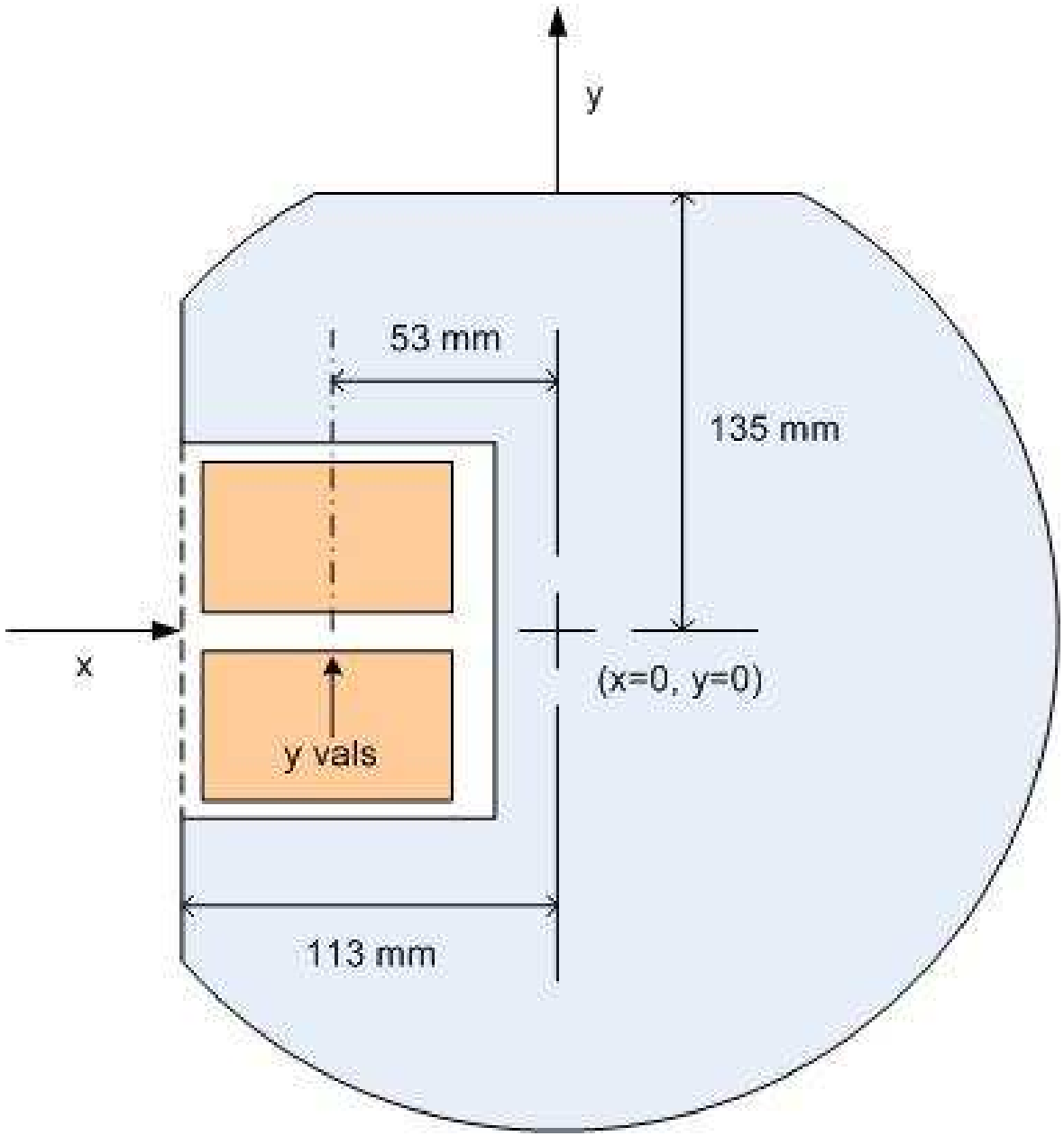
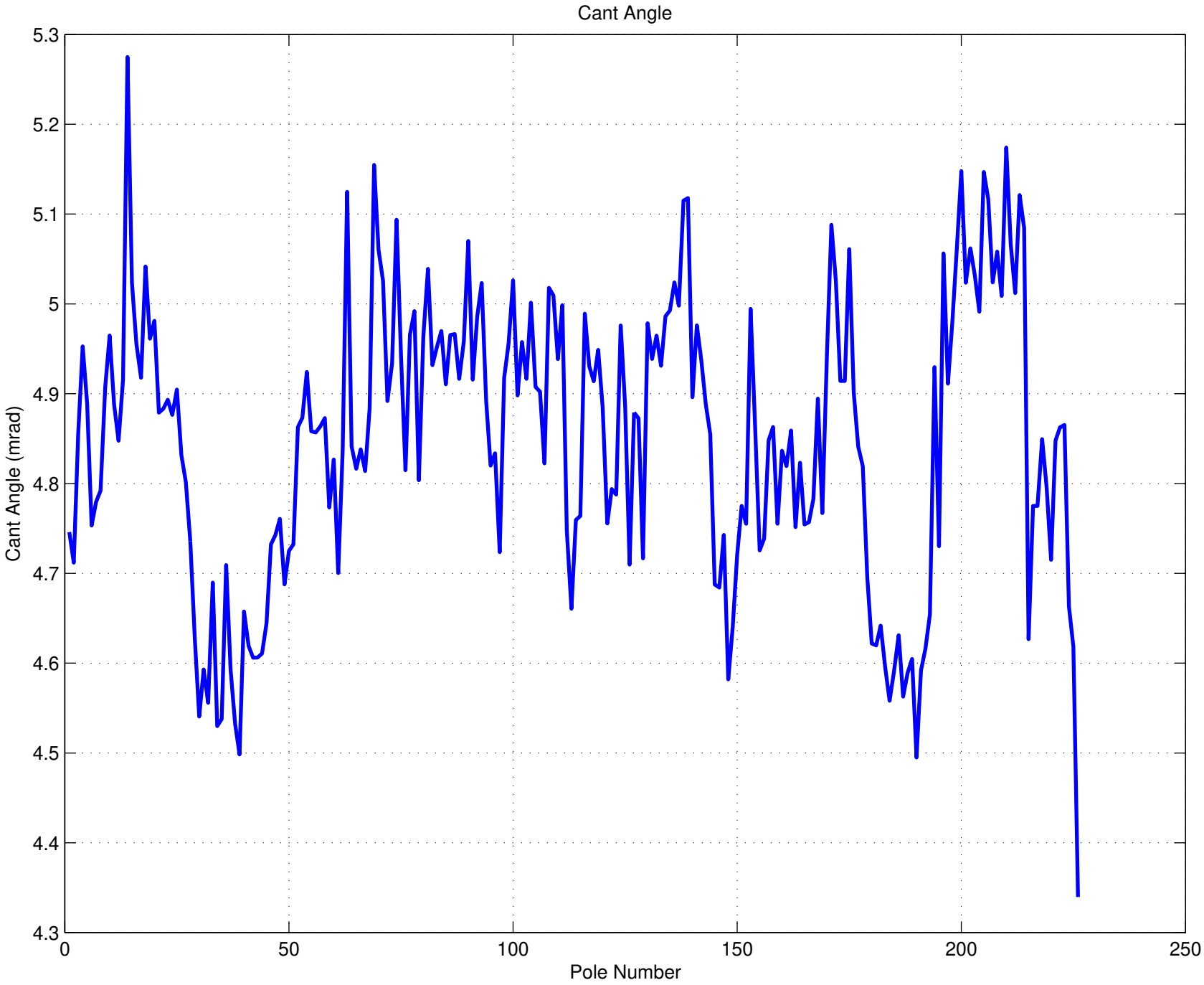
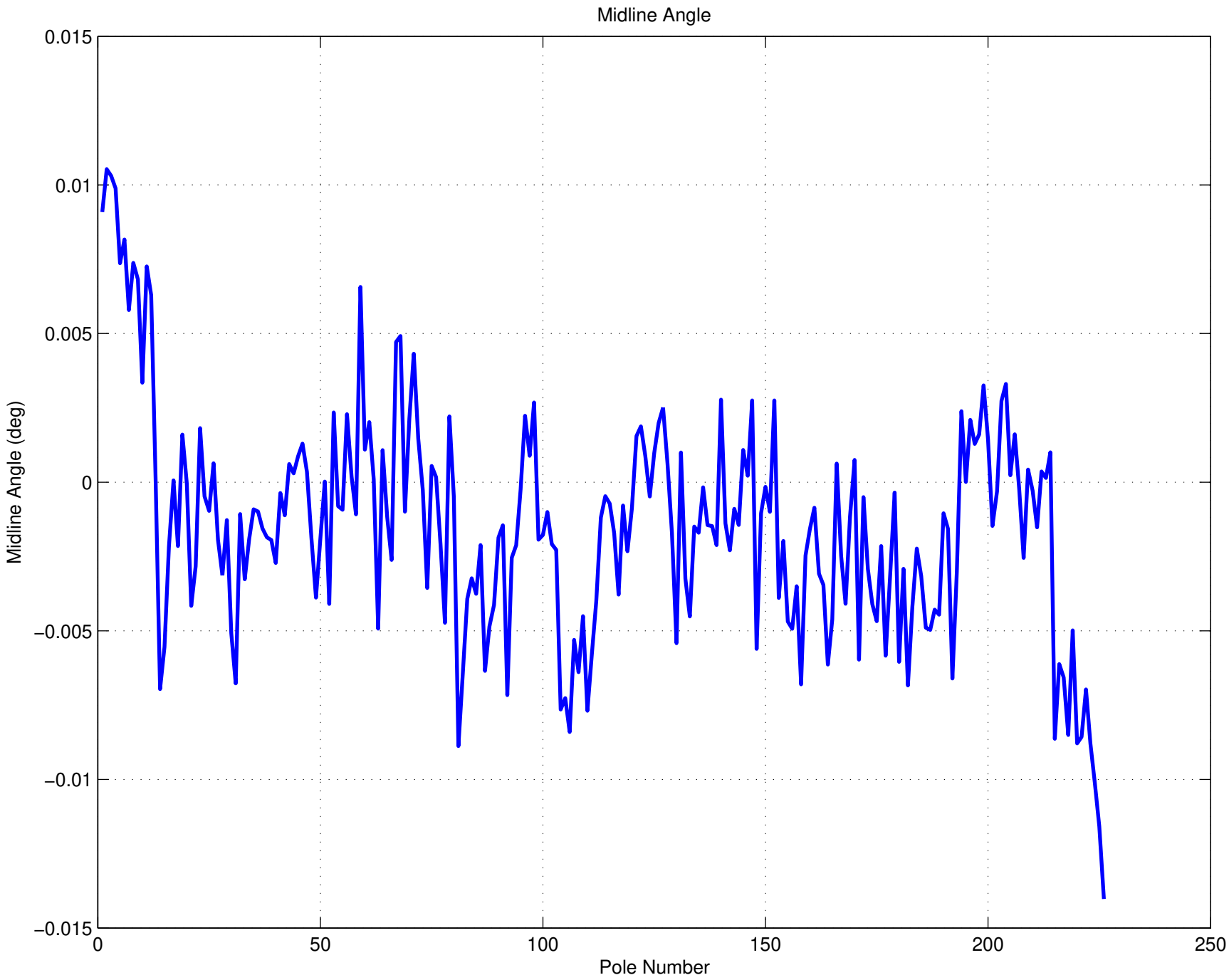
SLAC Magnetic Measurements
Mechanical Measurement Analysis

