

# Weekly Report

## NTUA

### 6/3/2020

George Bakas



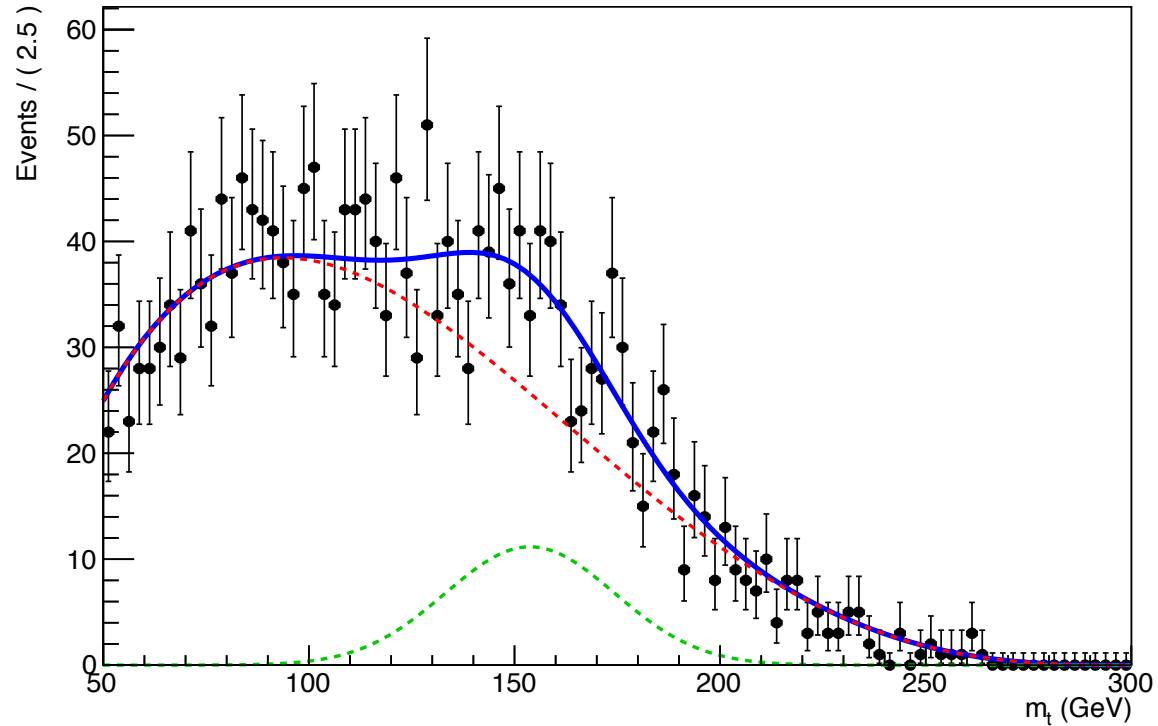
# Status Report

- Analysis:
  - Mass fit
    - Shape for qcd template not ok
    - Previously in sim fit → shape params of qcd template were free
    - Now the qcd fit params are constant
    - 2017 and 2018 CR from data → peak around 80 GeV
    - QCD parameter initial values are taken from the output of the Bkg QCD template fit result using the MC QCD samples
- NTUA HEP Site
  - Modifications
  - <http://modio.physics.ntua.gr/~gbakas/gr/>
  - <http://modio.physics.ntua.gr/~gbakas/en/>
- HEP Data for TOP-18-013
  - Class ready for importing tables (histograms) using ROOT file
  - The user needs to give as input 3 text files

