Jefferson Lab Alignment Group

Data Transmittal

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DETAILS:

Data: AALIGN\Hadron\2007\H120407A
Electron&sh\2007\E120407A, E120407C

Below are the results from the left and right spectrometer surveys carried out on 4th December. The table shows the angle of the central ray of the spectrometer (in degrees); the horizontal mis-pointing perpendicular to the spectrometer center-line (in mm, +d is downstream); the vertical mis-pointing (in mm, +v is up) and the corrected pointing angle if the spectrometer were moved to point exactly at the target. The last two columns give statistics for the transformation (std. dev. of fit (9par)) and the adjustment (std. dev. (3DD)).

Note: Two separate surveys were performed with the right spectrometer in the same location. One from the beam left side(L), and one from the right side(R). As noted in the previous data transmittal, the differences seen below may be due to uncertainties in the fiducial data on the right side.

Spectrom.	Central Ray	H Misptg	V Misptg	Corrected Ptg	9par	3DD
H120407A	15.023	2.41d	+0.85	15.006	0.128	1.72
E120407A(L)	-89.973	2.48u	+1.50	-89.990	0.123	0.95
E120407C(R)	-89.971	3.07u	+1.08	-89.992	0.170	2.93

In the tables below, the coordinates of the three points located on the link are given in millimeters relative to the Hall A target and beamline, with +Z along the beam, +X to the beam left, and +Y up. The horizontal offset from each point to a line between the ideal target and the spectrometer Jack point is also shown.

	Z (mm)	X (mm)	Y (mm)	Offset (mm)
JACK	8167.70	-2189.48	-0.56	0.00
HSPECTX	882.72	-2268.95	-2547.32	-1963.01
HSPECTY	5672.14	-3193.66	-2506.98	-1616.09
HSPECTZ	5696.18	-441.82	-2469.18	1048.13

	Z (mm)	X (mm)	Y (mm)	Offset (mm)
JACK	1.54	8457.35	0.21	0.00
ESPECTX	-1967.92	1691.90	-2065.46	1968.23
ESPECTY	-1617.70	6096.81	-1985.66	1618.81
ESPECTZ	1036.13	5598.46	-1965.20	-1035.11