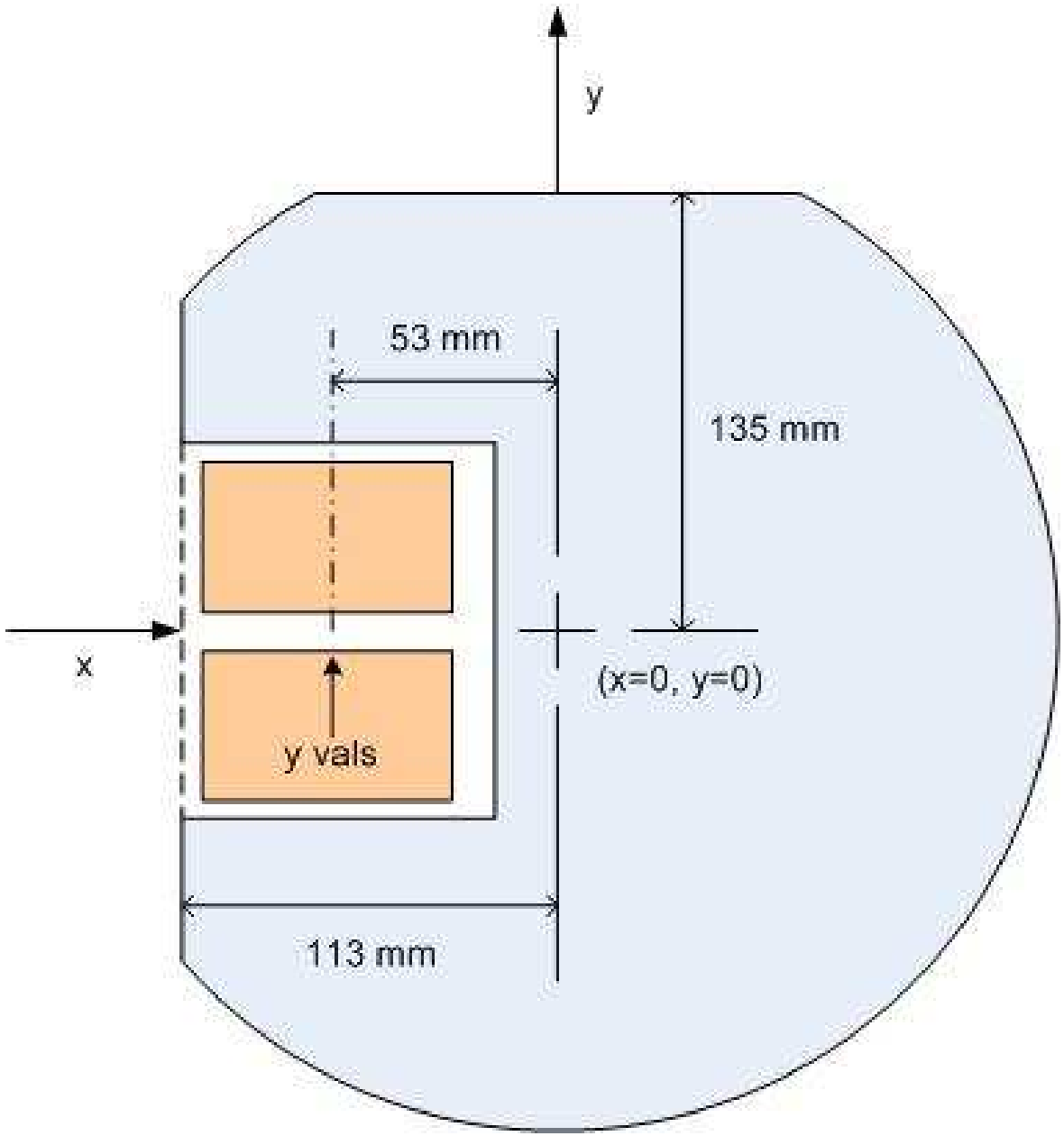
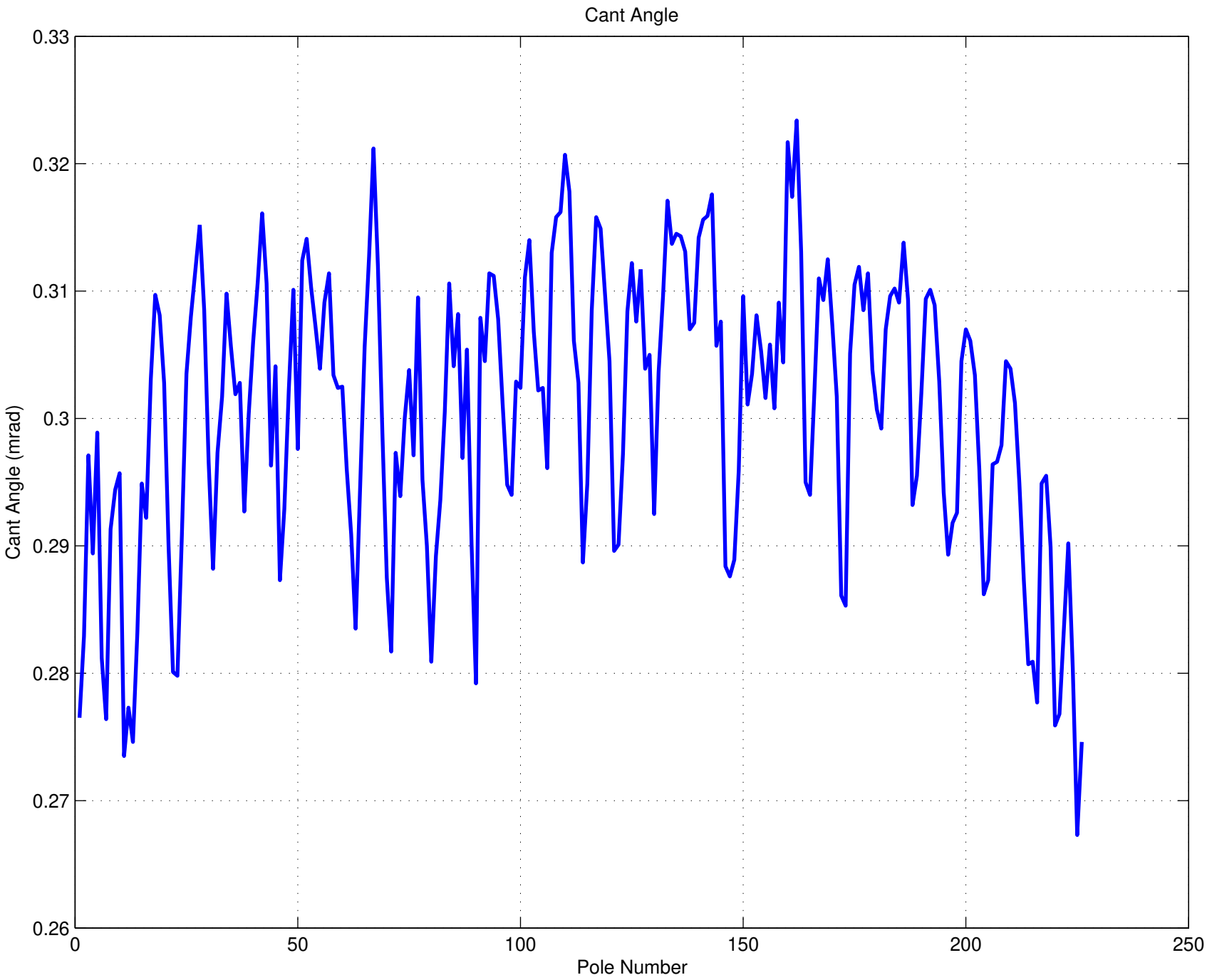
