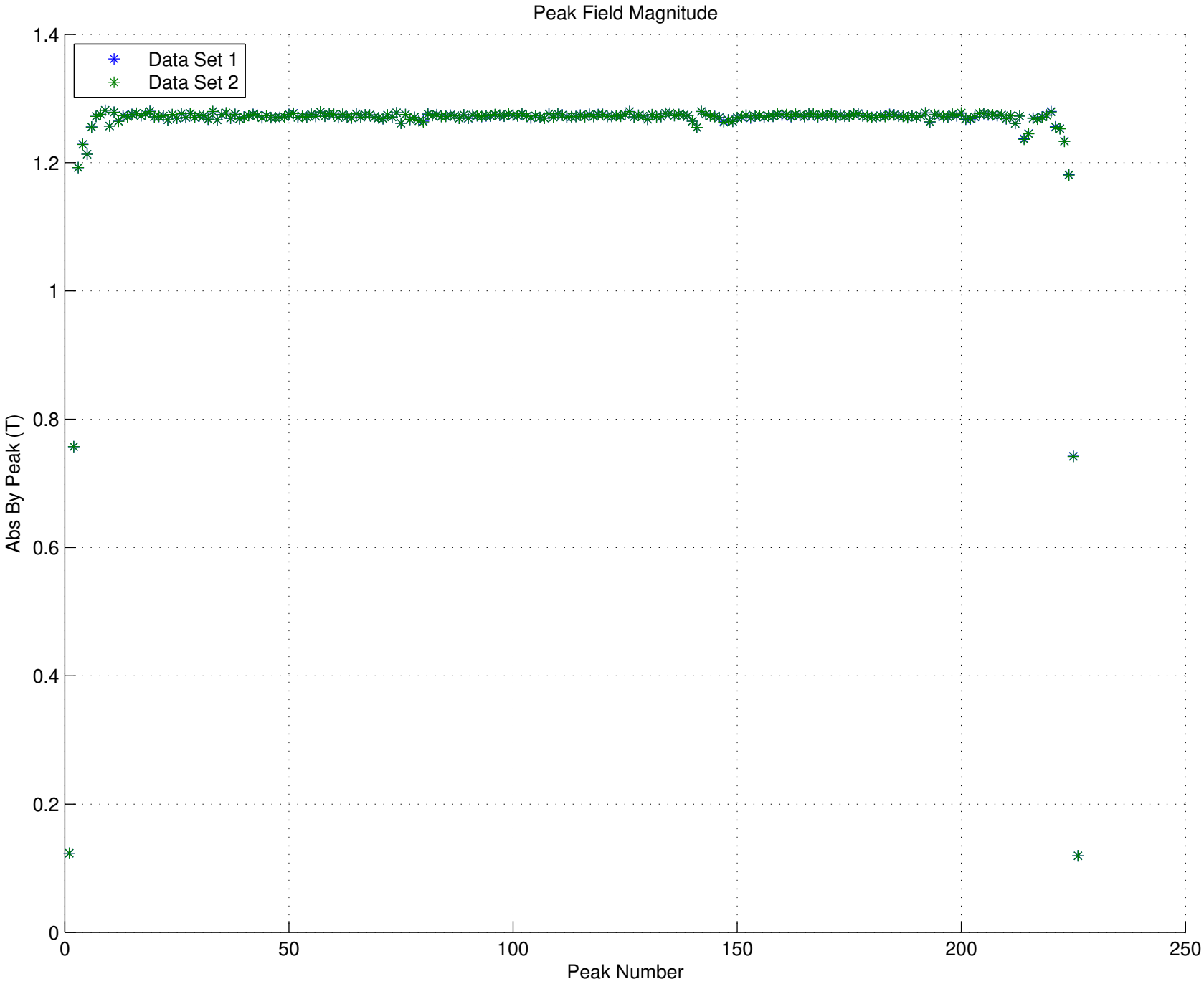
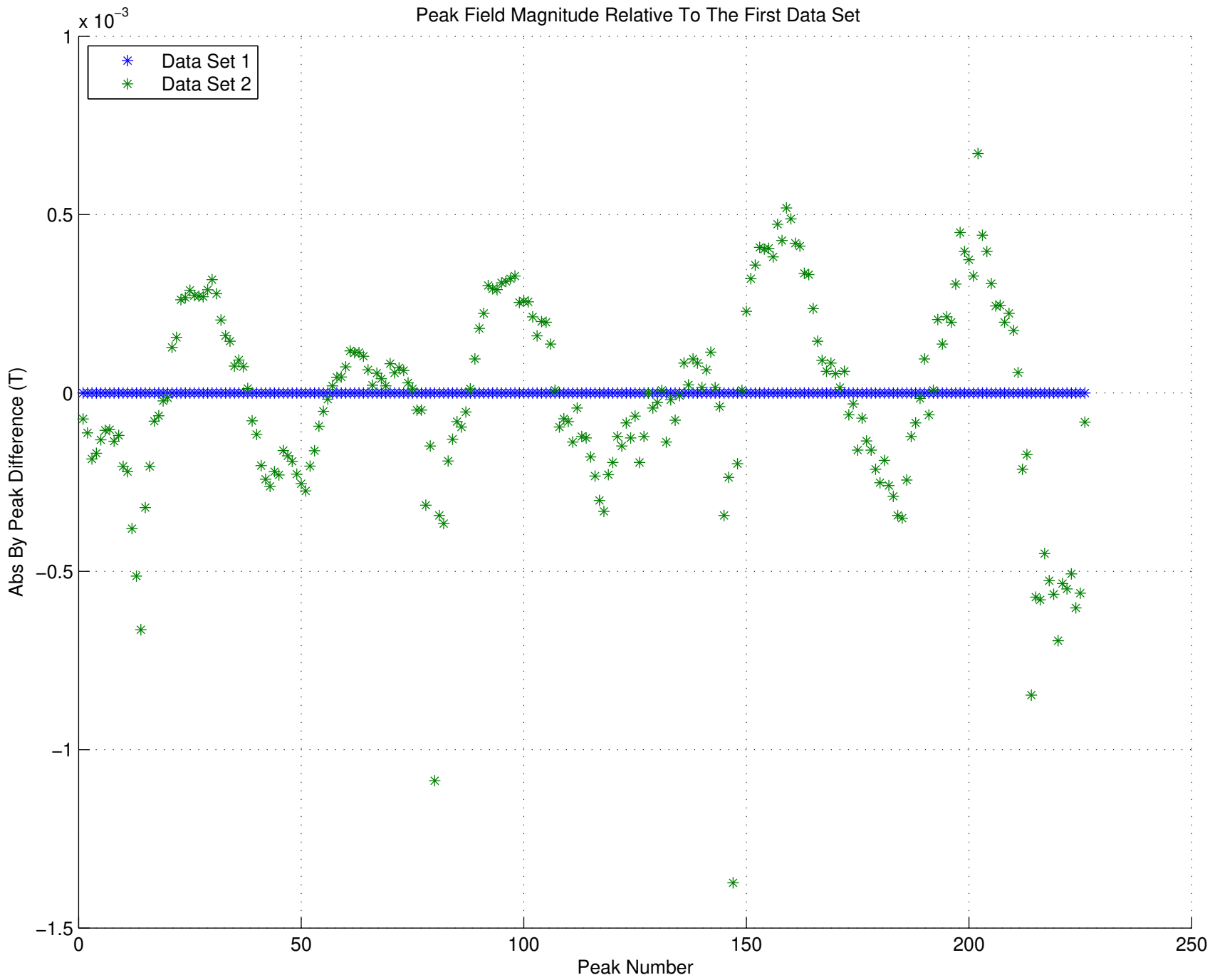
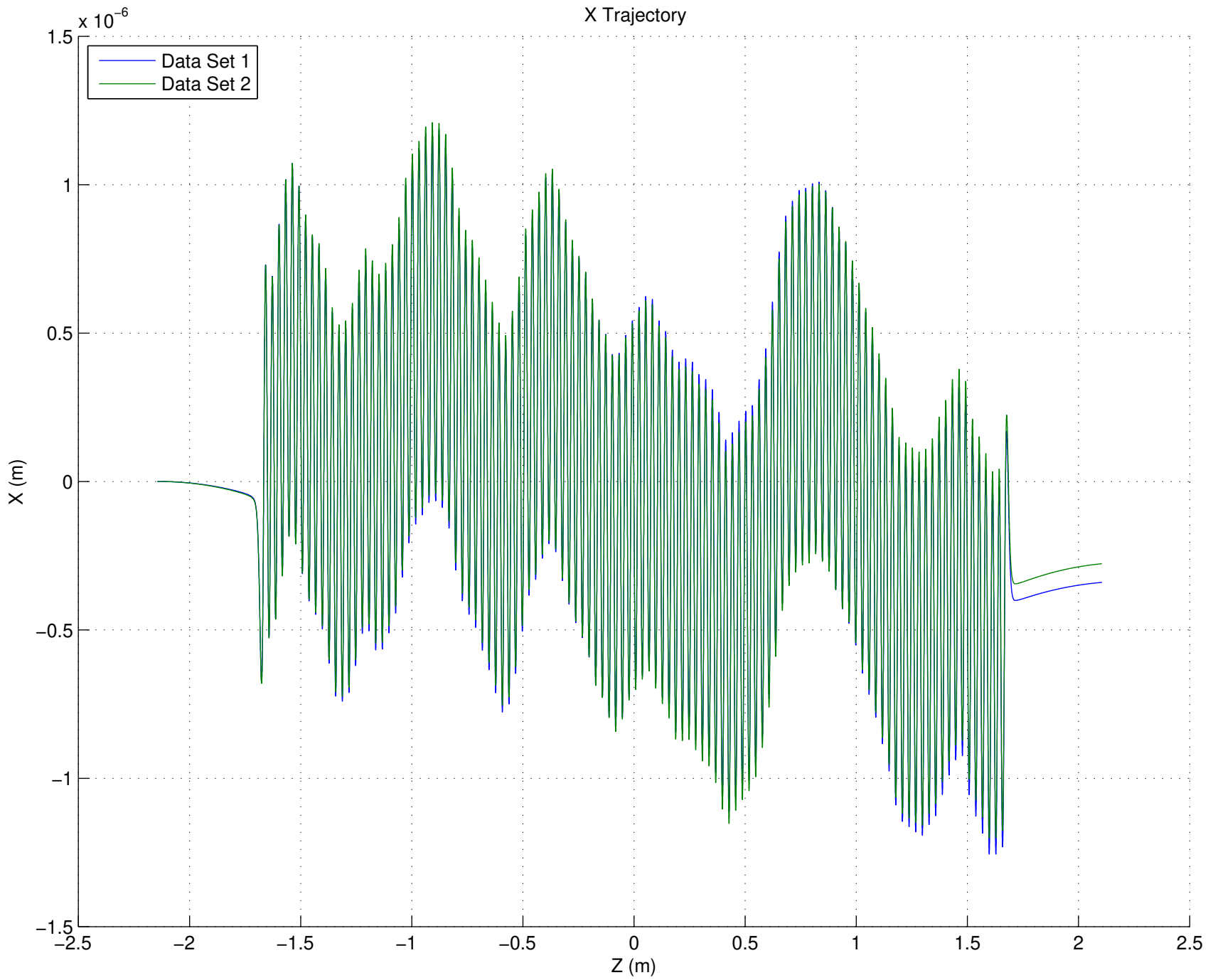
SLAC Magnetic Measurements
Undulator Analysis Comparison

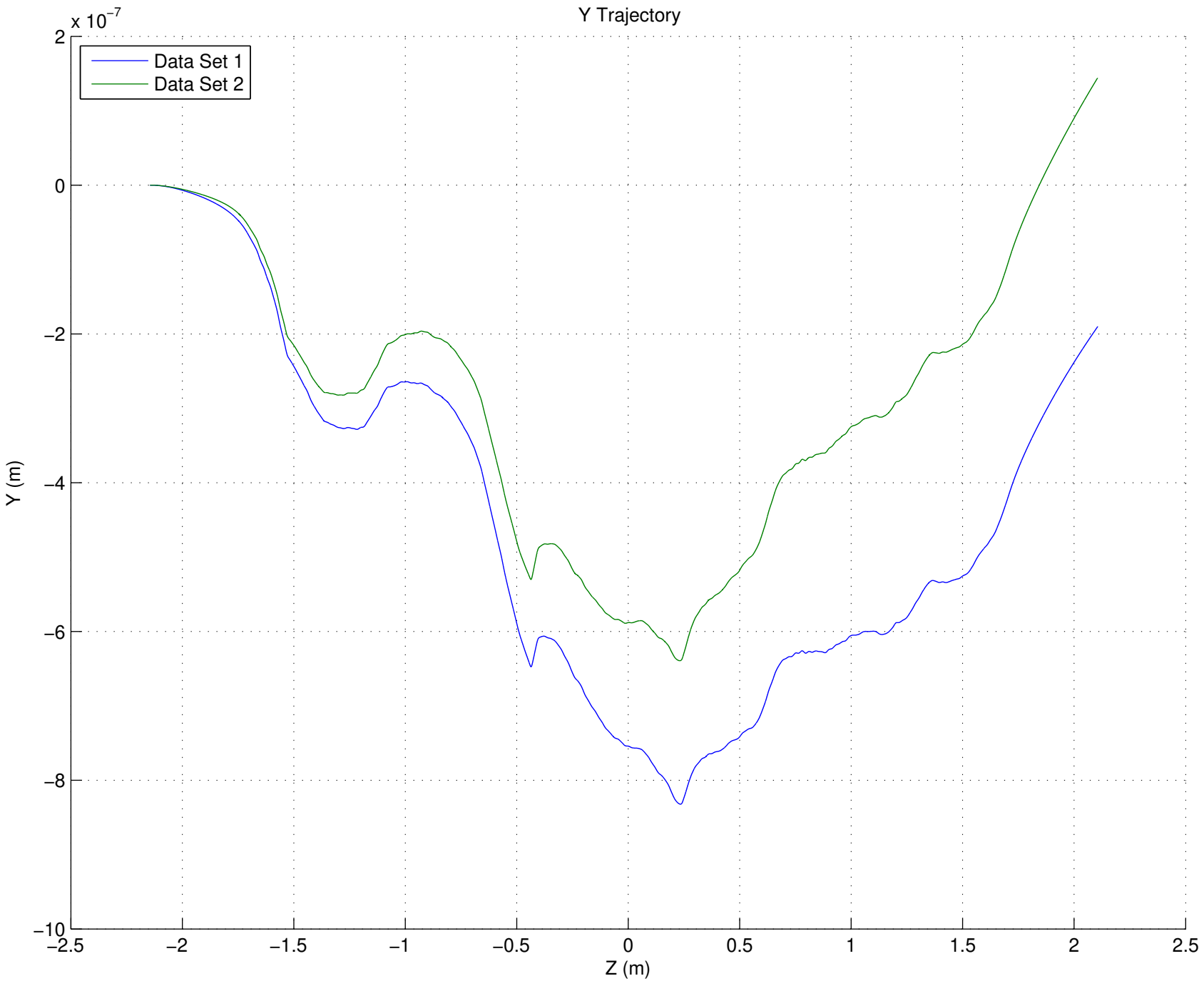
Title:
SN39, Datasets 1 and 2

