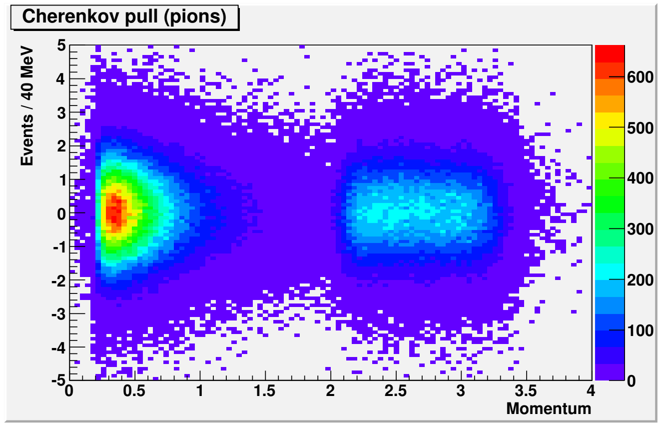
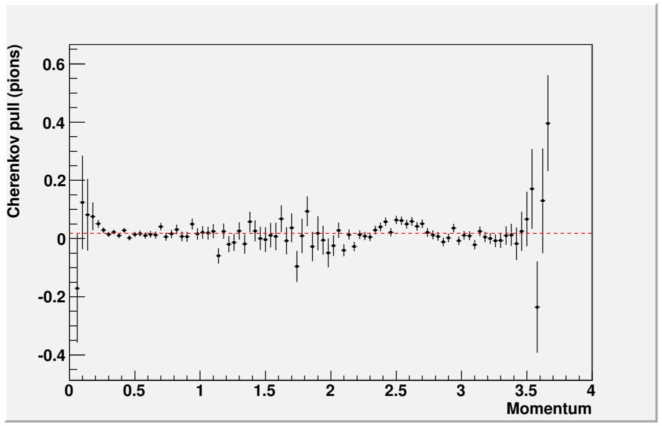
# Status update

- There is a problem with low-momentum tracks having very bad pull values.
- This problem apparently arises mainly from one of these five features of the DIRC simulation :
  - ‘Bar scattering’, using the outgoing momentum to generate half the photons.
  - Background photons.
  - Extra scattering - giving some photons an additional kick.
  - Sliding-window averaging of the reconstructed angle.
  - Using reconstructed momentum in the reco calculation.
- My solution is to scale down these features at low momenta.
- Turning off all this still leaves unexplained some *very bad* reconstructions at low momenta, with pulls of more than ten sigma.
- I am currently trying to understand this problem.


Cherenkov pull (pions)
Events / 40 MeV
Momentum


Cherenkov pull (pions)
Momentum