

---

Subject: Re: PndBoxGenerator -> distributions uniform in 1/p  
Posted by [StefanoSpataro](#) on Fri, 20 Jul 2007 11:59:10 GMT  
[View Forum Message](#) <> [Reply to Message](#)

---

Hello,

I added in PndBoxGenerator a new option, in order to have distributions uniform in 1/p (sometimes it can be useful).

It works as the CosTheta function, so (example):

```
PndBoxGenerator* boxGen = new PndBoxGenerator(13, 1);  
boxGen->SetPRange(0.1,15.);  
boxGen->SetPhiRange(0., 360.);  
boxGen->SetThetaRange(1., 12.);  
boxGen->SetXYZ(0., 0., 0.);  
primGen->AddGenerator(boxGen);
```

generates particles with a uniform distribution over p in the fixed range, while if you add the `boxGen->SetInverseP()` function:

```
PndBoxGenerator* boxGen = new PndBoxGenerator(13, 1);  
boxGen->SetPRange(0.1,15.);  
boxGen->SetInverseP();  
boxGen->SetPhiRange(0., 360.);  
boxGen->SetThetaRange(1., 12.);  
boxGen->SetXYZ(0., 0., 0.);  
primGen->AddGenerator(boxGen);
```

you will have a distribution in the same range BUT uniform in 1/p. It works even with pt range (so uniform in 1/pt).

Enjoy.

P.S. meanwhile I corrected a missing initialization in the constructor, and some for CbmBoxGenerator.

---