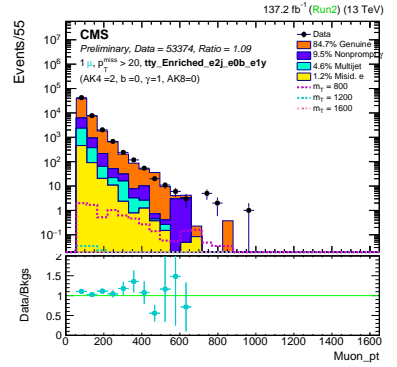
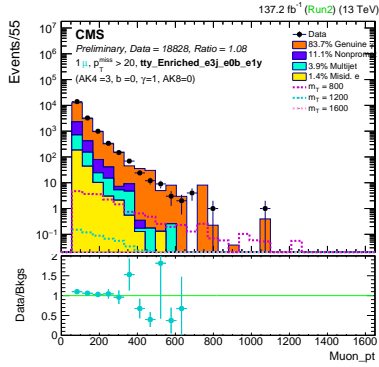
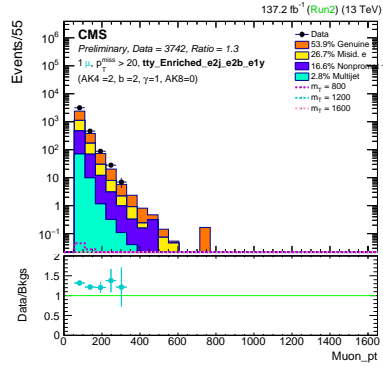
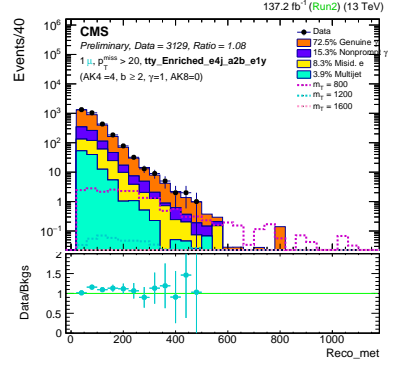
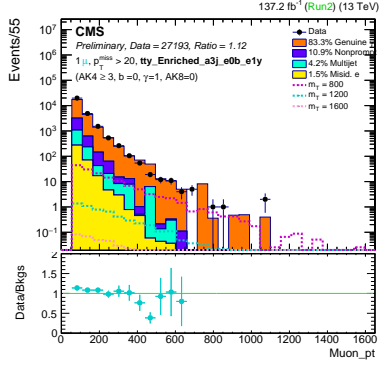
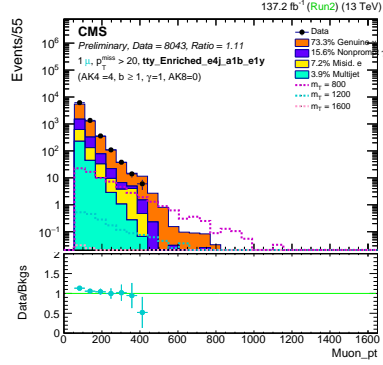


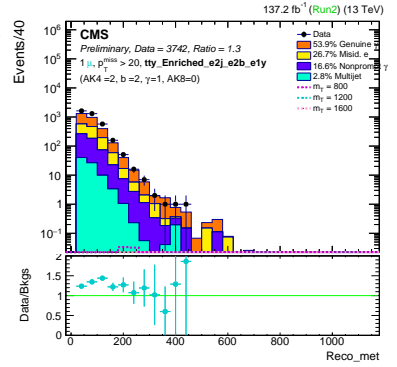
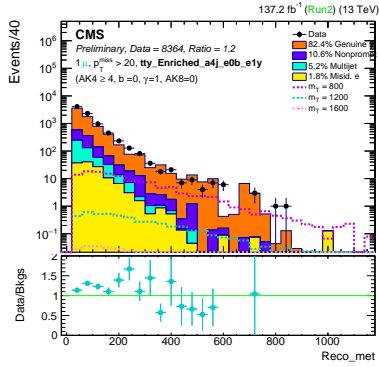
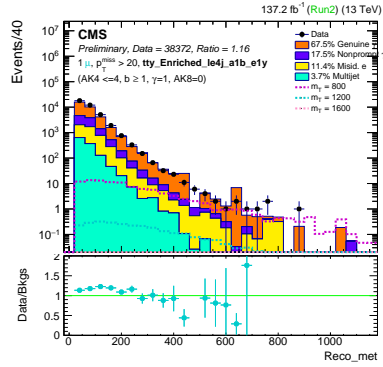
Process	Yield	Gen. γ (%)	N. γ (%)	M. e (%)	Multi. (%)	Process	Yield	Gen. γ (%)	N. γ (%)	M. e (%)	Multi. (%)	Process	Yield	Gen. γ (%)	N. γ (%)	M. e (%)	Multi. (%)
Data	3129.0	—	—	—	—	Data	38372.0	—	—	—	—	Data	8365.0	—	—	—	—
$t\bar{t}\gamma$	1860.5	99.4	0.3	0.2	0.1	$t\bar{t}\gamma$	14137.0	99.1	0.4	0.3	0.1	$W + \gamma$	3298.2	99.7	0.2	0.0	0.1
$t/t\bar{t}$	951.6	18.7	44.8	24.8	11.6	$t/t\bar{t}$	12411.9	23.7	38.7	29.7	7.9	$t\bar{t}\gamma$	1203.3	99.4	0.4	0.1	0.1
$W + \gamma$	34.6	100.0	0.0	0.0	0.0	$W + \gamma$	3038.4	99.8	0.2	0.0	0.0	$t/t\bar{t}$	708.4	24.0	48.6	16.3	11.1
Others	24.5	78.0	11.6	8.1	2.4	$Z + \gamma$	1413.3	99.6	0.2	0.1	0.1	$Z + \gamma$	614.3	99.3	0.2	0.1	0.3
$Z + \gamma$	11.9	97.2	0.0	0.0	2.8	QCD	1204.3	50.3	44.8	0.0	4.9	$W + jets$	385.2	0.0	60.2	0.0	39.8
QCD	10.9	54.3	45.7	0.0	0.0	$W + jets$	375.0	0.0	70.3	0.7	29.0	Others	304.1	86.5	9.0	1.9	2.5
$DY + jets$	2.9	100.0	0.0	0.0	0.0	Others	300.3	78.2	12.4	6.2	3.2	QCD	266.9	60.8	17.5	0.2	21.5
$W + jets$	2.2	0.0	100.0	0.0	0.0	$DY + jets$	236.8	50.8	31.4	3.1	14.7	$DY + jets$	209.4	33.0	35.9	2.5	28.7
Bkgs	2899.1	72.5	15.3	8.3	3.9	Bkgs	33117.0	67.5	17.5	11.4	3.7	Bkgs	6990.0	82.4	10.6	1.8	5.2
$m_T = 800$	20.2	0.1	99.3	0.6	0.0	$m_T = 800$	100.8	-0.0	99.8	0.2	0.0	$m_T = 800$	126.7	0.1	99.7	0.0	0.2
$m_T = 1200$	0.5	0.0	99.7	0.3	0.0	$m_T = 1200$	2.8	0.0	99.9	0.0	0.0	$m_T = 1200$	4.8	0.1	99.9	0.1	0.0
$m_T = 1600$	0.0	-0.3	100.3	0.0	0.0	$m_T = 1600$	0.2	-0.1	100.0	0.1	0.0	$m_T = 1600$	0.3	0.1	99.8	0.1	0.1
Data/Bkgs	1.08	—	—	—	—	Data/Bkgs	1.16	—	—	—	—	Data/Bkgs	1.2	—	—	—	—



