SLAC Magnetic Measurements

Hall Probe Array Analysis
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INPUT−FILE−TYPE =ZVXYZVXYZH
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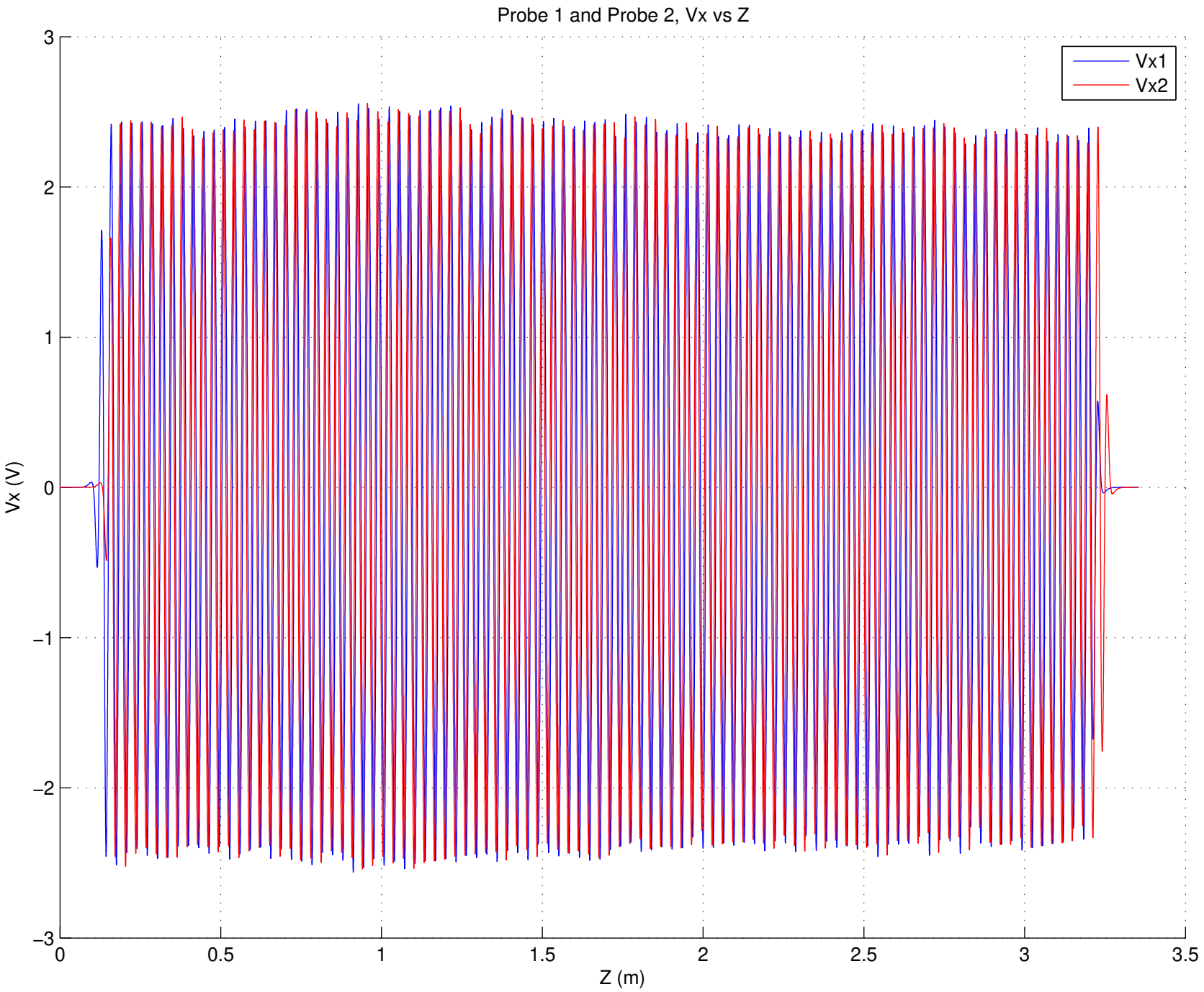
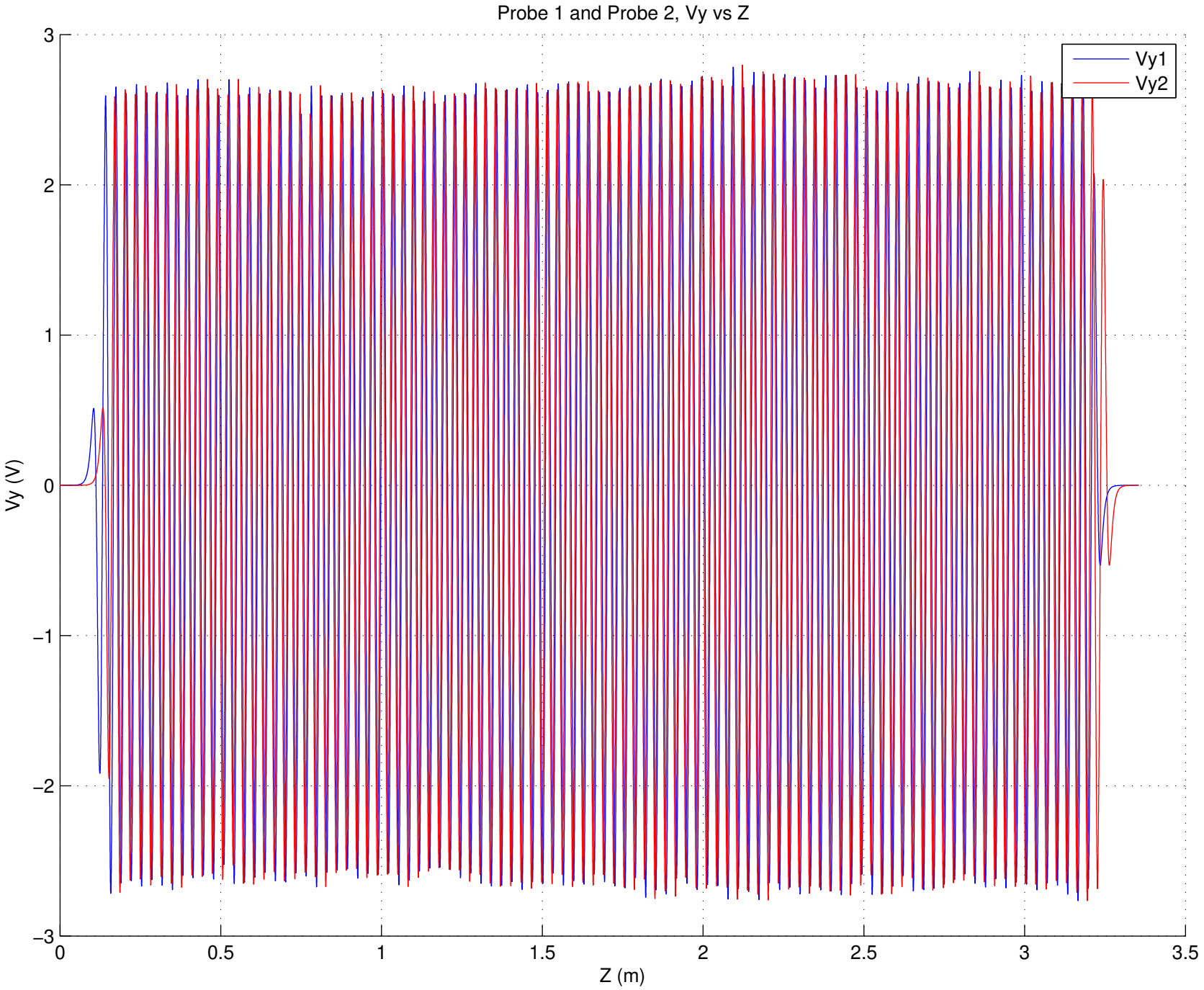
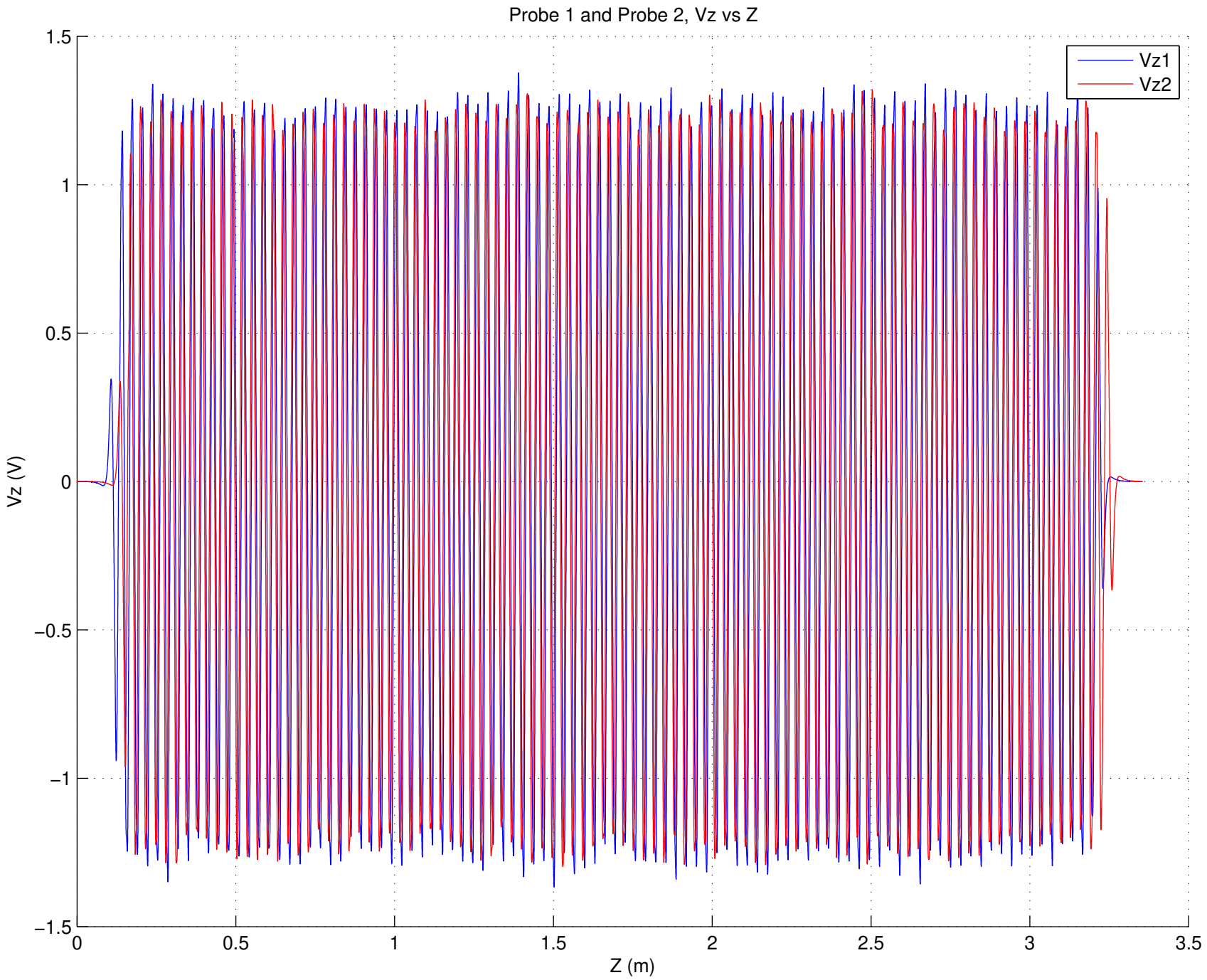
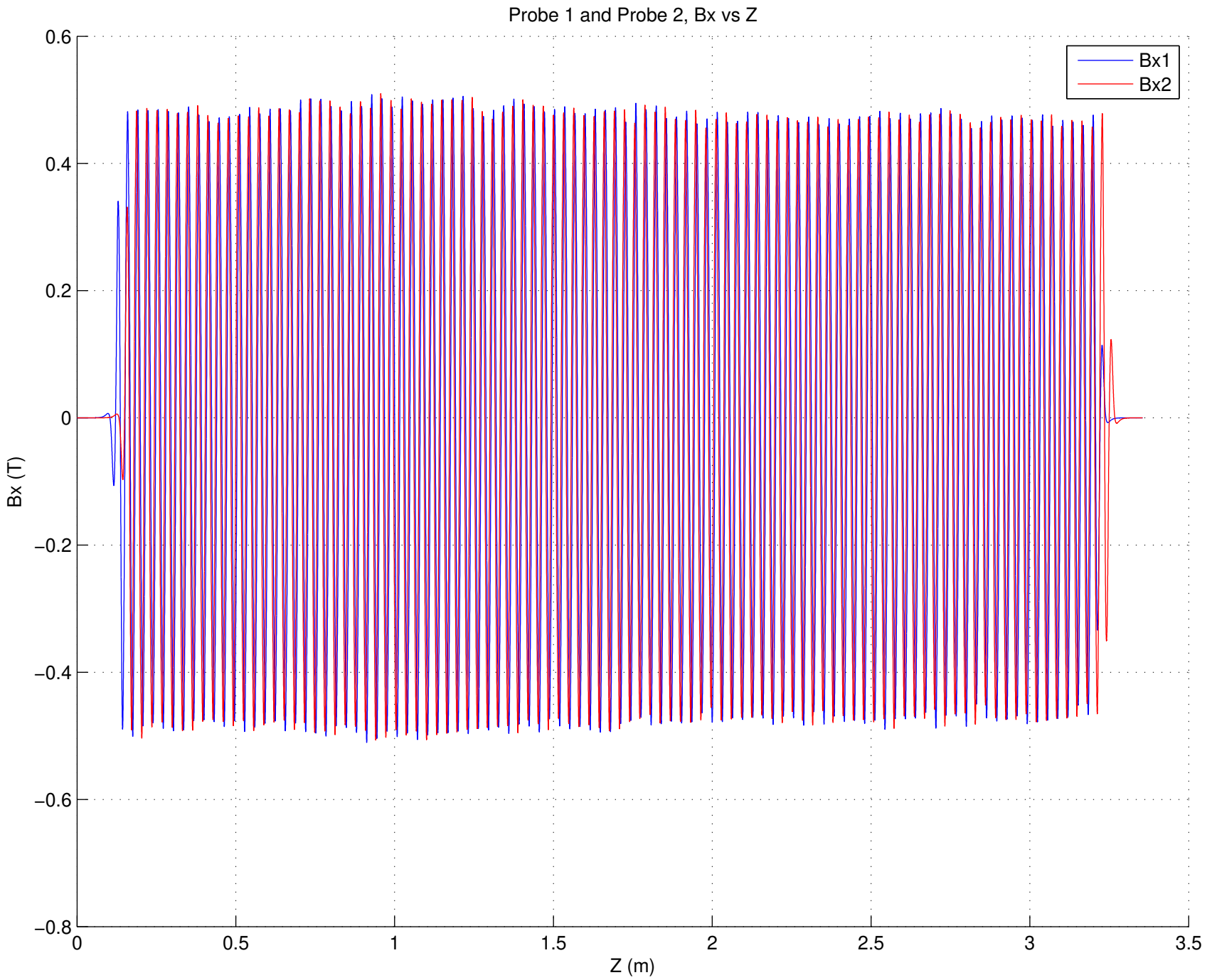
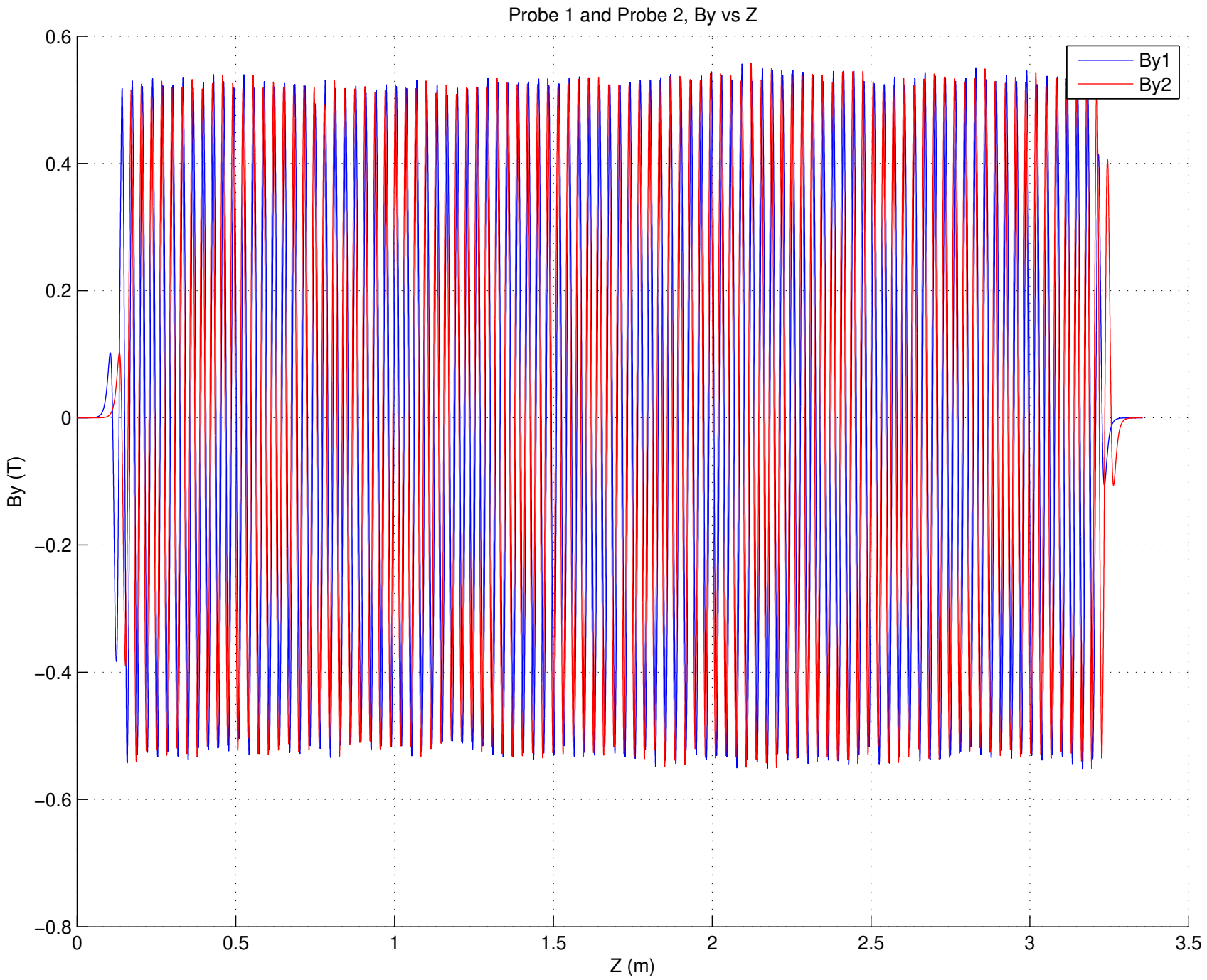
PROBE1−BY−CALIB−FILE =V:\MET\MagServe\MagData\DELTA\Delta data\Assembled Measurements\Hall Probe Calibrations\S
PROBE2−BX−CALIB−FILE =V:\MET\MagServe\MagData\DELTA\Delta data\Assembled Measurements\Hall Probe Calibrations\S
PROBE2−BY−CALIB−FILE =V:\MET\MagServe\MagData\DELTA\Delta data\Assembled Measurements\Hall Probe Calibrations\S
NUM−ZERO−GAUSS−MEAS =200
PROBE2−OFFSET−DIR =Y

