

Uncertainty	$e\mu$	$e\tau_h$	$\mu\tau_h$	$\tau_h\tau_h$	Process	Shape	Variation
Integrated luminosity	✓	✓	✓	✓	MC	—	2.5%
Jet \rightarrow e mis-ID	✓	—	—	—	MC	✓	13%
Jet \rightarrow μ mis-ID	✓	—	—	—	MC	✓	10%
e/μ -trigger, ID, isolation	✓	✓	—	—	MC	—	2%
	✓	—	✓	—	MC	—	2%
$e \rightarrow \tau_h$ mis-ID	—	✓	—	—	$Z \rightarrow ee$	—	11%
	—	—	—	✓	$Z \rightarrow ee$	—	3%
$\mu \rightarrow \tau_h$ mis-ID	—	—	✓	—	$Z \rightarrow \mu\mu$	—	12%
	—	—	—	✓	$Z \rightarrow \mu\mu$	—	5%
τ_h -trigger	—	—	—	✓	MC	—	7%
τ_h -ID	—	✓	✓	—	MC	—	3 (4)%
	—	—	—	✓	MC	—	6 (8)%
τ_h -ID (high p_T)	—	✓	✓	✓	MC	✓	p_T dep.
τ_h energy scale	—	✓	✓	✓	MC	✓	1.2%
$e \rightarrow \tau_h$ energy scale	—	✓	—	—	$Z \rightarrow ee$	✓	0.5–1.0%
e energy scale	✓	—	—	—	MC	✓	1.0–2.5%
Jet energy scale	✓	✓	✓	✓	MC	—	1–6%
b tagging	✓	✓	✓	✓	MC	—	1–5%
p_T^{miss} resp./res.	✓	✓	✓	✓	MC	—	1–5%
	✓	✓	✓	✓	Diboson	—	5%
Bkgr. in signal categories	✓	✓	✓	✓	Single t	—	5%
	✓	—	—	—	W+jets	—	4%
	✓	✓	✓	✓	$Z \rightarrow \tau\tau$	—	1–7%
	✓	✓	✓	✓	$Z \rightarrow \ell\ell$	—	4%
Sideband extrapolation	✓	✓	✓	✓	$t\bar{t}$	—	1%
	✓	—	—	—	QCD	—	4–29 (30)%
	✓	✓	✓	✓	$t\bar{t}$	✓	100%
Top quark p_T reweighting	✓	✓	✓	✓	$Z \rightarrow \tau\tau, \ell\ell$	✓	See text
Z reweighting of LO MC	—	✓	✓	—	MC	—	3%
Bkgr. in $DR_{\text{QCD}}/W+\text{jets}$	—	—	—	✓	MC	—	4%
	—	✓	—	—	F_F	✓	4–7%
F_F^i stat. uncert.	—	—	✓	—	F_F	✓	4%
	—	—	—	✓	F_F	✓	2–3%
	—	✓	—	—	F_F	✓	7–10%
F_F^i corrections	—	—	✓	—	F_F	✓	5–7%
	—	—	—	✓	F_F	✓	10%
b-associated signal acceptance	✓	✓	✓	✓	Signal	—	3.2–16.5%
PDF/scale	✓	✓	✓	✓	Signal	—	15–25%
	✓	✓	✓	✓	SM Higgs	—	0.5–3.2%