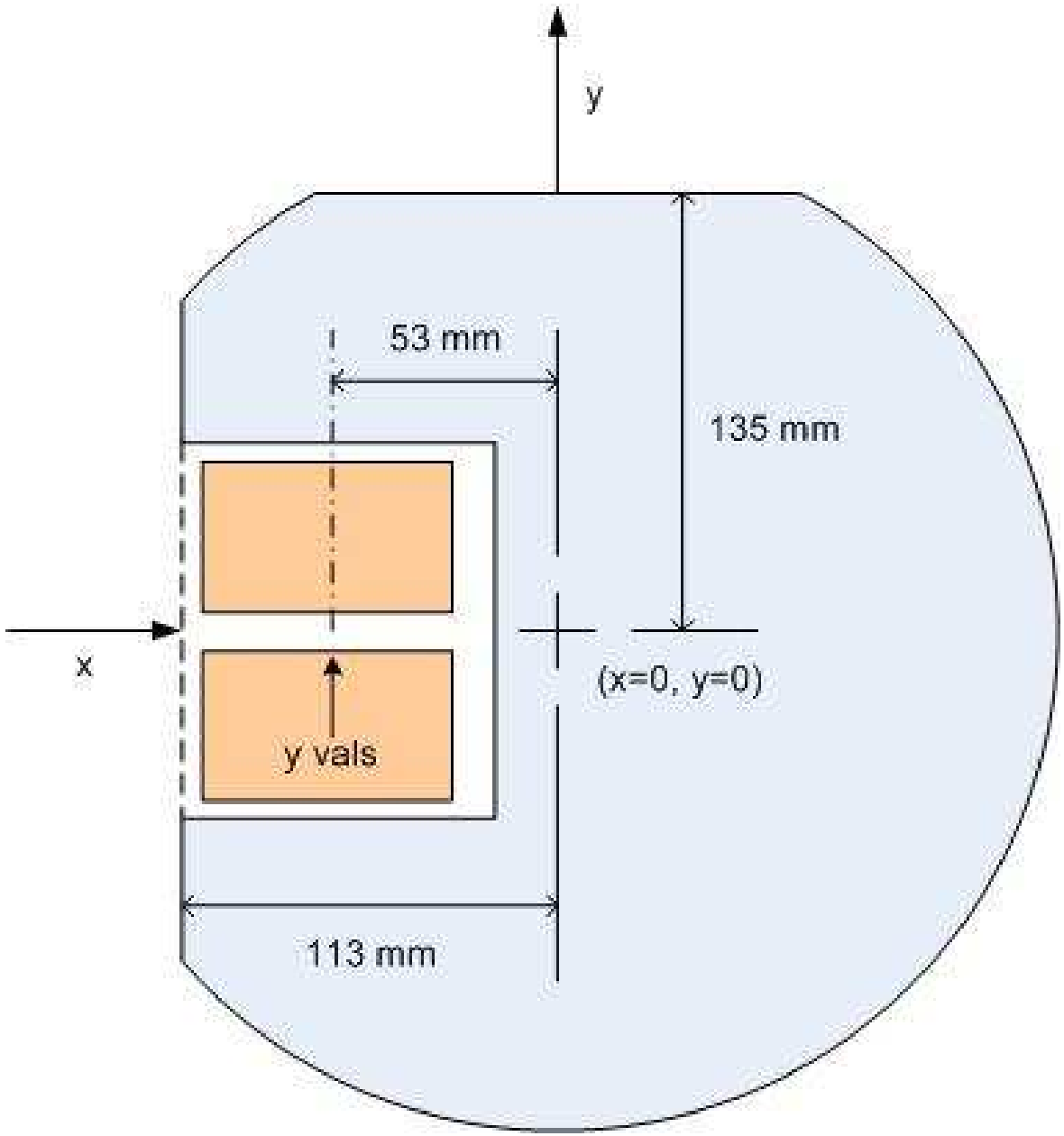
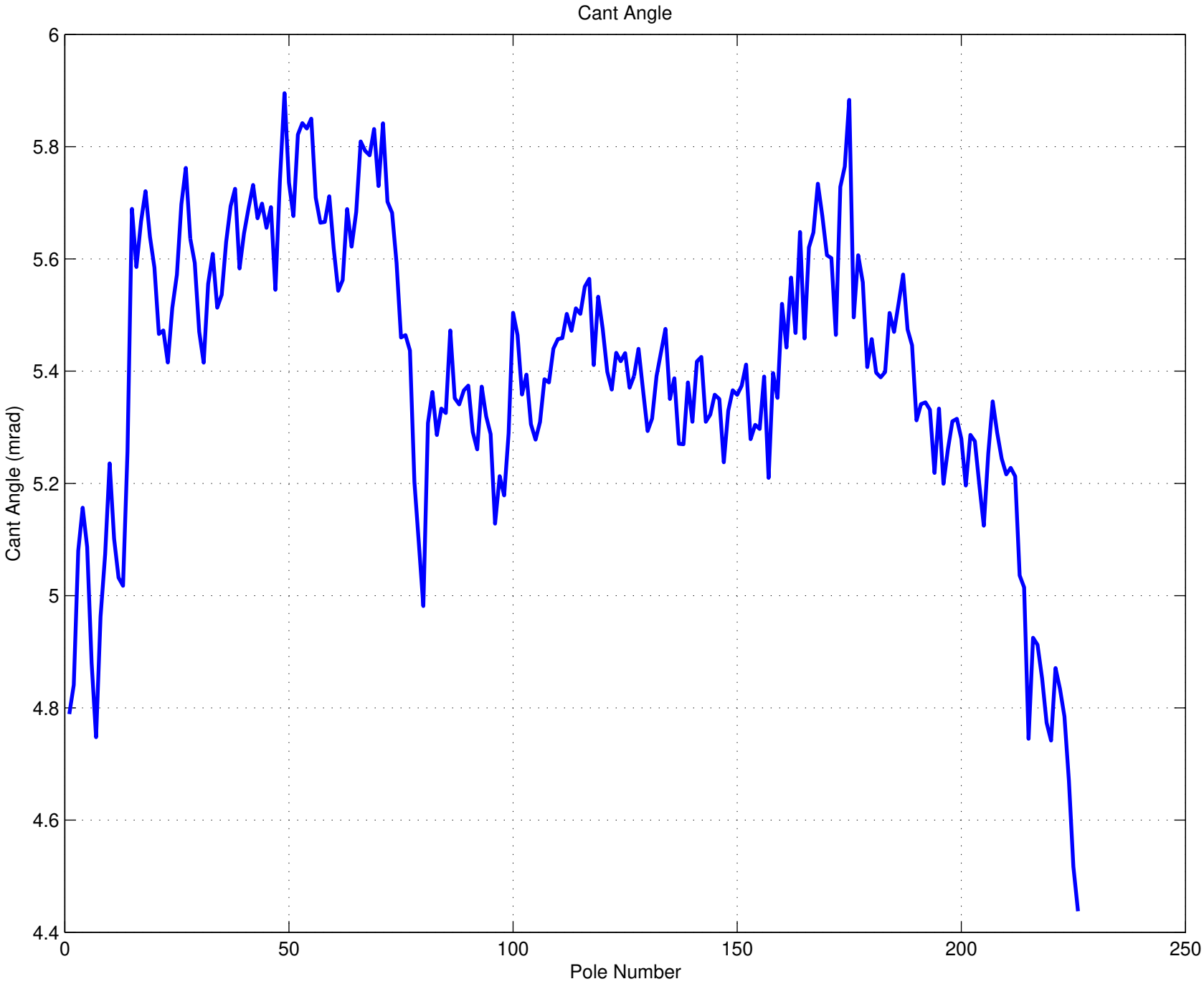
