

NEON(R&D)

2020/01/23

Jae Jin Choi

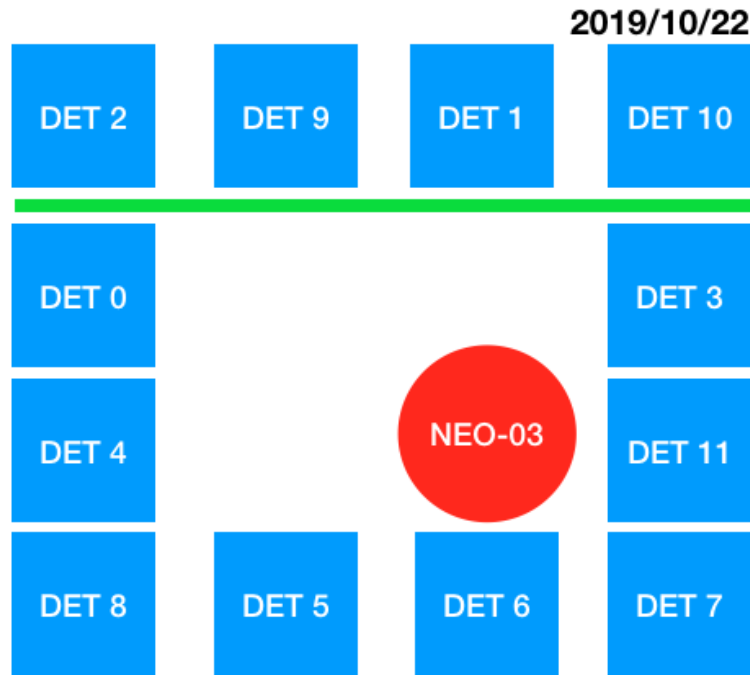


NEO3 configuration

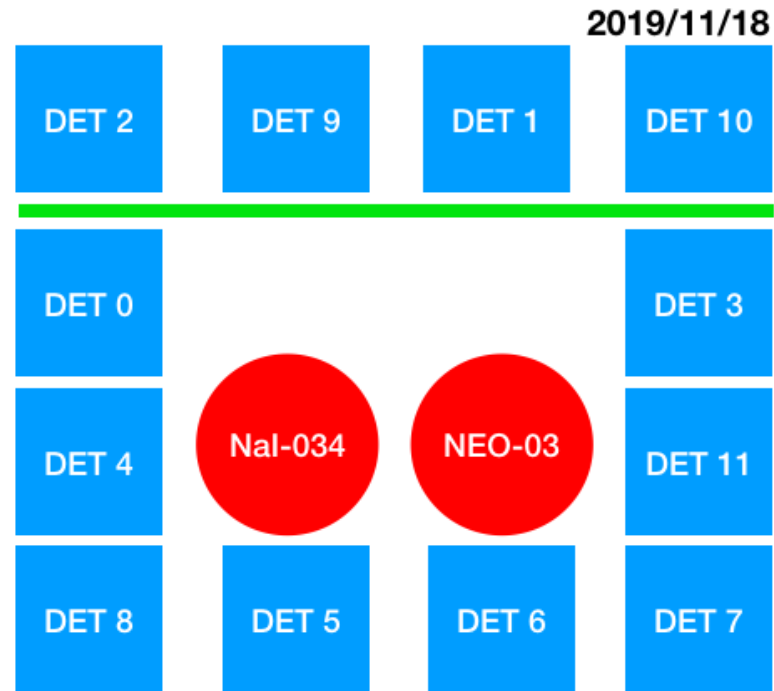
nSet18

nSet19

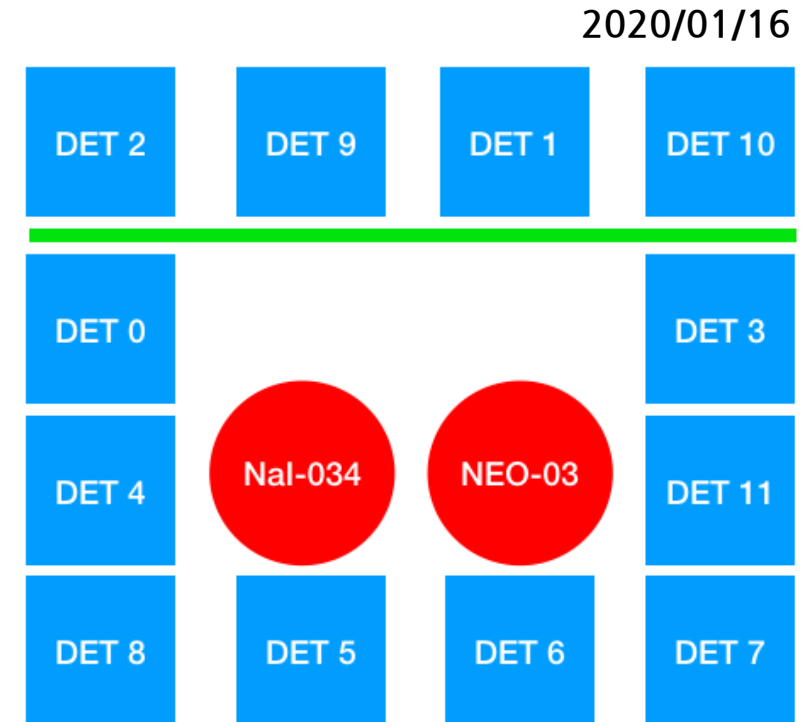
nSet22



Run : 628(433 hour)



Run : 653(311 hour)



Run : 699(96 hour)

