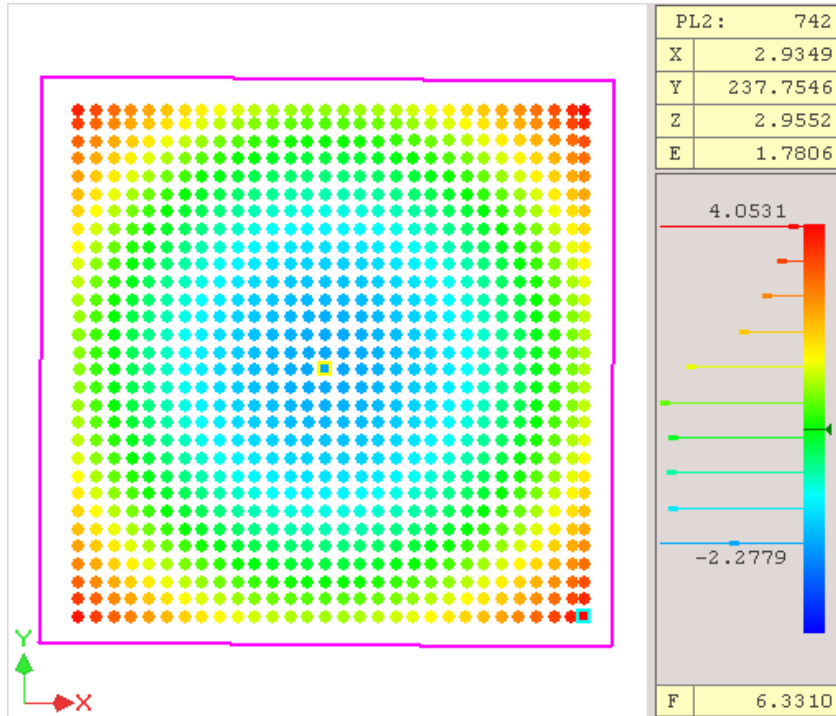


Mirror Measurements

L. Barion, G. Battaglia, M. Contalbrigo,
P. Lenisa, A. Movsisyan, L. Pappalardo
INFN Ferrara



First measurement

Starting point x 3mm y 3mm
from the bottom left corner

Second measurement

Starting point x 8mm y 3mm
from the bottom left corner

Step between 2 points 10 mm

Left plot
 δr point by point

Right plot
dispersion of δr

$$\delta r = \sqrt{(x - x_0)^2 + (y - y_0)^2 + (z - z_0)^2} - r$$

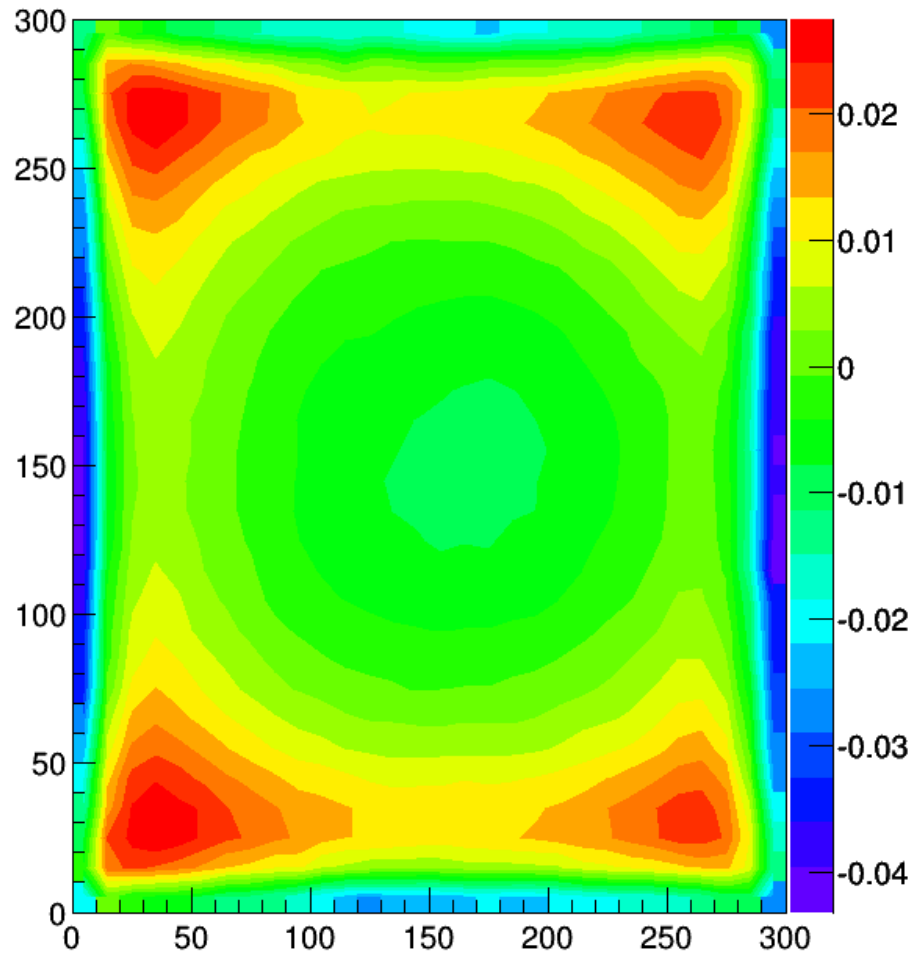
Sep.

First measurement

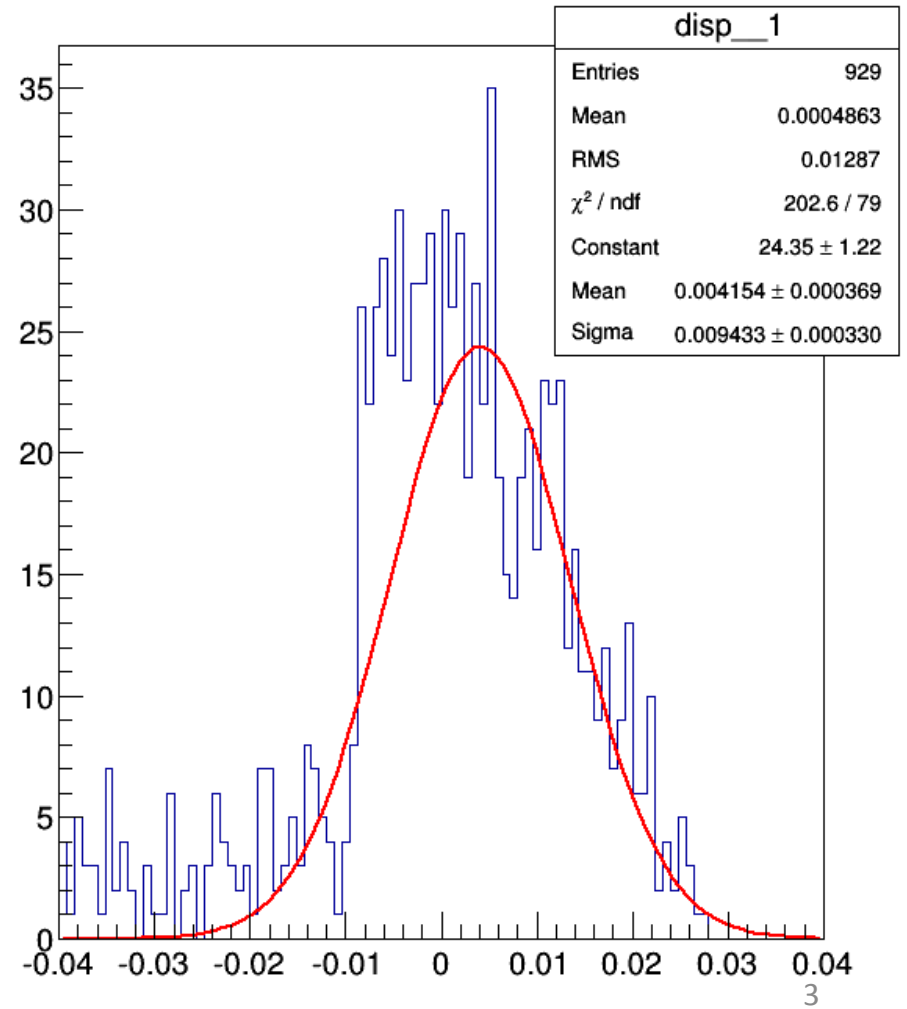
r 3485.7 ± 0.4 mm
min -0.043 mm
max 0.027 mm
piccovalle 0.070 mm

