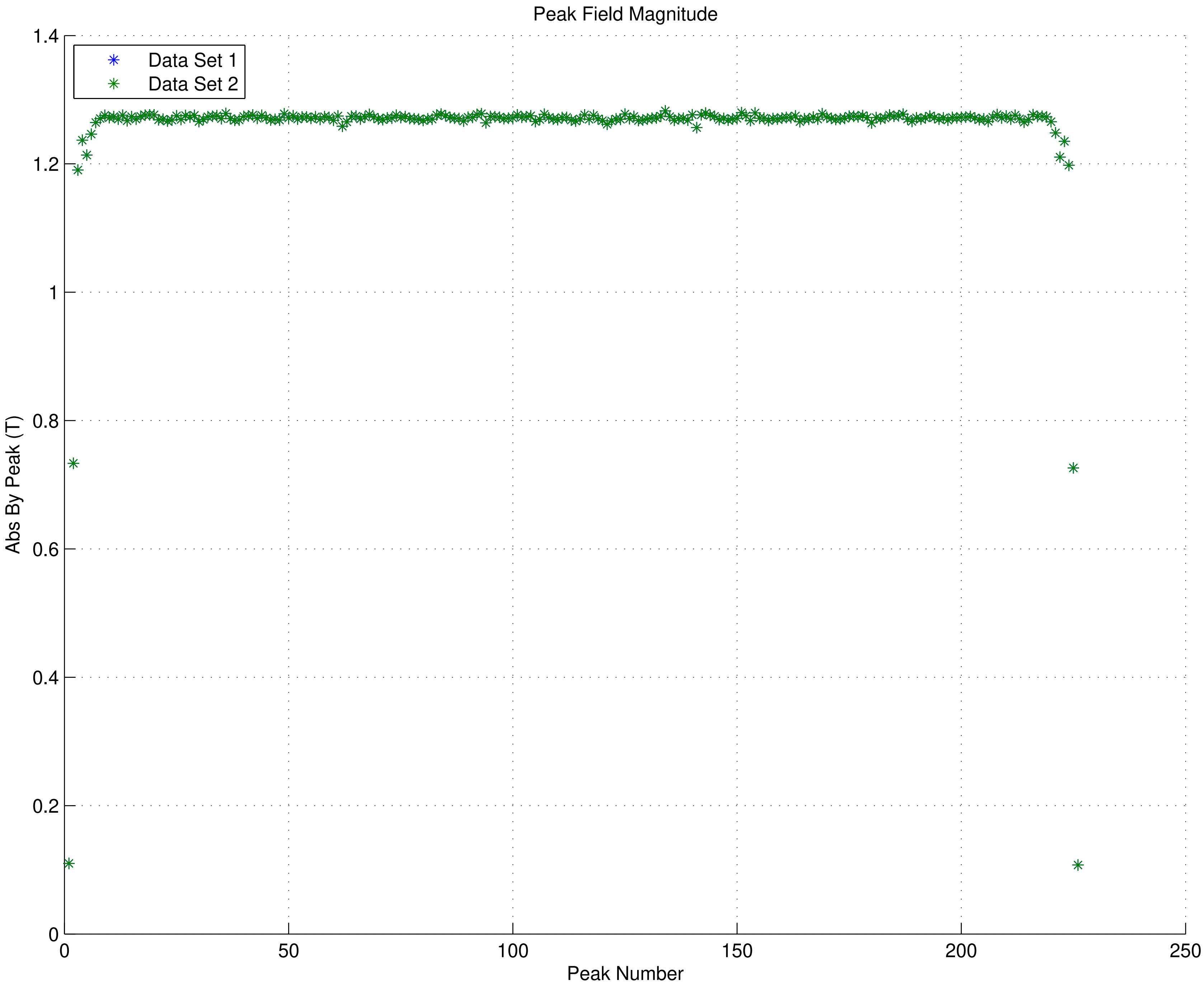
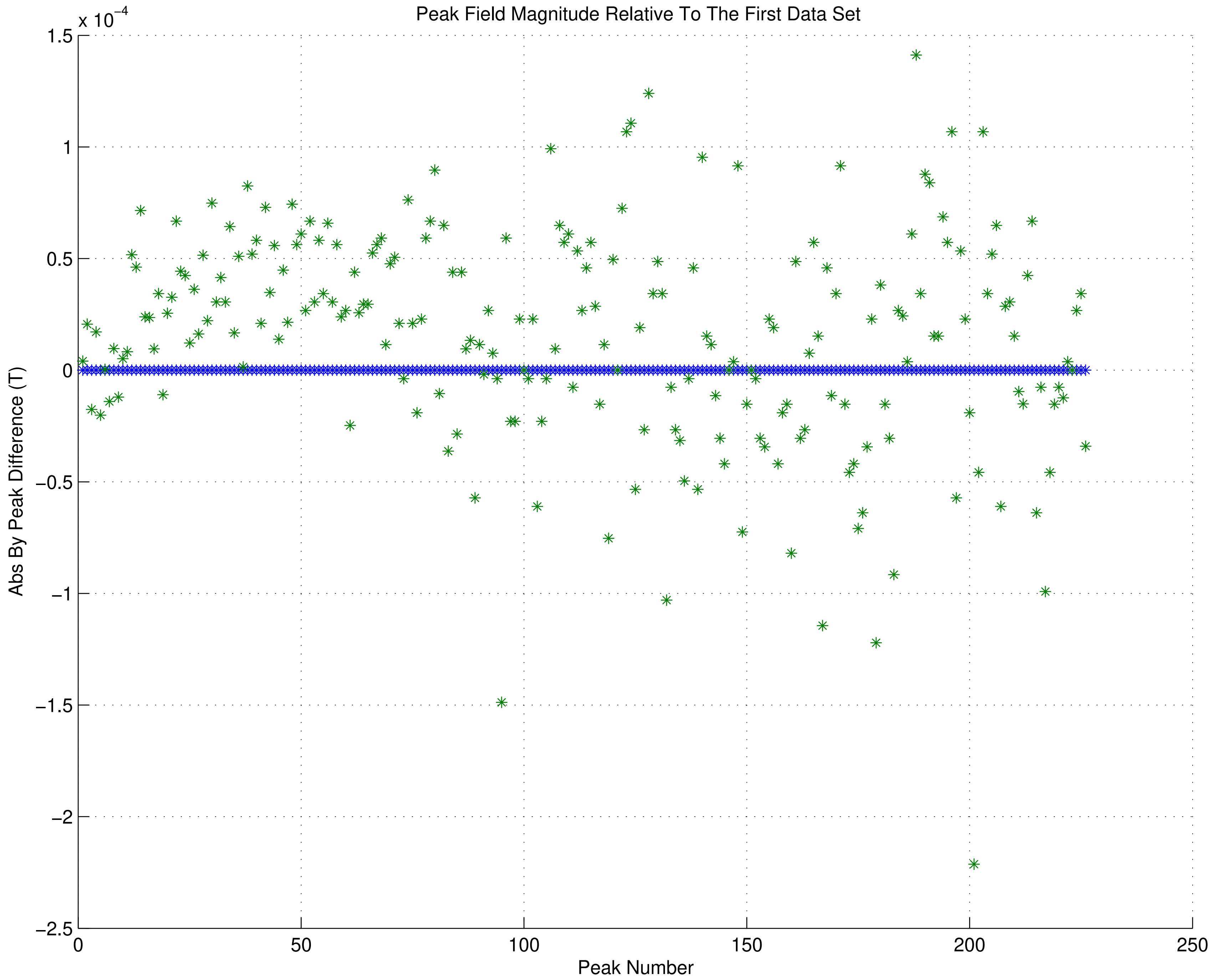
SLAC Magnetic Measurements
Undulator Analysis Comparison

Title:
SN28, Datasets 1, 2

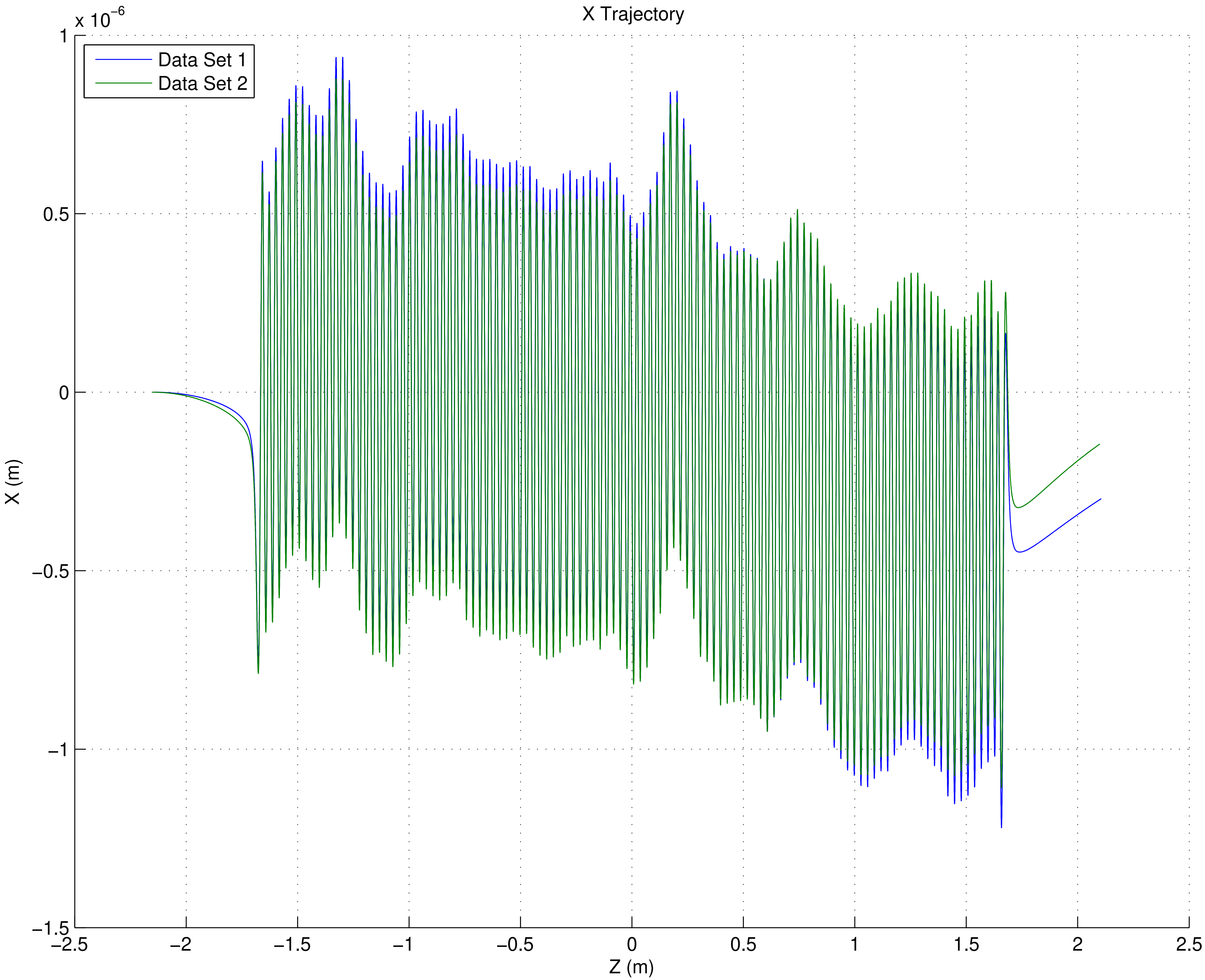
