CPV in P.R. D*lν and K-tag

Progress since Elba

Martino, 6/17/2008

TOY MC

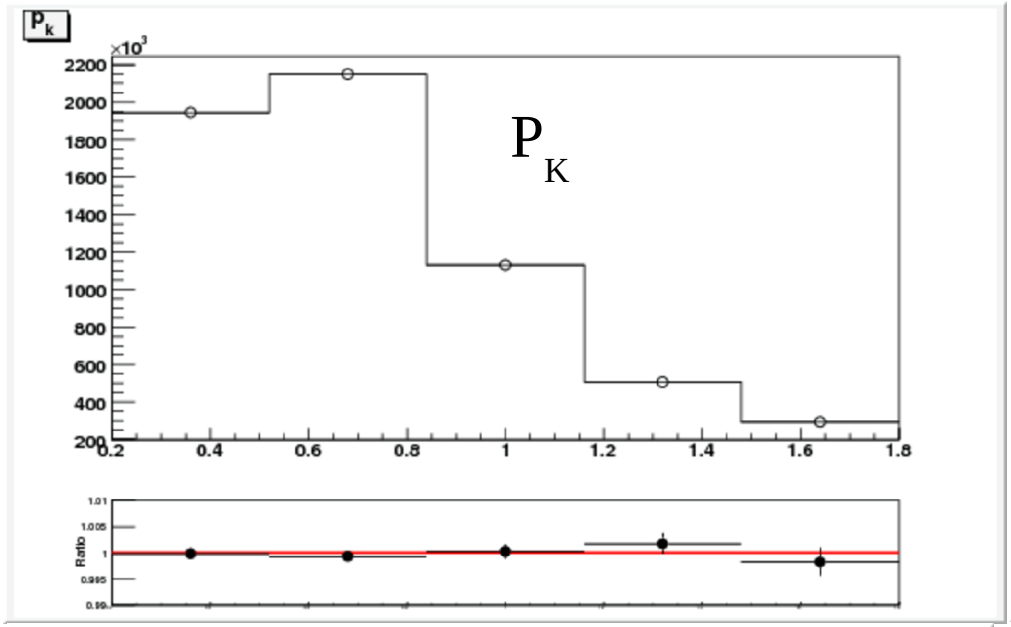
- Generate several experiment starting from the fitted PDF(P_K,Δt,$\sigma\Delta t$) for the various sample categories (B^0/B^+/continuum; peaking/BKG; Btag/Dtag);

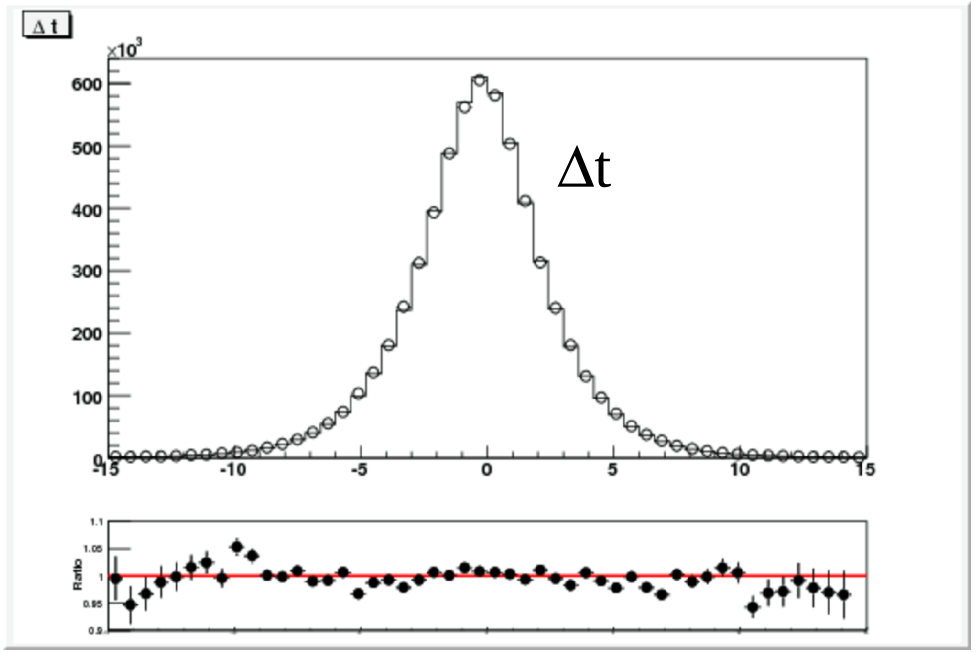
- Fit separately every generated data set (work in progess);

