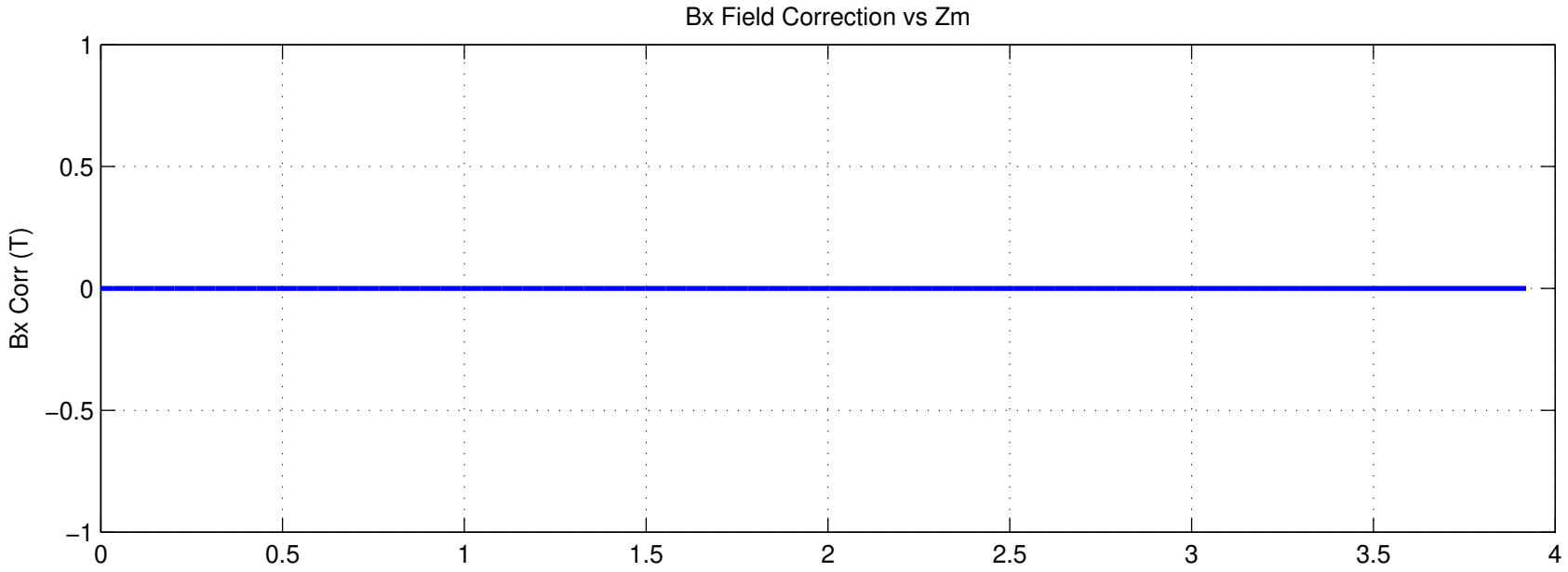
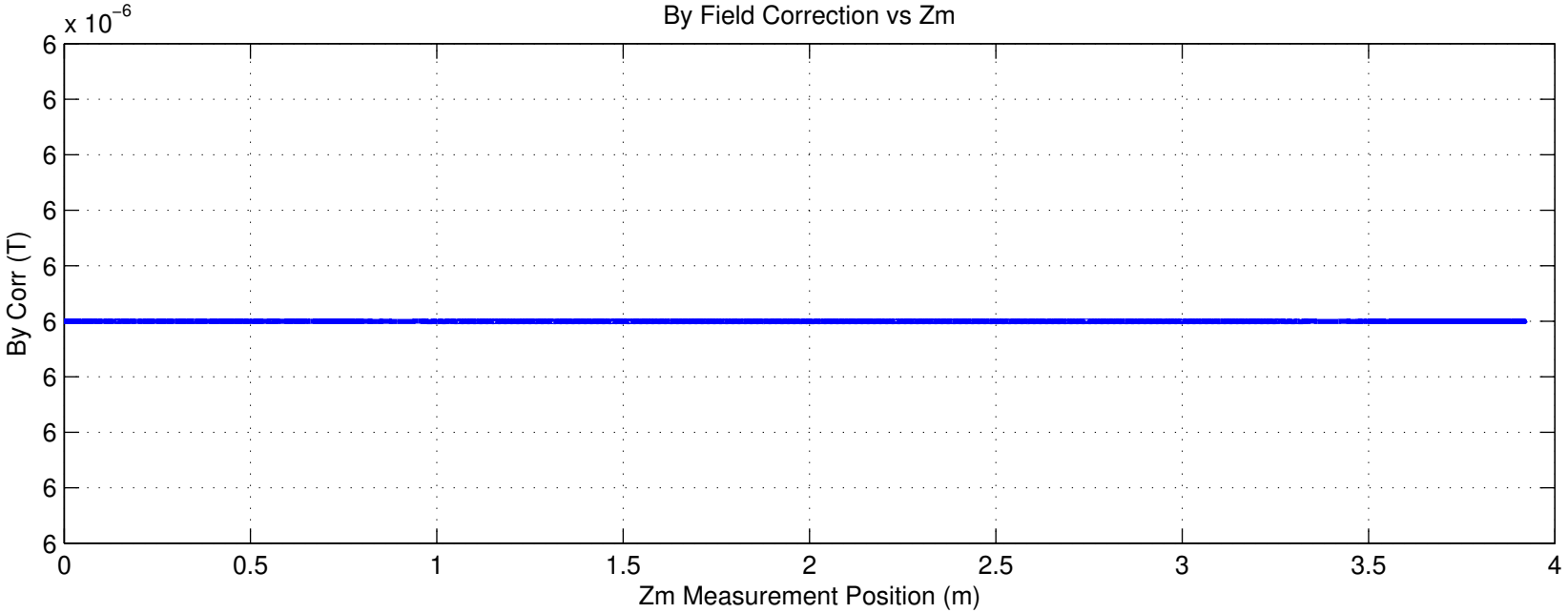