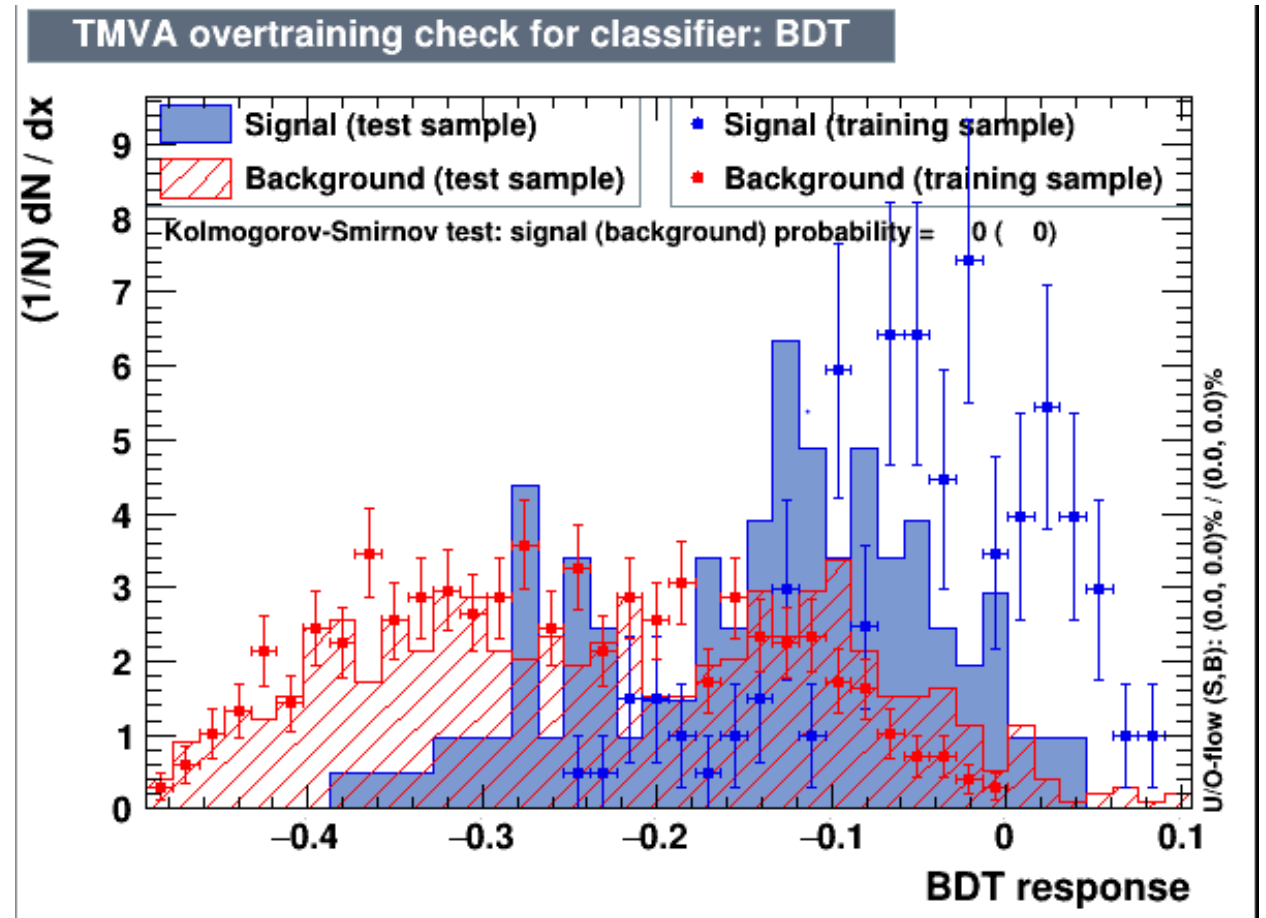
NEO3 new bdt(bdtB)

Run : 653(311 hour)

Precut : $\text{mpar} > -2$, $\text{bdt} > -1$, $\text{rqcn} > -1$, $\text{energy} < 4$

Signal : multiple hit events

Background : single hit events



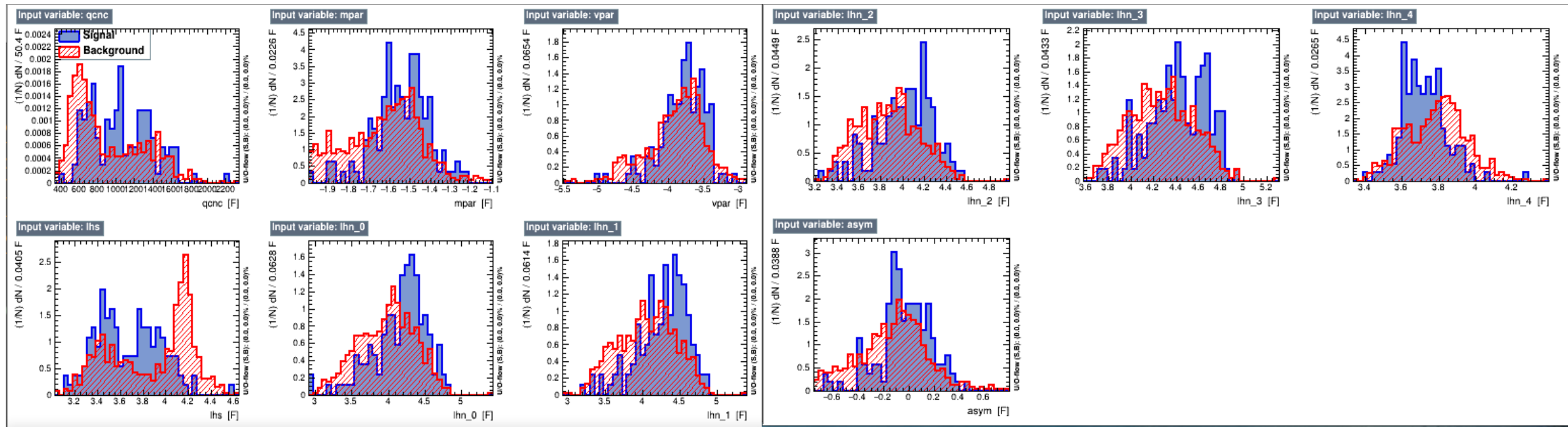
NEO3 new bdt(bdtB)

