Subject: [SOLVED] PScatterCrossSection with pi0 decay
Posted by Michael Kunkel on Sun, 19 May 2013 14:22:24 GMT
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Greetings,

PLEASE DISREGARD THIS AND CONTINUE TO SECOND POST. Thanks.
Original message:

I had noticed that the PScatterCrossSection method described by this first example fails to create a distribution if eta is replaced with pi0.

Can this be examined please?

Thanks
Michael

Subject: Re: PScatterCrossSection with pi0 decay
Posted by Michael Kunkel on Tue, 21 May 2013 21:54:53 GMT
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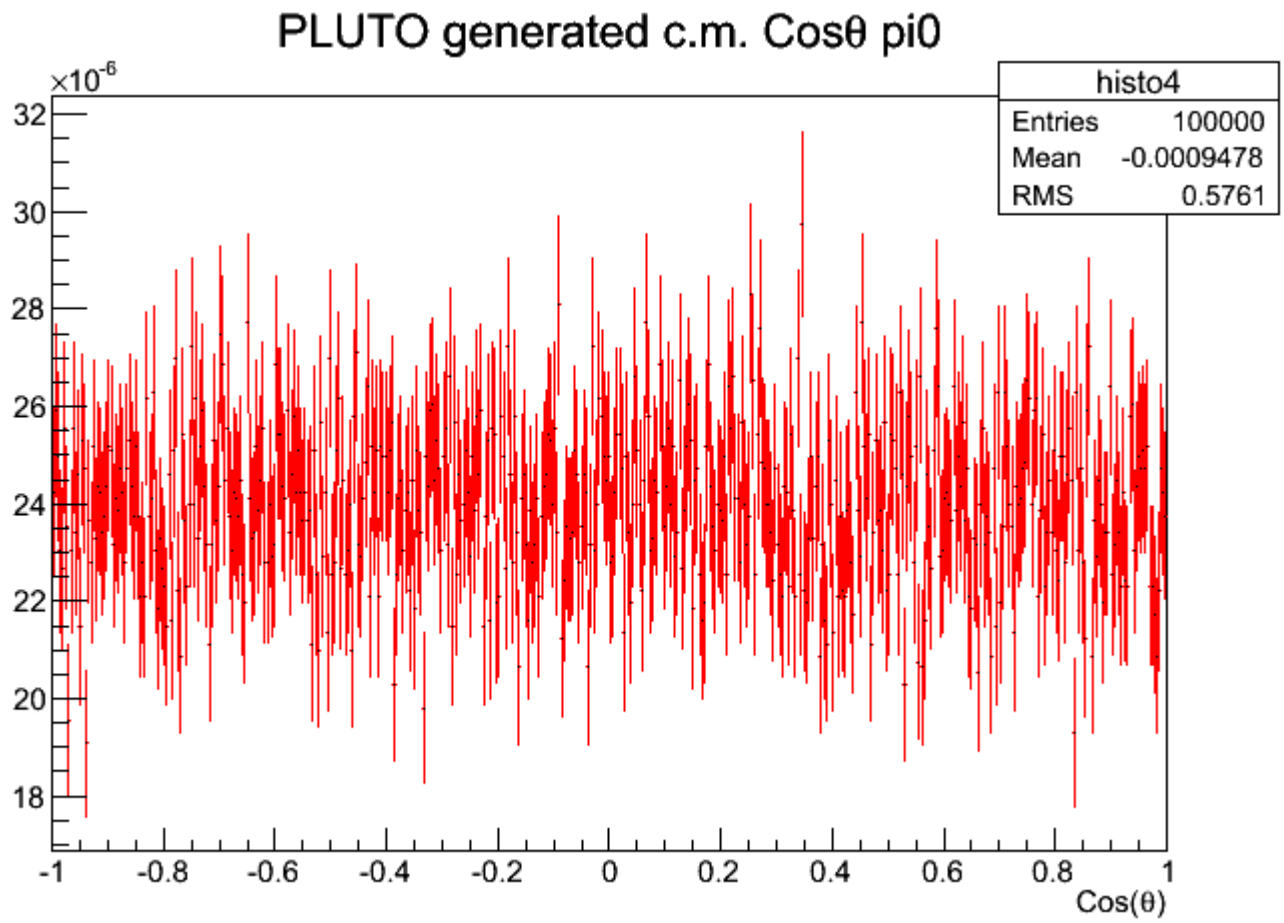
Here is a more in-depth explanation.
I have a script, pi0_XSection.C, in which I ask PLUTO to sample the inputted histograms. For the sample provided, I ask only one c.m. energy and one histogram. I get a flat distribution in Cos(theta) instead of the inputted histogram. See figure 1.

Then I change that macro for the case when I have known this procedure to work, eta (macro pi0_maskEta_XSection.C), and I run it. I get a topology similar to the inputted histogram. See figure 2.

