

Source	Bkgd./Signal process	Year-to-year treatment	ee bkgd. (%)	ee signal (%)	$\mu\mu$ bkgd. (%)	$\mu\mu$ signal (%)
Integrated luminosity	All bkgd./Signal	Correlated	1.8	1.8	1.8	1.8
Electron Momentum Scale	All bkgd./Signal	Correlated	0.1 – 0.9	0.0 – 0.5	< 0.1	< 0.1
Electron Momentum Smear	All bkgd./Signal	Correlated	< 0.1	0.0 – 0.1	< 0.1	< 0.1
Jet Energy Resolution	All bkgd./Signal	Correlated	1.4 – 14.4	0.0 – 10.8	0.5 – 14.8	0.0 – 9.5
Jet Energy Scale	All bkgd./Signal	Correlated	5.4 – 15.3	0.0 – 11.4	3.6 – 16.7	0.0 – 9.2
Soft drop Mass Scale	All bkgd./Signal	Correlated	0.0 – 0.5	0.0 – 1.3	0.0 – 0.5	0.0 – 1.2
PU Reweight	All bkgd./Signal	Correlated	0.0 – 2.0	0.0 – 2.9	0.0 – 1.7	0.0 – 1.9
Muon Momentum Scale	All bkgd./Signal	Correlated	< 0.1	0.0 – 0.1	0.0 – 5.0	0.0 – 1.1
L1 Prefire	All bkgd./Signal	Correlated	0.0 – 1.8	0.0 – 2.3	0.0 – 1.1	0.0 – 1.0
Muon Reconstruction SF	All bkgd./Signal	Correlated	< 0.1	< 0.1	0.3 – 1.0	0.3 – 10.4
Muon ID SF	All bkgd./Signal	Correlated	< 0.1	< 0.1	0.2 – 1.6	0.2 – 1.6
Muon Isolation SF	All bkgd./Signal	Correlated	< 0.1	< 0.1	< 0.1	< 0.1
Muon Trigger SF	All bkgd./Signal	Uncorrelated	< 0.1	< 0.1	0.1 – 0.2	0.1 – 1.3
Electron Reconstruction SF	All bkgd./Signal	Correlated	1.3 – 2.2	1.1 – 2.3	< 0.1	< 0.1
Electron ID SF	All bkgd./Signal	Correlated	1.9 – 4.0	0.3 – 5.3	< 0.1	< 0.1
Electron Trigger SF	All bkgd./Signal	Uncorrelated	0.4 – 2.8	0.1 – 15.1	< 0.1	< 0.1
Z Pt Reweight	DY+jets	Correlated	0.0 – 19.2	—	0.0 – 18.8	—
PDF	Signal	Correlated	—	< 0.1	—	< 0.1
Scale ( $\mu_R, \mu_F$ )	Signal	Correlated	—	< 0.1	—	< 0.1
Nonprompt norm.	Nonprompt	Correlated	100	—	100	—
Rare SM norm.	Others	Correlated	50	—	50	—