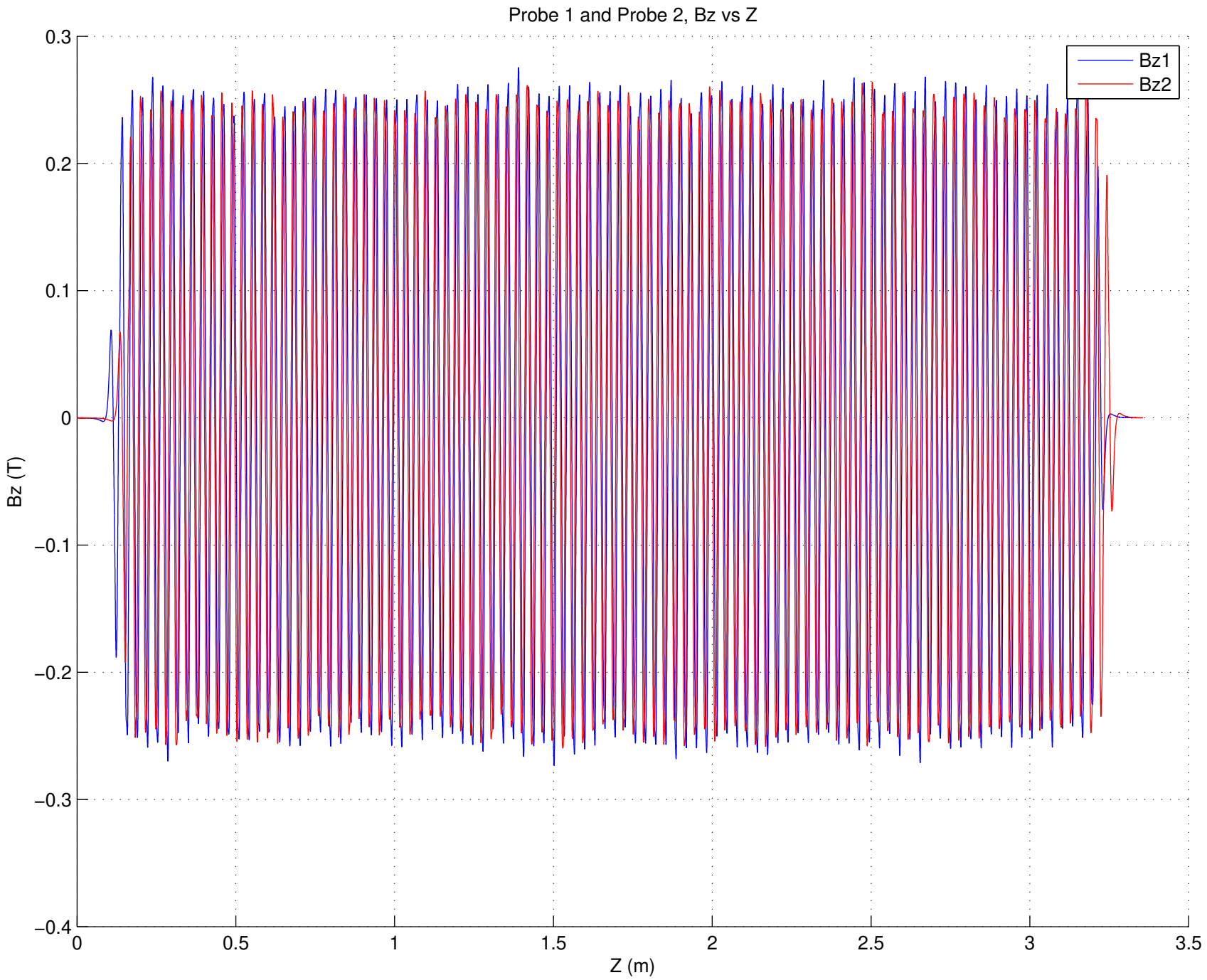

Probe 1 and Probe 2, Vx vs Z
Vx1
Vx2
Vx (V)
Z (m)
3
2
1
0
−1
−2
−3
0
0.5
1
1.5
2
2.5
3
3.5

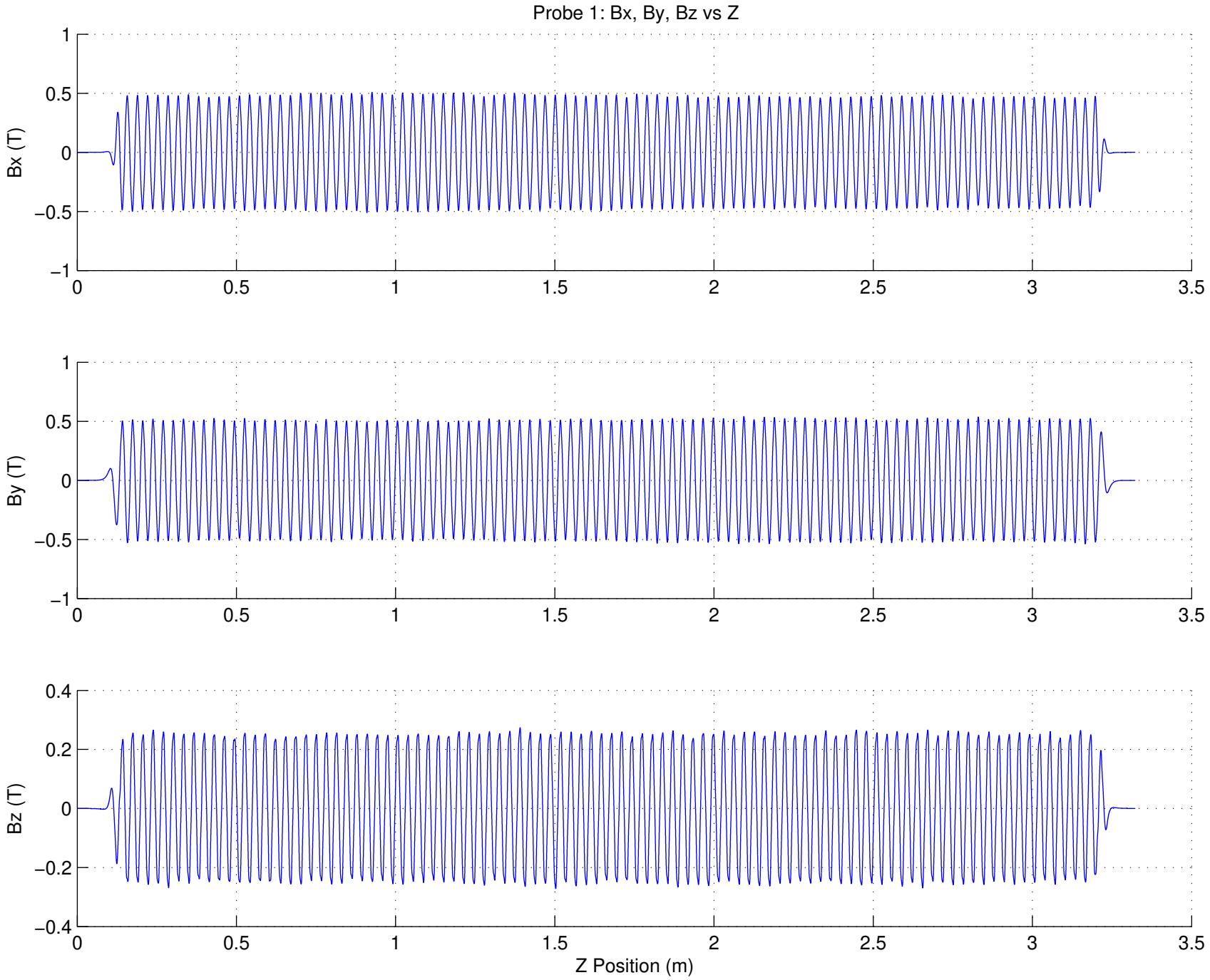

Probe 1 and Probe 2, Vy vs Z
Vy1
Vy2
Vy (V)
Z (m)
3
2
1
0
−1
−2
−3
0
0.5
1
1.5
2
2.5
3
3.5

