Summary

- Added the discussed plots
- Btag requirement (threshold on next slide)
- Used same method as before to generate plots for all jet multiplicities (e.g., scaled MC to data plot-by-plot to compare shapes → scale factor *S*)
- When looking at quantities for events with NJets >= 2, I used the scale factor *S* calculated in the absence of the NJets cut. Otherwise, the excess in data relative to MC would subside if I rescaled these particular events.
- Shape of M_T distribution not quite correct due to *eemu* and *mumumu* events (latter slides)

Plot links:

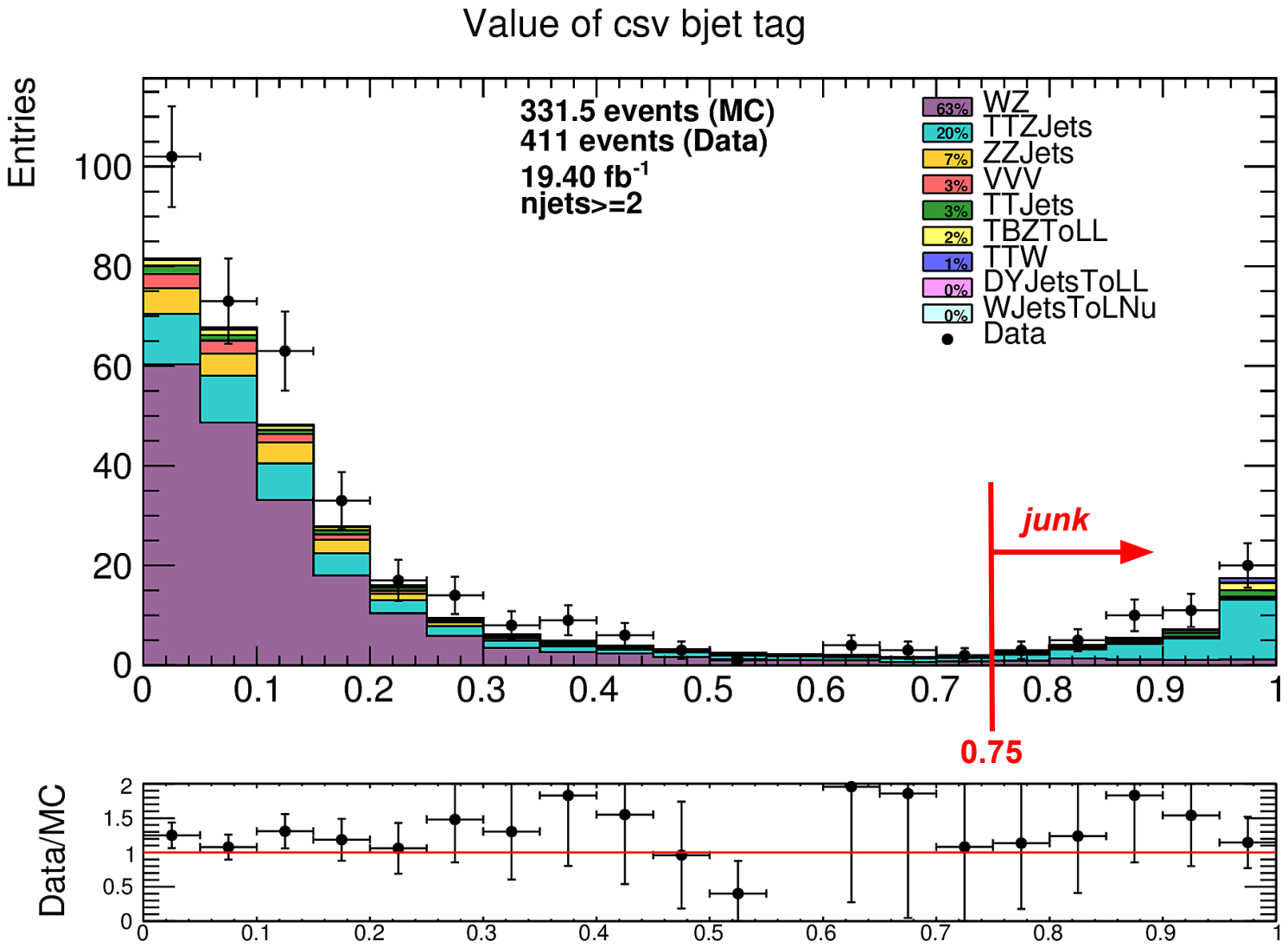
http://web.physics.ucsb.edu/~namin/dump/plots_NJALLBTALL/ (all njets, no bcut)

