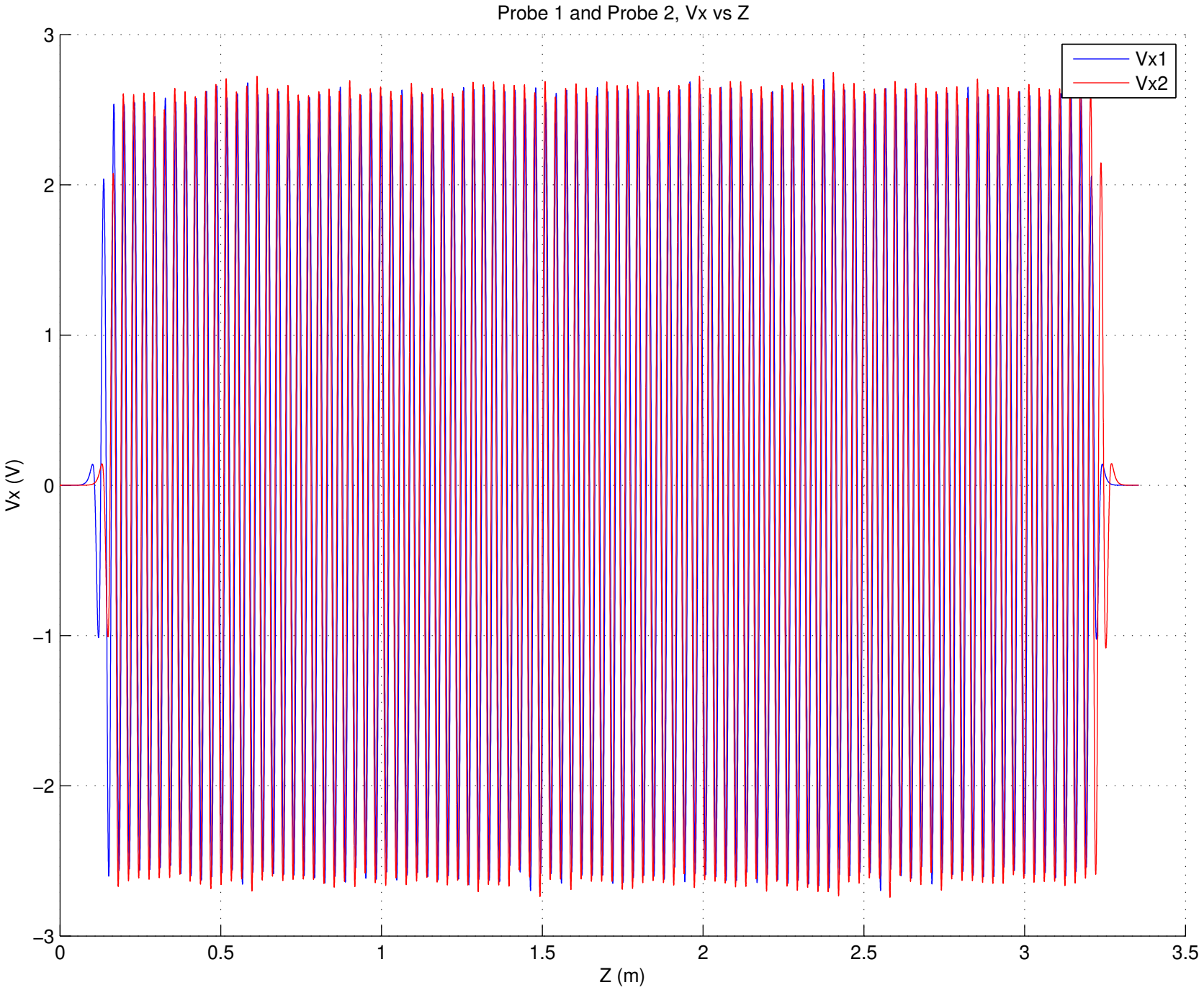
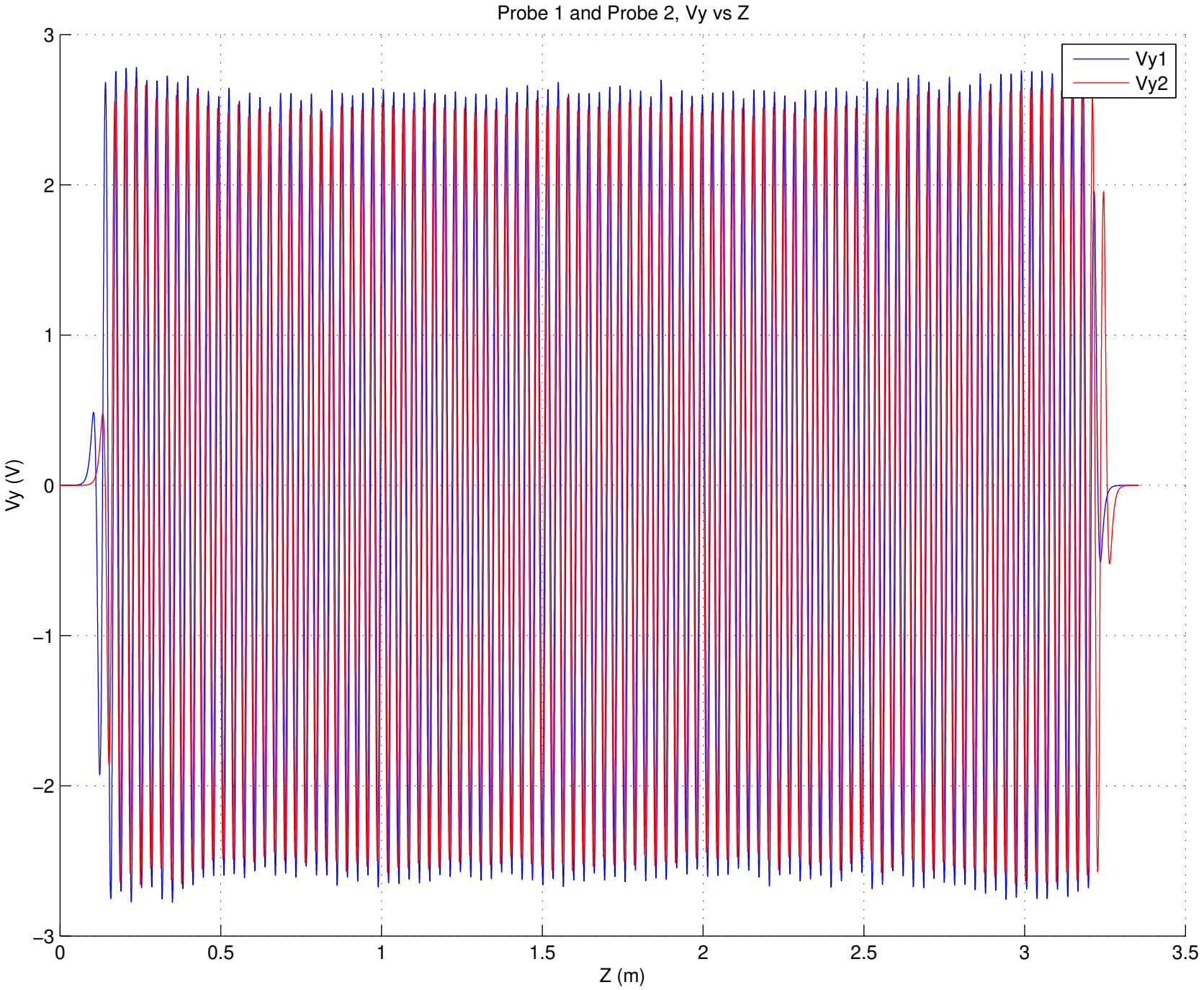
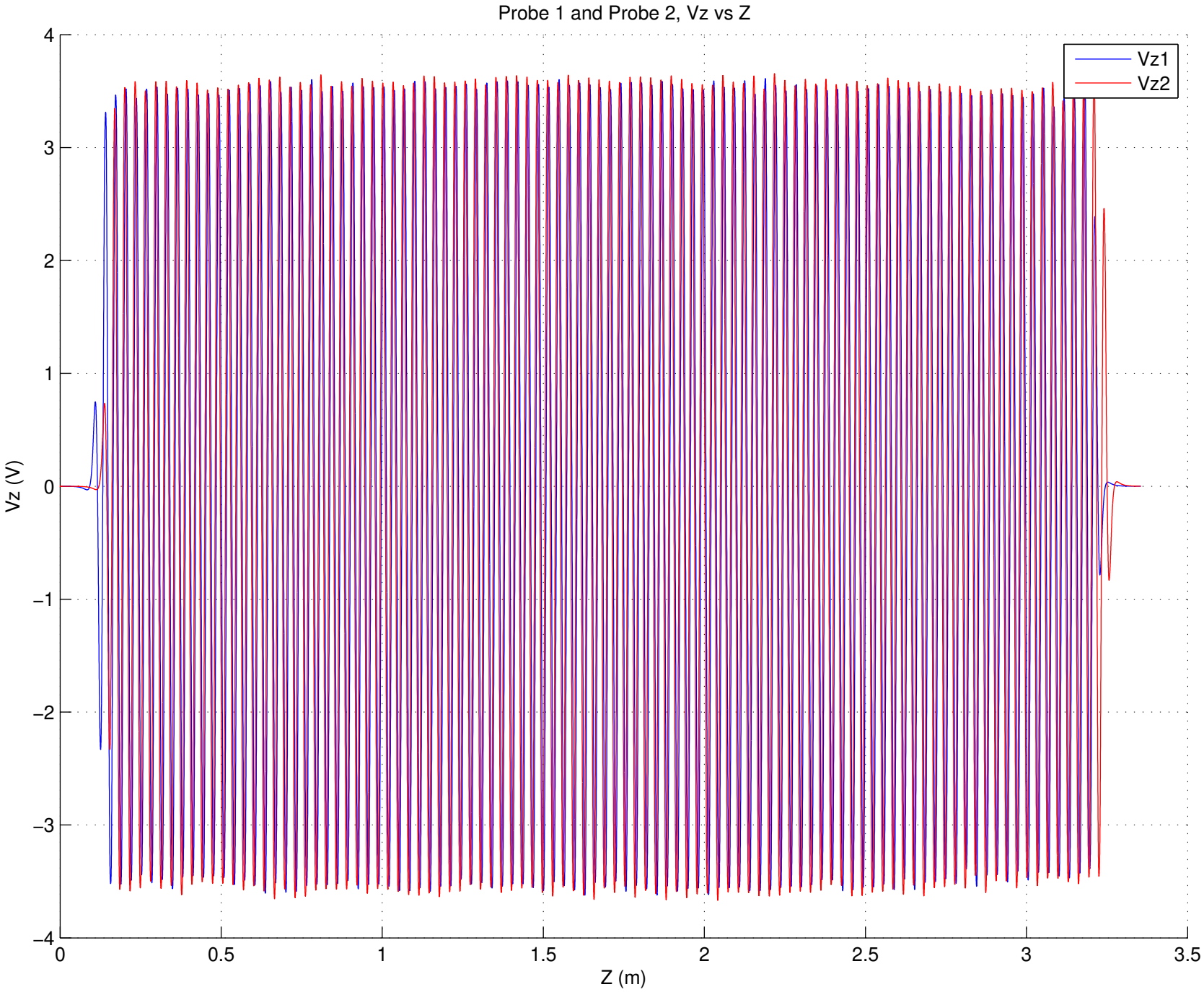
SLAC Magnetic Measurements