Run : 653(311 hour)

Precut : $\text{mpar} > -2$, $\text{bdt} > -1$, $\text{rqcn} > -1$, $\text{energy} < 4$

Signal : multiple events

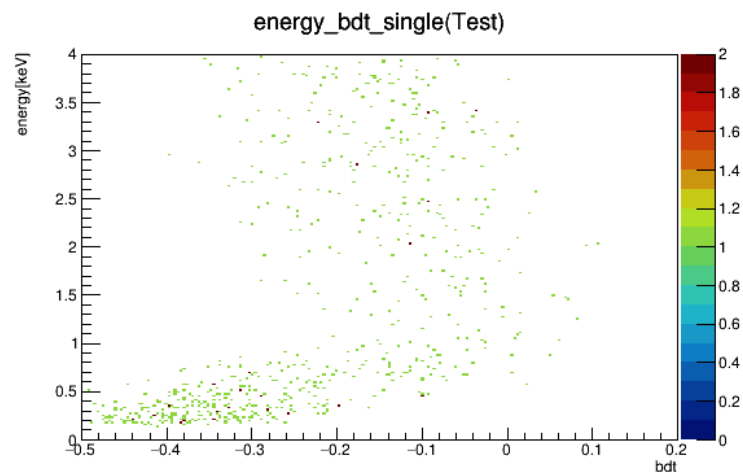
Background : single events



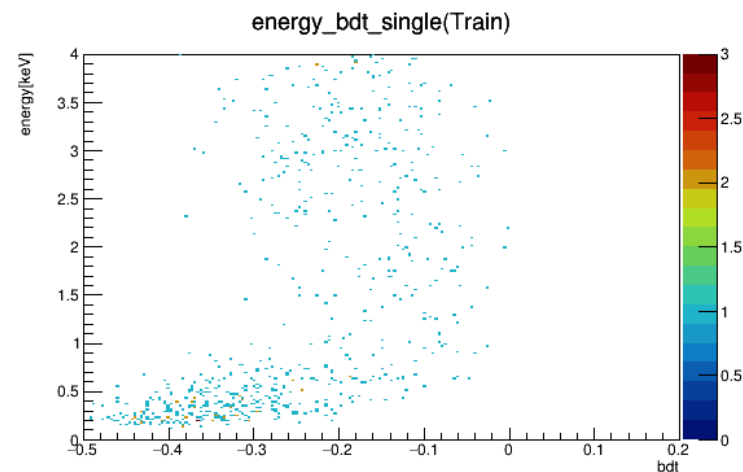
NEO3 new bdt(bdtB)

single

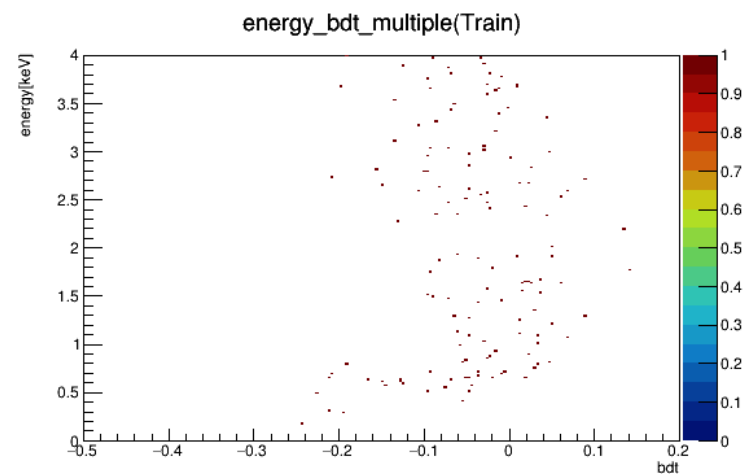
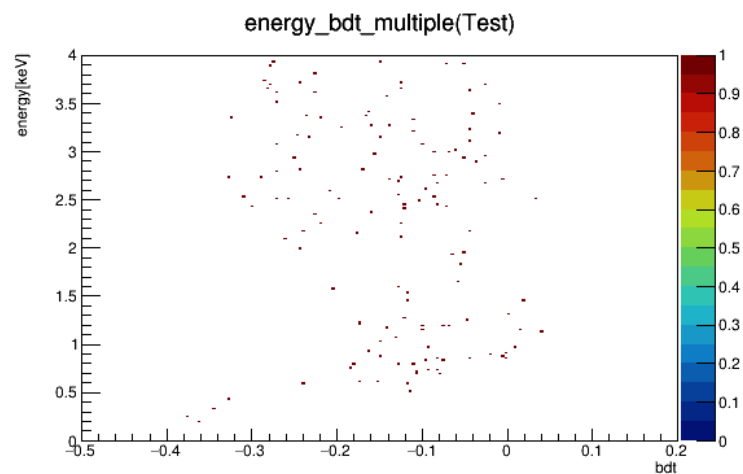
Test