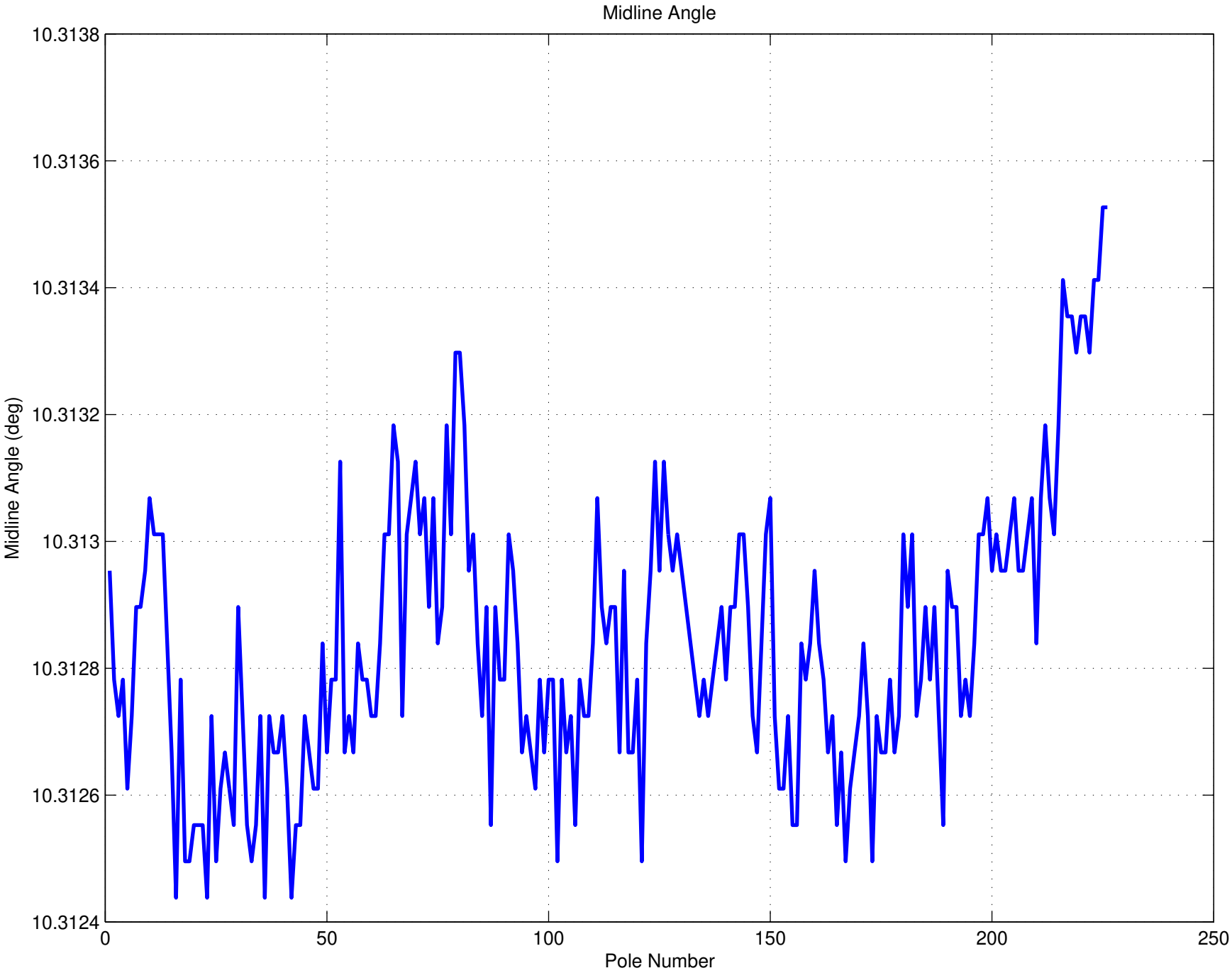
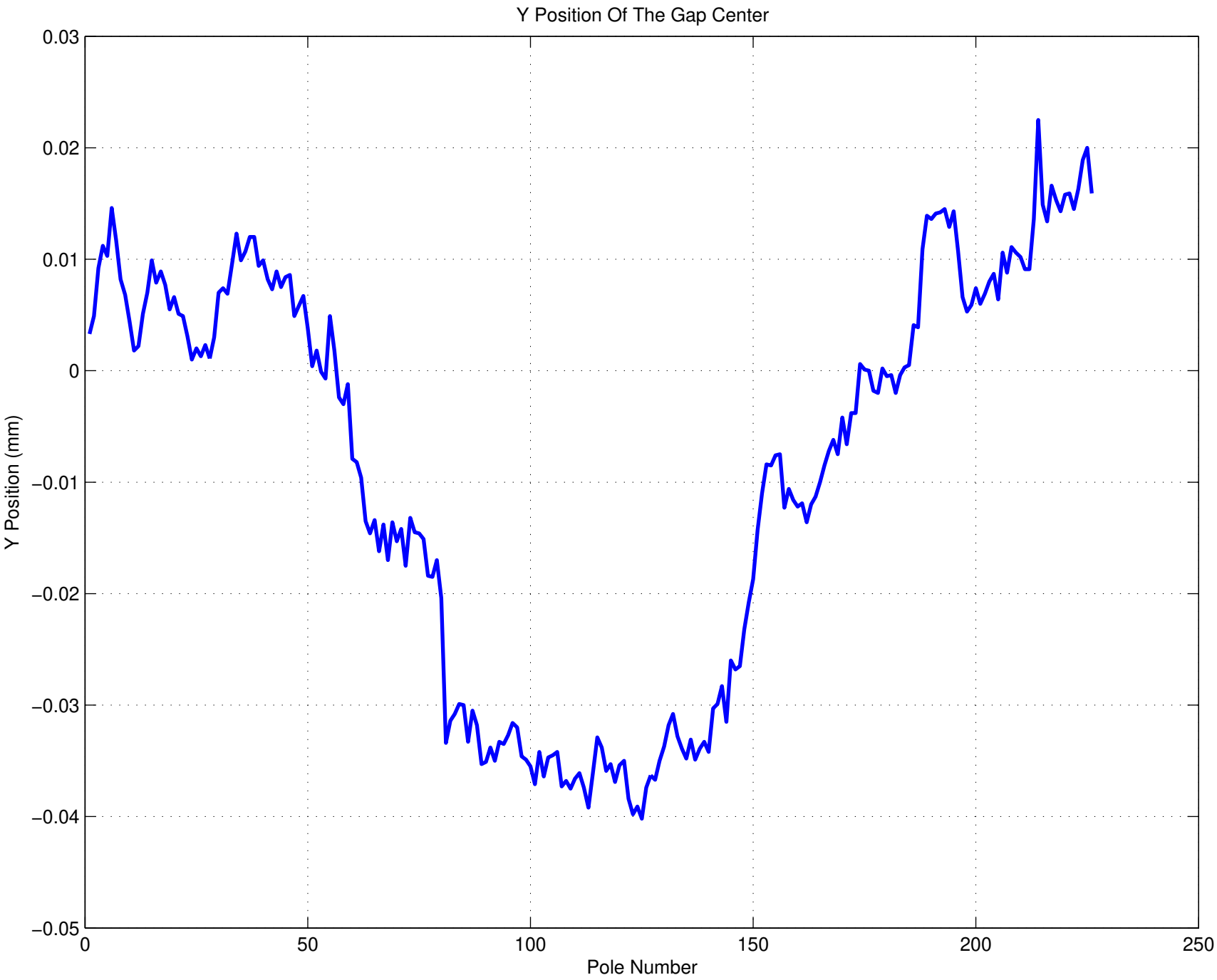
SLAC Magnetic Measurements
Mechanical Measurement Analysis

