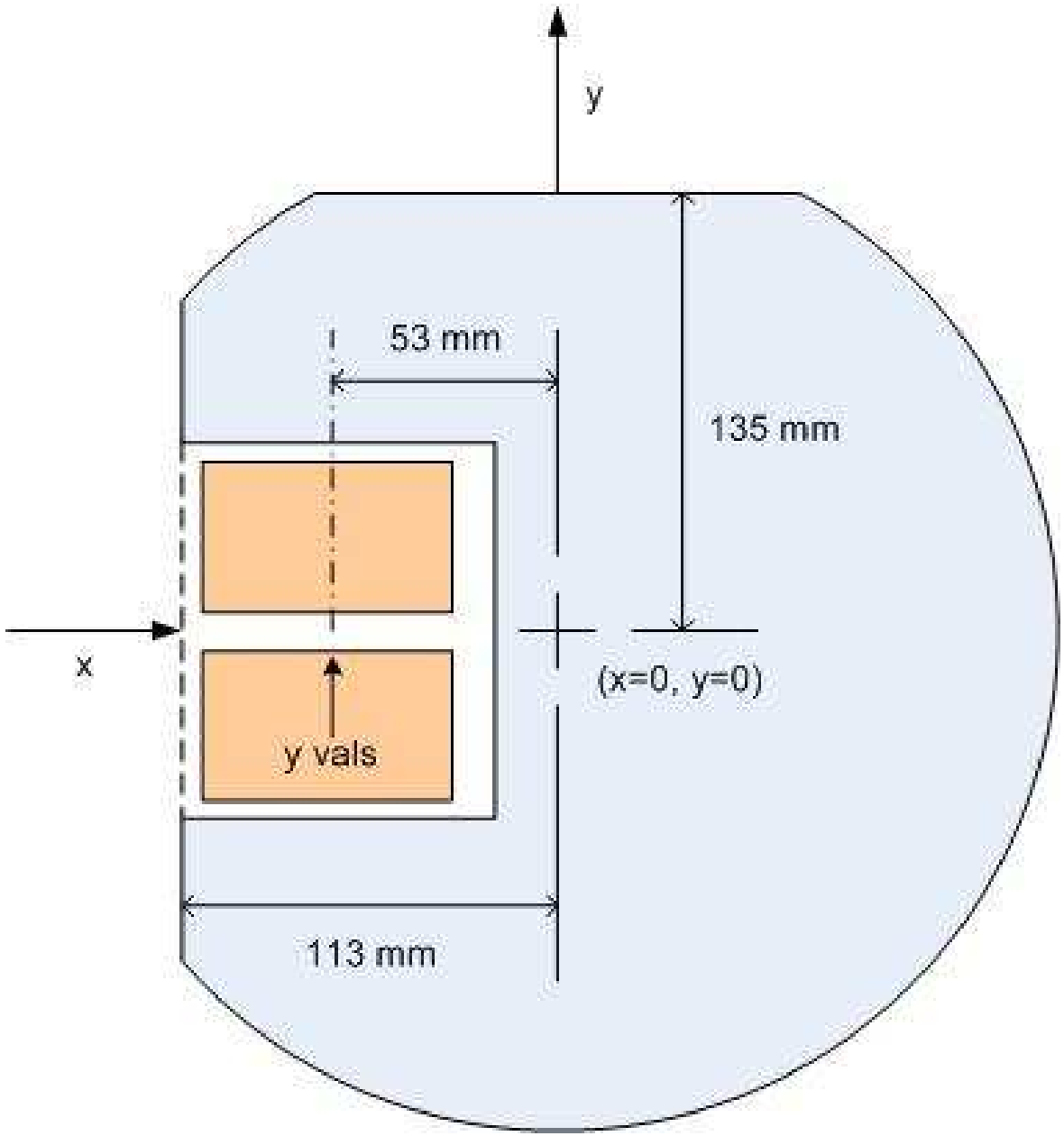
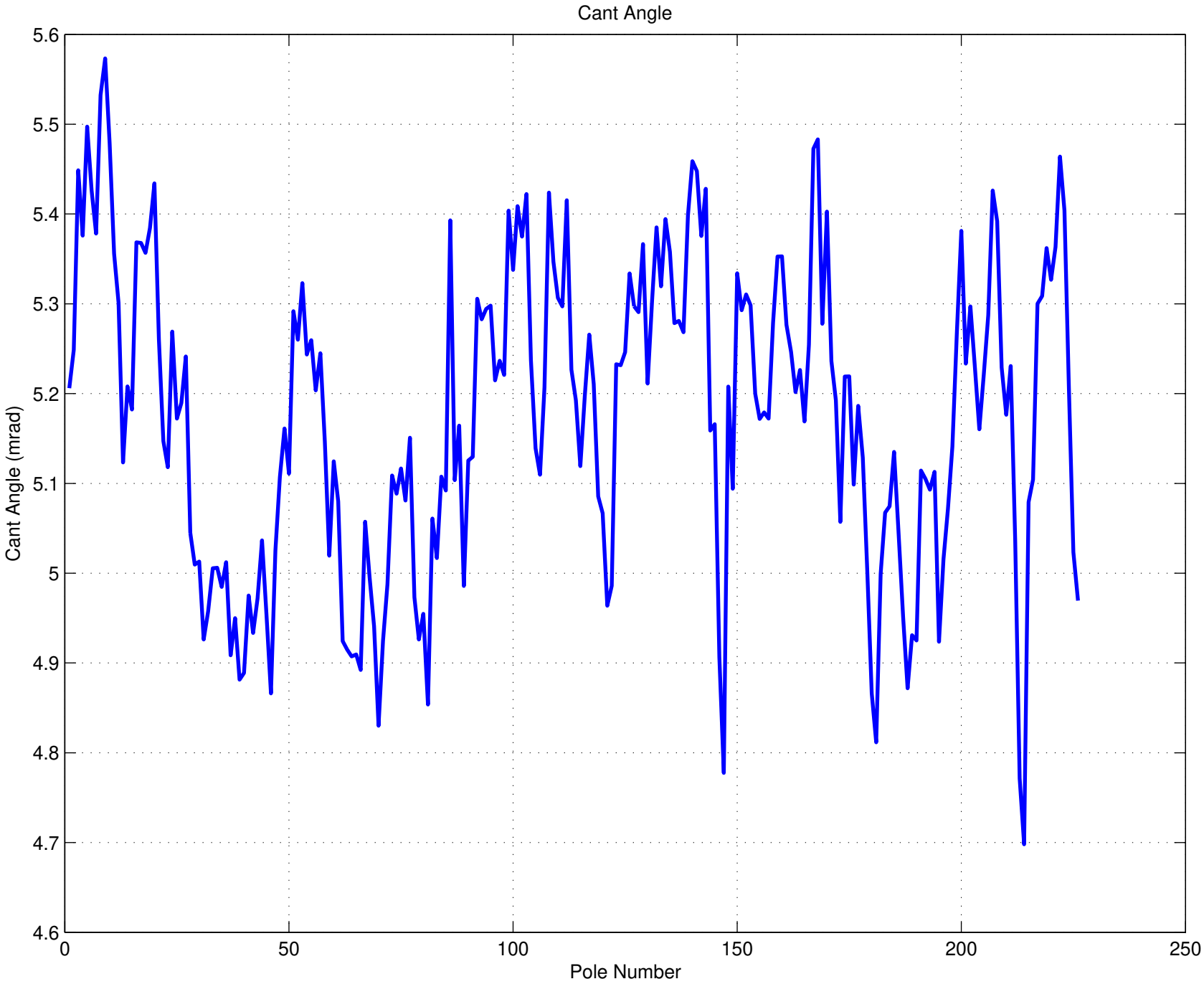
