

Uncertainty of channel	SR1LBin0	SR1LBin1	SR1LBin2	SR1LBin3	SR1LBin4
Total background expectation	167.68	168.93	53.57	19.70	15.18
Total statistical ( $\sqrt{N_{\text{exp}}}$ )	$\pm 12.95$	$\pm 13.00$	$\pm 7.32$	$\pm 4.44$	$\pm 3.90$
Total background systematic	$\pm 14.21$ [8.47%]	$\pm 13.72$ [8.12%]	$\pm 6.33$ [11.81%]	$\pm 2.90$ [14.70%]	$\pm 2.86$ [18.81%]
mu_tt_1L	$\pm 8.14$ [4.9%]	$\pm 6.72$ [4.0%]	$\pm 1.61$ [3.0%]	$\pm 0.41$ [2.1%]	$\pm 0.19$ [1.2%]
alpha_JER_EffectiveNP_1	$\pm 6.67$ [4.0%]	$\pm 2.05$ [1.2%]	$\pm 0.95$ [1.8%]	$\pm 0.19$ [0.96%]	$\pm 0.21$ [1.4%]
alpha_JER_EffectiveNP_2	$\pm 5.17$ [3.1%]	$\pm 1.13$ [0.67%]	$\pm 1.03$ [1.9%]	$\pm 0.32$ [1.6%]	$\pm 0.63$ [4.2%]
alpha_FSR-Top1L	$\pm 4.47$ [2.7%]	$\pm 4.09$ [2.4%]	$\pm 0.27$ [0.51%]	$\pm 0.67$ [3.4%]	$\pm 0.16$ [1.0%]
alpha_PartonShower-Top1L	$\pm 4.40$ [2.6%]	$\pm 7.29$ [4.3%]	$\pm 3.44$ [6.4%]	$\pm 1.06$ [5.4%]	$\pm 0.72$ [4.7%]
gamma_stat_SR1LBin0.cuts_bin_0	$\pm 4.15$ [2.5%]	$\pm 0.00$ [0.00%]	$\pm 0.00$ [0.00%]	$\pm 0.00$ [0.00%]	$\pm 0.00$ [0.00%]
alpha_JER_DataVsMC	$\pm 4.03$ [2.4%]	$\pm 0.96$ [0.57%]	$\pm 1.04$ [1.9%]	$\pm 0.32$ [1.6%]	$\pm 0.42$ [2.8%]
alpha_JER_EffectiveNP_7restTerm	$\pm 3.90$ [2.3%]	$\pm 1.05$ [0.62%]	$\pm 0.14$ [0.27%]	$\pm 0.23$ [1.2%]	$\pm 0.06$ [0.42%]
alpha_PartonShower-SingleTop	$\pm 3.89$ [2.3%]	$\pm 0.41$ [0.24%]	$\pm 1.95$ [3.6%]	$\pm 0.78$ [3.9%]	$\pm 0.38$ [2.5%]
alpha_JES_Group2	$\pm 3.50$ [2.1%]	$\pm 1.08$ [0.64%]	$\pm 1.23$ [2.3%]	$\pm 0.03$ [0.14%]	$\pm 0.00$ [0.02%]
alpha_muR_muF_ttV	$\pm 3.08$ [1.8%]	$\pm 4.70$ [2.8%]	$\pm 2.12$ [4.0%]	$\pm 0.88$ [4.5%]	$\pm 0.65$ [4.3%]
alpha_JES_Group1	$\pm 3.01$ [1.8%]	$\pm 1.05$ [0.62%]	$\pm 0.98$ [1.8%]	$\pm 0.46$ [2.3%]	$\pm 0.01$ [0.04%]
alpha_JER_EffectiveNP_3	$\pm 2.94$ [1.8%]	$\pm 1.64$ [0.97%]	$\pm 0.26$ [0.49%]	$\pm 0.64$ [3.2%]	$\pm 0.44$ [2.9%]
alpha_JER_EffectiveNP_4	$\pm 2.86$ [1.7%]	$\pm 2.57$ [1.5%]	$\pm 0.59$ [1.1%]	$\pm 0.08$ [0.40%]	$\pm 0.06$ [0.41%]
alpha_JER_EffectiveNP_5	$\pm 2.48$ [1.5%]	$\pm 1.87$ [1.1%]	$\pm 0.65$ [1.2%]	$\pm 0.24$ [1.2%]	$\pm 0.06$ [0.42%]
