L00 Update

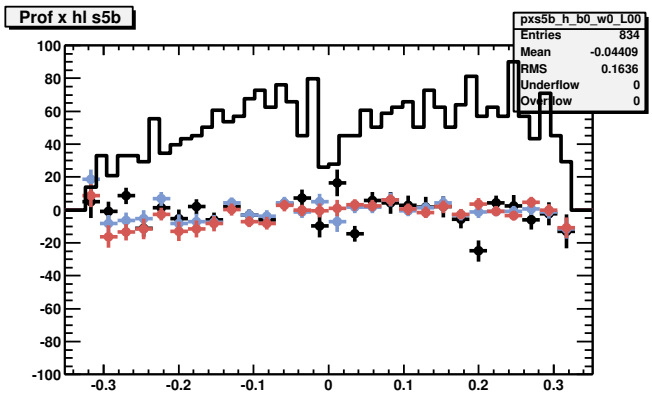
Using ~10 runs from spring
recluster with current best, standard L00 cuts
retrack, including aligned COT
use 100040 SVX alignment

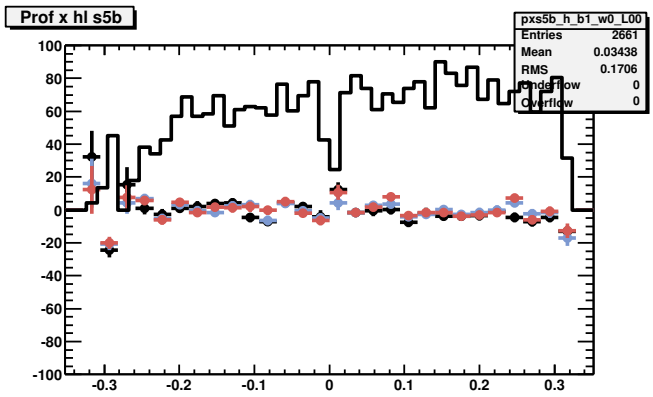
Problems fixed (over current 100040):
1) wrong track fit (no MCS)
2) recluster with 4.11.2
3) several wafers needed iteration
4) Cot cov scaling incorrect
5) pattern rec window insufficient for some wafers
    - switch to no patt rec, use all hits
    - put alignment in ladders for better patt rec

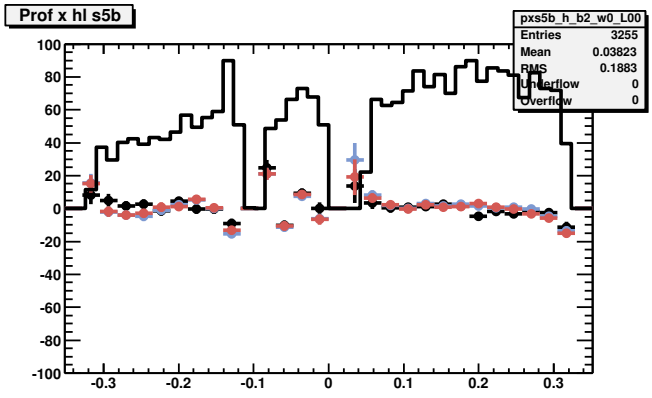
J.P. fixed in his work:
1) corrupt COT alignment file
2) mistakes in Tx and Ay