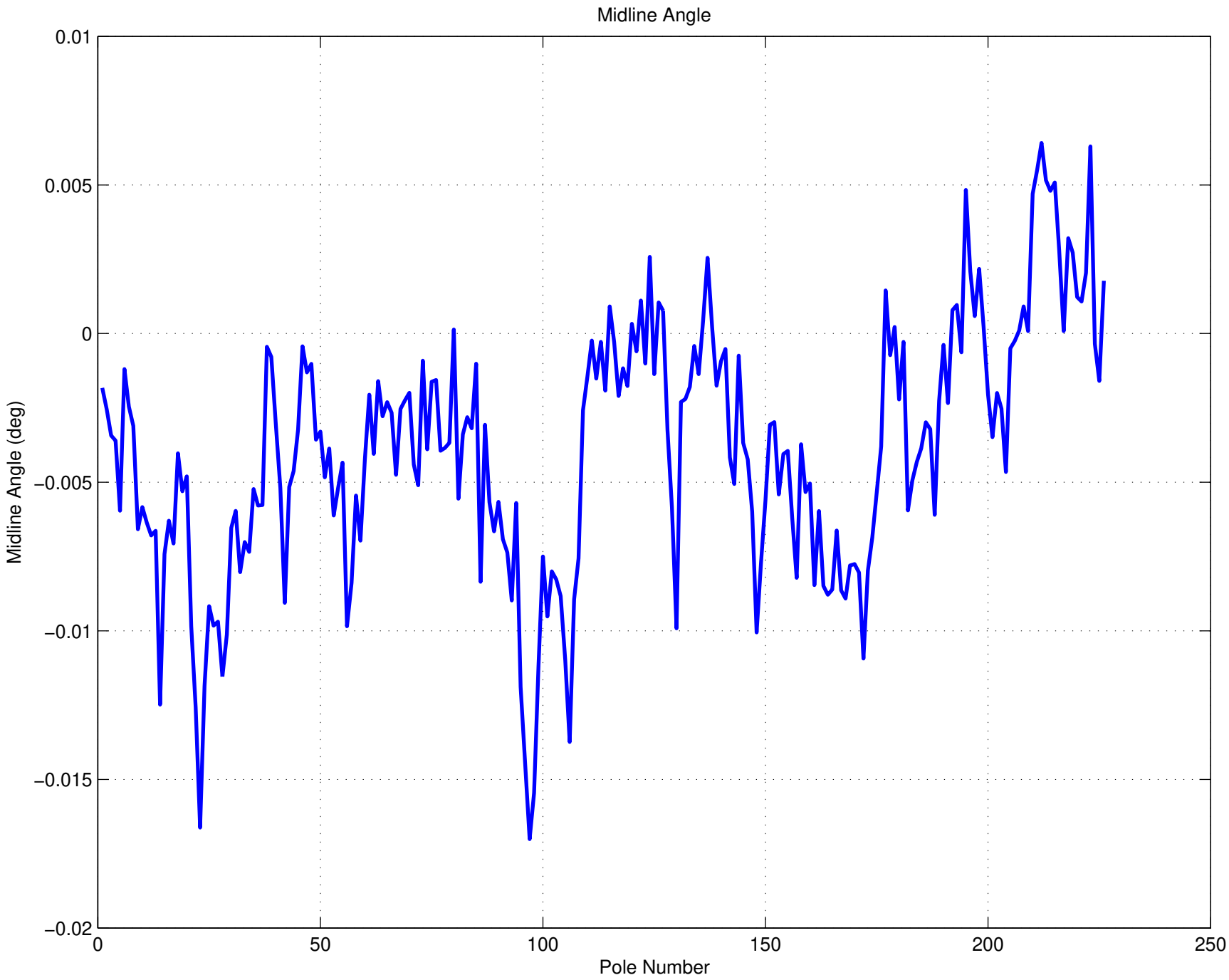
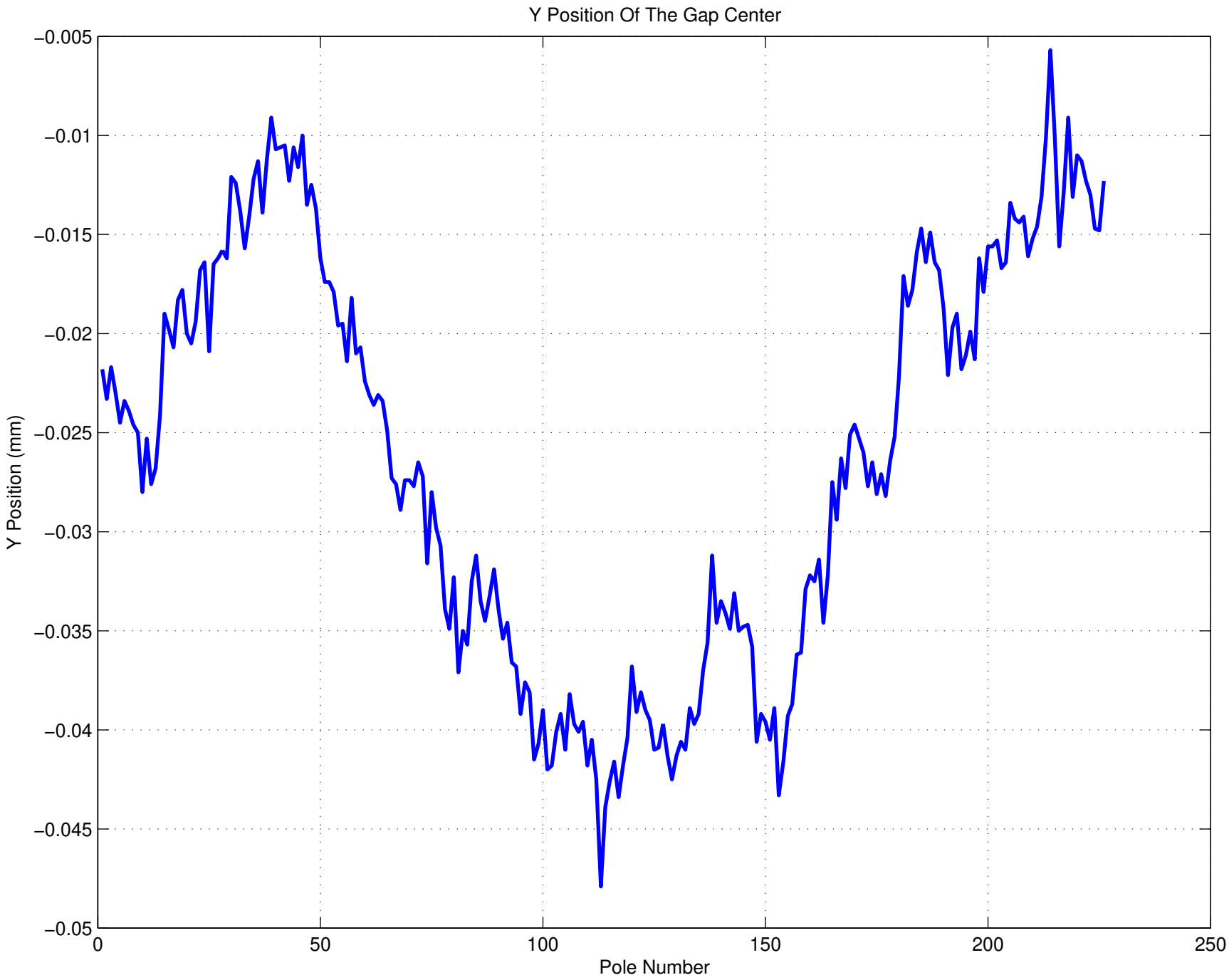
SLAC Magnetic Measurements
Mechanical Measurement Analysis

