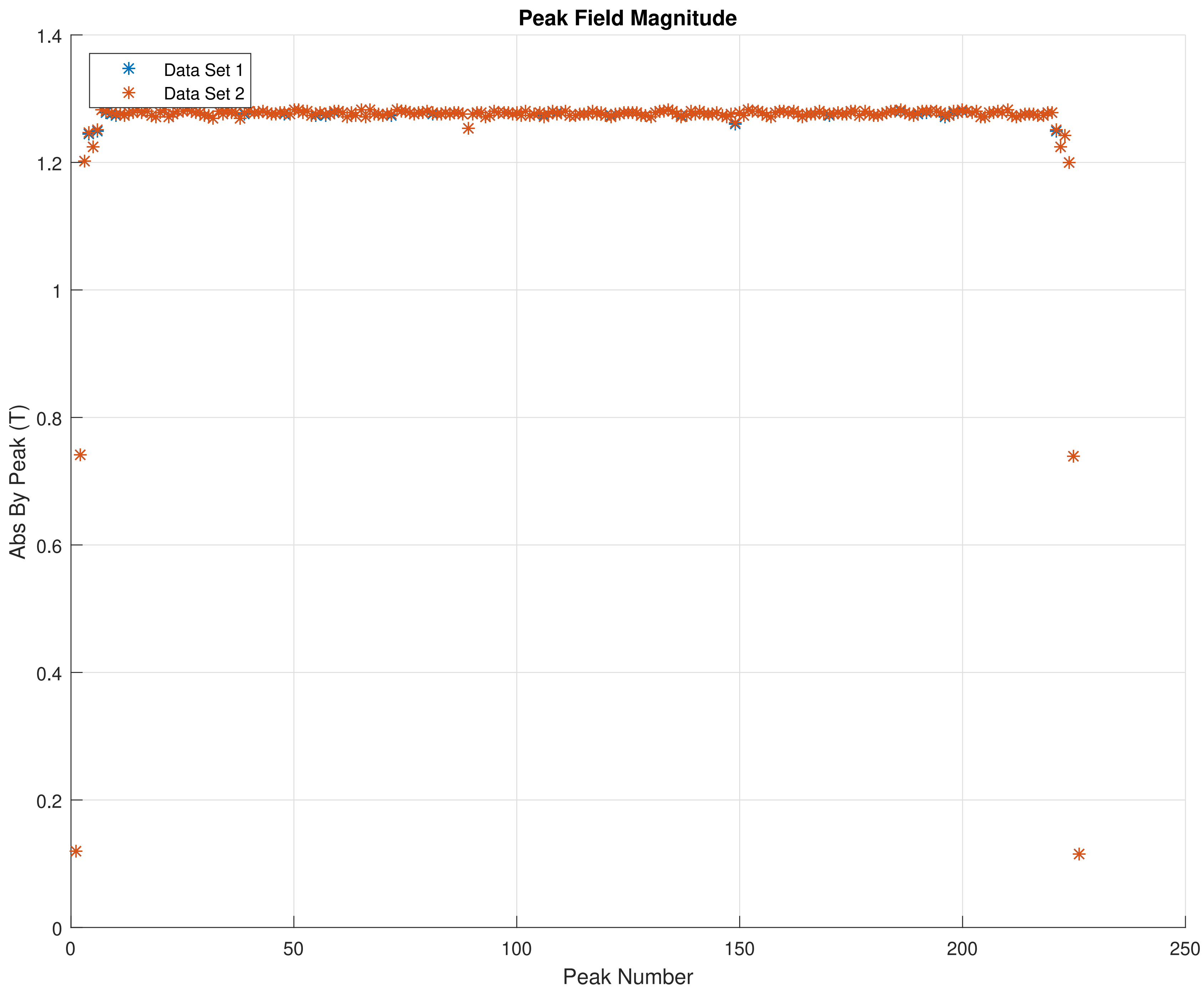
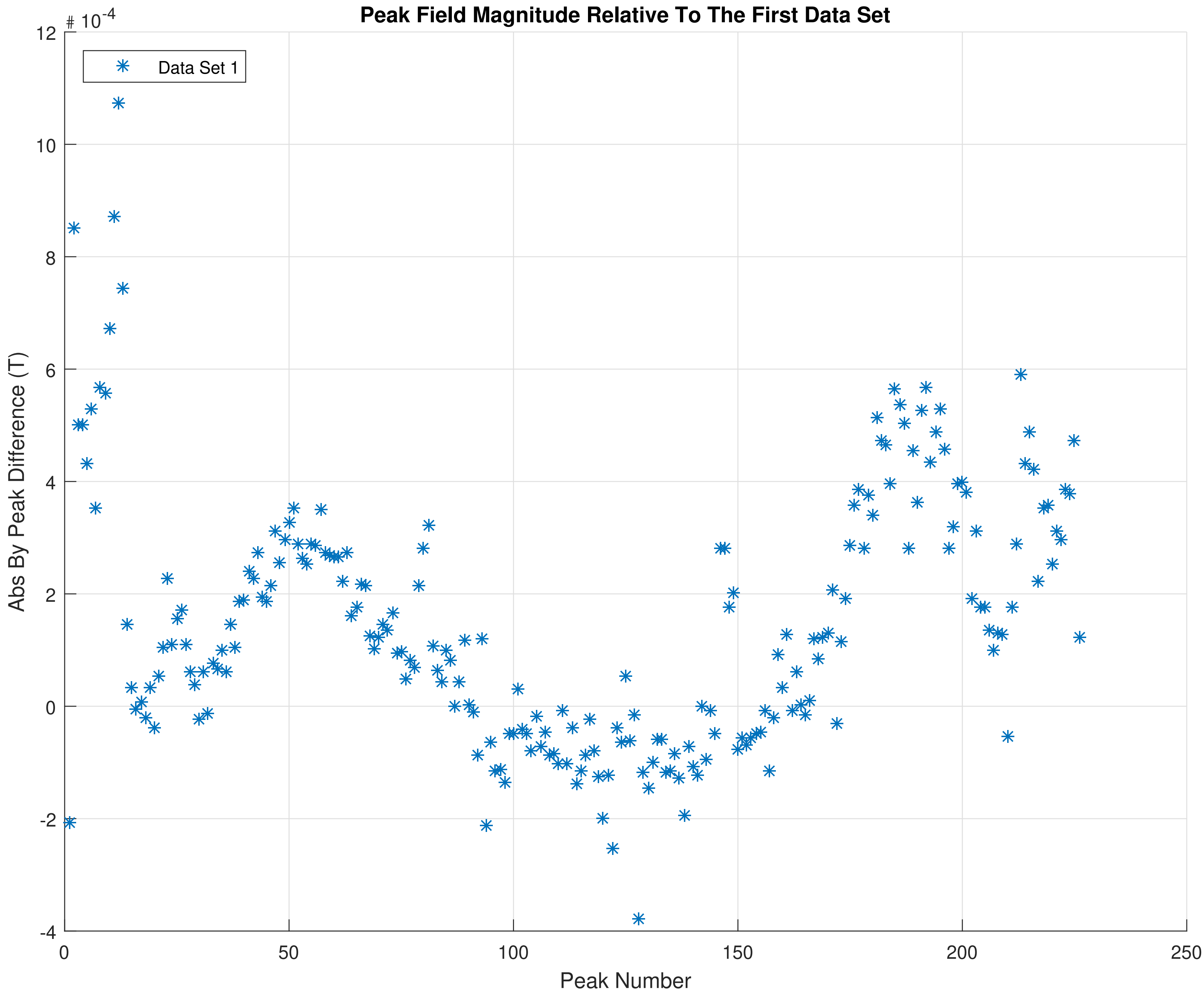
SLAC Magnetic Measurements
Undulator Analysis Comparison