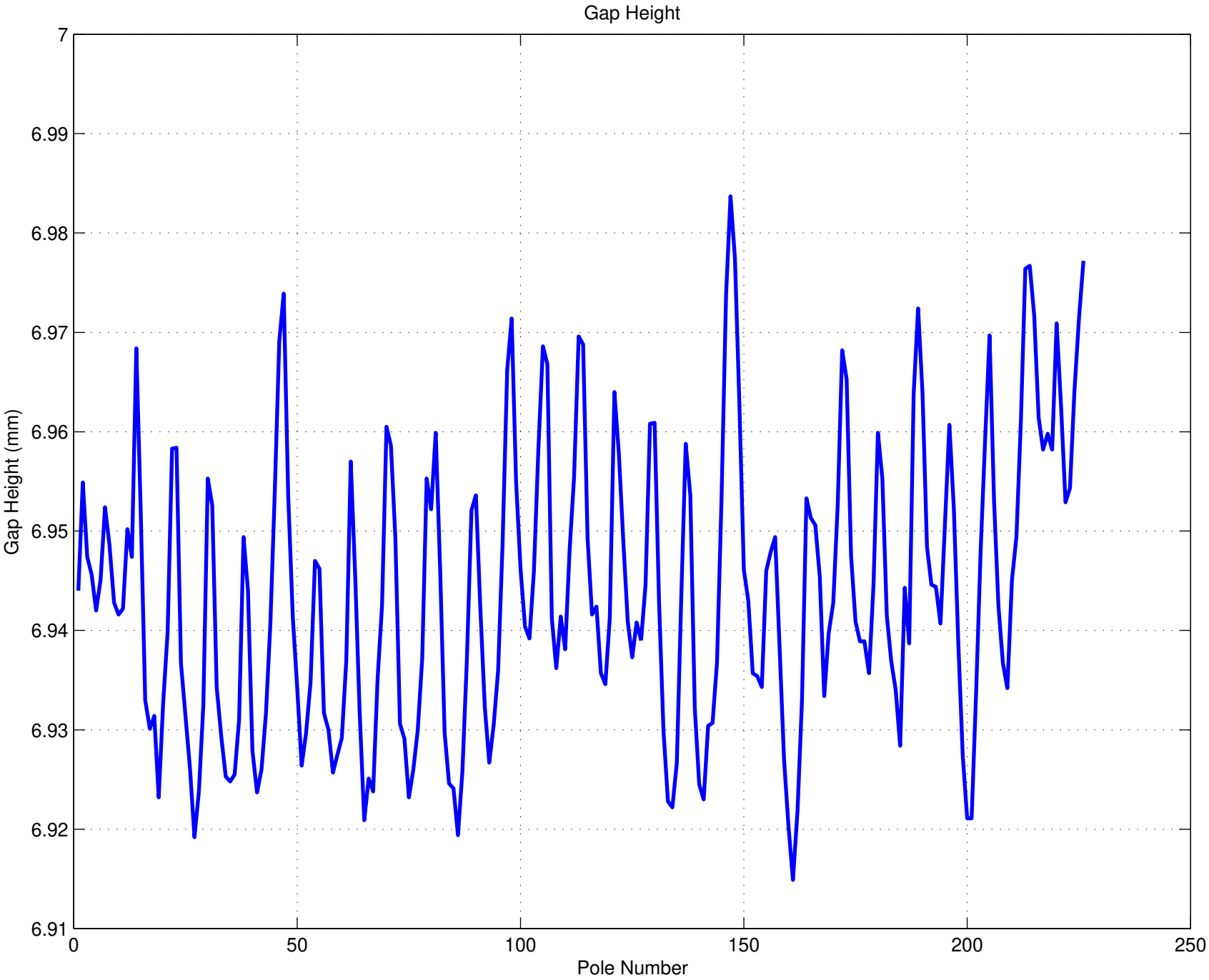
Parameters:
INPUT−FILE−DIR =S:\MagData\LCLS\Undulator\L143−112000−34\DATASET0001\MECHANICAL MEASUREMENTS\DATA\
INPUT−FILE−NAME =SN34 POLE TIP DATA POINTS − PRETUNING 04−APR−2008.TXT