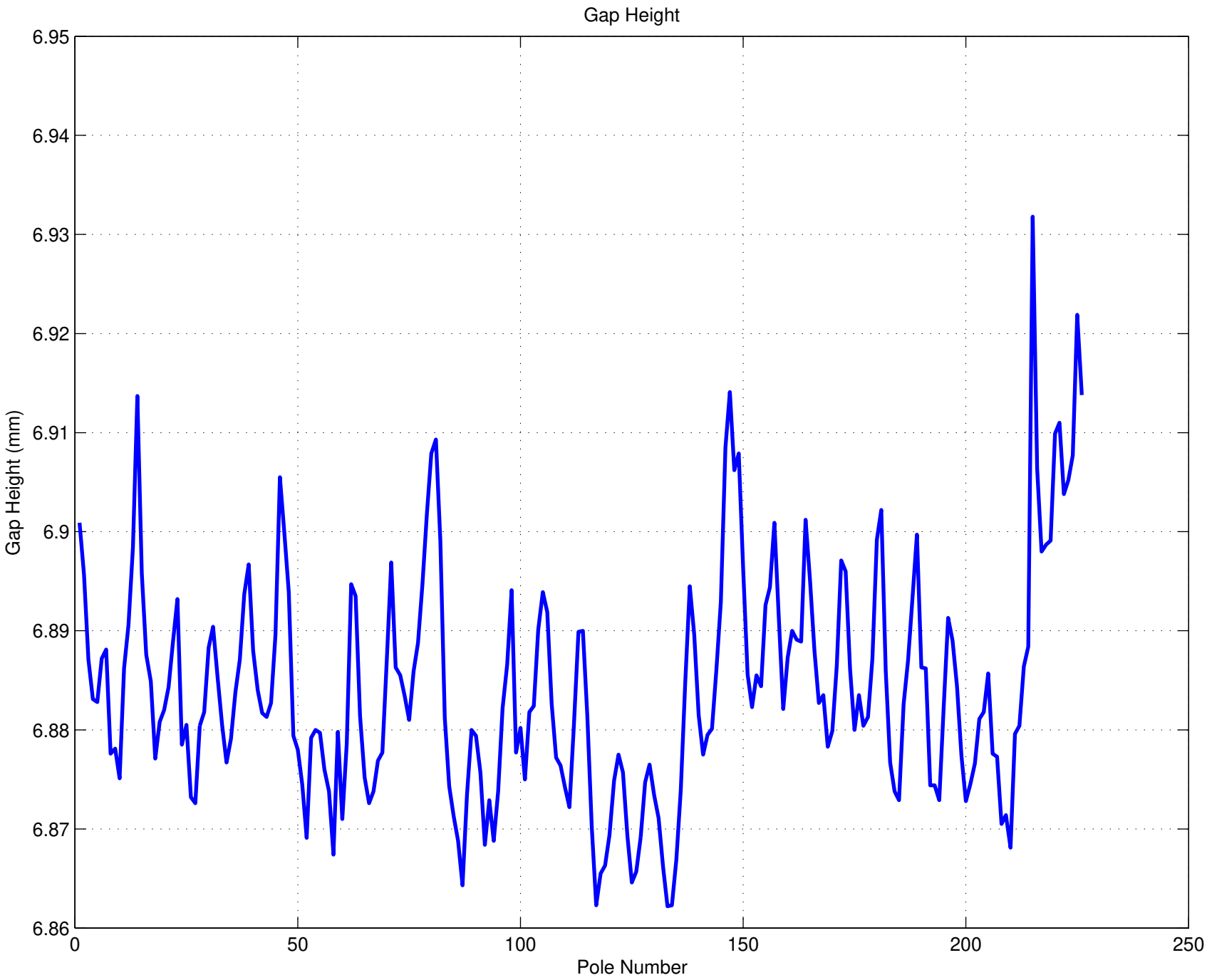
Parameters:
INPUT−FILE−DIR =V:\MET\MagServe\MagData\LCLS\Undulator\L143−112000−20\DATASET0001\Mechanical Measurements\D
INPUT−FILE−NAME =SN 20 POLE TIP DATA POINTS 03−JAN−2008.TXT

