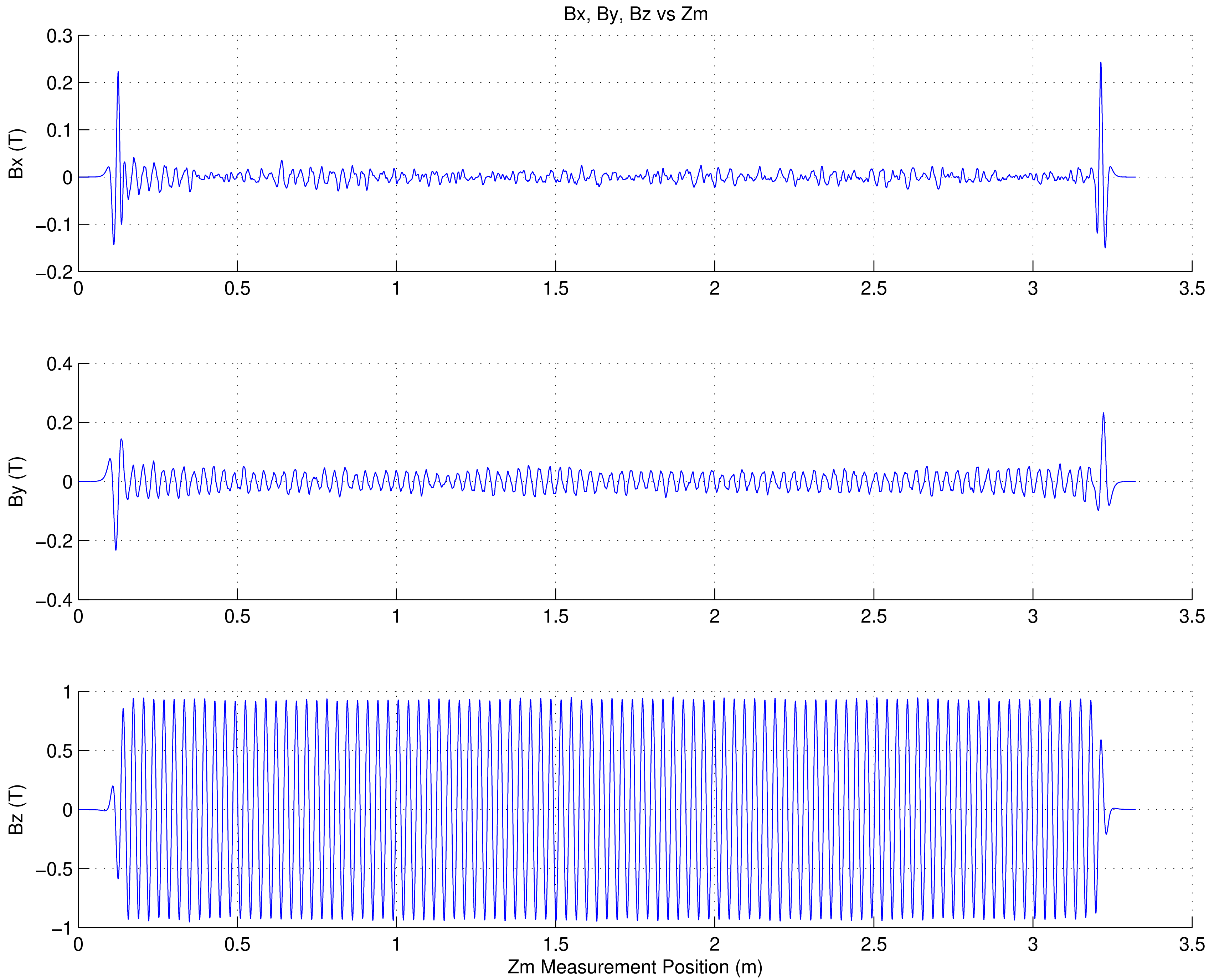
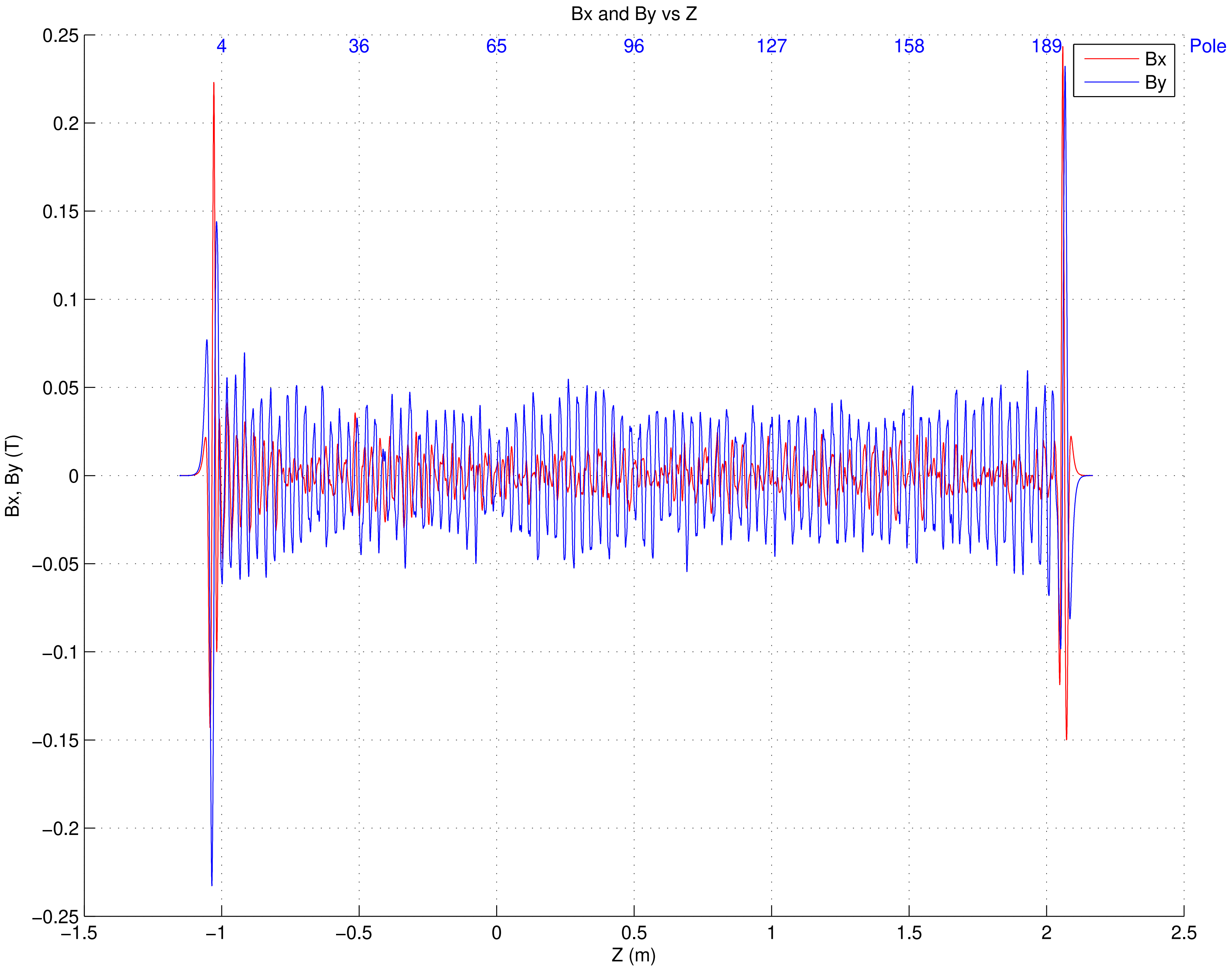
SLAC Magnetic Measurements

EPU Analysis

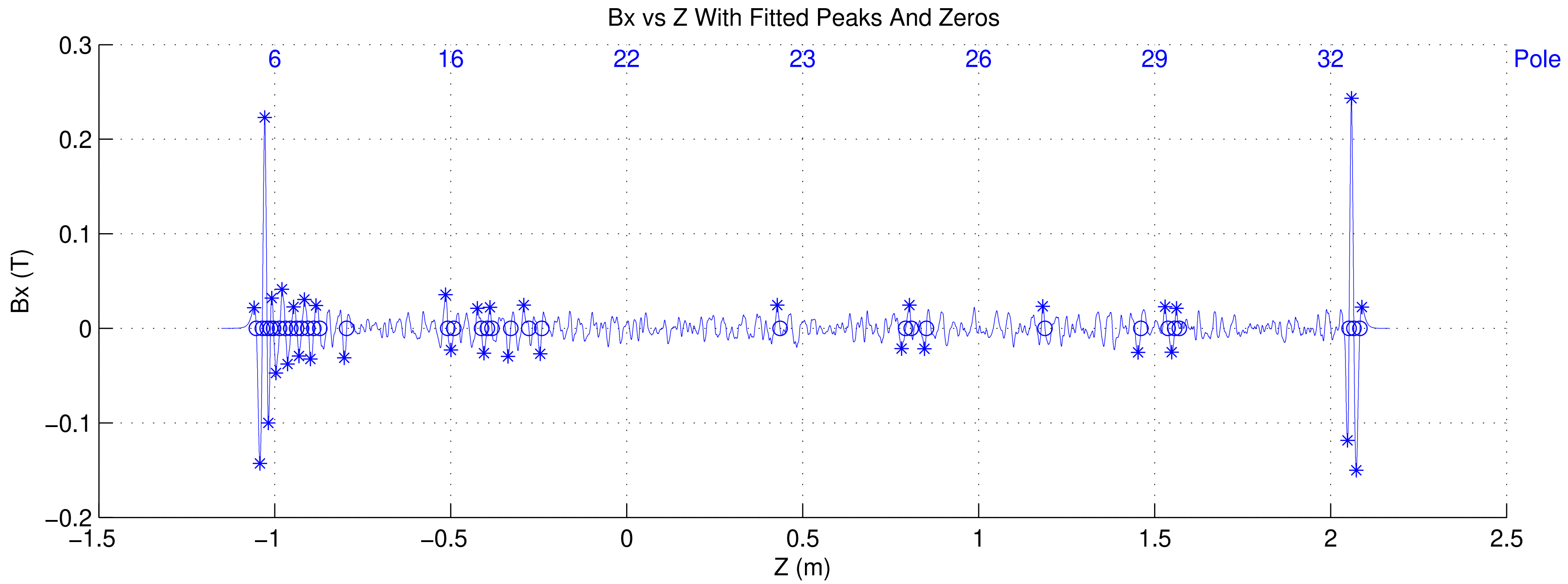
Parameters:
INPUT-FILE-DIR =V:\MET\MagServe\MagData\DELTA\Delta data\Assembled Measurements\Final Measurements Repeat\CPR
