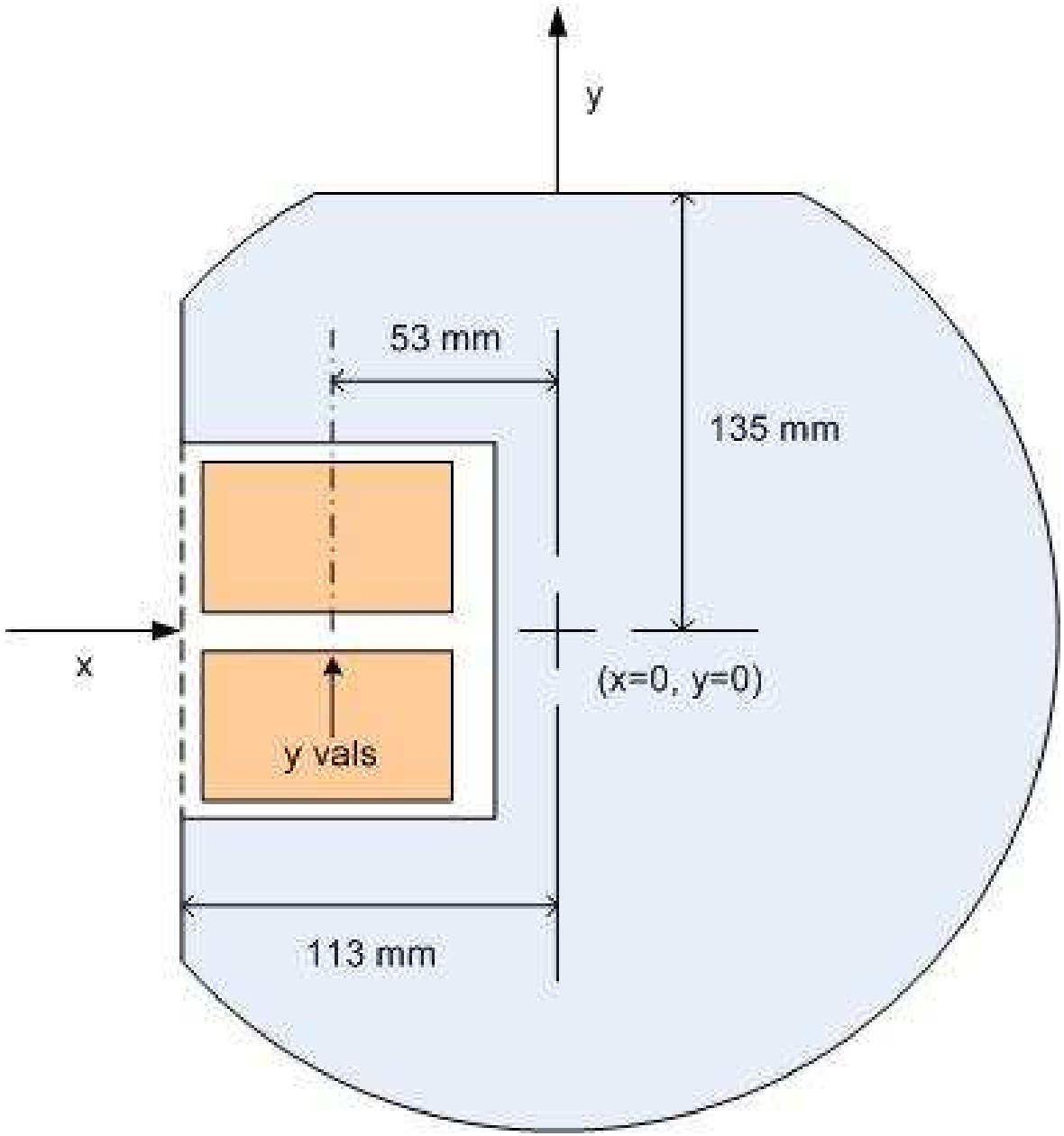
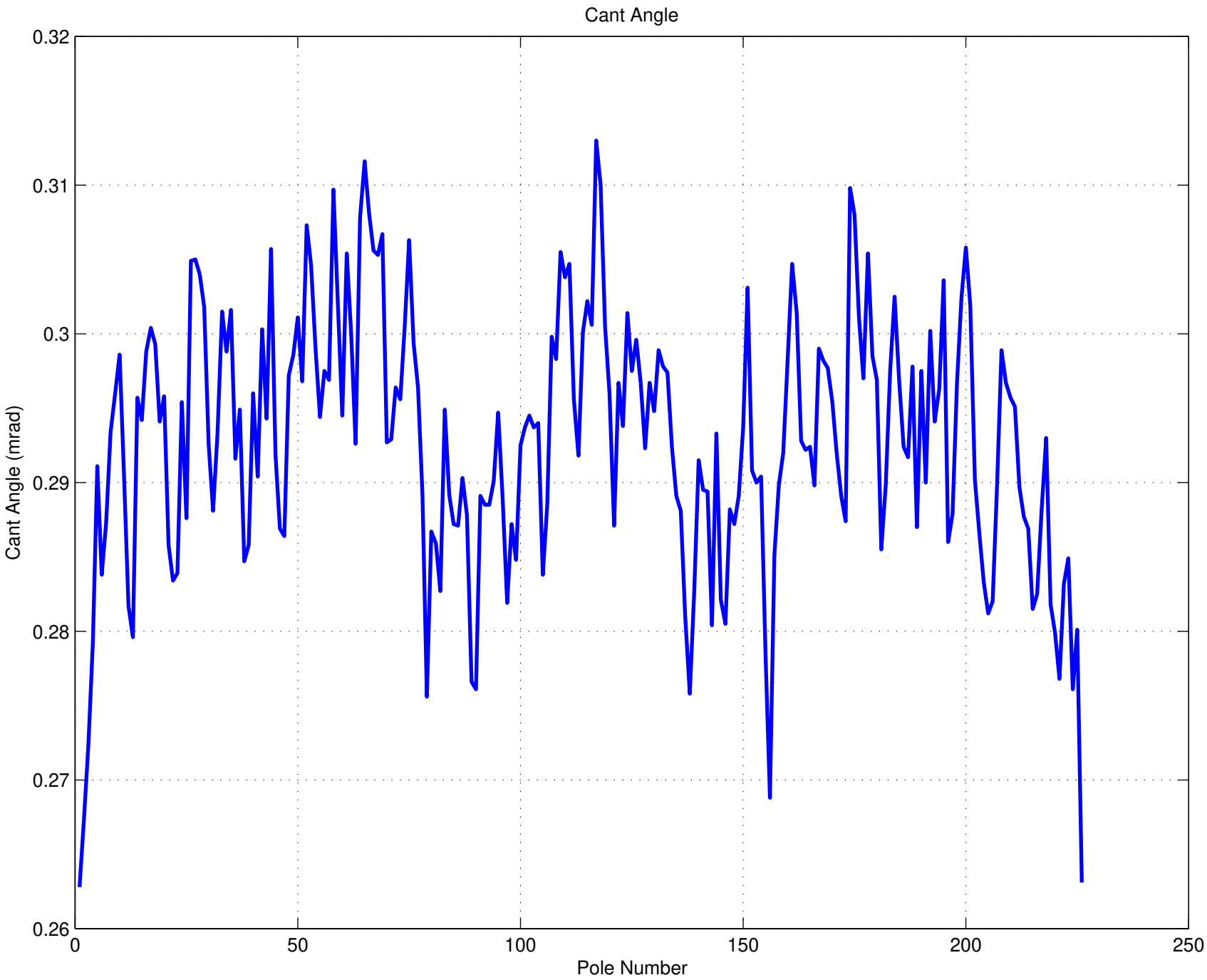