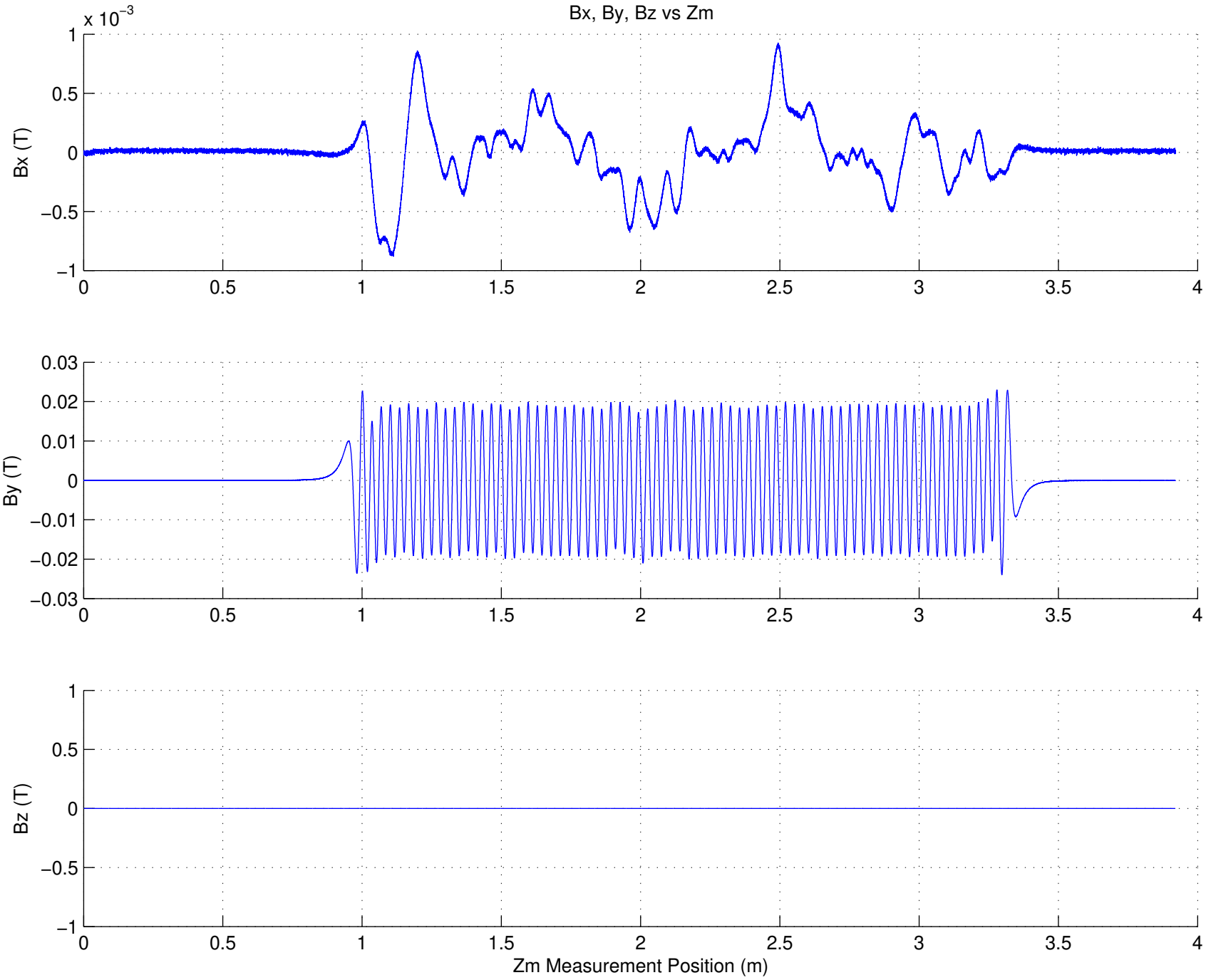
SLAC Magnetic Measurements

