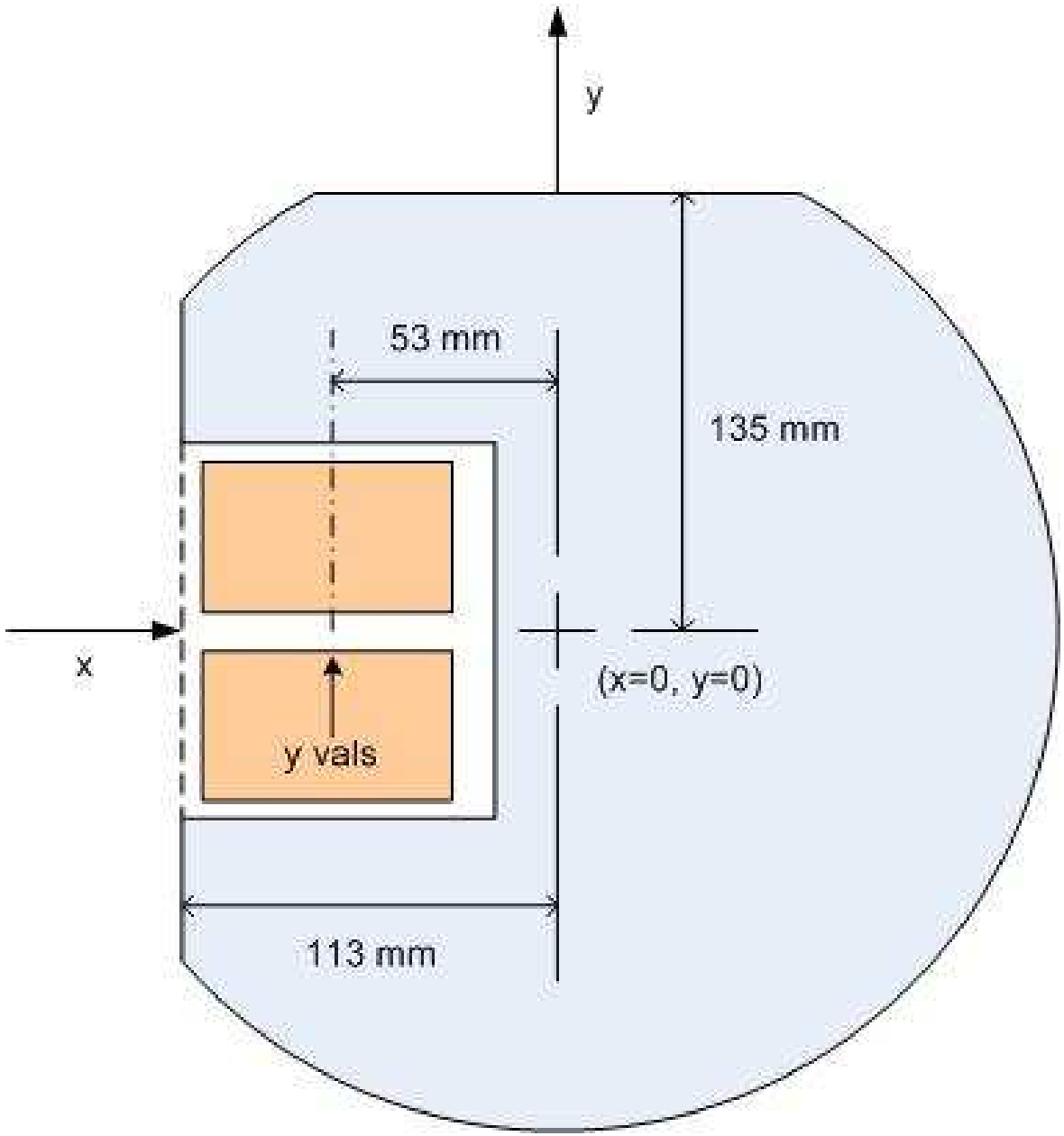
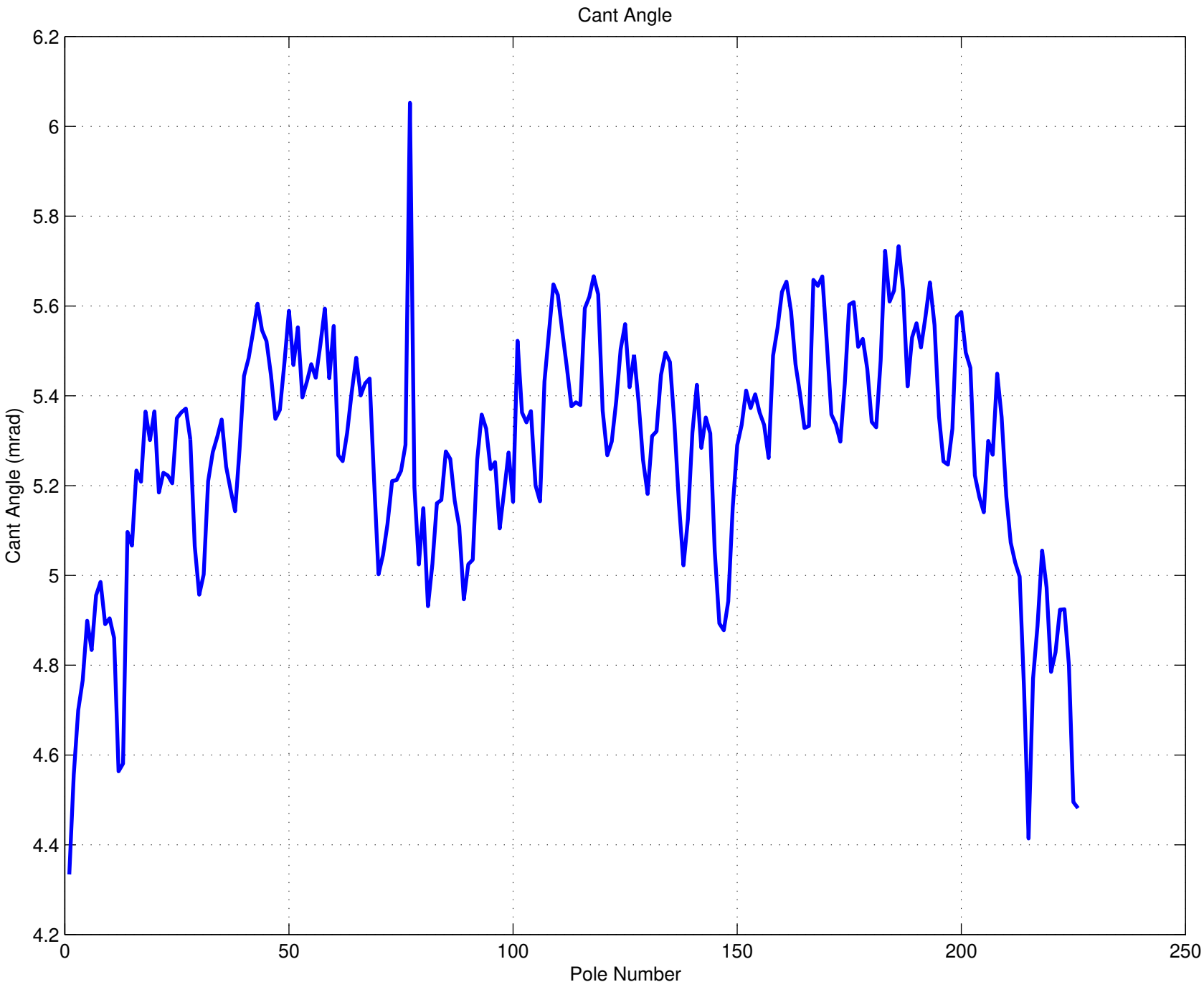
