

3-jet event	selection
transverse momentum of the leading jet (j_1)	$p_{T1} > 510 \text{ GeV}$
transverse momentum for each jet and rapidity for $j_{1,2}$	$p_T > 30 \text{ GeV} , y_{1,2} < 2.5$
azimuthal angle difference between j_1 and j_2	$2.14 < \Delta\phi_{12} < \pi$
transverse momentum ratio between j_2 and j_3	$0.1 < p_{T3} / p_{T2} < 0.9$
angular distance between j_2 and j_3	$R_{\text{jet}} + 0.1 < \Delta R_{23} < 1.5$
Z + 2 jet event	selection
transverse momentum of Z (j_1)	$p_{TZ} > 80 \text{ GeV} , y_Z < 2$
transverse momentum and rapidity for j_2	$p_{T2} > 80 \text{ GeV} , y_2 < 1$
transverse momentum and rapidity for j_3	$p_{T3} > 20 \text{ GeV} , y_3 < 2.4$
azimuthal angle difference between Z and leading j_2	$2 < \Delta\phi_{Z,2} < \pi$
dimuon mass	$70 < m_Z < 110 \text{ GeV}$
angular distance between j_3 and j_2	$0.5 < \Delta R_{23} < 1.5$