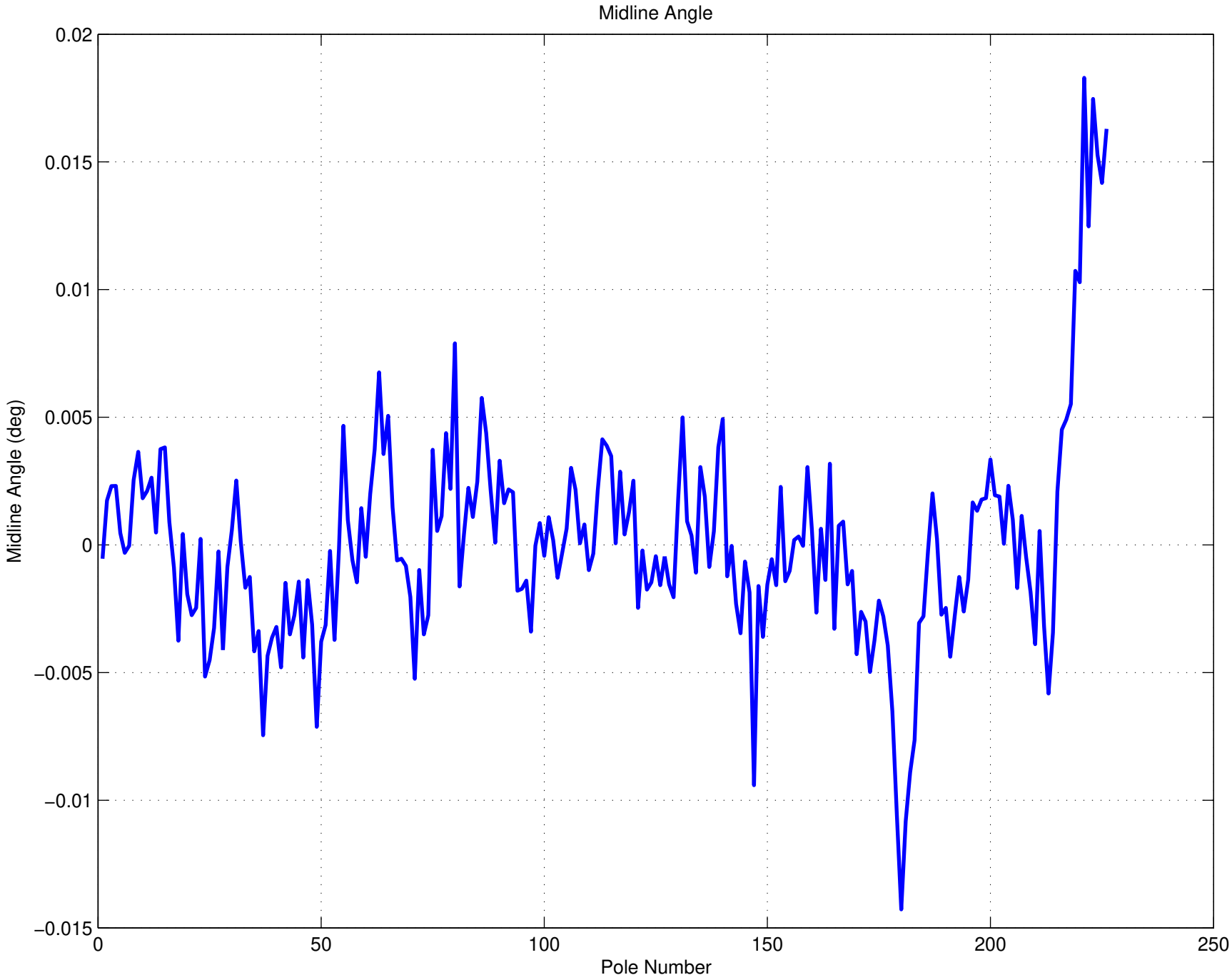
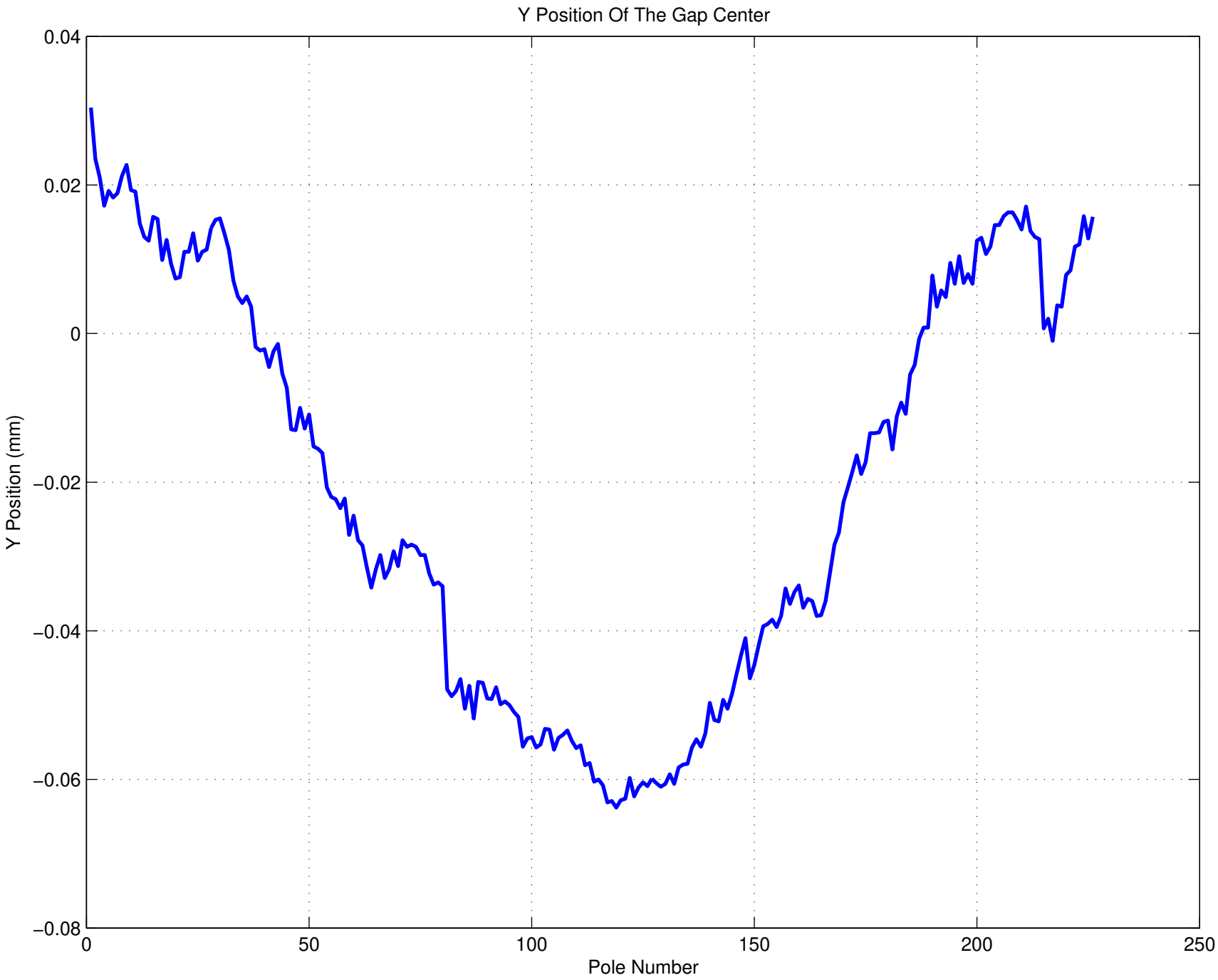
SLAC Magnetic Measurements
Mechanical Measurement Analysis

