

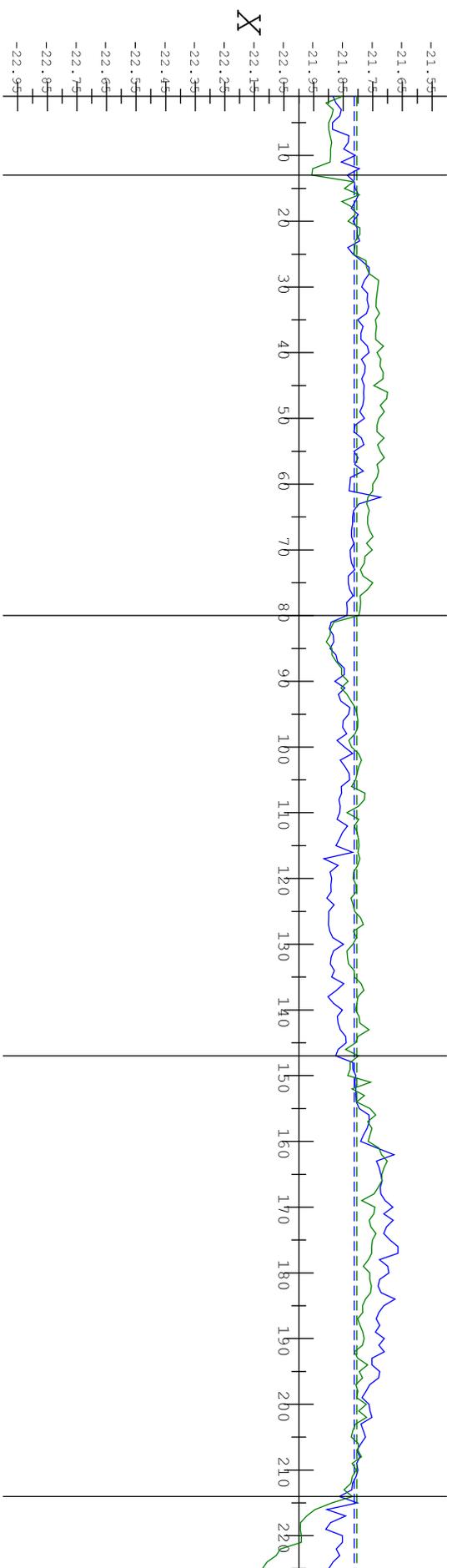
Symmetry Axis is the symmetry axis between the Upper and Lower Pole Tips
 Included Angle is the angle between the Upper and Lower Pole Tips



Undulator Pole Tip Angles
 Post Magnetic Alignment

DATE: 17-SEP-2009
 UNDUULATOR #13
 DATASET # 0023
 PROGRAM VERSION 2.9

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 = -21.804

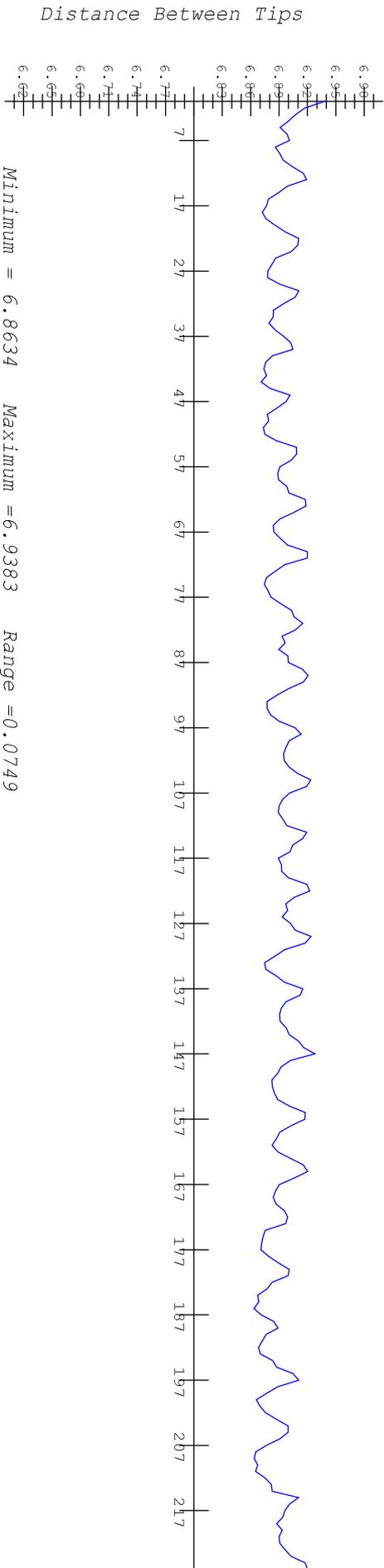
Blue Solid = Point on front face of Lower Pole Tip 10mm below Magnetic C/L

