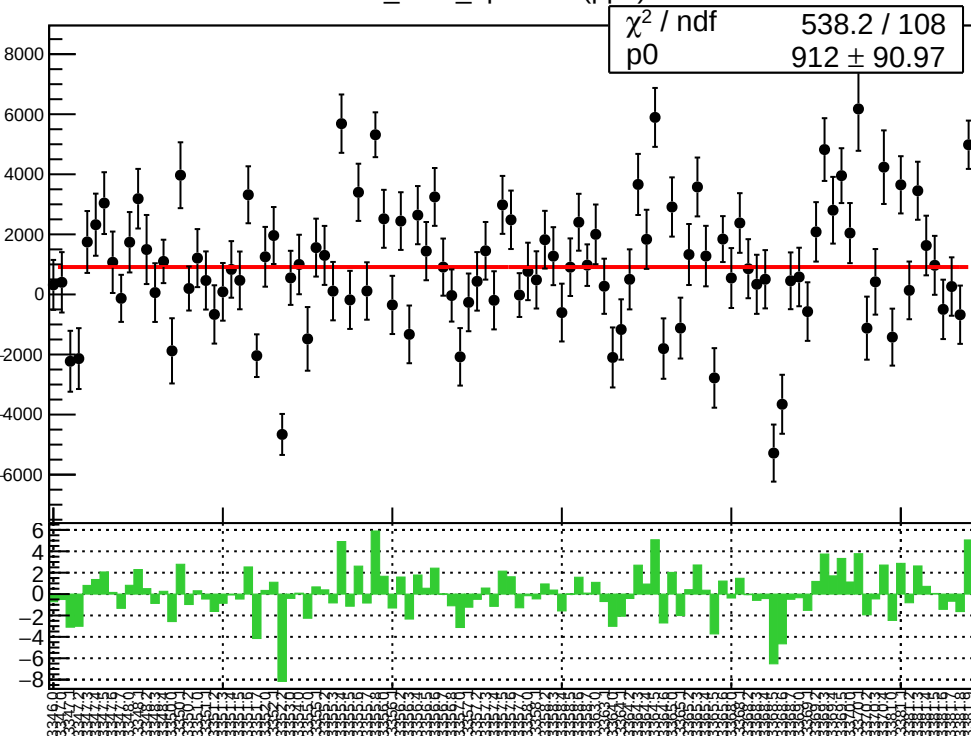


# Adet RMS (ppm)

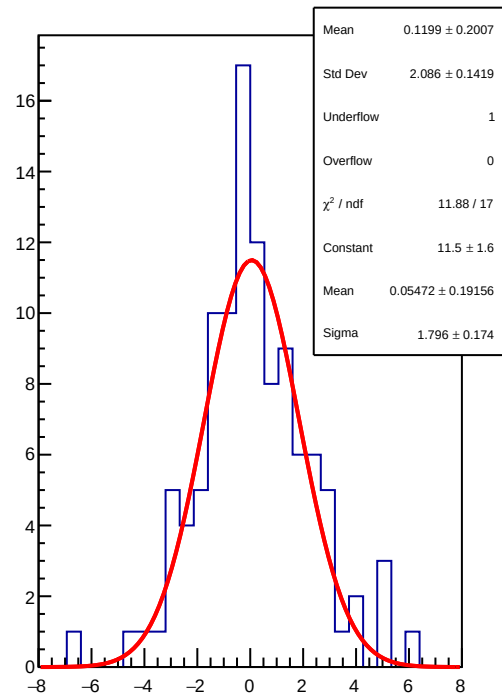
RMS (ppm)



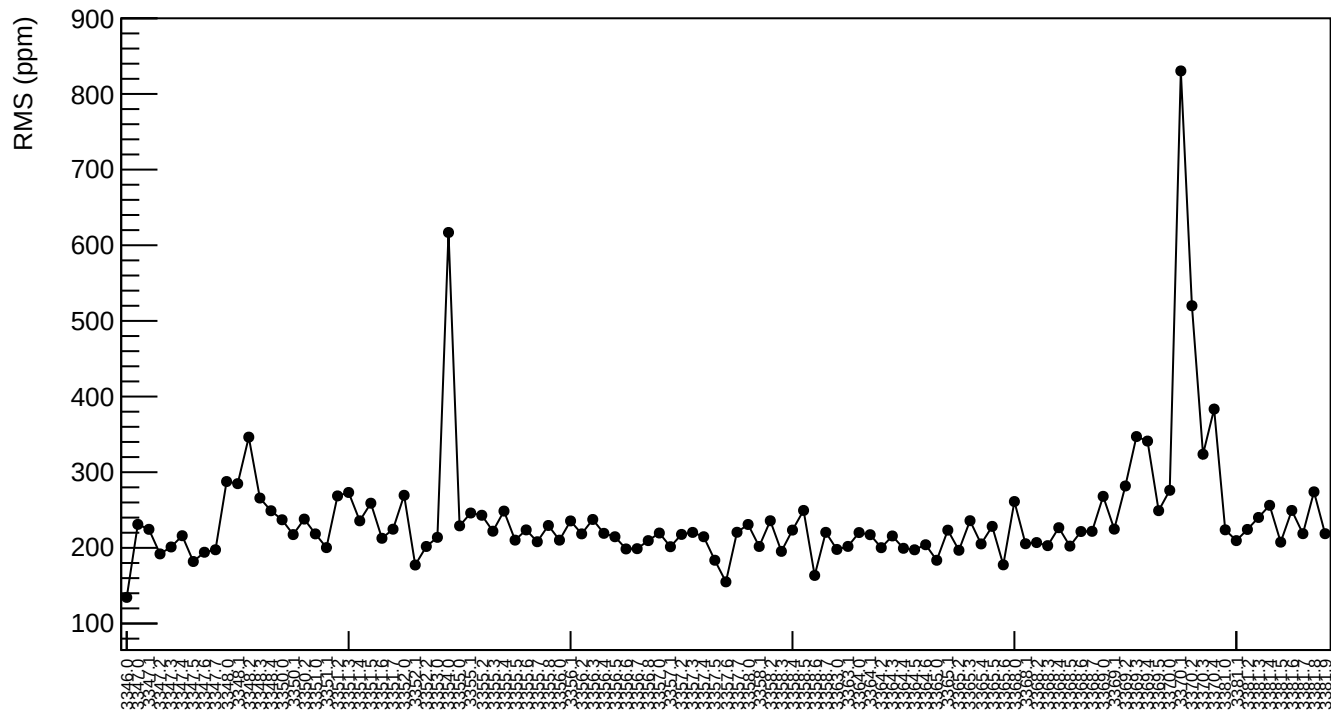
corr\_Adet\_bpm4eX (ppb)



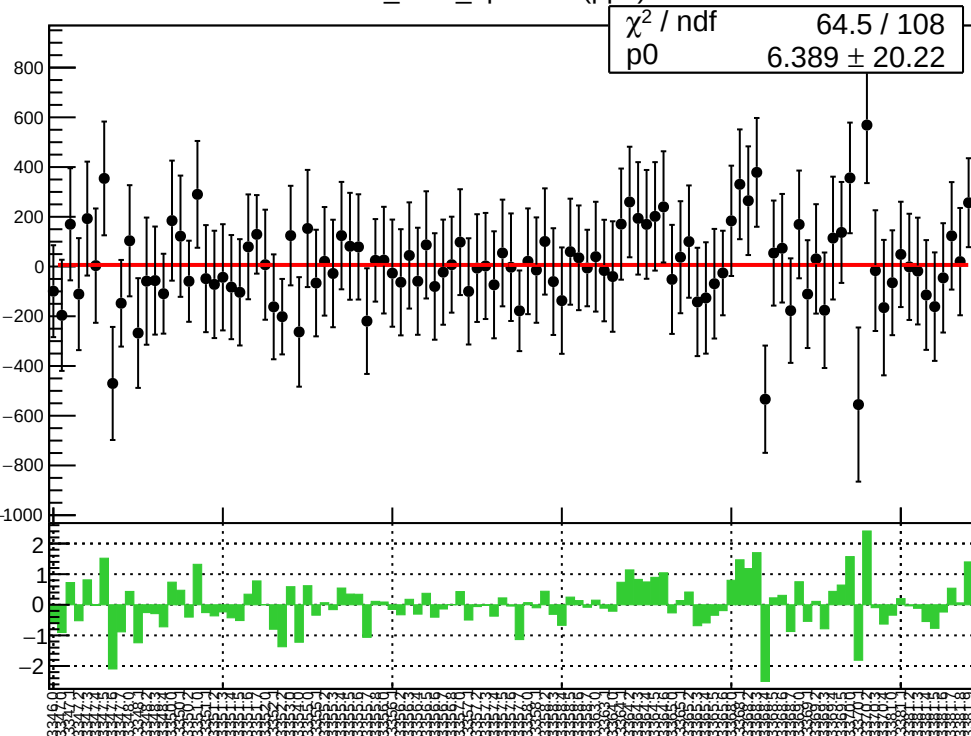
1D pull distribution



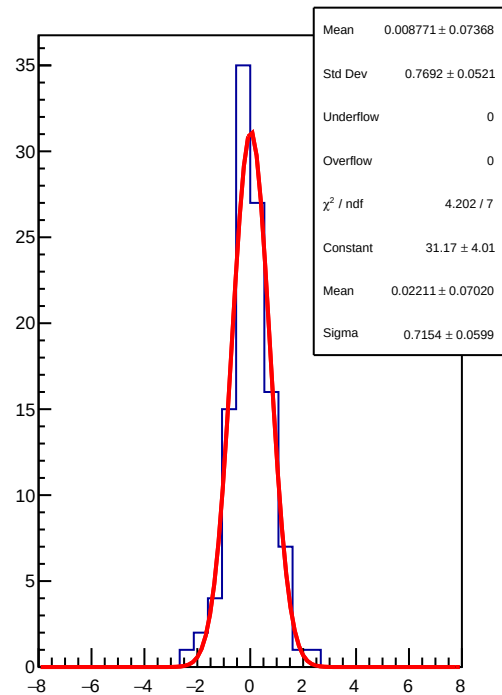
corr\_Adet\_bpm4eX RMS (ppm)



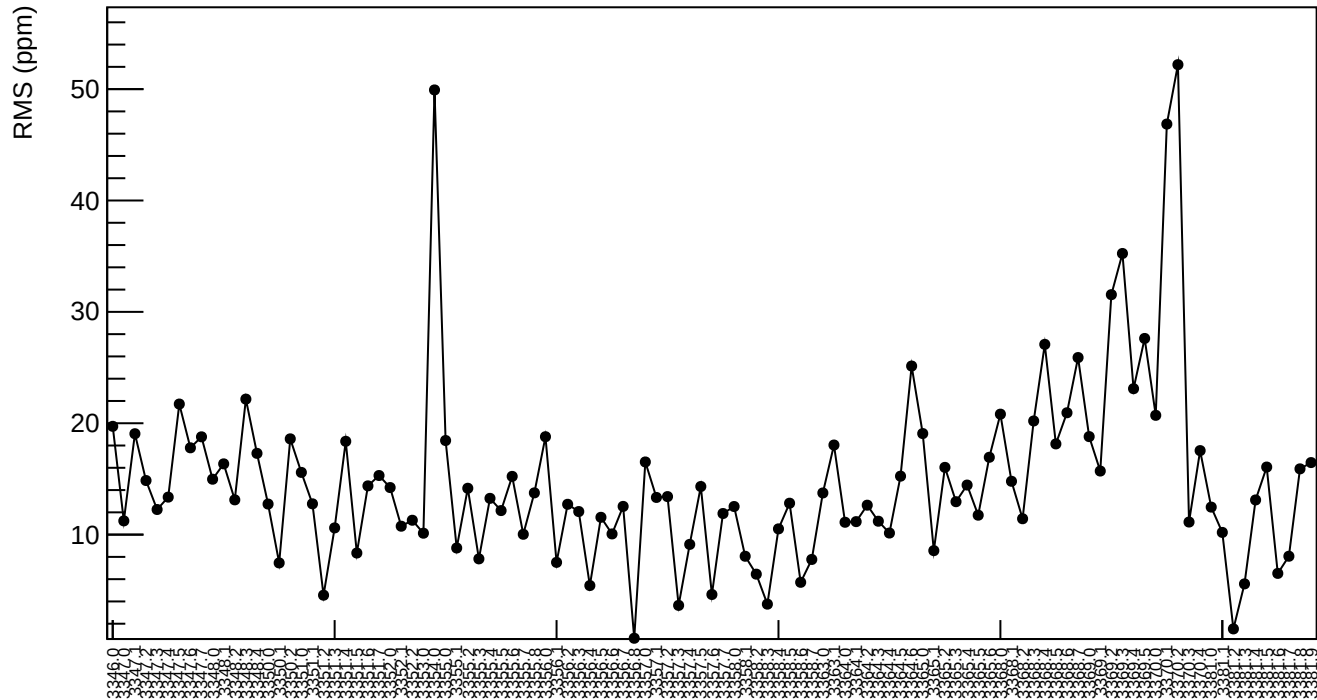
corr\_Adet\_bpm4eY (ppb)



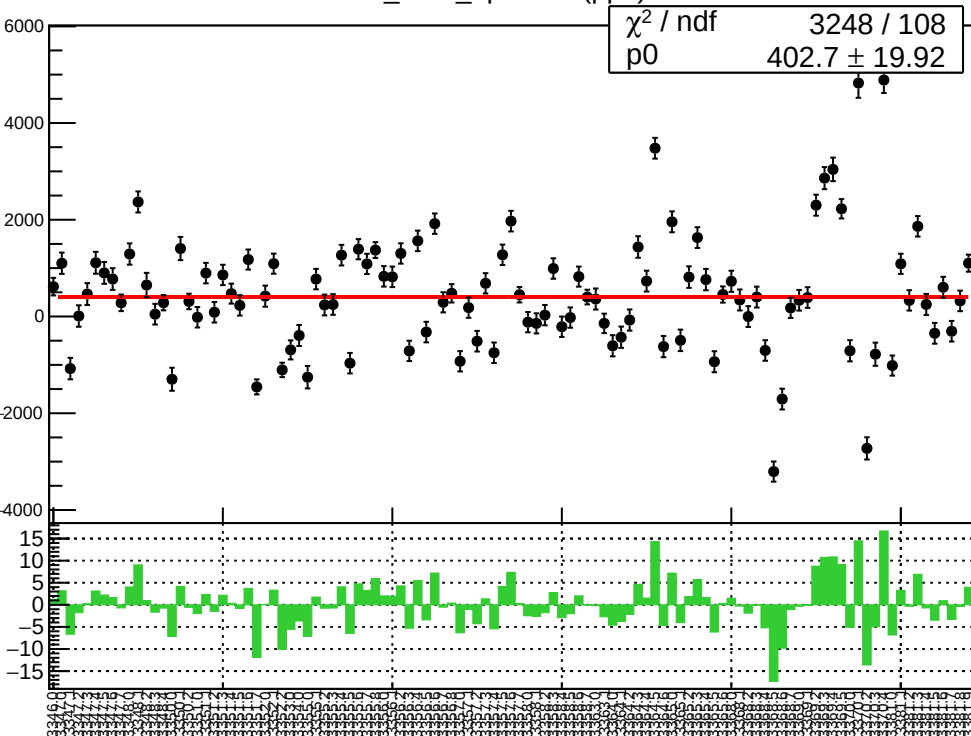
1D pull distribution



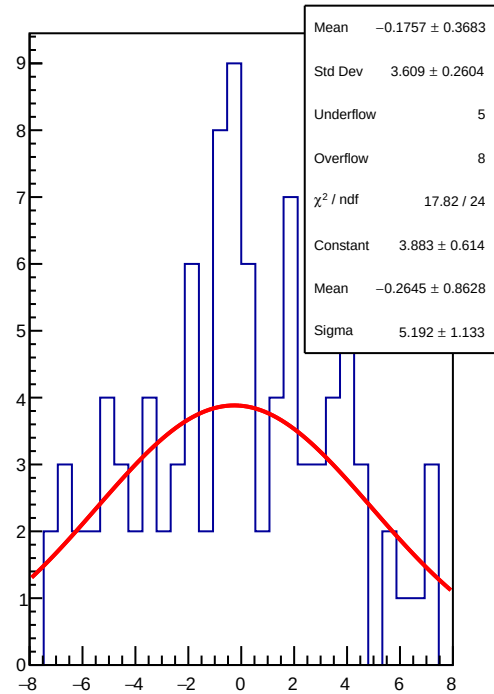
corr\_Adet\_bpm4eY RMS (ppm)



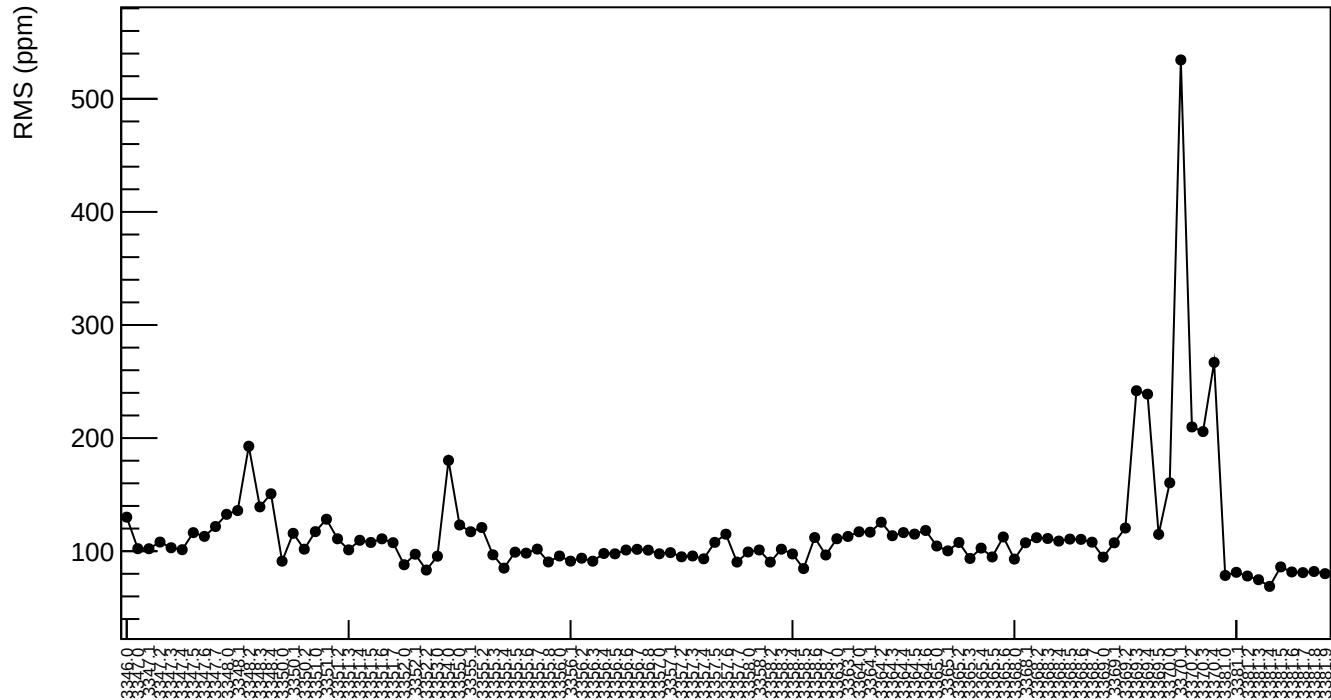
corr\_Adet\_bpm4aX (ppb)



1D pull distribution

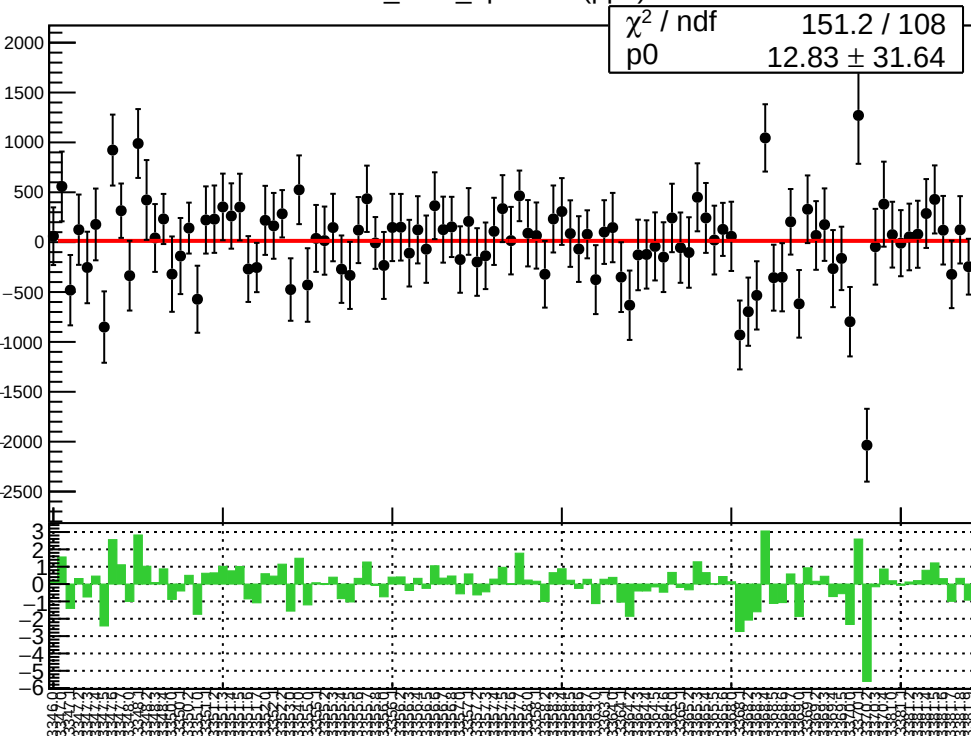


corr\_Adet\_bpm4aX RMS (ppm)

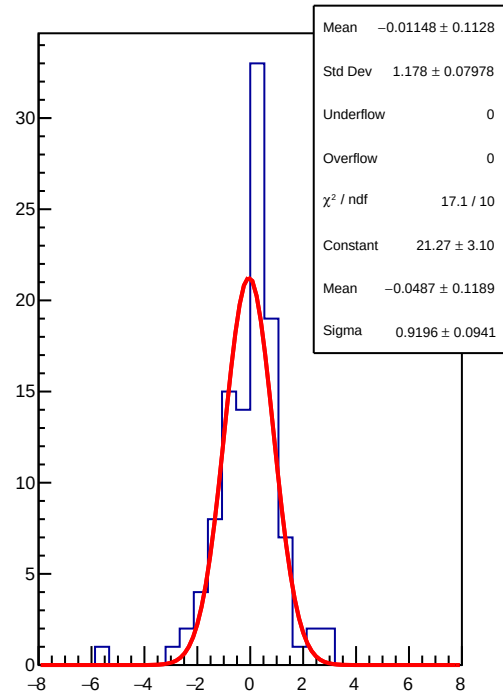




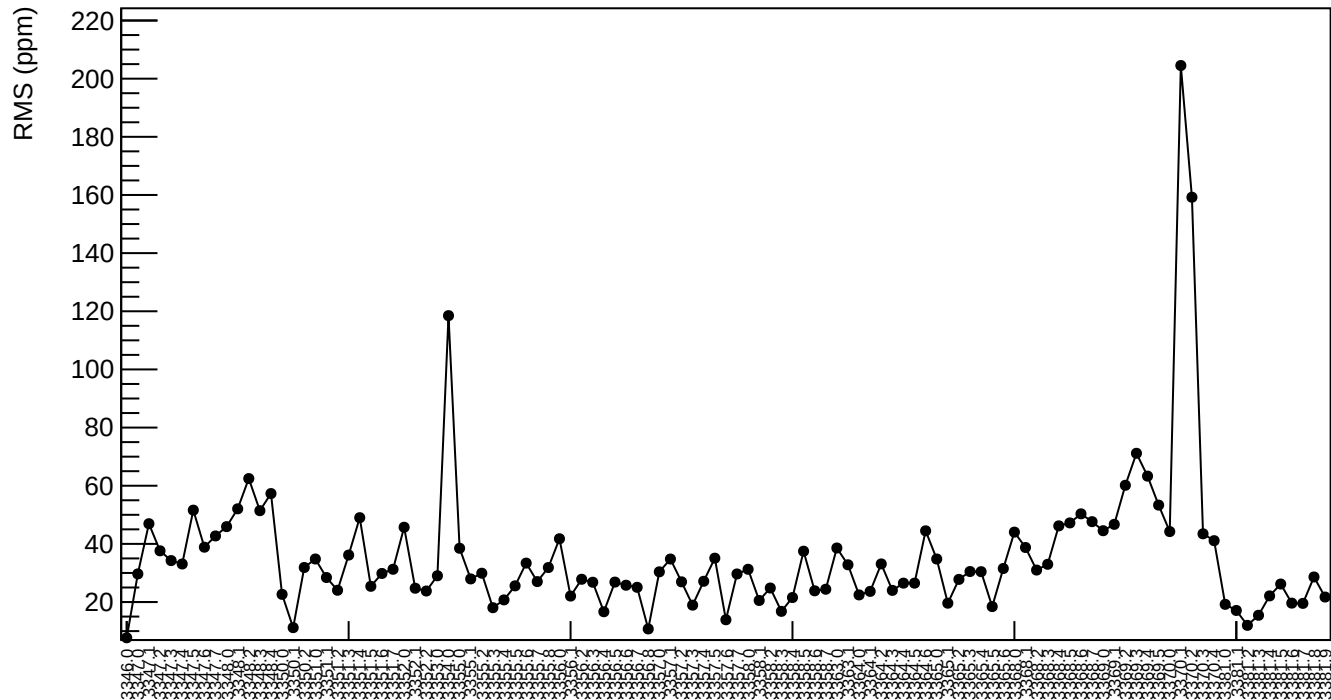
corr\_Adet\_bpm4aY (ppb)



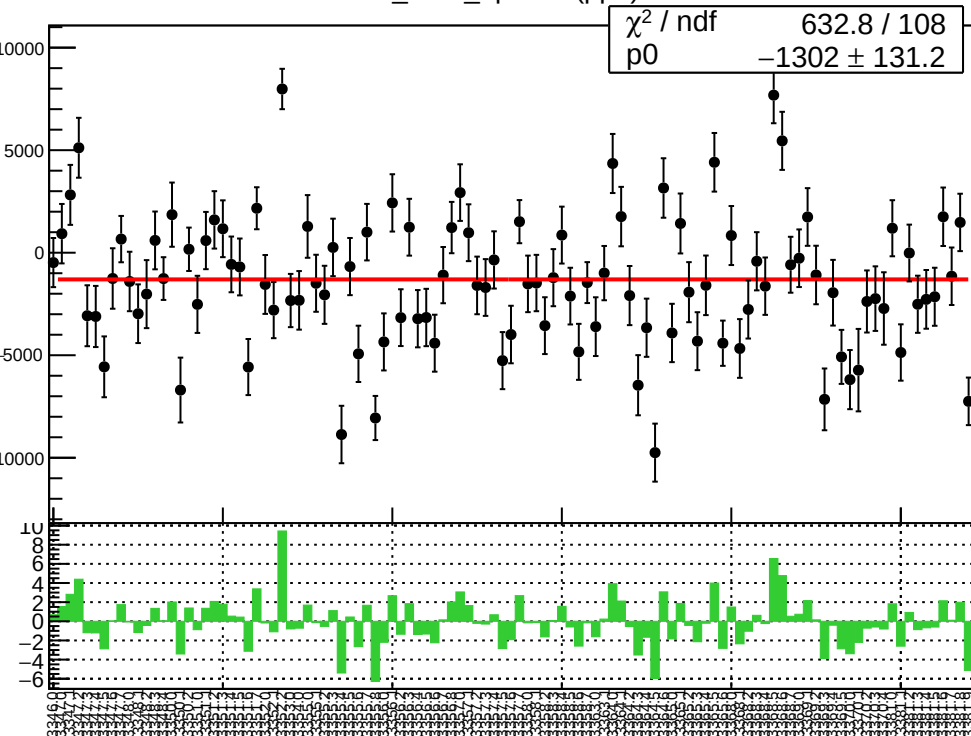
1D pull distribution



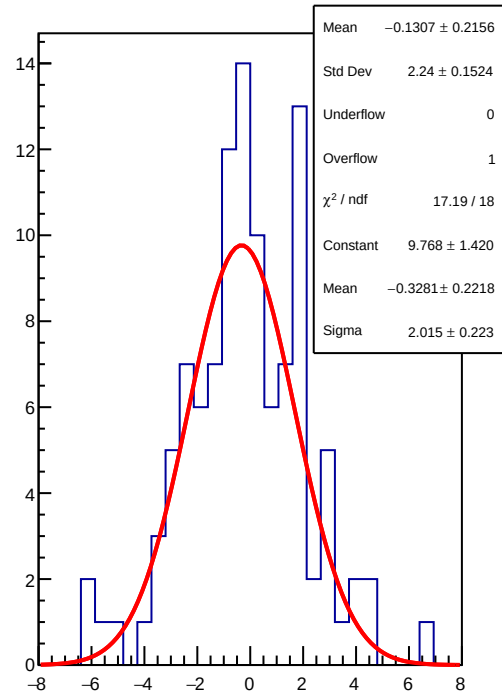
corr\_Adet\_bpm4aY RMS (ppm)



corr\_Adet\_bpm1X (ppb)

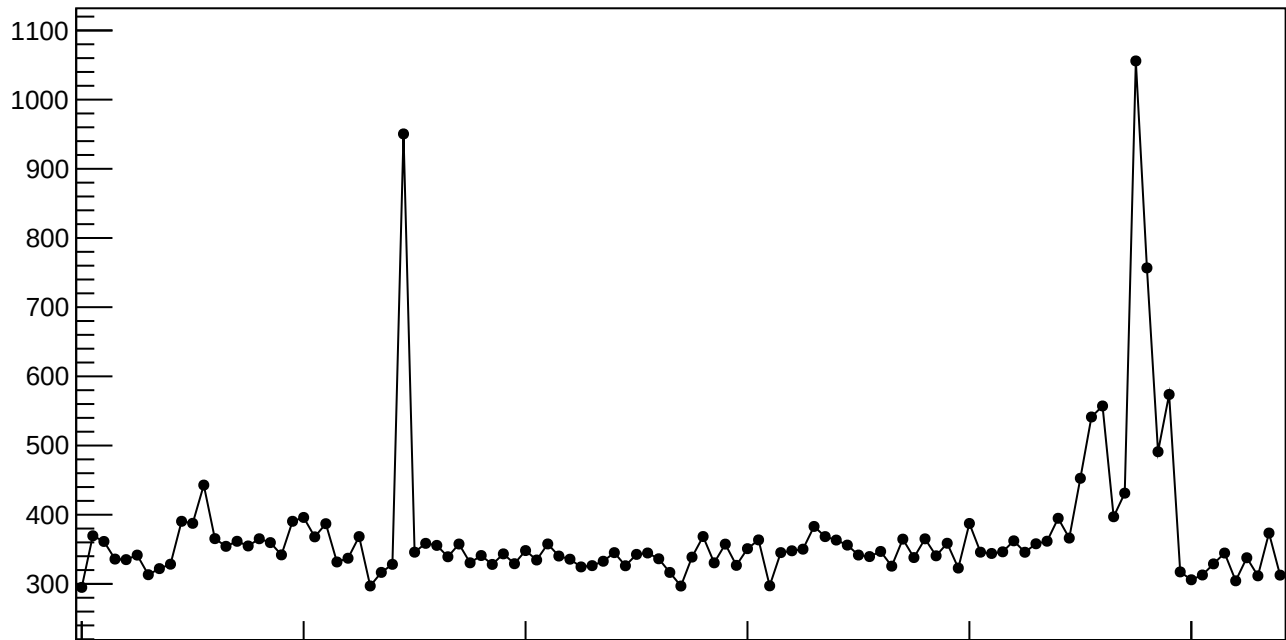


1D pull distribution

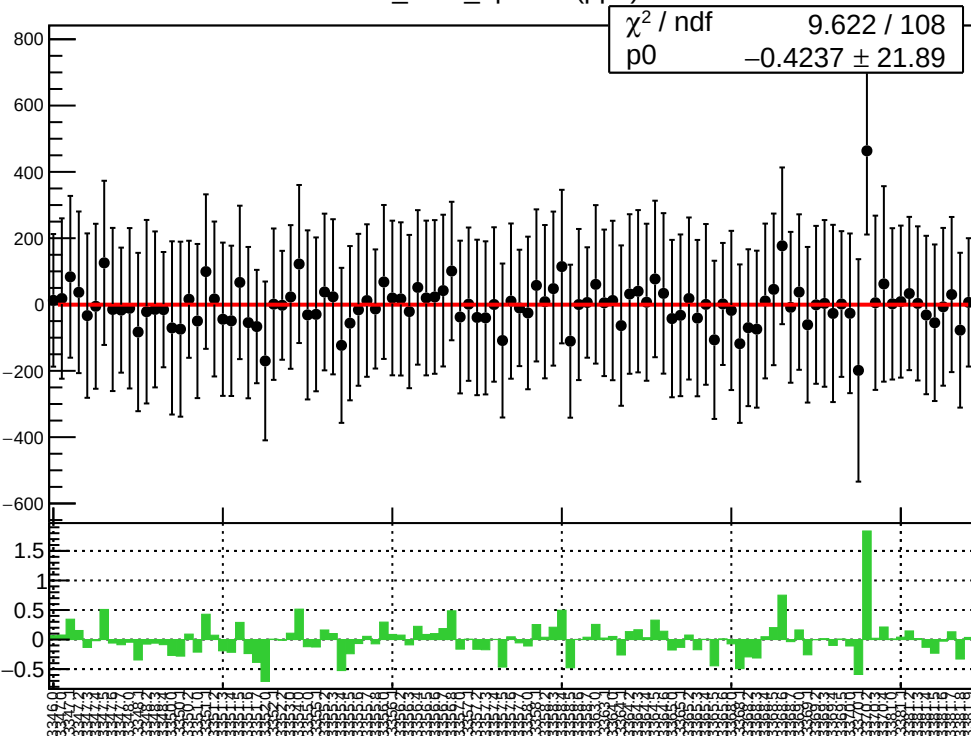


corr\_Adet\_bpm1X RMS (ppm)

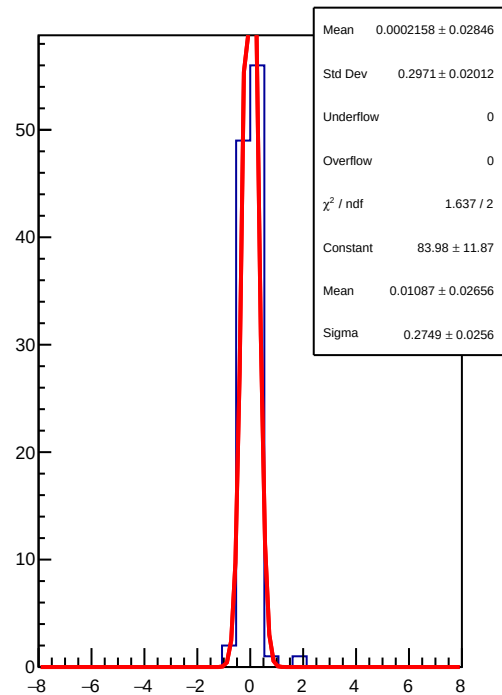
RMS (ppm)



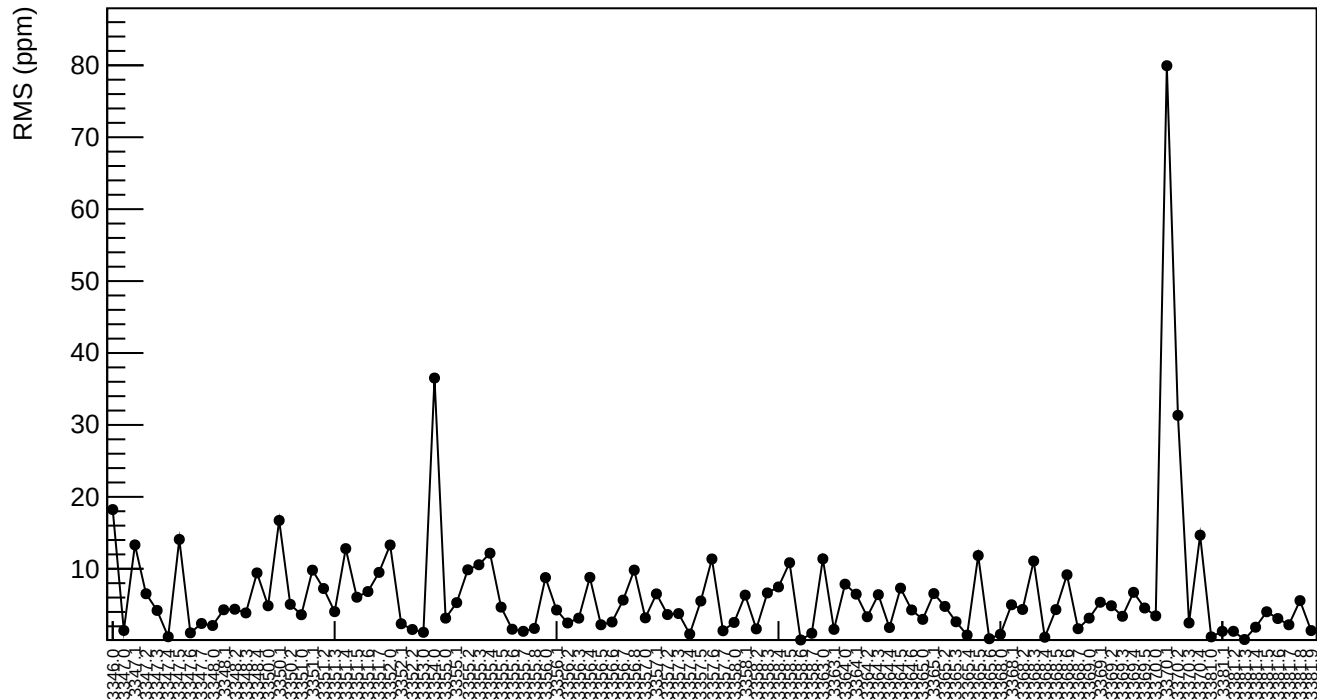
corr\_Adet\_bpm1Y (ppb)



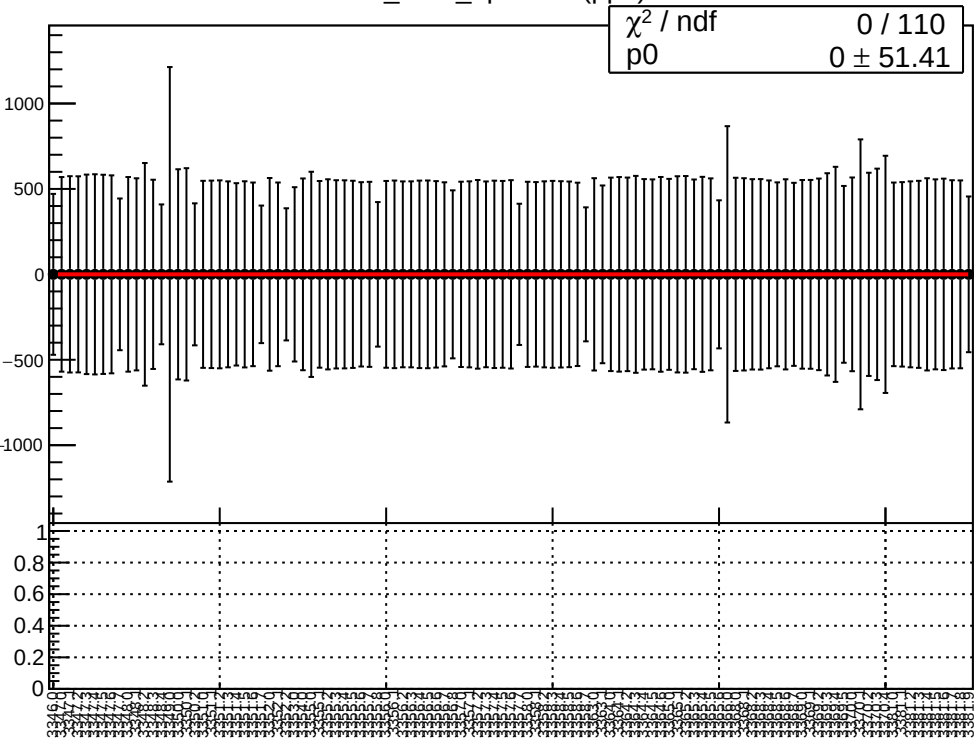
1D pull distribution



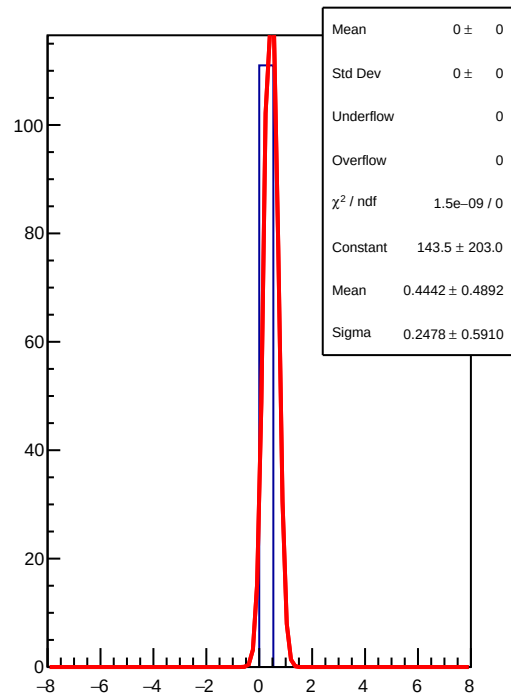
corr\_Adet\_bpm1Y RMS (ppm)



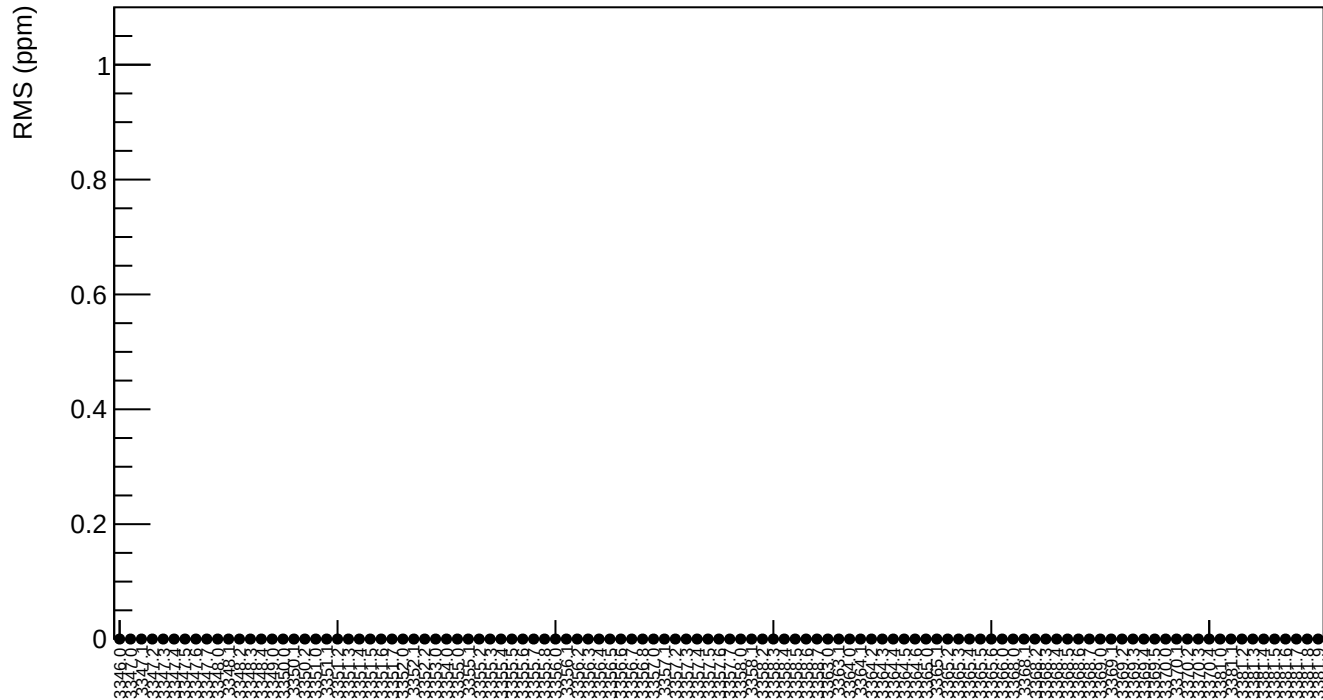
corr\_Adet\_bpm16X (ppb)



1D pull distribution

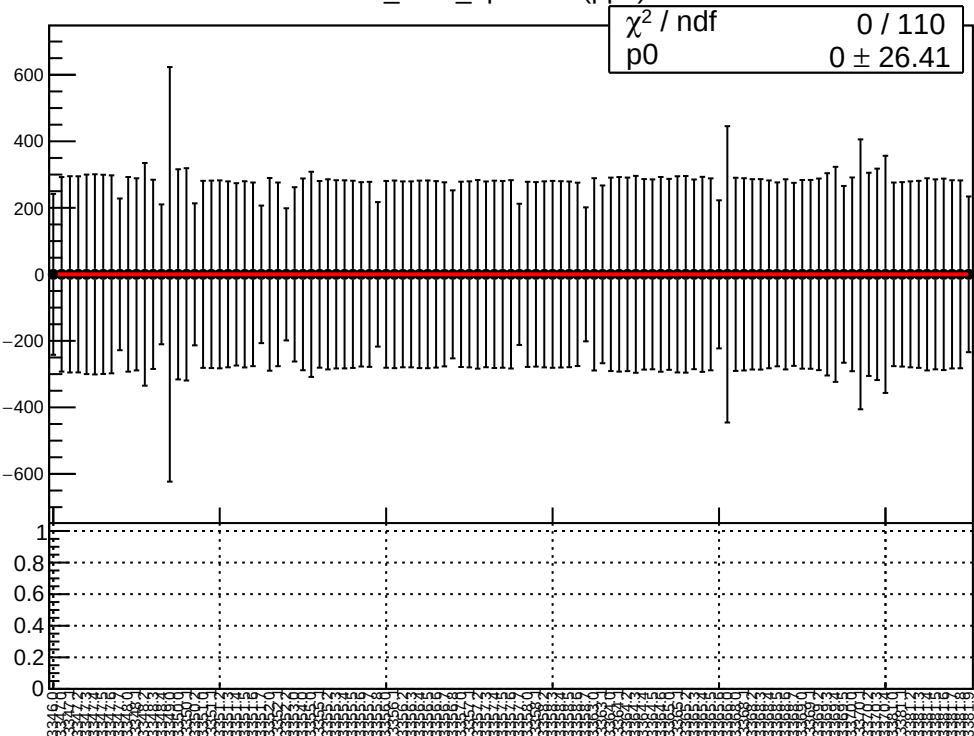


corr\_Adet\_bpm16X RMS (ppm)

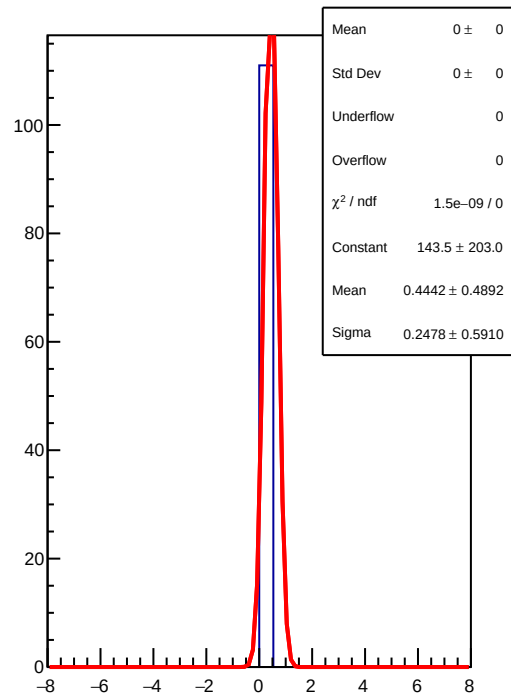




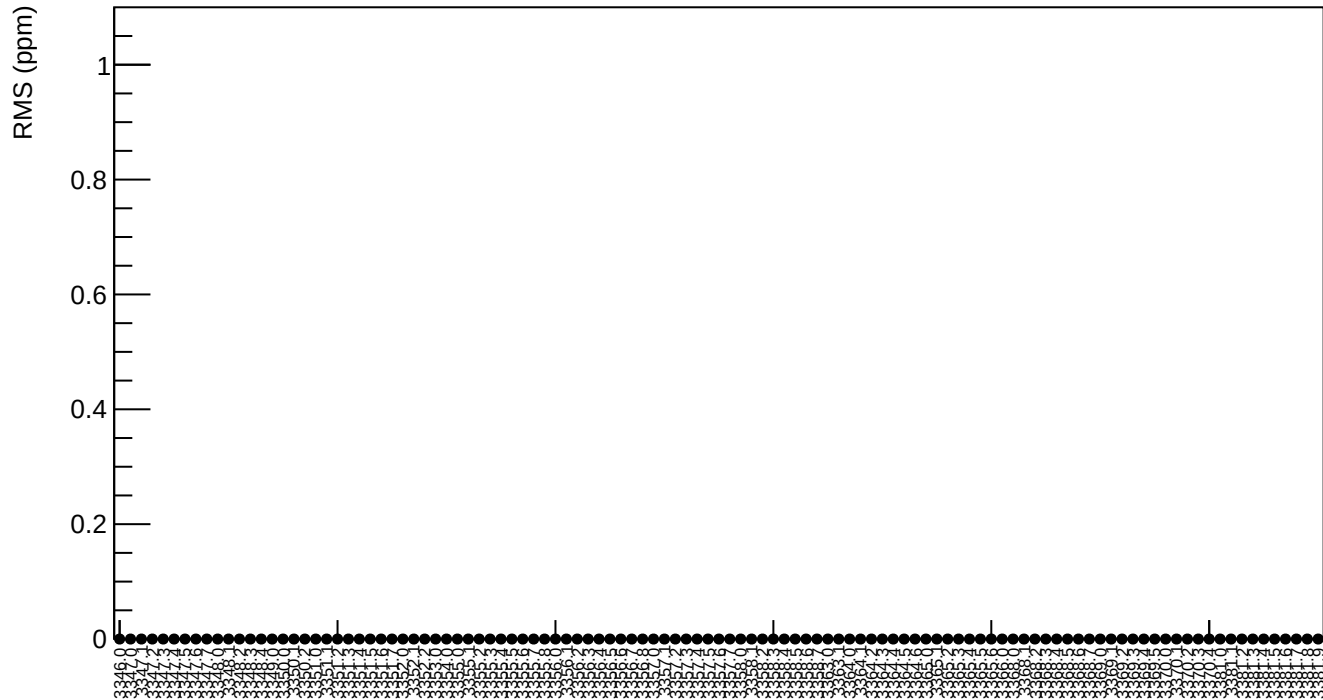
corr\_Adet\_bpm16Y (ppb)



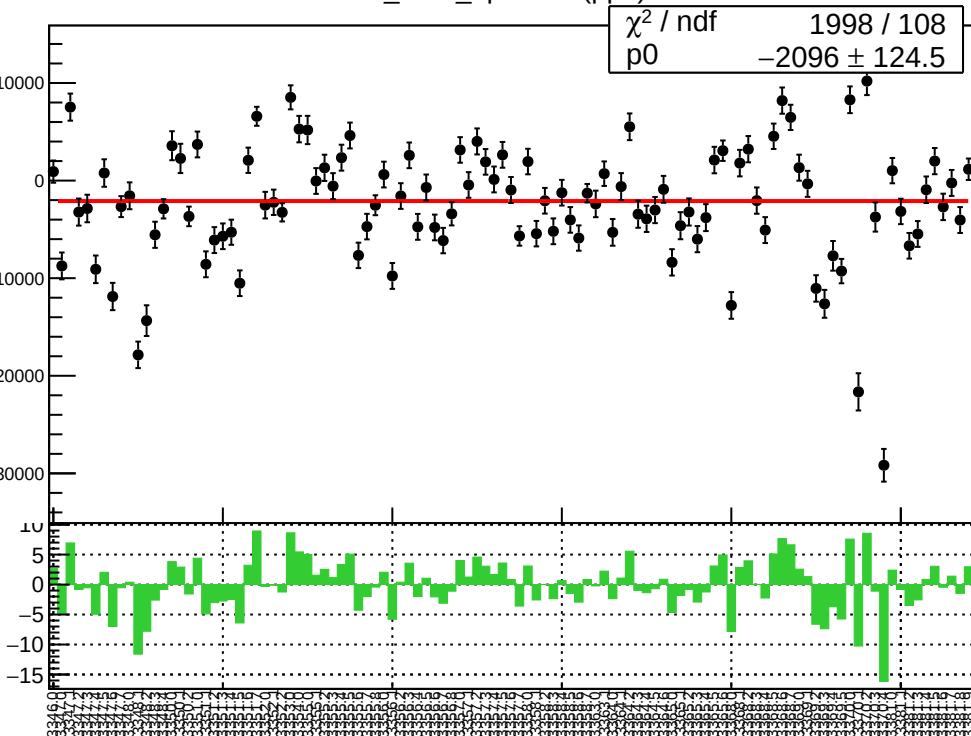
1D pull distribution



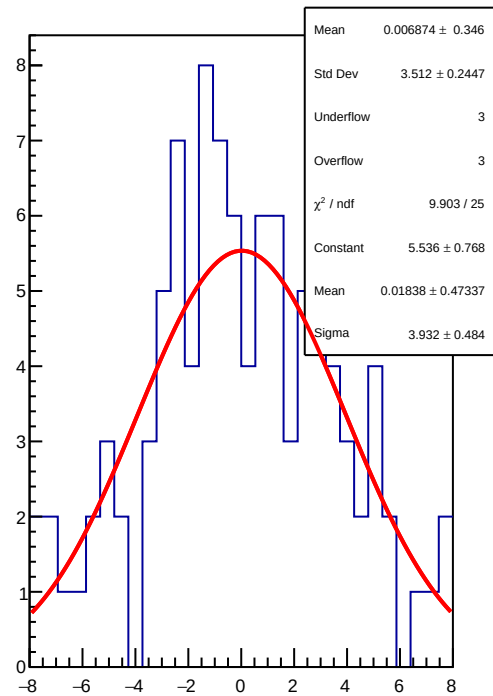
corr\_Adet\_bpm16Y RMS (ppm)



corr\_Adet\_bpm12X (ppb)



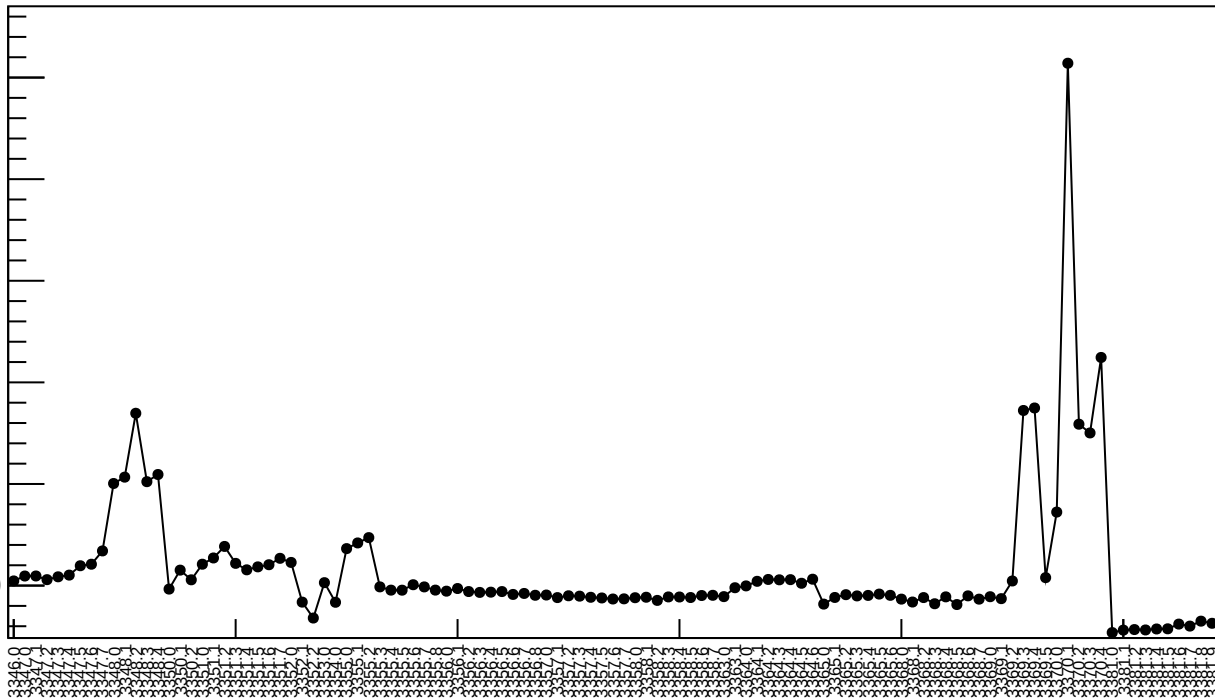
1D pull distribution



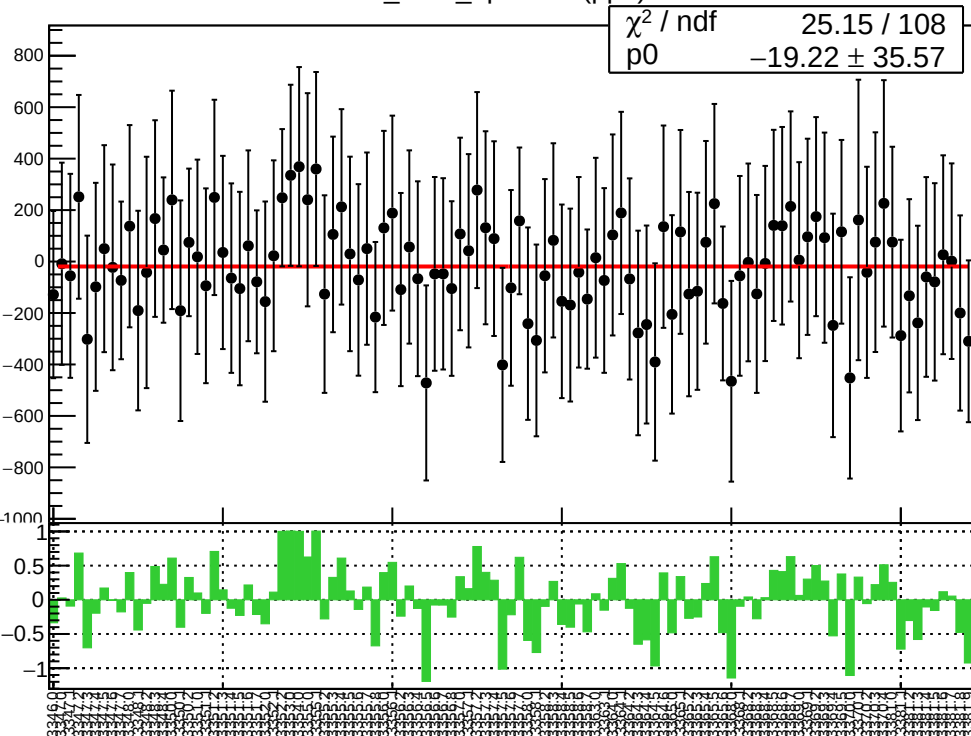
corr\_Adet\_bpm12X RMS (ppm)

RMS (ppm)

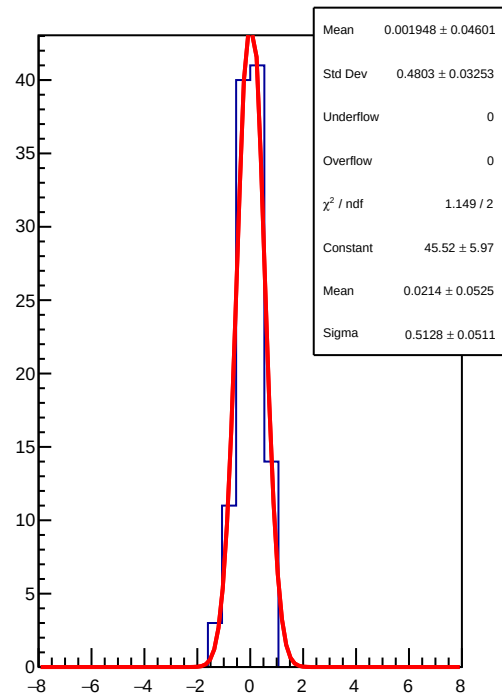
3000  
2500  
2000  
1500  
1000  
500



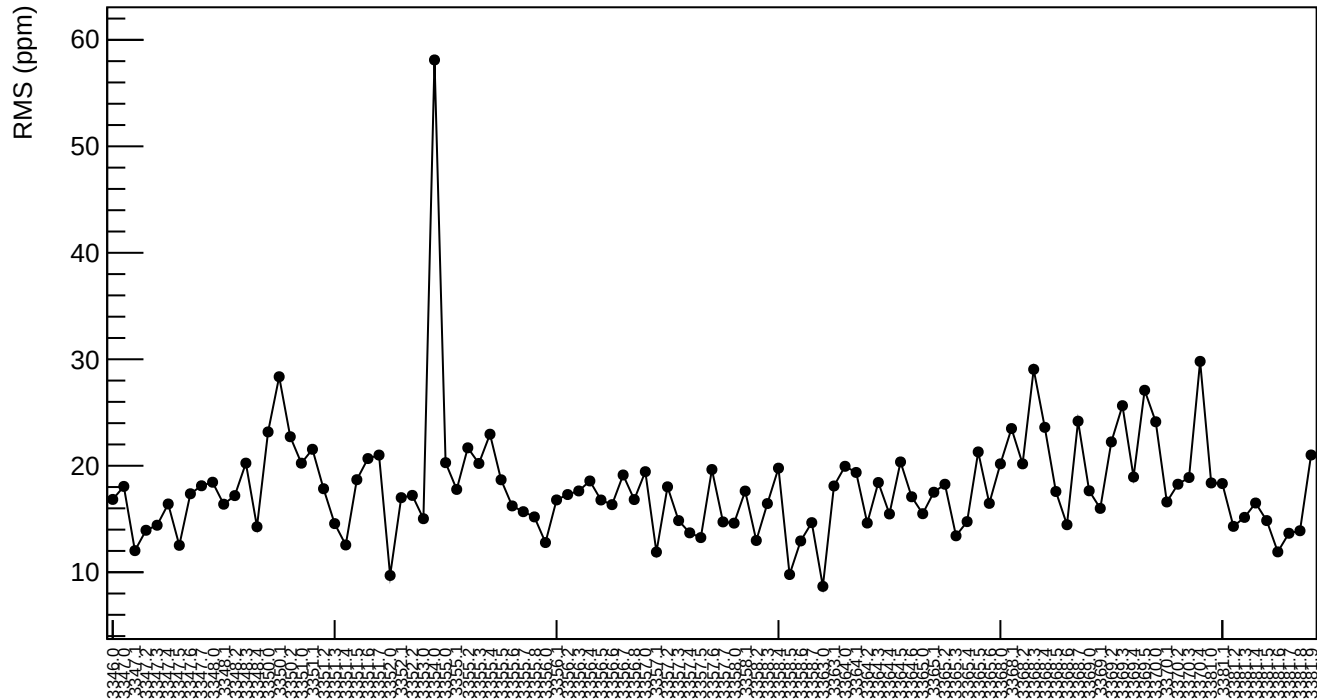
corr\_Adet\_bpm12Y (ppb)



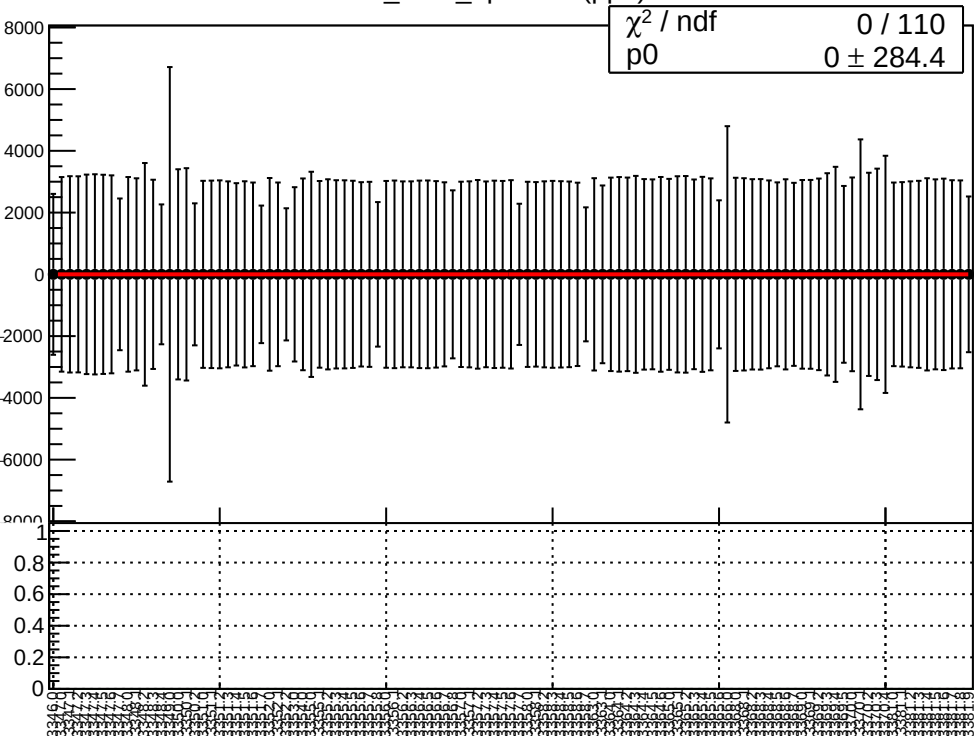
1D pull distribution



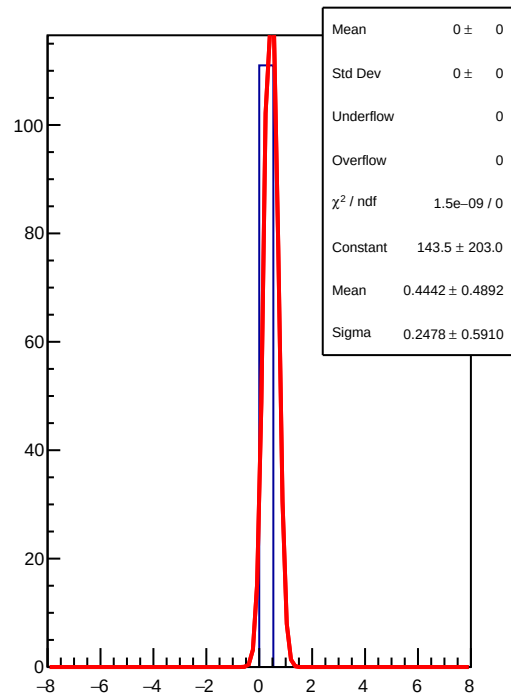
corr\_Adet\_bpm12Y RMS (ppm)



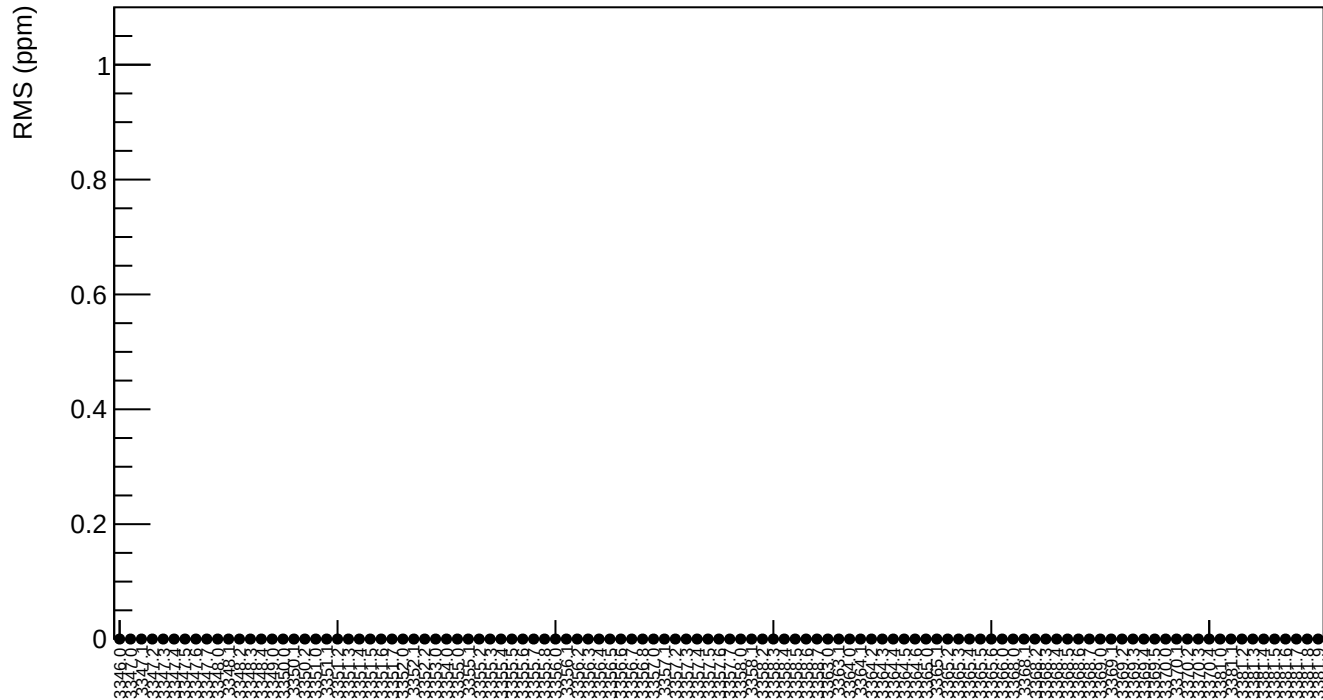
corr\_Adet\_bpm11X (ppb)



