

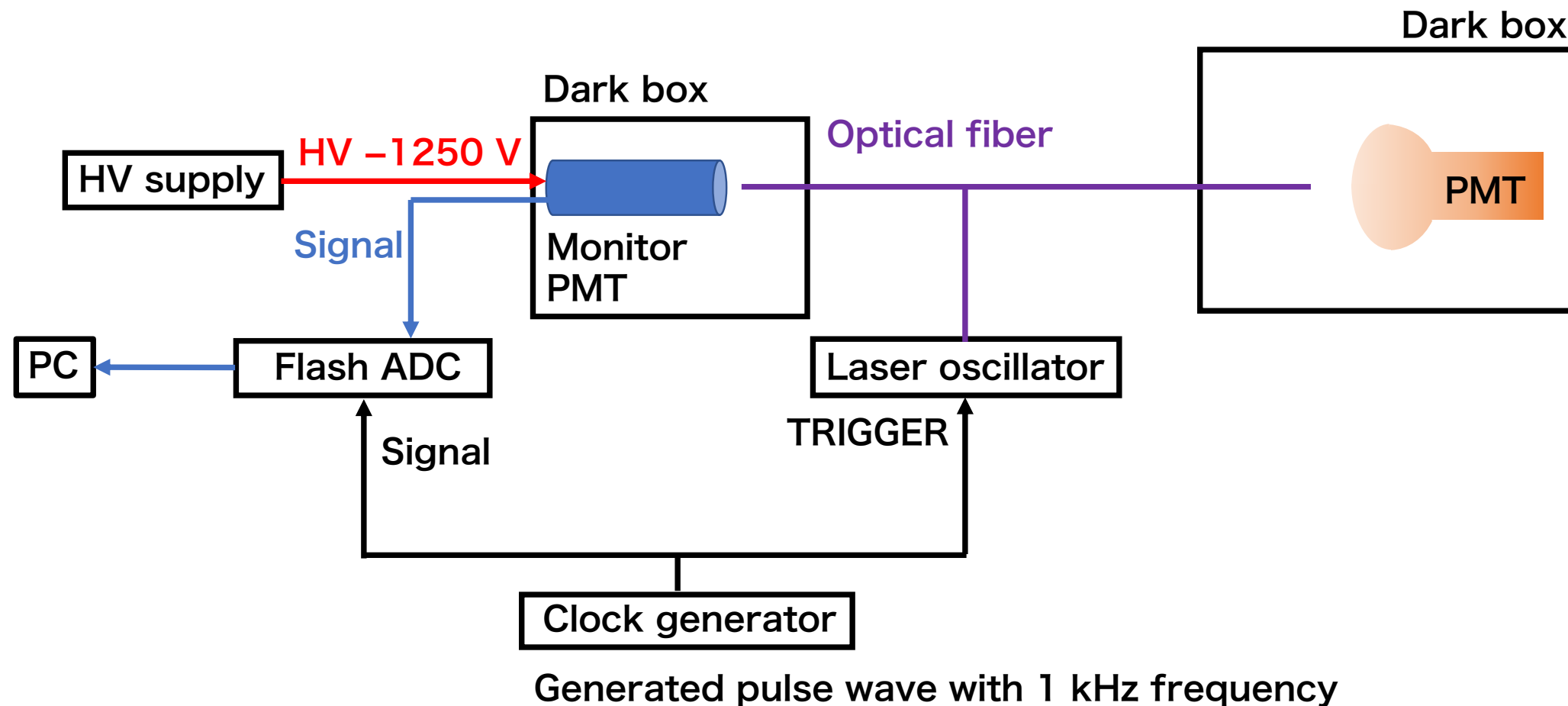
Status report

12/20/2019

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Monitor PMT

- I checked the stability of the light intensity from the mean of Poisson distribution.
- The mean of Poisson distribution was calculated from the integrated charge of the monitor PMT signals.



