

Using CTF and the “Adun”-Strategy



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Outline

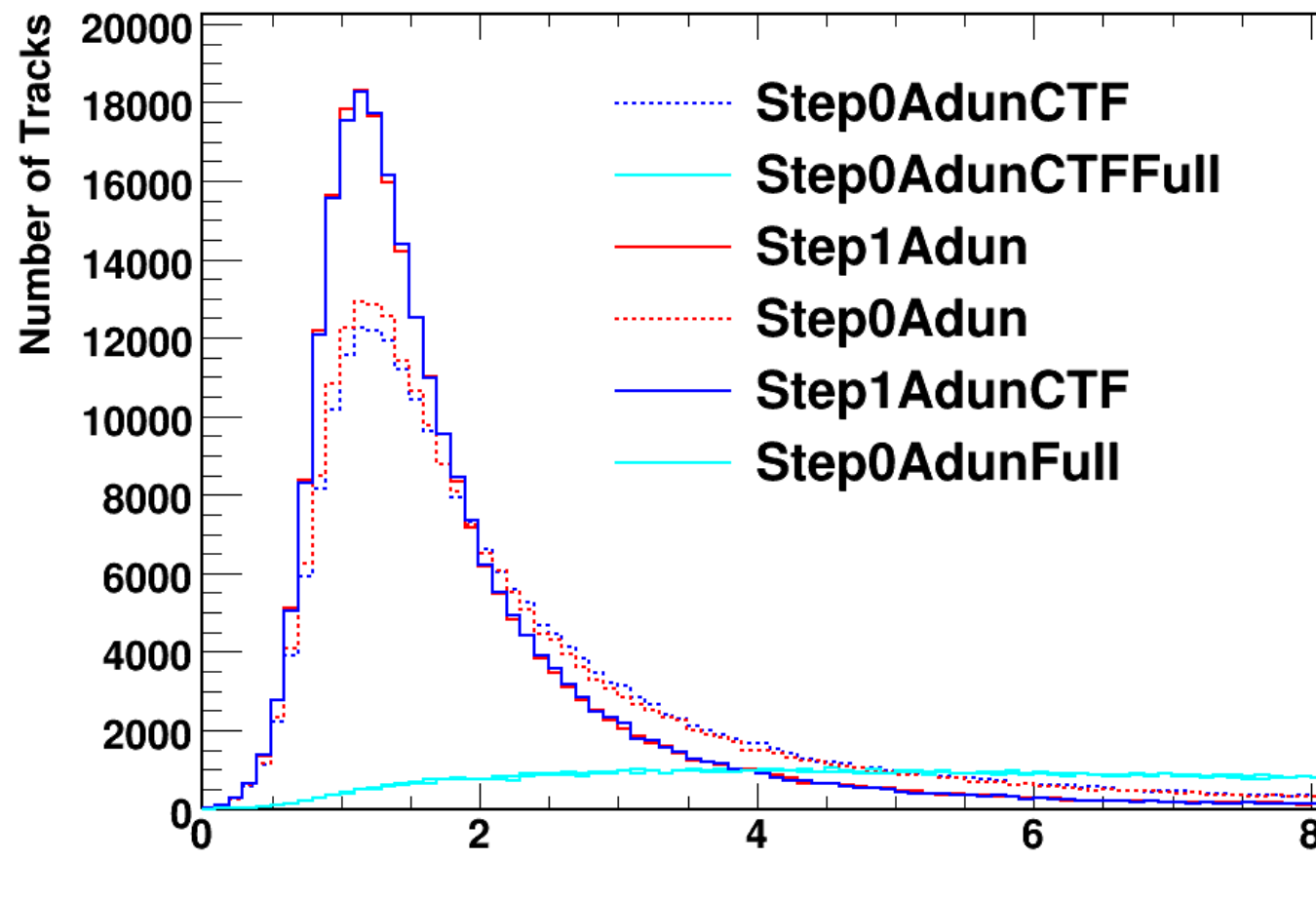


Comparing CTF to CoTF

- χ^2 / nDoF
- Residuals in PXB
- Geometry Comparison

Offline Validation: χ^2/ndof on CTF

χ^2/ndof



Entries	252901
Mean	2.379
RMS	1.749
Underflow	0
Overflow	1.321e+04
Entries	248669
Mean	5.372
RMS	2.504
Underflow	0
Overflow	1.719e+05
Entries	252936
Mean	1.839
RMS	1.295
Underflow	0
Overflow	5254
Entries	252896
Mean	2.316
RMS	1.719
Underflow	0
Overflow	1.291e+04
Entries	252908
Mean	1.834
RMS	1.276
Underflow	0
Overflow	5028
Entries	246908
Mean	5.392
RMS	2.497
Underflow	0
Overflow	1.72e+05

