# Weekly Report NTUA 20/3/2020

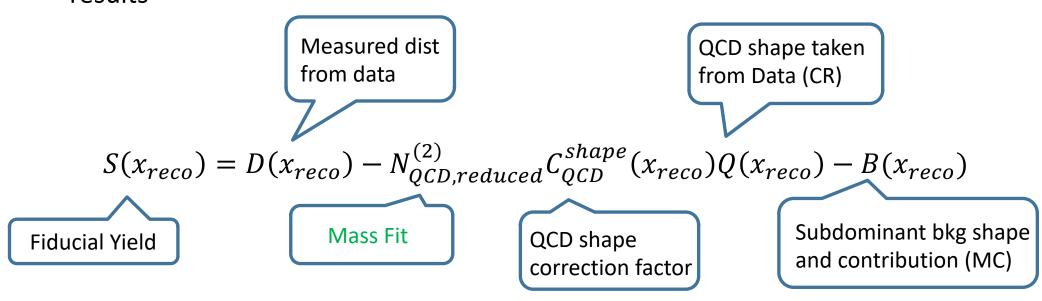
George Bakas





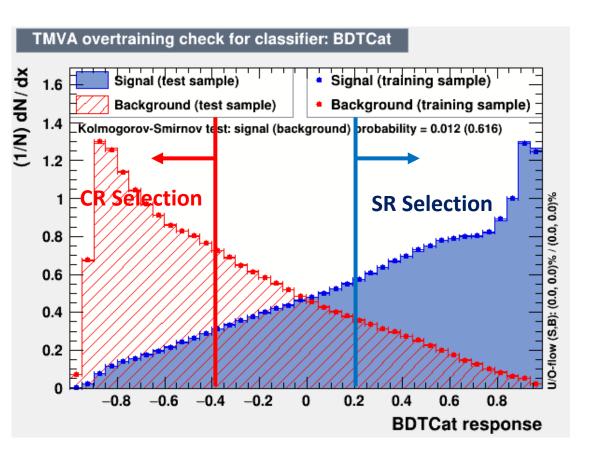
## **Status Report**

- Analysis:
  - Mass fit
    - Reduce the ttbar contamination
    - Simultaneous fit in 0 and 2btag region
  - Unfolding
    - Result of the fit has a small deviation regardless the method we are using
    - Signal Extraction--> Unfolding to parton or particle level and comparison with 2016 paper results





## **Workaround**



For selecting a Control and Signal Region we apply the following:

#### Signal Region

- Basic Selection
- Medium b-tagging WP
- Top Tagger Cut ( > selected WP)

#### **Control Region**

- Basic Selection
- NOT Loose b-tagging WP
- NOT Top Tagger Cut (< selected WP)</li>
- !! Giannis Suggested applying a harder cut in the Control region to reduce Top Contamination
- !! I suggest that we do the same thing we do with b-tagging:
- For the CR:
- NOT Top Tagger Cut lower than working point that is bkg dominated. For example we could take -0.6 up to -0.3