$$\delta r = \sqrt{(x - x_0)^2 + (y - y_0)^2 + (z - z_0)^2} - r$$

specchio



dispersion

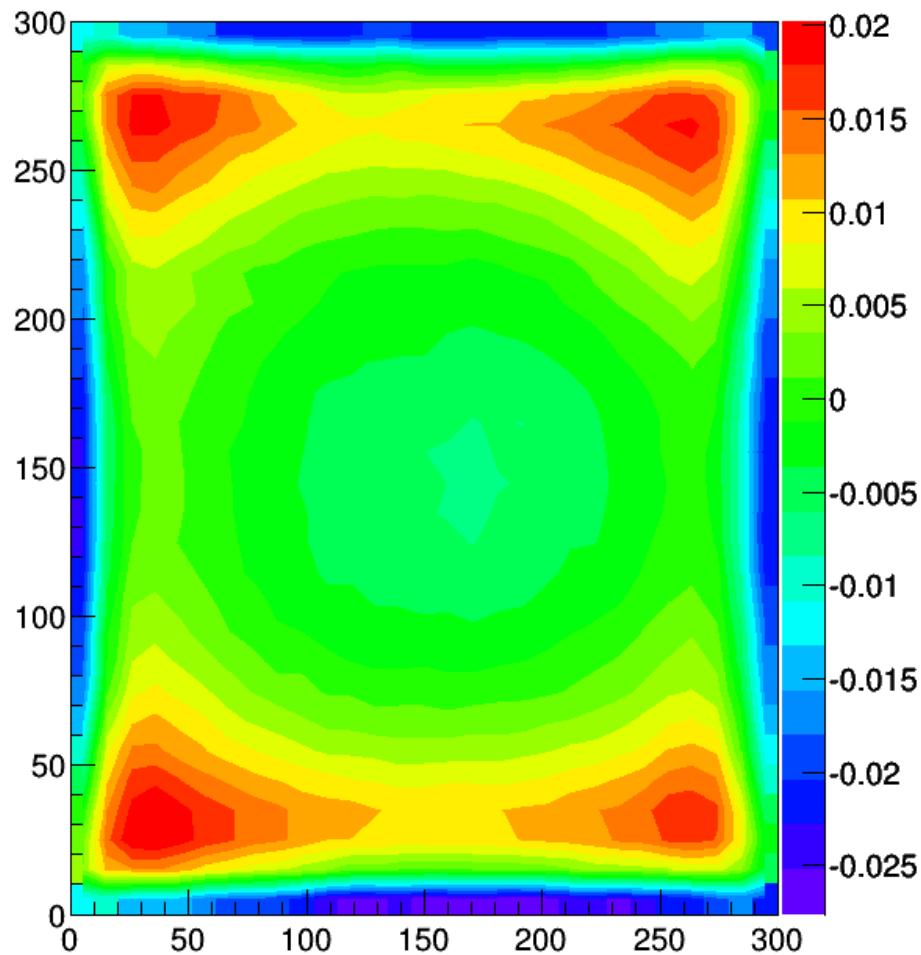


Sep. Second measurement

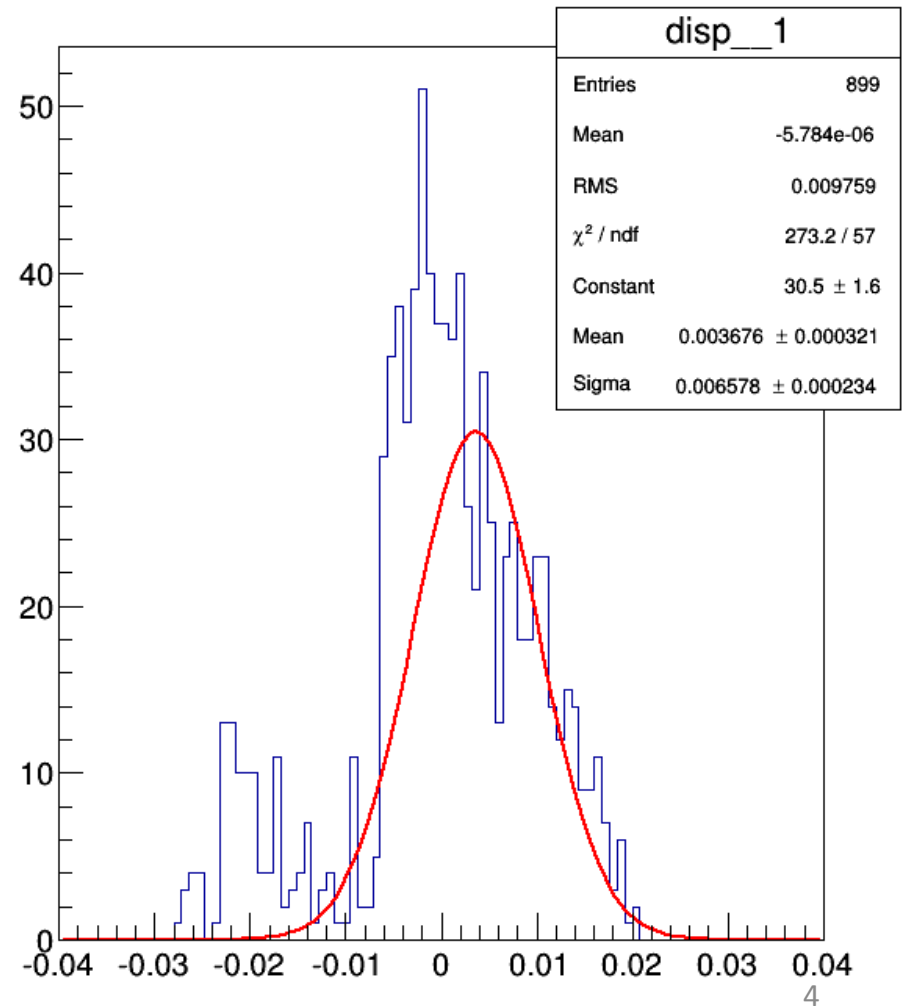
r 3494.7 ± 0.4 mm
min -0.028 mm
max 0.020 mm
piccovalle 0.048 mm

