Subject: EvtGenDirec/PHOTOS
Posted by Alaa Dbeyssi on Tue, 22 May 2018 11:57:13 GMT
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Hi,

I am generating the process ppbar->e+e- using EvtGenDirect and switching on PHOTOS (release Dec17p1, macros from /pandaroot/macro/run, p=1.5 GeV).
It seems that PHOTOS is not working properly here since the invariant mass of the e+e- is alway equal to the theoretical value 2.254 GeV (no radiative tail and no photon emission).
There is also warning from PHOTOS:

WARNING from PHOTOS: "Momentum not conserved in the vertex". The log file is attached.
By switching on PHOTOS, means I don't write "noPhotos" in the decay file. Is this correct?

thank you for your help.
Alaa
//////////////////
The decay file is:

```
Decay pbarpSystem
  1.0  e+ e-     PHSP;
Enddecay

End
```
//////////////////

## File Attachments

1) myjob0.1199595.x2257.out, downloaded 624 times

Subject: Re: EvtGenDirec/PHOTOS
Posted by Ralf Kliemt on Wed, 23 May 2018 08:25:50 GMT
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Hi Alaa,

I believe the "noPhotos" is the default. Please try "yesPhotos" in the beginning to switch it on manually.

Cheers!
Ralf

Subject: Re: EvtGenDirec/PHOTOS
Posted by StefanoSpataro on Wed, 23 May 2018 08:39:42 GMT
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Or in theory

Decay pbarpSystem

1.0 e+ e- PHSP PHOTOS;
Enddecay

---

Subject: Re: EvtGenDirec/PHOTOS
Posted by Alaa Dbeyssi on Wed, 23 May 2018 10:08:26 GMT
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Dear Ralf and Stefano,

thank you for your answers.
I tried both methods, but still the generated events are without photons.
From the log files one can see that PHOTOS is switched on.

Best regards,
Alaa

## File Attachments

1) myjob0yesPhotos.out, downloaded 511 times

---

Subject: Re: EvtGenDirec/PHOTOS
Posted by StefanoSpataro on Wed, 23 May 2018 10:41:16 GMT
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Can you plot from the simulation file the following:

cbmsim->Draw("MCTrack.fPdgCode","MCTrack.fMotherID==-1");

and attach the plot?

---

Subject: Re: EvtGenDirec/PHOTOS
Posted by Alaa Dbeyssi on Wed, 23 May 2018 10:57:05 GMT
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Hi Stefano,

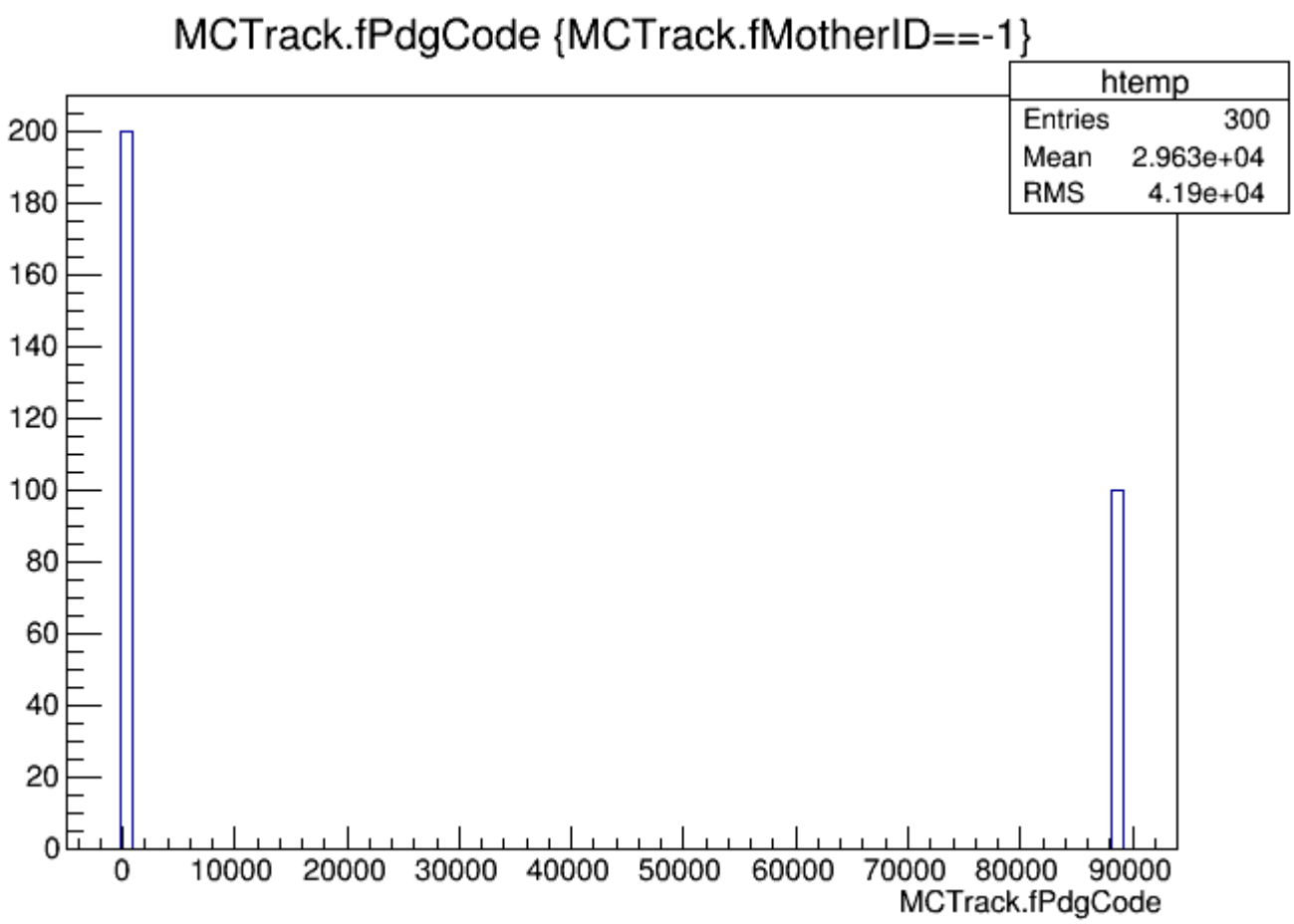
here are the plots for the generated 100 events.

