

$E_{\tau}^{\text{miss}} [\text{GeV}]$	Lost lepton	$Z(\nu\nu)$	Rare	QCD	total SM	N_{data}
$N_b = 0, N_{\text{SV}} = 0, p_{\text{T}}(\text{ISR}) > 500 \text{ GeV}, 2 \leq N_{\ell} \leq 5$						
450-550	935 \pm 73	1672 \pm 119	58 \pm 29	73 \pm 37	2738 \pm 176	2704
550-650	498 \pm 39	1318 \pm 84	38 \pm 19	28 \pm 14	1883 \pm 113	1942
650-750	202 \pm 19	597 \pm 43	19 \pm 10	9.6 \pm 4.9	828 \pm 55	823
> 750	135 \pm 14	520 \pm 38	14 \pm 7	7.9 \pm 4.2	676 \pm 46	618
$N_b = 0, N_{\text{SV}} = 0, p_{\text{T}}(\text{ISR}) > 500 \text{ GeV}, N_{\ell} \geq 6$						
450-550	115 \pm 12	106 \pm 10	10 \pm 5	20 \pm 10	251 \pm 22	265
550-650	52 \pm 6	74 \pm 7	5.5 \pm 2.8	7.3 \pm 3.8	139 \pm 12	145
650-750	27 \pm 4	38 \pm 5	3.0 \pm 1.6	2.3 \pm 1.3	70 \pm 7	54
> 750	21 \pm 4	42 \pm 5	3.8 \pm 2.0	4.9 ^{+6.3} _{-5.2}	72 ⁺¹⁰ ₋₈	78
$N_b = 0, N_{\text{SV}} \geq 1, p_{\text{T}}(\text{ISR}) > 500 \text{ GeV}, 2 \leq N_{\ell} \leq 5$						
450-550	25 \pm 5	27 \pm 3	0.6 \pm 0.47	1.2 \pm 0.7	54 \pm 6	37
550-650	7.6 \pm 2.5	20 \pm 2	0.47 \pm 0.37	1.3 ^{+1.2} _{-0.9}	29 \pm 4	37
650-750	5.2 ^{+2.7} _{-1.9}	9.2 \pm 1.1	0.46 \pm 0.4	0.27 ^{+0.29} _{-0.24}	15 ⁺³ ₋₂	8
> 750	2.0 ^{+2.0} _{-1.1}	8.0 \pm 1.0	0.34 \pm 0.26	0.5 ^{+0.4} _{-0.34}	11 \pm 2	8
$N_b = 0, N_{\text{SV}} \geq 1, p_{\text{T}}(\text{ISR}) > 500 \text{ GeV}, N_{\ell} \geq 6$						
450-550	4.5 ^{+2.1} _{-1.6}	2.2 \pm 0.4	0.35 \pm 0.29	0.19 ^{+0.17} _{-0.13}	7.2 ^{+2.2} _{-1.6}	6
550-650	< 1.08	1.8 \pm 0.3	0.07 \pm 0.05	0.11 ^{+0.1} _{-0.08}	2.0 ^{+1.2} _{-0.3}	3
650-750	< 1.22	0.79 \pm 0.17	0.07 \pm 0.05	0.05 ^{+0.05} _{-0.04}	0.91 ^{+1.25} _{-0.18}	1
> 750	< 0.74	0.65 \pm 0.14	0.05 \pm 0.05	0.03 ^{+0.03} _{-0.02}	0.73 ^{+0.77} _{-0.15}	2
$N_b = 1, N_{\text{SV}} = 0, m_{\tau}(b_{1,2}, E_{\tau}^{\text{miss}}) < 175 \text{ GeV}, 300 < p_{\text{T}}(\text{ISR}) < 500 \text{ GeV}, p_{\text{T}}(b) < 40 \text{ GeV}$						
300-400	410 \pm 38	318 \pm 29	14 \pm 7	32 \pm 17	774 \pm 57	753
400-500	64 \pm 11	77 \pm 10	3.8 \pm 1.9	6.3 \pm 3.9	151 \pm 16	147
500-600	4.7 ^{+3.9} _{-2.4}	7.6 \pm 2.2	0.5 \pm 0.3	0.83 \pm 0.59	14 ⁺⁵ _{-2.5}	13
> 600	2.4 ^{+2.1} _{-1.3}	0.34 ^{+0.79} _{-0.28}	0.11 \pm 0.07	0.14 \pm 0.11	2.9 ^{+2.5} _{-1.4}	5
