Target Analysis Update for G_E^n Collaboration

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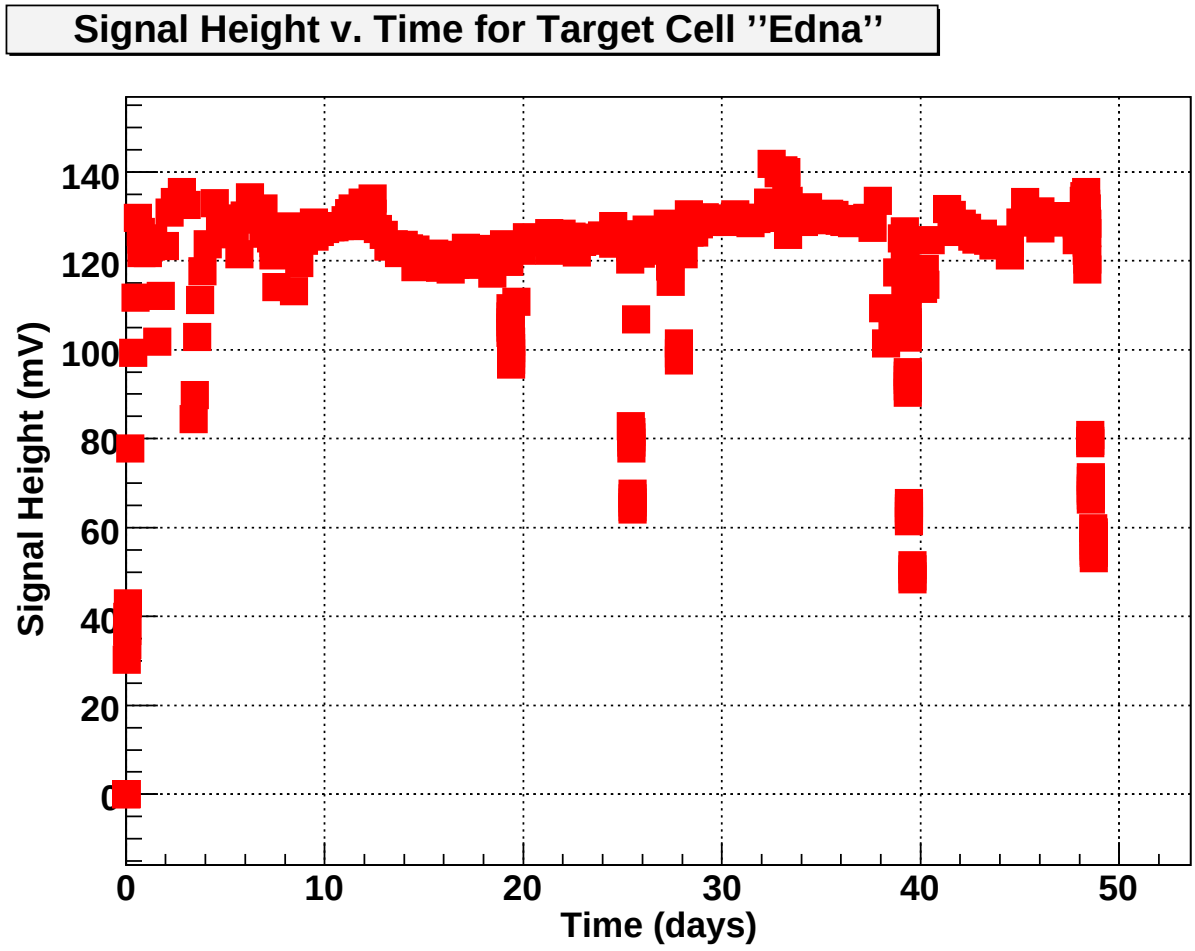
OUTLINE

- Fit for All Edna Data
- B-Field Consistency
- Usefulness of Ratios
- How this applies to the larger analysis
- Timeline for Target

