

Process	$p_T^\tau < 60 \text{ GeV}$	$60 < p_T^\tau < 120 \text{ GeV}$	$120 < p_T^\tau < 200 \text{ GeV}$	$p_T^\tau > 200 \text{ GeV}$	$\epsilon_{\text{LQ}_3}$
LQ <sub>3</sub> (200 GeV)	$32 \pm 19^{+6}_{-4}$	$0.1 \pm 0.1 \pm 0.1$	$0.0 \pm 0.1 \pm 0.1$	$0.0 \pm 0.1 \pm 0.1$	0.02
LQ <sub>3</sub> (250 GeV)	$33.3 \pm 8.7^{+8.2}_{-5.8}$	$11.9 \pm 5.3^{+2.6}_{-2.4}$	$0.0 \pm 0.1 \pm 0.1$	$0.0 \pm 0.1 \pm 0.1$	0.16
LQ <sub>3</sub> (300 GeV)	$31.9 \pm 5.2^{+3.2}_{-9.1}$	$27.7 \pm 4.6^{+3.9}_{-4.4}$	$4.2 \pm 1.9^{+1.1}_{-0.3}$	$2.7 \pm 1.6^{+0.2}_{-0.3}$	0.70
LQ <sub>3</sub> (350 GeV)	$19.6 \pm 2.6^{+2.7}_{-3.6}$	$19.6 \pm 2.5^{+2.0}_{-2.1}$	$8.6 \pm 1.7^{+1.4}_{-0.8}$	$4.7 \pm 1.3 \pm 0.5$	1.35
LQ <sub>3</sub> (400 GeV)	$12.7 \pm 1.4^{+1.7}_{-2.6}$	$14.6 \pm 1.5^{+2.0}_{-1.4}$	$8.1 \pm 1.1^{+1.2}_{-1.3}$	$4.8 \pm 0.9^{+0.6}_{-0.4}$	2.22
LQ <sub>3</sub> (450 GeV)	$7.8 \pm 0.7^{+1.3}_{-1.4}$	$10.1 \pm 0.9^{+0.9}_{-1.1}$	$7.2 \pm 0.7^{+1.0}_{-0.7}$	$5.5 \pm 0.6^{+0.6}_{-0.8}$	3.65
LQ <sub>3</sub> (500 GeV)	$4.8 \pm 0.4^{+0.5}_{-1.2}$	$7.3 \pm 0.5^{+0.8}_{-0.9}$	$5.5 \pm 0.4 \pm 0.6$	$5.2 \pm 0.4^{+0.7}_{-0.6}$	5.34
LQ <sub>3</sub> (550 GeV)	$3.3 \pm 0.2^{+0.4}_{-1.0}$	$4.3 \pm 0.3 \pm 0.4$	$4.4 \pm 0.3 \pm 0.4$	$4.3 \pm 0.3 \pm 0.5$	7.28
LQ <sub>3</sub> (600 GeV)	$1.9 \pm 0.1^{+0.2}_{-0.6}$	$2.9 \pm 0.2 \pm 0.3$	$3.2 \pm 0.2 \pm 0.3$	$3.6 \pm 0.2 \pm 0.4$	9.61
LQ <sub>3</sub> (650 GeV)	$1.2 \pm 0.1^{+0.1}_{-0.4}$	$1.8 \pm 0.1 \pm 0.2$	$2.0 \pm 0.1 \pm 0.2$	$2.4 \pm 0.1^{+0.3}_{-0.3}$	10.89
LQ <sub>3</sub> (700 GeV)	$0.7 \pm 0.1^{+0.1}_{-0.2}$	$1.1 \pm 0.1 \pm 0.1$	$1.5 \pm 0.1 \pm 0.1$	$1.9 \pm 0.1 \pm 0.2$	13.11
LQ <sub>3</sub> (750 GeV)	$0.4 \pm 0.1 \pm 0.1$	$0.7 \pm 0.1 \pm 0.1$	$0.7 \pm 0.1 \pm 0.1$	$1.4 \pm 0.1^{+0.1}_{-0.2}$	13.84
LQ <sub>3</sub> (800 GeV)	$0.2 \pm 0.1 \pm 0.1$	$0.4 \pm 0.1 \pm 0.1$	$0.5 \pm 0.1 \pm 0.1$	$0.9 \pm 0.1 \pm 0.1$	14.82
$t\bar{t}$ +jets	$27.7 \pm 2.4 \pm 7.7$	$7.5 \pm 1.2^{+2.1}_{-2.8}$	$0.9 \pm 0.4 \pm 0.3$	$0.1 \pm 0.1^{+0.6}_{-0.1}$	
W+jets	$8.5 \pm 1.8^{+5.3}_{-5.4}$	$1.1 \pm 0.6^{+0.6}_{-0.7}$	$0.0 \pm 0.1 \pm 0.1$	$0.0 \pm 0.1 \pm 0.1$	
DY+jets	$4.4 \pm 0.7^{+2.3}_{-2.4}$	$1.4 \pm 0.4^{+0.8}_{-0.7}$	$0.6 \pm 0.2 \pm 0.3$	$0.2 \pm 0.1 \pm 0.1$	
Other backgrounds	$3.5 \pm 1.0^{+2.5}_{-3.0}$	$1.1 \pm 0.5^{+0.7}_{-0.8}$	$0.2 \pm 0.1 \pm 0.2$	$0.4 \pm 0.3 \pm 0.2$	
Total $N_{\text{Bkg}}^{\text{Exp}}$	$44.1 \pm 3.2^{+10.0}_{-10.1}$	$11.0 \pm 1.5^{+2.5}_{-3.1}$	$1.6 \pm 0.5 \pm 0.5$	$0.7 \pm 0.4^{+0.7}_{-0.3}$	
$N^{\text{Obs}}$	53	5	4	1	
Z-score	+0.8	-1.2	+1.1	+0.1	