Mass systematics from Color Reconnection

Just a few plots and 1 table.

Got the samples on Monday. I will have more info soon.

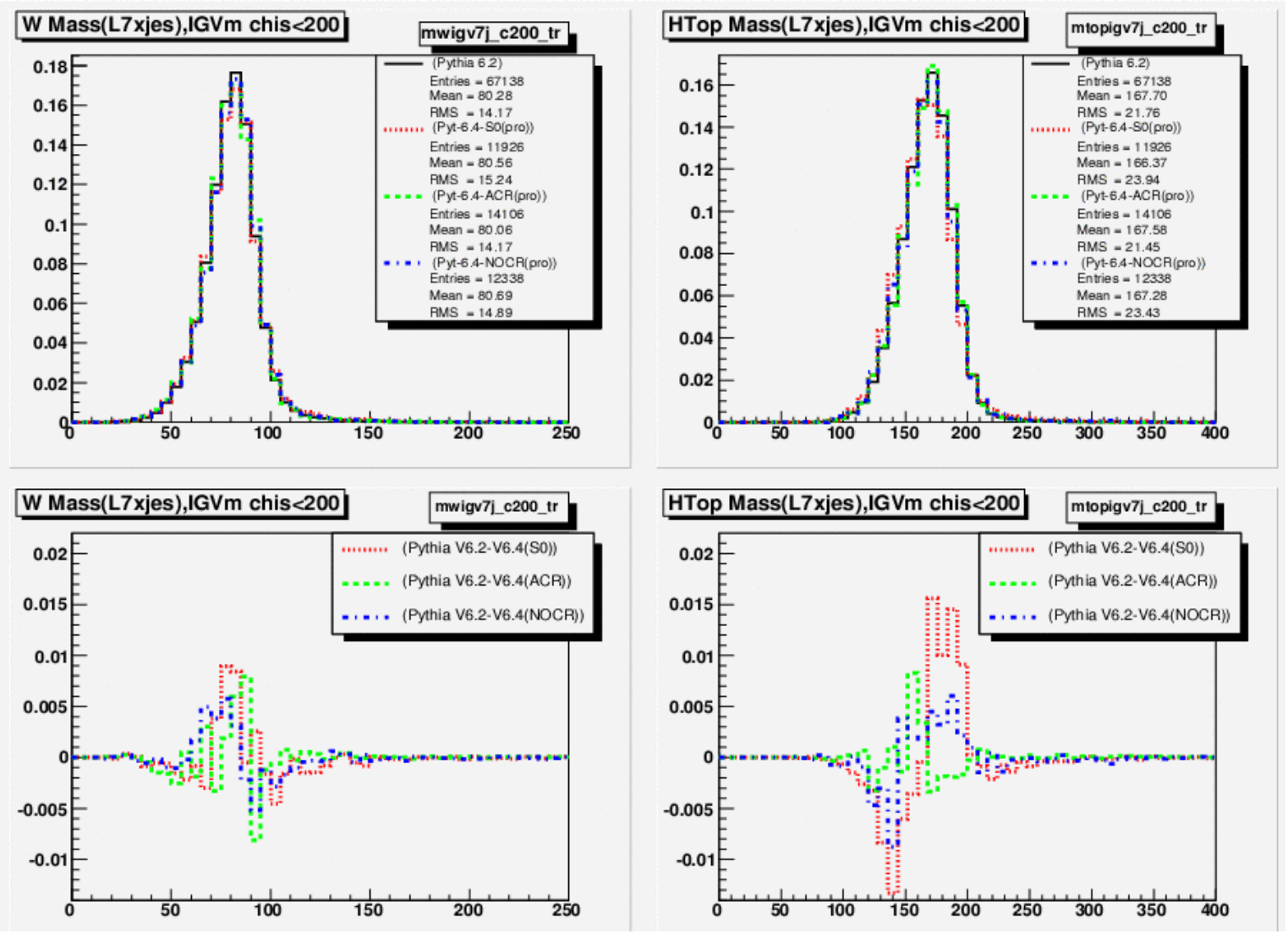
Nathan provided top Ntuples for the new PYTHIA (V6.419).
This version has been tuned with LEP data.

Will show only results from matching events in MC, as done before.

We are running the MTM3 machinary to see what we get from an actual mass measurement

W and Top Mass shifts

Comparison of the PRO files with ttkt75



M=175 GeV
V6.2 (tune A)
V6.4 ACR
V6.4 NOCR
V6.4 S0

Comparison: old tune-new tune

	MC Pythia V6.416		MC Pythia V6.419 (pro)		
Sample	Δm_W (GeV/c^2)	Δm_t (GeV/c^2)	Sample	Δm_W (GeV/c^2)	Δm_t (GeV/c^2)
	MC samples at M = 175 GeV/c^2				
V6.2 (nominal) (ttkt75)	–	–	(ttkt75)	–	–
V6.4 tune A (otop3u)	-0.28±0.13	-0.10±0.20	(otop45)	-0.13±0.13	-0.12±0.20
V6.4 ACR (otop3v)	+0.33±0.12	-0.01±0.20	(otop46)	-0.22±0.14	-0.12±0.21
V6.4 NOCR (otop3w)	+0.43±0.14	-0.29±0.21	(otop47)	+0.41±0.14	-0.42±0.22
V6.4 S0 (otop3t)	+0.60±0.14	-0.60±0.22	(otop44)	+0.28±0.15	-1.33±0.23

Numbers in red show discrepancies at the 2 sigma level

With the tuned PYTHIA, the top mass discrepancy is larger, while ACR and NOCR look OK. We need to understand this