http://web.physics.ucsb.edu/~namin/dump/plots_NJALLBT1/

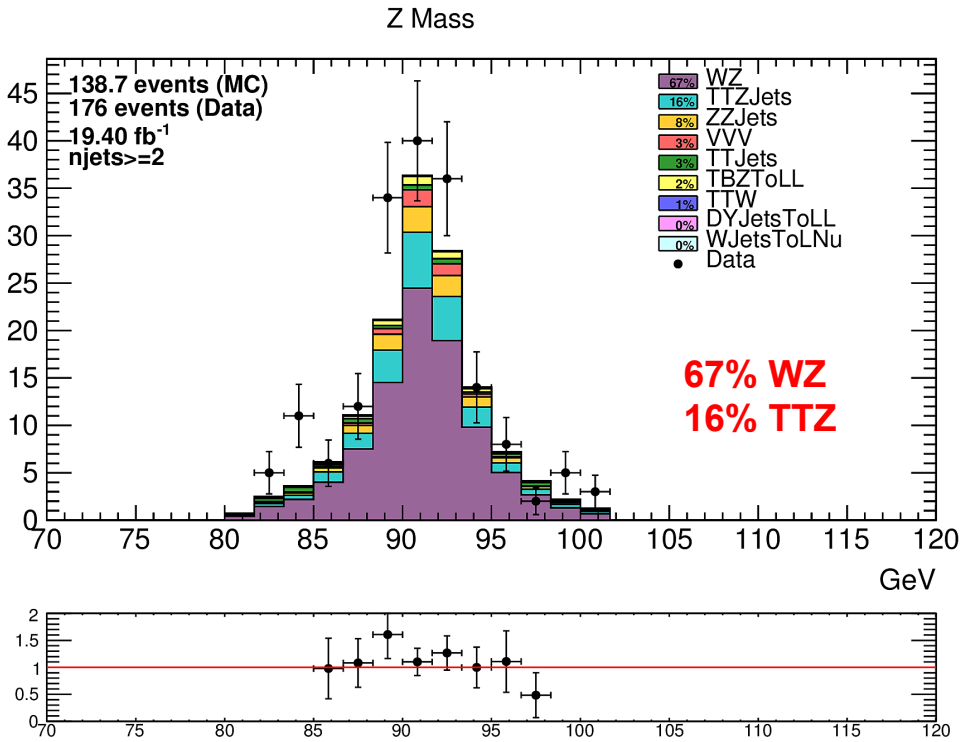
http://web.physics.ucsb.edu/~namin/dump/plots_NJ2BTALL/

