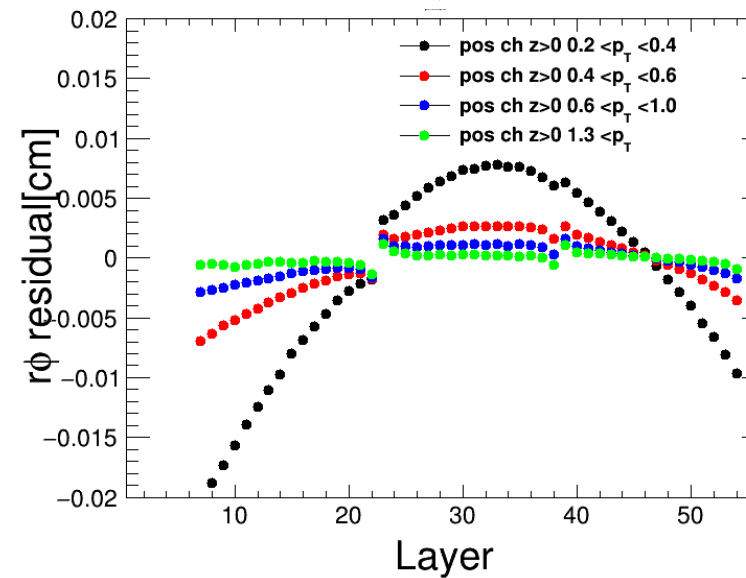
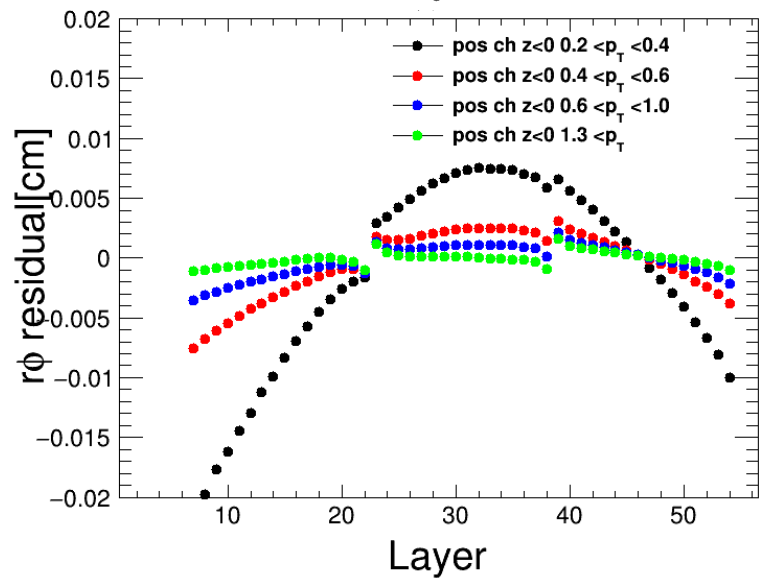
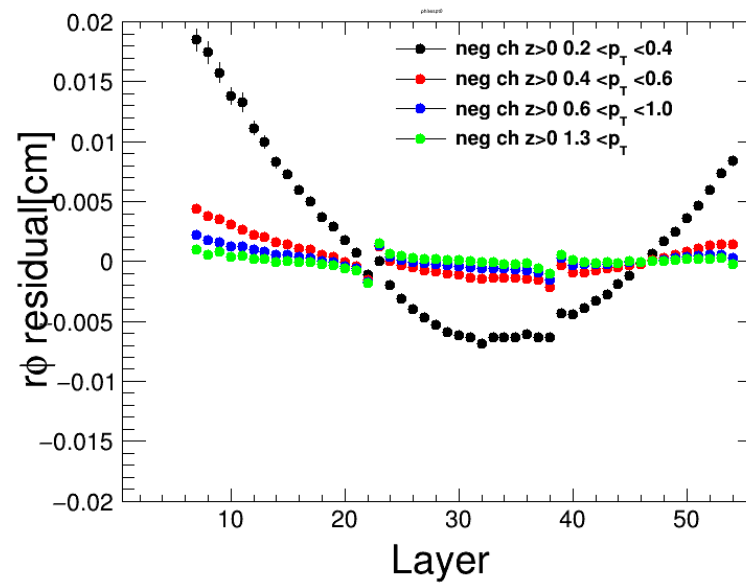
