

MicroMeGas Pavia

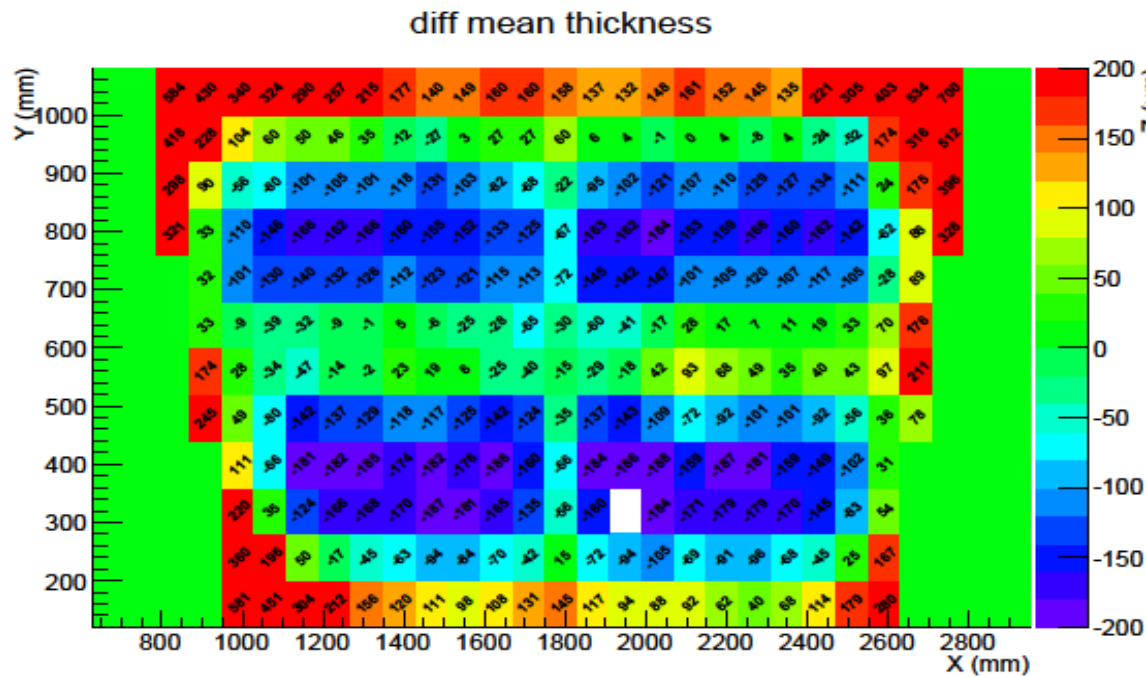
27 November, 2013 - Pavia



Contents

- Some strange pictures
- Some comparison – ageing effect
- Calibration controls
- Height-dependence on temperature
- Future perspectives

