

CDC Calibrations

1 New Tables

CDC/timing_offsets	
1 – 3522	timing offset, t_0 (ns?)

CDC/wire_gains	
1 – 3522	gain correction factor

CDC/wire_alignment	
1 – 3522	upstream wire end downstream wire end

CDC/drift_parms	
CDC_DRIFT_A CDC_DRIFT_B CDC_DRIFT_C CDC_DRIFT_D	Transverse drift function parameters
CDC_DRIFT_A_L CDC_DRIFT_B_L CDC_DRIFT_C_L CDC_DRIFT_D_L	Longitudinal drift function parameters

Used in HDGeant/hitCDC.c

CDC/fit_parms	
CDC_VARIANCE_A	
CDC_VARIANCE_B	
CDC_VARIANCE_C	

Used in Kalman fitter

CDC/alignment	
CDC_ALIGN_DX	translation with respect to nominal
CDC_ALIGN_DY	
CDC_ALIGN_DZ	
CDC_ALIGN_ALPHA	rotation with respect to nominal
CDC_ALIGN_BETA	
CDC_ALIGN_GAMMA	
CDC_SAG_RADIUS	other global alignment constants
?	

2 Existing Tables

CDC/cdc_parms		
CDC_TDRIIFT_SIGMA	$2.818E^{-9}$	Error on the drift time in the CDC.
CDC_TIME_WINDOW	1000.	The time window for which CDC hits are accumulated.
CDC_PEDESTAL_SIGMA	50.	The error in the energy deposition measurement in the CDC due to pedestal noise, fC
CDC_THRESHOLD_FACTOR	4.	number of sigmas above pedestal for cutting CDC hits
CDC_DRIFT_SPEED	0.0055	CDC drit speed unit?
CDC_TWO_HIT_RESOL	25.	time window for two hit resolution, ns
CDC_MAX_HITS	1000.	number of hit per readout channel
CDC_THRESH_KEV	1.	threshold applied, keV
CDC_STRAW_RADIUS	0.8	straw radius, cm

CDC/cdc_drift	
1 × 400	parameterized drift function (not currently used?)