

Variable	Description
High-level inputs	$p_T^{\text{LC}}$ Calorimeter-based estimate of $\tau_{\text{had-vis}}$ candidate $p_T$ .
	$f_{\text{cent}}$ Ratio of $E_T$ deposited in calorimeter cells (at EM scale) in cones of $\Delta R < 0.1$ and $\Delta R < 0.2$ about the $\tau_{\text{had-vis}}$ axis.
	$f_{\text{leadtrack}}^{-1}$ Ratio of $E_T$ deposited in calorimeter cells (at EM scale) in a cone of $\Delta R < 0.2$ about the $\tau_{\text{had-vis}}$ axis and the $p_T$ of the $p_T$ -leading <i>core</i> track.
	$\Delta R_{\text{max}}$ Maximum $\Delta R$ between <i>core</i> tracks and the $\tau_{\text{had-vis}}$ axis.
	$ S_{\text{leadtrack}} $ Transverse impact parameter significance of the $p_T$ -leading track. Only considered for 1-prong $\tau_{\text{had-vis}}$ candidates.
	$S_T^{\text{flight}}$ Transverse flight path significance. Only considered for 3-prong $\tau_{\text{had-vis}}$ candidates.
	$f_{\text{iso}}^{\text{track}}$ Ratio of the scalar sum of $p_T$ of <i>isolation</i> tracks and the scalar sum of $p_T$ of <i>core</i> and <i>isolation</i> tracks.
	$f_{\text{track}}^{\text{EM}}$ Ratio of the energy in EM clusters <sup>†</sup> and the scalar sum of momenta of <i>core</i> tracks.
	$p_T^{\text{EM+track}}/p_T$ $p_T$ of the $\tau_{\text{had-vis}}$ estimated from the momenta of <i>core</i> tracks and the two most energetic EM clusters <sup>†</sup> divided by the $p_T$ of the calorimetric measurement.
Track inputs	$m^{\text{EM+track}}$ Invariant mass of the system of <i>core</i> tracks and the two most energetic EM clusters <sup>†</sup> .
	$m^{\text{track}}$ Invariant mass of the system of <i>core</i> tracks. Only considered for 3-prong $\tau_{\text{had-vis}}$ candidates.
	$p_T^{\text{jet seed}}$ $p_T$ of the jet seeding the $\tau_{\text{had-vis}}$ candidate.
	$p_T^{\text{track}}$ $p_T$ of the track.
	$\Delta\eta^{\text{track}}$ Difference in $\eta$ between track and $\tau_{\text{had-vis}}$ axis.
	$\Delta\phi^{\text{track}}$ Angle between track and $\tau_{\text{had-vis}}$ axis in the transverse plane.
	$ d_0^{\text{track}} $ Absolute value of the transverse track impact parameter.
	$ z_0^{\text{track}} \sin \theta $ Absolute value of the product of longitudinal track impact parameter and the sine of the polar angle of the track.
	$N_{\text{IBL hits}}$ Number of hits on the track in the IBL.
Cluster inputs	$N_{\text{Pixel hits}}$ Number of hits on the track in pixel detector layers (excl. IBL).
	$N_{\text{SCT hits}}$ Number of hits on the track in SCT layers.
	$p_T^{\text{jet seed}}$ $p_T$ of the jet seeding the $\tau_{\text{had-vis}}$ candidate.
	$E_T^{\text{cluster}}$ $E_T$ of the cluster.
	$\Delta\eta^{\text{cluster}}$ Difference in $\eta$ between cluster and $\tau_{\text{had-vis}}$ axis.
	$\Delta\phi^{\text{cluster}}$ Angle between cluster and $\tau_{\text{had-vis}}$ axis in the transverse plane.
	$\lambda_{\text{cluster}}$ Longitudinal distance of the cluster barycentre from the calorimeter front face.
	$\langle \lambda^2 \rangle_{\text{cluster}}$ Second longitudinal cluster moment.
	$\langle r^2 \rangle_{\text{cluster}}$ Second radial cluster moment.