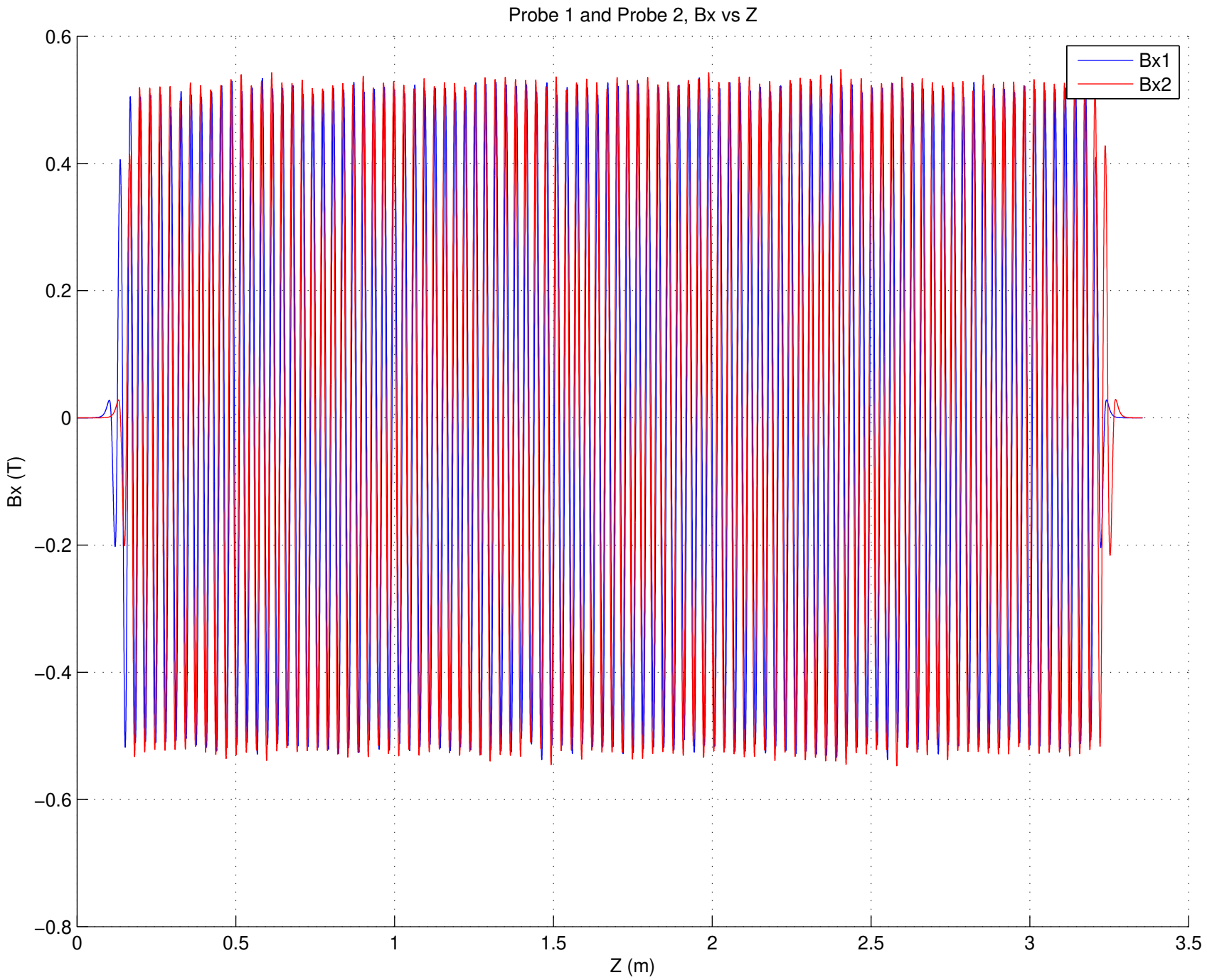
Hall Probe Array Analysis
****

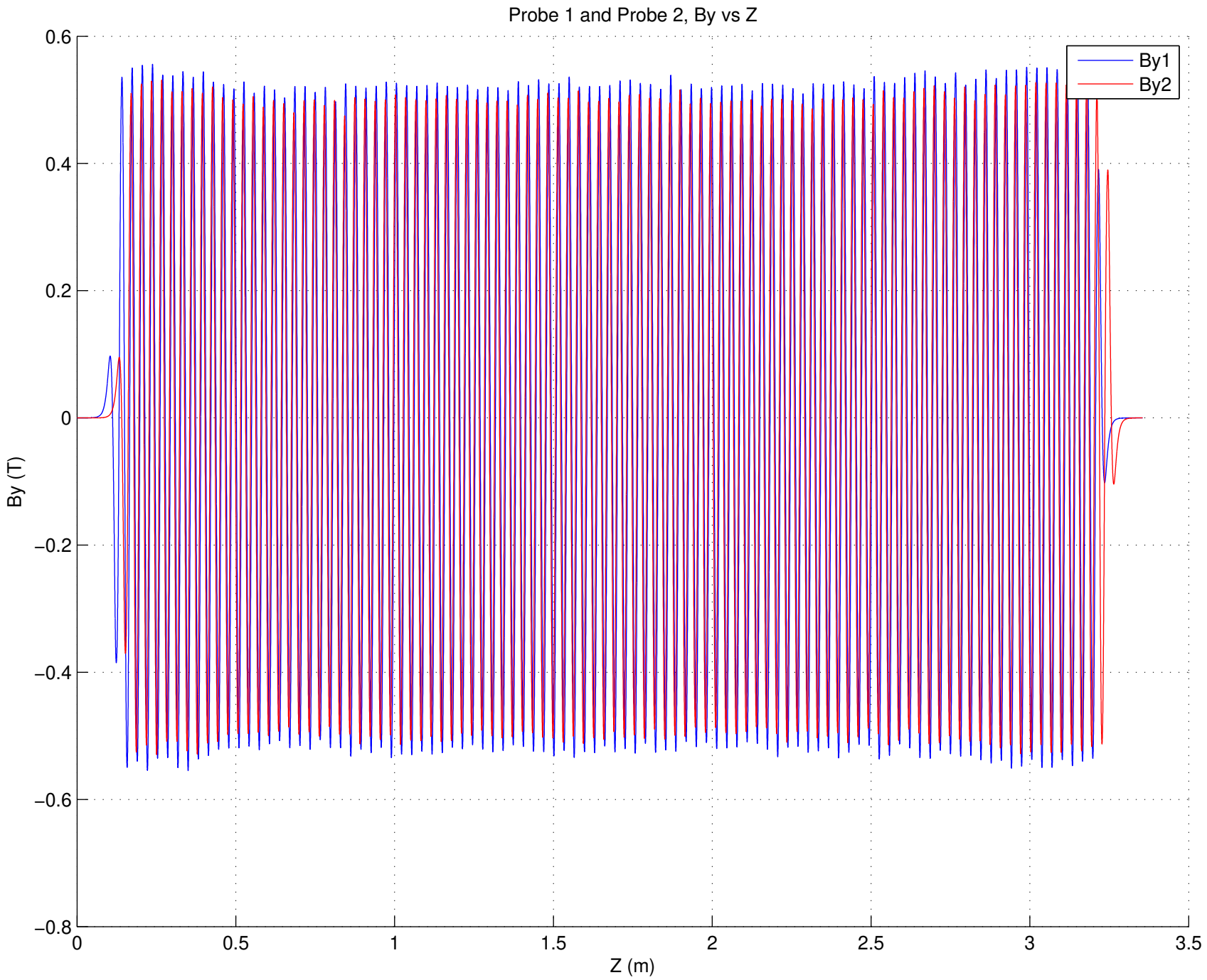
Parameters:
INPUT−FILE−DIR =V:\MET\MagServe\MagData\DELTA\Delta data\Assembled Measurements\Final Measurements\CPRMF\KR0
INPUT−FILE−NAME =DUTestOutput.dat
INPUT−FILE−TYPE =ZVXYZVXYZH
UND−POL−MODE =CIRC−POL−RIGHT−HAND
PROBE1−BX−CALIB−FILE =V:\MET\MagServe\MagData\DELTA\Delta data\Assembled Measurements\Hall Probe Calibrations\S
PROBE1−BY−CALIB−FILE =V:\MET\MagServe\MagData\DELTA\Delta data\Assembled Measurements\Hall Probe Calibrations\S
PROBE2−BX−CALIB−FILE =V:\MET\MagServe\MagData\DELTA\Delta data\Assembled Measurements\Hall Probe Calibrations\S
PROBE2−BY−CALIB−FILE =V:\MET\MagServe\MagData\DELTA\Delta data\Assembled Measurements\Hall Probe Calibrations\S
NUM−ZERO−GAUSS−MEAS =200
PROBE2−OFFSET−DIR =Y

