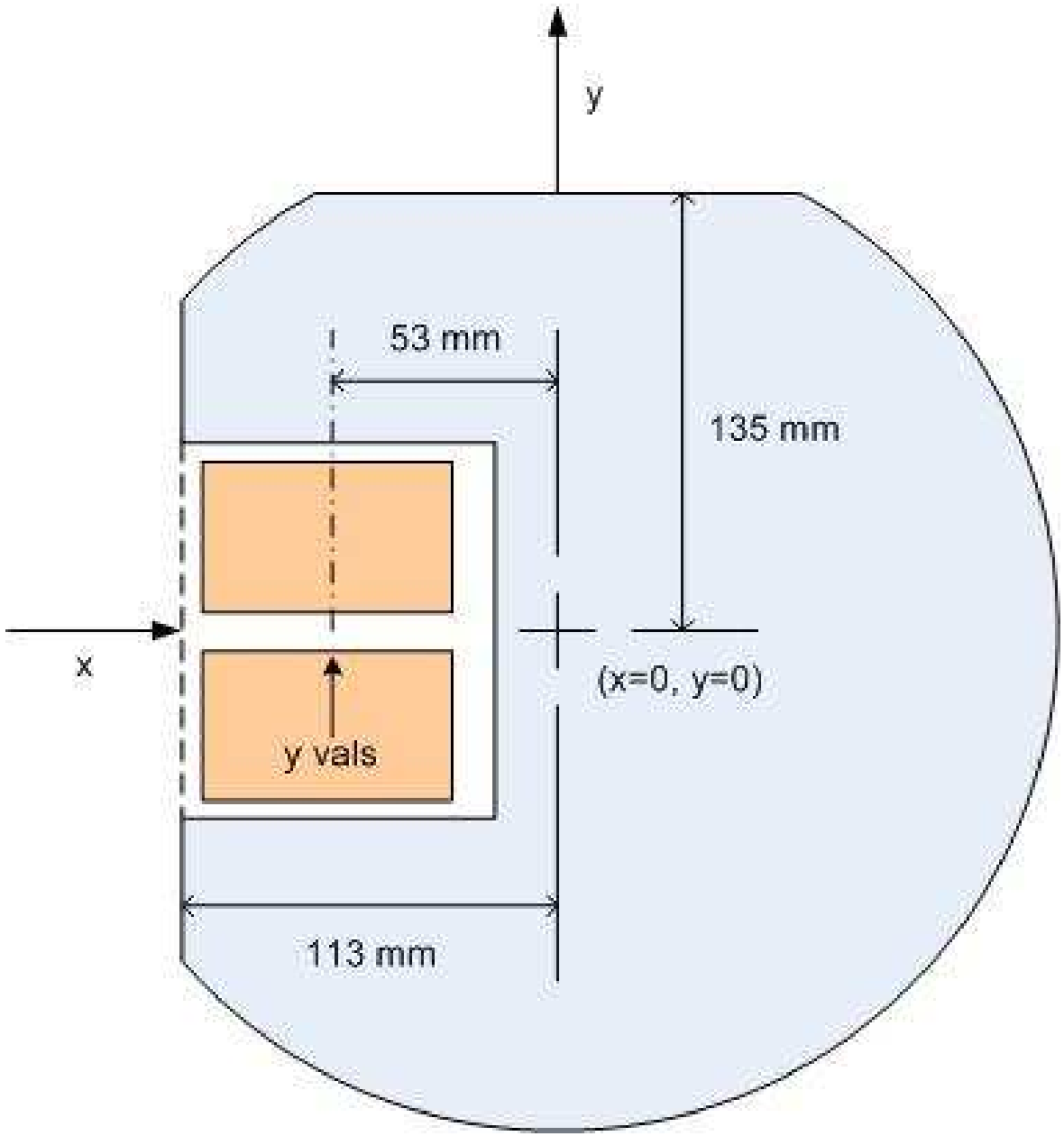
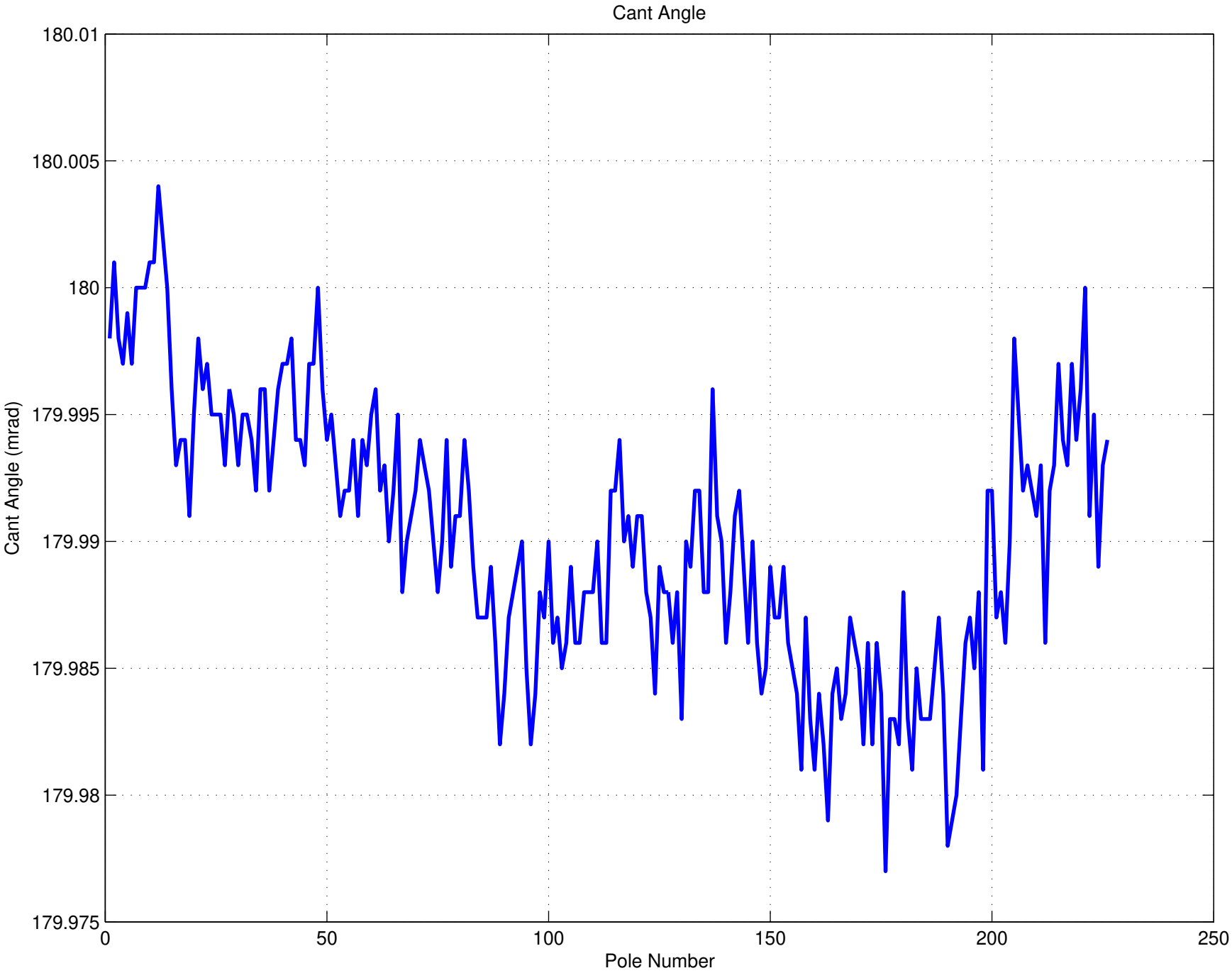
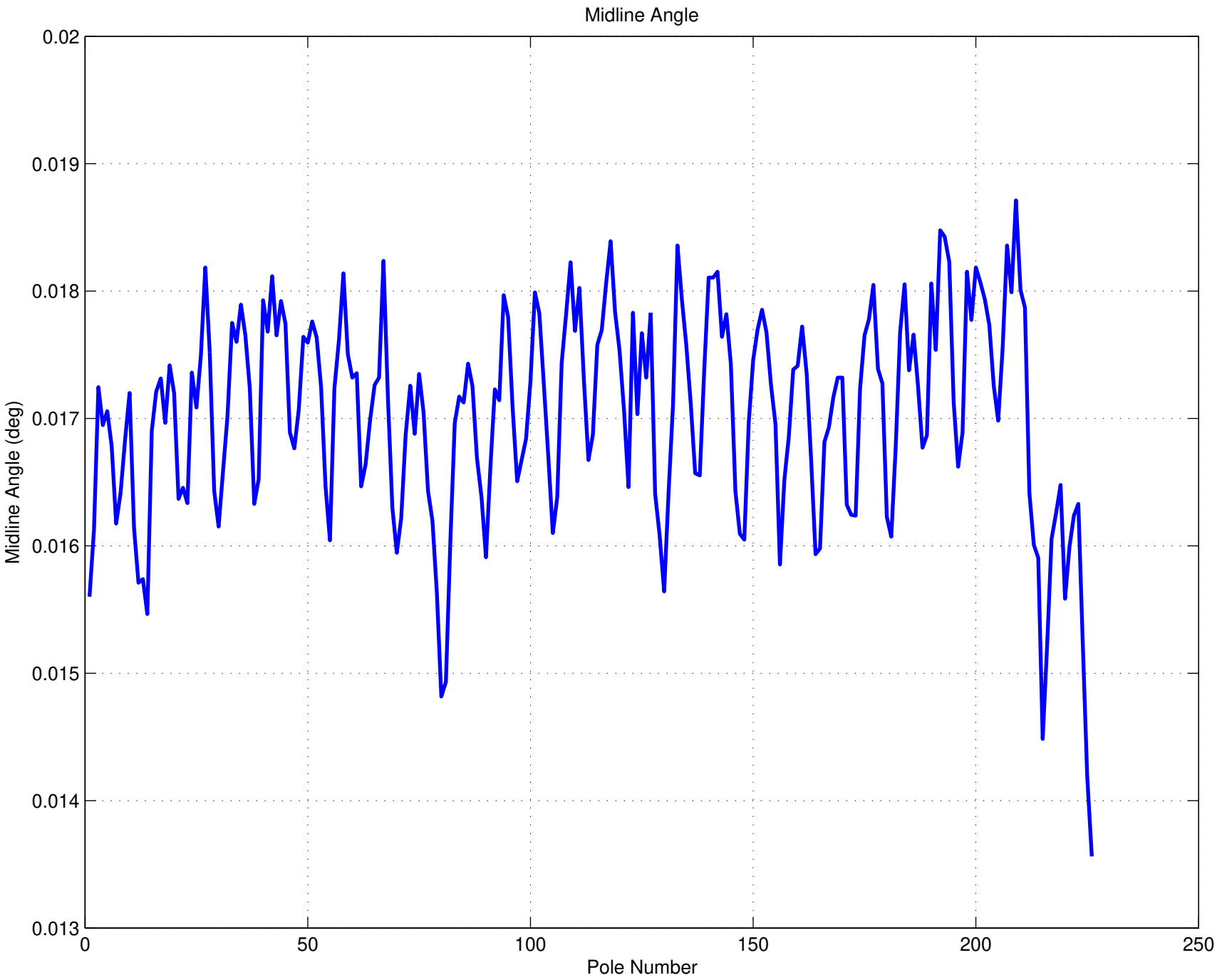
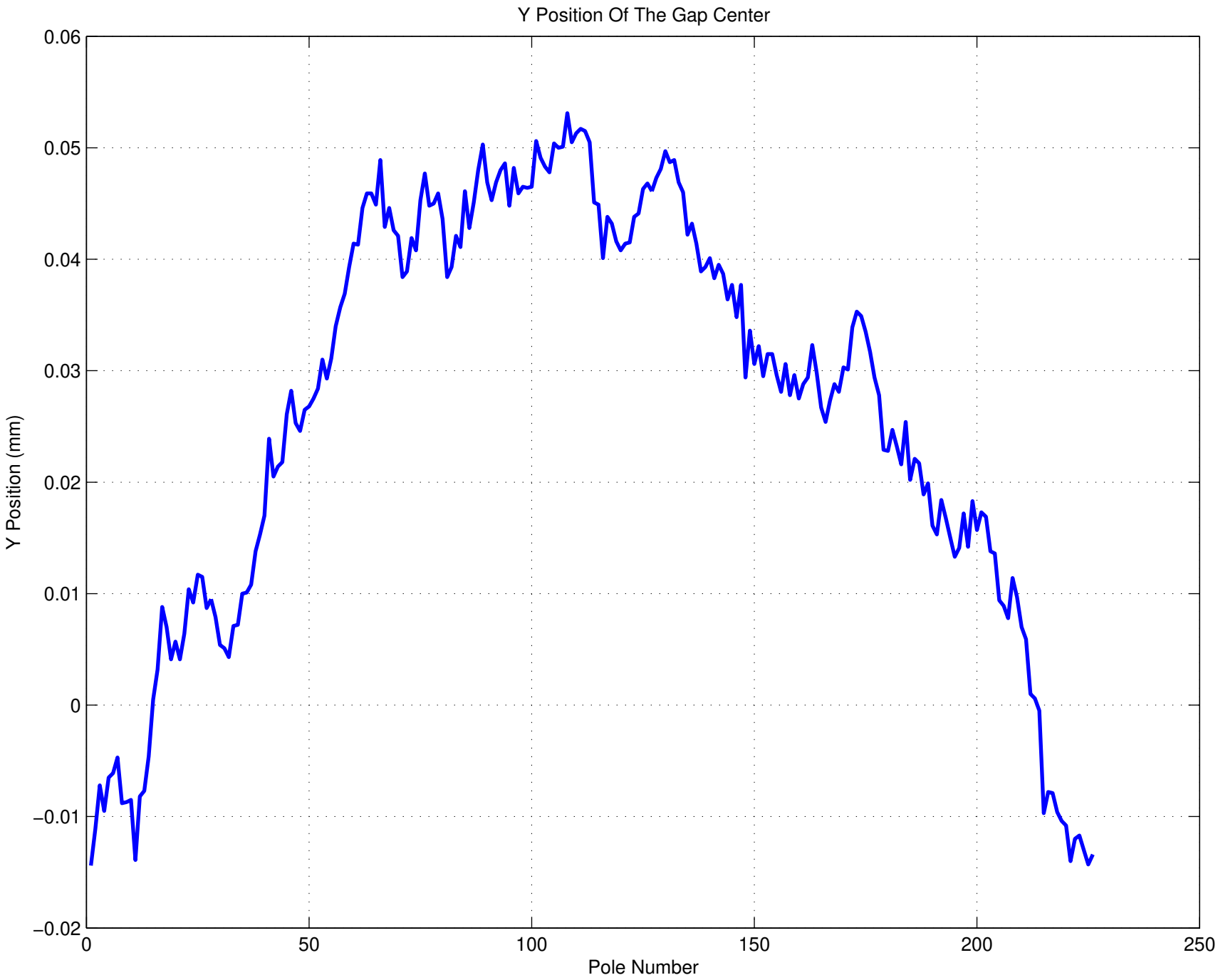
SLAC Magnetic Measurements