alpha_JET_Flavor_Response	$\pm 2.46$ [1.5%]	$\pm 0.81$ [0.48%]	$\pm 0.20$ [0.38%]	$\pm 0.18$ [0.93%]	$\pm 0.06$ [0.42%]
alpha_MatrixElement-Top1L	$\pm 2.14$ [1.3%]	$\pm 1.05$ [0.62%]	$\pm 0.48$ [0.90%]	$\pm 0.13$ [0.67%]	$\pm 0.82$ [5.4%]
alpha_FSR-SingleTop	$\pm 2.05$ [1.2%]	$\pm 0.57$ [0.34%]	$\pm 0.02$ [0.04%]	$\pm 0.08$ [0.41%]	$\pm 1.07$ [7.1%]
alpha_ISR-SingleTop	$\pm 1.93$ [1.1%]	$\pm 3.04$ [1.8%]	$\pm 1.13$ [2.1%]	$\pm 0.59$ [3.0%]	$\pm 1.12$ [7.4%]
alpha_MatrixElement-SingleTop	$\pm 1.56$ [0.93%]	$\pm 2.43$ [1.4%]	$\pm 0.12$ [0.23%]	$\pm 0.25$ [1.3%]	$\pm 0.35$ [2.3%]
mu_W	$\pm 1.46$ [0.87%]	$\pm 1.95$ [1.2%]	$\pm 0.75$ [1.4%]	$\pm 0.32$ [1.6%]	$\pm 0.31$ [2.0%]
alpha_btag_BT	$\pm 1.45$ [0.87%]	$\pm 1.22$ [0.72%]	$\pm 0.37$ [0.68%]	$\pm 0.17$ [0.85%]	$\pm 0.08$ [0.53%]
alpha_muR_muF-Diboson	$\pm 1.35$ [0.81%]	$\pm 1.67$ [0.99%]	$\pm 0.79$ [1.5%]	$\pm 0.38$ [1.9%]	$\pm 0.46$ [3.1%]
alpha_MUON_MS	$\pm 1.18$ [0.70%]	$\pm 0.51$ [0.30%]	$\pm 0.09$ [0.17%]	$\pm 0.03$ [0.17%]	$\pm 0.02$ [0.13%]
alpha_Interference-SingleTop	$\pm 1.07$ [0.64%]	$\pm 2.72$ [1.6%]	$\pm 2.15$ [4.0%]	$\pm 1.44$ [7.3%]	$\pm 1.25$ [8.2%]
alpha_ISR-Top1L	$\pm 0.96$ [0.57%]	$\pm 1.76$ [1.0%]	$\pm 1.64$ [3.1%]	$\pm 0.78$ [3.9%]	$\pm 0.76$ [5.0%]
alpha_pileup	$\pm 0.90$ [0.53%]	$\pm 0.50$ [0.30%]	$\pm 0.03$ [0.06%]	$\pm 0.25$ [1.2%]	$\pm 0.30$ [2.0%]
alpha_JES_Group3	$\pm 0.81$ [0.48%]	$\pm 0.03$ [0.02%]	$\pm 0.30$ [0.56%]	$\pm 0.19$ [0.99%]	$\pm 0.13$ [0.85%]
alpha_MUON_ID	$\pm 0.75$ [0.45%]	$\pm 0.19$ [0.12%]	$\pm 0.04$ [0.07%]	$\pm 0.04$ [0.19%]	$\pm 0.05$ [0.35%]
alpha_EG_SCALE_ALL	$\pm 0.74$ [0.44%]	$\pm 0.43$ [0.25%]	$\pm 0.05$ [0.10%]	$\pm 0.05$ [0.27%]	$\pm 0.01$ [0.06%]
alpha_muR_muF-Wjets	$\pm 0.73$ [0.44%]	$\pm 1.60$ [0.95%]	$\pm 0.74$ [1.4%]	$\pm 0.08$ [0.41%]	$\pm 0.52$ [3.4%]
Lumi	$\pm 0.65$ [0.39%]	$\pm 0.82$ [0.48%]	$\pm 0.33$ [0.61%]	$\pm 0.14$ [0.73%]	$\pm 0.12$ [0.78%]
alpha_EG_Eff	$\pm 0.58$ [0.35%]	$\pm 0.50$ [0.29%]	$\pm 0.20$ [0.37%]	$\pm 0.08$ [0.40%]	$\pm 0.08$ [0.55%]
