

Variable	Definition	SL (4 jets, $\geq 3$ b tags)	SL (5 jets, $\geq 3$ b tags)	SL ( $\geq 6$ jets, $\geq 3$ b tags)	DL ( $\geq 4$ jets, 3 b tags)	DL ( $\geq 4$ jets, $\geq 4$ b tags)
$N_b$ (tight)	number of b-tagged jets at a working point with a 0.1% probability of tagging gluon and light-flavour jets	+	+	+	-	-
BLR	likelihood ratio discriminating between 4 b quark jets and 2 b quark jets events	+	+	+	-	-
$BLR^{\text{trans}}$	transformed BLR defined as $\ln[BLR/(1.0 - BLR)]$	+	+	+	-	-
$\Delta R_{jj}^{\text{min}}$	$\Delta R$ between the two closest jets	+	+	+	-	-
$\Delta R_{b,b}^{\text{min}}$	$\Delta R$ between the two closest b-tagged jets	+	+	+	-	-
$\Delta R_{jj}^{\text{max}}$	$\Delta R$ between the two jets furthest apart	-	+	-	-	-
$\Delta R_{b,b}^{\text{max}}$	$\Delta R$ between the two b-tagged jets furthest apart	-	-	+	-	-
$\Delta\eta_{jj}^{\text{max}}$	$\Delta\eta$ between the two jets furthest apart in $\eta$	-	-	-	-	+
$\Delta\eta_{b,b}^{\text{max}}$	$\Delta\eta$ between the two b-tagged jets furthest apart in $\eta$	-	-	-	+	+
$\Delta\eta_{b,b}^{\text{avg}}$	average $\Delta\eta$ between b-tagged jets	-	-	+	-	-
$\Delta R_{b,b}^{\text{avg}}$	average $\Delta R$ between b-tagged jets	-	+	+	-	-
$\Delta R_{j,b}^{\text{avg}}$	average $\Delta R$ between jets of which at least one is b-tagged	-	-	-	+	-
$\Delta R_{\text{lep},j}^{\text{min}\Delta R}$	$\Delta R$ between lepton and closest jet	+	+	-	-	-
$\Delta R_{\text{lep},b}^{\text{min}\Delta R}$	$\Delta R$ between lepton and closest b-tagged jet	-	+	+	-	-
$m_{\text{lep},b}^{\text{min}\Delta R}$	mass of lepton and closest b-tagged jet	+	+	+	-	-
$m_{b,b}^{\text{min}\Delta R}$	mass of closest b-tagged jets	+	+	+	-	+
$m_{j,b}^{\text{min}\Delta R}$	mass of closest jets of which at least one is b-tagged	-	-	-	+	-
$m_{b,b}^{\text{max mass}}$	maximal mass of pairs of b-tagged jets	-	-	-	+	+
$p_{T,b,b}^{\text{min}\Delta R}$	combined $p_T$ of closest b-tagged jets	-	-	-	+	-
$p_{T,j,b}^{\text{min}\Delta R}$	combined $p_T$ of closest jets of which at least one is b-tagged	-	-	-	-	+
$m_j^{\text{avg}}$	average mass of all jets	+	+	+	-	-
$(m_b^2)^{\text{avg}}$	average squared mass of all b-tagged jets	+	-	+	-	-
$m_{b,b}^{\text{closest to 125}}$	mass of pair of b-tagged jets closest to 125 GeV	-	+	+	-	-
$N_j^{i,b}$	number of pairs of jets (with at least one b-tagged jet) with an invariant mass within 110–140 GeV	-	-	-	+	+
MEM	matrix element method discriminant	+	+	+	-	-