SLAC Magnetic Measurements

Hall Probe Array Analysis
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Parameters:
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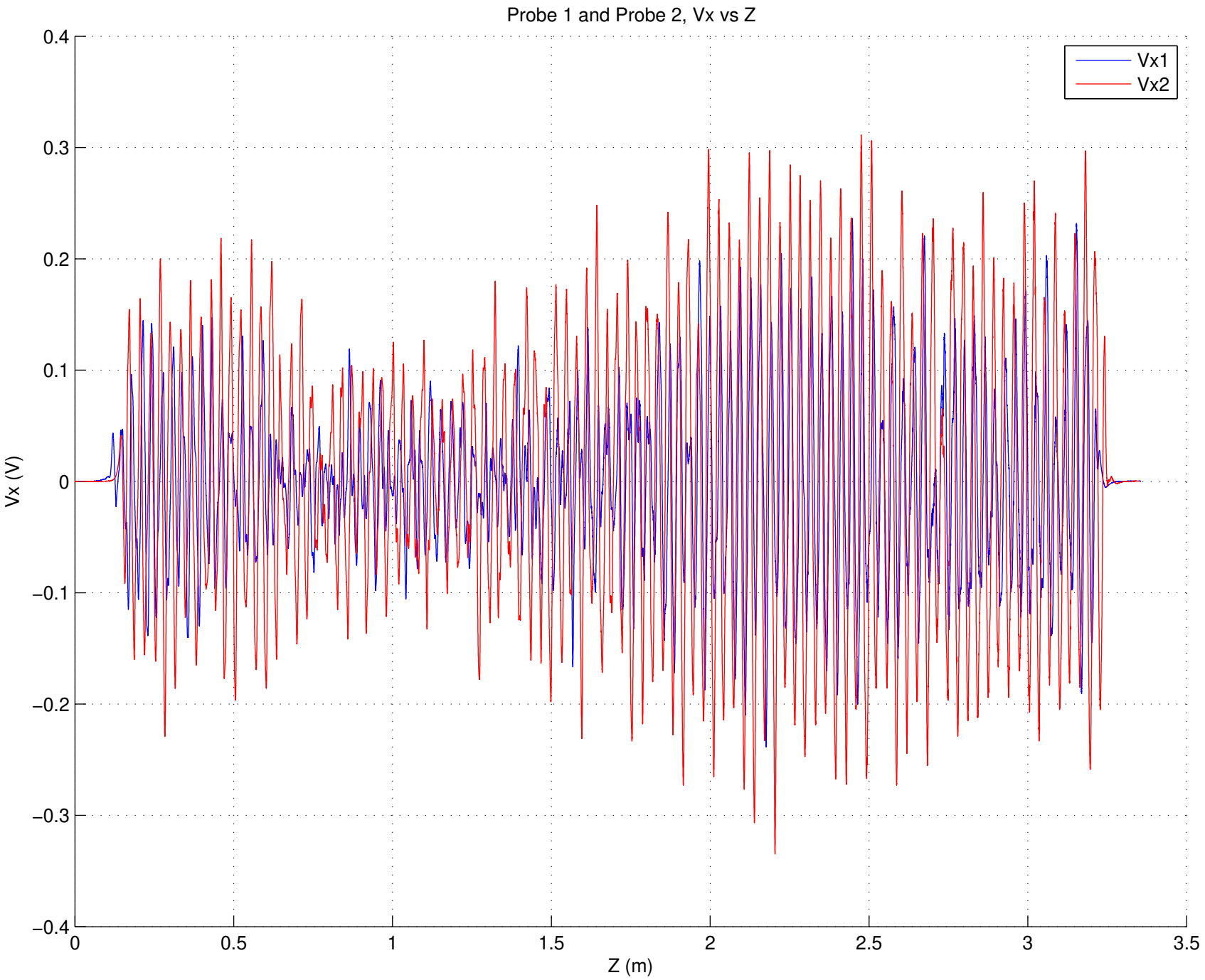
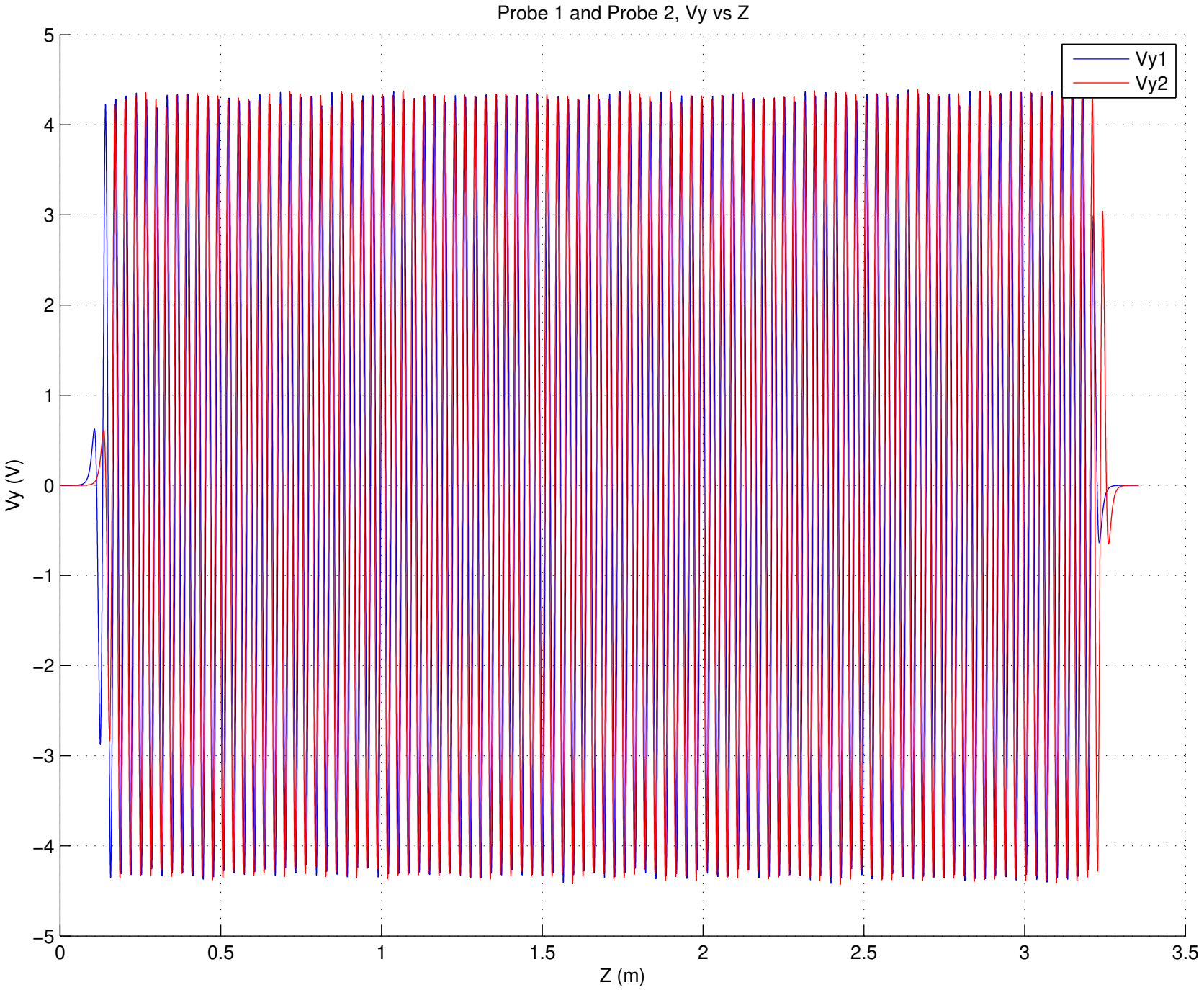
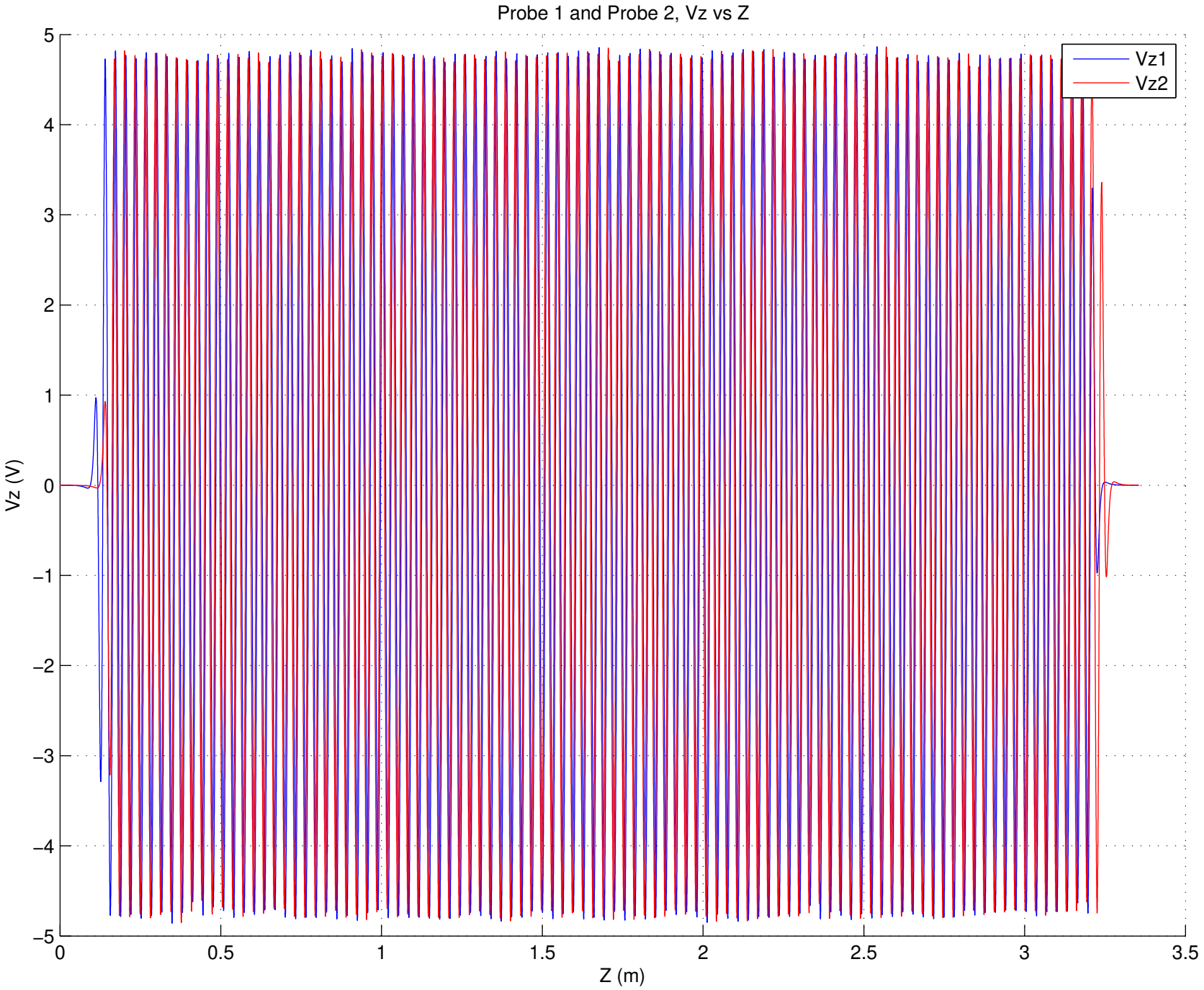
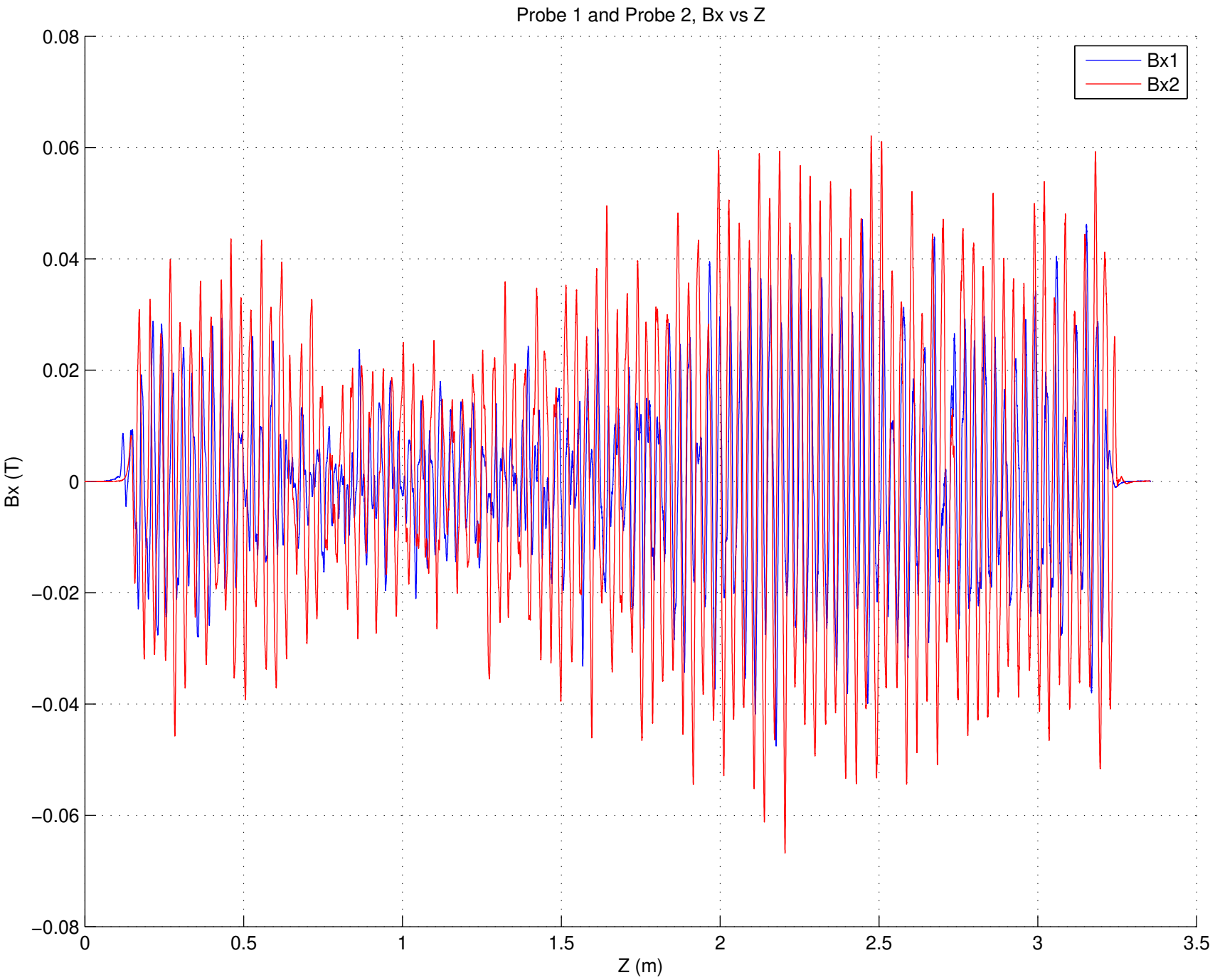
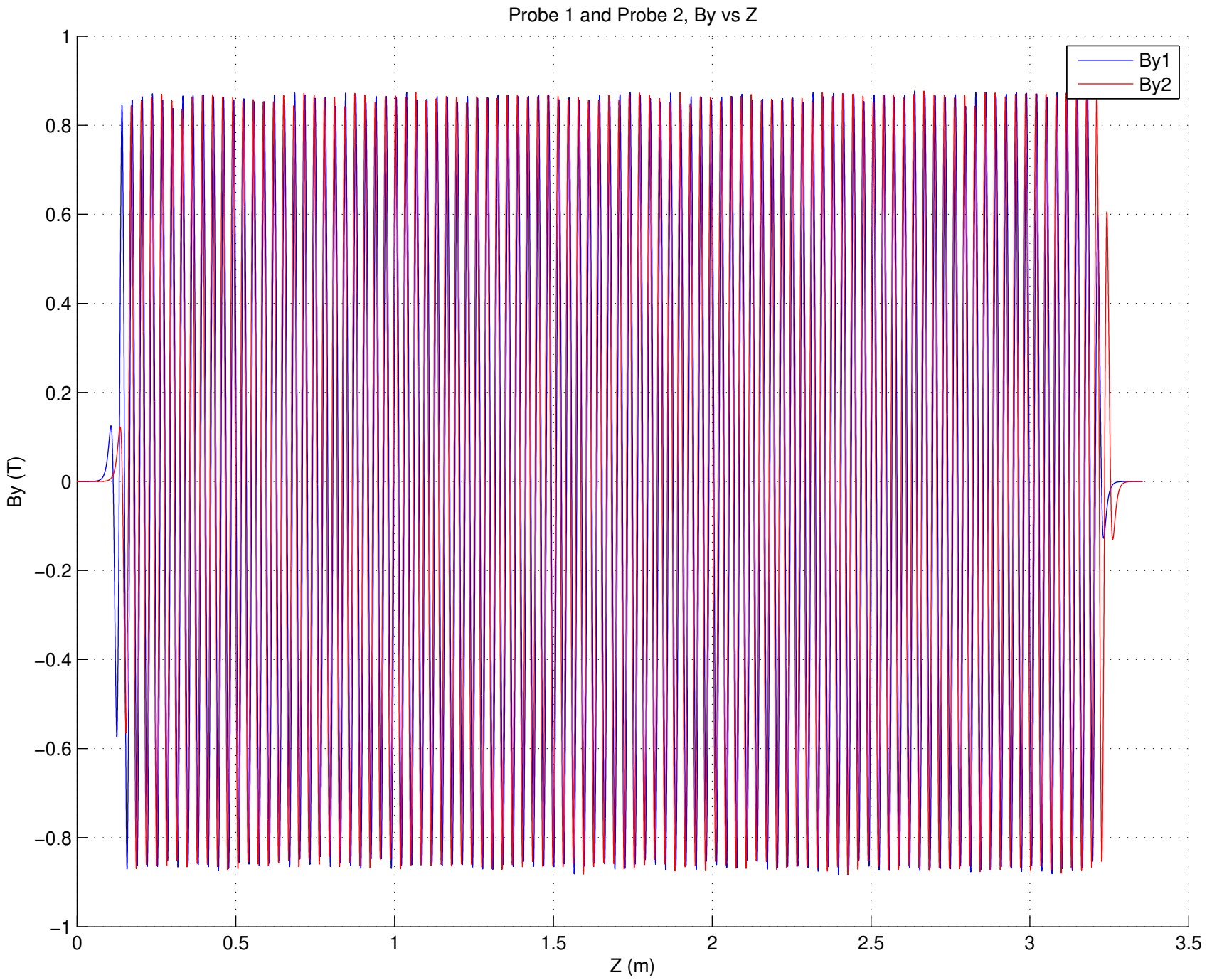
INPUT−FILE−NAME =DUTestOutput.dat
INPUT−FILE−TYPE =ZVXYZVXYZH
UND−POL−MODE =LIN−POL−VERT−FIELD
PROBE1−BX−CALIB−FILE =V:\MET\MagServe\MagData\DELTA\Delta data\Assembled Measurements\Hall Probe Calibrations\S
PROBE1−BY−CALIB−FILE =V:\MET\MagServe\MagData\DELTA\Delta data\Assembled Measurements\Hall Probe 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)
0.4
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

