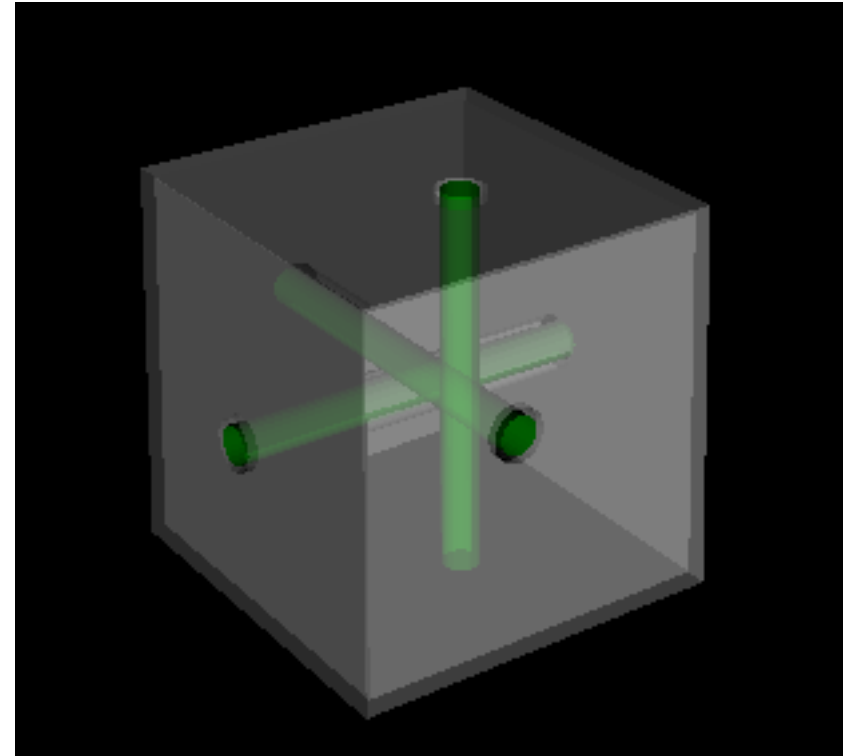
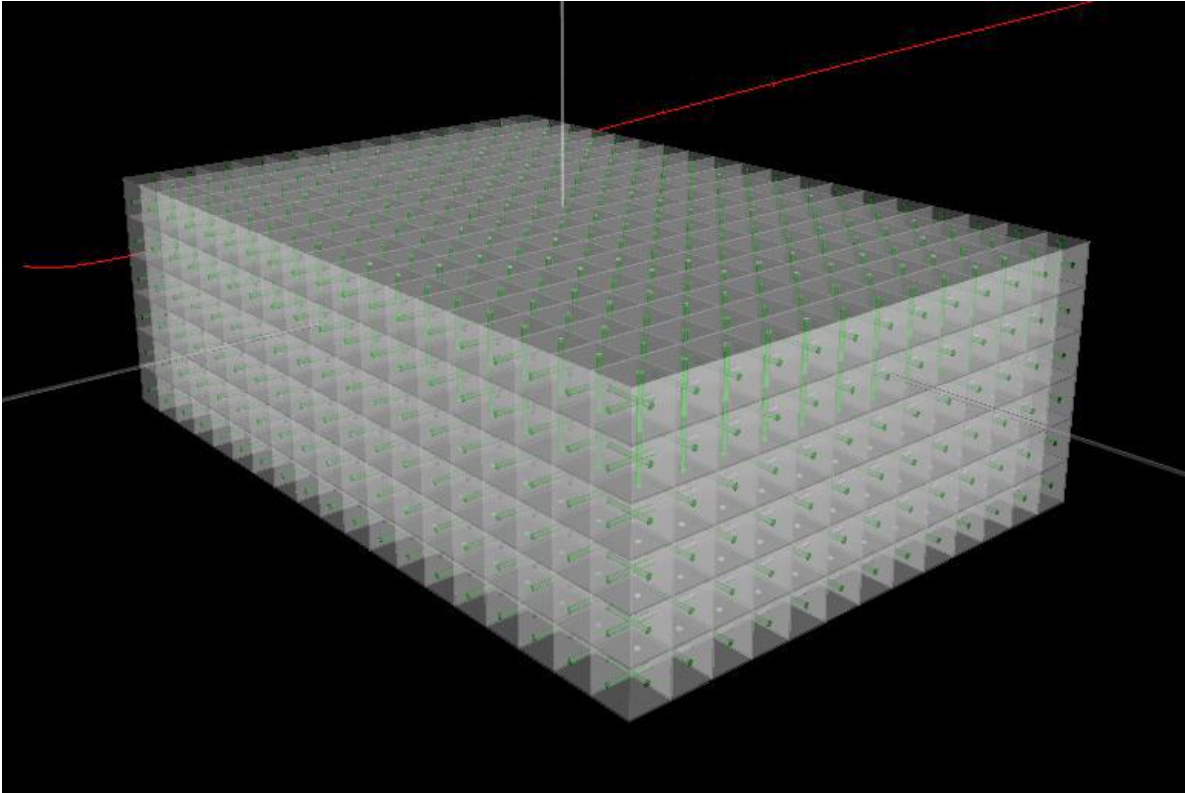