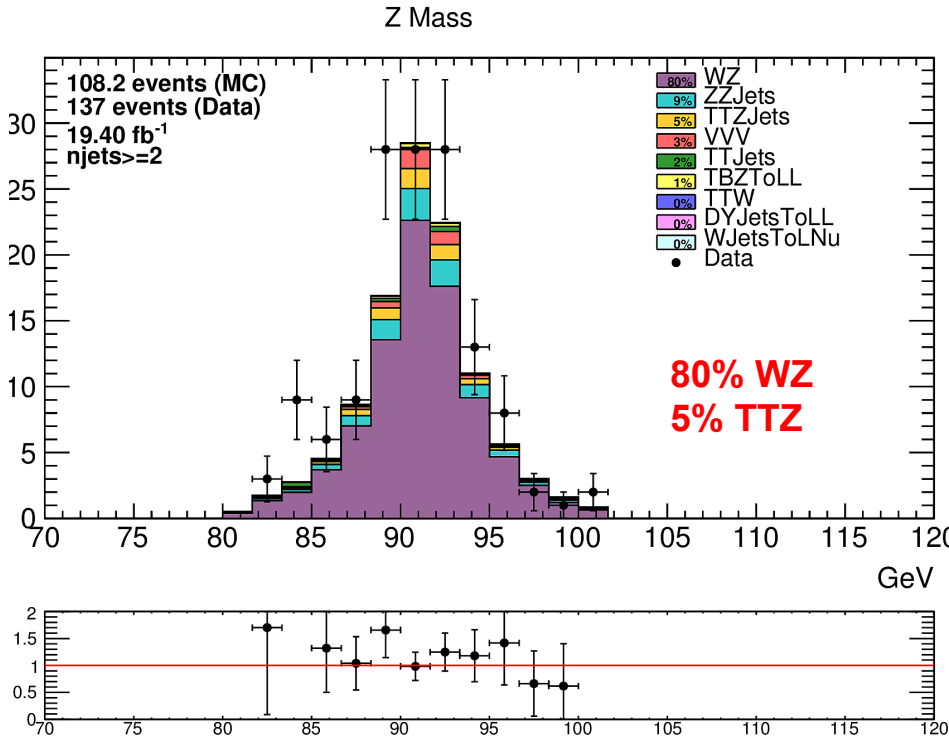
http://web.physics.ucsb.edu/~namin/dump/plots_NJ2BT1/ (njets>=2; skip if nbjets>=1)

Btag


Value of csv bjet tag
Entries
331.5 events (MC)
411 events (Data)
19.40 fb-1
njets>=2
63% WZ
20% TTZJets
7% ZZJets
3% VVV
3% TTJets
2% TBZToLL
1% TTW
0% DYJetsToLL
0% WJetsToLNu
Data
junk
0.75
Data/MC

