## Top Jaw Pole Tips

Mean TOP = 4.0358      Regression Line Ang. (mrad) = 0.0042

Pole Tip Num. ---->      Bottom Jaw Pole Tips      Minimum Effective Gap = 7.788

Mean BTM = -3.9437      Regression Line Ang. (mrad) = -0.0051
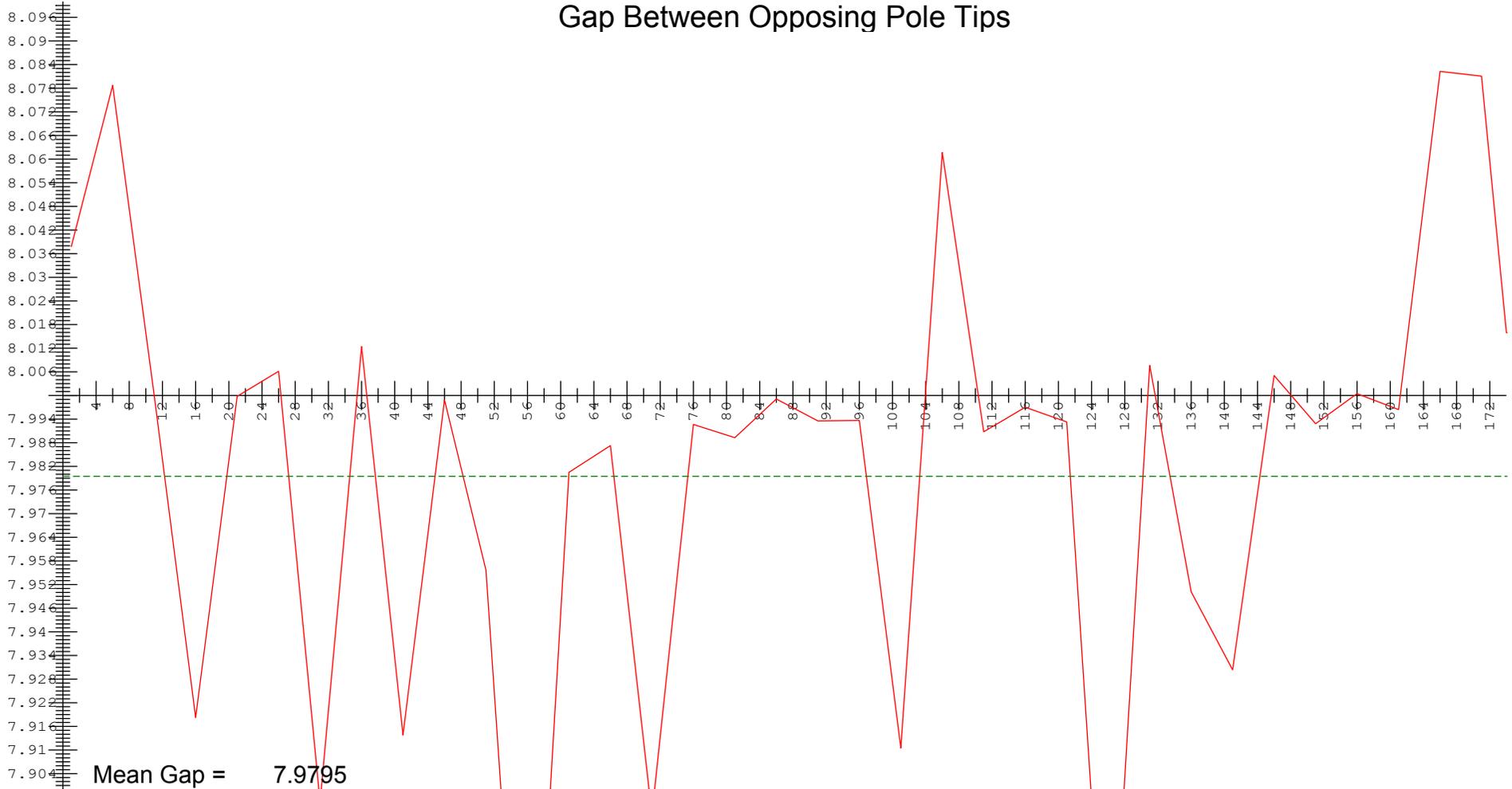
Y Value Scales Centered on Mean Values
Step Between Measured Pole Tips = 5

