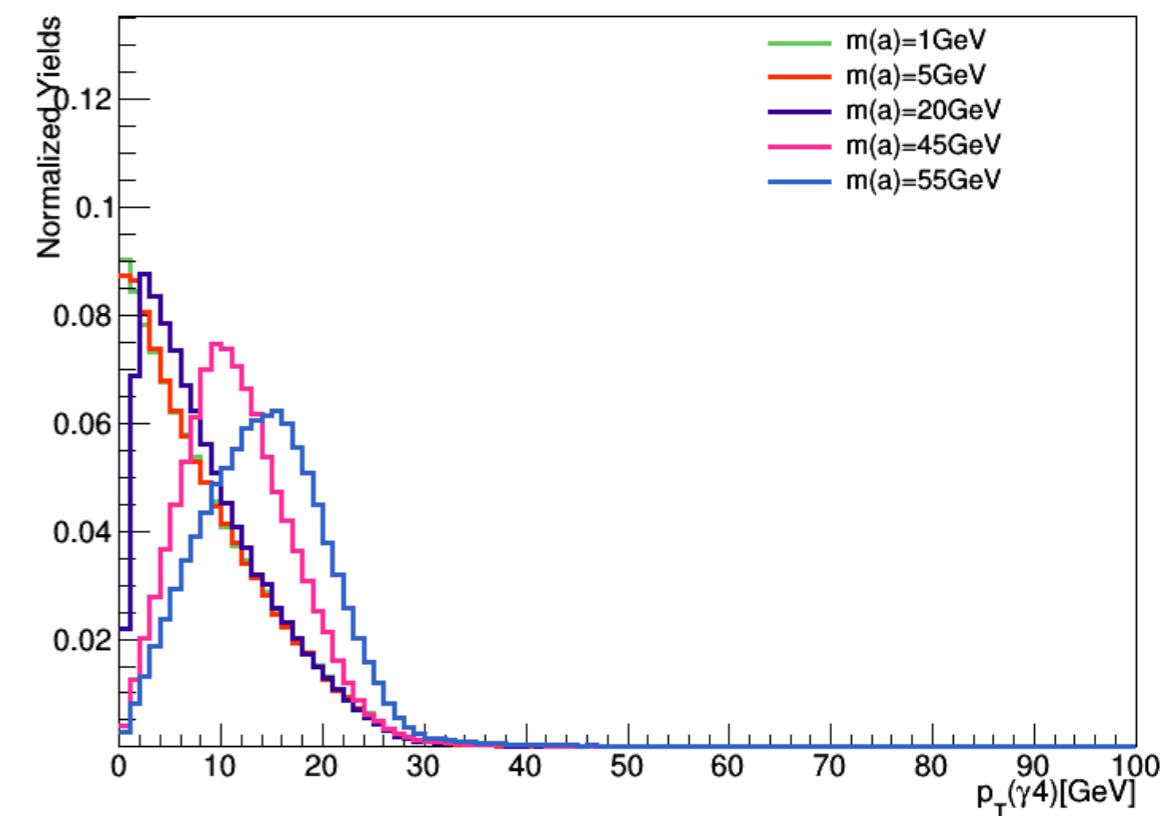
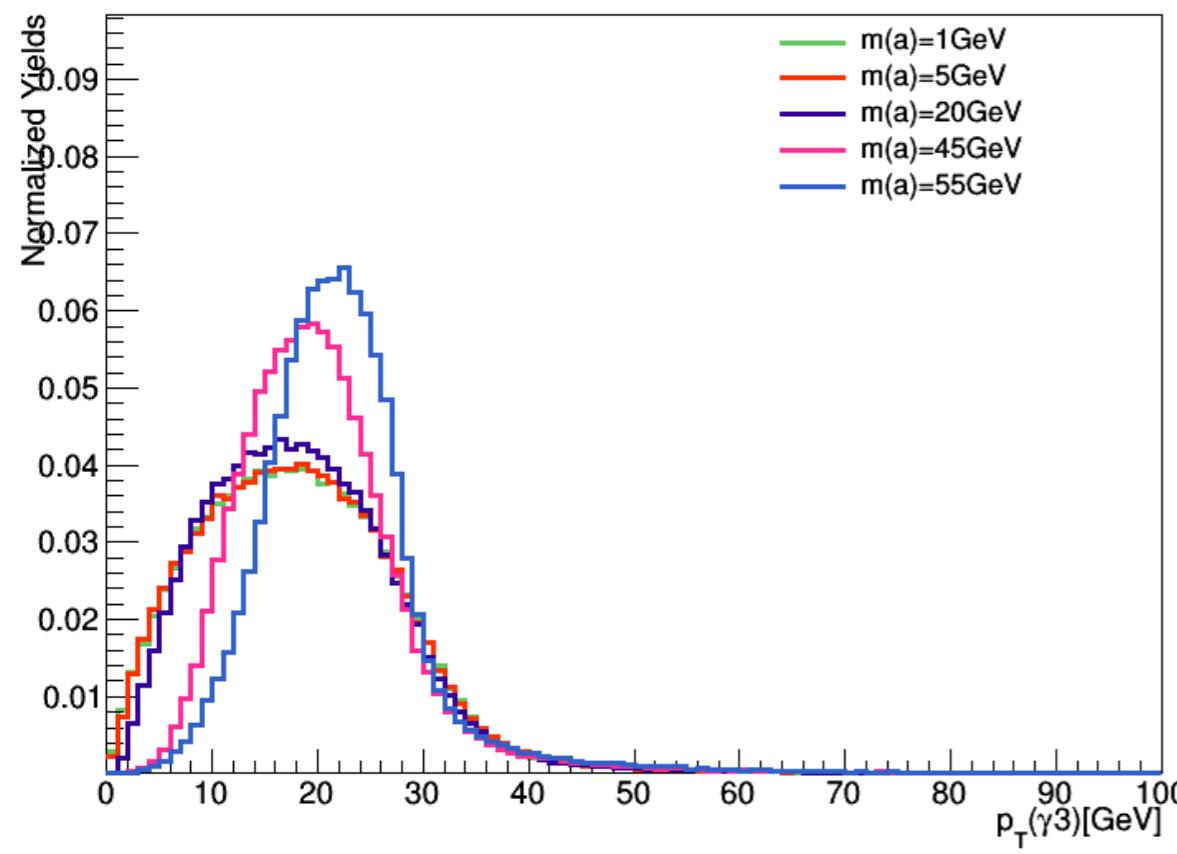
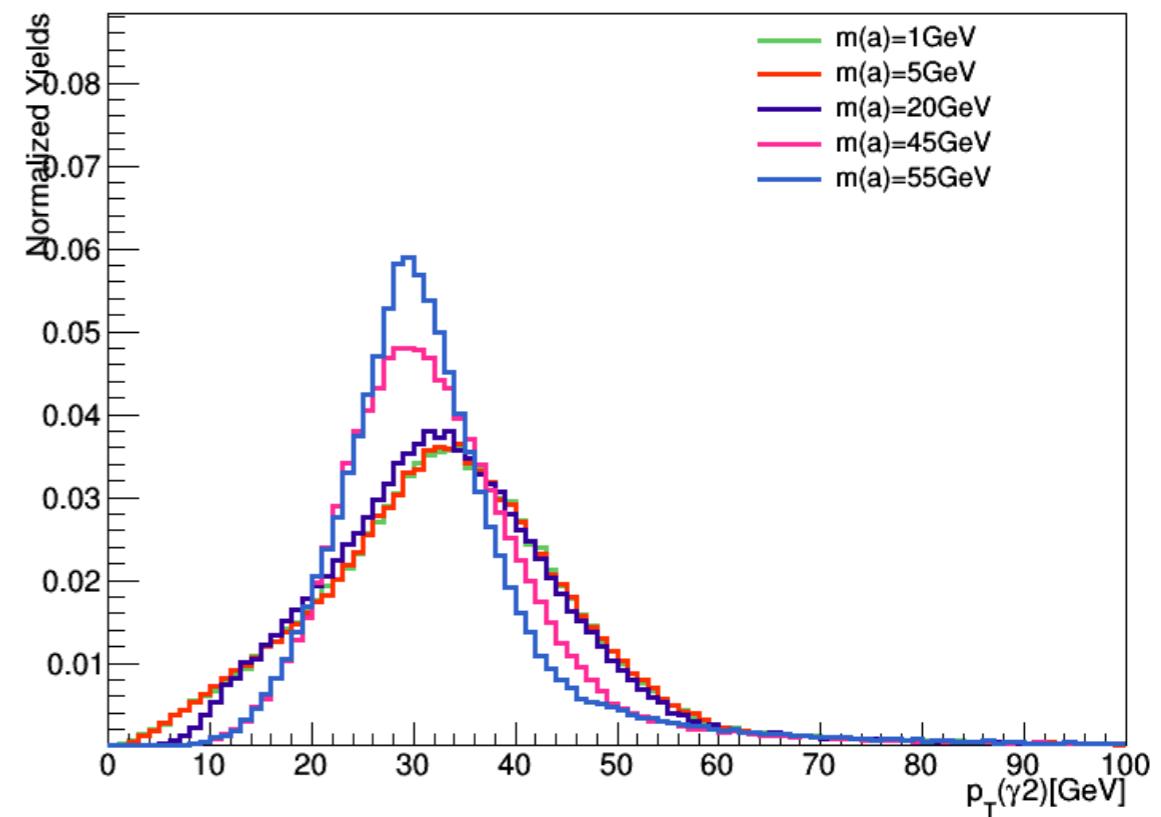
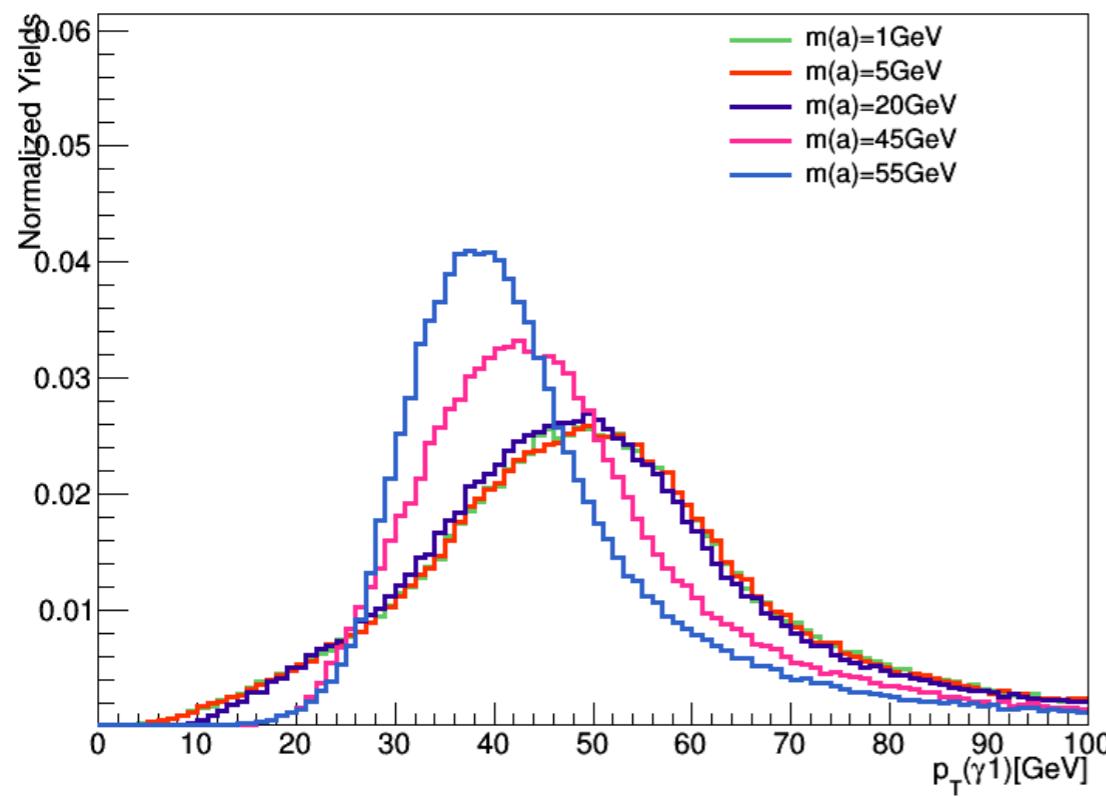
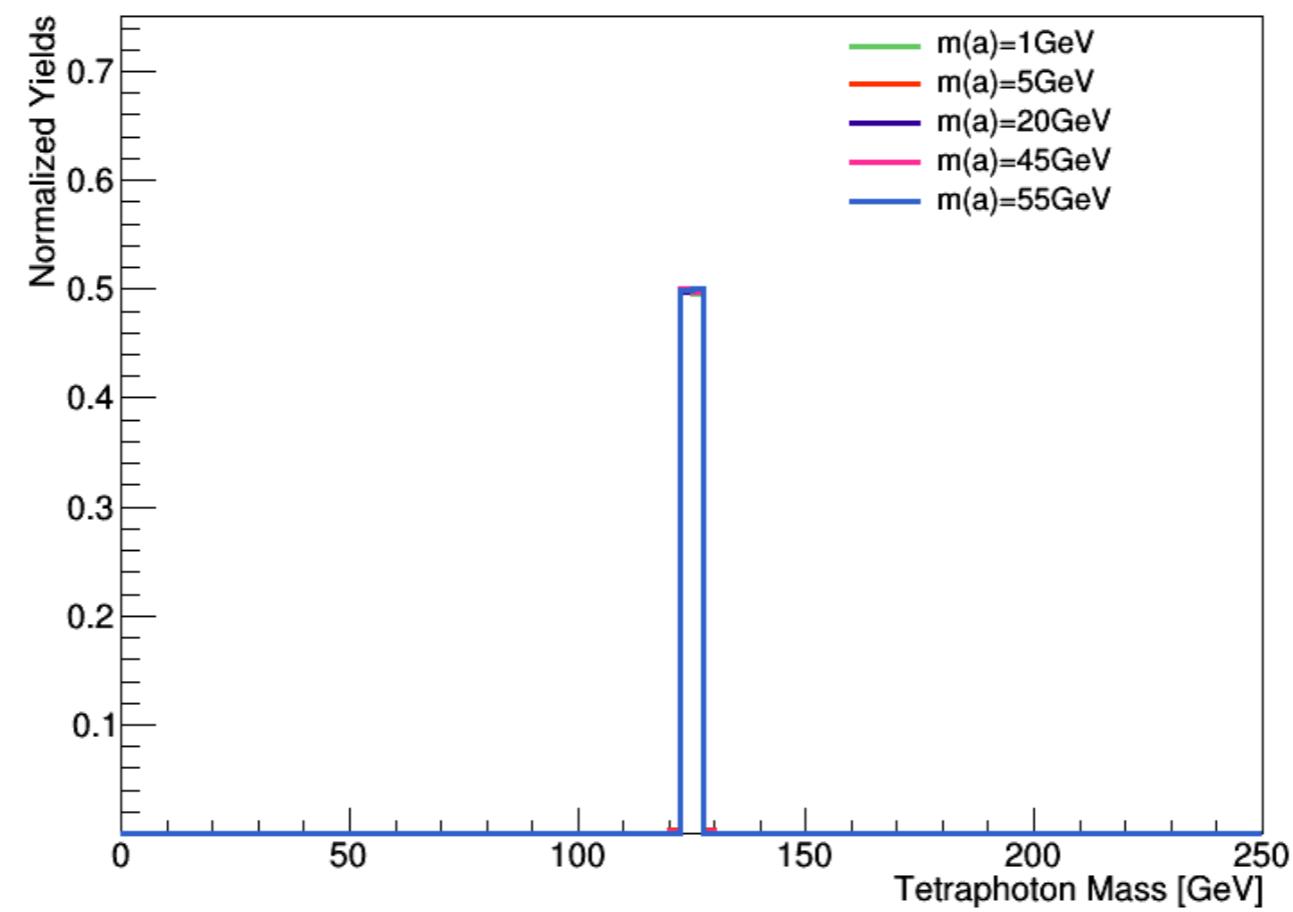
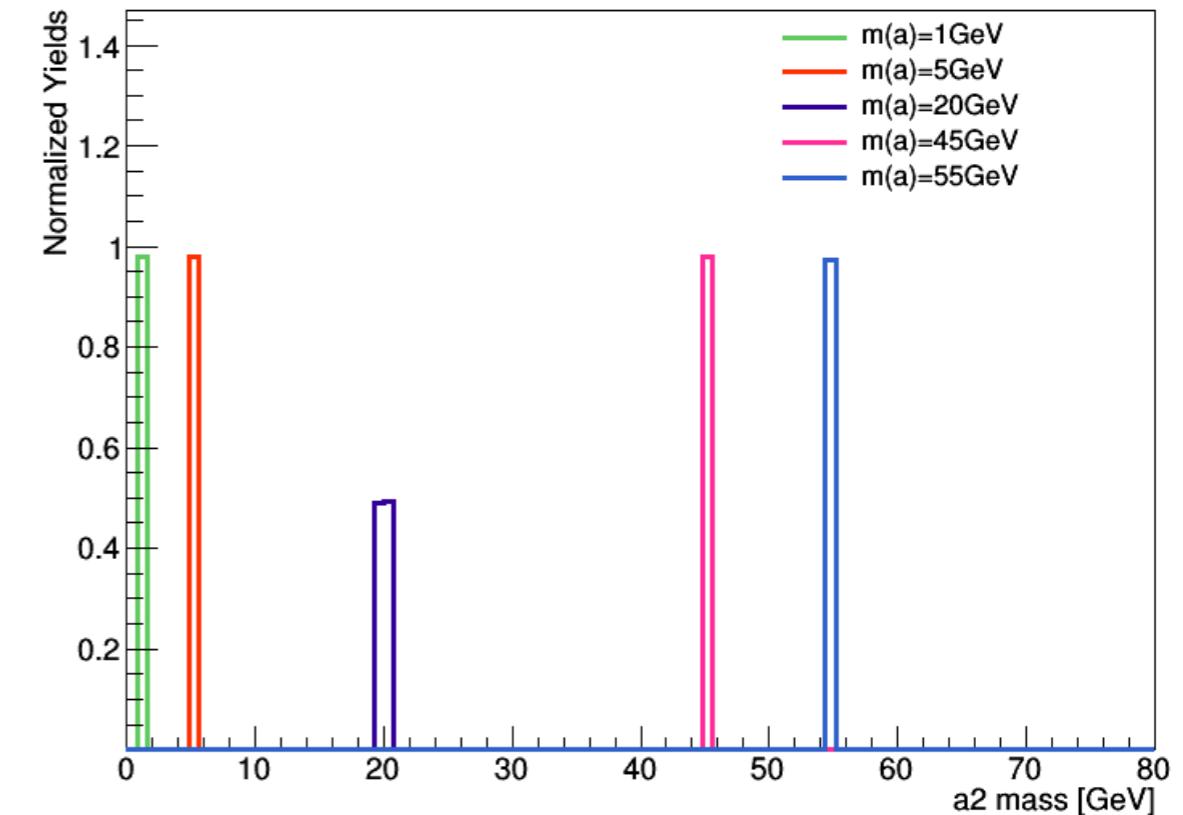
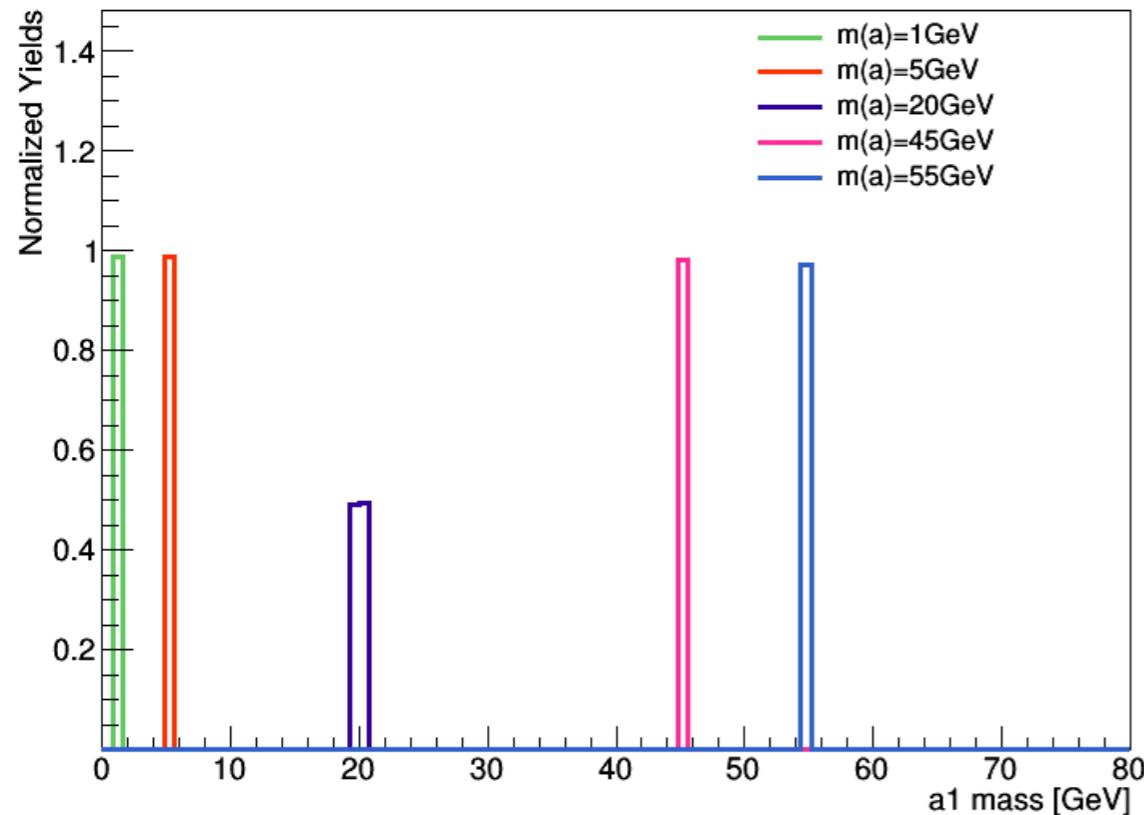