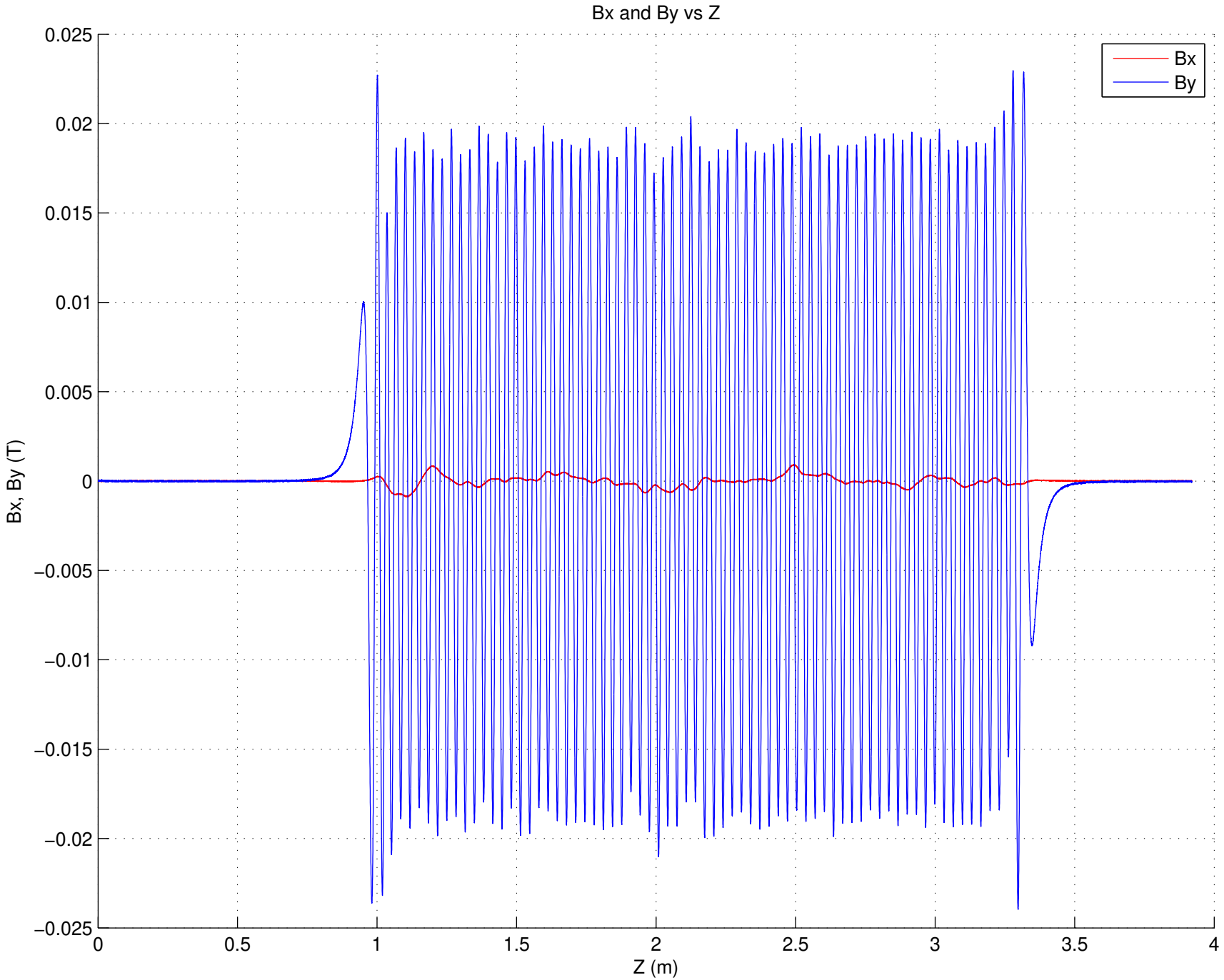
EPU Analysis
−−−−−−−−−−−

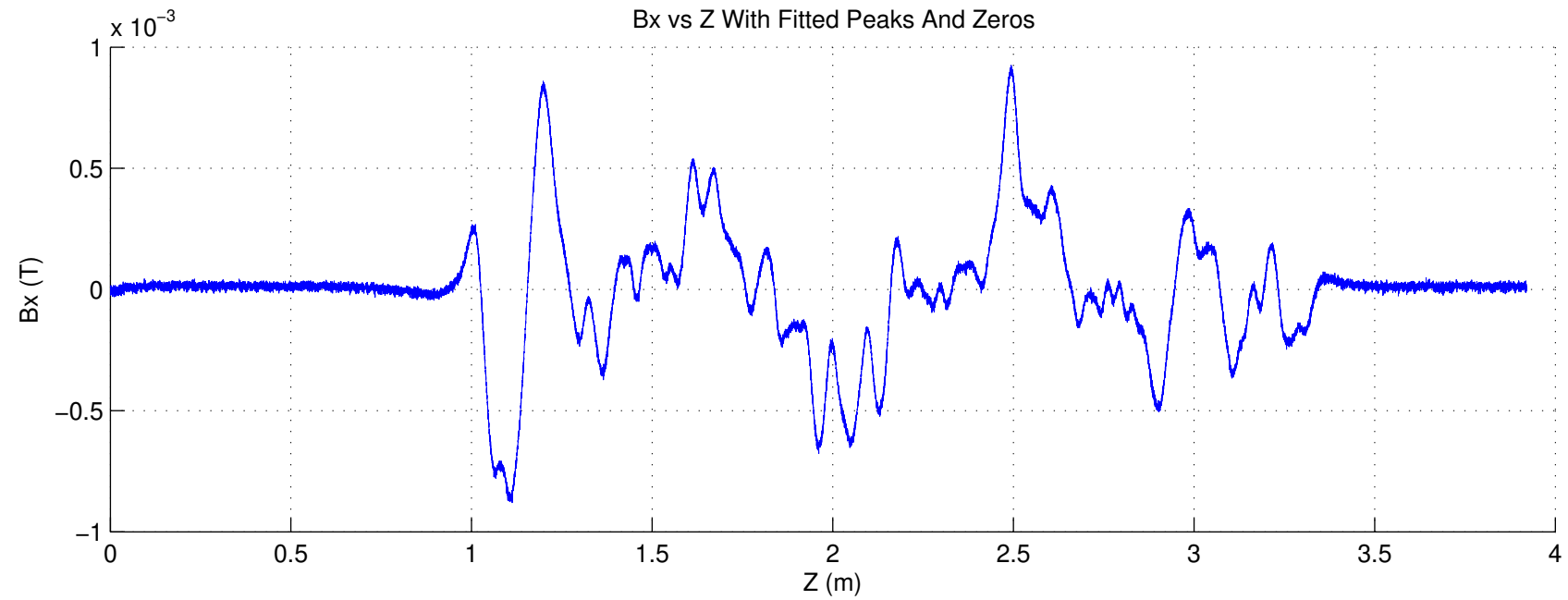
Parameters:
INPUT−FILE−DIR =V:\MET\MagServe\MagData\LCLS\Undulator\A1−ANL\DATASET0002\Rough Tuning\Z Scans\Run 025\
INPUT−FILE−NAME =x+00000−y+000−bscanz.dat
INPUT−FILE−TYPE =ZVXYBXYH
CORR−REQUIRED =1
GAMMA =26627.1
NOM−LAMBDA−U =0
NOM−K−VALUE =0
NOM−LAMBDA−R =0
NUM−POLES =144
NUM−END−POLES =4
CELL−LENGTH =3.126