1D pull distribution

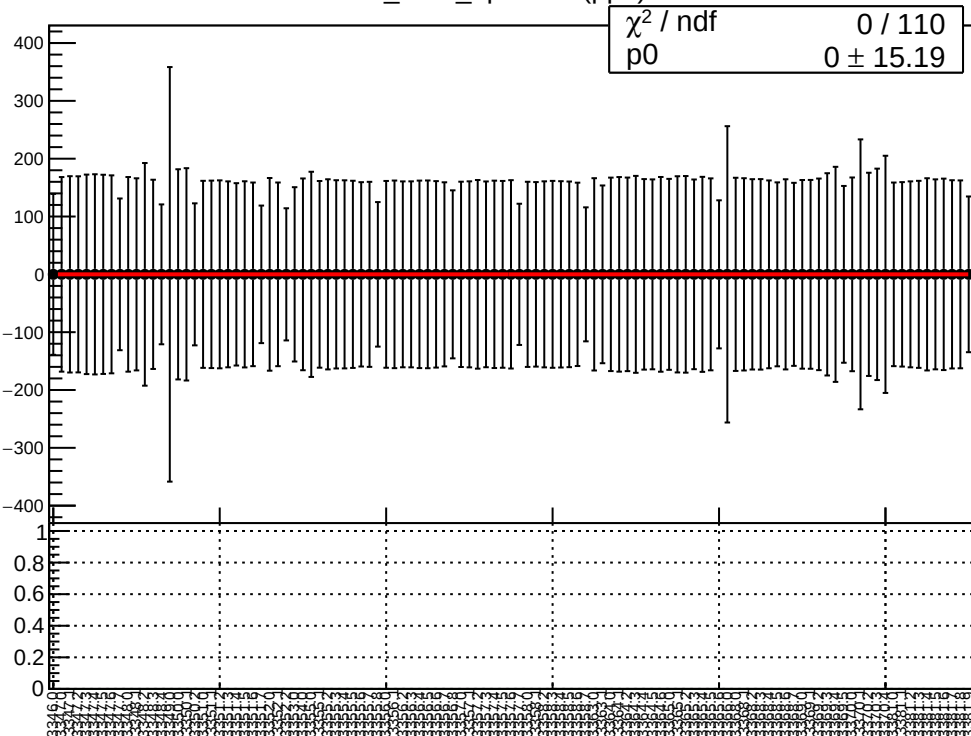


corr\_Adet\_bpm11X RMS (ppm)

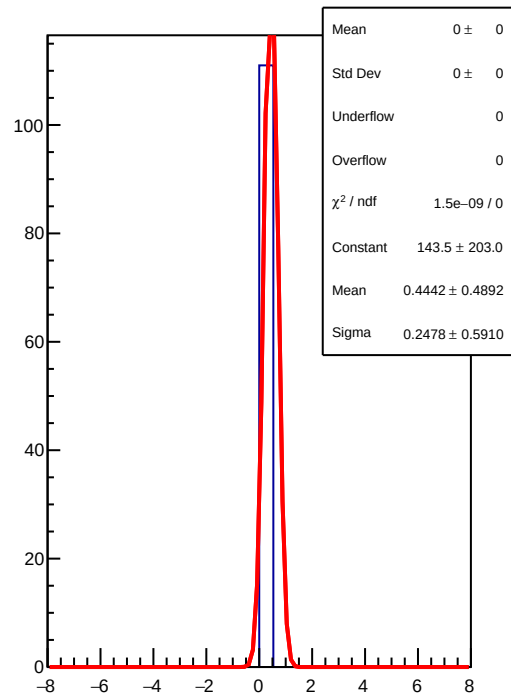




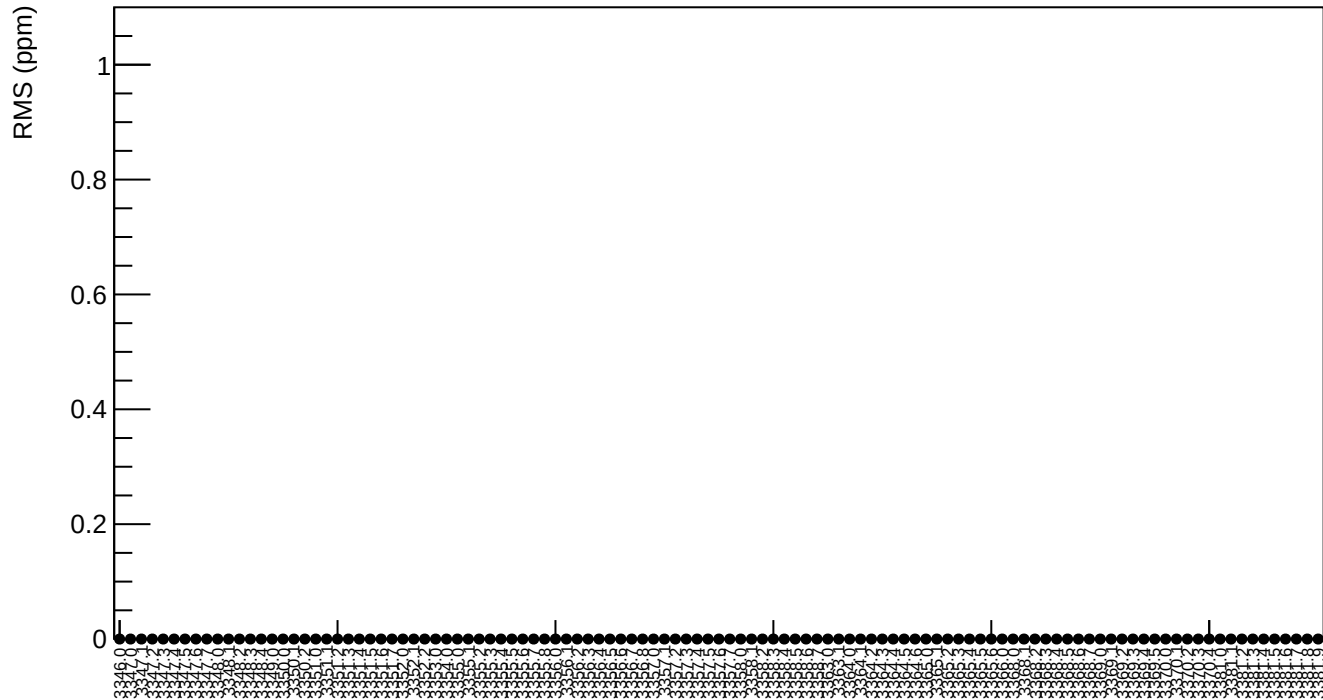
corr\_Adet\_bpm11Y (ppb)



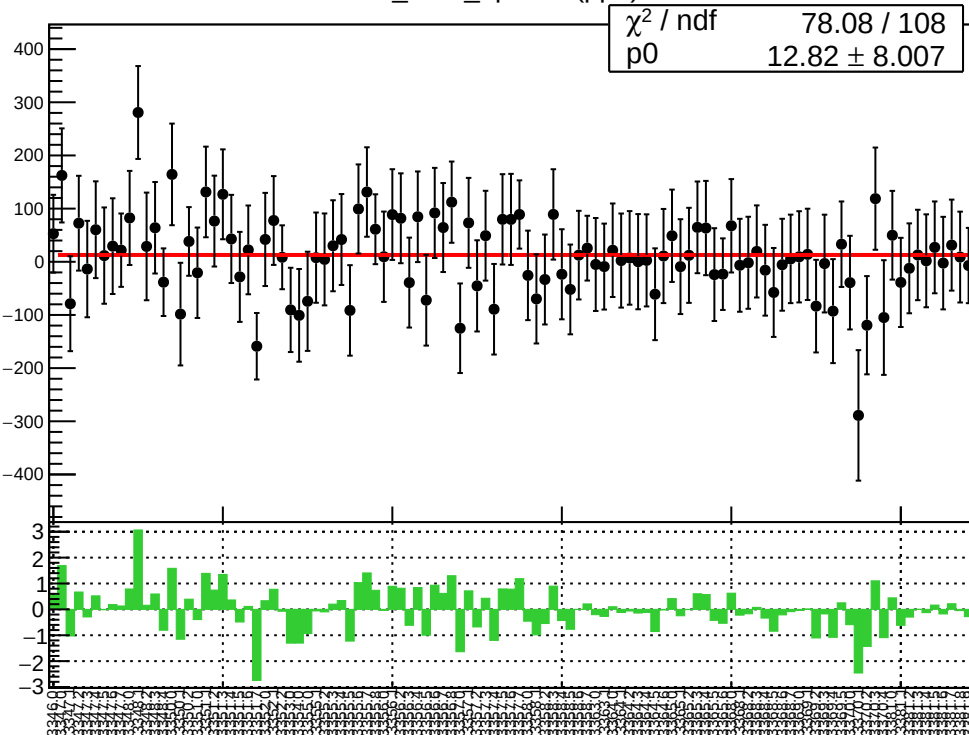
1D pull distribution



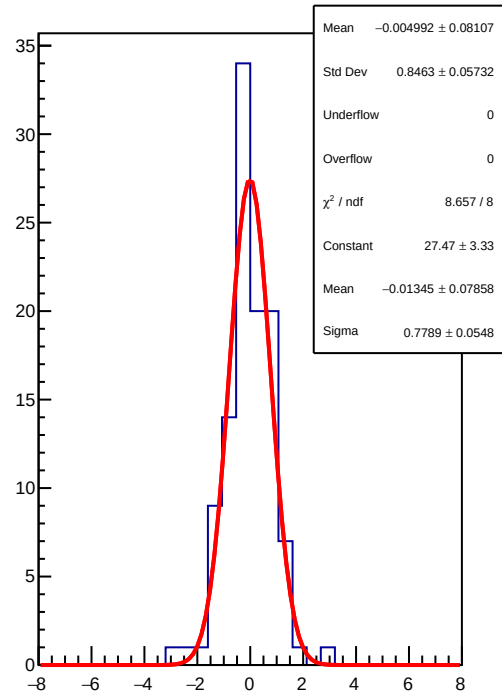
corr\_Adet\_bpm11Y RMS (ppm)



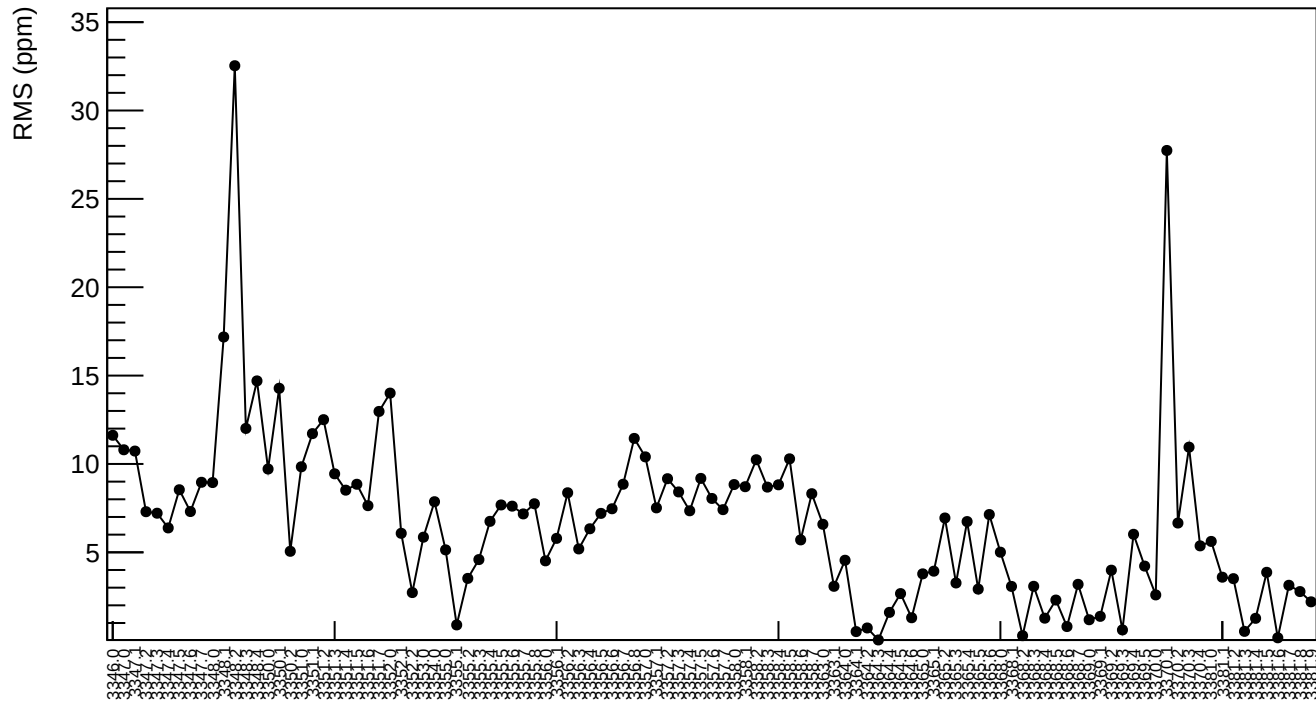
corr\_Adet\_bpm8X (ppb)



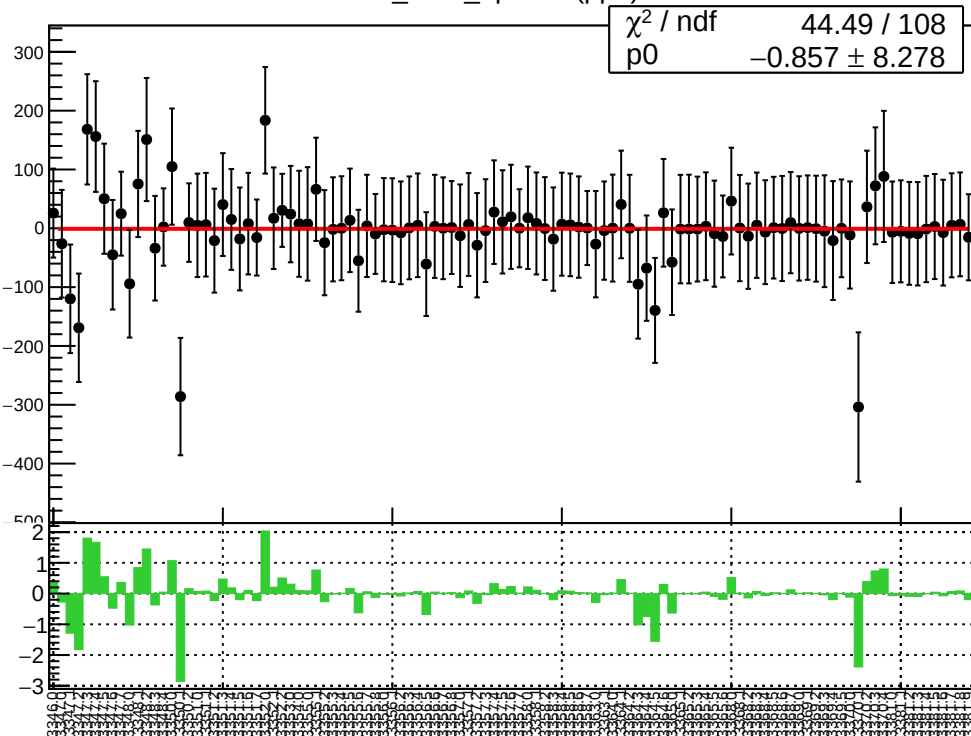
1D pull distribution



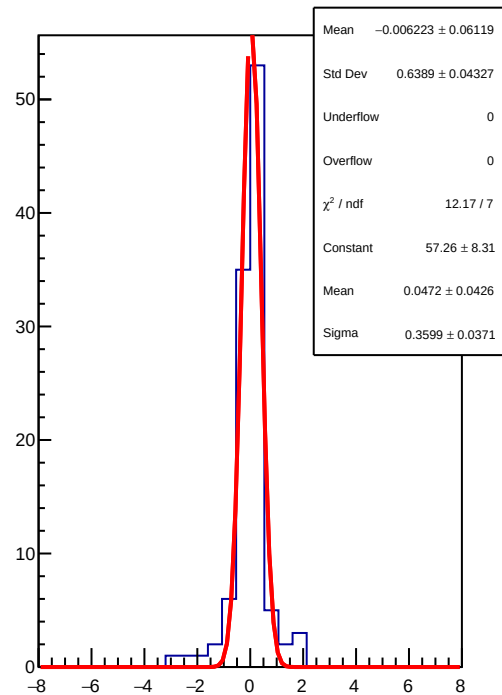
corr\_Adet\_bpm8X RMS (ppm)



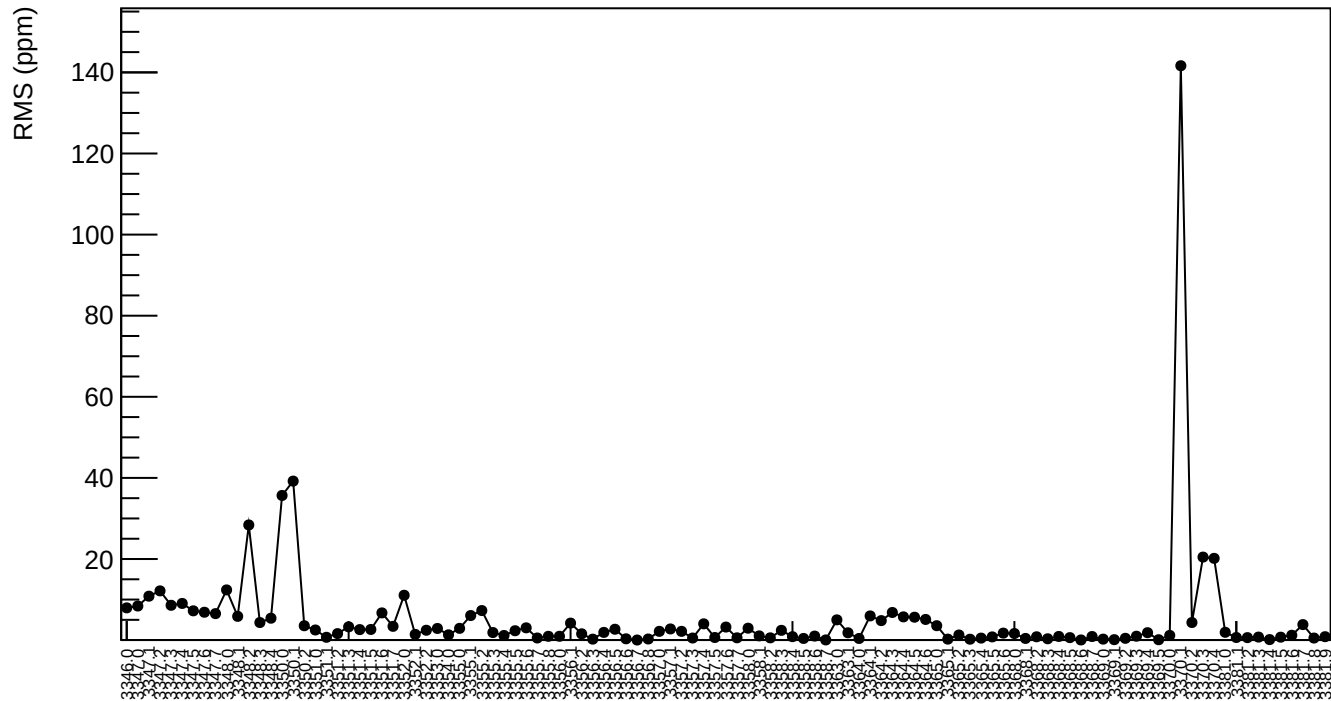
corr\_Adet\_bpm8Y (ppb)



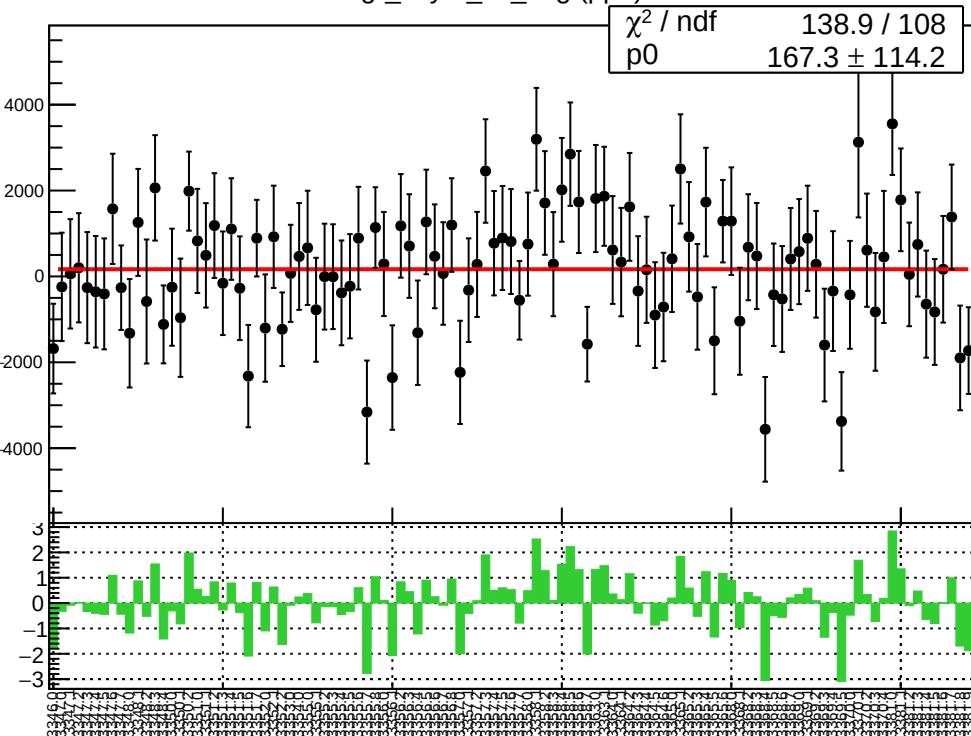
1D pull distribution



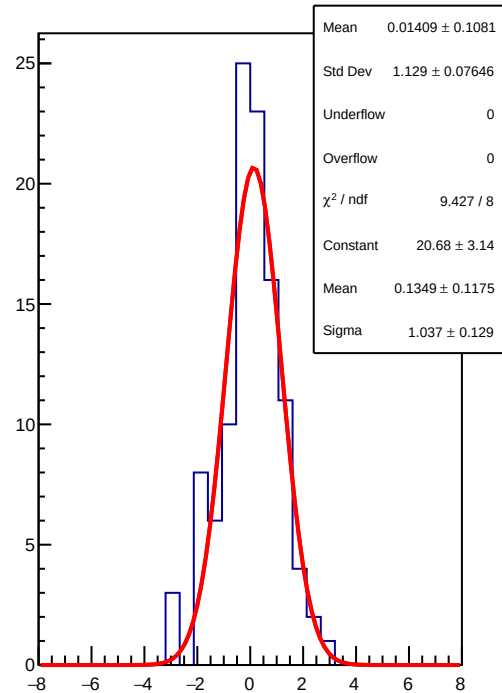
corr\_Adet\_bpm8Y RMS (ppm)



lagr\_asym\_us\_avg (ppb)

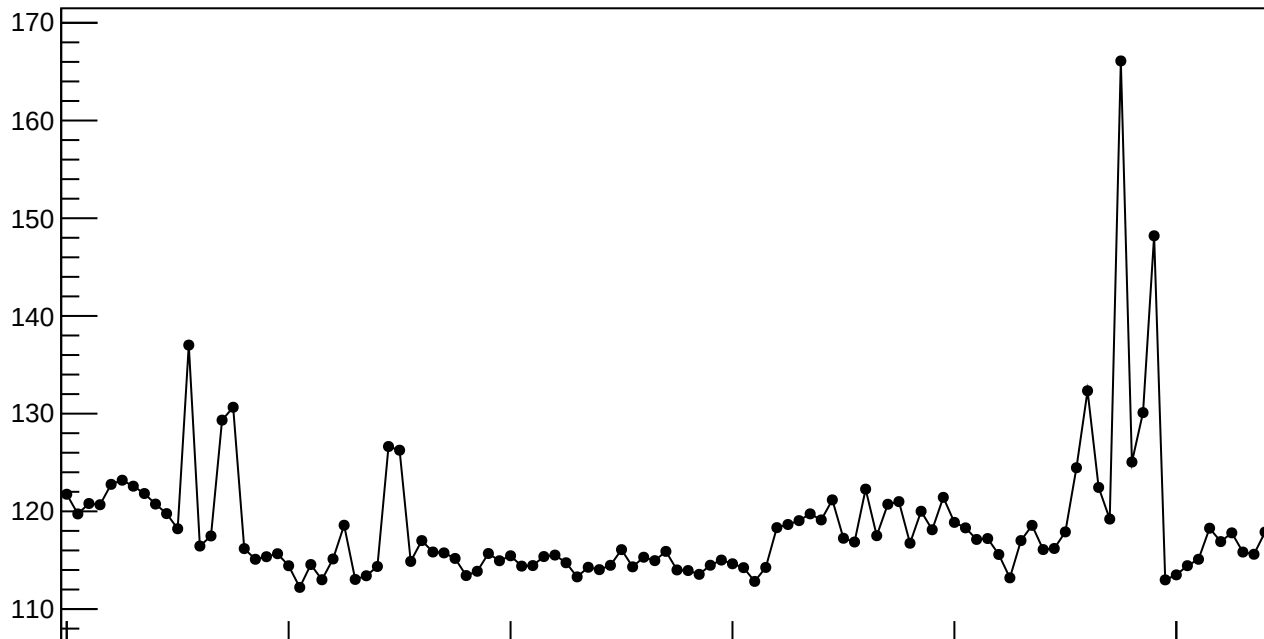


1D pull distribution



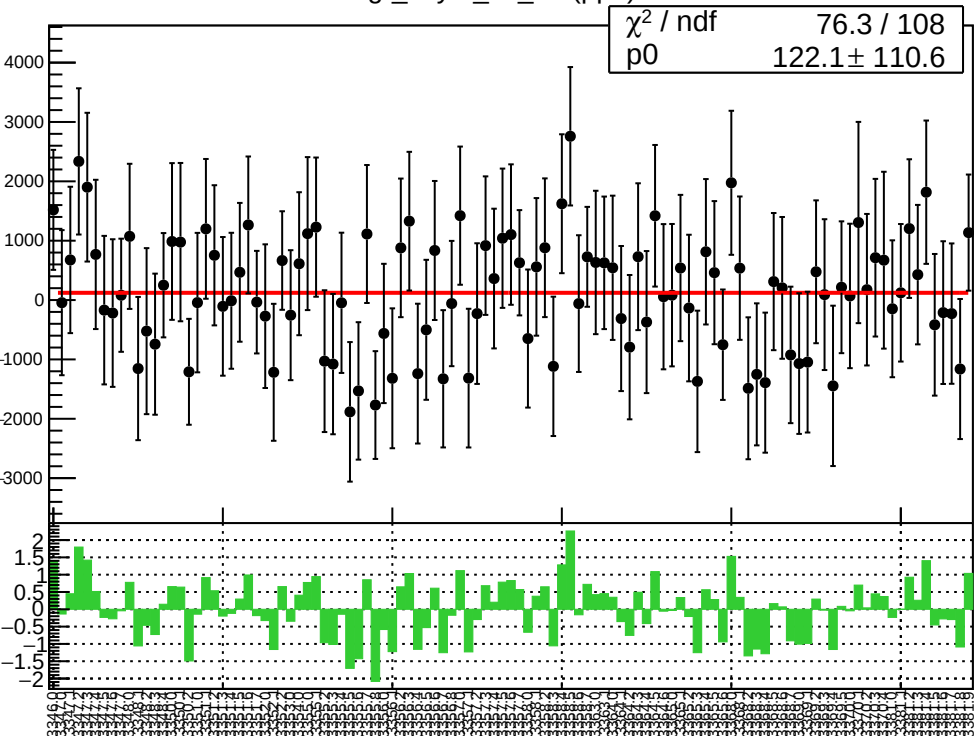
lagr\_asym\_us\_avg RMS (ppm)

RMS (ppm)

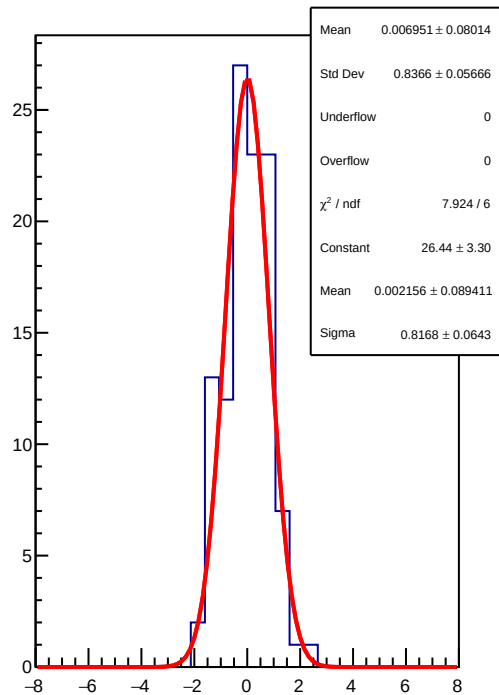




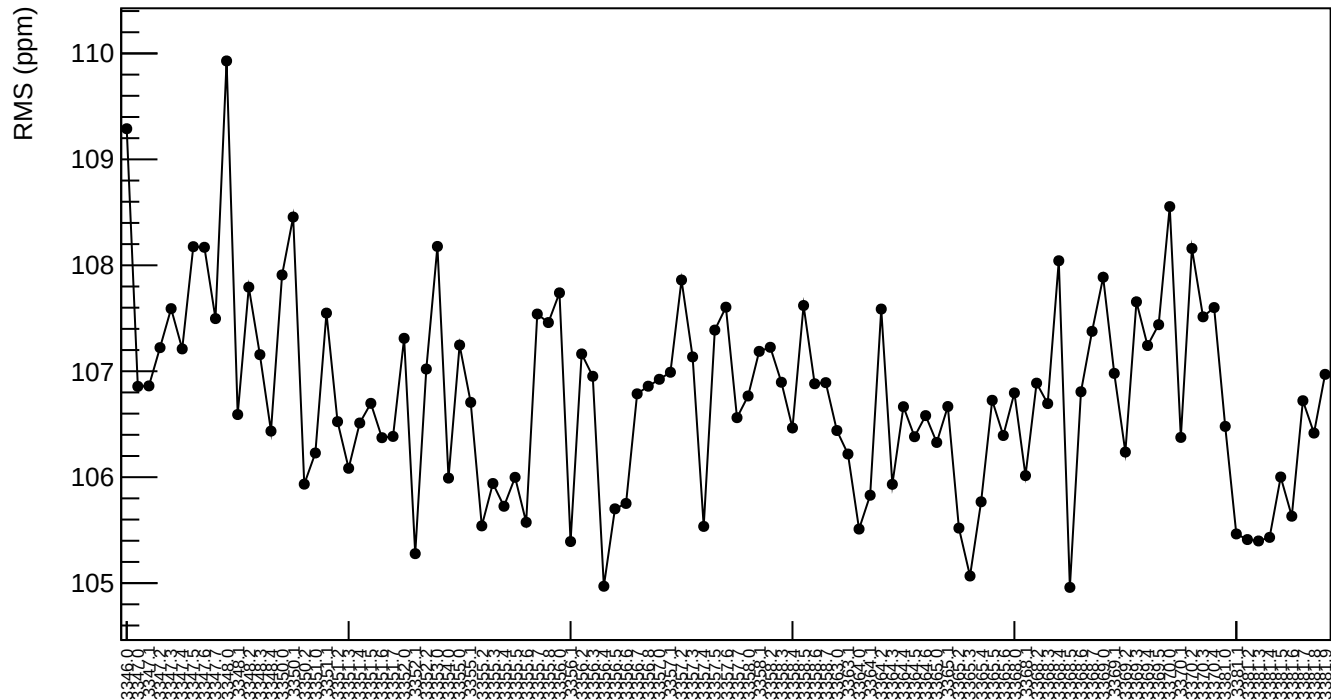
lagr\_asym\_us\_dd (ppb)



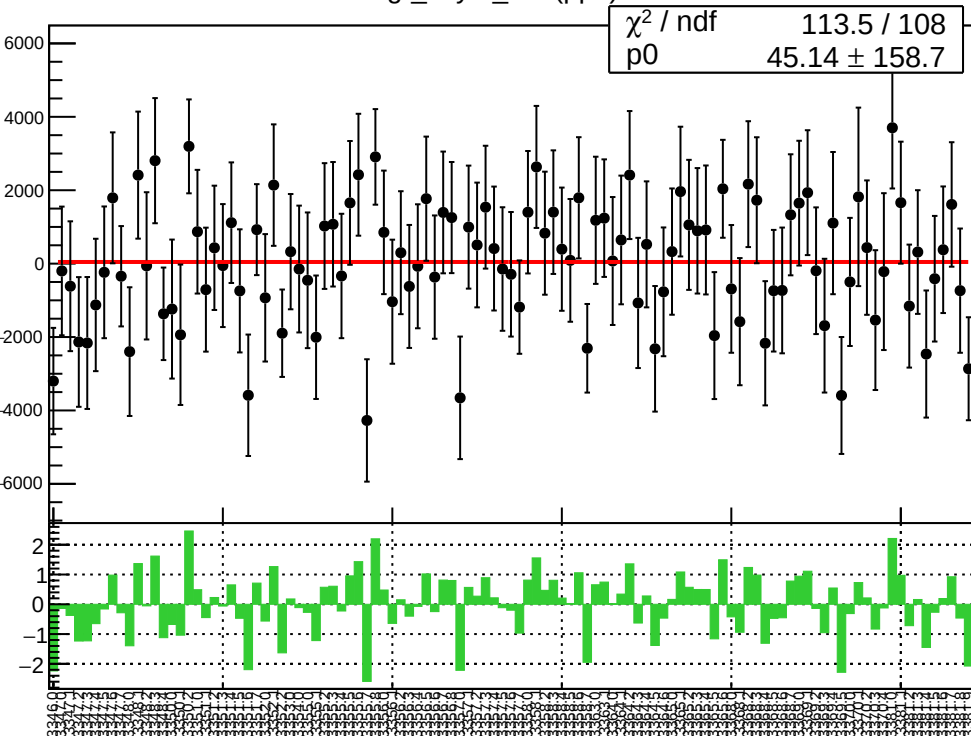
1D pull distribution



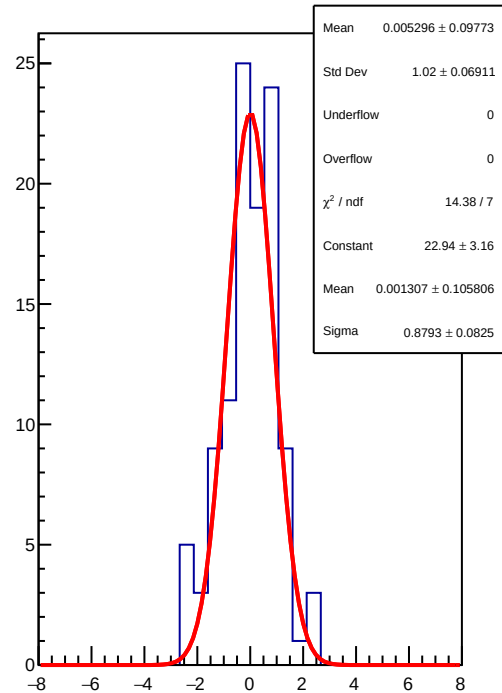
# lagr\_asym\_us\_dd RMS (ppm)



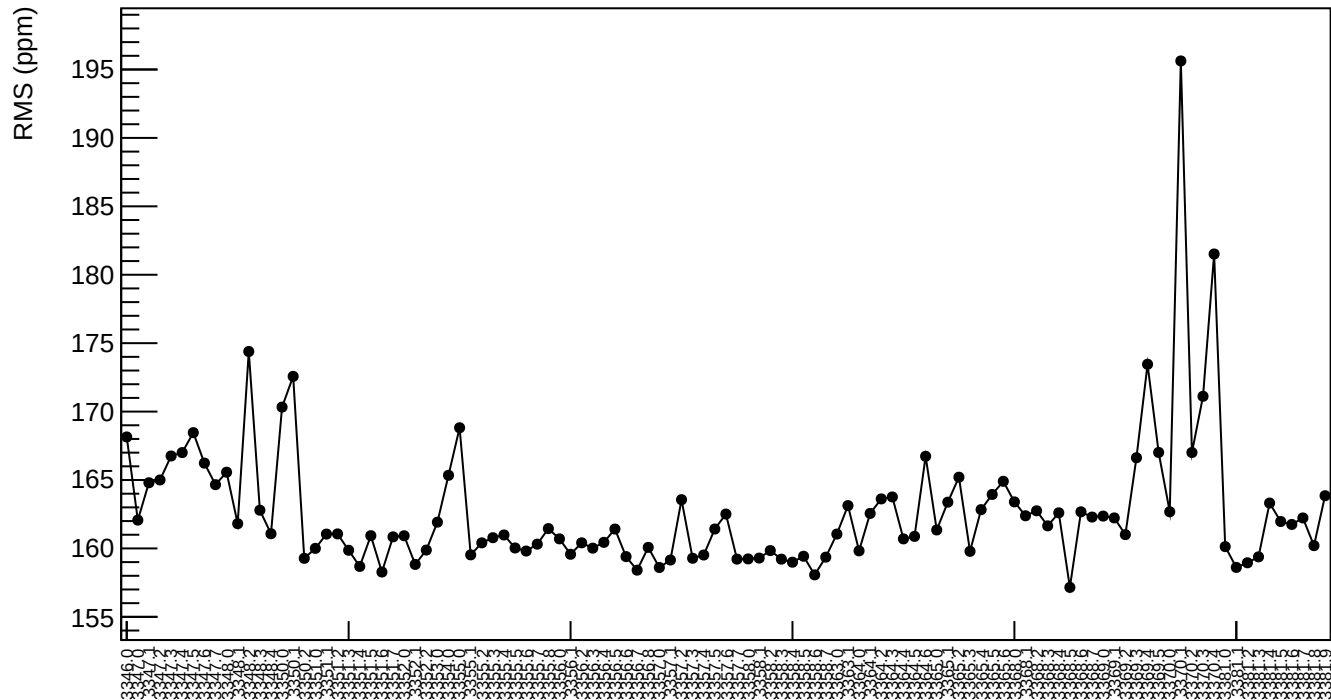
lagr\_asym\_usr (ppb)



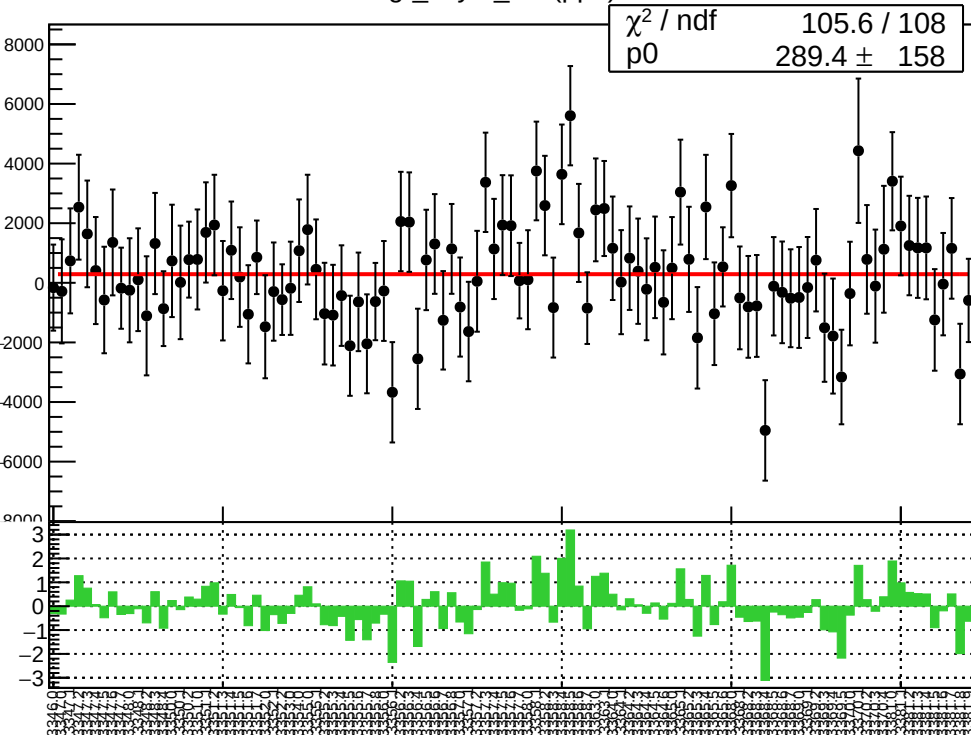
1D pull distribution



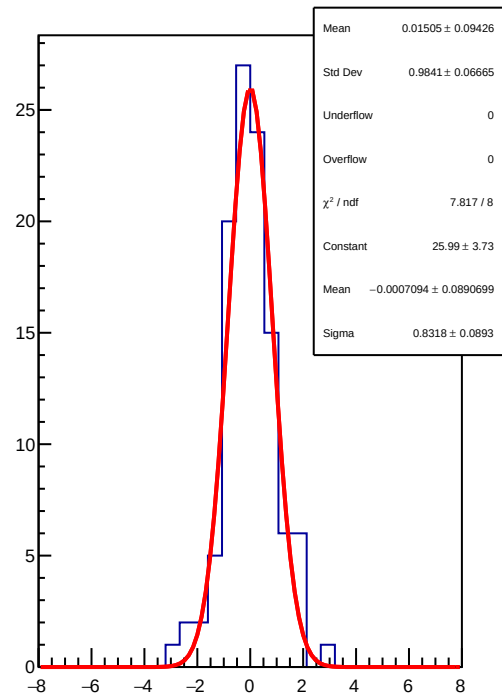
# lagr\_asym\_usr RMS (ppm)



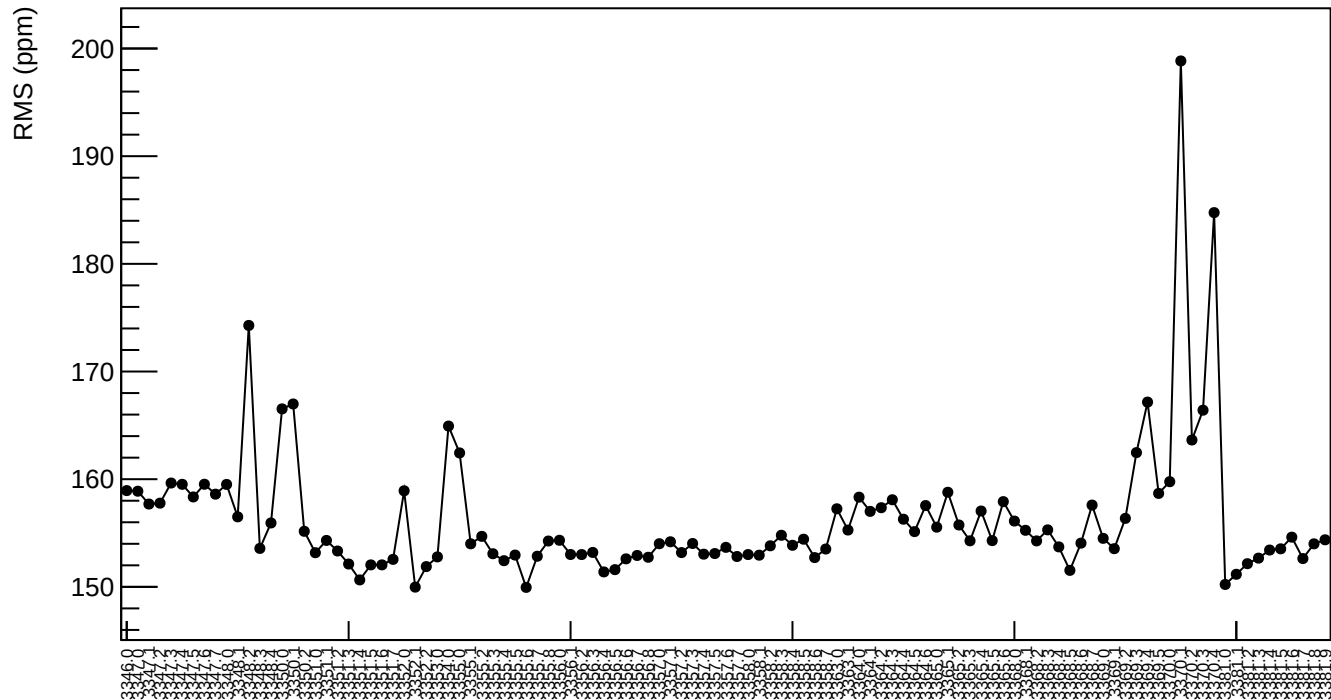
lagr\_asym\_usl (ppb)



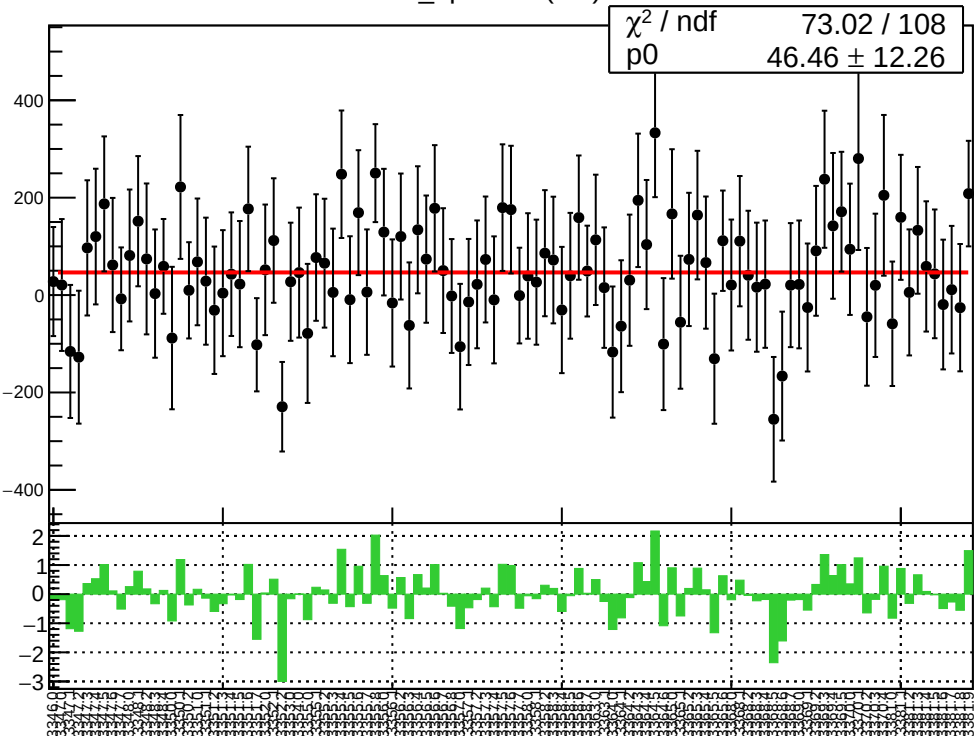
1D pull distribution



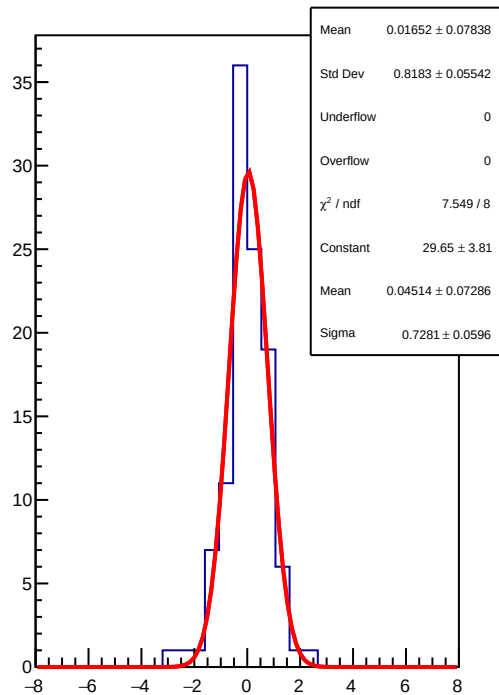
# lagr\_asym\_usl RMS (ppm)



diff\_bpm4eX (nm)

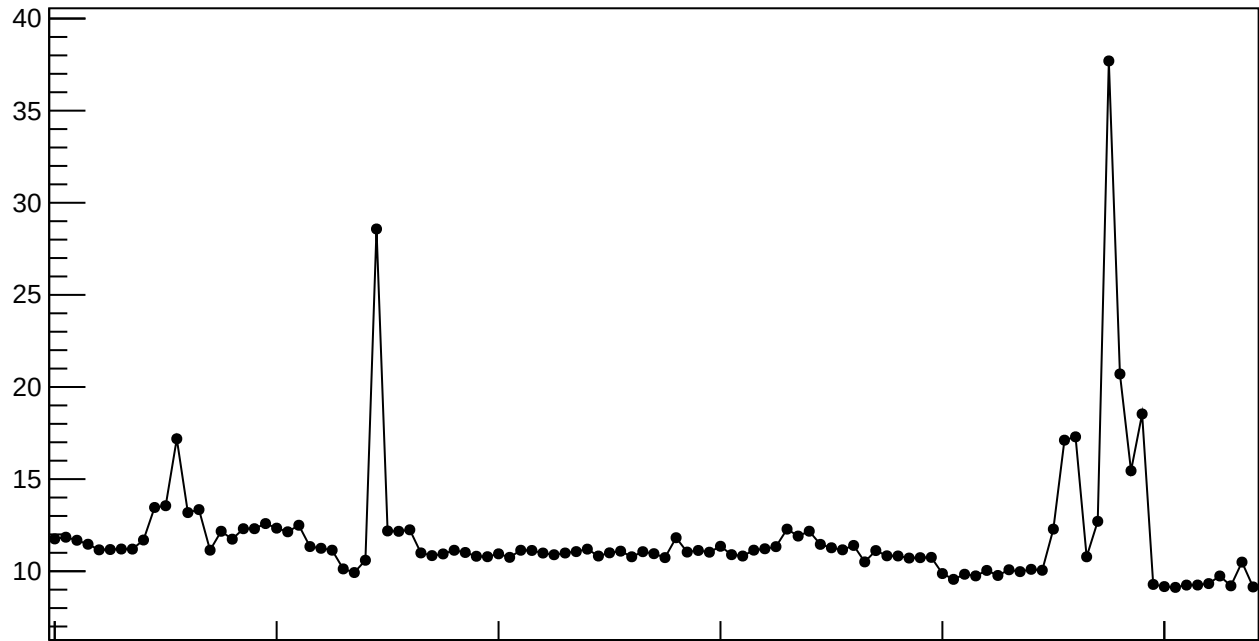


1D pull distribution



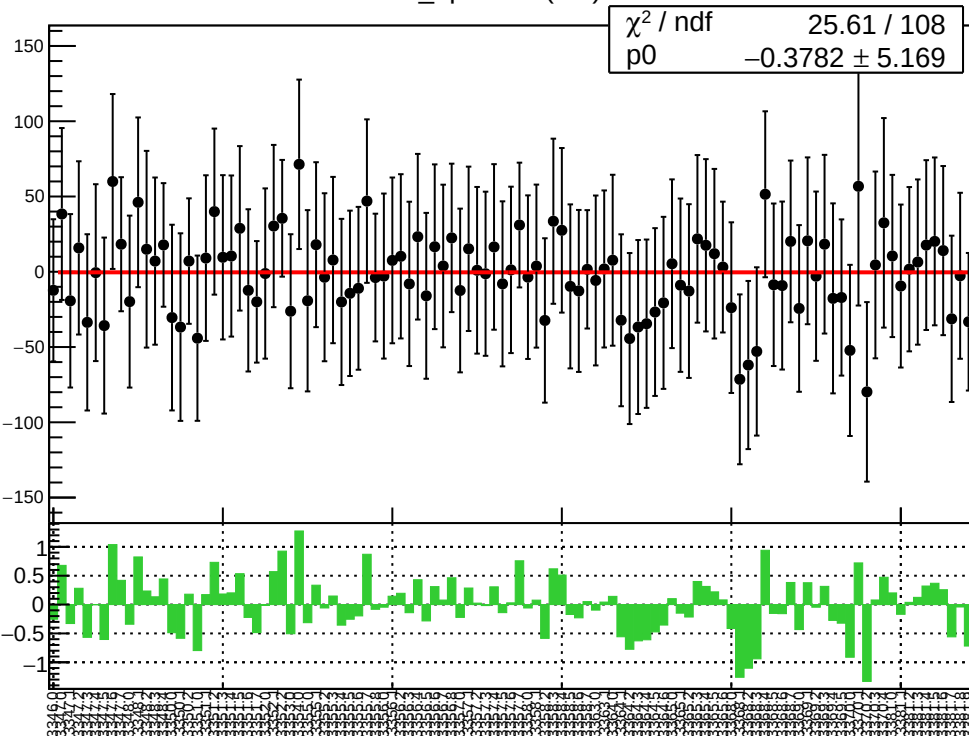
diff\_bpm4eX RMS (um)

RMS (um)

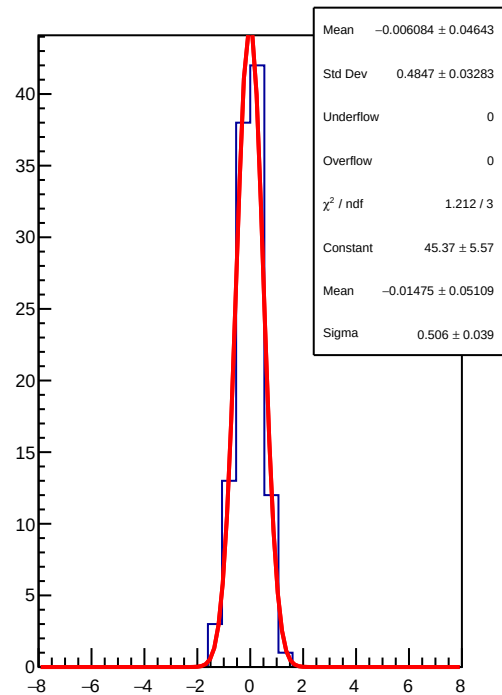




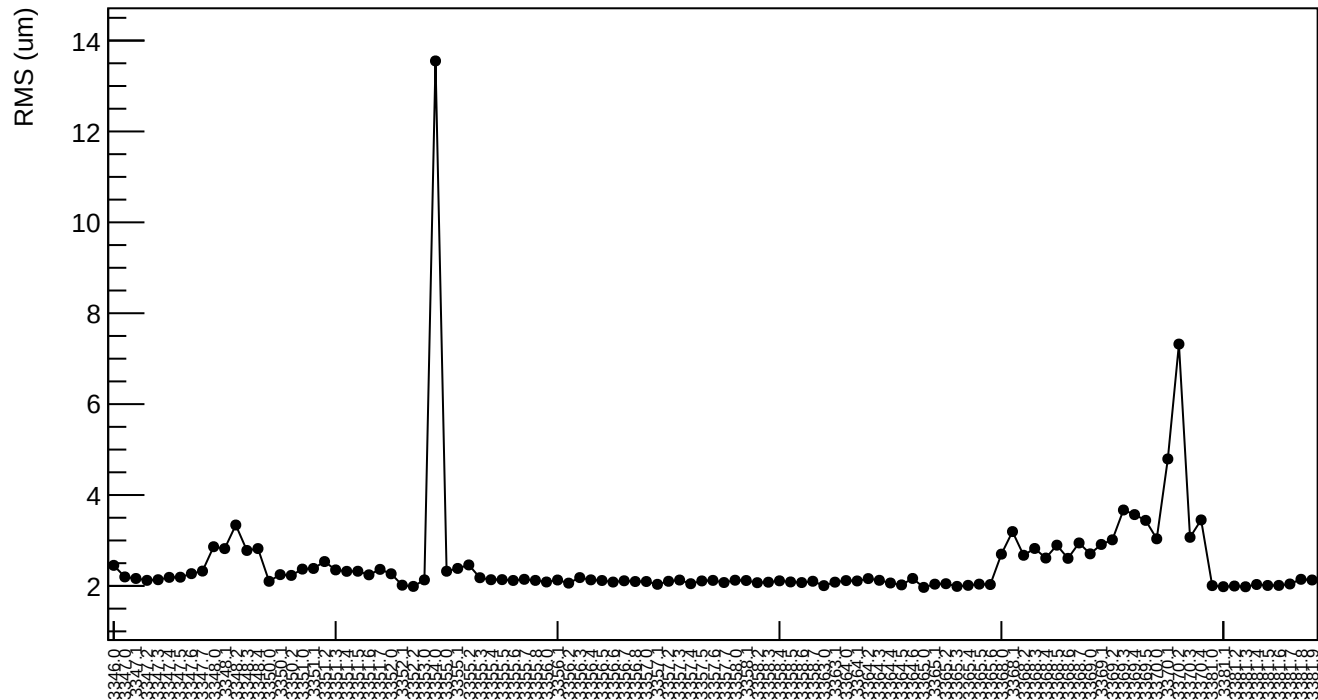
diff\_bpm4eY (nm)



1D pull distribution



diff\_bpm4eY RMS (um)

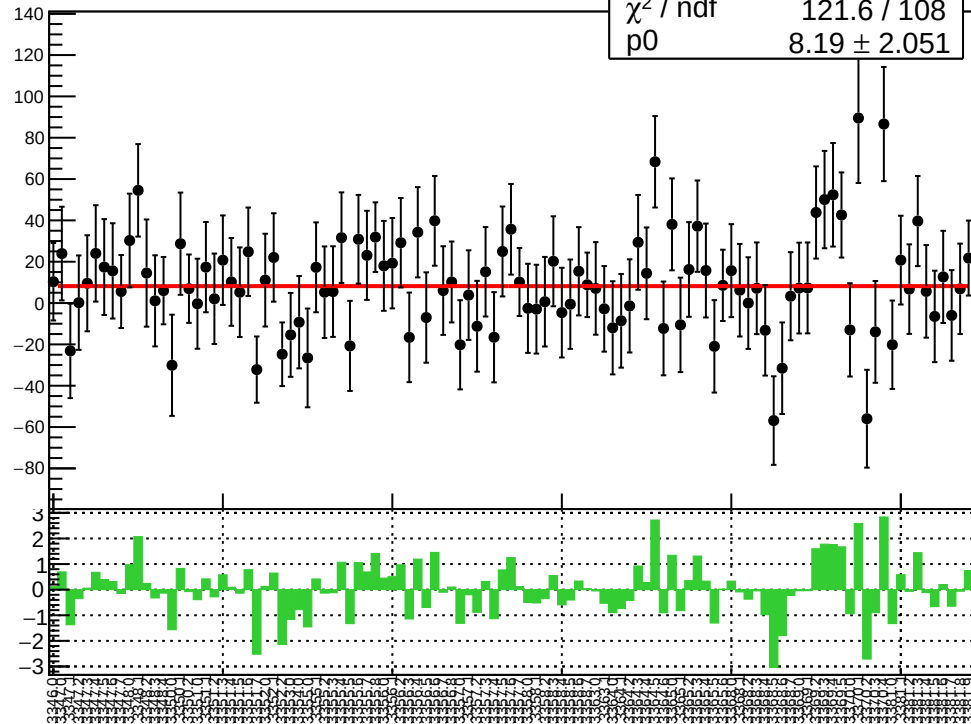


diff\_bpm4aX (nm)

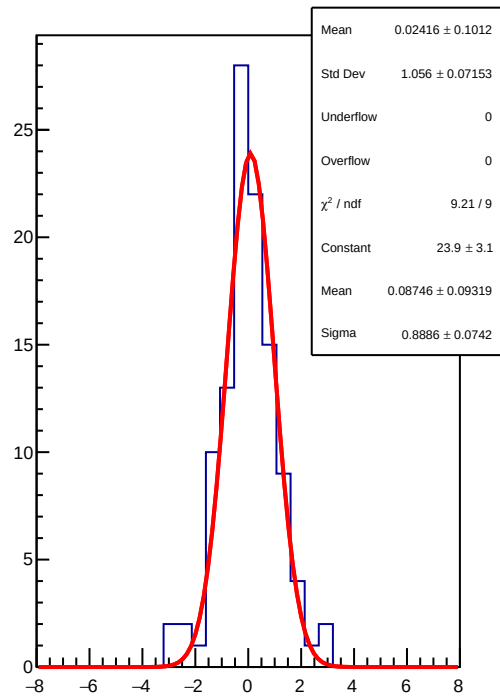
 $\chi^2 / \text{ndf}$ 

121.6 / 108

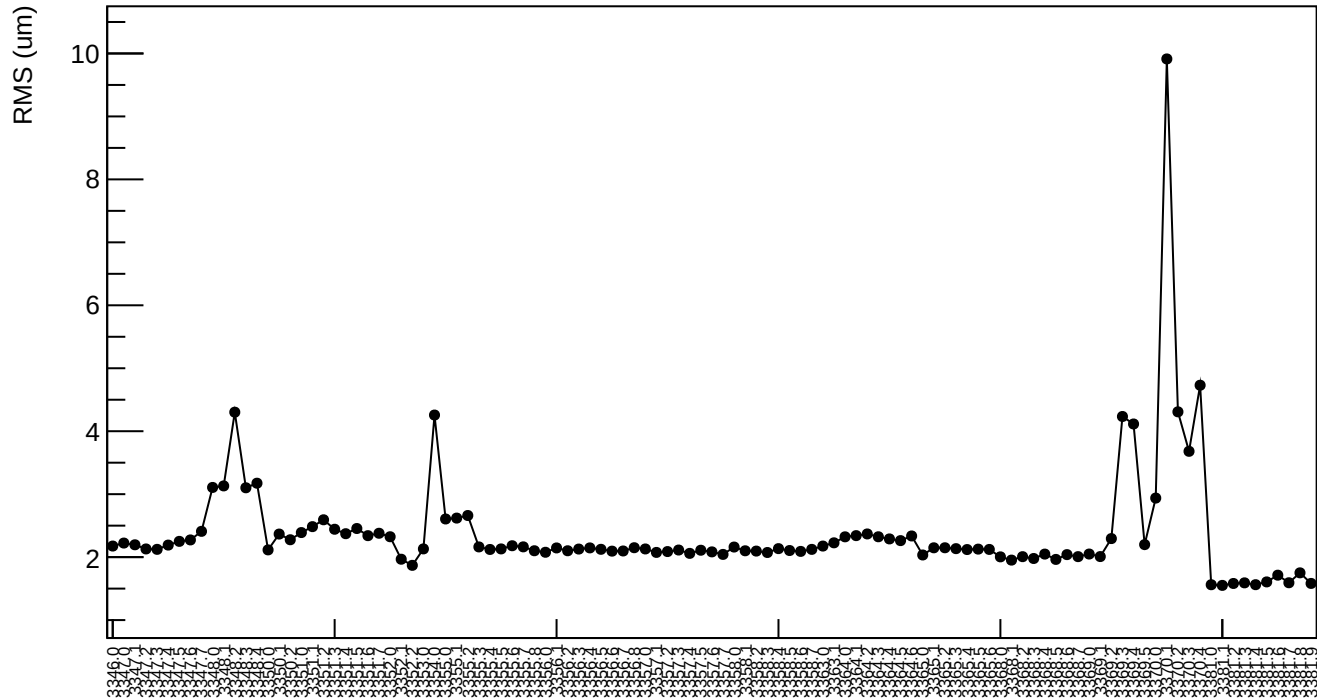
p0

 $8.19 \pm 2.051$ 

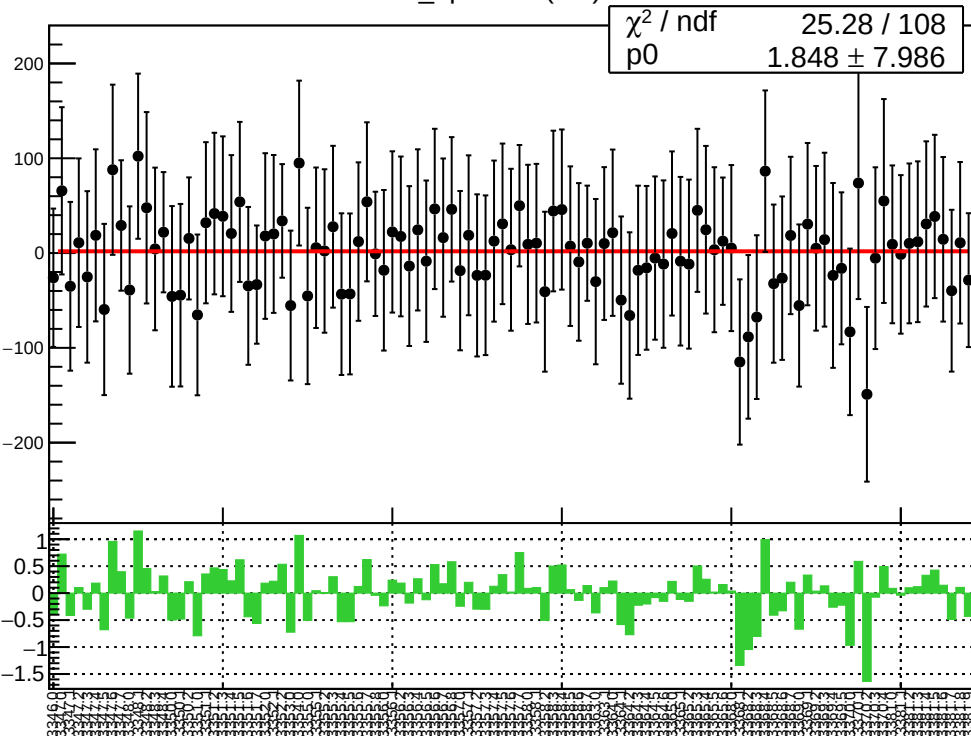
1D pull distribution



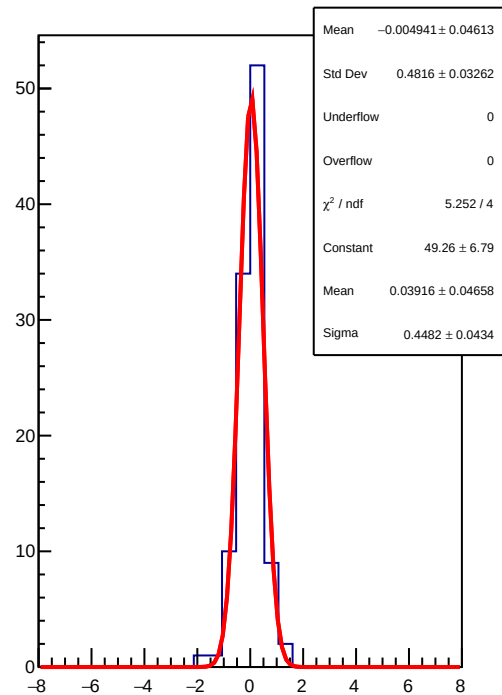
diff\_bpm4aX RMS (um)



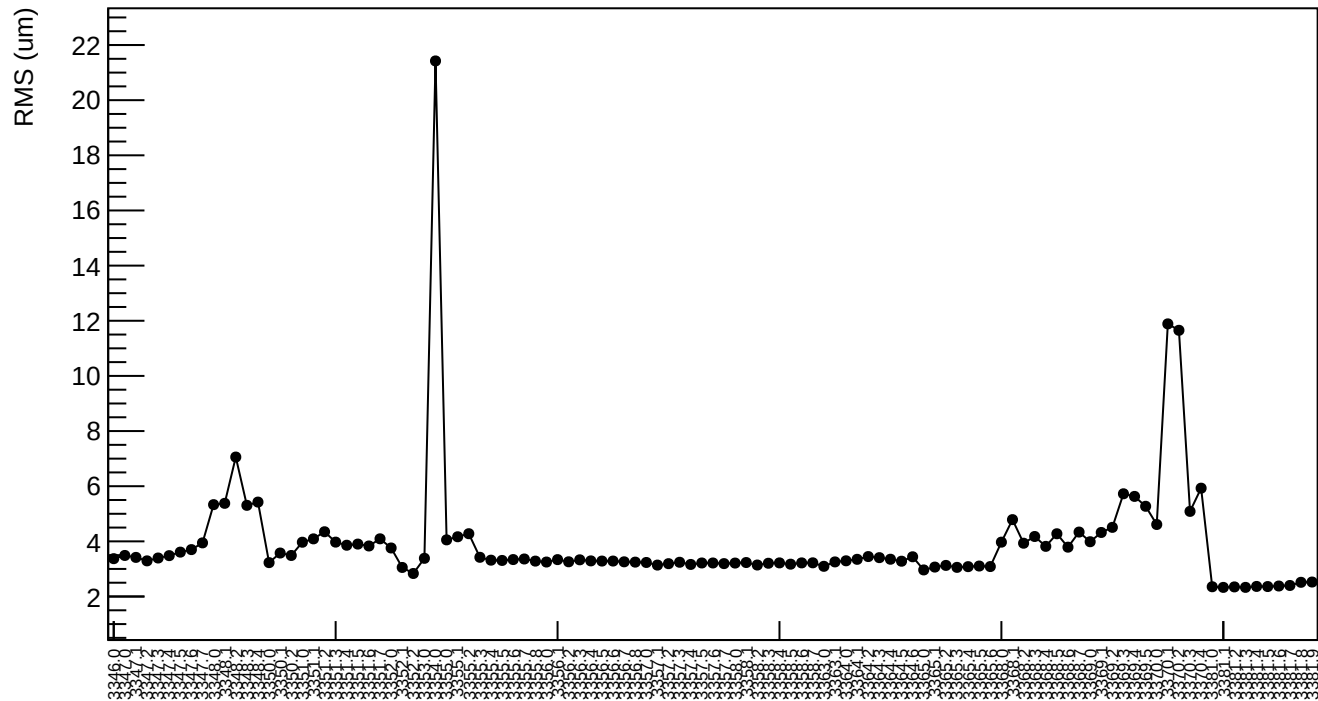
diff\_bpm4aY (nm)