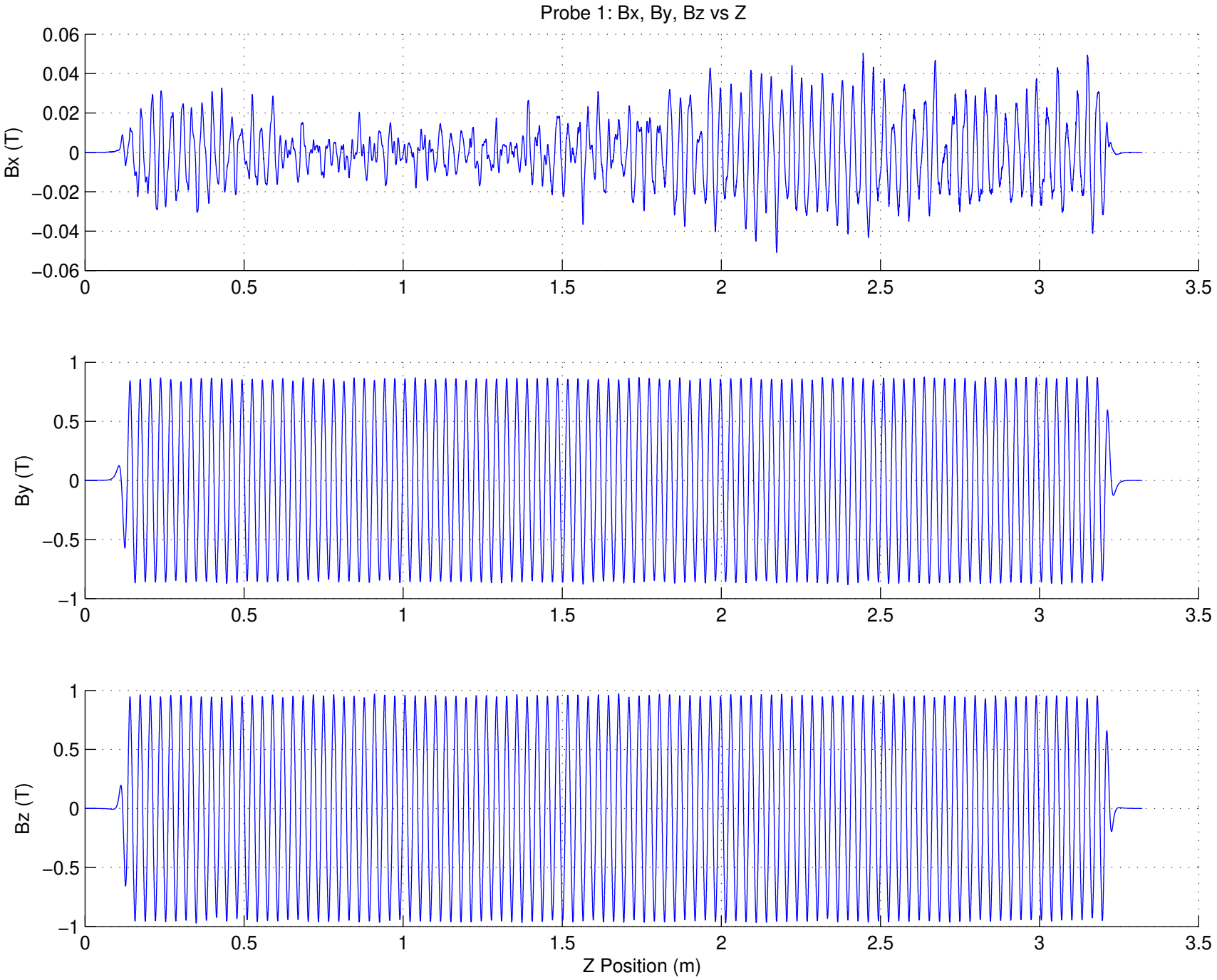

Probe 1 and Probe 2, Vy vs Z
Vy1
Vy2
Vy (V)
Z (m)
5
4
3
2
1
0
−1
−2
−3
−4
−5
0
0.5
1
1.5
2
2.5
3
3.5

