

CMS

60 fb^{-1} (13 TeV, 2018)

Events/GeV

 10^{12}
 10^{11}
 10^{10}
 10^9
 10^8
 10^7
 10^6
 10^5
 10^4
 10^3
 10^2 J/Ψ

Scouting Dimuon Events

 $p_T(\mu) > 3 \text{ GeV}, |\eta(\mu)| < 2.4, \text{ opposite sign}$ η
 ρ, ω
 ϕ Ψ' $Y(nS)$ Z

L1-Trigger Selection Requirements

- | | |
|--|---|
| $2\mu, p_T > 4.5 \text{ GeV}, \eta < 2, \text{ OS}, m(2\mu) > 7 \text{ GeV}$ | $2\mu, p_T > 15/7 \text{ GeV}$ |
| $3\mu, p_T > 5/3/3 \text{ GeV}$ | $3\mu, p_T > 5/5/3 \text{ GeV}$ |
| $2\mu, p_T > 0 \text{ GeV}, \eta < 1.5, \text{ OS}, \Delta R < 1.4$ | $2\mu, p_T > 4.5 \text{ GeV}, \eta < 2, \text{ OS}, 7 < m(2\mu) < 18 \text{ GeV}$ |
| $2\mu, p_T > 4 \text{ GeV}, \text{ OS}, \Delta R < 1.2$ | $1\mu, p_T > 22 \text{ GeV}$ |
| $2\mu, p_T > 0 \text{ GeV}, \eta < 1.4, \text{ OS}, \Delta R < 1.4$ | $2\mu, p_T > 4.5 \text{ GeV}, \text{ OS}, \Delta R < 1.2$ |
| $2\mu, p_T > 4.5 \text{ GeV}, \text{ OS}$ | $2\mu, p_T > 0 \text{ GeV}, \eta < 1.5, \text{ OS}, \Delta R < 1.4$ |

1

10

 10^2 $m_{\mu\mu} [\text{GeV}]$