Input Files:
1) S:\MagData\LCLS\Undulator\L143−112000−15\DATASET0002\Fine Tuning\Z Scans\Run 010\id_anal.mat
2) S:\MagData\LCLS\Undulator\L143−112000−15\DATASET0003\Fine Tuning\Z Scans\Run 005\id_anal.mat



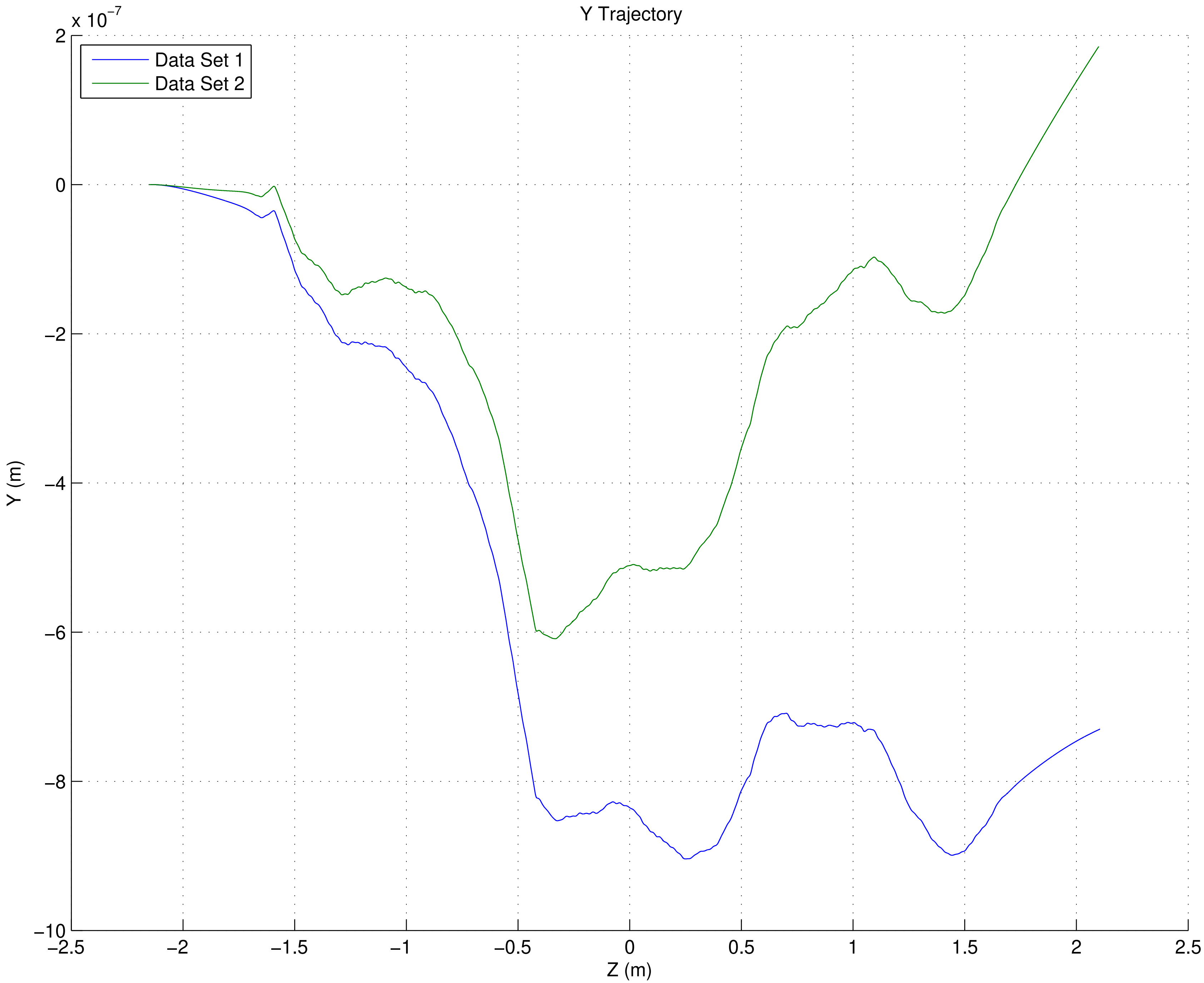
Peak Field Magnitude
Data Set 1
Data Set 2
Abs By Peak (T)
Peak Number
0
0.2
0.4
0.6
0.8
1
1.2
1.4
0
50
100
150
200
250

