

Status Report

Shota Izumiyama

Tokyo Tech.

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This week

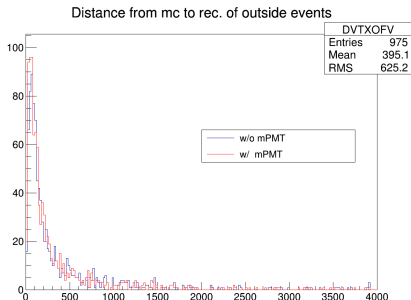
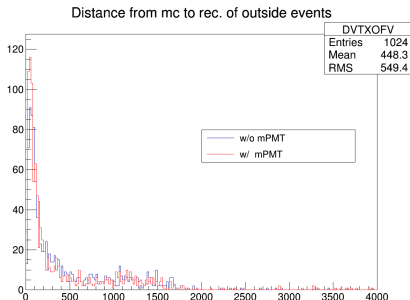
- Made MC:
 - D.R. of mPMT: 100 Hz, 200 Hz
 - # of mPMT (used masking method): 2k, 5k, 10k
- Reconstructed
- Drew the plots of the distance between MC and rec. vertex of events, which are out of FV

- HK Hybrid simulation
 - B&L: 20k, (D.R. 4.2 kHz)
 - mPMT:10k (D.R. 100, 200 Hz) (200 Hz is only mPMT 10k case)
 - Masking method: → 2k, 5k
- Event:
 - Energy: 3,4,5,6,8,10,15 MeV
 - Unifrom in tank, isotropy

Comparing mPMT D.R.

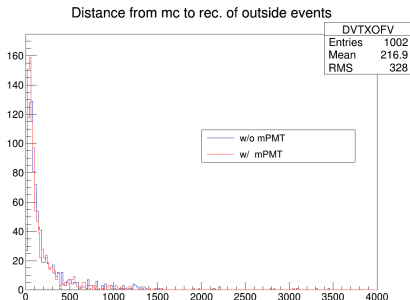
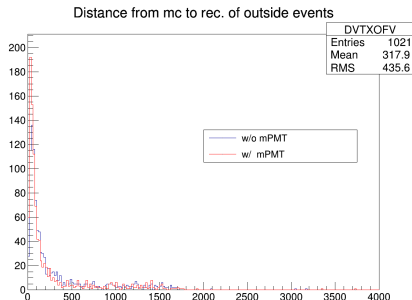
$E=3$ MeV, 100 Hz (Left), 200 Hz (Right)

- Distance between rec. and MC vertex (unit = cm).
- Only events out of FV



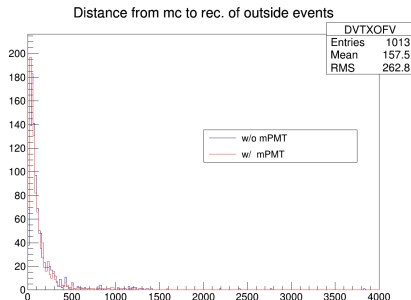
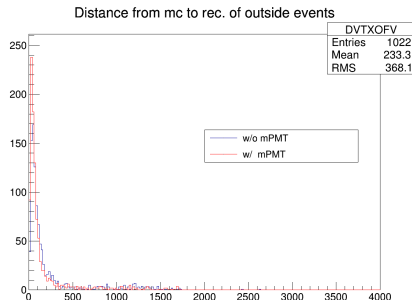
$E=4$ MeV, 100 Hz (Left), 200 Hz (Right)

- Distance between rec. and MC vertex (unit = cm).
- Only events out of FV

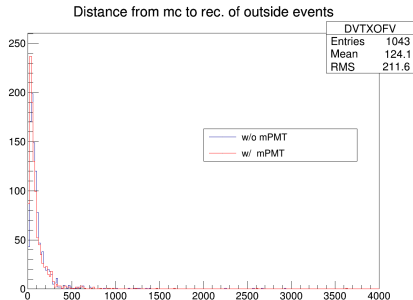
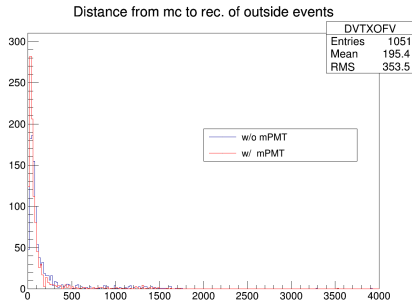