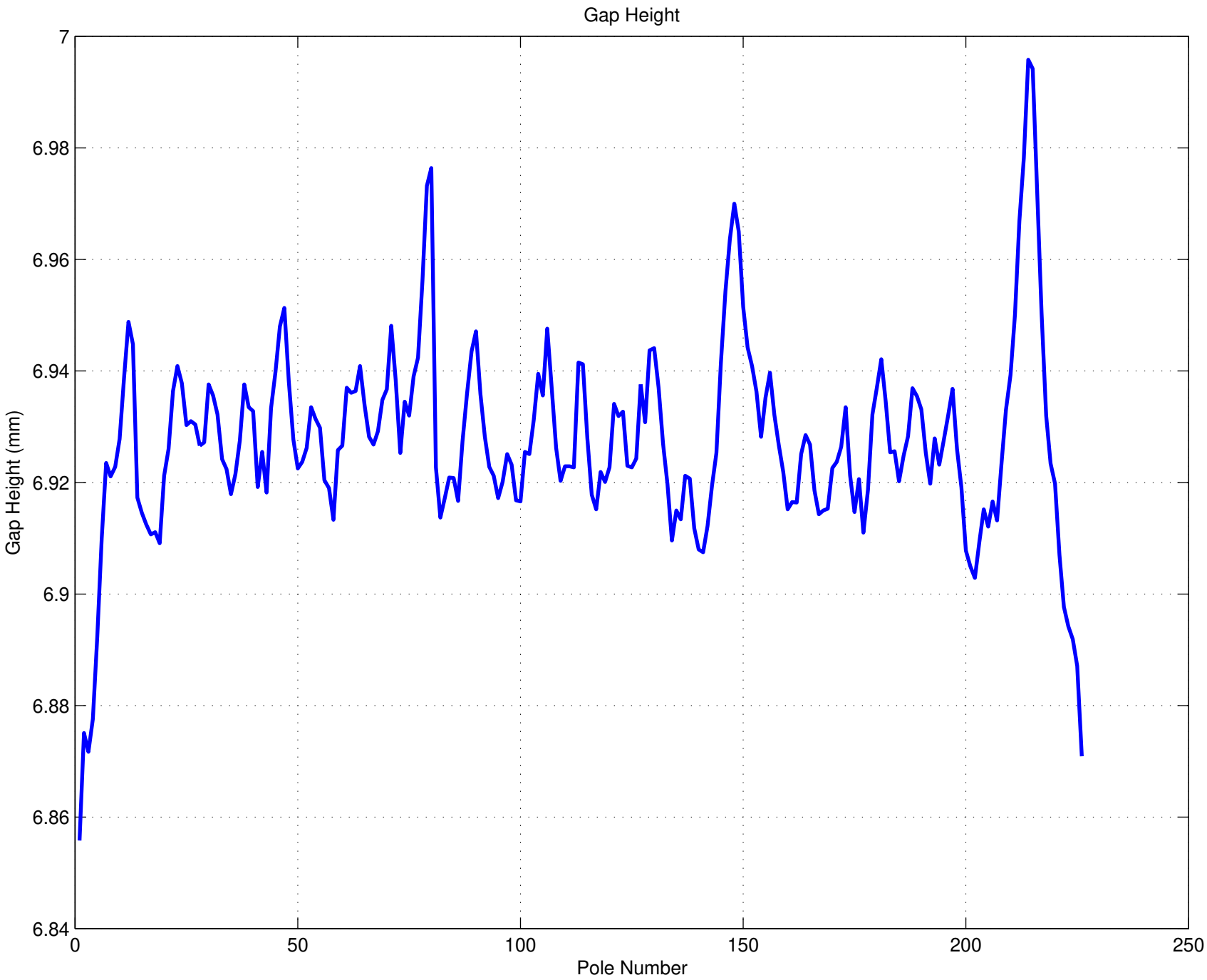
Parameters:
INPUT−FILE−DIR =V:\MET\MagServe\MagData\LCLS\Undulator\L143−112000−39\DATASET0001\MECHANICAL MEASUREMI
