First results on electronics tests

Rok Pestotnik, CERN PH-AIT,
S. Kniege

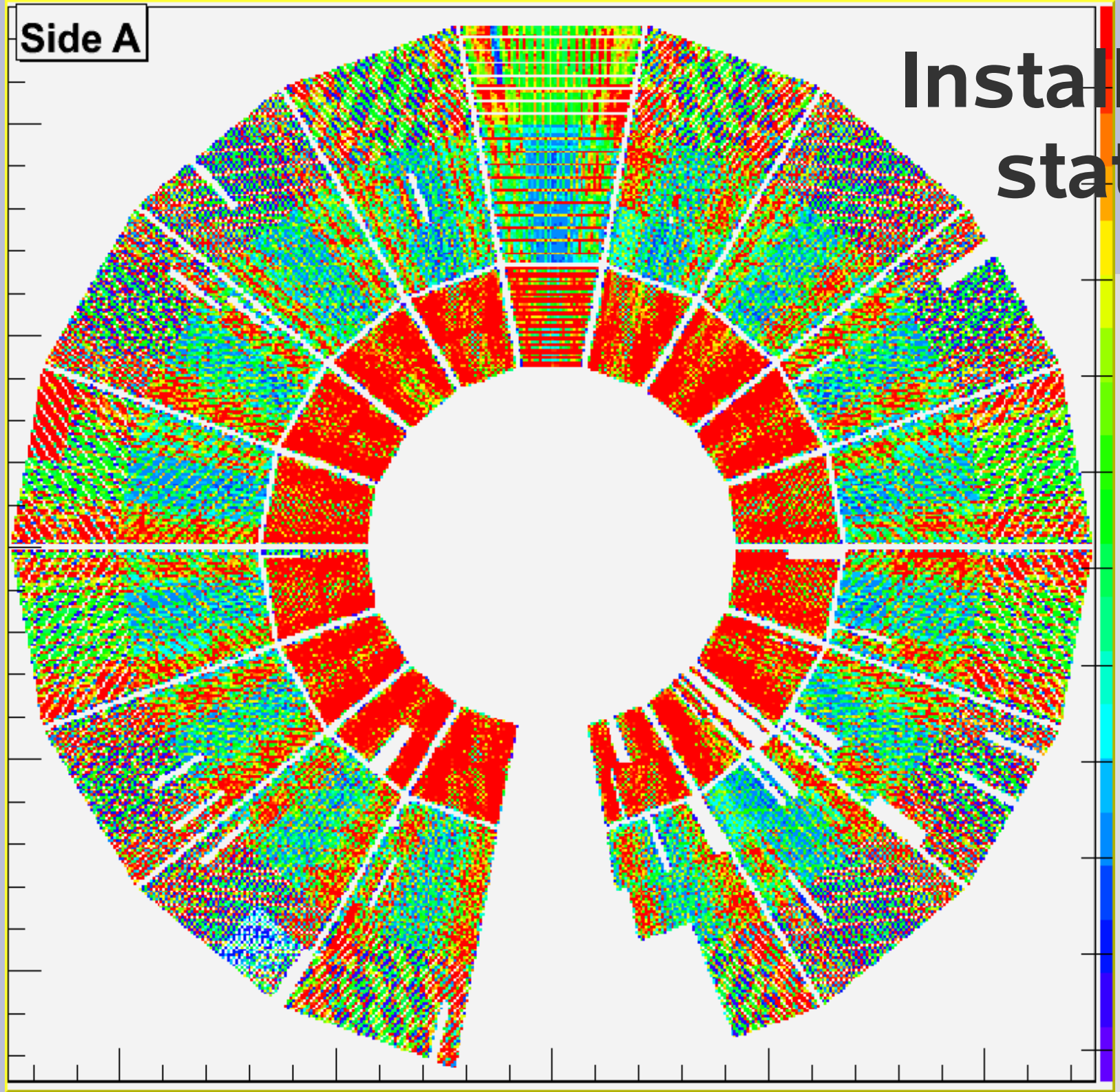
Preparation of the tools for displaying the calibration data

- The goal:
  - check the connections of the FEC
  - check the consistency of the mapping
    - electronic channell – pad position
  - check the uniformity of the ROC
  - sector maps of relevant calibration quantities
- During the installation the response of the FEC to the pulser is measured:
  - normally cathode plane is pulsed using a pulse gen.
  - on several places half of the gating grid was pulsed instead