Title:
SN13, Datasets 2 and 3

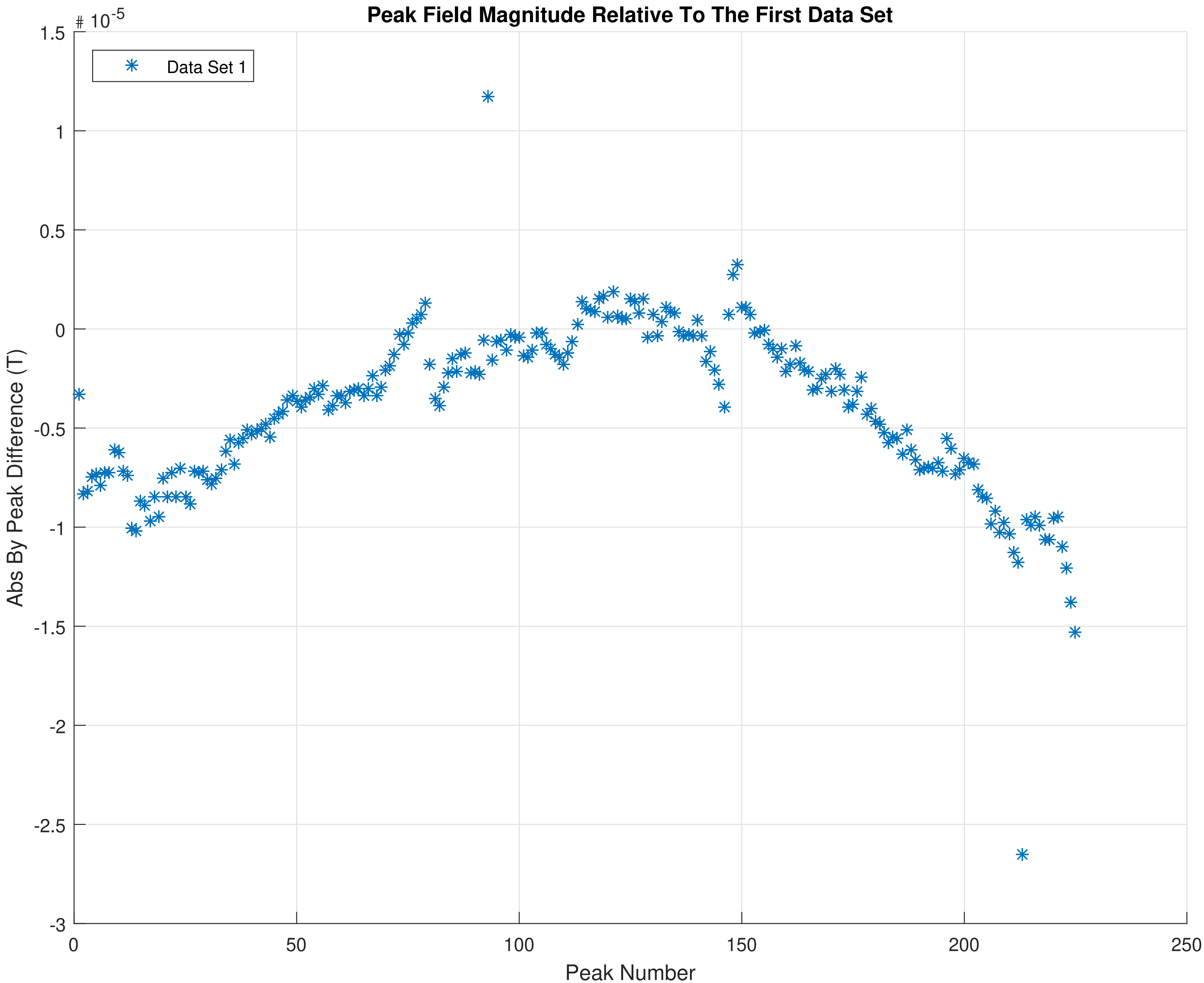
Input Files:
1) S:\MagData\LCLS\Undulator\L143-112000-13\DATASET0003\Fine Tuning\Z Scans\Run 005\id_anal.mat
2) S:\MagData\LCLS\Undulator\L143-112000-13\DATASET0052\Fine Tuning\Z Scans\Run 017\pid_anal.mat