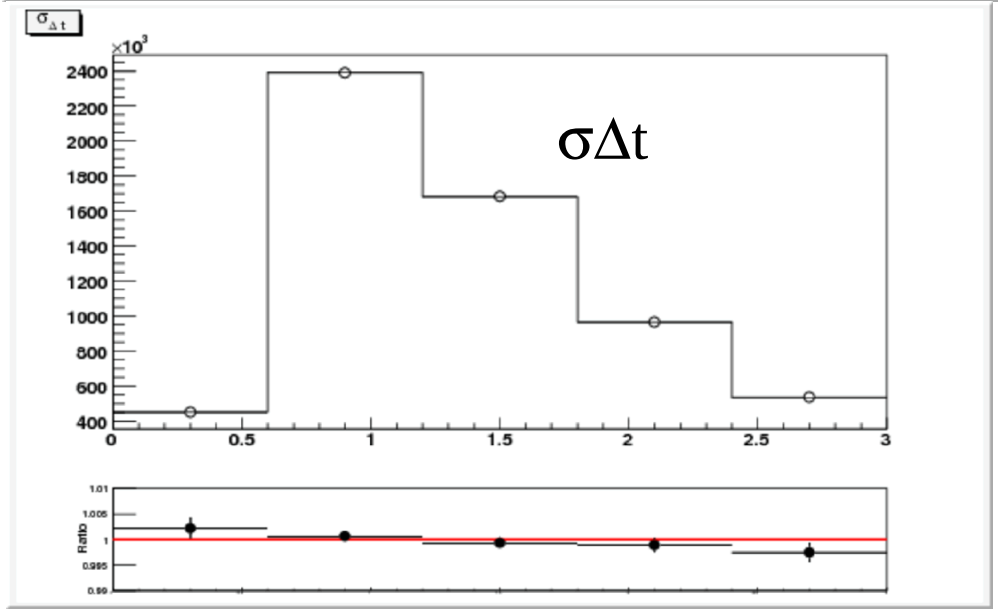
➔MC fit validation: study the pull of the various fits result vs MC truth/(vs nominal fit result) to check the nominal statistical error & to look for a possible analysis bias (to be done, waiting for the nominal fit result);

➔DATA fit validation: study the pull of the various fits result vs the nominal fit one (to be done, waiting for the nominal fit result);

Comparison between nominal/generated distributions





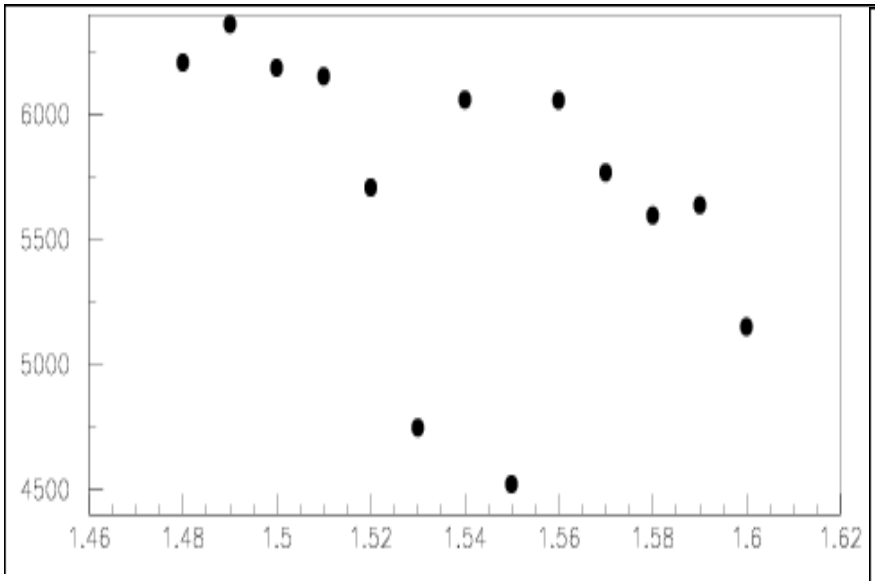


MC B^0 SIG Btag
(E. Feltresi)

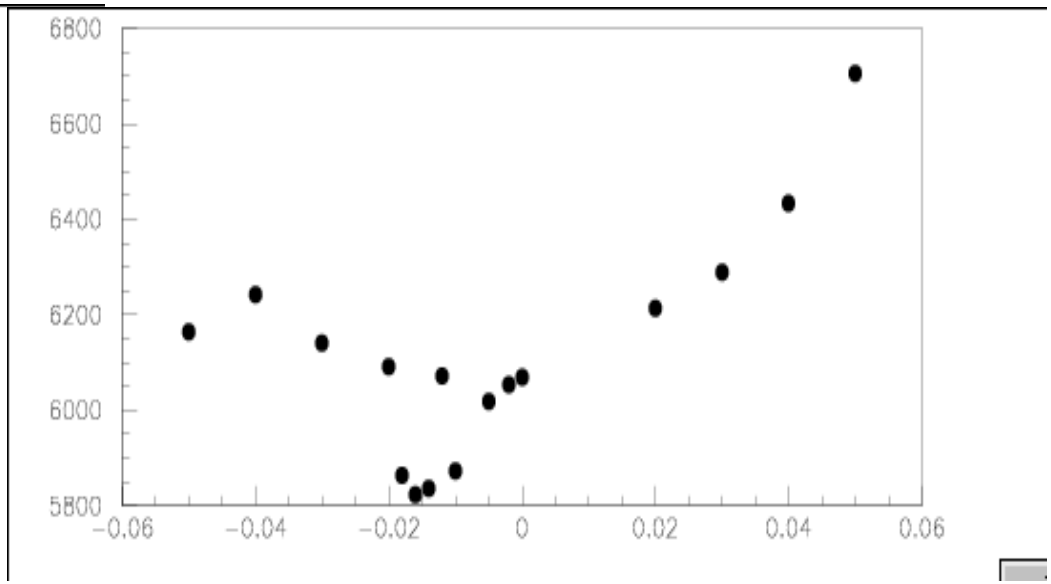
Determination of full-fit convergence

- Scan of the log(L) on the full MC statistics with all the sample components included & floating all the parameters takes too much time (more than 48 h on gridka);
- Scan performed using 1/3 of the available MC statistics (~ Real Data Statistics)
- BKG parameters fitted starting from the result obtained on the $m\nu^2$ Side Band;
- DT log(L) scan in progress.

work in progress, needs some iterations more:



MC Fit: log(L) vs τB^0



Data Fit: log(L) vs q/p-**1** (BLIND)

NEXT STEPS:

- Conference Paper & Supporting Document ready in a few days.
- Let's wait for the nominal fit results (hope to be in time for ICHEP).