| Dimuon channel   | Electron-muon channel   |
|--|---|
| Pair of same-sign leptons  |   |
| Le   | eading lepton $p_{ m T} > 20{ m GeV}$                             |
| Subleading lepton $p_{\mathrm{T}} > 10\mathrm{GeV}$                    |   |
| No third isolated and identified lepton with $p_{\rm T} > 10{\rm GeV}$ |   |
|  | $p_{\mathrm{T}}^{\mathrm{miss}} > 20\mathrm{GeV}$                 |
|  | $m_{\ell\ell} > 20\mathrm{GeV}$                                   |
| $m_{\ell\ell} \notin [75, 105]  \text{GeV}$                            | _   |
| $ p_{\mathrm{T}_{\mu_1}}  +  p_{\mathrm{T}_{\mu_2}}  > 45\mathrm{GeV}$ | <del>_</del>  |
|  | No b-tagged jet with $p_{\rm T} > 30{\rm GeV}$ and $ \eta  < 2.1$ |