

Using Polynomials

$$[B] = [T] \cdot [G]$$

Measured by
using
positions and
polynomials

Polynomials

Equal to 1

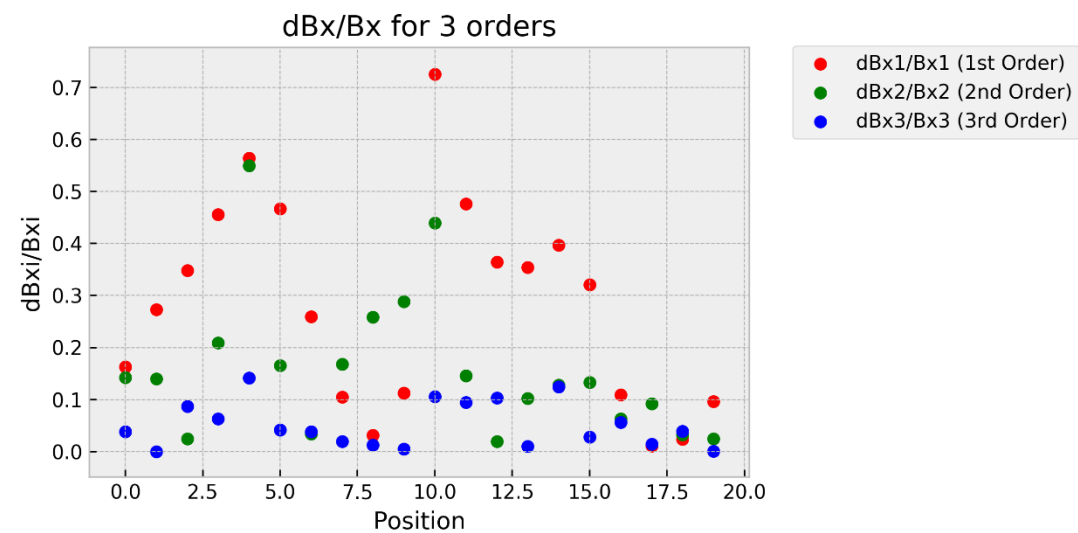
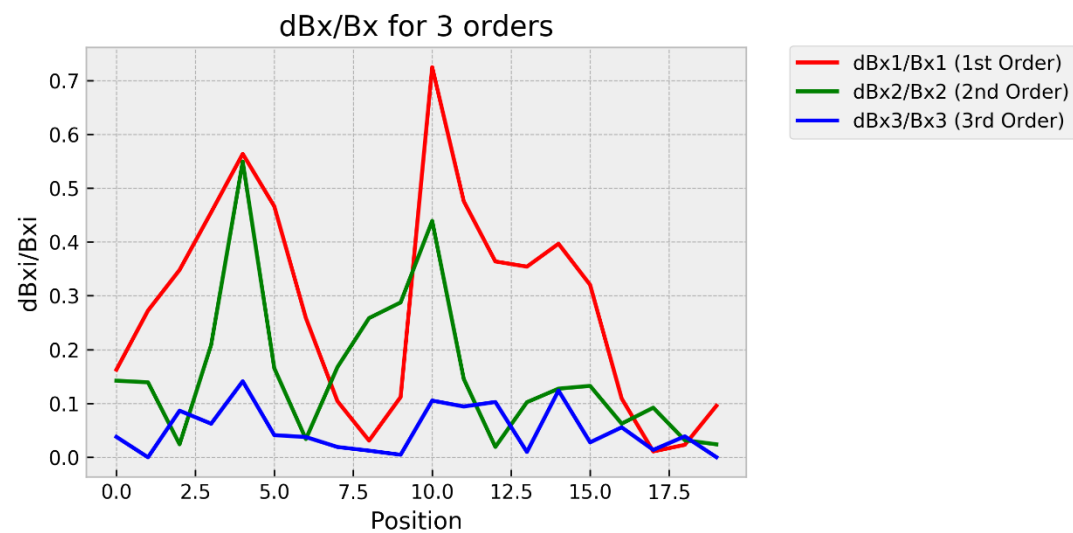
Table 5 – Continued from previous page