Blue Dash = Mean value of all Lower Pole Tips 10mm below Magnetic C/L Mean value Lower Pole Tips = -21.812



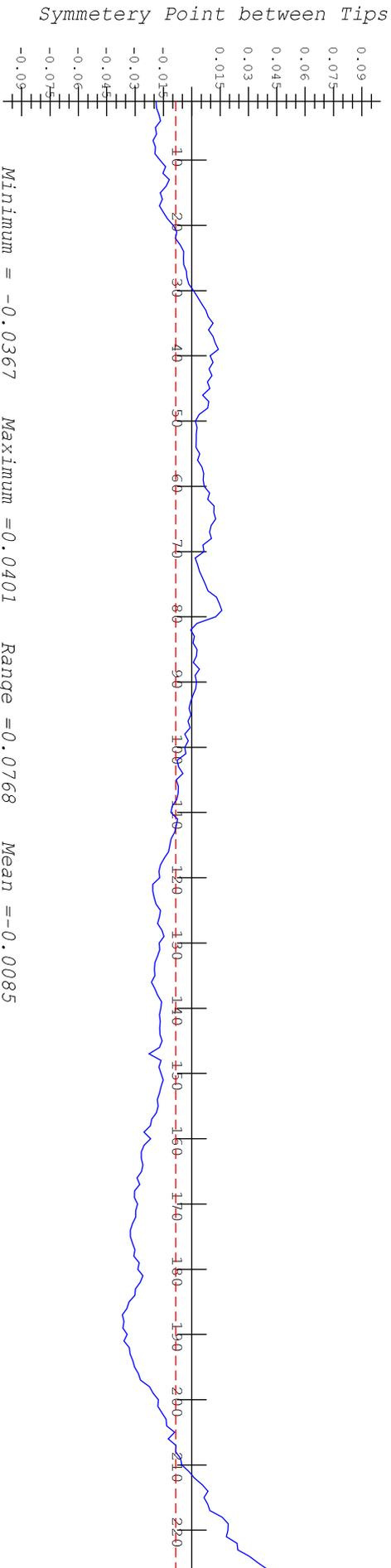
Undulator Pole Tip Location
Post Magnetic Alignment