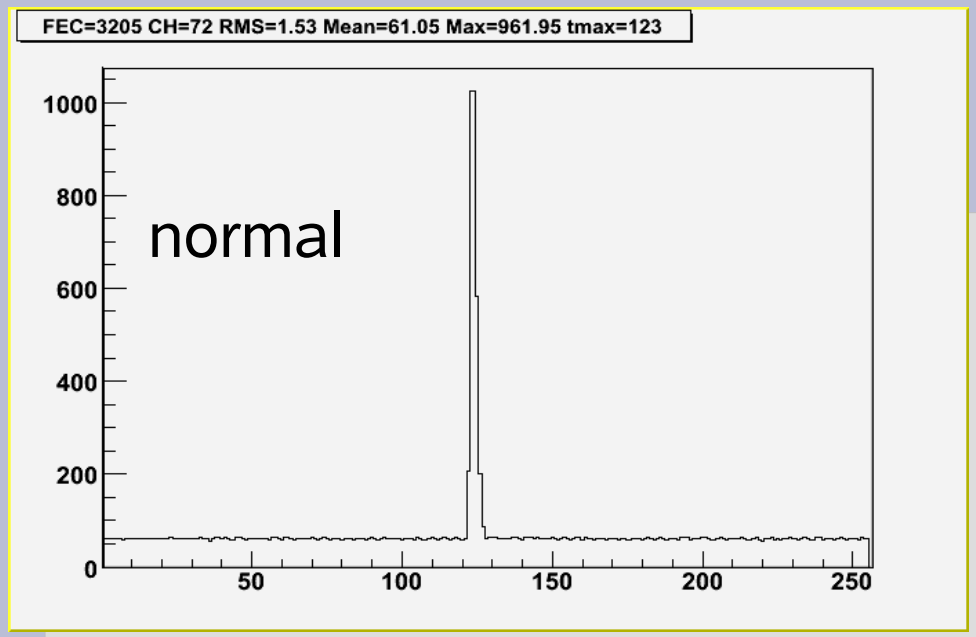
We have tools

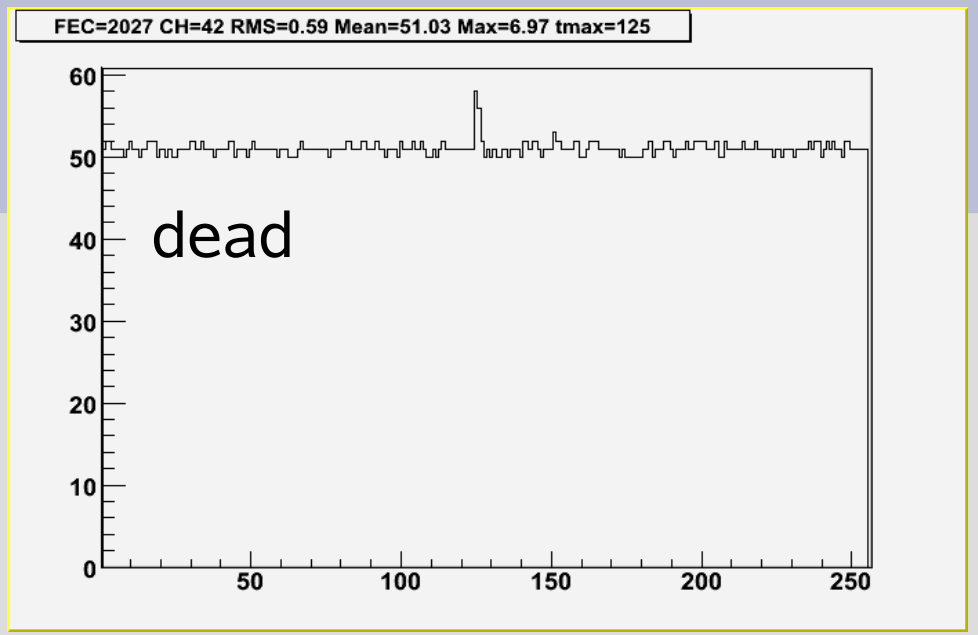
- to detect the mapping inconsistencies
- to display the sector map of the data
- to display particular sectors
- to display particular channels
- We are also able to display the cosmics and laser tracks signals

