

Pole Tip Number ----->

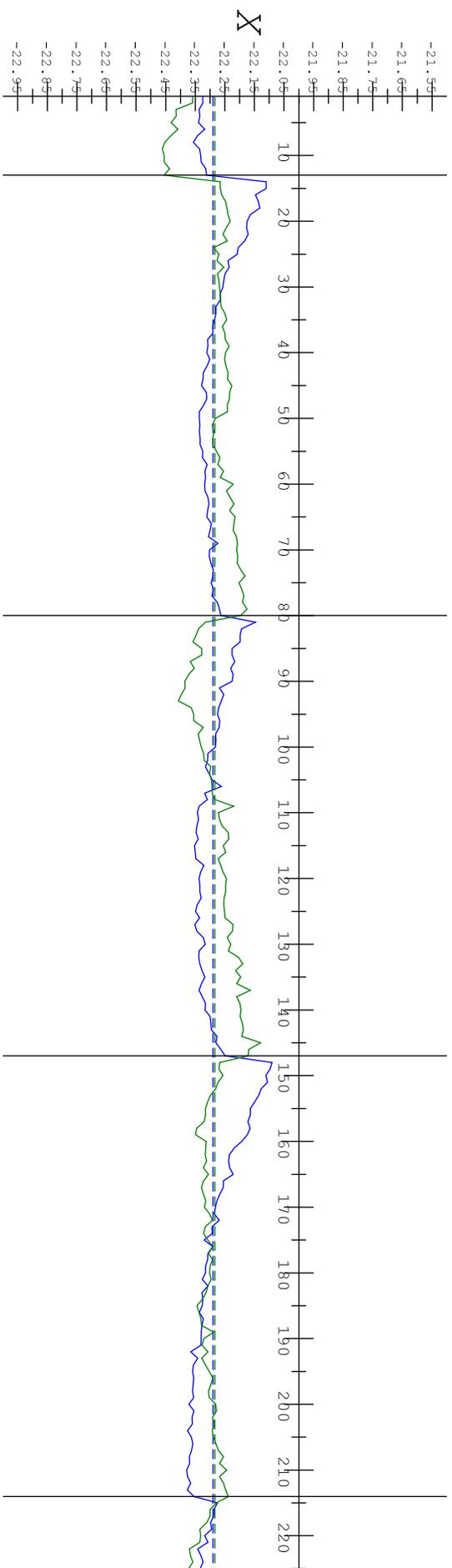
Symmetry Axis is the symmetry axis between the Upper and Lower Pole Tips
 Included Angle is the angle between the Upper and Lower Pole Tips

SLAC
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Undulator Pole Tip Angles
 Post Magnetic Alignment