1D pull distribution



diff\_bpm4aY RMS (um)

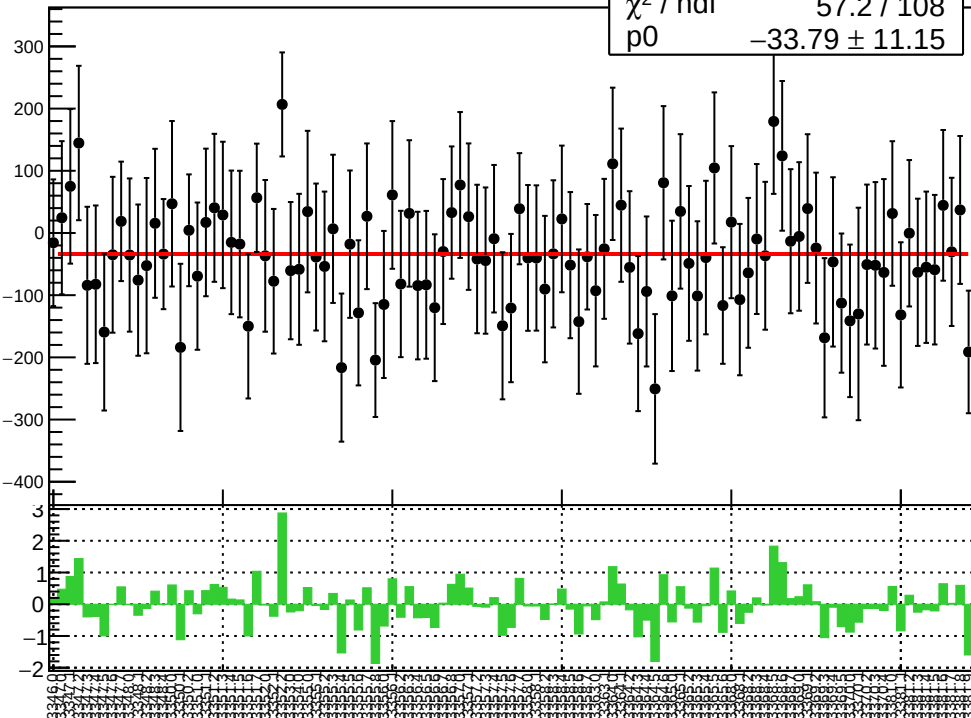


diff\_bpm1X (nm)

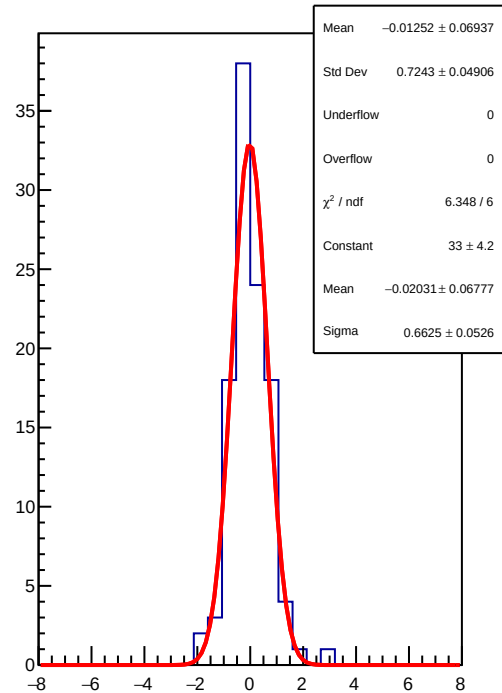
 $\chi^2 / \text{ndf}$ 

57.2 / 108

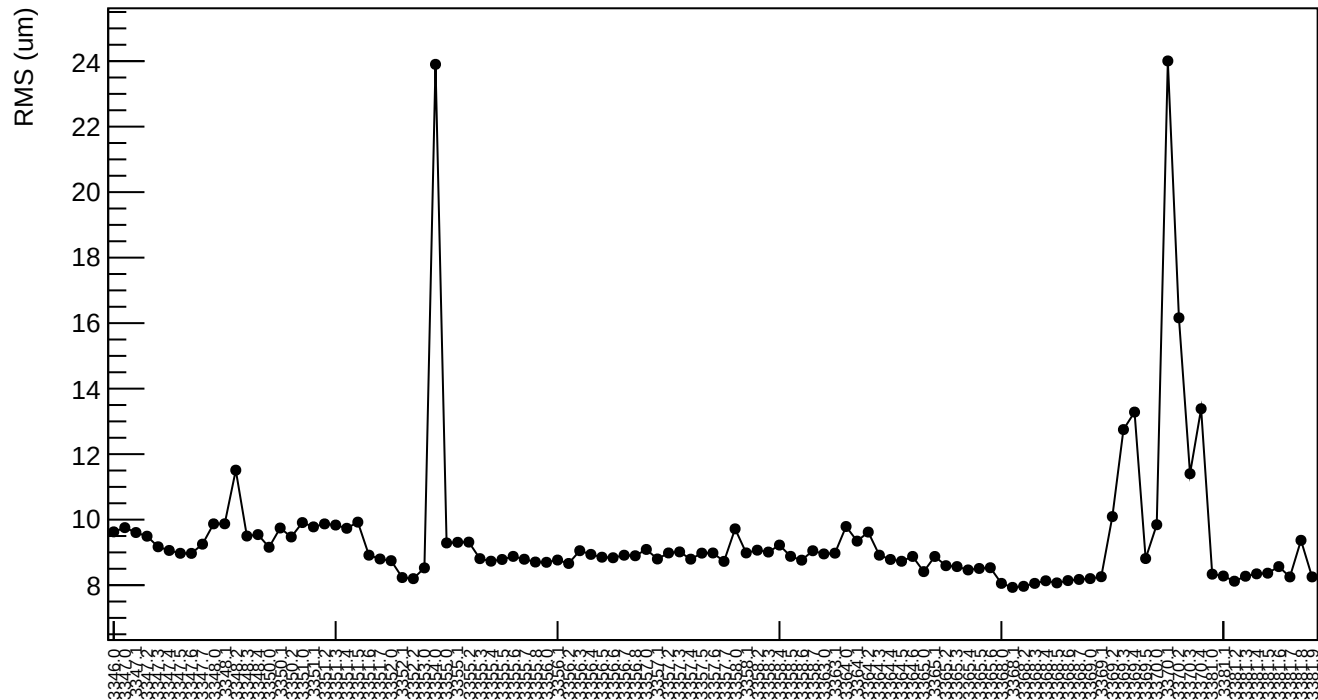
p0

 $-33.79 \pm 11.15$ 

1D pull distribution

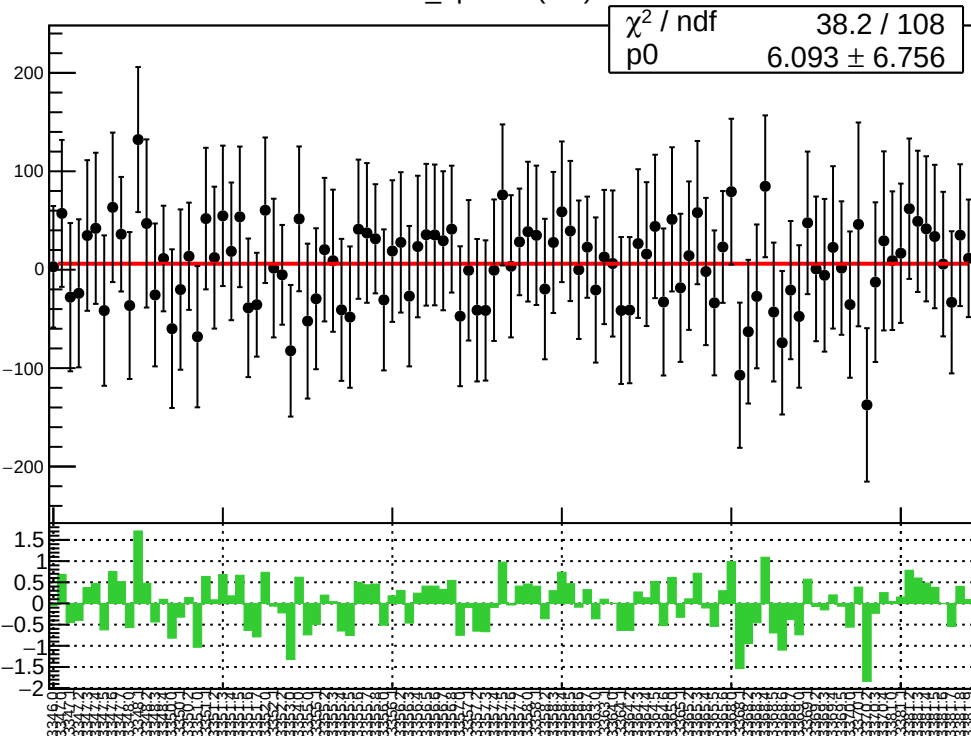


diff\_bpm1X RMS (um)

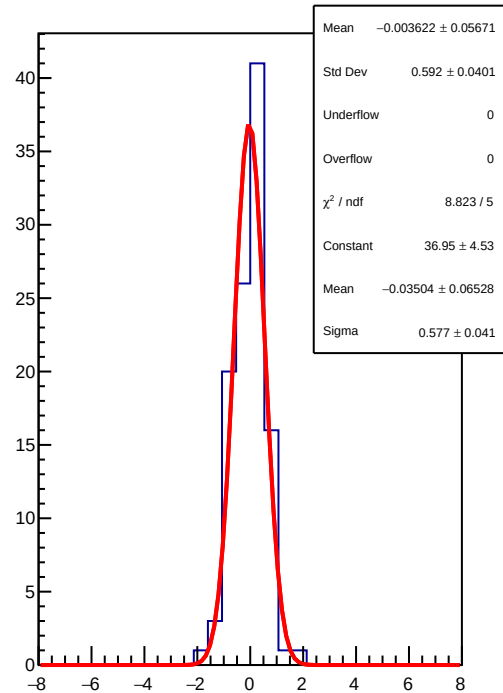




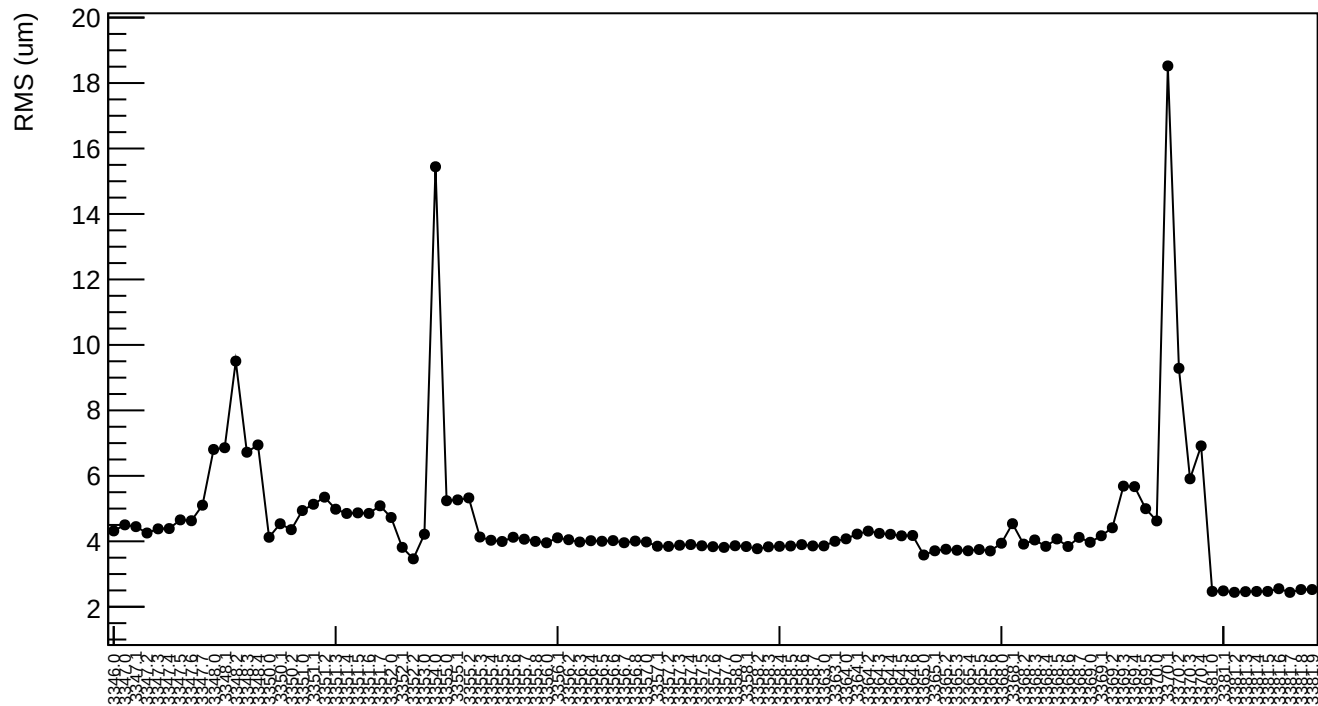
diff\_bpm1Y (nm)



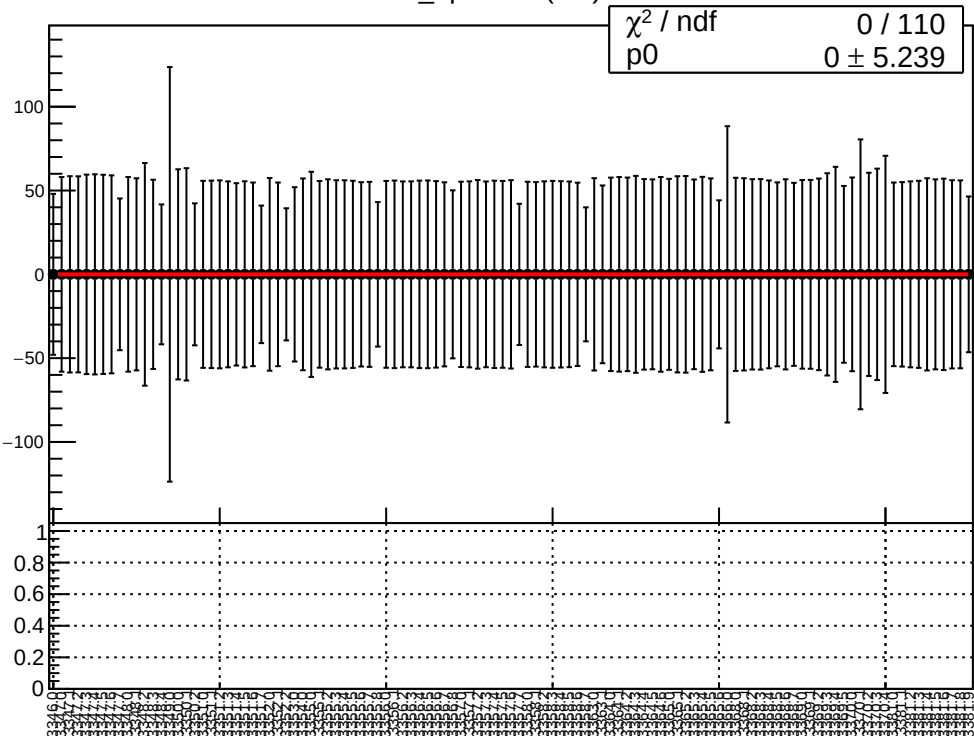
1D pull distribution



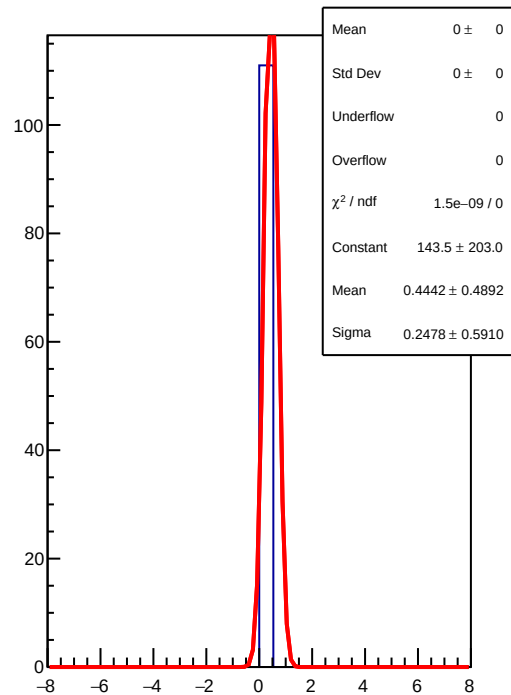
diff\_bpm1Y RMS (um)



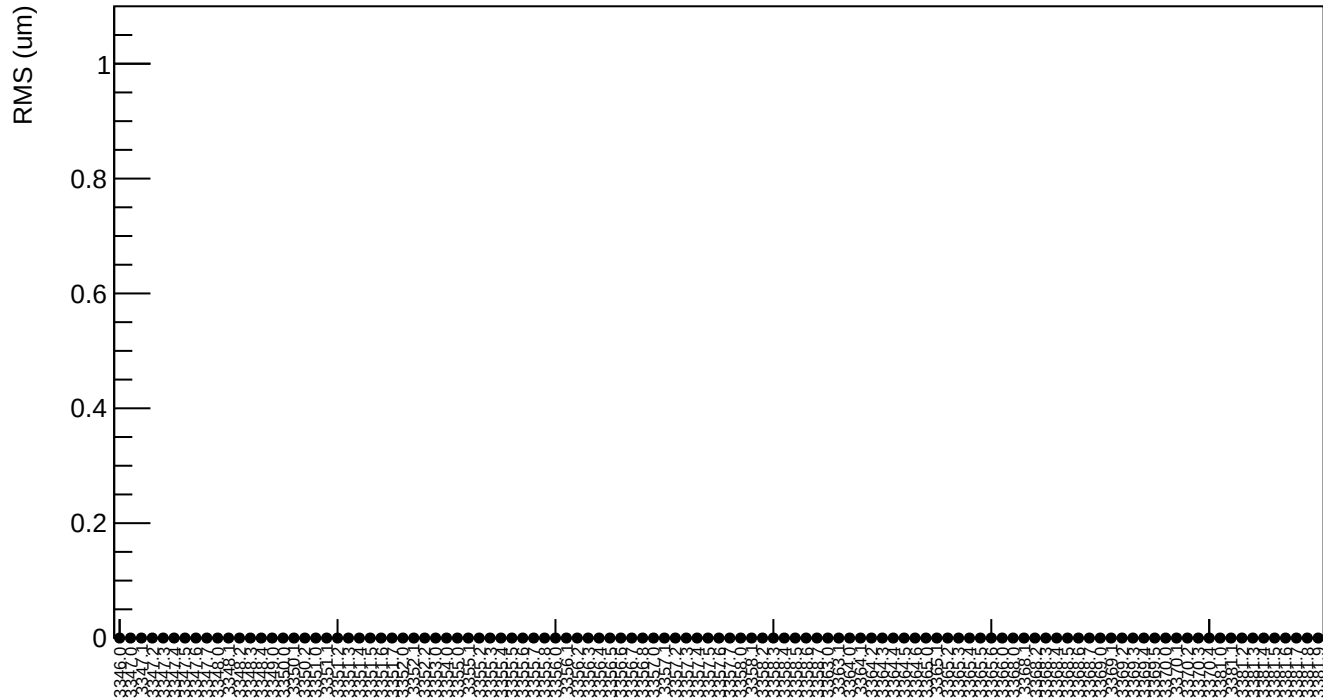
diff\_bpm16X (nm)



1D pull distribution



diff\_bpm16X RMS (um)

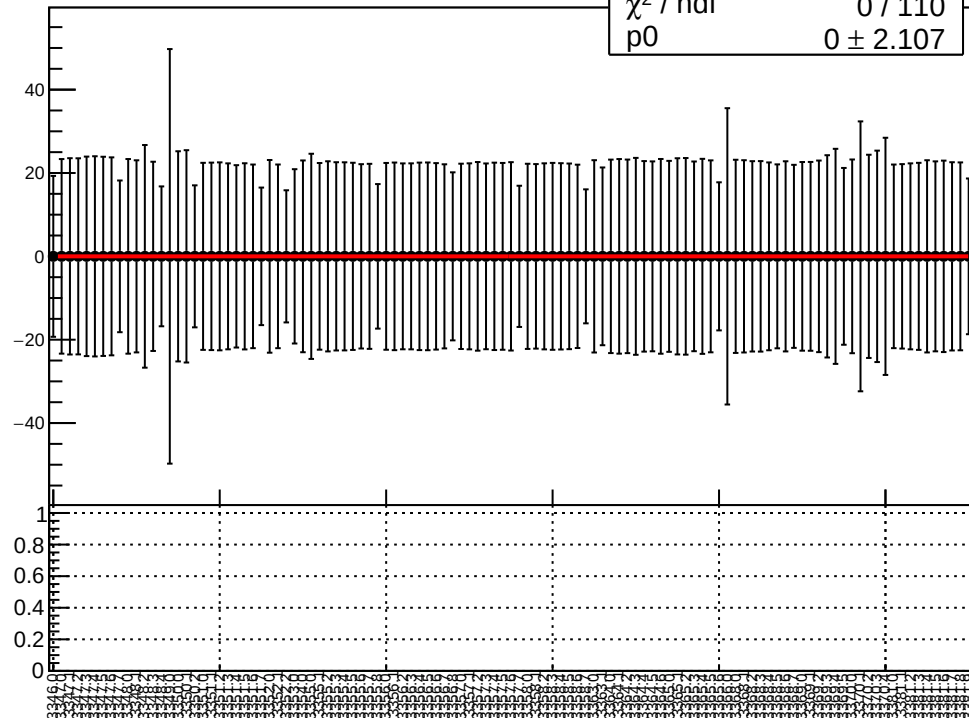


diff\_bpm16Y (nm)

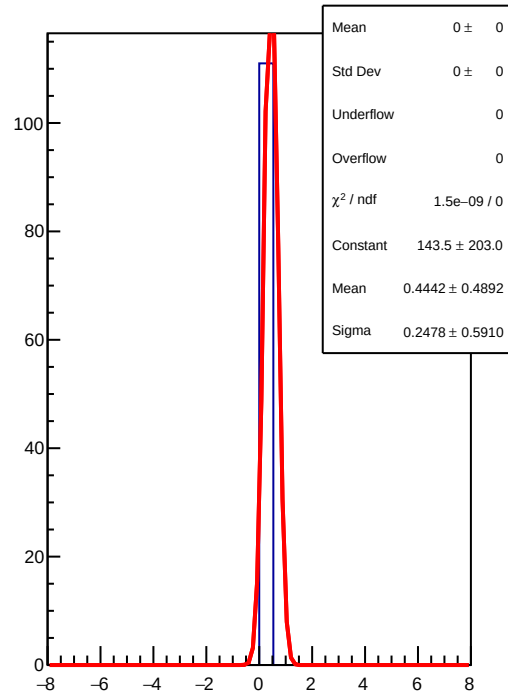
 $\chi^2 / \text{ndf}$ 

0 / 110

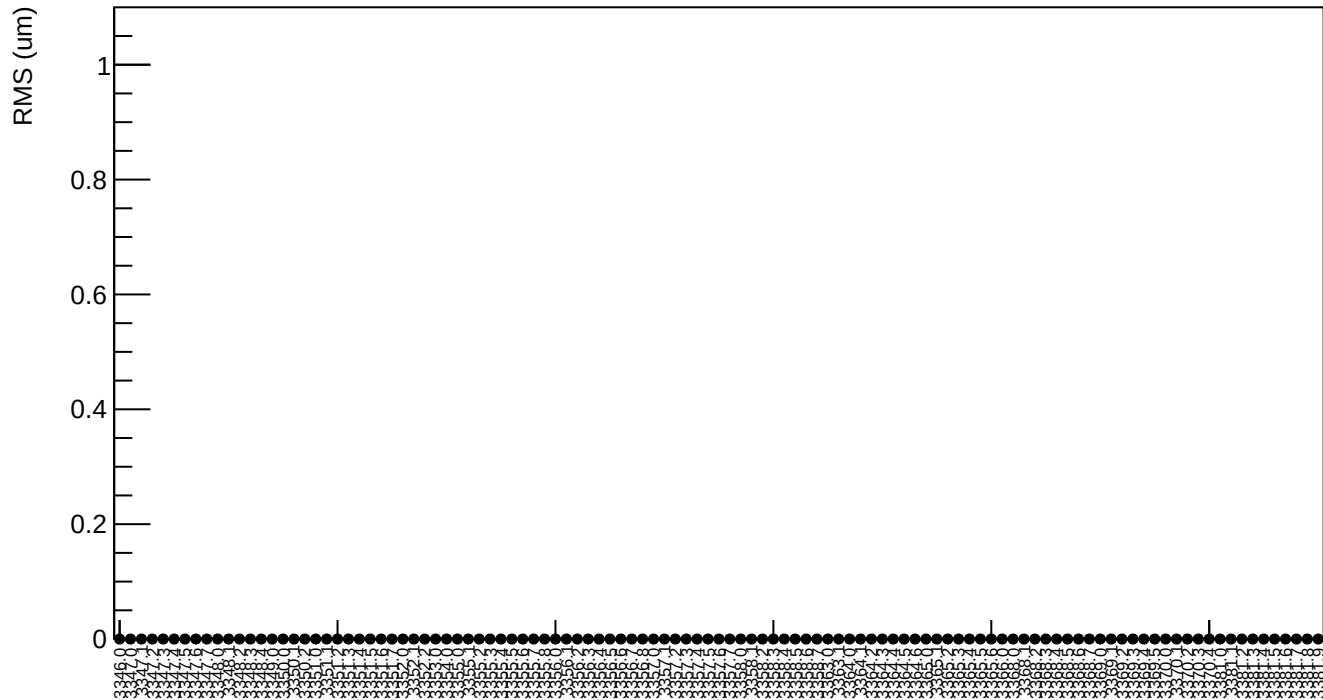
p0

 $0 \pm 2.107$ 

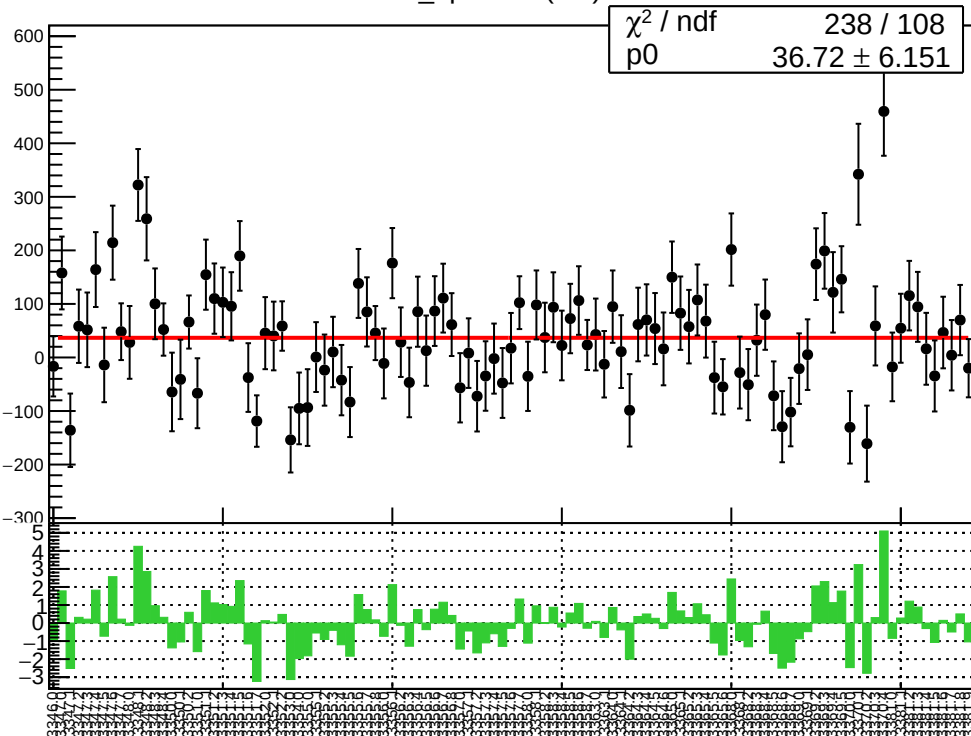
1D pull distribution



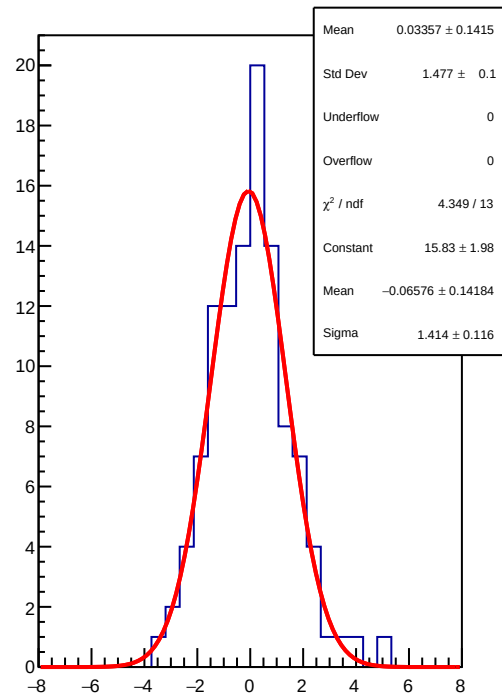
diff\_bpm16Y RMS (um)



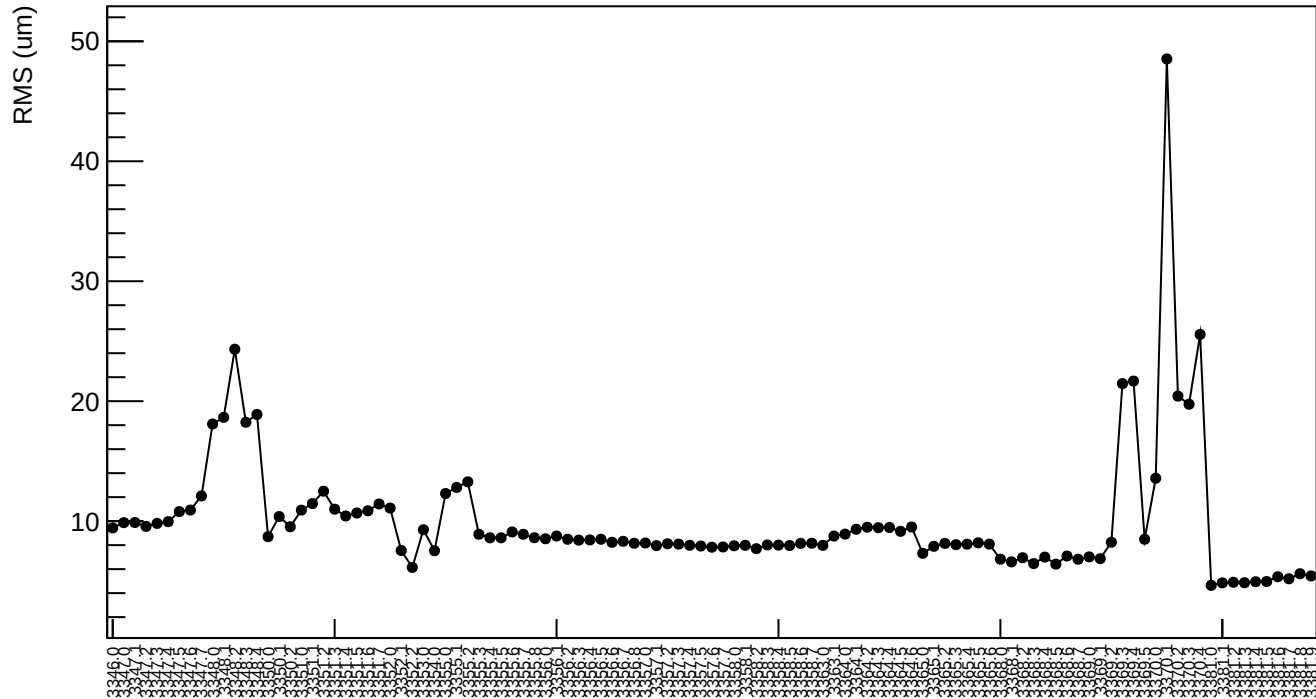
diff\_bpm12X (nm)



1D pull distribution

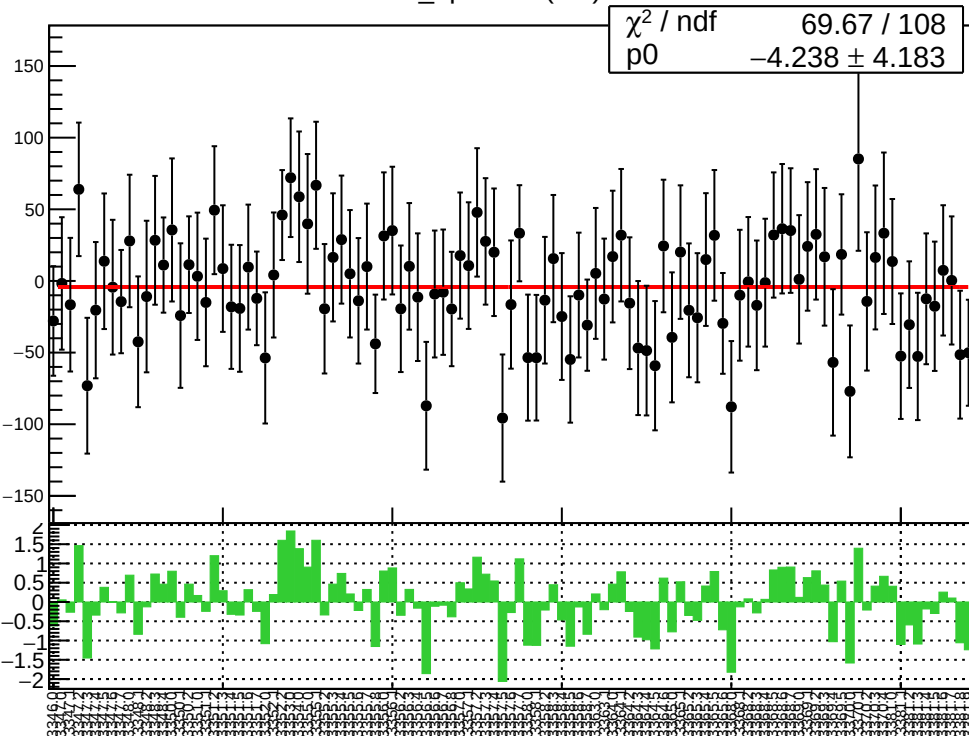


diff\_bpm12X RMS (um)

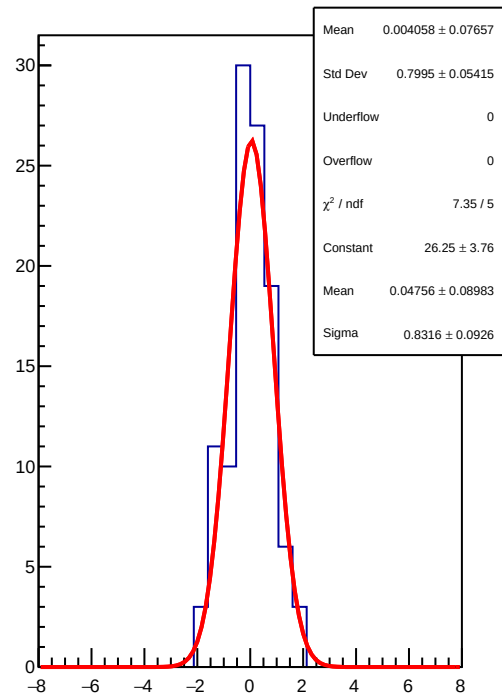




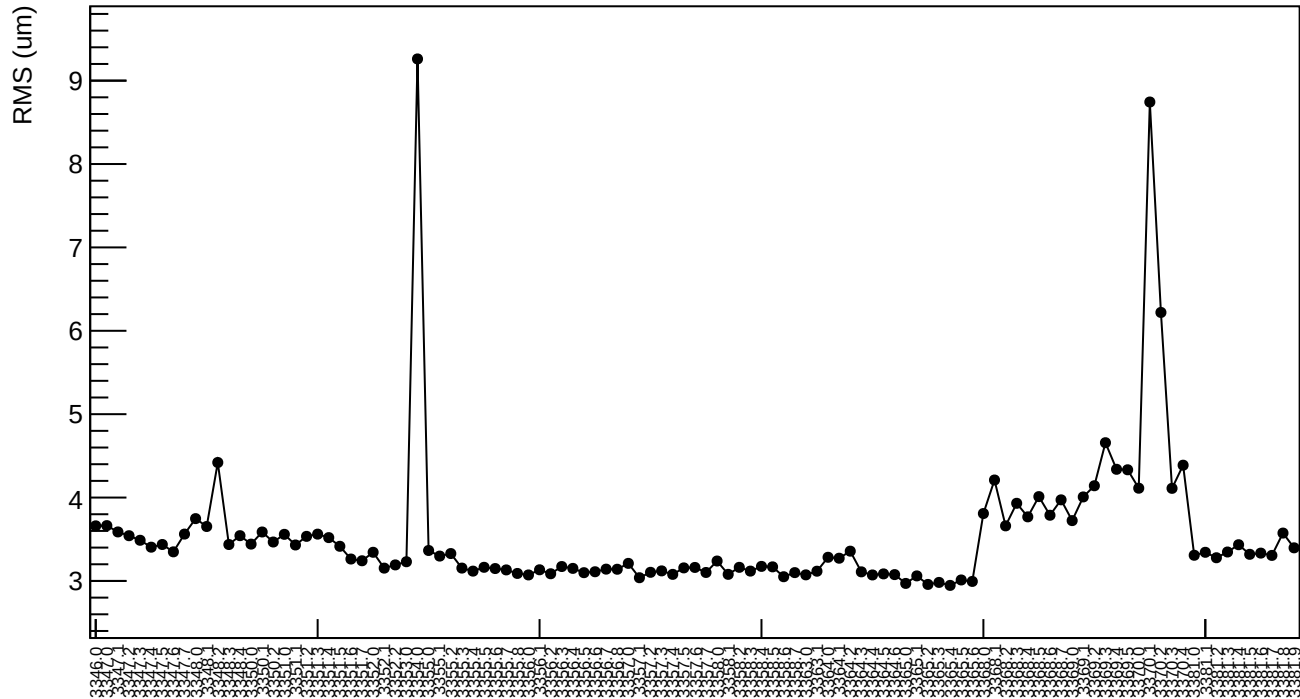
diff\_bpm12Y (nm)



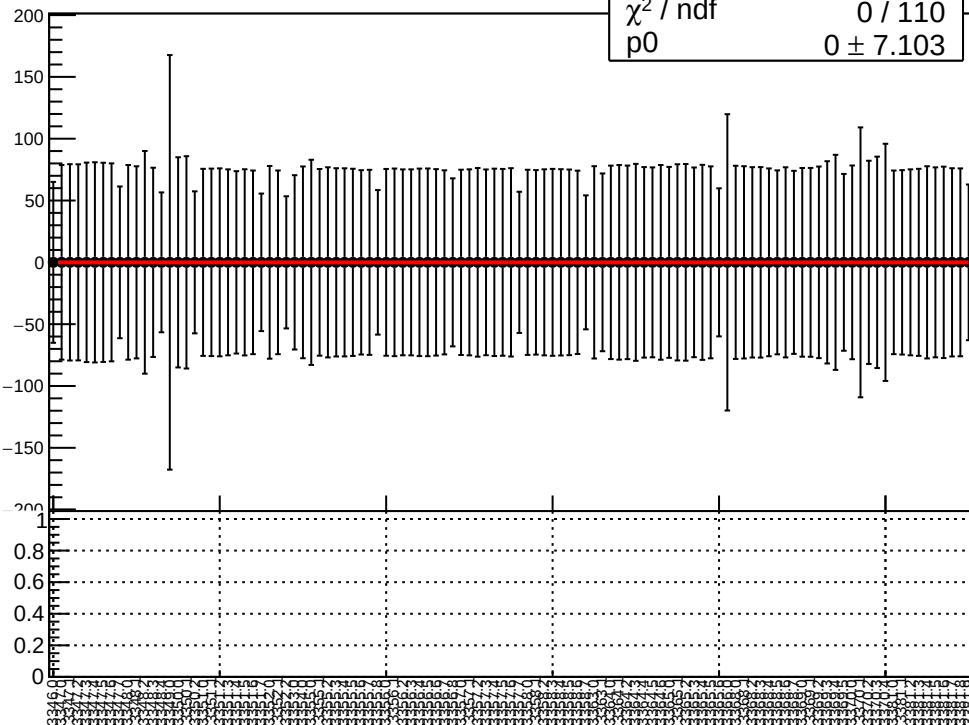
1D pull distribution



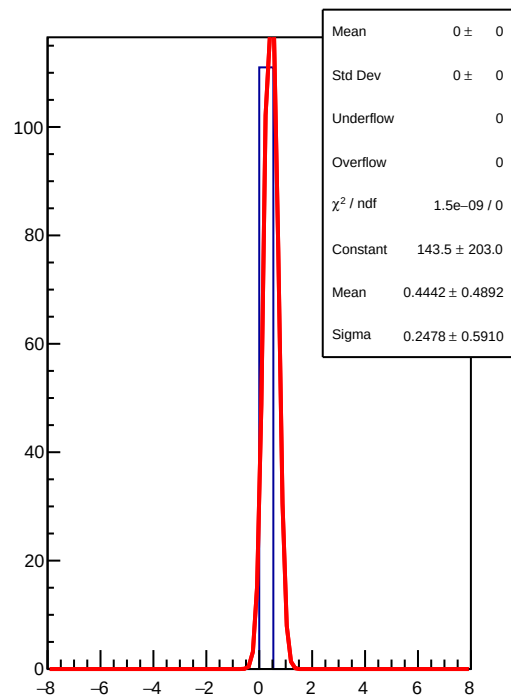
diff\_bpm12Y RMS (um)



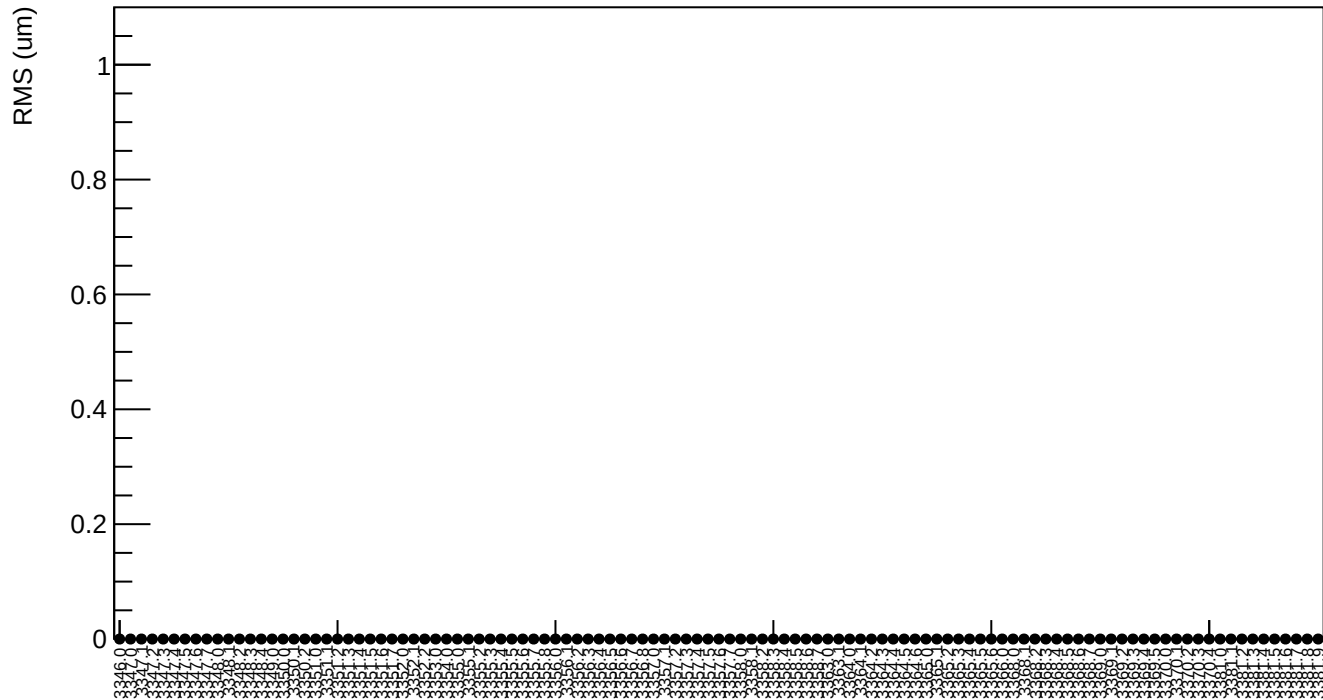
diff\_bpm11X (nm)



1D pull distribution



diff\_bpm11X RMS (um)

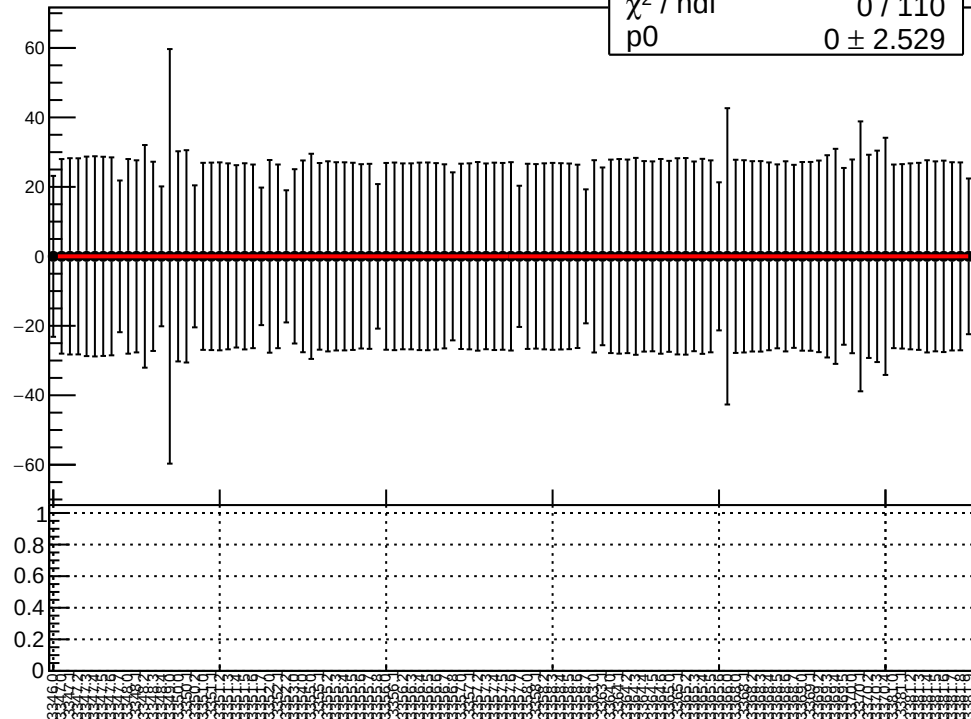


diff\_bpm11Y (nm)

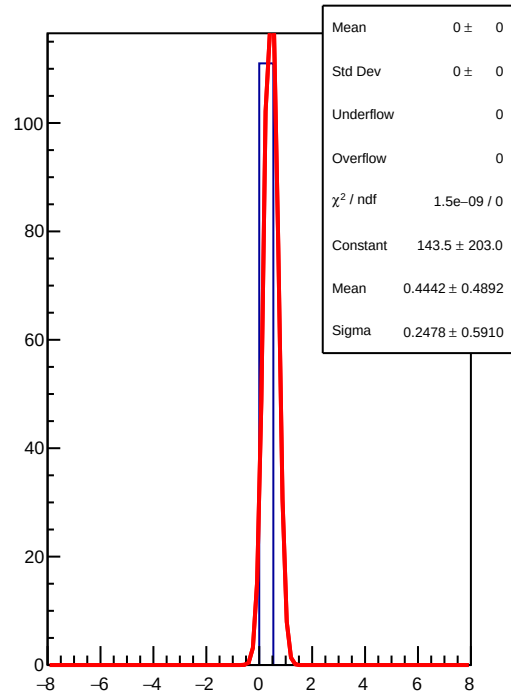
 $\chi^2 / \text{ndf}$ 

0 / 110

p0

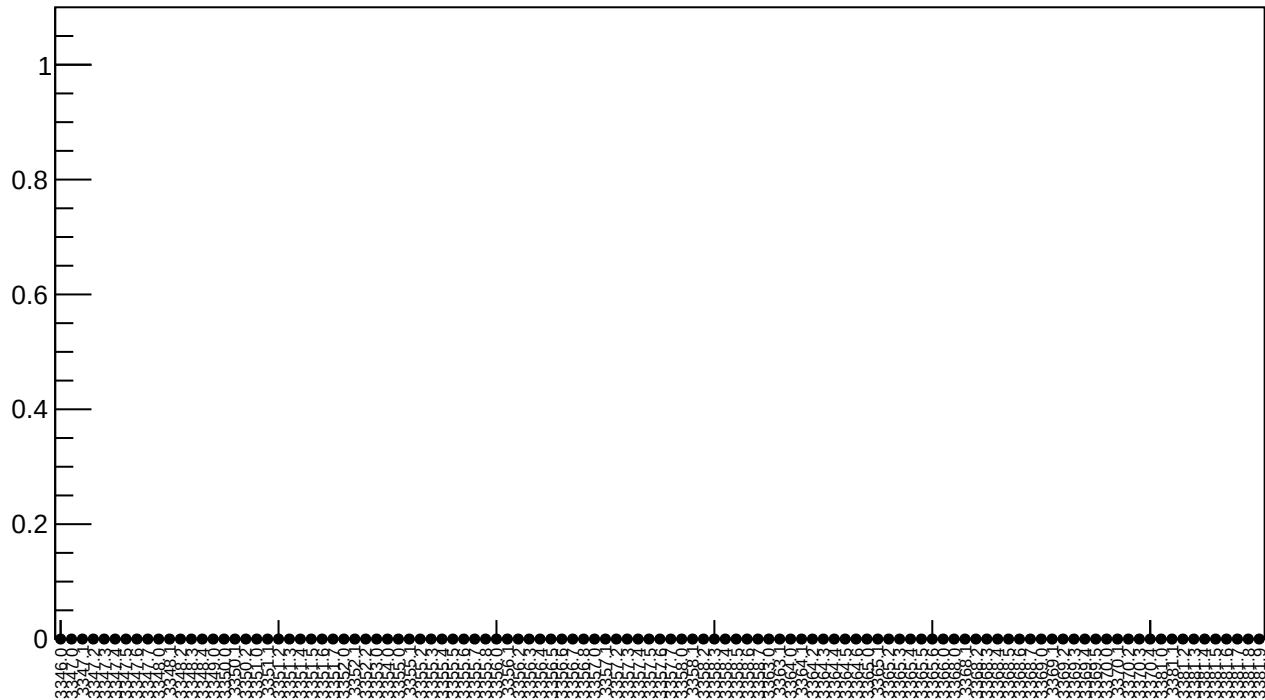
 $0 \pm 2.529$ 

1D pull distribution



# diff\_bpm11Y RMS (um)

RMS (um)

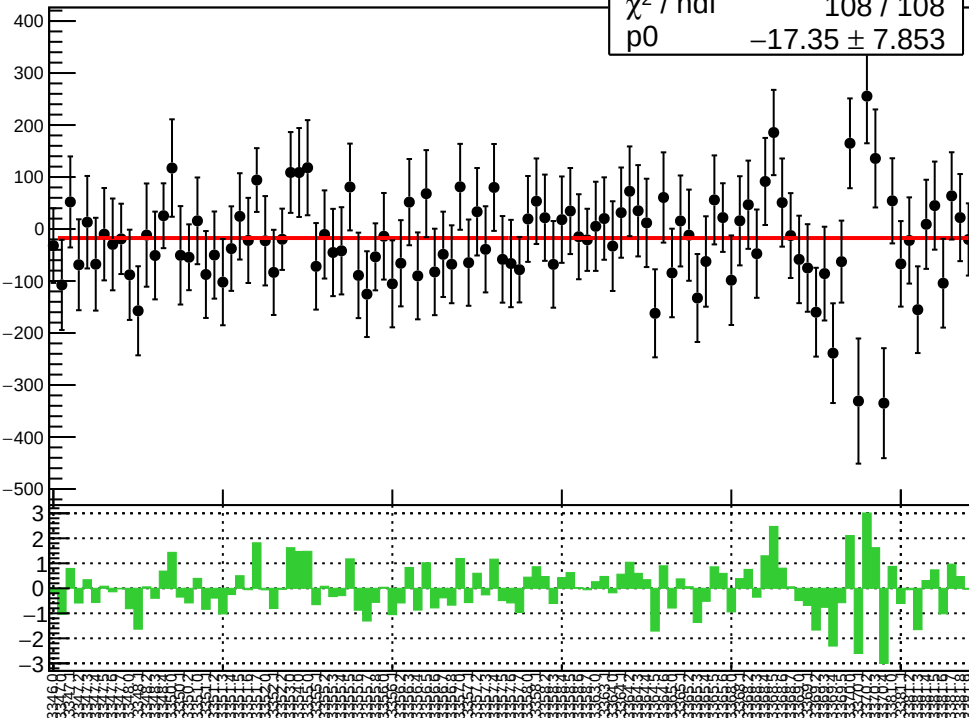


diff\_bpm8X (nm)

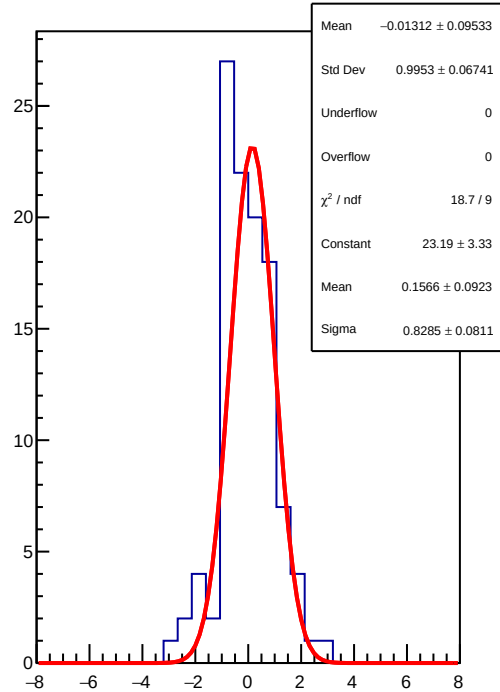
 $\chi^2 / \text{ndf}$ 

108 / 108

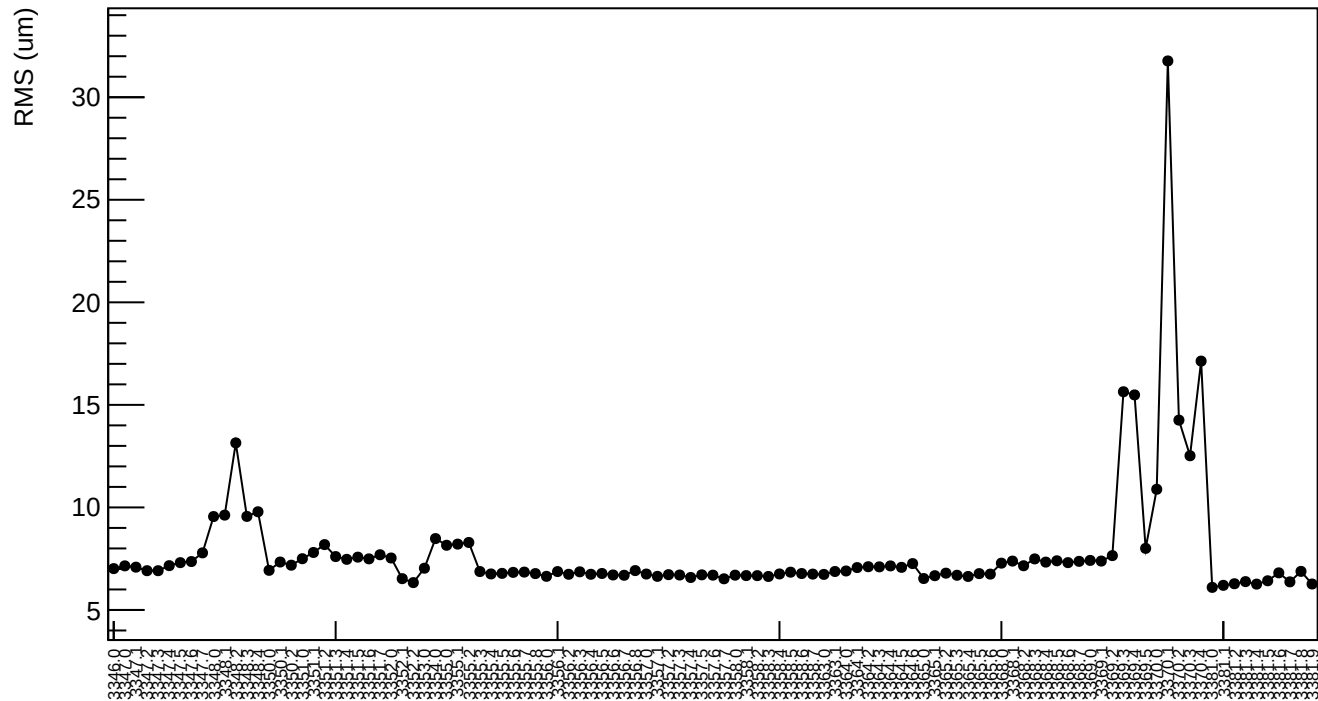
p0

 $-17.35 \pm 7.853$ 

1D pull distribution

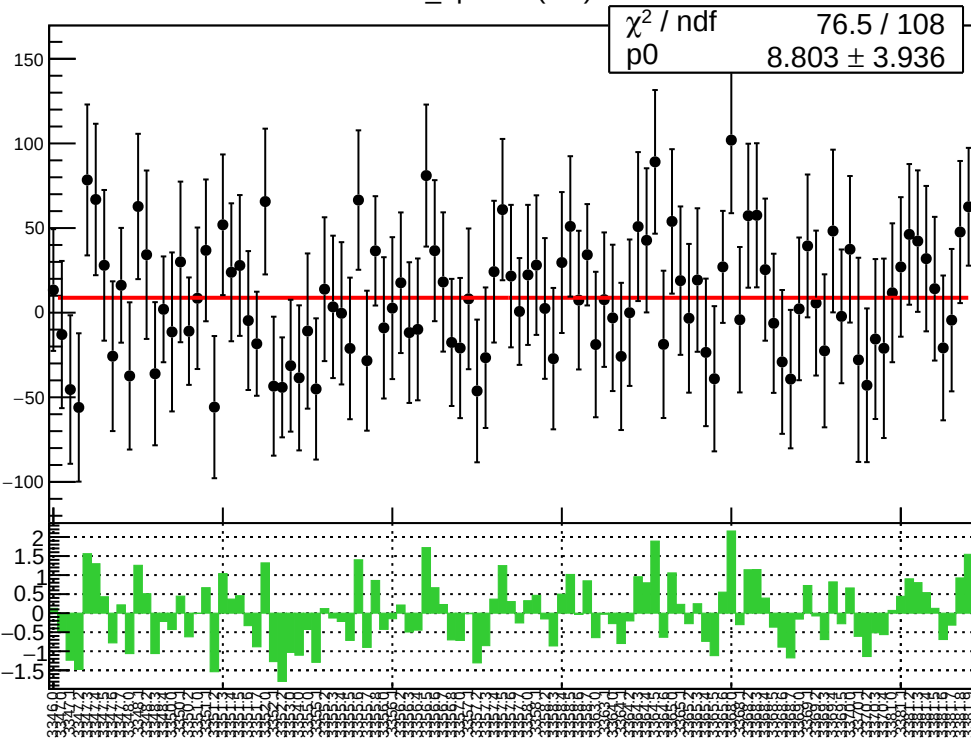


# diff\_bpm8X RMS (um)

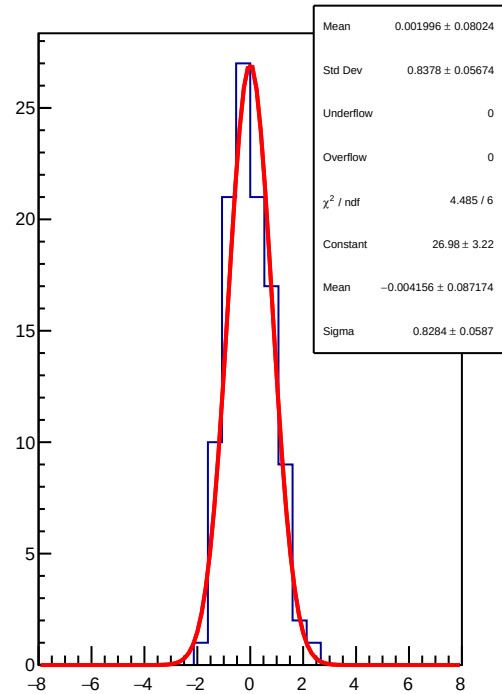




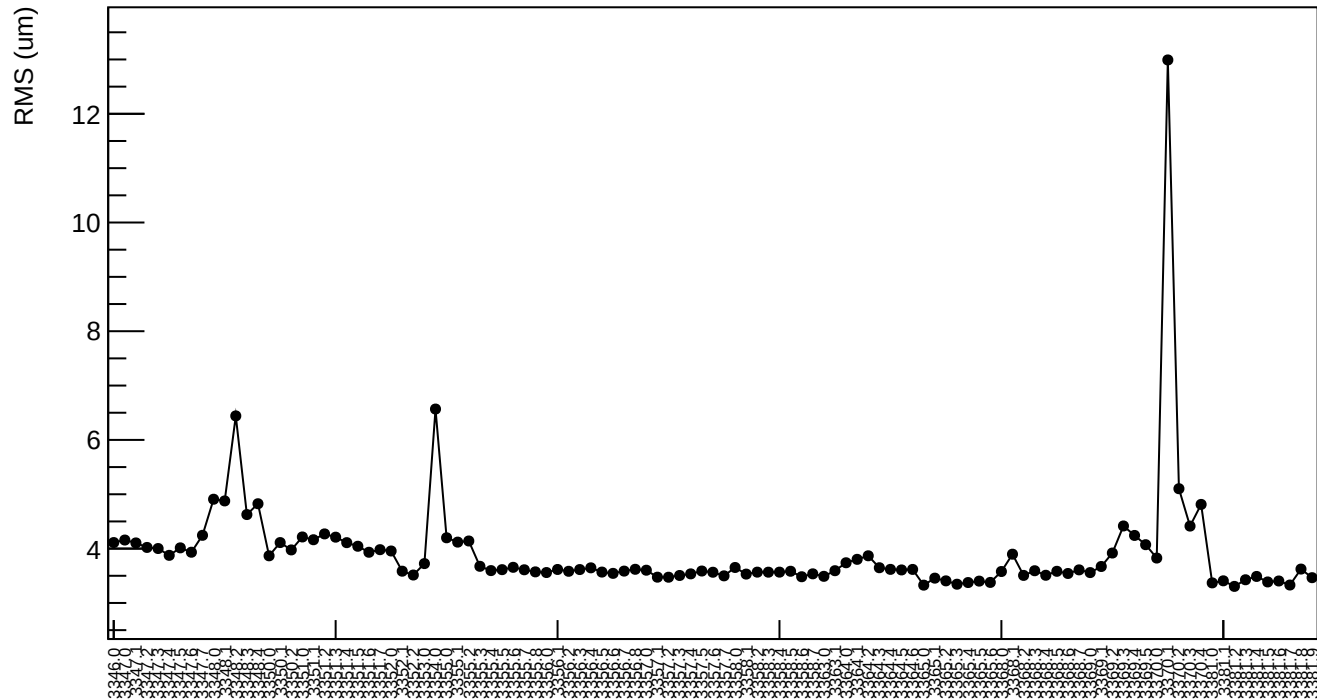
diff\_bpm8Y (nm)



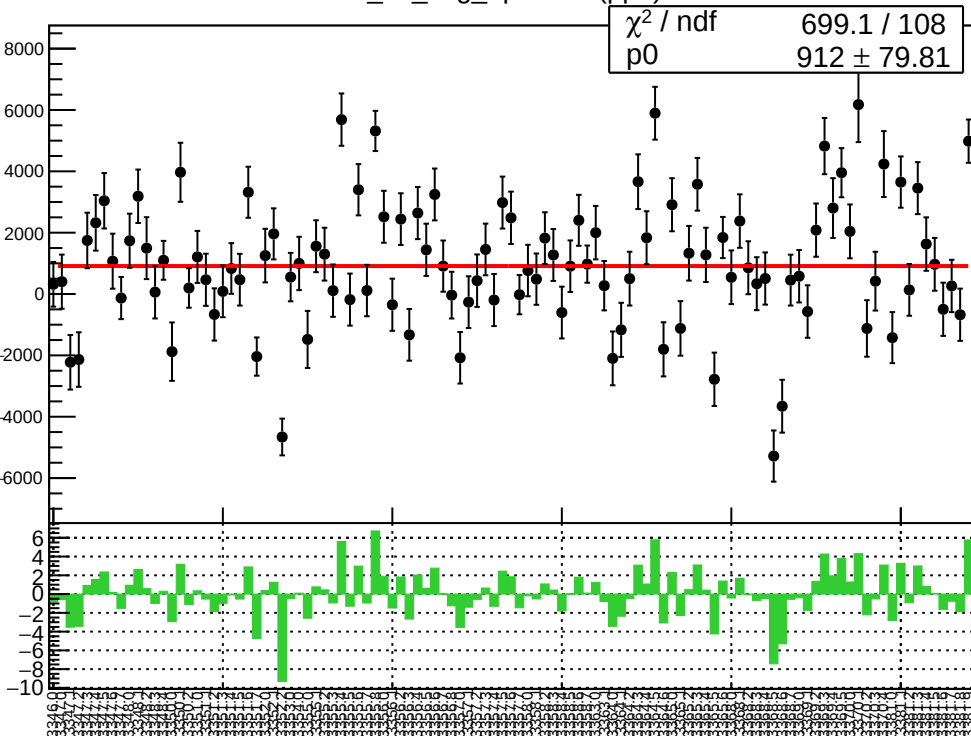
1D pull distribution



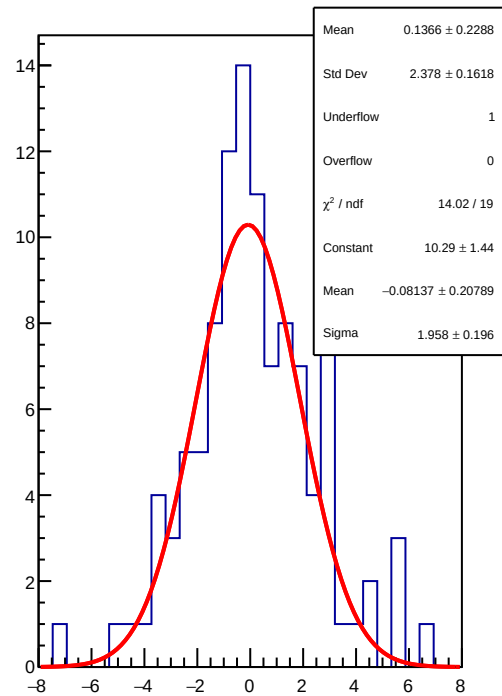
diff\_bpm8Y RMS (um)