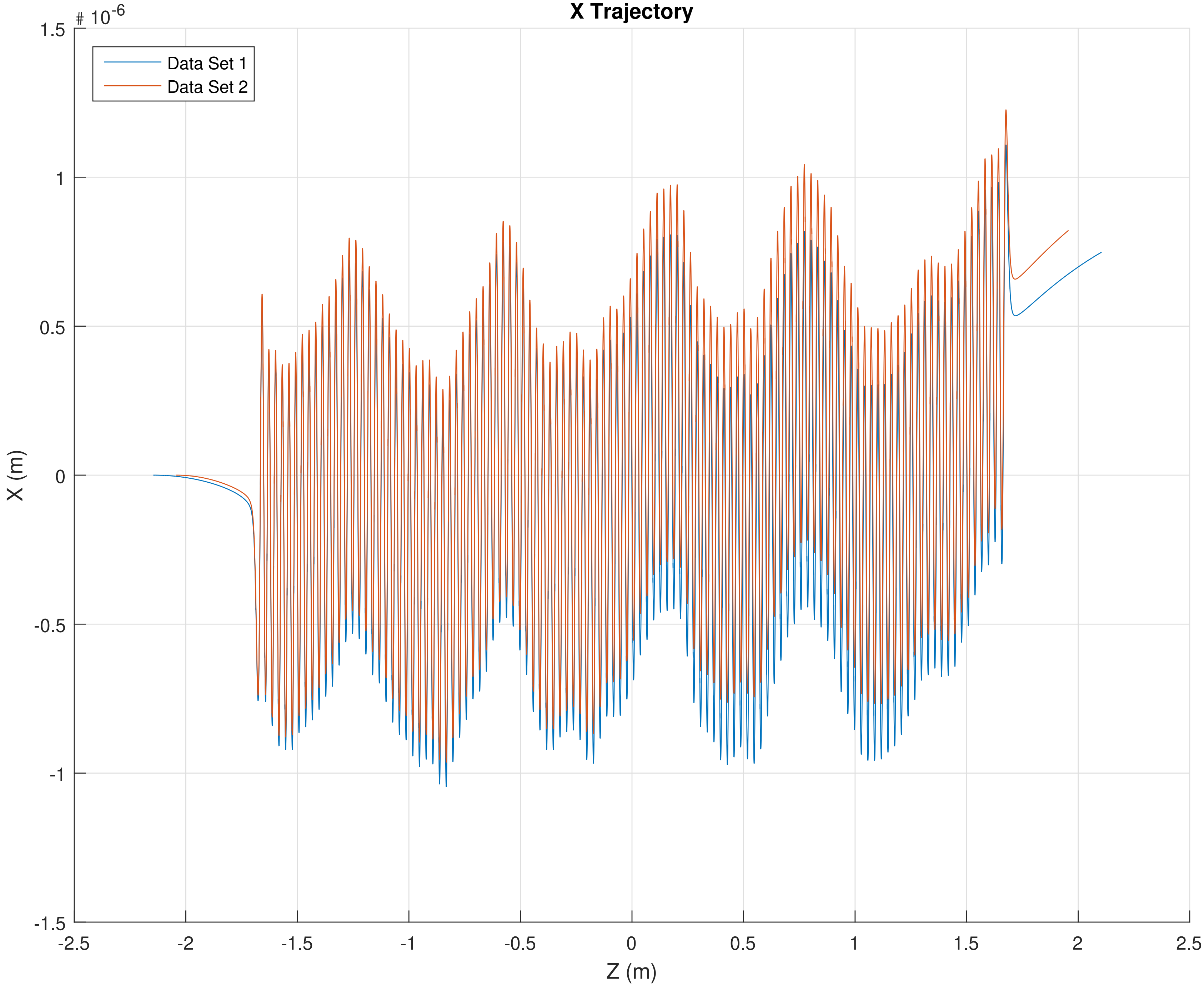


Peak Field Magnitude
Data Set 1
Data Set 2
Abs By Peak (T)
Peak Number
0
0.2
0.4
0.6
0.8
1
1.2
1.4
0
50
100
150
200
250