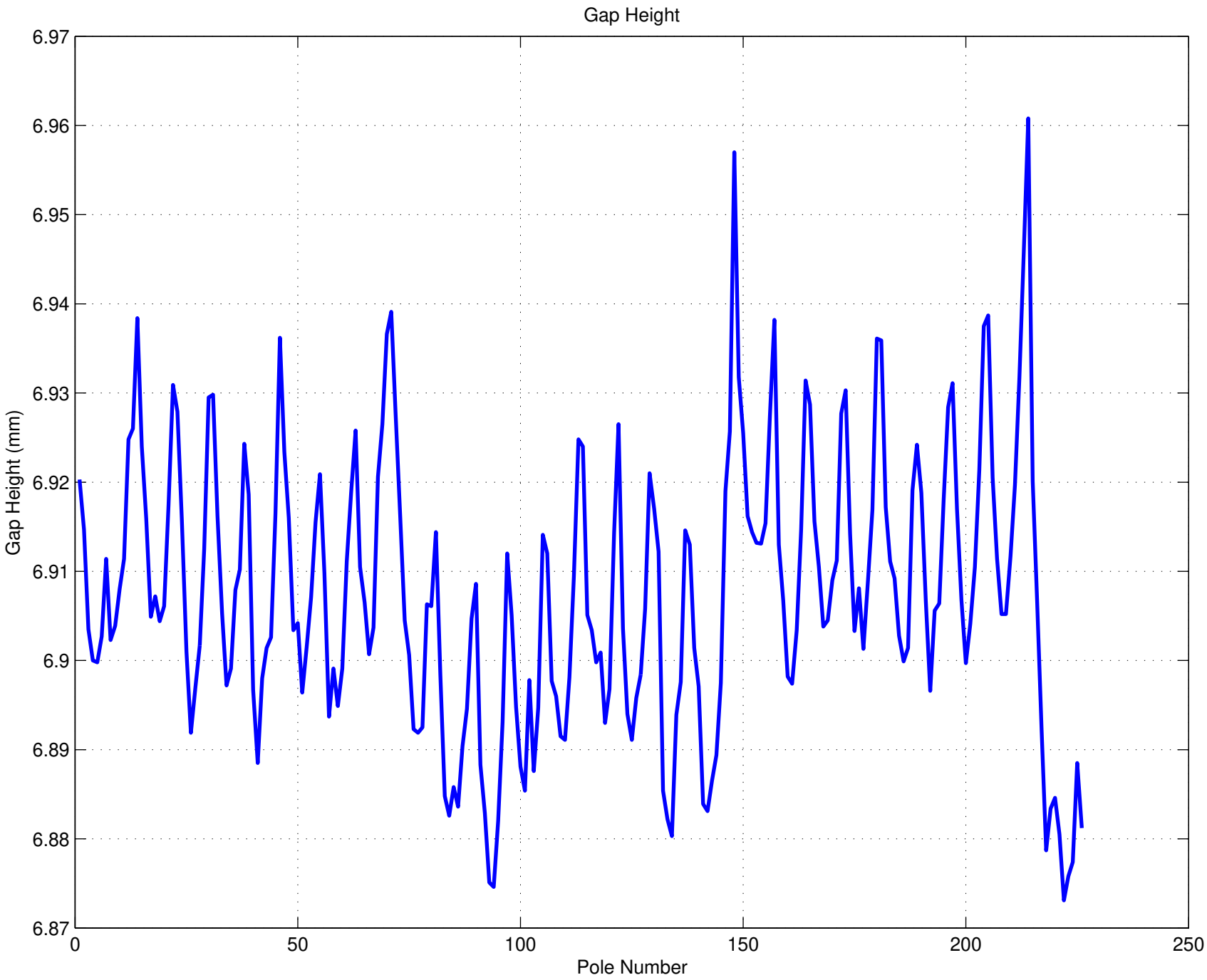
Parameters:
INPUT−FILE−DIR =S:\MagData\LCLS\Undulator\L143−112000−19\DATASET0001\MECHANICAL MEASUREMENTS\DATA FIL
INPUT−FILE−NAME =SN 19 POLE TIP DATA POINTS 29−MAY−2007.TXT