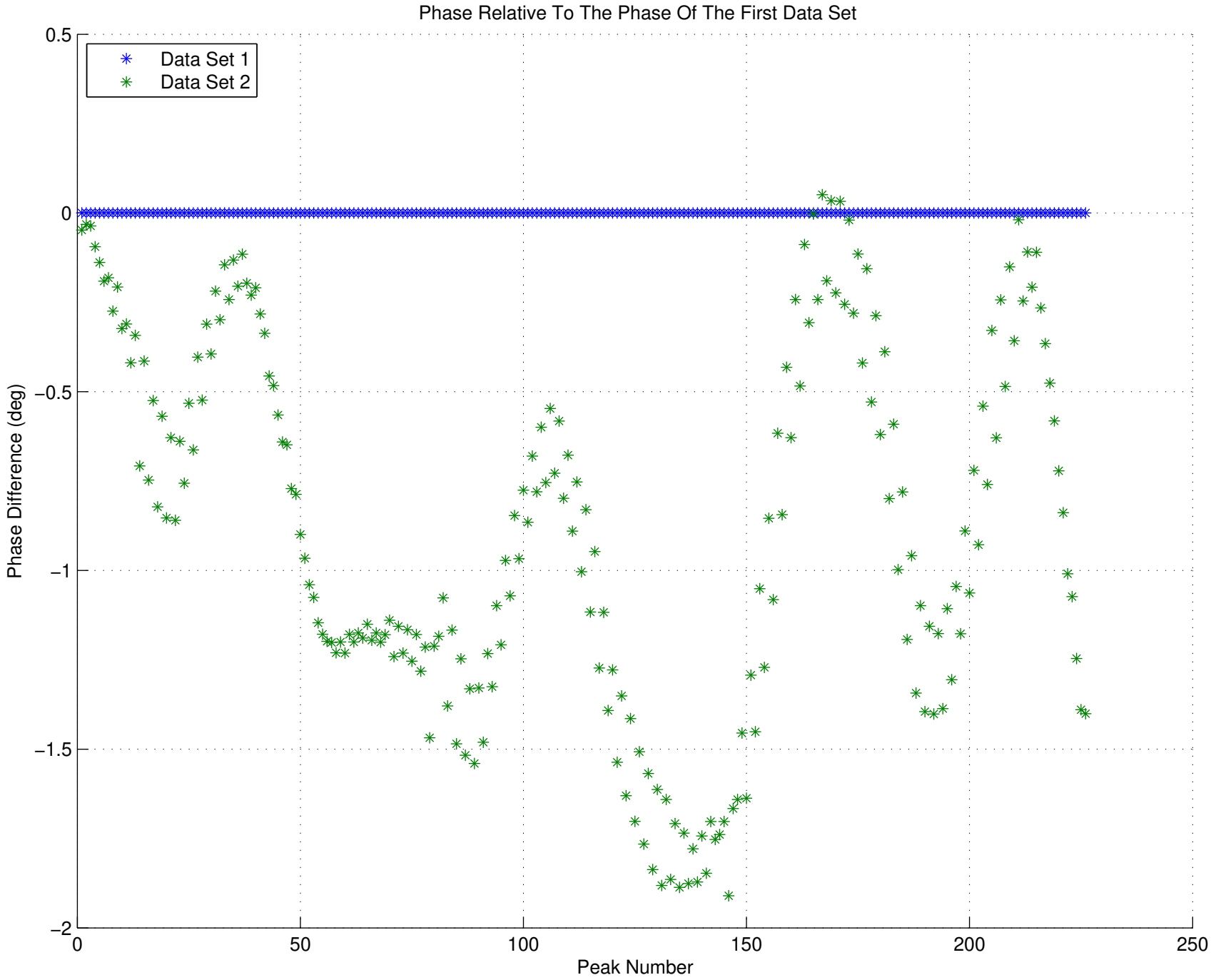
Input Files:
1) V:\MET\MagServe\MagData\LCLS\Undulator\L143−112000−39\DATASET0001\Fine Tuning\Z Scans\Run 013\id_anal.mat
2) V:\MET\MagServe\MagData\LCLS\Undulator\L143−112000−39\DATASET0002\Fine Tuning\Z Scans\Run 004\id_anal.mat

