

DPWG Business

Publications:

CLAS 2016-08

Exclusive eta electro-production at $W > 2$ GeV with CLAS and Transversity GPDs

I. Bedlinskiy et al., Phys. Rev. C 95 (2017) n.3, 035202.

CLAS 2016-09

Target and beam-target spin asymmetries in exclusive pion electro-production for $Q^2 > 1$ GeV². II $ep \rightarrow e\pi^0 p$

P.E. Bosted et al., Phys. Rev. C 95 (2017) n.3, 035207.

CLAS 2016-07

Target and beam-target spin asymmetries in exclusive pion electro-production for $Q^2 > 1$ GeV². II $ep \rightarrow e\pi^+ n$

P.E. Bosted et al., Phys. Rev. C 95 (2017) n.3, 035206.

CLAS 2016-04

Beam-target double-spin asymmetry in quasi-elastic electron scattering off the deuteron with CLAS

M. Mayer et al., Phys. Rev. C 95 (2017) n.2, 024005.

CLAS 2015-07

Target and Double Spin Asymmetries of Deeply Virtual π^0 Production with a Longitudinally Polarized

Proton Target and CLAS, A. Kim et al., accepted by PLB.

Ad Hoc Review

| Analysis | Data | Lead Author | In progress |
|--|----------|---------------------|---|
| Measurement of two-photon exchange effect by comparing elastic $e^\pm p$ cross sections | TPE/eg5 | D. Rimal B. Raue | Done Feb 16. Submitted to PRC. |
| Determination of the proton spin structure functions for $0.05 < Q^2 < 5.0 \text{ GeV}^2$ using CLAS | eg1 | R. Fersch | Done Dec 16. Final revisions for PRC. |
| Beam spin asymmetries of $ep \rightarrow ep\eta$ in the deep inelastic regime | e1f | A. Kim | Done Sep 15. Working on paper. |
| Semi-inclusive π^0 target and beam-target asymmetries from 6 GeV electron scattering with CLAS | eg1-dvcs | K. Griffioen | Started on Dec 16 1 st round done in Feb 17 |

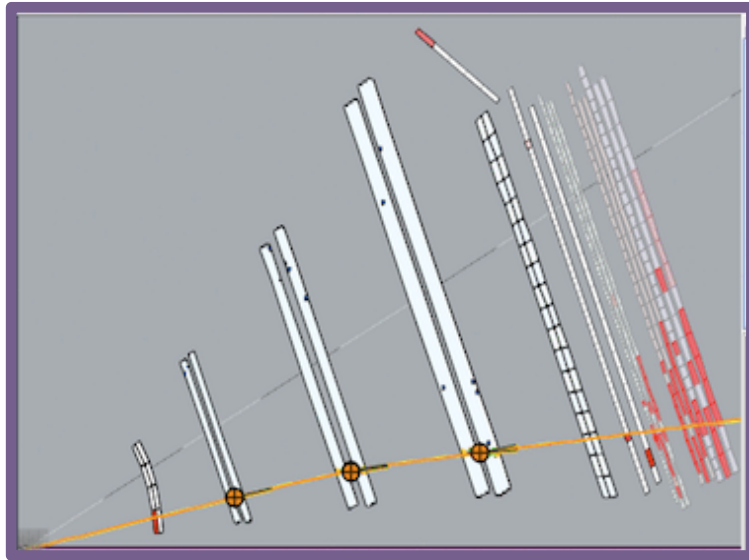
Analysis Review

| Analysis | Data | Author | In progress |
|---|-----------------|-------------------------------------|--------------------|
| Hard exclusive backward-angled single charged pion electronproduction from the proton at CLAS | e1-dvcs2 | K. Park | Done Feb 17 |
| DVCS cross section from e1-dvcs2 experiment | e1-dvcs2 | N. Saylor | Done Feb 17 |
| Beam asymmetries in exclusive π^+ electro production for $W > 1.7$ GeV from e16 | e16 | P. Bosted | Ongoing |
| Exploring the srtructure of the proton via semi-inclusive pion electroproduction | e1f | N. Harrison K. Joo | Ongoing |
| Measurement of the spin structure g_1^d of the deuteron and its moments at low Q^2 | eg4 | K. Adihari | Started this week |

