
Subject: [OK] Tracking parametrization

Posted by [Klaus Götzen](#) on Wed, 09 Apr 2014 08:37:53 GMT

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Hi,

I put now the sophisticated parametrization to the FsmSimpleTracker class with (reference to Susannas talk)

- $d\phi(p)$ according to p. 10
- $d\theta(p)$ -> p. 9
- $dp/p(p)$ -> p. 6
- for $p < 0.6$: $eff(p)$ -> p. 8.

They can be switched on by putting negative parameter values for $pRes$, θRes , ϕRes (the values given are then simply ignored if < 0) and efficiency, where the efficiency is multiplied with a function shaped like that from p.8, scaling the eff value for $0 < p < 0.6$ with a factor between 0.55 and 1.0.

However, from a quick check concerning the channels we discussed on Monday I observed, that a flat tracking efficiency of 85% already looks pretty good for 2π , 4π , and J/ψ $\pi^+ \pi^-$ channel. The $\eta_c \rightarrow \phi \phi$ channel is still inconsistent for both the sophisticated and the flat approach, where the flat values even look a bit more similar to full sim results, which is also true for the J/ψ . In the figure, the red plots are from flat values, blue are from parametrization. In the J/ψ plot, magenta corresponds to full sim. There the flat fast and full sim plots are basically identical with $eff_{trk} = 85\%$.

So, our proposal is to keep the flat values as default.

Best,
Klaus

File Attachments

1) [flat_vs_para.gif](#), downloaded 1488 times

