picoDST parameters

Friday, October 3, 2014 1:11 PM

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   Int_t          mIEvt;   event id
   Int_t          mIRun;   event run id
   Int_t          mMcMult;
   Int_t          mRcMult;
   Float_t        mMcVtxX;  MC evnet primary position
   Float_t        mMcVtxY;
   Float_t        mMcVtxZ;
   Int_t          mNMcPTracks;    primaryVertex()->numberOfDaughters()
   Float_t        mRcVtxX[2];
   Float_t        mRcVtxY[2];
   Float_t        mRcVtxZ[2];
   Int_t          mNPTracks[2];
   Int_t          mNGTracks;
   Int_t          mNGRefMult;
   Float_t        MagField;
   Int_t          mNMcTrk;
   Int_t          mMcId[48];   //[mNMcTrk]   key
   Int_t          mGeantId[48];   //[mNMcTrk]   GeantId
   Int_t          mParentMcId[48];   //[mNMcTrk]
   Int_t          mParentGeantId[48];   //[mNMcTrk]
   Float_t        mMcPt[48];   //[mNMcTrk]
   Float_t        mMcPz[48];   //[mNMcTrk]
   Float_t        mMcEta[48];   //[mNMcTrk]
   Float_t        mMcPhi[48];   //[mNMcTrk]
   Float_t        mMcMass[48];   //[mNMcTrk]    tr->fourMomentum().m();
   Float_t        mMcStartX[48];   //[mNMcTrk]   tr->startVertex()->position().x();
   Float_t        mMcStartY[48];   //[mNMcTrk]
   Float_t        mMcStartZ[48];   //[mNMcTrk]
   Int_t          mMcNhits[48];   //[mNMcTrk]    TPC hits
   Int_t          mMcNhitsSsd[48];   //[mNMcTrk]
   Int_t          mMcNhitsIst[48];   //[mNMcTrk]
   Int_t          mMcNhitsPxl2[48];   //[mNMcTrk]      ladder >0
   Int_t          mMcNhitsPxl1[48];   //[mNMcTrk]      ladder<0
   Int_t          mMcRndHitvId[48][20];   //[mNMcTrk]  volume id
   Float_t        mMcRndHitX[48][20];   //[mNMcTrk]  combP->
LocalToMaster(localPixHitPos,GlobaPixHitPos);
   Float_t        mMcRndHitY[48][20];   //[mNMcTrk]
   Float_t        mMcRndHitZ[48][20];   //[mNMcTrk]
   Float_t        mMcRndHitLX[48][20];   //[mNMcTrk]  localPixHitPos[0];//local position
   Float_t        mMcRndHitLY[48][20];   //[mNMcTrk]
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   Float_t        mMcRndHitLZ[48][20];  //[mNMcTrk]
   Int_t          mMcRndHitId[48][20];  //[mNMcTrk]  pixel id
   Float_t        mMcAssHitX[48][20];   //[mNMcTrk]   Ist information
   Float_t        mMcAssHitY[48][20];   //[mNMcTrk]
   Float_t        mMcAssHitZ[48][20];   //[mNMcTrk]
   Float_t        mMcAssHitLX[48][20];  //[mNMcTrk]
   Float_t        mMcAssHitLY[48][20];  //[mNMcTrk]
   Float_t        mMcAssHitLZ[48][20];  //[mNMcTrk]
   Int_t          mMcAssHitId[48][20];  //[mNMcTrk]
   Int_t          mNRcTrk;
   Int_t          mRcId[22];  //[mNRcTrk]  tMatched->key()
   Int_t          mRcIdTruth[22];   //[mNRcTrk]   tr->key();
   Int_t          mRcAssoId[22];  //[mNRcTrk]  index of the associated mc
   Float_t        mRcPt[22];  //[mNRcTrk]
   Float_t        mRcPz[22];  //[mNRcTrk]
   Float_t        mRcEta[22];   //[mNRcTrk]
   Float_t        mRcPhi[22];   //[mNRcTrk]