INPUT-FILE-NAME =hall2-anal-meas-field.dat
INPUT-FILE-TYPE =ZBXYZH
CORR-REQUIRED =0
GAMMA =26627.1
NOM-LAMBDA-U =0
NOM-K-VALUE =0
NOM-LAMBDA-R =0
NUM-POLES =196
NUM-END-POLES =4
CELL-LENGTH =3.126

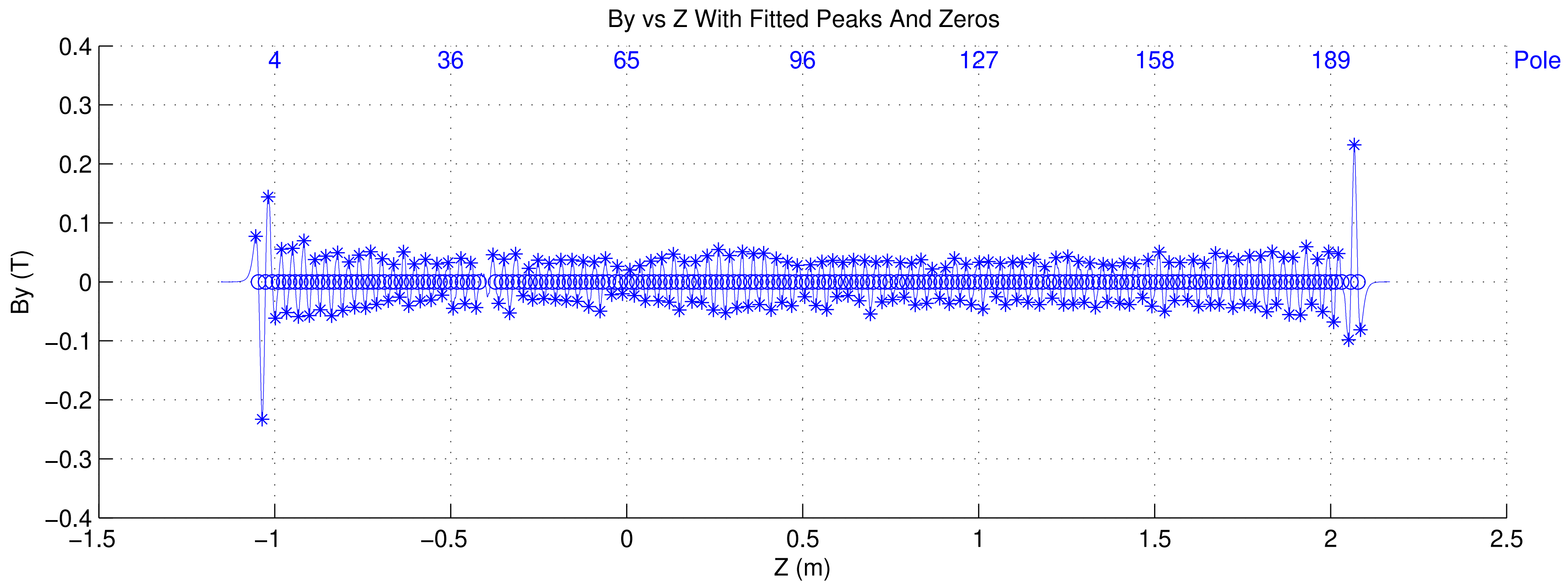


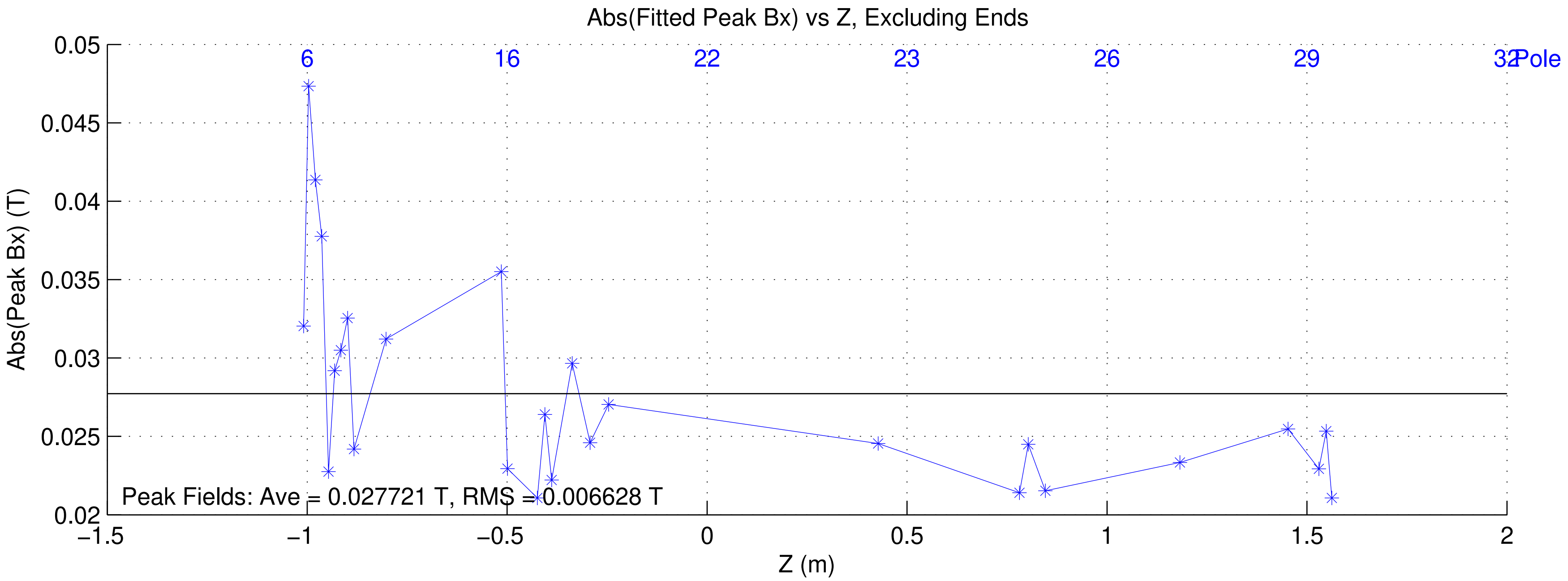
