W transverse momentum

The Pythia8 AZ tune is fixed by the p_T^Z data; extrapolate to W considering relative variations of the W and Z p_T distributions under uncertainty variations.

Resummed predictions (DYRES, ResBos, CuTe) and Powheg MiNLO+Pythia8 were tried but they predict a harder W p_T spectrum for a given p_T^Z spectrum

Phys.Rev.D 50 (1994) R4239, Phys.Rev.D 56 (1997) 5558-5583, JHEP12 (2015) 047, JHEP03 (2011) 032, JHEP10 (2012) 155, JHEP05 (2013) 082…

To validate the choice of Pythia8 AZ for the baseline, use $u_{||}^l$ distribution which is very sensitive to the underlying p_T^W distribution

NNLL resummed predictions and Powheg+MiNLO strongly disfavoured by the data however PS MC are in a good agreement; tested using Pythia8 , Herwig7 and Powheg+Pythia8

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