

|          | VELO<br>method  | T-station<br>method  | Long<br>method   |
|----------|---|--|--|
| Tag      | Long track<br>used in single muon trigger   |  |  |
|          | $\chi^2/\text{ndf}(\text{track}) < 5$<br>$p > 5.0 \text{ GeV}/c$<br>$p_T > 0.7 \text{ GeV}/c$             | $DLL_{\mu\pi} > 2$<br>$\chi^2/\text{ndf}(\text{track}) < 3$<br>$p > 7.0 \text{ GeV}/c$<br>$p_T > 0.5 \text{ GeV}/c$                  | $DLL_{\mu\pi} > 2$<br>$\chi^2/\text{ndf}(\text{track}) < 2$<br>$p > 10 \text{ GeV}/c$<br>$p_T > 1.3 \text{ GeV}/c$<br>$\text{IP} > 0.5 \text{ mm}$ |
| Probe    | Downstream track<br>$p > 5.0 \text{ GeV}/c$<br>$p_T > 0.7 \text{ GeV}/c$                                  | VELO-muon track<br>$p > 5.0 \text{ GeV}/c$<br>$p_T > 0.5 \text{ GeV}/c$  | TT-muon track<br>$p > 5.0 \text{ GeV}/c$<br>$p_T > 0.1 \text{ GeV}/c$  |
| $J/\psi$ | $M_{\mu\mu} \in [2.9, 3.3] \text{ GeV}/c^2$<br>$\chi^2/\text{ndf}(\text{vertex}) < 5$<br>$N_{J/\psi} = 1$ | $M_{\mu\mu} \in [2.7, 3.5] \text{ GeV}/c^2$<br>$\chi^2/\text{ndf}(\text{vertex}) < 5$<br>$N_{J/\psi} = 1$<br>$p > 7.0 \text{ GeV}/c$ | $M_{\mu\mu} \in [2.6, 3.6] \text{ GeV}/c^2$<br>$\chi^2/\text{ndf}(\text{vertex}) < 5$<br>$N_{J/\psi} = 1$<br>$\text{IP} < 0.8 \text{ mm}$          |