

χ^2 table. Blue color text represents a value that is lower than the SM χ^2 by more than one standard deviation of the χ^2 distribution. Similarly, red color text represents values that are higher than the SM χ^2 by more than one standard deviation. In parenthesis is the total SM χ^2 for the dataset included in the fit.

		SM	NS NLO quadratic	NS LO quadratic
Process	N_{data}	χ^2/N_{data}	χ^2/N_{data}	χ^2/N_{data}
CMS_ttbb_13TeV	1	4.959	6.653	6.939
CMS_ttbb_13TeV_2016	1	1.754	3.086	3.328
ATLAS_ttbb_13TeV_2016	1	0.906	0.561	0.585
CMS_tttt_13TeV	1	0.055	0.082	0.083
CMS_tttt_13TeV_run2	1	0.051	1.992	2.012
ATLAS_tttt_13TeV_run2	1	2.352	0.316	0.310
Total			2.115 (1.679)	2.209 (1.679)

Table 1: χ^2 table for 4H data

		SM	NS NLO quadratic	NS LO quadratic
Process	N_{data}	χ^2/N_{data}	χ^2/N_{data}	χ^2/N_{data}
ATLAS.CMS_tt_AC_8TeV	6	0.861	0.857	0.823
ATLAS_tt_AC_13TeV	5	0.275	0.255	0.277
Total			0.583 (0.595)	0.575 (0.595)

Table 2: χ^2 table for AC data

		SM	NS NLO quadratic	NS LO quadratic
Process	N_{data}	χ^2/N_{data}	χ^2/N_{data}	χ^2/N_{data}
ATLAS_ggF_ZZ_13TeV	6	0.958	0.807	0.726
CMS_ggF_aa_13TeV	6	1.049	0.988	0.940
ATLAS_H_13TeV_2015_pTH	9	1.11	1.101	1.069
CMS_H_13TeV_2015_pTH	9	0.8	0.781	0.736
ATLAS_WH_Hbb_13TeV	2	0.1	0.193	0.116
ATLAS_ZH_Hbb_13TeV	3	0.496	0.305	0.312
Total			0.829 (0.883)	0.783 (0.883)

Table 3: χ^2 table for Hdiff data

		SM	NS NLO quadratic	NS LO quadratic
Process	N_{data}	χ^2/N_{data}	χ^2/N_{data}	χ^2/N_{data}
ATLAS.CMS_SSinc_RunI	22	0.859	0.877	0.971
Total			0.877 (0.859)	0.971 (0.859)

Table 4: χ^2 table for HrunI data

		SM	NS NLO quadratic	NS LO quadratic
Process	N_{data}	χ^2/N_{data}	χ^2/N_{data}	χ^2/N_{data}
ATLAS_SSinc_RunII	16	0.542	0.534	0.521
CMS_SSinc_RunII	24	0.771	0.724	0.766
Total			0.648 (0.679)	0.668 (0.679)

Table 5: χ^2 table for HrunII data

		SM	NS NLO quadratic	NS LO quadratic
Process	N_{data}	χ^2/N_{data}	χ^2/N_{data}	χ^2/N_{data}
LEP_eeWW_182GeV	10	1.38	1.379	1.379
LEP_eeWW_189GeV	10	0.885	0.886	0.885
LEP_eeWW_198GeV	10	1.609	1.609	1.609
LEP_eeWW_206GeV	10	1.085	1.082	1.084
Total			1.239 (1.240)	1.239 (1.240)

Table 6: χ^2 table for LEP data

		SM	NS NLO quadratic	NS LO quadratic
Process	N_{data}	χ^2/N_{data}	χ^2/N_{data}	χ^2/N_{data}
ATLAS_WW_13TeV_2016_memu	13	1.651	1.673	1.710
ATLAS_WZ_13TeV_2016_mTWZ	6	0.861	0.816	0.853
CMS_WZ_13TeV_2016_pTZ	11	1.423	1.391	1.417
Total			1.398 (1.410)	1.431 (1.410)

Table 7: χ^2 table for VV data

		SM	NS NLO quadratic	NS LO quadratic
Process	N_{data}	χ^2/N_{data}	χ^2/N_{data}	χ^2/N_{data}
ATLAS_WhelF_8TeV	3	1.967	1.368	1.337
CMS_WhelF_8TeV	3	0.296	0.591	0.614
Total			0.979 (1.131)	0.975 (1.131)

Table 8: χ^2 table for WhelF data

		SM	NS NLO quadratic	NS LO quadratic
Process	N_{data}	χ^2/N_{data}	χ^2/N_{data}	χ^2/N_{data}
CMS_t_tch_13TeV_inc	2	0.345	0.352	0.302
CMS_t_tch_13TeV_diff_Yt	4	0.476	0.487	0.484
CMS_t_tch_13TeV_2016_diff_Yt	5	0.58	0.580	0.576
ATLAS_t_tch_13TeV	2	0.011	0.018	0.019
Total			0.430 (0.424)	0.420 (0.424)

Table 9: χ^2 table for t13 data

		SM	NS NLO quadratic	NS LO quadratic
Process	N_{data}	χ^2/N_{data}	χ^2/N_{data}	χ^2/N_{data}
CMS_t_tch_8TeV_inc	2	0.293	0.174	0.160
CMS_t_tch_8TeV_diff_Yt	6	0.11	0.146	0.200
CMS_t_sch_8TeV	1	1.265	1.171	0.903
ATLAS_t_tch_8TeV	4	0.89	0.707	0.644
ATLAS_t_sch_8TeV	1	0.085	0.209	1.092
Total			0.388 (0.440)	0.435 (0.440)

