

# BDT update



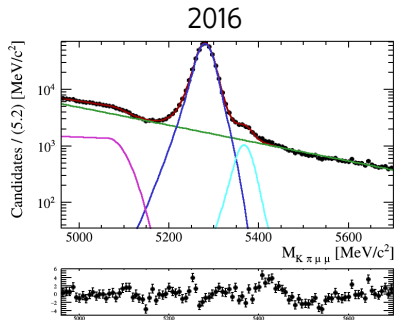
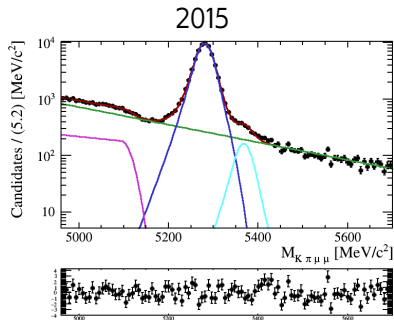
Marcin Chrzaszcz



$B^0 \rightarrow K^* \mu^- \mu^+$  meeting, CERN  
October 25, 2017

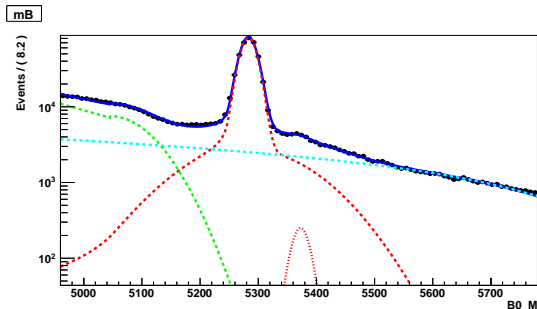
## Strategy

Keep things as close to Run1 as possible



# Spot Problem

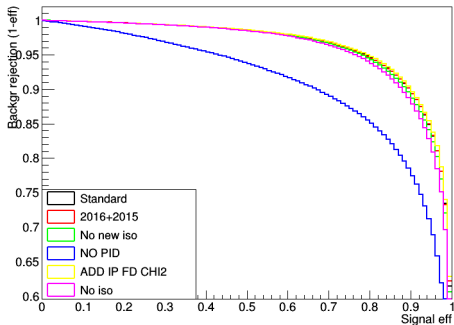
⇒ This is what we did in Run1:



⇒ We CANNOT compare the ROC curves to Run1.

⇒ Plan is to redo the spot in Run1 and then redo the ROC curves on that BDT..

# BDT possibilities



Lenend:

Standard: Run1 variables<sup>1</sup>

2016+2015: 2015 added to training.

NO new iso: Without the addition of new isolations.

NO PID: removed PID variables

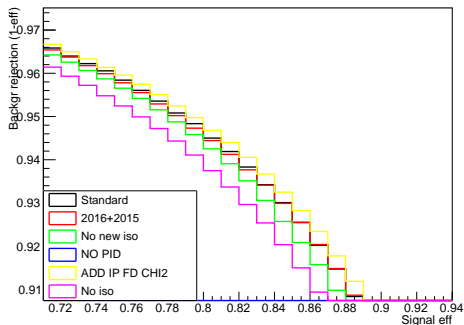
ADD IP FD CHI2: 2 new variables: IPCHI2, FDCHI2

No iso: NO new isolations

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<sup>1</sup>New isolations

# BDT possibilities



Legend:

Standard: Run1 variables<sup>2</sup>

2016+2015: 2015 added to training.

NO new iso: Without the addition of new isolations.

NO PID: removed PID variables

ADD IP FD CHI2: 2 new variables: IPCHI2, FDCHI2

No iso: NO new isolations

<sup>2</sup>New isolations

# Conclusions

- I would stick to Run1 variable and drop the new isolations.
- Need to redo Splot for Run1.
- Checking the standard flatness (need the PIDresapling).

