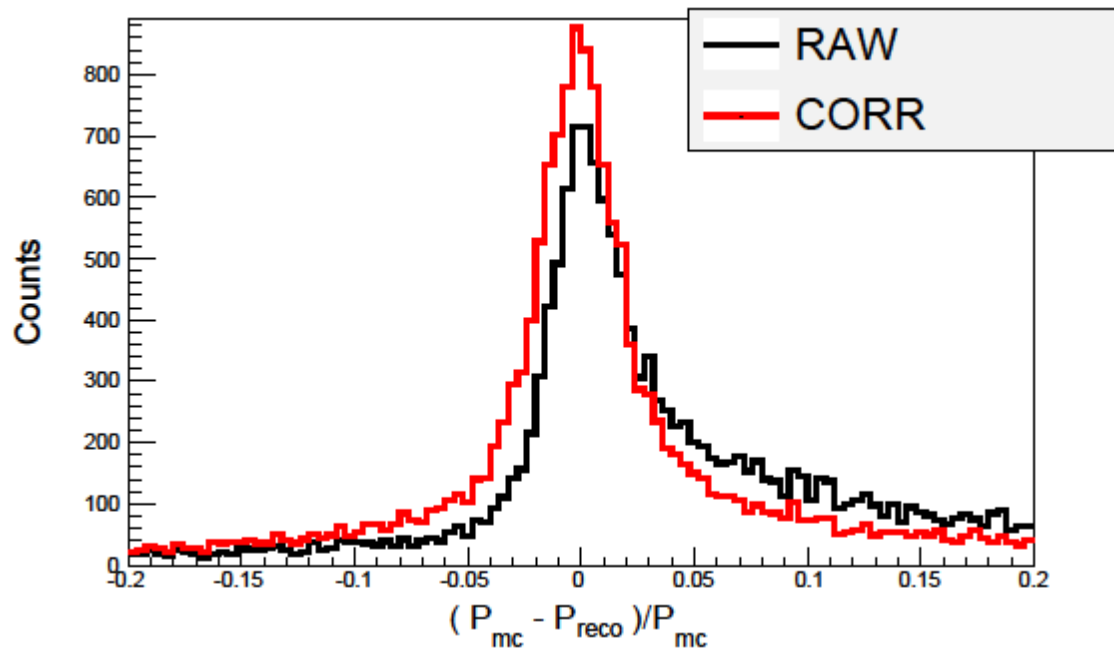# lambda 1520 analysis

Jacek Biernat
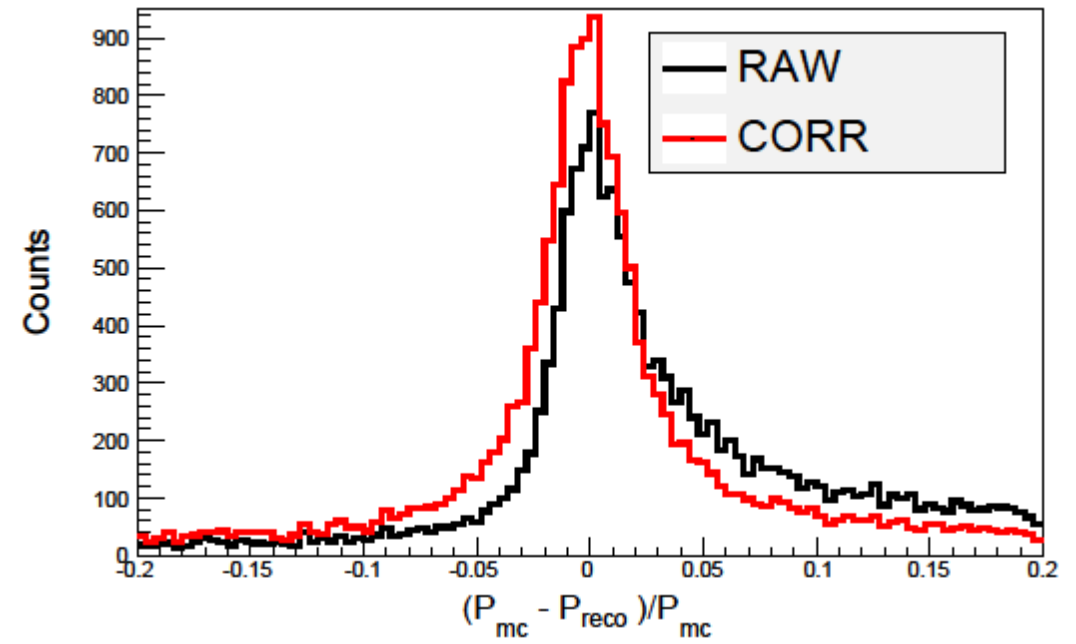
The setup

- Full panda geo
- 30 000 events
- momentum at 4 GeV/c
