		old		new	
Class	Coefficients	Fitted	Fixed	Fitted	Fixed
2FB	c_{tG}	✓		✓	
2L2H	$c_{Qq}^{1,8}$	✓		✓	
	$c_{Qq}^{1,1}$	✓		✓	
	$c_{Qq}^{3,8}$	✓		✓	
	$c_{Qq}^{3,1}$	✓		✓	
	c_{tq}^{8}	✓		✓	
	c_{tq}^{1}	✓		✓	
	c_{tu}^{8}	✓		✓	
	c_{tu}^{1}	✓		✓	
	c_{Qu}^{8}	✓		✓	
	c_{Qu}^{1}	✓		✓	
	c_{td}^{8}	✓		✓	
	c_{td}^{1}	✓		✓	
	c_{Qd}^{8}	✓		✓	
	c_{Qd}^{1}	✓		✓	
	Number fitted coefficients	15		15	

Table 1: Coefficient comparison

Type	Datasets	old	new
tt	ATLAS_CMS_tt_AC_8TeV	✓	✓
	ATLAS_tt_13TeV_asy_2022	✓	✓
	ATLAS_tt_13TeV_ljets_2016_Mtt	✓	✓
	ATLAS_tt_8TeV_dilep_Mtt	✓	✓
	ATLAS_tt_8TeV_ljets_Mtt	✓	✓
	CMS_tt2D_8TeV_dilep_MttYtt	✓	✓
	CMS_tt_13TeV_Mtt	✓	✓
	CMS_tt_13TeV_asy	✓	✓
	CMS_tt_13TeV_dilep_2015_Mtt	✓	✓
	CMS_tt_13TeV_dilep_2016_Mtt	✓	✓
	CMS_tt_13TeV_ljets_2015_Mtt	✓	✓
	CMS_tt_13TeV_ljets_2016_Mtt	✓	✓
	CMS_tt_13TeV_ljets_inc	✓	✓
	CMS_tt_8TeV_ljets_Ytt	✓	✓

Table 1: Dataset comparison

2FB

c_{tG}

old

new

-10^{1} -10^{0} -10^{-1} -10^{-2} 0 10^{-2} 10^{-1} 10^{0} 10^{1}

2L2H

c_{Qd}^{1}

c_{Qd}^{8}

c_{td}^{1}

c_{td}^{8}

c_{Qu}^{1}

c_{Qu}^{8}

c_{tu}^{1}

c_{tu}^{8}

c_{tq}^{1}

c_{tq}^{8}

$c_{Qq}^{3,1}$

$c_{Qq}^{3,8}$

$c_{Qq}^{1,1}$

$c_{Qq}^{1,8}$

-10^{1} -10^{0} -10^{-1} -10^{-2} 0 10^{-2} 10^{-1} 10^{0} 10^{1}

c_i/Λ^2 (TeV^{-2})

SMEFiT

old new

$c_{Qq}^{1,8}$ $c_{Qq}^{1,1}$ $c_{Qq}^{3,8}$ $c_{Qq}^{3,1}$

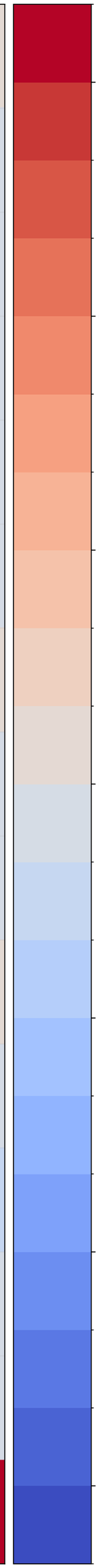
c_{tq}^{8} c_{tq}^{1} c_{tu}^{8} c_{tu}^{1}