DATE: 17-SEP-2009
UNDULATOR #13
DATASET # 0023
PROGRAM VERSION 2.9



in mm

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

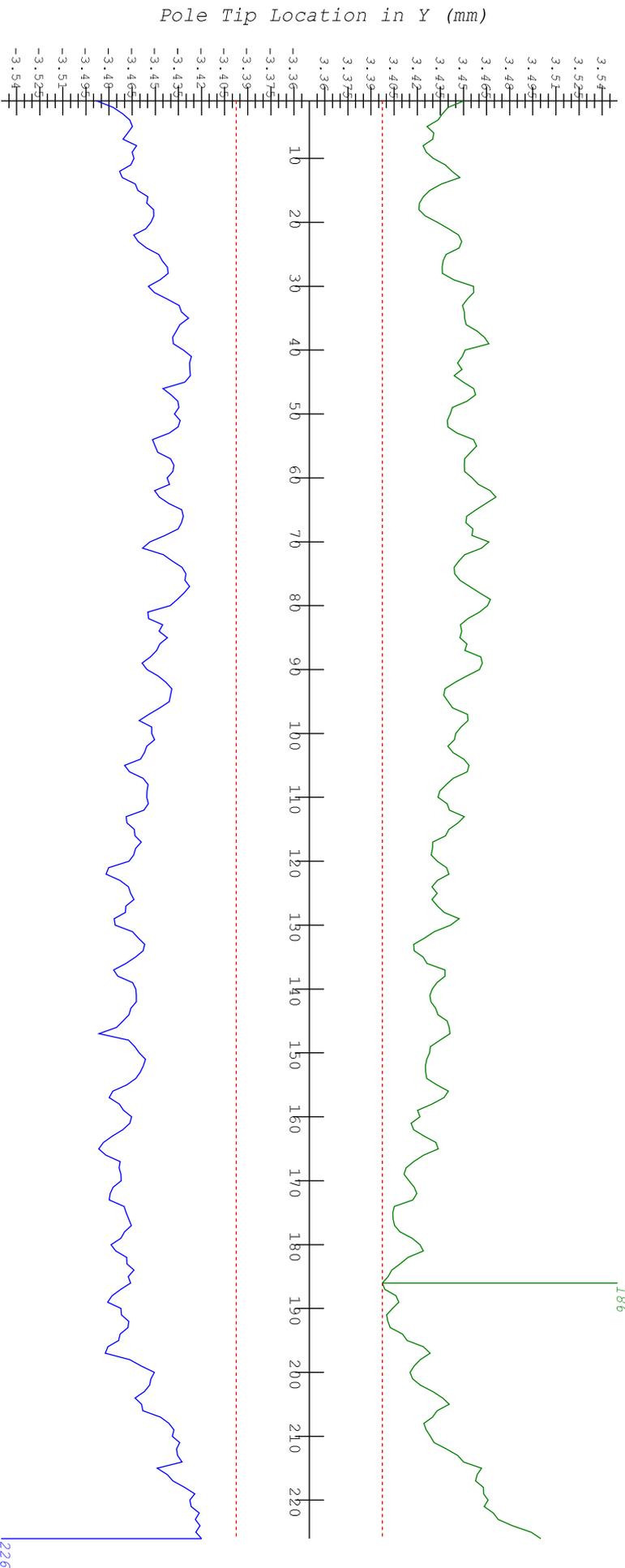


Undulator Pole Tip Location
 Post Magnetic Alignment

DATE: 17-SEP-2009
 UNDUULATOR #13
 DATASET # 0023
 PROGRAM VERSION 2.9

Maximum Chamber Gap = 6.7948

Minimum = 3.3974 Maximum = 3.5002 Range = 0.1028



Minimum = -3.4881 Maximum = -3.4199 Range = 0.0681

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)



Undulator Pole Tip Location
Post Magnetic Alignment

DATE: 17-SEP-2009
UNDULATOR #13
DATASET # 0023
PROGRAM VERSION 2.9



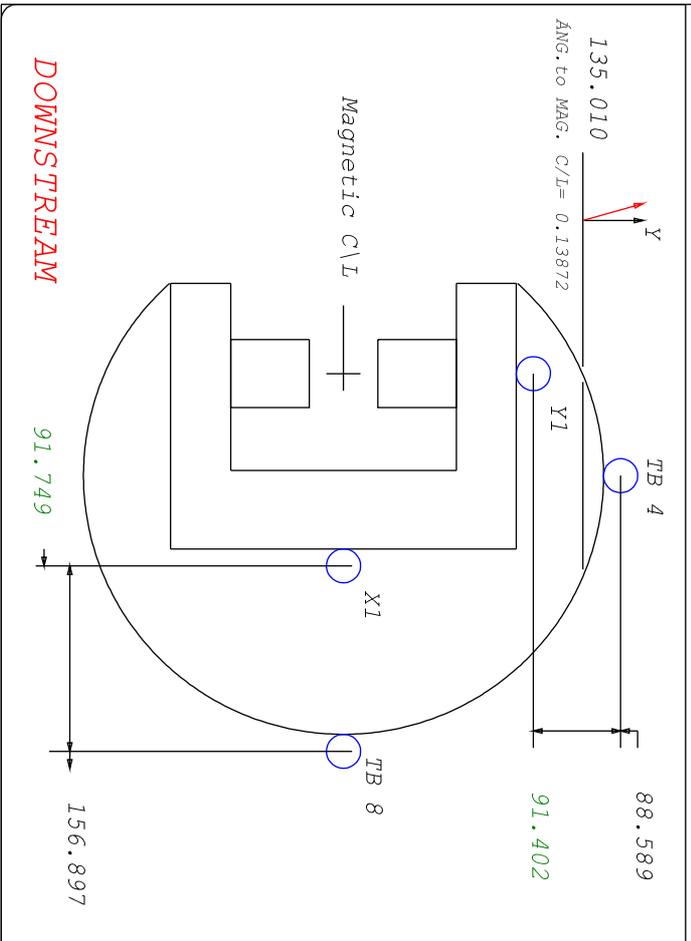
TOOLING BALL LOCATIONS

NUM.	X	Y	Z
1	0.2694	179.9839	-1558.287
2	0.4277	180.0101	-584.4545
3	0.3321	179.8943	591.3047
4	0.2903	179.9905	1562.0742
5	248.5986	0.0713	1558.364
6	248.5746	-0.0310	-584.6044
7	248.6010	0.0347	591.3241
8	248.6458	-0.0685	1562.0862

