## Top Jaw Pole Tips

Mean TOP =    6.9973          Regression Line Ang. (mrad) =    -0.0008

Pole Tip Num. ---->                Bottom Jaw Pole Tips          Minimum Effective Gap =   13.975

Mean BTM =   -7.0185          Regression Line Ang. (mrad) =    -0.0001

Y Value Scales Centered on Mean Values                    Regression Line Through Points =
Step Between Measured Pole Tips =   7

Dimensions in mm

**LCLS II - SXR Undulator**

Nominal Gap = 14          Nominal Taper = 0.000

Gap Reading = 14.0000     US Encoder = 14.0001     DS Encoder = 14.0000

19-JUL-2018
S/N =    013
D/S=    0001
Run=    12

# Gap Between Opposing Pole Tips
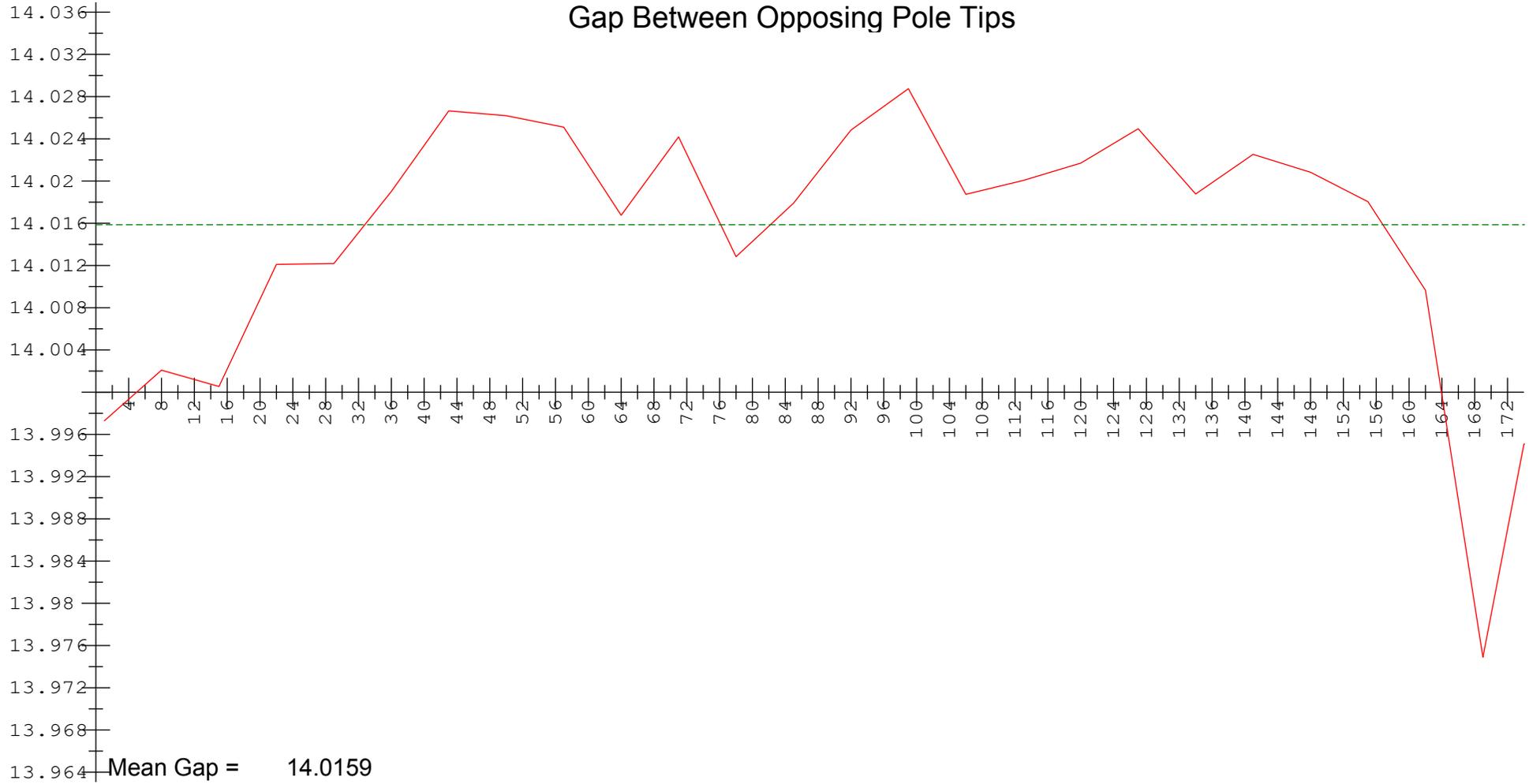


Mean Gap =      14.0159

Step Between Measured Pole Tips =   7

Dimensions in mm

**SLAC**
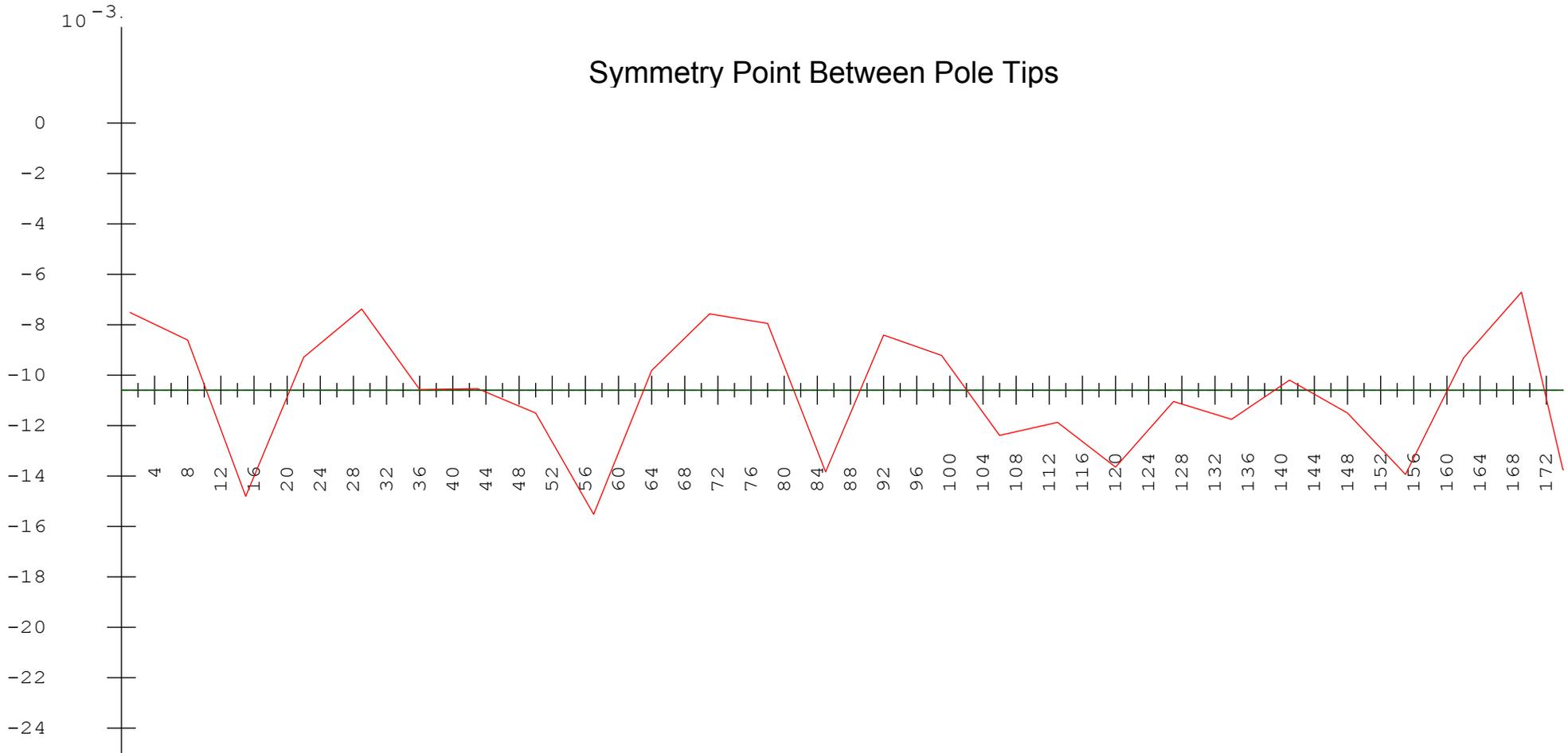NATIONAL ACCELERATOR LABORATORY
METROLOGY

**LCLS II - SXR Undulator**
Nominal Gap = 14      Nominal Taper = 0.000
Gap Reading = 14.0000      US Encoder = 14.0001      DS Encoder = 14.0000

19-JUL-2018
S/N =   013
D/S=   0001
Run=   12

# Symmetry Point Between Pole Tips



Mean Symmetry Value =     -0.0106

Step Between Measured Pole Tips =   7

Dimensions in mm

