# NMSU Update

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- We use the cuts for MC, raw and mix data. Some physics cuts are; 4.5 < mass && mass < 8.8 D < 200.
- We use the same bin combination for real and MC data.

```
mass = {2, 4.5, 6.5};

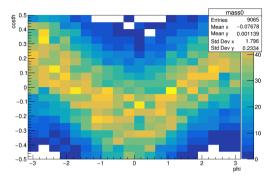
pT = {3, 0., 1.5};

xF = {4, 0., 0.8};

phi = {20, -pi, pi};

costh = {20, -0.5, 0.5};
```

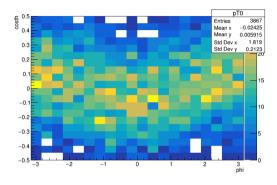
■ In this study we have not subtract the flask background.



mass1 Entries 2963 -0.01405 Mean y -9.281e-05 Std Dev x 1.859 0.3 Std Dev y 0.2409 0.2 0.1 -0.1 -0.2 -0.4 -2 -1 0 3 phi

Figure 1: mass bin 0.

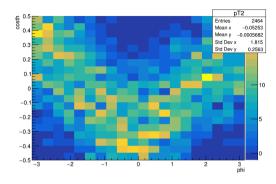
Figure 2: mass bin 1.



pT1 Entries Mean x 5741 -0.08725 Mean y -0.002373 Std Dev x 1.813 0.3 Std Dev y 0.2363 0.2 0.1 -0.2 -0.3 -0.4 3 phi -2 0

Figure 3: pT bin 0.

Figure 4: pT bin 1.



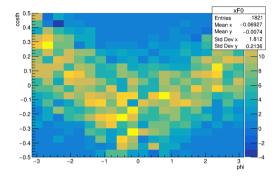


Figure 5: pT bin 2.

Figure 6: xF bin 0.

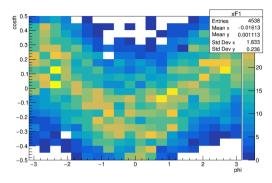


Figure 7: xF bin 1.

Figure 8: xF bin 2.

xF2

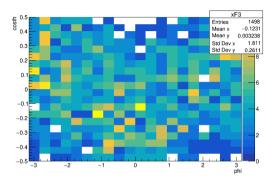


Figure 9: xF bin 3.

### 1st mass bin

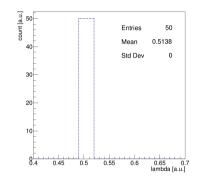


Figure 10: lambda.

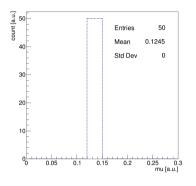


Figure 11: mu.

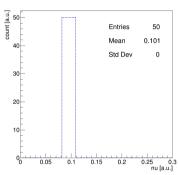


Figure 12: nu.

### 2nd mass bin

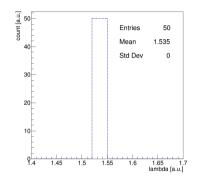


Figure 13: lambda.

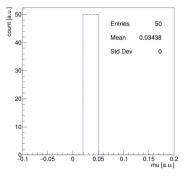


Figure 14: mu.

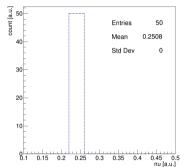


Figure 15: nu.

# 1st pT bin

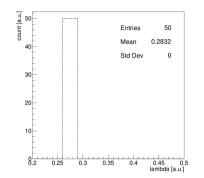


Figure 16: lambda.

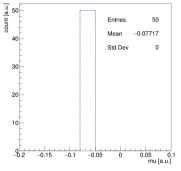


Figure 17: mu.

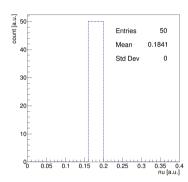


Figure 18: nu.

# 2nd pT bin

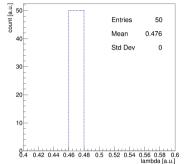
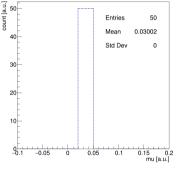


Figure 19: lambda.



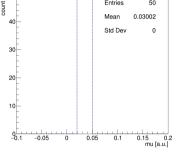


Figure 20: mu. Figure 21: nu.

-0.05

count [a.u.]

0.2 nu [a.u.]

Entries

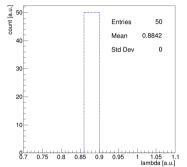
Std Dev

0.05 0.1 0.15

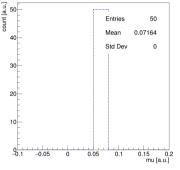
50

-0.006442

# 3rd pT bin







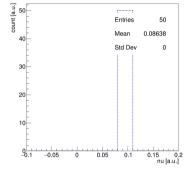


Figure 23: mu.

Figure 24: nu.

## 1st xF bin

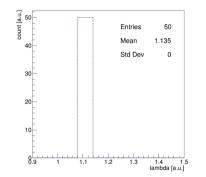


Figure 25: lambda.

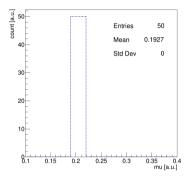


Figure 26: mu.

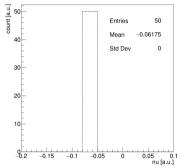


Figure 27: nu.

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### 2nd xF bin

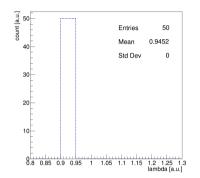


Figure 28: lambda.

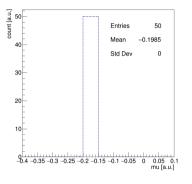


Figure 29: mu.

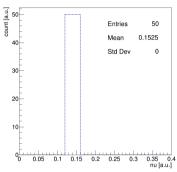


Figure 30: nu.

## 3rd xF bin

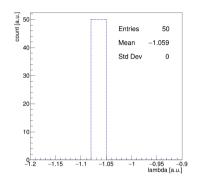


Figure 31: lambda.

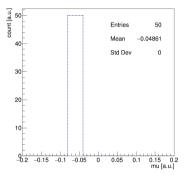


Figure 32: mu.

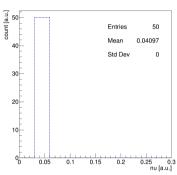


Figure 33: nu.

## 4th xF bin

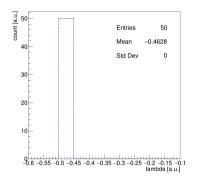


Figure 34: lambda.

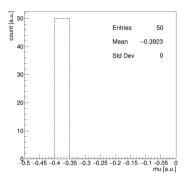


Figure 35: mu.

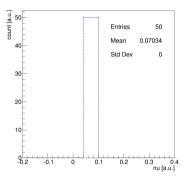


Figure 36: nu.

# Final

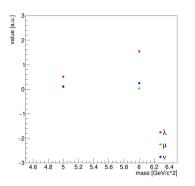


Figure 37: mass.

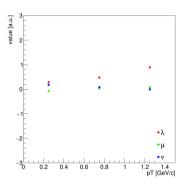


Figure 38: pT.

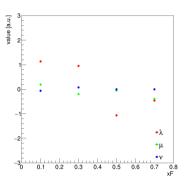


Figure 39: xF.