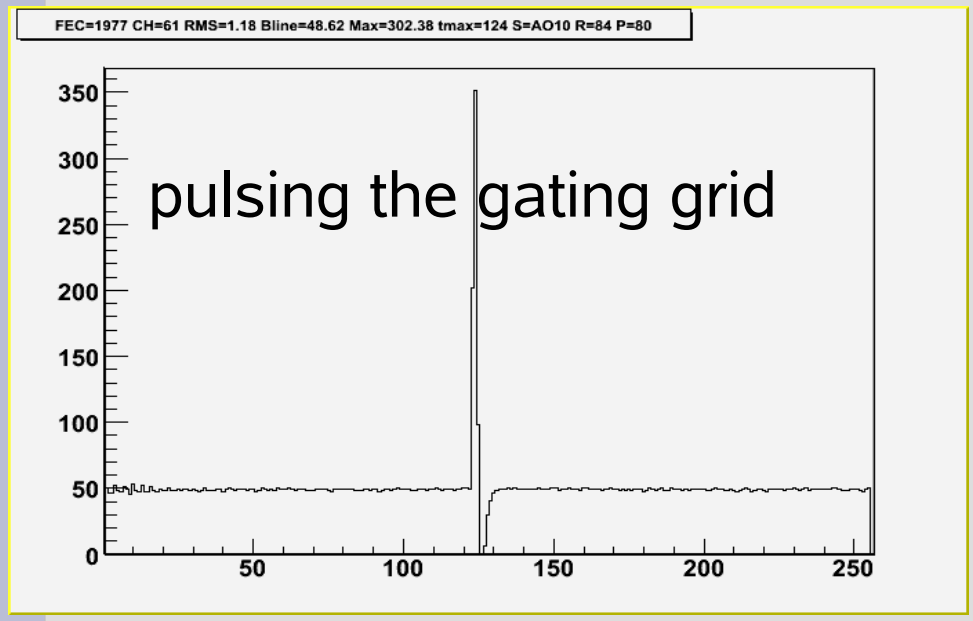
Installation status

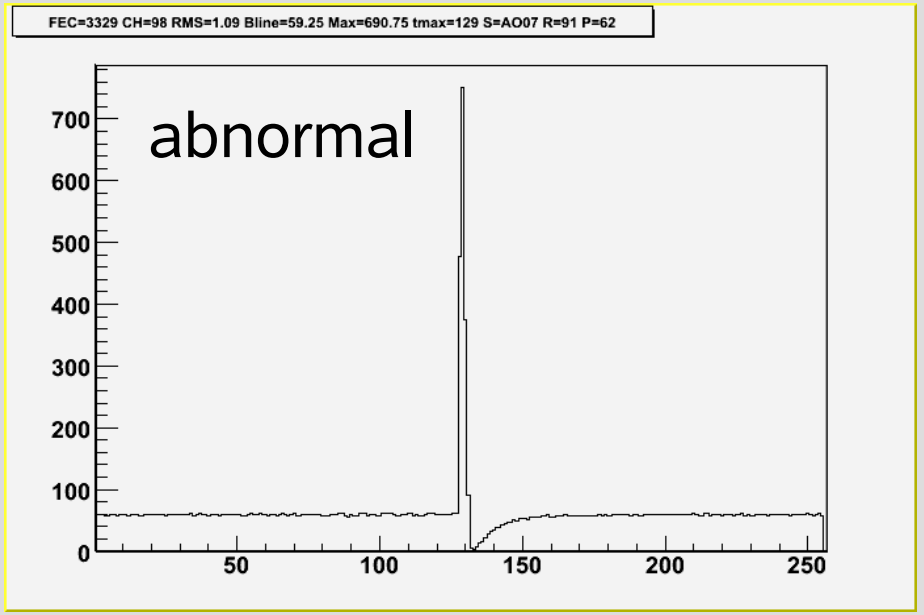


Signals

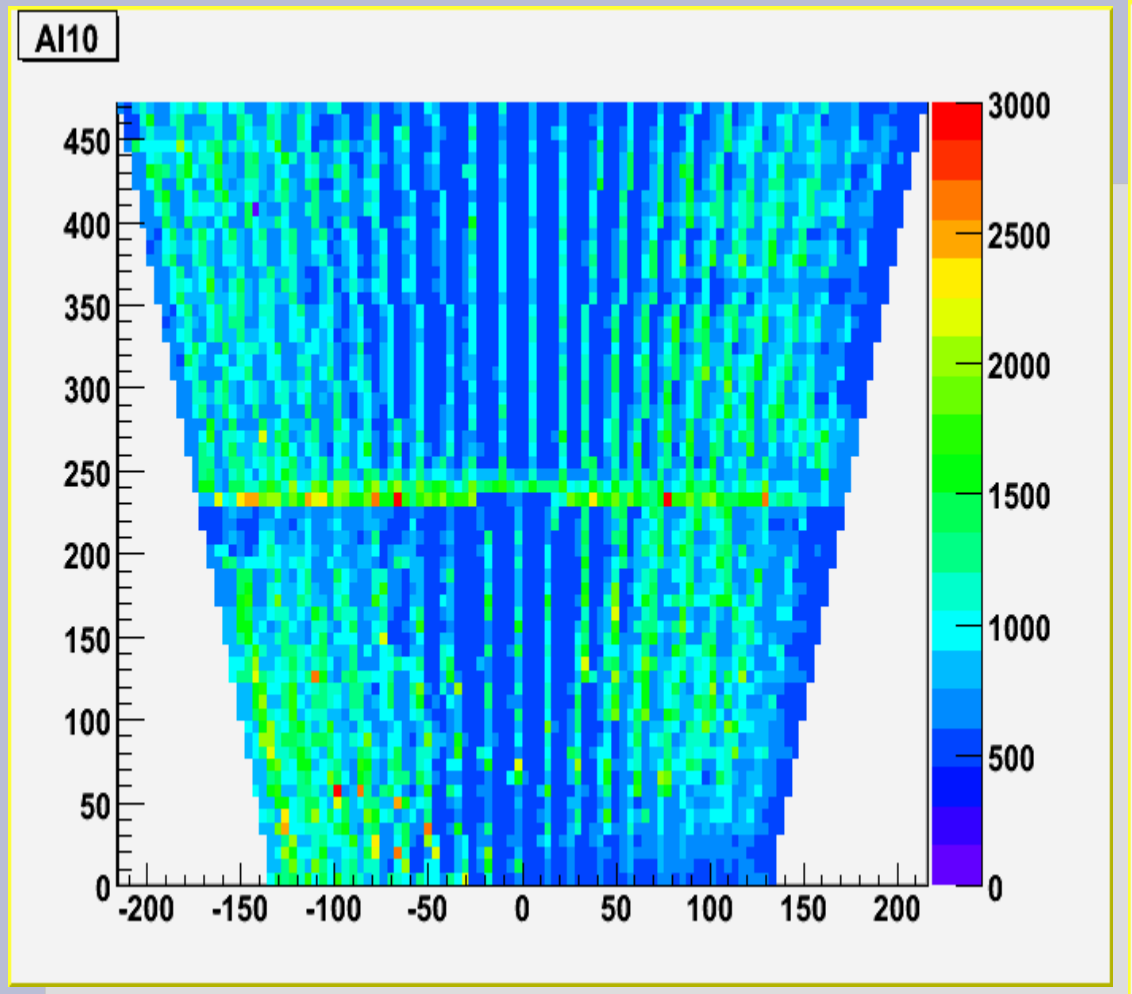

FEC=3205 CH=72 RMS=1.53 Mean=61.05 Max=961.95 tmax=123
normal

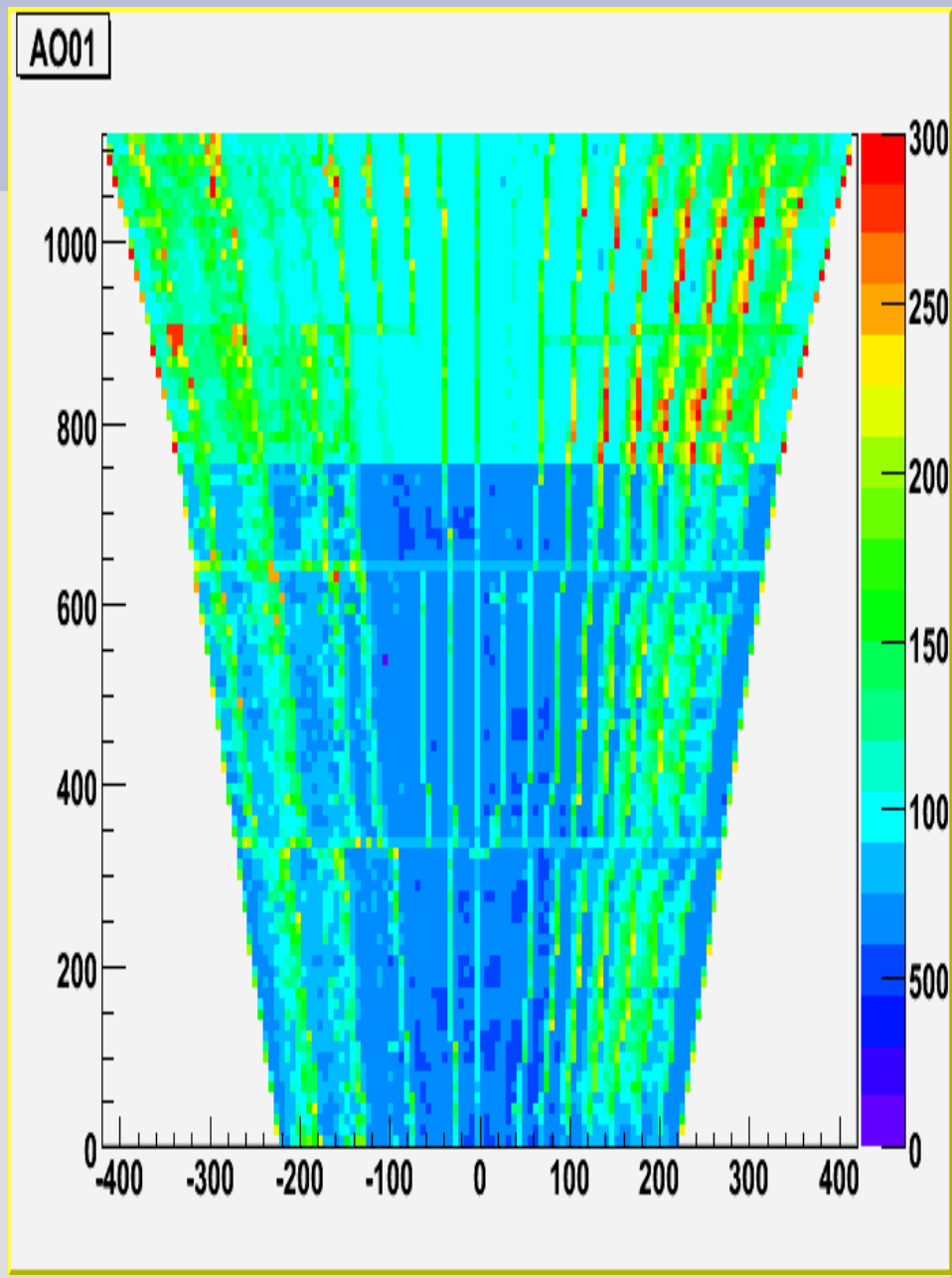

FEC=2027 CH=42 RMS=0.59 Mean=51.03 Max=6.97 tmax=125
dead


FEC=1977 CH=61 RMS=1.18 Bline=48.62 Max=302.38 tmax=124 S=AO10 R=84 P=80
pulsing the gating grid


FEC=3329 CH=98 RMS=1.09 Bline=59.25 Max=690.75 tmax=129 S=AO07 R=91 P=62
abnormal