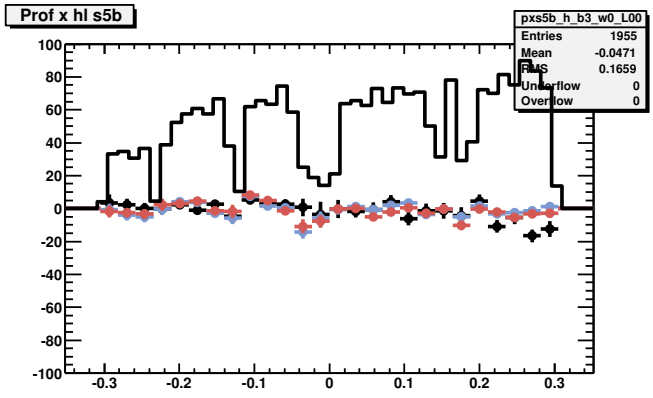
Residual Checks

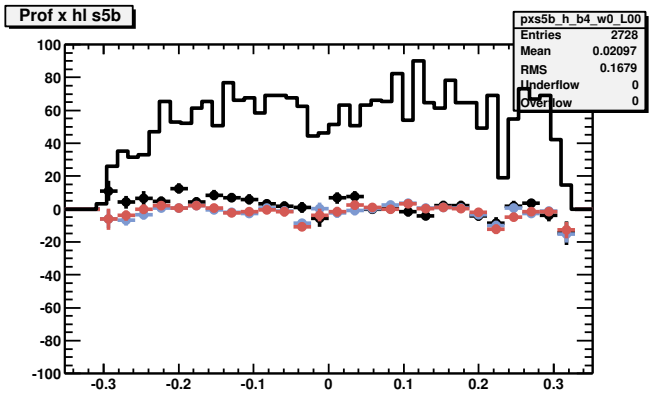
Plot residuals vs local y for each wafer.
histogram is occupancy on tracks
much better than what I showed in SiStudies
~ several months ago

