# Top Jaw Pole Tips

Y Dev. from Mean

Mean TOP =     5.0710          Regression Line Ang. (mrad) =      0.0156

Pole Tip Num. ---->

# Bottom Jaw Pole Tips

Minimum Effective Gap =    9.838

Y Dev. from Mean

Mean BTM =    -4.8960          Regression Line Ang. (mrad) =     -0.0121

Y Value Scales Centered on Mean Values                    Regression Line Through Points = — — — —

Step Between Measured Pole Tips =     1                    Dimensions in mm



**SLAC** NATIONAL ACCELERATOR LABORATORY
METROLOGY

## LCLS II - SXR Undulator

Nominal Gap = 10          Nominal Taper = 0.100

Gap Reading = 10.0500     US Encoder = 10.0000     DS Encoder = 10.1000

13-SEP-2018
S/N =    001
D/S=    0004
Run=    14

## Gap Between Opposing Pole Tips
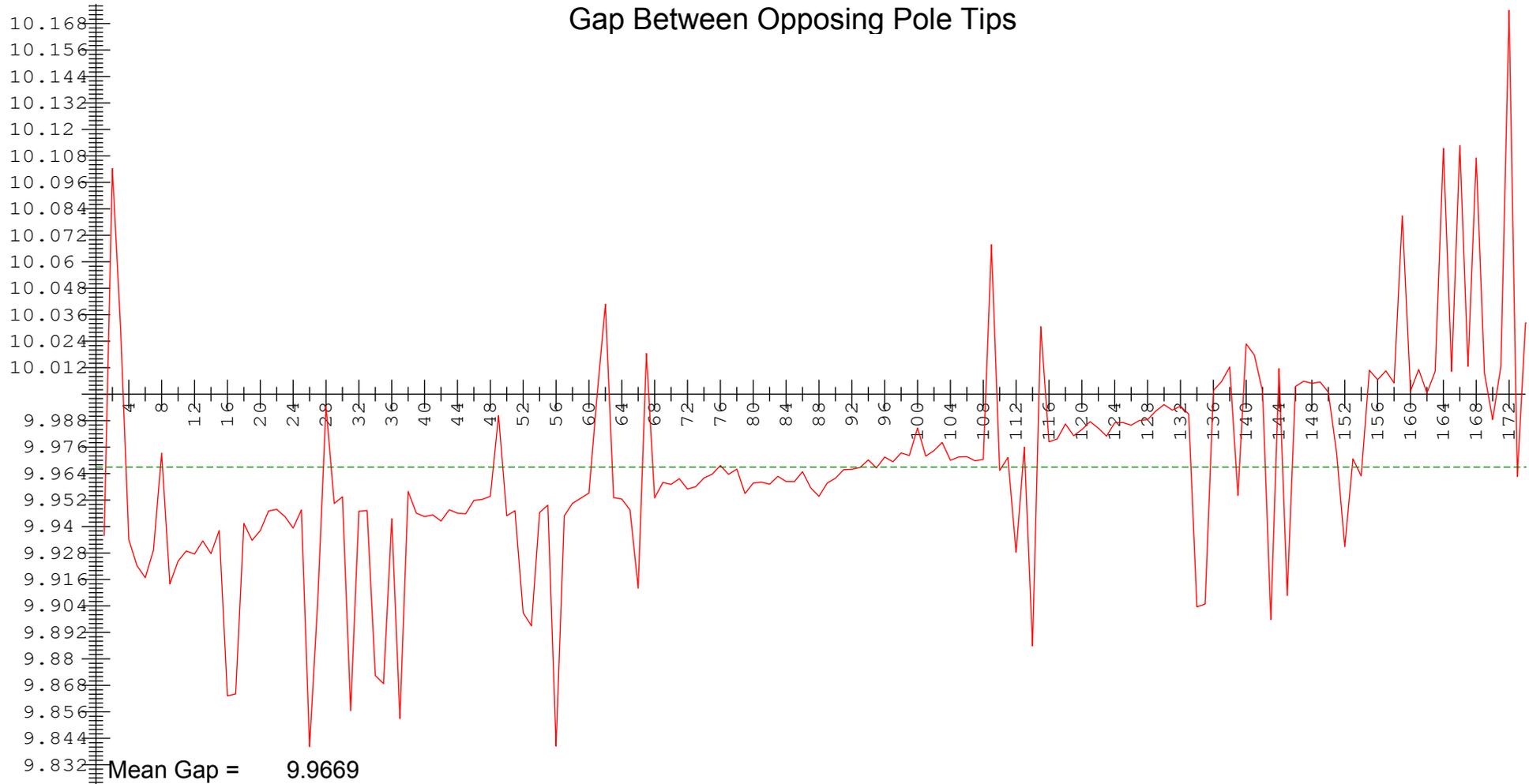


Mean Gap =      9.9669

Step Between Measured Pole Tips =    1
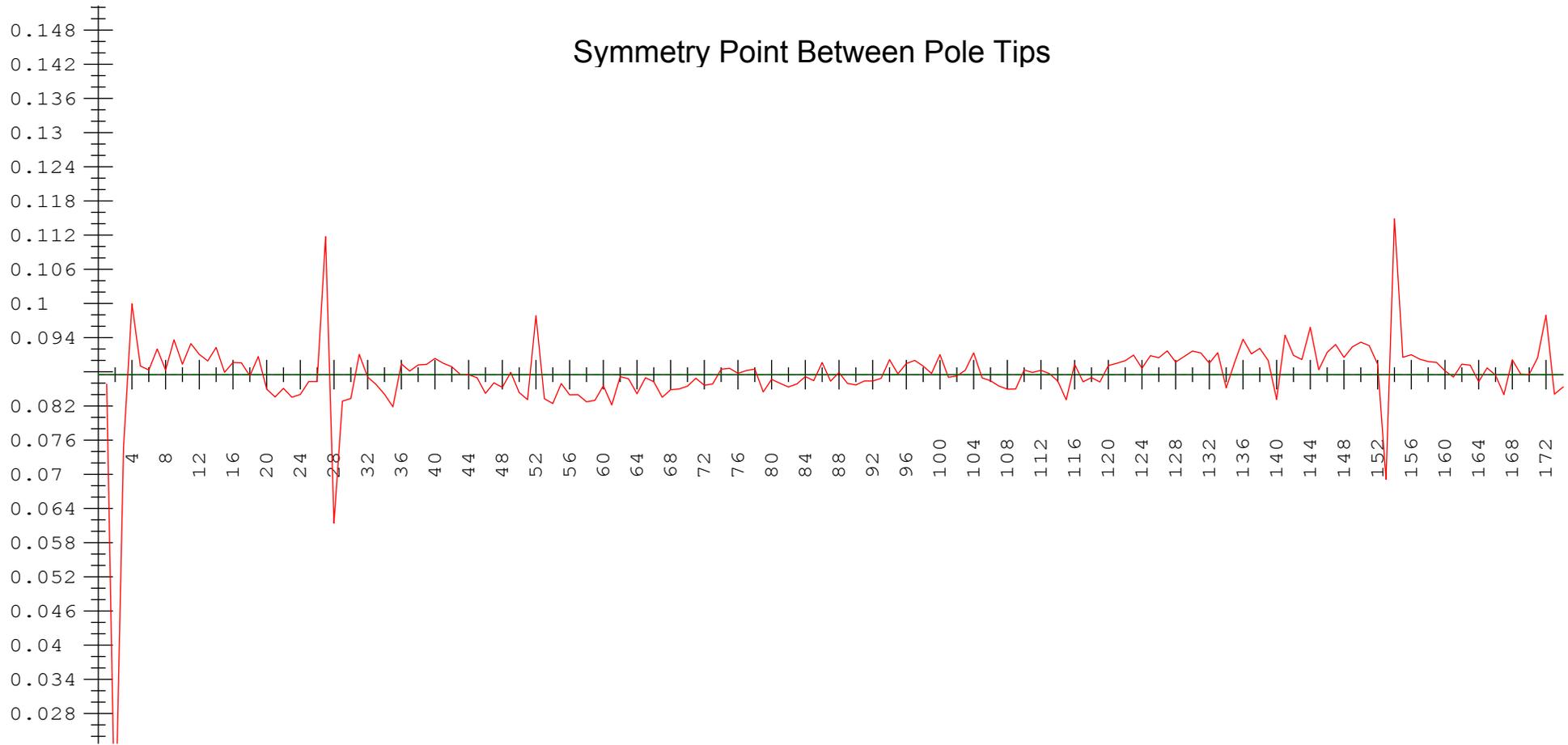
Dimensions in mm

**LCLS II - SXR Undulator**

Nominal Gap = 10        Nominal Taper = 0.100

Gap Reading = 10.0500      US Encoder = 10.0000      DS Encoder = 10.1000

13-SEP-2018
S/N =   001
D/S=   0004
Run=   14

Symmetry Point Between Pole Tips

Mean Symmetry Value =     0.0875

Step Between Measured Pole Tips =   1

Dimensions in mm

