

Class	Coefficients	NS		MC	
		Fitted	Fixed	Fitted	Fixed
STXS	$c_{2q2l}^{[1]}$	✓		✓	
	$c_{2q2l}^{[2]}$	✓		✓	
	$c_{2q2l}^{[3]}$	✓		✓	
	$c_{2q2l}^{[4]}$	✓		✓	
	$c_{4q}^{[1]}$	✓		✓	
	$c_{HB,HW,HWB,HD,tW,tB}^{[1]}$	✓		✓	
	$c_{HB,HW,HWB,HD,tW,tB}^{[2]}$	✓		✓	
	$c_{HB,HW,HWB,HD,tW,tB}^{[3]}$	✓		✓	
	$c_{HB,HW,HWB,HD,tW,tB}^{[4]}$	✓		✓	
	$c_{HG}$	✓		✓	
	$c_{uH,dH,H\Box}^{[1]}$	✓		✓	
	$c_{Hq(3)}$	✓		✓	
	$c_{Hl^{(1)},He}^{[1]}$	✓		✓	
	$c_{Hl^{(1)},He}^{[2]}$	✓		✓	
	$c_{Hl^{(3)},ll^{(1)}}^{[1]}$	✓		✓	
	$c_{Hl^{(3)},ll^{(1)}}^{[2]}$	✓		✓	
	$c_{Hu,Hd,Ht,Hq^{(1)}}^{[1]}$	✓		✓	
	$c_{Hu,Hd,Ht,Hq^{(1)}}^{[2]}$	✓		✓	
	$c_W$	✓		✓	
	$c_{bH}$	✓		✓	
	$c_{eH}$	✓		✓	
	$c_{tG}$	✓		✓	
	$c_{tH}$	✓		✓	
	$c_{top}^{[1]}$	✓		✓	
	Number fitted coefficients	24		24	

Table 1: Coefficient comparison

Type	Datasets	NS	MC
STXS	STXS_2020_no_LEP	✓	✓

Table 1: Dataset comparison

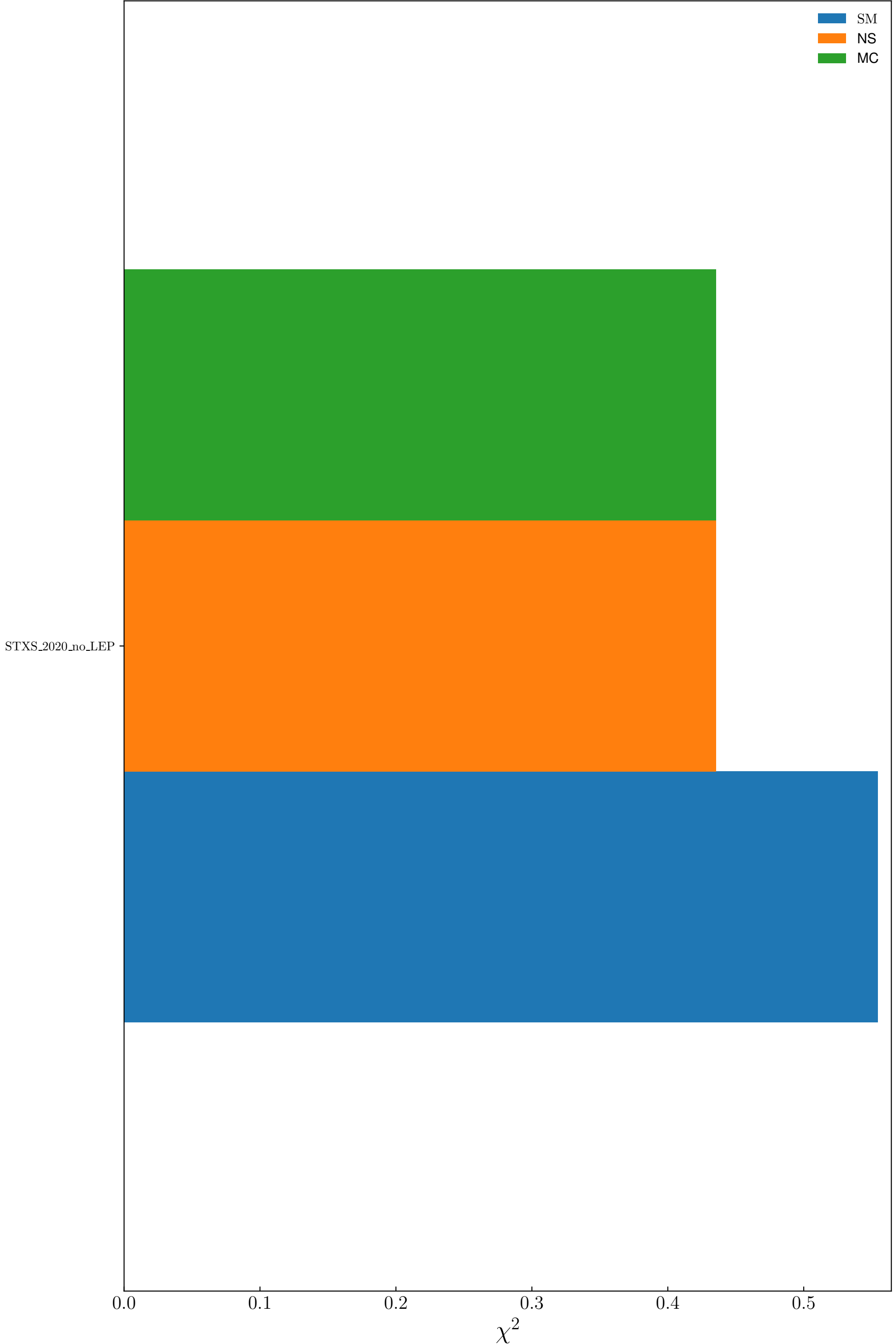
$\chi^2$  table. Blue color text represents a value that is lower than the SM  $\chi^2$  by more than one standard deviation of the  $\chi^2$  distribution. Similarly, red color text represents values that are higher than the SM  $\chi^2$  by more than one standard deviation. In parenthesis is the total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

