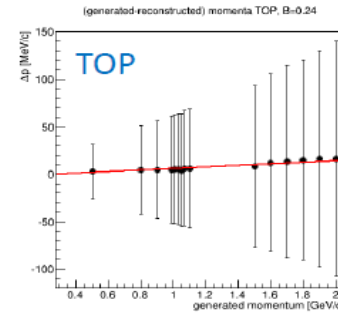
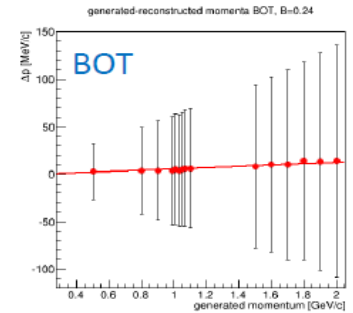


# MC electron gun generation: generated-reconstructed momentum

- The plot shown in the presentation for CM reports as errors the sigmas of the recon momentum distributions
  - Unreliable fit (just for eye guidance)



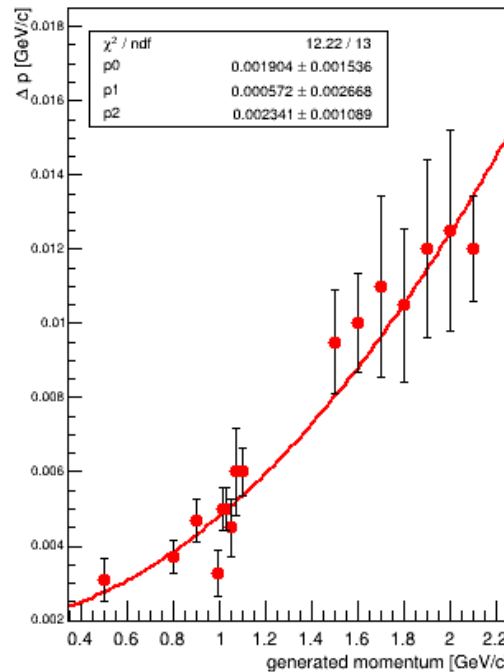
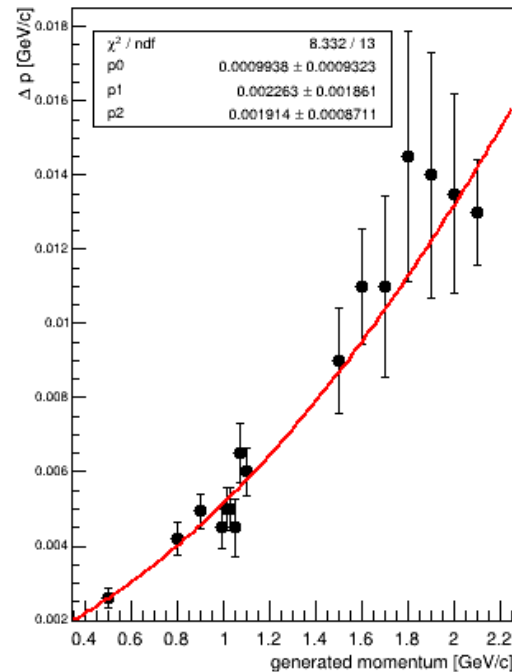
$$\Delta p \text{ (MeV/c)} = -2.4 + 8.2p_{\text{gen}} \text{ (GeV/c)}$$



$$\Delta p \text{ (MeV/c)} = -1.6 + 6.9p_{\text{gen}} \text{ (GeV/c)}$$

(generated-reconstructed) vs generated momentum, TOP

(generated-reconstructed) vs generated momentum, BOT



- New fit using the error on the mean value of the reconstructed momentum gaussian (at the level of 1% or smaller) □ systematic error on the mean value evaluation using different intervals for the peak gaussian fit
  - Best fit: quadratic form
  - Momentum loss after recon:
    - 5-6 MeV/c @ 1.056 GeV/c
    - 15-16 MeV/c @ 2.3 GeV/c