INPUT−FILE−NAME =SN 39 POLE TIP DATA POINTS 01−NOV−2007.TXT

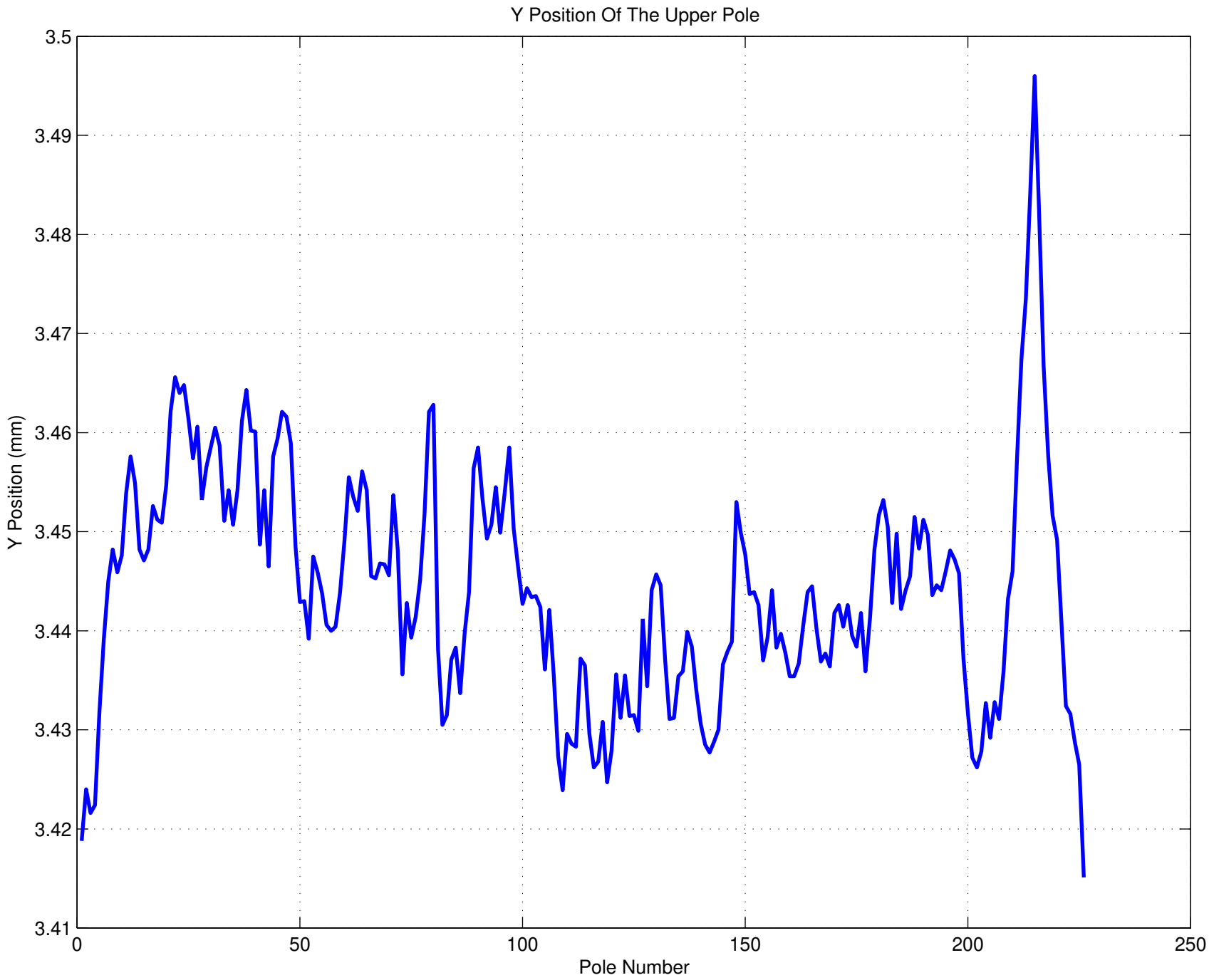

y
53 mm
135 mm
x
(x=0, y=0)
y vals
113 mm

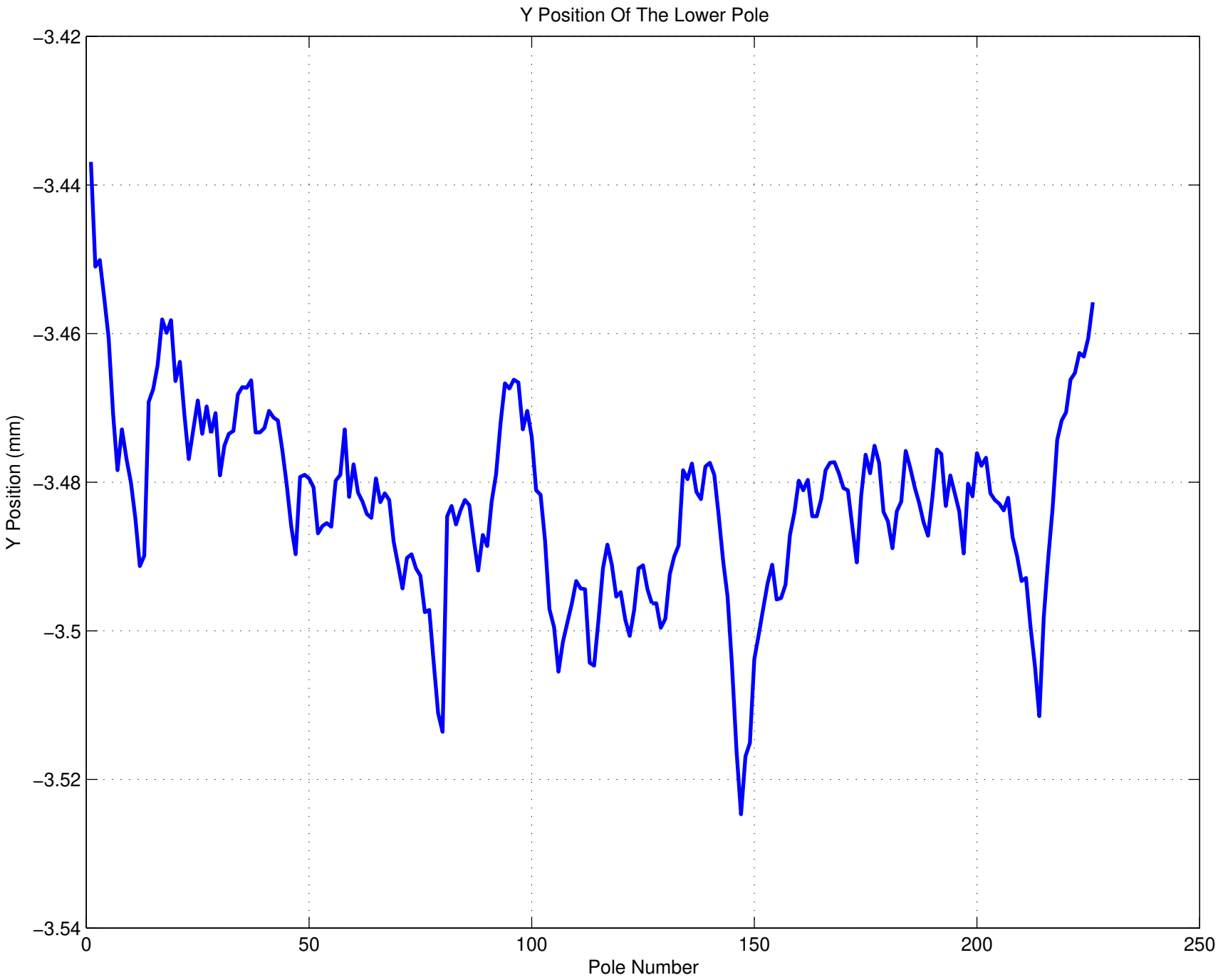

