
Subject: PndKinFitter Mass constraints and resolution

Posted by [Stefano Spataro](#) on Fri, 22 Nov 2013 11:16:11 GMT

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I was checking what is stored by the ana_complete.C macro, and I was taking a look into the jpsi invariant mass after the fitter (PndKinFitter) putting a mass constraint.

Checking the hjpsim_mcf histo, at a first glance the mass peak seems a delta as I would expect, but just increasing the binning and zooming I realized that it has a distribution and a width of 5 MeV. Now the question is: why it is not a delta? If I constraint that the mass is a specific value, I should expect such value, and not a distribution (at least this is what I was finding when running kinematic fitters for hades). It is not

clear to me why there is such behavior, I have received such a question.

Is it possible that the fitter finds local maxima and not the good one? Or maybe it stops after X iterations even if it has not find the set value? Or maybe there is some bug?

File Attachments

1) [jpsi.gif](#), downloaded 655 times

J/ ψ mass (mass constraint fit)