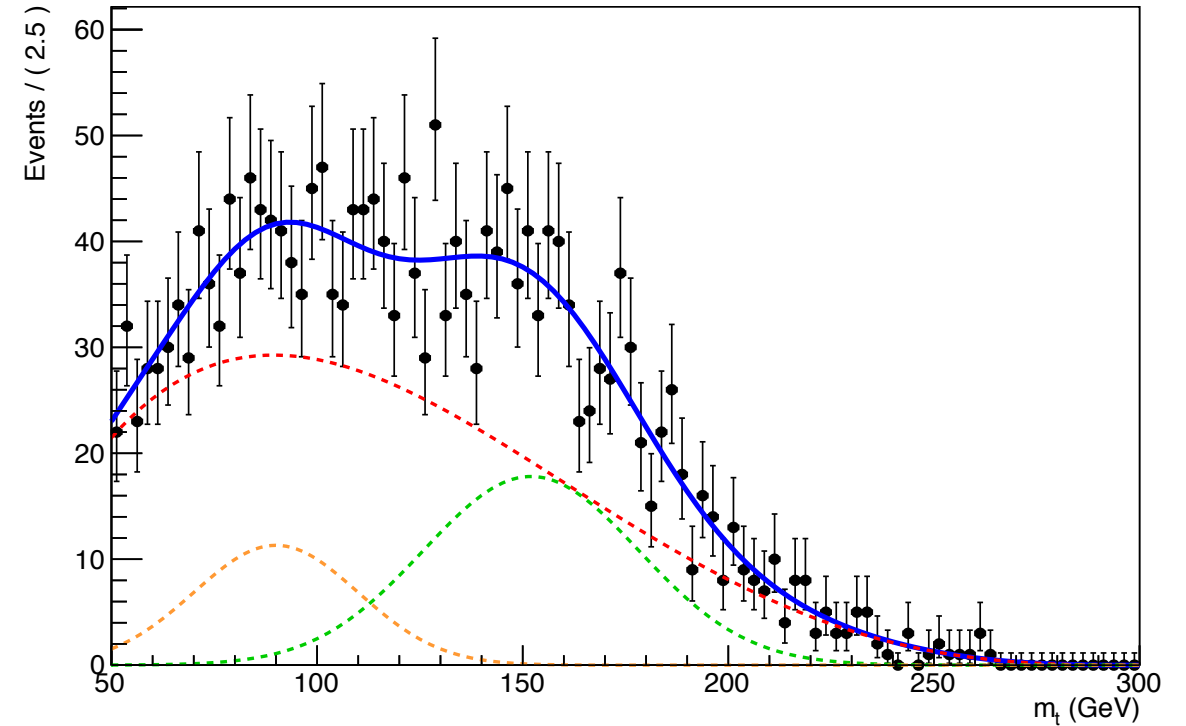


# Bkg QCD Template Fit 2016

A RooPlot of "mTop"

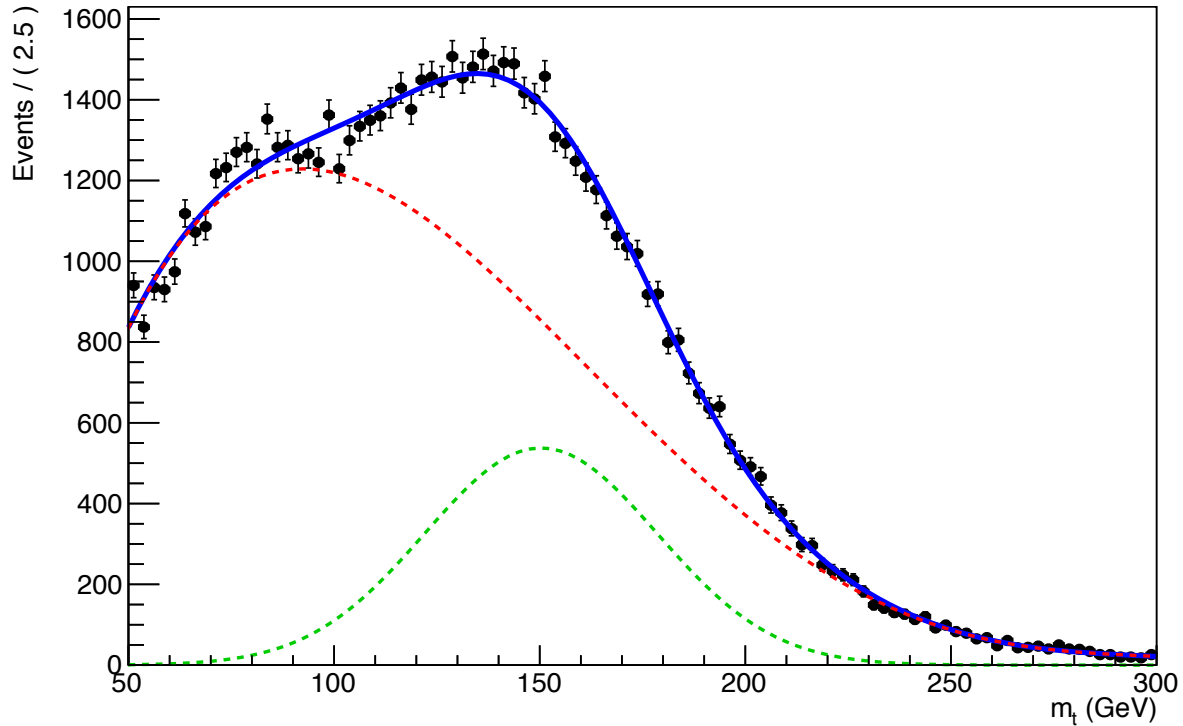


A RooPlot of "mTop"