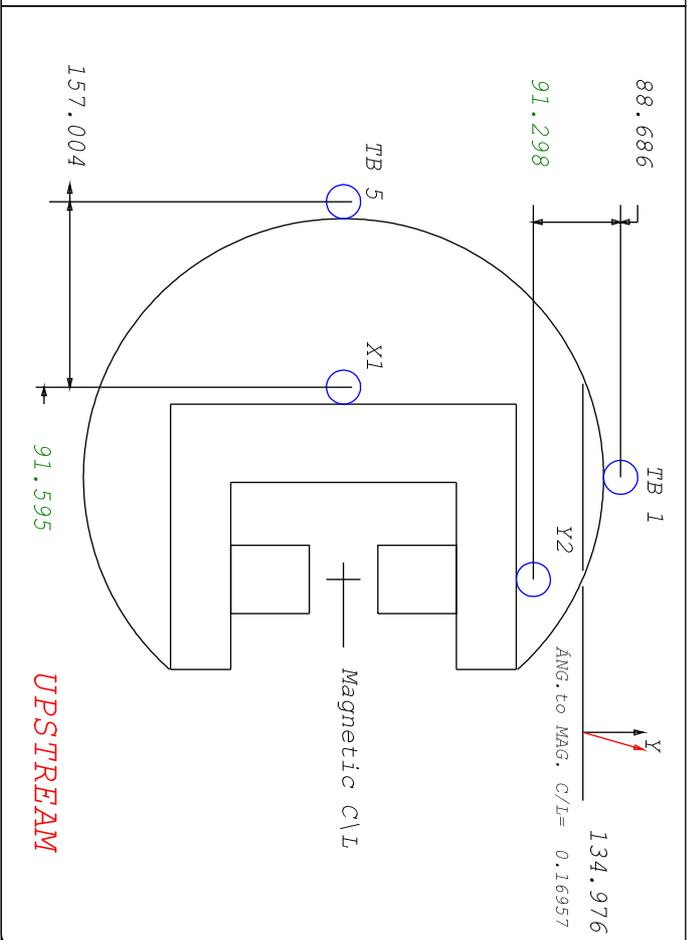
	C/L Offset	Length
Top Magnetic Structure	-0.096	3381.058
Bottom Magnetic Structure	0.096	3381.282
Strongback	0.249	3399.784

