

Distribution	χ^2/dof	$p\text{-value}$	χ^2/dof	$p\text{-value}$	χ^2/dof	$p\text{-value}$
POWHEG+P8 with unc.			POWHEG+P8			NNLO QCD+NLO EW
$p_T(t_{\text{high}})$	16.4/12	0.173	27.4/12	<0.01		
$p_T(t_{\text{low}})$	22.4/12	0.033	42.7/12	<0.01		
$p_T(t_h)$	16.4/12	0.175	24.0/12	0.020	5.13/12	0.953
$ y(t_h) $	1.28/11	1.000	1.41/11	1.000	2.27/11	0.997
$p_T(t_\ell)$	22.2/12	0.035	38.3/12	<0.01	9.56/12	0.654
$ y(t_\ell) $	2.04/11	0.998	2.42/11	0.996	8.14/11	0.700
$M(t\bar{t})$	7.67/10	0.661	11.6/10	0.314	24.7/10	<0.01
$p_T(t\bar{t})$	5.38/8	0.717	46.5/8	<0.01		
$ y(t\bar{t}) $	3.98/10	0.948	5.66/10	0.843	9.26/10	0.507
$ y(t_h) \text{ vs. } p_T(t_h)$	23.6/44	0.995	41.6/44	0.577		
$M(t\bar{t}) \text{ vs. } y(t\bar{t}) $	20.6/35	0.975	35.0/35	0.469		
$p_T(t_h) \text{ vs. } M(t\bar{t})$	38.9/32	0.188	59.3/32	<0.01		
POWHEG+H++			MG5_aMC@NLO+P8 FxFx			—
$p_T(t_{\text{high}})$	6.60/12	0.883	16.3/12	0.180		
$p_T(t_{\text{low}})$	28.5/12	<0.01	15.3/12	0.225		
$p_T(t_h)$	5.09/12	0.955	11.0/12	0.530		
$ y(t_h) $	2.39/11	0.997	2.21/11	0.998		
$p_T(t_\ell)$	6.55/12	0.886	17.4/12	0.136		
$ y(t_\ell) $	2.54/11	0.995	3.99/11	0.970		
$M(t\bar{t})$	4.16/10	0.940	12.1/10	0.275		
$p_T(t\bar{t})$	55.0/8	<0.01	26.8/8	<0.01		
$ y(t\bar{t}) $	11.9/10	0.292	8.92/10	0.540		
$ y(t_h) \text{ vs. } p_T(t_h)$	57.9/44	0.077	40.2/44	0.634		
$M(t\bar{t}) \text{ vs. } y(t\bar{t}) $	40.8/35	0.229	58.7/35	<0.01		
$p_T(t_h) \text{ vs. } M(t\bar{t})$	93.0/32	<0.01	166/32	<0.01		