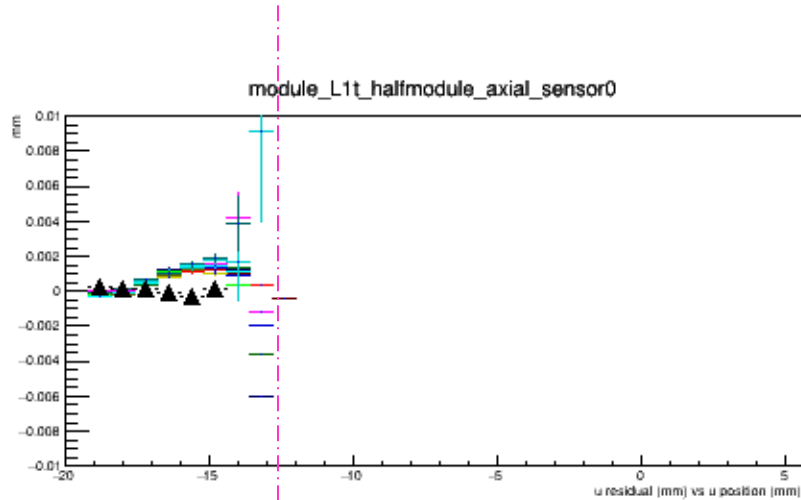


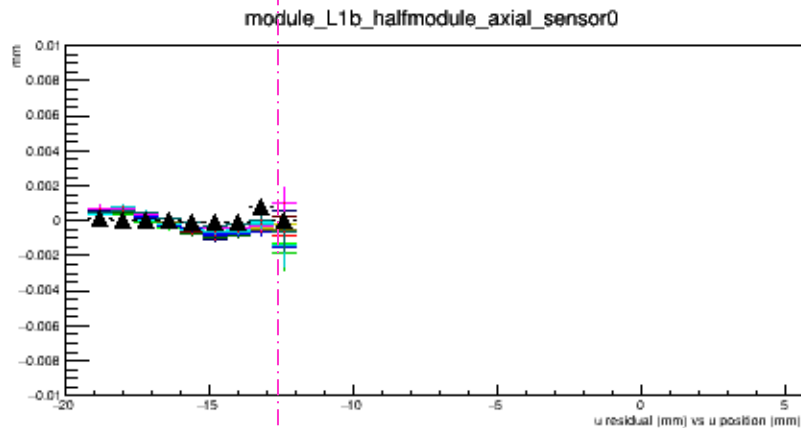
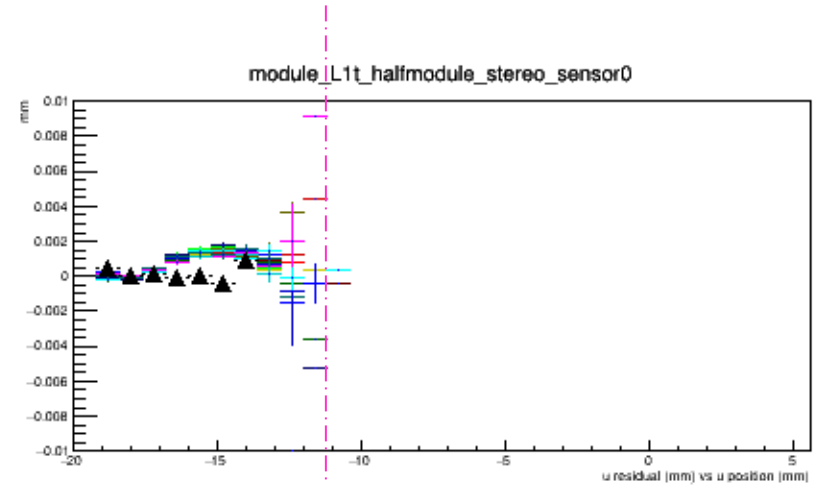
Test of alignment pass0 2016 data: u residuals vs u position profiles

- Evaluation of residuals after GBL
- Geometry: v4-4-fieldmap
 - Check on 17 file stubs (~50000 events each)
- Profile distributions sensitive to rotations around w axis
- Curved tracks – maybe straight tracks could give more useful informations?
- Study of shadowing and correlation of module positions