## LCLS II - SXR Undulator

Nominal Gap = 14      Nominal Taper = 0.000

Gap Reading = 14.0000     US Encoder  = 14.0001     DS Encoder  = 14.0000

19-JUL-2018
S/N =   013
D/S=   0001
Run=   12

# Top and Bottom Jaw
# Regression Line Intersect Points

| Jaw | First Pole (Pole 1) | US Actuator (Pole 39) | DS Actuator (Pole 135) | Last Pole (Pole 174) |
|---|---|---|---|---|
| **Top** | 6.9981 | 6.9976 | 6.9961 | 6.9955 |
| **Bottom** | -7.0180 | -7.0181 | -7.0184 | -7.0185 |
| **Gap** | 14.0162 | | | 14.0140 |
| **Taper** | | | | -0.0022 |

## Summary of Mean Values

| Top Jaw Poles | Btm. Jaw Poles | Gap Values | Sym. Pt. Values |
|---|---|---|---|
| 6.9973 | -7.0185 | 14.0159 | -0.0106 |

## Additional Calculated Values

| | |
|---|---|
| **Bottom Pole #1 Z Value** | 979.775 |
| **Top Jaw Pitch (mrad)** | -0.001 |
| **Bottom Jaw Pitch(mrad)** | 0.000 |
| **Minimum Effective Gap** | 13.975 |
| **Reference Block Gap** | 6.806 |

Dimensions in mm

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# LCLS II - SXR Undulator
Nominal Gap = 14          Nominal Taper = 0.000
Gap Reading = 14.0000     US Encoder = 14.0001     DS Encoder = 14.0000

19-JUL-2018
S/N = 013
D/S= 0001
Run= 12