Analysis Review

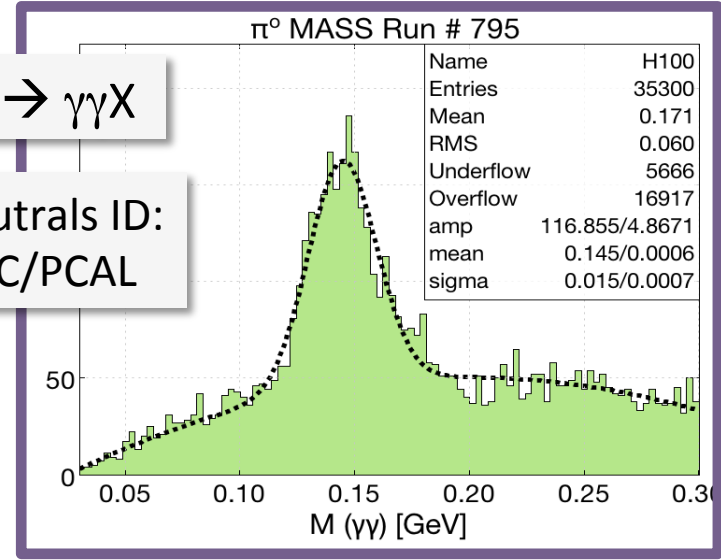
| Analysis | Data | Author | In progress |
|---|-----------------|--|---|
| Exclusive electroproduction of the $f_0(980)$ and $f_2(1270)$ on the proton with CLAS | e1f | B. Garillon S. Niccolai | Brice busy with other project, V2 in one month |
| Di-hadron beam spin asymmetry in SIDIS electro production | eg1-dvcs | S. Pisano | Silvia busy with other project Last version in one month |
| Deep-virtual production of the ρ^+ meson off the proton | e1-dvcs | A. Fradi | Ahmed busy with other projects. Slow progress |
| Semi-inclusive pion production | e16 | M. Osipenko | Working on a better alignment |
| Time-like Compton scattering | g12 | I. Abayrak | Last record 2015 |

KPP run: a crucial milestone

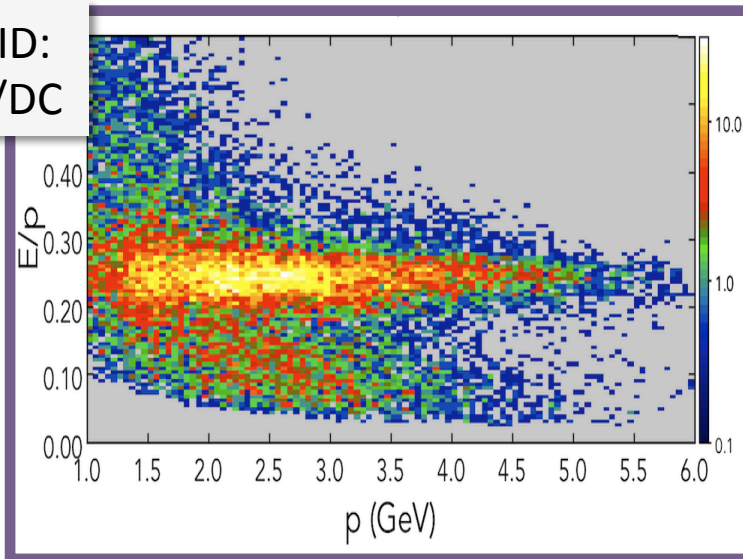


$e^{12}\text{C} \rightarrow \gamma\gamma X$

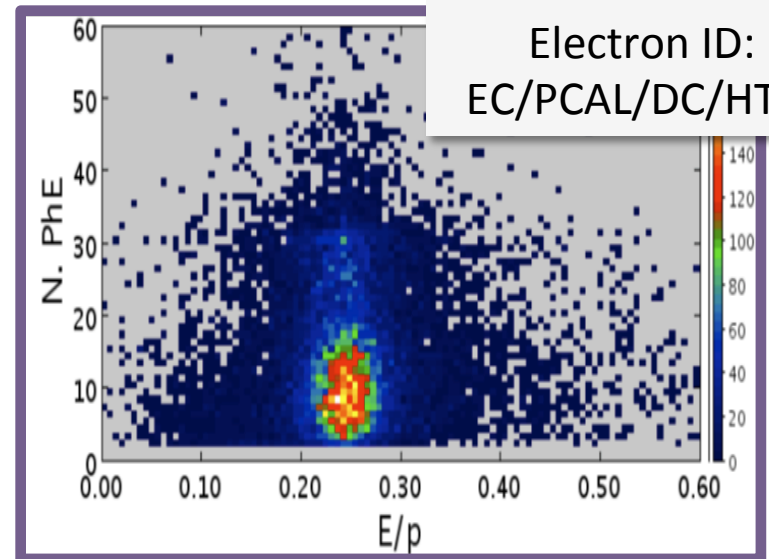
Neutrals ID:
EC/PCAL



Electron ID:
EC/PCAL/DC



Electron ID:
EC/PCAL/DC/HTCC



First experiments

WG should provide a collaborative environment to promote a timely, accurate and clear physics outcome.

Everybody is welcome to often present his work to share knowledge and get advices from (other) experts

Everybody is in charge to make the first CLAS12 experiments a success

Representatives are encouraged to organize dedicated discussions about run-group and ACE activities

Students planning to work on CLAS12 data are encouraged to do service work to make those data a reality

DPWG can contribute to the preparation of data-taking:

- development of common tools
- perform simulation studies
- anticipate the analysis stages and needs
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Proton Target and CLAS, A. Kim et al., accepted by PLB.

Measurement of target and double-spin asymmetries for $ep \rightarrow e\pi^+ n$ reaction in the nuclear resonance region at low Q^2

X. Zheng et al., Phys. Rev. C 94 (2016) n.4, 045206.

Target and beam-target asymmetries in exclusive π^+ and π^- electro-production with 1.6- to 5.7-GeV electrons

P.E. Bosted et al., Phys. Rev. C 94 (2016) n.5, 055201.