

Study of translations along z (w) straight/curved tracks (runs 5784+5772)

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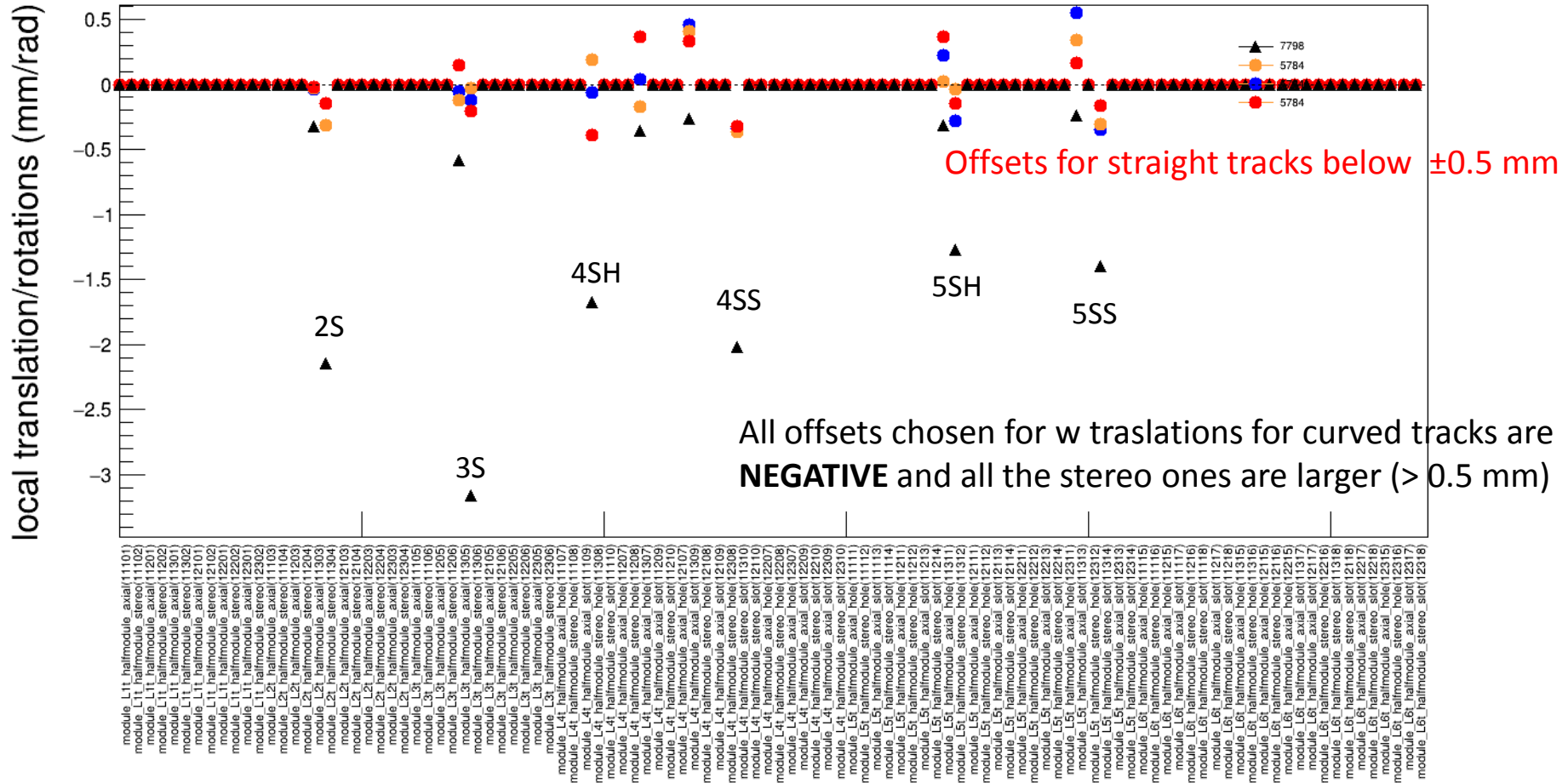
Test of w translations