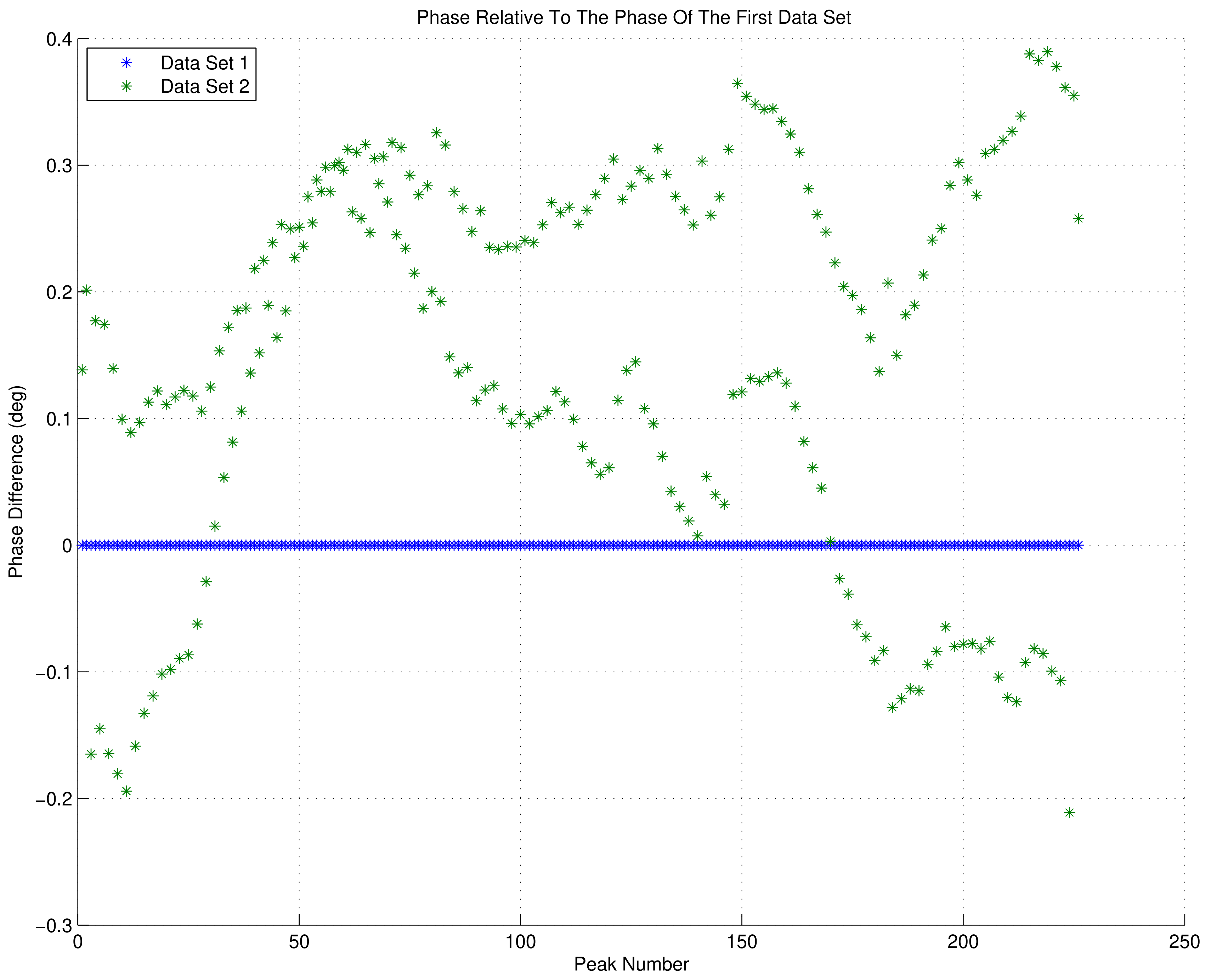


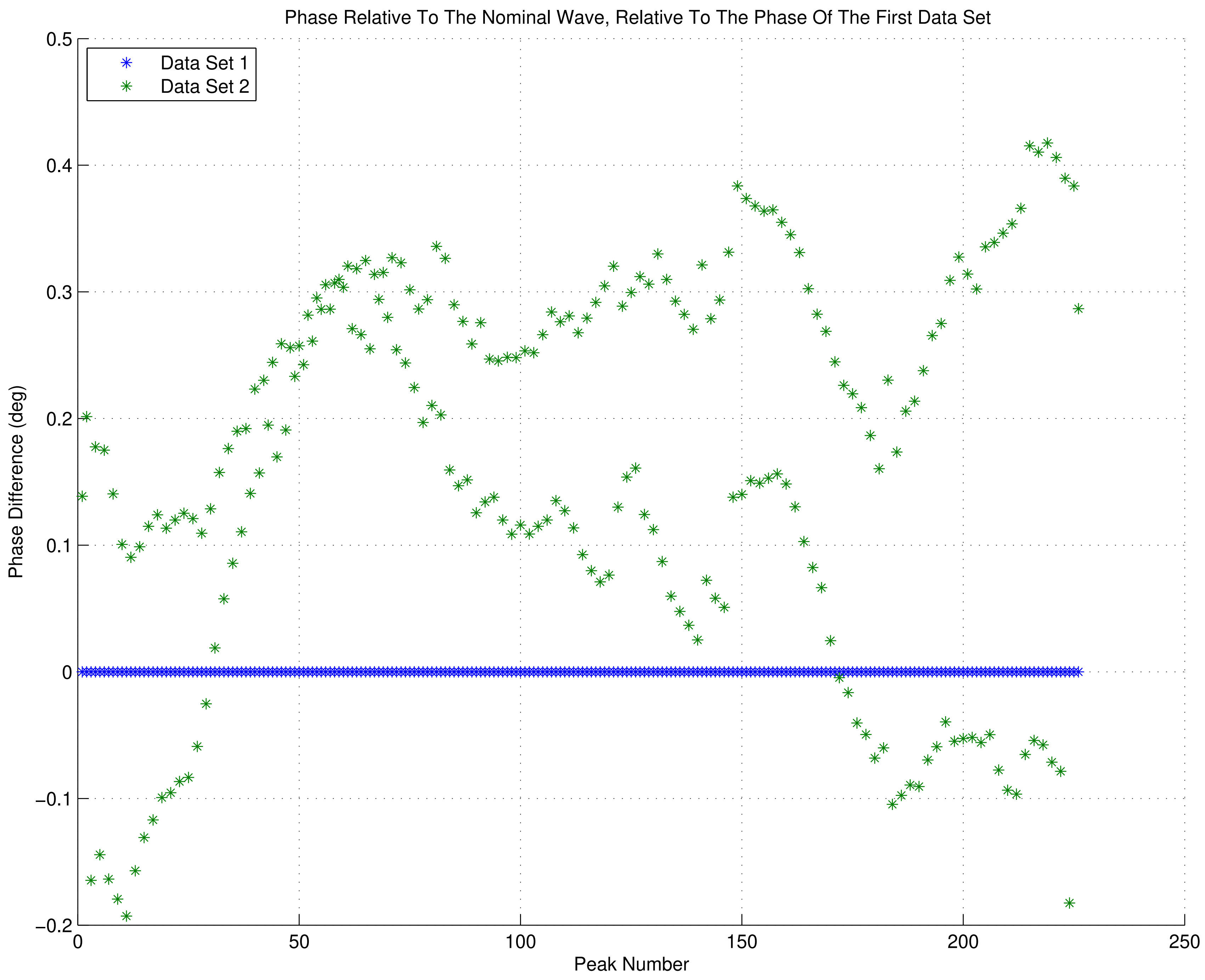
Peak Field Magnitude Relative To The First Data Set
x 10^-4
1.5
1
0.5
0
−0.5
−1
−1.5
−2
−2.5
Abs By Peak Difference (T)
