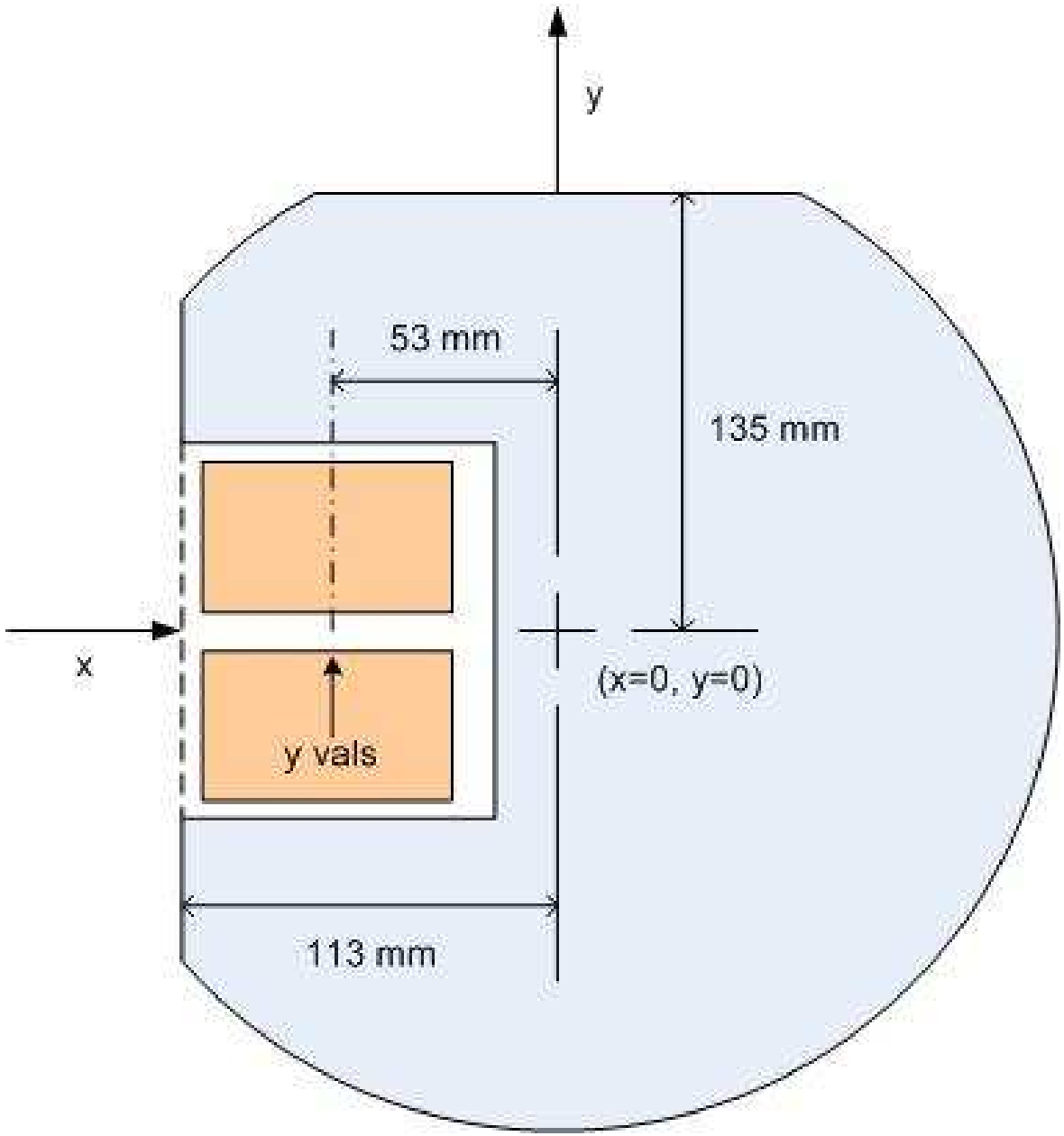
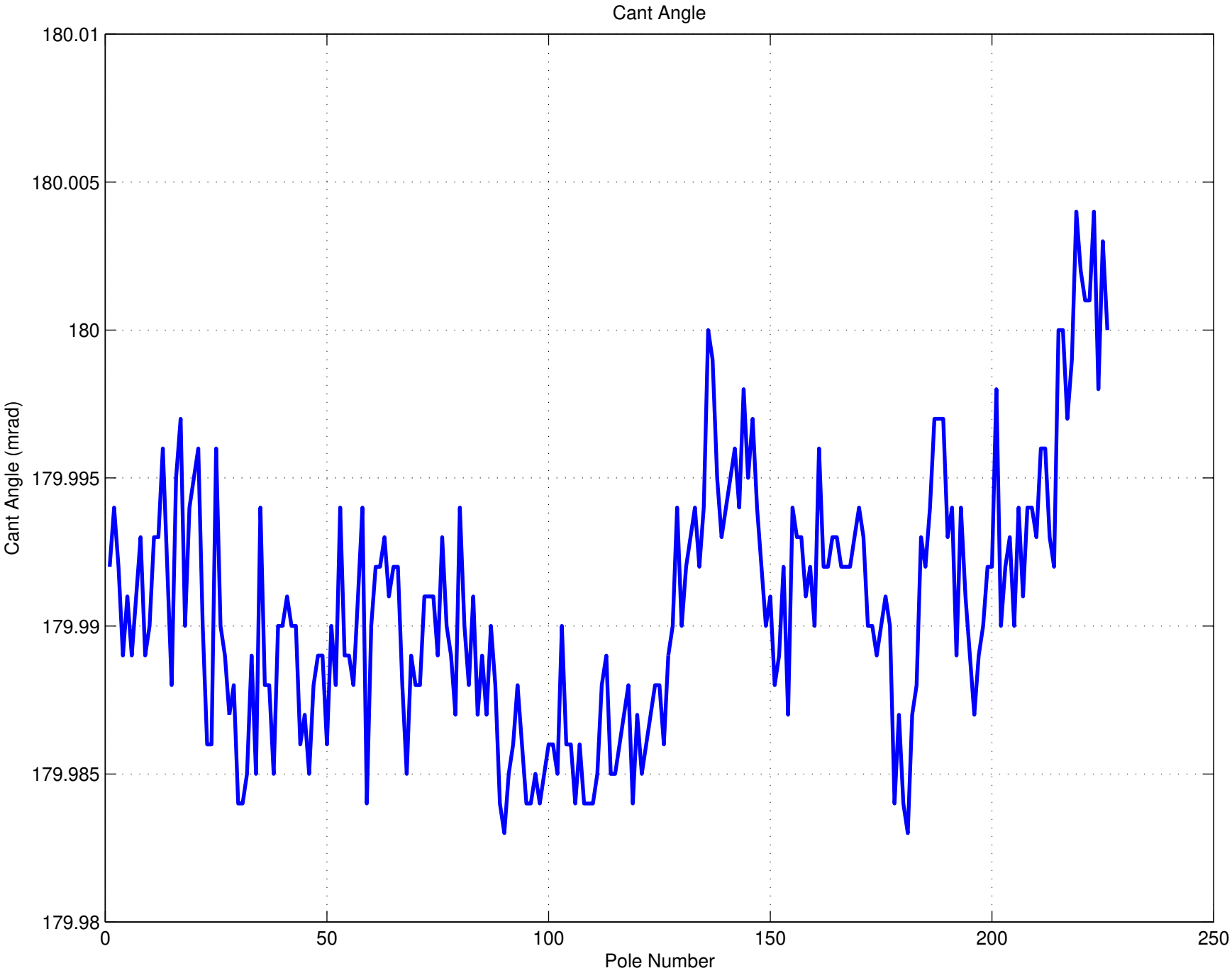
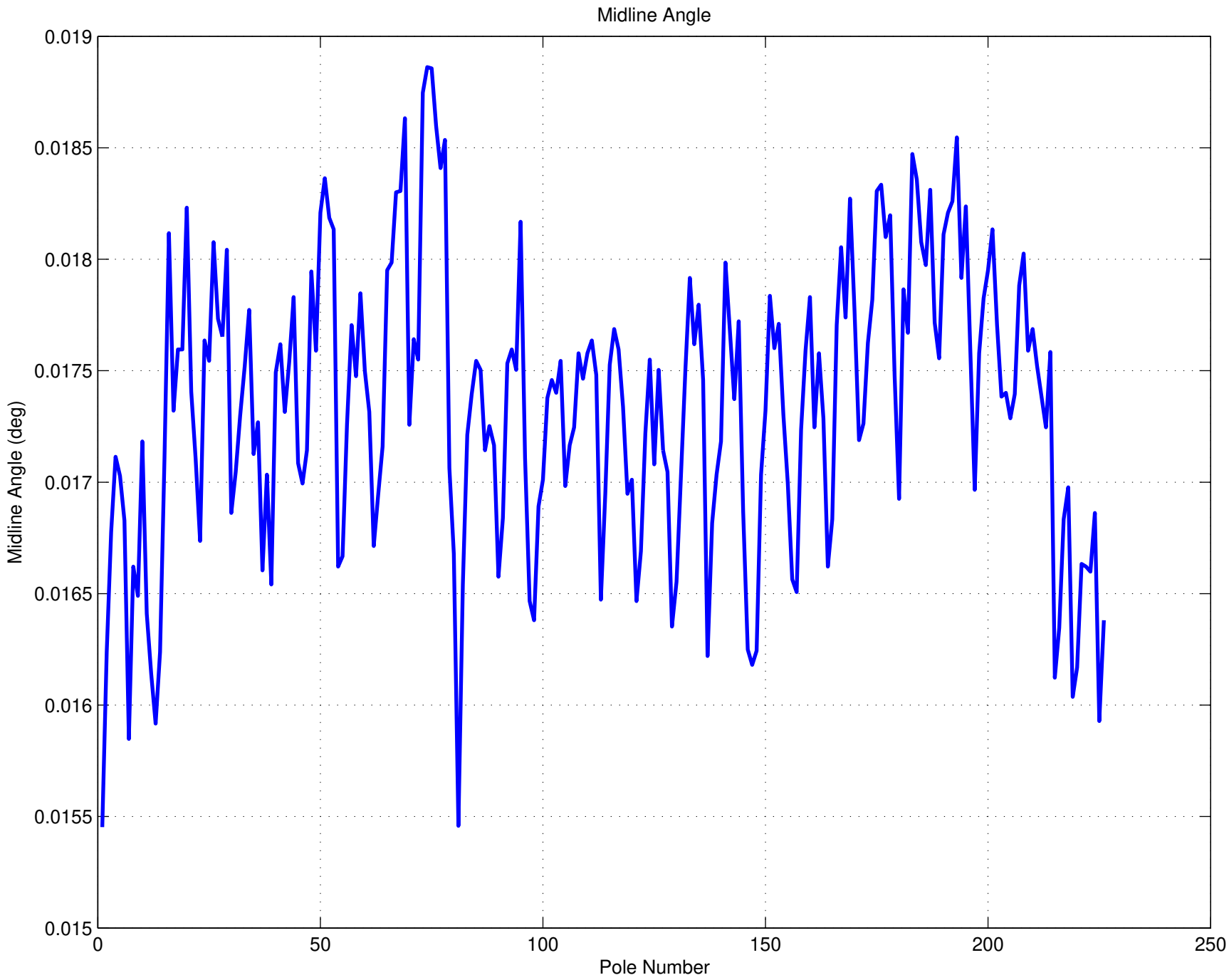
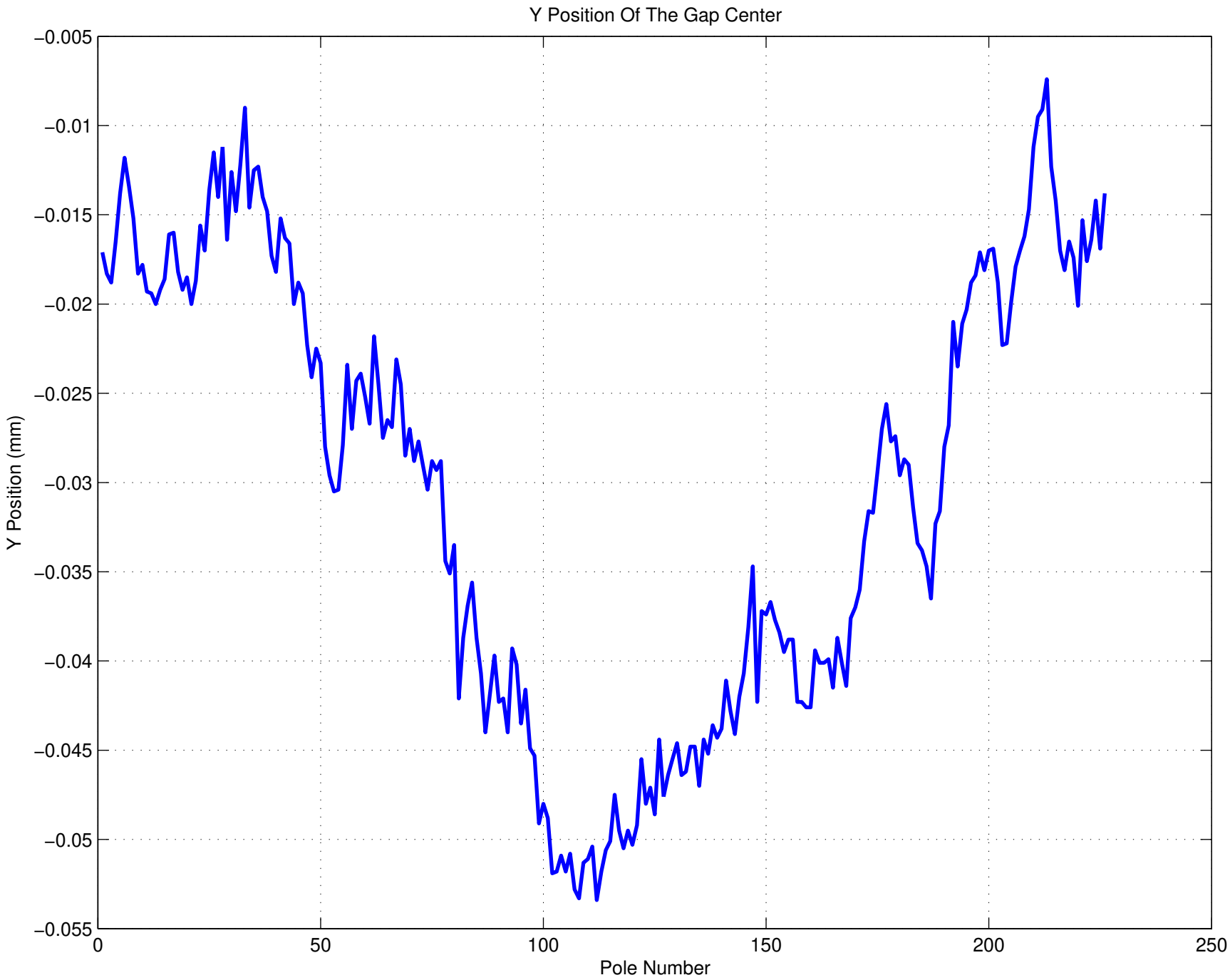
SLAC Magnetic Measurements
