Subject: Problems with PARTWAVE Model of EvtGen
Posted by Jennifer Pütz on Tue, 25 Aug 2015 14:44:29 GMT
View Forum Message <> Reply to Message

Hi everyone,

is there one of you who worked already with the PARTWAVE model of EvtGen?
I want to use it for the decay of Xi(1820)->Lambda0 + K- with l=2

For this I extended the evt.pdl file with the line:

add p Particle Xi(1820)- 23314 1.8230000e+00 2.4000000e-02 5.0000000e-03 -3 3 0.0000000e+00 0

As decay file I use the attached Dec-file. I set the decay model to PARTWAVE 0.0 0.0 0.0 0.0 1.0 0.0 like described in the documentation.

But if I run the simulation macro the following message appears and the macro stops.

EvtGen:Mixing type integer set to 1
EvtGen:Done initializing EvtGen
EvtGen:In readDecayFile,
reading:/private/puetz/mysimulations/analysis/XiMinus_1820_lambda0_K.dec
EvtGen:As requested, PHOTOS will be turned off.
EvtGen:PARTWAVE generator expected
EvtGen:4
EvtGen: arguments but found:6
Xi(1820)- -> Lambda0 K- (PARTWAVE)
EvtGen:Will terminate execution!

With the example file
trunk/pgenerators/EvtGen/EvtGen/R01-03-00/test/exampleFiles/PARTWAVE.DEC the simulation macro is working fine.

If I reduce the number of arguments to PARTWAVE 0.0 0.0 1.0 0.0 the simulation is running without any error. I am not sure if it is correct to use it this way.

Can someone help me?

I'm using:

FairSoft: mar15
FairRoot: v-15.03a
PandaRoot: trunk Rev. 28039

Best,

Jenny

File Attachments

1) XiMinus_1820_lambda0_K.dec, downloaded 723 times
2) evt.pdl, downloaded 690 times
3) sim_complete.C, downloaded 657 times

Subject: Re: Problems with PARTWAVE Model of EvtGen
Posted by StefanoSpataro on Mon, 31 Aug 2015 12:50:45 GMT
View Forum Message <> Reply to Message

I think the problem comes from the fact that the initial state has spin 3/2, but I have no idea how this sum up. It seems to me it does not cover l=2 but it arrives to l=1.
