ATLAS Internal

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|-----------------------------|--------------|------------------------|------------------------|---------------|-----------|---------------|---------|------------|-----------------|-------------|------------------|----------------|--------------|----------|---------------------|-------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| EG_SCALE_ALL | 100.0 | 0.2 | -0.1 | -0.2 | 0.4 | 0.2 | 0.1 | 0.0 | 4.9 | 0.3 | -1.3 | -0.8 | -0.3 | -0.2 | 0.3 | -2.5 | -0.7 | -1.5 | -3.4 | -5.9 | -6.9 | -20.0 |
| JET_Flavor_Composition | 0.2 | 100.0 | -0.2 | -0.1 | -0.7 | -0.2 | -0.4 | -0.1 | -1.9 | -0.1 | -0.3 | 0.5 | -3.1 | -0.4 | -1.7 | -25.8 | -6.3 | -1.9 | -4.5 | -4.8 | -5.1 | -3.9 |
| JET_Pileup_RhoTopology | -0.1 | -0.2 | 100.0 | -0.2 | -0.1 | -0.0 | -0.1 | -0.0 | 0.4 | 0.0 | -0.5 | -0.1 | -0.7 | -0.2 | -0.4 | -19.9 | -22.7 | -18.6 | -20.8 | -20.6 | -14.6 | -12.3 |
| PileupRW | -0.2 | -0.1 | -0.2 | 100.0 | -0.5 | -0.1 | -0.2 | -0.1 | -0.3 | 0.1 | -1.1 | 0.1 | 0.5 | 0.0 | 0.1 | 16.6 | 2.5 | 3.8 | 4.3 | 2.9 | 4.8 | 4.8 |
| Photon_ID | 0.4 | -0.7 | -0.1 | -0.5 | 100.0 | -0.6 | -0.7 | -0.3 | -9.6 | 0.3 | -0.7 | 1.6 | 1.3 | 0.6 | -0.6 | -20.1 | -23.9 | -11.0 | -11.5 | -14.6 | -11.7 | -11.7 |
| Photon_effIso | 0.2 | -0.2 | -0.0 | -0.1 | -0.6 | 100.0 | -0.2 | -0.1 | -3.6 | -0.1 | 0.3 | 0.8 | 0.2 | 0.2 | -0.2 | -22.9 | -15.1 | -12.2 | -10.0 | -13.5 | -7.7 | -10.6 |
| hfakeSF | 0.1 | -0.4 | -0.1 | -0.2 | -0.7 | -0.2 | 100.0 | -0.1 | -2.7 | 0.1 | -0.4 | 0.3 | -0.4 | 0.1 | -0.7 | -3.5 | -28.0 | -17.1 | -24.4 | -23.7 | -17.1 | -13.5 |
| ttbar Norm | 0.0 | -0.1 | -0.0 | -0.1 | -0.3 | -0.1 | -0.1 | 100.0 | -0.8 | 0.1 | -0.3 | 0.1 | 0.1 | 0.1 | -0.1 | -0.8 | -21.8 | -3.4 | -1.5 | -0.3 | 0.0 | 0.0 |
| tty_dec_Herwig7 | 4.9 | -1.9 | 0.4 | -0.3 | -9.6 | -3.6 | -2.7 | -0.8 | 100.0 | -0.8 | 9.6 | 10.3 | 16.0 | 5.0 | -0.9 | 33.7 | -4.9 | 5.8 | 16.9 | 22.8 | 12.1 | 0.6 |
| tty_dec_fsr | 0.3 | -0.1 | 0.0 | 0.1 | 0.3 | -0.1 | 0.1 | 0.1 | -0.8 | 100.0 | 1.3 | 0.6 | -1.4 | -0.2 | -0.4 | -19.4 | 11.9 | -0.0 | -6.1 | -2.2 | -1.2 | 0.9 |
| tty_prod_Herwig7 | -1.3 | -0.3 | -0.5 | -1.1 | -0.7 | 0.3 | -0.4 | -0.3 | 9.6 | 1.3 | 100.0 | -1.5 | -1.9 | -0.5 | -0.4 | 26.3 | -36.8 | -54.1 | -32.7 | -32.8 | -4.5 | -11.8 |
| tty_prod_var3c | -0.8 | 0.5 | -0.1 | 0.1 | 1.6 | 0.8 | 0.3 | 0.1 | 10.3 | 0.6 | -1.5 | 100.0 | -0.7 | -0.6 | 0.2 | 7.0 | 6.8 | 13.1 | 19.6 | 27.0 | 24.0 | 19.0 |
| uncalib_ljet | -0.3 | -3.1 | -0.7 | 0.5 | 1.3 | 0.2 | -0.4 | 0.1 | 16.0 | -1.4 | -1.9 | -0.7 | 100.0 | -4.0 | -9.0 | 0.1 | -1.0 | -0.8 | 2.1 | -4.9 | -5.6 | -16.6 |
