<u>Status</u>   Weekly Ξ^0_c analysis meeting, Jan. 28, 2021

- **Status**

  - Working with Lego Train output

    a. Data trains are finished: year 16, 17, and 18 (* AOD208 processed – NOT AOD234?)

    b. MC trains have minor problems

      b-1. MC2016 never ends: stuck in status "Train run: All jobs submitted" (submitted in Jan. 20)

      b-2. Low B-field runs included in MC2017: Jinjoo resubmitted the job, for now I discard events in those runs

  - Reviewing analysis flow and parameters

    a. To clarify, let

      a-1. 1st production: get ROOT output by using AliAnalysisTaskSemiLeptonic… in Grid/LT

      a-2. 2nd production: get ROOT output for later analysis

      a-3. Analysis: uses histograms from 2nd production

    b. Trigger + Multiplicity setups:

      * Currently using all multiplicity percentiles from V0, according to Dr. Beomkyu Kim's comment (less bias)

      b-1. MB_0to100, MB_0.1to30, and MB_30to100 – 2nd production results look fine

      b-2. HMV0_0to1 (Cristina suggested 0 – 0.1) – empty distribution after bottom correction, under debugging

      b-3. HMSPD_0to0.1

    c. Hard-coded parameters still need to be studied, especially for compatibility among setups
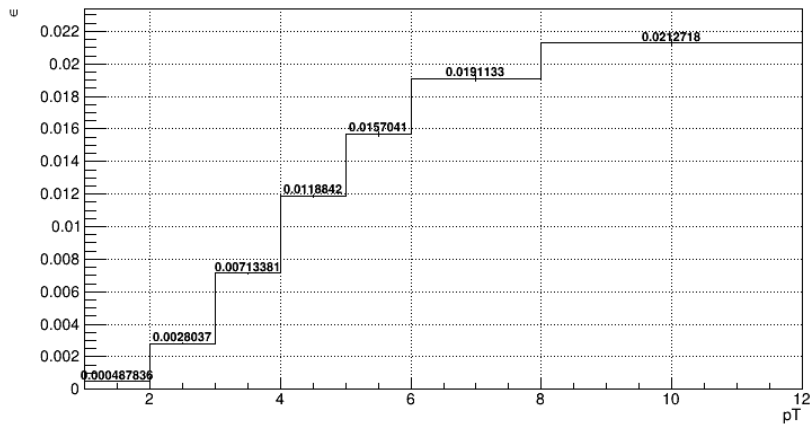
Sanity check   Efficiency, MB