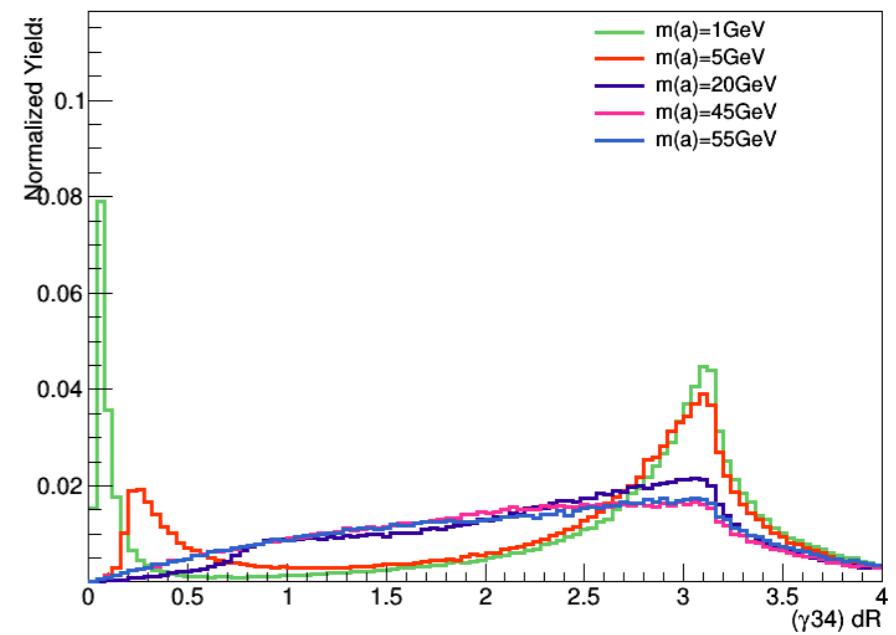
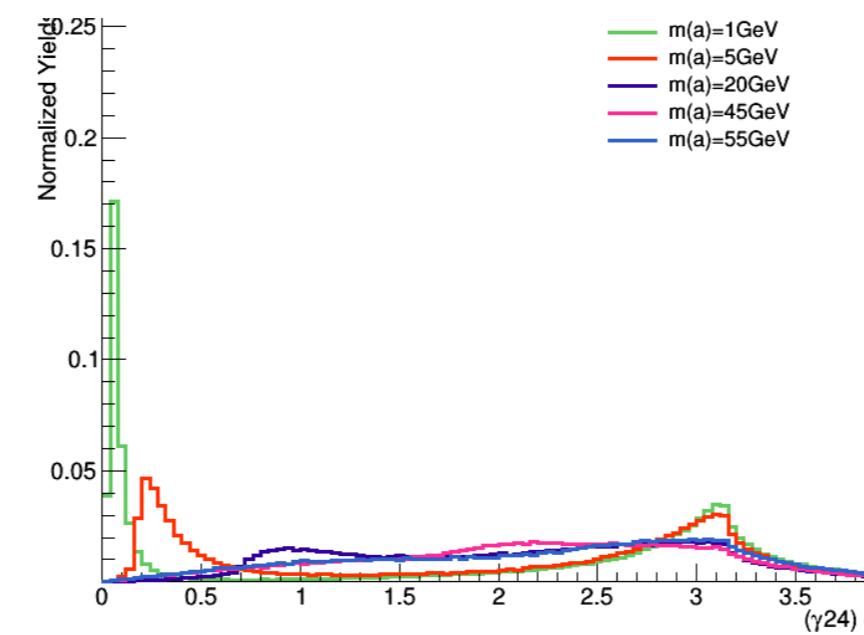
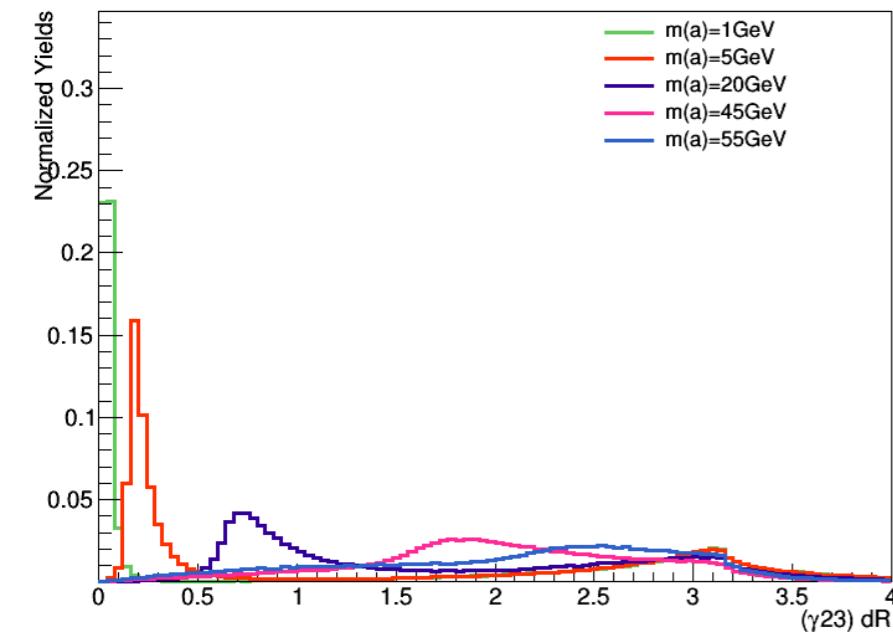
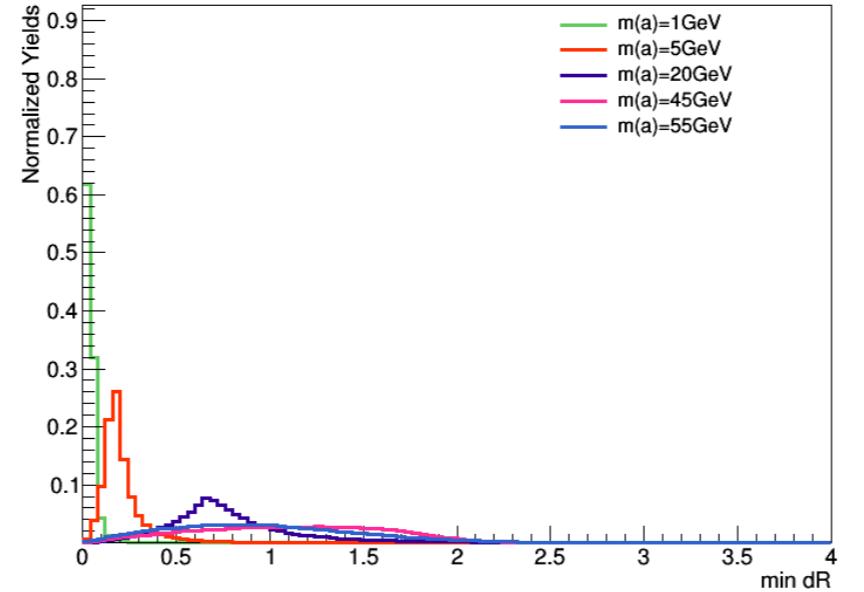
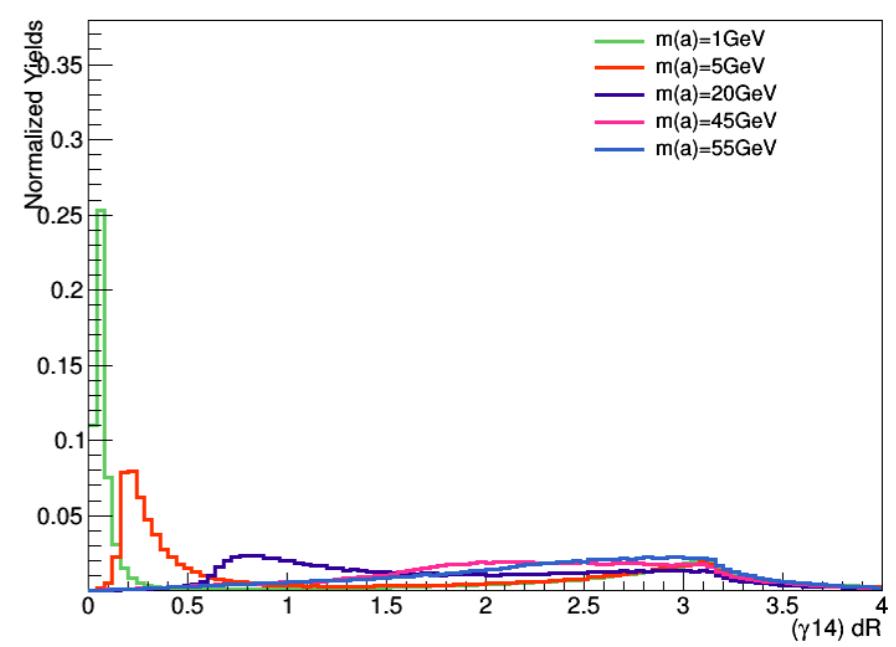
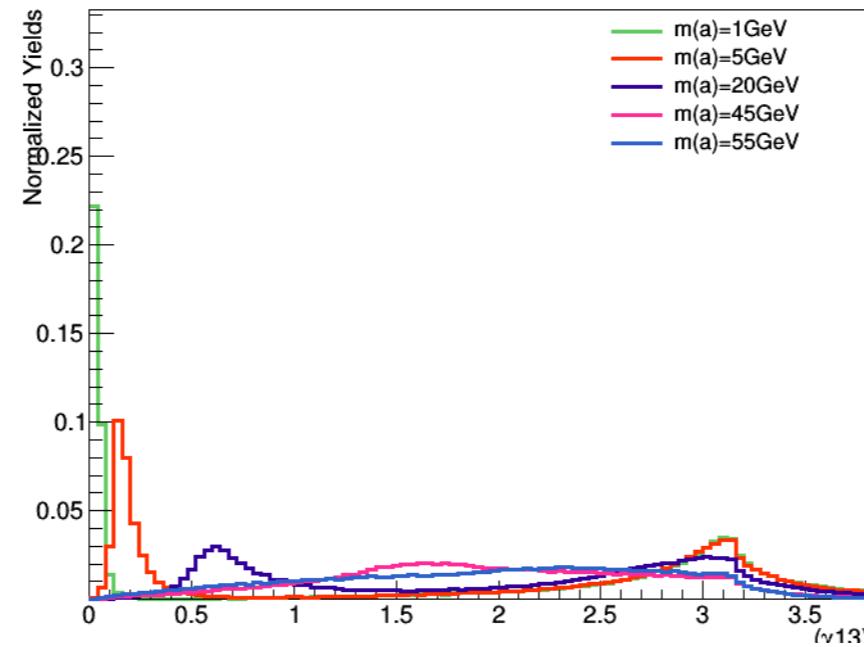
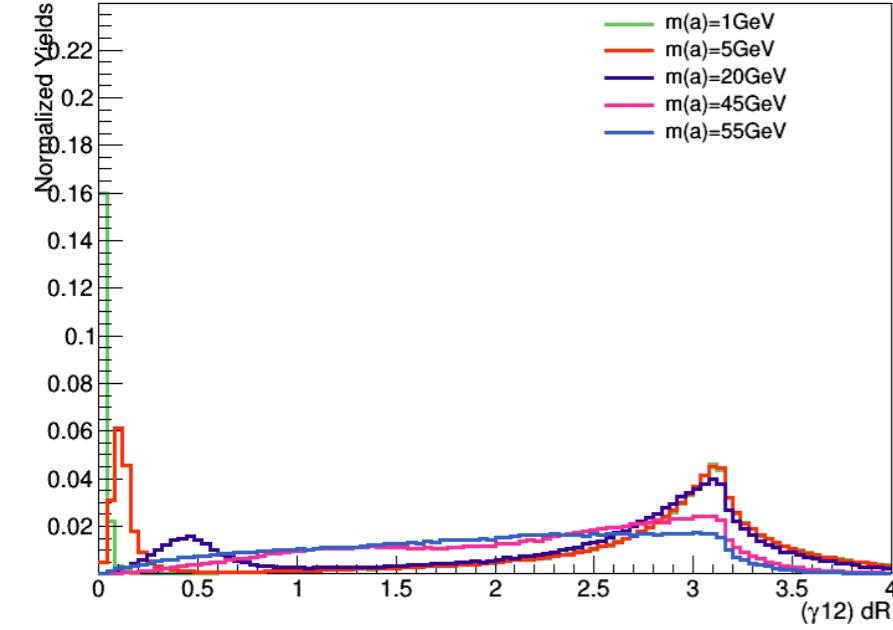
## **Gen level studies (revisited)**