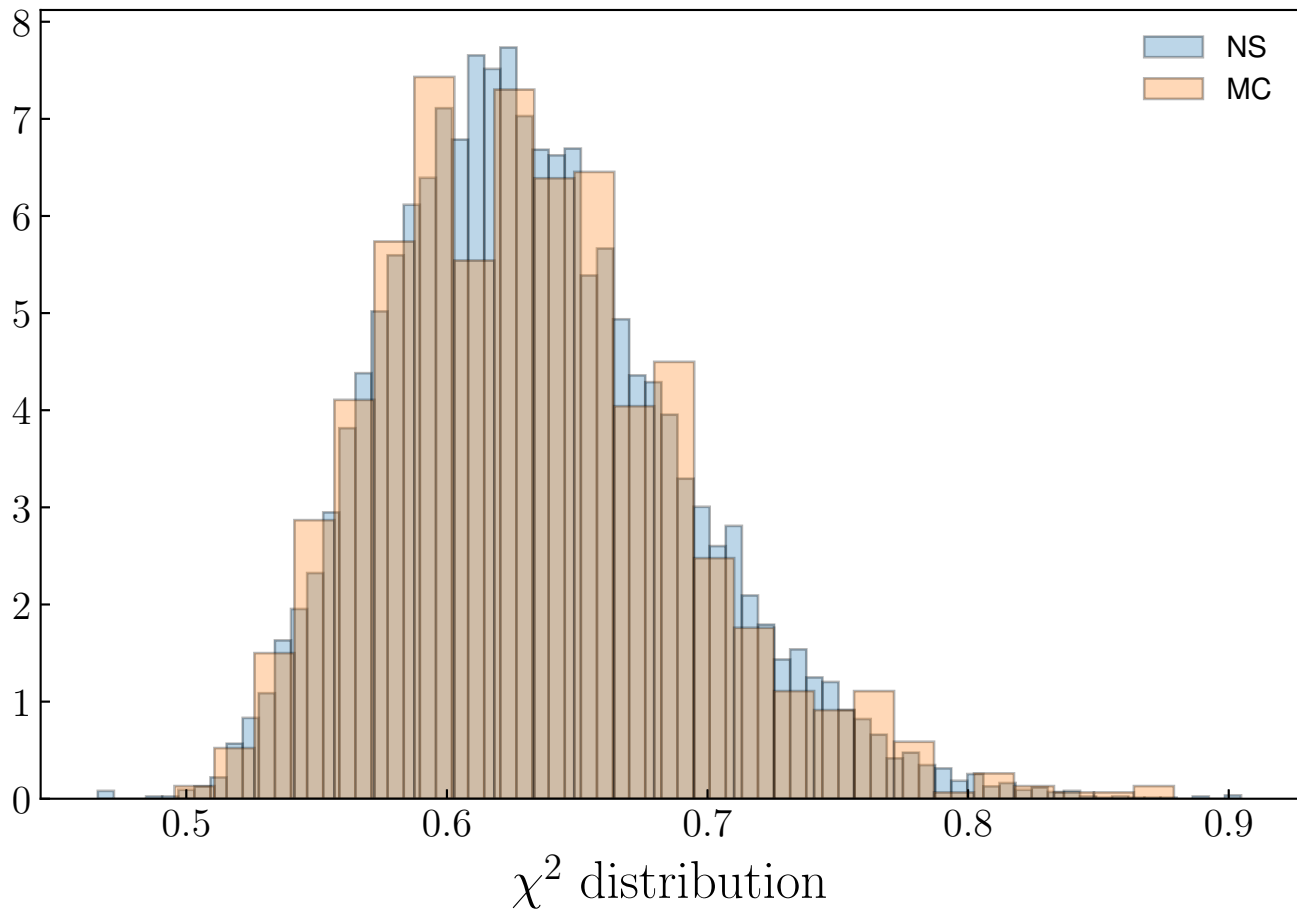
		SM	NS	MC
Process	$N_{\text{data}}$	$\chi^2/N_{\text{data}}$	$\chi^2/N_{\text{data}}$	$\chi^2/N_{\text{data}}$
STXS_2020_no_LEP	120	0.554	0.435	0.436
Total			0.435 (0.554)	0.436 (0.554)