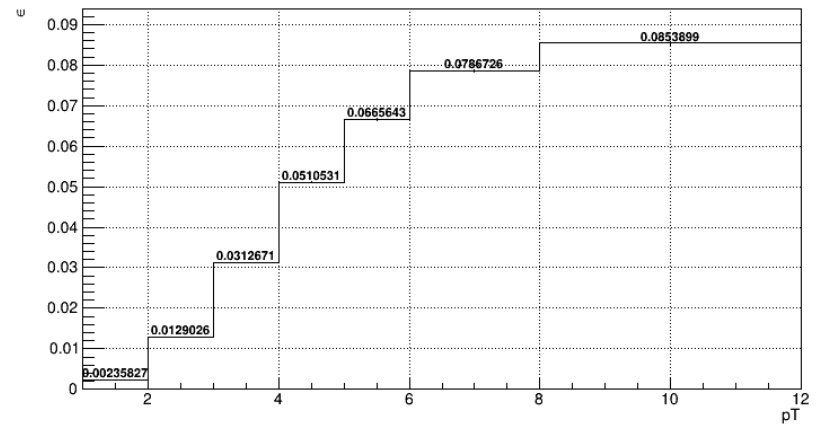By shlim: PYTHIA6 (black) and 8 (Magenta)
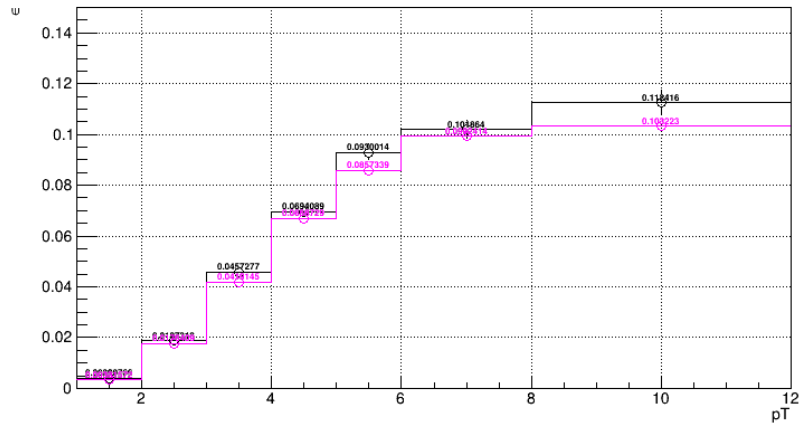
MB_0.0to100.0, Xic0Eff_wgt
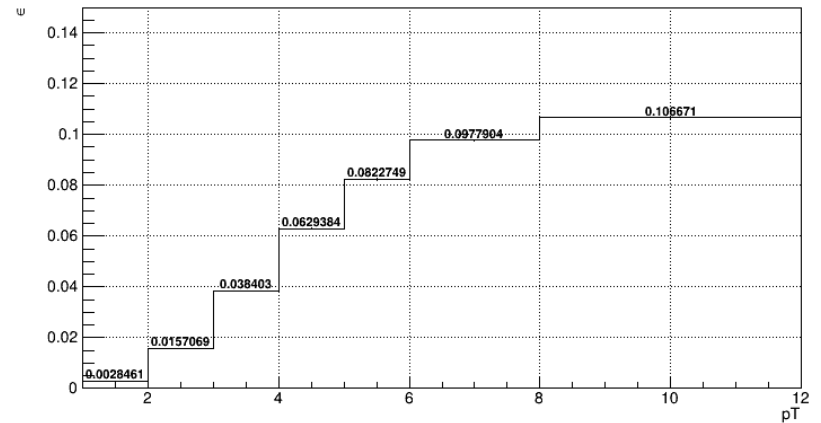
MB_0.1to30.0, Xic0Eff_wgt

MB_30.0to100.0, Xic0Eff_wgt

– Results by Prof. Lim ↔ Results by new train output (MC2016 missing):