$l \ m$	Π_x	Π_y	Π_z
2 -2	$2yz$	$2xz$	$2xy$
2 -1	$-\frac{1}{2}xy$	$\frac{1}{4}(x^2 + 3y^2 - 4z^2)$	$2yz$
2 0	$-xz$	$-yz$	$z^2 - \frac{1}{2}(x^2 + y^2)$
2 1	$-\frac{1}{4}(3x^2 + y^2 - 4z^2)$	$-\frac{1}{2}xy$	$2xz$
2 2	$2xz$	$-2yz$	$x^2 - y^2$
2 3	$x^2 - y^2$	$-2xy$	0
3 -4	$3x^2y - y^3$	$x^3 - 3xy^2$	0
3 -3	$6xyz$	$3(x^2z - y^2z)$	$3x^2y - y^3$
3 -2	$-\frac{1}{2}(3x^2y + y^3 - 6yz^2)$	$-\frac{1}{2}(x^3 + 3xy^2 - 6xz^2)$	$6xyz$
3 -1	$-\frac{3}{2}xyz$	$-\frac{1}{4}(3x^2z + 9y^2z - 4z^3)$	$3yz^2 - \frac{3}{4}(x^2y + y^3)$
3 0	$\frac{3}{8}(x^3 + xy^2 - 4xz^2)$	$\frac{3}{8}(x^2y + y^3 - 4yz^2)$	$z^3 - \frac{3}{2}z(x^2 + y^2)$
3 1	$-\frac{1}{4}(9x^2z + 3y^2z - 4z^3)$	$-\frac{3}{2}xyz$	$3xz^2 - \frac{3}{4}(x^3 + xy^2)$
3 2	$-x^3 + 3xz^2$	$-3yz^2 + y^3$	$3(x^2z - y^2z)$
3 3	$3(x^2z - y^2z)$	$-6xyz$	$x^3 - 3xy^2$
3 4	$x^3 - 3xy^2$	$-3x^2y + y^3$	0
4 -5	$4xy(x^2 - y^2)$	$y^4 - 6x^2y^2 + x^4$	0

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dBx/Bx

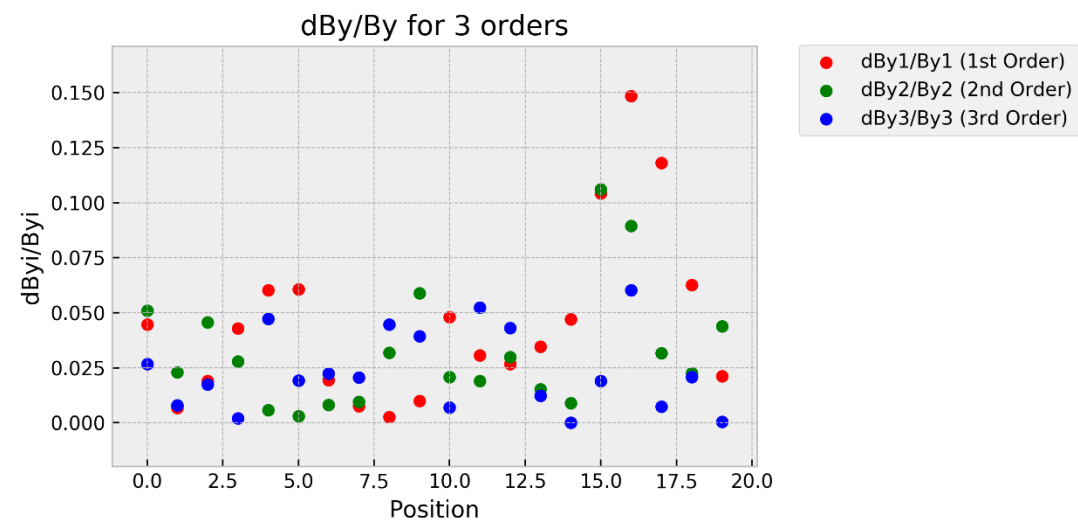
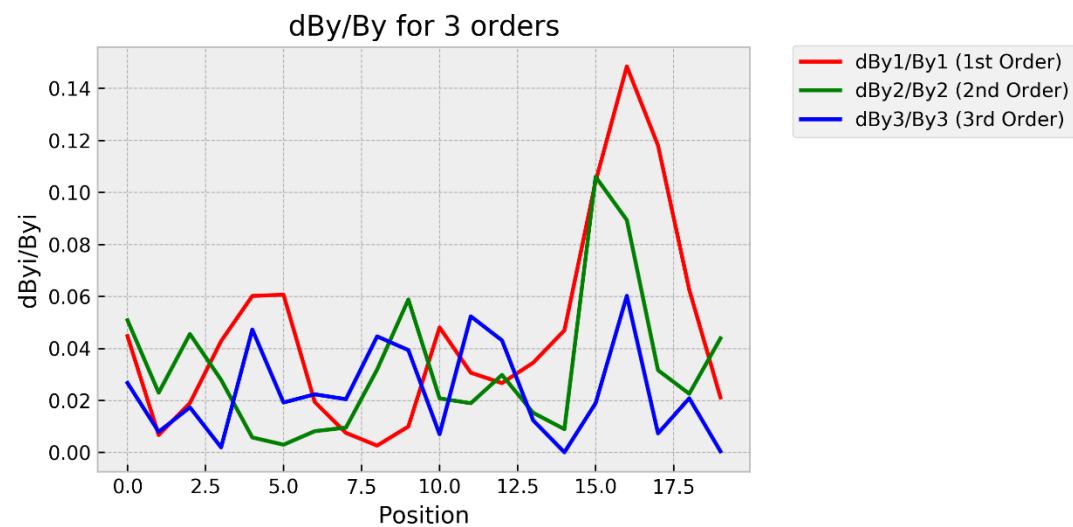
$$dBx = |Bx(\text{measured}) - Bx(\text{predicted})|$$



