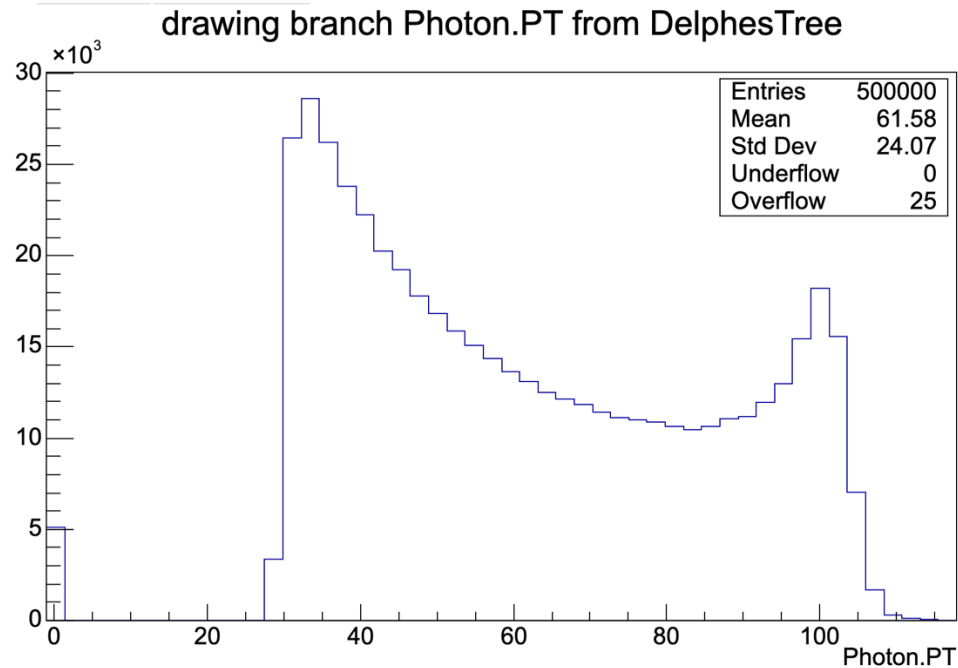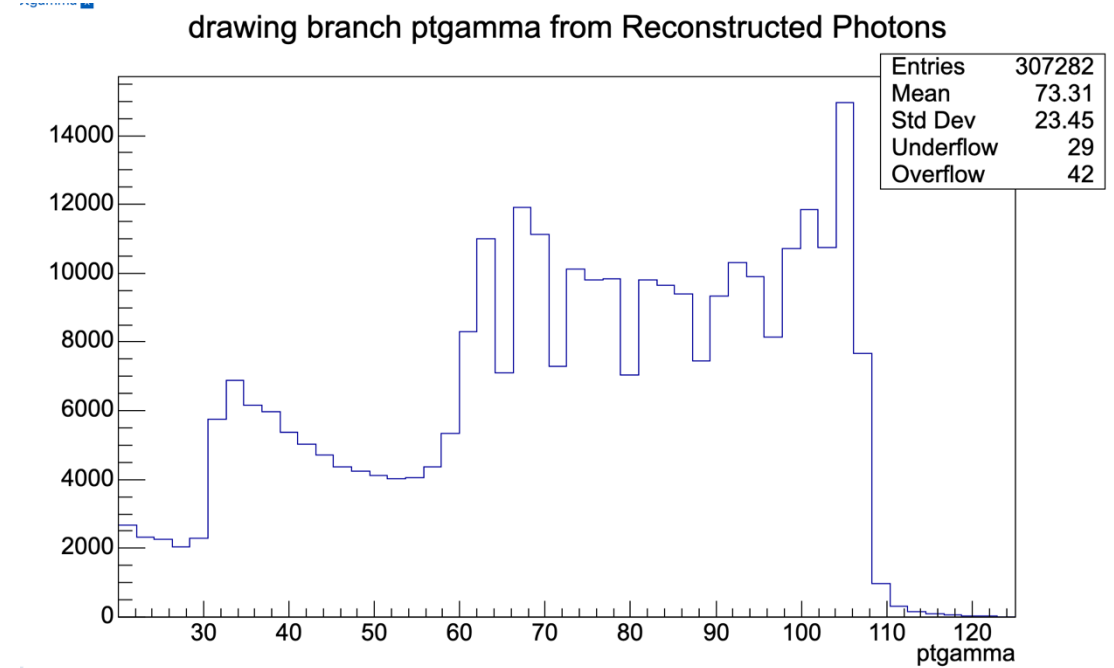# Weekly report

12.4

Linjing Duan

Delphes validation

- Perform Delphes simulation using the samples of the SM term in full simulation.
- Compare and validate full simulation and fast simulation using the variable Photon.PT.

Photon.PT from Delphes

Photon.PT from CEPCSW reconstruction

Delphes validation

- Full simulation selections:

Photon	PDG	generatorStatus	energy	mass	charge	px,py,pz(ptgamma)	deltaR
MCParticle	22	1	-	0	-	>20GeV	<0.2
CyberPFO	-	-	>10GeV	-	0		

- As CEPCSW is still under development, much of the information is missing, it may affect the accuracy of variable extraction.

The information in PFO needs further verification.

Summary

- For simulation:
  - The Delphes simulation for the SM term, interference term, and quadratic term involving 9 operators has been completed.

- For analysis:
  - Exclude issues in the reconstruction and selection code to complete Delphes validation.

  - Continue writing C++ codes to analyze the output ROOT files generated by Delphes simulation.
    Add more variables such as missing energy, jet, leptons, etc.