Mechanical Measurement Analysis

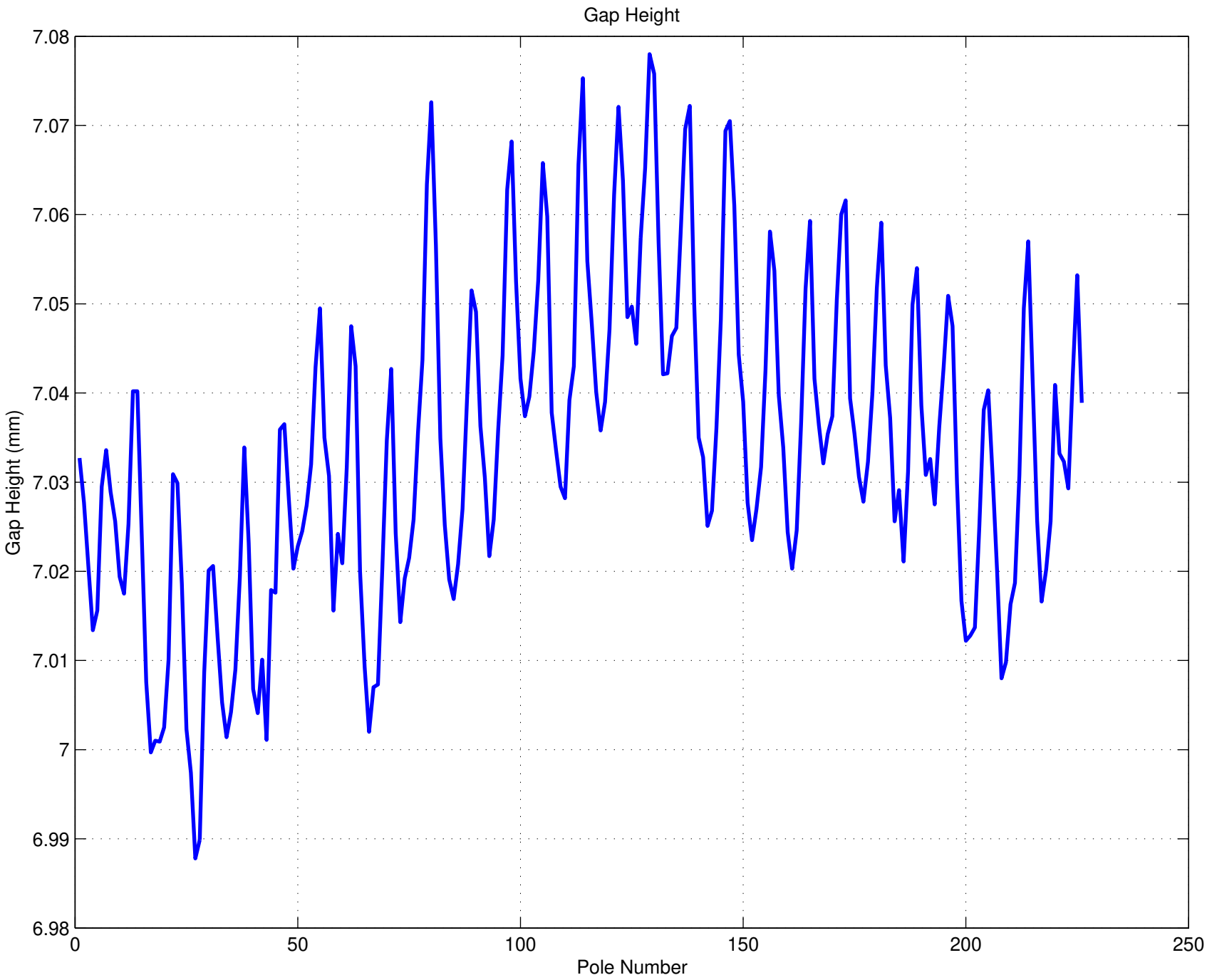
Parameters:
INPUT−FILE−DIR =S:\MagData\LCLS\Undulator\L143−112000−40\DATASET0001\MECHANICAL MEASUREMENTS\DATA\