- $pbar - p \rightarrow \Lambda(1520)\overline{\Lambda}(1520)(stable) \rightarrow e^+ e^- \pi^- \text{p}$
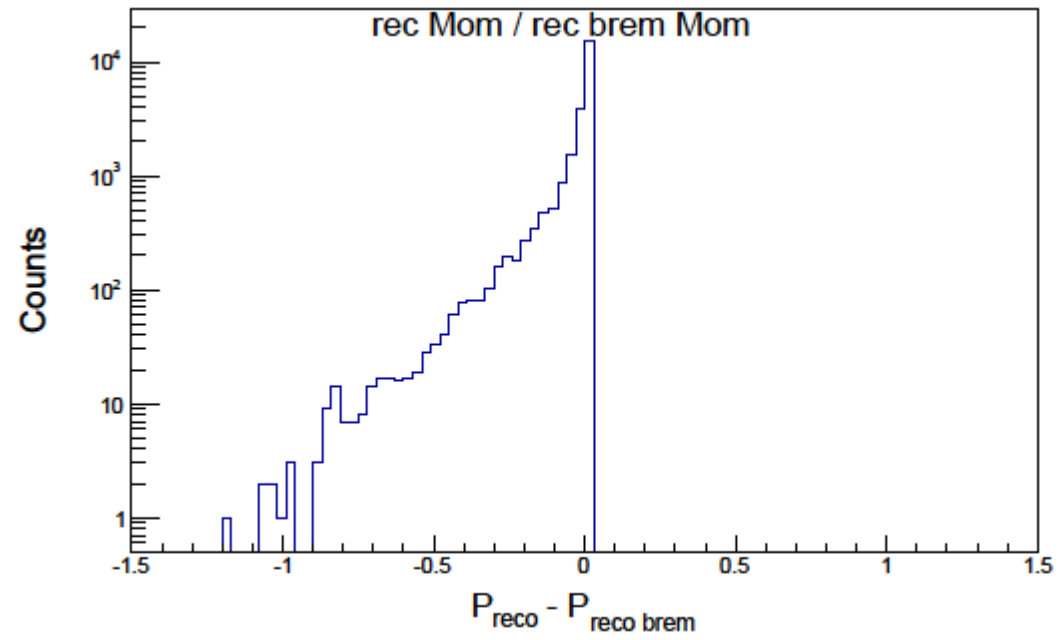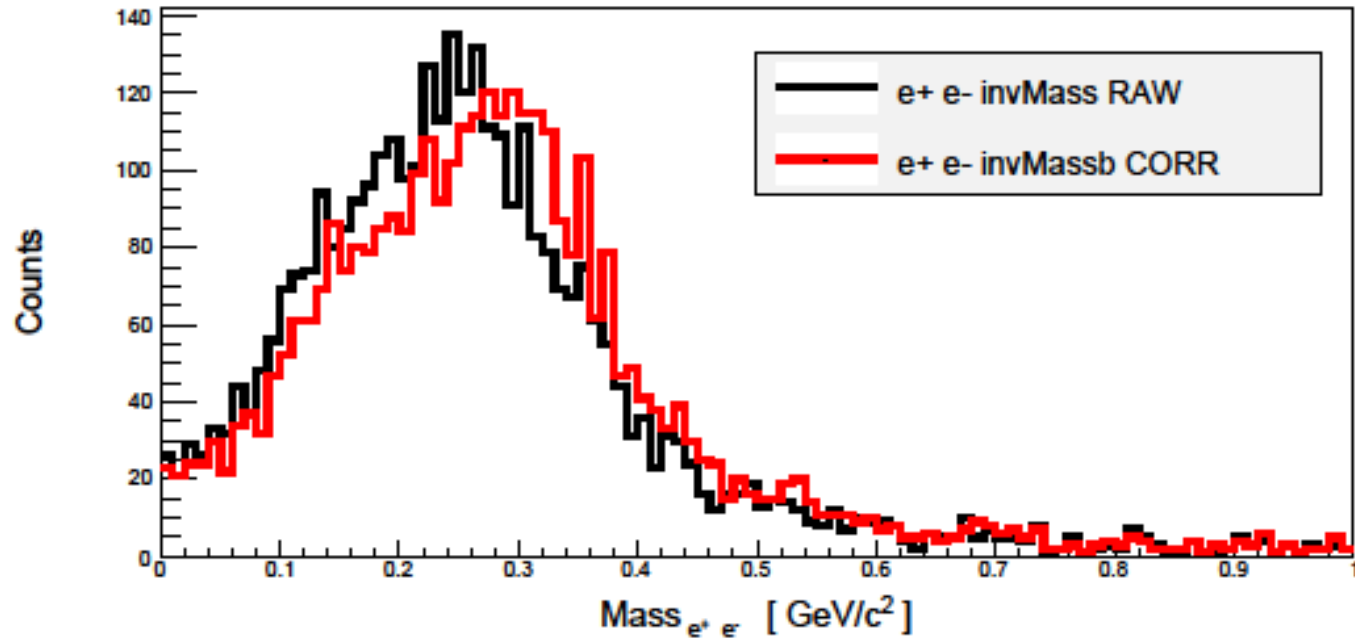
e-