best regards,

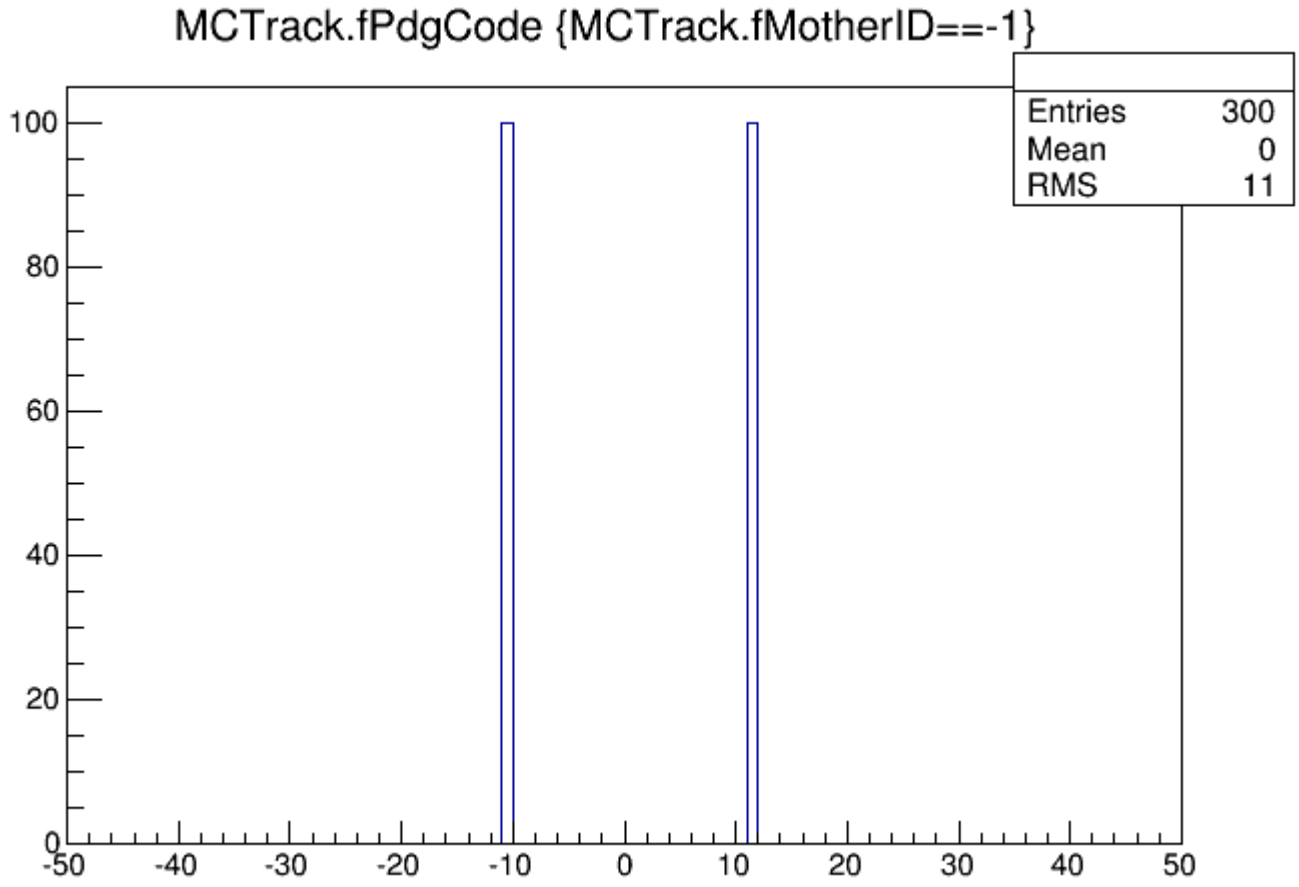
Alaa

## File Attachments

1) Fig1.png, downloaded 1024 times




2) Fig2.png, downloaded 905 times



Subject: Re: EvtGenDirec/PHOTOS
Posted by StefanoSpataro on Wed, 23 May 2018 11:01:49 GMT
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Absolutely no photons...

Subject: Re: EvtGenDirec/PHOTOS
Posted by Alaa Dbeyssi on Wed, 23 May 2018 11:10:16 GMT
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yes this problem appears with the new versions of PANDAROOT (feb17p1, dec17p1).
However checking the previous results with an old version of PANDAROOT (revision 25544), PHOTOS works properly by just not adding noPhotos in the decay file.

Best regards,
Alaa