

Variable	Definition
PF candidates	
$\ln(p_T/\text{GeV})$	Logarithm of the particle p_T
$\ln(E/\text{GeV})$	Logarithm of the particle energy
$\Delta\eta(\text{jet})$	Difference in pseudorapidity between the particle and the jet axis
$\Delta\phi(\text{jet})$	Difference in azimuthal angle between the particle and the jet axis
$ \eta $	Absolute value of the particle pseudorapidity
q	Electric charge of the particle
isMuon	True if the particle is identified as a muon
isElectron	True if the particle is identified as an electron
isChargedHadron	True if the particle is identified as a charged hadron
isPhoton	True if the particle is identified as a photon
isNeutralHadron	True if the particle is identified as a neutral hadron
pvAssociationQuality	Quality of the association of the track to the primary vertices (*)
lostInnerHits	Quality of the track related to missing hits on the pixel layers (*)
χ^2/ndof	The χ^2 value of the trajectory fit normalized to the number of degrees of freedom (*)
qualityMask	Quality of the track (*)
d_z	Longitudinal impact parameter of the track (*)
d_z/σ_{d_z}	Significance of the longitudinal impact parameter (*)
d_{xy}	Transverse impact parameter of the track (*)
$d_{xy}/\sigma_{d_{xy}}$	Significance of the transverse impact parameter (*)
η_{rel}	Pseudorapidity of the track relative to the jet axis (*)
$p_{T,\text{rel}}$ ratio	Relative track momentum perpendicular to the jet axis (*)
$p_{\text{par,rel}}$ ratio	Relative track momentum parallel to the jet axis (*)
d_{3D}	Signed three-dimensional (3D) impact parameter of the track [83] (*)
d_{3D}/σ_{3D}	Signed 3D impact parameter significance of the track (*)
trackDistance	Distance between the track and jet axis at the point of closest approach (*)
Secondary vertices within the jet	
$\ln(p_T/\text{GeV})$	Logarithm of the SV p_T , defined as the p_T of the vector sum of the tracks associated with the SV
m_{SV}	Invariant mass of the tracks associated with the SV
$\Delta\eta(\text{jet})$	Difference in pseudorapidity between the SV and the jet axis
$\Delta\phi(\text{jet})$	Difference in azimuthal angle between the SV and the jet axis
$ \eta $	Absolute value of the SV pseudorapidity
N_{tracks}	Number of tracks associated with the SV
χ^2/ndof	The χ^2 value of the SV fit normalized to the number of degrees of freedom
d_{2D}	Signed two-dimensional (2D) impact parameter of the SV
d_{2D}/σ_{2D}	Signed 2D impact parameter significance of the SV
d_{3D}	Signed 3D impact parameter of the SV
d_{3D}/σ_{3D}	Signed 3D impact parameter significance of the SV