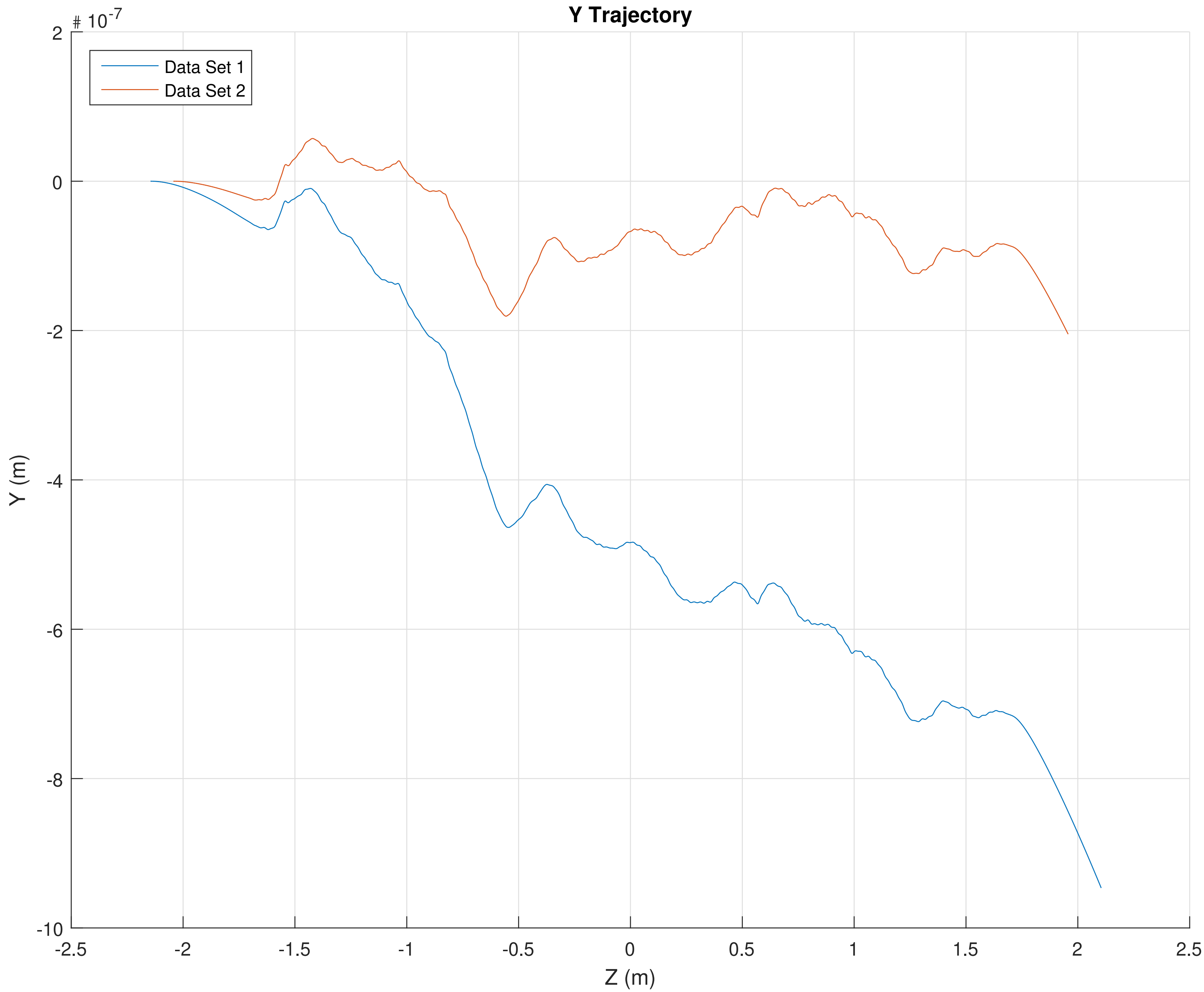


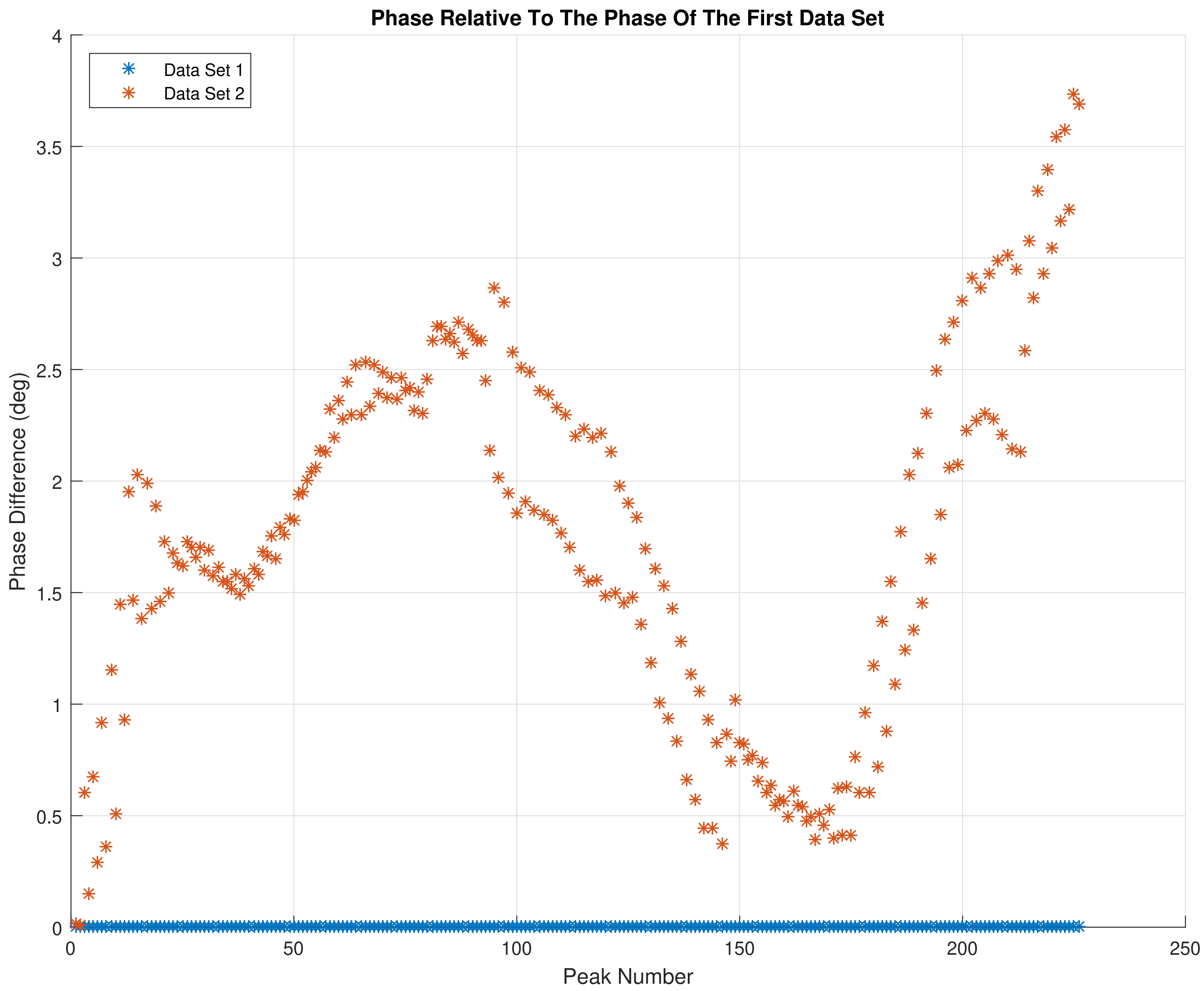
Peak Field Magnitude Relative To The First Data Set
10^-4
12
10
8
6
4
2
0
-2
-4
Abs By Peak Difference (T)
Data Set 1
0
50
100
150
200
250
Peak Number


Peak Field Magnitude Relative To The First Data Set
10^-5
Data Set 1
Abs By Peak Difference (T)
Peak Number
1.5
1
0.5
0
-0.5
-1
-1.5
-2
-2.5
-3
0
50
100
150
200
250