Bx, By, Bz vs Zm
Bx (T)
By (T)
Bz (T)
Zm Measurement Position (m)



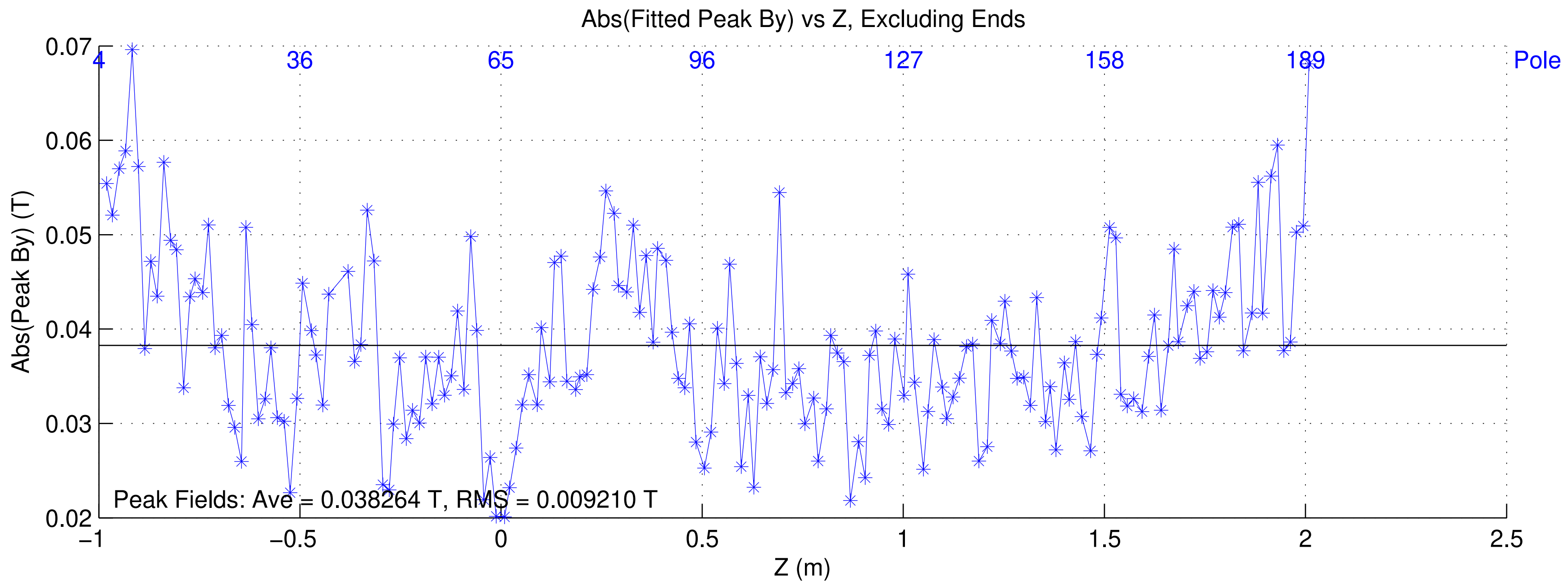
Bx and By vs Z
4
36
65
96
127
158
189
Pole
Bx
By
Bx, By (T)
Z (m)
0.25
0.2
0.15
0.1
0.05
0
−0.05
−0.1
−0.15
−0.2
−0.25
−1.5
−1
−0.5
0
0.5
1
1.5
2
2.5