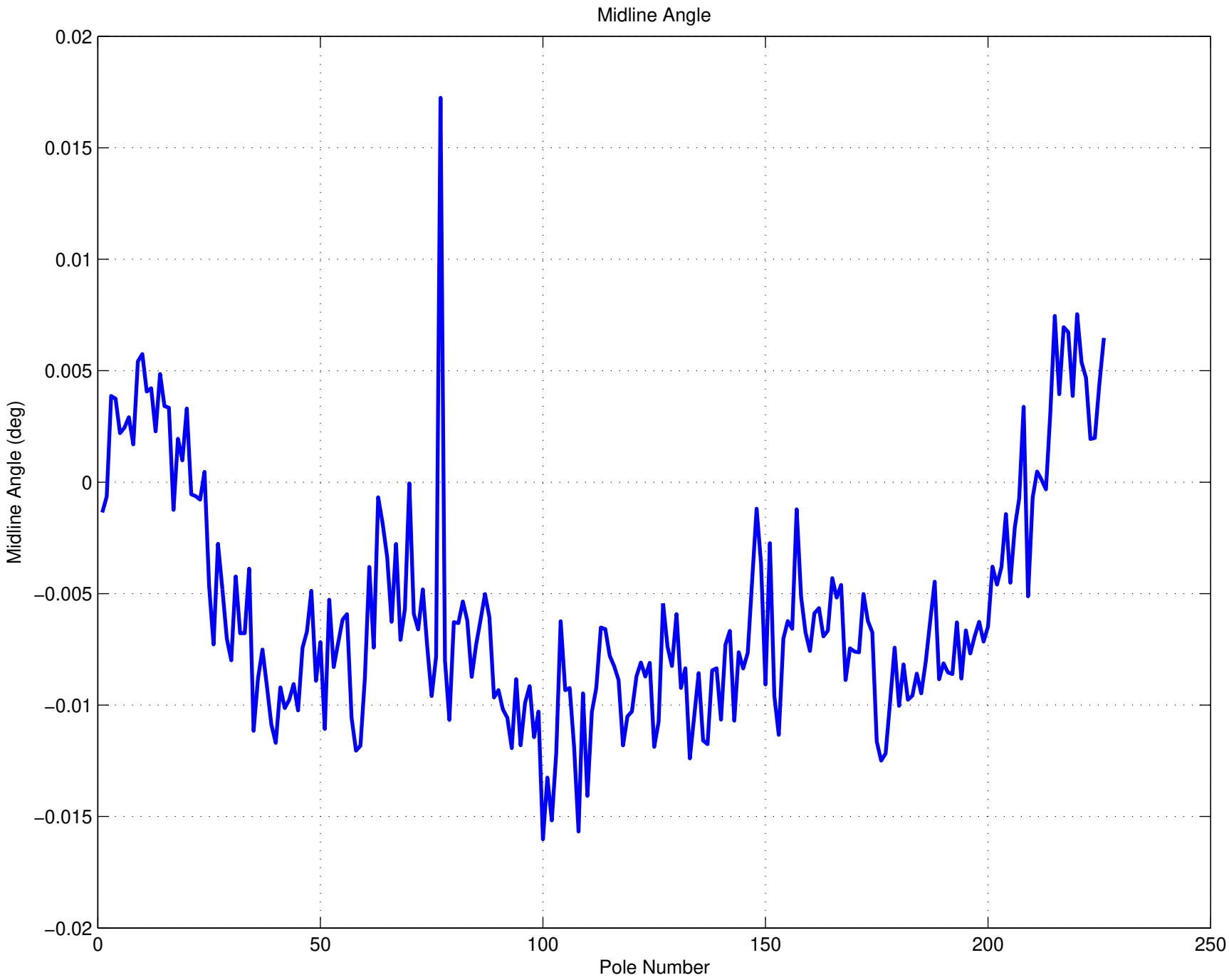
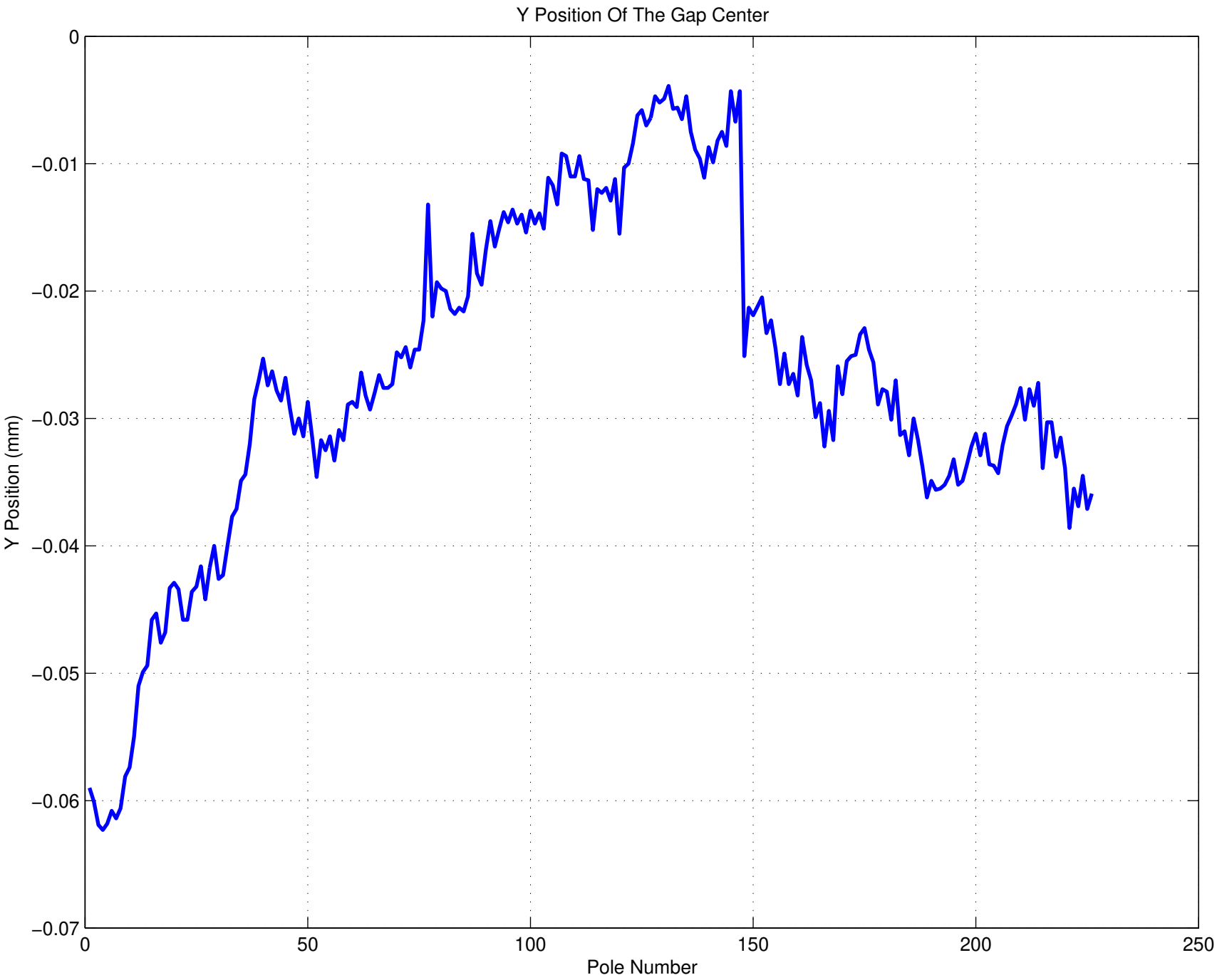
SLAC Magnetic Measurements
Mechanical Measurement Analysis

