Subject: Problem with PndKinVtxFitter and Ks decays
Posted by 2dd180b0 on Wed, 28 Nov 2012 12:01:10 GMT
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Dear all,

I've come across a problem while trying to reconstruct the following decay:
D0 -> Ks pi+ pi-, Ks -> pi+ pi-

The procedure I use is to first use PndKinVtxFitter to fit the pi+ pi- from the Ks decay to a common vertex, and then use PndKinVtxFitter to combine the fitted Ks with another pi+ pi- pair, to reconstruct the D0. The problem is that the fit to the D0 -> Ks pi+ pi- always returns nan for the chi^2.

The fitting code I use is exactly analogous to that used by Marius to reconstruct psi(3770) -> D+ D-, D+- -> K+- pi+ pi-, and we think that the problem is due to PndKinVtxFitter not being able to properly handle the neutral Ks candidate.

I've attached the analysis code and EvtGen decay file that I used for this analysis.

Best,
Sean

File Attachments

1) psi3770.dec, downloaded 503 times
2) run_ana_dobbs.C, downloaded 548 times