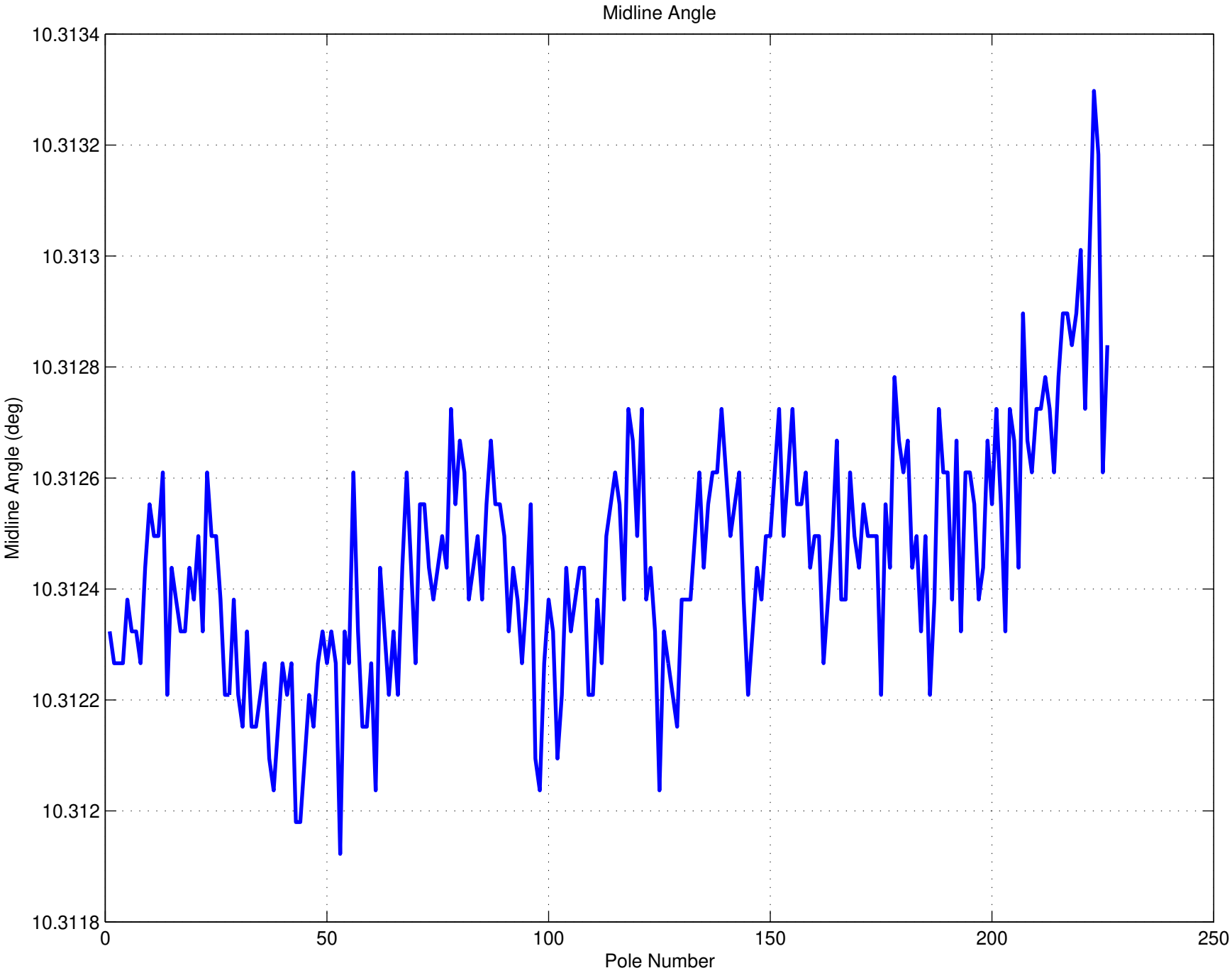
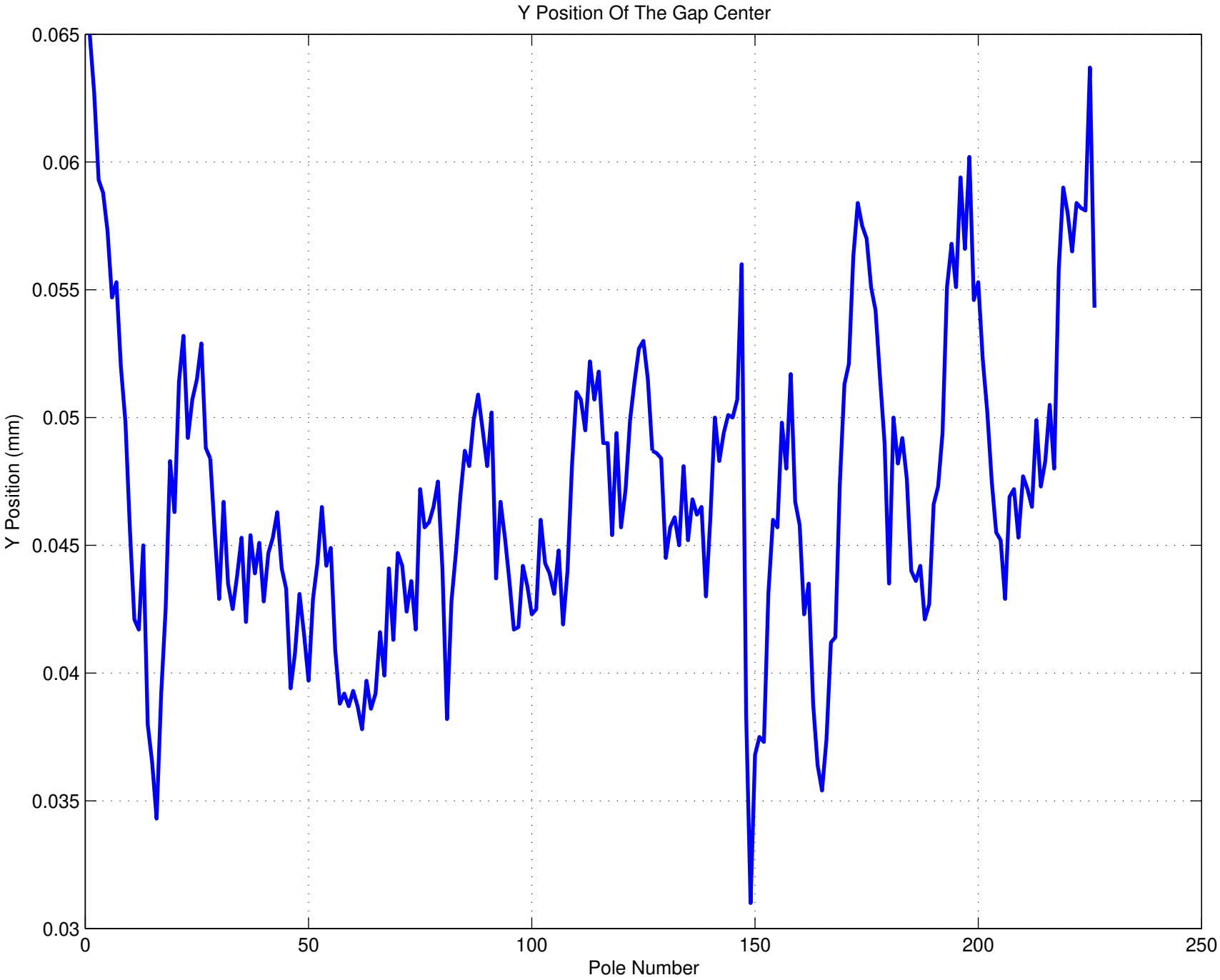
SLAC Magnetic Measurements
Mechanical Measurement Analysis