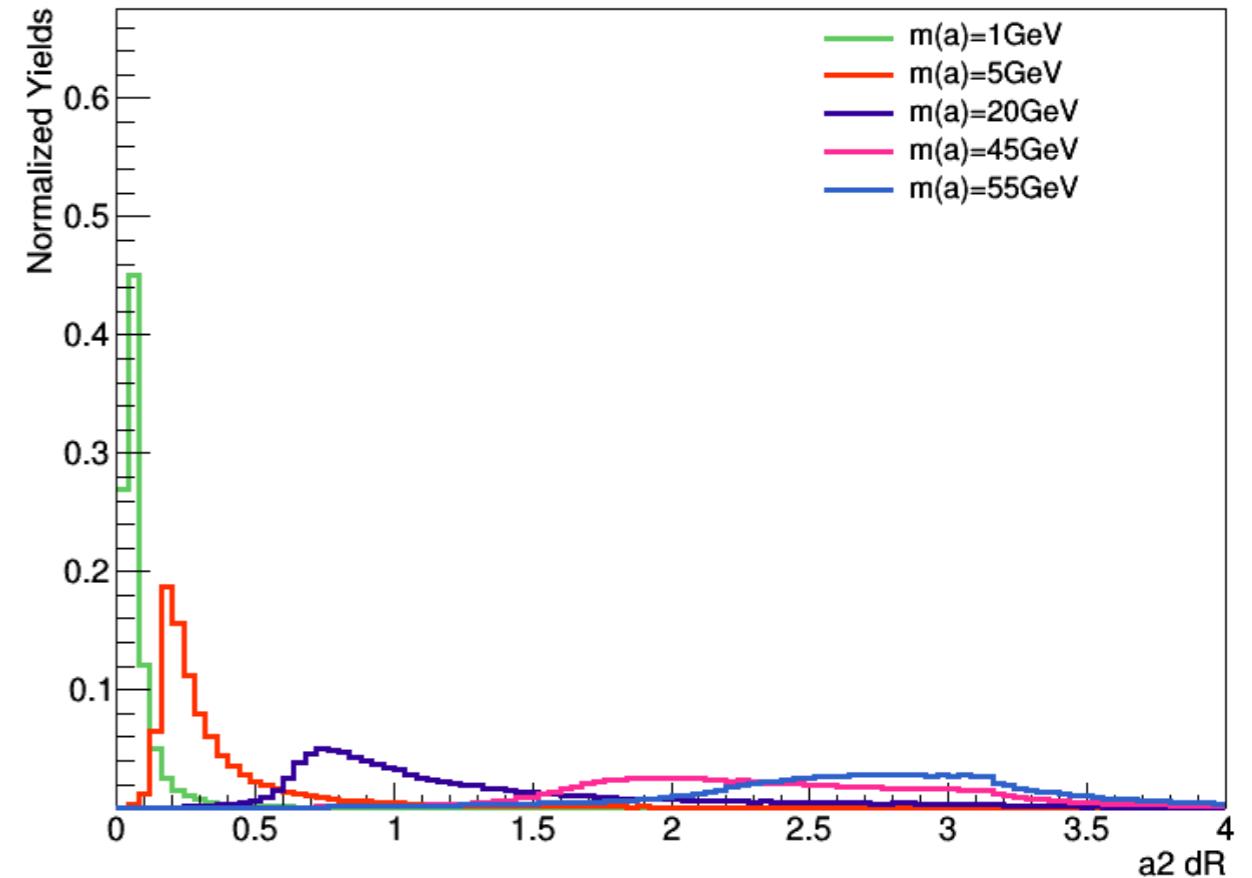
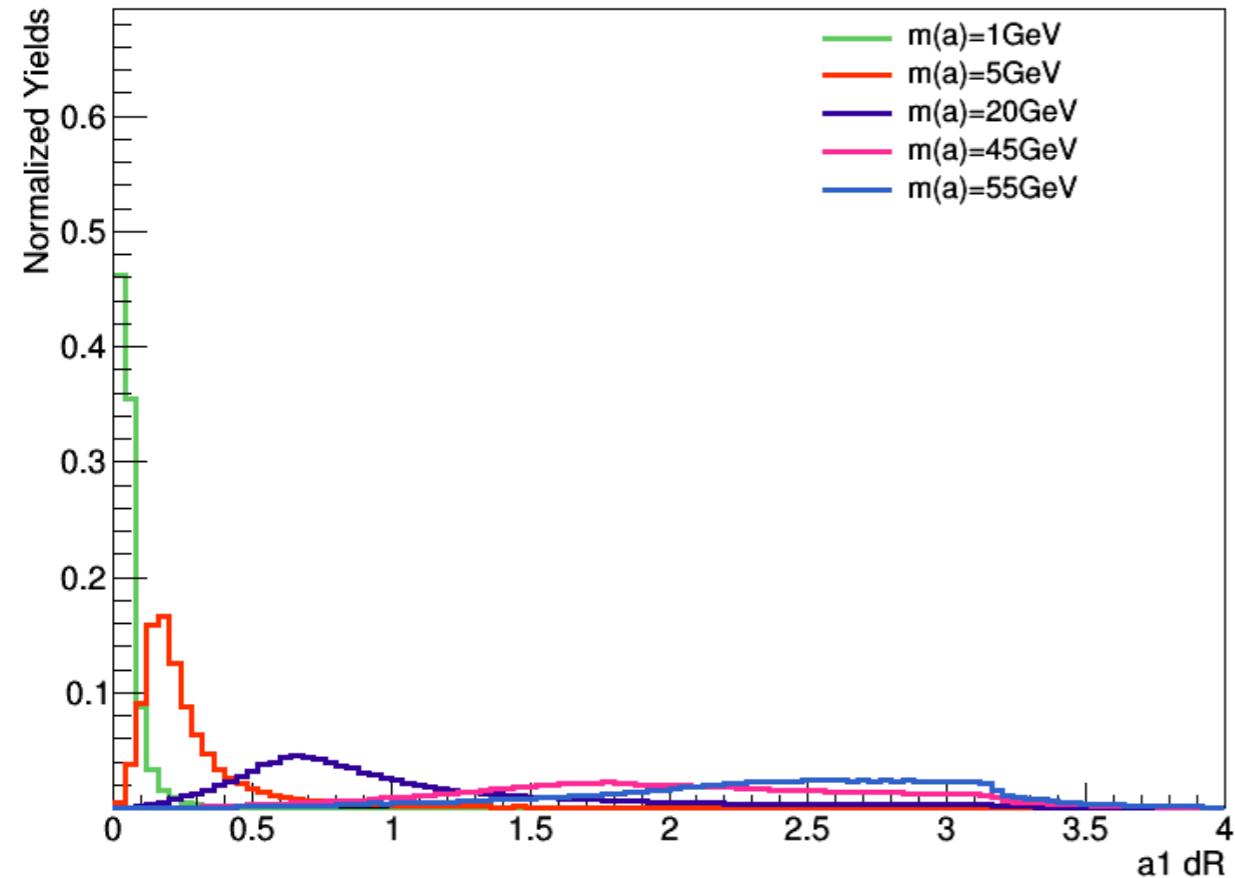
### **MiniAodSim level**

