

Uncertainty of channel	SR1LBin0	SR1LBin1	SR1LBin2	SR1LBin3	SR1LBin4
Total background expectation	177.78	181.62	58.12	21.17	15.47
Total statistical ($\sqrt{N_{\text{exp}}}$)	± 13.33	± 13.48	± 7.62	± 4.60	± 3.93
Total background systematic	± 9.70 [5.45%]	± 9.32 [5.13%]	± 4.11 [7.07%]	± 1.99 [9.40%]	± 1.99 [12.87%]
mu_tt_1L	± 19.23 [10.8%]	± 16.66 [9.2%]	± 4.07 [7.0%]	± 1.05 [5.0%]	± 0.60 [3.9%]
alpha_ISR-Top1L	± 17.17 [9.7%]	± 15.11 [8.3%]	± 4.30 [7.4%]	± 1.33 [6.3%]	± 0.91 [5.9%]
alpha_PartonShower-Top1L	± 13.07 [7.3%]	± 14.42 [7.9%]	± 4.95 [8.5%]	± 1.44 [6.8%]	± 0.90 [5.8%]
alpha_JER_EffectiveNP_1	± 6.53 [3.7%]	± 2.04 [1.1%]	± 0.92 [1.6%]	± 0.14 [0.66%]	± 0.27 [1.7%]
alpha_MatrixElement-Top1L	± 6.45 [3.6%]	± 7.89 [4.3%]	± 2.05 [3.5%]	± 0.53 [2.5%]	± 0.90 [5.8%]
alpha_JER_EffectiveNP_2	± 5.18 [2.9%]	± 1.16 [0.64%]	± 0.99 [1.7%]	± 0.29 [1.3%]	± 0.66 [4.3%]
alpha_muR_muF-Wjets	± 4.36 [2.5%]	± 6.46 [3.6%]	± 2.71 [4.7%]	± 0.59 [2.8%]	± 1.27 [8.2%]
mu_W	± 4.33 [2.4%]	± 5.63 [3.1%]	± 2.23 [3.8%]	± 0.93 [4.4%]	± 0.85 [5.5%]
gamma_stat_SR1LBin0.cuts_bin_0	± 4.25 [2.4%]	± 0.00 [0.00%]	± 0.00 [0.00%]	± 0.00 [0.00%]	± 0.00 [0.00%]
alpha_JES_Group2	± 4.20 [2.4%]	± 1.05 [0.58%]	± 1.09 [1.9%]	± 0.02 [0.08%]	± 0.02 [0.14%]
alpha_JER_DataVsMC	± 4.07 [2.3%]	± 0.89 [0.49%]	± 1.10 [1.9%]	± 0.30 [1.4%]	± 0.43 [2.8%]
alpha_JER_EffectiveNP_7restTerm	± 4.01 [2.3%]	± 1.11 [0.61%]	± 0.13 [0.23%]	± 0.23 [1.1%]	± 0.13 [0.85%]
alpha_PartonShower-SingleTop	± 3.85 [2.2%]	± 0.41 [0.23%]	± 1.87 [3.2%]	± 0.75 [3.6%]	± 0.37 [2.4%]
alpha_JES_Group1	± 3.49 [2.0%]	± 0.82 [0.45%]	± 0.80 [1.4%]	± 0.35 [1.7%]	± 0.00 [0.03%]
alpha_JER_EffectiveNP_3	± 3.03 [1.7%]	± 1.65 [0.91%]	± 0.22 [0.39%]	± 0.64 [3.0%]	± 0.47 [3.0%]
alpha_JET_Flavor_Response	± 2.94 [1.7%]	± 0.83 [0.46%]	± 0.04 [0.07%]	± 0.13 [0.60%]	± 0.06 [0.41%]
alpha_JER_EffectiveNP_4	± 2.93 [1.6%]	± 2.61 [1.4%]	± 0.63 [1.1%]	± 0.06 [0.30%]	± 0.12 [0.75%]
alpha_JER_EffectiveNP_5	± 2.54 [1.4%]	± 1.92 [1.1%]	± 0.66 [1.1%]	± 0.26 [1.2%]	± 0.11 [0.73%]
alpha_muR_muF-ttV	± 2.53 [1.4%]	± 4.82 [2.7%]	± 2.22 [3.8%]	± 1.20 [5.7%]	± 0.62 [4.0%]
alpha_FSR-SingleTop	± 2.11 [1.2%]	± 0.70 [0.39%]	± 0.06 [0.11%]	± 0.04 [0.18%]	± 1.01 [6.6%]
alpha_ISR-SingleTop	± 2.03 [1.1%]	± 3.25 [1.8%]	± 1.17 [2.0%]	± 0.62 [2.9%]	± 0.85 [5.5%]
alpha_MatrixElement-SingleTop	± 1.58 [0.89%]	± 2.48 [1.4%]	± 0.12 [0.21%]	± 0.25 [1.2%]	± 0.35 [2.2%]
alpha_muR_muF-Diboson	± 1.33 [0.75%]	± 1.67 [0.92%]	± 0.79 [1.4%]	± 0.38 [1.8%]	± 0.45 [2.9%]
alpha_ckkw-Wjets	± 0.93 [0.52%]	± 0.97 [0.53%]	± 0.47 [0.81%]	± 0.11 [0.50%]	± 0.08 [0.51%]
alpha_qsf-Wjets	± 0.91 [0.51%]	± 1.02 [0.56%]	± 0.37 [0.63%]	± 0.09 [0.40%]	± 0.07 [0.48%]
alpha_JES_Group3	± 0.86 [0.48%]	± 0.01 [0.01%]	± 0.35 [0.61%]	± 0.21 [0.97%]	± 0.13 [0.81%]
alpha_Interference-SingleTop	± 0.74 [0.42%]	± 1.89 [1.0%]	± 1.43 [2.5%]	± 0.97 [4.6%]	± 0.80 [5.2%]
Lumi	± 0.70 [0.39%]	± 0.86 [0.47%]	± 0.34 [0.59%]	± 0.15 [0.71%]	± 0.11 [0.70%]
alpha_FSR-Top1L	± 0.47 [0.27%]	± 0.15 [0.08%]	± 0.62 [1.1%]	± 0.68 [3.2%]	± 0.17 [1.1%]
alpha_muR_muF-Zjets	± 0.25 [0.14%]	± 0.11 [0.06%]	± 0.02 [0.03%]	± 0.01 [0.04%]	± 0.01 [0.05%]
alpha_JET_EtaInt_negEta	± 0.18 [0.10%]	± 0.02 [0.01%]	± 0.01 [0.01%]	± 0.00 [0.01%]	± 0.01 [0.06%]
alpha_JET_EtaInt_highE	± 0.03 [0.02%]	± 0.03 [0.01%]	± 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_JER_EffectiveNP_6	± 0.03 [0.01%]	± 2.40 [1.3%]	± 0.25 [0.43%]	± 0.20 [0.95%]	± 0.13 [0.82%]
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%]
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 [0.04%]	± 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%]	± 1.13 [5.3%]	± 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%]	± 2.40 [4.1%]	± 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%]	± 1.20 [7.8%]
gamma_stat_SR1LBin1.cuts_bin_0	± 0.00 [0.00%]	± 4.27 [2.4%]	± 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.