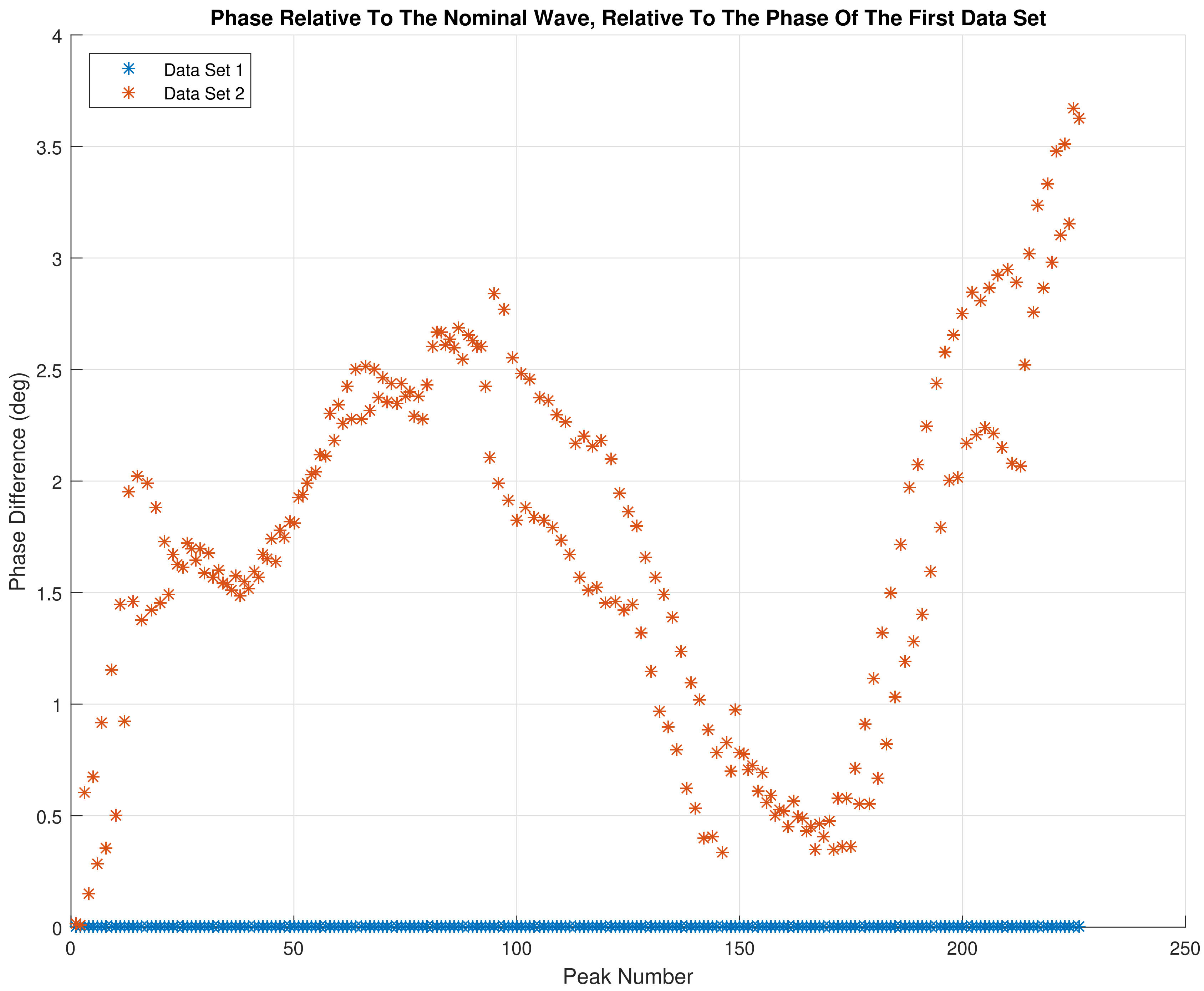


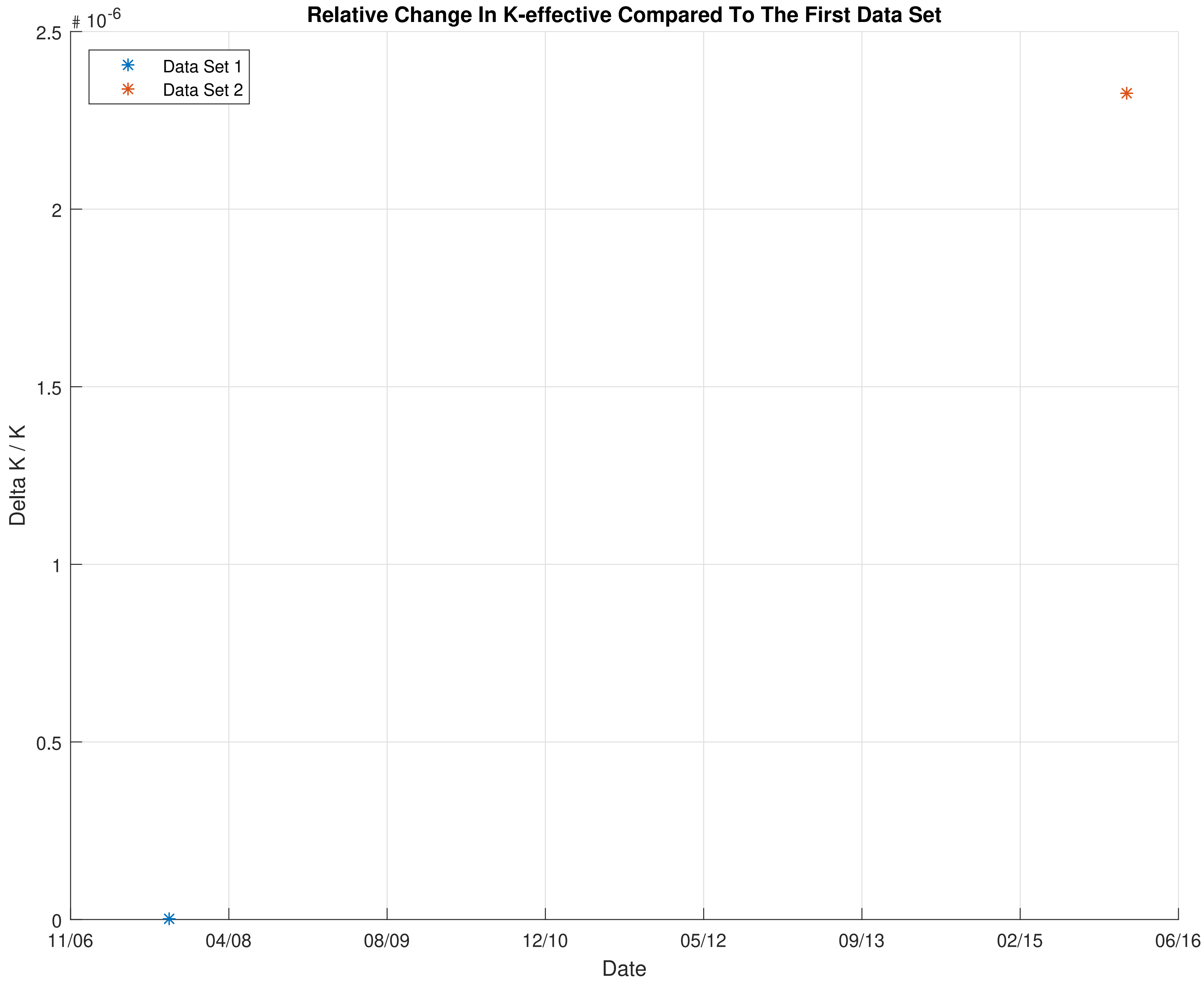
X Trajectory
10-6
1.5
1
0.5
0
-0.5
-1
-1.5
X (m)
-2.5
-2
-1.5
-1
-0.5
0
0.5
1
1.5
2
2.5
Z (m)
Data Set 1
Data Set 2

