Status report

Tokyo Institute of Technology

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LHeC meeting, 28/Aug./2017

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- Up and down scalefactor (LHeC↔FCC)

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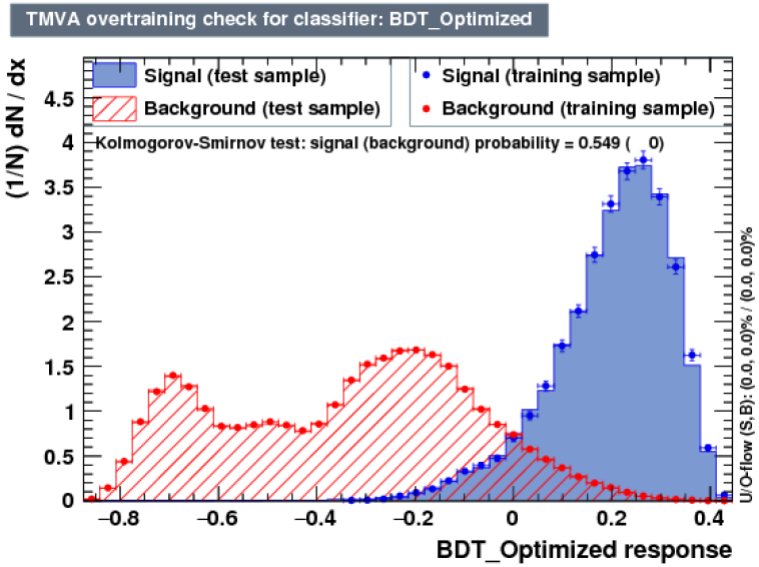
Generate events in each collider (LHeC, FCC) by using MadGraph/Pythia/Delphes.

$$N = \sigma \times L(1\text{ab}^{-1})$$

Generate events in a collider (LHeC or FCC) and use its result for the other collider by using the up (or down) scalefactor.

