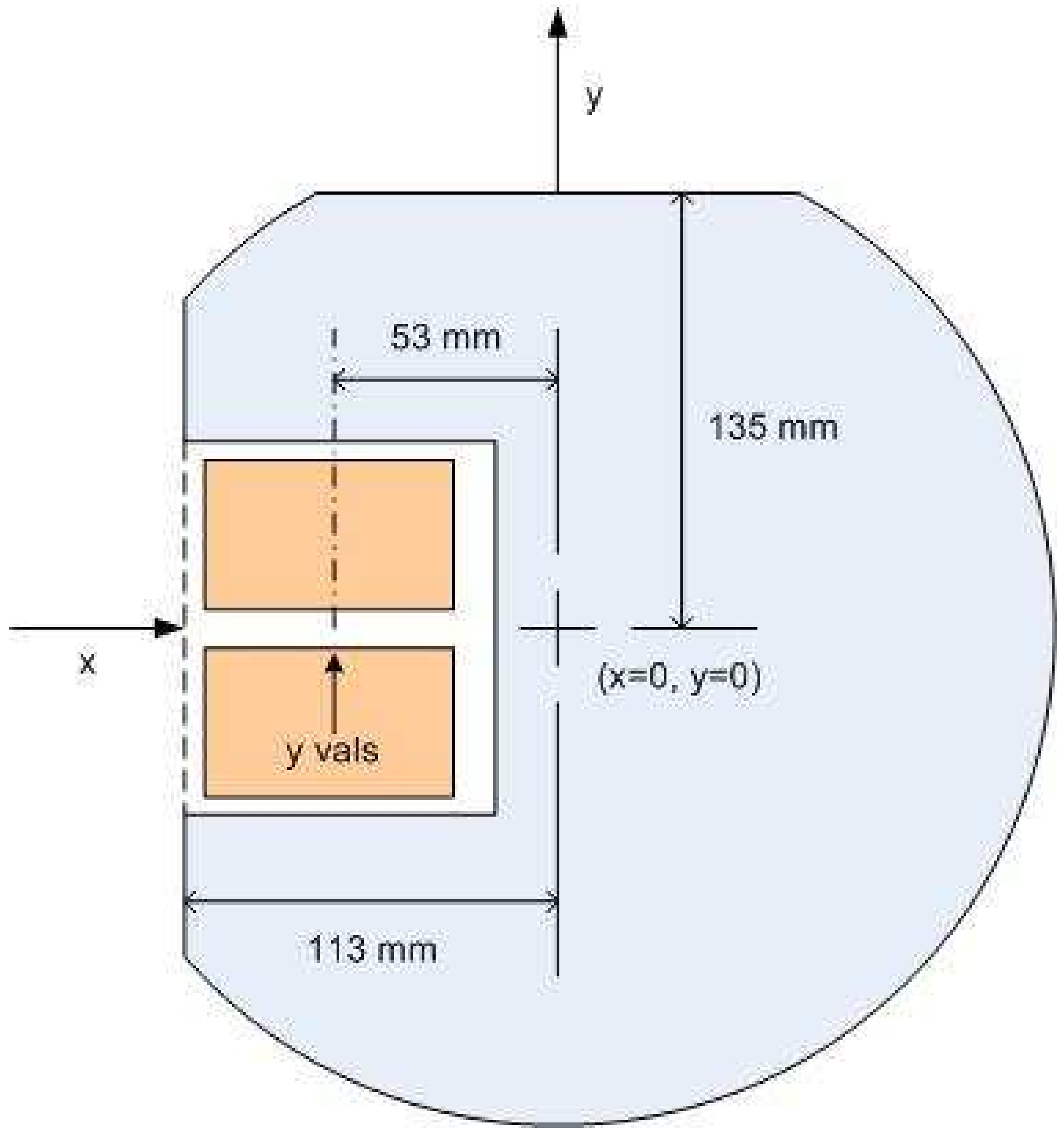
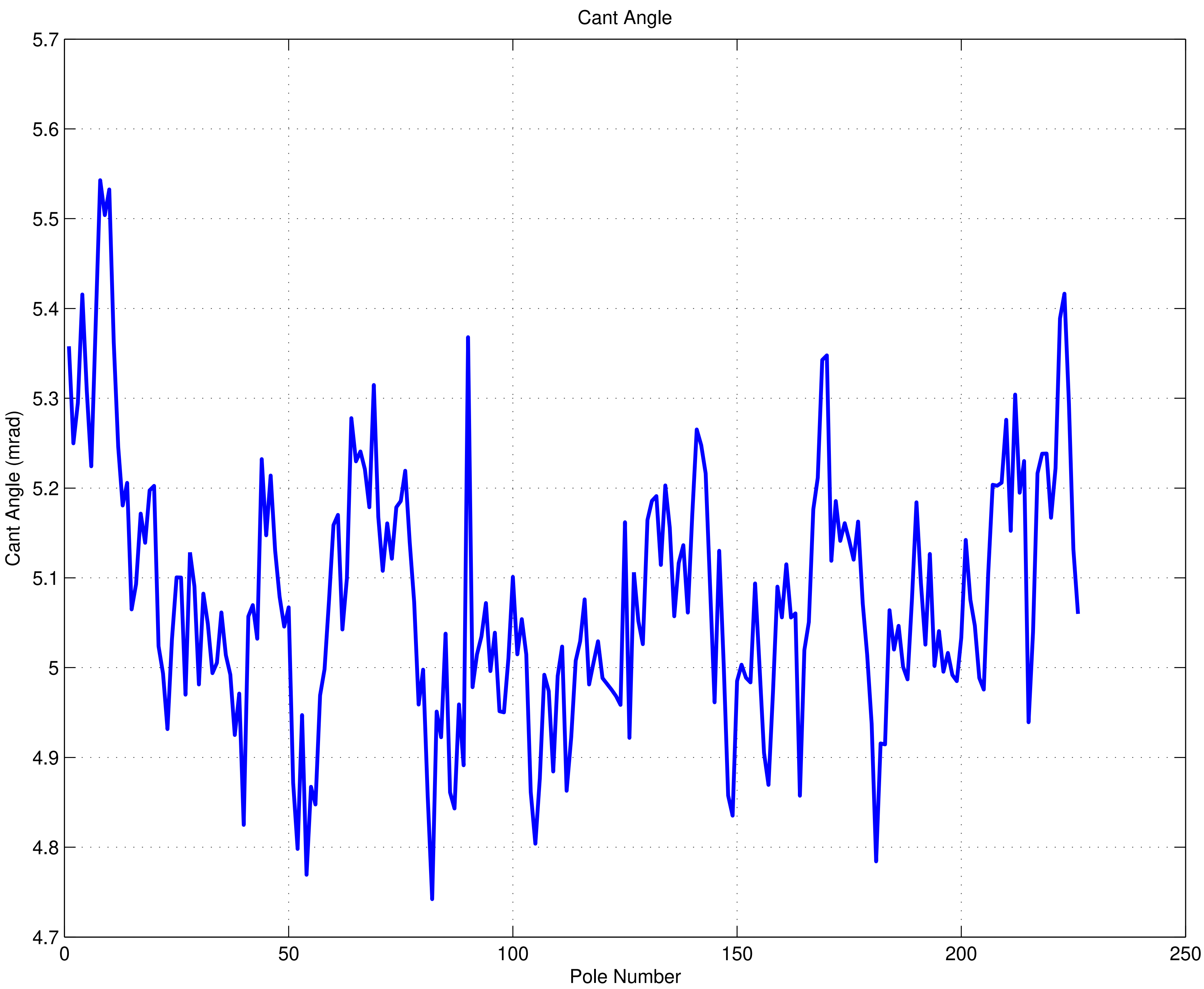
SLAC Magnetic Measurements
Mechanical Measurement Analysis