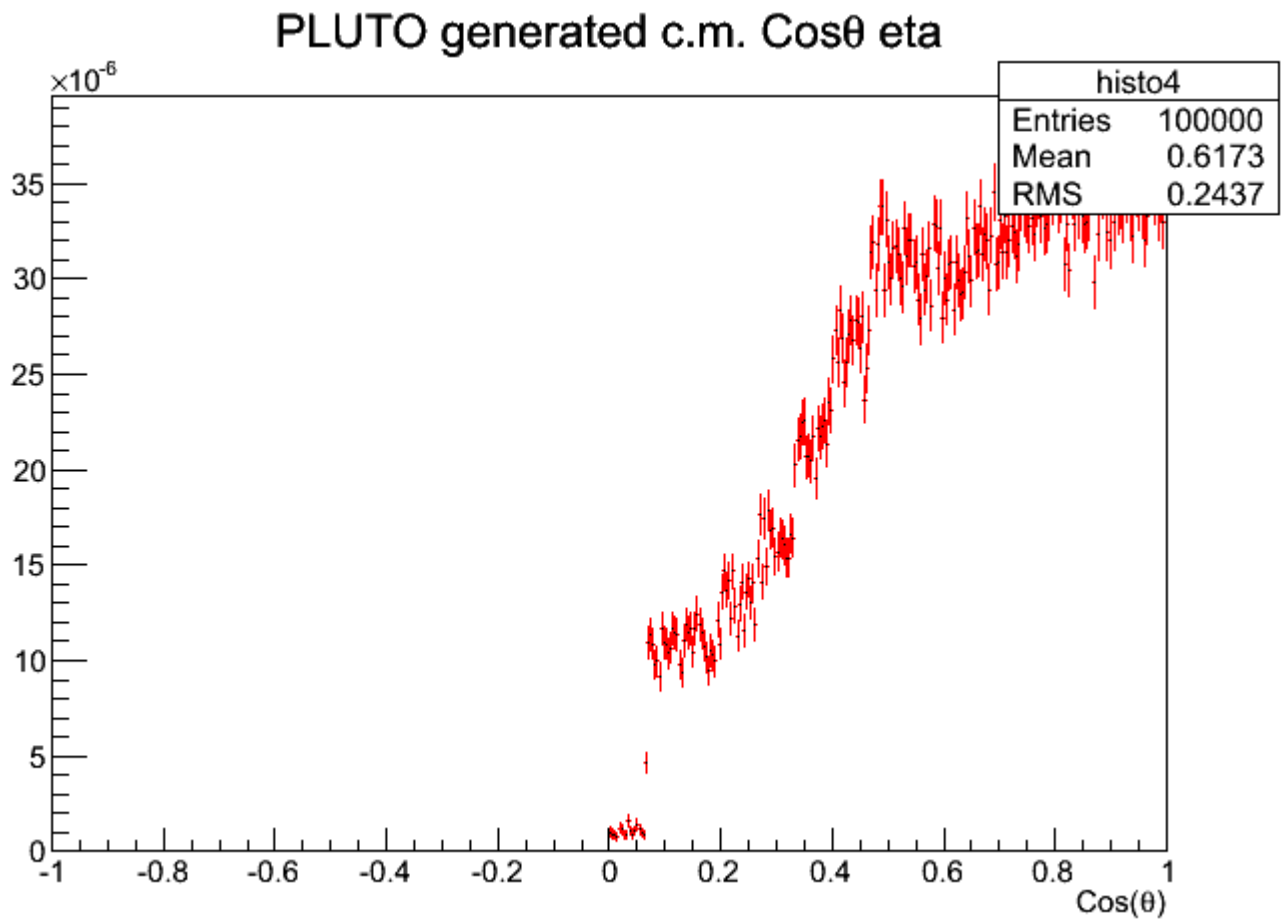
Thanks
Michael

File Attachments

1) PI0_Hists.root, downloaded 520 times
2) pi0_XSection.C, downloaded 526 times
3) pi0_maskEta_XSection.C, downloaded 555 times
4) XSECTIO_GEN_PLOTSPLUTO_PI0_generated_cos_theta.png, downloaded 1469 times



5) XSECTIO_GEN_PLOTSPLUTO_ETA_generated_cos_theta.png, downloaded 1393 times



Subject: Re: PScatterCrossSection with pi0 decay
Posted by Ingo Fröhlich on Wed, 22 May 2013 06:57:54 GMT
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Remember the template:

```
PScatterCrossSection *model = new PScatterCrossSection("mymodel","My cross section");
model->Add("g,grandparent,beam");
model->Add("p,grandparent,target");
model->Add("q,parent");
model->Add("p,daughter");
model->Add("eta,daughter,primary");
```

must match to the reaction:

```
PReaction my_reaction("_P1 = 2.2","g","p","p pi0 [dilepton [e+ e-]
g]","pi0_dalitz_QEDFF",1,0,0,0);
```

one can see this very nicely when using Print(), the model "mymodel" must appear.

Subject: Re: PScatterCrossSection with pi0 decay

Posted by Michael Kunkel on Wed, 22 May 2013 11:28:38 GMT
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Sorry and thanks.