DATE: 03-JAN-2008
 UNDUULATOR # 20
 DATASET # 0001
 PROGRAM VERSION 2.1

Pole Tip Number ----->

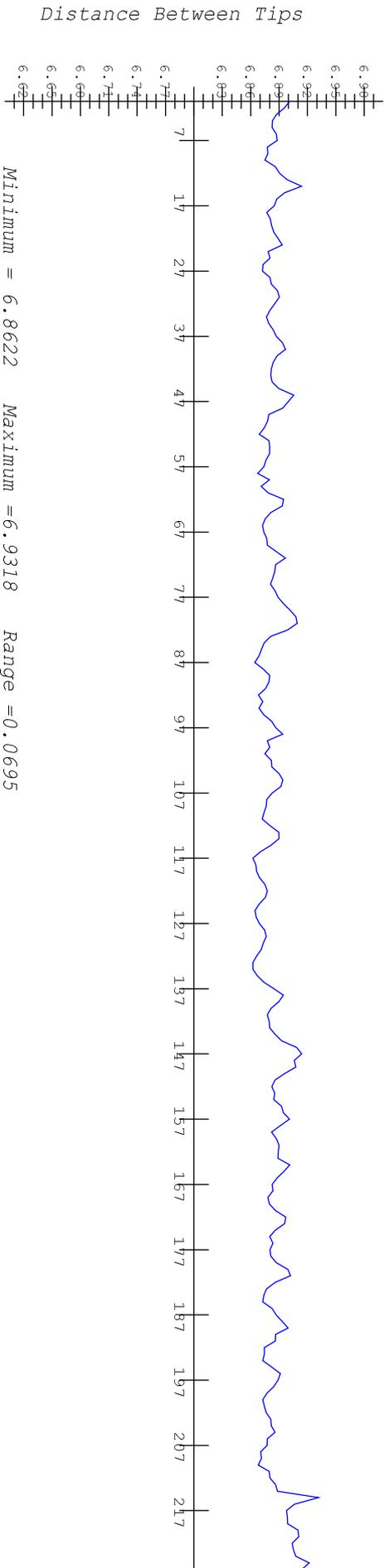


X values in mm
 Green Solid = Point on front face of Upper Pole Tip 10mm above Magnetic C/L
 Green Dash = Mean value of all Upper Pole Tips 10mm above Magnetic C/L Mean value Upper Pole Tips = -22.284
 Blue Solid = Point on front face of Lower Pole Tip 10mm below Magnetic C/L
 Blue Dash = Mean value of all Lower Pole Tips 10mm below Magnetic C/L Mean value Lower Pole Tips = -22.290

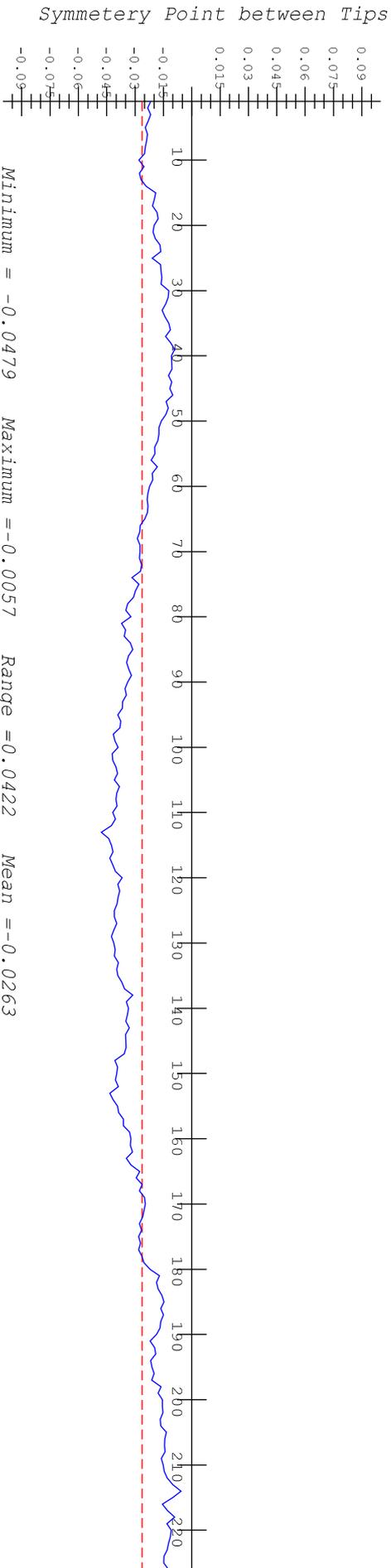
SLAC
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Undulator Pole Tip Location
 Post Magnetic Alignment

DATE: 03-JAN-2008
 UNDULATOR # 20
 DATASET # 0001
 PROGRAM VERSION 2.1



Pole Tip Number ----->



Symmetry Point is the symmetry point between the Upper and Lower Pole Tips were they intersect a YZ plane at the Magnetic C/L
 Broken Red line is Mean Value of Symmetry Points
 Distance Between Tips is the distance between the Upper and Lower Pole Tips were they intersect a YZ plane at the Magnetic C/L

