## Top Jaw Pole Tips

$10^{-3}$

Y Dev. from Mean

Mean TOP = 5.0563          Regression Line Ang. (mrad) = 0.0117

Pole Tip Num. ---->

## Bottom Jaw Pole Tips

Minimum Effective Gap = 9.965

$10^{-3}$

Y Dev. from Mean

Mean BTM = -4.9975          Regression Line Ang. (mrad) = -0.0149

Y Value Scales Centered on Mean Values
Step Between Measured Pole Tips = 1

Regression Line Through Points = ⎯ ⎯ ⎯
Dimensions in mm

## LCLS II - SXR Undulator

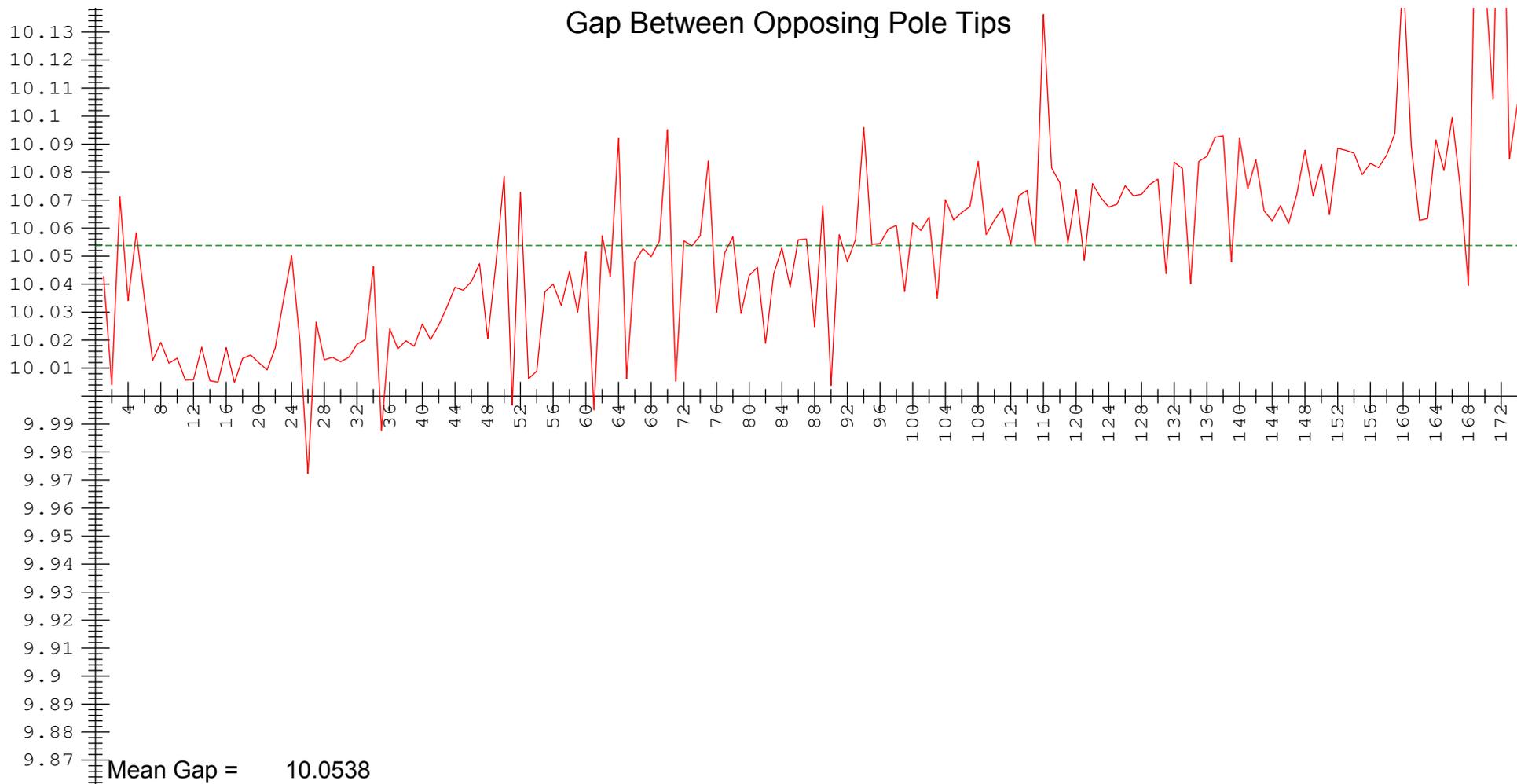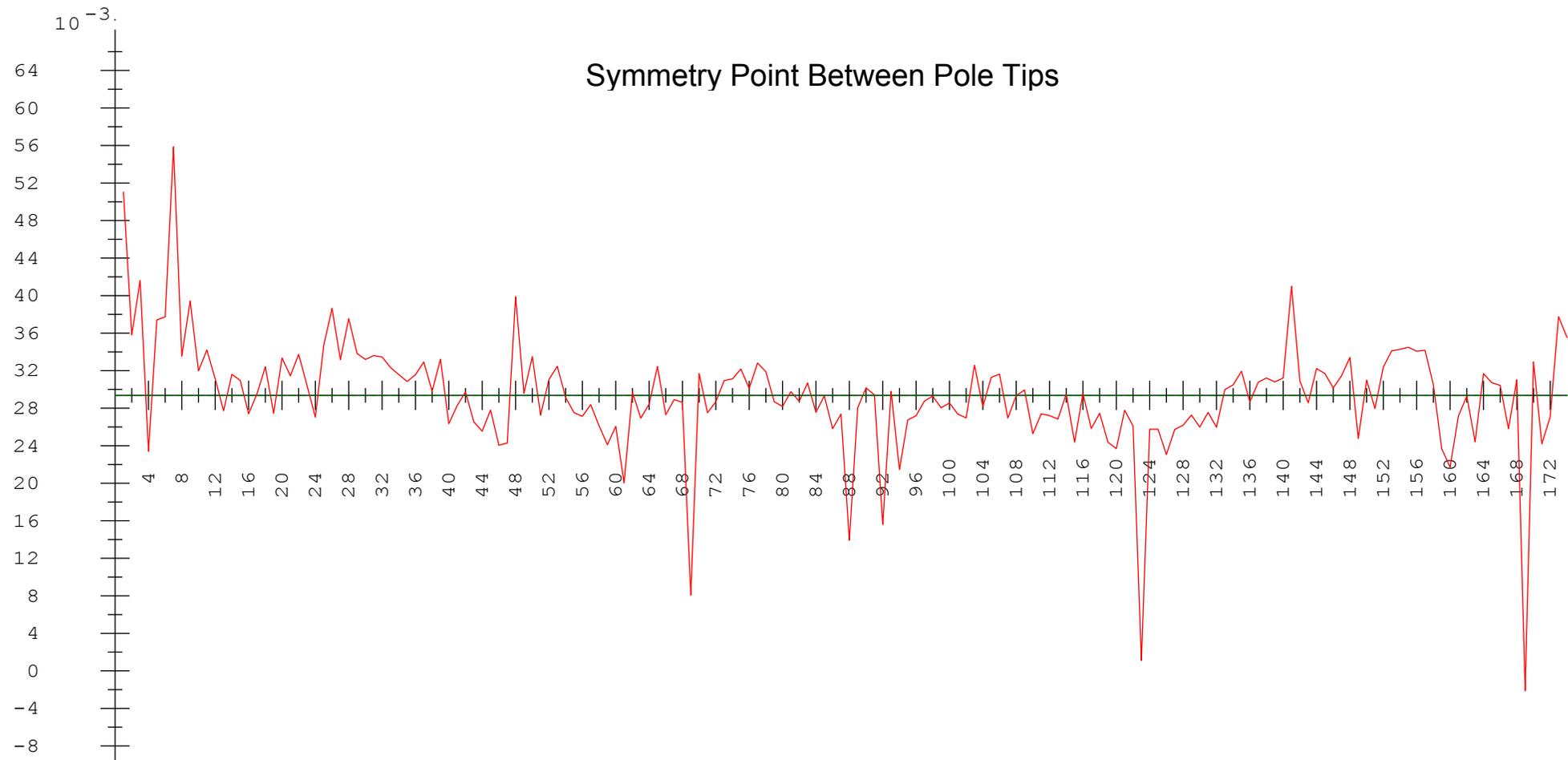Nominal Gap = 10          Nominal Taper = 0.100