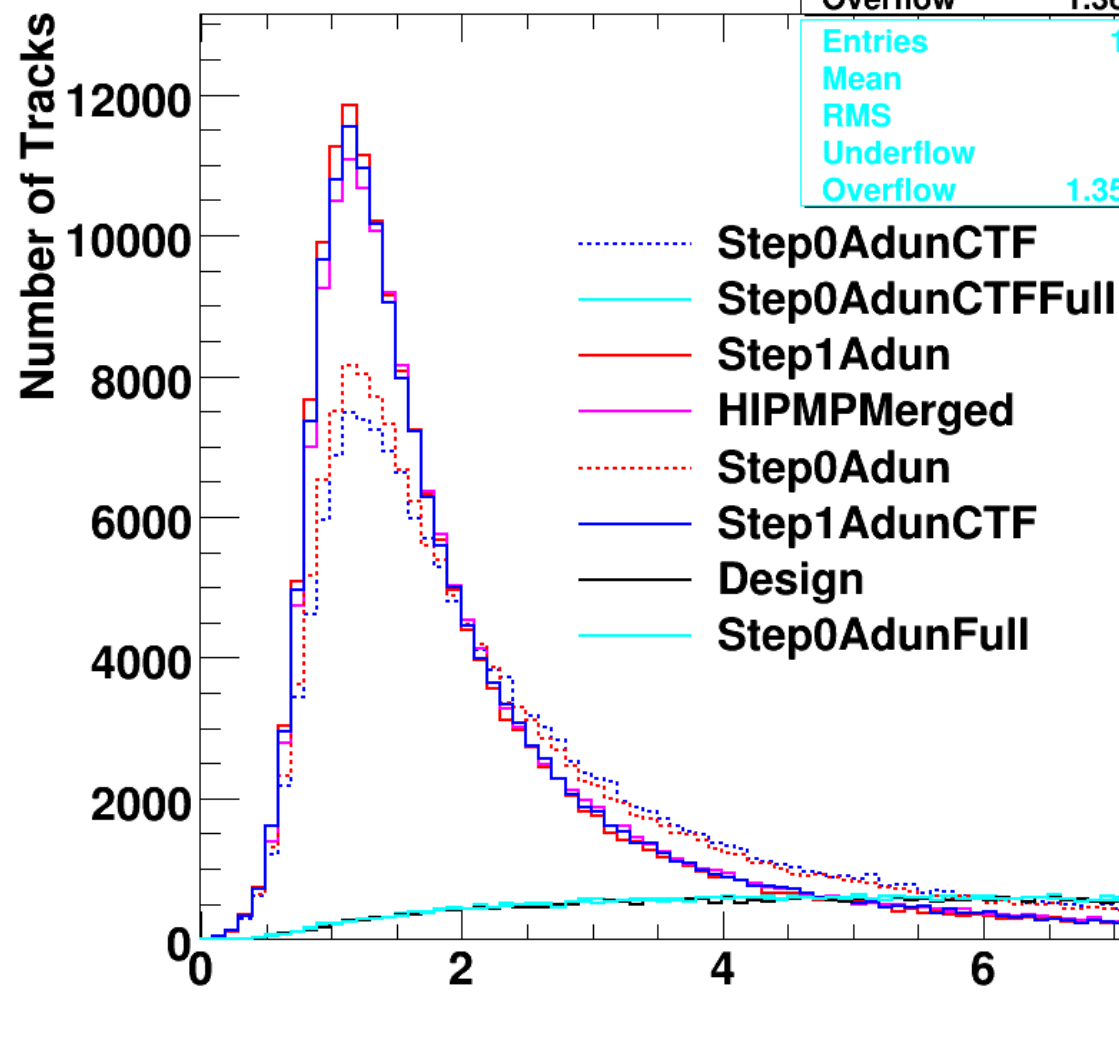
Comments

- Absolute numbers are smaller than using CTF

Offline Validation: χ^2/ndof on CoTF



χ^2/ndof



Entries	182584
Mean	5.609
RMS	2.5
Underflow	0
Overflow	1.364e+05

Entries	182372
Mean	5.563
RMS	2.483
Underflow	0
Overflow	1.356e+05

Entries	186286