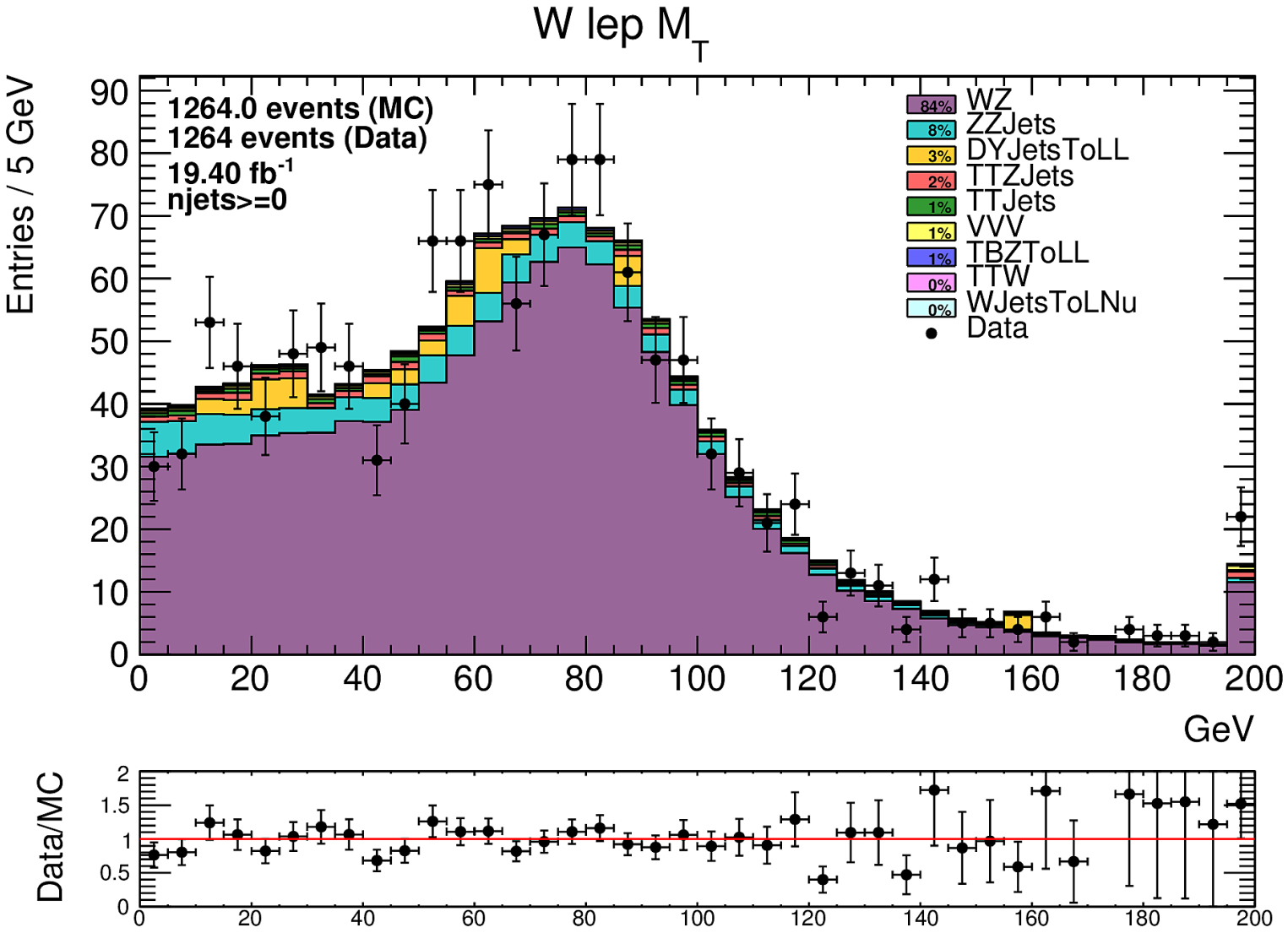
Btag



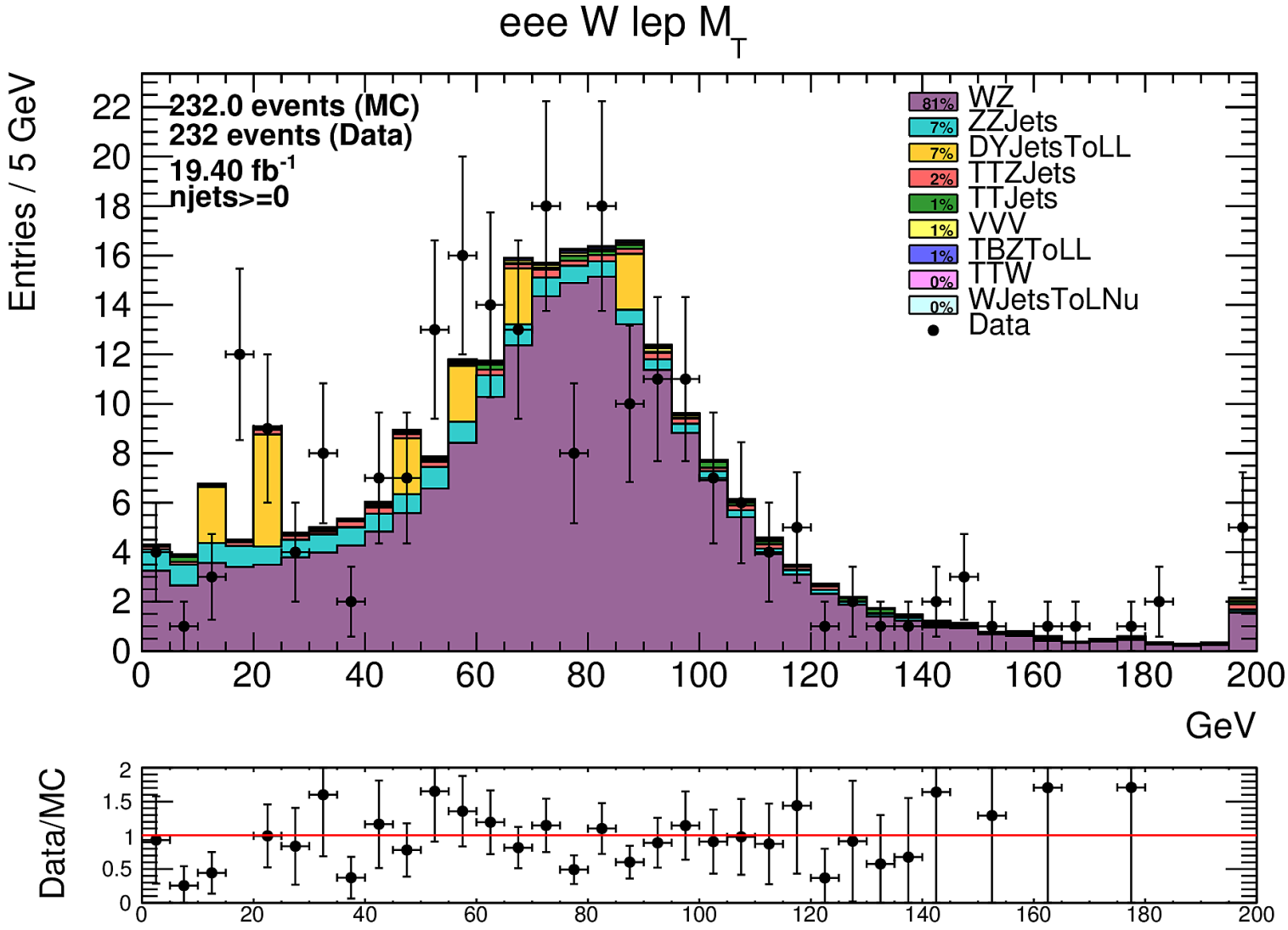


Veto event if
#bjets >= 1