- Leave all w translations (axial+stereo sensors) floating for sensors 3-4-5
- Sensors 1-6 fixed
- Starting geometry:
 - Curved tracks: best geometry (4.4), u translations already floated + tweaks
 - Straight tracks: several trials
 - W translations only starting from “plain” v1
 - W translations mixed with U translations, after U rotations as first step (all layers):
 - U rotations + U translations + W translations
 - U rotations + W translations + U translations
- In all cases the final results are good, difficult to choose the best one

Comparison of MP offsets: TOP

Millepede corrections per sensor, top

translations only



- Comparison of geometries as MP outputs starting with the same floating degrees of freedom (all w traslations for axial+stereo sensors)

translations only Millepede corrections per sensor, bottom

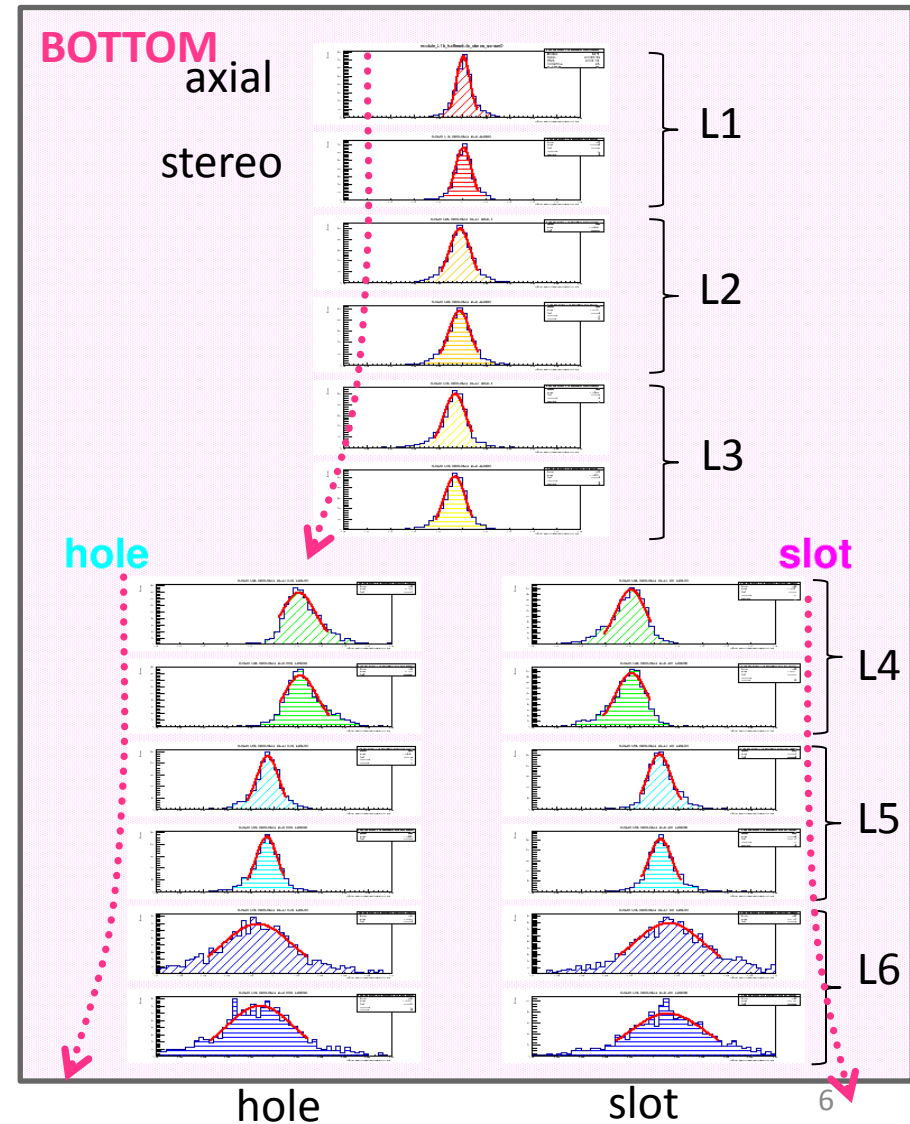
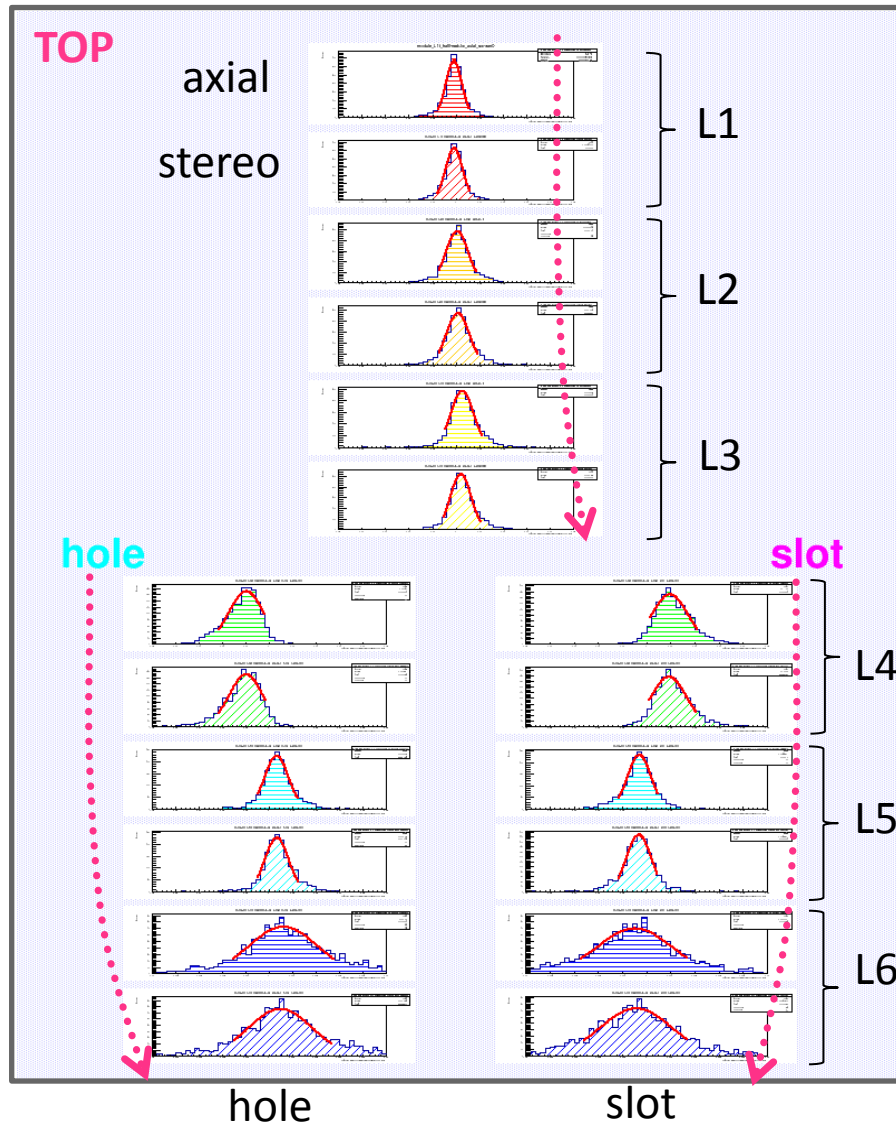