PCB9



PCB10

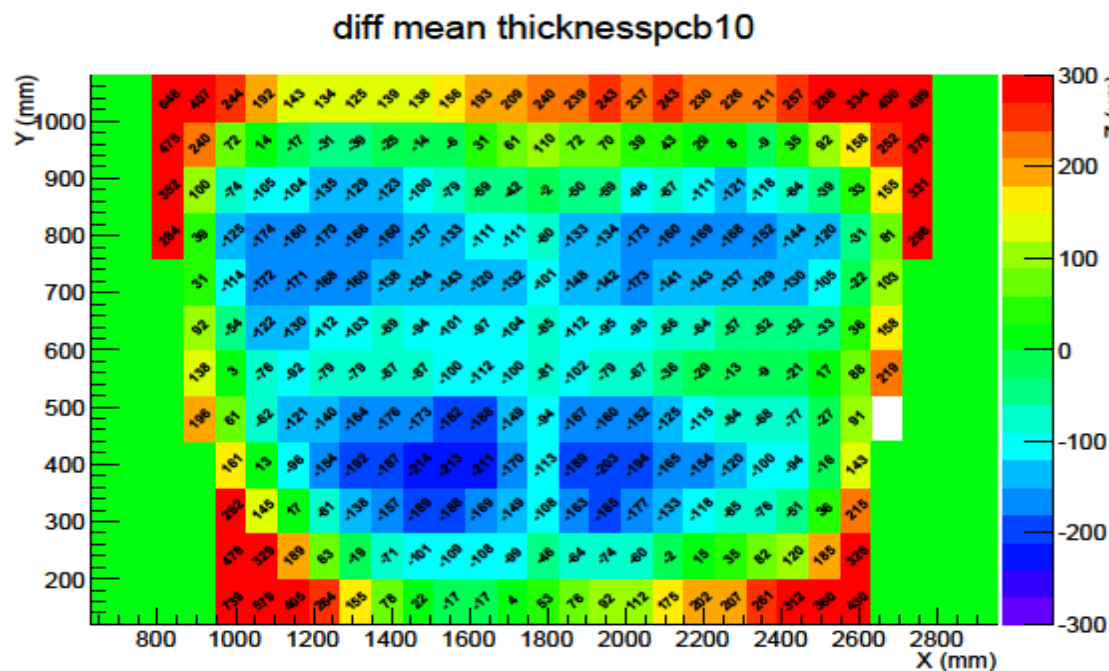
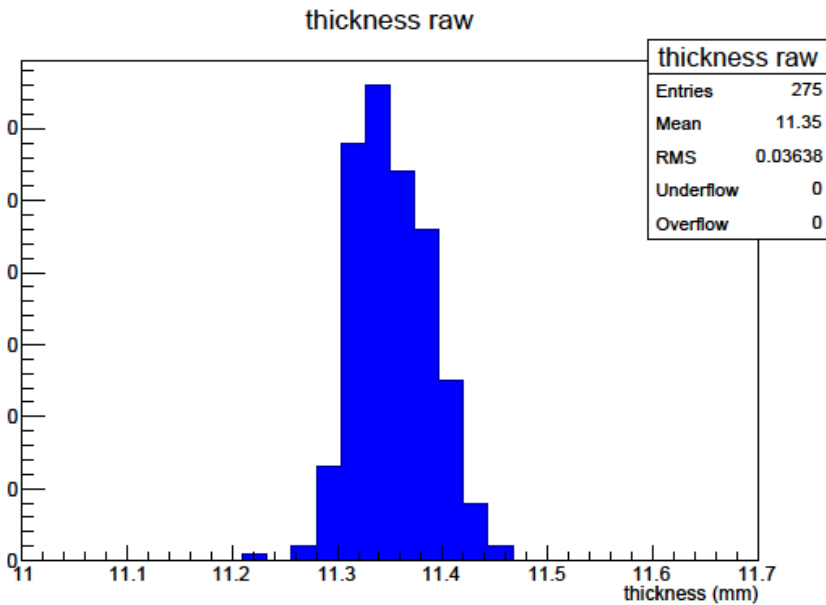
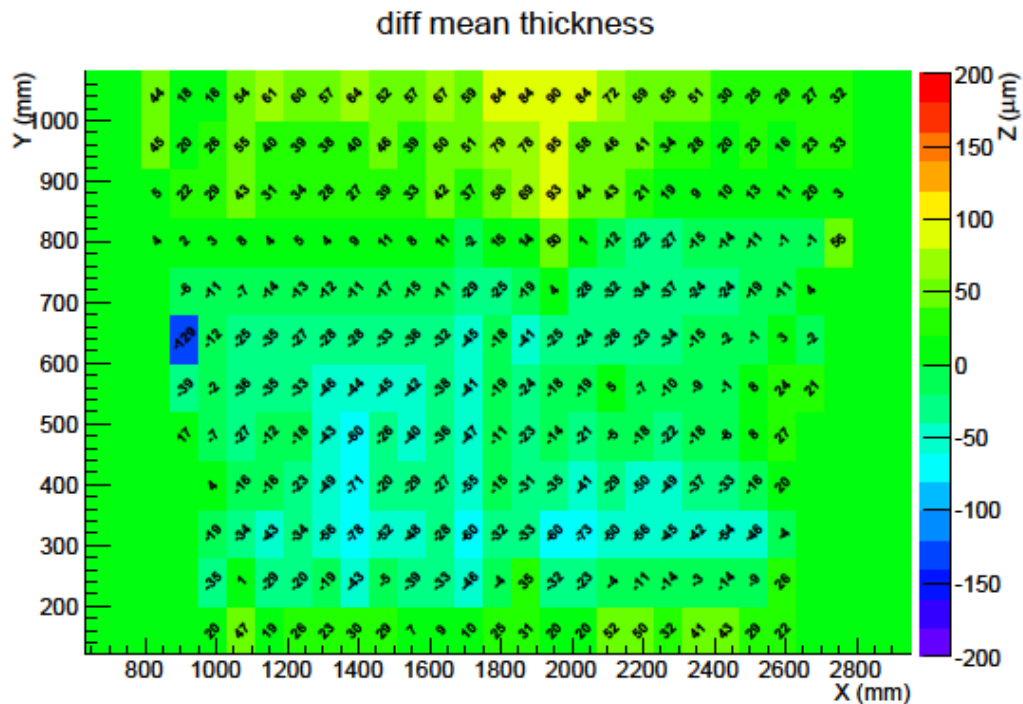


Table 3: chamber free on granite

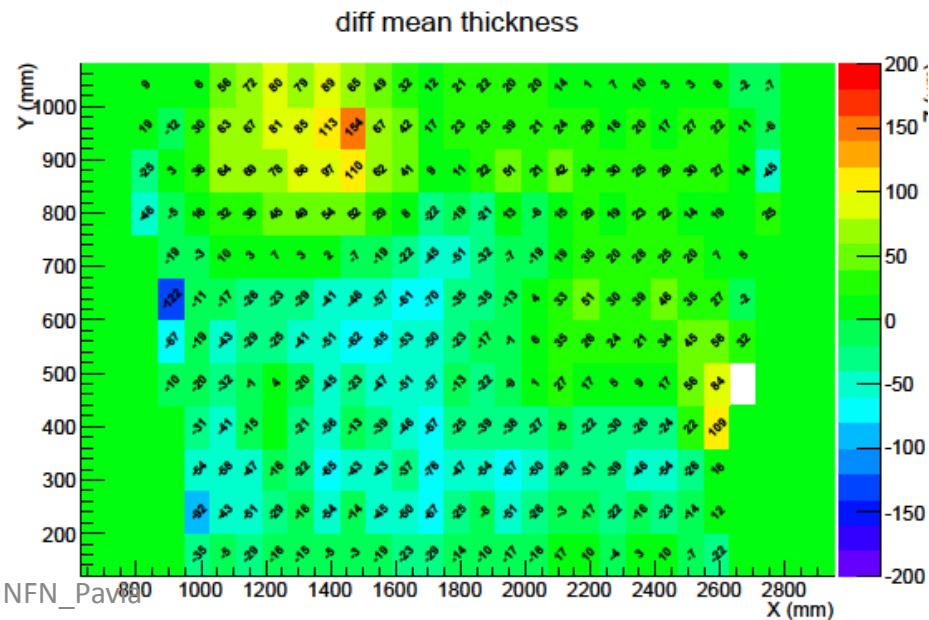
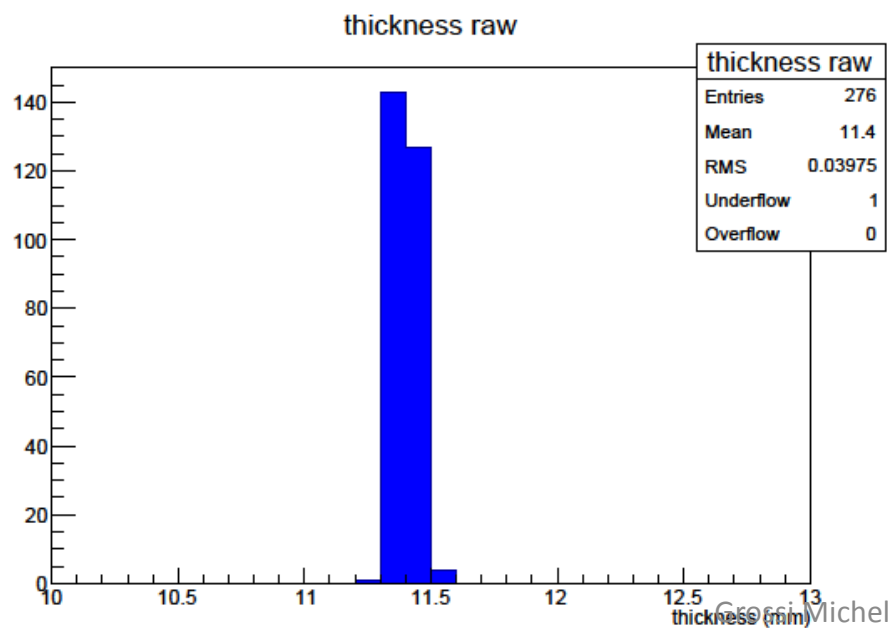
panel	thickness (mm)	rms raw (μm)	rms fit (μm)	α_{zx} (μrad)	β_{zy} (μrad)	PILLAR
pcb1up-M	11.440	48	42	-2	78	yes
pcb2up-M	11.447	51	42	-23	95	
pcb3up-M	11.352	36	31	-4	74	no
pcb4up-M	11.337	54	40	-25	75	

