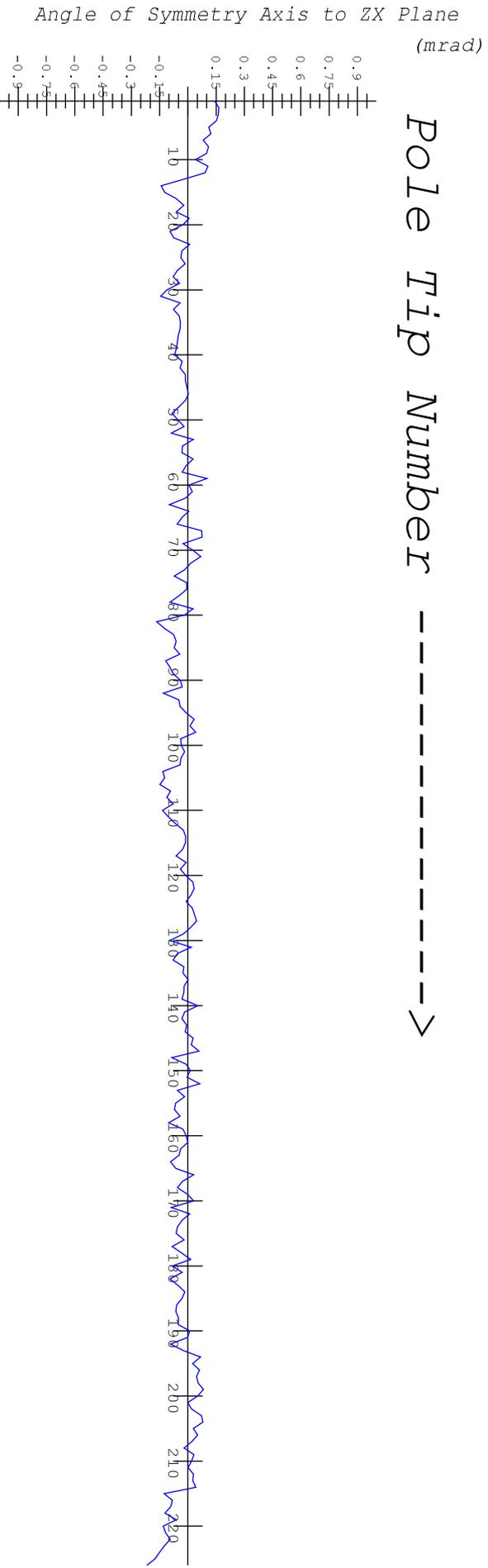


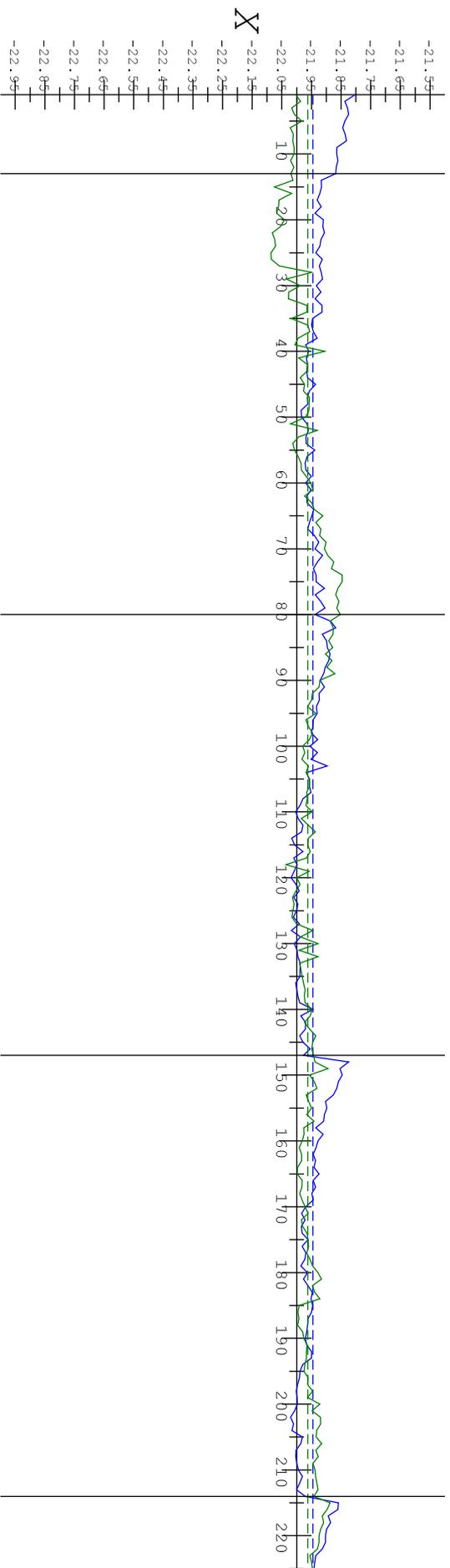
Pole Tip Number ----->



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 LCLS-MMF LEITZ CMM	Undulator Pole Tip Angles WITH FLAT FEET	DATE: 02-NOV-2007 UNDUULATOR # 39 DATASET # 0001 PROGRAM VERSION 2.3