NOT exactly same, but overall tendency matches

Sanity check   # of events processed in MB (data)

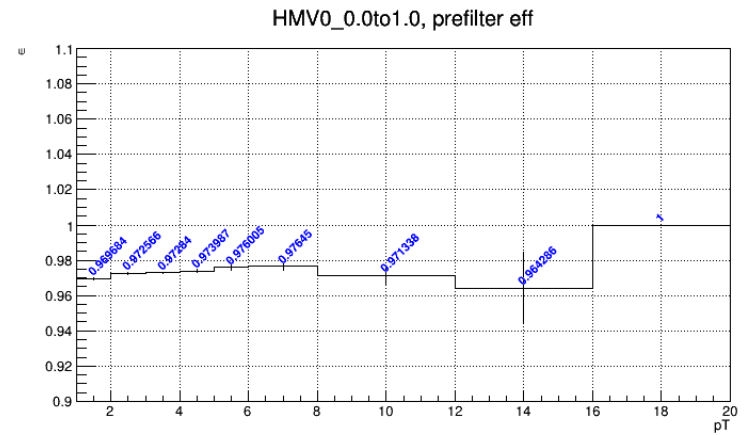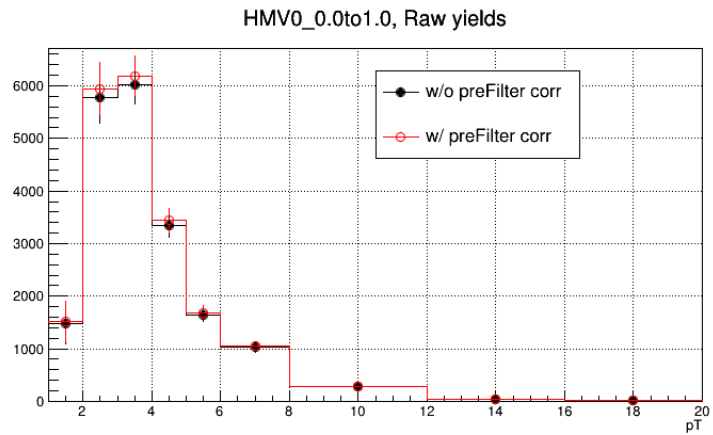- – Previous # of events for normalization
  a. I believe this is MB + goodzvtx
  b. Found in analysis macro by Jinjoo:
     1.88554e+09