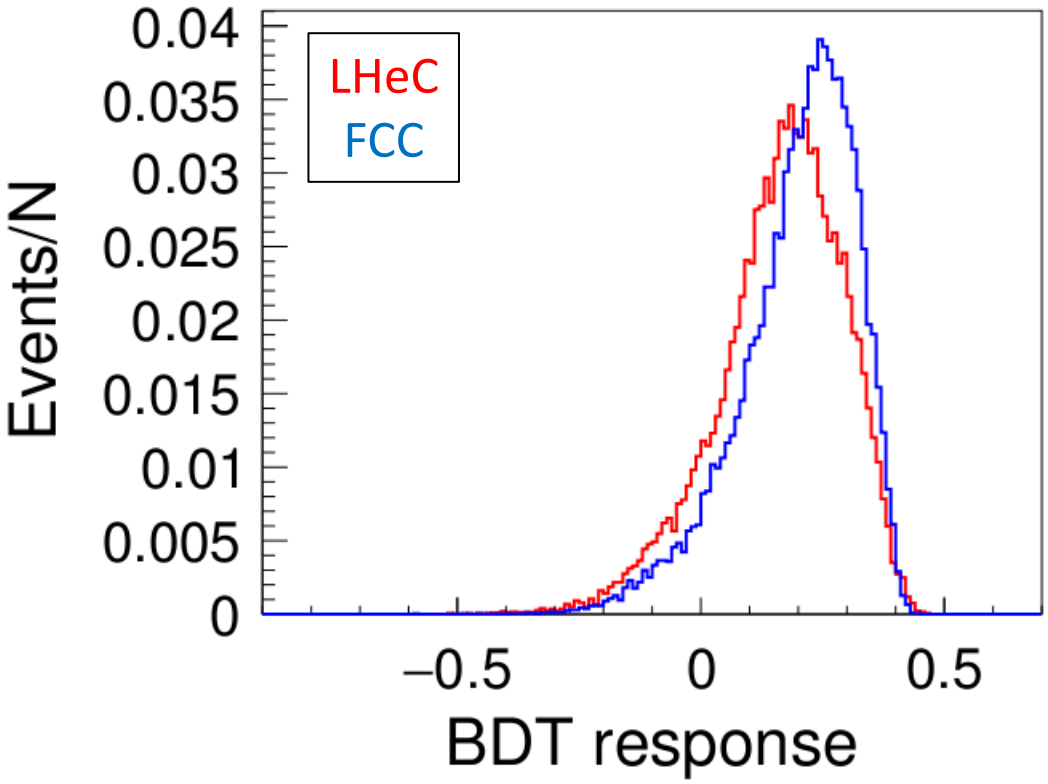
FCC output



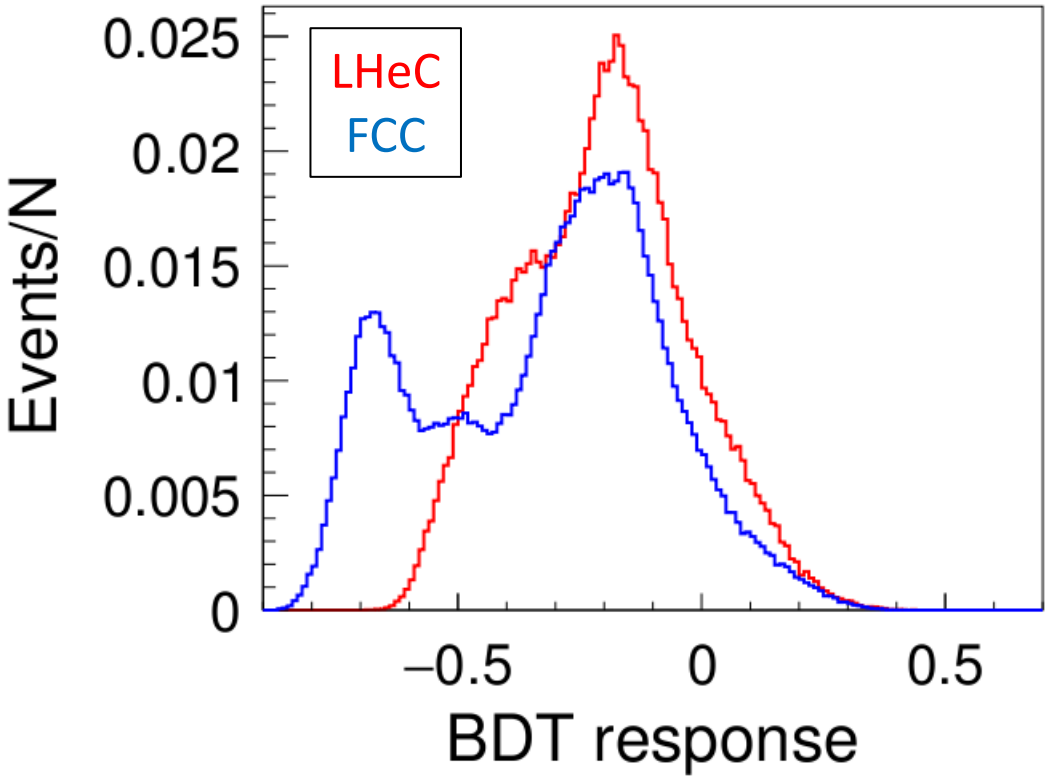
Collider	Each analysis	Up or down Scale	Uncertainty
LHeC	5.46%	4.46%	18.3%
FCC	1.68%	2.09%	24.4%

Back up
(BDT response comparison)