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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 = -21.963

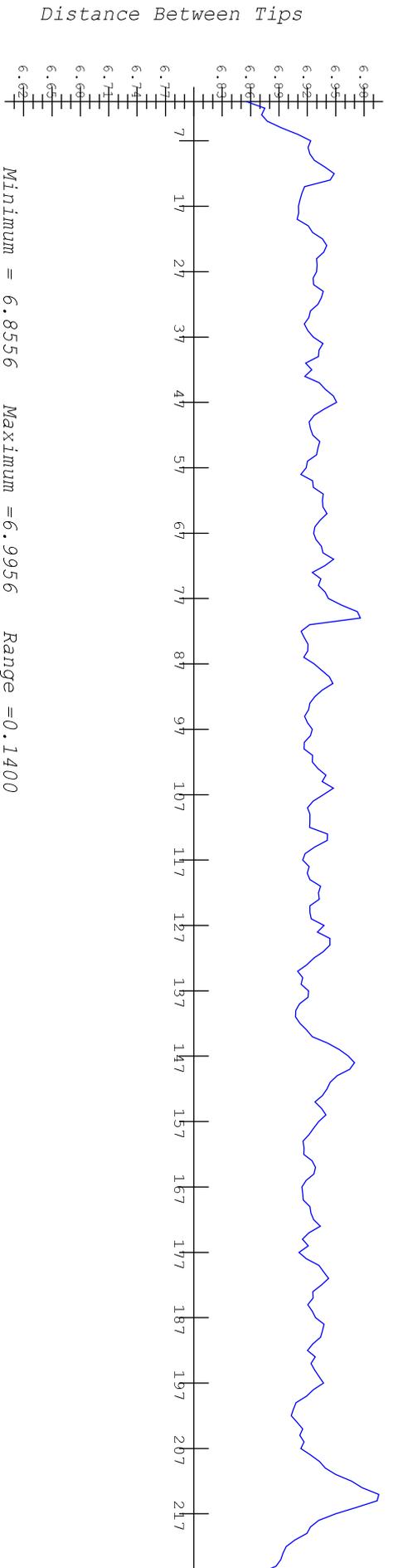
Blue Solid = Point on front face of Lower Pole Tip 10mm below Magnetic C/L

Blue Dash = Mean value of all Lower Pole Tips 10mm below Magnetic C/L Mean value Lower Pole Tips = -21.945