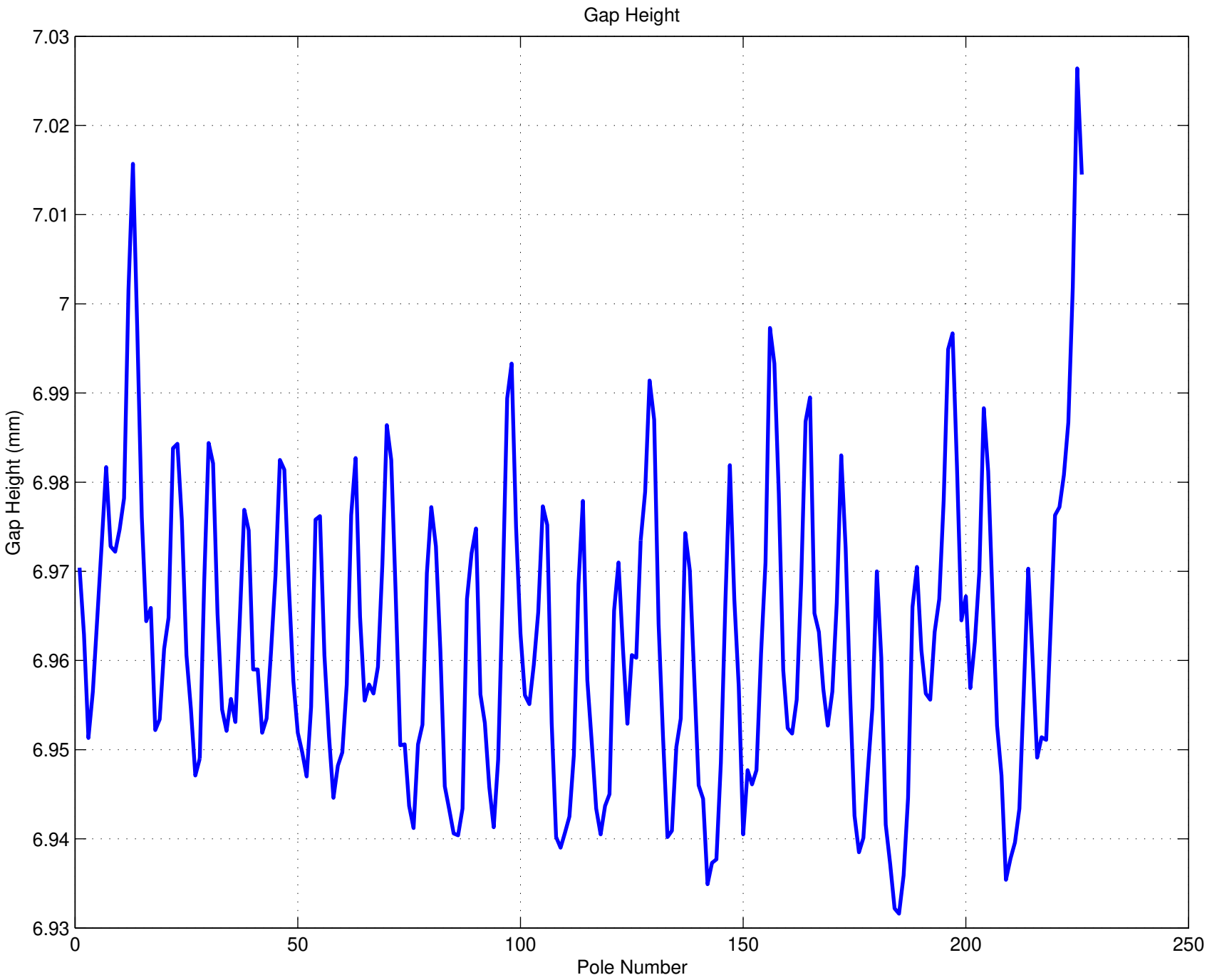
Parameters:
INPUT−FILE−DIR =S:\MagData\LCLS\Undulator\L143−112000−5 shim test 2\DATASET0001\MECHANICAL MEASUREMENTS\
INPUT−FILE−NAME =SN5 shim test 2 POLE TIP DATA POINTS − PRETUNING 06−JAN−2009.TXT