$Bx(\text{measured}) = 0.2 - 0.5$ gauss

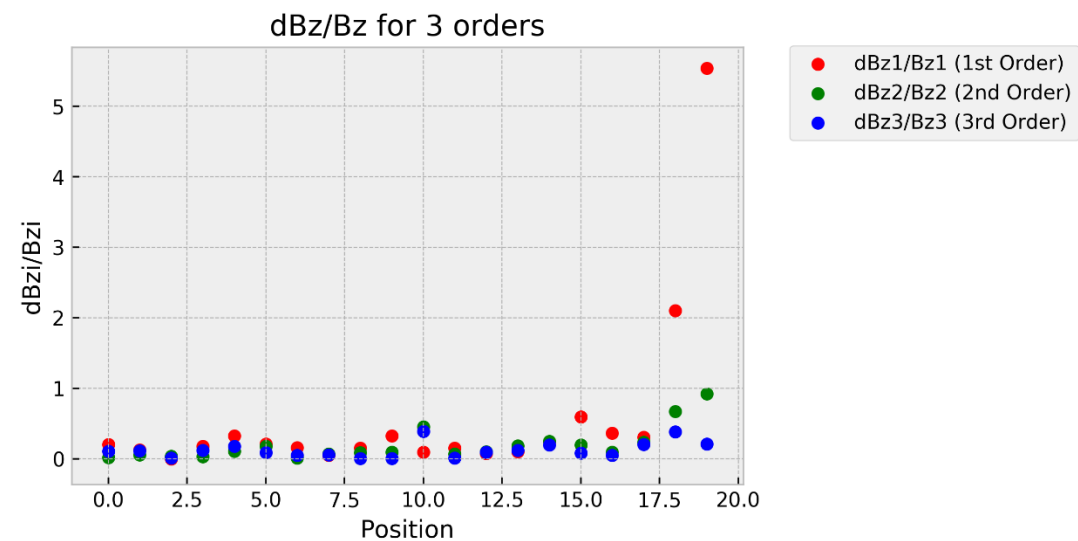
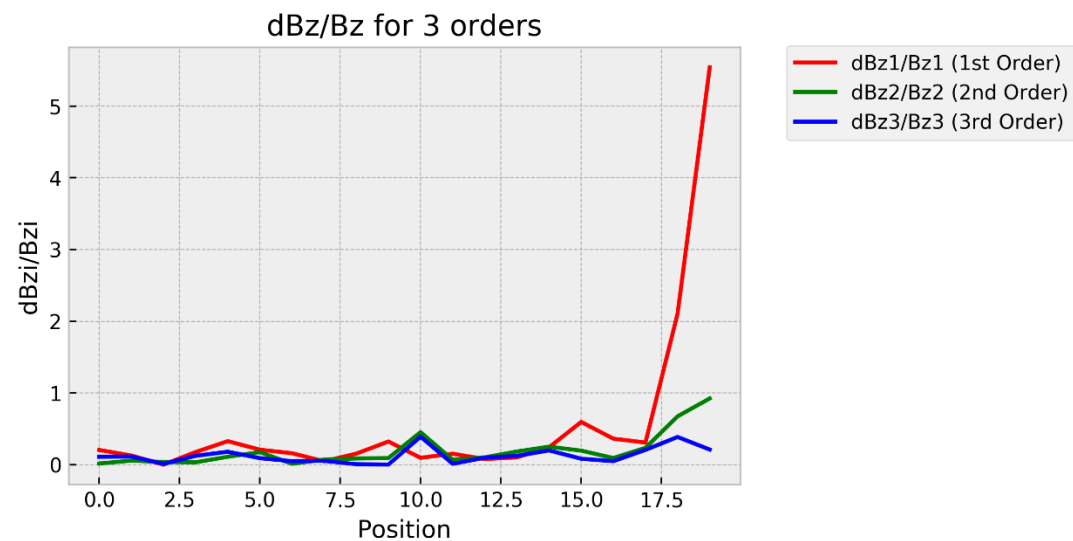
dBy/By

