

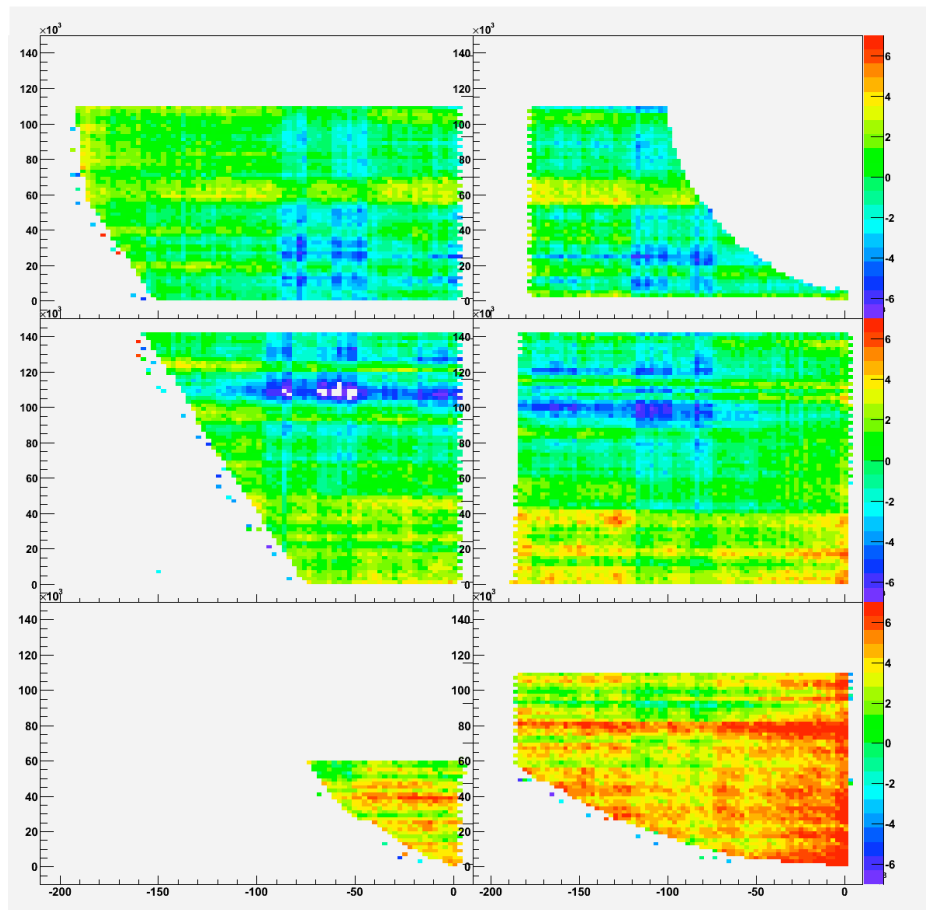
GEM Foil Scans

Will Leight

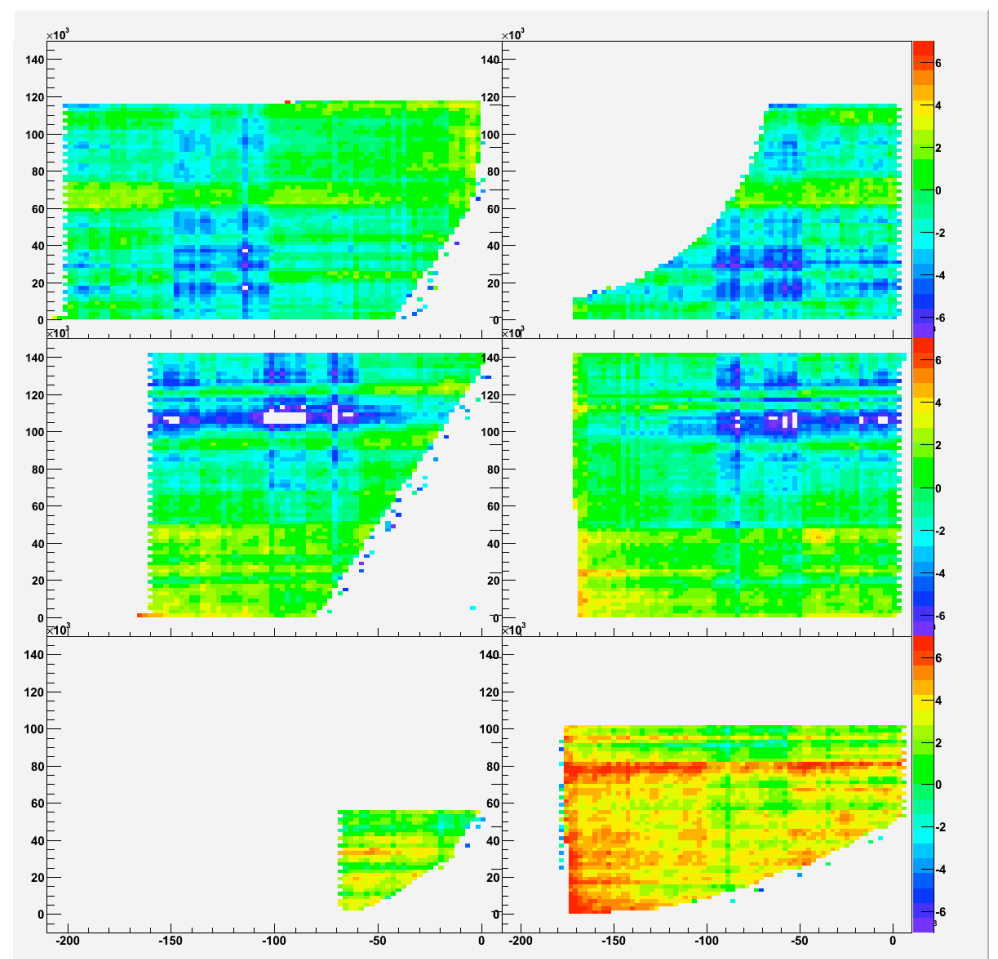
September 30, 2009

