

Category	Subcategory	Requirements
preselection	-	$m_{\ell\ell} > 12 \text{ GeV}$, $p_{T1} > 25 \text{ GeV}$, $p_{T2} > 10(13) \text{ GeV}$ for μ (e), $E_T^{\text{miss}} > 20 \text{ GeV}$, $p_T^{\ell\ell} > 30 \text{ GeV}$, $p_{T3} < 10 \text{ GeV}$ electron and muon with opposite charge
0-jet ggH-tagged	$e^+ \mu^- p_{T2} > 20 \text{ GeV}$ $e^- \mu^+ p_{T2} > 20 \text{ GeV}$ $\mu^+ e^- p_{T2} > 20 \text{ GeV}$ $\mu^- e^+ p_{T2} > 20 \text{ GeV}$	$m_T > 60 \text{ GeV}$, $m_T^{\ell 2, E_T^{\text{miss}}} > 30 \text{ GeV}$ subleading lepton $p_T > 20 \text{ GeV}$ no jets with $p_T > 30 \text{ GeV}$ no b-tagged jets with p_T between 20 and 30 GeV
	$e^+ \mu^- p_{T2} < 20 \text{ GeV}$ $e^- \mu^+ p_{T2} < 20 \text{ GeV}$ $\mu^+ e^- p_{T2} < 20 \text{ GeV}$ $\mu^- e^+ p_{T2} < 20 \text{ GeV}$	$m_T > 60 \text{ GeV}$, $m_T^{\ell 2, E_T^{\text{miss}}} > 30 \text{ GeV}$ subleading lepton $p_T < 20 \text{ GeV}$ no jets with $p_T > 30 \text{ GeV}$ no b-tagged jets with p_T between 20 and 30 GeV
1-jet ggH-tagged	$e^+ \mu^- p_{T2} > 20 \text{ GeV}$ $e^- \mu^+ p_{T2} > 20 \text{ GeV}$ $\mu^+ e^- p_{T2} > 20 \text{ GeV}$ $\mu^- e^+ p_{T2} > 20 \text{ GeV}$	$m_T > 60 \text{ GeV}$, $m_T^{\ell 2, E_T^{\text{miss}}} > 30 \text{ GeV}$ subleading lepton $p_T > 20 \text{ GeV}$ exactly one jet with $p_T > 30 \text{ GeV}$ no b-tagged jets with $p_T > 20 \text{ GeV}$
	$e^+ \mu^- p_{T2} < 20 \text{ GeV}$ $e^- \mu^+ p_{T2} < 20 \text{ GeV}$ $\mu^+ e^- p_{T2} < 20 \text{ GeV}$ $\mu^- e^+ p_{T2} < 20 \text{ GeV}$	$m_T > 60 \text{ GeV}$, $m_T^{\ell 2, E_T^{\text{miss}}} > 30 \text{ GeV}$ subleading lepton $p_T < 20 \text{ GeV}$ exactly one jet with $p_T > 30 \text{ GeV}$ no b-tagged jets with $p_T > 20 \text{ GeV}$
2-jet ggH-tagged	$e\mu$	at least two jets with $p_T > 30 \text{ GeV}$ $m_T^{\ell 2, E_T^{\text{miss}}} > 30 \text{ GeV}$ and $m_T > 60 \text{ GeV}$ no b-tagged jets with $p_T > 20 \text{ GeV}$ $m_{jj} < 65 \text{ GeV}$ or $105 \text{ GeV} < m_{jj} < 400 \text{ GeV}$