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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:

$D0 \rightarrow Ks \pi^+ \pi^-$ ,  $Ks \rightarrow \pi^+ \pi^-$

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  $D0 \rightarrow Ks \pi^+ \pi^-$  always returns nan for the  $\chi^2$ .

The fitting code I use is exactly analogous to that used by Marius to reconstruct  $\psi(3770) \rightarrow D^+ D^-$ ,  $D^{+-} \rightarrow K^{+-} \pi^+ \pi^-$ , 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

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- 1) [psi3770.dec](#), downloaded 277 times
  - 2) [run\\_ana\\_dobbs.C](#), downloaded 288 times
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