Tech-Etch Foil 2 Full Scan: Inner Diameters

Side 1



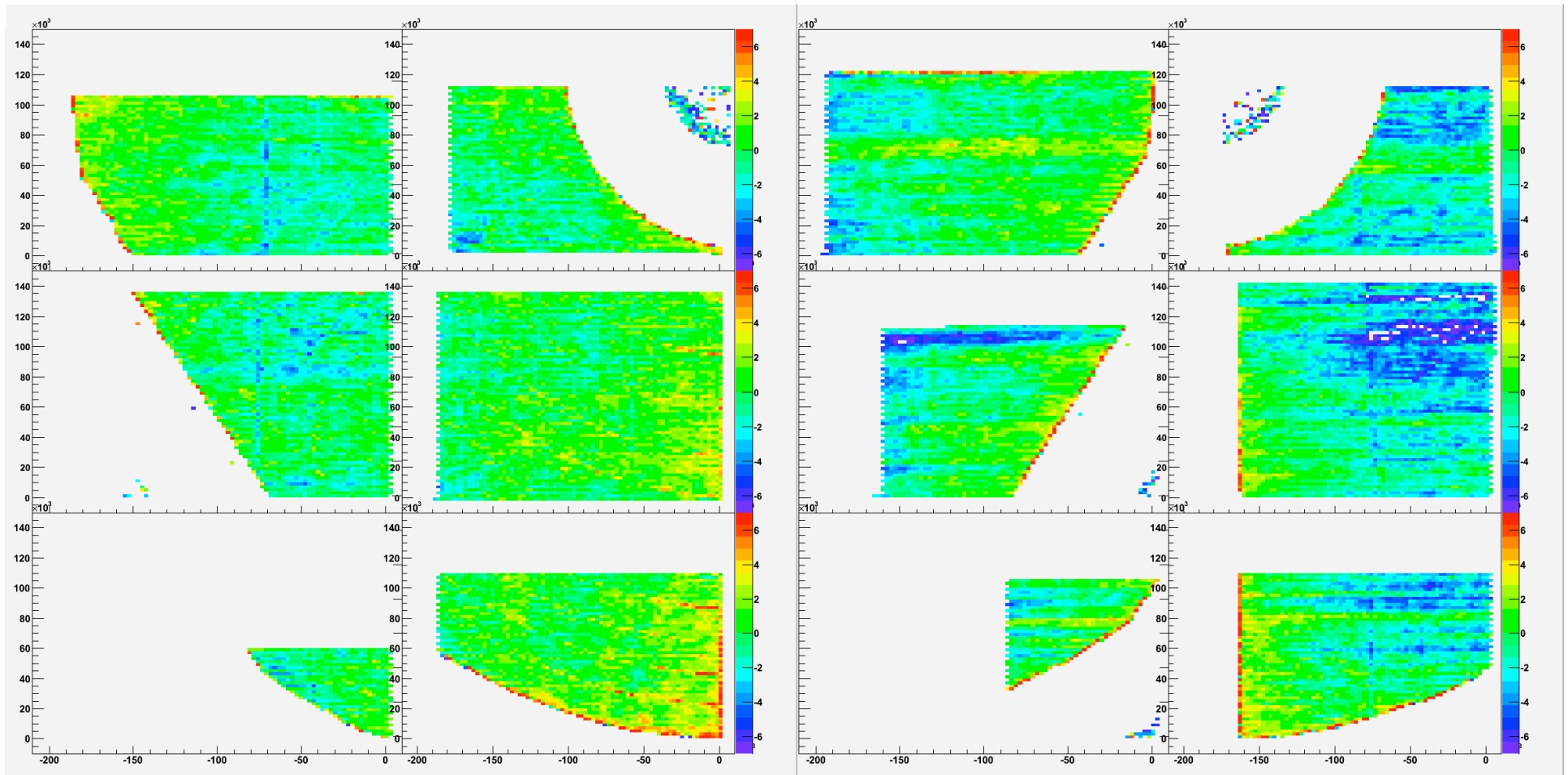
Side 2



Tech-Etch Foil 2 Full Scan: Outer Diameters

Side 1

