

Deep Processes Working Group Report

CLAS Collaboration Meeting
Jefferson Lab, 8th March 2018

Publications:

CLAS 2017-13

Measurement of the Q^2 dependence of the deuteron spin structure function g_1 and its moments at $0.02 < Q^2 < 0.7 \text{ GeV}^2$ with CLAS,
K. Adihari, published on Phys. Rev. Lett.

CLAS 2016-10

Determination of the proton spin structure functions for $0.05 < Q^2 < 5.0 \text{ GeV}^2$ using CLAS
R. Fersch, accepted by Phys Rev C

CLAS 2017-06

Semi-inclusive π^0 target and beam-target asymmetries from 6 GeV electron scattering with CLAS
S. Jawalker, submitted to Phys. Lett. B

CLAS 2017-12

Hard exclusive pion electro-production at backward angles with CLAS,
K. Park, submitted to Phys. Rev. Lett.

CLAS 2017-09

Measurement of Unpolarized Cross Sections and Polarized Cross Section Differences for Deeply Virtual Compton Scattering (DVCS) on the proton at the Jefferson Laboratory with CLAS, at $0.1 < x_B < 0.58$, $1.0 < Q^2 < 4.8 \text{ GeV}^2$, and $0.09 < -t < 2.0 \text{ GeV}^2$,
H. Saylor, under revision for Phys. Rev. C

Ad Hoc Review

Analysis	Data	Lead Author	In progress
Beam spin asymmetries of $ep \rightarrow ep\eta$ in the deep inelastic regime	e1f	A. Kim	Done Sep 17

Analysis Review

Analysis	Data	Author	In progress
Exploring the structure of the proton via semi-inclusive pion electroproduction	e1f	N. Harrison K. Joo	Done Feb 18
Beam asymmetries in exclusive π^+ electro production for $W > 1.7$ GeV from e16	e16	P. Bosted	Ongoing

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
Di-hadron beam spin asymmetry in SIDIS electro production	eg1-dvcs	S. Pisano	Silvia busy with other project
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

DPWG Meeting, 8th March 2018

DCVS and future projects (morning)

SIDIS (afternoon)

DVMP mini-workshop (Friday afternoon)

Common WG session (14:30 – 18:00):

- data quality and process status
- possible analysis synergies common to the whole Collaboration
- Common strategies
 strengthening the analysis quality and shortening the review time