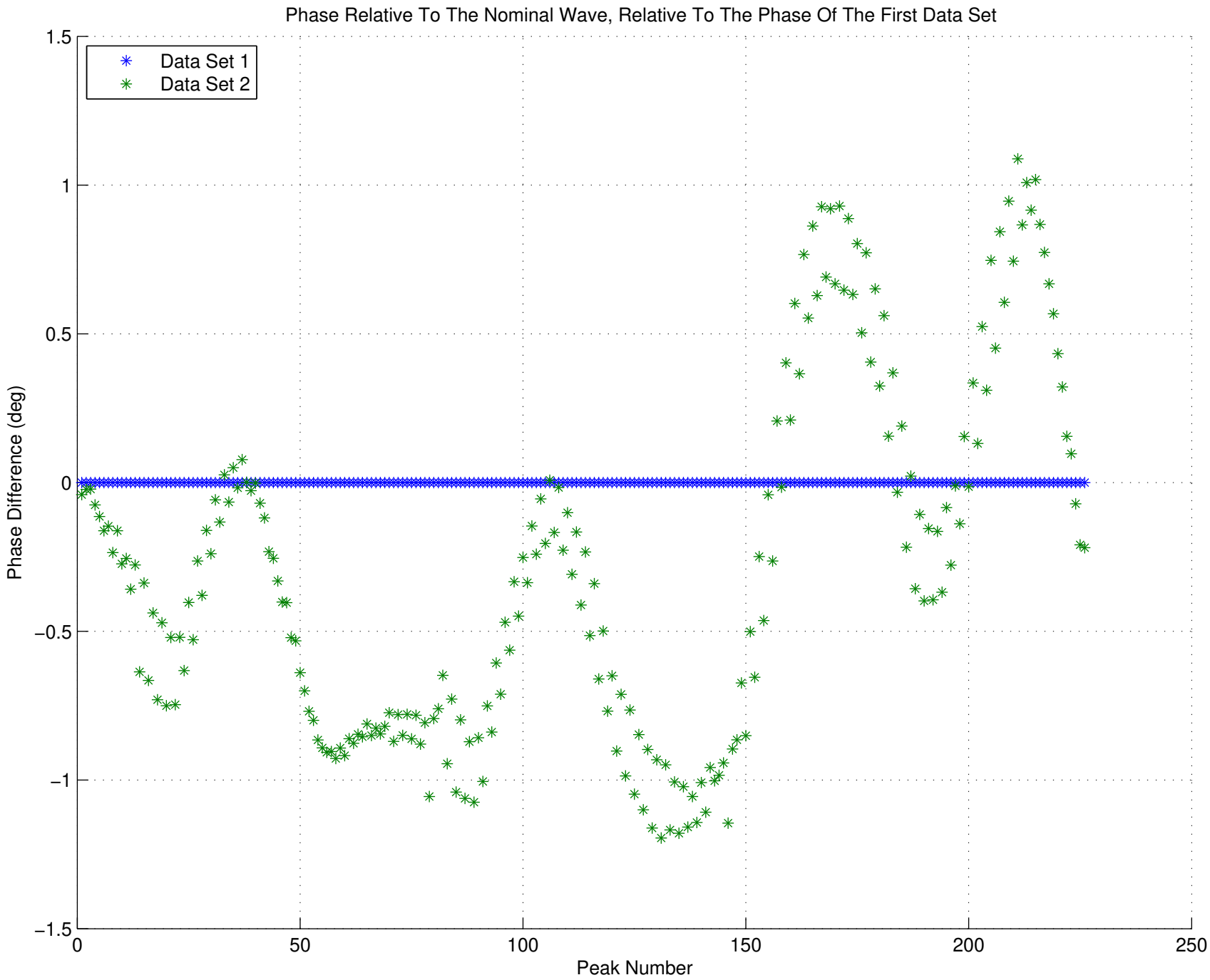

Peak Field Magnitude
Data Set 1
Data Set 2
Abs By Peak (T)
Peak Number
0
0.2
0.4
0.6
0.8
1
1.2
1.4
0
50
100
150
200
250

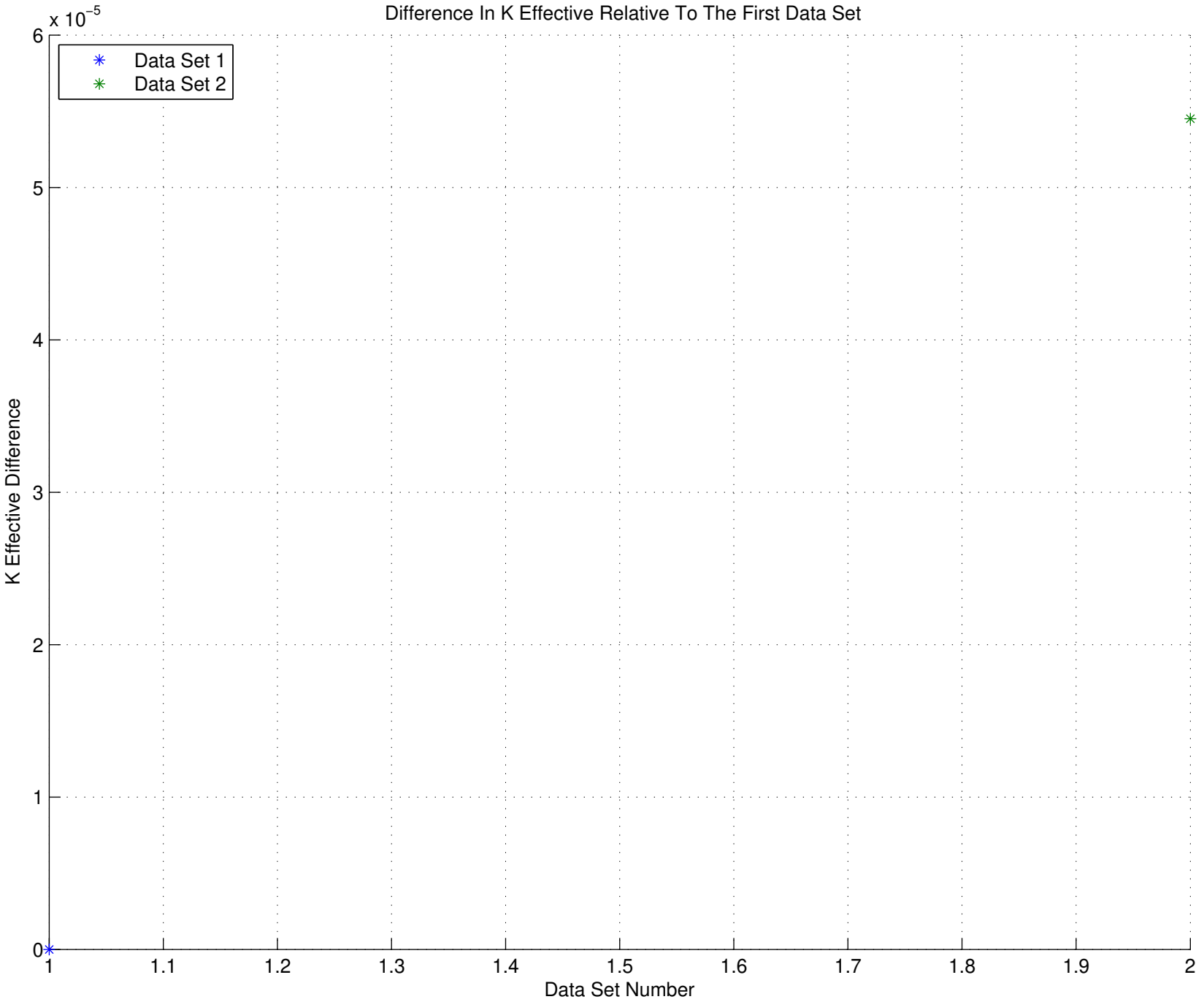

