Subject: UrqmdSmm event generator
Posted by Aida Galoyan on Wed, 13 Jun 2007 13:23:32 GMT
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Hi all,
I have added and committed
new files PndUrqmdSmmGenerator.cxx(h) in pgenerators
package. The corresponding changes are made in files
pgenerators/PgenLinkDef.h and pgenerators/Makefile.am.
Due to these, now there is a possibility to work with
out root-files from UrqmdSmmGen as with root-files
from DpmGen. It is enough to replace "Dpm" to "UrqmdSmm".

For testing purposes, I calculated 10000 Events
of pbar+C reaction at momentum 3.1 GeV/c by UrqmdSmmGen.
Output root-file "pbarC_3_1_GeV.root" is disposed in
lxi00X cluster in /d/panda02/urqmd_smm/ .

If somebody has a special request for number of generated
events of pbarA-reactions at defined momentum and
nuclear target, please, send me the corresponding
request. I will calculate them with UrqmdSmm generator.

Best regards, Aida

Subject: Re: UrqmdSmm event generator
Posted by Jens Sören Lange on Wed, 13 Jun 2007 13:57:45 GMT
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Hi Aida,

this is great, thank you very much ! Could you maybe generate one more file for pbar-C at 4.05 GeV pbar momentum (i.e. a bit higher, instead of 3.1) ? If I remember correctly, this is the proposed momentum (e.g. in the TPR) to compensate for Fermi motion of the target proton.

best regards, Soeren

Subject: Re: UrqmdSmm event generator
Posted by Aida Galoyan on Thu, 14 Jun 2007 04:57:22 GMT
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Hi Soeren,
I have generated 10000 Events of pbarC reaction at 4.05 GeV/c with Urqmd+Smm model.
Output root-file "pbarC_4_05_GeV.root" is put in lxi00X.gsi.de

cluster in /d/panda02/ .

Best regards,
Aida

Subject: Re: UrqmdSmm event generator
Posted by StefanoSpataro on Thu, 14 Jun 2007 08:15:17 GMT
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Good job!
I would suggest to keep all these informations inside wiki.
I created a topic there:

http://panda-wiki.gsi.de/cgi-bin/view/Computing/UrqmdSmm

where I think it could be useful to write a table with the locations of all the files, with the correspondig reaction, energy, and location on the GSI cluster.

Could you please put these informations also there? So that in the future one has not to search in the forum where to find the files, but in a more "stable" place.
What do you think?

Ste

Subject: Re: UrqmdSmm event generator
Posted by Ralf Kliemt on Thu, 14 Jun 2007 12:03:55 GMT
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Hello Aida,

Could you please add the PndUrqmdSmmGenerator.cxx to the CmakeLists.txt in pgenerators in the svn?

Have a nice day,
Ralf.

Subject: Re: UrqmdSmm event generator
Posted by StefanoSpataro on Thu, 14 Jun 2007 12:06:03 GMT
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I did it already few minutes ago.

Subject: Re: UrqmdSmm event generator
Posted by Aida Galoyan on Wed, 20 Jun 2007 11:41:21 GMT
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Hi all,
I have calculated 10000 Events of
pbar+Cu reaction at 4.05 GeV/c by Urqmd_smm model
and put output root-file "pbarCu_4_05.root"
at GSI cluster lx00X.gsi.de in /d/panda02/urqmd_smm .
You can use it.

Stefano wrote
>>>>>>>>>>
I would suggest to keep all these informations inside wiki.
I created a topic there:

http://panda-wiki.gsi.de/cgi-bin/view/Computing/UrqmdSmm

where I think it could be useful to write a table with the locations of all the files, with the correspondig reaction, energy, and location on the GSI cluster
>>>>>>>>>>

I agree with Stefano and I will dispose such table inside wiki.

