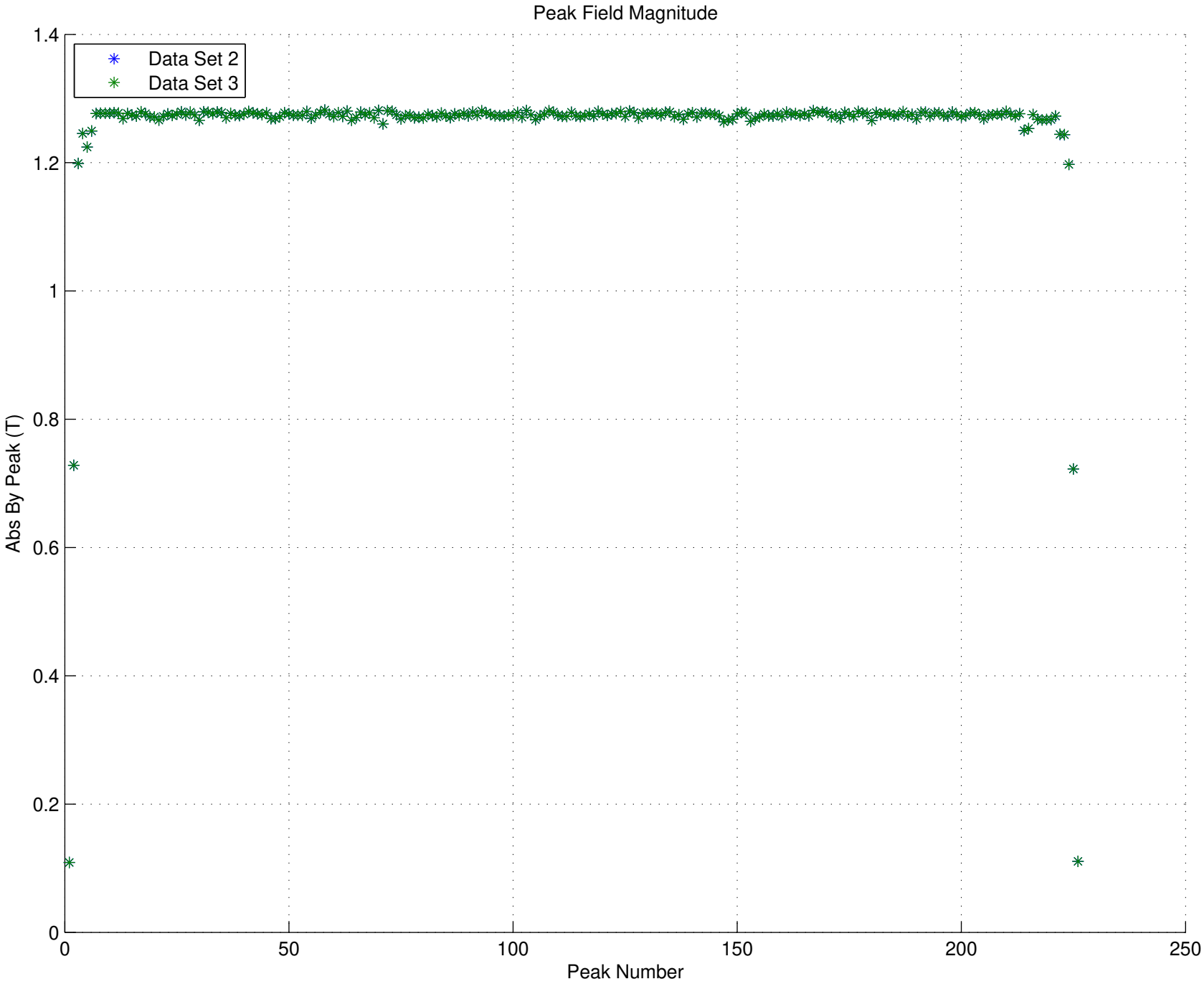
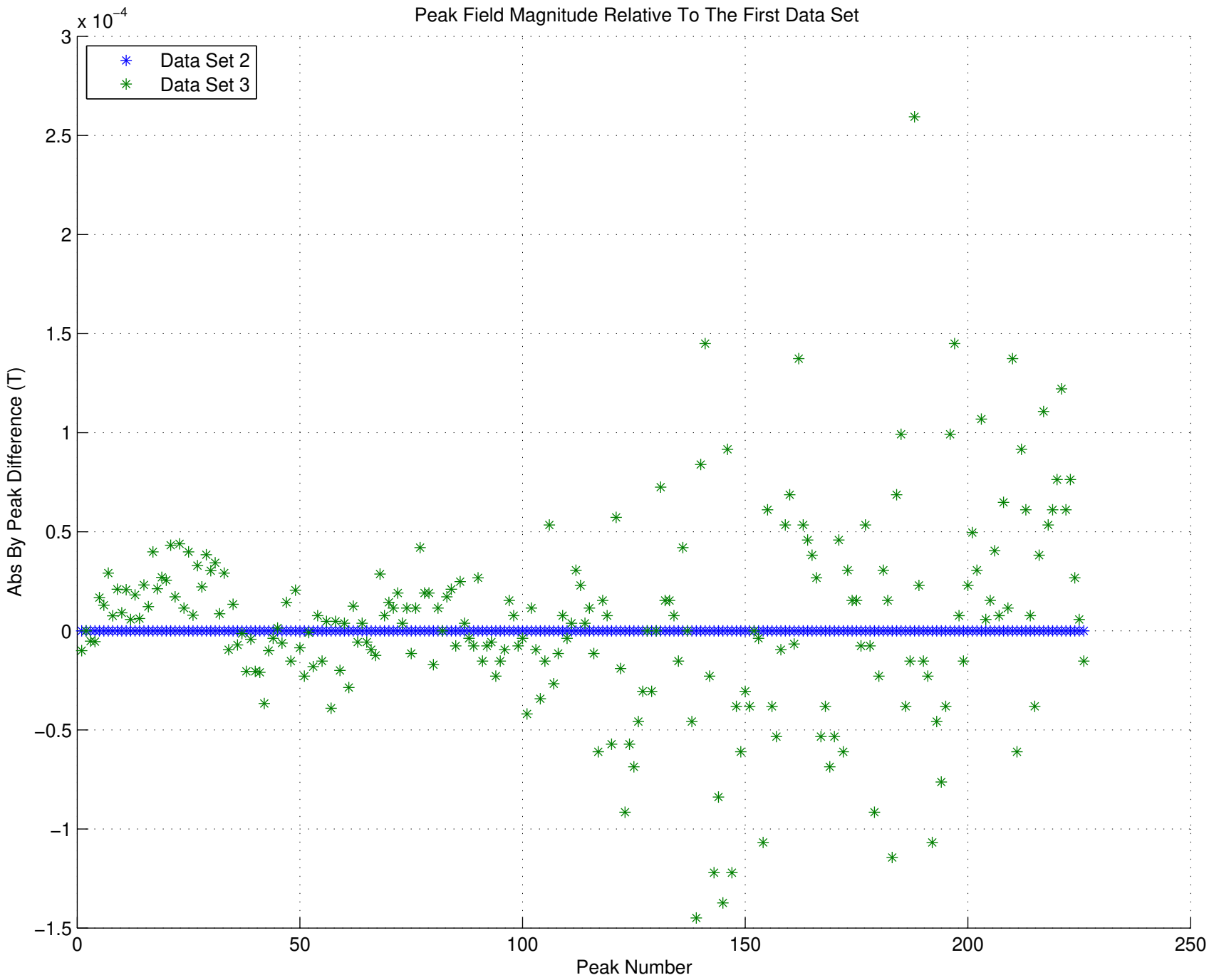
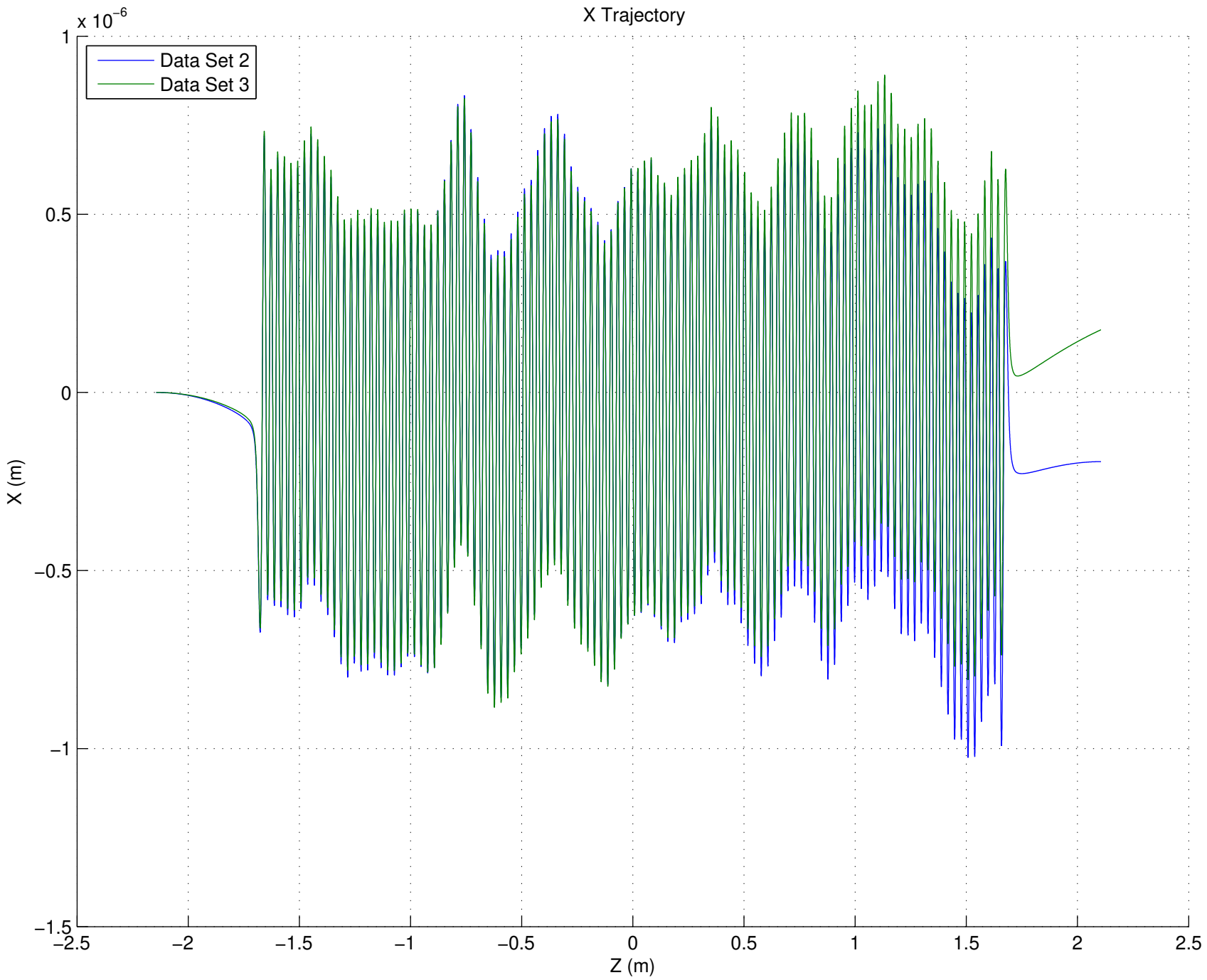
SLAC Magnetic Measurements
Undulator Analysis Comparison

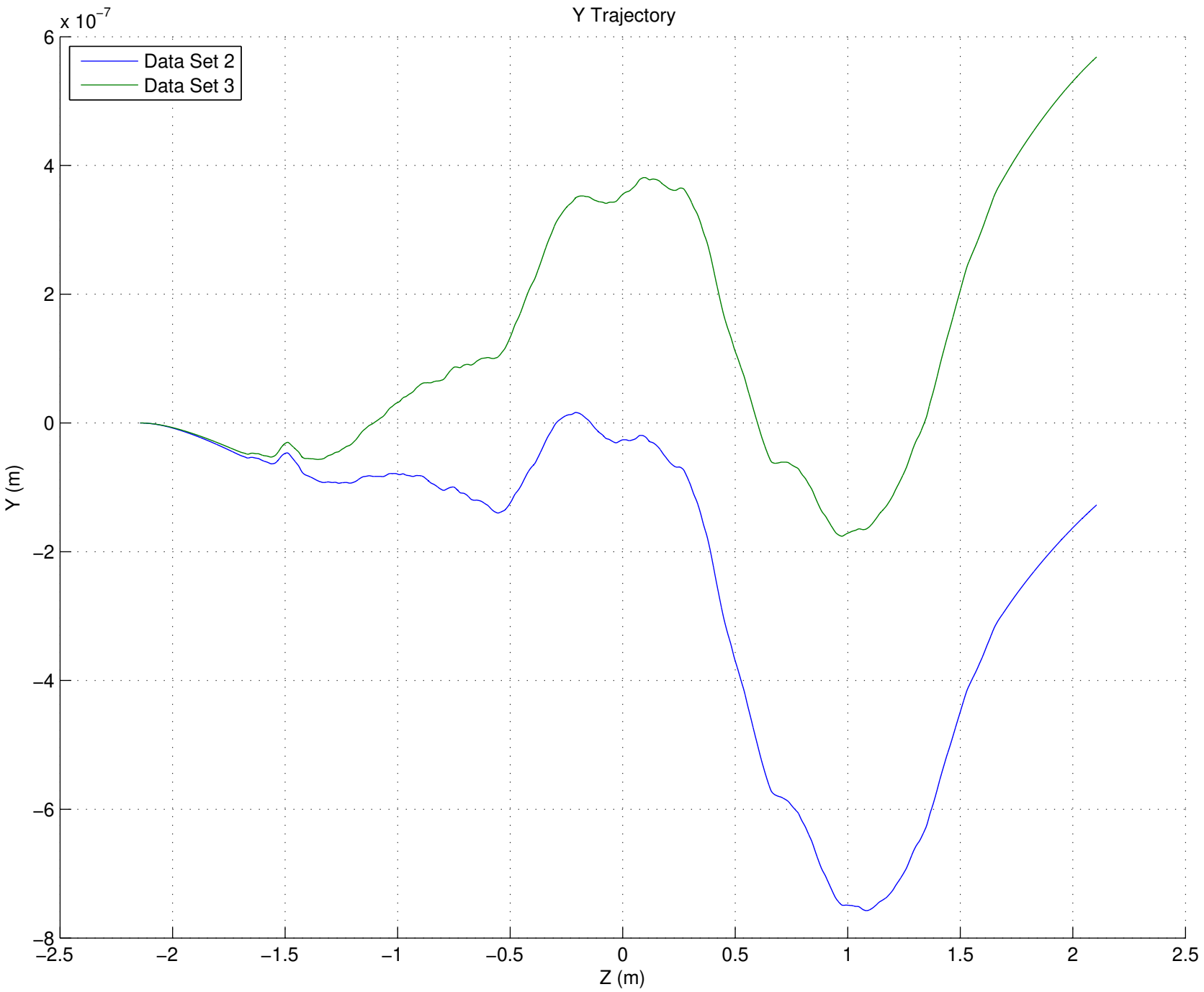
Title:
