Subject: Re: Momentum resolution and reconstruction efficiency of LHE tracking Posted by David Pohl on Thu, 11 Feb 2010 09:43:23 GMT View Forum Message <> Reply to Message

Wow, you're answering fast. Ok, of course I did the same analyses with the TPC. The track reconstruction efficiency is better like you said. It goes up to 90%, but expecially in the low momentum range you can see the same behavior.

MVD+TPC+GEM, standard macros in tutorial folder

The blue criterion means that no track is produced. Very low momentum pions decay before a detector

is reached and as a result to less points (<3 MVD+TPC hits) are created for tracking. So this is should be

just a physical reason.

greetings, David

## File Attachments

1) trackefficiency2.jpg, downloaded 863 times

track reconstruction efficiency, pions,  $\theta = 60$ ,  $\phi = 0..360$ 1 0.8 489 50% 50% 0.6 efficiency 0.4 5% 89% 11% 0.2  $f(x) = -a^*exp(b^*x)+c$ 53% criterion: | ptMC- ptrec. | > 3o criterion: no track 0 0% 100% 0.4 0 0.2 0.6 1 0.8 p<sub>t</sub> [GeV/c]