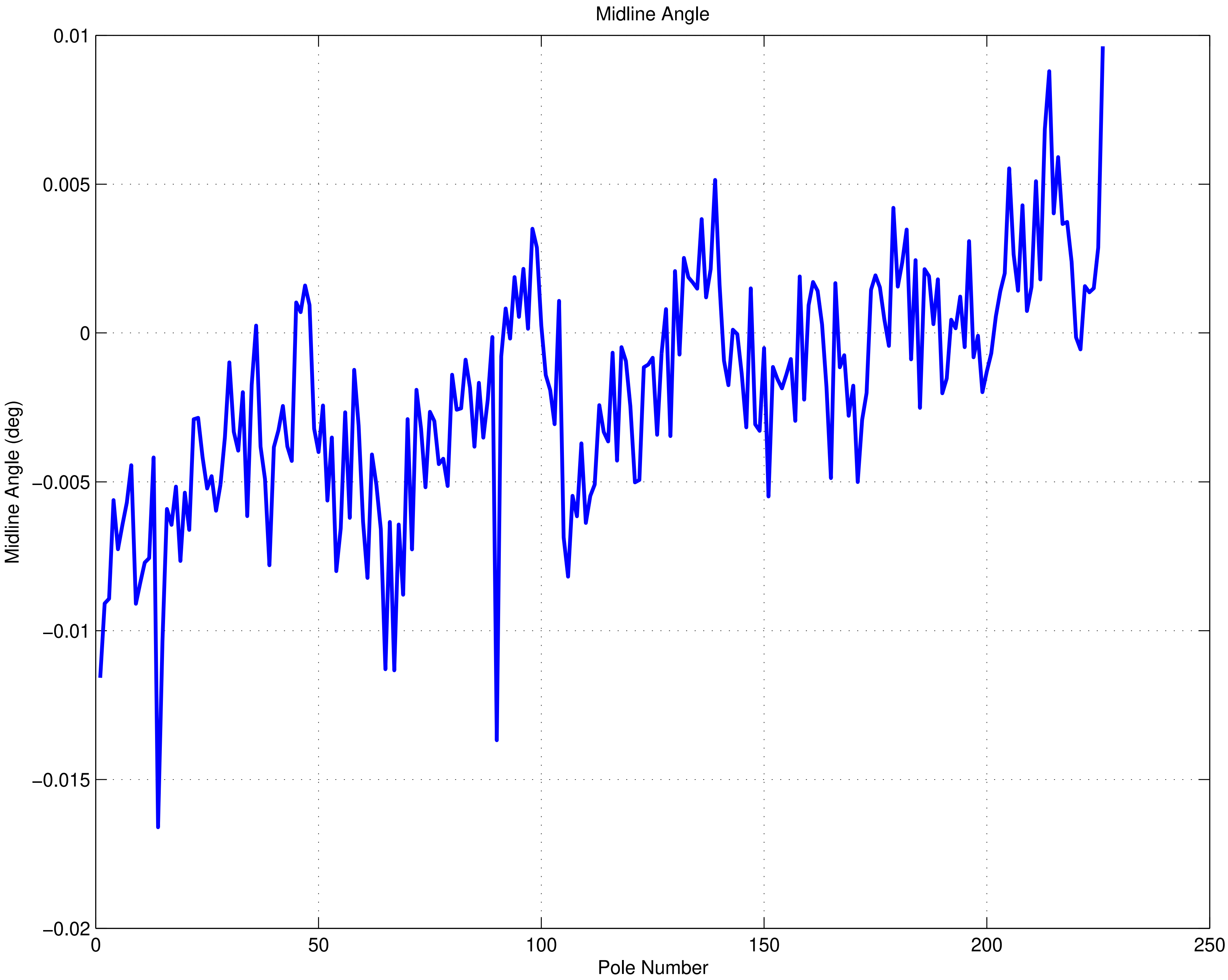
Parameters:
INPUT−FILE−DIR =S:\MagData\LCLS\Undulator\L143−112000−30\DATASET0001\MECHANICAL MEASUREMENTS\DATA FIL
INPUT−FILE−NAME =SN 30 POLE TIP DATA POINTS 26−MAR−2008.TXT



