Some questions

- To prepare the PUB note, some information needs to be confirmed.
  - What variables are needed?
    - Variables used in Run2 ZZ polarization analysis:
      - $cos\theta$, decay angles in Z rest frame.
      - $cos\theta^*$, production angles in ZZ rest frame
      - $\Delta\phi$, azimuthal angle difference between leptons in ZZ rest frame.
  - Which samples need to be considered?
    - Polarized samples used in Run2 ZZ polarization analysis:
      - MG polarized qqZZ at LO.
      - Sherpa ggZZ at LO, reweighted to polarized states based on the SFs provided by theorists.
      - Sherpa qqZZ, reweighted to interference term based on the SFs provided by theorists.
  - Do we need to provide the related uncertainties?
    - PDF+alpha_s, QCD, different reweighting methods, …
  - Which format is needed? (Rivet routine, yoda file, ...)
    - Need some time to implement the reweighting method in Rivet.
    - Histograms at truth level are ready, store in root file, can convert to yoda.

Status of PUB note

- Histograms at truth level are ready.

- We are now writing PUB note draft.
    - Can have a first version next week if based on truth level histograms.
    - ATLAS review needs 2-3 weeks.

Backup