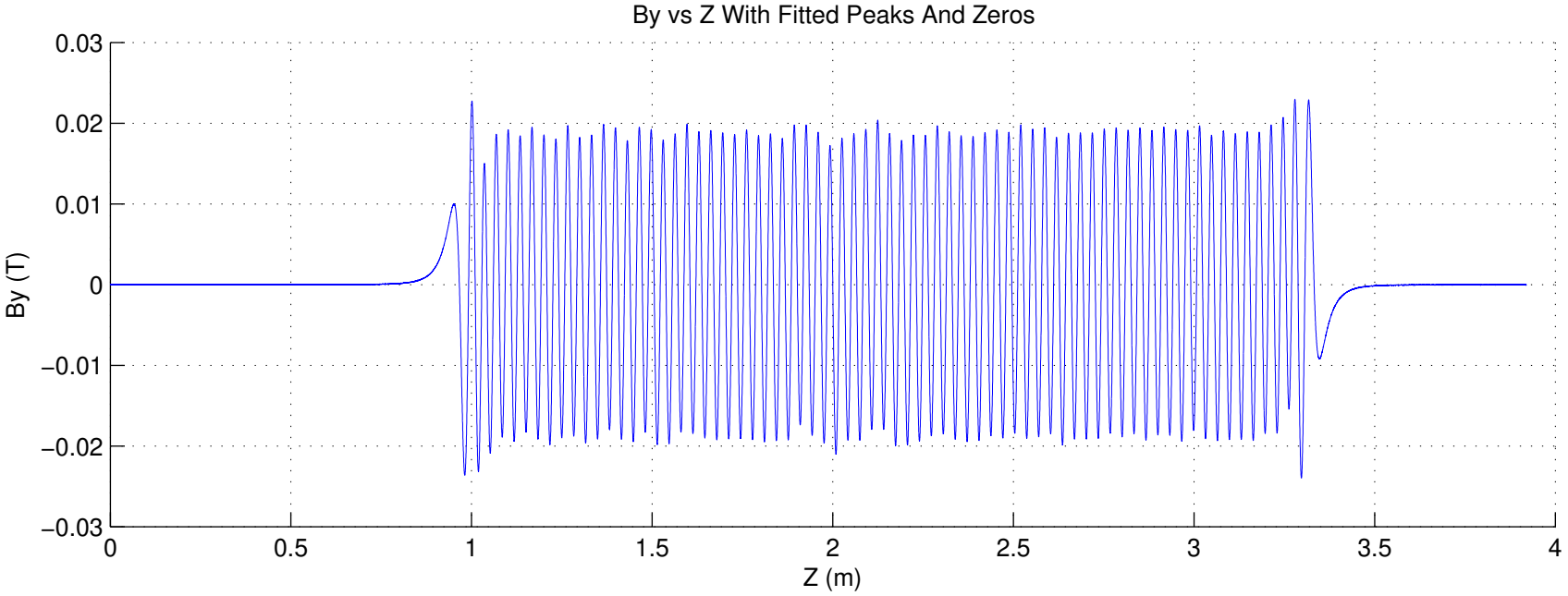

Bx Field Correction vs Zm
Bx Corr (T)
1
0.5
0
−0.5
−1
0
0.5
1
1.5
2
2.5
3
3.5
4

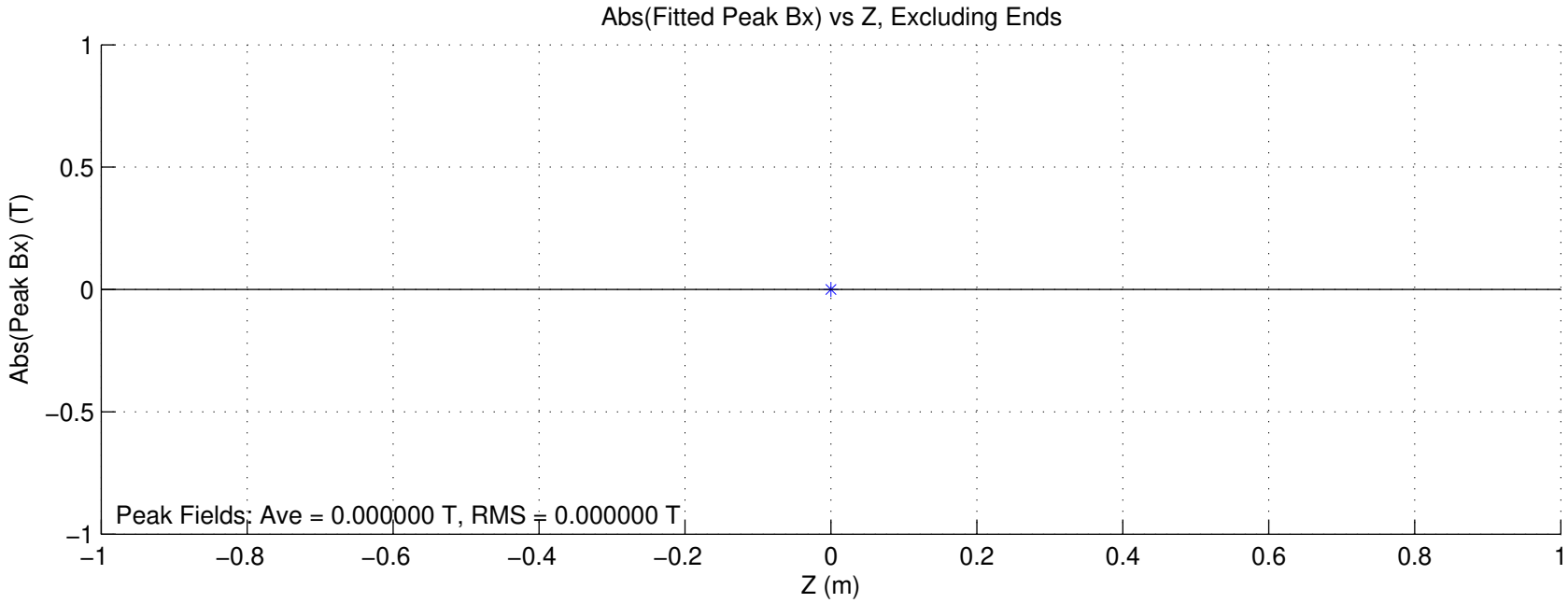

By Field Correction vs Zm
x 10^−6