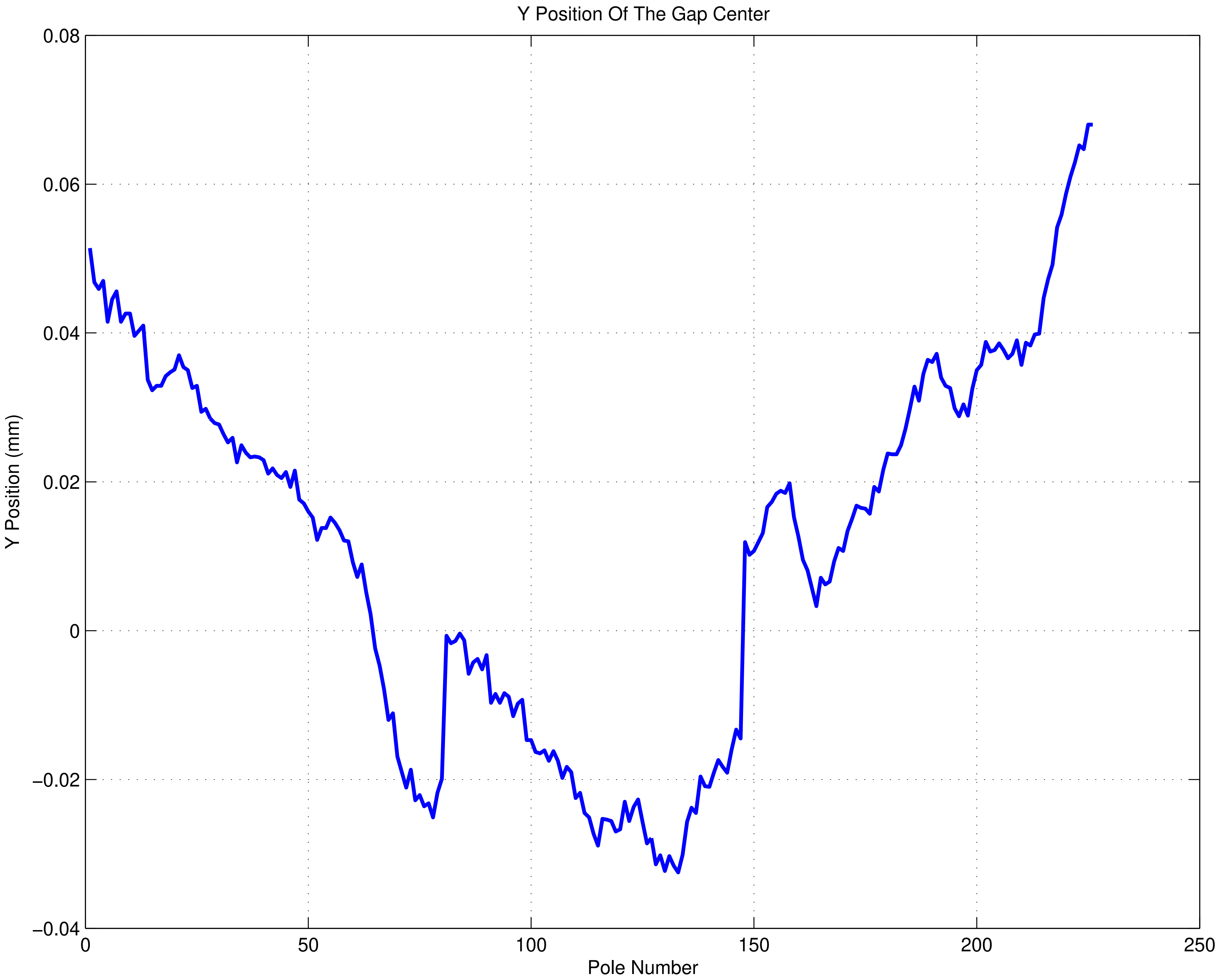
y
53 mm
135 mm
x
(x=0, y=0)
y vals
113 mm