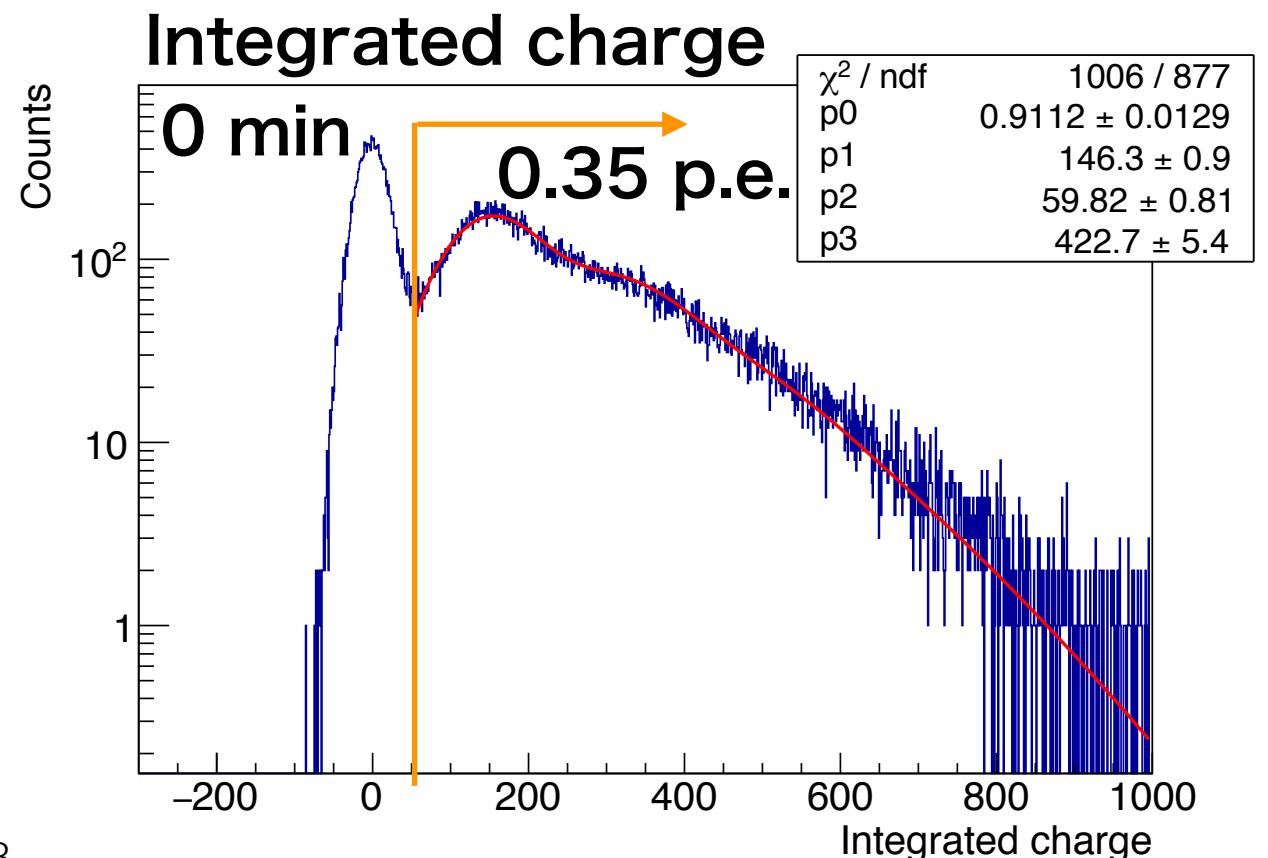
