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Theoretical evaluation of observables (slide after)

**Extraction of Compton Form Factors (part of today discussion)**

**CLAS12 background with positron beams (Latifa)**

Section close to completion

Is there anything missing ?

In-bending/Out-bending discussion ?

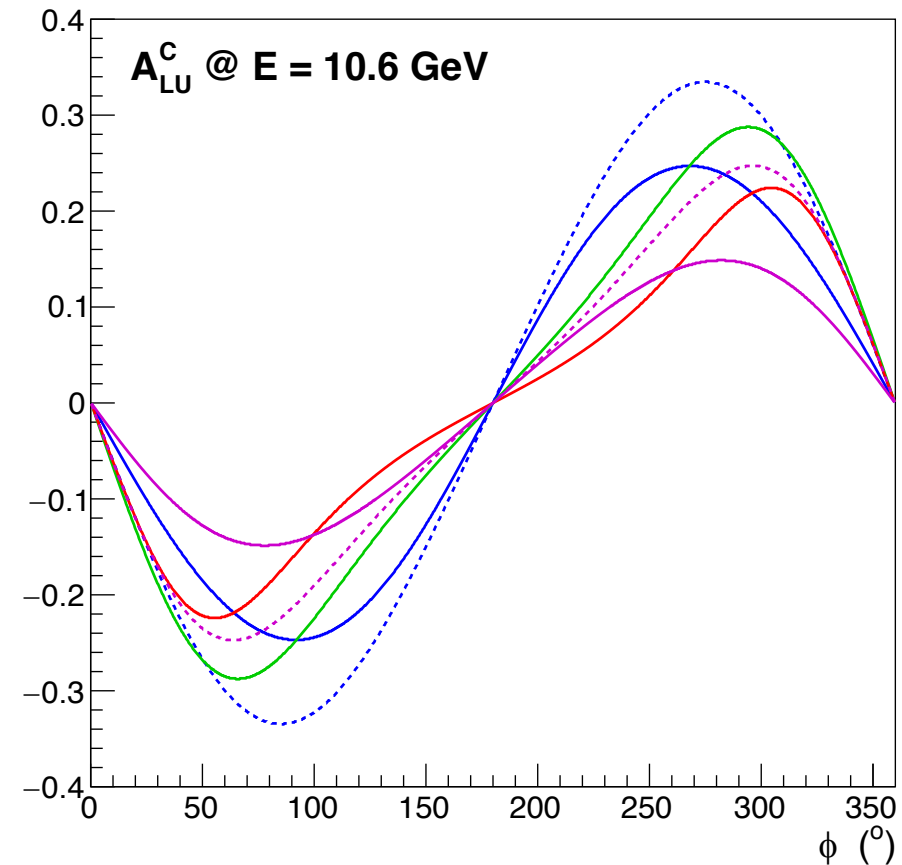
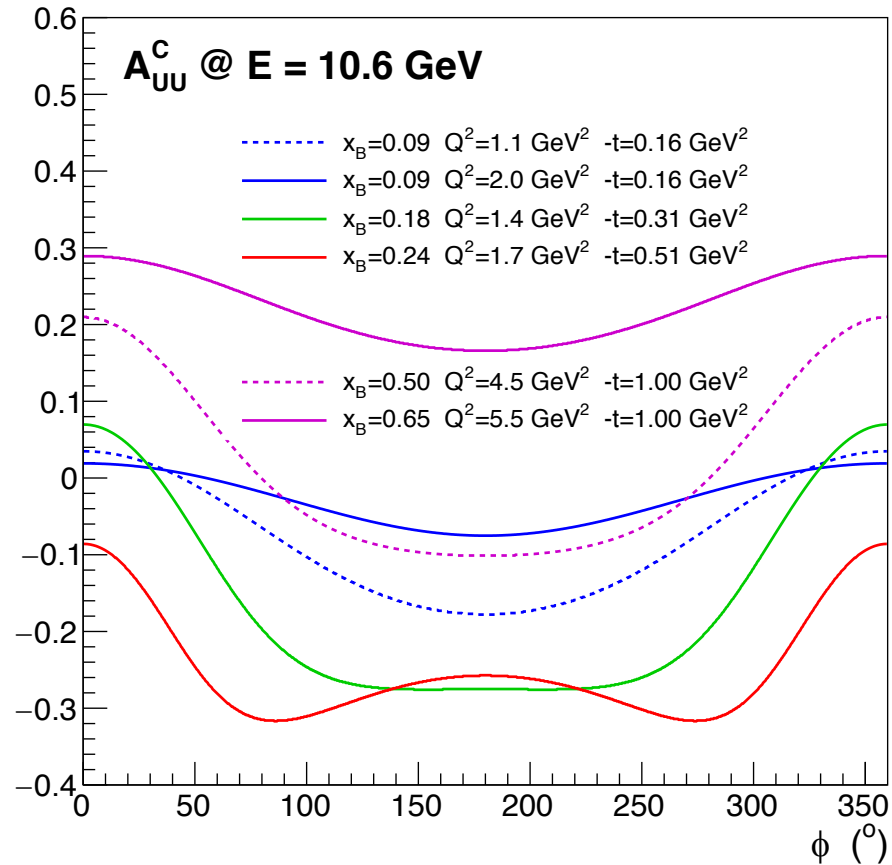
Forward Tagger in or out ?