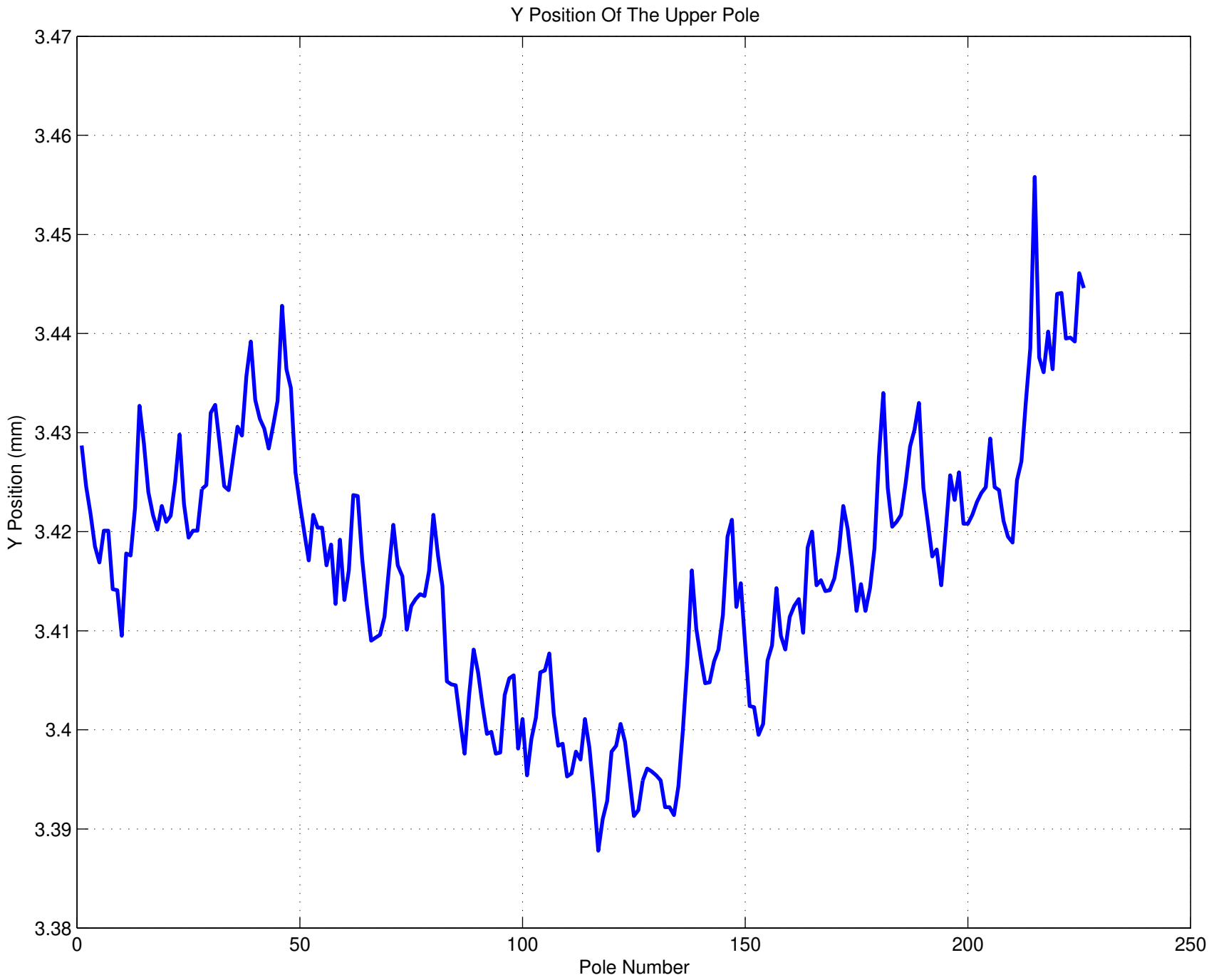

y
53 mm
135 mm
x
(x=0, y=0)
y vals
113 mm

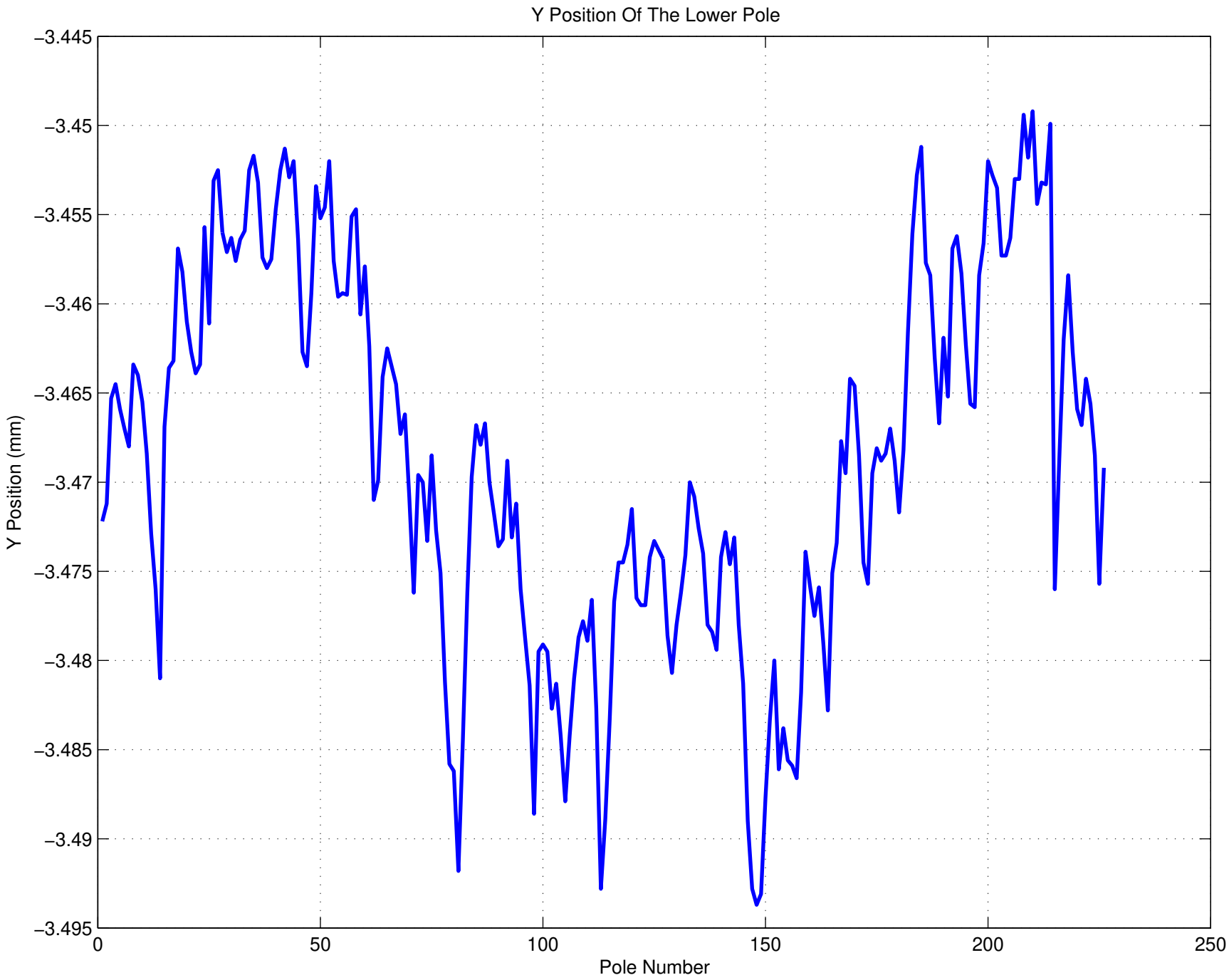

Cant Angle
Cant Angle (mrad)
Pole Number
5.6
5.5
5.4
5.3
5.2
5.1
5
4.9
4.8
4.7
4.6
0
50
100
150
200
250

