

Subcategory	Hadronic recoil	ℓ_{lost}	Z \rightarrow inv	QCD	Total background		Data	Signal
		CR only B-only fit	CR only B-only fit	CR only B-only fit	CR only B-only fit	CR + SR B-only fit		$B(H \rightarrow \text{inv}) = 0.10$ S+B fit
t \bar{t} H 1t1b	[200, 300)	251.1 \pm 9.5	35.2 \pm 4.1	23.1 \pm 16.8	309.4 \pm 19.8	295.5 \pm 11.6	288.0 \pm 17.0	1.0 \pm 0.8
	[300, 400)	235.2 \pm 9.5	35.7 \pm 5.0	5.2 \pm 4.2	276.1 \pm 11.5	268.1 \pm 9.1	257.0 \pm 16.0	1.3 \pm 1.0
	[400, 500)	97.5 \pm 5.3	27.6 \pm 4.9	0.9 \pm 0.6	126.1 \pm 7.2	135.5 \pm 6.7	145.0 \pm 12.0	1.0 \pm 0.8
	[500, ∞)	37.5 \pm 2.9	26.1 \pm 4.9	0.3 \pm 0.3	63.9 \pm 5.7	70.1 \pm 5.1	66.0 \pm 8.1	0.9 \pm 0.7
	[200, 300)	312.5 \pm 12.0	19.0 \pm 2.2	10.9 \pm 8.6	342.4 \pm 14.9	328.1 \pm 10.5	298.0 \pm 17.3	1.4 \pm 1.2
t \bar{t} H 1t2b	[300, 400)	265.9 \pm 10.7	20.2 \pm 2.7	2.5 \pm 1.7	288.6 \pm 11.2	287.1 \pm 9.3	299.0 \pm 17.3	1.6 \pm 1.3
	[400, 500)	93.6 \pm 5.1	15.4 \pm 2.6	0.4 \pm 0.3	109.5 \pm 5.7	116.5 \pm 5.2	136.0 \pm 11.7	1.2 \pm 0.9
	[500, ∞)	35.4 \pm 2.9	13.8 \pm 2.5	0.2 \pm <0.1	49.4 \pm 3.9	52.8 \pm 3.5	53.0 \pm 7.3	1.0 \pm 0.8
	[200, 300)	1704.6 \pm 49.9	190.7 \pm 21.2	18.8 \pm 16.8	1914.1 \pm 56.8	1855.7 \pm 41.2	1819.0 \pm 42.6	5.7 \pm 4.0
	[300, 400)	395.6 \pm 15.1	90.2 \pm 12.7	4.3 \pm 2.9	490.0 \pm 19.9	485.0 \pm 16.2	486.0 \pm 22.0	2.9 \pm 1.9
t \bar{t} H 1W1b	[400, 500)	56.2 \pm 3.9	35.8 \pm 6.5	0.8 \pm 0.5	92.7 \pm 7.7	103.7 \pm 7.1	111.0 \pm 10.5	0.9 \pm 0.6
	[500, ∞)	9.9 \pm 1.3	13.9 \pm 2.9	0.3 \pm <0.1	24.1 \pm 3.2	29.5 \pm 3.0	37.0 \pm 6.1	0.4 \pm 0.3
	[200, 300)	1295.8 \pm 40.7	53.1 \pm 5.7	5.6 \pm 3.8	1354.5 \pm 41.3	1311.6 \pm 29.4	1276.0 \pm 35.7	3.9 \pm 3.2
	[300, 400)	266.2 \pm 11.8	27.2 \pm 3.8	1.3 \pm 0.9	294.7 \pm 12.4	291.3 \pm 9.9	298.0 \pm 17.3	1.9 \pm 1.6
	[400, 500)	38.3 \pm 3.3	8.1 \pm 1.5	0.2 \pm <0.1	46.6 \pm 3.7	47.6 \pm 3.1	47.0 \pm 6.9	0.6 \pm 0.4
t \bar{t} H 1W2b	[500, ∞)	6.0 \pm 1.0	3.7 \pm 0.7	0.1 \pm <0.1	9.9 \pm 1.2	11.3 \pm 1.1	17.0 \pm 4.1	0.2 \pm <0.1
	[200, 300)	20.2 \pm 3.6	3.8 \pm 0.4	0.3 \pm 0.3	24.3 \pm 3.6	20.4 \pm 2.6	14.0 \pm 3.7	0.5 \pm 0.3
t \bar{t} H 2Boosted1b	[300, ∞)	6.3 \pm 1.4	6.1 \pm 0.9	0.1 \pm <0.1	12.5 \pm 1.7	12.9 \pm 1.6	15.0 \pm 3.9	0.5 \pm 0.4
	[200, 300)	15.8 \pm 2.9	3.9 \pm 0.9	0.3 \pm <0.1	20.0 \pm 3.1	18.0 \pm 2.4	15.0 \pm 3.9	0.4 \pm 0.3
t \bar{t} H 2Boosted2b	[300, ∞)	5.4 \pm 1.3	3.8 \pm 0.5	0.1 \pm <0.1	9.3 \pm 1.4	8.6 \pm 1.1	6.0 \pm 2.4	0.5 \pm 0.4
	[200, 300)	5279.7 \pm 114.4	1703.7 \pm 82.8	99.1 \pm 78.5	7082.4 \pm 161.6	7122.6 \pm 127.6	7207.0 \pm 84.9	14.4 \pm 7.7
t \bar{t} H 5j1b	[300, 400)	1135.0 \pm 31.8	836.4 \pm 50.0	22.5 \pm 17.3	1994.0 \pm 61.7	1960.9 \pm 43.2	1907.0 \pm 43.7	7.4 \pm 3.8
