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Subject: Re: Problems with PndKinFitter::AddMassConstraint  
Posted by [Stefano Spataro](#) on Wed, 07 May 2014 15:32:57 GMT

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This is a mass constraint fit, you force the total mass being a defined value, and then you use the modified parameters to check other distributions (i.e. you fit the  $j/\psi$  mass and check the improvement in the resolution of  $\psi$  mass). The mass must be a delta, or must have sigma much narrower than resolution... in this case you have only one moderate improvement. The 4C fitter works nicely and you have a delta there, or better a very narrow distribution. A broader distribution means that the fit did not converge to a global minimum, and I am not surprised seeing that  $\chi^2$  distribution.

The main question is: why the  $\chi^2$  distribution is screwed? Once fixing this, I believe the fitter will produce good results. The fact that the 4C fitters works nicely, in both full and fast sim, means that covariances are fine.

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