SLAC Magnetic Measurements

EPU Analysis
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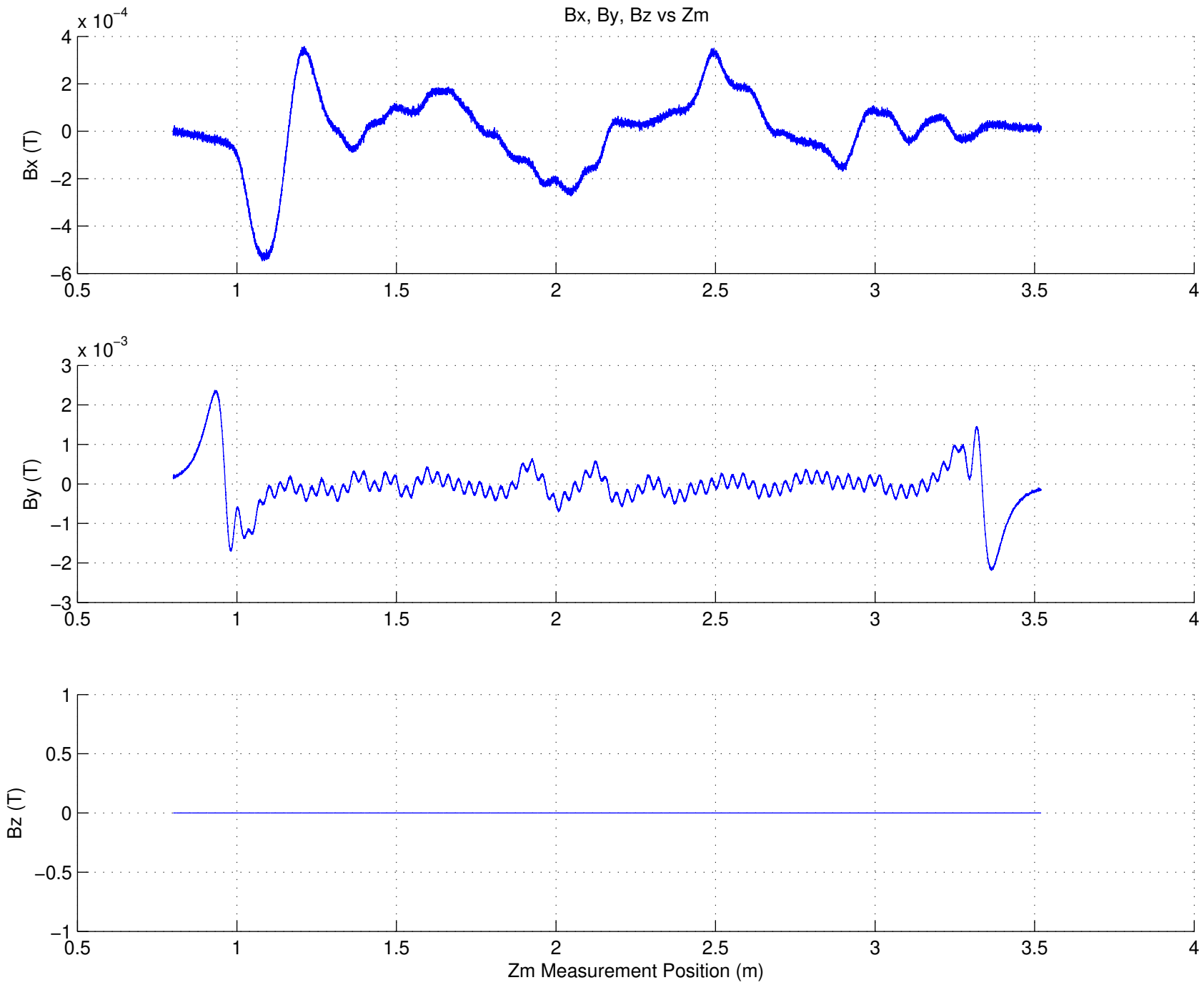
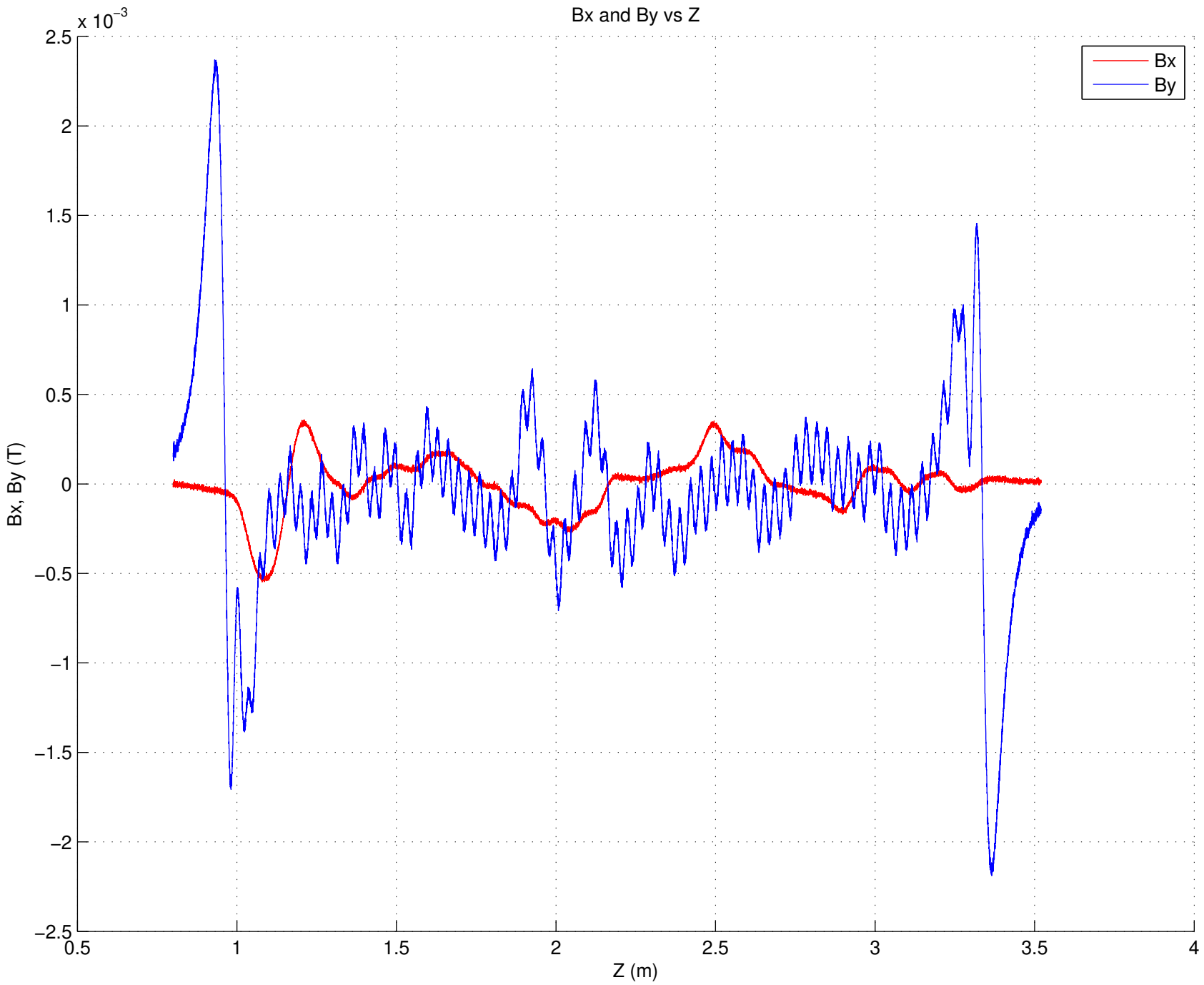