   Int_t          mRcNhits[22];   //[mNRcTrk]   nTpcHits;
   Int_t          mRcNhitsPoss[22];   //[mNRcTrk]  tMatched->numberOfPossiblePoints(kTpcId);
   Int_t          mRcNhitsPts[22];  //[mNRcTrk]  tMatched->
fitTraits().numberOfFitPoints(kTpcId);
   Int_t          mRcNhitsSsd[22];  //[mNRcTrk]
   Int_t          mRcNhitsIst[22];  //[mNRcTrk]
   Int_t          mRcNhitsPxl2[22];   //[mNRcTrk]
   Int_t          mRcNhitsPxl1[22];   //[mNRcTrk]
   Float_t        mRcRndHitX[22][20];   //[mNRcTrk]
   Float_t        mRcRndHitY[22][20];   //[mNRcTrk]
   Float_t        mRcRndHitZ[22][20];   //[mNRcTrk]
   Float_t        mRcRndHitLX[22][20];  //[mNRcTrk]
   Float_t        mRcRndHitLY[22][20];  //[mNRcTrk]
   Float_t        mRcRndHitLZ[22][20];  //[mNRcTrk]
   Int_t          mRcRndHitLId[22][20];   //[mNRcTrk]   istid = 1000 + ladder * 6 + sensor;
   Float_t        mRcRndHitPX[22][20];  //[mNRcTrk]
   Float_t        mRcRndHitPY[22][20];  //[mNRcTrk]
   Float_t        mRcRndHitPZ[22][20];  //[mNRcTrk]
   Int_t          mRcRndHitPId[22][20];   //[mNRcTrk]
   Int_t          mRcRndHitIdTruth[22][20];  //[mNRcTrk]   PartnerSsdHits[issdhit]->
idTruth();
   Float_t        mRcTrackChi2[22];   //[mNRcTrk]    tMatched->fitTraits().chi2();
   Float_t        mDca2pXY[22];   //[mNRcTrk]
dcaGhelix.geometricSignedDistance(PrimVtx.x(),PrimVtx.y());
   Float_t        mDcaX[22];  //[mNRcTrk]
StPhysicalHelixD dcaGhelix = tMatched->dcaGeometry()->helix();
 Projection(dcaGhelix, irc, IstSensorOnGlobal);
double thePath = dcaGhelix.pathLength(PrimVtx);
StThreeVectorF DCAPos = dcaGhelix.at(thePath);
 AnaT.mDcaX[irc]    = DCAPos.x();
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   Float_t        mDcaY[22];  //[mNRcTrk]
   Float_t        mDcaZ[22];  //[mNRcTrk]
   Float_t        mHelixX[22];  //[mNRcTrk]  StPhysicalHelixD PartnerHelix = tMatched->
geometry()->helix();
AnaT.mHelixX[irc] = PartnerHelix.origin().x();
   Float_t         mHelixY[22];  //[mNRcTrk]
   Float_t        mHelixZ[22];  //[mNRcTrk]
   Int_t          TPCrightTrack[22];  //[mNRcTrk]
   Int_t          ISTrightTrack[22];  //[mNRcTrk]
   Int_t          PXLrightTrack[22];  //[mNRcTrk]
   Int_t          sharedTpcHits[22];  //[mNRcTrk]
   Float_t        percentSharedTpcHits[22];  //[mNRcTrk]
   Int_t          ISTsharedTpcHits[22];  //[mNRcTrk]
   Float_t        ISTpercentSharedTpcHits[22];  //[mNRcTrk]
   Int_t          PXLsharedTpcHits[22];  //[mNRcTrk]
   Float_t        PXLpercentSharedTpcHits[22];  //[mNRcTrk]
   Int_t          mNHits;
   Int_t          mHitIdTruth[27];  //[mNHits]
   Int_t          mHitId[27];  //[mNHits]
   Float_t        mHitX[27];  //[mNHits]  Ist hits position
   Float_t        mHitY[27];  //[mNHits]
   Float_t        mHitZ[27];  //[mNHits]
   Float_t        mHitLX[27];  //[mNHits]  Ist hits local position
   Float_t        mHitLY[27];  //[mNHits]
   Float_t        mHitLZ[27];  //[mNHits]
```