Backup   Raw yields, MB by multiplicity percentile, prefilter correction
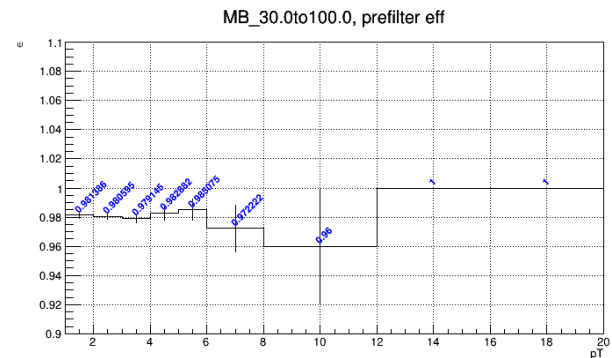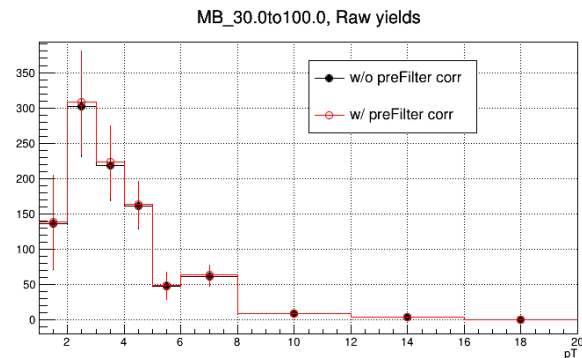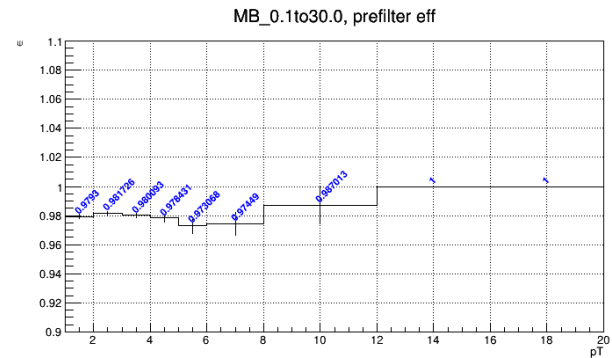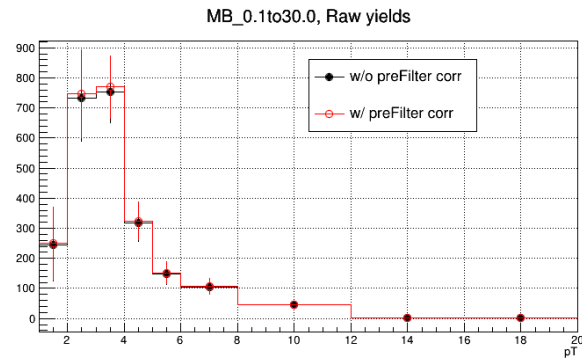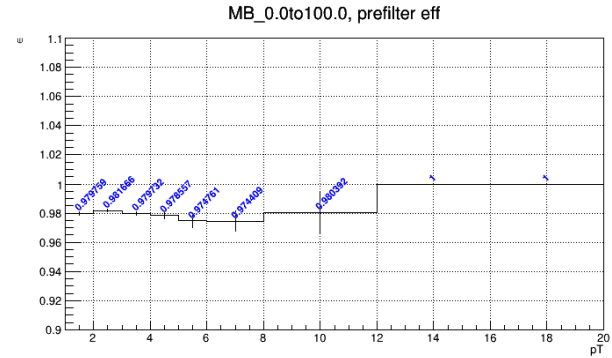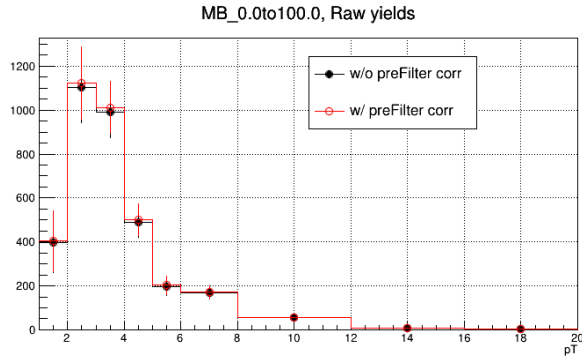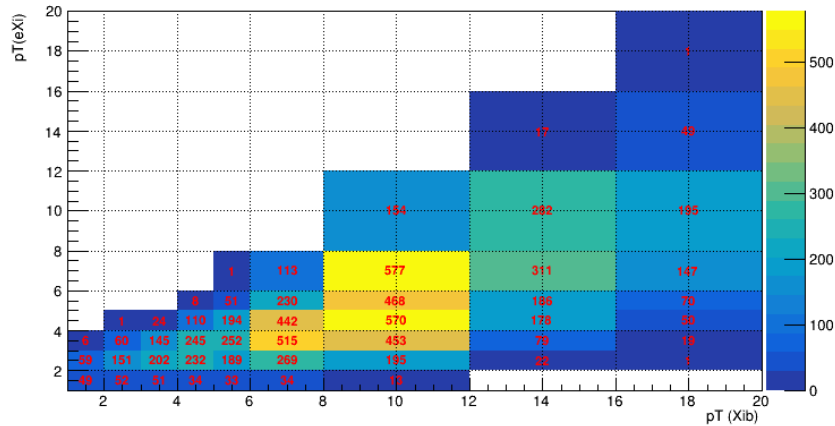
Backup   Raw yields, HMV0, prefilter correction