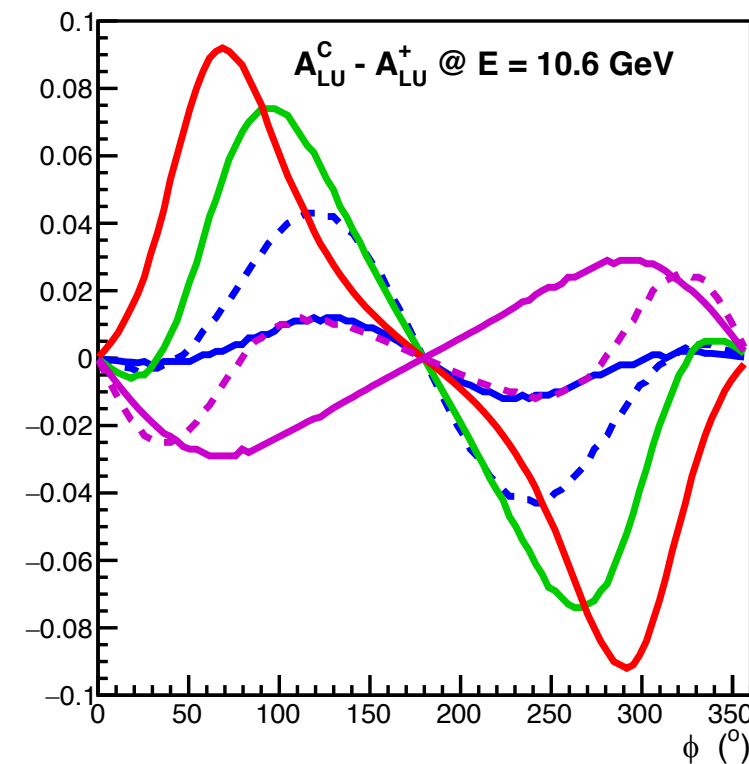
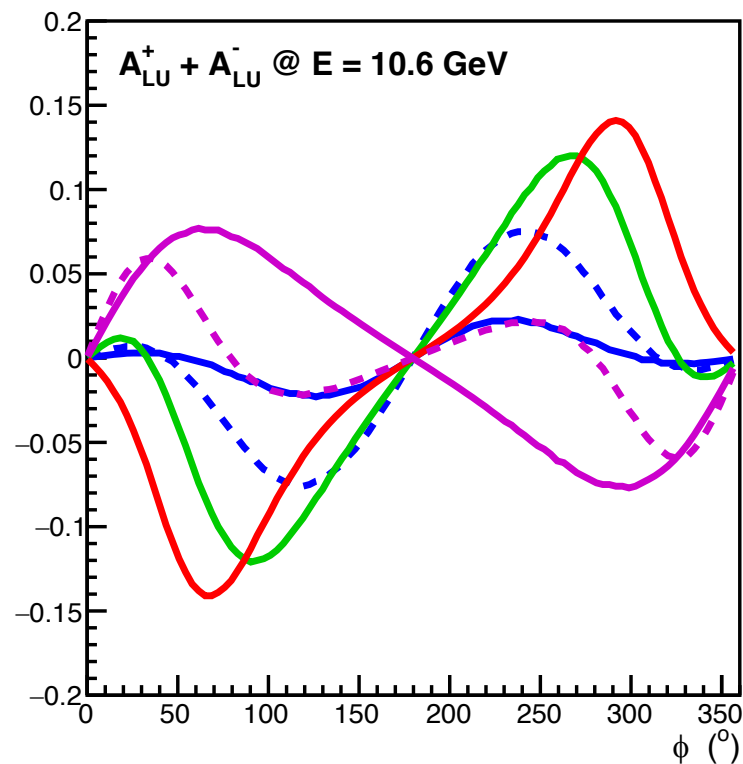
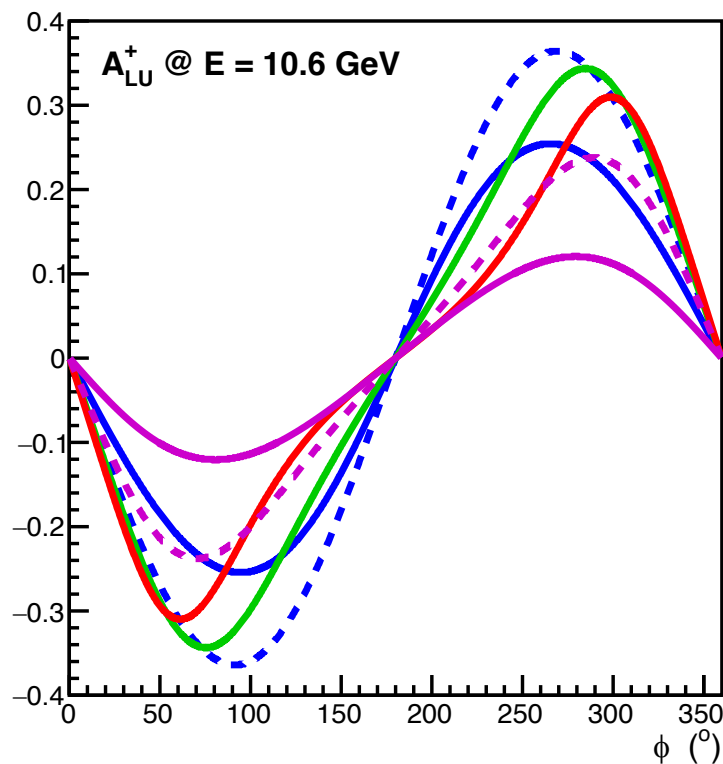
**Must be done urgently**