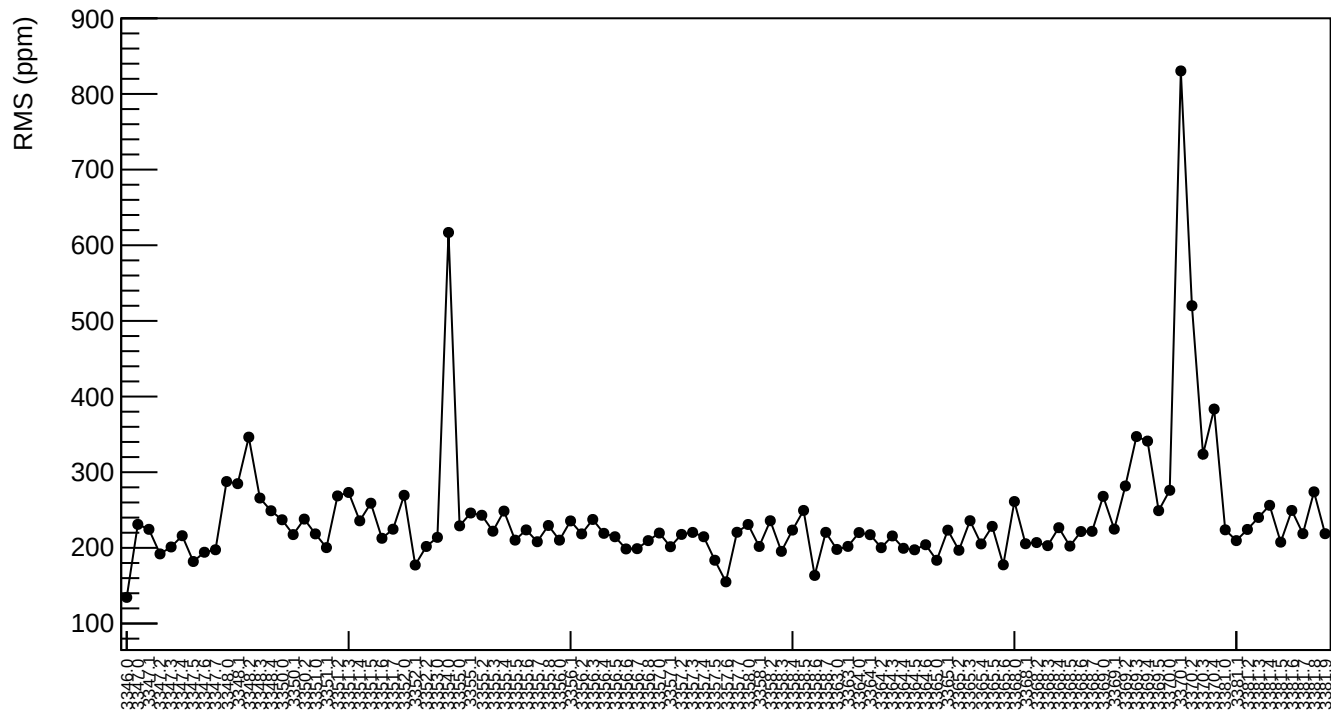
corr\_us\_avg\_bpm4eX (ppb)



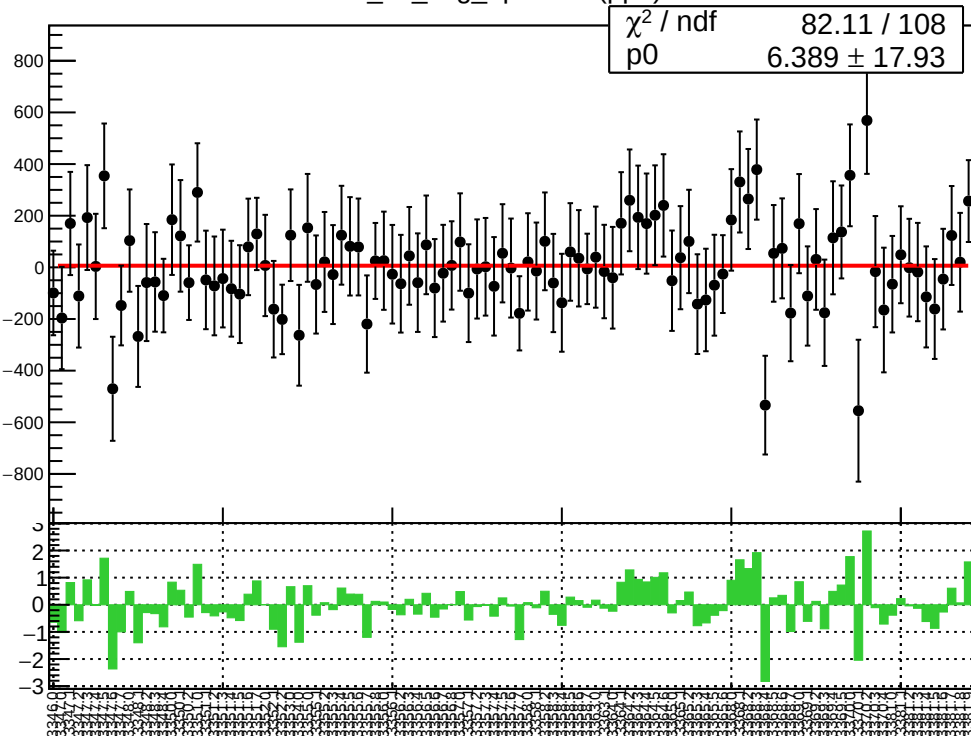
1D pull distribution



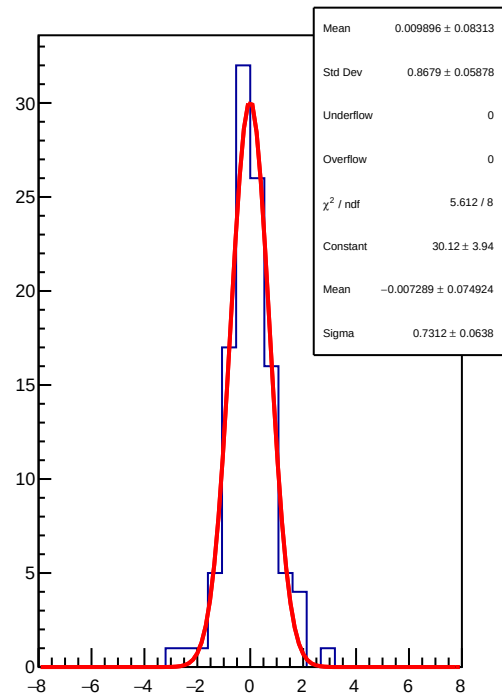
corr\_us\_avg\_bpm4eX RMS (ppm)



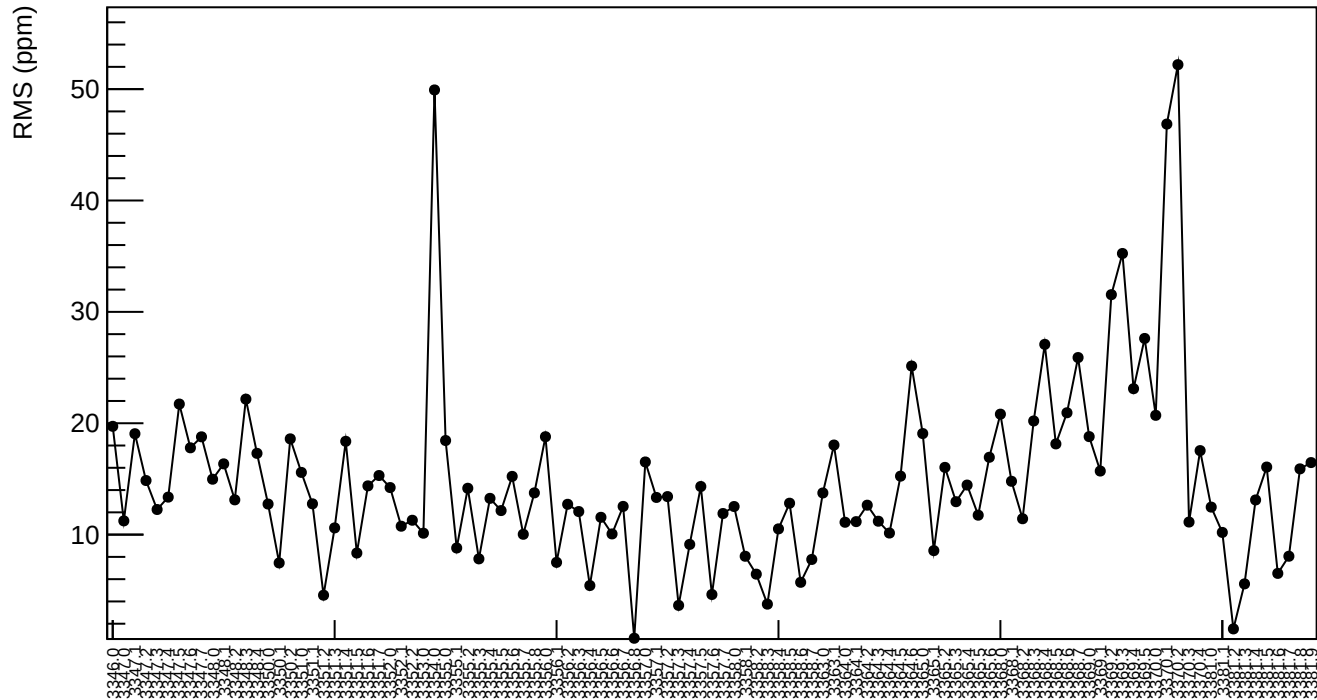
corr\_us\_avg\_bpm4eY (ppb)



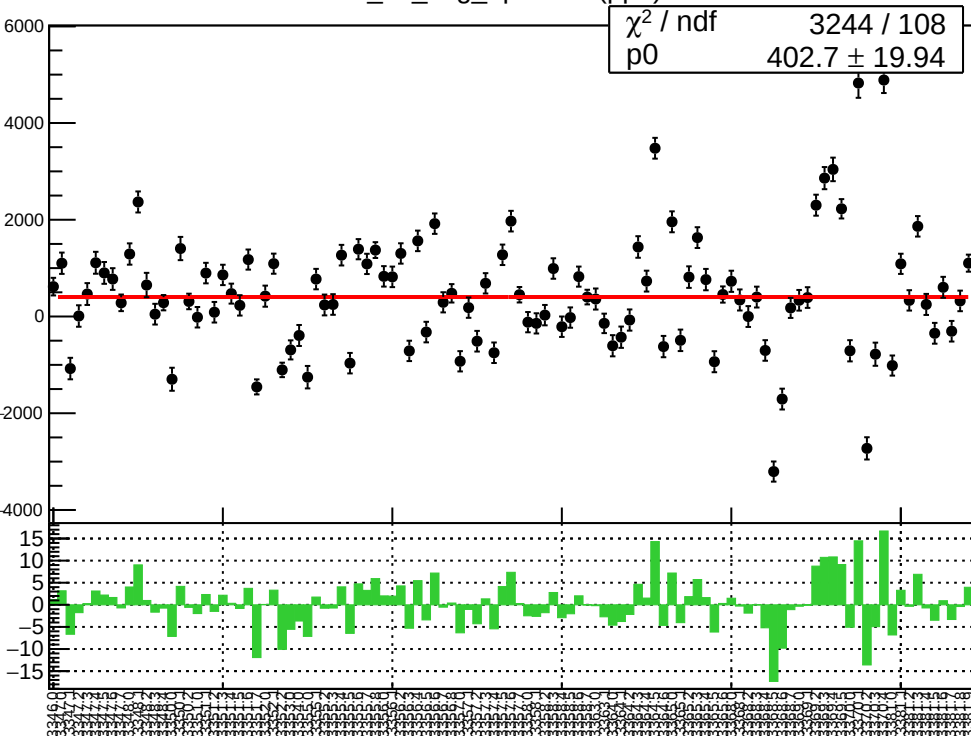
1D pull distribution



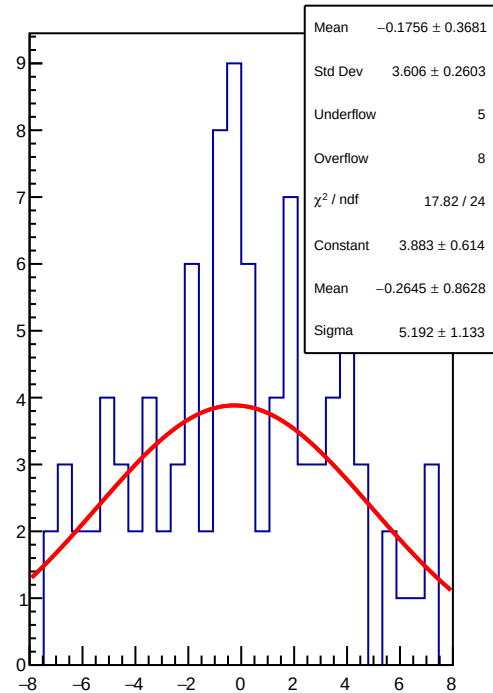
corr\_us\_avg\_bpm4eY RMS (ppm)



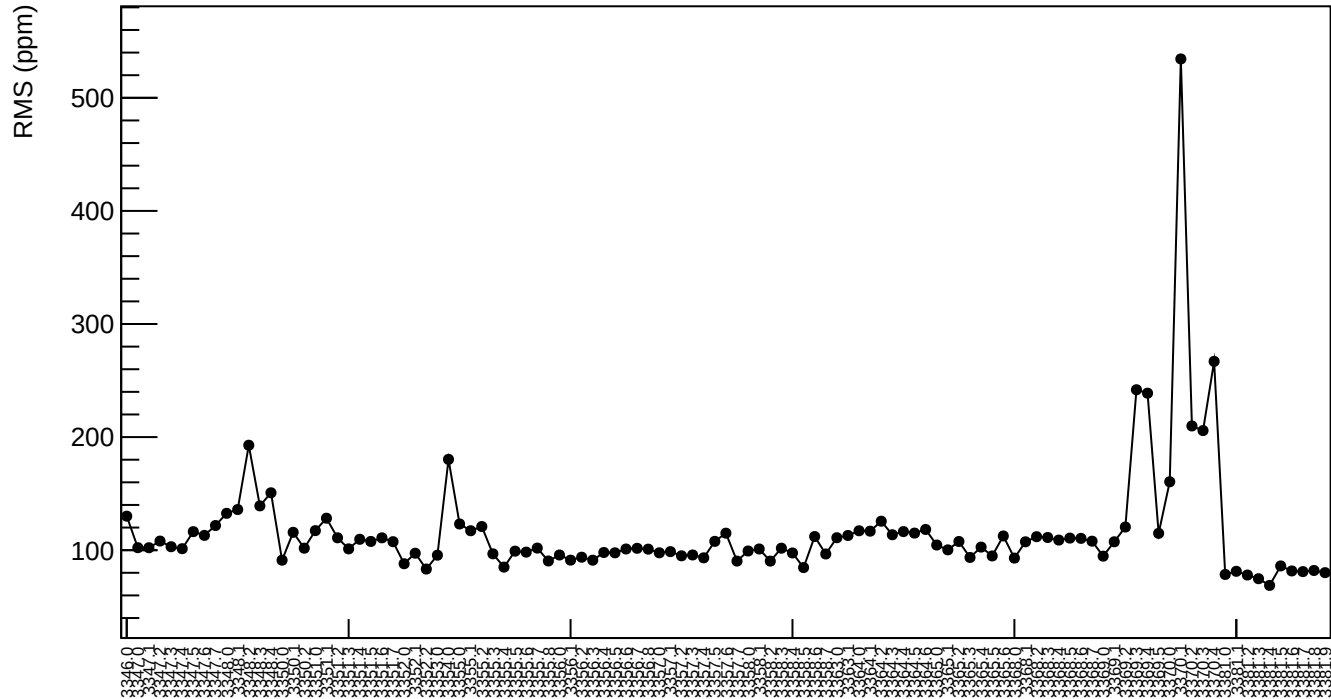
corr\_us\_avg\_bpm4aX (ppb)



1D pull distribution

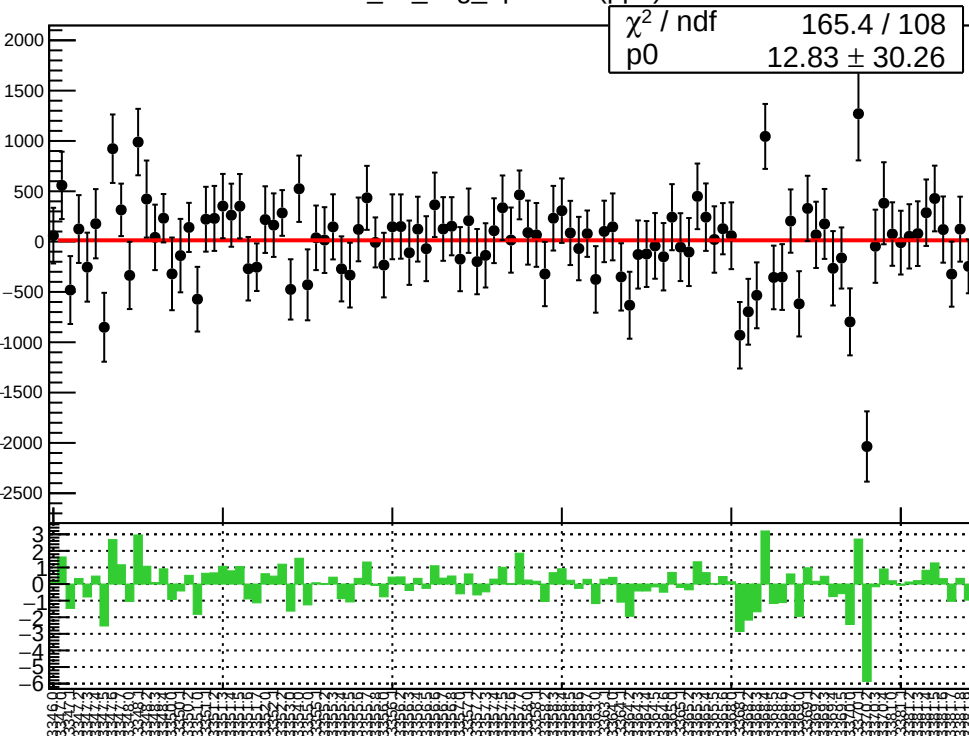


corr\_us\_avg\_bpm4aX RMS (ppm)

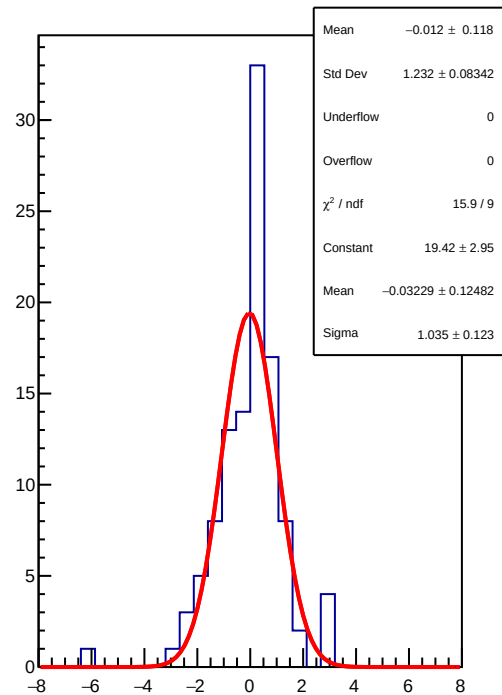




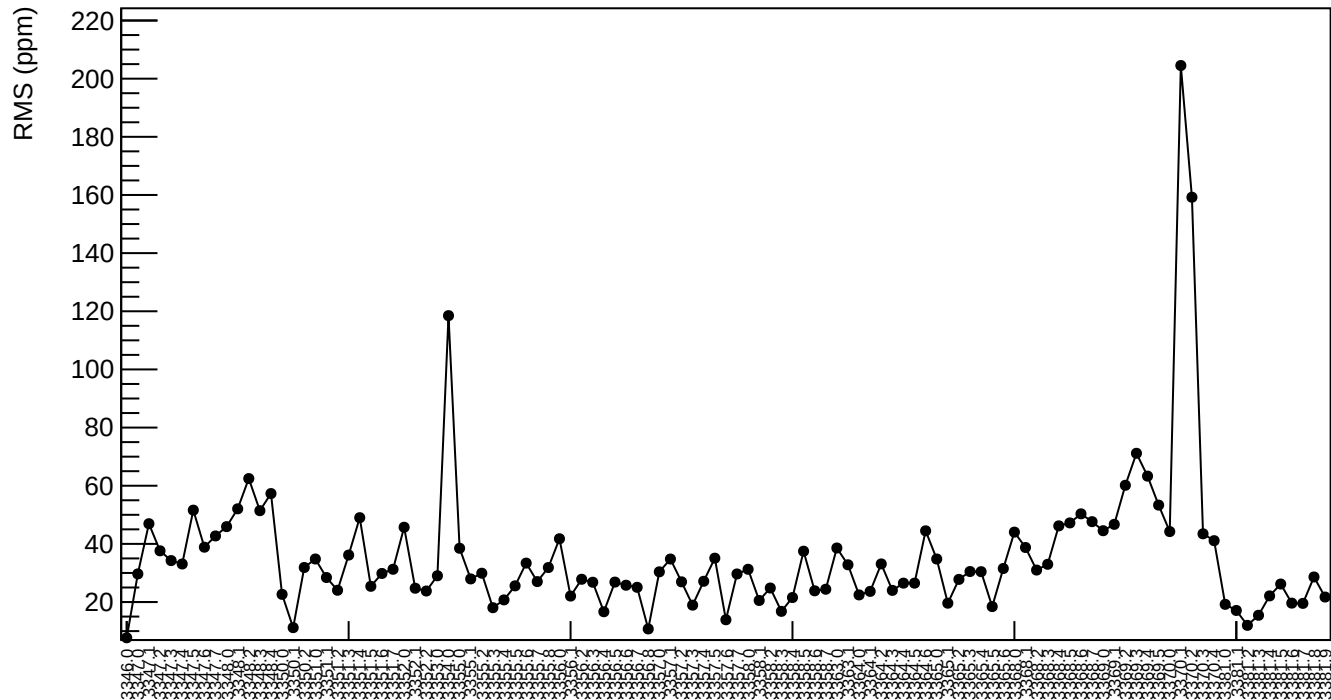
corr\_us\_avg\_bpm4aY (ppb)



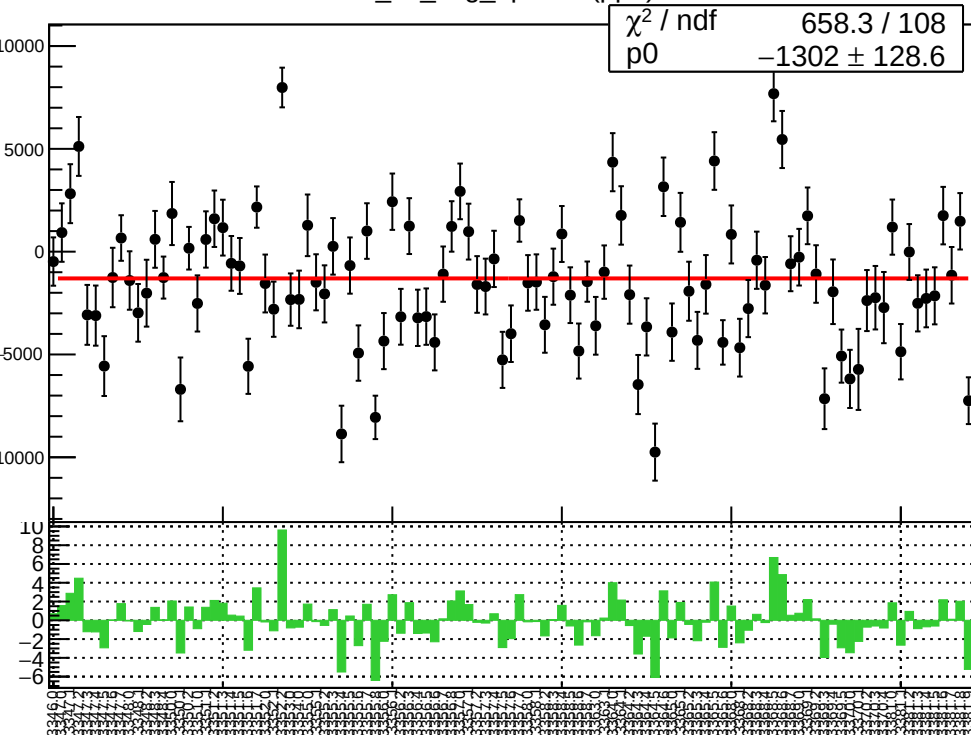
1D pull distribution



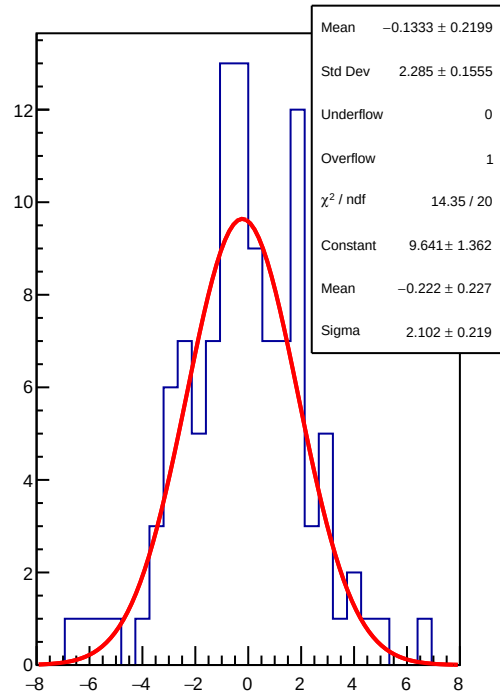
corr\_us\_avg\_bpm4aY RMS (ppm)



corr\_us\_avg\_bpm1X (ppb)

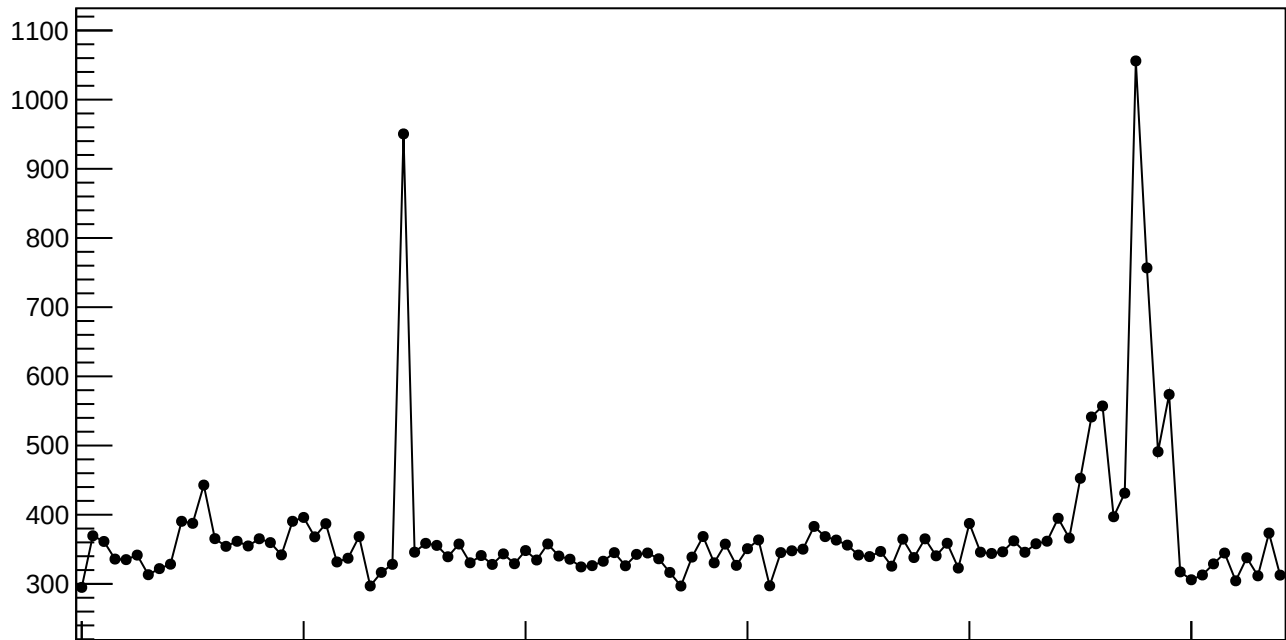


1D pull distribution

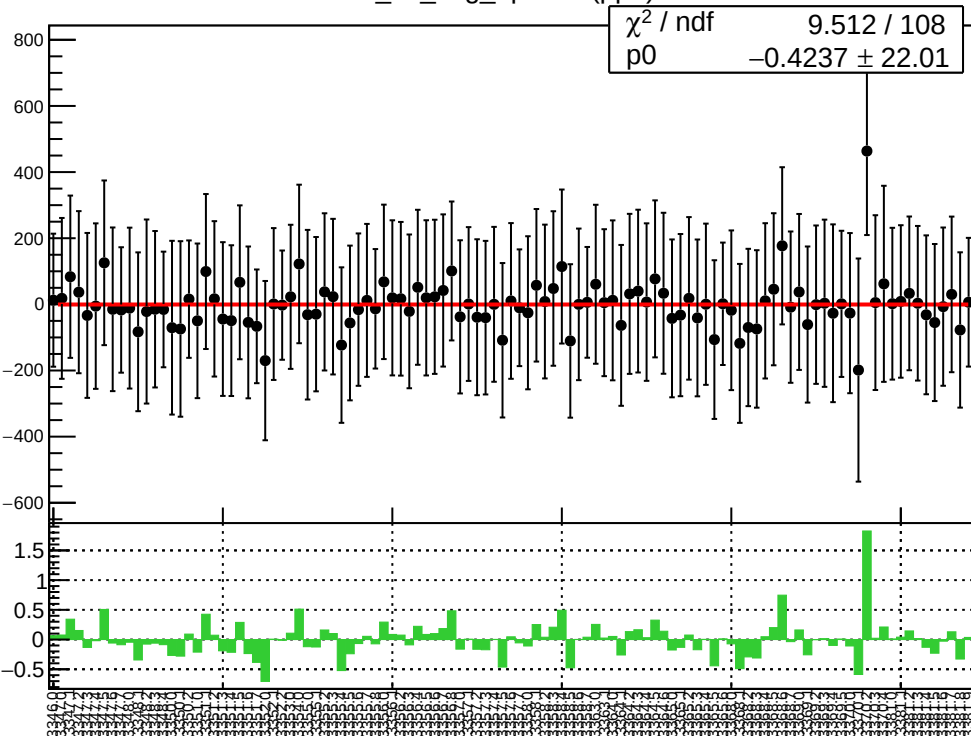


corr\_us\_avg\_bpm1X RMS (ppm)

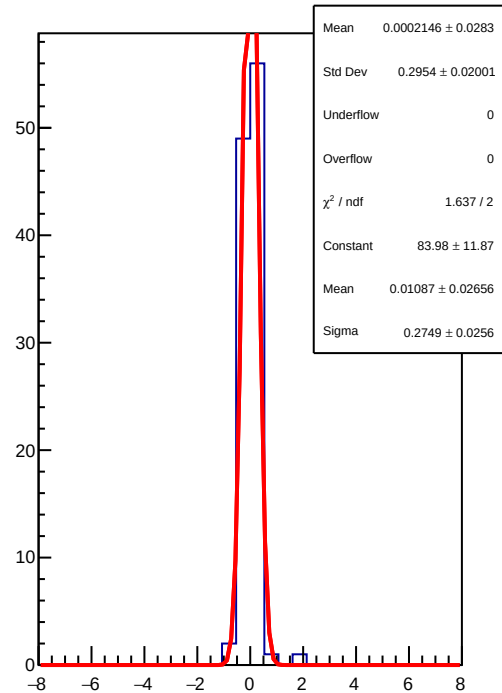
RMS (ppm)



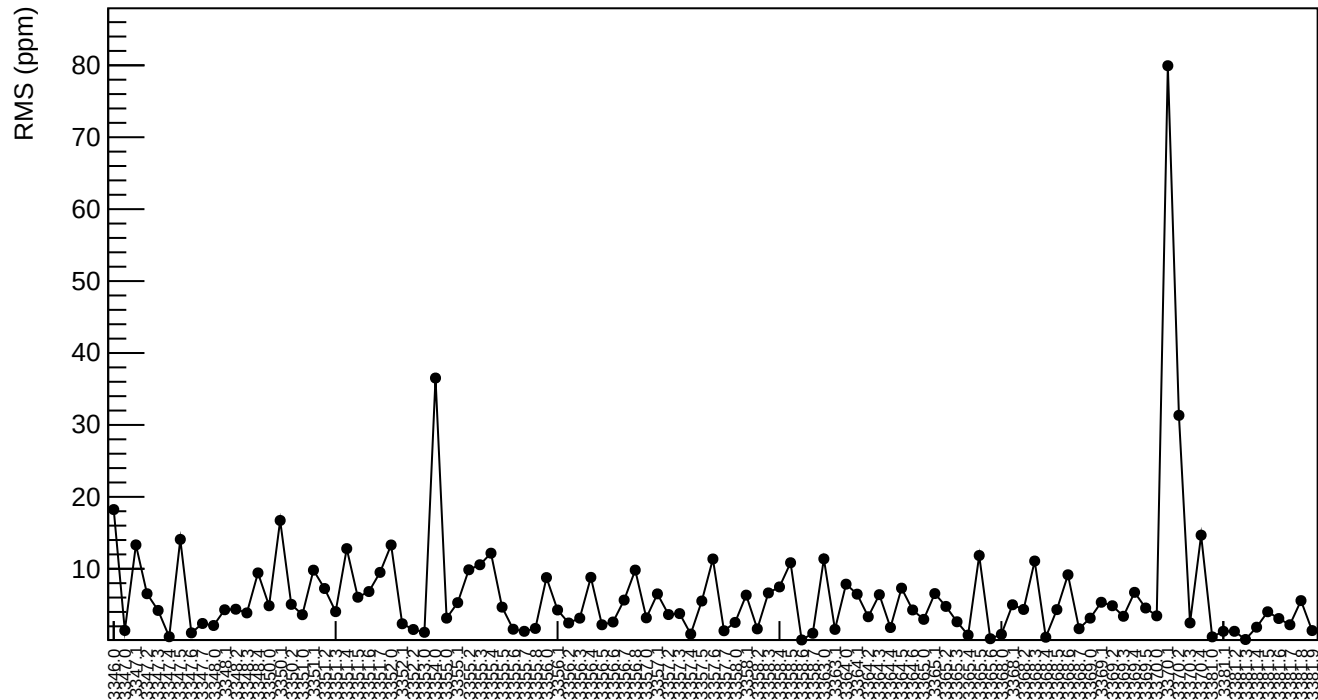
corr\_us\_avg\_bpm1Y (ppb)



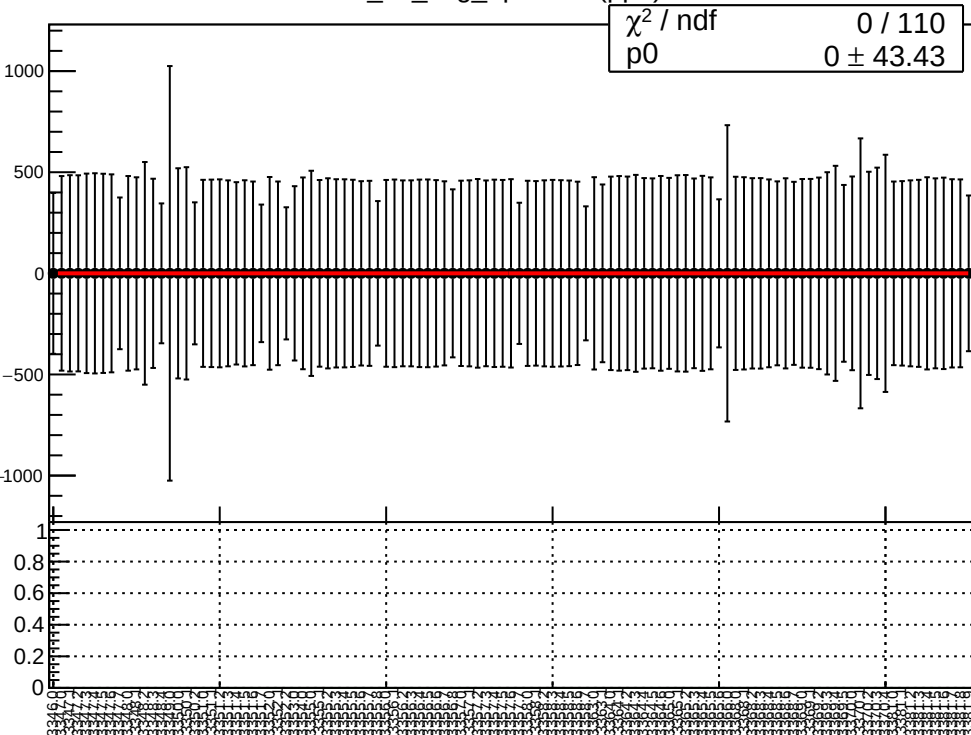
1D pull distribution



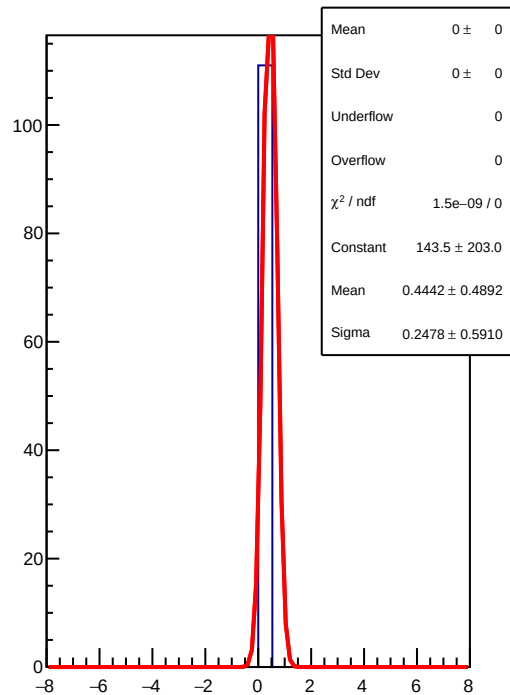
corr\_us\_avg\_bpm1Y RMS (ppm)



corr\_us\_avg\_bpm16X (ppb)

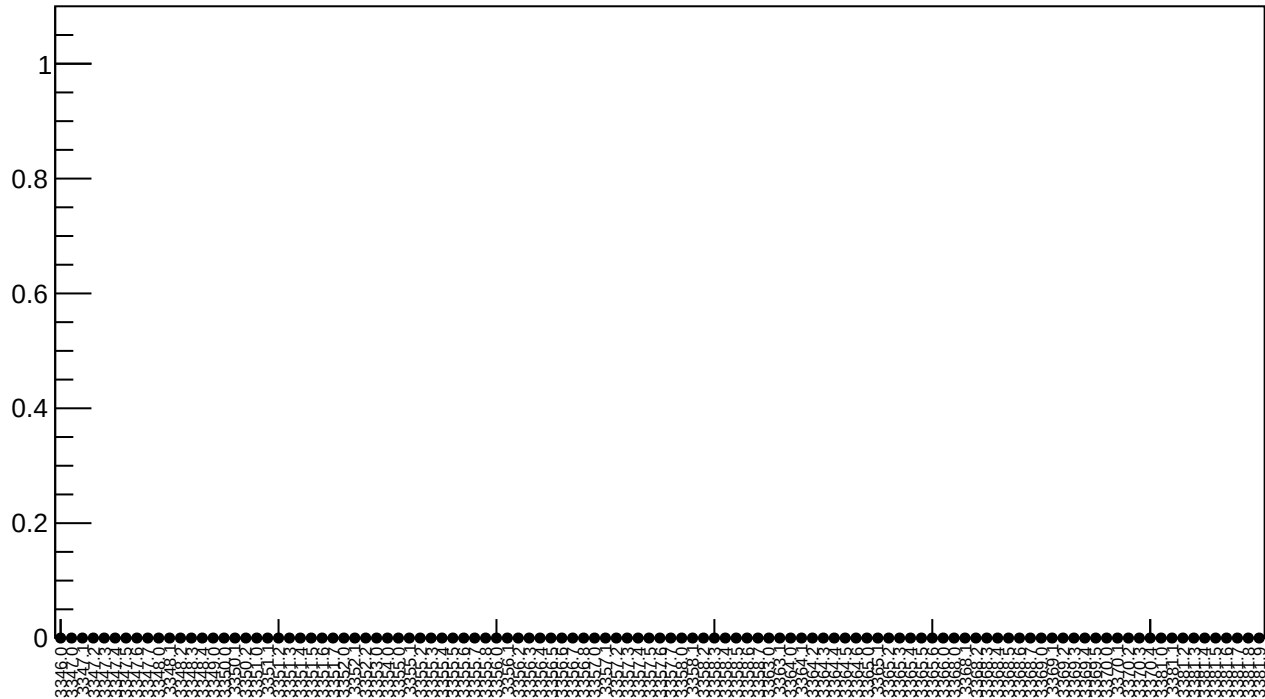


1D pull distribution



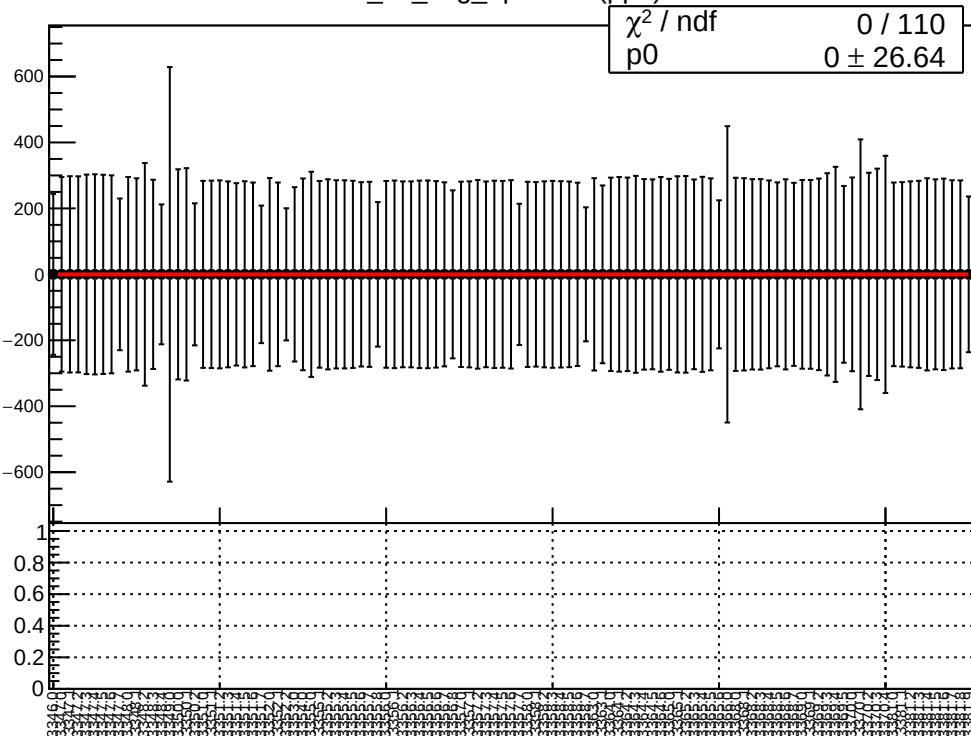
corr\_us\_avg\_bpm16X RMS (ppm)

RMS (ppm)

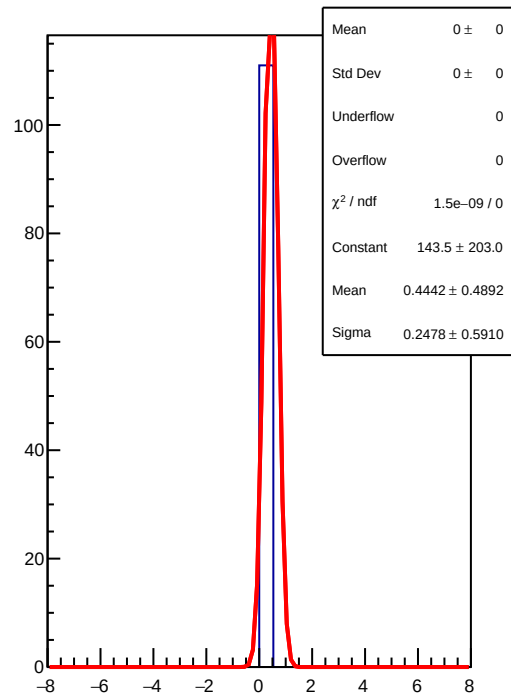




corr\_us\_avg\_bpm16Y (ppb)

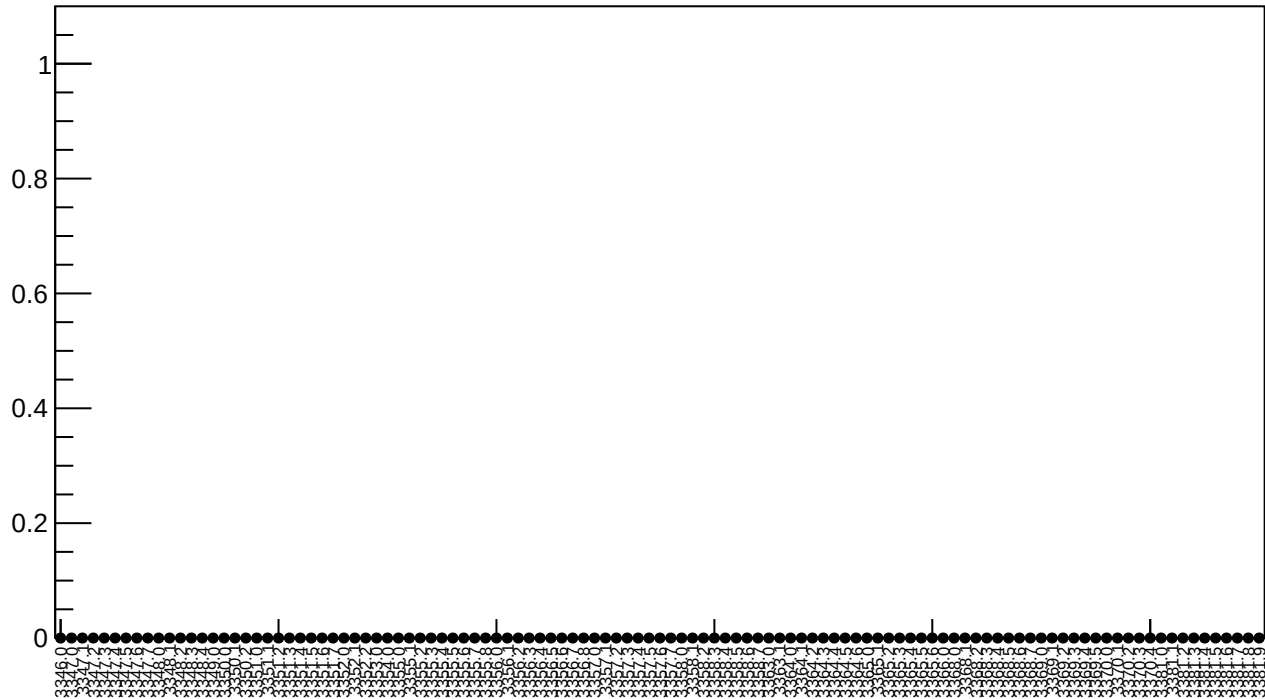


1D pull distribution

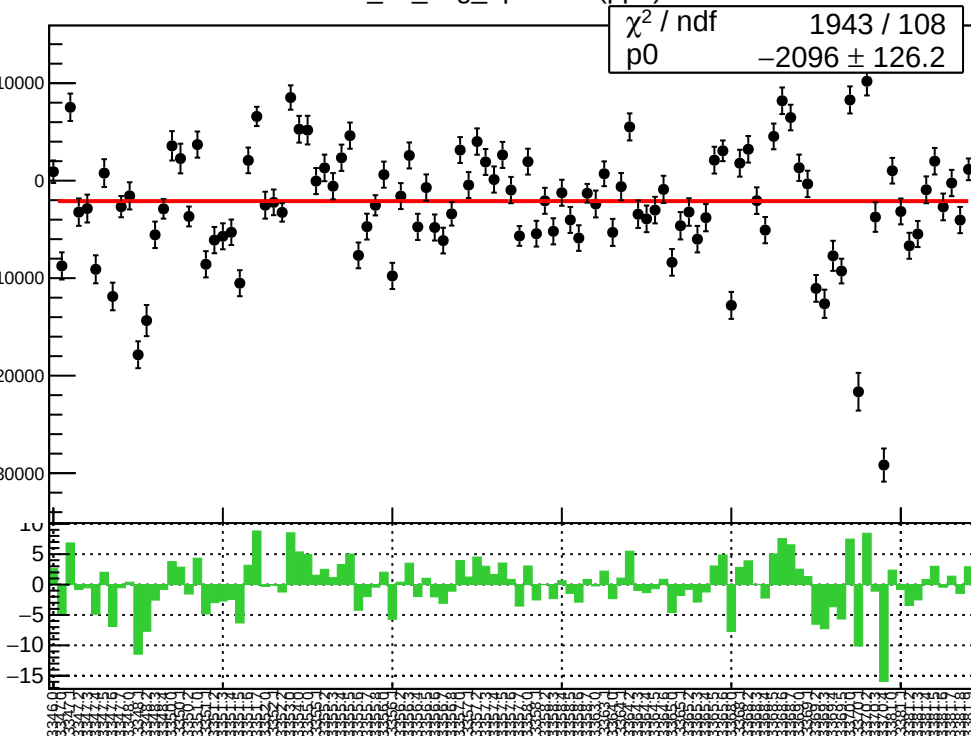


# corr\_us\_avg\_bpm16Y RMS (ppm)

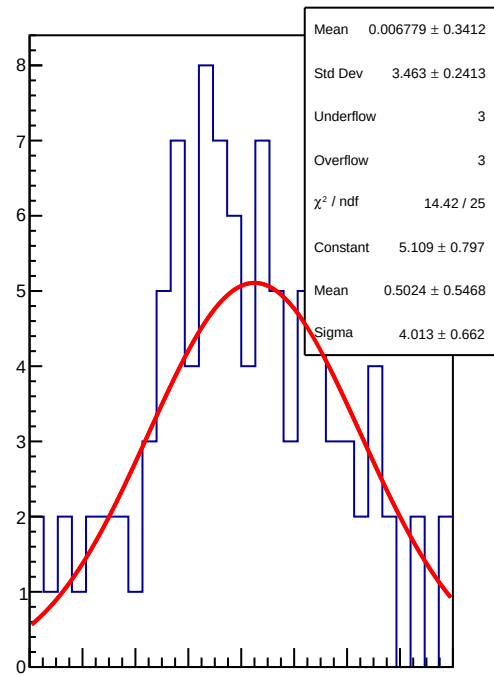
RMS (ppm)



corr\_us\_avg\_bpm12X (ppb)



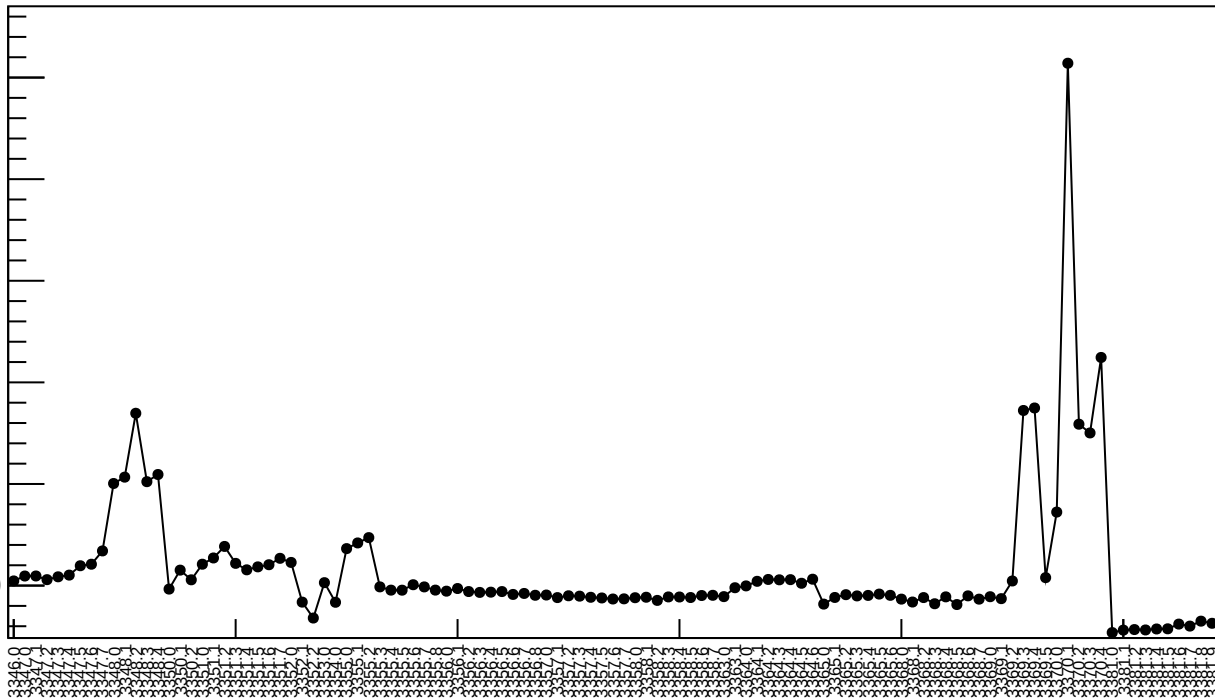
1D pull distribution



corr\_us\_avg\_bpm12X RMS (ppm)

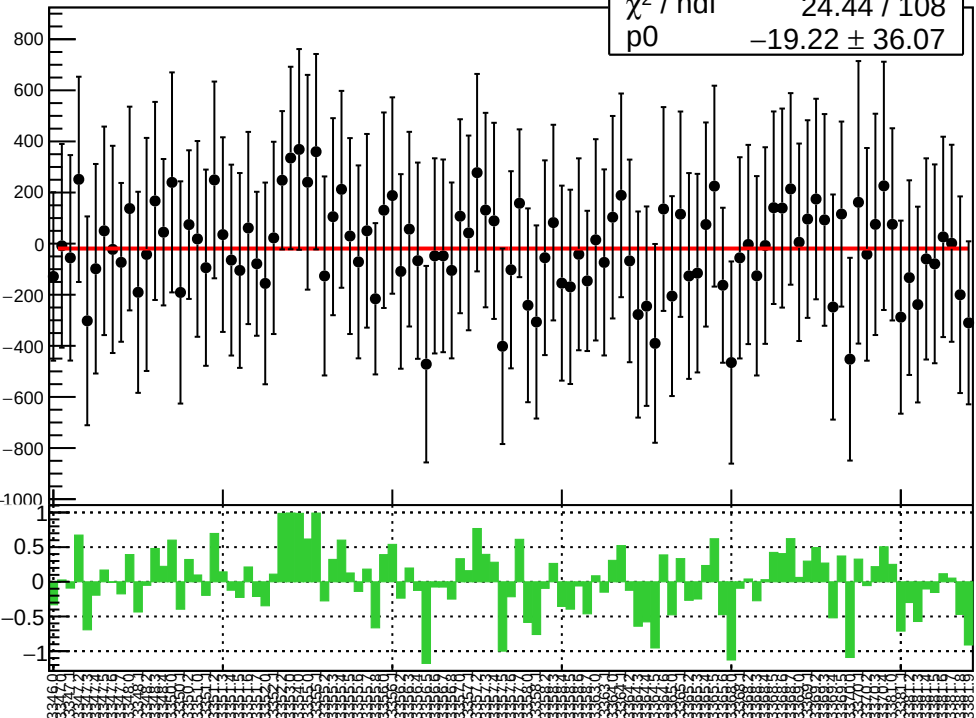
RMS (ppm)

3000  
2500  
2000  
1500  
1000  
500

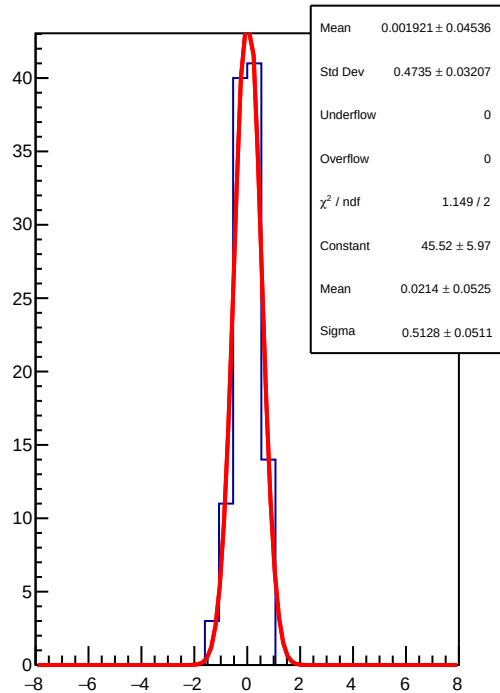


corr\_us\_avg\_bpm12Y (ppb)

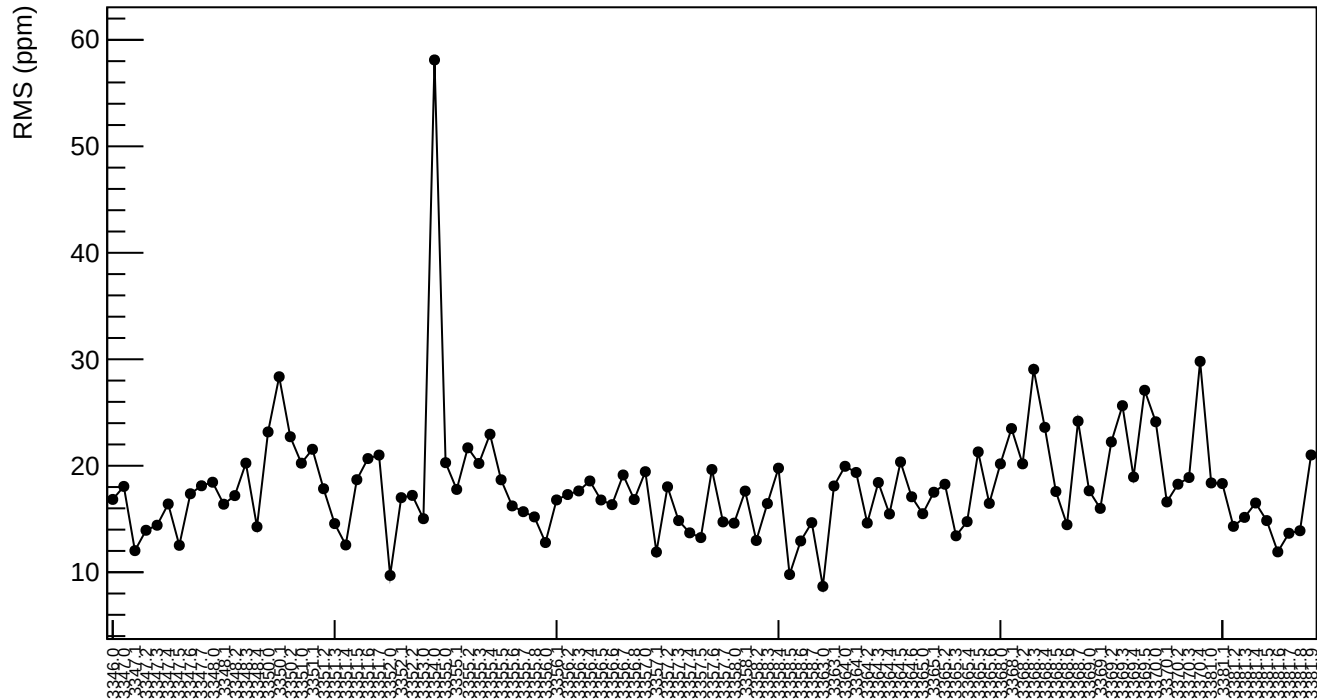
$\chi^2 / \text{ndf}$  24.44 / 108  
p0  $-19.22 \pm 36.07$



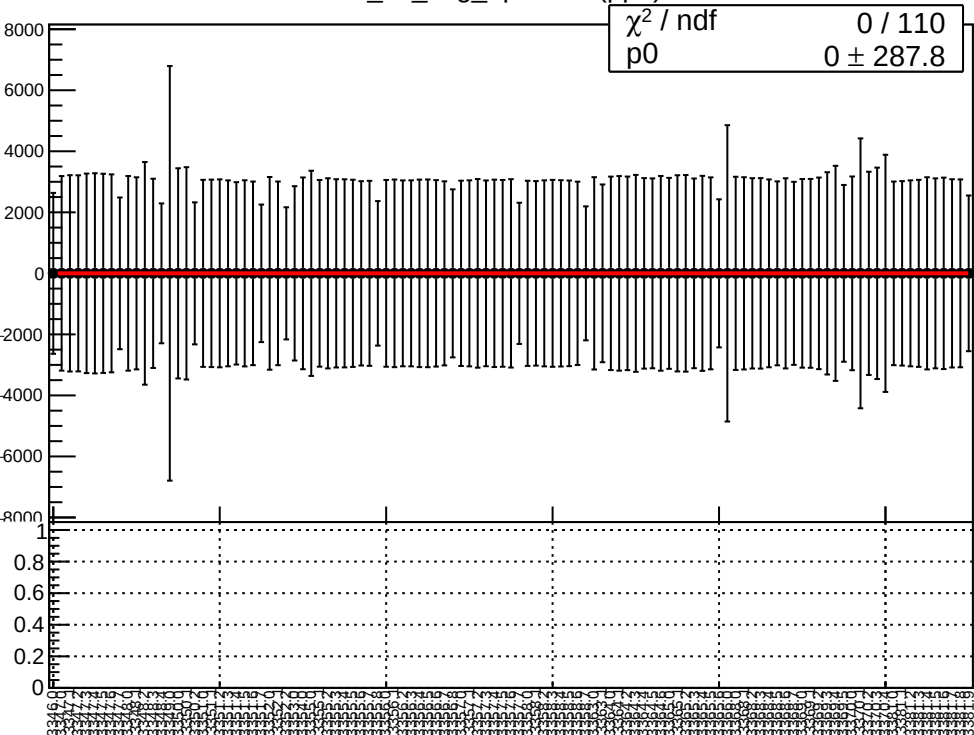
1D pull distribution



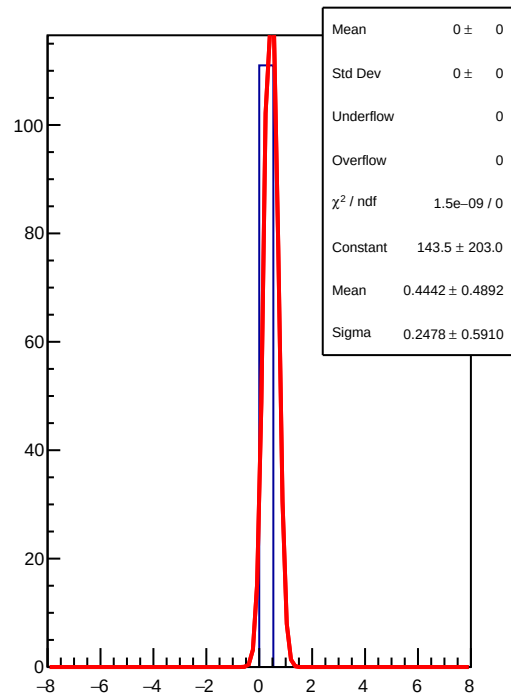
corr\_us\_avg\_bpm12Y RMS (ppm)



corr\_us\_avg\_bpm11X (ppb)

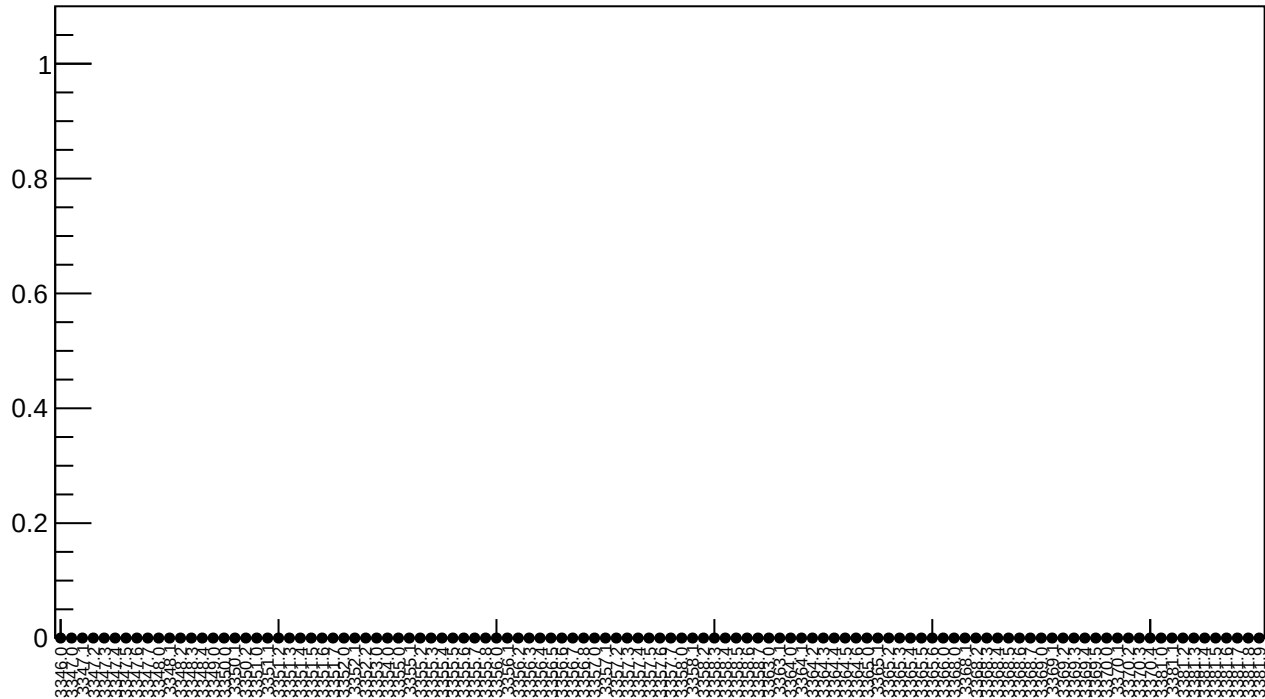


### 1D pull distribution



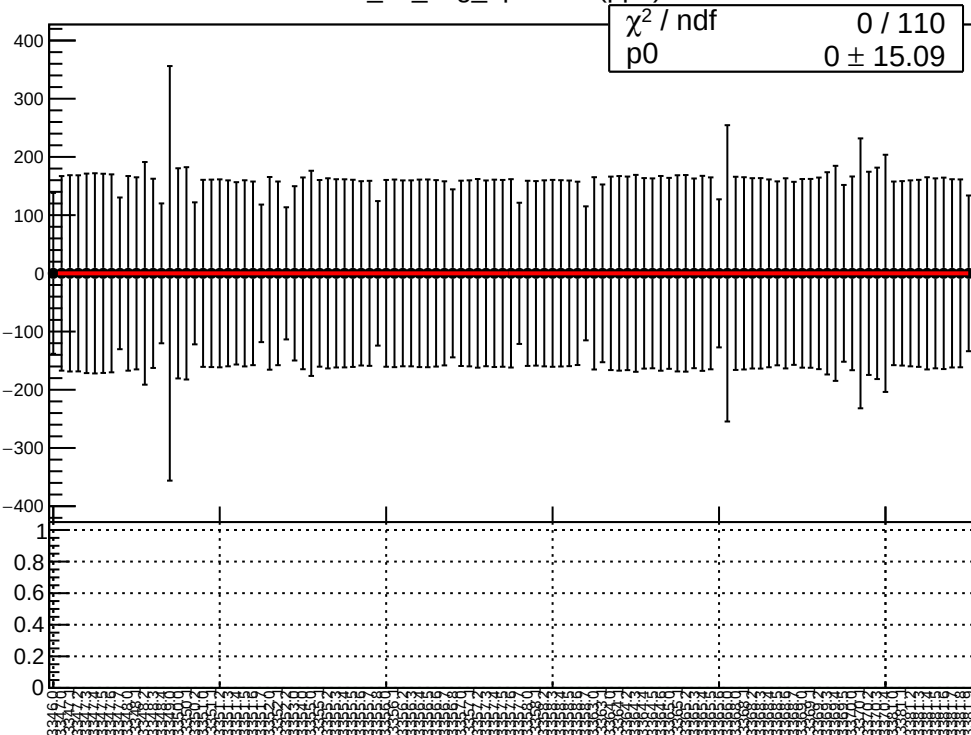
corr\_us\_avg\_bpm11X RMS (ppm)

RMS (ppm)

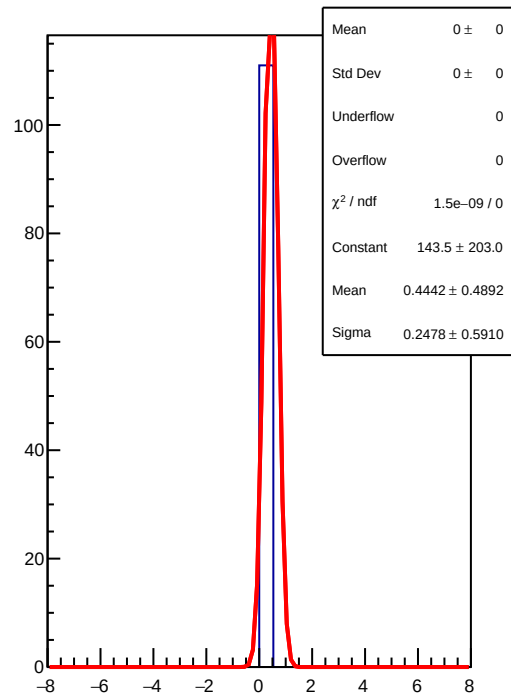




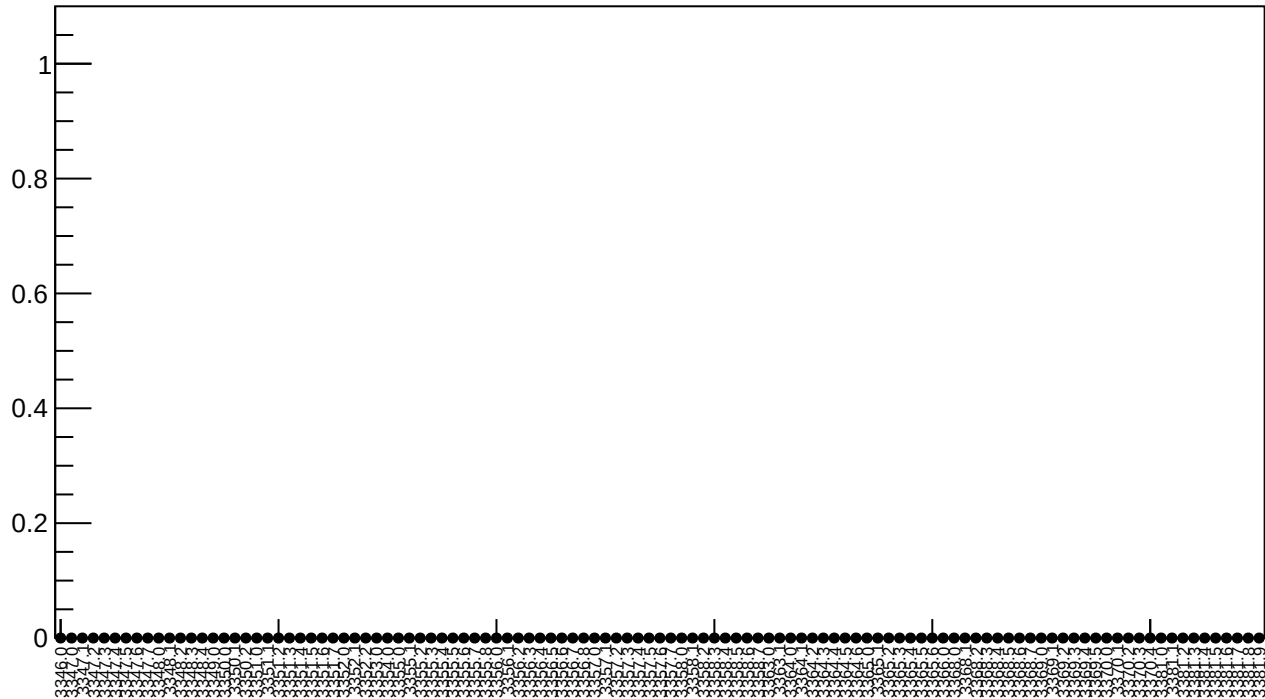
corr\_us\_avg\_bpm11Y (ppb)



