

# NMSU Update

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## Binned Data

- » We binned the data in the following ranges;

`mass = [4., 5.), [5., 6.)`

`pT = [0., 0.4), [0.4, 0.8), [0.8, 1.2), [1.2, 1.6)`

`x1 = [0.4, 0.5), [0.5, 0.6), [0.6, 0.7), [0.7, 0.8)`

`xF = [0.1, 0.3), [0.3, 0.5), [0.5, 0.7), [0.7, 0.9)`

- » We filled the histograms with 50K DY reco. events with `occuD1 < 200..`
- » When training the neural network, we need to train the neural network in the bins that we are interested. For example, if we need to extract the angular coef. in the  $x_F = [0.3, 0.5)$  bin we have to train the network in the same bin. This may be a drawback ?

$\{\lambda, \mu, \nu\} = \{0.4, 0.4, 0.4\}$  for  $p_T = [0.4, 0.8)$

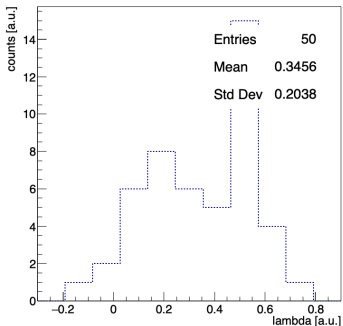


Figure 1: Extracted lambda.

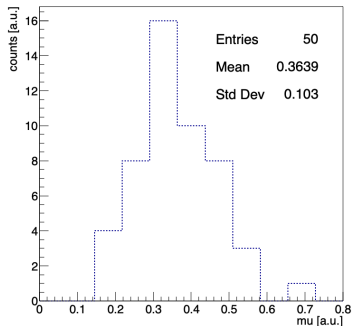


Figure 2: Extracted mu.

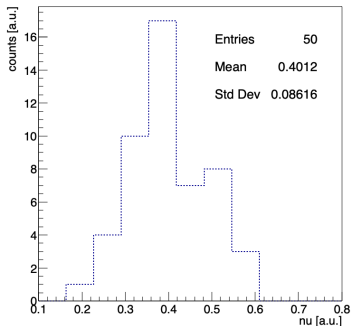


Figure 3: Extracted nu.

- » We can use singularity image with necessary python packages to run the network in grid (OSD). I was able to create singularity image with ubuntu base. But could not install python packages with pip/conda. Plan to discuss this with Abi.
- » Reminder : Reference latter to NNPSS.