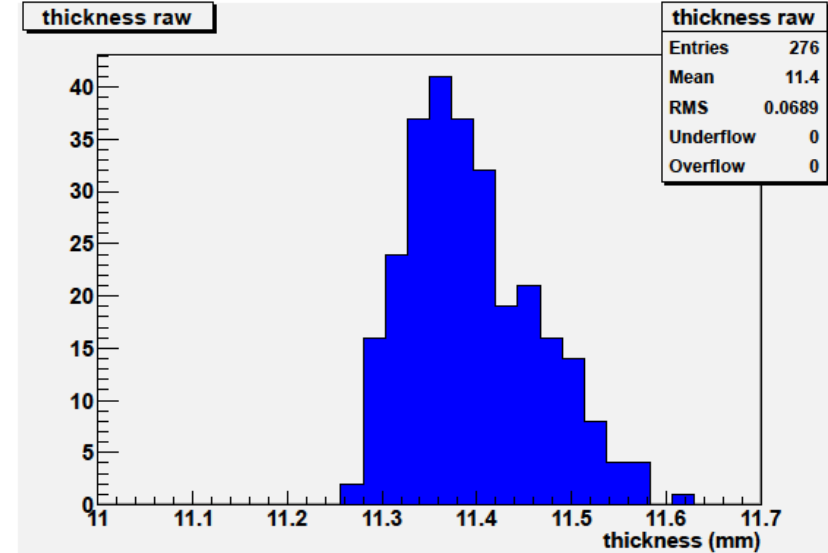
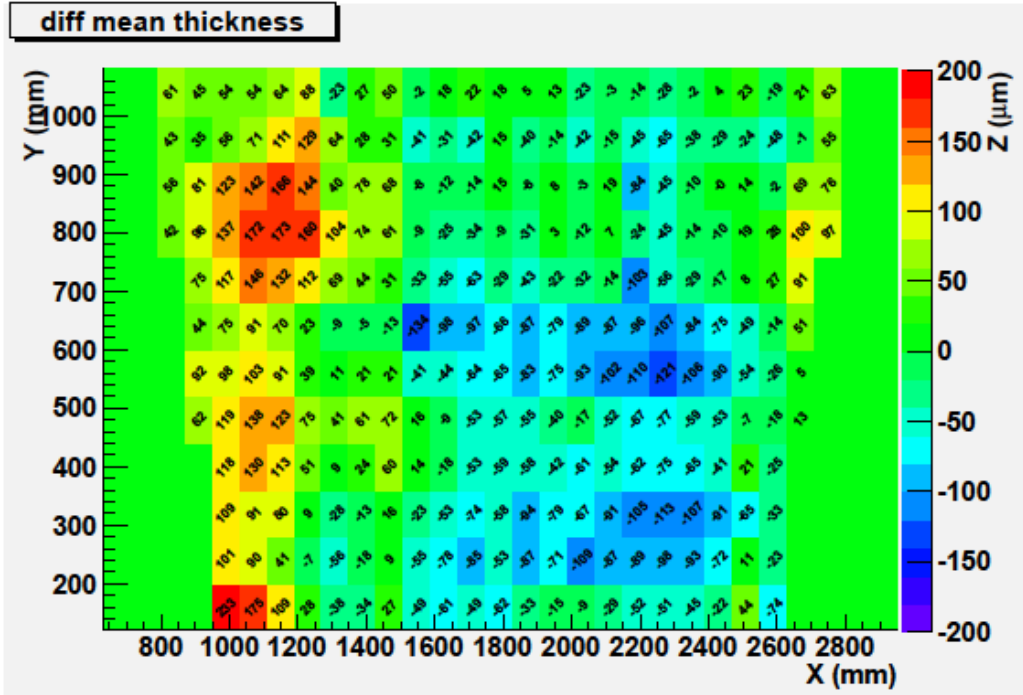
Table 1: panel November

panel	thickness (mm)	rms raw (μm)	rms fit (μm)	α_{zx} (μrad)	β_{zy} (μrad)	PILLAR
pcb1	11.552	161.74	148.88	-4.1207	122.02	yes
pcb2	11.644	131.38	130.66	-2.3014	71.097	
pcb3	11.399	39.752	35.013	-11.577	93.258	no
pcb4	11.344	49.371	48.078	-21.417	72.776	
pcb5	11.398	90.1	73.589	-122.03	-7.8985	no
pcb6	11.383	67.549	66.76	-32.595	70.56	
pcb7	11.266	72.407	46.623	-31.12	13.625	yes
pcb8	11.251	62.076	44.868	-10.607	-30.949	
pcb9	11.653	138.91	126.25	-111.57	155.21	no
pcb10	11.517	172.26	157.37	-3.9724	74.947	