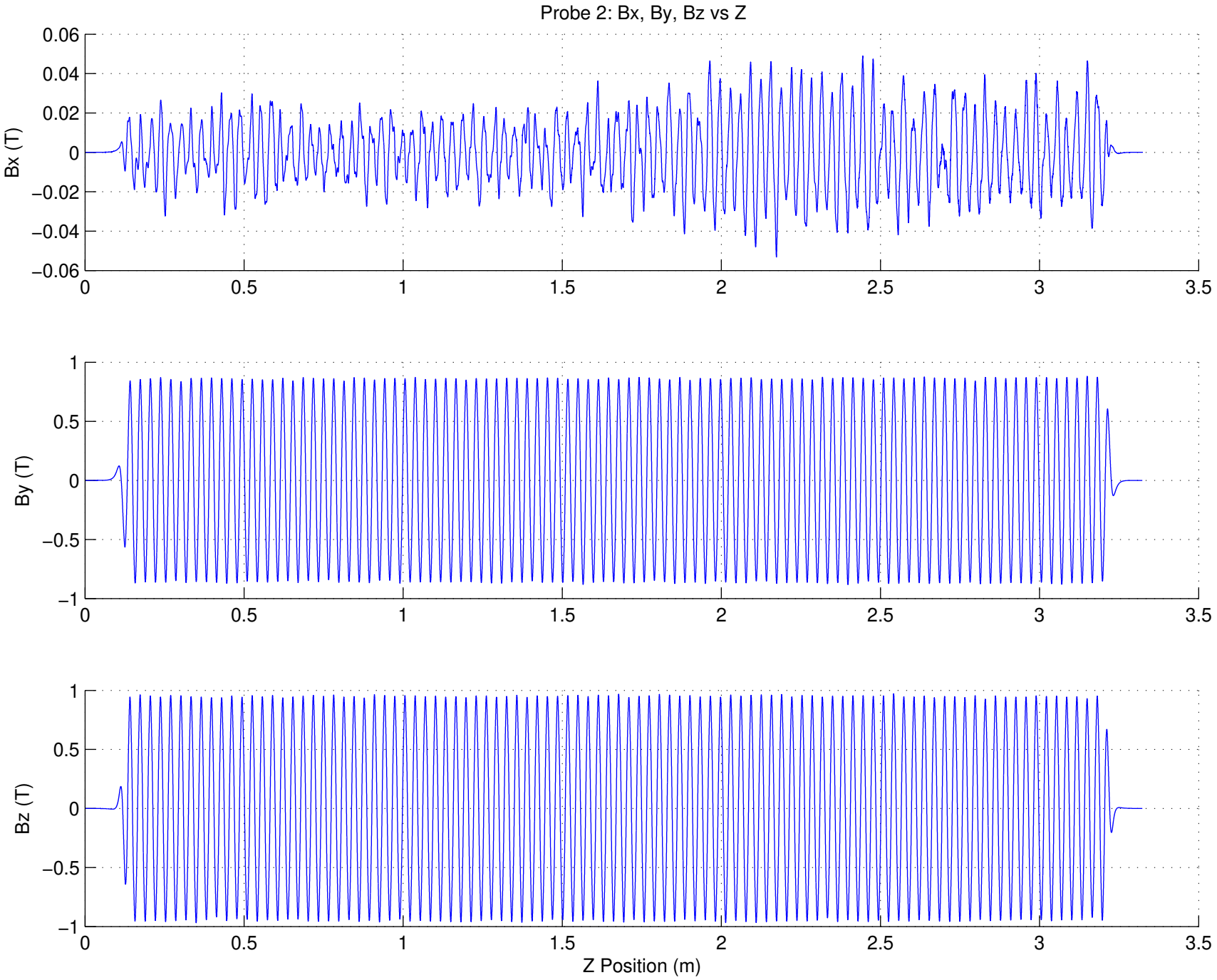

Probe 1 and Probe 2, Vz vs Z
Vz1
Vz2
Vz (V)
Z (m)
5
4
3
2
1
0
−1
−2
−3
−4
−5
0
0.5
1
1.5
2
2.5
3
3.5

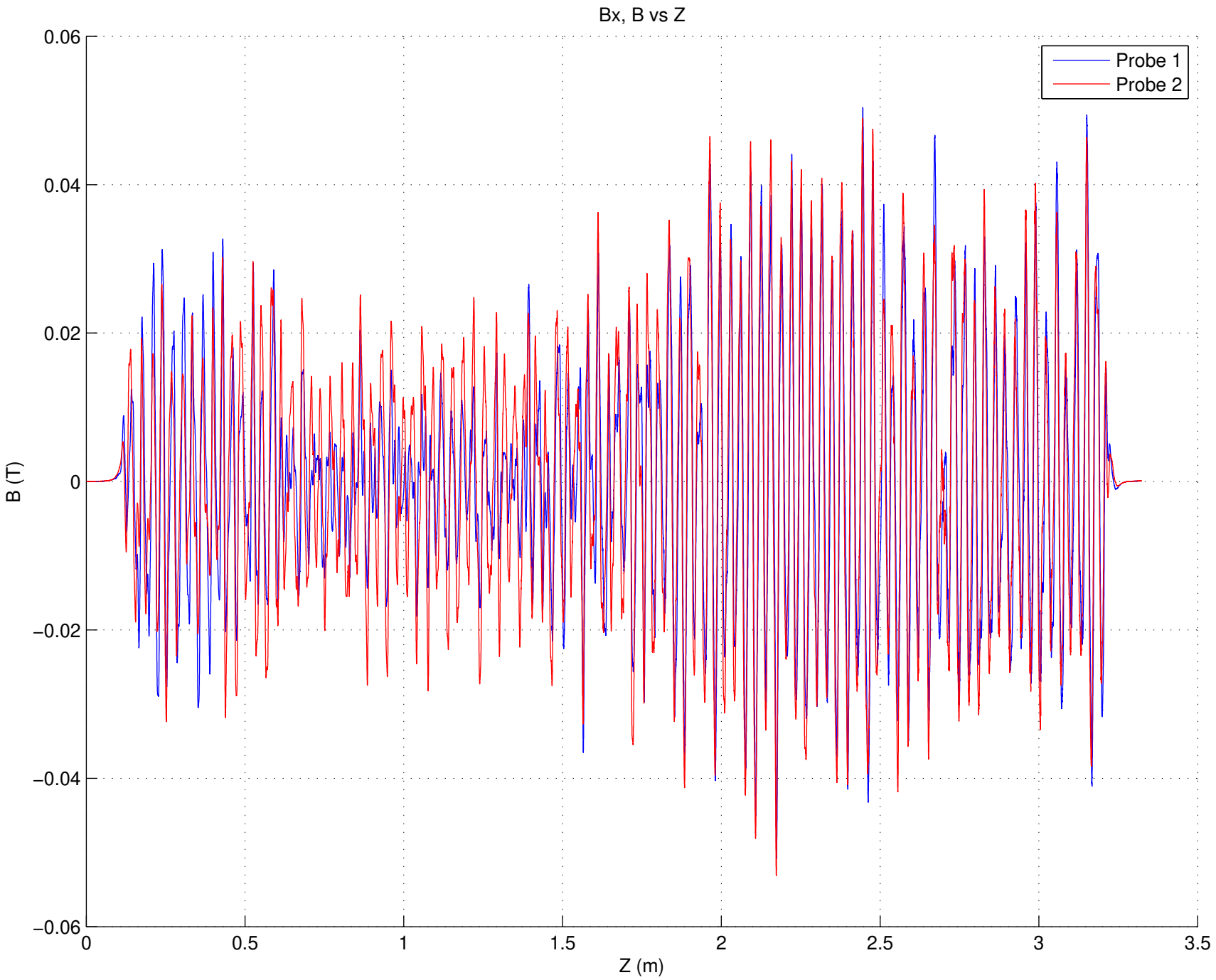

Probe 1 and Probe 2, Bx vs Z
Bx1
Bx2
Bx (T)
Z (m)
0.08
0.06
0.04
0.02
0
−0.02
−0.04
−0.06
−0.08
0
0.5
1
1.5
2
2.5
3
3.5

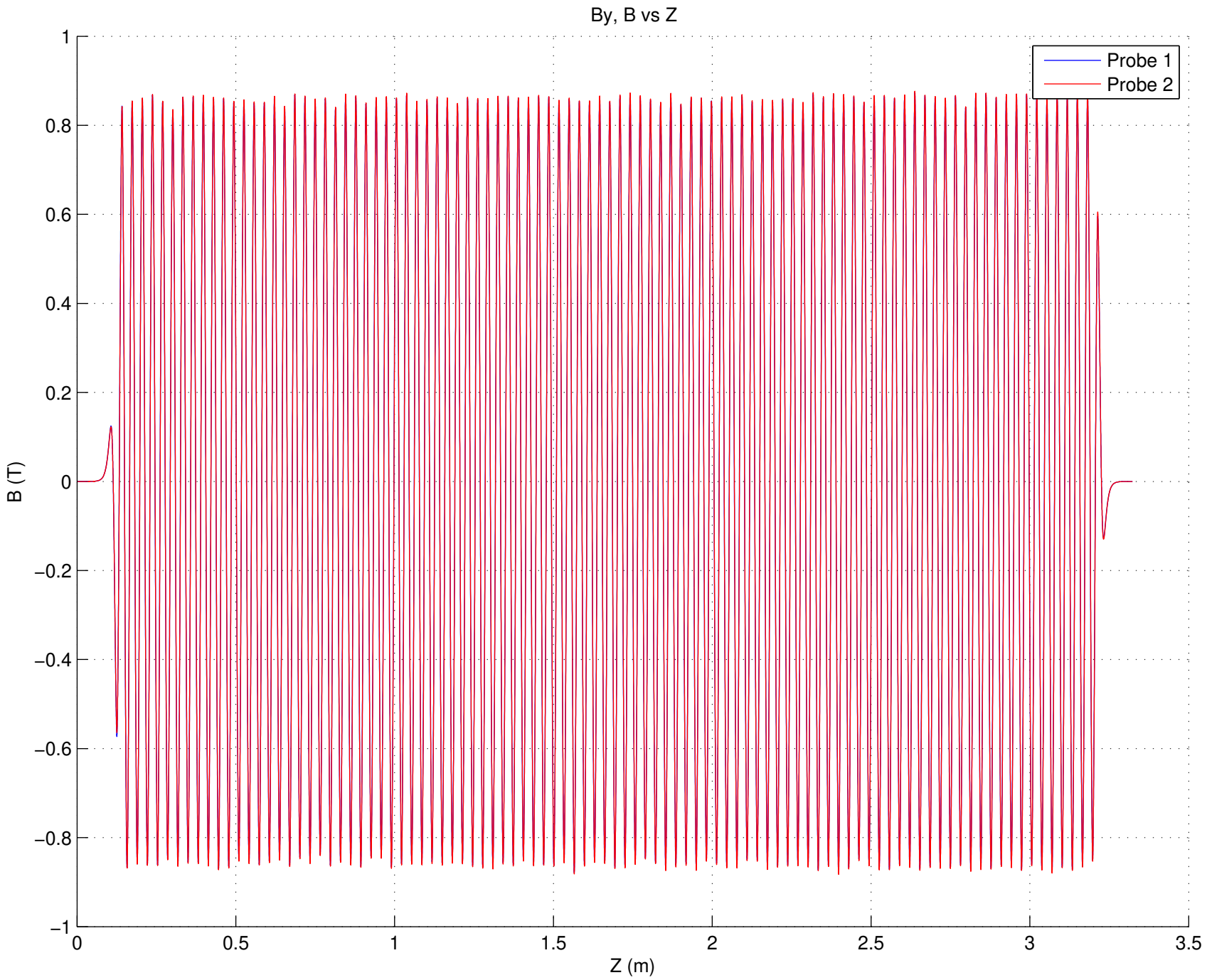

Probe 1 and Probe 2, By vs Z
By1
By2
By (T)
Z (m)
1
0.8
0.6
0.4
0.2
0
−0.2
−0.4
−0.6
−0.8
−1
0
0.5
1
1.5
2
2.5
3
3.5