RE13 T2K sFGD (SuperFGD) Brief Status

5th July 2018

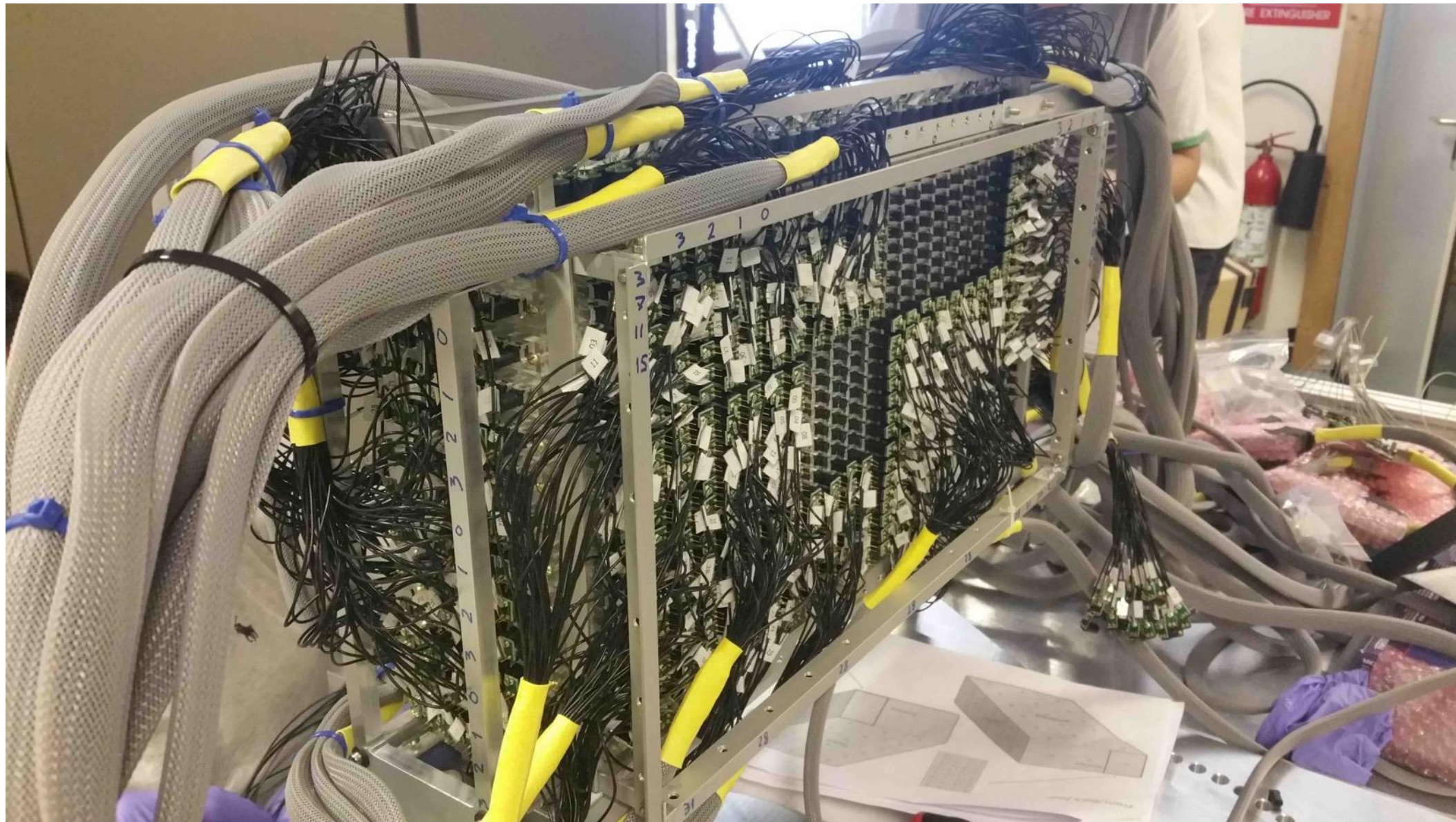
SuperFGD concept



Cubes: 1 x 1 x 1 cm

Three fibers through each cube

Partially assembled sFGD



Installation at T9 in the East Area