INPUT−FILE−NAME =SN40 POLE TIP DATA POINTS − PRETUNING 22−APR−2008.TXT

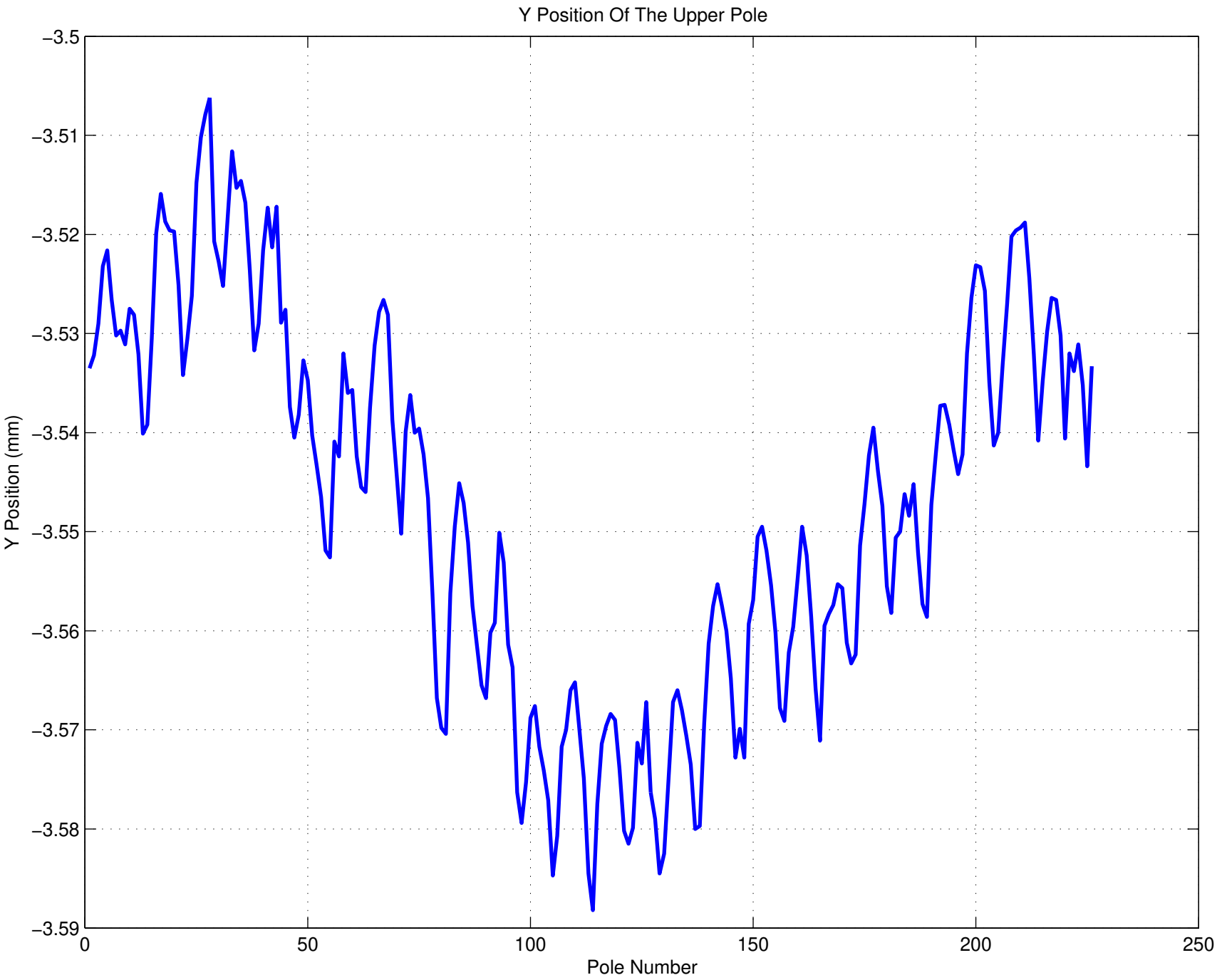

y
53 mm
135 mm
x
(x=0, y=0)
y vals
113 mm

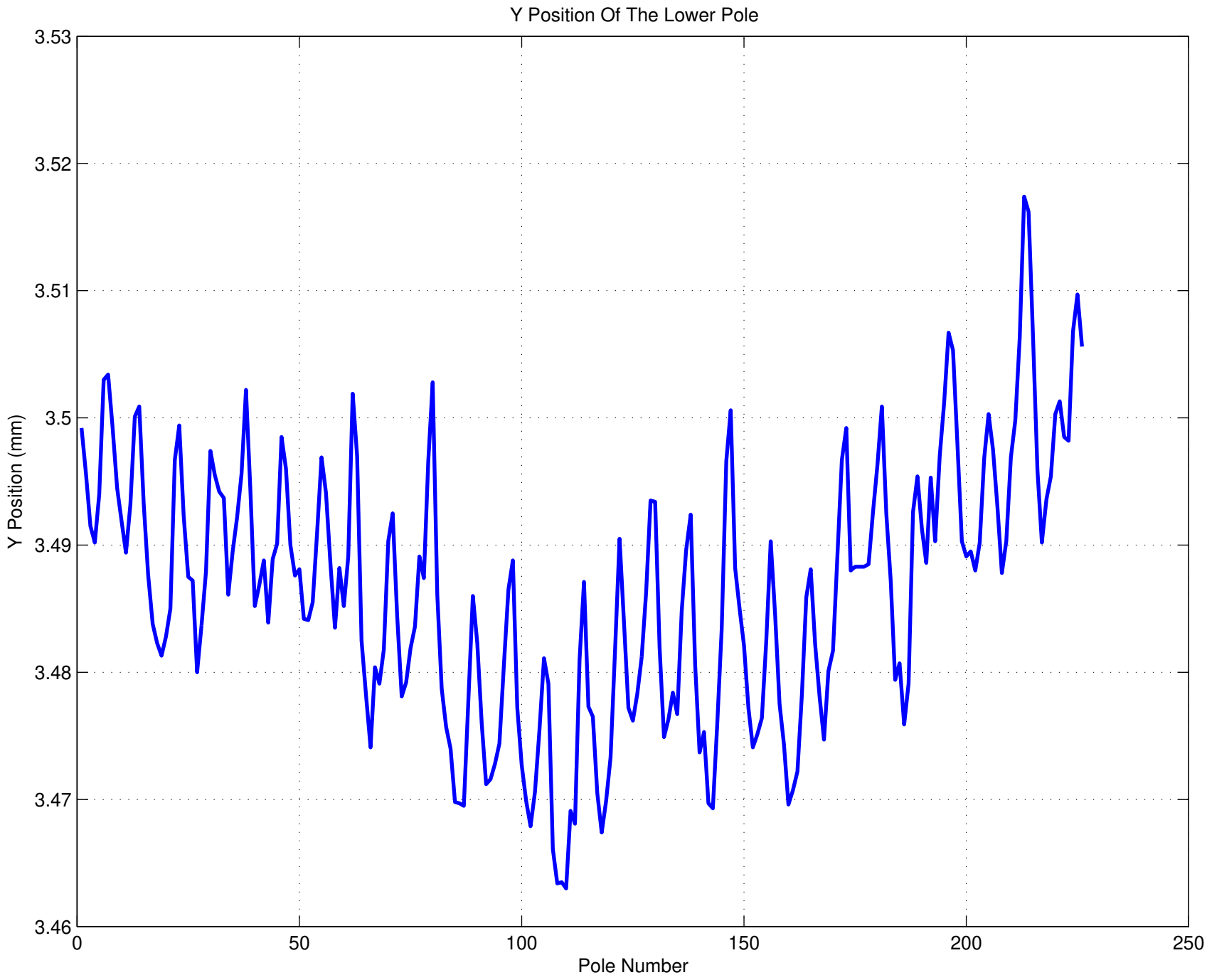