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

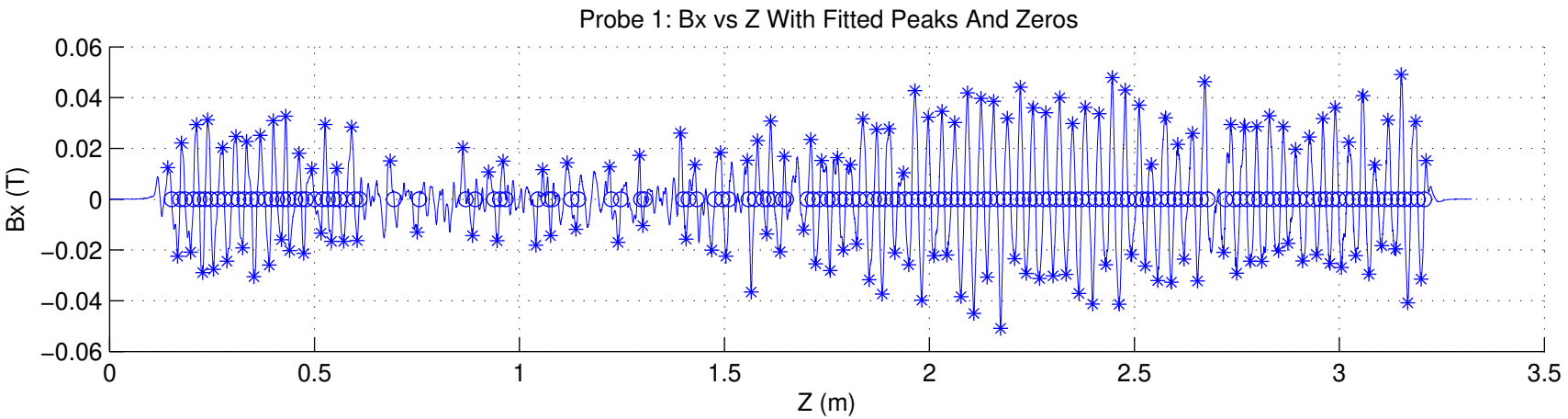

Probe 1: Bx, By, Bz vs Z
Bx (T)
0.06
0.04
0.02
0
−0.02
−0.04
−0.06
By (T)
1
0.5
0
−0.5
−1
Bz (T)
1
0.5
0
−0.5
−1
0
0.5
1
1.5
2
2.5
3
3.5
Z Position (m)

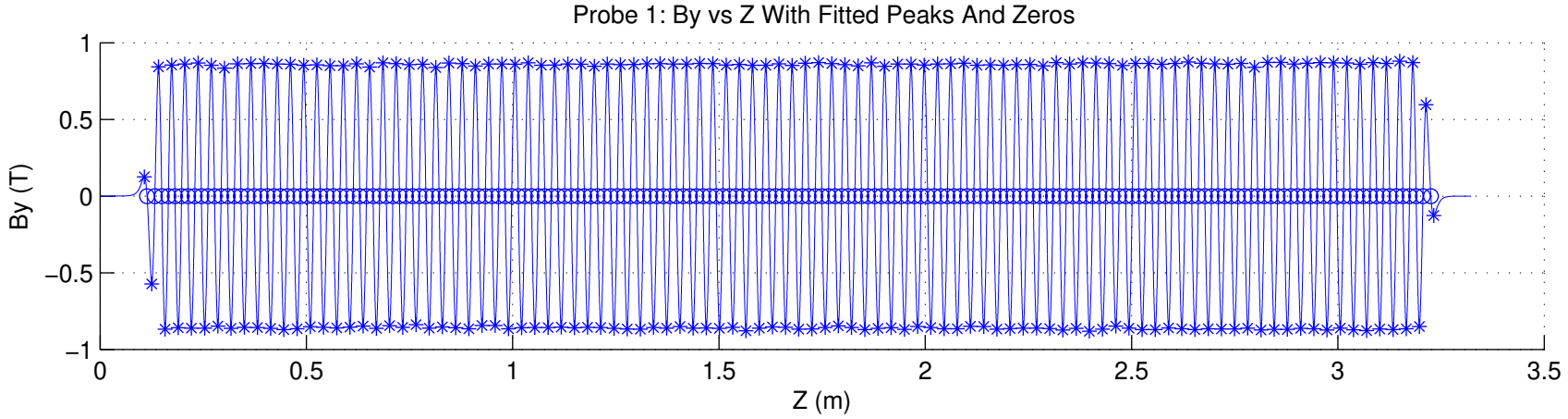

Probe 2: Bx, By, Bz vs Z
Bx (T)
0.06
0.04
0.02
0
−0.02
−0.04
−0.06
By (T)
1
0.5
0
−0.5
−1
Bz (T)
1
0.5
0
−0.5
−1
0
0.5
1
1.5
2
2.5
3
3.5
Z Position (m)

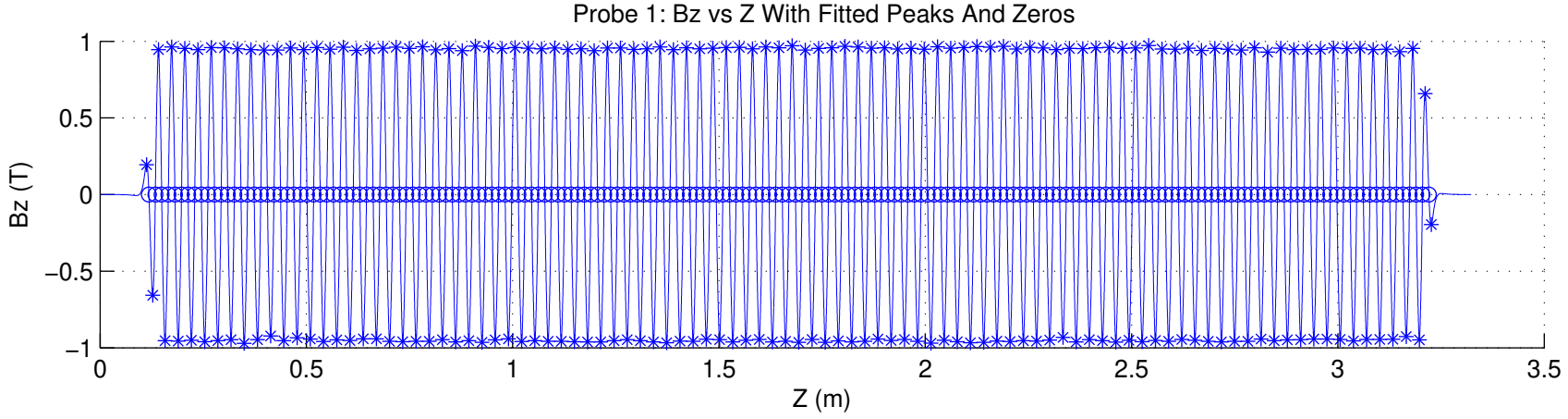

Bx, B vs Z
Probe 1
Probe 2
B (T)
Z (m)
0.06
0.04
0.02
0
−0.02
−0.04
−0.06
0
0.5
1
1.5
2
2.5
3
3.5