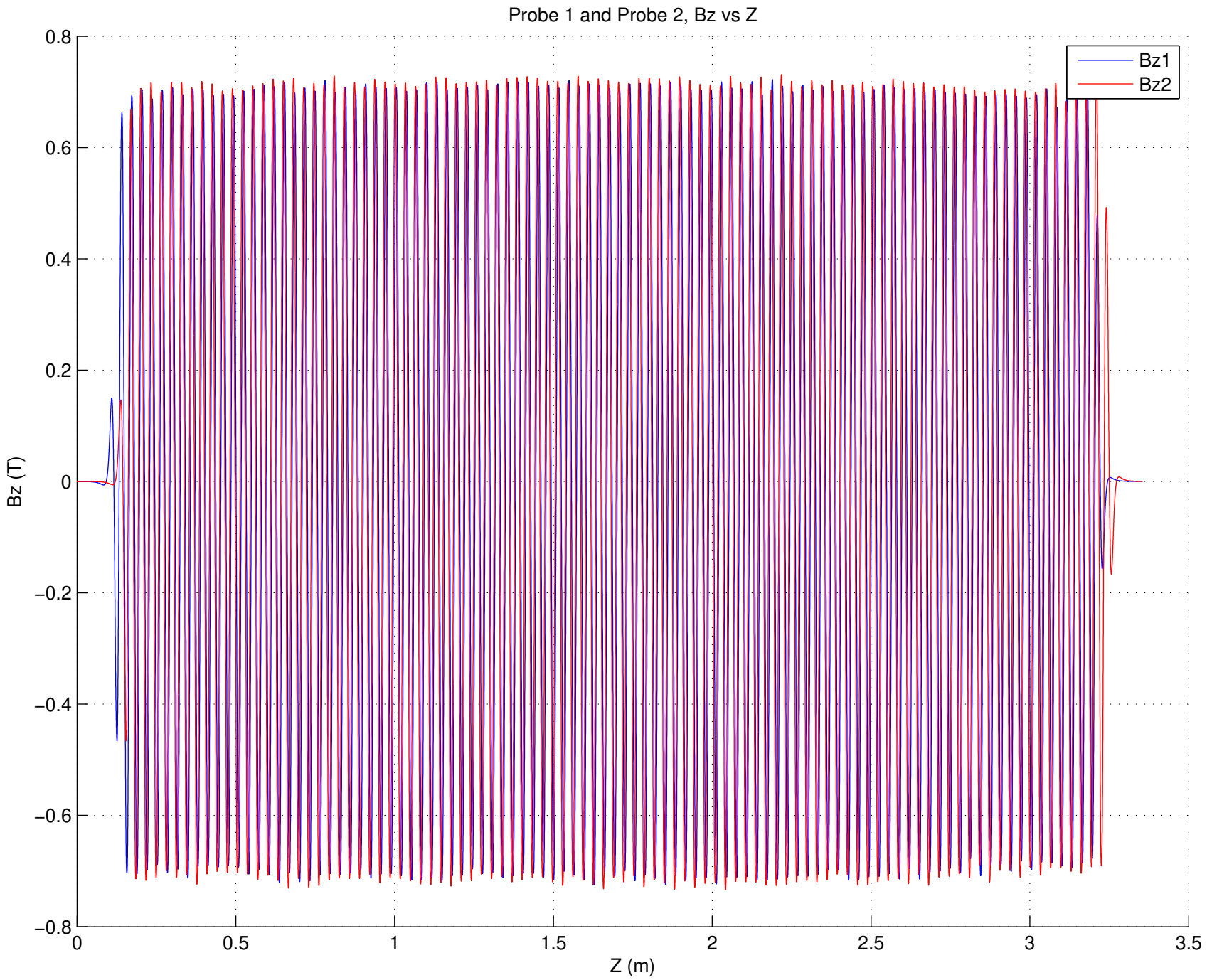

Probe 1 and Probe 2, Vx vs Z
Vx1
Vx2
Vx (V)
Z (m)
3
2
1
0
−1
−2
−3
0
0.5
1
1.5
2
2.5
3
3.5

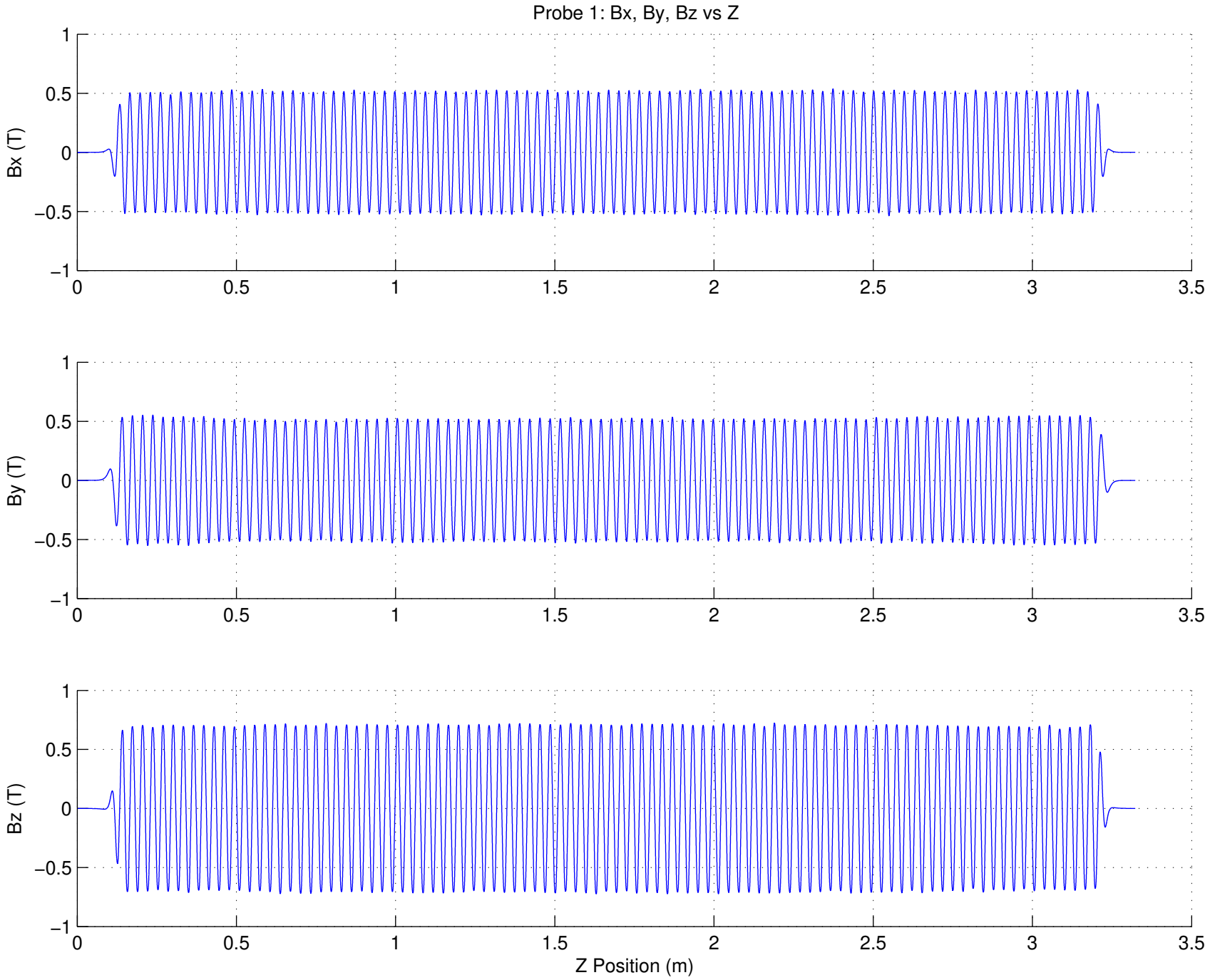

Probe 1 and Probe 2, Vy vs Z
Vy1
Vy2
Vy (V)
Z (m)
3
2
1
0
−1
−2
−3
0
0.5
1
1.5
2
2.5
3
3.5