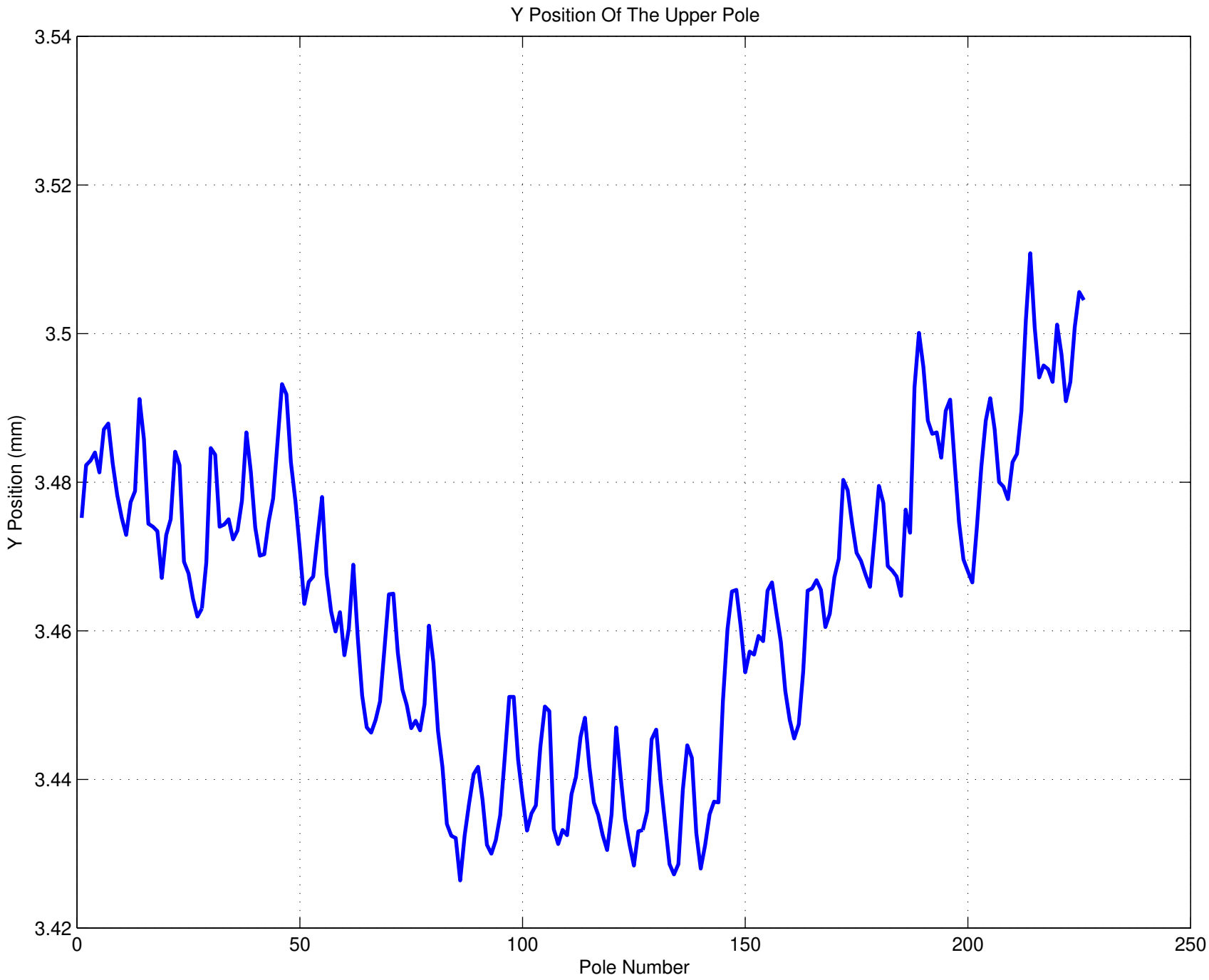

y
53 mm
135 mm
x
(x=0, y=0)
y vals
113 mm

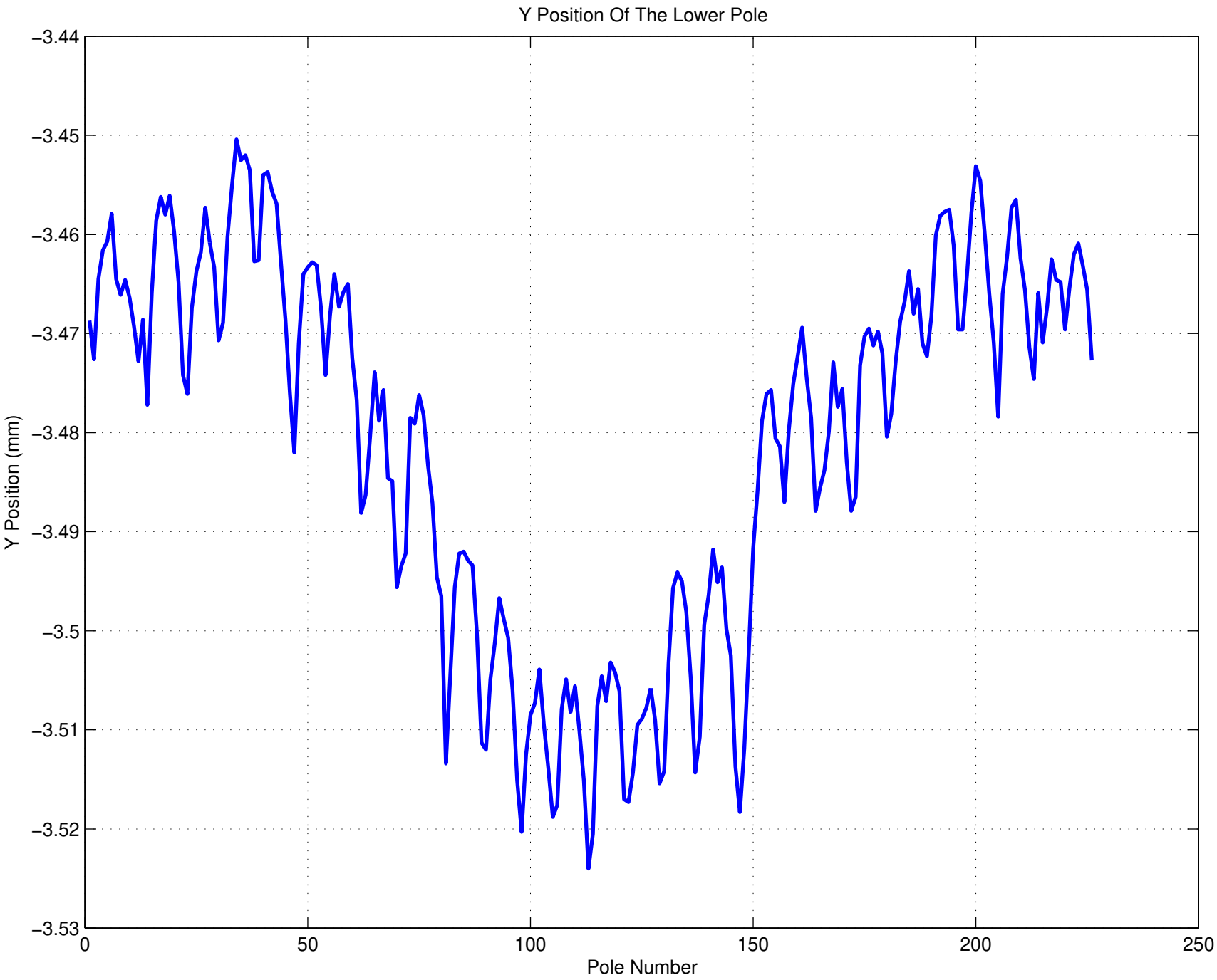

Cant Angle
Cant Angle (mrad)
Pole Number
0.33
0.32
0.31
0.3
0.29
0.28
0.27
0.26
0
50
100
150
200
250