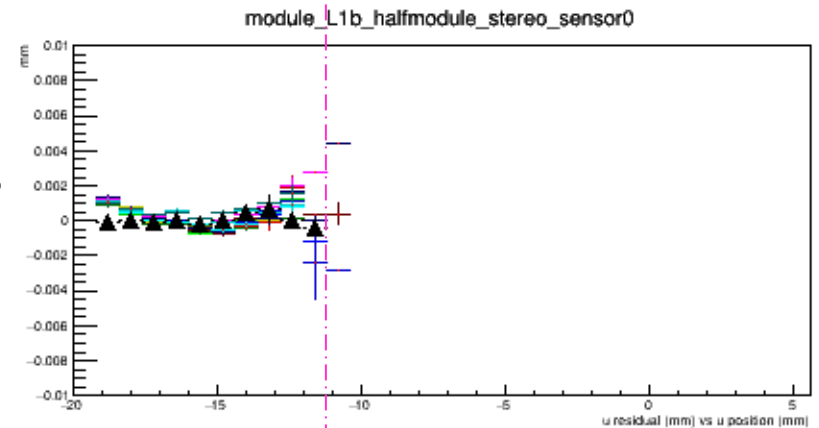
Profile histograms modules #1



TOP

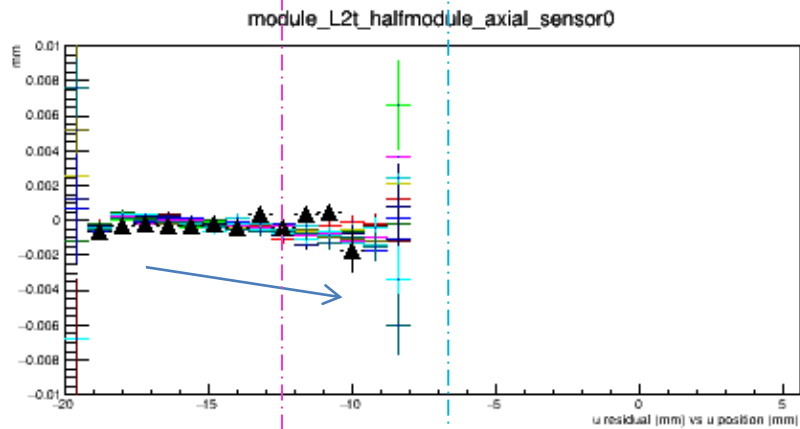


BOT



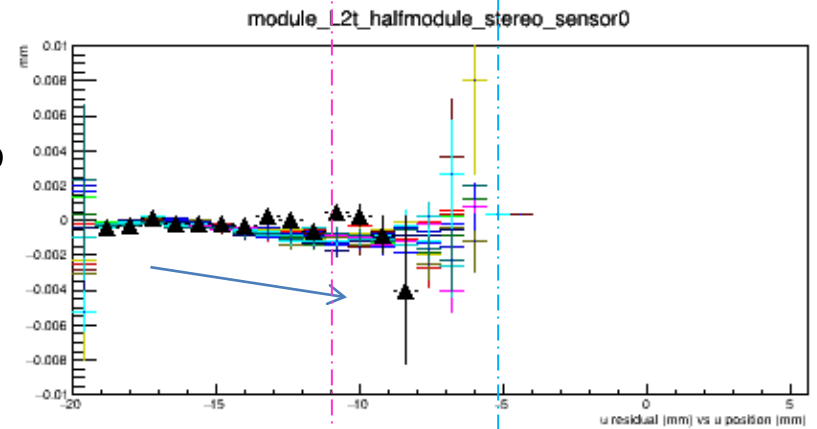
Profile histograms modules #2

Layer 1 limit

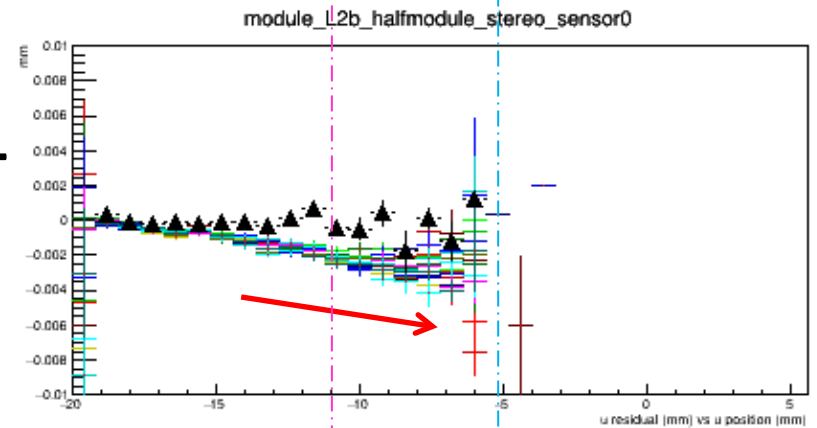
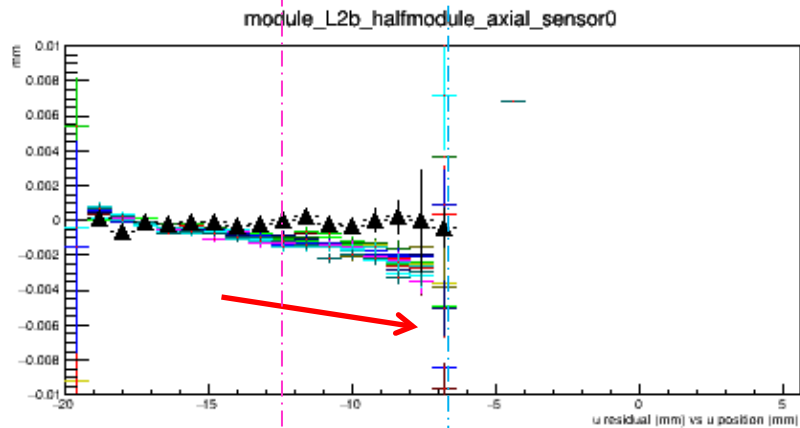