Bx vs Z With Fitted Peaks And Zeros
Bx (T)
Z (m)
Pole
6
16
22
23
26
29
32
0.3
0.2
0.1
0
−0.1
−0.2
−1.5
−1
−0.5
0
0.5
1
1.5
2
2.5

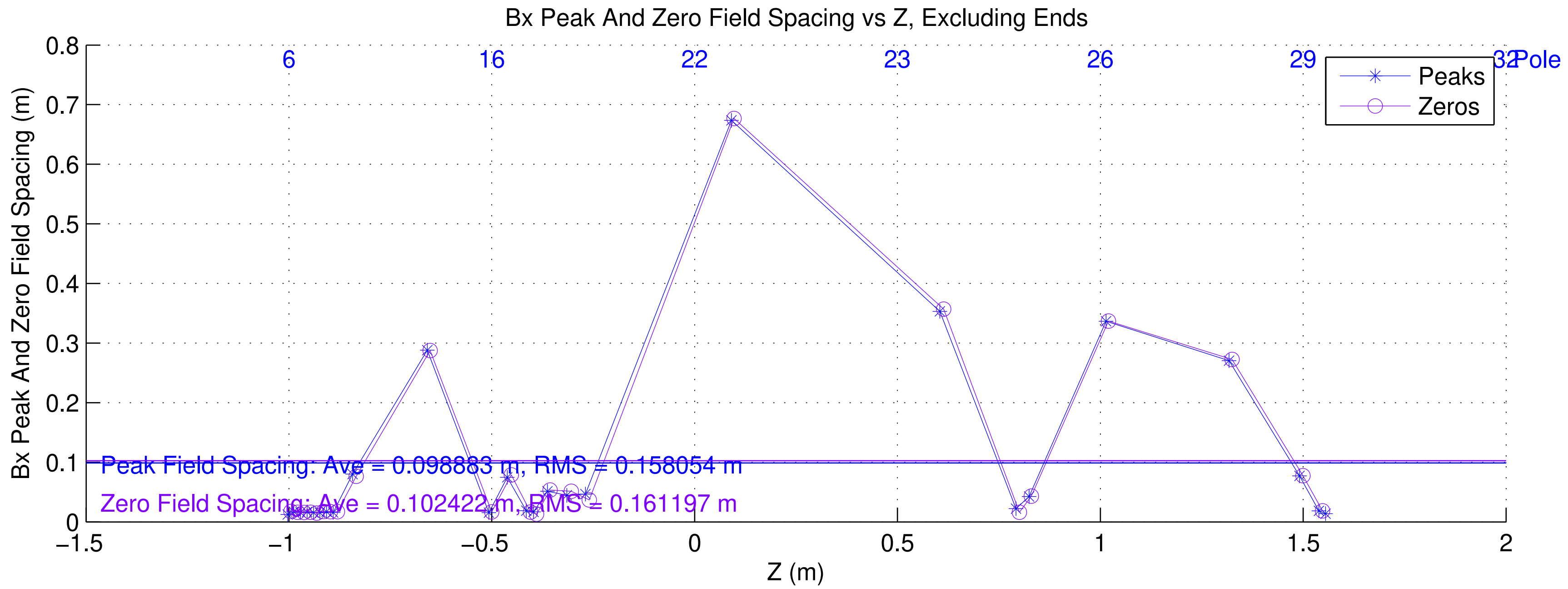

By vs Z With Fitted Peaks And Zeros
By (T)
Z (m)
Pole
4
36
65
96
127
158
189
0.4
0.3
0.2
0.1
0
−0.1
−0.2
−0.3
−0.4
−1.5
−1