Train

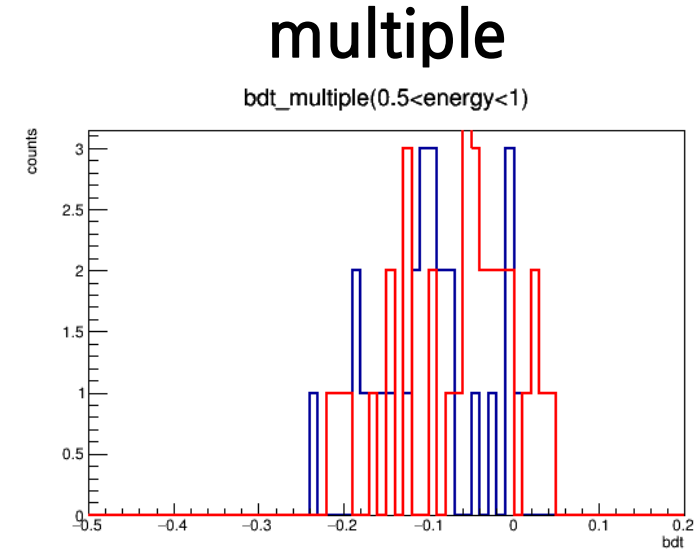
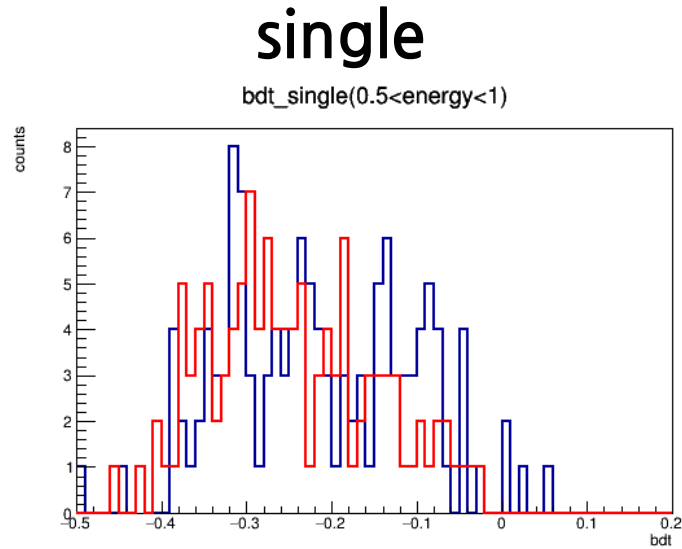


multiple



NEO3 new bdt(bdtB)

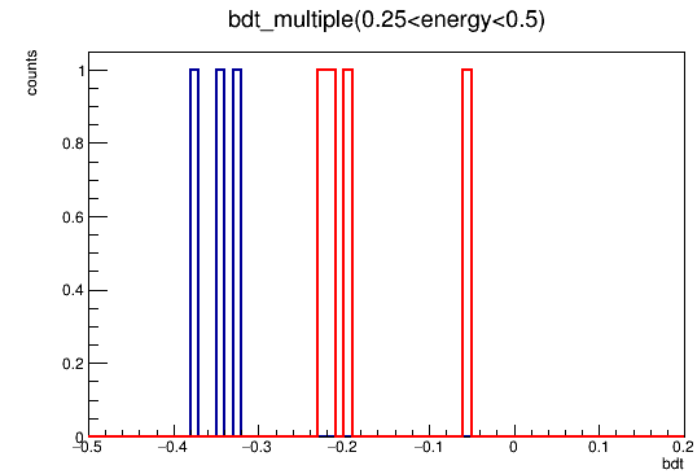
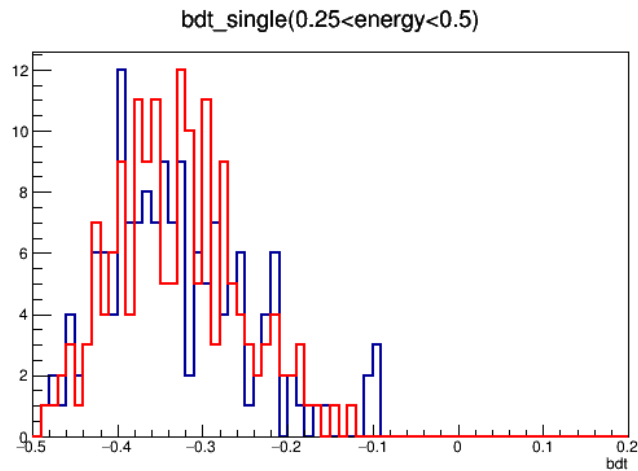
$0.5 < \text{energy} < 1$



