



|   |
|---|
| Z <sub>y</sub> Norm                         |
| W <sub>y</sub> Norm                         |
| W <sub>ty</sub> Norm                        |
| leptonSF_EL_SF_SIMPLIFIED_Reco_7            |
| leptonSF_EL_SF_SIMPLIFIED_Reco_4            |
| highpt_uncalib_ljet                         |
| highpt_uncalib_cjet                         |
| highpt_uncalib_bjet                         |
| tt <sub>y</sub> _prod_var3c                 |
| tt <sub>y</sub> _prod_muR                   |
| tt <sub>y</sub> _prod_muF                   |
| tt <sub>y</sub> _prod_PDF4LHC_9             |
| tt <sub>y</sub> _prod_PDF4LHC_8             |
| tt <sub>y</sub> _prod_PDF4LHC_7             |
| tt <sub>y</sub> _prod_PDF4LHC_6             |
| tt <sub>y</sub> _prod_PDF4LHC_5             |
| tt <sub>y</sub> _prod_PDF4LHC_4             |
| tt <sub>y</sub> _prod_PDF4LHC_30            |
| tt <sub>y</sub> _prod_PDF4LHC_3             |
| tt <sub>y</sub> _prod_PDF4LHC_29            |
| tt <sub>y</sub> _prod_PDF4LHC_28            |
| tt <sub>y</sub> _prod_PDF4LHC_27            |
| tt <sub>y</sub> _prod_PDF4LHC_26            |
| tt <sub>y</sub> _prod_PDF4LHC_25            |
| tt <sub>y</sub> _prod_PDF4LHC_24            |
| tt <sub>y</sub> _prod_PDF4LHC_22            |
| tt <sub>y</sub> _prod_PDF4LHC_21            |
| tt <sub>y</sub> _prod_PDF4LHC_20            |
| tt <sub>y</sub> _prod_PDF4LHC_2             |
| tt <sub>y</sub> _prod_PDF4LHC_19            |
| tt <sub>y</sub> _prod_PDF4LHC_18            |
| tt <sub>y</sub> _prod_PDF4LHC_17            |
| tt <sub>y</sub> _prod_PDF4LHC_16            |
| tt <sub>y</sub> _prod_PDF4LHC_15            |
| tt <sub>y</sub> _prod_PDF4LHC_14            |
| tt <sub>y</sub> _prod_PDF4LHC_13            |
| tt <sub>y</sub> _prod_PDF4LHC_12            |
| tt <sub>y</sub> _prod_PDF4LHC_11            |
| tt <sub>y</sub> _prod_PDF4LHC_10            |
| tt <sub>y</sub> _prod_PDF4LHC_1             |
| tt <sub>y</sub> _prod_Herwig7               |
| tt <sub>y</sub> _dec_var3c                  |
| tt <sub>y</sub> (dec) Norm                  |
| tt <sub>y</sub> _dec_muR                    |
| tt <sub>y</sub> _dec_muF                    |
| tt <sub>y</sub> _dec_PDF4LHC_8              |
| tt <sub>y</sub> _dec_PDF4LHC_6              |
| tt <sub>y</sub> _dec_PDF4LHC_5              |
| tt <sub>y</sub> _dec_PDF4LHC_4              |
| tt <sub>y</sub> _dec_PDF4LHC_3              |
| tt <sub>y</sub> _dec_PDF4LHC_28             |
| tt <sub>y</sub> _dec_PDF4LHC_27             |
| tt <sub>y</sub> _dec_PDF4LHC_26             |
| tt <sub>y</sub> _dec_PDF4LHC_22             |
| tt <sub>y</sub> _dec_PDF4LHC_20             |
| tt <sub>y</sub> _dec_PDF4LHC_2              |
| tt <sub>y</sub> _dec_PDF4LHC_19             |
| tt <sub>y</sub> _dec_PDF4LHC_18             |
| tt <sub>y</sub> _dec_PDF4LHC_17             |
| tt <sub>y</sub> _dec_PDF4LHC_16             |
| tt <sub>y</sub> _dec_PDF4LHC_12             |
| tt <sub>y</sub> _dec_PDF4LHC_11             |
| tt <sub>y</sub> _dec_PDF4LHC_10             |
| tt <sub>y</sub> _dec_PDF4LHC_1              |
| tt <sub>y</sub> _dec_Herwig7                |
| ttbar_pt_hard                               |
| ttbar Norm                                  |
| ttbar_hdamp_var                             |
| ttbar_Herwig7                               |
| ty(t channel) Norm                          |
| lepfakeSF_var2                              |
| lepfakeSF_var1                              |
| lepfakeSF_                                  |
| hfakeSF_                                    |
| efakeSF_                                    |
| Why_muF                                     |
| Why_Herwig7                                 |
| Wt_Herwig7                                  |
| Photon_effiso                               |
| Photon_ID                                   |
| PileupRW                                    |
| Muon_SF_Trigger_SYST                        |
| Muon_SF_Trigger_STAT                        |
| Muon_SF_Isol_STAT                           |
| Muon_SF_Isol_SHERPA_POWHEG                  |