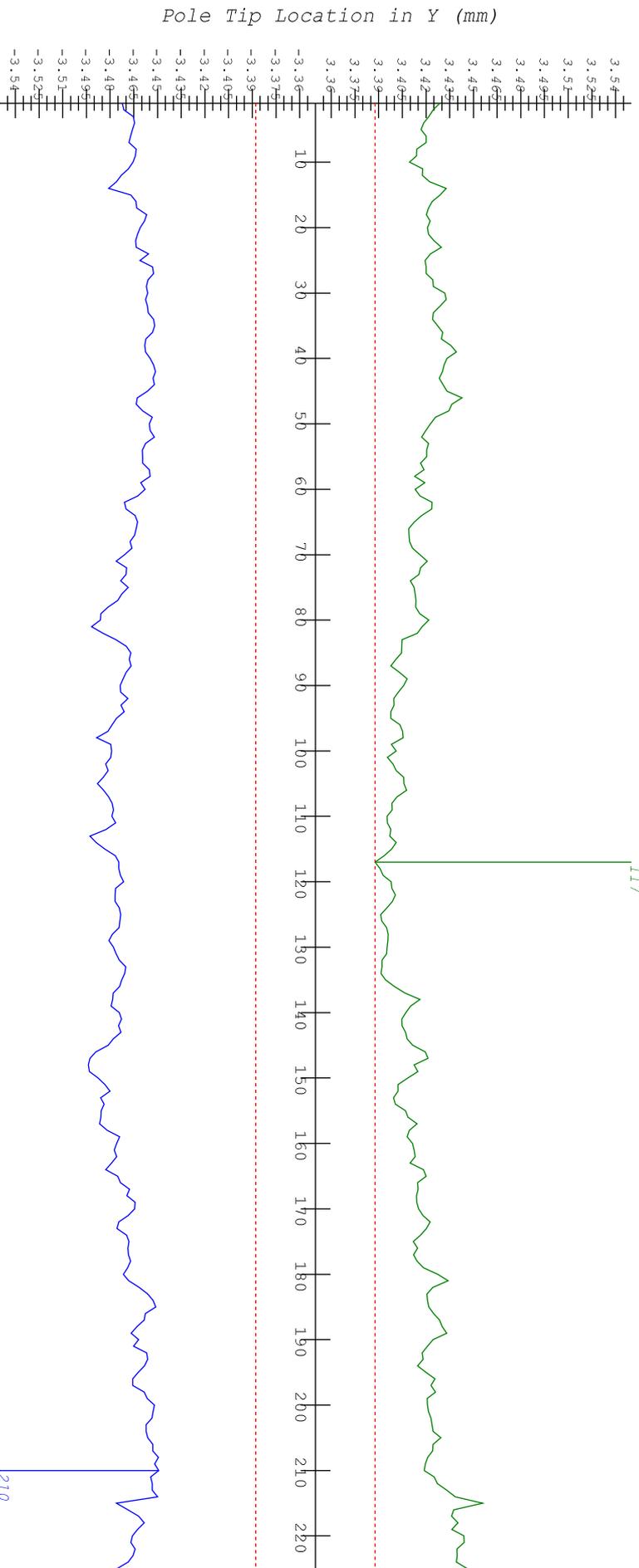
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Undulator Pole Tip Location
 Post Magnetic Alignment

DATE: 03-JAN-2008
 UNDUULATOR # 20
 DATASET # 0001
 PROGRAM VERSION 2.1

Maximum Chamber Gap = 6.7755

Minimum = 3.3878 Maximum = 3.4558 Range = 0.0680



Pole Tip Number ----->

Green = The position of the Upper Pole Tips at Magnetic C\L
Blue = The position of the Lower Pole Tips at Magnetic C\L
Max. Chamber Gap = The maximum width vacuum chamber that will fit centered on the Magnetic C\L (2*Min. Dev. from C\L)

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Undulator Pole Tip Location
Post Magnetic Alignment