Cant Angle
180.01
180.005
180
179.995
179.99
179.985
179.98
Cant Angle (mrad)
0
50
100
150
200
250
Pole Number

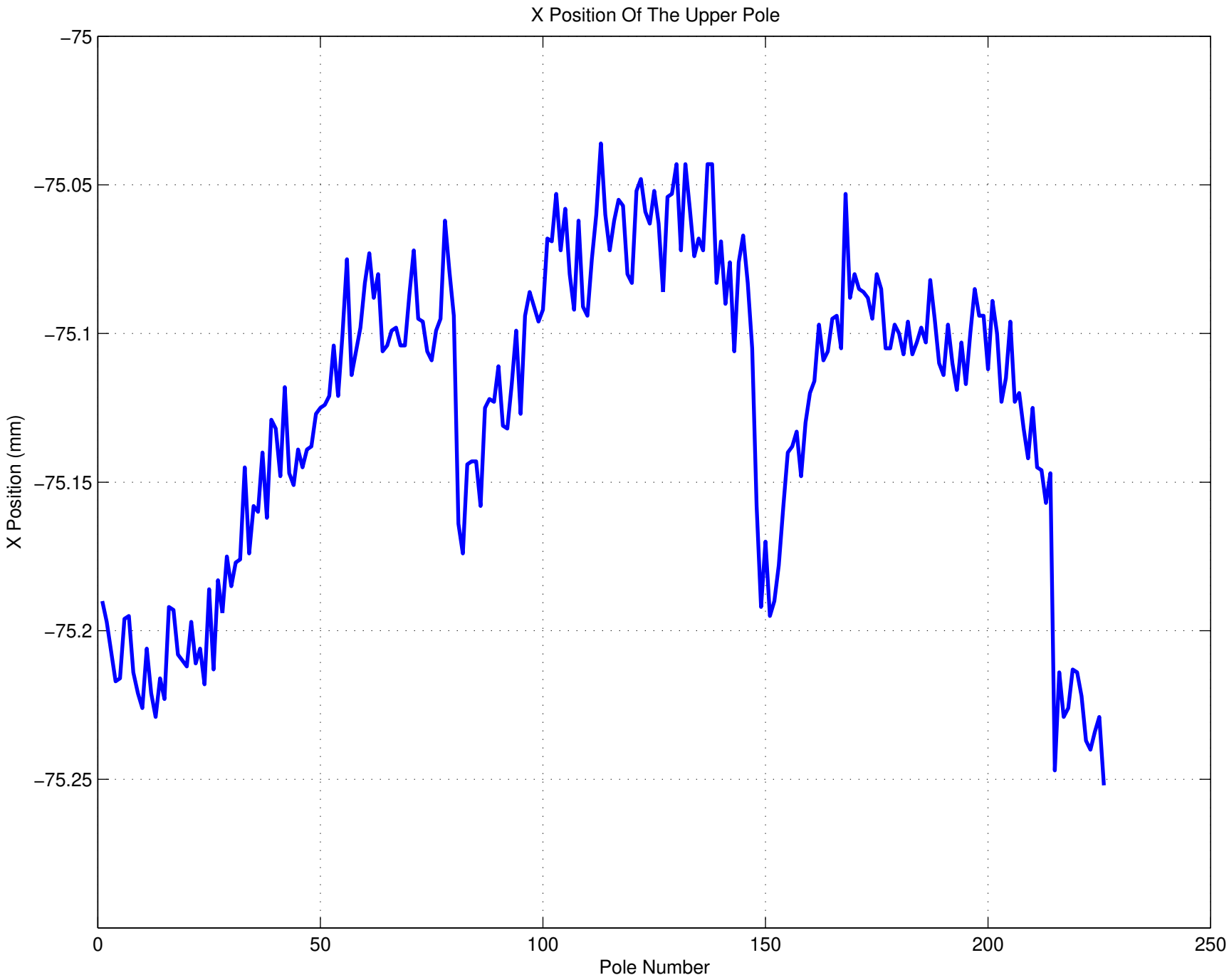

Midline Angle