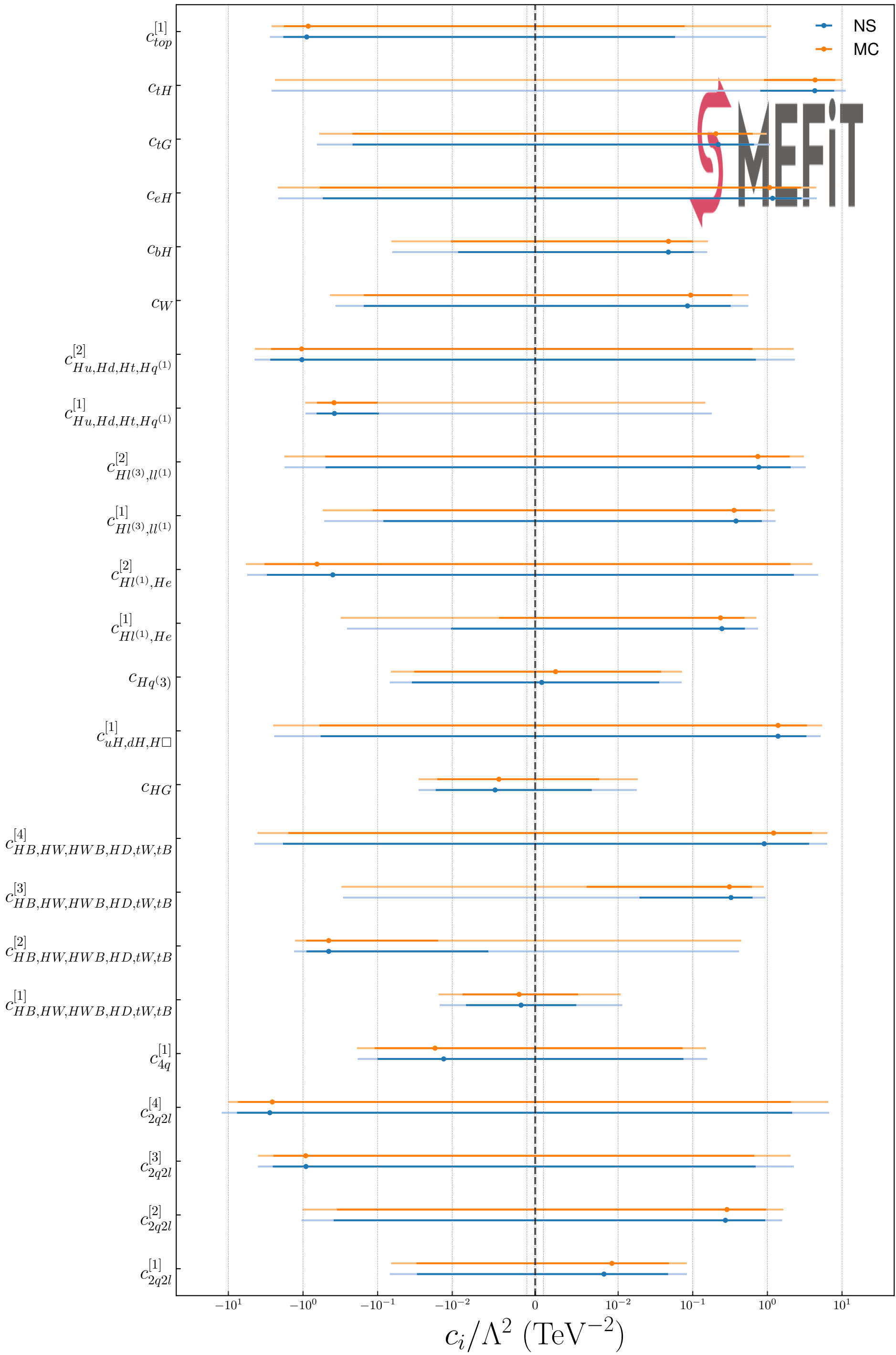
Table 1:  $\chi^2$  table for STXS data

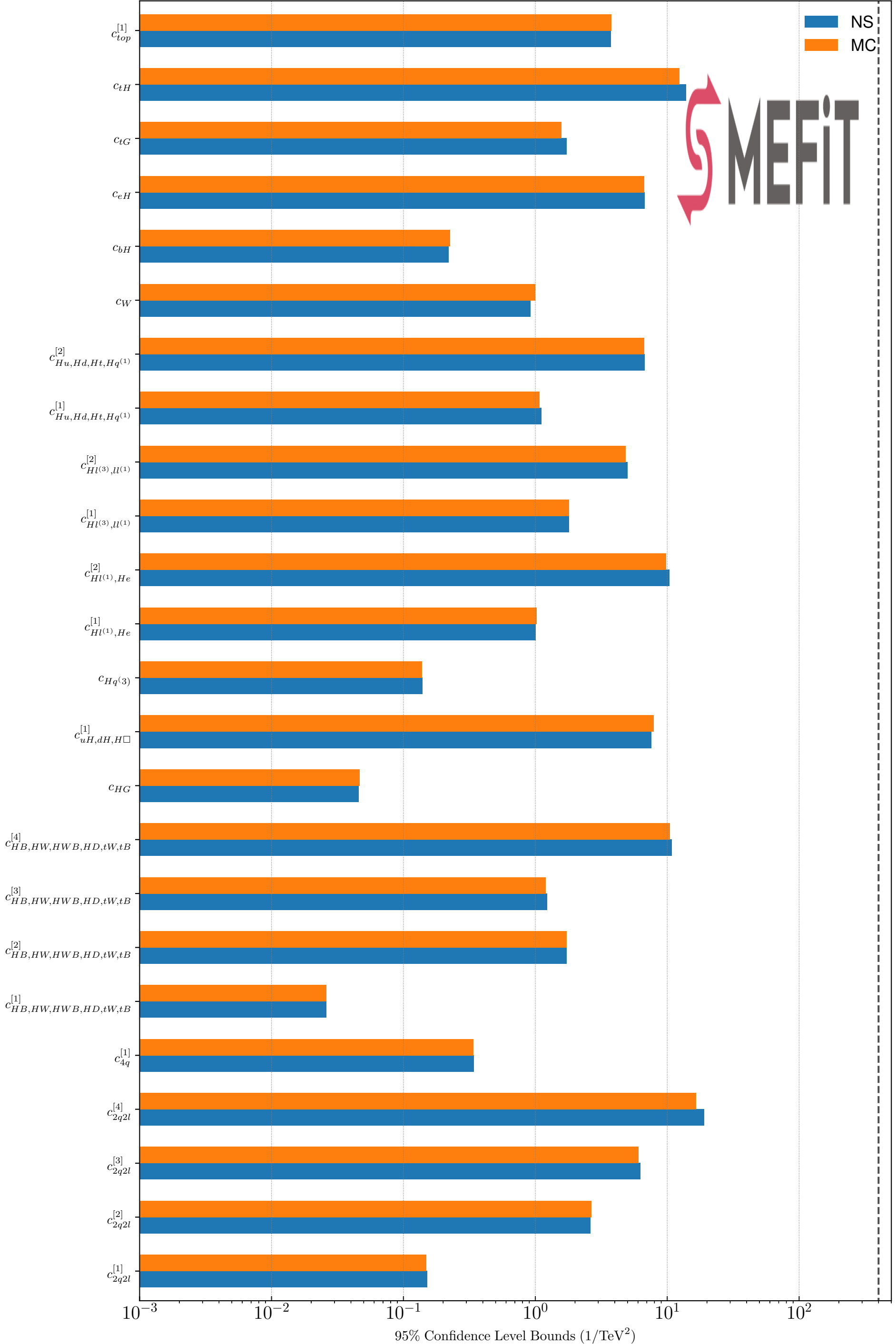
		NS		MC	
Process	$N_{\text{data}}$	$\chi^2/N_{\text{data}}$	$N_{\text{data}}$	$\chi^2/N_{\text{data}}$	
STXS	120	0.435 (0.554)	120	0.436 (0.554)	
Total	120	0.435 (0.554)	120	0.436 (0.554)	