SN16, Datasets 2 and 3

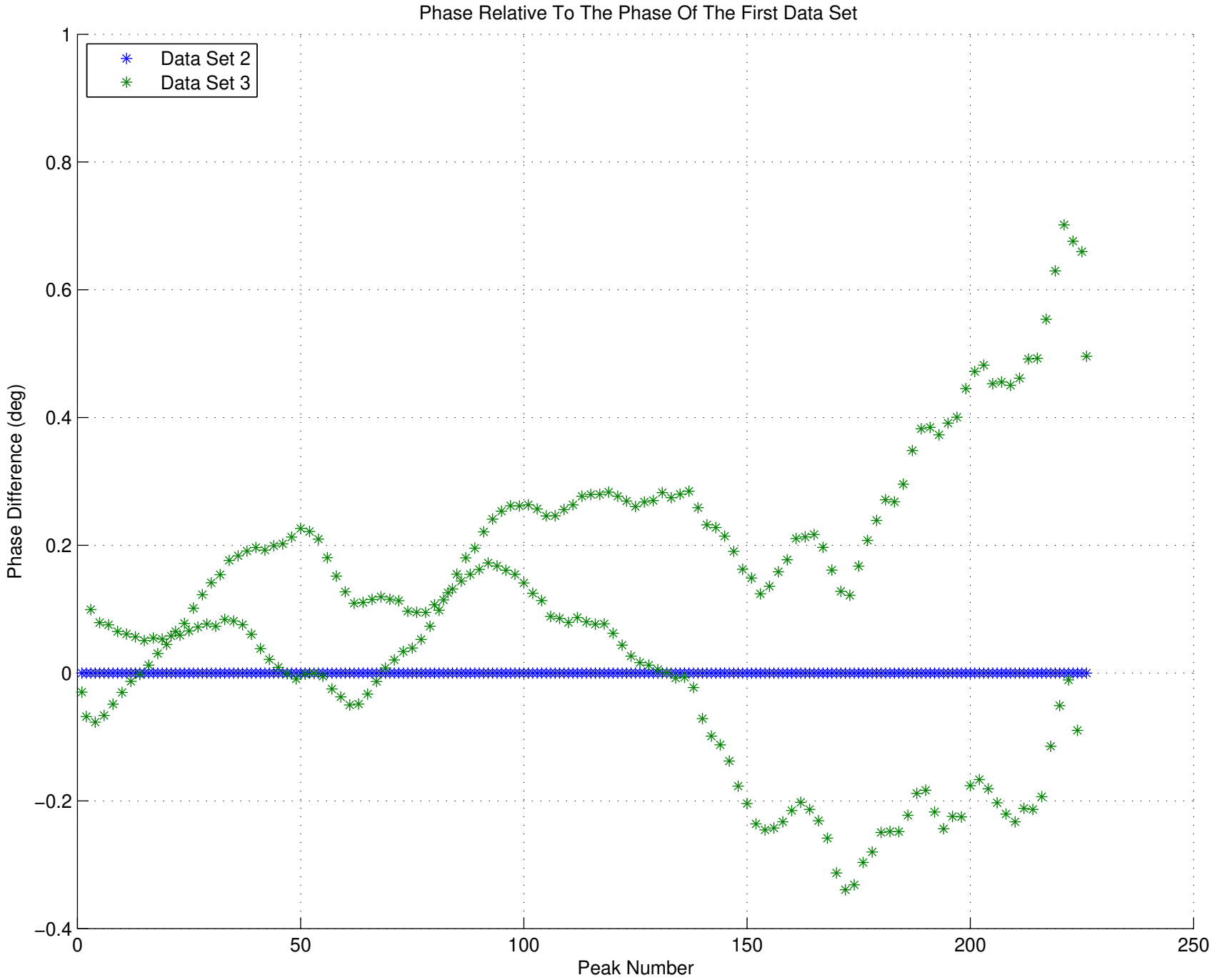
Input Files:
1) V:\MET\MagServe\MagData\LCLS\Undulator\L143−112000−16\DATASET0002\Fine Tuning\Z Scans\Run 004\id_anal.mat
2) V:\MET\MagServe\MagData\LCLS\Undulator\L143−112000−16\DATASET0003\Fine