Mechanical Measurement Analysis

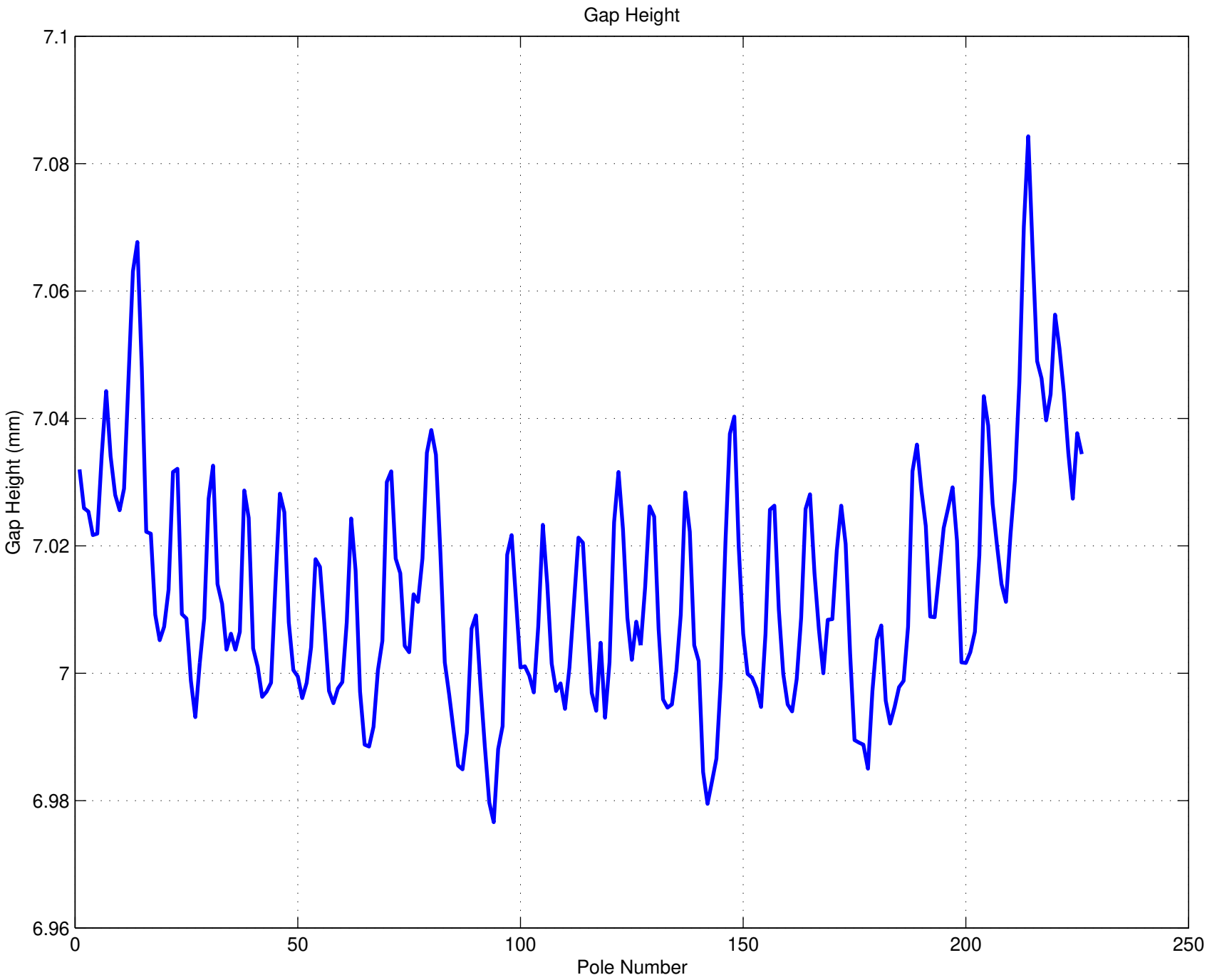
Parameters:
INPUT−FILE−DIR =S:\MagData\LCLS\Undulator\L143−112000−27\DATASET0001\MECHANICAL MEASUREMENTS\DATA\