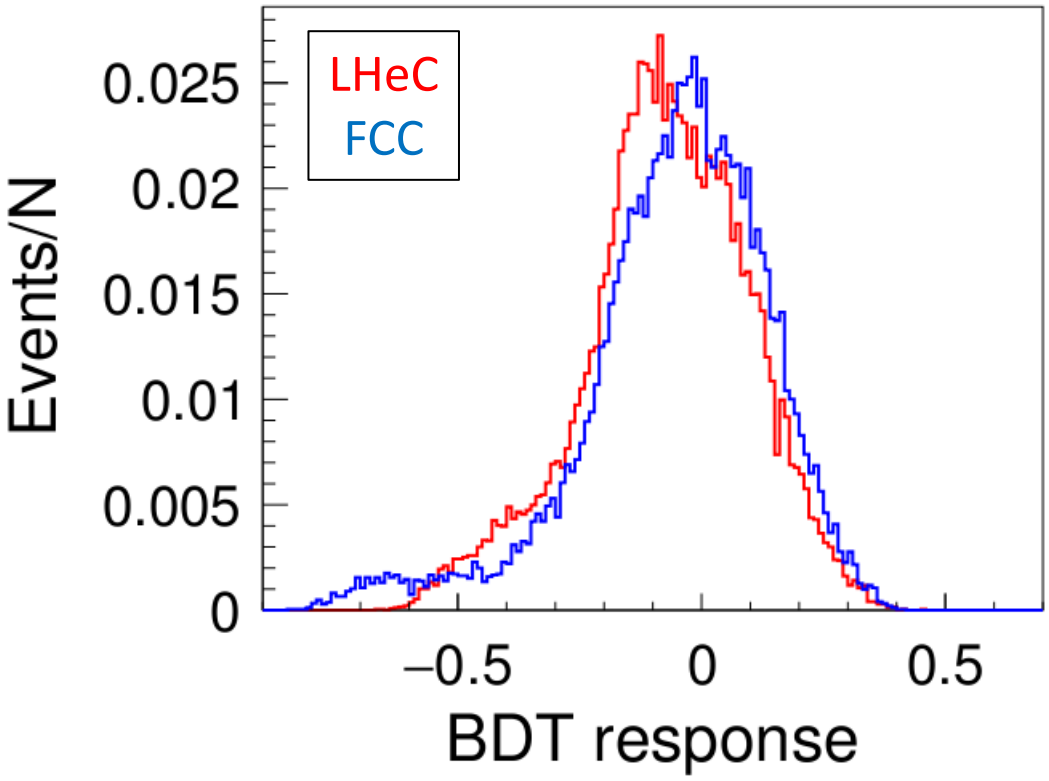
Signal (p e- > e- h j, h > vl vl~ vl vl~)



