

| 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 | ± 17.14 [10.03%] | ± 14.55 [8.48%] | ± 6.99 [12.81%] | ± 3.10 [15.41%] | ± 3.21 [19.57%] |
| 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_PartonShower-Top1L | ± 5.43 [3.2%] | ± 8.94 [5.2%] | ± 4.21 [7.7%] | ± 1.31 [6.5%] | ± 0.88 [5.4%] |
| alpha_JER_EffectiveNP_2 | ± 5.27 [3.1%] | ± 1.18 [0.69%] | ± 1.10 [2.0%] | ± 0.34 [1.7%] | ± 0.62 [3.8%] |
| alpha_FSR-Top1L | ± 4.82 [2.8%] | ± 4.38 [2.6%] | ± 0.33 [0.60%] | ± 0.70 [3.5%] | ± 0.17 [1.1%] |
| 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-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_MatrixElement-Top1L | ± 2.59 [1.5%] | ± 1.27 [0.74%] | ± 0.58 [1.1%] | ± 0.16 [0.79%] | ± 0.98 [6.0%] |
| 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_btag_BT | ± 1.50 [0.88%] | ± 1.27 [0.74%] | ± 0.39 [0.71%] | ± 0.17 [0.87%] | ± 0.11 [0.70%] |
| 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_MUON_MS | ± 1.18 [0.69%] | ± 0.50 [0.29%] | ± 0.10 [0.18%] | ± 0.03 [0.16%] | ± 0.02 [0.12%] |
| alpha_Interference-SingleTop | ± 1.08 [0.63%] | ± 2.75 [1.6%] | ± 2.18 [4.0%] | ± 1.46 [7.3%] | ± 1.26 [7.7%] |
| alpha_pileup | ± 0.92 [0.54%] | ± 0.46 [0.27%] | ± 0.05 [0.08%] | ± 0.25 [1.2%] | ± 0.30 [1.8%] |
| alpha_ISR-Top1L | ± 0.87 [0.51%] | ± 1.55 [0.91%] | ± 1.42 [2.6%] | ± 0.67 [3.3%] | ± 0.66 [4.0%] |
| alpha_JES_Group3 | ± 0.80 [0.47%] | ± 0.05 [0.03%] | ± 0.29 [0.54%] | ± 0.21 [1.0%] | ± 0.17 [1.0%] |
| alpha_MUON_ID | ± 0.77 [0.45%] | ± 0.19 [0.11%] | ± 0.03 [0.05%] | ± 0.04 [0.20%] | ± 0.07 [0.40%] |
| alpha_EG_SCALE_ALL | ± 0.76 [0.44%] | ± 0.45 [0.26%] | ± 0.05 [0.10%] | ± 0.06 [0.28%] | ± 0.01 [0.06%] |
| alpha_muR_muF-Wjets | ± 0.72 [0.42%] | ± 1.53 [0.89%] | ± 0.72 [1.3%] | ± 0.08 [0.40%] | ± 0.49 [3.0%] |
| Lumi | ± 0.68 [0.40%] | ± 0.84 [0.49%] | ± 0.34 [0.62%] | ± 0.15 [0.74%] | ± 0.13 [0.80%] |
| alpha_EG_Eff | ± 0.60 [0.35%] | ± 0.51 [0.30%] | ± 0.20 [0.38%] | ± 0.08 [0.41%] | ± 0.09 [0.55%] |
| alpha_MET_SoftTrk | ± 0.42 [0.25%] | ± 0.03 [0.02%] | ± 0.04 [0.07%] | ± 0.03 [0.16%] | ± 0.06 [0.39%] |
| alpha_EG_RESOLUTION_ALL | ± 0.37 [0.22%] | ± 0.22 [0.13%] | ± 0.02 [0.03%] | ± 0.02 [0.12%] | ± 0.03 [0.17%] |
| alpha_JVT | ± 0.36 [0.21%] | ± 0.25 [0.15%] | ± 0.11 [0.20%] | ± 0.04 [0.18%] | ± 0.02 [0.13%] |
| 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_qsf-Wjets | ± 0.24 [0.14%] | ± 0.17 [0.10%] | ± 0.04 [0.08%] | ± 0.04 [0.18%] | ± 0.04 [0.24%] |
| alpha_MET_SoftTrk_ResoPara | ± 0.22 [0.13%] | ± 1.72 [1.0%] | ± 0.24 [0.45%] | ± 0.27 [1.3%] | ± 0.02 [0.09%] |