ROC map: pulse peak area

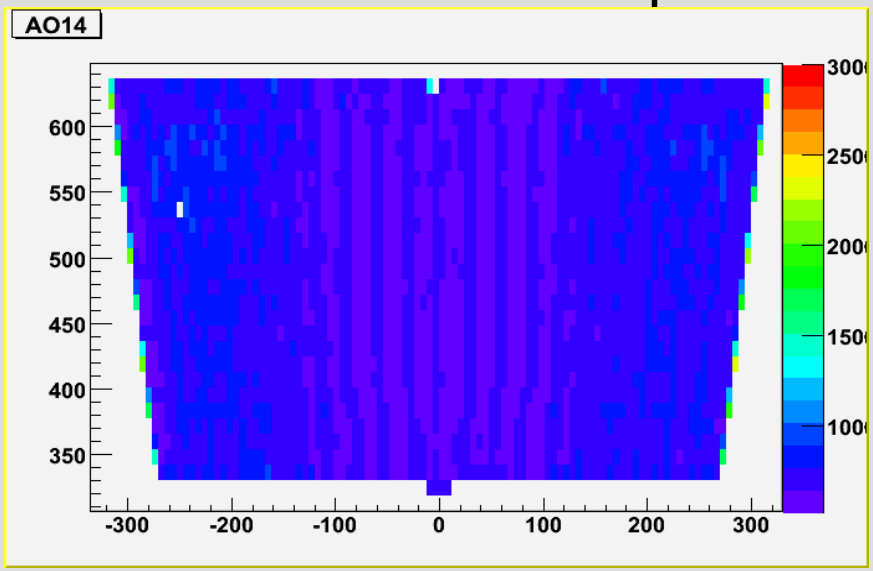




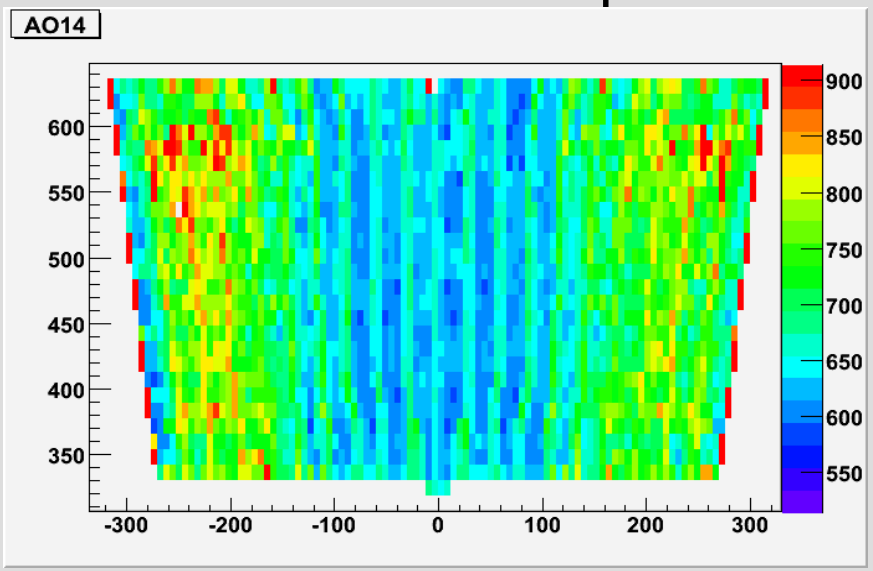
- Repetitive structure:
  - The signals are higher on the channels with the neighbours unconnected

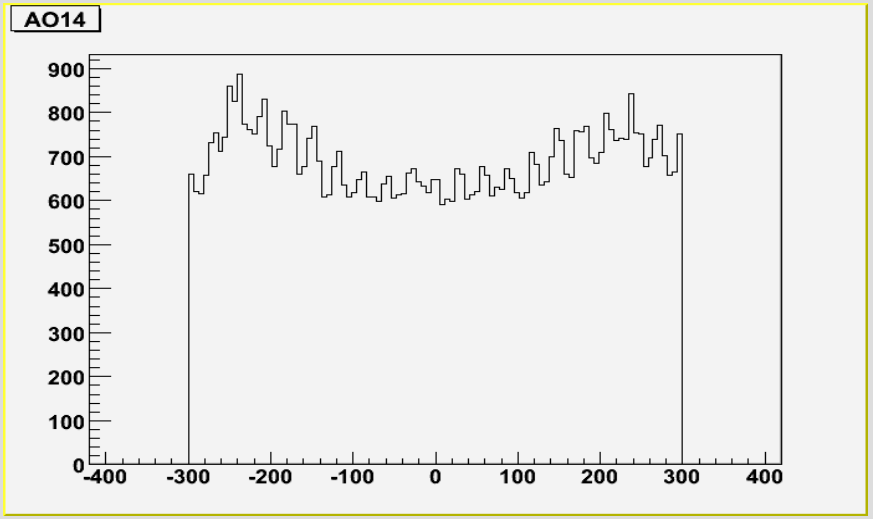
Single partition

- The single partition remeasured:
  - connect the FEC to the ground bars
  - all ROC equipped with the readout FECs
    - same color depth



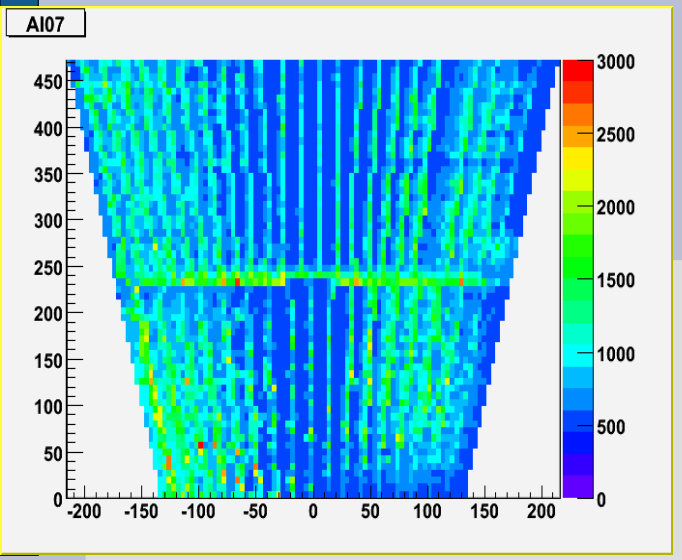
increase color depth



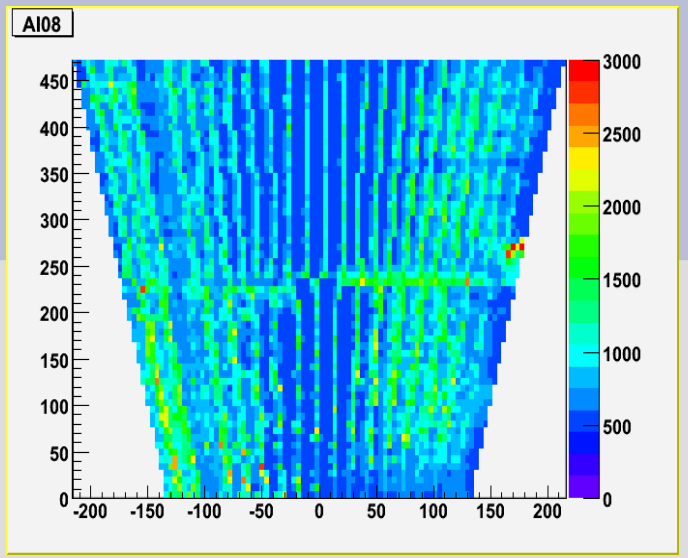


- The gain at the edges is higher for about 25%
- We expect the uniform response when all FEC are powered

Inner ROC



AI07



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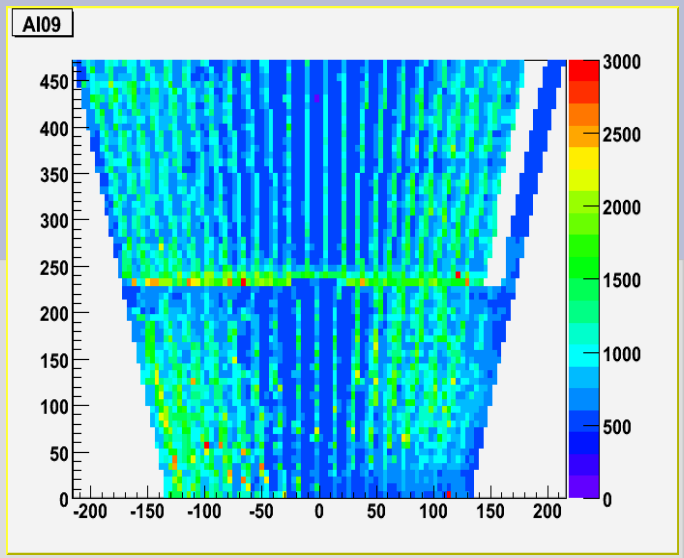

