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Subject: MC truth (cont.)

Posted by [Karin Schönning](#) on Tue, 25 Mar 2014 11:10:53 GMT

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Hi again,

I asked previously about MC truth PID, then we thought the issue was solved but now it appears that it is not solved after all. Using MC truth PID and matching with a MC truth mother in the following way:

```
int ipiprec =0;
int ipipmoth=0;
mcidpip.SetType(211);
for (k=0; k<mcidpip.GetLength(); ++k) {
    if ( theAnalysis->McTruthMatch(mcidpip[k]) ) {
        RhoCandidate *piptr=mcidpip[k]->GetMcTruth();
        if(piptr && piptr->PdgCode()==211){
            ipiprec++;
            RhoCandidate *mother = 0;
            mother = piptr->TheMother();
            if (mother && mother->PdgCode()==411)
            {
                ipipmoth++;
            }
        }
    }
}
```

for  $\Psi'(3770) \rightarrow D+D^-$ ,  $D^+ \rightarrow K-\pi^+\pi^+$  and  $D^- \rightarrow K+\pi^-\pi^-$  gives in about 12% of the events, cases with more than 2  $\pi^+$  or  $\pi^-$  or more than 1  $K^+$  or  $K^-$  in the final state. I have the same problem in the January 2014 release as in the trunk version of pandaroot.

Did anyone else still have this problem?

Best regards,  
/Karin

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