SLAC Magnetic Measurements

Phase Analysis
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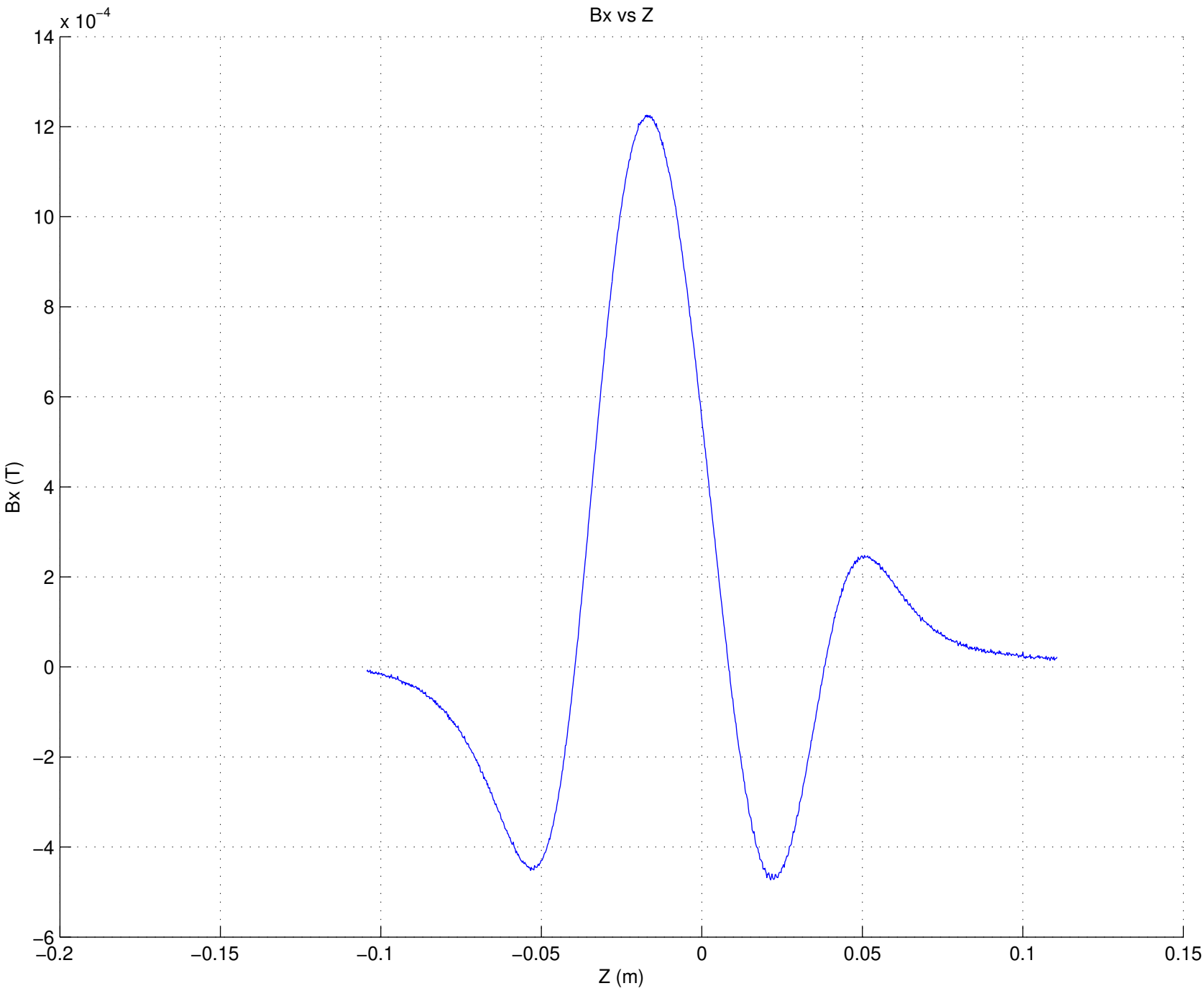
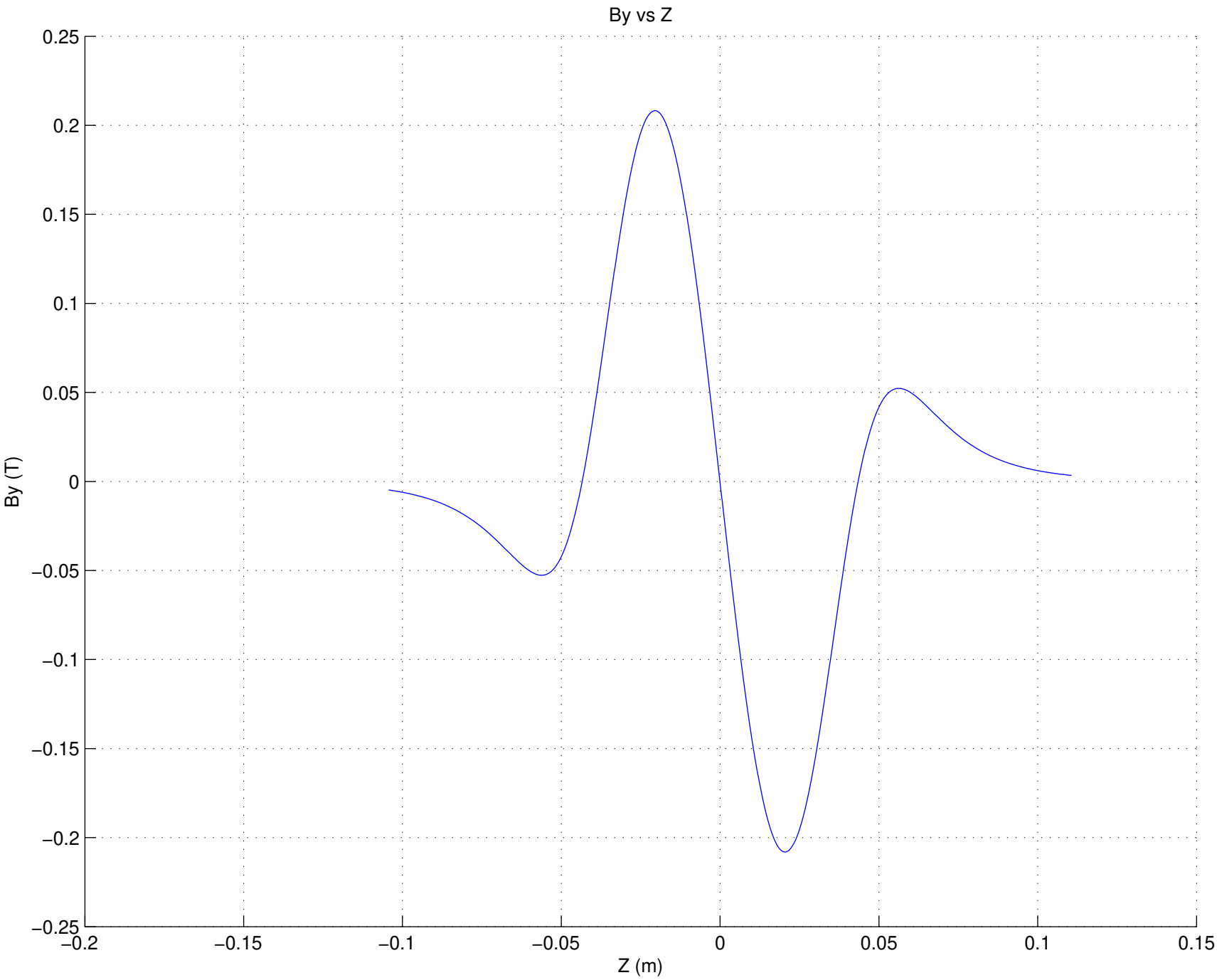
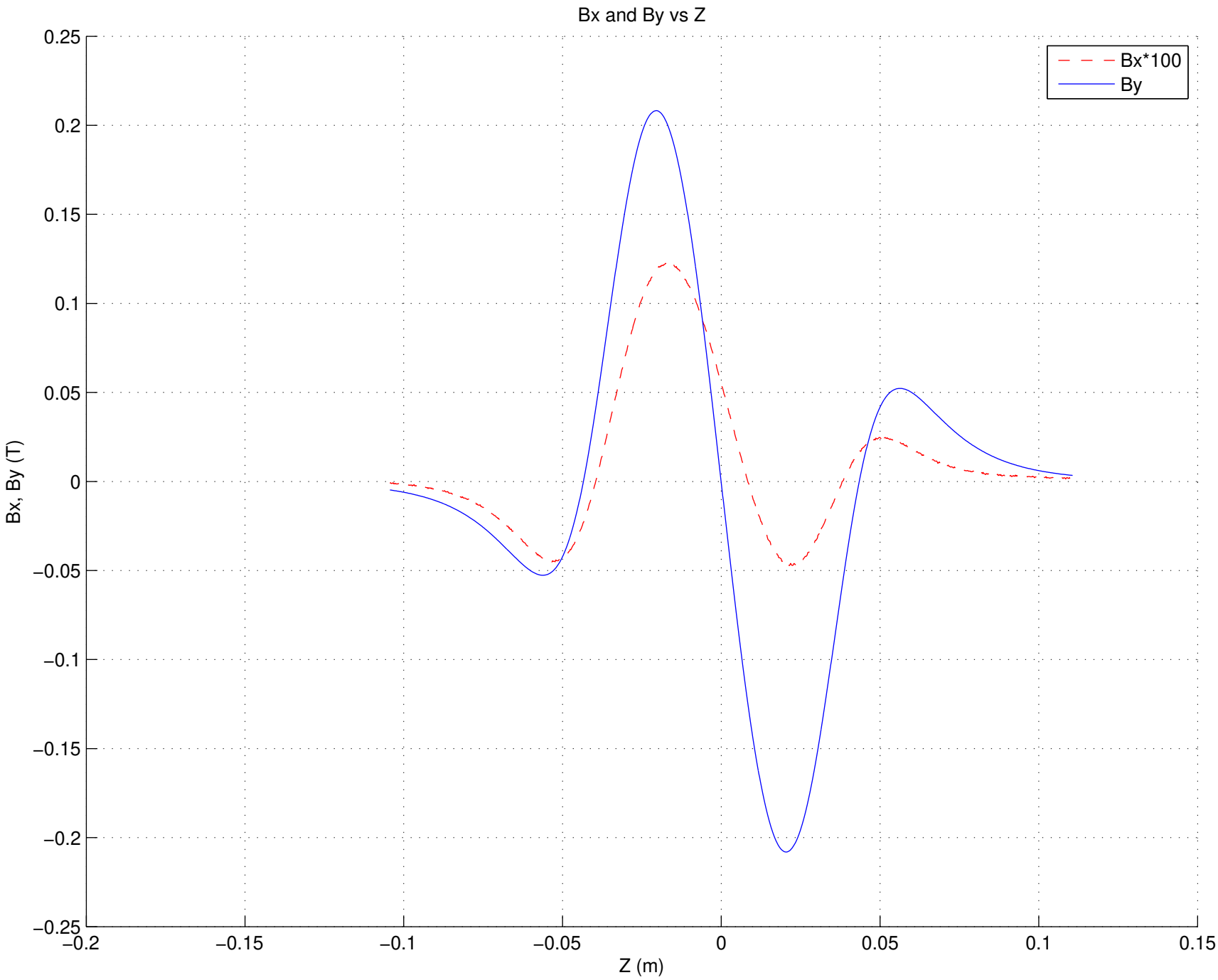