HMV0_0.0to1.0, Raw yields

- ● w/o preFilter corr
- ○ w/ preFilter corr

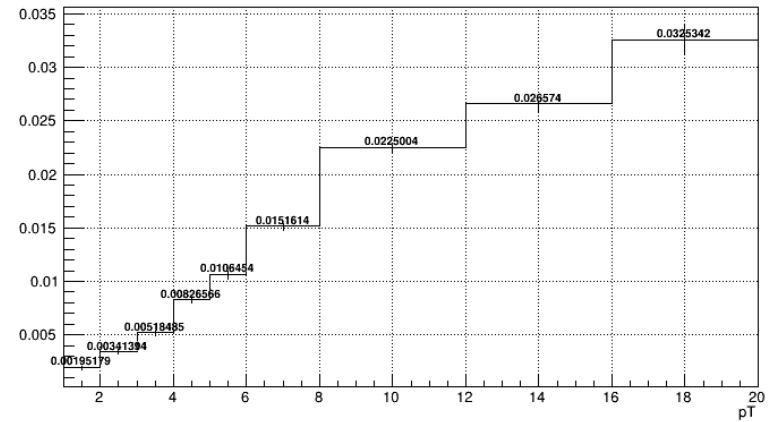HMV0_0.0to1.0, prefilter eff

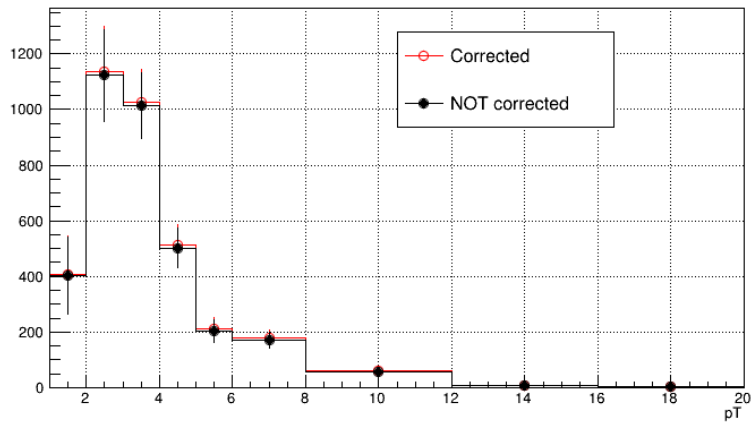# Backup   MB, bottom correction, 0 - 100

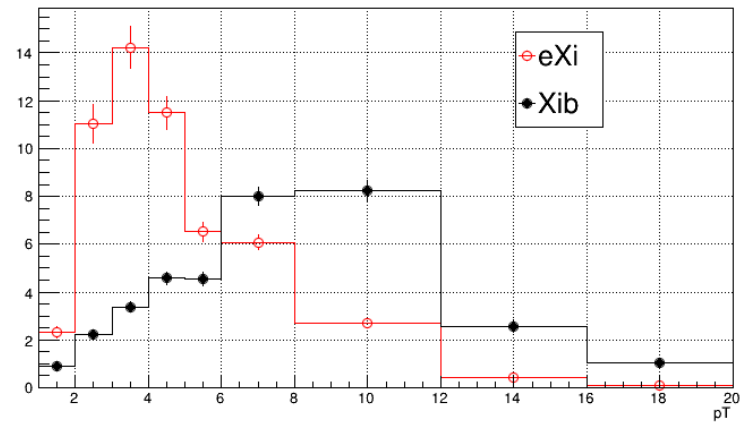MB_0.0to100.0, Response matrix

MB_0.0to100.0, Xib eff

MB_0.0to100.0, eXi yields w/ or w/o Xib corr
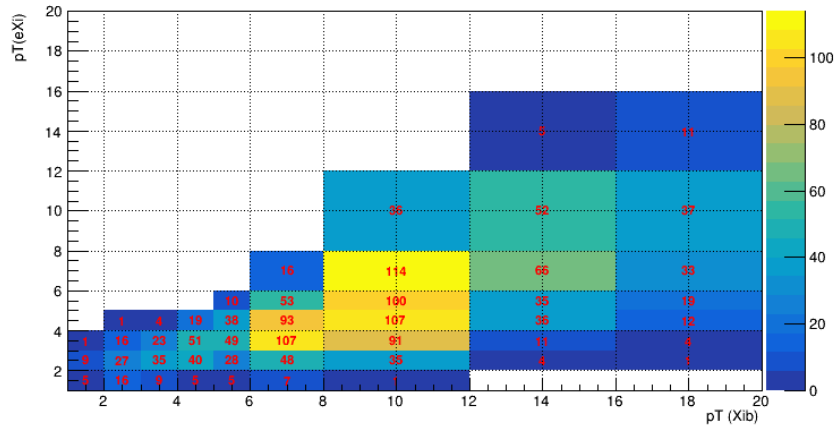