By Corr (T)
6
6
6
6
6
6
6
6
0
0.5
1
1.5
2
2.5
3
3.5
4
Zm Measurement Position (m)

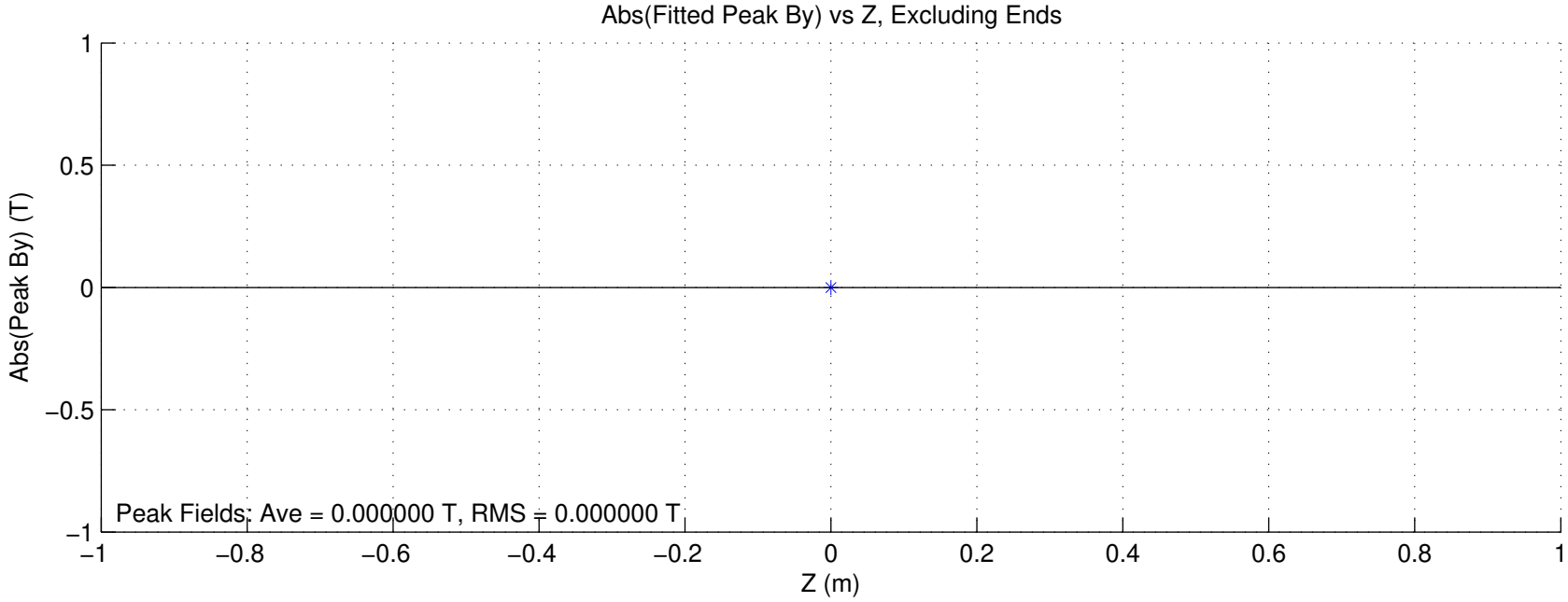

Bx, By, Bz vs Zm
x 10^-3
Bx (T)
By (T)
Bz (T)
Zm Measurement Position (m)