TOP

Layer 1 limit

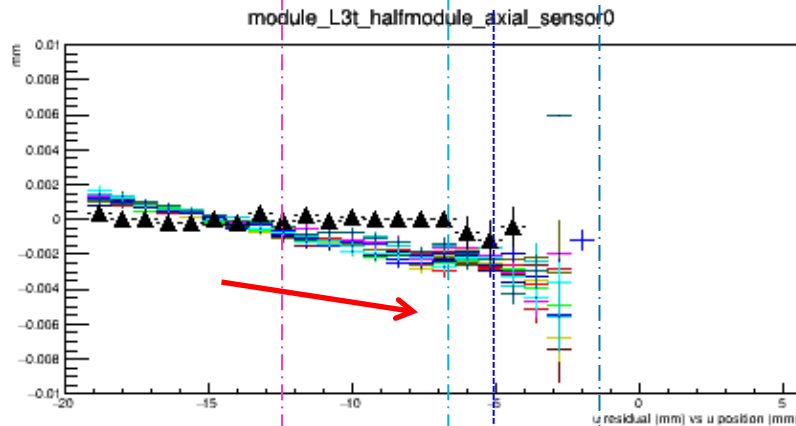


BOT



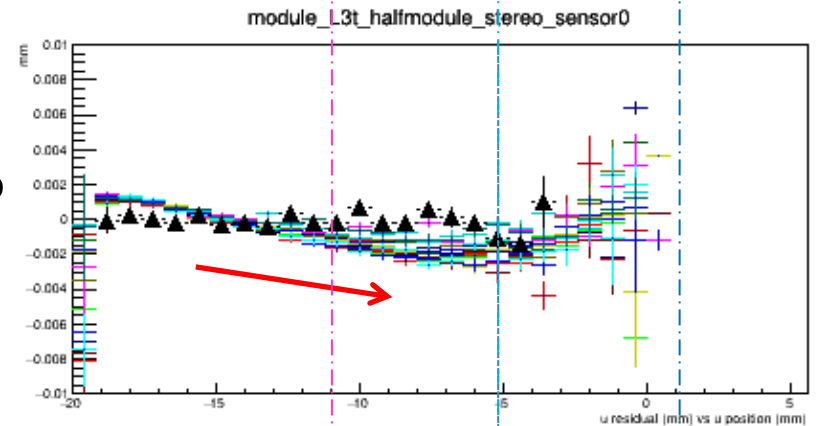
Profile histograms modules #3

Layer 1 limit Layer 2 limit

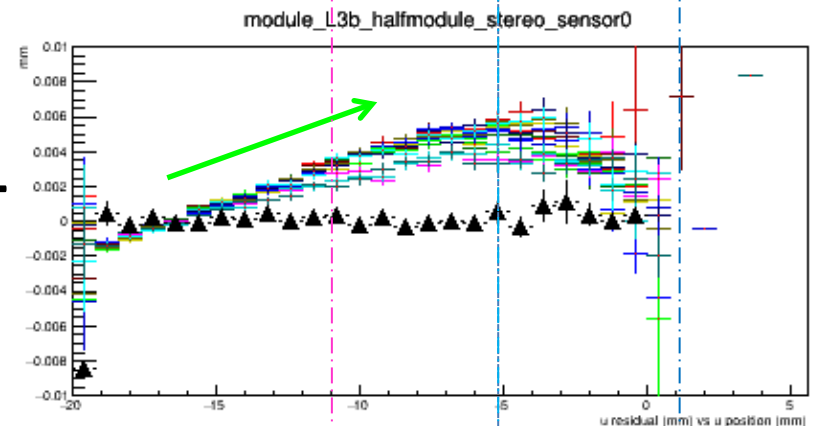
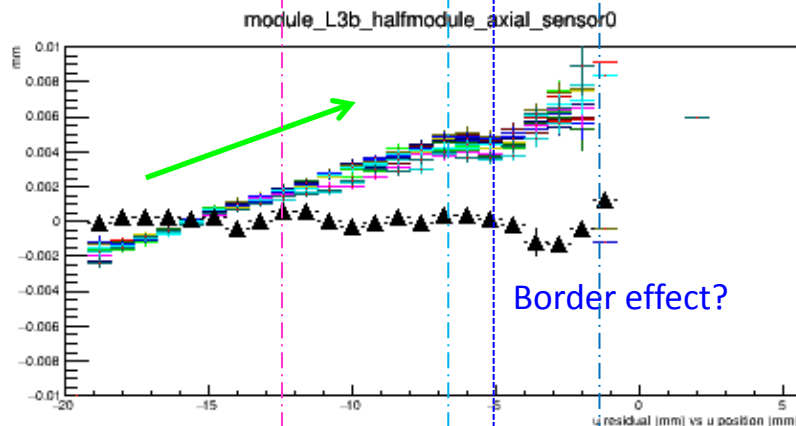