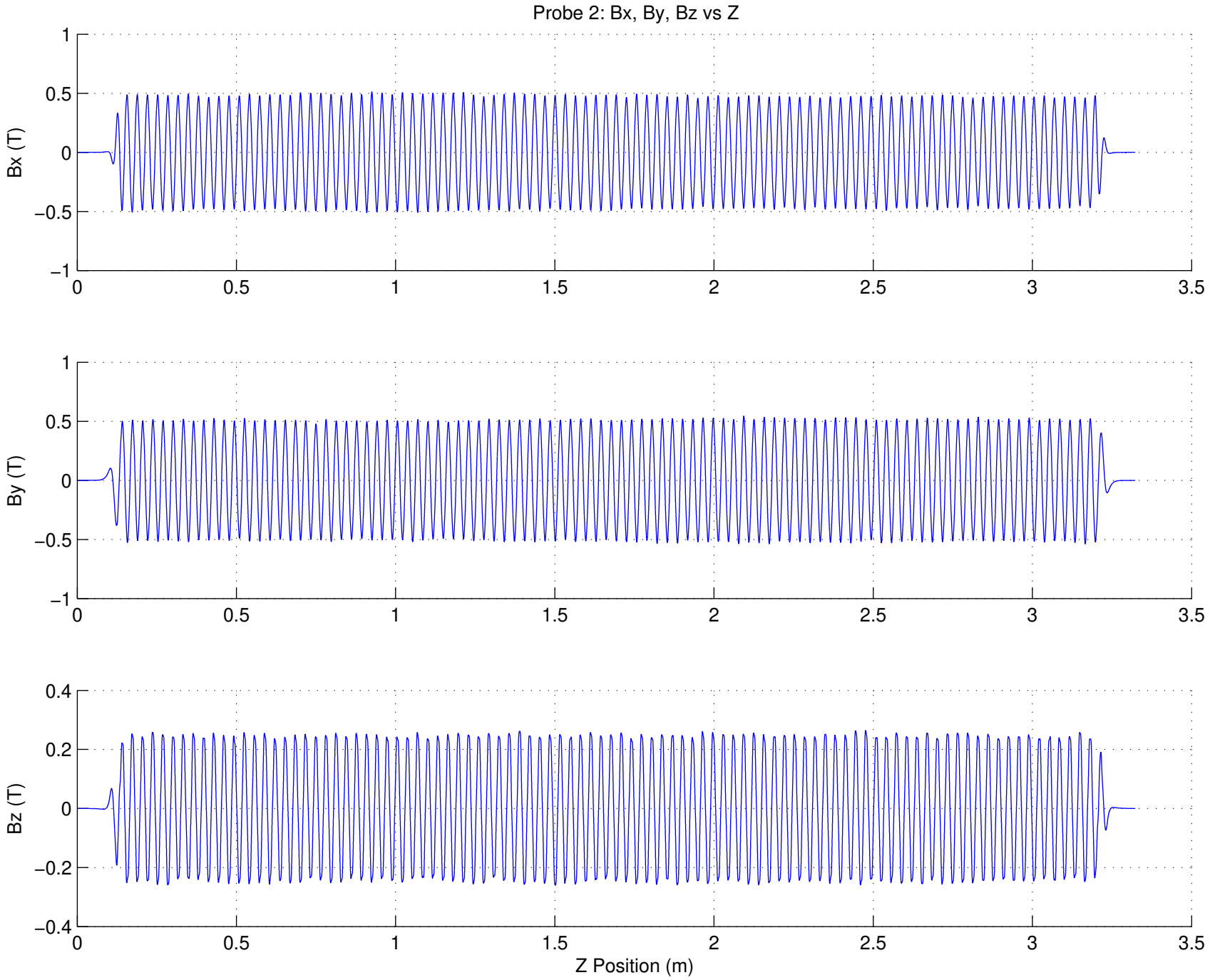

Probe 1 and Probe 2, Vz vs Z
Vz1
Vz2
Vz (V)
Z (m)
1.5
1
0.5
0
−0.5
−1
−1.5
0
0.5
1
1.5
2
2.5
3
3.5

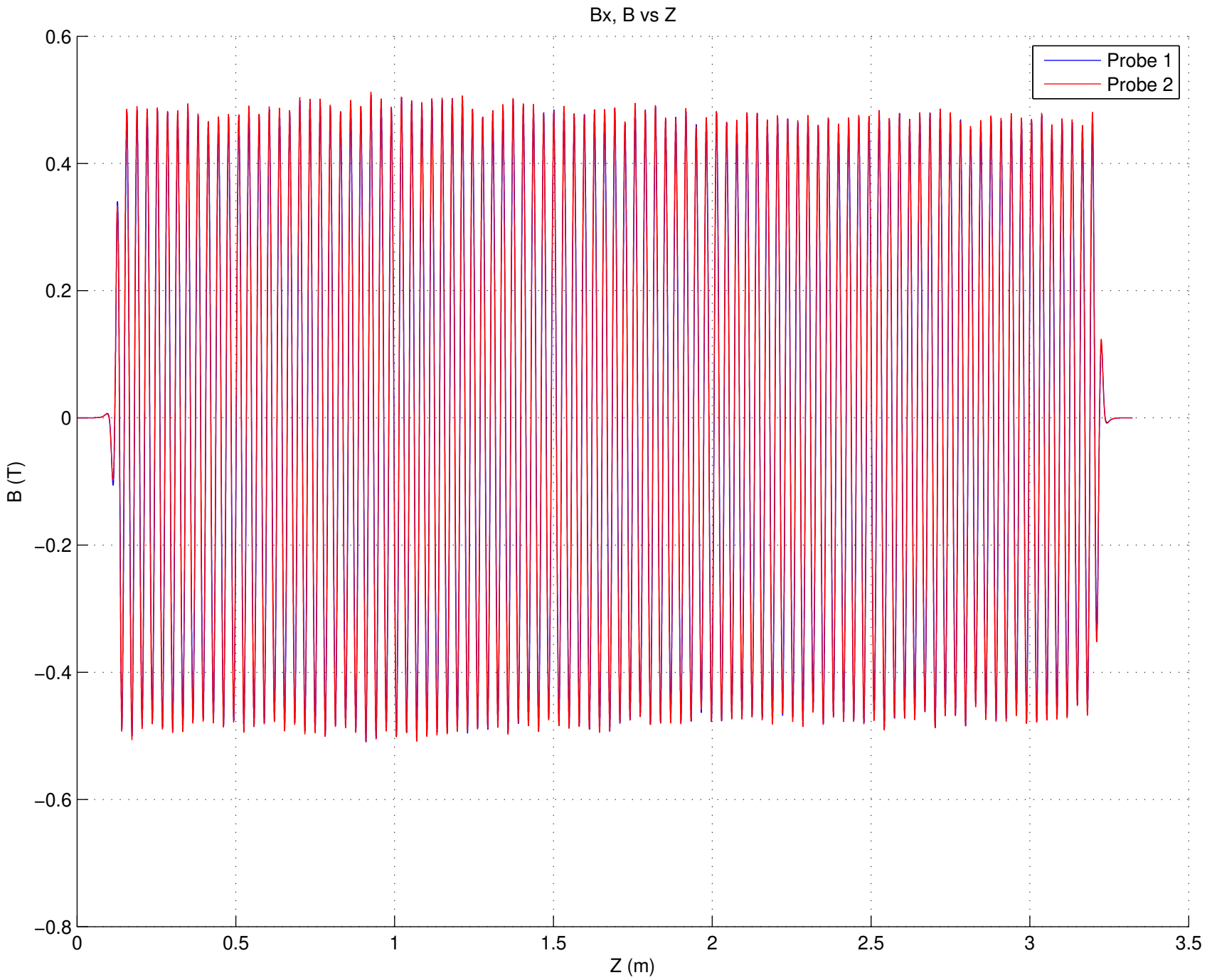

Probe 1 and Probe 2, Bx vs Z
Bx1
Bx2
Bx (T)
Z (m)
0.6
0.4
0.2
0
−0.2
−0.4
−0.6
−0.8
0
0.5
1
1.5
2
2.5
3
3.5

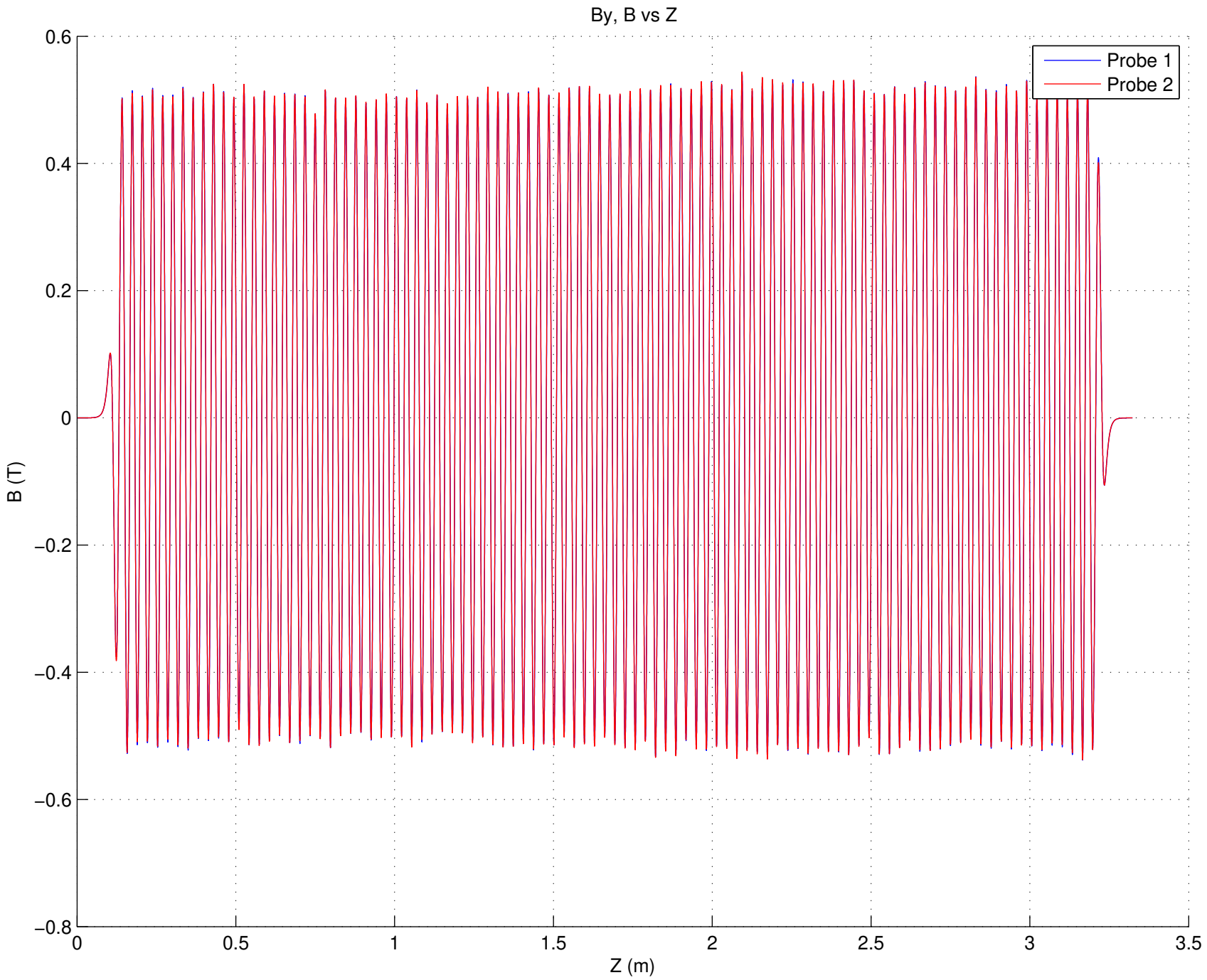

Probe 1 and Probe 2, By vs Z
By1
By2
By (T)
Z (m)
0.6
0.4
0.2
0
−0.2
−0.4
−0.6
−0.8
0
0.5
1
1.5
2
2.5
3
3.5

