

1 dictionary for third production

The following quantities are filled for each event

RunId : id of run

EventId : id of event

Vz : primary vertex Z position

NTrk : number of all tracks

gRefMult : gRefMultiplicity

QXE: component X of the Q vector using tracks with eta >0

QYE : component Y of the Q vector using tracks with eta >0

QXW : component X of the Q vector using tracks with eta <0

QYW : component Y of the Q vector using tracks with eta <0

EPE: event plane using using tracks with eta>0, before recentering

EPW : event plane using using tracks with eta>0, before recentering

Candidates : number of pairs K-pi

EventPlane : not filled

The following are filled for each candidate

PtD0 : transverse momentum of D0 candidate

PD0 : momentum of D0 candidate

MassD0 : mass of D0 candidate

EtaD0 : pseudo-rapidity of D0 candidate

RapD0 : rapidity of D0 candidate

AziD0 : azimuthal angle of d0 candidate

PtKaon : transverse momentum of kaon daughter

PtPion : transverse momentum of pion daughter

PKaon : momentum of kaon daughter

PPion : momentum of pion daughter

ChargeKaon : charge of kaon daughter

ChargePion : charge of pion daughter

SiKaon : number of silicon hits for kaon daughter

SiPion : number of silicon hits for pion daughter

dEdxKaon : dEdx of kaon daughter

dEdxPion : dEdx of pion daughter

ndEdxKaon : ndEdx of kaon daughter

ndEdxPion : ndEdx of pion daughter

dcaXYKaon : distance of closest approach to primary vertex in transverse direction for the kaon daughter

dcaXYPion : distance of closest approach to primary vertex in transverse direction for the pion daughter

dcaZKaon : distance of closest approach to primary vertex in longitudinal direction for the kaon daughter

dcaZPion : distance of closest approach to primary vertex in longitudinal direction for the pion daughter

PhiKaon : azimuthal angle of kaon daughter

PhiPion : azimuthal angle of pion daughter

SigmaDcaXYKaon : error of DCA in transverse direction for the kaon daughter

SigmaDcaXYPion :error of DCA in transverse direction for the pion daughter

DcaTrackTXY : distance between daughter tracks at the secondary vertex in transverse direction

DcaTrackTZ : distance between daughter tracks at the secondary vertex in longitudinal direction

slength : signed decay length

dslength : error of signed decay length
probability : probability of fit
CosPointing : angle between the line joining the primary vertex and secondary and the momentum of D0
thetaGJ : angle of kaon daughter with the D0 momentum in D0 frame
kLen0 : signed length of kaon daughter to secondary vertex (from TCFIT)
kLen1 : signed length of pion daughter to secondary vertex (from TCFIT)
dkLen0 : error of signed length of kaon daughter to secondary vertex (from TCFIT)
dkLen1 : error of signed length of pion daughter to secondary vertex (from TCFIT)

2 cuts

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static const Double_t pTCut = 0.5; // transverse momentum cut
static const Double_t PCut = 2.0; // momentum cut
static const Double_t sumPCut = 1.5 ; // sum of momentum(kaon)+momentum(pion)
static const Double_t mKpiMin = 1.2; // min mass of (Kpi) association
static const Double_t mKpiMax = 2.2; // max mass of (Kpi) association
static const Double_t DcaCut = 0.2; // single track DCA to PV
static const Int_t TpcCut = 25; // TPC hits fitted
static const Float_t TpcRatioCut = 0.51; // TPC hits fitted / TPC hits Poss
static const Double_t TrackLengthCut = 40; // min value for dEdxTrackLength
static const Int_t SiCut = 2; // (SVT+SSD) hits fitted
static const Int_t SvtCut = 3; // (SVT) hits fitted
static const Int_t SsdCut = 1; // (SSD) hits fitted
static const Float_t RadiusCutSvt1 = 9.0;
static const Float_t RadiusCutSvt2 = 13.0;
static const Float_t SigmaPionCut = 2.5; // nsigma for pion
static const Float_t SigmaKaonCut = 2.5; // nsigma for kaon
static const Float_t SigmaProtonCut = 3.; // nsigma for Proton
static const Double_t EtaCut = 1.2; // track pseudorapidity
static const Double_t zcut = 10; // zvertex cut
static const Double_t PrimZResCut = 0.020; // zvertex resolution cut
static const Double_t cosThetaCut = 1;
static const Double_t rapCandCut = 1.0;
static const Double_t slengthCut = .2; // max value of decaylength calculated by TCFIT
static const Double_t dslengthCut = .1; // max value of the error associated to the decaylength from TC-
FIT
static const Double_t ProbCut = .05; // min value of probability of FIT
static const Int_t writeHisto = 1; // flag to write histos
  
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