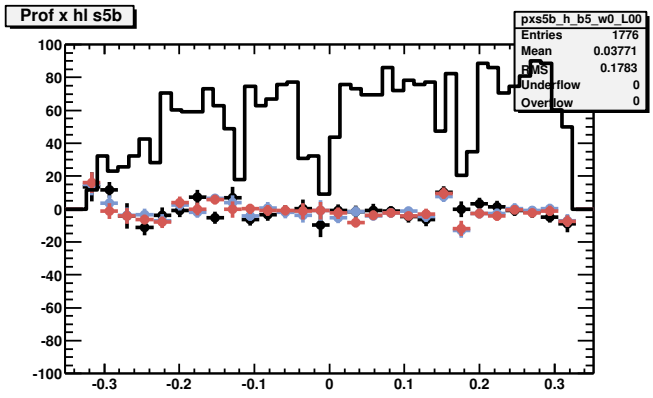






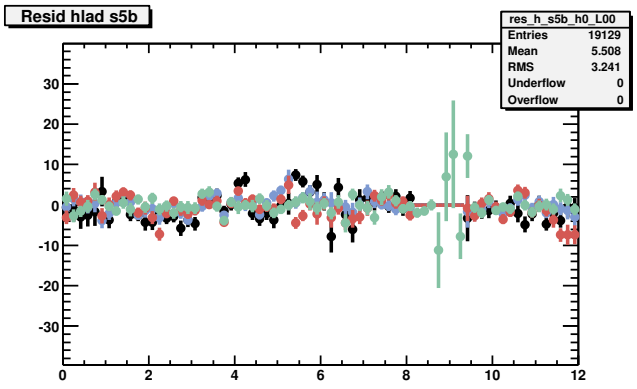


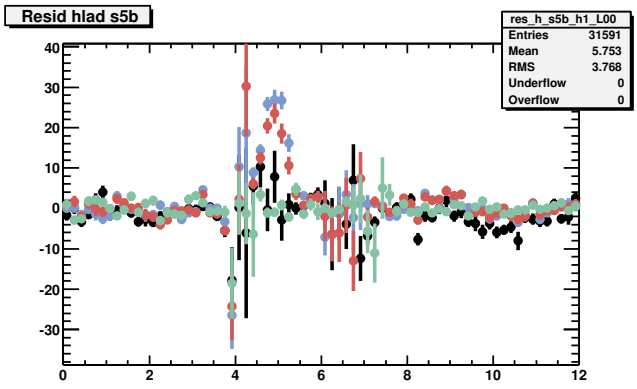


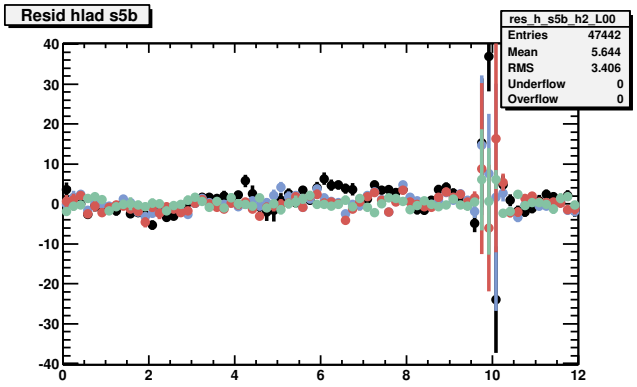


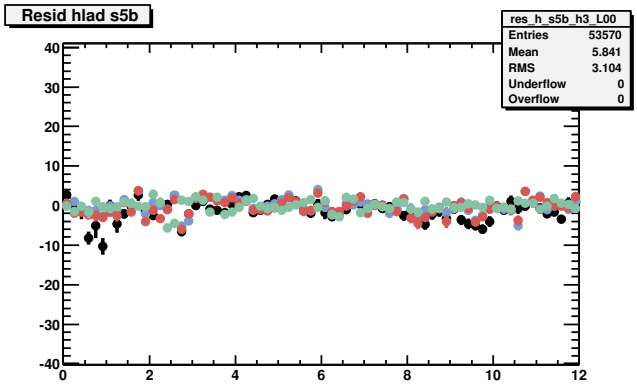
Residual Summary

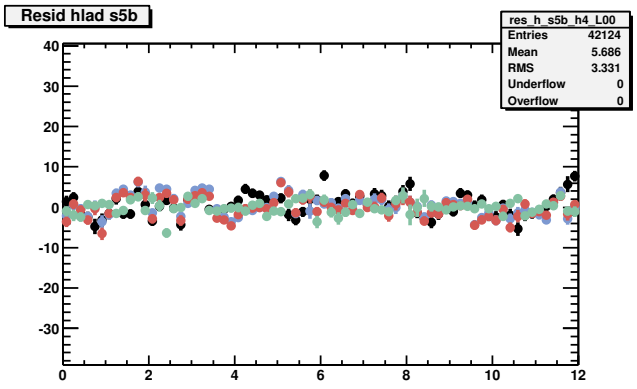
Plots of residual vs phi for each half-ladder
scale: +-40um
typical rms of projection=2um
s5b=black, unbiased=blue, svc=red

