Subject: Multipion with Event Mixing
Posted by Elisa Fioravanti on Sat, 10 Dec 2011 10:04:35 GMT
View Forum Message <> Reply to Message

Hello everybody,

I have analyzed the data produced on grid with event mixing on 2pions channel.

Please find here the results.

The reconstruction efficiency is about 30% against the 68% obtained on the data produced with the last version of code without event mixing,

best
Elisa

File Attachments

1) 2PiEventMixing.pdf, downloaded 424 times

Subject: Re: Multipion with Event Mixing
Posted by Elisa Fioravanti on Sat, 10 Dec 2011 13:23:25 GMT
View Forum Message <> Reply to Message

Hello everybody,

sorry but in slide number 6 I wrong the efficiency:

the efficiency is 59.95%
against 67.7% without event mixing,

sorry again for the error,

Elisa

Subject: Re: Multipion with Event Mixing
Posted by Elisa Fioravanti on Mon, 12 Dec 2011 09:45:18 GMT
View Forum Message <> Reply to Message

Hello everybody,

here you can find the results also of pi+pi-pi+pi- with event mixing.
I reported both pi+pi- and 2(pi+pi-) channel.

As you can see in slide number 11, for the invariant mass of the four pions, the background level is huge, and so I think that one solution could be to fit the distribution with a gaussian function plus a polynomial function in order to take into account the background level.
In this way I calculated the efficiency as number of signal events/ number of generated events, and the result is 13% against 30% without event mixing.

For the two pions channel we have a drop in efficiency from 69% to 60%.

Elisa

File Attachments

1) Multipion12december.pdf, downloaded 436 times