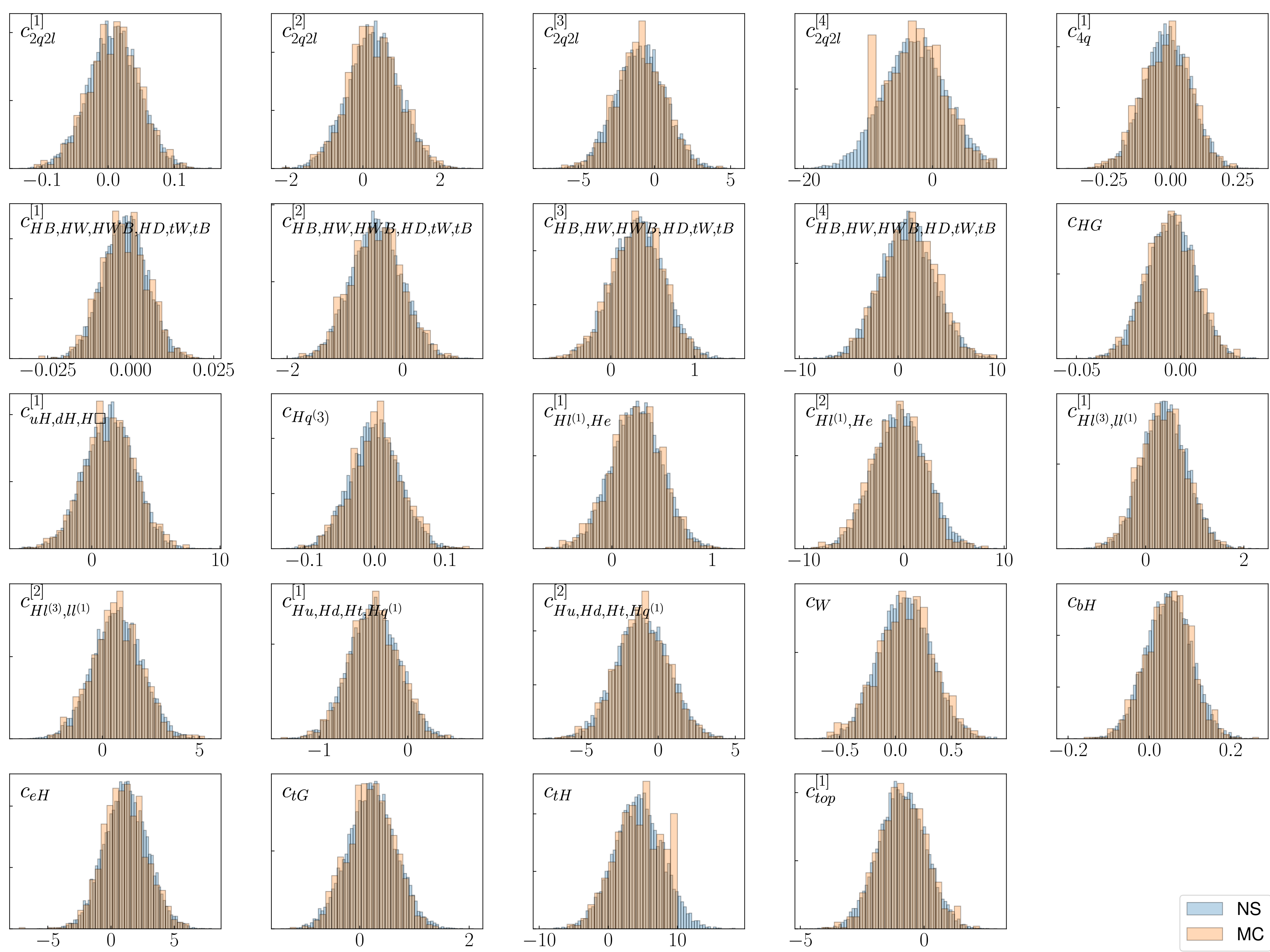
Table 2:  $\chi^2$  table for grouped data. In parenthesis is the total SM  $\chi^2$  for the dataset included in the fit. The SM column refers to all the datasets available in the group









