

Fits to DT superlayers 1 and 3 super-residuals

fit to Δx residuals	fit to ϕ_y residuals
δx : peak of the distribution, independent of impact δz : dependence of the peak on dx/dz track angle ϕ_z : dependence of the peak on y impact point σ, Γ : width of the distribution slope of Δx vs. ϕ_y : model scattering	ϕ_y peak of the distribution slope vs. dy/dz : control for ϕ_z σ, Γ : width of the distribution

Fits to DT superlayer 2 super-residuals

fit to Δy residuals	fit to ϕ_x residuals
δy : peak of the distribution, independent of impact ϕ_z : dependence of the peak on x impact point σ, Γ : width of the distribution slope of Δy vs. ϕ_x : model scattering	ϕ_x peak of the distribution σ, Γ : width of the distribution

Fits to CSC super-residuals

fit to $\Delta r\phi$ residuals	fit to ϕ_y residuals
$r\delta\phi$: peak of the distribution, independent of impact δz : dependence of the peak on $d(r\phi)/dz$ track angle ϕ_z : dependence of the peak on y impact point σ, Γ : width of the distribution slope of Δx vs. ϕ_y : model scattering	ϕ_y peak of the distribution σ, Γ : width of the distribution

Accessible parameters

DT	δ_x	δ_y	δ_z	ϕ_x	ϕ_y	ϕ_z (two ways)
CSC	δ_x	inaccessible	δ_z	inaccessible	ϕ_y	ϕ_z

Figure 12: The six independent fits needed to align one DT chamber and one CSC.