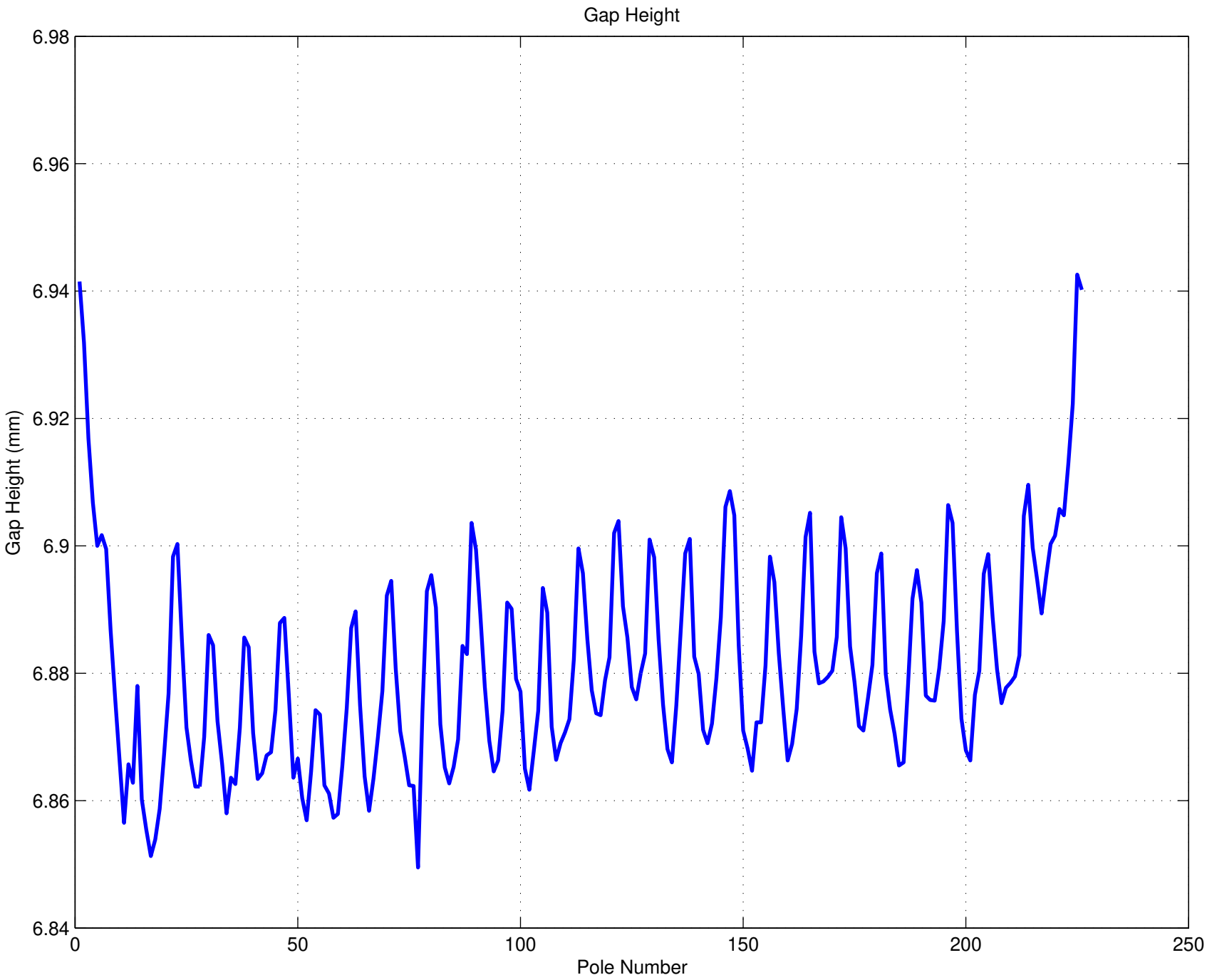
Parameters:
INPUT−FILE−DIR =V:\MET\MagServe\MagData\LCLS\Undulator\L143−112000−37\DATASET0001\Mechanical Measurements\D
INPUT−FILE−NAME =SN 37 FIDUCIALIZATION WITH FLAT FEET POLE TIP DATA POINTS 30−OCT−2007.TXT