TOP

Layer 1 limit Layer 2 limit



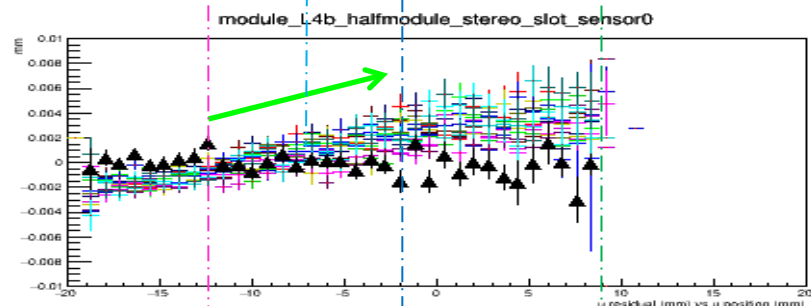
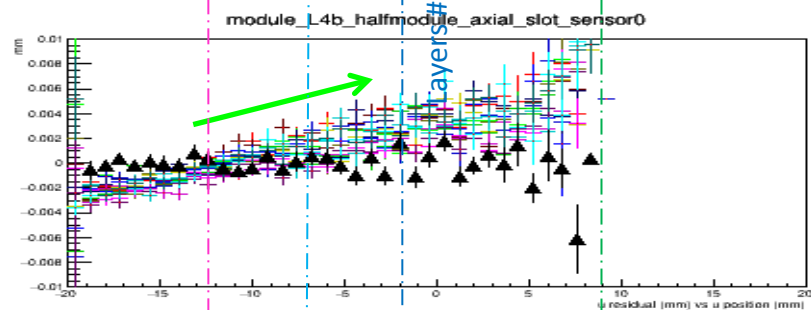
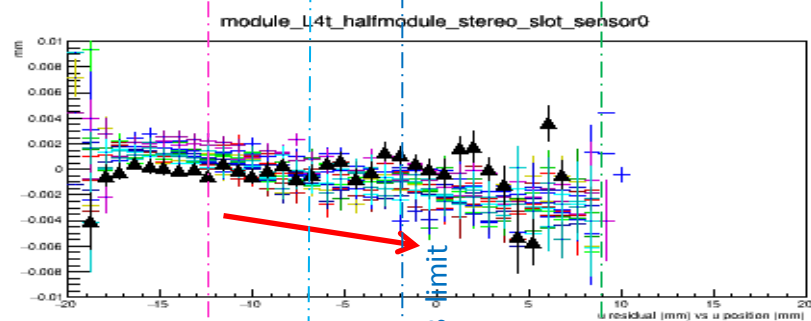
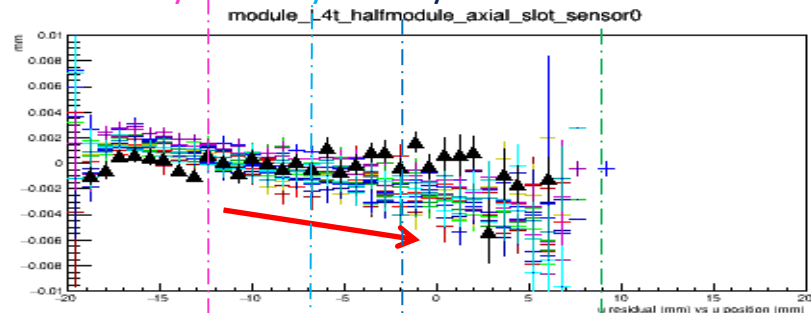
BOT