INPUT−FILE−NAME =SN27 POLE TIP DATA POINTS − PRETUNING 13−MAY−2008.TXT

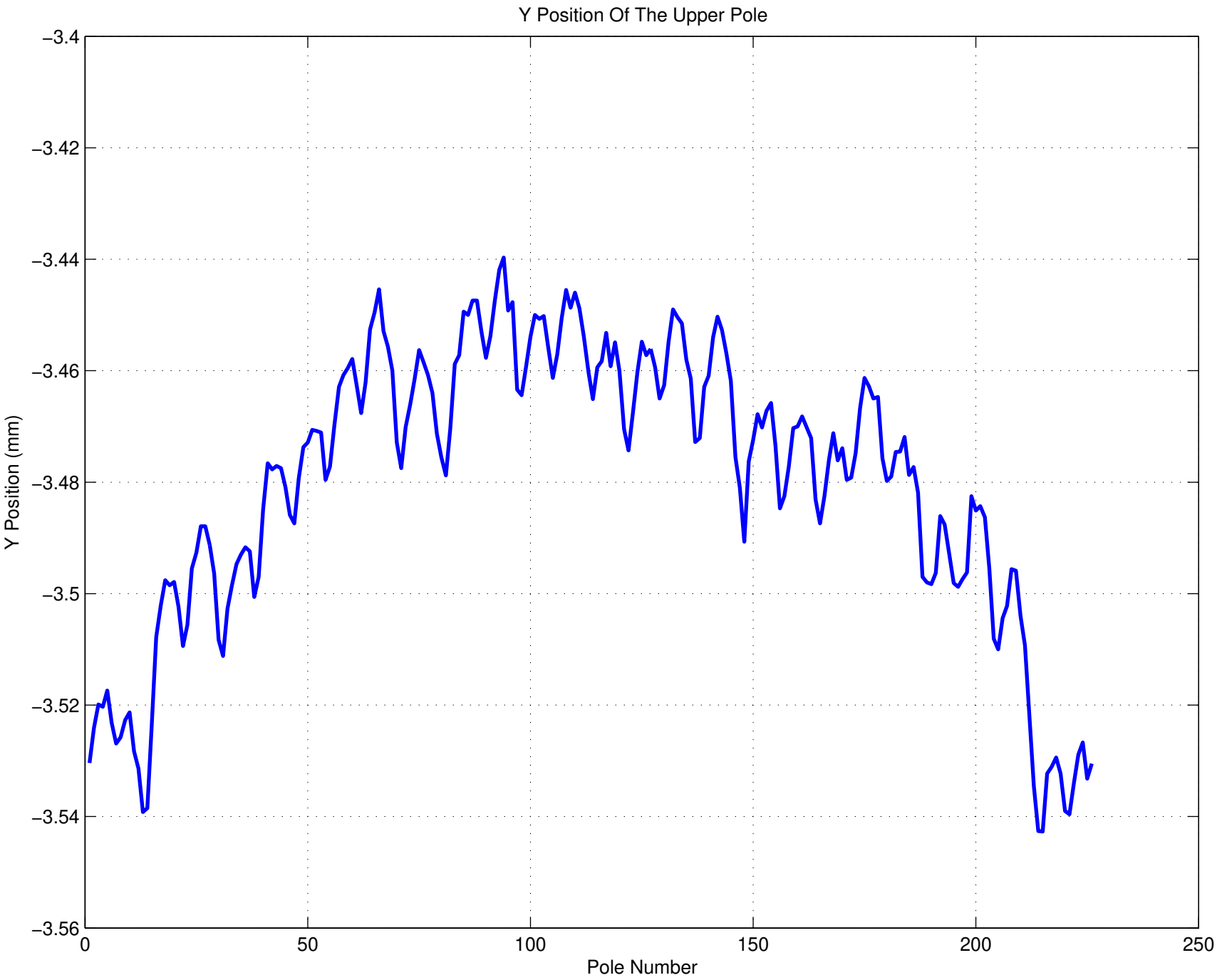

y
53 mm
135 mm
x
(x=0, y=0)
y vals
113 mm

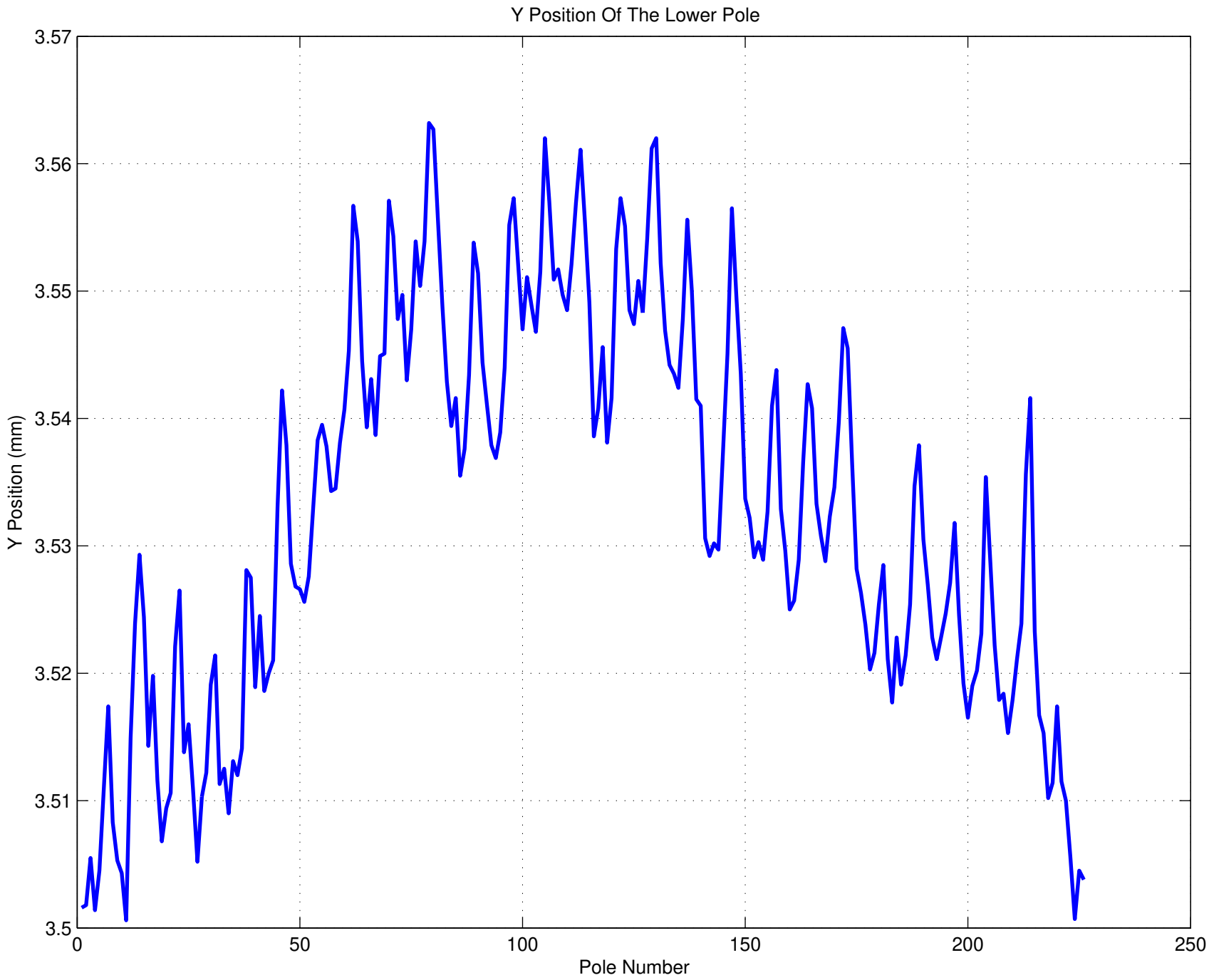

Cant Angle
180.01
180.005