**LCLS II - SXR Undulator**

**Nominal Gap = 10      Nominal Taper = 0.100**

Gap Reading = 10.0500      US Encoder  = 10.0000      DS Encoder  = 10.1000

NATIONAL ACCELERATOR LABORATORY

METROLOGY

13-SEP-2018
S/N =   001
D/S=   0004
Run=   14

## Top and Bottom Jaw
## Regression Line Intersect Points

| Jaw | First Pole<br>(Pole 1) | US Actuator<br>(Pole 39) | DS Actuator<br>(Pole 135) | Last Pole<br>(Pole 174) |
|---|---|---|---|---|
| **Top** | 5.0446 | 5.0562 | 5.0854 | 5.0973 |
| **Bottom** | -4.8756 | -4.8845 | -4.9072 | -4.9164 |
| **Gap** | 9.9202 | | | 10.0137 |
| **Taper** | | | | 0.0935 |

## Summary of Mean Values

| Top Jaw Poles | Btm. Jaw Poles | Gap Values | Sym. Pt. Values |
|---|---|---|---|
| 5.0710 | -4.8960 | 9.9669 | 0.0875 |

## Additional Calculated Values

| | |
|---|---|
| **Bottom Pole #1 Z Value** | 979.975 |
| **Top Jaw Pitch (mrad)** | 0.016 |
| **Bottom Jaw Pitch(mrad)** | -0.012 |
| **Minimum Effective Gap** | 9.838 |
| **Reference Block Gap** | 6.807 |

Dimensions in mm

**SLAC**
NATIONAL ACCELERATOR LABORATORY
METROLOGY

# LCLS II - SXR Undulator
## Nominal Gap = 10      Nominal Taper = 0.100
Gap Reading = 10.0500      US Encoder = 10.0000      DS Encoder = 10.1000

13-SEP-2018
S/N =   001
D/S=   0004
Run=   14