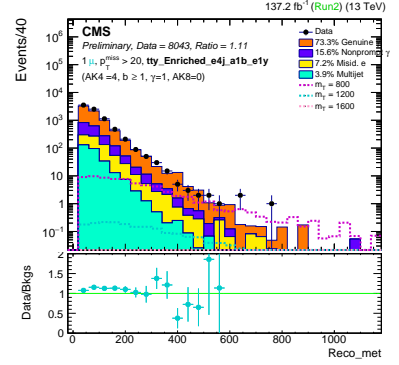
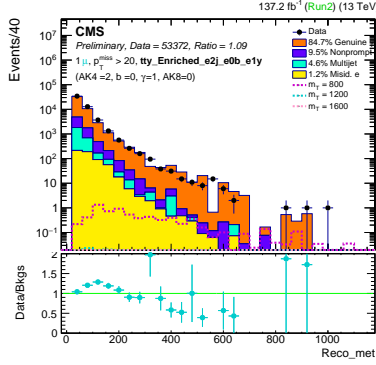
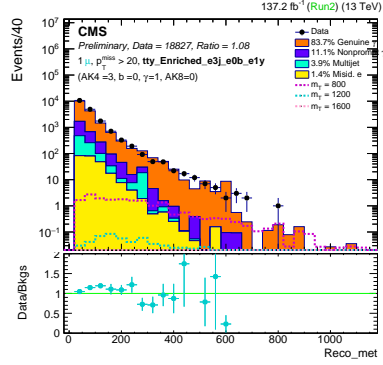
Process	Yield	Gen. γ (%)	N. γ (%)	M. e (%)	Multi. (%)	Process	Yield	Gen. γ (%)	N. γ (%)	M. e (%)	Multi. (%)	Process	Yield	Gen. γ (%)	N. γ (%)	M. e (%)	Multi. (%)
Data	3742.0	—	—	—	—	Data	18828.0	—	—	—	—	Data	53374.0	—	—	—	—
$t/t\bar{t}$	1619.0	19.7	28.4	47.0	4.9	$W + \gamma$	9003.0	99.9	0.0	0.0	0.1	$W + \gamma$	26232.3	99.8	0.1	0.0	0.1
$t\bar{t}\gamma$	1081.7	98.6	0.5	0.8	0.1	$Z + \gamma$	2366.7	99.8	0.1	-0.0	0.1	$Z + \gamma$	9964.8	99.8	0.2	0.0	0.1
$Z + \gamma$	70.9	100.0	0.0	0.0	0.0	$t\bar{t}\gamma$	1468.5	99.2	0.4	0.2	0.1	$W + jets$	4040.5	0.0	60.7	0.1	39.2
QCD	55.1	100.0	0.0	0.0	0.0	$t/t\bar{t}$	1127.7	26.4	45.3	19.1	9.1	QCD	2196.9	67.8	23.8	0.3	8.1
$W + \gamma$	24.5	100.0	0.0	0.0	0.0	QCD	1127.7	64.9	34.0	0.0	1.1	$t/t\bar{t}$	1960.3	31.6	38.1	23.2	7.0
Others	10.5	79.1	11.4	7.0	2.5	$W + jets$	1122.6	0.0	64.6	0.1	35.3	$t\bar{t}\gamma$	1721.9	99.0	0.5	0.3	0.1
$W + jets$	9.2	0.0	100.0	0.0	0.0	$DY + jets$	587.5	37.3	40.2	1.1	21.3	$DY + jets$	1716.1	40.6	40.0	3.2	16.1
$DY + jets$	7.6	82.2	17.8	0.0	0.0	Others	553.9	83.6	10.2	3.0	3.2	Others	970.8	74.4	16.2	5.8	3.6
Bkgs	2878.4	53.9	16.6	26.7	2.8	Bkgs	17357.6	83.7	11.1	1.4	3.9	Bkgs	48803.4	84.7	9.5	1.2	4.6
$m_T = 800$	0.1	0.0	100.0	0.0	0.0	$m_T = 800$	19.0	0.1	99.1	0.7	0.1	$m_T = 800$	7.3	0.5	99.5	0.0	0.0
$m_T = 1200$	0.0	0.0	100.0	0.0	0.0	$m_T = 1200$	0.6	0.1	99.3	0.0	0.5	$m_T = 1200$	0.2	0.0	100.0	0.0	0.0
$m_T = 1600$	0.0	0.0	100.0	0.0	0.0	$m_T = 1600$	0.0	-0.1	99.6	0.5	0.0	$m_T = 1600$	0.0	0.0	99.2	0.6	0.2
Data/Bkgs	1.3	—	—	—	—	Data/Bkgs	1.08	—	—	—	—	Data/Bkgs	1.09	—	—	—	—



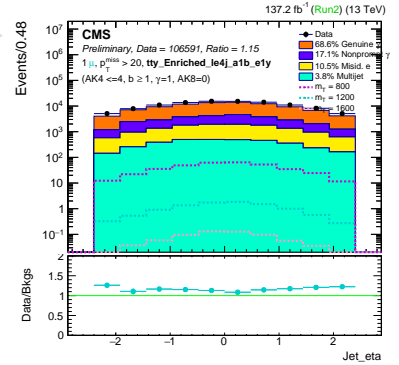
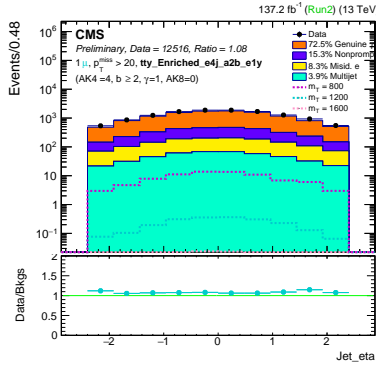
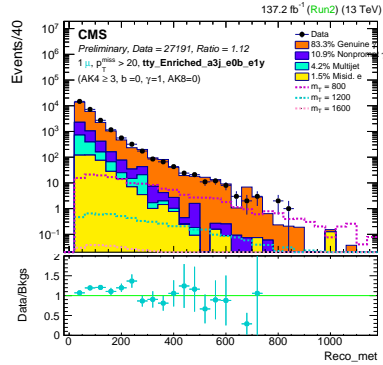
Process	Yield	Gen. γ (%)	N. γ (%)	M. e (%)	Multi. (%)	Process	Yield	Gen. γ (%)	N. γ (%)	M. e (%)	Multi. (%)	Process	Yield	Gen. γ (%)	N. γ (%)	M. e (%)	Multi. (%)
Data	8043.0	—	—	—	—	Data	27193.0	—	—	—	—	Data	3129.0	—	—	—	—
$t\bar{t}\gamma$	4220.3	99.4	0.3	0.2	0.1	$W + \gamma$	12301.3	99.8	0.0	0.0	0.1	$t\bar{t}\gamma$	1860.5	99.4	0.3	0.2	0.1
$t/t\bar{t}$	2341.7	22.2	45.2	21.5	11.1	$Z + \gamma$	2981.0	99.7	0.1	0.0	0.1	$t/t\bar{t}$	951.6	18.7	44.8	24.8	11.6
$W + \gamma$	361.2	100.0	0.0	0.0	0.0	$t\bar{t}\gamma$	2671.8	99.3	0.4	0.2	0.1	$W + \gamma$	34.6	100.0	0.0	0.0	0.0
$Z + \gamma$	104.2	99.1	0.6	0.0	0.3	$t/t\bar{t}$	1836.2	25.5	46.6	18.0	9.9	Others	24.5	78.0	11.6	8.1	2.4
Others	81.9	79.7	11.7	5.7	2.9	$W + jets$	1507.9	0.0	63.5	0.1	36.4	$Z + \gamma$	11.9	97.2	0.0	0.0	2.8
QCD	71.2	66.1	24.4	0.0	9.5	QCD	1394.6	64.1	30.8	0.0	5.0	QCD	10.9	54.3	45.7	0.0	0.0
$DY + jets$	35.3	59.7	32.2	8.1	0.0	Others	858.0	84.7	9.8	2.6	2.9	$DY + jets$	2.9	100.0	0.0	0.0	0.0
$W + jets$	35.2	0.0	62.5	0.0	37.5	$DY + jets$	796.9	36.1	39.1	1.5	23.3	$W + jets$	2.2	0.0	100.0	0.0	0.0
Bkgs	7250.9	73.3	15.6	7.2	3.9	Bkgs	24347.6	83.3	10.9	1.5	4.2	Bkgs	2899.1	72.5	15.3	8.3	3.9
$m_T = 800$	70.0	0.0	99.7	0.3	0.0	$m_T = 800$	145.7	0.1	99.6	0.1	0.2	$m_T = 800$	20.2	0.1	99.3	0.6	0.0
$m_T = 1200$	1.9	-0.0	99.8	0.1	0.0	$m_T = 1200$	5.4	0.1	99.8	0.1	0.1	$m_T = 1200$	0.5	0.0	99.7	0.3	0.0
$m_T = 1600$	0.1	-0.2	100.1	0.0	0.0	$m_T = 1600$	0.4	0.1	99.7	0.1	0.1	$m_T = 1600$	0.0	-0.3	100.3	0.0	0.0
Data/Bkgs	1.11	—	—	—	—	Data/Bkgs	1.12	—	—	—	—	Data/Bkgs	1.08	—	—	—	—



