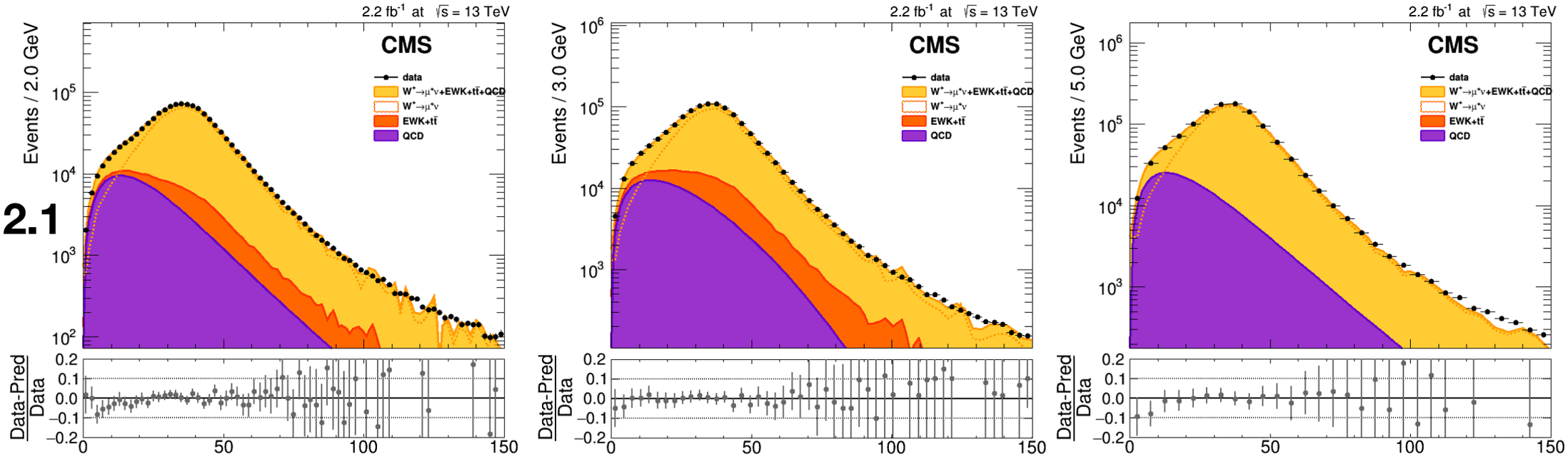
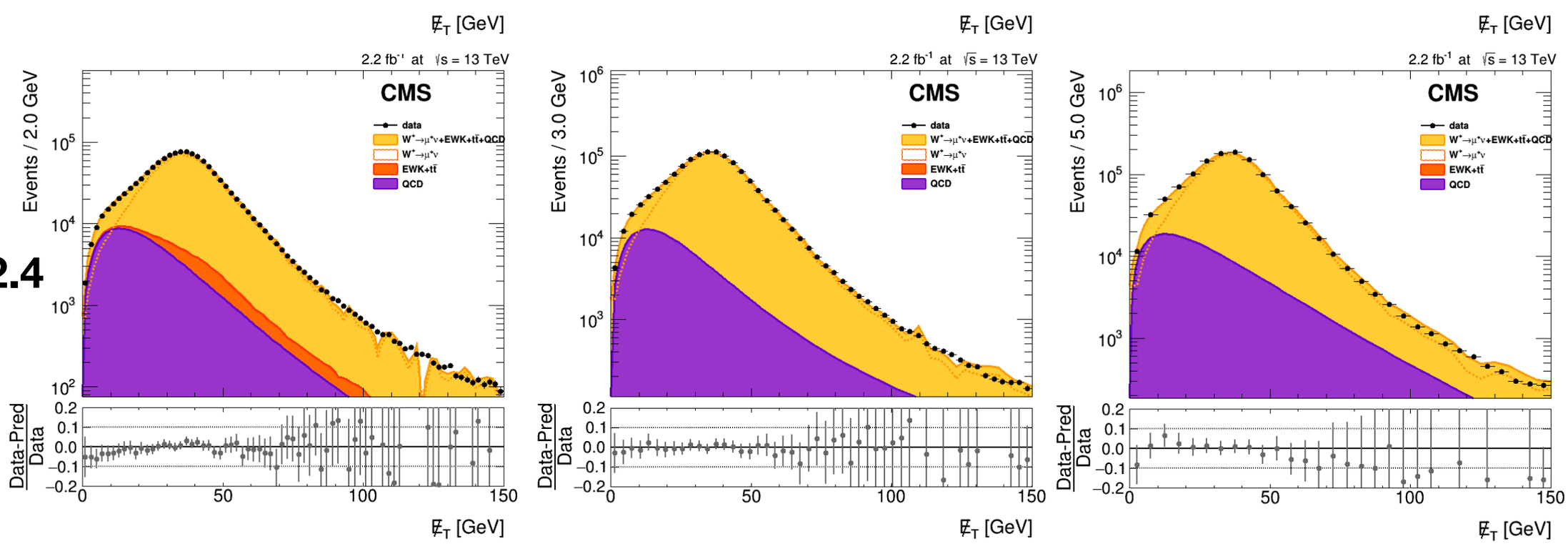
Binning problem