$N_b = 1, N_{\text{SV}} = 0, m_{\tau}(b_{1,2}, E_{\tau}^{\text{miss}}) < 175 \text{ GeV}, 300 < p_{\text{T}}(\text{ISR}) < 500 \text{ GeV}, 40 < p_{\text{T}}(b) < 70 \text{ GeV}$						
300-400	285 \pm 33	140 \pm 15	8.3 \pm 3.8	8.6 \pm 4.7	442 \pm 39	375
400-500	50 \pm 10	23 \pm 4	1.7 \pm 0.9	2.1 \pm 1.5	76 \pm 11	76
500-600	6.4 ^{+4.2} _{-2.9}	2.3 ^{+1.5} _{-1.0}	0.22 \pm 0.13	0.08 \pm 0.06	9.0 ^{+4.8} _{-3.1}	5
> 600	< 0.83	1.6 ^{+1.9} _{-1.1}	0.02 \pm 0.03	0.02 \pm 0.02	1.7 ^{+2.4} _{-1.1}	0
$N_b = 1, N_{\text{SV}} = 0, m_{\tau}(b_{1,2}, E_{\tau}^{\text{miss}}) < 175 \text{ GeV}, p_{\text{T}}(\text{ISR}) > 500 \text{ GeV}, p_{\text{T}}(b) < 40 \text{ GeV}$						
450-550	31 \pm 6	19 \pm 4	1.9 \pm 1.1	2.0 \pm 1.2	54 \pm 8	41
550-650	9.3 \pm 3.0	7.8 \pm 2.0	0.62 \pm 0.42	0.57 ^{+0.48} _{-0.4}	18 \pm 4	24
650-750	1.7 ^{+2.3} _{-1.1}	7.5 \pm 2.2	0.01 \pm 0.17	0.06 ^{+0.06} _{-0.05}	9.3 ^{+3.5} _{-2.5}	7
> 750	< 1.48	4.0 ^{+2.1} _{-1.5}	0.16 \pm 0.1	0.11 ^{+0.1} _{-0.08}	4.2 ^{+3.2} _{-1.5}	4
$N_b = 1, N_{\text{SV}} = 0, m_{\tau}(b_{1,2}, E_{\tau}^{\text{miss}}) < 175 \text{ GeV}, p_{\text{T}}(\text{ISR}) > 500 \text{ GeV}, 40 < p_{\text{T}}(b) < 70 \text{ GeV}$						
450-550	22 \pm 5	6.6 \pm 1.7	1.4 \pm 0.8	1.3 \pm 0.8	31 \pm 5	18
550-650	11 ⁺⁶ ₋₄	5.5 \pm 1.8	0.31 \pm 0.18	0.17 ^{+0.16} _{-0.12}	17 ⁺⁶ ₋₅	23
650-750	3.0 ^{+2.6} _{-1.6}	2.5 ^{+1.9} _{-1.3}	0.08 \pm 0.09	0.06 ^{+0.1} _{-0.06}	5.6 ^{+3.7} _{-2.2}	4
> 750	1.7 ^{+2.3} _{-1.1}	3.1 ^{+2.1} _{-1.5}	0.14 \pm 0.09	0.07 ^{+0.11} _{-0.06}	4.9 ^{+3.6} _{-1.9}	3
$N_b = 1, N_{\text{SV}} \geq 1, m_{\tau}(b_{1,2}, E_{\tau}^{\text{miss}}) < 175 \text{ GeV}, p_{\text{T}}(b) < 40 \text{ GeV}$						
300-400	38 \pm 8	16 \pm 5	1.1 \pm 0.6	1.0 ^{+1.0} _{-0.8}	56 ⁺¹⁰ ₋₉	44
400-500	4.9 ^{+3.8} _{-1.9}	2.9 \pm 1.0	0.16 \pm 0.13	0.58 ^{+0.97} _{-0.54}	8.6 ^{+4.4} _{-2.8}	6
> 500	1.4 ^{+1.9} _{-1.0}	0.86 \pm 0.31	0.03 \pm 0.03	0.04 ^{+0.08} _{-0.04}	2.3 ^{+2.0} _{-1.0}	4
$N_b \geq 2, m_{\tau}(b_{1,2}, E_{\tau}^{\text{miss}}) < 175 \text{ GeV}, 300 < p_{\text{T}}(\text{ISR}) < 500 \text{ GeV}, p_{\text{T}}(b_{1,2}) < 80 \text{ GeV}$						
300-400	47 \pm 8	16 \pm 5	2.2 \pm 1.0	2.0 ^{+1.0} _{-1.5}	68 ⁺¹⁰ ₋₉	57
400-500	6.7 ^{+3.4} _{-2.6}	5.5 \pm 2.4	0.39 \pm 0.23	0.19 ^{+0.18} _{-0.16}	13 \pm 4	7
> 500	3.6 ^{+4.3} _{-2.7}	0.7 ^{+0.7} _{-0.56}	0.08 \pm 0.05	< 0.01	4.4 ^{+4.7} _{-2.7}	1
