| Observable | Definition |
|---|---|
| *Calo scouting stream* | |
| $(m^{\text{jet}}, p_{\text{T}}^{\text{jet}}, \eta^{\text{jet}}, \phi^{\text{jet}})$ | Calo jet four-momentum |
| $A^{\text{jet}}$ | Jet area |
| $E_{\text{max.}}^{\text{EM}}$ | Maximum energy in electromagnetic towers |
| $E_{\text{max.}}^{\text{had.}}$ | Maximum energy in hadronic towers |
| $E_{\text{HB,HF,HE}}^{\text{EM}}$ | Electromagnetic energy in the HB, HE, and HF |
| $E_{\text{HB,HF,HE}}^{\text{had.}}$ | Hadronic energy in the HB, HE, and HF |
| $A^{\text{towers}}$ | Area of the EM and hadronic towers |
| $p_{\text{T}}^{\text{miss}}, \phi^{\text{miss}}, \rho$ | Missing transverse momentum, angle, energy density |
| $(E^{\mu}, p_{\text{T}}^{\mu}, \eta^{\mu}, \phi^{\mu})$ | Muon four-momentum |
| $d_0 \pm \sigma_{d_0}, d_z \pm \sigma_{d_z}$ | Muon impact parameters and uncertainties |
| $I_{\text{E}}, I_{\text{H}}, I_{\text{T}}$ | ECAL, HCAL, and tracker isolation |
| $N_{\text{P}}, N_{\text{S}}, N_{\text{M}}$ | Number of pixel, strip, and muon detector hits |
| $N_{\text{L}}^{\text{S}}, N_{\text{L}}^{\text{T}}$ | Number of muon stations and tracker layers with hits |
| $(p_{\text{T}}^{\text{track}}, \eta^{\text{track}}, \phi^{\text{track}})$ | Track three-momentum |
| $\chi^2$, dof | Track $\chi^2$ and number of degrees of freedom |
| $(q/p \pm \sigma_{q/p}, \lambda \pm \sigma_{\lambda}, \phi \pm \sigma_{\phi}, d_{sz} \pm \sigma_{d_{sz}})$ | Fitted track parameters and uncertainties |
| $i_{\text{vertex}}$ | Reference to the corresponding dimuon vertex |
| $(x \pm \sigma_x, y \pm \sigma_y, z \pm \sigma_z)$ | List of 3D positions and uncertainties of dimuon vertices |
| *PF scouting stream* | |
| $(m^{\text{jet}}, p_{\text{T}}^{\text{jet}}, \eta^{\text{jet}}, \phi^{\text{jet}})$ | PF jet four-momentum |
| $A^{\text{jet}}$ | Jet area |
| $E_i, N_i$ | Energy fractions and multiplicity for $i^{th}$ particle type in jet |
| $p_{\text{T}}^{\text{miss}}, \phi^{\text{miss}}, \rho$ | Missing transverse momentum, angle, energy density |
| $(m, p_{\text{T}}, \eta, \phi)$, id, $i_{\text{vertex}}$ | PF candidate four-momentum, type, vertex index |
| $(x \pm \sigma_x, y \pm \sigma_y, z \pm \sigma_z)$ | List of 3D positions and uncertainties of primary vertices |