180
179.995
179.99
179.985
179.98
179.975
Cant Angle (mrad)
0
50
100
150
200
250
Pole Number

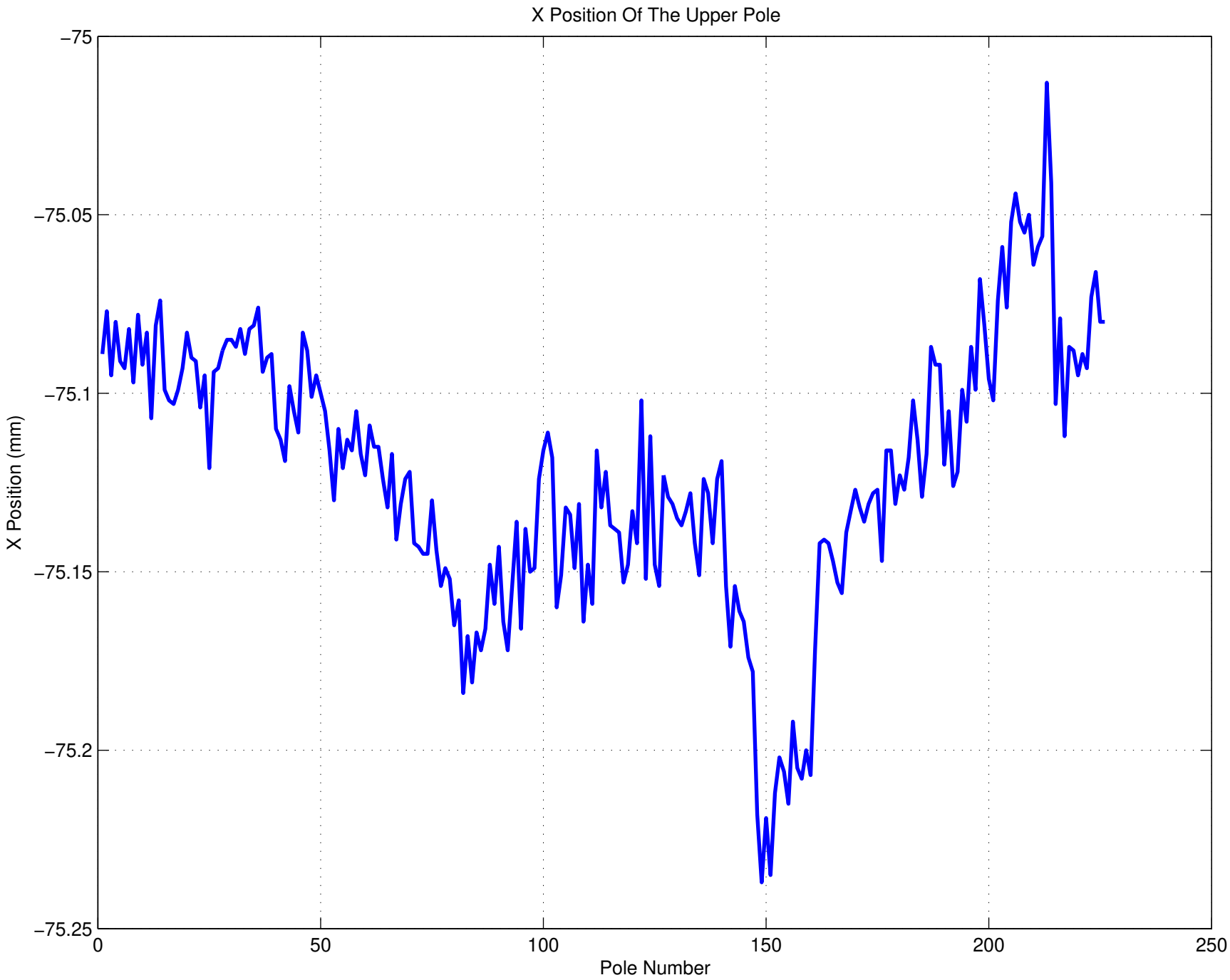

Midline Angle
Midline Angle (deg)
Pole Number
0.02
0.019
0.018
0.017