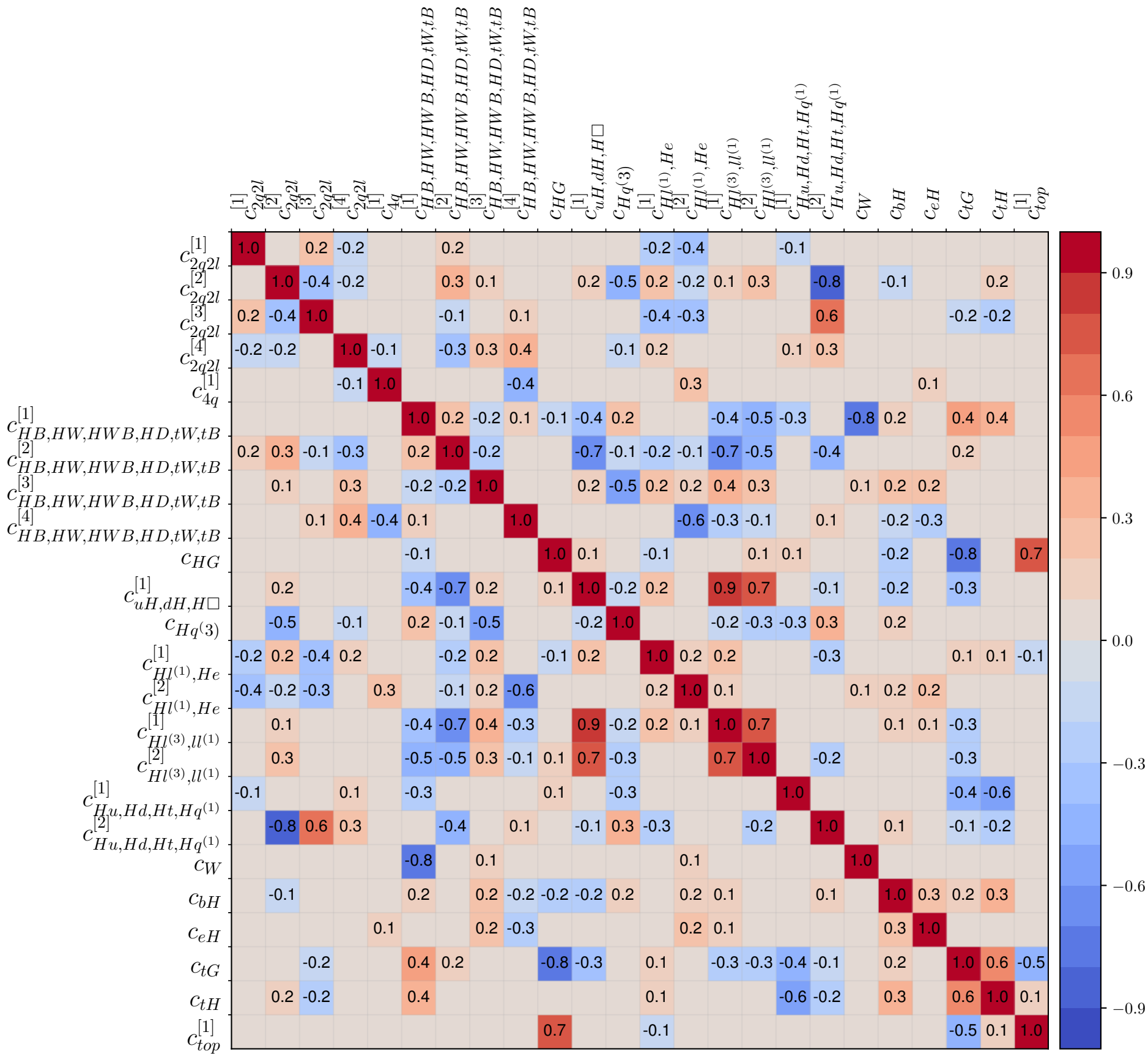




		NS			MC		
Class	Coefficients	best	68% CL Bounds	95% CL Bounds	best	68% CL Bounds	95% CL Bounds
STXS	$c_{2q2l}^{[1]}$	0.008	[-0.030,0.047]	[-0.069,0.083]	0.009	[-0.030,0.048]	[-0.066,0.083]
	$c_{2q2l}^{[2]}$	0.274	[-0.388,0.936]	[-1.047,1.575]	0.287	[-0.351,0.965]	[-1.021,1.635]
	$c_{2q2l}^{[3]}$	-0.913	[-2.542,0.697]	[-4.020,2.262]	-0.921	[-2.488,0.668]	[-4.011,2.040]
	$c_{2q2l}^{[4]}$	-2.785	[-7.675,2.145]	[-12.300,6.722]	-2.580	[-7.451,2.059]	[-9.997,6.531]
	$c_{4q}^{[1]}$	-0.013	[-0.101,0.075]	[-0.185,0.157]	-0.017	[-0.110,0.073]	[-0.189,0.150]
	$c_{HB,HW,HWB,HD,tW,tB}^{[1]}$	-0.002	[-0.008,0.005]	[-0.015,0.011]	-0.002	[-0.009,0.005]	[-0.015,0.011]
	$c_{HB,HW,HWB,HD,tW,tB}^{[2]}$	-0.453	[-0.896,-0.006]	[-1.317,0.418]	-0.453	[-0.905,-0.015]	[-1.278,0.446]
	$c_{HB,HW,HWB,HD,tW,tB}^{[3]}$	0.326	[0.019,0.632]	[-0.291,0.942]	0.310	[0.006,0.619]	[-0.306,0.895]
	$c_{HB,HW,HWB,HD,tW,tB}^{[4]}$	0.908	[-1.852,3.632]	[-4.479,6.335]	1.213	[-1.571,3.963]	[-4.072,6.383]
	$c_{HG}$	-0.005	[-0.017,0.007]	[-0.028,0.018]	-0.004	[-0.016,0.008]	[-0.028,0.018]
	$c_{uH,dH,H\Box}^{[1]}$	1.388	[-0.581,3.335]	[-2.434,5.170]	1.391	[-0.603,3.394]	[-2.508,5.419]
	$c_{Hq(3)}$	0.001	[-0.035,0.036]	[-0.069,0.071]	0.002	[-0.032,0.038]	[-0.067,0.072]
	$c_{Hl^{(1)},He}^{[1]}$	0.246	[-0.010,0.499]	[-0.257,0.750]	0.236	[-0.004,0.494]	[-0.313,0.713]
	$c_{Hl^{(1)},He}^{[2]}$	-0.399	[-3.049,2.263]	[-5.580,4.790]	-0.649	[-3.289,2.035]	[-5.830,4.008]
	$c_{Hl^{(3)},ll^{(1)}}^{[1]}$	0.380	[-0.084,0.842]	[-0.519,1.286]	0.358	[-0.116,0.819]	[-0.546,1.254]
	$c_{Hl^{(3)},ll^{(1)}}^{[2]}$	0.769	[-0.498,2.053]	[-1.764,3.263]	0.744	[-0.504,1.988]	[-1.784,3.080]
	$c_{Hu,Hd,Ht,Hq^{(1)}}^{[1]}$	-0.380	[-0.657,-0.096]	[-0.929,0.180]	-0.384	[-0.651,-0.100]	[-0.934,0.147]
	$c_{Hu,Hd,Ht,Hq^{(1)}}^{[2]}$	-1.034	[-2.745,0.701]	[-4.440,2.340]	-1.042	[-2.682,0.633]	[-4.424,2.247]
	$c_W$	0.085	[-0.153,0.322]	[-0.368,0.556]	0.094	[-0.153,0.339]	[-0.436,0.559]
	$c_{bH}$	0.047	[-0.009,0.103]	[-0.064,0.156]	0.047	[-0.010,0.101]	[-0.066,0.160]
	$c_{eH}$	1.173	[-0.543,2.872]	[-2.148,4.592]	1.074	[-0.597,2.818]	[-2.184,4.516]
	$c_{tG}$	0.220	[-0.217,0.661]	[-0.653,1.080]	0.204	[-0.218,0.635]	[-0.604,0.981]
	$c_{tH}$	4.317	[0.803,7.850]	[-2.646,11.229]	4.356	[0.900,8.109]	[-2.370,9.996]
	$c_{top}^{[1]}$	-0.892	[-1.838,0.058]	[-2.781,0.970]	-0.851	[-1.803,0.078]	[-2.639,1.126]

Table 1: Coefficient comparison





## Principal Components Analysis: NS

**PC 1 (3.97e+05):**  $-0.770c_{Hl^{(1)},He}^{[2]} + 0.633c_{Hu,Hd,Ht,Hq^{(1)}}^{[2]} - 0.074c_{2q2l}^{[4]} - 0.029c_{2q2l}^{[2]} + 0.013c_{4q}^{[1]}$

**PC 2 (1.71e+05):**  $+0.773c_{Hu,Hd,Ht,Hq^{(1)}}^{[2]} + 0.633c_{Hl^{(1)},He}^{[2]} + 0.033c_{2q2l}^{[4]} + 0.020c_{2q2l}^{[2]} + 0.015c_{4q}^{[1]}$