Dimensions in mm

Angles in mrad



DOWNSTREAM

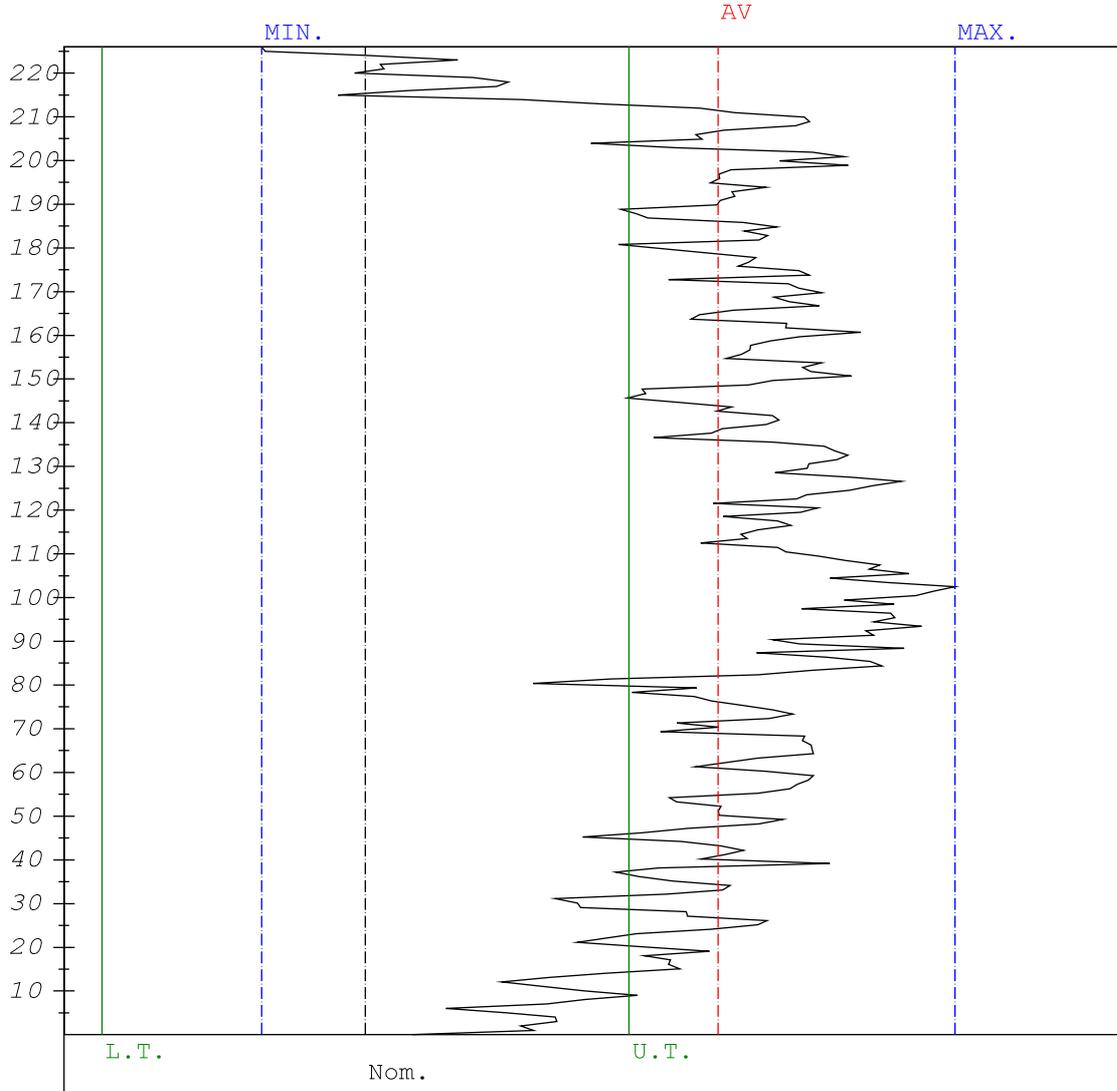
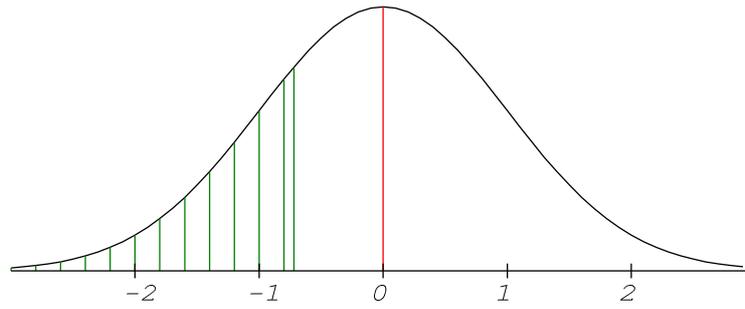


UPSTREAM



Undulator Dimensional Fiducialization Post Magnetic Alignment

DATE: 17-SEP-2009
UNDULATOR #13
DATASET # 0023
PROGRAM VERSION 2.9



Nominal : 4.5000	Averag : 5.1696	Cent.-Dev. : 0.6696
Up. Tol. : 0.5	Maximum : 5.6189	U.Tol.Ex. > : 76.4 %
Low.Tol. : -0.5	Minimum : 4.3030	L.Tol.Ex. < : 0.0 %
Spl.Size : 226	Stand.-Dev.: 0.2354	In Tolerance: 23.6 %
Outlier : 0	Distribution : NOR	Dimension : mrad



Statistical Evaluation
Pole Tip Gap Angle
Post Magnetic Alignment

DATE: 17-SEP-2009
UNDULATOR #13
DATASET # 0023
PROGRAM VERSION 2.9