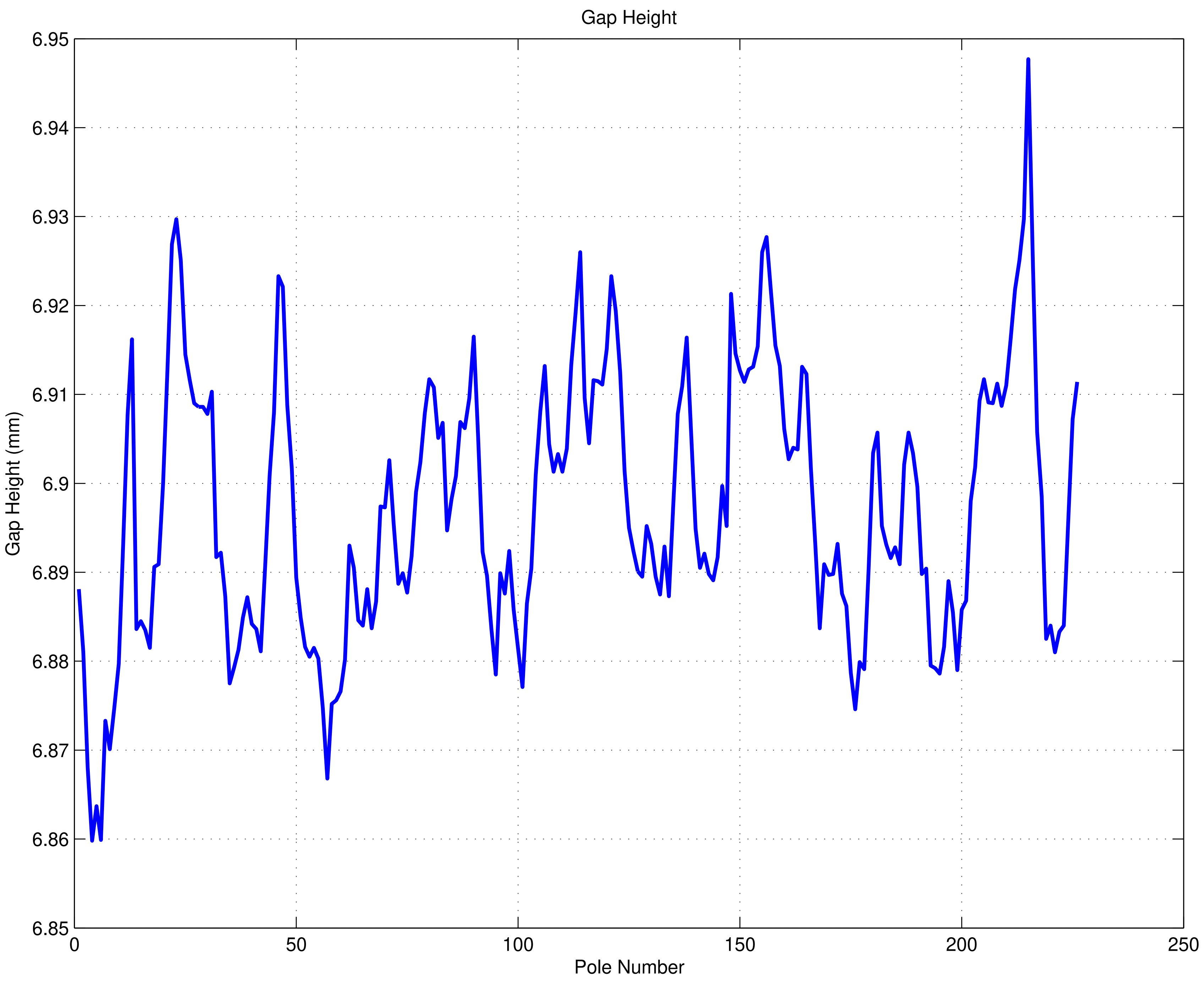


Cant Angle
Cant Angle (mrad)
Pole Number
5.7
5.6
5.5
5.4
5.3
5.2
5.1
5
4.9
4.8
4.7
0
50
100
150
200
250