$$\delta r = \sqrt{(x - x_0)^2 + (y - y_0)^2 + (z - z_0)^2} - r$$

specchio



dispersion



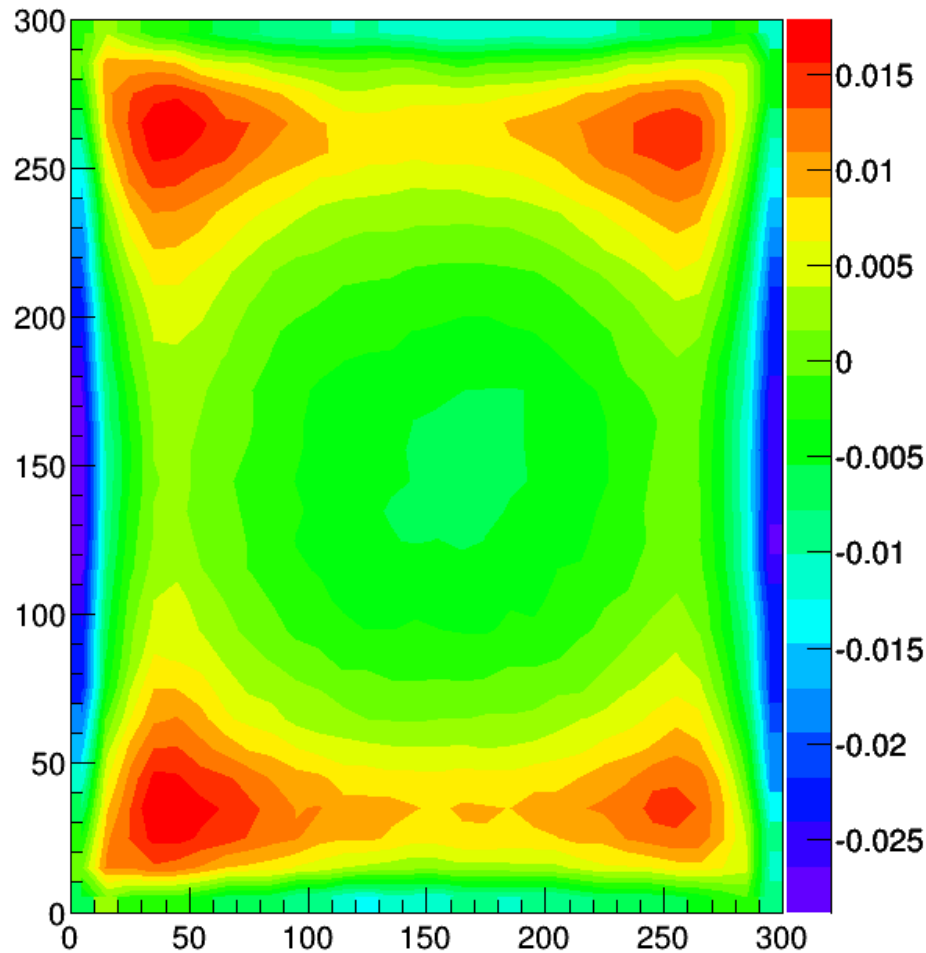
31 oct

First measurement

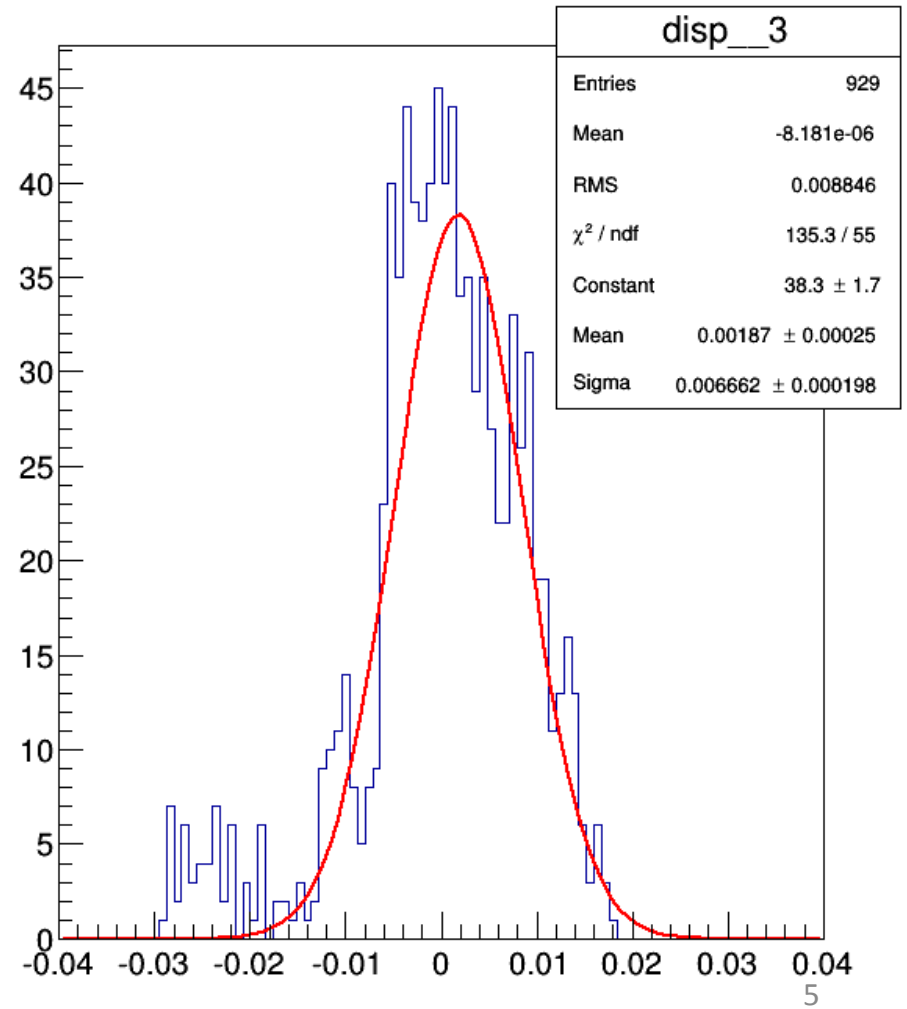
r 3492.7 ± 0.4 mm
min -0.028 mm
max 0.017 mm
piccovalle 0.046 mm

