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Subject: [FIXED] PndAnalysis::McTruthMatch always returns false

Posted by [Simone Esch](#) on Mon, 15 Jul 2013 12:21:03 GMT

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Hi everyone!

at the moment I try to reconstruct Lambda LambdaBar events with the new Rho Classes and PndAnalysis.

There is output which I dont understand

I have done the following:

```
theAnalysis->FillList(mctrack,"McTruth","McTruth");
theAnalysis->FillList(protonplus,"ProtonLoosePlus","PidAlgoIdealCharged");
theAnalysis->FillList(pionminus,"PionLooseMinus","PidAlgoIdealCharged");
```

```
lambda.Cleanup();
lambda.Combine(protonplus, pionminus);
lambda.SetType(3122);
for (int r=0; r< lambda.GetLength();r++)
{
  fLambdaMass->Fill( lambda[r]->M() );
  std::cout << "ndaughters " << lambda[r]->Ndaughters() << std::endl;

  lambda[r]->Daughter(0)->PrintOn(std::cout);
  std::cout << std::endl;
  lambda[r]->Daughter(0)->GetMcTruth()->PrintOn(std::cout);
  std::cout << std::endl;
  std::cout << std::endl;
      theAnalysis->McTruthMatch(lambda[r],0,true)
}
}
```

This gives me the following output

```
ndaughters 2
uid:2 trk:1 (-0.22592,0.0670787,0.84685;1.28571) 1e 0.938272 GeV/c2 (0,0,0,4) daughters:
0() pdg: 2212 PID:0,0,0,0,1, mc truth pointer: 0x7fb13f203680
uid:5 trk:-1 (-0.225709,0.0602535,0.849309;1.28696) 1e 0.938272 GeV/c2 (0,0,0,32)
daughters: 0() pdg: 2212 PID:-999999,-999999,-999999,-999999,-999999, mc truth pointer: 0

uid:3 trk:2 (0.0527879,0.0460279,0.232573;0.280134) -1e 0.13957 GeV/c2 (0,0,0,8)
daughters: 0() pdg: -211 PID:0,0,1,0,0, mc truth pointer: 0x7fb13f2038b0
uid:6 trk:-1 (0.056507,0.047805,0.224331;0.274377) -1e 0.13957 GeV/c2 (0,0,0,64)
daughters: 0() pdg: -211 PID:-999999,-999999,-999999,-999999,-999999, mc truth pointer: 0
```

Info in <PndMcTruthMatch::MctMatch>: accepted final state by PDG code (pdg=2212)

Info in <PndMcTruthMatch::MctMatch>: rejected composite (pdg=3122) by non-matching

daughter: idau=0

My questions are now:

Why is the treknumber trk from my MCTruth Candidates always -1? Should it not be the same number as above ( This is the position in the TCA, right? )

Why are ALL my MctMatch false? Somehow this dosnt work or I am doing it wrong

External Packages: Apr13

Pandaroot: REV 20654

Best Regards

Simone

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