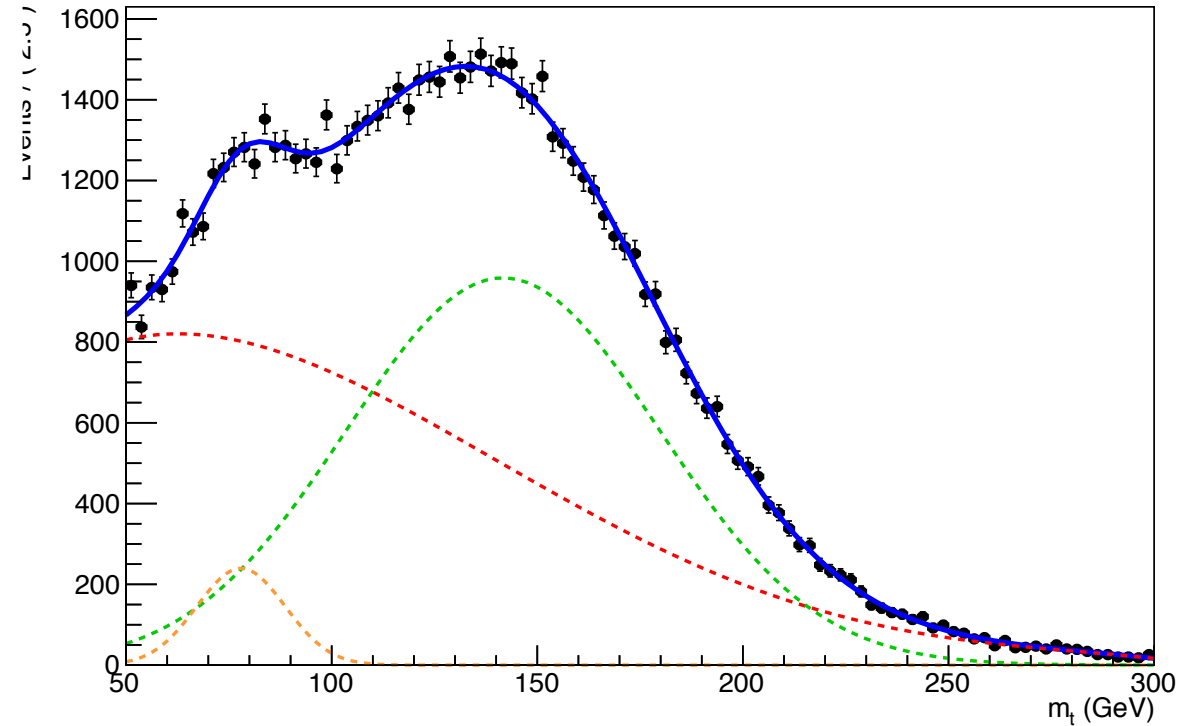


# Bkg QCD Template Fit 2017

A RooPlot of "mTop"

