

Some checks in FastSim V0.0.3

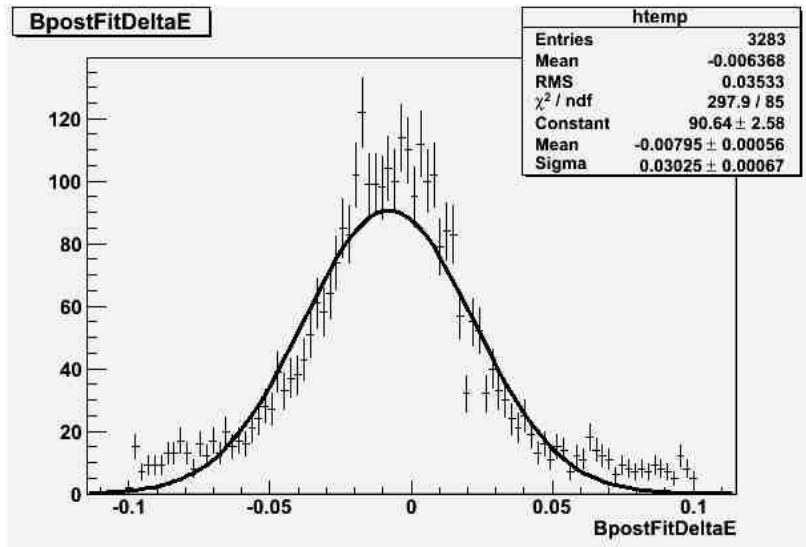
M. Rama

fast simulation meeting, 29 April 2009

$B \rightarrow \pi^+ \pi^-$: comparison of ΔE distributions

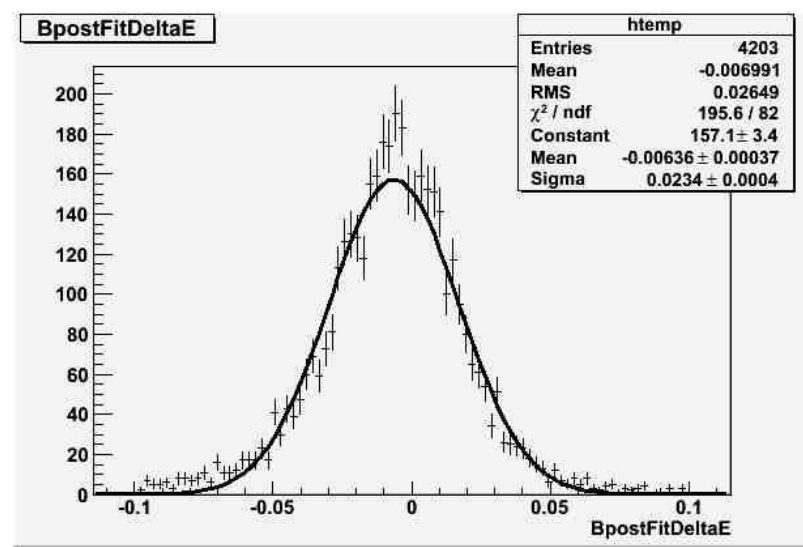
SuperB detector configuration

FastSim with hit merging



MC truth is not required

FastSim without hit merging

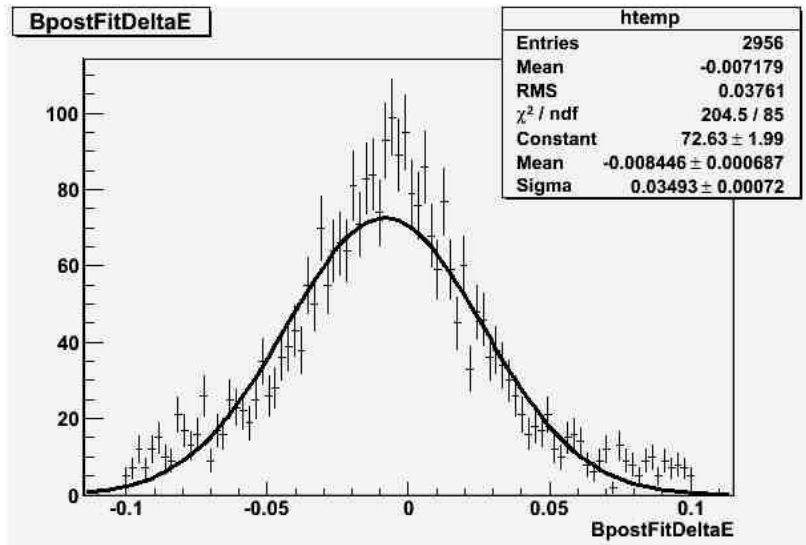


MC truth is not required

$B \rightarrow \pi^+ \pi^-$: comparison of ΔE distributions