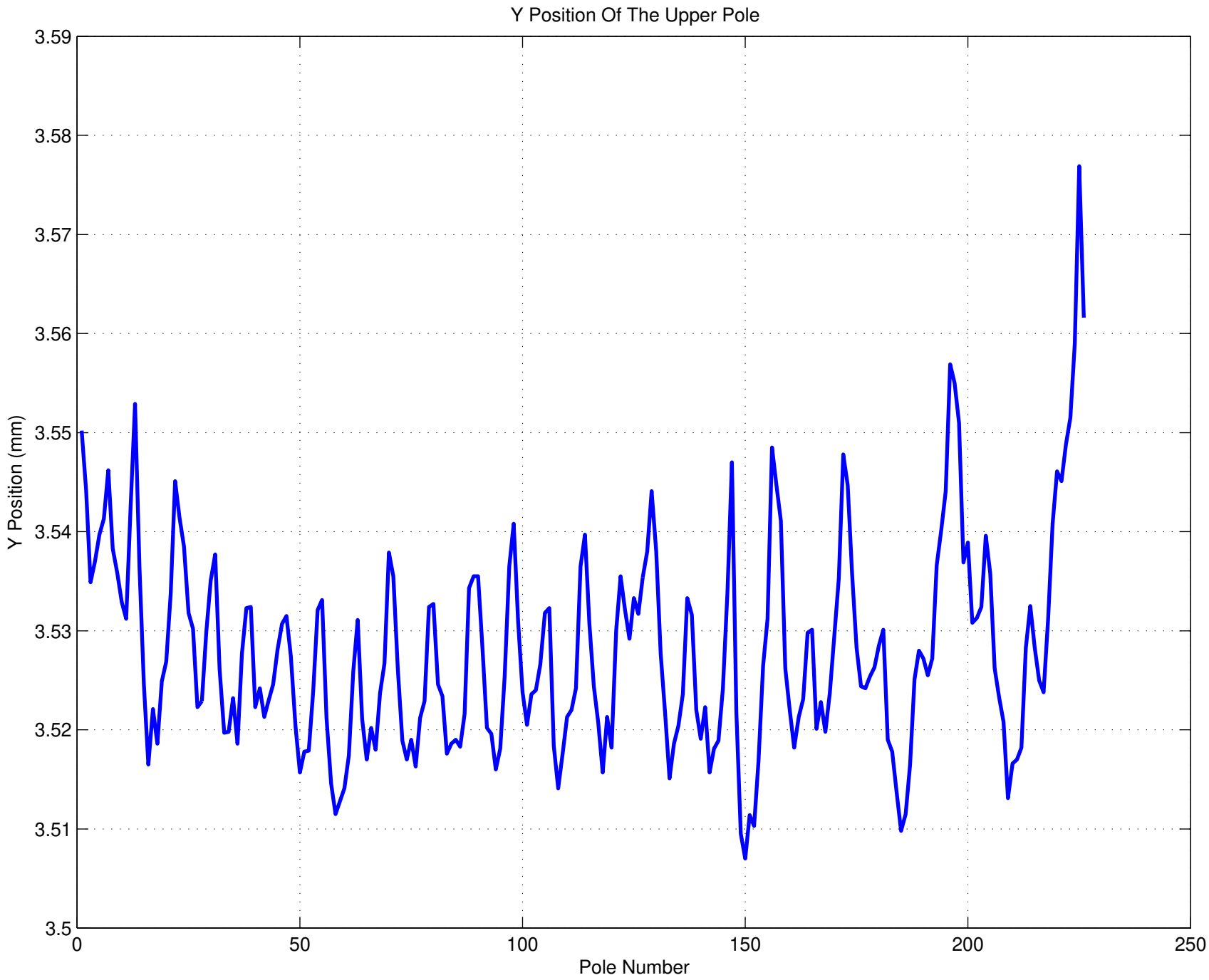

y
53 mm
135 mm
x
(x=0, y=0)
y vals
113 mm

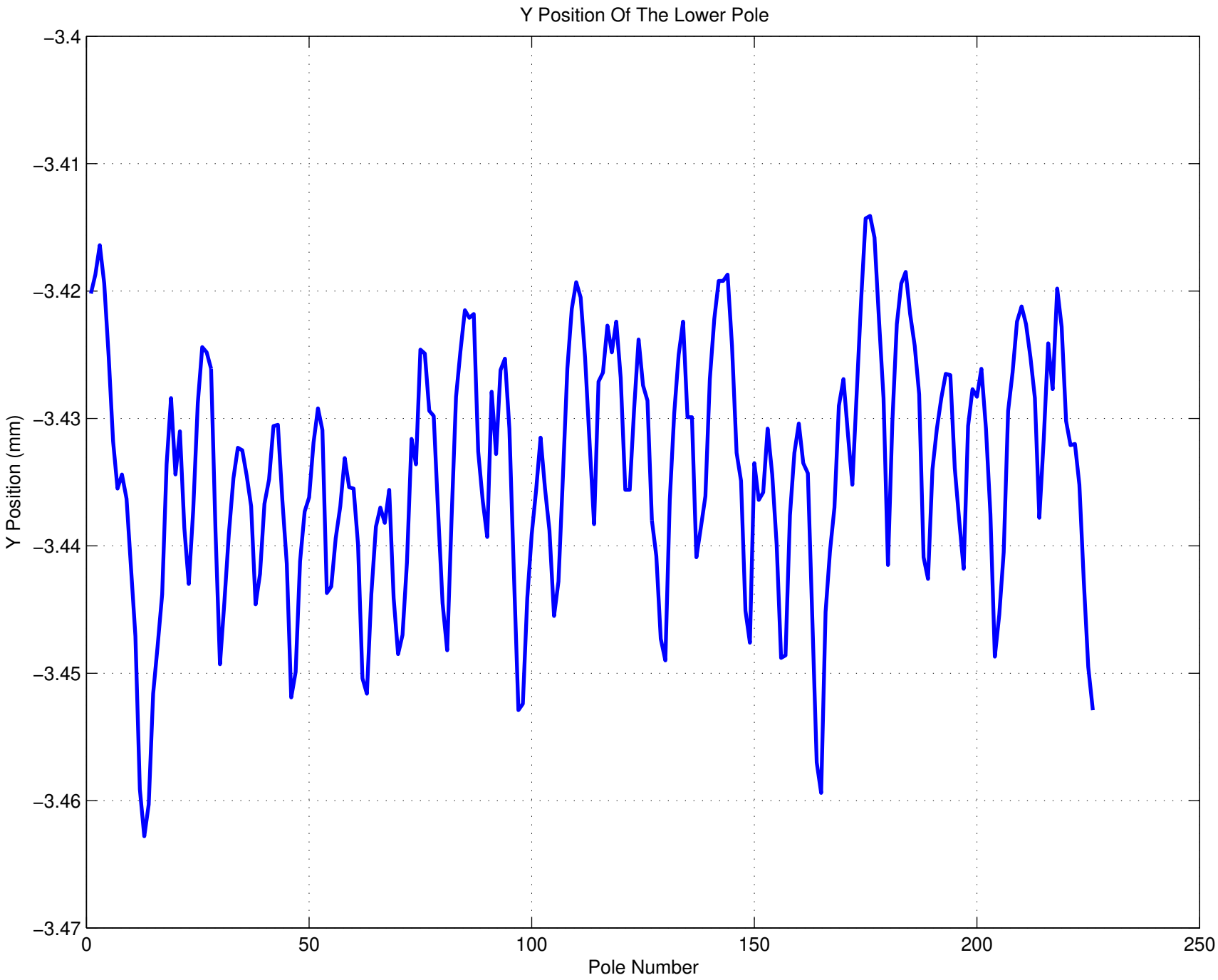

Cant Angle
Cant Angle (mrad)
Pole Number
0.32
0.31
0.3
0.29
0.28
0.27
0.26
0
50
100
150
200
250