shadow effect
from other modules

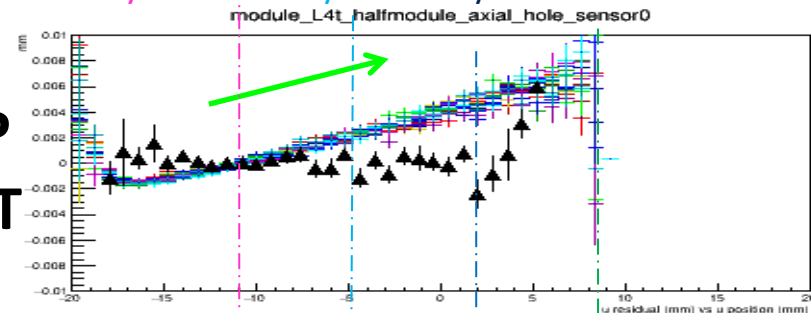
Profile histograms modules #4

Layer 1 Layer 2 Layer 3

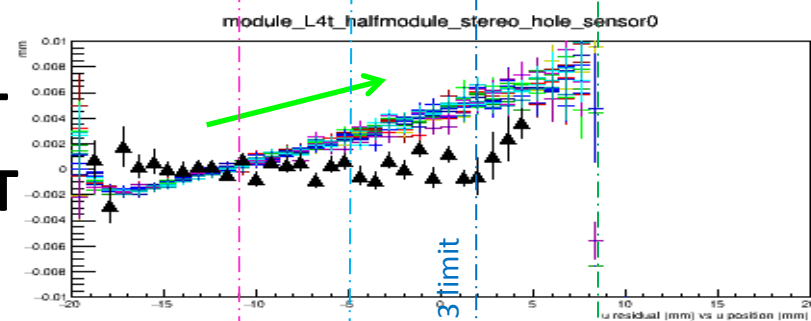


Layer 1 Layer 2 Layer 3

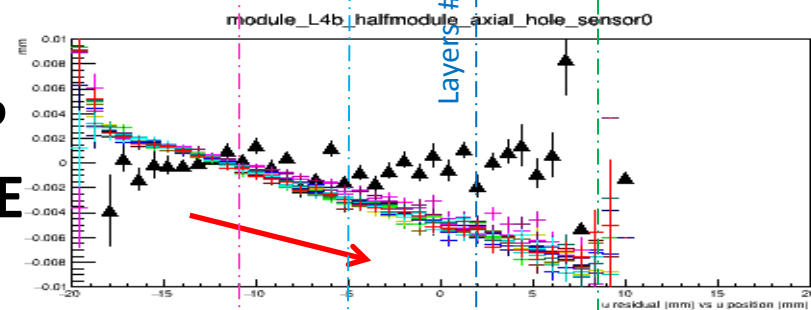
TOP
SLOT



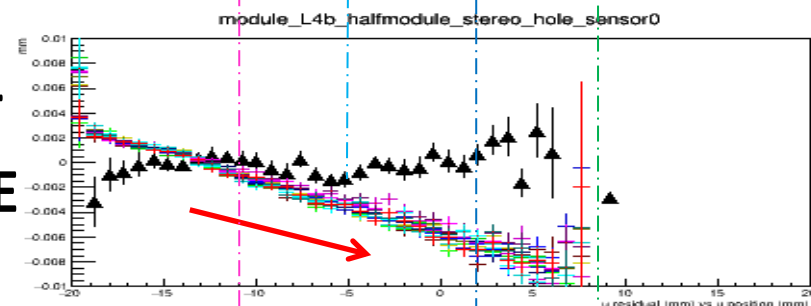
BOT
SLOT



TOP
HOLE

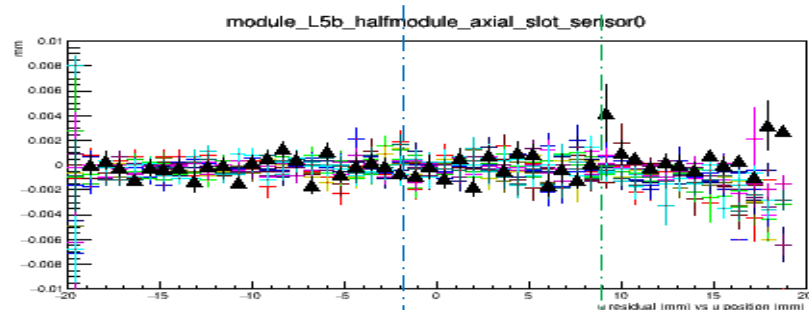


BOT
HOLE

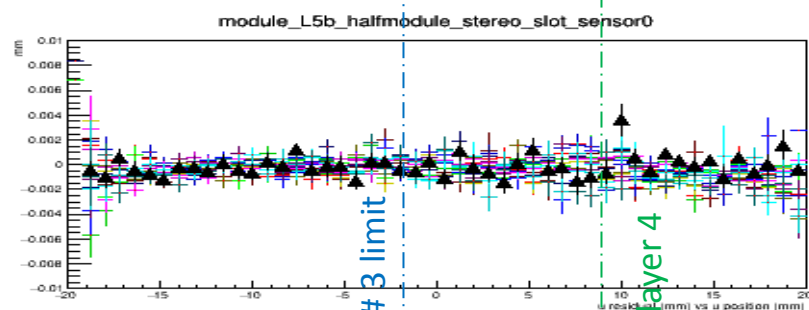
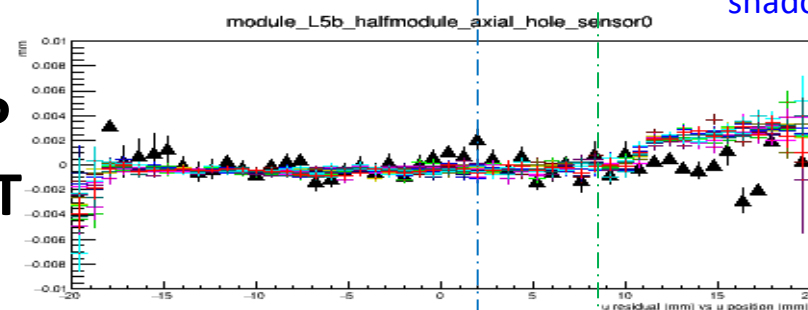


Profile histograms modules #5

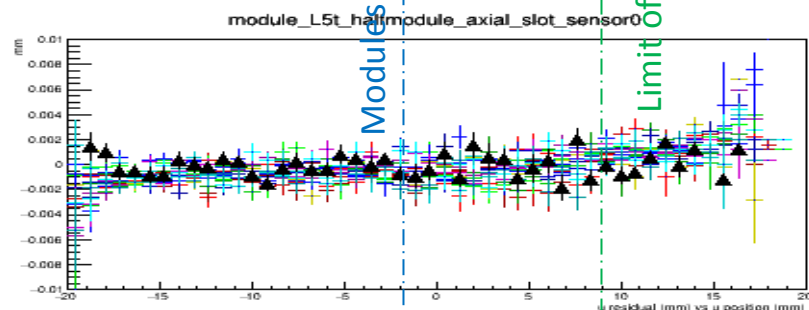
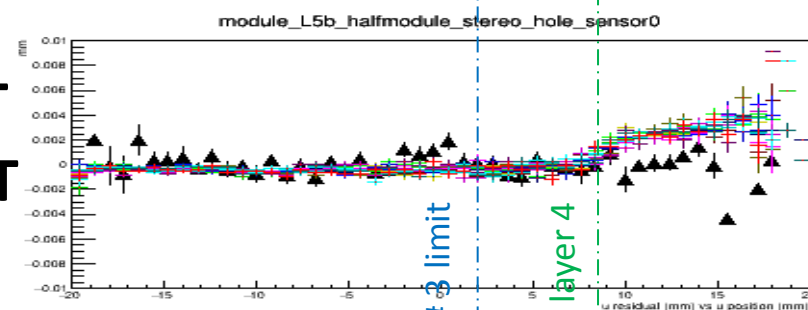
Border effect +
shadow