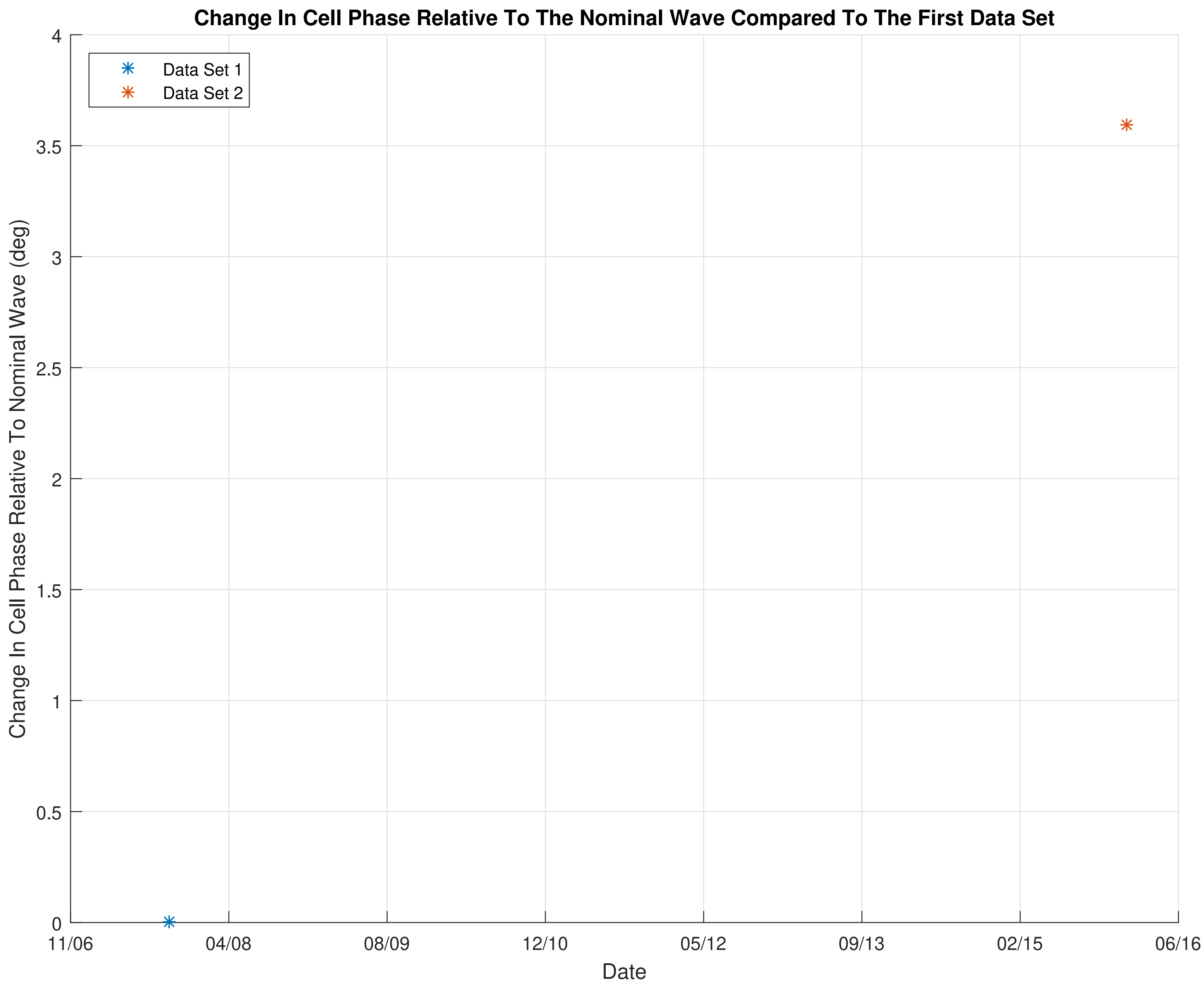

Y Trajectory
10^-7
Data Set 1
Data Set 2
2
0
-2
-4
-6
-8
-10
-2.5
-2
-1.5
-1
-0.5
0
0.5
1
1.5
2
2.5
Y (m)
Z (m)