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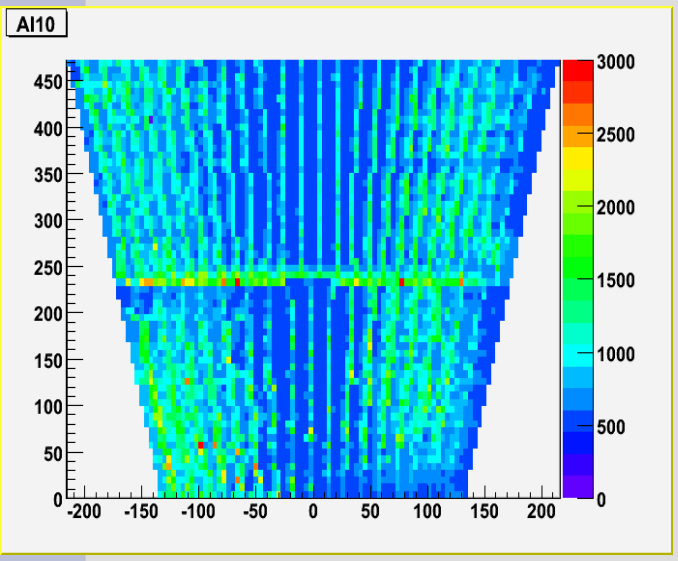

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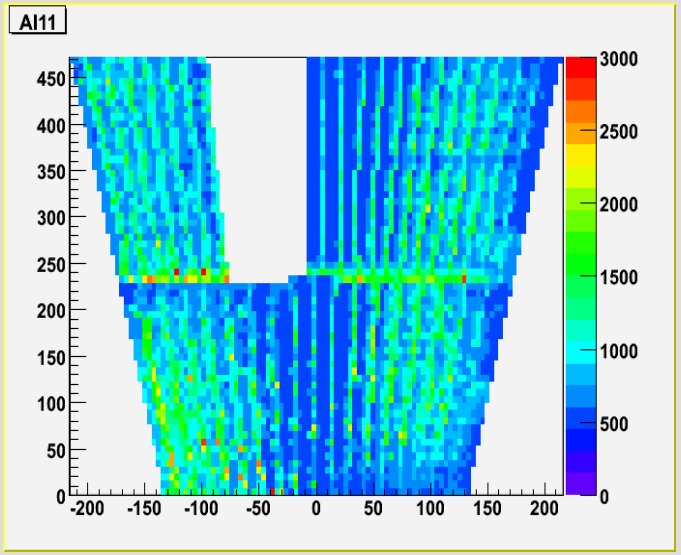
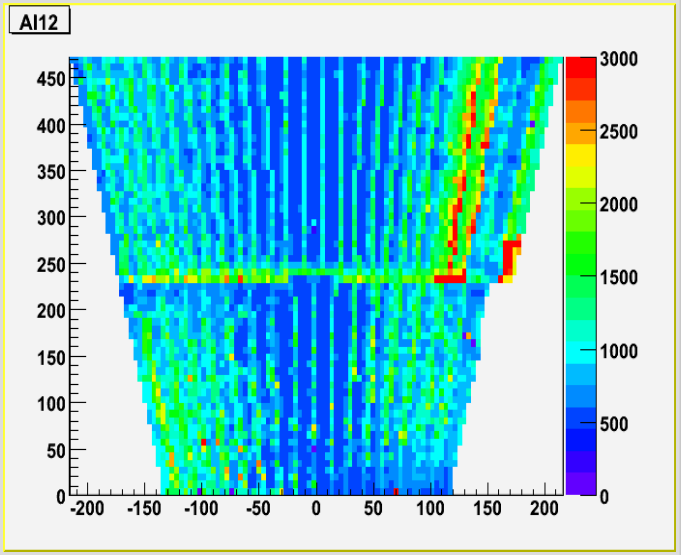
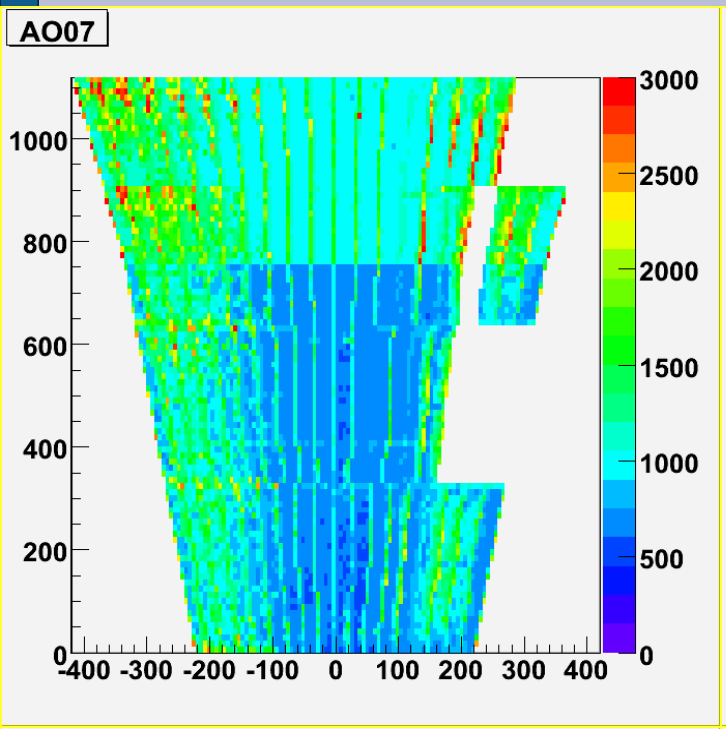