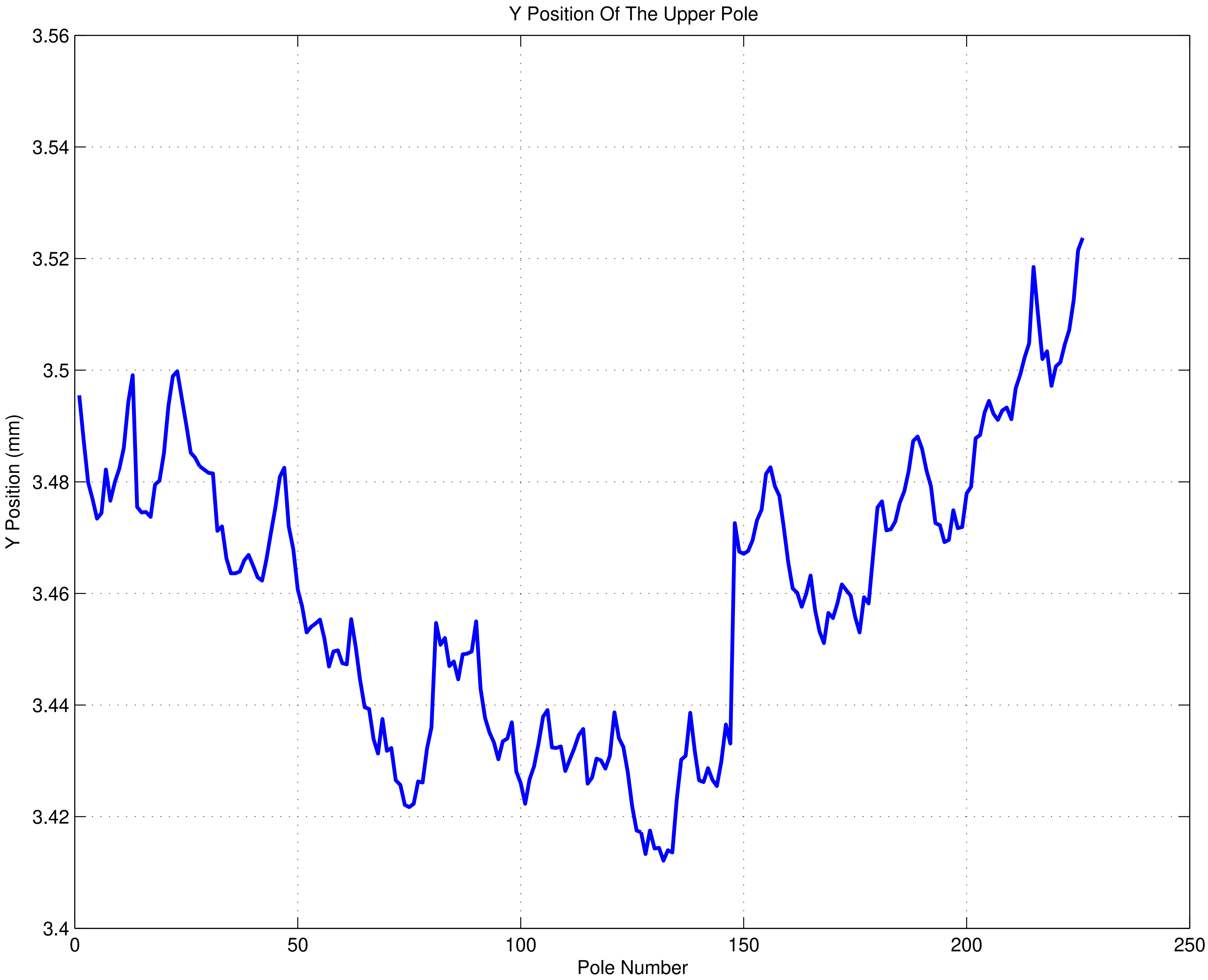


Midline Angle
0.01
0.005
0
−0.005
−0.01
−0.015
−0.02
Midline Angle (deg)
0
50
100
150
200
250
Pole Number