- The older gen level studies we had done were @ MicroAodGen level
  - Photons there were not just the ones with “a” as mother (mother information is not saved @ microAOD level). So to make sure we only look at photons with our “a” as mother , look @ miniAOD level (mother information exists at this level )

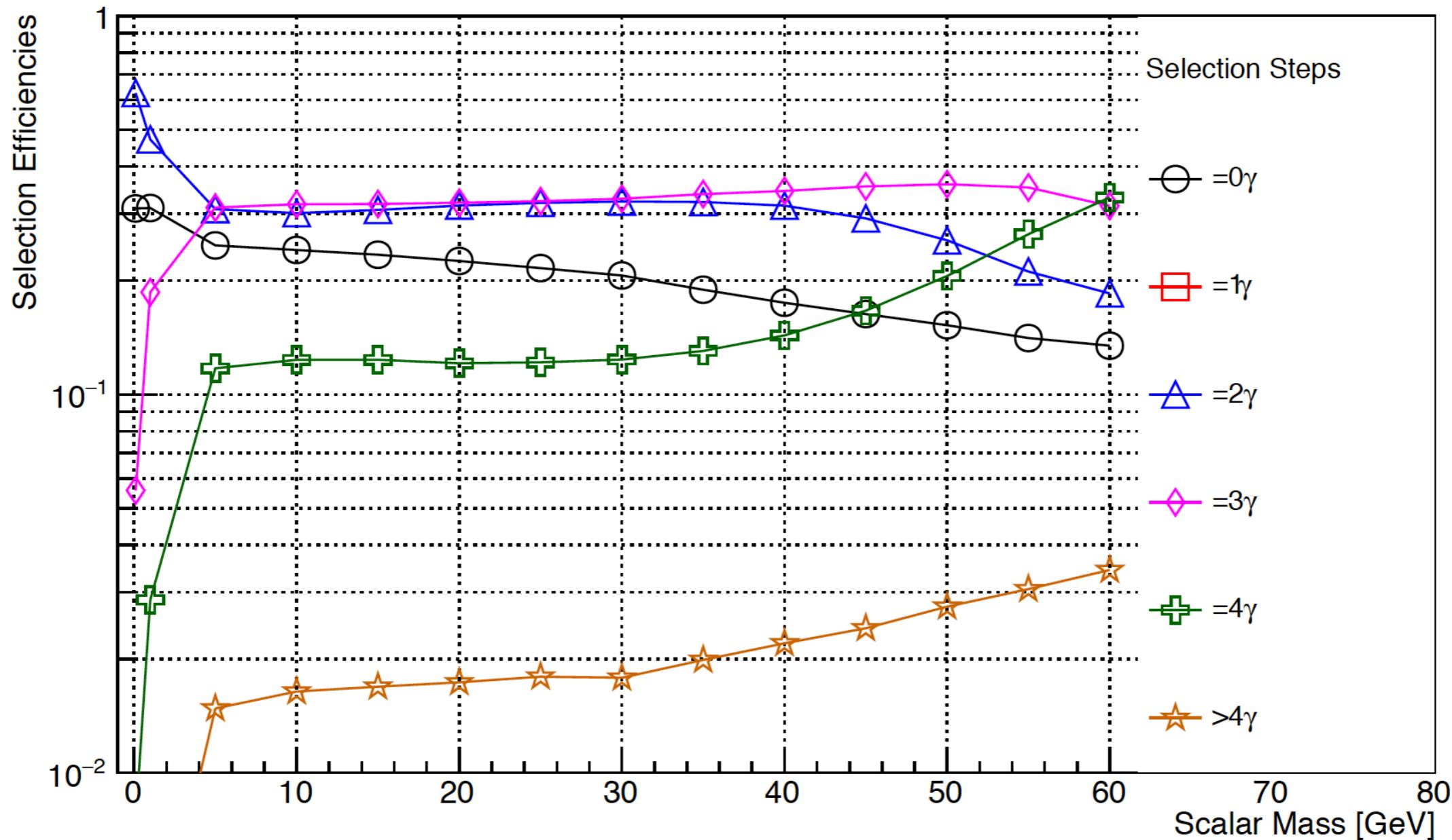


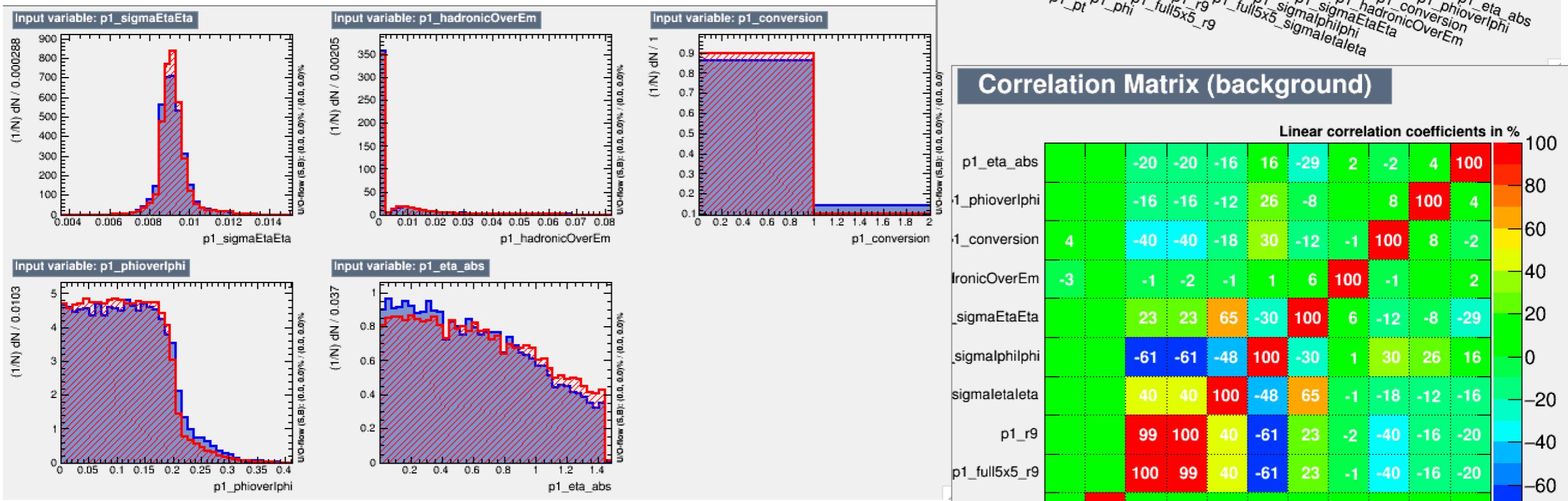
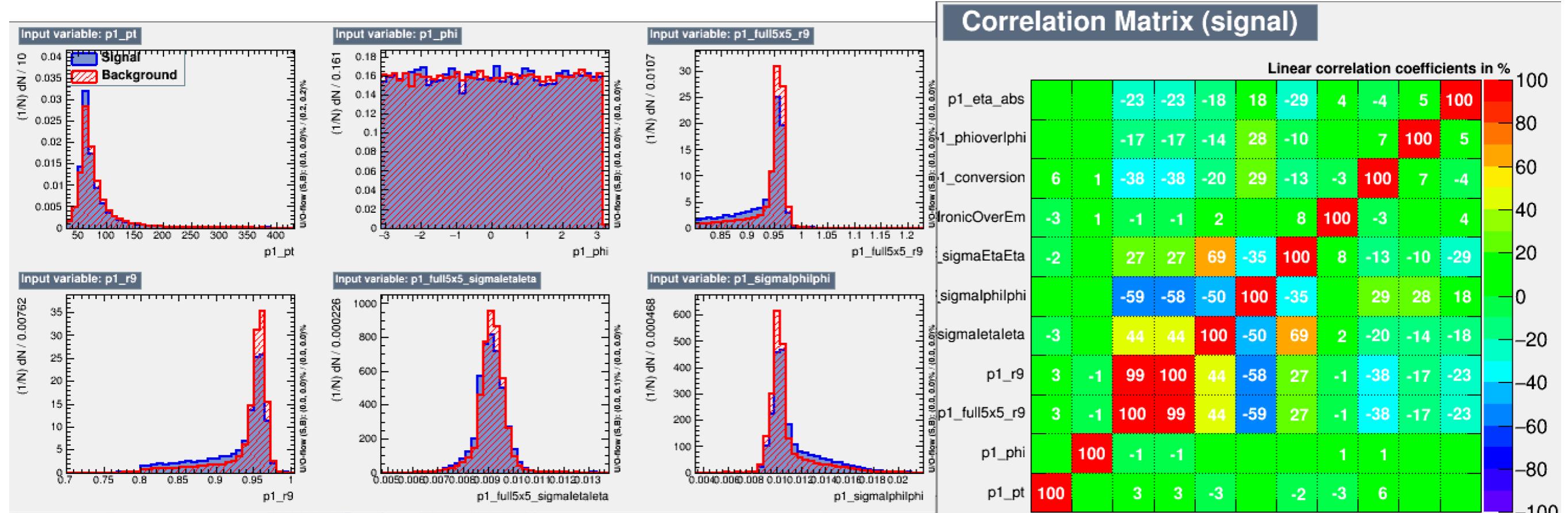






