

# Deep Processes Working Group Report

CLAS Collaboration Meeting  
Jefferson Lab, 7<sup>th</sup> March 2019

# Publications:

CLAS 2018-5

Measurement of the beam spin asymmetry of the  $ep \rightarrow e'p\eta$  in the deep-inelastic regime with CLAS,  
**B.Zhao**, published on Phys. Lett. B

# Ad Hoc Reviews

Analysis	Data	Lead Author	In progress
Exploring the structure of the proton via semi-inclusive pion electroproduction	<b>e1f</b>	<b>N. Harrison</b> <b>K. Joo</b>	2nd round done on Jan 19

# Analysis Reviews

Analysis	Data	Author	In progress
Extraction of $A_{LU}^{\sin\phi}$ moments from hard exclusive $\pi^+$ off the unpolarized hydrogen target in a wide range of kinematics	e1f	S. Diehl	2 <sup>nd</sup> round done on Feb 19
First Observations of Beam Spin Asymmetries for $K^+$	e1f	D. Riser	1 <sup>st</sup> round done on Sep 18
Beam asymmetries in exclusive $\pi^+$ electro production for $W > 1.7$ GeV from e16	e16	P. Bosted K. Park	Analysis under revision
Di-hadron beam spin asymmetry in SIDIS electro production	eg1-dvcs	M. Mirazita O. Soto	Analysis under revision
Semi-inclusive pion production	e16	M. Osipenko	Working on a better alignment

# Analysis Reviews

Analysis	Data	Author	In progress
Deep-virtual production of the $\rho^+$ meson off the proton	e1-dvcs	A. Fradi	Ahmed willing to continue
Exclusive electro-production of the f0(980) and f2(1270) on the proton with CLAS	e1f	B. Garillon S. Niccolai	Brice busy with other project
Time-like Compton scattering	g12	I. Abayrak	Last record 2015

# CAA Reviews

Analysis	Data	Author	In progress
Observation of transverse polarization of Lambda hyperons in the current fragmentation from unpolarized targets	RGA	A. Vossen C. Dilks	1 <sup>st</sup> round done on Oct 18
Boer-Mulders effect and helicity dependent fragmentation functions in hadron pair production off unpolarized targets	RGA	A. Vossen C. Dilks	1 <sup>st</sup> round done on Oct 18

## DPWG Meeting, 7<sup>th</sup> March 2019

DPWG session (8:30 – 12:30):

SIDIS observables

Hard Exclusive observables

MC production planning

Common WG session (14:30 – 18:00):

Pass-I readiness review

Analysis review committee and analysis procedures

Few selected topics

	Reaction	Energy	Statistics (10 <sup>6</sup> )	Generator	Configuration	Disk (Tb)
Giovanni/ Stefan	SIDIS h	10.6	> 500	CLASDIS no rad	?	1.4
		10.6	> 500	CLASDIS + rad	?	< 4
	SIDIS di-h	10.6	> 500	?	?	

Final gemc version ?

Final coatjava version ?

Type of DST format ?

	Reaction	Energy	Statistics ( $10^6$ )	Generator	Configuration	Disk (Tb)
Brandon	Excl. $\phi$	10.6	50	PhiGen	Outbending	
Josh	DVCS	10.6	10	DVCS	In/Out	
	Excl. $\pi^0$	10.6	10	Pi0Gen	In/Out	
	DVCS	10.6	10	DVCS	In/Out, no FMT	
	Excl. $\pi^0$	10.6	10	Pi0Gen	In/Out, no FMT	
	DVCS	7.5	10	DVCS	Out, no FMT	
	Excl. $\pi^0$	7.5	10	Pi0Gen	Out, no FMT	
	DVCS	6.5	10	DVCS	In/Out, no FMT	
	Excl. $\pi^0$	6.5	10	Pi0Gen	In/Out, no FMT	

Radiative correction ?