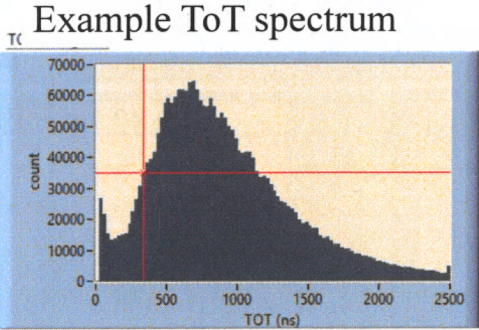# Some comments

Jan Timmermans
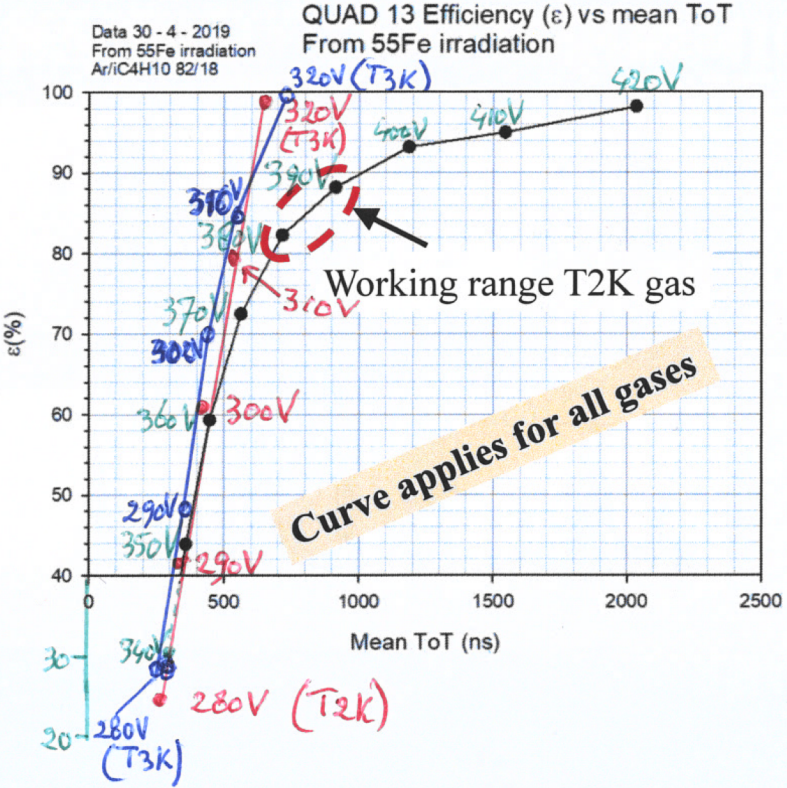
Updates to slide by Fred in previous (9 May 2019) meeting