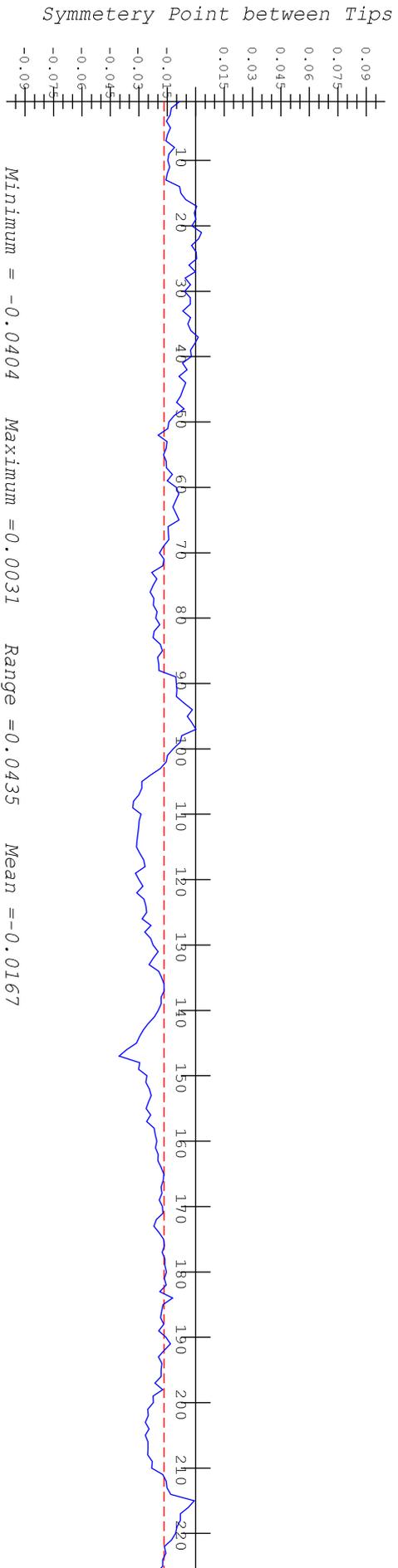
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 LCLS-MMF
 LEITZ CMM

Undulator Pole Tip Location
 WITH FLAT FEET

DATE: 02-NOV-2007
 UNDUULATOR # 39
 DATASET # 0001
 PROGRAM VERSION 2.3



Pole Tip Number ----->

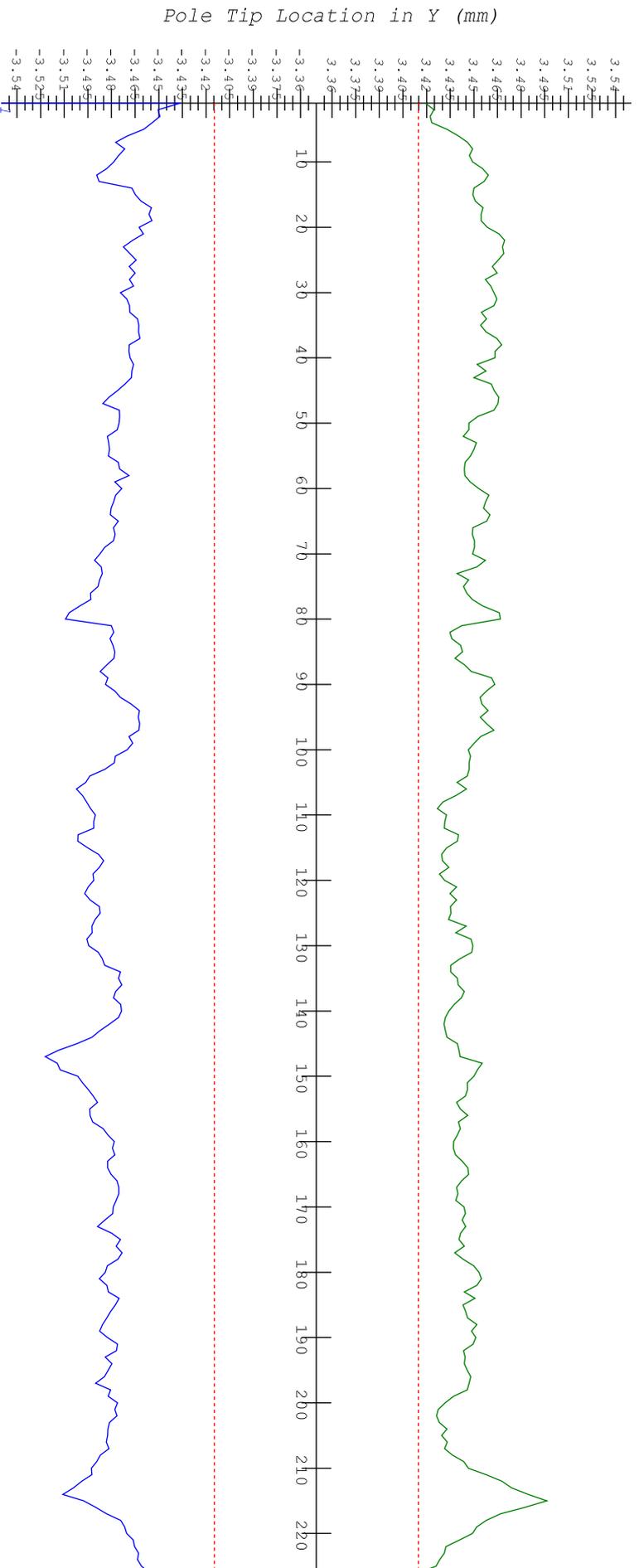


Symmetry Point is the symmetry point between the Upper and Lower Pole Tips were they intersect a YZ plane at the Magnetic C/L
 Broken Red line is Mean Value of Symmetry Points
 Distance Between Tips is the distance between the Upper and Lower Pole Tips were they intersect a YZ plane at the Magnetic C/L

	<p>Undulator Pole Tip Location</p> <p>WITH FLAT FEET</p>	<p>DATE: 02-NOV-2007</p> <p>UNDULATOR # 39</p> <p>DATASET # 0001</p> <p>PROGRAM VERSION 2.3</p>
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Maximum Chamber Gap = 6.8295

Minimum = 3.4148 Maximum = 3.4962 Range = 0.0814



Minimum = -3.5221 Maximum = -3.4363 Range = 0.0858

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
WITH FLAT FEET

DATE: 02-NOV-2007
UNDULATOR # 39
DATASET # 0001
PROGRAM VERSION 2.3



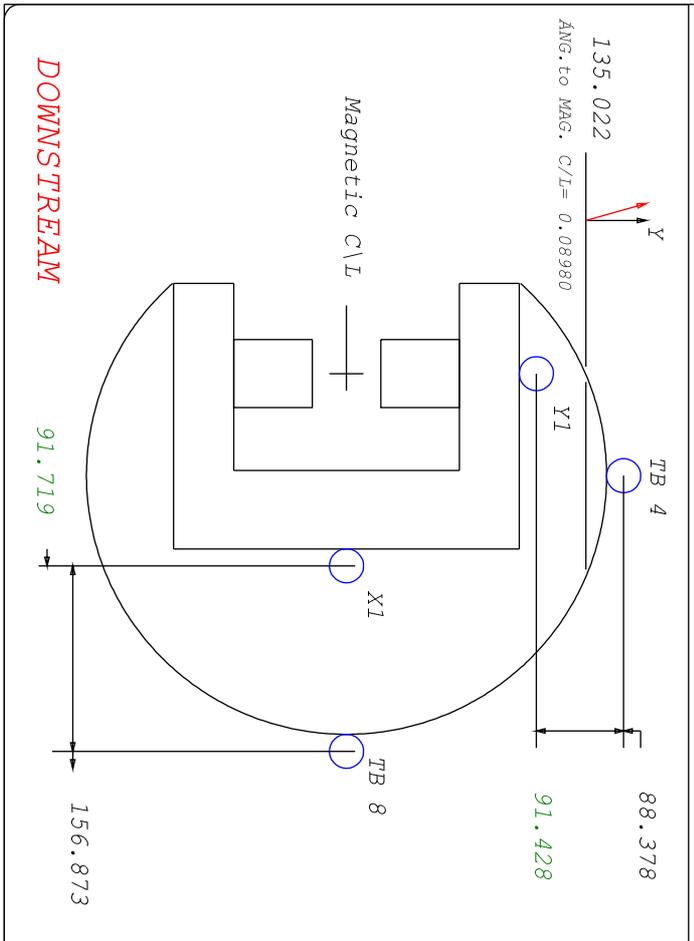
TOOLING BALL LOCATIONS

NUM.	X	Y	Z
1	0.2372	179.7143	-1558.543
2	0.3915	179.7906	-584.8647
3	0.4329	179.7611	591.1050
4	0.4288	179.8058	1561.9918
5	248.6244	0.1507	1558.477
6	248.6367	0.0560	-584.8644
7	248.6836	0.0669	591.2025
8	248.5923	0.0992	1561.9834