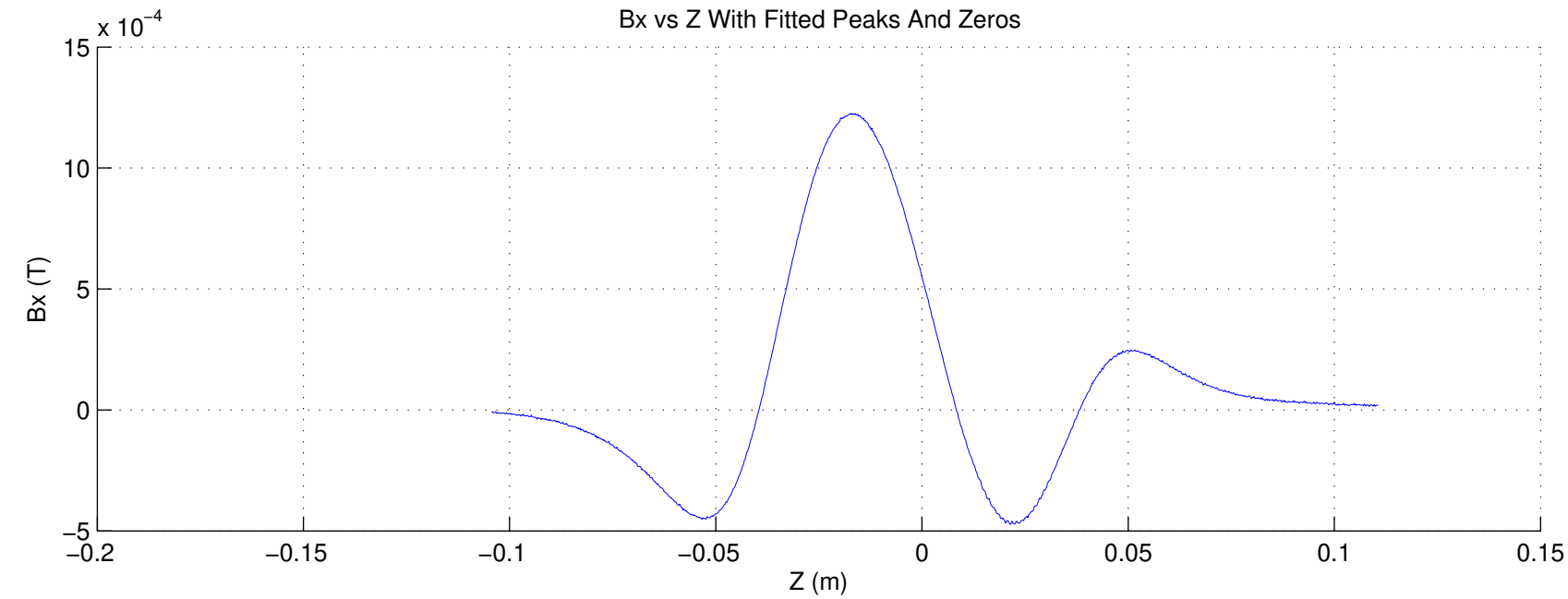
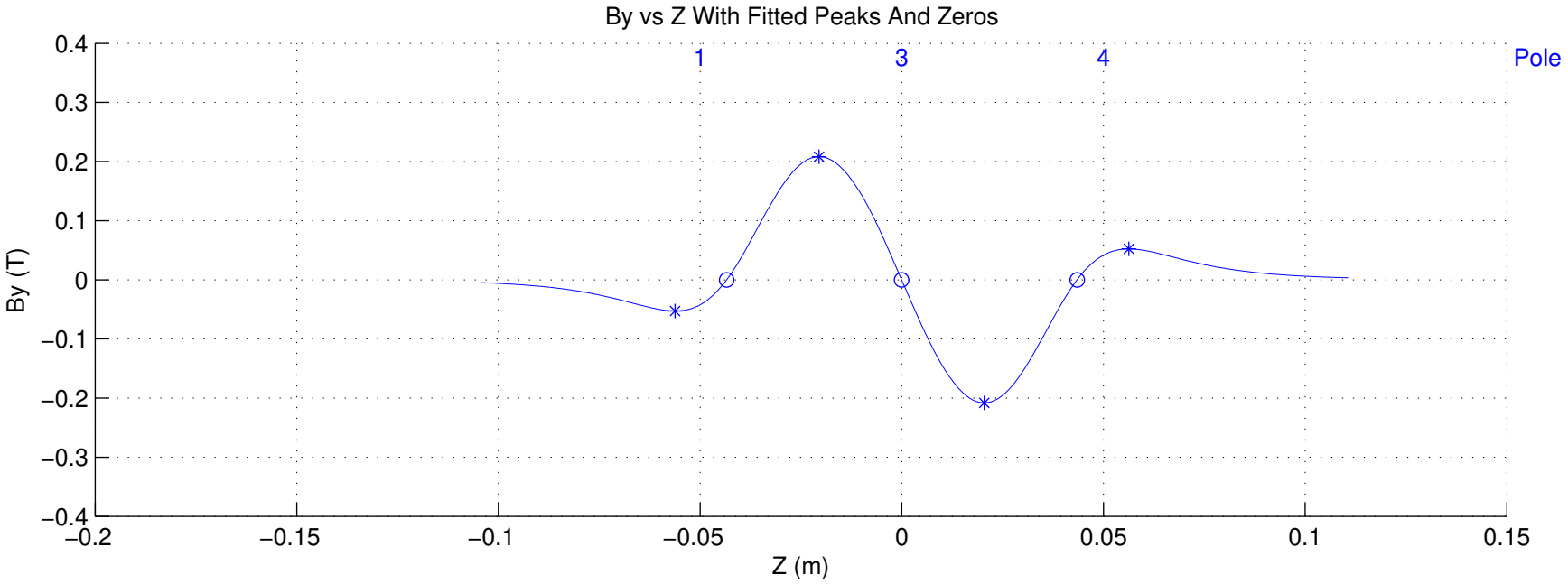
Parameters:
INPUT−FILE−DIR =s:\MagData\LCLS\Undulator\PHASE−SHIFTER\DATASET0001\Rough Tuning\Z Scans\Run 026\
INPUT−FILE−NAME =x+00000−y+000−bscanz.dat
INPUT−FILE−TYPE =ZVXYBXYH
