



## Latest progress on my side

Huiling Hua<sup>1</sup> **Fabio Lemmi**<sup>1</sup> Duncan Leggat<sup>2</sup>  
Hongbo Liao<sup>1</sup> Hideki Okawa<sup>2</sup> Yu Zhang<sup>2</sup>

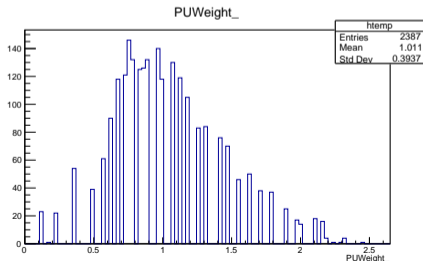
<sup>1</sup>Institute of High Energy Physics (IHEP), Beijing

<sup>2</sup>Fudan University, Shanghai

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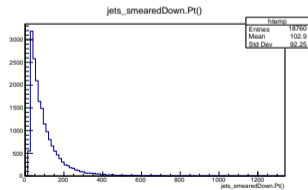
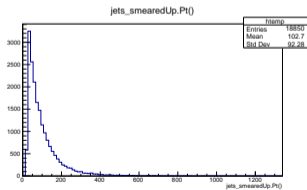
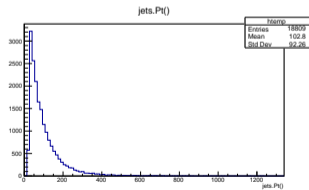


- **Added** branches with **PU scale factors** for 2016 post APV
- In order to get them, needed the data PU profiles
- Tried to compute them myself with pileupCalc.py, results looked buggy
  - **Used** the **centrally-produced files** (found [here](#))
- Got three branches
  - Central SF
  - Upwards SF
  - Downwards SF





- **Jet** collections in nanoAOD are not smeared
- Applied smearing to native collection (thanks Duncan for the suggestions!)
- Procedure is a bit convoluted and documented [here](#)
- **All collections** (jets, bjets) **have been smeared** with central, up and down scale factors



# Matching of reco tau with gen particles



Latest  
progress

F. Lemmi

- To apply DeepTau SFs, we **need to know the matching of reconstructed taus** to gen particles
- Need to know if a reco taus comes from:
  - Misidentified prompt  $e$
  - Misidentified prompt  $\mu$
  - Misidentified  $e$  from  $\tau \rightarrow e$
  - Misidentified  $\mu$  from  $\tau \rightarrow \mu$
  - Hadronic tau
  - Jet/PU fake
- This **matching is performed in NanoAOD** already and stored in a branch
  - Just stored this information in our framework