0.016
0.015
0.014
0.013
0
50
100
150
200
250

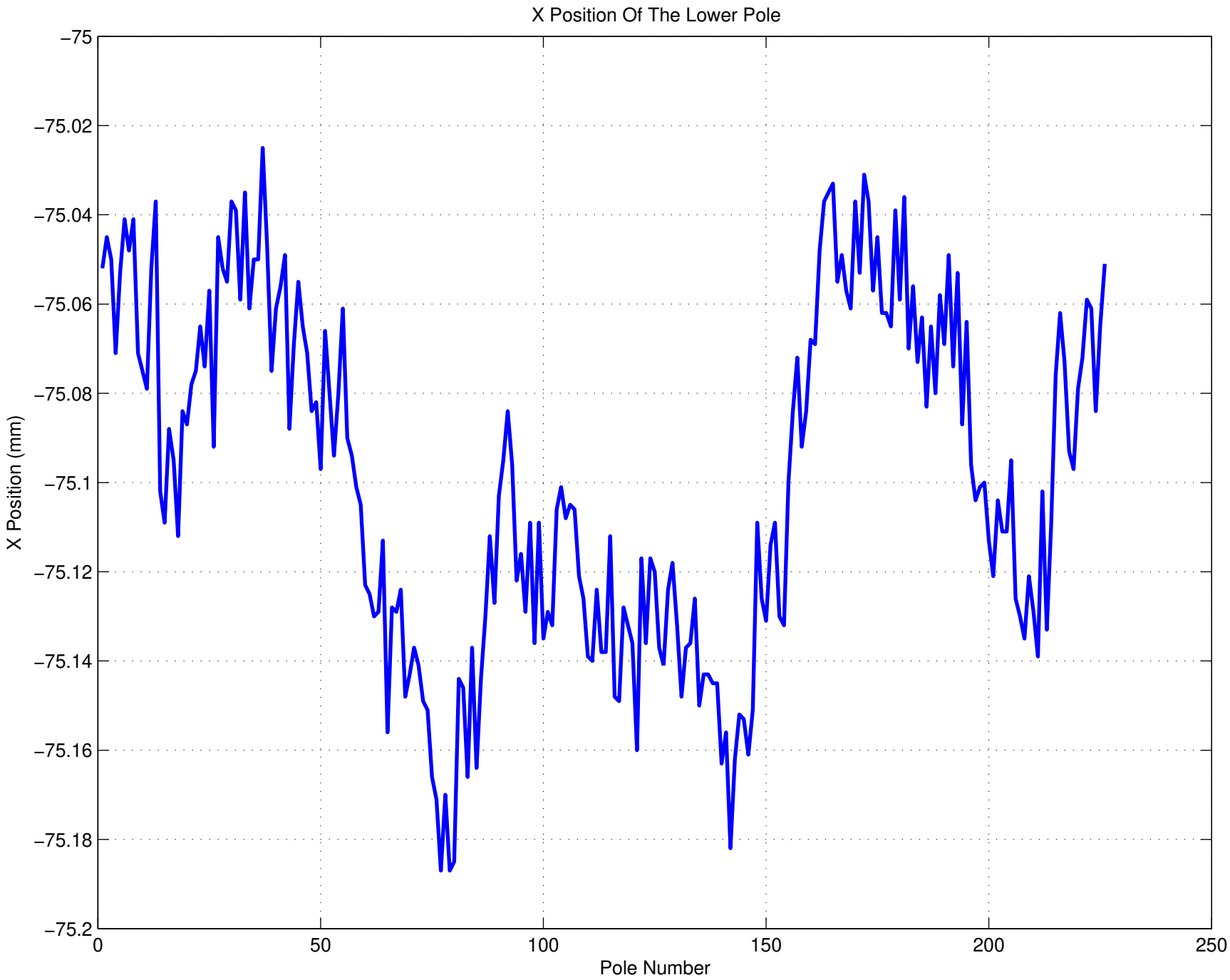

Y Position Of The Gap Center
Y Position (mm)
Pole Number
0.06
0.05
0.04
0.03
0.02
0.01
0
−0.01
−0.02
0
50
100
