



HF jets analysis

30.06.2020 ALICE@IFJ meeting

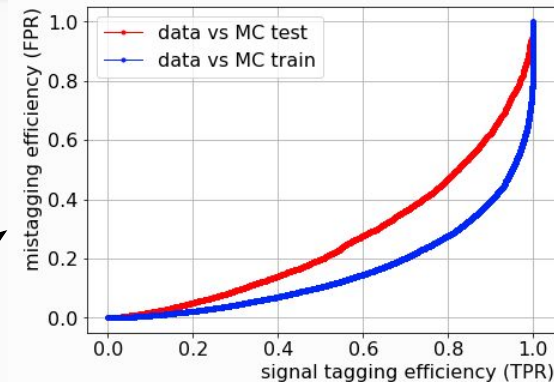
Sebastian Bysiak

1. Progress in HF-jets analysis
 - data VS MC classifier
 - Lund diagram

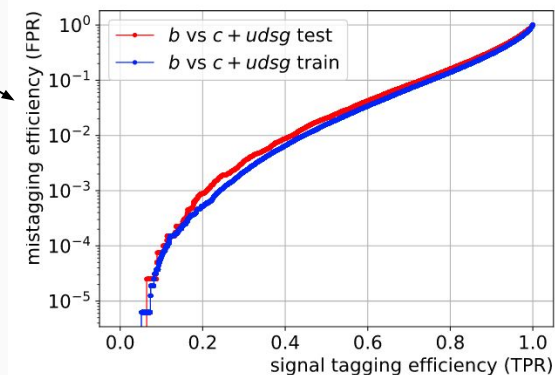
Data VS MC classifier

- all columns, 200k samples per class:
- ROC AUC ~ 0.73
- no dominant features:
 - up to 2% for XGB's weight,
 - up to 7% for XGB's total gain
- .
- in case we care about it, we can improve using gradient boosted reweighter from hep_ml package to ROC AUC ~ 0.55

data-vs-MC

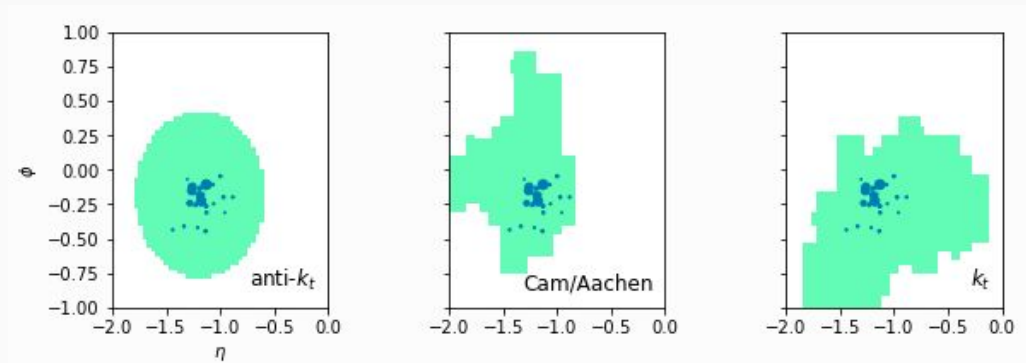


compared to
b-vs-rest (log y)



Lund diagram

almost there:



- reclustering with C/A algo -- DONE
- calculating observables -- done, to be checked
- exporting to json -- to be done
- plotting Lund diagram from json -- DONE
- using my jets instead of FastJet test data -- to be done (mass?)

Next steps? (discussion)

- data - MC diff <- 1.
- built x-section <- 2. (response matrix etc)
- angular structure <- 3.
- more pp data <- 4.

analysis note <- 0. (BEFORE HOLIDAY)