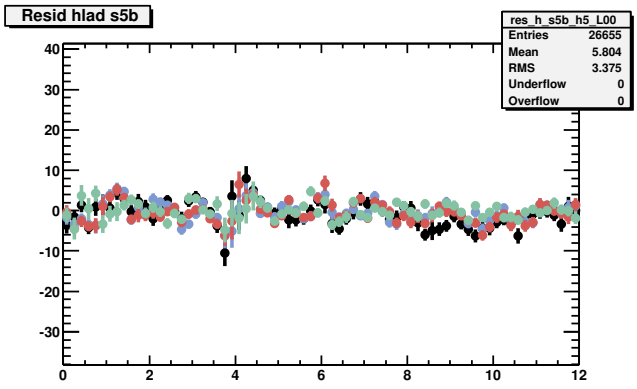






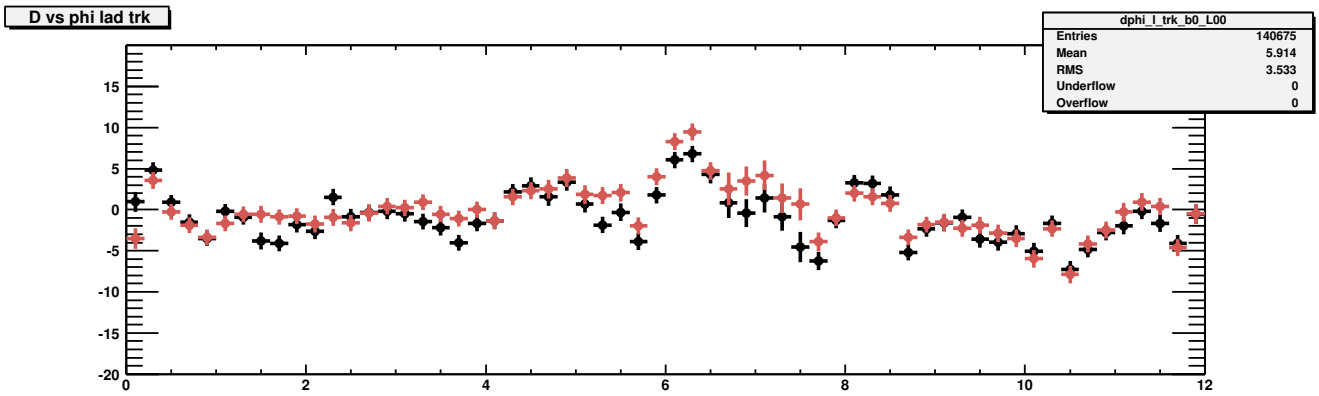


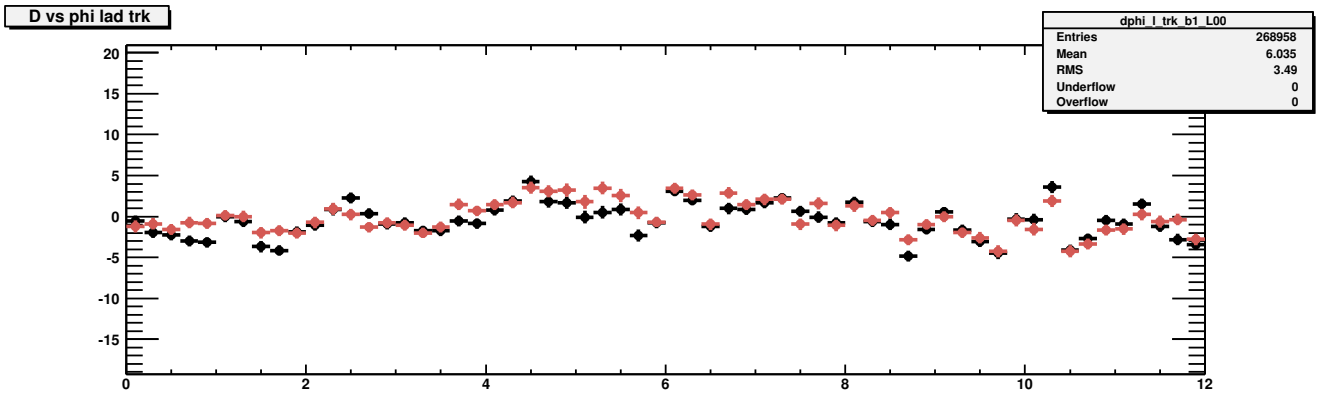


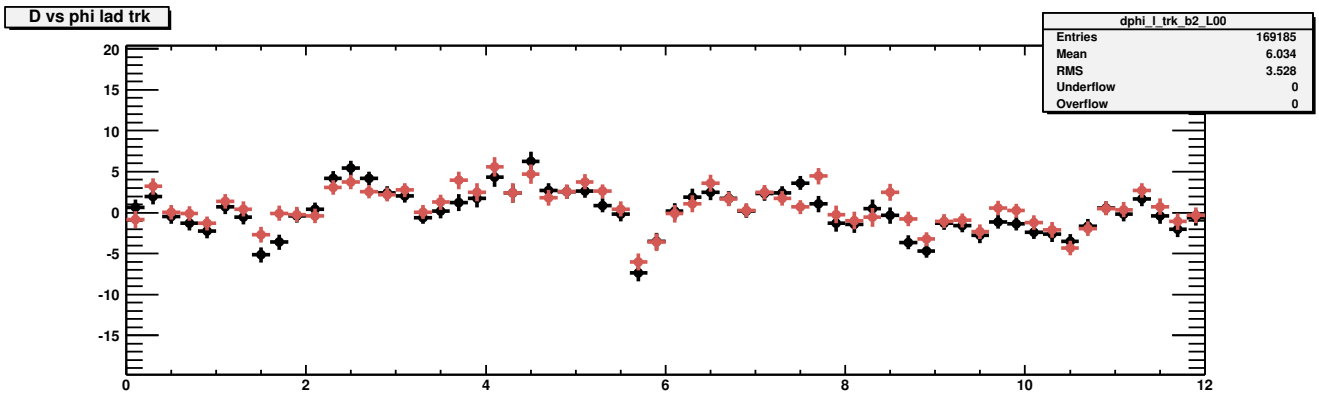


D0 vs phi

D0 to beamline vs phi for trks w/ L00 hits, offline fit
Y scale +-20um
typical projection RMS: 2um