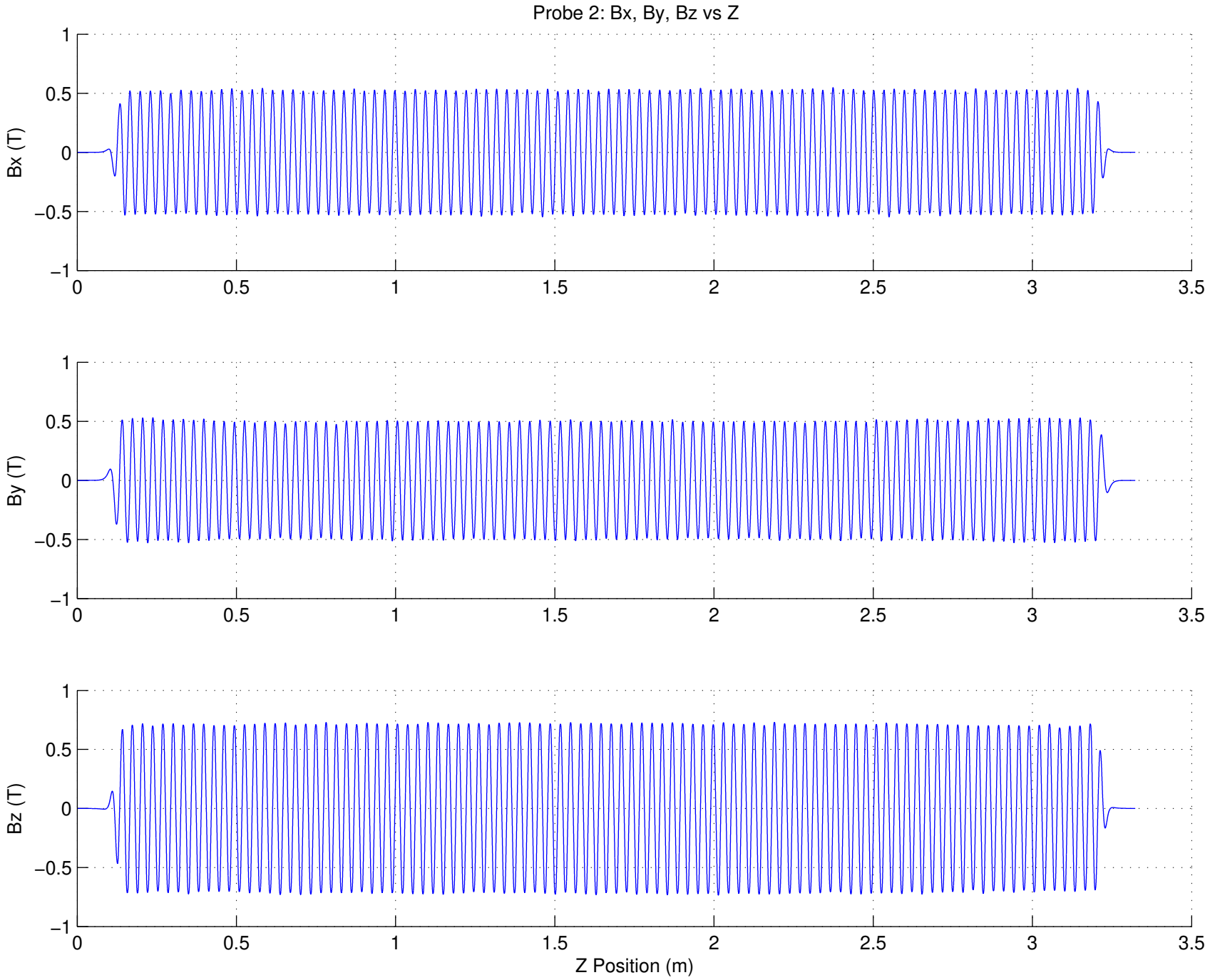

Probe 1 and Probe 2, Vz vs Z
Vz1
Vz2
Vz (V)
Z (m)
4
3
2
1
0
−1
−2
−3
−4
0
0.5
1
1.5
2
2.5
3
3.5

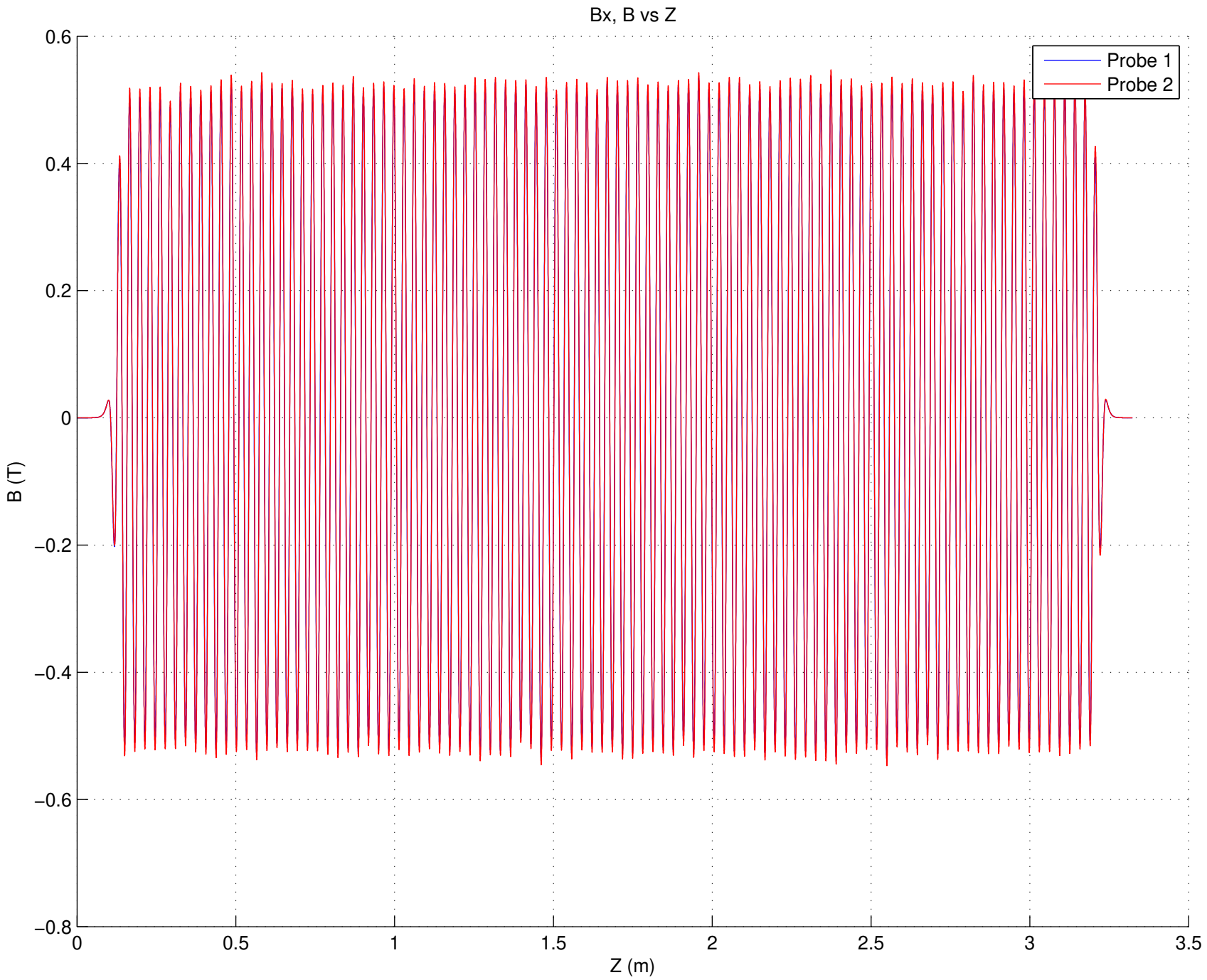

Probe 1 and Probe 2, Bx vs Z
Bx1
Bx2
Bx (T)
Z (m)
0.6
0.4
0.2
0
−0.2
−0.4
−0.6
−0.8
0
0.5
1
1.5
2
2.5
3
3.5

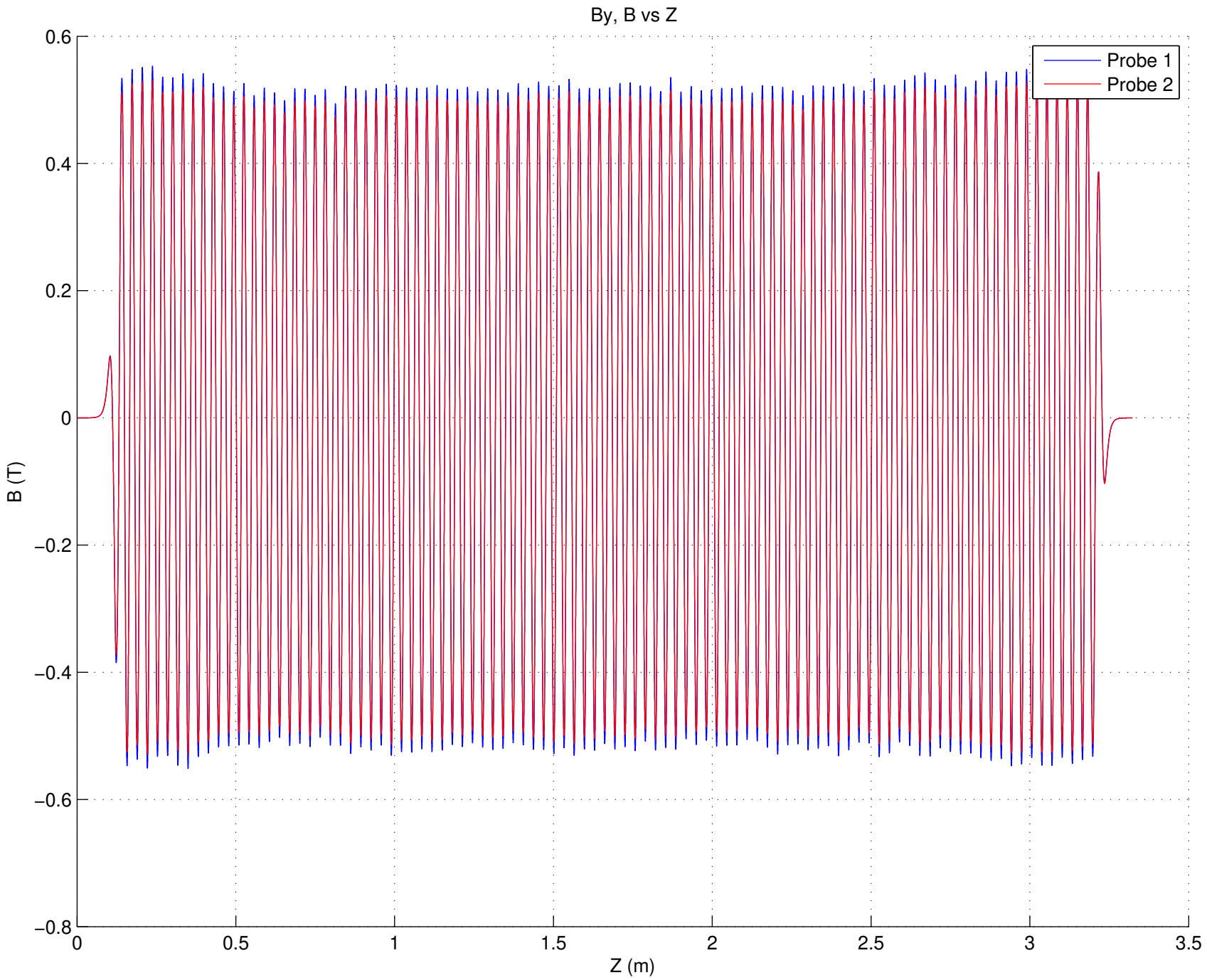

Probe 1 and Probe 2, By vs Z
By1
By2
By (T)
Z (m)
0.6
0.4
0.2
0
−0.2
−0.4
−0.6
−0.8
0
0.5
1
1.5
2
2.5
3
3.5