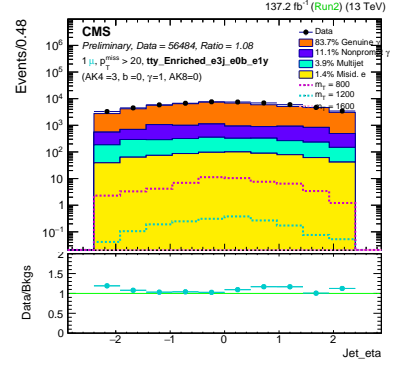
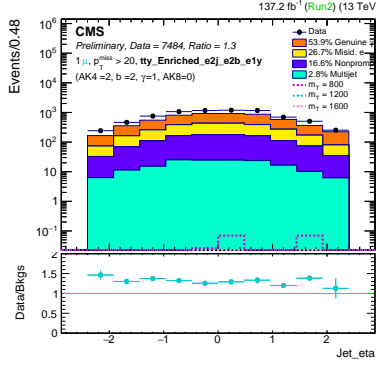
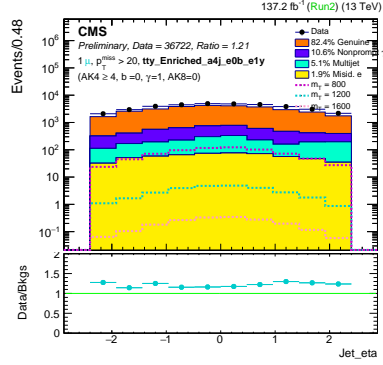
Process	Yield	Gen. γ (%)	N. γ (%)	M. e (%)	Multi. (%)	Process	Yield	Gen. γ (%)	N. γ (%)	M. e (%)	Multi. (%)	Process	Yield	Gen. γ (%)	N. γ (%)	M. e (%)	Multi. (%)
Data	38372.0	—	—	—	—	Data	8364.0	—	—	—	—	Data	3742.0	—	—	—	—
$t\bar{t}\gamma$	14125.8	99.1	0.4	0.3	0.1	$W + \gamma$	3298.2	99.7	0.2	0.0	0.1	$t/t\bar{t}$	1619.0	19.7	28.4	47.0	4.9
$t/t\bar{t}$	12411.9	23.7	38.7	29.7	7.9	$t\bar{t}\gamma$	1203.3	99.4	0.4	0.1	0.1	$t\bar{t}\gamma$	1081.7	98.6	0.5	0.8	0.1
$W + \gamma$	3038.4	99.8	0.2	0.0	0.0	$t/t\bar{t}$	708.4	24.0	48.6	16.3	11.1	$Z + \gamma$	70.9	100.0	0.0	0.0	0.0
$Z + \gamma$	1413.3	99.6	0.2	0.1	0.1	$Z + \gamma$	614.3	99.3	0.2	0.1	0.3	QCD	55.1	100.0	0.0	0.0	0.0
QCD	1204.3	50.3	44.8	0.0	4.9	$W + jets$	385.2	0.0	60.2	0.0	39.8	$W + \gamma$	24.5	100.0	0.0	0.0	0.0
$W + jets$	375.0	0.0	70.3	0.7	29.0	Others	304.1	86.5	9.0	1.9	2.5	Others	10.5	79.1	11.4	7.0	2.5
Others	300.3	78.2	12.4	6.2	3.2	QCD	266.9	60.8	17.5	0.2	21.5	$W + jets$	9.2	0.0	100.0	0.0	0.0
$DY + jets$	236.8	50.8	31.4	3.1	14.7	$DY + jets$	209.4	33.0	35.9	2.5	28.7	$DY + jets$	7.6	82.2	17.8	0.0	0.0
Bkgs	33105.9	67.5	17.5	11.4	3.7	Bkgs	6990.0	82.4	10.6	1.8	5.2	Bkgs	2878.4	53.9	16.6	26.7	2.8
$m_T = 800$	100.6	-0.0	99.8	0.2	0.0	$m_T = 800$	126.3	0.1	99.7	0.0	0.2	$m_T = 800$	0.1	0.0	100.0	0.0	0.0
$m_T = 1200$	2.7	0.0	99.9	0.0	0.0	$m_T = 1200$	4.8	0.1	99.9	0.1	0.0	$m_T = 1200$	0.0	0.0	100.0	0.0	0.0
$m_T = 1600$	0.2	-0.1	100.0	0.1	0.0	$m_T = 1600$	0.3	0.1	99.8	0.1	0.1	$m_T = 1600$	0.0	0.0	100.0	0.0	0.0
Data/Bkgs	1.16	—	—	—	—	Data/Bkgs	1.2	—	—	—	—	Data/Bkgs	1.3	—	—	—	—



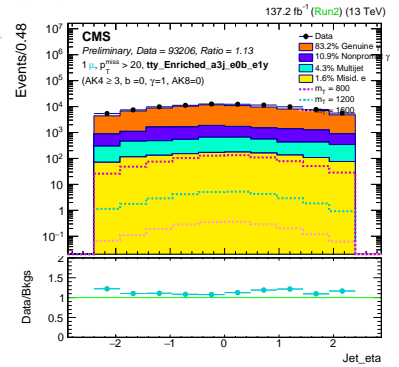
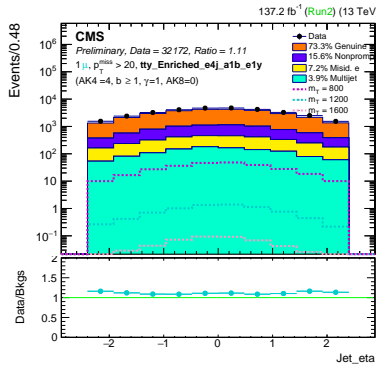
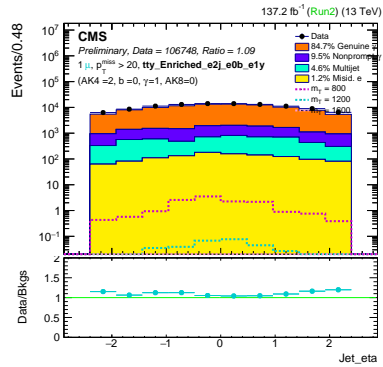
Process	Yield	Gen. γ (%)	N. γ (%)	M. e (%)	Multi. (%)	Process	Yield	Gen. γ (%)	N. γ (%)	M. e (%)	Multi. (%)	Process	Yield	Gen. γ (%)	N. γ (%)	M. e (%)	Multi. (%)
Data	18827.0	—	—	—	—	Data	53372.0	—	—	—	—	Data	8043.0	—	—	—	—
$W + \gamma$	9003.0	99.9	0.0	0.0	0.1	$W + \gamma$	26232.3	99.8	0.1	0.0	0.1	$t\bar{t}\gamma$	4220.4	99.4	0.3	0.2	0.1
$Z + \gamma$	2366.7	99.8	0.1	-0.0	0.1	$Z + \gamma$	9964.8	99.8	0.2	0.0	0.1	$t/t\bar{t}$	2341.7	22.2	45.2	21.5	11.1
$t\bar{t}\gamma$	1468.5	99.2	0.4	0.2	0.1	$W + jets$	4040.5	0.0	60.7	0.1	39.2	$W + \gamma$	361.2	100.0	0.0	0.0	0.0
$t/t\bar{t}$	1127.7	26.4	45.3	19.1	9.1	QCD	2196.9	67.8	23.8	0.3	8.1	$Z + \gamma$	104.2	99.1	0.6	0.0	0.3
QCD	1127.7	64.9	34.0	0.0	1.1	$t/t\bar{t}$	1960.3	31.6	38.1	23.2	7.0	Others	81.9	79.7	11.7	5.8	2.9
$W + jets$	1122.6	0.0	64.6	0.1	35.3	$t\bar{t}\gamma$	1721.8	99.0	0.5	0.3	0.1	QCD	71.2	66.1	24.4	0.0	9.5
$DY + jets$	587.5	37.3	40.2	1.1	21.3	$DY + jets$	1716.1	40.6	40.0	3.2	16.1	$DY + jets$	35.3	59.7	32.2	8.1	0.0
Others	553.9	83.6	10.2	3.0	3.2	Others	970.9	74.4	16.2	5.8	3.6	$W + jets$	35.2	0.0	62.5	0.0	37.5
Bkgs	17357.6	83.7	11.1	1.4	3.9	Bkgs	48803.5	84.7	9.5	1.2	4.6	Bkgs	7251.0	73.3	15.6	7.2	3.9
$m_T = 800$	18.9	0.1	99.1	0.7	0.1	$m_T = 800$	7.1	0.5	99.5	0.0	0.0	$m_T = 800$	69.8	0.0	99.7	0.3	0.0
$m_T = 1200$	0.6	0.1	99.3	0.0	0.5	$m_T = 1200$	0.2	0.0	100.0	0.0	0.0	$m_T = 1200$	1.9	-0.0	99.8	0.1	0.0
$m_T = 1600$	0.0	0.2	99.3	0.5	0.0	$m_T = 1600$	0.0	0.0	99.2	0.6	0.2	$m_T = 1600$	0.1	-0.2	100.1	0.0	0.0
Data/Bkgs	1.08	—	—	—	—	Data/Bkgs	1.09	—	—	—	—	Data/Bkgs	1.11	—	—	—	—