T9 control room: 4th July 2018, 14:20 CEST

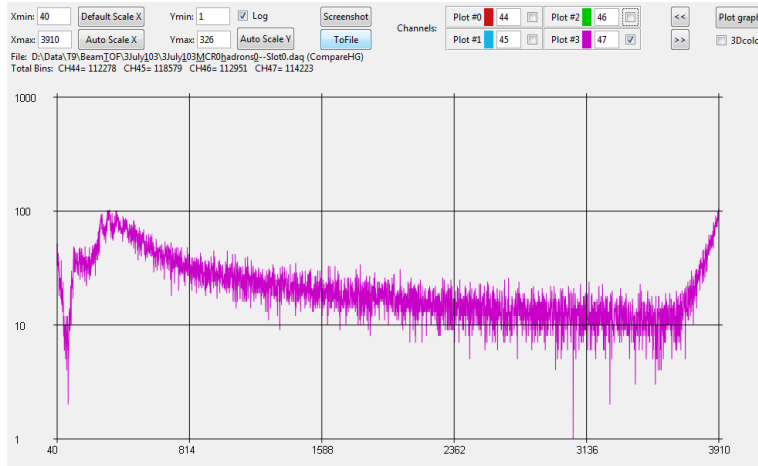
Organisation of shifts:

- 2 shifts/day: 8hr/shift
- 4-6 shifters per shift

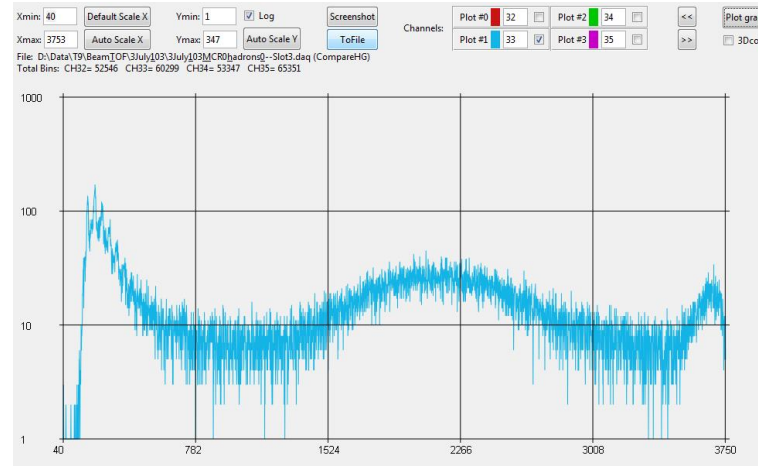
- Probably move to 3 shifts/day over week-end