Train

Test

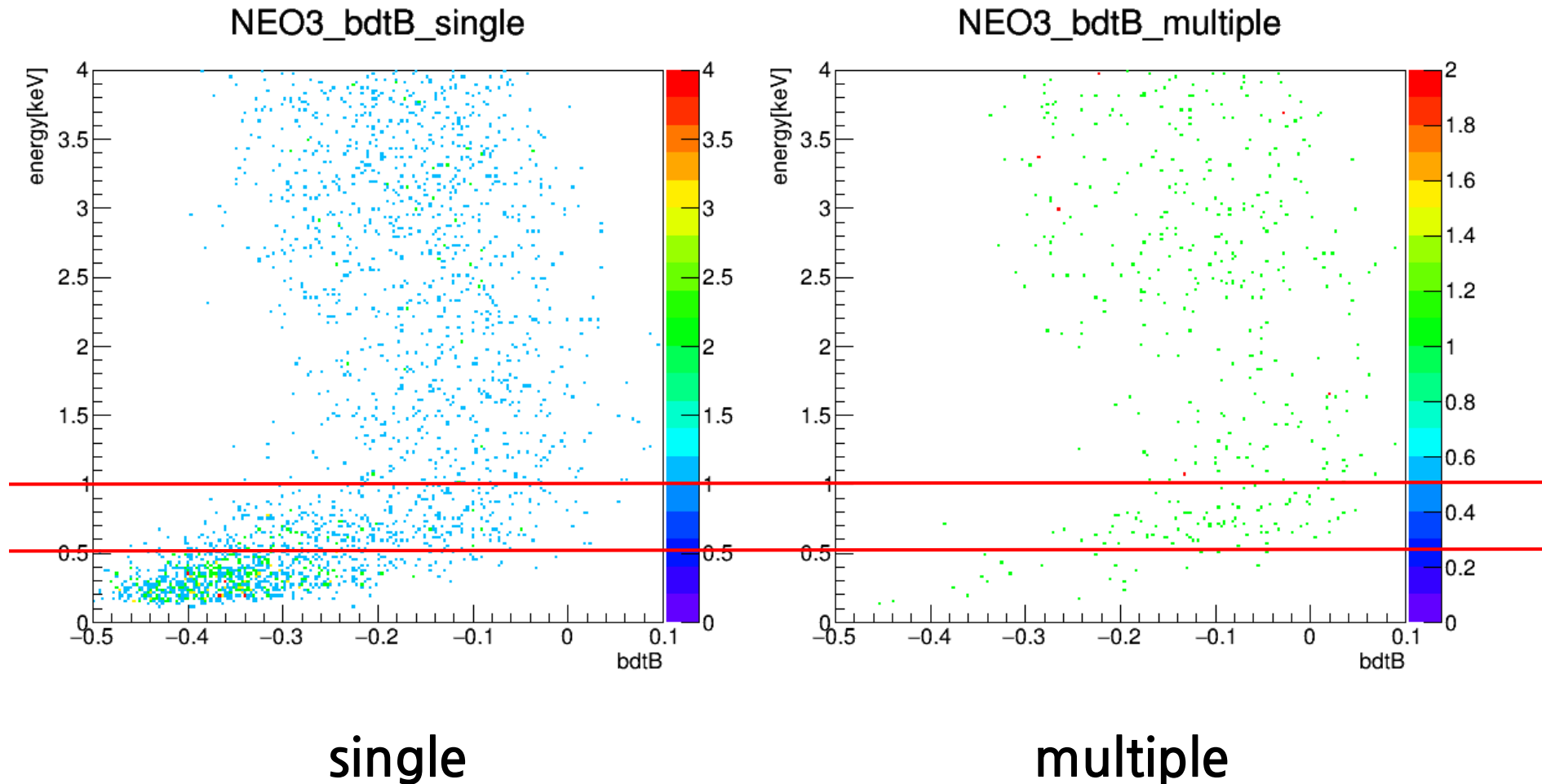
$0.25 < \text{energy} < 0.5$



$0.5 < \text{energy} < 1$ region is OK but $0.25 < \text{energy} < 0.5$ region have biased(low statistics)

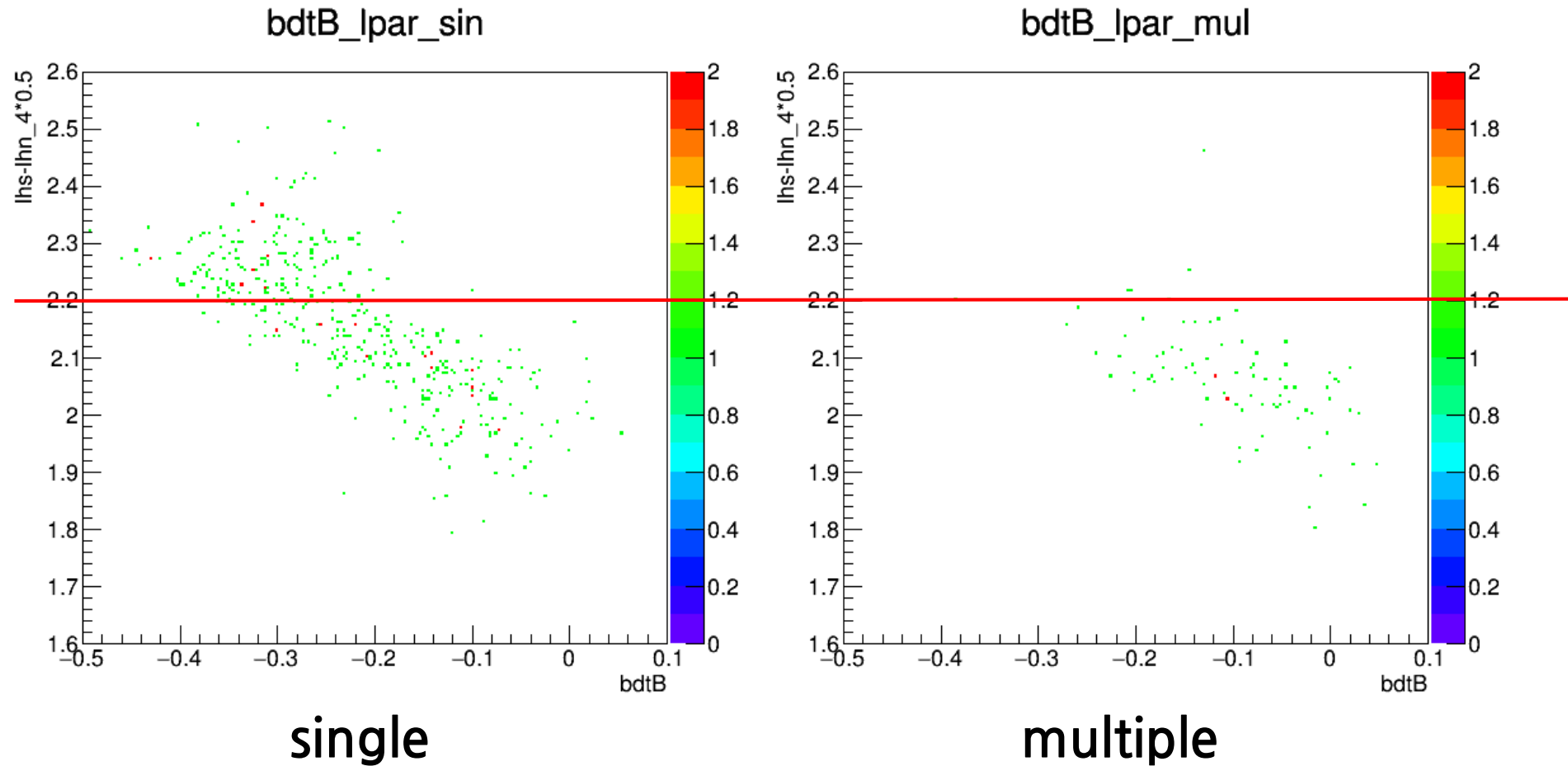
NEO3 new bdt(bdtB efficiency)($0.5 < \text{energy} < 1.0$)