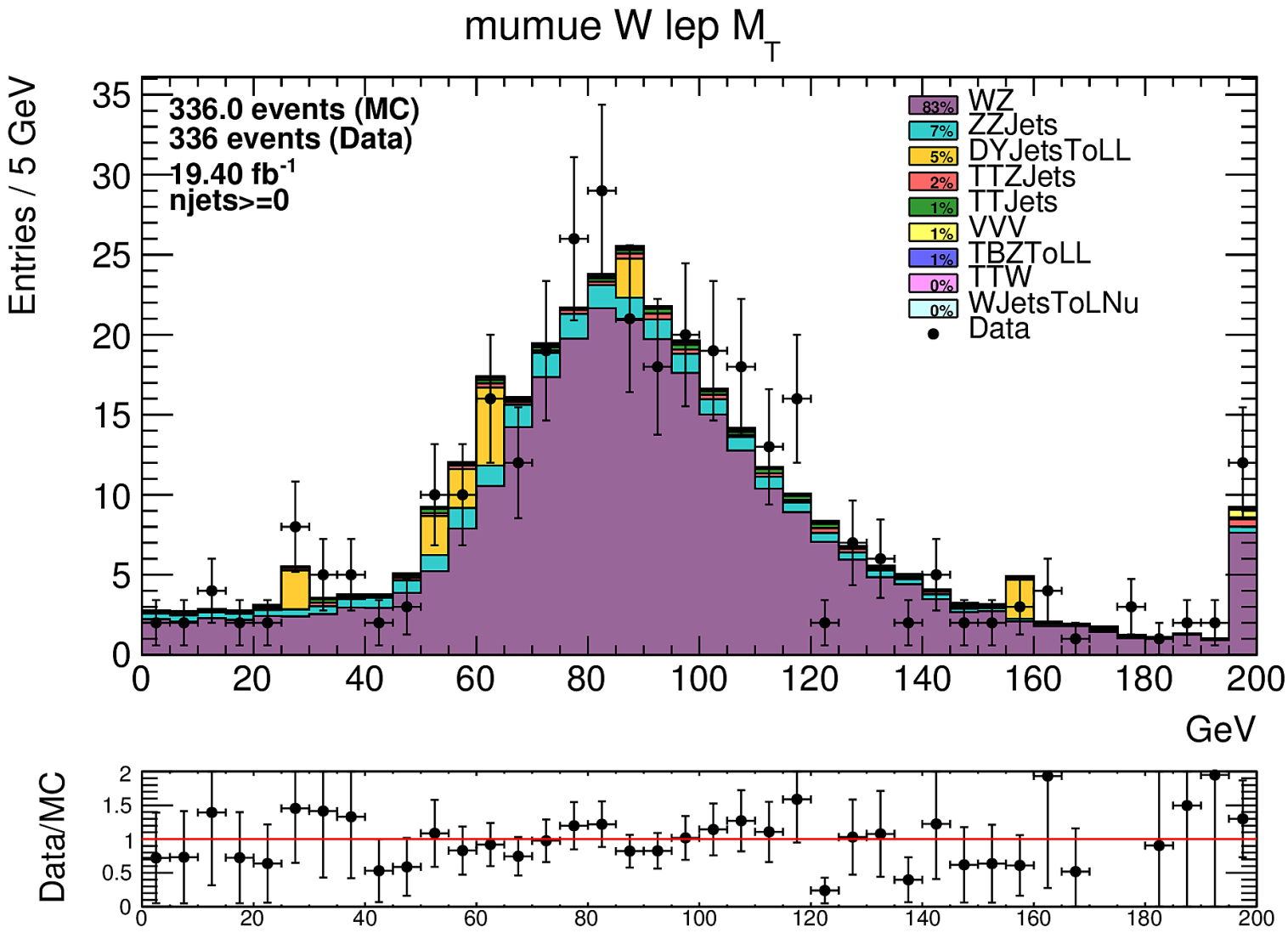
M_T


W lep M_T
1264.0 events (MC)
1264 events (Data)
19.40 fb-1
njets>=0
Entries / 5 GeV
84% WZ
8% ZZJets
3% DYJetsToLL
2% TTZJets
1% TTJets
1% VVV
1% TBZToLL
0% TTW
0% WJetsToLNu
Data
GeV
Data/MC