Regression Line Through Points =
Dimensions in mm

**LCLS II - SXR Undulator**

Nominal Gap = 8

Gap Reading = 8.0000      US Encoder = 8.0000      DS Encoder = 8.0000

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METROLOGY

25-JAN-2018
S/N = 006
D/S = 0001
Run = 09

# Gap Between Opposing Pole Tips



Mean Gap =      7.9795

Step Between Measured Pole Tips =    5

Dimensions in mm

**LCLS II - SXR Undulator**
Nominal Gap = 8

Gap Reading = 8.0000       US Encoder = 8.0000       DS Encoder = 8.0000

NATIONAL ACCELERATOR LABORATORY
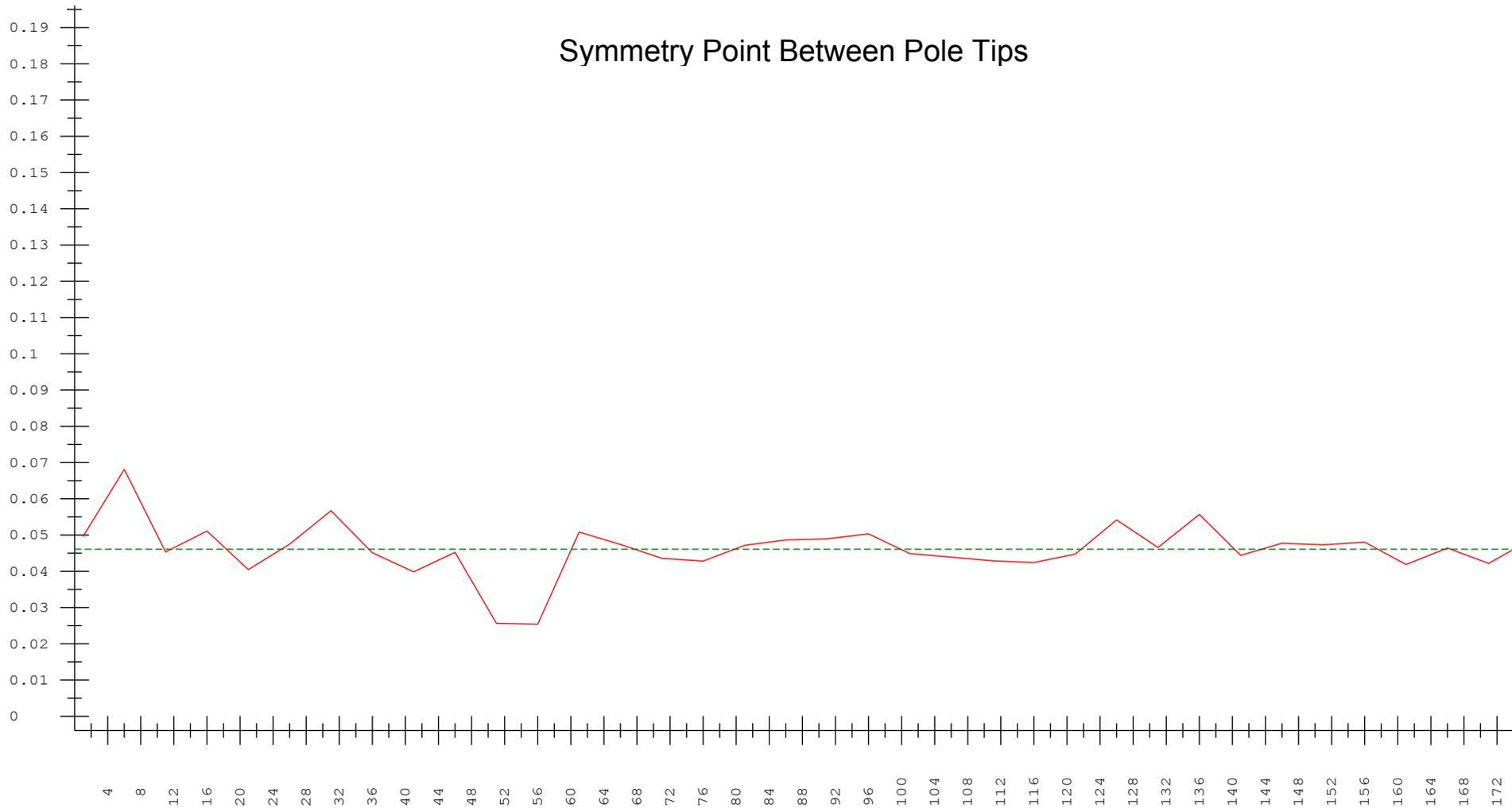METROLOGY

25-JAN-2018
S/N =    006
D/S=    0001
Run=    09

## Symmetry Point Between Pole Tips



Mean Symmetry Value =     0.0461

Step Between Measured Pole Tips =     5

Dimensions in mm

| | | |
|---|---|---|
| **SLAC** NATIONAL ACCELERATOR LABORATORY METROLOGY | **LCLS II - SXR Undulator** Nominal Gap = 8 | 25-JAN-2018 |
| | Gap Reading = 8.0000    US Encoder = 8.0000    DS Encoder = 8.0000 | S/N =   006 D/S=   0001 Run=   09 |

# 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 | 4.0291 | 4.0323 | 4.0402 | 4.0434 |
| Bottom | -3.9354 | -3.9392 | -3.9488 | -3.9527 |

## Summary of Mean Values

| Top Jaw Poles | Btm. Jaw Poles | Gap Values | Sym. Pt. Values |
|---|---|---|---|
| 4.0358 | -3.9437 | 7.9795 | 0.0461 |

## Additional Calculated Vlaues

| | |
|---|---|
| Bottom Pole #1 Z Value | 979.301 |
| Top Jaw Pitch (mrad) | 0.004 |
| Bottom Jaw Pitch(mrad) | -0.005 |
| Minimum Effective Gap | 7.788 |
| Reference Block Gap | 6.810 |

Dimensions in mm

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# LCLS II - SXR Undulator
Nominal Gap = 8

Gap Reading = 8.0000     US Encoder = 8.0000     DS Encoder = 8.0000

25-JAN-2018
S/N = 006
D/S= 0001
Run= 09