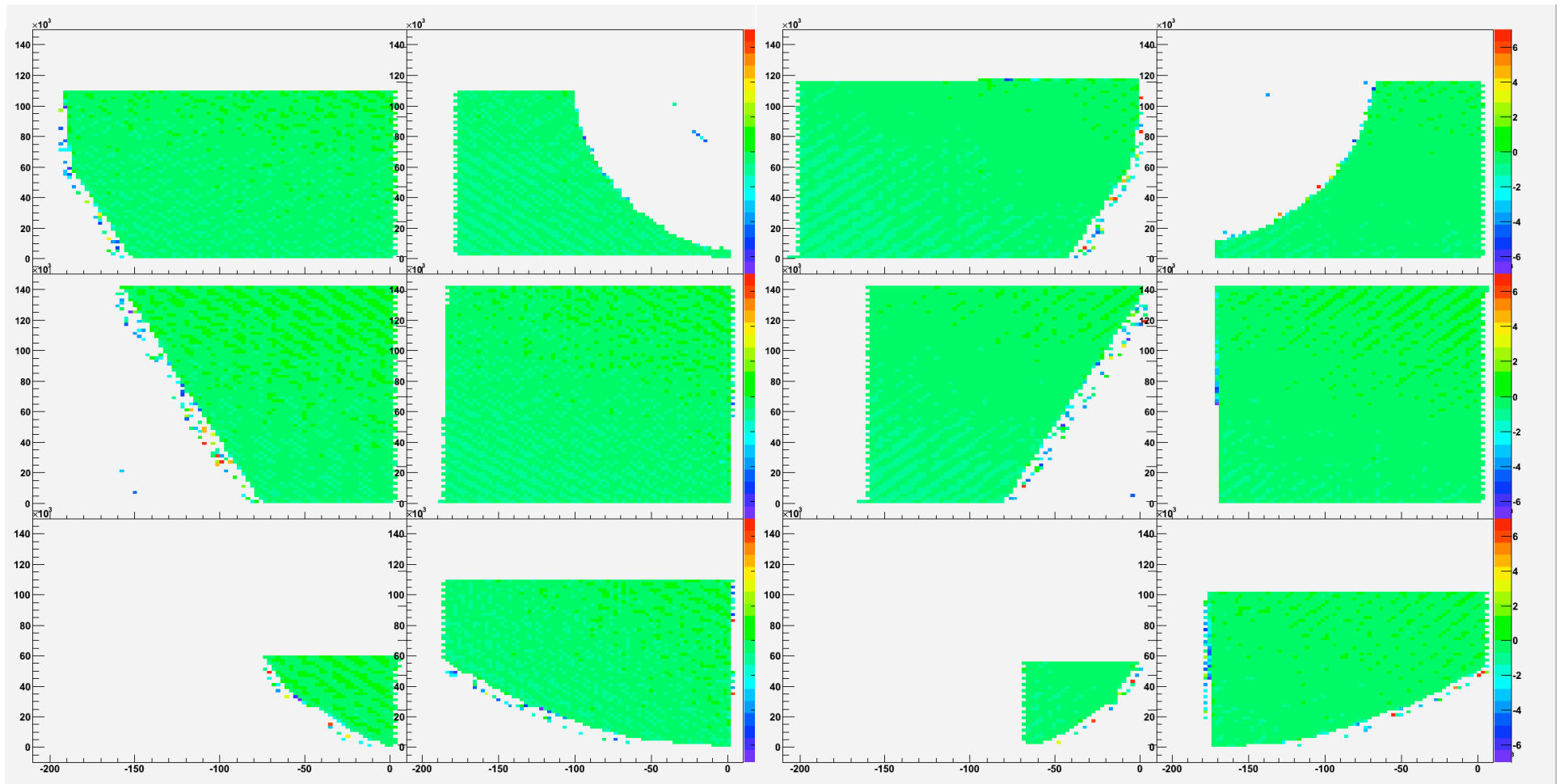
Side 2



Tech-Etch Foil 2 Full Scan: Pitches

Side 1

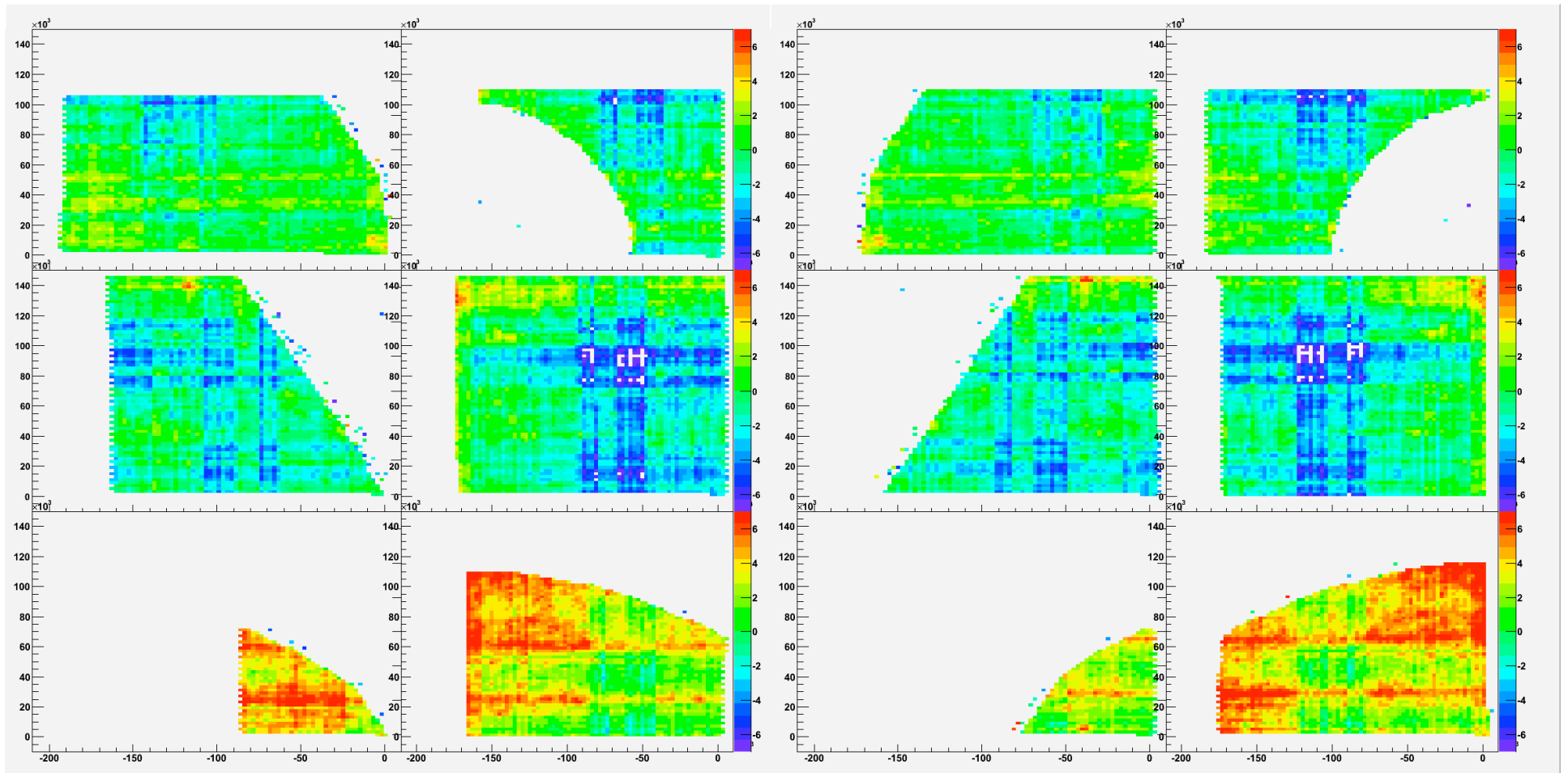
Side 2