Run: 640, 647, 653(520 hour)



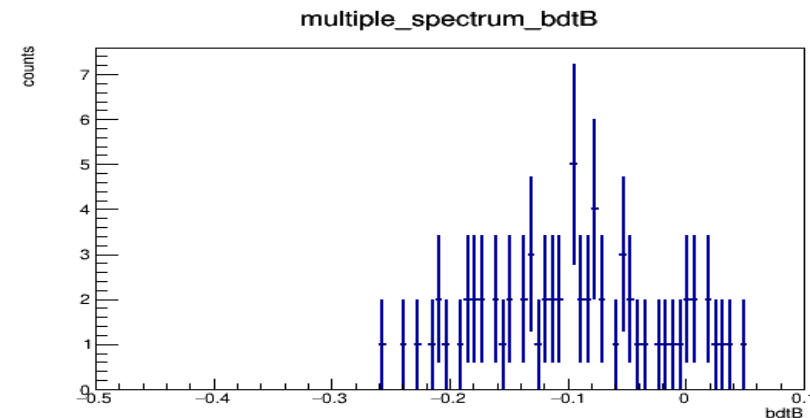
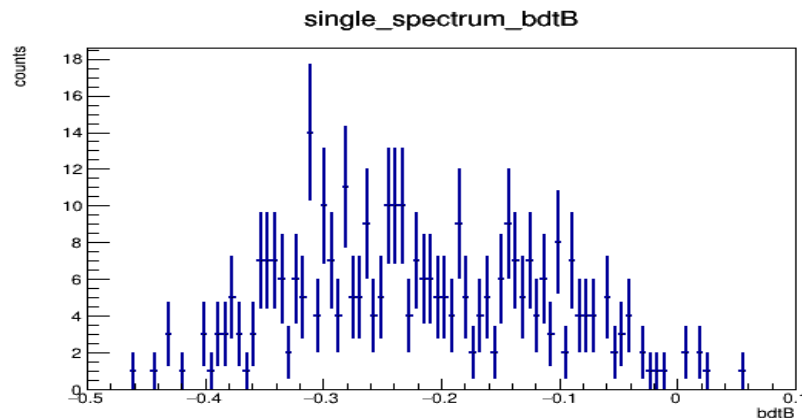
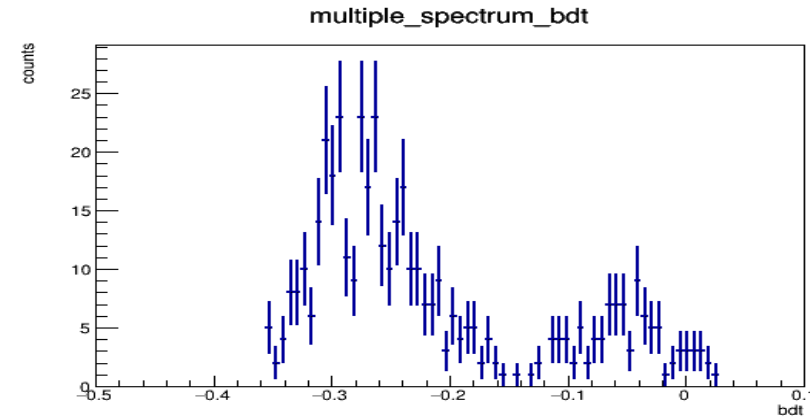
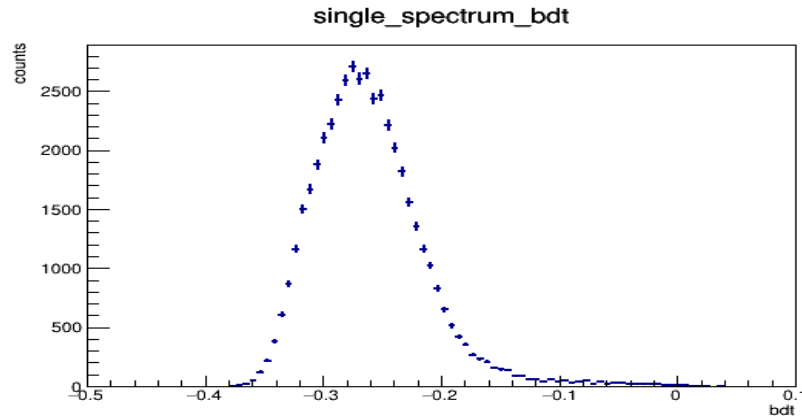
NEO3 new bdt(bdtB efficiency)($0.5 < \text{energy} < 1.0$)

