

| Parameter                        | initial value | and errorfitted value and error |
|----------------------------------|---------------|---------------------------------|
| alpha_MUON_Eff_stat              | 0.00 ± 1.00   | -0.00 ± 0.99                    |
| alpha_EG_TrigEff                 | 0.00 ± 1.00   | 0.00 ± 0.99                     |
| alpha_btag_Extra                 | 0.00 ± 1.00   | -0.04 ± 0.99                    |
| alpha_MUON_MS                    | 0.00 ± 1.00   | 0.01 ± 0.95                     |
| alpha_EG_SCALE_ALL               | 0.00 ± 1.00   | -0.00 ± 0.98                    |
| alpha_MUON_ID                    | 0.00 ± 1.00   | -0.01 ± 0.99                    |
| alpha_muR_muF-Diboson            | 0.00 ± 1.00   | 0.04 ± 0.97                     |
| alpha_MUON_Trig_stat             | 0.00 ± 1.00   | 0.00 ± 1.00                     |
| alpha_EG_RESOLUTION_ALL          | 0.00 ± 1.00   | -0.03 ± 1.02                    |
| alpha_MUON_Trig_sys              | 0.00 ± 1.00   | -0.07 ± 1.01                    |
| alpha_EG_SCALE_AF2               | 0.00 ± 1.00   | 0.00 ± 0.99                     |
| alpha_MUON_Eff_BadMuon_stat      | 0.00 ± 1.00   | -0.00 ± 0.99                    |
| alpha_JVT                        | 0.00 ± 1.00   | -0.02 ± 1.00                    |
| alpha_MatrixElement-Top2L        | 0.00 ± 1.00   | 0.25 ± 0.85                     |
| alpha_MUON_Eff_Iso_stat          | 0.00 ± 1.00   | 0.00 ± 0.99                     |
| alpha_EG_Eff                     | 0.00 ± 1.00   | -0.02 ± 0.99                    |
| alpha_JET_Flavor_Response        | 0.00 ± 1.00   | 0.42 ± 1.08                     |
| alpha_btag_ExtraFromCharm        | 0.00 ± 1.00   | 0.00 ± 0.99                     |
| alpha_MUON_TTVA_stat             | 0.00 ± 1.00   | -0.00 ± 0.99                    |
| alpha_MUON_Eff_Iso_sys           | 0.00 ± 1.00   | -0.00 ± 0.99                    |
| alpha_JER_DataVsMC               | 0.00 ± 1.00   | 0.13 ± 0.98                     |
| alpha_JER_DataVsMC_AFII          | 0.00 ± 1.00   | 0.00 ± 0.99                     |
| alpha_fakesSyst                  | 0.00 ± 1.00   | -0.11 ± 1.01                    |
| gamma_stat_tW2L_CRttZ_cuts_bin_0 | 1.00 ± 0.03   | 1.00 ± 0.03                     |
| alpha_PartonShower-Top2L         | 0.00 ± 1.00   | 0.13 ± 0.76                     |
| alpha_JET_EtaInt_negEta          | 0.00 ± 1.00   | 0.00 ± 0.98                     |
| alpha_btag_BT                    | 0.00 ± 1.00   | -0.05 ± 0.99                    |
| alpha_JER_EffectiveNP_7restTerm  | 0.00 ± 1.00   | 0.23 ± 0.97                     |
| alpha_JES_Group1                 | 0.00 ± 1.00   | -0.41 ± 1.00                    |
| alpha_JES_Group3                 | 0.00 ± 1.00   | -0.01 ± 0.99                    |
| alpha_JES_Group2                 | 0.00 ± 1.00   | -0.46 ± 1.02                    |
| alpha_singletopSyst              | 0.00 ± 1.00   | 0.74 ± 0.85                     |
| alpha_fJVT                       | 0.00 ± 1.00   | -0.00 ± 0.99                    |
| alpha_MUON_Eff_BadMuon_sys       | 0.00 ± 1.00   | -0.00 ± 0.99                    |
| alpha_ISR-Top2L                  | 0.00 ± 1.00   | 0.09 ± 0.95                     |
| alpha_EG_Trig                    | 0.00 ± 1.00   | 0.00 ± 0.99                     |
| Lumi                             | 1.00 ± 0.02   | 1.00 ± 0.02                     |
| alpha_JET_EtaInt_highE           | 0.00 ± 1.00   | -0.00 ± 0.99                    |
| alpha_FSR-Top2L                  | 0.00 ± 1.00   | 0.01 ± 1.16                     |
| mu_tt_2L                         | 1.00 ± 0.00   | 0.98 ± 0.14                     |
| Pile-up                          | 0.00 ± 1.00   | 0.08 ± 1.06                     |
| alpha_MUON_TTVA_sys              | 0.00 ± 1.00   | -0.00 ± 0.99                    |
| mu_dib                           | 1.00 ± 0.00   | 0.72 ± 0.27                     |
| alpha_MUON_Eff_sys               | 0.00 ± 1.00   | -0.00 ± 0.99                    |
| alpha_muR_muF-ttV                | 0.00 ± 1.00   | 0.05 ± 0.49                     |
| alpha_MET_SoftTrk_ResoPerp       | 0.00 ± 1.00   | -0.05 ± 0.99                    |
| alpha_EG_Reco                    | 0.00 ± 1.00   | -0.00 ± 0.99                    |
| alpha_btag_CT                    | 0.00 ± 1.00   | -0.00 ± 0.99                    |
| mu_ttV                           | 1.00 ± 0.00   | 0.86 ± 0.17                     |
| gamma_stat_tW2L_CRtt_cuts_bin_0  | 1.00 ± 0.01   | 1.00 ± 0.01                     |
| alpha_MUON_SCALE                 | 0.00 ± 1.00   | -0.01 ± 0.97                    |
| alpha_JET_RelNonClos_AFII        | 0.00 ± 1.00   | 0.00 ± 0.99                     |
| MC statistics SR2L bin 0         | 1.00 ± 0.08   | 1.03 ± 0.08                     |
| alpha_JET_EtaInt_posEta          | 0.00 ± 1.00   | -0.00 ± 0.99                    |
| alpha_MUON_Eff_sys_lowpt         | 0.00 ± 1.00   | -0.00 ± 0.99                    |
| alpha_btag_LightT                | 0.00 ± 1.00   | 0.00 ± 0.99                     |
| alpha_MET_SoftTrk                | 0.00 ± 1.00   | -0.04 ± 0.98                    |
| alpha_MUON_Eff_stat_lowpt        | 0.00 ± 1.00   | -0.00 ± 0.99                    |