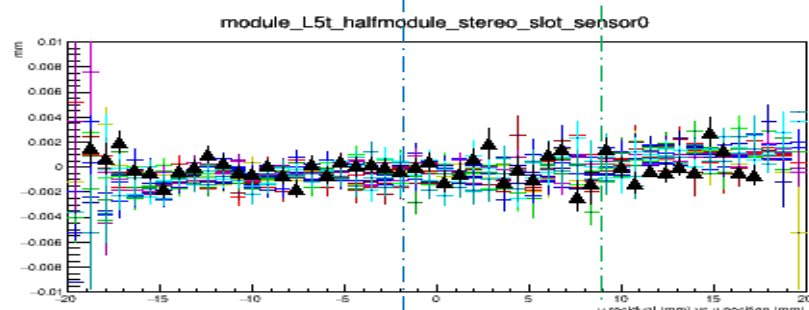
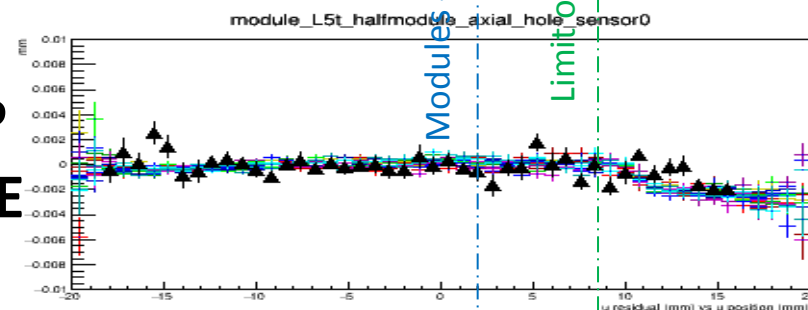
TOP
SLOT



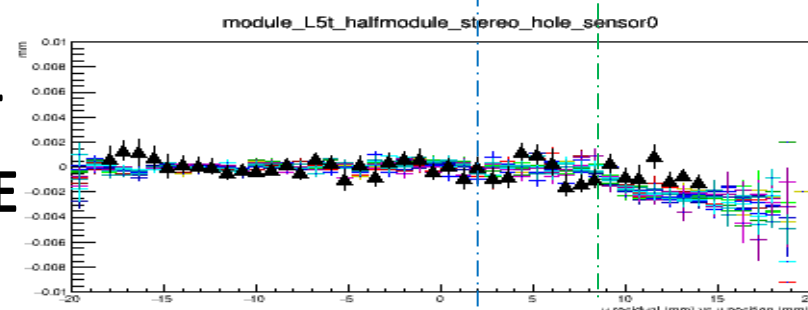
BOT
SLOT



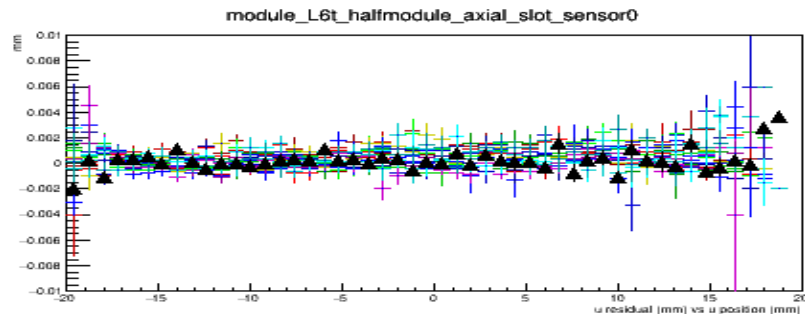
TOP
HOLE



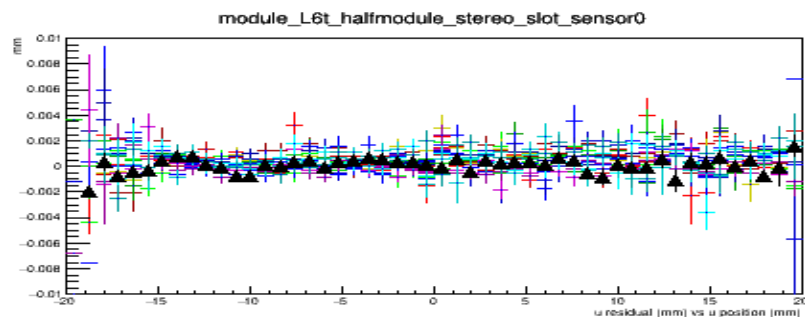
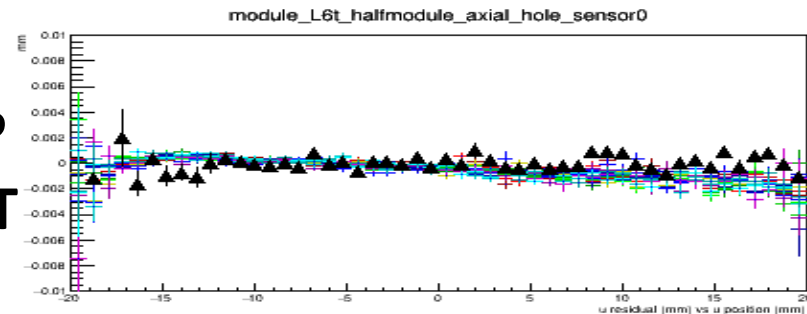
BOT
HOLE