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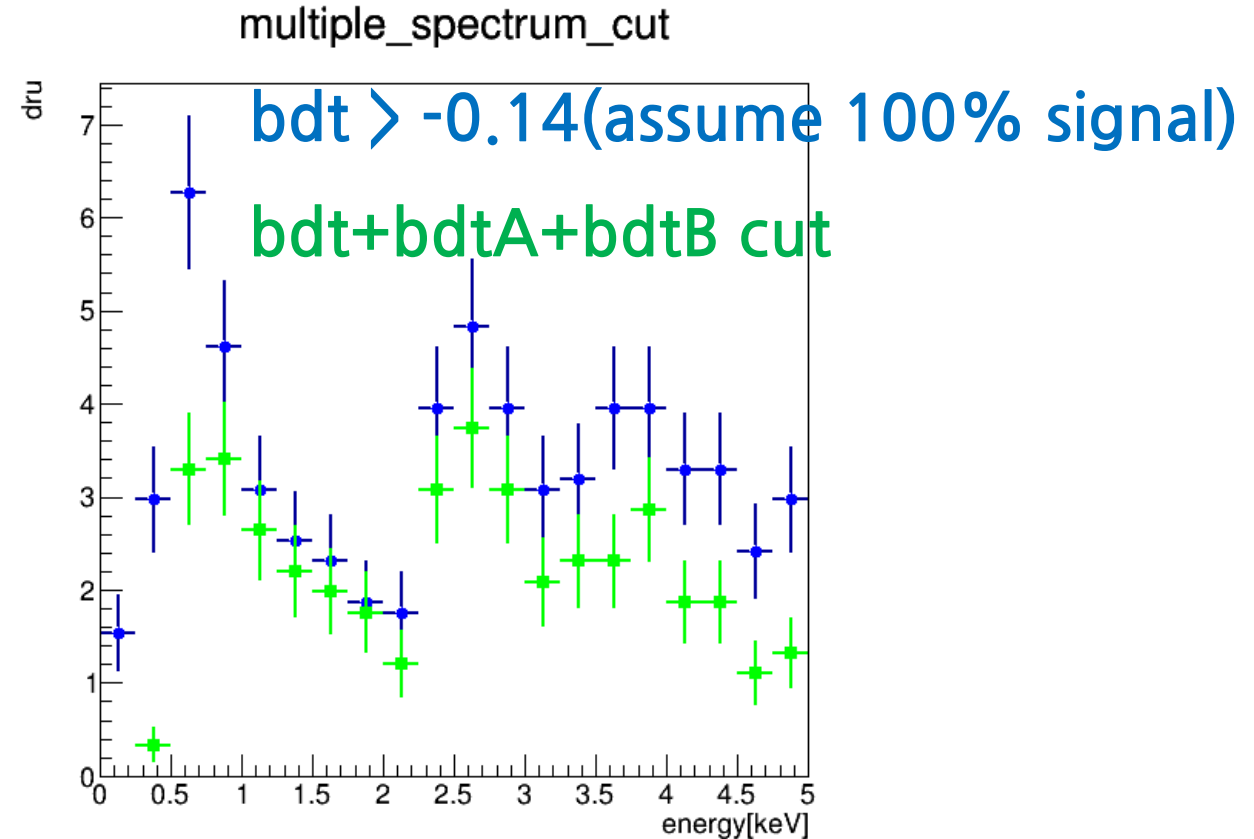
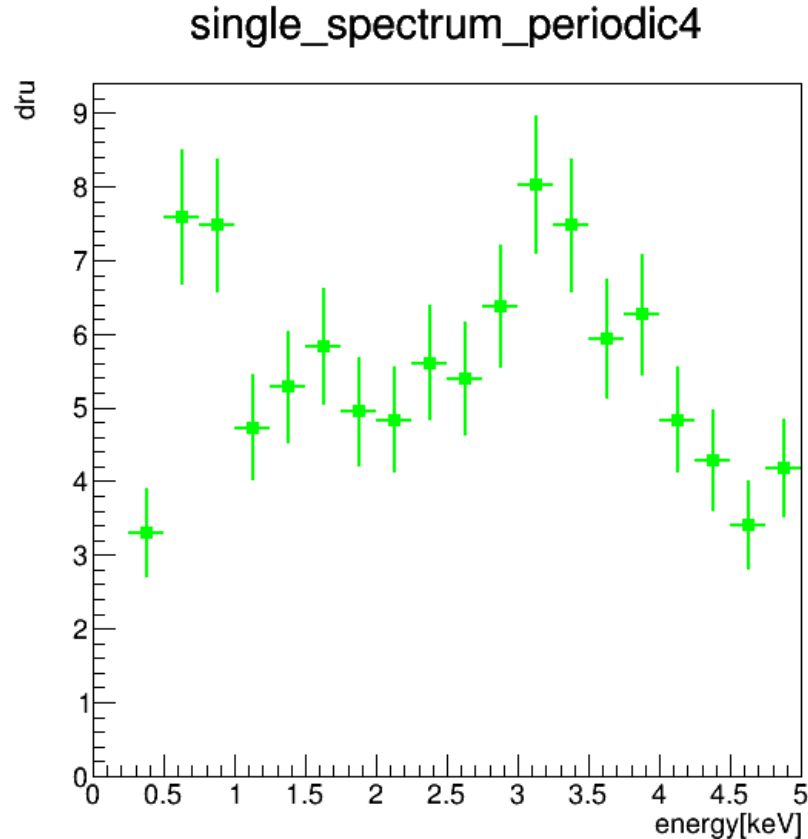


single

multiple

NEO3 new bdt(bdtB efficiency)($0.5 < \text{energy} < 1.0$)

