

Category	$2lss$									
b-tag	no req.		Loose				Tight			
Leptons	ee		$e\mu$		$\mu\mu$		$e\mu$		$\mu\mu$	
Charge	-	+	-	+	-	+	-	+	-	+
$t\bar{t}H$	3.3 ± 1.5	3.4 ± 1.8	6.5 ± 3.2	6.1 ± 3.0	4.2 ± 2.2	4.4 ± 2.2	4.56 ± 2.2	4.7 ± 2.5	3.1 ± 1.7	2.8 ± 1.4
$t\bar{t}W + t\bar{t}WW$	13.6 ± 2.4	20.8 ± 3.9	24.1 ± 4.5	40.8 ± 7.9	14.9 ± 2.6	25.9 ± 5.0	16.5 ± 2.8	31.5 ± 5.3	11.7 ± 2.0	18.7 ± 3.4
tH	0.1 ± 0.0	0.2 ± 0.0	0.3 ± 0.0	0.4 ± 0.0	0.3 ± 0.1	0.5 ± 0.0	0.2 ± 0.0	0.2 ± 0.0	0.1 ± 0.0	0.1 ± 0.0
$WZ + ZZ$	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
$t\bar{t}Z/\gamma^*$	17.9 ± 2.9	17.6 ± 2.7	20.0 ± 3.1	23.1 ± 3.8	7.6 ± 1.2	8.7 ± 1.4	14.8 ± 2.4	17.0 ± 2.7	5.9 ± 1.0	5.7 ± 0.9
Misidentified	7.9 ± 2.1	10.4 ± 2.5	26.6 ± 4.3	28.3 ± 4.8	20.6 ± 4.4	18.2 ± 3.9	5.6 ± 1.9	6.6 ± 1.9	3.7 ± 1.6	4.2 ± 1.8
Conversions	1.52 ± 0.5	2.2 ± 1.8	2.5 ± 0.9	3.5 ± 2.1	< 0.05	< 0.05	0.9 ± 0.3	1.1 ± 0.3	< 0.05	< 0.05
Signal flip	4.5 ± 1.1	4.6 ± 1.1	3.7 ± 0.9	3.8 ± 1.0	< 0.05	< 0.05	3.1 ± 0.8	3.1 ± 0.8	< 0.05	< 0.05
Other	1.4 ± 0.6	2.5 ± 1.1	4.6 ± 2.0	5.7 ± 2.2	1.7 ± 0.6	3.3 ± 1.3	2.2 ± 0.9	2.4 ± 1.0	1.1 ± 0.5	1.8 ± 0.8
SM expectation	50.2 ± 4.7	61.7 ± 6.1	88.3 ± 8.0	111.6 ± 10.9	49.2 ± 5.7	61.0 ± 7.0	47.8 ± 4.9	66.5 ± 6.9	25.6 ± 3.2	33.4 ± 4.3
Observed data	54	67	86	108	41	79	50	70	32	27