Midline Angle (deg)
Pole Number
0.019
0.0185
0.018
0.0175
0.017
0.0165
0.016
0.0155
0.015
0
50
100
150
200
250

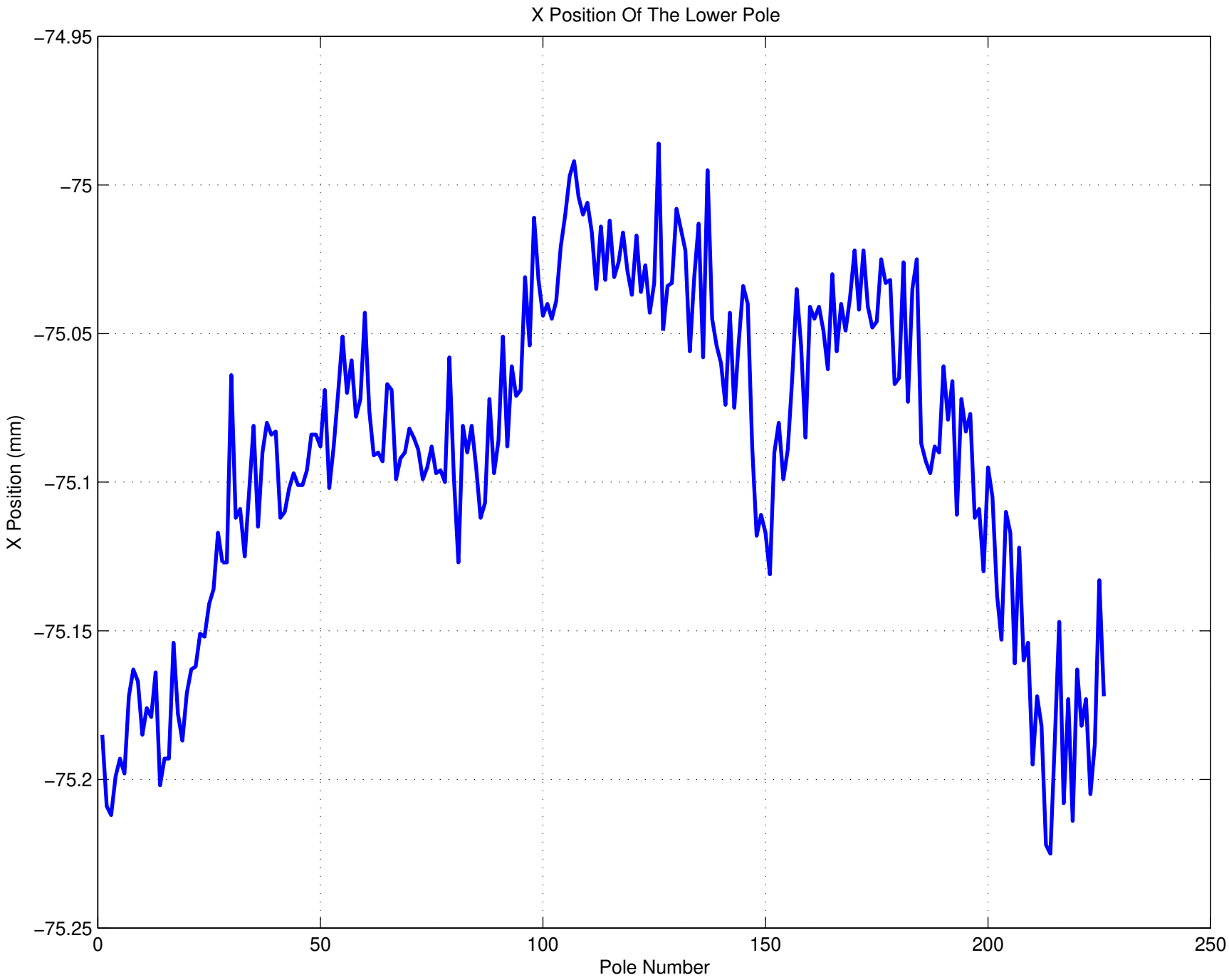

Y Position Of The Gap Center