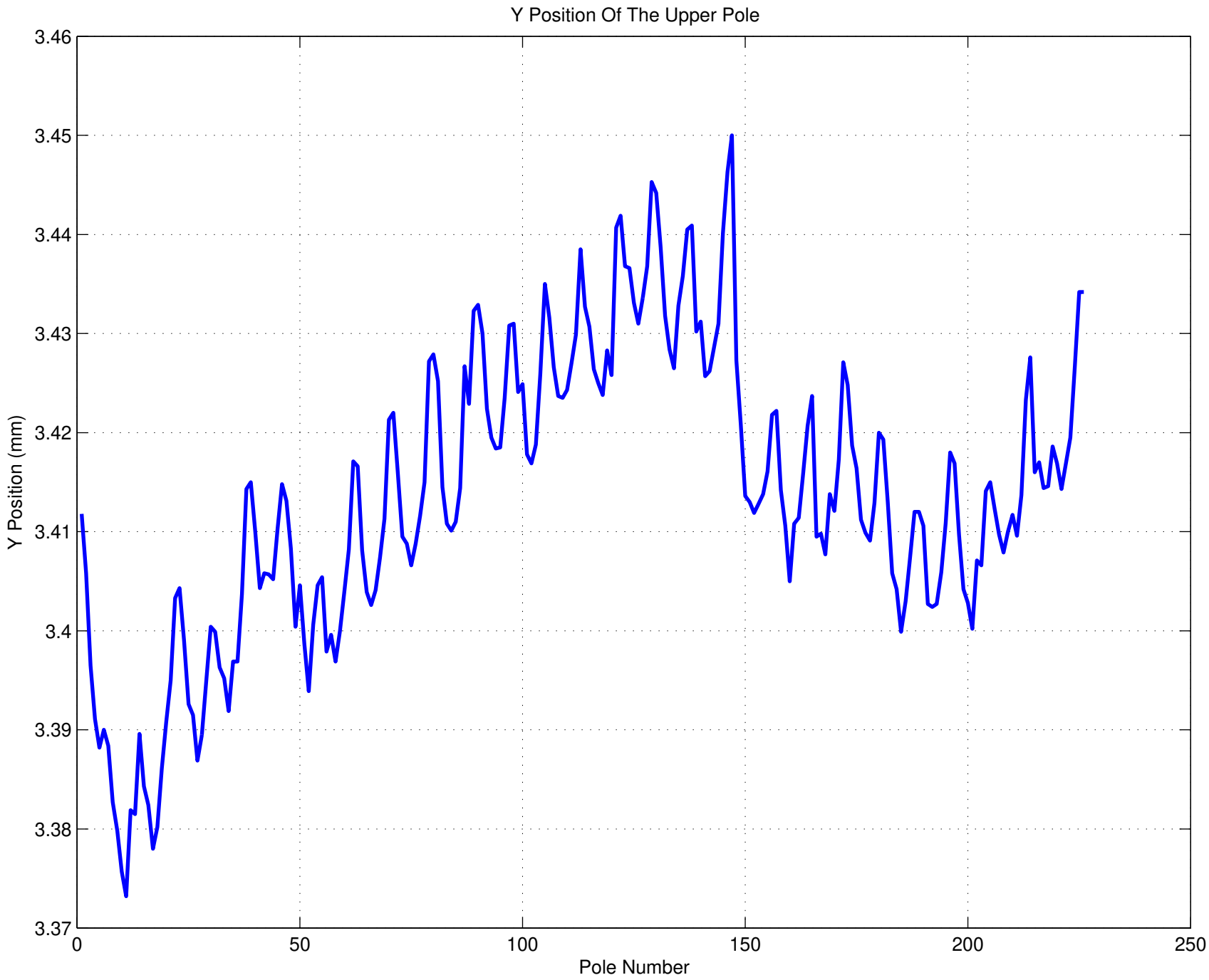

y
53 mm
135 mm
x
(x=0, y=0)
y vals
113 mm

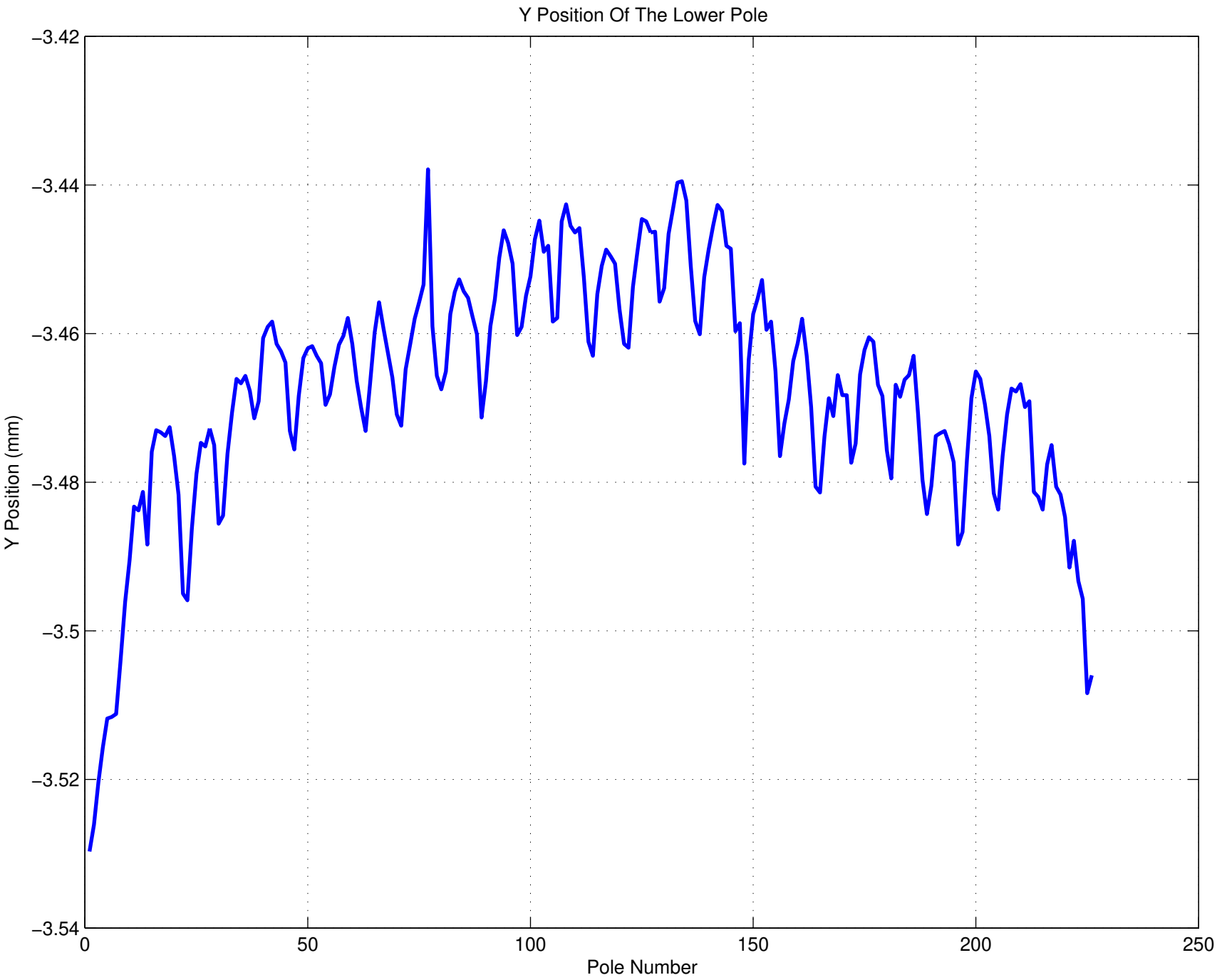

Cant Angle
Cant Angle (mrad)
Pole Number
6.2
6
5.8
5.6
5.4
5.2
5
4.8
4.6
4.4
4.2
0
50
100
150
200
250