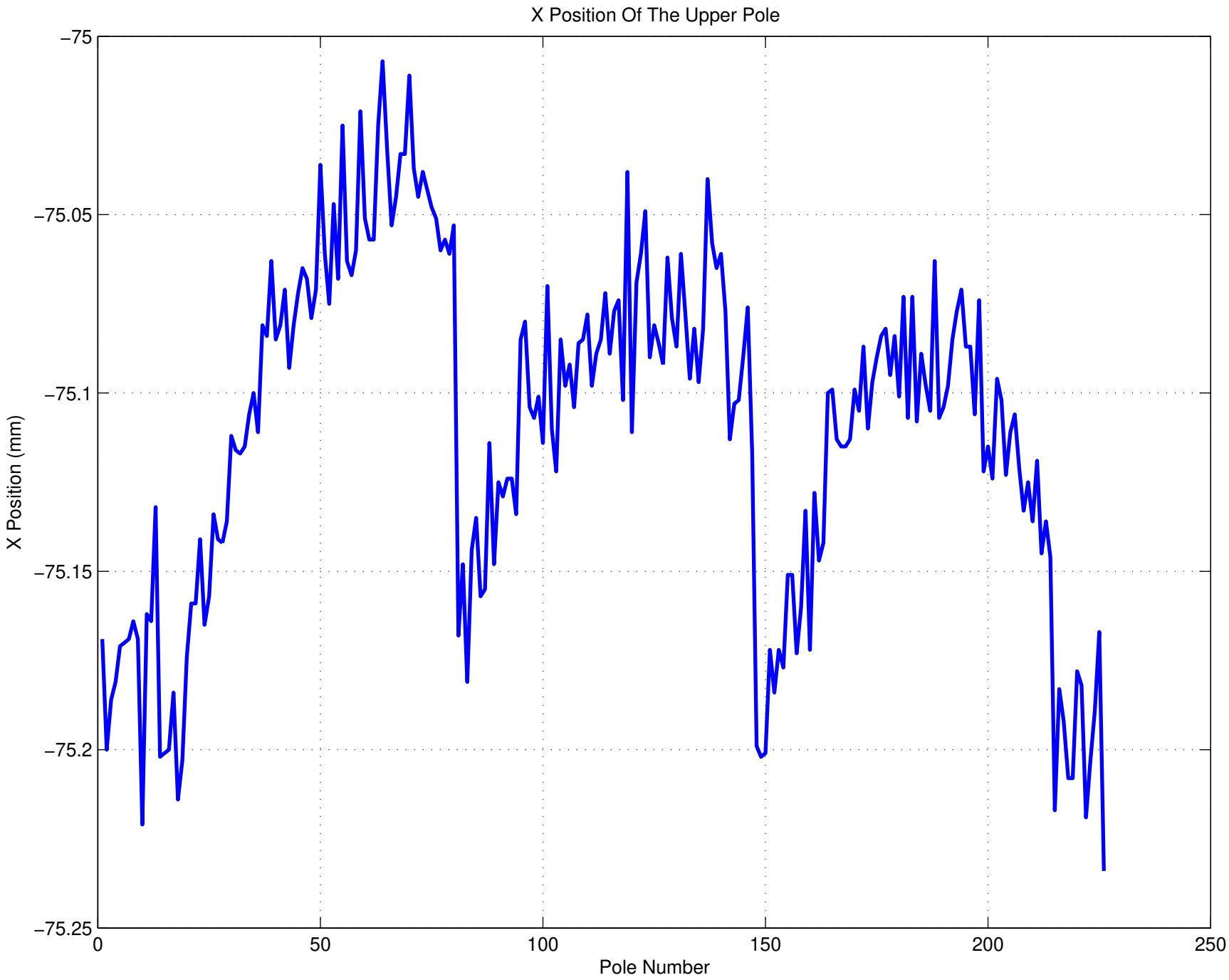

Midline Angle
Midline Angle (deg)
10.3138
10.3136
10.3134
10.3132
10.313
10.3128
10.3126
10.3124
0
50
100
150
200
250
Pole Number