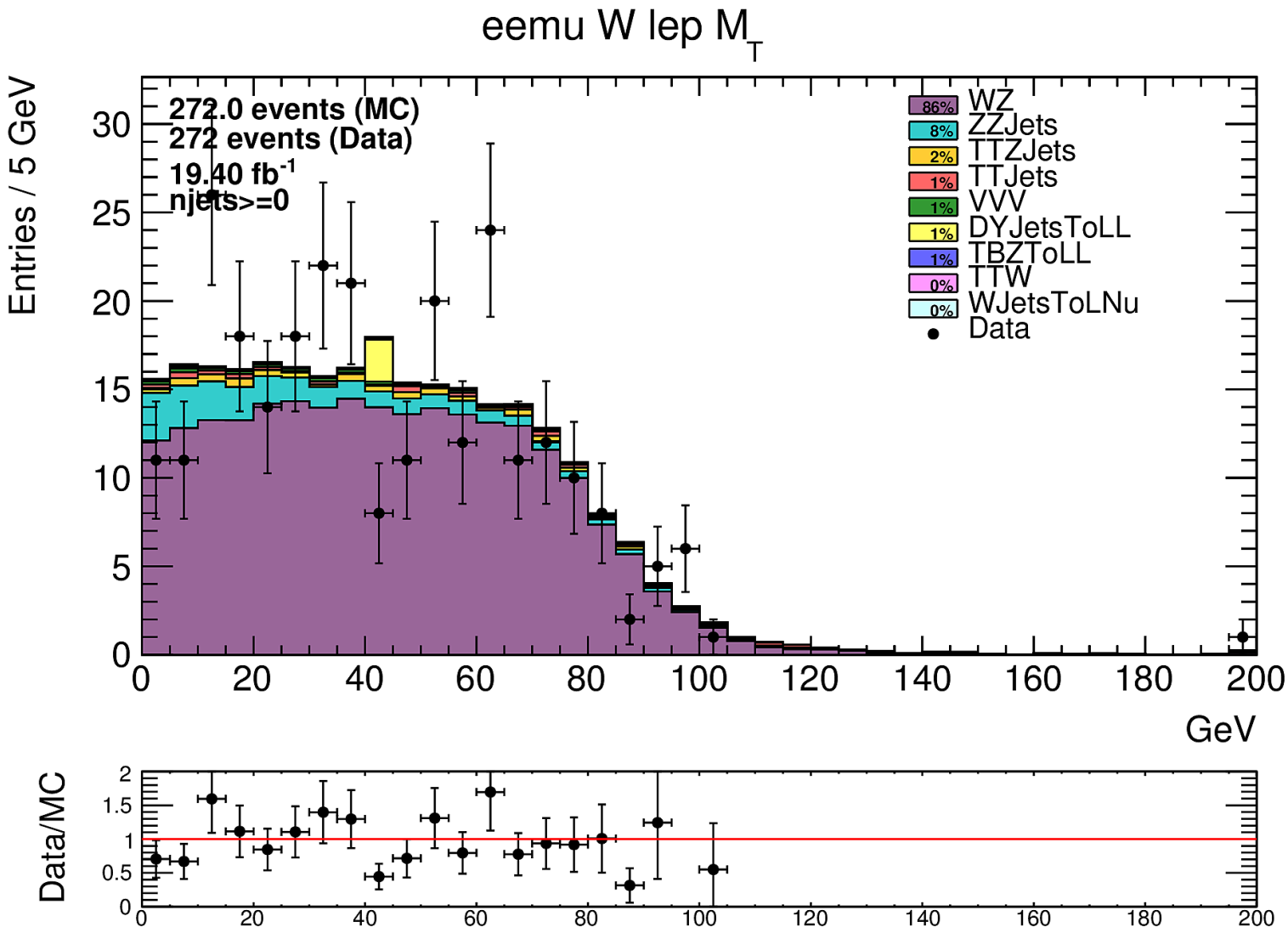
M_T eee only


eee W lep M_T
232.0 events (MC)
232 events (Data)
19.40 fb^{-1}
njets>=0
81% WZ
7% ZZJets
7% DYJetsToLL
2% TTZJets
1% TTJets
1% VVV
1% TBZToLL
0% TTW
0% WJetsToLNu
Data
Entries / 5 GeV
GeV
Data/MC