**PC 3 (2.64e+03):**  $-0.983c_{Hq^{(3)}} + 0.145c_{2q2l}^{[4]} - 0.063c_{Hl^{(3)},ll^{(1)}}^{[2]} - 0.062c_{2q2l}^{[1]} - 0.048c_{Hu,Hd,Ht,Hq^{(1)}}^{[1]} - 0.046c_{HB,HW,HWB,HD,tW,tB}^{[2]} - 0.016c_{tG} - 0.014c_{uH,dH,H\Box}^{[1]} + 0.013c_{HB,HW,HWB,HD,tW,tB}^{[4]} - 0.011c_{Hl^{(1)},He}^{[2]}$

**PC 4 (9.76e+02):**  $-0.990c_{2q2l}^{[1]} - 0.105c_{2q2l}^{[4]} + 0.059c_{HB,HW,HWB,HD,tW,tB}^{[4]} + 0.047c_{Hq^{(3)}} + 0.044c_{Hu,Hd,Ht,Hq^{(1)}}^{[1]} + 0.011c_{Hl^{(1)},He}^{[2]}$

**PC 5 (7.56e+02):**  $-0.965c_{2q2l}^{[4]} + 0.162c_{HB,HW,HWB,HD,tW,tB}^{[4]} - 0.146c_{Hq^{(3)}} + 0.105c_{2q2l}^{[1]} + 0.078c_{Hl^{(1)},He}^{[2]} - 0.044c_{Hl^{(1)},He}^{[1]} - 0.033c_{2q2l}^{[2]} - 0.022c_{Hu,Hd,Ht,Hq^{(1)}}^{[2]} - 0.018c_{Hu,Hd,Ht,Hq^{(1)}}^{[1]} + 0.012c_{HB,HW,HWB,HD,tW,tB}^{[2]} - 0.011c_{Hl^{(3)},ll^{(1)}}^{[2]}$

**PC 6 (1.59e+02):**  $-0.999c_W + 0.028c_{Hu,Hd,Ht,Hq^{(1)}}^{[1]} + 0.026c_{4q}^{[1]} - 0.018c_{Hl^{(3)},ll^{(1)}}^{[2]} - 0.014c_{Hl^{(3)},ll^{(1)}}^{[1]} + 0.013c_{uH,dH,H\Box}^{[1]} + 0.011c_{HB,HW,HWB,HD,tW,tB}^{[1]}$

**PC 7 (6.85e+01):**  $-0.699c_{uH,dH,H\Box}^{[1]} - 0.562c_{Hu,Hd,Ht,Hq^{(1)}}^{[1]} + 0.265c_{HB,HW,HWB,HD,tW,tB}^{[2]} + 0.246c_{Hl^{(3)},ll^{(1)}}^{[2]} - 0.157c_{HB,HW,HWB,HD,tW,tB}^{[3]} - 0.136c_{HB,HW,HWB,HD,tW,tB}^{[1]} - 0.121c_{HB,HW,HWB,HD,tW,tB}^{[4]} + 0.050c_{2q2l}^{[2]} - 0.046c_{tG} - 0.034c_W - 0.031c_{2q2l}^{[1]} + 0.023c_{Hl^{(1)},He}^{[1]} - 0.011c_{bH} - 0.011c_{2q2l}^{[4]} + 0.010c_{Hq^{(3)}}$

**PC 8 (4.57e+01):**  $+0.862c_{HB,HW,HWB,HD,tW,tB}^{[4]} - 0.369c_{uH,dH,H\Box}^{[1]} - 0.168c_{Hl^{(3)},ll^{(1)}}^{[2]} - 0.152c_{HB,HW,HWB,HD,tW,tB}^{[2]} + 0.150c_{2q2l}^{[4]} + 0.135c_{Hu,Hd,Ht,Hq^{(1)}}^{[1]} - 0.108c_{Hl^{(1)},He}^{[1]} - 0.078c_{HB,HW,HWB,HD,tW,tB}^{[3]} + 0.049c_{Hq^{(3)}} + 0.047c_{2q2l}^{[1]} - 0.042c_{eH} - 0.040c_{2q2l}^{[2]} + 0.039c_{Hl^{(3)},He}^{[1]} + 0.031c_{tG} - 0.013c_{tH} + 0.011c_{HG} + 0.010c_{bH}$

**PC 9 (3.41e+01):**  $+0.827c_{2q2l}^{[2]} + 0.441c_{HB,HW,HWB,HD,tW,tB}^{[2]} + 0.242c_{Hu,Hd,Ht,Hq^{(1)}}^{[1]} + 0.197c_{top}^{[1]} + 0.085c_{HB,HW,HWB,HD,tW,tB}^{[4]} + 0.072c_{Hl^{(1)},He}^{[1]} + 0.064c_{HB,HW,HWB,HD,tW,tB}^{[1]} - 0.039c_{Hq^{(3)}} - 0.039c_{tH} - 0.030c_{4q}^{[1]} - 0.029c_{Hl^{(3)},ll^{(1)}}^{[2]} - 0.028c_{Hl^{(1)},He}^{[2]} + 0.026c_{HB,HW,HWB,HD,tW,tB}^{[3]} - 0.023c_{eH} - 0.013c_{2q2l}^{[4]} - 0.013c_{Hl^{(3)},ll^{(1)}}^{[1]} - 0.013c_{HG}$

**PC 10 (2.38e+01):**  $+0.585c_{Hu,Hd,Ht,Hq^{(1)}}^{[1]} + 0.531c_{HB,HW,HWB,HD,tW,tB}^{[2]} - 0.421c_{2q2l}^{[2]} + 0.318c_{Hl^{(3)},ll^{(1)}}^{[2]} - 0.179c_{uH,dH,H\Box}^{[1]} - 0.155c_{top}^{[1]} - 0.104c_{tG} + 0.099c_{Hl^{(1)},He}^{[1]} + 0.078c_{tH} - 0.067c_{Hq^{(3)}} + 0.065c_{HB,HW,HWB,HD,tW,tB}^{[1]} - 0.045c_{HB,HW,HWB,HD,tW,tB}^{[3]} - 0.041c_{eH} - 0.028c_{4q}^{[1]} - 0.022c_{HB,HW,HWB,HD,tW,tB}^{[4]} - 0.020c_{2q2l}^{[3]} + 0.017c_{2q2l}^{[1]} + 0.015c_{2q2l}^{[4]} + 0.014c_{Hl^{(1)},He}^{[2]}$