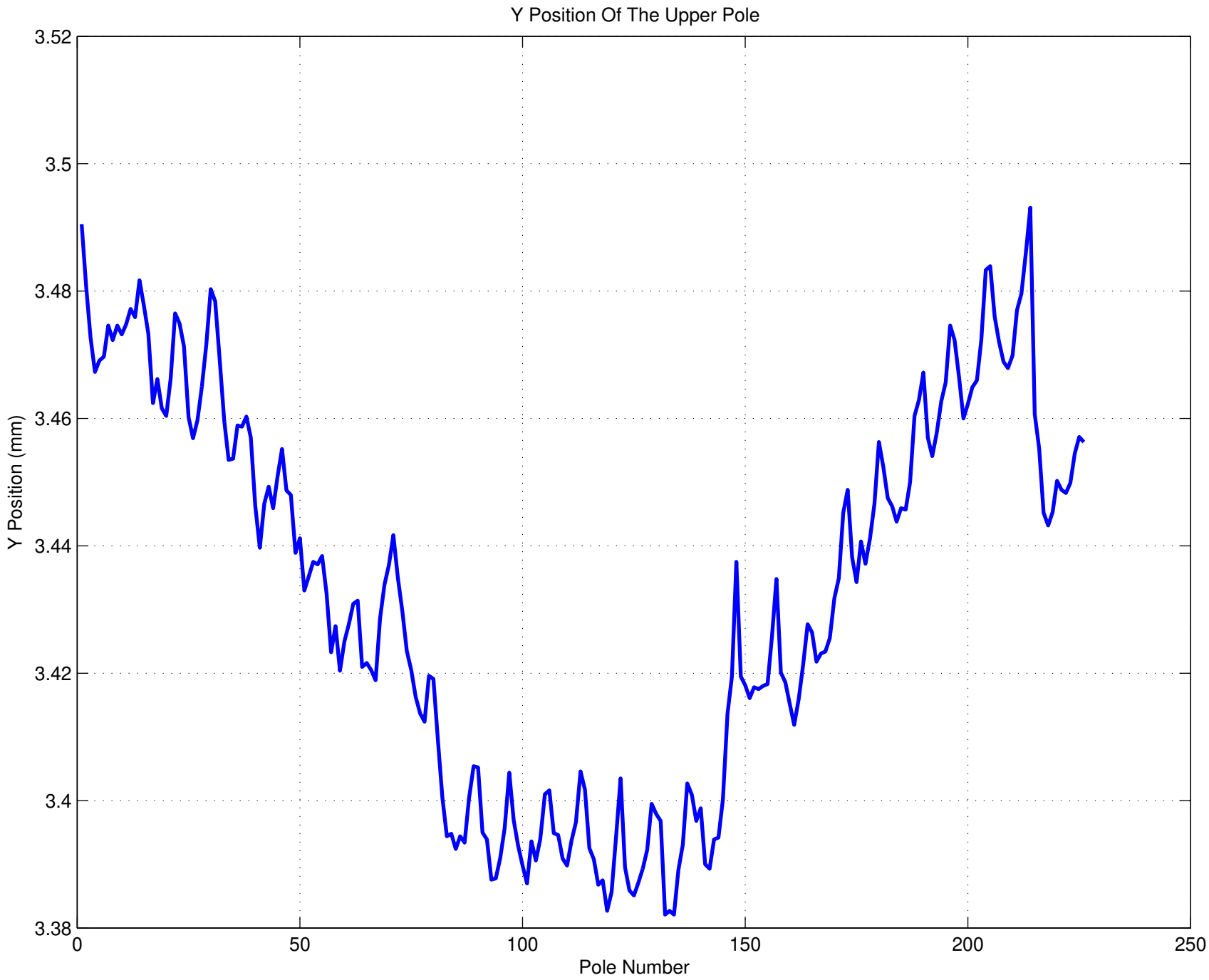

y
53 mm
135 mm
x
(x=0, y=0)
y vals
113 mm

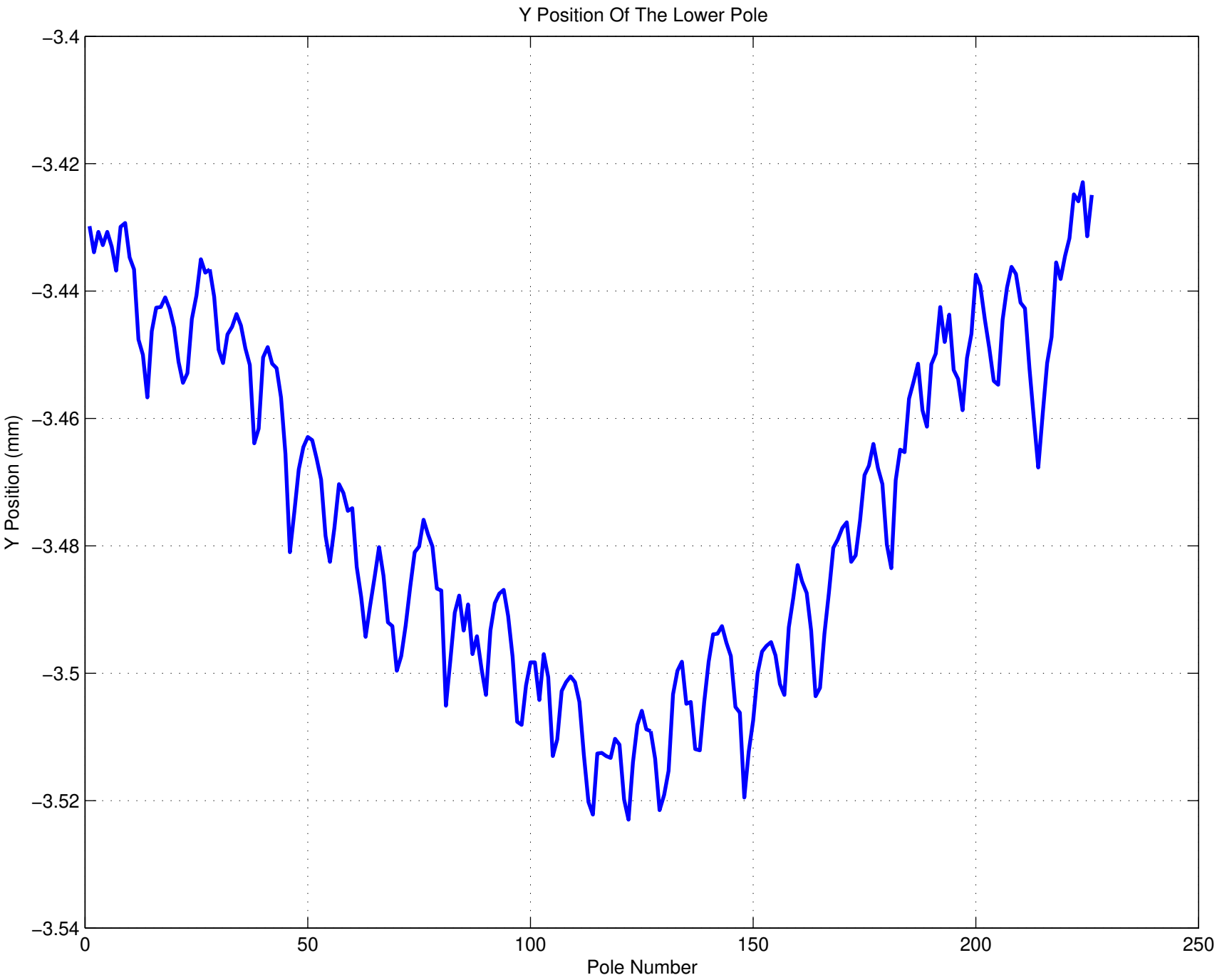

Cant Angle
Cant Angle (mrad)
Pole Number
6
5.8
5.6
5.4
5.2
5
4.8
4.6
4.4
0
50
100
150
200
250