Table 10: χ^2 table for t8 data

		SM	NS NLO quadratic	NS LO quadratic
Process	N_{data}	χ^2/N_{data}	χ^2/N_{data}	χ^2/N_{data}
ATLAS_tW_8TeV_inc	1	0.026	0.033	0.011
ATLAS_tW_slep_8TeV_inc	1	0.134	0.103	0.147
CMS_tW_8TeV_inc	1	0.0	0.004	0.000
ATLAS_tW_13TeV_inc	1	0.549	0.492	0.570
CMS_tW_13TeV_inc	1	3.855	4.489	3.663
Total			1.024 (0.913)	0.878 (0.913)

Table 11: χ^2 table for tW data

		SM	NS NLO quadratic	NS LO quadratic
Process	N_{data}	χ^2/N_{data}	χ^2/N_{data}	χ^2/N_{data}
ATLAS_tZ_13TeV_inc	1	0.0	0.003	0.036
ATLAS_tZ_13TeV_run2_inc	1	0.048	0.007	0.052
CMS_tZ_13TeV_inc	1	0.678	0.662	0.635
CMS_tZ_13TeV_2016_inc	1	1.23	1.178	1.086
Total			0.463 (0.489)	0.452 (0.489)

Table 12: χ^2 table for tZ data

		SM	NS NLO quadratic	NS LO quadratic
Process	N_{data}	χ^2/N_{data}	χ^2/N_{data}	χ^2/N_{data}
CMS_tt_13TeV_ljets_2015_Mtt	8	0.939	0.963	0.819
CMS_tt_13TeV_dilep_2015_Mtt	6	1.299	1.522	1.267
CMS_tt_13TeV_ljets_2016_Mtt	10	1.992	2.212	1.739
CMS_tt_13TeV_dilep_2016_Mtt	7	2.282	2.515	2.224
ATLAS_tt_13TeV_ljets_2016_Mtt	7	0.986	1.034	1.219
Total			1.679 (1.529)	1.464 (1.529)

Table 13: χ^2 table for tt13 data

		SM	NS NLO quadratic	NS LO quadratic
Process	N_{data}	χ^2/N_{data}	χ^2/N_{data}	χ^2/N_{data}
ATLAS_tt_8TeV_ljets_Mtt	7	2.953	2.720	2.903
ATLAS_tt_8TeV_dilep_Mtt	6	0.086	0.121	0.050
CMS_tt_8TeV_ljets_Ytt	10	0.906	1.047	0.926
CMS_tt2D_8TeV_dilep_MttYtt	16	1.628	1.113	1.465
Total			1.232 (1.443)	1.367 (1.443)

Table 14: χ^2 table for tt8 data

		SM	NS NLO quadratic	NS LO quadratic
Process	N_{data}	χ^2/N_{data}	χ^2/N_{data}	χ^2/N_{data}
ATLAS_ttW_8TeV	1	1.334	1.213	0.552
ATLAS_ttW_13TeV	1	0.828	0.812	0.729
ATLAS_ttW_13TeV_2016	1	0.225	0.003	0.059
CMS_ttW_8TeV	1	1.781	1.645	0.963
CMS_ttW_13TeV	1	0.028	0.169	0.030
Total			0.768 (0.839)	0.467 (0.839)

Table 15: χ^2 table for ttW data

		SM	NS NLO quadratic	NS LO quadratic
Process	N_{data}	χ^2/N_{data}	χ^2/N_{data}	χ^2/N_{data}
ATLAS_ttZ_8TeV	1	1.314	1.325	1.362
ATLAS_ttZ_13TeV	1	0.007	0.060	0.060
ATLAS_ttZ_13TeV_2016	1	0.001	0.123	0.125
CMS_ttZ_8TeV	1	0.042	0.040	0.034
CMS_ttZ_13TeV	1	1.011	0.434	0.430
CMS_ttZ_13TeV_pTZ	4	0.732	0.825	0.705
Total			0.587 (0.589)	0.537 (0.589)

Table 16: χ^2 table for ttZ data

	NS NLO quadratic		NS LO quadratic	
Process	N_{data}	χ^2/N_{data}	N_{data}	χ^2/N_{data}
tt8	39.0	1.232 (1.443)	39.0	1.367 (1.443)
tt13	38.0	1.679 (1.529)	38.0	1.464 (1.529)
WhelF	6.0	0.979 (1.131)	6.0	0.975 (1.131)
AC	11.0	0.583 (0.595)	11.0	0.575 (0.595)
4H	6.0	2.115 (1.679)	6.0	2.209 (1.679)
ttZ	9.0	0.587 (0.589)	9.0	0.537 (0.589)
ttW	5.0	0.768 (0.839)	5.0	0.467 (0.839)
t8	14.0	0.388 (0.440)	14.0	0.435 (0.440)
t13	13.0	0.430 (0.424)	13.0	0.420 (0.424)
tW	5.0	1.024 (0.913)	5.0	0.878 (0.913)
tZ	4.0	0.463 (0.489)	4.0	0.452 (0.489)
HrunI	22.0	0.877 (0.859)	22.0	0.971 (0.859)
HrunII	40.0	0.648 (0.679)	40.0	0.668 (0.679)
Hdiff	35.0	0.829 (0.883)	35.0	0.783 (0.883)
VV	30.0	1.398 (1.410)	30.0	1.431 (1.410)
LEP	40.0	1.239 (1.240)	40.0	1.239 (1.240)
Total	317.0	1.040 (1.055)	317.0	1.033 (1.055)

Table 17: χ^2 table for grouped data. In parenthesis is the total SM χ^2 for the dataset included in the fit. The SM column refers to all the datasets available in the group