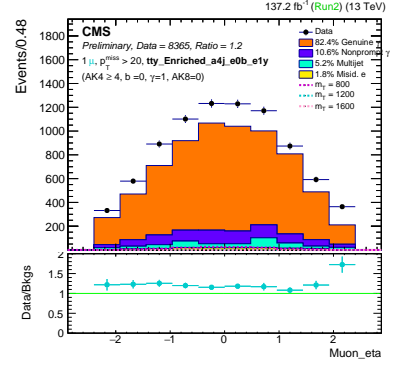
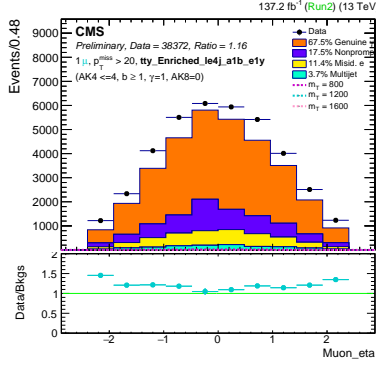
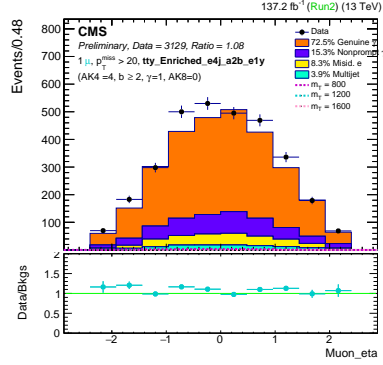
Process	Yield	Gen. γ (%)	N. γ (%)	M. e (%)	Multi. (%)	Process	Yield	Gen. γ (%)	N. γ (%)	M. e (%)	Multi. (%)	Process	Yield	Gen. γ (%)	N. γ (%)	M. e (%)	Multi. (%)
Data	27191.0	—	—	—	—	Data	12516.0	—	—	—	—	Data	106591.0	—	—	—	—
$W + \gamma$	12301.3	99.8	0.0	0.0	0.1	$t\bar{t}\gamma$	7442.0	99.4	0.3	0.2	0.1	$t\bar{t}\gamma$	42385.2	99.2	0.4	0.3	0.1
$Z + \gamma$	2981.0	99.7	0.1	0.0	0.1	$t/t\bar{t}$	3806.2	18.7	44.8	24.8	11.6	$t/t\bar{t}$	33988.8	23.4	40.0	28.1	8.5
$t\bar{t}\gamma$	2671.8	99.3	0.4	0.2	0.1	$W + \gamma$	138.4	100.0	0.0	0.0	0.0	$W + \gamma$	7788.8	99.8	0.2	0.0	0.0
$t/t\bar{t}$	1836.2	25.5	46.6	18.0	9.9	Others	98.2	78.0	11.6	8.1	2.4	$Z + \gamma$	3373.2	99.6	0.2	0.1	0.1
$W + jets$	1507.9	0.0	63.5	0.1	36.4	$Z + \gamma$	47.7	97.2	0.0	0.0	2.8	QCD	2788.6	52.4	41.3	0.0	6.3
QCD	1394.6	64.1	30.8	0.0	5.0	QCD	43.6	54.3	45.7	0.0	0.0	$W + jets$	906.3	0.0	70.2	0.9	29.0
Others	858.0	84.7	9.8	2.6	2.9	$DY + jets$	11.4	100.0	0.0	0.0	0.0	Others	875.6	78.5	12.1	6.1	3.2
$DY + jets$	796.9	36.1	39.1	1.5	23.3	$W + jets$	8.8	0.0	100.0	0.0	0.0	$DY + jets$	599.4	52.6	31.2	3.8	12.5
Bkgs	24347.6	83.3	10.9	1.5	4.2	Bkgs	11596.3	72.5	15.3	8.3	3.9	Bkgs	92705.8	68.6	17.1	10.5	3.8
$m_T = 800$	145.2	0.1	99.6	0.1	0.2	$m_T = 800$	80.9	0.1	99.3	0.6	0.0	$m_T = 800$	368.2	0.0	99.7	0.2	0.0
$m_T = 1200$	5.4	0.1	99.8	0.1	0.1	$m_T = 1200$	2.1	0.0	99.7	0.3	0.0	$m_T = 1200$	10.1	0.0	99.9	0.1	0.0
$m_T = 1600$	0.4	0.1	99.7	0.1	0.1	$m_T = 1600$	0.1	-0.3	100.3	0.0	0.0	$m_T = 1600$	0.7	-0.1	100.0	0.1	0.0
Data/Bkgs	1.12	—	—	—	—	Data/Bkgs	1.08	—	—	—	—	Data/Bkgs	1.15	—	—	—	—



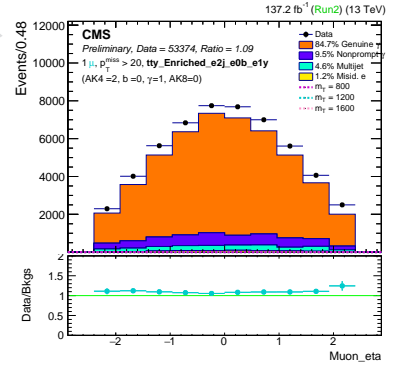
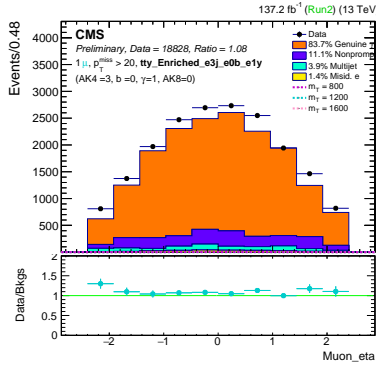
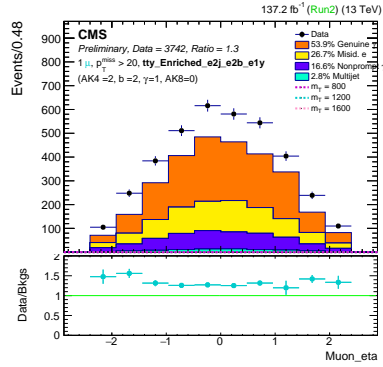
Process	Yield	Gen. γ (%)	N. γ (%)	M. e (%)	Multi. (%)	Process	Yield	Gen. γ (%)	N. γ (%)	M. e (%)	Multi. (%)	Process	Yield	Gen. γ (%)	N. γ (%)	M. e (%)	Multi. (%)
Data	36722.0	—	—	—	—	Data	7484.0	—	—	—	—	Data	56484.0	—	—	—	—
$W + \gamma$	14191.0	99.7	0.2	0.0	0.1	t/\bar{t}	3238.0	19.7	28.4	47.0	4.9	$W + \gamma$	27009.1	99.9	0.0	0.0	0.1
$t\bar{t}\gamma$	5392.6	99.4	0.4	0.1	0.1	$t\bar{t}\gamma$	2163.5	98.6	0.5	0.8	0.1	$Z + \gamma$	7100.0	99.8	0.1	-0.0	0.1
t/\bar{t}	3157.6	23.8	49.0	16.1	11.1	$Z + \gamma$	141.8	100.0	0.0	0.0	0.0	$t\bar{t}\gamma$	4405.5	99.2	0.4	0.2	0.1
$Z + \gamma$	2615.5	99.3	0.3	0.1	0.3	QCD	110.1	100.0	0.0	0.0	0.0	t/\bar{t}	3383.2	26.4	45.3	19.1	9.1
$W + jets$	1647.3	0.0	60.2	0.0	39.8	$W + \gamma$	48.9	100.0	0.0	0.0	0.0	QCD	3383.0	64.9	34.0	0.0	1.1
Others	1340.2	86.8	8.8	1.9	2.5	Others	21.1	79.1	11.4	7.0	2.5	$W + jets$	3367.9	0.0	64.6	0.1	35.3
QCD	1106.7	61.4	17.2	0.1	21.2	$W + jets$	18.3	0.0	100.0	0.0	0.0	$DY + jets$	1762.4	37.3	40.2	1.1	21.3
$DY + jets$	889.1	32.4	37.4	2.7	27.5	$DY + jets$	15.1	82.2	17.8	0.0	0.0	Others	1661.7	83.6	10.2	3.0	3.2
Bkgs	30339.9	82.4	10.6	1.9	5.1	Bkgs	5756.8	53.9	16.6	26.7	2.8	Bkgs	52072.9	83.7	11.1	1.4	3.9
$m_T = 800$	724.2	0.1	99.7	0.0	0.1	$m_T = 800$	0.2	0.0	100.0	0.0	0.0	$m_T = 800$	57.0	0.1	99.1	0.7	0.1
$m_T = 1200$	28.4	0.1	99.9	0.1	0.0	$m_T = 1200$	0.0	0.0	100.0	0.0	0.0	$m_T = 1200$	1.8	0.1	99.3	0.0	0.5
$m_T = 1600$	1.9	0.0	99.8	0.1	0.1	$m_T = 1600$	0.0	0.0	100.0	0.0	0.0	$m_T = 1600$	0.1	-0.1	99.6	0.5	0.0
Data/Bkgs	1.21	—	—	—	—	Data/Bkgs	1.3	—	—	—	—	Data/Bkgs	1.08	—	—	—	—