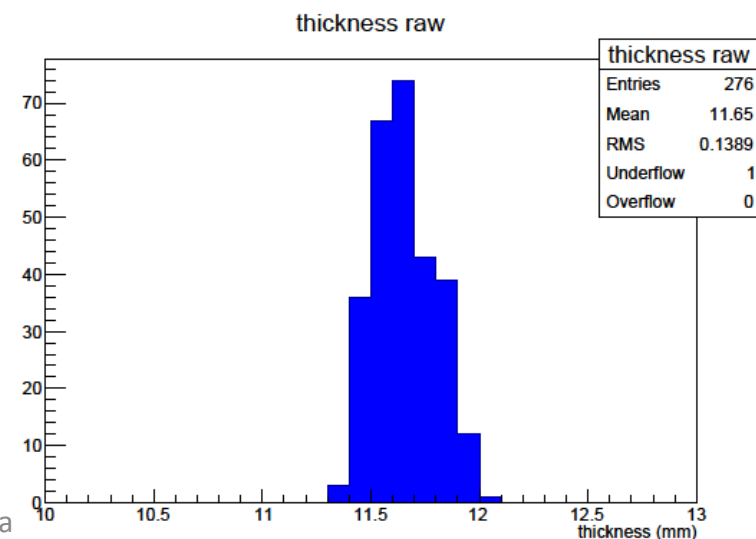
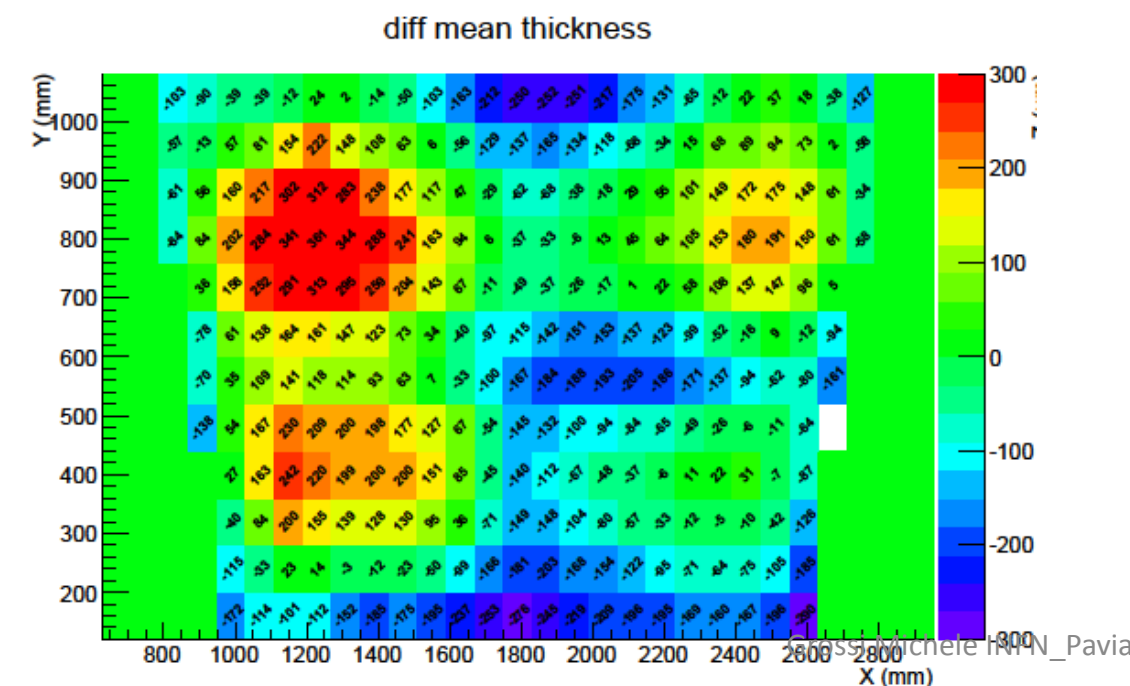