Cant Angle
Cant Angle (mrad)
Pole Number
5.3
5.2
5.1
5
4.9
4.8
4.7
4.6
4.5
4.4
4.3
0
50
100
150
200
250

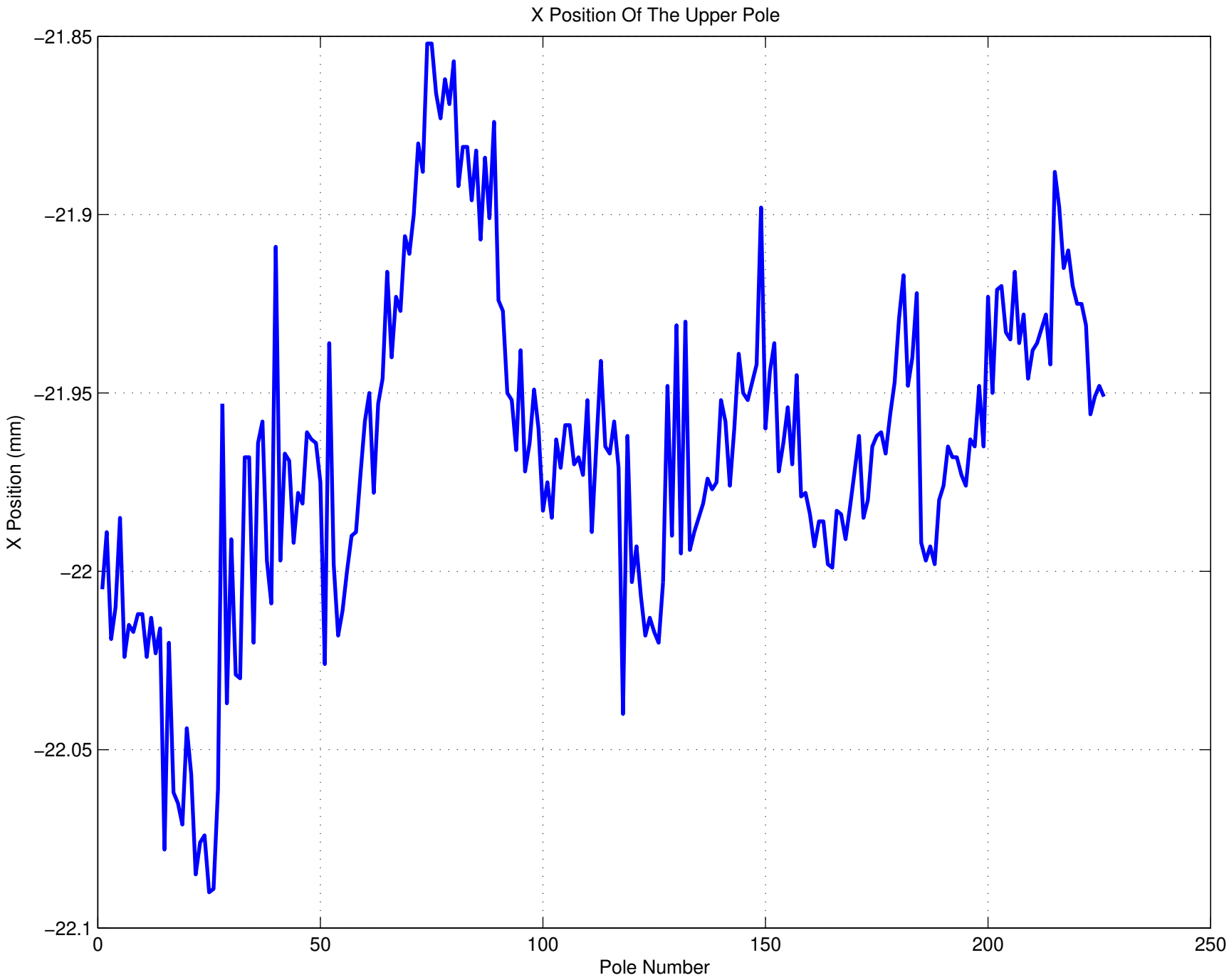

Midline Angle