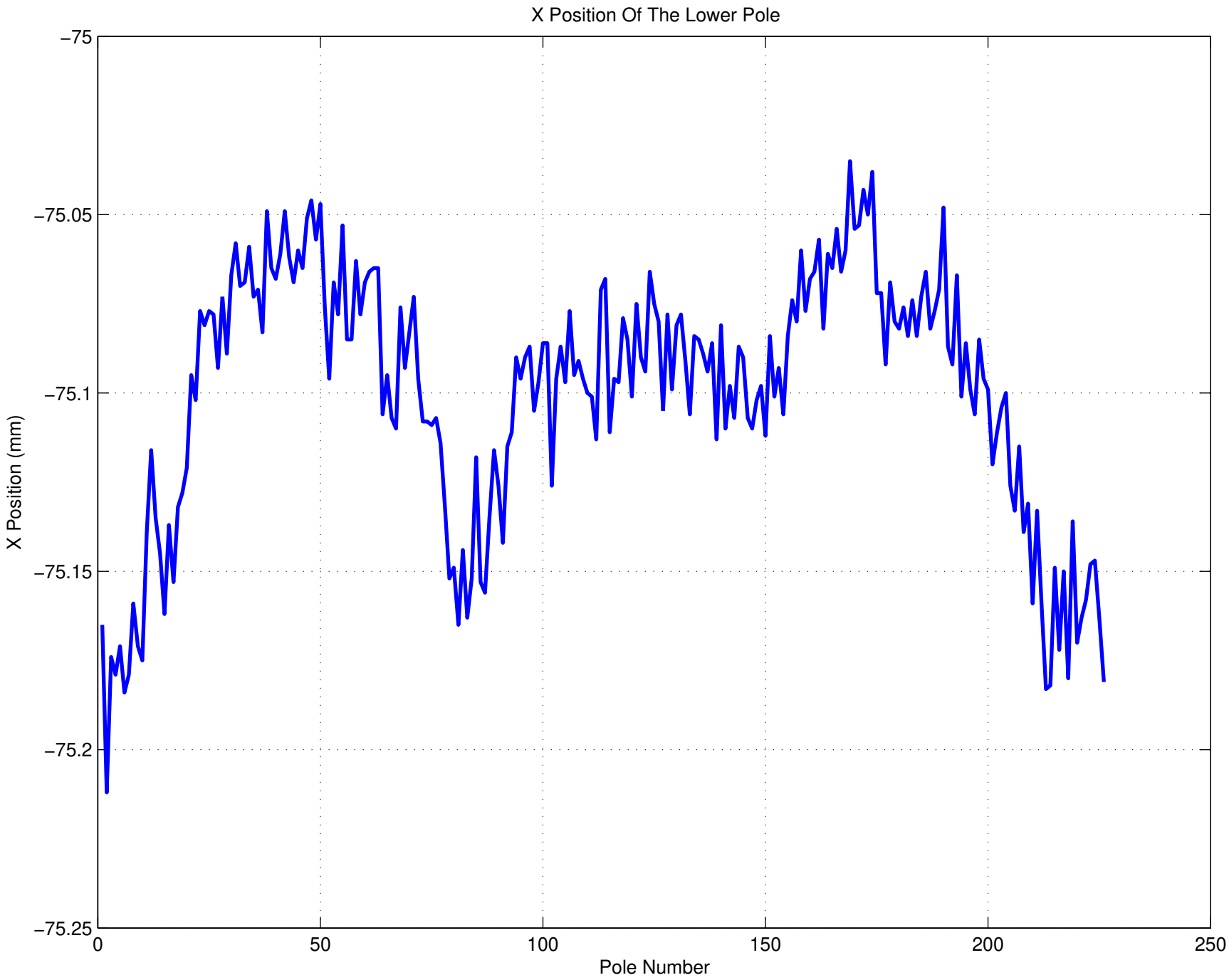

Y Position Of The Gap Center
Y Position (mm)
Pole Number
0.03
0.02
0.01
0
−0.01
−0.02
−0.03
−0.04
−0.05
0
50
100
150
200
250