**PC 11 (1.96e+01):**  $-0.609c_{HB,HW,HWB,HD,tW,tB}^{[2]} + 0.605c_{Hl^{(3)},ll^{(1)}}^{[2]} + 0.302c_{Hu,Hd,Ht,Hq^{(1)}}^{[1]} + 0.230c_{2q2l}^{[2]} - 0.195c_{uH,dH,H\Box}^{[1]} - 0.188c_{tG} - 0.101c_{4q}^{[1]} + 0.095c_{Hl^{(1)},He}^{[1]} + 0.094c_{top}^{[1]} - 0.088c_{HB,HW,HWB,HD,tW,tB}^{[4]} - 0.050c_{HB,HW,HWB,HD,tW,tB}^{[1]} - 0.045c_{tH} - 0.041c_{HB,HW,HWB,HD,tW,tB}^{[3]} - 0.039c_{2q2l}^{[4]} - 0.029c_{Hq^{(3)}} - 0.019c_{2q2l}^{[3]} + 0.014c_{2q2l}^{[1]} + 0.014c_{Hl^{(3)},ll^{(1)}}^{[1]}$

**PC 12 (1.77e+01):**  $-0.993c_{4q}^{[1]} - 0.078c_{Hl^{(3)},ll^{(1)}}^{[2]} - 0.048c_{Hu,Hd,Ht,Hq^{(1)}}^{[1]} - 0.037c_{2q2l}^{[2]} + 0.033c_{tG} + 0.030c_{HB,HW,HWB,HD,tW,tB}^{[3]} + 0.030c_{HB,HW,HWB,HD,tW,tB}^{[2]} - 0.026c_W - 0.023c_{Hl^{(1)},He}^{[1]} + 0.019c_{Hu,Hd,Ht,Hq^{(1)}}^{[2]} + 0.011c_{HB,HW,HWB,HD,tW,tB}^{[1]}$

**PC 13 (1.23e+01):**  $+0.593c_{tG} - 0.457c_{uH,dH,H\Box}^{[1]} - 0.347c_{Hl^{(3)},ll^{(1)}}^{[2]} - 0.337c_{HB,HW,HWB,HD,tW,tB}^{[4]} + 0.282c_{Hu,Hd,Ht,Hq^{(1)}}^{[1]} + 0.256c_{HB,HW,HWB,HD,tW,tB}^{[1]} - 0.193c_{HB,HW,HWB,HD,tW,tB}^{[2]} + 0.106c_{Hl^{(1)},He}^{[1]} - 0.066c_{2q2l}^{[4]} - 0.055c_{eH} + 0.038c_{HB,HW,HWB,HD,tW,tB}^{[3]} + 0.027c_{4q}^{[1]} + 0.024c_{HG}$

$$+0.018c_W + 0.018c_{2q2l}^{[3]} + 0.012c_{bH} - 0.012c_{Hl^{(3)},ll^{(1)}}^{[1]}$$

**PC 14 (9.29e+00):**  $+0.670c_{tG} + 0.544c_{Hl^{(3)},ll^{(1)}}^{[2]} + 0.265c_{HB,HW,HWB,HD,tW,tB}^{[1]} + 0.261c_{uH,dH,H\Box}^{[1]} + 0.219c_{HB,HW,HWB,HD,tW,tB}^{[4]}$   
 $-0.199c_{Hu,Hd,Ht,Hq^{(1)}}^{[1]} + 0.090c_{HB,HW,HWB,HD,tW,tB}^{[2]} - 0.084c_{Hl^{(1)},He}^{[1]} - 0.082c_{eH} - 0.053c_{HB,HW,HWB,HD,tW,tB}^{[3]} - 0.036c_{Hq^{(3)}}$   
 $+0.035c_{2q2l}^{[4]} - 0.029c_{bH} - 0.022c_{HG} - 0.020c_{2q2l}^{[3]} - 0.011c_{2q2l}^{[1]}$

**PC 15 (2.01e+00):**  $-0.781c_{HB,HW,HWB,HD,tW,tB}^{[3]} + 0.437c_{Hl^{(1)},He}^{[1]} - 0.280c_{eH} - 0.176c_{HG} - 0.160c_{Hl^{(3)},ll^{(1)}}^{[1]} + 0.134c_{uH,dH,H\Box}^{[1]}$   
 $-0.119c_{Hl^{(3)},ll^{(1)}}^{[2]} + 0.105c_{HB,HW,HWB,HD,tW,tB}^{[1]} + 0.101c_{top}^{[1]} - 0.059c_{2q2l}^{[3]} - 0.053c_{tG} - 0.043c_{HB,HW,HWB,HD,tW,tB}^{[2]} - 0.032c_{Hu,Hd,Ht,Hq^{(1)}}^{[1]}$   
 $-0.031c_{2q2l}^{[2]} - 0.022c_{4q}^{[1]} - 0.021c_{2q2l}^{[4]} + 0.015c_{HB,HW,HWB,HD,tW,tB}^{[4]} + 0.011c_{tH}$

**PC 16 (1.49e+00):**  $+0.647c_{eH} - 0.476c_{HB,HW,HWB,HD,tW,tB}^{[1]} - 0.312c_{HB,HW,HWB,HD,tW,tB}^{[3]} + 0.296c_{HG} + 0.269c_{tG} + 0.166c_{top}^{[1]}$   
 $+0.165c_{Hl^{(3)},ll^{(1)}}^{[1]} + 0.121c_{Hl^{(1)},He}^{[1]} + 0.116c_{Hu,Hd,Ht,Hq^{(1)}}^{[1]} - 0.073c_{2q2l}^{[3]} + 0.069c_{uH,dH,H\Box}^{[1]} + 0.039c_{HB,HW,HWB,HD,tW,tB}^{[2]} - 0.033c_{2q2l}^{[2]}$   
 $-0.016c_{4q}^{[1]} + 0.015c_{HB,HW,HWB,HD,tW,tB}^{[4]} - 0.014c_{bH} - 0.014c_{tH}$