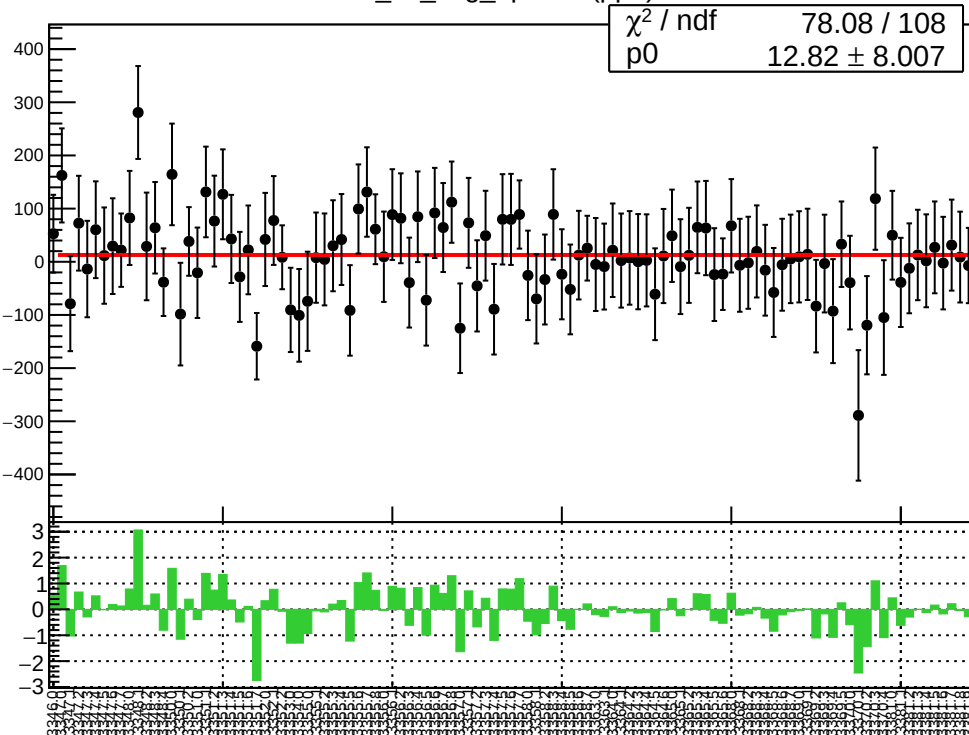
1D pull distribution



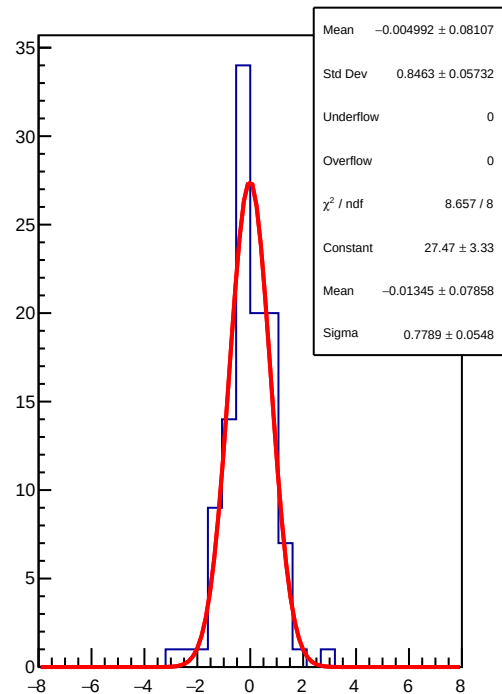
corr\_us\_avg\_bpm11Y RMS (ppm)



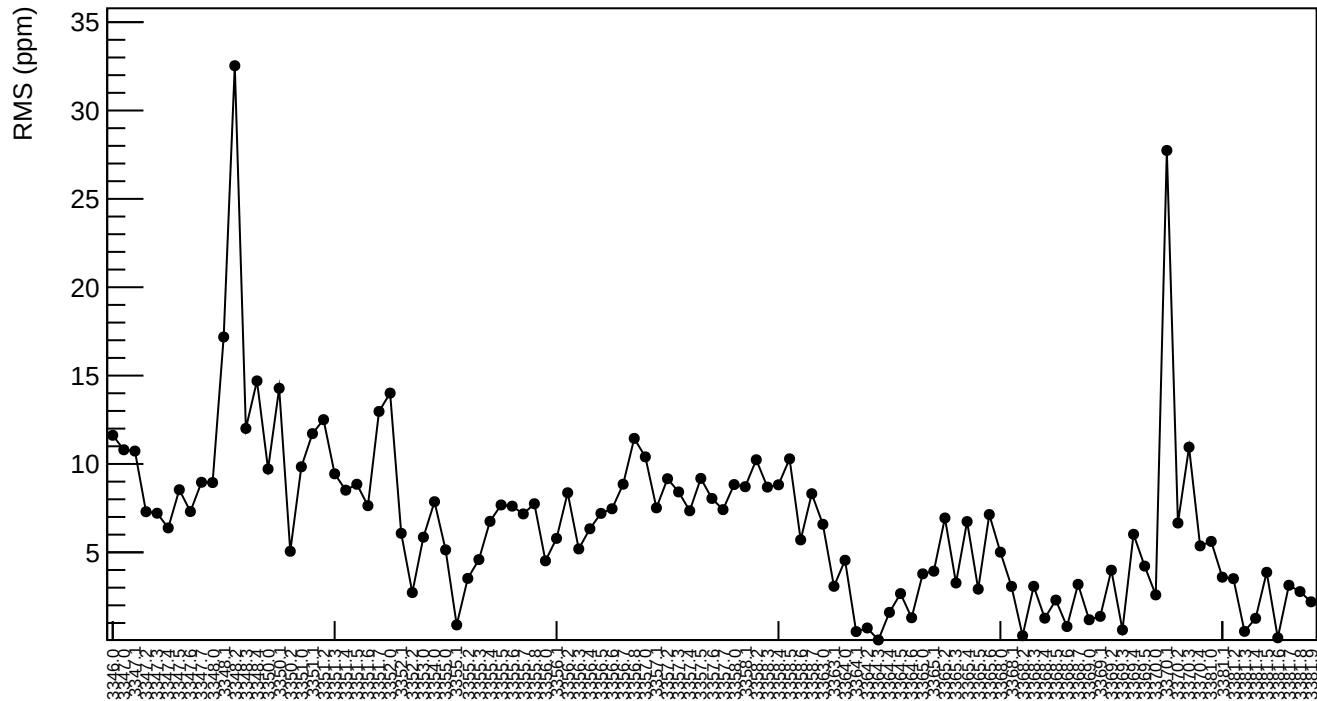
corr\_us\_avg\_bpm8X (ppb)



1D pull distribution



corr\_us\_avg\_bpm8X RMS (ppm)

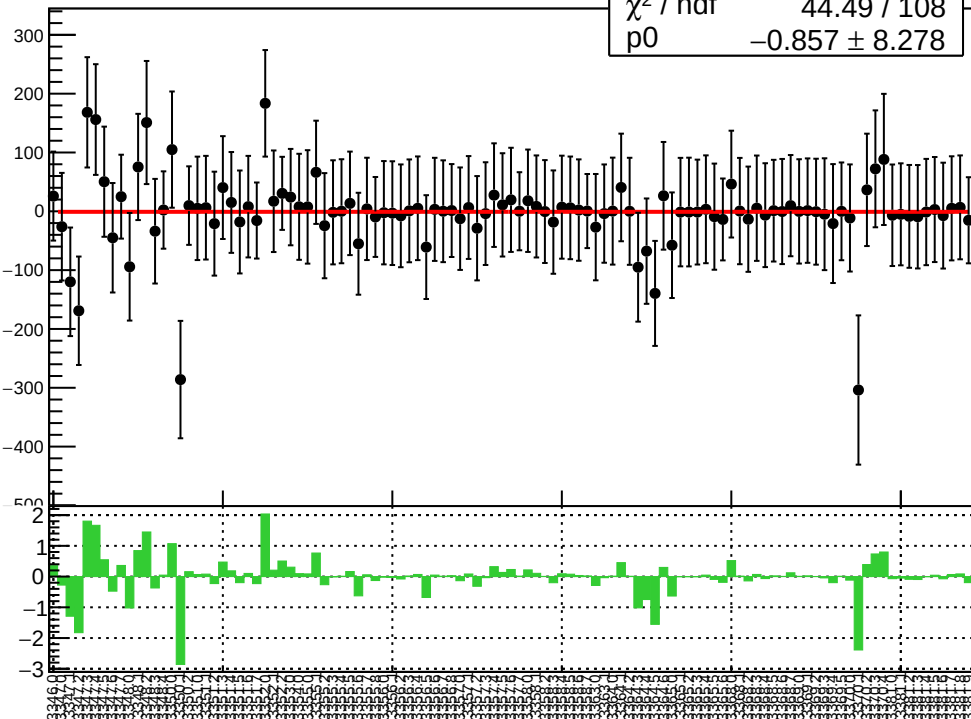


corr\_us\_avg\_bpm8Y (ppb)

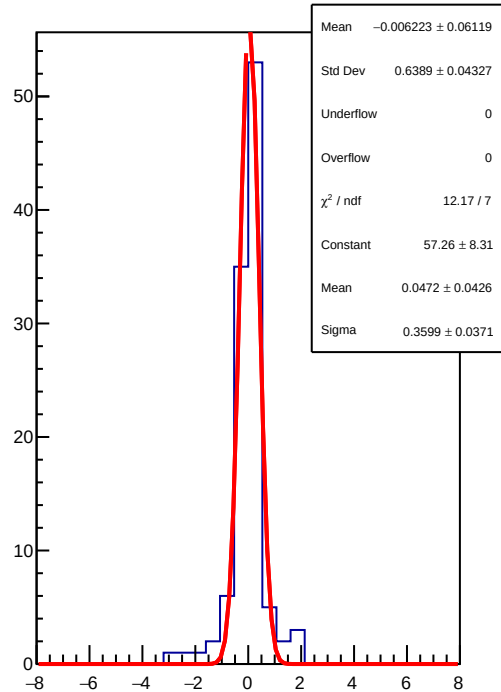
 $\chi^2 / \text{ndf}$ 

44.49 / 108

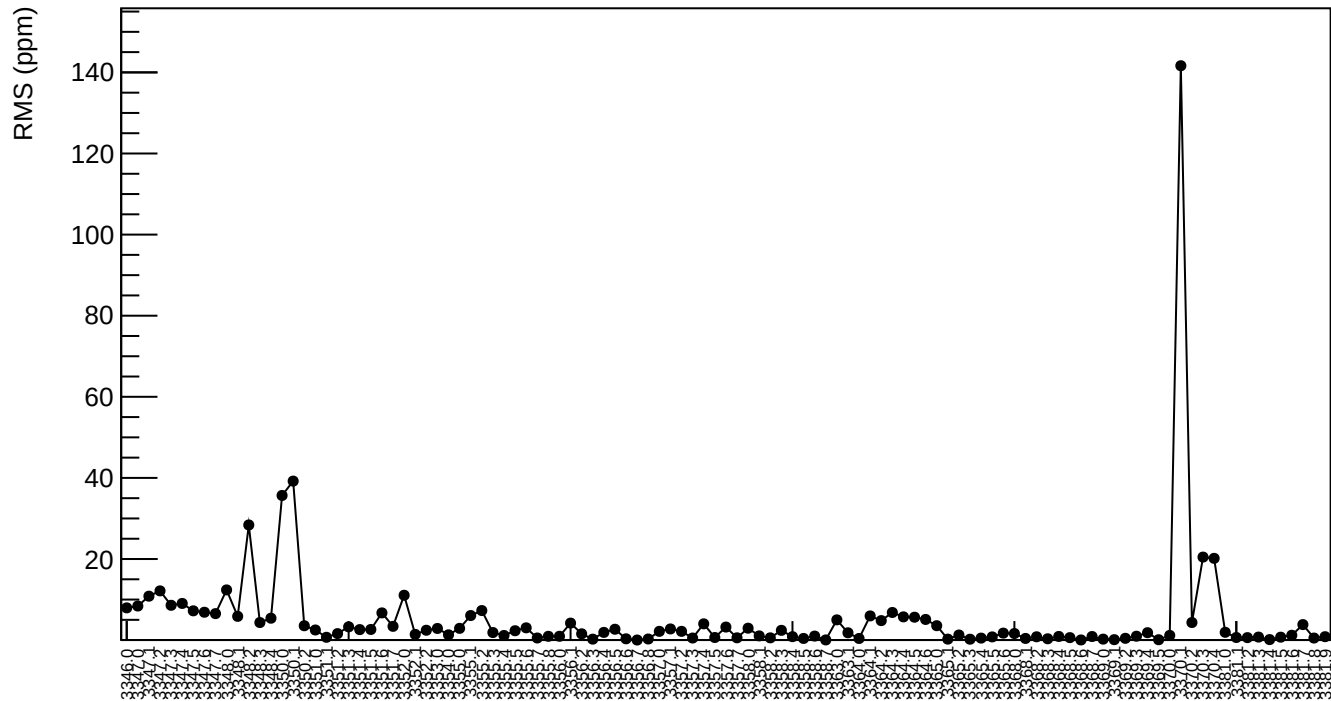
p0

 $-0.857 \pm 8.278$ 

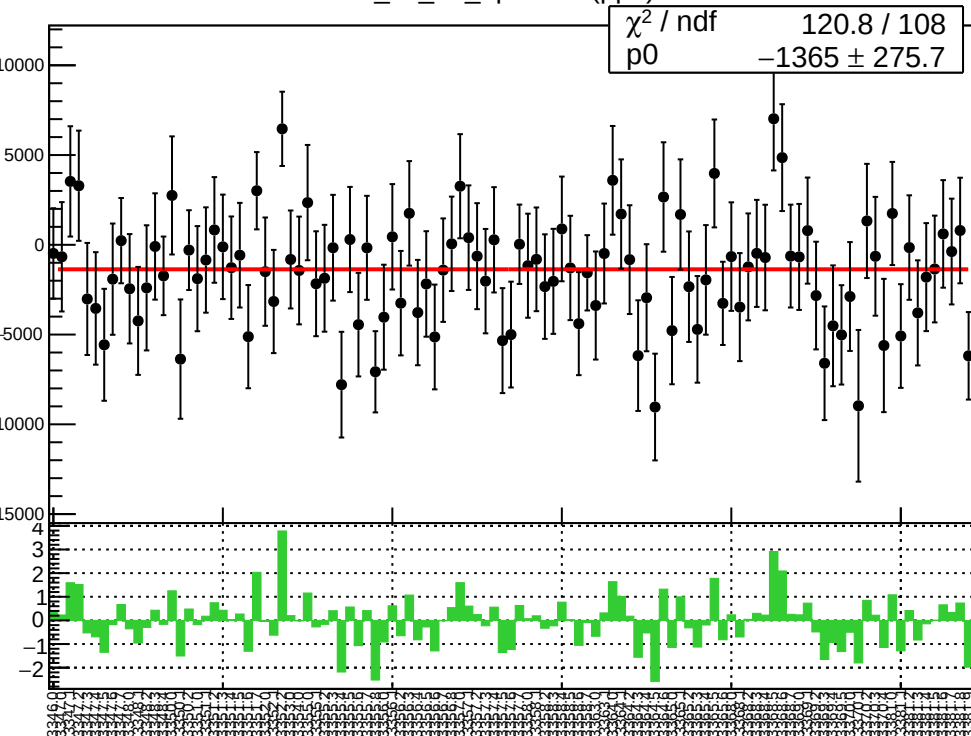
1D pull distribution



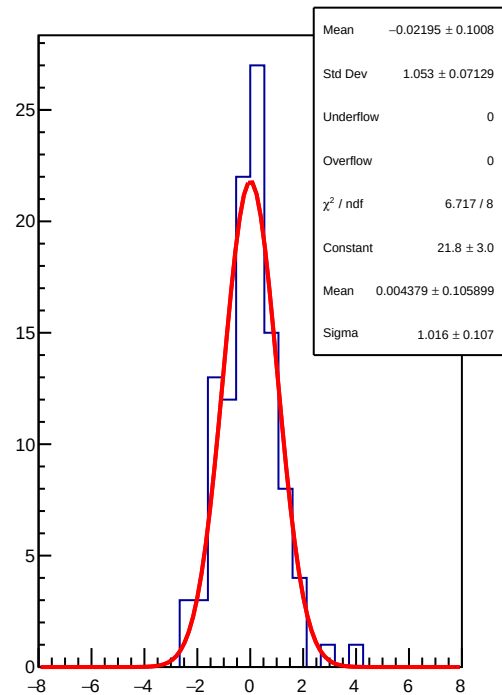
corr\_us\_avg\_bpm8Y RMS (ppm)



corr\_us\_dd\_bpm4eX (ppb)

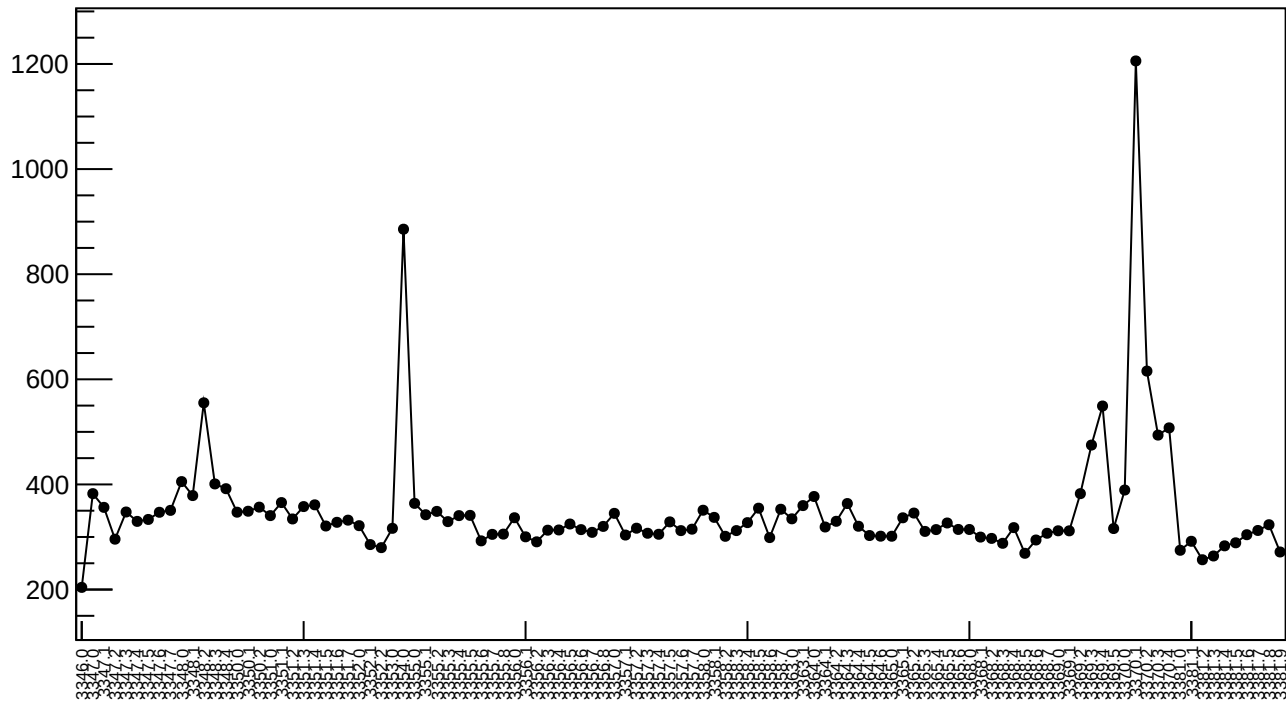


1D pull distribution



corr\_us\_dd\_bpm4eX RMS (ppm)

RMS (ppm)



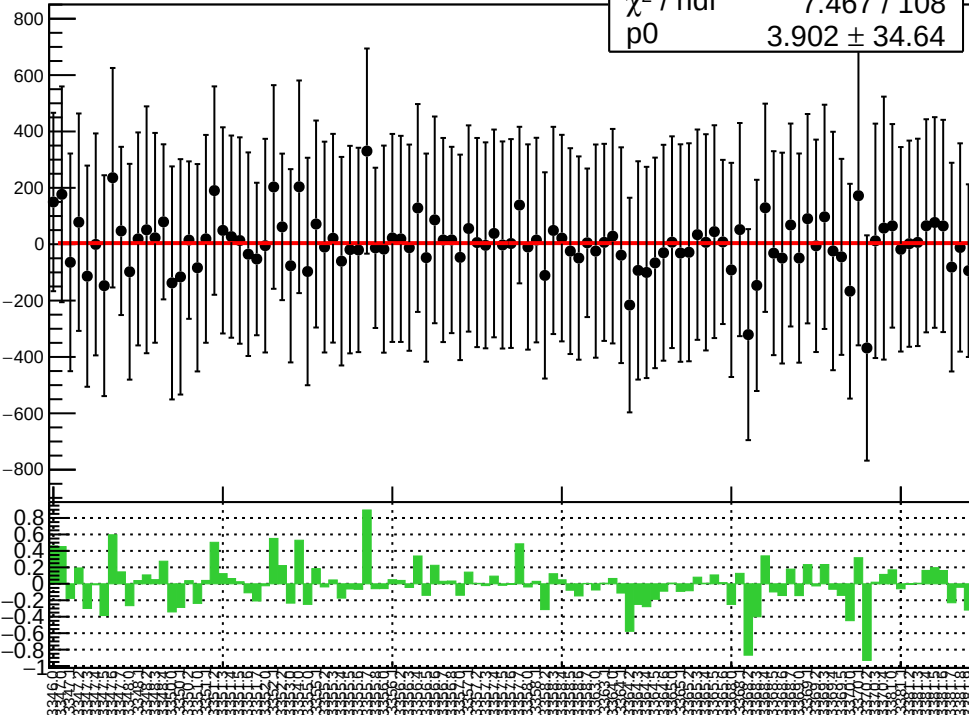


corr\_us\_dd\_bpm4eY (ppb)

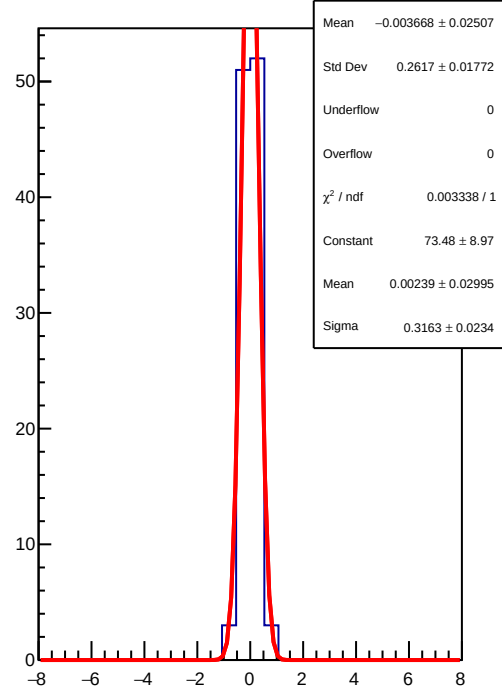
 $\chi^2 / \text{ndf}$ 

7.467 / 108

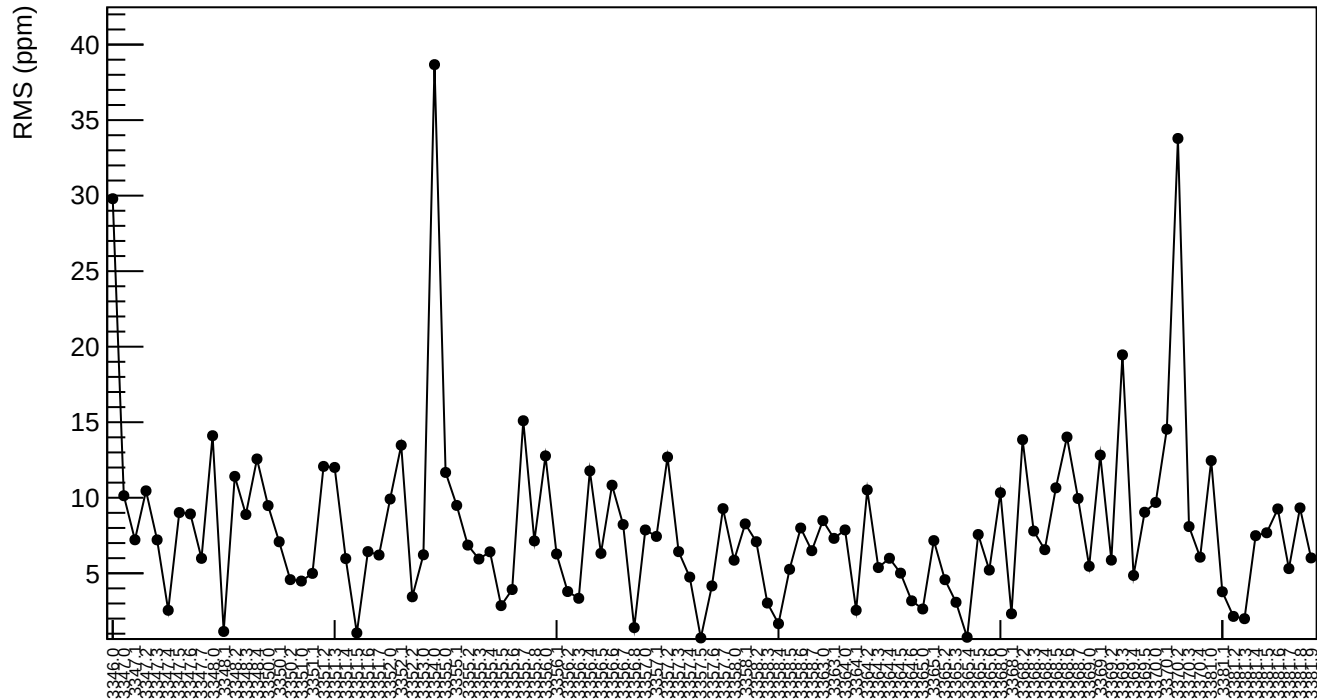
p0

 $3.902 \pm 34.64$ 

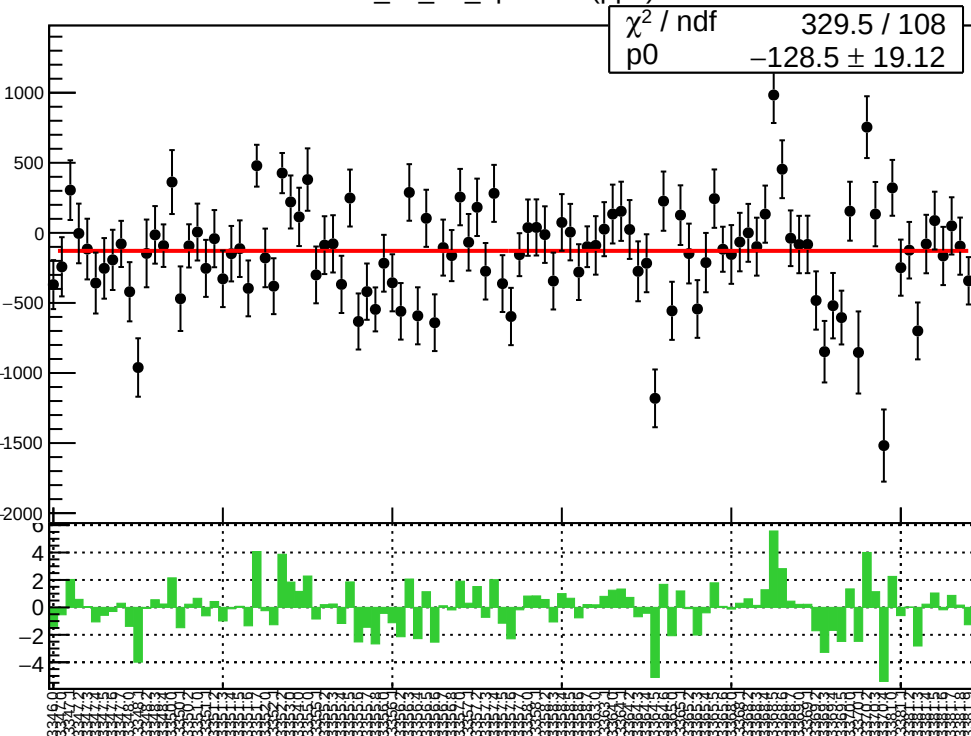
1D pull distribution



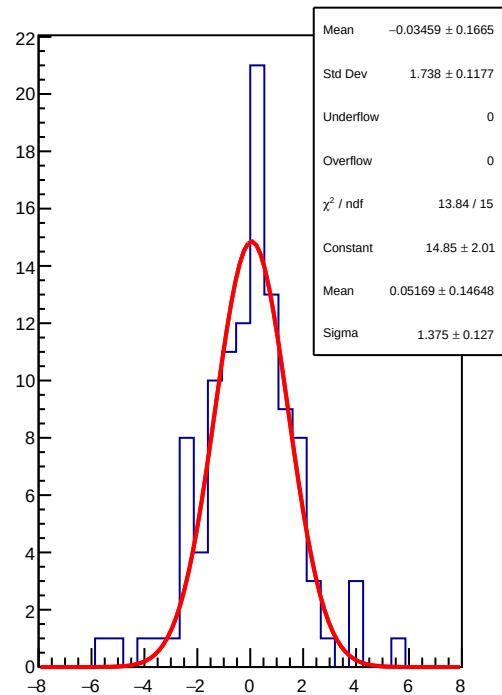
corr\_us\_dd\_bpm4eY RMS (ppm)



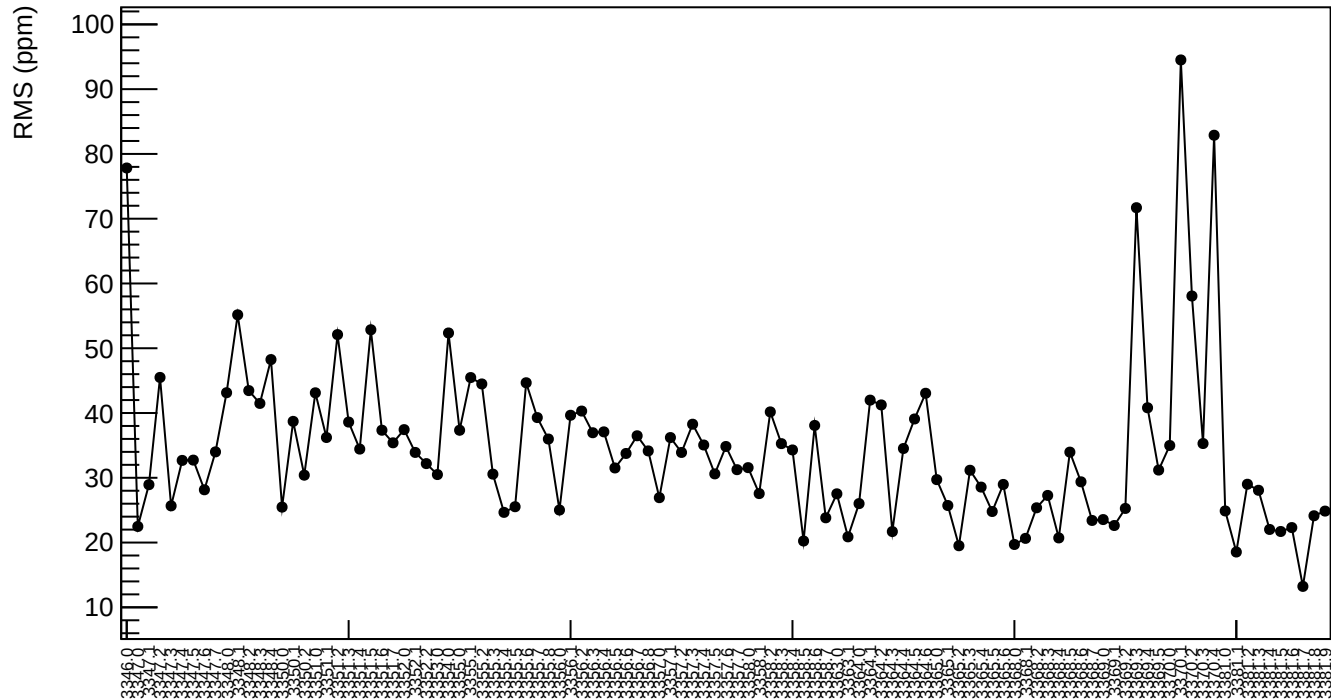
corr\_us\_dd\_bpm4aX (ppb)



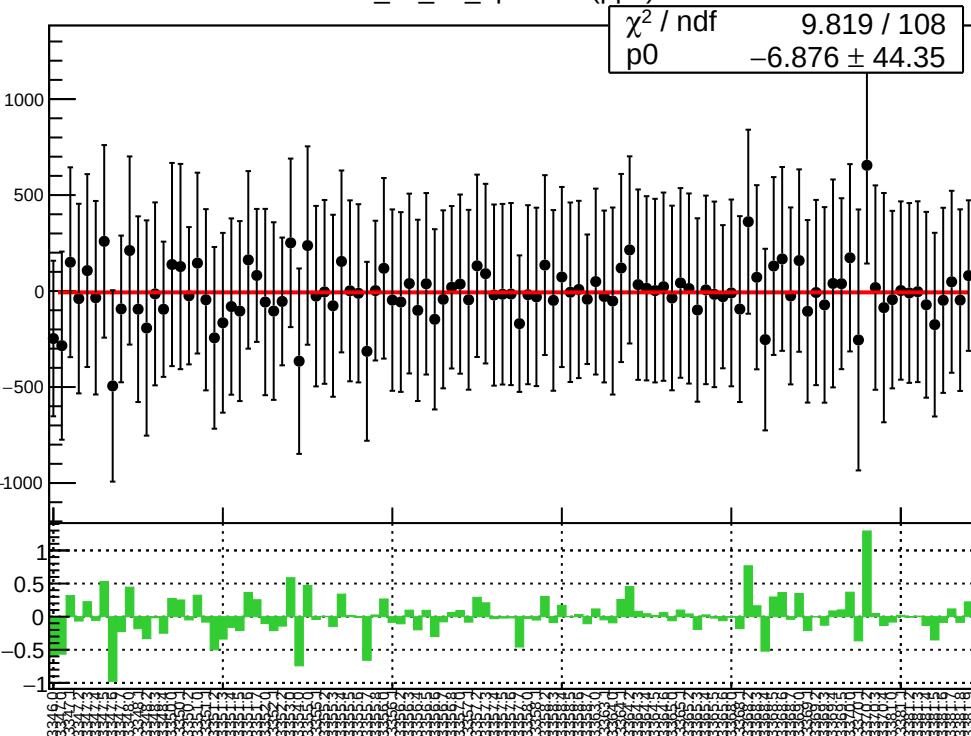
1D pull distribution



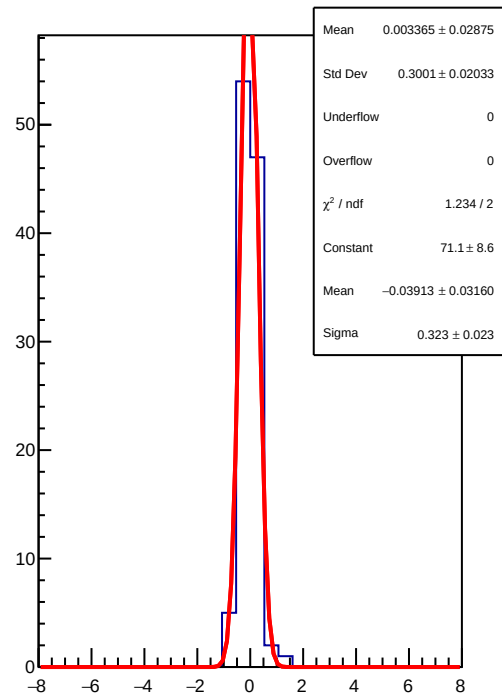
corr\_us\_dd\_bpm4aX RMS (ppm)



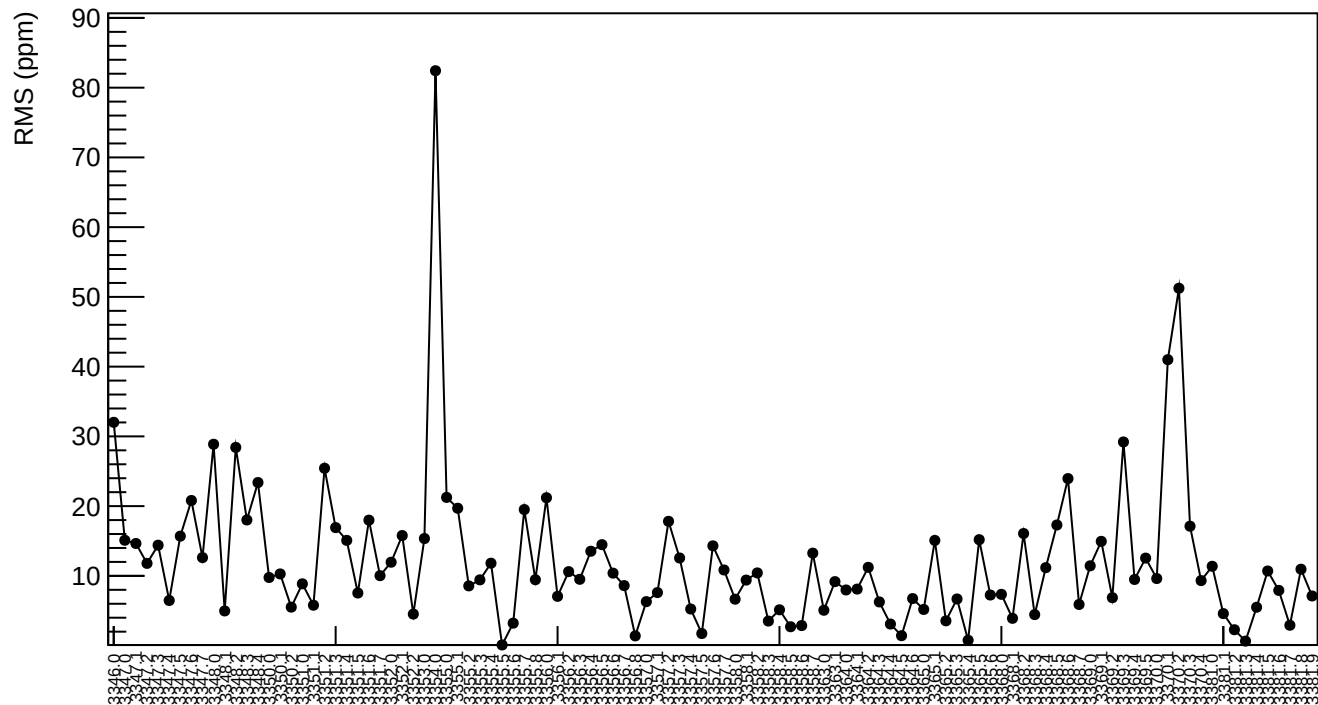
corr\_us\_dd\_bpm4aY (ppb)



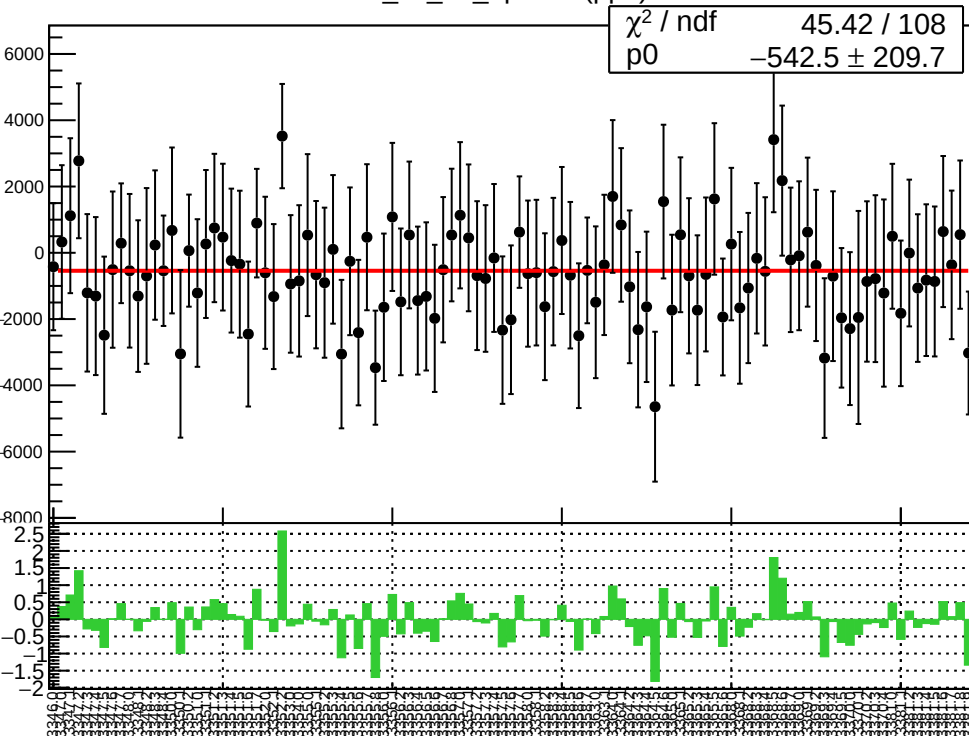
1D pull distribution



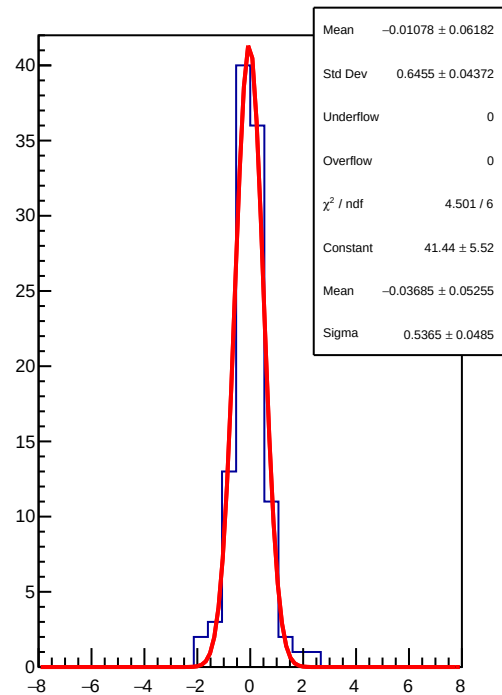
corr\_us\_dd\_bpm4aY RMS (ppm)



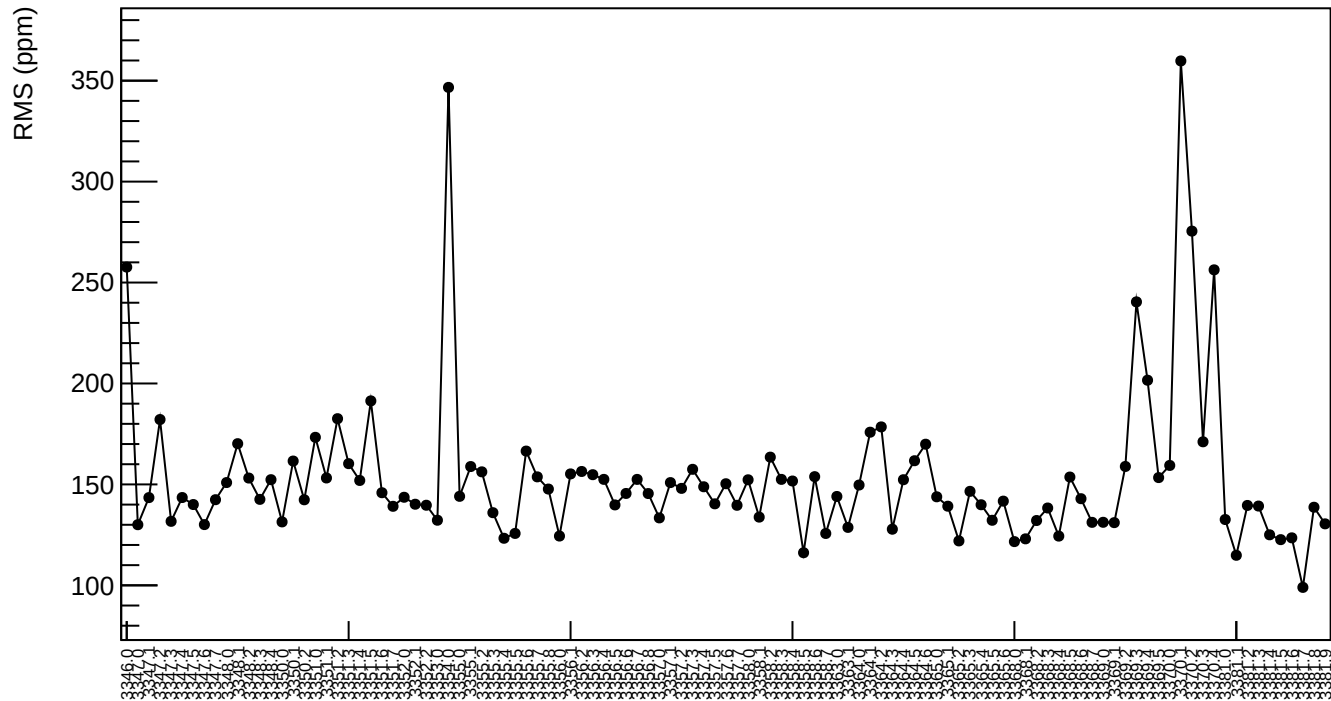
corr\_us\_dd\_bpm1X (ppb)



1D pull distribution

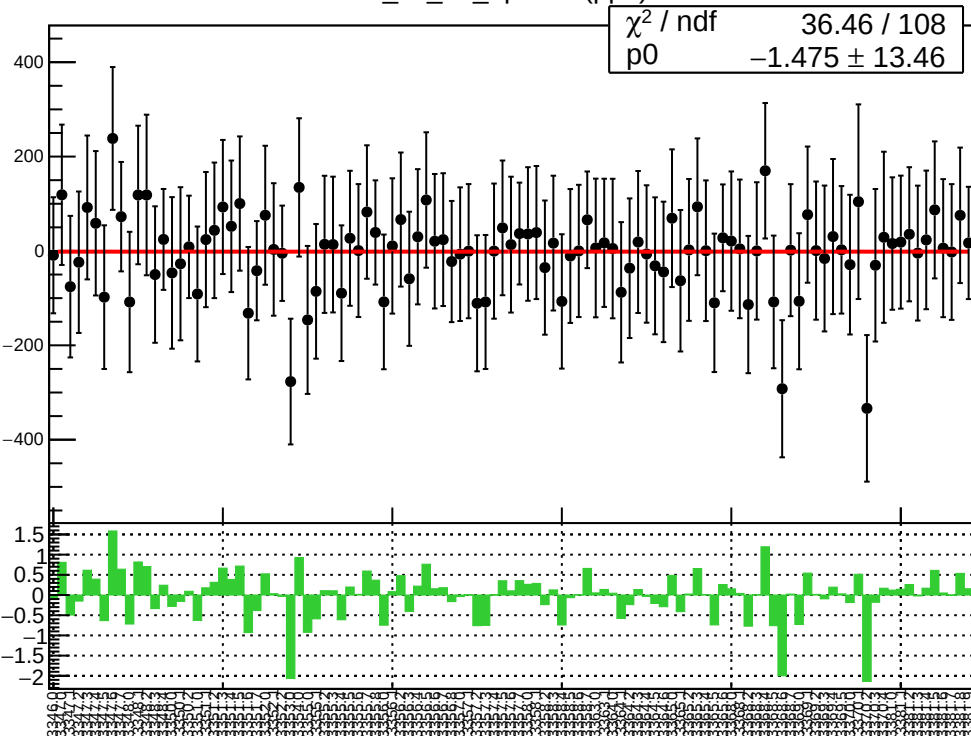


corr\_us\_dd\_bpm1X RMS (ppm)

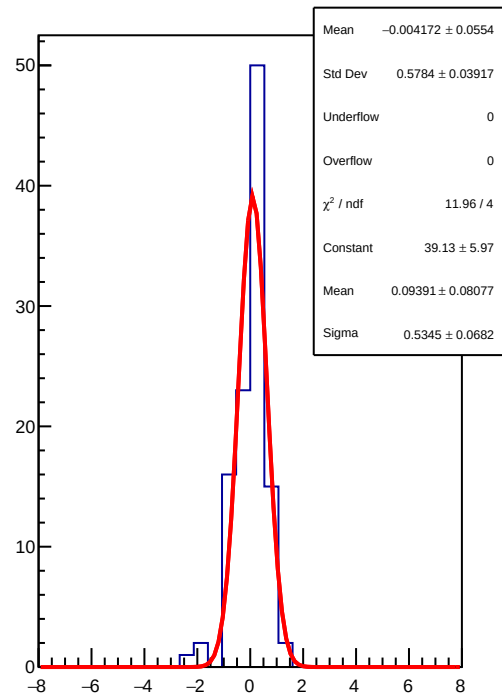




corr\_us\_dd\_bpm1Y (ppb)

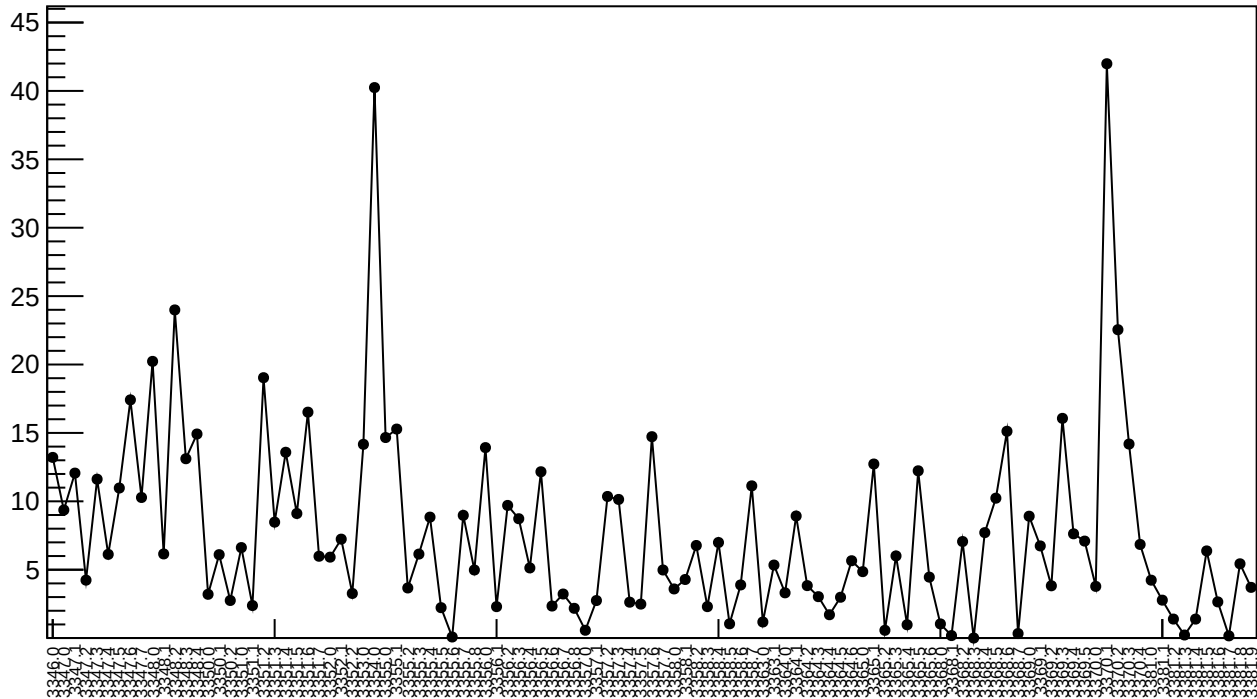


1D pull distribution

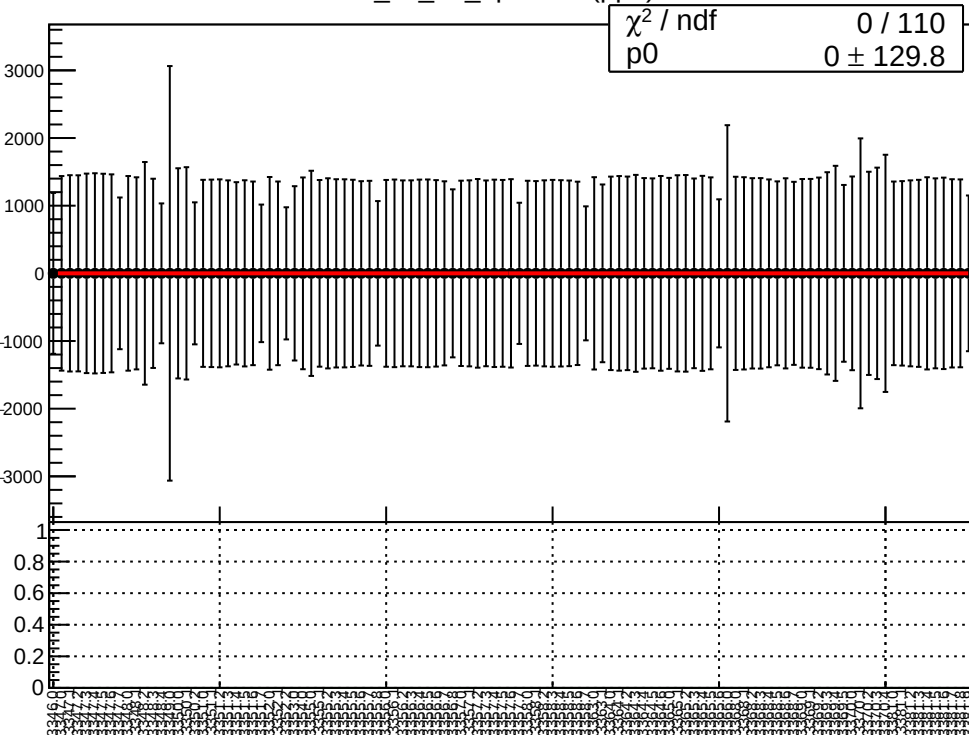


corr\_us\_dd\_bpm1Y RMS (ppm)

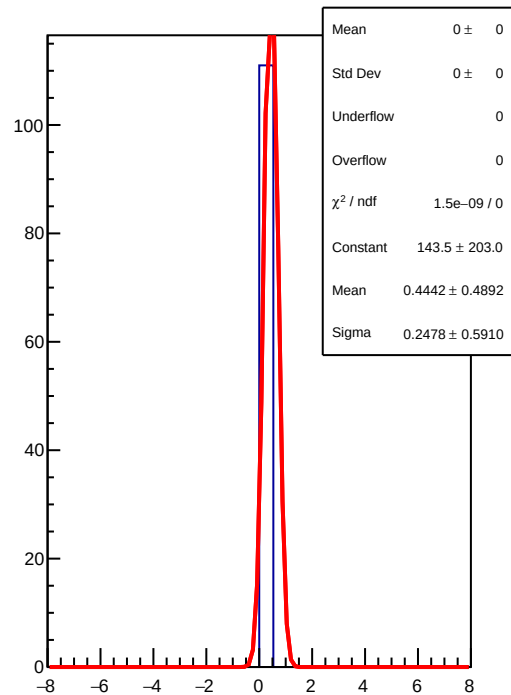
RMS (ppm)



corr\_us\_dd\_bpm16X (ppb)

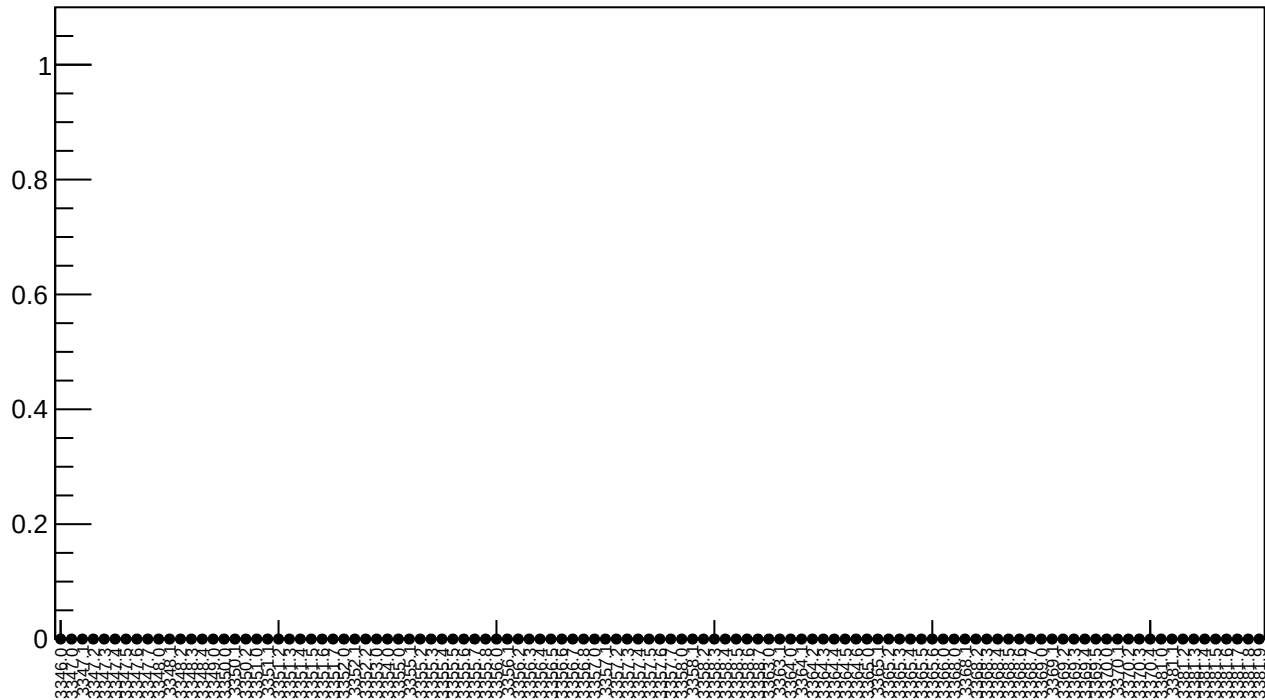


1D pull distribution

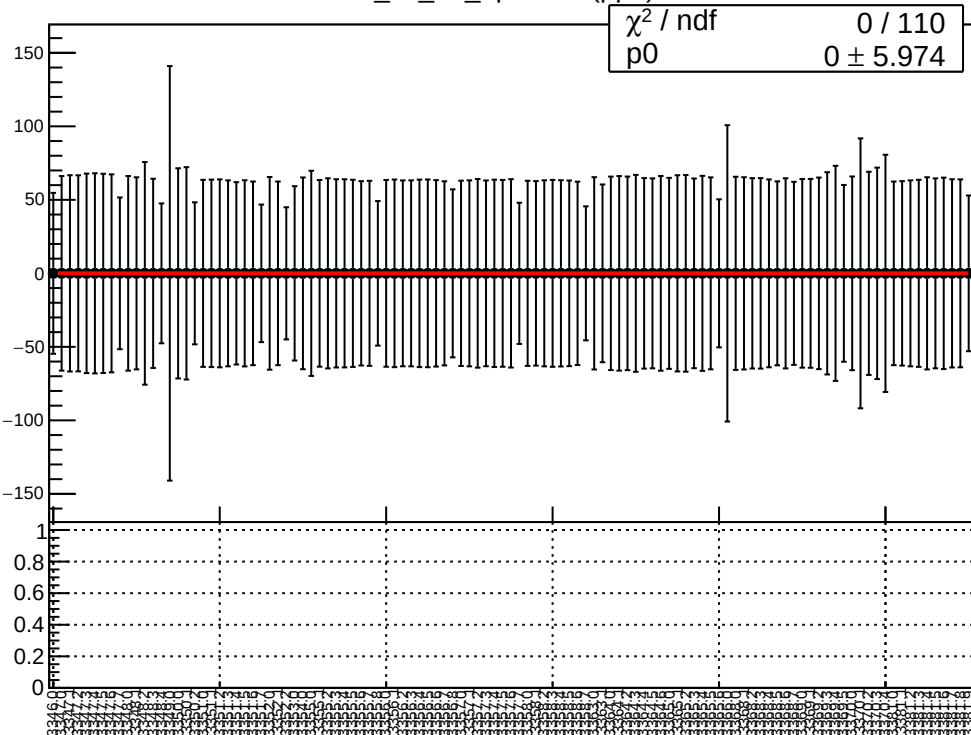


# corr\_us\_dd\_bpm16X RMS (ppm)

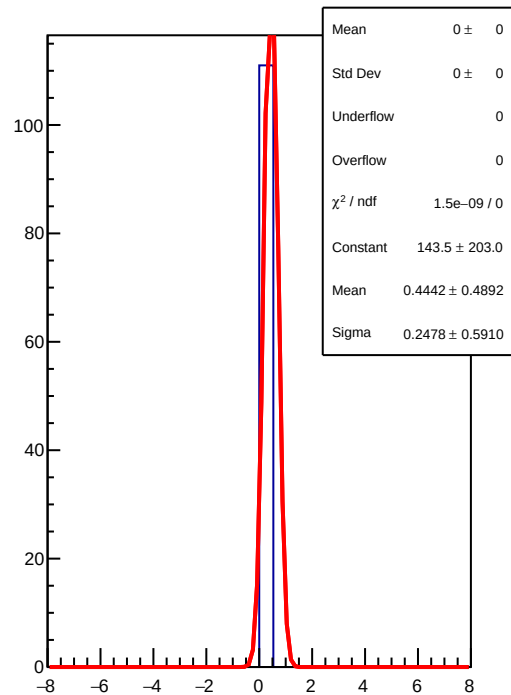
RMS (ppm)



corr\_us\_dd\_bpm16Y (ppb)

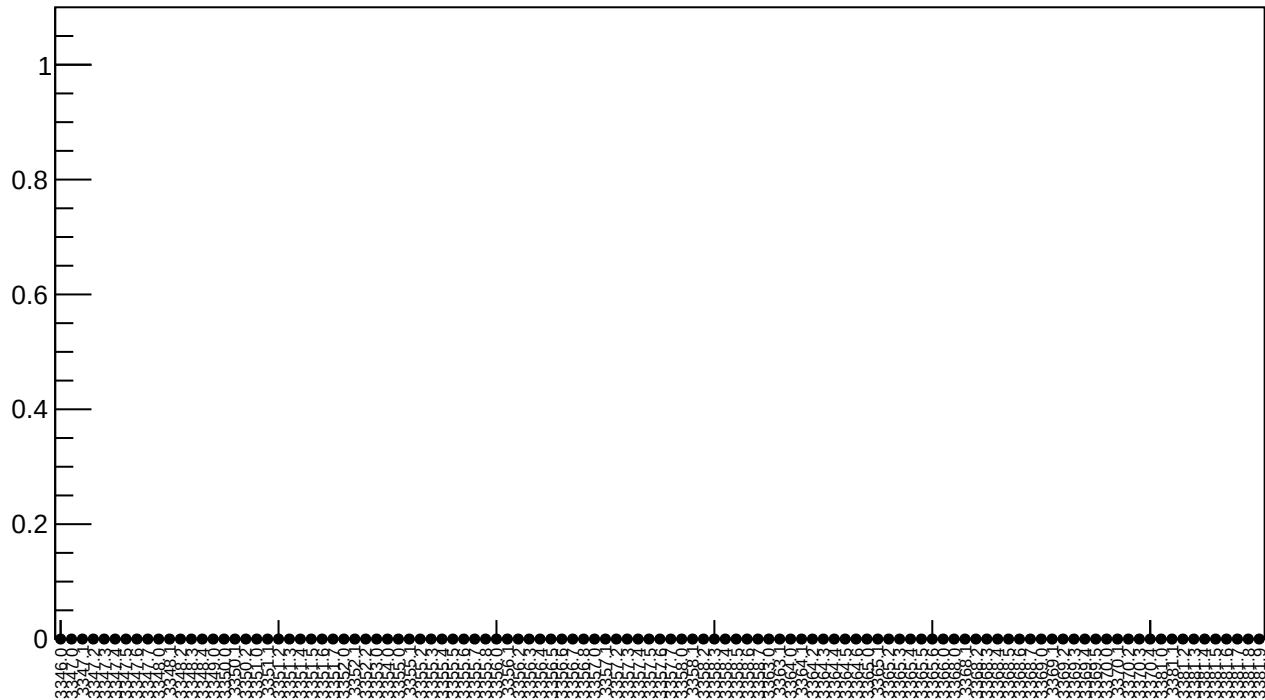


1D pull distribution



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

RMS (ppm)

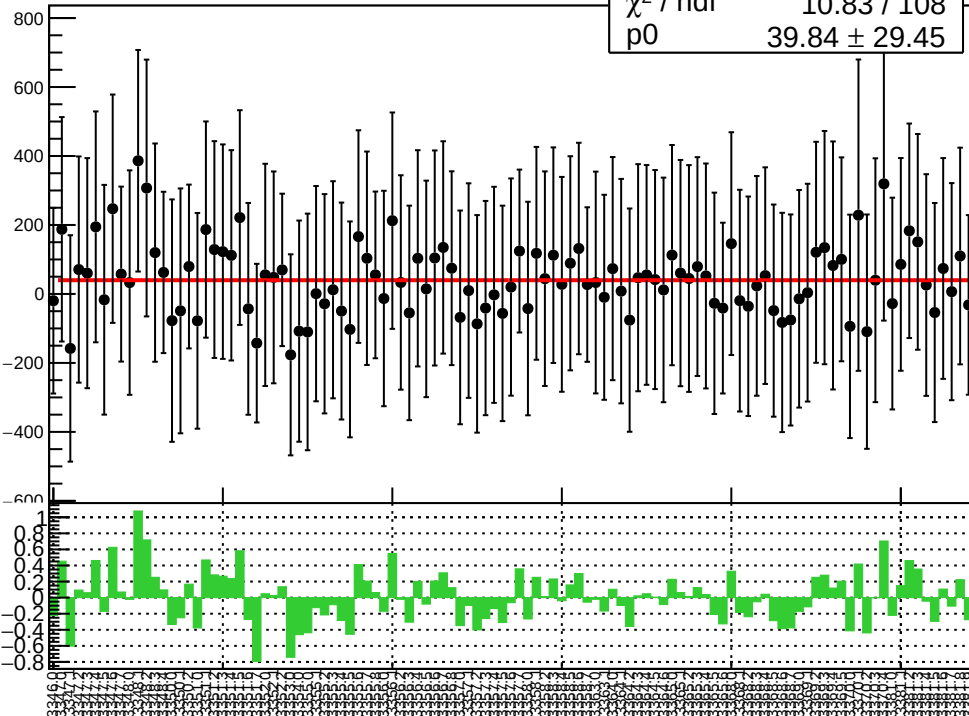


corr\_us\_dd\_bpm12X (ppb)