Best regards, Aida

Subject: Re: UrqmdSmm event generator
Posted by Aida Galoyan on Fri, 29 Jun 2007 13:53:11 GMT
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Hi all,

You can use the next added calculations by UrQMD_SMM model.

pbar+Au at momentum 4.05 GeV/c, two out-root files with 5000 Events, "pbarAu_4_05_GeV_1.root", "pbarAu_4_05_2.root"

pbar+Cu at 3 GeV/c, 10000 Events, out-root file "pbarCu_3.root"

pbar+C at 3 GeV/c, 10000 Events, out-root file "pbarC_3.root"

pbar+Pb at 3 GeV/c, two out-root files with 5000 Events, "pbarPb_3_GeV_1.root", "pbarPb_3_GeV_2.root".

These files are in lxi00X.gsi.de cluster in /d/panda02/urqmd_smm

Good luck, Aida

Subject: Re: UrqmdSmm event generator
Posted by Olaf Hartmann on Thu, 12 Jul 2007 13:51:38 GMT
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Hi Aida,

I'd like to perform an UrQMD calculation for the reaction
p+p at 3 GeV (2.8 GeV/c).
Can I do this within the PandaFramework or do I need a local
installation of UrQMD?

Cheers,
Olaf.

Subject: Re: UrqmdSmm event generator
Posted by Aida Galoyan on Tue, 24 Jul 2007 13:29:39 GMT
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Hi Olaf,

I have calculated by Urqmd_smm 100000 Events of
pp-interactions at momentum 2.8 GeV/c in the Panda-Root.
The output file "pp_2_8_GeV.root" is put at
lxi00X cluster in
/d/panda02/urqmd_smm .

Good luck, Aida

Subject: Re: UrqmdSmm event generator
Posted by asanchez on Thu, 02 Aug 2007 16:44:59 GMT
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Hi Aida,
i know that the standard panda reactions are produce
taking into account the vertex (0,0,0). but i wonder if it is possible to generate with the
PndUrqmdSmm, reactions pbarp at 3.0 GeV in (0,0,-76 cm),
(otherwise i can not use it for my purpose) or at least
to be able to swich the vertex in the running macro
something like PndUrqmdSmm("file.root",X,Y,Z)

if not i will be even happy having a file with the reaction
pbarp at 3.0 GeV in (0,0,-76 cm).

Thanks a lot

Alicia S.

Subject: Re: UrqmdSmm event generator
Posted by StefanoSpataro on Thu, 02 Aug 2007 16:52:51 GMT
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In CbmPrimaryGenerator there is the following method:

```
/** Set target position and thickness.
  *@param targetZ   z position of target center
  *@param targetDz  full target thickness
  **/
 void SetTarget(Double_t targetZ, Double_t targetDz);
```

You can use that one to set the position of the vertex in your simulation macro, and that should be all (you can even smear it).

Subject: Re: UrqmdSmm event generator
Posted by asanchez on Thu, 02 Aug 2007 16:56:26 GMT
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ok, thanks
Alicia S.

Subject: Re: UrqmdSmm event generator
Posted by Aida Galoyan on Thu, 02 Aug 2007 18:37:35 GMT
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Hi Alicia,
Really, in the out_root_file created by UrQMDSmm or Dpm generators,
the position of vertex is (0.,0.,0.).
But, I think when you use corresponding out_root_file, generated
by Event generator, in your macro for simulation of detector,
you can take the needed coordinate from root_Tree (as leaf of Tree) and
change it, according to the requirement of your task.

In PndJRGen there is possibility directly
to smear vertex in the macros for generation of events.

```
 Vertex.SetXYZT(0,0,0,0);  // zero by default

 // smearing of the primary vertex (Gauss with the above mean, and this sigma)
 //TVector3  VtxRes(.1,.1,.2);  // what target smearing do you want???
 TVector3 VtxRes(0,0,0);
```

This can be useful for you.