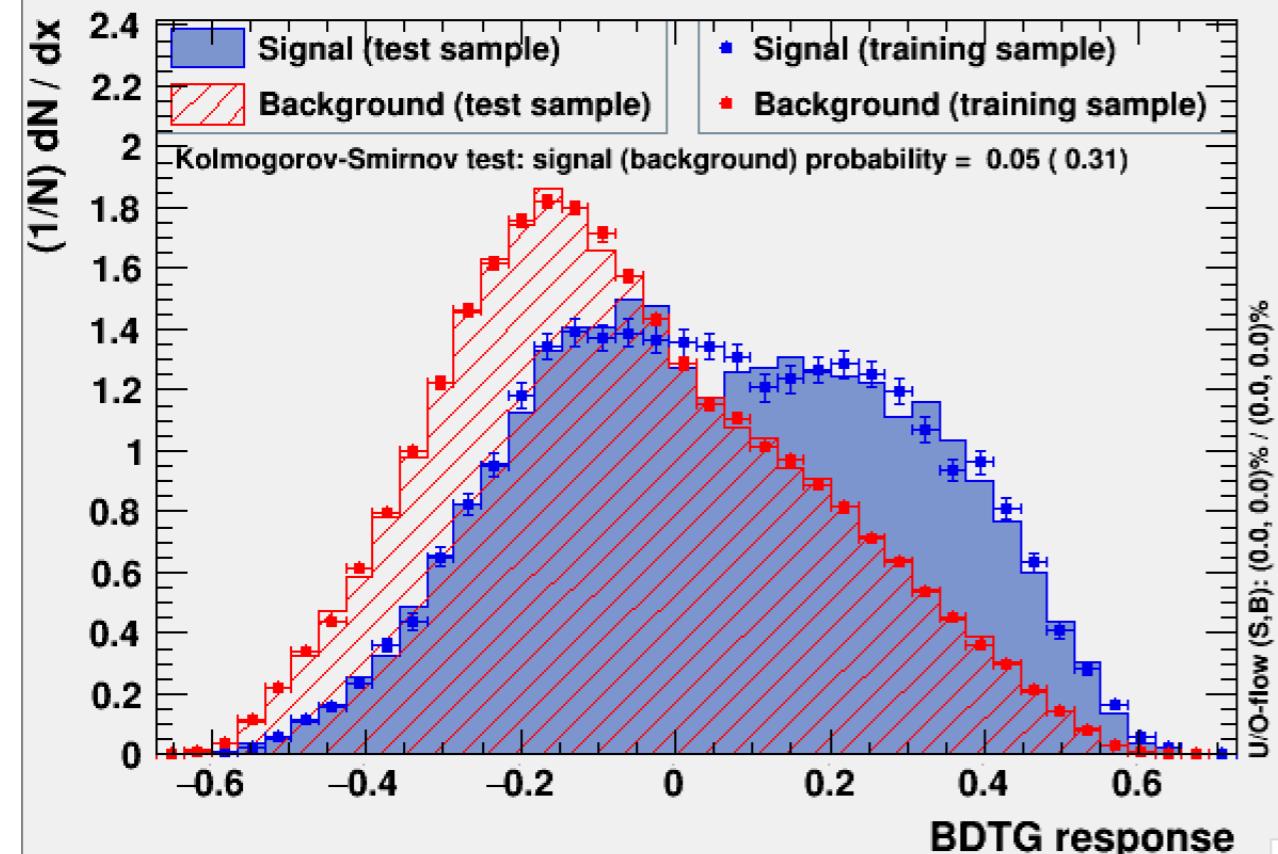
## Selection efficiency for signal samples @ RECO level



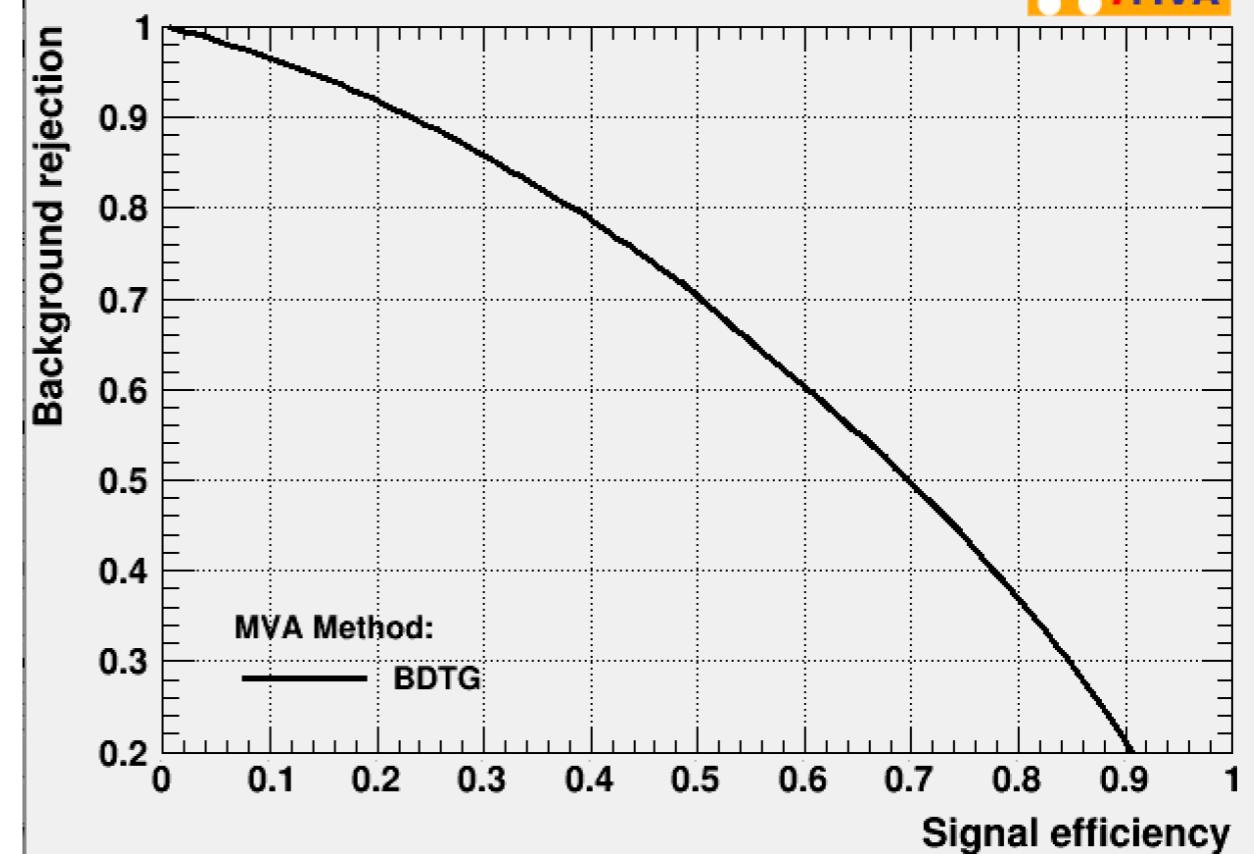


**abs(eta) < 1.5**

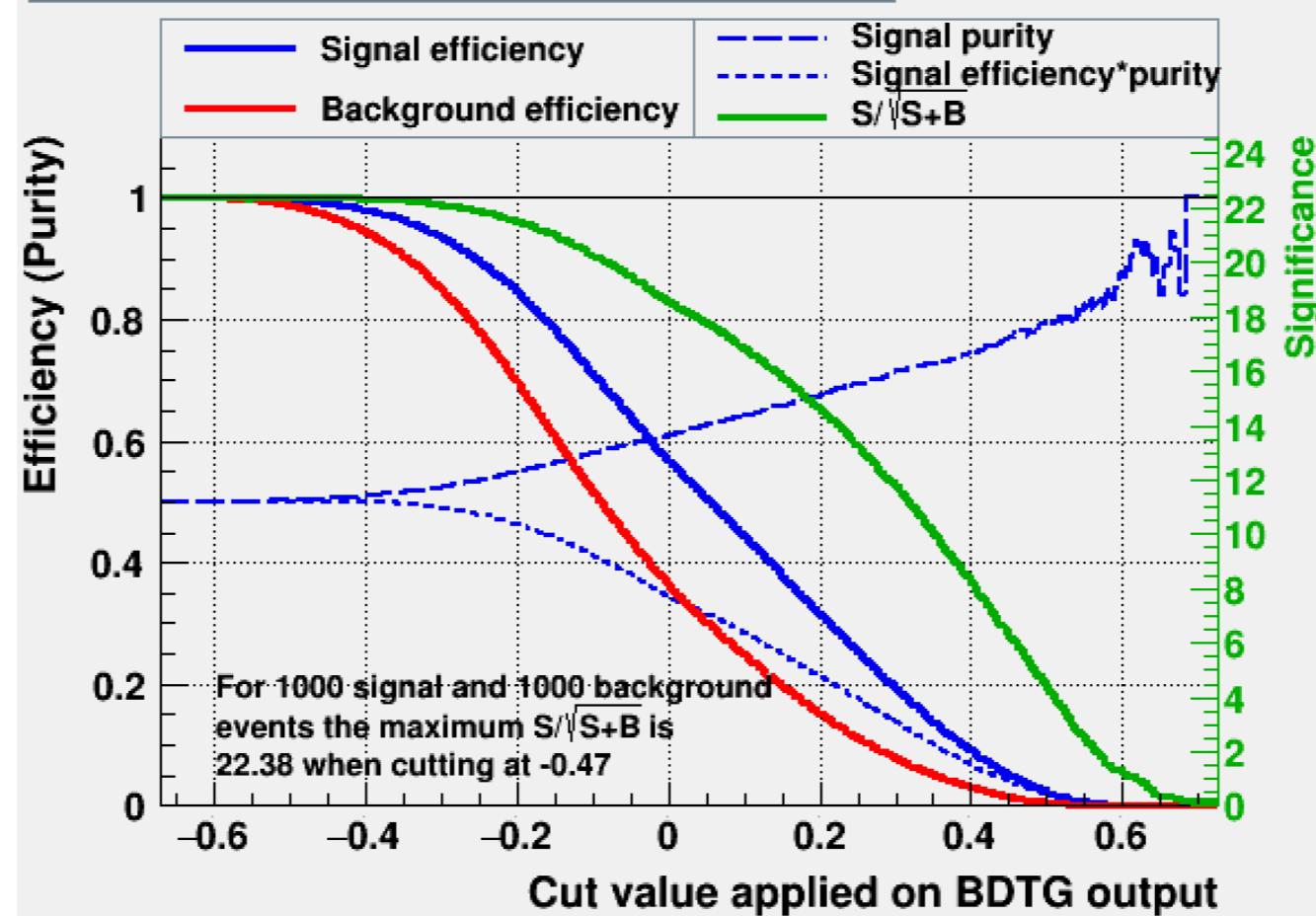
## TMVA overtraining check for classifier: BDTG

