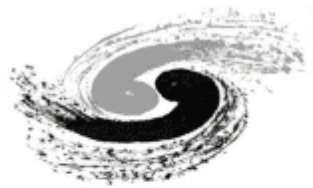


Higgs boson invisible decay with beam-induced background



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Samples

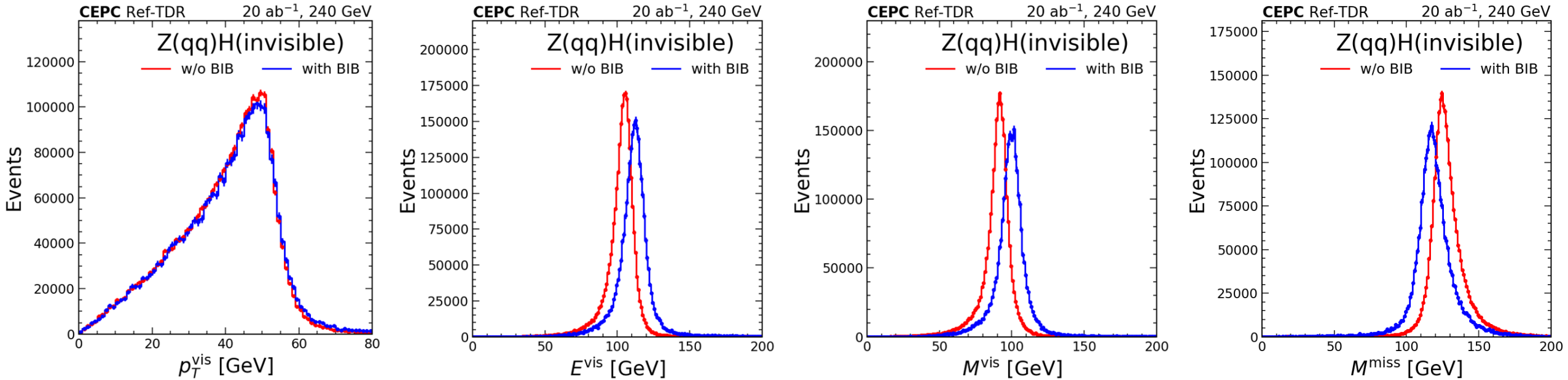
Samples without BIB

- /cefs/higgs/zhangkl/Production/2505/E240_qqHinv/Reco/rec_E240_qqHinv_00001-00499.root

Samples with BIB

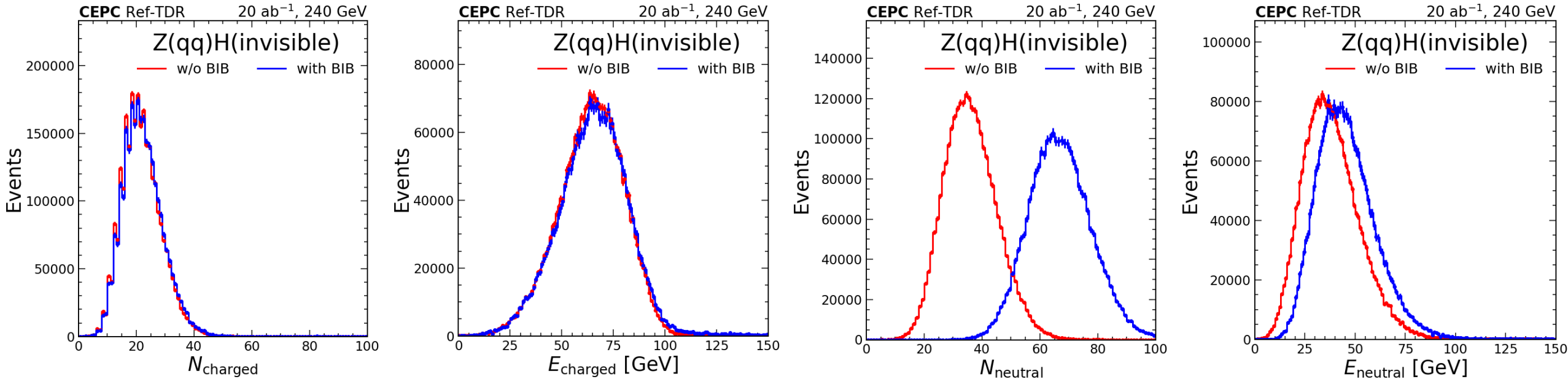
- /cefs/higgs/zhangcg/cepc/tdr25.6.0/CEPCSW/mixed_rec_E240_qqHinv_00001-00499.root

Distributions



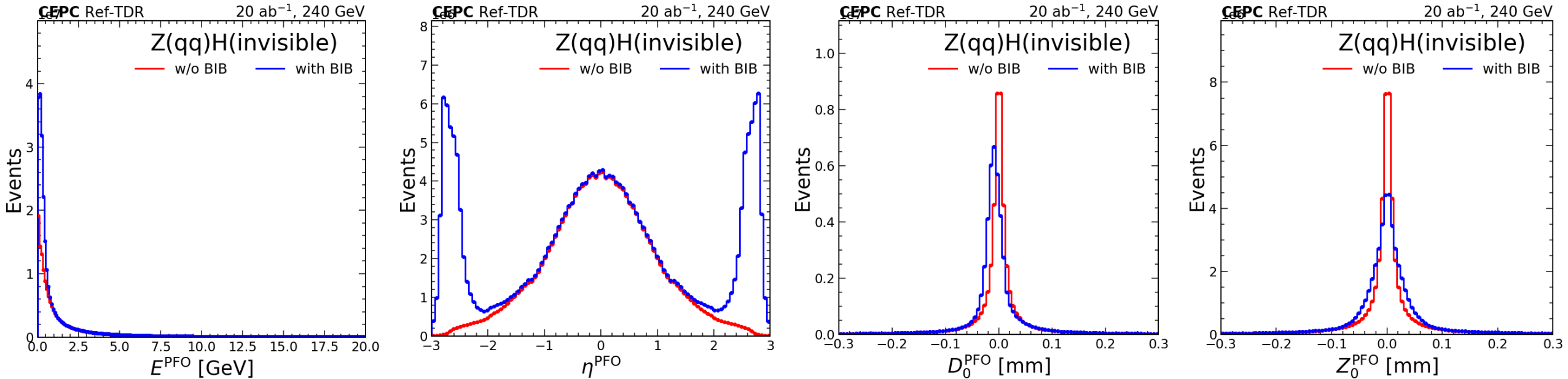
Momenta are not very much affected, but energies are, and as a result, so are masses.

Distributions



Contamination mostly lies in neutral PFOs

Distributions



- At PFO level, BIB mostly lies in very low energy and high eta range.
- Measurements of impact parameters are affected.

To-do

- Need to check the tracking algorithm on why impact parameters are affected.
- BIB mitigation algorithm.