z misalignments on MC data: work in progress

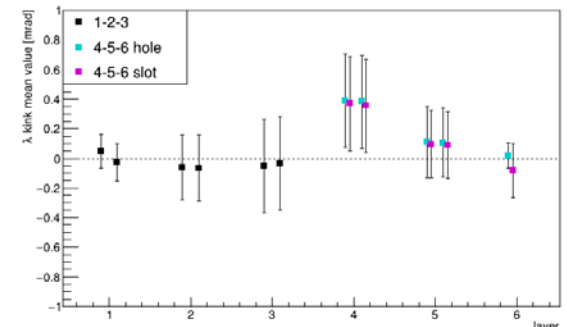
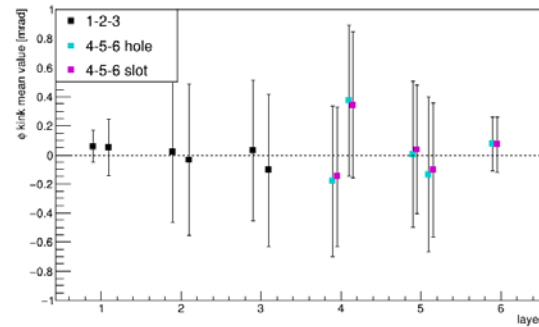
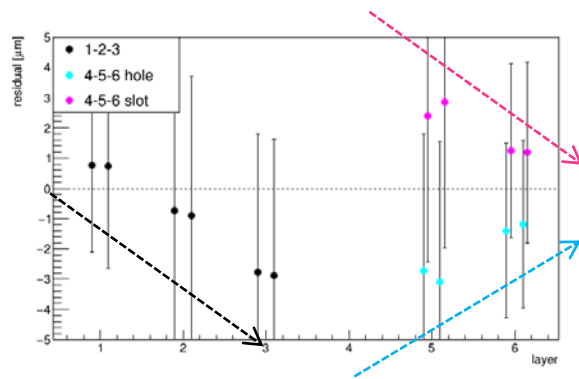
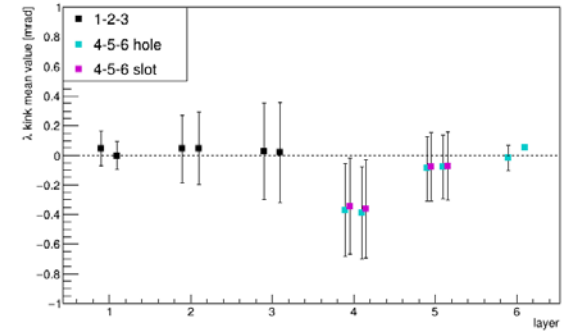
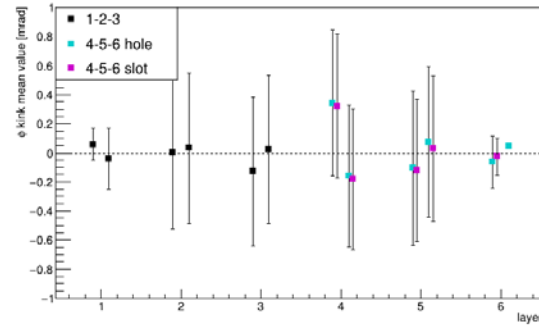
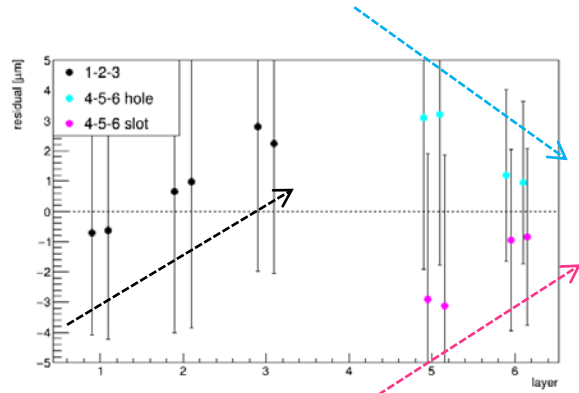
- Use MC data to check the effect on the residuals of a single sensor misplacement in z
 - Generation + readout with misaligned geometry
 - Reconstruction with nominal geometry
- First study on straight tracks
 - Use 2.075 GeV and 1.05 GeV data
- Sensors 2-3-4-5, +1 mm offset in z
 - First results for layer 4

Straight tracks, layer 4 z displacement +1mm, axial & stereo

The displacement has a drift effect on the central values of residual distributions for all layers



Straight tracks, layer 4 z displacement +1mm, axial & stereo



GBL mean values

ϕ Kinks

λ Kinks