Fit for All Edna Data

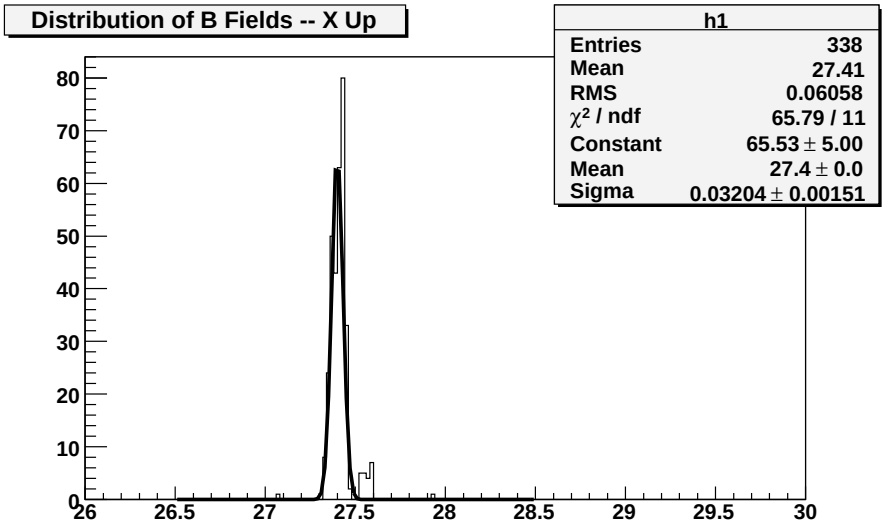
Goal: Prepare data for highest Q^2 data point.

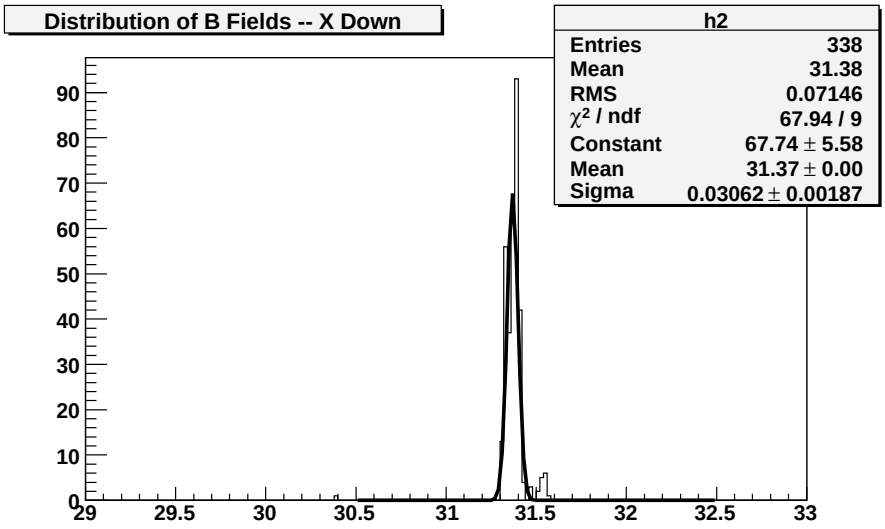
Start by putting together a good set of fits