e+

Comparison of reconstructed momentum resolution for corrected and un-corrected data (bremsstrahlung).
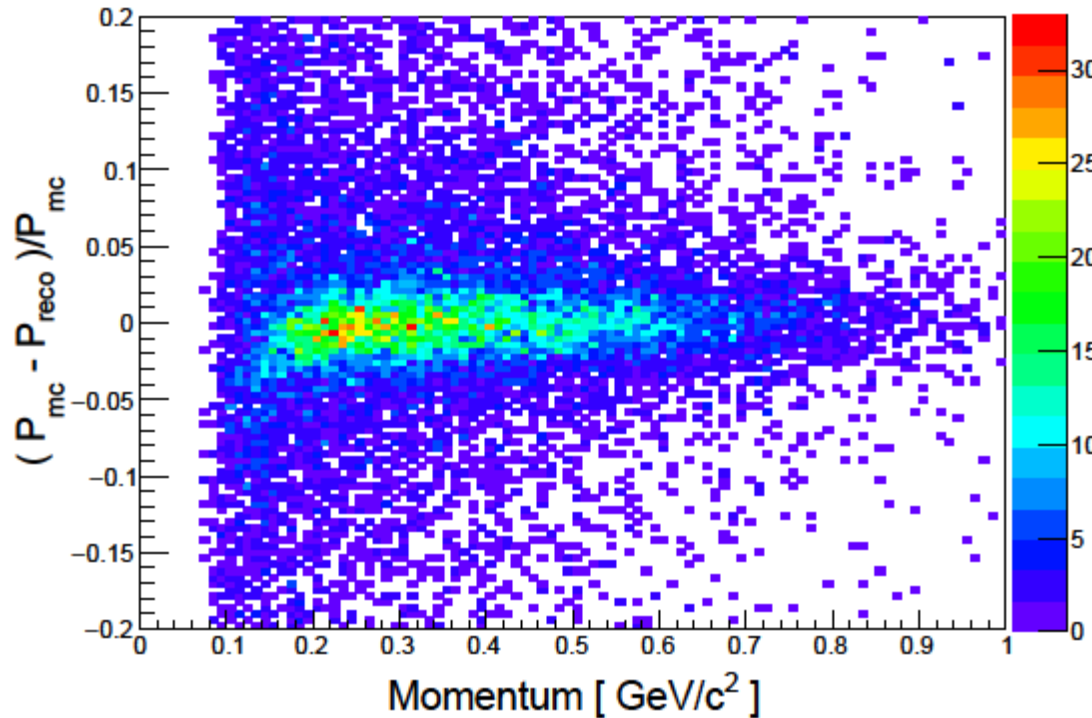Corrected data still shows asymmetric structure.

Difference between reconstructed momentum and the reconstructed with correction for bremsstrahlung