$N_b \geq 2, m_{\tau}(b_{1,2}, E_{\tau}^{\text{miss}}) < 175 \text{ GeV}, 300 < p_{\text{T}}(\text{ISR}) < 500 \text{ GeV}, 80 < p_{\text{T}}(b_{1,2}) < 140 \text{ GeV}$						
300-400	121 \pm 13	20 \pm 5	4.2 \pm 1.7	4.2 \pm 2.5	149 \pm 15	149
400-500	21 \pm 5	5.5 \pm 2.0	1.2 \pm 0.6	0.88 ^{+1.58} _{-0.86}	28 ⁺⁶ ₋₅	19
> 500	1.7 ^{+1.8} _{-1.0}	1.6 ^{+1.6} _{-1.0}	0.27 \pm 0.16	0.01 \pm 0.01	3.6 ^{+2.8} _{-1.5}	4
$N_b \geq 2, m_{\tau}(b_{1,2}, E_{\tau}^{\text{miss}}) < 175 \text{ GeV}, 300 < p_{\text{T}}(\text{ISR}) < 500 \text{ GeV}, p_{\text{T}}(b_{1,2}) > 140 \text{ GeV}, N_{\ell} \geq 7$						
300-400	52 \pm 8	3.5 ^{+1.9} _{-1.4}	1.4 \pm 0.6	2.9 \pm 1.8	60 \pm 8	54
400-500	13 \pm 3	0.71 ^{+1.02} _{-0.5}	0.41 \pm 0.16	0.18 ^{+0.45} _{-0.18}	15 ⁺⁴ ₋₂	12
> 500	1.8 ^{+1.9} _{-1.1}	0.47 ^{+1.21} _{-0.44}	0.04 \pm 0.15	0.07 ^{+0.13} _{-0.07}	2.4 ^{+2.7} _{-1.2}	6
$N_b \geq 2, m_{\tau}(b_{1,2}, E_{\tau}^{\text{miss}}) < 175 \text{ GeV}, p_{\text{T}}(\text{ISR}) > 500 \text{ GeV}, p_{\text{T}}(b_{1,2}) < 80 \text{ GeV}$						
450-550	2.5 ^{+2.2} _{-1.4}	0.52 ^{+0.46} _{-0.31}	0.15 \pm 0.08	0.1 ^{+0.13} _{-0.09}	3.3 ^{+2.4} _{-1.5}	6
550-650	< 1.59	1.4 ^{+1.5} _{-0.9}	0.02 \pm 0.06	0.05 ^{+0.07} _{-0.04}	1.4 ^{+2.7} _{-0.9}	2
> 650	< 0.75	< 0.33	0.15 \pm 0.14	0.06 ^{+0.04} _{-0.03}	0.21 ^{+1.03} _{-0.15}	5
$N_b \geq 2, m_{\tau}(b_{1,2}, E_{\tau}^{\text{miss}}) < 175 \text{ GeV}, p_{\text{T}}(\text{ISR}) > 500 \text{ GeV}, 80 < p_{\text{T}}(b_{1,2}) < 140 \text{ GeV}$						
450-550	6.4 ^{+3.0} _{-2.2}	1.9 ^{+1.3} _{-0.9}	0.33 \pm 0.22	0.58 ^{+0.57} _{-0.47}	9.2 ^{+3.7} _{-2.5}	7
550-650	3.0 ^{+2.6} _{-1.6}	0.63 ^{+0.89} _{-0.44}	0.24 \pm 0.16	0.07 ^{+0.06} _{-0.05}	3.9 ^{+3.0} _{-1.7}	1
> 650	0.65 ^{+1.6} _{-0.56}	0.78 ^{+0.67} _{-0.5}	0.3 \pm 0.23	0.03 ^{+0.03} _{-0.02}	1.8 ^{+1.7} _{-0.9}	1
$N_b \geq 2, m_{\tau}(b_{1,2}, E_{\tau}^{\text{miss}}) < 175 \text{ GeV}, p_{\text{T}}(\text{ISR}) > 500 \text{ GeV}, p_{\text{T}}(b_{1,2}) > 140 \text{ GeV}, N_{\ell} \geq 7$						
450-550	12 \pm 3	0.12 ^{+0.34} _{-0.12}	0.34 \pm 0.19	1.1 ^{+0.9} _{-0.8}	13 \pm 3	22
550-650	5.3 ^{+2.8} _{-2.1}	0.29 ^{+0.71} _{-0.25}	0.07 \pm 0.1	0.36 ^{+0.31} _{-0.25}	6.0 ^{+3.2} _{-2.1}	5
> 650	4.4 ^{+3.8} _{-2.4}	< 0.85	0.42 \pm 0.41	0.14 ^{+0.13} _{-0.1}	4.9 ^{+4.3} _{-2.4}	1