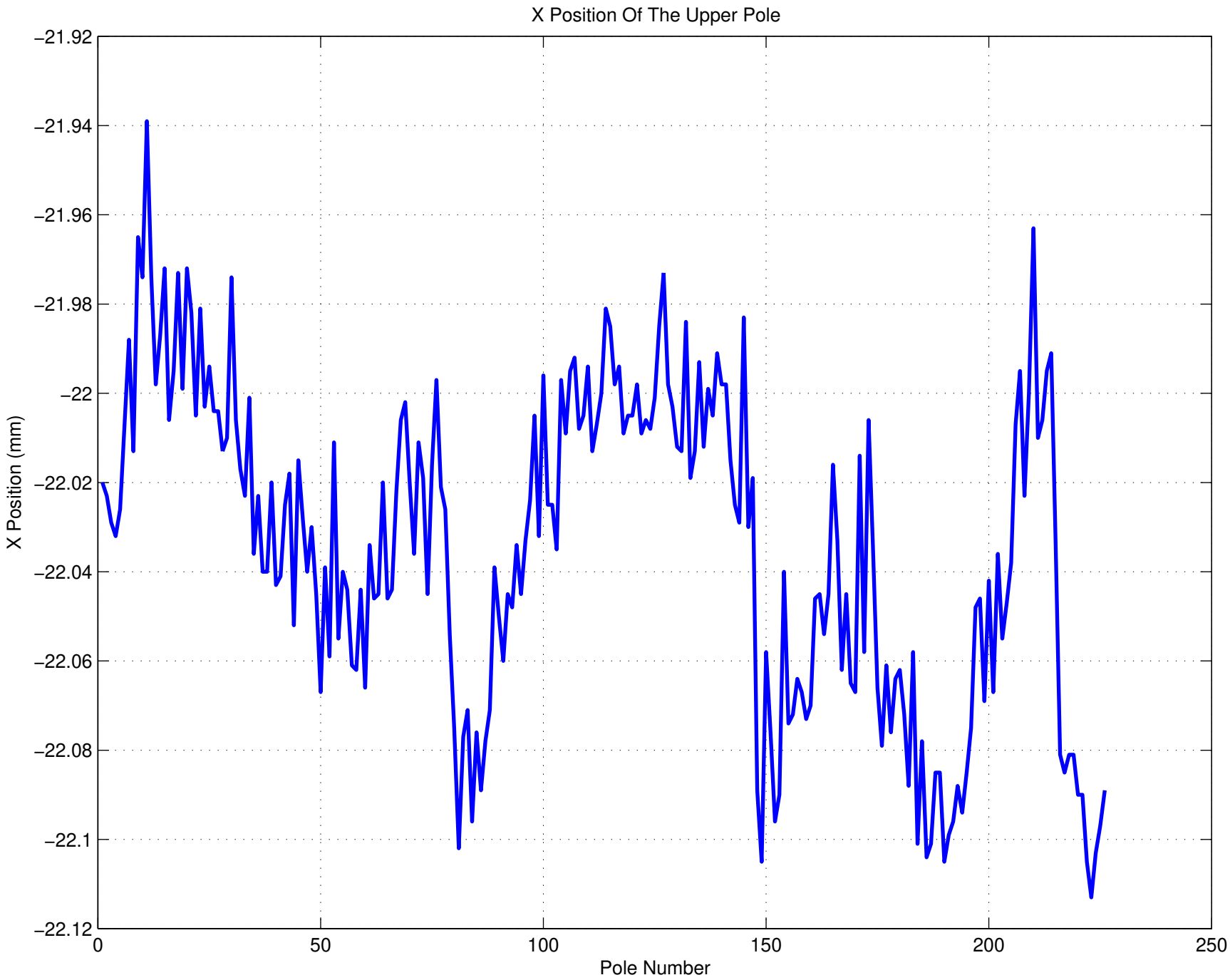

Midline Angle
Midline Angle (deg)
Pole Number
0.02
0.015
0.01
0.005
0
−0.005
−0.01
−0.015
−0.02
0
50
100
150
200
250