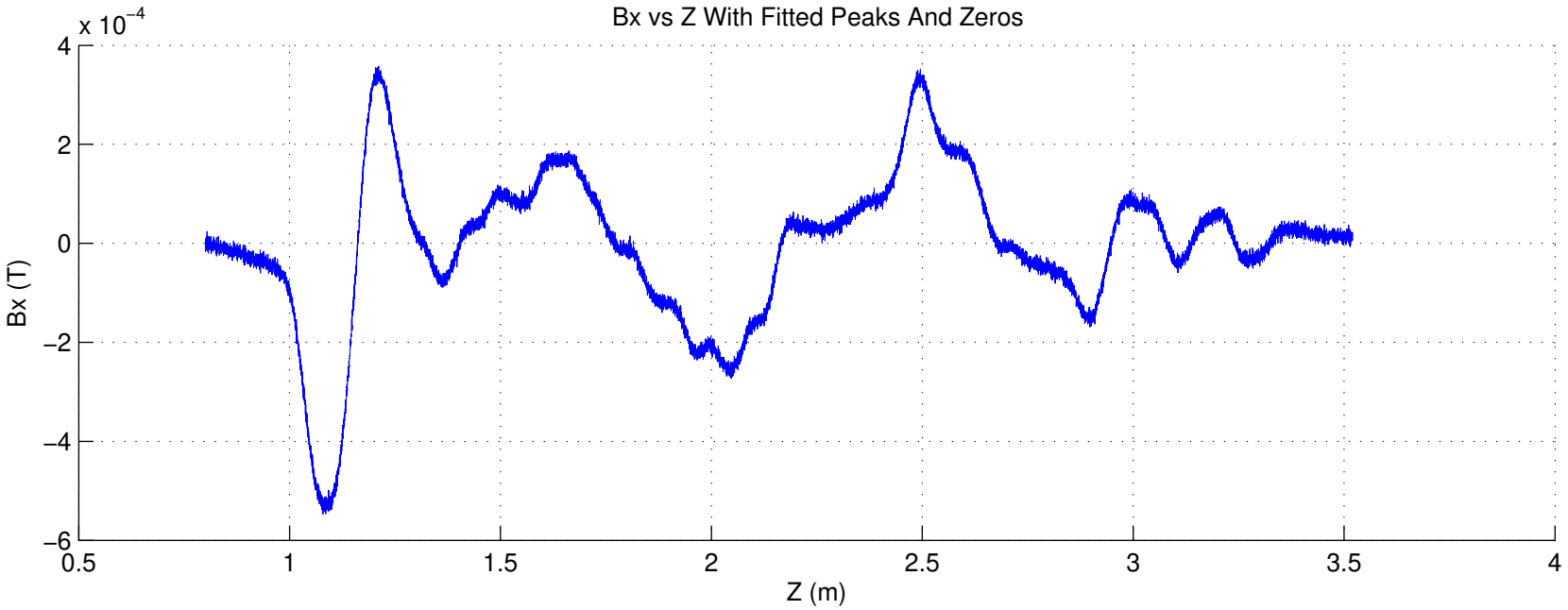
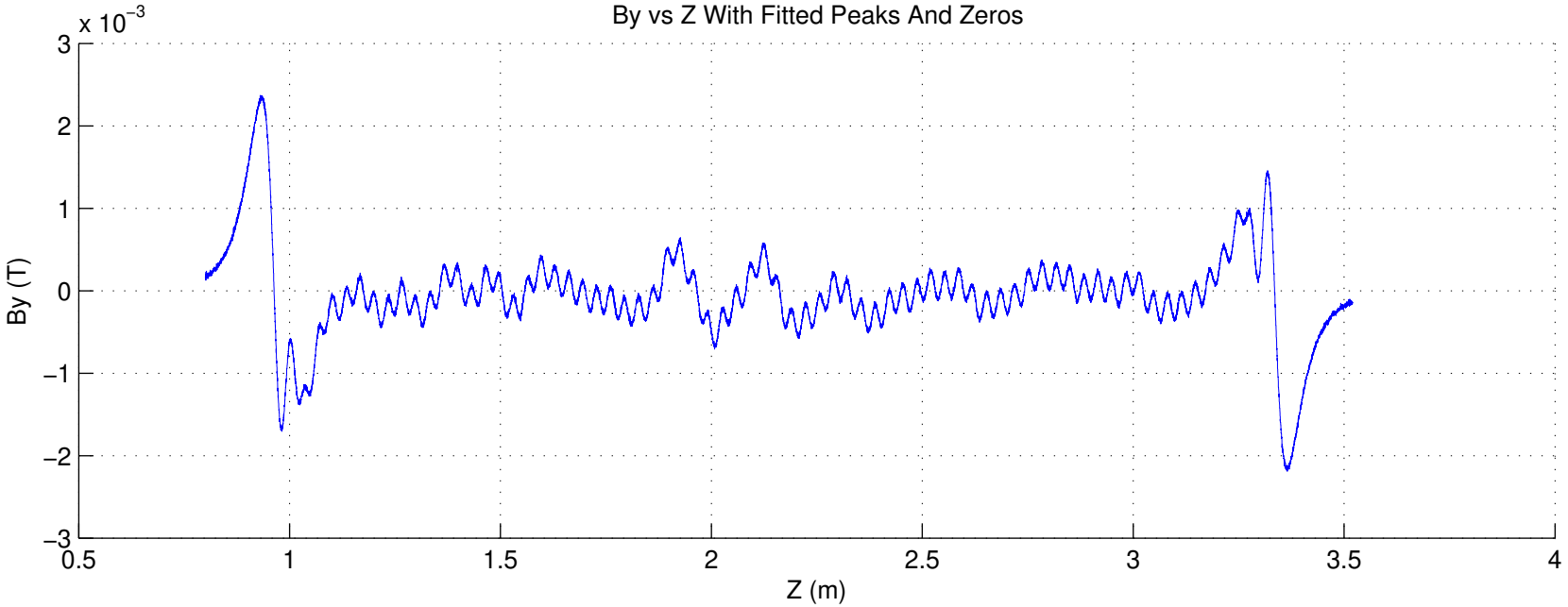
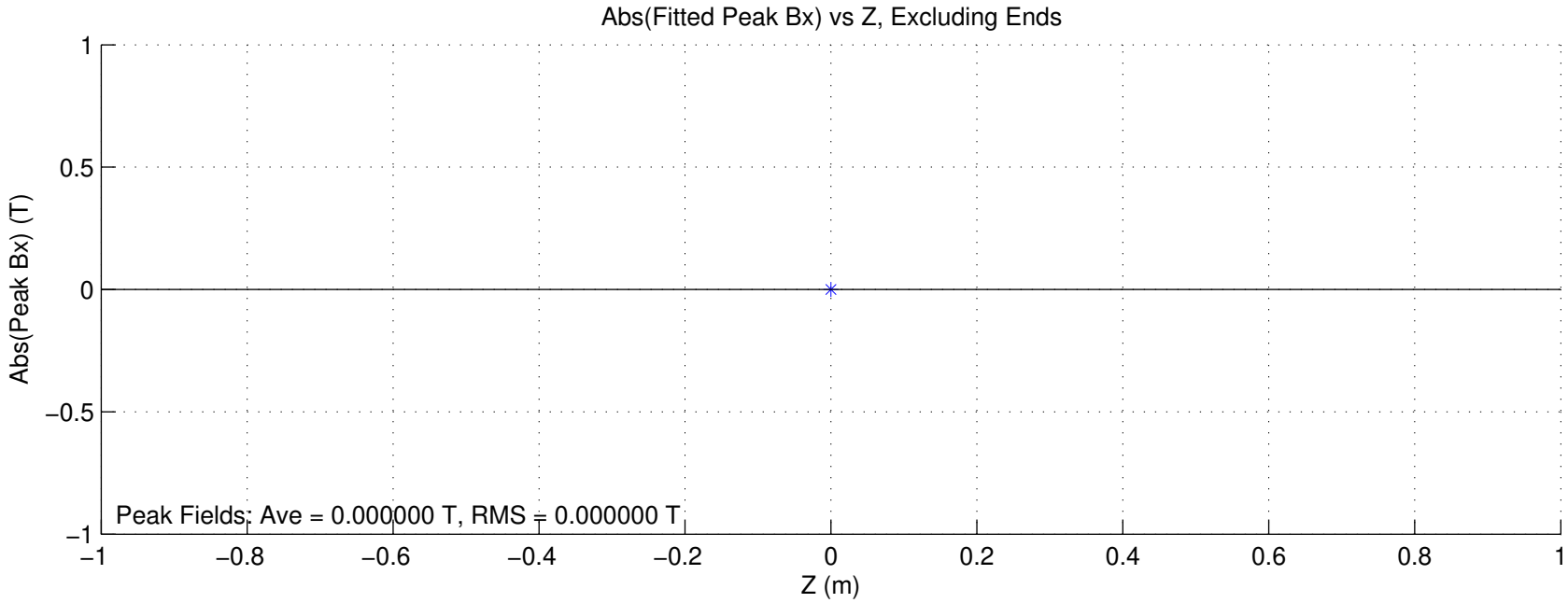
Parameters:
INPUT−FILE−DIR =S:\MagData\LCLS\Undulator\A1−ANL\DATASET0001\Rough Tuning\Z Scans\Run 002\
INPUT−FILE−NAME =x+00000−y+000−bscanz.dat
INPUT−FILE−TYPE =ZVXYBXYH
CORR−REQUIRED =0
GAMMA =26627.1
NOM−LAMBDA−U =0.033
NOM−K−VALUE =1.047
NOM−LAMBDA−R =3.6028e−011
NUM−POLES =144
NUM−END−POLES =4
CELL−LENGTH =4

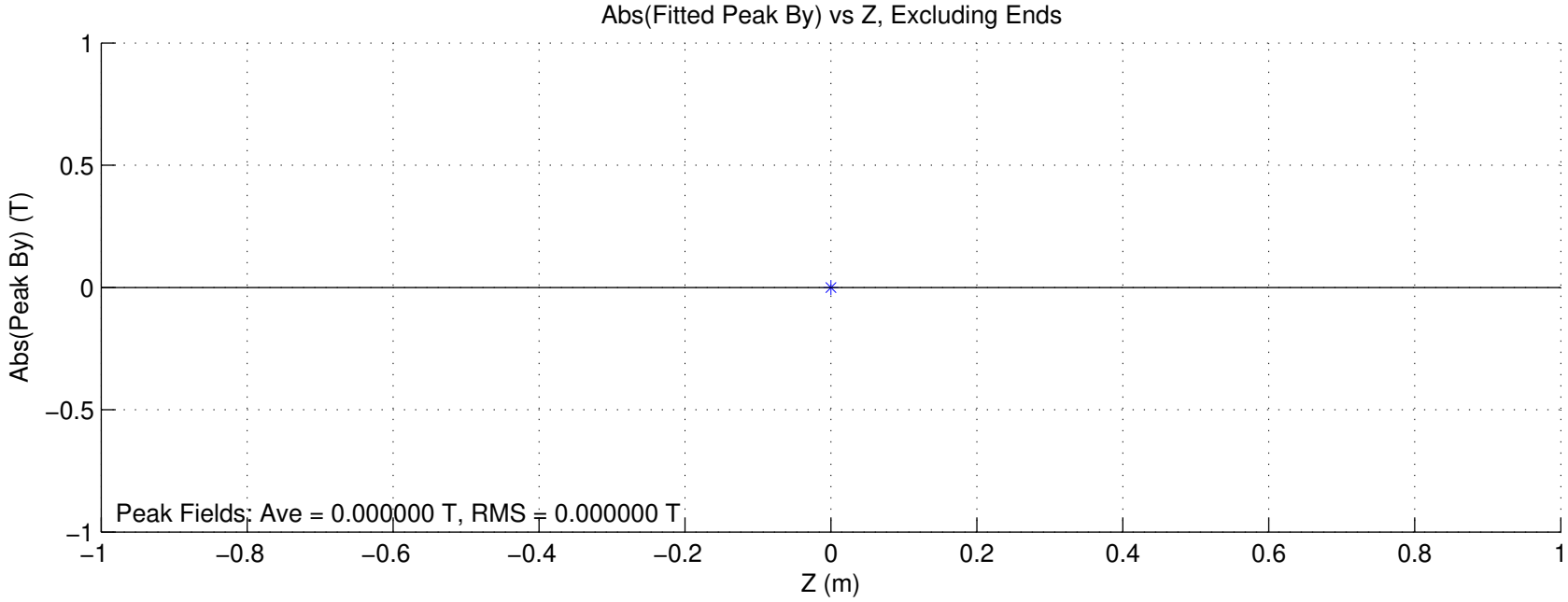

Bx, By, Bz vs Zm
x 10^-4
Bx (T)
4
2