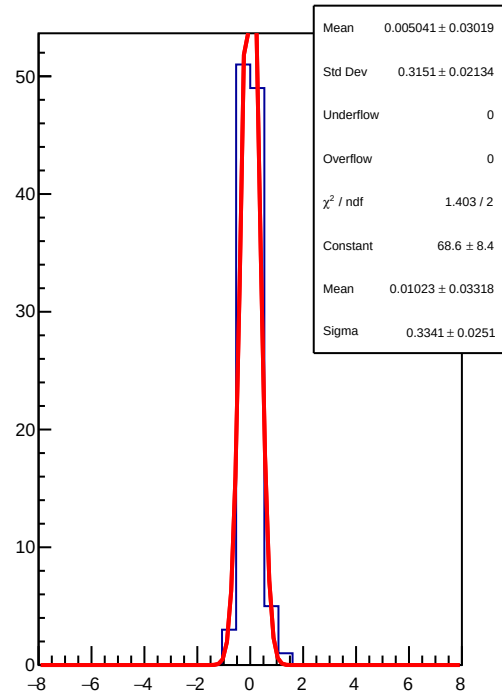
 $\chi^2 / \text{ndf}$ 

10.83 / 108

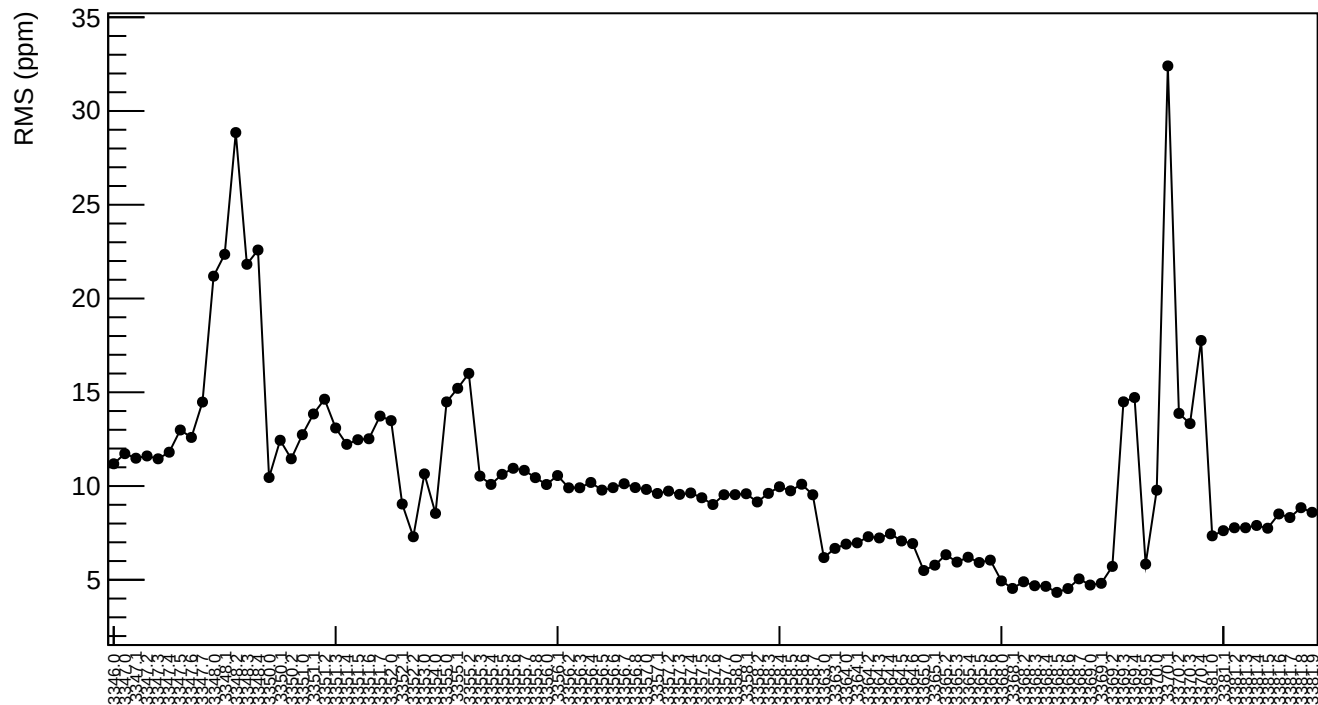
p0

 $39.84 \pm 29.45$ 

1D pull distribution

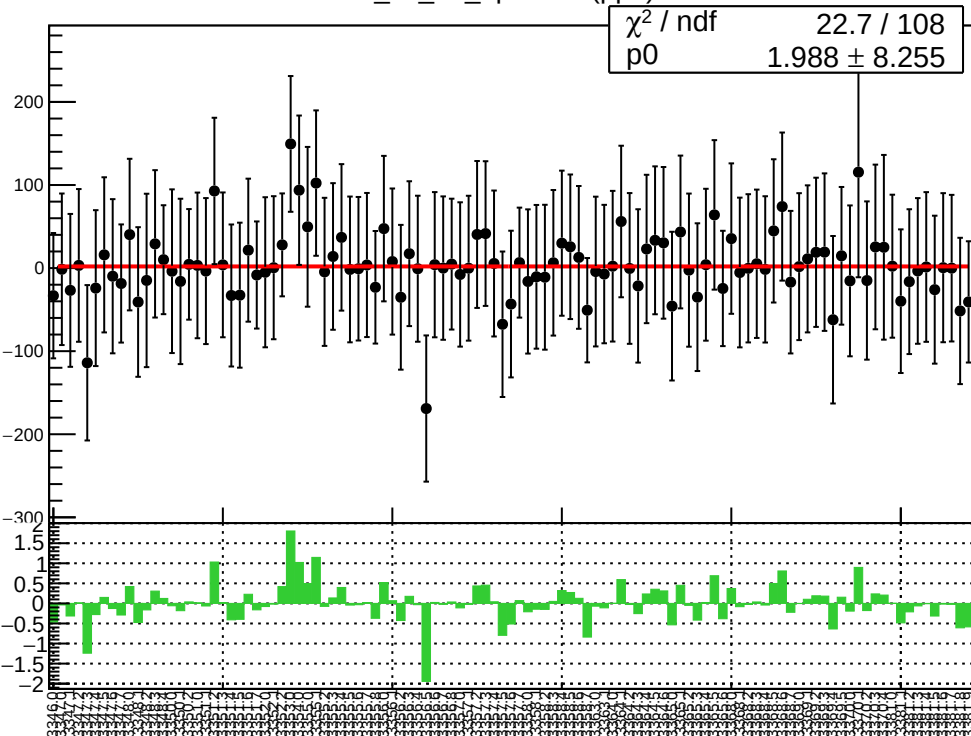


corr\_us\_dd\_bpm12X RMS (ppm)

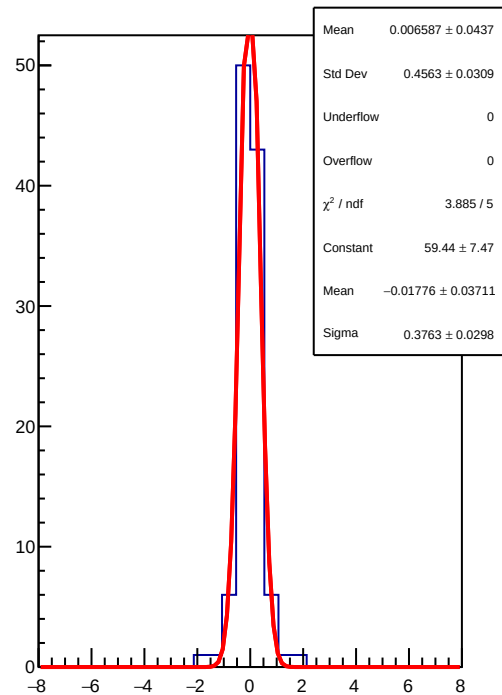




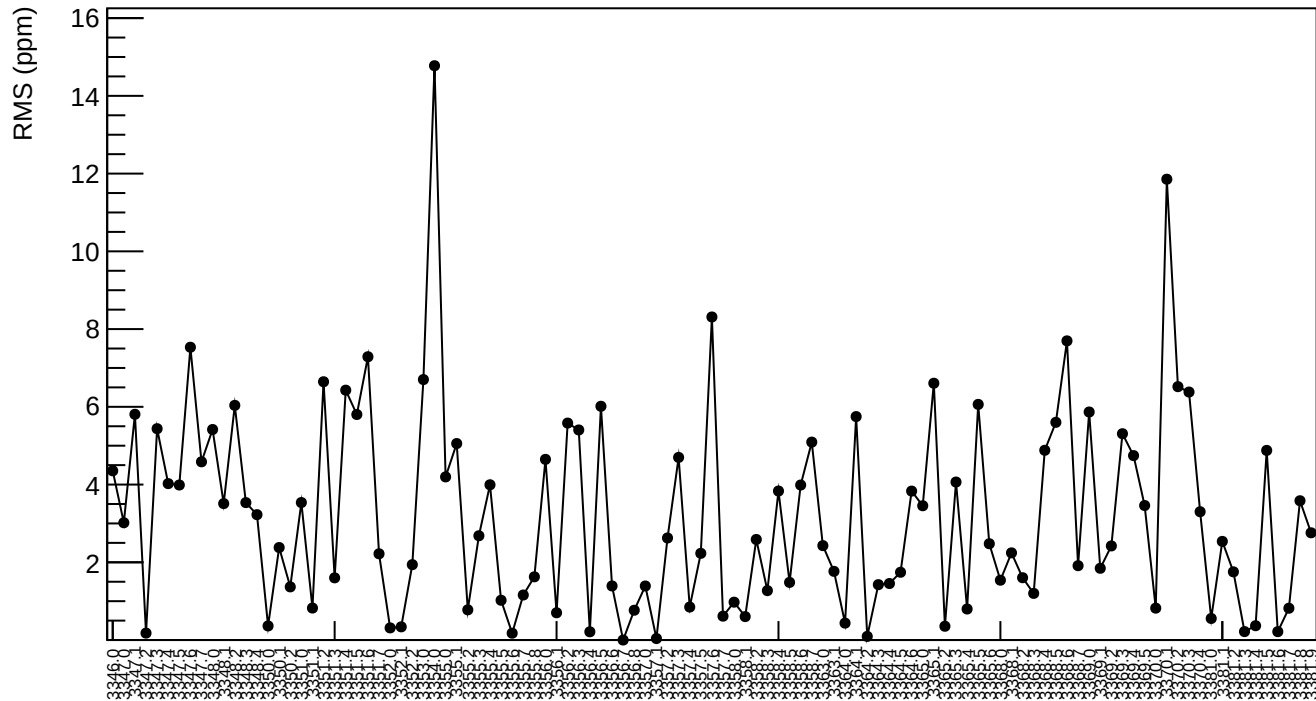
corr\_us\_dd\_bpm12Y (ppb)



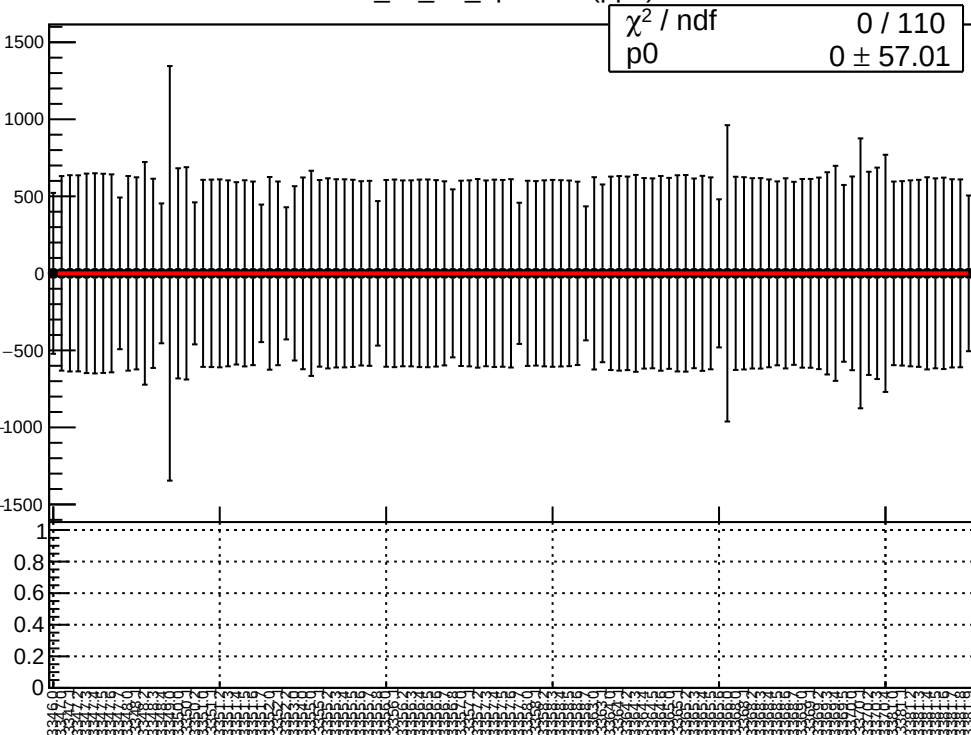
1D pull distribution



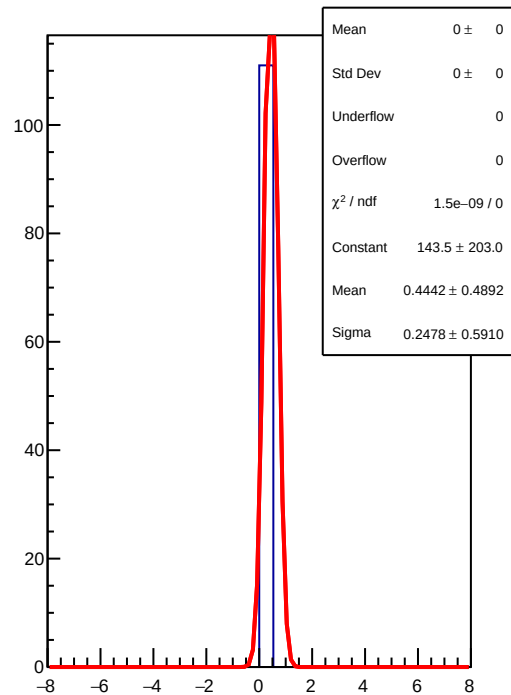
corr\_us\_dd\_bpm12Y RMS (ppm)



corr\_us\_dd\_bpm11X (ppb)

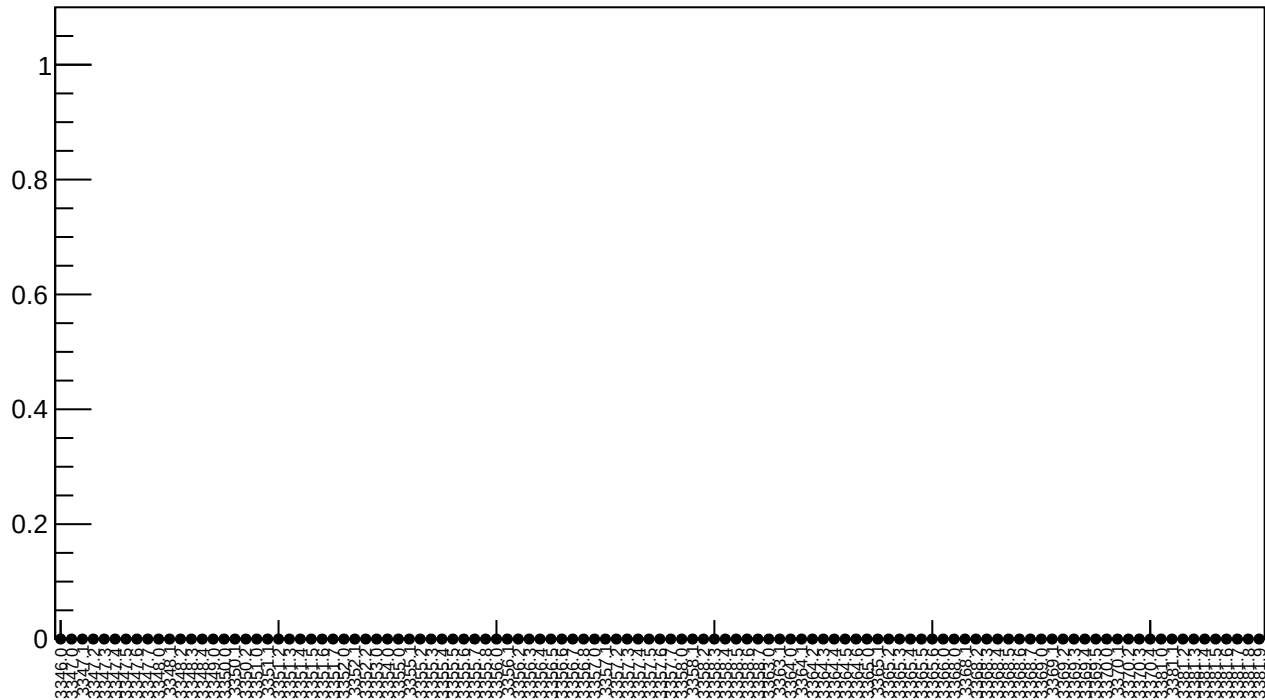


1D pull distribution

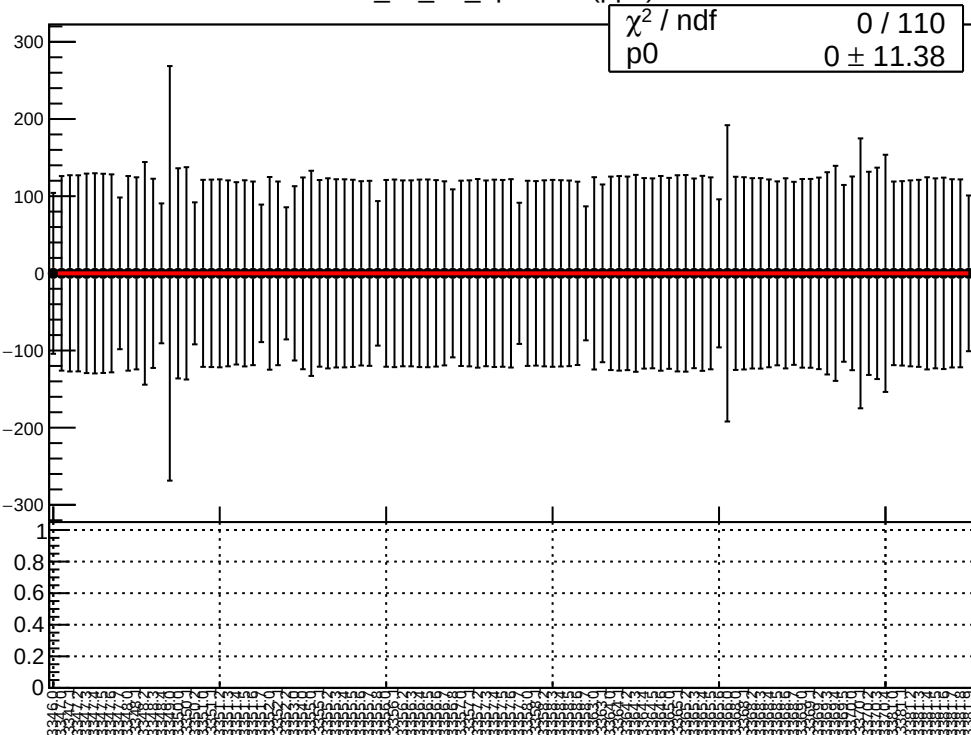


# corr\_us\_dd\_bpm11X RMS (ppm)

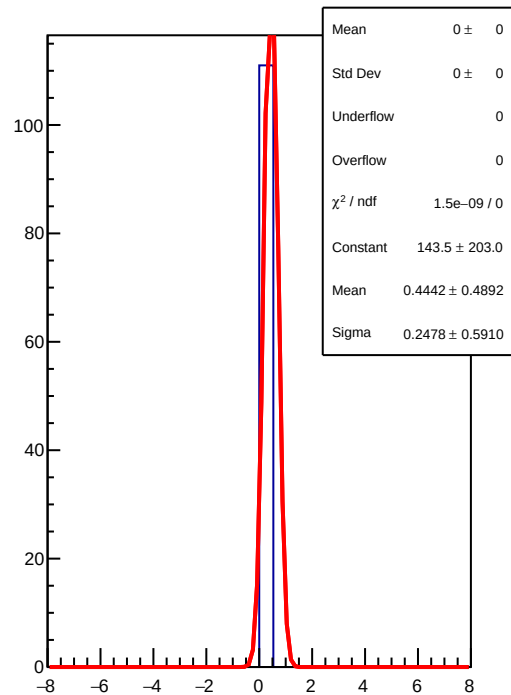
RMS (ppm)



corr\_us\_dd\_bpm11Y (ppb)

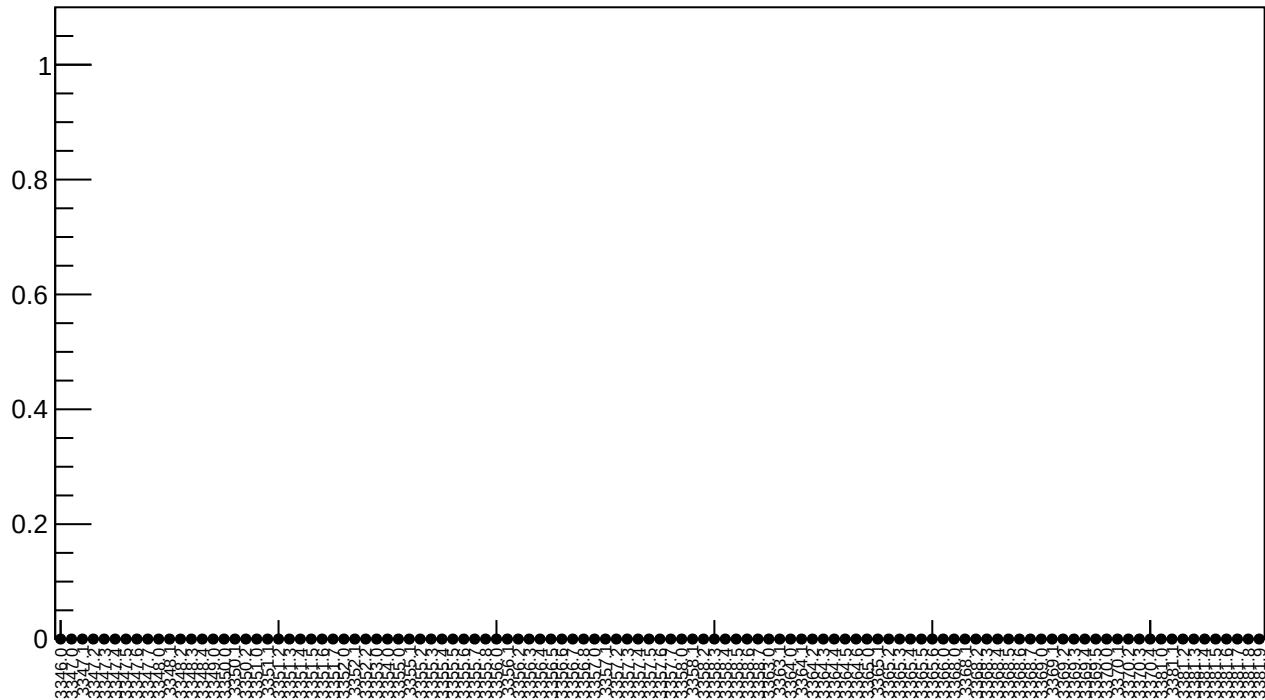


1D pull distribution

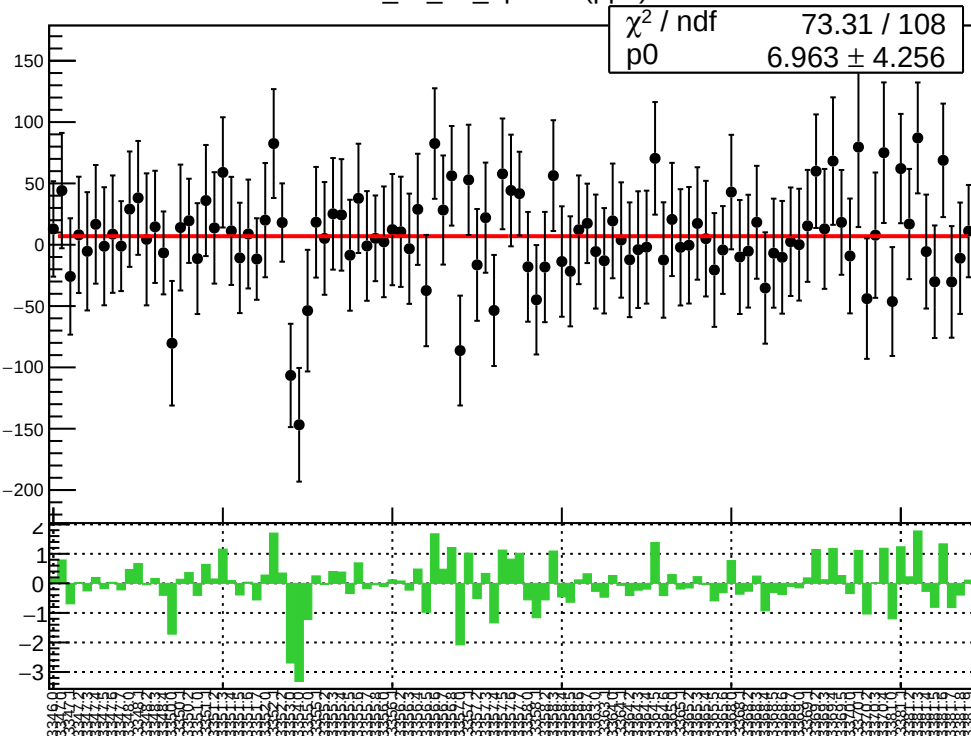


corr\_us\_dd\_bpm11Y RMS (ppm)

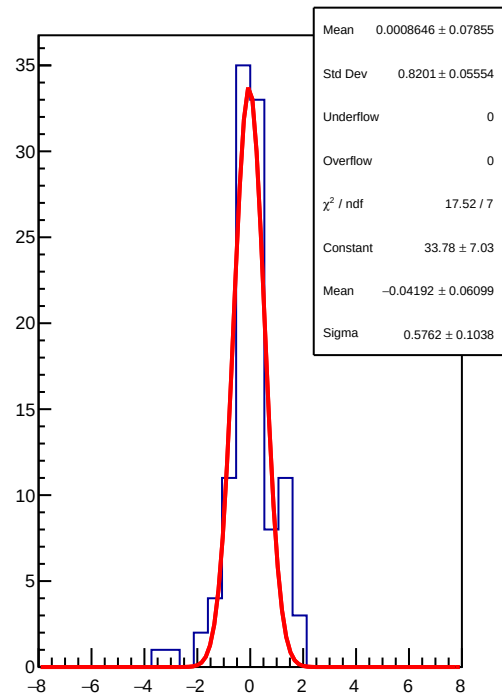
RMS (ppm)



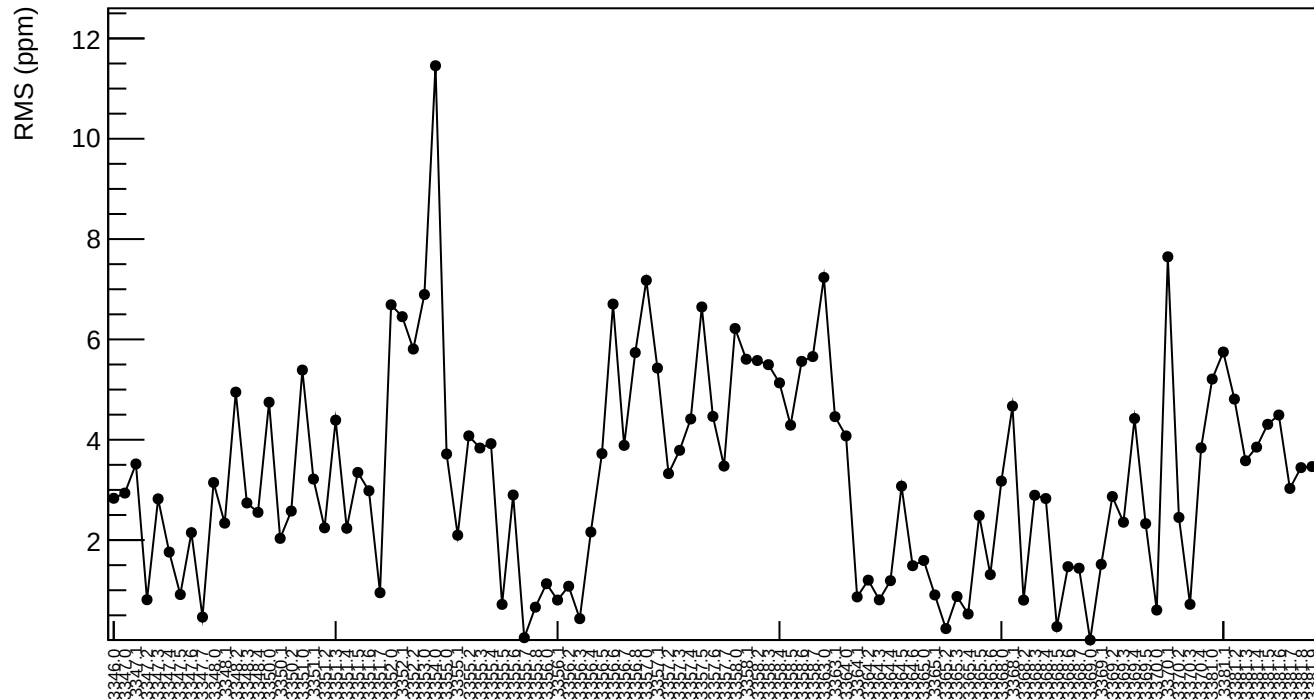
corr\_us\_dd\_bpm8X (ppb)



1D pull distribution

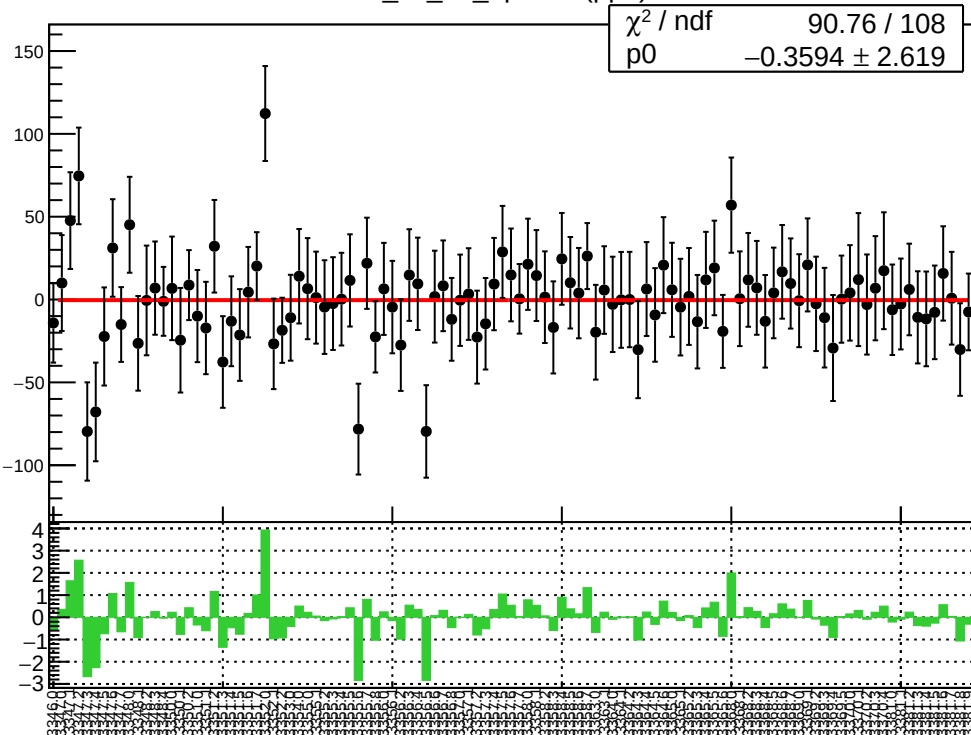


corr\_us\_dd\_bpm8X RMS (ppm)

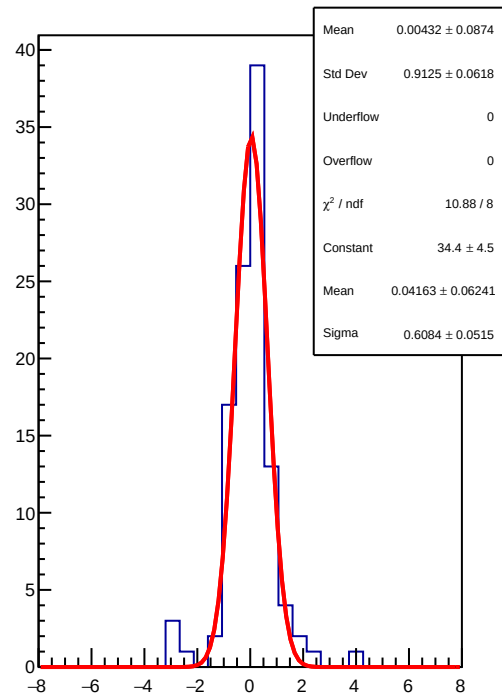




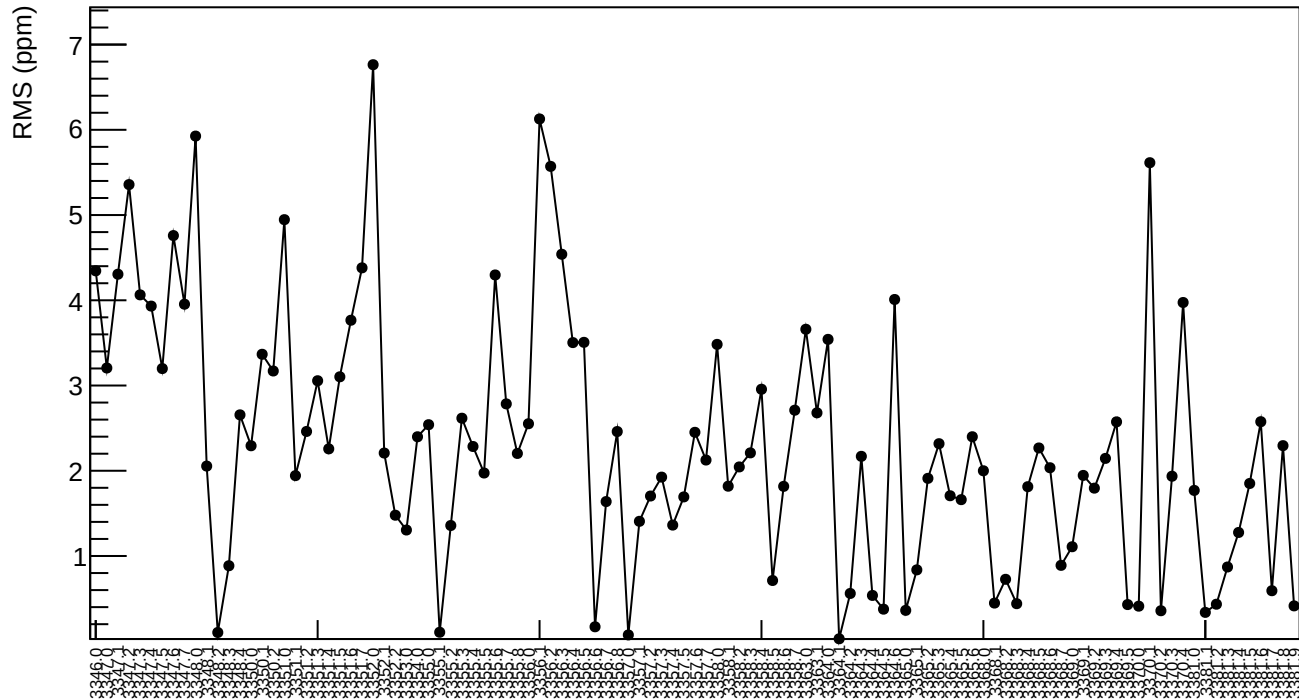
corr\_us\_dd\_bpm8Y (ppb)



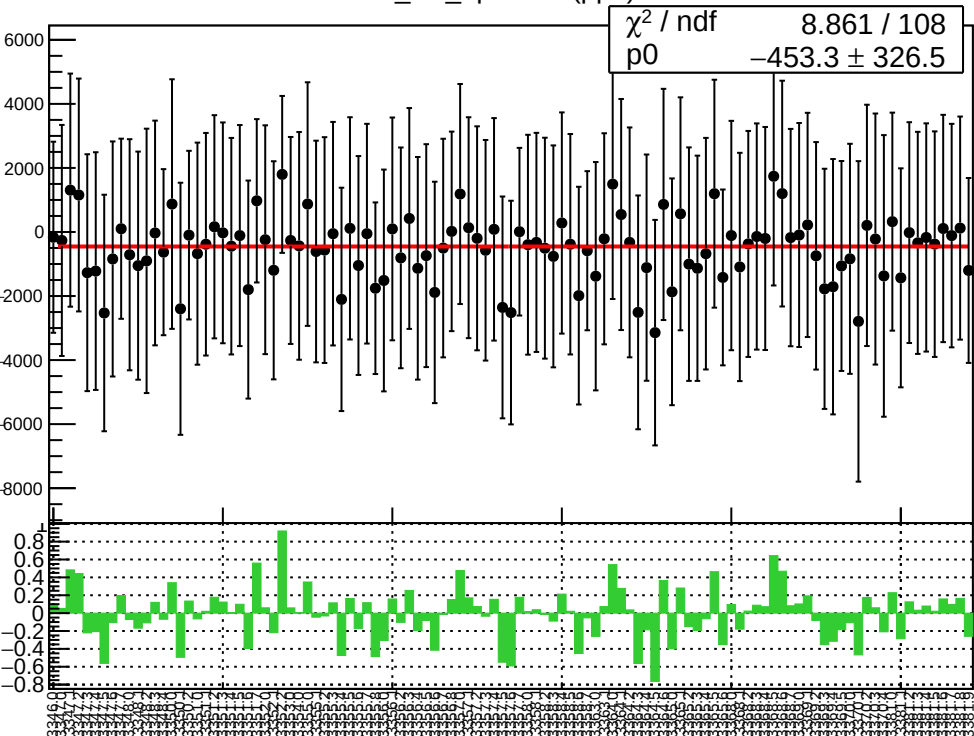
1D pull distribution



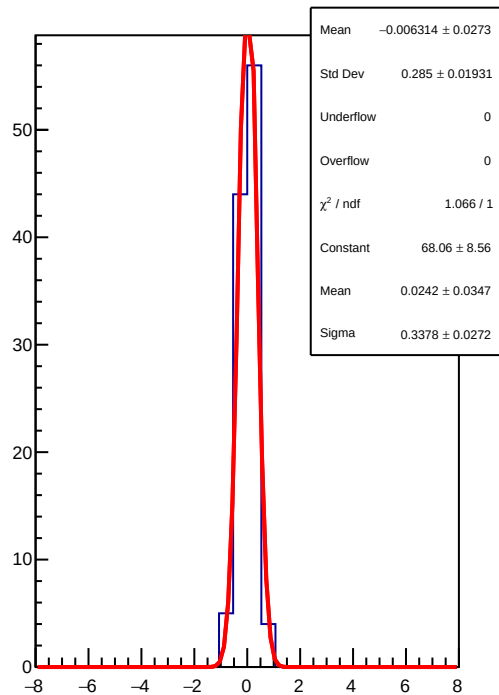
corr\_us\_dd\_bpm8Y RMS (ppm)



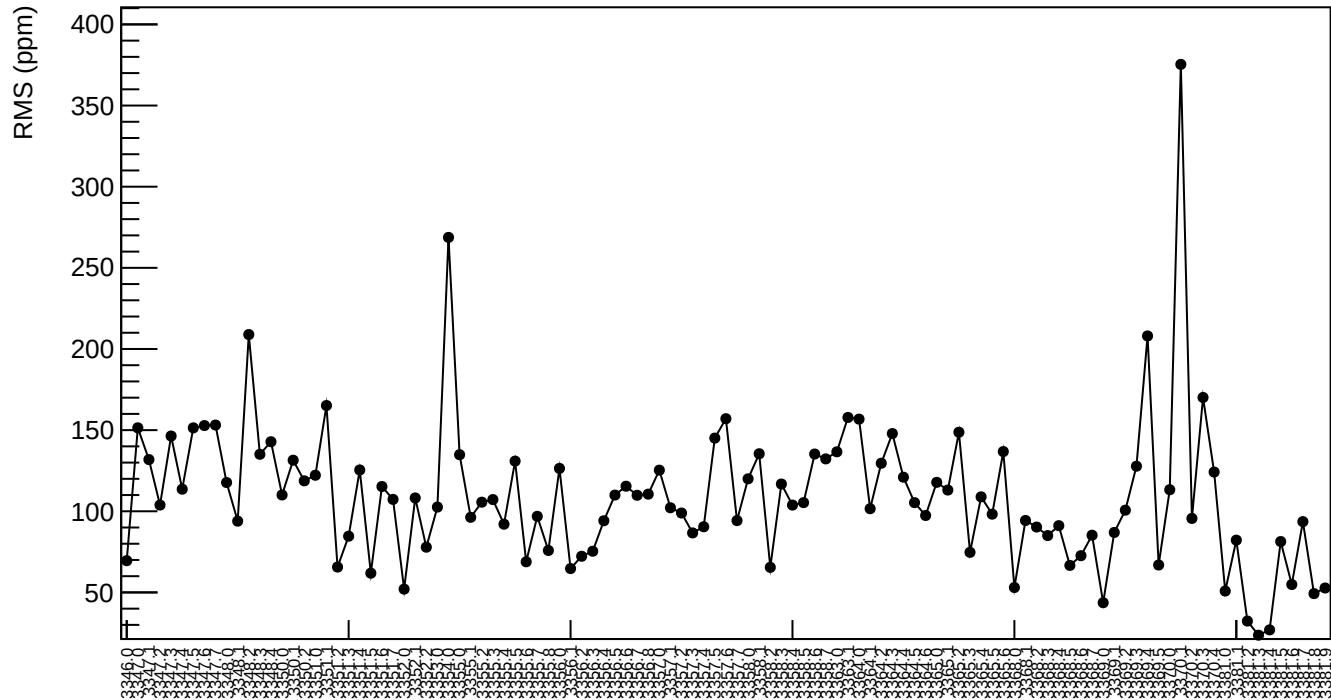
corr\_usl\_bpm4eX (ppb)



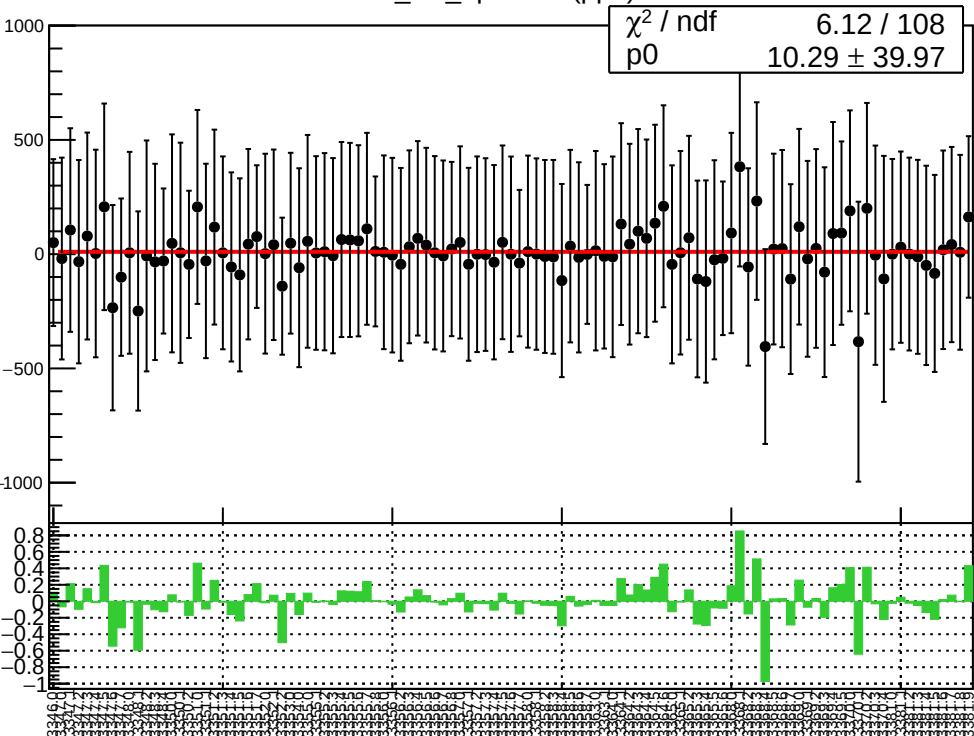
1D pull distribution



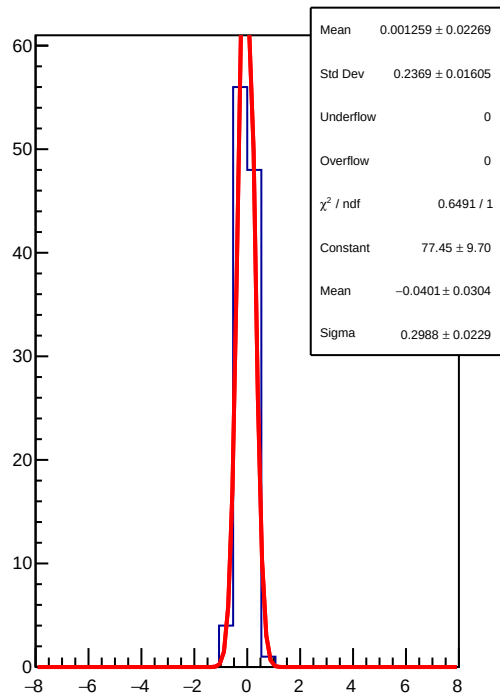
corr\_usl\_bpm4eX RMS (ppm)



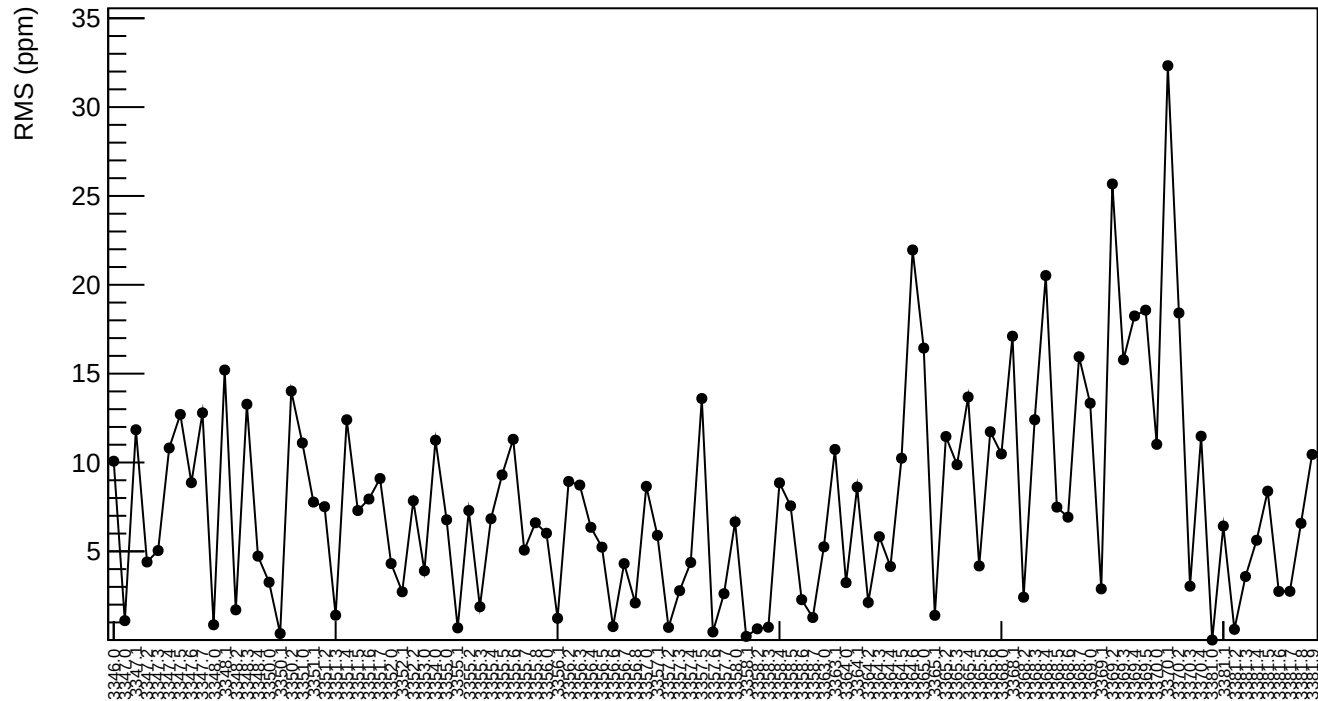
corr\_usl\_bpm4eY (ppb)



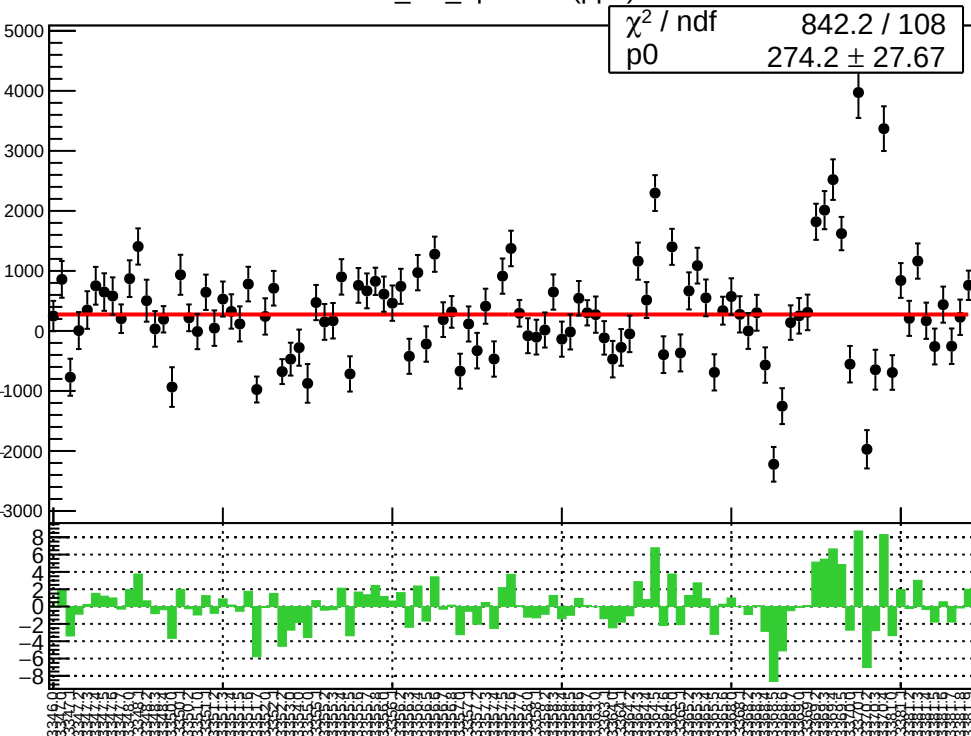
1D pull distribution



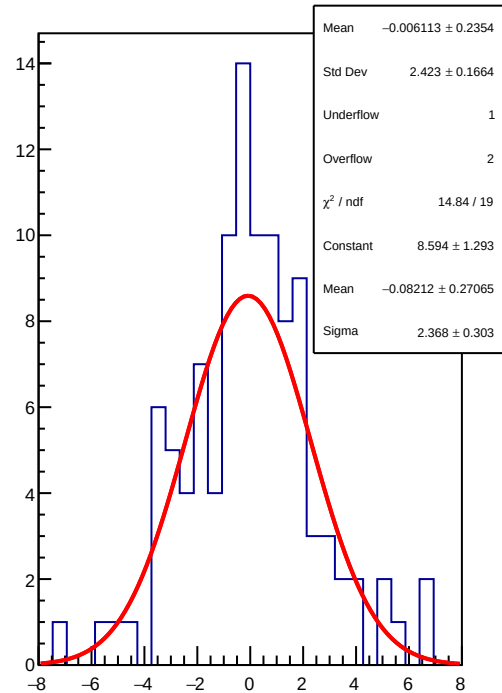
corr\_usl\_bpm4eY RMS (ppm)



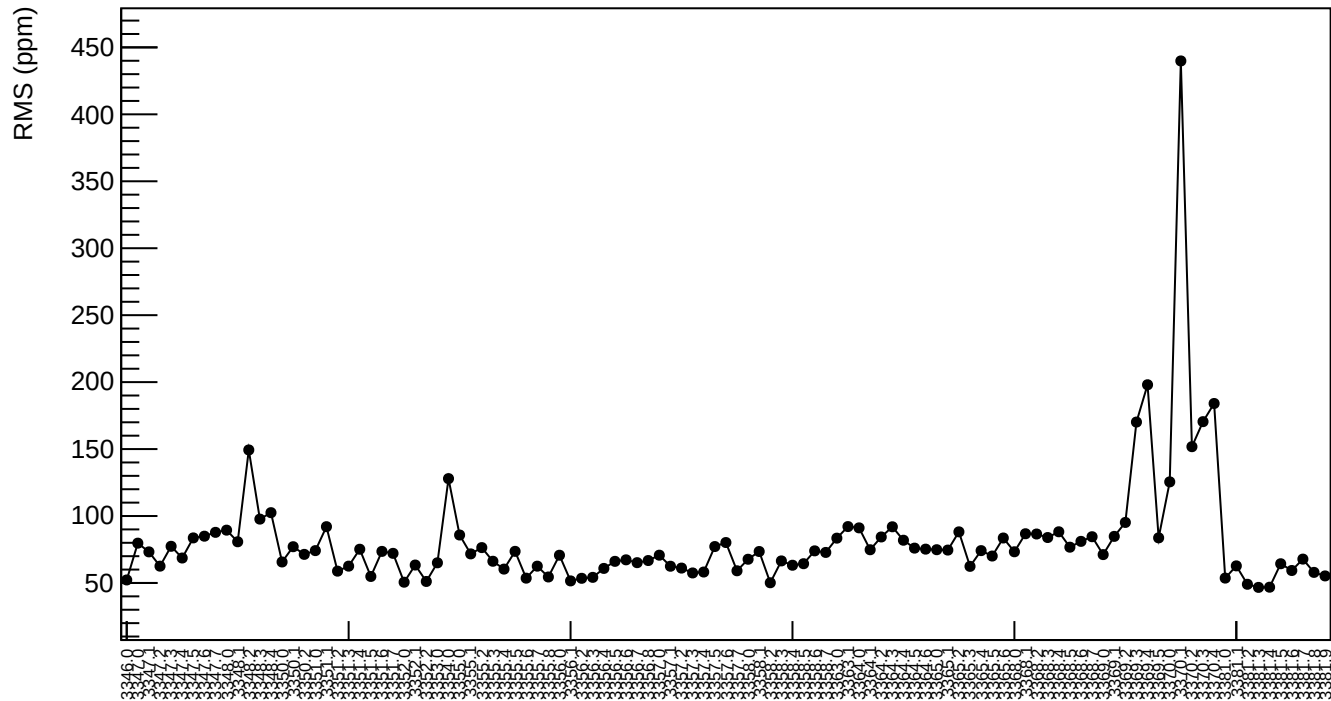
corr\_usl\_bpm4aX (ppb)



1D pull distribution

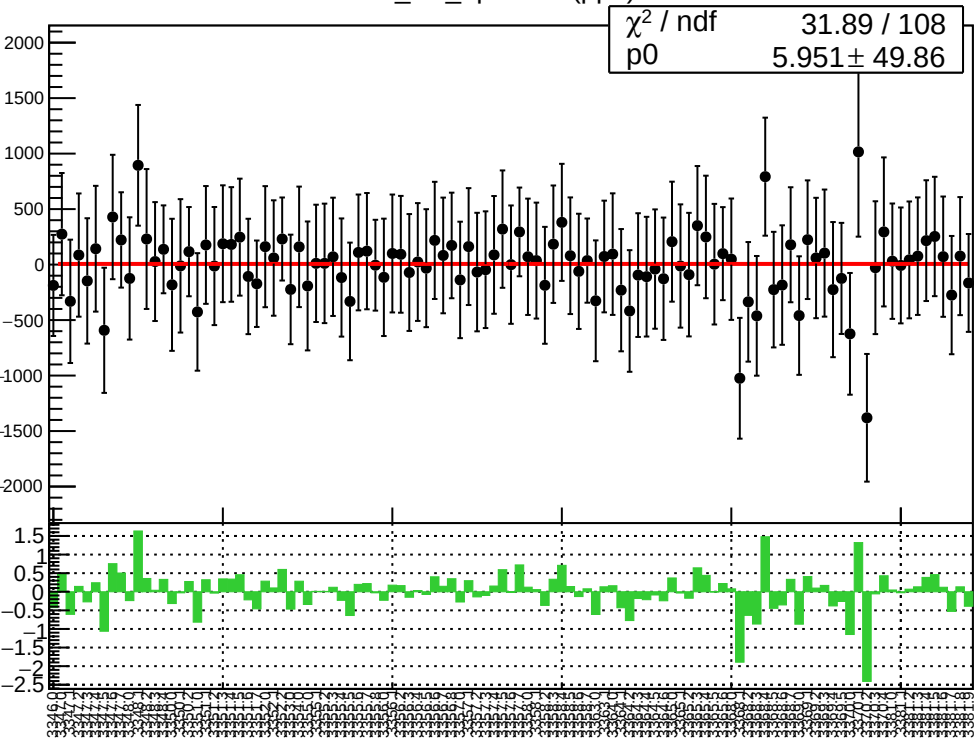


corr\_usl\_bpm4aX RMS (ppm)

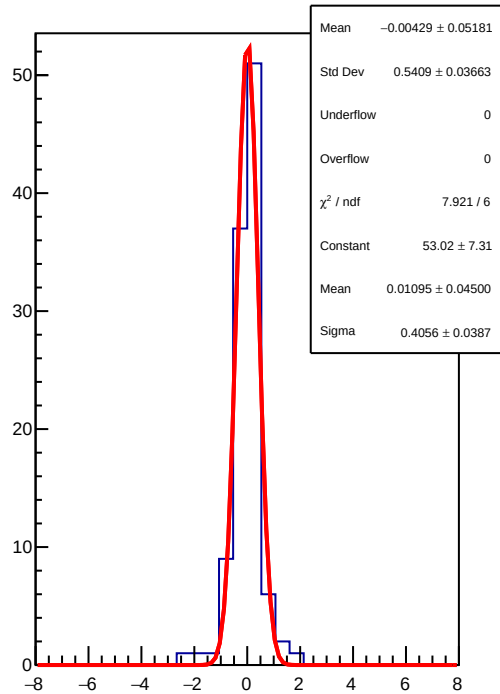




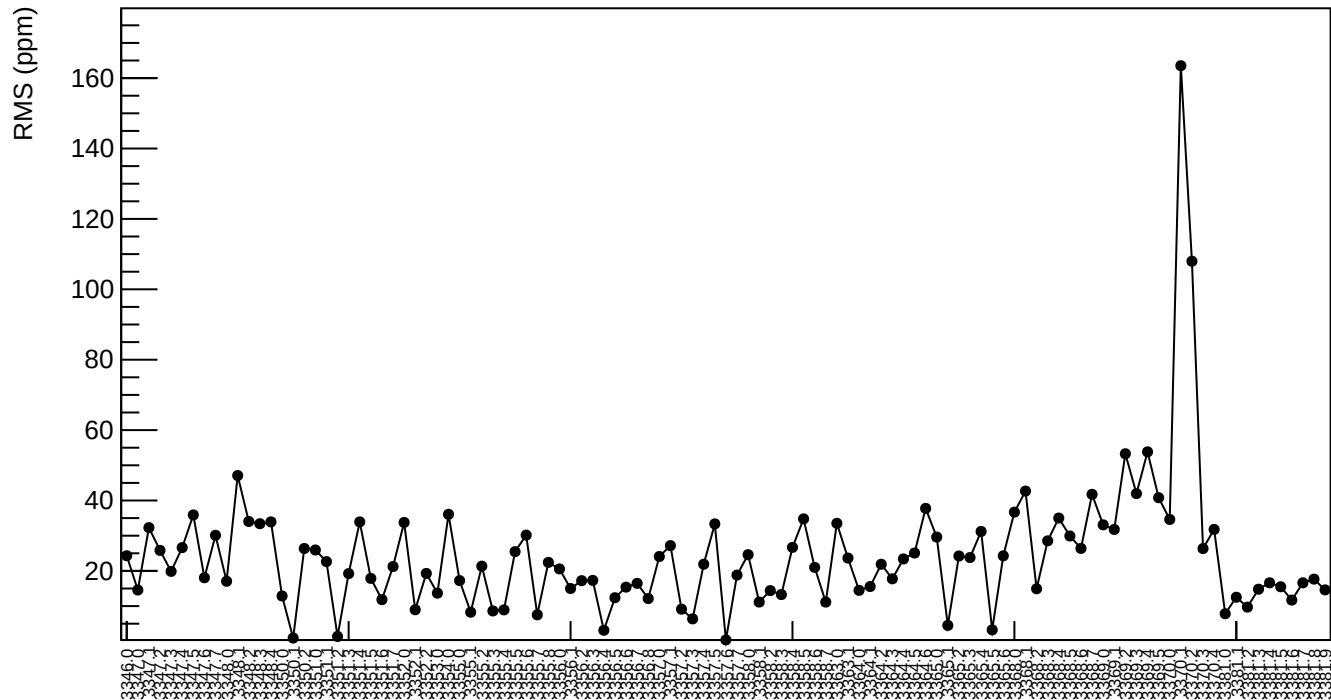
corr\_usl\_bpm4aY (ppb)



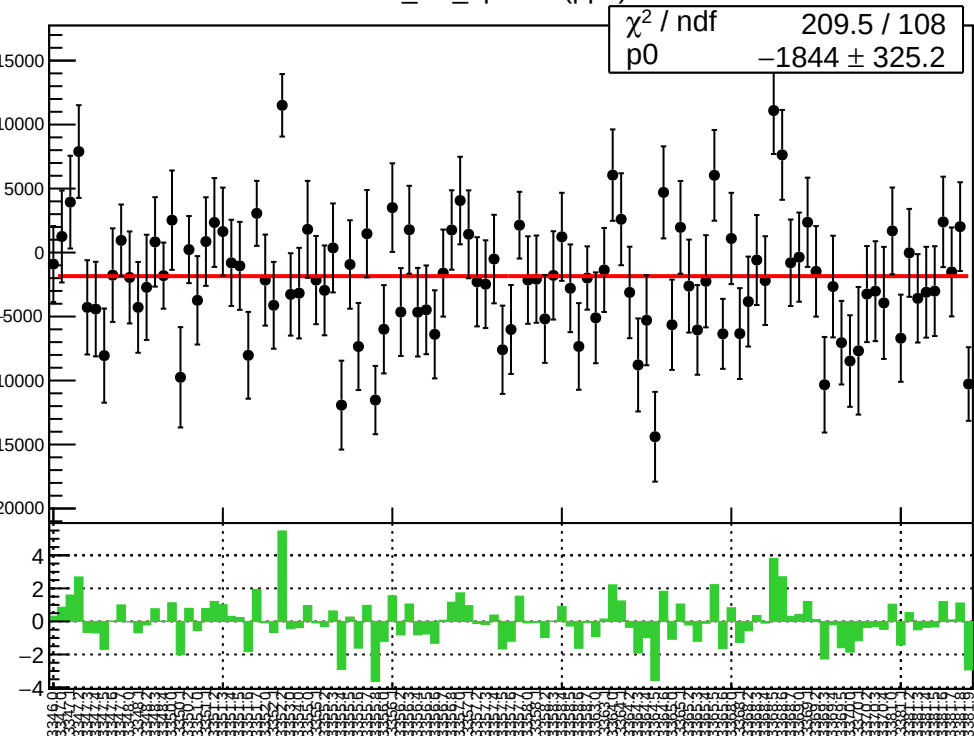
1D pull distribution



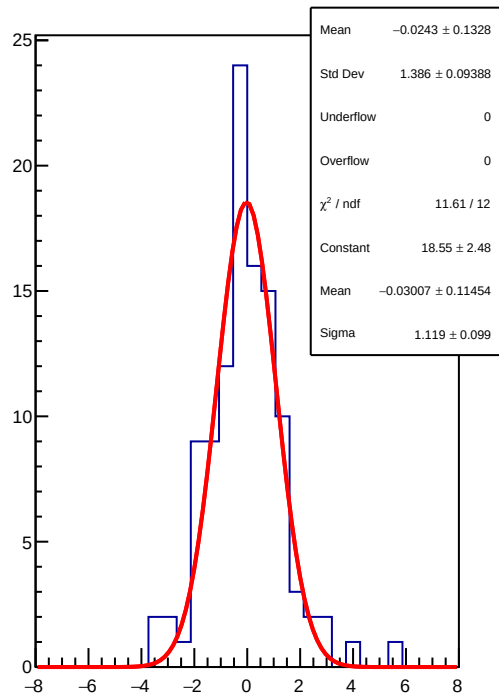
corr\_usl\_bpm4aY RMS (ppm)



corr\_usl\_bpm1X (ppb)



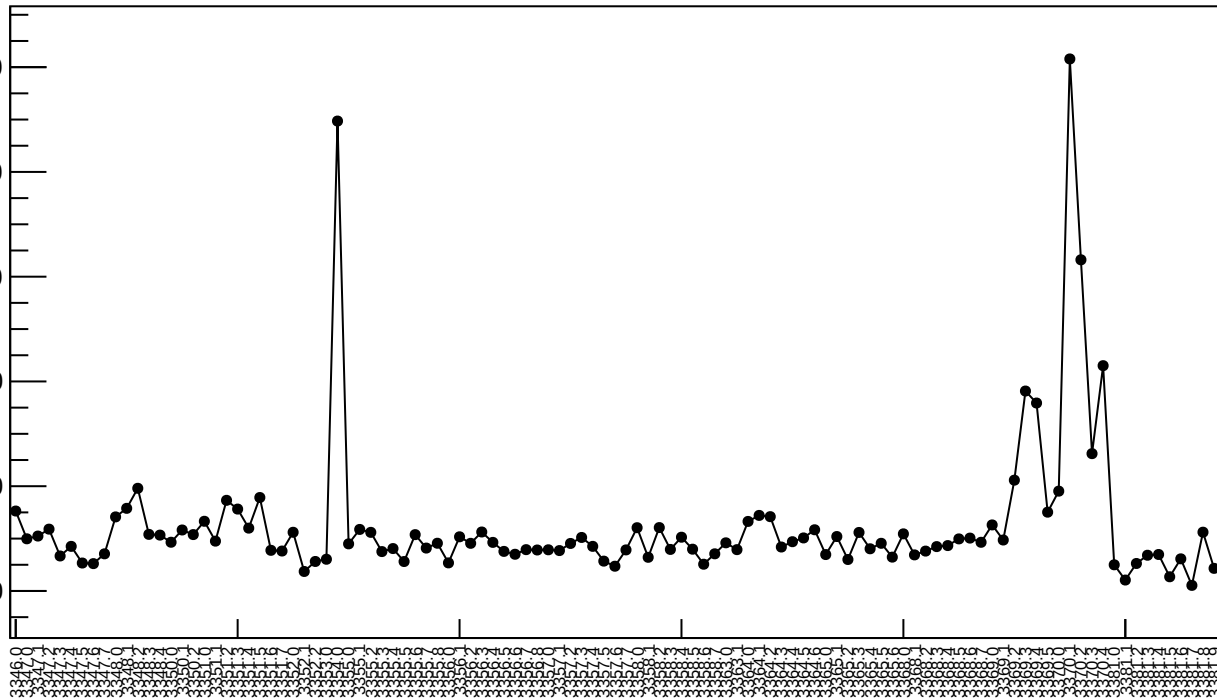
1D pull distribution



corr\_usl\_bpm1X RMS (ppm)

RMS (ppm)

1400  
1200  
1000  
800  
600  
400

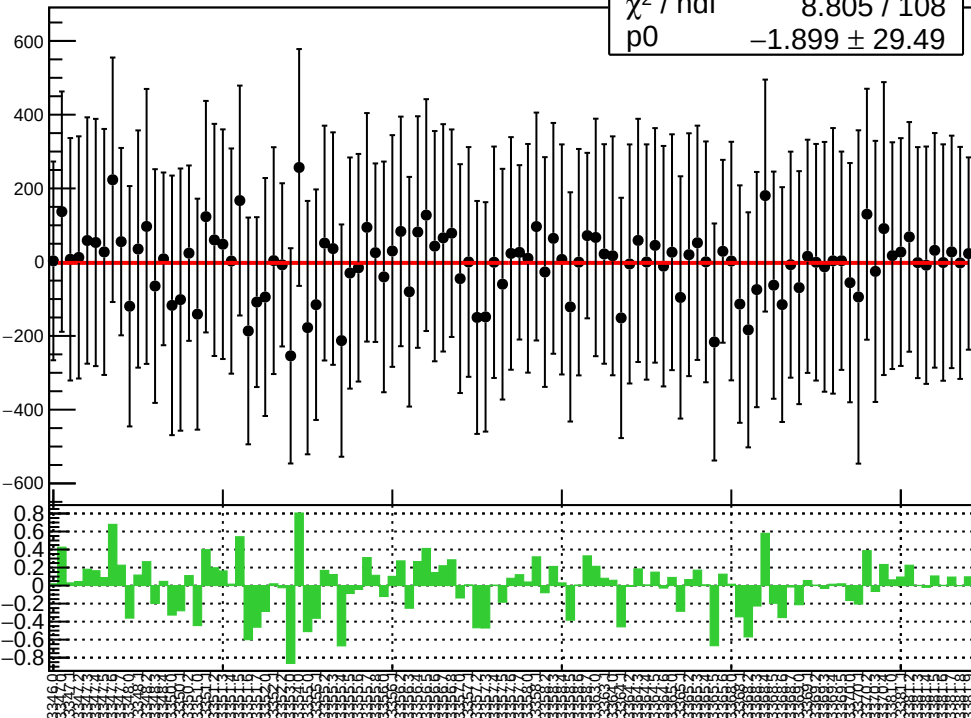


corr\_usl\_bpm1Y (ppb)