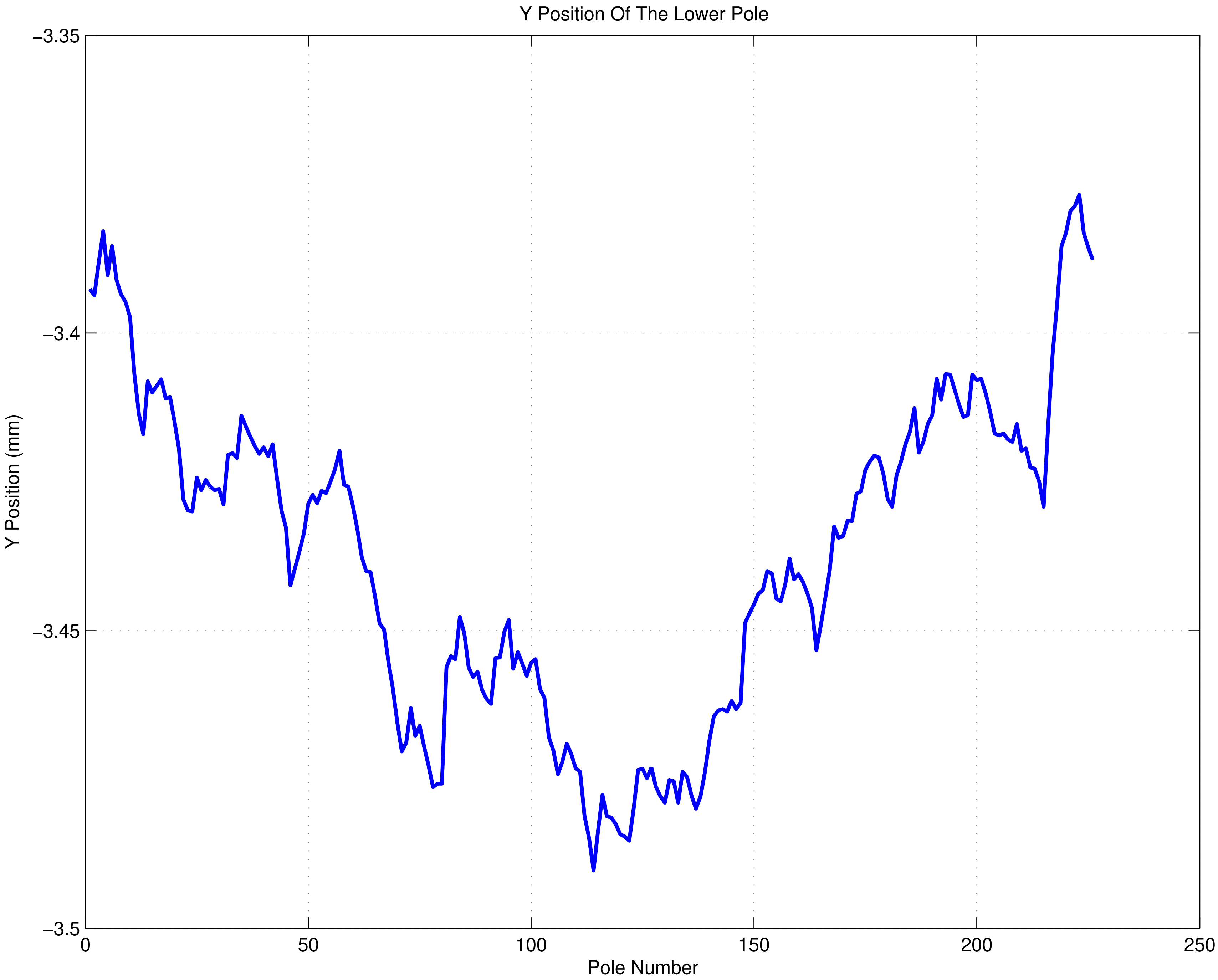

Y Position Of The Gap Center
Y Position (mm)
0.08
0.06
0.04
0.02
0
−0.02
−0.04
0
50
100
150
200
250
Pole Number



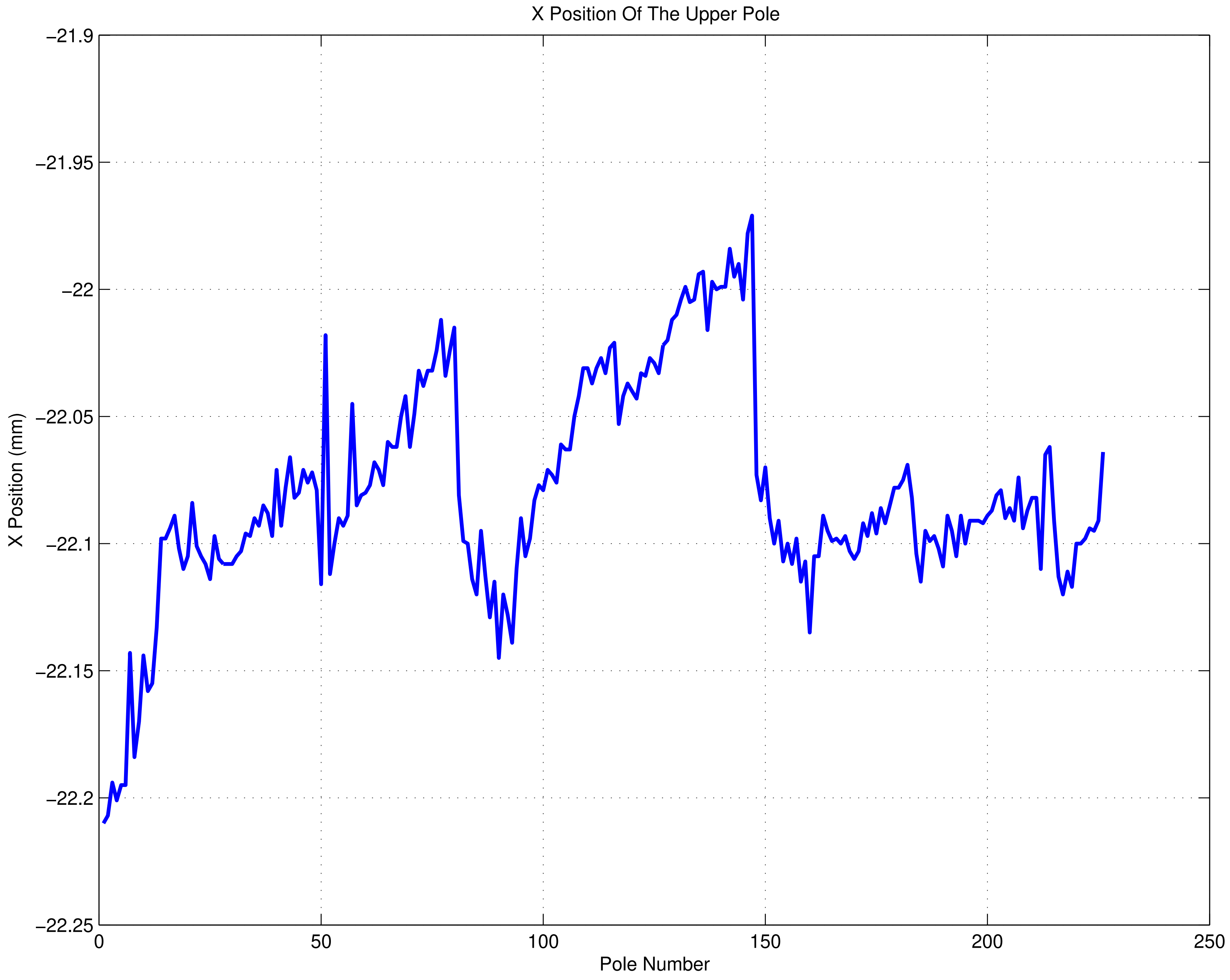
Gap Height
Gap Height (mm)
6.95
6.94
6.93
6.92
6.91
6.9
6.89
6.88
6.87
6.86
6.85
0
50
100
150
200
250
Pole Number