alpha_MET_SoftTrk	$\pm 0.45$ [0.27%]	$\pm 0.03$ [0.02%]	$\pm 0.03$ [0.06%]	$\pm 0.03$ [0.15%]	$\pm 0.05$ [0.36%]
alpha_EG_RESOLUTION_ALL	$\pm 0.37$ [0.22%]	$\pm 0.21$ [0.12%]	$\pm 0.01$ [0.03%]	$\pm 0.02$ [0.12%]	$\pm 0.02$ [0.14%]
alpha_JVT	$\pm 0.36$ [0.21%]	$\pm 0.25$ [0.15%]	$\pm 0.11$ [0.20%]	$\pm 0.04$ [0.18%]	$\pm 0.02$ [0.13%]
alpha_qsf-Wjets	$\pm 0.25$ [0.15%]	$\pm 0.17$ [0.10%]	$\pm 0.04$ [0.08%]	$\pm 0.04$ [0.20%]	$\pm 0.04$ [0.29%]
alpha_muR_muF-Zjets	$\pm 0.23$ [0.14%]	$\pm 0.12$ [0.07%]	$\pm 0.02$ [0.03%]	$\pm 0.01$ [0.04%]	$\pm 0.01$ [0.05%]
alpha_MET_SoftTrk_ResoPara	$\pm 0.22$ [0.13%]	$\pm 1.65$ [0.98%]	$\pm 0.23$ [0.44%]	$\pm 0.27$ [1.4%]	$\pm 0.02$ [0.11%]
alpha_btag_ExtraFromCharm	$\pm 0.21$ [0.12%]	$\pm 0.09$ [0.06%]	$\pm 0.02$ [0.04%]	$\pm 0.00$ [0.01%]	$\pm 0.00$ [0.01%]
alpha_btag_Extra	$\pm 0.20$ [0.12%]	$\pm 0.18$ [0.11%]	$\pm 0.03$ [0.06%]	$\pm 0.00$ [0.02%]	$\pm 0.10$ [0.66%]
alpha_JET_EtaInt_negEta	$\pm 0.17$ [0.10%]	$\pm 0.02$ [0.01%]	$\pm 0.01$ [0.01%]	$\pm 0.00$ [0.01%]	$\pm 0.01$ [0.06%]
alpha_MUON_Eff_sys	$\pm 0.15$ [0.09%]	$\pm 0.21$ [0.13%]	$\pm 0.09$ [0.18%]	$\pm 0.06$ [0.33%]	$\pm 0.08$ [0.56%]
alpha_btag_LightT	$\pm 0.09$ [0.06%]	$\pm 0.55$ [0.32%]	$\pm 0.11$ [0.20%]	$\pm 0.11$ [0.54%]	$\pm 0.03$ [0.19%]
alpha_ckkw-Wjets	$\pm 0.09$ [0.05%]	$\pm 0.34$ [0.20%]	$\pm 0.05$ [0.10%]	$\pm 0.11$ [0.54%]	$\pm 0.12$ [0.79%]
alpha_btag_CT	$\pm 0.06$ [0.04%]	$\pm 0.07$ [0.04%]	$\pm 0.02$ [0.04%]	$\pm 0.01$ [0.04%]	$\pm 0.02$ [0.15%]
alpha_MET_SoftTrk_ResoPerp	$\pm 0.06$ [0.04%]	$\pm 1.60$ [0.95%]	$\pm 0.21$ [0.39%]	$\pm 0.32$ [1.6%]	$\pm 0.03$ [0.21%]
alpha_EG_Reco	$\pm 0.04$ [0.03%]	$\pm 0.04$ [0.03%]	$\pm 0.01$ [0.02%]	$\pm 0.01$ [0.03%]	$\pm 0.01$ [0.04%]
alpha_MUON_SCALE	$\pm 0.04$ [0.02%]	$\pm 0.29$ [0.17%]	$\pm 0.11$ [0.20%]	$\pm 0.01$ [0.04%]	$\pm 0.00$ [0.02%]
alpha_JET_EtaInt_highE	$\pm 0.03$ [0.02%]	$\pm 0.03$ [0.02%]	$\pm 0.00$ [0.00%]	$\pm 0.00$ [0.00%]	$\pm 0.00$ [0.00%]
alpha_ckkw-Zjets	$\pm 0.02$ [0.01%]	$\pm 0.01$ [0.01%]	$\pm 0.01$ [0.02%]	$\pm 0.00$ [0.00%]	$\pm 0.00$ [0.01%]