$E=5$ MeV, 100 Hz (Left), 200 Hz (Right)

- Distance between rec. and MC vertex (unit = cm).
- Only events out of FV

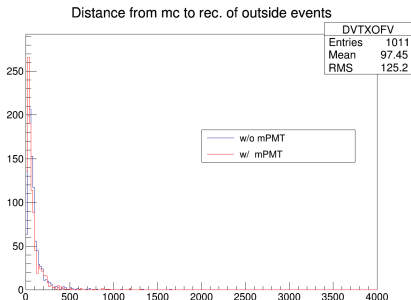
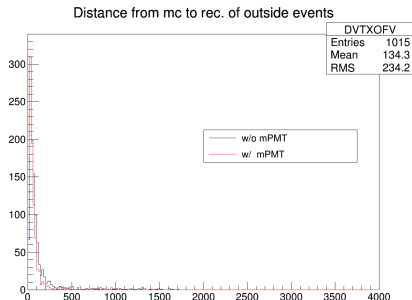


$E=6$ MeV, 100 Hz (Left), 200 Hz (Right)



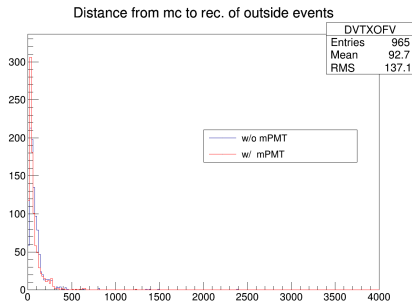
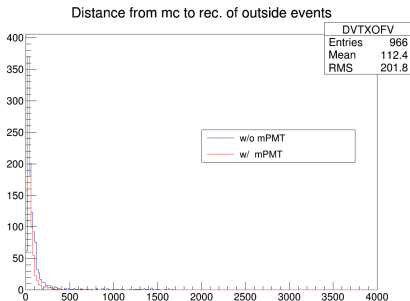
$E=8$ MeV, 100 Hz (Left), 200 Hz (Right)

- Distance between rec. and MC vertex (unit = cm).
- Only events out of FV



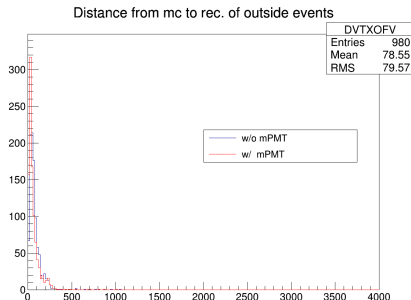
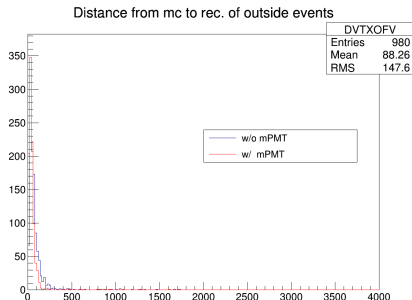
$E=10$ MeV, 100 Hz (Left), 200 Hz (Right)

- Distance between rec. and MC vertex (unit = cm).
- Only events out of FV



$E=15$ MeV, 100 Hz (Left), 200 Hz (Right)

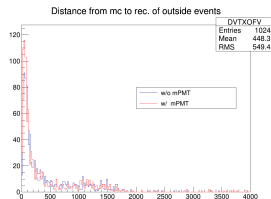
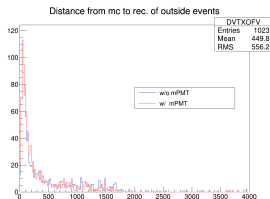
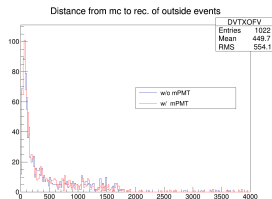
- Distance between rec. and MC vertex (unit = cm).
- Only events out of FV



Comparing # of mPMT (D.R. = 100 Hz)