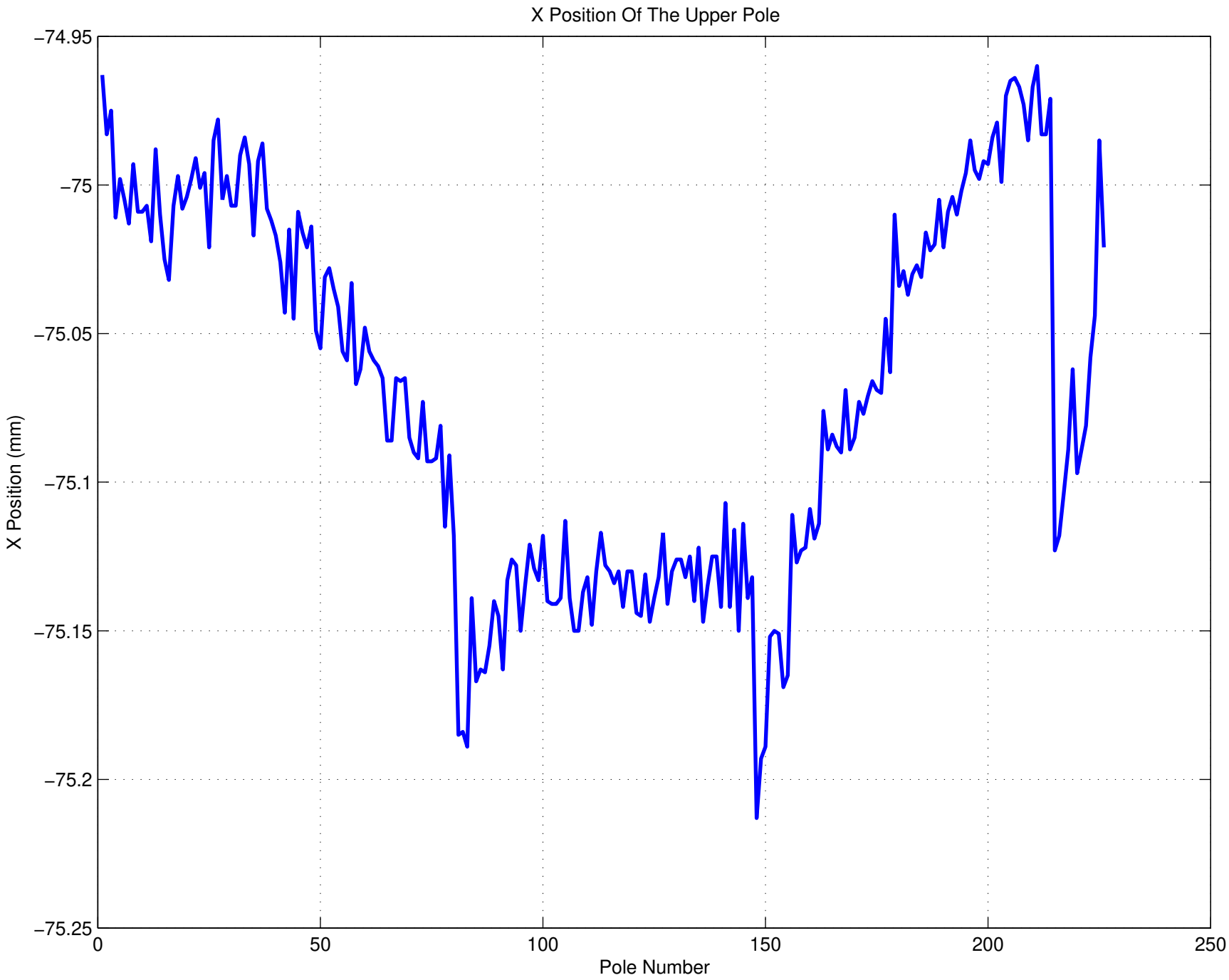

Midline Angle
Midline Angle (deg)
10.3134
10.3132
10.313
10.3128
10.3126
10.3124
10.3122
10.312
10.3118
0
50
100
150
200
250