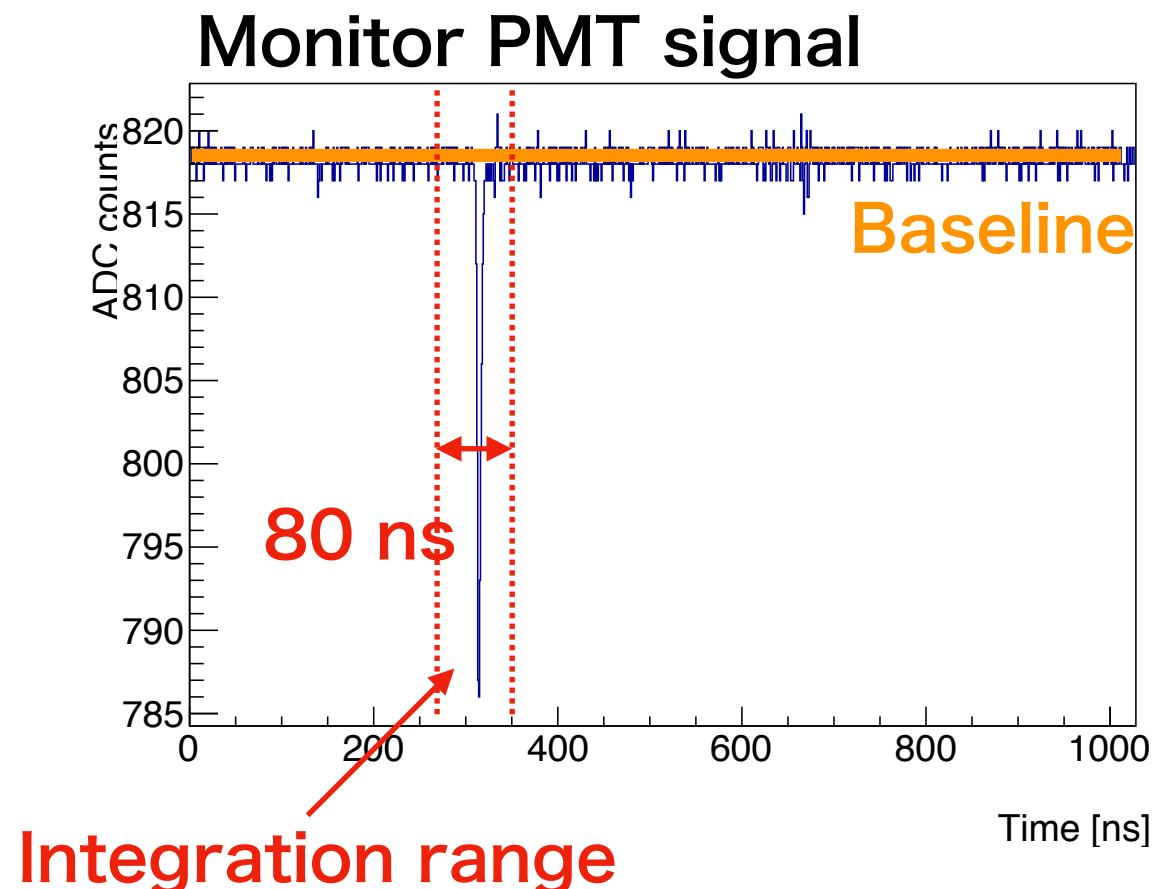
Monitor PMT