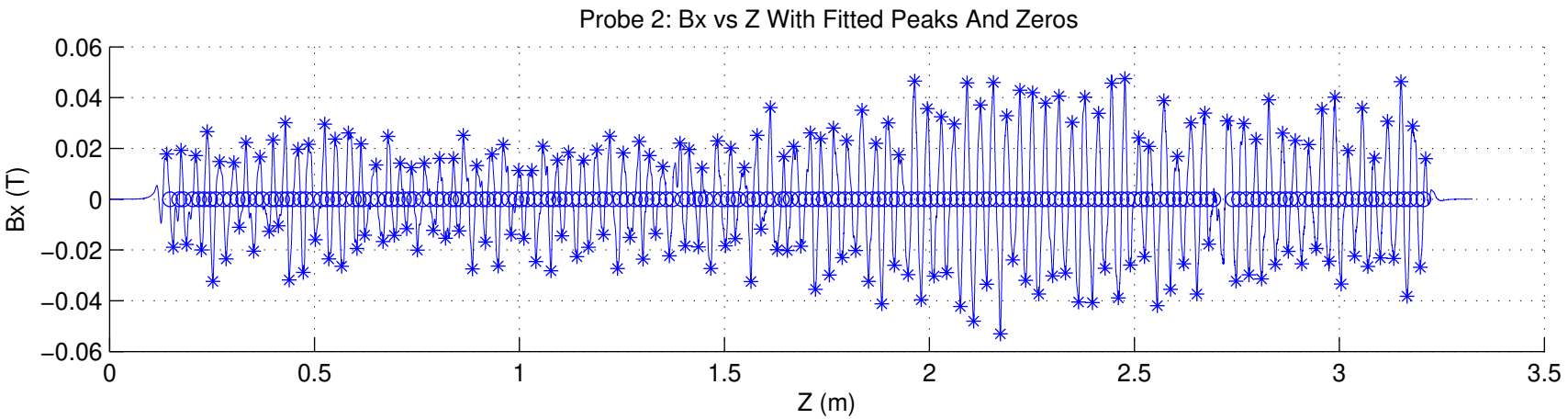

By, B vs Z
Probe 1
Probe 2
B (T)
Z (m)
1
0.8
0.6
0.4
0.2
0
−0.2
−0.4
−0.6
−0.8
−1
0
0.5
1
1.5
2
2.5
3
3.5

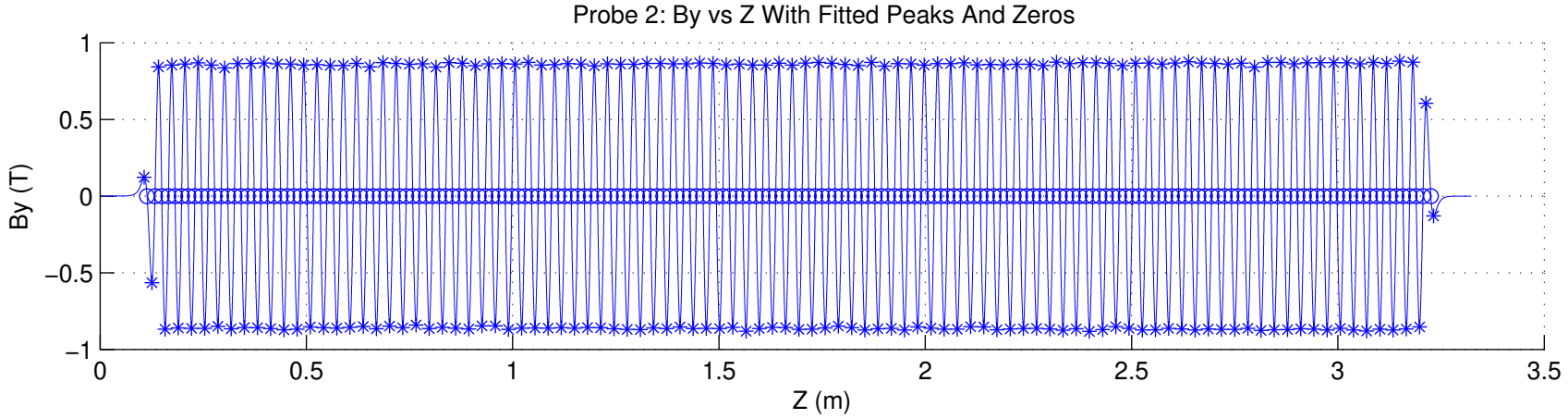
Bz, B vs Z
Probe 1
Probe 2
B (T)
Z (m)
1
0.8
0.6
0.4
0.2
0
−0.2
−0.4
−0.6
−0.8
−1
0
0.5
1
1.5
2
2.5
3
3.5

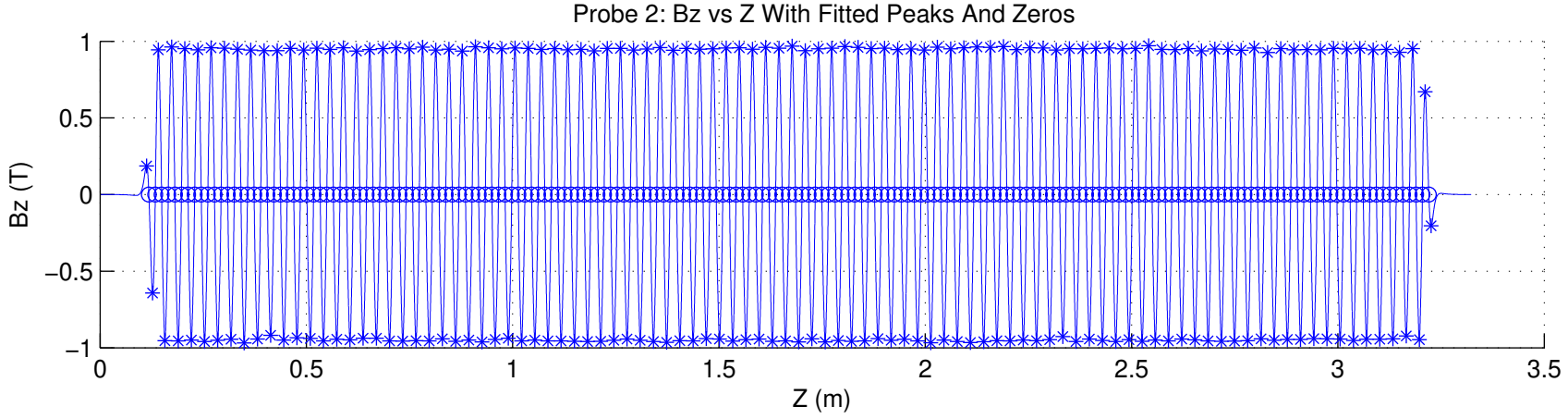

Probe 1: Bx vs Z With Fitted Peaks And Zeros
Bx (T)
0.06
0.04
0.02
0
−0.02
−0.04
−0.06
0
0.5
1
1.5
2
2.5
3
3.5
Z (m)

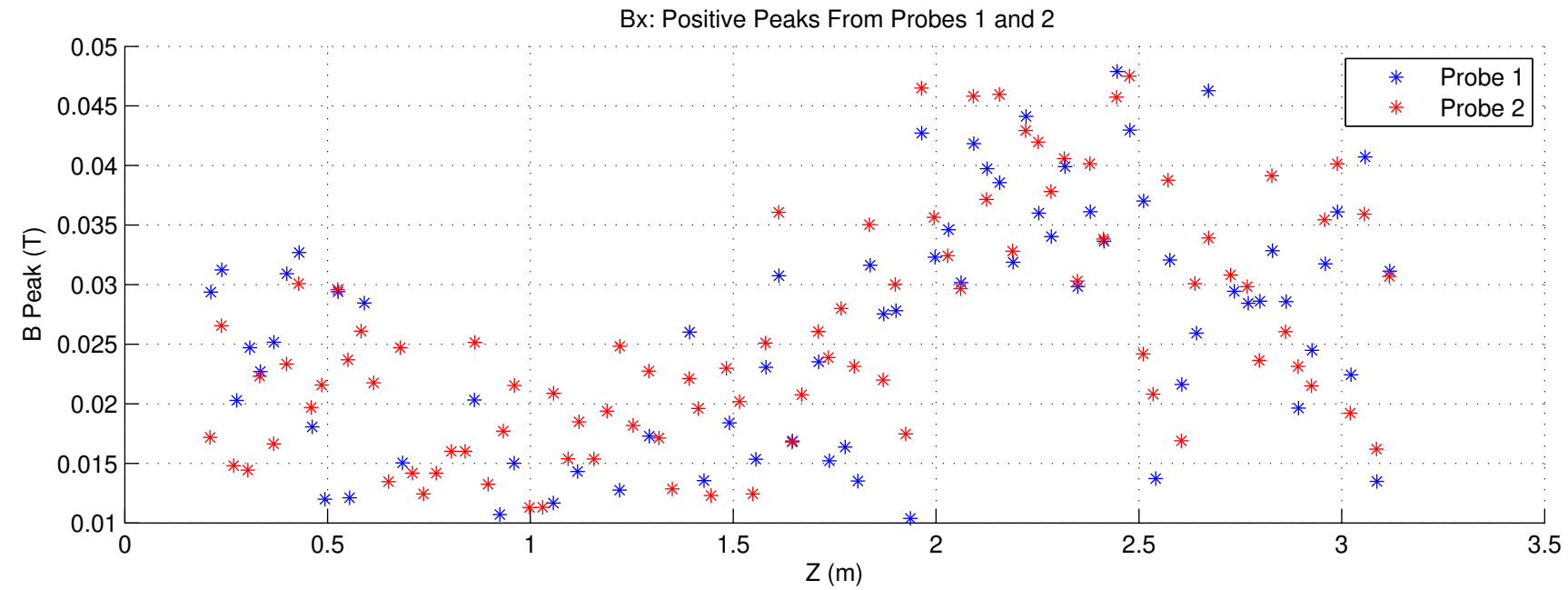

Probe 1: By vs Z With Fitted Peaks And Zeros
By (T)
1
0.5
0
−0.5
−1
0
0.5
1
1.5
2
2.5
3
3.5
Z (m)