**Run Plan / Commissioning / Calibration (What beam energy ?) / Physics (10.6 GeV)**

**Unpolarized and polarized BCA**

- The reference model is chosen to be the first evaluation of FX using KM CFF (EIC compatible) and BKM implementation of the cross section (references for KM and BKM ?)
- The comparison between different models at a fixed kinematics has still to be done





Note the small numerical wiggles in comparison observables.

- Status of the simulation of CFF extraction
  - FX is using BKM to produce cross sections from CFF input and fit observables with a procedure similar to MG
  - Silvia is using VGG to produce observables and use the fit procedure developed by MG within VGG
- Observables according to BKM
  - CFF from reference model
  - CFF from KM15
  - CFF from VGG used in DDVCS simulations
- Observables according to VGG
  - via PARTON
  - via VGG original
- CFF extraction
  - via BKM with BKM based observables
  - via VGG with VGG based observables
  - via BKM with VGG based observables

Section 3 must be an undisputable demonstration of the benefit of positron beams for CFF extraction. It is unclear the best way to proceed towards this goal. There exists not only a statistical effect (easy to evaluate) but also a systematic effects related to the true value of CFFs as well as other genuine contributions.

- 1st Pass for CLAS Review deadline

Yields are created from the scaling of previously derived neutron yields (x 5), taking into the geometrical acceptance of CLAS12 and 70% efficiency for the proton detection (same binning as the LOI-12-18-004)

Calculation of VGG observables is currently running (slow...)

Evaluation of statistical error bars is ongoing

CFF extraction will follow as soon as observables are obtained

- Final Pass for PAC deadline

Running the procedure for FX binning with a better determination of acceptance effects using VGG pDVCS cross sections and fastMC