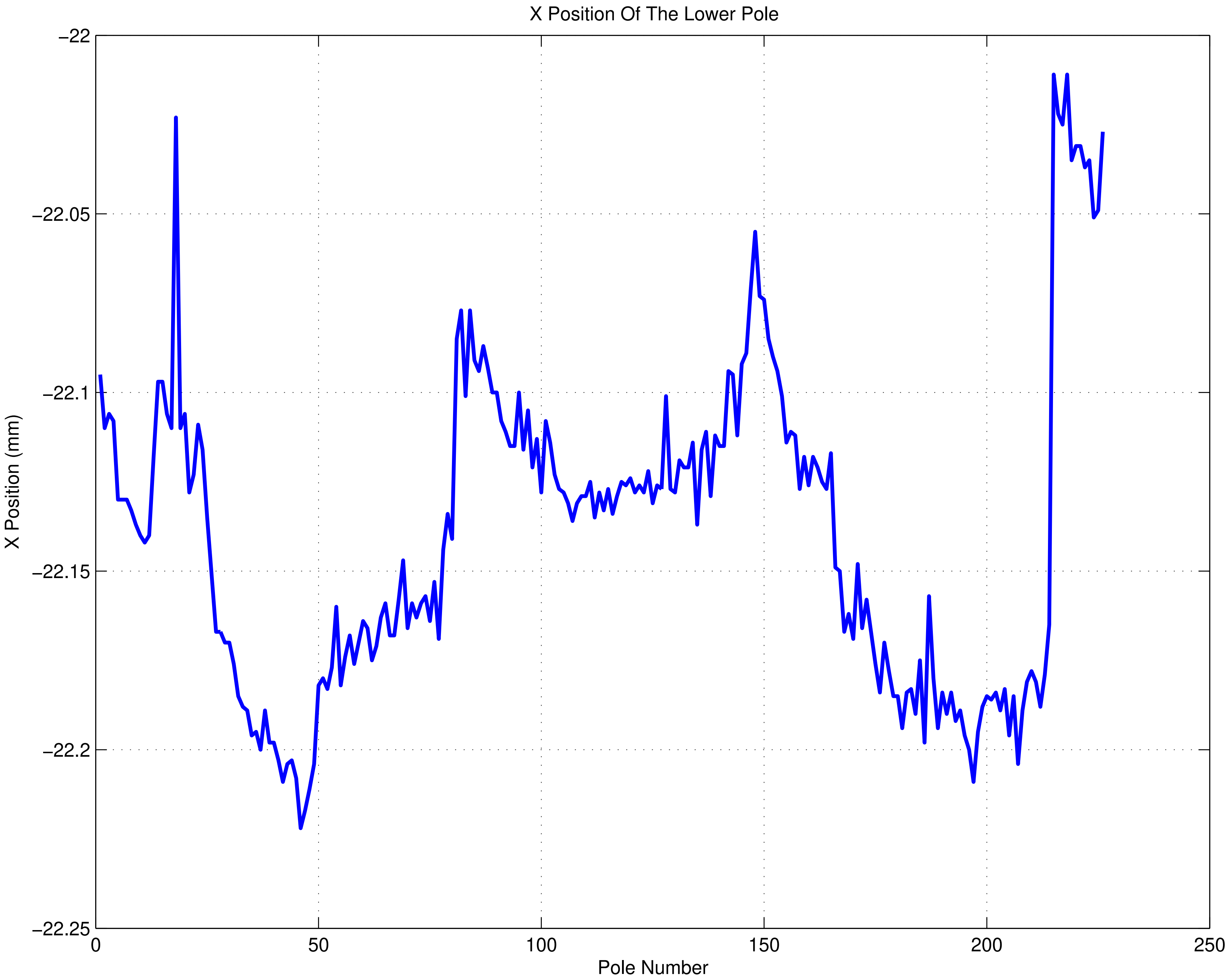


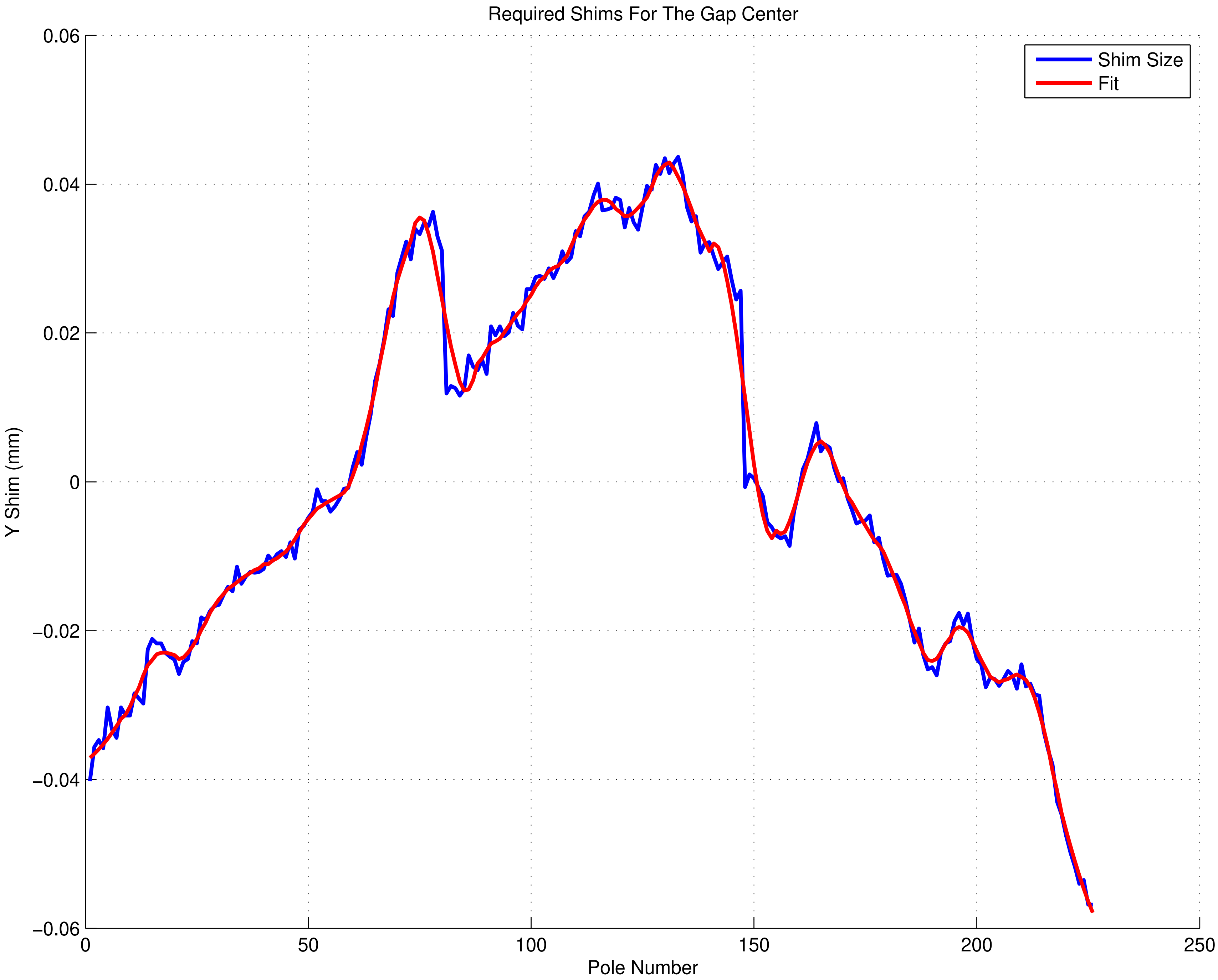
Y Position Of The Upper Pole
Y Position (mm)
3.56
3.54
3.52
3.5
3.48
3.46
3.44
3.42
3.4
0
50
100
150
200
250
Pole Number



Y Position Of The Lower Pole
−3.35
−3.4
−3.45
−3.5
Y Position (mm)
0
50
100
150
200
250
Pole Number


X Position Of The Upper Pole
X Position (mm)
Pole Number
−21.9
−21.95
−22
−22.05
−22.1
−22.15
−22.2
−22.25
0
50
100
150
200
250


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


Required Shims For The Gap Center
Shim Size
Fit
Y Shim (mm)
Pole Number
0.06
0.04
0.02
0
−0.02
−0.04
−0.06
0
50
100
150
200
250