Midline Angle (deg)
Pole Number
0.015
0.01
0.005
0
−0.005
−0.01
−0.015
0
50
100
150
200
250

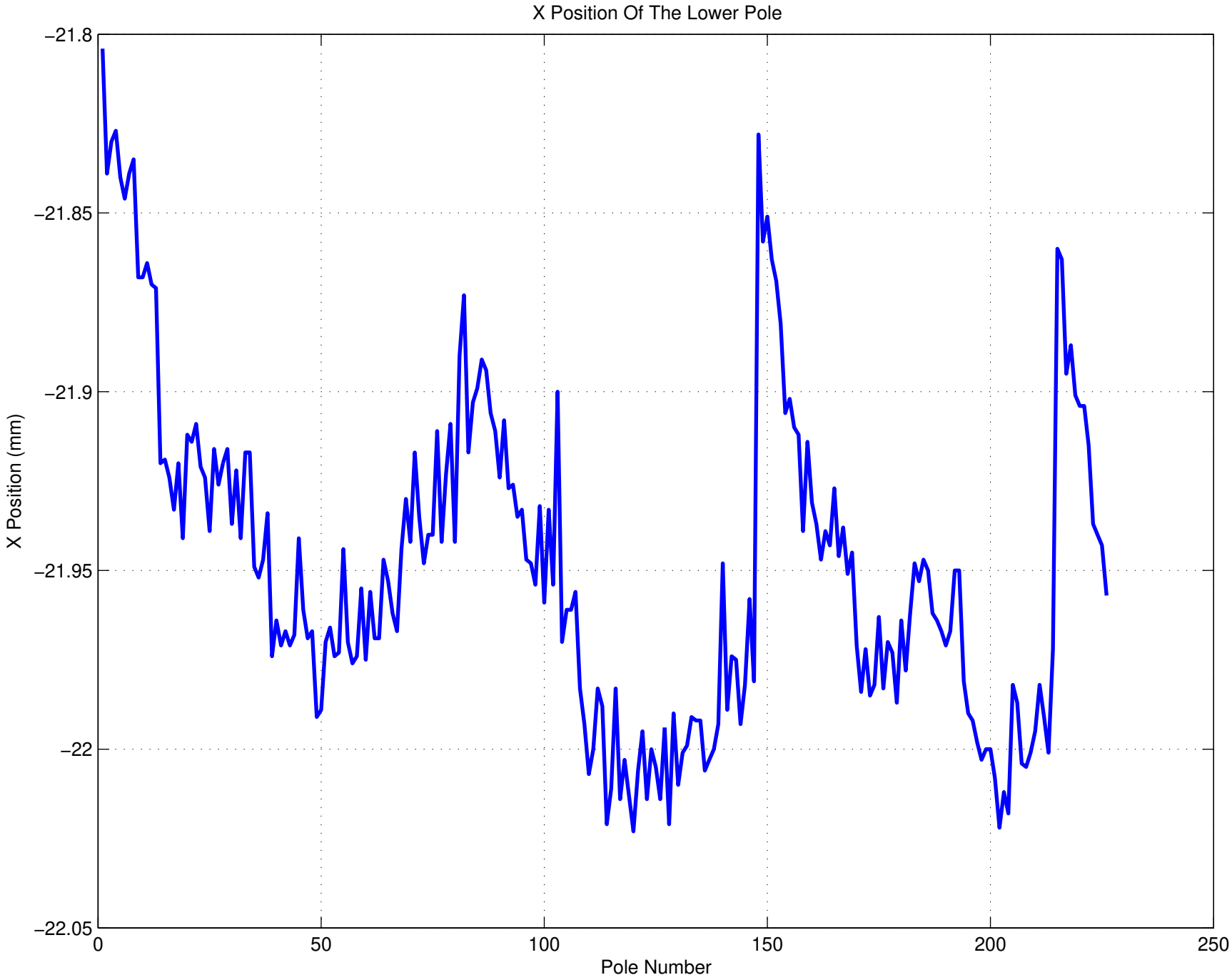
Y Position Of The Gap Center
Y Position (mm)