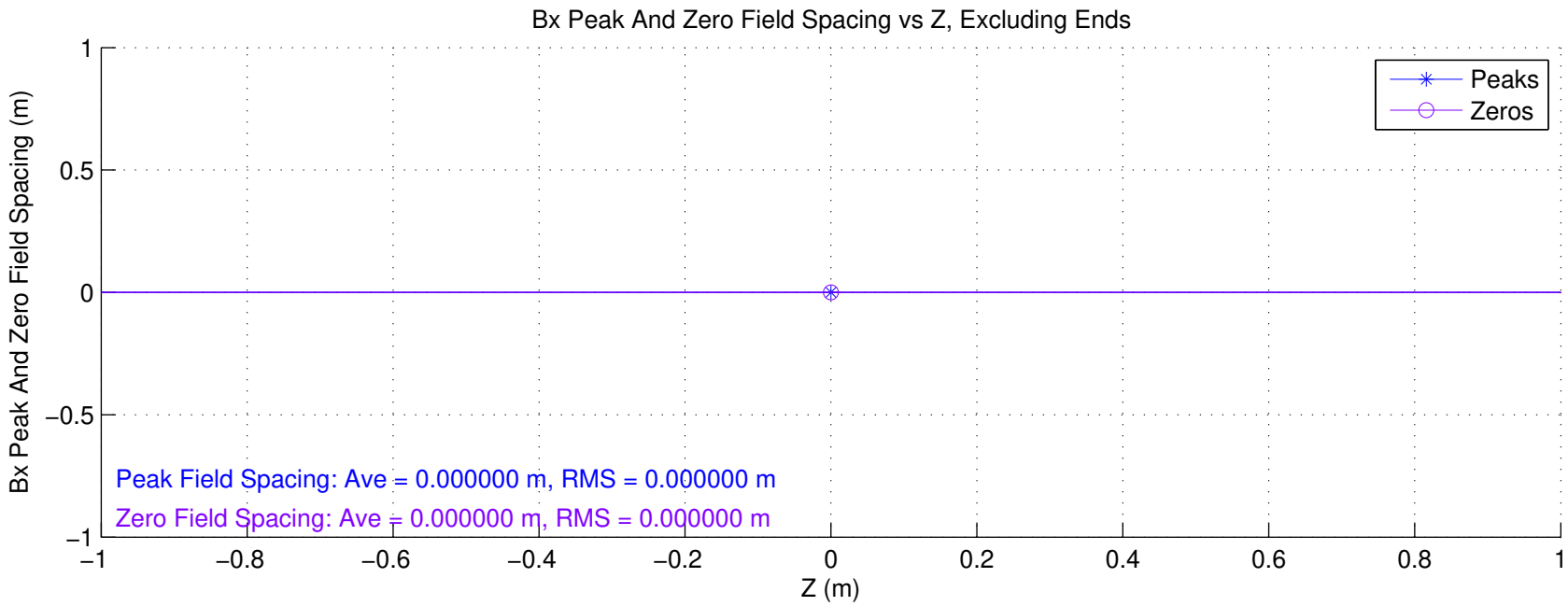

Bx and By vs Z
Bx
By
Bx, By (T)
Z (m)
0.025
0.02
0.015
0.01
0.005
0
−0.005
−0.01
−0.015
−0.02
−0.025
0
0.5
1
1.5
2
2.5
3
3.5
4