Gap Reading = 10.0501     US Encoder = 10.0001     DS Encoder = 10.1001

20-JUN-2018
S/N = 011
D/S= 0001
Run= 17

## Gap Between Opposing Pole Tips



Mean Gap =     10.0538

Step Between Measured Pole Tips =   1

Dimensions in mm

## Symmetry Point Between Pole Tips

Mean Symmetry Value =    0.0294

Step Between Measured Pole Tips =    1

Dimensions in mm

**LCLS II - SXR Undulator**

Nominal Gap = 10     Nominal Taper = 0.100

Gap Reading = 10.0501     US Encoder = 10.0001     DS Encoder = 10.1001

**SLAC**
NATIONAL ACCELERATOR LABORATORY
METROLOGY

20-JUN-2018
S/N =   011
D/S=   0001
Run=   17

## 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** | 5.0366 | 5.0452 | 5.0671 | 5.0760 |
| **Bottom** | -4.9723 | -4.9834 | -5.0114 | -5.0227 |
| **Gap** | 10.0089 | | | 10.0987 |
| **Taper** | | | | 0.0898 |

## Summary of Mean Values

| Top Jaw Poles | Btm. Jaw Poles | Gap Values | Sym. Pt. Values |
|---|---|---|---|
| 5.0563 | -4.9975 | 10.0538 | 0.0294 |

## Additional Calculated Values

| | |
|---|---|
| **Bottom Pole #1 Z Value** | 979.711 |
| **Top Jaw Pitch (mrad)** | 0.012 |
| **Bottom Jaw Pitch(mrad)** | -0.015 |
| **Minimum Effective Gap** | 9.965 |
| **Reference Block Gap** | 6.803 |

Dimensions in mm

**SLAC**
NATIONAL ACCELERATOR LABORATORY
METROLOGY

# LCLS II - SXR Undulator
Nominal Gap = 10      Nominal Taper = 0.100
Gap Reading = 10.0501      US Encoder = 10.0001      DS Encoder = 10.1001

20-JUN-2018
S/N = 011
D/S= 0001
Run= 17