

Distribution	χ^2/dof	p-value	χ^2/dof	p-value	χ^2/dof	p-value
	POWHEG+P8		POWHEG+H++		MG5_aMC@NLO+P8 MLM	
	Order: NLO		Order: NLO		Order: LO, up to 3 add. partons	
$p_T(\mathbf{t}_h)$	14.3/9	0.111	26.3/9	<0.01	34.9/9	<0.01
$ y(\mathbf{t}_h) $	4.76/7	0.690	7.61/7	0.368	9.08/7	0.247
$p_T(\mathbf{t}_\ell)$	22.9/9	<0.01	40.8/9	<0.01	54.6/9	<0.01
$ y(\mathbf{t}_\ell) $	7.14/7	0.415	10.6/7	0.156	18.2/7	0.011
$M(\mathbf{t}\bar{\mathbf{t}})$	9.25/8	0.322	173/8	<0.01	13.4/8	0.100
$p_T(\mathbf{t}\bar{\mathbf{t}})$	2.31/5	0.805	39.6/5	<0.01	48.9/5	<0.01
$ y(\mathbf{t}\bar{\mathbf{t}}) $	1.37/6	0.967	2.44/6	0.876	14.5/6	0.025
Additional jets	27.6/5	<0.01	16.2/5	<0.01	36.3/5	<0.01
Additional jets vs. $p_T(\mathbf{t}\bar{\mathbf{t}})$	70.3/20	<0.01	95.4/20	<0.01	168/20	<0.01
Additional jets vs. $p_T(\mathbf{t}_h)$	96.2/36	<0.01	218/36	<0.01	180/36	<0.01
$ y(\mathbf{t}_h) $ vs. $p_T(\mathbf{t}_h)$	60.1/36	<0.01	212/36	<0.01	128/36	<0.01
$M(\mathbf{t}\bar{\mathbf{t}})$ vs. $ y(\mathbf{t}\bar{\mathbf{t}}) $	28.2/24	0.251	280/24	<0.01	41.2/24	0.016
$p_T(\mathbf{t}\bar{\mathbf{t}})$ vs. $M(\mathbf{t}\bar{\mathbf{t}})$	16.7/32	0.988	465/32	<0.01	97.6/32	<0.01
	MG5_aMC@NLO+P8		MG5_aMC@NLO+H++		MG5_aMC@NLO+P8 FxFx	
	Order: NLO		Order: NLO		Order: NLO, up to 2 add. partons	
$p_T(\mathbf{t}_h)$	13.1/9	0.159	6.85/9	0.653	5.05/9	0.830
$ y(\mathbf{t}_h) $	9.91/7	0.194	13.5/7	0.060	8.12/7	0.322
$p_T(\mathbf{t}_\ell)$	13.4/9	0.147	8.02/9	0.533	7.97/9	0.538
$ y(\mathbf{t}_\ell) $	14.3/7	0.045	7.24/7	0.404	15.9/7	0.026
$M(\mathbf{t}\bar{\mathbf{t}})$	10.9/8	0.206	34.2/8	<0.01	33.0/8	<0.01
$p_T(\mathbf{t}\bar{\mathbf{t}})$	40.0/5	<0.01	7.65/5	0.177	27.8/5	<0.01
$ y(\mathbf{t}\bar{\mathbf{t}}) $	2.72/6	0.843	2.77/6	0.837	3.58/6	0.733
Additional jets	36.2/5	<0.01	15.7/5	<0.01	10.8/5	0.056
Additional jets vs. $p_T(\mathbf{t}\bar{\mathbf{t}})$	237/20	<0.01	192/20	<0.01	87.2/20	<0.01
Additional jets vs. $p_T(\mathbf{t}_h)$	251/36	<0.01	76.0/36	<0.01	45.6/36	0.132
$ y(\mathbf{t}_h) $ vs. $p_T(\mathbf{t}_h)$	48.9/36	0.074	100/36	<0.01	49.1/36	0.071
$M(\mathbf{t}\bar{\mathbf{t}})$ vs. $ y(\mathbf{t}\bar{\mathbf{t}}) $	25.1/24	0.403	53.4/24	<0.01	56.7/24	<0.01
$p_T(\mathbf{t}\bar{\mathbf{t}})$ vs. $M(\mathbf{t}\bar{\mathbf{t}})$	133/32	<0.01	157/32	<0.01	109/32	<0.01