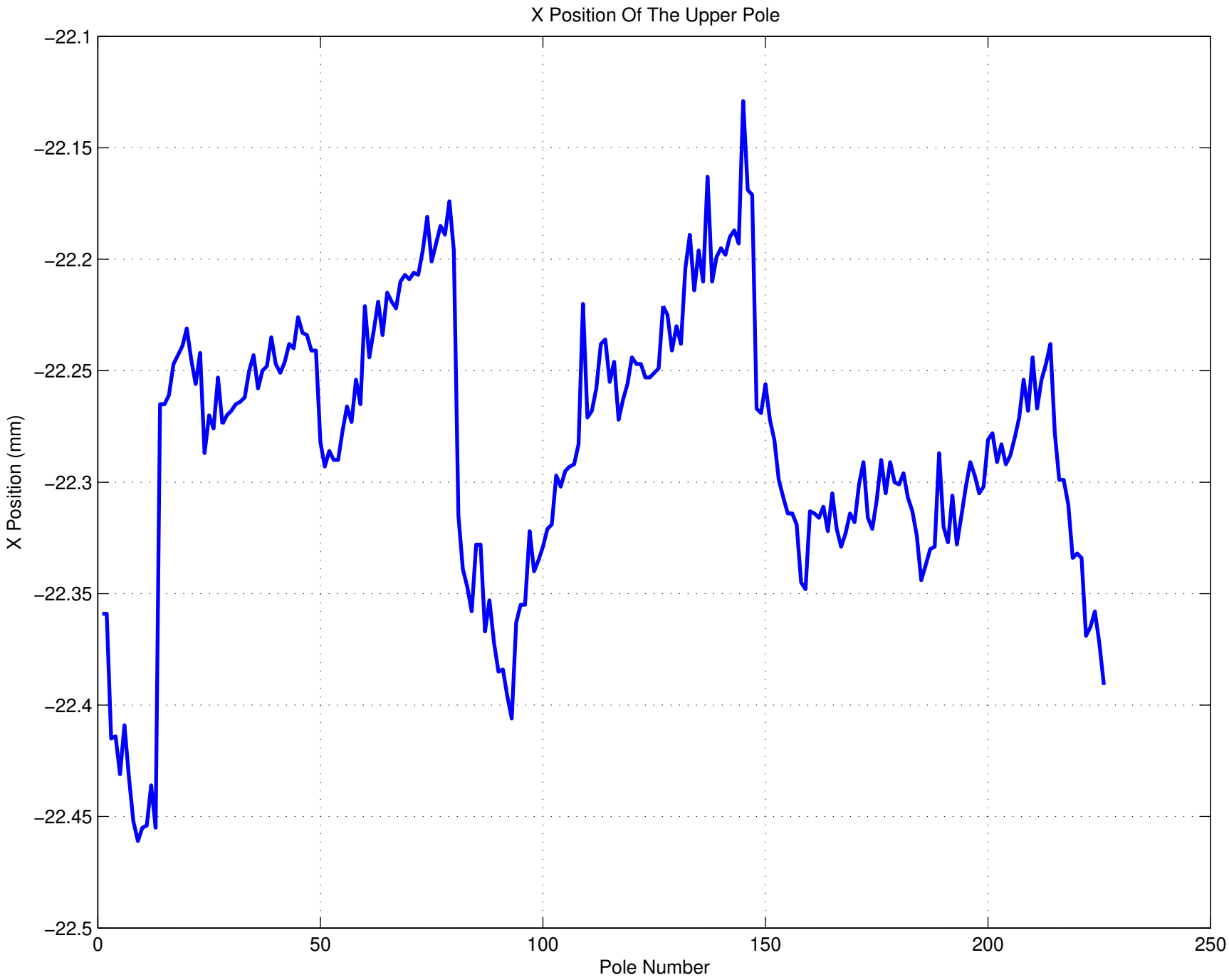

Midline Angle
Midline Angle (deg)
Pole Number
0.01
0.005
0
−0.005
−0.01
−0.015
−0.02
0
50
100
150
200
250