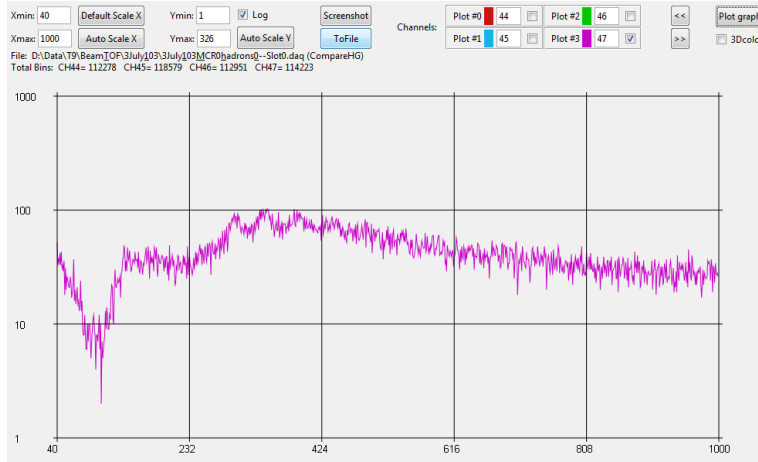
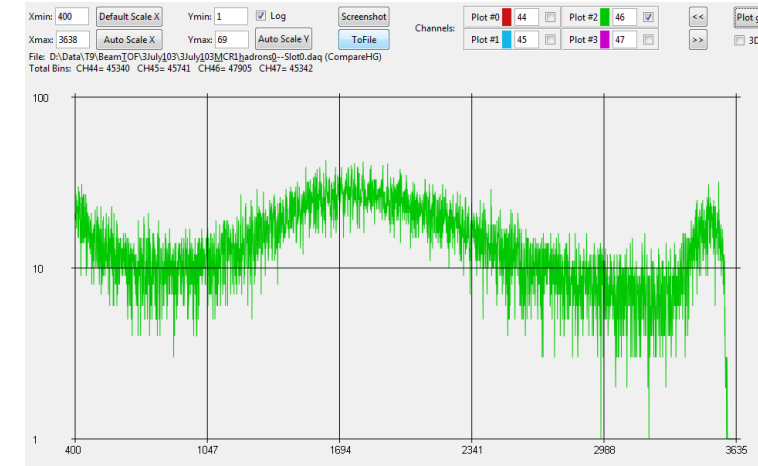
Type I (S13360-025CS)



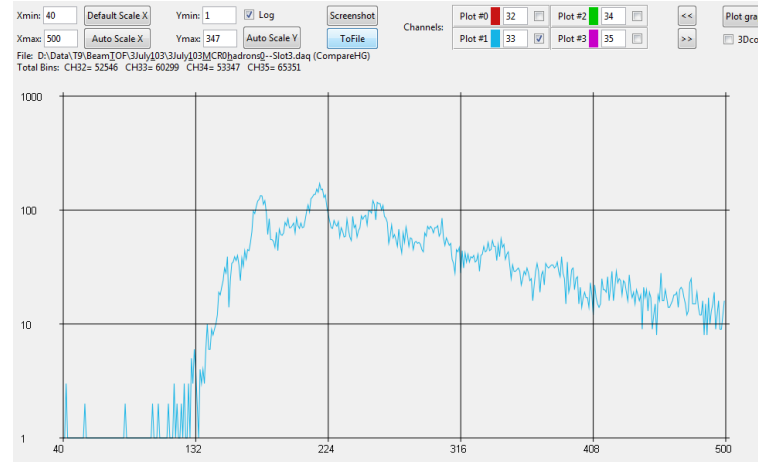
Type II (S13081-050CS)



Type III (S12571-025C)



Fiber along z-axis



Fiber along y-axis

Set a high FPGA threshold=400
for the type III
Can always calibrate these easily
from dark counts