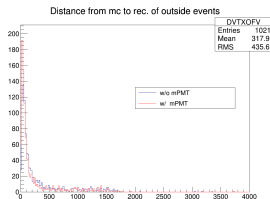
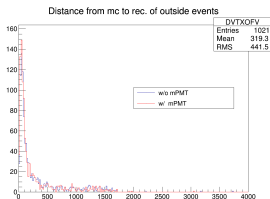
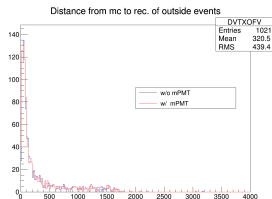
$E=3$ MeV, # of mPMT

- # of mPMT = 2k (Left), 5k (Center), 10k (Right)
- Distance between rec. and MC vertex (unit = cm).
- Only events out of FV



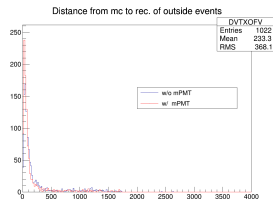
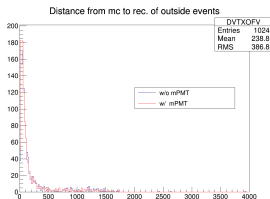
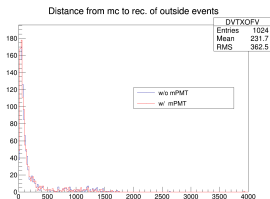
$E=4$ MeV, # of mPMT

- # of mPMT = 2k (Left), 5k (Center), 10k (Right)
- Distance between rec. and MC vertex (unit = cm).
- Only events out of FV



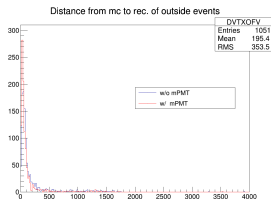
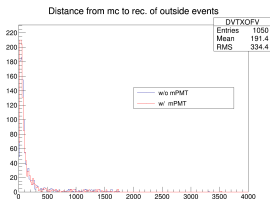
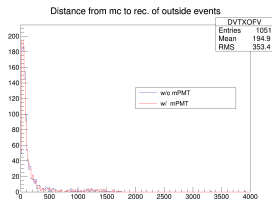
$E=5$ MeV, # of mPMT

- # of mPMT = 2k (Left), 5k (Center), 10k (Right)
- Distance between rec. and MC vertex (unit = cm).
- Only events out of FV



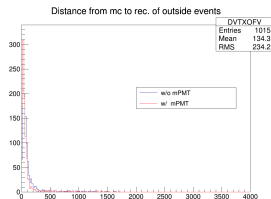
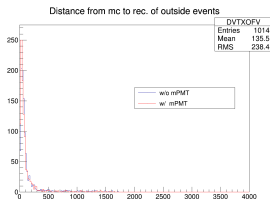
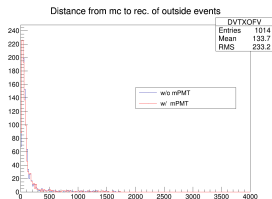
$E=6$ MeV, # of mPMT

- # of mPMT = 2k (Left), 5k (Center), 10k (Right)
- Distance between rec. and MC vertex (unit = cm).
- Only events out of FV



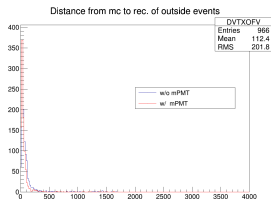
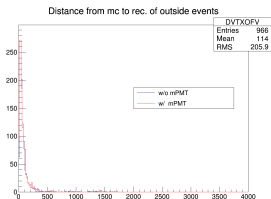
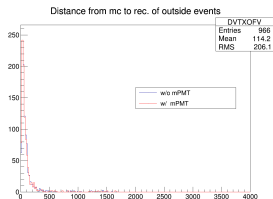
$E=8$ MeV, # of mPMT

- # of mPMT = 2k (Left), 5k (Center), 10k (Right)
- Distance between rec. and MC vertex (unit = cm).
- Only events out of FV



$E=10$ MeV, # of mPMT

- # of mPMT = 2k (Left), 5k (Center), 10k (Right)
- Distance between rec. and MC vertex (unit = cm).
- Only events out of FV



$E=15$ MeV, # of mPMT

- # of mPMT = 2k (Left), 5k (Center), 10k (Right)
- Distance between rec. and MC vertex (unit = cm).
- Only events out of FV

