

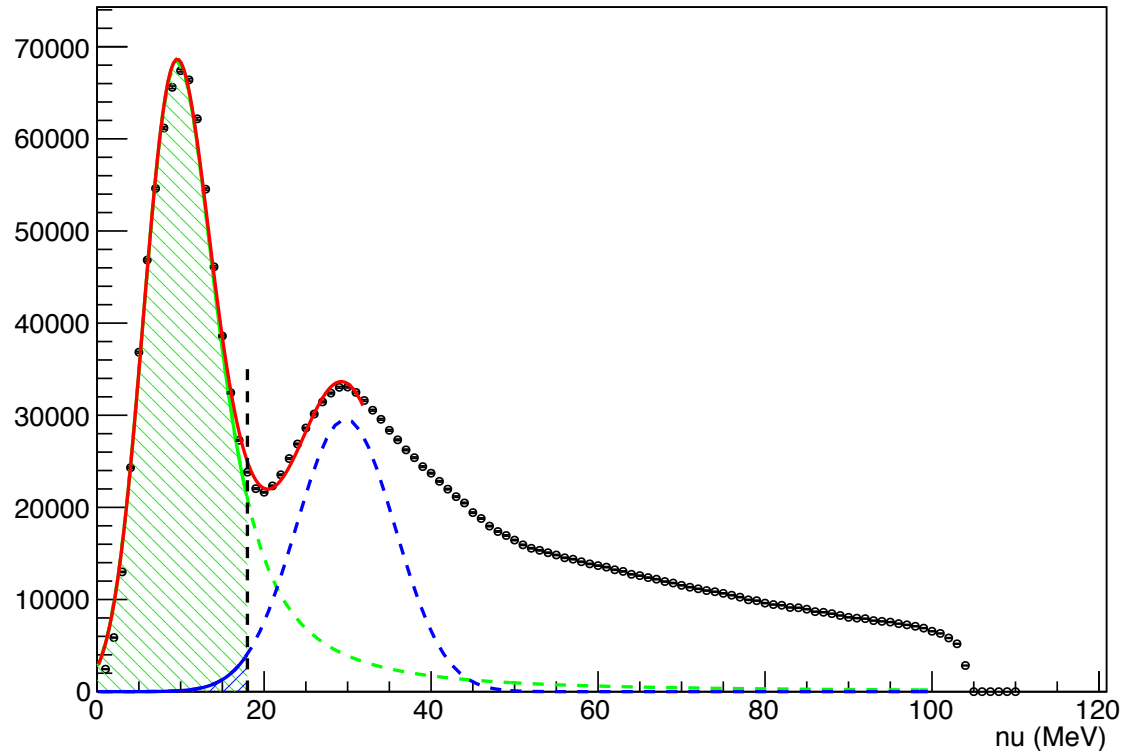
Using QFS to Model Data

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11/5/14

Update to Fitting Routine?

Fit to Elastic and QE Peaks

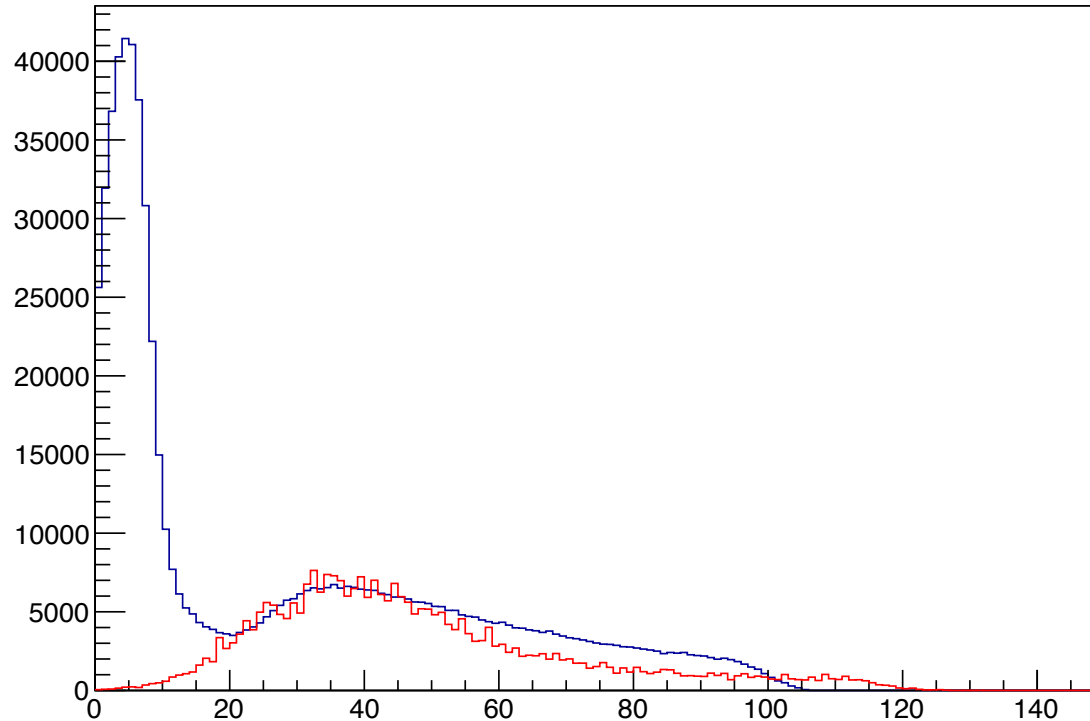


(Note: this plot is from pass 2 rootfiles)