***PCB3 before (above) &
now (below)***

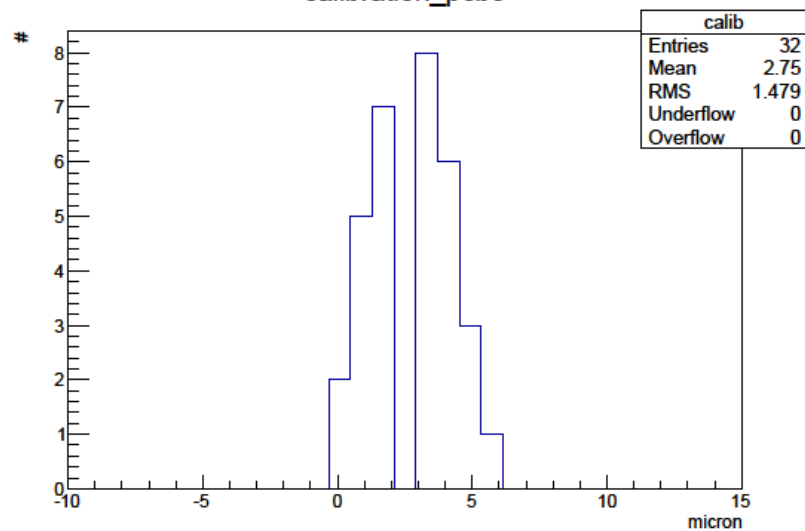




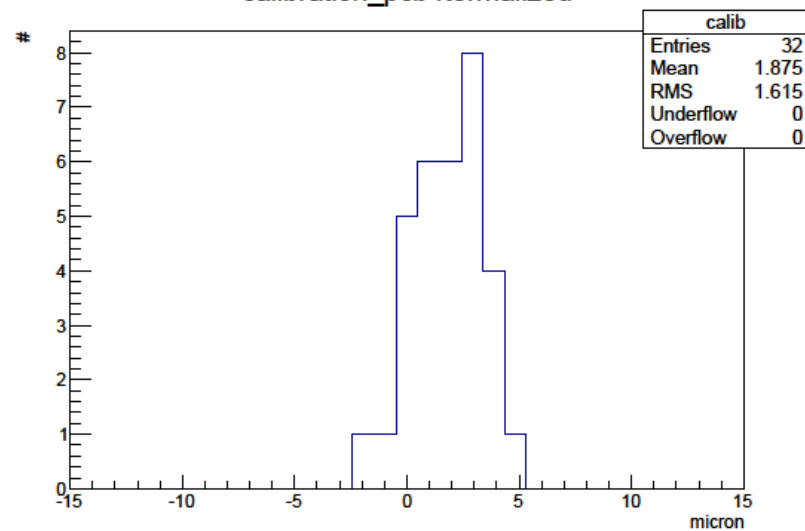
***PCB9 before, free-plates
(above) &
now, only granite (below)***