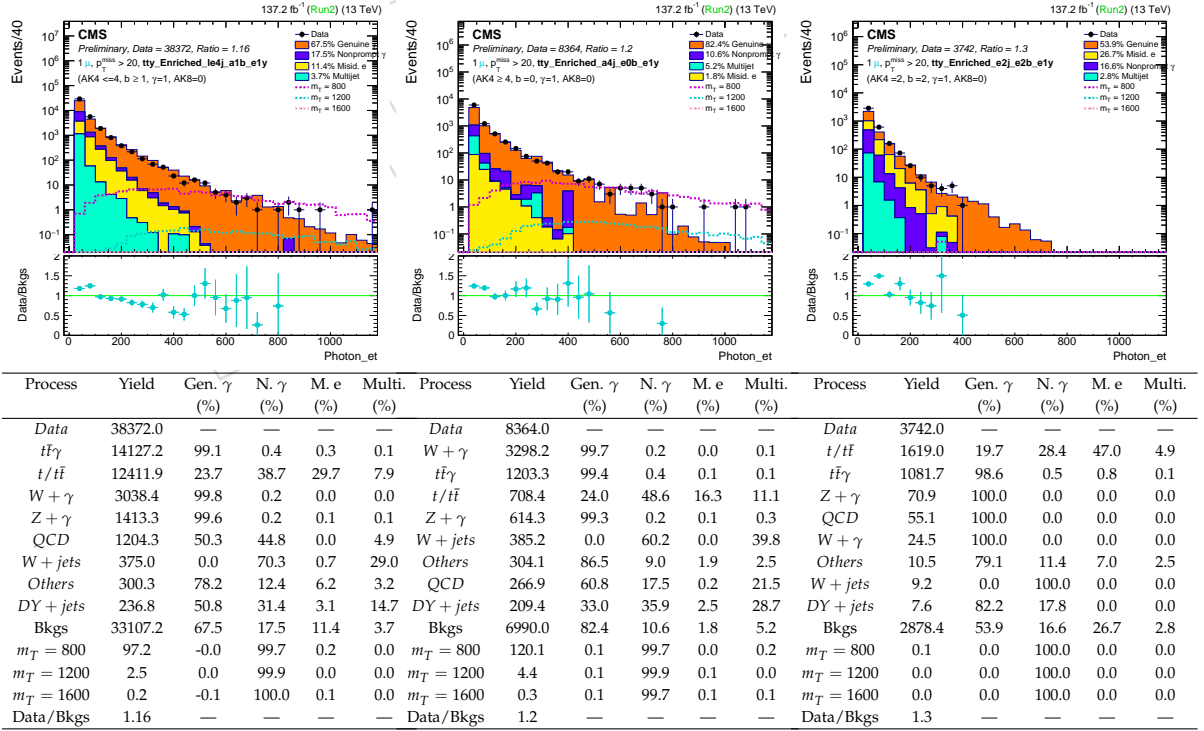
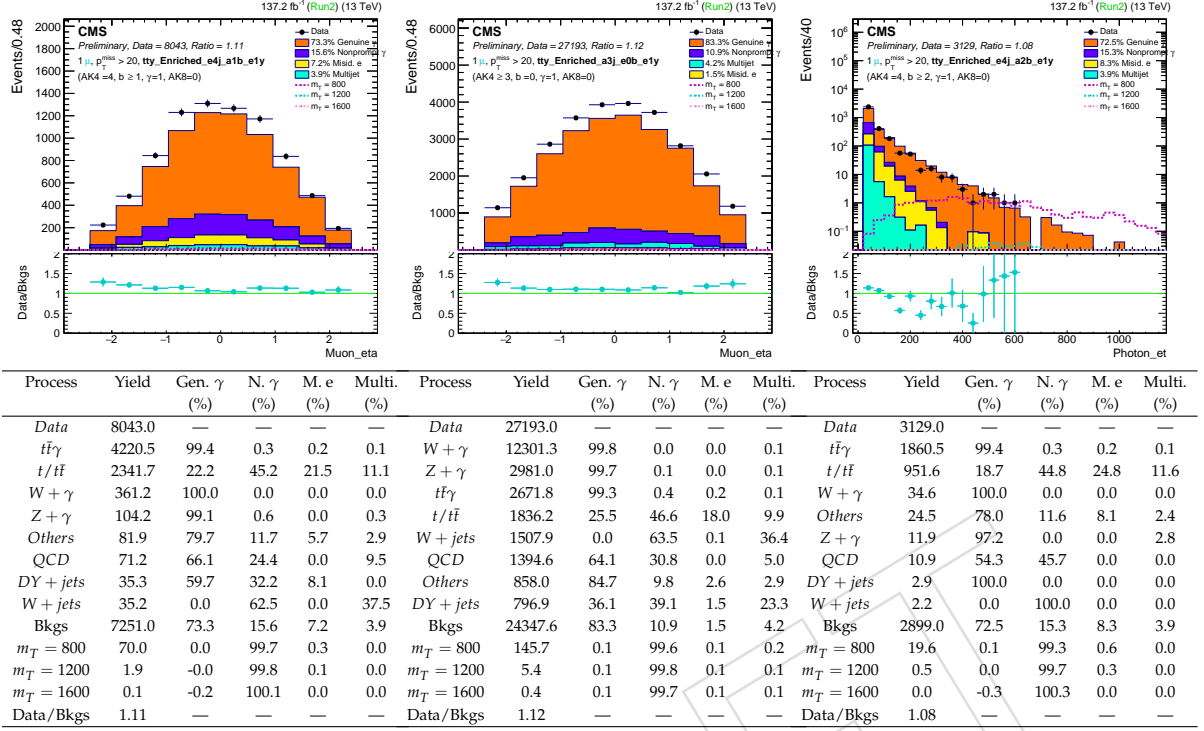
Process	Yield	Gen. γ (%)	N. γ (%)	M. e (%)	Multi. (%)	Process	Yield	Gen. γ (%)	N. γ (%)	M. e (%)	Multi. (%)	Process	Yield	Gen. γ (%)	N. γ (%)	M. e (%)	Multi. (%)
Data	106748.0	—	—	—	—	Data	32172.0	—	—	—	—	Data	93206.0	—	—	—	—
$W + \gamma$	52464.5	99.8	0.1	0.0	0.1	$t\bar{t}\gamma$	16881.4	99.4	0.3	0.2	0.1	$W + \gamma$	41200.1	99.8	0.1	0.0	0.1
$Z + \gamma$	19929.5	99.8	0.2	0.0	0.1	t/\bar{t}	9366.6	22.2	45.2	21.5	11.1	$t\bar{t}\gamma$	9798.1	99.3	0.4	0.2	0.1
$W + jets$	8080.9	0.0	60.7	0.1	39.2	$W + \gamma$	1444.9	100.0	0.0	0.0	0.0	$Z + \gamma$	9715.5	99.7	0.2	0.0	0.2
QCD	4393.8	67.8	23.8	0.3	8.1	$Z + \gamma$	416.8	99.1	0.6	0.0	0.3	t/\bar{t}	6540.8	25.2	47.1	17.7	10.1
t/\bar{t}	3920.5	31.6	38.1	23.2	7.0	Others	327.5	79.7	11.7	5.7	2.9	$W + jets$	5015.2	0.0	63.2	0.1	36.7
$t\bar{t}\gamma$	3443.7	99.0	0.5	0.3	0.1	QCD	284.6	66.1	24.4	0.0	9.5	QCD	4489.7	64.1	29.8	0.0	6.1
$DY + jets$	3432.2	40.6	40.0	3.2	16.1	$DY + jets$	141.1	59.7	32.2	8.1	0.0	Others	3001.8	85.1	9.6	2.5	2.9
Others	1941.8	74.4	16.2	5.8	3.6	$W + jets$	140.6	0.0	62.5	0.0	37.5	$DY + jets$	2651.5	35.6	39.3	1.7	23.4
Bkgs	97607.0	84.7	9.5	1.2	4.6	Bkgs	29003.6	73.3	15.6	7.2	3.9	Bkgs	82412.7	83.2	10.9	1.6	4.3
$m_T = 800$	14.5	0.5	99.5	0.0	0.0	$m_T = 800$	279.9	0.0	99.7	0.3	0.0	$m_T = 800$	781.3	0.1	99.7	0.1	0.1
$m_T = 1200$	0.3	0.0	100.0	0.0	0.0	$m_T = 1200$	7.7	-0.0	99.8	0.1	0.0	$m_T = 1200$	30.3	0.1	99.8	0.1	0.0
$m_T = 1600$	0.0	0.0	99.2	0.6	0.2	$m_T = 1600$	0.5	-0.2	100.1	0.0	0.0	$m_T = 1600$	2.0	0.0	99.8	0.1	0.1
Data/Bkgs	1.09	—	—	—	—	Data/Bkgs	1.11	—	—	—	—	Data/Bkgs	1.13	—	—	—	—

