

• Table1: fit result

Data Range x:z	offsetX/cm	offsetY/cm	offsetZ/cm	table angle x	table angle y	table angle z	probe angle x	probe angle y	probe angle z	currentratio
X(34,56)×Z(0,22)	-0.596596	-0.290406	0.372017	0.00171948	-0.0160328	-0.0033049	-0.00776561	0.0496138	0.000691641	1.152
X(30,60)×Z(0,22)	-0.665357	-0.292072	0.363297	0.00178729	-0.0170415	-0.00293678	-0.00784203	0.0486698	0.00109671	1.152
X(24,66)×Z(0,22)	-0.756742	-0.295664	0.345917	0.00178057	-0.0181937	-0.00270496	-0.00776229	0.0473547	0.00136079	1.152
X(18,72)×Z(0,22)	-0.82565	-0.299696	0.327375	0.00177854	-0.0189024	-0.00257073	-0.00765559	0.0464914	0.00141616	1.152

- a. Here just use one point (probe position) from survey group
table coordinate (45.5, 0, 22)→ survey coordinate (2.797 ,0.493 , 72.845)
- b. X boundary: -1<X<1cm; Y boundary: -0.5<Y<0.5cm; Z boundary : -0.5<Z<0.5cm; ALL angle: -0.05< θ < 0.05rad
- c. 4 Data area chosen to fit: X(low boundary, high boundary) × Z(low boundary, high boundary)
X(34, 56)× Z(0, 22): 144 points ; X(30, 60)× Z(0, 22): 192 points ;
X(24, 66)× Z(0, 22): 264 points ; X(18, 72)× Z(0, 22): 336 points ;

d. Use the last fit result, obtain table 2:

Satisfy $(B_i - \bar{B}_i) / \bar{B}_i$	<1%	2%	3%
B_z	44.44%	86.61%	96.97%
B_r	51.77%	77.52%	85.60%
B_{tot}	59.34%	1	1