Tech-Etch Foil 6 Full Scan: Inner Diameters

Side 1

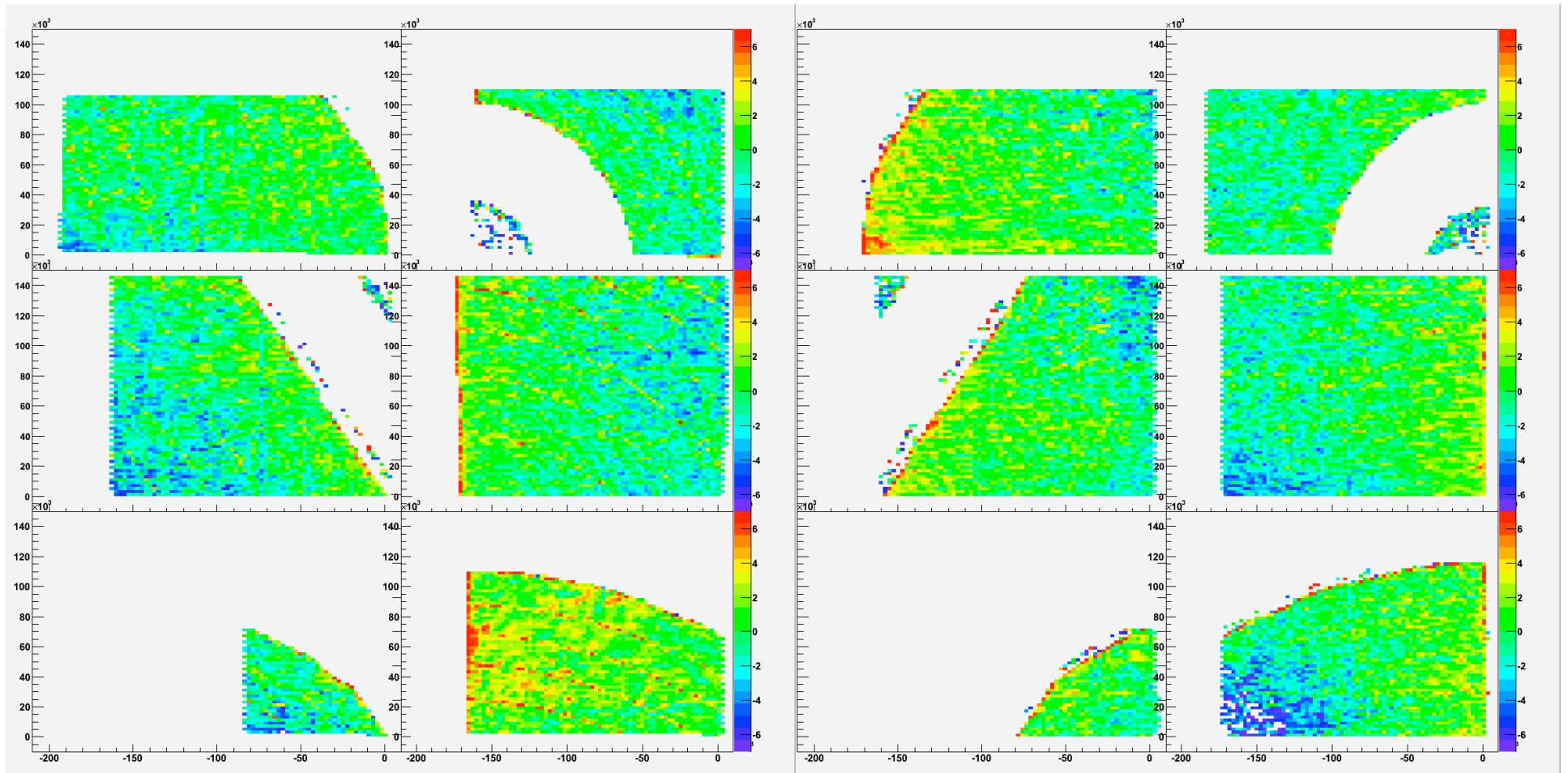
Side 2



Tech-Etch Foil 6 Full Scan: Outer Diameters