−0.5
0
0.5
1
1.5
2
2.5



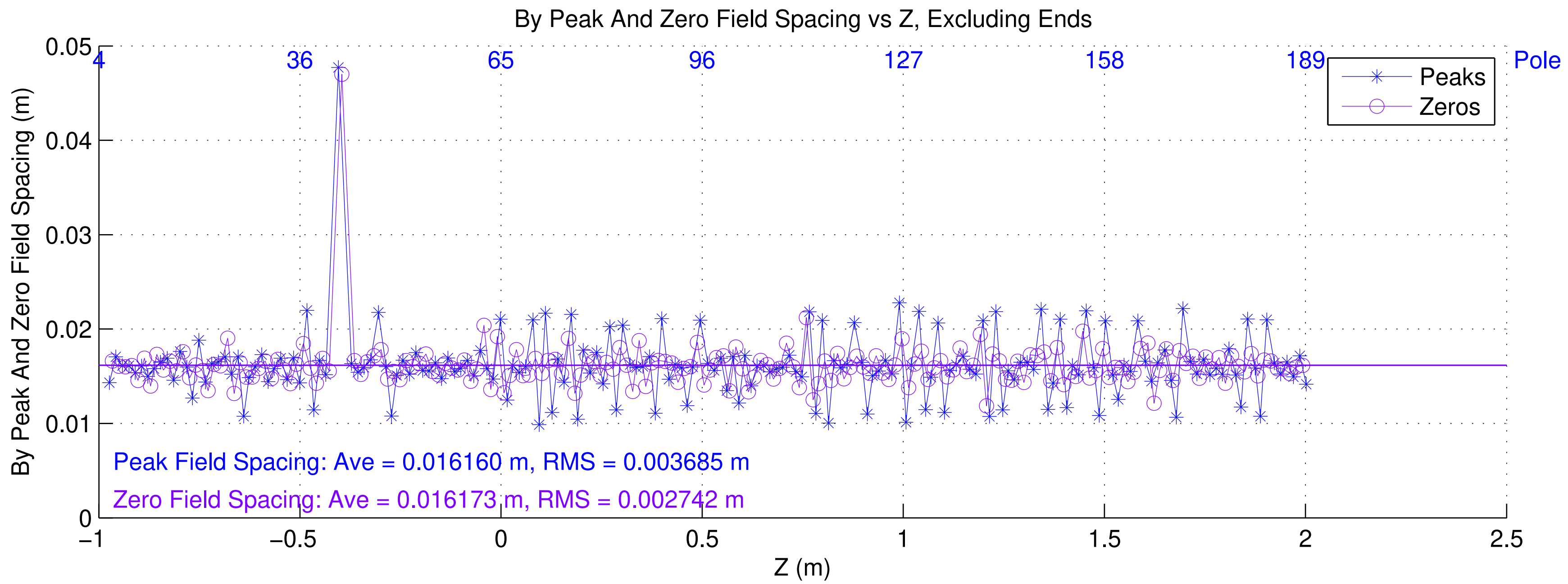
Abs(Fitted Peak Bx) vs Z, Excluding Ends
Abs(Peak Bx) (T)
Z (m)
6
16
22
23
26
29
32
Pole
Peak Fields: Ave = 0.027721 T, RMS = 0.006628 T



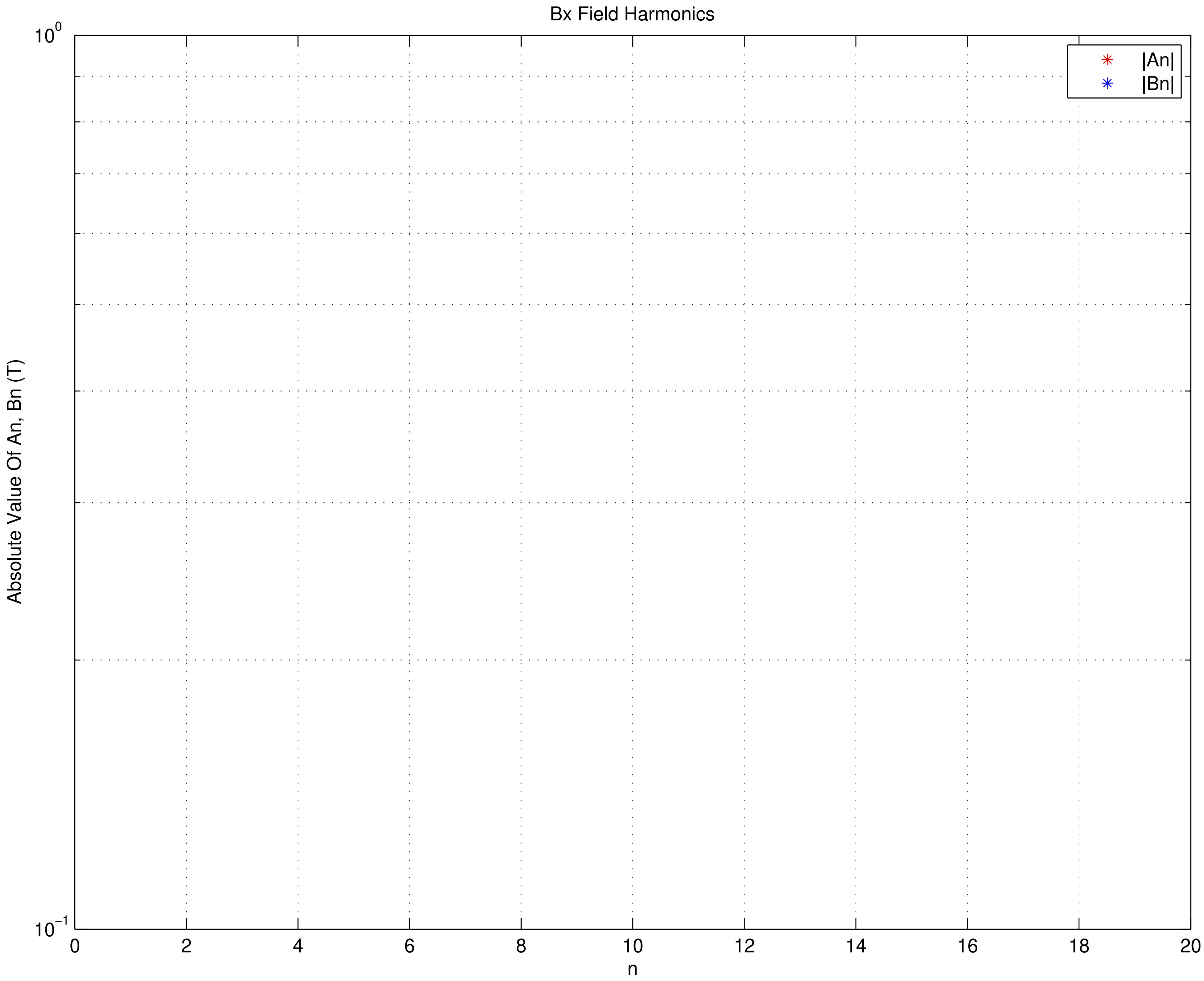
Abs(Fitted Peak By) vs Z, Excluding Ends
