Subject: Re: One question about tracking efficiency
Posted by Yutie Liang on Thu, 22 Apr 2010 12:42:34 GMT
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Hi,

I tried with your new code, which I saw the conversion of cm/mm.
It does improve my result, but not very much.

I only tested with 200 events, and got 12 signals. I will test with more statistic later.
The total efficiency of this channel ~ 6%, is better than the former 3-4%. It's still too low.

I think there could be some other prolems.
I listed the tracks info of several events.
To survive the analysis program, the MctrackID should contain 0,1,2,3,4,5 at least. In the following, only event 194 passed this, but failed the mass cut.

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event: 194
mom: (-0.276957, 0.489483, 1.41229)  MctrackID: 4
mom: (0.547624, -0.518, 1.18875)  MctrackID: 3
mom: (4.74344, 1.18262, 3.54849)  MctrackID: 2
mom: (1.73905, 0.298494, 2.67836)  MctrackID: 2
mom: (-0.890036, -0.0107261, 1.80312)  MctrackID: 1
mom: (-0.100752, -0.205479, 0.654262)  MctrackID: 5
mom: (-0.127335, -0.0098834, 0.799576)  MctrackID: 0
mass of dp: 5.29566
mass of dp: 3.10414
mass of dm: 1.78799
dp: 0  dm: 1
event: 195
mom: (-0.714914, -0.0269411, 0.979918)  MctrackID: 4
mom: (0.779887, -0.125705, 1.85668)  MctrackID: 3
mom: (0.259352, 0.166287, 1.226)  MctrackID: 2
mom: (0.397058, -0.224433, 0.460777)  MctrackID: 0
mom: (-0.0066277, -0.179322, 0.835163)  MctrackID: 1
event: 196
mom: (0.757172, 0.107102, 1.45513)  MctrackID: 5
mom: (-0.269729, -0.0472028, 0.835738)  MctrackID: 4
mom: (-0.0532711, -0.646725, 1.03129)  MctrackID: 0
mom: (1.77291, 2.69191, 3.89288)  MctrackID: 2
mom: (0.625281, 0.877034, 0.994429)  MctrackID: 2
mom: (-2.25023, -0.892301, 1.50073)  MctrackID: 2
mom: (0.298023, 0.639753, 1.01819)  MctrackID: 2
mom: (-0.176344, 0.110833, 0.639549)  MctrackID: 4
mom: (-0.100674, -0.0839868, 0.826197)  MctrackID: 1
event: 197
mom: (0.366878, -0.291604, 1.02965)  MctrackID: 5
mom: (-0.346555, 0.366326, 0.323261)  MctrackID: 4
mom: (0.0505044, -0.0861833, 0.401847)  MctrackID: 1
mom: (5.3789, -1.86377, 11.1783)  MctrackID: -1
event: 198
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mom: (-0.346544, 0.413518, 1.98112) MctrackID: 3
mom: (0.0704105, -0.270733, 0.279589) MctrackID: 4
mom: (1.74562, 0.732808, 5.13812) MctrackID: 2
event: 199
mom: (-0.186931, -0.370772, 0.620371) MctrackID: 4
mom: (0.232215, -0.590434, 1.37189) MctrackID: 0
mom: (0.386676, 5.02008, 2.315) MctrackID: 5
event: 200
mom: (0.569166, 0.378718, 1.23879) MctrackID: 5
mom: (-0.406435, -0.291732, 1.41973) MctrackID: 4
mom: (-76.9758, -12.678, 384.064) MctrackID: 0
mom: (0.274015, 1.52483, 0.010232) MctrackID: 2
mom: (-0.126436, -0.296277, 0.736622) MctrackID: 3
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regards