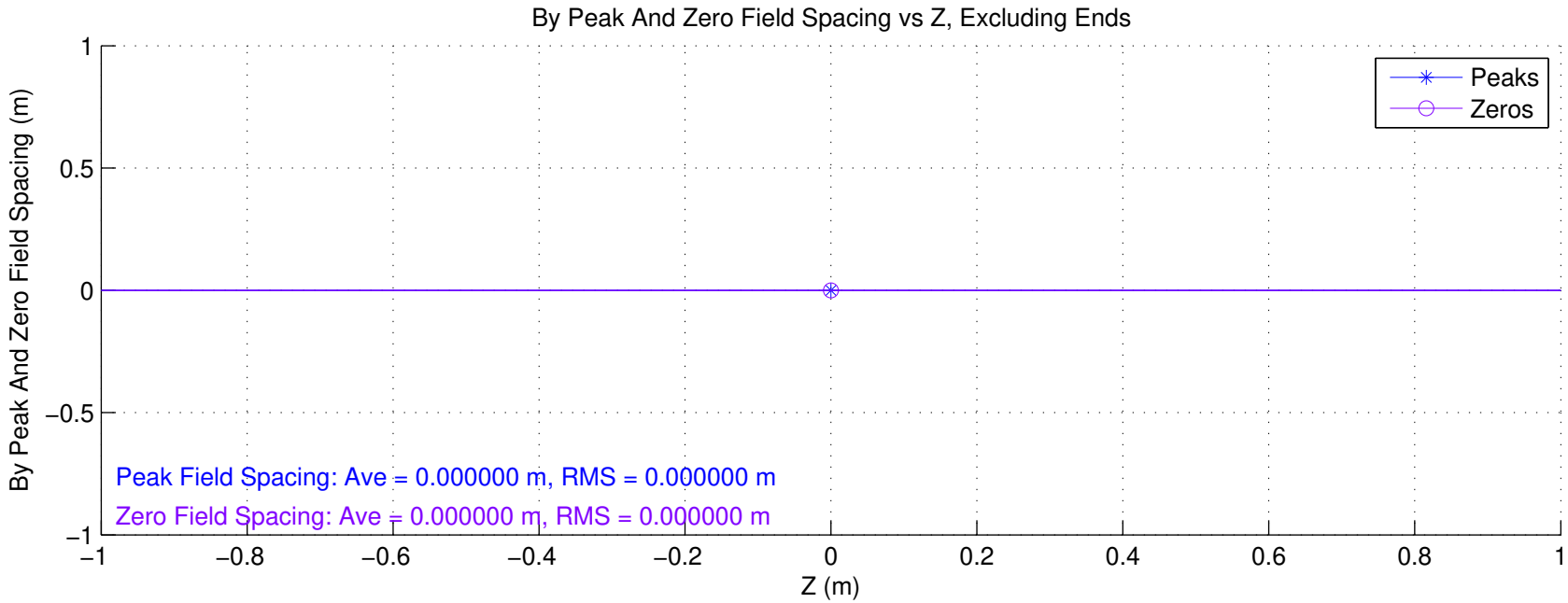

Bx vs Z With Fitted Peaks And Zeros
x 10^-3
Bx (T)
Z (m)
1
0.5
0
−0.5
−1
0
0.5
1
1.5
2
2.5
3
3.5
4


By vs Z With Fitted Peaks And Zeros
By (T)
Z (m)
0.03
0.02
0.01
0
−0.01
−0.02
−0.03
0
0.5
1
1.5
2
2.5
3
3.5
4


Abs(Fitted Peak Bx) vs Z, Excluding Ends
Abs(Peak Bx) (T)
Z (m)
Peak Fields: Ave = 0.000000 T, RMS = 0.000000 T
1
0.5
0
−0.5
−1
−1
−0.8
−0.6
−0.4
−0.2
0
0.2
0.4
0.6
0.8
1


Abs(Fitted Peak By) vs Z, Excluding Ends
Abs(Peak By) (T)
Z (m)
Peak Fields: Ave = 0.000000 T, RMS = 0.000000 T
1
0.5
0
−0.5
−1
−1
−0.8
−0.6
−0.4
−0.2
0
0.2
0.4
0.6
0.8
1


Bx Peak And Zero Field Spacing vs Z, Excluding Ends
Bx Peak And Zero Field Spacing (m)
Z (m)
Peaks
Zeros
Peak Field Spacing: Ave = 0.000000 m, RMS = 0.000000 m
Zero Field Spacing: Ave = 0.000000 m, RMS = 0.000000 m
1
0.5
0
−0.5
−1
−1
−0.8
−0.6
−0.4
−0.2
0
0.2
0.4
0.6
0.8
1


By Peak And Zero Field Spacing vs Z, Excluding Ends
By Peak And Zero Field Spacing (m)
Z (m)
Peaks
Zeros
Peak Field Spacing: Ave = 0.000000 m, RMS = 0.000000 m
Zero Field Spacing: Ave = 0.000000 m, RMS = 0.000000 m
1
0.5
0
−0.5
−1
−1
−0.8
−0.6
−0.4
−0.2
0
0.2
0.4
0.6
0.8
1