AI11



AI12

Outer ROC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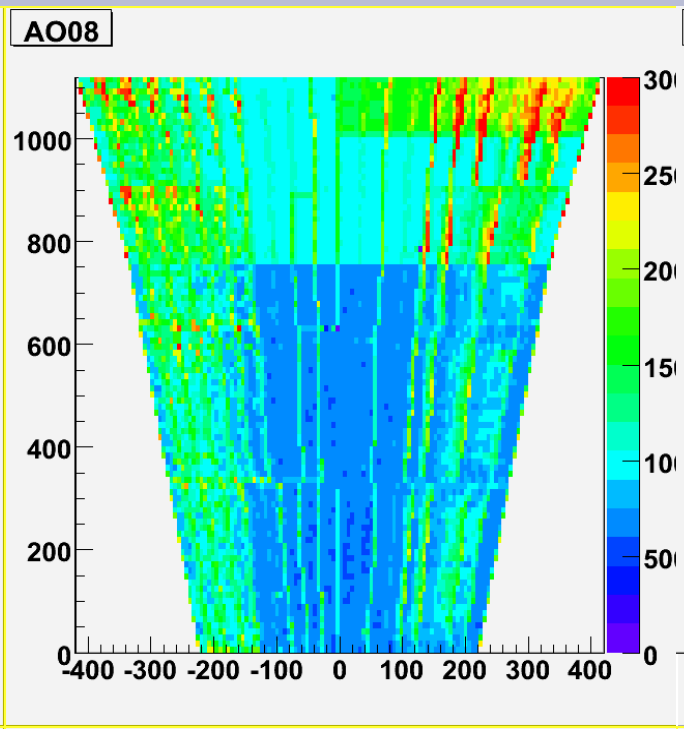
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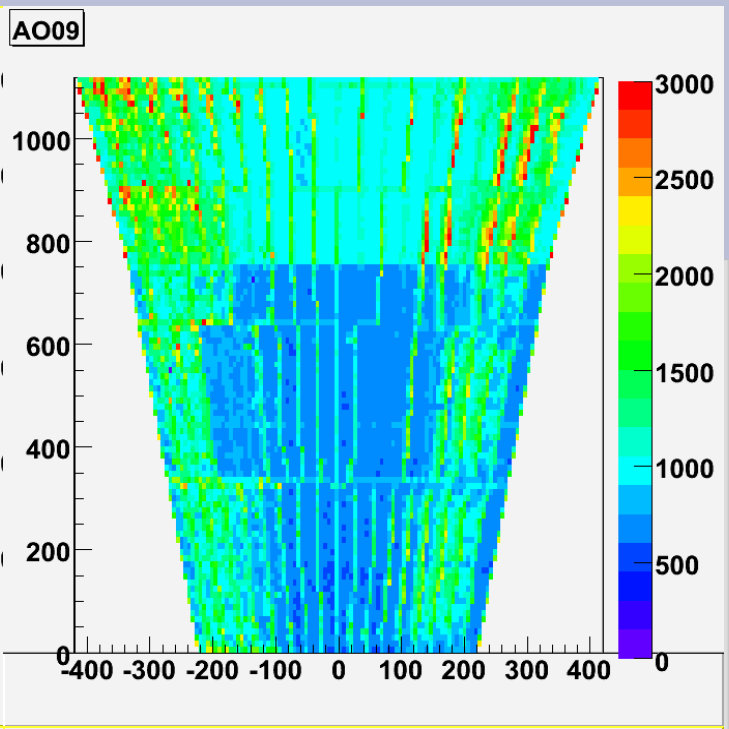
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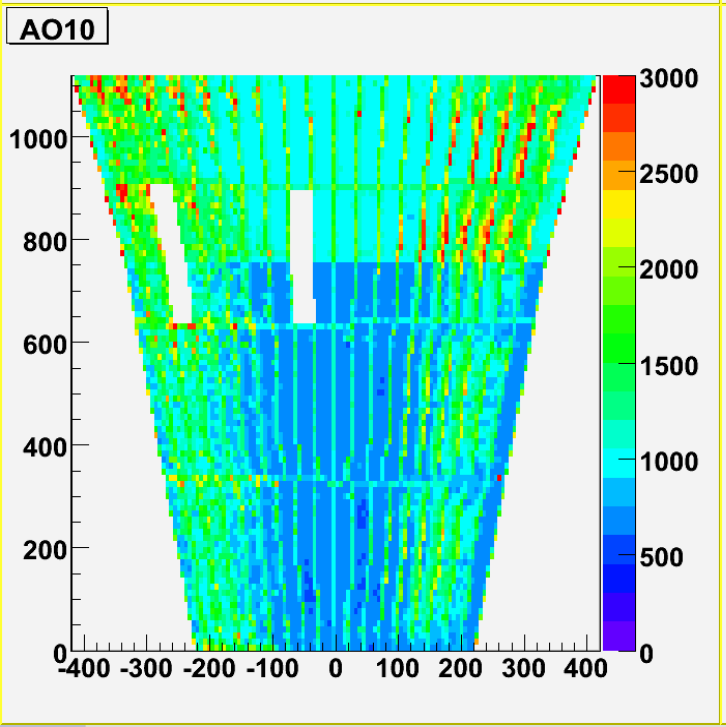
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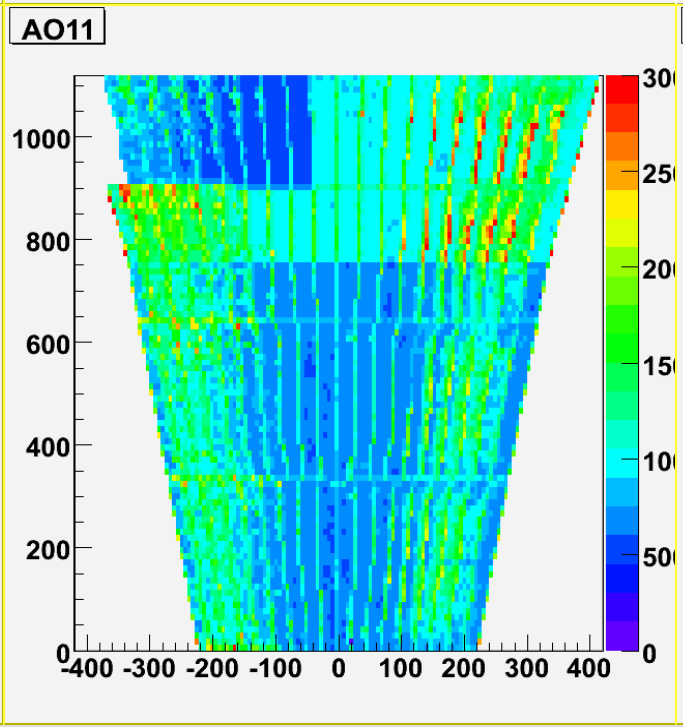