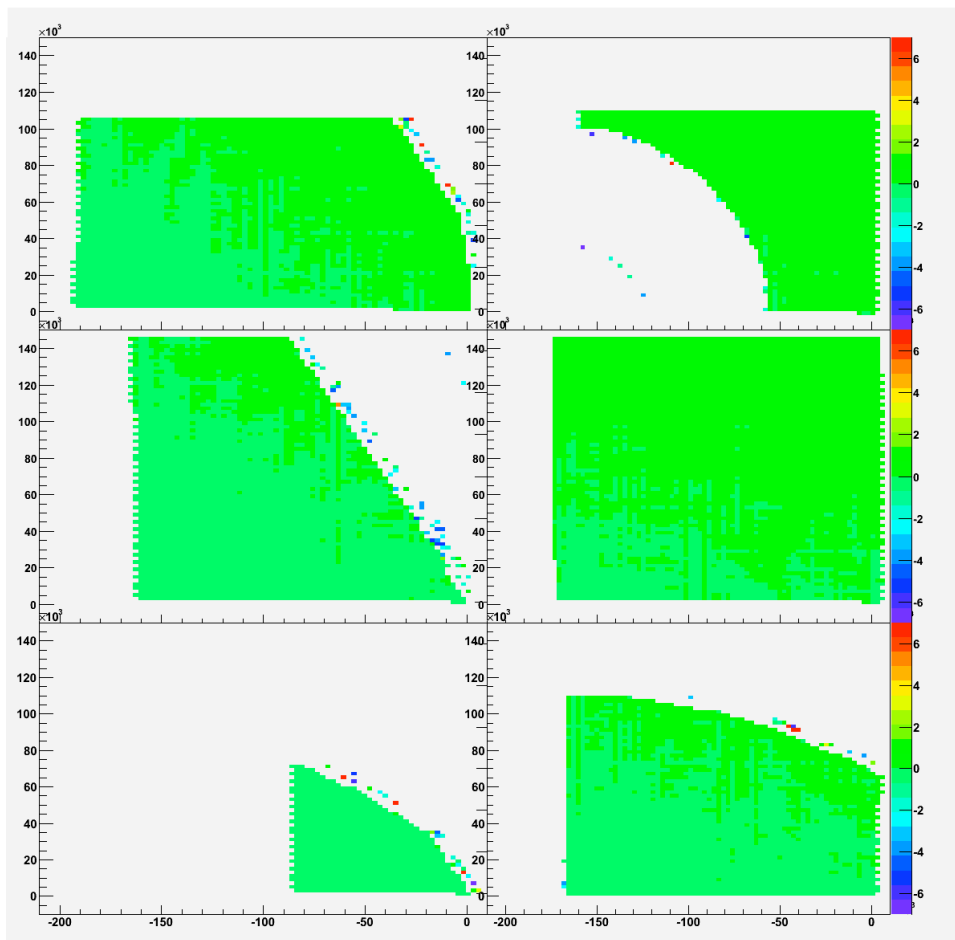
Side 1

Side 2

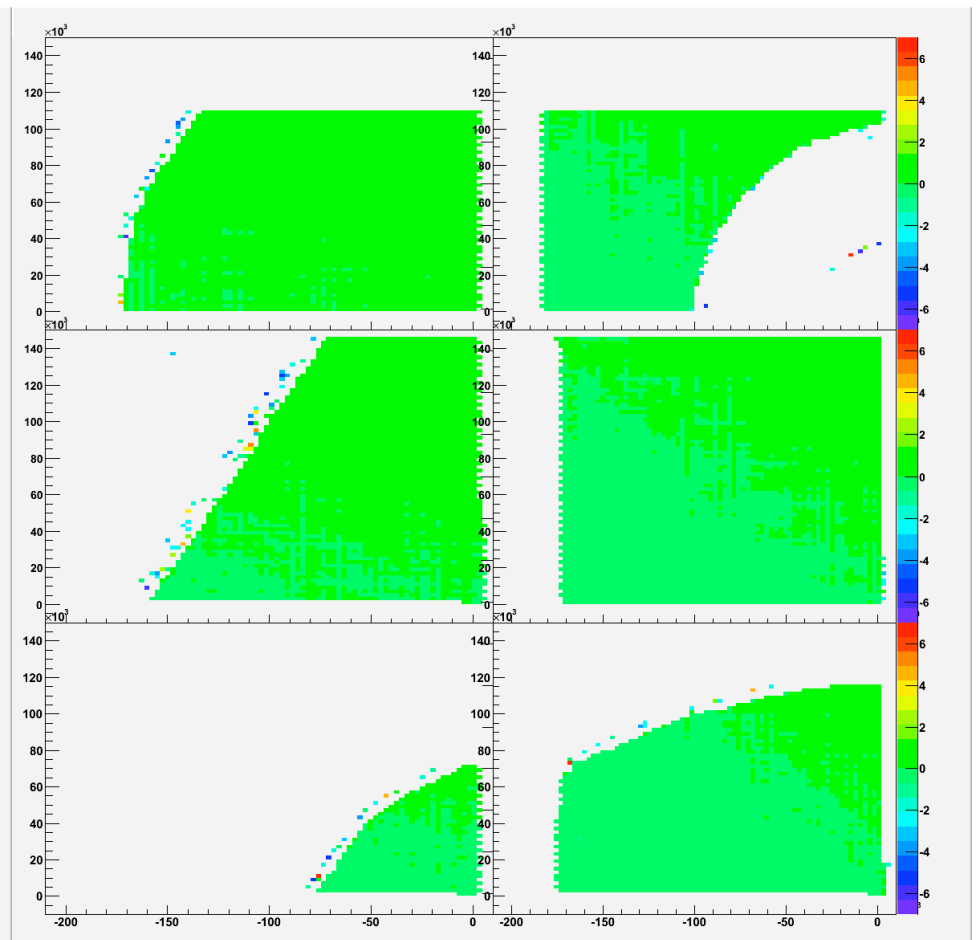


Tech-Etch Foil 6 Full Scan: Pitches

Side 1

