Quote:I think I should explain the meaning of this method a little bit more. It is a function based on _x (cos theta) and _y (total c.m. energy). The class samples the density function with GetRandom2(), and sets the resulting angle and the c.m. energy of the system. Therefore, the beam smearing cannot be used in this case. You have to fold the beam smearing inside the function.

All this could be in fact also be realized with a TF2 class. But the class PF2EvalBatch is more flexible. You can merge one (or more) histograms with the function, if you want you can use one histogram for cos theta and another one for the cross section (and/or beam smearing), or a 2dimensional histogram, or just an analytical function. Therefore, in my dummy example you have the replace the calculation of _y (linear function) with some meaningful (if you look carefully you can also see the dummy linear function in your plot).

I noticed in the example macro,

    //Now add the histogram to the model class, and define an equation
    //Input: _x is cos(theta), _y is the c.m. energy
    //Output: _f: cross section

Is _f the density function? If so, wouldn't using Input : _x s cos(theta), _y is differential cross section
    Output : cross section suffice?

I ask this, because I have 64 different models I want to use, each a segment of c.m. energy covering the range 1.68 - 2.84 GeV in the c.m. frame.
So eventually I am going to be adding 64 models, each model has a different cross section, ie the cross section at 1.68 GeV is much higher then the cross section and 2.84 by a factor ~ 100. So I would like to make sure what I model this, this scaling is taking into effect.

Would you please elaborate more on how to add more histograms into the model to ensure I get the right topology with the scaleing of the cross sections, the beam smearing, etc. I have having a hard time understanding everything so far.

Thanks