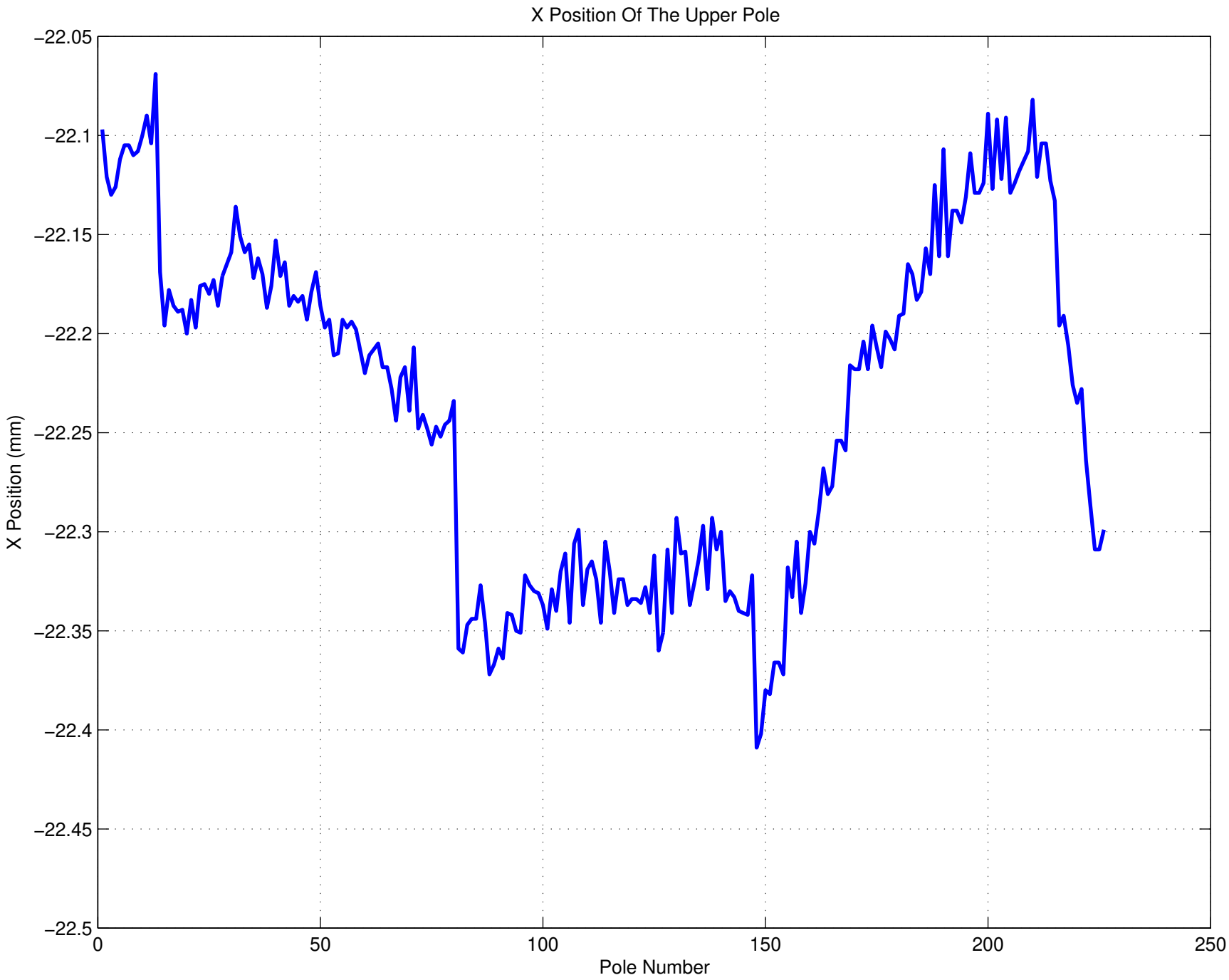

Midline Angle
Midline Angle (deg)
Pole Number
0.02
0.015
0.01
0.005
0
−0.005
−0.01
−0.015
0
50
100
150
200
250