$$\delta r = \sqrt{(x - x_0)^2 + (y - y_0)^2 + (z - z_0)^2} - r$$

specchio



dispersion



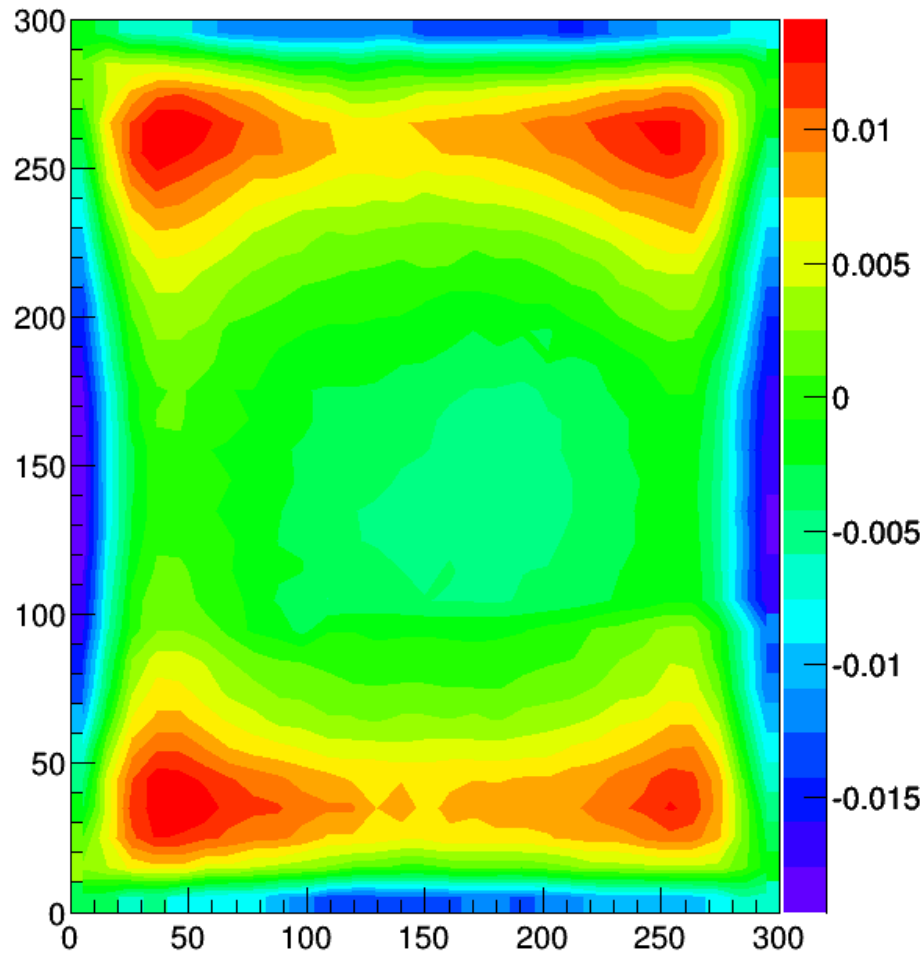
31 oct

Second measurement

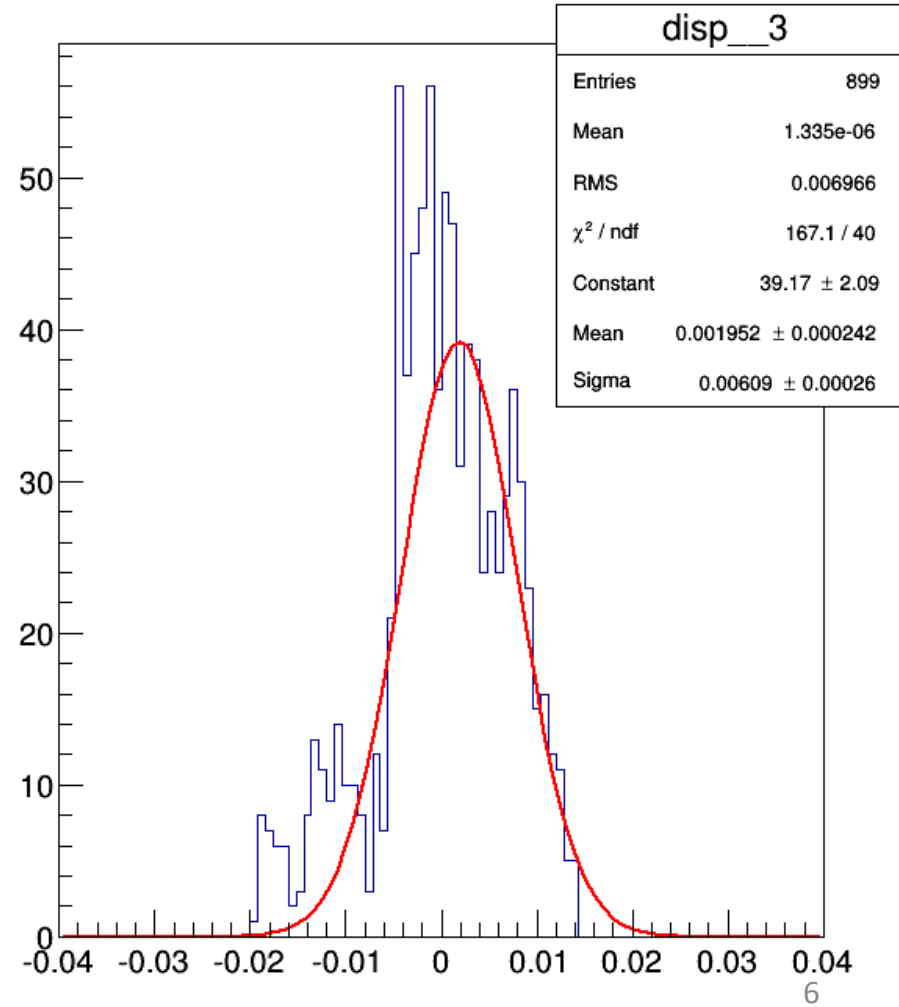
r 3498.2 ± 0.4 mm
min -0.019 mm
max 0.014 mm
piccovalle 0.033 mm