Mean	2.695
RMS	1.976
Underflow	0
Overflow	1.998e+04

Entries	183789
Mean	5.562
RMS	2.484
Underflow	0
Overflow	1.357e+05

Entries	186286
Mean	2.111
RMS	1.609
Underflow	0
Overflow	1.148e+04

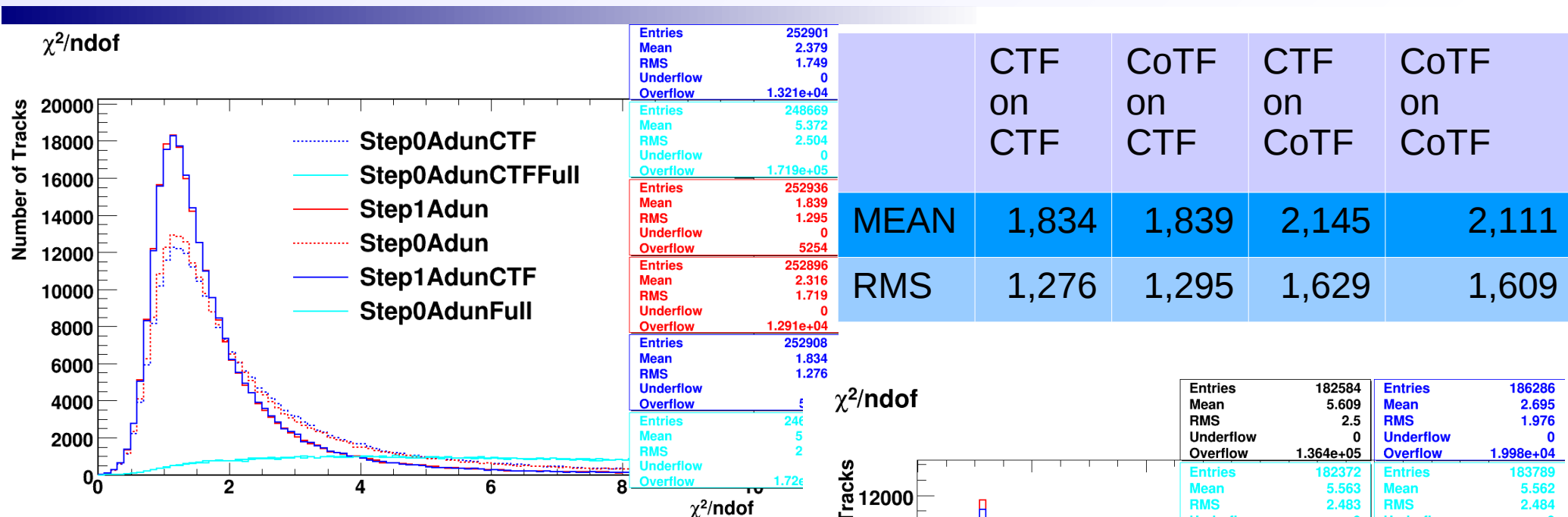
Entries	186255
Mean	2.182
RMS	1.657
Underflow	0
Overflow	1.231e+04