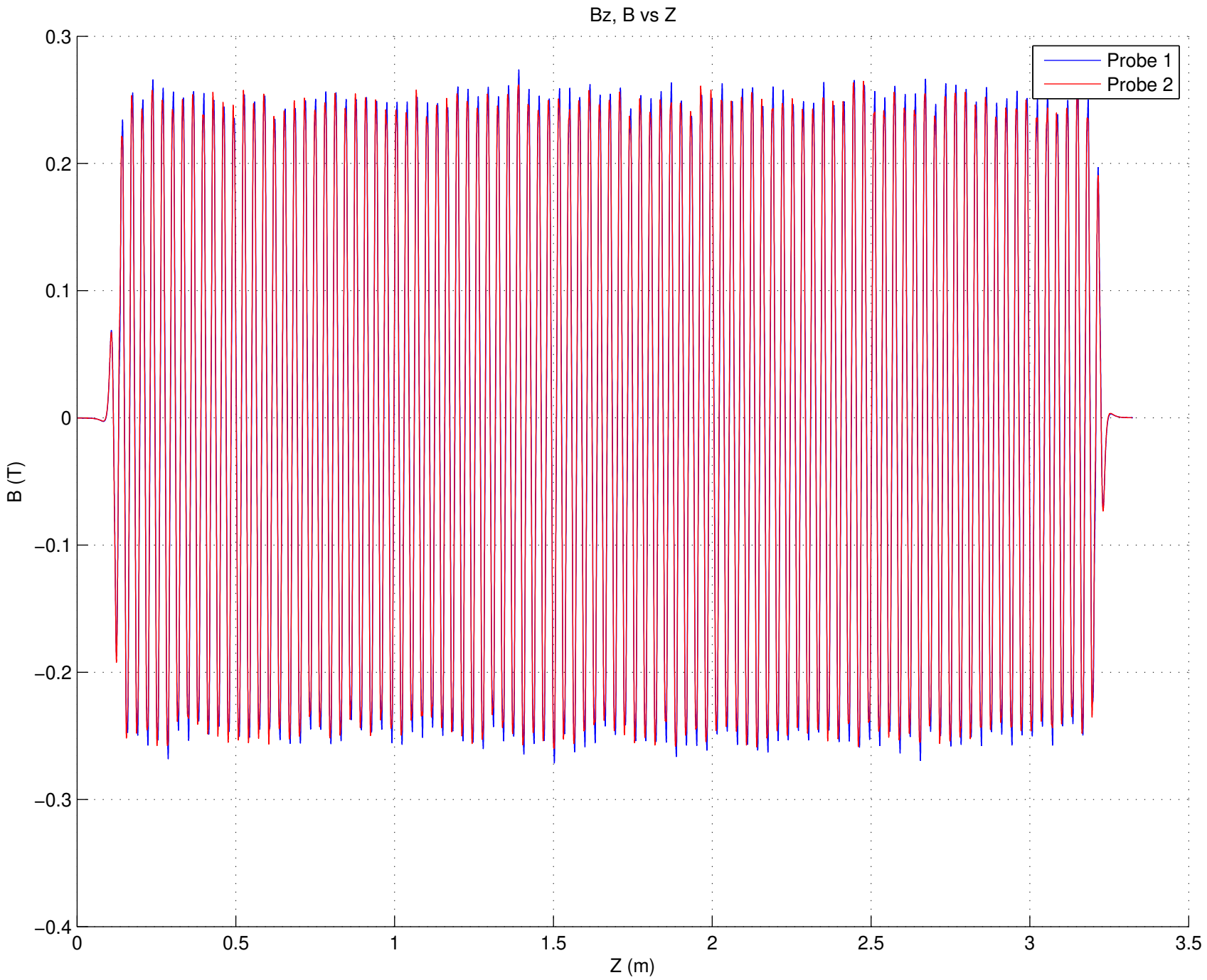

Probe 1 and Probe 2, Bz vs Z
Bz1
Bz2
Bz (T)
Z (m)
0.3
0.2
0.1
0
−0.1
−0.2
−0.3
−0.4
0
0.5
1
1.5
2
2.5
3
3.5

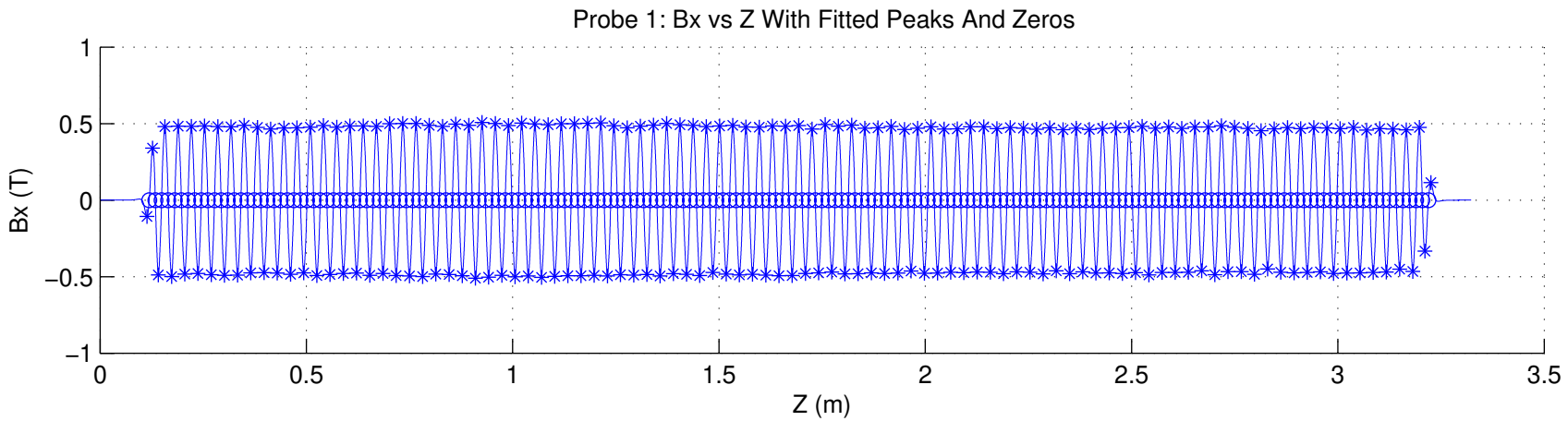

Probe 1: Bx, By, Bz vs Z
Bx (T)
By (T)
Bz (T)
Z Position (m)
1
0.5
0
−0.5
−1
0.4
0.2
−0.2
−0.4
0
0.5
1
1.5
2
2.5
3
3.5

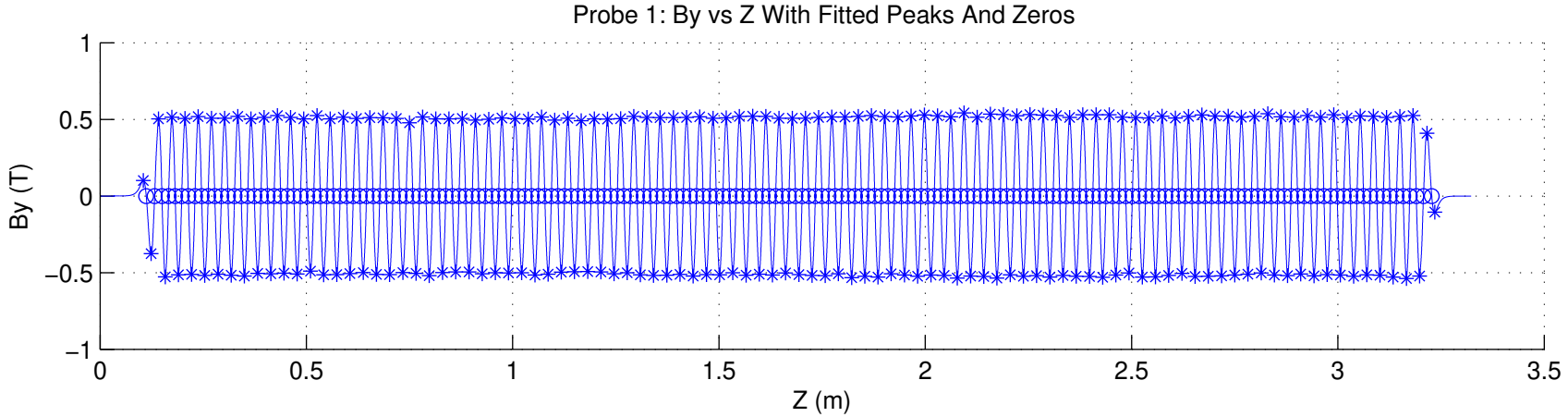

Probe 2: Bx, By, Bz vs Z
Bx (T)
By (T)
Bz (T)
Z Position (m)
1
0.5
0
−0.5
−1
0.4
0.2
−0.2
−0.4
0
0.5
1
1.5
2
2.5
3
3.5