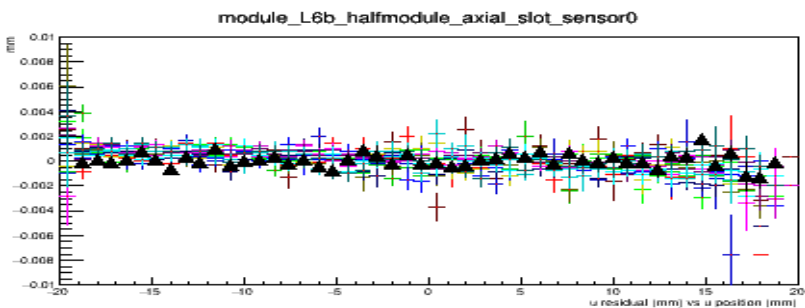
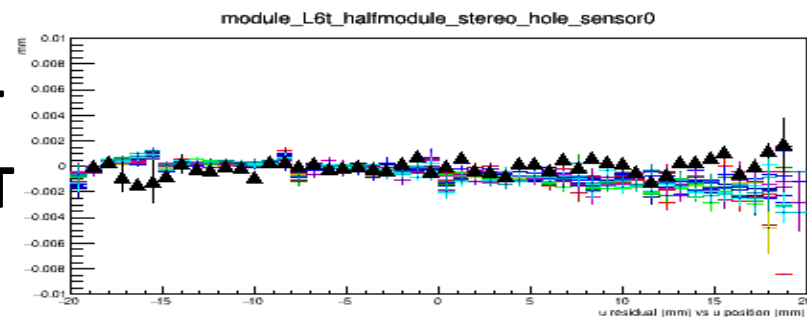
Profile histograms modules #6



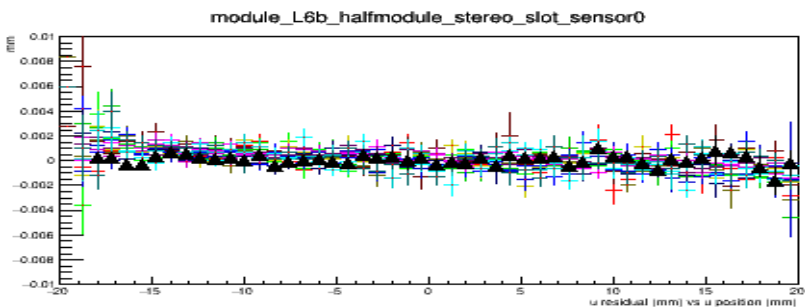
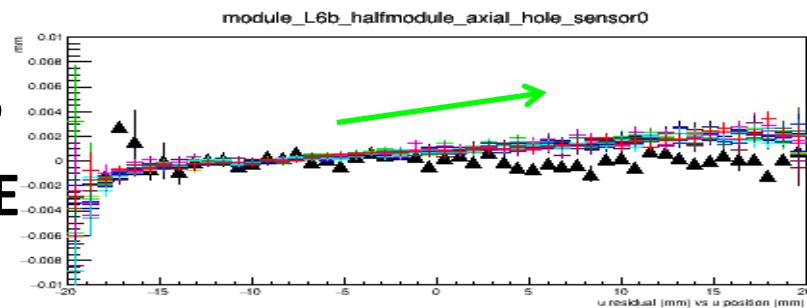
TOP
SLOT



