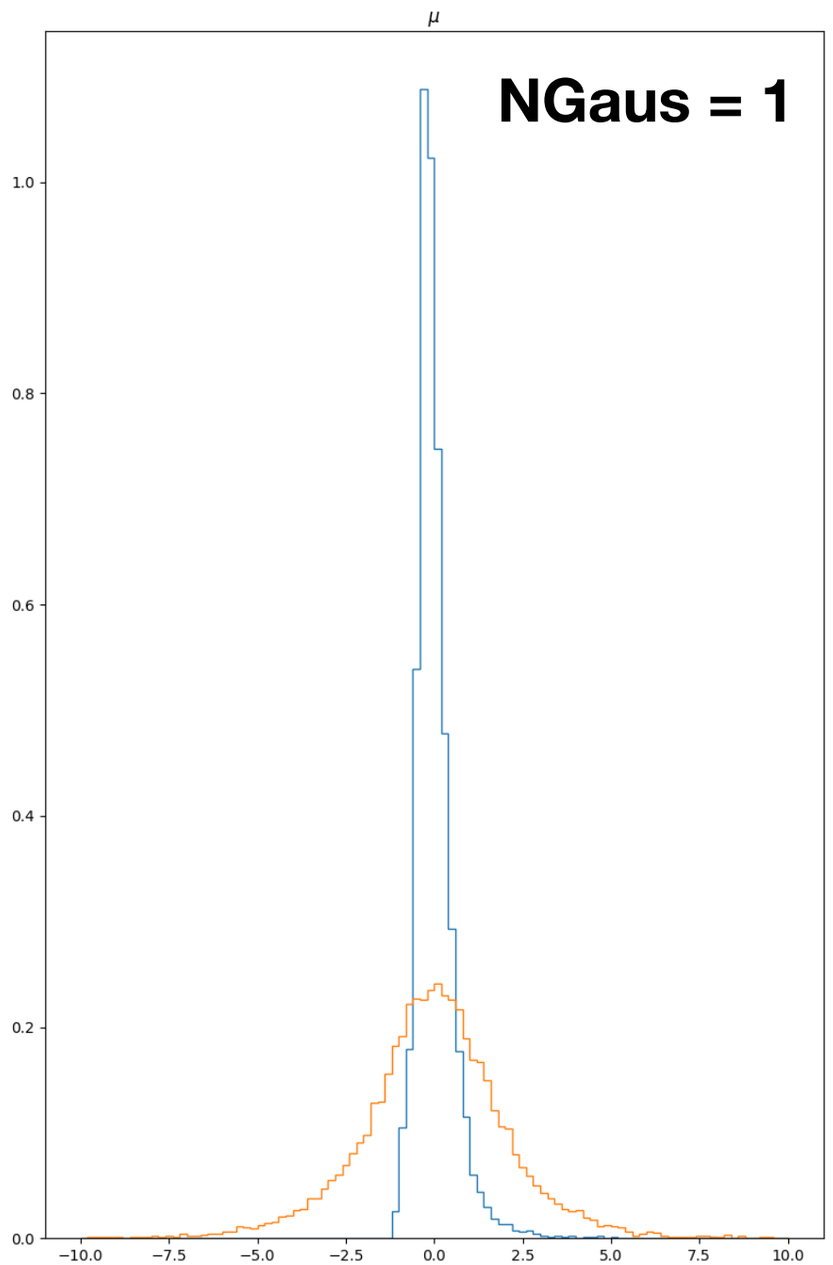
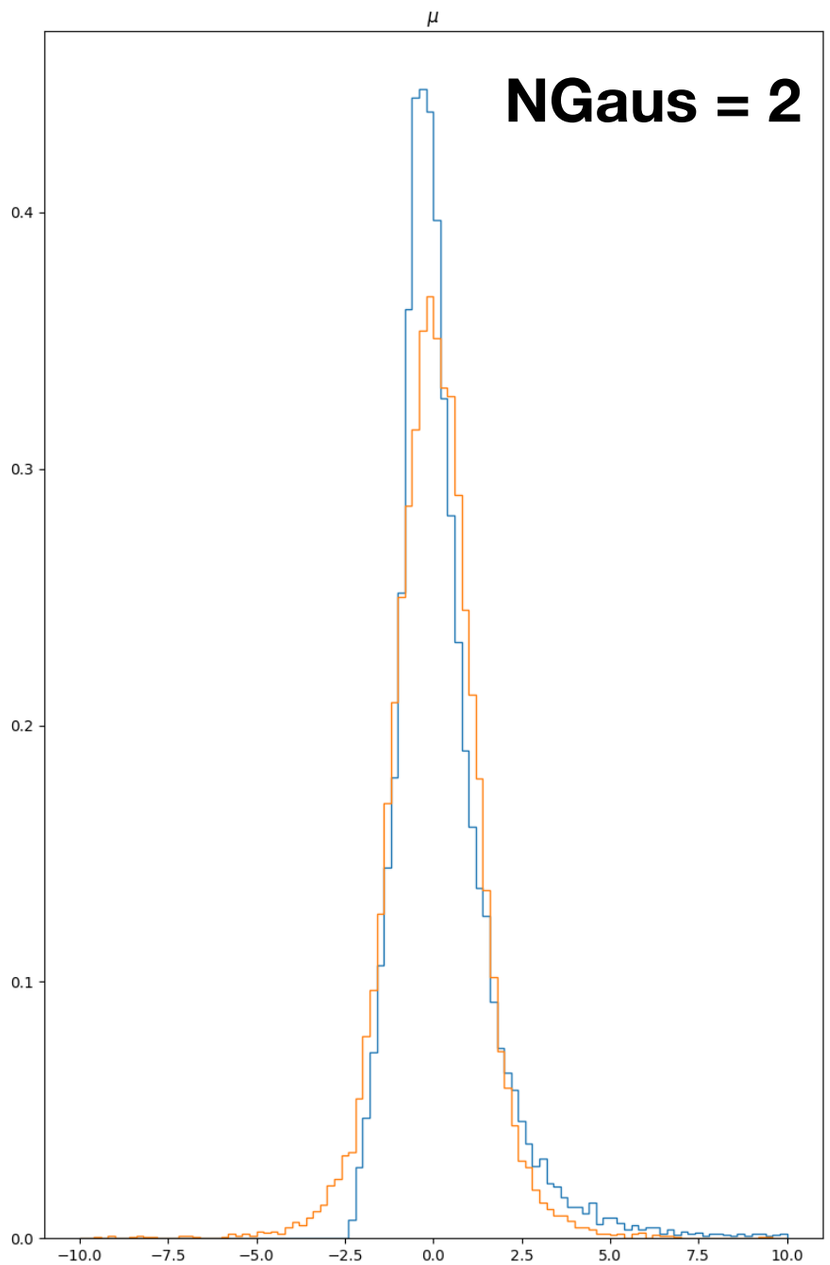
## Comparing Residual Charges

- Blue: input data events, orange: NN prediction
- Plot (data_q - mean_NN)/sigma vs. N(0,1)*sigma
- Assign weight to each gaussian part by the coefficient, e.g. for NGAUS = 2, the first gaussian gets a weight of coeff_1 / coeff_tot.
- Only plotted 1 event here, which is muon event for all hit PMTs.

- Can use Karan's event list to make plots for all 3 particles, and also to get more statistics.




- Issues to fix:
  - Coeff > 1
  - Program breaks for N_GAUS > 2

## Some Random Plots

- The histogram in the back ground is all events at any E&directions in the same PMT with that for the curves. The histogram shape should **NOT** be compared to the curves.
- The coefficients are forced to <=1 (i.e. by setting  the multiplication factors to coeff_n/coeff_1) to check normalization.