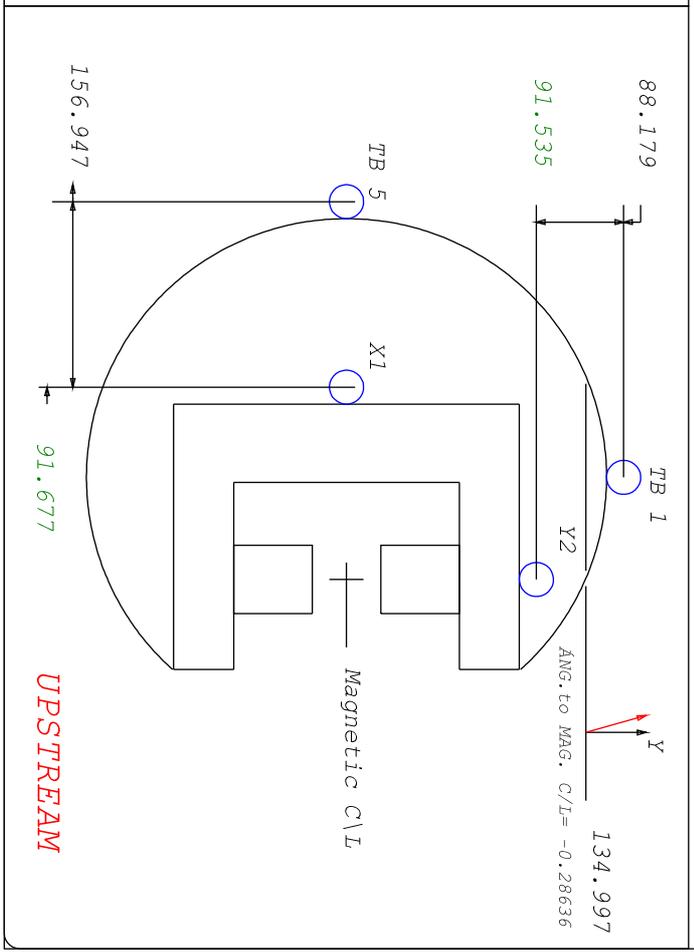
	C/L Offset	Length
Top Magnetic Structure	-0.002	3381.218
Bottom Magnetic Structure	0.002	3381.346
Strongback	0.144	3399.991