	[400, 500)	182.2 \pm 9.0	267.5 \pm 24.9	4.0 \pm 2.8	453.6 \pm 26.6	438.8 \pm 16.2	427.0 \pm 20.7	2.7 \pm 1.4
	[500, ∞)	54.2 \pm 3.7	146.0 \pm 20.3	1.5 \pm 1.0	201.7 \pm 20.6	226.2 \pm 11.5	221.0 \pm 14.9	1.5 \pm 0.8
	[200, 300)	1317.8 \pm 47.3	350.0 \pm 16.6	11.8 \pm 8.5	1679.6 \pm 50.9	1635.4 \pm 33.9	1602.0 \pm 40.0	6.3 \pm 4.2
	[300, 400)	188.7 \pm 9.2	174.1 \pm 10.4	2.7 \pm 2.0	365.5 \pm 14.1	363.3 \pm 10.7	367.0 \pm 19.2	2.9 \pm 1.8
t \bar{t} H 5j2b	[400, 500)	33.6 \pm 3.5	53.8 \pm 5.1	0.5 \pm 0.3	87.9 \pm 6.2	86.3 \pm 4.5	91.0 \pm 9.5	0.9 \pm 0.5
	[500, ∞)	8.2 \pm 1.4	24.6 \pm 3.5	0.2 \pm <0.1	33.0 \pm 3.8	36.8 \pm 2.5	36.0 \pm 6.0	0.5 \pm 0.3
	[200, 300)	3851.5 \pm 87.9	805.5 \pm 38.8	85.9 \pm 66.3	4742.9 \pm 116.7	4672.6 \pm 87.1	4632.0 \pm 68.1	12.3 \pm 8.1
	[300, 400)	876.0 \pm 27.5	438.8 \pm 26.1	19.5 \pm 13.4	1334.2 \pm 40.2	1332.5 \pm 30.4	1371.0 \pm 37.0	6.7 \pm 4.0
	[400, 500)	179.6 \pm 8.5	162.8 \pm 15.4	3.4 \pm 2.5	345.9 \pm 17.8	330.9 \pm 11.4	312.0 \pm 17.7	2.4 \pm 1.4
t \bar{t} H 6j1b	[500, ∞)	61.0 \pm 4.0	98.2 \pm 13.6	1.3 \pm 1.0	160.5 \pm 14.3	179.1 \pm 8.4	197.0 \pm 14.0	1.6 \pm 0.8
	[200, 300)	1214.0 \pm 38.7	237.2 \pm 11.4	15.6 \pm 12.0	1466.8 \pm 42.1	1433.1 \pm 29.9	1404.0 \pm 37.5	7.8 \pm 6.1
t \bar{t} H 6j2b	[300, 400)	237.9 \pm 12.0	118.8 \pm 7.1	3.6 \pm 2.9	360.3 \pm 14.2	351.9 \pm 10.8	341.0 \pm 18.5	3.8 \pm 2.9
	[400, 500)	38.8 \pm 3.8	40.9 \pm 4.0	0.6 \pm 0.4	80.3 \pm 5.6	79.9 \pm 4.3	91.0 \pm 9.5	1.4 \pm 1.0
	[500, ∞)	12.9 \pm 1.7	21.6 \pm 3.0	0.2 \pm <0.1	34.7 \pm 3.5	38.1 \pm 2.4	41.0 \pm 6.4	0.7 \pm 0.4
	[200, 300)	17753.9 \pm 373.6	29102.3 \pm 655.5	105.8 \pm 68.3	46962.1 \pm 757.6	47499.1 \pm 460.7	47559.0 \pm 218.1	185.6 \pm 92.5
	[300, 400)	2535.2 \pm 69.4	5505.3 \pm 155.0	16.8 \pm 12.0	8057.3 \pm 170.3	8075.7 \pm 106.8	8106.0 \pm 90.0	44.3 \pm 23.0
VH 2j0b	[400, 500)	278.9 \pm 16.1	684.1 \pm 34.7	2.8 \pm 1.8	965.8 \pm 38.3	944.5 \pm 26.7	938.0 \pm 30.6	6.6 \pm 3.4
	[500, ∞)	19.2 \pm 3.1	76.9 \pm 8.1	0.9 \pm 0.5	97.1 \pm 8.7	95.7 \pm 6.6	98.0 \pm 9.9	0.6 \pm 0.3
	[200, 300)	3020.1 \pm 84.0	2490.4 \pm 114.7	26.2 \pm 24.5	5536.8 \pm 144.3	5808.6 \pm 111.1	5883.0 \pm 76.7	20.3 \pm 10.0
	[300, 400)	360.1 \pm 17.3	609.0 \pm 44.1	3.6 \pm 3.0	972.7 \pm 47.5	962.3 \pm 30.1	949.0 \pm 30.8	5.2 \pm 2.8
	[400, ∞)	36.3 \pm 4.5	66.7 \pm 7.3	0.6 \pm 0.5	103.7 \pm 8.6	111.3 \pm 7.7	120.0 \pm 11.0	0.7 \pm 0.4
VH 2j2b	[200, 300)	209.4 \pm 14.0	422.3 \pm 46.6	2.0 \pm 1.2	633.7 \pm 48.6	620.1 \pm 26.8	617.0 \pm 24.8	10.8 \pm 7.9
	[300, ∞)	30.7 \pm 3.5	102.6 \pm 15.4	0.2 \pm <0.1	133.6 \pm 15.8	131.1 \pm 9.8	128.0 \pm 11.3	3.5 \pm 2.5