$$\delta r = \sqrt{(x - x_0)^2 + (y - y_0)^2 + (z - z_0)^2} - r$$

specchio



dispersion



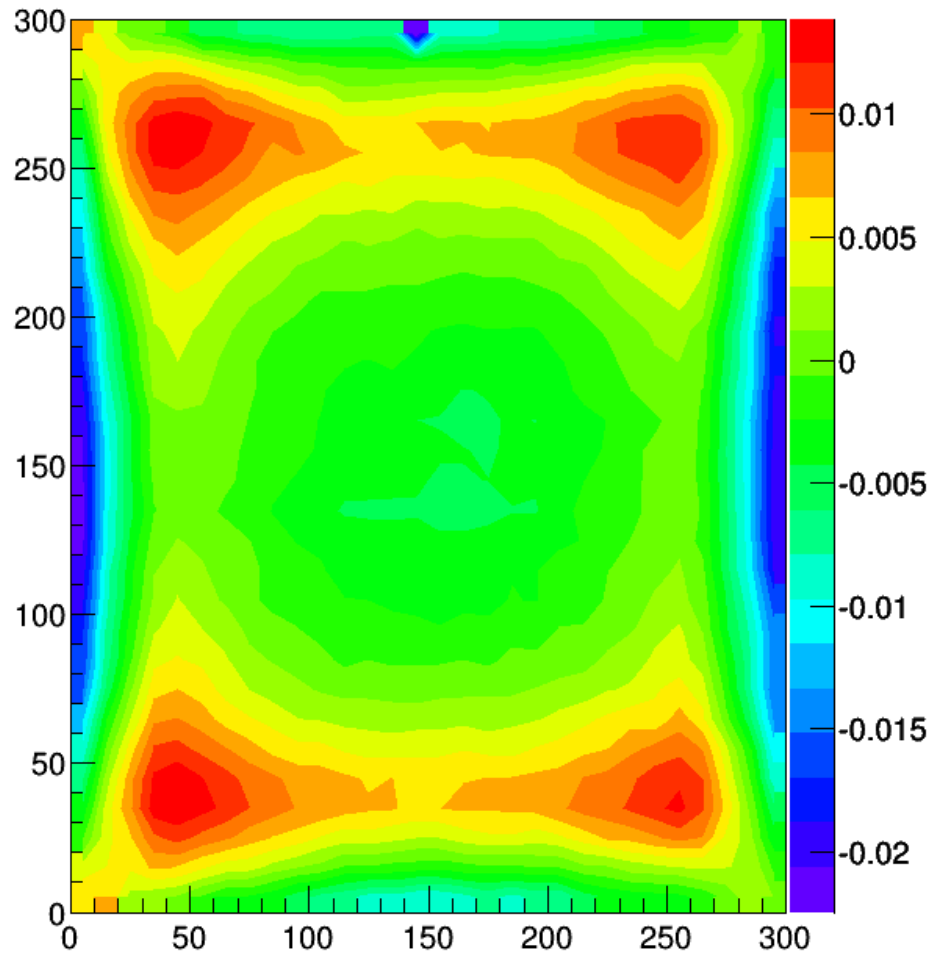
06 Nov

First measurement

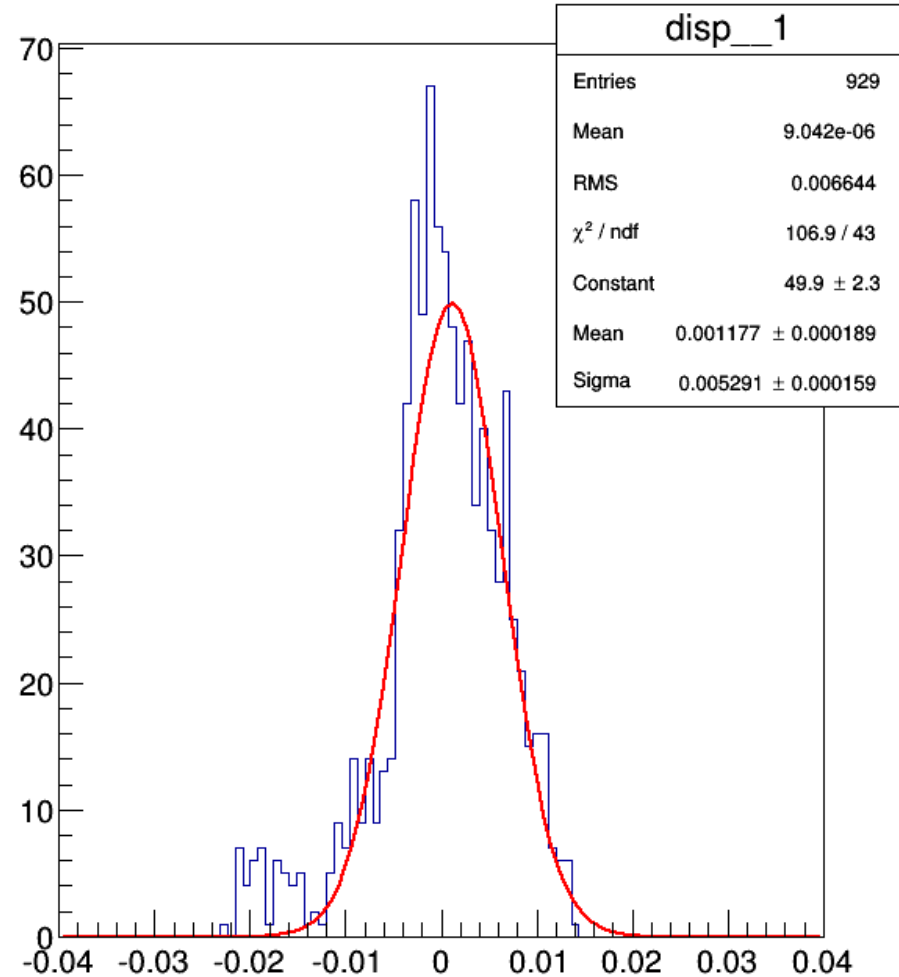
r 3494.7 ± 0.4 mm
min -0.022 mm
max 0.013 mm
piccovalle 0.036 mm