Dimensions in mm

Angles in mrad



DOWNSTREAM

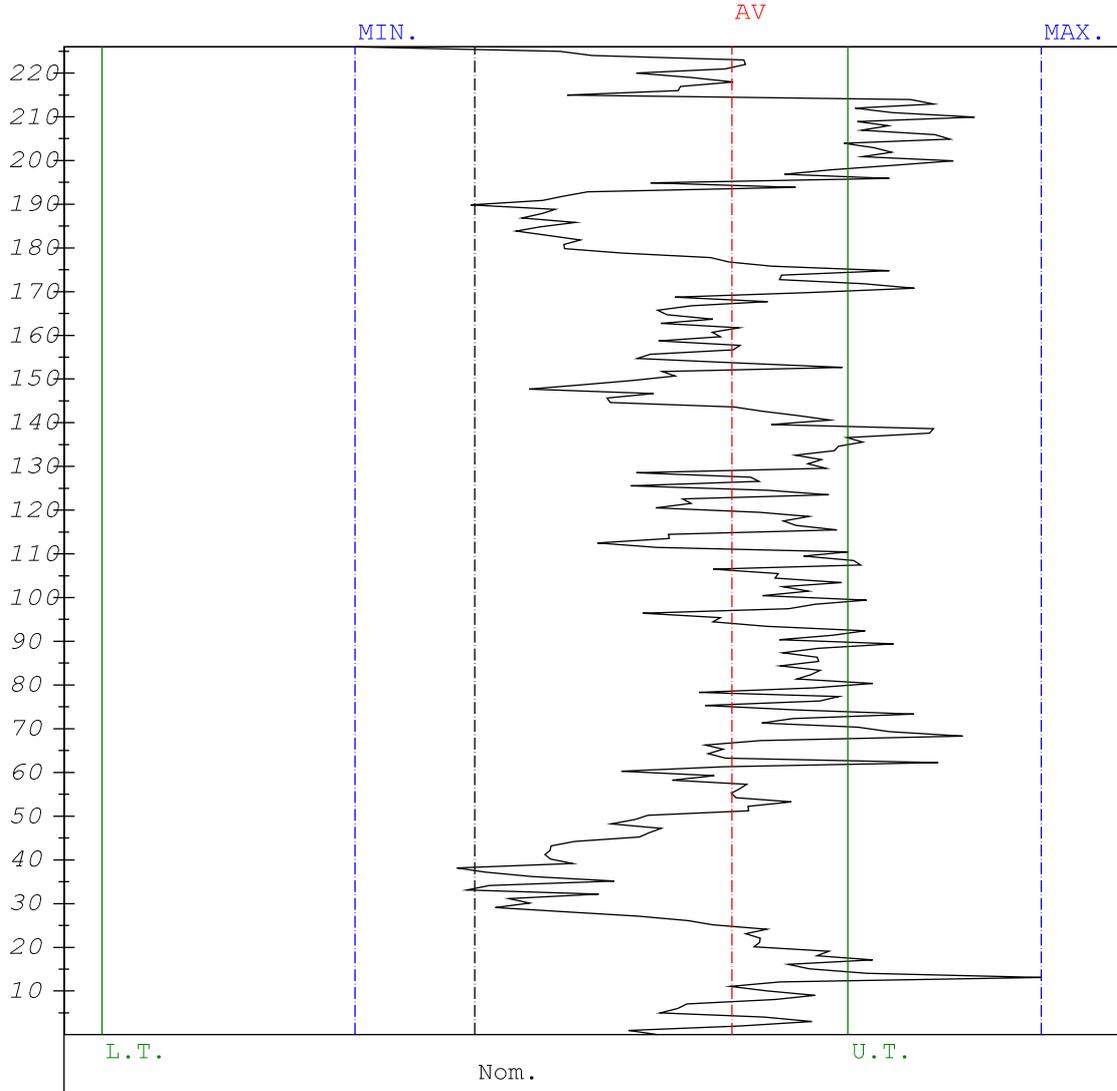
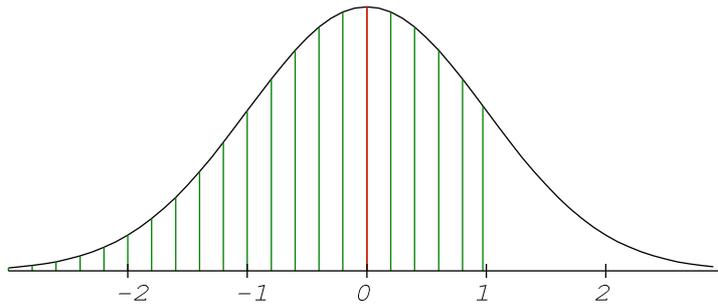


UPSTREAM

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Undulator Dimensional Fiducialization
WITH FLAT FEET

DATE: 02-NOV-2007
UNDULATOR # 39
DATASET # 0001
PROGRAM VERSION 2.3



Nominal : 4.5000	Averag : 4.8446	Cent.-Dev. : 0.3446
Up. Tol. : 0.5	Maximum : 5.2593	U.Tol.Ex. > : 16.6 %
Low.Tol. : -0.5	Minimum : 4.3395	L.Tol.Ex. < : 0.0 %
Spl.Size : 226	Stand.-Dev.: 0.1602	In Tolerance: 83.4 %
Outlier : 0	Distribution : NOR	Dimension : mrad

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Statistical Evaluation
Pole Tip Gap Angle
Post Magnetic Alignment

DATE: 02-NOV-2007

UNDULATOR # 39
DATASET # 0001

PROGRAM VERSION 2.3