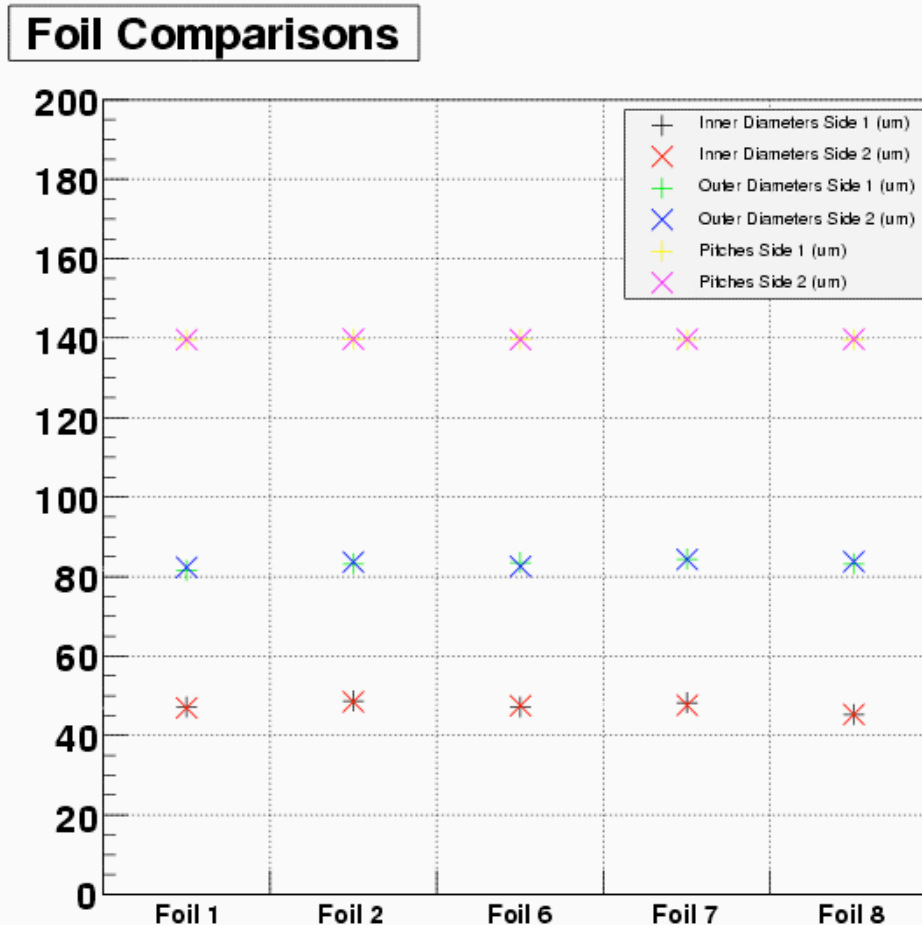


Side 2



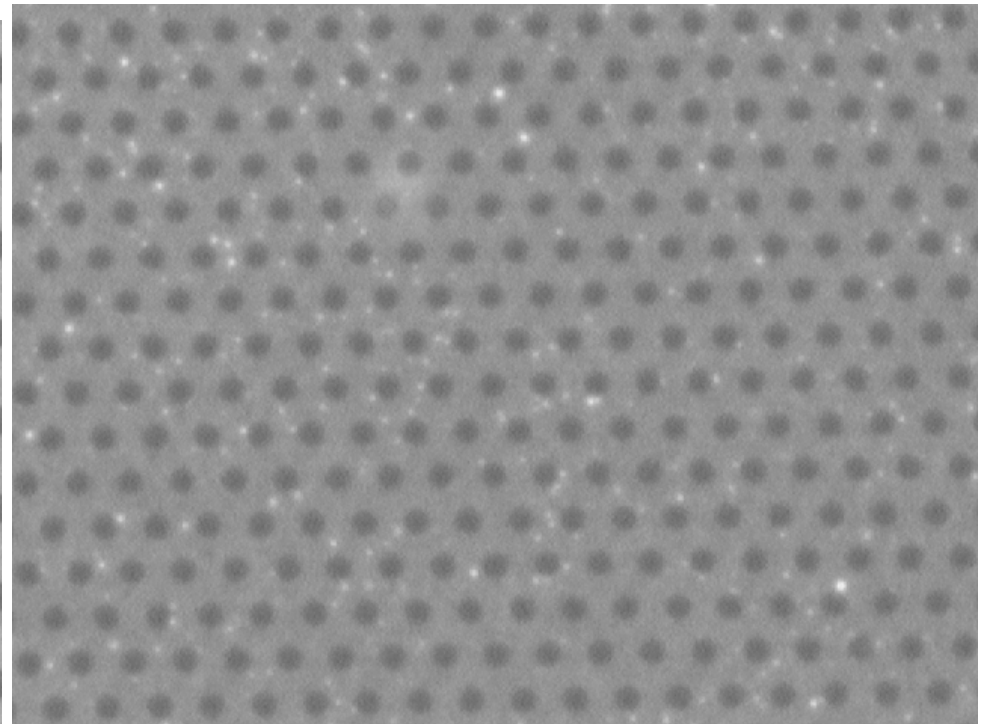
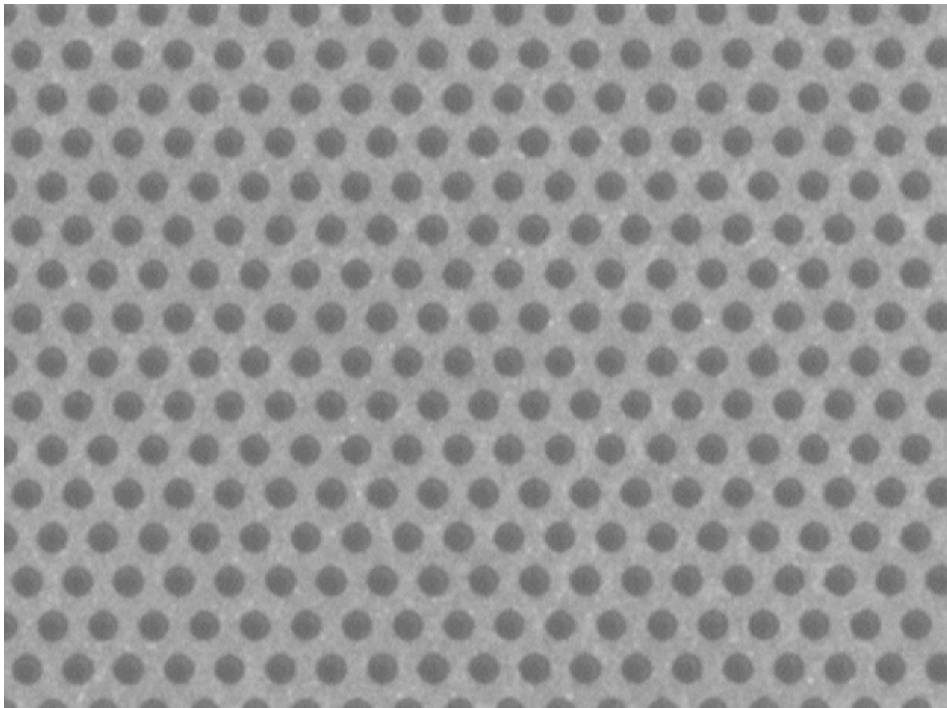
Comparing Tech-Etch Foils

All values are taken from Gaussian fits to the results of random scans, in which 200 pictures are taken randomly for each of the six regions.