CORR−REQUIRED =0
GAMMA =16765.2111
NOM−LAMBDA−U =0.03
NOM−K−VALUE =9.9
NOM−LAMBDA−R =2.6686e−009
NUM−POLES =4
NUM−END−POLES =0
CELL−LENGTH =0.4

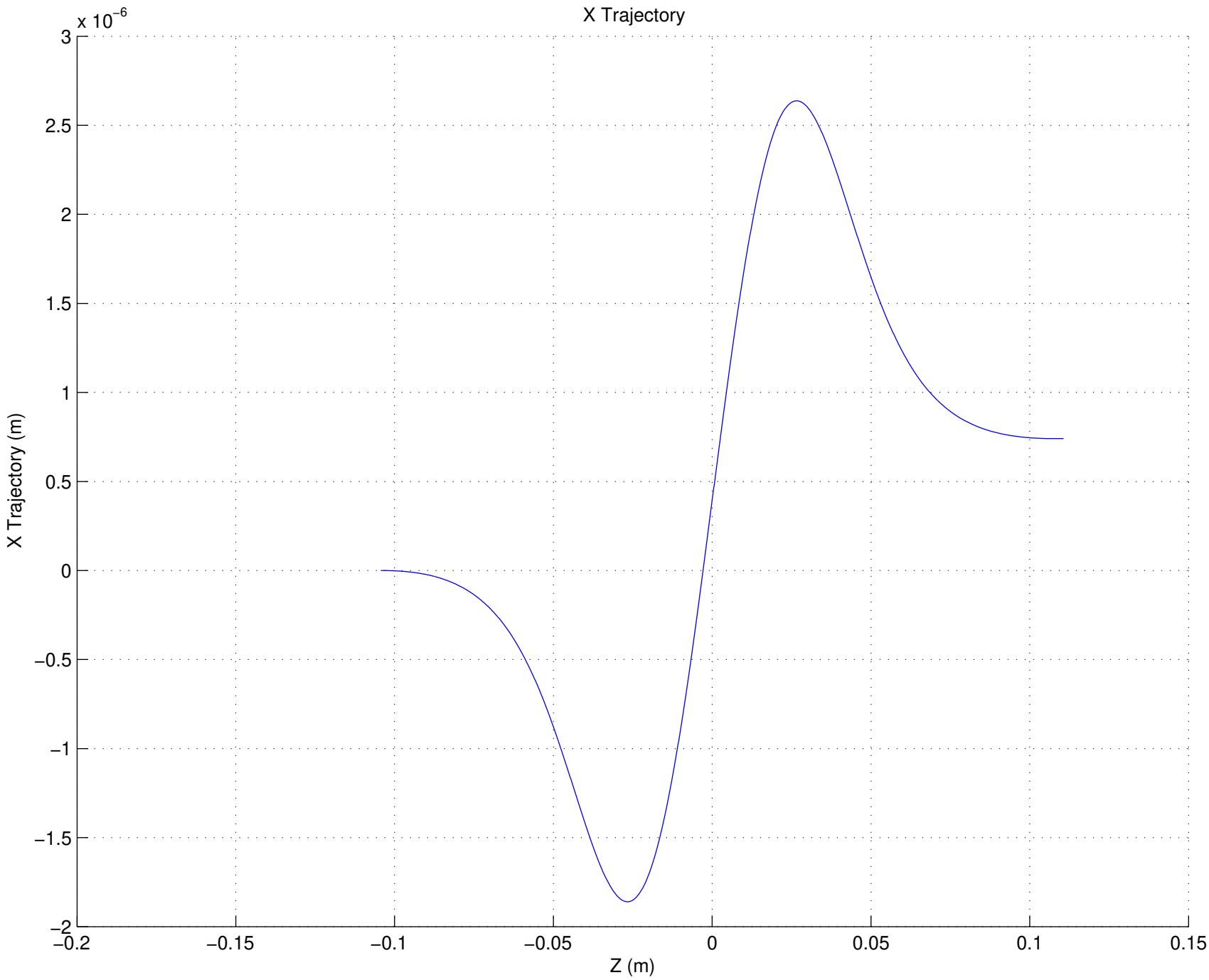

Bx vs Z
x 10^-4
14
12
10
8
6
4
2
0