0
50
100
150
200
250
Peak Number



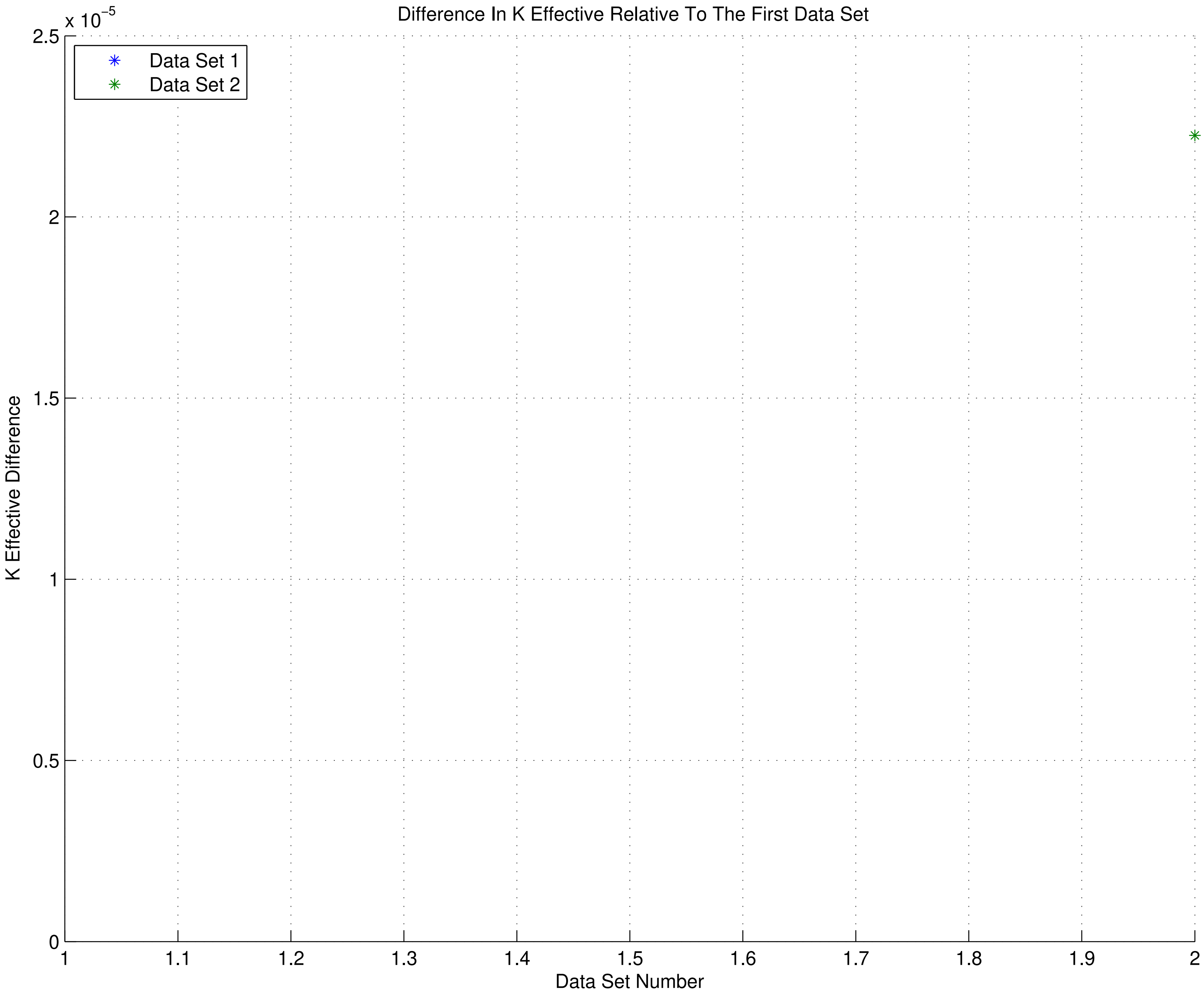
X Trajectory
x 10^−6
Data Set 1
Data Set 2
1
0.5
0
−0.5
−1
−1.5
X (m)
−2.5
−2
−1.5
−1
−0.5
0
0.5
1
1.5
2
2.5