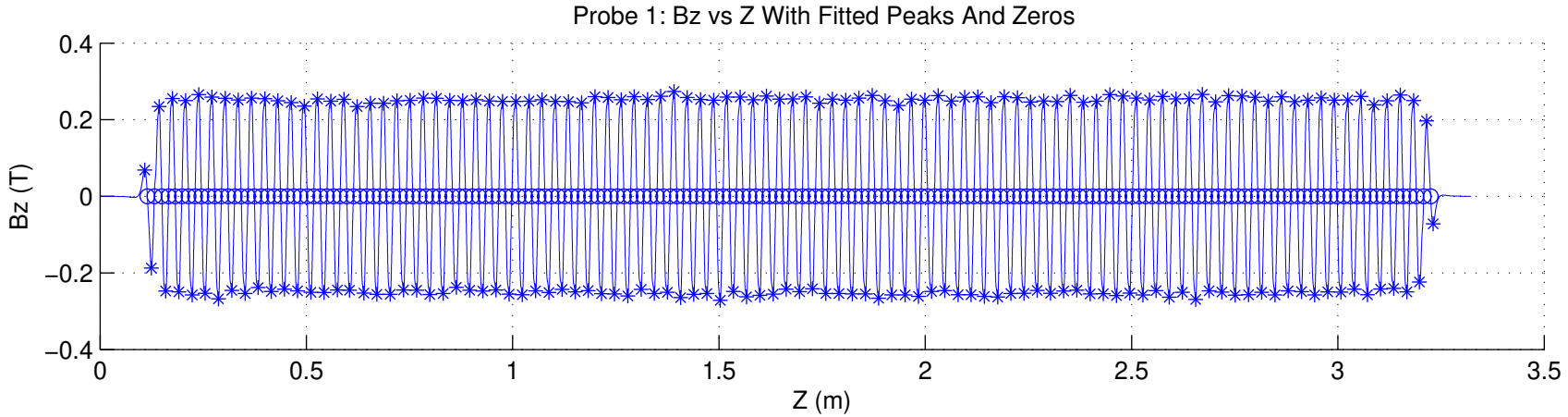

Bx, B vs Z
Probe 1
Probe 2
B (T)
Z (m)
0.6
0.4
0.2
0
−0.2
−0.4
−0.6
−0.8
0
0.5
1
1.5
2
2.5
3
3.5

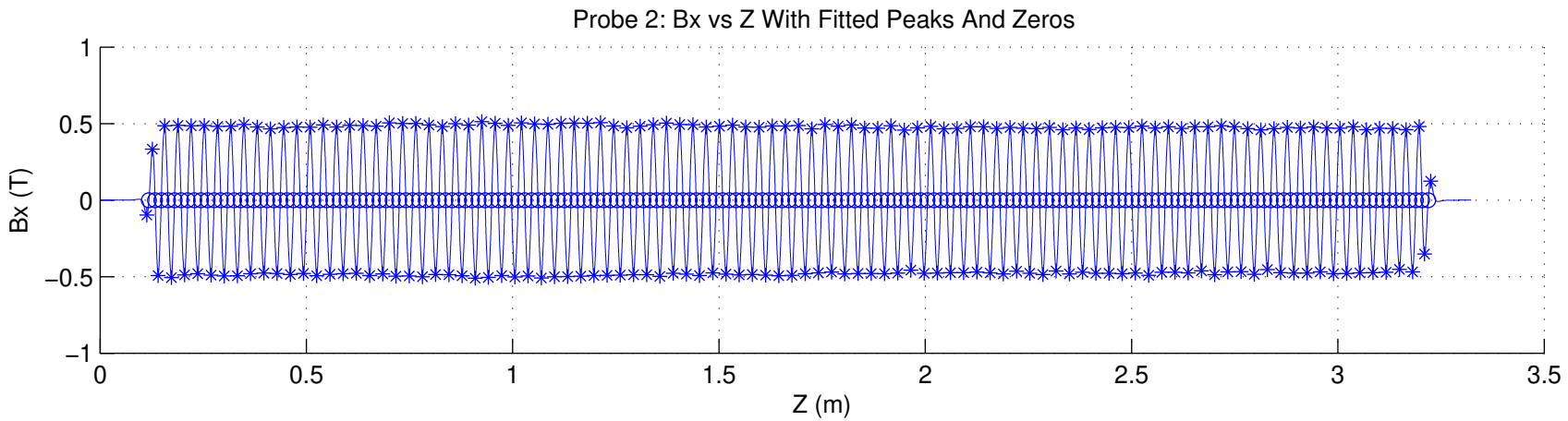

By, B vs Z
Probe 1
Probe 2
B (T)
Z (m)
0.6
0.4
0.2
0
−0.2
−0.4
−0.6
−0.8
0
0.5
1
1.5
2
2.5
3
3.5

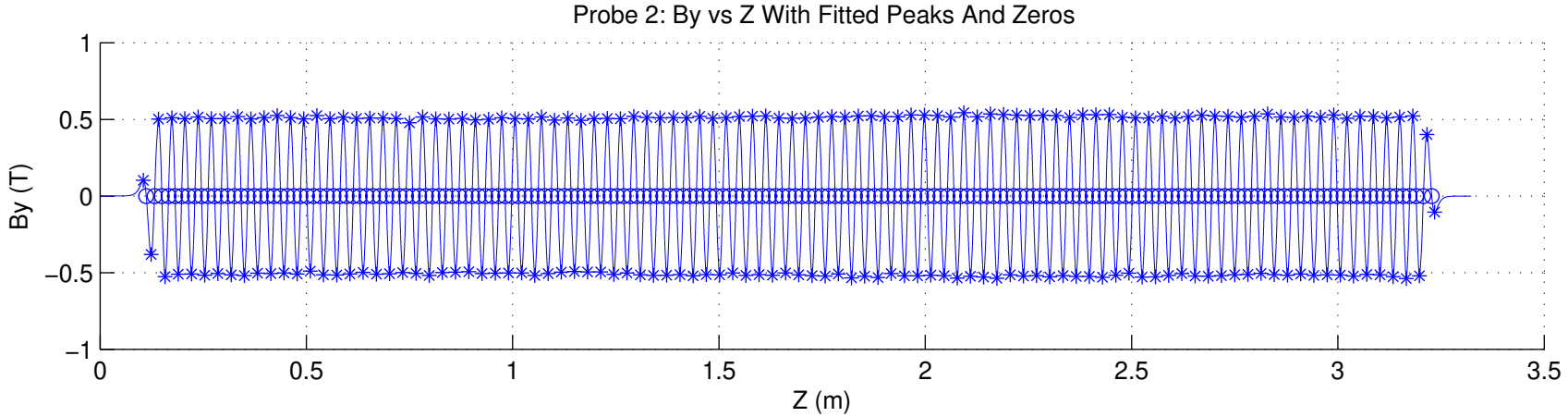

Bz, B vs Z
Probe 1
Probe 2
B (T)
Z (m)
0.3
0.2
0.1
0
−0.1
−0.2
−0.3
−0.4
0
0.5
1
1.5
2
2.5
3
3.5

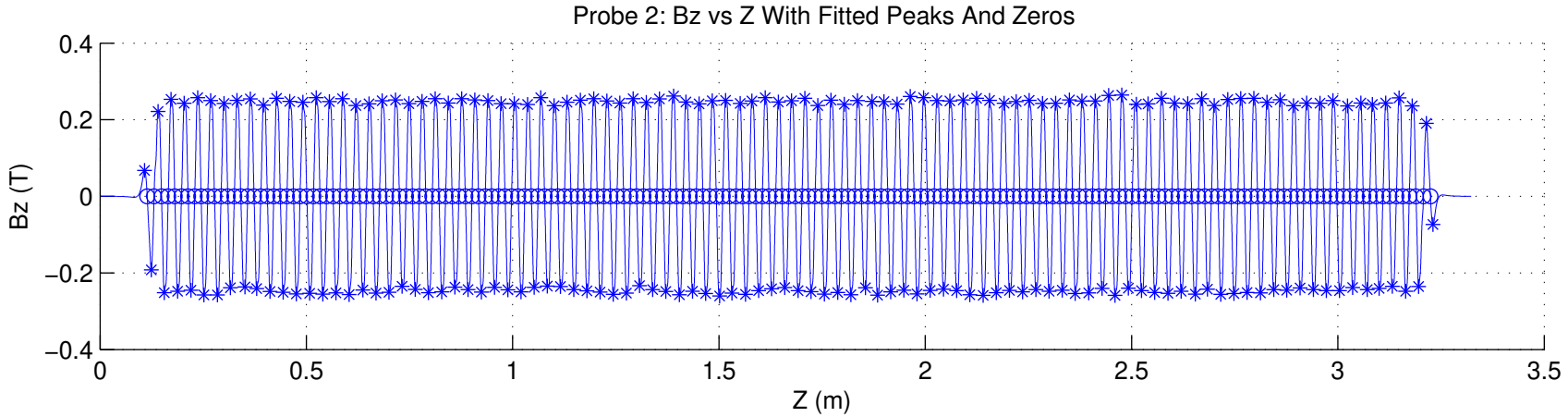

Probe 1: Bx vs Z With Fitted Peaks And Zeros
Bx (T)
Z (m)
1
0.5
0
−0.5
−1
0
0.5
1
1.5
2
2.5
3
3.5