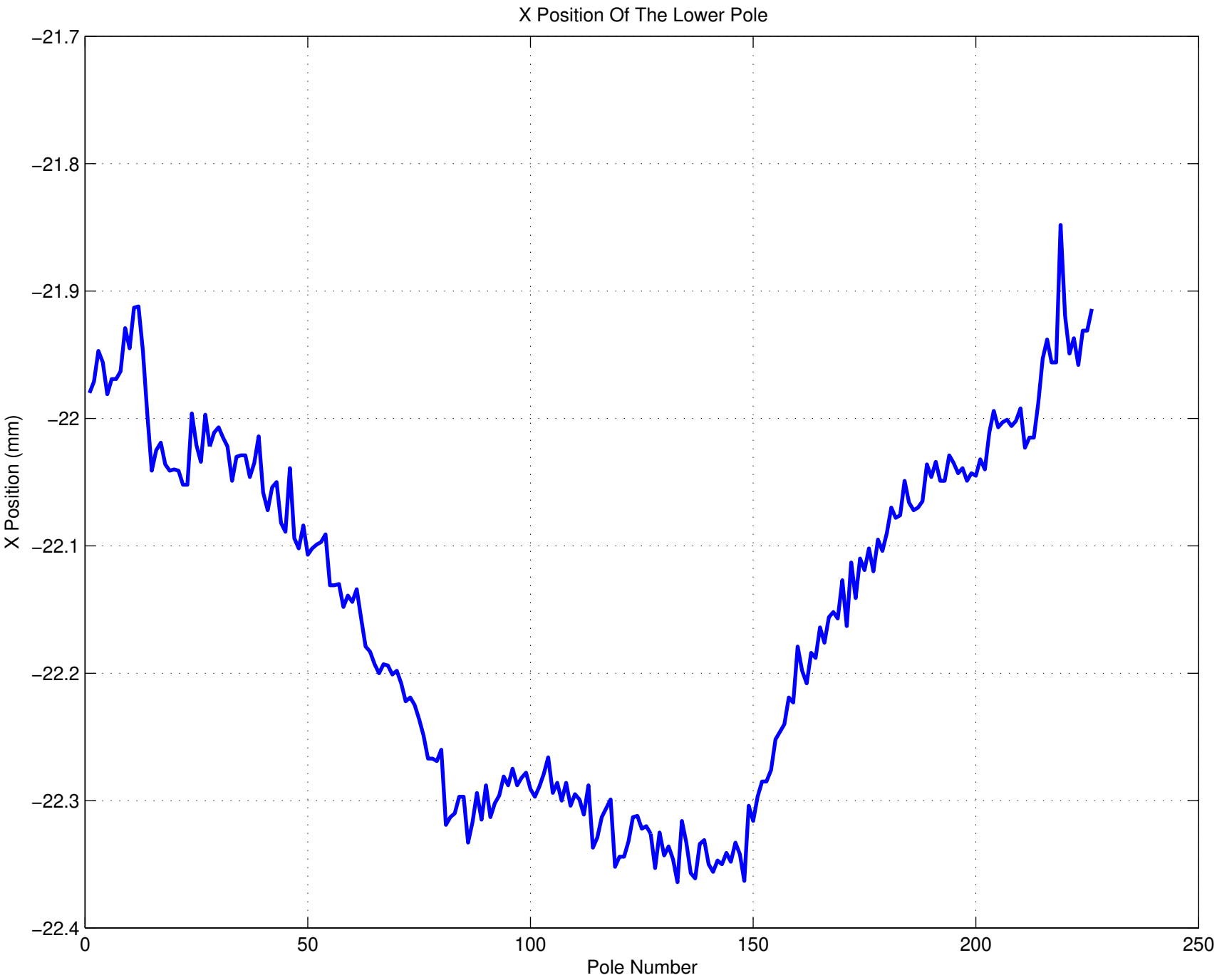

Y Position Of The Gap Center
0.04
0.02
0
−0.02
−0.04
−0.06
−0.08
Y Position (mm)
0
50
100
150
200
250
Pole Number