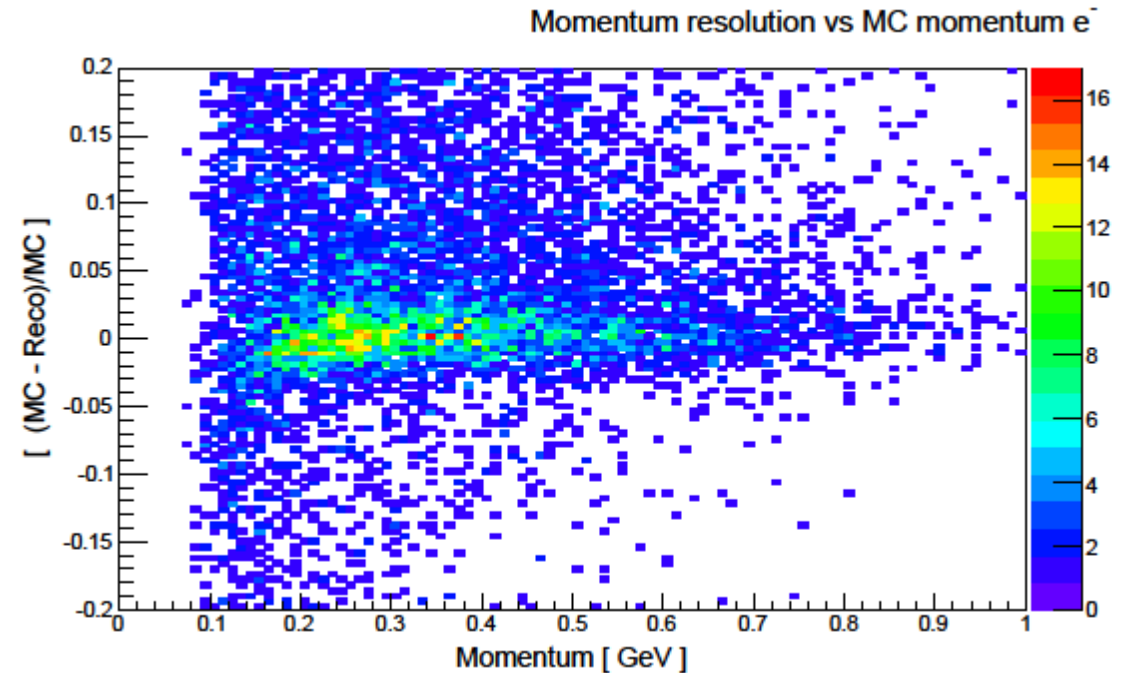# Invariant mass of e+ e- (corrected vs un corrected)

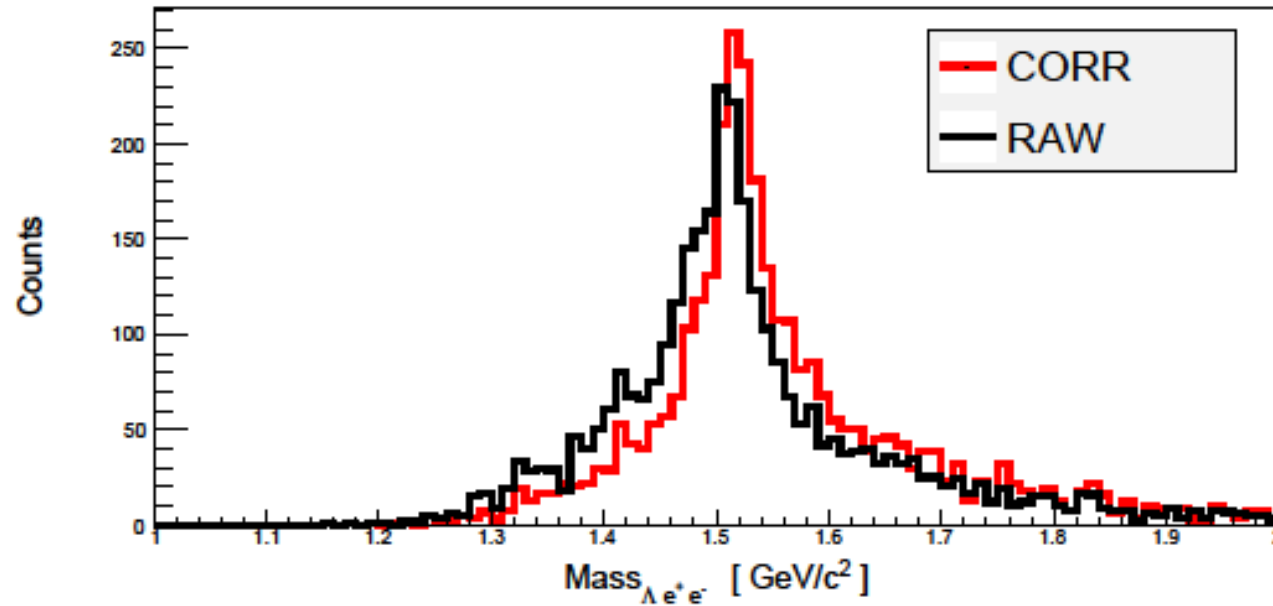# momentum resolution vs particle momentum

Corrected reconstructed momentum

Uncorrected reconstructed momentum

Low momentum resolution for particles below 200 MeV

Invariant mass of ($\Lambda\, e^+ e^-$) system

The pole of the corrected distribution is shifted towards higher mass (1520)

New weight