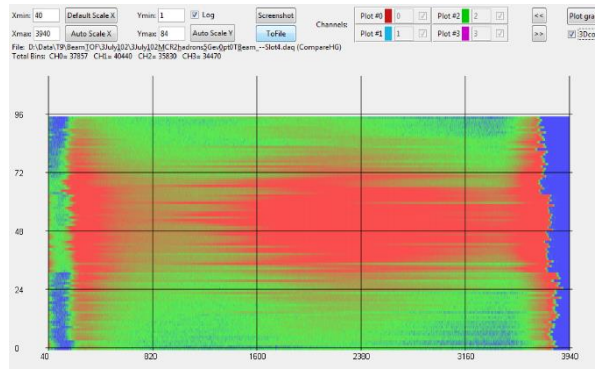
Fiber along y-axis

Top face: High Gain

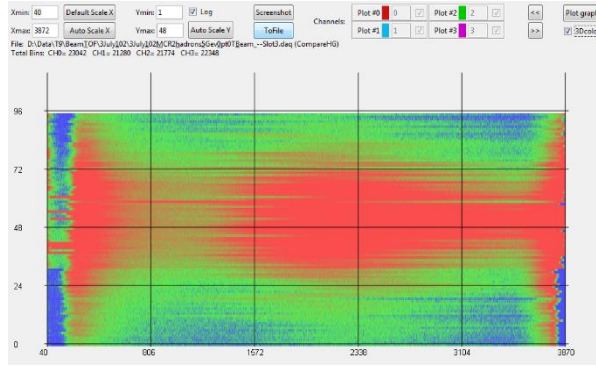
5 GeV muons: collimators 30 mm

High gain settings could be improved
Fpga threshold set to 40...
Discriminator_dac=280
Shaper_tc=3
L1_HoldHG=4000