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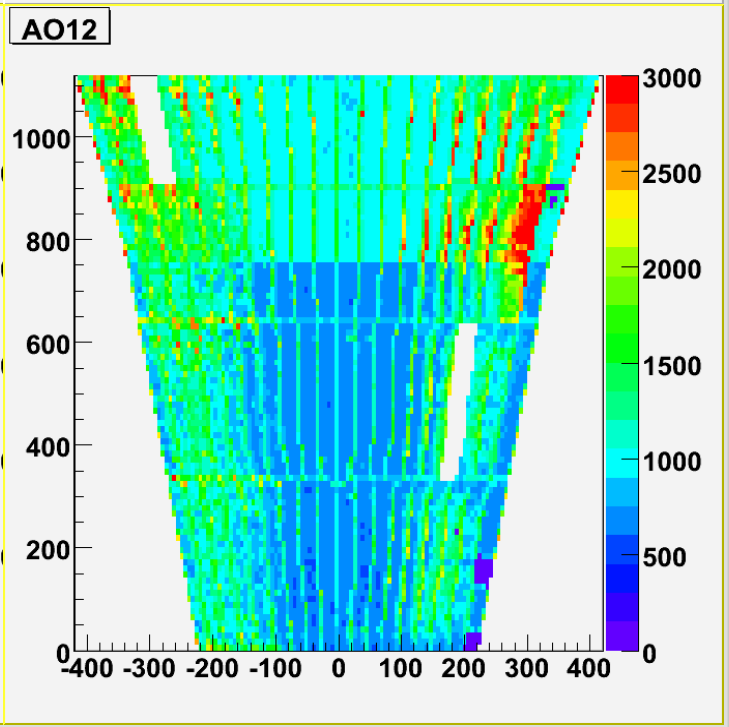
AO12
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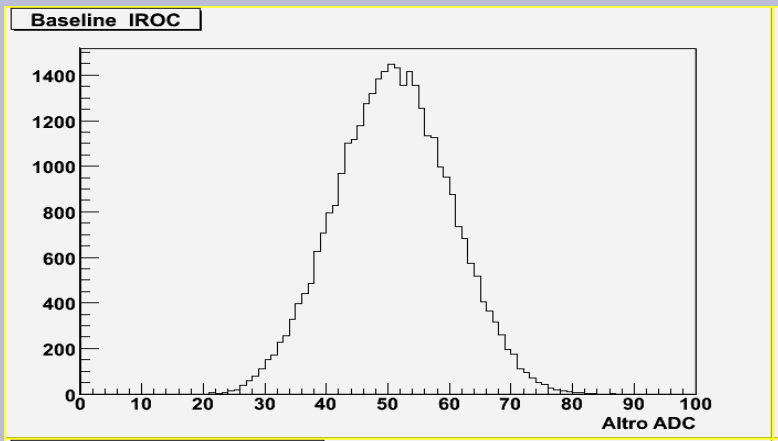
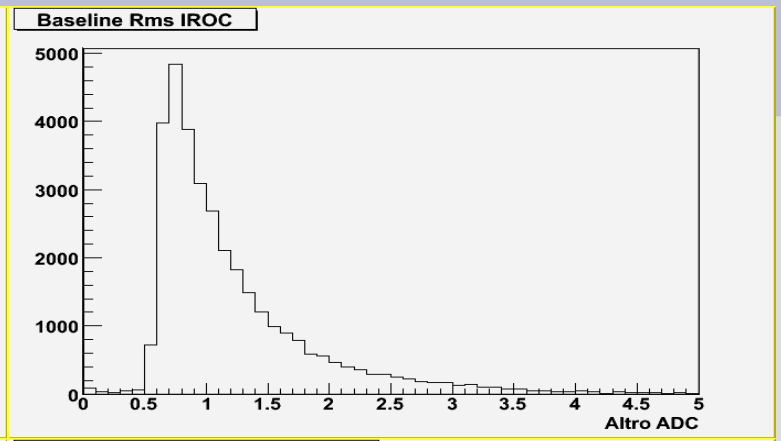
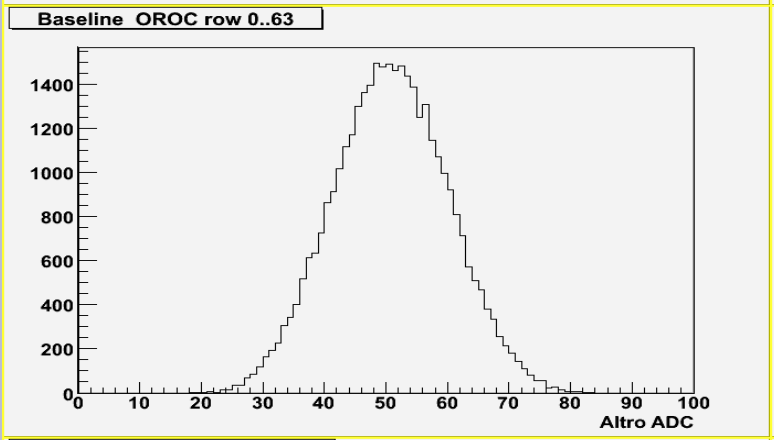
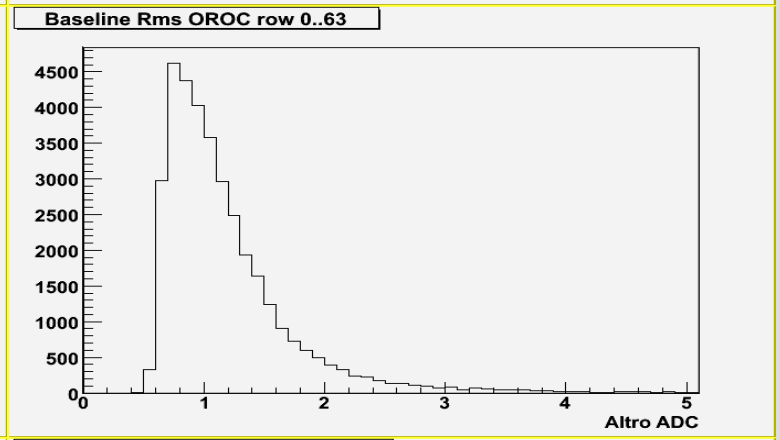
Comulative statistics