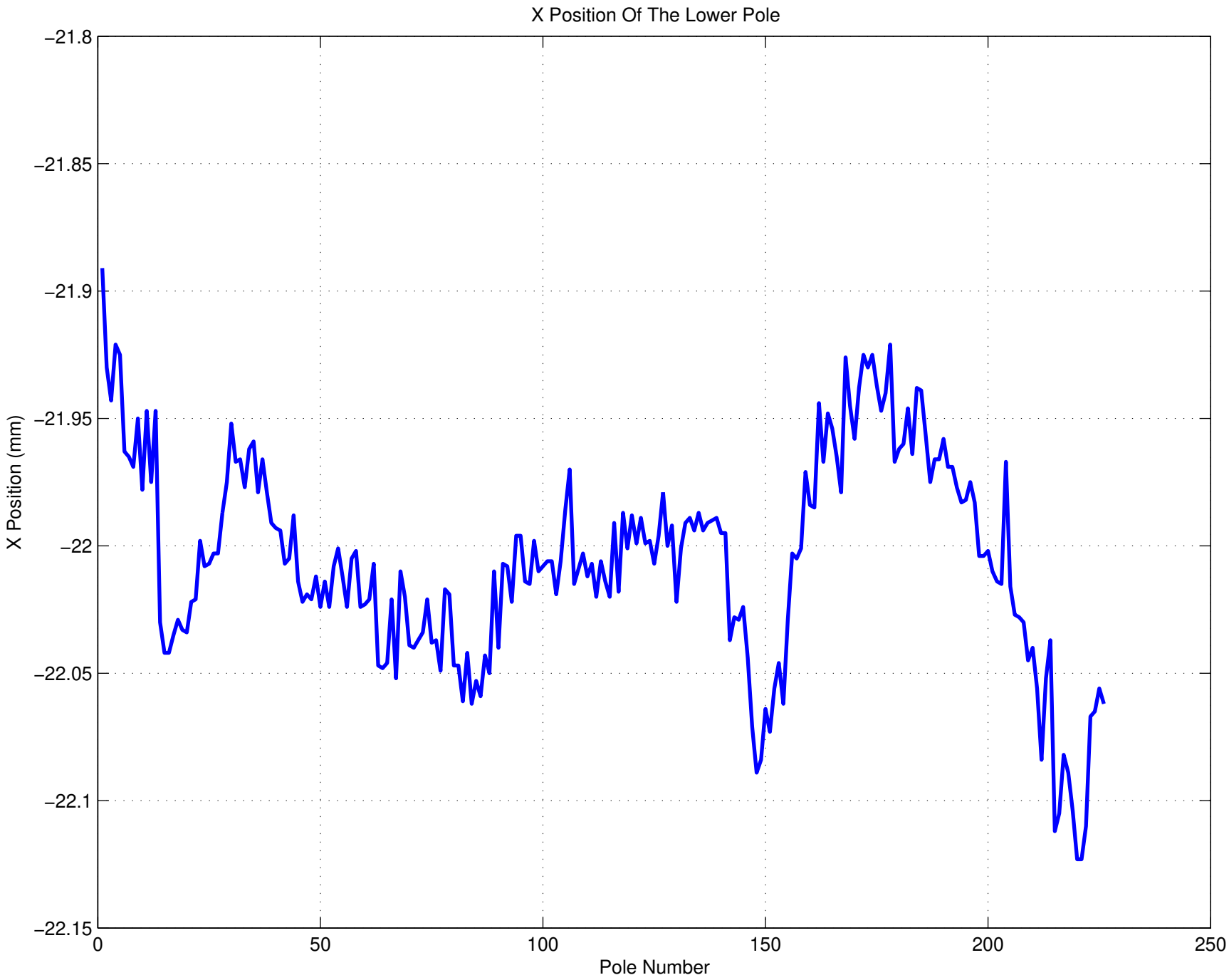

Y Position Of The Gap Center
Y Position (mm)
Pole Number
0
−0.01
−0.02
−0.03
−0.04
−0.05
−0.06
−0.07
0
50
100
150
200
250

