

PREX Analysis: Taking Stock

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Asymmetry Analysis (I)

- Cuts

- study overlap of Jon and Ahmad cuts
- decide on one set of final cuts

- Sign

- need to verify sign of C12 asymmetry
- inspect large charge asymmetry runs
- make a slug plot of Compton asymmetry

- Transverse

- study overlap and compare
- evaluate systematics (likely no dithering)

Asymmetry Analysis (2)

- Pedestal Calibration
- Regression
 - Slug chi-square is marginal
 - detailed look at individual slug plots
 - inspect usual set of statistical tests
 - study weights for various combos
 - charge and position slug asymmetries
- Dithering
 - Basic algorithm developed
 - ready to tackle early, problematic slugs
 - Alternate BPM analysis might be key

Q2 and Backgrounds

- Q2

- Basic analysis almost done
- GEM data might add some redundancy

- Backgrounds

- Elastic background algorithm needs work
- Pb and C 1st excited state analysis
- Rest with theory & literature survey

Polarimetry

- Moller

- Well in hand to achieve $< 1.5\%$
- evaluate high current extrapolation error

- Compton

- transfer work in progress
 - need Kent, Gordon to weigh in on a plan
- Compton launched and looks stable
- Need manpower to finish job (CMU?)

The Future

- Plan for future PREX run
 - simulations
 - conceptual design of shielding
 - engineering design of shielding
 - estimate manpower for downstream beamline design
 - plan for new target ladder
- Proposal: should it contain Ca-48?
 - yes!
 - optimize for beam request