−2
−4
−6
Bx (T)
−0.2
−0.15
−0.1
−0.05
0
0.05
0.1
0.15
Z (m)

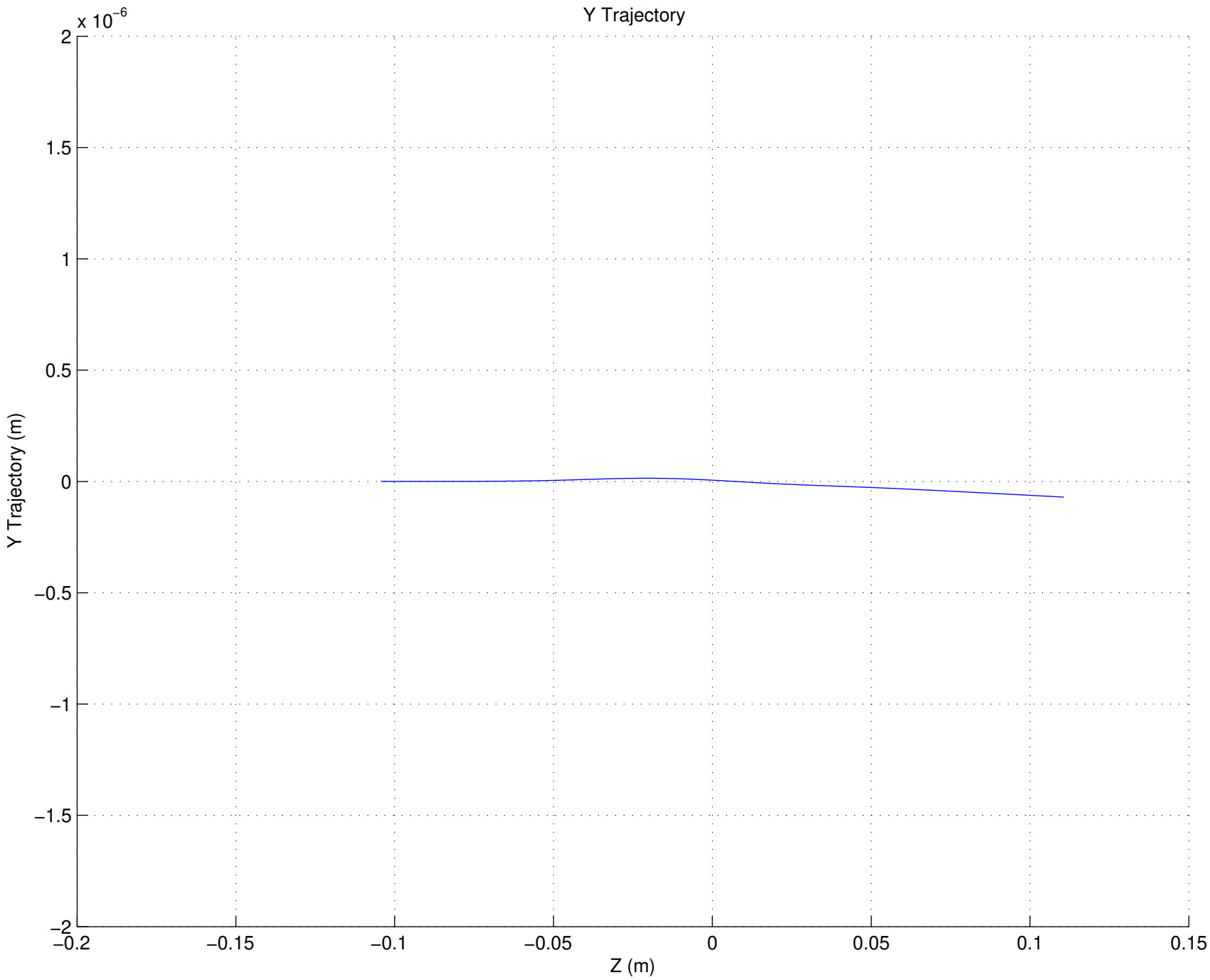

By vs Z
By (T)
Z (m)
0.25
0.2
0.15
0.1
0.05
0
−0.05
−0.1
−0.15
−0.2
−0.25
−0.2
−0.15
−0.1
−0.05
0
0.05
0.1
0.15