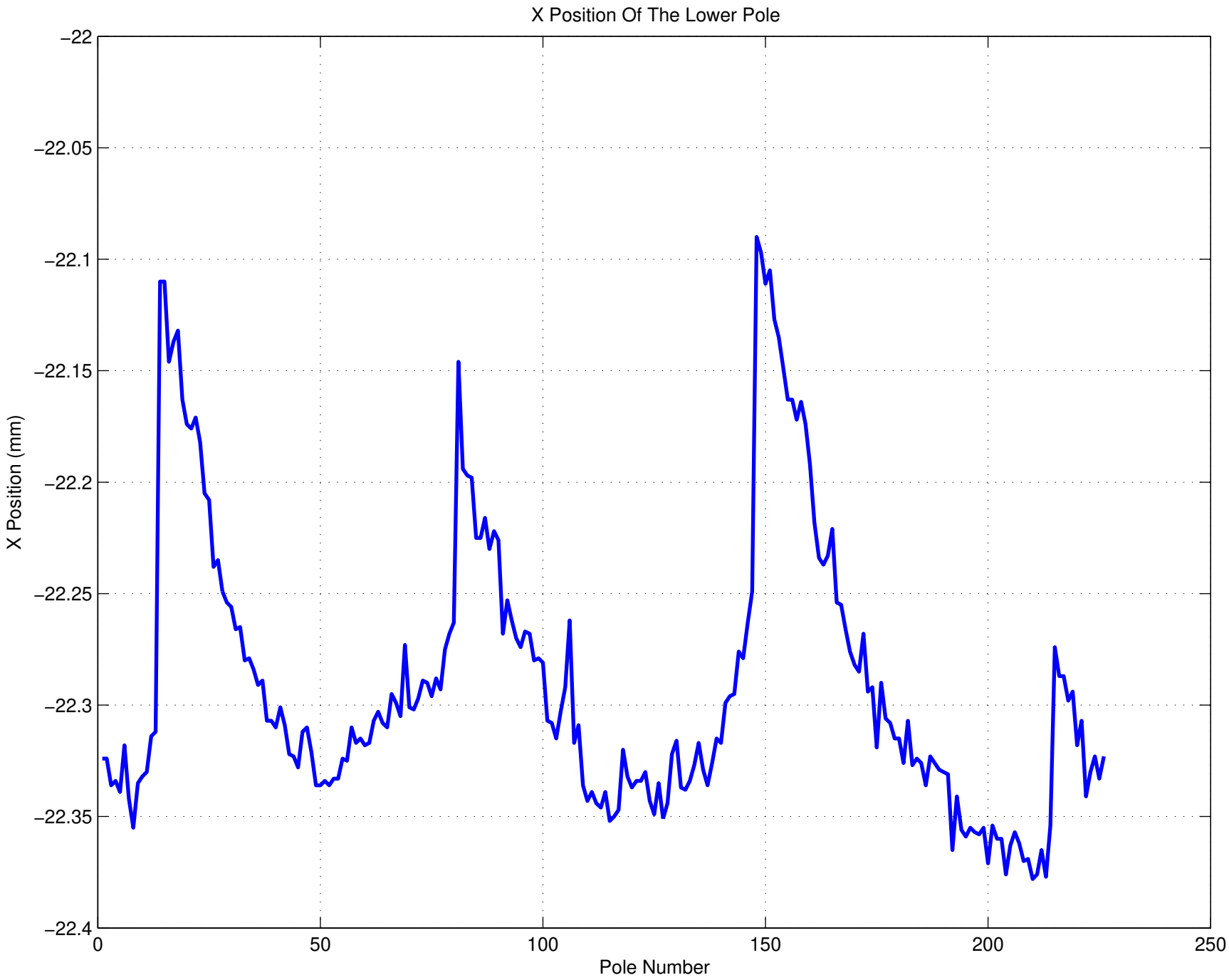

Y Position Of The Gap Center
−0.005
−0.01
−0.015
−0.02
−0.025
−0.03
−0.035
−0.04
−0.045
−0.05
Y Position (mm)
0
50
100
150
200
250
Pole Number

