

	shape	Z+jets	Top	VV	Signal
$\alpha$ -function	✓	✓	-	-	-
Bkg. normalization		8-18%	-	-	-
jet energy scale	✓	-	5%	5%	1.3%
jet energy resolution	✓	-	-	-	2–3%
V boson tagging ( $\tau_{21}$ )		-	8% (HP), 24% (LP)		
leptons and trigger		-	7–9% ( $\mu$ ), 6–8% (e)		
QCD scales	✓	-	20%	5%	4–12%
PDF		-	1%	1%	1–3%
pileup		-	3%	3%	0.5%
luminosity		-		6.2%	
cross section		-	20%	20%	-