

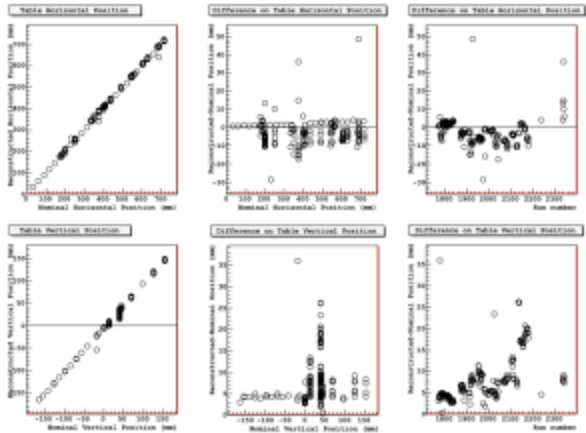
SPS Table Position

Remarks on the analysis

Using only well reconstructed events : TkrNumTracks=1
Taking reconctructed vertex variables : VtxX0, VtxY0, VtxXDir, VtxYDir
All parameters derived from runs at 0 degree : Mean is the value to put in the Monte Carlo

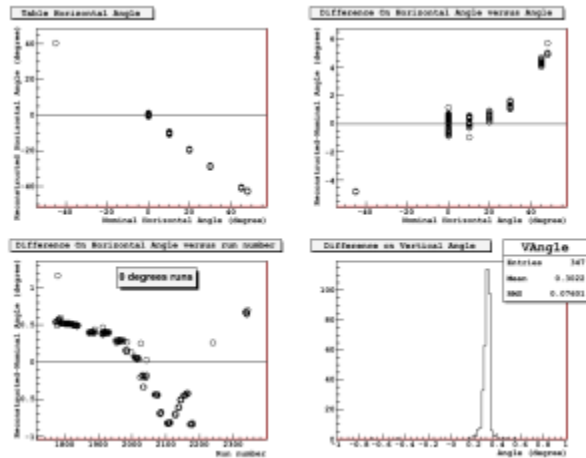
SPS Table Position - global values

Table position statistics : Mean
*Average Horizontal Offset (mm) : -2.4
*Average Vertical Offset (mm) : 7.8



SPS Table Angle - global values

Table Angle statistics : Mean
*Average Horizontal Angle Offset (deg) : 0.12
*Average Vertical Angle Offset (deg) : 0.31



Detailed Analysis of Electron runs

Runs excluded from the list

- + all before 1773 : first tests
- + 1795 : database pb
- + 2025-2026-2028-2029-2335-2171-2066-1970-1968 : pedestal
- + 1984-2042-2340-2341-1888-1914-1915-1918-1789-1927-2168-2169 : crack
- + 2027-2030 : Trigger Engine
- + 2035 : moving slits
- + 1963-2163-2238-2247-1962-2061-1955-1969 -1779-1780-1781: Junk
- + 2136-2137-2138-2139 : special runs
- + 1971-1972-1973-1974-2246 : self-trigger

Results

all positions in millilemeters and all angles in degree.

Position and Angle values correspond to systematic differences determined using runs at 0 degree : RECONSTRUCTED - EXPECTED

		BEAM RMS		Positio n		Angl e			PLOTS		
Momentu m	run	Hori.	Vert.	Hori.	Vert.	Hori.	Vert.	Notes	Beam	Angl e	Positio n
10	all	4.6	5.2	7.5	8.3	0.7	0.3	few runs	plot	plot	plot
20	all	3.1	5.1				0.32		plot	plot	plot
	2082- >2086			-10.3	8.4	-0.69					
	2103- >2113			-3.8	8.4	-0.82					
	2162- >2166			-0.7	20.6	-0.42					
	2170- >2180			-0.64	20.6	-0.83					
50	all	2.6	3.4			-0.45	0.28		plot	plot	plot
	run<2043					-0.20					
	run<2060			-5.0	7.3						
	2060- >2080			-7.0	7.3						
	2153- >2159			1.7	16.3						
100	all	1.6	2.6				0.33		plot	plot	plot
	run<1860			2.5	4.	0.5					
	1980- >2025			-2.	5.	0.88					
	2143- >2146			1.8	17.	-0.5					
200	all	4.1	3.7			0.47	0.32		plot	plot	plot
	run<1920			-3.		0.39					
	2031- >2034			-9.		-0.25					
	2239- >2245			6.		0.23					
280	all	8.5	8.8	-7.1	7.2		0.30	Large dispersion on Position	plot	plot	plot
	1917- >1931					0.4					
	1952- >1967					0.3					
	2126- >2129					-0.7					

One can dowload a ps file with Beam spots for all the SPS electron runs here : [ALL PLOTS](#)