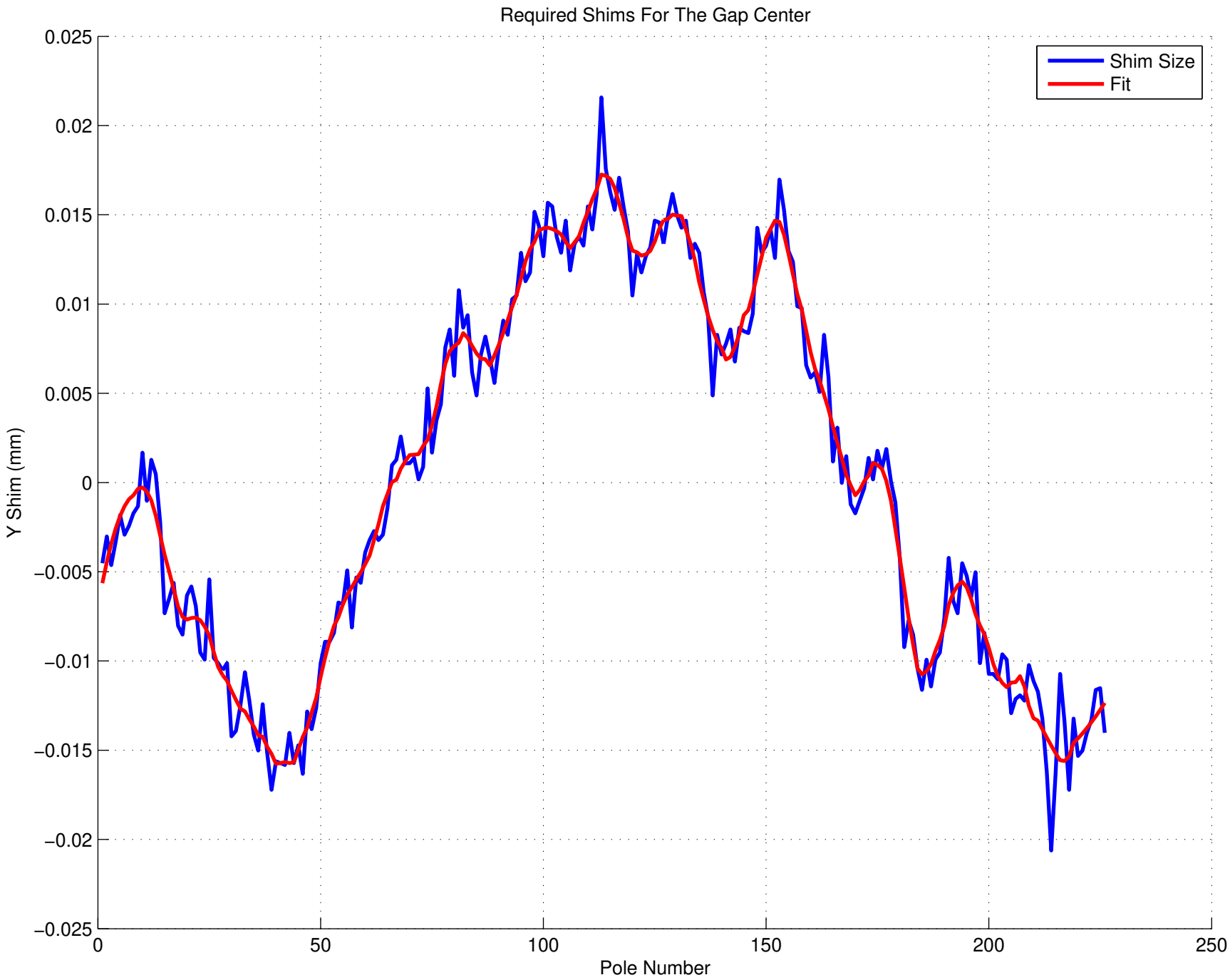

Gap Height
Gap Height (mm)
Pole Number
6.95
6.94
6.93
6.92
6.91
6.9
6.89
6.88
6.87
6.86
0
50
100
150
200
250


Y Position Of The Upper Pole
Y Position (mm)
Pole Number
3.47
3.46
3.45
3.44
3.43
3.42
3.41
3.4
3.39
3.38
0
50
100
150
200
250


Y Position Of The Lower Pole
Y Position (mm)
−3.445
−3.45
−3.455
−3.46
−3.465
−3.47
−3.475
−3.48
−3.485
−3.49
−3.495
0
50
100
150
200
250
Pole Number


X Position Of The Upper Pole
X Position (mm)
−22.1
−22.15
−22.2
−22.25
−22.3
−22.35
−22.4
−22.45
−22.5
0
50
100
150
200
250
Pole Number


X Position Of The Lower Pole
X Position (mm)
−22
−22.05
−22.1
−22.15
−22.2
−22.25
−22.3
−22.35
−22.4
0
50
100
150
200
250
Pole Number


Required Shims For The Gap Center
Shim Size
Fit
Y Shim (mm)
Pole Number
0.025
0.02
0.015
0.01
0.005
0
−0.005
−0.01
−0.015
−0.02
−0.025
0
50
100
150
200
250