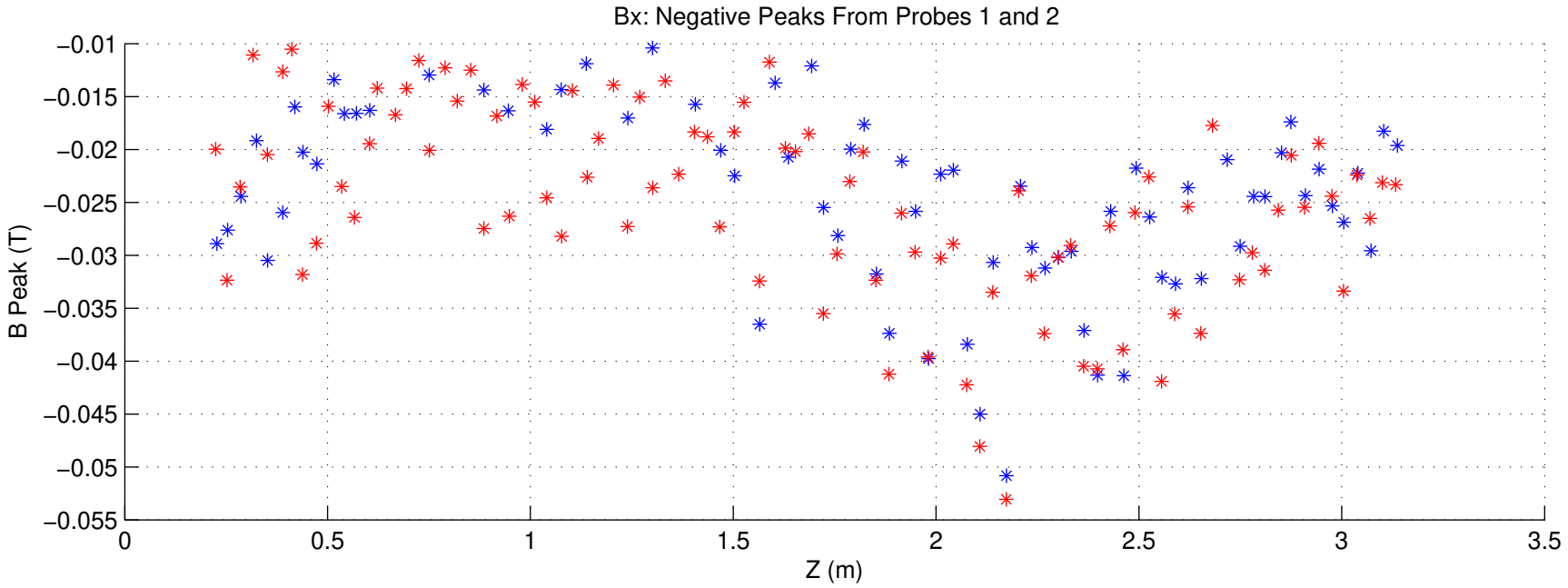

Probe 1: Bz vs Z With Fitted Peaks And Zeros
Bz (T)
1
0.5
0
−0.5
−1
0
0.5
1
1.5
2
2.5
3
3.5
Z (m)

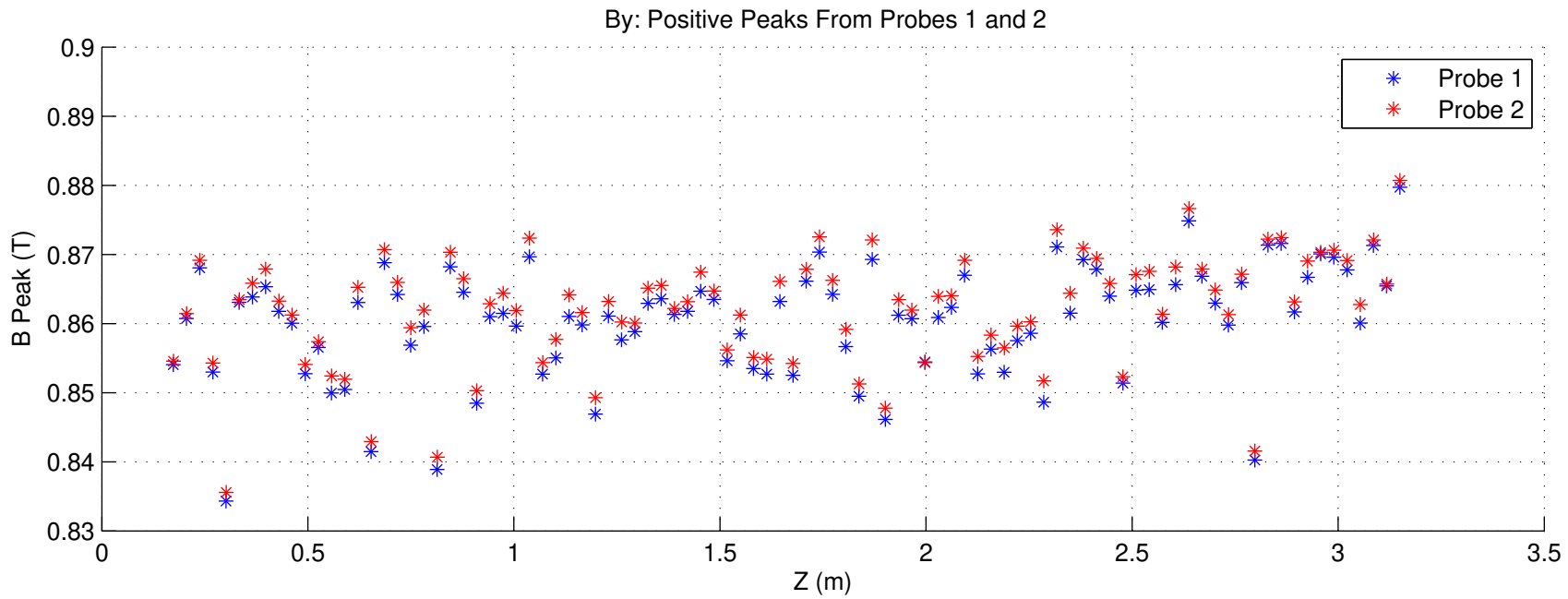

Probe 2: Bx vs Z With Fitted Peaks And Zeros
Bx (T)
0.06
0.04
0.02
0
−0.02
−0.04
−0.06
0
0.5
1
1.5
2
2.5
3
3.5
Z (m)