$$\delta r = \sqrt{(x - x_0)^2 + (y - y_0)^2 + (z - z_0)^2} - r$$

specchio



dispersion



06 Nov

Second measurement

r 3497.6 ± 0.4 mm

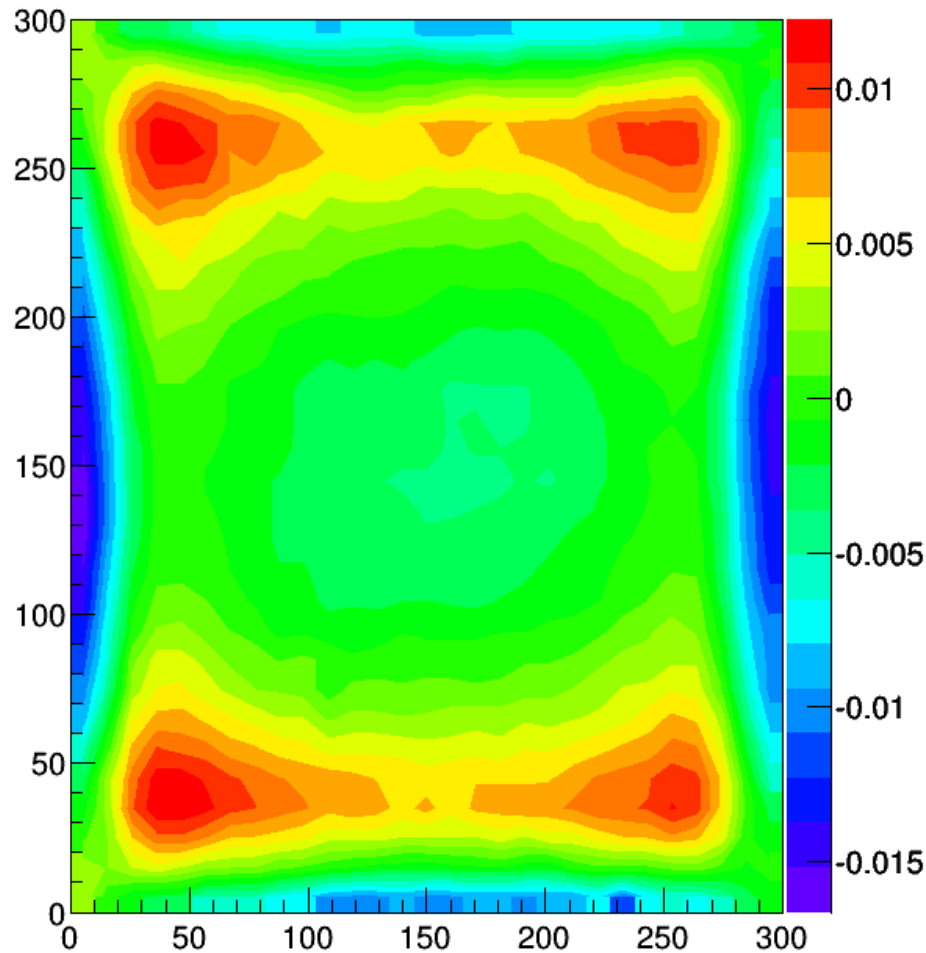
min -0.017 mm

max 0.012 mm

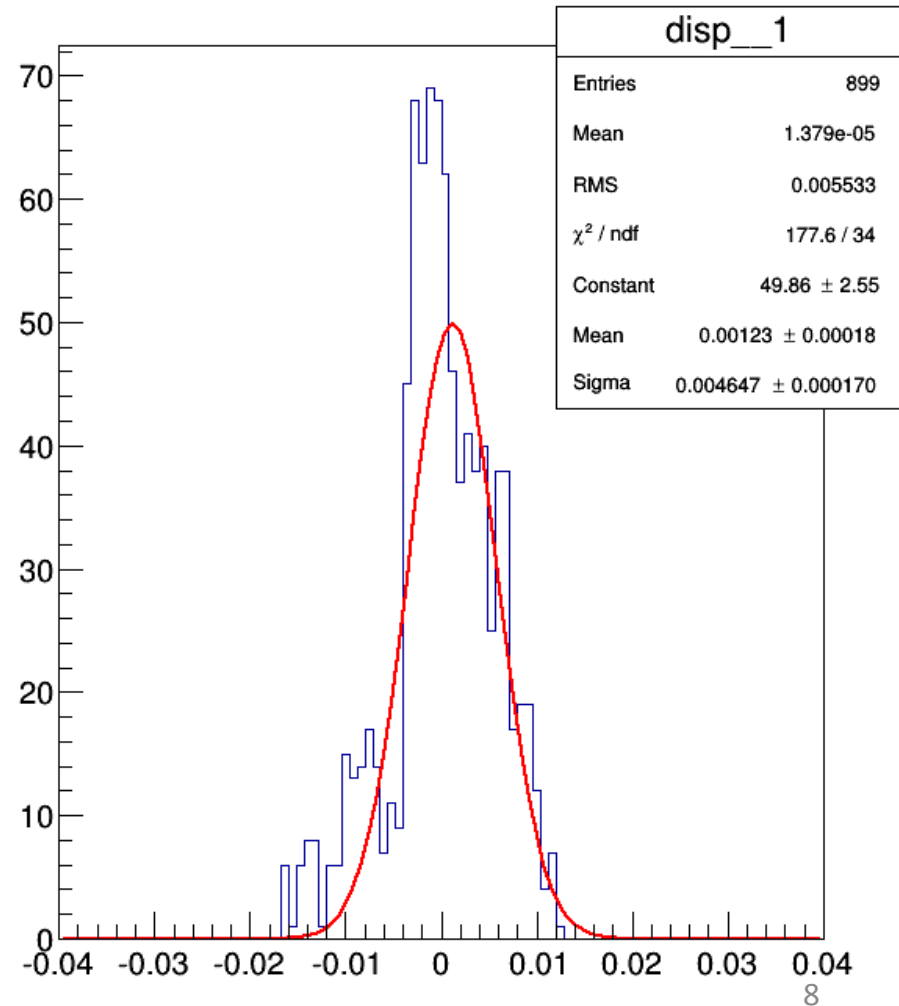
piccovalle 0.029 mm

$$\delta r = \sqrt{(x - x_0)^2 + (y - y_0)^2 + (z - z_0)^2} - r$$

specchio



dispersion



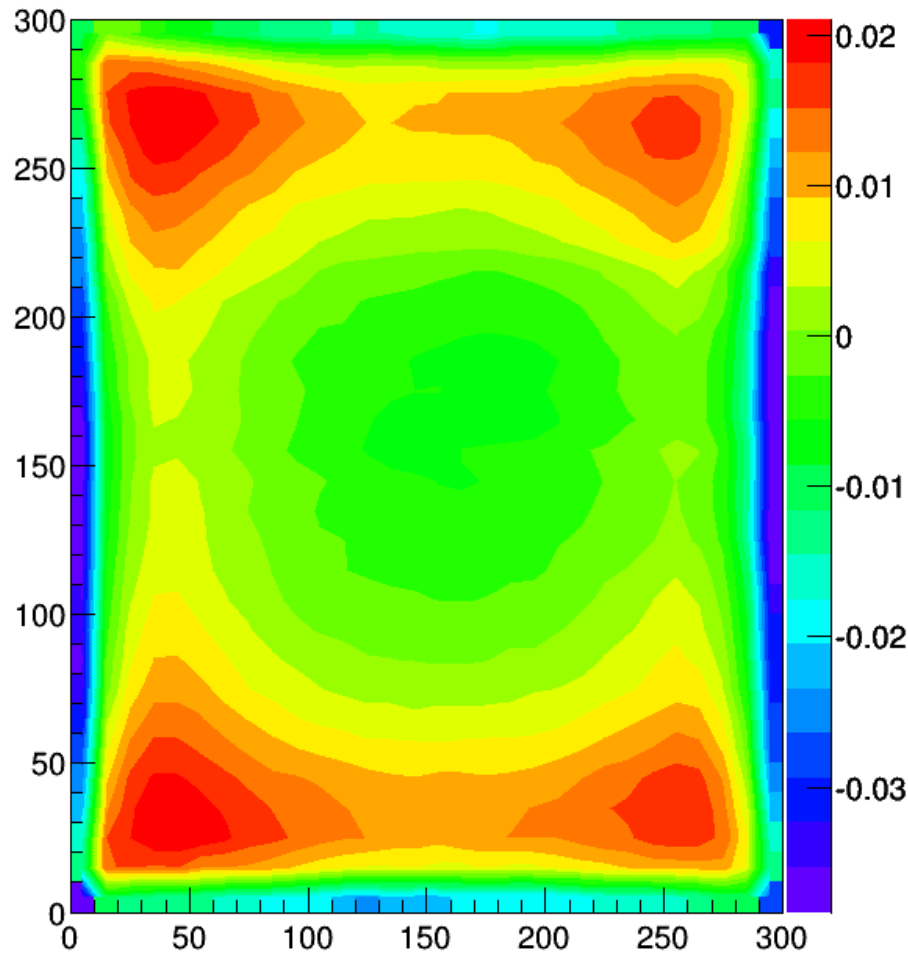
17 Nov

First measurement

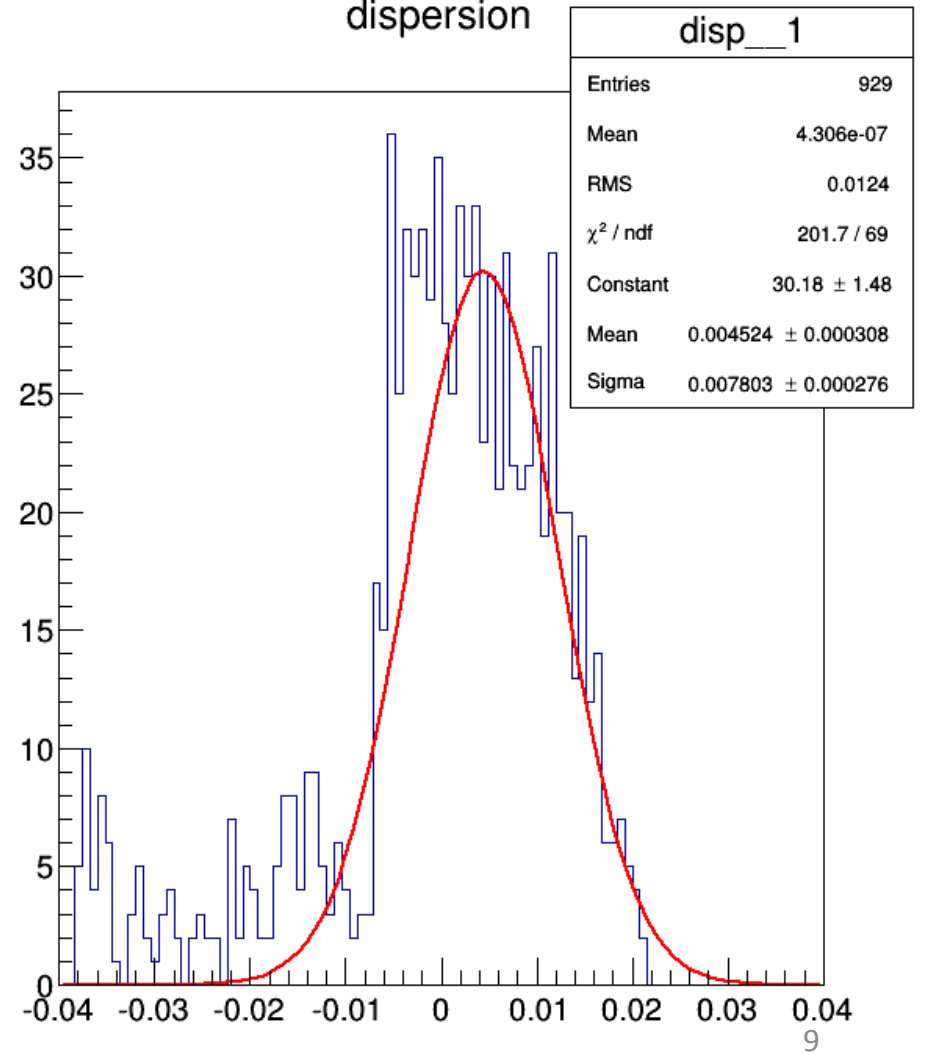
r 3494.1 ± 0.4 mm
min -0.038 mm
max 0.021 mm
piccovalle 0.059 mm