75 bins (default) | **50 bins** | **30 bins**

η = **1.85…2.1**

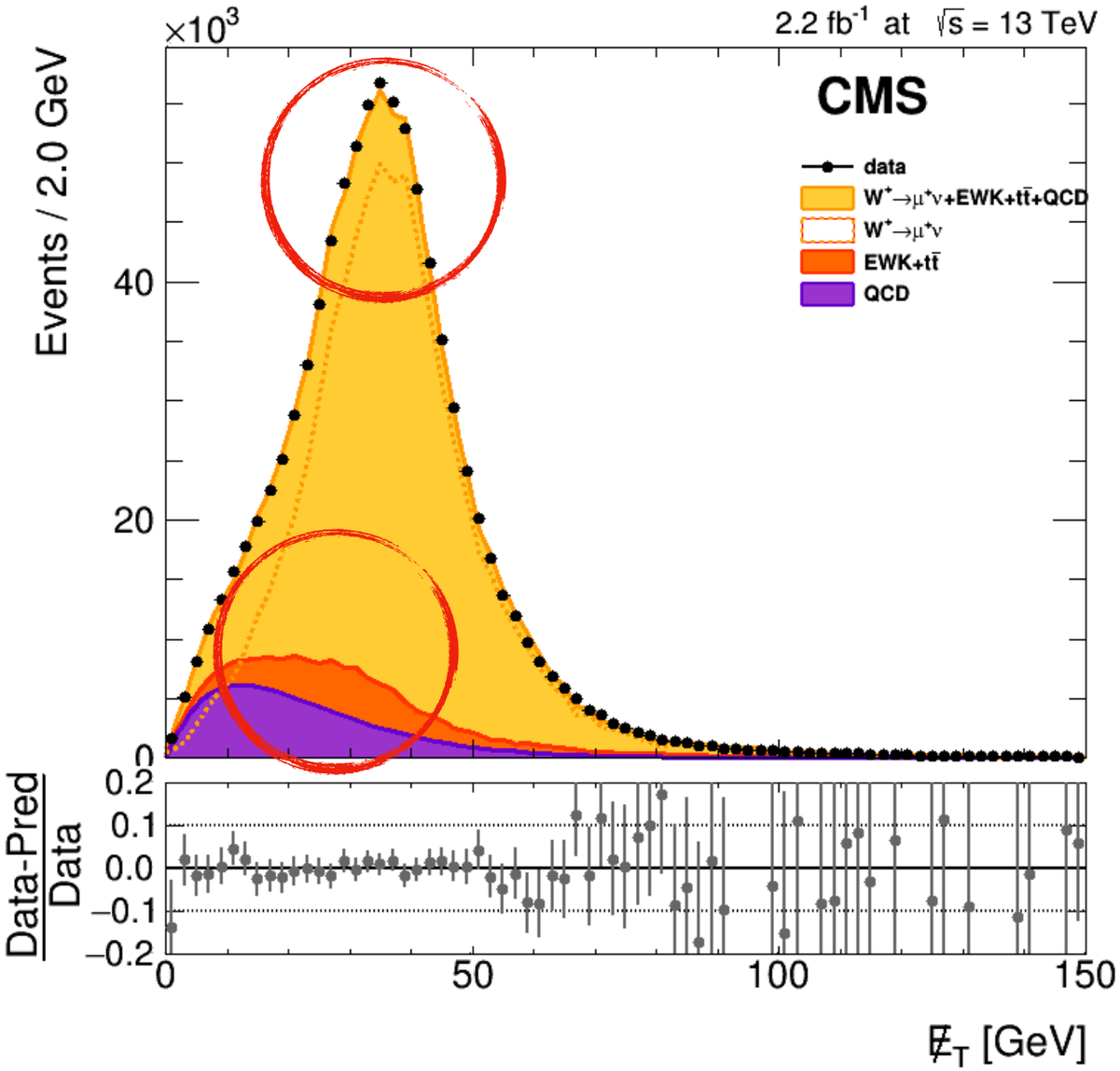


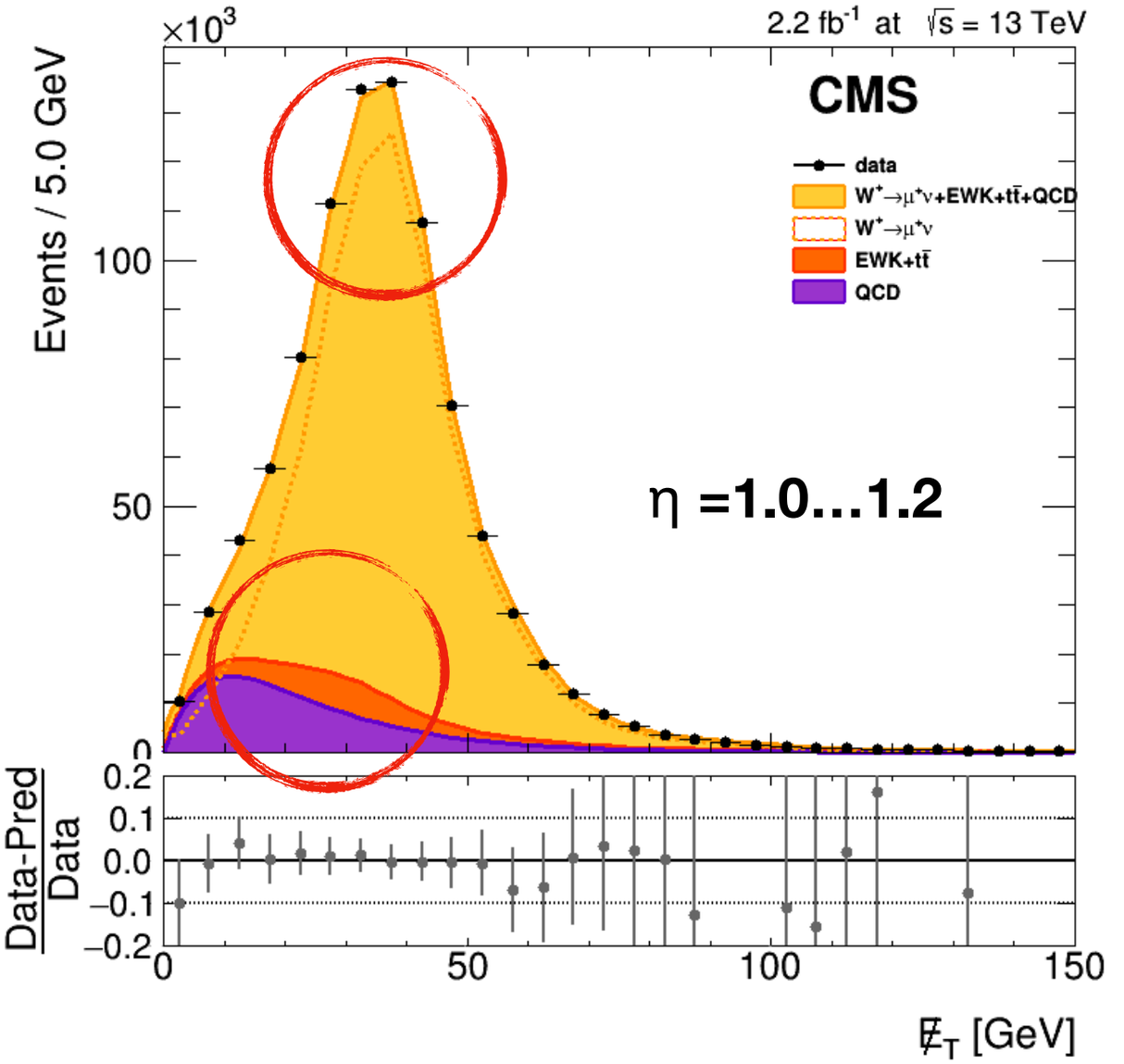
η =**2.1…2.4**



Simple corse binning leads to pathological fits. Need non-equidistant binning.

Binning problem





Corse bins cure problems of lack of statistics but not entirely.

Need a histogram style plotting -> transform QCD function into a histogram!

dewk/cewk question, AOB

```
//
 RooRealVar nSig("nSig","nSig",hWmunuMet[Eta]->Integral(),0,hDataMet[Eta]->Integral()); //RooRealVar (const char *
t maxValue, const char *unit="")
 RooRealVar nQCD("nQCD","nQCD",0.3*(hDataMet[Eta]->Integral()),0,hDataMet[Eta]->Integral());
 RooRealVar cewk("cewk","cewk",0.1,0,5);
 cewk.setVal(hEWKMet[Eta]->Integral()/hWmunuMet[Eta]->Integral());
/   cewk.setConstant(kTRUE);
 RooFormulaVar  nEWK("nEWK","nEWK","cewk*nSig",RooArgList(nSig,cewk));
 RooRealVar nAntiSig("nAntiSig","nAntiSig",hAntiWmunuMet[Eta]->Integral()*0.9,0,hAntiDataMet[Eta]->Integral());
 RooRealVar nAntiQCD("nAntiQCD","nAntiQCD",0.9*(hDataMet[Eta]->Integral()),0,hDataMet[Eta]->Integral());
 RooRealVar dewk("dewk","dewk",0.1,0,5) ;
 dewk.setVal(hAntiEWKMet[Eta]->Integral()/hAntiWmunuMet[Eta]->Integral());
 dewk.setConstant(kTRUE);
 RooFormulaVar nAntiEWK("nAntiEWK","nAntiEWK","dewk*nAntiSig",RooArgList(nAntiSig,dewk));
```

A pending issue of dewk parameter fixed to a random value!

To be investigated further.

Shared parameters in QCD functions -> to be tried (data <-> antidata, W^+ <-> W^-).

Accelerating the code by using ready-made pre-selected histograms.