Run: 640, 647, 653(520 hour)



0.5 keV~0.75 keV : 7.58 dru , 0.52 % (14.40 dru)

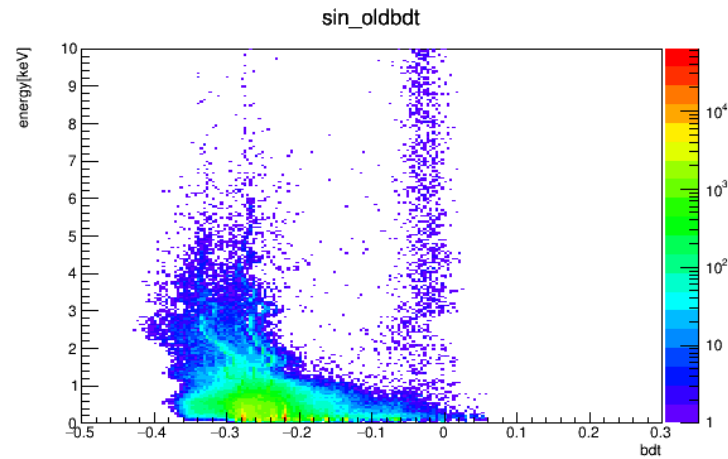
0.75 keV~1.0 keV : 7.47 dru , 0.73 % (10.12 dru)

Backup

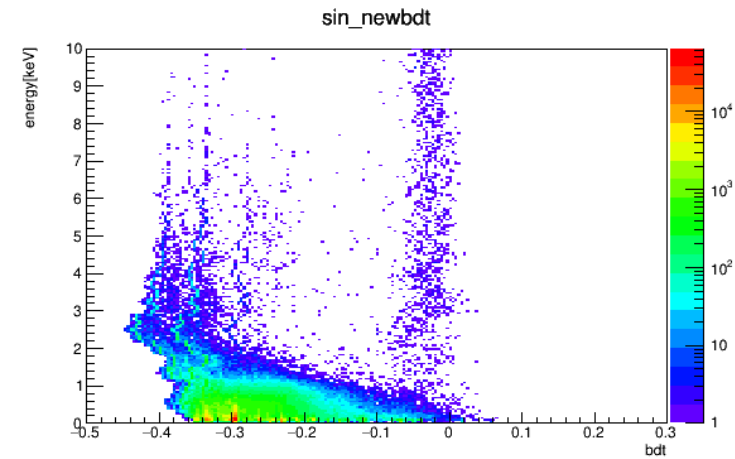
NEO3 BDT

single

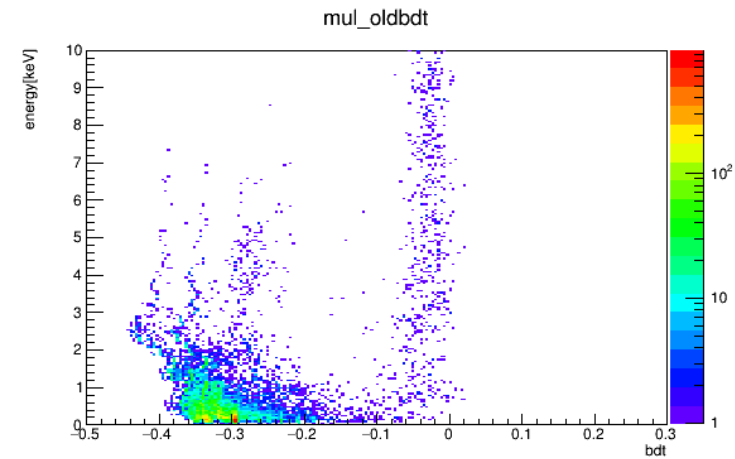
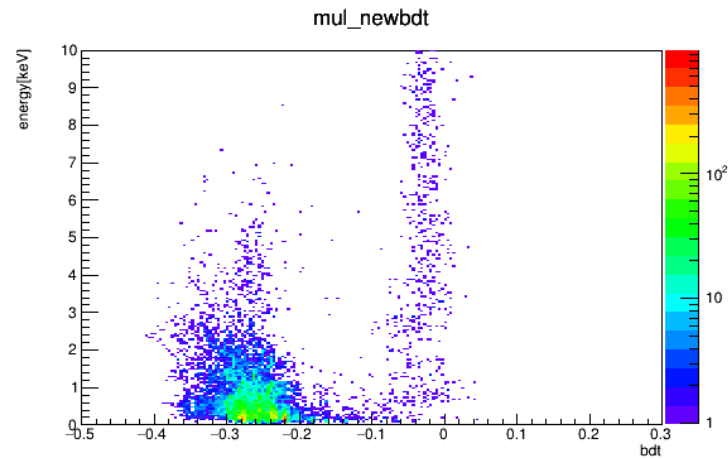
Old BDT



New BDT



multiple



NEO3 BDT

single_spectrum