$$\delta r = \sqrt{(x - x_0)^2 + (y - y_0)^2 + (z - z_0)^2} - r$$

specchio



dispersion



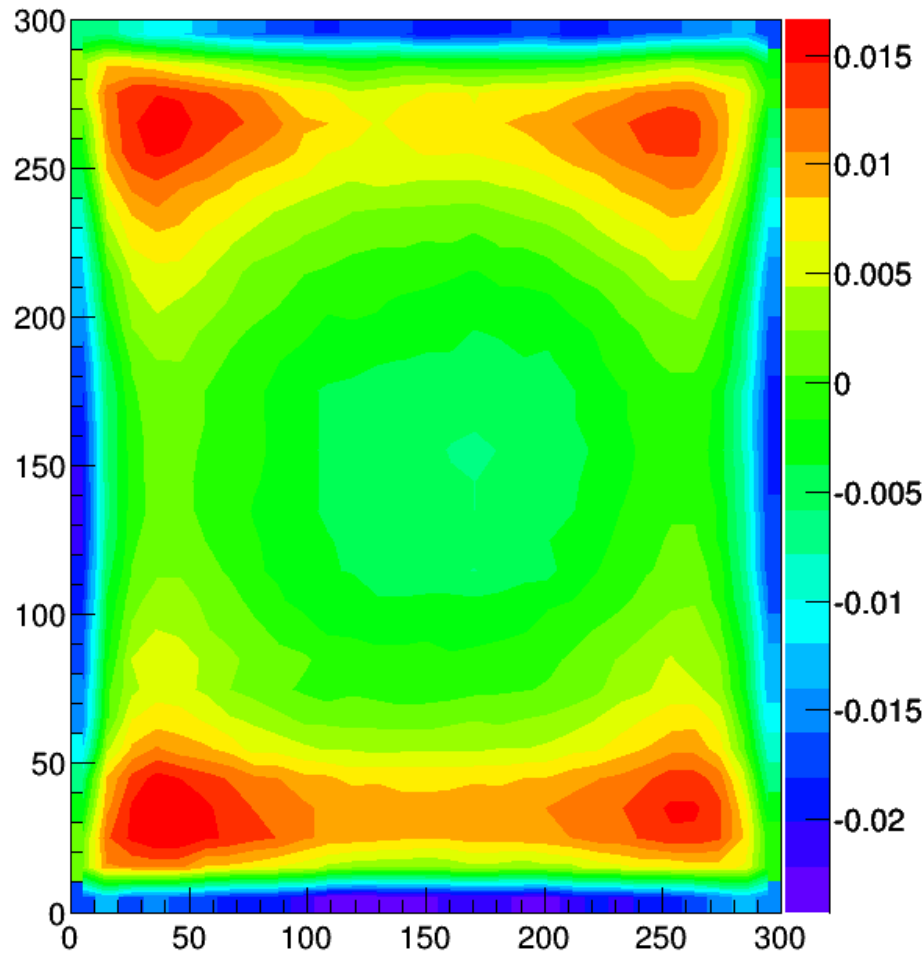
17 Nov

Second measurement

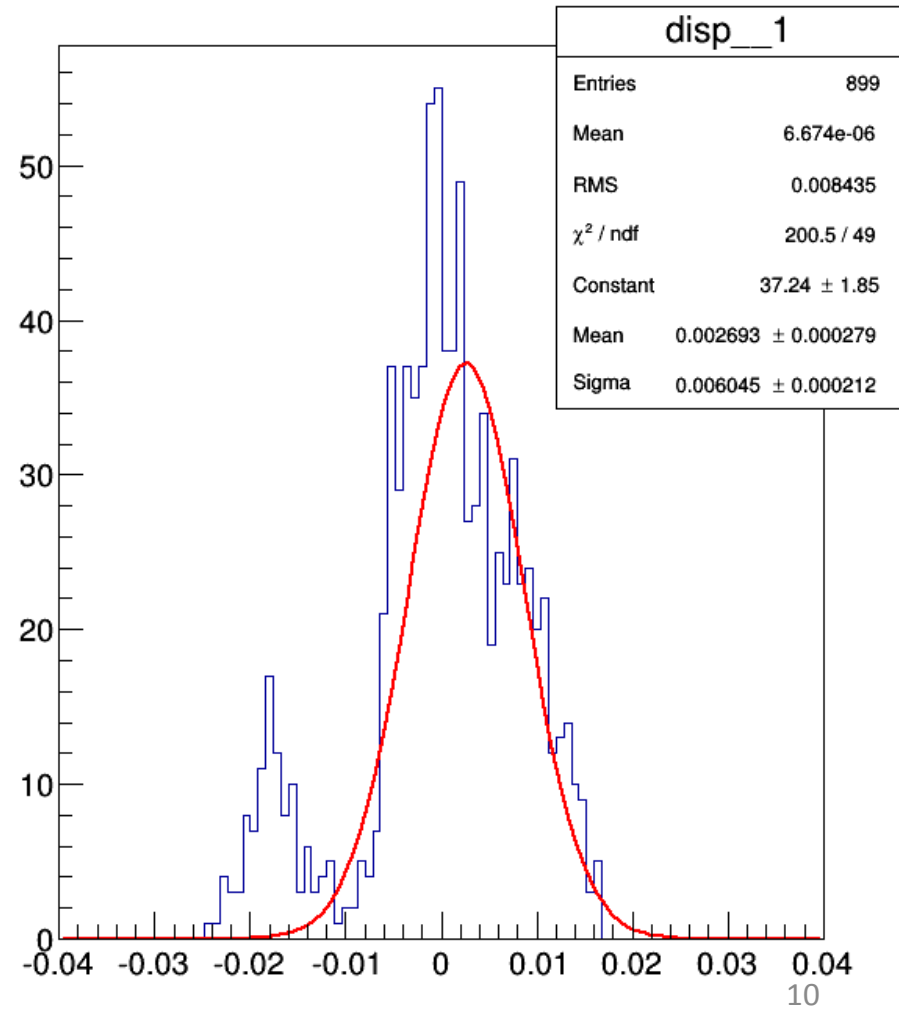
r 3497.5 ± 0.4 mm
min -0.024 mm
max 0.017 mm
piccovalle 0.041 mm