0
−2
−4
−6
x 10^-3
By (T)
3
2
1
0
−1
−2
−3
Bz (T)
1
0.5
0
−0.5
−1
0.5
1
1.5
2
2.5
3
3.5
4
Zm Measurement Position (m)

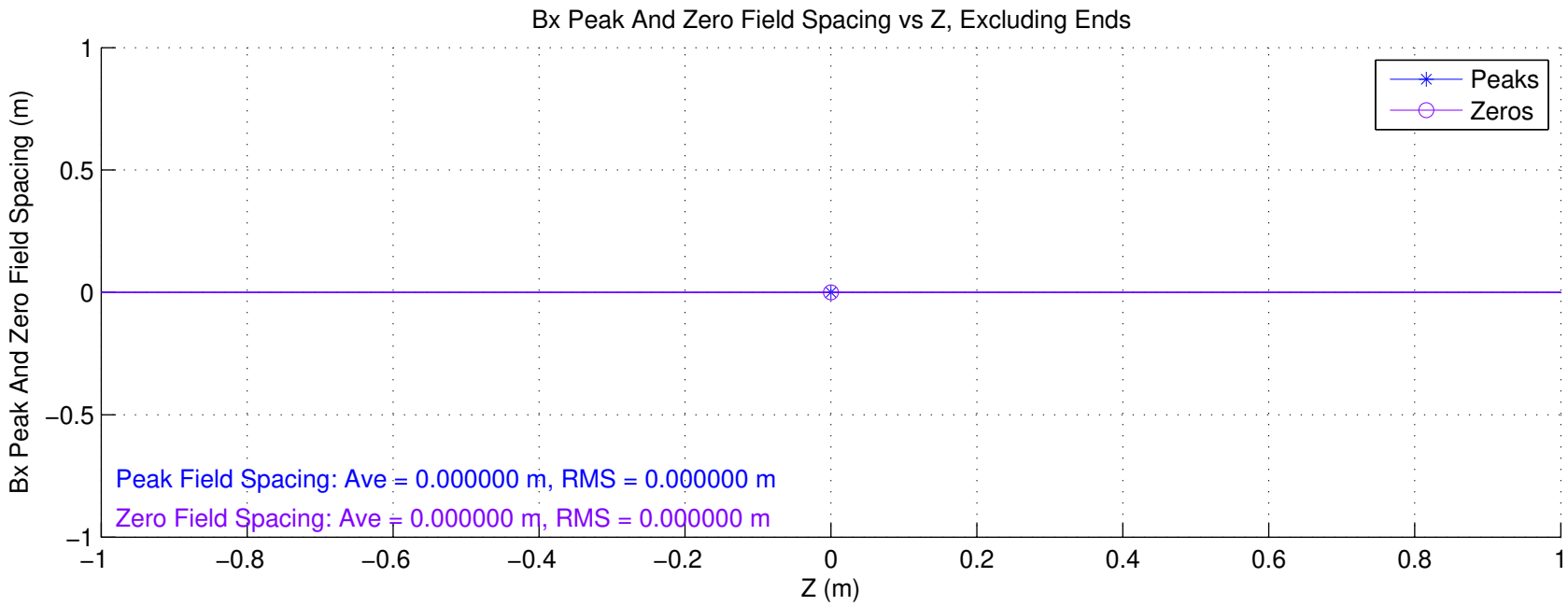

Bx and By vs Z