$$dBy = |By(\text{measured}) - By(\text{predicted})|$$

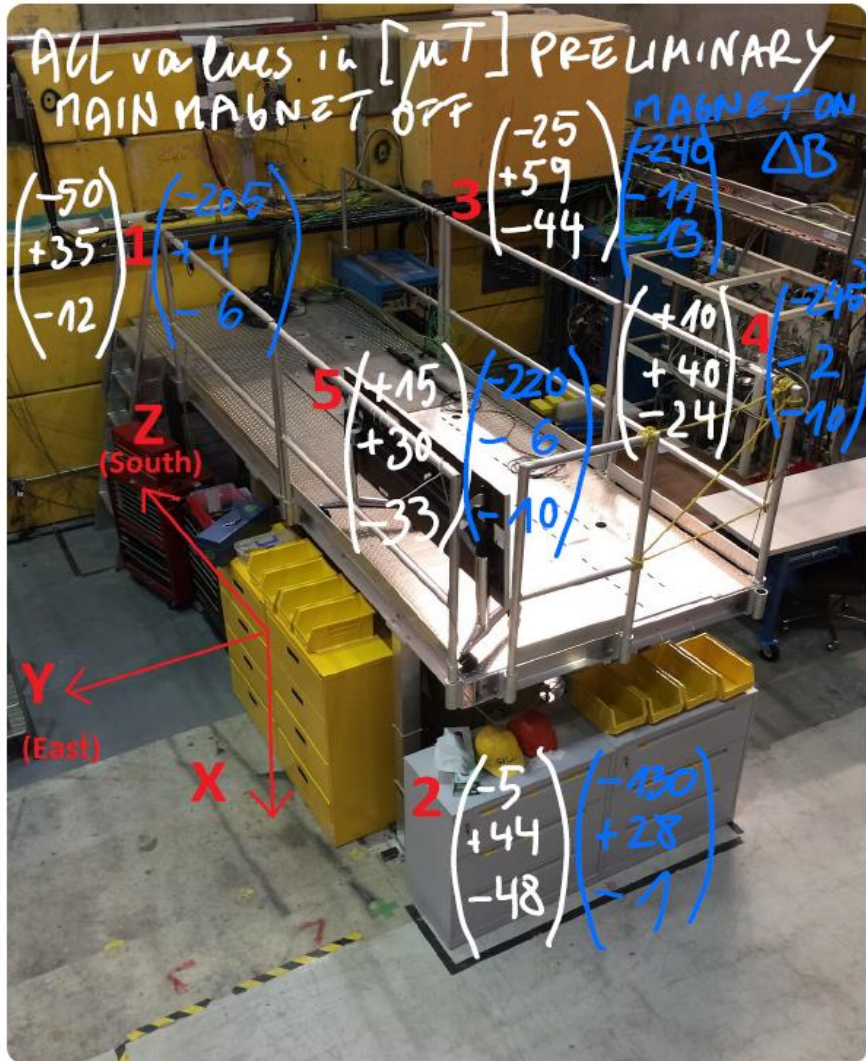


dBz/Bz

$$dBz = |Bz(\text{measured}) - Bz(\text{predicted})|$$



Beatrice's B field from April



POS #	x	y	z	Bx	By	Bz
5	0	0	0	-205	24	-43
4	0	-168	0	-235	38	-34
3	0	-168	287	-265	48	-57
2	-222	0	0	-135	72	-49
1	0	0	287	-255	39	-18

Beatrice's B field from April