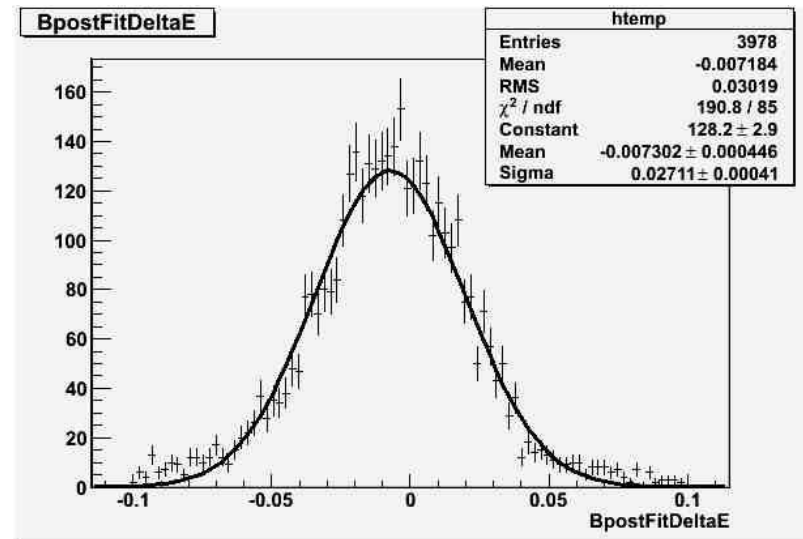
Babar detector configuration

FastSim with hit merging



MC truth is not required

FastSim without hit merging

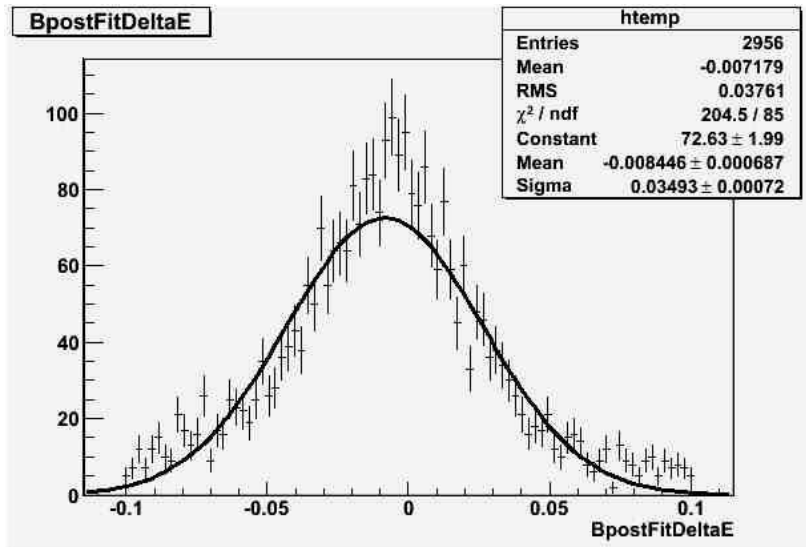


MC truth is not required

$B \rightarrow \pi^+ \pi^-$: comparison of ΔE distributions

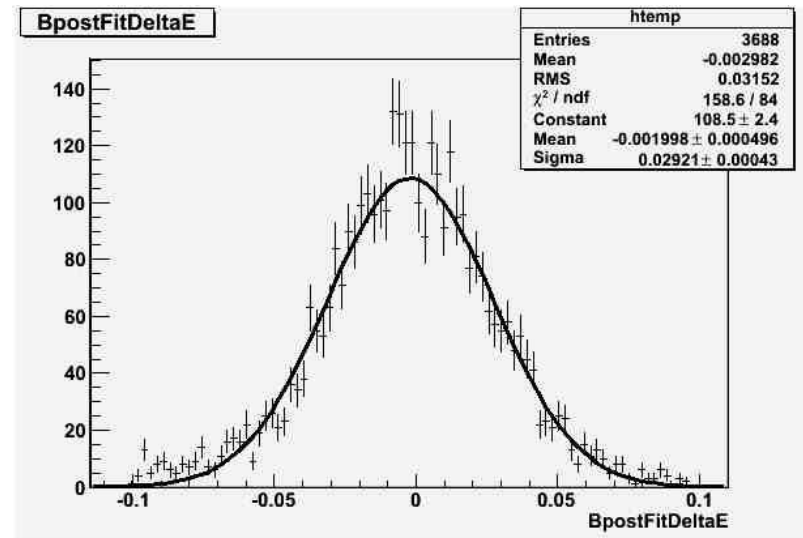
Babar detector configuration

FastSim with hit merging



MC truth is not required

Babar Geant4 MC

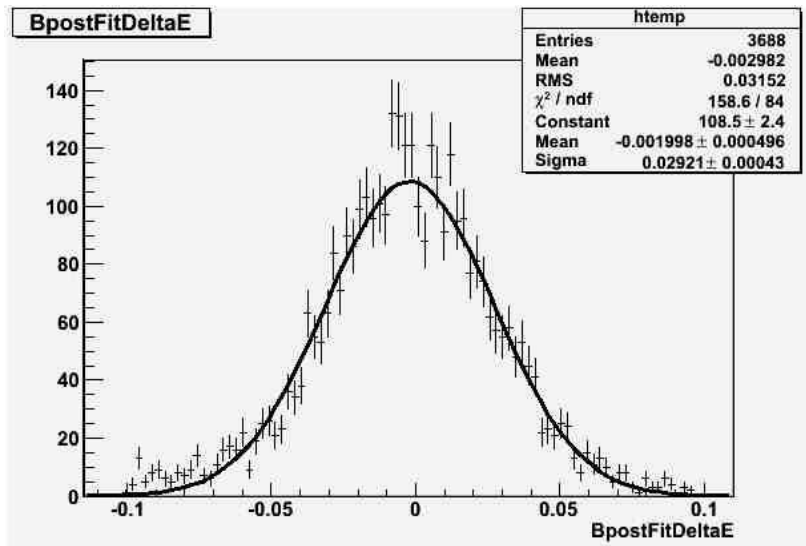


MC truth is not required

