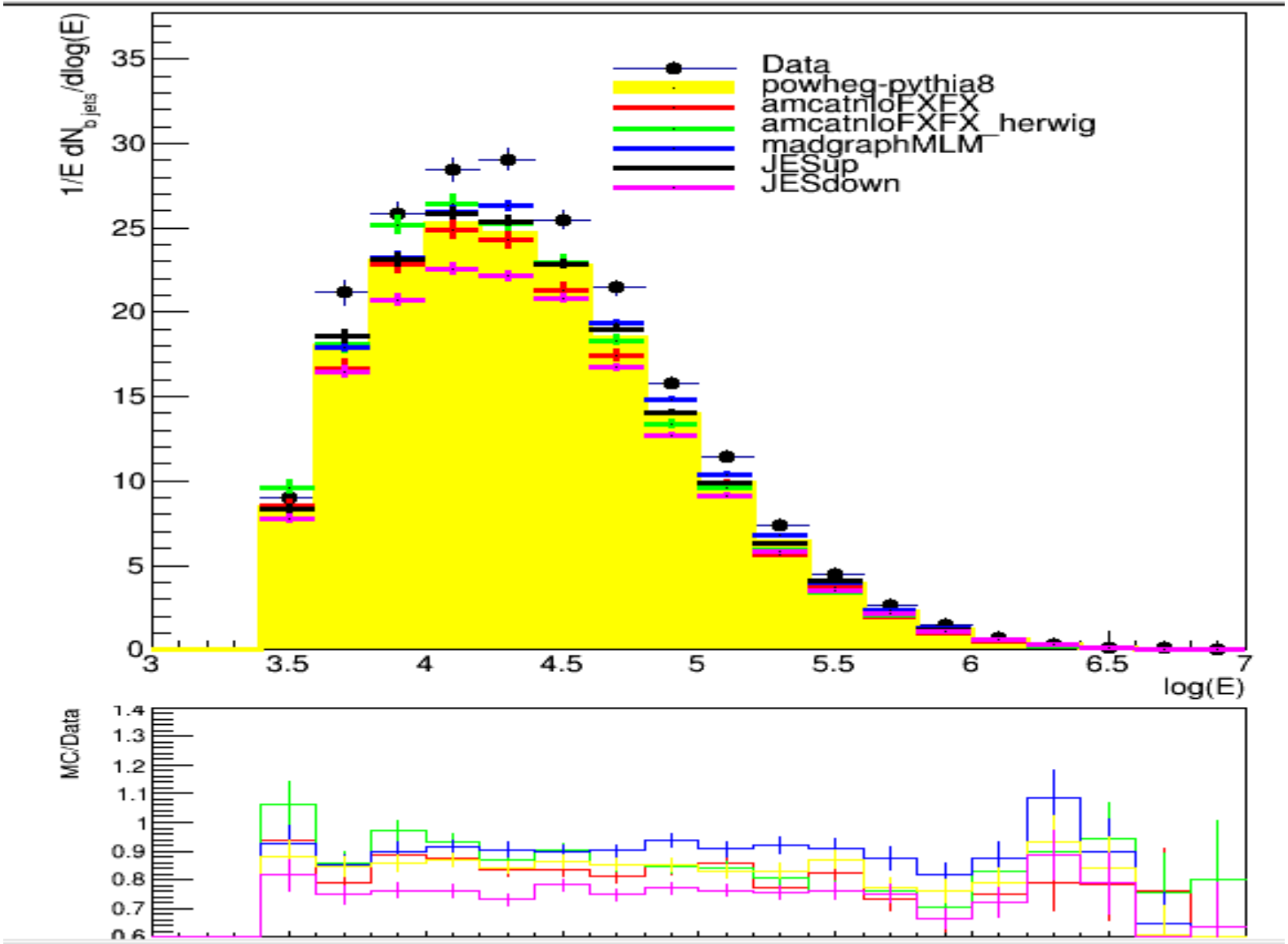
Group 1 Part II

More systematic study
and result