Peak Field Magnitude Relative To The First Data Set
x 10^-3
Data Set 1
Data Set 2
Abs By Peak Difference (T)
Peak Number
1
0.5
0
−0.5
−1
−1.5
0
50
100
150
200
250

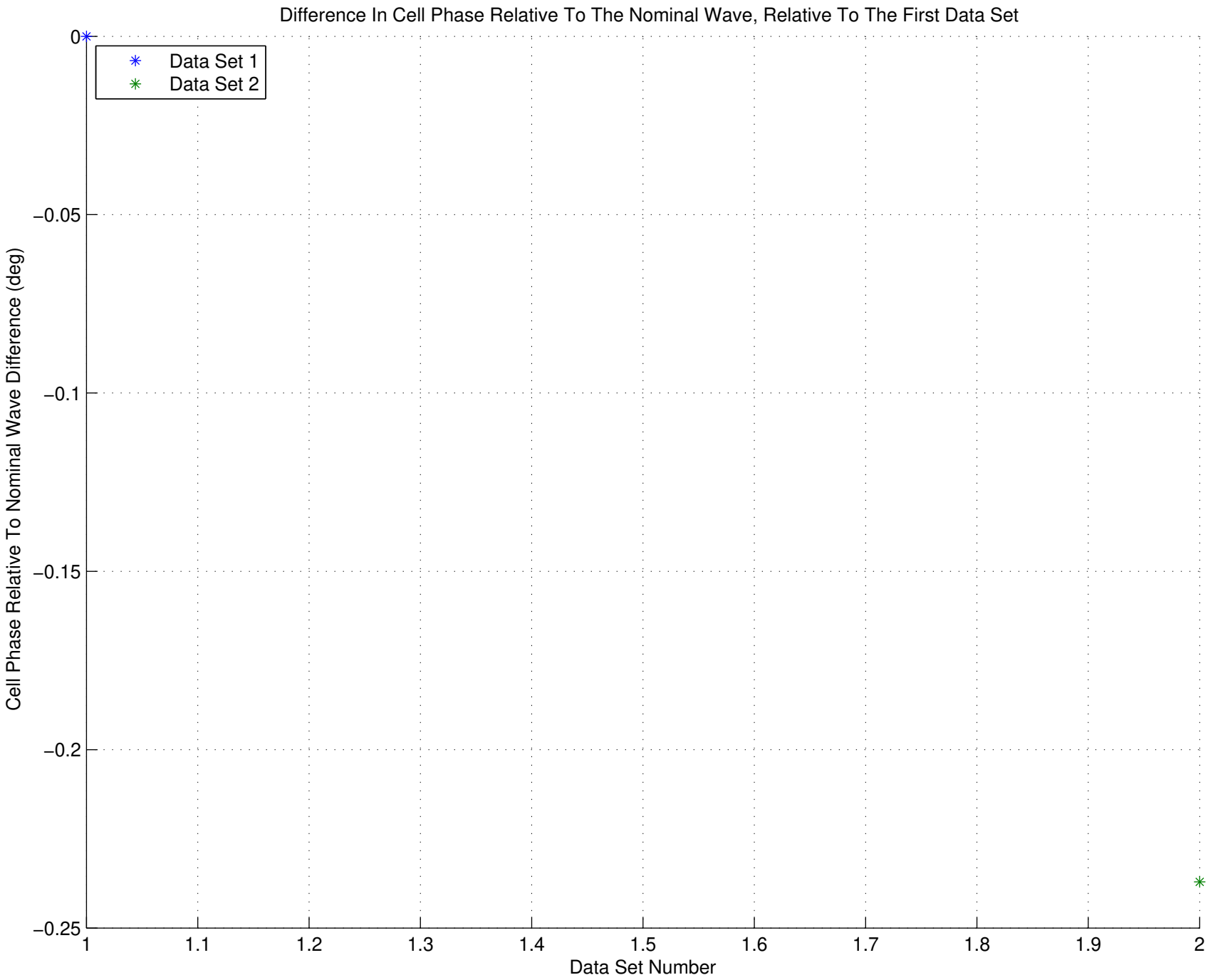

X Trajectory
x 10^-6
Data Set 1
Data Set 2
1.5
1
0.5