- I checked the integrated charge distribution of monitor PMT signals.
- I checked the time dependence of mean of Poisson distribution.
- I checked whether the result was consistent with relative efficiency.

Relative efficiency is defined as follows:

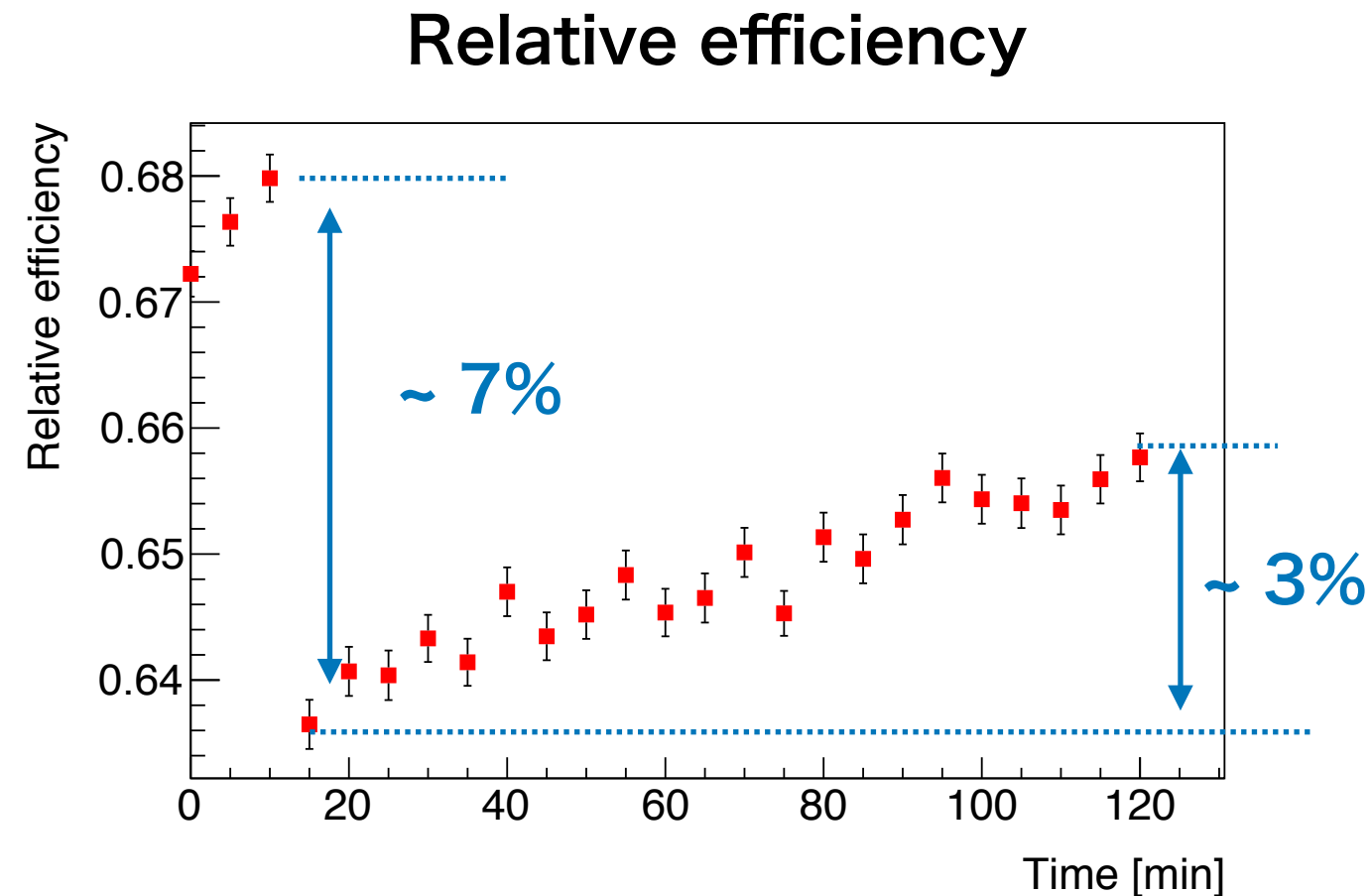
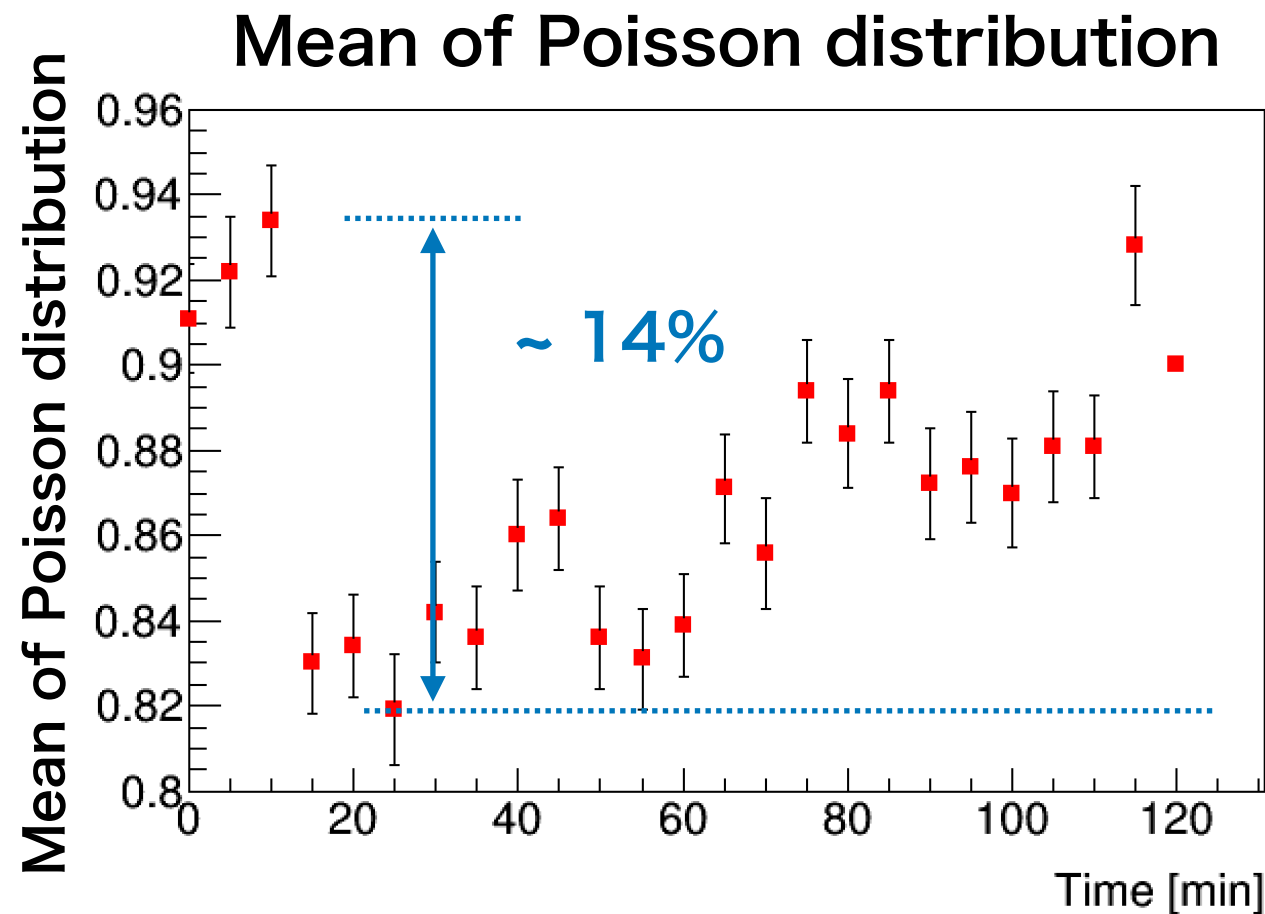
$$\text{Relative efficiency} = \frac{\text{the number of PMT's signals}}{\text{the number of signals from clock generator}}$$

“the number of PMT's signals” is the counts above the threshold.



Monitor PMT

- The variation the mean of Poisson distribution was about 14 %.
- This result was consistent with the result of the relative efficiency.



$$P(x, \text{mean})$$

$$P(0, 0.82) \simeq 0.44$$

$$P(0, 0.935) \simeq 0.39$$

To do

- I measured the relative efficiency of 3inch PMT.
- The result was the behavior not expected.
- I am checking the causes.