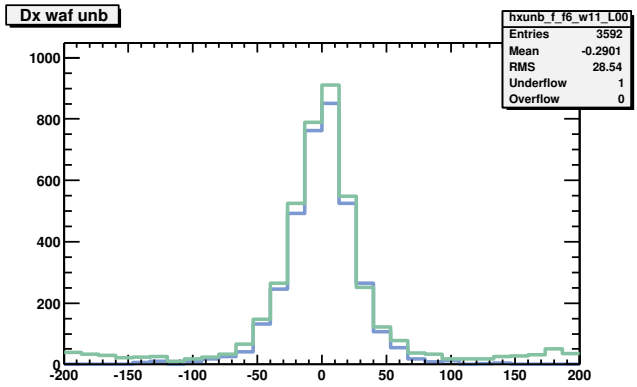


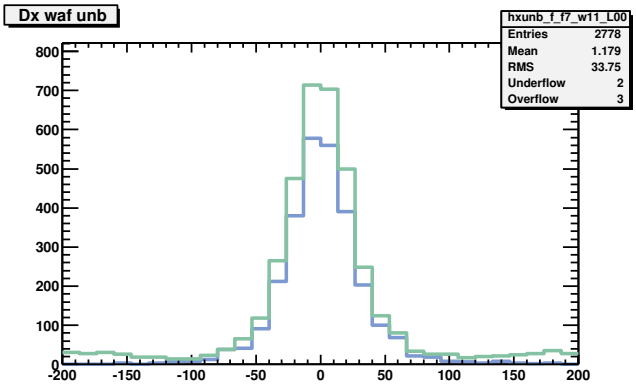


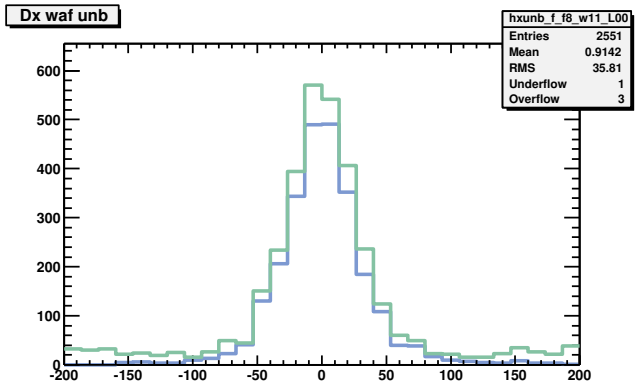


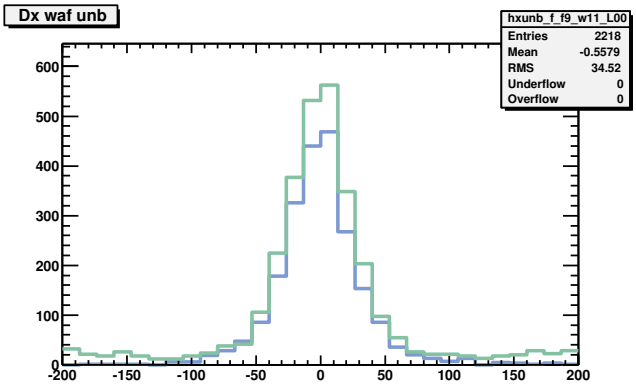
Residuals

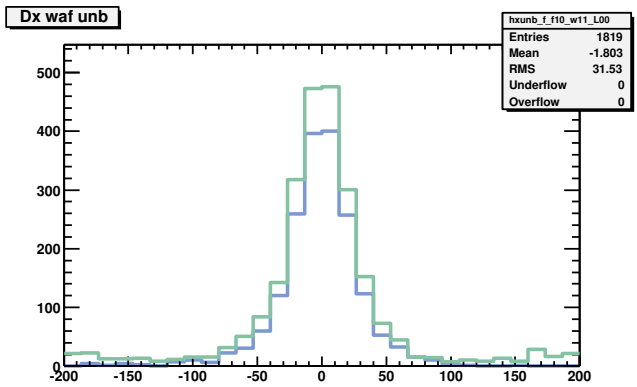
Many residuals used to look distorted,
now all look good
blue=patt rec, green= all hits