**PC 17 (1.03e+00):**  $-0.940c_{top}^{[1]} + 0.259c_{2q2l}^{[2]} + 0.133c_{eH} - 0.131c_{HB,HW,HWB,HD,tW,tB}^{[3]} + 0.083c_{Hl^{(1)},He}^{[1]} - 0.056c_{HB,HW,HWB,HD,tW,tB}^{[2]}$   
 $-0.043c_{HB,HW,HWB,HD,tW,tB}^{[1]} + 0.037c_{tG} + 0.026c_{uH,dH,H\Box}^{[1]} + 0.025c_{tH} - 0.015c_{Hl^{(3)},ll^{(1)}}^{[1]} + 0.014c_{2q2l}^{[3]}$

**PC 18 (4.11e-01):**  $-0.913c_{2q2l}^{[3]} - 0.287c_{Hl^{(3)},ll^{(1)}}^{[1]} + 0.182c_{HB,HW,HWB,HD,tW,tB}^{[1]} + 0.175c_{eH} + 0.085c_{tH} + 0.077c_{HB,HW,HWB,HD,tW,tB}^{[3]}$   
 $-0.059c_{tG} - 0.034c_{Hu,Hd,Ht,Hq^{(1)}}^{[1]} - 0.029c_{uH,dH,H\Box}^{[1]} + 0.025c_{bH} - 0.024c_{Hl^{(1)},He}^{[1]} + 0.018c_{HG} - 0.016c_{Hl^{(3)},ll^{(1)}}^{[2]} - 0.014c_{HB,HW,HWB,HD,tW,tB}^{[2]}$

**PC 19 (3.73e-01):**  $+0.593c_{Hl^{(3)},ll^{(1)}}^{[1]} + 0.556c_{HG} + 0.385c_{HB,HW,HWB,HD,tW,tB}^{[1]} + 0.314c_{Hl^{(1)},He}^{[1]} - 0.173c_{bH} - 0.155c_{tG} - 0.114c_{Hu,Hd,Ht,Hq^{(1)}}^{[1]}$   
 $-0.113c_{2q2l}^{[3]} - 0.092c_{eH} + 0.039c_{HB,HW,HWB,HD,tW,tB}^{[3]} + 0.035c_{HB,HW,HWB,HD,tW,tB}^{[4]} - 0.023c_{top}^{[1]} + 0.021c_{uH,dH,H\Box}^{[1]} - 0.013c_{Hl^{(3)},ll^{(1)}}^{[2]}$   
 $-0.012c_{tH}$

**PC 20 (2.37e-01):**  $+0.626c_{eH} + 0.554c_{HB,HW,HWB,HD,tW,tB}^{[1]} + 0.320c_{2q2l}^{[3]} + 0.213c_{tH} - 0.198c_{Hl^{(3)},ll^{(1)}}^{[1]} - 0.180c_{HG} + 0.169c_{Hl^{(1)},He}^{[1]}$   
 $-0.163c_{tG} - 0.087c_{Hu,Hd,Ht,Hq^{(1)}}^{[1]} + 0.076c_{top}^{[1]} + 0.071c_{HB,HW,HWB,HD,tW,tB}^{[4]} - 0.062c_{bH} - 0.040c_{uH,dH,H\Box}^{[1]} - 0.028c_{HB,HW,HWB,HD,tW,tB}^{[2]}$   
 $-0.023c_{2q2l}^{[2]} + 0.023c_{HB,HW,HWB,HD,tW,tB}^{[3]} + 0.019c_{Hl^{(3)},ll^{(1)}}^{[2]}$

**PC 21 (1.83e-01):**  $-0.775c_{Hl^{(1)},He}^{[1]} - 0.477c_{HB,HW,HWB,HD,tW,tB}^{[3]} + 0.271c_{HB,HW,HWB,HD,tW,tB}^{[1]} - 0.168c_{HB,HW,HWB,HD,tW,tB}^{[4]}$   
 $+0.140c_{Hl^{(3)},ll^{(1)}}^{[1]} + 0.134c_{HG} - 0.118c_{tG} + 0.096c_{Hu,Hd,Ht,Hq^{(1)}}^{[1]} + 0.057c_{2q2l}^{[2]} + 0.057c_{eH} - 0.031c_{bH} - 0.029c_{Hl^{(3)},ll^{(1)}}^{[2]} + 0.024c_{tH}$   
 $-0.018c_{uH,dH,H\Box}^{[1]}$

**PC 22 (9.13e-02):**  $-0.678c_{HG} + 0.606c_{Hl^{(3)},ll^{(1)}}^{[1]} - 0.260c_{bH} + 0.235c_{tH} - 0.191c_{2q2l}^{[3]} - 0.069c_{HB,HW,HWB,HD,tW,tB}^{[1]} + 0.067c_{eH}$   
 $+0.040c_{tG} - 0.027c_{Hl^{(3)},ll^{(1)}}^{[2]} - 0.026c_{HB,HW,HWB,HD,tW,tB}^{[4]} + 0.021c_{Hu,Hd,Ht,Hq^{(1)}}^{[1]} + 0.021c_{2q2l}^{[2]} - 0.015c_{HB,HW,HWB,HD,tW,tB}^{[2]}$   
 $+0.010c_{top}^{[1]} - 0.010c_{Hl^{(1)},He}^{[1]}$

**PC 23 (7.47e-02):**  $-0.937c_{tH} - 0.213c_{HG} + 0.163c_{eH} - 0.133c_{bH} + 0.131c_{HB,HW,HWB,HD,tW,tB}^{[1]} - 0.070c_{2q2l}^{[2]} + 0.054c_{Hl^{(3)},ll^{(1)}}^{[1]}$   
 $-0.054c_{2q2l}^{[3]} + 0.043c_{HB,HW,HWB,HD,tW,tB}^{[2]} - 0.041c_{tG} - 0.032c_{top}^{[1]} + 0.015c_{Hl^{(1)},He}^{[1]} - 0.014c_{uH,dH,H\Box}^{[1]}$

**PC 24 (3.76e-02):**  $+0.937c_{bH} + 0.288c_{Hl^{(3)},ll^{(1)}}^{[1]} - 0.119c_{HG} + 0.106c_{HB,HW,HWB,HD,tW,tB}^{[1]} + 0.075c_{eH} - 0.057c_{tH} + 0.040c_{Hl^{(1)},He}^{[1]}$   
 $-0.037c_{2q2l}^{[3]} - 0.032c_{Hu,Hd,Ht,Hq^{(1)}}^{[1]} - 0.021c_{tG} + 0.017c_{Hl^{(3)},ll^{(1)}}^{[2]} - 0.012c_{HB,HW,HWB,HD,tW,tB}^{[3]}$