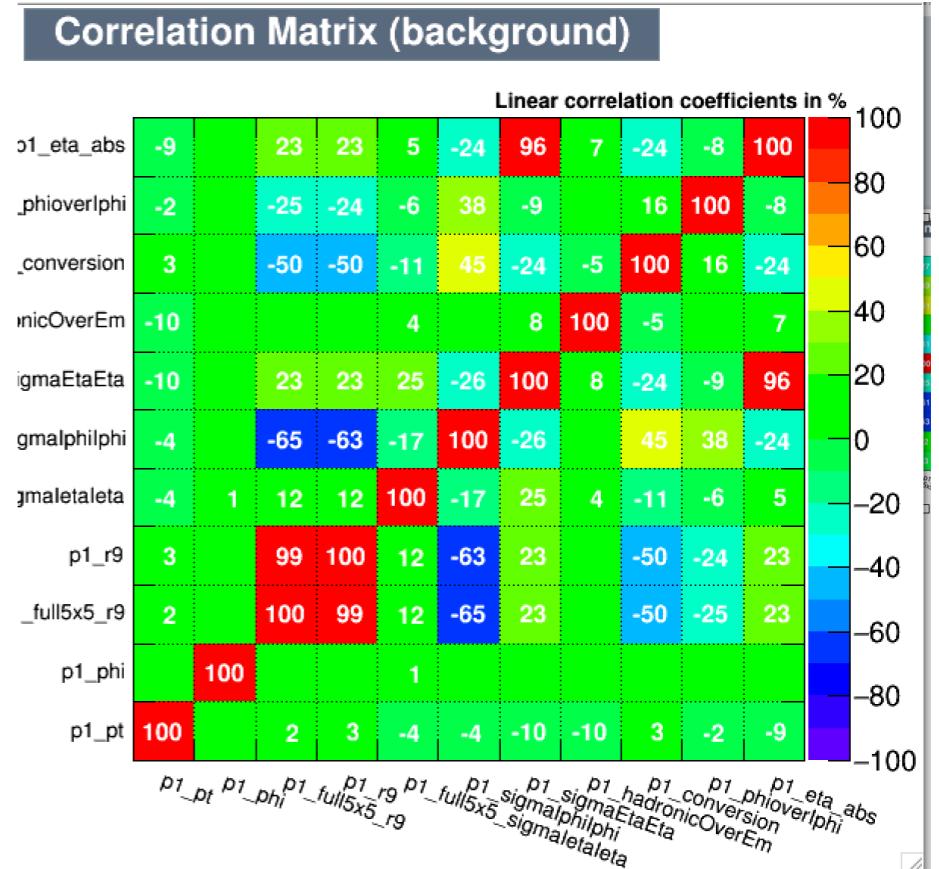
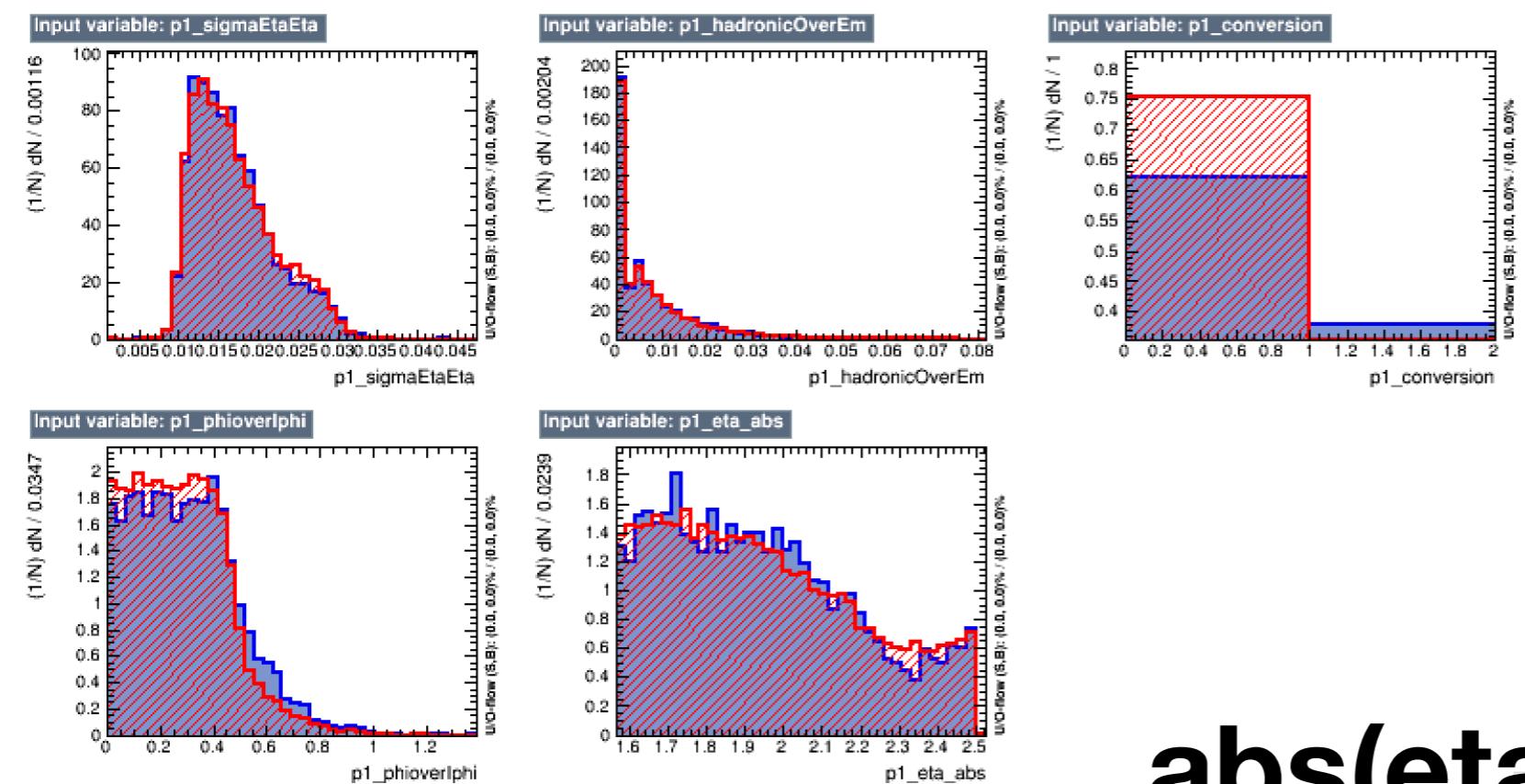
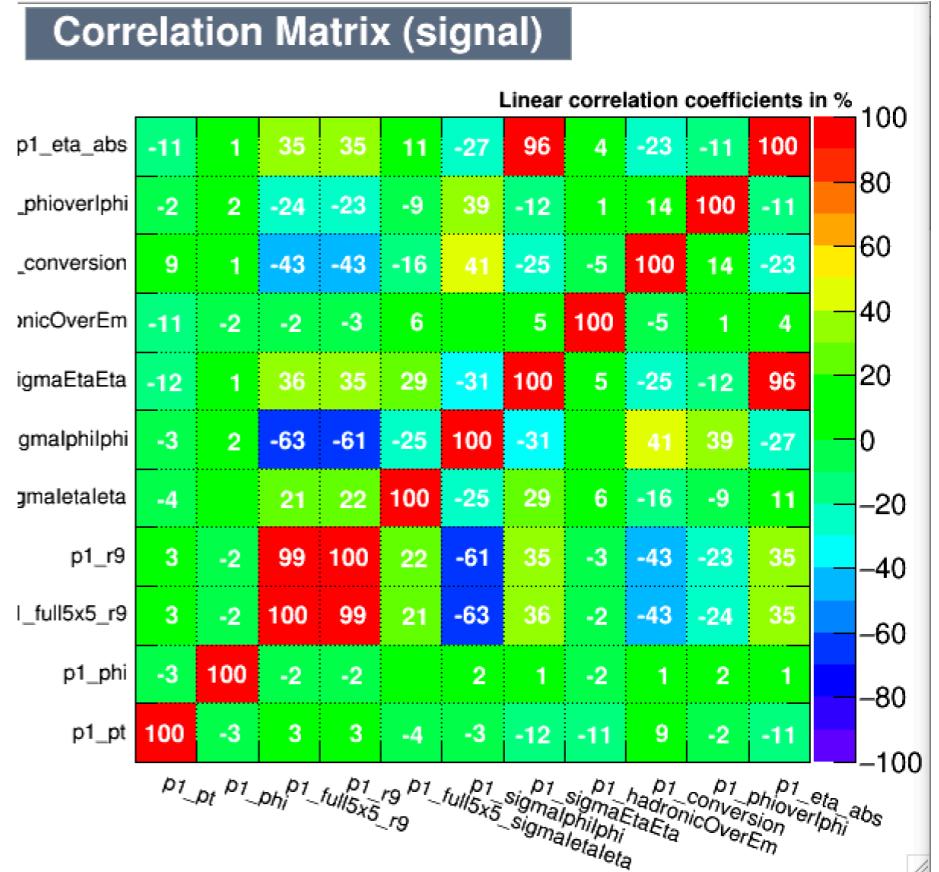
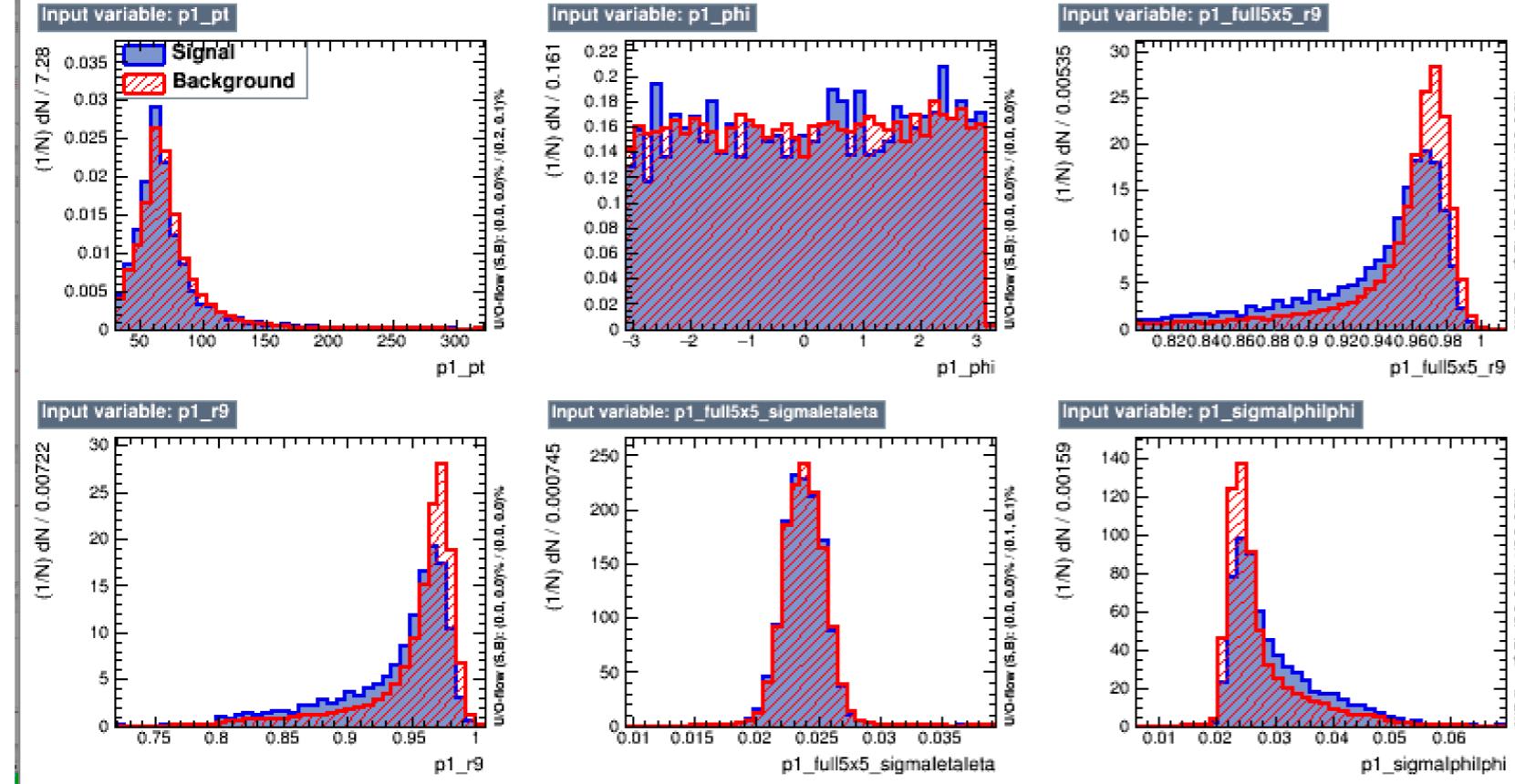


## Background rejection versus Signal efficiency



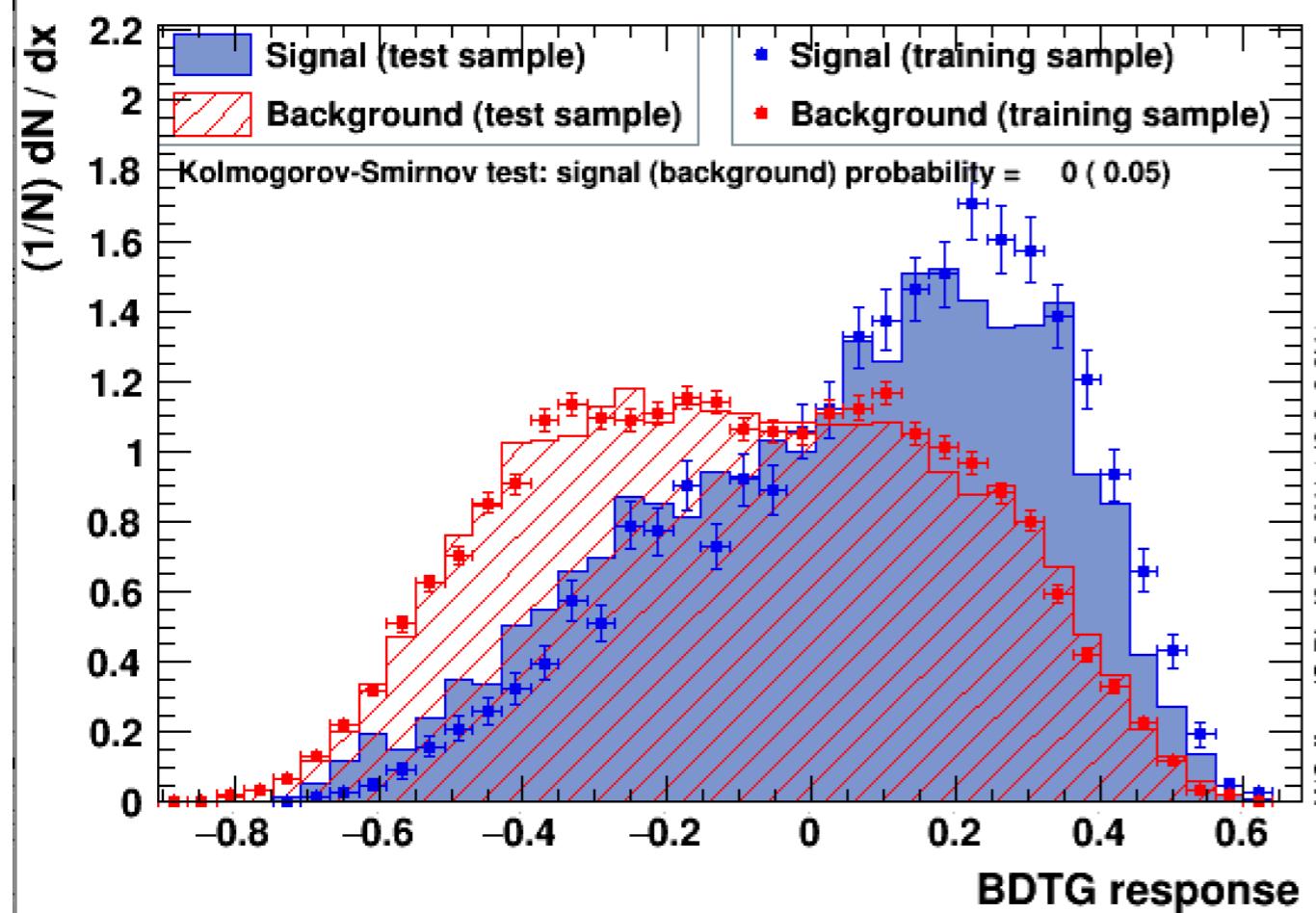
## Cut efficiencies and optimal cut value



