

Process	$p_T^\tau < 60 \text{ GeV}$	$60 < p_T^\tau < 120 \text{ GeV}$	$120 < p_T^\tau < 200 \text{ GeV}$	$p_T^\tau > 200 \text{ GeV}$	$\epsilon_{\text{LQ}_3} (\%)$	
					OS	SS
LQ <sub>3</sub> (200 GeV)	$21 \pm 12_{-2}^{+7}$	$0.0 \pm 0.1 \pm 0.0$	$0.0 \pm 0.1 \pm 0.1$	$0.0 \pm 0.1 \pm 0.1$	0.01	0
LQ <sub>3</sub> (250 GeV)	$31.0 \pm 8.2_{-3.4}^{+6.6}$	$13.1 \pm 5.5_{-2.9}^{+1.1}$	$0.0 \pm 0.1 \pm 0.1$	$0.0 \pm 0.1 \pm 0.1$	0.09	0.02
LQ <sub>3</sub> (300 GeV)	$33.1 \pm 5.3_{-3.8}^{+2.8}$	$24.6 \pm 4.6_{-2.1}^{+2.8}$	$7.6 \pm 2.6_{-1.7}^{+1.1}$	$3.9 \pm 1.8_{-0.3}^{+0.9}$	0.35	0.08
LQ <sub>3</sub> (350 GeV)	$18.1 \pm 2.6_{-1.4}^{+1.8}$	$13.3 \pm 2.2_{-1.1}^{+1.0}$	$7.2 \pm 1.6_{-0.7}^{+0.8}$	$2.9 \pm 0.9_{-1.4}^{+0.5}$	0.57	0.08
LQ <sub>3</sub> (400 GeV)	$13.9 \pm 1.4_{-2.6}^{+1.1}$	$13.4 \pm 1.4_{-1.1}^{+1.0}$	$7.8 \pm 1.1_{-0.6}^{+0.8}$	$4.1 \pm 0.8_{-0.8}^{+0.6}$	1.30	0.12
LQ <sub>3</sub> (450 GeV)	$10.1 \pm 0.9_{-1.9}^{+0.8}$	$8.6 \pm 0.8_{-0.8}^{+0.8}$	$7.1 \pm 0.7_{-0.6}^{+0.5}$	$5.8 \pm 0.6_{-0.6}^{+0.7}$	2.05	0.27
LQ <sub>3</sub> (500 GeV)	$5.2 \pm 0.4_{-0.9}^{+0.5}$	$6.0 \pm 0.5 \pm 0.5$	$5.3 \pm 0.4_{-0.5}^{+0.4}$	$4.4 \pm 0.4_{-0.5}^{+0.7}$	2.75	0.27
LQ <sub>3</sub> (550 GeV)	$3.2 \pm 0.3_{-0.6}^{+0.3}$	$4.4 \pm 0.3_{-0.3}^{+0.4}$	$4.3 \pm 0.3_{-0.4}^{+0.5}$	$4.0 \pm 0.3 \pm 0.4$	4.04	0.36
LQ <sub>3</sub> (600 GeV)	$2.0 \pm 0.1_{-0.5}^{+0.2}$	$2.7 \pm 0.2 \pm 0.2$	$2.7 \pm 0.2 \pm 0.2$	$3.5 \pm 0.2 \pm 0.4$	5.11	0.43
LQ <sub>3</sub> (650 GeV)	$1.3 \pm 0.1_{-0.3}^{+0.1}$	$1.8 \pm 0.1_{-0.2}^{+0.1}$	$2.0 \pm 0.1 \pm 0.2$	$2.5 \pm 0.1_{-0.2}^{+0.3}$	6.07	0.67
LQ <sub>3</sub> (700 GeV)	$0.7 \pm 0.1 \pm 0.1$	$1.1 \pm 0.1 \pm 0.1$	$1.1 \pm 0.1 \pm 0.1$	$1.6 \pm 0.1_{-0.1}^{+0.2}$	6.66	0.57
LQ <sub>3</sub> (750 GeV)	$0.4 \pm 0.1 \pm 0.1$	$0.5 \pm 0.1 \pm 0.1$	$0.7 \pm 0.1 \pm 0.1$	$1.1 \pm 0.1 \pm 0.1$	6.71	0.59
LQ <sub>3</sub> (800 GeV)	$0.2 \pm 0.1 \pm 0.1$	$0.4 \pm 0.1 \pm 0.1$	$0.5 \pm 0.1 \pm 0.1$	$0.8 \pm 0.1 \pm 0.1$	7.77	0.61
$t\bar{t}$ +jets	$29.9 \pm 2.9_{-7.2}^{+7.3}$	$8.8 \pm 1.3_{-3.4}^{+3.2}$	$1.7 \pm 0.6_{-0.6}^{+0.6}$	$0.4 \pm 0.3_{-0.4}^{+0.9}$		
W+jets	$7.4 \pm 1.7_{-5.1}^{+5.1}$	$0.6 \pm 0.5 \pm 0.6$	$0.0 \pm 0.1 \pm 0.1$	$0.4 \pm 0.4 \pm 0.4$		
DY+jets	$4.8 \pm 0.7 \pm 2.5$	$1.8 \pm 0.4_{-0.9}^{+1.1}$	$0.5 \pm 0.2 \pm 0.3$	$0.4 \pm 0.2 \pm 0.2$		
Other backgrounds	$3.1 \pm 0.9_{-1.9}^{+1.8}$	$0.2 \pm 0.1_{-0.3}^{+0.8}$	$0.2 \pm 0.1 \pm 0.4$	$0.1 \pm 0.1_{-0.2}^{+0.1}$		
Total $N_{\text{Bkg}}^{\text{Exp}}$	$45.2 \pm 3.5_{-9.3}^{+9.4}$	$11.5 \pm 1.4_{-3.6}^{+3.4}$	$2.5 \pm 0.6 \pm 0.8$	$1.2 \pm 0.5_{-0.6}^{+1.0}$		
$N^{\text{Obs}}$	44	15	1	0		
Z-score	-0.1	+0.7	+0.8	-1.0		