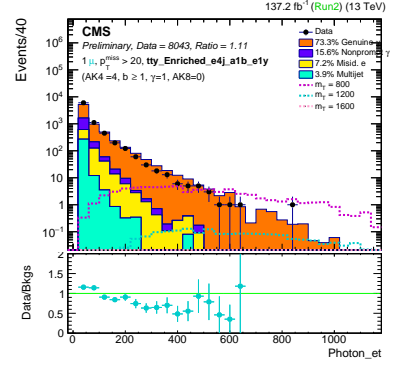
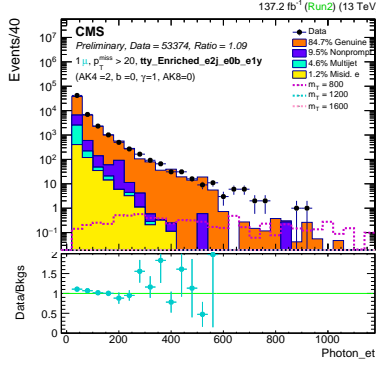
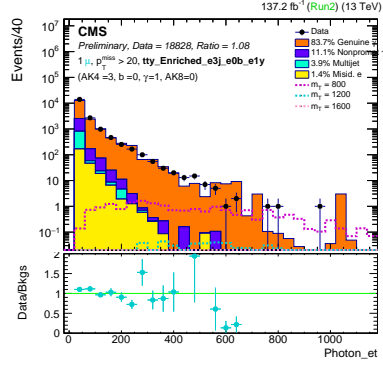


Process	Yield	Gen. γ (%)	N. γ (%)	M. e (%)	Multi. (%)	Process	Yield	Gen. γ (%)	N. γ (%)	M. e (%)	Multi. (%)	Process	Yield	Gen. γ (%)	N. γ (%)	M. e (%)	Multi. (%)
Data	3129.0	—	—	—	—	Data	38372.0	—	—	—	—	Data	8365.0	—	—	—	—
$t\bar{t}\gamma$	1860.5	99.4	0.3	0.2	0.1	$t\bar{t}\gamma$	14126.7	99.1	0.4	0.3	0.1	$W + \gamma$	3298.2	99.7	0.2	0.0	0.1
$t/t\bar{t}$	951.6	18.7	44.8	24.8	11.6	$t/t\bar{t}$	12411.9	23.7	38.7	29.7	7.9	$t\bar{t}\gamma$	1203.3	99.4	0.4	0.1	0.1
$W + \gamma$	34.6	100.0	0.0	0.0	0.0	$W + \gamma$	3038.4	99.8	0.2	0.0	0.0	$t/t\bar{t}$	708.4	24.0	48.6	16.3	11.1
Others	24.5	78.0	11.6	8.1	2.4	$Z + \gamma$	1413.3	99.6	0.2	0.1	0.1	$Z + \gamma$	614.3	99.3	0.2	0.1	0.3
$Z + \gamma$	11.9	97.2	0.0	0.0	2.8	QCD	1204.3	50.3	44.8	0.0	4.9	$W + jets$	385.2	0.0	60.2	0.0	39.8
QCD	10.9	54.3	45.7	0.0	0.0	$W + jets$	375.0	0.0	70.3	0.7	29.0	Others	304.1	86.5	9.0	1.9	2.5
$DY + jets$	2.9	100.0	0.0	0.0	0.0	Others	300.3	78.2	12.4	6.2	3.2	QCD	266.9	60.8	17.5	0.2	21.5
$W + jets$	2.2	0.0	100.0	0.0	0.0	$DY + jets$	236.8	50.8	31.4	3.1	14.7	$DY + jets$	209.4	33.0	35.9	2.5	28.7
Bkgs	2899.1	72.5	15.3	8.3	3.9	Bkgs	33106.7	67.5	17.5	11.4	3.7	Bkgs	6990.0	82.4	10.6	1.8	5.2
$m_T = 800$	20.2	0.1	99.3	0.6	0.0	$m_T = 800$	100.8	-0.0	99.8	0.2	0.0	$m_T = 800$	126.7	0.1	99.7	0.0	0.2
$m_T = 1200$	0.5	0.0	99.7	0.3	0.0	$m_T = 1200$	2.8	0.0	99.9	0.0	0.0	$m_T = 1200$	4.8	0.1	99.9	0.1	0.0
$m_T = 1600$	0.0	-0.3	100.3	0.0	0.0	$m_T = 1600$	0.2	-0.1	100.0	0.1	0.0	$m_T = 1600$	0.3	0.1	99.8	0.1	0.1
Data/Bkgs	1.08	—	—	—	—	Data/Bkgs	1.16	—	—	—	—	Data/Bkgs	1.2	—	—	—	—

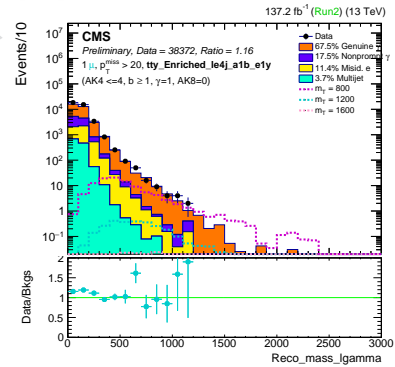
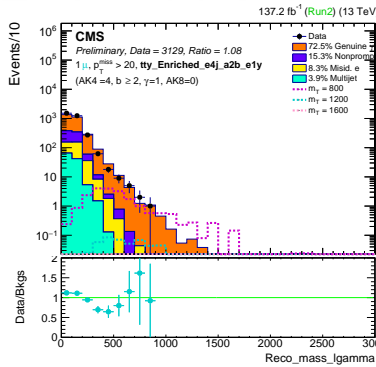
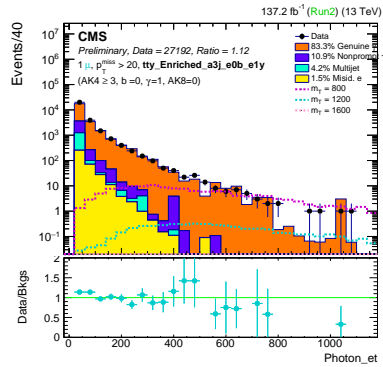