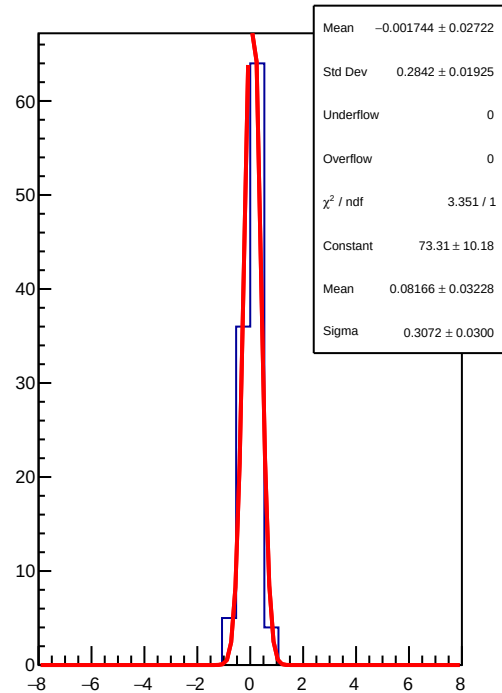
 $\chi^2 / \text{ndf}$ 

8.805 / 108

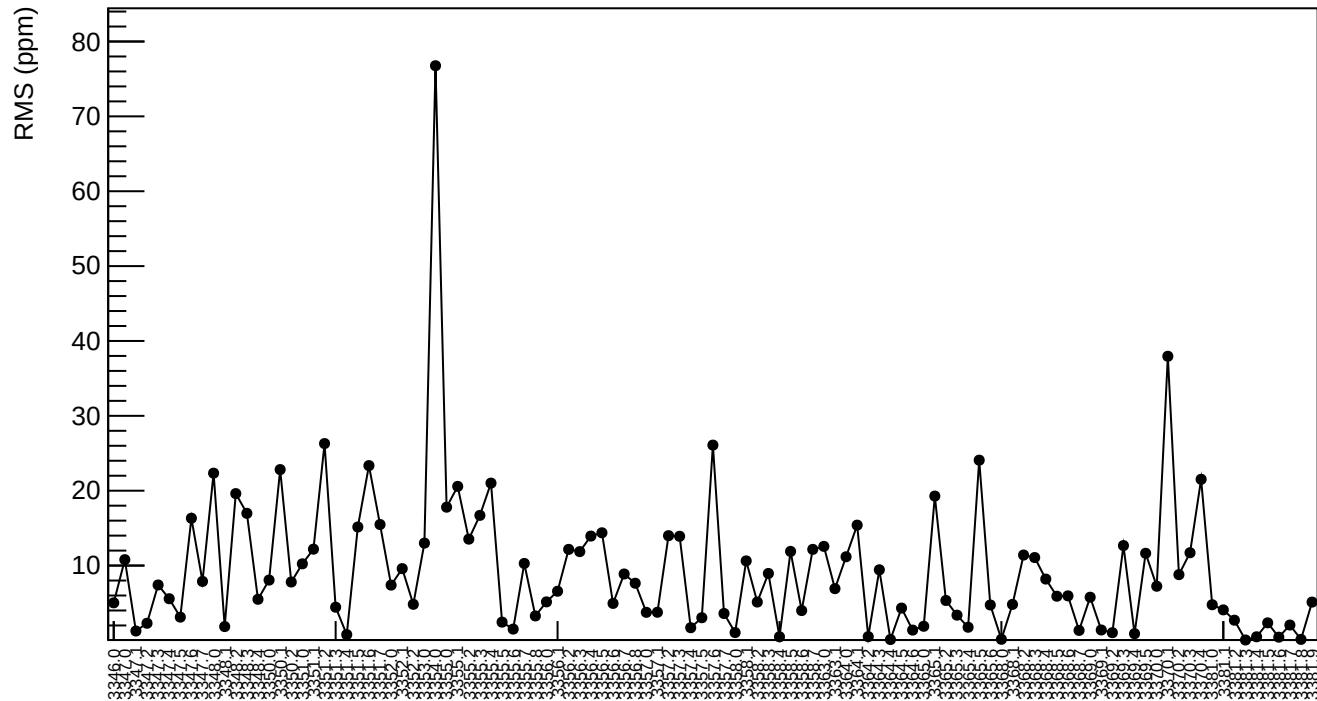
p0

 $-1.899 \pm 29.49$ 

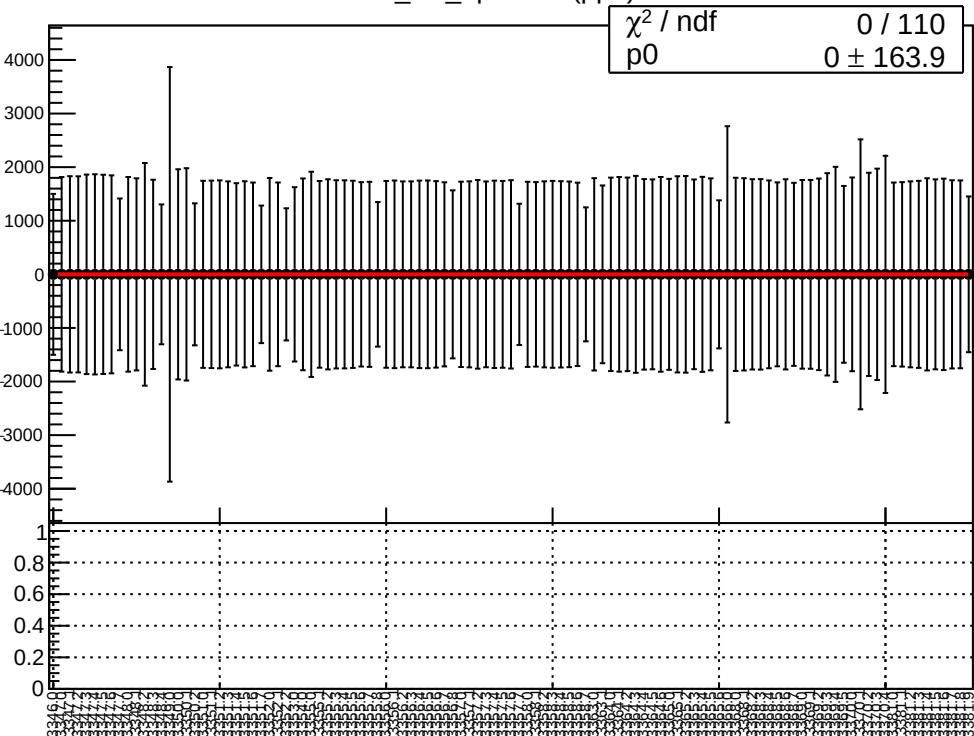
1D pull distribution



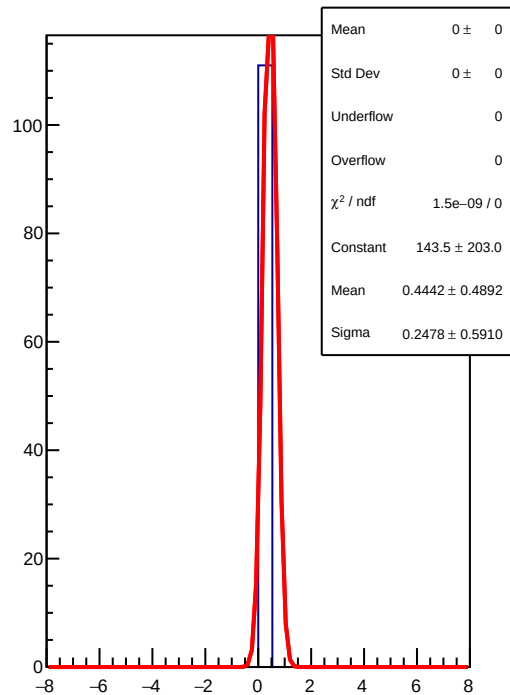
corr\_usl\_bpm1Y RMS (ppm)



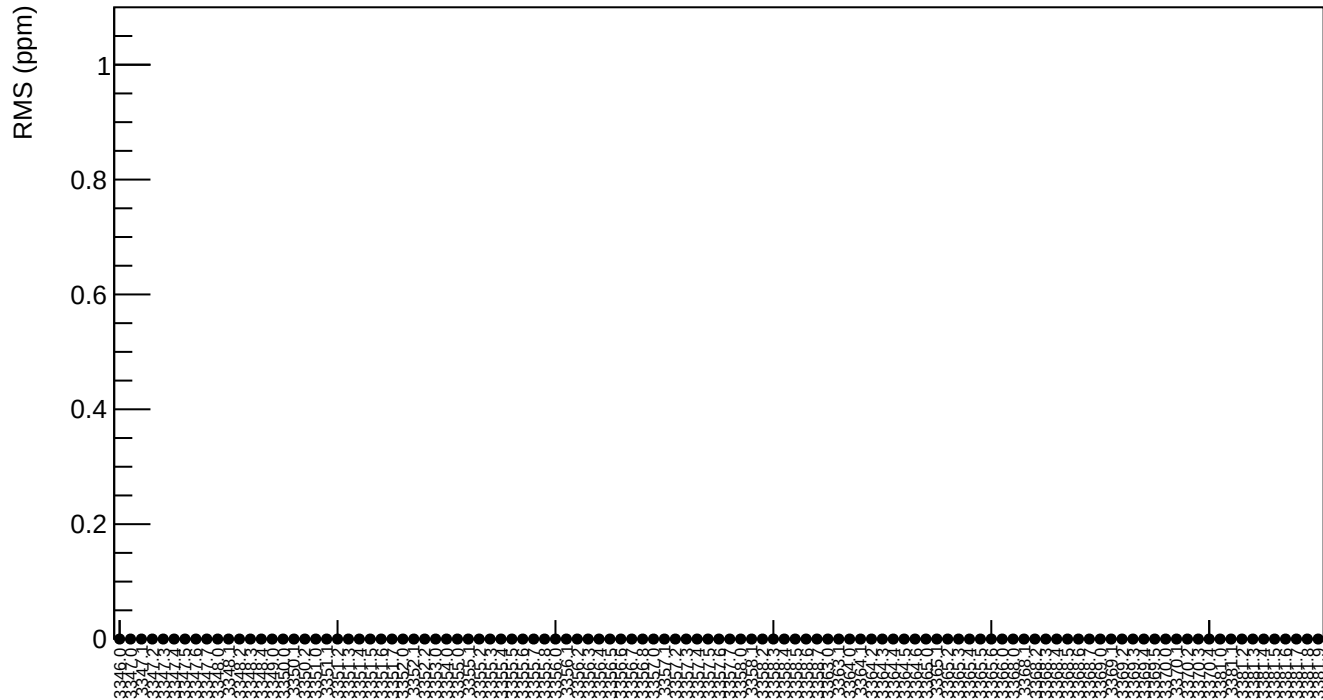
corr\_usl\_bpm16X (ppb)



1D pull distribution

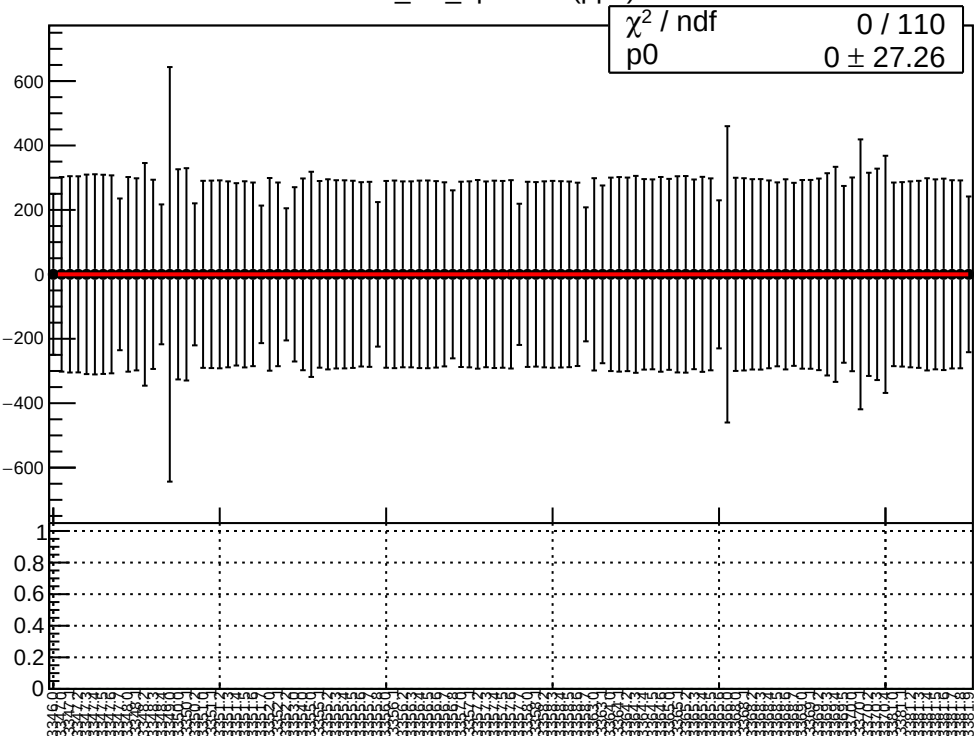


corr\_usl\_bpm16X RMS (ppm)

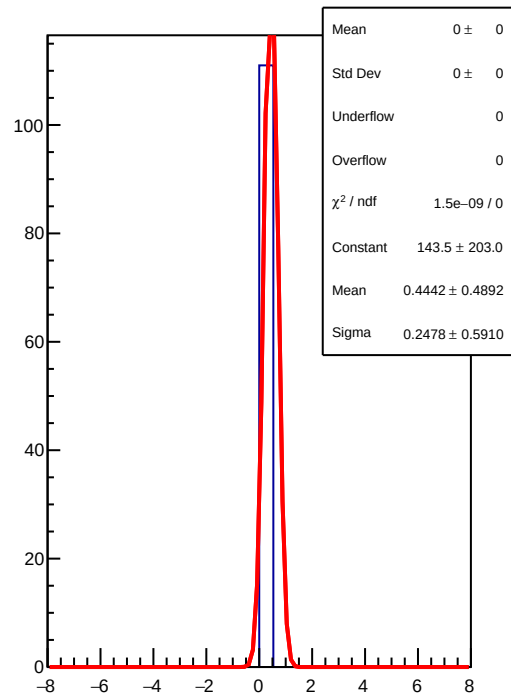




corr\_usl\_bpm16Y (ppb)

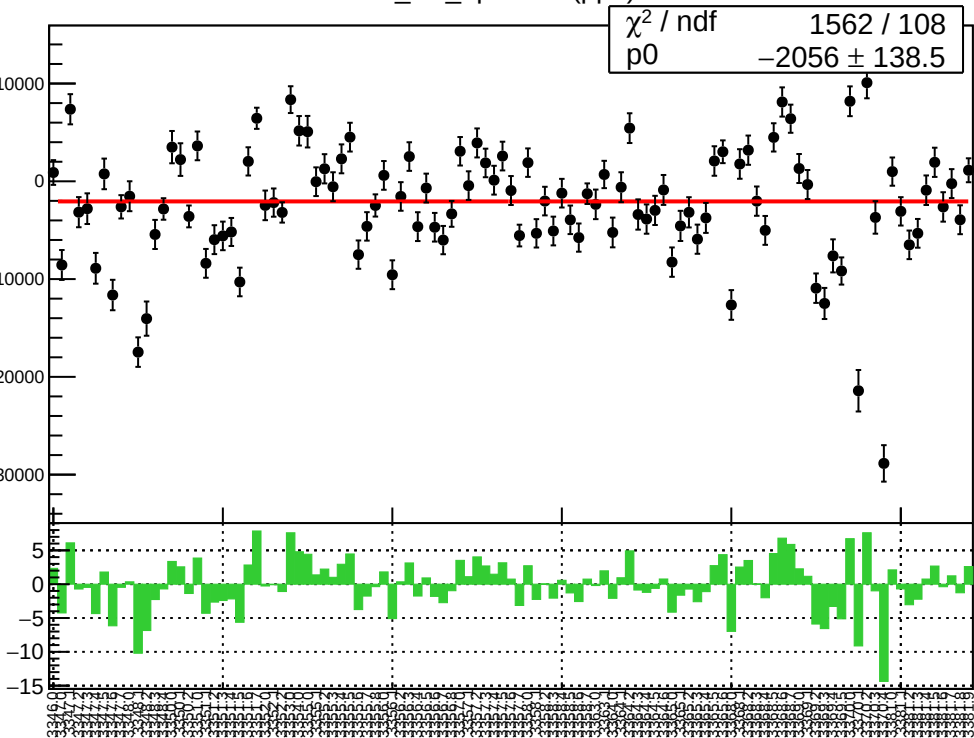


1D pull distribution

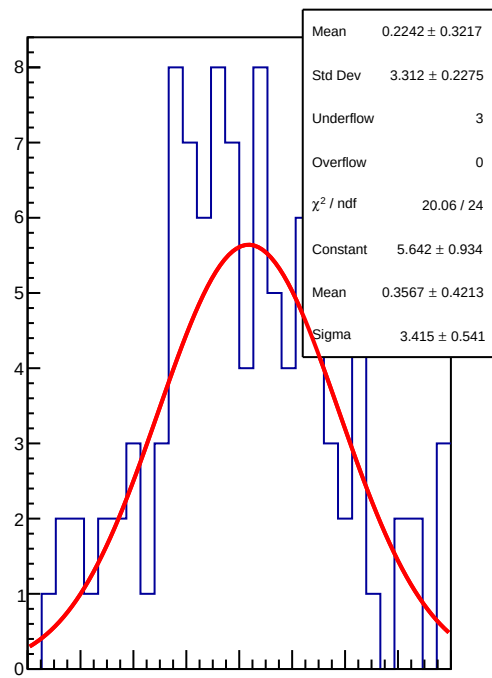




corr\_usl\_bpm12X (ppb)



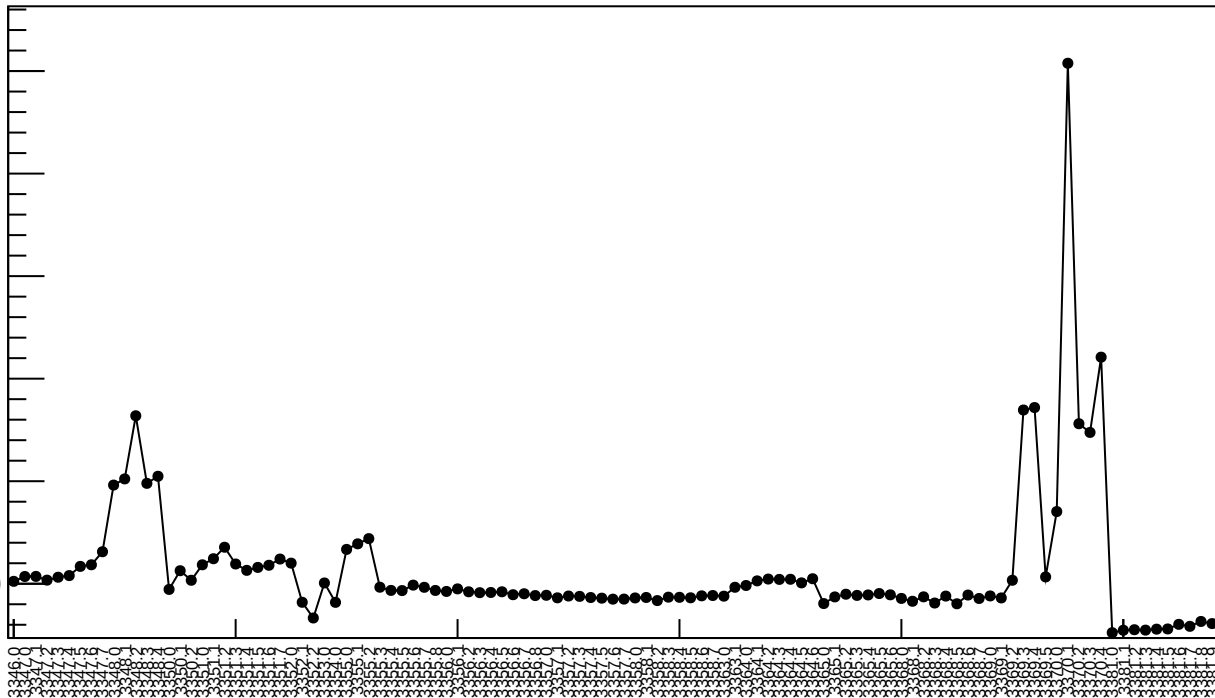
1D pull distribution



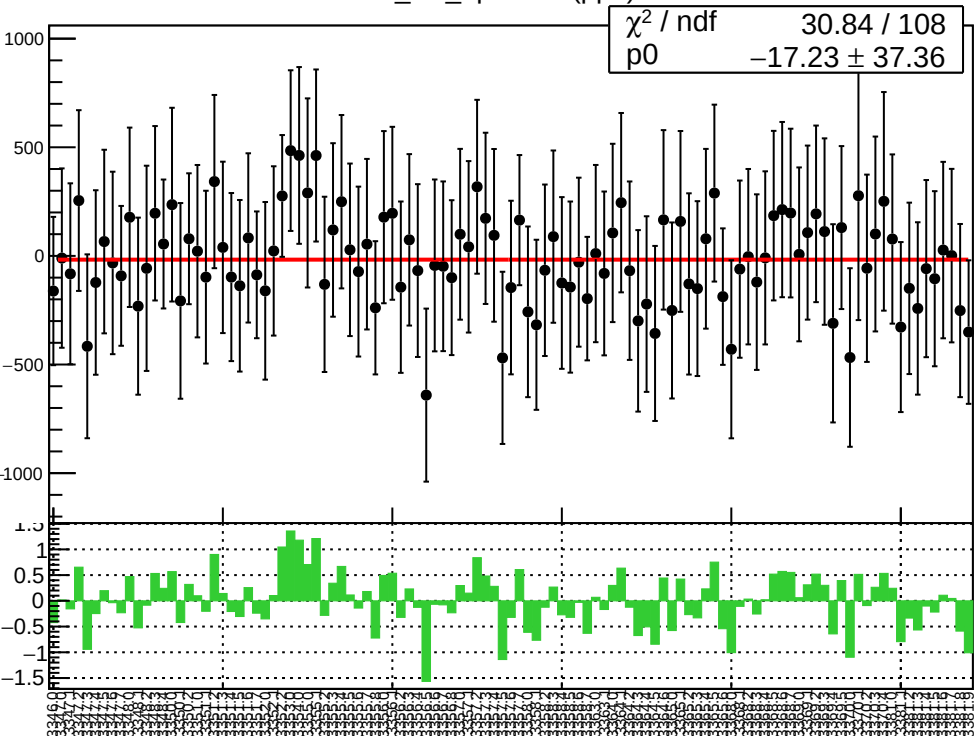
corr\_usl\_bpm12X RMS (ppm)

RMS (ppm)

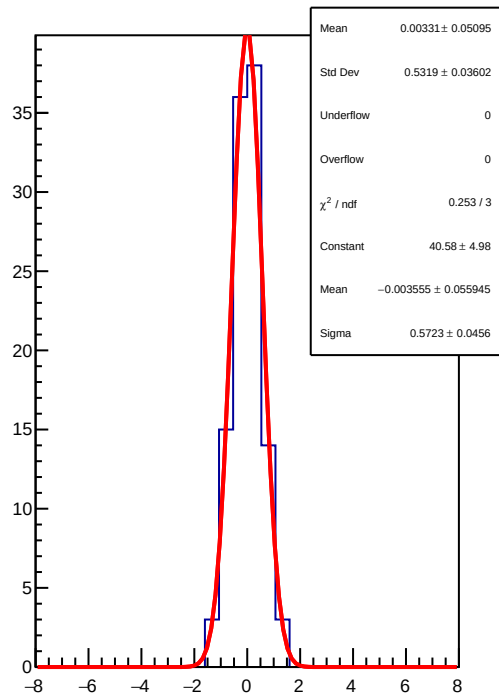
3000  
2500  
2000  
1500  
1000  
500



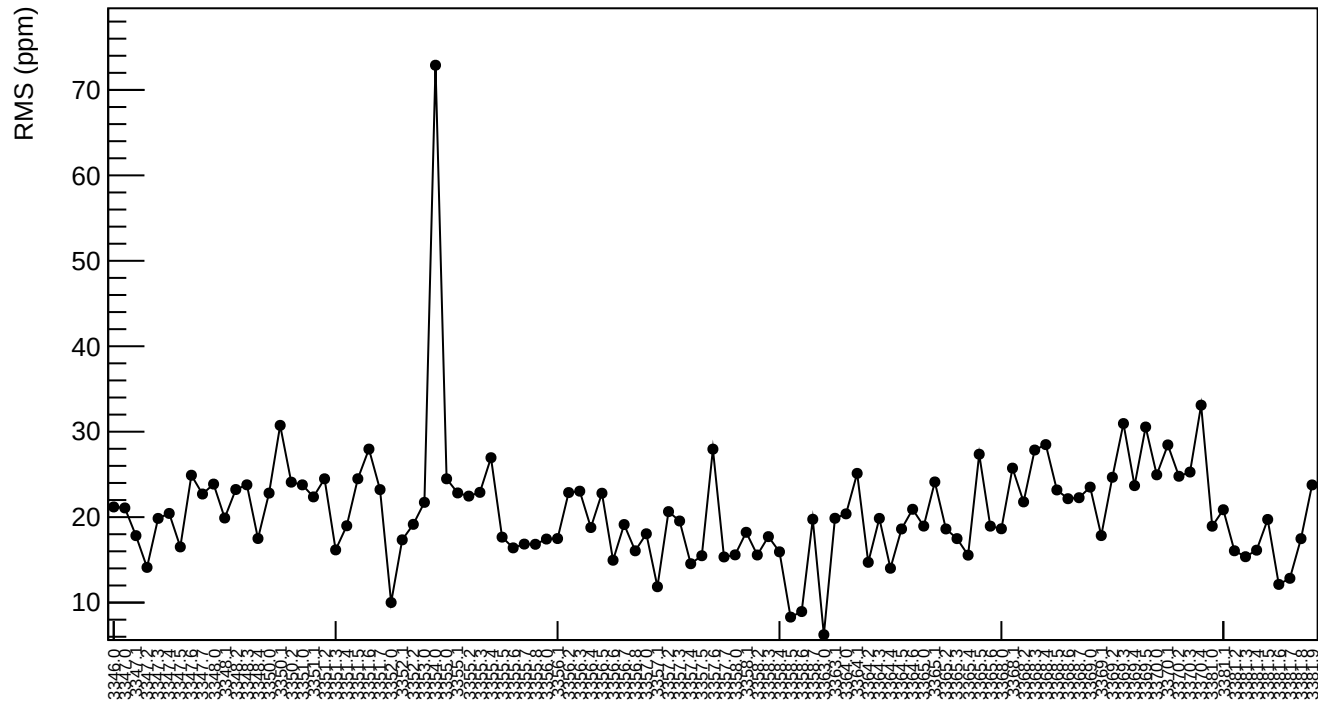
corr\_usl\_bpm12Y (ppb)



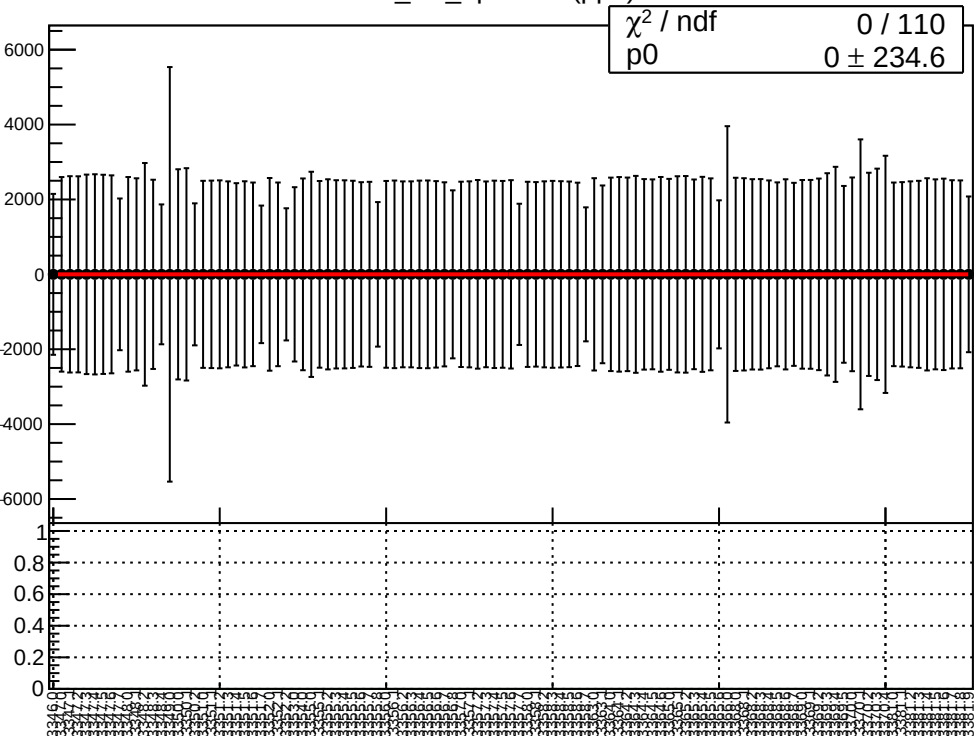
1D pull distribution



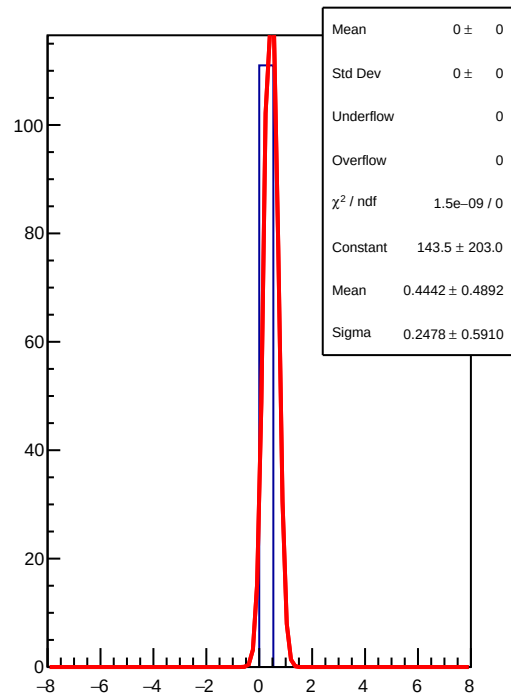
corr\_usl\_bpm12Y RMS (ppm)



corr\_usl\_bpm11X (ppb)

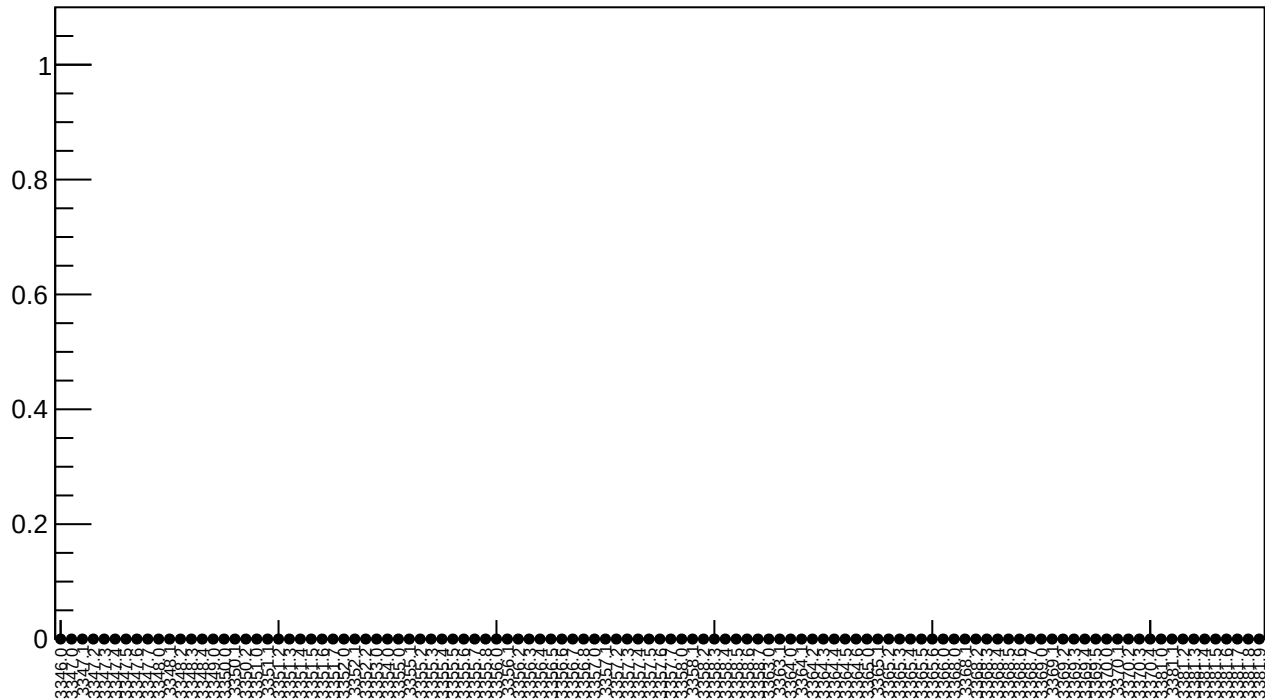


1D pull distribution



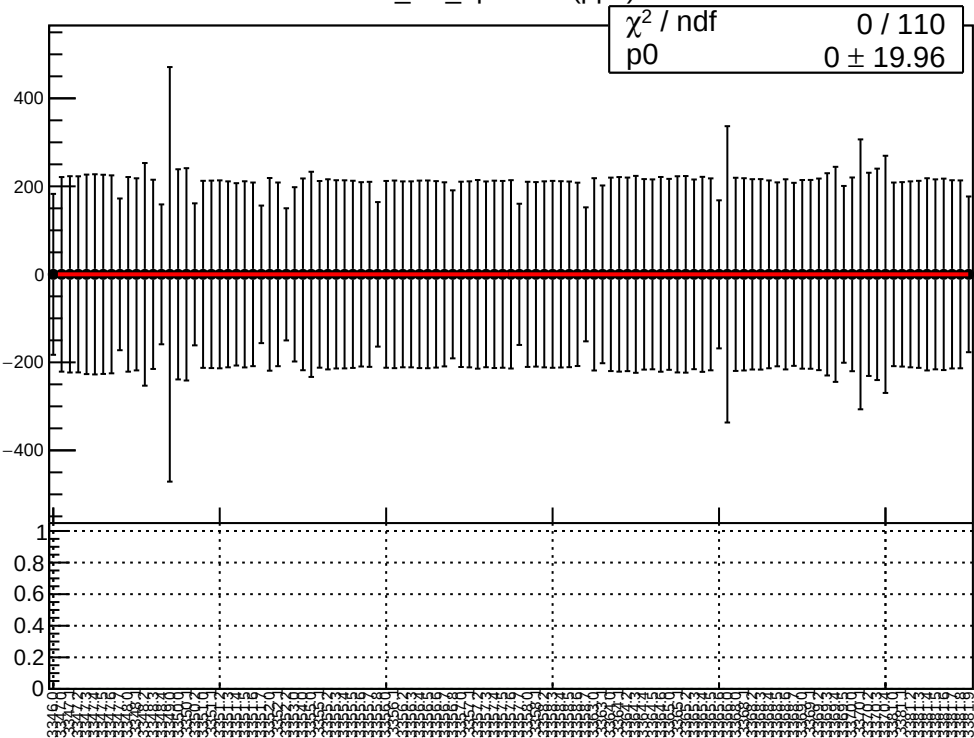
# corr\_usl\_bpm11X RMS (ppm)

RMS (ppm)

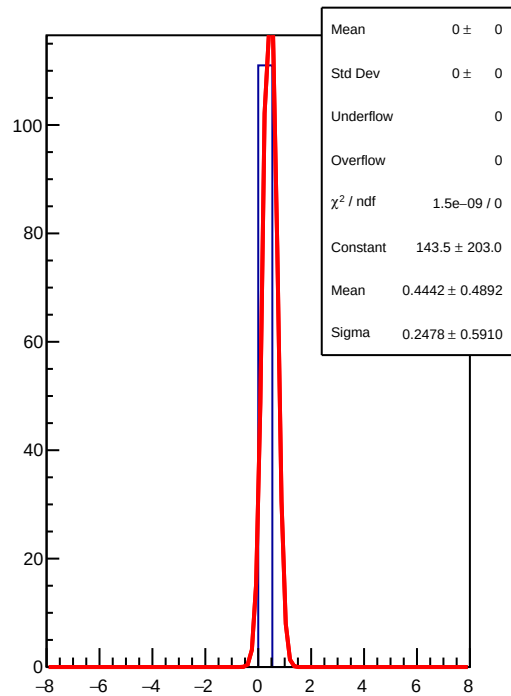




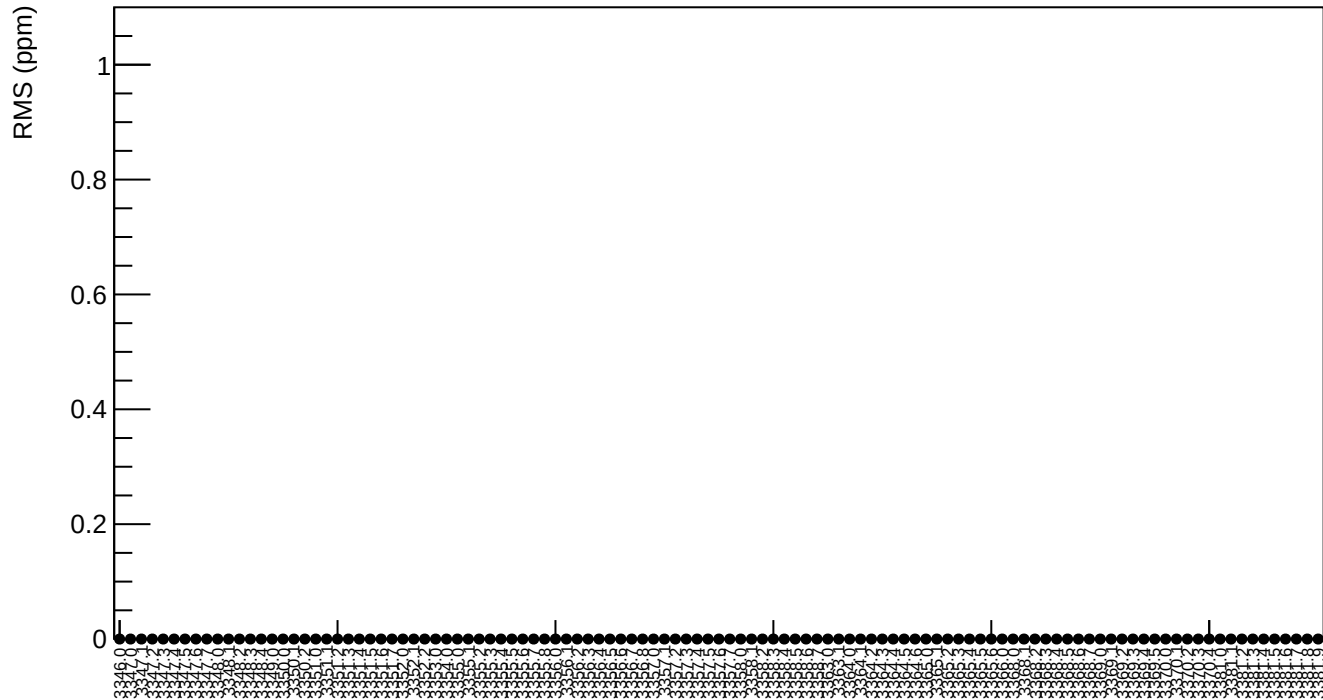
corr\_usl\_bpm11Y (ppb)



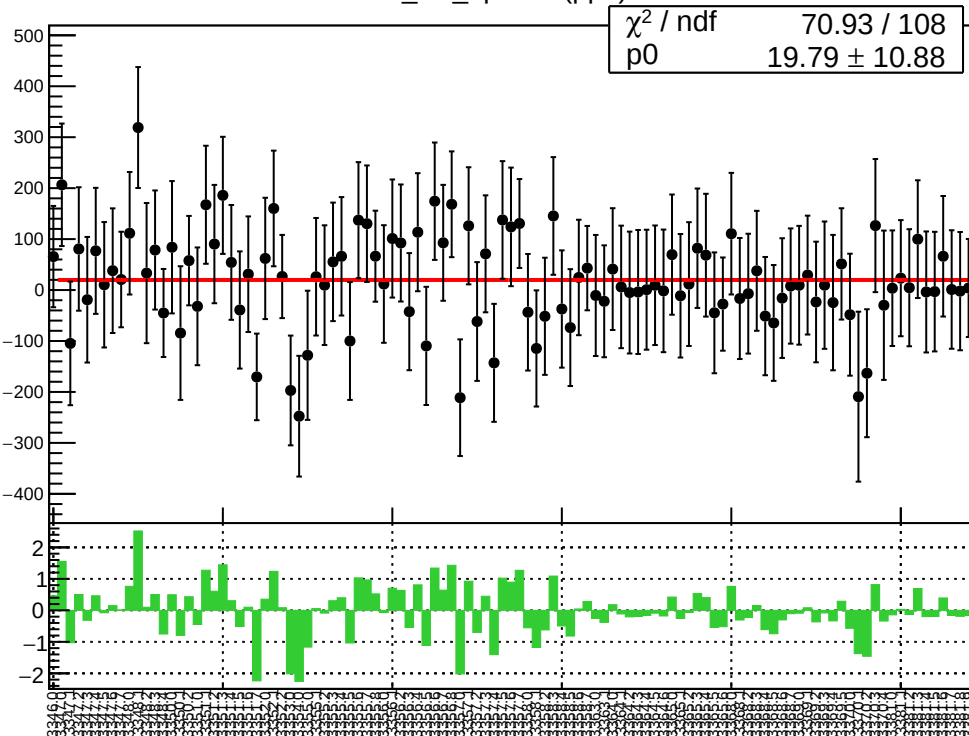
1D pull distribution



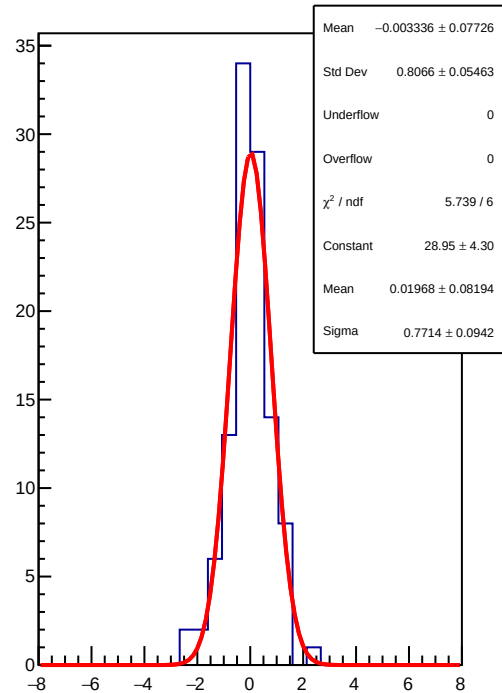
corr\_usl\_bpm11Y RMS (ppm)



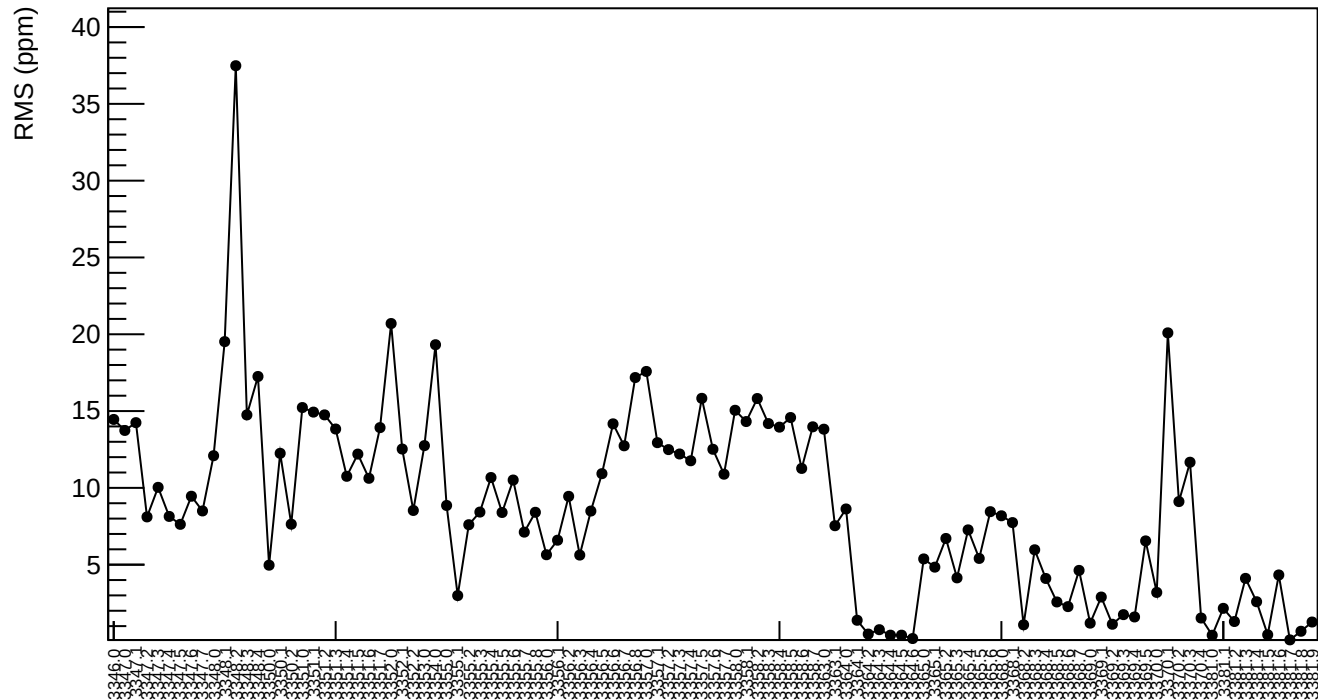
corr\_usl\_bpm8X (ppb)



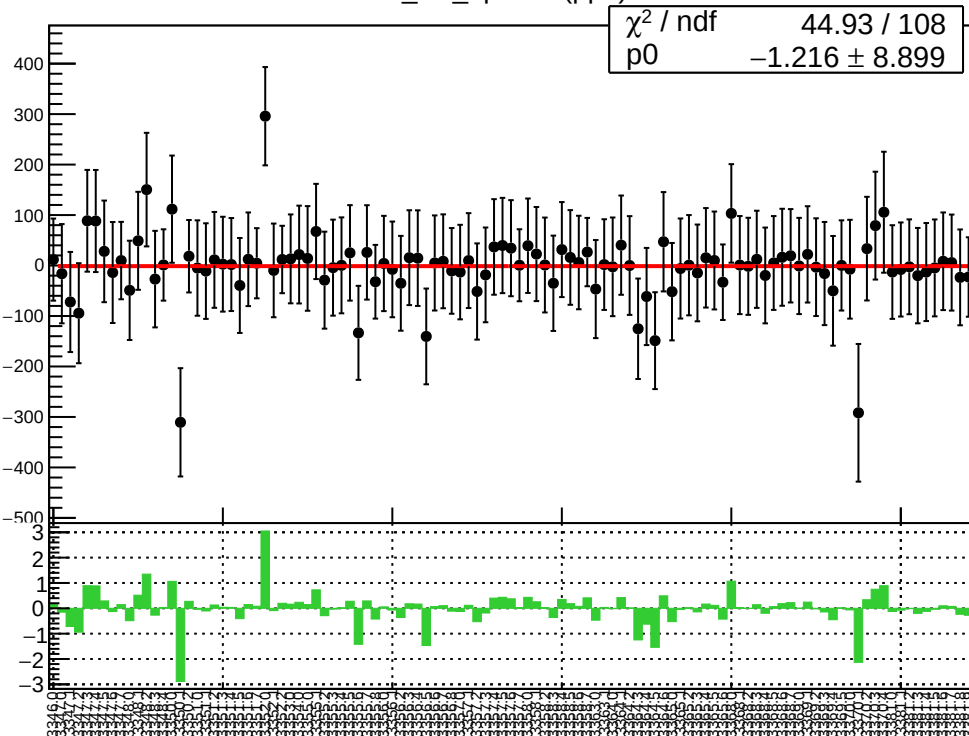
1D pull distribution



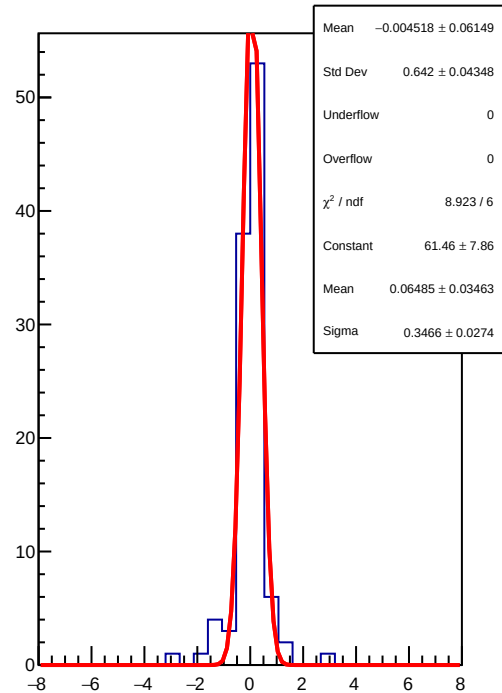
corr\_usl\_bpm8X RMS (ppm)



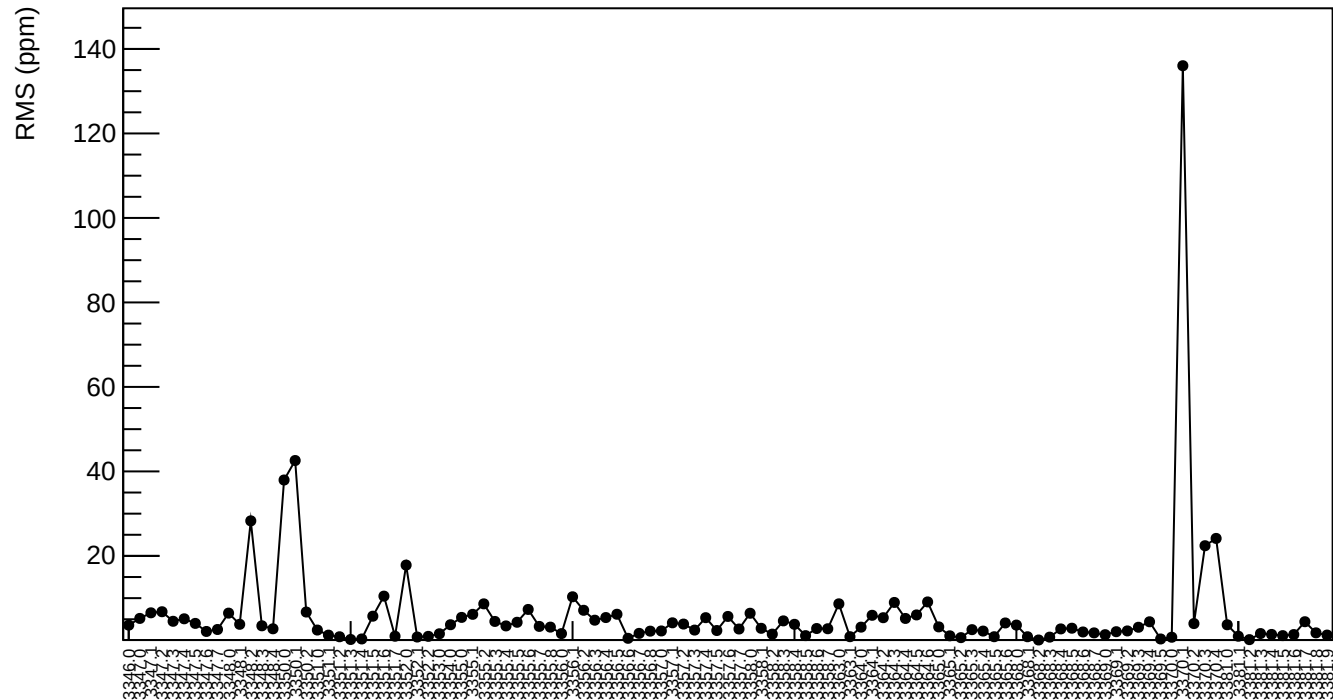
corr\_usl\_bpm8Y (ppb)



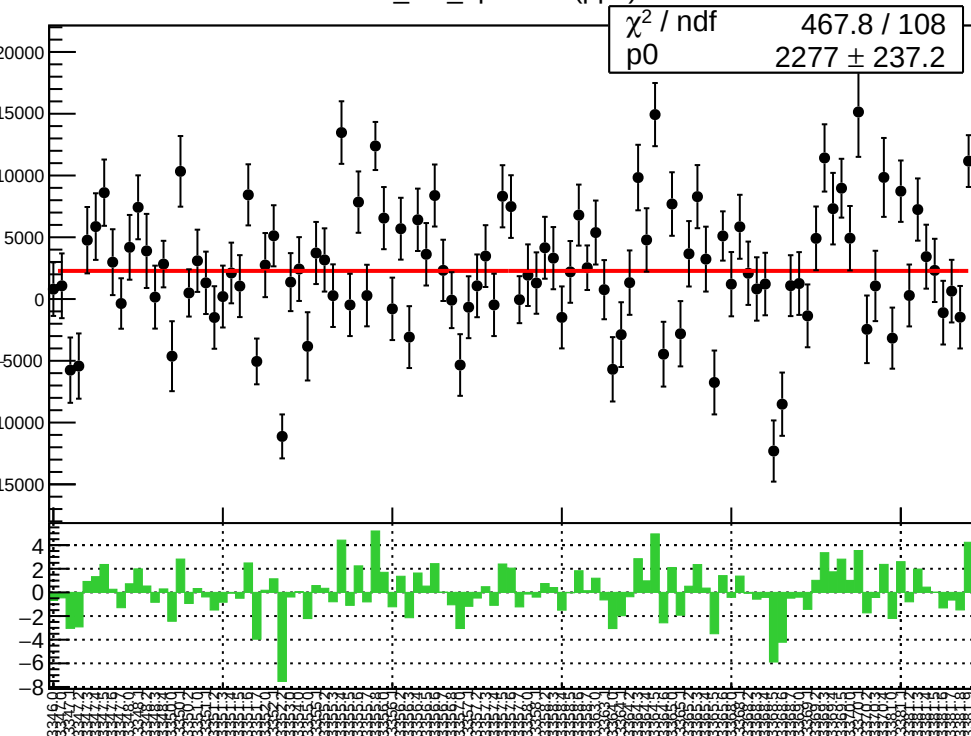
1D pull distribution



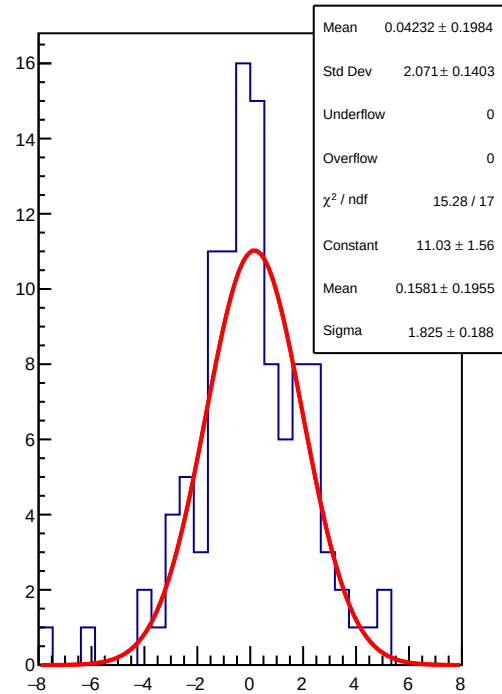
corr\_usl\_bpm8Y RMS (ppm)



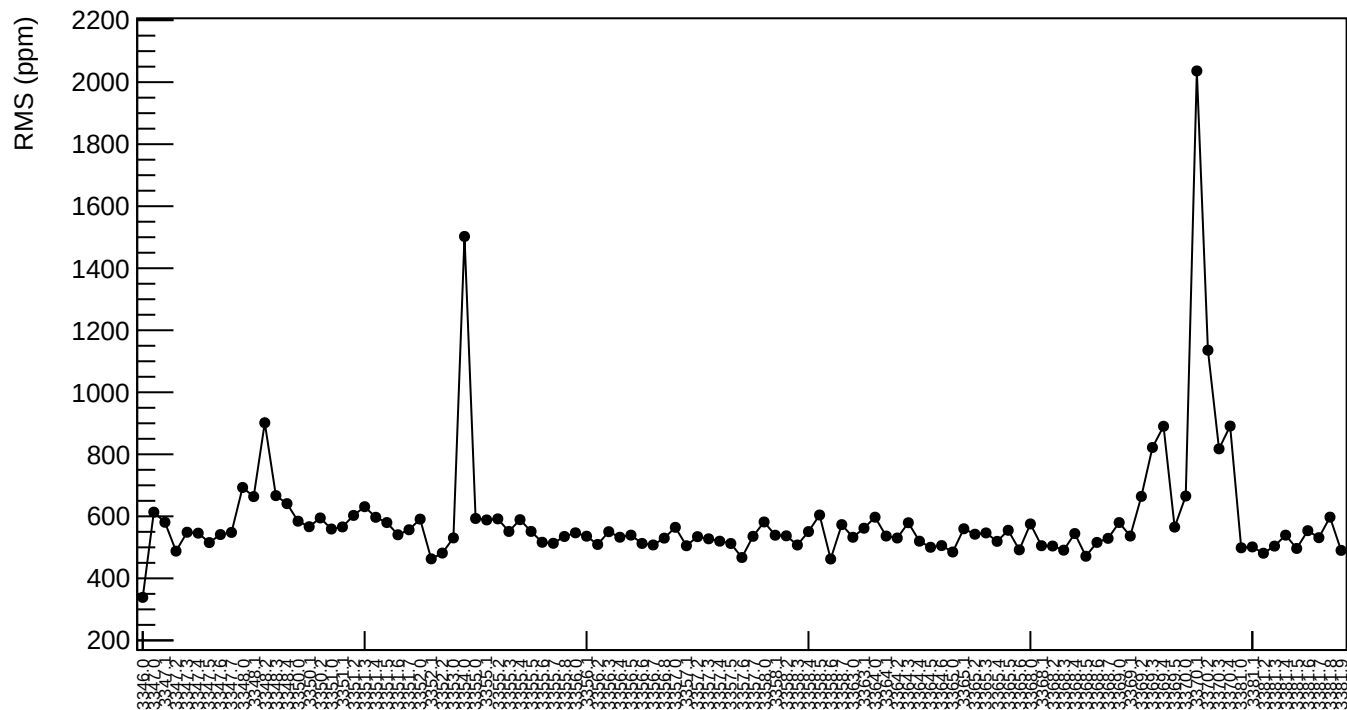
corr\_usr\_bpm4eX (ppb)



1D pull distribution

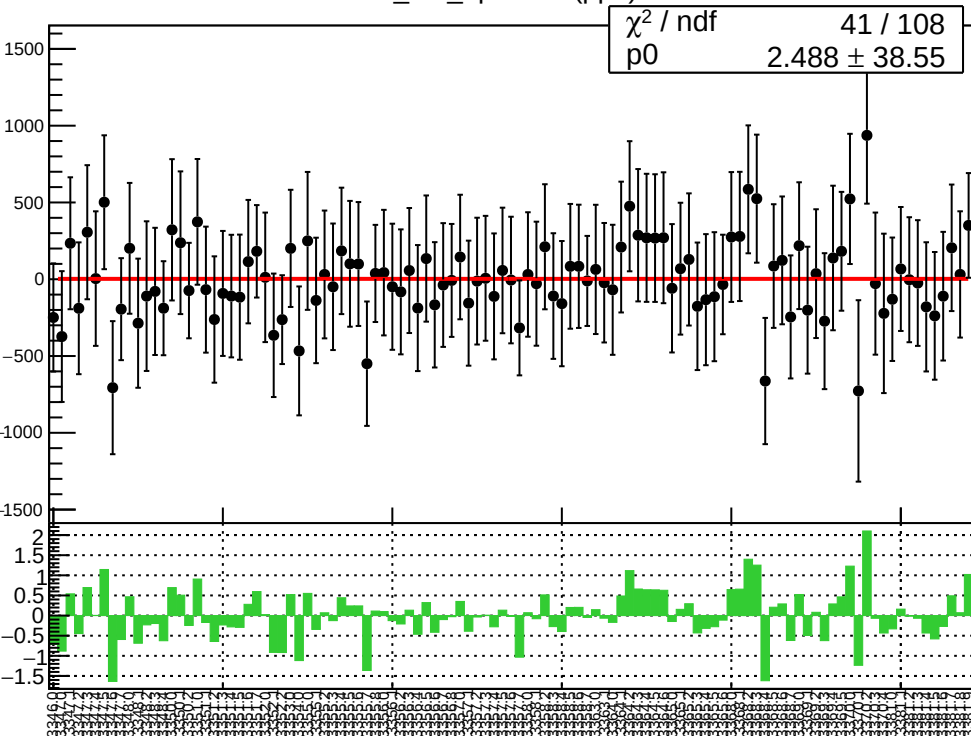


corr\_usr\_bpm4eX RMS (ppm)

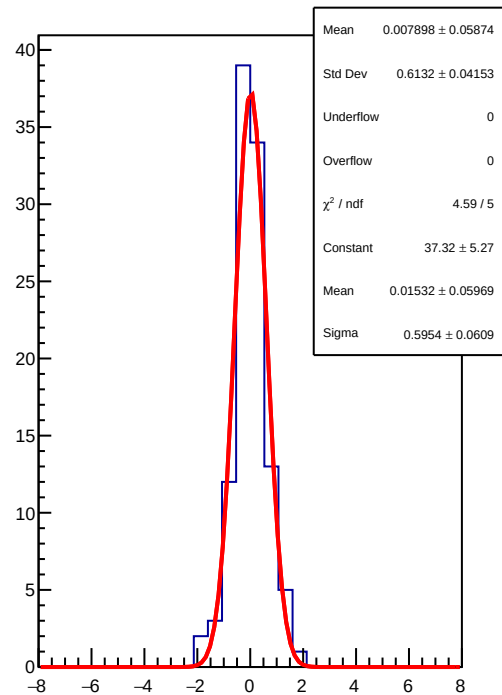




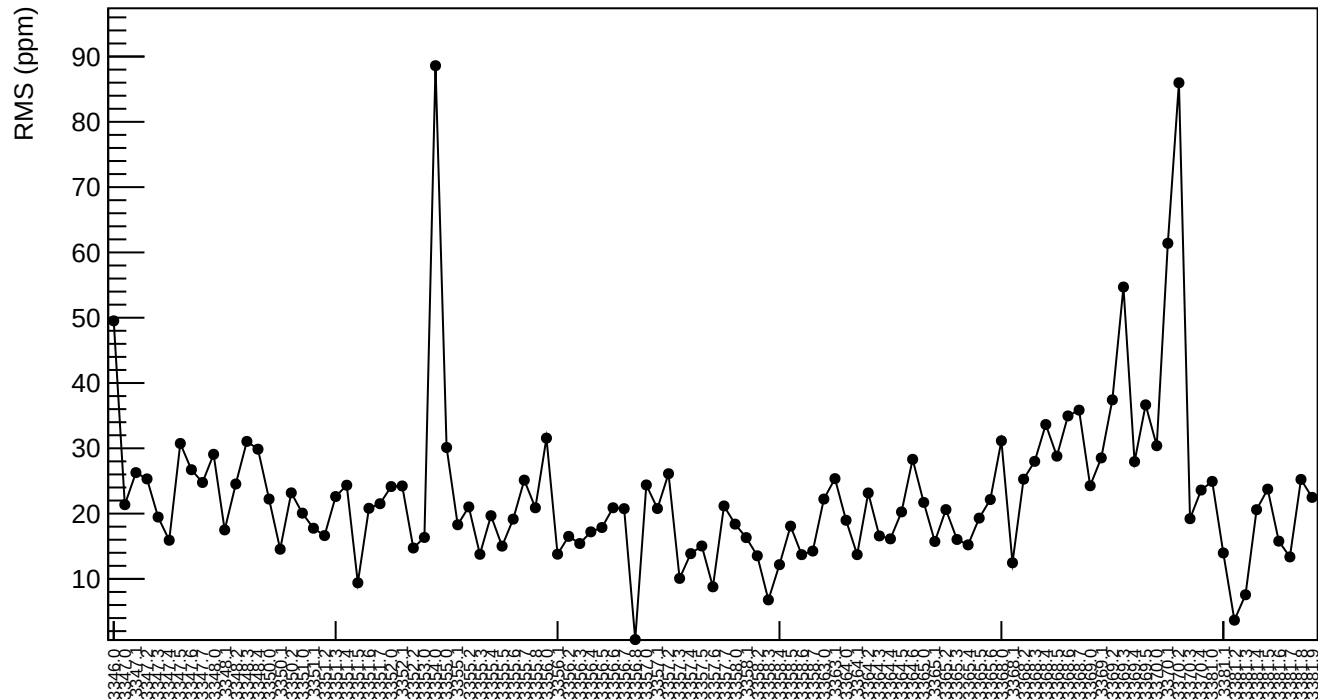
corr\_usr\_bpm4eY (ppb)



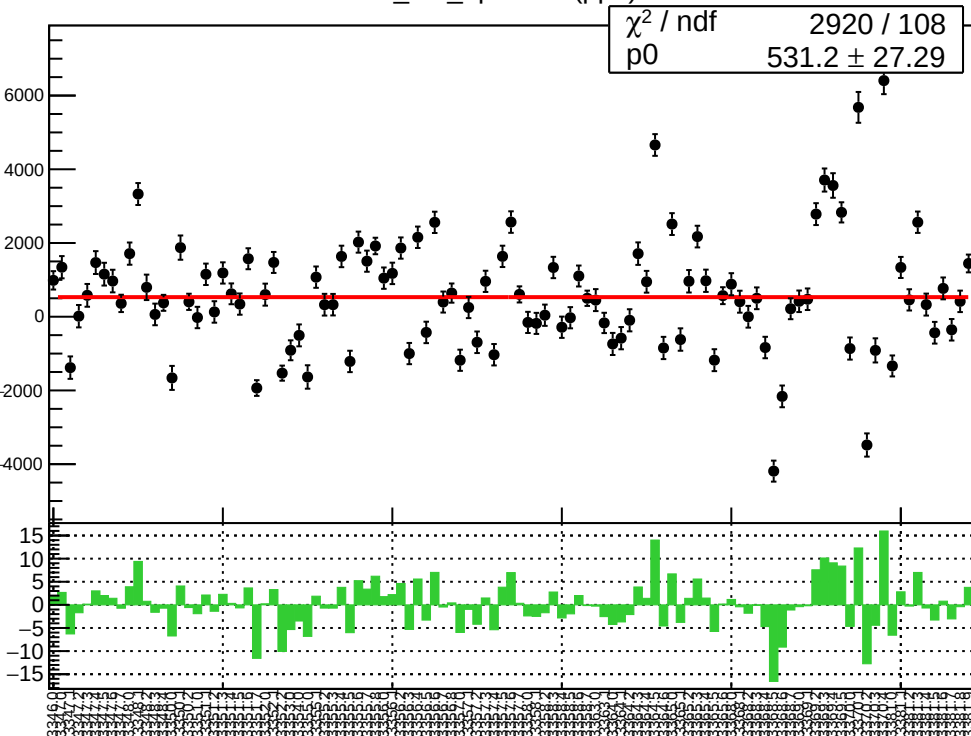
1D pull distribution



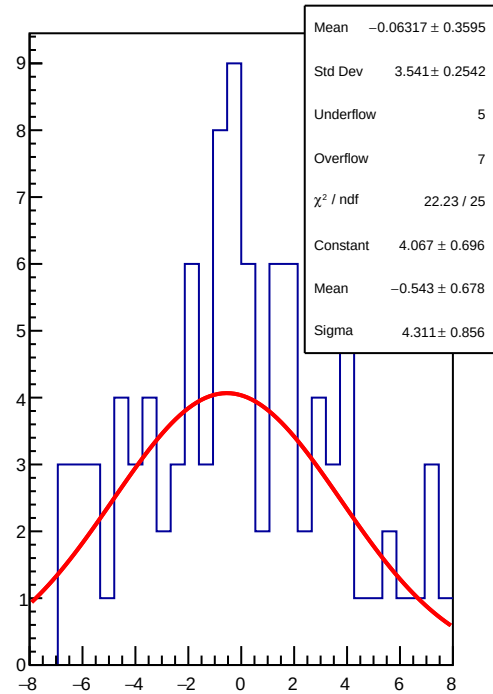
corr\_usr\_bpm4eY RMS (ppm)



corr\_usr\_bpm4aX (ppb)