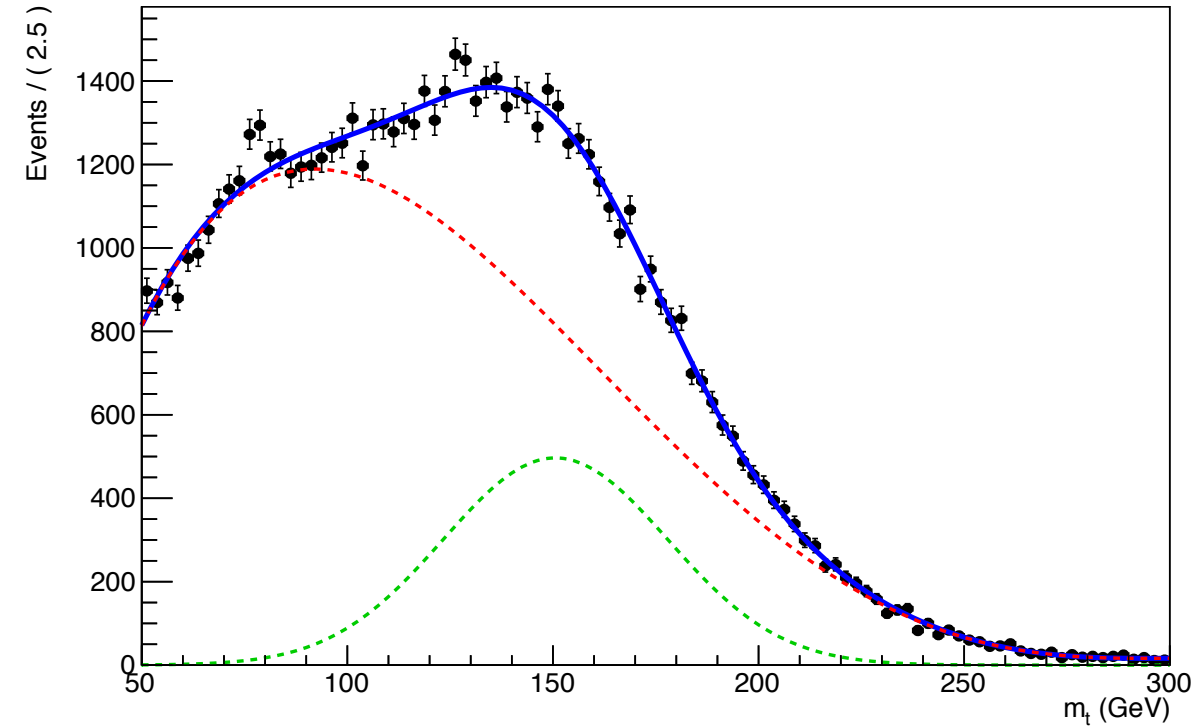


A RooPlot of "mTop"

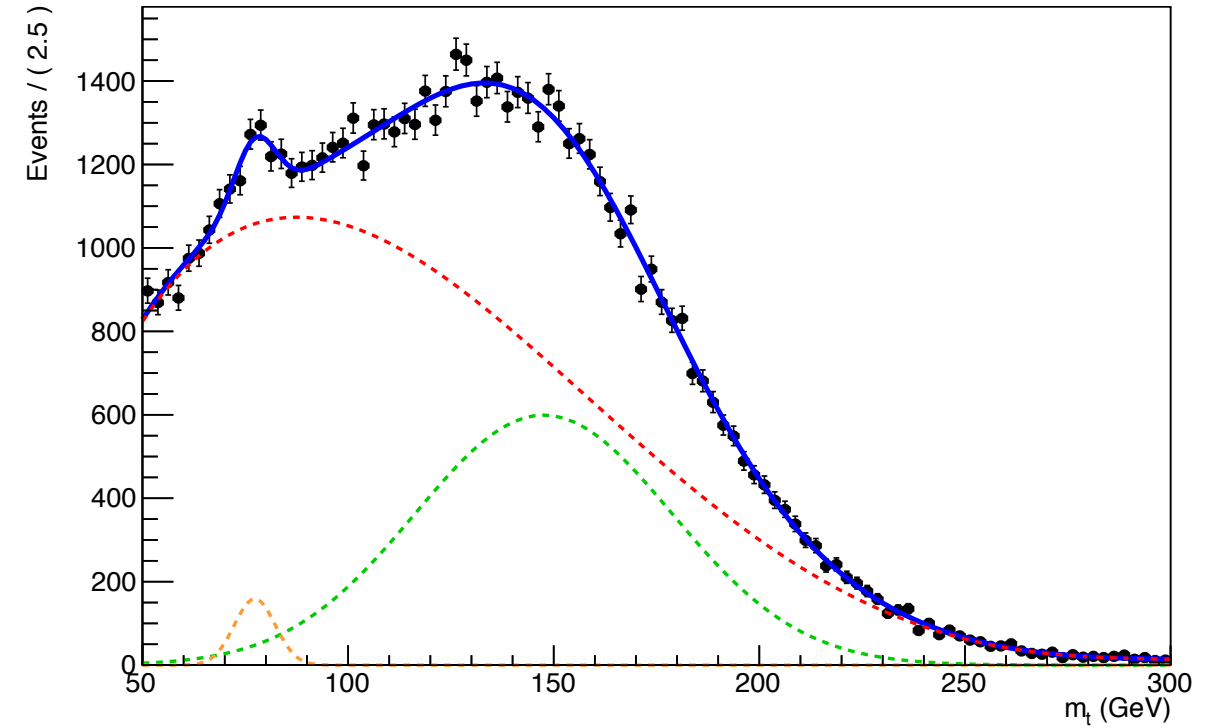


# Bkg QCD Template Fit 2018

A RooPlot of "mTop"