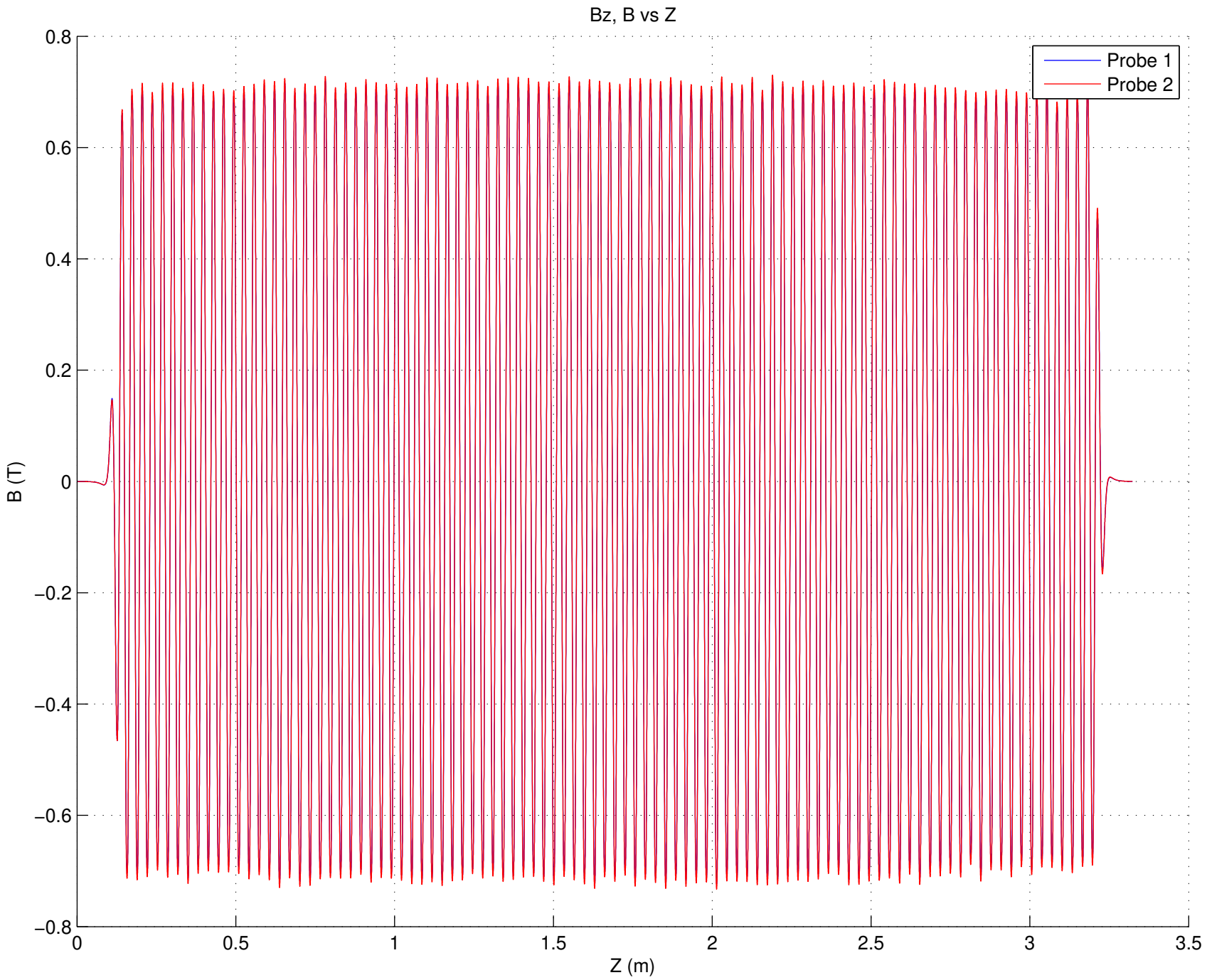

Probe 1 and Probe 2, Bz vs Z
Bz1
Bz2
Bz (T)
Z (m)
0.8
0.6
0.4
0.2
0
−0.2
−0.4
−0.6
−0.8
0
0.5
1
1.5
2
2.5
3
3.5

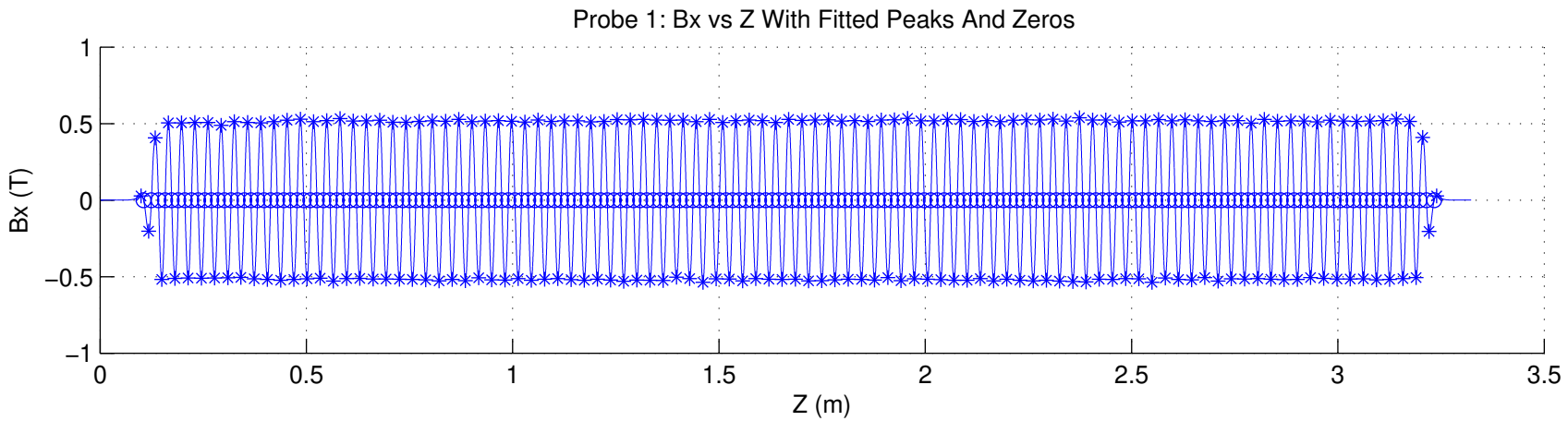

Probe 1: Bx, By, Bz vs Z
Bx (T)
By (T)
Bz (T)
Z Position (m)
1
0.5
0
−0.5
−1
0
0.5
1
1.5
2
2.5
3
3.5

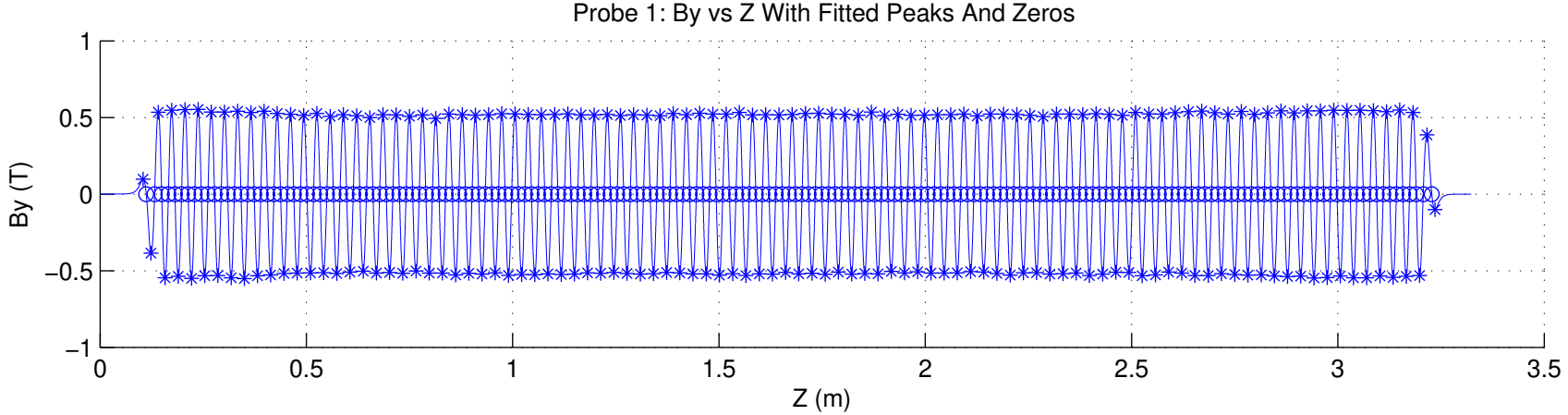

Probe 2: Bx, By, Bz vs Z
Bx (T)
By (T)
Bz (T)
Z Position (m)
1
0.5
0
−0.5
−1
0
0.5
1
1.5
2
2.5
3
3.5

