

Level	Requirements	2016 (36.3 fb <sup>-1</sup> )		2018 (54.5 fb <sup>-1</sup> )	
		TIGHT	LOOSE	TIGHT	LOOSE
HLT	$p_T$ thresholds	92, 76, 64, 16 GeV		105, 88, 76, 15 GeV	
	number of b-tags	$\geq 1$	$\geq 2$	$\geq 1$	$\geq 2$
	$\Delta\phi_{bb}$	$\leq 1.6$	$\leq 2.1$	$\leq 1.9$	$\leq 2.8$
	$\Delta\eta_{jj}$	$\geq 4.1$	$\geq 2.3$	$\geq 3.5$	$\geq 1.5$
	$m_{jj}$	$\geq 500$ GeV	$\geq 240$ GeV	$\geq 460$ GeV	$\geq 200$ GeV
Offline	$p_T$ thresholds	95, 80, 65, 30 GeV		110, 90, 80, 30 GeV	
	jet $ \eta  < 4.7$	✓	✓	✓	✓
	Lepton veto	✓	✓	✓	✓
	number of b-tags $\geq 2$	✓	✓	✓	✓
	b-jet $ \eta  < 2.4$	✓	✓	✓	✓
	$\Delta\phi_{bb}$	$\leq 1.6$	$\leq 2.1$	$\leq 1.6$	$\leq 2.1$
	$\Delta\eta_{jj}$	$\geq 4.2$	$\geq 2.5$	$\geq 3.8$	$\geq 2.5$
	$m_{jj}$	$\geq 500$ GeV	$\geq 250$ GeV	$\geq 500$ GeV	$\geq 250$ GeV