Pole Number
0
−0.005
−0.01
−0.015
−0.02
−0.025
−0.03
−0.035
−0.04
−0.045
0
50
100
150
200
250

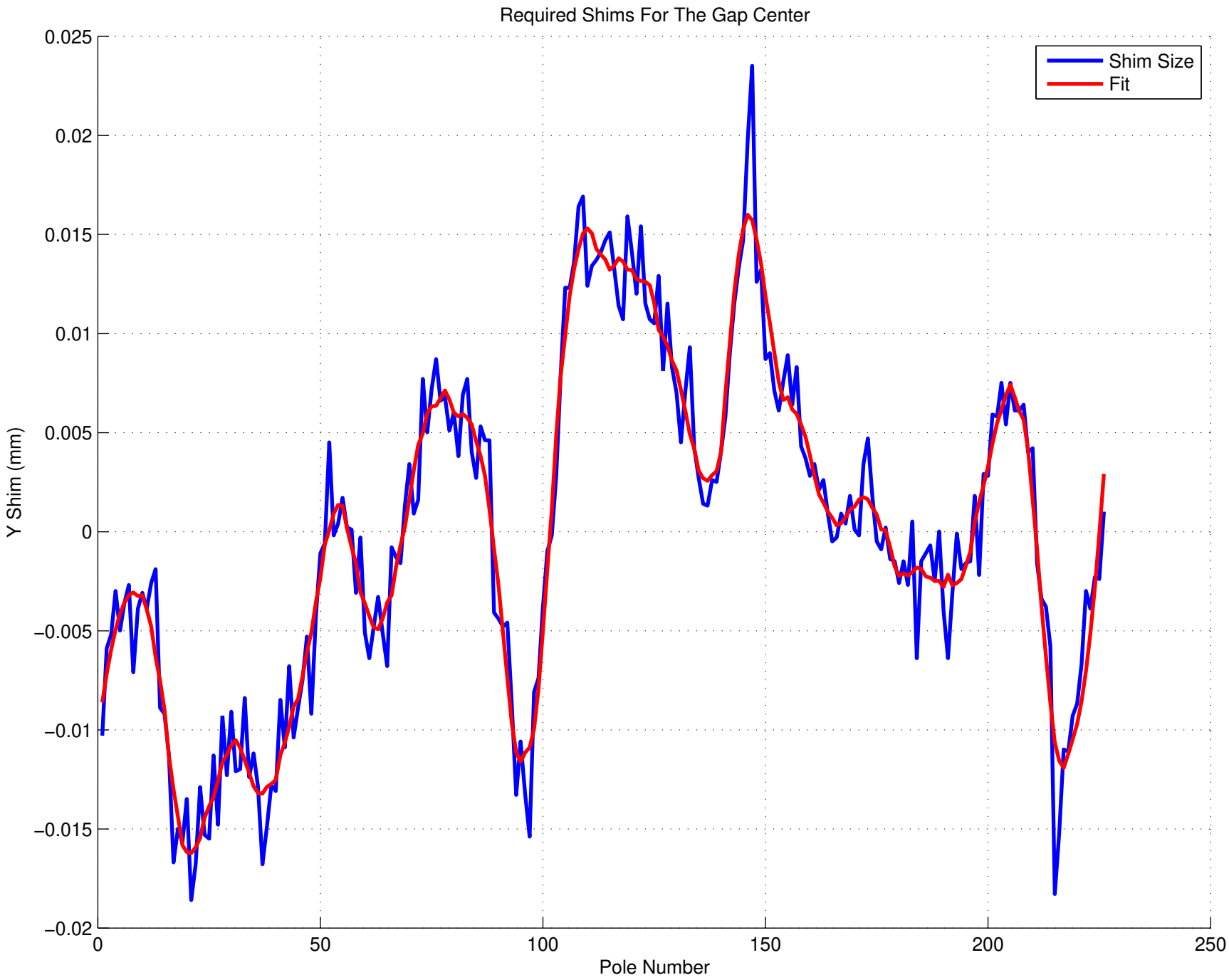

Gap Height
Gap Height (mm)
Pole Number
7
6.98
6.96
6.94
6.92
6.9
6.88
6.86
6.84
0
50
100
150
200
250


Y Position Of The Upper Pole
Y Position (mm)
Pole Number
3.5
3.49
3.48
3.47
3.46
3.45
3.44
3.43
3.42
3.41
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)
−21.85
−21.9
−21.95
−22
−22.05
−22.1
0
50
100
150
200
250
Pole Number


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