

Variable	Description	0-lepton	1-lepton	2-lepton
$M(\text{jj})$	Dijet invariant mass	✓	✓	✓
$p_{\text{T}}(\text{jj})$	Dijet transverse momentum	✓	✓	✓
$\vec{p}_{\text{T}}^{\text{miss}}$	Missing transverse momentum	✓	✓	✓
$M_{\text{t}}(\text{V})$	Transverse mass of the vector boson		✓	
$p_{\text{T}}(\text{V})$	Transverse momentum of the vector boson		✓	✓
$p_{\text{T}}(\text{jj}) / p_{\text{T}}(\text{V})$	Ratio of transverse momenta of the dijet system and the vector boson		✓	✓
$\Delta\phi(\text{V}, \text{jj})$	Azimuthal angle between the vector boson and the dijet directions	✓	✓	✓
$\text{btag}(\text{j}_1)$	b tagging score of leading jet	✓	✓	✓
$\text{btag}(\text{j}_2)$	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	✓	✓	
$p_{\text{T}}^{\text{max}}(\text{j}_1, \text{j}_2)$	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	✓		
$p_{\text{T}}^{\text{max}}(\text{add})$	Maximum transverse momentum among additional jets	✓		
$\Delta\phi(\text{jet}, \vec{p}_{\text{T}}^{\text{miss}})$	Azimuthal angle between additional jet and $\vec{p}_{\text{T}}^{\text{miss}}$	✓		
$\Delta\phi(\text{lep}, \vec{p}_{\text{T}}^{\text{miss}})$	Azimuthal angle between lepton and $\vec{p}_{\text{T}}^{\text{miss}}$		✓	
M_{t}	Reconstructed top quark mass		✓	
$p_{\text{T}}(\text{j}_1)$	Transverse momentum of leading jet			✓
$p_{\text{T}}(\text{j}_2)$	Transverse momentum of subleading jet			✓
$M(\text{V})$	Reconstructed vector boson mass			✓
$\Delta R(\text{V}, \text{jj})$	Angular separation between the vector boson and the dijet system			✓
$\Delta R(\text{V}, \text{jj}) (\text{kin})$	Angular separation between the vector boson and the dijet system (reconstructed after kinematic fit)			✓
$\sigma(M(\text{jj}))$	Resolution of dijet invariant mass			✓
N_{rec}	Number of recoil jets			✓