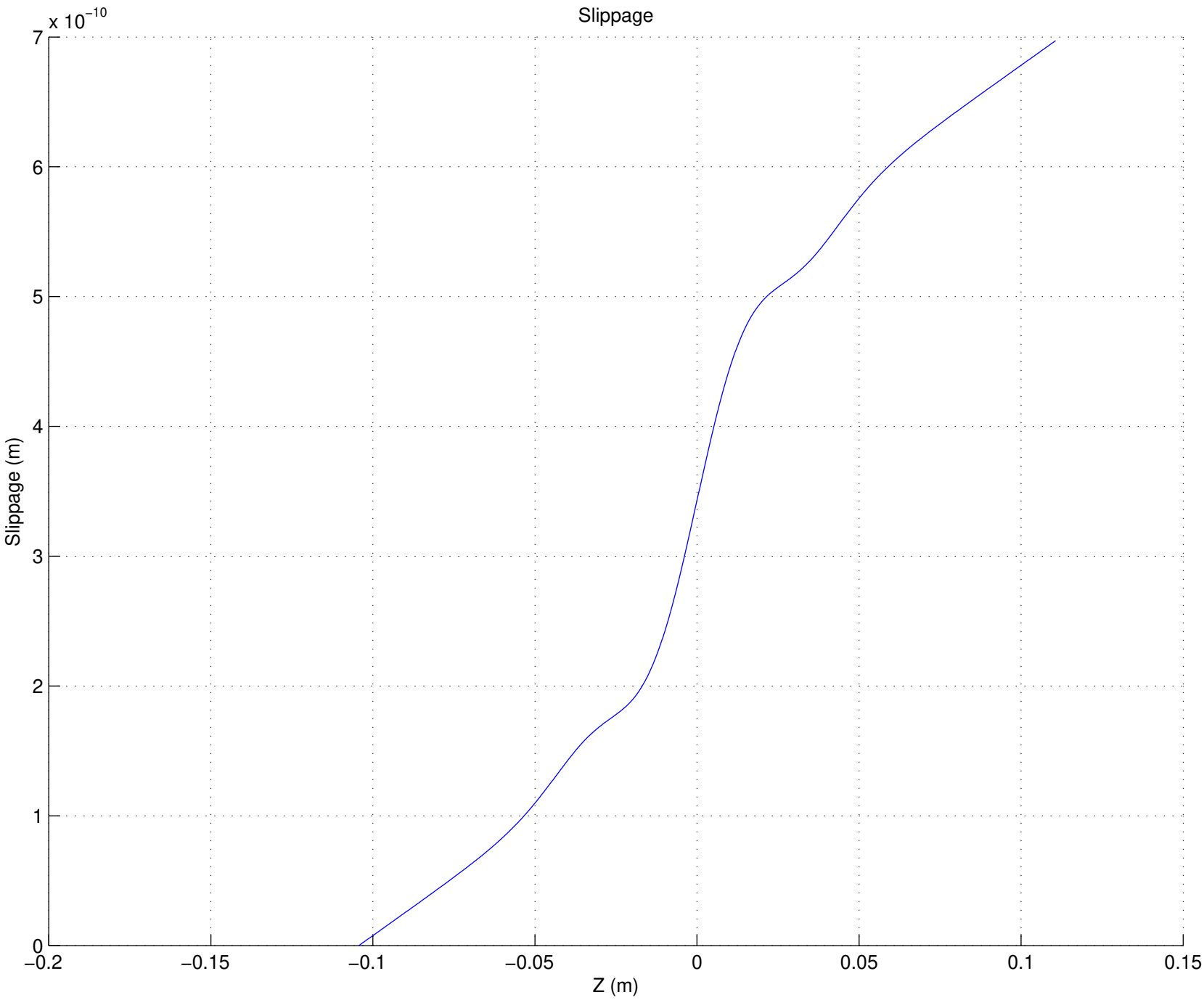

Bx and By vs Z
Bx*100
By
Bx, By (T)
Z (m)
0.25
0.2
0.15
0.1
0.05
0
−0.05
−0.1
−0.15
−0.2
−0.25
−0.2
−0.15
−0.1
−0.05
0
0.05
0.1
0.15

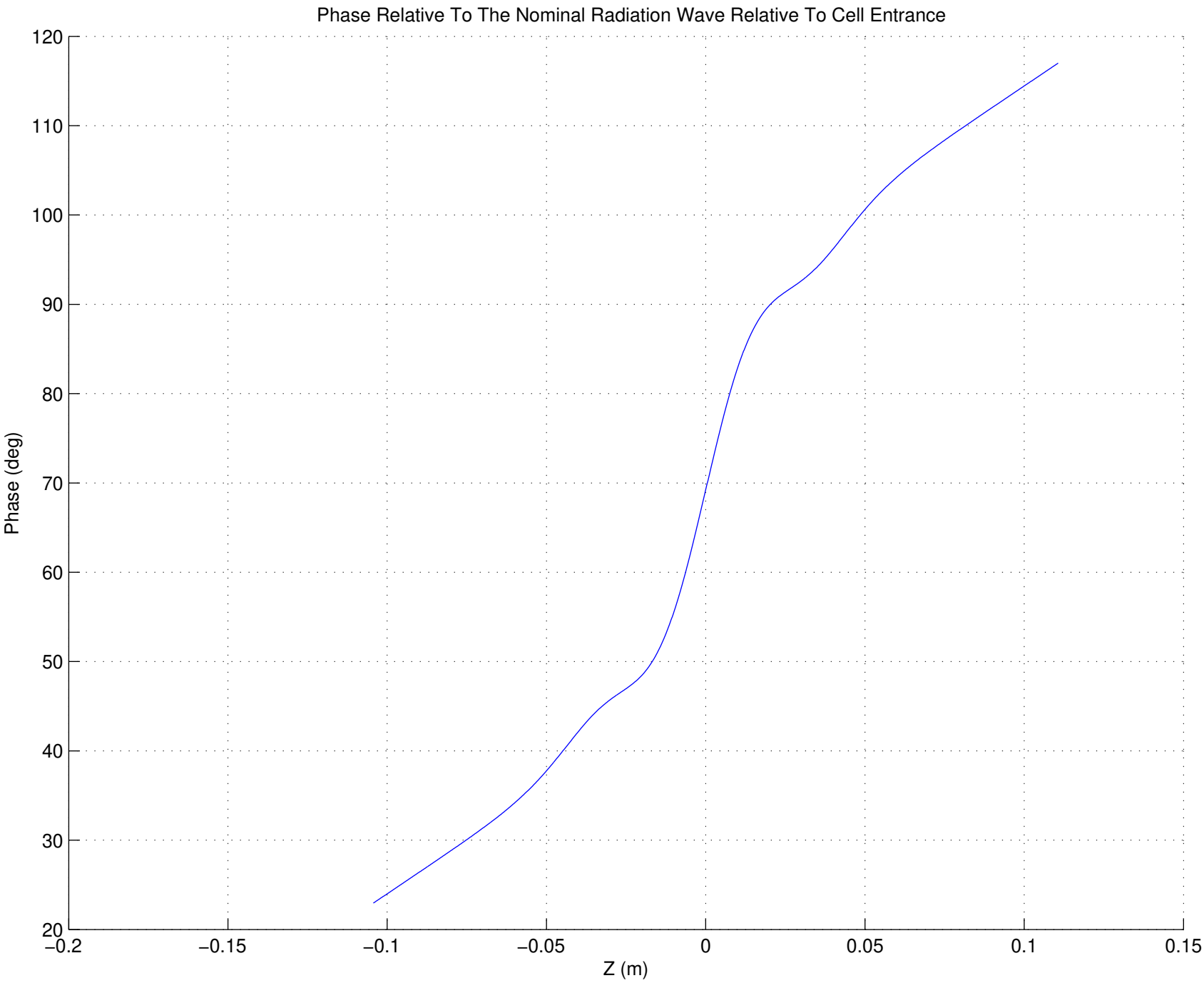

Bx vs Z With Fitted Peaks And Zeros