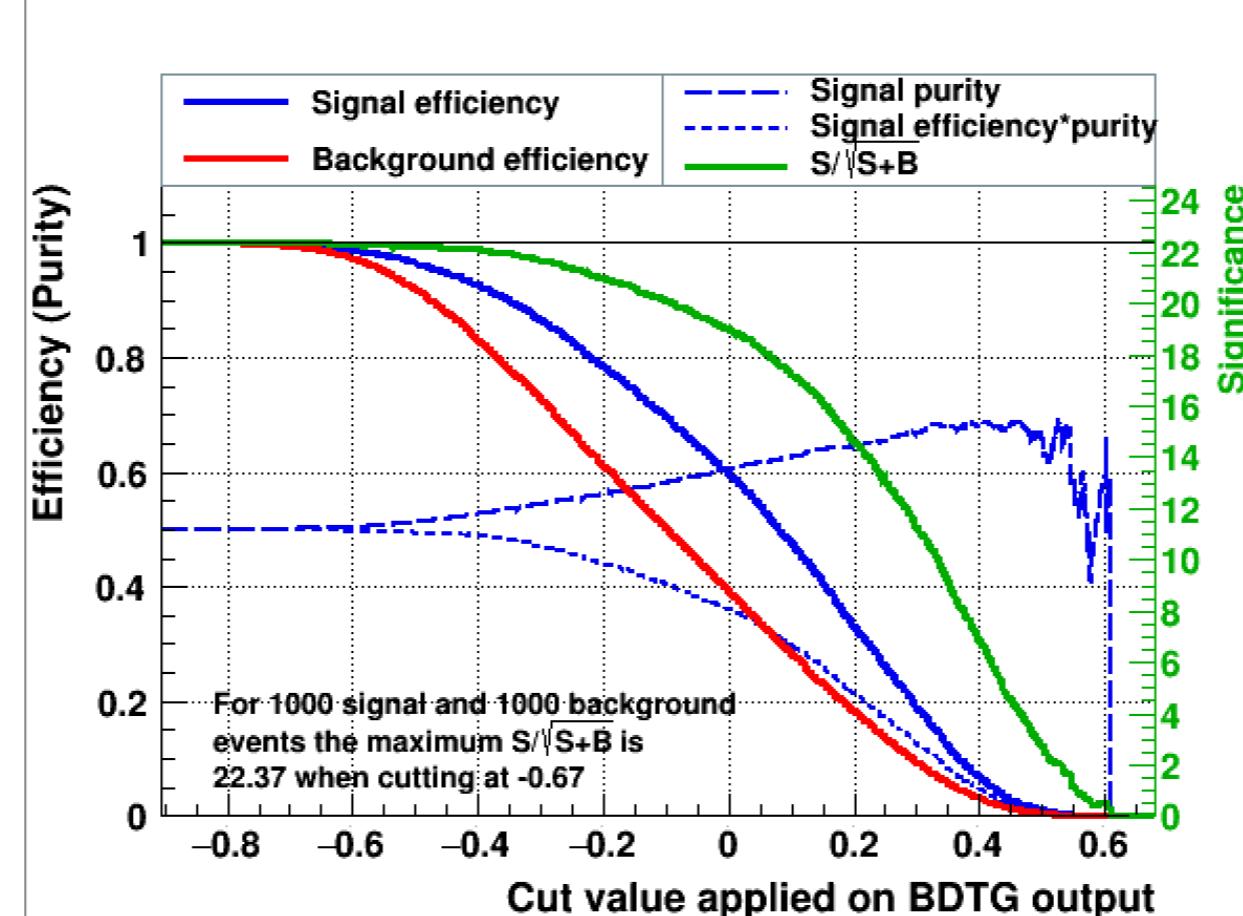
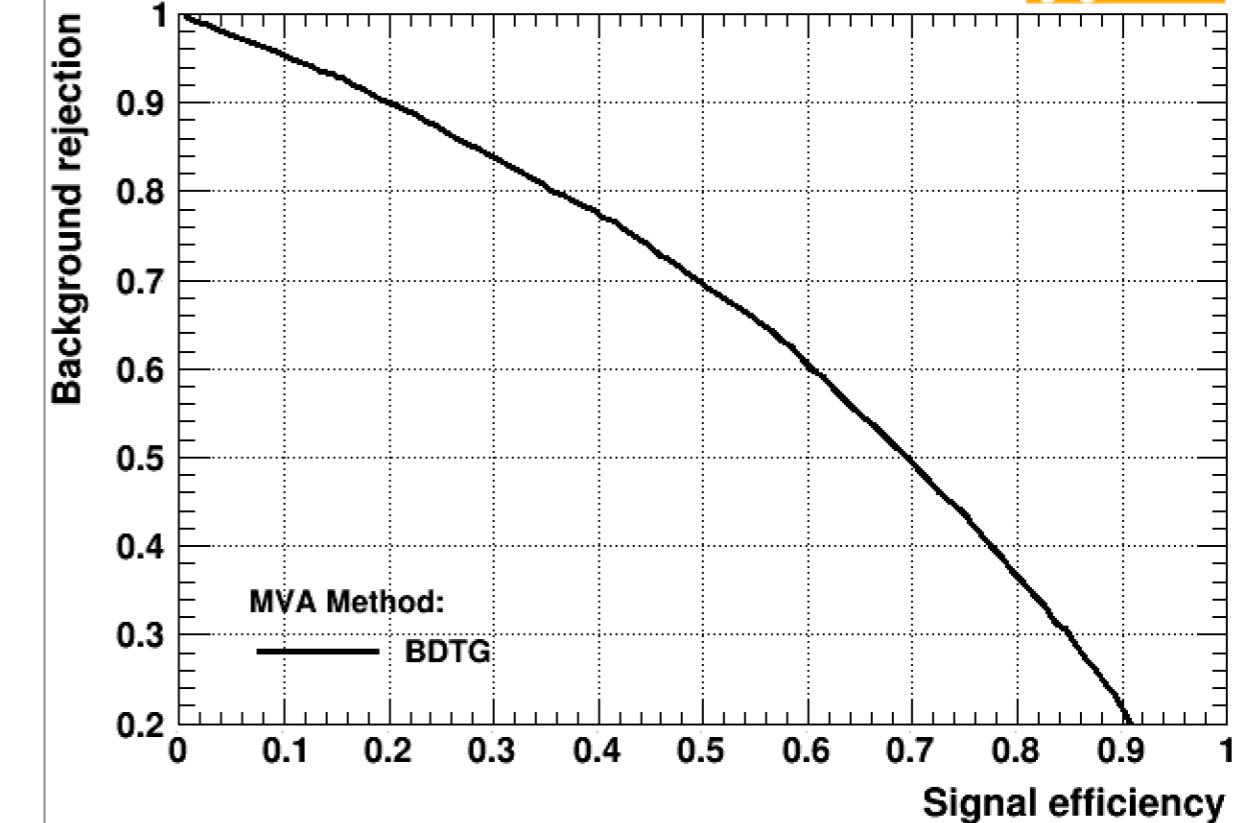


**abs(eta) > 1.5**

# TMVA overtraining check for classifier: BDTG



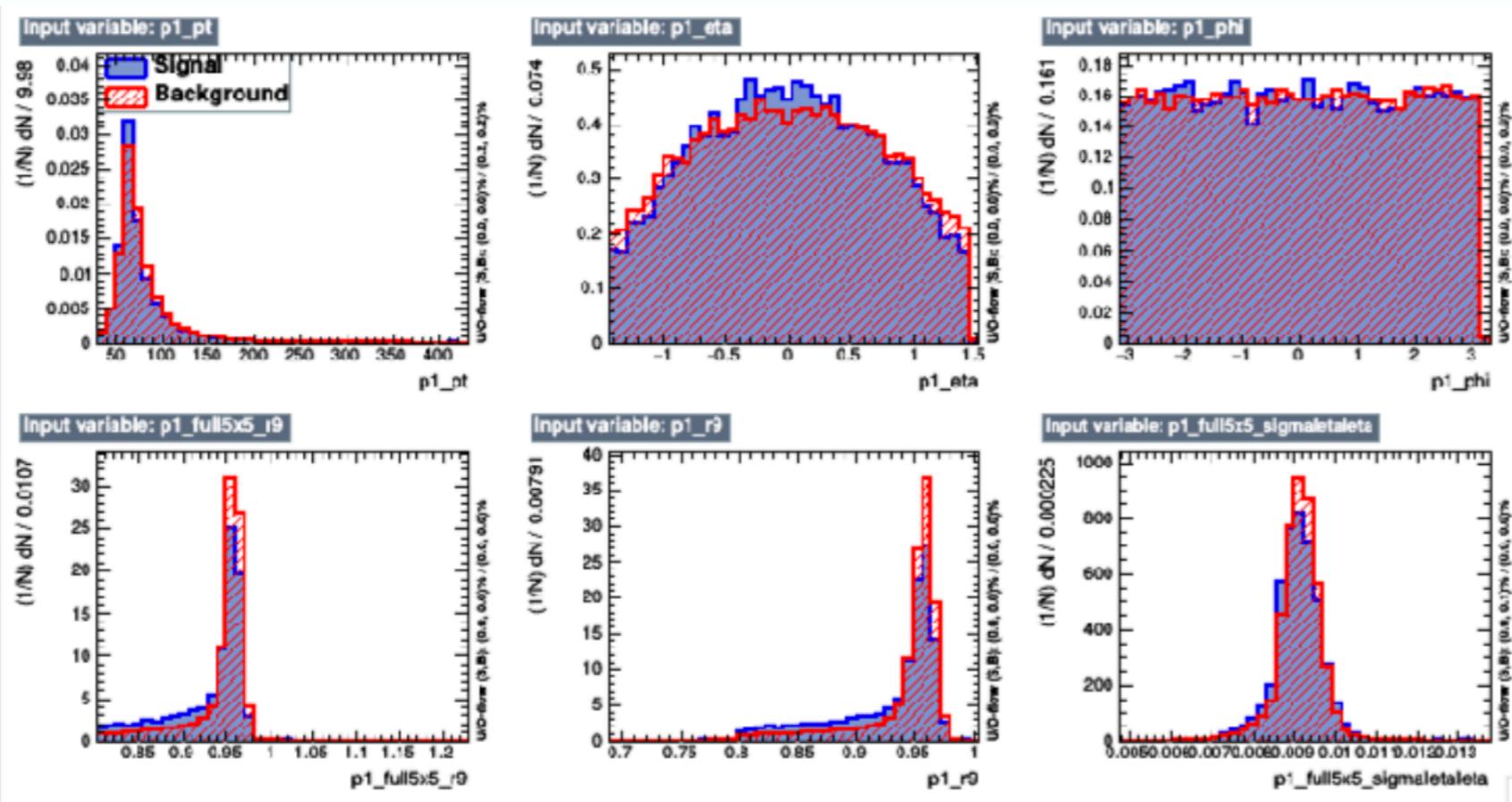
# Background rejection versus Signal efficiency



