

Variable	Description	0-lepton	1-lepton	2-lepton
$M(\text{jj})$	Dijet invariant mass	✓	✓	✓
$p_T(\text{jj})$	Dijet transverse momentum	✓	✓	✓
\vec{p}_T^{miss}	Missing transverse momentum	✓	✓	✓
$M_t(\text{V})$	Transverse mass of the vector boson		✓	
$p_T(\text{V})$	Transverse momentum of the vector boson		✓	✓
$p_T(\text{jj}) / p_T(\text{V})$	Ratio of transverse momenta of the vector boson and Higgs boson		✓	✓
$\Delta\phi(\text{V}, \text{H})$	Azimuthal angle between the vector boson and the dijet directions	✓	✓	✓
btag_{max}	b tagging score of leading jet	✓	✓	✓
btag_{min}	b tagging score of subleading jet	✓	✓	✓
$\Delta\eta(\text{jj})$	Pseudorapidity difference between leading and subleading jet	✓	✓	✓
$\Delta\phi(\text{jj})$	Azimuthal angle between leading and subleading jet	✓	✓	
$p_T^{\text{max}}(\text{j}_1, \text{j}_2)$	Maximum transverse momentum of jet between leading and subleading jet	✓	✓	
SA5	Number of soft-track jets with momentum greater than 5 GeV	✓		✓
N_{aj}	Number of additional jets	✓	✓	
$\text{btag}_{\text{max}}(\text{add})$	Maximum b tagging discriminant score among additional jets	✓		
$p_T^{\text{max}}(\text{add})$	Maximum transverse momentum among additional jets	✓		
$\Delta\phi(\text{jet}, \vec{p}_T^{\text{miss}})$	Azimuthal angle between additional jet and \vec{p}_T^{miss}	✓		
$\Delta\phi(\text{lep}, \vec{p}_T^{\text{miss}})$	Azimuthal angle between lepton and \vec{p}_T^{miss}		✓	
M_t	Reconstructed top quark mass		✓	
$p_T(\text{j}_1)$	Transverse momentum of leading jet			✓
$p_T(\text{j}_2)$	Transverse momentum of subleading jet			✓
$M(\text{V})$	Reconstructed vector boson mass			✓
$\Delta R(\text{V}, \text{H})$	Angular separation between the vector boson and Higgs boson			✓
$\Delta R(\text{V}, \text{H}) (\text{kin})$	Angular separation between the vector boson and Higgs boson (reconstructed after kinematic fit)			✓
$\sigma(M(\text{jj}))$	Resolution of dijet invariant mass			✓
N_{rec}	Number of recoil jets			✓