
Subject: True vertex position for secondary decay vertices
Posted by [Ajay Kumar](#) on Mon, 12 Jan 2015 20:31:35 GMT
[View Forum Message](#) <> [Reply to Message](#)

Dear All,

I am trying to find true vertex position for $\Lambda^0 \rightarrow p \pi^-$ and $\Lambda^0 \rightarrow \bar{p} \pi^+$. I have four track from the simulation and used PndMCTrack to find the true vertex position of Λ^0 and Λ^0 particles. I am using GetStartVertex() to find the vertex of lambda from its decay particle as below.

```
if(mctrack->GetSecondMotherID()==1){  
    if (mc_pid==2212)  
    {  
        vtx_x= mctrack->GetStartVertex().X ();  
        vtx_y= mctrack->GetStartVertex().Y();  
        vtx_z= mctrack->GetStartVertex().Z();  
        // r = sqrt(pow(vtx_x,2)+pow(vtx_y,2));  
        // countT1++;  
        //rzp-> Fill(vtx_z,r);  
        // if (vtx_z< 40)  
        // countT2++;  
  
    }  
}
```

Is It giving the true vertex position of Λ^0 or not?
If not then how I should go for it?

Thanking you