| Muon_SF_Isol_MLLWINDOW                      |
| Muon_SF_ID_PT_DEPENDENCY                    |
| MET_SoftTrk_Scale                           |
| MET_SoftTrk_ResoPerp                        |
| MET_SoftTrk_ResoPara                        |
| Luminosity                                  |
| JVTscalefactor                              |
| JET_Pileup_RhoTopology                      |
| JET_Pileup_PtTerm                           |
| JET_Pileup_OffsetNPv                        |
| JET_Pileup_OffsetMu                         |
| JET_JER_EffectiveNP_9                       |
| JET_JER_EffectiveNP_8                       |
| JET_JER_EffectiveNP_7                       |
| JET_JER_EffectiveNP_6                       |
| JET_JER_EffectiveNP_5                       |
| JET_JER_EffectiveNP_4                       |
| JET_JER_EffectiveNP_3                       |
| JET_JER_EffectiveNP_2                       |
| JET_JER_EffectiveNP_12restTerm              |
| JET_JER_EffectiveNP_11                      |
| JET_JER_EffectiveNP_10                      |
| JET_JER_EffectiveNP_1                       |
| JET_JER_DataVsMC_MC16                       |
| JET_Flavor_Response                         |
| JET_Flavor_Composition                      |
| JET_EtaIntercalibration_TotalStat           |
| JET_EtaIntercalibration_NonClosure_negEta   |
| JET_EtaIntercalibration_NonClosure_2018data |
| JET_EtaIntercalibration_Modelling           |
| JET_EffectiveNP_Statistical3                |
| JET_EffectiveNP_Modelling3                  |
| JET_EffectiveNP_Modelling1                  |
| JET_EffectiveNP_Mixed2                      |
| JET_EffectiveNP_Mixed1                      |
| JET_BJES_Response                           |
| Electron_SF_Trigger                         |
| Electron_Iso_SF_6                           |
| Electron_Iso_SF_0                           |
| Electron_ID_SF_29                           |
| Electron_ID_SF_21                           |
| EG_SCALE_ALL                                |
| EG_RESOLUTION_ALL                           |
| BTag_Light_9                                |
| BTag_Light_8                                |
| BTag_Light_7                                |
| BTag_Light_6                                |
| BTag_Light_5                                |
| BTag_Light_4                                |
| BTag_Light_3                                |
| BTag_Light_2                                |
| BTag_Light_19                               |
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| BTag_Light_13                               |
| BTag_Light_12                               |
| BTag_Light_11                               |
| BTag_Light_10                               |
| BTag_Light_1                                |
| BTag_Light_0                                |
| BTag_C_9                                    |
| BTag_C_8                                    |
| BTag_C_7                                    |
| BTag_C_6                                    |
| BTag_C_5                                    |
| BTag_C_4                                    |
| BTag_C_3                                    |
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| BTag_C_12                                   |
| BTag_C_11                                   |
| BTag_C_10                                   |
| BTag_C_1                                    |
| BTag_C_0                                    |
| BTag_B_9                                    |
| BTag_B_8                                    |
| BTag_B_7                                    |
| BTag_B_6                                    |
| BTag_B_5                                    |
| BTag_B_44                                   |
| BTag_B_43                                   |
| BTag_B_42                                   |
| BTag_B_41                                   |
| BTag_B_40                                   |
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| BTag_B_10                                   |
| BTag_B_1                                    |
| BTag_B_0                                    |