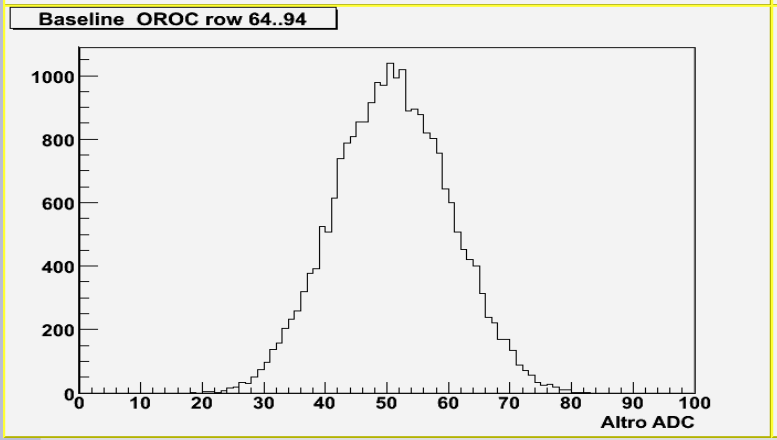
- Baseline RMS

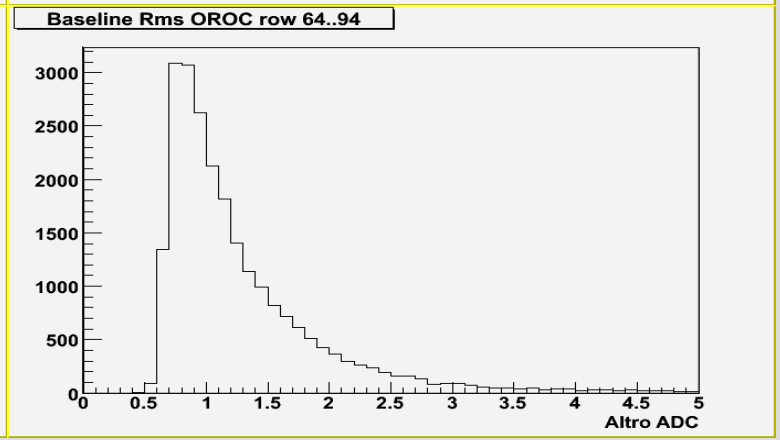


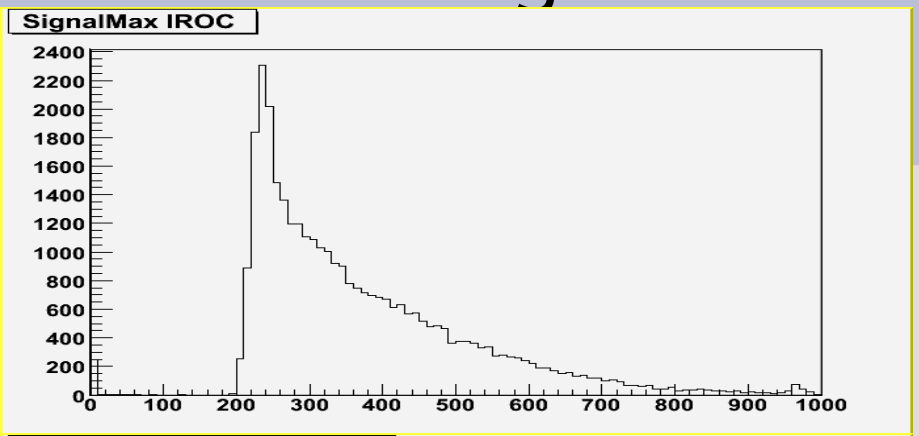
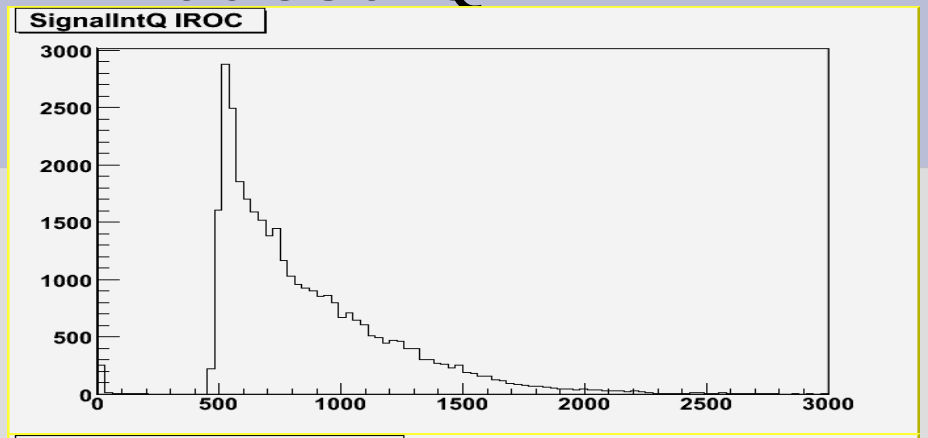
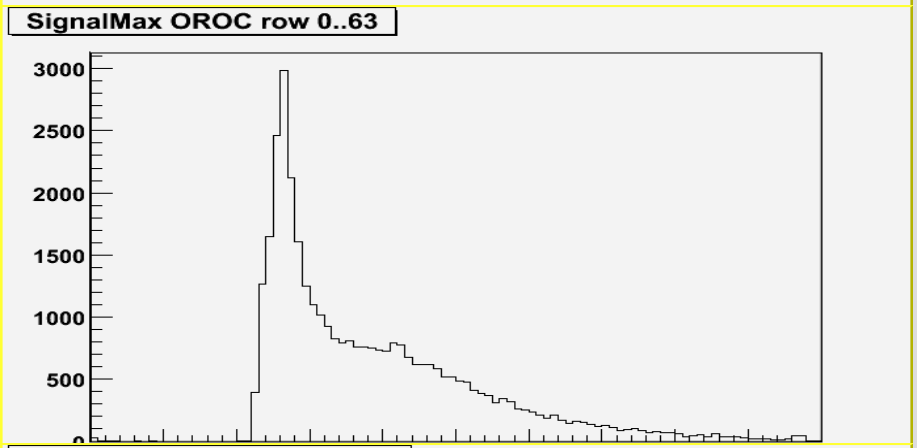
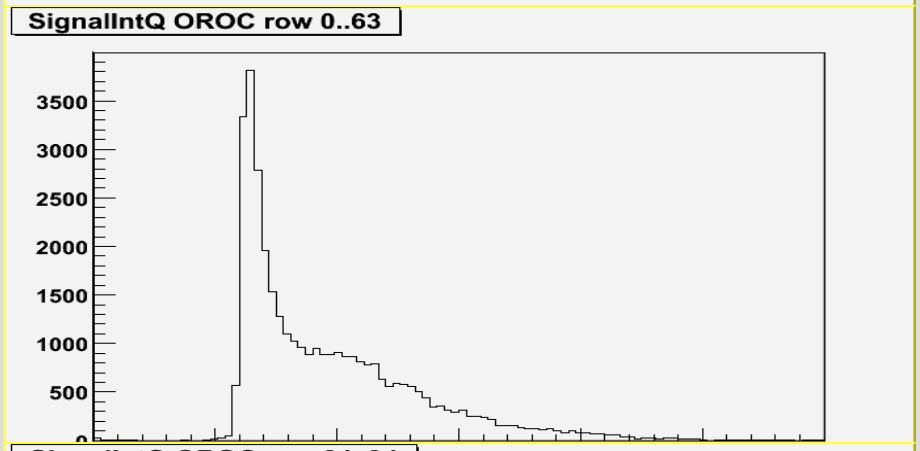
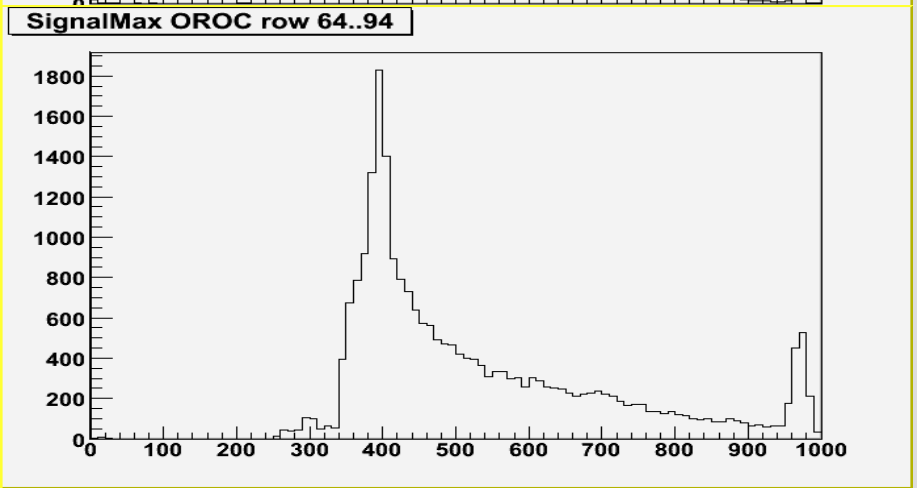
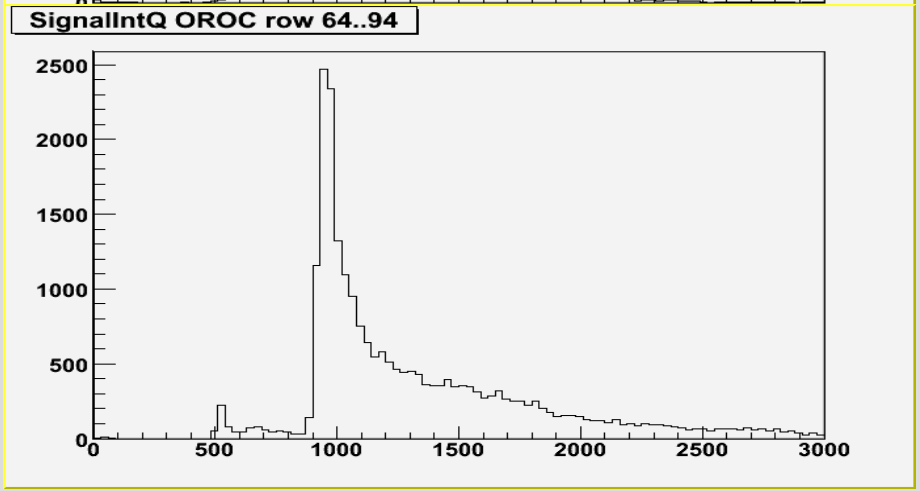










Comulative statistics

- Max Signal induced Q