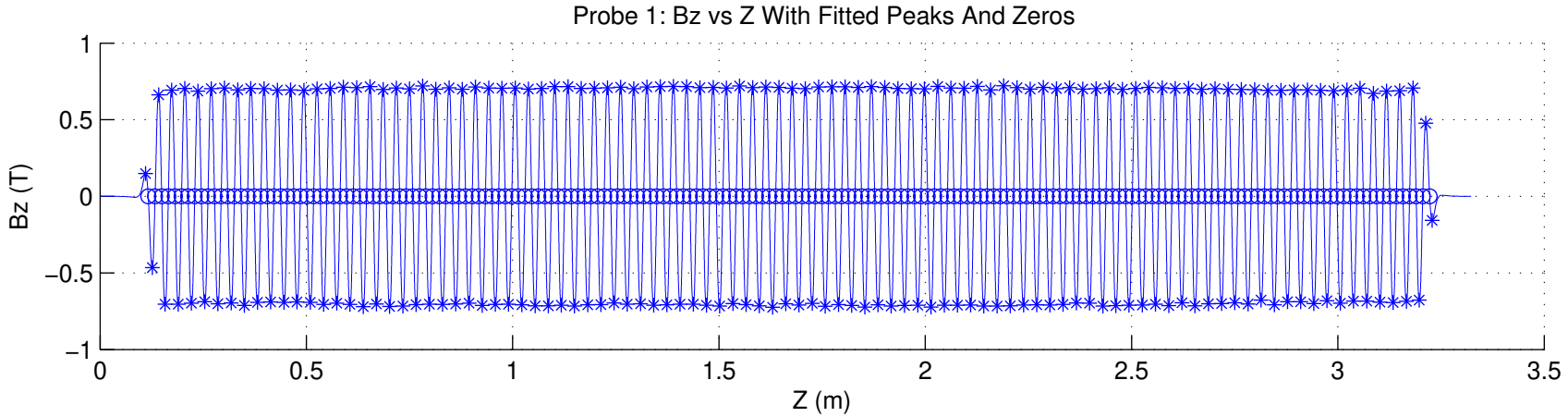

Bx, B vs Z
Probe 1
Probe 2
B (T)
Z (m)
0.6
0.4
0.2
0
−0.2
−0.4
−0.6
−0.8
0
0.5
1
1.5
2
2.5
3
3.5

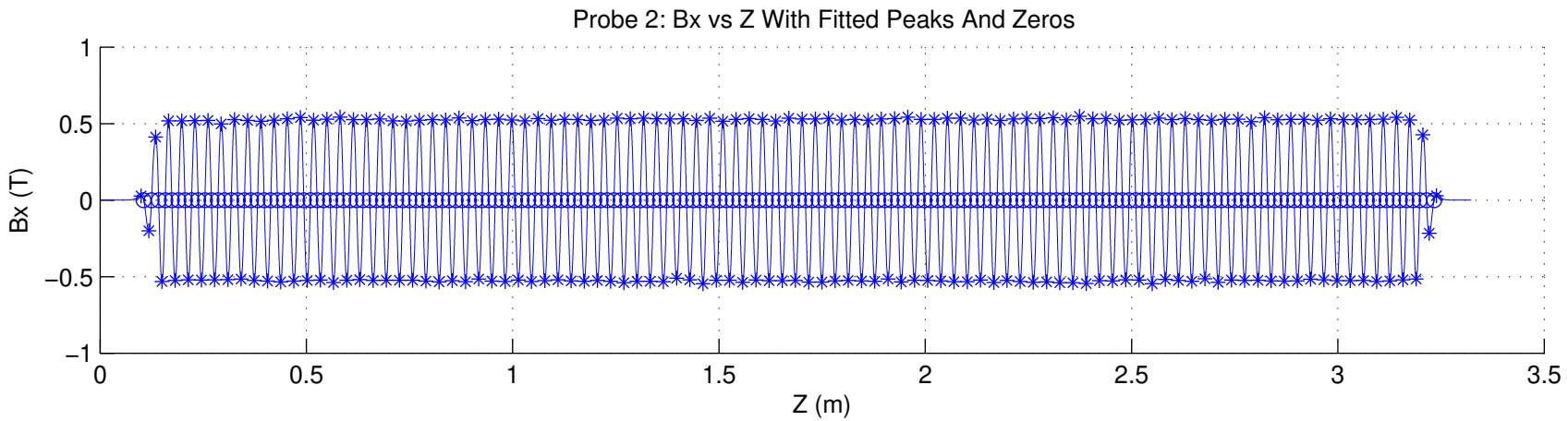

By, B vs Z
Probe 1
Probe 2
B (T)
Z (m)
0.6
0.4
0.2
0
−0.2
−0.4
−0.6
−0.8
0
0.5
1
1.5
2
2.5
3
3.5

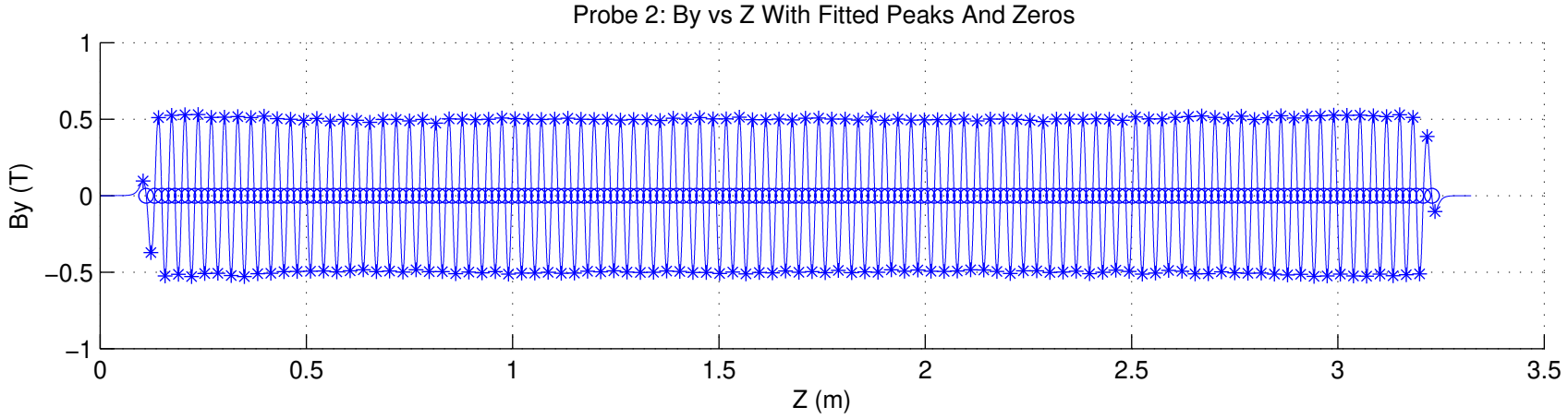

Bz, B vs Z
Probe 1
Probe 2
B (T)
Z (m)
0.8
0.6
0.4
0.2
0
−0.2
−0.4
−0.6
−0.8
0
0.5
1
1.5
2
2.5
3
3.5

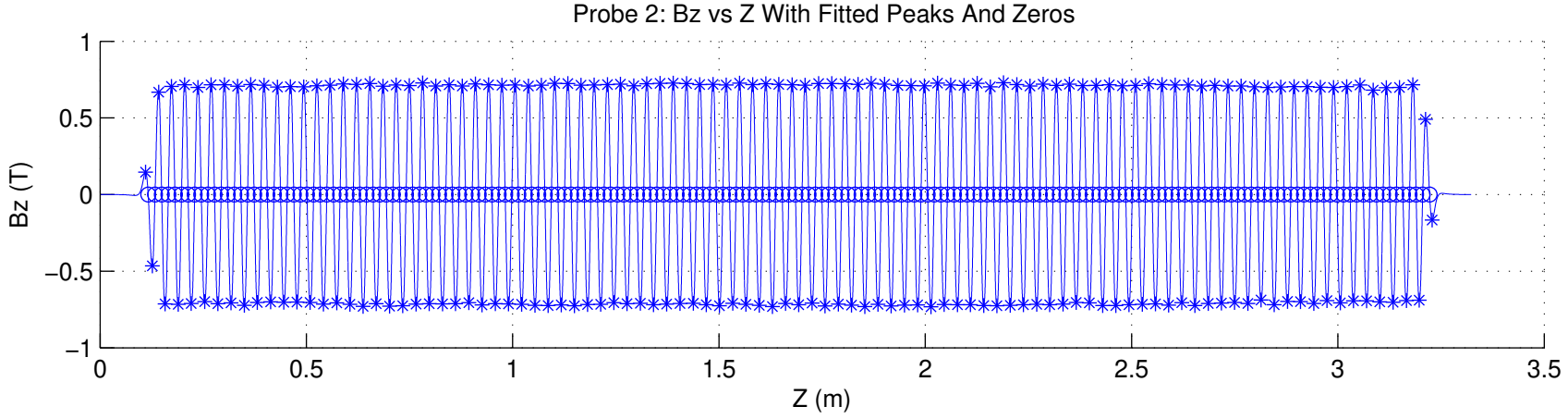

Probe 1: Bx vs Z With Fitted Peaks And Zeros
Bx (T)
Z (m)
1
0.5
0
−0.5
−1
0
0.5
1
1.5
2
2.5
3
3.5