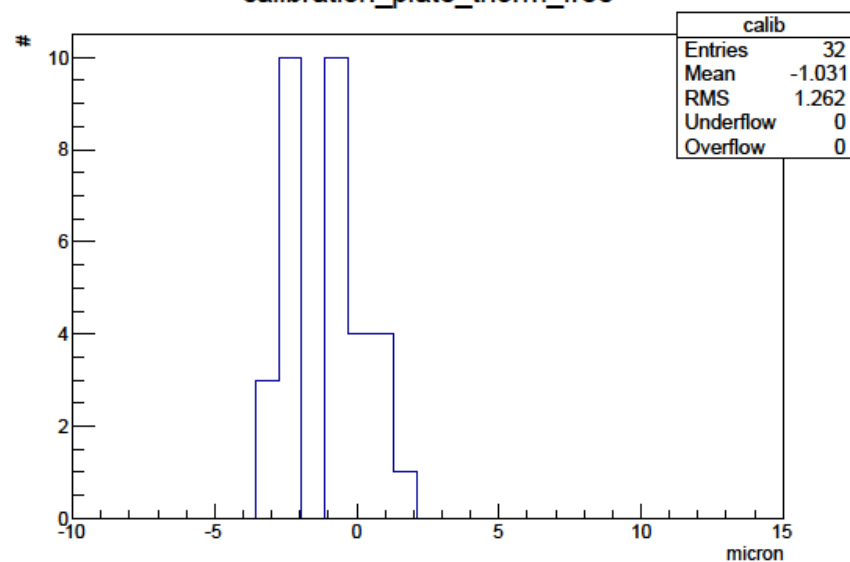
calibration_pcb3



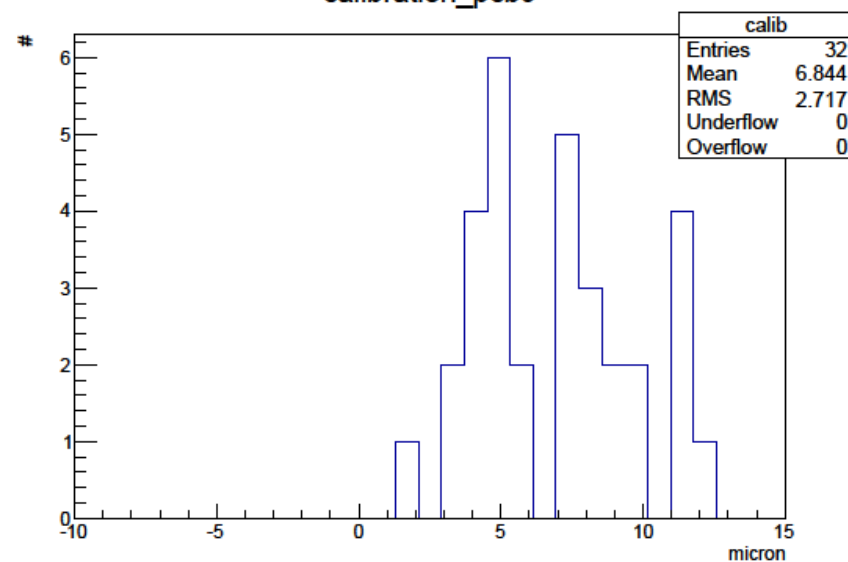
calibration_pcb4thermalized



calibration_plate_tnorm_free



calibration_pcb9



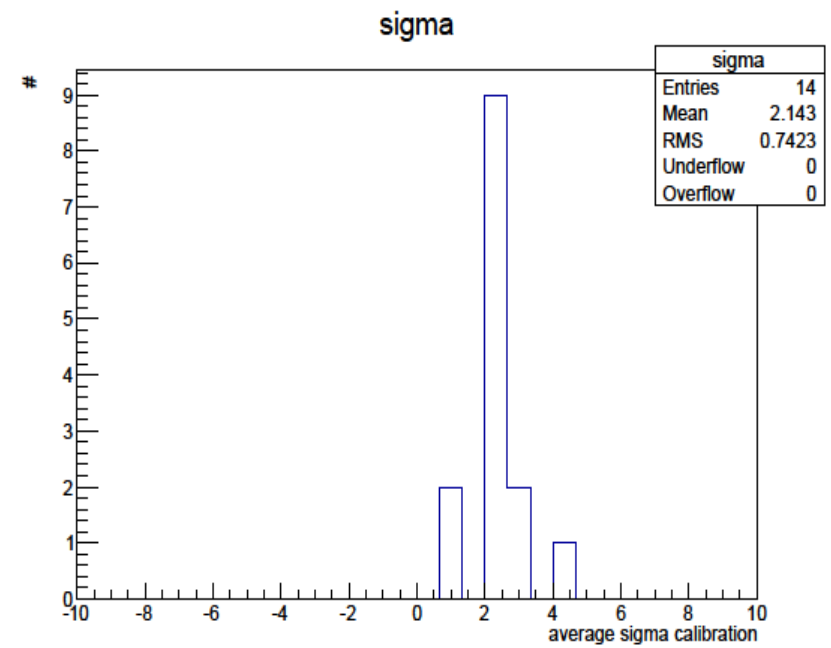
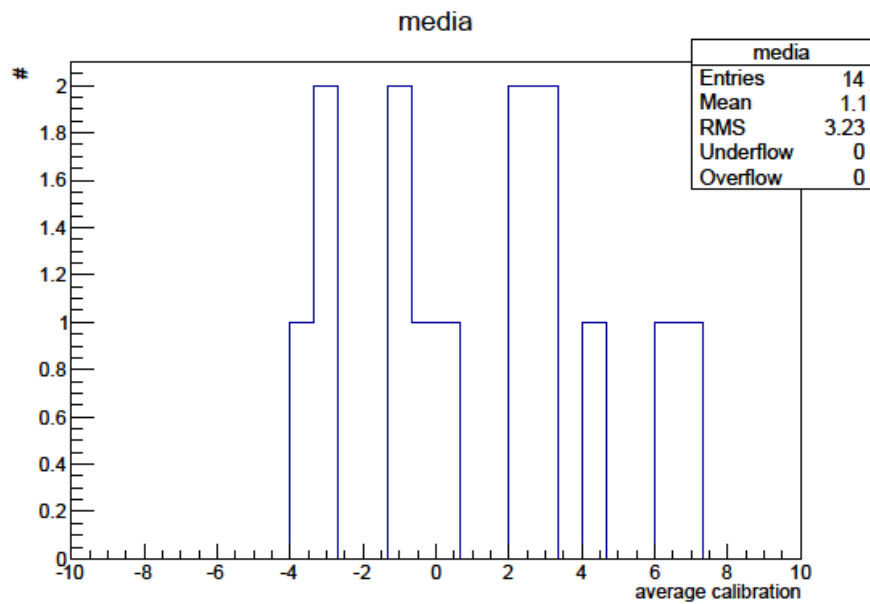
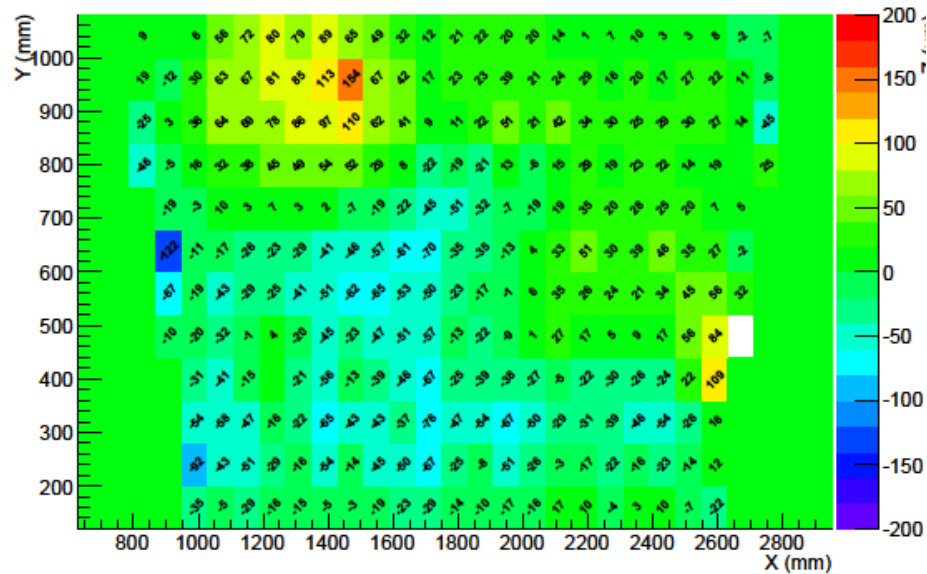


Table 4: calibration data

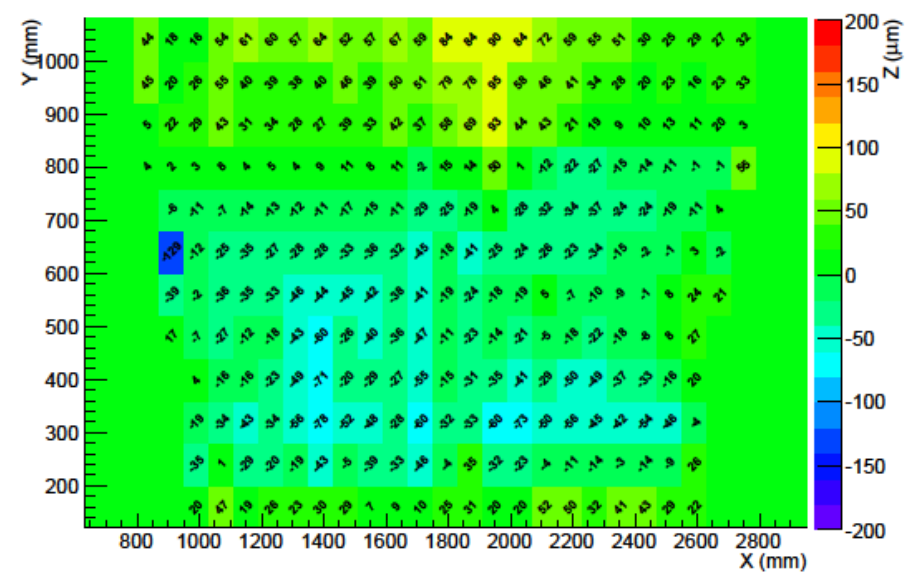
panel	average (μm)	rms (μm)	maxvalue (μm)	minvalue (μrad)
pcb1	4	2	7	1
pcb2	-0.3	2	5	-4
pcb3	3	1	6	0
pcb3termalized	0.5	2	6	-3
pcb3freddo	-0.8	2	4	-4
pcb4	-4	2	0	-13
pcb4termalized	2	2	5	-2
pcb4freddo	-3	4	3	-9
pcb5	3	2	7	1
pcb6	2	1	5	-2
pcb7	-3	3	3	-7
pcb8	-1	2	5	-4
pcb9	7	3	12	2
pcb10	6	2	11	1