Process	Yield	Gen. γ (%)	N. γ (%)	M. e (%)	Multi. (%)	Process	Yield	Gen. γ (%)	N. γ (%)	M. e (%)	Multi. (%)	Process	Yield	Gen. γ (%)	N. γ (%)	M. e (%)	Multi. (%)
Data	3742.0	—	—	—	—	Data	18828.0	—	—	—	—	Data	53374.0	—	—	—	—
$t/t\bar{t}$	1619.0	19.7	28.4	47.0	4.9	$W + \gamma$	9003.0	99.9	0.0	0.0	0.1	$W + \gamma$	26232.3	99.8	0.1	0.0	0.1
$t\bar{t}\gamma$	1081.7	98.6	0.5	0.8	0.1	$Z + \gamma$	2366.7	99.8	0.1	-0.0	0.1	$Z + \gamma$	9964.8	99.8	0.2	0.0	0.1
$Z + \gamma$	70.9	100.0	0.0	0.0	0.0	$t\bar{t}\gamma$	1468.5	99.2	0.4	0.2	0.1	$W + jets$	4040.5	0.0	60.7	0.1	39.2
QCD	55.1	100.0	0.0	0.0	0.0	$t/t\bar{t}$	1127.7	26.4	45.3	19.1	9.1	QCD	2196.9	67.8	23.8	0.3	8.1
$W + \gamma$	24.5	100.0	0.0	0.0	0.0	QCD	1127.7	64.9	34.0	0.0	1.1	$t/t\bar{t}$	1960.3	31.6	38.1	23.2	7.0
Others	10.5	79.1	11.4	7.0	2.5	$W + jets$	1122.6	0.0	64.6	0.1	35.3	$t\bar{t}\gamma$	1721.9	99.0	0.5	0.3	0.1
$W + jets$	9.2	0.0	100.0	0.0	0.0	$DY + jets$	587.5	37.3	40.2	1.1	21.3	$DY + jets$	1716.1	40.6	40.0	3.2	16.1
$DY + jets$	7.6	82.2	17.8	0.0	0.0	Others	553.9	83.6	10.2	3.0	3.2	Others	970.9	74.4	16.2	5.8	3.6
Bkgs	2878.4	53.9	16.6	26.7	2.8	Bkgs	17357.6	83.7	11.1	1.4	3.9	Bkgs	48803.5	84.7	9.5	1.2	4.6
$m_T = 800$	0.1	0.0	100.0	0.0	0.0	$m_T = 800$	19.0	0.1	99.1	0.7	0.1	$m_T = 800$	7.3	0.5	99.5	0.0	0.0
$m_T = 1200$	0.0	0.0	100.0	0.0	0.0	$m_T = 1200$	0.6	0.1	99.3	0.0	0.5	$m_T = 1200$	0.2	0.0	100.0	0.0	0.0
$m_T = 1600$	0.0	0.0	100.0	0.0	0.0	$m_T = 1600$	0.0	-0.1	99.6	0.5	0.0	$m_T = 1600$	0.0	0.0	99.2	0.6	0.2
Data/Bkgs	1.3	—	—	—	—	Data/Bkgs	1.08	—	—	—	—	Data/Bkgs	1.09	—	—	—	—

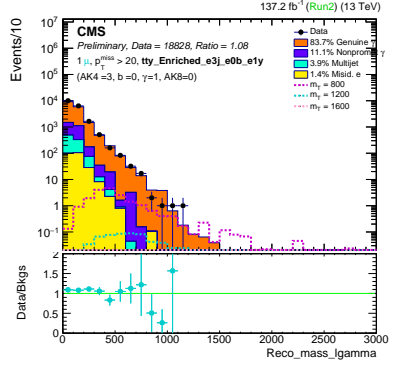
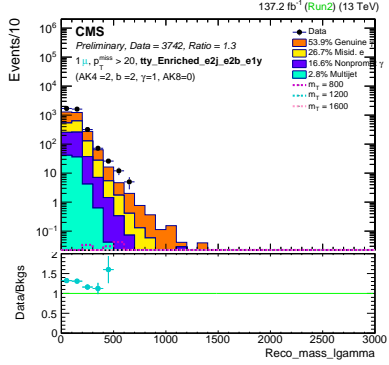
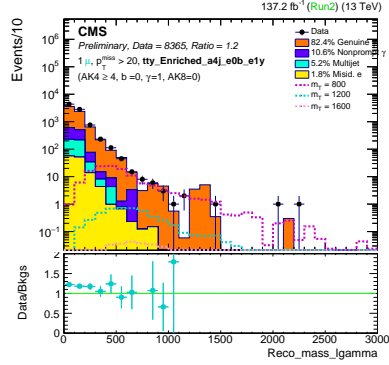




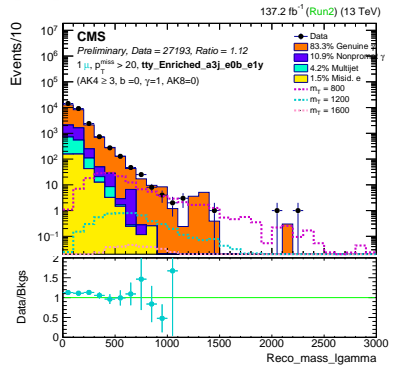
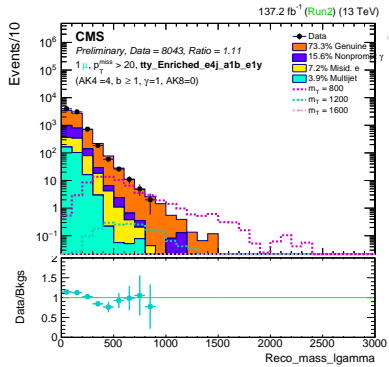
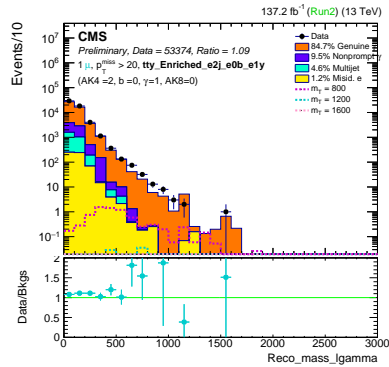
Process	Yield	Gen. γ (%)	N. γ (%)	M. e (%)	Multi. (%)	Process	Yield	Gen. γ (%)	N. γ (%)	M. e (%)	Multi. (%)	Process	Yield	Gen. γ (%)	N. γ (%)	M. e (%)	Multi. (%)
Data	18828.0	—	—	—	—	Data	53374.0	—	—	—	—	Data	8043.0	—	—	—	—
$W + \gamma$	9003.0	99.9	0.0	0.0	0.1	$W + \gamma$	26232.3	99.8	0.1	0.0	0.1	$t\bar{t}\gamma$	4220.4	99.4	0.3	0.2	0.1
$Z + \gamma$	2366.7	99.8	0.1	-0.0	0.1	$Z + \gamma$	9964.6	99.8	0.2	0.0	0.1	$t/t\bar{t}$	2341.7	22.2	45.2	21.5	11.1
$t\bar{t}\gamma$	1468.5	99.2	0.4	0.2	0.1	$W + jets$	4040.5	0.0	60.7	0.1	39.2	$W + \gamma$	361.2	100.0	0.0	0.0	0.0
$t/t\bar{t}$	1127.7	26.4	45.3	19.1	9.1	QCD	2196.9	67.8	23.8	0.3	8.1	$Z + \gamma$	104.2	99.1	0.6	0.0	0.3
QCD	1127.7	64.9	34.0	0.0	1.1	$t/t\bar{t}$	1960.3	31.6	38.1	23.2	7.0	Others	81.9	79.7	11.7	5.7	2.9
$W + jets$	1122.6	0.0	64.6	0.1	35.3	$t\bar{t}\gamma$	1721.8	99.0	0.5	0.3	0.1	QCD	71.2	66.1	24.4	0.0	9.5
$DY + jets$	587.5	37.3	40.2	1.1	21.3	$DY + jets$	1716.1	40.6	40.0	3.2	16.1	$DY + jets$	35.3	59.7	32.2	8.1	0.0
Others	553.9	83.6	10.2	3.0	3.2	Others	970.9	74.4	16.2	5.8	3.6	$W + jets$	35.2	0.0	62.5	0.0	37.5
Bkgs	17357.6	83.7	11.1	1.4	3.9	Bkgs	48803.4	84.7	9.5	1.2	4.6	Bkgs	7251.0	73.3	15.6	7.2	3.9
$m_T = 800$	18.1	0.1	99.0	0.7	0.1	$m_T = 800$	7.0	0.5	99.5	0.0	0.0	$m_T = 800$	67.5	0.0	99.7	0.3	0.0
$m_T = 1200$	0.6	0.2	99.3	0.0	0.5	$m_T = 1200$	0.2	0.0	100.0	0.0	0.0	$m_T = 1200$	1.7	-0.0	99.8	0.1	0.0
$m_T = 1600$	0.0	-0.1	99.5	0.5	0.0	$m_T = 1600$	0.0	0.0	99.2	0.6	0.2	$m_T = 1600$	0.1	-0.2	100.2	0.1	0.0
Data/Bkgs	1.08	—	—	—	—	Data/Bkgs	1.09	—	—	—	—	Data/Bkgs	1.11	—	—	—	—