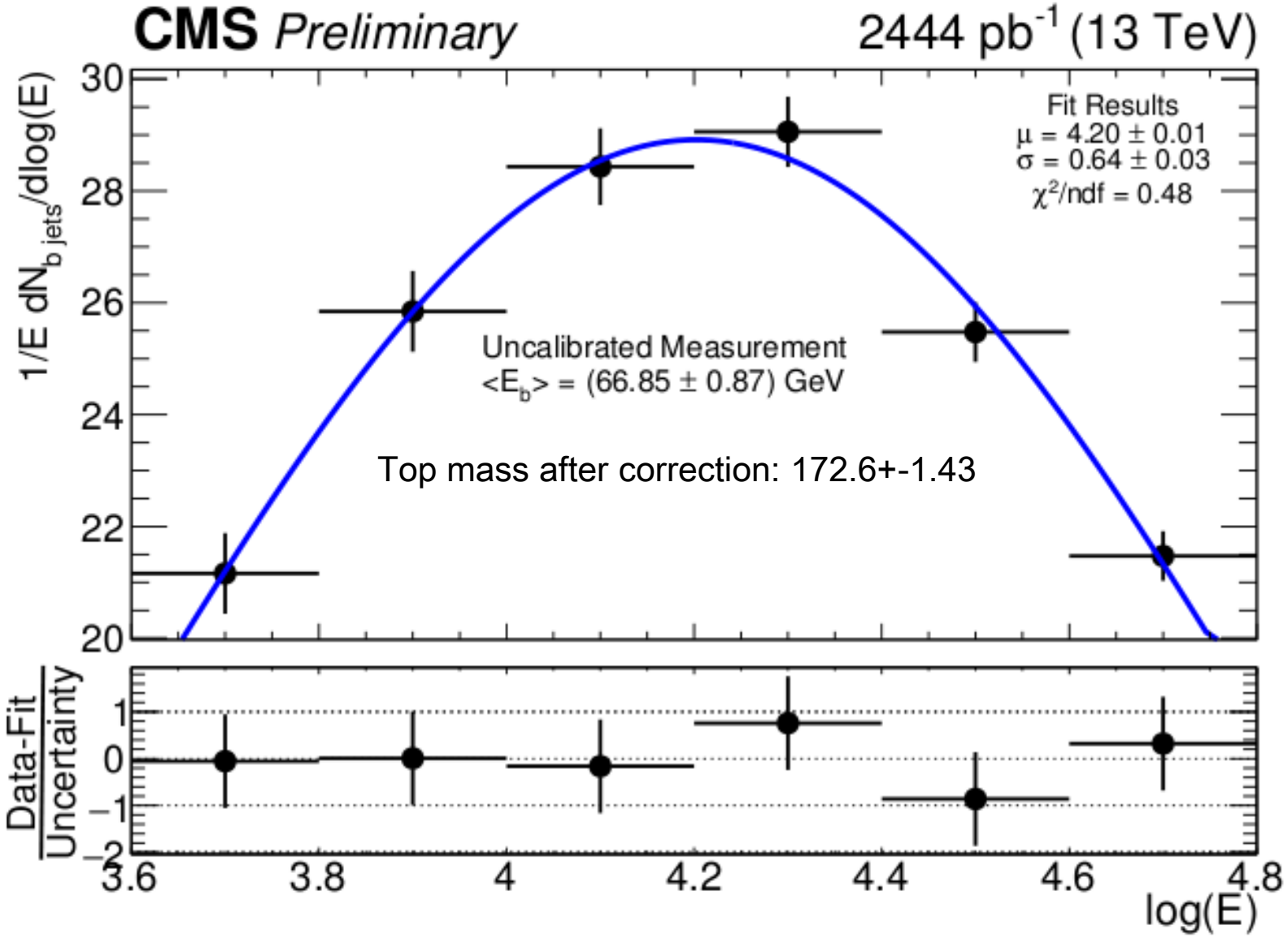
Dominant systematic uncertainties comparison