DATE: 03-JAN-2008
UNDULATOR # 20
DATASET # 0001
PROGRAM VERSION 2.1



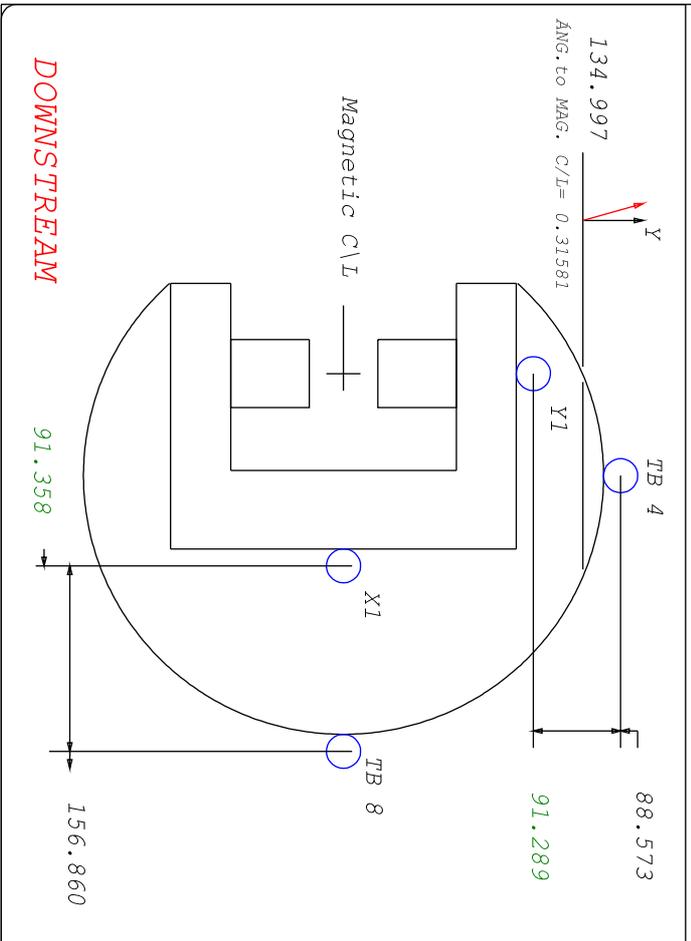
TOOLING BALL LOCATIONS

NUM.	X	Y	Z
1	-0.1371	179.8098	-1558.349
2	0.0509	179.7207	-584.7276
3	0.0454	179.7438	591.2092
4	0.0980	179.8623	1562.1148
5	248.2404	0.0729	-1558.278
6	248.2918	0.0080	-584.7410
7	248.2533	0.0808	591.4094
8	248.2175	0.0515	1562.2225

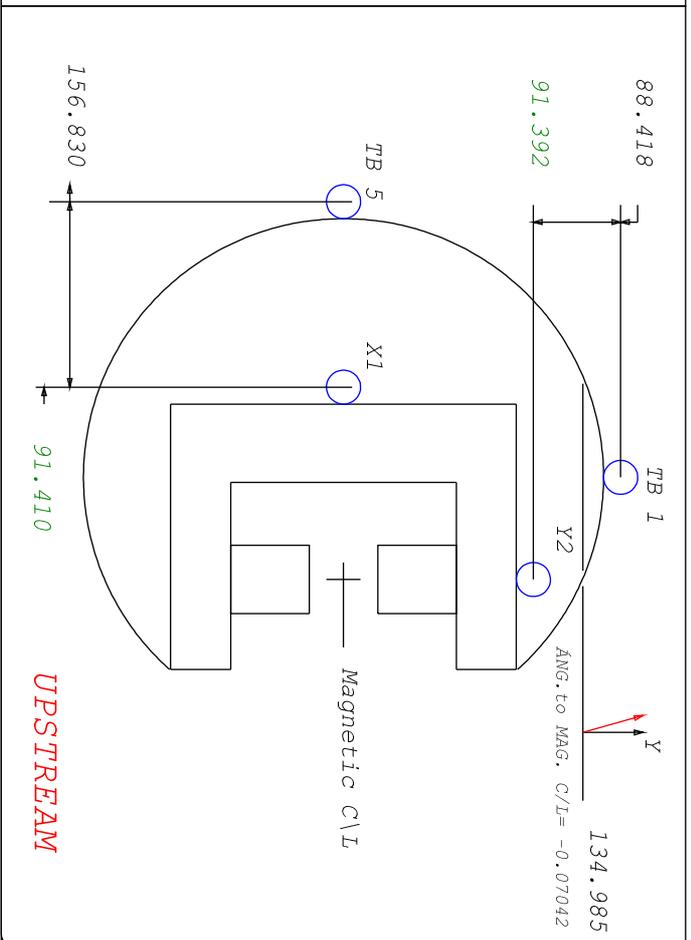
	C/L Offset	Length
Top Magnetic Structure	-0.061	3380.875
Bottom Magnetic Structure	0.061	3381.100
Strongback	0.331	3399.956