***32 points checked.
No evidence of calibration
lost in each measure.***

diff mean thickness



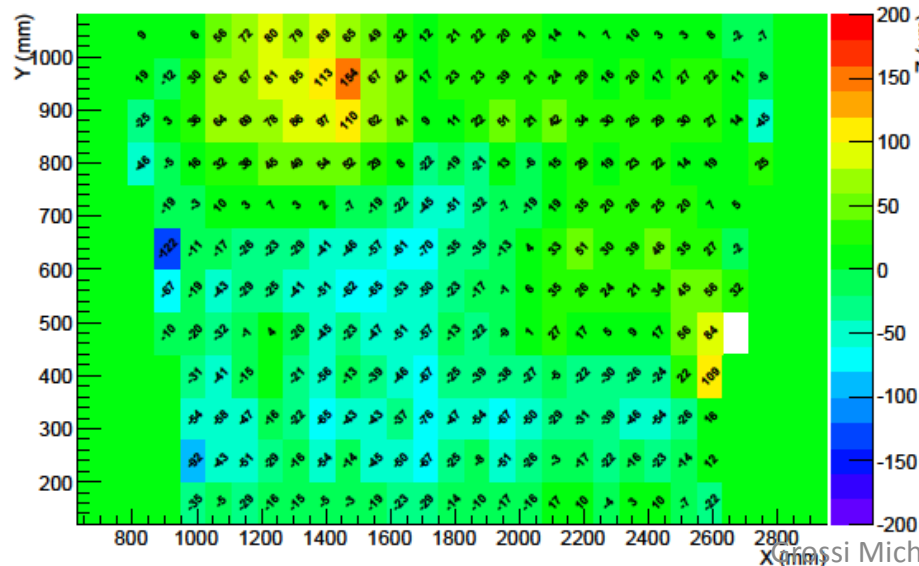
diff mean thickness



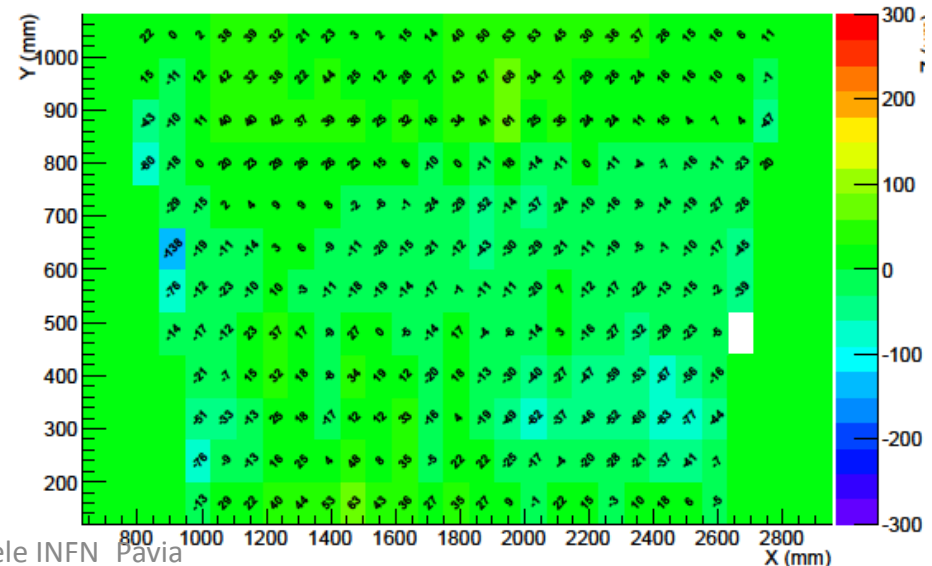
PCB3 before & now (above), $T=cost$

PCB3 - 1night outside

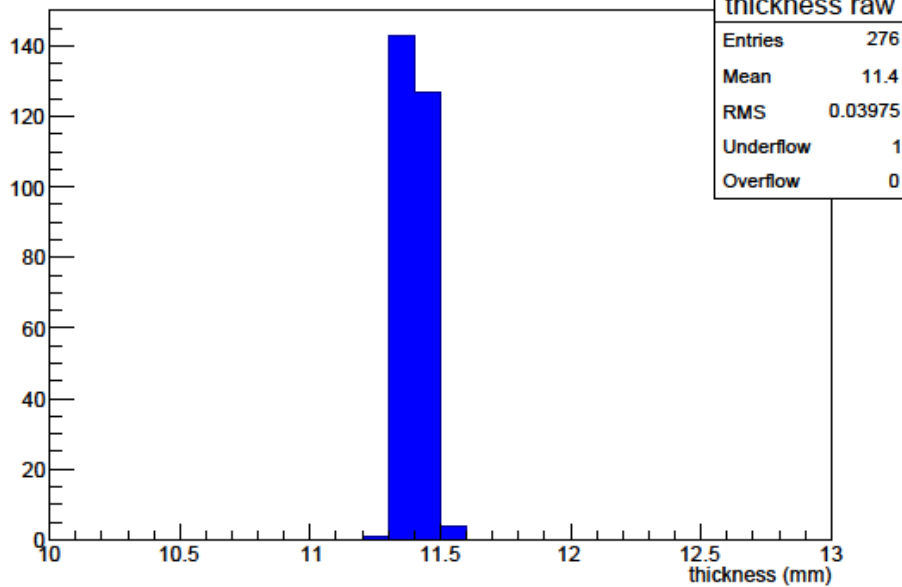
diff mean thickness



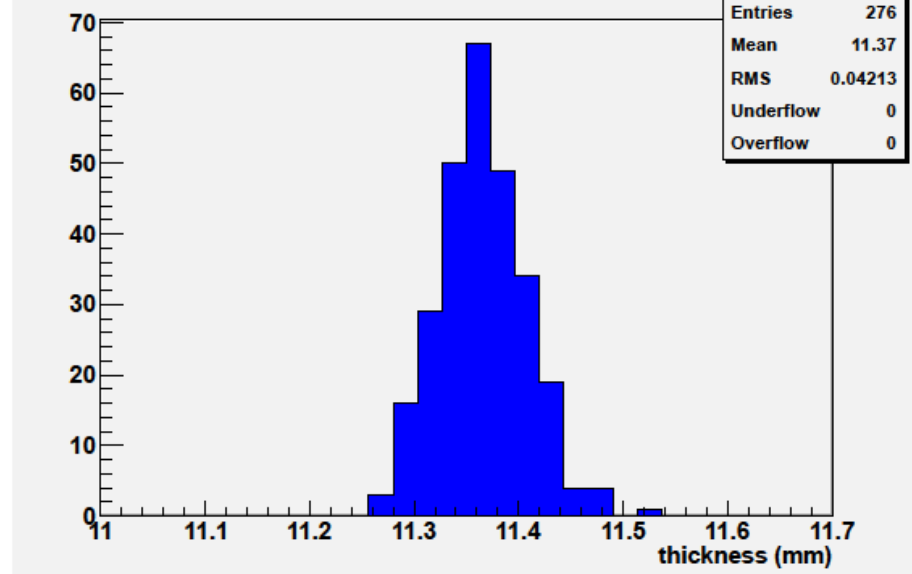
diff mean thickness_pcb3termalized



thickness raw

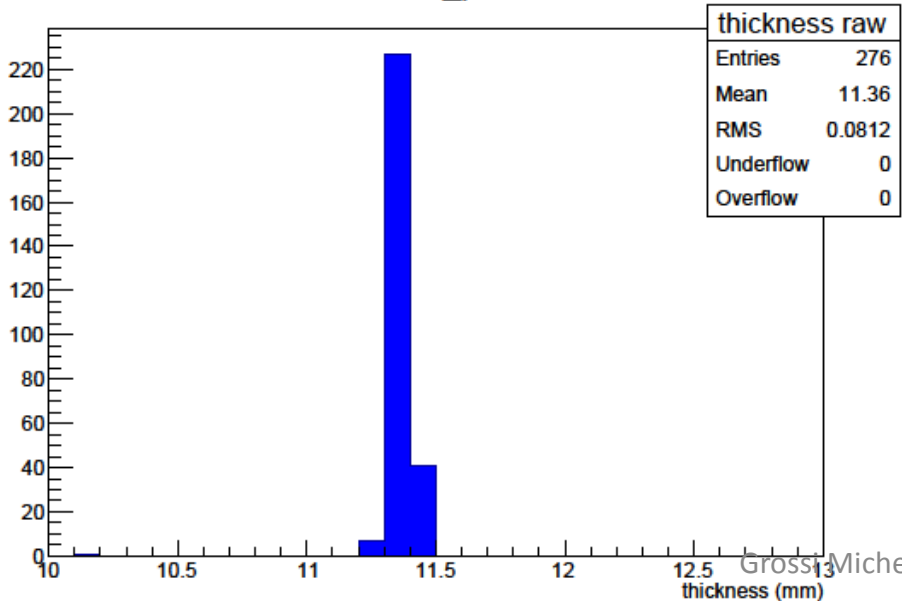


thickness raw

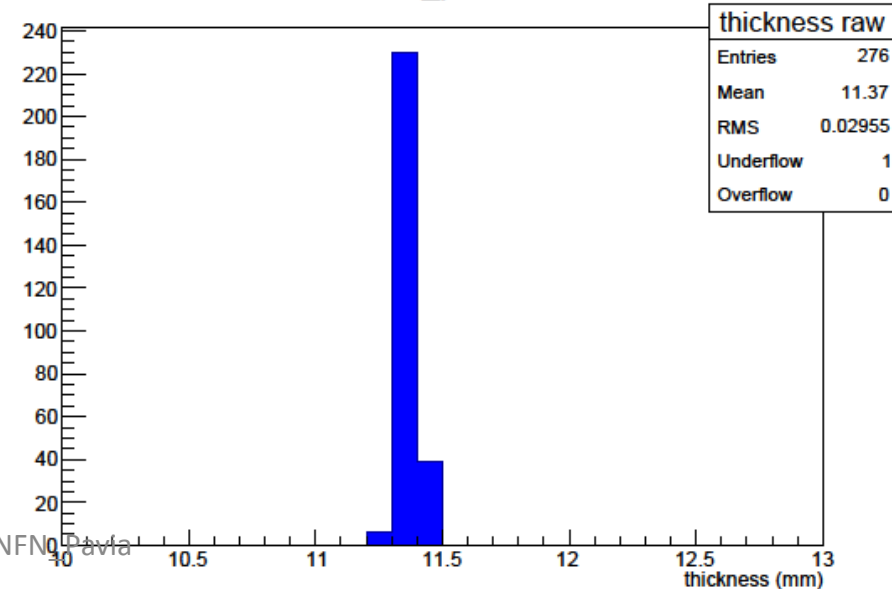


PCB3 corresponding distribution

thickness raw_pcb3freddo



thickness raw_pcb3termalized



Panel #2: corresponding temperature evolution

Table 2: panel temperature dependence (November)

panel	thickness (mm)	rms raw (μm)	rms fit (μm)	α_{zx} (μrad)	β_{zy} (μrad)
pcb3up-M	11.352	36	31	-4	74
pcb3	11.399	39.752	35.013	-11.577	93.258
pcb3termalized	11.368	29.547	29.689	-28.881	43.357
pcb3freddo	11.363	81.203	28.863	-24.15	42.776
pcb4up-M	11.337	54	40	-25	75
pcb4	11.344	49.371	48.078	-21.417	72.776
pcb4termalized	11.36	56.215	55.624	-4.637	28.116
pcb4freddo	11.345	76.373	58.871	-16.112	21.85

Conclusion

- Few data taken to achieve evidence of temperature effect on panels
- Evidence of homogenous central subsidence in some panels
- Height profile confirmed in others
- Low correlation between last measurements and the oldest ones