

Uncertainty of channel	SR1LBin0	SR1LBin1	SR1LBin2	SR1LBin3	SR1LBin4
Total background expectation	170.92	171.53	54.54	20.12	16.38
Total statistical ($\sqrt{N_{\text{exp}}}$)	± 13.07	± 13.10	± 7.39	± 4.49	± 4.05
Total background systematic	± 32.27 [18.88%]	± 30.15 [17.58%]	± 10.49 [19.24%]	± 3.81 [18.93%]	± 3.65 [22.31%]
alpha_ISR-Top1L	± 20.63 [12.1%]	± 17.86 [10.4%]	± 5.18 [9.5%]	± 1.61 [8.0%]	± 1.14 [7.0%]
alpha_PartonShower-Top1L	± 17.16 [10.0%]	± 18.62 [10.9%]	± 6.49 [11.9%]	± 1.90 [9.4%]	± 1.21 [7.4%]
alpha_MatrixElement-Top1L	± 9.07 [5.3%]	± 10.90 [6.4%]	± 2.87 [5.3%]	± 0.75 [3.7%]	± 1.30 [7.9%]
alpha_JER_EffectiveNP_1	± 6.79 [4.0%]	± 2.08 [1.2%]	± 1.02 [1.9%]	± 0.21 [1.0%]	± 0.20 [1.2%]
alpha_JER_EffectiveNP_2	± 5.27 [3.1%]	± 1.18 [0.69%]	± 1.10 [2.0%]	± 0.34 [1.7%]	± 0.62 [3.8%]
gamma_stat_SR1LBin0.cuts.bin_0	± 4.23 [2.5%]	± 0.00 [0.00%]	± 0.00 [0.00%]	± 0.00 [0.00%]	± 0.00 [0.00%]
alpha_JER_DataVsMC	± 4.18 [2.4%]	± 1.04 [0.61%]	± 1.02 [1.9%]	± 0.32 [1.6%]	± 0.42 [2.5%]
alpha_JER_EffectiveNP_7restTerm	± 3.98 [2.3%]	± 1.06 [0.62%]	± 0.12 [0.23%]	± 0.25 [1.2%]	± 0.03 [0.21%]
alpha_PartonShower-SingleTop	± 3.96 [2.3%]	± 0.42 [0.24%]	± 1.99 [3.6%]	± 0.80 [4.0%]	± 0.38 [2.3%]
alpha_JES_Group2	± 3.79 [2.2%]	± 1.20 [0.70%]	± 1.21 [2.2%]	± 0.04 [0.18%]	± 0.02 [0.15%]
alpha_JES_Group1	± 3.40 [2.0%]	± 1.11 [0.65%]	± 0.97 [1.8%]	± 0.46 [2.3%]	± 0.04 [0.26%]
alpha_muR_muF-Wjets	± 3.40 [2.0%]	± 5.09 [3.0%]	± 2.11 [3.9%]	± 0.47 [2.3%]	± 1.06 [6.5%]
alpha_muR_muF-ttV	± 3.14 [1.8%]	± 4.77 [2.8%]	± 2.14 [3.9%]	± 0.87 [4.3%]	± 0.66 [4.0%]
alpha_JER_EffectiveNP_3	± 3.03 [1.8%]	± 1.69 [0.98%]	± 0.30 [0.55%]	± 0.67 [3.3%]	± 0.41 [2.5%]
alpha_JER_EffectiveNP_4	± 2.89 [1.7%]	± 2.56 [1.5%]	± 0.61 [1.1%]	± 0.10 [0.48%]	± 0.04 [0.26%]
alpha_JET_Flavor_Response	± 2.82 [1.7%]	± 0.92 [0.54%]	± 0.15 [0.28%]	± 0.18 [0.90%]	± 0.06 [0.39%]
alpha_FSR-SingleTop	± 2.79 [1.6%]	± 0.68 [0.39%]	± 0.11 [0.20%]	± 0.22 [1.1%]	± 1.23 [7.5%]
alpha_JER_EffectiveNP_5	± 2.52 [1.5%]	± 1.86 [1.1%]	± 0.69 [1.3%]	± 0.26 [1.3%]	± 0.05 [0.30%]
alpha_ISR-SingleTop	± 1.87 [1.1%]	± 2.99 [1.7%]	± 1.13 [2.1%]	± 0.60 [3.0%]	± 1.09 [6.7%]
alpha_MatrixElement-SingleTop	± 1.59 [0.93%]	± 2.48 [1.4%]	± 0.13 [0.23%]	± 0.25 [1.3%]	± 0.35 [2.2%]
alpha_muR_muF-Diboson	± 1.36 [0.79%]	± 1.68 [0.98%]	± 0.80 [1.5%]	± 0.37 [1.9%]	± 0.47 [2.8%]
alpha_Interference-SingleTop	± 1.08 [0.63%]	± 2.75 [1.6%]	± 2.18 [4.0%]	± 1.46 [7.3%]	± 1.26 [7.7%]
alpha_ckkw-Wjets	± 0.87 [0.51%]	± 0.93 [0.54%]	± 0.44 [0.81%]	± 0.11 [0.53%]	± 0.09 [0.53%]