Tuning\Z Scans\Run 006\id_anal.mat

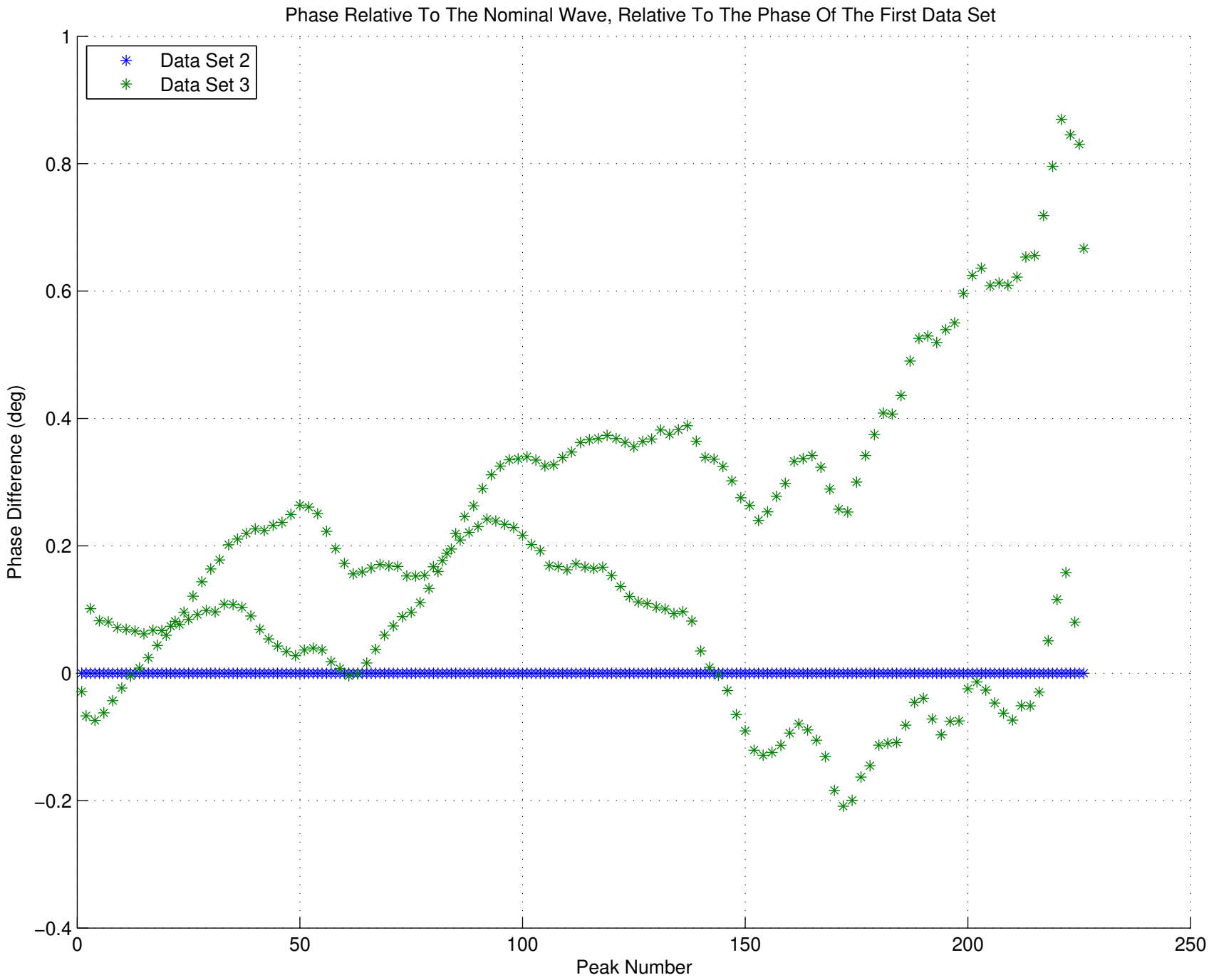

Peak Field Magnitude
Data Set 2
Data Set 3
Abs By Peak (T)
Peak Number
0
0.2
0.4
0.6
0.8
1
1.2
1.4
0
50
100
150
200
250

