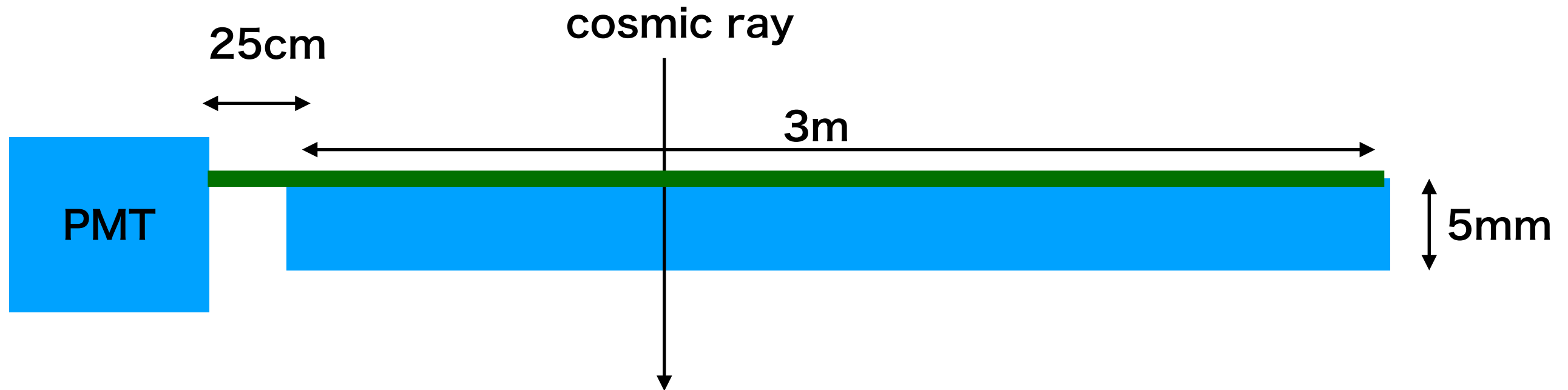


Fot H.M.Kim

8th, Mar.,2018

Calculate Light Yield



How many photo electrons we will obtain when cosmic ray passing through the 5mm-thick and 3m-long plastic scintillator ?

(6 points (0.5m, 1m, 1.5m, 2m, 2.5m, 3m from the PMT))

Needed input : Light yield of plastic scintillator

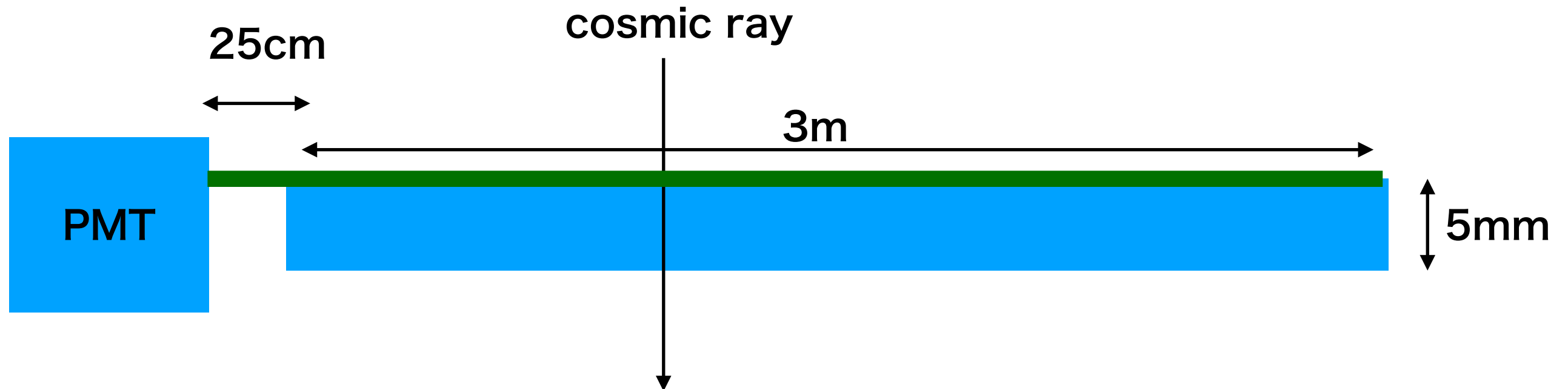
Trapping efficiency (1mm diameter WSF)

Absorption wave length of selected WLS Fiber

Attenuation length of the WLS finger

Quantum efficiency of the PMT

Pulse shape



What kinds of pulse we will get when cosmic ray passing through the 5mm-thick and 3m-long plastic scintillator ?

(6 points (0.5m, 1m, 1.5m, 2m, 2.5m, 3m from the PMT))

Needed input : Light yield & decay time of plastic scintillator

Trapping efficiency (1mm diameter WLS Fiber)

Absorption wave length of selected WLS Fiber

Light transportation inside the WLS Fiber

Quantum efficiency/TTS of the selected PMT