- Currently, approximating “QE” peak as a single Gaussian
- Ideally, fit should account for all components in the peak
- Requires good matching between data and simulation (QFS model)

Matching QFS Model to Data

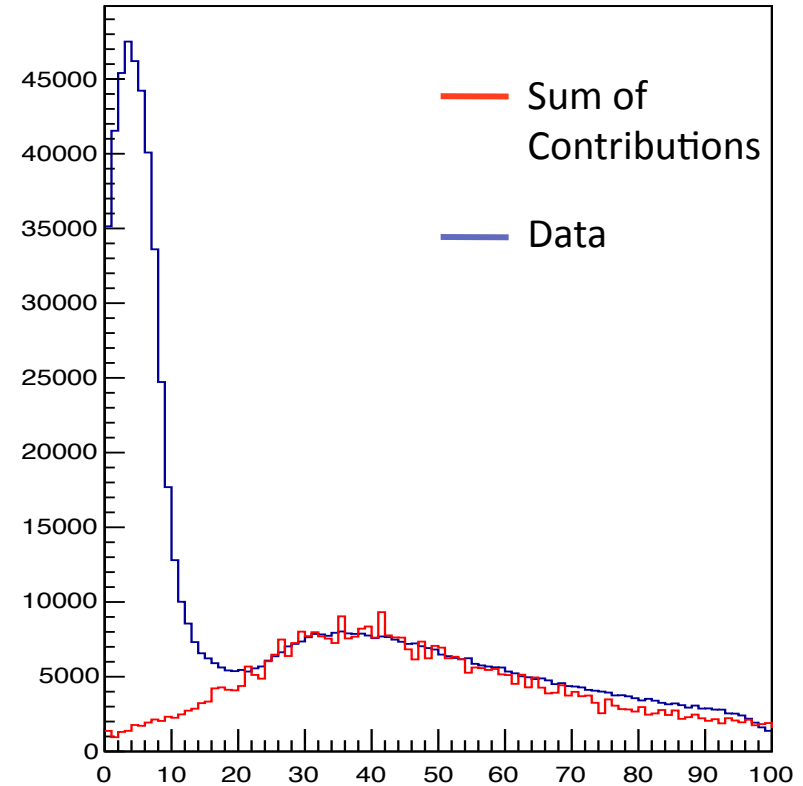
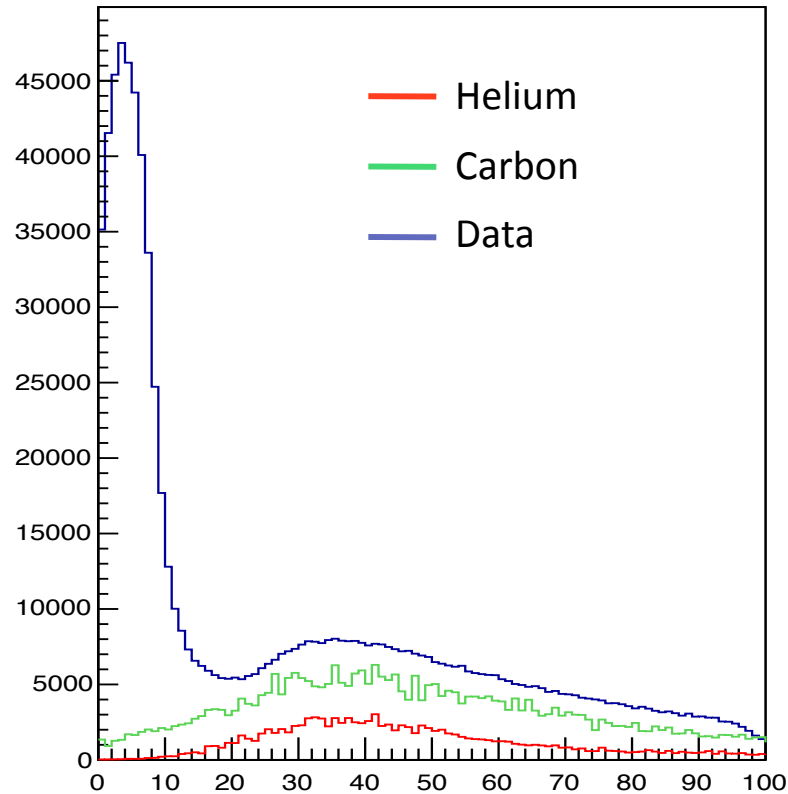
Run 3448 (empty dilution run)