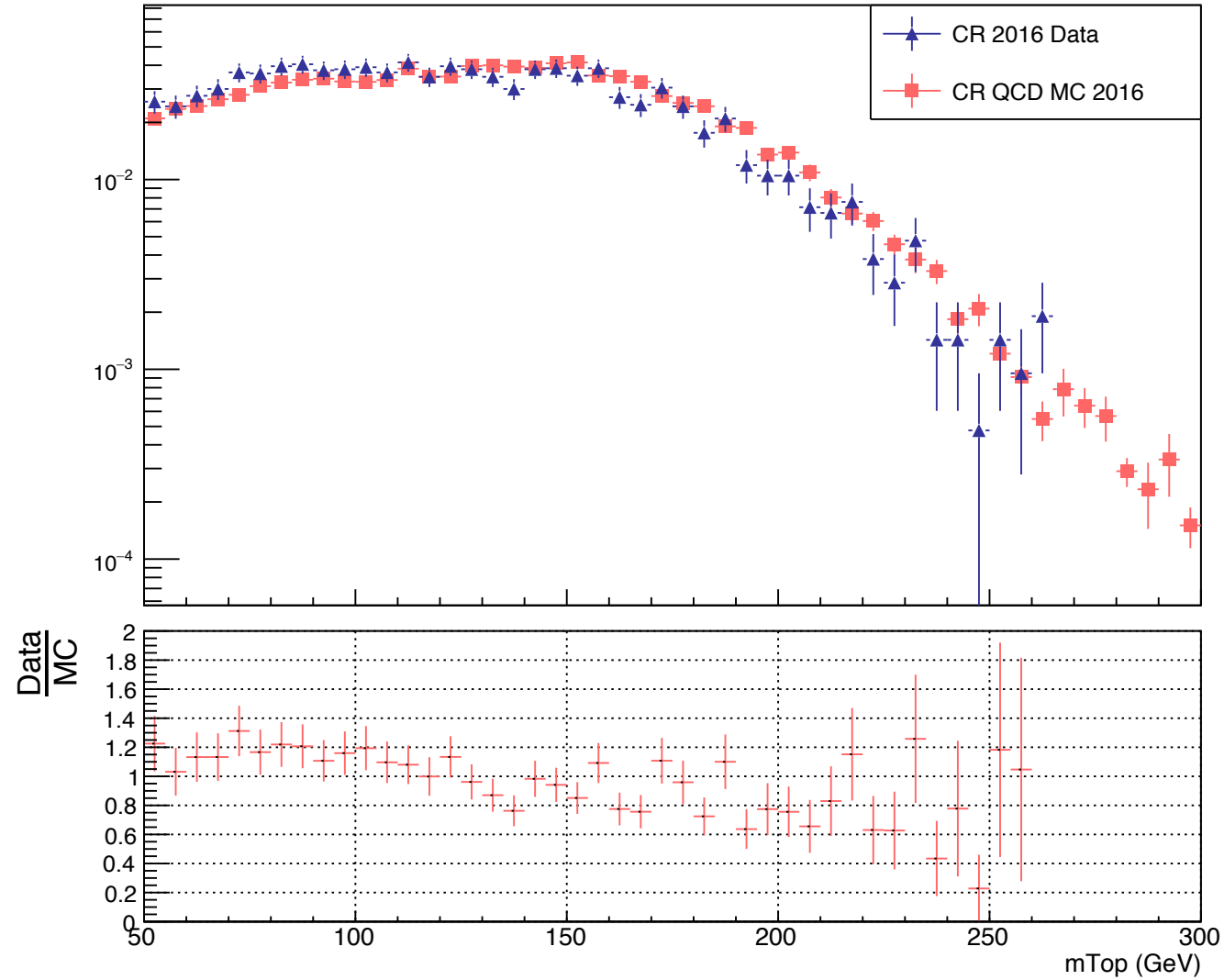


A RooPlot of "mTop"