Entries	186261
Mean	2.603
RMS	1.941
Underflow	0
Overflow	1.919e+04

Entries	186273
Mean	2.145
RMS	1.629
Underflow	0
Overflow	1.161e+04

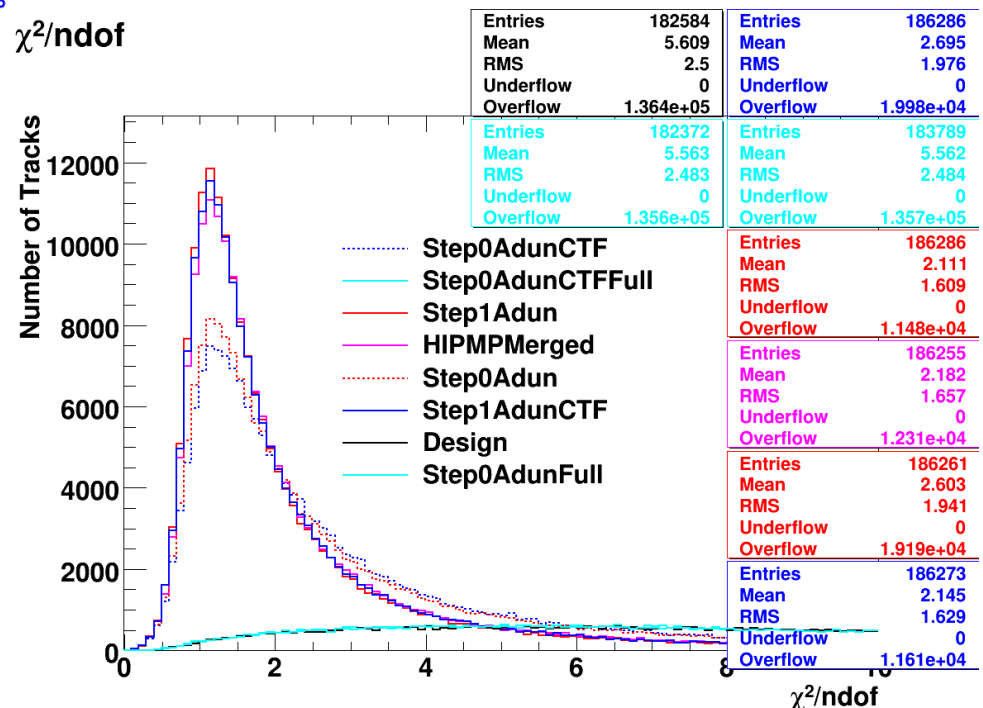
Comments

- CoTF Alignment retains more optimisation than CTF



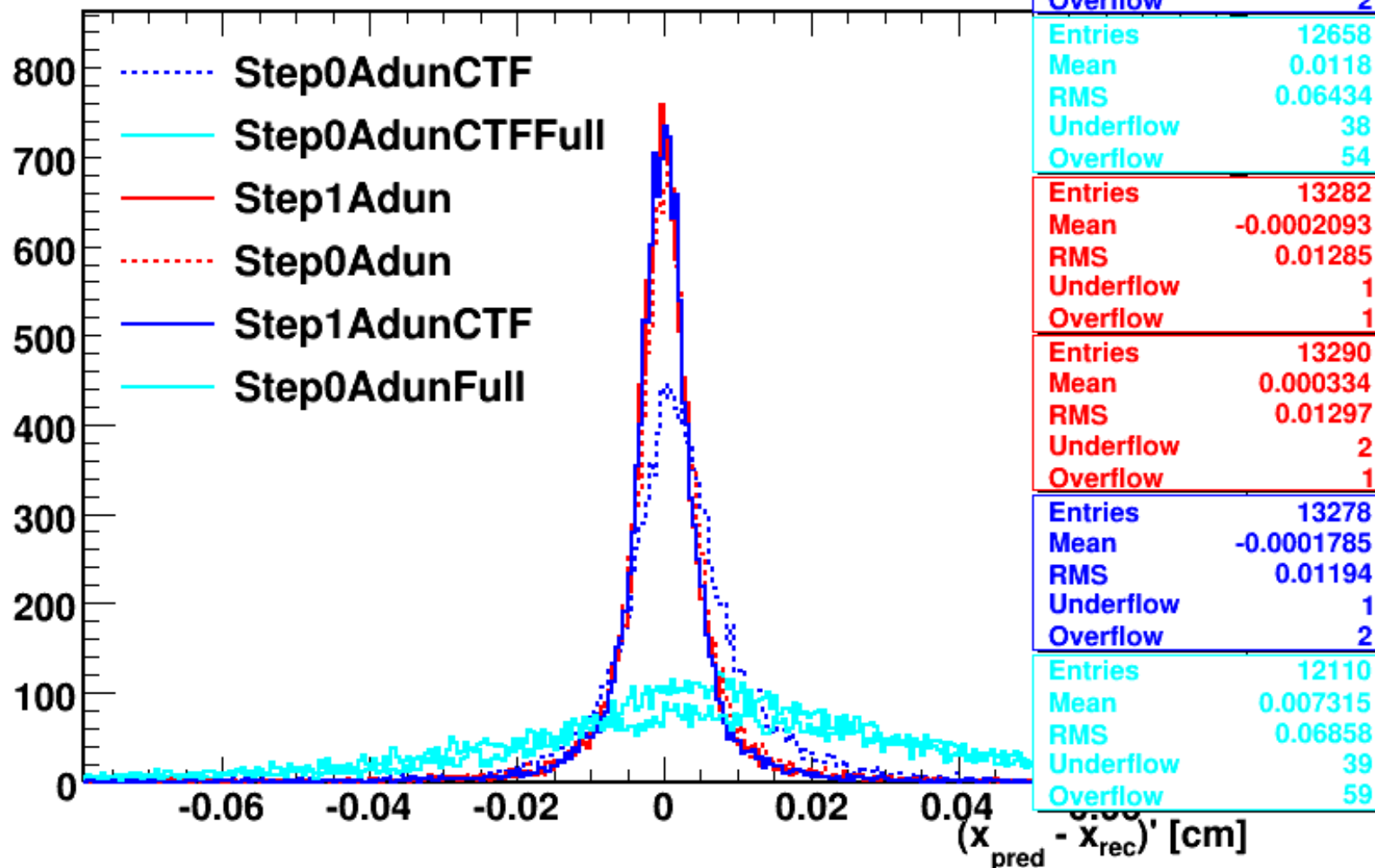
Comparison

- Generally smaller numbers using CTF
- Difference small in Step1 visible in Step0