Process	Yield	Gen. γ (%)	N. γ (%)	M. e (%)	Multi. (%)	Process	Yield	Gen. γ (%)	N. γ (%)	M. e (%)	Multi. (%)	Process	Yield	Gen. γ (%)	N. γ (%)	M. e (%)	Multi. (%)
Data	27192.0	—	—	—	—	Data	3129.0	—	—	—	—	Data	38372.0	—	—	—	—
$W + \gamma$	12301.3	99.8	0.0	0.0	0.1	$t\bar{t}\gamma$	1860.5	99.4	0.3	0.2	0.1	$t\bar{t}\gamma$	14126.7	99.1	0.4	0.3	0.1
$Z + \gamma$	2981.0	99.7	0.1	0.0	0.1	$t/t\bar{t}$	951.6	18.7	44.8	24.8	11.6	$t/t\bar{t}$	12411.9	23.7	38.7	29.7	7.9
$t\bar{t}\gamma$	2671.8	99.3	0.4	0.2	0.1	$W + \gamma$	34.6	100.0	0.0	0.0	0.0	$W + \gamma$	3038.4	99.8	0.2	0.0	0.0
$t/t\bar{t}$	1836.2	25.5	46.6	18.0	9.9	Others	24.5	78.0	11.6	8.1	2.4	$Z + \gamma$	1413.3	99.6	0.2	0.1	0.1
$W + jets$	1507.9	0.0	63.5	0.1	36.4	$Z + \gamma$	11.9	97.2	0.0	0.0	2.8	QCD	1204.3	50.3	44.8	0.0	4.9
QCD	1394.6	64.1	30.8	0.0	5.0	QCD	10.9	54.3	45.7	0.0	0.0	$W + jets$	375.0	0.0	70.3	0.7	29.0
Others	858.0	84.7	9.8	2.6	2.9	$DY + jets$	2.9	100.0	0.0	0.0	0.0	Others	300.3	78.2	12.4	6.2	3.2
$DY + jets$	796.9	36.1	39.1	1.5	23.3	$W + jets$	2.2	0.0	100.0	0.0	0.0	$DY + jets$	236.8	50.8	31.4	3.1	14.7
Bkgs	24347.6	83.3	10.9	1.5	4.2	Bkgs	2899.1	72.5	15.3	8.3	3.9	Bkgs	33106.8	67.5	17.5	11.4	3.7
$m_T = 800$	138.2	0.1	99.6	0.1	0.2	$m_T = 800$	20.2	0.1	99.3	0.6	0.0	$m_T = 800$	100.8	-0.0	99.8	0.2	0.0
$m_T = 1200$	5.0	0.1	99.8	0.1	0.1	$m_T = 1200$	0.5	0.0	99.7	0.3	0.0	$m_T = 1200$	2.8	0.0	99.9	0.0	0.0
$m_T = 1600$	0.3	0.1	99.7	0.1	0.1	$m_T = 1600$	0.0	-0.3	100.3	0.0	0.0	$m_T = 1600$	0.2	-0.1	100.0	0.1	0.0
Data/Bkgs	1.12	—	—	—	—	Data/Bkgs	1.08	—	—	—	—	Data/Bkgs	1.16	—	—	—	—



Process	Yield	Gen. γ (%)	N. γ (%)	M. e (%)	Multi. (%)	Process	Yield	Gen. γ (%)	N. γ (%)	M. e (%)	Multi. (%)	Process	Yield	Gen. γ (%)	N. γ (%)	M. e (%)	Multi. (%)
Data	8365.0	—	—	—	—	Data	3742.0	—	—	—	—	Data	18828.0	—	—	—	—
$W + \gamma$	3298.2	99.7	0.2	0.0	0.1	t/\bar{t}	1619.0	19.7	28.4	47.0	4.9	$W + \gamma$	9003.0	99.9	0.0	0.0	0.1
$t\bar{t}\gamma$	1203.3	99.4	0.4	0.1	0.1	$t\bar{t}\gamma$	1081.7	98.6	0.5	0.8	0.1	$Z + \gamma$	2366.7	99.8	0.1	-0.0	0.1
t/\bar{t}	708.4	24.0	48.6	16.3	11.1	$Z + \gamma$	70.9	100.0	0.0	0.0	0.0	$t\bar{t}\gamma$	1468.5	99.2	0.4	0.2	0.1
$Z + \gamma$	614.3	99.3	0.2	0.1	0.3	QCD	55.1	100.0	0.0	0.0	0.0	t/\bar{t}	1127.7	26.4	45.3	19.1	9.1
$W + jets$	385.2	0.0	60.2	0.0	39.8	$W + \gamma$	24.5	100.0	0.0	0.0	0.0	QCD	1127.7	64.9	34.0	0.0	1.1
Others	304.1	86.5	9.0	1.9	2.5	Others	10.5	79.1	11.4	7.0	2.5	$W + jets$	1122.6	0.0	64.6	0.1	35.3
QCD	266.9	60.8	17.5	0.2	21.5	$W + jets$	9.2	0.0	100.0	0.0	0.0	$DY + jets$	587.5	37.3	40.2	1.1	21.3
$DY + jets$	209.4	33.0	35.9	2.5	28.7	$DY + jets$	7.6	82.2	17.8	0.0	0.0	Others	553.9	83.6	10.2	3.0	3.2
Bkgs	6990.0	82.4	10.6	1.8	5.2	Bkgs	2878.4	53.9	16.6	26.7	2.8	Bkgs	17357.6	83.7	11.1	1.4	3.9
$m_T = 800$	126.7	0.1	99.7	0.0	0.2	$m_T = 800$	0.1	0.0	100.0	0.0	0.0	$m_T = 800$	19.0	0.1	99.1	0.7	0.1
$m_T = 1200$	4.8	0.1	99.9	0.1	0.0	$m_T = 1200$	0.0	0.0	100.0	0.0	0.0	$m_T = 1200$	0.6	0.1	99.3	0.0	0.5
$m_T = 1600$	0.3	0.1	99.8	0.1	0.1	$m_T = 1600$	0.0	0.0	100.0	0.0	0.0	$m_T = 1600$	0.0	-0.1	99.6	0.5	0.0
Data/Bkgs	1.2	—	—	—	—	Data/Bkgs	1.3	—	—	—	—	Data/Bkgs	1.08	—	—	—	—



Process	Yield	Gen. γ (%)	N. γ (%)	M. e (%)	Multi. (%)	Process	Yield	Gen. γ (%)	N. γ (%)	M. e (%)	Multi. (%)	Process	Yield	Gen. γ (%)	N. γ (%)	M. e (%)	Multi. (%)
Data	53374.0	—	—	—	—	Data	8043.0	—	—	—	—	Data	27193.0	—	—	—	—
$W + \gamma$	26232.3	99.8	0.1	0.0	0.1	$t\bar{t}\gamma$	4220.5	99.4	0.3	0.2	0.1	$W + \gamma$	12301.3	99.8	0.0	0.0	0.1
$Z + \gamma$	9964.8	99.8	0.2	0.0	0.1	t/\bar{t}	2341.7	22.2	45.2	21.5	11.1	$Z + \gamma$	2981.0	99.7	0.1	0.0	0.1
$W + jets$	4040.5	0.0	60.7	0.1	39.2	$W + \gamma$	361.2	100.0	0.0	0.0	0.0	$t\bar{t}\gamma$	2671.8	99.3	0.4	0.2	0.1
QCD	2196.9	67.8	23.8	0.3	8.1	$Z + \gamma$	104.2	99.1	0.6	0.0	0.3	t/\bar{t}	1836.2	25.5	46.6	18.0	9.9
t/\bar{t}	1960.3	31.6	38.1	23.2	7.0	Others	81.9	79.7	11.7	5.7	2.9	$W + jets$	1507.9	0.0	63.5	0.1	36.4
$t\bar{t}\gamma$	1721.9	99.0	0.5	0.3	0.1	QCD	71.2	66.1	24.4	0.0	9.5	QCD	1394.6	64.1	30.8	0.0	5.0
$DY + jets$	1716.1	40.6	40.0	3.2	16.1	$DY + jets$	35.3	59.7	32.2	8.1	0.0	Others	858.0	84.7	9.8	2.6	2.9
Others	970.9	74.4	16.2	5.8	3.6	$W + jets$	35.2	0.0	62.5	0.0	37.5	$DY + jets$	796.9	36.1	39.1	1.5	23.3
Bkgs	48803.5	84.7	9.5	1.2	4.6	Bkgs	7251.0	73.3	15.6	7.2	3.9	Bkgs	24347.6	83.3	10.9	1.5	4.2
$m_T = 800$	7.3	0.5	99.5	0.0	0.0	$m_T = 800$	70.0	0.0	99.7	0.3	0.0	$m_T = 800$	145.7	0.1	99.6	0.1	0.2
$m_T = 1200$	0.2	0.0	100.0	0.0	0.0	$m_T = 1200$	1.9	-0.0	99.8	0.1	0.0	$m_T = 1200$	5.4	0.1	99.8	0.1	0.1
$m_T = 1600$	0.0	0.0	99.2	0.6	0.2	$m_T = 1600$	0.1	-0.2	100.1	0.0	0.0	$m_T = 1600$	0.4	0.1	99.7	0.1	0.1
Data/Bkgs	1.09	—	—	—	—	Data/Bkgs	1.11	—	—	—	—	Data/Bkgs	1.12	—	—	—	—