$B \rightarrow \pi^+ \pi^-$: comparison of ΔE distributions

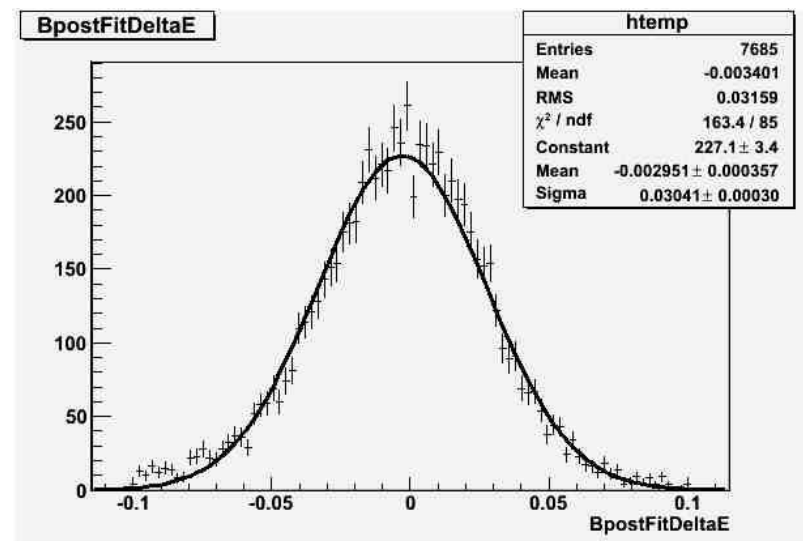
Babar detector configuration

Babar Geant4 MC



MC truth is not required

Babar Geant4 MC where the other B decays to nothing



MC truth is not required

- This comparison seems to indicate that in Babar Geant 4 MC the overlap with other tracks has a small effect for $B \rightarrow \pi\pi$ events

conclusion

- It seems that some tuning is needed to the hit merging algorithm to reduce its effect