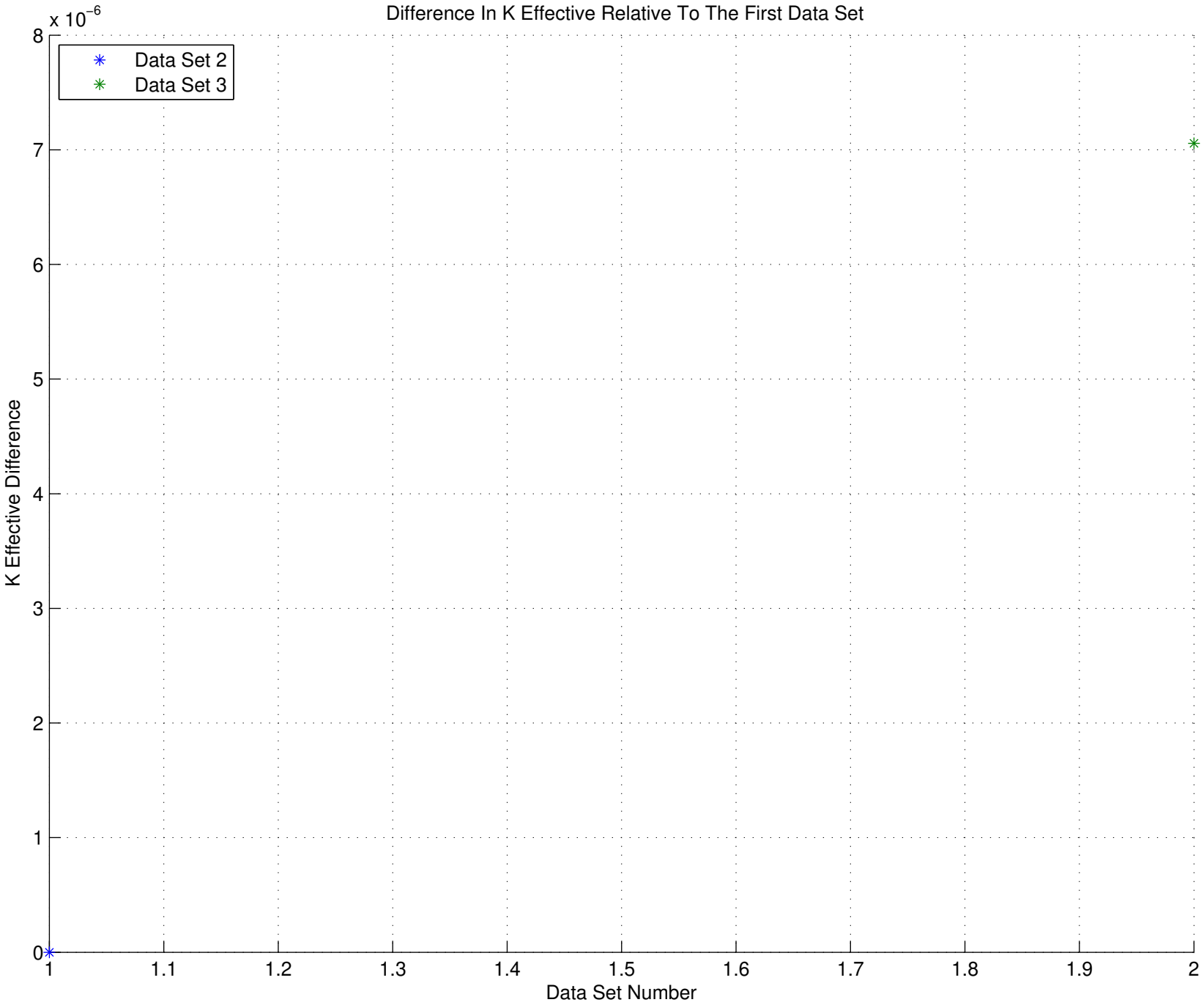

Peak Field Magnitude Relative To The First Data Set
x 10^-4
Data Set 2
Data Set 3
Abs By Peak Difference (T)
Peak Number
3
2.5
2
1.5
1
0.5
0
−0.5
−1
−1.5
0
50
100
150
200
250

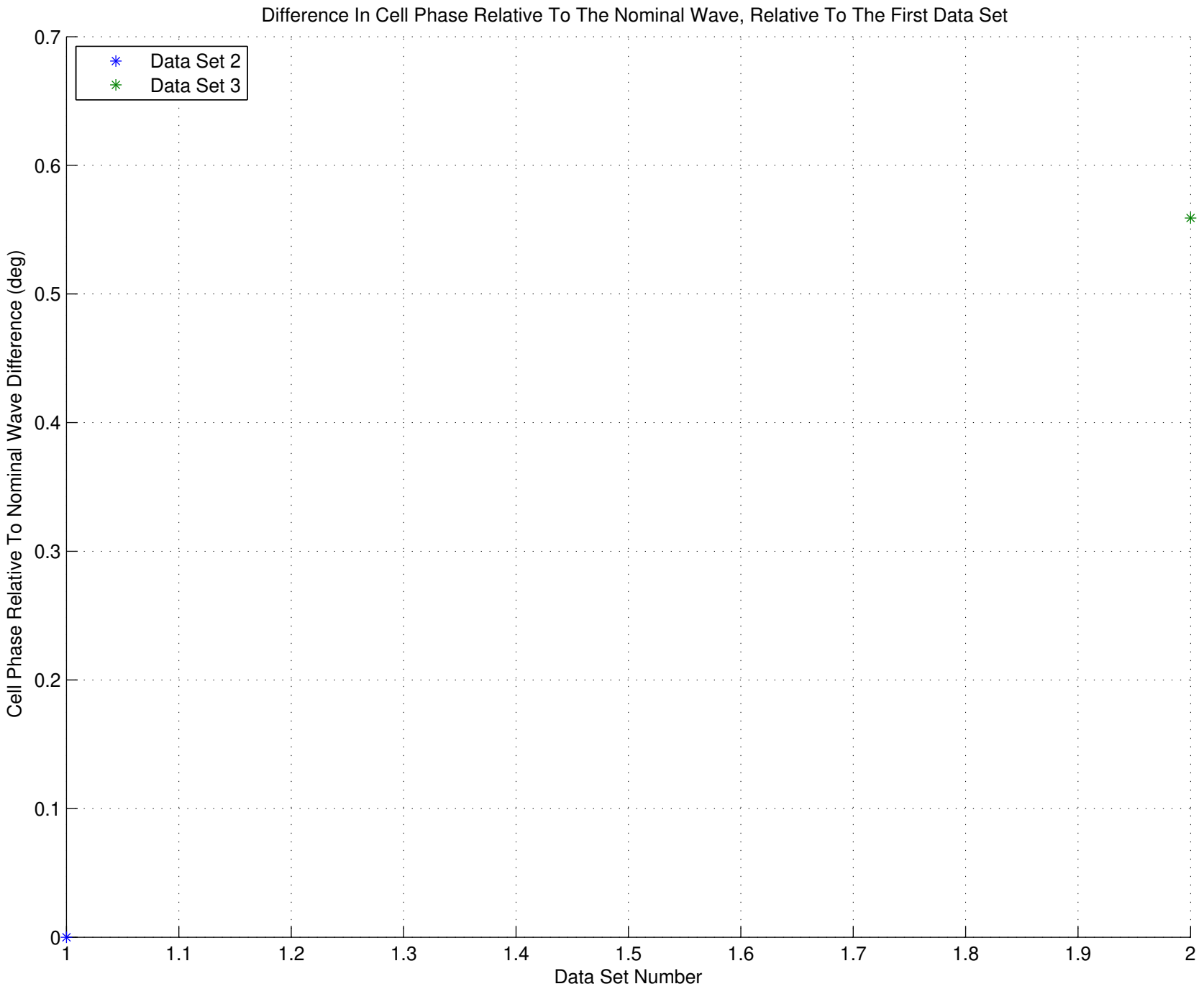

X Trajectory
x 10^-6
Data Set 2
Data Set 3
X (m)
Z (m)
1
0.5
0
−0.5
−1
−1.5
−2.5
−2
−1.5
−1
−0.5
0
0.5
1
1.5
2
2.5


Y Trajectory
x 10^-7
Data Set 2
Data Set 3
Y (m)
Z (m)
6
4
2
0
−2
−4
−6
−8
−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 2
Data Set 3
Phase Difference (deg)
Peak Number
1
0.8
0.6
0.4
0.2
0
−0.2
−0.4
0
50
100
150
200
250


Phase Relative To The Nominal Wave, Relative To The Phase Of The First Data Set
Data Set 2
Data Set 3
Phase Difference (deg)
Peak Number
1
0.8
0.6
0.4
0.2
0
−0.2
−0.4
0
50
100
150
200
250


Difference In K Effective Relative To The First Data Set
x 10^-6
Data Set 2
Data Set 3
K Effective Difference
Data Set Number
0
1
2
3
4
5
6
7
8
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 2
Data Set 3
Cell Phase Relative To Nominal Wave Difference (deg)
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
1
1.1
1.2
1.3
1.4
1.5
1.6
1.7
1.8
1.9
2
Data Set Number