x 10^-3
2.5
2
1.5
1
0.5
0
−0.5
−1
−1.5
−2
−2.5
Bx, By (T)
0.5
1
1.5
2
2.5
3
3.5
4
Z (m)
Bx
By

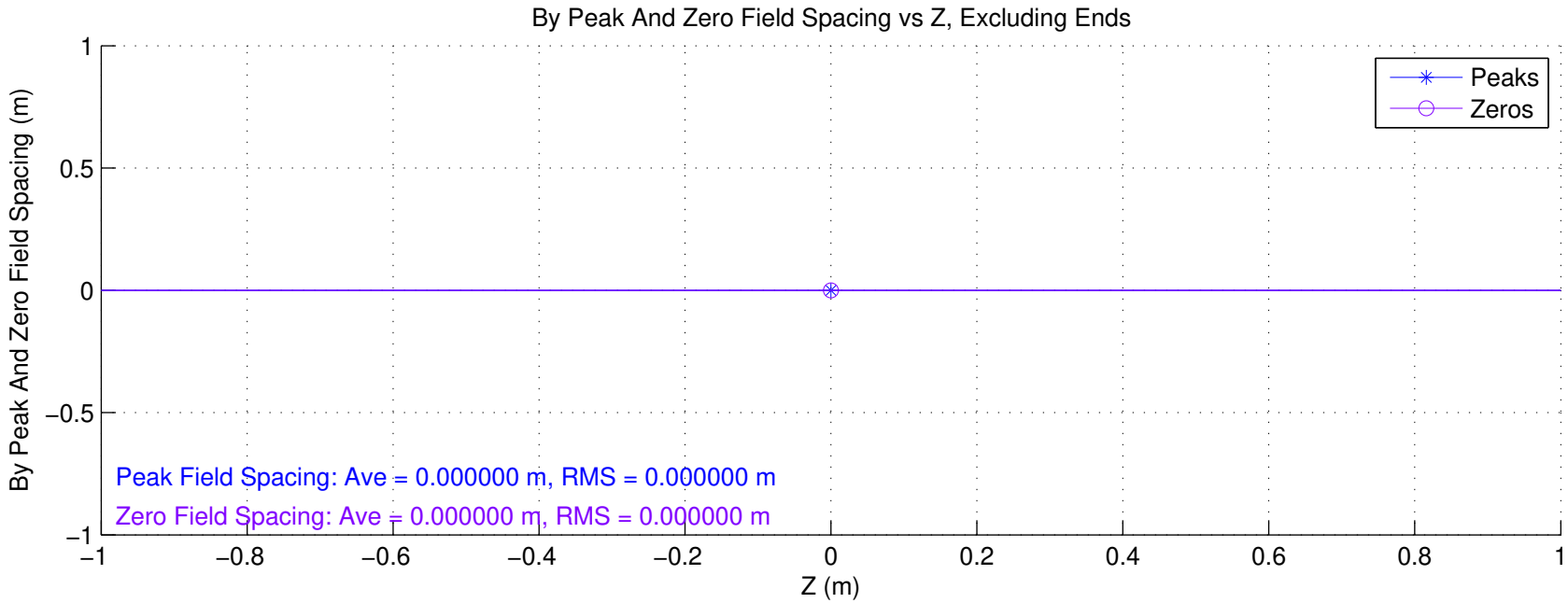

Bx vs Z With Fitted Peaks And Zeros
x 10^-4
4
2
0
−2
−4
−6
Bx (T)
0.5
1
1.5
2
2.5
3
3.5
4
Z (m)


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


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