$$\delta r = \sqrt{(x - x_0)^2 + (y - y_0)^2 + (z - z_0)^2} - r$$

specchio

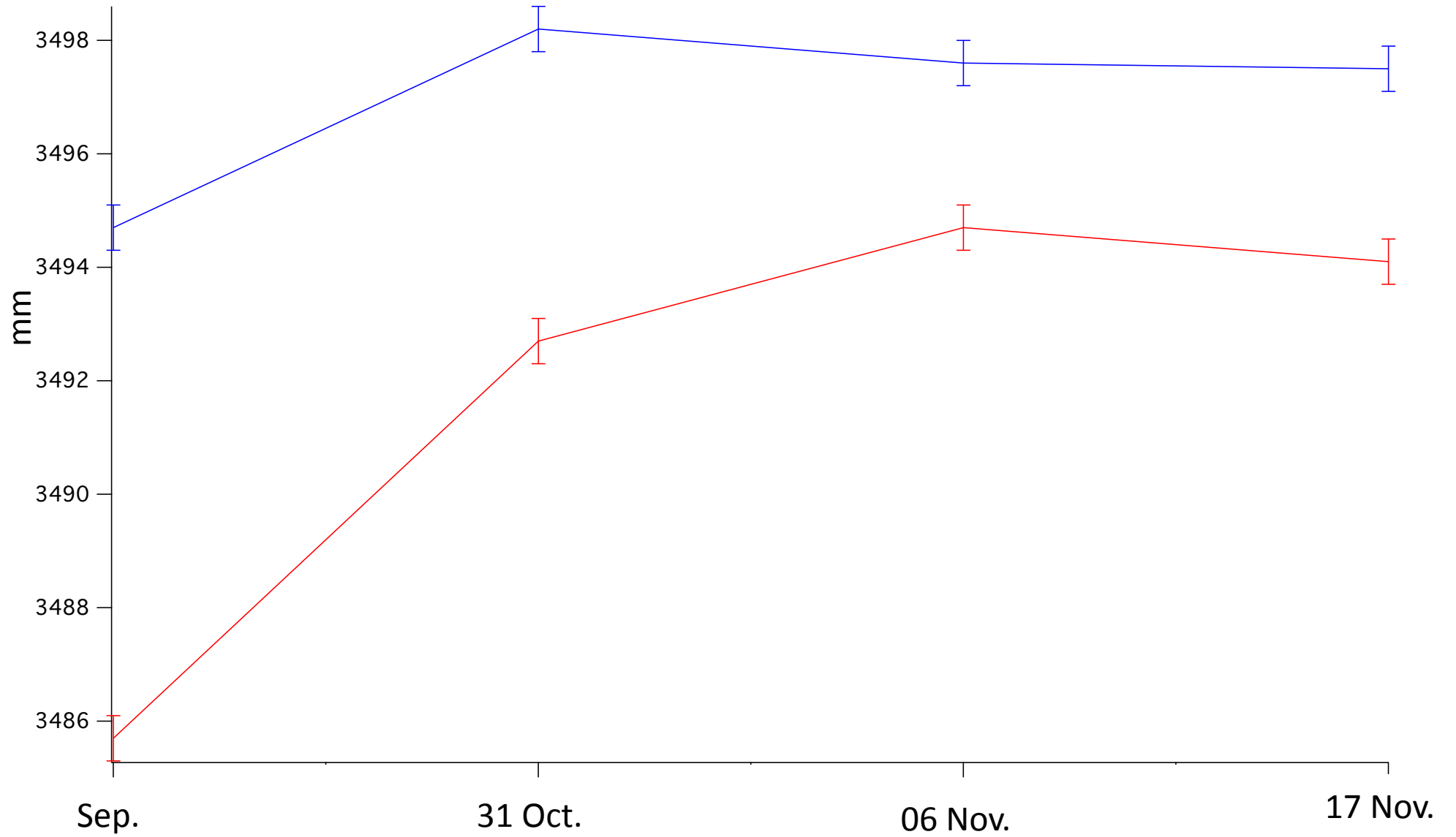


dispersion

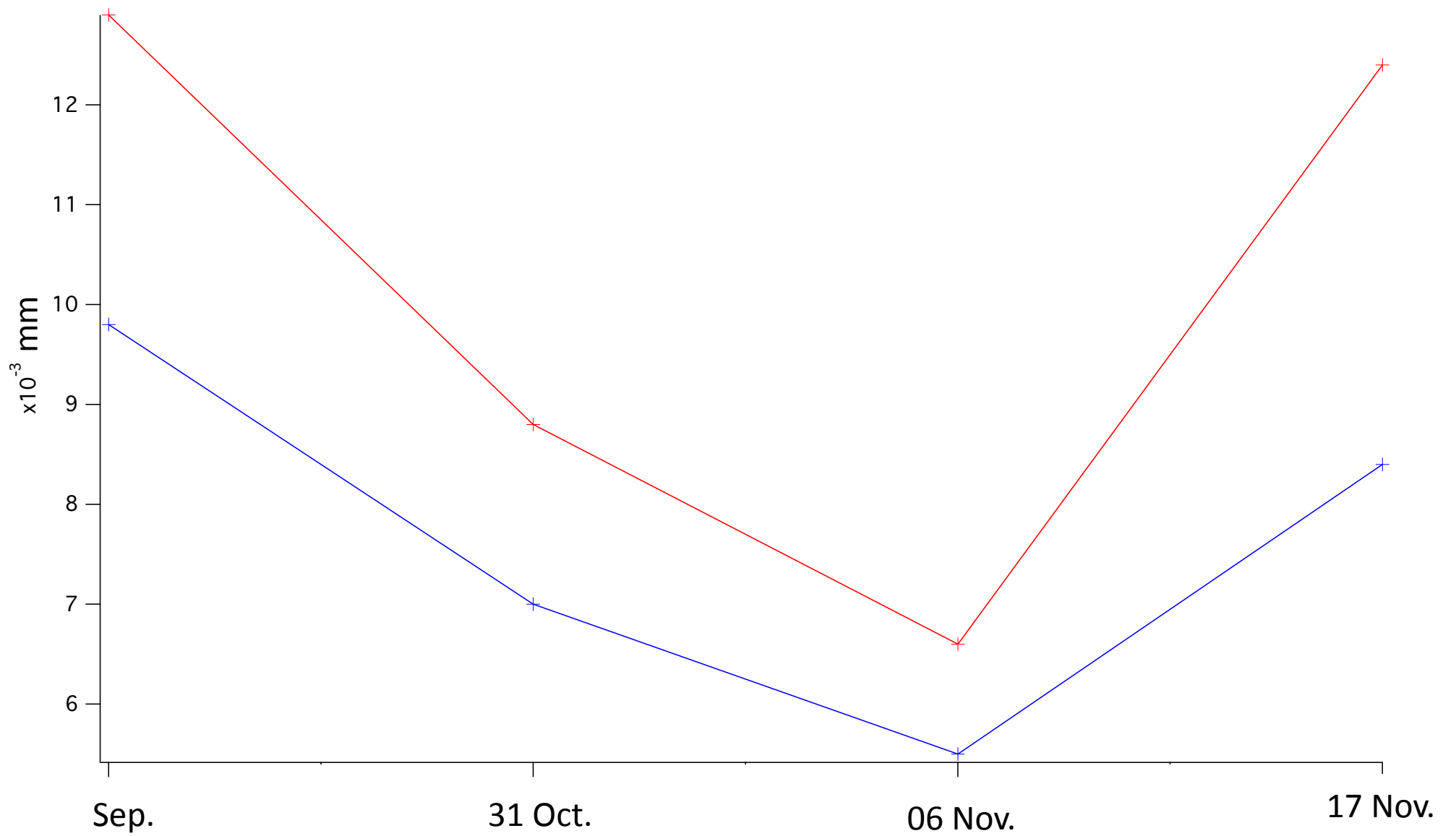


Radius of the mirror and RMS of δr

Radius of the mirror



RMS of δr



Recapitulatory table

	Radius _(mm)	max _(mm)	min _(mm)	piccovalle _(mm)	RMS _(mm)
Sep	3485.7	0.027	-0.043	0.070	0.0129
	3494.7	0.020	-0.028	0.048	0.0098
31 Oct	3492.7	0.017	-0.028	0.046	0.0088
	3498.2	0.014	-0.019	0.033	0.0070
06 Nov	3494.7	0.013	-0.022	0.036	0.0066
	3497.6	0.012	-0.017	0.029	0.0055
17 Nov	3494.1	0.021	-0.038	0.059	0.0124
	3497.5	0.017	-0.024	0.041	0.0084

Weight of the mirror

Weight of the mirror