Systematic uncertainties

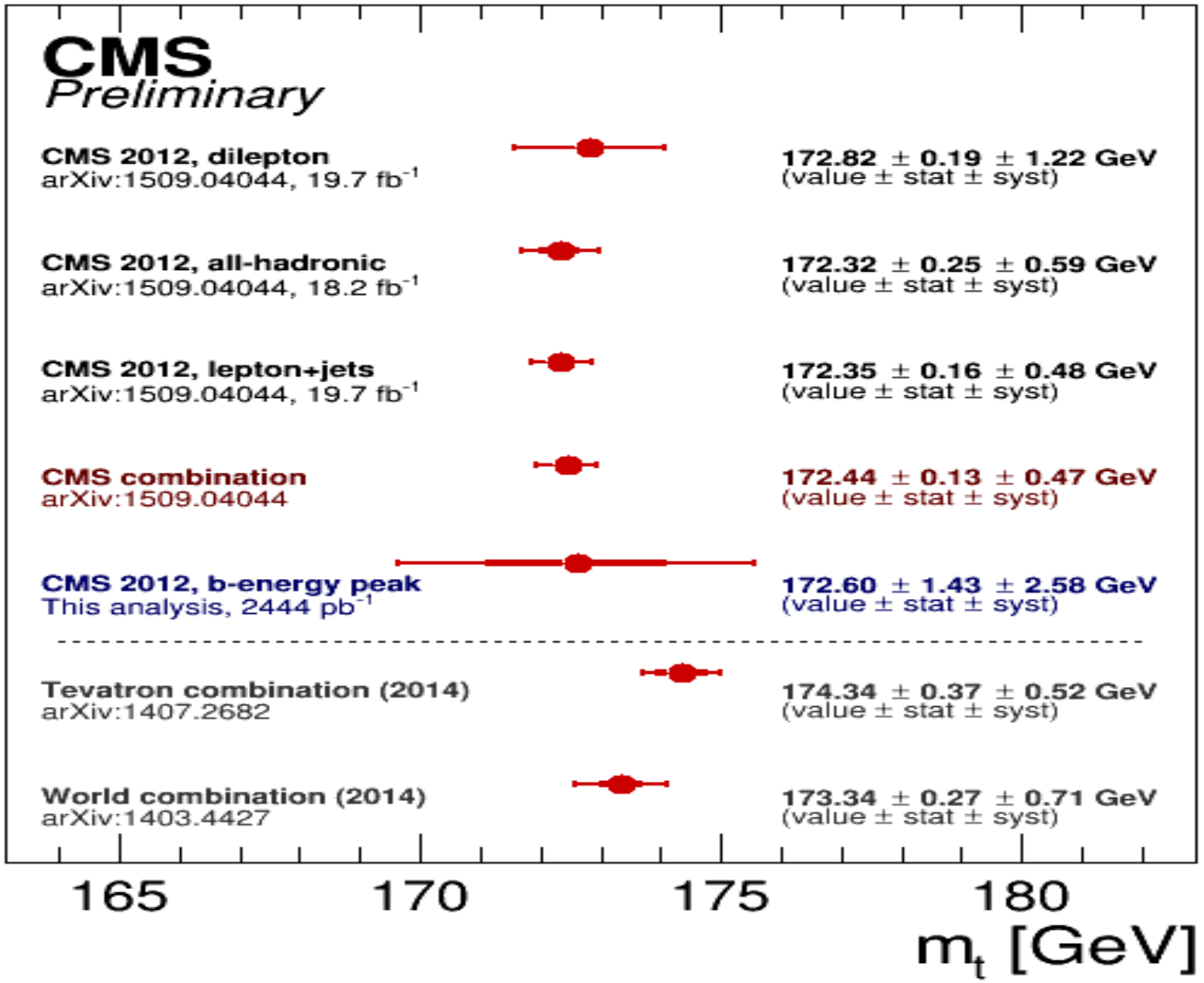
Source of uncertainties	$\delta E_{peak}(GeV)$	$\delta m_t(GeV)$
MC generate amcatnloFXFX-pythia8	0.738	1.213
MC generate madgraphMLM-pythia8	0.761	1.253
Hadronization	1.135	1.859
Jet Energy scale Up	0.159	0.261
Jet Energy scale Down	0.170	0.280
Total	1.57	2.58

Energy distribution of B-jet from 13 TeV data sample



Result

※ Top quark mass = 172.60 ± 1.43 (stat.) ± 2.58(syst.)



Group 1 summary

top-quark mass measurement using only two-body decay kinematics has been measured. The top-quark mass yields a value of mt = 172.6 ± 1.43 (stat.) ± 2.58 (partial syst.) GeV. This measurement is perfomed by selecting tt events with eμ final states in proton-proton collision data at $\sqrt{s}$ = 13 TeV, corresponding to an integrated luminosity of 2.44 fb/1.