Y Position (mm)
Pole Number
−0.005
−0.01
−0.015
−0.02
−0.025
−0.03
−0.035
−0.04
−0.045
−0.05
−0.055
0
50
100
150
200
250

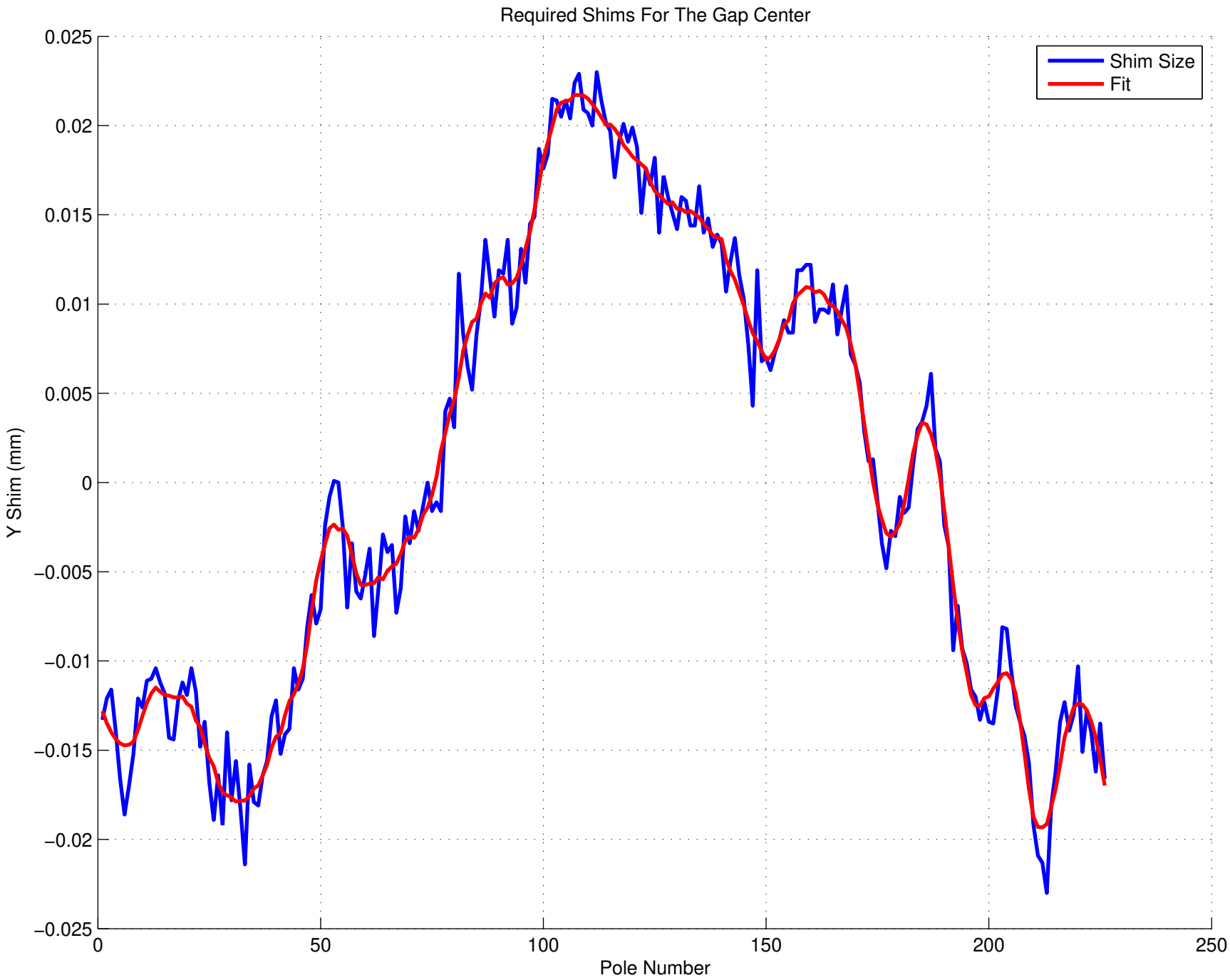

Gap Height
Gap Height (mm)
Pole Number
7.08
7.07
7.06
7.05
7.04
7.03
7.02
7.01
7
6.99
6.98
0
50
100
150
200
250


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


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


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)
−74.95
−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
0.025
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