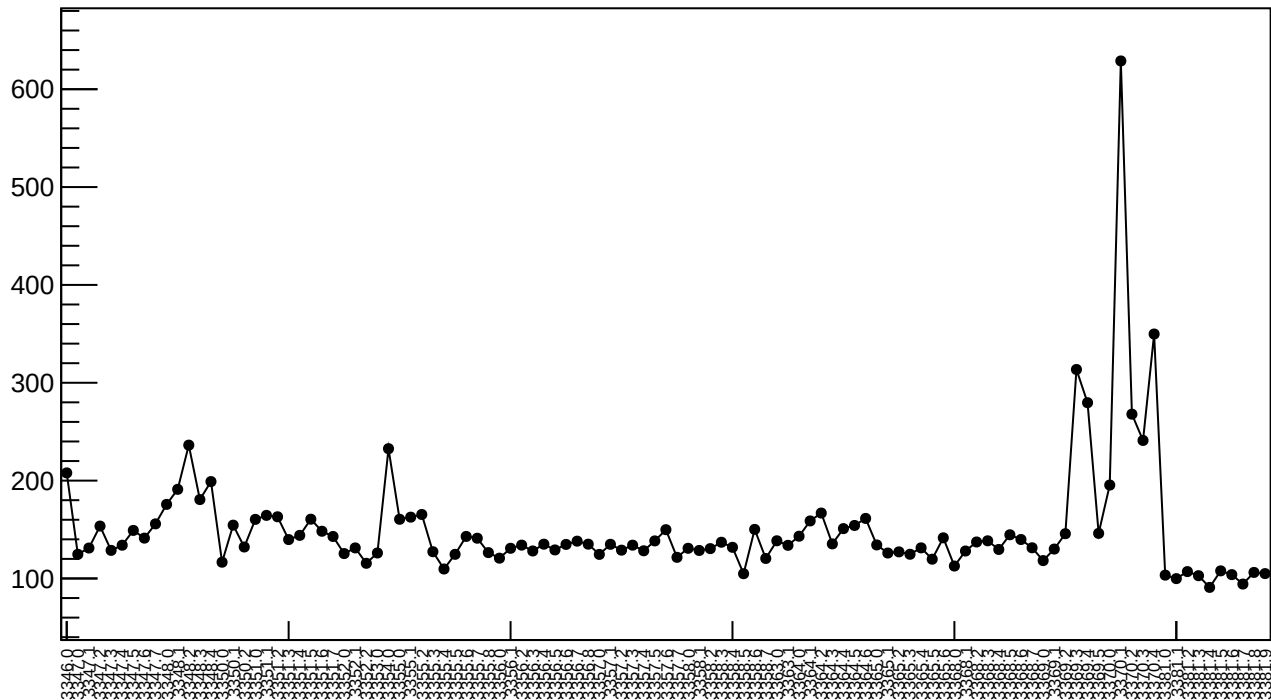


1D pull distribution

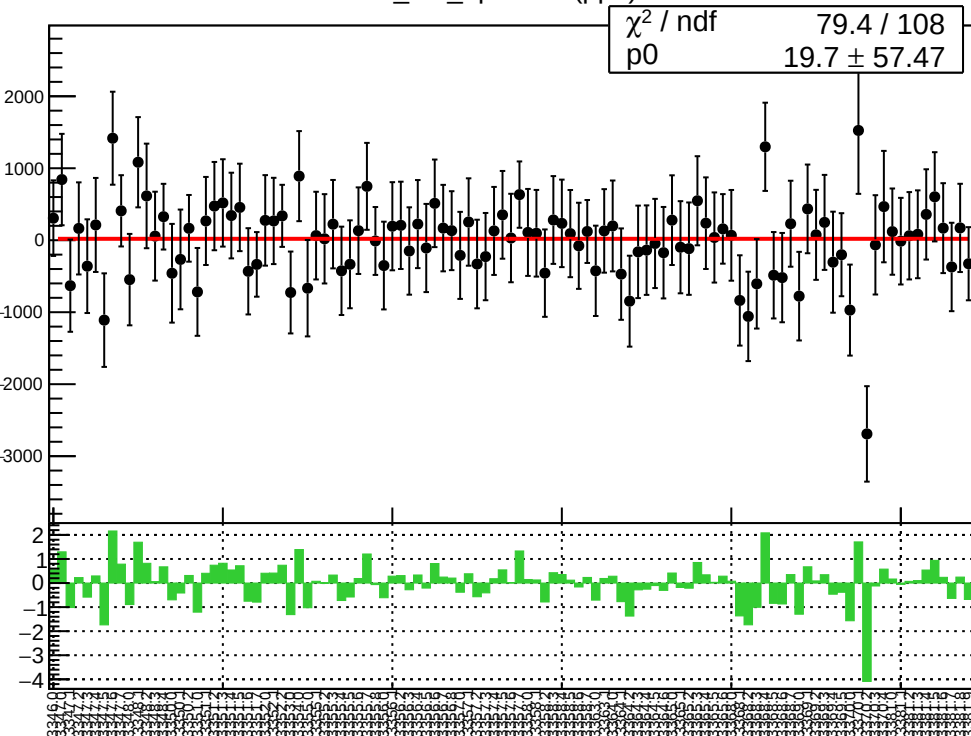


corr\_usr\_bpm4aX RMS (ppm)

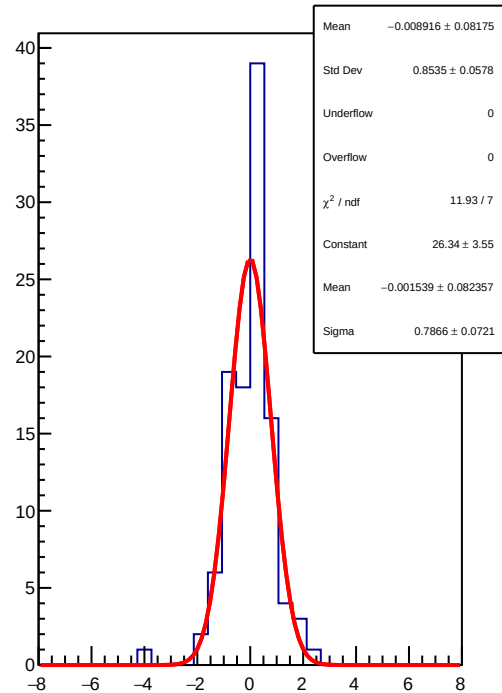
RMS (ppm)



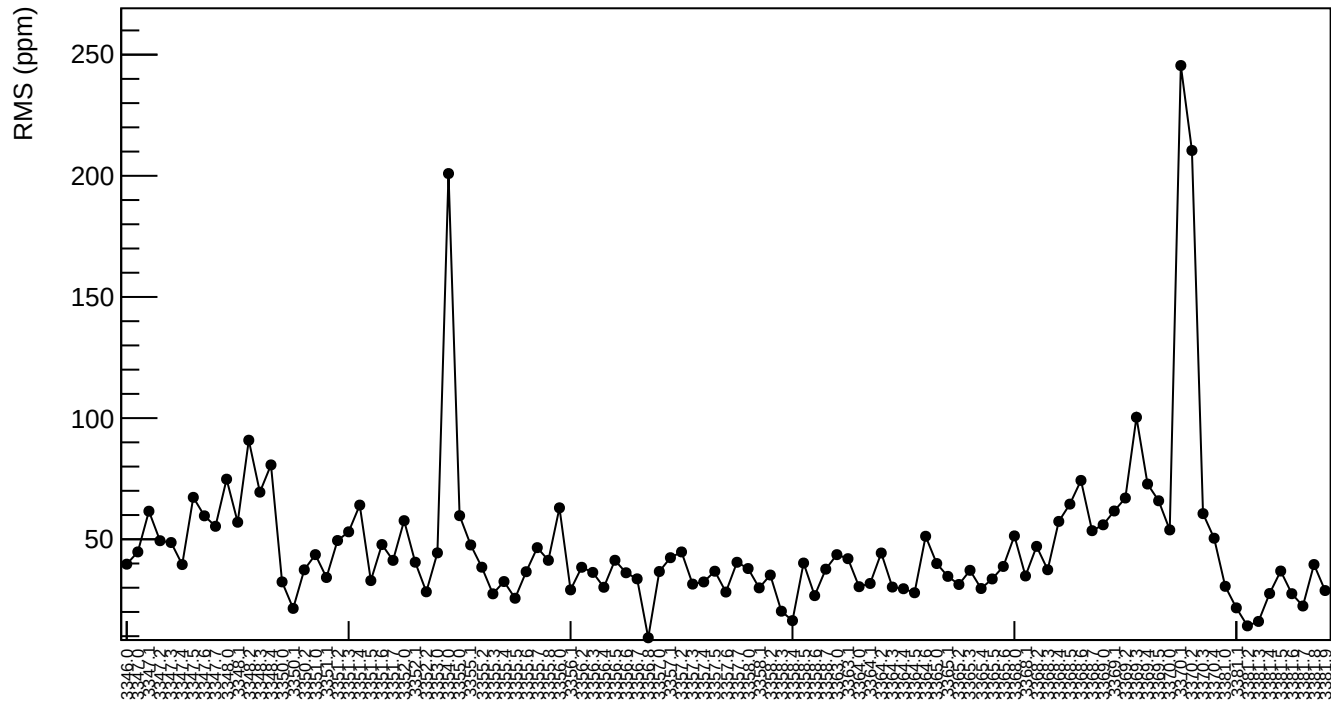
corr\_usr\_bpm4aY (ppb)



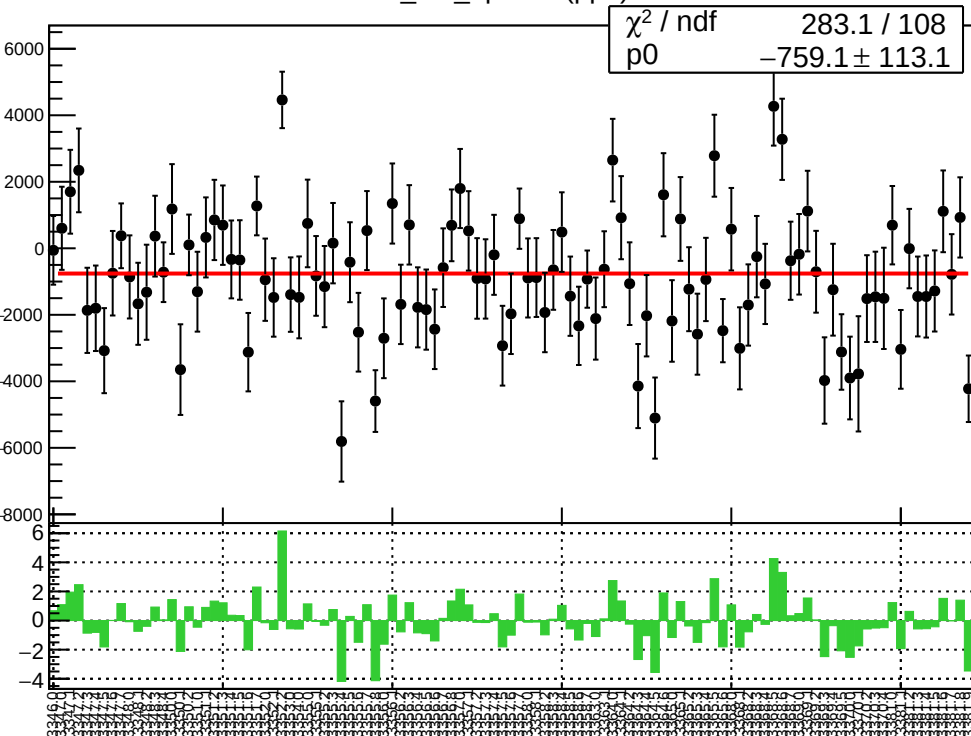
1D pull distribution



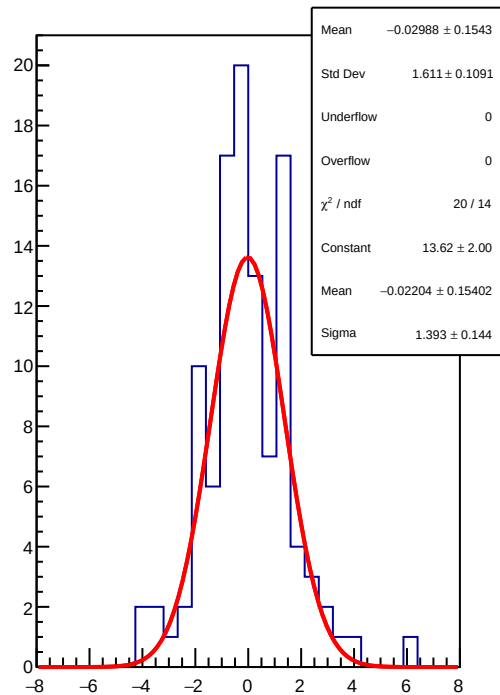
corr\_usr\_bpm4aY RMS (ppm)



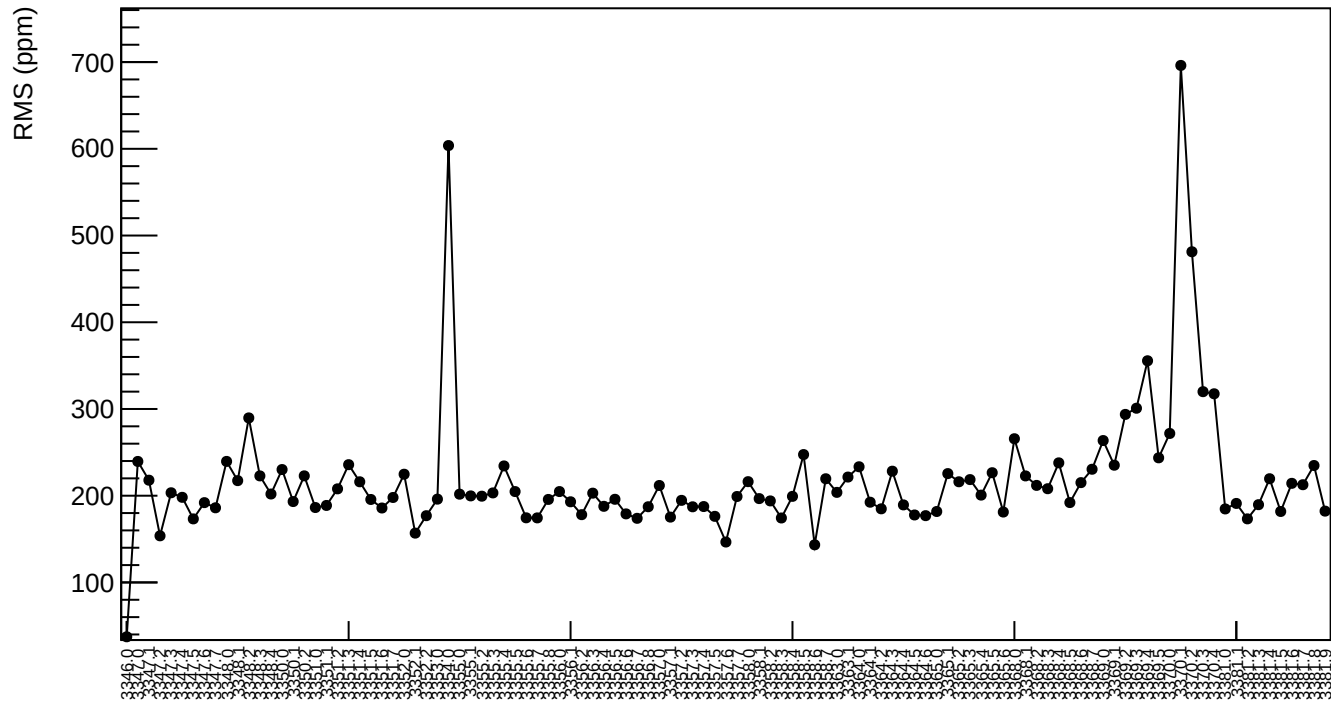
corr\_usr\_bpm1X (ppb)



1D pull distribution

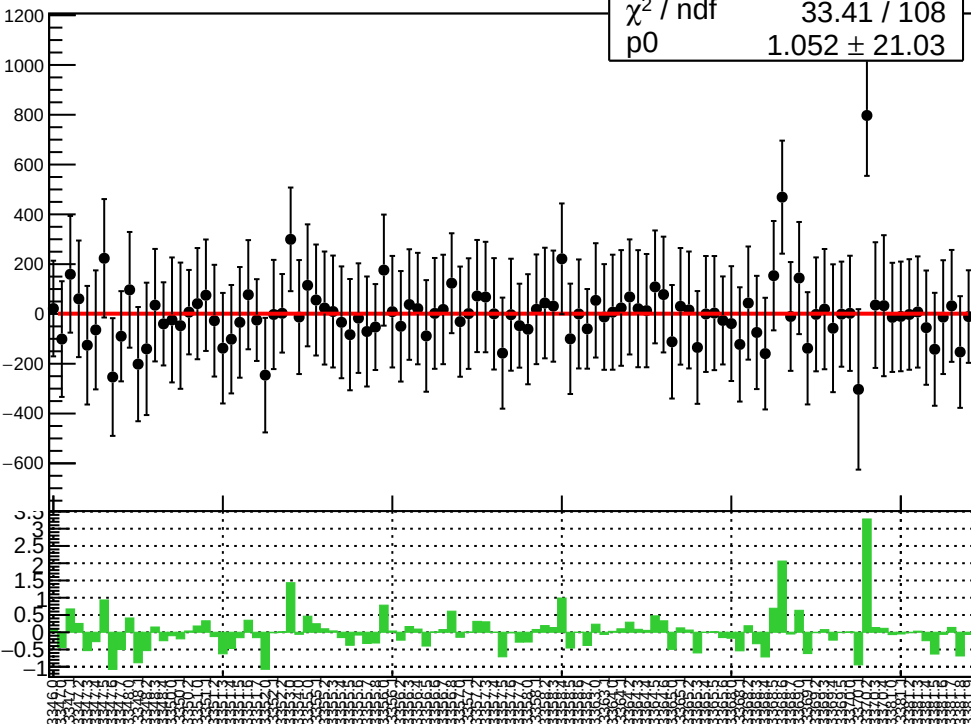


corr\_usr\_bpm1X RMS (ppm)

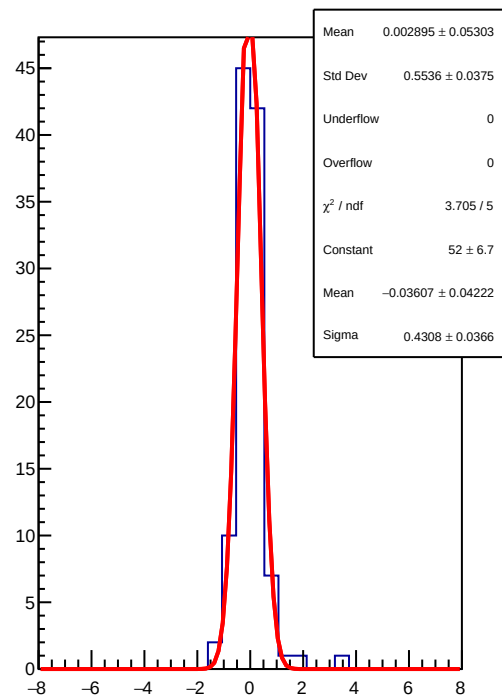




corr\_usr\_bpm1Y (ppb)

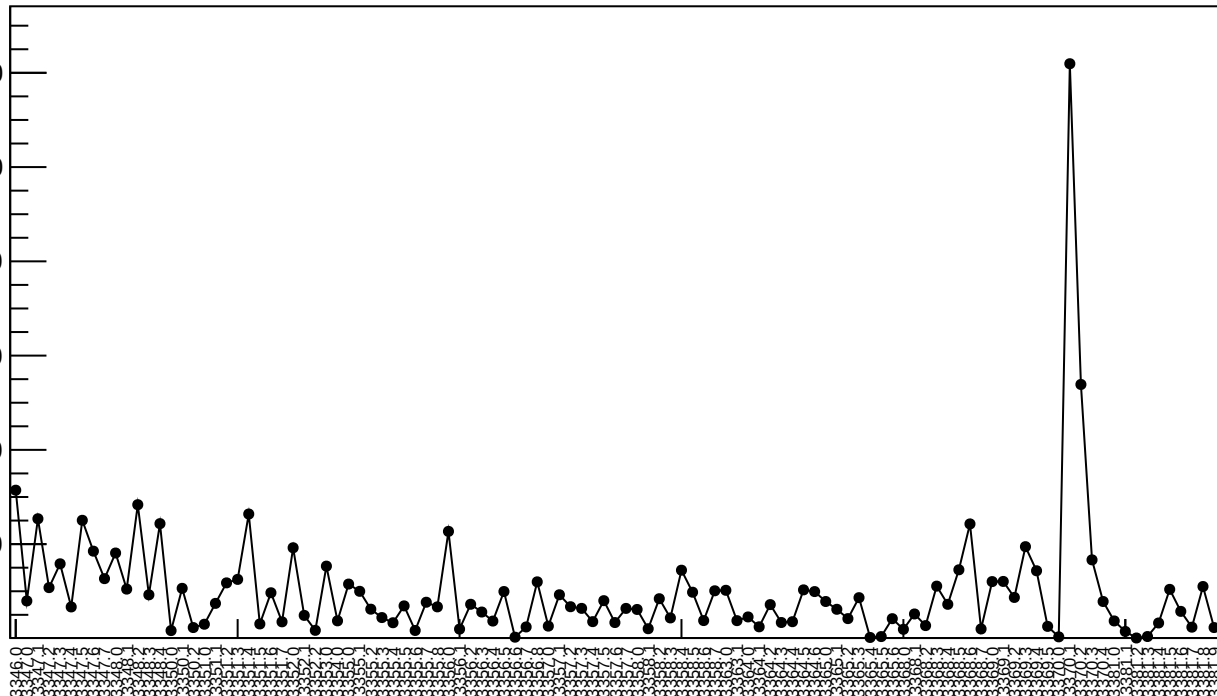


1D pull distribution

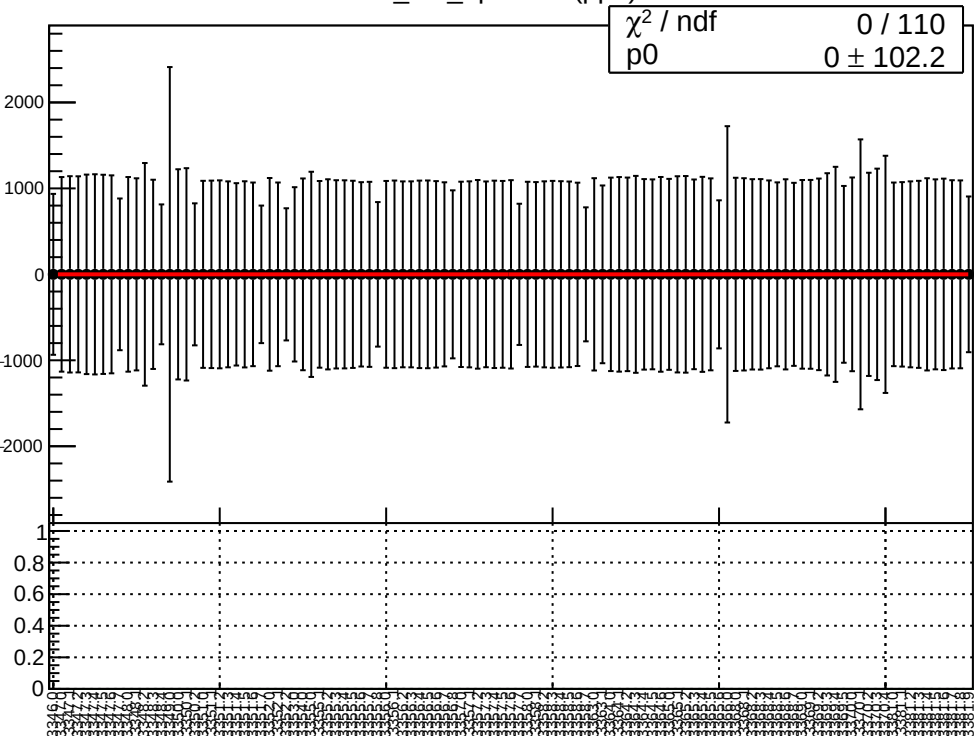


corr\_usr\_bpm1Y RMS (ppm)

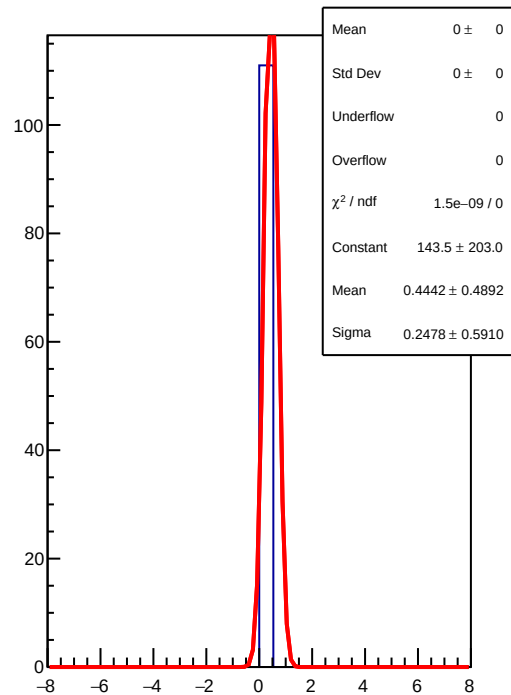
RMS (ppm)

120  
100  
80  
60  
40  
20

corr\_usr\_bpm16X (ppb)

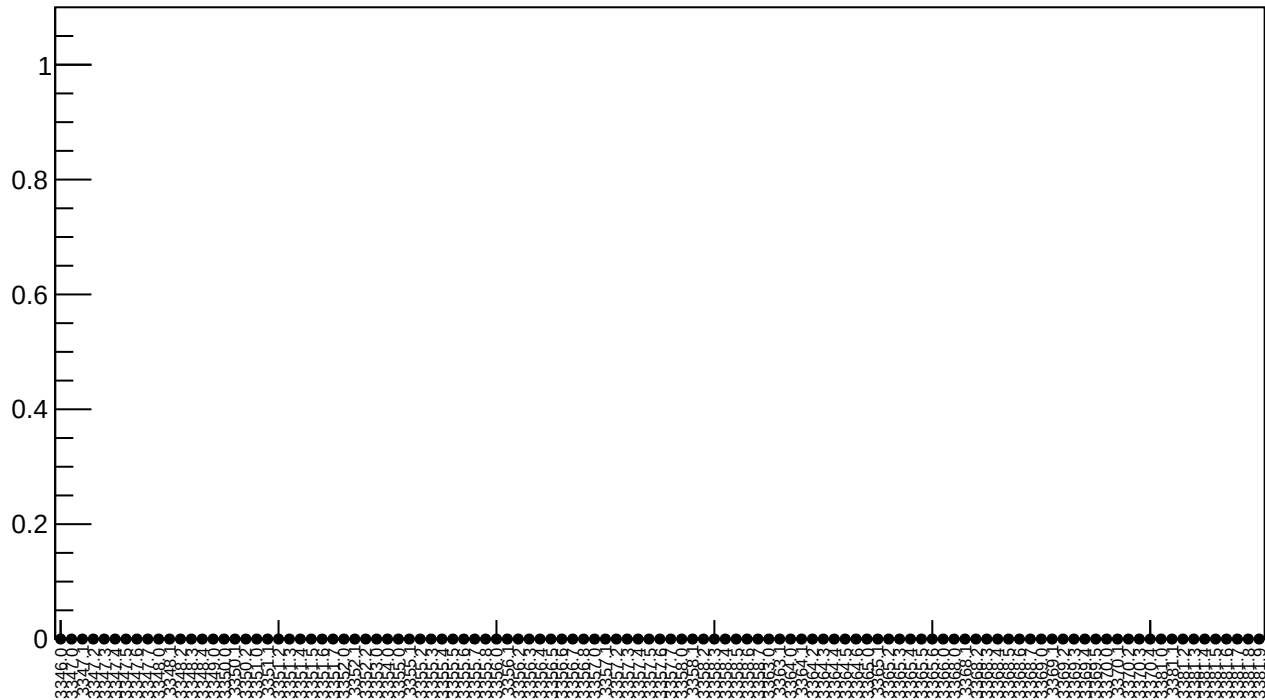


1D pull distribution

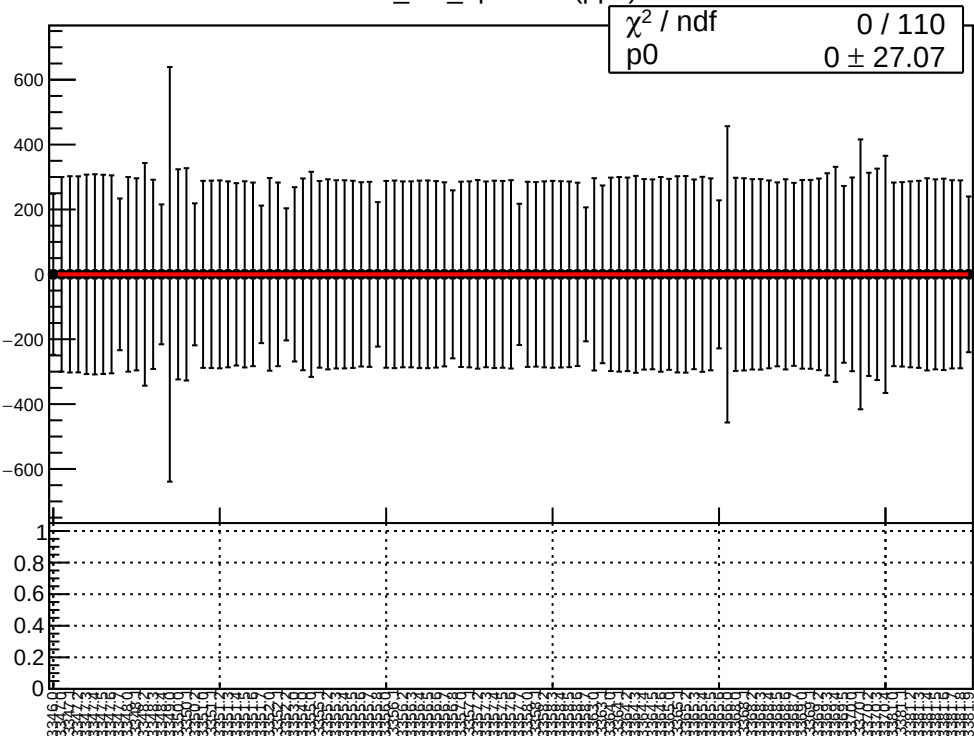


# corr\_usr\_bpm16X RMS (ppm)

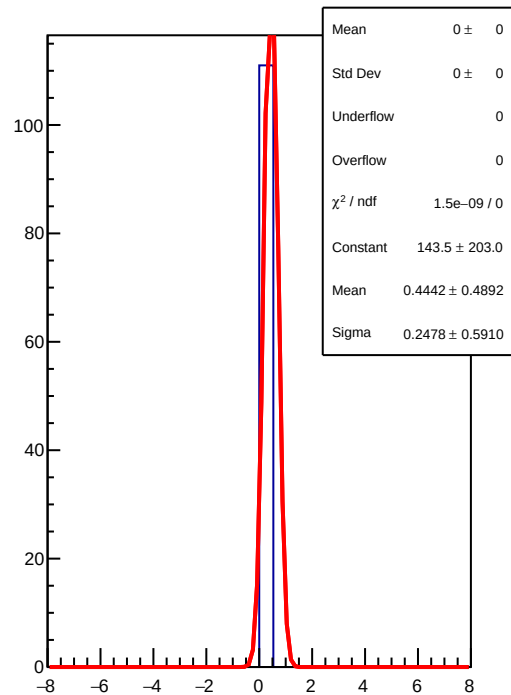
RMS (ppm)



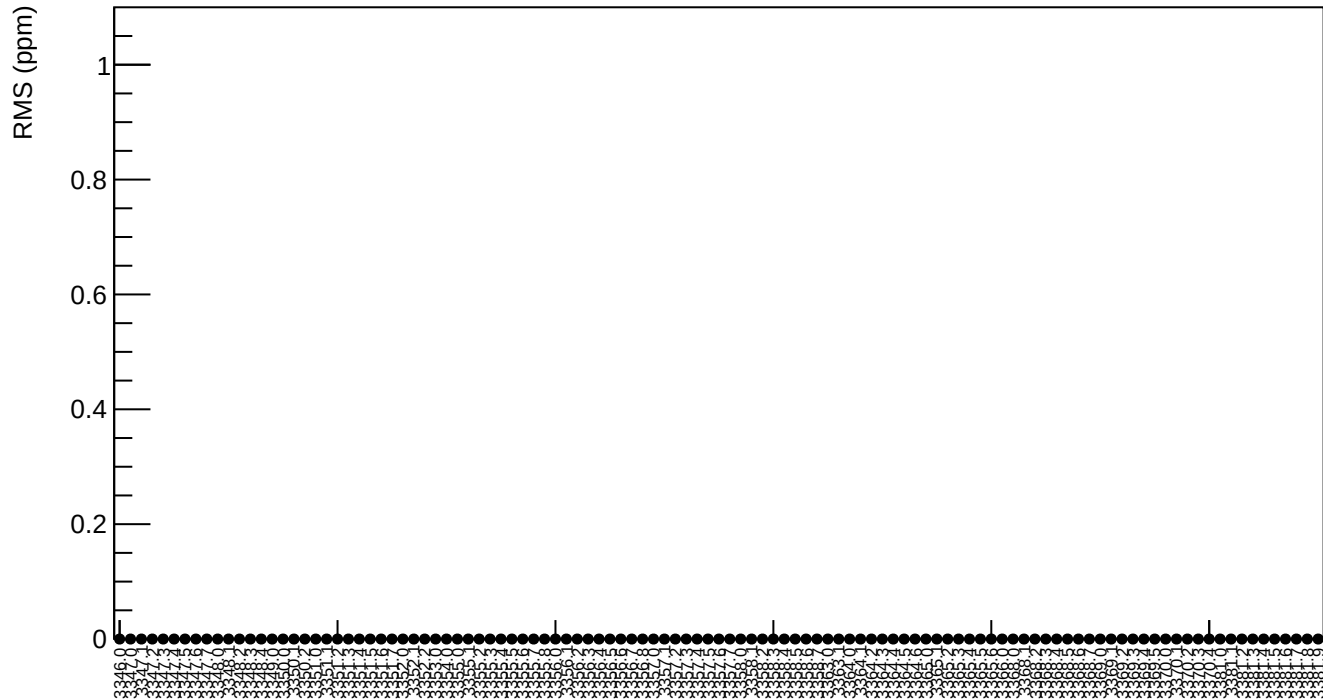
corr\_usr\_bpm16Y (ppb)



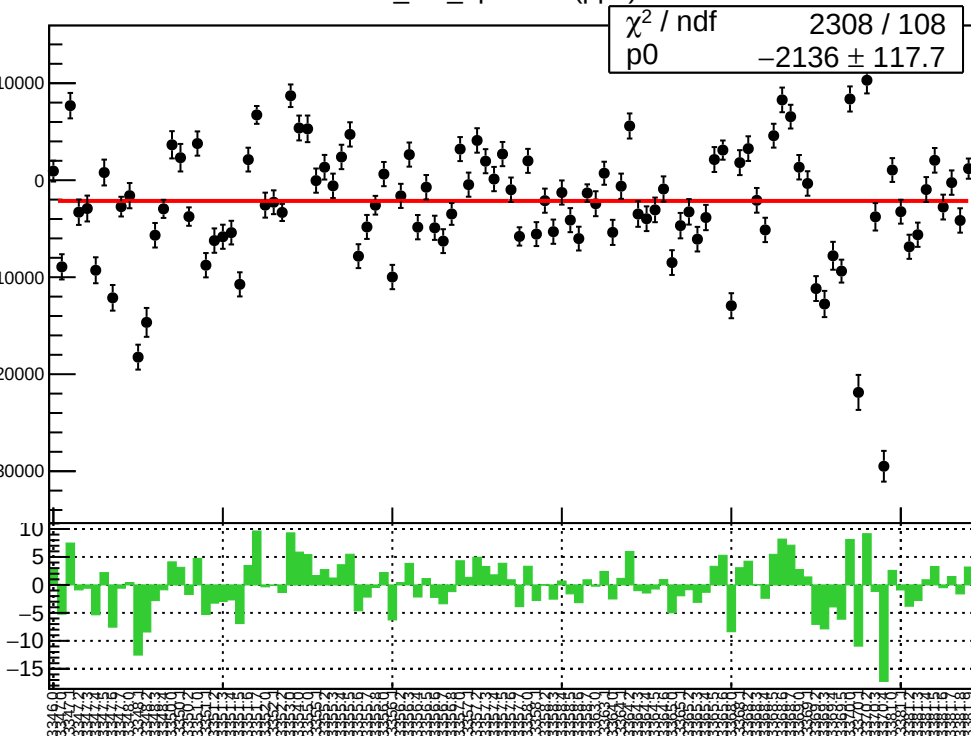
1D pull distribution



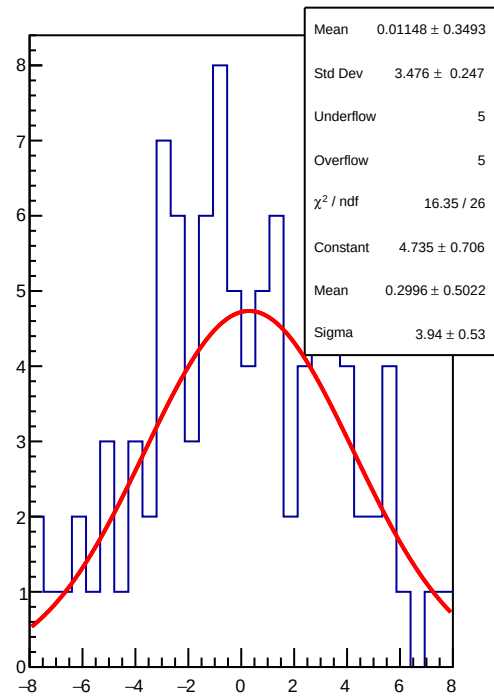
corr\_usr\_bpm16Y RMS (ppm)



corr\_usr\_bpm12X (ppb)



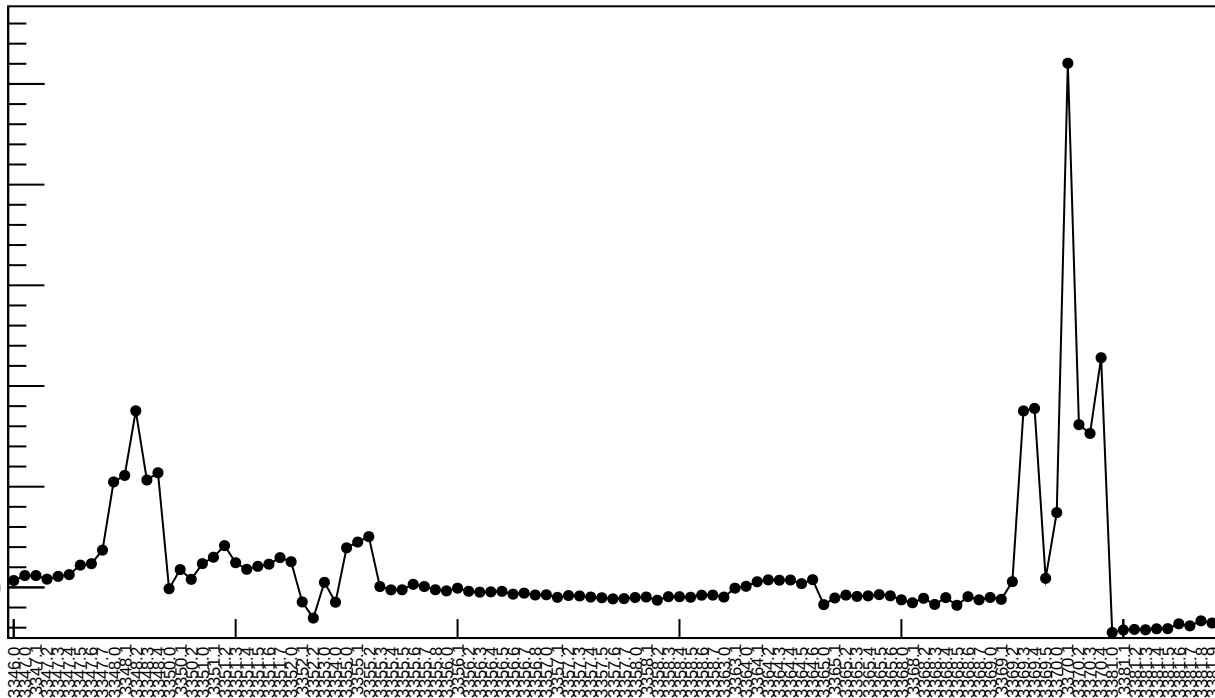
1D pull distribution



corr\_usr\_bpm12X RMS (ppm)

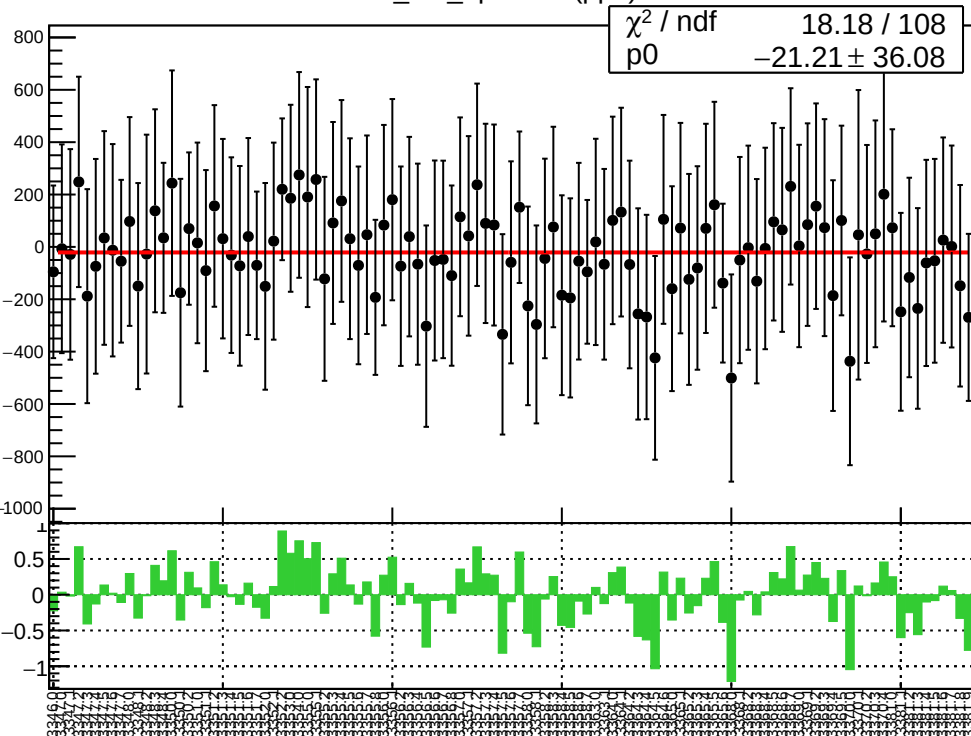
RMS (ppm)

3000  
2500  
2000  
1500  
1000  
500

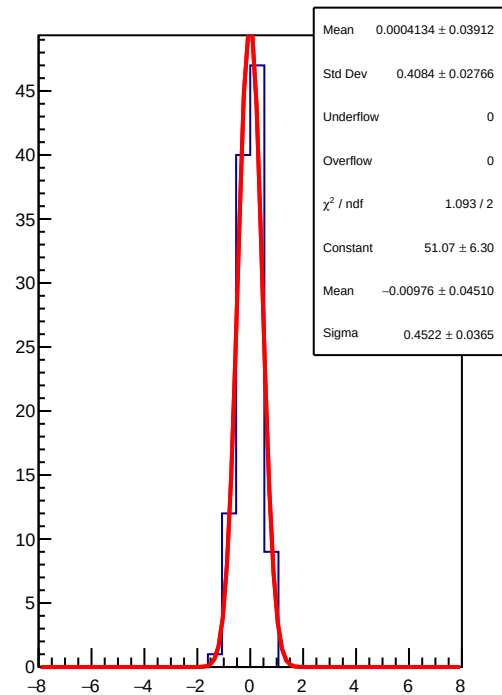




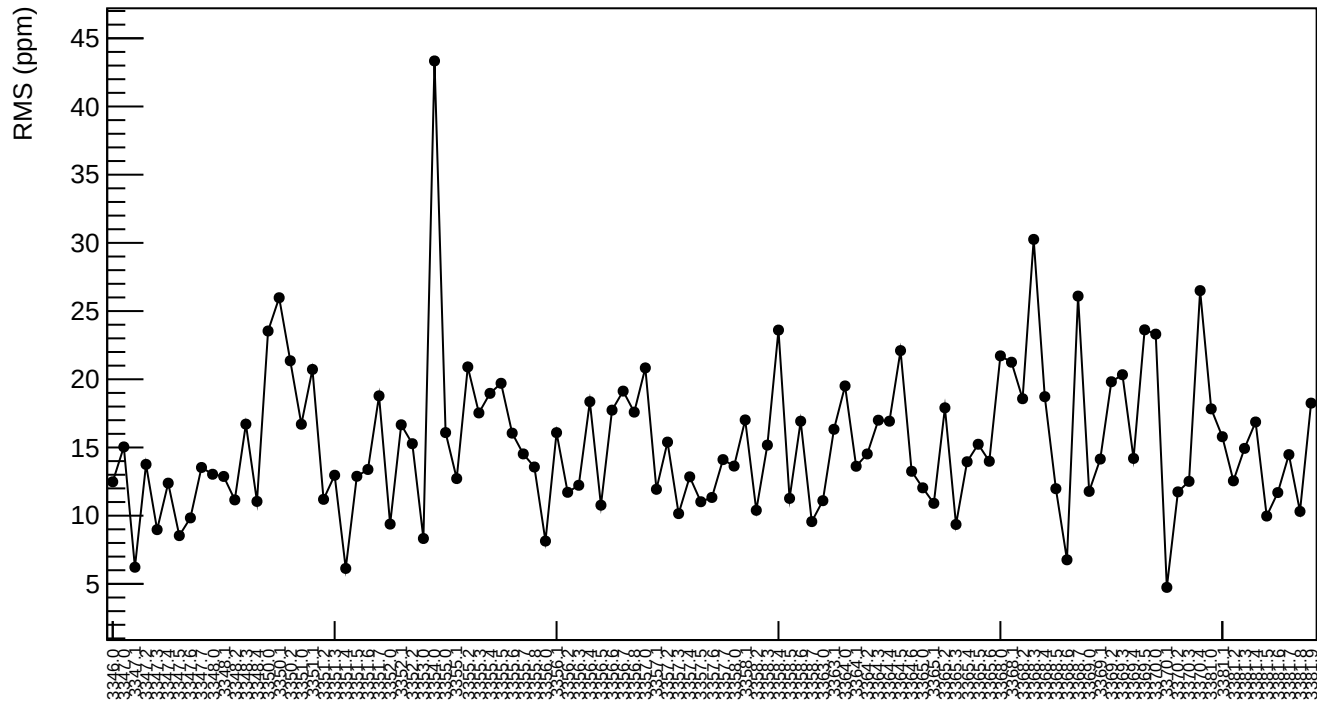
corr\_usr\_bpm12Y (ppb)



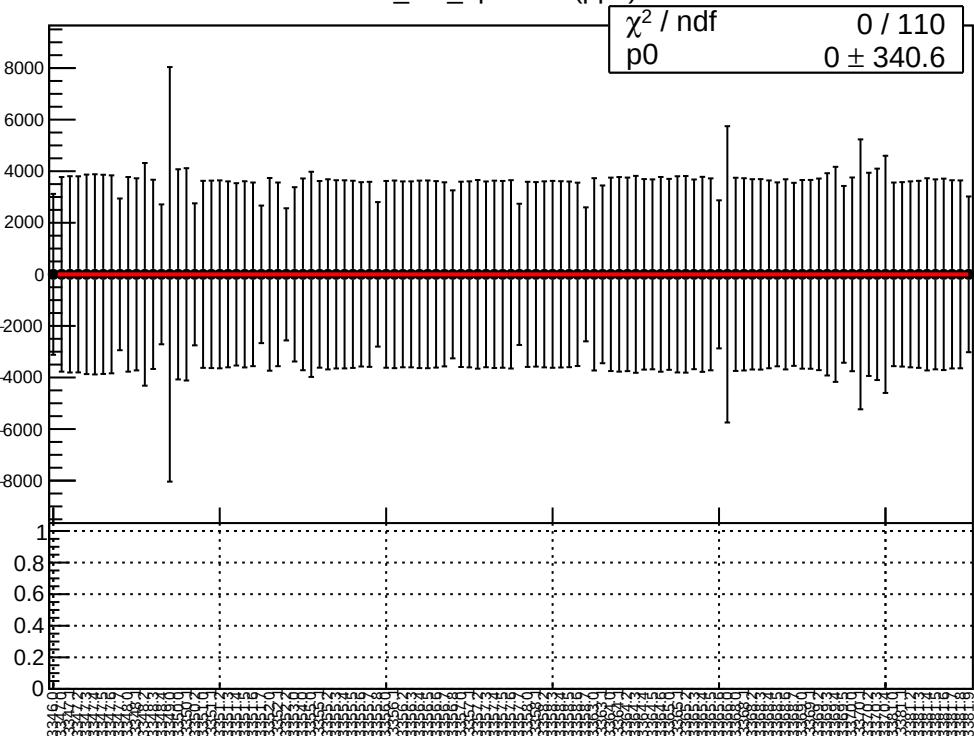
1D pull distribution



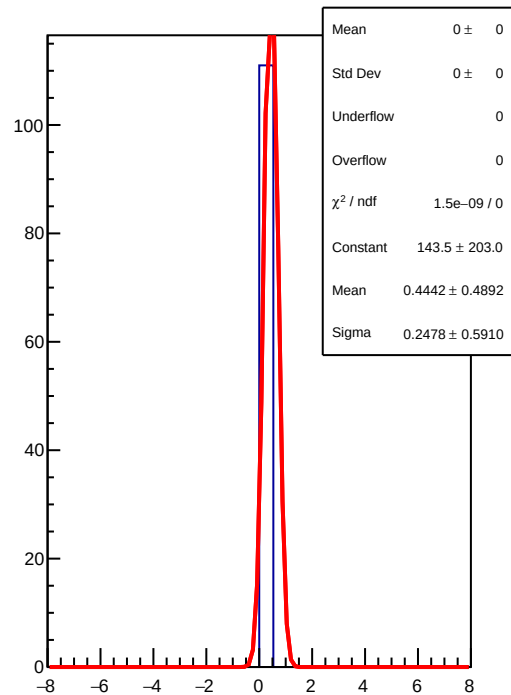
corr\_usr\_bpm12Y RMS (ppm)



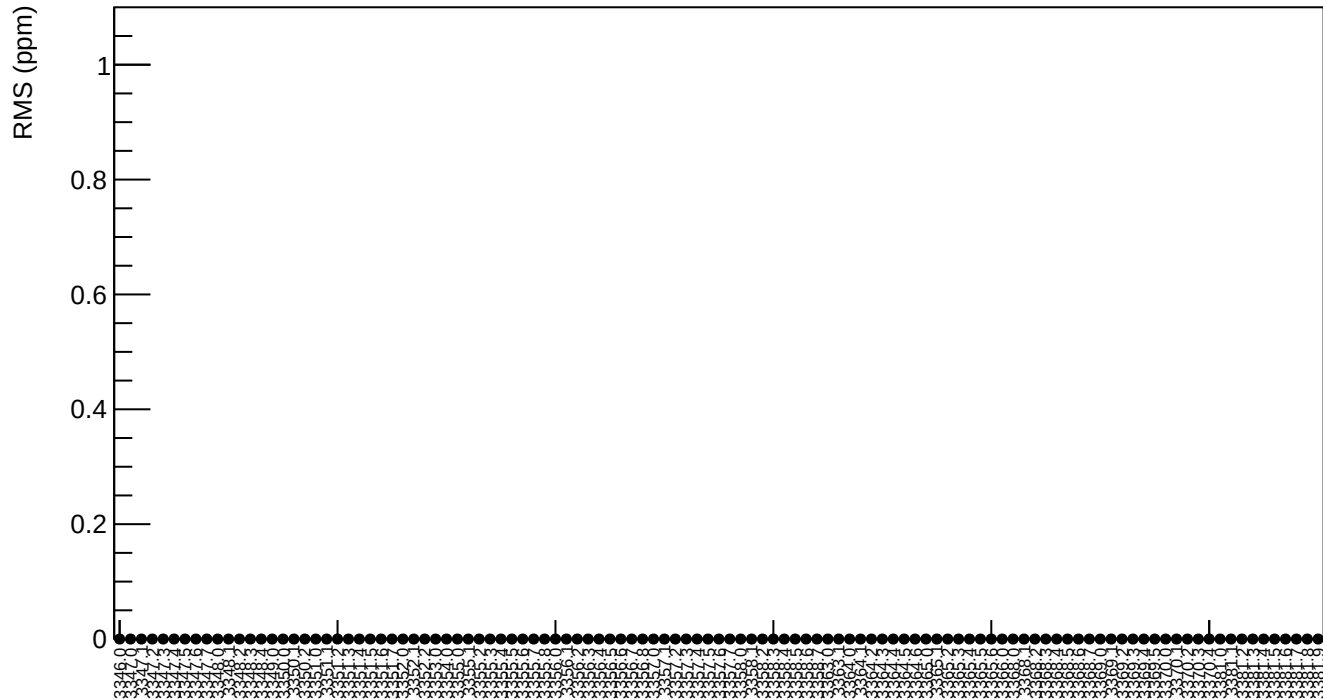
corr\_usr\_bpm11X (ppb)



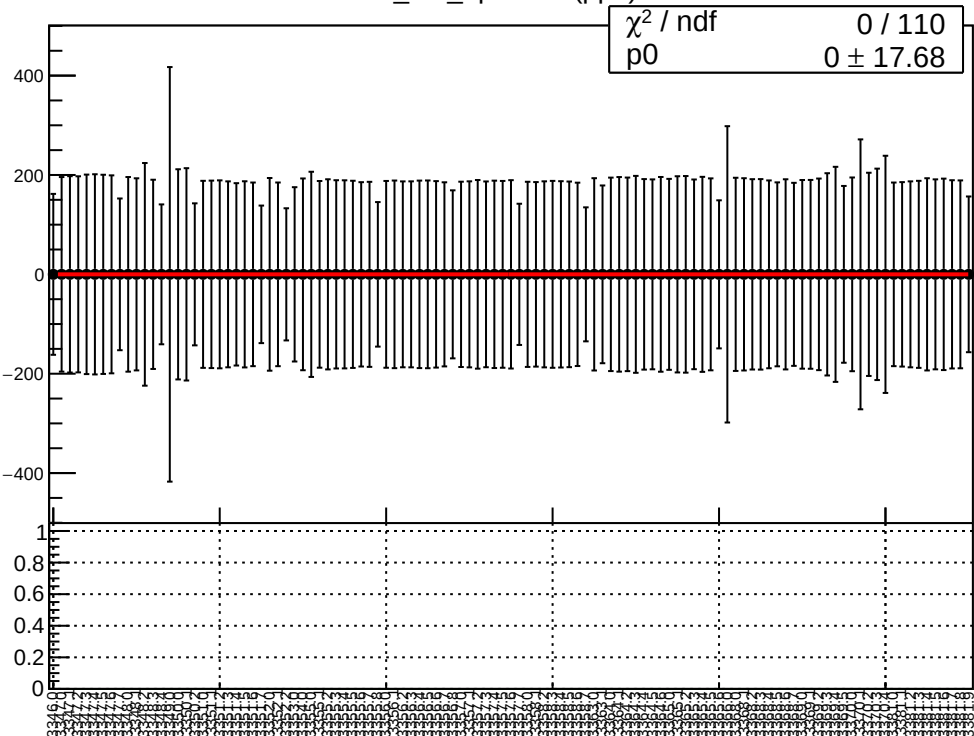
1D pull distribution



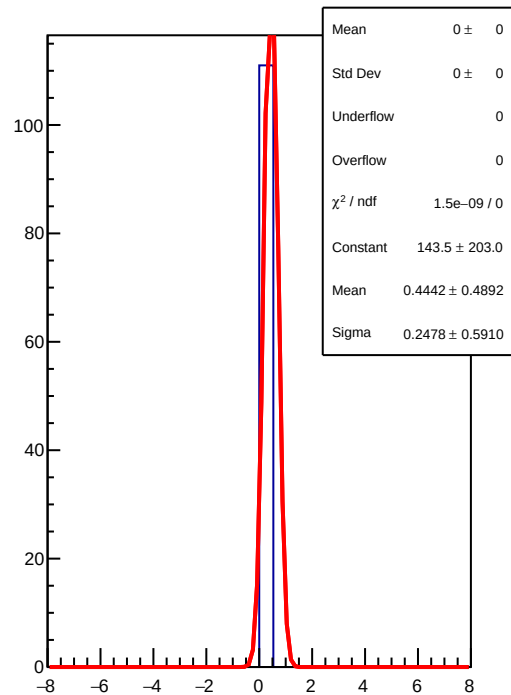
corr\_usr\_bpm11X RMS (ppm)



corr\_usr\_bpm11Y (ppb)

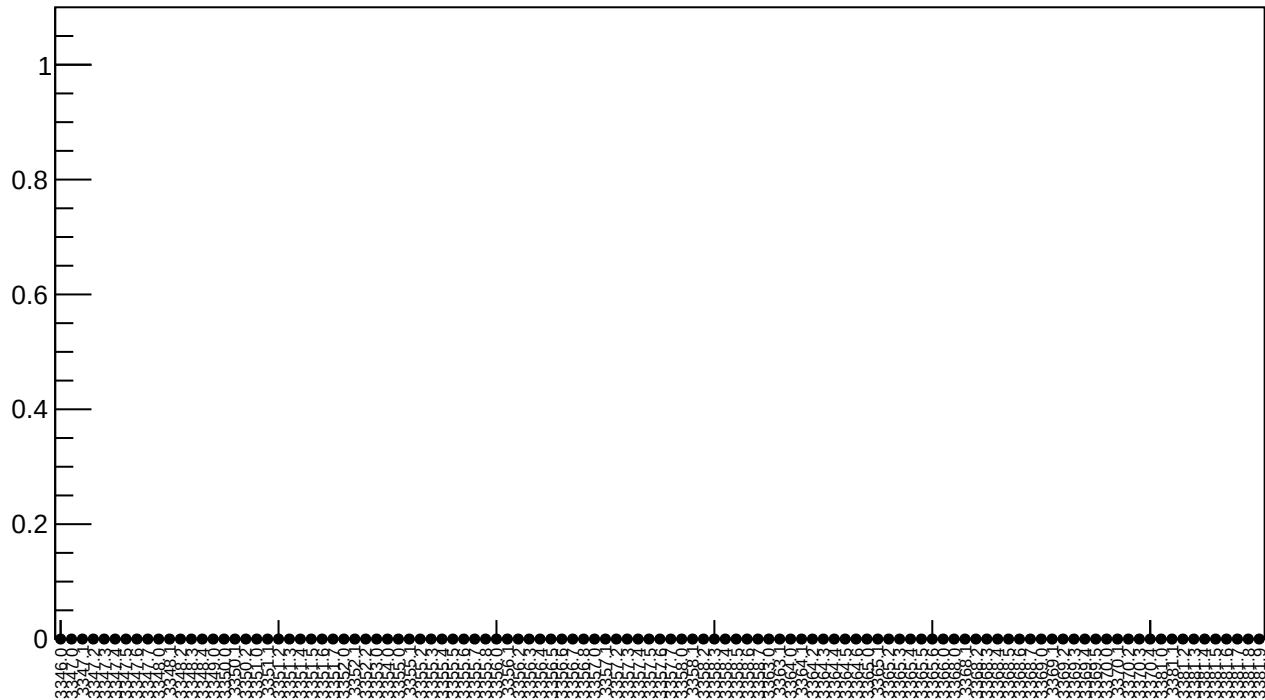


1D pull distribution



# corr\_usr\_bpm11Y RMS (ppm)

RMS (ppm)

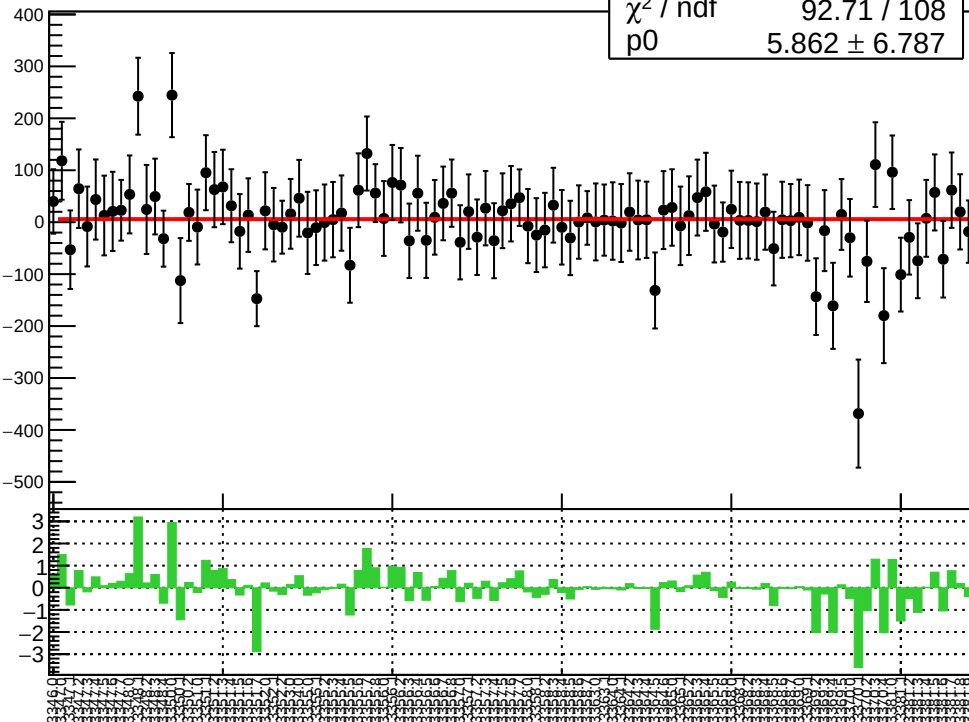


corr\_usr\_bpm8X (ppb)

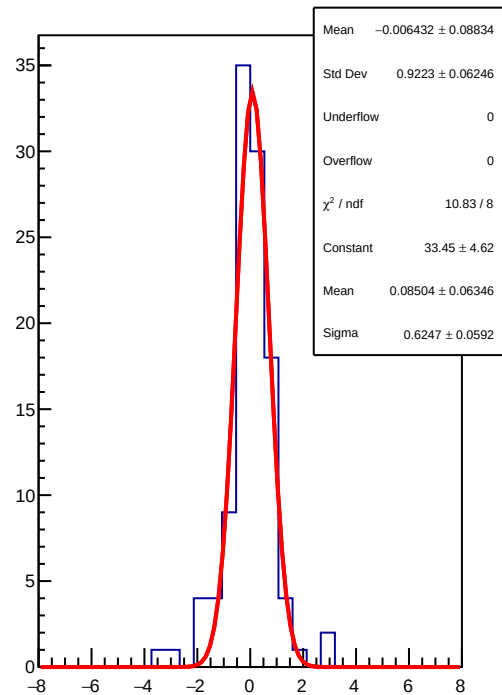
 $\chi^2 / \text{nfd}$ 

92.71 / 108

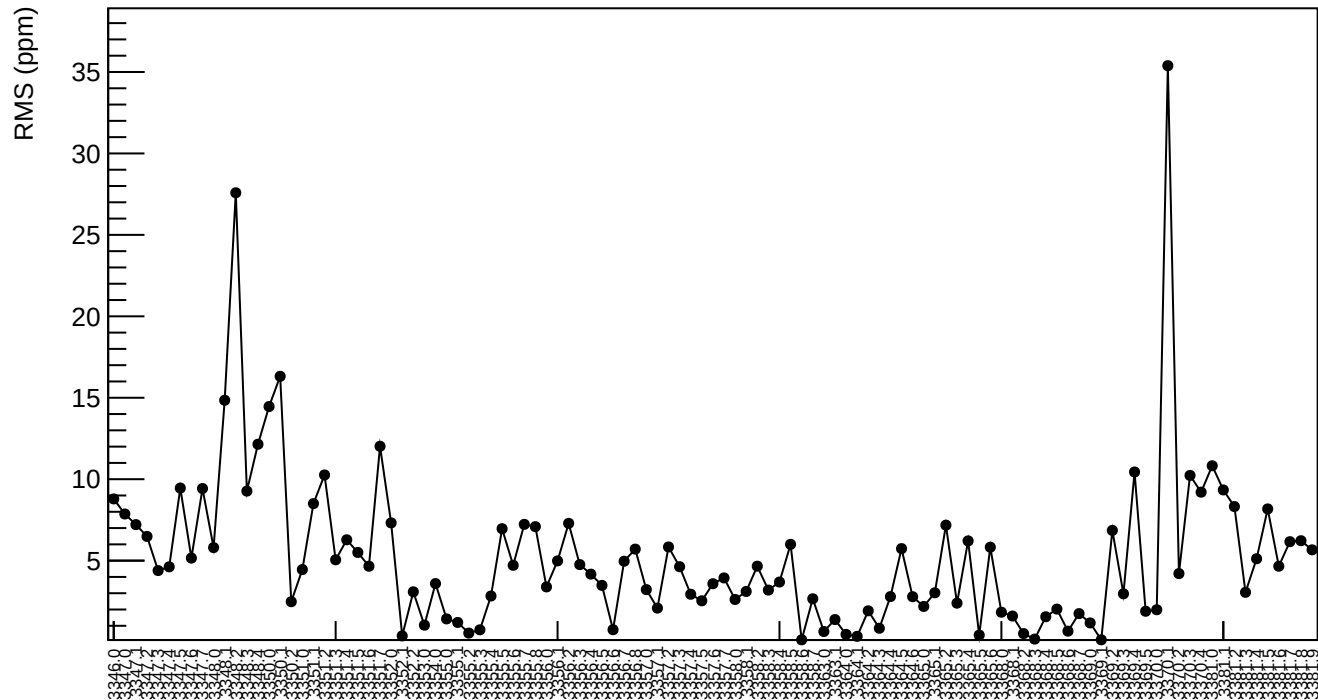
p0

 $5.862 \pm 6.787$ 

1D pull distribution



corr\_usr\_bpm8X RMS (ppm)



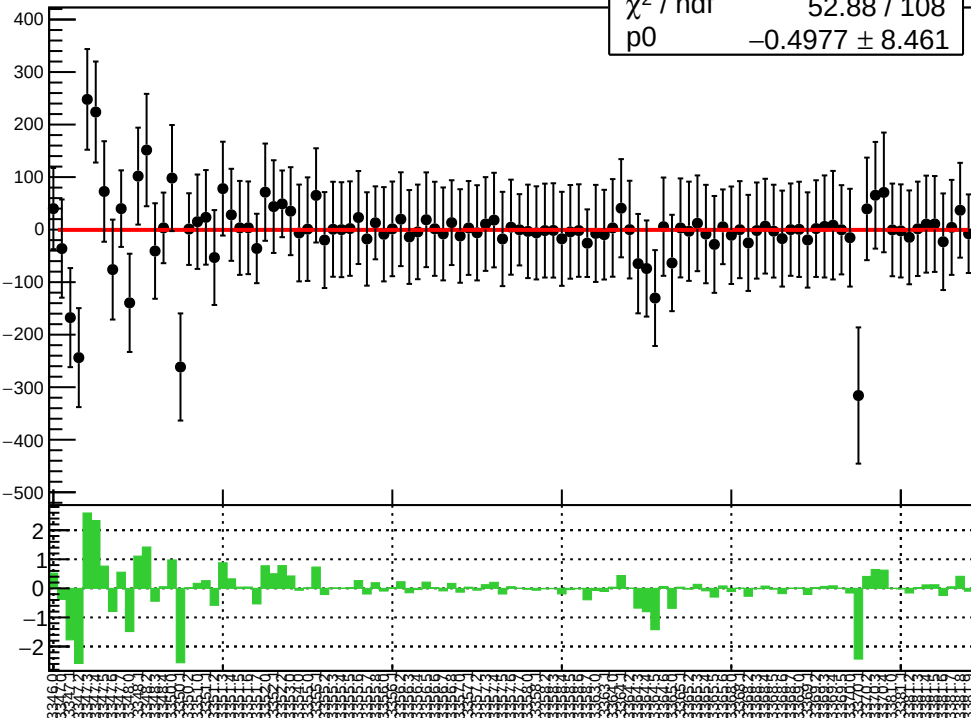


corr\_usr\_bpm8Y (ppb)

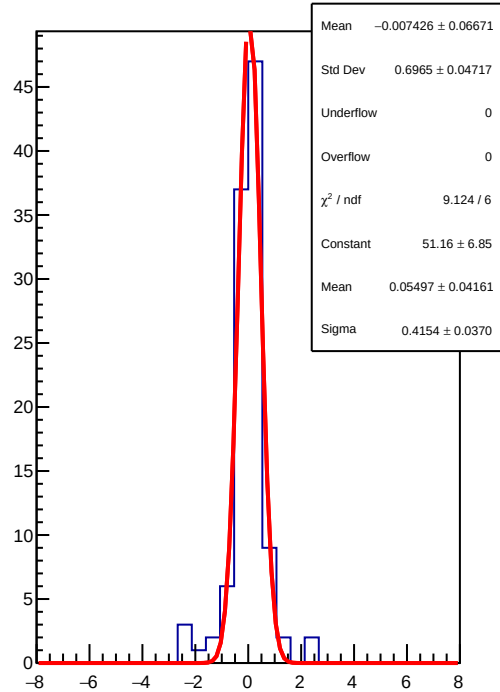
 $\chi^2 / \text{ndf}$ 

52.88 / 108

p0

 $-0.4977 \pm 8.461$ 

1D pull distribution



corr\_usr\_bpm8Y RMS (ppm)