alpha_MUON_Eff_Iso_sys	$\pm 0.02$ [0.01%]	$\pm 0.03$ [0.02%]	$\pm 0.01$ [0.02%]	$\pm 0.01$ [0.03%]	$\pm 0.00$ [0.01%]
alpha_qsf-Zjets	$\pm 0.02$ [0.01%]	$\pm 0.00$ [0.00%]	$\pm 0.01$ [0.02%]	$\pm 0.00$ [0.01%]	$\pm 0.00$ [0.01%]
alpha_MUON_Eff_stat	$\pm 0.01$ [0.01%]	$\pm 0.02$ [0.01%]	$\pm 0.01$ [0.01%]	$\pm 0.01$ [0.03%]	$\pm 0.00$ [0.02%]
alpha_JER_EffectiveNP_6	$\pm 0.01$ [0.01%]	$\pm 2.35$ [1.4%]	$\pm 0.23$ [0.43%]	$\pm 0.21$ [1.1%]	$\pm 0.07$ [0.45%]
alpha_JET_RelNonClos_AFII	$\pm 0.01$ [0.01%]	$\pm 0.02$ [0.01%]	$\pm 0.01$ [0.01%]	$\pm 0.00$ [0.00%]	$\pm 0.00$ [0.01%]
alpha_MUON_TTVA_stat	$\pm 0.00$ [0.00%]	$\pm 0.00$ [0.00%]	$\pm 0.00$ [0.00%]	$\pm 0.00$ [0.01%]	$\pm 0.00$ [0.00%]
alpha_MUON_Eff_Iso_stat	$\pm 0.00$ [0.00%]	$\pm 0.01$ [0.00%]	$\pm 0.00$ [0.00%]	$\pm 0.00$ [0.00%]	$\pm 0.00$ [0.00%]
alpha_JER_DataVsMC_AFII	$\pm 0.00$ [0.00%]	$\pm 0.01$ [0.01%]	$\pm 0.00$ [0.00%]	$\pm 0.00$ [0.00%]	$\pm 0.00$ [0.00%]
alpha_EG_SCALE_AF2	$\pm 0.00$ [0.00%]	$\pm 0.00$ [0.00%]	$\pm 0.00$ [0.00%]	$\pm 0.00$ [0.00%]	$\pm 0.00$ [0.00%]
alpha_JET_EtaInt_posEta	$\pm 0.00$ [0.00%]	$\pm 0.03$ [0.02%]	$\pm 0.02$ [0.03%]	$\pm 0.00$ [0.01%]	$\pm 0.00$ [0.03%]
alpha_MUON_TTVA_sys	$\pm 0.00$ [0.00%]	$\pm 0.00$ [0.00%]	$\pm 0.00$ [0.00%]	$\pm 0.00$ [0.00%]	$\pm 0.00$ [0.00%]
gamma_stat_tW1L_VRtt_VR2.cuts_bin_0	$\pm 0.00$ [0.00%]	$\pm 0.00$ [0.00%]	$\pm 0.00$ [0.00%]	$\pm 0.00$ [0.00%]	$\pm 0.00$ [0.00%]
alpha_EG_TrigEff	$\pm 0.00$ [0.00%]	$\pm 0.00$ [0.00%]	$\pm 0.00$ [0.00%]	$\pm 0.00$ [0.00%]	$\pm 0.00$ [0.00%]
alpha_MUON_Eff_stat_lowpt	$\pm 0.00$ [0.00%]	$\pm 0.00$ [0.00%]	$\pm 0.00$ [0.00%]	$\pm 0.00$ [0.00%]	$\pm 0.00$ [0.00%]
alpha_MUON_TTVA_stat	$\pm 0.00$ [0.00%]	$\pm 0.00$ [0.00%]	$\pm 0.00$ [0.00%]	$\pm 0.00$ [0.00%]	$\pm 0.00$ [0.00%]
gamma_stat_SR1LBin4.cuts_bin_0	$\pm 0.00$ [0.00%]	$\pm 0.00$ [0.00%]	$\pm 0.00$ [0.00%]	$\pm 0.00$ [0.00%]	$\pm 1.19$ [7.8%]
alpha_EG_Trig	$\pm 0.00$ [0.00%]	$\pm 0.00$ [0.00%]	$\pm 0.00$ [0.00%]	$\pm 0.00$ [0.00%]	$\pm 0.00$ [0.00%]