| alpha_btag_ExtraFromCharm | ± 0.21 [0.12%] | ± 0.10 [0.06%] | ± 0.02 [0.03%] | ± 0.00 [0.00%] | ± 0.00 [0.02%] |
| alpha_btag_Extra | ± 0.21 [0.12%] | ± 0.19 [0.11%] | ± 0.03 [0.06%] | ± 0.01 [0.03%] | ± 0.07 [0.44%] |
| 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_MUON_Eff_sys | ± 0.16 [0.10%] | ± 0.22 [0.13%] | ± 0.10 [0.18%] | ± 0.07 [0.33%] | ± 0.10 [0.62%] |
| alpha_btag_LightT | ± 0.09 [0.05%] | ± 0.55 [0.32%] | ± 0.11 [0.21%] | ± 0.11 [0.53%] | ± 0.03 [0.20%] |
| alpha_ckkw-Wjets | ± 0.08 [0.05%] | ± 0.32 [0.18%] | ± 0.05 [0.09%] | ± 0.10 [0.49%] | ± 0.11 [0.67%] |
| alpha_btag_CT | ± 0.07 [0.04%] | ± 0.07 [0.04%] | ± 0.02 [0.04%] | ± 0.01 [0.05%] | ± 0.02 [0.15%] |
| alpha_MET_SoftTrk_ResoPerp | ± 0.06 [0.04%] | ± 1.67 [0.97%] | ± 0.21 [0.39%] | ± 0.32 [1.6%] | ± 0.03 [0.20%] |
| alpha_MUON_SCALE | ± 0.05 [0.03%] | ± 0.29 [0.17%] | ± 0.11 [0.21%] | ± 0.01 [0.04%] | ± 0.00 [0.03%] |
| alpha_EG_Reco | ± 0.05 [0.03%] | ± 0.04 [0.03%] | ± 0.01 [0.02%] | ± 0.01 [0.03%] | ± 0.01 [0.04%] |
| 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_MUON_Eff_Iso_sys | ± 0.02 [0.01%] | ± 0.03 [0.02%] | ± 0.01 [0.02%] | ± 0.01 [0.03%] | ± 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_MUON_Eff_stat | ± 0.01 [0.01%] | ± 0.02 [0.01%] | ± 0.01 [0.01%] | ± 0.01 [0.03%] | ± 0.00 [0.02%] |
| 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_MUON_TTVA_stat | ± 0.00 [0.00%] | ± 0.01 [0.00%] | ± 0.00 [0.00%] | ± 0.00 [0.01%] | ± 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%] |
| alpha_MUON_Eff_Iso_stat | ± 0.00 [0.00%] | ± 0.01 [0.00%] | ± 0.00 [0.00%] | ± 0.00 [0.00%] | ± 0.00 [0.00%] |
| 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_EG_SCALE_AF2 | ± 0.00 [0.00%] | ± 0.00 [0.00%] | ± 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%] |
| alpha_MUON_TTVA_sys | ± 0.00 [0.00%] | ± 0.00 [0.00%] | ± 0.00 [0.00%] | ± 0.00 [0.00%] | ± 0.00 [0.00%] |
| alpha_EG_Trig | ± 0.00 [0.00%] | ± 0.00 [0.00%] | ± 0.00 [0.00%] | ± 0.00 [0.00%] | ± 0.00 [0.00%] |
| alpha_MUON_Trig_sys | ± 0.00 [0.00%] | ± 0.00 [0.00%] | ± 0.00 [0.00%] | ± 0.00 [0.00%] | ± 0.00 [0.00%] |
| alpha_fJVT | ± 0.00 [0.00%] | ± 0.00 [0.00%] | ± 0.00 [0.00%] | ± 0.00 [0.00%] | ± 0.00 [0.00%] |
| alpha_EG_TrigEff | ± 0.00 [0.00%] | ± 0.00 [0.00%] | ± 0.00 [0.00%] | ± 0.00 [0.00%] | ± 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_SR1LBin3.cuts_bin_0 | ± 0.00 [0.00%] | ± 0.00 [0.00%] | ± 0.00 [0.00%] | ± 1.12 [5.6%] | ± 0.00 [0.00%] |