
Subject: CbmHsdLvmGenerator

Posted by [Volker Friese](#) on Tue, 26 May 2009 09:05:59 GMT

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On special request, there is now the new generator class CbmHsdLvmGenerator. It reads a special output file of HSD containing vector mesons (one per event), decays each meson either into electron or muon pairs and adds the daughters to the stack.

The need for this generator came up since the decay with PYTHIA did not take into account the proper mass of the vector mesons (it takes the PDG mass, not the (e.g. in-medium modified) one provided by the model).

Usage:

```
CbmHsdLvmGenerator* gen = new CbmHsdLvmGenerator(inFile, pBeam, iMode);
```

where inFile is the name of the input file, pBeam the beam momentum in GeV per nucleon and iMode the decay mode (1 = e+e-; 2 = mu+mu-).

The format of the input file is: One line per event / meson containing

```
m px py pz E t1 t2 b
```

If $|t2/t1| > 0.001$, the event is ignored (speciality of HSD).