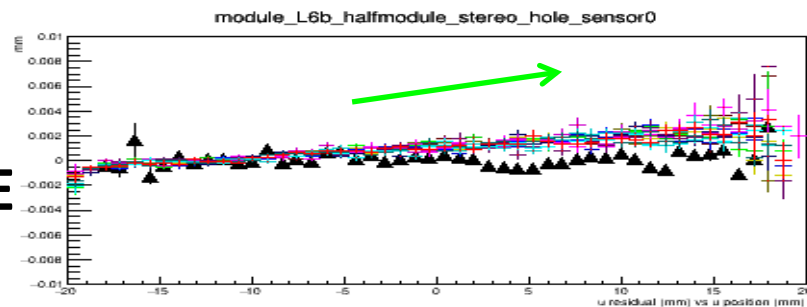
BOT
SLOT

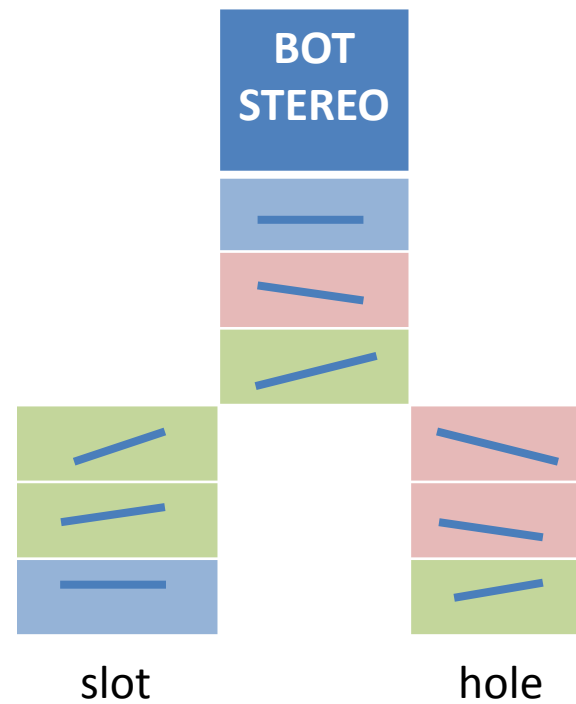
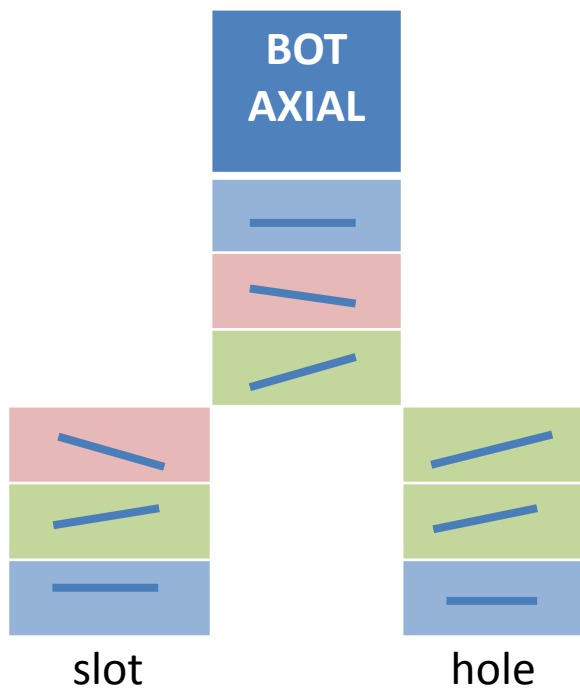
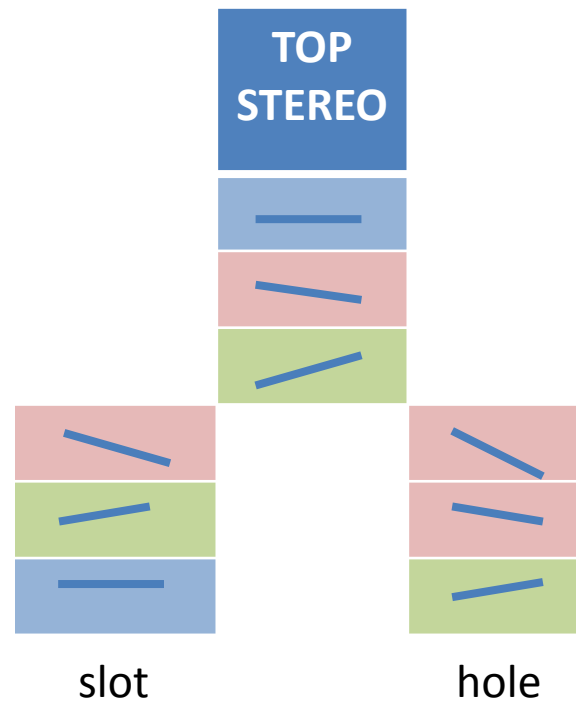
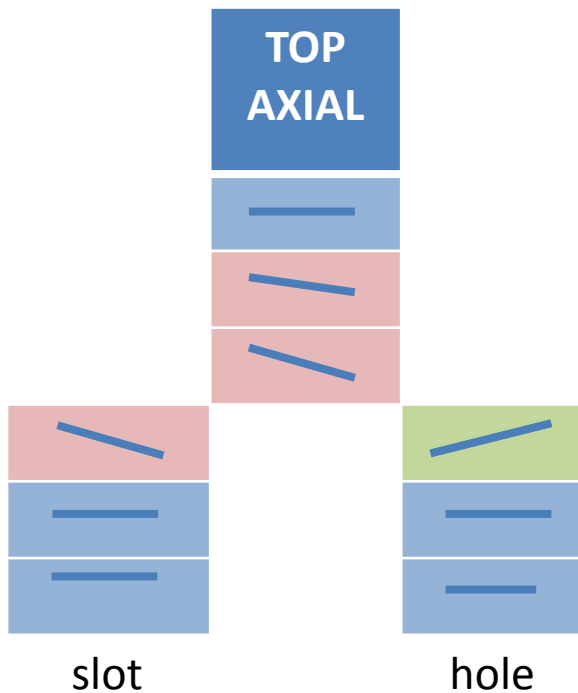


TOP
HOLE



BOT
HOLE





Notes

- Overall consistency of all tested runs (curved tracks)
- Signature of shadowing effects from preceding modules
- Less sensible effect on the last modules
- Marked deviation from horizontal MC distributions for a few layers
 - Especially 3 and 4 (is 4 a consequence of a rotation of layer 3?)
- Some more millepede tweaking needed
 - One layer at a time, study needed for the best ordering choice
 - Rotations were tested in the code but (to my knowledge) never inserted in the millepede minimization
 - Time to do it