

Selection	Requirements		Additional Information
Muons	$n_\mu \geq 2, p_T^{\mu_1} \geq 26 \text{ GeV},$ $p_T^\mu > 5 \text{ GeV}, \eta_\mu < 2.4$		$p_T^{\mu_1} \geq 29 \text{ GeV (2017)},$ $p_T^\mu > 26 \text{ GeV (2018 di}\mu \text{ trigger)}$
Hadrons	$n_h \geq 2, p_T^h > 5 \text{ GeV}, \eta_h < 2.4,$ $h = \pi^\pm \text{ (h = K}^\pm \text{ for } m_S \geq 1.1 \text{ GeV)}$		
Dimuon	$\Delta R_{\mu\mu} < 0.4, \text{ valid vertex}$		
Dihadron	$\Delta R_{hh} < 0.4, \text{ valid vertex}, p_T^{hh} > 20 \text{ GeV}$		
Loose invariant mass	$m_{\mu\mu} < 5 \text{ GeV}, m_{hh} < 5 \text{ GeV},$ $m_{\mu\mu hh} \in [110, 140] \text{ GeV}$		SR and CR in $m_{\mu\mu hh}$
Di-object invariant mass	$m_{\mu\mu} \sim m_{hh}$		
Categories	<i>prompt</i> ($L_{xy}^{\mu\mu} / \sigma_{xy}^{\mu\mu} < 40, L_{xy}^{hh} / \sigma_{xy}^{hh} < 30$), <i>displaced</i> $\mu\mu$, <i>displaced</i> hh , <i>displaced</i>		Non- <i>prompt</i> categories made by inverting L_{xy} / σ_{xy} alternatively
	<i>prompt</i>	<i>non-prompt</i>	category-wise cuts
Relative isolation	$I_{rel}^{\mu_1} \leq 0.3, I_{rel}^{\mu_2} \leq 0.6,$ $I_{rel}^{h_1} \leq 0.6, I_{rel}^{h_2} \leq 0.8$	$I_{rel}^{\mu_1} \leq 0.5, I_{rel}^{\mu_2} \leq 0.8,$ $I_{rel}^{h_1} \leq 1, I_{rel}^{h_2} \leq 1.6$	$\mu_1, \mu_2 = \text{leading, subleading } \mu$ $h_1, h_2 = \text{leading, subleading h}$