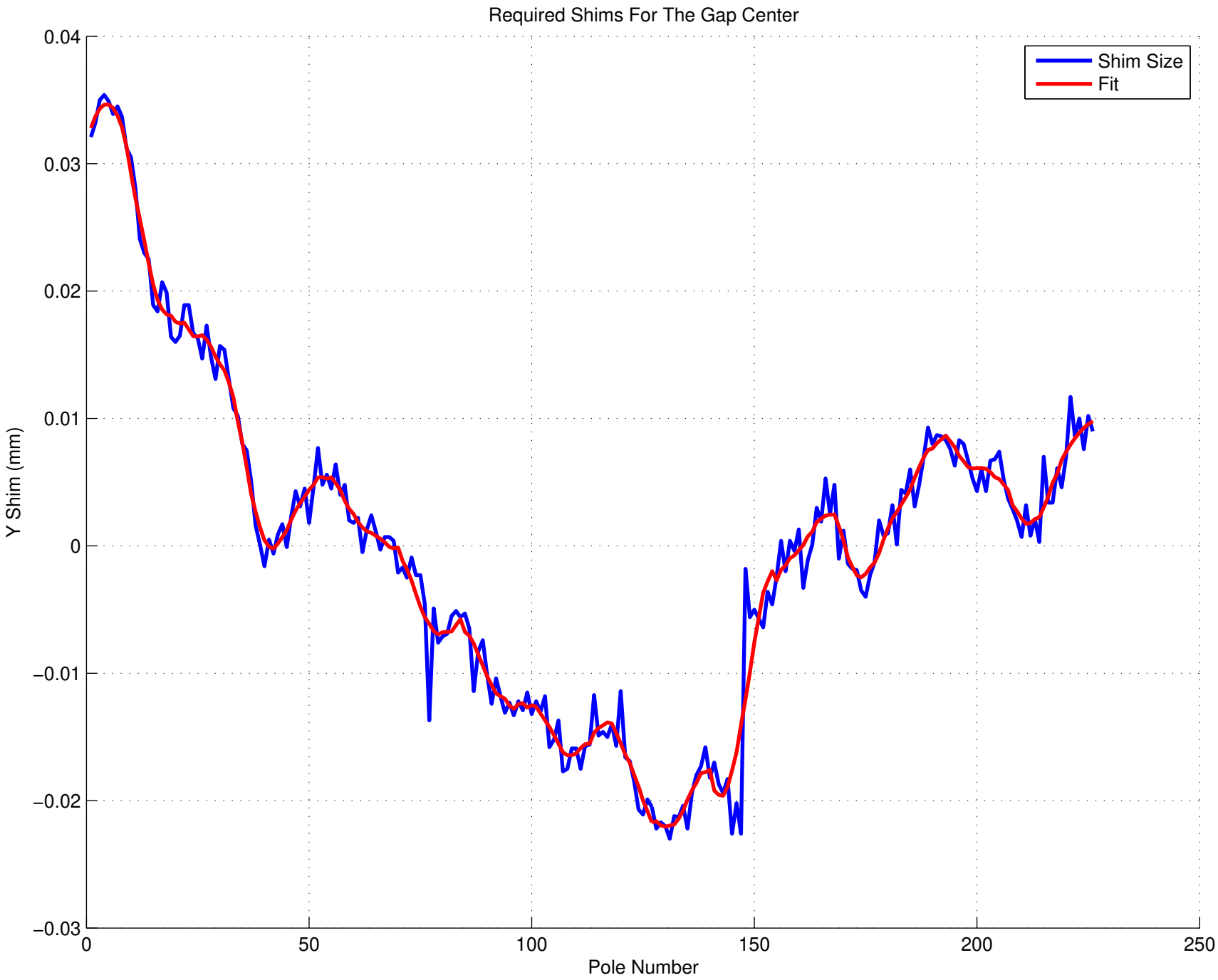

Gap Height
Gap Height (mm)
Pole Number
6.98
6.96
6.94
6.92
6.9
6.88
6.86
6.84
0
50
100
150
200
250


Y Position Of The Upper Pole
Y Position (mm)
Pole Number
3.46
3.45
3.44
3.43
3.42
3.41
3.4
3.39
3.38
3.37
0
50
100
150
200
250


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


X Position Of The Upper Pole
X Position (mm)
Pole Number
−21.92
−21.94
−21.96
−21.98
−22
−22.02
−22.04
−22.06
−22.08
−22.1
−22.12
0
50
100
150
200
250


X Position Of The Lower Pole
X Position (mm)
−21.8
−21.85
−21.9
−21.95
−22
−22.05
−22.1
−22.15
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
50
100
150
200
250