

Subcategories	Selection
<u>Global selection</u>	
—	$p_{T1} > 25 \text{ GeV}, p_{T2} > 10 \text{ GeV}$ (2016) or 13 GeV $p_T^{\text{miss}} > 20 \text{ GeV}, p_T^{\ell\ell} > 30 \text{ GeV}$ ee or $\mu\mu$ pair with opposite charge $m_{\ell\ell} > 12 \text{ GeV}, m_{\ell\ell} - m_Z > 15 \text{ GeV}$
<u>0-jet ggH category</u>	
ee, $\mu\mu$	$m_{\ell\ell} < 60 \text{ GeV}, m_T^H > 90 \text{ GeV}, \Delta\phi_{\ell\ell} < 2.3$ No b-tagged jets with $p_T > 20 \text{ GeV}$ DYMVA above threshold
WW CR	As SR but with $m_{\ell\ell} > 100 \text{ GeV}$ $m_T^H > 60 \text{ GeV}, m_T(\ell_2, p_T^{\text{miss}}) > 30 \text{ GeV}$
Top quark CR	As SR but with $m_{\ell\ell} > 100 \text{ GeV}, m_T(\ell_2, p_T^{\text{miss}}) > 30 \text{ GeV}$ At least one b-tagged jet with $20 < p_T < 30 \text{ GeV}$
<u>1-jet ggH category</u>	
ee, $\mu\mu$	$m_{\ell\ell} < 60 \text{ GeV}, m_T^H > 80 \text{ GeV}, \Delta\phi_{\ell\ell} < 2.3$ No b-tagged jets with $p_T > 20 \text{ GeV}$ DYMVA above threshold
WW CR	As SR but with $m_{\ell\ell} > 100 \text{ GeV}$ $m_T^H > 60 \text{ GeV}, m_T(\ell_2, p_T^{\text{miss}}) > 30 \text{ GeV}$
Top quark CR	As SR but with $m_{\ell\ell} > 100 \text{ GeV}, m_T(\ell_2, p_T^{\text{miss}}) > 30 \text{ GeV}$ At least one b-tagged jet with $p_T > 30 \text{ GeV}$
<u>2-jet ggH category</u>	
ee, $\mu\mu$	$m_{\ell\ell} < 60 \text{ GeV}, 65 < m_T^H < 150 \text{ GeV}$ No b-tagged jets with $p_T > 20 \text{ GeV}$ DYMVA above threshold
WW CR	As SR but with $m_{\ell\ell} > 100 \text{ GeV}$ $m_T^H > 60 \text{ GeV}, m_T(\ell_2, p_T^{\text{miss}}) > 30 \text{ GeV}$
Top quark CR	As SR but with $m_{\ell\ell} > 100 \text{ GeV}, m_T(\ell_2, p_T^{\text{miss}}) > 30 \text{ GeV}$ At least one b-tagged jet with $p_T > 30 \text{ GeV}$