Deduced from 18% iC4H10 measurements:
Single electron efficiency vs mean ToT

- For Mean ToT = 1000 ns we have 90% SE efficiency

- During testbeam:
- Look at **mean ToT => SE efficiency**

Example ToT spectrum

Nikhef/Bonn LepCol meeting. Nikhef. May 6, 2019

QUAD 13 Efficiency (ε) vs mean ToT
From 55Fe irradiation

Data 30 - 4 - 2019
From 55Fe irradiation
Ar/iC4H10 82/18

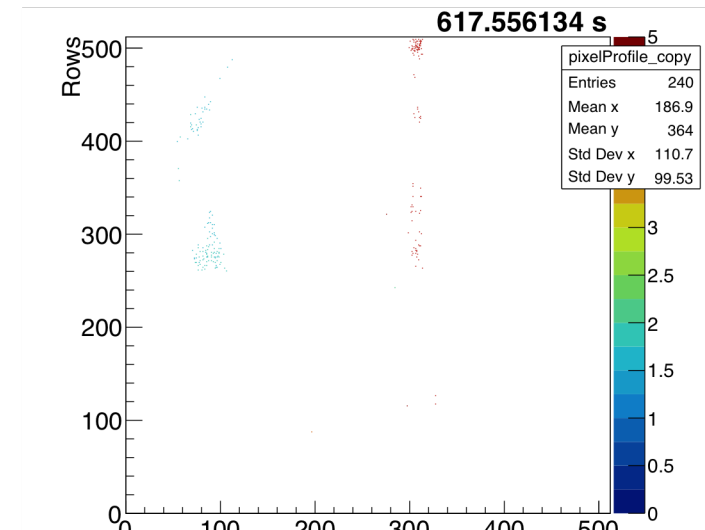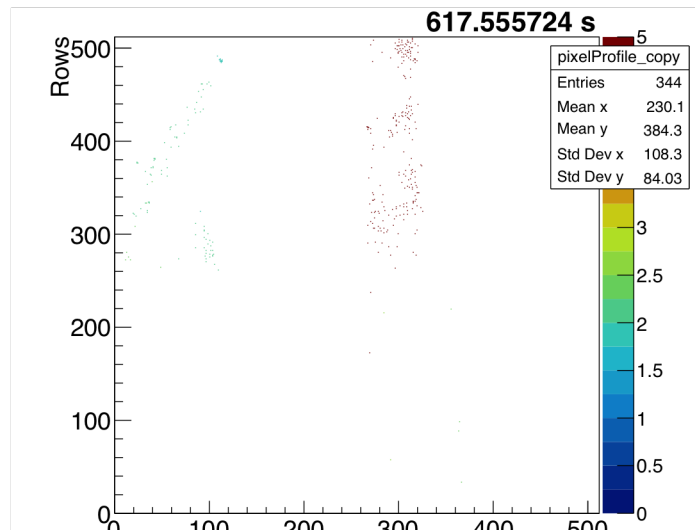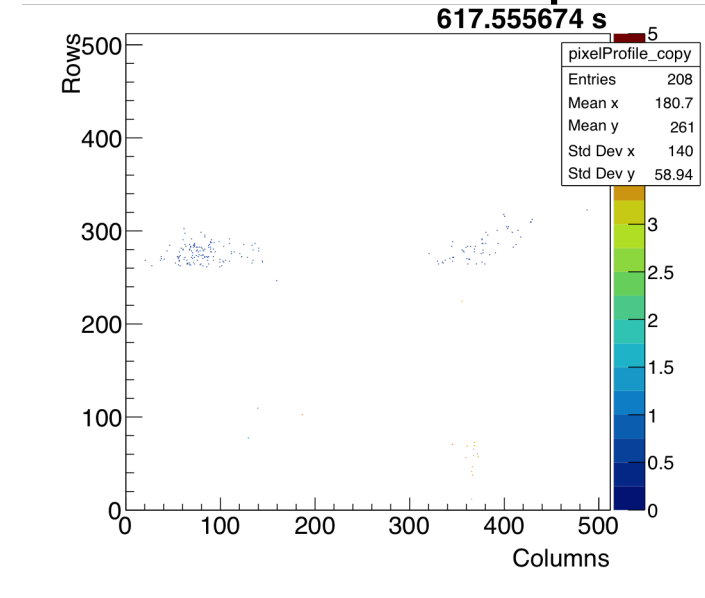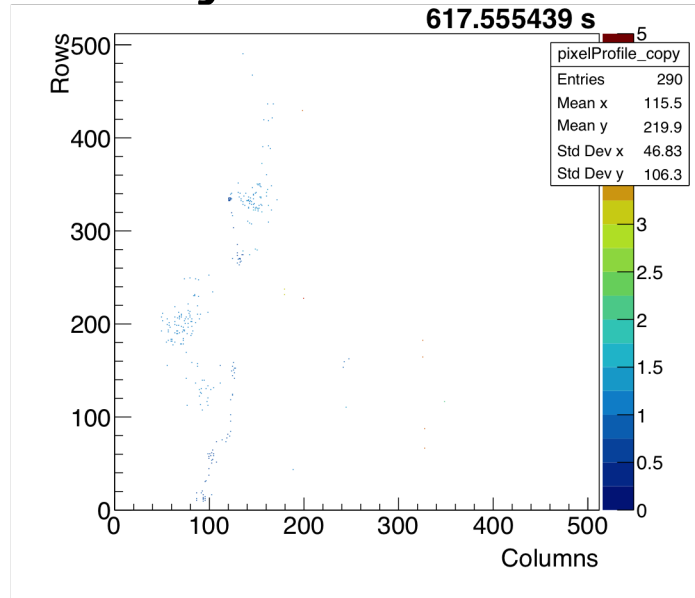Working range T2K gas

Curve applies for all gases

Event (frame) scanning; file prepared by Kees

(from last beam test of single quad in Bonn, October 2018)

- 5381 frames of 5 μs with >200 hits (out of total of 500k frames (?))
  - Total time = 10.8 s
  - File starts with "micro-discharge" (?); 172 frames long, 68.4 ms
  - In total 8 of these micro-discharges of length ~68 and ~124 ms

- Only one block of 697 frames (total clock time 15.2 ms) with very clean tracks, which happen immediately after ~1 s of no beam between 2 successive spills

- After that tracks look much less clean; loss of hits, hits get clustered (detector physics or readout?); have impression 'tracks' mostly at L/R sides of quad. Detector not working properly because of high (10 kHz) rate!

4 events just before 1sec break between spills

Lepcol NIKHEF

4 events just after 1 sec spill break

Lepcol NIKHEF