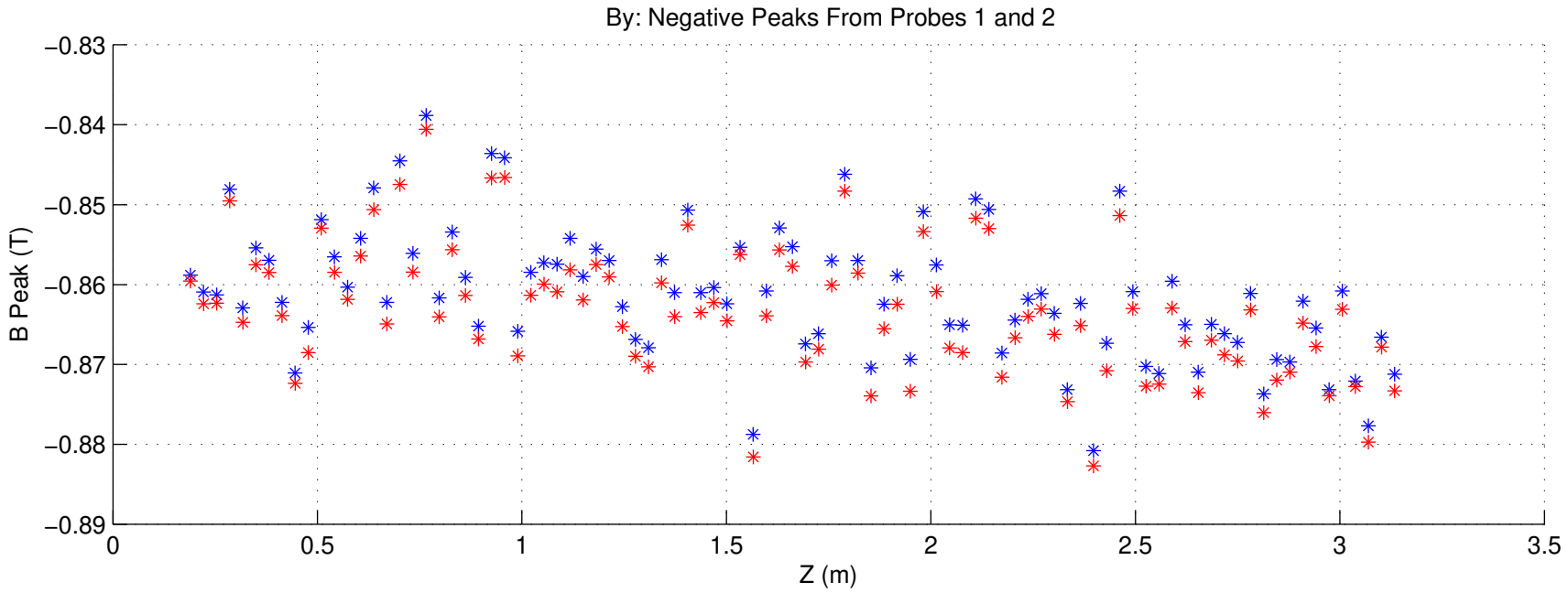

Probe 2: By vs Z With Fitted Peaks And Zeros
By (T)
1
0.5
0
−0.5
−1
0
0.5
1
1.5
2
2.5
3
3.5
Z (m)

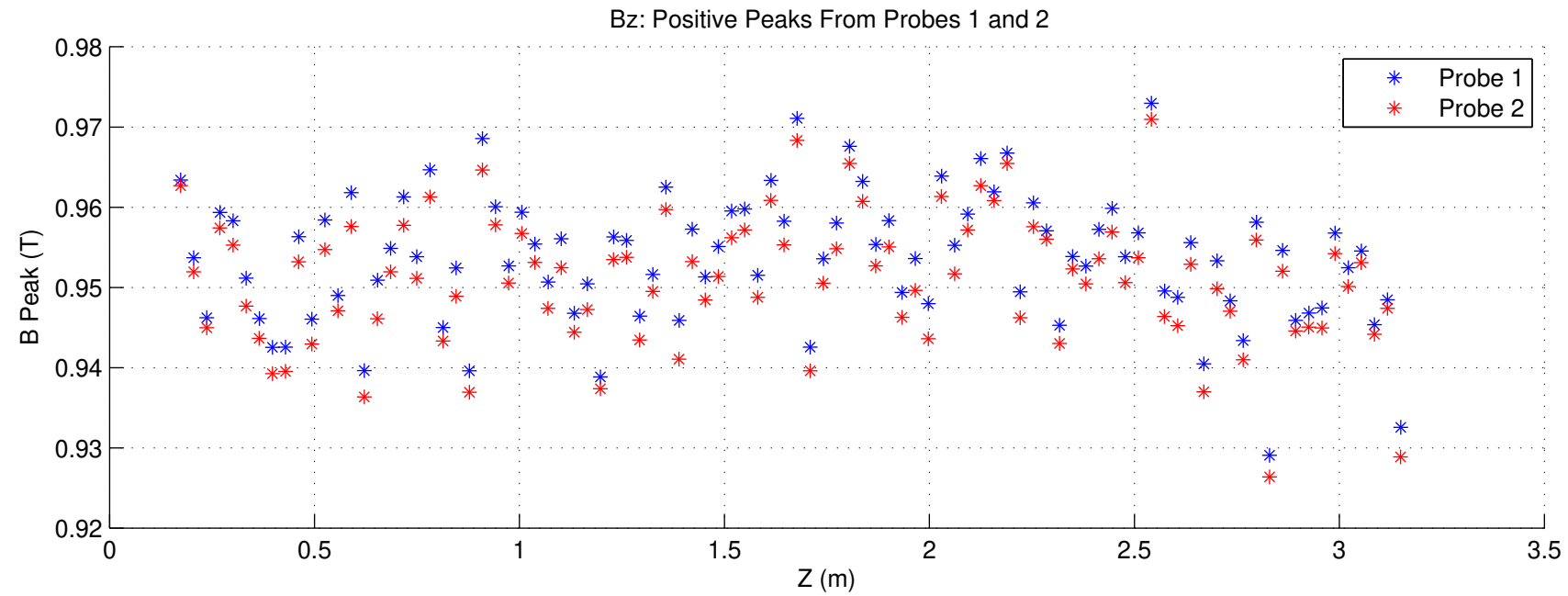

Probe 2: Bz vs Z With Fitted Peaks And Zeros
Bz (T)
1
0.5
0
−0.5
−1
0
0.5
1
1.5
2
2.5
3
3.5
Z (m)

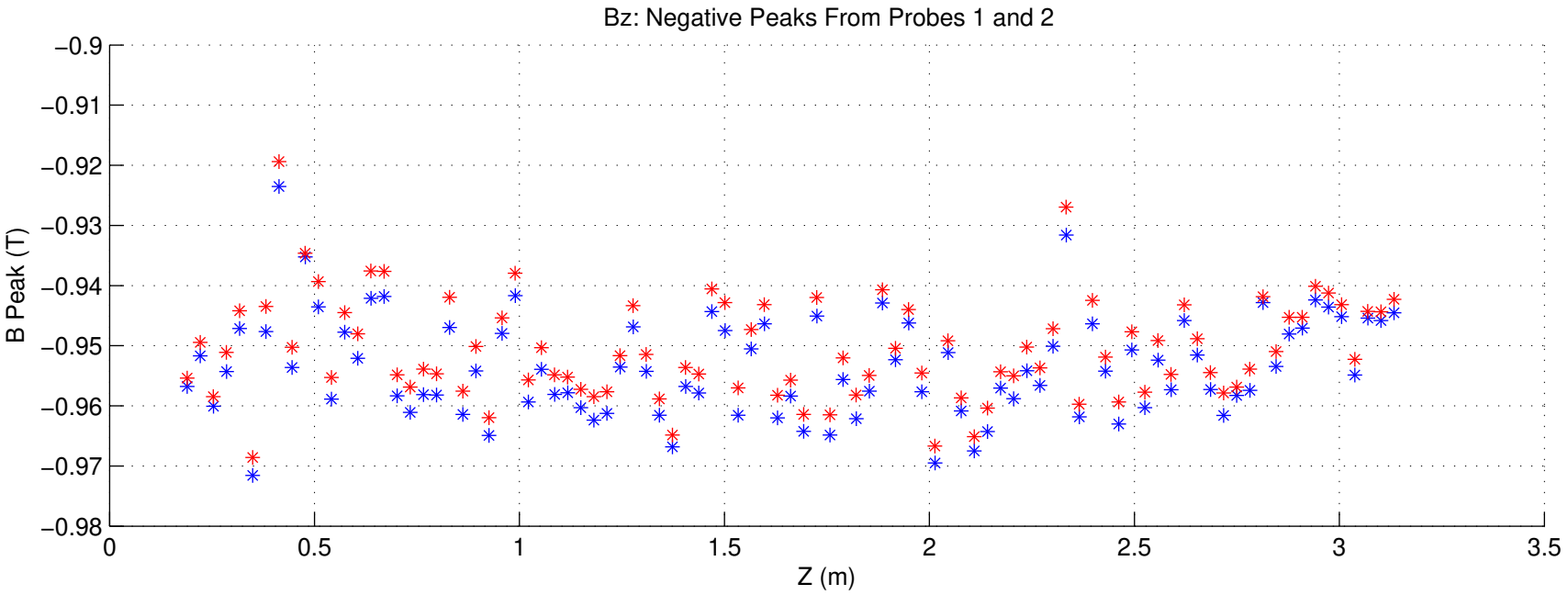

Bx: Positive Peaks From Probes 1 and 2
Probe 1
Probe 2
B Peak (T)
Z (m)
0.05
0.045
0.04
0.035
0.03
0.025
0.02
0.015
0.01
0
0.5
1
1.5
2
2.5
3
3.5


Bx: Negative Peaks From Probes 1 and 2
B Peak (T)
Z (m)
−0.01
−0.015
−0.02
−0.025
−0.03
−0.035
−0.04
−0.045
−0.05
−0.055
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)
0.9
0.89
0.88
0.87
0.86
0.85
0.84
0.83
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)
−0.83
−0.84
−0.85
−0.86
−0.87
−0.88
−0.89
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)
0.98
0.97
0.96
0.95
0.94
0.93
0.92
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)
−0.9
−0.91
−0.92
−0.93
−0.94
−0.95
−0.96
−0.97
−0.98
0
0.5
1
1.5
2
2.5
3
3.5