

Test beam activity at CERN

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Preamble

- There was attempt to measure time resolution with VMM3a in T@Th last year.
- It was impossible due to bug in VMM3a
- Dubna team found that with VMM3 it works
- Recent test beam was planned in frame of RD51. The goal was to compare setup with VMM3 against setup with VMM3a. There was agreement that RD51 provides us with hybrids and external tracker. Due to political situation RD51 refused to give requested equipment.

So, we start with minimal setup:

One plane of 6 mm straws equipped with mu2e board (one VMM3 chip)

Scintillator for trigger

And 3 MM station with APV read-out

Test beam schedule:

25 April – 3 Mai parasitic

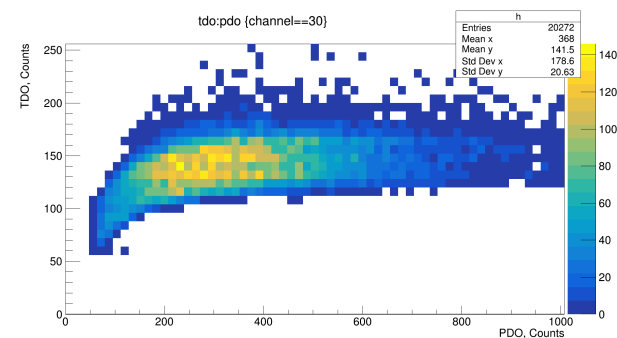
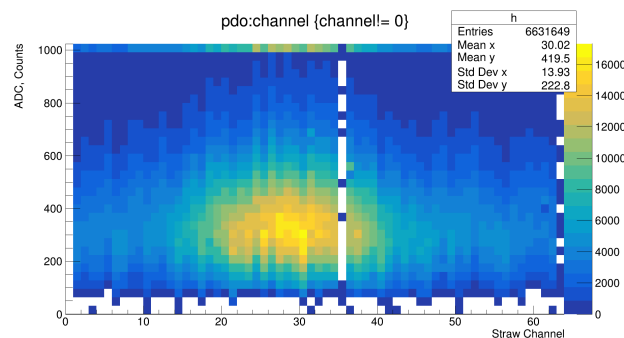
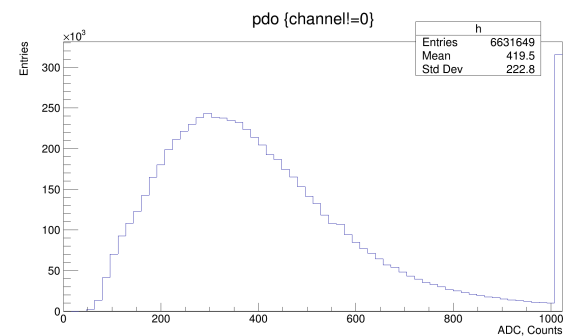
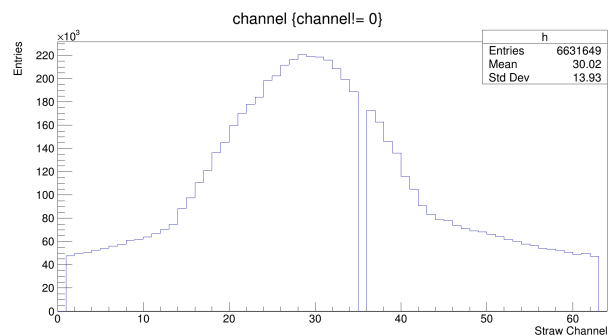
18 Mai – 24 Mai main user

25 Mai – 8 June parasitic



First result with muon beam

We want to measure:
Possibility to measure T@Th with VMM3
RT dependence and time resolution if VMM3 hybris will be available



Problem:

we have limited number of VMM channels;
It is difficult to synchronize MM with straws.

Best solution to get hybrids from RD51

Possible solution of this:

We ready to hand over a leading of this test beam to somebody from DUNE.

It will be good if few people from DUNE will participate in this activity here at CERN

We also ready to invite somebody from RD51 to investigate a behaviour of the VMM chip using our setup.