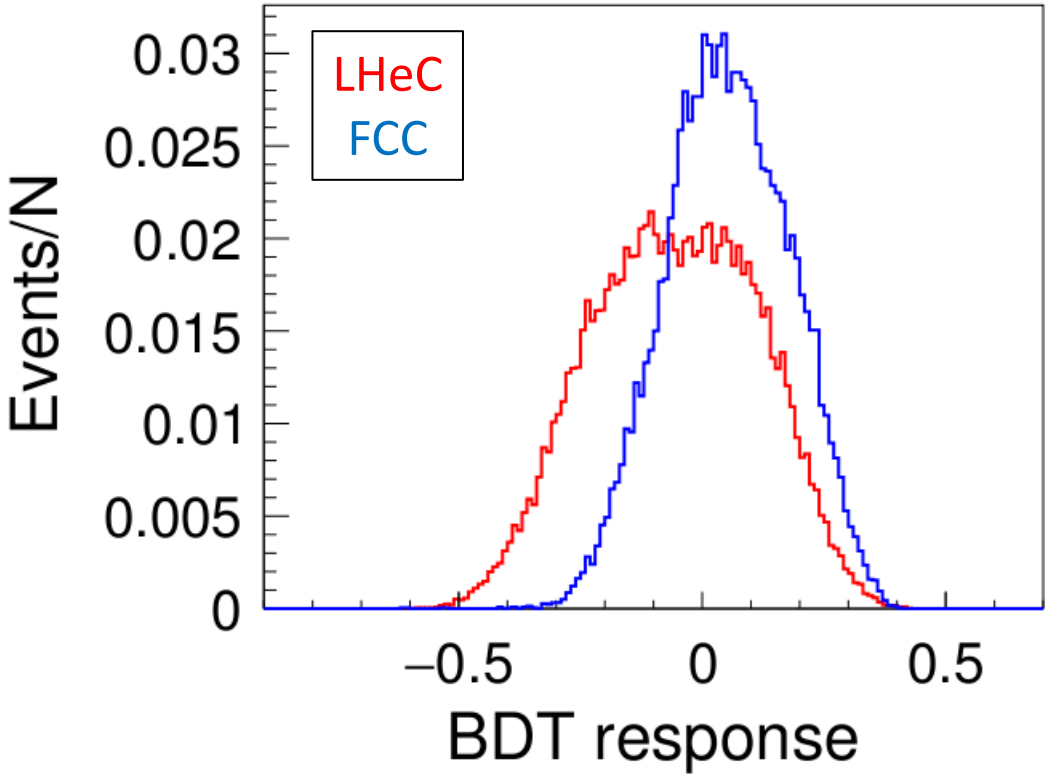
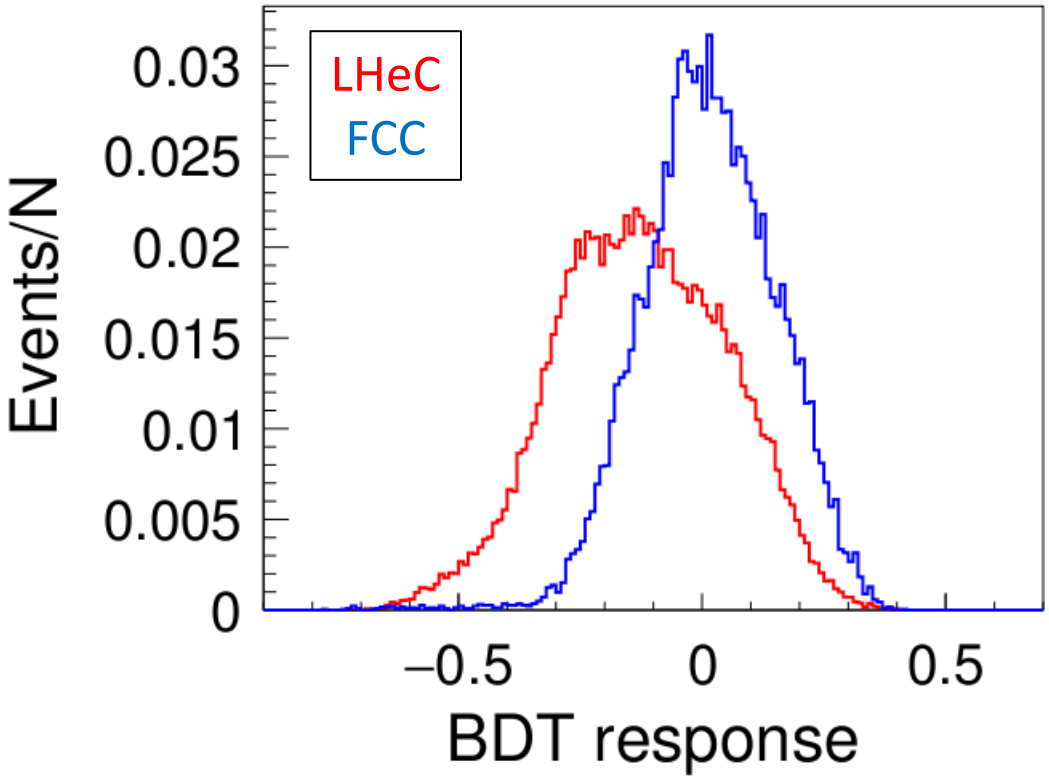
Wjv (p e- > w- j ve, w- > e- vl~)



Zje (p e- > z j e-, z > vl vl~)



W+je (p e- > w+ j e-, w+ > l+ vl)



W-je (p e- > w- j e-, w- > l- vl~)