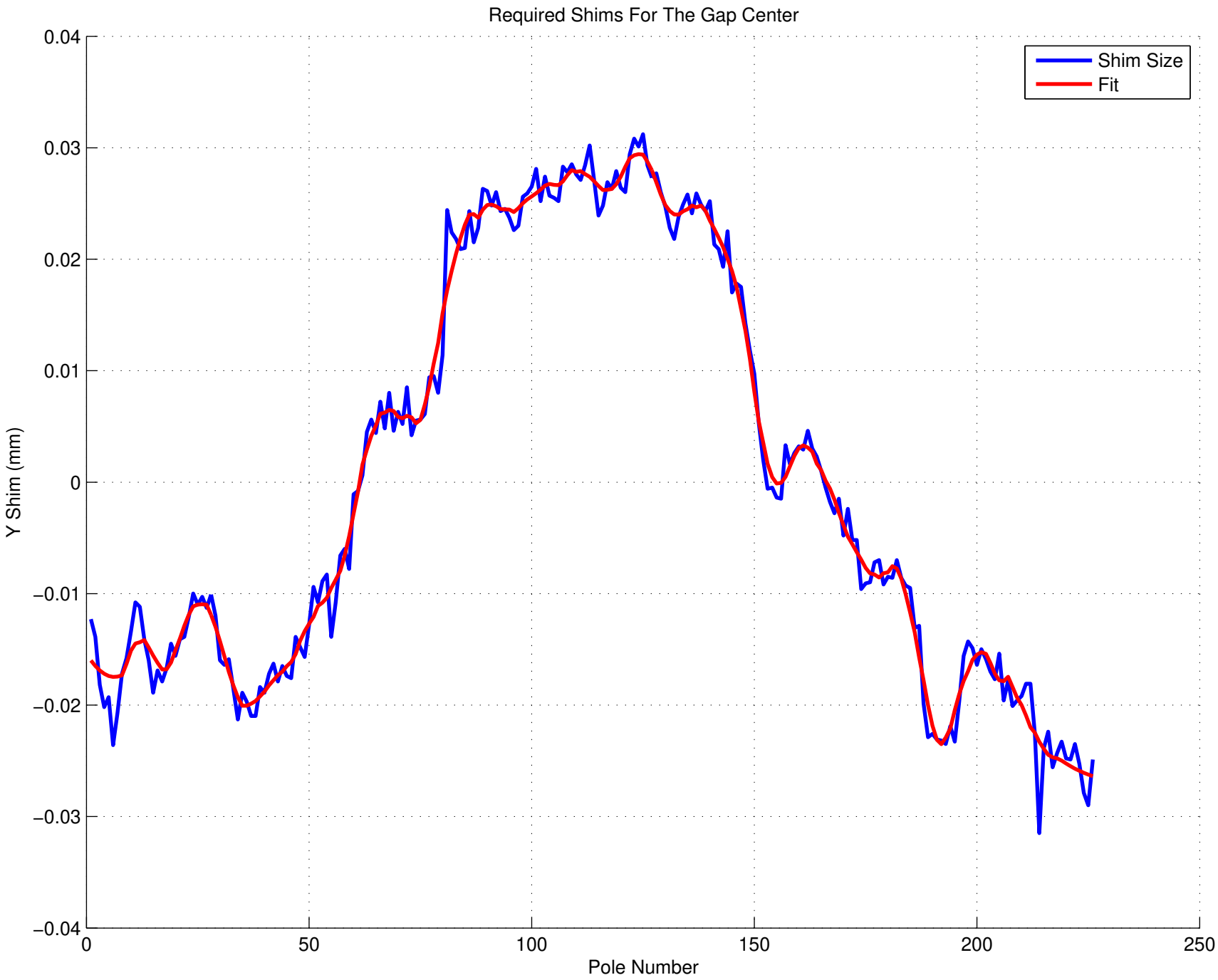

Gap Height
Gap Height (mm)
Pole Number
7
6.99
6.98
6.97
6.96
6.95
6.94
6.93
6.92
6.91
0
50
100
150
200
250


Y Position Of The Upper Pole
Y Position (mm)
3.54
3.52
3.5
3.48
3.46
3.44
3.42
0
50
100
150
200
250
Pole Number


Y Position Of The Lower Pole
−3.44
−3.45
−3.46
−3.47
−3.48
−3.49
−3.5
−3.51
−3.52
−3.53
Y Position (mm)
0
50
100
150
200
250
Pole Number


X Position Of The Upper Pole
X Position (mm)
−75
−75.05
−75.1
−75.15
−75.2
−75.25
0
50
100
150
200
250
Pole Number


X Position Of The Lower Pole
X Position (mm)
−75
−75.05
−75.1
−75.15
−75.2
−75.25
0
50
100
150
200
250
Pole Number


Required Shims For The Gap Center
Shim Size
Fit
Y Shim (mm)
Pole Number
0.04
0.03
0.02
0.01
0
−0.01
−0.02
−0.03
−0.04
0
50
100
150
200
250