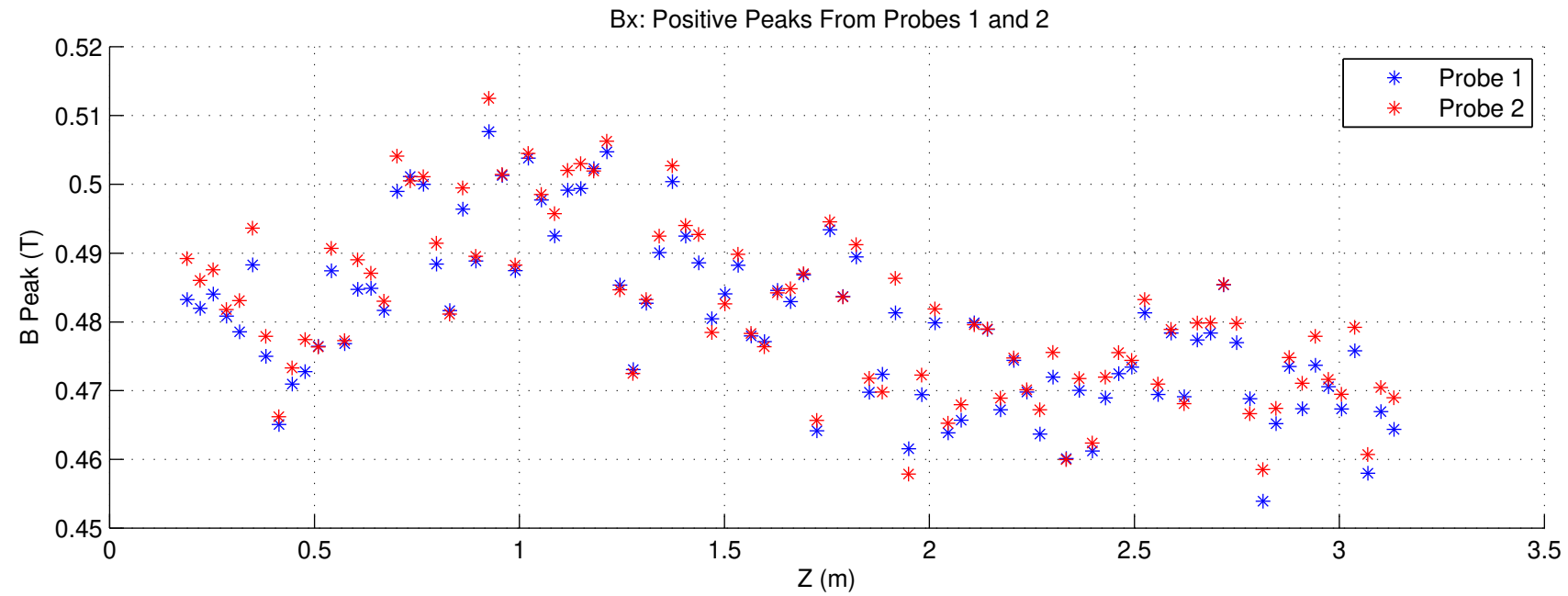

Probe 1: By vs Z With Fitted Peaks And Zeros
By (T)
Z (m)
1
0.5
0
−0.5
−1
0
0.5
1
1.5
2
2.5
3
3.5

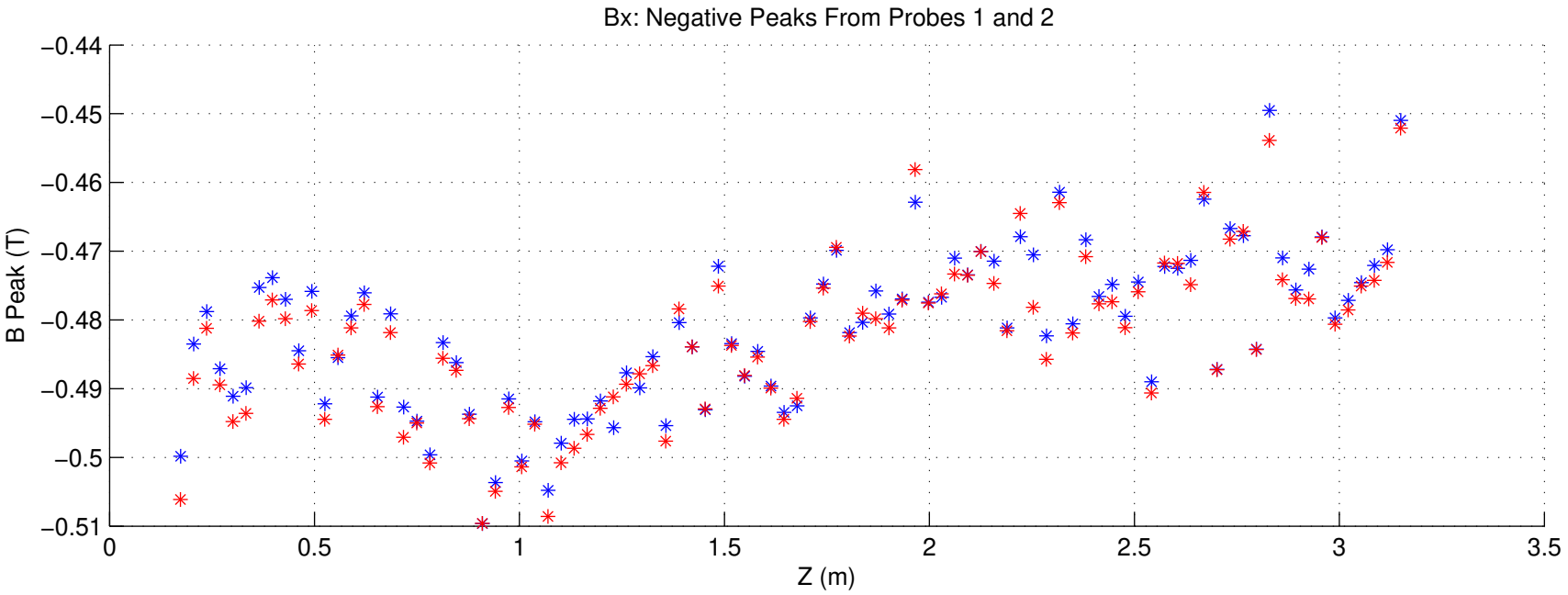

Probe 1: Bz vs Z With Fitted Peaks And Zeros
Bz (T)
Z (m)
0.4
0.2
0
−0.2
−0.4
0
0.5
1
1.5
2
2.5
3
3.5

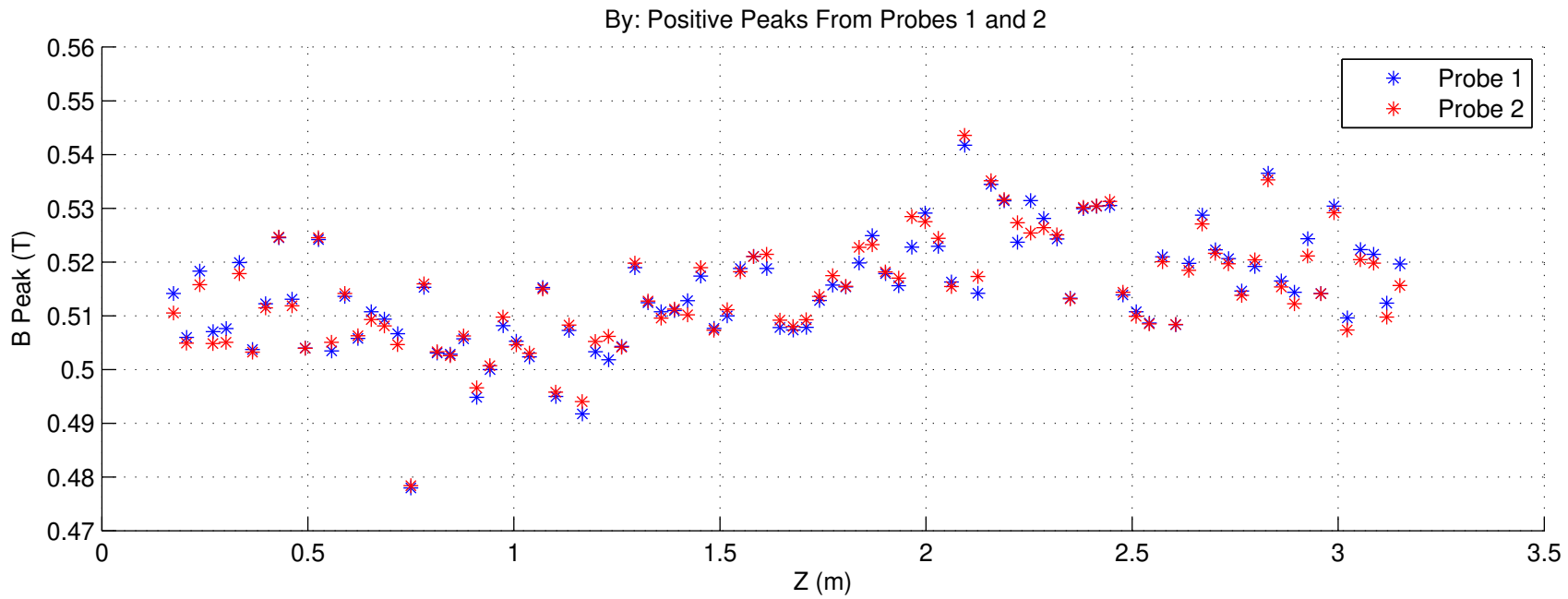

Probe 2: Bx vs Z With Fitted Peaks And Zeros
Bx (T)
Z (m)
1
0.5
0
−0.5
−1
0
0.5
1
1.5
2
2.5
3
3.5