Z (m)


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

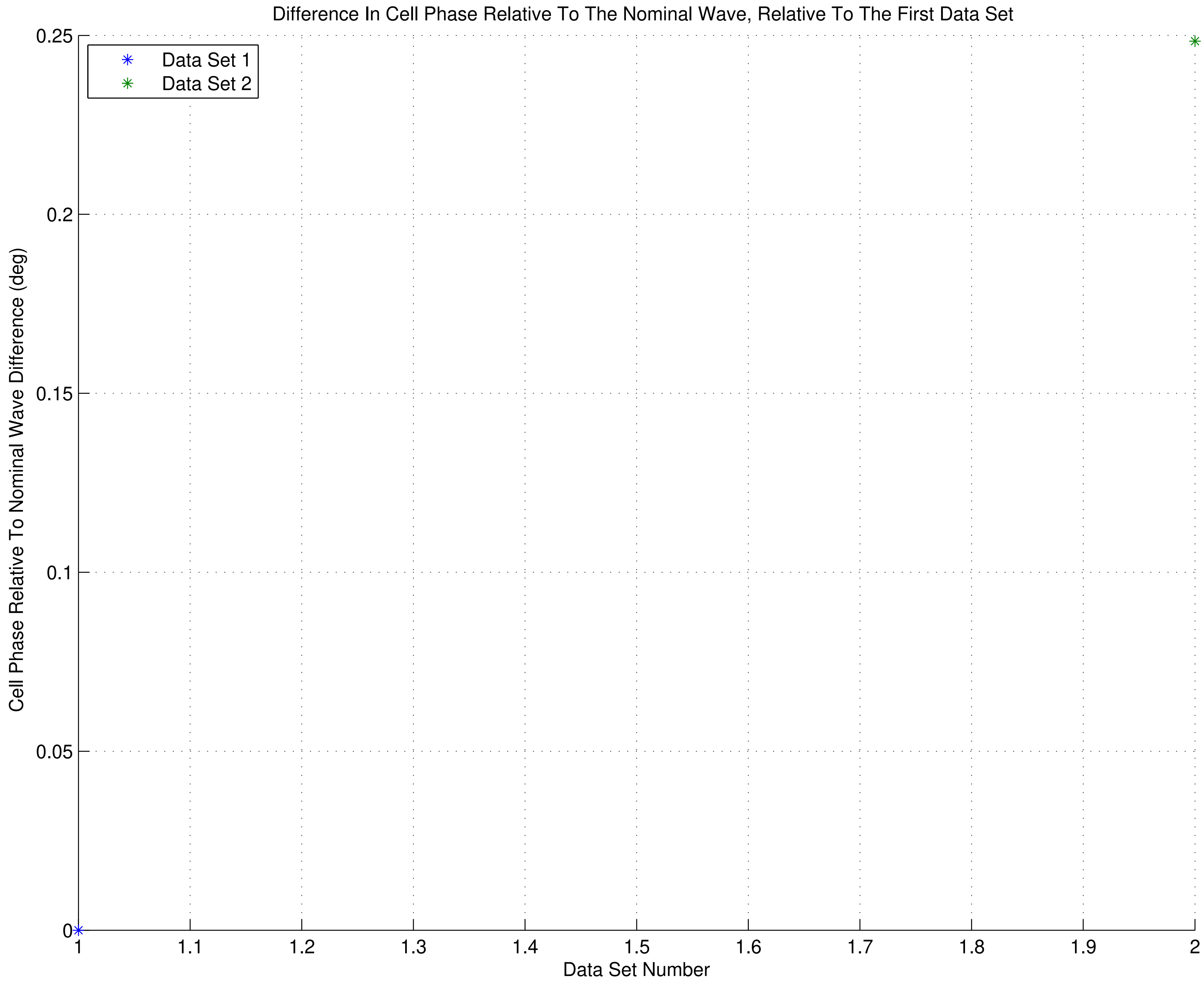

Phase Relative To The Phase Of The First Data Set
Data Set 1
Data Set 2
Phase Difference (deg)
Peak Number
0.4
0.3
0.2
0.1
0
−0.1
−0.2
−0.3
0
50
100
150
200
250



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
0.5
0.4
0.3
0.2
0.1
0
−0.1
−0.2
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
2.5
2
1.5
1
0.5
0
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)
0.25
0.2
0.15
0.1
0.05
0
1
1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9
2
Data Set Number