150
200
250

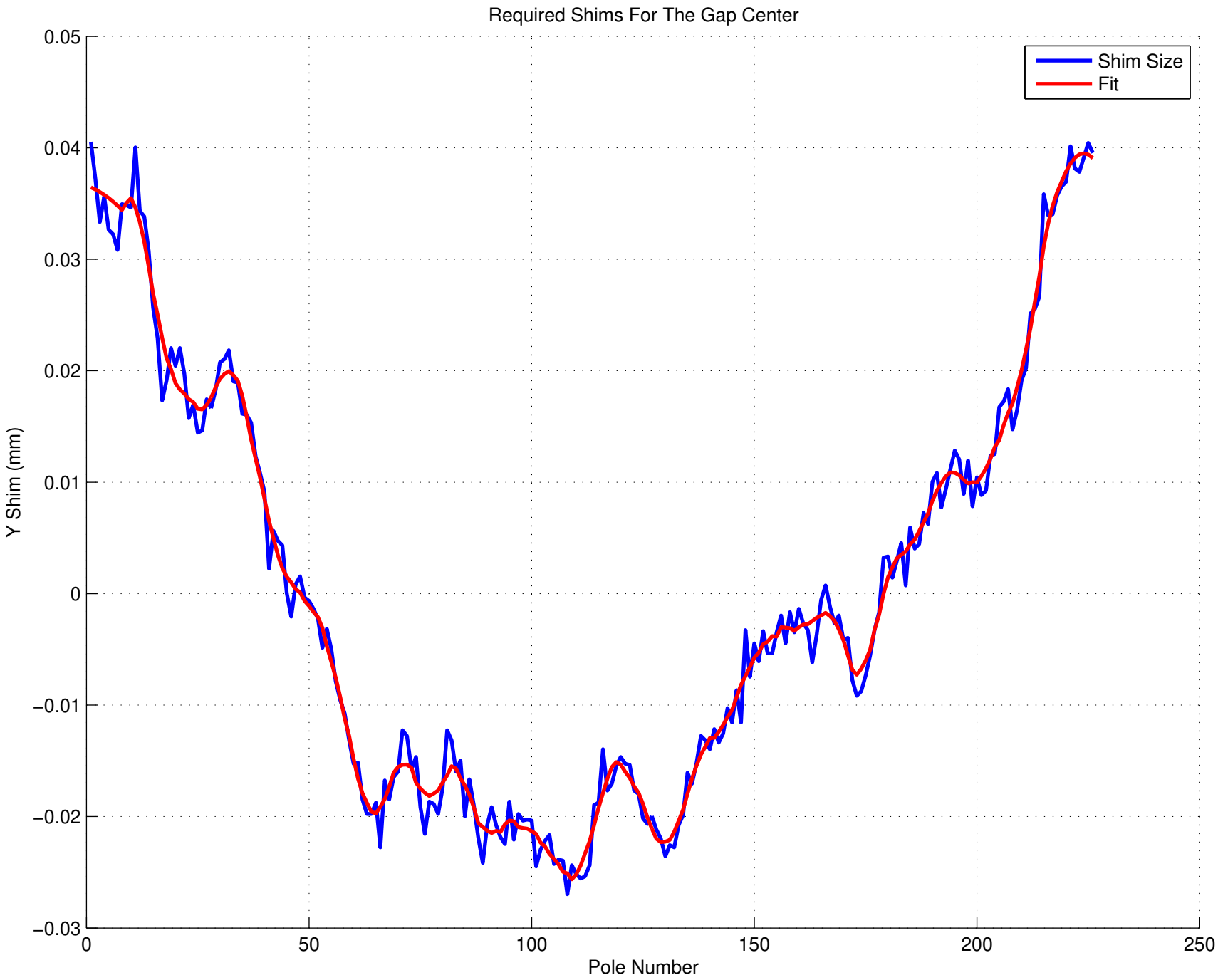

Gap Height
Gap Height (mm)
7.1
7.08
7.06
7.04
7.02
7
6.98
6.96
0
50
100
150
200
250
Pole Number


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


Y Position Of The Lower Pole
Y Position (mm)
Pole Number
3.57
3.56
3.55
3.54
3.53
3.52
3.51
3.5
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)
Pole Number
−75
−75.02
−75.04
−75.06
−75.08
−75.1
−75.12
−75.14
−75.16
−75.18
−75.2
0
50
100
150
200
250


Required Shims For The Gap Center
Shim Size
Fit
Y Shim (mm)
Pole Number
0.05
0.04
0.03
0.02
0.01
0
−0.01
−0.02
−0.03
0
50
100
150
200
250