- Use simplest case (just helium) as starting point
- Determine model parameters for helium

Matching QFS Model to Data

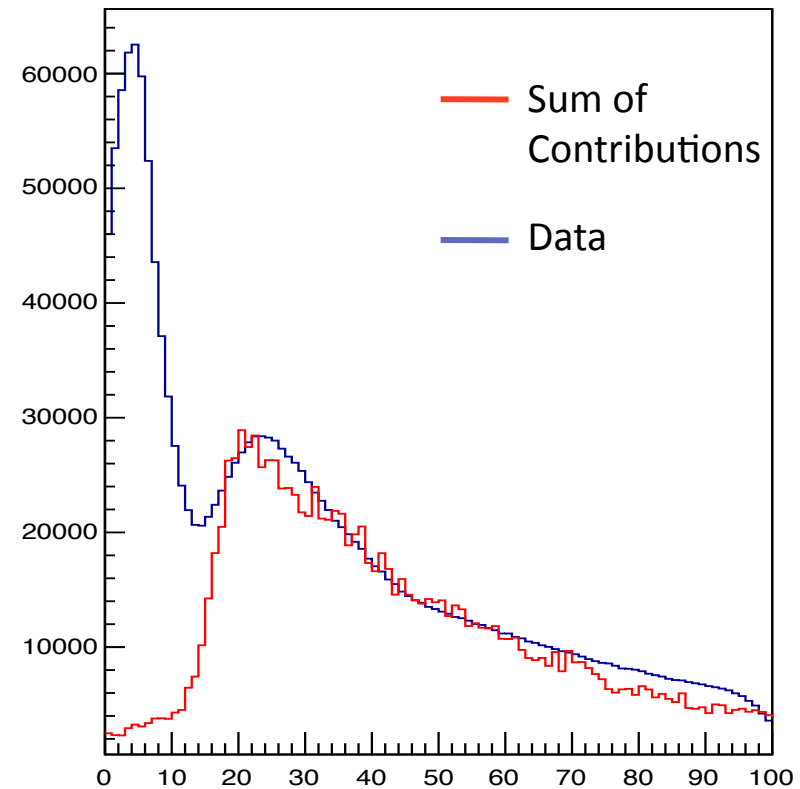
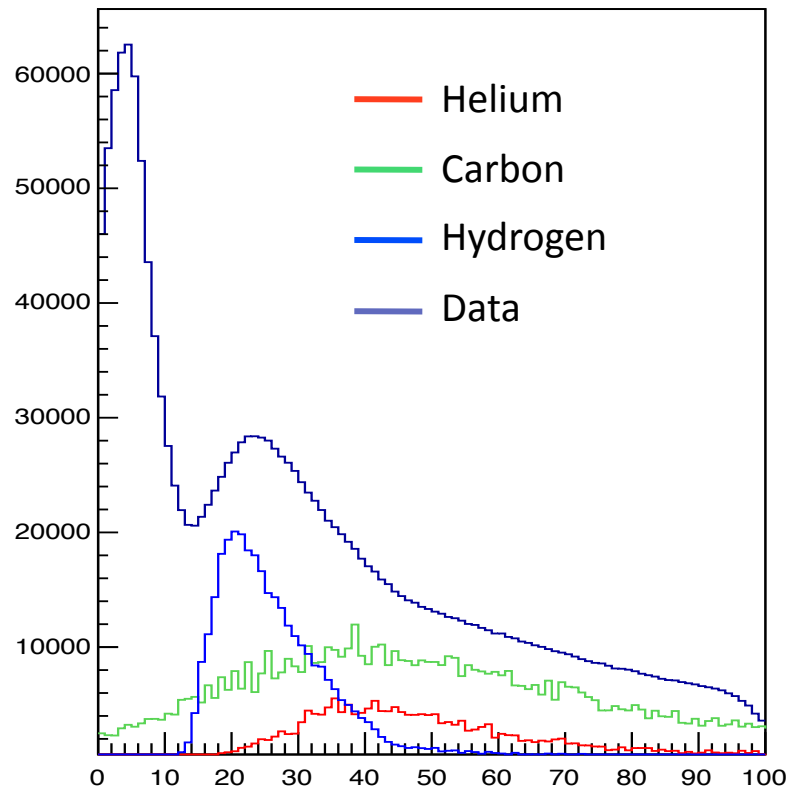
Run 3447 (carbon dilution run)



- Use carbon dilution run to estimate parameters for nitrogen

Matching QFS Model to Data

Run 3446 (production run)



- Combine helium and nitrogen quasi-elastic contributions with hydrogen elastic contribution
- Can use the relative contributions to update fitting routine.

Next:

- Use these findings to update fitting routine – check effect on pf extraction
- Suggestions from this meeting?