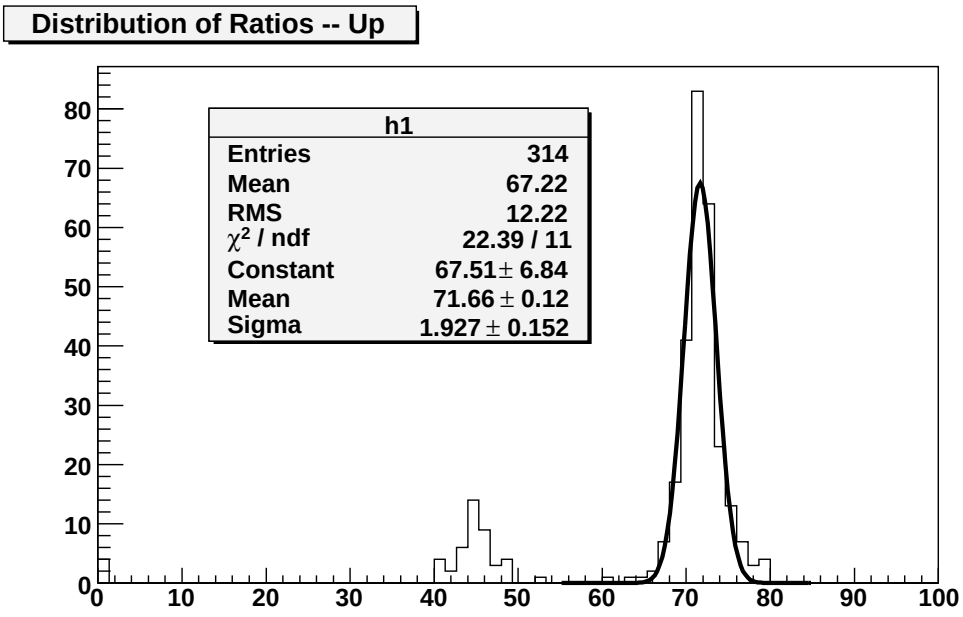
B-Field Consistency

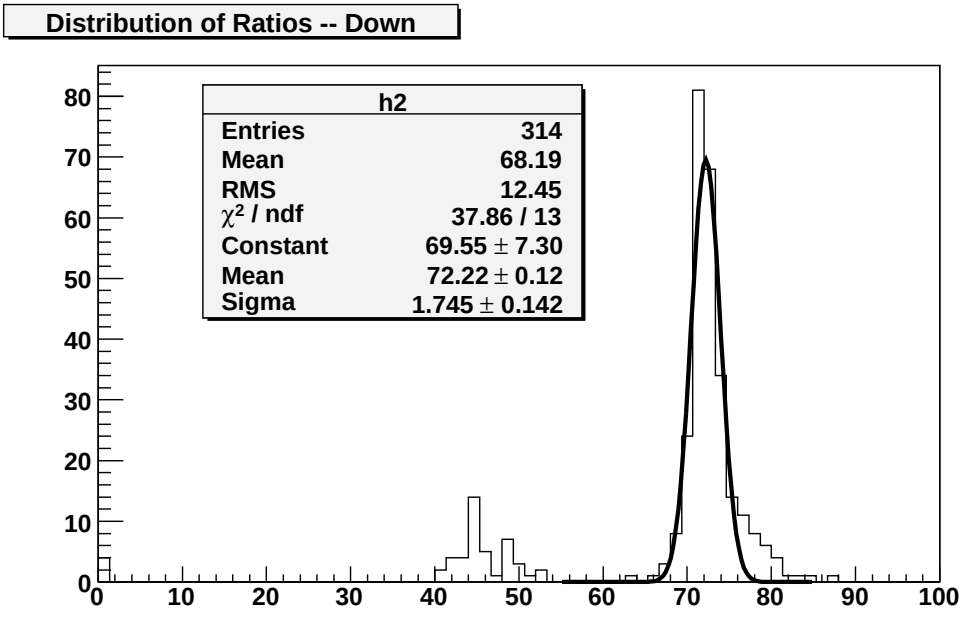
Histogram of the B-Field as measured during NMR measurements





Usefulness of Ratios





How This Applies to Larger Analysis

- Have signal heights vs time for all measurements.
  - Need only calibration numbers to have polarization vs. time.

- Have a sense on size of correction from field sweep – to direct analysis

- Can use ratio as real-time density measurement – correct polarization for density

Timeline for Target Analysis

- When is it needed?
  - Will continually improve numbers until numbers are needed
- Biggest uncertainty right now – diffusion of polarization
- Correct background – possibly not linear
- After that – behavior of magnetic field (tests underway)
- Other items – EPR corrections, lock-in corrections, etc.