Subject: Re: Efficiency reduction of antiprotons above 20 degrees
Posted by Karin Schönning on Tue, 02 Dec 2014 12:25:04 GMT
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Hi again,

I ran the box generator at 1 GeV and 2 GeV, from 0 to 0 degrees in the lab angle, and at 2 GeV I first put the generator in the interaction point and then 20 cm away (in z) from the IP. One can not see any clear differences in structures, but there is a significant difference in the efficiency of protons with respect to antiprotons:

1 GeV, at IP: protons 89%, antiprotons 80%
2 GeV, at IP: protons 91%, antiprotons 82%
2 GeV, at (x,y,z) = (0,0,20): protons 69%, antiprotons 64%

In the attachment you can see the distributions theta vs p. Hopefully the file names ar self-explanatory.

It is difficult to draw any conclusions from this except that there is indeed a difference between the proton and the antiproton efficiency. Here, it however looks like it is an overall effect.

I will shortly post some more plots from Lambda Lambdabar simulations because they tell a somewhat different story.

Cheers,
/Karin

File Attachments

1) th_p_boxp_1.pdf, downloaded 466 times
2) th_p_boxp_2.pdf, downloaded 494 times
3) th_p_boxp_2_20cm.pdf, downloaded 450 times
4) th_p_boxpbar_1.pdf, downloaded 483 times
5) th_p_boxpbar_2.pdf, downloaded 469 times
6) th_p_boxpbar_2_20cm.pdf, downloaded 497 times