Abs(Peak By) (T)
Z (m)
4
36
65
96
127
158
189
Pole
Peak Fields: Ave = 0.038264 T, RMS = 0.009210 T



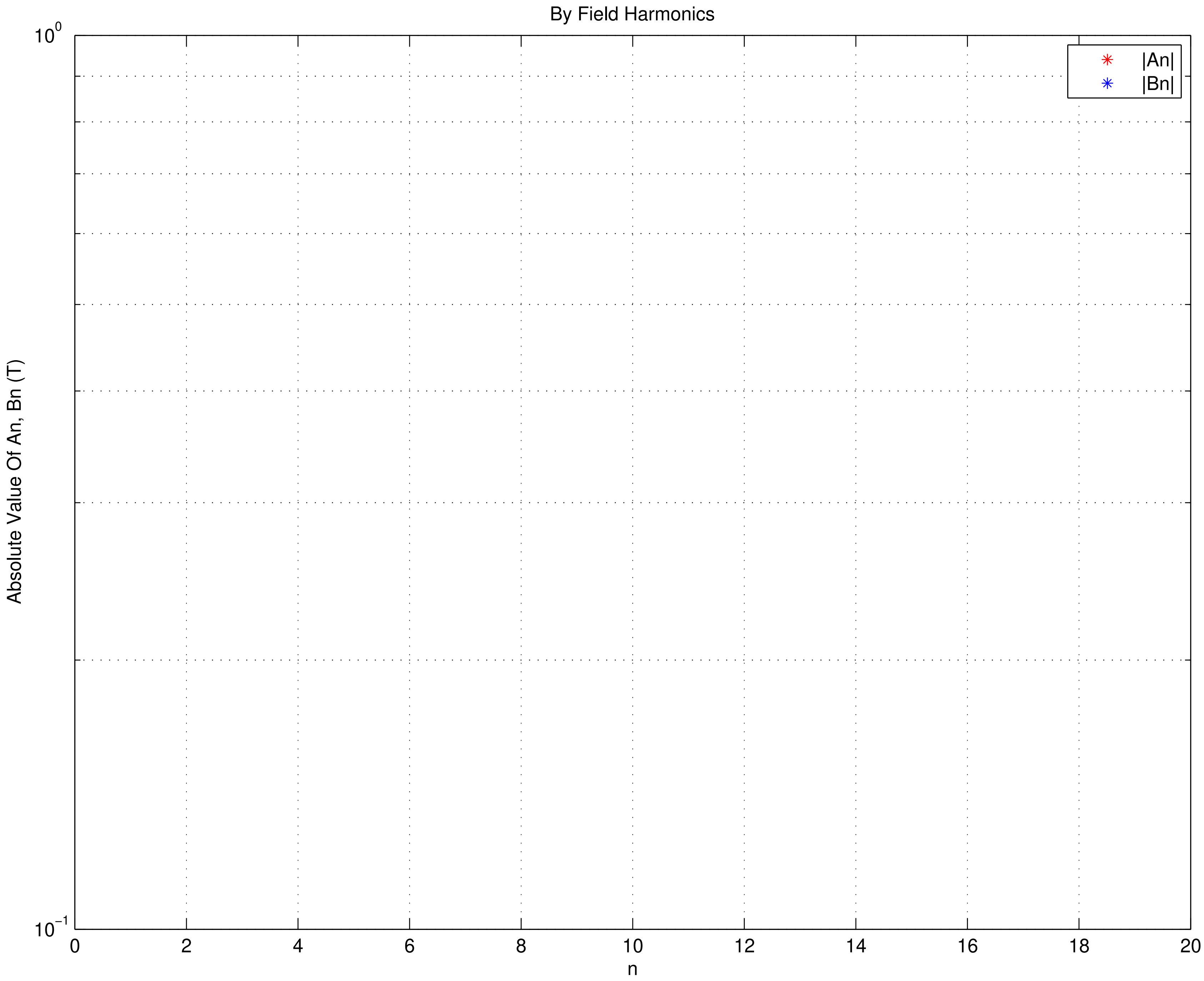
Bx Peak And Zero Field Spacing vs Z, Excluding Ends
Bx Peak And Zero Field Spacing (m)
Z (m)
Pole
6
16
22
23
26
29
32
Peaks
Zeros
Peak Field Spacing: Ave = 0.098883 m, RMS = 0.158054 m
Zero Field Spacing: Ave = 0.102422 m, RMS = 0.161197 m



By Peak And Zero Field Spacing vs Z, Excluding Ends
By Peak And Zero Field Spacing (m)
Z (m)
Pole
4
36
65
96
127
158
189
Peaks
Zeros
Peak Field Spacing: Ave = 0.016160 m, RMS = 0.003685 m
Zero Field Spacing: Ave = 0.016173 m, RMS = 0.002742 m



Bx Field Harmonics
10^0
10^{-1}
0
2
4
6
8
10
12
14
16
18
20
n
Absolute Value Of An, Bn (T)
|An|
|Bn|



By Field Harmonics
|An|
|Bn|
Absolute Value Of An, Bn (T)
10^0
10^{-1}
0
2
4
6
8
10
12
14
16
18
20
n