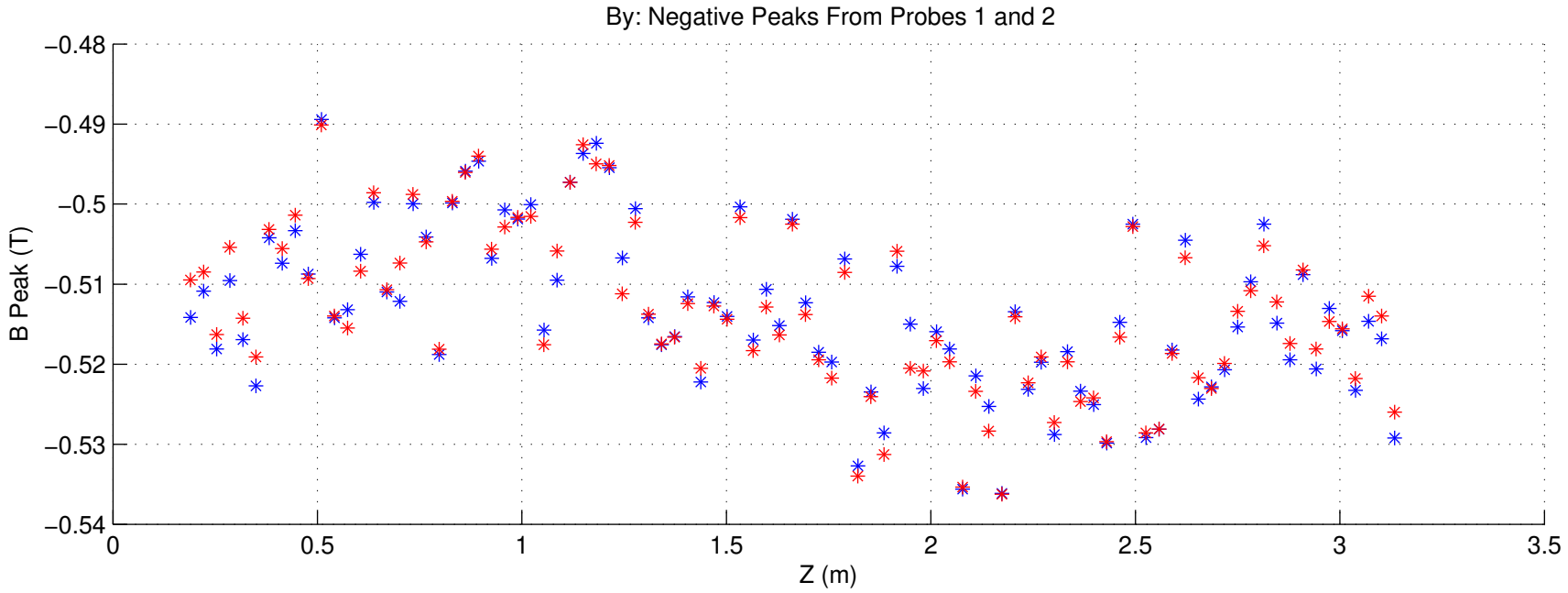

Probe 2: By vs Z With Fitted Peaks And Zeros
By (T)
Z (m)
1
0.5
0
−0.5
−1
0
0.5
1
1.5
2
2.5
3
3.5

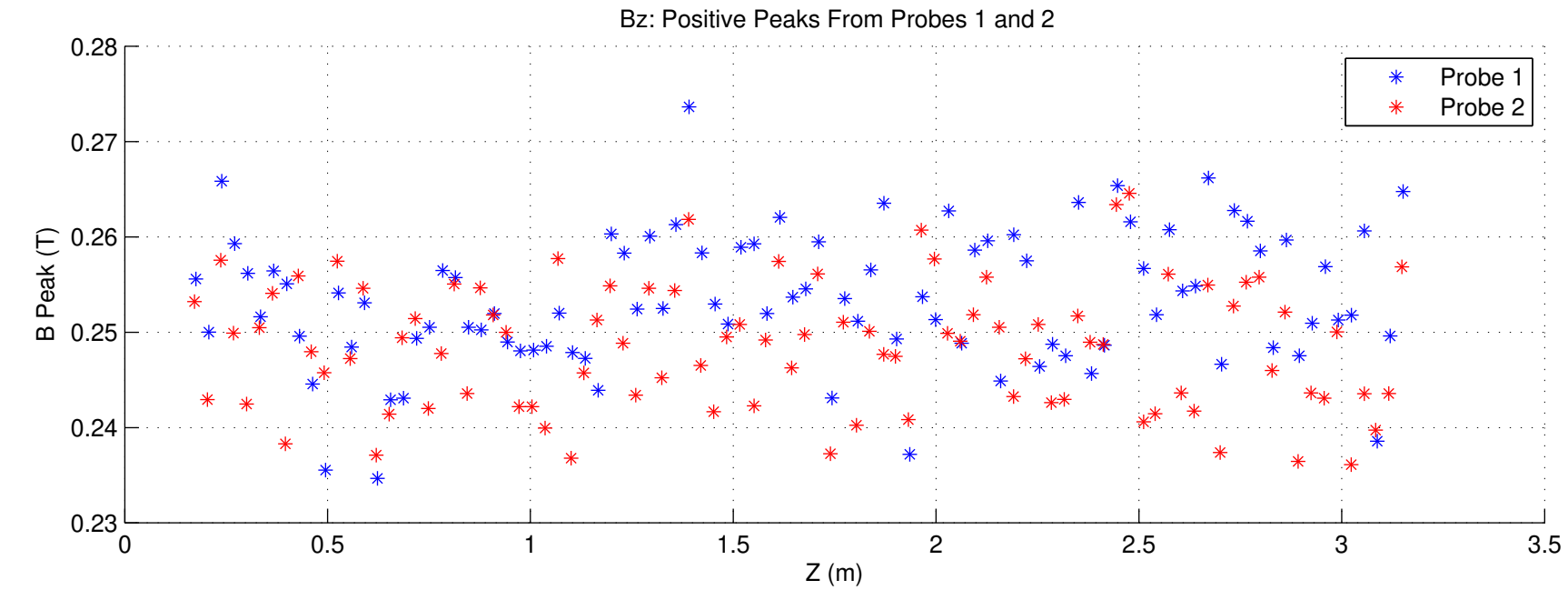

Probe 2: Bz vs Z With Fitted Peaks And Zeros
Bz (T)
Z (m)
0.4
0.2
0
−0.2
−0.4
0
0.5
1
1.5
2
2.5
3
3.5

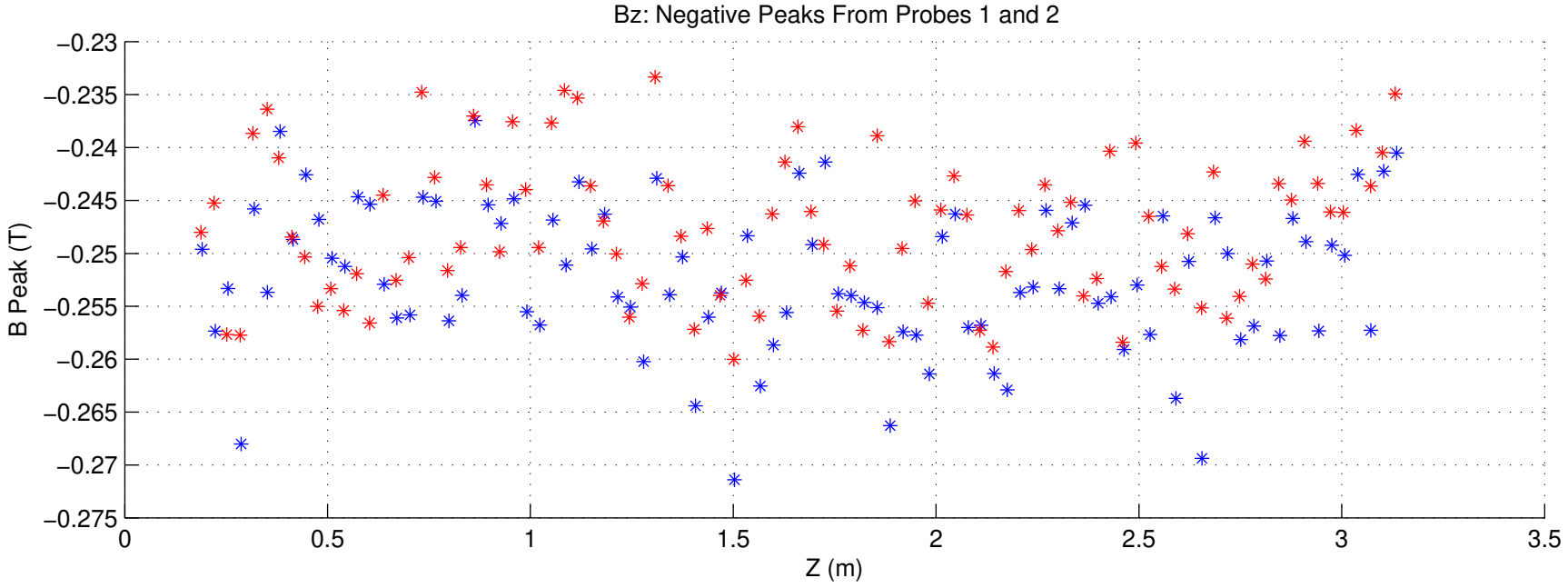

Bx: Positive Peaks From Probes 1 and 2
Probe 1
Probe 2
B Peak (T)
Z (m)
0.52
0.51
0.5
0.49
0.48
0.47
0.46
0.45
0
0.5
1
1.5
2
2.5
3
3.5


Bx: Negative Peaks From Probes 1 and 2
B Peak (T)
Z (m)
−0.44
−0.45
−0.46
−0.47
−0.48
−0.49
−0.5
−0.51
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
0.55
0.54
0.53
0.52
0.51
0.5
0.49
0.48
0.47
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
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)
0.28
0.27
0.26
0.25
0.24
0.23
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)
−0.23
−0.235
−0.24
−0.245
−0.25
−0.255
−0.26
−0.265
−0.27
−0.275
0
0.5
1
1.5
2
2.5
3
3.5