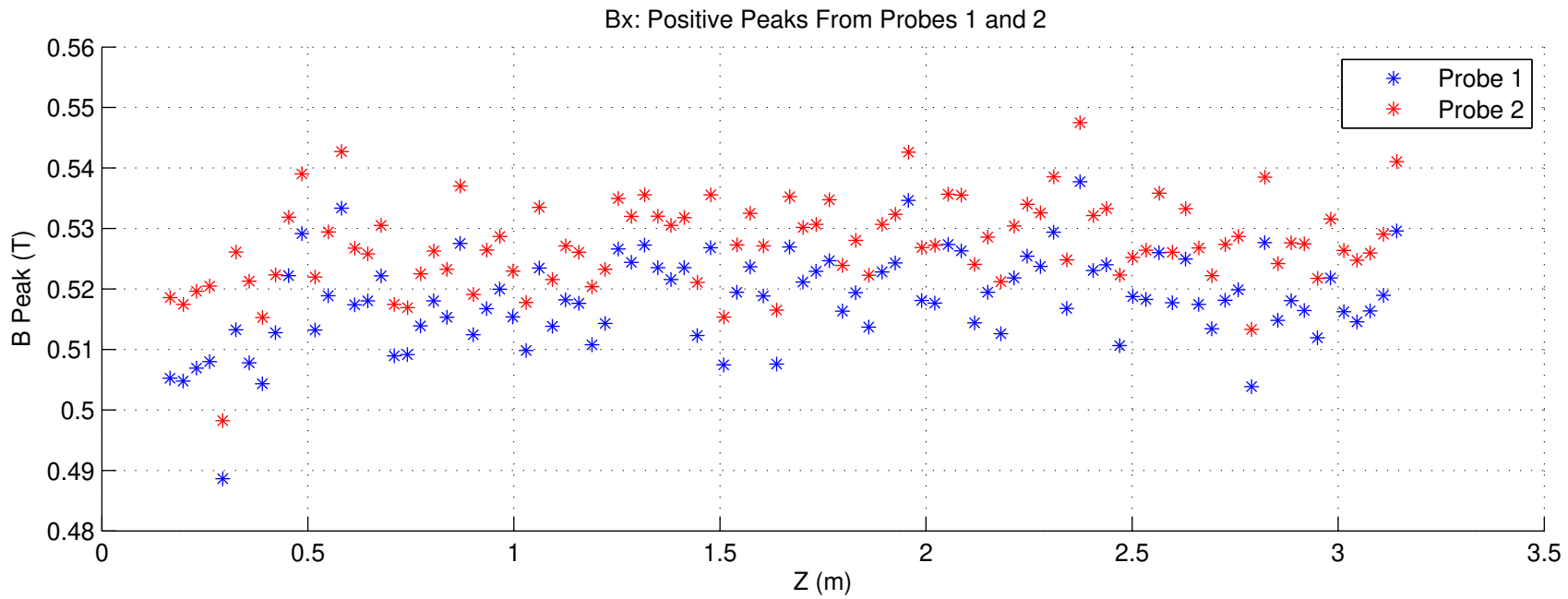

Probe 1: By vs Z With Fitted Peaks And Zeros
By (T)
Z (m)
1
0.5
0
−0.5
−1
0
0.5
1
1.5
2
2.5
3
3.5

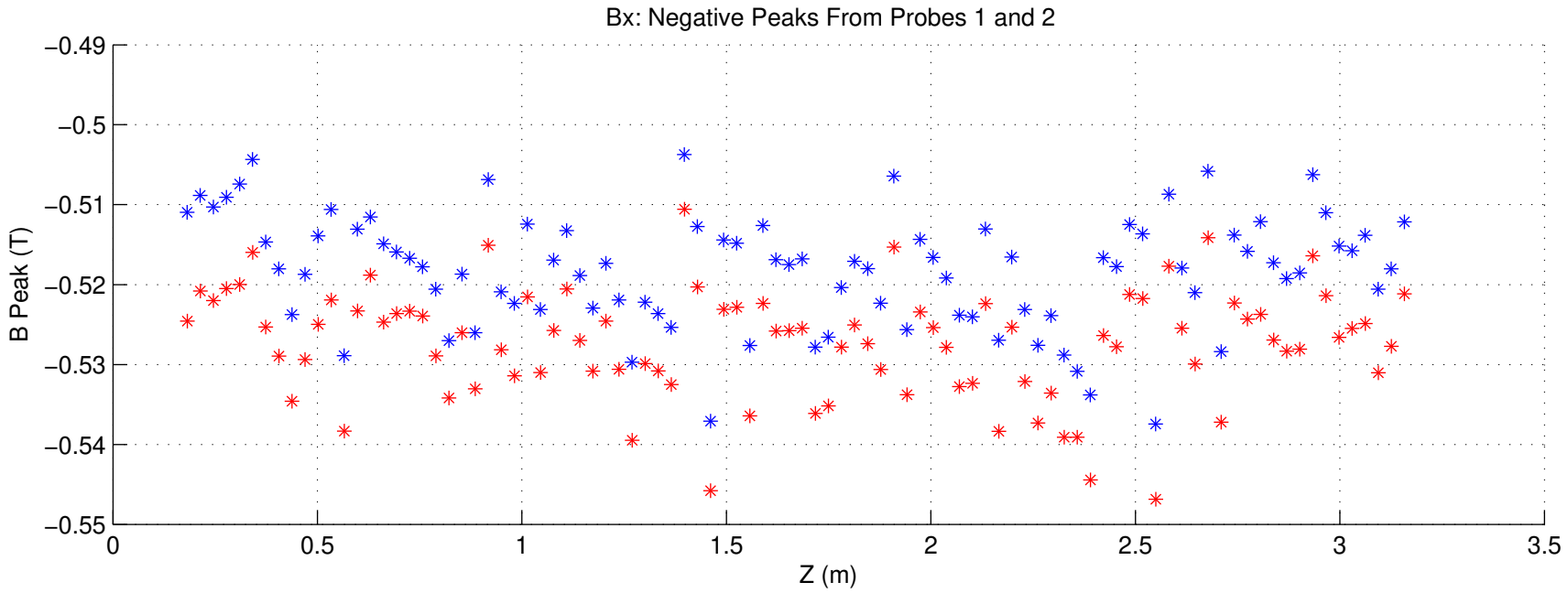

Probe 1: Bz vs Z With Fitted Peaks And Zeros
Bz (T)
Z (m)
1
0.5
0
−0.5
−1
0
0.5
1
1.5
2
2.5
3
3.5

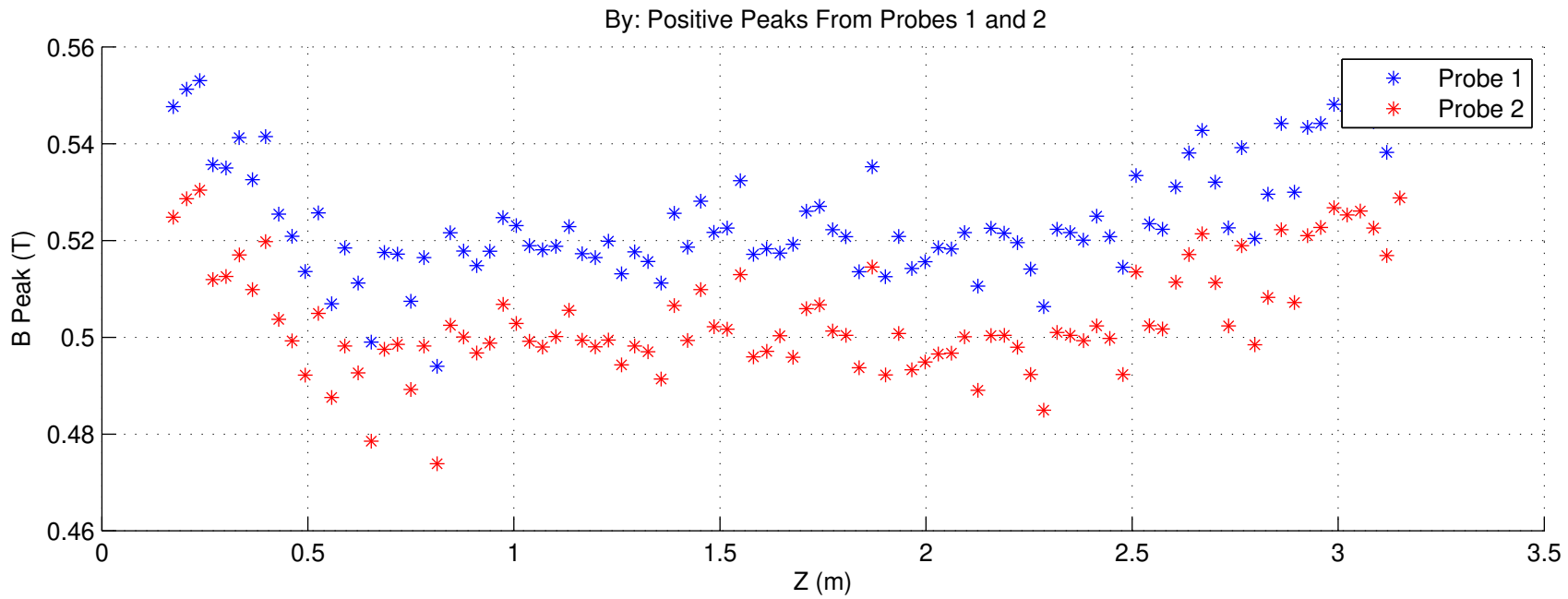

Probe 2: Bx vs Z With Fitted Peaks And Zeros
Bx (T)
Z (m)
1
0.5
0
−0.5
−1
0
0.5
1
1.5
2
2.5
3
3.5