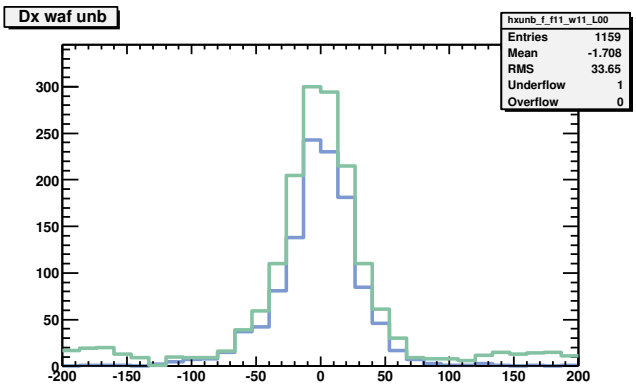










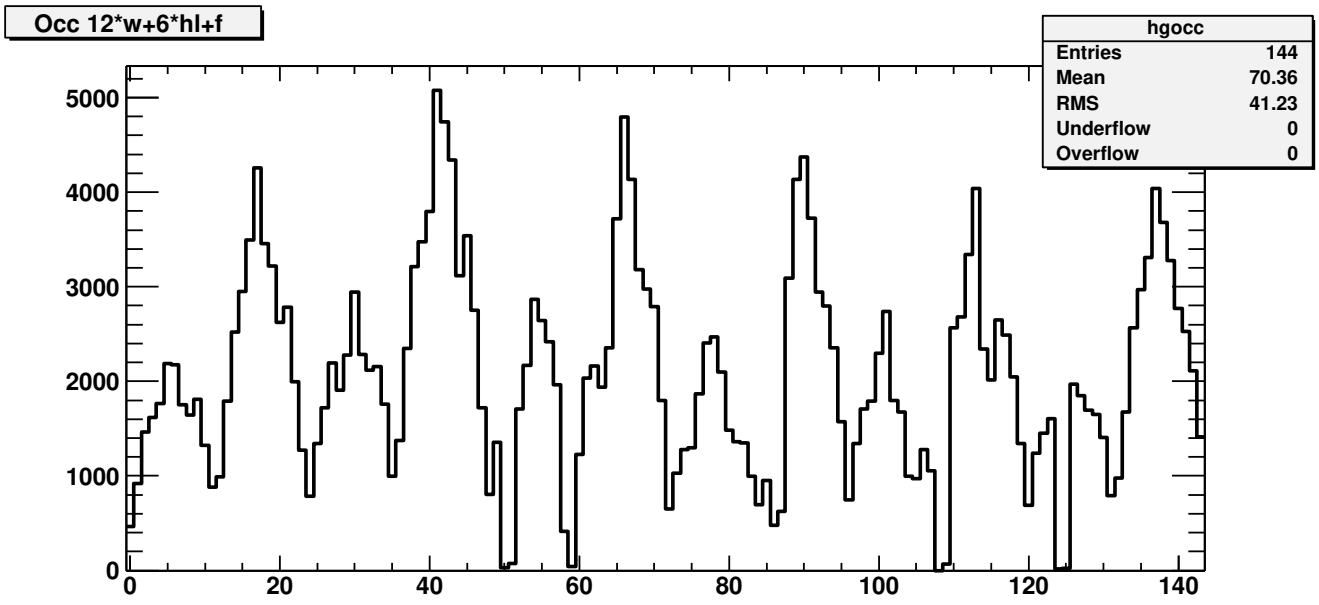


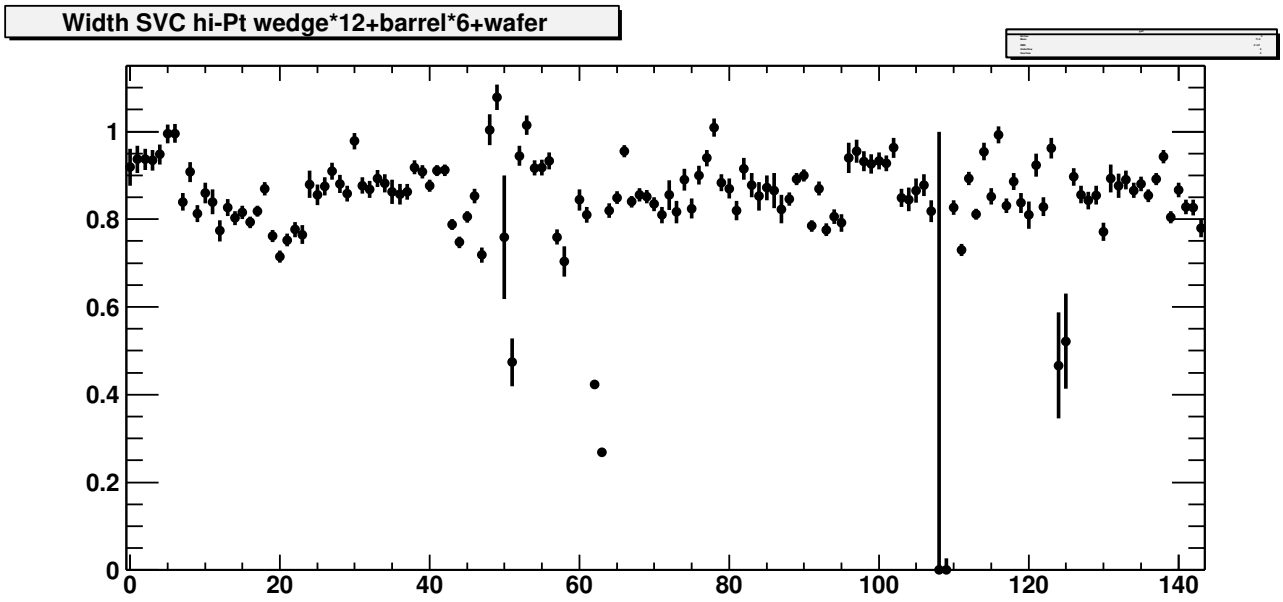
Occupancy/Hit Efficieny

Top: Occupancy

bottom: hits in patt rec and +-75um window divided by all hits in peak before patt rec

- one hl is bad, others may be a little bad





Conclusion

L00 alignment much improved -
- several outlayers completely fixed
- all internal tests look very good

JP will check this alignment

Patt rec needs tuning
- clearly losing some hits on a few wafers
  need window +50 to 100um to fix
- possibly losing some on others?

Essentially done for the forseeable future

for experts, try "160034 43 TEST"
on spring data