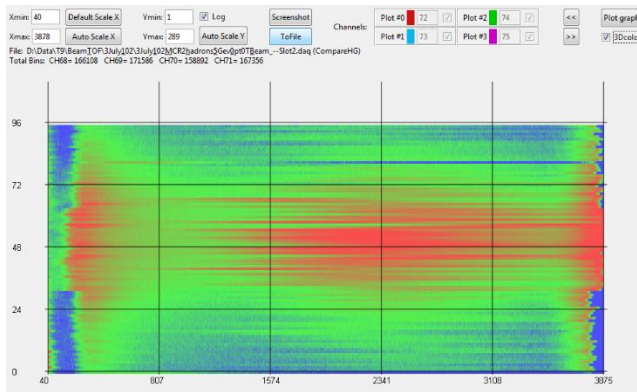
30, 31, 32



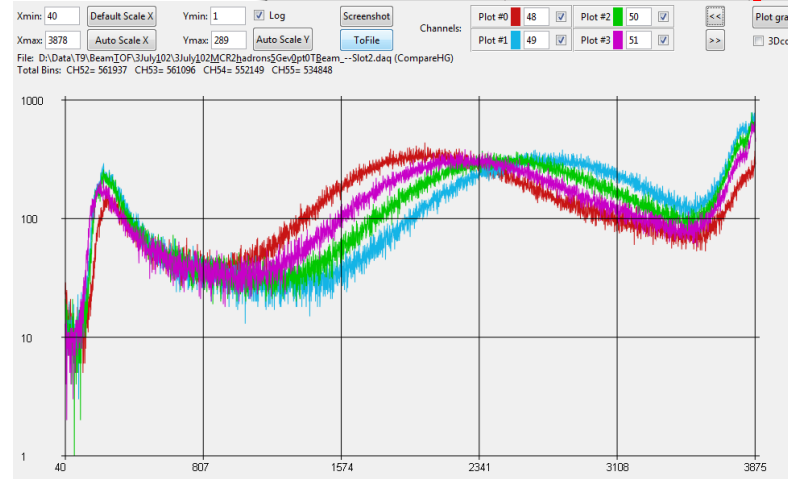
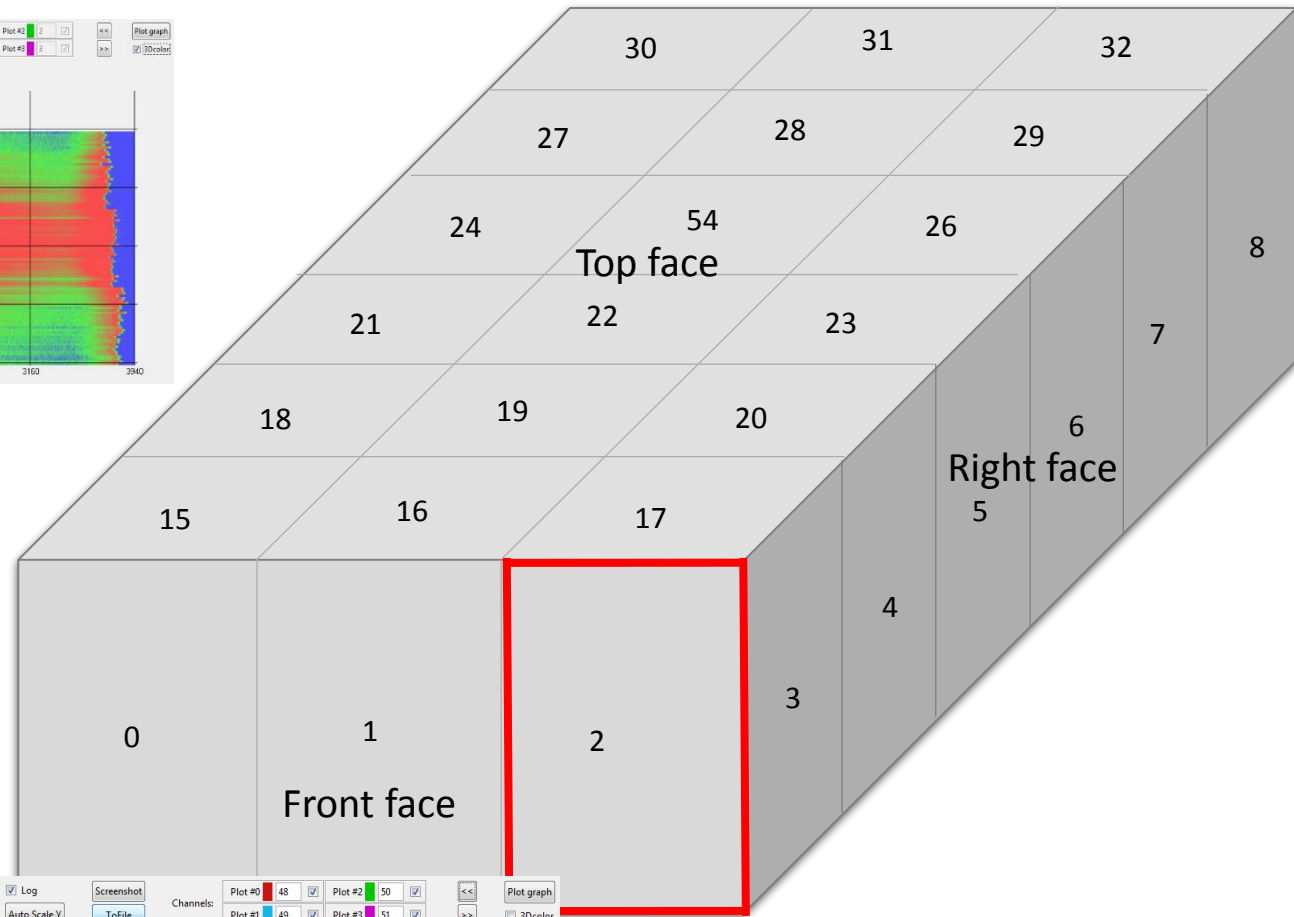
27, 28, 29



24, 54, 26



Crosstalk?



Plan over next few days

- Study performance of detector,
 - Light yield, calibration, event reconstruction.
- Scan beam momentum from 0.5 to 5 GeV/c
 - “Pion” and “muon” beam.
- Study stopping protons (dynamic range, crosstalk)
- Photon beam from Monday 9th July depending on progress with above:
 - Use MDX magnet.

