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Subject: Re: Problem with Xi(1820) in EvtGen  
Posted by [Jennifer Pütz](#) on Mon, 02 Nov 2015 08:52:11 GMT  
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Hi Stefano,

I tried out what happens, if I use the mass of 5.5 without the suggested patch. Going to higher pbarpSystem masses seems to fix the problem (see plot below).

This is similar to the observations of the EvtGen guys.

If I understood them correct, the code of `src/EvtGenBase/EvtMassAmp.cpp::amplitude()` checks first, if the pbarpSystem mass is bigger than the sum of the mass of the daughters. In my case the masses of Xi(1820)- and Xi+ are  $1.823 + 1.322 = 3.145$  which is much higher than the mass of the pbarpSystem. This seems to cause - together with  $L=0$  - that the mass distribution is flat.

Best,

Jenny

#### File Attachments

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1) [XiMinus1820\\_Spin\\_3half\\_higher\\_pbarpSys\\_mass.png](#),  
downloaded 1309 times