MB_0.0to100.0, eXi from Xib

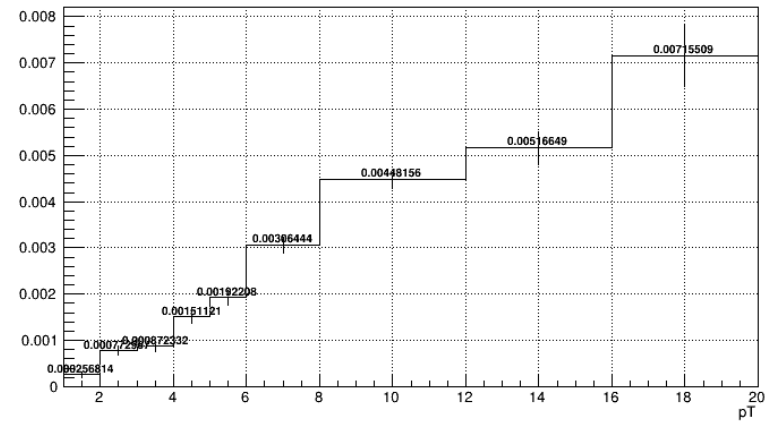# Backup MB, bottom correction, 0.1 - 30

MB_30.0to100.0, Response matrix

MB_30.0to100.0, Xib eff

MB_30.0to100.0, eXi yields w/ or w/o Xib corr

MB_30.0to100.0, eXi from Xib
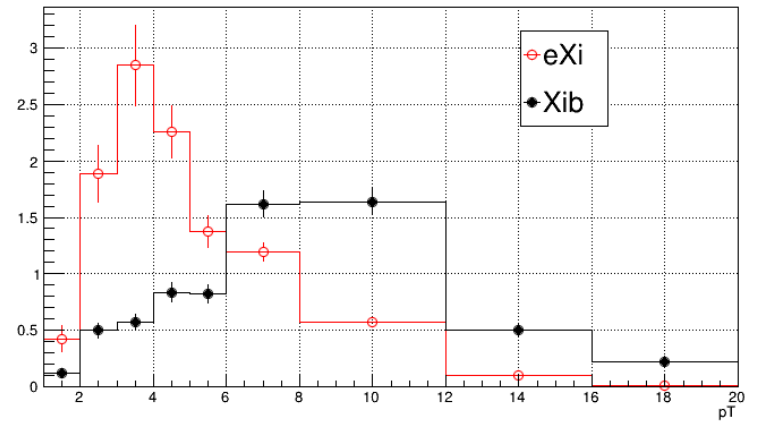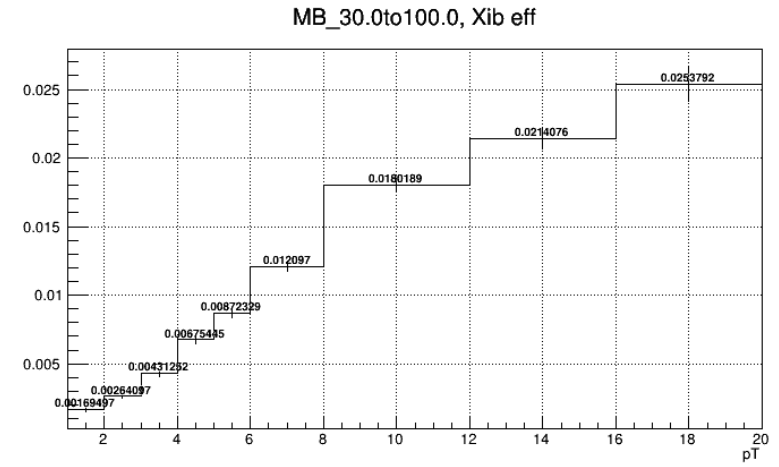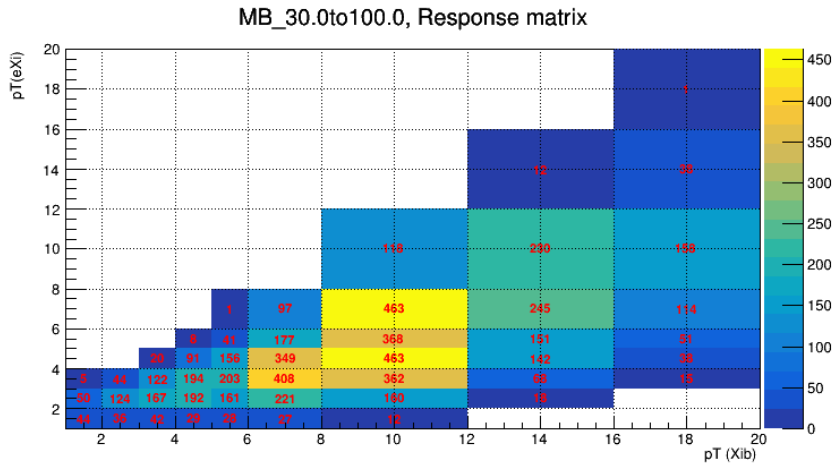