Residuals in Forward Pixels

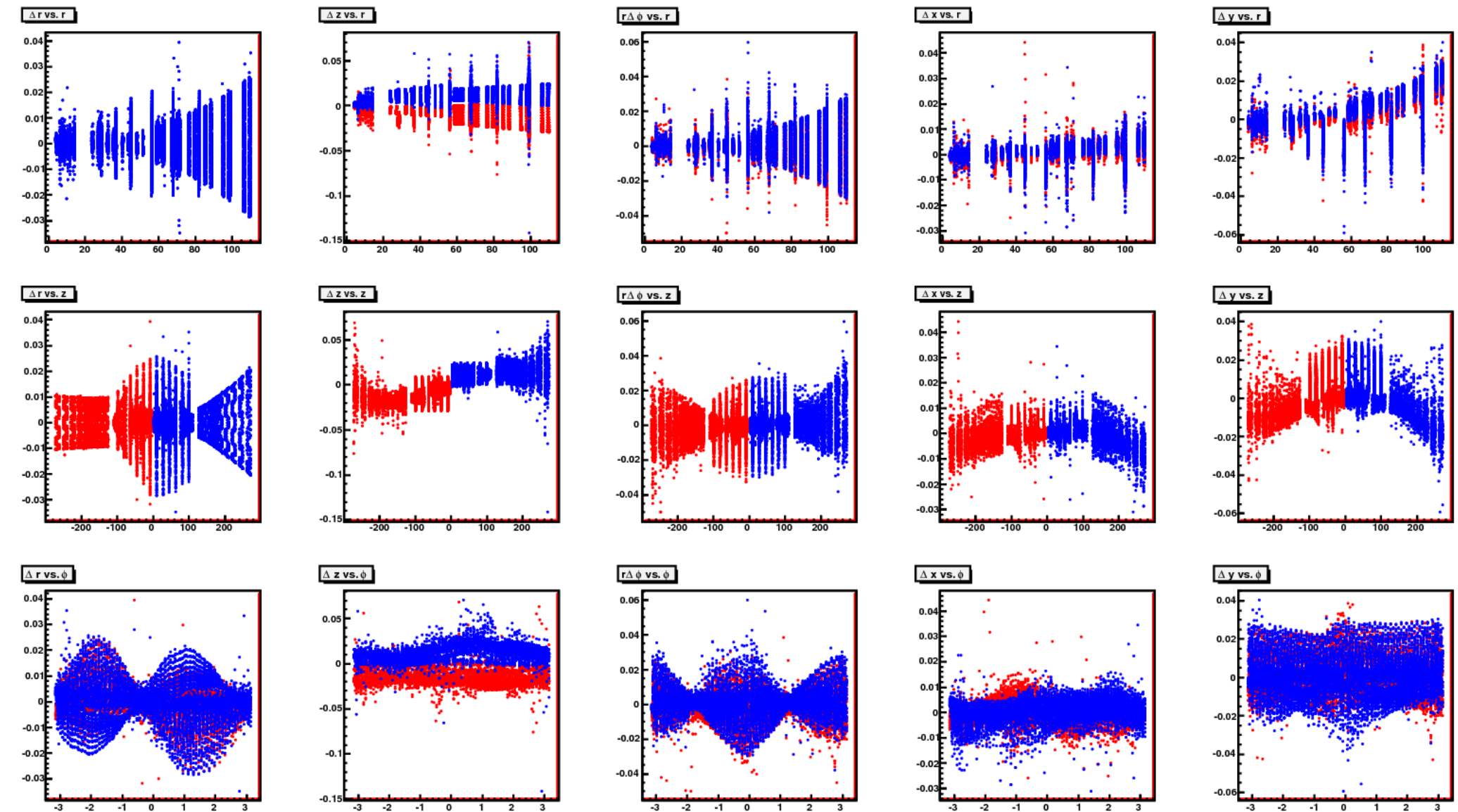
Residual for TPBBarrel 0 in Pixel



Comment

- PXB suffers in Step 0 but reaches CoTF performance in Step 1

Geometry Comparison: Step1Adun CoTF vs. CTF



RMS: $\Delta r = 73\mu\text{m}$ $\Delta z = 150\mu\text{m}$ $r\Delta\phi = 61\mu\text{m}$



Switch to CTF?

- Generally very similar performance
- Degradation in PXB Alignment in Step0
- Overall small geometrical differences

Outlook

- Still refining Adun Strategy

The End