Comparing Tech-Etch and CERN Foils

Tech-Etch is on the left, CERN on the right. The 'speckling' visible on the CERN foils makes image processing harder: the images have to be run through a filter to reduce noise.

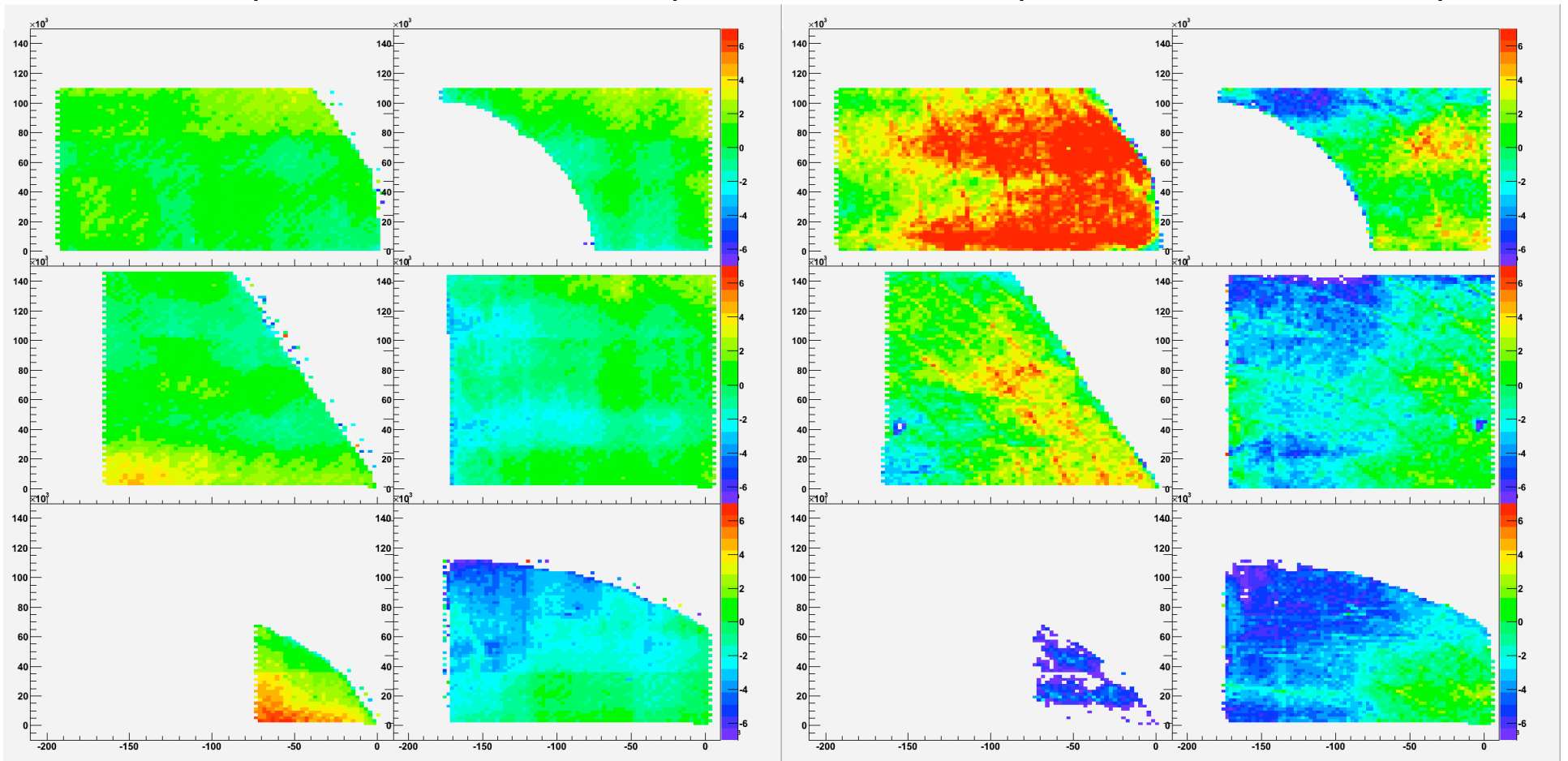


CERN Foil 2 Full Scan: Side 1

Diameters

Inner Diameters, average
53 μm (Tech-Etch, 47 μm)

Outer diameters, average
66 μm (Tech-Etch, 83 μm)



CERN Foil 2 Full Scan: Side 1 Pitches

Average: 140 μm