Backup   HMV0, bottom correction, 0 - 1
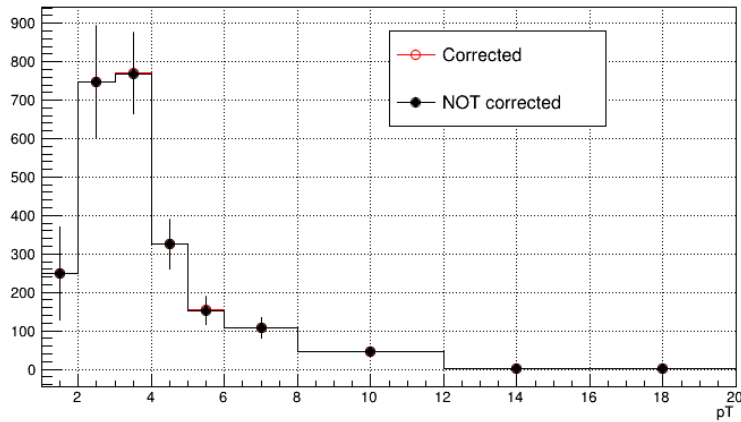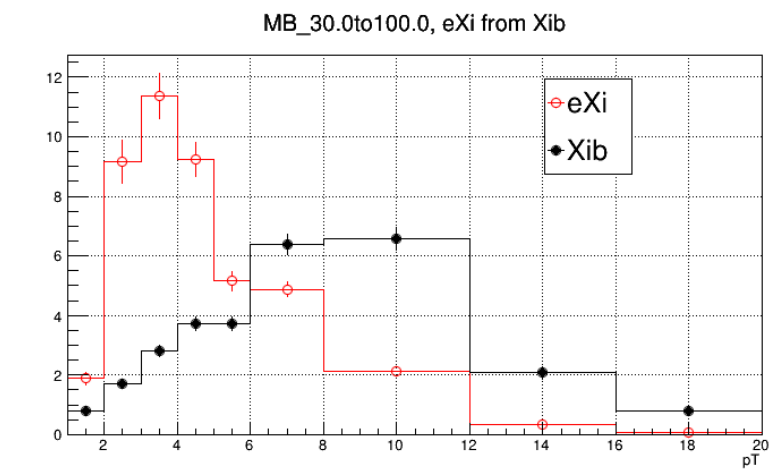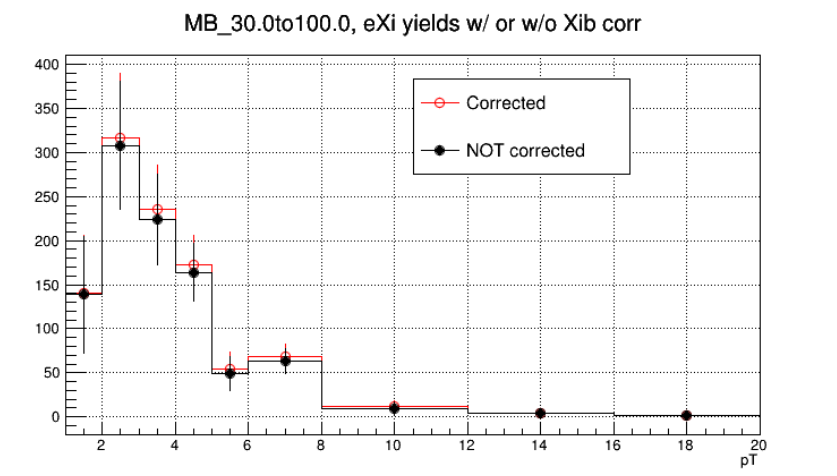
HMV0_0.0to1.0, Response matrix

HMV0_0.0to1.0, Xib eff

HMV0_0.0to1.0, eXi yields w/ or w/o Xib corr

Corrected
NOT corrected

HMV0_0.0to1.0, eXi from Xib

eXi
Xib