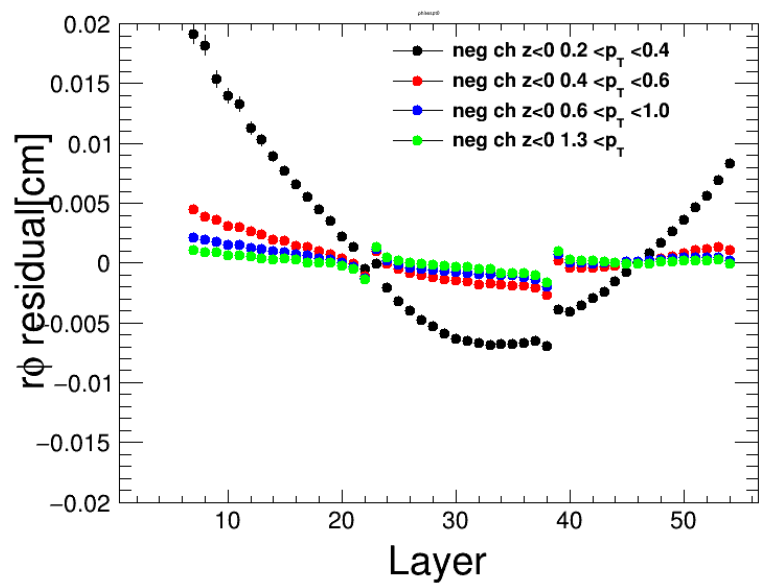
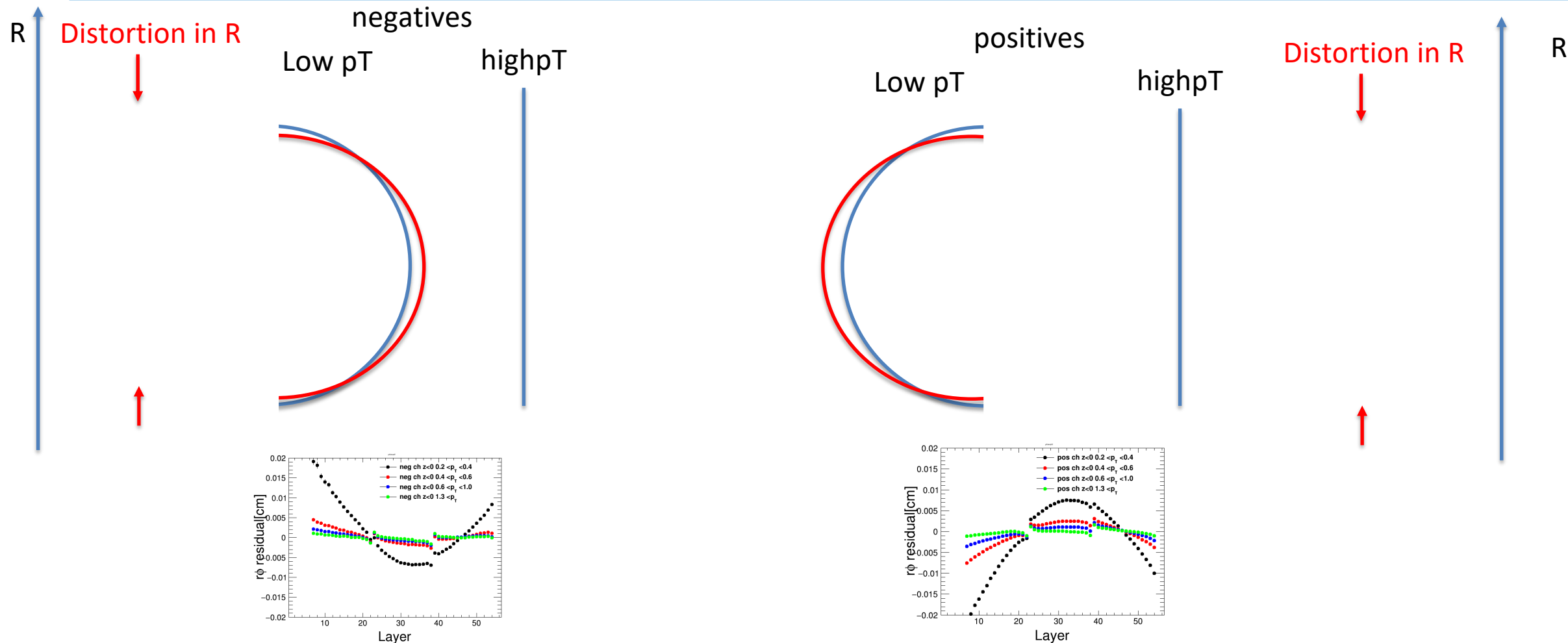


