Subject: Re: Lambda Lambdabar simulations
Posted by donghee on Wed, 16 Apr 2014 08:30:46 GMT
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Hi,

The lambda-lambdabar data has been tested with phase space mode and in addition a special detector has been introduced to see acceptance behaviour of anti-lambda as you suggested.
Quote:
fastSim->AddDetector("ScSttAlone", "thtMin=0. thtMax=160. ptmin=0.0 pmin=0.0 pRes=0.01 thtRes=0.001 phiRes=0.001 efficiency=1.0");

Efficieny increase clearly, since the reconstructed distribution is not scaled any more.
But still acceptance is going down at cos(theta) = -1 and 1.

I think that the pure acceptance can be understood with a V0 decay. If the lambda or lambdabar decay far from the target region, daughter tracks could not be reconstructed. It leads to drop down of acceptance because forward boosted lambdabar(or lambda) flight a long distance.
As far as I understand, all track candidates defined in the fast simulation are coming closely from target region.

Best wishes,
Donghee

File Attachments

1) setup_test_acceptance_cos_theta_superdetector.png, downloaded 391 times