Pole Number

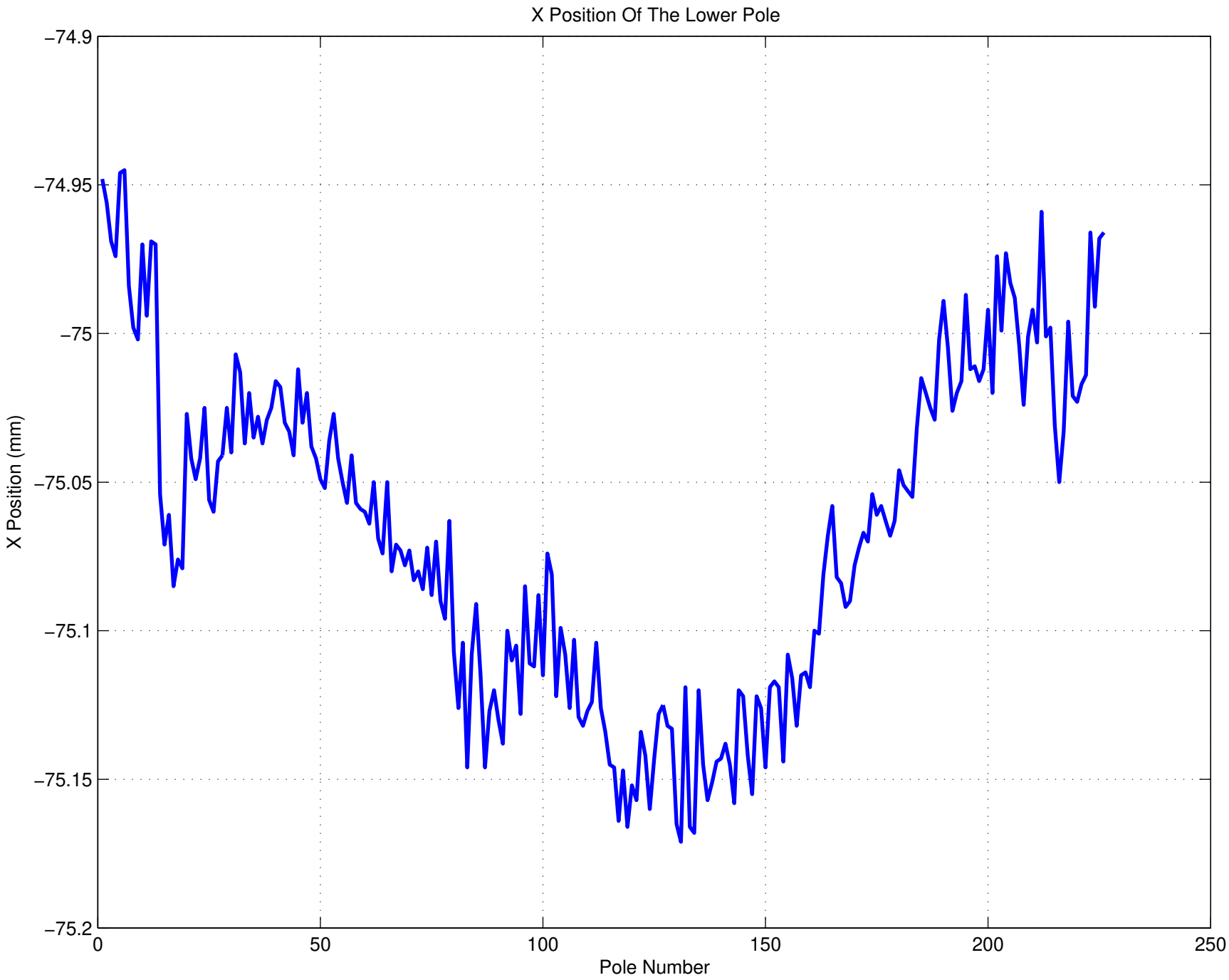

Y Position Of The Gap Center
Y Position (mm)
Pole Number
0.065
0.06
0.055
0.05
0.045
0.04
0.035
0.03
0
50
100
150
200
250