| Wtγ Norm | -0.2 | -0.4 | -0.2 | 0.0 | 0.6 | 0.2 | 0.1 | 0.1 | 5.0 | -0.2 | -0.5 | -0.6 | -4.0 | 100.0 | -1.3 | -34.8 | -6.2 | -11.9 | -15.2 | -24.9 | -25.6 | -24.1 |
| Zγ Norm | 0.3 | -1.7 | -0.4 | 0.1 | -0.6 | -0.2 | -0.7 | -0.1 | -0.9 | -0.4 | -0.4 | 0.2 | -9.0 | -1.3 | 100.0 | -36.1 | -2.5 | 4.5 | -11.2 | -5.8 | -16.6 | -11.8 |
| Norm factor for tty dec | -2.5 | -25.8 | -19.9 | 16.6 | -20.1 | -22.9 | -3.5 | -0.8 | 33.7 | -19.4 | 26.3 | 7.0 | 0.1 | -34.8 | -36.1 | 100.0 | -7.1 | -5.5 | 16.0 | 25.2 | 34.3 | 28.0 |
| tty_pt Unfolded Truth Bin 1 | -0.7 | -6.3 | -22.7 | 2.5 | -23.9 | -15.1 | -28.0 | -21.8 | -4.9 | 11.9 | -36.8 | 6.8 | -1.0 | -6.2 | -2.5 | -7.1 | 100.0 | 54.7 | 49.9 | 47.0 | 26.2 | 26.9 |
| tty_pt Unfolded Truth Bin 2 | -1.5 | -1.9 | -18.6 | 3.8 | -11.0 | -12.2 | -17.1 | -3.4 | 5.8 | -0.0 | -54.1 | 13.1 | -0.8 | -11.9 | 4.5 | -5.5 | 54.7 | 100.0 | 46.5 | 49.3 | 24.1 | 25.6 |
| tty_pt Unfolded Truth Bin 3 | -3.4 | -4.5 | -20.8 | 4.3 | -11.5 | -10.0 | -24.4 | -1.5 | 16.9 | -6.1 | -32.7 | 19.6 | 2.1 | -15.2 | -11.2 | 16.0 | 49.9 | 46.5 | 100.0 | 48.8 | 32.2 | 29.8 |
| tty_pt Unfolded Truth Bin 4 | -5.9 | -4.8 | -20.6 | 2.9 | -14.6 | -13.5 | -23.7 | -0.3 | 22.8 | -2.2 | -32.8 | 27.0 | -4.9 | -24.9 | -5.8 | 25.2 | 47.0 | 49.3 | 48.8 | 100.0 | 36.3 | 35.6 |
| tty_pt Unfolded Truth Bin 5 | -6.9 | -5.1 | -14.6 | 4.8 | -11.7 | -7.7 | -17.1 | 0.0 | 12.1 | -1.2 | -4.5 | 24.0 | -5.6 | -25.6 | -16.6 | 34.3 | 26.2 | 24.1 | 32.2 | 36.3 | 100.0 | 27.9 |
| tty_pt Unfolded Truth Bin 6 | -20.0 | -3.9 | -12.3 | 4.8 | -11.7 | -10.6 | -13.5 | 0.0 | 0.6 | 0.9 | -11.8 | 19.0 | -16.6 | -24.1 | -11.8 | 28.0 | 26.9 | 25.6 | 29.8 | 35.6 | 27.9 | 100.0 |
| | | | | <u>·</u> ≥ | <u></u> | · os | <u></u> | <u> </u> | | ıs | | ္က | t t | <u> </u> | E | 0 | | 2 | ۳. | 4 | 2 | 9 |
| | EG_SCALE_ALL | JET_Flavor_Composition | olodo | PileupRW | Photon_ID | Photon_efflso | hfakeSF | ttbar Norm | tty_dec_Herwig7 | tty_dec_fsr | tty_prod_Herwig7 | tty_prod_var3c | uncalib_ljet | Wtγ Norm | Z _Y Norm | Norm factor for tty dec | uth Bi | uth Bir |
| | SCA | Con | RhoT | <u>a</u> | ₫ | Photo | | # | _dec_ | ţ | prod_ | ty_prc | ŭn | \$ | • | ctor fo | led Tr. | ed Tru |
| | EG | Flavoi | -ileup | | | | | | ţţ. | | tty_ | - | | | | orm fa | Jnfold | Jnfold | Jnfold | Jnfold | Jnfold | Jnfold |
| | | JET_ | JET_Pileup_RhoTopology | | | | | | | | | | | | | Ž | tty_pt Unfolded Truth Bin 1 | tty_pt Unfolded Truth Bin 2 | tty_pt Unfolded Truth Bin 3 | tty_pt Unfolded Truth Bin 4 | tty_pt Unfolded Truth Bin 5 | tty_pt Unfolded Truth Bin 6 |
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