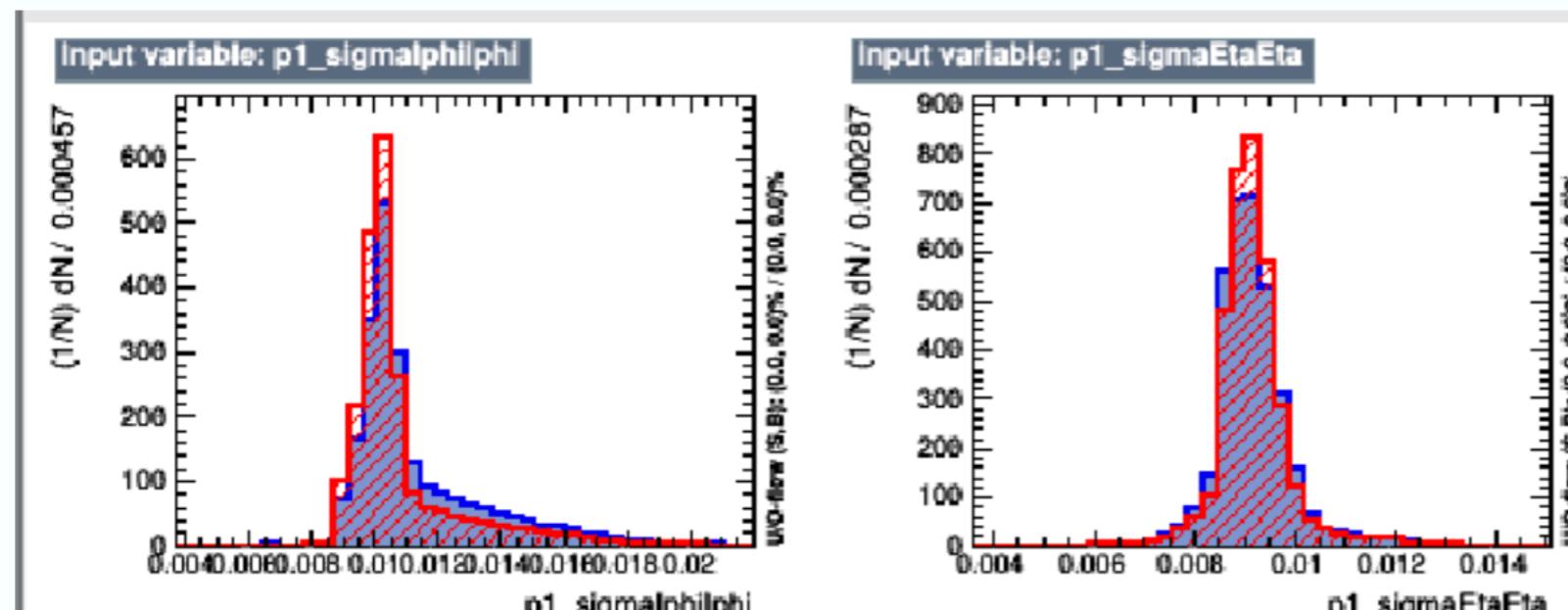
# MVA Training

$|\text{abs}(\text{Eta})| < 1.5$

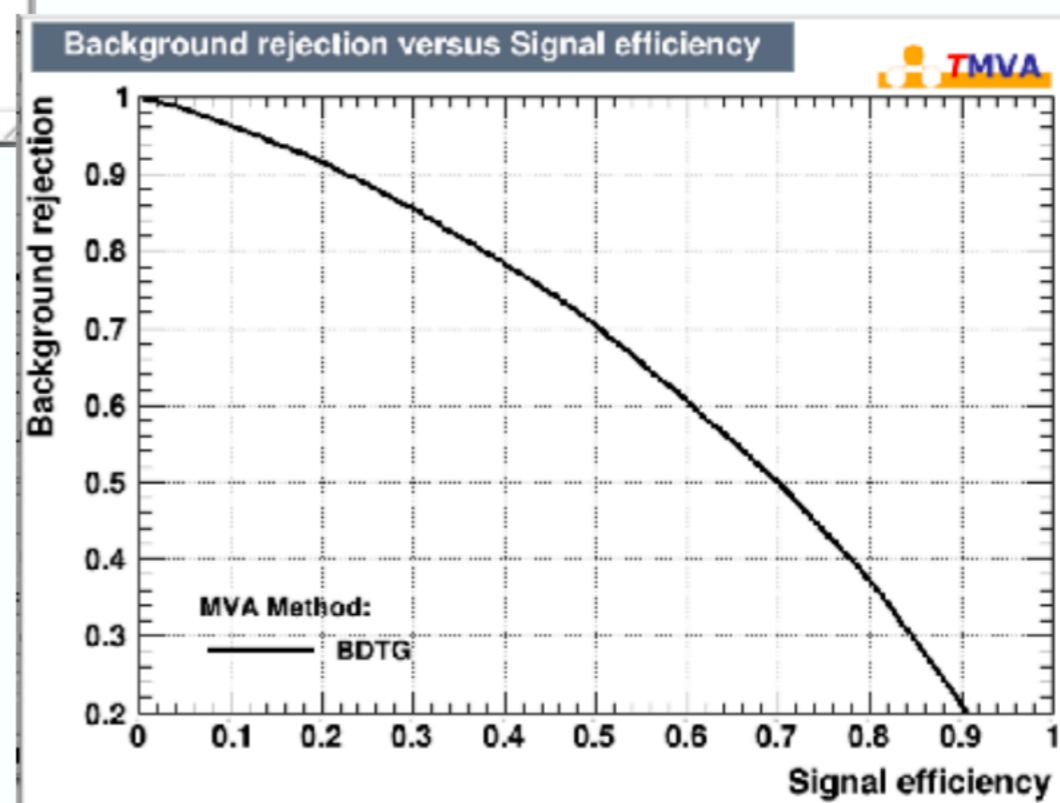
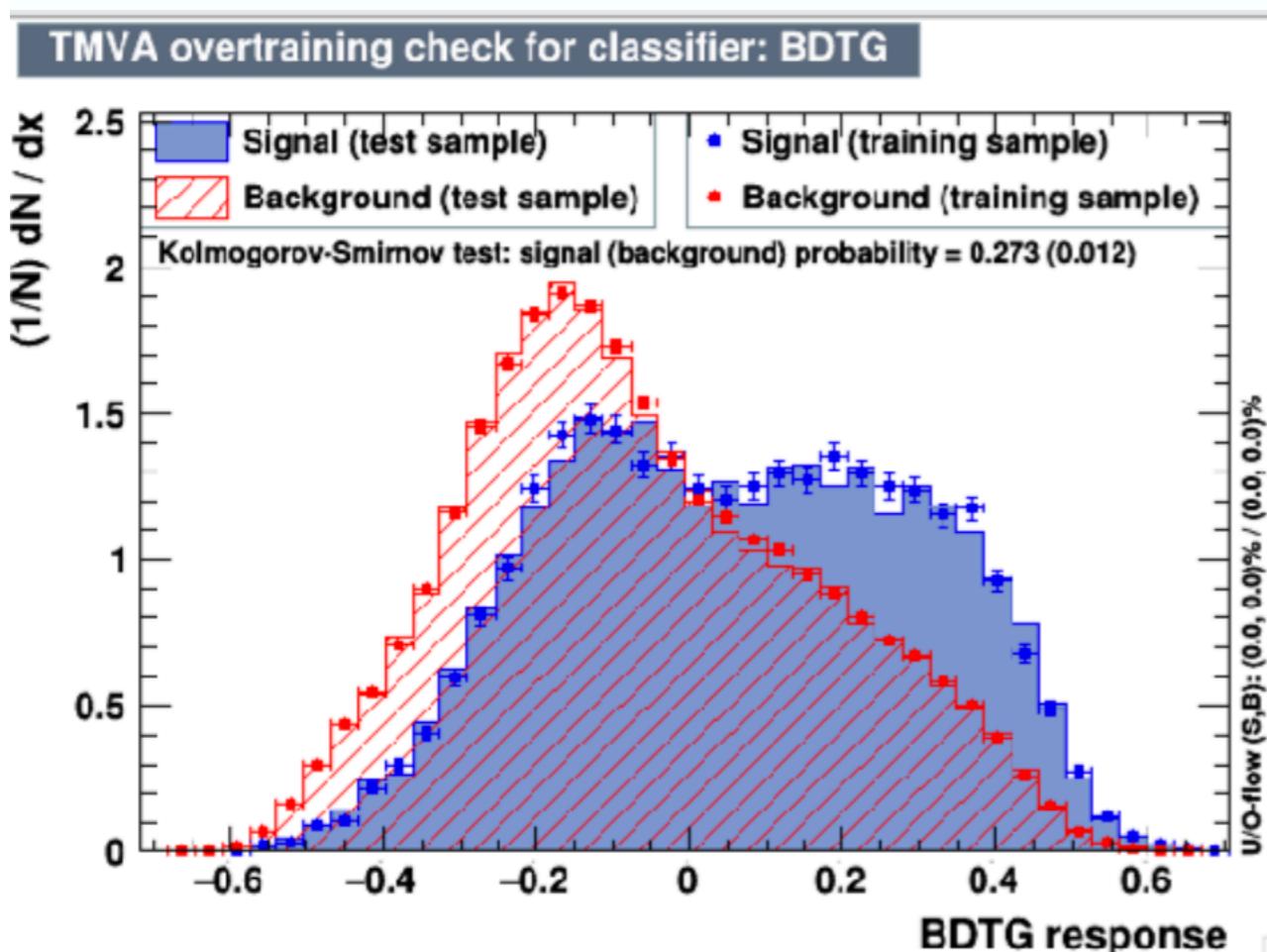
**OLD**



## Input Variables

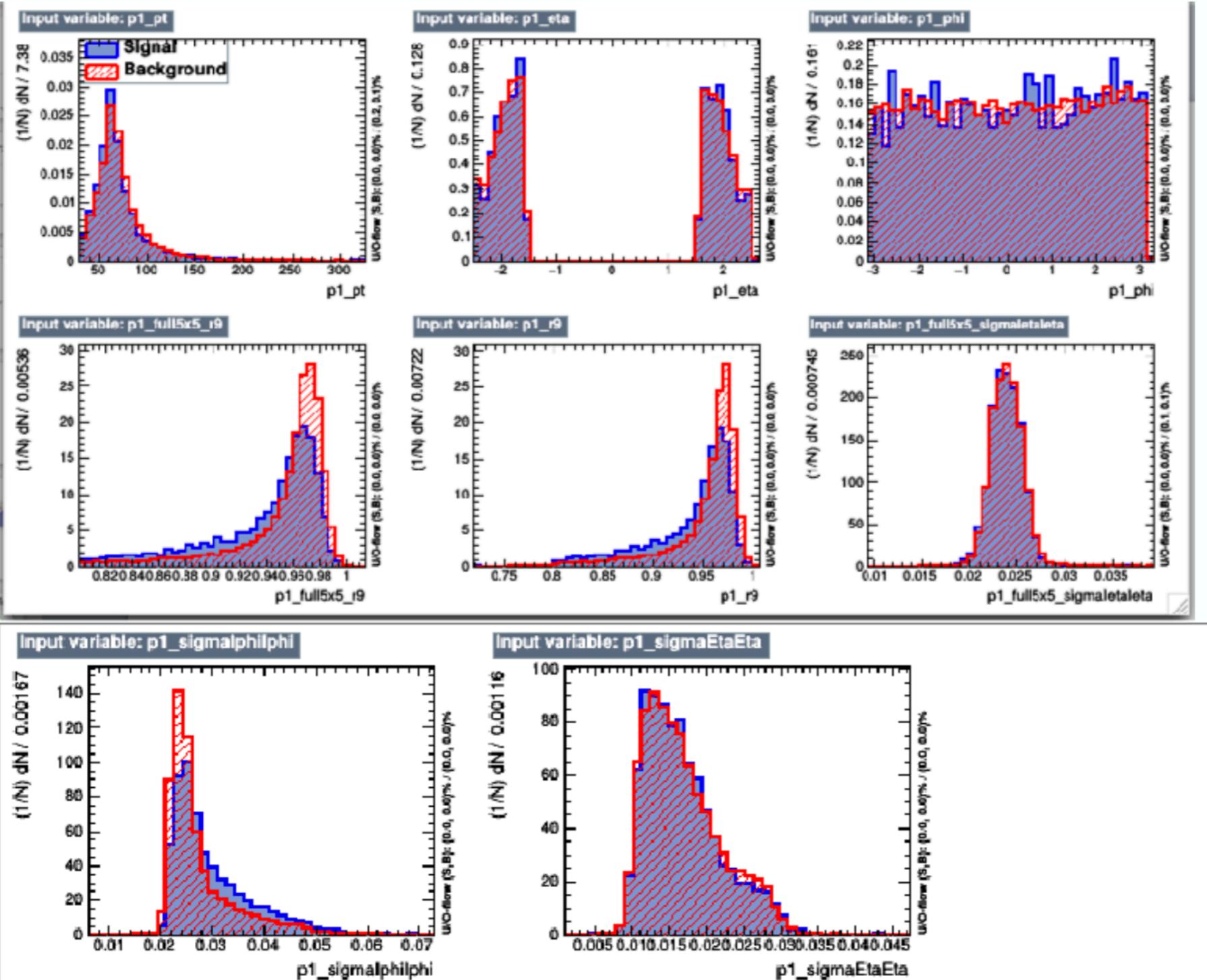


**OLD**



# OLD

$|\text{abs}(\text{Eta})| > 1.5$



**OLD**

### TMVA overtraining check for classifier: BDTG