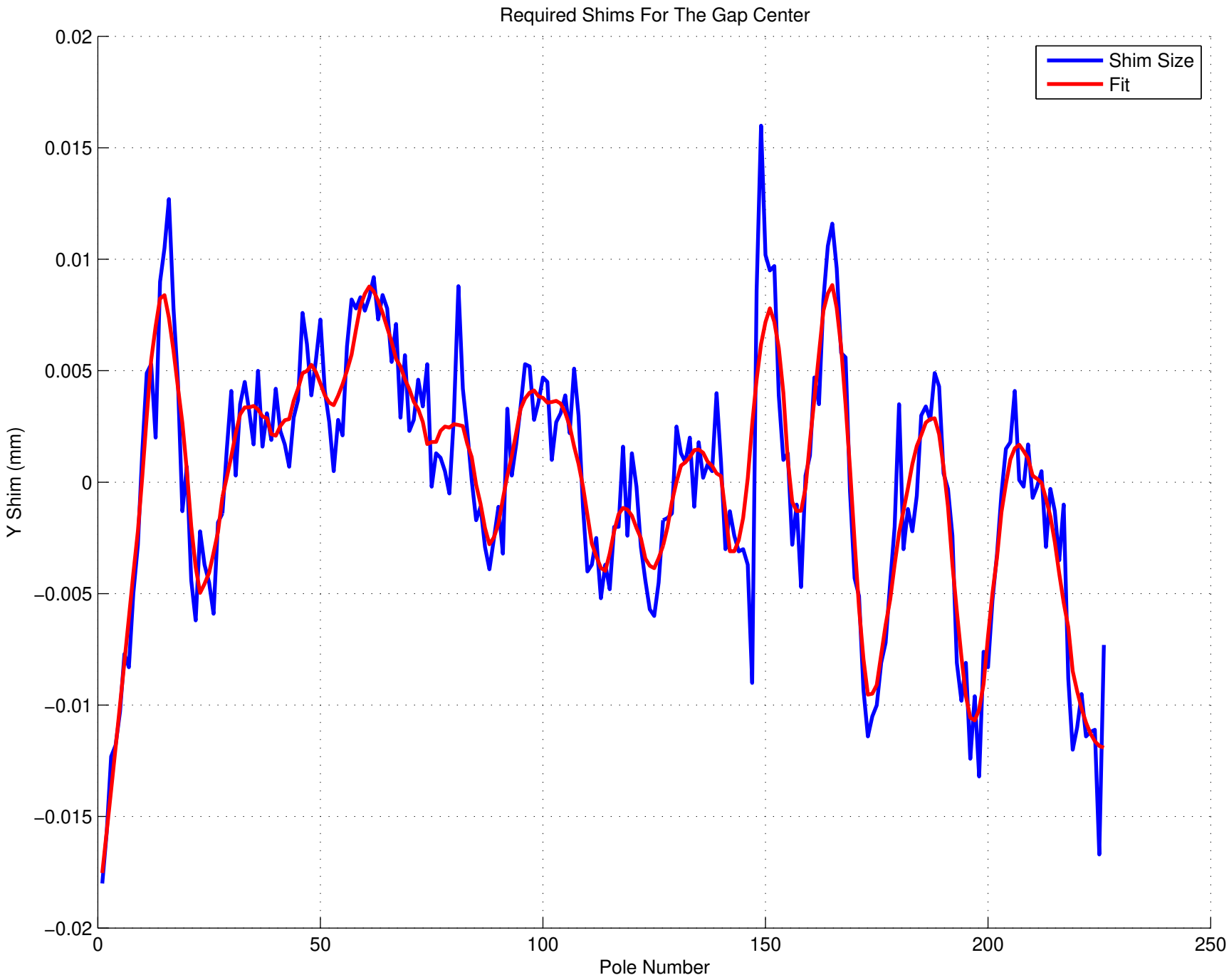

Gap Height
Gap Height (mm)
Pole Number
7.03
7.02
7.01
7
6.99
6.98
6.97
6.96
6.95
6.94
6.93
0
50
100
150
200
250


Y Position Of The Upper Pole
Y Position (mm)
Pole Number
3.59
3.58
3.57
3.56
3.55
3.54
3.53
3.52
3.51
3.5
0
50
100
150
200
250


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


X Position Of The Upper Pole
X Position (mm)
−74.95
−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)
−74.9
−74.95
−75
−75.05
−75.1
−75.15
−75.2
0
50
100
150
200
250
Pole Number


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