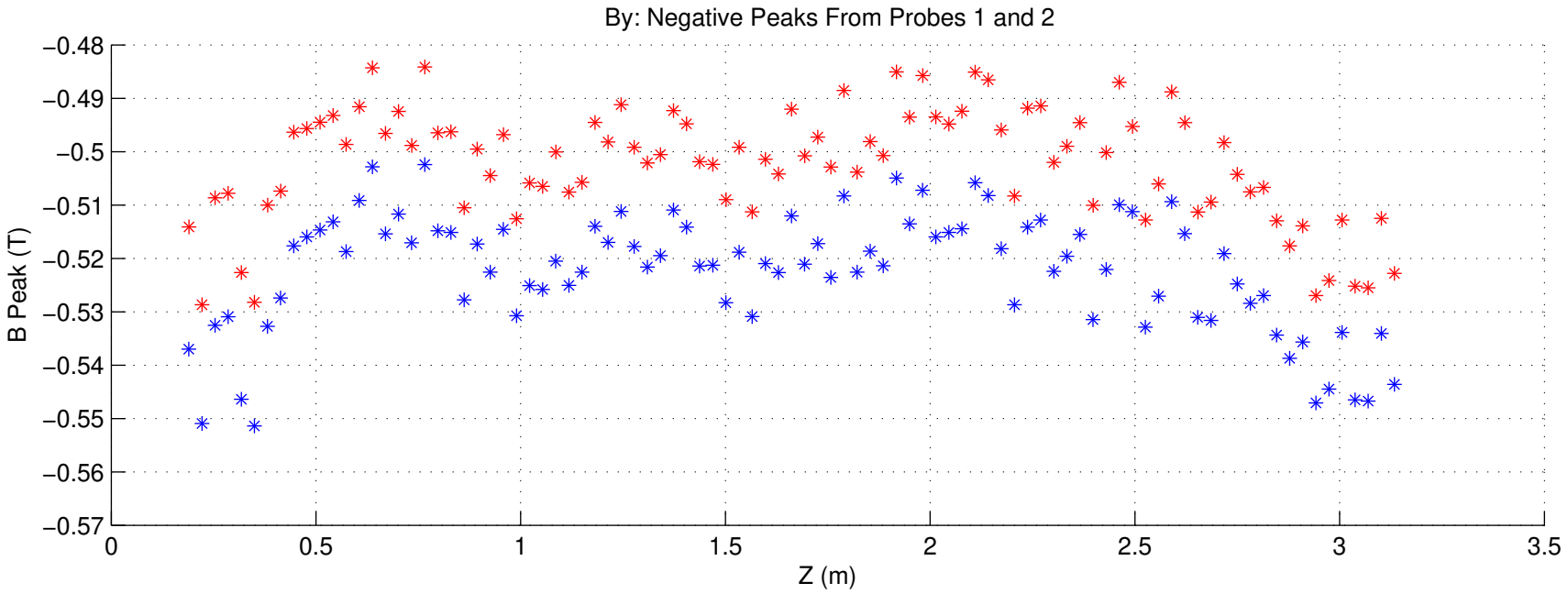

Probe 2: By vs Z With Fitted Peaks And Zeros
By (T)
Z (m)
1
0.5
0
−0.5
−1
0
0.5
1
1.5
2
2.5
3
3.5

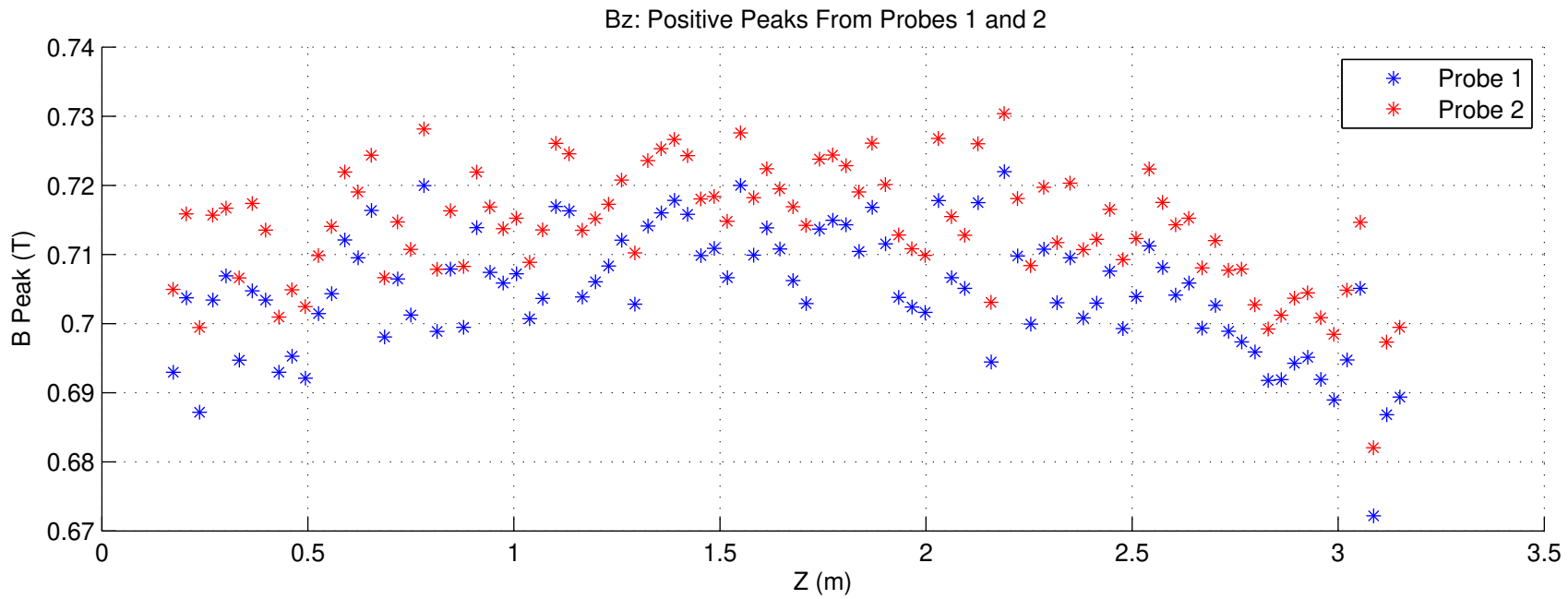

Probe 2: Bz vs Z With Fitted Peaks And Zeros
Bz (T)
Z (m)
1
0.5
0
−0.5
−1
0
0.5
1
1.5
2
2.5
3
3.5

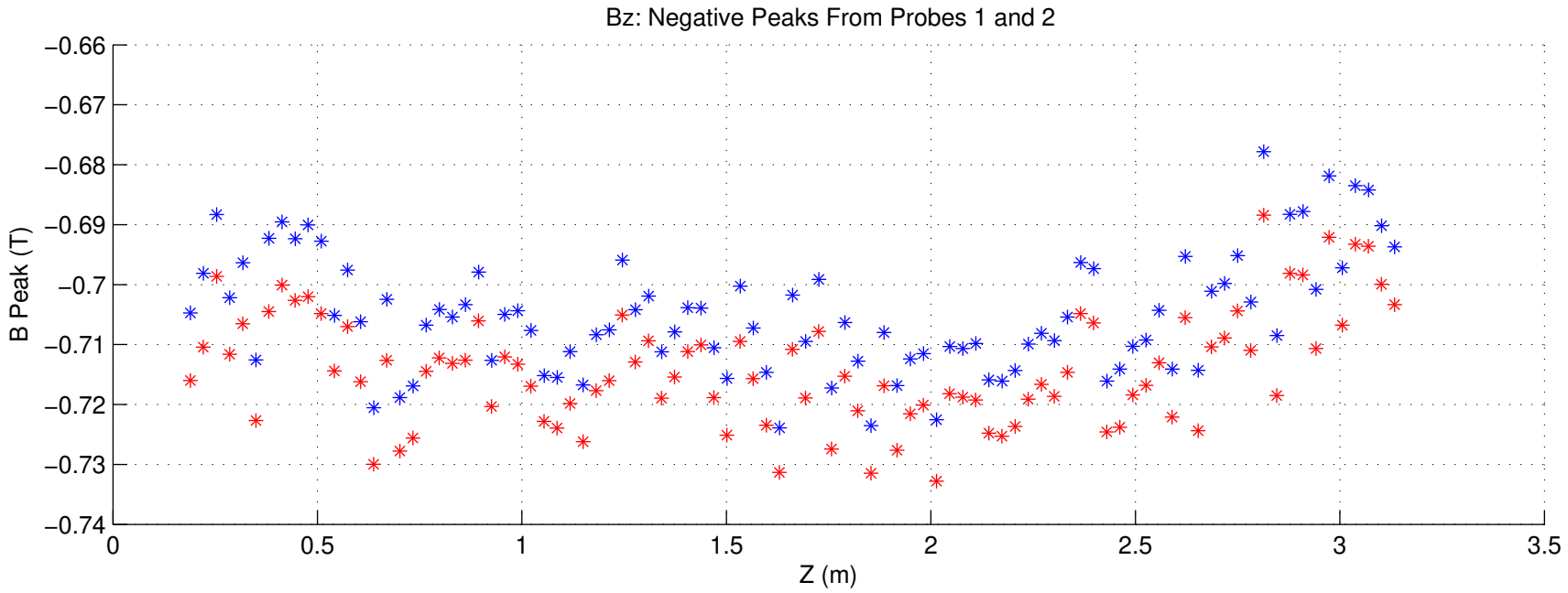

Bx: Positive Peaks From Probes 1 and 2
Probe 1
Probe 2
B Peak (T)
Z (m)
0.56
0.55
0.54
0.53
0.52
0.51
0.5
0.49
0.48
0
0.5
1
1.5
2
2.5
3
3.5


Bx: Negative Peaks From Probes 1 and 2
B Peak (T)
Z (m)
−0.49
−0.5
−0.51
−0.52
−0.53
−0.54
−0.55
0
0.5
1
1.5
2
2.5
3
3.5


By: Positive Peaks From Probes 1 and 2
Probe 1
Probe 2
B Peak (T)
Z (m)
0.56
0.54
0.52
0.5
0.48
0.46
0
0.5
1
1.5
2
2.5
3
3.5


By: Negative Peaks From Probes 1 and 2
B Peak (T)
Z (m)
−0.48
−0.49
−0.5
−0.51
−0.52
−0.53
−0.54
−0.55
−0.56
−0.57
0
0.5
1
1.5
2
2.5
3
3.5


Bz: Positive Peaks From Probes 1 and 2
Probe 1
Probe 2
B Peak (T)
Z (m)
0.74
0.73
0.72
0.71
0.7
0.69
0.68
0.67
0
0.5
1
1.5
2
2.5
3
3.5


Bz: Negative Peaks From Probes 1 and 2
B Peak (T)
Z (m)
−0.66
−0.67
−0.68
−0.69
−0.7
−0.71
−0.72
−0.73
−0.74
0
0.5
1
1.5
2
2.5
3
3.5