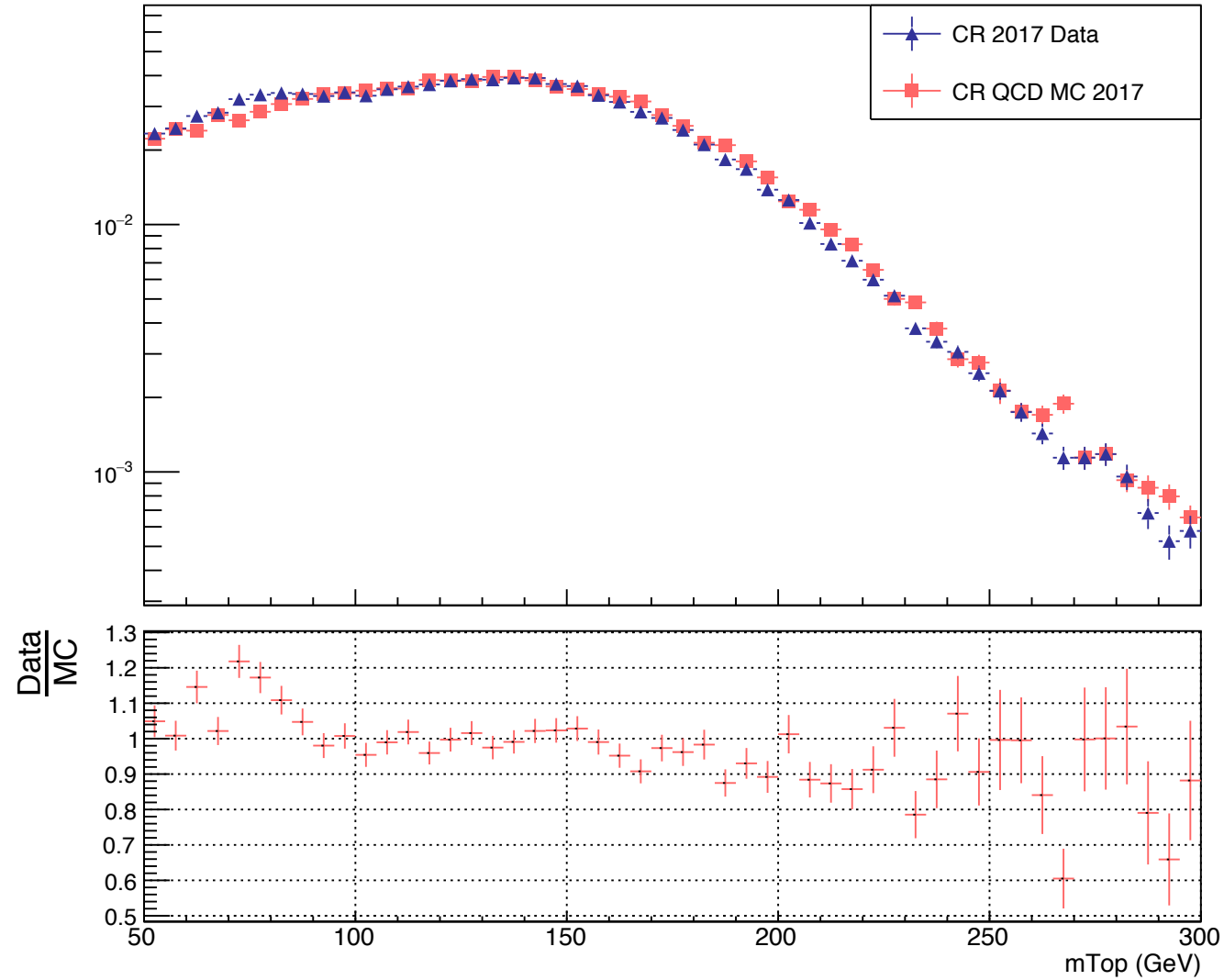
# Data CR vs QCD MC CR Shape Comparison

CR QCD MC 2016



# Data CR vs QCD MC CR Shape Comparison

CR QCD MC 2017



# Data CR vs QCD MC CR Shape Comparison

CR QCD MC 2018