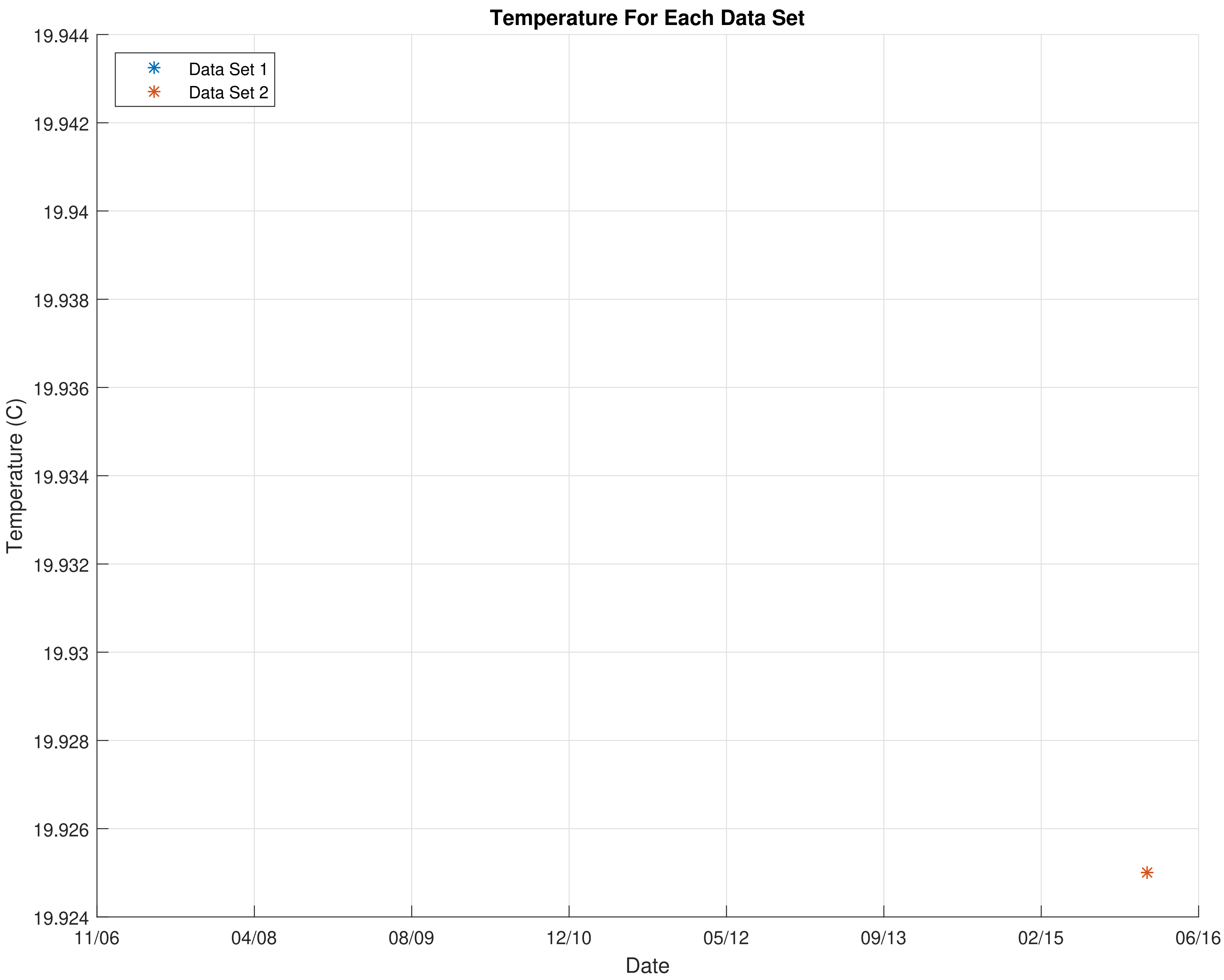


Phase Relative To The Phase Of The First Data Set
Data Set 1
Data Set 2
Phase Difference (deg)
Peak Number
0
0.5
1
1.5
2
2.5
3
3.5
4
0
50
100
150
200
250


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
0.5
1
1.5
2
2.5
3
3.5
4
0
50
100
150
200
250


Relative Change In K-effective Compared To The First Data Set
10-6
2.5
2
1.5
1
0.5
0
Delta K / K
Data Set 1
Data Set 2
11/06
04/08
08/09
12/10
05/12
09/13
02/15
06/16
Date


Change In Cell Phase Relative To The Nominal Wave Compared To The First Data Set
Data Set 1
Data Set 2
Change In Cell Phase Relative To Nominal Wave (deg)
0
0.5
1
1.5
2
2.5
3
3.5
4
11/06
04/08
08/09
12/10
05/12
09/13
02/15
06/16
Date



Temperature For Each Data Set
Data Set 1
Data Set 2
Temperature (C)
19.944
19.942
19.94
19.938
19.936
19.934
19.932
19.93
19.928
19.926
19.924
11/06
04/08
08/09
12/10
05/12
09/13
02/15
06/16
Date