Good luck,
Aida

Subject: Re: UrqmdSmm event generator
Posted by StefanoSpataro on Thu, 02 Aug 2007 18:46:00 GMT
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In theory all the events coming from event generators should come from the 0,0,0 point.
The position of the interaction point, thus the vertex smearing and so on does not belong to the event generator, but to the transport model, because it depends more on the detector (where do you pout your target) than on the physics.

This is the reason why it is better to set the position of the interaction point directly in the CbmPrimaryGenerator, and that the shifted vertex inside the events should be avoided.
Or at least I remember a decision on this side several VRVS meetings ago.

Subject: Re: UrqmdSmm event generator
Posted by asanchez on Mon, 13 Aug 2007 08:08:30 GMT
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Hi Aida,is it possible to generate
a file with the reactions pbar-p (in Carbon)
for one million events at 3.0GeV?

Thanks a lot
Alicia S.

Subject: Re: UrqmdSmm event generator
Posted by Aida Galoyan on Tue, 14 Aug 2007 10:26:55 GMT
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Dear Alicia,
Sorry, I don't understand your question.

is it possible to generate
a file with the reactions pbar-p (in Carbon)

Using DPMGen it is possible to calculate pbar-p interactions.
I can calculate pbarC(12) interactions in the frame of UrqmdSmm.

But, what means pbar-p (in Carbon)?
Please, write me in detail.

Best regards,
Aida

Subject: Re: UrqmdSmm event generator
Posted by asanchez on Tue, 14 Aug 2007 11:11:22 GMT
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Hi Aida,
sorry i mean pbarC(12) interactions at 3 GeV.
best regards

Alicia.

Subject: Re: UrqmdSmm event generator
Posted by Aida Galoyan on Tue, 14 Aug 2007 12:32:27 GMT
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Hello Alicia,
I have already calculated pbarC(12) interactions by UrqmdSmm
(10000 Events) at 3 GeV/c. The output_file ("pbarC_3_GeV.root")
is put at GSI cluster lxi00X.gsi.de
in public directory d/panda02/urqmd_smm

If you need more number of the events, please, write me.

Best regards,
Aida

Subject: Re: UrqmdSmm event generator
Posted by asanchez on Tue, 14 Aug 2007 13:00:13 GMT
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Hi Aida, actually
i will need about one million of
pbarC12 events at 3 GeV.
thank you in advance.

Alicia

Subject: Re: UrqmdSmm event generator
Posted by Aida Galoyan on Tue, 14 Aug 2007 13:35:28 GMT
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dear Alicia,

actually I will need about one million of
pbarC12 events at 3 GeV.

For this, I assume to create 10 output_root_files with 100000 pbarC12 Events in every one.
Because, generation directly one million requires too much time.

Aida

Subject: Re: UrqmdSmm event generator
Posted by asanchez on Tue, 11 Mar 2008 10:24:03 GMT
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Dear Aida,
is it possible to get more events files
for the pbarC at 3GeV. At the moement there is only one with
about 10K events, and i would like to have more
in order to get more statistics in the low energy region.

thanks in advance
Alicia.

Subject: Re: UrqmdSmm event generator
Posted by Aida Galoyan on Tue, 11 Mar 2008 11:19:31 GMT
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Dear Alicia,

please, write me how many pC events at 3 GeV/c calculated
in the frame of UrQMD_SMM model with Xi Xi_bar production
are needed for your analysis?
I will try to perform the needed calculations.

With best regards,
Aida

Subject: Re: UrqmdSmm event generator
Posted by asanchez on Tue, 11 Mar 2008 12:04:12 GMT
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Hi Aida, i need only background reactions
without XiXibar production.

cheers

Alicia.

Subject: Re: UrqmdSmm event generator
Posted by Aida Galoyan on Tue, 11 Mar 2008 12:17:36 GMT
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Hi Alicia,

I will try to calculate 1000000 Events
with UrQMD_SMM.

Best regards,
Aida