Dimensions in mm

Angles in mrad



DOWNSTREAM

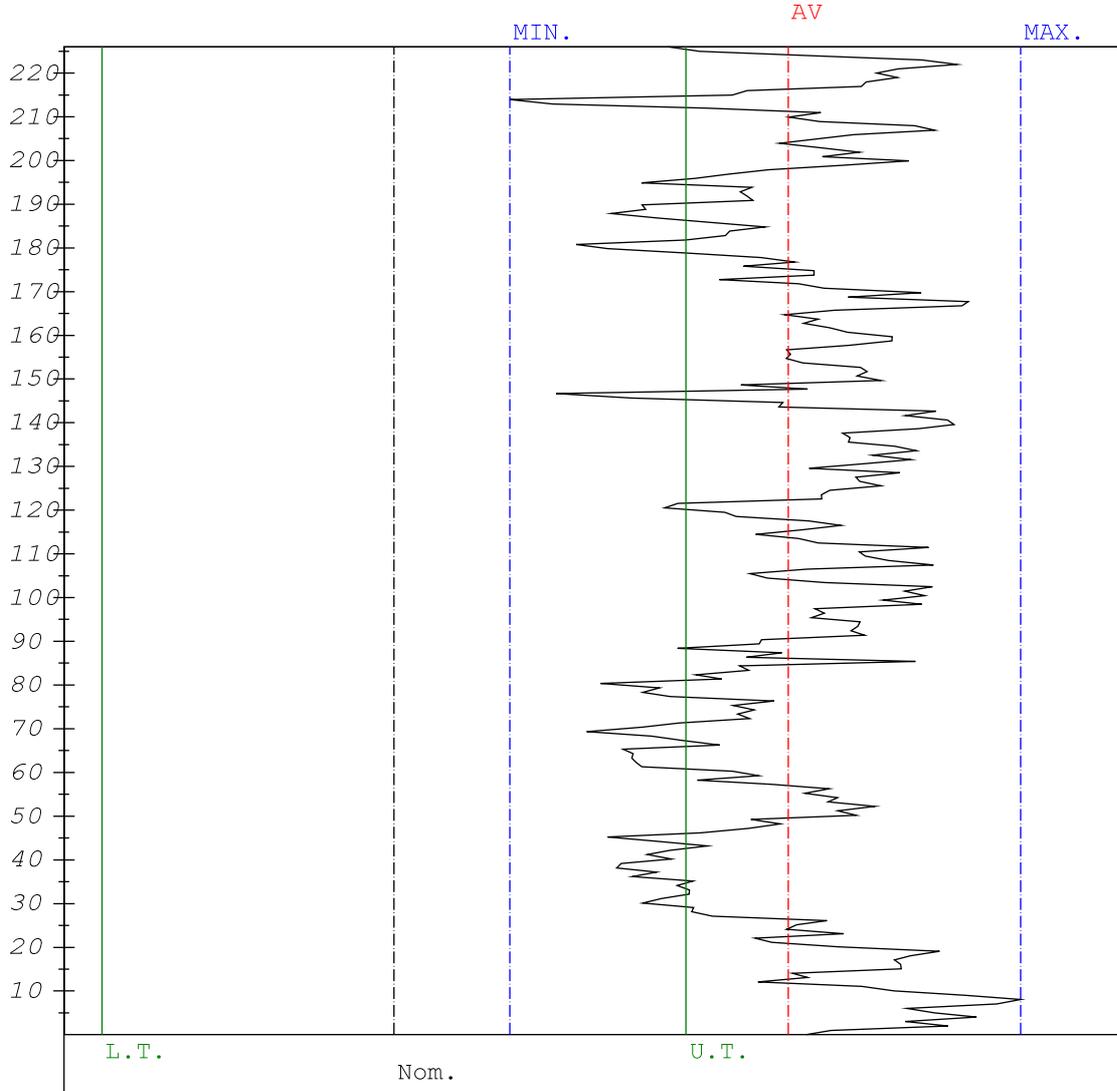
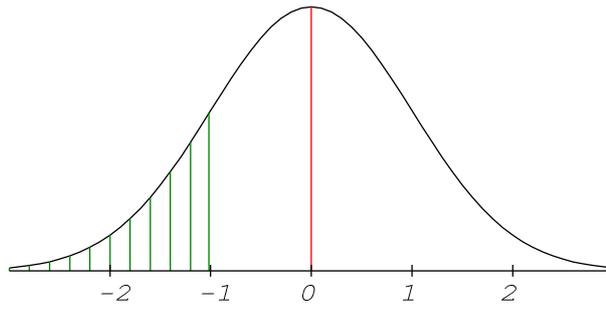


UPSTREAM

SLAC
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Undulator Dimensional Fiducialization
Post Magnetic Alignment

DATE: 03-JAN-2008
UNDULATOR # 20
DATASET # 0001
PROGRAM VERSION 2.1



Nominal : 4.5000	Averag : 5.1752	Cent.-Dev. : 0.6752
Up. Tol. : 0.5	Maximum : 5.5732	U.Tol.Ex. > : 84.5 %
Low.Tol. : -0.5	Minimum : 4.6981	L.Tol.Ex. < : 0.0 %
Spl.Size : 226	Stand.-Dev.: 0.1724	In Tolerance: 15.5 %
Outlier : 0	Distribution : NOR	Dimension : mrad

<p>SLAC LCLS-MMF LEITZ CMM</p>	<p>Statistical Evaluation Pole Tip Gap Angle Post Magnetic Alignment</p>	<p>DATE: 03-JAN-2008 UNDULATOR # 20 DATASET # 0001 PROGRAM VERSION 2.1</p>
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