alpha_JES_Group3	± 0.80 [0.47%]	± 0.05 [0.03%]	± 0.29 [0.54%]	± 0.21 [1.0%]	± 0.17 [1.0%]
alpha_qsf-Wjets	± 0.69 [0.40%]	± 0.75 [0.44%]	± 0.27 [0.49%]	± 0.05 [0.27%]	± 0.05 [0.28%]
Lumi	± 0.68 [0.40%]	± 0.84 [0.49%]	± 0.34 [0.62%]	± 0.15 [0.74%]	± 0.13 [0.80%]
alpha_FSR-Top1L	± 0.47 [0.27%]	± 0.01 [0.00%]	± 0.67 [1.2%]	± 0.95 [4.7%]	± 0.34 [2.1%]
alpha_muR_muF-Zjets	± 0.24 [0.14%]	± 0.12 [0.07%]	± 0.02 [0.03%]	± 0.01 [0.04%]	± 0.01 [0.05%]
alpha_JET_EtaInt_negEta	± 0.17 [0.10%]	± 0.02 [0.01%]	± 0.01 [0.01%]	± 0.00 [0.01%]	± 0.01 [0.05%]
alpha_JET_EtaInt_highE	± 0.03 [0.02%]	± 0.03 [0.02%]	± 0.00 [0.00%]	± 0.00 [0.00%]	± 0.00 [0.00%]
alpha_ckkw-Zjets	± 0.03 [0.01%]	± 0.01 [0.00%]	± 0.01 [0.02%]	± 0.00 [0.00%]	± 0.00 [0.01%]
alpha_qsf-Zjets	± 0.02 [0.01%]	± 0.00 [0.00%]	± 0.01 [0.02%]	± 0.00 [0.01%]	± 0.00 [0.01%]
alpha_JET_RelNonClos_AFII	± 0.01 [0.01%]	± 0.02 [0.01%]	± 0.01 [0.01%]	± 0.00 [0.00%]	± 0.00 [0.01%]
mu_tt_1L	± 0.01 [0.01%]	± 0.01 [0.00%]	± 0.00 [0.00%]	± 0.00 [0.00%]	± 0.00 [0.00%]
alpha_JER_EffectiveNP_6	± 0.00 [0.00%]	± 2.36 [1.4%]	± 0.24 [0.44%]	± 0.24 [1.2%]	± 0.04 [0.27%]
mu_W	± 0.00 [0.00%]	± 0.00 [0.00%]	± 0.00 [0.00%]	± 0.00 [0.00%]	± 0.00 [0.00%]
alpha_JER_DataVsMC_AFII	± 0.00 [0.00%]	± 0.01 [0.01%]	± 0.00 [0.00%]	± 0.00 [0.00%]	± 0.00 [0.00%]
alpha_JET_EtaInt_posEta	± 0.00 [0.00%]	± 0.03 [0.02%]	± 0.02 [0.03%]	± 0.00 [0.01%]	± 0.00 [0.03%]
gamma_stat_SR1LBin3.cuts.bin_0	± 0.00 [0.00%]	± 0.00 [0.00%]	± 0.00 [0.00%]	± 1.12 [5.6%]	± 0.00 [0.00%]
gamma_stat_tW1L_CRWm.cuts.bin_0	± 0.00 [0.00%]	± 0.00 [0.00%]	± 0.00 [0.00%]	± 0.00 [0.00%]	± 0.00 [0.00%]
gamma_stat_SR1LBin2.cuts.bin_0	± 0.00 [0.00%]	± 0.00 [0.00%]	± 2.37 [4.3%]	± 0.00 [0.00%]	± 0.00 [0.00%]
gamma_stat_SR1LBin4.cuts.bin_0	± 0.00 [0.00%]	± 0.00 [0.00%]	± 0.00 [0.00%]	± 0.00 [0.00%]	± 1.28 [7.8%]
gamma_stat_SR1LBin1.cuts.bin_0	± 0.00 [0.00%]	± 4.21 [2.5%]	± 0.00 [0.00%]	± 0.00 [0.00%]	± 0.00 [0.00%]
gamma_stat_tW1L_CRWp.cuts.bin_0	± 0.00 [0.00%]	± 0.00 [0.00%]	± 0.00 [0.00%]	± 0.00 [0.00%]	± 0.00 [0.00%]
gamma_stat_tW1L_CRtt.cuts.bin_0	± 0.00 [0.00%]	± 0.00 [0.00%]	± 0.00 [0.00%]	± 0.00 [0.00%]	± 0.00 [0.00%]

Table 1: Breakdown of the dominant systematic uncertainties on background estimates in the various signal regions. Note that the individual uncertainties can be correlated, and do not necessarily add up quadratically to the total background uncertainty. The percentages show the size of the uncertainty relative to the total expected background.