Vertex constraint residuals (helix fit)



Hypthesis: distortions act mostly in R



- Symptoms
 - Distortion bigger for high curvature
 - Flips sign with bending direction
- Consistent with displacement of clusters mostly in R

tan(alpha) dependence to extract dR residual

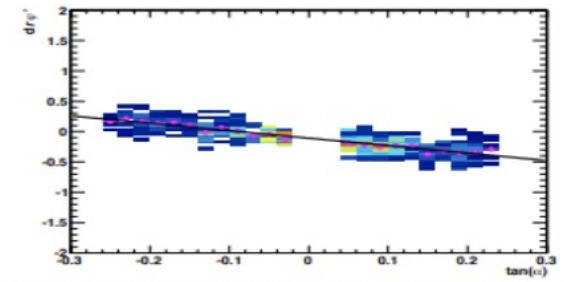
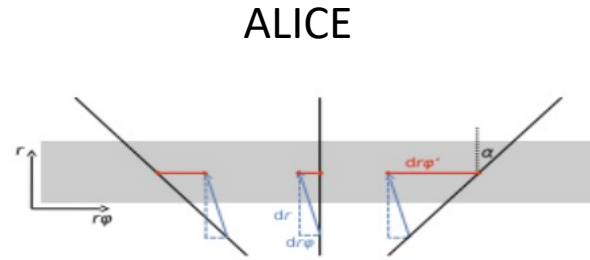
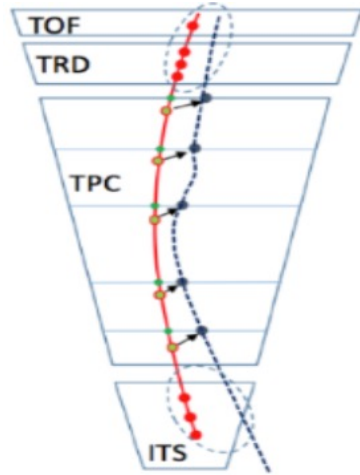
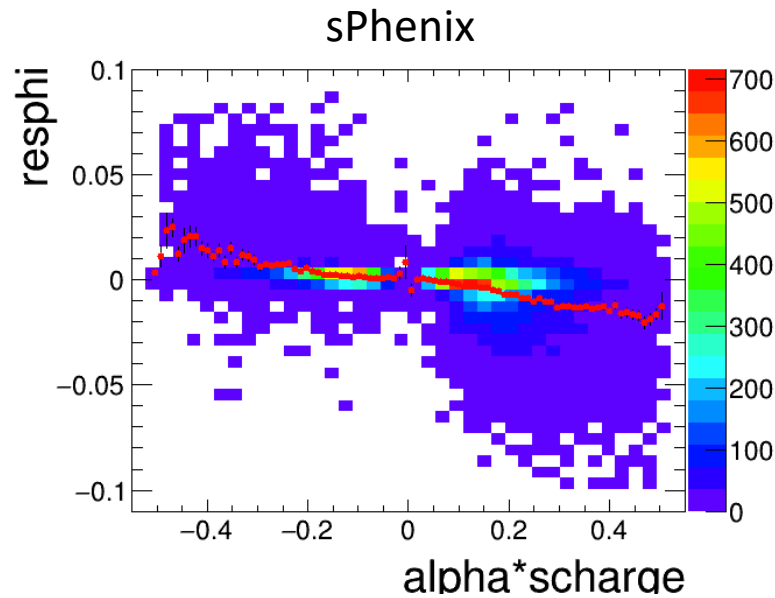


Figure 8.8: (Left) Illustration of the measured $r\phi$ distortions being composed of the real $r\phi$ distortions and the radial distortions, shown for three example tracks crossing a pad row (grey area) under different local track inclination angles α . (Right) Measured correlation between $dr\phi'$ and $\tan(\alpha)$ (see text).



- Extract dR from tan(alpha) dependence of dRPhi
- Build zeroth order TPC dR correction table
 - Needs VTX constraint fit
 - Insert 0,0 point in helix fit to get started (easy)