x 10^-4
15
10
5
0
−5
Bx (T)
−0.2
−0.15
−0.1
−0.05
0
0.05
0.1
0.15
Z (m)


By vs Z With Fitted Peaks And Zeros
1
3
4
Pole
0.4
0.3
0.2
0.1
0
−0.1
−0.2
−0.3
−0.4
By (T)
−0.2
−0.15
−0.1
−0.05
0
0.05
0.1
0.15
Z (m)


X Trajectory
x 10^-6
3
2.5
2
1.5
1
0.5
0
−0.5
−1
−1.5
−2
X Trajectory (m)
−0.2
−0.15
−0.1
−0.05
0
0.05
0.1
0.15
Z (m)


Y Trajectory
x 10^-6
2
1.5
1
0.5
0
−0.5
−1
−1.5
−2
Y Trajectory (m)
−0.2
−0.15
−0.1
−0.05
0
0.05
0.1
0.15
Z (m)


Slippage
x 10^-10
7
6
5
4
3
2
1
0
Slippage (m)
−0.2
−0.15
−0.1
−0.05
0
0.05
0.1
0.15
Z (m)


Phase Relative To The Nominal Radiation Wave Relative To Cell Entrance
Phase (deg)
120
110
100
90
80
70
60
50
40
30
20
−0.2
−0.15
−0.1
−0.05
0
0.05
0.1
0.15
Z (m)