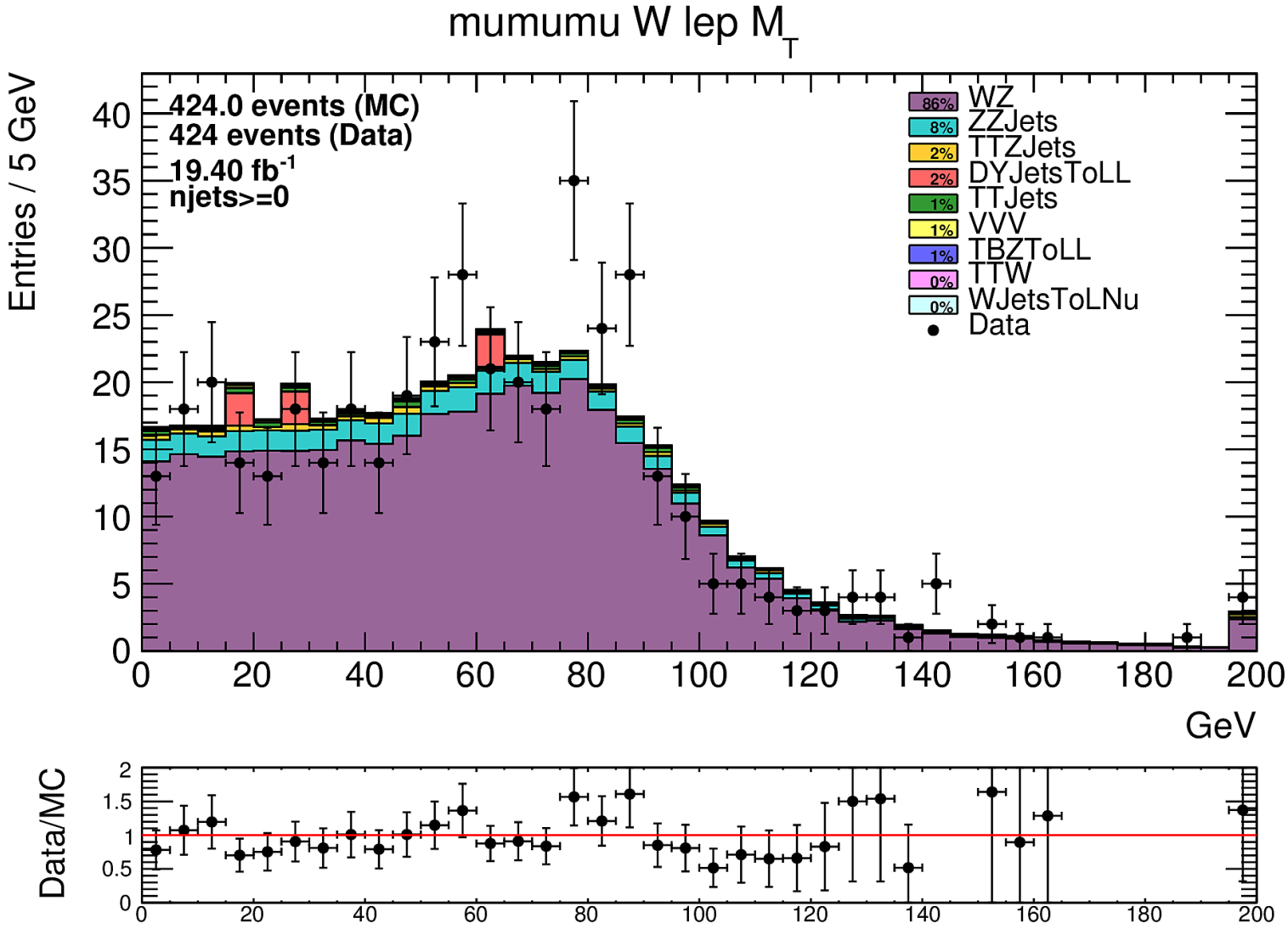
M_T μμe only


mumue W lep M_T
336.0 events (MC)
336 events (Data)
19.40 fb-1
njets>=0
Entries / 5 GeV
GeV
Data/MC
83% WZ
7% ZZJets
5% DYJetsToLL
2% TTZJets
1% TTJets
1% VVV
1% TBZToLL
0% TTW
0% WJetsToLNu
Data

M_T eeμ only


eemu W lep M_T
272.0 events (MC)
272 events (Data)
19.40 fb-1
njets>=0
Entries / 5 GeV
GeV
Data/MC
86% WZ
8% ZZJets
2% TTZJets
1% TTJets
1% VVV
1% DYJetsToLL
1% TBZToLL
0% TTW
0% WJetsToLNu
Data

M_T μμμ only


mumumu W lep M_T
424.0 events (MC)
424 events (Data)
19.40 fb-1
njets>=0
Entries / 5 GeV
GeV
Data/MC
86% WZ
8% ZZJets
2% TTZJets
2% DYJetsToLL
1% TTJets
1% VVV
1% TBZToLL
0% TTW
0% WJetsToLNu
Data