0
−0.5
−1
−1.5
X (m)
−2.5
−2
−1.5
−1
−0.5
0
0.5
1
1.5
2
2.5
Z (m)


Y Trajectory
x 10^-7
Data Set 1
Data Set 2
2
0
−2
−4
−6
−8
−10
Y (m)
−2.5
−2
−1.5
−1
−0.5
0
0.5
1
1.5
2
2.5
Z (m)


Phase Relative To The Phase Of The First Data Set
Data Set 1
Data Set 2
Phase Difference (deg)
Peak Number
0.5
0
−0.5
−1
−1.5
−2
0
50
100
150
200
250


Phase Relative To The Nominal Wave, Relative To The Phase Of The First Data Set
Data Set 1
Data Set 2
Phase Difference (deg)
Peak Number
1.5
1
0.5
0
−0.5
−1
−1.5
0
50
100
150
200
250


Difference In K Effective Relative To The First Data Set
x 10^-5
Data Set 1
Data Set 2
K Effective Difference
Data Set Number
0
1
2
3
4
5
6
1
1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9
2


Difference In Cell Phase Relative To The Nominal Wave, Relative To The First Data Set
Data Set 1
Data Set 2
Cell Phase Relative To Nominal Wave Difference (deg)
0
−0.05
−0.1
−0.15
−0.2
−0.25
1
1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9
2
Data Set Number