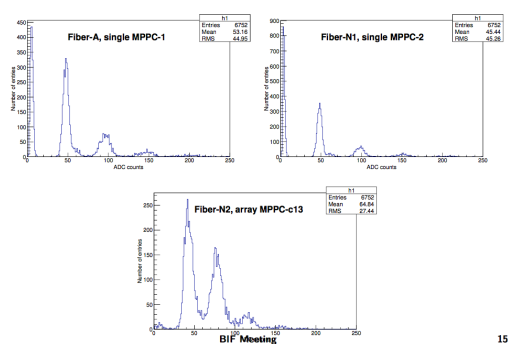
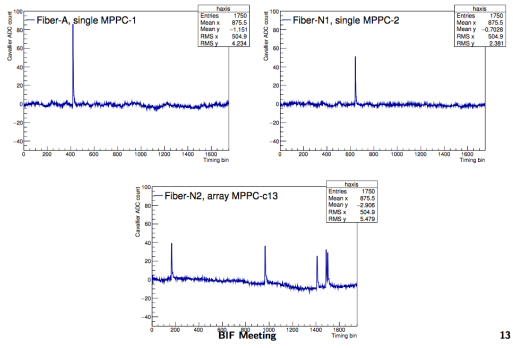
Son Cao: Nugroup-related work June 8th 2018

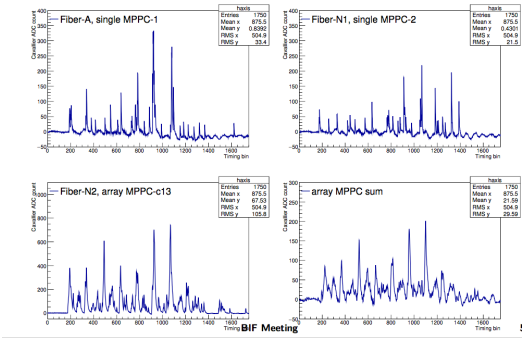
Hardware work:

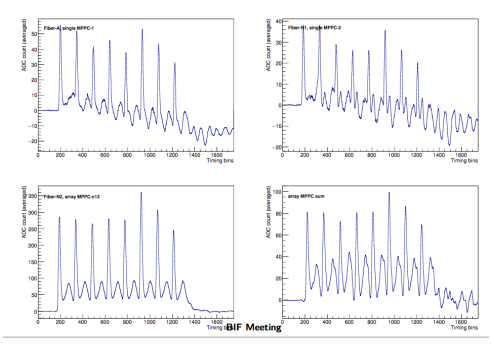
- Continue R&D Beam Induced Florescence monitor development
- Installed optical system in the beam tunnel and taking data
- Connect to new developed ADC module and readout
  - 1PE signal is show
  - background noise having the beam structure and increase when the beam intensity increased. <— study background is very important especially when your signal is at low level _. Cavallier (250 Mhz)





Left: PE charge distribution, got by drawing the peak of waveform for each spill when the proton beam is off
Right: This is when the proton beam is off and you are observing dark noise, caused photon electron





Left: This is signal when the beam is on. and take for single shot (beam is repeated about 2.2s)
Right: This is average of about 1000 shots and the bunch structure is more clear

Software work:

- Some work with oscillation analysis, to check the latest development in the framework. <— to work with Van on her project to test CPT with T2K. (in the future combined with NOvA)
- Do create the beam data summary for the end of T2K run 9

Work with Nugroup members:

- Paper editing with Ngoc, Van
- Some check with Ha on Slack (please use it!)
- Comments on Thanh's thesis
- Quote of Evaluation board DRS4 v5 received (1,170EUR shifted from Switzerland within 6 weeks after submitting order); still waiting for official MPPC quote —> last confirmation with Jean Tran Thanh Van

Service work:

- Continue to take some Neutrino facility operation leader shift; some INGRID shift; beam data shift
- Finalized VSON students and get confirmation
- Finalizing ISONF agenda and participants.

Discussions: