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|-------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| BTag_B_0 | 100.0 | 0.1 | 0.1 | -0.0 | -0.0 | -0.0 | -0.0 | -0.3 | 0.1 | -0.0 | -0.1 | -0.0 | -0.0 | -0.2 | -0.1 | 0.0 | -0.0 | 0.1 | 0.6 | -0.0 | -5.3 | 0.1 | -0.1 | 0.1 | 0.1 | 0.2 | -0.1 | -0.1 | -0.7 | -0.2 | -0.5 | 19.5 | 10.3 | 6.6 | 5.7 | 2.1 | |
| BTag_Light_0 | 0.1 | 100.0 | -0.2 | 0.1 | -0.1 | 0.0 | -0.3 | 0.6 | 0.0 | -0.0 | 0.0 | 0.1 | 0.2 | 0.2 | 0.2 | 0.6 | 0.3 | -0.2 | -5.0 | 0.8 | 1.9 | -0.6 | 1.7 | -0.5 | 0.6 | 0.3 | 0.0 | 0.4 | 2.5 | -0.2 | 0.7 | 11.1 | 10.2 | 9.5 | 9.2 | 4.4 | |
| EG_SCALE_ALL | 0.1 | -0.2 | 100.0 | 0.0 | -0.1 | -0.0 | -0.0 | 0.3 | -0.0 | -0.0 | 0.1 | 0.0 | 0.0 | 0.2 | 0.2 | 0.1 | -0.1 | -0.1 | 0.5 | 0.1 | 8.0 | -0.1 | -0.3 | -0.1 | -0.1 | -0.0 | 0.0 | 0.0 | 0.3 | 0.2 | 0.6 | -10.7 | -11.6 | -8.5 | -5.3 | -1.6 | |
| Electron_Iso_SF_0 | -0.0 | 0.1 | 0.0 | 100.0 | 0.0 | -0.0 | 0.1 | -0.1 | -0.0 | 0.0 | -0.0 | -0.0 | 0.0 | -0.1 | -0.0 | -0.1 | -0.0 | 0.0 | 0.8 | -0.2 | -1.1 | 0.1 | -0.3 | 0.1 | -0.1 | -0.0 | 0.0 | -0.0 | -0.3 | -0.0 | -0.1 | -11.9 | -13.2 | -10.4 | -8.7 | -2.5 | |
| JET_BJES_Response | -0.0 | -0.1 | -0.1 | 0.0 | 100.0 | -0.0 | -0.0 | 0.2 | -0.0 | 0.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.1 | 0.1 | -0.1 | -0.1 | -2.7 | 0.0 | 3.2 | 0.0 | -0.8 | 0.1 | 0.1 | 0.3 | -0.0 | 0.0 | 0.0 | 0.2 | 0.3 | -8.5 | -12.9 | -13.4 | -4.2 | -0.3 | |
| JET_EffectiveNP_Modelling1 | -0.0 | 0.0 | -0.0 | -0.0 | -0.0 | 100.0 | 0.0 | -0.0 | 0.0 | -0.0 | -0.1 | -0.0 | -0.0 | 0.0 | 0.0 | -0.0 | -0.2 | -0.0 | 0.2 | -0.2 | 4.1 | 0.1 | -0.9 | 0.1 | -0.2 | 0.2 | -0.0 | -0.1 | -0.6 | -0.0 | -0.1 | -4.2 | -14.5 | -19.3 | -17.4 | -3.1 | |
| EtaIntercalibration_Modelling | -0.0 | -0.3 | -0.0 | 0.1 | -0.0 | 0.0 | 100.0 | 0.4 | -0.1 | 0.1 | 0.2 | 0.1 | 0.3 | 0.1 | 0.1 | 0.1 | 0.0 | -0.1 | 0.6 | 0.1 | 2.4 | -0.1 | -0.2 | -0.0 | -0.0 | 0.1 | 0.1 | 0.2 | 1.3 | 0.4 | 0.7 | -9.6 | -12.7 | -13.1 | -11.3 | -4.7 | |
| JET_Flavor_Composition | -0.3 | 0.6 | 0.3 | -0.1 | 0.2 | -0.0 | 0.4 | 100.0 | -0.0 | 0.1 | -0.1 | -0.1 | -0.1 | -0.5 | -0.4 | -0.6 | -0.4 | 0.3 | 2.0 | -1.2 | -13.1 | 1.0 | -1.5 | 0.8 | -0.5 | -0.1 | 0.1 | -0.1 | -1.3 | -0.4 | -1.4 | -18.8 | -12.5 | -7.6 | -7.6 | -2.5 | |
| JET_Flavor_Response | 0.1 | 0.0 | -0.0 | -0.0 | -0.0 | 0.0 | -0.1 | -0.0 | 100.0 | -0.0 | -0.0 | -0.0 | -0.3 | -0.0 | -0.0 | -0.2 | 0.1 | -0.0 | -8.8 | 0.1 | -2.3 | 0.0 | 0.9 | -0.0 | 0.3 | -0.1 | -0.1 | 0.0 | 0.4 | 0.2 | -0.1 | 6.4 | 11.9 | 14.6 | 17.7 | 6.8 | |
| JET_Pileup_OffsetNPV | -0.0 | -0.0 | -0.0 | 0.0 | 0.0 | -0.0 | 0.1 | 0.1 | -0.0 | 100.0 | 0.0 | 0.0 | 0.1 | 0.1 | 0.0 | -0.0 | -0.1 | -0.0 | 1.9 | -0.1 | 3.6 | 0.1 | -0.3 | 0.0 | -0.2 | -0.0 | 0.1 | 0.0 | 0.2 | 0.1 | 0.2 | -9.3 | -12.7 | -11.0 | -8.7 | -2.5 | |
| JET_Pileup_RhoTopology | -0.1 | 0.0 | 0.1 | -0.0 | 0.0 | -0.1 | 0.2 | -0.1 | -0.0 | 0.0 | 100.0 | -0.0 | 0.2 | -0.1 | -0.1 | -0.1 | -0.3 | 0.0 | 3.4 | -0.5 | 0.5 | 0.4 | -1.7 | 0.3 | -0.4 | 0.3 | 0.1 | 0.0 | -0.2 | -0.1 | -0.1 | -25.7 | -31.0 | -24.2 | -18.2 | -5.5 | |
| Luminosity | -0.0 | 0.1 | 0.0 | -0.0 | 0.0 | -0.0 | 0.1 | -0.1 | -0.0 | 0.0 | -0.0 | 100.0 | 0.0 | -0.1 | -0.0 | -0.1 | 0.0 | 0.0 | 0.9 | -0.2 | -0.9 | 0.1 | -0.3 | 0.1 | -0.1 | 0.0 | 0.0 | -0.0 | -0.2 | -0.1 | -0.2 | -12.9 | -13.9 | -11.3 | -9.6 | -2.7 | |
| PileupRW | -0.0 | 0.2 | 0.0 | 0.0 | 0.1 | -0.0 | 0.3 | -0.1 | -0.3 | 0.1 | 0.2 | 0.0 | 100.0 | 0.2 | 0.1 | -0.8 | -0.6 | 0.1 | -2.5 | -0.7 | 12.7 | 0.5 | -1.0 | 0.3 | -0.5 | -0.0 | -0.0 | -0.2 | -1.0 | 1.7 | 0.5 | 2.6 | 6.4 | 5.3 | 5.8 | 2.8 | |
| Photon_ID | -0.2 | 0.2 | 0.2 | -0.1 | 0.1 | 0.0 | 0.1 | -0.5 | -0.0 | 0.1 | -0.1 | -0.1 | 0.2 | 100.0 | -0.3 | -0.2 | 0.1 | 0.3 | -0.1 | -0.4 | -17.2 | 0.4 | -0.3 | 0.4 | 0.1 | 0.2 | 0.0 | -0.1 | -0.6 | -0.4 | -0.9 | -10.6 | -11.2 | -8.8 | -7.9 | -2.0 | |
| Photon_effiso | -0.1 | 0.2 | 0.2 | -0.0 | 0.1 | 0.0 | 0.1 | -0.4 | -0.0 | 0.0 | -0.1 | -0.0 | 0.1 | -0.3 | 100.0 | -0.1 | 0.0 | 0.2 | 0.9 | -0.3 | -10.2 | 0.3 | -0.3 | 0.3 | -0.0 | 0.1 | 0.0 | -0.1 | -0.5 | -0.2 | -0.6 | -16.9 | -18.1 | -14.7 | -12.9 | -3.5 | |
| Wty_Herwig7 | 0.0 | 0.6 | 0.1 | -0.1 | 0.1 | -0.0 | 0.1 | -0.6 | -0.2 | -0.0 | -0.1 | -0.1 | -0.8 | -0.2 | -0.1 | 100.0 | -0.3 | 0.0 | -21.9 | -0.8 | 0.2 | 0.8 | -0.2 | 0.6 | -0.0 | -0.5 | -0.3 | -0.4 | -2.1 | 0.6 | -0.8 | -6.7 | 5.0 | 7.4 | 12.8 | 9.7 | |
| hfakeSF_ | -0.0 | 0.3 | -0.1 | -0.0 | -0.1 | -0.2 | 0.0 | -0.4 | 0.1 | -0.1 | -0.3 | 0.0 | -0.6 | 0.1 | 0.0 | -0.3 | 100.0 | -0.1 | 0.0 | -0.6 | 16.2 | 0.4 | -1.8 | 0.2 | -0.5 | 0.6 | -0.1 | -0.2 | -1.0 | 0.1 | -0.5 | -25.6 | -27.3 | -22.9 | -13.8 | -3.2 | |
| ttbar_pt_hard | 0.1 | -0.2 | -0.1 | 0.0 | -0.1 | -0.0 | -0.1 | 0.3 | -0.0 | -0.0 | 0.0 | 0.0 | 0.1 | 0.3 | 0.2 | 0.0 | -0.1 | 100.0 | -1.1 | 0.1 | 10.9 | -0.2 | -0.1 | -0.1 | -0.1 | -0.0 | -0.1 | -0.1 | -0.1 | 0.3 | 0.6 | -6.4 | -7.6 | -6.4 | -4.3 | -0.6 | |
| tty_dec_Herwig7 | 0.6 | -5.0 | 0.5 | 0.8 | -2.7 | 0.2 | 0.6 | 2.0 | -8.8 | 1.9 | 3.4 | 0.9 | -2.5 | -0.1 | 0.9 | -21.9 | 0.0 | -1.1 | 100.0 | -10.3 | 4.1 | 14.9 | -46.5 | 15.5 | 6.0 | 0.7 | 3.1 | 9.7 | 46.9 | 16.0 | 12.0 | -13.1 | -17.0 | -13.7 | 6.1 | -54.6 | |
| tty_dec_muF | -0.0 | 0.8 | 0.1 | -0.2 | 0.0 | -0.2 | 0.1 | -1.2 | 0.1 | -0.1 | -0.5 | -0.2 | -0.7 | -0.4 | -0.3 | -0.8 | -0.6 | 0.1 | -10.3 | 100.0 | 0.1 | 0.9 | -2.1 | 0.7 | -0.3 | 0.1 | -0.2 | -0.5 | -3.0 | -0.8 | -1.9 | 2.1 | 1.8 | 0.4 | -0.5 | 3.3 | |
| tty(dec) Norm | -5.3 | 1.9 | 8.0 | -1.1 | 3.2 | 4.1 | 2.4 | -13.1 | -2.3 | 3.6 | 0.5 | -0.9 | 12.7 | -17.2 | -10.2 | 0.2 | 16.2 | 10.9 | 4.1 | 0.1 | 100.0 | 4.5 | 29.9 | 6.3 | 16.2 | 8.3 | -0.0 | 0.1 | 1.7 | -7.0 | -23.0 | -38.8 | -42.9 | -36.7 | -27.2 | -5.1 | |
| tty_dec_var3c | 0.1 | -0.6 | -0.1 | 0.1 | 0.0 | 0.1 | -0.1 | 1.0 | 0.0 | 0.1 | 0.4 | 0.1 | 0.5 | 0.4 | 0.3 | 0.8 | 0.4 | -0.2 | 14.9 | 0.9 | 4.5 | 100.0 | 2.4 | -0.8 | 0.1 | -0.2 | 0.2 | 0.4 | 2.4 | 0.5 | 1.5 | -1.8 | 2.4 | -1.7 | -1.1 | -3.1 | |
| tty_prod_Herwig7 | -0.1 | 1.7 | -0.3 | -0.3 | -0.8 | -0.9 | -0.2 | -1.5 | 0.9 | -0.3 | -1.7 | -0.3 | -1.0 | -0.3 | -0.3 | -0.2 | -1.8 | -0.1 | -46.5 | -2.1 | 29.9 | 2.4 | 100.0 | 3.0 | -1.0 | 2.6 | -0.9 | -2.5 | -16.0 | -2.1 | -2.8 | -16.9 | -9.7 | -12.5 | -35.8 | 11.3 | |
| tty_prod_muF | 0.1 | -0.5 | -0.1 | 0.1 | 0.1 | 0.1 | -0.0 | 0.8 | -0.0 | 0.0 | 0.3 | 0.1 | 0.3 | 0.4 | 0.3 | 0.6 | 0.2 | -0.1 | 15.5 | 0.7 | 6.3 | -0.8 | 3.0 | 100.0 | 0.0 | -0.3 | 0.1 | 0.3 | 2.4 | 0.4 | 1.1 | -9.6 | -5.3 | -4.0 | 2.2 | -2.8 | |
| tty_prod_muR | 0.1 | 0.6 | -0.1 | -0.1 | 0.1 | -0.2 | -0.0 | -0.5 | 0.3 | -0.2 | -0.4 | -0.1 | -0.5 | 0.1 | -0.0 | -0.0 | -0.5 | -0.1 | 6.0 | -0.3 | 16.2 | 0.1 | -1.0 | 0.0 | 100.0 | -0.5 | -0.2 | -0.6 | -3.6 | -0.7 | -1.0 | -8.7 | -11.6 | -8.0 | -6.8 | 5.1 | |
| tty_prod_var3c | 0.2 | 0.3 | -0.0 | -0.0 | 0.3 | 0.2 | 0.1 | -0.1 | -0.1 | -0.0 | 0.3 | 0.0 | -0.0 | 0.2 | 0.1 | -0.5 | 0.6 | -0.0 | 0.7 | 0.1 | 8.3 | -0.2 | 2.6 | -0.3 | -0.5 | 100.0 | -0.1 | -0.1 | -1.8 | 0.1 | 0.3 | 5.6 | -6.7 | -16.9 | -5.0 | -2.4 | |
| uncalib_bjet | -0.1 | 0.0 | 0.0 | 0.0 | -0.0 | -0.0 | 0.1 | 0.1 | 0.1 | -0.1 | 0.1 | 0.1 | 0.0 | -0.0 | 0.0 | 0.0 | -0.3 | -0.1 | -0.1 | 3.1 | -0.2 | -0.0 | 0.2 | -0.9 | 0.1 | -0.2 | -0.1 | 100.0 | -0.1 | -0.7 | 0.3 | 0.2 | -0.3 | -0.2 | -0.5 | 3.5 | -11.8 |
| uncalib_cjet | -0.1 | 0.4 | 0.0 | -0.0 | 0.0 | -0.1 | 0.2 | -0.1 | 0.0 | 0.0 | 0.0 | -0.0 | -0.2 | -0.1 | -0.1 | -0.4 | -0.2 | -0.1 | 9.7 | -0.5 | 0.1 | 0.4 | -2.5 | 0.3 | -0.6 | -0.1 | -0.1 | 100.0 | -3.6 | 0.2 | -0.1 | 0.1 | -0.1 | 2.2 | -9.1 | -11.6 | |
| uncalib_ljet | -0.7 | 2.5 | 0.3 | -0.3 | 0.0 | -0.6 | 1.3 | -1.3 | 0.4 | 0.2 | -0.2 | -0.2 | -1.0 | -0.6 | -0.5 | -2.1 | -1.0 | -0.1 | 46.9 | -3.0 | 1.7 | 2.4 | -16.0 | 2.4 | -3.6 | -1.8 | -0.7 | -3.6 | 100.0 | 0.4 | -1.7 | 0.4 | 0.8 | -1.3 | 27.4 | -91.4 | |
| Wty Norm | -0.2 | -0.2 | 0.2 | -0.0 | 0.2 | -0.0 | 0.4 | -0.4 | 0.2 | 0.1 | -0.1 | -0.1 | 1.7 | -0.4 | -0.2 | 0.6 | 0.1 | 0.3 | 16.0 | -0.8 | -7.0 | 0.5 | -2.1 | 0.4 | -0.7 | 0.1 | 0.3 | 0.2 | 0.4 | 100.0 | -0.8 | -31.1 | -30.3 | -24.6 | -18.3 | -9.2 | |
| Zy Norm | -0.5 | 0.7 | 0.6 | -0.1 | 0.3 | -0.1 | 0.7 | -1.4 | -0.1 | 0.2 | -0.1 | -0.2 | 0.5 | -0.9 | -0.6 | -0.8 | -0.5 | 0.6 | 12.0 | -1.9 | -23.0 | 1.5 | -2.8 | 1.1 | -1.0 | 0.3 | 0.2 | -0.1 | -1.7 | -0.8 | 100.0 | -18.7 | -9.8 | -6.5 | -12.7 | -7.2 | |
| all_syst Unfolded Truth Bin 1 | 19.5 | 11.1 | -10.7 | -11.9 | -8.5 | -4.2 | -9.6 | -18.8 | 6.4 | -9.3 | -25.7 | -12.9 | 2.6 | -10.6 | -16.9 | -6.7 | -25.6 | -6.4 | -13.1 | 2.1 | -38.8 | -1.8 | -16.9 | -9.6 | -8.7 | 5.6 | -0.3 | 0.1 | 0.4 | -31.1 | -18.7 | 100.0 | 66.2 | 58.6 | 47.4 | 14.7 | |
| all_syst Unfolded Truth Bin 2 | 10.3 | 10.2 | -11.6 | -13.2 | -12.9 | -14.5 | -12.7 | -12.5 | 11.9 | -12.7 | -31.0 | -13.9 | 6.4 | -11.2 | -18.1 | 5.0 | 27.3 | -7.6 | -17.0 | 1.8 | -42.9 | -2.4 | -9.7 | -5.3 | -11.6 | -6.7 | -0.2 | -0.1 | 0.8 | -30.3 | -9.8 | 66.2 | 100.0 | 56.9 | 54.0 | 15.8 | |
| all_syst Unfolded Truth Bin 3 | 6.6 | 9.5 | -8.5 | -10.4 | -13.4 | -19.3 | -13.1 | -7.6 | 14.6 | -11.0 | -24.2 | -11.3 | 5.3 | -8.8 | -14.7 | 7.4 | -22.9 | -6.4 | -13.7 | 0.4 | -36.7 | -1.7 | -12.5 | -4.0 | -8.0 | -16.9 | -0.5 | 2.2 | -1.3 | -24.6 | -6.5 | 58.6 | 56.9 | 100.0 | 35.6 | 16.8 | |
| all_syst Unfolded Truth Bin 4 | 5.7 | 9.2 | -5.3 | -8.7 | -4.2 | -17.4 | -11.3 | -7.6 | 17.7 | -8.7 | -18.2 | -9.6 | 5.8 | -7.9 | -12.9 | 12.8 | -13.8 | -4.3 | 6.1 | -0.5 | -27.2 | -1.1 | -35.8 | 2.2 | -6.8 | -5.0 | 3.5 | -9.1 | 27.4 | -18.3 | -12.7 | 47.4 | 54.0 | 35.6 | 100.0 | -12.3 | |
| all_syst Unfolded Truth Bin 5 | 2.1 | 4.4 | -1.6 | -2.5 | -0.3 | -3.1 | -4.7 | -2.5 | 6.8 | -2.5 | -5.5 | -2.7 | 2.8 | -2.0 | -3.5 | 9.7 | -3.2 | -0.6 | -54.6 | 3.3 | -5.1 | -3.1 | 11.3 | -2.8 | 5.1 | -2.4 | -11.8 | -11.6 | -91.4 | -9.2 | -7.2 | 14.7 | 15.8 | 16.8 | -12.3 | 100.0 | |

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| BTag_B_0 | BTag_Light_0 | EG_SCALE_ALL | Electron_Iso_SF_0 | JET_BJES_Response | JET_EffectiveNP_Modelling1 | T_EtaIntercalibration_Modelling | JET_Flavor_Composition | JET_Flavor_Response | JET_Pileup_OffsetNPV | JET_Pileup_RhoTopology | Luminosity | PileupRW | Photon_ID | Photon_effiso | Wty_Herwig7 | hfakeSF_ | ttbar_pt_hard | tty_dec_Herwig7 | tty_dec_muF | tty(dec) Norm | tty_dec_var3c | ty_prod_Herwig7 | ty_prod_muF | ty_prod_muR | ty_prod_var3c | uncalib_bjet | uncalib_cjet | uncalib_ljet | Wty Norm | Zy Norm | j1_all_syst Unfolded Truth Bin 1 | j1_all_syst Unfolded Truth Bin 2 | j1_all_syst Unfolded Truth Bin 3 | j1_all_syst Unfolded Truth Bin 4 | j1_all_syst Unfolded Truth Bin 5 |
|----------|--------------|--------------|-------------------|-------------------|----------------------------|---------------------------------|------------------------|---------------------|----------------------|------------------------|------------|----------|-----------|---------------|-------------|----------|---------------|-----------------|-------------|---------------|---------------|-----------------|-------------|-------------|---------------|--------------|--------------|--------------|----------|---------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|