c_{Qu}^{8} c_{Qu}^{1} c_{td}^{8} c_{td}^{1}

c_{Qd}^{8} c_{Qd}^{1} c_{tG}

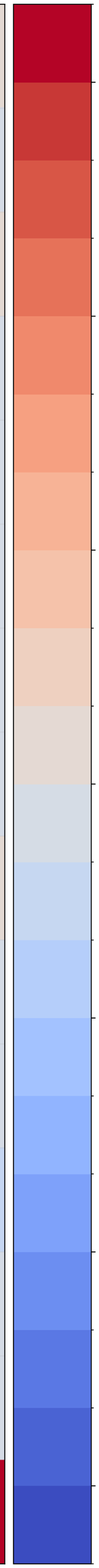
SMEFiT

	$c_{Qq}^{1,1}$	$c_{Qq}^{3,1}$	c_{td}^{1}	c_{Qd}^{1}	c_{tq}^{1}	c_{Qu}^{1}	c_{tu}^{1}	$c_{Qq}^{1,8}$	$c_{Qq}^{3,8}$	c_{td}^{8}	c_{Qd}^{8}	c_{tq}^{8}	c_{Qu}^{8}	c_{tu}^{8}	c_{tG}
$c_{Qq}^{1,1}$	1.0	-0.3	-0.0	0.0	-0.0	0.0	-0.0	-0.3	0.1	0.0	0.0	-0.0	0.0	0.0	0.0
$c_{Qq}^{3,1}$	-0.3	1.0	-0.0	0.0	-0.0	-0.0	0.0	0.1	-0.2	0.0	0.1	-0.0	-0.0	0.0	-0.0
c_{td}^{1}	-0.0	-0.0	1.0	-0.0	-0.0	0.1	-0.0	-0.0	0.1	-0.3	-0.0	0.0	0.0	0.0	-0.0
c_{Qd}^{1}	0.0	0.0	-0.0	1.0	-0.0	-0.2	-0.0	-0.1	-0.0	-0.1	0.6	0.0	-0.2	0.0	-0.1
c_{tq}^{1}	-0.0	-0.0	-0.0	-0.0	1.0	0.0	0.0	-0.0	0.1	-0.1	-0.0	0.5	0.0	-0.0	-0.1
c_{Qu}^{1}	0.0	-0.0	0.1	-0.2	0.0	1.0	0.0	0.1	-0.1	0.0	-0.2	0.0	0.5	0.0	-0.0
c_{tu}^{1}	-0.0	0.0	-0.0	-0.0	0.0	0.0	1.0	0.1	-0.0	0.0	-0.0	0.0	-0.0	-0.3	0.0
$c_{Qq}^{1,8}$	-0.3	0.1	-0.0	-0.1	-0.0	0.1	0.1	1.0	-0.3	-0.1	-0.1	-0.0	0.0	-0.2	-0.1
$c_{Qq}^{3,8}$	0.1	-0.2	0.1	-0.0	0.1	-0.1	-0.0	-0.3	1.0	-0.1	-0.1	0.2	0.1	0.0	-0.0
c_{td}^{8}	0.0	0.0	-0.3	-0.1	-0.1	0.0	0.0	-0.1	-0.1	1.0	-0.1	-0.1	0.1	-0.2	0.0
c_{Qd}^{8}	0.0	0.1	-0.0	0.6	-0.0	-0.2	-0.0	-0.1	-0.1	-0.1	1.0	-0.0	-0.4	0.0	-0.1
c_{tq}^{8}	-0.0	-0.0	0.0	0.0	0.5	0.0	0.0	-0.0	0.2	-0.1	-0.0	1.0	-0.1	-0.0	-0.1
c_{Qu}^{8}	0.0	-0.0	0.0	-0.2	0.0	0.5	-0.0	0.0	0.1	0.1	-0.4	-0.1	1.0	-0.0	-0.1
c_{tu}^{8}	0.0	0.0	0.0	0.0	-0.0	0.0	-0.3	-0.2	0.0	-0.2	0.0	-0.0	-0.0	1.0	-0.1
c_{tG}	0.0	-0.0	-0.0	-0.1	-0.1	-0.0	0.0	-0.1	-0.0	0.0	-0.1	-0.1	-0.1	-0.1	1.0



Correlation: old

	$c_{Qq}^{1,1}$	$c_{Qq}^{3,1}$	c_{td}^{1}	c_{Qd}^{1}	c_{tq}^{1}	c_{Qu}^{1}	c_{tu}^{1}	$c_{Qq}^{1,8}$	$c_{Qq}^{3,8}$	c_{td}^{8}	c_{Qd}^{8}	c_{tq}^{8}	c_{Qu}^{8}	c_{tu}^{8}	c_{tG}
$c_{Qq}^{1,1}$	1.0	-0.3	-0.0	0.0	-0.0	0.0	-0.0	-0.3	0.1	-0.0	0.0	0.0	0.0	0.0	0.0
$c_{Qq}^{3,1}$	-0.3	1.0	-0.0	-0.0	-0.0	-0.0	-0.0	0.1	-0.3	0.0	0.0	-0.0	-0.0	0.0	-0.0
c_{td}^{1}	-0.0	-0.0	1.0	0.0	0.0	0.0	-0.0	-0.0	0.0	-0.3	0.0	0.0	-0.0	0.0	0.1
c_{Qd}^{1}	0.0	-0.0	0.0	1.0	-0.0	-0.1	-0.0	-0.1	0.0	-0.1	0.6	-0.0	-0.2	0.1	-0.1
c_{tq}^{1}	-0.0	-0.0	0.0	-0.0	1.0	0.0	0.0	0.1	-0.0	-0.1	-0.0	0.5	-0.0	-0.0	-0.1
c_{Qu}^{1}	0.0	-0.0	0.0	-0.1	0.0	1.0	0.0	-0.0	0.0	0.0	-0.1	0.0	0.5	-0.1	-0.1
c_{tu}^{1}	-0.0	-0.0	-0.0	-0.0	0.0	0.0	1.0	-0.0	-0.0	0.0	-0.0	0.0	0.0	-0.3	-0.0
$c_{Qq}^{1,8}$	-0.3	0.1	-0.0	-0.1	0.1	-0.0	-0.0	1.0	-0.3	-0.1	-0.1	0.1	-0.0	-0.2	-0.1
$c_{Qq}^{3,8}$	0.1	-0.3	0.0	0.0	-0.0	0.0	-0.0	-0.3	1.0	-0.1	0.0	0.0	0.0	-0.0	0.0
c_{td}^{8}	-0.0	0.0	-0.3	-0.1	-0.1	0.0	0.0	-0.1	-0.1	1.0	-0.1	-0.1	0.1	-0.2	-0.0
c_{Qd}^{8}	0.0	0.0	0.0	0.6	-0.0	-0.1	-0.0	-0.1	0.0	-0.1	1.0	-0.1	-0.3	0.1	-0.1
c_{tq}^{8}	0.0	-0.0	0.0	-0.0	0.5	0.0	0.0	0.1	0.0	-0.1	-0.1	1.0	-0.1	-0.0	-0.1
c_{Qu}^{8}	0.0	-0.0	-0.0	-0.2	-0.0	0.5	0.0	-0.0	0.0	0.1	-0.3	-0.1	1.0	-0.0	-0.1
c_{tu}^{8}	0.0	0.0	0.0	0.1	-0.0	-0.1	-0.3	-0.2	-0.0	-0.2	0.1	-0.0	-0.0	1.0	-0.0
c_{tG}	0.0	-0.0	0.1	-0.1	-0.1	-0.1	-0.0	-0.1	0.0	-0.0	-0.1	-0.1	-0.1	-0.0	1.0



Correlation: new