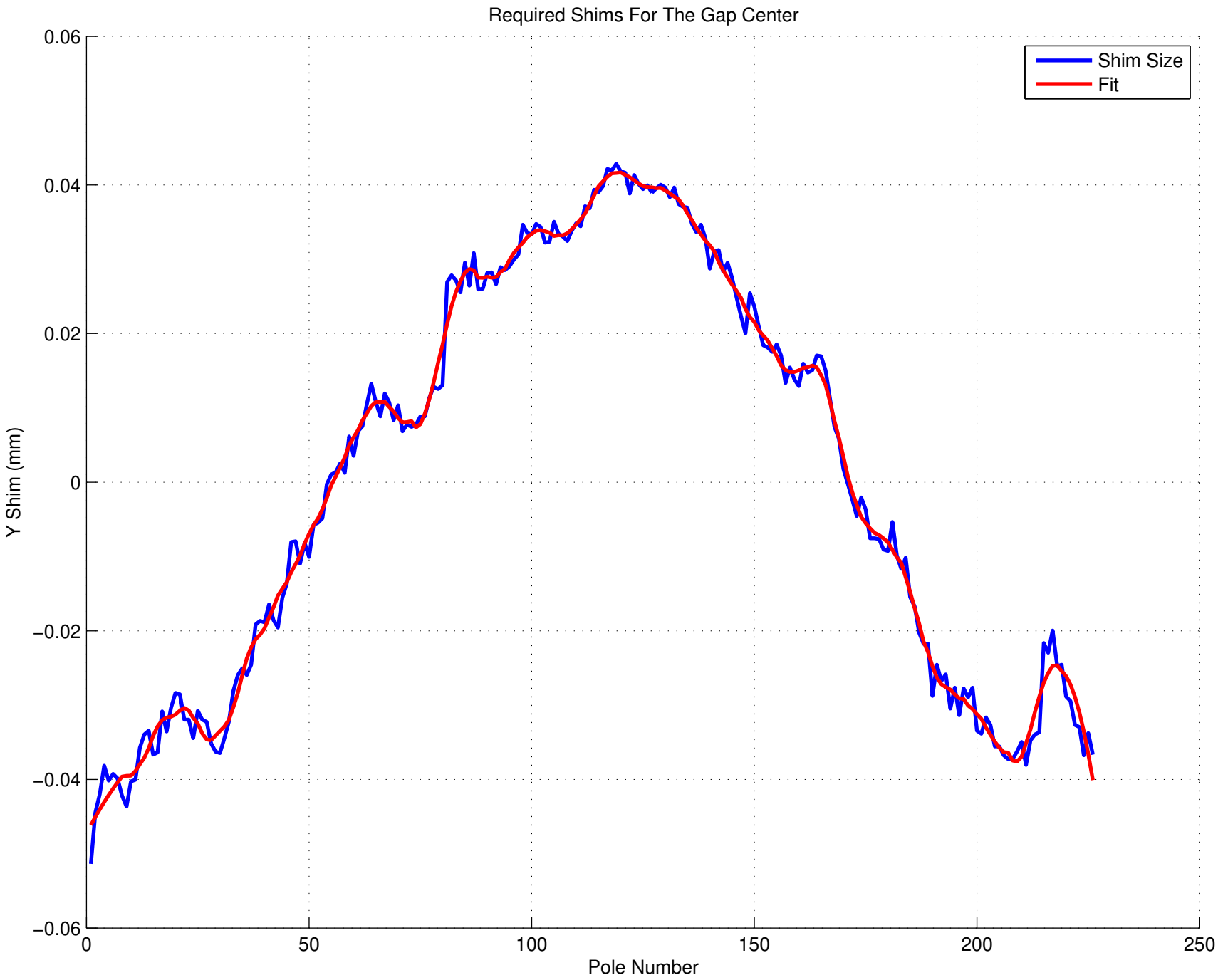

Gap Height
Gap Height (mm)
Pole Number
6.97
6.96
6.95
6.94
6.93
6.92
6.91
6.9
6.89
6.88
6.87
0
50
100
150
200
250


Y Position Of The Upper Pole
Y Position (mm)
Pole Number
3.52
3.5
3.48
3.46
3.44
3.42
3.4
3.38
0
50
100
150
200
250


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


X Position Of The Upper Pole
X Position (mm)
−22.05
−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)
−21.7
−21.8
−21.9
−22
−22.1
−22.2
−22.3
−22.4
0
50
100
150
200
250
Pole Number


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